

Updated 04/28/17

FEDERAL PROJECT

BIDDING INSTRUCTIONS

FOR ALL PROJECTS:

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

For a Paper Bid:

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

For an Electronic Bid:

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

IN ADDITION, FOR FEDERAL AID PROJECTS:

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

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

*For complete bidding requirements, refer to Section 102 of the Maine Department
of Transportation, Standard Specifications, November 2014 Edition.*

NOTICE

The Maine Department of Transportation is attempting to improve the way Bid Amendments/Addendums are handled, and allow for an electronic downloading of bid packages from our website, while continuing to maintain an optional plan holders 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 fill out the on-line plan holder registration form and provide an email address to 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 Rebecca Snowden at rebecca.snowden@maine.gov or Diane Barnes at diane.barnes@maine.gov.

NOTICE

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

Bid Enclosed - Do Not Open

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

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

Double Envelope: Bid Enclosed

PIN:

Town:

Date of Bid Opening:

Name of Contractor:

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

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

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

October 16, 2001

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

KNOW ALL MEN BY THESE PRESENTS THAT _____

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

as Principal, and _____ as Surety, a

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

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

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

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

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

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

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

_____ and if the Department shall accept said bid

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

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

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

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

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

force, and effect.

Signed and sealed this _____ day of _____ 20____

WITNESS:

WITNESS

PRINCIPAL:

By _____

By: _____

By: _____

SURETY:

By _____

By: _____

Name of Local Agency: _____

NOTICE

Bidders:

Please use the attached “Request for Information” form when submitting questions concerning specific Contracts that have been advertised for Bid, include additional numbered pages as required. RFI’s may be faxed to 207-624-3431, submitted electronically through the Departments web page of advertised projects by selecting the RFI tab on the project details page or via e-mail to RFI-Contracts.MDOT@maine.gov.

These are the only allowable mechanisms 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.

When submitting RFIs by Email please follow the same guidelines as stated on the “Request for Information” form and include the word “RFI” along with the Project name and Identification number in the subject line.

RFI No: _____

Date _____ **Time** _____

WIN(S): _____ **Town(s):** _____ **Bid Date:** _____

Question(s):_____

Company Name:_____ **Phone:(_____)**_____

Email: _____ **Fax:** (____) _____

7

NOTICE

Disadvantaged Business Enterprise Proposed Utilization

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

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

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

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

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

MDOTs DBE Directory of Certified firms can also be obtained at <http://www.maine.gov/mdot/civilrights/dbe.htm>

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

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

SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

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

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

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

Revised 1/12

FHWA DBE GOAL NOTICE FFY 2016-18
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 highway and bridge construction program; MaineDOT contracts covered by the program include consulting, construction, supplies, manufacturing, and service contracts.

For FFY 2016-18 (October 1, 2015 through September 30, 2018) MaineDOT has established an annual DBE participation goal of **2.0%** to be achieved through race/gender neutral means. This goal has been approved by the Federal Highway Administration and remains in effect through September 30, 2018. Maine DOT must meet this goal each federal fiscal year. If the goal is not met, MaineDOT must provide a justification for not meeting the goal and provide a plan to ensure the goal is met, which may include contract goals on certain projects that contractors will be required to meet.

MaineDOT asks all contractors, consultants and subcontractors to seek certified DBE firms for projects and to work to meet the determined 2.0% goal without the need to impose contract goals. DBE firms are listed on the MaineDOT website at:

<http://www.maine.gov/mdot/civilrights/dbe/>

Interested parties may view MaineDOT's DBE goal setting methodology also posted on this website. If you have questions regarding this goal or the DBE program you may contact Sherry Tompkins at the Maine Department of Transportation, Civil Rights Office by telephone at (207) 624-3066 or by e-mail at: sherry.tompkins@maine.gov

.

**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 DATE: _____

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

TOTAL ANTICIPATED DBE ____ % PARTICIPATION FOR THIS CONTRACT

W B E	D B E	Non DBE	Firm Name	Item Number & Description of Work	Quantity	Cost Per Unit/Item	Anticipated \$ Value
Subcontractor Total>							
DBE Total >							

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

Equal Opportunity Use:

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

FHWA ☐

FTA ☐

FAA ☐

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

Rev. 01/15

Maine Department of Transportation Civil Rights Office

Directory of Certified Disadvantaged Business Enterprises

Listing can be found at:

<http://www.maine.gov/mdot/civilrights/dbe.htm>

For additional information and guidance contact:

Civil Rights Office at (207) 624-3066

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

Vendor Registration

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

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

STATE OF MAINE DEPARTMENT OF TRANSPORTATION NOTICE TO CONTRACTORS

Scaled Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for **Highway Reconstruction** in the city of **Hallowell**" will be received from contractors at the Reception Desk, Maine DOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on **February 21, 2018** and at that time and place publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must have completed, or successfully complete, a (Highway Construction prequalification), 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-1862(200), WIN. 18622.00

Location: In Kennebec County, project is located on Rte. 201 (Water St.) beginning at the intersection of Temple St. and extending approx.. 0.4 miles north.

Outline of Work: Highway Reconstruction and other incidental work.

For general information regarding Bidding and Contracting procedures, contact George Macdougall at (207) 624-3410. Our webpage at <http://www.maine.gov/mdot/contractors/> contains a copy of the Schedule of Items, Plan Holders List, written portions of bid amendments, drawings, bid results and an electronic form for RFI submittal. For Project-specific information fax all questions to **Project Manager** Ernie Martin at (207) 624-3431, use electronic RFI form or email questions to RFI-Contracts.MDOT@maine.gov, project name and identification number should be in the subject line. Questions received after 12:00 noon of Monday (or if that Monday is a state holiday, Friday) 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. TTY users call Maine Relay 711.

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 \$178.00 (\$188.00 by mail). Half size plans \$89.00 (\$93.50 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

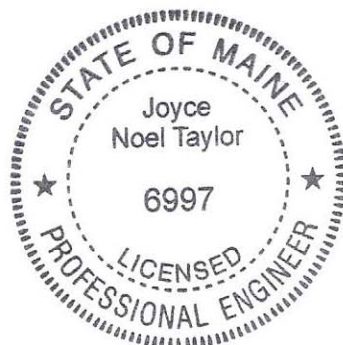
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$160,000.00 payable to Treasurer, 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, November 2014 Edition", price \$10 [\$15 by mail], and Standard Details, November 2014 Edition, price \$10 [\$15 by mail]. They also may be purchased by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m. Standard Detail updates can be found at <http://www.maine.gov/mdot/contractors/publications/>.

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

Augusta, Maine
January 31, 2018



JOYCE NOEL TAYLOR P. E.
CHIEF ENGINEER

NOTICE

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

SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS

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

Amendment Number	Date

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

CONTRACTOR

Date

Signature of authorized representative

(Name and Title Printed)

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 1 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	107.51 PROSECUTION OF WORK - INITIAL SCHEDULE	LUMP SUM				
0020	107.53 PROSECUTION OF WORK - BIWEEKLY UPDATES	16.000 EA				
0030	202.15 REMOVING MANHOLE OR CATCH BASIN	46.000 EA				
0040	202.202 REMOVING PAVEMENT SURFACE	4,600.000 SY				
0050	203.20 COMMON EXCAVATION	13,000.000 CY				
0060	203.2312 HEALTH AND SAFETY PLAN	LUMP SUM				
0070	203.2333 DISPOSAL OF SPECIAL EXCAVATION	50.000 T				
0080	203.24 COMMON BORROW	50.000 CY				
0090	203.25 GRANULAR BORROW	250.000 CY				
0100	206.061 STRUCTURAL EARTH EXCAVATION - DRAINAGE AND MINOR STRUCTURES, BELOW GRADE	100.000 CY				
0110	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	12,000.000 CY				

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 2 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0120	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	1,330.000 T	_____	_____	_____	_____
0130	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	740.000 T	_____	_____	_____	_____
0140	403.211 HOT MIX ASPHALT (SHIMMING)	73.000 T	_____	_____	_____	_____
0150	403.2131 12.5 MM POLYMER MODIFIED HMA BASE	2,090.000 T	_____	_____	_____	_____
0160	409.15 BITUMINOUS TACK COAT - APPLIED	600.000 G	_____	_____	_____	_____
0170	461.131 TEMPORARY PAVEMENT	1,000.000 T	_____	_____	_____	_____
0180	525.31 GRANITE SLAB CROSSWALK	1,130.000 SF	_____	_____	_____	_____
0190	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP SUM	LUMP SUM		_____	_____
0200	527.34 WORK ZONE CRASH CUSHIONS	5.000 UN	_____	_____	_____	_____
0210	603.155 12 INCH REINFORCED CONCRETE PIPE CLASS III	315.000 LF	_____	_____	_____	_____
0220	603.159 12 INCH CULVERT PIPE OPTION III	490.000 LF	_____	_____	_____	_____
0230	603.165 15 INCH REINFORCED CONCRETE PIPE CLASS III	61.000 LF	_____	_____	_____	_____

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 3 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0240	603.169 15 INCH CULVERT PIPE OPTION III	93.000 LF	_____	_____	_____	_____
0250	603.179 18 INCH CULVERT PIPE OPTION III	87.000 LF	_____	_____	_____	_____
0260	603.199 24 INCH CULVERT PIPE OPTION III	152.000 LF	_____	_____	_____	_____
0270	603.205 30 INCH REINFORCED CONCRETE PIPE CLASS III	45.000 LF	_____	_____	_____	_____
0280	603.209 30 INCH CULVERT PIPE OPTION III	8.000 LF	_____	_____	_____	_____
0290	603.215 36 INCH REINFORCED CONCRETE PIPE CLASS III	65.000 LF	_____	_____	_____	_____
0300	603.219 36 INCH CULVERT PIPE OPTION III	708.000 LF	_____	_____	_____	_____
0310	603.225 42 INCH REINFORCED CONCRETE PIPE CLASS III	48.000 LF	_____	_____	_____	_____
0320	603.241 54 INCH CORRUGATED METAL PIPE	16.000 LF	_____	_____	_____	_____
0330	603.43 36 INCH REINFORCED CONCRETE PIPE CLASS IV	203.000 LF	_____	_____	_____	_____
0340	603.431 36 INCH REINFORCED CONCRETE PIPE CLASS V	43.000 LF	_____	_____	_____	_____
0350	604.072 CATCH BASIN TYPE A1-C	3.000 EA	_____	_____	_____	_____

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 4 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0360	604.076 60 INCH CATCH BASIN TYPE A1-C	3.000 EA				
0370	604.077 72 INCH CATCH BASIN TYPE A1-C	3.000 EA				
0380	604.09 CATCH BASIN TYPE B1	8.000 EA				
0390	604.092 CATCH BASIN TYPE B1-C	8.000 EA				
0400	604.093 60 INCH CATCH BASIN TYPE B1	2.000 EA				
0410	604.094 72 INCH CATCH BASIN TYPE B1	1.000 EA				
0420	604.0956 96 INCH CATCH BASIN TYPE B1	4.000 EA				
0430	604.0957 96" CATCH BASIN TYPE B1-C	2.000 EA				
0440	604.096 60 INCH CATCH BASIN TYPE B1-C	5.000 EA				
0450	604.097 72 INCH CATCH BASIN TYPE B1-C	3.000 EA				
0460	604.156 96 INCH MANHOLE	3.000 EA				
0470	604.16 ALTERING CATCH BASIN TO MANHOLES	1.000 EA				
0480	604.245 CATCH BASIN TYPE F4-C	2.000 EA				

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 5 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0490	604.247 CATCH BASIN TYPE F5-C	1.000 EA	_____	_____	_____	_____
0500	604.252 CATCH BASIN TYPE A5-C	26.000 EA	_____	_____	_____	_____
0510	604.26 CATCH BASIN TYPE B5	2.000 EA	_____	_____	_____	_____
0520	604.262 CATCH BASIN TYPE B5-C	4.000 EA	_____	_____	_____	_____
0530	604.2621 60 " CATCH BASIN TYPE B5-C	3.000 EA	_____	_____	_____	_____
0540	604.33 SURFACE DRAIN	32.000 LF	_____	_____	_____	_____
0550	604.573 CATCH BASIN TYPE A1-C 96 INCH DIAMETER	2.000 EA	_____	_____	_____	_____
0560	605.07 4" UNDERDRAIN PIPE	100.000 LF	_____	_____	_____	_____
0570	605.09 6 INCH UNDERDRAIN TYPE B	490.000 LF	_____	_____	_____	_____
0580	605.10 6 INCH UNDERDRAIN OUTLET	620.000 LF	_____	_____	_____	_____
0590	605.11 12 INCH UNDERDRAIN TYPE C	1,020.000 LF	_____	_____	_____	_____
0600	605.12 15 INCH UNDERDRAIN TYPE C	369.000 LF	_____	_____	_____	_____
0610	605.13 18 INCH UNDERDRAIN TYPE C	180.000 LF	_____	_____	_____	_____

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 6 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0620	605.15 24 INCH UNDERDRAIN TYPE C	253.000 LF				
0630	605.17 30 INCH UNDERDRAIN TYPE C	220.000 LF				
0640	605.18 36 INCH UNDERDRAIN TYPE C	60.000 LF				
0650	606.365 GUARDRAIL REMOVE, MODIFY, AND RESET TYPE 3B TO 3C	110.000 LF				
0660	606.47 SINGLE WOOD POST	23.000 EA				
0670	607.1701 TEMPORARY CHAIN LINK FENCE - 6' MOVEABLE	1,300.000 LF				
0680	607.22 CEDAR RAIL FENCE	303.000 LF				
0690	607.24 REMOVE AND RESET FENCE	160.000 LF				
0700	607.39 PEDESTRIAN FENCE	106.000 LF				
0710	607.44 SAFETY FENCE	200.000 LF				
0720	608.08 REINFORCED CONCRETE SIDEWALK	8.000 SY				
0730	608.15 BRICK SIDEWALK WITH BITUMINOUS BASE	2,605.000 SY				

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 7 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0740	608.26 CURB RAMP DETECTABLE WARNING FIELD	424.000 SF	_____	_____	_____	_____
0750	609.11 VERTICAL CURB TYPE 1	2,780.000 LF	_____	_____	_____	_____
0760	609.12 VERTICAL CURB TYPE 1 - CIRCULAR	20.000 LF	_____	_____	_____	_____
0770	609.19 VERTICAL CURB TYPE 2	60.000 LF	_____	_____	_____	_____
0780	609.234 TERMINAL CURB TYPE 1 - 4 FOOT	2.000 EA	_____	_____	_____	_____
0790	609.2341 TERMINAL CURB TYPE 1 - 4 FOOT - CIRCULAR	3.000 EA	_____	_____	_____	_____
0800	609.238 TERMINAL CURB TYPE 1 - 8 FOOT	70.000 EA	_____	_____	_____	_____
0810	609.2381 TERMINAL CURB TYPE 1 - 8' CIRCULAR	5.000 EA	_____	_____	_____	_____
0820	609.31 CURB TYPE 3	1,070.000 LF	_____	_____	_____	_____
0830	609.312 SPECIAL CURB	55.000 LF	_____	_____	_____	_____
0840	609.38 RESET CURB TYPE 1	314.000 LF	_____	_____	_____	_____
0850	615.07 LOAM	300.000 CY	_____	_____	_____	_____

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 8 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0860	618.13 SEEDING METHOD NUMBER 1	31.000 UN	_____	 _____	_____	 _____
0870	619.12 MULCH	31.000 UN	_____	 _____	_____	 _____
0880	620.60 SEPARATION GEOTEXTILE	1,300.000 SY	_____	 _____	_____	 _____
0890	626.11 PRECAST CONCRETE JUNCTION BOX	8.000 EA	_____	 _____	_____	 _____
0900	626.21 METALLIC CONDUIT	25.000 LF	_____	 _____	_____	 _____
0910	626.22 NON-METALLIC CONDUIT	2,800.000 LF	_____	 _____	_____	 _____
0920	626.31 18 INCH FOUNDATION	45.000 EA	_____	 _____	_____	 _____
0930	626.35 CONTROLLER CABINET FOUNDATION	1.000 EA	_____	 _____	_____	 _____
0940	626.36 REMOVE OR MODIFY CONCRETE FOUNDATION	22.000 EA	_____	 _____	_____	 _____
0950	627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	12,300.000 LF	_____	 _____	_____	 _____
0960	627.75 WHITE OR YELLOW PAVEMENT & CURB MARKING	1,900.000 SF	_____	 _____	_____	 _____
0970	627.77 REMOVING PAVEMENT MARKINGS	200.000 SF	_____	 _____	_____	 _____

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 9 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0980	627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	40,000.000 LF	_____	_____	_____	_____
0990	629.05 HAND LABOR, STRAIGHT TIME	120.000 HR	_____	_____	_____	_____
1000	631.10 AIR COMPRESSOR (INCLUDING OPERATOR)	25.000 HR	_____	_____	_____	_____
1010	631.11 AIR TOOL (INCLUDING OPERATOR)	25.000 HR	_____	_____	_____	_____
1020	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	120.000 HR	_____	_____	_____	_____
1030	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	120.000 HR	_____	_____	_____	_____
1040	631.18 CHAIN SAW RENTAL (INCLUDING OPERATOR)	5.000 HR	_____	_____	_____	_____
1050	631.20 STUMP CHIPPER (INCLUDING OPERATOR)	5.000 HR	_____	_____	_____	_____
1060	631.32 CULVERT CLEANER (INCLUDING OPERATOR)	24.000 HR	_____	_____	_____	_____
1070	634.16 HIGHWAY LIGHTING	LUMP SUM	LUMP SUM		_____	_____
1080	634.70 ORNAMENTAL LIGHTING	19.000 EA	_____	_____	_____	_____

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 10 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1090	634.72 RELOCATE ORNAMENTAL LIGHTING	LUMP SUM				
1100	639.18 FIELD OFFICE TYPE A	1.000 EA				
1110	642.184 GRANITE STEP	7.000 EA				
1120	645.106 DEMOUNT REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	73.000 EA				
1130	645.116 REINSTALL REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	73.000 EA				
1140	645.292 REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGNS TYPE II	70.000 SF				
1150	648.021 8" DR 11 DIPS HDPE	50.000 LF				
1160	648.031 16" DIA. SCHEDULE 40 RAILROAD SLEEVE	40.000 LF				
1170	652.311 TYPE II BARRICADE	5.000 EA				
1180	652.33 DRUM	150.000 EA				
1190	652.34 CONE	150.000 EA				

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 11 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1200	652.35 CONSTRUCTION SIGNS	1,100.000 SF	_____	 _____	_____	 _____
1210	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	200.000 CD	_____	 _____	_____	 _____
1220	652.38 FLAGGER	3,250.000 HR	_____	 _____	_____	 _____
1230	652.381 TRAFFIC OFFICER	100.000 HR	_____	 _____	_____	 _____
1240	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	3.000 EA	_____	 _____	_____	 _____
1250	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM		 LUMP SUM	_____	 _____
1260	659.10 MOBILIZATION	LUMP SUM		 LUMP SUM	_____	 _____
1270	679.20 RECYCLED GRANITE CURB WALL WITH STEPS	760.000 SF	_____	 _____	_____	 _____
1280	801.03 TEST PITS	10.000 EA	_____	 _____	_____	 _____
1290	801.16 6 INCH PVC SANITARY SEWER (SDR-35)	180.000 LF	_____	 _____	_____	 _____
1300	822.33 6 INCH CLASS 52 DUCTILE IRON PIPE	185.000 LF	_____	 _____	_____	 _____
1310	822.34 8 INCH CLASS 52 DUCTILE IRON PIPE	1,440.000 LF	_____	 _____	_____	 _____

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 12 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1320	822.36 12 INCH DUCTILE IRON PIPE	1,877.000 LF				
1330	823.311 12 INCH GATE VALVE WITH BOX	8.000 EA				
1340	823.3251 8 INCH GATE VALVE WITH BOX	12.000 EA				
1350	823.33 6 INCH GATE VALVE WITH BOX	8.000 EA				
1360	823.332 GATE VALVE BOX, ADJUST TO GRADE	10.000 EA				
1370	823.3355 2" GATE VALVE WITH BOX	5.000 EA				
1380	824.30 FIRE HYDRANT	5.000 EA				
1390	825.32 2 INCH CORPORATION	5.000 EA				
1400	825.321 1 INCH CORPORATION	59.000 EA				
1410	825.3212 1.5" CORPORATION	1.000 EA				
1420	825.331 1" CURB STOP - W/ BOX	59.000 EA				
1430	825.3312 1.5" CURB STOP - W/ BOX	1.000 EA				
1440	825.422 2" PLASTIC SERVICE	145.000 LF				

1/24/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 13 of 13

Proposal ID: 018622.00

Project(s): 018622.00

SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
1450	825.43 1" COPPER SERVICE	1,480.000 LF	_____	_____	_____	_____
1460	825.431 1 1/2 INCH COPPER SERVICE	20.000 LF	_____	_____	_____	_____
1470	825.5411 TEMPORARY WATER MAIN	LUMP SUM	LUMP SUM		_____	_____
1480	827.301 ROCK EXCAVATION WATER MAIN	20.000 CY	_____	_____	_____	_____
1490	827.302 UNSUITABLE SOIL EXCAVATION - BELOW GRADE	100.000 CY	_____	_____	_____	_____
1500	827.33 TRENCH INSULATION	200.000 LF	_____	_____	_____	_____
1510	841.48 BOLLARDS	4.000 EA	_____	_____	_____	_____
Section: 1			Total:		_____	_____
			Total Bid:		_____	_____

CONTRACT AGREEMENT, OFFER & AWARD

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

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

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

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, **WIN. 18622.00** for **Highway Reconstruction** in the city of **Hallowell**, County of **Kennebec**, 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 **June 6, 2019**. 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, November 2014 Edition 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, November 2014 Edition, Standard Details November 2014 Edition 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 November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN. 18622.00 - Highway Reconstruction - in the city of Hallowell.

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, November 2014 Edition, 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 November 2014 Edition and complete the Work within the time limits given in the Special Provisions of this Contract.

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

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

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

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

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

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

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

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

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

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

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, **WIN. 18622.00** for **Highway Reconstruction** in the city of **Hallowell**, County of **Kennebec**, 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 **June 6, 2019**. 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, November 2014 Edition 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, November 2014 Edition, Standard Details November 2014 Edition 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 November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN. 18622.00 - Highway Reconstruction - in the city of Hallowell.

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, November 2014 Edition, 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 November 2014 Edition and complete the Work within the time limits given in the Special Provisions of this Contract.

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

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

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

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

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

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

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

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

(Name of the firm bidding the job)

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

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

A. The Work.

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

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

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

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **November 15, 2006**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, November 2014 Edition and related Special Provisions.

C. Price.

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

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition, 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 November 2014 Edition (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, November 2014 Edition, Standard Details November 2014 Edition, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN 1234.00 South Nowhere, Hot Mix Asphalt Overlay

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

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

As Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items", which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, November 2014 Edition, 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 November 2014 Edition and complete the Work within the time limits given in the Special Provisions of this Contract.

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

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

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

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

Date

(Witness Sign Here)
Witness

CONTRACTOR

(Sign Here)
(Signature of Legally Authorized Representative of the Contractor)

(Print Name Here)
(Name and Title Printed)

G. Award.

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

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt, Commissioner

(Witness)

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

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

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

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

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

WITNESSES:

Signature.....
Print Name Legibly

Signature
Print Name Legibly

SURETY ADDRESS:

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

TELEPHONE.....

SIGNATURES:

CONTRACTOR:

.....
Print Name Legibly

SURETY:

.....
Print Name Legibly

NAME OF LOCAL AGENCY:

ADDRESS

.....
.....

.....

BOND # _____

CONTRACT PAYMENT BOND
(Surety Company Form)

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

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

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

Signed and sealed this day of, 20

WITNESS:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

.....

ADDRESS

.....

.....

TELEPHONE

.....

General Decision Number: ME180113 01/05/2018 ME113

Superseded General Decision Number: ME20170113

State: Maine

Construction Type: Highway

County: Kennebec County in Maine.

HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2018

* ENGI0004-005 12/01/2017

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Grader/Blade.....	\$ 29.80	26.66
Milling Machine.....	\$ 29.80	26.66
Paver (Asphalt, Aggregate, and Concrete).....	\$ 29.80	26.66
Roller Asphalt.....	\$ 29.80	26.66

SUME2014-032 06/23/2017

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 18.34	2.84
HIGHWAY/PARKING LOT STRIPING:		
Laborer.....	\$ 14.80	1.27
IRONWORKER, REINFORCING.....	\$ 16.27	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....		
	\$ 15.06	2.72
LABORER: Common or General.....	\$ 14.02	2.16
LABORER: Landscape.....	\$ 18.69	2.70

LABORER: Wheelman.....	\$ 15.64	4.29
OPERATOR:		
Backhoe/Excavator/Trackhoe.....	\$ 19.52	5.15
OPERATOR: Bobcat/Skid		
Steer/Skid Loader.....	\$ 21.98	4.85
OPERATOR: Broom/Sweeper.....	\$ 19.09	5.20
OPERATOR: Bulldozer.....	\$ 17.30	3.50
OPERATOR: Loader.....	\$ 18.59	5.53
OPERATOR: Mechanic.....	\$ 21.91	8.55
OPERATOR: Screed.....	\$ 19.43	4.90
OPERATOR: Roller (Earth).....	\$ 16.43	3.40
TRAFFIC CONTROL: Flagger.....	\$ 9.38	0.00
TRAFFIC CONTROL:		
Laborer-Cones/		
Barricades/Barrels -		
Setter/Mover/Sweeper.....	\$ 17.47	4.80
TRUCK DRIVER: Dump Truck.....	\$ 14.32	5.81
TRUCK DRIVER: TackTruck.....	\$ 20.18	7.75

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

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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

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

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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

UTILITY COORDINATION

The contractor has primary responsibility for coordinating their work with utilities after contract award. The contractor shall communicate directly with the utilities regarding any utility work necessary to maintain the contractor's schedule and prevent project construction delays. The contractor shall notify the resident of any issues.

THE CONTRACTOR SHALL PLAN AND CONDUCT WORK ACCORDINGLY.

MEETING

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

GENERAL INFORMATION

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

Utilities have been notified and will be furnished a copy of the specification.

Overview:

Utility/Railroad	Aerial	Underground	Railroad
Central Maine Power Company	X		
Charter Communications	X		
Fairpoint Communications - Northern New England Telephone Operations LLC	X	X	
Firstlight	X	X	
Greater Augusta Utility District		X	
Hallowell Water District		X	
City of Hallowell		X	
Maine DOT Railroad			X
Summit Natural Gas of Maine		X	

Central Maine Power Company 5604	Tim Robbins	(207)453-
Charter Communications 3411	Dave Bouchard	(207)620-
Fairpoint Communications 2031	Jim Scheid	(207)626-
Firstlight 3471	Mike Ellingwood	(207)333-
Greater Augusta Utility District 3701	Michael Morey	(207)622-
Hallowell Water District 9151	Zach Lovely	(207)623-
City of Hallowell 3993	Chris Buck	(207)622-
Maine DOT Railroad 1766	Greg Gay	(207)592-
Summit Natural Gas of Maine 8000	Rick Bellemare	(207)621-
Summit Natural Gas of Maine 8000	Bryan Foster	(207)621-

Temporary Aerial utility adjustments are not anticipated on this project however, should the contractor choose to have any poles temporarily relocated, all work will be done by Pole owner at the contractor's request and expense at no additional cost to the Department.

Aerial Utility adjustments are anticipated at this time for the project.

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

All adjustments are to be made by the respective utility/railroad unless otherwise specified herein. Fire hydrants shall not be disturbed until all necessary work has been accomplished to provide proper fire protection.

It is the responsibility of the Contractor with the Utility Pole owner, to layout all of the proposed pole locations in the field prior to the start of utility relocations. Should any adjustments be needed, the Utility will document adjustments and inform the Department prior to utility relocations.

**** Specific information regarding the line voltage can be requested from Central Maine Power Company****

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

The contractor shall give all Utilities **10 working days notice** prior to beginning any work on this project.

BUY AMERICA

Utility construction work performed as part this federal-aid project is subject to the requirements of Buy America in accordance with Federal Regulation 23 CFR 635.410 Section 1518. Specific requirements are presented in MaineDOT Standard Specification Section 100, Appendix A, Section 3.A., Buy America.

AERIAL

Summary:

Utility	POLE SET	New Wires/ Cables	Trans. Wires/ Cables	Remove Poles	Estimate of Working Days
Central Maine Power Company	13	X	X	11	17
Fairpoint Communications		X			15
Charter Communications		X			10
Total:					42

Utility Specific Issues:

Central Maine Power Company (CMP)

CMP will be installing **13** poles as part of this project and CMP intends to run new cables to the new poles. CMP estimates **5** working days to complete the installation of the new poles. CMP estimates **10** working days to transfer their conductors or place new wire after the poles are set. CMP will also be removing the old poles once all transfers are done. It is estimated **2** working days will be required to remove the old poles. CMP also requires **10 working days advance notice** prior to any operations involving the relocation of their lines.

Charter Communications

Following CMP completion of running new cables, Charter intends to install new cable on the new poles. Charter estimates **10** working days to complete the relocation to the new poles. Charter requires **10 working days advance notice** prior to any operations involving the relocation of their lines

Fairpoint Communications - Northern New England Telephone Operations LLC (FP)

Following Charter's completion of transferring conductors, FP estimates **15** working days for new cable placement and splicing. FP also requires **10 working days advance notice** prior to any operations involving the relocation of their lines.

**** POLE LIST ****

		Water Str.				
Existing	Existing	Existing		Proposed		
Pole #	Station	Lt. Offset	Rt. Offset	Station/offset		
FP 32/61						
60	10+68.86	-20.4903				
60S				10+-95 – 27' Rt.	guy pole	
NET & T 59	11+91.58	-23.0974		12+00 – 30' Lt.	light attached	move
NET & T 30s /59s	11+93.23		33.8947	12+21 – 27' Rt.	guy pole	move
CMP 58	13+08.36		29.0149	In-place	light for park lot	
NET & T 30 S	13+55.97	-29.8555				ok
CMP 57	14+08.76		30.8411	In-place	light attached	(rem. light)
CMP 56	15+54.27		24.2838	15+54 – 27' Rt.	light attached	move (rem. light)
Vz 1	15+83.07		130.4546			ok
CMP 7/FP 2			100'+-			
	17+77.84	-29.8126			Alum. str. light pole	Remove
CMP 6/3	18+01.09		99.3034			
CMP 5/4	19+31.07		129.6344			
	20+77.12	-35.2392			Alum. str. light pole	Remove
CMP 3 1/2 /6	21+71.53		146.9468			
CMP 3/7	22+41.84		156.3514			
CMP 27.2	22+96.36	-114.4719				
	22+98.55	-143.2316				
	23+02.12	-34.2556			Alum. str. light pole	Remove
?	24+52.95		139.1095		Front Str.	
CMP 1	25+02.11		39.5402			

Town: **Hallowell**
 Project: **STP-1862(200)**
 Date: **December 28, 2017**

CMP 36/20		26+42.84		29.4663			ok (light?)
#35		27+69.87		28.6906	27+59 – 31' Rt.	str. light	2' +/- fill
CMP 34		29+12.50		26.7112	29+12.5 – 29.2' Rt.	str. light	move
CMP 33		30+-38		17'+- Rt.			
#33 s					30+38 – 24' Lt.		Tree
			Temple Str.				
Description		Station	Left Offset	Right Offset			
CMP 59.1					101+00 – 28' Lt.		
BA 1/ 1		101+22.43		16.0414	Remove		move
NET & T 2/2		102+12.39		14.1121	102+10 – 22' Lt.		move
			Wharf Str.				
Description		Station	Left Offset	Right Offset			
CMP 4/5		501+28.28		12.4229			hold
			Chestnut Str.				
Description		Station	Left Offset	Right Offset			
NET & T 17s		1000+76.8		17.4682	1000+77 – 24.5' Rt.		
			Union Str.				
Description		Station	Left Offset	Right Offset			
1/1		300+82.96	-16.118		In-place		

The utilities requires **5 working days advance notice** prior to any operations involving the relocation of their lines.

SUBSURFACE

Utility	Summary of Work	Estimate of Working Days
Fairpoint Communications	Lowering/raising Telephone manholes	2
Greater Augusta Utility District	Lowering/raising sewer manholes	24
Summit Natural Gas of Maine	Adjusting valve boxes & relocate lines	8

Total:	34
---------------	-----------

Utility Specific Issues

Fairpoint Communications has an underground conduit and **1** T.M.H. located within the limits of the project. As a result of this project FP will require **2 working days** to lower/raise **1** manhole in the mill/fill area and will support their underground cable as needed. Fairpoint Communications requires **5 days notification** to have a person onsite while the contractor is digging near their facilities or to make any adjustments to them.

The **Greater Augusta Utility District (GAUD)** has a sanitary sewer system located within the limits of the project. As a result of this project **GAUD** will be lowering and raising **27** Sewer manholes, **17** in the full construction area and **10** in the mill/fill area. **GAUD** intends to adjust the SMH's and estimates **24 working days** to complete the adjustments for the SMH's. **GAUD** requires **48 hrs. notification** to have a person onsite while the contractor is digging near their facilities or to make any adjustments to them.

Hallowell Water District (HWD) has a drinking water system located within the limits of the project. As a result of this project HWD will be entering into an agreement with Maine DOT to have Maine DOT's contractor replace a portion of its water system. Items have been included in the schedule of items for the Contractor to bid on. HWD requires **48 hrs. notification** to have a person onsite while the contractor is constructing or digging, near their facilities, or to make any adjustments to them.

Summit Natural Gas of Maine has a pipe line within the project limits. As a result of this project Summit will be adjusting **5** Gas Gates, resetting a short section of their main in the Water Str. - Winthrop Str. intersection, possible adjustments to the main at the intersection of Temple Str. – Second Str. and estimates **8** working days to complete all the adjustments. The contractor must coordinate with Summit before performing any excavation within the proximity of the main so that they can provide an on-site representative. Summit requires **5 working days advance notice** prior to any operations involving work around their buried lines.

RAILROAD

Maine DOT has rail crossings within the limits of the project. The contractor shall remove the crossing at Chestnut Str. under the direction of **Maine DOT Rail personnel**. The crossing will not be replaced. The section of rail between Central Str. and Winthrop Str. will be covered with fabric and gravel temporarily for parking during the project and then remove gravel and fabric to return that section back to its original state. Vehicular traffic shall be limited to rubber tired automobiles or trucks. Contractor shall not use, nor allow any other person or persons to use

Town: **Hallowell**
Project: **STP-1862(200)**
Date: **December 28, 2017**

crawler type tractors, off-road vehicles and vehicles operating on lags. They do not anticipate doing any work at this time except for inspection. The contact for **Maine DOT Rail** is Greg Gay at (207) 592-1766 to coordinate Railroad inspection. **Maine DOT** requires 10 working days advance notice prior to any operations involving work around their rail lines.

MAINTAINING UTILITY LOCATION MARKINGS

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

UTILITY SIGNING

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

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

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

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

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Limitations of Operations)

1. The Contractor shall participate in a public open house with the Department at least one week before construction activities begin to answer questions related to the project's schedule of work.
2. The Contractor shall provide an initial schedule of work as well as bi-weekly updates to the Resident Engineer so the Department and City of Hallowell can update the public on construction activities. Paid under items 107.51 and 107.53.
3. One-way detour circulation shall be used for reduction of traffic interference with construction operations on Water Street between Temple Street and Winthrop Street. Once initiated, the one-way detour shall be maintained continuously until permanently ended no later than October 5, 2018. Failure of the Contractor to end the one-way detour circulation by that date will result in Liquidated Damages. See special provision 107 – Liquidated Damages. Alternating between one-way detour circulation and normal two-way traffic will not be permitted. One-way detour circulation shall follow the following route (see plan sheets 17 & 18 for additional information):
 - Water Street northbound only from Temple Street to Winthrop Street
 - Winthrop Street westbound only from Water Street to Second Street
 - Second Street southbound only from Winthrop Street to Temple Street
 - Temple Street eastbound only from Second Street to Water Street

In addition to the one-way detour circulation route, the following sections of streets will be made one-way:

- Academy Street westbound only from Water Street to Second Street (same as existing)
 - Union Street westbound only from Water Street to Second Street
 - Central Street westbound only from Water Street to Second Street
4. Before the temporary detour is in place, the Contractor shall complete the following:
 - a. Construct a temporary parking lot in the area of the railroad tracks between Central Street and Winthrop Street prior to installing the one-way detour. See plan sheets 23 and 35.
 - b. Make temporary curb and pavement modifications on the northwest and southwest corners of the intersection of Winthrop Street and Second Street to provide for a temporary eastbound left turn pocket on Winthrop Street at Second Street for the duration of the detour. The curb shall be restored to its existing location after the detour is ended. See plan sheet 21.

- c. Make temporary curb and pavement modifications on the northeast corner of the intersection of Temple Street and Second Street to provide for large truck left turns for the duration of the detour. The corner radius shall be restored to its existing location after the detour is ended. See plan sheet 22.
 - d. Cover stop signs on Second Street between Temple Street and Winthrop Street for the duration of the one-way detour. Temporary stop signs shall be installed on Central Street for the duration of the one-way detour. Temporary signs will be removed immediately at the end of the one-way detour.
 - e. The Contractor shall install a temporary right-turn only sign at the northern exit of the boat launch for detour stages 1 and 2. The Contractor shall install a temporary right-turn only sign at the western end of Wharf Street for stage 1 and remove it before commencing work on stage 2. Other temporary right-turn only signs shall be removed immediately at the end of the one-way detour.
- 5. The Contractor shall maintain vehicular access from Water Street to Temple Street, Academy Street, Union Street, Central Street, Winthrop Street and Front Street at all times during construction, except when active construction immediately within an intersection requires full closure of the intersection, subject to the following restrictions. For Academy Street, Union Street and Central Street, at least two of the three side streets must be open to traffic from Water Street at any time. For Temple Street, Winthrop Street and Front Street at Water Street, work within the intersections shall be staged to maintain at least one lane available on the side street at all times for traffic.
 - 6. The Contractor shall sign Dummers Lane at Water Street for through traffic only during Stage 1 of the detour. Vehicular access to Dummers Lane at the intersection of Water Street shall be blocked with barrier during Stage 2 of the one-way detour. The contractor shall block vehicular access to and from Wharf Street at Water Street during Stage 1 of the detour. The Contractor shall maintain pedestrian access to Dummers Lane and Wharf Street at all times.
 - 7. Continuous traffic flow shall be maintained at all times on Second Street between Temple Street and Winthrop Street. When drainage or paving work requires partial width closure on Second Street, one lane of at least 11 feet width shall be kept open to traffic.
 - 8. Continuous traffic flow shall be maintained at all times on Chestnut Street. When drainage or paving work requires partial width closure on Chestnut Street, one lane of at least 11 feet width shall be kept open to traffic.
 - 9. Other than during the approved detour period, two-way traffic shall be maintained at all times on Water Street from 7:00 AM to 8:30 AM and from 3:00 PM to 6:00 PM. Alternating one-way traffic with flaggers will be allowed for traffic during other time periods.

10. Maximum closure length on Water Street shall not exceed 1,500'. Traffic delays shall not exceed a maximum of 5 minutes with alternating one-way flow during lane closures. The contractor shall provide moveable variable message sign boards to warn motorists of expected traffic backups or queues in advance of the project.
11. The Contractor shall install a temporary concrete barrier or approved equal along Water Street to separate vehicular traffic from construction activity. Location of the barrier shall be coordinated through the Resident and shall extend from Temple Street to Winthrop Street. Openings in the barrier will be required to maintain pedestrian crosswalks during both stages of the one-way detour and to maintain vehicular access to side streets during construction of the west side of Water Street in Stage 2 of the detour.
 - a. Openings in the barrier for pedestrian crosswalks will be 6' wide plus the width required for placement of Safety Fence along the crosswalk.
 - b. Openings in the barrier for vehicular traffic will be wide enough to accommodate WB-50 vehicles.
 - c. Openings in the barrier for construction access will be limited to one opening per crew, the openings will be flagger controlled, the openings will be closed with barriers during non-work hours, and the openings will only be permitted during the construction of the east side of Water Street.
12. The Contractor shall install a 6' high temporary chain link fence to separate the temporary sidewalk from construction activity. The fence shall include a privacy screen and temporary lighting to illuminate the temporary sidewalk. Openings in the fence will be required to maintain pedestrian crosswalks and will be 6' wide. Location of the temporary fence shall be coordinated through the Resident and will extend the length of the temporary sidewalk. See Section 607 special provision for temporary fence and fence lighting requirements.
13. The Contractor shall maintain pedestrian access with a temporary sidewalk during construction of Water Street in accordance with Standard Specification Section 652 – Maintenance of Traffic. The temporary sidewalk shall be a minimum of 5' wide and meet ADA requirements. Access to businesses and residences from the temporary sidewalk shall remain open at all times unless a temporary closure is coordinated through the Resident a minimum of 48 hours in advance.
14. The Contractor shall maintain pedestrian access with three crosswalks on Water Street located near the intersections of Academy Street, Union Street, and Central Street in accordance with Standard Specification Section 652 – Maintenance of Traffic. When construction activity in the immediate vicinity of a crosswalk requires temporary closure of the crosswalk, the other two Water Street crosswalks shall remain open. Crosswalk closures shall be limited to the minimum duration necessary, in the opinion of the Resident.

15. Access to the public boat launch shall be maintained at all times.
16. At no time shall the Contractor use the private right of way along the Kennebec River waterfront between Wharf Street and the public boat launch for movement of construction vehicles or equipment; storage of materials, vehicles or equipment; or other construction activity.
17. The Contractor shall not use the City of Hallowell sand pit located on Foundry Lane for any purpose.
18. Once operations commence, for every weekday not worked the Contractor will be charged supplemental liquidated damages per Section 107.7.2 of the Standard Specifications, excluding days lost to inclement weather, holidays, and approved absences.
19. Absences must be requested at least 72 hours in advance and are subject to Department approval based on existing roadway condition, paving deadlines, adherence to schedule, traffic restrictions, detours, etc. The Contractor must assure that the roadway surface and signage are maintained for safe passage of the traveling public during any approved absences. The Contract Completion Date will not be modified due to approved absences.
20. Under any circumstances where the Contractor fails to meet the requirements described in this Special Provision, the Contractor shall be charged Supplemental Liquidated Damages as outlined in Special Provision 105 (Supplemental Liquidated Damages).

**SPECIAL PROVISION
SECTION 105.9
HISTORIC RESOURCES**

Standard Specification 105.9 of the State of Maine Standard Specifications (Revision of November 2014) is deleted and replaced by this Special Provision.

The MaineDOT has conducted consultation in accordance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f), the Regulation (36 CFR Part 800), and the 2004 Section 106 Maine Programmatic Agreement.

The following requirements are project specific:

- *This project is located within a National Historic District. The undertaking depicted on the contract plans was determined to have no adverse effect on the historic integrity of the properties within the District. Any deviations from plans within the National Historic District shall be reviewed by the MaineDOT Project Manager and the Environmental Office Cultural Resources Manager prior to approval of change.*
- *The contractor shall perform pre-construction surveys of the buildings adjacent to work areas that will require operation of heavy construction equipment to document existing cracking or other damage to windows, brick masonry, plaster walls and other sensitive structural features. Compaction rollers larger than a trench roller used on this project shall be oscillatory rollers, except as follows. Compaction equipment operated within 25' of the buildings shall be limited to operation at a particle velocity threshold not exceeding 0.5 inches per second, which is the limit generally considered tolerable by plaster walls (AASHTO R8-96 (2015)). If that is not achievable, compaction within 25' of the buildings shall be limited to use of non-vibratory static rollers.*
- *Ledge removal, if necessary, shall be conducted with appropriate precautions to prevent damage to the buildings within the National Historic District.*
- *If there is any damage to buildings within the National Historic District, or to features thereof, as a result of the project, any repairs must be made in consultation with the Maine Historic Preservation Commission and will be done in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Any such repairs and the qualifications of the contractors making such repairs shall be approved in advance by the commission.*

The following requirements are general requirements for all projects:

- *Changes to the project during construction shall be approved by the MaineDOT Project Manager. These changes could have adverse effects to Historic Resources, as well as jeopardize federal funding.*

- *If the Contractor or any subcontractor discovers any object of potential historic archaeological or other historic interest, all work that could disturb the object will immediately cease and will not resume until investigation of the object and related deposits have been completed, and if necessary recovered. The Contractor will notify the MaineDOT immediately. (The first indications of deposits may be burial grounds or campsites of Native Americans that reveal the bones of the dead and implements. Also, the exposure of marine fossils or shells found mainly in clay deposits, as well as, exposure of dumps in landfill areas, abandoned campfire sites, and building foundations.)*
- *Any delay of the Contractor's operations resulting from the above shall be analyzed in accordance with MaineDOT Standard Specification Section 109.5 – Adjustment for Delay, except that in no event will such delay be a compensable delay.*
- *The Contractor is notified of a Maine Statute, 27 MRSA §371, which states that artifacts, specimens, and material, which are public property by virtue of having been found on, in, or beneath State controlled lands, and places ownership of the same in the State of Maine.*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Firm Name

Firm Address

Firm status (DBE or non-DBE)

Age of firm (years)

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

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

MaineDOT DBE Project Attainment Target
(PAT) for this Project is 3 %

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

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

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

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

SPECIAL PROVISION 105
CONSTRUCTION AREA

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

- (a) (Water St.) The section of highway under construction beginning at Sta. 11+25.00 and ending at Sta. 29+25.00 of the construction centerline plus approaches.

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

- A. Must be procured from the municipal officers for a construction area within that municipality;*
- B. May require the contractor to be responsible for damage to ways used in the construction areas and may provide for:*

- (1) Withholding by the agency contracting the work of final payment under contract; or*
- (2) The furnishing of a bond by the contractor to guarantee suitable repair or payment of damages.*

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

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

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

The Municipal Officers for the **City of Hallowell** 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 107
PROSECUTION AND PROGRESS
(Contract Time)

1. The contractor will be allowed to commence work on this project as long as all applicable plans as required under this contract have been submitted and approved, and a preconstruction meeting and public open house are held.
2. The completion date for this contract is **June 6, 2019.**
3. All work schedule changes must be submitted for approval to the Department a minimum of 48 hours prior to the requested change.
4. Permitted work days are Monday through Thursday, sunrise to sunset, and Fridays from sunrise to 3:00 PM. The Contractor shall not work on Saturdays, Sundays or Holidays. Other work time restrictions for holidays and special events will be as follows:
 - No work will be allowed from 12:00 noon Friday, May 25, 2018, to sunrise Tuesday, May 29, 2018 (Memorial Day weekend)
 - No work will be allowed from 12:00 noon Tuesday, July 3, 2018, to sunrise Thursday, July 5, 2018 (Independence Day)
 - No work will be allowed from 12:00 noon Friday, July 20, 2018, to sunrise Monday, July 23, 2018 (Old Hallowell Days)
 - No work will be allowed from 12:00 noon Friday, August 31, 2018, to sunrise Tuesday, Sept. 4, 2018 (Labor Day weekend)
5. Nighttime operations will not be allowed except as noted in this special provision or as approved by the Resident. The Contractor will be allowed a total of five nighttime operations in 2018 and shall coordinate those operations with the Resident a minimum of 48 hours in advance. All nighttime operations are subject to the limitations of Section 401.06.
6. East side of Water Street from station 10+00 to station 25+00 shall be completed (excluding surface paving and granite cross walks) and Water Street shall be free of construction equipment, materials, traffic barriers and debris no later than **June 29, 2018.** Supplemental liquidated damages will be assessed to the Contractor in the amount of Ten Thousand Dollars (\$10,000) for every Calendar Day beyond June 29, 2018 that this work remains incomplete.
7. West side of Water Street from station 10+00 to station 25+00 shall be completed (excluding surface paving and granite cross walks) and the detour shall be removed and traffic returned to its original configuration no later than **October 5, 2018.** Supplemental liquidated damages will be assessed to the Contractor in the amount of Ten Thousand Dollars (\$10,000) for every Calendar Day beyond October 5, 2018 that this work remains incomplete.

8. All work, excluding final surface paving and the installation of granite crosswalks on Water Street and Winthrop Street, shall be completed no later than **November 16, 2018.** Supplemental liquidated damages will be assessed to the Contractor in the amount of Ten Thousand Dollars (\$10,000) for every Calendar Day beyond November 16, 2018 that this work remains incomplete.
9. If the Contractor completes 100% of the work on Water Street from Station 10+00 to Station 29+75 on or before **October 26, 2018** they will receive a \$25,000 incentive bonus.
10. Final surface paving may be done in 2019 under the guidelines of standard specification 401.06. The Contractor shall install granite crosswalks on Water Street and Winthrop Street as part of final surface paving. Final surface paving will be complete no later than **June 6, 2019.** Liquidated damages will be assessed to the Contractor for every Calendar Day beyond June 6, 2019 that this work remains incomplete.

SPECIAL PROVISION
SECTION 108
PAYMENT
(Mobilization Payments)

108.2.3 MOBILIZATION PAYMENTS

Amend this Section by adding the following after the last paragraph:

“Pay Item 659.10, Mobilization, shall be limited to no more than 10% of the Bid less the amount bid for Mobilization. Mobilization bids that exceed 10.00% as defined will be considered a Curable Bid Defect and the cure will be to change the Mobilization bid amount to 10.00%.”

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

The November 2014 Revision of the Standard Specifications, Section 202-Removing Structures and Obstructions, subsection 202.061-Removing Pavement Surface, has been removed and replaced in its entirety by the following:

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

The Contractor shall locate and remove all objects in the pavement through the work area that would be detrimental to the planing or grinding machine. Any structures or obstructions left within the travel lane or shoulders shall have tapers installed according to Standard Detail 202(01). The finished milled surface will be inspected before being accepted, and any deviations in the profile exceeding 1/2 inch under a 16 foot string line or straightedge placed parallel to the centerline will be corrected. Any deviations in the cross-slope that exceed 3/8 inch under a 10 foot string line or straightedge placed transversely to centerline will be corrected. All corrections will be made with approved methods and materials. Any areas that require corrective measures will be subject to the same acceptance tolerances. Excess material that becomes bonded to the milled surface will be removed to the Resident's satisfaction before the area is accepted.

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

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

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

When pavement milling operations leave a 2 inch or less exposed vertical face at the edge of the traveled way, RPMs shall be placed on the remaining pavement surface along the vertical edge at 200 foot intervals. Uneven pavement signs shall be placed at a maximum spacing of ½ mile when pavement milling operations leave an exposed vertical face at the edge of travelway.

When pavement milling operations on directional or bi-directional traffic roadways leave an exposed vertical face greater than 2 inches at the edge of the traveled way the edge shall be either;

1. Be tapered to a zero edge by means of milling a 12:1 transition from the edge of traveled way onto the shoulder before opening the lane to traffic. Tapers shall be removed to form a vertical edge prior to the placement of the new pavement course. No additional payment will be made for tapers, or taper removal.
2. Have an additional 2 feet of pavement shall be removed from the shoulder to eliminate the vertical edge at the edge of travelway before opening the lane to traffic. Payment will be made under the pavement removal item.
3. A pavement layer will be placed to reduce the vertical edge to 2 inch or less before opening the lane to traffic.

As a minimum, the use of temporary painted line, or RPMs placed along the edge of traveled way at 200 foot intervals is required. When pavement milling is extended into the shoulder (including milled tapers), appropriate channelization devices shall be placed 2 feet outside the edge of the vertical face at intervals not exceeding 600 feet, and RPMs shall be placed on the remaining pavement surface along the vertical edge at 200 foot intervals. Uneven pavement signs shall be placed at a maximum spacing of ½ mile when any pavement milling operations leaves an exposed uneven pavement surface.

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

**SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(CONTAMINATED SOIL AND GROUNDWATER MANAGEMENT)**

General. The work under this specification shall be performed in conformance with all the procedures and requirements described herein for the following activities: contaminated soil handling, reuse, temporary stockpiling, transportation, storage and disposal and, contaminated water handling, storage, treatment and disposal. This specification also addresses contaminated soil location, identification, and classification. The intent of this specification is to ensure that any contaminated soil and/or water encountered during construction will be managed in a manner that protects worker health and safety, public welfare and the environment.

Environmental Site Conditions. The Maine Department of Transportation's Office of Safety and Compliance (MaineDOT's-OSC.) has conducted a series of assessments related to the Hallowell Water Street (Route 201) Highway Improvement Project. An initial Phase I Environmental Assessment for the project area was completed to obtain a general understanding of the environmental conditions along the project corridor. Data garnered from this assessment was used to design a Modified, Phase II Contamination Assessment for the project. The primary focus of the assessments was to evaluate the type and extent of subsurface contamination along the project corridor. The Phase I Assessment included a review of relevant Maine Department of Environmental Protection's (MaineDEP's) and Environmental Protection Agency's (EPA's) databases and field reconnaissance of the project area. During Phase II, borings were advanced along the project's length for investigative purposes. Using data gathered from the advancement of these borings and previous work by others, one area with impacted soil was identified. A photo-ionization detector (PID) was used to test soil grab samples from select explorations for volatile organic compound (VOC) concentrations indicative of petroleum products. (See *Identified Areas of Contamination* below). Select samples for laboratory testing were also taken to further aid in evaluating subsurface conditions. The results of these investigations are available for review from the Senior Geologist at MaineDOT's-OSC in Augusta (207-624-3004).

Identified Area of Contamination. MaineDOT's-OSC investigation identified one area of soil contamination associated with the Water Street (Route 201) Highway Improvement Project. For reference, this area is designated as "**Area A**". The location of **Area A** is defined as located in the vicinity of a former retail gasoline station roughly between MaineDOT survey stations 17+00 to roughly MaineDOT station 18+00 left of centerline and roughly MaineDOT station 300+00 to roughly MaineDOT station 301+00

right of center at the intersection of Union Street and Water Street (Route 201). Within **Area A**, poly-bag field samples screened with a photo-ionization detector (PID) were 17 parts per million (PPM). Laboratory results in the vicinity of the former retail gasoline station indicated the following compounds were detected; C11-C22 Aromatic Hydrocarbons at 39 ppm and C19-C36 Aliphatic Hydrocarbons at 37 ppm. Lead was detected at 6.8 ppm. These concentrations define the soils as potential special waste per State remedial guidelines. Soil contamination in **Area A** appears to be related to the past use and storage of petroleum related products (gasoline and fuel oil).

Identifying and Screening Contaminated Soil and Groundwater. Within the contaminated section designated **Area A**, excavated soils will be classified by the Resident (or a MaineDOT-OSC representative) based on photo-ionization detector (PID) field screening measurements.

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

Group 1 soils shall have PID field screening measurements indicating relative concentrations of volatile organic compounds (VOCs) less than or equal to 20 parts per million (ppm) as measured in a 200 gram soil headspace using a foil bag.

Group 2 soils shall have PID field screening measurements indicating VOC concentrations greater than 20 ppm as measured in a 200 gram headspace sample and less than the value indicated in Table 1 of SOP-TS004 when screened in accordance with the “Excavation-Construction Worker” clean-up scenario. Field screening will also be done using an oleophilic dye test.

Group 3 soils shall exceed the threshold limit stated in the TS004 Compendium of Field Testing of soil samples exceeding “Excavation-Construction Worker” clean-up scenario or has a saturated result using the oleophilic dye test.

Handling and Disposition of Soil Materials. Within **Area A** soil material excavated during construction shall be handled as follows:

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

Group 2 soils shall be placed back into their excavation section of origin. The Contractor shall make every attempt to side cast any Group 2 soils next to their excavation site. Upon completion of the given constructional feature, the Group 2 soils shall be placed back into the excavation up to 2 feet below ground surface. Group 2 materials not handled in this manner shall be considered Surplus Group 2 soils. Surplus Group 2 soils must be disposed of or treated at a facility licensed by the MDEP to accept petroleum contaminated special waste. The Contractor is solely responsible for obtaining the associated permits, any additional testing and approvals for the disposal or treatment of the Surplus Group 2 soils from all

relevant Municipal, State, and Federal agencies at no additional cost to the State. Notification shall be given to the Resident once approval is granted for the acceptance of this material at the off-site facility. No removal of Surplus Group 2 soils from the project shall occur without prior approval by the Resident. If any Surplus Group 2 soils cannot be transported to the pre-approved, properly licensed facility within 8 hours of their excavation, they must be placed in a Temporary Secure Stockpile Area somewhere within the project limits (See Temporary Secured Stockpile Area below).

Group 3 soils shall not be excavated without prior approval by the Resident. The Contractor shall arrange and undertake disposal of all Group 3 soils at a landfill or treatment facility licensed to accept petroleum contaminated special waste. The Contractor is responsible for all additional testing required by the receiving facility. Group 3 soils that cannot be disposed of within 8 hours of excavation shall be stored in a Temporary Secured Stockpile area. If the Contractor proposes other disposal or treatment options, the Contractor is solely responsible for obtaining the associated permits and approvals from all relevant Municipal, State, and Federal agencies at no additional cost to the State.

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

Trench and Underdrain/Stormdrain Design in Contaminated Sections. In **Area A**, solid, Option III, non-perforated pipe shall be used instead of perforated underdrain pipe to help prevent the infiltration and transportation of potentially contaminated groundwater within the underdrain/stormdrain system. The Contractor shall backfill around the pipe and trenches in this section with uncontaminated material. Backfilling of the trench shall be in accordance with Section 206.03. All stones larger than 3 inches, frozen lumps, dry chunks of clay or any other objectionable matter shall be removed before backfilling.

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

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

Secured Stockpile Area. Direct transport of Surplus Group 2 or Group 3 soils to a pre-approved management facility is recommended. However, should the Contractor temporarily store any Surplus Group 2 or Group 3 soils at the site for more than 8 hours following excavation, they must be placed into a properly constructed Temporary Secured Stockpile Area. The Temporary Secured Stockpile Area must be constructed as defined herein and must be approved by the Resident prior to its use.

Should the Contractor utilize a Temporary Secured Stockpile Area, they shall install a continuous 2 foot high compacted soil berm around the Secured Stockpile. The Secured Stockpile shall be placed on a liner of 20-mil polyethylene and securely covered with 20-mil polyethylene. The polyethylene liner and cover shall be placed over the soil berm and be installed to ensure that precipitation water drains directly to the outside of the berm perimeter while leachate from the contaminated soil is retained within the stockpile. The Secured Stockpile and soil berm shall be enclosed within a perimeter of concrete Jersey barriers or wooden barricades. The area within the Jersey barriers (or wooden barricades) shall be identified as a "restricted area" to prevent unauthorized access to the contaminated soils.

Secured Stockpile Area - Materials.

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

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

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

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

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

29 CFR 1910.120 or
29 CFR 1926.65

Hazardous Waste Operations and
Emergency Response

29 CFR 1910.134	Respiratory Protection
29 CFR 1926.650	Subpart D - Excavations
29 CFR 1926.651	General Requirements
29 CFR 1926.652	Requirements for Protective Systems

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SPECIAL PROVISION
SECTION 401
HOT MIX ASPHALT PAVEMENT

401 HOT MIX ASPHALT LONGITUDINAL JOINT DENSITY

401.30 Description The Department will measure the pavement density of longitudinal joints constructed between adjoining travel lanes. Core samples shall be tested according to AASHTO T-166. The Department will randomly determine core locations. The Contractor shall cut 6 in 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 MaineDOT Lab as directed by the Department. Pre-testing of the acceptance 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 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 a MaineDOT 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.

Cores shall be taken directly over the construction joint. Should the notched wedge joint device be used, the cores shall be cut directly over the center of the taper portion of the wedge (approximately centered 3" from the visible joint).

As part of the project specific QCP, the Contractor shall include details as to methods of construction, rolling and compaction efforts, and action plan to adjust methods or equipment should the Quality level fall below 50 percent within limits. The Contractor shall be required to measure the joint density at randomly selected locations with a minimum frequency of one measurement per 750 linear feet. The Contractor shall have the option to cut calibration/verification cores at a rate not to exceed 1 per day.

If the Quality level for density falls below 50 percent within limits, the Contractor shall cease placement operations and submit a corrective action letter to the Department before proceeding with the Lot or before starting a new Lot. The Department will respond and either accept or reject the Contractor's proposed corrective action. If the Department accepts the corrective action, three stratified verification cores will be taken from the first 1500 foot section of centerline constructed for the purpose of evaluating the corrective action. These cores will be in addition to any Acceptance cores that may be designated in this area. The results from these cores shall be combined with the cores from the Lot in progress. Should the combined Quality level for density show an improvement, the Department will accept the corrective action and normal Acceptance sampling frequency shall resume. If an improvement has not been made to the combined Quality level for density, the Contractor shall cease production and submit an additional corrective action letter for consideration.

401.31 Acceptance This method utilizes Quality Level Analysis and pay factor specifications as described in Section 106. 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:

Lot size will be the entire length of longitudinal joint for the given HMA layer for the project, or equal Lots of a size agreed upon at the Pre-paving conference. The maximum subplot size shall be 2000 linear feet of longitudinal joint for density and the minimum number of sublots for any Lot shall be five. The Lot will be divided up into sublots of equal length. There shall be a separate Lot for each lift of HMA pavement, and Lots shall not be comprised of results from more than one HMA layer.

The Department will determine a pay factor using acceptance limits from Table 1.

TABLE 1: LONGITUDINAL JOINT DENSITY ACCEPTANCE LIMITS

PROPERTY	LSL
% TMD (In-place density)*	91.0

* The Theoretical Maximum Density will be determined from the average of the Gmm values used to determine the percent compaction of the nearest acceptance cores on either side of the Centerline Joint Core from each adjacent mat.

The Department will calculate the Pay Adjustment for Centerline Joint Density as follows:

Where

$$PA = (\text{joint density PF} - 1.0)(Q)(P) \times 0.40$$

PA = Pay Adjustment
 Q = Quantity of traveled way pavement represented by PF in tons
 P = Contract price per ton
 PF = Pay Factor

If the joint density Pay Factor is less than 0.88, the Pay Adjustment shall be:

$$PA = (-0.05)(Q)(P)$$

SPECIAL PROVISION
SECTION 401 - HOT MIX ASPHALT PAVEMENT
(HMA with Fine Micro-Deval Requirement)

The following subsections of the most current version of Specification 401 – Hot Mix Asphalt Pavements have been revised and amended by the following:

401.01 Description The Contractor shall compose Hot Mix Asphalt (HMA) Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), and mineral filler if required. If denoted in Special Provision 403 - Hot Mix Asphalt Pavement, the mixtures shall meet the additional aggregate requirements of this special provision.

401.02 Materials Materials shall meet the requirements specified in Section 700 – Materials, unless otherwise revised in this special provision:

Aggregates for HMA Pavement	703.07
HMA Mixture Composition	703.09

The HMA composite blend, minus any RAP used, shall have a Micro-Deval value of 18.0 or less as determined by AASHTO T327. The HMA composite blend, minus any RAP used, shall have a Fine Micro-Deval value of 14.0 or less as determined by ASTM D7428.

SPECIAL PROVISION
SECTION 401 - HOT MIX ASPHALT PAVEMENT

The Standard Specification 401 – Hot Mix Asphalt Pavement, has been modified with the following revisions. All sections not revised by this Supplemental Specification shall be as outlined in Section 401 of the Standard Specifications.

401.07 Hot Mix Asphalt Plant

401.071 General Requirements HMA plants shall conform to AASHTO M156-97.

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 50 pound masses for scale testing.

b. Additives Additives (WMA, anti-strip, etc.) not directly introduced into the binder at the terminal shall be introduced into the HMA plant per the supplier's recommendations and shall be approved by the Asphalt Pavement Engineer, Pavement Quality Manager, or their authorized representative. The system for introducing additives shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. Additive introduction systems shall be controlled by a proportioning device to the amount required on the JMF plus or minus 0.1% of the target. Additive introduction systems shall be interlocked with the plant and the recordation (batch tickets or drum recordation) shall display the additive and the weight and percentage added.

c. Stockpiles HMA plants shall have sufficient space for stockpiles, with a minimum of supply for 2 days production of all aggregate products used in MaineDOT approved mix designs currently under production for the facility at all times. A minimum stockpile supply of 100 ton (70 yards) shall be maintained at all times no matter the production rate for the HMA plant. Stockpiles shall be separated and built to minimize segregation.

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.

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 how the requirements of 401.071c will be met)
- 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, daily paving report, and delivery slip template for any plant to be utilized.
- 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 or production limitations. If a warm-mix technology is utilized, a proposed target production temperature range (not to exceed 50°F) will be provided for each mix design.
- 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 MaineDOT Policies and Procedures for HMA Sampling and Testing.
- r. A detailed description of RAP processing, stockpiling and introduction into the plant as well as a note detailing conditions under which the percent of RAP will vary from that specified on the JMF.
- s. A detailed procedure outlining when production will be halted due to QC or Acceptance testing results.
- t. A plan to address the change in PGAB source or supplier and the potential co-mingling of differing PGAB's.
- u. A procedure to take immediate possession of acceptance samples once released by MaineDOT and deliver said samples to the designated acceptance laboratory.
- v. Provisions for how the QCP will be communicated to the Contractor's field personnel

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. No ceasing of paving operations shall be required for fines to effective binder if the mean test value is equal to the LSL or USL and $s = 0$.
- 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. No ceasing of paving operations shall be required for fines to effective binder if the mean test value is equal to the LSL or USL and $s = 0$.
- c. Method C: The Pay Factor for Percent PGAB, percent passing the nominal maximum sieve, percent passing 2.36 mm sieve, percent passing 0.300 mm sieve, percent passing 0.075 mm sieve or density using all Acceptance or all available Quality Control tests for the current lot is less than 0.85. No ceasing of paving operations shall be required for 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 if the mean test value is equal to the LSL or USL and $s = 0$.
- 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.

401.203 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 tons, with unanticipated over-runs of up to 1500 ton rolled into the last lot. Sublot sizes shall be 750 ton for mixture properties, 500 ton for base or binder densities and 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%
% TMD (In place density)	95.0% +/- 2.5%

Pay Adjustment Method C

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

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

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

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

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

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

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	+/- 0.8%

SPECIAL PROVISION

SECTION 403

HOT MIX ASPHALT

Desc. Of Course	Grad Design.	Item Number	Total Thick	No. Of Layers	Comp. Notes
<u>5" HMA Overlay Areas</u>					
<u>Route 201 - Mainline Travelway and Shoulders</u>					
<u>Approach Roads (As indicated in the Plans)</u>					
Wearing	12.5 mm	403.2081	1 ½"	1	5,7,21,26,27,30,31
Intermediate	12.5 mm	403.2131	1 ½"	1	5,7,15,21,27,30,31
Base	12.5 mm	403.2131	2"	1	5,7,15,21,27,30,31
<u>4" HMA Overlay Areas</u>					
<u>Side Streets / Approach Roads (As indicated in the Plans)</u>					
Wearing	12.5 mm	403.2081	1 ½"	1	5,7,21,27,30,31
Base	12.5 mm	403.2131	2 ½"	1	5,7,21,27,30,31
<u>Spot Shims (As Directed by Resident)</u>					
Shim	9.5 mm	403.211	variable	1/more	1,2,4,10,11,14,31
<u>Sidewalks, Drives, Islands, Misc.</u>					
Wearing	9.5 mm	403.209	2" - 3"	2/more	2,3,10,11,14,16

COMPLEMENTARY NOTES

1. The required PGAB for this mixture will meet a **PG 64-28** grading.
2. The incentive/disincentive provisions for density shall not apply. Rollers shall meet the requirements of this special provision. The use of an oscillating steel roller shall be required to compact all mixtures pavements placed on bridge decks.
3. The design traffic level for mix placed shall be <0.3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations**.
4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations**.
5. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **75 gyrations**.
7. Section 106.6 Acceptance, (1) Method A.
10. Section 106.6 Acceptance, (2) Method D.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm "**fine graded**" mixture, (using the Primary Control Sieve control point) as defined in 703.09.
14. The combined aggregate gradation required for this item shall be classified as a 9.5mm Thin Lift Mixture (TLM) mixture, using the Aggregate Gradation Control Points as defined in 703.09.

15. The base and intermediate layers of HMA shall be completed before winter suspension. Any surface or base HMA placed after the seasonal limitations shall be considered temporary and removed and replaced the following construction season. The Department will not be responsible for cost or time related to the removal or replacement of pavement considered to be temporary.
16. Compaction of the new Hot Mix Asphalt Pavement will be obtained using a minimal roller train consisting of a **3-5 ton** vibratory roller. Areas less than 2 feet wide shall be compacted with a minimum of a **150 pound** plate compactor. 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.
21. At the discretion of the Contractor, the use of concrete fill will be allowed in lieu of pavement. When utilized, at least 3" of HMA shall be placed on top of concrete fill for cover.
26. Centerline joint density testing shall be applied to the specified HMA layer. See Special Provision 401 – Hot Mix Asphalt Longitudinal Joint Density for project specifics.
27. See Special Provision 401 – HMA with Fine Micro-Deval Requirement for project specifics.
30. The required PGAB shall be a storage-stable, homogeneous, polymer modified asphalt binder that meets PG 64E-28 grading requirements in AASHTO M 332. All polymer modified asphalt grades utilized on the Project shall be treated with an approved liquid anti-strip. PG binders shall be treated with a minimum 0.50 percent anti-strip by weight of asphalt binder used unless otherwise recommended by the anti-strip manufacturer. The PGAB and anti-strip blend shall meet the PG 64E-28 requirements. The Contractor shall provide supporting test data showing the PGAB and anti-strip blend meet the required criteria
31. Compaction of new Hot Mix Asphalt Pavements will be obtained by use of oscillatory steel and pneumatic tired rollers. The Contractor shall use compaction equipment that meet the equipment requirements outlined in Special Provision Section 105.9 - Historic Resources.

Tack Coat

A tack coat of emulsified asphalt, RS-1, RS-1h, CRS-1 or CRS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd², and on milled pavement approximately 0.05 gal/yd² prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd². Tack used will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.

SPECIAL PROVISION
SECTION 461
LIGHT CAPITAL PAVEMENT
(Temporary Pavement)

Description This work consists of furnishing and placing one or more courses of Hot Mix Asphalt temporary pavement as directed by the Resident.

Materials Temporary Pavement shall meet the gradation and asphalt requirements of a current MaineDOT approved 12.5 mm job mix formula. The mixture will not be evaluated for PGAB content, gradation, or volumetrics. The Department will accept the mixture based upon visual acceptance.

Construction Temporary Pavement placed within roadway limits shall have a minimum depth of three inches (3"). Actual placement depth of any temporary pavement shall be as noted on the plans or directed by the Resident.

Compaction of Temporary Pavement will be obtained using a minimal roller train consisting of a 10 ton oscillating, 12 ton pneumatic, and a 10 ton finish roller for roadway work. A daily paving report, summarizing the mixture type, mixture temperature, equipment used, environmental conditions, and number of roller passes, shall be recorded and signed by the QCT and presented to the Department's representative by the end of the working day. 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.

MaineDOT will provide a NETTCP certified inspector qualified to 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 Department at any time for verification of material properties. All HMA mixtures shall be sourced from one approved job mix formula, per type of mix.

Method of Measurement Temporary Pavement will be measured by the Ton in accordance with Section 108.1 of the Standard Specifications.

Basis of Payment The accepted quantities of Temporary Pavement will be paid for at the contract unit price per ton for the mixture complete in place.

Payment will be made under:

<u>Pay Item</u>	
461.131	Temporary Pavement

<u>Pay Unit</u>
Ton

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

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	608.26	Curb Ramp Detectable Warning Field	-	C
A	608.08	Reinforced Concrete Sidewalk	-	C
LP	626.31	18" Foundation	-	C
LP	626.35	Controller Cabinet Foundation	-	C
LP	626.36	Remove or Modify Concrete Foundation	-	C

SPECIAL PROVISION
SECTION 525
GRANITE MASONRY
(Granite Slab Crosswalk)

Description. This work shall consist of constructing granite crosswalks at the locations shown on the plans and in conformance with the construction notes and details, the Standard Specifications, and this special provision.

Materials. Stone for granite slabs for Granite Slab Crosswalk shall be approved granite from acceptable sources. Stone shall be light gray comparable to granite quarried in Woodbury, Vermont, with medium tight grain and consistent color. Stone shall be hard, durable, and free from seams that impair its structural integrity. The exposed face shall be free from indications of drill holes.

Dimensions of granite slabs for Granite Slab Crosswalk shall be as stated on the plans. Long edges shall be sawn. Short edges and bottoms of slabs may be split faces, with joints between short edges of slabs and adjacent edging subject to joint width limitations stated in this special provision. The exposed surface of granite slabs shall have a flamed (thermal) finish to provide texturing for skid resistance. A sample of the stone finish shall be provided to the Department for approval before delivery of slabs for installation. If the finish is determined by the Department to be insufficient to provide necessary skid resistance, the exposed surface of granite slabs shall receive a sandblasted finish for added texture.

Granite slab exposed surfaces and joints shall meet dimensional restrictions of the Americans with Disabilities Act. Exposed surfaces shall not have more than ¼" surface variability in a distance of 24". Maximum width of joints between slabs and between slabs and edging shall be ½".

Edging for the Winthrop Street granite slab crosswalk shall be material salvaged from the existing crosswalk or stone cobbles and edging from other approved sources that are comparable in dimensions, color and texture to those of the existing crosswalk.

New granite edging to be installed along the sides of Water Street granite slab crosswalks shall meet the requirements of Section 609 and Section 712.04 for Vertical Curb Type 1.

Construction Requirements. Outside limits of granite crosswalks shall be sawcut from the previously placed Hot Mix Asphalt base course. Pavement and aggregate subbase shall be removed to a depth of 11 inches below finish grade. Slabs, and granite cobble edging where noted on plans, shall be bedded in a two-inch depth 6:1 dry sand-cement base over a 3" thick course of Item 403.209 Hot Mix Asphalt and Aggregate Subbase Course-Gravel, as detailed on the plans. Install granite slabs with the long dimension perpendicular to the direction of pedestrian traffic. Slabs shall be installed with the long top edges of adjacent slabs approximately matched in elevation. Maximum tolerance of elevation differences across

those joints shall be 1/8". Slabs and edging shall be tamped or rolled with a rubber-tired roller to securely set stone into the bedding material. The Contractor shall drive a loaded dump truck, 8 cubic yard or larger capacity, over the crosswalk at slow speed at multiple points across the roadway to demonstrate to the satisfaction of the Resident that minimal movement of slabs and edging will occur under loading. If any significant movement is observed, or unacceptable joint widths or elevation differences between slabs are found after loading, stone shall be reset and movement retested until determined by the Resident to be acceptable. Any stone that is damaged during installation or in-place testing shall be removed and replaced before acceptance.

Method of Measurement. Granite Slab Crosswalk shall be measured for payment by the square foot of exposed surface area, including joints and stone edging materials, complete in place and accepted.

Basis of Payment. Granite Slab Crosswalk will be paid for at the contract price per square foot. Payment shall include furnishing and installing new granite slabs, new granite curb edging, dry cement-sand bedding, and all other materials, labor and incidentals necessary to complete the work, unless otherwise noted. Payment also shall include salvage, storage, and reinstallation of salvaged existing granite cobbles and edging designated on the plans, and furnishing additional approved salvaged stone materials from other sources if necessary to supplement existing salvaged materials. Payment for sawcutting pavement and removal of pavement and aggregate subbase for construction of stone crosswalks will be incidental to payment for Granite Slab Crosswalk. Payment for Hot Mix Asphalt placed as a foundation course for Granite Slab Crosswalk will be made under Item 403.209.

Pay Item

Pay Unit

525.31	Granite Slab Crosswalk	Square Foot
--------	------------------------	-------------

SPECIAL PROVISION
SECTION 603
 PIPE CULVERTS AND STORM DRAINS

603.12 Basis of Payment: This section shall be amended with the addition of the following:

<u>Pay Item</u>		<u>Pay Unit</u>
603.155	12 Inch Reinforced Concrete Pipe Class III	Linear Foot
603.165	15 Inch Reinforced Concrete Pipe Class III	Linear Foot
603.205	30 Inch Reinforced Concrete Pipe Class III	Linear Foot
603.215	36 Inch Reinforced Concrete Pipe Class III	Linear Foot
603.225	42 Inch Reinforced Concrete Pipe Class III	Linear Foot
603.241	54" Corrugated Metal Pipe	Linear Foot
603.43	36 Inch Reinforced Concrete Pipe Class IV	Linear Foot
603.431	36 Inch Reinforced Concrete Pipe Class V	Linear Foot

SPECIAL PROVISION
SECTION 604
MANHOLES AND CATCH BASINS

This section is amended by the addition of the following:

Description: This work consists of constructing catch basins and manholes in accordance with the requirements of Section 604 of the Standard Specifications and as shown in the Standard Details.

Method of Measurement: Measurement shall be in accordance with Subsection 604.05.

Basis of Payment: Payment shall be in accordance with Subsection 604.06.

Payment will be made under:

Pay Item		Pay Unit
604.076	60 " Catch Basin Type A1-C	Ea.
604.077	72" Catch Basin Type A1-C	Ea.
604.093	60" Catch Basin Type B1-C	Ea.
604.094	72 " Catch Basin Type B1	Ea.
604.0956	96" Catch Basin Type B1	Ea.
604.0957	96" Catch Basic Type B1-C	Ea.
604.156	96" Manhole	Ea.
604.2521	60" Catch Basin Type A5-C	Ea.
604.2621	60" Catch Basin Type B5-C	Ea.
604.33	Surface Drain	Lf.
604.573	Catch Basin Type A1-C 96" Dia.	Ea.

SPECIAL PROVISION
SECTION 604
Manholes, Inlets and Catch Basins
(Surface Drain)

Description This work shall consist of furnishing and installing linear surface drains at the locations shown on the plans and in the construction notes.

Materials Surface drains shall be Neenah Foundry cast iron Type M heavy-duty trench and pan castings with Type A grate, catalog number R-4996-A2. Outlet shall be standard 4-inch outlet pipe diameter located at the end of the casting. The non-outlet end of the casting shall be furnished closed by the manufacturer. Outlet pipe between the drain casting and the receiving catch basin or manhole shall be 4-inch diameter Schedule 80 solid PVC pipe.

Concrete for bedding of surface drains shall be Class A structural concrete meeting requirements of Section 502. Concrete acceptance shall be Method C.

Construction Requirements Surface drains shall be installed using system components supplied by the manufacturer, including trench frame, grate, connection hardware as required for connection of frame and grate sections, and pipe adaptors if required for connection to PVC outlet pipe. Cast iron frames shall be embedded in 6 inches of structural concrete below and on the sides of the frame. Top of the surface drain grate shall be set one-half inch below the adjacent finished grade.

Basis of Payment Surface drains will be paid for at the contract price per linear foot. Payment shall include cast iron trench frame, grate, outlet pipe including elbows and other required fittings between the surface drain and the receiving catch basin or manhole, concrete bedding, excavation and backfill, and all other materials, labor and incidentals necessary to complete the work. Connection to the receiving catch basin or manhole will be incidental to payment for the catch basin or manhole.

<u>Pay Item</u>	<u>Pay Unit</u>
604.33 Surface Drain	Linear Foot

SPECIAL PROVISION
SECTION 605
UNDERDRAIN

605.07 Basis of Payment: This section shall be amended with the addition of the following:

<u>Pay Item</u>	<u>Pay Unit</u>
605.07 4" Underdrain Pipe	Linear Foot

SPECIAL PROVISION
SECTION 607
FENCES
(Temporary Chain Link Fence)

Description

This work shall consist of furnishing, installing, and relocating as many times as required, Temporary Chain Link Fence for separating pedestrians in sidewalk areas from adjacent construction work zones.

Materials

Temporary Chain Link Fence shall consist of portable panels of galvanized chain link fence secured by galvanized support frames at the base of each end post. Fence fabric shall be #10 gauge or heavier with mesh openings 2.375" x 2.375" or smaller. Panel framing shall be 1.25 inch or larger steel tubing with minimum wall thickness of 0.065 inch. All chain link fence panels for Temporary Chain Link Fence shall have a top rail, a brace rail midway between the top and bottom of fabric, and a bottom rail at the bottom of fabric. Panels of 8 feet or longer between end posts shall have at least one vertical brace uniformly spaced between end posts for attachment of fabric and for stability. Chain link fence shall be 6 feet high to the top of the top rail. All fence panels shall be secured at the base with sandbags or other approved means of securing the support frames against movement or overturning. Adjacent panels shall be connected with galvanized saddle clamps or other approved mechanical connectors to prevent separation of panels.

Temporary Chain Link Fence panels shall include mesh screening securely attached to the chain link fence fabric. Screening shall be breathable, ultraviolet and heat resistant, vinyl coated polyester mesh fabric with 70% or greater privacy blockage. Mesh screening shall have a reinforced binding with brass grommets at the corners and spaced at no less than 24 inches around the perimeter of the screen. Mesh screening may have semi-circular vents for reduction of wind load on the fence.

Temporary Chain Link Fence panels shall include temporary LED rope lighting attached securely to the top rail. Rope lighting shall be 'cool white' color temperature with 12 bulbs per foot. Rope lighting may be powered either by a 120V power source for longer lighting runs or by battery or other low voltage power source for shorter runs. The Contractor shall be responsible for providing the power sources for all rope lighting. Rope lighting shall be attached in channel raceways. All materials and installation shall be in compliance with the National Electrical Code.

Construction

The Contractor shall install Temporary Chain Link Fence between all pedestrian walkways on Water Street, other than crosswalks, and adjacent construction work zones as directed by the Resident. Temporary Chain Link Fence shall be relocated as directed as work progresses and shall be in place prior to commencement of construction activity in any work zone. All fencing materials, including mesh screening and rope lighting, shall be inspected at least weekly and shall be repaired or replaced if determined to be damaged.

Method of Measurement

Temporary Chain Link Fence will be measured by the linear foot of fence supplied by the Contractor and approved by the Resident. Measurement will be along the gradient of the fence from outside of end post to outside of end post for each continuous run of fence.

Basis of Payment

The accepted quantity of Temporary Chain Link Fence will be paid for at the contract unit price per linear foot, which shall be full compensation for furnishing, installing, maintaining, and resetting chain link fencing, support frames, sandbags or other approved means of securing fence panels, mesh screening, rope lighting including power sources for lighting, lighting channel raceways, removal of fencing and related materials upon completion of work, and all other materials, labor, equipment and incidentals necessary.

Payment will be made under:

Pay Item

607.1701 Temporary Chain Link Fence – 6'

Pay Unit

Linear Foot

SPECIAL PROVISION
SECTION 607
FENCES
(Remove and Reset Fence)

Description This work shall consist of removing existing wood or metal fence and resetting at new locations as shown on the plans or directed by the Resident.

Materials Materials for removing and resetting shall consist of the existing posts, rails, pickets and other hardware of the existing fence. Materials removed shall be used in the fences as reset, unless determined by the Resident to be unacceptable for resetting due to deterioration or damage, or unless specified on the plans to be replaced. Materials used for replacement of wood or metal fence components shall be of similar materials, dimensions and appearance to the original fence components and shall otherwise conform to the Standard Specifications and Standard Details. Replacement materials and damaged or deteriorated painted surfaces of materials to be reused shall be painted with two coats of an approved exterior paint matching the color of the original fence materials.

Construction Fence designated to be removed and reset shall be carefully removed from its present location, temporarily stored, if necessary, and reinstalled at the new location in accordance with the applicable requirements of Section 607 of the Standard Specifications for installation of fence. Fence components found to be unfit for reuse prior to or upon removal shall be replaced when directed by the Resident. Any material damaged or lost during removing, storage or resetting shall be replaced by the Contractor without additional compensation.

Posts shall be set plumb in drilled or hand dug holes. After posts are placed, rails installed and the posts aligned, the post holes shall be backfilled. Backfilling shall be with earth placed in 18 inch layers, loose measure, and each layer thoroughly tamped. The completed fence shall have the tops of the posts at uniform height above ground, following the gradient of the ground unless otherwise directed by the Resident. All surplus material and other debris shall be removed and disposed of.

Method of Measurement Remove and Reset Fence will be measured by the linear foot accepted in place in its relocation. Measurement will be from outside to outside of end posts along the gradient of the fence in its relocation for each continuous run of fence reset.

Basis of Payment The accepted quantity of Remove and Reset Fence will be paid for at the contract unit price per linear foot complete in place at the relocation. Such payment will be full compensation for removing, transporting, storing, reassembling all parts, furnishing of new materials and hardware as needed, excavating in earth and backfilling holes, reinstalling

Hallowell
WIN 18622.00
January 13, 2018

at the new location, connections to existing remaining fence, and all other incidentals necessary to complete the work. Replacement of damaged fencing material shall be considered incidental to the contract bid price for Remove and Reset Fence.

Payment will be made under:

Pay Item

Pay Unit

607.24 Remove and Reset Fence

Linear Foot

SPECIAL PROVISION
SECTION 607
FENCES
(Pedestrian Fence)

Description

This work shall consist of furnishing and installing new aluminum fencing including foundations and accessories in accordance with these specifications, project documents or as directed by the Resident.

Materials

All material furnished by the Contractor shall be new.

- a. Fencing System shall be industrial strength aluminum, 'Ovation' Style Ornamental Fence, colored black, 48" height to top of top rail, with 70" posts as manufactured by Jerith Manufacturing Co., Inc., 14400 McNulty Road, Philadelphia, PA 19154. Telephone: 800-344-2242 or equal as approved by the Resident.
- b. Aluminum Extrusions: Aluminum material for fence framework shall conform to the requirements of ASTM B221. The aluminum extrusions for post and rails shall be Alloy and Temper Designation 6005-T5 with minimum yield strength of 35,000 psi. All other aluminum extrusions shall have minimum yield strength of 25,000 psi.
- c. Framing: Posts, other than gate posts, shall be 2½" square with a perimeter wall thickness of 0.080" and an interior reinforcing web thickness of 0.075". Horizontal rails shall be 1-5/8" channels formed in a modified "U" shape with a top wall thickness of 0.070" and side wall thickness of 0.100". Pickets shall be 1" square x 0.062" thick extruded tubing. Assembled sections shall be capable of supporting a 1,000 lb. vertical load at the midpoint of any horizontal rail. Gate posts shall be 4" square with 0.125" walls and used on both sides of a gate. Gates shall have welded frames capable of supporting a 250 pound vertical load on the latch side of the gate without deformation or failure. Gates shall be self-closing and self-latching.
- c. Fasteners: All fasteners shall be stainless steel. Square drive screws shall be used to connect the pickets to the horizontal rails. Rail to post connections shall be made using self-drilling hex-head screws.
- d. Accessories: Aluminum sand and die casting shall be used for all scrolls, post caps, finials, and miscellaneous hardware. Die castings shall be made from Alloy A360.0 as per ASTM B85 for superior corrosion resistance.
- e. Coating: Fence materials shall be top coated with a TGIC polyester powder-coat finish. Epoxy powder coating, baked enamel or acrylic paint finishes will not be accepted. The finish shall have a cured film thickness of at least 2.0 mils. The fence top coat shall be colored black and any screw heads shall be painted to match the color of the fence.

Construction

The Contractor shall submit product samples for materials and finish, manufacturers' specifications, product data and installation instructions for all items furnished. No portion of the work shall commence until the Department has approved the submittal.

Install fence in accordance with manufacturer's instructions. The fence height shall be 48 inches at all locations, measured from ground elevation to top of top rail. Pickets shall meet flush with top and bottom rails. There shall be two horizontal rails in each section.

Pickets shall be fastened to the rails using painted stainless steel screws. Screws shall be used on only one side of the rail, leaving the other side with a clean appearance. Welding the pickets to the rails will not be permitted.

Posts shall have pre-punched holes which allow the fence section rails to slide in. Posts shall be spaced 71½" on center and have .075" walls. Die cast aluminum caps shall be provided with all posts.

Foundations for fence posts shall be cast-in-place Concrete Fill placed in approved forms. If wood forms are used, they shall be removed before backfilling. If fiber forms are used, they need not be removed. Foundation depth shall be a minimum of four feet and diameter shall be a minimum of twelve inches.

Method of Measurement

Pedestrian Fence will be measured by the linear foot, complete in place and accepted. Measurement will be along the gradient of the fence from outside of end post to outside of end post for each continuous run of fence, including gates.

Basis of Payment

The accepted quantity of Pedestrian Fence will be paid for at the Contract unit price per linear foot, which shall be full compensation for installing fencing, foundations, furnishing and installing all materials, labor, equipment and incidentals necessary to complete the work indicated on the plans and as called for in the contract. Clean-up and any other fence related items shall be incidental to Pedestrian Fence. Concrete Fill will be incidental to payment for Item 607.39.

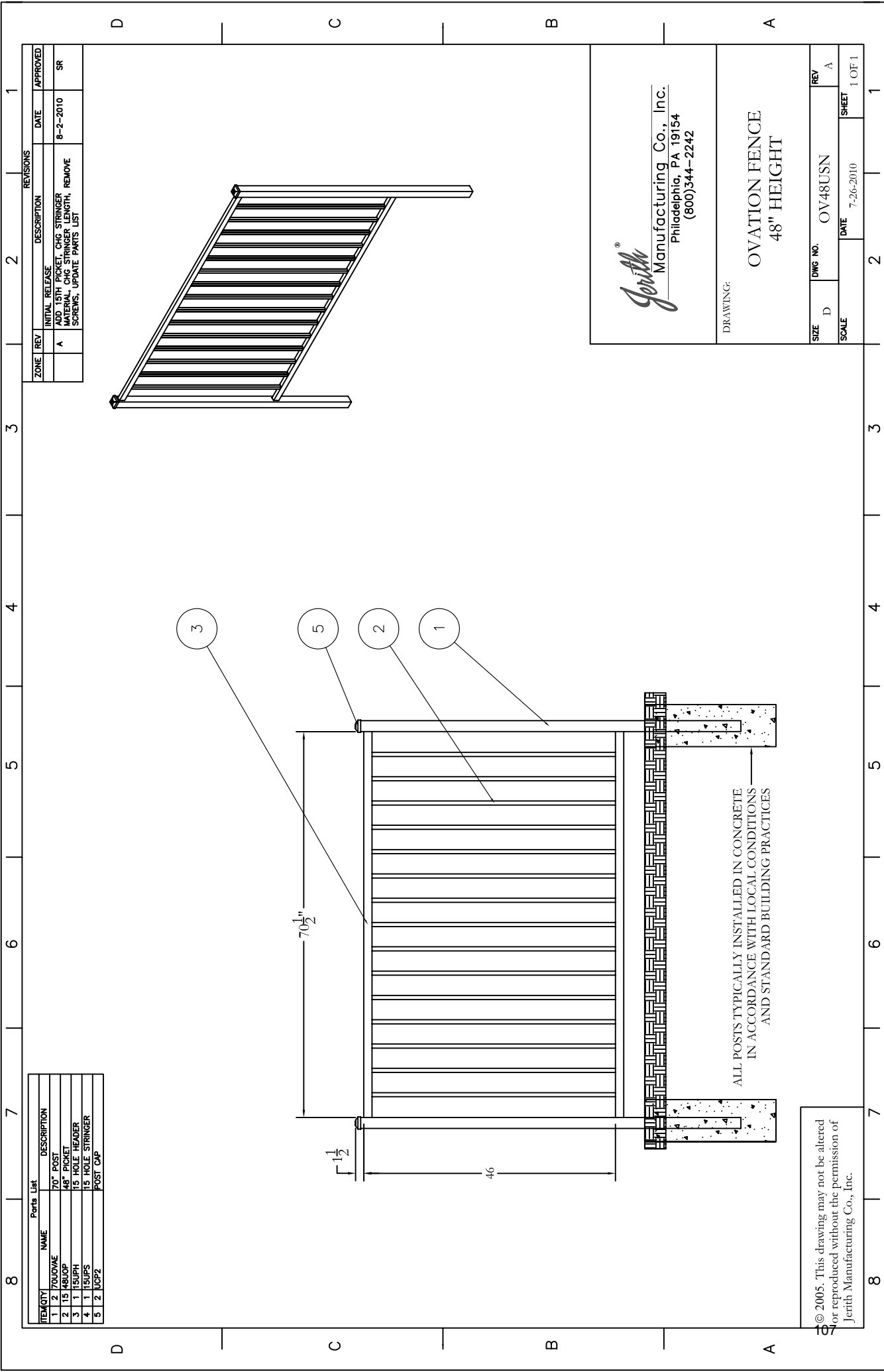
Payment will be made under:

Pay Item

607.39 Pedestrian Fence

Pay Unit

Linear Foot



ITEM QTY	NAME	DESCRIPTION
1	2 700UWAE	70" POST
2	15 48UOP	48" PICKET
3	1 15UOPH	15 HOLE HEADER
4	1 15UOPS	15 HOLE STRINGER
5	2 10CP2	POST CAP

ZONE	REV	DESCRIPTION	DATE	APPROVED
A	1	INITIAL RELEASE		
		ADD 15TH PICKET, CHG STRINGER MATERIAL, CHG STRINGER LENGTH, REMOVE SCREWS, UPDATE PARTS LIST	8-2-2010	SR

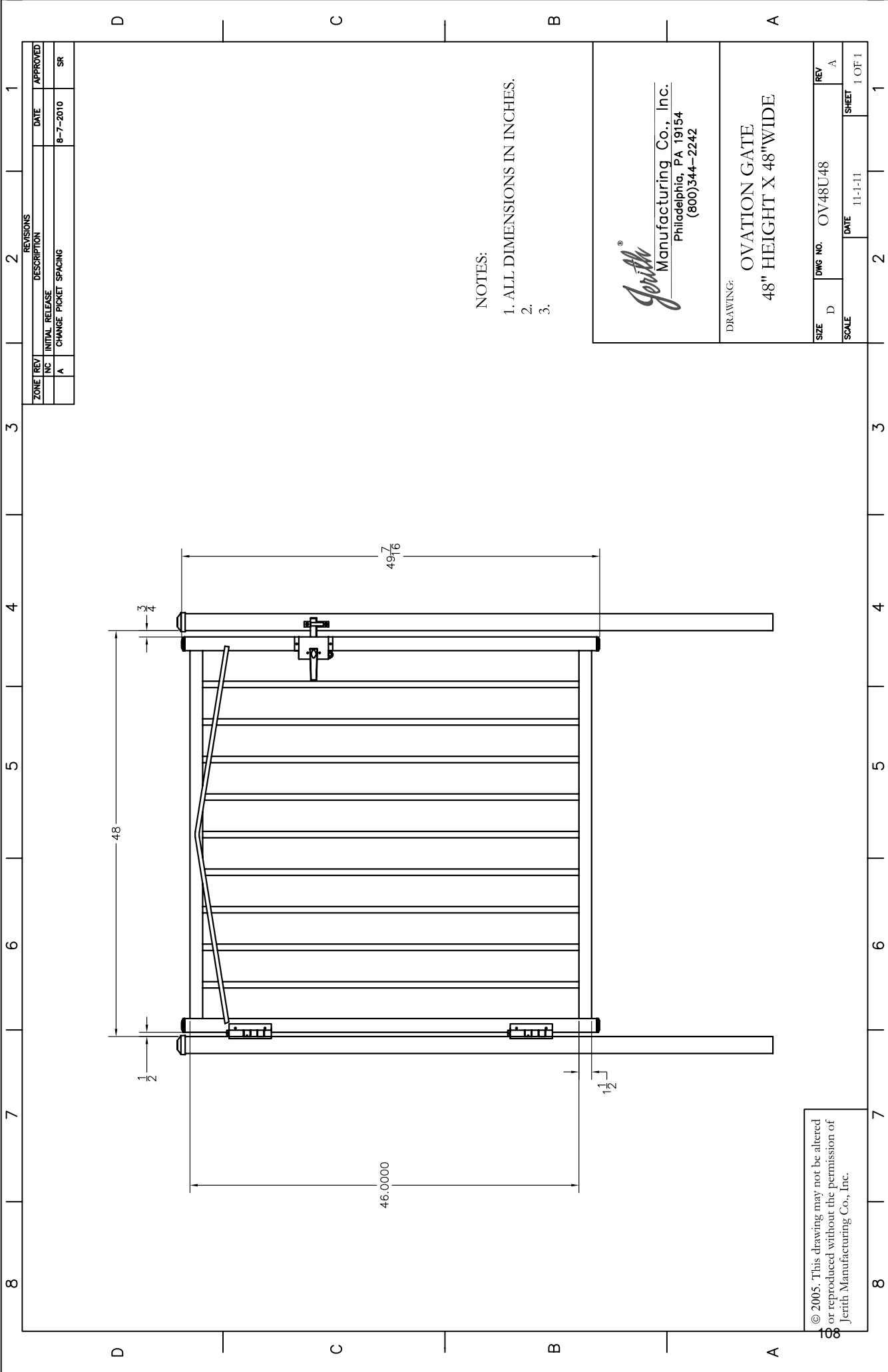
Jerith
Manufacturing Co., Inc.
Philadelphia, PA 19154
(800) 344-2242

DRAWING:

OVATION FENCE
48" HEIGHT

SIZE	DWG NO.	REV
D	OV48USN	A

SCALE	DATE	SHEET
	7-26-2010	1 OF 1



ZONE		REV		DESCRIPTION		DATE		APPROVED	
NC		INITIAL		RELEASE		8-7-2010		SR	
A		CHANGE		PICKET SPACING					

NOTES:
1. ALL DIMENSIONS IN INCHES.
2.
3.

Jerith
Manufacturing Co., Inc.
Philadelphia, PA 19154
(800) 344-2242

DRAWING:
OVATION GATE
48" HEIGHT X 48"WIDE

SIZE	DWG NO.	REV
D	OV48U48	A
SCALE	DATE	SHEET
	11-1-11	1 OF 1

© 2005. This drawing may not be altered or reproduced without the permission of Jerith Manufacturing Co., Inc.

SPECIAL PROVISION
SECTION 607
FENCES
(Safety Fence)

Description. This work shall consist of furnishing, installing, and relocating as many times as required, portable barrier for separating pedestrians in crosswalk areas from adjacent construction work zones and traffic.

Materials. Safety Fence shall consist of portable, interlocking, lightweight, self-supporting, high density polyethylene barriers deployed for high visibility separation of pedestrians in crosswalks from adjacent work zones and traffic. Barrier shall be designed to minimize susceptibility to overturning under wind load. Barrier height shall be 38 inches including an ADA-compliant top rail. Barrier base shall be designed for ADA compliance to minimize tripping hazards. Barrier color shall be orange. The top section of each section of barrier shall have a 6"x 36" strip of Engineer Grade orange and white reflective sheeting applied to enhance visibility of the barrier to oncoming traffic.

Construction Requirements. Safety Fence shall be installed in compliance with the MUTCD, the Americans with Disabilities Act, and the direction of the Resident. Safety Fence shall be removed and redeployed as necessary to accommodate construction progress.

Method of Measurement. Safety Fence will be measured by the linear foot of barrier supplied by the Contractor and approved by the Resident. Measurement will be along the gradient of the Safety Fence from outside of end post to outside of end post for each continuous run of Safety Fence.

Basis of Payment. The accepted quantity of Safety Fence will be paid for at the contract unit price per linear foot, which shall be full compensation for furnishing, installing, maintaining, resetting as many times as required to accommodate construction progress, removal of fencing and related materials upon completion of work, and all other materials, labor, equipment and incidentals necessary.

<u>Pay Item</u>	<u>Pay Unit</u>
607.44 Safety Fence	Linear Foot

SPECIAL PROVISION
SECTION 608
SIDEWALKS
(Brick Sidewalk with Bituminous Base)

Section 608 of the Standard Specifications is amended for this project by addition of the following:

Description: This work shall consist of furnishing all materials and labor for Brick Sidewalk with Bituminous Base to conform with the plans and as directed by the Resident Engineer.

608.02 Materials: Brick for Brick Sidewalk with Bituminous Base shall meet requirements of Section 704.02 and ASTM C-902: Court Street Molded Paving Brick by Morin Brick, Auburn Me. Prior to ordering a final sample strap demonstrating full color range shall be submitted to the Resident Engineer for final approval.

Morin Brick Court Street Flashed Waterstruck Molded Paving Brick
Nominal 3 5/8" x 7 5/8" x 2 1/4" thick

608.0341 Brick Sidewalk Construction: Subgrade shall be shaped parallel to the proposed surface of the walk and shall be thoroughly compacted. All depressions occurring shall be filled with a suitable material and again compacted until the surface is smooth and hard.

After the subgrade has been prepared, a foundation of Aggregate Base Course Gravel shall be placed to the specified compacted thickness.

A layer of hot mix asphalt (HMA) with minimum compacted thickness of two inches (2") shall be placed on the completed aggregate foundation course. The HMA surface shall be parallel to the proposed finish grade.

A sand-cement base course 1" thick made of thoroughly blended washed concrete sand 6:1 mixed with 1 part Portland Cement shall be placed on the HMA base course and thoroughly compacted to a hard, smooth surface parallel to the proposed finish slope and grade of the walk.

After the sand-cement base course has been installed, brick shall be placed in RUNNING BOND PATTERN adjusted to full brick dimension. The brick shall be set with a narrow hand set joint typical 1/16" width [min 1/32- 3/32"]. Brick shall be saw cut to fit spaces requiring less than a whole brick; no cut shall be less than 2" [two inches] in length, and no open spaces will be allowed. Final patterns shall be running bond per plan or as directed by the Resident Engineer or MaineDOT Landscape Architect.

Hallowell
WIN 18622.00
Special Provision 608
January 18, 2018

Individual bricks shall be hand placed with joints, and then set by hammering with a heavy rubber masonry mallet until the bricks reach a firm, unyielding bedded set course. After this tamping a sufficient amount of sand-cement mix shall be spread over the surface and thoroughly swept to fill all joints.

After filling the joints the brick surface shall be covered by plywood and mechanically compacted with a plate vibrator with rubber pad to ensure filling of all the joints. Care shall be taken to avoid raking out the joints during removal of excess sand.

A final application of sand only shall be applied and wet with clean potable water and left on the surface for several days before final sweeping. At the completion of the project a final sand/sweeping operation will be overseen by the Resident.

Basis of Payment: All items described herein will be paid under the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
608.15 Brick Sidewalk with Bituminous Base	SY

SPECIAL PROVISION
SECTION 608
SIDEWALKS
(Curb Ramp Detectable Warning Field)

This section is amended by addition of the following:

Description This work shall consist of furnishing and installing curb ramp detectable warning plates with truncated domes in brick sidewalk in accordance with the requirements of Section 608 of the Standard Specifications and the Standard Details as applicable at the locations shown on the plans or as established by the Resident.

Materials The curb ramp detectable warning plates with truncated domes standard detail shall be modified for placement within the limits of brick sidewalk per the following amended standard detail.

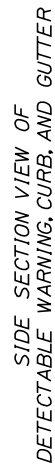
Method of Measurement Measurement shall be in accordance with Section 608 of the Standard Specifications.

Basis of Payment: The accepted quantity of Curb Ramp Detectable Warning Field will be paid for at the contract unit price per square foot. Payment will include all materials and labor required to install the detectable warning plates, complete and in place.

Payment will be made under:

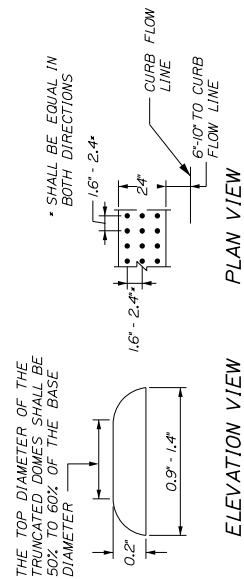
<u>Pay Item</u>	<u>Pay Unit</u>
608.26 Curb Ramp Detectable Warning Field	Square Foot

(NOT TO SCALE)



1. ALL DETECTABLE WARNING AREAS SHALL START 6'-10" FROM THE FLOW LINE OF THE CURB, BE 24" IN DEPTH, AND COVER THE COMPLETE WIDTH OF THE RAMP AREA ONLY.

2. THE DETECTABLE WARNING PANEL SHALL HAVE ONE FULL COURSE OF BRICK PAVERS AROUND THE FULL PERIMETER OF THE PANELS; THIS PERIMETER SHALL BE SET TO CREATE A FLUSH SURFACE BETWEEN THE BRICK AND THE PANEL.



DOME AND DETECTABLE WARNING DETAILS

SPECIAL PROVISION
SECTION 609
Curb
(Vertical Curb Type 2)

Description. The contractor shall furnish and install precast concrete parking wheelstops at locations shown on the plans or designated by the Resident.

Materials. Precast concrete parking wheelstops shall be manufactured in conformance with Section 502 – Structural Concrete, Section 503 – Reinforcing Steel, Section 709.01 – Reinforcing Steel, and Section 712.06 – Precast Concrete Units. Concrete shall be Class A. Each precast concrete parking wheelstop shall be manufactured with two #3 steel reinforcing bars in the wheelstop. Each parking wheelstop when installed shall be pinned vertically with two additional #3 steel reinforcing bars. See the detail on Sheet 11 of the project plans for dimensions of precast concrete parking wheelstops and steel pins.

Construction. Precast concrete parking wheelstops shall be installed and pinned at locations shown on the plans or designated by the Resident.

Method of Measurement. Precast concrete parking wheelstops will be measured by the linear foot horizontally along the long dimension at the base of the front face of the wheelstop.

Basis of Payment. Precast concrete parking wheelstops will be paid as an equivalent length of concrete Vertical Curb Type 2. The accepted quantity will be full compensation for manufacturing the precast reinforced concrete units, delivery to the project, installation of the units where designated, pinning of the units, and all incidentals required.

Pay Item

Pay Unit

609.19 Vertical Curb Type 2

Linear Foot

SPECIAL PROVISION
SECTION 609
Curb
(Special Curb)

Description. The contractor shall furnish and install rough sawn, pinned landscape timbers at locations shown on the plans or designated by the Resident.

Materials. Special Curb shall consist of rough sawn western red cedar landscape timbers of dimensions noted on the plans. Pins shall conform with requirements of Section 503 – Reinforcing Steel and Section 709.01 – Reinforcing Steel. See details on Sheet 53 of the plans for dimensions and installation requirements.

Method of Measurement. Special Curb will be measured by the linear foot horizontally along the top front edge of the top course of landscape timber. Variation of existing ground elevation in relation to finish grade of the adjacent sidewalk may require several courses of landscape timbers to construct to the required height. See cross-sections for details. No additional payment will be made for additional courses of timbers required.

Basis of Payment. The accepted quantity of Special Curb will be full compensation for furnishing, installing and pinning rough sawn landscape timbers at the dimensions and locations shown on the plans. Minor regrading of existing ground to provide a level surface for installation of landscape timbers will be incidental to payment under Item 609.312.

<u>Pay Item</u>	<u>Pay Unit</u>
609.312 Special Curb	Linear Foot

SPECIAL PROVISION
SECTION 609
Curb

609.10 Basis of Payment: This section shall be amended with the addition of the following:

<u>Pay Item</u>	<u>Pay Unit</u>
609.2341 Terminal Curb Type I – 4ft. - Circular	Each
609.2381 Terminal Curb Type I – 8ft. – Circular	Each

SPECIAL PROVISION
SECTION 627
PAVEMENT MARKINGS

627.04 General. The subsection is revised by the addition of the following:

Add: “Temporary pavement marking lines - center lines, shall be painted on all matched pavement within one week.

Temporary pavement marking lines - edge lines, shall be painted on all pavement layers within four weeks.

All Temporary pavement marking lines shall be painted prior to final striping.

Multilane sections, truck lanes, and milled surfaces shall have temporary pavement marking lines striped daily on all matched pavement layers.

Temporary Object Markers, TOMs, shall be used on all pavement layers until temporary pavement marking lines are applied.

TOMs, shall be removed prior to final striping.

TOMs, removal shall be addressed in the Traffic Control Plan.”

627.09 Method of Measurement. The Subsection is revised by the deletion of and replacement with the following:

Delete: “Temporary pavement marking lines shall be measured as one lump sum for work accepted.”

And replace with: “Temporary pavement marking lines shall be measured by the number of feet for work accepted.”

627.10 Basis of Payment. The last paragraph is amended as follows:

Remove the following: “The accepted quantity of temporary pavement marking lines will be paid for at the contract lump sum price and will include as many applications as required and removal when required.”

And replace with: “The accepted quantity of temporary pavement marking lines will be paid for at the contract unit price bid, per linear foot of temporary pavement markings installed and approved.

Temporary Object Markers, TOMs, will be considered incidental to Item No. 627.78.

Once Construction is Complete: Maintenance of Traffic Control Devices (652.36) will not be paid while waiting to final stripe. Liquidated Damages will not be charged while waiting to final stripe.”

<u>Pay Item</u>	<u>Pay Unit</u>
627.733 4” White or Yellow Painted Pavement Marking Line	LF
627.78 Temporary 4” Paint Pavement marking Line W Or Y	LF

Hallowell
WIN 18622.00
January 14, 2018

SPECIAL PROVISIONS
SECTION 634
HIGHWAY LIGHTING
(Ornamental Lighting)

Description. The Contractor shall furnish and install all materials and equipment required for complete, functioning and accepted ornamental light standards with light emitting diode luminaires, as shown on the plans and as directed.

General. Ornamental light standards with LED luminaires for highway lighting and sidewalk lighting on this project shall be as manufactured by Spring City Electrical Mfg. Co. and specified on the plans and in this special provision. Contact:

Spring City Electrical Mfg. Co.
One South Main Street
Spring City, PA 19475
Tel.: 1-610-948-4000
E-mail: sales@springcity.com

All materials and installation requirements for Ornamental Lighting shall comply with Section 634 of the Standard Specifications except as modified on the project plans or in this Special Provision.

Method of Measurement. Ornamental Lighting, satisfactorily installed and accepted, will be measured for payment by the single unit each. Relocate Ornamental Lighting, satisfactorily reinstalled and accepted, will be paid by the lump sum for all work required to relocate existing lighting poles and fixtures as designated on the plans.

Basis of Payment. The accepted quantity of Ornamental Lighting will be paid for at the contract unit price each. Payment for each shall be full compensation for the ornamental light standard, ornamental pole base, pole base plates and anchor bolts, ornamental fixture housing, light emitting diode luminaire fixture and incidentals necessary for installation of the pole and fixture. Relocate Ornamental Lighting will be paid as one lump sum for the total number of existing ornamental light poles noted on the plans. Payment will be full compensation for demounting existing ornamental light poles and fixtures, transporting, storing and reinstalling the poles and fixtures on new foundations. Any poles or fixtures that are damaged during demounting, transporting, storing or

reinstalling shall be replaced by the Contractor at no additional cost to the contract. New anchor bolts for poles to be reinstalled on new foundations shall be provided by the contractor incidental to the lump sum payment. Conduit for power to Ornamental Lighting, foundations, and junction boxes will be paid separately under applicable Section 626 pay items of the contract. All other work and materials necessary to provide the highway and sidewalk lighting system shown on the plans will be paid by lump sum payment under Item 634.160 Highway Lighting.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
634.70	Ornamental Lighting	Each
634.72	Relocate Ornamental Lighting	Lump Sum

Highway Lighting Quality Control Checklist

Subsection 634.09 Field Testing

Project Pin # _____

Location (if multiple services, please be specific)- _____

Grounding Electrode Resistance at service _____

Number of Circuits _____

Hand-Off-Auto Switch? _____

Circuit #1

Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Current draw- (during normal operation)

Leg #1

Leg #2

Operating Voltage at last pole _____

Circuit #2

Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Current draw- (during normal operation)

Leg #1

Leg #2

Operating Voltage at last pole _____

I, _____, certify that this work was done in accordance with subsection 643.14 and current NEC _____ guidelines, and when tested, was functioning as intended. (YEAR)

Electrician's Signature _____

Electrician's License # _____

Highway Lighting Quality Control Checklist

Subsection 634.09 Field Testing

Project Pin # _____

Location (if multiple services, please be specific)- _____

Grounding Electrode Resistance at service _____

Number of Circuits _____

Hand-Off-Auto Switch? _____

Circuit #3

Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Current draw- (during normal operation)

Leg #1

Leg #2

Operating Voltage at last pole _____

Circuit #4

Open Circuit Resistance- (Ohm out both hot legs at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Megger Test- (Meg out both hot legs to ground at the cabinet while they are shorted together at the last pole and the fuse holders are disconnected at each pole) _____

Current draw- (during normal operation)

Leg #1

Leg #2

Operating Voltage at last pole _____

I, _____, certify that this work was done in accordance with subsection 643.14 and current NEC _____ guidelines, and when tested, was functioning as intended.
(YEAR)

Electrician's Signature _____

Electrician's License # _____

Traffic Signal Quality Control Checklist

Subsection 643.14 Field Testing

Project Pin # _____

Grounding Electrode Resistance at service _____

ID tags on loop amps / detector cards? _____

Location _____

Street Approach	_____
Loop #	_____ Resistance _____
Phase #	_____ Meg to ground _____
L,C, or R Lane	_____ Amount of bondo covering loop _____
Pulse or Presence	_____

Street Approach	_____
Loop #	_____ Resistance _____
Phase #	_____ Meg to ground _____
L,C, or R Lane	_____ Amount of bondo covering loop _____
Pulse or Presence	_____

Street Approach	_____
Loop #	_____ Resistance _____
Phase #	_____ Meg to ground _____
L,C, or R Lane	_____ Amount of bondo covering loop _____
Pulse or Presence	_____

I, _____, certify that this work was done in accordance
with subsection 643.14 and current NEC _____ guidelines, and
(YEAR)
when tested, was functioning as intended.

Electrician's Signature _____

Electrician's License # _____

SPECIAL PROVISION
SECTION 642
STEPS
(Granite Steps)

Description

The work covered by this special provision includes furnishing all labor, materials, equipment and incidentals for cutting, finishing, loading, transporting and installing Granite Steps as shown on the Plans or as directed by the Resident.

Materials

Granite blocks for Granite Steps shall conform to the dimensions shown on the Plans. The type and color of the granite shall resemble the material used for Type 1 granite curb. The granite shall be finished on the sides and top with a split face. All edges shall be made relatively smooth to touch with standard blunt treatment, approximately 1/16" chamfer on all exposed edges.

Installation

Stone for Granite Steps shall be cut to fit each designated location without requiring use of shims. The Contractor shall take care to minimize scraping and damage to Granite Steps during loading, transport, delivery and stockpiling, and installation. Damaged stone shall be rejected and new blocks shall be delivered and installed to the satisfaction of the Resident. Granite Steps shall be installed level.

Method of Measurement

Granite Steps will be measured for payment by each Granite Step satisfactorily installed at locations as shown on the Plans or as directed by the Resident.

Basis of Payment

Granite Steps will be paid for at the contract unit price each complete in place and accepted. Payment shall include all materials, equipment and labor necessary for furnishing, loading, delivering, stockpiling, and installation of granite blocks, and other incidental labor, materials and equipment necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
642.184 Granite Step	Each

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

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

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

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

Road Work xxxx ¹
One Lane Road Ahead
Flagger Sign

Other typical signs include:

Be Prepared to Stop
Low Shoulder
Bump
Pavement Ends

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

The Contractor shall conduct their operations in such a manner that the roadway will not be restricted to one lane for more than 800 m [2,500 ft] at each work area. To encourage quality paving in warm-weather conditions, the length can be extended to 4,000 ft depending on the traffic impacts. Where more than one work area restricts traffic to one lane operation, these work areas shall be separated by at least 1.6 km [1 mile] of two way operation.

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

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

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.

SPECIAL PROVISION
SECTION 679
FIELDSTONE RETAINING WALL
(Recycled Granite Curb Wall with Granite Steps)

The following replaces Section 679 in the Standard Specifications in its entirety:

679.01 Description. This work shall consist of construction of a Recycled Granite Curb Wall with Granite Steps in accordance with this Special Provision and in close conformance with the lines, grades, design and dimensions shown on the Plans and Special Details in the Contract Documents or as directed by the Resident. The Recycled Granite Curb Wall with Granite Steps is located on the west side of the rail trail parking area along Water Street.

The Recycled Granite Curb Wall with Granite Steps shall consist of the following components:

- **Foundation Soils** – Native soil mass for supporting the wall components.
- **Drainage System** – 6-inch underdrain pipe.
- **Crushed Stone Leveling Pad** – 12-inch thick bed of Crushed Stone.
- **Concrete Leveling Pad** – 6-inch thick Fill Concrete leveling pad.
- **Recycled Granite Curb** – Recycled granite curb salvaged from the project.
- **Curbing from Alternative Source** – Deadmen and other buried curbing necessary to meet project material requirements.
- **Reinforcing Dowels** – 8-inch long, #4 Reinforcing Steel bars to connect Deadmen to adjacent granite blocks.
- **Granite Steps** – 10 6-foot wide granite steps with ADA compliant handrails.
- **Geotextile** – Erosion Control geotextile.
- **Backfill** – Soil behind the Recycled Granite Curb Wall.
- **Cedar Rail Fence** – 3-foot high fence located 3-feet back from face of wall.

Included in the scope of the Recycled Granite Curb Wall construction are: all materials necessary for wall construction, all grading necessary for wall construction, compaction of the wall foundation soil, backfill, piped drainage, construction of leveling pads, granite steps, and Recycled Granite Curb Wall with Granite Steps installation. The top of the upper row of granite curb blocks shall be at or above the top of the face elevation shown on the Plans.

679.02 Materials. Materials for walls shall meet the requirements of the following sections of Division 700:

Crushed Stone ¾-Inch	703.13
Gravel Borrow	703.20
Underdrain Pipe	706.06 or 706.09
Reinforcing Steel	709.01
Drainage Geotextile	722.02

679.031 Concrete Leveling Pad. The Concrete Leveling Pad shall be Fill Concrete conforming to the requirements of Section 502 Structural Concrete. Unless otherwise specified, concrete for leveling pads shall be accepted under Method “C” requirements.

679.032 Recycled Granite Curb. The Recycled Granite Curb shall be salvaged from the project. The exposed vertical face of the wall made up of salvaged granite curb sections shall be the top face of the original curb. The exposed faces of Recycled Granite Curb shall be cleaned of paint, dirt and other debris prior to use for wall construction.

679.033 Curbing from Alternative Source. Deadmen and other buried curbing may be from an alternate source as necessary to meet project material requirements. Curbing from an alternate source shall be approved by the Resident before construction. Proposed materials must be submitted to the Resident two weeks prior to use by the Contractor. The exposed faces of curbing from an alternative source shall be cleaned of paint, dirt and other debris prior to use for wall construction.

679.034 Drainage Geotextile. A Drainage Geotextile shall be place between the Recycled Granite Curb Wall and the Backfill material as shown on Plans and Special Details in the Contract Documents. Drainage Geotextile shall consist of a geotextile approved by the Geotechnical Engineer.

679.035 Backfill. Backfill material placed behind the Recycled Granite Curb Wall shall meet the requirements of Section 703.20 Gravel Borrow, except that the backfill material shall only contain particles that will pass the 3-inch square mesh sieve.

679.036 Drainage System. A positive Drainage System to drain water from behind the wall shall be included in the Recycled Granite Curb Wall.

679.04 Design Requirements. The Recycled Granite Curb Wall design is shown on the Plans and Special Details in the Contract Documents.

679.05 Submittals. The Contractor shall submit to the Resident a Materials Certification Letter certifying that the applicable materials for construction of the Recycled Granite Curb Wall comply with this Special Provision with Section 700 of the Standard Specifications. The Contractor is required to submit a grain size distribution curve (ASTM D 422) and a moisture-density relationship curve (AASHTO T-180) for acceptance of the proposed Backfill material. A copy of all test results performed by the Contractor or his supplier necessary to assure contract compliance shall also be furnished to the Resident. The Resident will base acceptance upon the Materials Certificate Letter, accompanying test reports, and visual inspection.

No less than two (2) weeks prior to commencing construction of the Recycled Granite Curb Wall, the Contractor shall submit Shop Drawings showing the details of the Recycled Granite Curb Wall including plan and elevation views of the wall containing elevations at the top of the leveling pads, the distance along the face of the wall to all steps in the leveling pads, the location of the original and final ground lines, details of the granite steps, and details of the fencing at the top of the wall.

All Shop Drawings shall be signed and sealed by a Professional Engineer licensed in the State of Maine.

The Contractor shall submit the manufacturer's information for the proposed Drainage Geotextile material to the Resident for approval by the Geotechnical Engineer. Drainage Geotextile material and placement shall be in conformance with the requirements of Section 620 – Geotextiles.

679.06 Construction. The Recycled Granite Curb Wall with Granite Steps shall have the following construction requirements:

1. Excavation. The excavation and use as fill or disposal of all excavated material shall meet the requirements of Standard Specification Section 203 - Excavation and Embankment, except as modified herein.
2. Foundation Soils. The native soil mass for supporting the Recycled Granite Curb Wall components shall have sufficient strength to maintain global stability of the Recycled Granite Curb Wall. Foundation soils shall be brought to the desired grade as required for the wall dimensions shown on the Plans and Special Details in the Contract Documents or as directed by the Resident. Prior to Crushed Stone Leveling Pad placement the foundation soils shall be proof-rolled with multiple passes of a static roller to identify loose or weaving areas that require over-excavation and replacement and to achieve a firm and stable surface. Any loose soils or soft or unsuitable materials encountered at the bearing elevation shall be removed and replaced with Crushed Stone $\frac{3}{4}$ -Inch.
3. Underdrain. A 6-inch diameter positive Drainage System in accordance with Standard Specification Section 706.06 or 706.09 shall be installed behind the Recycled Granite Curb Wall as shown on the Plans and Special Details in the Contract Documents or as directed by the Resident.
4. Crushed Stone Leveling Pad. The 12-inch thick Crushed Stone Leveling Pad shall be constructed as shown on the Plans and Special Details in the Contract Documents. The Crushed Stone shall meet the requirements of Standard Specification Section 703.13. Prior to Concrete Leveling Pad placement, the Crushed Stone Leveling Pad shall be proof-rolled with multiple passes of a static roller to achieve a firm and stable surface.
5. Concrete Leveling Pad. The 6-inch thick Concrete Leveling Pad shall be constructed using Fill Concrete as shown on the Plans and Special Details in the Contract Documents. Dimensions may be modified with approval of the Resident and Geotechnical Engineer. The Concrete Leveling Pad shall be cast to the design elevations as shown on the Plans. The allowable elevation tolerances from the design elevations are +0.01 feet and -0.02 feet. Concrete Leveling Pads which do not meet this requirement shall be repaired or replaced as directed by the Resident at no additional cost to the Department. Steps in the Concrete Leveling Pad shall have a minimum overlap of 6 inches. The Concrete Leveling Pad shall extend a minimum of 3-inches beyond the Recycled Granite Curb sections in all directions. Placement of Recycled Granite Curb Wall may begin after the strength of the Concrete

Leveling Pad reaches 1000 psi or is adequate to support the proposed loads. Contractor may begin placement of Recycled Granite Curb Wall after 12 hours at his own risk.

6. Installation of Recycled Granite Curb sections. Recycled Granite Curb sections shall be installed as shown on the Plans and Special Details in the Contract Documents with the facing blocks placed so their longest dimension is parallel to the face of the wall and their shortest dimension is the vertical dimension. Recycled Granite Curb sections shall have a minimum length of 4 feet unless approved by the Resident.

Recycled Granite Curb sections shall be placed so the wall has a batter of 1 inch per Curb section. The maximum offset in any unit horizontal joint shall be ¼-inch. Joints shall be level and horizontal. Vertical joints shall be separated a minimum of 2 feet horizontally from vertical joints in wall courses above and below. Gaps between Recycled Granite Curb Wall courses vertically at the wall face and between adjacent Recycled Granite Curb sections in the same course horizontally shall not exceed ¾-inch.

The exposed faces of each Recycled Granite Curb sections shall be dressed to an approximate true plane with no projections or depressions on those surfaces greater than ½-inch. Exposed faces and tops of adjacent Recycled Granite Curb sections shall be uniform in color and texture. The Recycled Granite Curb sections shall be installed to a tolerance of plus or minus ¾-inch in 10 feet in vertical alignment and horizontal alignment.

The top surface of each course shall be levelled transversely, perpendicular to the wall face, with shims placed between courses. Shims shall be placed as necessary for levelling, but shall not provide primary support for the overlying course. Shims shall not be movable by hand, and can be grouted in place. Shims shall be stone or another approved durable material and shall not be visible on the exposed face.

The top course of Recycled Granite Curb sections shall be grouted as needed to ensure that they cannot be moved under use. Grout used for this purpose shall not be visible on the exposed face.

7. Installation of Deadmen. Deadman Granite Curb sections shall be turned 90 degrees from the facing blocks with a minimum 5-foot embedment into the Backfill from the face of the wall and shall be spaced at 10 feet maximum horizontally and between a minimum of 15-inches and a maximum of 20-inches vertically. Granite block deadmen pieces shall be connected to adjacent granite block pieces in the same course with steel dowels. Dowels shall be #4 steel bars or larger, Grade 60 steel, smooth, and 8-inches long. Dowels shall be embedded equally and centered vertically into adjacent granite pieces. Granite blocks shall be drilled approximately 6-inches from the exposed vertical face to receive the dowels and grouted in place using an approved non-shrink grout from the MaineDOT prequalified list.
8. Drainage Geotextile Placement. Drainage Geotextile placement shall closely follow the erection of each row of Recycled Granite Curb. Drainage Geotextile shall be placed in accordance with Standard Specification Section 620. Drainage Geotextile shall cover all

joint between Recycled Granite Curb sections. Drainage Geotextile seam laps shall be 6-inches minimum.

9. Backfill Placement. Backfill placement shall closely follow the erection of each row of Recycled Granite Curb. The maximum lift thickness shall be 8 inches loose. Gravel Borrow Backfill shall be compacted in accordance with Section 203.12 except that the minimum required compaction shall be at least 92 percent of maximum density as determined by AASHTO T-180 Method C or D. The Contractor shall decrease the lift thickness if necessary to obtain the specified density. Backfill compaction shall be accomplished without disturbance or displacement of the Recycled Granite Curb sections. Sheepsfoot rollers will not be allowed. Full size, ride on compaction equipment will not be allowed within 5 feet of the back of the Recycled Granite Curb sections. Compaction adjacent to the Recycled Granite Curb Wall shall be performed using hand-operated compaction equipment. Whenever a compaction test fails, no additional backfill shall be placed over the area until the lift is recompacted and a passing test achieved.

The moisture content of the Backfill material prior to and during compaction shall be uniform throughout each layer. Backfill material shall have a placement moisture content less than or equal to the optimum moisture content. Backfill material with a placement moisture content in excess of the optimum moisture content shall be removed and reworked until the moisture content is uniform and acceptable throughout the entire lift. The optimum moisture content shall be determined in accordance with AASHTO T-180, Method C or D. At the end of the day's operations, the Contractor shall shape the last level of backfill so as to direct runoff of rain water away from the Recycled Granite Curb Wall face.

10. Granite Steps and Handrails. A total of 10 6-foot wide granite steps shall be constructed as shown on the Plans and Special Details in the Contract Documents. Treads shall have a width of 1-foot and the step rise shall be 6-inches. The tread surface of the steps shall be dressed to an approximate true plane with no projections or depressions on those surfaces greater than ½-inch. Exposed faces and tops of Granite Steps shall be uniform in color and texture. The Granite Steps shall be installed to a tolerance of plus or minus ¾-inch in 10 feet in horizontal alignment. The Contractor shall furnish handrails for the Granite Steps. The handrails shall meet the 2010 ADA Standards for Accessibility design. The handrails shall be submitted to the Resident for Review.

Cedar Rail Fence. A 3-foot high Cedar Rail Fence shall be installed at the top of the wall as shown on the Plans and Special Details in the Contract Documents. The Cedar Rail Fence shall be located 3-feet back from face of wall. Cedar Rail Fence shall be installed in accordance with Standard Specification Section 607.

679.07 Method of Measurement. Recycled Granite Curb Wall with Granite Steps shall be measured by the Square Foot of front surface not to exceed the dimensions shown on the Contract Plans unless authorized by the Resident. Vertical and horizontal dimensions will be from the edges of the blocks. Vertical dimension for measurement for payment shall be the height of the front face above the concrete leveling pad. No field measurements for computations will be made unless the Resident specifies, in writing, a change in the limits indicated on the Plans.

679.08 Basis of Payment. The accepted quantity of Recycled Granite Curb Wall with Granite Steps will be paid for at the contract unit price per Square Foot complete in place. Payment shall be full compensation for furnishing all labor, equipment and materials for wall construction, all grading and compaction, construction of leveling pads, underdrain, geotextile, reinforcing steel, shims, grout, granite steps, handrails, Recycled Granite Curb Wall with Granite Steps installation, and other incidentals. Cedar Rail Fence shall be paid for under Item No. 607.22.

There will be no allowance for excavating and backfilling for the Recycled Granite Curb Wall beyond the limits shown on the Plans and Special Details in the Contract Documents, except for excavation required to remove unsuitable subsoil in preparation for the foundation. Payment for excavating unsuitable subsoil shall be full compensation for all costs of pumping, drainage, sheeting, bracing and incidentals for proper execution of the work and will be paid as Common Excavation in accordance with Standard Specification Section 203.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
679.20 Recycled Granite Curb Wall with Granite Steps	Square Foot

SPECIAL PROVISION
SECTION 801
SANITARY SEWER

Description This work shall consist of constructing cellar drain inspection standpipes, in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans and as directed by the resident in the field.

Materials Meet Sections:

Sewer Line Bedding and Initial Backfilling
Stone PVC Pipes & Fittings 4 in.

703.02 for class AA
ASTM D3034 (SDR 35)

Construction Requirements

Excavation Trenches shall be excavated in accordance with the requirements of Section 206 - Structural Excavation and wide enough to allow joining the pipe and compacting the bedding and backfill material under and around the pipe. Unless otherwise designated, trench walls shall be as nearly vertical as possible and the trench width no greater than necessary for installation of the pipe.

Bedding The inspection standpipe and pipe line shall be bedded in original material.

Laying The Contractor shall not install nor backfill cellar drain inspection standpipes between December 15th and April 1st without written permission. Installing shall begin at the downhill end of the cellar drain line. Bell or groove ends shall be placed facing uphill.

Joining The pipe ends shall be thoroughly cleaned before the joint is made. Joints shall be made in accordance with the manufacturer's recommended procedures.

Backfilling After the inspection standpipe and pipe are installed, it will be inspected before any backfill material is placed. All pipe found to be out of alignment, unduly settled or damaged to the extent that full performance is impaired, shall be taken up and re-laid or replaced. One bag of concrete mix shall be installed around the foot of the standpipe, placement as per manufacturer's recommendations.

Trenches shall be backfilled in accordance with Section 206.03 and as follows. The backfill shall be original excavation in 12 in. maximum lifts and shall be thoroughly compacted with power tampers or vibratory compactors or other approved equipment or combination of equipment.

Method of Measurement PVC pipe will be measured by the length in feet along the invert, horizontally and vertically, including fittings and caps, laid as directed, complete in place,

and accepted. Pipe laid in excess of the authorized length will not be included. Pipe installed inside a manhole will not be measured for payment.

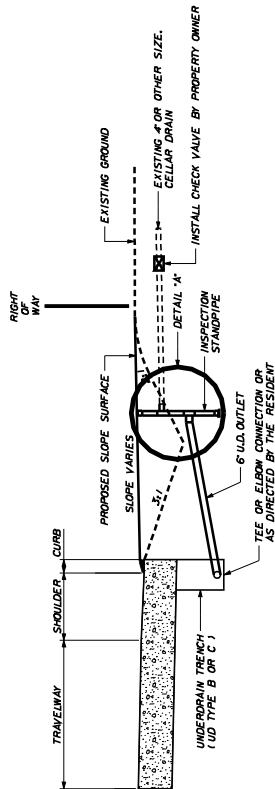
Basis of Payment The accepted quantities of pipe will be paid for at the contract unit price per meter [linear foot], for the types and sizes specified, complete in place and shall be full compensation for all labor, materials, equipment, excavation, dewatering, bedding, furnishing and installing pipe, removal and disposal of existing pipes, connecting to manholes, connecting to existing cellar drain, concrete footing, backfill, compacting, cleaning, testing, maintaining existing flows, and all other incidental required.

No payment will be made for pipe ordered without written approval of the Resident when such pipe is not required to be installed for completion of the work.

Payment will be made under:

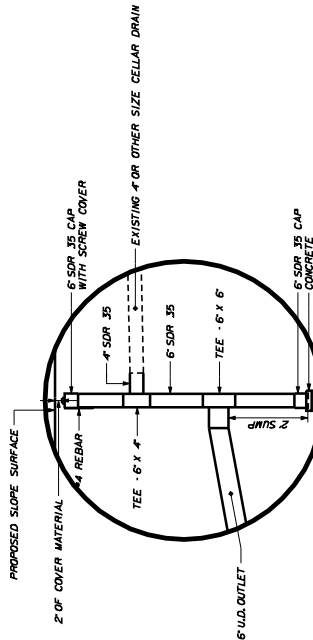
<u>Pay Item</u>	<u>Pay Unit</u>
801.141 4 in. PVC Sanitary Sewer (SDR-35)	Linear Foot
801.16 6 in. PVC Sanitary Sewer (SDR-35)	Linear Foot

CELLAR DRAIN CONNECTION DETAIL: UNDERDRAIN SECTION



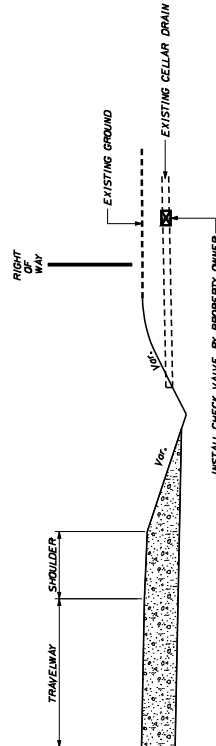
NOTES

1. PAYMENT FOR CONNECTION FROM THE INSPECTION STANDPIPE TO THE PROPOSED UNDERDRAIN SYSTEM SHALL BE A 150mm UNDERDRAIN OUTLET, ITEM NO. 605.0, OR AS DIRECTED BY THE RESIDENT.
2. INSPECTION STANDPIPE SHALL HAVE A SOLID COVER AND BE INSTALLED WITHIN THE STATE'S RIGHT OF WAY.
3. A CHECK VALVE TO PREVENT BACK FLOW TO PROPERTY MAY BE INSTALLED. CHECK VALVE SHOULD BE INSTALLED AT THE UPSTREAM SIDE OF THE INSPECTION STANDPIPE AND THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE CHECK VALVE.
4. PAYMENT FOR CONNECTION OF THE EXISTING CELLAR DRAIN TO THE INSPECTION STANDPIPE SHALL BE INCIDENTAL TO THE ITEM NO. 604.0 OR 604.6.
5. THE STATION LOCATIONS MAY BE CHANGED TO FIT FIELD CONDITIONS, AS DIRECTED BY THE RESIDENT.
6. A 3\"/>
7. INVERTS AND SLOPES OF PIPES SHALL BE INSTALLED AS DIRECTED BY THE RESIDENT IN THE FIELD.



DETAIL 'A'
INSPECTION STANDPIPE

CELLAR DRAIN CONNECTION DETAIL: DITCH SECTION



NOTES

1. A CHECK VALVE TO PREVENT BACK FLOW TO PROPERTY MAY BE INSTALLED. CHECK VALVE SHOULD BE INSTALLED AT THE UPSTREAM SIDE OF THE INSPECTION STANDPIPE AND THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE CHECK VALVE.
2. PAYMENT FOR CONNECTION FROM EXISTING CELLAR DRAIN TO DRAINAGE DITCH SHALL BE 150mm UNDERDRAIN OUTLET PIPE, ITEM NO. 605.0, OR AS DIRECTED BY THE RESIDENT.
3. THE STATION LOCATIONS MAY BE CHANGED TO FIT FIELD CONDITIONS, AS DIRECTED BY THE RESIDENT.
4. INVERTS AND SLOPES OF PIPES SHALL BE INSTALLED AS DIRECTED BY THE RESIDENT IN THE FIELD.

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-OF-TITLE	J. WARDER	11/15/2010
CHECKED		
REVISIONS		
FIELD CHANGES		

SPECIAL PROVISION
SECTION 801
TEST PITS

Description. This work shall consist of excavating test pits for buried site features. At least 10 CY of material must be excavated to qualify as a test pit. Only one test pit payment per specific site will be made.

Method of Measurement. Test Pits will be measured by the unit each, complete.

Basis of Payment. Payment for test pits shall include clearing, excavation, dewatering, backfill and compaction in locations as shown on the plans or as directed.

<u>Pay Item</u>		<u>Pay Unit</u>
801.03	Test Pits	Each

SPECIAL PROVISION
SECTION 823
GATE VALVE BOXES

Description This work shall consist of the adjustment or installation of gate valve boxes as indicated in the Bid Book, Plans, or as directed by the Resident.

Gate Valve Box, Adjust to Grade shall consist of adjusting a gate valve box to the required final grade, including any lowering and any other adjustments that may be necessary prior to setting the final grade.

Gate Valve Box, Install Only shall consist of removing an existing gate valve box, installing a replacement gate valve box, and adjusting the replacement gate valve box as specified above.

Materials The municipality or utility company owning or operating the existing water main system will provide all replacement gate valve boxes necessary for the Gate Valve Box, Install Only item. Any gate valve boxes damaged by improper construction methods or handling by the Contractor, as determined by the Department, shall be replaced at the Contractor's expense.

Method of Measurement Gate Valve Box, Adjust to Grade and Gate Valve Box, Install Only will be measured by the unit each, complete and in place.

Basis of Payment Payment for Gate Valve Box, Adjust to Grade shall be full compensation for all equipment, labor, and incidental materials necessary to adjust a gate valve box as specified above.

Payment for Gate Valve Box, Install Only shall be full compensation for all equipment, labor, and incidental materials necessary to replace and adjust a gate valve box as specified above.

<u>Pay Item</u>	<u>Pay Unit</u>
823.011 Gate Valve Box, Install Only	Each
823.332 Gate Valve Box, Adjust to Grade	Each

SPECIAL PROVISION
SECTION 841
BOLLARDS

Description.

This work shall consist of furnishing and installing structural steel pipe bollards with ductile iron decorative bollard covers on concrete foundations at the locations shown on the plans and in conformance with the construction notes and details, the Standard Specifications, and this special provision.

Materials.

Steel pipe for bollards shall be 6.625 inches O.D. ASTM A 500 structural steel pipe with 0.280 inch wall thickness. Steel pipe length shall be six (6) feet.

Bollard covers shall be ductile iron, model number R-7691 as manufactured by:

Reliance Foundry
Unit 207
6450 – 148 Street
Surrey, BC V3S 7G7, Canada
1-877-789-3245
www.reliance-foundry.com

or approved equal. If an alternative bollard cover is proposed, it must be approved by the City of Hallowell city manager for style and by the Maine Department of Transportation for materials and other structural considerations. Minimum height of the bollard cover above the top of the foundation shall be 36 inches and maximum height shall be 42 inches, if an alternative bollard cover is proposed and approved. Finish for the ductile iron decorative bollard covers shall be two coats of black textured semi-gloss powder coating.

Foundations for bollards shall be 18 inch diameter Class LP reinforced concrete foundations meeting requirements of Section 626 of the Standard Specifications and Standard Details.

Construction Requirements.

The structural steel pipe for the bollard shall be securely supported in a vertical position in the center of the form for the reinforced concrete foundation. Foundations may be precast with the structural steel pipe and other required components in their required positions, with prior approval of the Resident. The pipe must be in the center of the foundation, within a tolerance of $1/8" \pm$. The pipe also must be perpendicular to the top surface of the foundation, with no variance allowed. Either in the precasting process or in the field if cast-in-place, the structural steel pipe shall be filled with Class LP concrete and finished to a flat surface at the top edge of the pipe. The top of the pipe shall be 29-3/4 inches $\pm 1/4$ inch above the top

surface of the foundation. A one-inch diameter by 36 inch long threaded ASTM A 500 steel rod shall be set vertically in the center of the pipe, with no variance allowed from being perpendicular to the top surface of the foundation, before filling the pipe with concrete. The threaded rod shall have a one-inch hex nut threaded onto the rod approximately three inches from the bottom end of the rod before filling the pipe with concrete. Maximum extension of the threaded rod above the top surface of the foundation shall be 34-3/4 inches $\pm 1/4$ inch. Dimensions stated for the height of steel pipe and anchor rod above the foundation are for the specified R-7691 bollard cover model. Dimensions may vary to meet recommendations of the manufacturer if an alternative bollard cover is proposed and approved. After curing of the concrete, the ductile iron decorative bollard base and cap shall be secured to the anchor rod in accordance with the recommendations of the manufacturer.

Manufacturing and installation of reinforced concrete foundations shall meet construction requirements of Section 626, except precasting of foundations will be permitted. Compaction of backfill around precast foundations shall be to 95% of the maximum dry density of the backfill material.

Method of Measurement. Bollards shall be measured for payment by each unit installed, complete in place and accepted.

Basis of Payment. Bollards will be paid for at the contract price each. Payment shall include furnishing and installing new structural steel pipe, concrete fill inside the structural steel pipe, threaded anchor rod, ductile iron decorative bollard cover over the structural steel pipe, and all other materials, labor and incidentals necessary to complete the work, unless otherwise noted. Payment for concrete foundations will be made under Item 626.31.

<u>Pay Item</u>		<u>Pay Unit</u>
841.48	Bollards	Each

Technical Specifications

WIN 18622.00

Watermain Replacement

For the

Hallowell Water District

Hallowell, Maine

Project No. 19-16



A.E. Hodsdon

Consulting Engineers

10 Common St. Waterville, ME

04901 (207) 873-5164

Fax: (207) 872-0645

Technical Specifications
for
WIN 18622.00
Water Main Replacement
for the
Hallowell Water District
Hallowell, Maine
19-16

Prepared by:

A.E. Hodsdon
Consulting Engineers
10 Common Street
Waterville, Maine 04901

TABLE OF CONTENTS

Special Conditions

Opinion of Probable Cost A-1

Measurement and Payment B-1

Technical Specifications

The material in this Manual has been published by A.E. Hodsdon. All rights reserved. No part of this Manual may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of A.E. Hodsdon.

SPECIAL CONDITIONS

1. STATUTORY REQUIREMENTS IN GENERAL

The Contractor shall keep himself fully informed of all existing and future State and Federal laws and municipal ordinances and regulations in any manner affecting those engaged or employed in the work, or the materials used or employed in the work, or in anyway affecting the conduct of the work, and of all such orders and decrees having any jurisdiction or authority over the same and of all provisions required by law to be a part of this contract, all of which provisions are hereby incorporated by reference and made a part thereof. If any discrepancy or inconsistency is discovered in the drawings or specifications or contract for this work in relation to any such law, ordinance, regulation, order or decree, he shall report the same to the Engineer in writing. He shall at all times himself observe and comply with, and shall cause all of his agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees; and shall protect and indemnify the Owner and Engineer and all of its and their officers, agents, and servants against any claim or liability arising from or based on the violation of such law, ordinance, regulation, order or decree whether by himself or his employees or subcontractors.

2. COORDINATION WITH OWNER

The Contractor shall not interrupt the normal operation of the water system without the knowledge and/or approval of the Superintendent. Coordination with the Water District Superintendent will be a requirement of this Contract.

3. SAFETY REGULATIONS

The Contractor shall familiarize himself with OSHA regulations and observe same at all times.

4. SPECIAL CARE

The Contractor shall take special care with all hazardous materials that may be used in conjunction with the project. There shall be no dumping of motor oil, salt, form oils, etc. on the site. When possible all such materials will be stored off site.

5. SUBMITTALS OF SHOP DRAWINGS

The Contractor shall submit to the Engineer four (4) copies of shop drawings, cuts and descriptions of all material and equipment for the Engineer's review and approval.

Any material or equipment submitted for approval which is arranged differently or of a different physical size from that shown or specified shall be accompanied by shop drawings indicating the different arrangements of size and the method of making the various connections to the equipment. The final result will be compatible with the system or structure as designed.

Submittals for minor materials and equipment may be waived with the approval of the Engineer.

6. TIMING

The contractor shall time the water main replacement to provide minimum downtime to Water District customers.

7. TEMPORARY SERVICE

Temporary water service will be required for this project.

BID ITEMS

WIN 18622.00					
Watermain Replacement					
Item No.	Description	Unit	Quantity	Unit Price	Total
822.33	6" dia. CLDI 52 ductile iron pipe and fittings	l.f.	185		
822.34	8" dia. CLDI 52 ductile iron pipe and fittings	l.f.	1,440		
822.36	12" dia. CLDI 52 ductile iron pipe and fittings	l.f.	1,877		
823.311	12" dia. gate valve with box	ea.	8		
823.3251	8" dia. gate valve with box	ea.	12		
823.33	6" dia. gate valve with box	ea.	8		
823.3355	2" dia. gate valve with box	ea.	5		
824.30	Hydrant assembly	ea.	5		
825.32	2" dia. corporation	ea.	5		
825.321	1" dia. corporation	ea.	59		
825.3212	1 Yz" dia. corporation	ea.	1		
825.331	1" dia. curb stop with box	ea.	59		
825.3312	1 Yz" dia. curb stop with box	ea.	1		
825.422	2" dia. DRI 1 IPS HPDE water service	l.f.	145		
825.43	1" dia. copper service pipe	l.f.	1,480		
825.431	1 Yz" dia. copper service pipe	l.f.	20		
825.541	Temporary water main	Ls.	1		
827.33	Trench insulation	l.f.	200		
843.021	8" dia. DR 11 DIPS HDPE water main	l.f.	50		
843.031	16" dia. Schedule 40 Railroad Sleeve	l.f.	40		
Total Bid Items					

SPECIAL PROVISIONS
MEASUREMENT AND PAYMENT
WATER MAIN REPLACEMENT

This section describes the method of measurement and basis of payment for the water main installation.

822.33-6" DIAMETER CLASS 52 DUCTILE IRON WATER MAIN

This item includes all work required to furnish and install the 6" diameter CLDI 52 water main in the approaches as described in the Contract Documents. This item also includes the 4" connection on Chestnut Street. 4" main will be paid for at the 6" water main unit price. This includes but is not necessarily limited to furnish and installing pipe, fittings, and retainer glands, connections to existing water mains, excavation, backfilling, cleanup, gravel surface (where required), loam, seed, thrust blocks, chlorination tap installation and removal, compaction, flushing, testing and disinfection.

Measurement for this item shall be per linear foot of pipe actually installed, measured continuously through all fittings and valves. No extra charge shall be made to install fittings.

Full payment shall be made after main is in and successfully pressure tested and chlorinated.

822.34 – 8" DIAMETER CLASS 52 DUCTILE IRON WATER MAIN

Same as Item 822.33 except 8" diameter water main.

822.36 – 12" DIAMETER CLASS 52 DUCTILE IRON WATER MAIN

Same as Item 822.33 except 12" diameter water main.

823.311 - 12" DIA. GATE VALVE WITH BOX

The work under this item includes all work to furnish and install the 12" diameter gate valves and valve boxes as described in the Contract Documents. This item also includes the 10" connection on Winthrop Street. 10" main will be paid at the 12" main unit price. This includes but is not necessarily limited to valves, retainer glands valve boxes, thrust blocks, excavation, backfill, compaction, raising and lowering boxes for paving operations, and any other items needed to install, disinfect and test the valves.

Measurement for this item shall be per valve installation satisfactorily completed. Payment of the unit price for this item shall be full compensation for all work included under this item.

823.3251 - 8" DIA. GATE VALVE WITH BOX

Same as 823.311 except 8" diameter gate valve with box.

823.33 - 6" DIA. GATE VALVE WITH BOX

Same as 823.31 except 6" diameter gate valve with box.

823.3355 - 2" DIA. GATE VALVE WITH BOX

Same as 823.311 except 2" diameter gate valve with box.

824.30 - HYDRANT ASSEMBLY

The work under this item includes all work required to furnish and install the hydrants as described in the Contract Documents. This includes but is not necessarily limited to hydrants, hydrant tees, hydrant extensions, hydrant gate valves and boxes, fittings, branch mains, spare parts and tool kit, and excavation and backfill, gravel, loam and seed, surface restoration, and any other items necessary to install the hydrant assemblies.

Measurement of this item shall be per hydrant assembly complete.

Payment for this item shall be at the unit price agreed upon in the Bid Schedule and shall be full compensation for all work included under this item. Full payment shall be made following satisfactory installation.

825.32 - 2" DIAMETER CORPORATION

The work under this item includes furnishing and installing 2" diameter corporations for individual services as required by the Owner.

This item shall include all labor necessary to furnish and install the corporations including excavation and backfill, corporations, saddles, tapping, gravel, loam and seed, connection to 1" diameter copper tubing and any other items necessary to complete the installation.

Measurement for this item shall be per corporation installed. Payment of the unit price for this item shall be full compensation for all work included under this item.

825.321 - 1" DIAMETER CORPORATIONS

Same as 825.32 except 1" diameter corporation.

825.3212 - 1-1/2" DIAMETER CORPORATIONS

Same as 825.32 except 1 1/2" diameter corporation.

825.331-1"DIAMETER CURB STOPS WITH BOXES

This item includes supply and installation of 1" diameter curb stops, service boxes, extensions, rods and covers.

This item shall include all labor and materials necessary to furnish and install the curb stop boxes, rods and fittings including excavation and backfill, tapping, gravel, connection to existing services, removal of old curb stop box and rods, connection to 1" diameter copper tubing and any other items necessary to complete the installation.

Measurement for this item shall be per curb stop installed. Payment for this item shall be at the unit price agreed upon in the BID SCHEDULE and shall be full compensation for all work included under this item. Full payment shall be made following satisfactory installation.

825.3312-1-1/2" DIAMETER CURB STOPS WITH BOXES

Same as 825.331 except 1 1/2" diameter curb stops with boxes.

825.422 – 2" DIAMETER DR 11 IRON PIPE SIZE HIGH DENSITY POLYETHYLENE WATER SERVICE

825.422 – 2" DIAMETER DR 11 IRON PIPE SIZE HIGH DENSITY POLYETHYLENE WATER SERVICE

This item includes all work required to install the 2" dia. HDPE service main as described in the Contract Documents. This includes but is not necessarily limited to all site preparation, excavation, removal of old valves, capping old lines, dewatering of trench, removal of pavement where necessary, preparation of gravel for paving, cutting of pavement, supplying and installation of pipe, fittings, couplings and retainer glands, excavation, backfilling, boring, pulling, jacking, bursting or other approved trenchless method, cleanup, gravel surface and gravel base for pavement (where required), removal and reinstallation of guardrail (where required), loam, seed, thrust blocks, compaction, tracer wire and warning tape, flushing, pressure testing and disinfection, all labor, test pits and materials necessary to make connections to existing water system as shown on plans and connections to existing service, and any other labor and materials necessary to provide a complete functional service main for the District.

Measurement for this item shall be per linear foot of pipe actually installed, measured continuously through all valves and fittings. No extra charge shall be made to install fittings.

825.43 - 1"DIAMETER COPPER SERVICE PIPE

The work under this item includes all labor and materials necessary to furnish and install continuous copper tubing including copper tubing and fittings, excavation and backfill, boring, pulling, jacking, bursting or other approved trenchless method, tapping, gravel, connections to existing services and any other items necessary to install for services as required by the Owner.

Measurement of this item shall be per linear foot of house service pipe installed.

Payment of this item shall be at the unit price agreed upon in the Bid Schedule and shall be full compensation for labor and equipment necessary to install the service copper. NOTE: No joints in the new service lines will be allowed under the new roadway.

825.431 – 1-1/2" DIAMETER COPPER SERVICE PIPE

Same as 825.43 except 1-1/2" diameter copper service pipe.

825.541 -TEMPORARY WATER MAIN

This item includes all work required to install, chlorinate, test, maintain and decommission all temporary water main necessary for completing the project and as described in the Contract Documents. This includes but is not necessarily limited to source taps, hydrant connections, backflow, PE or PVC pipe services, connection to existing customers, fusing, fittings, temporary water service protection from vehicles, etc., chlorination, bacteria testing and any other items necessary to install and remove the temporary water main.

Measurement for this item shall be lump sum.

Payment for this item shall be full compensation for all work completed under this item.

827.33 -TRENCH INSULATION

The work under this item shall include all work required to supply the insulation and to insulate the water mains and house service pipe as designated in the Contract Documents or as directed by the Engineer. Insulation will be installed in accordance with the specifications and drawings. In general any pipes in streets will be insulated if there is not at least 5 YZ feet of cover over the pipe, or where the main passes over or under a culvert.

Measurement of this item shall be per linear foot of insulation actually installed.

Payment of the unit price for this item shall be full compensation for supplying and installing the 2" thick trench insulation.

843.021 – 8" DIAMETER DUCTILE IRON PIPE SIZE HIGH DENSITY POLYETHYLENE WATER MAIN

This item includes all material and labor to supply and install the 8" dia. HDPE carrier pipe inside the 16" diameter sleeve pipe beneath the railroad. The work includes but is not limited to fusing, mechanical joint adaptors, pipe centering devices, HDPE pipe and any other item necessary to complete a satisfactory installation.

Measurement for this item shall be per linear foot installed and shall be at the unit price agreed upon in the Bid Schedule and shall be full compensation for all work under this item.

B-4

843.031-16"DIAMETER SCHEDULE 40RAILROAD SLEEVE

This item includes all material and labor required to install the 16" dia. Schedule 40 railroad steel sleeve pipe beneath the railroad tracks as indicated in the Contract Documents. The steel sleeve material will be supplied by the Hallowell Water District. The work includes but not necessarily limited to excavation, backfill, installation of sleeve pipe, cutting, welding, end seals, weep hole and any other items necessary to complete a satisfactory installation.

Measurement for this item shall be per linear foot installed and shall be at the unit price agreed upon in the Bid Schedule and shall be full compensation for all work under this item.

STANDARD DETAILS AND SPECIFICATIONS
for the
HALLOWELL WATER DISTRICT
HALLOWELL, MAINE

TABLE OF CONTENTS

SECTION S	DESCRIPTION
0822	Ductile Iron Pipe & Fittings
0822.4	Cleaning, Testing & Chlorination of Water Mains
0822.5	Concrete Cradles, Arches, Encasements & Thrust Blocks
0822.6	Couplings & Connectors
0823	Gate Valves and Boxes
0824	Hydrant Assemblies
0825.32	Corporation Stops
0825.33	Curb Stops Boxes and Rods
0825.35	Service Saddles
0825.422	2" Dia. DRI 1 IPS HDPE Water Service
0825.43	Copper Services Pipe & Fittings (Buried Applications)
0825.541	Temporary Water Main
0827.33	Trench Insulation
0843.021	8" Dia. DRI 1 DIPS HDPE Water Main
0843.031	16" Dia. Schedule 40 Railroad Sleeve

SECTION 0822
DUCTILE IRON PIPE AND FITTINGS

PART I-GENERAL

1.1 DESCRIPTION

- A. Work Included: Provide and install ductile iron pipe of the type(s) and size(s) in the location(s) shown on the Drawings and as specified herein.
- B. Related Work Specified Elsewhere: "Pipe and Pipe Fittings - General" is specified in the appropriate Section in this Division.
- C. All ductile iron pipe and fittings shall meet Buy America requirements as presented in the Maine DOT Standard Specifications.

1.2 QUALITY ASSURANCE

- A. Standards (As Applicable):
 - 1. Cement-mortar lining for water: ANSI A21.4 (AWWA C104).
 - 2. Rubber gasket joints: ANSI A21.11 (AWWA C111).
 - 3. Ductile iron pipe thickness: ANSI A21.50 (AWWA C150).
 - 4. Ductile iron pipe centrifugally cast in metal or sand lined molds: ANSI A21.51 (AWWA C151).
 - 5. Pipe flanges and fittings: ANSI B16.1 and ANSI A21.10 (AWWA C110).
 - 6. Threaded, flanged pipe: ANSI A21.15 (AWWA C115).
 - 7. Cast and ductile iron fittings: ANSI A21.10 (AWWA C110).
 - 8. Ductile Iron Compact Fittings: ANSI A21.53 (AWWA C153).

1.3 DELIVERY, STORAGE & HANDLING

- A. Exercise extra care when handling ductile iron pipe because it is comparatively brittle.
- B. Exercise extra care when handling cement lined pipe because damage to the lining will render it unfit for use.
- C. Protect the spherical spigot ends and the plain ends of all pipe during shipment by wood lagging securely fastened in place.

0822-1

PART 2 - PRODUCTS

2.1 MATERIALS'

A. Pipe:

1. Unless otherwise shown on the Drawings or directed by District or Authorized Representative, the minimum thickness of ductile iron pipe shall be:
 - a. For pipe 24 inches in diameter and smaller: Class 52.
 - b. Pipe with flanges: Class 53.
2. Pipe for use with sleeve type couplings shall have plain ends (without bells or beads) cast or machined at right angles to the axis.
3. Pipe shall be double thickness cement lined and seal coated unless noted otherwise on the Drawings and except for air piping lines which shall be completely unlined.
4. Pipe for use with split type couplings shall have ends with cast or machined shoulders or grooves that meet the requirements of the manufacturer of the couplings.
5. Factory applied bituminous coatings shall be furnished on the exterior of all underground piping unless specified otherwise.
6. The outside of pipe within structures and exposed shall not be coated with bituminous coating, but shall be thoroughly cleaned and given one shop coat of Intertol Rustinhibitive Primer 621 by Koppers Co.; Multiprime by PPG Industries; Chromox 13R50 Primer made by Mobil Chemical Co.; or equivalent.

B. Joints (as shown on Drawings or as specified):

1. Flanged:
 - a. Provide specially drilled flanges when required for connection to existing piping or special equipment.
 - b. Flanges shall be long-hub screwed tightly on pipe by machine at the foundry prior to facing and drilling.
 - c. Gaskets:
 1. Ring type of rubber with cloth insertion.
 2. Thickness of gaskets 12 inches in diameter and smaller: 1/16 inch.
 3. Thickness of gaskets larger than 12 inches in diameter: 3/32 inch.
 4. On high temperature applications such as air lines, the gaskets shall be suitable for service from 40°F to 200°F.
 - d. Fasteners:
 1. Make joints with bolt, studs with a nut on each end, or one tapped flanged with a stud and nut.
 2. The number and size of bolts shall meet the requirements of the applicable ANSI standard.

0822-2

3. Nuts, bolts, and studs shall be Grade B meeting the requirements of ASTM A307.
 4. After jointing, coat entire joint with bituminous material compatible with pipe coating unless other coating required by other sections.
 5. When applicable, provide and install flange clamps as shown on the Drawings.
2. Push-on and Mechanical Joint:
- a. The plain ends of push-on pipes shall be factory machined to a true circle and chamfered to facilitate fitting the gasket.
 - b. Provide gaskets manufactured from a composition material suitable for exposure to the fluid to be contained within the pipe. On high temperature applications such as air lines, the gaskets shall be suitable for service from 40°F to 200°F.
 - (1) In the event contaminated soils are encountered nitrile gaskets shall be used.
 - c. Bolts and nuts for buried mechanical joints shall be made of 304 Stainless steel.
 - d. Provide two continuity wedges for each joint.
3. Grooved split ring couplings, sleeve couplings, flexible joints and couplings, shall be supplied as specified in "Couplings and Connectors" Section.
4. Joint Bracing:
- a. Provide joint bracing to prevent the piping from pulling apart under pressure as required and as shown on the Drawings.
 - b. Types of bracing:
 1. Pipe and fittings furnished with approved lugs or hooks cast integrally for use with socket pipe clamps, tie rods, or bridles. Bridles and tie rods shall be a minimum of 3/4 inch diameter except where they replace flange bolts of a smaller size, in which case they shall be fitted with a nut on each side of the pair of flanges. The clamps, tie rods, and bridles shall be coated with bituminous paint in buried installations and shall be coated with the same coatings as the piping system in interior installations after assembly or, if necessary, prior to assembly.
 2. Mechanical joint follower gland pipe restrainer.
 - a. Ductile iron gland and restraining ring.
 - b. Gasket shall be standard MJ gasket -ANSI/AWWA-C 111/A21.11.
 - c. Working pressure 350 psi, up to 8 inches; 250 psi, 10 inches to 16 inches.
 - d. Test pressure two times working pressure.
 - e. Grip Rings™, Romac Industries, or other equivalent as approved by District or Authorized Representative.

3. Mechanical joint follower gland pipe restrainer.
 - a. Ductile iron follower gland with multiple gripping action restrainer wedges.
 - b. Gasket shall be standard MJ gasket - ANSI/AWWA-C111/A21.11.
 - c. Working pressure, 350 psi, up to 12 inches.
 - d. Mega-Lugs™, EBAA Iron Sales, or other equivalent thrust restraint as approved by District or Authorized Representative.
4. Other types of bracing as shown on the Drawings.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Provide all labor necessary to assist the District or Authorized Representative to inspect pipe, fittings, gaskets, and other materials.
- B. Carefully inspect all materials at the time of delivery and just prior to installation.
- C. Carefully inspect all pipe and fittings for:
 1. Defects, such as weak structural components that adversely affect the execution and quality of work.
 2. Deviations beyond allowable tolerances for pipe clearances.
- D. Immediately remove all rejected materials from the project site.

3.2 INSTALLATION

A. Assembling Joints:

1. Push-on Joints:
 - a. Insert the gasket into the groove of the bell.
 - b. Uniformly apply a thin film of special lubricant over the inner surface of the gasket that will contact the spigot end of the pipe.
 - c. Insert the chamfered end of the plain pipe into the gasket and push until it seats against the bottom of the socket.
 - d. Install continuity wedges at 3 and 9 o'clock positions.
2. Bolted Joints:
 - a. Remove rust preventive coatings from machined surfaces prior to assembly.
 - b. Thoroughly clean and carefully smooth all burrs and other defects from pipe ends, sockets, sleeves, housings and gaskets.
3. Flanged Joints:
 - a. Insert the nuts and bolts (or studs), finger tighten, and progressively tighten diametrically opposite bolts uniformly around the flange to the proper tension.
 - b. Execute care when tightening joints to prevent undue strain upon valves, pumps, and other equipment.
4. Mechanical Joints:
 - a. Thoroughly clean, with a wire brush, surfaces that will be in contact with the gaskets.
 - b. Lubricate the gasket, bell, and spigot by washing with soapy water.

- c. Slip the gland and gasket, in that order, over the spigot and insert the spigot into the bell until properly seated.
- d. Evenly seat the gasket in the bell at all points, center the spigot, and firmly press the gland against the gasket.
- e. Insert the bolts, install the nuts finger tight, and progressively tighten diametrically opposite nuts uniformly around the joint to the proper tension with a torque wrench.
- f. The correct range of torque (as indicated by a torque wrench) and the length of wrench (if not a torque wrench) shall not exceed:
 - 1. Range of Torque: 60-90 ft.-lbs.
 - 2. Length of Wrench: 10 inches.
- g. If effective joint sealing is not attained at the maximum torque specified above, disassemble, thoroughly clean, and reassemble the joint. Do not overstress the bolts to tighten a leaking joint.

5. Bell and Spigot Joints:

- a. Thoroughly clean the bell and spigots and remove excess tar and other obstructions.
- b. Insert the spigot firmly into place and hold securely until the joint has been properly completed.

B. Fabrication:

1. Tapped Connections:

- a. Make all tapped connections as shown on the Drawings or as required by the District or Authorized Representative.
- b. Make all connections watertight and of adequate strength to prevent pullout.
- c. Drill and tap normal to the longitudinal axis of the pipe.
- d. The maximum sizes of taps in pipes and fittings without saddles shall not exceed the sizes listed in the appendix of ANS A21.51 based on 2 full threads for ductile iron.
- e. All taps greater than 1" on 12-inch Class 52 DI pipe shall be installed with saddles. Saddles will not be required for 1 inch taps on 12-inch Class 52 DI pipe.

2. Cutting:

- a. Perform all cutting as set forth in AWWA C600.
- b. Carefully chamfer all cut ends to be used with push-on joints to prevent damage to gaskets when pipe is installed.

C. Pipe Deflection:

1. Push-on and Mechanical Joints:

- a. The maximum permissible deflection of alignment at joints shall be limited to that given in AWWA C600.

2. Flexible Joints:

- a. The maximum deflection in any direction shall not exceed the manufacturer's instructions and recommendations.

END OF SECTION

0822-5

SECTION 0822.4
CLEANING, TESTING AND CHLORINATION OF WATER MAINS

PART 1 GENERAL

1.1 DESCRIPTION

- A. The work of this section includes the furnishing of all labor, tools, equipment and materials and performing all operations necessary for the flushing, pressure testing, leakage testing and chlorination of water mains as specified herein and as required to complete the work.

1.2 QUALITY ASSURANCE

- A. Standards (as applicable):

1. All work shall be in accordance with this specification and AWWA C651. Where conflicts appear between these specifications and AWWA C651 the more stringent requirement shall apply.
2. Chlorine solution for disinfecting water mains and appurtenances shall be made from either liquid sodium hypochlorite, or solid calcium hypochlorite, which shall conform to the latest AWWA B300 Standard for Hypochlorite.
3. Chlorine test kits shall be as described in the current edition of AWWA M12 - Simplified Procedures for Water Examination.
4. Disposal of chlorinated water as per AWWA C651, Appendix B.

1.3 COORDINATION

- A. Use of water will only be as approved and coordinated by the Owner.
- B. All flushing, pressure and leakage testing and chlorinating shall be done by the Contractor in the presence of the District or Authorized Representative and in the presence of the Owner or Owner's Representative in accordance with the requirements of the local and state plumbing codes and the appropriate Sections of these Specifications, at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Each temporary blow-off shall consist of a corporation cock, type K copper tubing and a curb stop, each of not less than I-inch diameter. All temporary blow offs and chlorination taps shall be removed and the corporation shut off at the main after successful pressure test and chlorination.

0822.4-1

- B. A pumping unit or proportionate feeder suitable for delivering a hypochlorite solution to the isolated main shall be provided. The unit used shall prevent chlorine solution from flowing back into the existing system.

PART 3 - EXECUTION

3.1 GENERAL

- A. Thoroughly clean all piping prior to testing. Remove all dirt, dust, oil, grease and other foreign material. Exercise care while cleaning to avoid damage to linings and coatings.
- B. Supply all labor, equipment, materials, gages, and pumps required to conduct the tests. The drawings do not detail taps, gages, plugs and other related materials required to perform testing. These materials are the responsibility of the Contractor.
- C. Flushing, testing and chlorinating of the mainline shall closely follow main laying work. As the mainline is installed, it shall be tested approximately every 1,000 feet, or between line valves, whichever is less. Should the mainlines fail to be flushed, tested, and chlorinated as specified, the main laying work shall be suspended until the flushing, testing and chlorinating is done.
- D. Final acceptance of the water main shall be based on successful (negative) results of two (2) bacteriological tests taken 24 hours apart, which shall be done on samples taken from the main following chlorination and final flushing. Samples shall be taken at both ends of the pipe run and on any branch runs over 20 feet in length.
- E. The testing and related procedures described herein, shall be performed in the order listed.
- F. The Contractor, with the assistance of the Owner, shall fill mains as slowly as practicable so as not to cause dirty water and serious pressure drops within the existing system.

3.2 FLUSHING

- A. All new water mains, and existing water mains that have been drained and cut-into for making connections, shall be thoroughly flushed prior to pressure or leakage testing or final chlorination. Flushing shall be accomplished by partially opening and closing valves, hydrants, and blowoffs, several times, under expected line pressure, with flow velocities of not less than 2.5 feet per second, in the main. The size and number of hydrant outlets and/or main taps to provide the required flow (at 40 psi residual pressure) is as follows:

0822.4-2

Minimum Required Flow and Openings Required to Flush Water Mains
(Assuming 40 psi Residual Pressure in Water Mains)

Main Diameter (in.)	Flow Required to Produce 2.5 fps in Main (gpm)	Minimum Size of Taps (in.)	Hydrant Outlets	
			Number	Size
4	100	15/16	1	2-1/2
6	220	1-3/8	1	2-1/2
8	390	1-7/8	1	2-1/2
10	610	2-5/16	1	2-1/2
12	880	2-13/16	1	2-1/2
16	1565	3-5/8	2	2-11/2

1. If less than a 40 psi residual is available in the main, with the size tap shown above then a larger, or more tap(s) or hydrant outlets will be required, as determined by the District or Authorized Representative.
2. The length of time for flushing, at or above the minimum allowable velocity, shall be computed to allow a minimum of 3 times the total volume of water in the main to be flushed to waste. Flushing shall be done in the presence of the District or Authorized Representative.

3.3 AIR REMOVAL

- A. Following flushing, and before applying the specified test pressure, air shall be completely expelled from the mains, valves, and hydrants. After all air has been expelled, the air blowoffs can be closed, and the test pressure applied.

3.4 PRESSURE TEST

- A. All new water mains, or any sections thereof, shall be subjected to a hydrostatic pressure of at least 1.5 times the working pressure that will exist at the point of testing, or 150 psi, whichever is greater. Test pressures shall meet the following requirements:
 1. Be of at least 2-hour duration.
 2. Be not less than 1.25 times the expected system working pressure at the highest point along the test section.
 3. Not exceed main or thrust-restraint design pressures.
 4. Not vary by more than +1-5 psi for the duration of the test.
 5. Not exceed 2-times the rated pressure of the valves or hydrants when the pressure boundary includes closed valves or hydrants. Valves shall not be operated in either direction at differential pressure greater than the rated pressure.

0822.4-3

6. Not exceed 1.5-times the rated pressure of the valves when the pressure boundary of the test section includes closed butterfly valves or resilient seated gate valves.
- B. Each section of main shall be slowly raised to the specified test pressure for two separate periods. The first period shall be for 15-minutes, after which the pressure shall be allowed to drop slowly back to system pressure. The pressure shall then be slowly raised again to the specified test pressure and maintained for 2-hours. The test pressure shall be based on the elevation of the lowest point of the main, in the test section and shall be corrected to the elevation of the test gauge, as directed by the District or Authorized Representative. The test pressure shall be applied by means of a pump connected to the main, in an approved manner, and which will prevent any backflow into the existing system. Valves shall not be operated in either the closing or opening direction, at differential pressure greater than the rated pressure.
 - C. Any exposed main, fittings, valves, hydrants and joints shall be carefully examined during the test. Any damaged or defective main, fittings, hydrants, or valves discovered following, or as a result of the pressure test shall be repaired or replaced with sound material. If faulty materials are removed and replaced, the pressure testing procedure shall be repeated.

3.5 LEAKAGE TEST

- A. Leakage testing shall be conducted concurrently with the pressure test.
- B. Leakage is defined as the quantity of water that must be pumped into the new main during the test, or any section thereof, required to maintain pressure within 5 psi of the starting test pressure. Leakage shall be recorded to the nearest one-tenth of a gallon. The Contractor shall employ qualified personnel throughout the testing. Leakage shall not be measured by a drop in pressure over a period of time.
- C. Leakage in the test section must be less than an amount determined as follows:

$$L = \frac{SD(P^{0.5})}{133,200}, \text{ where}$$

L = allowable gallons of leakage per hour

S = the length of main tested, in feet

D = the nominal main diameter in inches

P = the average test pressure during the test, in psi

- D. The leakage formula is based allowable leakage of 11.65 gallons per day, per mile of main, per inch (nominal) of main diameter, at a pressure of 150psi. Allowable leakage under various conditions is shown below.

Allowable Leakage per 1,000 Feet of Mainline

Average	Nominal Diameter (inches)						
Test	6	8	10	12	16	20	24
Pressure (psi)	0.71	0.95	1.19	1.42	1.90	2.37	2.85
250	0.68	0.90	1.13	1.35	1.80	2.25	2.70
225	0.64	0.85	1.06	1.28	1.70	2.12	2.55
200	0.59	0.80	0.99	1.19	1.59	1.98	2.38
175	0.55	0.74	0.92	1.10	1.47	1.84	2.21
150	0.50	0.67	0.84	1.01	1.34	1.68	2.01
125	0.45	0.60	0.75	0.90	1.20	1.50	1.80
100	0.71	0.95	1.19	1.42	1.90	2.37	2.85

1. If the mainline under test contains sections of various diameters, the allowable leakage will be the sum of the computed leakage for each size.
 2. When testing against closed metal seated valves, an additional leakage shall be allowed per closed valve of 0.0078 gallons per hour, per inch of nominal valve diameter.
 3. When hydrants are in the test section, the test shall be made against the closed hydrant(s).
- E. Acceptance shall be determined on the basis of allowable leakage. If leakage in any test is greater than that specified, the Contractor shall locate and make repairs as necessary until the leakage is within the specified allowance.
1. All visible leaks are to be repaired regardless of the amount of leakage.
 2. All water mains shall be pressure and leakage tested in the presence of the District or Authorized Representative, in order to qualify for acceptance.

3.6 CHLORINATION

- A. The method of chlorination shall be the *Continuous Feed Method* as described hereinafter. Chlorination procedures will not be allowed until acceptable flushing and pressure testing has been performed and accepted. The continuous feed method consists of the following steps:
1. Prior to the application of chlorine, confirm that valves are closed to prevent back-feeding chlorine solution into the existing system.
 2. At a point not more than 10 feet downstream from the beginning of the new main, fill the main with chlorinated potable water, having an initial concentration of 25 mg/l free chlorine residual.

0822.4-5

- a. Water from the existing distribution system or other approved source of supply shall flow at a constant measured rate, into the new main. In the absence of a meter, the rate may be approximated by measuring the discharge rate at the end of the test section with a pito-gauge or by measuring the time to fill a container of known volume.
 3. The application of chlorine solution shall continue until the entire main is filled with water having 25 mg/l of free available chlorine. To assure that 10 mg/I free chlorine residual concentration is achieved throughout the test section, the Contractor shall measure chlorine concentration at regular intervals.
- B. The amount of chlorine required to obtain a concentration of 25 mg/I per 100 feet of various diameter mains is as follows.

Chlorine Required to Obtain 25 mg/l per 100 feet of Various Diameters

Main Dia. (inches)		Sodium Hypochlorite (gallons)			Calcium Hypochlorite (ounces)
	5%	10%	12/5%	15%	65%
	Available Chlorine	Available Chlorine	Available Chlorine	Available Chlorine	Available Chlorine
4	0.03	0.02	0.02	0.01	0.02
6	0.08	0.04	0.03	0.03	0.75
8	0.13	0.07	0.06	0.06	1.30
10	0.20	0.10	0.09	0.07	2.10
12	0.28	0.15	0.12	0.10	2.90
16	0.50	0.25	0.22	0.17	5.30
20	0.80	0.40	0.34	0.28	8.40
24	1.30	0.60	0.50	0.40	12.00

1. The above quantities are to be added to a sufficient quantity of water, dissolved, and mixed. The solution shall be injected into the main as specified.
 2. The quantities shown are based on concentrations of available chlorine by volume. Extended or improper storage may have caused a loss of available chlorine.
- C. The chlorinated water shall be retained in the main for a minimum of 24-hours. At the end of this 24 hour period, retest portions of the main to confirm that a minimum of 10 mg/I free available chlorine residual exists in the main. If the residual chlorine is less than 10 mg/L, acceptable bacteria results may not be obtained.

3.7 FINAL FLUSHING OF CHLORINATED WATER

- A. After the initial 24-hour period period, the heavily chlorinated water shall be flushed from the main until chlorine measurements show the concentration in water leaving the main is no higher than that generally prevailing in the system.
- B. The Contractor shall obtain approval of location(s) for discharging the heavily chlorinated water, which will result from the chlorination procedures. Great care shall be exercised in the selection of the rate of flow and the discharge points, in order to minimize complaints, and damage to public or private property.
- C. The heavily chlorinated water shall be suitably and thoroughly neutralized prior to disposal into the environment. In no case shall chlorinated or neutralized water be discharged directly into a water body. If necessary, state, federal, and local regulatory agencies should be contacted to determine special provisions for the disposal of heavily chlorinated water.

3.8 BACTERIOLOGICAL TESTS

- A. After final flushing and before the water main is placed in service, water samples shall be collected twice (24-hours apart) by the District or Authorized Representative or Owner and tested for bacteriological quality in accordance with standard methods.

Water samples shall show the absence of coliform organisms and background bacteria.

- B. If, during construction, trench water has entered the main, or if in the opinion of the District or Authorized Representative excessive quantities of dirt or debris have entered the main, bacteriological samples shall be taken at intervals of approximately 200 feet and shall be identified as to location. Samples shall be taken of water that has stood in the main for at least 24-hours after final flushing has been completed.
- C. Samples shall be obtained through a corporation cock and copper tubing installed by the Contractor.

The District or Authorized Representative or Owner shall deliver samples to a laboratory approved by the Department of Health Services for bacterial analysis. The Owner shall pay for the cost of analysis. Only after each consecutive sample is approved shall the mains be incorporated into the water system. In the event that positive reports of contamination are received, the mains shall be flushed and chlorinated as many times as may be necessary to obtain approved (negative) results.

3.9 RE-CHLORINATION

- A. If the initial chlorination fails to produce satisfactory bacteriological samples, the main shall be re-flushed and re-sampled.

0822.4-7

3.10 CHLORINATION PROCEDURES WHEN CUTTING INTO OR REPAIRING EXISTING MAINS

- A. Trench Treatment. If during excavation the trench is either wet or filled with water, it is recommended that liberal quantities of hypochlorite tablets be applied to open trench areas to lessen the danger from pollution.
- B. The interior of all main and fittings used in making a repair shall be swabbed or sprayed with a 1 percent hypochlorite solution before they are installed.
- C. If valve and hydrant locations permit thorough flushing toward the work location from both directions, it shall be done. Flushing shall be started as soon as the repairs are completed and shall be continued until discolored water is eliminated.
- D. Slug Chlorination. Where practical and in addition to the procedures above, a section of main in which the break is located shall be isolated. All service connections shall be shut off, and the section flushed and chlorinated by the *Slug Chlorination* method. This method allows the chlorine dose to be increased to as much as 300 mg/l, and the contact time reduced to as little as 1-hour. After chlorination, the section shall be properly flushed until discolored water is eliminated and the water is free of noticeable chlorine odor.
- E. Bacteriological samples shall be taken after repairs. If the direction of flow is unknown, samples shall be taken on each side of the main break. If positive samples are recorded, daily sampling shall be continued until two consecutive negative samples are recorded.

END OF SECTION

SECTION 0822.5
CONCRETE CRADLES, ARCHES, ENCASEMENTS & THRUST BLOCKS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish and construct cradles, arches, encasements, and thrust blocks for pipes in the location(s) and of the dimension(s) and shapes shown on the Drawings, and as required to rigidly support pipes.
- B. All steel reinforcement used in concrete products shall meet Buy America requirements as presented in the Maine DOT Standard Specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Concrete Mixture:
 - 1. Minimum strength at 28 days (psi) - 3000
 - 2. Maximum size, coarse aggregate (inches) - 1-1/2
 - 3. Percent air - 5
 - 4. Maximum slump (inches) - 3
 - 5. Minimum cement factor (pounds) - 564
 - 6. Maximum water/cement ratio - 0.53
- B. Aggregates - ASTM C33
- C. Cement - Portland cement ASTM C150 Type I
- D. Reinforcement - ASTM A615, Grade 60
- E. Precast thrust blocks may be used with prior permission of the Water District.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Construct cradles, arches, encasements, and thrust blocks the full width of the trench and/or as shown on the Drawings.
- B. Secure pipe to prevent movement and floatation during the placement of the concrete.
- C. Place polyethylene sheeting (6 mils, minimum thickness) against all fittings, valves, etc. prior to placement of concrete for thrust blocks. Keep concrete clear of bolts and joints.

END OF SECTION

0822.5-1

SECTION 0822.6
COUPLINGS &
CONNECTORS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish and install couplings and connectors of the type(s) and size (s) in the location(s) shown on the Drawings and as specified herein.
- B. All steel or iron couplings and connectors shall meet Buy America requirements as presented in the Maine DOT Standard Specifications.

1.2 QUALITY ASSURANCE

- A. Minimum pressure rating equal to that of the pipeline in which they are to be installed.
- B. Couplings and connectors, other than those specified herein, are subject to the District or Authorized Representative's approval.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All Couplings and Connectors:
 - 1. Gasket Materials: Composition suitable for exposure to the liquids to be contained within the pipes.
 - 2. Diameters to properly fit the specific types of pipes on which couplings and connectors are to be installed.
- B. Sleeve Type Couplings (When Applicable):
 - 1. Buried Couplings (for joining pipe of similar diameters):
 - a. Constructed from malleable or ductile iron.
 - b. Solid sleeve with M.J. ends conforming to AWWA C1 10 or AWWA C153. Sleeve shall be a minimum of 12" long
 - c. Bolts - AWWA C-111, 304 Stainless Steel
 - d. Acceptable Manufacturers:
 - 1. Tyler
 - 2. Orequivalent

C. Flanged Adapters (When Applicable):

1. For joining plain end or grooved end pipe to flanged pipes and fittings.
2. Adapters shall conform in size and bolt hole placement to ANSI standards for steel and/or cast iron flanges 125 or 150 pound standard unless otherwise required for connections.
3. Buried Sleeve Type:
 - a. Constructed from cast iron.
 - b. Bolts: ASTM 304 Stainless steel.
 - c. Acceptable Manufacturers:
 1. Dresser Manufacturing Co. - Style 127 locking type for cast iron, ductile iron, asbestos cement and steel pipes with diameters of 3 inches through 12 inches,
 2. Or equivalent.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Sleeve Type Couplings (When Applicable):

1. Thoroughly clean pipe ends for a distance of 8 inches from the ends prior to installing couplings, and use soapy water as a gasket lubricant.
2. Slip a retainer gland and gasket (in that order) over each pipe and place the sleeve centered over the joint.
3. Insert the other pipe length into the sleeve at the proper distance.
4. Press the gaskets and glands evenly and firmly into the sleeve flares.
5. Insert the bolts, finger tighten and progressively tighten diametrically opposite nuts uniformly around the adapter with a torque wrench applying the torque recommended by the manufacturer.
6. Tighten restraining features on retaining gland.

- B. Buried Epoxy Coated Steel Couplings: Thoroughly coat all exterior surfaces, including nuts and bolts after assembly and inspection by the District or Authorized Representative with a coal tar approved by the District or Authorized Representative. Prior to coating, roughen the epoxy with emory paper and follow with a solvent cleaner (aeromatic similar to xylol). Dry film thickness of the coal tar is to be 12-16 mils.
- C. Install thrust rods, supports, and other provisions to properly support pipe weight and axial equipment loads.

END OF SECTION

0822.6-3

SECTION 0823
GATE VALVES AND BOXES

PART I - GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish, install and test gate valves and boxes of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified.
- B. Related Work Specified Elsewhere:
 - 1. "Ductile Iron Pipe & Fittings" are specified in Division 0822.
- C. All gate valves and boxes shall meet Buy America requirements as presented in the Maine DOT Standard Specifications.

1.2 QUALITY ASSURANCE

- A. All gate valves and valve boxes of same type and style shall be manufactured by one manufacturer.
- B. Qualifications of Manufacturer: Products to have been proven reliable in similar installations over a reasonable number of years.
- C. Acceptable Valve Manufacturers:
 - 1. American Flow Control
 - 2. Kennedy
 - 3. Darling
 - 4. Mueller
 - 5. Or approved equal.
- D. Acceptable Valve Box Manufacturers:
 - 1. Mueller
 - 2. Quality Water Products
 - 3. Tyler
 - 4. Or Equivalent

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Waterworks type NRS valves (AWWA):
 - 1. Valve Body, bonnet and stuffing box - Cast iron (ASTM A126, Cl B), coated inside and out with fusion bonded epoxy meeting AWWA C550. Face-to-face dimensions shall comply with ANSI B16.10 and flanges to comply with ANSI B16.1.
 - 2. Resilient Wedge - Ductile iron wedge with bonded Nitrile elastomer covering.
 - 3. Stem - Manganese bronze, ASTM B584

0823-1

4. Stuffing box 0-rings
 - a. Two 0-rings, each nitrile rubber.
 - b. Capable of changing under pressure.
 5. Wedgenut - Bronze, ASTM B62
 6. Bolting - stainless steel Type 304, ASTM F593, GPI
 7. End Connections
 - a. Buried valves - mechanical joints
 8. Operation
 - a. Buried valves - 2 inch square nut, cast iron, ASTM A126, CIB
 - b. Opening Direction -open right (clockwise)
 9. Water working pressure: 250 psi
 10. Standards - valves shall meet or exceed AWWA C509, latest edition.
 11. Box/Alignment Seat-QWP or equal.
- B. Valve Boxes:
1. The valve box shall be slip type two (2) piece integral base, 5-1/4" shaft, 36" top section with top flange.
 2. Covers shall be Cast or Ductile iron, with the word "Water" cast in covers.
 3. C Belled Base Section shall be polyethylene. Cut top of polyethylene base section 18" below final grade.
 4. Valve box covers shall be cast/ductile iron construction drop-type with pick holes for easy removal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install valves with stem position vertical.
- B. Valve box vertical and centered over operating nut.
- C. Valve box supported during backfilling and maintained vertical.
- D. Install and test in accordance with AWWA C500 and AWWA C-509, latest revision.
- E. For PVC or PE main, install anchor rods around the valve body or through the mounting lugs and embed the rods in concrete beneath the valve.
- F. When installation is complete, no pressure shall be exerted by valve box on the water main or on the valve.
- G. Be of such length as required without full extension. Minimum lap 6 inches.

END OF SECTION

0823-2

SECTION 0824
HYDRANT ASSEMBLIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish and install hydrant assemblies of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.
- B. Hydrant Assemblies consist of:
 - 1. Hydrant tee.
 - 2. 6" inch gate valve and valve box.
 - 3. 6" inch hydrant branch piping.
 - 4. Hydrant.
 - 5. Thrust blocking.
 - 6. Drainage material.
- C. All hydrant assemblies shall meet Buy America requirements as presented in the Maine DOT Standard Specifications.

1.2 QUALITY ASSURANCE

- A. Hydrants shall conform to AWWA C502 and all hydrants shall be from one manufacturer.
- B. Acceptable Manufacturer:
 - 1. American Flow Control, Birmingham, Alabama.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Fire Hydrants:
 - 1. Dry barrel type with a 5.25 inch minimum valve opening.
 - 2. The shoe shall be attached to the lower barrel with type 304 stainless steel nuts and bolts, and must be attached by the manufacturer at the factory.
 - 3. Two (2) 2-1/2 inch hose connections and one (1) 4-1/2 inch pumper connection with National Standard threads.
 - a. Supply adapters if existing fire fighting equipment does not match the threads specified above.
 - 4. 150 pounds working pressure and 300 pounds hydrostatic test pressure.

0824-1

5. Working parts shall be bronze.
 6. All below-grade nuts and bolts on hydrants shall be 304 stainless steel.
 7. Designed with standpipe breaking ring or breakable sections. Breakaway connection to be installed no more than 6-inches above finished grade.
 8. Supply one (1) collision repair kit.
 9. Hydrants shall be open right.
- B. Hydrants shall be American Flow Control -American Darling B-84-B-5.
- C. Gate Valves: Waterworks type non-rising stem AWWA valve: See Specification Section 0823.
- D. Valve Boxes: See specification 0823.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install hydrants within 3" of bury line, as shown in the details and using manufacturer's written instructions. Grade Lock offset fittings may be used to adjust hydrant to the appropriate bury depth.
- B. No hydrant assembly shall be backfilled until approved by the District or Authorized Representative.
- C. Provide thrust blocks as shown on the Drawings.
- D. Minimum cover over hydrant branch will be the same as specified or as shown on the plans for the water main.
- E. Contractor shall be responsible for maintaining minimum cover over hydrant branches. Where necessary, provide barrel extensions as required for hydrants to be installed at proper grade.
- F. Provide finish paint on all exposed surfaces. Color shall meet Owner's requirements as approved by the District or Authorized Representative.
- G. Hydrant drain shall be plugged.

3.2 CLEANING

- A. Clean all hydrants of concrete, etc. and repaint as necessary to the satisfaction of the District or Authorized Representative.

END OF SECTION

0824-3

SECTION 0825.32
CORPORATION STOPS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish and install corporation stops of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.

1.2 QUALITY ASSURANCE

- A. All corporation stops shall be manufactured by one manufacturer.
- B. Qualifications of Manufacturer: Products have proven reliable in similar installations over a reasonable number of years.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All fittings shall be manufactured in accordance with AWWA Standards C-800, latest revision and as further specified herein.

Any brass part of the fitting in contact with potable water shall be made of no lead brass, UNS Copper Alloy No. C89520 or C89833. This brass alloy shall contain no more than 0.09% lead by weight.

Any brass part of the fitting not in contact with potable water shall be made of 85-5-5 brass, UNS Copper Alloy No. C83600.

All brass fittings shall be certified to NSF/ANSI 61. Proof of certification is required.

All brass fittings shall be stamped with the manufacturers name or trademark and with NL or another suitable mark indicating "no lead".

- B. Outlet shall have compression connection.

- C. Inlet shall have AWWA/CC taper.

- D. Acceptable Manufacturers:

1. Mueller Co.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install at locations shown on the Drawings and as specified in accordance with manufacturer's instructions.
- B. Check and adjust all corporation stops for smooth operation.

END OF SECTION

0825.32-2

SECTION 0825.331
CURB STOPS, BOXES AND RODS

PART I - GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish and install curb stops, curb boxes or valve boxes and rods of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.
- B. All boxes and rods shall meet Buy America requirements as presented in the Maine DOT Standard Specifications

1.2 QUALITY ASSURANCE

- A. All curb stops shall be manufactured by one manufacturer.
- B. All boxes and rods shall be manufactured by one manufacturer.
- C. Qualifications of Manufacturer: Products shall have proven reliable in similar installations over a reasonable number of years.
- D. Acceptable Curb Stop Manufacturer:
 - 1. Mueller
- E. Acceptable Box & Rod Manufacturer:
 - 1. Quality Water Products
 - 2. Mueller Co.
 - 3. Or Approved Equal.

When curb stop is in pavement, use valve boxes as specified under Section 0823.

PART 2 - PRODUCTS

2.1 CURB STOP CONSTRUCTION

- A. All fittings shall be manufactured in accordance with AWWA Standards C-800, latest revision and as further specified herein.

Any brass part of the fitting in contact with potable water shall be made of no lead brass, UNS Copper Alloy No. C89520 or C89833. This brass alloy shall contain no more than 0.09% lead by weight.

Any brass part of the fitting not in contact with potable water shall be made of 85-5-5-5 brass, UNS Copper Alloy No. C83600.

All brass fittings shall be certified to NSF/ANSI 61. Proof of certification is required.

0825.331-1

All brass fittings shall be stamped with the manufacturers name or trademark and with NL or another suitable mark indicating "no lead".

- B. Inlet and outlet shall have compression connection.
- C. Working pressure of 250 psi minimum.
- D. Gaskets BUNA-N.
- E. Ball type valve.

2.2 BOX AND ROD CONSTRUCTION

- A. Cast iron base piece, steel upper, cast iron lid, and threaded bronze plug with pentagon nut (Rope Thread).
- B. Extension type and arch pattern base with *W*" diameter stainless steel minimum, 30" stationary rod.
- C. Use valve box when curb stop is in pavement. See Section 0823 for valve box specification.

PART 3-EXECUTION

3.1 INSTALLATION

- A. Install at locations shown on the Drawings and/or as requested by the District and in accordance with manufacturer's instructions.
 - 1. When installation is complete, no pressure shall be exerted by the curb box on either the curb stop or the service pipe.
 - 2. Be of such a length as required.

3.2 ADJUSTMENTS

- A. Check and adjust all curb stops for smooth operation.

END OF SECTION

0825.331-2

SECTION 0825.35
SERVICE SADDLES

PART I - GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish and install service saddles of the type(s) and size(s) and in the location(s) shown on the Drawings and as specified herein.
- B. All service saddles shall meet the Buy America requirements as presented in the Maine DOT Standard Specifications.

1.2 QUALITY ASSURANCE

- A. All service saddles of the same type shall be manufactured by one manufacturer.
- B. Qualifications of Manufacturer: Products shall have proven reliable in similar installations over a reasonable number of years.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. For cast iron & ductile iron pipe.
 - 1. Body casting - wrap around design constructed of ductile iron (ASTM A 536).
 - 2. Gasket - 31/2 inch diameter constructed of Buna-N, grooved to conform to pipe surface and bonded in place.
 - 3. Straps and bolts – 304 Stainless steel conforming to AWWA C111.
 - 4. Washers and nuts - heavy hex nuts and washers constructed low alloy steel conforming to AWWA C111.
 - 5. Double strap required.
 - 6. Acceptable manufacturer.
 - a. Romac (style 202).
 - b. Or equivalent.
- B. For C900 and C905 PVC pipe and 3408 HDPE pipe.
 - 1. Body casting - wrap around design constructed of ductile iron (ASTM A 536) with nylon fused coating 10-12 mils.

0825.35-1

2. Gasket - 31/2 inch diameter constructed of Buna-N, grooved to conform to pipe surface and bonded in place.
3. Bands and bolts - welded 2" wide straps (14 gauge) and 5/8 inch threaded bolt combination constructed of 304 Stainless steel. Welds shall be passivated.
4. Washers and nuts - heavy hex nuts and washers constructed of 304 Stainless steel. Spring washers as required by manufacturer for HDPE.
5. Double band required.
6. Acceptable manufacturer.
 - a. Romac (style 202N).
 - b. Or equivalent.

C. For other type(s) of pipe - as shown on Drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install at locations shown on the Drawings and as specified by the pipe manufacturer and saddle manufacturer.
- B. Check for leaks prior to backfilling as appropriate.
- C. Tap pipe with tools and by methods specifically furnished by pipe manufacturer.
- D. For PVC pipe use tapping machine with smooth strap retainer (chains or other devices that may gouge or score the pipe shall not be used).

END OF SECTION

0825.35-2

SECTION 825.422
2" POLYETHYLENE PIPE SERVICES

0825.01 GENERAL

I.I DESCRIPTION

- A. Work Included: Furnish, install and test all polyethylene pipe, pipe fittings and appurtenances of the type(s) and size(s) and in the location(s) as shown on the Drawings and as herein specified.
- B. Related Work Specified Elsewhere:
 - 1. "Pipe and Pipe Fittings - General" is specified in this Division.
 - 2. Cleaning, Testing and Disinfection is specified in Specification Section 02675.

1.2 QUALITY ASSURANCE

- A. Provide pipe and fittings manufactured by a single manufacturer.
- B. 2" Services shall be 160 psi, SDR 11, IPS.
- C. Fittings shall be Poly Cam IPS threaded fused to HDPE.
- D. Standards:
 - 1. ASTM C901-02: Standard for Polyethylene (PE) Pressure Pipe and Tubing, Yi" (13 mm) through 3" (76 mm) for Water Service.
 - 2. AWWA C 906-99: Standard for Polyethylene (PE) Pressure Pipe and Fittings, 4" (100 mm) through 63" (1,575 mm) for Water Distribution and Transmission.
 - 3. ASTM D 2657-97: Standard Practice for Heat Joining Polyolefin Pipe and Fittings.
 - 4. ASTM D 2683-98: Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing.
 - 5. ASTM D 2837-04: Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure Design Basis for Thermoplastic Pipe Products.
 - 6. ASTM D 3261-03: Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing.
 - 7. ASTM D 3350-02a: Standard Specification for Polyethylene Plastic Pipe and Fittings Materials.
 - 8. ASTM F 1055-98el: Standard Specification for Electrofusion type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and tubing.
 - 9. NSF/ANSI-61-2003e: Standard for Drinking Water Systems Components - Health Effects.
 - 10. CSA B 137.1-2002: Polyethylene Pipe, Tubing, and Fittings for Cold-Water Pressure Services.
 - 11. AWWA M55 (expected 2005): Manual for the Design and Installation of Polyethylene Pipe in water Applications.
- E. Acceptable Manufacturers:
 - 1. PolyPipe, Inc. "PW Pipe"
 - 2. KWH Pipe, "Sclairpipe"
 - 3. Performance Pipe, "Driscopipe"
 - 4. Or approved equal.

825.422-1

0825.02 PRODUCTS

2.1 MATERIALS

- A. Polyethylene compounds utilized in the manufacture of products furnished under this specification shall be listed in PPI TR-4, have a grade of PE34 with a minimum cell classification of E 345444[C, D, or E] for PE3408 materials, as defined in ASTM D3350. In conformance with AWWA C901, AWWA C906, or CSA B137.1, they shall have a PPI recommended Hydrostatic Design Basis (HDB) of 1600 psi (PE3408) at a temperature of 73.4°F (23°C).
- B. All materials which come in contact with water, including lubricants, shall be evaluated, tested and certified for conformance with NSF/ANSI Standard 61, if required by the production standard or requested by the end user.
- C. Clean re-work material of the same type grade, and cell classification generated from the manufacturer's own pipe and fitting production may be used by the same manufacturer as long as the pipe, tubing and fittings produced meet all the requirements of AWWA C901, AWWA C906, or CSA B137.1.
- D. Pipe and tubing furnished under this specification shall be manufactured using compounds complying with the requirements above. Dimensional and performance characteristics shall conform to the requirements of AWWA C901, AWWA C906, or CSA B137.1.
- E. The polyethylene compound shall be suitably protected against degradation by ultraviolet light by means of carbon black, well dispersed in a concentration of not less than 2%.
- F. The polyethylene resin compound shall have a resistance to environmental stress cracking as determined by procedure detailed in ASTM D 1693 with sample preparation by procedure C of ASTM D 1928 of not less than 40 hours.
- G. Pipe shall be homogeneous throughout and free of visible cracks, holes, foreign material, blisters, or other deleterious faults.
- H. Polyethylene fittings shall have the same pressure rating as the pipe itself.
- I. Adaptors: When applicable, provide adaptors for connecting polyethylene pipe to pipes constructed from other materials. All flanges shall have metal backing rings.
- J. Tracer Wire: #14 AWG copperhead high strength reinforced tracer wire, copperhead snake bite connectors or equal. Tape to pipe at 3 o'clock position. Ground all dead ends with 1.5 lb. drive in magnesium anode. Cad weld end of tracer tape to ductile iron water main, terminate trace tape in valve box by wrapping tape around outside of valve box and drilling hole on top of valve box for wire to enter.
- K. Warning Tape: Shall be 2" wide detectable Identoline or equal, marked "Water". Install 2 feet above plastic pipe.

2.2 FABRICATION

- A. Thermal Butt-Fusion:
 - 1. Join the pipe to itself, or to the polyethylene fittings or to the flange connections by means of thermal butt-fusion.
 - 2. Have all fusion performed by personnel trained by the pipe supplier or other qualified persons, using tools approved by the pipe supplier.

3. The polyethylene fittings and flanged connections to be joined by thermal butt-fusion shall be from the same type, grade and class of polyethylene compound as the polyethylene pipe unless otherwise approved.
 4. Joint strength must be equal to that of the adjacent pipe.
 5. On each day butt fusions are to be made, the first fusion of the day shall be a trial fusion. The trial fusion shall be allowed to cool completely, then fusion test straps shall be cut out. The test strap shall be 12" or 30 times the wall thickness in length (minimum) and 1" or 1.5 times the wall thickness in width (minimum). Bend the test strap until the ends of the strap touch. If the fusion fails at the joint, a new trial fusion shall be made, cooled completely and tested. Butt fusion of pipe to be installed shall not commence until a trial fusion has passed the bent strap test.
- B. Mechanical Connections: The mechanical connections of the polyethylene pipe to auxiliary equipment shall be in accordance with the pipe suppliers written instructions.
- C. Electrofusion Fittings:
1. Fittings shall be produced from a PE3408 grade of polyethylene resin meeting ATM D1248 and D3350. Virgin resin must meet or exceed the requirements of NSF61.
 2. Electrofusion fittings shall be tested and supplied in accordance with AWWA C906.
 3. Corp. saddles shall have tapered brass (cc) threads and meet AWWA C800.

0825.03 EXECUTION

3.1 INSTALLATION OF PIPES AND FITTINGS

- A. The depth and width of the trench shall be as shown on the Contract Drawings.
- B. Lay the pipe and fittings down on the granular base. At flanges, valves and such connections, the trench bottom shall be dug out with sufficient length, width and depth to ensure clearance between the undisturbed trench bottom and the flanges valves and such connections.
- C. Install flange connections at heavy fittings, manholes and rigid structures in such a manner that there is no subsequent relative movement between the polyethylene pipe at the flanged joint and the rigid structures.
- D. Where required, pour concrete thrust blocks at fittings as shown on the Drawings or as directed by District or Authorized Representative.
- E. Trenchless Installation
 1. Trenchless installation is required for water services 2" or less in diameter installed on the west (long) side of Water Street. Boring, jacking, pulling or bursting are all acceptable methods of installation.
 2. Up to two (2) parking spaces may be used for receiving pits on the west side of Water Street until 9:00 a.m. in the morning. Receiving pits may be temporarily plated with steel, if required.

3.2 CLEANING AND TESTING

- A. Cleaning, Testing and Disinfection of polyethylene plastic pipe: Refer to Specification Section 02675 Cleaning, Testing and Chlorination of Water Mains.

END OF SECTION
825.422-03

SECTION 0825.43
COPPER SERVICE PIPE & FITTINGS
(BURIED APPLICATIONS)

PART 1 -
GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish and install copper pipe of the type and size and in the locations shown on the Drawings and as specified herein.
- B. Related Work Specified Elsewhere:
 - 1. Pipe and Pipe Fittings - General is specified in this Division.
 - 2. Excavation, Bedding and Backfill are specified in this Division.

1.2 QUALITY ASSURANCE

- A. Seamless copper water tube, ASTM B88.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Pipe use:
 - 1. Domestic Water (buried exterior).
 - a. Type K, soft annealed.

B. Fittings:

All fittings shall be manufactured in accordance with AWWA Standards C-800, latest revision and as further specified herein.

Any brass part of the fitting in contact with potable water shall be made of no lead brass, UNS Copper Alloy No. C89520 or C89833. This brass alloy shall contain no more than 0.09% lead by weight.

Any brass part of the fitting not in contact with potable water shall be made of 85-5-5-5 brass, UNS Copper Alloy No. C83600.

All brass fittings shall be certified to NSF/ANSI 61. Proof of certification is required.

All brass fittings shall be stamped with the manufacturers name or trademark and with NL or another suitable mark indicating "no lead".

- 1. Acceptable manufacturer: Mueller Co.
0825.43-1

PART 3 - EXECUTION

3.1 INSTALLATION

A. Jointing

1. Pack joint Compression fittings
 - a. Cut pipe squarely.
 - b. Ream or file pipe to remove burrs.
 - c. Seat pipe in fittings and tighten nut.
1. Adapters: Use as required to connect to existing services.
2. Copper service pipes must be continuous with no joints from corporation to curb stop unless prior approval is obtained from the Water District.

B. Bending Pipe

1. Bend pipe by the method and to the radius to comply with the manufacturer's recommendations.
2. Bend pipe with suitable tools to provide smooth bend free of any cracks or buckles.
3. Provide "goose neck" in new services as shown on Drawings.

C. Trenchless Installation

1. Trenchless installation is required for water services 2" or less in diameter installed on the west (long) side of Water Street. Boring, jacking, pulling or bursting are all acceptable methods of installation.
2. Up to two (2) parking spaces may be used for receiving pits on the west side of Water Street until 9:00 a.m. in the morning. Receiving pits may be temporarily plated with steel, if required.

END OF
SECTION

0825.43-2

SECTION 0825.541
TEMPORARY WATER
MAIN

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: Furnish, install and test all polyethylene or PVC temporary water pipe, pipe fittings and services and appurtenances of the type(s) and size(s) and in the location(s) as shown on the Drawings and as herein specified.
- B. Related Work Specified Elsewhere:
 - 1. Cleaning and Testing is specified in Specification Section 02675.

1.2 QUALITY ASSURANCE

- A. Provide pipe and fittings manufactured by a single manufacturer.
- B. Pressure rating or pressure class of pipe as detailed herein.
- C. Standards:
 - 1. ASTM D 1248 Polyethylene Plastics Molding and Extrusion Materials.
 - 2. ASTM D 1505 Density of Plastics by the Density Gradient Technique.
 - 3. ASTM D 1693 Environmental Stress Cracking of Ethylene Plastics.
 - 4. ASTM D 1928 Preparation of Compression Molded Polyethylene Test Samples.
 - 5. ASTM D 1784 - Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (PVC) Compounds.
 - 6. ASTM D 2241 - PVC Pressure Rated Pipe (SDR Series).
 - 7. ASTM D 3139 - Joints for Plastic Pressure Pipes using Flexible Elastomeric Seals.
- D. Acceptable Manufacturers:
 - 1. Ryerson & Son, Inc. "Mono-Line"
 - 2. Dupont, "Aldyl-D"
 - 3. Sheldon "Sclairpipe"
 - 4. Certainteed Yelomine PVC
 - 5. Or approved equal.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Polyethylene Pipe:
 - 1. The pipe shall be obtained by polymerization of no less than 85% ethylene and no less than 95% of total olefins by weight.
 - 2. The polyethylene resin shall be classified as a Type III, Class C, Category 3. Nominal density shall be 0.941 to 0.959.

0825.541-1

3. The polyethylene compound shall be suitably protected against degradation by ultraviolet light by means of carbon black, well dispersed in a concentration of not less than 2%.
 4. The polyethylene resin compound shall have a resistance to environmental stress cracking as determined by procedure detailed in ASTM D 1693 with sample preparation by procedure C of ASTM D 1928 of not less than 40 hours.
 5. Pipe shall be homogeneous throughout and free of visible cracks, holes, foreign material, blisters, or other deleterious faults.
 6. Polyethylene fittings shall have the same pressure rating as the pipe itself.
 7. Adaptors: When applicable, provide adaptors for connecting polyethylene pipe to pipes constructed from other materials. All flanges shall have metal backing rings.
 8. Pipe pressure rating shall be 100 psi (SDR-17) minimum.
- B. Polyvinyl Chloride (PVC) Pipe:
1. PVC pipe shall be made from Type 1, Grade 1, 2000 psi design stress, Class 12454-B formulation Polyvinyl Chloride.
 2. PVC formulation shall contain impact modifiers and ultraviolet inhibitors for use in above-ground temporary applications.
 3. Pipe shall have potable water service certification in accordance with NSF No. 14 (National Sanitation Foundation Standard) for Thermoplastic materials, pipe fittings, valves, traps, and joining materials.
 4. Pipe pressure rating shall be 100 psi (SDR-21) minimum.

2.2 FABRICATION

A. Polyethylene Pipe:

1. Thermal Butt-Fusion:
 - a. Join the pipe to itself, or to the polyethylene fittings or to the flange connections by means of thermal butt-fusion.
 - b. Have all fusion performed by personnel trained by the pipe supplier or other qualified persons, using tools approved by the pipe supplier.
 - c. The polyethylene fittings and flanged connections to be joined by thermal butt-fusion shall be from the same type, grade and class of polyethylene compound as the polyethylene pipe unless otherwise approved.
 - d. Joint strength must be equal to that of the adjacent pipe.
2. Mechanical Connections: The mechanical connections of the polyethylene pipe to auxiliary equipment shall be in accordance with the pipe suppliers written instructions.

0825.541-2

- B. Polyvinyl Chloride (PVC) Pipe:
 - 1. Fittings shall be supplied with Teflon coated "O"-ring to minimize assembly and disassembly effort required to install, remove and reinstall the system.
 - 2. Mechanical Connections: The mechanical connections of the PVC pipe to auxiliary equipment shall be in accordance with the pipe suppliers written instructions.
- C. Services:
 - 1. Services shall be polyethylene pipe or NSF certified hose.
 - 2. Minimum services size shall be 3/4-inch. Larger services may be required for non-residential uses. District or Authorized Representative shall determine minimum service size.

PART 3 - EXECUTION

3.1 INSTALLATION OF TEMPORARY MAIN

- A. Temporary water mains shall be laid in a manner that protects the pipeline from traffic, vandalism, etc. Pipeline shall be laid along edge of roadways or in curblines whenever possible.
- B. Water mains shall be protected at all driveway entrances and curb cuts by the use of gravel, temporary pavement, or steel access ramps. In lieu of access ramps, in areas that will have new pavement, a shallow trench may be cut to allow the shallow burial of the temporary main. If trenching is used, trenches shall be sawcut, refilled with compacted gravel and repaved with trench pavement prior to final paving.

3.2 INSTALLATION OF SERVICES

- A. All services tapped to the temporary main will have a shutoff at the main to allow isolation of the individual service.
- B. Residential services may be back-fed through an external hose bib if available. If a hose bib is utilized, Contractor shall shutoff the existing feed to the structure at the meter to prevent back-feeding the old main and shall confirm that the connection properly services the entire structure.
- C. For services where no external hose bib or other connection is available or larger than residential flows are required, the Contractor shall excavate the existing building service and connect the service to the temporary main with the appropriate size piping.
- D. For fire protection (sprinkler) services, the Contractor shall coordinate with the Building Owner and Fire Department for service size and sprinkler service connection requirements. Contractor shall not connect sprinkler services without express written permission of the Building Owner.

0825.541-3

3.3 CLEANING AND TESTING

- A. Temporary water main shall be pressure tested at 100 psi and disinfected per Specification Section 0834.

END OF SECTION

0825.541-4

SECTION 0827.33
TRENCH INSULATION

PART 1 - GENERAL

1.1 DESCRIPTION

The Contractor shall furnish all labor, materials, equipment and appurtenances necessary to install the trench insulation as indicated on the drawings and as herein specified.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Polystyrene insulation for trenches shall be plastic foam insulation board equal to styrofoam Highload 40 as manufactured by the Dow Chemical Company and as meeting ASTM Specification C-578 Type VI or approved equal and have a vertical compressive strength of 40 psi (special order).

B. Foamglass insulation for trenches shall be equal to foamglass board insulation as manufactured by Pittsburgh Corning Corporation meeting ASTM Standard C-552.

PART 3 - EXECUTION

3.1 INSTALLATION

The insulation shall extend a minimum of 12" beyond the outside edge of the pipe and shall be within 6 inches of either side of the trench. The thickness shall be 2 inch unless otherwise specified on the drawings or required by the Engineer. In general it shall be used where the top of the pipe is less than 5 ~~112~~ feet below finish grade or when the pipe crosses under or over a culvert.

The insulation shall be installed on top of the compacted select backfill and shall be at least 6 inches above the top of the pipe. Joints shall be over-lapped 6" for maximum protection. Backfilling over the insulation shall be done by hand for the first 6-8 inches and compacted before remaining backfill is applied.

Installation for each type of insulation shall be according to the manufacturer's recommendations. In general, backfill shall be clean, dry, and be free of any material which can dissolve the plastic such as petroleum products.

END OF SECTION

0827.33-1

SECTION 0843.021
DIPS POLYETHYLENE PIPE

GENERAL

Furnish, install and test all polyethylene pipe, pipe fittings and appurtenances of the type(s) and size(s) and in the location(s) as shown on the Drawings and herein specified.

MATERIALS

PE potable water pressure pipe shall be PE 3408/3608 ductile iron pipe size, shall meet the standards set forth in ASTM F-714 and be listed with NSF for use in potable water applications. Additional applicable standards include AWWA C906 standards for PE pressure pipe and fittings, 2" through 63" for water distribution and transmission.

Fabrication

A. Thermal Butt-Fusion:

1. The pipe shall be joined to itself, or to the polyethylene fittings or to the flange connections by means of thermal butt-fusion.
2. All fusion must be done by personnel trained by the pipe supplier or other qualified persons, using tools approved by the pipe supplier and supplied by the Contractor.
3. The polyethylene fittings and flanged connections to be joined by thermal butt-fusion shall be from the same type, grade and class pipe unless otherwise approved.
4. Joint strength must be equal to that of the adjacent pipe.

B. Mechanical Connections: The mechanical connections of the polyethylene pipe to ductile pipe shall be bused to the ends of the PE pipe.

INSTALLATION OF PIPES AND FITTINGS

A. The depth and width of the trench shall be as shown on the Contract Drawings.

B. The pipe and fittings shall be laid down on the sand base. At flanges and such connections, the trench bottom shall be dug out with sufficient length, width and depth to ensure clearance between the undisturbed trench bottom and such connections.

C. Connections shall be done in such a manner that there is no subsequent relative movement between the polyethylene pipe at the joint.

D. Where required, concrete thrust blocks shall be poured or precast at fittings as indicated on the Contract Drawings or as directed by the Engineer.

Disinfection and Testing

Disinfection and testing in accordance with Section 0822.4

END OF SECTION

0843.021-2

SECTION 0843.031
RAILROAD CROSSING SLEEVE

GENERAL

- A. Install a 16" diameter Sch. 40 steel sleeve for an 8" diameter carrier pipe beneath railroad tracks.
- B. Railroad crossing sleeve shall meet Buy America requirements as presented in the Maine DOT Standard Specifications.

MATERIALS

Sleeve pipe shall be Sch. 40, 16" nominal size, 16" outside diameter, 0.5 inch wall thickness, 83 lbs. per foot.

Standards: ASTM A53 Type S Grade B.

INSTALLATION

Welding of pipe sections shall be performed by a welder certified in pipe welding equivalent to ASME Section IX pipe welding certificate. Welds shall be watertight.

Sleeve pipe shall be installed at a slight grade, sealed on the uphill side and with a 2" weep hole on the downstream side.

HDPE pipe shall be installed inside the sleeve pipe. Provide pipe centering devices, end seals and weep hole.

END OF SECTION

STANDARD DETAIL UPDATES

Standard Details and Standard Detail updates are available at:
<http://maine.gov/mdot/contractors/publications/standarddetail/>

<u>Detail #</u>	<u>Description</u>	<u>Revision Date</u>
501(02)	Pipe Pile Splice	3/05/2015
501(03)	H – Pile Splice	3/05/2015
504(07)	Diaphragm & Crossframe Notes	10/13/2015
505(01)	Shear Connectors	10/24/2016
507(13)	Steel Bridge Railing	6/03/2015
507(14)	Steel Bridge Railing	6/03/2015
507(31)	Barrier – Mounted Steel Bridge	8/06/2015
526(02)	Temporary Concrete Barrier	8/06/2015
652(06)	Construction Signs	10/24/2016
652(12)	Construction Traffic Control	10/24/2016
802(05)	Roadway Culvert End Slope Treatment	1/03/2017
504(10)	Drip Bar Details	9/06/2017

SUPPLEMENTAL SPECIFICATIONS
(Corrections, Additions, & Revisions to Standard Specifications - November 2014)

SECTION 101
CONTRACT INTERPRETATION

101.1 Abbreviations Revise the definition of AWP to “**American Wood Protection Association**”.

101.2 Definitions

Page 1-5 – Remove the definition of Bridge in its entirety and replace with:

“Bridge A structure that is erected over a depression or an obstruction, such as water, a highway or a railway, and has an opening measured along the centerline of the Roadway of more than 20 feet between: The faces of abutments; spring line of arches; extreme ends of openings of box culverts, pipes or pipe arches; or the extreme ends of openings for multiple box culverts, pipes or pipe arches.”

Page 1-12 – Remove the definition of Large Culvert in its entirety and replace with:

“Large Culvert Any structure not defined as a Culvert or Bridge that provides a drainage or non-drainage opening under the Roadway or Approaches to the Roadway, with an opening that is 5 feet but less than 10 feet.”

Remove the definition of Minor Span in its entirety and replace with:

“Minor Span Same definition as Bridge, except having an opening of between 10 feet and 20 feet, inclusive.”

SECTION 103
AWARD AND CONTRACTING

Amend this Section by adding the following:

“103.1a Tie Bids - In the case where two responsive bids from responsible bidders are equal monetarily, the Department shall determine the apparent low bidder by flipping a coin. The coin shall have sides clearly marked as heads and tails. The contractor whose first letter in their official company name that comes first in the alphabet shall be heads.

If there are three bids, each bidder will flip the coin and the bidder with the odd toss will be the winner. (i.e. if the results are two heads and a tails, the bidder who had tails is the winner). For a three way tie, bidders may flip their own coin or have the Contracts Engineer flip for them.

The coin flip will occur at the next bid opening by the Contracts and Specifications Engineer or a designee. The tied bidders may attend the coin flip in person or watch on the internet as they choose.”

In 103.3.2 Notice of Determination Revise this section by removing sections A – M and replacing with the following A - K:

(A) Default(s) or termination(s) on past or current Contracts.

**(B) Failure on past or current Contracts to pay or settle all bills for labor, Materials or services;
to comply with directives of the Department, to fulfill warranty obligations, or to provide Closeout Documentation.**

(C) "Below Standard" performance as determined from the Department's Contractor's Performance Rating process.

(D) Insufficient bonding capability or Inability of the Contractor to obtain or retain performance or Payment Bonds meeting MDOT requirements, or a pattern of unsupported Claims.

(E) Failure to accept an Award of a Contract made by the Department.

(F) Failure to provide information requested by the Department in a timely manner.

(G) Debarment, suspension or a denial of prequalification or 'award of contract' by any federal, State, or local governmental procurement agency or the Contractor's Agreement to refrain from Bidding as part of the settlement with any such agencies or any of the reasons contained in Section 102.02 of the "Rules Regarding Debarment of Contractors", Maine Department of Transportation Register 17-229, Chapter 102 (October 2, 1985).

(H) Failure to demonstrate ability to do work to the satisfaction and at the sole discretion of the Department.

(I) Number of personnel working directly for the Contractor with applicable knowledge and experience is significantly below industry standards.

(J) Safety Record, Environmental Record, Civil Rights or Equal Opportunity Record significantly below industry standards.

(K) Serious misconduct that the Department reasonably determines will substantially and adversely affect the cost, quality or timeliness of Work, or the safety of Workers or the public, any deceptive, evasive or fraudulent statements or omissions contained in the Application, made or omitted at any interview or hearing, or otherwise made to or omitted from the Department; or any other substantial deficiencies in experience or conduct that are clearly below industry standards and that clearly demonstrate in the sole discretion of the Department, that the Contractor is "Not Qualified".

SECTION 104

GENERAL RIGHTS AND RESPONSIBILITIES

This Section shall be amended by adding the following two sub-sections:

104.3.8.1 Electronic Payroll Submission On federally funded projects the prime contractor, all subcontractors, and lower-tier subcontractors will submit their certified payrolls electronically utilizing the Elations system. There is no charge to the contracting community for the use of this service. The submission of paper payrolls will not be allowed or accepted. Additional information can be found at <http://www.maine.gov/mdot/contractors/> under the “Bidder Info” go to “Electronic Payroll System.”

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

104.4.10 Coordination of Road Closure / Bridge Closure / Bridge Width Restrictions

Revise the last sentence by adding a period after ‘Resident’; remove the “and” after Resident; and adding “**not covered by Pay Items**” between ‘costs’ and ‘will’. So that the last paragraph reads “**All Newspaper notices, radio announcements and any notifications will be subject to the approval of the Resident. All costs not covered by Pay Items will be considered incidental to the Contract.**”.

104.5.5 Prompt Payment of Subcontractors Add the following paragraph to this subsection:

C. Payment Tracking Federal Projects On federally funded projects, the prime contractor, subcontractors and lower-tier subcontractors will track and confirm the delivery and receipt of all payments through the Elation System. They will be responsible for entering all payments to all sub and lower tier contractors. MaineDOT will run a query monthly to ensure that contractors are complying and generate an e-mail to contractors who have not responded to confirm receipt of MaineDOT payment or contractor payment to lower tier subcontractors.

SECTION 105

GENERAL SCOPE OF WORK

105.2.5 Compliance with Health and Safety Laws Remove the second paragraph of this subsection in its entirety and replace with:

“For related provisions, see Sections 105.2.3 – Project Specific Emergency Planning, 105.3 – Traffic Control and Management and 105.4 – Maintenance of work.”

105.4.5 Special Detours Remove this subsection in its entirety and replace with:

“105.4.5 Maintenance of Existing Structures When a new Bridge or Minor Span is being installed on a new alignment and the existing structure is to remain in service, the Department will maintain the existing structure and the portions of the roadway required for maintaining traffic until such time that the new structure is opened to traffic and the existing structure is taken out of service. A similar situation exists when a new Bridge or Minor Span is being installed on the same alignment as the existing structure, requiring a temporary detour to be installed by the Contractor per Section 510, Special Detours, prior to removal of the existing structure. In this case, the Department will maintain the existing structure and the portions of the existing roadway required for maintaining traffic until such time that either the temporary detour is opened to traffic or the Contractor begins any work on the existing structure, including, but not limited to, repairs, modifications, moving, demolition or removal. In either case, once the new structure or temporary detour is opened to traffic, or the Contractor begins any work on the existing structure, the Contractor shall be solely responsible for all maintenance of the existing structure and the portions of the existing approaches that lie outside the new roadway or the temporary detour, respectively. This specification is not intended to supersede Standard Specification Section 104.3.11, Responsibility for Property of Others.”

105.6.2.4 Department Verification Add the following to the end of the first sentence:
“or other approved method, such as reference staking, to allow the Department to independently verify the accuracy of the work, as approved by the Department.”

SECTION 106 **QUALITY**

106.3.4 Storage Revise this Section by adding the following sentence after the first sentence:
“Materials shall not be stored under or in close proximity to Highway Structures unless the Contractor receives written permission from the Resident.”

106.4.1 General - In the first sentence, remove “When required by Special Provision,” and replace with **“When required elsewhere in the Contract,”**

Revise Subsection C by replacing the last sentence with the following:

Approval of both standard and project specific QCPs shall be as outlined in paragraph B above, with the exception that the initial 14 day review period for standard plans will begin on March 1, and that the supplemental project specific QCP for the project shall be submitted a minimum of 14 days prior to any related work being performed with an initial review period of 7 days.

SECTION 108

PAYMENT

108.3 Retainage - Remove the paragraph beginning with “ The Contractor may withdraw...” in its entirety.

108.4.1 Price Adjustment for Hot Mix Asphalt:

Remove this section in its entirety and replace with the following

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

Item 403.102	Hot Mix Asphalt – Special Areas
Item 403.206	Hot Mix Asphalt - 25 mm
Item 403.207	Hot Mix Asphalt - 19 mm
Item 403.2071	Hot Mix Asphalt - 19 mm (Polymer Modified)
Item 403.2072	Hot Mix Asphalt - 19 mm (Asphalt Rich Base)
Item 403.208	Hot Mix Asphalt - 12.5 mm
Item 403.2081	Hot Mix Asphalt - 12.5 mm (Polymer Modified)
Item 403.209	Hot Mix Asphalt - 9.5 mm (sidewalks, drives, & incidentals)
Item 403.210	Hot Mix Asphalt - 9.5 mm
Item 403.2101	Hot Mix Asphalt - 9.5 mm (Polymer Modified)
Item 403.2102	Hot Mix Asphalt - 9.5 mm (Asphalt Rich Base)
Item 403.2104	Hot Mix Asphalt - 9.5 mm (Thin Lift Surface Treatment)
Item 403.21041	Hot Mix Asphalt - 9.5 mm (Polymer Modified Thin Lift Surface Treatment)
Item 403.211	Hot Mix Asphalt – Shim
Item 403.2111	Hot Mix Asphalt – Shim (Polymer Modified)
Item 403.212	Hot Mix Asphalt - 4.75 mm (Shim)
Item 403.213	Hot Mix Asphalt - 12.5 mm (base and intermediate course)
Item 403.2131	Hot Mix Asphalt - 12.5 mm (base and intermediate course Polymer Modified)
Item 403.2132	Hot Mix Asphalt - 12.5 mm (Asphalt Rich Base and intermediate course)
Item 403.214	Hot Mix Asphalt - 4.75 mm (Surface)
Item 403.235	Hot Mix Asphalt (High Performance Rubberized HMA)
Item 403.301	Hot Mix Asphalt (Asphalt Rubber Gap-Graded)
Item 404.70	Colored Hot Mix Asphalt – 9.5mm (Surface)
Item 404.72	Colored Hot Mix Asphalt – 9.5mm (Islands, sidewalks, & incidentals)
Item 461.13	Light Capital Pavement
Item 461.210	9.5 mm HMA - Paver Placed Surface
Item 462.30	Ultra-Thin Bonded Wearing Course
Item 462.301	Polymer Modified Ultra-Thin Bonded Wearing Course

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

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

Item 403.102–6.2%
Item 403.206–4.8%
Item 403.207–5.2%
Item 403.2071–5.2%
Item 403.2072–5.8%
Item 403.208–5.6%
Item 403.2081–5.6%
Item 403.209–6.2%
Item 403.210–6.2%
Item 403.2101–6.2%
Item 403.2102–6.8%
Item 403.2104–6.2%
Item 403.21041–6.2%
Item 403.211–6.2%
Item 403.2111–6.2%
Item 403.212–6.8%
Item 403.213–5.6%
Item 403.2131–5.6%
Item 403.2132–6.2%
Item 403.214–6.8%
Item 403.235–5.5%
Item 403.301–6.2%
Item 404.70–6.2%
Item 404.72–6.2%
Item 461.13–6.5%
Item 461.210 – 6.4%
Item 462.30–0.0021 tons/SY
Item 462.301–0.0021 tons/SY

Hot Mix Asphalt: The quantity of hot mix asphalt will be determined from the quantity shown on the progress estimate for each pay period.

Base Price: The base price of performance graded binder to be used is the price per standard ton current with the bid opening date. This price is determined by using the average New England Selling Price (Excluding the Connecticut market area), as listed in the Asphalt Weekly Monitor.

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

SECTION 109 **CHANGES**

109.5.1 Definitions - Types of Delays

Delete Paragraph 'A' in its entirety and replace with:

"A. Excusable Delay Except as expressly provided otherwise by this Contract, an "Excusable Delay" is a Delay to the Critical Path that is directly and solely caused by (1) a weather related Event of such an unusually severe nature that a Federal Emergency Disaster is declared. The Contractor will only be entitled to an adjustment of time if the Project falls within the geographic boundaries prescribed under the disaster declaration. or (2) a flooding event at the effected location of the Project that results in a Q25 headwater elevation, or greater, but less than a Q50 headwater elevation. Theoretical headwater elevations will be determined by the Department; actual headwater elevations will be determined by the Contractor and verified by the Department or (3) An Uncontrollable Event."

APPENDIX A TO DIVISION 100

Remove Section D in its entirety as this is now covered in Section 105.10 **EQUAL OPPORTUNITY AND CIVIL RIGHTS.**

SECTION 203 **EXCAVATION AND EMBANKMENT**

203.02 Materials

At the bottom of page 2-12, add as the first item in the list:

Crushed Stone, ¾ inch 703.13

203.042 Rock Excavation and Blasting

On page 2-16, add the word "No" to the third sentence in Section 5 Submittals, Subsection V, 1 so that it reads:

"No blasting products will be allowed on the job site if the date codes are missing."

SECTION 304

AGGREGATE BASE AND SUBBASE COURSE

304.02 – Aggregate Add the following sentence before the sentence starting with “When designated on the plans...”: **“Aggregate Base Course – Type C will be capped with 2” of millings or Untreated Aggregate Surface Course – Type B. Payment for this material will be made under 304.16”**

Revise the sentence beginning “When designated on the Plans, Type E...” by removing “When designated on the Plans,” so it reads **“Type E subbase may be used 9 inches below and lower beneath the pavement.”**

SECTION 307

FULL DEPTH RECYCLED PAVEMENT

Remove this Section in its entirety and replace with:

SECTION 307

FULL DEPTH RECYCLING

(UNTREATED OR TREATED WITH EMULSIFIED ASPHALT STABILIZER)

307.01 Description This work shall consist of pulverizing a portion of the existing roadway structure into a homogenous mass, adding an emulsified asphalt stabilizer (if required) to the depth of the pulverized material specified in the contract, placing and compacting this material to the lines, grades, and dimensions shown on the plans or established by the Resident.

MATERIALS

307.02 Pulverized Material Pulverized material shall consist of the existing asphalt pavement layers and one inch or more as specified of the underlying gravel, pulverized and blended into a homogenous mass. Pulverized material will be processed to 100% passing a 2 inch square mesh sieve.

307.021 New Aggregate and Additional Recycled Material New aggregate, if required by the contract, shall meet the requirements of Subsection 703.10 - Aggregate for Untreated Surface Course and Leveling Course, Type A. Aggregate Subbase Course Gravel Type D processed to 100 percent passing a 2 inch square mesh sieve and meeting the requirements of 703.06 – Aggregate for Base and Subbase may be used in areas requiring depths greater than 2 inches. New aggregate, will be measured and paid for under the appropriate item.

Recycled material, if required, shall consist of salvaged asphalt material from the project or from off-site stockpiles that has been processed before use to 100 percent passing a 2 inch square mesh sieve. Recycled material shall be conditionally accepted at the source by the Resident. It shall be free of winter sand, granular fill, construction debris, or other materials not generally considered asphalt pavement.

Recycled material generated and salvaged from the project shall be used within the roadway limits to the extent it is available as described in 307.09. No additional payment will be made for material salvaged from the project.

Recycled material supplied from off-site stockpiles shall be paid for as described in the contract, or by contract modification.

307.022 Emulsified Asphalt Stabilizer. If required, the emulsified asphalt stabilizer shall be grade MS-2, MS-4, SS-1, or CSS-1 meeting the requirements of Subsection 702.04 Emulsified Asphalt.

307.023 Water Water shall be clean and free from deleterious concentrations of acids, alkalis, salts or other organic or chemical substances.

307.024 Portland Cement If required, Portland Cement shall be Type I or II meeting the requirements of AASHTO M85.

307.025 Hydrated Lime If required, Hydrated Lime shall meet the requirements of AASHTO M216.

EQUIPMENT

307.03 Pulverizer The pulverizer shall be a self-propelled machine, specifically manufactured for full-depth recycling work and capable of reducing the required existing materials to a size that will pass a 2 inch square mesh sieve. The machine shall be equipped with standard automatic depth controls and must maintain a consistent cutting depth and width. The machine also shall be equipped with a gauge to show depth of material being processed.

307.04 Liquid Mixer Unit or Distributor. If treatment of the recycled layer with emulsified asphalt is required by the contract, a liquid mixing unit or distributor shall be used to introduce the emulsified asphalt stabilizer into the pulverized material. The mixing unit shall contain a liquid distribution and mixing system which has been specifically manufactured for full-depth recycling work, capable of mixing the pulverized material with an evenly metered distribution of emulsified asphalt into a homogeneous mixture, to the depth and width required.

The mixing unit shall be designed, equipped, maintained, and operated so that emulsified asphalt stabilizer at constant temperature may be applied uniformly on variable widths of pulverized material up to 6 feet at readily determined and controlled rates from 0.01 to 1.06 gal/yd² with uniform pressure and with an allowable variation from any specified rate not to exceed 0.01 gal/ yd². Mixing units shall include a tachometer, pressure gages, and accurate volume measuring devices or a calibrated tank and a thermometer for measuring temperatures of tank contents.

307.041 Cement or Lime Spreader If required by the contract, spreading of the Portland Cement or Hydrated Lime shall be done with a spreader truck designed to spread dry particulate (such as Portland Cement or Lime) or other approved means to insure a uniform distribution across the roadway and minimize fugitive dust. Pneumatic application, including through a slotted pipe, will not be permitted. Other systems that have been developed include fog systems, vacuum systems, etc. Slurry applications may also be accepted. The Department reserves the right to accept or reject the method of spreading cement. The Contractor shall provide a method for verifying that the correct amount of cement is being applied.

307.05 Placement Equipment Placement of the Full Depth recycled material to the required slope and grade shall be done with an approved highway grader or by another method approved by the Resident.

307.06 Rollers The full depth recycled material shall be rolled with a vibratory pad foot roller, a vibratory steel drum soil compactor and a pneumatic tire roller. The pad foot roller drum shall have a minimum of 112 tamping feet 3 inches in height, a minimum contact area per foot of 17 inch², and a minimum width of 84 inches. The vibratory steel drum roller shall have a minimum 84 inch width single drum. The pneumatic tire roller shall meet the requirements of Section 401.10 and the minimum allowable tire pressure shall be 85 psi.

MIX DESIGN

If treatment of the recycled layer with emulsified asphalt is required by the contract, the Department will supply a mix design for the emulsified asphalt stabilized material based on test results from pavement and soil analysis taken to the design depth. The Department will provide the following information prior to construction:

1. Percent of emulsified asphalt to be used.
2. Quantity of lime or cement to be added.
3. Optimum moisture content for proper compaction.
4. Additional aggregate (if required).

After a test strip has been completed or as the work progresses, it may be necessary for the Resident to make necessary adjustments to the mix design. Changes to compensation will be in accordance with the Mix Design Special Provision.

CONSTRUCTION REQUIREMENTS

307.06 Pulverizing The entire depth of existing pavement shall be pulverized together with 1 inch or more of the underlying gravel into a homogenous mass. All pulverizing shall be done with equipment that will provide a homogenous mass of pulverized material, processed in-place, which will pass a 2 inch square mesh sieve.

307.07 Weather Limitations Full depth recycled work shall be performed when;

- A. Recycling operations will be allowed between May 15th and September 15th inclusive in Zone 1 - Areas north of US Route 2 from Gilead to Bangor and north of Route 9 from Bangor to Calais.
- B. The atmospheric temperature, as determined by an approved thermometer placed in the shade at the recycling location, is 50°F and rising.
- C. When there is no standing water on the surface.
- D. During generally dry conditions, or when weather conditions are such that proper pulverizing, mixing, grading, finishing and curing can be obtained using proper procedures, and when compaction can be accomplished as determined by the Resident.
- E. When the surface is not frozen and when overnight temperatures are expected to be above 32°F.
- F. Wind conditions are such that the spreading of lime or cement on the roadway ahead of the recycling machine will not adversely affect the operation.

307.08 Surface Tolerance The complete surface of the Full Depth Recycled course shall be shaped and maintained to a tolerance, above or below the required cross sectional shape, of $\frac{3}{8}$ inch.

307.09 Full Depth Recycling Procedure New aggregate or recycled material meeting the requirements of Section 307.021 - New Aggregate and Additional Recycled Material, shall be added as necessary to restore cross-slope and/or grade before pulverizing. Locations will be shown on the plans or described in the construction notes. The Resident may add other locations while construction of the project is in progress. The Contractor will use recycled material to the extent it is available, in lieu of new aggregate. The material shall then be pulverized, processed, and blended into a homogeneous mass passing a 2 inch square mesh sieve. Material found not pulverized down to a 2 inch size will be required to be reprocessed by the recycler with successive passes until approved by the Resident.

Should the Contractor be required to add new aggregate or recycled material to restore cross-slope and/or grade after the initial pulverizing process, those areas will require re-processing to blend into a homogenous mass passing a 2 in square mesh sieve.

Sufficient water shall be added during the recycling process to maintain optimum moisture for compaction.

The resultant material from the initial pulverizing processes shall be graded and compacted to the cross-slope and profile shown on the plans or as directed by the Resident. The Contractor will also be responsible for re-establishing the existing profile grade. The completed surface of the full depth recycled course shall be shaped and maintained to a tolerance, above or below the required cross sectional shape, of $\frac{3}{8}$ inch. Areas not meeting this tolerance will be repaired as described in Section 307.091. The initial pulverizing process density requirements will be the same as Section 307.101 unless otherwise directed by the Resident.

Additives, if required, shall be introduced following completion of the initial pulverizing and blending process. Emulsified asphalt stabilizer shall be incorporated into the top of the processed material as specified in section 307.04 to the depth specified in the contract by use of the liquid mixer unit or a distributor, at the rate specified in the mix design. The emulsified asphalt shall then be uniformly blended into a homogeneous mass until an apparent uniform distribution has occurred. The rate of application may be adjusted as necessary by the Resident. Cement or lime shall be introduced as described in section 307.041. The resultant material shall be graded and compacted to the cross-slope and profile shown on the plans or as directed by the Resident. The Contractor will also be responsible for re-establishing the existing profile grade.

After final compaction, the roadway surface shall be treated with a light application of water, and rolled with pneumatic-tired rollers to create a close-knit texture. The finished layer shall be free from:

- A. Surface laminations.
- B. Segregation of fine and coarse aggregate.
- C. Corrugations, centerline differential, potholes, or any other defects that may adversely affect the performance of the layer, or any layers to be placed upon it.

The Contractor shall protect and maintain the recycled layer until a lift of pavement is applied. Any damage or defects in the layer shall be repaired immediately. An even and uniform surface shall be maintained. The recycled surface shall be swept prior to hot mix asphalt overlay placement.

307.091 Repairs Repairs and maintenance of the recycled layers, resulting from damage caused by traffic, weather or environmental conditions, or resulting from damage caused by the Contractor's operations or equipment, shall be completed at no additional cost to the Department.

For recycled layers stabilized with emulsified asphalt, low areas will be repaired using a hot mix asphalt shim. Areas up to 1 inch high can be repaired by milling or shimming with hot mix asphalt. Areas greater than 1 inch high will be repaired using a hot mix asphalt shim. All repair work will be done with the Resident's approval at the Contractor's expense.

TESTING REQUIREMENTS

307.10 Quality Control 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 106.4 - Quality Control and this Section. The Contractor shall not begin recycling operations until the Department approves the QCP in writing. Prior to performing any recycling process, the Department and the Contractor shall hold a Pre-recycle conference to discuss the recycling schedule, type and amount of equipment to be used, sequence of operations, and traffic control. A copy of the QC random numbers to be used on the project shall be provided to the Resident. All field supervisors including the responsible onsite recycling process supervisor shall attend this meeting.

The QCP shall address any items that affect the quality of the Recycling Process including, but not limited to, the following:

- A. Sources for all materials, including New Aggregate and Additional Recycled Material.
- B. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers.
- C. Testing Plan.
- D. Recycling operations including recycling speed, methods to ensure that segregation is minimized, grading and compacting operations.
- E. Methods for protecting the finished product from damage and procedures for any necessary corrective action.
- F. Method of grade checks.
- G. Examples of Quality Control forms.
- H. Name, responsibilities, and qualifications of the Responsible onsite Recycling Supervisor experienced and knowledgeable with the process.
- I. A note that all testing will be done in accordance with AASHTO and MDOT/ACM procedures.

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 the full depth reclamation process in accordance with the following minimum frequencies:

MINIMUM QUALITY CONTROL FREQUENCIES

Test or Action	Frequency	Test Method
Density	1 per 1000 feet / lane	AASHTO T 310
Air Temperature	4 per day at even intervals	
Surface Temperature	At the beginning and end of each days operation	
Yield of all materials (Daily yield, yield since last test, and total project yield.)	1 per 1000 ft/lane	

The Department may view any QC test and request a QC test at any time. The Contractor shall submit all QC test reports and summaries in writing, signed by the appropriate technician, to the Department's onsite representative by 1:00 P.M. on the next working day, except when otherwise noted in the QCP due to local restrictions. The Contractor shall make all test results, including randomly sampled densities, available to the Department onsite.

The Contractor shall cease recycling operations whenever one of the following occurs:

- A. The Contractor fails to follow the approved QCP.
- B. The Contractor fails to achieve 98 percent density after corrective action has been taken.
- C. The finished product is visually defective, as determined by the Resident.
- D. The computed yield differs from the mix design by 10 percent or more.

Recycling operations shall not resume until the Department approves the corrective action to be taken.

307.101 Test Strip The contractor shall assemble all items of equipment for the recycling operation on the first day of the recycling work. The Contractor shall construct a test strip for the project at a location approved by the Resident. The Responsible onsite Recycling Supervisor will work with Department personnel to determine the suitability of the mixed material, moisture control within the mixed material, and compaction and surface finish. The test strip section is required to:

- A. Demonstrate that the equipment and processes can produce recycled layers to meet the requirements specified in these special provisions.
- B. Determine the effect on the gradation of the recycled material by varying the forward speed of the recycling machine and the rotation rate of the milling drum.

- C. Determine the optimum moisture necessary to achieve proper compaction of the recycled layer.
- D. Determine the sequence and manner of rolling necessary to obtain the compaction requirements and establish a target density. The Contractor and the Department will both conduct testing with their respective gauges at this time.

The test strip shall be at least 300 feet in length of a full lane-width (or a half-road width). Full recycling production will not start until a passing test strip has been accomplished. If a test strip fails to meet the requirements of this specification, the Contractor will be required to repair or replace the test strip to the satisfaction of the Resident. Any repairs, replacement, or duplication of the test strip will be at the Contractor's expense.

After the test strip has been pulverized, and the roadway brought to proper shape, the Contractor shall add water until it is determined that optimum moisture has been obtained. The test strip shall then be rolled using the specified compaction equipment as directed until the density readings show an increase in dry density of less than 1 pcf for the final four roller passes of each roller. The Contractor and Department will each determine a target density using their respective gauges by performing several additional density tests and averaging them. The average of these tests will be used as the target density of the recycled material for QC and Acceptance purposes.

Following completion of the test strip, compaction of the material shall continue until a density of not less than 98 percent of the test strip target density has been achieved for the full width and depth of the layer. During the construction and compaction of the Full Depth Recycled base, should three consecutive Acceptance test results for density fail to meet a minimum of 95 percent of the target density, or exceed 102 percent of target density, a new test strip shall be constructed.

ACCEPTANCE TEST FREQUENCY

Property	Frequency	Test Method
In-place Density	1 per 2000 ft / lane	AASHTO T 310

308.102 Curing. No new pavement shall be placed on the full depth recycled pavement until curing has reduced the moisture content to 1 percent or less by total weight of the mixture, or a curing period of 4 days has elapsed, whichever comes first.

307.11 Method of Measurement Full Depth Recycled Pavement (Untreated or Treated with Emulsified Asphalt Stabilizer) will be measured by the square yard.

307.12 Basis of Payment The accepted quantity of Full Depth Recycled Asphalt Pavement (Untreated or Treated with Emulsified Asphalt Stabilizer) will be paid for at the contract unit price per square yard, complete in-place which price will be full compensation for furnishing all equipment, materials and labor for pulverizing, blending, placing, grading, compacting, and for all incidentals necessary to complete the work.

The addition of materials to restore profile grade and/or cross-slope in areas shown on the plans or described in the construction notes will be paid separately under designated pay items within the contract. No additional payment will be made for materials salvaged from the project.

Payments will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
307.331 Full Depth Recycled Pavement (Untreated)	Square Yard
307.332 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) 5 in. depth	Square Yard
307.333 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) 6 in. depth	Square Yard

SECTION 411 **UNTREATED AGGREGATE SURFACE COURSE**

411.02 – Aggregate Add the following to the end of the first sentence: “- Type A”

SECTION 501 **FOUNDATION PILES**

501.05 – Method of Measurement

- b. **Piles Furnished** – After the second sentence, add the sentence “**Measurement will not include any pile tips**”.
- c. **Piles in Place** – Add the sentence to the end of the second paragraph, “**Measurement will include the pile tips**”.
- d. **Pile Tips** – Add the words “**on the Pile**” to the end of the sentence.

SECTION 502 **STRUCTURAL CONCRETE**

502.05 Composition and Proportioning

Replace Table 1 with

TABLE 1

Concrete CLASS	Minimum Compressive Strength (PSI)	Permeability as indicated by Surface Resistivity (KOhm-cm)	Entrained Air (%)		Notes
			LSL	USL	
S	3,000	LSL N/A	N/A	N/A	4,5
A	4,000	14	6.0	9.0	1,4,5
P	-----	-----	5.5	7.5	1,2,3,4
LP	5,000	17	6.0	9.0	1,4,5
Fill	3,000	N/A	6.0	9.0	4,5

In the list of information submitted by the contractor for a mix design:

Item J Replace “Target Coulomb Value.” with “Target KOhm-cm Value.”

Note #1 - Remove, “...**Standard Specification Section 711.05, Protective Coating for Concrete Surfaces, and per the manufacturer’s recommendations, at no additional cost to the Department.**” and replace with, “...**Standard Specification Section 515, Protective Coating for Concrete Surfaces, at no additional cost to the Department.**”

502.1703 Acceptance Methods A and B

In the paragraph that starts with “The Department will take Acceptance...” Remove the word chloride from chloride permeability in the last sentence.

Replace the paragraph starting with “Rapid Chloride Permeability specimens...” With the following:

“Surface Resistivity specimens will be tested by the Department in accordance with AASHTO TP-95 at an age $\geq$ 56 days. Four 4 inch x 8 inch cylinders will be cast per subplot placed. The average of three concrete specimens per subplot will constitute a test result and this average will be used to determine the permeability for pay adjustment computations.”

502.1706 Acceptance Method C

Remove in its entirety and Replace with:

502.1706 Acceptance Method C The Department will determine the acceptability of the concrete through Acceptance testing. Acceptance tests will include compressive strength, air content and permeability. Method C concrete not meeting the requirements listed in Table 1 shall be removed and replaced at no cost to the Department. At the Department's sole discretion, material not meeting requirements may be left in place and paid for at a reduced price as described in Section 502.195.

502.1707 Resolution of Disputed Acceptance Test Results
Section B

Remove "Rapid Chloride" from the section heading.
In paragraph 4 replace T-277 with TP-95

502.192 Pay Adjustment for Chloride Permeability

Remove "Chloride" from the heading and from the first sentence.

Replace the sentence that starts with "values greater than..." and replace with "values less than 10 KOhms-cm for Class A concrete or 11 KOhms-cm for Class LP concrete shall be subject to rejection and replacement, at no additional cost to the Department."

502.194 Pay Adjustments for Compressive Strength, Chloride Permeability and Air Content, Methods A and B

Remove the word "Chloride" from the section heading and from the equation for CPF.

502.195 Pay Adjustment Method C

In Table 6: Method C Pay Reductions (page 5-53)
Under "Entrained Air" for "Class Fill", in the first line,
change from "< 4.0 (Removal)" to "< **4.5 (Removal)**"

In Table 6: Method C PAY REDUCTIONS, revise the Chloride Permeability section by removing it in its entirety and replacing it with:

Surface Resistivity {Permeability in Kohm-cms and Pay Reduction per CY}			
15-16 (\$50)	13 (\$25)	N/A	N/A
13-14 (\$75)	12(\$50)	N/A	N/A
12 (\$100)	11 (\$75)	N/A	N/A
11 (\$125)	10 (\$100)	N/A	N/A
< 11 (Removal)	< 10 (Removal)	N/A	N/A

SECTION 503 **REINFORCING STEEL**

503.06 Placing and Fastening Revise this Subsection by removing, in its entirety, the paragraph which begins, “Stainless steel reinforcement shall not be tied to any other type of reinforcement.....”

SECTION 504 **STRUCTURAL STEEL**

504.26 Welding Remove the second paragraph beginning with “The range of heat....” in its entirety.

504.29 Welding ASTM A 709 HPS 70W Steel. Remove the third paragraph beginning with “Make Weld runoff tabs...” in its entirety.

SECTION 510 **SPECIAL DETOURS**

510.032 Geometric and Approach Design a. Horizontal alignment
The third paragraph of this section is revised to read as follows:

“The roadway width shall be increased on curved portions of the Special Detour to account for the off tracking characteristics of WB-62 vehicle in accordance with **the AASHTO publication A Policy On Geometric Design of Highways and Streets (the Green Book), chapter 3 table entitled Design Widths of Pavements for Turning Roadways.**”

SECTION 527 **ENERGY ABSORBING UNIT**

527.02 Materials This section is revised to read as follows.

527.02 Materials Work Zone Crash Cushions must comply with NCHRP Report 350. Work Zone Crash Cushions shall be selected from MaineDOT’s Qualified Products List of Crash Cushions / Impact Attenuators, or an approved equal.

SECTION 534 **PRECAST STRUCTURAL CONCRETE**

534.14 Process Control Test Cylinders
Revise this subsection to read:

“534.14 Acceptance and Quality Control Testing of Concrete Refer to Section 712.061.”

SECTION 535

PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

Section 535.08 – Quality Assurance

Revise the second paragraph to read:

“The QAI will perform acceptance sampling and testing and will witness or review documentation, workmanship and testing to assure the Work is being performed in accordance with the Contract Documents.”

Section 535.15 - Process Control Test Cylinders

Revise the first paragraph to read:

“535.15 Acceptance and Quality Control Testing of Concrete Acceptance of structural precast/prestressed units, for each day’s production, will be determined by the Department, based on compliance with this specification and satisfactory concrete testing results. At least once per week, the QAI will make 2 concrete cylinders (6 cylinders when the Contract includes permeability requirements) for use by the Department; cylinders shall be standard cured in accordance with AASHTO T23 (ASTM C31). The QAI will perform entrained air content and slump flow testing, determine water-cement ratio and determine temperature of the sampled concrete at the time of cylinder casting. All testing equipment required by the QAI to perform this testing shall be provided in accordance with Standard Specification Section 502.041, Testing Equipment. In addition, the Contractor shall provide a slump cone meeting the requirements of AASHTO T 119. Providing and maintaining testing and curing equipment shall be considered incidental to the work and no additional payment will be made.”

Insert the following as the second paragraph of Section 535.15:

“Quality Control concrete test cylinders shall be made for each day’s cast and each form bed used. Cylinders tested to determine strand release strength and design strength shall be field cured in accordance with AASHTO T23 (ASTM C31). 28 day cylinders shall be standard cured. Record unit identification, entrained air content, water-cement ratio, slump flow and temperature of the sampled concrete at the time of cylinder casting.”

SECTION 604

MANHOLES, INLETS CATCH BASINS

604.04 Adjusting Catch Basins and Manholes,

Add the following paragraph to the end of 604.04 b:

The Department will allow the use of metal ring inserts set into the manhole top frame or composite risers placed beneath the manhole frame to adjust manhole slope and grade for paving projects. The use of metal ring inserts shall be in accordance with 604.04 d. Ring Insert Requirements. The use of composite risers shall be in accordance with 604.04 e. Composite Riser Requirements.

Add the following paragraph after the first paragraph of 604.04 c:

The Department will allow the use of metal ring inserts set into the manhole top frame or composite risers placed beneath the manhole frame to adjust manhole slope and grade for paving projects. The use of metal ring inserts shall be in accordance with 604.04 d. Ring Insert Requirements. The use of composite risers shall be in accordance with 604.04 e. Composite Riser Requirements.

Add the following sections to 604.04:

d. Ring Insert Requirements Ring inserts to adjust manhole top frame slope and grade will be allowed in accordance with the following requirements:

1) Materials

- i. All ring inserts must be made of iron. *Multiple ring inserts will not be allowed.* The single ring insert may be any height up to a maximum of 2 inches tall.**
- ii. Ring inserts shall not be welded to the manhole frame to prevent brittle failure of the cast iron frame.**
- iii. Ring inserts shall be fastened to the manhole frame using liquid steel-filled epoxy such as Loctite Fixmaster Steel Liquid or equivalent. The epoxy shall be installed in accordance with the manufacturer's recommendations.**

2) Where Ring Inserts May/May Not Be Used

- i. MaineDOT will allow the use of a single manhole ring insert to raise manholes on state and state-aid highways.**
- ii. *Manhole ring inserts may not be used along state and state-aid highway sections where the speed limit is 40 miles per hour or more.* The standard brick and mortar or flat composite risers beneath the manhole frame must be used at these locations.**

3) Construction Requirements For The Use of Iron Manhole Ring Inserts

- i. Wherever iron ring inserts are used to raise manhole top elevations, the rings shall be fastened to the existing manhole frame using liquid steel-filled epoxy. The liquid steel-filled epoxy shall be placed evenly around the entire manhole frame before placing the ring insert. *Unbonded ring inserts will not be allowed.* If the manufacturer's recommended construction practices result in loose or unacceptable manhole cover restraint, standard brick and mortar or flat composite risers beneath the manhole frame must be used at these locations.

e. Composite Riser Requirements Flat or beveled, doughnut-shaped, composite risers placed beneath the manhole frame to adjust slope and grade are allowed. The composite riser shall be fastened to both the top of the concrete cone and bottom of the manhole frame with the manufacturer's recommended epoxy. Composite risers may be used at all locations on state and state-aid highways under any legal speed limit without restriction.

SECTION 606 **GUARDRAIL**

606.09 Basis of Payment Amend the first sentence of the eighth paragraph of this subsection by removing the word "meter" and replace it with "linear foot".

SECTION 608 **SIDEWALKS**

608.021 Sidewalk Materials Revise this section by removing the second paragraph which begins with "Portland cement concrete shall..." in its entirety and replace with "**Portland cement concrete shall be Class A and meet the requirements of Section 502, Structural Concrete.**"

SECTION 609 **CURB**

609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections

Amend this section by adding the following paragraph to the end of it:

"The Contractor may elect to substitute concrete to backfill Stone Curbing or Stone Edging at their option. If the concrete backfill option is elected, the following is added to Standard Specification 609 – Curb"

609.02 Materials Amend this section by adding the following to it:

Portland cement and Portland Pozzolan Cement	701.01
Water	701.02
Fine Aggregate for Concrete	703.01
Coarse Aggregate for Concrete	703.02

The Contractor shall submit a concrete mix design for the Portland Cement Concrete to the Resident, with a minimum designed compressive strength of 4000 psi Class A concrete.

609.10 Basis of Payment Revise by changing the fifth paragraph which begins with “There will be no separate payment...” this section by removing the word “cement” and replacing it with **“concrete fill, mortar”**.

SECTION 619 **MULCH**

619.07 Basis of Payment Amend this section by adding the words “; **Bark Mulch and Erosion Control Mix will be paid for by the Cubic Yard;**” into the first sentence so that it reads:

“The accepted areas mulched will be paid for at the contract price per unit; **Bark Mulch and Erosion Control Mix will be paid for by the Cubic Yard;** which shall be full compensation for furnishing and spreading the hay or straw and mulch binder, cellulose fiber mulch, bark mulch or erosion control mix.

Revise the second sentence by removing “ **for pay item 619.1201**” So that it reads:

“When Mulch is measured in Bales, each bale will be paid for at 60% of the contract price per Unit”.

Revise this section by removing all pay items and replace them with the following:

619.12 Mulch	Unit
619.13 Bark Mulch	Cubic Yard
619.14 Erosion Control Mix	Cubic Yard

SECTION 621 **LANDSCAPING**

621.0002 Materials - General

In the list of items change “Organic Humus” to “**Humus**”.

621.0019 Plant Pits and Beds

c Class A Planting

In the third paragraph beginning with “ The plant pit...” change “½ inch” to “**1 inch**”

SECTION 626
FOUNDATIONS, CONDUIT AND JUNCTION BOXES FOR HIGHWAY
SIGNING, LIGHTING AND SIGNALS

626.02 General Amend the Material list by adding the following to the list:

Gravel Borrow	703.20
---------------	--------

Revise the Material List by removing:

Prewired Conduit	715.04
Metallic Junction and Fuse Box	715.05

626.021 Miscellaneous Material Amend this section by adding the following to the end of it:

“All concrete for concrete encasement of conduit shall be Fill Class concrete in accordance with the applicable requirements of Section 502 – Structural Concrete.”

Amend the third paragraph that begins with “If grouting is necessary...” by adding “**included on the Qualified Product List and**” after the word “material”.

626.03 General Amend this section by adding the following section to the end of it

“626.0301 Electrical Supply Lines and Service Connections The following requirements shall apply to Electric Supply Lines and Service Connections feeding traffic signalization equipment control boxes and lighting breaker boxes.

Whenever possible, the meter and breaker panel feeding traffic signal control boxes or lighting control boxes shall be constructed within 30 feet of the service drop pole.

All service connections to MaineDOT traffic signal control boxes or lighting breaker boxes constructed in trenches shall be in steel conduit or concrete encased PVC conduit.

Where trenchless technologies are employed to install the service connection conduit, Schedule 120 PVC conduit shall be used for the trenchless bore section of conduit. In addition, concrete encasement shall be used for any conduit placed in trench sections more than 10 feet before or after the limits of the trenchless bore conduit.

The construction practices described above shall be used for service connections up to a maximum of 600 feet. There may be rare exceptional cases where the service connection must exceed 600 feet. In these cases, the power companies may require primary power be run over 600 feet for the purpose of power consumption and dependable service. These cases will be evaluated on a case-by-case basis for alternate power feed methods and/or the need for steel or concrete encased conduit.”

626.031 Conduit Revise this section by removing the second paragraph which begins with “Trenches for conduits...” and replace it with the following:

“Trenches for conduits shall be excavated to a width that will permit proper installation of the conduit and to a minimum depth of 3 feet below finish grade as measured from the top of the conduit. If deeper depths are required, the conduit shall be installed at the depth shown on the plans or as directed. Conduit shall not interfere with poles, guardrail posts, sign foundations or other objects.”

Amend the third paragraph which begins with “All junction or pull boxes...” by adding **“concrete, in accordance with the applicable requirements of Section 502 – Structural Concrete,”** after Class LP.

Revise the fifth paragraph which begins with “After the trench has been...” by adding the following to the end of it:

“Where concrete encasement is required around the conduit, backfilling with approved material may begin adjacent to and above the encased conduit no sooner than 24 hours after concrete placement.”

Remove the following:

“All underground conduit shall be placed to at least the depth shown on the plans and shall not interfere with poles, guardrail posts, sign foundations or other objects.”

Revise the paragraph beginning with “All conduit ends shall...” by removing “Prewired Conduit shall be sealed during construction to prevent entry of moisture, dirt, or rocks.”

626.033 Polyvinylchloride Conduit Installation Amend the first paragraph of this section which begins with “Polyvinylchloride conduit and High Density...” by adding the following to the end of it:

“In addition, PVC conduit used for Electrical Supply Lines and Services feeding control cabinets for traffic signalization equipment or highway lighting breaker boxes shall be concrete encased. When trenchless technologies are used to install PVC conduit, concrete encasement shall not be required.

Concrete encasement shall consist of a minimum of 4 inches of concrete above, below and on both sides of the conduit that shall have a minimum compressive strength of 3000 psi and a maximum aggregate size of 1-inch (Fill Class concrete). The concrete encasement may be backfilled no sooner than 24 hours after placement. “

“NON-METALLIC UNDER PAVEMENT CONDUIT INSTALLATION

Where noted on the drawings, non-metallic under pavement conduit of schedule 80 or greater rating shall be provided to facilitate conduit crossing of the existing highway and ramps without disruption to the existing highway and ramp pavement surface. The non-metallic under pavement conduit shall be hydraulically jacked or directional bored below the highway and ramp at a depth of not less than (36 inches). Under pavement conduit shall extend for a distance of (10 feet) beyond the highway or ramp edge at each side.”

Amend the sixth paragraph which begins with “Where PVC conduit runs are...” by changing “3 inch minimum bedding” to “**6 inch minimum bedding**”.

626.034 Concrete Foundations

Revise this section by removing the third paragraph which begins with “In the absence of Design Requirements...” in its entirety and replace with the following:

“In the absence of design requirements being provided on the plans, the Contractor shall prepare and submit the foundation design(s) to the Department for review. The Contractor may propose an alternate shallow spread footing or drilled shaft configuration/design than that set forth on the drawings. Design shall be in accordance with AASHTO LRFD Specifications for Structural Supports for Highway Sign, Luminaires and Traffic Signals, current edition; AASHTO LRFD Bridge Design Specifications, current edition; and FHWA-NHI-10-016 Drilled Shafts, Construction Procedures and Design Methods, current edition. Where conflicting requirements occur, the more stringent requirements shall govern. In addition to other design requirements, foundation design shall account for Torsion for which a minimum Factor of Safety equal to 1.2 shall be achieved. In evaluating axial capacity and torsional resistance in cohesionless soils, load transfer coefficient or side resistance coefficient (beta, β) will be used in accordance with Subsection 13.3.5.1 of FHWA-NHI-10-016, with beta determined in accordance with Equations 13-13 and 13-11 for silty sands to sandy silts (with varying amounts of gravel). The design criteria for the resistance of drilled shaft and spread footing foundations against overturning, sliding and bearing capacity failure shall meet the requirements of Section 4 of AASHTO LRFD Bridge Design Specifications, current edition. The structural design of foundations shall meet the requirements of AASHTO LRFD Bridge Design Specifications, current edition. The Contractor shall submit to the Department for review, three (3) copies of detailed plans and calculations of the proposed design. Design shall be prepared and sealed by a Professional Engineer licensed in the State of Maine. Construction of foundation(s) shall not commence until the Department has reviewed the foundation design.”

On Page 6-85, add the following paragraph before the paragraph beginning with “Drilled shafts shall not be...”.

“ No foundation design will be required for 18- and 24-inch diameter foundations for structures less than 30-feet tall and with no projecting arms. A foundation design prepared by a Professional Engineer licensed in accordance with the laws of the State of Maine will be required for all other foundations Precast foundations will be permitted for 18 and 24-inch diameter foundations for structures less than 30-feet tall and with no projecting arms. Where precast foundations are permitted flowable concrete fill shall be used as backfill in the annular space, and placed from the bottom up. Construction of precast foundations shall conform to the Standard Details and all requirements of Section 712.061 except that the concrete shall have a minimum permeability of 17 kOhm-cm and the use of calcium nitrite will not be required. “

On Page 6-86, Revise the paragraph beginning with “Concrete for drilled shafts...” so that a portion of it reads as follows:

“....The Contractor shall provide temporary dewatering of excavations for foundations such that concrete is placed in the dry. Concrete for drilled shafts shall be placed in accordance with Section 502.10 as temporary casing is withdrawn to prevent debris from contaminating the foundation and to ensure concrete is cast against the surrounding soil. Concrete for drilled shafts and spread footings shall be Class LP in accordance with Section 502 - Structural Concrete. Precast foundations will not be permitted except as specified above in this Section. Backfill for spread footing foundations shall be Gravel Borrow meeting the requirements of Section 703.20 - Gravel Borrow.....”

626.05 Basis of Payment Amend this section by removing the following paragraphs:

The one which starts with “Payment will be made for the total number of linear feet of prewired conduit...”

The one which starts with “Prewired conduit within the foundations...”

Amend this subsection by adding the following paragraph and Pay Items:

“Payment will be made for the total number of linear feet of under pavement conduit actually furnished, installed and accepted at the contract price per linear foot. This price shall include the cost of: furnishing and installing the conduit; excavating; furnishing special backfilling materials, pull wire, fittings, grounding and bonding; test cleaning interiors of conduits and all materials, labor, equipment and incidentals necessary to complete the work.”

Pay Item	PayUnit
626.221 Non-metallic Conduit, Concrete Encased	Linear Foot
626.251 Non-Metallic Under pavement Conduit (Schedule 80 or greater rating)	Linear Foot

Remove the following Pay Items:

626.23	Prewired Conduit Secondary Wiring	Linear Foot
626.24	Prewired Conduit Primary Wiring	Linear Foot

SECTION 627

PAVEMENT MARKINGS

Revise this section by removing it in its entirety and replacing with the following:

627.01 Description This work shall consist of furnishing and placing reflectorized pavement lines and markings, removing pavement lines and markings, and furnishing and applying reflectorized paint to curbing in reasonably close conformity with the plans and as designated.

627.02 Materials Materials shall conform to the requirements specified in the following Sections of Division 700 - Materials.

Pavement Marking Paint	708.03
Reflectorized Plastic Pavement Marking	712.05

Temporary Bi-directional Yellow Delineators shall be Temporary Object Markers (T.O.M.) as manufactured by the Davidson Plastic Company, 18726 East Valley Highway, Kent, WA 98031 or an approved equal.

627.04 General All pavement lines and markings shall be applied in accordance with the latest edition of Manual on Uniform Traffic Control Devices.

Longitudinal lines placed on tangent roadway segments shall be straight and true. Longitudinal lines placed on curves shall be continuous smoothly curved lines consistent with the roadway alignment. All pavement markings placed shall meet the tolerance limits shown on the plans.

Unless otherwise shown on the plans, non-interstate lines shall be 4 inches wide and broken lines shall consist of alternate 10 foot painted line segments and 30 foot gaps. On controlled access divided highways and on the interstate system lines shall be 6 inches wide and broken lines shall consist of alternate 15 foot painted line segments and 25 foot gaps. Width tolerance shall be +/- 1/4 inch.

Temporary pavement marking lines, defined in Special Provision Section 652, Maintenance of Traffic, Temporary Centerline, will be applied as many times as necessary to properly delineate traffic lanes for the safe passage of traffic. Bi-directional delineators may be used in place of temporary lines, except where specified otherwise in Special Provision 652 Maintenance of Traffic, Temporary Centerline. Delineators will be applied at 40 foot intervals.

In overnight lane closure areas that are not to be overlaid, temporary plastic lines or raised pavement markers shall be used through the length of the taper.

Newly painted lines, markings and curb shall be protected from traffic by the use of cones, stationary vehicles or other approved methods until the paint is dry.

627.05 Preparation of Surface Immediately before applying the pavement marking paint to the pavement or curb, the surface shall be dry and entirely free from dirt, grease, oil, or other foreign matter.

Surface preparation for application of plastic markings shall conform to the manufacturer's recommendations.

627.06 Application Prior to applying paint for final pavement lines, the Contractor shall perform a test for paint thickness by furnishing and placing a piece of smooth, clean metal with an area of at least 144 in² in the path of the striping truck. The striping truck shall be passed over the piece of metal, painting the surface as it passes, without applying beads. The result of this test will be used to determine the pressure setting and speed of the truck when applying paint to obtain the specified thickness. Additional paint thickness testing may be required on the final paint markings. The wet thickness of paint without beads on final pavement lines shall be a minimum of 16 mils.

On other final pavement markings and on curb, where the paint is applied by hand painting or spraying, application shall be in two uniform covering coats, each at least 10 mils thick. Before the second coat of paint has dried, the glass beads shall be applied by a pressure system that will force the glass beads onto the undried paint as uniformly as possible.

Glass beads shall be applied to the final and temporary pavement lines, marking and curb at a sufficient rate and in sufficient quantity to assure complete and uniform coverage of hand painted surfaces and achieve proper reflectivity.

Permanent and temporary white lines and markings shall have a minimum final reflectivity value of 250 millicandelas per square meter per lux (mcd/m²/lux) and permanent and temporary yellow lines and markings shall have a minimum final reflectivity value of 150 millicandelas per square meter per lux (mcd/m²/lux), as measured by the Department. Measurements taken to determine reflectivity shall be done within 4 weeks after final placement.

If the final reflectivity values are less than the described minimums, the Contractor shall repaint those areas not meeting required reflectivity at no cost to the Department. If the final reflectivity values are less than the described minimums after the second attempt, the Contractor will submit in writing a plan of action to meet the reflectivity minimums prior to continuing any work. Once the plan has been reviewed and approved by the Department, the Contractor shall re apply at no cost to the Department.

Temporary painted lines and markings shall be applied as specified for permanent painted lines, except that the thickness shall be a minimum of 16 mils.

Temporary pliant polymer marking material shall be used for temporary markings on the final pavement and on pavements not to be resurfaced when such pavement markings do not conform to the final pavement markings pattern.

The plastic final pavement lines and markings shall be applied in accordance with the manufacturer's recommendations by the inlay method of application.

627.07 Establishment Period Inlaid plastic pavement lines and marking material furnished and installed under this contract for final pavement markings shall still be subject to a six-month period of establishment.

The period of establishment shall commence as soon as the plastic pavement lines and markings are complete and in place and shall continue for six months. At the end of the establishment period, a minimum of 95% of the plastic pavement lines and markings shall still be in place to be acceptable.

If less than 95% of the plastic pavement lines and markings are in place after six months, the Contractor shall replace all unsatisfactory plastic pavement lines and markings on the project without additional payment. Plastic pavement lines and markings designated for replacement shall be installed according to these specifications, unless otherwise directed. Plastic pavement lines and markings replaced at the end of the six month establishment period will not be subject to a further establishment period.

627.08 Removing Lines and Markings When it is necessary to remove pavement lines and markings, it shall be done by high pressure water, grinding or other approved acceptable means. The method chosen must be capable of completely eradicating the existing line or marking without excessive damage to the pavement. Burning and the use of solvents to remove temporary markings from final pavement or from existing pavement not to be resurfaced will not be permitted.

627.09 Method of Measurement The quantity of pavement marking lines identified in the contract as a plan quantity pay item, the measurement of payment will be the number of feet shown in the Schedule of Items. This quantity will be considered final and no adjustments will be made except when changes resulting in increases or decreases are made by the Resident.

The accepted quantity of temporary or permanent pavement marking lines when identified in the contract as a linear foot item shall be measured and paid for at the contract unit price per linear foot for the total amount applied and accepted.

Double yellow centerline, broken or solid, will be considered one line for measurement purposes. The measurement of broken lines will include the gaps when painted and will not include the gaps when plastic. Double Yellow Centerline, broken or solid shall not be paid through intersections or side roads and will be paid for the actual length of painted line.

Broken white lines will include the gaps when painted and will not include the gaps when plastic inlaid pavement lines are applied. Yellow or white solid edge lines and will not be paid through intersections or side roads and will be measured by the actual length of painted line.

Temporary pavement marking lines shall not be paid through intersections or side roads and will be measured per linear foot of actual length of painted and accepted.

Reflectorized curb will be measured or computed by the square foot of curb surface actually painted and reflectorized.

The accepted quantity of removing existing pavement markings will be measured by the square foot.

Temporary Bi-directional Yellow Delineators will be measured by each unit, complete in place, maintained, and accepted.

627.10 Basis of Payment The accepted quantity of pavement marking lines identified in the contract as a plan quantity pay item will be paid for at the contract unit price for plan quantity. No adjustment will be made to the quantity for payment, except as described 627.09 Method of Measurement

The quantity of permanent or temporary pavement marking lines identified in the contract paid by the linear foot will be measured for payment as described under section 627.09 Method of Measurement.

All other permanent pavement markings will be paid for at the contract unit price per square foot in accordance with 627.09 Method of Measurement.

If allowed by Special Provision, the Contractor may utilize Temporary Bi-Directional Yellow and White (as required) Delineators. When utilized, payment will be made as temporary pavement marking lines, measured and paid at the contract unit price per linear foot. Such payment will include as many applications as required and removal.

Payment for final plastic pavement lines and markings will be made in two parts. The first payment of 75% will be made when plastic pavement lines and markings are placed. The payment of the remaining 25% will be made at the end of the establishment period for all plastic line and pavement markings accepted.

The accepted quantity of any pavement marking lines will be paid for at the contract unit price and will include as many applications as required and removal when required.

The accepted quantity of Temporary Bi-directional Yellow Delineators will be paid for at the contract unit price.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
627.18 12 inch Solid White Pavement Marking Line	Linear Foot
627.711 White or Yellow Pavement Marking Line - Plan Quantity	Linear Foot
627.733 4" White or Yellow Painted Pavement Marking Line	Linear Foot
627.744 6" White or Yellow Painted Pavement Marking Line	Linear Foot
627.75 White or Yellow Pavement & Curb Marking	Square Foot
627.77 Removing Existing Pavement Marking	Square Foot
627.78 Temporary 4" Painted Pavement Marking Line, White or Yellow	Linear Foot
627.781 Temporary 6" Painted Pavement Marking Line, White or Yellow	Linear Foot
627.407 Reflectorized Plastic, White or Yellow Pavement Marking	Square Foot
627.4071 Reflectorized Plastic, White or Yellow Pavement	Linear Foot
Marking Line - Plan Quantity	
627.811 Temporary Bi-directional Yellow Delineators	Each

SECTION 639

ENGINEERING FACILITIES

Revise this section by removing this section in its entirety and replace with the following:

639.01 Description This work shall consist of providing, erecting, lighting, equipping and maintaining buildings to be solely used by the Resident and other assigned Department representatives as a field office. Upon completion of the work, the buildings and equipment shall remain the property of the Contractor.

639.02 Materials Materials for buildings shall be of good quality customarily used in standard frame house or office trailer construction.

639.03 General The building of the type called for shall be provided before the start of work, and shall remain until work is completed and accepted, unless earlier removal is authorized. The location shall be approved by the Resident and should be adjacent or virtually adjacent to the Project.

A fire extinguisher shall be provided in each building or office trailer for electrical and chemical fires and effective on all solvents used in the building.

Walls, roof, floor, windows, and doors shall be tightly constructed to the required area.

Furnishings shall be supplied as called for. Doors shall be equipped with locks and all keys shall be in the possession of the Resident. Windows shall be equipped with latches so they may be locked on the inside. Window screens and screen doors shall be supplied when necessary. Adequate desk and desk space shall be provided. If a portable table is supplied, it should be adjustable to accommodate the various heights of employees. A 5-way adjustable office chair shall be provided in the quantities listed.

639.04 Field Offices Field Offices are designated Type A, Type B, or Type C. Buildings, including trailers, may be provided if they substantially equal or exceed the following requirements. Air conditioning, appropriate to the building size, shall be provided in all field offices.

The walls, roof, and floor of the building shall be completely insulated with a minimum insulation value of R-15. Office trailers shall be either new or in very good used condition. The interior walls shall be covered with suitable wall paneling. The entire office trailer shall be for the exclusive use of the Resident. The office trailer shall be winterized and completely enclosed at the bottom, if the trailer will be used in cold weather.

Other types of buildings and facilities may be furnished of equal or better quality.

A public work area will be provided in the field office that shall be designed and constructed so that individuals with disabilities can approach, enter, and exit this area.

At least one accessible route to the field office shall be provided from accessible parking. The accessible route shall comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and this specification.

The minimum clear width of an accessible route shall be 36 inches except at doors. The least possible slope shall be used for an accessible route. An accessible route with a running slope greater than 1:20 shall be considered a ramp. Maximum ramp slope is 1:12. The maximum rise for any run of a ramp shall be 30 inches and the minimum clear width shall be 36 inches. Nowhere shall the cross slope of an accessible route exceed 1:50. Changes in level up to ¼ inch may be vertical and without edge treatment. Changes in level between ¼ inch and ½ inch shall be beveled with a slope no greater than 1:2. Ramp floor surfaces shall be stable, firm, and slip-resistant.

Ground floor surfaces along accessible routes and in accessible rooms and spaces including floors, walks, ramps, stairs, and curb ramps, shall be stable, firm, and slip-resistant.

The main door to the public work area shall have a minimum clear opening of 32 inches with the door opened 90 degrees, measured between the face of door and the opposite stop. Minimum maneuvering clearances at doors shall be provided. The floor or ground area within the required clearances shall be level and clear.

The handle and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping. Lever-operated mechanisms push type mechanisms, and U-shaped handles are acceptable designs. Hardware required for accessible door passage shall be mounted no higher than 48 inches above finished floor.

A minimum of 3 parking spaces will be supplied for Class B & C Field Offices and 6 for Class A. One wheelchair accessible parking space shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance.

Level landings shall be provided at bottom and top of each run. The landing shall be at least as wide as the ramp run leading to it with a minimum length of 60 inches.

If a ramp run has a rise greater than 6 inches or a horizontal projection greater than 72 inches, then it shall have handrails on both sides. Handrails shall have the following features:

- 1) Handrails shall be provided along both sides of ramp segments. The inside handrail on switchback ramps shall always be continuous.
- 2) If handrails are not continuous, they shall extend at least 12 inches beyond the top and bottom of the ramp segment and shall be parallel with the floor or ground surface.
- 3) The clear space between the handrail and the wall shall be 1½ inch.
- 4) Gripping surfaces shall be continuous.
- 5) Top of handrail gripping surfaces shall be mounted between 34 and 38 inches above ramp surfaces.

- 6) Ends of handrails shall be either rounded or returned smoothly to floor, wall, or post.
- 7) Handrails shall not rotate within their fittings.
- 8) The diameter or width of the gripping surfaces of a handrail shall be 1¼ to 1½ inch, or the shape shall provide an equivalent gripping surface.

Firm and sturdy steps shall also be provided with 7 inch maximum riser and 11 inch minimum depth, and at least one handrail extending from the top of the steps to a minimum 12 inches beyond the bottom of the steps.

The Contractor will make reasonable effort(s) to provide wheelchair accessible toilet facilities when "portable" facilities are provided.

The Contractor shall provide wheelchair accessible toilet facilities when flush type facilities, that is, those with running water, are provided; and the Contractor shall provide wheelchair accessible portable facilities, if used, when the contract duration exceeds two continuous construction seasons.

In addition to the facilities previously specified in this subsection, each field office shall meet the following minimum requirements:

<u>Description</u>	<u>Quantity</u>		
	<u>Type A</u>	<u>Type B</u>	<u>Type C</u>
Floor Area (Outside Dimension) - ft ²	312	220	125
Inside Wall Height – feet	7	7	7
Window Area - ft ²	55	35	35
Drafting Table Surface Area - ft ²	15	15	15
Drafting Stools - each	2	1	1
Office Desks - each	2	1	1
Ergonomic Swivel Chairs -ea (5-way adjustable)	3	2	2
Folding Chairs - each	3	2	2
Lighting Units - each	4	2	2
Electric Wall Outlets - each	6	4	3
Power Strip Surge Protectors - each	3	2	1
Wall Closets - each	1	1	1
Plan Rack for minimum of 6 sets of plans	1	1	0
Toilet Facility	1	1	1
Wastebaskets - each	2	2	1

All windows shall be provided with shades or blinds.

The toilet facility shall be for the exclusive use of State personnel. If requested, the Contractor will supply a lock to ensure exclusive use.

The Resident will have the option to reject any furniture or supplies provided to the field office based on general condition.

One hundred ten volt, 60 cycle, continuous electric service shall be supplied for lighting and 15 amp duplex wall outlets. Lighting shall consist of florescent light units with rapid start bulbs or LED shop style lights located over the work areas for a minimum of 50 foot candles overall. At least one external light source will be provided.

Drafting surfaces shall be 40 inches above the floor and have shelves beneath. Shelves for plans and rolls shall also be furnished overhead. Drafting stools shall be approximately 28 inches high.

Desks shall be single or double pedestal standard office type, and shall be in addition to “built-in” type desks in the office trailer.

Field offices shall be furnished with one four-drawer letter size metal filing cabinet.

Wall closets shall be 21 inches wide, 15 inches deep, and at least 4 feet high.

Each office shall be furnished with a broom, dustpan, sweeping compound, trash bags, and with cleaning material for cleaning glass. If the field office is carpeted, then a vacuum cleaner will be provided. The contractor will be responsible for disposing of trash from the field office.

The Contractor shall provide a fully functional wireless desktop copier/scanner/printer, capable of copying field books, for the Resident’s use during the project. All maintenance and supplies, except paper, shall be the responsibility of the Contractor.

The Contractor shall provide bottled water and a microwave for the duration of the project. All maintenance and supplies shall be the responsibility of the Contractor. Alternate source of water, such as a water cooler, may be provided as approved by resident.

The Contractor shall provide a 4 cubic-foot refrigerator in the field office for the duration of the project.

Each office shall be furnished with a 10-person general-purpose first aid kit. The first aid kit shall be periodically inspected and refilled as necessary.

639.08 Heat Heat appropriate to the building size shall be supplied by the Contractor to maintain an acceptable room temperature during occupancy.

639.091 Broadband Connection The contractor will supply one computer broadband connection, modem lease and router. The router shall have wireless access and be 802.11n or newer capable. 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 download connection of 5.0 Mbps and 1.0 Mbps upload. 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.

639.10 Method of Measurement Field office will be measured by the unit or lump sum for each building provided, equipped and maintained satisfactorily.

639.11 Basis of Payment The accepted quantity of field office will be paid for at the contract unit price each or lump sum which payment shall be full compensation for furnishing until contract completion, erecting, equipping, maintaining, furnishing electricity, heating, installing and maintaining toilet facilities and if necessary removing the buildings or office trailers.

Payment for these items will be made in 3 parts; the first payment of ½ to be made after the Contractor has supplied the building or office trailer and it has been approved. The remaining payments shall be made at intervals as follows:

A second payment of ¼ shall be made when one-half of the anticipated work has been completed.

The final payment of the remaining ¼ shall be made upon completion of the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
639.18 Field Office, Type A	Each
639.19 Field Office, Type B	Each
639.20 Field Office, Type C	Each

SECTION 652

MAINTENANCE OF TRAFFIC

652.2.4 Other Devices Revise this Section by removing the following paragraph:

“ STOP/SLOW paddles shall be the primary and preferred hand held signaling device. Flags shall be limited to Emergencies. The paddle shall have an octagonal shape and be at least 18 inches wide with letters at least 6 inches high and should be fabricated from semi-rigid material”

And replace with these two paragraphs

“Flaggers shall use a STOP / SLOW hand held paddle as the primary and preferred hand signaling device. Use of flags shall be limited to emergency situations.

STOP / SLOW paddles shall have high intensity prismatic retro reflective sheeting, have an octagonal shape on a rigid handle and shall be at least 18 inches wide with letters at least 6 inches high and shall be constructed from light semi-rigid material. The STOP (R1-1) face shall have white letters and a white border on a red background. The SLOW (W20-8) face shall have black letters and a black border on an orange background.”

652.3.3 Submittal of Traffic Control Plan On page 6-148, note f, in the last sentence revise the “105.2.2” to “105.2.3” so that the last sentence reads, **“For a related provision, see Section 105.2.3 – Project Specific Emergency Planning.”**

652.3.4 General Revise the eighth paragraph by removing “Earth Berm” and replace it with **“Concrete Barrier”**.

Amend this section by adding the following paragraph before the paragraph beginning with “Special Detours and temporary structures...”:

“A temporary ramp shall be constructed with HMA at the ends of the roadway section paved or milled each day. The use of millings or RAP will not be allowed, but cold patch may be temporarily utilized until HMA plants are open for the season. The maximum ramp change in elevation shall not exceed 4” vertical. For Interstate Highways or roadways with speed limits equaling or exceeding 50 mph; temporary ramps shall be constructed at a length of eight feet per inch of transition depth. For roadways with speed limits less than 50 mph and greater than 25 mph, temporary ramps shall be constructed at a length of four feet per inch of transition depth. For roadways with speed limits 25 mph or less, temporary ramps shall be constructed at a length of two feet per inch of transition depth. Materials, placement, maintenance, and removal shall be incidental to contract items.”

652.4 Flaggers Revise this section by removing the first paragraph, and replace it 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. All flaggers must carry an official certification card with them at all times while flagging.

For daytime conditions, flaggers shall wear a top (vest, shirt or jacket) that is orange, yellow, yellow-green, or fluorescent versions of these colors meeting ANSI 107-2004, Class 2 or Class 3, along with a hardhat with 360 ° retro-reflectivity.

For nighttime conditions, flaggers shall wear all Class 3 apparel, meeting ANSI 107-2004, including a Class 3 top (vest, shirt or jacket) and a Class E bottom (pants or coveralls), shall be worn along with a hardhat with 360 ° retro-reflectivity and shall be visible at a minimum distance of 1000 ft. Flagger stations must be illuminated in nighttime conditions to assure visibility and will be specifically addressed in detail in the Contractor's TCP".

652.41 TRAFFIC OFFICERS

Revise this subsection so that the subsection number and title is

"652.4.1 TRAFFIC OFFICERS"

SECTION 656

TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

656.5.2 If No Pay Item Add the following to the end of the first paragraph:

"Failure by the Contractor to follow Standard Specification or Special Provision - Section 656 will result in a violation letter and a reduction in payment as shown in the schedule list in 656.5.1. 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 660

ON-THE-JOB TRAINING

660.06 Method of Measurement

Remove the first sentence in its entirety and replace with **" The OJT item will be measured by the number of OJT hours by a trainee who has successfully completed an approved training program."**

660.07 Basis of payment to the Contractor

Remove the last word in the first sentence so that the first sentence reads " The OJT shall be paid for once successfully completed at the contract unit price per **hour**."

Payment will be made under

Change the Pay Item from "660.22" to **"660.21"** and change the Pay Unit from "Each" to **"Hour"**.

SECTION 672

PRECAST CONCRETE BLOCK GRAVITY WALL

672.035 Backfill Material– Revise this section by adding the following after the second paragraph:

Backfill materials shall meet the criteria in the following table.

<u>Base Polymer</u>	<u>Property</u>	<u>Criteria</u>	<u>Test Method</u>
Polyester (PET)	pH	3 < pH < 9	AASHTO T-289
Polyolefin (PP & HDPE)	pH	pH > 3	AASHTO T-289

672.04 Design Requirements – Revise this section by replacing items 2 and 3 in the second paragraph with the following:

- 2. FHWA-NHI-10-024 and FHWA-NHI-10-025, Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, Volumes I and II, current edition.**
- 3. FHWA-NHI-09-087 Corrosion/Degradation of Soil Reinforcements for Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, current edition.**

SECTION 673 **WETCAST SMALL LANDSCAPE BLOCK WALL**

673.035 Backfill Material – Revise this section by adding the following after the second paragraph:

Backfill materials shall meet the criteria in the following table.

<u>Base Polymer</u>	<u>Property</u>	<u>Criteria</u>	<u>Test Method</u>
Polyester (PET)	pH	3 < pH < 9	AASHTO T-289
Polyolefin (PP & HDPE)	pH	pH > 3	AASHTO T-289

673.04 Design Requirements – Revise this section by replacing items 2 and 3 in the second paragraph with the following:

- 2. FHWA-NHI-10-024 and FHWA-NHI-10-025, Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, Volumes I and II, current edition.**
- 3. FHWA-NHI-09-087 Corrosion/Degradation of Soil Reinforcements for Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, current edition**

SECTION 674

PREFABRICATED CONCRETE MODULAR GRAVITY WALL

674.02 Materials

Amend this section by adding the following after “Concrete Units:” and before the paragraph beginning with “Tolerances”.

Concrete shall be Class P. The concrete shall contain a minimum of 5.5 gallons per cubic yard of calcium nitrite solution.

The minimum permeability of the concrete as indicated by Surface Resistivity shall be 17 KOhm-cm.

Defects Defects which may cause rejection of precast units include, but are not limited to, the following:

Any discontinuity (crack, rock pocket, etc.) of the concrete which could allow moisture to reach the reinforcing steel.

Rock pockets or honeycomb over 6 square inches in area or over 1 inch deep.

Edge or corner breakage exceeding 12 inches in length or 1 inch in depth.

Any other defect that clearly and substantially impacts the quality, durability, or maintainability of the structure, as determined by the Fabrication Engineer.

Repair honeycombing, ragged or irregular edges and other non-structural or cosmetic defects using a patching material from the MaineDOT Qualified Products List (QPL). The repair, including preparation of the repair area, mixing and application and curing of the patching material, shall be in accordance with the manufacturer's product data sheet. Corners that are not exposed in the final product may be ground smooth with no further repair necessary if the depth of the defect does not exceed 1/2 inch. Remove form ties and other hardware to a depth of not less than 1 inch from the face of the concrete and patch the holes using a patching material from the MaineDOT QPL.

Repair structural defects only with the approval of the Fabrication Engineer. Submit a nonconformance report (NCR) to the Fabrication Engineer with a proposed repair procedure. Do not perform structural repairs without an NCR that has been reviewed by the Fabrication Engineer. Structural defects include, but are not be limited to, exposed reinforcing steel or strand, cracks in bearing areas, through cracks and cracks 0.013 inch in width that extend more than 12 inches in length in any direction. Give the QAI adequate notice prior to beginning any structural repairs.

SECTION 677

MECHANICALLY STABILIZED EARTH RETAINING WALL

677.03 Design Requirements – Revise this section by replacing items 6, 7 and 8 in the second paragraph with the following:

6. FHWA-NHI-10-024, Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, Volumes I, current edition.
7. FHWA-NHI-10-025, Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, Volumes II, current edition.
8. FHWA-NHI-09-087 Corrosion/Degradation of Soil Reinforcements for Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, current edition

On page 6 - 203 change “636.041” to “677.041”

Amend 677.042 Precast Panel Tolerances and Surface Finish by the addition of the following:

Defects Defects which may cause rejection of precast units include, but are not limited to, the following:

Any discontinuity (crack, rock pocket, etc.) of the concrete which could allow moisture to reach the reinforcing steel.

Rock pockets or honeycomb over 6 square inches in area or over 1 inch deep.

Edge or corner breakage exceeding 12 inches in length or 1 inch in depth.

Any other defect that clearly and substantially impacts the quality, durability, or maintainability of the structure, as determined by the Fabrication Engineer.

Repair honeycombing, ragged or irregular edges and other non-structural or cosmetic defects using a patching material from the MaineDOT Qualified Products List (QPL). The repair, including preparation of the repair area, mixing and application and curing of the patching material, shall be in accordance with the manufacturer's product data sheet. Corners that are not exposed in the final product may be ground smooth with no further repair necessary if the depth of the defect does not exceed 1/2 inch. Remove form ties and other hardware to a depth of not less than 1 inch from the face of the concrete and patch the holes using a patching material from the MaineDOT QPL.

Repair structural defects only with the approval of the Fabrication Engineer. Submit a nonconformance report (NCR) to the Fabrication Engineer with a proposed repair procedure. Do not perform structural repairs without an NCR that has been reviewed by the Fabrication Engineer. Structural defects include, but are not be limited to, exposed reinforcing steel or strand, cracks in bearing areas, through cracks and cracks 0.013 inch in width that extend more than 12 inches in length in any direction. Give the QAI adequate notice prior to beginning any structural repairs.

SECTION 702

BITUMINOUS MATERIAL

702.01 Asphalt Cement - Remove this section in its entirety and replace with the following:

Performance-Graded Asphalt Binder (PGAB) that has not been modified with polymer shall conform to the requirements of AASHTO M 320. Polymer modified binder shall meet the requirements of AASHTO M 332 (including Appendix X1), except that the percent difference in nonrecoverable creep compliance, J_{nr}diff, shall not be enforced. Performance-Graded Asphalt Binder shall not contain re-refined engine oil bottoms (REOB).

The Contractor shall arrange for the Supplier to furnish the following items to the Department's Asphalt Pavement Engineer:

- a. A Quality Control Plan that conforms to the requirements of AASHTO R 26 "Certifying Suppliers of Performance-Graded Asphalt Binders" and**
- b. A CERTIFICATE OF ANALYSIS for all asphalt materials furnished for use on the project. The Certificate shall include the actual test results of the material in storage from which the shipments are being made. Certificates shall be supplied for each lot, batch, or blend of each type and grade of material. A new certificate shall be issued at least every 30 days or upon receiving or manufacture of a new material. The original of each Certificate of Analysis shall be mailed to the Departments Asphalt Pavement Engineer.**

The Contractor shall give the supplier sufficient notice of orders to permit testing and certification. Material not certified will not be accepted for use.

Deliveries of asphalt materials shall be accompanied by a Bill of Lading containing the information required under Section 108.1.3 f. The Bill of Lading shall include the applicable certificate number and shall include a printed or stamped statement such as the following: "THIS IS TO CERTIFY THAT THE ASPHALT MATERIAL REPRESENTED BY THIS LOADING INVOICE CONFORMS TO THE SPECIFICATIONS OF THE PURCHASER FOR THE MATERIAL TYPE AND GRADE STATED THEREON."

In the event an intermediate hauler of the asphalt material is involved, a copy of their own delivery slip shall be furnished, as well as a copy of the supplier's loading invoice. The hauler's delivery slip and the supplier's loading invoice shall be cross-referenced by use of their respective serial numbers.

All non-bituminous components added to the binder prior to the sampling point for binder certification shall be included on the asphalt binder Certificate of Analysis identifying their presence. All non-bituminous components added after the certification sampling point and prior to transport shall be included on the Bill of Lading. All non-bituminous components added to the binder at the HMA plant shall be identified on the mix plant documentation and accompanied by test results and certification showing the effect of the additives introduced, if any.

702.04 Emulsified Asphalt

Revise this Section by removing the first paragraph in its entirety and replace with the following:

Emulsified Asphalt shall conform to the requirements of AASHTO M 140. Cationic emulsified asphalt shall conform to the requirements of AASHTO M 208. Anionic emulsified asphalt Grade RS-1h shall conform to the requirements in the following table:

Type	Rapid-Setting	
Grade	RS-1h	
Tests on Emulsions	min	max
Viscosity, Saybolt Furol at 25°C SFS	20	100
Storage Stability test, 24-h, % ^A	-	1.0
Demulsibility, 35 ml, 0.02 N CaCl ₂ , %	60	-
Sieve Test, % ^A	-	0.10
Residue by distillation, %	55	-
Tests on Residue from Distillation Test	min	max
Penetration, 25°C 100g, 5 s	40	90
Ductility, 25°C 5 cm/min, cm	40	-
Solubility in trichloroethylene or n-propyl bromide, %	97.5	-

^A This requirement is waived if successful application of material has been achieved in the field.

SECTION 703 **AGGREGATES**

703.01 Fine Aggregate for Concrete Replace the second paragraph with the following:

“All fine aggregate shall be free from injurious amounts of organic impurities. Should the fine aggregate, when subjected to the colorimetric test for organic impurities, AASHTO T 21, produce a color darker than organic plate number 3, the fine aggregate shall be rejected.”

703.0201 Alkali Silica Reactive Aggregates. Remove this section in its entirety and replace with the following:

All coarse and fine aggregates proposed for use in concrete shall be tested for Alkali Silica Reactivity (ASR) potential under AASHTO T 303 (ASTM C 1260), Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction, prior to being accepted for use. Acceptance will be based on testing performed by an accredited independent lab submitted to the Department. Aggregate submittals will be required on a 5-year cycle, unless the source or character of the aggregate in question has changed within 5 years from the last test date.

As per AASHTO T 303 (ASTM C 1260): Use of a particular coarse or fine aggregate will be allowed with no restrictions when the mortar bars made with this aggregate expand less than or equal to 0.10 percent at 30 days from casting. Use of a particular coarse or fine aggregate will be classified as potentially reactive when the mortar bars made with this aggregate expand greater than 0.10 percent at 30 days from casting. Use of this aggregate will only be allowed with the use of cement-pozzolan blends and/or chemical admixtures that result in mortar bar expansion of less than 0.10 percent at 30 days from casting as tested under ASTM C 1567.

Acceptable pozzolans and chemical admixtures that may be used when an aggregate is classified as potentially reactive include, but are not limited to the following:

**Class F Coal Fly Ash meeting the requirements of AASHTO M 295.
Ground Granulated Blast Furnace Slag (Grade 100 or 120) meeting the requirements of AASHTO M 302.**

**Densified Silica Fume meeting the requirements of AASHTO M 307.
Lithium based admixtures
Metakaolin**

Pozzolans or chemical admixtures required to offset the effects of potentially reactive aggregates will be incorporated into the concrete at no additional cost to the Department.

703.06 Aggregate for Base and Subbase - Remove the first two paragraphs in their entirety and replace with these:

“The following shall apply to Sections (a.) and (c.) below. The material shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0, the Washington State Degradation DOT Test Method T113, Method of Test for Determination of Degradation Value (January 2009 version) shall be performed, except that the test shall be performed on the portion of the sample that passes the ½ in sieve and is retained on the No. 10 sieve. If the material has a Washington Degradation value of less than 15, the material shall be rejected.

The material used in Section (b.) below shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0 the material may be used if it does not exceed 25 percent loss on AASHTO T 96, Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine. “

703.081 RAP for Asphalt Pavement

Remove this section in its entirety and replace with the following:

703.081 RAP for Asphalt Pavement Recycled Asphalt Pavement (RAP) may be introduced into hot-mix asphalt pavement at percentages approved by the Department according to the MaineDOT Policies and Procedures for HMA Sampling and Testing.

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.

The maximum allowable percent of RAP shall be determined by the asphalt content, the percent passing the 0.075 mm sieve, the ratio between the percent passing the 0.075 mm sieve and the asphalt content, and Coarse Micro-Deval loss values as tested by the Department. The maximum percentage of RAP allowable shall be the lowest percentage as determined according to Table 4 below:

Table 4: Maximum Percent RAP According to Test Results

Classification	Maximum RAP Percentage Allowed	Asphalt content standard deviation	Percent passing 0.075 mm sieve standard deviation	Percent passing 0.075 mm sieve / asphalt content ratio	Residual aggregate M-D loss value
Class III	10%	≤ 1.0	N/A	≤ 4.0	≤ 18
Class II	20%	≤ 0.5	≤ 1.0	≤ 2.8	
Class I	30%	≤ 0.3	≤ 0.5	≤ 1.8	

The Department will monitor RAP asphalt content and gradation during production by testing samples from the stockpile at approximately 15,000 T intervals (in terms of mix production). The allowable variance limits (from the numerical average values used for mix designs) for this testing are determined based upon the maximum allowable RAP percentage, and are shown below in Table 5.

Table 5: RAP Verification Limits

Classification	Asphalt content (compared to aim)	Percent passing 0.075 mm sieve (compared to aim)
Class III	± 1.5	± 2.0
Class II	± 1.0	± 1.5
Class I	± 0.5	± 0.7

For specification purposes, RAP will be categorized as follows:

Class III – A maximum of 10.0 percent of Class III RAP may be used in any base, intermediate base, surface, or shim mixture. A maximum of 20.0 percent of Class III RAP may be used in hand-placed mixes for item 403.209.

Class II – A maximum of 20.0 percent Class II RAP in any base, binder, surface, or shim course.

Class I – A maximum of 20.0 percent Class I RAP may be used in any base, intermediate base, surface, or shim mixture without requiring a change to the specified asphalt binder. A maximum of 30.0 percent Class I RAP may be used in in any base or intermediate base mixture provided that a PG 58-28 asphalt binder is used. A maximum of 30.0 percent Class I RAP may be used in any surface or shim mixture provided that PG 58-34 or 52-34 asphalt binder is used. Mixtures exceeding 20.0 percent Class I RAP must be evaluated and approved by the Department.

The Contractor may use up to two different RAP sources in any one mix design. The total RAP percentage of the mix shall not exceed the maximum allowed for the highest classification RAP source used (i.e. if a Class I & Class III used, total RAP must not exceed 30.0%). The blended RAP material must meet all the requirements of the classification for which the RAP is entered (i.e. 10% Class III with 20% Class I, blend must meet Class I criteria). The Department may take belt cuts of the blended RAP to verify the material meets these requirements. If the Contractor elects to use more than one RAP source in a design, the Contractor shall provide an acceptable point of sampling blended RAP material from the feed belt.

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.

703.19 Granular Borrow

Remove the gradation requirements table, and replace with the following:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Material for Underwater Backfill	Material for Embankment Construction
6 inch	100	
No. 40	0-70	0-70
No. 200	0-7.0	0-20.0

703.33 Stone Ballast - In the third paragraph, remove the words “less than” before 2.60 and add the words “or greater” after 2.60.

SECTION 708

PAINTS AND PRESERVATIVES

708.05 Timber Preservative Revise this section by removing it in its entirety and replacing with:
“Timber preservatives shall conform to the requirements of AASHTO M 133 and AWPA Standard U1. All preservatives shall meet the requirements of the US EPA regulations under the Federal Insecticide, Fungicide and Rodenticide Act.”

SECTION 710

FENCE AND GUARDRAIL

710.07 Guardrail Posts Amend subsection ‘a’ by removing the words “white oak”, “cedar”, “tamarack”, “maple”, “beech”, “birch” and “red oak” from the first sentence. Also in the first sentence, place an “or” between “pine” and “eastern hemlock”. In the second sentence remove the words “well seasoned”. Remove the sentence beginning with “Wood posts and offset brackets...” and replace it with: **“Wood posts and offset brackets shall be preservative treated in accordance with the requirements of AASHTO M 133 and AWPA U1, UC4A Commodity Specification A: Sawn Products.”**

SECTION 712

MISCELLANEOUS HIGHWAY MATERIAL

712.061- Structural Precast Concrete Units

Under the heading, Quality Control and Quality Assurance, revise the fourth paragraph to read:

“Acceptance is the prerogative of the Department. The Department will conduct Quality Assurance (QA) in accordance with Standard Specification Subsection 106.5. Testing deemed necessary by the Department that is in addition to the minimum testing requirements will be scheduled to minimize interference with the production schedule. The QAI will perform acceptance sampling and testing and will witness or review documentation, workmanship and testing to assure the Work is being performed in accordance with the Contract Documents.”

Under the heading, Concrete Testing, revise the first paragraph to read as the following two paragraphs:

“Concrete Testing Acceptance of structural precast units, for each day’s production, will be determined by the Department, based on compliance with this specification and satisfactory concrete testing results.

At least once per week, the QAI will make 2 concrete cylinders (6 cylinders when the Contract includes permeability requirements) for use by the Department; cylinders shall be standard cured in accordance with AASHTO T23 (ASTM C31). The QAI will perform entrained air content and slump flow testing, determine water-cement ratio and determine temperature of the sampled concrete at the time of cylinder casting. All testing equipment required by the QAI to perform this testing shall be in accordance with Standard Specification Section 502.041, Testing Equipment. In addition, the Contractor shall provide a slump cone meeting the requirements of AASHTO T 119. Providing and maintaining testing and curing equipment shall be considered incidental to the work and no additional payment will be made.

Quality Control test cylinders shall be made and tested in accordance with the following standards:

AASHTO T 22 (ASTM C39) Test Method for Compressive Strength of Cylindrical Concrete Specimens

AASHTO T23 (ASTM C31) Practice for Making and Curing Concrete Test Specimens in Field

AASHTO T141 (ASTM C172) Practice for Sampling Freshly Mixed Concrete

AASHTO T152 (ASTM C231) Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method

AASHTO T196 (ASTM C173) Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method

ASTM C1064 Test Method for Temperature of Freshly mixed Portland Cement Concrete

ASTM C1611 Standard Test Method for Slump Flow of Self-Consolidating Concrete”

Under the heading, Concrete Testing, delete the paragraph that begins:

“At least once per week, the Contractor shall make 2 concrete cylinders.....for use by the Department.....”

SECTION 713

STRUCTURAL STEEL AND RELATED MATERIAL

Section 713.01- Structural Steel Revise this Section by removing the sentence:

“ Impact test sampling and testing procedures shall be in accordance with AASHTO T.”

And replace it with: “**Impact test sampling and testing procedures shall be in accordance with AASHTO T 243 M/T 243 and AASHTO T 244.**”

SECTION 717

ROADSIDE IMPROVEMENT MATERIAL

717.02 Agricultural Ground Limestone

In the table after the third paragraph which starts with “Liquid lime...” change the Specification for Nitrogen (N) from “15.5 percent of which 1% is from ammoniac nitrogen and 14.5 /5 is from Nitrate Nitrogen” to read **“15.5 % of which 1% is from Ammoniacal Nitrogen and 14.5 % is from Nitrate Nitrogen”**

717.061 Erosion Control Blankets Revise this section by removing it in its entirety and replacing it with the following:

“717.061 Erosion Control Blankets Shall consist of a machine produced rolled blanket of biodegradable fibers, evenly distributed over the entire area of blanket, of a consistent thickness, sewn into a biodegradable mesh on the top and bottom surface using a cotton blend thread. The blanket shall remain in place when subject to shear stress of 1.55 lb/ft². The blanket shall remain intact until grass is established. The blanket shall be a product currently listed on the department’s Qualified Products List (QPL) of Erosion Control Products. See Section 618.10 - Seeding, Maintenance and Acceptance.”

SECTION 720

STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS

720.10 Wood Utility Pole Amend the first sentence in this section by adding “, **Red Pine**” after “Douglas Fir”.

Replace the paragraph beginning with “Wood Utility poles...” with:

“Wood Utility poles shall be pressure treated, after fabrication in accordance with AASHTO Specifications M 133 and AWP A U1, UC4B, Commodity Specification D: Poles.”

720.12 Wood Sign Posts Remove the first sentence and replace with **“Wood sign posts shall be rectangular, straight and sound timber, cut from live growing native spruce, red pine, hemlock or cedar trees, free from loose knots or other structurally weakening defects of importance, such as shake or holes or heart rot.”**

Remove the paragraph beginning with “When pressure treated sign posts are called for on the plans ...” with **“When pressure treated sign posts are called for on the plans, the wood shall be Yellow Pine, Number 2 or better, or the species listed above. The pressure treated wood shall meet AASHTO M 133 and AWP A Standard U1, UC5A, Commodity Specification A: Sawn Products.”**

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.

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:

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

Validate all tests and other selection requirements.

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.

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.

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.

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.

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:

<u>Goals for female participation in each trade</u>	6.9%
---	------

Goals for minority participation for each trade

Maine

001 Bangor, ME	0.8%
----------------	------

Non-SMSA Counties (Aroostook, Hancock, Penobscot, Piscataquis, Waldo, Washington)

002 Portland-Lewiston, ME

SMSA Counties: 4243 Lewiston-Auburn, ME (Androscoggin)	0.5%
---	------

6403 Portland, ME (Cumberland, Sagadahoc)	0.6%
--	------

Non-SMSA Counties:
(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. Section '**D Disadvantaged Business Enterprise (DBE) Requirements**' is removed in its entirety. The DBE material is in:

Section 105.10 EQUAL OPPORTUNITY AND CIVIL RIGHTS.

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 MaineDOT 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 MaineDOT or from sources designated by MaineDOT. 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 MaineDOT 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 MaineDOT 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 MaineDOT, 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.

Cargo Preference Act : Contractor and Subcontractor Clauses. “Use of United States-flag vessels: The contractor agrees—“(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.”(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.”(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.”(Reorganization Plans No. 21 of 1950 (64 Stat. 1273) and No. 7 of 1961 (75 Stat. 840) as amended by Pub. L. 91-469 (84 Stat. 1036) and Department of Commerce Organization Order 10-8 (38 FR 19707, July 23, 1973)) [42 FR 57126, Nov. 1, 1977]

The Cargo Preference Act requirements apply to materials or equipment that are acquired for a specific Federal-aid highway project. In general, the requirements are not applicable to goods or materials that come into inventories independent of an FHWA funded-contract. For example, the requirements would not apply to shipments of Portland cement, asphalt cement, or aggregates, as industry suppliers and contractors use these materials to replenish existing inventories. In general, most of the materials used for highway construction originate from existing inventories and are not acquired solely for a specific Federal-aid project. However, if materials or equipment are acquired solely for a Federal-aid project, then the Cargo Preference Act requirements apply.”

Start of FHWA 1273 REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS (As revised through May 1, 2012)

FHWA-1273 -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, 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.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment,

termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

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, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) 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 provisions of the Americans with 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 contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its 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, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program 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 minorities and women.

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 minorities and women 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 minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women 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, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.
- c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such 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 its 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 their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

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. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

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 employees who are minorities and women 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 good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women.

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 good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith 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 contracting agency 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 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 minorities and women. The failure of a union to provide sufficient referrals (even

though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. 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 contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. 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. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor 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 contracting agency deems appropriate.

11. 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 the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours 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; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of 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 FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics 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 issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, 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 29 CFR 5.5(a)(4). 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. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) 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.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), 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 Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The 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.

(3) In the event the contractor, the laborers or mechanics to be employed in the 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. The Wage and Hour 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. 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 shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as 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.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor 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, so 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 contracting agency 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.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of 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. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) 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 shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each 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 Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) 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 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, 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 FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action 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.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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 U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or 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 Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen 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 worker 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 on 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 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's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

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 journeymen 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 determines that a

different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

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 U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman 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 wage rate on the wage determination which provides for less than full fringe benefits for apprentices. 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.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor 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. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. 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.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 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 U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the 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 or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys 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 (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

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 contracting agency. 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 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased 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 or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

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 or propose 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 VI 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 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 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 contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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 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. 3704).

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.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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, Form FHWA-1022 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:

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 under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

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

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier 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 first tier 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 first tier 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 contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier 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," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first 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 entering into this transaction.

g. The prospective first tier 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 Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective 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.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-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;

(3) 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 (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective 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 Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

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," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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 exceeding the \$25,000 threshold.

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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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 Participants:**

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 participating in covered transactions 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.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant 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.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR
APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL
ACCESS ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

- a. To the extent that qualified persons regularly residing in the area are not available.
- b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.
- c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

End of FHWA 1273

The United States Department of Transportation (USDOT)

FHWA STANDARD TITLE VI/NONDISCRIMINATION ASSURANCES

DOT Order No. 1050.2A

The Maine Department of Transportation (herein referred to as the "Recipient"), **HEREBY AGREES THAT**, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through The Federal Highway Administration (FHWA), is subject to and will comply with the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled *Nondiscrimination In Federally-Assisted Programs Of The Department Of Transportation—Effectuation Of Title VI Of The Civil Rights Act Of 1964*);
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

FHWA may include additional Statutory/Regulatory Authorities here.

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda, and/or guidance, the Recipient hereby gives assurance that it will promptly take any measures necessary to ensure that:

No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from DOT, including FHWA..

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Nondiscrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these nondiscrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

FHWA may include additional General Assurances in this section, or reference an addendum here.

Specific Assurances

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its federally assisted programs:

1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23 (b) and 21.23 (e) of 49 C.F.R. § 21 will be (with regard to an "activity") facilitated, or will be (with regard to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.
2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all Federal Highway Programs and, in adapted form, in all proposals for negotiated agreements regardless of funding source:

The (Agency), in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively insure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.
4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.
5. That where the Recipient receives Federal financial assistance to construct a facility, or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.
6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.
7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:
 - a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
 - b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.
8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transferee for the longer of the following periods:

- a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or
 - b. the period during which the Recipient retains ownership or possession of the property.
9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official to whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.
10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

FHWA may include additional Specific Assurances in this section.

By signing this ASSURANCE, Maine Department of Transportation also agrees to comply (and require any subrecipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing the FHWA access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by FHWA. You must keep records, reports, and submit the material for review upon request to FHWA, or their designees in a timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

Maine Department of Transportation gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation. This ASSURANCE is binding on Maine Department of Transportation, other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in it programs. . The person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

Name of Recipient: Maine Department of Transportation



David Bernhardt, Commissioner

DATED: 9/18/14

APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations as set forth in Appendix E, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration**, to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration**, may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.

Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration**, may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

(APPENDIX C TO MAINEDOT TITLE VI ASSURANCE)

FEDERAL HIGHWAY ADMINISTRATION ASSISTED PROGRAMS

The following clauses shall be included in all deeds, licenses, leases, permits, or similar instruments entered into

by the Maine Department of Transportation pursuant to the provisions of Assurance 7(a).

The (grantee, licensee, lessee, permittee, etc., as appropriate) for herself/himself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that in the event facilities are constructed, maintained, or otherwise operated on the said property described in this (deed, license, lease, permit, etc.) for a purpose for which a Department of Transportation program or activity is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee lessee, permittee, etc.) shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination of Federally-Assisted Programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

[Include in licenses, leases, permits, etc.]*

That in the event of breach of any of the above nondiscrimination covenants, Maine Department of Transportation shall have the right to terminate the [license, lease, permit, etc.] and to re-enter and repossess said land and the facilities thereon, and hold the same as if said [licenses, lease, permit, etc.] had never been made or issued.

[Include in deeds]*

That in the event of breach of any of the above nondiscrimination covenants, Maine Department of Transportation shall have the right to re-enter said lands and facilities thereon, and the above described lands and facilities shall thereupon revert to and vest in and become the absolute property of Maine Department of Transportation and its assigns.

The following shall be included in all deeds, licenses, leases, permits, or similar agreements entered into by Maine Department of Transportation pursuant to the provisions of Assurance 7(b).

The (grantee, licensee, lessee, permittee, etc., as appropriate) for herself/himself, his/her personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in case of deeds, and leases add "as a covenant running with the land") that (1) no person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over or under such land and the furnishing services thereon, no person on the grounds of race, color, or national origin shall be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination, and (3) that the (grantee, licensee, lessee, permittee, etc.) shall use the premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

[Include in licenses, leases, permits, etc.]*

That in the event of breach of any of the above nondiscrimination covenants, Maine Department of Transportation shall have the right to terminate the [license, lease, permit, etc.] and to re-enter and repossess said land and the facilities thereon, and hold the same as if said [license, lease, permit, etc.] had never been made or issued.

[Include in deeds]*

That in the event of breach of any of the above nondiscrimination covenants, Maine Department of Transportation shall have the right to re-enter said land and facilities thereon, and the above described lands and facilities shall thereupon revert to and vest in and become the absolute property of Maine Department of Transportation and its assigns.

* Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to effectuate the purpose of Title VI of the Civil Rights Act of 1964.

APPENDIX D

CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by The Maine Department of Transportation pursuant to the provisions of Assurance 7(b):

- A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, “as a covenant running with the land”) that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discriminations, (3) that the (grantee, licensees, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.
- B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, (**The Maine Department of Transportation**) will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*
- C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, (**The Maine Department of Transportation**) will there upon revert to and vest in and become the absolute property of (**The Maine Department of Transportation**) and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. §4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. §324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. §794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. §6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 U.S.C. §471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. Parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. §47123) (prohibits discrimination on the basis of race, color, national origin and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).



Environmental Summary Sheet

WIN: 18622.00
Town: Hallowell
CPD Team Leader: Colin Greenan
ENV Field Contact: Mike Clark

Date Submitted: 11/29/17

NEPA Complete: Programmatic Categorical Exclusion (CE) 23 CFR 771.117(c)(26) issued on 8/9/17

☒ **Section 106**
SHPO Concurrence-No Adverse Effect (SHPO concurrence on 4/4/17)
Section 106 Resources: [HALLOWELL HISTORIC DISTRICT](#)

☒ **Section 4(f) and 6(f)**
Section 4(f)
Complete- no significant impact to the Boat Landing
Section 6(f)
No Takes

☐ **Maine Department of Inland Fisheries and Wildlife Essential Habitat**
Not Applicable
Timing Window: Not Applicable

☒ **Section 7**
No Effect
Species of Concern: Northern long-eared bat, Atlantic salmon, Atlantic sturgeon
Comments/References: No tree clearing proposed, no in stream work proposed

☒ **Essential Fish Habitat**
No effect- no in stream work proposed

☐ **Maine Department of Conservation/Public Lands, Submerged Land Lease**
Not Applicable

☐ **Maine Land Use Regulation Commission**
Not Applicable

**Applicable Standards and Permits are included with the contract*

☐ **Maine Department of Environmental Protection**
Not Applicable- no in stream work proposed and no protected natural resources will be impacted
**Applicable Standards and Permits are included with the contract*

☐ **Army Corps of Engineers, Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act.**
Not Applicable- no in stream work proposed and no protected natural resources will be impacted
**Applicable Standards and Permits are included with the contract*

☐ **Stormwater Review**
Not Applicable

☒ Special Provisions Required		
Special Provision 105-Timing of Work Restriction	N/A ☒	Applicable ☐
Special Provision 656-Minor Soil Disturbance	N/A ☒	Applicable ☐
Standard Specification 656-Erosion Control Plan	N/A ☐	Applicable ☒
Special Provision 203-Dredge Spec	N/A ☒	Applicable ☐
General Note for Hazardous Waste	N/A ☒	Applicable ☐
Special Provision 203-Contaminated Soil and Groundwater Mgt.	N/A ☐	Applicable ☒
Special Provision 105.9	N/A ☒	Applicable ☐

**All permits and approvals based on plans/scope as of: 11/29/17*