

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):_____

Request by: _____
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

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**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

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for **Wharf Infill & Building Removal** in the city of **Portland**" 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 July 25, 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 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-2194(206), WIN. 21942.06

Location: In Cumberland County, project is located off Commercial Street in Portland, Maine at the International Marine Terminal.

Outline of Work: Wharf Infill & Building Removal 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** Joel Kittredge 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 \$21.00 (\$24.50 by mail). Half size plans \$10.50 (\$12.75 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

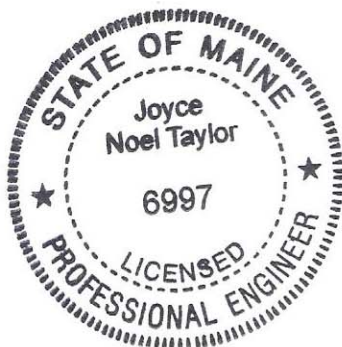
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$115,000.00 payable to Treasurer, 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
June 27, 2018



A handwritten signature in blue ink that reads "Joyce Noel Taylor".

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)

6/22/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 1 of 7

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project 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	202.01 REMOVING STRUCTURES AND OBSTRUCTIONS - Concrete Curb & Bollards	LUMP SUM	LUMP	SUM	_____	_____
0020	202.01 REMOVING STRUCTURES AND OBSTRUCTIONS - Wharf Area, Ramp #3	LUMP SUM	LUMP	SUM	_____	_____
0030	202.08 REMOVING BUILDING NO.: - #1 Maintenance Building	LUMP SUM	LUMP	SUM	_____	_____
0040	202.14 REMOVING EXISTING RAILINGS (PROPERTY OF CONTRACTOR)	30.000 LF	_____	_____	_____	_____
0050	202.15 REMOVING MANHOLE OR CATCH BASIN	1.000 EA	_____	_____	_____	_____
0060	202.203 PAVEMENT BUTT JOINTS	49.000 SY	_____	_____	_____	_____
0070	202.4011 REMOVING EMBEDDED TIMBER PILE	20.000 EA	_____	_____	_____	_____
0080	203.20 COMMON EXCAVATION	800.000 CY	_____	_____	_____	_____
0090	203.2312 HEALTH AND SAFETY PLAN	LUMP SUM	LUMP	SUM	_____	_____
0100	304.104 AGGREGATE SUBBASE COURSE (PLAN QUANTITY)	290.000 CY	_____	_____	_____	_____
0110	304.14 AGGREGATE BASE COURSE - TYPE A	180.000 CY	_____	_____	_____	_____

6/22/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 2 of 7

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project 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	403.2071 19 MM POLYMER MODIFIED HOT MIX ASPHALT	129.000 T	_____	 _____	_____	 _____
0130	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	65.000 T	_____	 _____	_____	 _____
0140	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	29.000 T	_____	 _____	_____	 _____
0150	409.15 BITUMINOUS TACK COAT - APPLIED	24.000 G	_____	 _____	_____	 _____
0160	419.30 SAW CUTTING BITUMINOUS PAVEMENT	315.000 LF	_____	 _____	_____	 _____
0170	501.231 DYNAMIC LOADING TEST	4.000 EA	_____	 _____	_____	 _____
0180	501.24 STEEL PIPE PILES	7,450.000 LF	_____	 _____	_____	 _____
0190	501.241 STEEL PIPE PILES - IN-PLACE	6,950.000 LF	_____	 _____	_____	 _____
0200	501.90 PILE TIPS	68.000 EA	_____	 _____	_____	 _____
0210	501.91 PILE SPLICES	17.000 EA	_____	 _____	_____	 _____
0220	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP SUM	LUMP SUM		_____	 _____
0230	502.235 STRUCTURAL CONCRETE, PIER PILE CAP & EDGE BEAM	290.000 CY	_____	 _____	_____	 _____

6/22/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 3 of 7

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project 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	502.411 STRUCTURAL CONCRETE, PIER DECK SLAB	310.000 CY	_____	 _____	_____	 _____
0250	502.451 STRUCTURAL CONCRETE DISTRIBUTION SLAB - Approach Slab	130.000 CY	_____	 _____	_____	 _____
0260	502.605 SEAWALL REPAIR CONCRETE	15.000 CY	_____	 _____	_____	 _____
0270	503.14 EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED	150,000.000 LB	_____	 _____	_____	 _____
0280	503.15 EPOXY-COATED REINFORCING STEEL, PLACING	150,000.000 LB	_____	 _____	_____	 _____
0290	506.9106 FUSION BONDED EPOXY COATING	LUMP SUM	LUMP SUM		_____	 _____
0300	514.06 CURING BOX FOR CONCRETE CYLINDERS	1.000 EA	_____	 _____	_____	 _____
0310	515.201 PIGMENTED CONCRETE PROTECTIVE COATING - Curbs & Edge Beams	2,100.000 SY	_____	 _____	_____	 _____
0320	515.202 PROTECTIVE COATING FOR CONCRETE SURFACES - SILANE SEALER - Decks	7,350.000 SY	_____	 _____	_____	 _____
0330	518.50 REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 8 IN.	100.000 SF	_____	 _____	_____	 _____

6/22/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 4 of 7

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project 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
0340	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 8 IN.	20.000 SF	_____	 _____	_____	 _____
0350	518.60 REPAIR OF VERTICAL SURFACES < 8 IN.	20.000 SF	_____	 _____	_____	 _____
0360	520.22 EXPANSION DEVICE - COMPRESSION SEAL	1.000 EA	_____	 _____	_____	 _____
0370	535.631 PRESTRESSED STRUCTURAL CONCRETE DECK PLANKS	LUMP SUM	LUMP SUM		_____	 _____
0380	604.158 UTILITY VAULT - 10' x 8' x 8'	1.000 EA	_____	 _____	_____	 _____
0390	607.1701 TEMPORARY CHAIN LINK FENCE - 6' MOVEABLE	400.000 LF	_____	 _____	_____	 _____
0400	627.903 PAVEMENT MARKINGS ON EXISTING CONCRETE PIER	LUMP SUM	LUMP SUM		_____	 _____
0410	629.05 HAND LABOR, STRAIGHT TIME	60.000 HR	_____	 _____	_____	 _____
0420	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20.000 HR	_____	 _____	_____	 _____
0430	631.13 BULLDOZER (INCLUDING OPERATOR)	20.000 HR	_____	 _____	_____	 _____
0440	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	20.000 HR	_____	 _____	_____	 _____

6/22/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 5 of 7

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project 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
0450	631.36 FOREPERSON	60.000 HR	_____	_____	_____	_____
0460	634.1811 1 1/2" LIQUID TIGHT METALLIC FLEXIBLE CONDUIT	50.000 LF	_____	_____	_____	_____
0470	634.188 4" ELECTRICAL METALLIC TUBING CONDUIT	25.000 LF	_____	_____	_____	_____
0480	634.194 1 1/2" PVC CONDUIT	100.000 LF	_____	_____	_____	_____
0490	634.1941 1" PVC CONDUIT	150.000 LF	_____	_____	_____	_____
0500	634.1943 4" SCHEDULE 80 PVC CONDUIT	1,125.000 LF	_____	_____	_____	_____
0510	634.195 4" PVC CONDUIT - Schedule 40	560.000 LF	_____	_____	_____	_____
0520	634.2072 INSTALL REEFER OUTLET PEDESTAL	1.000 EA	_____	_____	_____	_____
0530	634.2073 INSTALL HIGH-MAST LIGHTING POLE	1.000 EA	_____	_____	_____	_____
0540	634.230 12" X 12" X 6" INTERIOR PULL BOX	1.000 EA	_____	_____	_____	_____
0550	634.2311 STAINLESS STEEL EXTERIOR PULL BOX	1.000 EA	_____	_____	_____	_____
0560	634.312 # 2 AWG COPPER WIRING	100.000 LF	_____	_____	_____	_____

6/22/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 6 of 7

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project 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
0570	634.314 #6 AWG COPPER WIRE	400.000 LF				
0580	634.317 500 MCM CU	2,000.000 LF				
0590	634.318 250 MCM CU	700.000 LF				
0600	634.73 REMOVE EXISTING LIGHT POLES	LUMP SUM				
0610	634.731 REMOVE EXISTING 120/240 VOLT PIER CONNECTION EQUIPMENT	LUMP SUM				
0620	634.74 INSTALL CRANE OUTLET STATION	1.000 EA				
0630	634.75 INSTALL COMMUNICATION AND SURVEILLANCE	LUMP SUM				
0640	639.18 FIELD OFFICE TYPE A	1.000 EA				
0650	655.501 CATHODIC PROTECTION BY SACRIFICIAL ANODE	34.000 EA				
0660	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM				
0670	659.10 MOBILIZATION	LUMP SUM				
0680	825.67 TERMINATE GAS LINE	LUMP SUM				

6/22/2018

Maine Department of Transportation

Proposal Schedule of Items

Page 7 of 7

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project 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
0690	825.68 WATER LINE MODIFICATIONS	LUMP SUM	LUMP	SUM	_____	_____
0700	825.69 SEWER LINE MODIFICATIONS	LUMP SUM	LUMP	SUM	_____	_____
0710	832.071 CONTRACTOR ALLOWANCE - CMP	LUMP SUM	LUMP	SUM	_____	_____
0720	832.071 CONTRACTOR ALLOWANCE - Fairpoint	LUMP SUM	LUMP	SUM	_____	_____
0730	832.071 CONTRACTOR ALLOWANCE - Portland Water District	LUMP SUM	LUMP	SUM	_____	_____
0740	832.071 CONTRACTOR ALLOWANCE - Unitil	LUMP SUM	LUMP	SUM	_____	_____
0750	832.071 CONTRACTOR ALLOWANCE - City Permits	LUMP SUM	LUMP	SUM	_____	_____
0760	841.4713 STEEL BOLLARD, 12 INCH	15.000 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. 21942.06** for **Wharf infill & Building Removal** in the city of **Portland**, County of **Cumberland**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

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

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

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **May 17, 2020**. 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. 21942.06 - Wharf Infill & Building Removal – in the city of Portland

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.
documents referenced herein.

This award consummates the Contract, and the

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. 21942.06** for **Wharf infill & Building Removal** in the city of **Portland**, County of **Cumberland**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

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

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

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **May 17, 2020**. 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. 21942.06 - Wharf Infill & Building Removal – in the city of Portland

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.
documents referenced herein.

This award consummates the Contract, and the

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.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David Bernhardt, Commissioner

(Witness)

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

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

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

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

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

WITNESSES:

Signature.....
Print Name Legibly

Signature
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: ME180122 01/05/2018 ME122

Superseded General Decision Number: ME20170122

State: Maine

Construction Type: Highway

County: Cumberland 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

SUME2014-041 06/23/2017

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 18.95	3.23
CEMENT MASON/CONCRETE FINISHER...	\$ 19.27	1.13
ELECTRICIAN.....	\$ 26.40	6.66
HIGHWAY/PARKING LOT STRIPING:		
Laborer.....	\$ 15.53	2.04
INSTALLER - GUARDRAIL.....	\$ 19.98	2.55
IRONWORKER, REINFORCING.....	\$ 21.85	0.00
IRONWORKER, STRUCTURAL.....	\$ 22.33	4.50
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 17.44	2.07
LABORER: Common or General.....	\$ 15.29	2.08
LABORER: Epoxy Injector (Concrete).....	\$ 13.43	1.15
LABORER: Wheelman.....	\$ 20.34	3.43

OPERATOR:		
Backhoe/Excavator/Trackhoe.....\$	21.07	4.39
OPERATOR: Bobcat/Skid		
Steer/Skid Loader.....\$	21.97	1.74
OPERATOR: Broom/Sweeper.....\$	19.02	0.00
OPERATOR: Bulldozer.....\$	21.71	5.67
OPERATOR: Grader/Blade.....\$	27.40	8.13
OPERATOR: Loader.....\$	19.95	2.86
OPERATOR: Mechanic.....\$	24.69	8.18
OPERATOR: Milling Machine.....\$	28.51	5.44
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....\$	19.98	4.95
OPERATOR: Roller (Earth).....\$	18.57	2.50
OPERATOR: Roller Asphalt.....\$	19.30	4.09
TRAFFIC CONTROL: Flagger.....\$	9.00	0.00
TRAFFIC CONTROL:		
Laborer-Cones/ Barricades/Barrels -		
Setter/Mover/Sweeper.....\$	17.02	5.37
TRUCK DRIVER: Dump Truck.....\$	16.71	2.80

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

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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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

SPECIAL PROVISIONS

FOR:

PORTLAND INTERNATIONAL MARINE TERMINAL
MAINE INTERMODAL PORT PRODUCTIVITY PROJECT
WHARF INFILL & BUILDING REMOVAL

PROJECT WIN: 021942.06

Portland, Maine

May 18, 2018

TABLE OF CONTENTS
for
SPECIAL PROVISIONS

DIVISION 100	GENERAL CONDITIONS
101	Contract Interpretation
102	Bidding
104	General Rights and Responsibilities
105	General Scope of Work
107	Time
DIVISION 200	EARTHWORK
202	Removing Structures and Obstructions
203	Excavation and Embankment
DIVISION 400	PAVEMENTS
403	Hot Mix Asphalt Pavement
409	Bituminous Tack Coat
419	Sawing and Sealing Joints in Bituminous Pavement
DIVISION 500	STRUCTURES
501	Foundation Piles
502	Structural Concrete
503	Reinforcing Steel
506	Shop Applied Protective Coating – Steel
515	Protective Coating for Concrete Surfaces
520	Expansion Devices – Non-Modular
535	Precast, Prestressed Concrete Superstructure
DIVISION 600	MISCELLANEOUS CONSTRUCTION
604	Manholes, Inlets, and Catch Basins
607	Fences
627	Pavement Markings
634	Highway Lighting & Electrical Work
655	Electrical Work
DIVISION 800	OTHER CONSTRUCTION
825	Utility Provisions
841	Bollards
APPENDICES	
A	Certifications
B	Engineer's Construction Management Plan
C	Geotechnical Report
D	Hazardous Material Reports

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

PORTLAND INTERNATIONAL MARINE TERMINAL
MAINE INTERMODAL PORT PRODUCTIVITY PROJECT
WHARF INFILL & BUILDING REMOVAL

Portland, Maine
WIN 021942.06

PROJECT DESCRIPTION

All work shall be governed by the Maine Department of Transportation Standard Specifications, November 2014 Edition, except for the modifications, additions, and deletions contained herein.

General Description of Work

The objective of this project is to upgrade the Portland International Marine Terminal by increasing the area the wharf. A general description of the work is as follows:

The Work includes the removal of the existing maintenance building and Ramp #3 to allow for the installation of approximately 12,400 square feet of additional wharf infill area.

Other miscellaneous work includes but is not limited to the following:

- Installation of concrete storage slab
- Installation of site bollards
- Installation of electrical light pole, reefer outlet, and electrical stanchion.
- Installation of a utility vault
- Installation of pavement
- Application of paint markings and sealant to the wharf.
- Modification to electrical, gas, sewer, and water lines

Plans

The Contract Drawings are hereby incorporated into this project and are referred to as the Plans. They bear the general title “Portland International Marine Terminal, Maine Intermodal Port Productivity Project, Wharf Infill & Building Removal, Federal Project No. STP-2194(206), WIN 021942.06”. The right is reserved by the Resident to make such minor corrections or alterations in the Plans as he deems necessary without change in the unit prices on the Schedule of Bid Prices of the Proposal.

SPECIAL PROVISION
SECTION 101
CONTRACT INTERPRETATION
(Definitions)

101.2 Definitions

This Subsection is added by inclusion of the following:

Terminal Manager: Maine Port Authority (MPA). Contact: Michael Carter, 207-200-2430

Port Operations Area: The existing 8-acre site located east of the Casco Bay Bridge and defined by the existing 8-ft high barbed-wire security fence. This area, which is also known as the Terminal, is designated as an MTSA 105 regulated site under the jurisdiction of Homeland Security. Workers entering this area must have TWIC credentials or must be escorted by someone with TWIC credentials.

Contractor Work Area: The waterfront area designated on the Plans where the primary work will be performed by the Contractor. This area is approximately 68,000 sq. ft. in size and will be surrounded by a 6-ft high temporary fence. Access will be made through contractor-supplied secured access gates.

Contractor Staging Area: The waterfront area designated on the Plans within the Contractor Work Area that will be used to store materials and equipment. A portion of this area is on land while a portion can be on the existing wharf when no vessel is present.

Chassis Storage Area: The waterfront area to the west of the Casco Bay Bridge primarily used by the Maine Port Authority for storing chassis with or without containers. With proper coordination with the MPA, some of this area will be available for contractor staging and storage.

SPECIAL PROVISION
SECTION 102
BIDDING
(Pre-Bid Meeting)

The following Subsection is added:

102.3.1 Pre-Bid Meeting

A mandatory pre-bid meeting will be held at the Portland International Marine Terminal on Wednesday, June 27, 2018. The meeting will be held at 10:00 a.m. within the port office building located at 460 Commercial Street in Portland, Maine where the project will be presented to all Bidders. A walk-through of the project site will be provided. The pre-bid meeting is deemed mandatory to ensure that all Bidders fully understand the specifics of the project. Only the General Contractors (GC) who are present at the meeting will be allowed to bid. Subcontractors do not need to be present to provide bids to the GC.

SPECIAL PROVISION
SECTION 102
BIDDING
(Acknowledgement of Bid Amendments)

The following Subsection is added:

102.7.3 Acknowledgement of Bid Amendments

It is the Bidder's responsibility to check for all Amendments to the Bid Package prior to submitting their Proposal. The Contractor's Proposal must be accompanied by a completed Acknowledgement of Bid Amendments form located in this project Bid Book.

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Staging Area)

104.3.15 Contractor's General Authority and Responsibilities

This Subsection is added by inclusion of the following:

The Contractor's primary staging area shall be located within the Contractor's Work Area as noted in the Plans. A secondary staging area may be available at the approval of the Resident, but must not interfere or obstruct the daily operations of the Terminal. Other sites within the Terminal may also be designated as Contractor staging areas by the Resident. The Resident shall coordinate with the Terminal Manager prior to approving additional staging areas.

The staging area shall also accommodate the Contractor's field office without adversely affecting the aforementioned access ways. The Contractor shall coordinate with the Terminal Manager and with approval of the Resident to ensure that the staging area location is of sufficient size to accommodate all field offices, equipment, and delivered materials.

The MaineDOT will also have a field office trailer for this project, which shall be placed in close proximity to the Contractor's field office.

Meeting rooms, restroom facilities, and break rooms within the IMT office building will not be available to the Contractor.

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Progress Meetings)

104.4.3 Progress Meetings

This Subsection is amended by the addition of the following:

Progress meetings shall be held weekly or at an interval deemed necessary by the Resident. The time and location of the meetings shall be determined by the Resident; this time and place shall be agreeable to all parties: the Resident, the Terminal Manager, and the Contractor. As the project progresses, the Resident may reduce the frequency of the meetings.

**SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Utility Coordination)**

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 project specification.

Overview:

Utility/Railroad	Aboveground	Underground
Central Maine Power (Electrical)	X	X
Time Warner Cable (Communication)	X	X
Fairpoint (Communication)	X	X
Portland Water District (Water)		X
Until (Gas)		X
Portland Works Dept. (Sewer)		X
Galaxy Integrated (Security)*		X

*Includes wireless technology

Central Maine Power Co.	Skip McKay	318-6995
Time Warner Cable	Mark Pelletier	253-2324
Fairpoint Communications	Marty Pease	797-1119
Portland Water District	Christian Rodriguez	774-5961
Unitil Gas	Joe Renda	541-2568
Portland Sewer District	John Emerson	874-8468
Portland (lighting)	Kevin Thomas	756-8291

Temporary utility adjustments are **not** anticipated.

Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. Underground facilities indicated on the topographic sheets (plan views) have been

collected from historical records and/or on-site designations provided by the respective utility companies. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.

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

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

Utility working days are Monday through Friday. Times are estimated on the basis of a single crew for each utility. 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.

AERIAL

No above ground utility conflicts are anticipated within the scope of work planned for this project. Should any arise the utility must be contacted as soon as possible.

SUBSURFACE

Subsurface utility is within the scope of work planned for this project, each of the corresponding utilities shall be contacted and limits of work shall be coordinated with respective utility. Should any additional work arise the utility must be contacted as soon as possible.

There are underground utilities and drainage pipes that run throughout the project. These consist of water, sewer, communication cables and storm drains. The Contractor shall, through the digsafes process, determine where these utilities currently exist prior to start of the project.

Once located the Contractor may have to work near these utilities. Payment for coordinating with, and working around any utility will be considered incidental to the building removal. It is the intent of the department to make field changes, as much as possible, so not to impact existing utilities that work is not intended for. The Contractor should expect some delays when in these areas and extra time should be allowed. No additional money will be granted for redesign or Contractor delays. The Contractor shall plan and schedule his work in such a manner that the utilities that are located on this project will not be harmed, damaged or impacted in any way other than noted in the plans. The Contractor and Utility will coordinate and communicate their work plans in an effort not to interfere with each other's progress or the completion of the project. This work will be done by the Contractor's Superintendent and the Utility contact listed below.

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 area is adequately protected at all times. All work areas shall be signed, and lighted as determined by field conditions.

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Coordination with Terminal Manager)

The following Subsection is added:

104.4.11 Coordination with Terminal Manager

The Portland International Marine Terminal (IMT) is an active container terminal with various container movements anticipated to occur on a weekly basis. Successful completion of the proposed project will require coordination between the Contractor and the Terminal Manager on a weekly basis via project meetings to be held on-site. At these meetings, the Contractor will be required to provide an update on the progress of the project and will make requests to work within wharf limits. In a similar manner, the Terminal Manager will provide a weekly vessel schedule to the Contractor and will advise when the existing wharf is not available, or if the temporary fencing needs to be relocated along the northern boundary of the Primary Construction Zone. The general location of the proposed temporary fencing is positioned so that both port operations and construction activities can occur simultaneously without interruption or needing adjustments.

Container operations are typically routine: upon arrival of a vessel, the mobile harbor crane positions itself on the wharf and will offload containers non-stop until the containers have been moved to their final position within the terminal. Containers are temporarily placed on the wharf where reach-stacker vehicles pick the containers and carry them to the Container Storage Area. Within twelve hours, the vessel is underway and waterfront activity subsides.

The Contractor is also advised that while there is little available vacant space for Contractor storage within the Port Operations area, a small portion of the Terminal will be made available for storage. Within the Terminal, the Contractor will require special access through the use of TWIC cards and Terminal ID's as described in Section 105 of these Special Provisions.

Construction Schedule:

The Contractor will be required to submit a detailed written construction schedule. This schedule will be monitored closely and shall be updated weekly during construction meetings. When the Contractor is prepared to commence work on site, in addition to the construction schedule, the Contractor shall provide on a regular basis a written day by day summary of the Construction activities that will occur for the upcoming three-week period. This summary will also highlight activities that will have an impact on the use of facilities in the construction and adjacent areas.

Pollution Control:

All operations carried out by the Contractor during the life of this contract shall comply with provisions and regulations for the control of air and noise pollution. The contractor shall make all applications and notices and comply with all appropriate provisions of the rules and regulations of Federal, State, and Local Agencies. The Contractor will also closely monitor debris and trash that is generated on site and ensure that it is properly contained and maintained. Trash must be removed regularly and as a minimum, at least weekly.

Construction Management Plan:

The Contractor shall submit a Construction Management Plan to the Resident for review and approval. The Resident will forward the Plan to the City of Portland for their files. The Contractor shall anticipate modifications to the Construction Management Plan based on comments from either the Resident or the City of Portland. A copy of the Engineer's Construction Management Plan used in the site plan permit application for the City of Portland is provided in the Appendix for the Contractor's information and use.

SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES
(Coordination with Portland Harbor Constituents)

104.4.12 Coordination with Portland Harbor Constituents

This Subsection is amended by the addition of the following:

The Portland Harbor Master requests that the Contractor notify the following individuals prior to the start of construction in order to provide the anticipated construction work window and to promote safety along the waterfront for all users. The Contractor may use these notifications to request that passing vessels use caution and reduce their speed when passing the construction site to reduce vessel wake against barges and other marine equipment docked alongside the wharf. See documentation in Appendix A and Appendix B for more information.

Portland Harbor Master

Captain Kevin J. Battle

O. 207-772-8121

F. 207-772-2367

C. 207-831-6962

E. phm@portlandharbor.org

Portland Harbor Commissioner

Thomas Dobbins

E. tomdobbins@portlandharbor.org

Portland Pilots

Captain Mark Klopp

O. 207-774-5623

Portland Docking Pilots

Captain Brian Fournier

O. 207-774-2902

In addition to the above notifications at the onset of the project, the Contractor shall also notify the Portland Harbor Commission at the onset of the project of the anticipated end date for waterfront construction and substantial completion. An extension of permit date may be necessary.

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Submittal Requirements)

105.7.4 Submittal Requirements

This Subsection is amended by the addition of the following:

At the onset of the project, the Contractor shall provide to the Resident a submittal log, which identifies the manner by which all submittals will be organized and referenced throughout the project. The Contractor shall update the submittal log on a weekly basis or to the satisfaction of the Resident. RFIs and other correspondence may be organized in a similar manner at the discretion of the Resident.

The Contractor shall make all submittals including but not limited to RFIs, Designs, Shop Drawings, and Working Drawings in electronic format via email and in PDF file format. All submittals shall be accompanied by a cover sheet, which identifies the submittal number, subject, and date. Revisions to submittals should maintain the original submittal number but receive a designation which indicates the submittal has been revised.

Submittals which require the review of the Engineer of Record will be reviewed in electronic format using red-line markups to easily identify comments, corrections, or revisions. Submittal reviews will be returned in electronic format only. If hardcopies are needed by the Contractor, it will be the responsibility of the Contractor to print hardcopies for its own use.

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Permit Requirements)

105.8.2 Permit Requirements

This Subsection is amended by the addition of the following:

The Contractor is required to identify and obtain permits for the various construction activities within the project. All necessary permits shall be identified, obtained, and paid for as incidental costs to the respective pay items by the Contractor. Permits identified include the following:

1. Building Demolition Permit

Project certification documents have been obtained by the MaineDOT and are provided in Appendix A and include the following:

- City of Portland Planning Board Site Plan Permit Approval
- City of Portland Harbor Master Approval
- MaineDEP Permit Approval

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Contractor Access to Restricted Areas)

The following Subsection is added:

105.11.1 Contractor Access to Restricted Areas

The Contractor is advised that the Terminal is identified as a Marine Transportation Security Act (MTSA) 105 site defined by Homeland Security, and is essentially comprised of two separate container storage areas with different levels of restricted access. The first area is designated the International Container Storage Area, and comprises approximately 8 acres on the east side of the terminal. The second area is designated the Domestic Container Storage Area and Chassis Yard and comprises approximately 12 acres on the west side of the Terminal.

Upon commencement of the project, the Contractor will establish its working areas within the Terminal as shown in the Contract drawings. Once the Contractor Work Zone is established, the Contractor will not be allowed to breach the temporary fencing perimeter in order to work in the restricted zones. Work by the Contractor in the restricted zone, namely the Port Operation Area, will be possible by the Contractor only on a scheduled basis and by employees with the proper security clearance, such as with TWIC Cards (Transportation Worker Identification Credential) and Terminal ID's. Scheduling by the Contractor should be made on a weekly basis to ensure that access can be readily granted by the Terminal Manager. Similarly, the Terminal Manager will notify the Contractor on a weekly basis of scheduled vessel activity so that both container operations and construction work can occur simultaneously and without interruption.

The following activities may occur within the Port Operation Areas and therefore will require that the Contractor plan its efforts accordingly:

- Access to secondary Contractor Storage Area(s), if provided by the Maine Port Authority.
- Repairs and sealing the concrete deck.
- Removal of abandoned water line beneath the wharf.
- Obtaining stored elements.
- Installing new electrical box and lines.
- Painting final wharf marking lines.

The Contractor will be required to obtain the proper Port Security clearance for its employees and subcontractors to the extent that these employees will be required to access the Port Operations Area. To ensure compliance with MTSA 105 at all times, the Contractor shall assume that all of its intended employees who will be working on the project will be required to have security clearance to be present within these otherwise restricted zones, and will maintain on its person at all times the Port Security badges it receives from the Port Authority (at the discretion of the Authority). Employees will be required to return the temporary Terminal ID's upon completion of the project or the completion of their portion of the work. Employees shall adhere to the restrictions placed on such temporary access, and will be required to acknowledge a basic understanding of these requirements upon completion of a 15-minute presentation by the Terminal Manager. While the presentation is routine in nature, the importance of site security at an international waterfront facility will be emphasized. Contact information for TWIC cards and Port Authority badges will be provide to the Contractor upon commencement of the project. Anticipate a 4-week lead time to obtain TWIC credentials.

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Summary of Project Requirements)

The following Subsection is added:

105.11.2 Summary of Project Requirements

The Contractor is advised that this project occurs within a secured/restricted facility as determined by Homeland Security, and contains security equipment for both the Terminal and City of Portland which must remain functional at all times. The manner by which the project requirements shall be addressed by the Contractor are presented in each special provision contained herein, but other approaches may be suggested by the Contractor, which are subject to review and approval by the Owner.

A summary of the project requirements is summarized below:

Site Security:

- Contractor must maintain as operational the existing site security equipment at all times. This will require the establishment of electrical utilities and temporary systems prior to completion of the project. Electrical provisions will be required prior to demolition of buildings.
- CCTV systems and the City of Portland's emergency operator system must remain functional at all times. Again, electrical provisions will be required to maintain CCTV and emergency operator systems.
- Galaxy Integrated Technologies of Brighton, Massachusetts is the contractor responsible for servicing and monitoring the security system for the Portland IMT and the City of Portland. The Contractor shall coordinate with Galaxy at the onset of the project.

Rubb Building

- Utilities at the Rubb Building must remain functional throughout the project, but may be permitted short lapses of functionality (no more than four hours at a time) with scheduled notice to the Port Operator. For this reason, water, sewer, gas, electric, and communication lines must be modified according to the plans prior to demolition of the Maintenance Building. Minimize impact to the personnel in the Rubb Building to the greatest extent possible.

Domestic/International Container Storage Areas – Port Operations Work Area

- Temporary fencing, which will define the Contractor's Work Area, must be placed within close proximity to the lines shown on the Plans, in order to provide ample working space for Port Operations. The location of the temporary fencing may be slightly shifted throughout the project as needed and on a short term scheduled basis, by either the Port Operator or the Contractor to accomplish specific task.

SPECIAL PROVISION
SECTION 107
TIME

107.1 Contract Time and Contract Completion Date

This Subsection is amended by the addition of the following:

Work shall commence on or before **Monday, January 14, 2019** at the discretion of Department, and all work shall be completed on or before **Friday, May 17, 2020**. The project shall be substantially completed by **Friday, December 20, 2019**.

107.1.1 Substantial Completion

This subsection is amended by the addition of the following:

Substantial completion for the project shall be defined as follows:

- All work completed with the exception of polymer-modified pavement.

107.3.2 Night Work

This Subsection is amended by the addition of the following:

The Contractor shall be aware of the close proximity of the local residences. The Contractor shall conduct operations so as not to generate loud noises greater than 80 dB within 500 ft of any building used for residential purposes between the hours of 10:00pm and 7:00am unless otherwise approved. Local requirements concerning noise may impose additional restrictions and must be complied with by the Contractor. See Section 17 - 18 of the City of Portland Ordinance.

107.4.2 Schedule of Work Required

This Subsection is deleted and replaced with the following:

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

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

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

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

107.4.3 Project Payment Schedule

This Subsection is amended by the addition of the following:

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

107.4.6 Prosecution of Work

The following activities must be performed by the Contractor in accordance with the dates specified:

Project Work

▪ Electrical lines alongside the inside face of the existing wharf shall be temporarily relocated to beneath Ramp #2 and the wharf. Install the conduit for the final location of the electrical lines.	Prior to demolition of the Maintenance Building.
▪ Installation of stored high-mast light pole, stored reefer outlet, and site bollards.	Prior to demolition of the Maintenance Building.
▪ Installation of electrical crane outlet stanchion.	Prior to demolition of the Maintenance Building.
▪ Installation of telecommunication splice, new utility pole, and CCTV cameras. Coordinate with Galaxy Integrated Technology.	Prior to demolition of the Maintenance Building.
▪ Removal of CCTV cameras and security equipment from the Maintenance Building	Prior to demolition of the Maintenance Building and after installation of new CCTV cameras and equipment by Galaxy Integrated.

107.4.7 Limitations of Operations

The Contractor shall note that both the primary entrance and the secondary entrance into the IMT are active entrances 24 hours/day, 7 days/week. These entrances (shown on the Existing Conditions Plan) shall not be obstructed or altered in any way during construction.

In the event that the chassis storage yard is used by the Contractor for material storage, the Contractor shall also note that the MaineDOT Bridge Maintenance personnel require uninterrupted access to the Maintenance Building located along the waterfront and adjacent to the Casco Bay Bridge. The Contractor shall coordinate its construction activities with the bridge maintenance personnel so that their access is not hindered in any way during construction. Coordination shall consist of weekly meetings and distribution of the construction schedule. Contractor shall coordinate these needs and the location of the temporary access way with the Resident and the bridge maintenance personnel.

Placement of polymer-modified pavements shall be completed between May 1st and September 15th.

The cost of these limits of operations shall be considered incidental to the Contract and no additional compensation will be made.

107.9 Project Closeout

The following is in addition to the requirements of Section 107.9:

The Contractor shall maintain at the site a set of Contract Plans and these Special Provisions, upon which shall be recorded accurately as the work progresses the actual dimensions and locations of all his work, indicating thereon all variations from the Contract Documents. The record shall include the work of all Subcontractors. Record drawings shall be reviewed by the Resident, and the Contractor shall make all necessary changes according to the Resident's review.

Prior to final acceptance of the Work, all recorded data shall be transferred by the Contractor, to a complete set of reproducible record specifications of the Contract Drawings showing "As-Built" conditions. The As-Built drawings shall be presented using neatly color-coded markups to identify changes, modifications, or deletions to the proposed work.

The additional project closeout requirements noted in this special provision shall be considered incidental to the contract and no separate payment will be made.

SPECIAL PROVISION
SECTION 202
REMOVING STRUCTURES AND OBSTRUCTIONS
(Removing Existing Wharf Area – Ramp #3)
(Removing Existing Concrete, Curb, and Bollards)
(Removing Structure & Obstructions – Maintenance Building)
(Removing Existing Catch Basin)
(Pavement Butt Joints)
(Removing Embedded Timber Pile by Extraction)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 202 – REMOVING STRUCTURES AND OBSTRUCTIONS, with the following modifications:

202.01 Description

Add the following paragraphs:

The work shall also include the removal and disposal of: the IMT Maintenance Building, its perimeter foundation walls, and the partial removal of the top portion of the concrete seawall beneath the building. Included in this work is removal and disposal of foundation components of the aforementioned elements to a depth of 3 feet below existing grade as shown on the Plans. Maintenance Building demolition shall also include removal and disposal of existing timber deck and foundation piles, the office spaces and meeting rooms, the steel and timber bracing, and the concrete encasements as shown on the Plans. Some timber piles will be removed by extraction where the piles conflict with a proposed pile location.

This work shall also include removal and disposal of all lead-based paint containing materials. Exterior steel columns at the Maintenance Building were tested and determined to contain lead-based paint. Interior steel columns at the Maintenance Building were tested and determined not to contain lead-based paint. See appendix for hazardous material testing reports.

This work shall also include submittal of Building Demolition Notification Forms (BDNFs) to the Maine DEP's Lead and Asbestos Prevention Program prior to the start of any demolition work. The Contractor shall submit copies of all Building Demolition Notification Forms to the Owner's Representative for the Department's records.

The work shall also include the removal and disposal of a broken steel water line beneath the wharf as shown on the Plans.

The work shall also include the removal and disposal of concrete slabs, concrete planter boxes, timber decking, and bollards as noted in the Plans.

This work shall also include removal and disposal of the catch basin as noted in the Plans.

The work shall also include the removal of Wharf Area – Ramp 3 and all foundation elements associated with the ramp, including pile caps, and prestressed concrete piles. Piles associated with the ramp shall be removed to the limits shown on the Plans.

The work shall also include the partial removal of the concrete wharf deck, the curbs, and the bollards as shown on the Plans.

202.02 Removing Buildings

The first paragraph is deleted and replaced with the following:

The contractor shall remove and dispose of all buildings as listed below:

Maintenance Building – a two-story steel structure with wood walls, industrial building constructed on a concrete slab. A concrete seawall divides the foundation elements into two sections, northerly and southerly. The northerly portion of the structure is slab on grade with full depth footings while the southerly portion of the structure is an elevated concrete slab supported on timber and steel piles. The southerly portion is positioned over tidal waters. The structure was constructed in 1950's, and substantially modified in 1970. Exterior steel columns contain lead-based paint. Minor modifications and renovations have occurred since 1995.

The following is added to the second paragraph:

All ground cavities located within limits of pavement reconstruction or to be repaved shall be backfilled with granular borrow meeting the requirements of SECTION 202, Granular Borrow, and shall be compacted in accordance with the applicable embankment construction requirements unless otherwise noted on the Plans. All other cavities shall be backfilled with common borrow meeting the requirements of the SECTION 202, and shall be compacted in accordance with the applicable embankment construction requirements unless otherwise noted on the plans

Add the following paragraphs:

The Contractor shall remove all utility service connections, as noted in the plans, prior to demolition of the building.

The Contractor shall remove and store on site all security equipment including CCTV cameras prior to demolition of the maintenance building.

The Contractor shall obtain all permits or licenses necessary for the performance of the work and shall familiarize himself with and conform to all Federal, State, and local laws, regulations, or ordinances applicable to the work.

All slabs; piles; posts; decks, and associated debris shall be completely removed, as noted in the plans. The existing structural foundation walls, footings and the retaining wall (beneath the Maintenance Building and canopy) will be left in place beneath the backfill from a depth of 3 feet below proposed finish grade. All walls and footings will be demolished down to the determined depth prior to placing backfill material.

Perform the removal and storage or resetting of items as indicated with personnel skilled in the trades involved. Items to be stored or reset which are damaged by the Contractor shall be repaired or replaced with new undamaged items as approved by the Resident.

Completely remove and dispose of materials in an orderly and careful manner. Protect adjacent areas and buildings from damage during demolition operations. Limits of demolition are shown on the Plans.

All non-regulated materials shall become the property of the Contractor and shall be removed from the site prior to the completion of the Project. All debris and unusable material shall be removed to an approved and/or licensed building/construction demolition landfill. Under no circumstances shall any material or debris be disposed of by burying or burning on the premise nor shall the material or debris be burned at an off-premise-site. The Contractor shall provide the Resident with an affidavit stating the final location of all disposed material and that the material was disposed of in accordance with the Maine DEP's Solid Waste Regulations prior to the payment of Removing Building pay items.

All buildings and materials contained therein, except as noted above or otherwise as directed by the Resident shall become the property of the Contractor and shall be completely removed from the site. Ownership of the existing buildings reverts to Contractor upon issuance of the Notice to Proceed.

The Contractor shall provide and maintain all temporary barricades, signs or other safety measures necessary to complete the work while protecting the general public, patrons, vendor employees and Department workers in the adjacent areas of the project site.

Paving and Slabs: Remove and dispose of concrete and asphaltic concrete paving and slabs as indicated. Provide neat sawcuts at limits of pavement removal.

The removal of the existing catch basin shall include the installation of a non-degradable material to “plug” the drain pipe leading out of the catch basin.

The following Subsection is added:

202.023 Building Material Survey

The MaineDOT conducted an Asbestos Containing Material (ACM) Determination Survey in January 2011 and January 2018. All areas, except elevated inaccessible areas, concealed spaces and components internal to mechanical devices, have been tested for lead-based paint and asbestos. Exterior columns of the Maintenance Building are known to contain lead-based paint.

The exterior steel columns at the Maintenance Building contain lead-based paint, and as such should be removed by unbolting or cold-cutting whole and/or intact sections without actions creating dust and potential exposure hazards. If such components cannot be removed by bolting, cold-cutting, or other actions without creating dust and potential exposure, then requirements under OSHA 29 CFR 1926.62 should be followed for training, personal monitoring, and personal protection. Waste can be disposed of as demolition debris at an appropriate solid waste facility.

The following Subsection is added:

202.025 Removing Universal Waste

Universal waste materials such as fluorescent tubes, ballasts, mercury thermometer and switches, etc., shall be carefully removed and legally disposed of in accordance with all Federal, State and local laws, regulations or ordinances.

The survey, tagging, removal and storage work shall be performed by persons trained in Universal Waste identification, handling and storage, transported by firms licensed to transport Universal Wastes, and disposed of by firms licensed to dispose of Universal Wastes.

Contractor shall submit copies of all documentation to the Resident, verifying that all universal waste materials have been appropriately managed and legally disposed of at an approved disposal location in conformance with all Federal, State and local regulations.

The following Subsection is added

202.027 Disposition of Material

Title to Materials: Except where specified in other sections, all materials and equipment removed, and not reused, shall become the property of the Contractor and shall be removed from the project property. Items identified as “remove and store” or “remove and reset” are called-out in the Plans and shall remain the property of the Owner. Title to materials resulting from demolition, and materials and equipment to be removed, is vested in the Contractor upon approval by the Resident of the Contractor's demolition and removal procedures, and authorization by the Resident to begin demolition. The Owner will not be responsible for the condition or loss of, or damage to, such property after Contract award. Materials and equipment shall not be viewed by prospective purchasers or sold on the site.

Reuse of Materials and Equipment: Remove and store materials and equipment indicated to be reused or relocated to prevent damage, and reinstall as the work progresses. Replace or restore to usable conditions, items indicated for reuse that are damaged during removal, storage or reinstallation.

Debris Disposal: Contractor is responsible for disposal of debris, rubbish, scrap and other non-salvageable materials resulting from removal operations with all applicable federal, state and local regulations. Storage of removed materials on the project site is prohibited. Contractor is responsible for

the disposal of debris and materials to an approved upland disposal site.

202.03 Removing Existing Superstructure, Structural Concrete, Railings, Curbs, Sidewalks and Bridges

The following paragraphs are added:

Prior to starting any demolition work, the Contractor shall submit a demolition plan to the Resident for approval. No demolition will be permitted until an approved demolition plan has been submitted and accepted by the Resident. At a minimum, the demolition plan shall include methods to remove concrete superstructures, concrete slabs, and salvageable items. Demolition method for removal of concrete superstructures and slabs over the tidal water region shall be clearly described.

Concrete slabs shall be removed to the limits shown on the Plans. Concrete slabs over tidal waters shall be dry sawcut. Wet sawcutting of the deck will only be permitted if the Contractor can successfully demonstrate how concrete sawcutting slurry will be controlled and collected, such as with wet-vacs and partial-depth cutting (sawcutting up to 90% of the thickness of the slab). Pneumatic hammers, hoe rams, or any other method approved by the Resident may be used to remove the concrete.

Removal of existing Wharf Area – Ramp #3 with all foundation elements as noted in the plans shall be included in the demolition.

Removal of the existing concrete curb along the concrete wharf including Ramp #2 shall be included in the demolition.

202.07 Method of Measurement

The following paragraphs are added:

Removing Structure and Obstructions – (Maintenance Building) will be measured as one lump sum. This item shall include the removal of concrete foundation walls along the perimeter of the building, as well as the concrete wall beneath the roof canopy, to the limits shown on the Plans. Also included is the removal of the top portion of the concrete seawall and all notches necessary for the installation of the new concrete pile caps. Also included is the removal of steel and timber foundation elements such as piles, pile caps, and braces by cutting and demolition methods. Removal of lead-based paint steel elements will not be measured separately, but shall be included in the removal of the building. Removing Universal Waste Material will not be measured separately for payment, but shall be incidental to the Removing Building Item(s). Also included is the broken water line beneath the wharf. The office spaces, meeting rooms, and the walkway along the perimeter of the Maintenance Building shall also be removed.

Removing Existing Catch Basin shall be measured by the unit, and shall include all labor, materials, incidentals, and equipment necessary to satisfactorily complete the work in accordance with the Plans and Specifications. Backfilling shall be incidental to the item. The installation of the non-degradable plug prior to backfilling will not be measured separately, but rather will be incidental to the pay item.

Removing Embedded Timber Pile by Extraction shall be measured by the unit, and shall include all labor, materials, incidentals, and equipment necessary to satisfactorily complete the work in accordance with the Plans and Specifications.

Removing Existing Wharf Area – Ramp #3 shall be measured by the lump sum, and shall include all labor, materials, incidentals, and equipment necessary to satisfactorily complete the work in accordance with the Plans and Specifications. Also included is the removal of the supporting concrete pile caps and the concrete piles to the limits shown on the Plans. Also included is the removal of the top portion of the concrete seawall including any notches necessary for the installation of the new concrete pile caps in the plan region of Ramp #3.

Removing Existing Concrete, Curb, and Bollards shall be measured by the lump sum, and shall include all labor, materials, incidentals, and equipment necessary to satisfactorily complete the work in accordance with the Plans and Specifications. The limit and depth of wharf area removed is outlined on

the Plans, and will include the curb and the two bollards.

202.08 Basis of Payment

The following paragraphs are added:

Removing Structure and Obstructions – Maintenance Building will be paid for at the Contract lump sum price per building which price shall be full compensation for the legal removal and disposal of all building materials, foundations elements, broken water line, and seawall sections.

Removing Existing Catch Basin will be paid for at the Contract unit price for the full removal of the structure, and the subsequent backfill.

Removing Embedded Timber Pile by Extraction will be paid for at the Contract unit price for the full extraction of the timber pile without breakage. An estimated number of timber pile extractions have been assumed for this project.

Removing Existing Wharf Area – Ramp #3 will be paid for at the Contract lump sum price and will include the removal of the concrete deck, the prestressed concrete beams, the concrete pile cap, the prestressed concrete piles to a depth of 10 ft above the mudline, and the portions of the concrete seawall that interfere with the new concrete construction.

Removing Existing Concrete, Curb, and Bollards be paid for at the Contract lump sum for the removal of the concrete deck to the limits and depths shown on the Plans, and the concrete curb and bollards along the interface of the existing wharf and the new wharf.

Payment will be made under the following Pay Items:

<u>Pay Item</u>		<u>Pay Unit</u>
202.01	Removing Existing Wharf Area – Ramp #3	Lump Sum
202.01	Removing Existing Concrete, Curb, and Bollards	Lump Sum
202.08	Removing Structure & Obstructions (Maintenance Building)	Lump Sum
202.15	Removing Existing Catch Basin	Each
202.4011	Removing Existing Timber Pile by Extraction	Each

END OF SECTION

SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT

203.09 Preparation of the Embankment Area

Add the following sentence to the beginning of Subsection 203.09:

Preparation of the subgrade in earthwork areas of the project shall be in accordance with Subsection 203.17 of this Special Provision.

203.17 Preparation and Protection of the Subgrade

Add the following paragraphs to the beginning of Subsection 203.17:

Unsuitable subgrade soils observed in the earthwork areas shall be over-excavated and replaced using granular material that meets the material specifications for Granular Borrow for Underwater Backfill (MaineDOT Standard Specification 703.19). The subgrade soils shall be proof-rolled using a self-propelled static roller. Loose or yielding areas shall also be over-excavated and replaced using Granular Borrow for Underwater Backfill. Fill material shall be placed in loose lifts not to exceed 12 inches and compacted to 95 percent of the material's maximum dry density as determined by AASHTO T-180. Special placement and compaction methods may be warranted in wet areas. Crushed stone wrapped in geotextile fabric is typically used to fill depressions in wet areas.

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.

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	Hazardous Waste Operations and
29 CFR 1926.65	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

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 area of the project, the Contractor's designated on-site person shall monitor the work zone for those constituents specified in the Contractor's HASP. The Contractor shall provide all required health and safety monitoring equipment.

Basis of Payment. There will be no payment for the identification and environmental screening of contaminated soil material as all soil is considered contaminated.

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 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

203.2312 Health and Safety Plan (HASP)

Pay Unit

Lump Sum

SPECIAL PROVISION SECTION 403 HOT MIX ASPHALT PAVEMENT

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 403 – HOT MIX ASPHALT PAVEMENT, with the following modifications:

MODIFICATIONS to SECTION 403 HOT BITUMINOUS PAVEMENT:

403.03 Composition of Mixture

Add the following paragraph:

The Contractor shall submit a current MaineDOT approved job mix formula to the Resident at least 30 days prior to the placement of bituminous pavement. Submission shall include a description of where the submitted mix is currently in use on a MaineDOT Project. Bituminous pavement shall not be placed until after the job mix formula is approved by the Resident

Add the following tables after the first paragraph:

TABLE 1
35-Inch – Full Depth Pavement Reconstruction in Container Storage Area

Description of Course	Gradation Design	Item Number	Bituminous Content % of Mix	Total Thickness	Number of Layers	Complementary Notes
Surface	12.5 mm	403.2081	NA	1-1/2 in.	1	1, 2, 3
Surface	12.5 mm	403.2081	NA	1-1/2 in.	1	1, 2, 3
Base	19.0 mm	403.2071	NA	3 in.	1	1, 2
Base	19.0 mm	403.2071	NA	3 in.	1	1, 2

TABLE 2
1.5 inch – Pavement Overlay (Hand-placed)

Description of Course	Gradation Design	Item Number	Bituminous Content % of Mix	Total Thickness	Number of Layers	Complementary Notes
Surface	12.5 mm	403.209	NA	1-1/2 in.	1	1, 2, 3

Complementary Notes:

1. The bituminous binder material for this mixture shall be PG 64E-28.
2. Section 106.6, Acceptance, (2) Method C.
3. Joints shall conform to Subsection 401.17 below.

Tack Coat

A tack coat of emulsified asphalt, RS-1 (see Special Provision 409) shall be applied to any existing pavement at a rate of approximately 0.025 gal/yd², and on milled pavement approximately 0.05 gal/yd² prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base

courses and the surface course, at a rate not to exceed 0.025 gal/yd². Tack used between layers of pavement will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.

MODIFICATIONS to SECTION 401 HOT MIX ASPHALT PAVEMENT:

401.204 Opening to Loads

This Subsection is added and shall include the following:

No vehicular traffic, equipment, or construction loads shall be permitted on newly completed pavement until adequate stability has been attained and the material has cooled sufficiently to prevent distortion or loss of fines. The newly paved area may be opened to loads after the internal temperature of the pavement has cooled to 120°F. The Resident will test the internal temperature of the pavement and shall be the sole judge as to the opening to loads. The period of time before opening to loads may be extended at the discretion of the Resident. Loads shall not be permitted until the internal temperature of the pavement has cooled to 120°F.

401.205 Additional Lifts of Pavement

This Subsection is added and shall include the following:

No additional lifts of pavement shall be permitted on a newly completed pavement layer until the material has cooled sufficiently and adequate stability has been attained to prevent mat distortion or loss of fines. No subsequent lift of pavement shall be placed until the internal temperature of the previously placed pavement layer has cooled to 120°F. The Resident will test the internal temperature of the previously placed pavement layer and shall be the sole judge as to whether a subsequent lift of pavement can be placed. No loads will be permitted on the compacted pavement layer until the internal temperature has cooled to 120°F.

END OF SECTION

SPECIAL PROVISION
SECTION 409
BITUMINOUS TACK COAT

409.06 Preparation of Surface

The following paragraph is added:

All existing pavement on which bituminous concrete mixtures are to be placed shall receive a tack coat. The surface area where the tack coat is to be applied shall be dry and cleaned of all dirt, sand, and loose material. Cleaning shall be accomplished by use of revolving brooms or mechanical sweepers. Undesirable material not removed by the above means shall be cleaned by hand-brooming or scraping, or a combination of both. Small areas otherwise inaccessible may be broomed with hand brooms. The tack coat shall be applied only when the existing surface is dry.

409.09 Basis of Payment

This subsection is replaced with the following:

Bituminous Tack Coat will be paid for at the Contract unit price per gallon which shall be full compensation for all materials, tools, equipment, labor, and all incidentals necessary for the completion of the work to the satisfaction of the Resident.

Payment will be made under:

Pay Item

409.15 Bituminous Tack Coat, Applied

Pay Unit

Gallon

SPECIAL PROVISION
SECTION 419
SAWING AND SEALING JOINTS IN BITUMINOUS PAVEMENT

419.01 Description

This work consists of sawing bituminous concrete pavement as shown on the Plans, as specified herein or as approved by the Resident.

419.02 General

The bituminous concrete pavement to be sawed shall be accurately marked before cutting. The marking shall be in accordance with the locations as shown on the Plans or as approved by the Resident. Cutting shall be with an approved power driven saw with an abrasive blade.

Unless otherwise noted or directed, the sawcut shall be vertical, a minimum of 3/8 inch wide, and extend to a depth sufficient to create a clean cut line but no less than 2 inches, or as approved by the Resident.

Residue or debris from the sawing operation shall be removed immediately and legally disposed of by the Contractor.

419.03 Method of Measurement

Sawing Bituminous Pavement will be measured by the linear foot of pavement actually cut and accepted. No additional payment will be made for variations in the pavement thickness.

419.04 Basis of Payment

Sawing Bituminous Pavement will be paid for at the Contract unit price per linear foot which shall be full compensation for all materials, tools, equipment, labor, and all incidentals necessary for the completion of the work to the satisfaction of the Resident. The disposal of sawcut residue shall be incidental to the pay item.

Payment will be made under:

Pay Item

419.30 Sawing Bituminous Pavement

Pay Unit

Linear Foot

SPECIAL PROVISION
SECTION 501
FOUNDATION PILES
(Steel Pipe Piles)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 501 – FOUNDATION PILES, with the following modifications:

501.01 Description

Add the following paragraph:

The work also includes the following:

1. At a minimum, pre-augering must be performed for Pile Row “J” to the elevation shown on the Plans.
2. Spudding of the piles in Pile Row “H” to no shallower than El. -10 ft as shown on the Plans.
3. Other measures needed to advance the piles through the existing riprap present at pile locations in Pile Rows “G” and “F”. Pre-augering, spudding, or other measures may be necessary to advance the piles in Pile Rows “G” and “F”. Any excavations or removals shall be limited to an area of disturbance of 8 ft x 8 ft per pile.
4. Filling pipe piles with Class A concrete using Tremie methods, and adding steel rebar cage at the top of the piles as shown in the plans.
5. Moving large boulders in the seawall riprap that are unstable and could fall and damage piles during or after installation.
6. Conducting a location survey of existing timber piles and the existing seawall prior to the installation of piles as described herein and as shown on the Plans.
7. Survey control including layout of design pile locations, pile heave measurements, pile cutoff elevations, and preparation of as-built sketches and related survey control.

501.015 Submittals

This Subsection is added and shall include the following:

The Contractor shall provide the submittals listed below in accordance with Section 105.70 of the MaineDOT Standard Specification. Specific components of the submittals are listed in the referenced MaineDOT SECTION 501.

1. Pile Driving and Dynamic Load Test Equipment
 - a. Manufacturer’s literature, including technical and performance literature for pile driving hammer(s), cushions, hoses, and other equipment for the piles.
 - b. Details of equipment and procedures for pre-augering of the piles in Row “J” as described herein.
 - c. Details of equipment and procedures for spudding and any other method proposed for achieving pile advancement through existing riprap present at pile locations in Row “H” (e.g. pre-excavation).
 - d. Qualifications and experience of the Contractor’s Professional Engineer performing the PDA testing and CAPWAP analyses.

- e. Description of dynamic testing equipment and procedures.

2. Wave Equation (WEAP) Analyses

- a. Qualifications and experience of the Contractor's Professional Engineer performing the WEAP analyses.
- b. The Contractor shall propose driving criteria (blow count) as the minimum number of hammer blows for each inch of the final 6 inches of pile penetration in the bearing stratum. The proposed criteria shall be submitted to Resident, Engineer, and/or Geotechnical Consultant for review and acceptance. Piles shall not be installed prior to acceptance by the Resident, Engineer, and/or Geotechnical Consultant.
- c. Results of WEAP analyses performed and stamped by a licensed Professional Engineer in the State of Maine, which demonstrate that the equipment, cushions and cap are capable of obtaining the minimum required ultimate capacity in accordance with the IBC Code without damage to the pile due to driving stresses. The WEAP analyses shall model bearing conditions in soil and the anticipated pile lengths across the site as shown on the Plans. The submittal shall also include any additional applicable assumptions used in the analyses: PDA and CAPWAP Results.
- d. The Contractor shall provide complete reports of PDA measurements/analyses and CAPWAP analyses performed during the indicator pile test program by the Contractor's Engineer. In this report, the Contractor shall propose the final driving criteria (number of hammer blows per inch over the last 6 inches of pile advancement) based on the results of the PDA and CAPWAP analyses. The final driving criteria will likely be different than the criteria developed from the WEAP evaluation.

501.02 Materials

This Subsection is deleted and replaced with the following:

Steel pipe pile materials shall conform to the requirements of ASTM A252, Grade 3 Modified, $F_y=45$ ksi or greater. Pipe material shall be furnished either seamless or comprised of straight electric-resistance welds. Spiral-welded pipe will not be acceptable.

Conical pile tips shall conform to the requirements of ASTM A148 Grade 90/60.

Pipe pile splice backup ring material shall be any steel listed in AWS Structural Steel Welding Code D1.1, Table 3.1 with the exception of 100 ksi minimum yield strength steels.

Concrete fill for steel pipe piles shall be Class A.

Reinforcing steel for steel pipe piles shall meet the requirements of Section 503, Reinforcing Steel. Epoxy Coated and Grade 60.

Steel pipe pile material shall be coated with a Fusion Bonded Epoxy Coating as specified in SECTION 506 – SHOP APPLIED PROTECTIVE COATING. The limit of fusion bonded epoxy coating applied to the steel pipe piles shall be from the top of the pile cut off elevation to a depth of 10 feet below the mudline, but in no instance, shall it be less than 15 ft from the top of the pile (due to change in elevation of the two inboard rows of piles).

501.042 Equipment for Driving Piles

The last sentence of the fourth paragraph is amended as follows:

Also, the Contractor shall provide the Resident with a chart, calibrated within the 90 days prior to use of the actual hammer performance, equating bounce chamber pressure to either equivalent energy or stroke for the closed-end diesel hammer to be used.

The last sentence of the fifth paragraph is amended as follows:

In addition, the Contractor shall provide the Resident with a chart, calibrated within the 90 days prior to use, of the actual hammer performance.

501.043 Driving Procedures and Tolerances

The first sentence of the fourth paragraph is deleted and replaced with the following:

Jetting – Jetting shall not be allowed.

The last sentence of the seventh paragraph is deleted and replaced with the following:

The use of spuds, which are driven and removed to make a hole for inserting a pile, shall be permitted in Pile Rows “F”, “G”, and “H”, as necessary. Spudding shall be performed for piles in Pile Row “H” to El. -10 ft. The use of other methods for achieving pile advancement through existing riprap shall not be allowed until information regarding equipment/procedures have been submitted and reviewed by the Engineer in accordance with Section 501.015.

The following paragraphs are added for heaved piles:

1. Immediately after a pile is driven, the Contractor shall establish a reference point and its elevation on the pile for the purpose of checking uplift (heave) of the pile tip as additional piles are driven.
2. After all piles within the radius of uplift have been driven, the Contractor shall determine the elevation of the reference point on the pile. If uplift of 1/4 –inch or more has occurred, the pile shall be redriven to its original elevation, and deeper if necessary, to the specified final driving resistance. After redriving each pile, the Contractor shall re-establish the elevation of the reference point. Redriving shall be repeated as often as necessary until the uplift on any pile is less than 1/4 –inch.
3. The radius of uplift shall be initially assumed to be 30 ft. This radius may be expanded or contracted by the Resident and Geotechnical Consultant based on actual field measurements and is defined as the maximum distance between piles such that pile driving causes uplift of 1/4 –inch or more in the affected pile.

The following paragraph is added:

A turbidity curtain and debris boom shall be installed beneath the wharf at the location shown on the Plans prior to commencement of any pile driving operations.

The following paragraph is added:

Prior to installation of piles, a pile layout survey shall be conducted to determine which pile stubs from the existing maintenance building pile foundation may need to be extracted in order to facilitate pile driving of the new steel pipe piles. Interference between the proposed pile and the existing pile stub(s) shall necessitate pile extraction when the proposed pile cannot be properly driven, whether in its prescribed location or within the location allowed by the following tolerances:

a. Longitudinally along the longitudinal axis of the pile cap:	6 inches
b. Transversely across the width of the pile cap:	2 inches

The following paragraph is added:

Prior to installation of piles, a survey of the stone existing seawall shall be completed in order to establish a base line location, elevation, and plumbness along the seawall at 20-ft intervals and up to 40 ft

away from the first and last pile bent shown on the Plans. The seawall shall be monitored via survey control upon completion of each pile bent (four piles), or as requested by the Resident. A maximum of nine surveys shall be completed during pile installation as part of the work.

The following paragraph is added:

Pile driving shall be limited to the hours of 7:00 AM to 7:00 PM. Preparation for and clean-up of pile driving activities shall be limited to the hours of 6:00AM to 8:00 PM in accordance with the City of Portland's Code of Ordinances (Rev 12-15-10), Chapter 14, Section 14-320.3 Performance Standards.

501.046 Driven Pile Resistance, Pile Testing, and Acceptance

The following paragraph is added:

Dynamic pile load tests (initial drive and restrike) and development of driving criteria for production pile installation shall be conducted in the presence of the Geotechnical Consultant.

501.047 Splicing Piles

The following paragraph is added:

If pile splices are proposed along the length of the pile to achieve the prescribed pile length shown on the Plans, then the pile splices shall be located a minimum of 12 ft below the mudline elevation.

501.05 Method of Measurement

The last paragraph of Subsection "C. Piles in Place," is amended as follows:

No separate measurement will be made for reinforcing steel, excavation, drilling, pre-augering, spudding or other method to advance piles through riprap, cleaning of drilled holes, dewatering or cleaning of pipe piles, drilling fluids, sealing materials, concrete, required casing, and other items required to complete the work. These items shall be incidental to the Steel Pipe Pile In Place pay item.

No separate measurement will be made for pile splices which occur within the estimated length of the pile. Pile splices will only be measured for payment when said splices are required to achieve a pile length greater than the estimated pile length shown on the Plans.

No separate measurement will be made for removal of riprap encountered during the pile installation work, if such removal is deemed necessary to advance the pile. Removal of riprap shall be incidental to the Steel Pipe Pile In Place pay item.

No separate measurement will be made for installation, maintenance, and removal of temporary turbidity curtains and debris booms. These items shall be incidental to the Steel Pipe Pile In Place pay item.

No separate measurement will be made for surveys required to locate existing timber piles, layout the proposed piles; monitor pile heave; or to monitor the existing stone seawall during pile installation. Surveys shall be incidental to the Steel Pipe Pile In Place pay item.

501.06 Basis of Payment

The sixth paragraph is amended as follows:

Wave equation analyses submittals and any subsequent wave equation analyses re-submittal, required to demonstrate the appropriateness of the driving system, will be incidental to the Pile Driving Equipment Mobilization pay item.

Conical pile tips shall be paid for separately under Pay Item 501.90.

Fusion bonded epoxy coating shall be paid for separately and shall be considered incidental to Pay Item 506.9106, Fusion Bonded Epoxy Coating.

Pile splices which occur within the estimated pile length shown on the Plans will not be paid for separately, but shall be incidental to the Steel Pipe Pile In Place pay item.

Anodes will be paid for separately under Pay Item 655.501, Cathodic Protection by Sacrificial Anodes.

Pile extraction(s) of existing timber piles, if necessary, will be paid for separately under Pay Item 202.4011, Remove Embedded Timber Pile by Extraction.

Payment will be made under the following Pay Item:

<u>Pay Item</u>	<u>Pay Unit</u>
501.24 Steel Pipe Pile (16" dia.), Delivered	LF
501.241 Steel Pipe Pile (16" dia.), In Place	LF

END OF SECTION

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Pile Cap and Edge Beam)
(Deck Slab)
(Approach Slab)
(Storage Pad)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 502 – STRUCTURAL CONCRETE, with the following modifications:

Section 502.01 Description

Add the following after the first paragraph:

This work shall consist of furnishing and placing Portland Cement Concrete for concrete waterfront structures including fill for steel pipe piles, pile caps, deck slab, approach slab, curbs, and storage pad in accordance with these Specifications and in conformity with the lines, grades, and dimensions shown on the Plans.

Section 502.05 Composition and Proportioning

Modify Table 1 in accordance with the following:

Concrete Class LP shall include Note 2: inclusion of Calcium Nitrite.

Modify Table 1, Note 2, in accordance with the following:

Calcium Nitrite shall be added at a rate of 5.0 gallons per cubic yard.

Section 502.1702 Quality Control Method C

The following paragraph is added:

Quality Control for concrete elements shall be based on Method C.

Section 502.18 Method of Measurement

Add the following before the first paragraph:

Measurement of concrete for pile caps and edge beams; deck slab; approach slab; and curb; satisfactorily placed and accepted will be measured by the cubic yard, per their respective items, in accordance with the dimensions shown on the Plans or authorized changes in the Plans.

Measurement of concrete for the storage pad shall be by the lump sum satisfactorily placed and accepted in accordance with dimensions shown on the plans.

Fill for steel pipe piles will not be measured separately but shall be incidental to the Steel Pipe Pile In Place Pay Item, 501.241.

Section 502.19 Basis of Payment

Add the following before the first paragraph:

Payment for saw cutting control joints in the deck slab and the placement of joint sealants shall be incidental to the Structural Concrete Deck Slab Pay Item.

Payment for the concrete storage pad shall include all concrete materials and epoxy-coated steel reinforcement as shown on the plans.

Coarse-base materials shall be paid under Pay Item 304.14, Aggregate Base Coarse, Type A.

Excavation and backfilling shall be paid under Pay Item 203.20, Common Excavation.

Add the following Pay Items:

<u>Pay Item</u>		<u>Pay Unit</u>
502.235	Structural Concrete, Pile Cap and Edge Beam	Cubic Yard
502.411	Structural Concrete, Deck Slab	Cubic Yard
502.451	Structural Concrete, Approach Slab	Cubic Yard
502.605	Structural Concrete, Storage Pad	Lump Sum

END OF SECTION

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

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
LP	502.235	Structural Concrete – Pile Cap and Edge Beams	-	C
LP	502.411	Structural Concrete – Deck Slab	-	C
LP	502.451	Structural Concrete – Approach Slab	-	C
LP	502.605	Structural Concrete – Storage Pad	-	C
A	501.241	Steel Pipe Piles (16” Dia.) In-Place		C
A	634.75	Utility Pole Foundation	-	C
A	841.4713	Steel Bollard – 12 Inch	-	C

P values listed above reflect the price per cubic yard (yd³) for all pay adjustment purposes.

SPECIAL PROVISION
SECTION 503
REINFORCING STEEL

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 503 – REINFORCING STEEL, with the following modifications:

Section 503.01 Description

The following paragraph is added:

Epoxy coated reinforcing steel shall be installed in all concrete components including pile caps, precast deck panels, deck slab, approach slab, curbs, storage pad, and the tops of the steel pipe piles.

END OF SECTION

SPECIAL PROVISION
SECTION 506
SHOP APPLIED PROTECTIVE COATING – STEEL

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 506 – SHOP APPLIED PROTECTIVE COATING – STEEL, with the following modifications:

FUSION BONDED EPOXY COATINGS

Section 506.40 Description

The following paragraph is added:

Fusion Bonded Epoxy Coating shall be applied to the steel pipe piles.

Section 506.41 Materials

The following paragraph is added:

- A. Fusion Bonded Epoxy Coating – Shop Applied:
 - 1) Fusion Bonded Epoxy Coating shall be Scotchkote 6233 Fusion Bonded Epoxy Coating as manufactured by 3M Company, or an approved equal. Any product submitted as an “approved equal” must have a Repair Coating counterpart which satisfies the Coating Materials requirement. Coating color shall be green.
- B. Fusion Bonded Epoxy Repair Coating – Field Applied:
 - 1) Fusion Bonded Epoxy Coating shall be Scotchkote, Liquid Epoxy Coating as manufactured by 3M Company, or an approved equal, and compatible with the primary shop-applied coating system noted above and with similar color. Coating color shall be green.

Section 506.42 Surface Preparation

The following paragraph is added:

- A. Surfaces to be coated shall be prepared in accordance with ASTM A972, except as modified herein.
- B. All oil, grease, and other contaminants shall be removed by SSPC SP1 (steam or solvent cleaning) prior to blasting. Remove all sharp edges, burrs, weld splatter, and gouges.
- C. Surfaces to be coated shall be blast cleaned by SSPC SP10 (near white metal).
 - 1) Blasting material shall be a Class 1, steel abrasive angular metallic grit meeting the requirements of SSPC-AB3. Silica sand, shot, or spherical shaped abrasives shall not be permitted.
 - 2) The grit used for blasting shall be of proper gradation to create a profile of 2 to 4 mills. The metal shall be cleaned after blasting with clean, dry compressed air. Use of rags to remove residual dust after sandblasting shall not be permitted.

Section 506.43 Inspection

The following paragraph is added:

Dry film thickness shall be 18 mils, which shall be achieved by no less than two coatings performed over a period of time that allows for sufficient drying of the previous coating

END OF SECTION

SPECIAL PROVISION
SECTION 515
PROTECTIVE COATING FOR CONCRETE SURFACES
(Protective Coating for Concrete Surfaces – Curbs and Edge Beams)
(Protective Coating for Concrete Surfaces – Decks)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 515 – PROTECTIVE COATING FOR CONCRETE SURFACES, with the following modifications:

Section 515.01 Description

Add the following paragraph:

All existing curbs and edge beams including the perimeter vertical faces of the wharf, pile caps, and fender blocks shall be coated with a clear protective coating.

All wharf deck surfaces including existing ramps, existing finger pier, and new and old wharf areas shall be coated with a clear protective coating/healer.

Section 515.02 Materials

Add the following paragraph:

Materials for Protective Coating for Concrete Surfaces – Curbs and Edge Beams shall be a Type 1C – Sealer, Penetrating Silane, as listed on the MaineDOT's Qualified Products List for Concrete Sealers and Coatings.

In addition to the products listed under Type 1C, the following products are also pre-approved:

1. Saltguard WB by Consolideck / ProSoCo

Materials for Protective Coating for Concrete Surfaces – Decks shall be a low-viscosity, high molecular weight methyl methacrylate resin, crack healer/penetrating sealer such as the following:

1. Sealate T-70, by Transpo; or
2. KBP 204 P Seal, by KwikBond; or
3. Duraguard 401, by ChemMasters

The wharf deck surfaces where the methacrylate resin is applied shall become a skid-resistant surface by the addition of silica or aluminum oxide evenly broadcasted over the wet deck coatings. Follow the manufacturer's material recommendations and installation procedures for the skid resistant materials.

Apply protective coating after concrete repairs have been performed and after paint markings have been applied. See SP 627.

Section 515.06 Basis of Payment

Add the following paragraph:

Protective Coatings will be paid for at the contract unit price per square yard. Equipment used to safely access the perimeter of the wharf and its vertical surfaces shall be incidental to the Protective Coating pay item.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
515.201 Protective Coating for Concrete Surfaces – Curbs and Edge Beams	Square Yard
515.202 Protective Coating for Concrete Surfaces – Decks	Square Yard

END OF SECTION

SPECIAL PROVISION
SECTION 520
EXPANSION DEVICES – NON-MODULAR
(Expansion Device – Wharf Compression Seal)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 520 – EXPANSION DEVICES NON-MODULAR, with the following modifications:

Section 520.01 Description

The following paragraph is added:

This work shall consist of installing an expansion device (compression seal) between the proposed wharf deck and the existing wharf ramp, Ramp #2, along the eastern end of the proposed wharf infill area. Work shall include the forming of bond outs in the proposed wharf and finishing of the termination points, as shown on the plans and in accordance with these specifications. At the termination points of the compression seal, the voids shall be finished with a non-sag silicone based sealant (gray in color).

Section 520.02 Material

This Subsection is deleted and replaced with the following:

This longitudinal compression seal material shall be D.S. Brown, J-Series J-100 or an approved equivalent listed on the MaineDOT's Qualified Product List. The non-sag silicone based sealant shall be Dow Corning 888 or an approved equivalent listed on the MaineDOT's Qualified Product List.

Section 520.06 Installation

The following paragraph is added:

The compression seal shall be installed in one continuous piece in strict accordance with the manufacturer's recommendations. Field splicing of the compression seal will not be allowed.

Section 520.07 Method of Measurement

This Subsection is deleted and replaced with the following:

Expansion Device – Wharf Compression Seal will be measured by the linear foot, complete, in-place, and accepted. The non-sag silicone based sealant will not be measured separately but shall be incidental to the pay item.

Section 520.08 Basis of Payment

This Subsection is deleted and replaced with the following:

The accepted quantity of Expansion Device – Wharf Compression Seal will be paid for at the Contract unit price per linear foot which shall be full compensation for all labor, materials, and equipment for furnishing and installing the compression seal, including blocking the concrete out to receive the seal, priming the concrete, seal adhesive, non-sag sealant, and all other incidentals.

Payment will be made under the following Pay Item:

<u>Pay Item</u>	<u>Pay Unit</u>
520.22 Expansion Device – Wharf Compression Seal	Each

END OF SECTION

SPECIAL PROVISION
SECTION 535
PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE
(Prestressed Structural Concrete Deck Planks)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 535 – PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE, with the following modifications:

MODIFICATIONS:

Section 535.13 Concrete

Revise the amount of Calcium Nitrite solution in Table 1 from 3 gallons per cubic yard to 5 gallons per cubic yard.:

Add the following paragraph:

Portland Cement concrete for precast structural pretensioned concrete deck planks shall be Class P (6,500 psi at 28 days) concrete in accordance with SECTION 502, STRUCTURAL CONCRETE. The mix design shall be approved by the Resident.

Minimum strength at transfer shall be 4,500 psi.

Section 535.29 Basis of Payment

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
535.631 Prestressed Structural Concrete Deck Planks	Lump Sum

END OF SECTION

SPECIAL PROVISION
SECTION 604
MANHOLES, INLETS, AND CATCH BASINS
(Utility Vault, 10ft x 8ft x 8ft)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 604 – MANHOLES, INLETS, AND CATCH BASINS with the following additions and modifications:

604.1 Description

Add the following paragraph:

The work shall include providing and installing a utility vault of size 10ft by 8ft by 8ft in accordance with the locations and designated on the Plans.

604.26 Materials

Add the following paragraph:

The structure shall be a precast concrete unit constructed per the requirements of Section 604 of the Standard Specifications.

604.35 Design Requirements

Add the following paragraph:

The utility vault shall meet the requirements of Standard Specification Section 604 and be rated for highway truck loads such as AASHTO designated HS25 design loadings. In addition, the structure shall be capable of withstanding a 156,500 lbs point load placed atop the center of the roof. This load shall represent a fully loaded reach-stacker commonly found in the Terminal.

Contractor shall submit shop drawings of the utility vault for review and approval.

604.50 Method of Measurement

Add the following:

Utility Vault, 10ft x 8ft x 8 ft will be measured by the individual unit.

604.60 Basis of Payment:

Add the following:

Utility Vault, 10ft x 8ft x 8 ft shall be paid by the Contract unit price completely installed to the satisfaction of the resident. Payment will be full compensation for furnishing and assembling all materials; excavation and backfilling; and for all incidentals necessary to complete the work.

Pay Item

604.159 Utility Vault, 10ft x 8ft x 8 ft

Pay Unit

Each

END OF SECTION

SPECIAL PROVISION
SECTION 607
FENCES
(Temporary Chain Link Fence – 6 Ft Moveable)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 607 – FENCES, with the following modifications:

MODIFICATIONS:

Section 607.01 Description

Add the following paragraph:

The work shall also include temporary fencing used during the project. Temporary fencing will consist of a 6-ft tall moveable chain link fence with individual panels and access gates as needed for the Contractor's use. Temporary fence shall be used to delineate the Contractor Work Area as indicated on the Plans.

The Contractor is advised that the fence will need to be moved from time to time throughout the project to accommodate terminal operations including container storage and vessel loading/off-loading operations.

Section 607.06 Method of Measurement

Add the following paragraph:

Temporary Chain Link Fence – 6 Ft Moveable shall be measured by the lump sum, and shall include all fencing, gates, and movements of the fence to accommodate vessel and terminal operations as determined by the Resident.

Section 607.07 Basis of Payment

The accepted quantity of Temporary Chain Link Fence – 6 Ft Moveable will be paid for at the Contract lump sum price, and shall be full compensation for all fencing, gates, and movements of the fence as shown on the plans to accommodate vessel and terminal operations as determined by the Resident.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
607.1701 Temporary Chain Link Fence – 6 Ft Moveable	Lump Sum

END OF SECTION

SPECIAL PROVISION
SECTION 627
PAVEMENT MARKINGS
(Paint Markings on Concrete Wharf)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 627 – PAVEMENT MARKINGS, with the following modifications:

Section 627.01 Description

The following paragraph is added:

This work shall specifically include markings atop the concrete wharf areas including the existing wharf and ramps, the new wharf section, and the existing finger pier. Yellow markings will delineate locations for outrigger placement and areas of reduced load capacity (such as at Ramps 2 and 4). Red markings will delineate areas of limited load capacity.

Section 627.02 Materials

This Subsection is deleted and replaced with the following:

Marking paint shall be acrylic, fast drying, high-gloss yellow in color, and suitable for heavy-duty exterior use on concrete surfaces as a traffic paint. The binder shall be 100% acrylic, as determined by infrared analysis according to ASTM D2621. VOC levels shall comply with ASTM D3960. Lead percentage shall comply with ASTM D3335. The paint shall be rated as non-combustible.

Suitable yellow paint products include:

1. Rust-Oleum Sierra Performance, S40 Concrete Epoxy Floor Coatings, Safety Yellow; or
2. Rust Oleum 5600 System, Urethane Modified Acrylic, Safety Yellow; or
3. Sealmaster Traffic Paint, Yellow

Red paints shall be provided by the same manufacturer with the same characteristics.

Apply paint markings to the concrete wharf prior to apply protective coatings. See SP 515.

Section 627.09 Method of Measurement

The following paragraphs are added:

Paint Markings on Concrete Wharf shall be measured by the lump sum and shall include all yellow and red paint marks as shown on the Plans.

Section 627.10 Basis of Payment

The following paragraphs are added:

The accepted quantity of Paint Markings on Concrete Wharf will be paid for at the Contract lump sum price, and shall be full compensation for all striping as shown on the Plans, including concrete surface preparation, cordoning off areas, and cleanup.

Payment will be made under the following Pay Item:

Pay Item

627.903 Paint Markings on Concrete Wharf

Pay Unit

Lump Sum

END OF SECTION

SPECIAL SPECIFICATIONS
SECTION 634
HIGHWAY LIGHTING

The provisions of Section 626 of the Standard Specifications shall apply with the following additions and modifications.

634.01 Description

This work shall consist of furnishing and installing the following in accordance with these specifications and plans.

1. Removal of existing lighting pole and associated wiring.
2. Relocation of an existing 120/240 volt service switch at the wharf, along with associated wiring, to a location immediately outside the Utility Building.
3. Modification of existing electrical distribution equipment to serve a new crane outlet station.
4. Installation of relocated high-mast lighting pole, including installation of relocated/stored concrete foundation base.
5. Provision of new electrical wiring to serve the relocated hi-mast lighting pole.
6. Installation of relocated reefer outlet pedestal, including installation of relocated/stored concrete foundation base.
7. Provision of new electrical wiring to serve the relocated outlet pedestal.
8. Provision of a new crane receptacle outlet station, including associated wiring.
9. Relocation of existing security surveillance cameras, including new CAT6 cable and conduit.
10. Provision of a new 30-foot aluminum pole and concrete foundation base for installation of the relocated security surveillance cameras.
11. Re-routing of existing fiber optic communications cable to a new connection point within the existing Utility Building, including new conduit.
12. Provision of a new fiber optic connection panel within the existing Utility Building for the re-routed existing fiber optic communications cable.
13. Installation of all necessary temporary and interim electrical provisions.
14. Procurement of and payment for any and all permits and fees required for the performance of the electrical work including those that may be required from local utilities for services.

634.02 General

Where the Contract documents permit the selection from several product options, and where it becomes necessary to authorize a substitution, the Contractor shall not proceed with purchases until coordination of all interface requirements has been checked and satisfactorily established. Substitutions are subject to approval by the Authority or designated representative per the requirements of the Contract documents.

Refer to Supplemental Specification Section 100 for required construction sequencing. Refer to the Structural Contract Plans for the exact routing of conduits to be installed under the wharf. The Electrical Contract Plans show schematic arrangements only.

634.021 Materials

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

Steel Conduit	715.02
Non-Metallic Conduit	715.03
Metallic Junction and Fuse Box	715.05
Secondary Wiring	715.07
Service Equipment	715.11
Anchor Bolts	720.07

634.022 Equipment List and Drawings

Provide scale drawings and details for anchor bolt installation methods.

634.03 General

The work of this Section is defined to include whatever excavating and back-filling is necessary to install the electrical work. Coordinate the work with other excavating and back-filling in the same area, including de-watering; flood protection provisions, and other temporary facilities. Coordinate the work with other work in the same area, including other underground services (existing and new), paving, and concrete work. Coordinate with weather conditions and provide temporary facilities needed for protection and proper performance of installations, excavating and back-filling.

Coordinate excavation for new foundations, and underground conduits with existing underground utilities. Where conflicts are found with existing utilities, make all practical efforts to install new work to produce a minimum impact on existing conditions. Where relocation of existing utilities is deemed necessary, obtain approval from affected utility supplier in advance of commencing relocation work.

635.04 Cable Installation

Provide factory-fabricated wire of the size, rating, material and type as required for each service. Where not indicated, provide proper selection as determined by installer to comply with installation requirements and with NEC standards. Building wire in conduit shall be 600 volt class Type THWN-2 or Type XHHW-2, as manufactured by *Southwire* or approved equal. Conductors shall be rated 90° C with moisture and heat-resistant thermoset cross-linked polyethylene insulation.

Multi-conductor cable serving receptacle outlets for pedestal reefer assemblies shall be 4-conductor Type W cable with three phase conductors (black, white and red insulation), and one ground conductor (green insulation). Multi-conductor cable shall be as manufactured by *Coleman Cable Inc (CCI)*, or approved equal. The cable shall include # 4 AWG conductors rated 90°C wet locations and shall be rated for 114 amperes according to NEC Table 400.5(A)(2).

Fire alarm cable shall be certified as appropriate for use with the manual pull stations being provided.

634.041 Conduit

This Subsection is added and shall include the following:

Conduit within the existing Utility Building shall be Electrical Metallic Tubing. Provide high quality, hot dip galvanized, electrical metallic tubing conduit and fittings of type, size and weight (wall thickness) required for each application. Where type and grade are not indicated, provide proper selection determined to fulfill wiring requirements, and comply with National Electrical Code. Rain-tight compression type connectors shall be used in all cases. Set-screw type conduit connections or fittings shall not be used.

Box and equipment connections at exterior locations shall be made with liquid tight flexible conduit. Provide liquid-tight flexible metal conduit comprised of single strip, continuous, flexible interlocked, double-wrapped steel, galvanized inside and outside; forming smooth internal wiring channel; with liquid-tight jacket of flexible polyvinyl chloride (PVC).

Where conduit is installed in earth, it shall be Polyvinyl Chloride (PVC) Schedule 40 conduit. Where conduit is installed exposed under, or on, the wharf, it shall be Polyvinyl Chloride (PVC) Schedule 80 conduit. Provide nonmetallic fittings of type required for each conduit. Where conduit sizes are not indicated, provide proper selection determined to fulfill wiring requirements, and comply with National Electrical Code, and with type selected in accordance with applicable standards.

Provide corrosion-resistant stainless steel strut members as manufactured by *Unistrut*, series P1001 SS, or approved equal for conduit support where exposed under the wharf. Provide stainless steel hardware and stainless steel conduit clamps for all exposed conduit mounting applications.

634.042 Metallic Conduit Installation

This Subsection is added and shall include the following:

Install conduit and tubing products as required, in accordance with manufacturer's written instructions, applicable requirements of NEC and National Electrical Contractors Association's "Standard of Installation", and in accordance with recognized industry practices to ensure that products serve intended function.

634.043 Polyvinylchloride Conduit Installation

This Subsection is added and shall include the following:

At any point where a conduit crosses an expansion joint, or where movement between adjacent sections of conduit can be expected, bronze or alloy expansion fittings shall be installed equal to Type AX as made by the O.Z. Electrical Manufacturing Co., Inc., or equivalent by Hope or Spring City unless such locations are within conduit specified as non-metallic. Such locations shall be handled with a non-metallic equivalent or as specified in Plans.

The Contractor shall submit a proposed method of attaching strut members to the underside of the wharf to the Resident for approval.

634.044 Pull Boxes:

This Subsection is added and shall include the following:

Exterior pull boxes installed exposed at the wharf shall be UL listed NEMA 4 stainless steel with stainless steel hardware. Provide box sizes as indicated on the Plans. Where box sizes are not indicated, provide size per NEC for the given number of entrance/exit conduits.

Pull boxes for locations within the Utility Building shall be as shown on the Plan drawings and detailed herein, or where used elsewhere.

- Materials: 12" x 12" x 6" steel.

634.053 Re-Installation of Relocated Hi-Mast Light Pole:

This Subsection is added and shall include the following:

Re-Installation of Existing Hi-Mast Lighting Pole: The Contractor shall install the high-mast lighting pole, foundation base, and all conduit and power wires, associated with the relocated lighting pole to make it fully operational. The Contractor will be required to:

- a. Provide excavation for the relocated/stored concrete foundation base.
- b. Install the relocated/stored concrete foundation base.
- c. Install the relocated/stored lighting pole with its luminaires.
- d. Provide circuit wiring to the relocated/stored lighting pole.

634.071 Fiber Optic Cable Connection Box:

This Subsection is added and shall include the following:

Fiber Optic Cable Connection Cabinet: shall be a high density wall mount fiber optic enclosure designed to support patching and splicing in one unit as manufactured by *Fibertronics*, or approved equal. The unit shall have 9 adapter panel positions allowing for a wide range of fiber termination connector types and shall be equipped with a set of double lockable doors that are keyed differently to maintain

separation and security for the Network and Distribution sides of the termination panels. The following information is provided to assist the Contractor with planning for the associated conduit and wiring work. The Fiber Optic Connection Cabinet shall have dimensions of:

Height 17"
Width 21.2"
Depth 5"

634.072 Communications and Surveillance System

This Subsection is added and shall include the following:

The Contractor shall provide a fiber optic connection cabinet in the Utility Building for splicing existing fire optic cable. The connection box shall be installed on a 48" square by 3/4" thick plywood backboard.

The Contractor shall provide new conduit to facilitate the re-routing of existing fiber optic communications cable to a new fiber connection box to be installed in the Utility Building. As part of this work, the Contractor shall re-direct the existing underground fiber optic cable from the existing Maintenance Building to the Utility Building and from the utility Building underground to the existing Administrative Office Building. It is not anticipated that additional fiber optic cable will be required to accomplish this work. The existing cable shall be left with a minimum of six feet of slack cable within the Utility Building to facilitate cable splice connection by others at the fiber optic cable connection box being provided under this contract.

The Contractor shall also provide the relocation of existing surveillance cameras and associated CAT6 cable as described herein and as indicated on the Plan drawings. Provide a 30-foot aluminum pole with a concrete foundation base to allow for the installation of the relocated security surveillance cameras.

634.081 Bounding and Grounding:

Furnish labor and material to provide grounding facilities for the entire electrical installation as required by all inspecting and jurisdictional authorities as herein specified. The following are included, but not limited to, as items requiring grounding:

- Conduits, boxes and other conductor enclosures. Neutral or identified conductor of interior wiring system.
- Non-current - carrying parts of fixed equipment, such as transformers, motors, starters, control cabinets, disconnects, lighting fixtures, stand-by generator, etc.
- Metallic cabinets and auxiliary systems cabinets.

Conduit Grounding: All grounding bushings within all enclosures, including equipment enclosures, shall be wired together and connected internally to the enclosure grounding lug or grounding bus with bare copper conductor. Grounding conductors sized in accordance with NEC shall be used with all grounding bushings.

Equipment Grounding: All electrical equipment shall be grounded. Most other equipment will be furnished with grounding pads or grounding lugs. All ground connections shall be cleaned immediately prior to connection. The Contractor shall provide all grounding material required but not furnished with the equipment.

No grounding conductor shall be smaller than 12 AWG wire unless it is a part of an acceptable cable assembly.

634.082 Crane Wiring Devices:

This Subsection is added and shall include the following:

The Contractor shall provide a new crane outlet station consisting of an interlocked switch, a disconnect switch, a stainless steel support frame, as well as all associated wiring. Also included shall be the provision of a new circuit breaker to be installed in existing panelboard PP-2 in the Utility Building to serve the new crane outlet station.

Crane Receptacles: Provide *Hubbell* model 5100R7W IEC pin and sleeve watertight receptacle rated 277/480 volts, 4 pole, 5 wire, 3 phase Y, 100 amperes.

Install wiring devices in accordance with manufacturer's written instructions, applicable requirements of NEC and National Electrical Contractors Association's "Standard of Installation", and in accordance with recognized industry practices to ensure that products serve intended function.

Test wiring devices to ensure electrical continuity of grounding connections, and after energizing circuitry, to demonstrate compliance with requirements.

634.083 Crane Disconnect and Interlocked Switches:

This Subsection is added and shall include the following:

Provide factory-fabricated switches, in type and electrical rating for the service required.

Crane Interlocked Receptacle and Switch: Provide *Russellstoll* model DSRS4504NA000 watertight interlocked receptacle with control contacts in a cast aluminum enclosure rated 600 volts, 4 pole, 5 wire, 3 phase Y, 400 amperes.

Crane Disconnect Switch: Provide *Square D* model HU463DS unfused watertight disconnect switch in a stainless steel enclosure rated 600 volts, 4 pole, 5 wire, 3 phase Y, 100 amperes.

Install disconnect and interlocked switches where required, in accordance with manufacturer's written instructions, applicable requirements of NEC and National Electrical Contractors Association's "Standard of Installation", and in accordance with recognized industry practices to ensure that products serve intended function. Install switches on a stainless steel support frame with stainless steel hardware.

Test switches to ensure electrical proper operation, and compliance with requirements

634.084 Panelboard Circuit Breakers:

This Subsection is added and shall include the following:

Breakers shall be UL listed as being compatible with existing panelboards to which they are to be installed.

634.085 Re-Installation of Relocated Reefer Pedestal:

This Subsection is added and shall include the following:

Re-Installation of Existing Reefer Pedestal: The Contractor shall install the reefer outlet pedestal, foundation base, and all conduit and power wires, associated with the relocated lighting pole to make it fully operational. The Contractor will be required to:

- a. Provide excavation for the relocated/stored foundation base.
- b. Install the relocated/stored concrete foundation base.

- c. Install the relocated/stored reefer outlet pedestal.
- d. Provide circuit wiring to the relocated/stored reefer outlet pedestal.

Removal and relocation of 120/240 Volt Wharf Connection Equipment: The Contractor shall remove and relocate the existing equipment and wiring associated with the 120/240 volt electrical service at the wharf. Included is the removal of the existing switch at the wharf, and the reinstallation on the outside of the Utility Building. Extend the existing secondary wiring in the Utility Building as required.

634.092 Method of Measurement:

Measurement for work associated with the installation of the relocated high-mast lighting pole as shown on the Plan drawings and described herein will be per each item.

Measurement for work associated with the installation of the relocated reefer outlet pedestal as shown on the Plan drawings and described herein will be per each item.

Measurement for work associated with the removal of the existing lighting pole as shown on the Plan drawings and described herein will be per lump sum.

Measurement for work associated with the removal and relocation of the 120/240 volt wharf connection equipment as shown on the Plan drawings and described herein will be per lump sum.

Measurement for work associated with the installation of the crane outlet station as shown on the Plan drawings and described herein will be per lump sum.

Measurement for work associated all work associated with the communications and surveillance system work as shown on the Plan drawings and described herein will be made as lump sum.

Measurement for the installation of the wire as described herein will be per foot, to the nearest 10 foot interval per run.

Measurement for installing PVC Conduit as shown on the Plan drawings and described herein will be per linear foot of each type of underground or exposed conduit actually furnished, installed, and accepted at the Contract price per linear foot.

Measurement for installing the Electrical Metallic Tubing (EMT) as shown on the Plan drawings and described herein will be per foot actually furnished, installed, and accepted at the Contract price per linear foot.

Measurement for installing the Liquid Tight Metallic Flexible Conduit as shown on the Plan drawings and described herein will be per foot actually furnished, installed, and accepted at the Contract price per linear foot.

Measurement for installing the pull boxes as shown on the Plan drawings and described herein will be per each item.

634.093 Basis of Payment:

Payment for the accepted quantity of Electrical Metallic Tubing (EMT) as shown on the Plan drawings and described herein will be per linear foot actually furnished, installed, and accepted at the Contract price per linear foot. This price shall include the cost of: furnishing and installing the conduit; pull string, fittings, groundings and bonding; test cleaning interiors of conduits and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of Liquid Tight Flexible Metallic Conduit as shown on the Plan drawings and described herein will be per linear foot actually furnished, installed, and accepted at the Contract price per linear foot. This price shall include the cost of: furnishing and installing the conduit; fittings, groundings and bonding; and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of PVC Conduit as shown on the Plan drawings and described herein will be per linear foot of each type of underground or exposed conduit actually furnished, installed, and accepted at the Contract price per linear foot. It shall include the furnishing, installing, supporting and connection of the conduit and all various hardware necessary for the installation. This price shall include the cost of stainless steel channel support assemblies, hand digging, trenching, or plowing; furnishing and installing the conduit; furnishing special backfilling materials, pull string, fittings, groundings and bonding; test cleaning interiors of conduits and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of relocated reefer outlet pedestals will be per each item. This payment shall include installation of the reefer outlet pedestal, the relocated/stored concrete foundation base, and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of relocated high-mast lighting poles will be paid per each item. This payment shall include the installation of the high mast light pole, the relocated/stored concrete foundation base, and all materials, labor, equipment and incidentals necessary to complete the work.

Measurement for installing the pull boxes as shown on the Plan drawings and described herein will be per each item. It shall include the furnishing, installation, mounting of the boxes, and the drilling of holes into the box for conduits, and all materials, labor, equipment and incidentals necessary to complete the work.

The payment for work associated with the removal of the existing lighting pole as shown on the Plan drawings and described herein will be per lump sum. Removal of the foundation bases and associated wiring, and all materials, labor, equipment and incidentals necessary to complete the work shall be incidental.

Payment for work associated with the removal and relocation of the 120/240 volt wharf connection equipment as shown on the Plan drawings and described herein will be per lump sum. Also included is the temporary line beneath Ramp #2 during construction. Removal and re-direction of the associated wiring, and all materials, labor, equipment and incidentals necessary to complete the work shall be incidental.

Payment for work associated with the installation of the new crane outlet station as shown on the Plan drawings and described herein will be per lump sum. Installation of the outlet station, the equipment support frame, provision of the new circuit breaker for existing panelboard PP-2, and all materials, labor, equipment and incidentals necessary to complete the work shall be incidental.

Payment for work associated all work associated with the relocation of surveillance cameras, a new 30-foot aluminum pole with a concrete foundation base, CAT6 network camera cable, re-direction of the existing fiber optic cable, a fiber optic cable connection box, all as shown on the Plan drawings and described herein will be made as lump sum. Installation of all materials, labor, equipment and incidentals necessary to complete the work shall be incidental.

Payment for the accepted quantity of wire as described herein will be per foot, to the nearest 10-foot interval per run. It shall include the furnishing, installation, routing, termination, splices and connection of the wire per the wiring schedule, and all materials, labor, equipment and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
634.188	4" Electrical Metallic Tubing	Linear Foot
634.1811	1-1/2" Liquid Tight Flexible Conduit	Linear Foot
634.194	1-1/2" Schedule 40 PVC Conduit	Linear Foot
634.1941	1" Schedule 40 PVC Conduit	Linear Foot
634.1942	4" Schedule 40 PVC Conduit	Linear Foot
634.1943	4" Schedule 80 PVC Conduit	Linear Foot
634.2072	Installation of Relocated Reefer Pedestal	Each
634.2073	Installation of Relocated Hi-Mast Lighting Pole	Each
634.230	12" x 12" x 6" Interior, Pull Box	Each
634.231	Stainless Steel Exterior, Pull Box	Each
634.312	#2 AWG Wire	Linear Foot
634.314	#6 AWG Wire	Linear Foot
634.317	500MCM CU	Linear Foot
634.318	250MCM CU	Linear Foot
634.73	Removal of Existing Lighting Pole	Lump Sum
634.731	Removal/Relocation of 120/240V Wharf Connection Equipment	Lump Sum
634.74	Installation of the Crane Outlet Station	Lump Sum
634.75	Installation of Communications and Surveillance Systems	Lump Sum

END OF SECTION

SPECIAL PROVISION
SECTION 655
ELECTRICAL WORK
(Cathodic Protection by Sacrificial Anodes)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 655 – ELECTRICAL WORK, with the following additions:

Section 655.01 Description

This section applies to all necessary steps taken by the Contractor to comply with the cathodic protection requirements listed herein and in accordance with the Plans. Contractor shall be qualified in the field of cathodic protection with a successful track record of at least five years.

Section 655.02 References

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

- ASTM A 36 (1992) Carbon Structural Steel
- ASTM A 307 (2004) Carbon Steel Bolts and Studs
- ASTM A 563 (2007) Carbons and Alloy Steel Nuts
- ASTM F 436 (2010) Hardened Steel Washers

AMERICAN WELDING SOCIETY (AWS)

- AWS D3.6M (1999) Specifications for Underwater Welding

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

- NFPA 70 (2005) National Electrical Code

Section 655.03 Related Requirements

The Cathodic Protection System installation shall conform to the applicable rules of NFPA 70 and all applicable Federal, State, and local codes. The Cathodic Protection System shall be constructed in accordance with the design requirements set forth in the referenced NACE International and ASTM documents. All materials shall be installed and used in accordance with the recommendations of the manufacturer and safety procedures.

Section 655.04 Submittals

Submit the following in accordance with Section 105.7, Working Drawings, of the State of Maine Department of Transportation Standard Specifications, Revision November 2014:

Anode Data. Submit the following components as part of this submittal package:

- A. Product Data: Manufacturer's data, catalog cuts, and other descriptive data shall be submitted for approval, which shall include the following:
 - 1) Anode dimensions and weight, including core details, illustrated in a shop drawing, and
 - 2) Anode chemical composition

Section 655.05 Materials

All materials shall conform to the requirements set forth herein or as designated on the Plans, unless otherwise specified. All materials must be new, free from defects and shall be of the best commercial quality for the purpose specified. All necessary items and accessories not shown on the Plans or specified herein, but which are required to fully carry out the specified intent of the work, shall be furnished without additional cost to the Department.

Anodes for Steel Pipe Piles:

This project utilizes Type III Aluminum anodes. Aluminum anodes shall not contain any mercury. The location of the anodes is illustrated in the Plans.

A. Anode Dimensions and Weight

Anode Weight: 34 lbs (min.) to 60 lbs (max.)

Anode Length: 3 ft (max.)

Anode Width: 4 in. (max., either direction)

B. Anode Chemical Composition

- 1) The aluminum alloy shall have the following composition (% by weight)

Zinc 2.80% to 3.50%

Indium 0.01% to 0.02%

Silicon 0.08% to 0.20% (max)

Aluminum Remainder

- 2) Test efficiency of the aluminum alloy in seawater shall not be less than 85% on a 100% efficiency of 1150 ampere-hours per pound. The aluminum alloy shall have an open circuit potential in seawater of not less than -1.15 volts versus a copper-copper sulfate reference electrode.

C. Anode Core

- 1) The anodes shall have a continuous 1/4-inch flat-bar core with 90 degree bends as shown on the plans. The core member shall be dimensioned to allow a minimum stand-off from the pile 3 in. after its installation. The steel shall comply with ASTM A 36
- 2) The core of the anode shall be located in the center of the anode casting along the anode longitudinal axis.
- 3) To facilitate proper bonding of the aluminum alloy to the steel core during casting, the surface of the steel shall be prepared by a dry blast cleaning process. Rust discoloration and/or visible surface contamination shall not be permitted. Surface preparation shall be SSPC SP6 (commercial blast) or better.

D. Anode Surface Irregularities

- 1) Shrinkage depressions on the anode surface shall not exceed 10 percent of the nominal height of the anode as measured from the uppermost corner to the bottom of the depression.
- 2) Not more than 1 percent of the total surface of the anode casting shall be contaminated with nonmetallic inclusions visible to the naked eye.
- 3) The straightness of the anode shall not deviate more than 2 percent of the anode nominal length from the longitudinal axis of the anode.
- 4) Within the aluminum section transverse cracks of unlimited length and depth are permitted if width does not exceed 5 mm and there are not more than 10 cracks per

anode. Small dense cracks shall be considered one crack and cracks of 0.5 mm width or less shall be ignored. Longitudinal cracks are not permitted in any length except in the final "topping-up" metal at shrinkage depressions.

Steel Hardware:

- A. Threaded Rod: Shall be ASTM A307, coarse thread
- B. Nuts: Shall be ASTM A563, to match threaded rod
- C. Washers: Shall be ASTM F436

Section 655.06 Installation

Unless otherwise indicated, all materials shall be installed in accordance with the manufacturer's recommendations, safety procedures and as directed by the Resident. Installation shall conform to NFPA 70.

A. Anode Connections

- 1) The anodes shall be installed vertically via bolted connections, at the depths and locations indicated on the drawing set. The threaded studs shall be welded to the flange of the pile per AWS D3.6M.
- 2) The area on each pile where the anode is to be welded shall be cleaned to bare metal just prior to welding the anode. The weld for each anode shall be capable of fully supporting the anode weight.
- 3) The anode shall be maintained free of oils, chemicals, paint, petroleum products and other foreign chemicals or coatings. All coatings, wrapping and protective shipping material shall be removed from the anode prior to installation.
- 4) The State may perform a visual underwater inspection of the anode installations. A written report will be submitted indicating which anodes were inspected and the approval of the workmanship. Unacceptable workmanship shall be reworked to the approval of the Resident at no additional cost to the Government before final payment shall be made.

B. Anode Attachment

- 1) Anodes shall be attached to the piles via bolted connections. A system of double-nutted connections shall be used to attach the anodes to the piles.

Section 655.07 Field Quality Control

Field tests shall be witnessed by the Resident. Advise the Resident at least five days prior to performing field tests.

Section 655.08 Method of Measurement

Cathodic Protection by Sacrificial Anodes will be measured by the unit, and shall include all labor, materials, incidentals, and equipment necessary to satisfactorily complete the work in accordance with the Plans and Specifications. Measurement shall include furnishing and installing the anodes including the threaded rod connection and all hardware.

Section 655.09 Basis of Payment

Cathodic Protection by Sacrificial Anodes will be paid for at the Contract unit price for the respective Contract items which shall be full compensation for all labor, materials, incidentals, and equipment necessary to satisfactorily complete the work in accordance with the Plans and Specifications.

Payment will be made under the following Pay Item:

Pay Item

655.501 Cathodic Protection by Sacrificial Anodes

Pay Unit

EA

END OF SECTION

SPECIAL PROVISION
SECTION 825
UTILITY PROVISIONS
(Gas Line Termination)
(Water Line Modifications)
(Sewer Line Modifications)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, November 2014, with the following additions and modifications:

825.01 Description

Add the following paragraph:

The work shall include the termination of the existing gas line branch which currently serves the maintenance building. This line shall be terminated and capped within 1 ft of its primary line on the northern side of the existing concrete foundation wall as shown on the Plans. Return the gas meter to Unutil.

The work shall also include the re-routing and connection of the 4-inch water line to the existing water line which serves the wharf. Removal and reinstallation of the gate valves and backflow preventer into the proposed utility vault shall be included in the work. Water meter(s) shall be returned to the Portland Water District.

The work shall also include the extension of the existing 6" water line and the sewer line through the seawall. The lines will extend beyond the face of the seawall a minimum distance (approximately 1 ft) to sufficiently cap each line for future use. Removal and reinstallation of the water line gate valves and backflow preventer into the proposed utility vault shall be included in the work.

825.02 Materials

Add the following paragraph:

All materials used to terminate the gas line, and to extend the water and sewer lines, shall be compatible with the existing materials:

- Blue Brute water line materials shall be used or an approved equal; and
- SAN SDR 35, 6-inch, shall be used for the sewer line.

Reinstallation of the water line gate valves and backflow preventers shall occur within the utility vault as shown on the plans.

825.05 Method of Measurement

Add the following:

Gas Line Termination, Water line Modifications, and Sewer Line Modifications will be measured by the lump sum.

825.06 Basis of Payment

Add the following paragraphs:

Gas Line Termination shall be paid by the lump sum completed to the satisfaction of the Resident. Payment will be full compensation for excavation, removals of the existing line; capping the line;

furnishing and assembling all materials; backfilling; and for all incidentals necessary to complete the work.

Water Line Modifications and Sewer Line Modifications shall be paid by the lump sum completed to the satisfaction of the Resident. Payment will be full compensation for excavation; removals of existing lines up to the point of re-routing; furnishing and assembling all materials; excavation between the existing lines and the seawall; coring through the seawall; backfilling; and installing the pipe through the seawall. The installation of new pipes, elbows, and fittings shall be included in the payment. Capping the water and sewer lines and installing an expandable foam filler around the annulus of the pipe is considered incidental to the work.

<u>Pay Item</u>		<u>Pay Unit</u>
825.67	Gas Line Termination	Lump Sum
825.68	Water Line Modifications	Lump Sum
825.69	Sewer Line Modifications	Lump Sum

END OF SECTION

SPECIAL PROVISION
SECTION 841
BOLLARDS
(Steel Bollard - 12-Inch)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, with the following additions:

841.01 Description

The work shall consist of providing and installing steel bollards in accordance with the locations designated on the Plans. There are three types of steel bollards to be installed on this project, and they are as follows:

Steel Bollard - 12-Inch: These bollards will be installed within the storage yard and will protect light pole bases, fire hydrants, reefer outlets, and the utility building.

841.02 General

Steel Bollard - 12-Inch shall be constructed of 12-inch diameter steel pipe with 1/2-inch wall and shall be installed into the ground no less than 6-ft deep in a hole no less than 24-inches in diameter. The bollard shall be filled with Class S concrete both within the steel pipe and around the annulus of the pipe section within the ground as shown on the Plans. A circular 1/2-inch cover plate shall be welded to the top of the steel pipe using a 3/8-inch fillet weld. Grind flush the top rim of the steel bollard after welding the cover plate. Steel shall have a minimum strength of 36 ksi. Upon completion of the installation, bollards shall be painted with a two-part epoxy coat of yellow paint.

841.03 Method of Measurement

Steel Bollard - 12-Inch will be measured by the individual unit and shall include steel pipe, plates, and concrete installed and accepted. Excavation, backfill, compaction, and paint shall be incidental to this pay item.

841.04 Basis of Payment

Steel Bollard - 12-Inch will be paid for at the Contract unit price which shall be full compensation for all materials, tools, equipment labor, and all incidentals necessary for the completion of the work to the satisfaction of the Resident. Excavation, backfill, compaction, and paint shall be incidental to this pay item.

HMA will not be measured for payment but shall be considered incidental to the installation the two steel bollards under the Casco Bay Bridge.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
841.4713	Steel Bollard - 12-Inch	Each

END OF SECTION

APPENDIX A

Certifications

The following certification documents are attached:

1. City of Portland Harbor Master Approval

The following certification documents will be forthcoming:

2. City of Portland Planning Board Site Plan Permit Approval
3. MaineDEP Permit Approval



BOARD OF HARBOR COMMISSIONERS FOR THE PORT OF PORTLAND MARINE CONSTRUCTION PERMIT

TO BE POSTED IN A CONSPICUOUS PLACE AT THE CONSTRUCTION SITE

To..... Portland International Marine Terminal, 460 Commercial St., Portland, Me. 04101

The undersigned, Board of Harbor Commissioners for the Harbor of Portland, has carefully considered your application, dated the **20th day of April 2018** for a permit authorizing: **To remove the existing Maintenance Building and build approximately 9,000 square feet of additional pile supported wharf bounded by the existing seawall, two existing ramps and the existing wharf. The wharf addition does not change the outer perimeter shape of the wharf.**

Having given public notice of this pending application, as required by law, and therein designated the **10th day of May, 2018 at 5 o'clock** in the afternoon prevailing time as the time when they would meet in the **Portland City Hall Council Chambers** to examine this issue and here all interested parties, and having met at the time and place mentioned and examined the location of this proposed construction project and having heard all interested parties, the Board of Harbor Commissioners for the Harbor of Portland hereby issues this permit which authorizes you to proceed under all applicable local and federal regulations hereinafter stated, and to maintain within the limits mentioned.

In addition, the construction project described above must be surrounded by a containment boom unless the Board of Harbor Commissioners for the Harbor of Portland has waived this requirement in writing, either as part of the above-listed conditions, or in a separate statement.

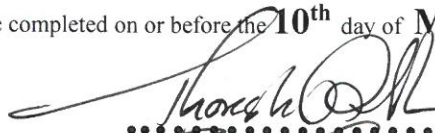
This permit is limited authorization, which contains a stated set of conditions with which the permit holder must comply. If a contractor performs the work for you, both you and the contractor are responsible for assuring that the work is done in conformance with the conditions and limitations of this authorization. Please be sure that the person who will be performing the work has read and understands these conditions.

Performing any work not specifically authorized by this permit, or that fails to comply with its conditions, may subject you to the enforcement provisions of Harbor Commission regulations. If any change in plans or construction methods is found necessary, please contact the Harbor Commission immediately to discuss modifications to your authorization. Any change must be approved by the Harbor Commission before it is undertaken.

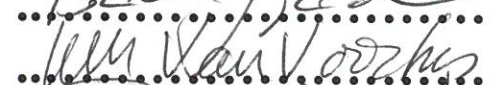
Nothing in this permit shall be construed to justify or authorize any invasion to the private rights of others. Moreover, nothing in this permit shall limit or modify the authority of the Board of Harbor Commissioners for the Harbor of Portland with its applicable statute. Attested copies will be submitted to the U. S. Army Corps of Engineers, the Department of Environmental protection, the City of Portland, and the City of South Portland.

In Witness Whereof, the members of the Board of Harbor Commissioners for the Harbor of Portland hereunto set their hands and affix their corporate seal on this **10th day of MAY 2018**

The work authorized to this permit must be completed on or before the **10th day of MAY 2019.**









Board of Harbor Commissioners for the Port of Portland

APPENDIX B

Engineer's Construction Management Plan

Construction Management Plan
Craig Morin, PE - HNTB
MaineDOT/Maine Port Authority – IMT Wharf Infill/Building Removal

For the construction site management plan, please see sheet C01 in the attached plan set.

Note: At this time, the project has not gone out to bid, and thus a contractor has not been selected. The client and design team will coordinate closely with the selected contractor to ensure this Construction Management Plan is followed.

A. Construction Management Principles

The following narrative provides an overview of the construction management principles that the HNTB, MaineDOT, and the Maine Port Authority (MPA) have identified to minimize impacts from the construction, such as noise, vibrations, ground movement, truck traffic, and other construction related factors to the surrounding building and communities.

The project will take place at the existing International Marine Terminal (IMT) wharf located at 460 Commercial Street, on the eastern side of the Casco Bay Bridge. The overall IMT property abuts New Yard, LLC, but the work for this project will not be close to New Yard and will not affect New Yard's operations.

Truck traffic from construction will enter and exit the construction area from the primary IMT entrance on Commercial Street. Any noises or vibrations due to construction will take place during the City's construction hours unless otherwise coordinated and approved by the City.

B. Development Review of Construction Management Plan

HNTB, MaineDOT, and the Maine Port Authority shall submit a construction management plan that provides a comprehensive logistics and safety program for the construction project, which will be reviewed and approved as part of the site plan review process. Minimizing impacts to areas surrounding the building/construction site will be primary considerations in the process.

The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan or require a condition of approval that states an applicant shall coordinate a project's construction schedule with the timing of nearby construction activity, in order to avoid cumulative impacts on a neighborhood. Such a condition may involve a delay in commencement of construction, if necessary.

The following details define the intended approach to the successful management of the project construction and the construction management plan will address the general conditions contained below.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Prior to scheduling a preconstruction meeting and the issuance of any city required permits, HNTB, MaineDOT, and the MPA shall meet all of the requirements contained in Section 14-530. Development review fees and post approval requirements and 14-532. General

requirements and enforcement of Portland's Land Use Code.

The required application fee has been submitted as part of this application. Please see section 9 of this application regarding the requirements of Portland's Land Use Code. Street opening/occupancy permits, blasting permits, and building code permits do not apply to this project.

D. Construction Administration and Communication

HNTB, MaineDOT, the Maine Port Authority, and the Contractor will work diligently to implement a communication strategy as outlined below:

1. *The Contractor, MaineDOT, Maine Port Authority, and Resident Engineer (HNTB) shall all have contact people. These people are as follows:*
 - *HNTB (Engineer of Record):*
Craig Morin, PE
(207) 228-0908
cmorin@hntb.com
 - *MaineDOT (Resident Engineer):*
Ed Karpinski
(207) 504-1916
ekarpinski@keville.com
 - *Maine Port Authority (Applicant)*
Michael Carter
(207) 200-2430
michael.carter@maineports.com
2. *Meetings will be held weekly between the Contractor, Resident Engineer, and Applicant. Meetings will ensure the Contractor provides a 3-week lookout plan and address any site operational concerns as well as City coordination concerns.*
3. *All construction site signage is temporary and shall be removed at project completion.*

E. Construction Schedule

1. *The timeline for the construction of the project is as follows:*
 - a. *Contractor Bid Awarded:* 11/15/18
 - b. *Mobilization:* November 2018
 - c. *Construction:* December 2018-October 2019
 - d. *Demobilization:* November 2019 – December 2019
 - e. *Project Close Out:* 12/31/19
2. *Hours of construction will be in compliance with Section 17-18.*
3. *Extended construction hours or night work will not be performed without proper coordination with the City.*
4. *Materials will be delivered primarily during the mobilization stage of construction. Materials will be stored on the Fingerpier and in the Chassis Yard at the IMT.*

F. Security & Public Safety

1. *The construction site may not be accessed by the public due to security concerns at the IMT.*
2. *The Maintenance Building that is being demolished will be in compliance with NFPA 1 Chapter 16 Safeguarding Construction, Alteration, and Demolition Operations.*
3. *Once selected, the contractor will submit a demolition plan that will include a safety plan that satisfies the City's requirements.*
4. *No blasting will be required as part of this project.*
5. *Any proposed temporary security lighting shall be shown on CMP and all fixtures shall be full cutoffs.*

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets: *Not applicable*
2. Sewer and Stormwater: *No new sewer/stormwater connections will be made as part of this project.*
3. Traffic Control Plans: *Construction will not occur on a public street and therefore does not require a traffic control plan.*

H. Site Management and Controls

The final Construction Management Plan will address maintaining the site in a safe condition and will include the following:

1. Regular trash and debris removal: *Trash and debris will be cleaned up and disposed of daily by the Contractor.*
2. Street cleaning and damage controls: *Not applicable.*
3. Dust controls- The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust and debris (Attachment 2).
4. Noise: The construction shall comply with Portland's requirements under Section 17-18 of the City Code (Attachment 1) and Section 25-129 on Noise, dust and debris (Attachment 2).
5. Rodent Control: *Not applicable.*
6. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
 - 1) *Snow/ice removal or commence automatically from (1" of snow and up) or Ice*
 - 2) *Remove snow as needed within the work zone, including parking spaces & not to block any driveways or sight lines with the piles of snow.*
 - 3) *Clear all walks & ramps with the work zone*
 - 4) *Sand or Salt as needed*
 - 5) *Clear all basin or drainage to help snow melt*
 - 6) *The above items apply at all times.*

I. Erosion Control and Preservation of Trees

1. *The contractor shall install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan that will be inspected by the City. The contractor shall regularly inspect the control measures, no less than weekly and*

- after significant storm events, and maintain any installed temporary or permanent stormwater management systems in working order. The contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection or the U.S. Environmental Protection Agency upon request.*
- 2. There are no trees or vegetation within the construction zone, so the Contractor will not have any clearing of vegetation to document.*
 - 3. The storage of materials shall be identified and avoid being located under/near trees.*

J. Construction Staging Area

- 1. Material staging areas include areas within the Terminal: the Fingerpier and the Chassis Yard.*
- 2. Delivery trucks will enter the site through the primary entrance so as to avoid back-ups on Commercial Street.*

K. Parking During Construction

- 1. Construction workers may park in the Chassis Yard at the IMT or in the Terminal construction zone. Space may also be provided by the Maine Port Authority for construction workers to park on the wharf or in the storage yard.*
- 2. The existing employee parking lot will not be affected.*
- 3. Truck routes will include trucks arriving at the IMT via Commercial Street. Volumes will insignificant and will not affect Commercial Street traffic.*

L. Special Measures as Necessary

Information on silt curtains and the debris boom used to prevent debris from polluting the water can be found in the documents at the end of this section.



Type 3 HEAVY DUTY **Silt Barrier**

www.Type3SiltBarrier.com

OR

www.TurbidityBarriers.com

- Current, Waves and Wind
- 1.5 Knot, 2 Foot Waves, 30 Mph wind
- Rugged for USACE and DOT projects for dredging and remediation work.
- Bays, Rivers and Inland Waters
- Meets and Exceeds most State DOT Federal Requirement
- Rapid deployment - durable

DESCRIPTION:

Granite Type 3 Heavy Duty Silt Barrier is manufactured with permeable silt filter panels or impermeable silt blocking skirts with marine grade floats seamed into heavy duty coated reinforced PVC membrane, 2 each steel load bearing cables, a heavy ballast chain to assist in keeping skirt vertical and lower tension member.

TYPICAL LENGTH:

Normally 100 feet (30 m) but adjustable by special order to any length. (additional cost applies for varied length/s)

DRAFT:

Any depths from 3 feet (1 m) to 100 feet (30 m).

FREEBOARD:

12 inches.

FLOTATION ELEMENT:

12" diameter GRADE A octagonal marine quality floats placed end to end and dielectrically sealed into coated membrane sleeve along the top of the barrier. These have joints between floats to allow folding for shipment, storage and more importantly for conformance to wave action.

100' (30m) and 50' (15m) Long sections x 3' (1 m) wide to 100' (30m)

Post Office Box 780928
Sebastian
Florida 32978-0928

Phone: +1 772-646 -0597
Fax: +1 772-589-3343
E-mail: Granite@ErosionPollution.com
Web: www.GraniteEnvironmental.com

<u>MEMBRANE:</u>	22 ounce per square yard vinyl coated nylon or polyester or a combination with geotextile filter panel depending on application.
<u>BASE:</u>	22 oz PVC fabric International Safety Yellow 500 x 550 Lbs/square inch tensile strength (specification sheet available on request)
<u>FILTER PANEL:</u> (Optional Skirt design)	W-70 @ 6% with vertical flow of 70gpm (specification sheet available on request)
<u>TENSION CABLES:</u>	2 each 5/16 inch vinyl coated galvanized steel cable, one on each side of the skirt 20 inches below the flotation. These cables are secured to each end connector of the curtain section and clipped together with lap links and grommets every 30 inches for superior performance in current.
<u>LOWER TENSION & BALLAST:</u>	Ballast is provided by a 3/8 inch galvanized steel chain sheathed in 22 oz membrane along the bottom edge of the skirt. This acts as a lower tension member by terminating in stainless steel stress plates on each skirt corner and bolted with no fewer than 4 stainless steel bolts allowing minimum load transfer of 5000 lbs of tensile from membrane.
<u>SECTION CONNECTION:</u>	Sections of Heavy Duty Type 3 Silt Barrier connect by sliding together the two halves of Universeal slide bulk connectors that extend from the top of the flotation down a minimum of 20". The skirts are joined by ties between reinforced steel grommets on the two opposing silt barriers. The ballast connect via galvanized steel snap hook and galvanized ring make the joint complete from top to bottom. This is a tool free connection.
<u>ANCHOR POINTS:</u>	Anchor points are provided every 50' at the tension cable line on both side of the barrier.
<u>Skirt Furling System:</u>	To furl/raise and lower the curtain skirt to varied operation depths (Optional at additional charge).
<u>Accessories:</u>	<i>Oil Spill Equipment, Navigational Warning Lights, Marker Buoys, Anchor Systems, Geotextile Sludge Tubes, Repair Kits, Debris Boom.</i>

[Installation Guide available](#) < -- CLICK HERE or visit www.SILT-BARRIER.com

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Web: www.GraniteEnvironmental.com

PRODUCT DATA SHEET

GEOTEX® 111F

GEOTEX 111F is a woven polypropylene geotextile produced by Propex, and will meet the following Minimum Average Roll Values (MARV) when tested in accordance with the methods listed below. The individual filaments are woven into a regular network such that filaments retain dimensional stability relative to each other. These characteristics make **GEOTEX 111F** ideal for filtration beneath hard armor systems and around leachate collection pipes. The geotextile is resistant to ultraviolet degradation and to biological and chemical environments normally found in soils.

GEOTEX 111F conforms to the property values listed below.¹ Propex performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP).

		MARV ²	
PROPERTY	TEST METHOD	ENGLISH	METRIC
Mechanical			
Tensile Strength (Grab)	ASTM D-4632	370 x 220 lbs	1645 x 980 N
Elongation	ASTM D-4632	20 x 15 %	20 x 15 %
Puncture	ASTM D-4833	115 lbs	510 N
CBR Puncture	ASTM D-6241	850 lbs	3780 N
Mullen Burst	ASTM D-3786	470 psi	3240 kPa
Trapezoidal Tear	ASTM D-4533	115 x 75 lbs	510 x 335 N
Endurance			
UV Resistance % Retained at 500 hrs	ASTM D-4355	90%	90%
Hydraulic			
Apparent Opening Size (AOS) ³	ASTM D-4751	30 US Std. Sieve	0.600 mm
Percent Open Area (POA)	CW-02215 Mod. ⁴	8 %	8 %
Permittivity	ASTM D-4491	1.50 sec ⁻¹	1.50 sec ⁻¹
Water Flow Rate	ASTM D-4491	115 gpm/ft ²	4,685.1 l/min/m ²
Roll Sizes		12.5 ft x 300 ft	3.81 m x 91.5 m

NOTES:

1. The property values listed above are effective 09/2008 and are subject to change without notice.
2. Values for machine (warp) and cross-machine (fill), respectively, under dry or saturated conditions. Minimum average roll values (MARV) are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.
3. Maximum average roll value.
4. Army Corp of Engineers test method correlated to light emitted through fabric. (Area of Openings/Total Area X 100%)



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APPENDIX C

Geotechnical Report

**GEOTECHNICAL DESIGN REPORT
PROPOSED PIER INFILL
MAINEDOT WIN 021942.06
INTERNATIONAL MARINE TERMINAL
PORTLAND, MAINE**

by Haley & Aldrich, Inc.
Portland, Maine

for HNTB Corporation
Westbrook, Maine

File No. 129950-002
November 2017



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17 November 2017
File No. 129950-002

HNTB Corporation
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Westbrook, Maine 04092

Attention: Craig R. Morin, P.E.
Senior Structural Engineer

Subject: Geotechnical Design Report
Proposed Pier Infill
MaineDOT WIN 021942.06
International Marine Terminal
Portland, Maine

Ladies and Gentlemen:

This Geotechnical Design Report (report) provides the results of previous and recent subsurface exploration and laboratory testing programs and presents geotechnical design recommendations and construction considerations in support of the subject project. This work was undertaken at your request and in accordance with our proposal, dated 11 April 2017, and your subsequent authorization.

Elevation Datum

Elevations referenced herein are in feet and reference the National Geodetic Vertical Datum of 1929 (NGVD 29). Tidal datum at the site relates to NGVD 29 as follows:

El. 0 MHW = El. 4.95 NGVD 29
El. 0 MLW = El. -4.18 NGVD 29

Please note that this tidal information is not site specific and is taken from the nearby National Oceanic Atmospheric Administration (NOAA) tidal station No. 8418150, which is located on the Maine State Pier in Portland, Maine. This is the NOAA tidal station closest to the site. The tidal information referenced herein was provided to Haley & Aldrich by HNTB Corporation (HNTB).

Project Location, Existing Site Conditions and Proposed Pier Construction

The International Marine Terminal (IMT) is located on an approximate 13.5-acre parcel of land on Commercial Street in Portland, Maine. The IMT is bound by Commercial Street to the northwest, the Fore River to the southeast, and the Casco Bay Bridge to the west as shown on Figure 1, Project Locus.

Based on our extensive project history at the IMT site, it is our understanding that the site has been developed and re-developed multiple times since its original construction. A large portion of the IMT was once occupied by Dyer's Wharf, which was constructed around 1866. Sometime between 1866 and 1871 (approximate), Dyer's Wharf was extended from Commercial Street to the Harbor Commissioners Line. At that time, an area of open water existed between Dyer's Wharf and Railroad Wharf that was filled sometime between 1882 and 1914, connecting the two wharves and forming a continuous docking area along the Harbor Commissioners Line. Railroad Wharf previously occupied much of the area where the former Portland International Ferry Terminal Building was located, which was demolished and infilled with additional pier space in 2011. An existing seawall is located along the eastern portion of the site, forming the boundary between previously filled land and the Fore River.

Based on conditions observed in previous and recent site visits and our experience with other similar seawalls in Portland Harbor, the seawall was apparently constructed by placing flat boulders directly on the harbor bottom soils or on timber cribbing set directly in/on the harbor bottom soils. The wall is approximately 3 to 4-ft thick and constructed of boulders ranging up to approximately 8-ft long, 3-ft wide and 2-ft thick. During previous investigations, the bottom of the seawall was located; however, foundation bearing conditions could not be determined. There was, however, no evidence that the seawall was constructed on piles. The maximum retained height of the seawall (i.e., vertical distance between ground surface on either side of the wall) is approximately 10 to 12 ft.

It is our understanding that the Maine Intermodal Port Productivity (MIPP) Project includes several planned improvements at and in the vicinity of the IMT, which will allow for significant growth at the facility. It is also our understanding that the MIPP Project will include the demolition and removal of the existing 4,000 square foot (sf) maintenance building (building) and the relocation of existing above and below ground utilities that service the building to facilitate the construction of an approximate 12,000 sf pier infill in the northeastern portion of the site that will tie into the existing pier. The building spans over the seawall and the portion of the building on the water side of the seawall is supported by timber piles and the portion of the building on the landside of the seawall is believed to be supported on shallow (spread footing) foundations.

Similar to the building, foundations for the proposed pier infill, as described in subsequent sections of this report, will be required on both the land and water sides of the existing seawall. The seawall is discussed in subsequent sections of this report, specifically as it relates to the installation of foundation elements proposed for support of the new pier.

Existing and proposed site conditions are shown on Figure 2, Site and Subsurface Exploration Location Plan.

Subsurface Exploration Programs

Multiple subsurface exploration programs have been completed under the direction of Haley & Aldrich at the IMT. Subsurface exploration programs were completed in 1987 and 1992 in support of the design and construction of new pier space to the north and south of the subject project. In addition, a

subsurface exploration program was completed in 2017 in support of the subject project. Each exploration program is discussed separately in the following sections of this report.

Test boring locations are shown graphically on Figure 2 and logs of the explorations are provided in Appendix A.

1987 SUBSURFACE EXPLORATION PROGRAM

A subsurface exploration program consisting of 12 test borings, designated B-1 through B-9 (including B-3A, B-5A and B-7A), and 15 test pits, designated TP1 through TP12 (including TP1A, TP2A and TP7A), was completed at the site under the direction of Haley & Aldrich in September and October 1987 to support the design and construction of a new pier and storage area. Only one of the test borings (B-6) was drilled in the vicinity of the subject project and is discussed herein.

The test boring was drilled by Maine Test Borings, Inc. of Brewer, Maine using a truck-mounted drill rig. The test boring was drilled to a depth of approximately 104 ft below ground surface (BGS) using 3-in. (NW-size) inside diameter (ID) steel casing. Soil samples were generally collected at standard 5-ft intervals by driving a 1-3/8-in. ID split-spoon sampler with a 140-lb hammer dropped from a height of 30 in., as indicated on the test boring logs. The test boring was terminated on a refusal surface within the glacial till deposit. Bedrock was not encountered.

Please note that the “surface elevation” shown on the test boring log references Mean Low Water (MLW) datum, which is 4.18 ft below the NGVD 29 datum.

1992 SUBSURFACE EXPLORATION PROGRAM

A subsurface exploration program consisting of four test borings, designated B101 through B104, was completed at the site under the direction of Haley & Aldrich in July and August 1992 to support the design and construction of a new pier. Only one of the test borings (B102) was drilled in the vicinity of the subject project and is discussed herein.

The test boring was drilled by Maine Test Borings, Inc. of Brewer, Maine using a Mobile Drill B-53 truck-mounted drill rig. The test boring was drilled to a depth of approximately 80 ft BGS using 3-in. ID steel casing. Soil samples obtained in the test boring were generally collected at standard 5-ft intervals using similar methodology as described in the previous section of this report. Similar to the 1987 test boring (B-6), test boring B102 was also terminated on a refusal surface within the glacial till deposit and did not encounter bedrock.

Two in-situ vane shear tests were conducted within the marine clay deposit to estimate the undrained shear strength of the soil. No information was provided relative to the testing means and methods.

The “as-drilled” location of the test boring was determined by others upon the completion of drilling using optical survey equipment. The mudline elevation was determined by subtracting the distance

from the deck/pier to the mudline (manually measured by Haley & Aldrich) from the deck/pier elevation, which was determined by Haley & Aldrich using differential levelling equipment.

Please note that the “elevation” shown on the test boring log references Mean Low Water (MLW) datum, which is 4.18 ft below NGVD 29 datum.

2017 SUBSURFACE EXPLORATION PROGRAM

A subsurface exploration program consisting of two test borings, designated HA17-1 and HA17-2, was completed at the site in June 2017 to support the design and construction of the subject project.

The locations of the test borings were laid out in the field by Haley & Aldrich prior to the start of drilling by taping distances from existing site features. The “as-drilled” plan location of and the ground surface elevations at the test boring locations were determined by James D. Nadeau, LLC. upon completion of drilling using optical surveying methods and equipment.

The test borings were drilled by Northern Test Boring of Gorham, Maine using a Diedrich D-50 track-mounted drill rig. The test borings were drilled to depths ranging from approximately 101 to 111 ft BGS and were terminated in naturally-deposited soil (glacial till) using 4-in. (HW-size) ID steel casing. Soil samples were collected continuously through the fill soils and at standard 5-ft intervals thereafter using similar methodology as described in the previous sections of this report.

In-situ vane shear tests were conducted within the marine clay deposit in each test boring. In-situ vane shear tests were conducted with either a 55 mm by 110 mm or 65 mm by 130 mm Geonor rectangular vane (per MaineDOT requirements) attached to a 2-ft long, 12-mm diameter rod extension, attached to a string of 5/8-in. outside diameter (OD) hollow chrome-moly rods. At each in-situ vane shear test location, the vane was pushed (by hand) until the bottom of the vane was approximately 1 to 2 ft below the bottom of the borehole. The vane was then rotated at a rate of about 90 degrees per minute using a calibrated torque wrench. Results of the vane shear testing, including raw torque values and calculated shear strengths, are provided on the test boring logs in Appendix A.

One relatively undisturbed Shelby tube sample of marine clay was obtained from test boring HA17-1 using a piston sampler.

The boreholes were backfilled using drill cuttings. Cold patch and Portland cement concrete were used to replace the bituminous pavement and concrete pier deck for test borings HA17-2 and HA17-1, respectively.

The test borings were monitored in the field by Haley & Aldrich personnel who documented the soil and groundwater conditions encountered in the explorations and prepared test boring logs. All soil samples were collected and preserved in glass jars. Soil samples that were not submitted for laboratory testing are available for review upon request, and are currently being stored at the Haley & Aldrich laboratory facility in Portland, Maine.

Generalized Subsurface Conditions

SOIL CONDITIONS

The subsurface conditions encountered at the site consist of the following soil units presented in order of increasing depth below ground surface: bituminous concrete, fill, harbor bottom soils, marine clay, marine sand, ice contact deposit and glacial till. A general description of each soil unit is provided below. The soil units and thicknesses encountered in each of the explorations are summarized in Table I.

Please note that the soil descriptions provided on the test boring logs and summarized below do not represent actual field conditions other than at the specific test boring locations. The actual conditions will vary from those described herein.

Soil Unit	Approximate Encountered Thickness (ft)	Generalized Description
Bituminous Concrete	0.4 to 0.8	NA <i>(encountered in test borings HA17-2 and B-6)</i>
Fill	1 to 21	Very loose to very dense silty SAND with gravel (SM) and well graded SAND with silt and gravel (SW-SM); occasional to frequent coal, ash, brick and concrete fragments <i>(encountered in test borings HA17-2, B102 and B-6)</i>
Harbor Bottom Deposit	9 to 23	Very soft to medium stiff organic SILT (OL) and sandy SILT (ML); very loose to medium dense silty SAND (SM) and well graded SAND with varying amounts of silt (SW-SM); trace shells and organic matter <i>(encountered in each test boring)</i>
Marine Clay	9 to 13	Soft to very stiff lean CLAY (CL) with occasional to frequent fine sand seams and shell fragments <i>(encountered in test borings HA17-1, HA17-2 and B102)</i>
Marine Sand	16 to 33	Loose to dense poorly-graded SAND (SP) with varying amounts of silt and gravel; silty SAND (SM) with varying amounts of gravel; Note that the deposit was encountered above and below the marine clay layer in test boring HA17-1 <i>(encountered in each test boring)</i>
Ice Contact Deposit	9 to 35	Very dense poorly-graded SAND with varying amounts of silt and gravel (SP-SM) <i>(encountered in test borings HA17-1, B102 and B-6)</i>
Glacial Till	> 2 to 37	Very dense poorly-graded SAND with gravel (SP); well graded SAND with gravel (SW) <i>(encountered in each test boring)</i>

GROUNDWATER CONDITIONS

Observation wells were not installed in any of the previous or recent test borings referenced herein. As a result, long term static water levels at the site were not determined. Soil samples obtained from test boring HA17-2, which was drilled on the landside of the seawall, were visually observed to be “wet” at approximately 12 ft BGS (El. 2.7). Please note that the water level measured in the borehole during and/or immediately after drilling may not be representative of actual static water level at the site. Test borings HA17-2 and B102 were drilled on the waterside of the seawall and therefore, the groundwater levels are anticipated to vary with tidal fluctuations (i.e., between approximately El. -4 and El. 5). It is likely that a lag in response to changing tide level may cause variations in the water level on the landside and waterside of the seawall.

In general, groundwater levels can be expected to fluctuate, subject to tidal variations, test boring drilling means/methods, seasonal variation, local soil conditions, topography and precipitation. Groundwater levels encountered during construction may differ from those observed in the test boring and summarized herein.

Laboratory Testing

A geotechnical laboratory testing program was undertaken on representative soil samples collected during the 2017 subsurface exploration programs to aid in soil classification and reuse potential of fill soils and determination of engineering properties of harbor bottom and marine clay soils. The laboratory testing program consisted of three grain size analyses and six water content and Atterberg limits tests, which were completed in accordance with applicable American Society for Testing Materials (ASTM) testing procedures by GeoTesting Express of Acton, Massachusetts. Laboratory test results are summarized below and are provided in Appendix B.

Laboratory Test	ASTM Test Designation	Soil Unit	No. of Tests	Range in Test Results ¹
Grain Size	ASTM D 422	Fill	3	<u>AASHTO Classification:</u> A-1-b <u>USCS Classification:</u> SM
Atterberg Limits/ Moisture Content	ASTM D4318/D2216	Harbor Bottom	1	LL = 86; PL = 30; PI = 56; WC = 79
		Marine Clay	5	30 < LL < 46; 18 < PL < 21; 12 < PI < 25; 30 < WC < 43

¹ LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; WC = Moisture Content

Geotechnical Design Recommendations

Geotechnical design recommendations for the subject project, as discussed and provided herein, were developed in accordance with the 2009 International Building Code (IBC) and the Maine Department of Transportation (MaineDOT) Standard Specifications (Standard Specifications).

PIER FOUNDATION SUPPORT

The subsurface conditions in the vicinity of the proposed pier infill primarily consist of variable thicknesses of fill, harbor bottom deposits, marine (clay and sand) deposits, ice contact deposits and glacial till. Due to the magnitude of the pile design loads, we consider only the glacial till soils and bedrock suitable for support of the pier. Based on the depth to the suitable foundation bearing strata and the magnitude of the design loads, it is our opinion that driven pile foundations are the most practicable foundation alternative.

Based on our review of historic pier construction drawings contained in our project files, it is our understanding that the portion of the existing pier immediately north and east of the proposed infill area that was constructed in 1988 is supported by 16-in. outside diameter (OD) closed-end (conical tip), concrete-filled, steel pipe piles with wall thicknesses of either $\frac{3}{8}$ or $\frac{1}{2}$ -in. The yield strength of the steel is 36 kips per square inch (ksi). In addition, a similar pile type and size was used to support a pier infill that was constructed in 2010 except that the yield strength of the steel is 50 ksi. It is also our understanding that other portions of the existing pier (i.e., areas constructed circa 1993) are supported by precast prestressed concrete (PPC) piles. Although PPC piles can support the proposed pier and typically have good durability in marine environments, we understand that their use on site has been plagued by difficulties, primarily related to damage/breakage during pile installation, which in our experience is typical for this type of pile.

As a result, and based on our discussions with you, it is our understanding that the preferred pile type and size for the subject project is the same as what was used to support portions of the pier that were constructed in 1988 and 2011 (i.e., 16-in. OD, closed-end, concrete-filled steel pipe piles with a $\frac{1}{2}$ -in. thick wall). We recommend that pipe piles be fabricated in accordance with ASTM A252, Grade 3 Modified, with a minimum yield strength of 50 ksi. We also recommend that the tips of the piles be outfitted with either a 1.5-in. thick flat steel bottom plate that is fabricated to match the diameter of the outside of the pile or a conical driving point to provide additional end bearing resistance and also to protect the tips of the piles during hard driving in the dense to very dense glacial till soils. If used, the conical pile tips should meet the requirements of ASTM A148 Grade 90/60. After installation and inspection for damage, we recommend that the pipe piles be filled with Class S concrete (MaineDOT 502.05). We also recommend that the concrete be placed from the bottom of the pile to the top using tremie methods.

As discussed in the following sections of this report, our review of historic dynamic pile test results and technical evaluations indicate that the preferred pile type and size can be driving to the minimum required ultimate capacity without damage (i.e., steel overstress).

PILE CORROSION AND DETERIORATION

The geotechnical engineering design of the proposed piles included consideration of corrosion. Due to deleterious effects of the marine environment combined with the corrosive potential of existing fill and harbor bottom soils that are present on the land and water sides of the seawall, we recommend that the piles be protected with a minimum 18-mil fusion bonded epoxy (FBE) coating, meeting the requirements of MaineDOT Standard Specification 506. We recommend that the FBE coating extend from the top of the pile (cutoff elevation) to 10 ft below the existing mudline elevation. In addition, we recommend that the Contractor use special precautions during pile handling, storage and installation to prevent damage to the FBE coating.

As an added level of corrosion protection, we recommend that aluminum alloy cathodic protection anodes be used in conjunction with the FBE coating to prevent steel degradation and extend the design life of the proposed pier infill. Please note that the combination of an FBE coating and cathodic protection was also used on the piles that support the portion of the existing pier that was constructed in 2011.

DOWNDRAW LOADING

Downdrag occurs when the soil adjacent to an installed pile moves downward relative to the pile (in this case, caused by compression of the harbor bottom and marine clay deposits under the weight of proposed fill). Our geotechnical engineering design evaluations included consideration of downdrag loading on both the existing and proposed piles.

Based on our review of the 90 Percent Design Drawings (see Appendix C) provided by HNTB, we understand that proposed grades on the land and water sides of the seawall within the limits of the proposed pier infill will match existing site grades. As a result, we do not anticipate a stress increase within the harbor bottom and/or marine clay soils and therefore no consolidation settlement, which is required to mobilize downdrag forces on the piles.

AXIAL COMPRESSIVE PILE DEMAND AND CAPACITY

It is our understanding, based on discussions with you, that the maximum axial compressive load on the piles supporting the proposed pier infill is 280 kips. In accordance with Section 1810.3.3.1.7 of the IBC, the minimum required factor of safety is equal to 2 and therefore, the minimum required ultimate pile capacity is 560 kips. Please note that the design load for the pipe piles installed in 1988 and 2011 that support portions of the existing pier is 270 kips and 280 kips, respectively. It is also our understanding that the proposed piles will not be subjected to or provide resistance to lateral loads.

As part of our technical evaluations, consideration was given to the results of dynamic pile test results associated with the 1988 and 2011 pier projects and the ability of potential pile hammer types/sizes

used by local contractors to install (drive) the piles to the required ultimate capacity without damage (i.e., overstressing). Each is discussed separately, below.

Drivability Evaluations

Drivability evaluations were completed by Haley & Aldrich in 2011 to determine 1) if the piles could be impact driven into the dense to very dense glacial till and 2) what ultimate capacity could be achieved using hammer sizes typical of local pile driving contractors without damaging or overstressing the piles while keeping the penetration resistance below 15 blows per inch (bpi), which is the upper limit of penetration resistance allowed by the MaineDOT Standard Specifications (Standard Specifications). The drivability evaluations were conducted using the computer program GRL WEAP 2010 developed by GRL Engineers, Inc.

The 2011 drivability evaluations were revised based on the subsurface conditions encountered in the 2017 subsurface exploration program, the actual pile hammer used to install the 2011 piles and the results of previous dynamic pile tests. The drivability evaluations were conducted assuming that a Delmag D36-32 single-acting diesel hammer with a maximum rated energy equal to approximately 90,500 ft-lbs. would be used to install the new pier piles.

Results of the preliminary pile drivability evaluations suggest that 16 in. diameter piles with a ½-in. thick wall can be driven into the glacial till deposit and to the minimum required ultimate capacity (560 kips) without overstressing (damaging) the piles. The evaluation was conducted modeling the pile hammer operating on fuel setting 3 (ram stroke equal to approximately 9 ft) that would deliver approximately 69.6 kip-ft of energy to the pile during driving. The results suggest that the piles will achieve the minimum required ultimate capacity at approximately 6 to 7 blows per inch (bpi), which is below the limit of penetration resistance allowed by the MaineDOT Standard Specifications. Driving stresses calculated during the evaluation (40 ksi) do not exceed the maximum permissible values (45 ksi, 0.90F_y for 50 ksi steel piles).

Previous Dynamic Pile Test Results

Dynamic pile (PDA) tests were completed in 1988 (13 tests) and 2011 (3 tests) in association with the respective pier construction projects. The PDA tests were completed on production piles at the end of initial drive, beginning of restrrike and/or end of restrrike to determine the installation (driving) criteria required to develop the minimum ultimate capacity based on the pile hammer used by the Contractor to assess setup/relaxation characteristics of the soils present along the embedded pile length and beneath the tip of the pile, and to confirm that the stress in the piles did not exceed allowable limits (i.e., 0.9F_y) during driving. A summary of the previous PDA test results is provided below.

Phase of Work ¹	Pile Hammer	Range in Maximum Transferred Energy (kip-ft)	Range in Measured Compressive Stress ² (ksi)	Range in CAPWAP Capacity ^{3,4} (kips)		
				EOD	BOR	EOR
1988	MKT DE70	12 to 21	20 to 27 (56% to 75% F _y)	411 to 500	NR	407 to 500
2011	Delmag D36-32	33 to 48	22 to 33 (44% to 66% F _y)	510 to 660	580 to 670	NR

¹ – Piles are 16-in. outside diameter, closed end (conical tip), steel pipe with ½-in. (2011 and 1988) and/or ⅝-in. (1988) thick walls.

² – Yield strength (F_y) for 1988 piles = 36 ksi; yield strength for 2011 piles = 50 ksi.

³ – Minimum required ultimate capacity equal to 540 kips (1988) and 560 kips (2011).

⁴ – EOD = end of initial drive; BOR = beginning of restrike; EOR = end of restrike; NR = not reported.

The 1988 PDA test results indicate that piles were driven to capacities ranging from approximately 400 to 500 kips (minimum required ultimate capacity equal to 540 kips), with maximum compressive driving stresses ranging from 20 to 27 ksi. Only one of the piles (G-5) was tested during end of initial drive (EOD) and beginning of restrike (BOR) to assess setup (gain in capacity) and relaxation (loss of capacity) characteristics of the foundation soils (i.e., glacial till). The recommended driving criteria for production pile driving was 14 bpi over the final 6 in. of driving with a 7.5-ft (minimum) ram stroke.

The 2011 PDA test results indicate that piles were driven to capacities ranging from approximately 600 to 700 kips (minimum required ultimate capacity equal to 560 kips), with maximum compressive driving stresses ranging from 22 to 33 ksi. All three piles were tested at EOD and BOR to assess the setup and relaxation characteristics of the foundation soils (i.e., glacial till). Two piles, where the transferred energy during BOR was equal to or greater than during EOD, indicated setup (gain) of 30 to 120 kips of capacity. One pile, where the transferred energy during BOR was less than during EOD, indicated relaxation (loss) of 40 kips of capacity. The recommended diving criteria for production pile driving was 10 bpi over the final 6 in. of driving with an 8.5-ft (minimum) ram stroke.

Conclusions

In summary, based on the results of the drivability evaluations and the 1988 and 2011 PDA test results, we recommend that 16 in. diameter, closed-ended, concrete-filled steel pipe piles with a ½-in. thick wall be used to support the proposed pier infill. The results indicate that the piles can be driven into the glacial till stratum to the minimum required nominal capacity without damage using locally available pile hammers while maintaining penetration resistances below the maximum allowed by the MaineDOT Standard Specifications (i.e., 15 bpi).

PILE LENGTH ESTIMATE

As-built pile tip elevation information from the 1988 and 2011 PDA testing and the 2011 production pile installation was reviewed and compared to the elevation of the top of the glacial till stratum in previous and recent test borings near the proposed pier infill.

The previous PDA test and production pile installation data indicated that the piles penetrated between 5 and 10 ft into the glacial till before achieving the minimum required nominal resistance. Based on a top of glacial till elevation equal to approximately El. -80 and a 10-ft embedment into the glacial till stratum needed to achieve the minimum required ultimate capacity, we recommend that a pile tip elevation equal to El. -90 be used to estimate the as-built pile pay lengths (cutoff elevation minus tip elevation) for inclusion in the Contract Documents (CDs).

Based on our review of the 90 Percent Design Drawings (see Appendix C), we understand that the design pile cutoff elevation is equal to approximately EL. 12 and therefore, an as-built pile pay length equal to 102 ft should be used to estimate quantities for inclusion in the CDs. Please note that this length does not include additional length that may be needed by the Contractor to install and dynamically test the piles.

Construction Considerations

DEMOLITION OF EXISTING STRUCTURES (MAINTENANCE BUILDING AND TIMBER PIER)

As described in previous sections of this report, the existing maintenance building and timber pier will be demolished prior to construction of the proposed pier infill. The maintenance building is likely supported using a combination of shallow (landside of seawall) and deep (water side of seawall) elements. We recommend that all below grade portions of the maintenance building (e.g., foundation walls, footings, slabs, grade beams, and pile caps) be excavated and removed prior to pile driving and earthwork activities. If the maintenance building is found to be pile-supported, the presence of the existing piles may interfere with the installation of the new piles. This should be reviewed by HNTB prior to finalizing the locations/layout of the new piles.

In an effort to avoid potential Contractor claims, we recommend that an Owner's Representative be present at the site to observe and document the removal of below grade portions of the existing building. We also recommend that the Owner's Representative observe and document the conditions of the soils exposed beneath the demolished slabs for environmental/health and safety reasons.

DYNAMIC PILE LOAD TESTING PROGRAM

We recommend that the ultimate geotechnical capacity of the piles be confirmed in the field using dynamic testing methods. The piles should be driven to an ultimate capacity equal to the maximum design compressive pile load (280 kips) multiplied by a factor of safety of 2 (i.e., 560 kips). The minimum number of piles that should be dynamically tested to confirm the ultimate geotechnical capacity is based on the total number of piles (68) at the site and the variability in subsurface soil conditions. We

recommend that the Contractor perform a minimum of three dynamic pile load tests with 24-hour (minimum) restrrike tests to evaluate hammer system efficiencies, driving stresses in the piles, the setup/relaxation characteristics of the foundation bearing soils, and the ultimate geotechnical capacity of the piles. We recommend that the dynamic pile load tests be completed on the first piles driven on the land and water sides of the existing seawall. In addition, we recommend that CAPWAP analyses be performed on both indicator piles installed during the dynamic test program.

PILE INSTALLATION

Due to the historic site usage and the existing structures present at the site, it is possible that obstructions (e.g., timber piles, granite block seawalls, steel rails, concrete foundations, concrete slabs, timber cribbing) may be encountered during pile installation. In addition, based on our review of available subsurface information immediately behind portions of the existing seawall, various types of fill was likely used to raise grades including but not limited to 4 to 16 in. angular rock and sand/clay fill containing occasional cobbles, boulders and bricks.

Due to the potential for encountering obstructions within the fill soils and the use of closed-end pipe piles (displacement piles), we recommend that provisions/contingencies be provided in the CDs for pre-augering and/or spudding proposed pile locations on the land and water sides of the seawall, respectively, to clear obstructions prior to pile driving. We also recommend that pile locations on the land side of the seawall be pre-augered to approximately El. -10 and pile locations on the water side of the seawall be spudded to approximately 10 ft below mudline. Riprap stone is present at ground surface on the water side of the seawall (plan extent unknown) and may need to be removed/displaced by physical means (e.g., by use of spuds or with an excavator bucket) prior to pile driving.

Pre-augering and/or spudding pile locations, as recommended herein, will help to limit but not eliminate pile driving induced vibrations, which we anticipate could be greater than ½ in. per second (ips). It is possible that pile driving will cause movement of the seawall either laterally or vertically. Therefore, we recommend that visual observation of the seawall be conducted throughout pile driving to document and quantify any impact pile driving may have on seawall stability. Since details of seawall construction are unknown, it is possible that the seawall will require some level of repair/remediation after pile driving is complete. We suggest that a budget contingency to remediate possible damage to the seawall be included in the project's overall budget.

Based on historic seawall photographs in our project files and as discussed in previous portions of this report, we anticipate that the seawall was constructed on timber cribbing placed directly in/on harbor bottom soils. The actual plan footprint of the timber cribbing in the pier infill area is not known. Therefore, it is possible that the timber cribbing may be encountered during pile driving. If encountered, the Contractor may need to stop impact driving and mobilize specialty equipment to core/auger through the timber cribbing.

PILE HEAVE

Displacement piles (i.e., closed-end steel pipe, PPC and timber piles) displace a volume of soil approximately equal to the volume of the pile during driving. When displacement piles are driven in close proximity to one another or in large groups, the soil is displaced laterally and upward. The upward movement of the soil can cause previously driven piles to become unseated, requiring redriving.

Based on our review of the 90 Percent Design Drawings (see Appendix C) and our email correspondence with you, it is our understanding that piles along column lines 29 and 29.2 will be spaced 2.5 ft center-to-center. As a result, we recommend that provisions be included in the CDs that require the Contractor to check for pile heave immediately after a pile is driven, and prior to driving an adjacent pile. The provisions should include establishing a reference point and its elevation on the piles after driving. If uplift of 0.04 feet or more has occurred after driving adjacent piles, the pile should be redriven to its original elevation, and deeper if necessary, to the accepted final pile driving criteria. After redriving each pile, the Contractor should re-establish the elevation of the reference point and redriving should be repeated as often as necessary until the measured uplift on any pile is less than 0.04 ft.

Preparation of Contract Documents

The CDs should be written so that the requirements of the documents are consistent with the design intent of the geotechnical recommendations summarized herein. In accordance with our mutually agreed upon work scope, Haley & Aldrich is planning to review and comment on geotechnical aspects of the CDs, which will include but may not be limited to the following: test boring logs plans, pier plan and general notes, pier framing and elevation plan, detail plans and pile installation and testing.

Construction Monitoring and Submittal Reviews

The CDs will require the Contractor and the Contractor's engineer to perform analyses and submit results to the designers for review (e.g., WEAP analyses for pile design). We recommend that Haley & Aldrich be allowed to review the geotechnical-related submittals to ensure that the Contractor's analyses/submittals are in accordance with the intent of the design as outlined.

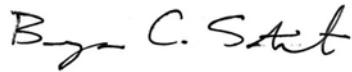
The recommendations contained herein are based on the predictable behavior of a properly engineered and constructed foundation. Monitoring of the foundation installation is required to enable the geotechnical engineer-of-record to verify that the procedures and techniques used during construction are in accordance with the recommendations contained herein and the CDs and to comply with Section 1810.3.2.8 of the IBC Code. Therefore, it is recommended that an experienced geotechnical engineer be present during construction to:

- Observe and document demolition of the terminal building foundations prior to indicator and production pile installation.
- Monitor the dynamic pile load test program (including restrikes) and aid in developing driving criteria for production pile installation based on the dynamic test results.
- Monitor production pile installation to confirm minimum installation requirements are achieved

Closure

We appreciate the opportunity to provide geotechnical engineering services on this project. Please do not hesitate to call if you have any questions or comments.

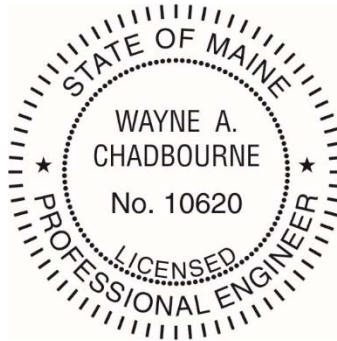
Sincerely yours,
HALEY & ALDRICH, INC.



Bryan C. Steinert, P.E.
Project Manager



Wayne A. Chadbourne, P.E.
Senior Associate



Enclosures:

Table I –	Subsurface Exploration Data
Figure 1 –	Project Locus
Figure 2 –	Site and Subsurface Exploration Location Plan
Appendix A –	Test Boring Logs
Appendix B –	Laboratory Test Results
Appendix C –	90 Percent Design Drawings

G:\PROJECTS\129950 - IMT pier infill phase ii\Deliverables\2017_1117_HAI_021942.06 IMT Pier Infill GT Report_F.docx

References

1. Memorandum entitled, "Geotechnical Design Memorandum – Proposed Pier Infill, Portland International Marine Terminal Improvements, Commercial Street, Portland, Maine, MaineDOT PIN 17820.00," prepared by Haley & Aldrich, Inc. for HNTB Corporation, dated 14 March 2011.
2. Report entitled, "Geotechnical Data Repot, Portland International Marine Terminal Improvements, Portland, Maine, PIN: 17820.00," prepared by Haley & Aldrich, Inc. for HNTB Corporation, dated 7 January 2011.
3. Report entitled, "Subsurface and Foundation Investigation for Proposed Renovations to International Ferry Terminal, Portland, Maine," prepared by Haley & Aldrich, Inc. for TEC Associates, dated 25 August 1992.
4. Report entitled, "Proposed Cargo Pier, Portland, Maine," prepared by Haley & Aldrich, Inc. for Childs Engineering Corporation, dated 8 January 1988.

G:\PROJECTS\129950 - IMT pier infill phase ii\Deliverables\2017_1117_HAI_021942.06 IMT Pier Infill GT Report_F.docx

TABLE I

Exploration Subsurface Data
Proposed Pier Infill
MaineDOT WIN 021942.06
International Marine Terminal
Portland, Maine

Haley & Aldrich, Inc. File No.:129950-002

Test Boring / Test Pit No. ¹	Ground Surface/Mudline Elevation ^{2,3}	Approximate Strata Thickness ^{4,5,6} (ft)							Approximate Elevation of Top of Bedrock ^{2,3}	Approximate Elevation of Bottom of Exploration ^{2,3}
		Bituminous Concrete / Fill	Harbor Bottom Deposit	Marine Sand	Marine Clay	Marine Sand	Ice Contact Deposit	Glacial Till		
<u>2017 Subsurface Exploration Program:</u>										
HA17-1	-5.4	NE	8.5	15.5	8.6	23.4	17.5	> 27.7	--	-106.6
HA17-2	14.7	17.0	18.0	NE	13.0	25.0	NE	> 37.2	--	-95.5
<u>1992 Subsurface Exploration Program:</u>										
B102	3.4	0.5	22.5	NE	9.0	33.0	9.0	> 5.8	--	-76.4
<u>1987 Subsurface Exploration Program:</u>										
B-6	23.5	21.0	16.0	NE	NE	30.0	34.5	> 2.1	--	-80.1

Notes:

¹ Test boring and test pit locations are shown on Figure 2, Site and Subsurface Exploration Location Plan.

² Ground surface elevations were determined by optical survey methods.

³ Elevations are measured in feet and reference the National Geodetic Vertical Datum of 1929 (NGVD 29).

⁴ "NE" indicates stratum was not encountered in test boring.

⁵ "--" indicates test boring was not drilled deep enough to determine presence of stratum.

⁶ "> 13.5" indicates test boring was not drilled deep enough to determine full thickness of stratum, which is greater than the value shown.

	Individual	Date
Prepared By:	BCS	9/7/2017
Checked By:	BCS	11/13/2017
Reviewed By:	WAC	11/17/2017



MAP SOURCE: ESRI

SITE COORDINATES: 43°38'51"N, 70°15'26"W



**HALEY
ALDRICH**

PROPOSED PIER INFILL
MAINEDOT WIN 021942.06
INTERNATIONAL MARINE TERMINAL
PORTLAND, MAINE

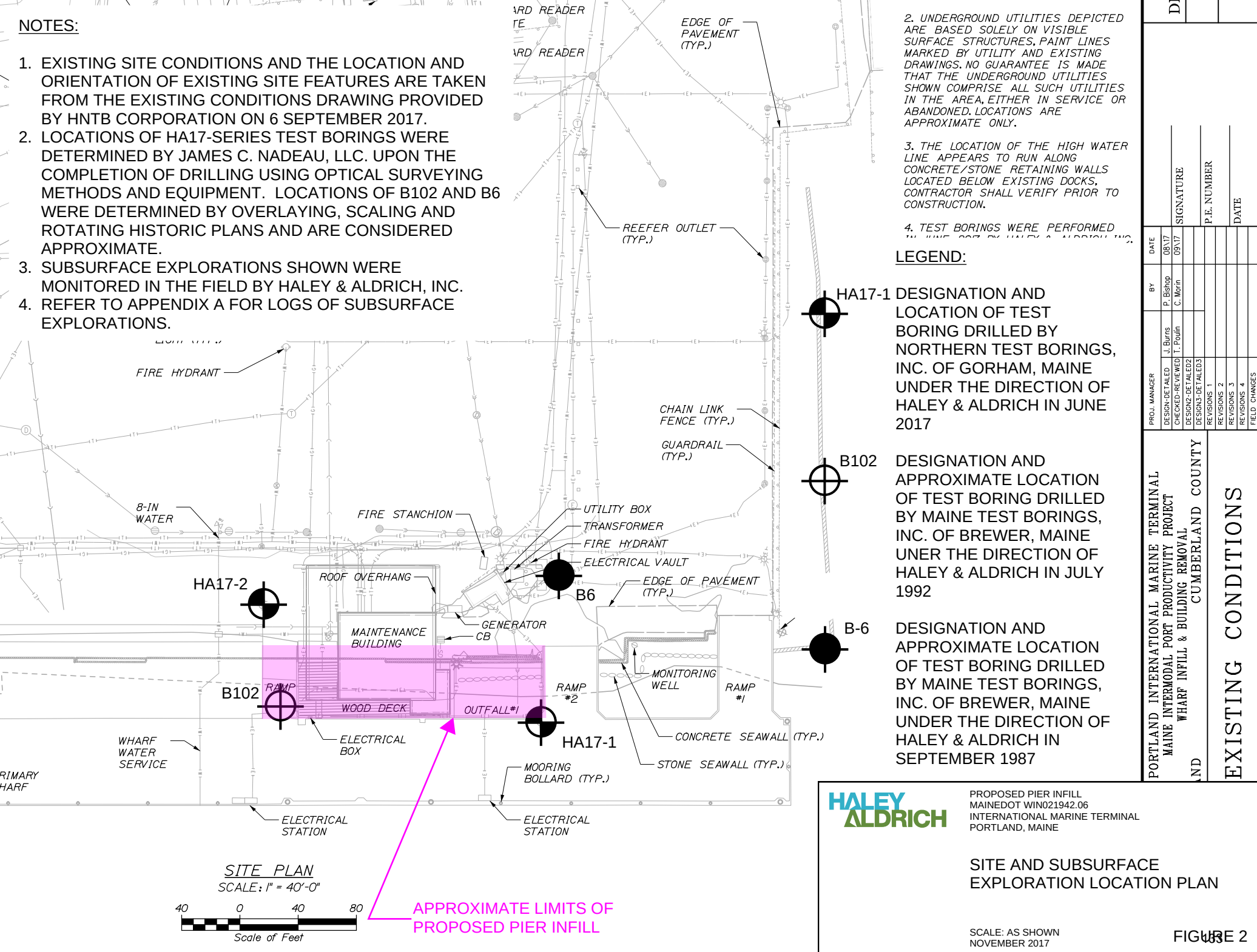
PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
NOVEMBER 2017

FIGURE 1

NOTES:

1. EXISTING SITE CONDITIONS AND THE LOCATION AND ORIENTATION OF EXISTING SITE FEATURES ARE TAKEN FROM THE EXISTING CONDITIONS DRAWING PROVIDED BY HNTB CORPORATION ON 6 SEPTEMBER 2017.
2. LOCATIONS OF HA17-SERIES TEST BORINGS WERE DETERMINED BY JAMES C. NADEAU, LLC. UPON THE COMPLETION OF DRILLING USING OPTICAL SURVEYING METHODS AND EQUIPMENT. LOCATIONS OF B102 AND B6 WERE DETERMINED BY OVERLAYING, SCALING AND ROTATING HISTORIC PLANS AND ARE CONSIDERED APPROXIMATE.
3. SUBSURFACE EXPLORATIONS SHOWN WERE MONITORED IN THE FIELD BY HALEY & ALDRICH, INC.
4. REFER TO APPENDIX A FOR LOGS OF SUBSURFACE EXPLORATIONS.



APPENDIX D

Hazardous Material Reports

The following certification documents are attached:

1. Report by Abatement Professionals, January 2018
2. Report by Abatement Professional, January 2011

**Renovation/Demolition Impact Survey
Bulk Sampling Services**

Prepared For:

**Craig R. Morin, P.E.
Project Manager
HNTB Corporation
340 County Road, Suite 6-C
Westbrook, Maine 04092
Email: cmorin@HNTB.com**

**Project Location:
Portland International Marine Terminal
Commercial Street
Portland, Maine**

From:

Robert Rickett
President
Abatement Professionals Corp
590 County Rd Suite #2
Westbrook, Maine 04092

January 17, 2018

January 12, 2018

Craig R. Morin, P.E.
Project Manager
HNTB Corporation
340 County Road, Suite 6-C
Westbrook, Maine 04092

Dear Mr. Morin:

Abatement Professionals Corp was retained by HNTB Corp to perform an impact demolition survey of the Portland International Marine Terminal Maintenance Building; Commercial Street, Portland, Maine.

A site visit was conducted on January 9th, 2018 for the purposes of collecting suspect samples of this buildings. Robert Rickett, Maine D.E.P. inspector number AI-0144, conducted this site inspection.

A total of three (3) Samples were collected and sent to Northeast Labs, Westbrook, Maine where they were analyzed by Polarized Light Microscopy (PLM) and (NOB) (EPA test method #600/M4-82-020) for asbestos.

The building complex is a metal frame, with metal siding and roofing. The insulation in the building is fiberglass with a vinyl covering. The main floor of the complex is bare concrete with some wood decking as part of the pier construction. One small area in the employee lounge with bathrooms has carpeting with a 12x12 VCT. I did collect sampling from this carpeting which results came back as negative for asbestos content. The only other area in the building that most likely contains asbestos is the old unused metalbestos chimney that extends from the upper level through the roof. Costing for the permitting and disposal of the metalbestos chimney should be carried at \$ 2,350.00.

Sample numbers range from B-1-A to B-1-C

Main Terminal Building material Inventory:

- There are approximately 123 Light Fixtures that contain either Mercury Vapor light tubes and metal halide light tubes. The total count of tubes in each device ranges from 2 feet to 4 feet light tubes and the metal halide lights each contain 1 tube. These light tubes need to be removed, properly packaged, and disposed of in accordance with the Maine DEP waste standards.

- There is also approximately 15 wall mounted thermostats that could have mercury tubes located in them, that need to be removed, checked and properly disposed of.
- All exit and emergency lighting needs to have any battery packs and light tubes removed for proper disposal.
- All light tubes need to have the light ballast checked for possible PCB ballast. (If a ballast has written on it, that "NO PCB's" exist then they can be disposed of as a light metal, if the ballast doesn't have a label on them, then these ballasts need to be collected and disposed of as PCB containing materials. Collection packaging and disposal of the universal waste should be carried at \$ 5,750.00

Lead based paint was not tested because the large steel beams have the red based primer paint which always test positive for lead containing materials additionally when we tested the steel beams on the other portions of the facility that came down all of the Steel beams were positive for Lead paint.

- Lead based paints for this project is an OSHA concern, workers handling these materials should have had the 2-hour OSHA awareness training for handling these materials, all steel should be "Cold Cut" and no open torches cutting should be allowed.

Cost considerations to perform the removal and disposal of the above listed materials should be figured at \$8,100.00, Abatement Pros could perform this service for you and your client, so that when the other demo contractors come on site there would be no Asbestos or Universal waste to be concerned with.

The State of Maine Department of Environmental Protection (DEP) considers a material to be an "asbestos containing material" when it is analyzed by PLM and found to contain greater than 1% asbestos

If you have any further questions or need additional information, please feel free to contact me at (207)-773-1276.

Sincerely,



Robert Rickett
President

Enclosures

Certificate of Analysis

Administrative Offices

Phone: 1-207-873-7711

Fax: 1-207-873-7022

Customer Service

Phone: 207-878-6481

Fax: 207-887-8387

**Analysis Report of Bulk Material via
EPA Method 600/R-93/116 Polarized
Light Microscopy**

Attention: Robert W Rickett Jr
Abatement Professionals Corp
590 County Rd Suite 2
Westbrook, ME 04092

Project Number: 17-387 IMT - Maintenance
PO Number: 17-387 IMT - Maintenance
Lab Range: 501800024-026
Received Date: 1/10/2018
Report Date: 1/11/2018

Sample ID	Description	Test	Analyzed Date	Analyst	Color	<u>Non-Asbestos</u>		Asbestos
						Fibrous	Non-Fibrous	
501800024	A1/12x12 Floor Tile	PLM NOB	1/11/2018	ASM	CREAM	--	06%	Not Detected
501800025	A2/12x12 Floor Tile	PLM NOB	1/11/2018	ASM	CREAM	--	09%	Not Detected
501800026	A3/12x12 Floor Tile	PLM NOB	1/11/2018	ASM	CREAM	--	09%	Not Detected

Should you have any questions concerning your asbestos test result(s), please feel free to call us. Thank you for using Northeast Laboratory Services. Contact NEL for your other environmental analytical needs, including water testing for lead and arsenic or indoor air quality.

Authorized By


Bill Sargent, Laboratory Manager

Review Date

1/11/2018

Analytical results and reports are generated by NEL at the request of and for the exclusive use of the person or entity (client) named on this report. Results, reports or copies of same will not be released by NEL to any third party without the prior express written consent from the client named in this report. This report applies only to those samples taken at the time, place and location referenced by the client. This report makes no express or implied warranty or guarantee as to the sampling methodology used by the individual performing the sampling. The client is solely responsible for the use and interpretation of these results and NEL makes no express or implied warranties as to such use or interpretation. NEL is not able to make and does not make a determination as to the environmental soundness, safety or health of a property from only the samples sent to their laboratory for analysis. Unless otherwise specified by the Client, NEL reserves the right to dispose of all samples after the testing of such samples is sufficiently completed or after a thirty-day period, whichever period is greater. NEL liability extends only to the cost of the testing. State of Maine license #LB-0082.

**Renovation/Demolition Impact Survey
Bulk Sampling Services**

Prepared For:

**Craig R. Morin, P.E.
Project Manager
HNTB Corporation
340 County Road, Suite 6-C
Westbrook, Maine 04092**

Project Location:

**Portland International Marine Terminal
Commercial Street
Portland, Maine**

From:

**Robert Rickett
President
Abatement Professionals Corp
590 County Rd Suite #2
Westbrook, Maine 04092**

January 14, 2011

January 9, 2011

Craig R. Morin, P.E.
Project Manager
HNTB Corporation
340 County Road, Suite 6-C
Westbrook, Maine 04092

Dear Mr. Morin:

Abatement Professionals Corp was retained by HNTB Corp to perform an impact demolition survey of the Portland International Marine Terminal; Commercial Street in Portland, Also included in this survey was the former customs building on this site.

A site visit was conducted on December 20, 2010 for the purposes of collecting suspect samples of these 2 buildings, Robert Rickett, Maine D.E.P. inspector number AI-0144, conducted this site inspection.

A total of thirty five (35) Samples were collected and sent to EMSL in New Jersey where they were analyzed by Polarized Light Microscopy (PLM) (EPA test method #600/M4-82-020) for asbestos content due to laying materials such as mastic adhesives etc a total of 61 samples ended up being the final count.

All samples locations were marked with a bulk sample number, pictures collected of the materials and logged into our system.

Sample numbers range from B-1-A to B-12-C, there is no sample B-6 (when I visited the site I had preprinted labels before my arrival on site, the wall systems because of the volume required that I collect 5 samples of this material and I had to use the labels for B-6 to finish carrying out my samples of B-5)

The following samples came back as containing greater than 1% asbestos:

- B-2-A Mastic Adhesive
- B-3-A Floor tile
- B-4-A Floor tile
- B-8-A Floor tile
- B-10-A Floor tile

Main Terminal Building material Inventory:

- ❖ Sample B-2-A consist of mastic adhesive under the flooring materials there is 14 Stair Risers and 35 S/F of plywood underlayment on the mid landing which is located under the negative 9x9 Black floor tiles.
- ❖ Sample B-3-A consist of 250 S/F of 12 x 12 tan colored floor tile located on the second floor level on a walkway that overlooks the main lobby.
- ❖ Sample B-4-A consist of 20 S/F of a tan colored 12x12 Floor tile located on the second floor level at the top landing of the second stairwell.
- ❖ Not sampled by assumed to be positive for asbestos are a few expansion gaskets on the main hot Air system within the terminal building. These gaskets are approx 25 feet in the air and I didn't have anything to allow me to collect samples, but historically these materials are always positive for asbestos and need to be treated as such.
 - There are approx 148 Light Fixtures that contain either Mercury Vapor light tubes and metal halide light tubes, the total count of tubes in each device ranges from 2-4 4 foot light tubes and the metal halide lights each contain 1 tube. These light tubes need to be removed, properly packaged and disposed of in accordance with the Maine DEP waste standards.
 - There is also approx 20 wall mounted thermostats that could have mercury tubes located in them, that need to be removed, checked and properly disposed of.
 - All exit and emergency lighting needs to any battery packs and light tubes removed for proper disposal.
 - All light tubes need to have the light ballast checked for possible PCB ballast. (if a ballast has written on it, that "NO PCB's" exist then they can be disposed of as a light metal, if the ballast don't have a label on them, then these ballast need to be collected and disposed of as PCB containing materials.

Customs Building Material Inventory:

- ❖ Sample B-8-A consist of approx 275 S/F of 12 x 12 floor tiles which are located on the first floor level of this building behind the service counter.
- ❖ Sample B-10-A consist of approx 80 S/F of red 9x9 floor tile in the mechanical room on the first floor level of this building.
 - This building also has approx 18 interior light fixtures and 19 exterior light fixtures that all have either mercury vapor light tubes or metal Halide bulbs, which need to be removed and properly disposed of.
 - All light tubes need to have the light ballast checked for possible PCB ballast. (if a ballast has written on it, that "NO PCB's" exist then they can be disposed of as a light metal, if the ballast don't have a label on them, then these ballast need to be collected and disposed of as PCB containing materials.

Lead based paint was tested in 4 different locations and those are labeled as L-1 to L-4.

- Of the 4 locations tested for Lead L-4 showed a positive result, which was on the front of the building on the exterior.
 - Lead based paints for this project is an OSHA concern, workers handling these materials should have had the 2 hour OSHA awareness training for handling these materials, all steel should be “Cold Cut” and no open torches cutting should be allowed.

Cost considerations to perform the removal and disposal of the above listed materials should be figured at \$10,000.00-\$12,500.00, Abatement Pros could perform this service for you and your client, so that when the other demo contractors come on site there would be no Asbestos or Universal waste to be concerned with.

The State of Maine Department of Environmental Protection (DEP) considers a material to be an “asbestos containing material” when it is analyzed by PLM and found to contain greater than 1% asbestos

If you have any further questions or need additional information please feel free to contact me at (207)-773-1276.

Sincerely,



Robert Rickett
President

Enclosures



Main Entrance

Sample # / Approx. Location

 Vinyl Asbestos Floor Tile

Asbestos Containing Mastic

Abatement Professionals Corp.

Client:

HNTB CORPORATION

Project:

PORTLAND INTERNATIONAL

MARINE TERMINAL

Commerical Street - Portland

Date:	1/14/11	Drawn:	BMB	Scale:	N/A	Apr:	File:	PMT1.dwg

Page 1 of 1

MAIN TERMINAL 2ND FLOOR ACBM LOCATIONS

20 SF 12"x12" Floor Tile

14 Ea. Stair Risers
35 SF Mastic Covered Plywood

215 SF 12"x12" Floor Tile

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (800) 220-3675 Fax: (856) 786-5974 Email: westmontaslab@EMSL.com

Attn: **Robert W Rickett**
Abatement Professionals Corp.
590 County Road
Westbrook, ME 04092

Fax: (207) 772-1203 Phone: (207) 773-1276
Project: **APC-10-440/PORTLAND INTERNATIONAL MARINE**

Customer ID: ABAT52
Customer PO: 140
Received: 12/23/10 10:30 AM
EMSL Order: 041029614
EMSL Proj:
Analysis Date: 1/6/2011

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B-1-A-Floor Tile 041029614-0001		Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-1-A-Mastic 041029614-0001A		Brown Non-Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
B-1-B-Floor Tile 041029614-0002		Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-1-B-Mastic 041029614-0002A		Brown Non-Fibrous Heterogeneous	35% Cellulose	65% Non-fibrous (other)	None Detected
B-1-C-Floor Tile 041029614-0003		Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-1-C-Mastic 041029614-0003A		Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-2-A-Floor Tile 041029614-0004		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected

Initial report from 01/06/2011 16:18:54

Analyst(s)

Gregory Mortka (27)
Leslie McCluskey (23)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. The test results contained within this report meet the requirements of NELAC unless otherwise specified. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (800) 220-3675 Fax: (856) 786-5974 Email: westmontaslab@EMSL.com

Attn: **Robert W Rickett**
Abatement Professionals Corp.
590 County Road
Westbrook, ME 04092

Fax: (207) 772-1203 Phone: (207) 773-1276

Project: **APC-10-440/PORTLAND INTERNATIONAL MARINE**

Customer ID: ABAT52
Customer PO: 140
Received: 12/23/10 10:30 AM
EMSL Order: 041029614

EMSL Proj:
Analysis Date: 1/6/2011

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B-2-A-Mastic 041029614-0004A		Yellow Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
B-2-B-Floor Tile 041029614-0005		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-2-B-Mastic 041029614-0005A					Stop Positive (Not Analyzed)
B-2-C-Floor Tile 041029614-0006		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-2-C-Mastic 041029614-0006A					Stop Positive (Not Analyzed)
B-3-A-Floor Tile 041029614-0007		White/Grayish Non-Fibrous Heterogeneous		97% Non-fibrous (other)	3% Chrysotile
B-3-A-Mastic 041029614-0007A		Black Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (other)	None Detected

Initial report from 01/06/2011 16:18:54

Analyst(s)

Gregory Mortka (27)

Leslie McCluskey (23)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (800) 220-3675 Fax: (856) 786-5974 Email: westmontasblab@EMSL.com

Attn: **Robert W Rickett**
Abatement Professionals Corp.
590 County Road
Westbrook, ME 04092

Fax: (207) 772-1203 Phone: (207) 773-1276

Project: **APC-10-440/PORTLAND INTERNATIONAL MARINE**

Customer ID: ABAT52
Customer PO: 140
Received: 12/23/10 10:30 AM
EMSL Order: 041029614

EMSL Proj:
Analysis Date: 1/6/2011

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B-3-B-Floor Tile 041029614-0008					Stop Positive (Not Analyzed)
B-3-B-Mastic 041029614-0008A		Black Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
B-3-C-Floor Tile 041029614-0009					Stop Positive (Not Analyzed)
B-3-C-Mastic 041029614-0009A		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-4-A-Floor Tile 041029614-0010		Tan Non-Fibrous Heterogeneous		98% Non-fibrous (other)	2% Chrysotile
B-4-A-Mastic 041029614-0010A		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
B-4-B-Floor Tile 041029614-0011					Stop Positive (Not Analyzed)

Initial report from 01/06/2011 16:18:54

Analyst(s)

Gregory Mortka (27)
Leslie McCluskey (23)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (800) 220-3675 Fax: (856) 786-5974 Email: westmontaslab@EMSL.com

Attn: **Robert W Rickett**
Abatement Professionals Corp.
590 County Road
Westbrook, ME 04092

Fax: (207) 772-1203 Phone: (207) 773-1276
Project: **APC-10-440/PORTLAND INTERNATIONAL MARINE**

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Customer PO: 140
Received: 12/23/10 10:30 AM
EMSL Order: 041029614
EMSL Proj:
Analysis Date: 1/6/2011

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B-4-B-Mastic 041029614-0011A		Black Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (other)	None Detected
B-4-C-Floor Tile 041029614-0012					Stop Positive (Not Analyzed)
B-4-C-Mastic 041029614-0012A		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-5-A-Drywall 041029614-0013		Brown/Gray Fibrous Heterogeneous	20% Cellulose 4% Glass	76% Non-fibrous (other)	None Detected
B-5-A-Joint Compound 041029614-0013A		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-5-B-Drywall 041029614-0014		Brown/Gray Fibrous Heterogeneous	45% Cellulose 3% Glass	52% Non-fibrous (other)	None Detected
B-5-B-Joint Compound 041029614-0014A		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Initial report from 01/06/2011 16:18:54

Analyst(s)

Gregory Mortka (27)
Leslie McCluskey (23)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (800) 220-3675 Fax: (856) 786-5974 Email: westmontaslab@EMSL.com

Attn: **Robert W Rickett**
Abatement Professionals Corp.
590 County Road
Westbrook, ME 04092

Fax: (207) 772-1203 Phone: (207) 773-1276

Project: **APC-10-440/PORTLAND INTERNATIONAL MARINE**

Customer ID: ABAT52
Customer PO: 140
Received: 12/23/10 10:30 AM
EMSL Order: 041029614

EMSL Proj:
Analysis Date: 1/6/2011

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B-5-C-Drywall 041029614-0015		Brown/Gray Fibrous Heterogeneous	30% Cellulose 4% Glass	66% Non-fibrous (other)	None Detected
B-5-C-Joint Compound 041029614-0015A		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-5-D-Drywall 041029614-0016		Brown/Gray Fibrous Heterogeneous	30% Cellulose 3% Glass	67% Non-fibrous (other)	None Detected
B-5-D-Joint Compound 041029614-0016A		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-5-E-Drywall 041029614-0017		Brown/Gray Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
B-5-E-Joint Compound 041029614-0017A		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-7-A 041029614-0018		Gray Fibrous Heterogeneous	90% Min. Wool	10% Non-fibrous (other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos	
			% Fibrous	% Non-Fibrous	% Type	
B-7-B 041029614-0019		Gray Fibrous Heterogeneous	90% Min. Wool	10% Non-fibrous (other)		None Detected
B-7-C 041029614-0020		Gray Fibrous Heterogeneous	75% Min. Wool 15% Cellulose	10% Non-fibrous (other)		None Detected
B-8-A-Floor Tile 041029614-0021		Gray Non-Fibrous Homogeneous		98% Non-fibrous (other)		2% Chrysotile
B-8-A-Mastic 041029614-0021A		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)		None Detected
B-8-B-Floor Tile 041029614-0022						Stop Positive (Not Analyzed)
B-8-B-Mastic 041029614-0022A		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)		None Detected
B-8-C-Floor Tile 041029614-0023						Stop Positive (Not Analyzed)

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B-8-C-Mastic 041029614-0023A		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-9-A-Floor Tile 041029614-0024		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-9-A-Mastic 041029614-0024A		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-9-B-Floor Tile 041029614-0025		White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-9-B-Mastic 041029614-0025A		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-9-C-Floor Tile 041029614-0026		White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-9-C-Mastic 041029614-0026A					Insufficient Material

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B-10-A-Floor Tile 041029614-0027		Red Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
B-10-A-Mastic 041029614-0027A		Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-10-B-Floor Tile 041029614-0028					Stop Positive (Not Analyzed)
B-10-B-Mastic 041029614-0028A		Brown Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
B-10-C-Floor Tile 041029614-0029					Stop Positive (Not Analyzed)
B-10-C-Mastic 041029614-0029A		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
B-11-A 041029614-0030		Gray Fibrous Heterogeneous	25% Min. Wool 5% Cellulose	70% Non-fibrous (other)	None Detected

Initial report from 01/06/2011 16:18:54

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590 County Road
Westbrook, ME 04092

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
B-11-B 041029614-0031		Gray Fibrous Heterogeneous	25% Min. Wool 5% Cellulose	70% Non-fibrous (other)	None Detected
B-11-C 041029614-0032		Gray Non-Fibrous Heterogeneous	30% Min. Wool 5% Cellulose	65% Non-fibrous (other)	None Detected
B-12-A 041029614-0033		Cream Non-Fibrous Heterogeneous	25% Cellulose 5% Glass	70% Non-fibrous (other)	None Detected
B-12-B 041029614-0034		Cream Fibrous Heterogeneous	25% Cellulose 5% Glass	70% Non-fibrous (other)	None Detected
B-12-C 041029614-0035		White Non-Fibrous Heterogeneous	30% Cellulose 5% Glass	65% Non-fibrous (other)	None Detected

ME CERT # BA-0122 (GM)/BA-0123(LM)

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041029614

590 County Road, Suite 2, Westbrook ME 04092

Tel (207) 773-1276 * Fax (207) 772-1203

EMSL Analytical, Inc
Revised 07/07/99

CHAIN OF CUSTODY

ASBESTOSEMSL Rep: **Paul Nyfield**

Third Party Billing requires written authorization from third party

Your Company Name: **Abatement Professionals Corp**
590 County Rd Suite #2
Westbrook, Maine 04092EMSL- Bill to: **ABAT52**Fax Results: Robert **Rickett**
Telephone #: **207-773-1276**E-mail Results:
rrickett@abatementpros.comProject APC-10-440
Name/Number: Portland International MarinePurchase Order # **140**

MATRIX				TURNAROUND			
☐ Air	☐ Soil	☐ Micro-Vac		☐ 3 Hrs	☐ 6 Hrs	☐ 12 Hrs *	☐ 1 Day
☐ X Bulk	☐ Drinking Water			☐ 2 Days	☐ 3 Days	☐ 4 Days	☐ 5 Days
☐ Wipe	☐ Waste Water			6-10 Days			

Please call ahead to schedule TEM AIR, 3 hours, 6 hours. There is a premium charge for 3 hour TAT; call 1-800-220-3675 for price prior to sending samples
You will be asked to sign an authorization form for this service

* 12 Hours must arrive by 11:00am Mon-Fri. Please refer to Price Quote

PCM- AIR ☐ NIOSH 7400 (A) Issue 2: August 1994 ☐ OSHA w/TWA ☐ Other:	TEM-AIR ☐ AHERA 40 CFR, Part 763 Subpart E ☐ NIOSH 7402 Issue 2 ☐ EPA Level II	TEM-WATER ☐ EPA 100.1 ☐ EPA 100.2 ☐ NYS 198.2
PLM-Bulk ☒ EPA 600/R-93/116-Test Till Positive ☐ EPA Point Count 400 ☐ NY Stratified Point Count ☐ PLM NOB (Gravimetric) NYS 198.1 ☐ NIOSH 9002 ☐ EMSL Standard Addition	TEM-Bulk ☐ Drop Mount (Qualitative) ☐ Chatfield SOP-1988-02 ☐ TEM NOB (Gravimetric) NY 198.4 ☐ EMSL Standard Addition	TEM Micro Vac/wipe ☐ ASTM D 5755-95 ☐ Wipe Qualitative
SEM Air or Bulk ☐ Qualitative ☐ Quantitative	PLM Soil ☐ EPA Protocol Qualitative ☐ EPA Protocol Quantitative ☐ EMSL MSD 9000 Method fibers/gram	XRD ☐ Asbestos ☐ Silica NIOSH 7500
		OTHER ☐

Client Sample # (s) B-1-A-B- B-13-C

Total Sample #: 35

Relinquished: *[Signature]*

Date: 12-21-10

Time: 9:00 AM

Received: _____

Date: _____

Time: _____

Relinquished: _____

Date: _____

Time: _____

Received: *[Signature]*

Date: 12-23-10

Time: _____

10 DEC 23 AM 11:51

SAMPLES ACCEPTED
FOR ANALYSIS BY
EMSL ANALYTICAL, INC.



State of Maine
Department of Environmental Protection

LICENSE

Abatement Professionals Corp.

Asbestos Abatement Contractor
(Full)

License Number: CF-0012

Expiration Date: 06/30/2011



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

June 15, 2010

Attn.: Robert Rickett, President
Abatement Professionals Corp.
590 County Road, Suite 2
Westbrook, Maine 04092

Dear Mr. Rickett:

This letter is in reference to your renewal application for licensure as an **Asbestos Abatement Contractor (Full)**.

This office has received and completed the review of your application and finds it to be in accordance with the requirements of Maine Asbestos Management Regulations Chapter 425, effective May 29, 2004.

Your application has been approved and your firm is licensed to provide asbestos contractor service(s) as described on the enclosed certificate.

Your renewal license number remains at **CF-0012** which is in effect for one year and will expire on June 30, 2011. A renewal application should be filed not less than thirty (30) days prior to expiration of this licensure. Thank you for your continued service to the people of the State of Maine.

If you have any questions please call me at (207) 287-7751.

Sincerely,

Sandra J. Moody, Environmental Technician
Division of Solid Waste Management
Bureau of Remediation and Waste Management

Enclosure



State of Maine
Department of Environmental Protection

LICENSE

Abatement Professionals Corp.

Asbestos Consultant
(Full)

License Number: SF-0028

Expiration Date: 06/30/2011



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

June 15, 2010

Attn.: Robert Rickett, President
Abatement Professionals Corp.
590 County Road, Suite 2
Westbrook, Maine 04092

Dear Mr. Rickett:

This letter is in reference to your renewal application for licensure as an **Asbestos Consultant (Full)**.

This office has received and completed the review of your application and finds it to be in accordance with the requirements of Maine Asbestos Management Regulations Chapter 425, effective May 29, 2004.

Your application has been approved and your firm is licensed to provide asbestos consulting service(s) as described on the enclosed certificate.

Your renewal license number remains at **SF-0028** which is in effect for one year and will expire on June 30, 2011. A renewal application should be filed not less than thirty (30) days prior to expiration of this licensure. Thank you for your continued service to the people of the State of Maine.

If you have any questions please call me at (207) 287-7751.

Sincerely,

Sandra J. Moody, Environmental Technician
Division of Solid Waste Management
Bureau of Remediation and Waste Management

Enclosure

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
626(07)	Conduit Trench for Traffic Signals, Highway Signing and Lighting	5/17/2018
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
609(9)	Concrete Slipform Curb	5/06/2018

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 107 **TIME**

107.7.2 SCHEDULE OF LIQUIDATED DAMAGES

Revise this section by removing the numbers in the chart and replace with the following:

Original Contract Amount		Per Diem Amount of Liquidated Damages	
From More Than	To and Including	Calendar Day	
\$ 0	to \$ 100,000.00		\$250.00
\$ 100,000.00	to \$ 250,000.00		\$500.00
\$ 250,000.00	to \$ 500,000.00		\$650.00
\$ 500,000.00	to \$1,000,000.00		\$800.00
\$1,000,000.00	to \$2,000,000.00		\$1,000.00
\$2,000,000.00	to \$4,000,000.00		\$1,200.00
\$4,000,000.00	and More		\$2,100.00

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."

SECTION 110 **INDEMNIFICATION, BONDING AND INSURANCE**

110.3.9 Administrative & General Provisions

B. Defense of Claims Amend this section by adding the following sentence to the end:
“The Contractor’s insurer shall name the Department of Transportation as a released party (Releasee”) on any release or settlement agreement for settled claims.”

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.”

203.09 Preparation of Embankment Area Revise the first sentence of the second paragraph so that it reads:

“When fill material is placed against existing slopes or previously placed fill, the interface shall be continuously benched by excavating steps of sufficient width to permit operations of placing and compacting the additional material.”

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

307.102 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 underground service connections that are constructed in trenches and carrying Secondary Utility Power to a MaineDOT meter and breaker panel, or, directly to MaineDOT traffic signalization control cabinets or lighting breaker boxes shall be in Rigid Metal 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 PVC conduit placed in trench sections and carrying Secondary Utility Power 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 constructed as underground service connections in trenches and carrying Secondary Utility Power to a MaineDOT meter and breaker panel, or, directly to MaineDOT traffic signalization control cabinets or 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 Marking Line - Plan Quantity	Linear Foot
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 Type XI, 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. Paddles in existing stock meeting the current specification (Type VII, Type VIII, or Type IX) may be utilized until the end of the service life or until 12/31/18. All new paddles must meet the Type XI requirements.”

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 709

REINFORCING STEEL AND WELDED STEEL WIRE FABRIC

709.01 Reinforcing Steel Revise this section by removing the sentence starting with “The chemical composition...” in the third paragraph and replace it with the following:
“The chemical composition shall conform to one of the types listed in Table 2 of ASTM A955 or UNS S32304 Duplex.”

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, UC4A, 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" (expmmt.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: 21942.06

Date Submitted: 6/22/18

Town: Portland

CPD Team Leader: Kristen Chamberlain

ENV Field Contact: Val Derosier

NEPA Complete: Programmatic Categorical Exclusion 771.117(c)30; sent to FHWA and MARAD 6/22/18

☒	Section 106 SHPO Concurrence -No Effect Section 106 Resources: None		
☒	Section 4(f) and 6(f) <u>Section 4(f)</u> Review Complete -No Section 4(f) Properties <u>Section 6(f)</u> Not Applicable		
☒	Maine Department of Inland Fisheries and Wildlife Essential Habitat Not Applicable Timing Window: Not Applicable		
☒	Section 7 Species of Concern: Northern Long-Eared Bat- No Effect Comments/References: No bat presence; no removal of suitable habitat. Species of Concern: Atlantic and Shortnose sturgeon -Not Likely to Adversely Affect Comments/References: ACOE lead; completed ESA consultation via Programmatic with NMFS.		
☒	Essential Fish Habitat Minimal Adverse Effect - Consultation complete		
☒	Maine Department of Conservation/Public Lands, Submerged Land Lease Not Applicable		
☒	Maine Land Use Regulation Commission Not applicable		
☒	Maine Department of Environmental Protection <u>Permit by Rule (PBR)</u> <i>*Applicable Standards and Permits are included with the contract</i>		
☒	Army Corps of Engineers, Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. <u>Category 2</u> <i>*Applicable Standards and Permits are included with the contract</i>		
☒	Stormwater Review N/A		
☒	Special Provisions Required		
	Special Provision 105-Timing of Work Restriction	N/A ☒	Applicable ☐
	Special Provision 656-Minor Soil Disturbance	N/A ☒	Applicable ☐
	<u>Standard Specification 656-Erosion Control Plan</u>	N/A ☐	<u>Applicable</u> ☒
	Special Provision 203-Dredge Spec	N/A ☒	Applicable ☐
	General Note for Hazardous Waste	N/A ☒	Applicable ☐
	Special Provision 203-Hazardous Waste	N/A ☒	Applicable ☐
	Special Provision 105.9	N/A ☒	Applicable ☐

*All permits and approvals based on plans/scope as of: 1/2018

DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT BY RULE NOTIFICATION FORM
 (For use with DEP Regulation, Natural Resources Protection Act- Permit by Rule Standards, Chapter 305)
 PLEASE TYPE OR PRINT IN BLACK INK ONLY

APPLICANT INFORMATION (Owner)		AGENT INFORMATION (If Applying on Behalf of Owner)	
Name:	MaineDOT	Name:	Kristen Chamberlain
Mailing Address:	16 State House Station	Mailing Address:	16 State House Station
Town:	Augusta	Town:	Augusta
State and Zip Code:	ME 04333	State and Zip Code:	ME 04333
Daytime Phone #:	(207) 624-3000	Daytime Phone #:	(207) 557-5089
Email Address:		Email Address:	kristen.chamberlain@maine.gov

PROJECT INFORMATION			
Part of a larger project? (check one):	☐ Yes ☒ No	After the Fact? (check one):	☐ Yes ☒ No
		Project involves work below mean low water? (check one):	☒ Yes ☐ No
Project Town:	Portland	Project Location (Address):	Commercial Street
Brief Project Description:	Wharf Improvements (see attached)		
Brief Directions to Site:	Commercial Street immediately north of Casco Bay Bridge		

PERMIT BY RULE (PBR) SECTIONS (Check at least one): I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Rules, Chapter 305. **I and my agents, if any, have read and will comply with all of the standards in the Sections checked below.**

☐ Sec. (2) Act. Adj. to Protected Natural Res.	☐ Sec. (10) Stream Crossing	☐ Sec. (17) Transfers/Permit Extension
☐ Sec. (3) Intake Pipes	☐ Sec. (11) State Transportation Facil.	☐ Sec. (18) Maintenance Dredging
☐ Sec. (4) Replacement of Structures	☐ Sec. (12) Restoration of Natural Areas	☐ Sec. (19) Activities in/on/over significant vernal pool habitat
☐ Sec. (5) REPEALED	☐ Sec. (13) F&W Creation/Enhance/Water Quality Improvement	☐ Sec. (20) Activities located in/on/over high or moderate value inland waterfowl & wading bird habitat or shorebird feeding & roosting areas
☐ Sec. (6) Movement of Rocks or Vegetation	☐ Sec. (14) REPEALED	
☐ Sec. (7) Outfall Pipes	☐ Sec. (15) Public Boat Ramps	
☐ Sec. (8) Shoreline stabilization	☐ Sec. (16) Coastal Sand Dune Projects	
☐ Sec. (9) Utility Crossing		

NOTE: Municipal permits may also be required. Contact your local code enforcement office for more information. Federal permits may be required for stream crossings and for projects involving wetland fill. Contact the Army Corps of Engineers at the Maine Project Office for more information.

NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS

- ☒ **Attach** all required submissions for the PBR Section(s) checked above. The required submissions for each PBR Section are outlined in Chapter 305 and may differ depending on the Section you are submitting under.
- ☐ **Attach** a check for the correct fee made payable to: "Treasurer, State of Maine". The State Agency-Internal Billing
- ☐ **Attach** a location map that clearly identifies the site (U.S.G.S. topo map, Maine Atlas & Gazetteer, or similar).
- ☐ **Attach Proof of Legal Name** if applicant is a corporation, LLC, or other legal entity. Provide a copy of Secretary of State's registration information (available at <http://icrs.informe.org/nei-sos-icrs/ICRS?MainPage=x>) Individuals and municipalities are not required to provide any proof of identity.

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules.

I also understand that this PBR becomes effective 14 calendar days after receipt by the Department *unless the Department approves or denies the PBR prior to that date.*

By signing this Notification Form, I represent that the project meets all applicability requirements and standards in the rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.

Signature of Agent or Applicant:	Kristen Chamberlain	Digitally signed by Kristen Chamberlain DN: cn=Kristen Chamberlain, o=MaineDOT, ou=Environmental Office, email=kristen.chamberlain@maine.gov, c=US Date: 2018.04.24 10:11:50 -0400	Date:

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

AUGUSTA DEP
17 STATE HOUSE STATION
AUGUSTA, ME 04333-0017
(207) 287-7688

PORTLAND DEP
312 CANCO ROAD
PORTLAND, ME 04103
(207) 822-6300

BANGOR DEP
106 HOGAN ROAD
BANGOR, ME 04401
(207) 941-4570

PRESQUE ISLE DEP
1235 CENTRAL DRIVE
PRESQUE ISLE, ME 04769
(207) 764-0477

OFFICE USE ONLY	CK.# _____	Date <u>4/25/2018</u>	Staff <u>A. Arbo</u>	Staff <u>H. Arbo</u>	
PBR # <u>65688</u>	FP _____	Acc. Date <u>6/11/18</u>	Def. Date <u>5/8/18</u>	After Photos	

Resubmitted 6/11/18

11. State transportation facilities

A. Applicability

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

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

B. Standards

- (1) Photographs of the area to be altered by the activity must be taken before work on the site begins. The photographs must be kept on file and be made available at the request of the DEP.
- (2) The activity must be reviewed by the Department of Inland Fisheries and Wildlife and the Department of Marine Resources, as applicable. The applicant must coordinate with the reviewing agencies and incorporate any recommendations from those agencies into the performance of the activity.
- (3) All construction activities undertaken must be detailed in a site-specific Soil Erosion and Water Pollution Control Plan and conducted in accordance with MaineDOT's Best Management Practices for Erosion and Sediment Control, dated January 2000, and Standard Specifications, dated December 2002.
- (4) Alignment changes may not exceed a distance of 200 feet between the old and new center lines in any natural resource.
- (5) The activity may not alter more than 300 feet of shoreline (both shores added together) within a mile stretch of any river, stream or brook, including any bridge width or length of culvert.
- (6) The activity may not alter more than 150 feet of shoreline (both shores added together) within a mile stretch of any outstanding river segment identified in 38 M.R.S.A. 480-P, including any bridge width or length of culvert.
- (7) The activity must minimize wetland intrusion. The activity is exempt from the provisions of Chapter 310, the Wetland and Waterbodies Protection Rules, if the activity alters less than 15,000 square feet of natural resources per mile of roadway (centerline measurement) provided that the following impacts are not exceeded within the 15,000 square foot area:
 - (a) 1,000 square feet of coastal wetland consisting of salt tolerant vegetation or shellfish habitat; or

(b) 5,000 square feet of coastal wetland not containing salt tolerant vegetation or shellfish habitat; or

(c) 1,000 square feet of a great pond.

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

- (8) The activity may not permanently block any fish passage in any watercourse containing fish. The applicant must coordinate with the reviewing agencies listed in paragraph 2 above to improve fish passage and incorporate any recommendations from those agencies into the performance of the activity.

NOTE: For guidance on meeting the design objectives for fish passage, including peak flow, maximum velocity, mining depth and gradient, see the MaineDOT Waterbody and Wildlife Crossing Policy and Design Guide (July 2008), developed in conjunction with state and federal resource and regulatory agencies.

- (9) Rocks may not be removed from below the normal high water line of any coastal wetland, freshwater wetland, great pond, river, stream or brook except to the minimum extent necessary for completion of work within the limits of construction.
- (10) If work is performed in a river, stream or brook that is less than three feet deep at the time and location of the activity, the applicant must isolate the work area from the resource and divert stream flows around the work area, maintaining downstream flows while work is in progress.
- (11) Wheeled or tracked equipment may not operate in the water. Equipment operating on the shore may reach into the water with a bucket or similar extension. Equipment may cross streams on rock, gravel or ledge bottom. If avoiding the operation of wheeled or tracked equipment in the water is not possible, the applicant must explain the need to operate in the water. Approval from the DEP to operate in the water must be in writing, and any recommendations from the DEP must be incorporated into the performance of the activity.
- (12) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms.
- (13) Any debris or excavated material must be stockpiled either outside the wetland or on mats or platforms. Erosion and sediment control best management practices must be used, where necessary, to prevent sedimentation. Any debris generated during the activity must be prevented from washing downstream and must be removed from the wetland or water body. Disposal of debris must be in conformance with the Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 *et seq.*
- (14) Work below the normal high water line of a great pond, river, stream or brook must be done at low water except for emergency work or work agreed to by the resource agencies listed in paragraph 2 above.
- (15) Perimeter controls must be installed before the work starts. Disturbance of natural resources beyond the construction limits shown on the plans is not allowed under this rule.

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

- (16) The use of untreated lumber is preferred. Lumber pressure treated with chromated copper arsenate (CCA) may be used only if necessary and only if use is allowed under federal law and not prohibited from sale under 38 M.R.S.A. 1682, and provided it is cured on dry land in a manner that exposes all surfaces to the air for a period of at least 21 days prior to construction. Wood treated with creosote or pentachlorophenol may not be used where it will contact water.
- (17) A temporary road for equipment access must be constructed of crushed stone, blasted ledge, or similar materials that will not cause sedimentation or restrict fish passage. Such roads must be completely removed at the completion of the activity. In addition, any such temporary roads which are in rivers, streams or brooks, must allow for a passage of stormwater flows associated with a 10-year storm.
- (18) Non-native species may not be planted in restored areas.
- (19) Disposal of debris must be in conformance with Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Sections 1301 *et seq.*
- (20) Disturbance of vegetation must be avoided, if possible. Where vegetation is disturbed outside of the area covered by any road or structure construction, it must be reestablished immediately upon completion of the activity and must be maintained.
- (21) A vegetated area at least 25 feet wide must be established and maintained between any new stormwater outfall structure and the high water line of any open water body. A velocity reducing structure must be constructed at the outlet of the stormwater outfall that will create sheet flow of stormwater, and prevent erosion of soil within the vegetated buffer. If the 25 foot vegetated buffer is not practicable, the applicant must explain the reason for a lesser setback in writing. Approval from the DEP must be in writing and any recommendations must be incorporated into the activity.

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

- (1) Diversion. The rerouting of a river, stream or brook around a construction site and then back to the downstream channel.
- (2) Fill. a. (verb) To put into or upon, supply to, or allow to enter a water body or wetland any earth, rock, gravel, sand, silt, clay, peat, or debris; b. (noun) Material, other than structures, placed in or immediately adjacent to a wetland or water body.
- (3) Floodplain wetlands. Freshwater wetlands that are inundated with flood water during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Agency or other site specific information.
- (4) Riprap. Heavy, irregularly shaped rocks that are fit into place, without mortar, on a slope as defined in the MaineDOT Standard Specifications, dated **November 2014**.



REPLY TO
ATTENTION OF

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

MAINE GENERAL PERMIT (GP)
AUTHORIZATION LETTER AND SCREENING SUMMARY

ENVIRONMENTAL OFFICE
MAINE DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333

CORPS PERMIT # NAE-2018-00973
CORPS GP ID# 18-285
STATE ID# PBR

DESCRIPTION OF WORK:

Perform work in and over the Fore River at Portland, Maine in order to upgrade the existing Portland International Marine Terminal. Work will include the demolition of an existing maintenance building and its support structure, replacing it with a pile supported deck, and adding an additional 2,400 s.f. of pile supported deck. Other improvements at the facility include the removal of remnant steel and timber piles along the waterfront, removal of a concrete ramp, and reconstruction of select sections of an existing seawall
Project Description Continued on Page 2

LAT/LONG COORDINATES : 44.001093° N -70.996759° W USGS QUAD: FRYEBURG, ME

I. CORPS DETERMINATION:

Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. Your work is therefore authorized by the U.S. Army Corps of Engineers under the enclosed Federal Permit, the Maine General Permit (GP). Accordingly, we do not plan to take any further action on this project.

You must perform the activity authorized herein in compliance with all the terms and conditions of the GP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed GP carefully, including the GP conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

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

Condition 38 of the GP (page 16) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GP on October 13, 2020. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 13, 2021.

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

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.

II. STATE ACTIONS: PENDING [X], ISSUED [], DENIED [] DATE _____

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

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 4/26/18 LEVEL OF REVIEW: CATEGORY 1: _____ CATEGORY 2: X

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

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

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

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Augusta, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0

JAY L. CLEMENT
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

FRANK J. DEL GIUDICE
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION



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

Project Description Continued from Page 1

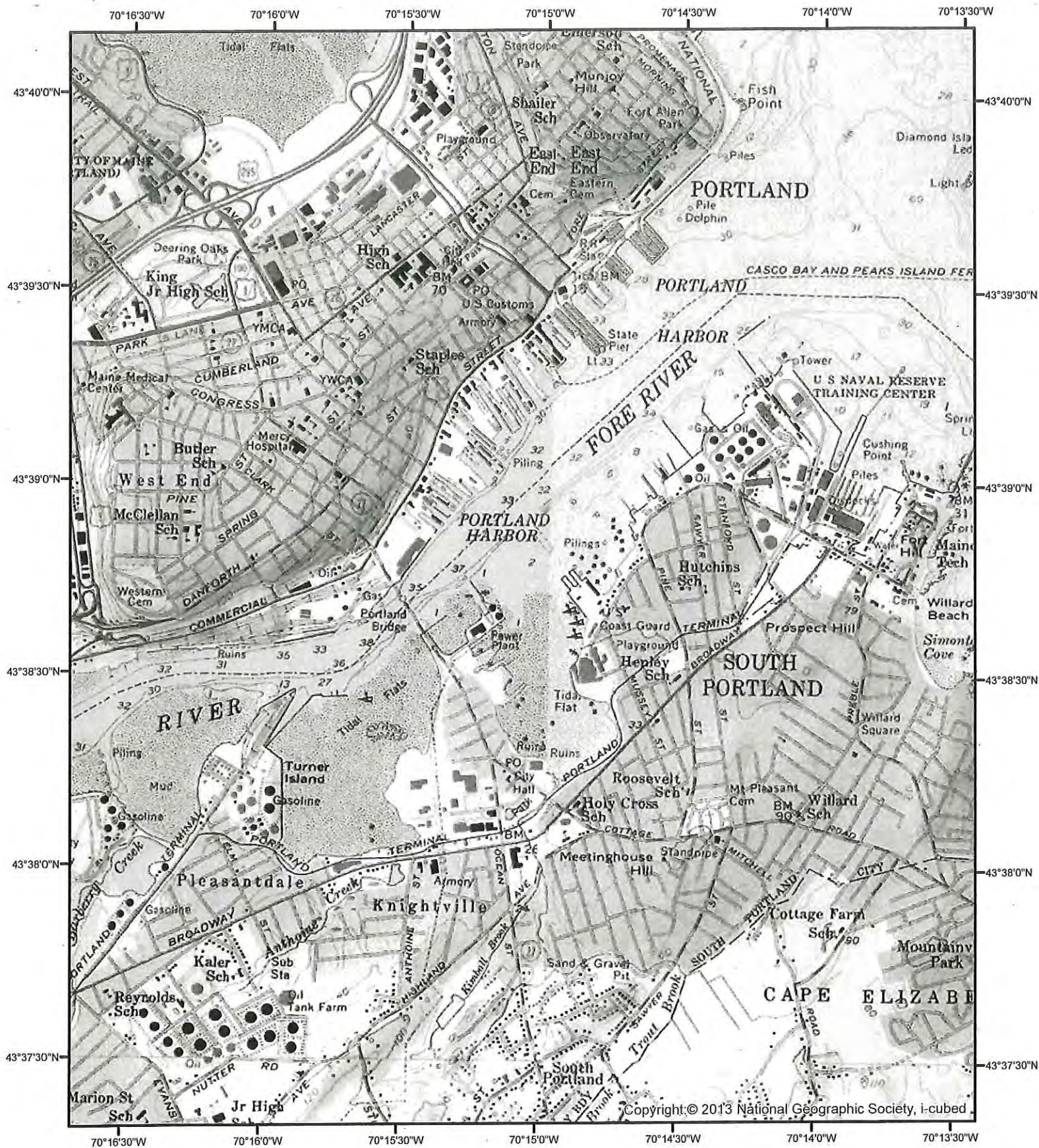
above the high tide line. This work is shown on the attached plans entitled "Portland IMT, Wharf Improvements, MaineDOT WIN 21942.06" in two sheets undated and "PORTLAND INTERNATIONAL MARINE TERMINAL, MAINE INTERMODAL PORT PRODUCTIVITY PROJECT, WHARF INFILL & BUILDING REMOVAL" in 13 sheets undated.

DOT WIN: 21942.06

**PLEASE NOTE THE FOLLOWING CONDITIONS FOR
DEPARTMENT OF THE ARMY
GENERAL PERMIT
NO. NAE-2018-00973**

1. This authorization requires you to 1) notify us before beginning work so we may inspect the project, and 2) submit a Compliance Certification Form. You must complete and return the enclosed Work Start Notification Form(s) to this office at least two weeks before the anticipated starting date. You must complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals).
2. The permittee shall assure that a copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made a part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers' jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for the work. If the permit is issued after construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. The term "entire permit" includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps of Engineers jurisdiction.
3. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

Section 3: Project Location Map



-70.258006
43.64701

0 330 660 1,320 1,980 2,640
Feet

Portland IMT
Wharf Improvements
MaineDOT WIN 21942.06
PLANS 4-23-18



Portland 21942.02

Port of Portland International Marine Terminal: Building removal and new building construction

— APE

Location of building to be removed

Location of new building

Portland IMT
Wharf Improvements
MaineDOT WIN 21942.06



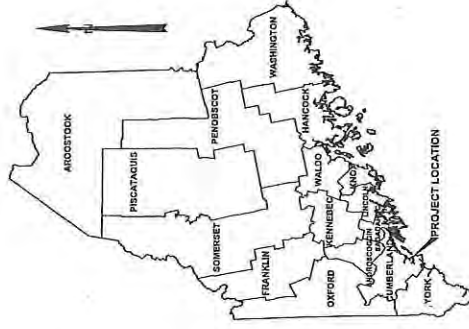
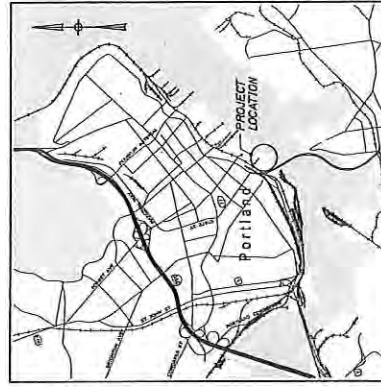
STATE OF MAINE DEPARTMENT OF TRANSPORTATION



CITY OF PORTLAND CUMBERLAND COUNTY MAINE INTERMODAL PORT PRODUCTIVITY PROJECT PORTLAND INTERNATIONAL MARINE TERMINAL WHARF INFILL & BUILDING REMOVAL FEDERAL PROJECT NO. STP-2194(206) WIN: 021942.06

INDEX OF SHEETS

SHEET NO.	TITLE
GENERAL	
1	TITLE SHEET
2	GENERAL NOTES & DESIGN CRITERIA
3	EXISTING CONDITIONS
4	BORING LOGS I
5	BORING LOGS II
SITE PLANS	
6	CONSTRUCTION PHASING PLAN
7	SITE DEMOLITION PLAN
8	DEMOLITION DETAILS I - MAINTENANCE BUILDING
9	DEMOLITION DETAILS II - MAINTENANCE BUILDING
10	DEMOLITION DETAILS III - MAINTENANCE BUILDING
11	DEMOLITION DETAILS IV - MISCELLANEOUS DEMOLITION
12	SITE UTILITY PLAN AND DETAILS
13	SITE DETAILS
STRUCTURAL PLANS	
14	PIER PLAN & GENERAL NOTES
15	PIER FRAMING & ELEVATION
16	PILE CAP DETAILS
17	DECK DETAILS
18	APPROACH SLAB DETAILS
19	MISCELLANEOUS DETAILS
ELECTRICAL PLANS	
20	ELECTRICAL SITE PLAN
21	ELECTRICAL DETAILS



THE PROFESSIONAL ENGINEER WHOSE STAMP APPEARS ON THIS COVER SHEET BEARS RESPONSIBILITY FOR THE FOLLOWING SHEETS WITHIN THIS DRAWING SET:

GENERAL G01-G03
SITE PLANS C01-C08
STRUCTURAL PLANS S01-S06

ADDITIONAL WORK APPEARS WITHIN THIS DRAWING SET AND IS THE RESPONSIBILITY OF THE FOLLOWING ORGANIZATIONS, WHOSE STAMP APPEARS ON THOSE INDIVIDUAL SHEETS:

GEOTECHNICAL BORING LOGS HALEY & ALDRICH, INC.
ELECTRICAL PLANS E01-E02 ELECTRICAL DESIGN BARTLETT DESIGN, INC.

99% DESIGN
December 15, 2017

HNTB

SHEET NUMBER

G01

1 OF 21

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	COMMISSIONER APPROVED DATE	CHIEF ENGINEER

PROJECT INFORMATION	PROJECT NUMBER WTL0000	SIGNATURE JUL E. KIRKWOOD	DATE 12/15/2017
PROJECT INFORMATION	PROJECT NAME PORTLAND INTERNATIONAL MARINE TERMINAL WHARF INFILL & BUILDING REMOVAL PROJECT	PROJECT LOCATION CUMBERLAND COUNTY	PROJECT SHEET TITLE SHEET

PROJECT INFORMATION	PROJECT NAME PORTLAND INTERNATIONAL MARINE TERMINAL WHARF INFILL & BUILDING REMOVAL PROJECT	PROJECT LOCATION CUMBERLAND COUNTY	PROJECT SHEET TITLE SHEET

20. ALL SCALES ARE INTENDED FOR FULL SIZE 22X34-INCH DRAWINGS.

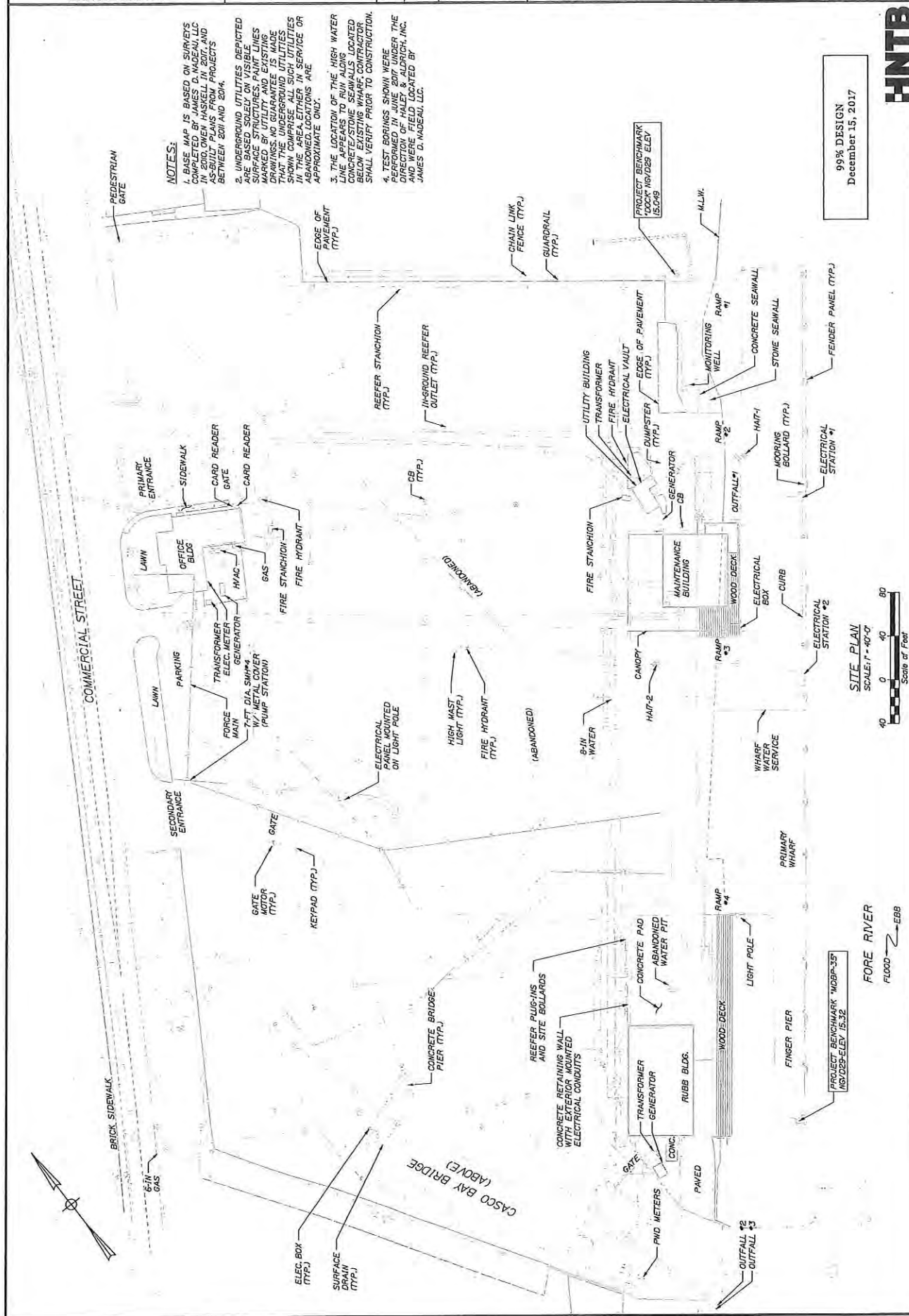
CORNERLOADS OF THE [TBD], SUPPORTING BASE [TBD]

CRANE DIMENSIONS			
	X (FT.)	Y (FT.)	Y1 (FT.)
LHM 320	37'-4"	48'-0"	26'-0"
ASSUMED CRANE			
NOTE: 100 TON MOBILE HARBOR CRANE, LIEBHERR LHM 320; MODIFIED			

DESIGN: KALMAR DRF450-65S5
LOADED RAIL STACKER

December 15, 2017

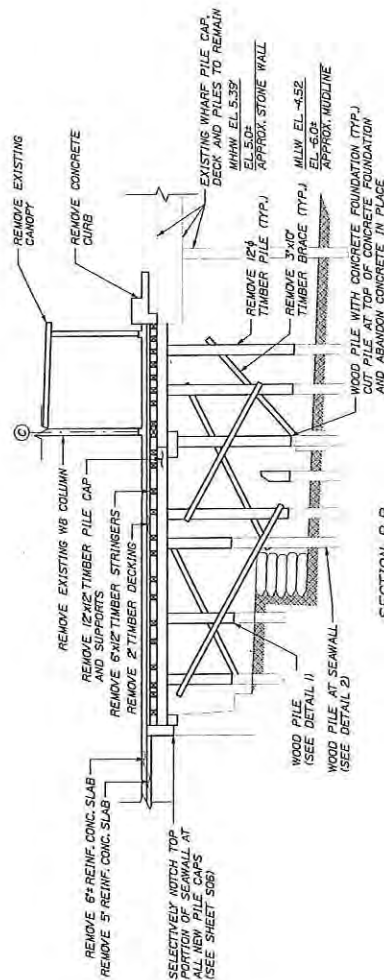
SUPPORTING BASE [TBD]



PORTLAND INTERNATIONAL MARINE TERMINAL
MAINE INTERNATIONAL PORT PRODUCTIVITY PROJECT
WHARF INFILL & BUILDING REMOVAL
PORTLAND
CUMBERLAND COUNTY
DEMOLITION DETAILS III -
MAINTENANCE BUILDING

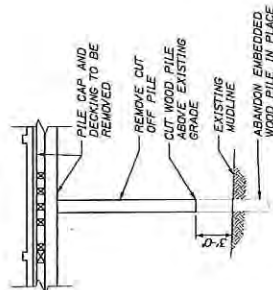
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STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STP 2194(206)	WIN 021942.06

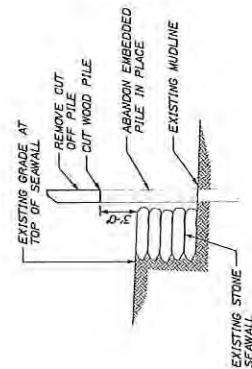


SECTION B-B

(MAINTENANCE BUILDING NOT SHOWN FOR CLARITY)



DETAIL I
N.T.S.



DETAIL 2
N.T.S.

DEMOLITION NOTES:

4. ALL TIMBER PILES WITH UNTERMINED SWAGE BE CUT OFF TO 10 FEET ABOVE MUDLINE AND REMAINING REMAINING EMBEDDED PORTION MAY BE ABANDONED IN PLACE. THERE ARE AN ESTIMATED 80 TIMBER PILES.
5. CONTRACTOR MAY BE REQUIRED TO REMOVE TIMBER PILES COMPLETELY WHERE CONFLICTS WITH REMAINING PILES EXIST. AN ESTIMATED 20 PILES WILL HAVE TO BE FULLY EXCAVED.
6. IN LOCATIONS WHERE PILES ARE EMBEDDED WITHIN THE CONCRETE SEAWALL CUT PILE AS CLOSE TO CONCRETE AS POSSIBLE.
7. ALL TIMBER PILES ENCOUNTERED AT FACE OF EXISTING SEAWALL SHALL BE CUT OFF ABOVE TOP OF EXISTING SEAWALL. EMBEDDED PORTIONS MAY BE ABANDONED IN PLACE.
8. 3/4" WATER SERVICE TO WHARF TO REMAIN IN PLACE TO THE SATISFACTION OF THE RESIDENT.

FINTEB

DETAIL I
SCALE: 1/2" = 1'-0"

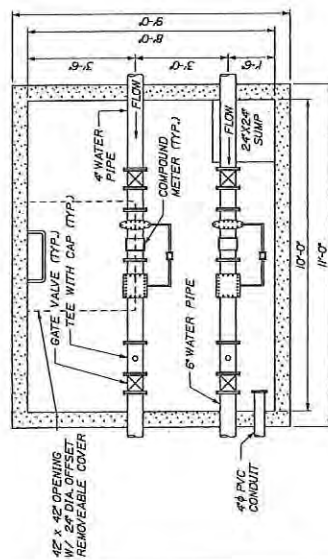
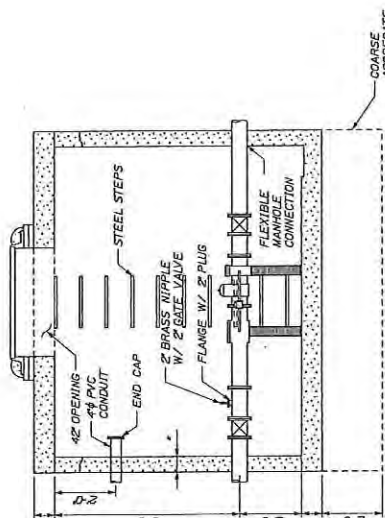
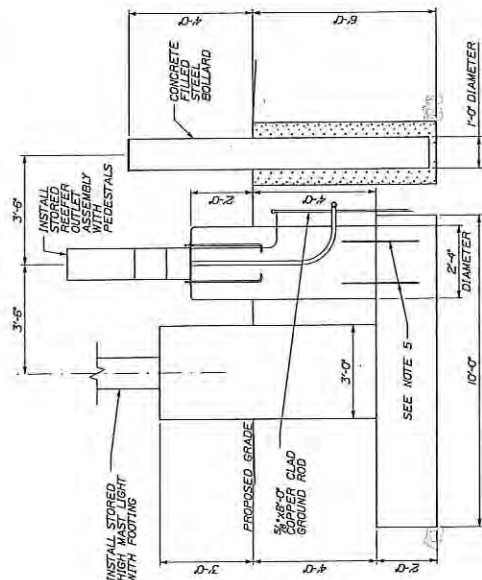
SECTION

PLAN

DIMENSIONS TO BE DETERMINED BY PRECAST MANUFACTURER SO AS TO WITHSTAND LOADS IDENTIFIED IN THE SPECIAL PROVISIONS.

UTILITY VAULT DETAIL

L.T.S.



SITE UTILITY PLAN

SCALE: 1" = 30'-0"



Scale of Feet

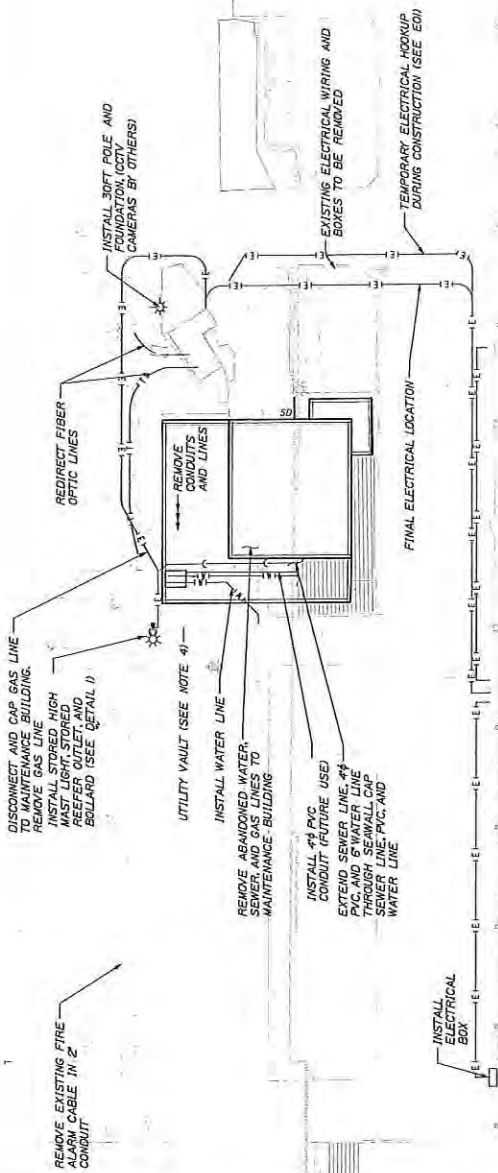
FORE RIVER

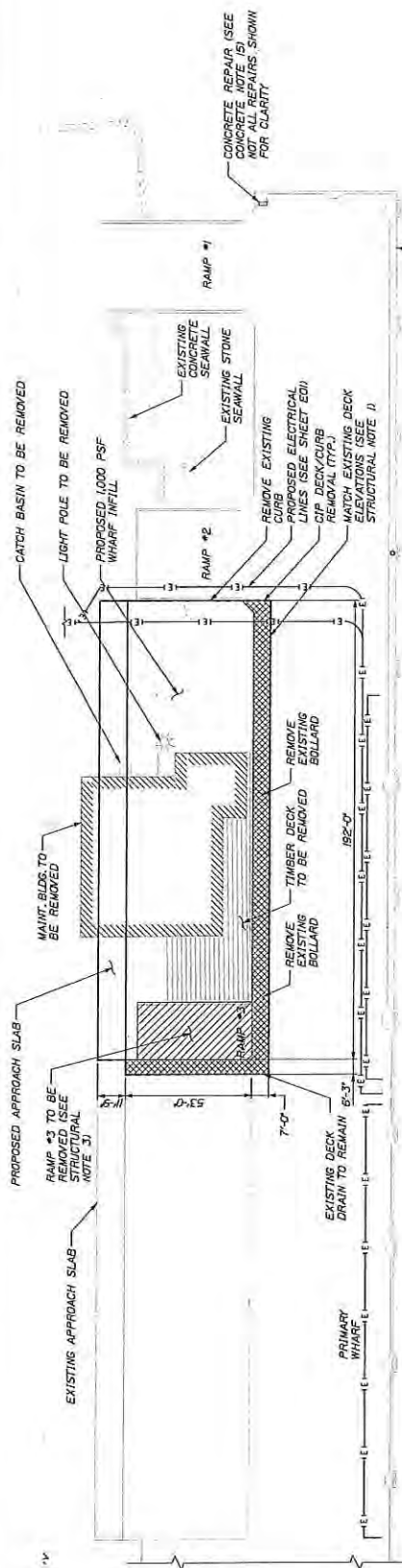
FLOOD → EBB

→ EBB

NOTES:

1. SEE SHEET CUI FOR ADDITIONAL INFORMATION.
2. FOR UTILITY HANGER DETAILS, SEE SHEET S06.
3. FOR ELECTRICAL PLAN, SEE SHEET E01.
4. LOCATION OF UTILITY SHALL BE COORDINATED WITH THE RESIDENT AND ENGINEER.
5. CONTRACTOR TO MAKE POSITIVE DOWEL CONNECTION BETWEEN THE CONCRETE REEFER PEDESTAL BASE AND THE CONCRETE HIGH MAST LIGHT POLE FOOTING.





PILE NOTES:

1. PILES SHALL BE 18" X 18" ALL STEEL PIPE PILES WITH CONCRETE FILL. PILES SHALL BE FITTED WITH A COULSED END. CONCRETE FILL SHALL BE PLACED IN 12" LIFTS AND SHALL BE COMPACTED TO 95% OF STANDARD SPECIFICATION T100. PILES SHALL BE FABRICATED TO THE SPECIAL PROVISION 501 AND WAIWADOT DETAIL 50101. PILES SHALL BE FABRICATED WITHOUT REINFORCING BARS. REINFORCING BARS SHALL NOT BE USED IN THE CONSTRUCTION OF SEAMLESS OR STRAIGHT-SEAMED MATERIAL SPIRAL WELDED PIPE PILE IS NOT PERMITTED.
2. STEEL PIPE PILES SHALL BE IN ACCORDANCE WITH ASTM A252, GR3 MODIFIED WITH CONCRETE FILL SHALL BE IN ACCORDANCE WITH ASTM A252, GR3 MODIFIED WITH CONCRETE FILL SHALL BE MAINTAINED CLASS "A".
3. PILES SHALL BE COATED WITH FUSION BONDED EPOXY IN ACCORDANCE WITH THE SPECIAL PROVISION 501 AND WAIWADOT DETAIL 50101.
4. PILE SPICES SHALL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEER OF PORT.
5. ANY PORTION OF PILE CRACKED, DEFORMED, OR OTHERWISE DAMAGED BY PILE DRIVING OR CORROSION SHALL BE REPLACED.
6. ULTIMATE CAPACITY OF PILES (AASHTO STANDARD SPEC DESIGN)
 - PILES SHALL BE DRIVEN TO A MINIMUM ULTIMATE CAPACITY OF 600 KIPS
 - THE DESIGN AXIAL PILE LOAD IS 300 KIPS
7. ESTIMATE OF PILES REQUIRED: 68 @ 102 FT
8. PILES SHALL NOT BE OUT OF POSITION SHOWN BY MORE THAN 6" LONGITUDINALLY AND 1/2" TRANSVERSELY ACROSS THE WIDTH OF PILE CAP.
9. THE CONTRACTOR SHALL PERFORM AND SUBMIT WAVE EQUATION ANALYSES FOR REVIEW AND ACCEPTANCE BY THE ENGINEER. THE CONTRACTOR SHALL DETERMINE A STOPPING CRITERIA BASED ON THE WAVE EQUATION ANALYSIS, WHICH SHALL INCLUDE THE NUMBER OF ONE INCH INTERVALS AT WHICH PILE INSTALLATION MAY BE TERMINATED.
10. THE CONTRACTOR SHALL PERFORM A TOTAL OF FOUR (4) DYNAMIC PILE LOAD TESTS. THE TESTS SHALL BE PERFORMED 24 HOURS (MIN) PRIOR TO THE PERFORMANCE OF THE PILES. THE TESTS SHALL BE PERFORMED TO EVALUATE THE PERFORMANCE OF THE PILES. THE MINIMUM ULTIMATE CAPACITY FOR THE PILE, THE ULTIMATE CAPACITY OF THE PILES IS EQUAL TO THE DESIGN PILE LOAD MULTIPLIED BY 2.0 PER AASHTO STANDARD SPEC DESIGN. ONE (1) DYNAMIC PILE LOAD TEST SHALL OCCUR WITHIN EACH PILE ROW F-U.
11. DYNAMIC TESTING SHALL BE PERFORMED DURING THE INITIAL DRIVE AND DURING THE 24-HOUR (MIN) RESTRIKE.
12. PILES SHALL BE DRIVEN FROM THE EXISTING WHARF, OR A MINIMUM DISTANCE OF 25 FT. FROM THE CONCRETE SEAWALL.
13. CONTRACTOR SHALL RELOCATE AS DIRECTED BY THE RESIDENT. LARGE Boulders ON THE SEAWALL SHALL BE REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PILE IF IT FELL WORK AREA. THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO ITEM 50104.

CONCRETE NOTES:

1. CONCRETE REPAIR AND REINFORCING STRESSERS SHALL BE:
 - FILL FOR PIPE PENETRATION CLASS "A"
 - PRECAST CLASS "B"
 - FC - 6,500 PSI AT 28 DAYS
 - FC - 4,500 PSI AT TRANSFER
 - CAST-IN-PLACE (NON-CLASS "C")
2. MARINE CONCRETE SHALL CONTAIN 5.0 GAL/CY OF CALCIUM CORROSION INHIBITOR ADMIXTURE.
3. PRECAST CONCRETE SHALL HAVE A MAXIMUM PERMEABILITY OF 3,000 COULOMBS.
4. PRE-STRESSING STRAND: 270,000 PSI LOW-RELAX STRAND.
5. CLEARANCES FOR REINFORCEMENT SHALL BE 3" UNLESS OTHERWISE NOTED.
6. CHAIRS: ALL CONCRETE EDGES 1" @ 45" UNLESS OTHERWISE NOTED
7. ALL REINFORCING SHALL BE FULLY SUPPORTED ON NON-METALLIC APPROVED CHAIRS.
8. REINFORCING SHALL NOT BE SUPPORTED ON TIMBER BLOCKS, BRICKS, CONCRETE BLOCKS, ETC.
9. CONSTRUCTION JOINTS SHALL BE MADE ONLY AS SHOWN UNLESS APPROVED OTHERWISE.
10. ALL EXISTING CONCRETE SURFACES TO RECEIVE CONCRETE SHALL BE ROUGHENED TO A LIST OF CONCRETE BONDING AGENTS.
11. CUREMENT CURING OF CONCRETE IS TO BEGIN WITHIN 30 MINUTES AFTER CONCRETE FINISHING OR AS SOON AS POSSIBLE WITHOUT DAMAGING FINISHED SURFACE.
12. ALL FORMWORK FOR CONCRETE SHALL BE LEFT IN PLACE AND CONCRETE SURFACES SHALL BE COVERED AND KEPT MOIST FOR A PERIOD OF NOT LESS THAN TWO (2) FULL DAYS AFTER CONCRETE PLACEMENTS.
13. CONTRACTOR SHALL SUBMIT DETAILED REINFORCING DRAWINGS INCLUDING BAR AND BENDING SCHEDULES TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO DELIVERY OF ANY REINFORCING STEEL.
14. PROVIDE FULL WIDTH STRUCTURAL BEARING PADS AT ALL PRECAST CONCRETE DECK PLANK TO ALL PILE CAP BEARING LOCATIONS; PADS TO BE 0.25 INCH THICK PLAIN ELASTOMERIC BEARING PADS WITH DIAPHRAGM HARDNESS OF 60 PER ASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
15. ALL FERROUS METAL HANDLING/LIFTING DEVICES AND EXISTING EMBEDDED METALS/ANCHORS NO LONGER IN USE SHALL BE RECESSED OR REMOVED TO A DEPTH OF ONE INCH BELOW THE SURFACE OF THE CONCRETE AND PATCHED WITH AN APPROVED POLYMER-MODIFIED CEMENTITIOUS MORTAR. DEVICES LOCATED IN AREAS TO BE TOTALLY ENCASED IN CAST-IN-PLACE CONCRETE SHALL BE RECESSED INTO THE CONCRETE AND RECESSES TO BE ENCASED IN CAST-IN-PLACE CONCRETE. SURFACES SHALL BE STAINLESS STEEL UNLESS OTHERWISE NOTED.
16. CONCRETE SURFACES SHALL BE REPAIRED AS DIRECTED BY THE RESIDENT ENGINEER UNDER THEIR RESPECTIVE BID. PAY ITEMS. RESIDENT ENGINEER MAY CONSULT ENGINEER OF RECORD FOR THEIR REPAIRS. REPAIRS SHALL BE TO THE SATISFACTION OF THE ENGINEER OF RECORD AND THE CONTRACTOR SHALL SOUND THE CONCRETE AND AGREE ON THE REPAIR LIMITS. SHOULD THE REPAIR AREA LIMITS APPEAR TO CHANGE DURING THE DEMOLITION PROCESS, THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND THE CONTRACTOR SHALL AGREE TO THE REPAIR LIMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUING THE DEMOLITION PERSONNEL TO THE DEEP CONDUITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SOUND MATERIAL PREPARE AND PATCH REPAIR AREAS PER STANDARD SPECIFICATIONS.

REINFORCING STEEL NOTES:

1. REINFORCING BARS SHALL CONFORM TO ASTM A618, GRADE 60 AND SHALL BE EPOXY COATED.
2. SPLICE REINFORCEMENT AS INDICATED:
- | CLASS | "B" SPLICES FOR EPOXY COATED REINFORCEMENT: | 5000 PSI |
|-------|---|----------|
| #4 | 2'-0" | |
| #5 | 3'-0" | |
| #6 | 3'-6" | |
| #7 | 4'-0" | |
| #8 | 4'-6" | |
| #9 | 6'-0" | |
3. SPLICES SHALL BE LOCATED SUCH THAT NO MORE THAN 50 PERCENT OF THE REINFORCEMENT IS SPICED AT ANY ONE LOCATION, UNLESS SHOWN OTHERWISE.
4. ALL HOOKS SHALL BE STANDARD 4:1 90 OR 180 DEGREE END HOOKS, UNLESS SHOWN OTHERWISE.
5. SPLICE TOP BARS AT CENTER OF SPAN AND BOTTOM BARS AT THE SUPPORT, UNLESS DETAILLED OTHERWISE.

CLASS "B" SPLICES FOR EPOXY C	BAR SIZE	5000 PSI
	#4	2'-6"
	#5	3'-1"
	#6	3'-6"
	#7	4'-0"
	#8	4'-11"
	#9	5'-11"

STRICTLY CONFIDENTIAL - NOT FOR RELEASE

1. CONFORM TO SHEET PILES AND VERIFY DECK ELEVATIONS ALONG EXISTING WAHAP.
2. RESIDENT FOR REVIEW PRIOR TO DECK CONSTRUCTION.
3. ALL BOLTS EMBEDDED IN CONCRETE SHALL BE ASTM A503 TYPE 316 STAINLESS STEEL AND SHALL BE FITTED WITH NUTS AND WASHERS CONFORMING WITH ASTM A594.
4. REMOVAL OF RAMP 3, TUMBER DECK AND MAINTENANCE BUILDING SHALL INCLUDE ALL FOUNDATION ELEMENTS AS NOTED THROUGHOUT THE PLANS.
5. REMOVE SEAWALL WHERE A CONFLICT WITH THE PROPOSED PILE CAP WILL OCCUR. SEE SEAWALL MATCHING DETAIL ON SHEET S06.

CONCRETE REMOVAL NOTES:

2. PRECAST DECK PANEL SHALL NOT BE DAMAGED DURING DECK REMOVAL. IF DAMAGED THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS WITHOUT ANY ADDITIONAL COMPENSATION.

99% DESIGN
December 15, 2017

99% DESIGN
December 15, 2017

FINTEB

14 OF 21

150

SHEET NUMBER

PORTLAND

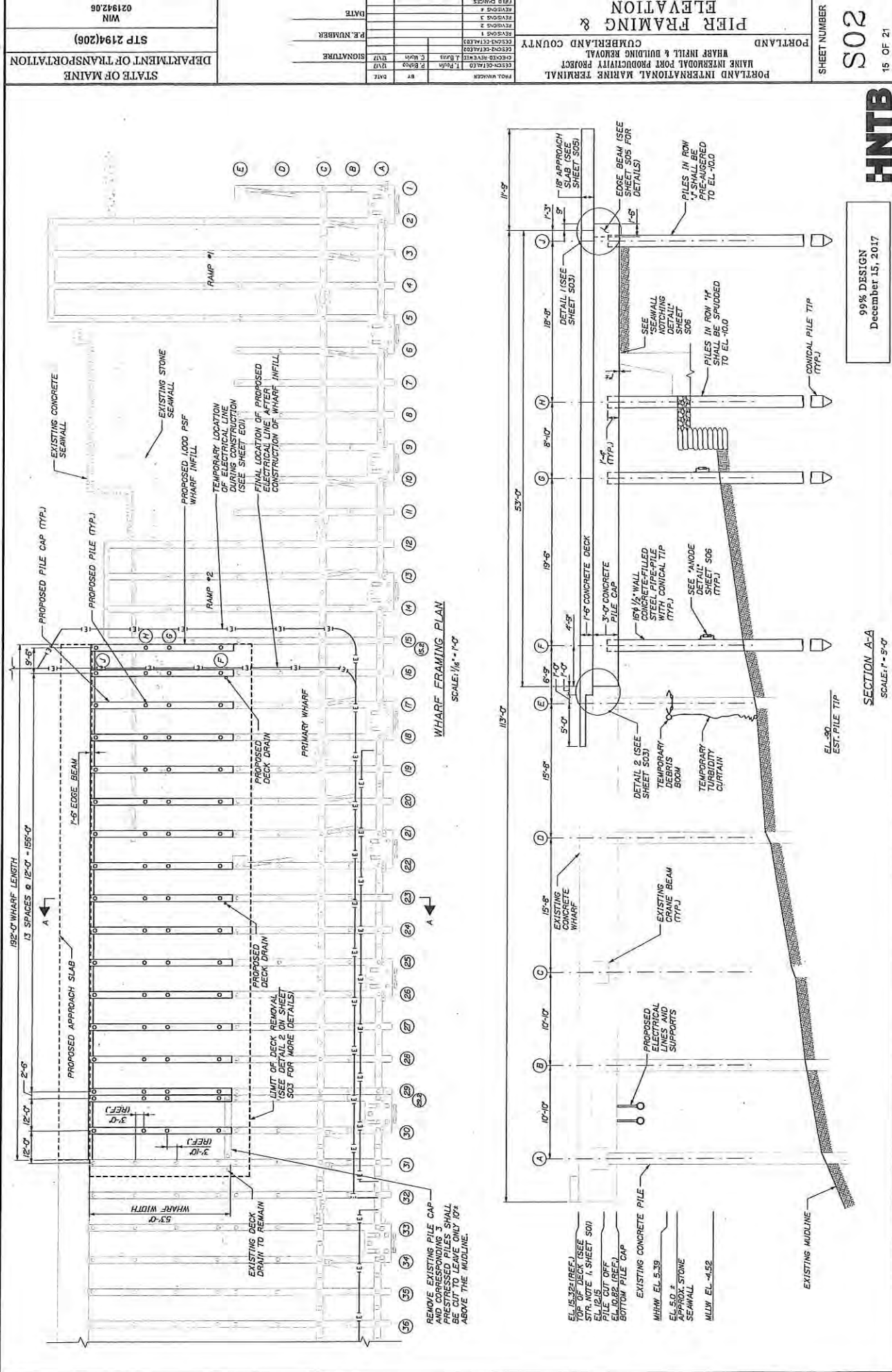
MAINE INTERMODAL PORT PRODUCTIVITY PROJECT
WHARF INFILL & BUILDING REMOVAL
CUMBERLAND COUNTY

PRODUCTIVITY PROJECT
ING REMOVAL
CUMBERLAND COUNTY

NOV-DECAL02	T. Rubin	P. Bishop	12/17	SIGNATURE	P.R. NUMBER
NOV-DECAL02	J. Bura	C. Wain	12/18		
NOV-DECAL02					

DEPARTMENT OF TRANSPORTATION
STP 2194(206)

NIAA
1942 05





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

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

* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Permits and Enforcement Branch *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *

MaineDOT WIN 21942.06

Corps of Engineers Permit No. NAE-2018-00973 was issued to the Maine Dept. of Transportation on June 19, 2018. This work is located in the Fore River at Portland, Maine. The permit authorized the permittee to perform work in order to upgrade the existing Portland International Marine Terminal. Work will include the demolition of an existing maintenance building and its support structure, replacing it with a pile supported deck, and adding an additional 2,400 s.f. of pile supported deck. Other improvements at the facility include the removal of remnant steel and timber piles along the waterfront, removal of a concrete ramp, and reconstruction of select sections of an existing seawall above the high tide line.

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

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

Telephone Numbers: () _____ () _____

Proposed Work Dates: Start: _____ Finish: _____

Permittee/Agent Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

Date Permit Issued: 6/19/2018 **Date Permit Expires:** _____

FOR USE BY THE CORPS OF ENGINEERS

PM: Clement _____ **Submittals Required:** No _____

Inspection Recommendation: Inspect as convenient _____



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

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

COMPLIANCE CERTIFICATION FORM

Permit Number: NAE-2018-00973

Project Manager Clement

Name of Permittee: Maine Dept. of Transportation

Permit Issuance Date: _____

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

* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Permits and Enforcement Branch C *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *

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

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

Signature of Permittee

Date

Printed Name

Date of Work Completion

() _____
Telephone Number

() _____
Telephone Number

**DEPARTMENT OF THE ARMY
GENERAL PERMIT FOR
THE STATE OF MAINE**

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues a General Permit (GP) for activities subject to Corps jurisdiction in waters of the U.S. within the boundaries of the State of Maine. This GP is issued in accordance with Corps regulations at 33 CFR 320 - 332 [see 33 CFR 325.2(e)(2)]. This GP authorizes activity-specific categories of work that are similar in nature and cause no more than minimal individual and cumulative adverse environmental impacts. Refer to Page 2 for the list of activities and Appendix A for activity specific conditions of eligibility in inland and tidal waters.

I. GENERAL CRITERIA

1. In order for activities to qualify for this GP, they must meet the GP's terms and eligibility criteria (Pages 1-4), General Conditions (GC) (Pages 5 - 20), and Appendix A - Definition of Categories.
2. Under this GP, projects may qualify for the following:
 - Category 1: Category 1 Self-Verification Notification Form is required (SVNF – see Appendix B).
 - Category 2: Application to and written approval from the Corps is required (Pre-Construction Notification (PCN)). No work may proceed until written approval from the Corps is received.

If your project is ineligible for Category 1, it may qualify for Category 2 or an Individual Permit and you must submit an application (see Page 3). The thresholds for activities eligible for Categories 1 and 2 are defined in Appendix A. This GP does not affect the Corps Individual Permit review process or activities exempt from Corps regulation.

3. Prospective permittees need to read:
 - a. Section II to determine if the activity requires Corps authorization.
 - b. Sections III and IV to determine if the activity may be eligible for authorization under this GP, specifically whether it is eligible for Self-Verification (SV) or whether Pre-Construction Notification (PCN) is required.
4. Permittees must ensure compliance with all applicable General Conditions in Section IV. The Corps will consider unauthorized any activity requiring Corps authorization if that activity is under construction or completed and does not comply with all of the terms and conditions.
5. Project proponents are encouraged to contact the Corps with questions at any time. Pre-application meetings (see 33 CFR 325.1(b)), whether arranged by the Corps or requested by permit applicants, are encouraged to facilitate the review of projects. Pre-application meetings and/or site visits can help streamline the permit process by alerting the applicant to potentially time-consuming concerns that are likely to arise during the evaluation of their project (e.g., avoidance, minimization and compensatory mitigation requirements, historic properties, endangered species, essential fish habitat, and dredging contaminated sediments).

II. CORPS JURISDICTION/ACTIVITIES COVERED

1. Permits are required from the Corps of Engineers for the following work:

a. The construction of any structure in, over or under any navigable water of the United States (U.S.)¹, the excavating or dredging from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters. The Corps regulates these activities under Section 10 of the Rivers and Harbors Act of 1899. See 33 CFR 322;

b. The discharge of dredged or fill material and certain discharges associated with excavation into waters of the U.S. (e.g. sidecasting). The Corps regulates these activities under Section 404 of the Clean Water Act (CWA). See 33 CFR 323; and

c. The transportation of dredged material for the purpose of disposal in the ocean. The Corps regulates these activities under Section 103 of the Marine Protection, Research and Sanctuaries Act. See 33 CFR 324.

2. Related laws:

33 CFR 320.3 includes a list of related laws, including: Section 401 of the CWA, Section 402 of the CWA, Section 307(c) of the Coastal Zone Management (CZM) Act of 1972, The National Historic Preservation Act of 1966, the Endangered Species Act, the Fish and Wildlife Act of 1956, the Marine Mammal Protection Act of 1972, Magnuson-Stevens Act, and Section 7(a) of the Wild and Scenic Rivers Act.

3. An activity listed below may be authorized by this GP only if that activity and the permittee satisfy all of the GP's terms and conditions. Any activity not specifically listed below may still be eligible for the GP; applicants are advised to contact the Corps for a specific eligibility determination. Category 1 and Category 2 eligibility criteria for each activity in both Inland and Tidal waters can be found in Appendix A.

1. Repair, Replacement, Expansion, and Maintenance of Authorized Structures and Fills
2. Moorings
3. Structures, Floats and Lifts
4. Aids to Navigation, and Temporary Recreational Structures
5. Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation
6. Discharges of Dredged or Fill Material Incidental to the Construction of Bridges
7. Bank and Shoreline Stabilization
8. Residential, Commercial, Industrial, and Institutional Developments, and Recreational Facilities
9. Utility Line Activities
10. Linear Transportation Projects
11. Mining Activities
12. Boat Ramps and Marine Railways
13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects
14. Reshaping Existing Drainage Ditches and Mosquito Management
15. Oil Spill and Hazardous Material Cleanup
16. Cleanup of Hazardous and Toxic Waste
17. Scientific Measurement Devices
18. Survey Activities
19. Agricultural Activities
20. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices
21. Habitat Restoration, Establishment and Enhancement Activities
22. Previously Authorized Activities
23. Stream & Wetland Crossings
24. Aquaculture

Note: Multiple activities may be authorized in the same GP, e.g. a recreational pier (#3) with an associated mooring (#2) or a windpower facility (#13) with an associated transmission line (#9).

¹ Defined in Appendix F, Definitions and at 33 CFR 328.
Section II

III. PROCEDURES

1. State Approvals. Applicants are responsible for applying for and obtaining any of the required state or local approvals. Federal and state jurisdictions may differ in some instances. State permits may be required for specific projects regardless of the general permit category.

In order for authorizations under this GP to be valid, when any of the following state approvals or statutorily-required reviews is also required, the approvals must be obtained prior to the commencement of work in Corps jurisdiction.

- Maine Department of Environmental Protection (DEP): Natural Resources Protection Act (NRPA) permit, including permit-by-rule (PBR) and general permit authorizations; Site Location of Development Act permit; Maine Waterway Development and Conservation Act permit; and Maine Hazardous Waste, Septage, and Solid Waste Management Act license.
- Maine Department of Conservation, Agriculture & Forestry: Land Use Planning Commission (LUPC) permit.
- Maine Department of Marine Resources: Aquaculture Leases.
- Maine Department of Conservation, Bureau of Parks and Lands, Submerged Lands: Submerged Lands Lease.

NOTE: This GP may also be used to authorize projects that are not regulated by the State of Maine (e.g., certain seasonal floats or moorings).

2. How to Obtain/Apply for Authorization.

a. **Category 1 (Self-Verification):** Self-Verification Notification Form (SVNF) required. The SVNF is required for all SV eligible work in Maine unless otherwise stated in Appendix A. Activities that are eligible for SV are authorized under this GP and may commence without written verification from the Corps provided the prospective permittee has:

i. Confirmed that the activity will meet the terms and conditions of Category 1. Consultation with the Corps and/or other relevant federal and state agencies may be necessary to ensure compliance with the applicable general conditions (GCs) and related federal laws such as the National Historic Preservation Act (see GC 6), the Endangered Species Act (GC 8) and the Wild and Scenic Rivers Act (GC 9). Prospective permittees are encouraged to contact the Corps with SV eligibility questions. Activities not meeting the SV criteria must submit a PCN to the Corps.

ii. Submitted the SVNF (see GC 27 and Appendix B) to the Corps. **NOTE: A copy of a state permit application form may be an acceptable surrogate for the SVNF. Whichever form chosen needs to include a location map, plans, and an Official Species List for federally listed threatened or endangered species (Reference Appendix D).**

b. **Category 2 (Pre-Construction Notification (PCN)):** Application to and written verification from the Corps is required before work can proceed. For activities that do not qualify for SV or where otherwise required by the terms of the GP, the permittee must submit a PCN and obtain a written permit before starting work in Corps jurisdiction.

i. The Corps will coordinate review of all activities requiring PCN with federal and state agencies and federally recognized tribes, as appropriate. To be eligible and subsequently authorized, an activity must result in no more than minimal individual and cumulative effects on the aquatic environment as determined by the Corps in accordance with the criteria listed within this GP. This may require project modifications involving avoidance, minimization, or compensatory mitigation for unavoidable impacts to ensure that the net adverse effects of a project are no more than minimal.

ii. The Corps will attempt to issue a written eligibility determination within the state's review period. Regardless, work eligible for Category 2 may not proceed before Corps written approval is received.

c. All applicants for Category 2 projects must:

- i. Apply directly to the Corps using the state application form or the Corps application form (ENG Form 4345²), and apply directly to the state (DEP, LUPC, BPL or DMR) as applicable using the appropriate state form, if the work is regulated by the Corps and the state; or
- ii. Apply directly to the Corps using the Corps application form (ENG Form 4345²) if the work is regulated by the Corps but not the state (DEP, LUPC, BPL or DMR).
- iii. Provide application information (see “Information Typically Required” in Appendix C) to help ensure the application is complete and to speed project review.
- iv. Obtain an Official Species List of federally threatened or endangered species in the project area (GC 8).
- v. Submit a copy of their application materials to the Maine Historic Preservation Commission (MHPC) and all five Indian tribes listed at Appendix E, at the same time, or before, they apply to the Corps, to be reviewed for the presence of historic, archaeological or tribal resources in the permit area that the proposed work may affect. Submittals to the Corps shall include information to indicate that this has been done (a copy of the applicant’s cover letter to MHPC and tribes or a copy of the MHPC and tribal response letters is acceptable).

d. Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, may still be eligible for authorization under this GP.

e. **Emergency Situations:** 33 CFR 325.2(e)4 states that an “emergency” is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.” Emergency work is subject to the same terms and conditions of this GP as non-emergency work, and similarly, must qualify for authorization under the GP; otherwise an IP is required. The Corps will work with all applicable agencies to expedite verification according to established procedures in emergency situations.

3. **Individual Permits.** Projects that are not authorized by this GP require an Individual Permit (IP) (33 CFR 325.5) and proponents must submit an application directly to the Corps. This GP does not affect the Corps IP review process or activities exempt from Corps regulation. For general information and application form, see the Corps website or contact the Corps (see Appendix E). The Corps encourages applicants to apply concurrently for a Corps IP and applicable state permits.

The Corps retains discretionary authority on a case-by-case basis to elevate a GP eligible project to an IP based on concerns for the aquatic environment or for any other factor of the public interest [33 CFR 320.4(a)]. Whenever the Corps notifies an applicant that an IP is required, no work in Corps jurisdiction may be conducted until the Corps issues the required authorization in writing indicating that work may proceed.

4. **Enforcement/Non-Compliance.** Work performed without the required Corps of Engineers permits is subject to administrative, civil, and criminal penalties. The Corps will evaluate unauthorized activities for enforcement action under 33 CFR 326.

The Corps will consider unauthorized any activity requiring Corps authorization if that activity is under construction or completed and does not comply with all of the terms and conditions of a GP or an IP. The Corps may elect to suspend enforcement proceedings if the permittee modifies his project to comply with a GP.

After considering whether a violation was knowing or intentional, and other indications of the need for a penalty, the Corps can elect to terminate an enforcement proceeding with an after-the- fact authorization under a GP, if all terms and conditions of the GP have been satisfied, either before or after the activity has been accomplished.

² Located at www.nae.usace.army.mil/missions/regulatory under “Forms & Publications.”
Section III

IV. GENERAL CONDITIONS

To qualify for GP authorization, the prospective permittee must comply with the following general conditions, as applicable.

1. Other Permits
2. Federal Jurisdictional Boundaries
3. Minimal Direct, Secondary, and Cumulative Impacts
4. Mitigation (Avoidance, Minimization, and Compensatory Mitigation)
5. Single and Complete Projects
6. Historic Properties
7. Corps Projects and Property
8. Federal Threatened and Endangered Species
9. Wild and Scenic Rivers
10. Navigation
11. Federal Liability
12. Utility Line Installation and Removal
13. Heavy Equipment in Wetlands or Mudflats
14. Temporary Fill
15. Restoration of Special Aquatic Sites (including wetland areas).
16. Soil Erosion, Sediment and Turbidity Controls
17. Time of Year Windows/Restrictions.
18. Aquatic Life Movements & Management of Water Flows
19. Water Quality and Coastal Zone Management
20. Floodplains and Floodways
21. Storage of Seasonal Structures
22. Spawning, Breeding, and Migratory Areas
23. Vernal Pools
24. Invasive and Other Unacceptable Species
25. Programmatic Agreements
26. Permit On-Site
27. Self-Verification Notification Form (SVNF)
28. Inspections
29. Maintenance
30. Property Rights
31. Transfer of GP Verifications
32. Modification, Suspension, and Revocation
33. Special Conditions
34. False or Incomplete Information
35. Abandonment
36. Enforcement Cases
37. Duration of Authorization
38. Previously Authorized Activities
39. Discretionary Authority
40. St. John/St. Croix Rivers.
41. National Lands
42. Essential Fish Habitat (EFH)
43. Work Site Restoration
44. Bank Stabilization
45. Stream Work & Crossings and Wetland Crossings

1. **Other Permits.** Permittees must obtain other federal, state, or local authorizations required by law. Applicants are responsible for applying for and obtaining all required state or local approvals. This includes, but is not limited to, the project proponent obtaining a Flood Hazard Development Permit issued by the town, if necessary. Inquiries may be directed to the municipality or to the Maine Floodplain Management Coordinator at (207) 287-8063. See <http://www.maine.gov/dacf/flood/>

2. Federal Jurisdictional Boundaries

a. Applicability of this GP shall be evaluated with reference to federal jurisdictional boundaries. Applicants are responsible for ensuring that the boundaries used satisfy the federal criteria defined at 33 CFR 328 "Waters of the U.S." and 33 CFR 329 "Navigable Waters of the U.S."

NOTE: Waters of the U.S. include the subcategories "navigable waters of the U.S." and "wetlands."

b. For Category 1 projects, proponents are not required to delineate the waters of the U.S. that they plan to impact, but must approximate the square footage of impacts in order to determine the review category (1 or 2 or Individual Permit). For projects filling <15,000 square feet (SF) of waters of the U.S. that do not qualify for Category 1 (e.g., vernal pool, secondary or endangered species impacts, etc.) and therefore require an application to the Corps (PCN), and for those filling ≥15,000 SF, applicants shall delineate all waters of the U.S. that will be filled (direct impacts) in accordance with the Corps of Engineers Wetlands Delineation Manual and the most recent regional supplement (see Appendix C). In addition, applicants shall approximately identify all waters of the U.S. on the property and *known* waters adjacent to the property in order for the Corps to evaluate secondary impacts. The waters of the U.S. shall be clearly shown on the project plans submitted with the application. This includes all waters of the U.S. in areas under DEP or LUPC jurisdiction regardless of whether they're shown on LUPC zoning maps.

c. On a case-by-case basis, the Corps may modify/refine the above delineation and identification requirements for waters of the U.S. See www.nae.usace.army.mil/missions/regulatory >> Jurisdictional Limits and Wetlands for more information on delineating jurisdictional areas.

3. Minimal Direct, Secondary, and Cumulative Effects³

a. Projects authorized by this GP shall have no more than minimal direct, secondary and cumulative adverse environmental impacts. Category 2 applicants should provide information on secondary and cumulative impacts as stated in Appendix C. Compensatory mitigation may be required to offset unavoidable impacts (see GC 4) and to ensure that they are no more than minimal. Compensatory mitigation requirements will be determined on a case-by-case basis.

b. Secondary impacts to waterway and/or wetland areas, (e.g., areas drained, flooded, cleared, excavated or fragmented) shall be added to the total fill area when determining whether the project qualifies for Category 1 or 2. Direct, secondary and cumulative impacts are defined at Appendix A, Endnote 2 and Appendix F.

c. Site clearing, grading and construction activities in the upland habitat surrounding vernal pools ("Vernal Pool Management Areas") are secondary impacts. See GC 23 for avoidance and minimization requirements and recommendations.

d. Bank stabilization activities in tidal waters are provided at Appendix A, Page 30. Direct impacts in tidal waters from contiguous bank stabilization projects in excess of 200 linear feet (Applicant or Applicant + Abutters combined) must undergo Category 2 review.

4. Mitigation (Avoidance, Minimization, and Compensatory Mitigation)

a. Discharges of dredged or fill material into waters of the U.S., including wetlands, shall be avoided and minimized to the maximum extent practicable through consideration of alternatives. The Corps may require compensatory mitigation of unavoidable direct and secondary impacts associated with Category 2 projects on a case-by-case basis.

b. Applicants proposing work in jurisdictional waters should consider riparian/forested buffers for stormwater management and low impact development (LID) best management practices (BMPs) to reduce

³ Direct, secondary and cumulative effects are defined at Appendix F, Definitions and Acronyms.
Section IV

impervious cover and manage stormwater to minimize secondary impacts to aquatic resources to the maximum extent practicable.⁴

c. Compensatory mitigation⁵ for effects to waters of the U.S., including direct, secondary and temporal⁶, may be required for permanent impacts that exceed the SV area limits, and may be required for temporary impacts that exceed the SV area limits, to offset unavoidable impacts which remain after all appropriate and practicable avoidance and minimization has been achieved and to ensure that the adverse effects to the aquatic environment are no more than minimal. Proactive restoration projects or temporary impact work with no lasting secondary effects may generally be excluded from this requirement. Refer to Appendix G.

5. Single and Complete Projects⁷

a. This GP shall not be used to piecemeal work and shall be applied to single and complete projects. When determining the review category in Appendix A (Category 1 or 2) for a single and complete project, proponents must include any permanent historic fill placed since October 1995 that is associated with that project and all currently proposed temporary and permanent impact areas.

b. A single and complete project must have independent utility⁷.

c. Unless the Corps determines the activity has independent utility:

i. This GP shall not be used for any activity that is part of an overall project for which an Individual Permit is required.

ii. All components of a single project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be treated together as constituting one single and complete project.

d. For linear projects, such as power lines or pipelines with multiple crossings, the single and complete project is all crossings of a single water of the U.S. (i.e., single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies and crossings of such features cannot be considered separately. If any crossing requires a Category 2 activity, then the entire linear project shall be reviewed as one project under Category 2.

6. Historic Properties

a. No undertaking shall cause effects (defined at 33 CFR 325 Appendix C and 36 CFR 800) on properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places⁸, including previously unknown historic properties within the permit area, unless the Corps or another Federal action agency has satisfied the consultation requirements of Section 106 of the National Historic Preservation Act (NHPA). The State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO) and the National Register of Historic Places can assist with locating information on: i) previously identified historic properties; and ii) areas with potential for the presence of historic resources, which may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with the Corps and the SHPO and/or THPO(s).

⁴ See: www.nae.usace.army.mil/missions/regulatory >> State General Permit >> Permit Resources >> Mitigation for this additional information: a) "Wetland BMP Manual - Techniques for Avoidance & Minimization," b) riparian/forested buffer BMPs, and c) LID BMPs. LID BMPs include, but are not limited to: replacing curbs and gutters with swales; using an open space design for subdivisions; using permeable, pervious or porous pavements; constructing bio-retention systems; and/or, adding a green roof or rain garden.

⁵ Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR 332. See also the New England District Compensatory Mitigation Guidance at www.nae.usace.army.mil/regulatory >> Mitigation.

⁶ Temporal loss: The time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site(s) (33 CFR 332.2).

⁷ Single and Complete Project and Independent Utility are defined in Appendix F - Definitions.

⁸ The majority of historic properties are not listed on the National Register of Historic Places and may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with the Corps and the SHPO and/or THPO(s).

b. For activities eligible for SV, proponents must ensure and document that the activity will not cause effects as stated in 6(a). Proponents must submit a PCN if the authorized activity may cause effects as stated in 6(a) as soon as possible to ensure that the Corps is aware of any potential effects of the permitted activity on any historic property to ensure all Section 106 requirements are met.

c. All PCNs shall: i) show notification to the SHPO and applicable THPO(s)⁹ for their identification of historic properties, ii) state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties, and iii) include any available documentation from the SHPO or THPO(s) indicating that there are or are not historic properties affected. Starting consultation early in project planning can save proponents time and money.

d. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

7. Corps Projects and Property

a. In addition to any authorization under this GP, proponents must contact the Corps Real Estate Division at (978) 318-8585 for work occurring on or potentially affecting Corps properties and/or Corps-controlled easements to initiate reviews and determine what real estate instruments are necessary to perform work. Permittees may not commence work on Corps properties and/or Corps-controlled easements until they have received any required Corps real estate documents evidencing site-specific permission to work.

b. Any proposed temporary or permanent alteration, or modification or use, including occupation, of a federal project (including but not limited to a levee, dike, floodwall, channel, anchorage, breakwater, seawall, bulkhead, jetty, wharf, pier or other work built but not necessarily owned by the United States), which would obstruct or impair the usefulness of the federal project in any manner, and/or would involve changes to the authorized federal project's scope, purpose, and/or functioning that go beyond minor modifications required for normal operations and maintenance, is not eligible for SV and requires review and approval by the Corps pursuant to 33 USC 408. Where Section 408 is applicable, a decision on a Department of the Army general permit application will not be rendered prior to the decision on a Section 408 request.

c. Any structure or work within any Corps Federal Navigation Project (FNP) or its buffer zone¹⁰, shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys. See GC 10 for more requirements related to FNPs.

8. Federal Threatened and Endangered Species

a. No activity is authorized which: i) is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species; ii) "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed; or iii) violates the ESA.

b. **All applicants must request an Official Species List from the US Fish & Wildlife Service and must include the list in the Corps permit application. To request an Official Species List, refer to the instructions in Appendix D.**

c. **For federally listed species in tidal waters, applicants should contact the National Marine Fisheries Service at: <http://www.greateratlantic.fisheries.noaa.gov/protected/section7/>**

⁹ Appendix E, 3(a)&(b). Historic Resources, provides contact information and each tribe's "area of concern."

¹⁰ See Appendix H for a list of FNPs. The buffer zone is equal to three times the authorized depth of the FNP.
Section IV

d. A PCN is required if a threatened or endangered species, a species proposed for listing as threatened or endangered, or designated or proposed critical habitat (all hereinafter referred to as “listed species or habitat”), as identified under the ESA, is present in the action area¹¹.

e. Federal agencies should follow their own procedures for complying with the requirements of the ESA but should coordinate that consultation with the Corps as well.

9. Wild and Scenic Rivers.¹² Any activity that occurs in the designated main stem of, within 0.25 mile up or downstream of the designated main stem of, or in tributaries within .25 miles of the designated main stem of a National Wild and Scenic River, or in “bordering and contiguous wetlands” (see Appendix A, Endnote 1) that are adjacent to the designated main stem of a National Wild and Scenic River, or that has the potential to alter flows within a river within the National Wild and Scenic River System, is not eligible for Category 1 regardless of size of the impacts. This condition applies to both designated Wild and Scenic Rivers and rivers officially designated by Congress as study rivers for possible inclusion while such rivers are in an official study status. National Wild and Scenic Rivers System segments for Maine as of October 2015 include: Allagash River beginning at Telos Dam continuing to Allagash checkpoint at Eliza Hole Rapids, approximately 3 miles upstream of the confluence with the St. John River (length = 92 miles); and 11.25 miles of the York River, in the State of Maine, from its headwaters at York Pond to the mouth of the river at York Harbor, plus its tributaries (currently under study).

10. Navigation

a. Any structure or work that extends closer to the horizontal limits of any Corps Federal Navigation Project (see Appendix H) than a distance of three times the project’s authorized depth shall be subject to removal at the owner’s expense prior to any future Corps dredging or the performance of periodic hydrographic surveys. This is applicable to Category 1 and 2. Reference Appendix A, Page 28 (Moorings) and Page 29 (Structures, Floats & Lifts).

b. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.

c. The permittee understands and agrees that if future U.S. operations require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

d. A PCN is required for all work in, over or under an FNP or its buffer zone unless otherwise indicated in Appendix A. (Reference Appendix A, Endnote 13, Page 36)

11. Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest; (c) damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit; (d) design or construction deficiencies associated with the permitted work; (e) damage claims associated with any future modification, suspension, or revocation of this permit.

12. Utility Line Installation and Removal

a. Subsurface utility lines shall remain subsurface. If it is necessary to discharge dredged or filled material not previously authorized in order to keep such utility lines buried or restore them to their original subsurface condition, a PCN and written verification from the Corps may be required (e.g., in the case of side

¹¹ The “Endangered Species Consultation Handbook – Procedures for Conducting Consultation and Conference Activities Under Section 7 of the ESA,” defines action area as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. [50 CFR 402.02].”

¹² Additional information can be found at: <http://www.rivers.gov>.

casting into wetlands from utility trenches). Certain repair, replacement or maintenance activities may be eligible for Category 1 – refer to Appendix A.

b. Subsurface utility lines must be installed at a sufficient depth to avoid damage from anchors, dredging, etc., and to prevent exposure from erosion and stream adjustment. In accordance with Corps New England District Regulation NEDER 1110-1-9 (www.nae.usace.army.mil/missions/regulatory >> [Useful Links and Documents](#)), as an absolute minimum, the bottom cover associated with the initial installation of utility lines under navigable waters and navigation channels shall be 48 inches in soil or 24 inches in rock excavation in competent rock unless specified in a written determination. These minimum bottom cover requirements for pipelines and cables shall be measured from the maximum depth of dredging to the top of the utility. The maximum depth of dredging, in waterways having existing FNP's, is generally considered to be the authorized project depth plus any allowance for advanced maintenance and the allowable overdepth for dredging tolerances. In waterways that do not have existing FNP's, this depth should be taken as two feet below the existing bottom or maximum depth of proposed dredging, as applicable.

c. Aerial utility lines that cross navigable waters must meet minimum clearances. See 33CFR322.5(i).

d. For horizontal directional drilling work, returns of drilling fluids to the surface (i.e., frac-outs) are not authorized and require restoration to the maximum extent practicable in accordance with the terms and conditions of this GP. The permittee and its contractor shall have onsite and shall implement the procedures detailed in a frac-out contingency plan for monitoring drilling operations and for the immediate containment, control and recovery/removal of drilling fluids released into the environment should a discharge of material occur during drilling operations.

e. Within the context of any new installations, any abandoned or inactive utility lines should be removed and faulty lines (e.g., leaking hazardous substances, petroleum products, etc.) should be removed or repaired to the extent practicable. A PCN and written verification from the Corps is required if they are to remain in place, e.g., to protect sensitive areas or ensure safety.

f. No work shall drain a water of the U.S. by providing a conduit for water on or below the surface. Trench plugs installed along pipelines may be effective.

13. Heavy Equipment in Wetlands or Mudflats. Operating heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and such equipment shall not be stored, maintained or repaired in wetlands, to the maximum extent practicable. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (typically <3 psi), or it shall be placed on swamp/construction/timber mats (herein referred to as "construction mats" and defined at Appendix A, Endnote 4) that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Construction mats are to be placed in the wetland from the upland or from equipment positioned on swamp mats if working within a wetland. Dragging construction mats into position is prohibited. Other support structures that are capable of safely supporting equipment may be used with written Corps authorization (Category 2 authorization or Individual Permit). Similarly, the permittee may request written authorization from the Corps to waive use of mats during frozen, dry or other conditions. An adequate supply of spill containment equipment shall be maintained on site. Construction mats should be managed in accordance with the Construction Mat BMPs at www.nae.usace.army.mil/missions/regulatory >> State General Permits >> Permit Resources.

14. Temporary Fill. Temporary fill that qualifies for Category 1 (e.g., <15,000 SF of combined temporary and permanent fill associated with the single and complete project) or is authorized in writing under Category 2, shall adhere to the following:

a. All temporary fill and disturbed soils shall be stabilized to prevent its eroding into waters of the U.S. where it is not authorized. Work shall include phased or staged development to ensure only areas under active development are exposed and to allow for stabilization practices as soon as practicable, typically within three calendar days after disturbance. Accelerated stabilization (the providing of temporary or permanent cover by the end of the work day to prevent erosion) shall be employed as necessary. Temporary fill must be placed in a manner that will prevent it from being eroded by expected high flows.

b. Unconfined temporary fill authorized for discharge into waters of the U.S. (e.g., temporary stream crossings) shall consist of material that minimizes impacts to water quality (e.g. washed stone, stone, etc.).

c. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Place materials in a location and manner that does not adversely impact surface or subsurface water flow into or out of the wetland. Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric or other appropriate material laid on the pre-construction wetland grade where practicable to minimize impacts and to facilitate restoration to the original grade. Construction mats are excluded from this requirement.

d. Temporary fill, construction mats and corduroy roads shall be entirely removed as soon as they are no longer needed to construct the authorized work. Temporary fill shall be placed in its original location or disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S. To qualify for Category 1, temporary fill placed during the: i.) growing season must be removed before the beginning of the next growing season; and ii.) non-growing season may remain throughout the following growing season, but must be removed before the beginning of the next growing season.

e. Temporary fill, construction mats and corduroy roads are considered temporary only if they are removed as soon as they are no longer needed to construct the authorized work.

f. Construction debris and/or deteriorated materials shall not be located in waters of the U.S.

15. Restoration of Special Aquatic Sites (Including Wetland Areas)

a. Temporary fills must be removed in their entirety and the affected areas restored to their pre-construction condition, function and elevation. Restoration shall typically commence no later than the completion of construction.

b. For excavated areas, "restored to pre-construction condition, function and elevation" means careful removal of existing soil and vegetation, separate topsoil and subsoil stockpiling, soil protection, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized. Plan for natural settling that will occur (the initial post-restoration elevation of the backfilled areas should be above the desired final grade as topsoil may settle by 33% to 50%), minimize compaction, and ensure that topsoil is void of gravel and subsoil. A minimum of 4 inches of topsoil should be at the surface after the soil has settled. Wetland areas temporarily disturbed shall be stabilized (e.g., seeded or planted). Seed mixes and vegetation shall include only plant species native to New England and shall not include any species listed as "Invasive and Other Unacceptable Plant Species" in the "New England District Compensatory Mitigation Guidance" (see GC 24 and refer to Appendix G). This list may be updated periodically.

c. Limit compaction to the minimum needed to promote a successful seedbed; avoid a 'fluffy' seedbed, which is susceptible to erosion until the plants get established, and a compacted topsoil layer, which is counter-productive and will lead to greater erosion susceptibility down the road. Test soils for compaction. A soil probe, auger, or shovel should be able to retrieve samples of post-restoration profile. Equipment refusal shall be considered a failure of restoration, in which case the soil should be restored through deep-ripping and/or de-compaction, or other appropriate methods, and wetland hydrology must be maintained. See the BMPs at www.nae.usace.army.mil/missions/regulatory >> State General Permits >> Permit Resources >> Restoration.

d. In areas of authorized temporary disturbance, cut woody vegetation (trees, shrubs, etc.) shall be cut at or above ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

e. Trenches shall be constructed or backfilled so that the trench does not drain waters of the U.S. (e.g., materials or methods that create a French drain effect).

16. Soil Erosion, Sediment and Turbidity Controls

a. Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, installation of sediment control barriers (i.e. silt fence, vegetated filter strips, geotextile silt fences, erosion control mixes, hay bales or other devices) downhill of all exposed areas, retention of existing vegetated buffers, application of temporary mulching during construction, and permanent seeding and stabilization shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. They shall be capable of preventing erosion; of collecting sediment, suspended and floating materials; and of filtering fine sediment.

- b. Temporary sediment control barriers shall be removed upon completion of work, but not until all disturbed areas are permanently stabilized. The sediment collected by these sediment barriers shall be removed and placed at an upland location and stabilized to prevent its later erosion into a waterway or wetland.
- c. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date .

17. Time of Year Work Windows/Restrictions. For activities where work is authorized in streams and tidal waters that causes turbidity or sediment re-suspension or other construction related disturbances, work must be conducted during the following TOY work windows (not during the TOY restrictions) unless otherwise authorized by the Corps under Category 2 review:

	<u>TOY Restriction</u> (no work)	<u>TOY Work Window</u> (work allowed)
Non-tidal waters	Oct. 01 through Jul. 14	Jul. 15 through Sep. 30
Tidal waters	Apr. 10 through Nov. 07	Nov. 08 through Apr. 09

Alternate windows authorized under Category 2 may include species specific windows recommended by the Maine Dept. of Marine Resources and/or Maine Dept. of Inland Fisheries & Wildlife.

18. Aquatic Life Movements & Management of Water Flows

- a. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Unless otherwise stated, activities impounding water in a stream require a PCN to ensure impacts to aquatic life species are avoided and minimized. All permanent and temporary crossings of waterbodies (e.g., streams, wetlands) shall be:
 - i. Suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species; and
 - ii. Properly aligned and constructed to prevent bank erosion or streambed scour both adjacent to and inside the culvert. Permanent and temporary crossings of wetlands shall be suitably culverted, spanned or bridged in such a manner as to preserve hydraulic and ecological connectivity between the wetlands on either side of the road.
- b. To avoid adverse impacts on aquatic organisms, the low flow channel/thalweg shall remain unobstructed during periods of low flow, except when it is necessary to perform the authorized work.
- c. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

19. Water Quality and Coastal Zone Management

- a. Applicants must satisfy any conditions imposed by the state and EPA, where applicable, in their CWA § 401 Water Quality Certifications (WQC) for this GP, or in any Individual § 401 WQC. See Appendix E for state-specific contact information and to determine if any action is required to obtain a 401 WQC. The Corps may require additional water quality management measures to ensure that the authorized activity does not cause or contribute to a violation of water quality standards. All projects authorized by this GP shall be designed, constructed and operated to minimize or eliminate the discharge of pollutants.
- b. Applicants must satisfy any additional conditions imposed by the state in their Coastal Zone Management (CZM) Act consistency concurrences for this GP, or in any Individual CZM consistency concurrences. The Corps may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

20. Floodplains and Floodways

- a. Appropriate measures must be taken to minimize flooding to the maximum extent practicable.
- b. Activities within 100-Year Floodplains must comply with applicable Federal Emergency Management Agency (FEMA)-approved state and/or local floodplain management permitting requirements. Proponents may need to coordinate with FEMA and apply for a formal change to the flood insurance study products or forward a set of project plans and relevant technical documentation in a digital format to the Risk

Analysis Branch Chief, Mitigation Division, FEMA, Region 1, 99 High Street, Boston, Massachusetts 02110. Applicants should provide a copy of any documentation to the Corps along with the PCN.

c. Proponents may have to obtain a Flood Hazard Development Permit issued by the town. Inquiries may be directed to the municipality or to the Maine Floodplain Management Coordinator at (207) 287-8063. See <http://www.maine.gov/dacf/flood/>

21. Storage of Seasonal Structures. Seasonal or recreational structures such as pier sections, floats, aquaculture structures, etc. that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location landward of mean high water (MHW) or ordinary high water (OHW) and not in wetlands, tidal wetlands, their substrate or on mudflats. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is waterward of MHW or OHW. Seasonal storage of structures in navigable waters, e.g., in a protected cove on a mooring, requires Corps approval and local harbormaster approval.

22. Spawning, Breeding, and Migratory Areas

a. Jurisdictional activities and impacts such as excavations, discharges of dredged or fill material, and/or suspended sediment producing activities in jurisdictional waters that provide value as fish migratory areas, fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided and minimized to the maximum extent practicable.

b. Jurisdictional activities in waters of the United States that provide value as breeding areas for migratory birds must be avoided to the maximum extent practicable. The permittee is responsible for obtaining any “take” permits required under the USFWS’s regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the USFWS to determine if such “take” permits are required for a particular activity (See Appendix E).

23. Vernal Pools

a. Only vernal pools that meet the current definition of waters of the U.S. are regulated by the Corps.

b. Direct and indirect adverse effects to all vernal pools (VPs), including their envelopes and critical terrestrial habitats (VP Management Areas¹³), shall be avoided and minimized to the maximum extent practicable. Site clearing, grading, and construction activities associated with a regulated activity in the VP Management Area may cause these adverse effects to the VP.

c. The State of Maine has specific protections for vernal pools.¹⁴

d. When any regulated activities occur within 750 feet of a vernal pool, the following management practices must be followed for all work within any VP Management Area (750’ of a VP’s edge) *in order to qualify for Category I*:

- i. No disturbance within the VP Depression or VP Envelope (area within 100 feet of the VP Depression’s edge)¹⁵;
- ii. Maintain a minimum of 75% of the Critical Terrestrial Habitat (area within 100-750 feet of the VP Depression’s edge) as unfragmented forest with at least a partly-closed canopy of overstory trees to provide shade, deep litter and woody debris;
- iii. Maintain or restore forest corridors connecting wetlands and significant vernal pools;
- iv. Minimize forest floor disturbance; and
- v. Maintain native understory vegetation and downed woody debris.

¹³ The Corps VP Management Area, which includes the VP and a 750’ radius from the VP’s edge, is defined at Appendix A, Endnote 5.

¹⁴ Appendix G, 10(a)-(d) provides links to the state’s Significant Wildlife Habitat regulations and references that provide impact minimization measures to reference when designing projects.

¹⁵ The no disturbance requirement in the VP envelope [see (b)(i)(1)], and (b)(i)(2), do not apply to temporary impacts associated with construction mats in previously disturbed areas of existing utility project (e.g., transmission lines, gas pipelines) or linear transportation project (e.g., roads, highways, railways, trails, airport runways and taxiways) right-of-ways provided there is a Vegetation Management Plan that avoids, minimizes and mitigates impacts to aquatic resources.

vi. Cape Cod style-curbings or no curbings options shall be used on new roads to facilitate amphibian passage. (Reference Appendix G)

e. A PCN is required for any regulated activity within 750' of a vernal pool when all work within the VP Management Area does not comply with the Category 1 requirements in (d) above. Information on directional buffers in accordance with the VP Directional Buffer Guidance document may be provided in order to demonstrate minimal impact and avoid compensation requirements (Reference Appendix G). Conservation of the un-impacted area within the VP Management Area will often be required.

f. GC 2 requires applicants to delineate or approximately identify on the project plans all waters of the U.S., which contain vernal pools.

g. GC 23(b-d) do not apply to projects that are within a municipality and meet the provisions of a Corps-approved VP Special Area Management Plan (VP SAMP) and are otherwise eligible for self-verification.

24. Invasive and Other Unacceptable Species¹⁶

a. The introduction or spread of invasive or other unacceptable plant or animal species on the project site or areas adjacent to the project site caused by the site work shall be avoided to the maximum extent practicable. For example, construction mats and equipment shall be thoroughly cleaned and free of vegetation and soil before and after use. The introduction or spread of invasive plant or animal species on the project site caused by the site work shall be controlled.

b. No cultivars, invasive or other unacceptable plant species may be used for any mitigation, bioengineering, vegetative bank stabilization or any other work authorized by this GP. However, non-native species and cultivars may be used when it is appropriate and specified in a written verification, such as using *Secale cereale* (Annual Rye) to quickly stabilize a site. All PCNs should explain the reason for using non-native species or cultivars.

25. Programmatic Consultations or Agreements. The Corps requirements to comply with Section 106 of the NHPA, Section 7 of the Endangered Species Act or Essential Fish Habitat conservation under the Magnuson-Stevens Act may be satisfied by a Programmatic Agreement with the Corps, New England District or another federal action agency. Any Corps, New England District Programmatic Agreements will be available on our website.

26. Permit On Site. The permittee shall ensure that a copy of this GP and any accompanying authorization letter with attached plans are at the site of the work authorized by this GP whenever work is being performed and that all construction personnel performing work which may affect waters of the U.S. are aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and subcontracts for work that affects areas of Corps jurisdiction at the site of the work authorized by this GP. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means this entire GP and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or subcontract. Although the permittee may assign various aspects of the work to different contractors or subcontractors, all contractors and subcontractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire GP authorization, and no contract or subcontract shall require or allow unauthorized work in areas of Corps jurisdiction.

¹⁶ For the purposes of this GP, plant species that are considered invasive and unacceptable are provided in Appendix G "Invasive and other Unacceptable Plant Species" of our document "Compensatory Mitigation Guidance" at www.nae.usace.army.mil/missions/regulatory >> Mitigation. Chapter 4(e) Planting is also particularly relevant. The June 2009 "Corps of Engineers Invasive Species Policy" provides policy, goals and objectives and is located at www.nae.usace.army.mil/missions/regulatory >> Invasive Species. Additional information can be found at: www.eddmaps.org/ipane.

27. Self-Verification Notification Form (SVNF). Permittees must complete and submit the SVNF provided at Appendix B to the Corps for work authorized by this GP unless otherwise noted in Appendix A. **NOTE: A copy of a state permit application form may be an acceptable surrogate for the SVNF provided either form used also include plans and an Official Species List of federally listed threatened or endangered species.**

28. Inspections. The permittee shall allow the Corps to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of this GP and any written verification. The Corps may also require post-construction engineering drawings for completed work, post-dredging survey drawings for any dredging work, or other post-construction reports. To facilitate these inspections, the permittee shall complete and return to the Corps the following forms:

- For Category 1/Self-Verification: The SVNF (see Appendix B).
- For Category 2/PCN: The a) Work-Start Notification Form and b) Compliance Certification Form, when either is provided with the authorization letter.

29. Maintenance

a. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable general conditions and activity-specific conditions to a written verification.

b. The requirement in (a) above does not include maintenance of dredging projects. Each maintenance dredging event exceeding the self-verification limits requires a new PCN unless an unexpired, written PCN or other Corps authorization specifies that the permittee may “dredge and maintain” an area for a particular time period. Self-verification or PCN maintenance dredging includes only those areas and depths previously authorized and actually dredged. Maintenance dredging with ocean or open water disposal will always require a PCN and at least Category 2 review.

c. Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a)(2). Refer to Appendix A, Endnote 7.

30. Property Rights. This GP does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations.

31. Transfer of GP Verifications. When the structures or work authorized by this GP are still in existence at the time the property is transferred, the terms and conditions of this GP, including any special conditions, will continue to be binding on the entity or individual who received the GP authorizations, as well as the new owner(s) of the property. If the permittee sells the property associated with a GP verification, the permittee may transfer the GP verification to the new owner by submitting a letter to the Corps (see Appendix E for address) to validate the transfer. A copy of the GP verification must be attached to the letter, and *the letter must contain the new owner’s contact information and the following statement and signature:*

“When the structures or work authorized by this GP are still in existence at the time the property is transferred, the terms and conditions of this GP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this GP and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

32. Modification, Suspension, and Revocation. Any work authorized under this GP by self-verification or PCN may be either modified, suspended, or revoked, in whole or in part, pursuant to the policies and procedures of 33 CFR 325.7. Any such action shall not be the basis for any claim for damages against the U.S.

33. Special Conditions. The Corps may independently, or at the request of the federal resource agencies, impose other special conditions on a project authorized pursuant to this GP that are determined necessary to minimize adverse navigational and/or environmental effects or based on any other factor of the public interest. Failure to comply with all terms and conditions of the authorization, including special conditions, constitutes a permit violation and may subject the permittee to criminal, civil or administrative penalties and/or an ordered restoration.

34. False or Incomplete Information. If the Corps makes a determination regarding the eligibility of a project under this GP and subsequently discovers that it has relied on false, incomplete or inaccurate information provided by the permittee, the Corps may determine that the GP authorization is not valid; modify, suspend or revoke the authorization; and the U.S. Government may institute legal proceedings.

35. Abandonment. If the permittee decides to abandon the activity authorized under this GP, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.

36. Enforcement cases. This GP does not apply to any existing or proposed activity in Corps jurisdiction associated with an ongoing Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps or EPA, as appropriate, determines that the activity may proceed independently without compromising the enforcement action.

37. Duration of Authorization. This GP expires on October 12, 2020. Activities authorized under this GP that have commenced (i.e., are under construction) or are under contract to commence before this GP expires will have until October 12, 2021 to complete the activity under the terms and conditions of the current GP.

38. Previously Authorized Activities.

a. Projects that have received authorization (Category 1 or 2) from the Corps and that were completed under the previous PGPs, nationwide permits, regional general permits or letters of permission, shall remain authorized.

b. Activities authorized pursuant to 33 CFR Part 330.3 ("Activities occurring before certain dates") are not affected by this GP.

c. Any work not commenced nor completed that was authorized in a written letter from the Corps under the GP in effect between October 12, 2010 and October 12, 2015 remains authorized subject to the terms and general conditions of this GP along with any special conditions in the authorizing written letter. Exception – if previously authorized work is not commenced and a new federally listed threatened or endangered species could be affected, the Corps must consult with the Service(s) prior to re-authorizing the work under this GP. Requests for re-authorization must include an updated Official Species list. To request an Official Species List, refer to the instructions in Appendix D.

39. Discretionary Authority. Notwithstanding compliance with the terms and conditions of this permit, the Corps retains discretionary authority to require Category 2 or Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest [33 CFR 320.4(a)]. This authority is invoked on a case-by-case basis whenever the Corps determines that the potential consequences of the proposal warrant a higher level of review based on the concerns stated above. This authority may be invoked for projects that may contribute to cumulative environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project that is not already covered by the remaining conditions of the GP and that warrants greater review. Whenever the Corps notifies an applicant that an Individual Permit may be required, the project is not authorized under this GP and no work may be conducted until an Individual Permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under this GP.

40. St. John/St. Croix Rivers. Work within the Saint John and Saint Croix River basins that requires approval of the International Joint Commission is not eligible for Category 1 and a PCN to the Corps is required if any temporary or permanent use, obstruction or diversion of international boundary waters could affect the natural

flow or levels of waters on the Canadian side of the line; or if any construction or maintenance of remedial works, protective works, dams, or other obstructions in waters downstream from boundary waters could raise the natural level of water on the Canadian side of the boundary.

41. National Lands. Activities that impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary, National Park or any other area administered by the National Park Service, U.S. Fish and Wildlife Service (USFWS) or U.S. Forest Service are not eligible for Category 1 and require a PCN.

42. Essential Fish Habitat (EFH). Any work in the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration, shall not be authorized under Category 1 of the GP and must be screened for potential impacts to EFH (see Appendix G for more information).

Androscoggin River	Aroostook River	Boyden River	Dennys River
Ducktrap River	East Machias River	Hobart Stream	Kennebec River
Machias River	Narraguagus River	Orland River	Passagassawaukeag River
Patten Stream	Penobscot River	Pleasant River	Presumpscot River
Saco River	Sheepscot River	St. Croix River	Tunk Stream
			Union River

The above does not apply to the following activities which may qualify for Category 1 work:

- Exploratory drilling and borings for bridges.
- Moorings (see Appendix A, Page 28 for Category 1 thresholds and requirements)
- Structures, floats & lifts (see Appendix A, Page 29 for Category 1 thresholds and requirements)
- Other activities specified in a programmatic agreement with NMFS.

43. Work Site Restoration

a. Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

b. Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be properly stabilized. Any seed mix shall contain only plant species native to New England and shall not contain any species listed in the "Invasive and Other Unacceptable Plant Species" Appendix in the "New England District Compensatory Mitigation Guidance" (see GC 24 and refer to Appendix G). This list may be updated periodically.

c. In areas of authorized temporary disturbance, if trees are cut they shall be cut at ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

44. Bank Stabilization

a. Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction shall be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable.

b. Project proponents must design and construct bank stabilization projects using this sequential minimization process: avoidance of aquatic resource impacts, diversion of overland flow, vegetative stabilization, stone-sloped surfaces, and walls/bulkheads. Vertical walls/bulkheads shall only be used in situations where reflected wave energy can be tolerated.

c. Inland Water bank stabilization activities necessary for erosion prevention must meet all of the following criteria: i) No material is placed in excess of the minimum needed for erosion protection; ii) The activity is no more than 500 feet in total length along the bank(s); iii) The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark; iv) Structures angled steeper than 1H:1V and any material other than angular or sub-angular stone or fiber roll revetments require at least a Category 2 review; v) The activity does not involve discharges of dredged or fill

Section IV

material into special aquatic sites; vi) No material is of the type, or is placed in any location, or in any manner, to impair surface water flow into or out of any water of the U.S.; vii) No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and viii) The activity is not a stream channelization activity.

d. Bank stabilization activities in tidal waters are provided at Appendix A, Page 30 & 31. Direct impacts in tidal waters from contiguous bank stabilization projects in excess of 200 linear feet (Applicant or Applicant + Abutters combined) must undergo Category 2 review.

45. Stream Work and Crossings & Wetland Crossings

Notes:

a. For *Stream Work and Crossings* below, conditions (a) and (b) apply to Inland Waters and Wetlands (see Appendix A, Page 1 for definition) and Navigable Waters (see Appendix A, Page 27 for definition). Conditions (c)-(I) below only apply to Inland Waters and Wetlands that are streams. All new and replacement crossings in Navigable Waters require an application to the Corps and at least a Category 2 review.

b. In-stream work in a watershed occupied by listed Atlantic salmon, Atlantic sturgeon, or shortnose sturgeon [see GC 8(b)] and some stream work such as crossings on EFH waters (see GC 42) is not eligible for Category 1.

c. “High-Quality Stream Segments” are shown at www.maine.gov/dep/gis/datamaps and may be useful in evaluating impacts to fisheries. GIS shape files are under “Other Google Earth Interactive Maps” and PDFs by county are under “DEP GIS Maps.” See Appendix E for more state contact information.

Conditions for Stream Work and Crossings:

a. All permanent crossings of rivers, streams, brooks, etc. (hereon referred to as “streams”) shall be suitably culverted, bridged, or otherwise designed to i) withstand and to prevent the restriction of high flows to qualify for Category 1, and ii) not obstruct the movement of or not substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, beyond the actual duration of construction unless the activity’s primary purpose is to impound water to qualify for Category 1 or 2. (NOTE: Areas of fill and/or cofferdams must be included in total waterway/wetlands impacts to determine applicability of this GP).

b. Any work that temporarily or permanently impacts upstream or downstream flood conditions, or permanently impacts wetlands in excess of Category 1 thresholds, must be reviewed at least under Category 2. See the documents referenced in Appendix G, 8(c) and (d) for guidance.

c. New Stream Crossings. For new stream crossings to qualify for Category 1:

i. Must ensure compliance with GC 45(a) and GC 45(b) above.

ii. Shall be designed and constructed in accordance with the Corps General Stream Crossing

Standards provided on Page 19 and the stream simulation document listed at Appendix G, 8(a).

d. Replacement Stream Crossings. For replacement stream crossings to qualify for Category 1:

i. Must ensure compliance with GC 45(a) and GC 45(b) above.

ii. Shall be designed and constructed in accordance with the Corps General Stream Crossing

Standards provided on Page 19 and the stream simulation document listed at Appendix G, 8(a).

e. Culvert Extensions. Culvert extensions on culverts that do not meet the Corps General Stream Crossing Standards do not qualify for Category 1 and require an application to the Corps and at least Category 2 review.

f. Temporary Stream Crossings.

Note: The General Stream Crossing Standards don’t apply to temporary stream crossings.

i. Temporary stream crossings or cofferdams shall be used for equipment access across streams [see Appendix G, 8(e)]. Note: Areas of fill and/or cofferdams must be included in total waterway/wetlands impacts to determine the review category in Appendix A.

ii. Temporary stream crossings shall be removed within 180 days to qualify for Category 1.

iii. Temporary stream crossings that are not spans¹⁷ (typically culverts) must be designed in accordance with 1-6 below to qualify for Category 1. Category 2 applications should include information demonstrating 2-6 below:

1. Installed and removed during the low flow period specified in GC 45(l) below.
2. Placed on geotextile fabric or other material where practicable to ensure restoration to the original grade. Soil may not be used to construct or stabilize these structures and rock must be large enough to allow for easy removal without disrupting the streambed.
3. Designed and maintained to withstand and pass high flows. Water height should be no higher than the top of the culvert's inlet. A minimum culvert diameter of two feet is required to pass debris. Culverts must be aligned to prevent bank erosion or streambed scour.
4. Equipped with energy dissipating devices installed downstream if necessary to prevent scour.
5. Designed and maintained to prevent soil from entering the waterbody.
6. Removed upon the completion of work. Impacts to the streambed or banks requires restoration to their original condition using stream simulation methods¹⁸.

g. Slip Lining. Work using slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe), invert lining, or resulting in decreased diameter, does not qualify for Category 1, either as new work or maintenance activities.

h. Work in Flowing Waters. To qualify for Category 1, no unconfined fill [see GC 14(b)] or excavation in flowing waters is allowed. To accomplish this:

i. Bank stabilization work below ordinary high water (OHW) shall utilize erosion controls such as inflatable cofferdams, jersey barrier, silt screen, turbidity curtain, etc. where practicable to prevent sediment input to the stream and to minimize turbidity and sedimentation impacts for sensitive life stages. Bank stabilization above OHW must utilize erosion controls.

ii. Management techniques such as temporary flume pipes, culverts, cofferdams, etc. must be used to maintain normal flows within the stream boundary's confines, or water diversions may be used immediately up and downstream of the work footprint (see Appendix A, Endnote 6) or work must be performed in the dry under no flow conditions, or under very low flow conditions following the practices in GC 45(a).

i. Minimization. In order to make the Category 2 review process more efficient and result in a faster decision, new and replacement stream crossings should be designed using the least intrusive and environmentally damaging method following this sequential minimization process: 1) spans with no stream impacts, 2) spans with stream impacts, and 3) embedded culverts with stream simulation or low-slope design.

j. Maintenance Requirements. The permittee shall maintain the work authorized herein in good condition and in conformance with the terms and general conditions of this permit to facilitate aquatic life passage as stated in GC 45(a). Culverts that develop "hanging" inlets or outlets, result in bed washout, or a stream that doesn't match the characteristics of the substrate in the natural stream channel such as mobility, slope, stability confinement will require maintenance or repair to comply with this GC. This does not apply to GC 45(f) above.

k. Maintenance and Replacement Information. An existing stream crossing must be authorized and in compliance with all conditions of its authorization(s) to qualify for maintenance not subject to regulation. See Appendix A, Endnote 7. A non-serviceable crossing is not eligible for maintenance and is therefore considered as a replacement crossing [see GC 45(d)].

l. Work Window. For projects that otherwise meet the terms of Category 1, in-stream construction work shall be conducted during the low flow period July 15 – September 30 in any year. Projects that are not to be conducted during that time period are ineligible for Category 1 and shall be screened pursuant to Category 2, regardless of the waterway and wetland fill and/or impact area.

Corps General Stream Crossing Standards (required for Category 1; recommended for Category 2):

- a. Culverts must be embedded:

¹⁷ For the purposes of this GP, spans are bridges, three-sided box culverts, open-bottom culverts or arches that span the stream with footings landward of bankfull width.

¹⁸ Design and construction shall be in accordance with the stream simulation document listed at Appendix G, 8(a).

- ≥ 2 feet for box culverts and other culverts with smooth internal walls,
- ≥ 1 foot for corrugated pipe arches
- ≥ 1 foot and at least 25 percent for corrugated round pipe culverts

b. **For new crossings**, spans¹⁷ are required to avoid or cause minimal disruption to the streambed and to meet the requirements of General Condition 45(a) and 45(b). Footings and abutments must be landward of 1.2 times bankfull width. To the greatest extent practicable, work in the stream shall be minimized, and design and construction shall allow the streambed's natural structure and integrity to remain intact. Any fill or excavation of the streambed below bankfull width other than footings, support pilings, or work specified in 45(h)ii requires Category 2 review and, unless demonstrated otherwise, stream simulation¹⁸ to establish substrate and banks in the span structure and work area as specified in (d) and (e) below.

c. **For replacement crossings**, spans¹⁷ are required to meet the requirements of General Condition 45(a) and 45(b). Footings and abutments shall be landward of 1.2 times bankfull width. Unless demonstrated otherwise, stream simulation¹⁸ is required to establish substrate and banks in the span structure and work area as specified in (d) and (e) below.

d. Crossings must have a natural bottom substrate within the structure matching the characteristics of the substrate in the natural stream channel and the banks (mobility, slope, stability, confinement, grain and rock size) at the time of construction and over time as the structure has had the opportunity to pass significant flood events. To allow terrestrial passage for wildlife and prevent undermining the footings, crossings shall have a bank on both sides of the stream matching the horizontal profile of the existing stream and banks¹⁸. Note: Installation of substrate material within smaller culverts may not be safe or practicable. In these cases, it may be necessary to allow for natural deposition and bed development unless alternative methods are identified.

e. Crossings must be designed and constructed¹⁸ with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows. In order to provide appropriate water depths and velocities at a variety of flows and especially low flows, it is usually necessary to reconstruct the streambed or preserve the natural channel within the structure. Otherwise, the width of the structure needed to accommodate higher flows will create conditions that are too shallow at low flows. The grain and rock size, and arrangement of streambed materials within the structure should be in accordance with (d) above. Flows could go subsurface within the structure if only large material is used without smaller material filling the voids.

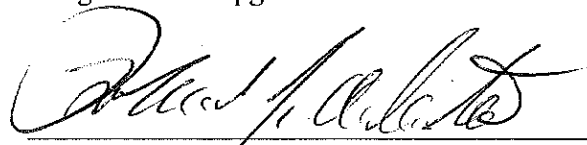
Conditions for Wetland Crossings:

a. All temporary and permanent crossings of wetlands shall be suitably culverted, bridged, or otherwise designed to: i) Withstand and prevent the restriction of high flows, ii) Not obstruct the movement of or not substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the wetland, including those species that normally migrate through the area, beyond the actual duration of construction unless the activity's primary purpose is to impound water. See Appendix E for the Maine DEP's crossing standards.

b. To qualify for Category 1, new and replacement wetland crossings that are permanent shall be culverted, spanned or bridged in such a manner as to preserve hydraulic and ecological connectivity, at its present level, between the wetlands on either side of the road. To meet this requirement, we recommend that culverts, spans or bridges be placed at least every 50 feet with an opening at least 2 feet high and 3 feet wide at ground level where practicable. Closed bottom culverts shall be embedded at least 6 inches with a natural bottom.

c. In the case of non-compliance, the permittee shall take necessary measures to correct wetland damage due to lack of hydraulic and ecological connectivity.

d. Any work that results in flooding, results in impacts to wetlands on either side of the wetland crossing in excess of Category 1 thresholds, or impacts wetland drainage from the upgradient side of the wetland crossing does not qualify for Category 1.



Robert J. Desista
Deputy Chief, Regulatory Division
For DISTRICT ENGINEER

DATE

10/13/15

APPENDIX A: DEFINITION OF CATEGORIES

APPENDIX A: DEFINITION OF CATEGORIES		
A. INLAND WATERS AND WETLANDS	Inland Waters and Wetlands: Waters that are regulated under Section 404 of the Clean Water Act, including rivers, streams, lakes, ponds and wetlands, and <i>excluding Section 10 Navigable Waters of the U.S. (tidal and freshwater)</i> . The jurisdictional limits are the ordinary high water (OHW) mark in the absence of adjacent wetlands, beyond the OHW mark to the limit of adjacent wetlands when adjacent wetlands are present, and the wetland limit when only wetlands are present. For the purposes of this GP and designated activities, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands ¹ to tidal waters are reviewed in the Navigable Waters section. (See B. Navigable Waters on page 27 below.) Projects not meeting Category 1 require an application for review as a Category 2 or Individual Permit project. All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 – 4) and General Conditions (Pages 5–20).	
ACTIVITY	CATEGORY 1 Self-Verification Eligible (<i>SVNF Required</i>)	CATEGORY 2 (<i>PCN Required</i>)
1. Repair, Replacement, and Expansion of Maintenance of Authorized Structures and Fills	Repair or maintenance of existing, currently serviceable, authorized fills with no expansion or change in use: • Conditions of the original authorization apply. • Minor deviations in fill design allowed.⁷ • The repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events is authorized, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. • No effect on federally listed endangered or threatened species or critical habitat.	Replacement of non-serviceable fills, or repair/maintenance of serviceable fill, with expansion <3 acres, or with a change in use.
2. Moorings	NA – moorings in non-navigable inland waters are not subject to Corps jurisdiction. Note: Moorings placed in freshwater navigable waters are reviewed in the Navigable Waters section. (See B. Navigable Waters on Page 28 below.)	NA
3. Structures, Floats & Lifts	For solid fill or crib supported structures on inland waters, <15,000 square feet (SF) of waterway and/or wetland fill, associated secondary impacts ² , and temporary fills. • No effect on federally listed endangered or threatened species or critical habitat. • Note: Temporary or permanent structures placed in freshwater navigable waters are reviewed in the Navigable Waters section. (See B. Navigable Waters on page 29 below.	1. Work not eligible for Category 1 2. ≥15,000 SF to <3 acres of inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, fragmented, or excavated).
4. Aids to Navigation and Temporary Recreational Structures	NA - this activity in non-navigable inland waters is not subject to Corps jurisdiction. Note: Aids to Navigation and other structures placed in freshwater navigable waters are reviewed in the Navigable Waters section. (See B. Navigable Waters on page 30 below.)	NA

5. Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation	1. For regulated discharges associated with excavation, and disposal <15,000 SF inland waterway and/or wetland impacts. 2. The activity does not occur in navigable waters of the U.S. 3. Stream channelization, relocation or loss of streambed including impoundments or discharge of tailings into streams does not occur. 4. No effect on federally listed endangered or threatened species or critical habitat.	1. Work not eligible for Category 1 2. ≥15,000 SF to <3 acres of inland waters.
6. Discharges of Dredged or Fill Material Incidental to the Construction of Bridges	NA - For discharges incidental to the construction of bridges in inland waters of the U.S. refer to Activity 23 (Stream and Wetland Crossings) and GC 45. Note: Discharges of Dredged or Fill Material Incidental to the Construction of Bridges in freshwater navigable waters are reviewed in the Navigable Waters section. (See B. Navigable Waters on page 30 below.)	NA
7. Bank and Shoreline Stabilization	Inland bank stabilization <500 FT long and ≤1 CY of fill per linear foot below OHW, provided: • ≤1 cubic yard of fill per linear foot placed along the bank waterward of ordinary high water. • Work complies with the GCs (GC 44 in particular), including: ◦ No structures angled steeper than 1H:1V allowed. Only rough-faced stone or fiber roll revetments allowed. ◦ No in-stream work involving fill or excavation in flowing waters (see GC 45(h)). • In-water work limited to Jul 15 – Sep 30. • No work in vernal pools⁵ or SAS³. • No effect on federally listed endangered or threatened species or critical habitat.	Work not eligible for Category 1
8. Residential, Commercial, Industrial, and Institutional Developments, and Recreational Facilities	1. <15,000 SF of inland waterway and/or wetland fill and associated secondary impacts² (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Construction mats are considered as fill. [See GC 14] <u>Provided:</u> • Historic fill + proposed impact area <15,000 SF complies with GC 5, Single and Complete Projects. • No work in special aquatic sites (SAS)⁴ other than wetlands. • No effect on federally listed endangered or threatened species or critical habitat. 2. For work in Vernal Pool (VP) Management Areas (includes VPs)⁵: • See GC 23 and Appendix C for VP delineation requirements.	1. Work not eligible for Category 1. 2. ≥15,000 SF to <3 acres of inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, fragmented, or excavated). Fill area includes all temporary and permanent fill (including mats), and regulated discharges associated with excavation. 3. <i>Mechanical clearing without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for Category 2 at the discretion of the Corps.</i> See GC 2 and Appendix C for wetland delineation requirements.

9. Utility Line Activities	• See GC 23 to determine if work qualifies for Category 1 or 2. • See Appendix G for VP documents providing mitigation guidance. 1. <15,000 SF of inland waterway and/or wetland fill, associated secondary impacts², and temporary fills. 2. The activity does not occur in, over, or under navigable waters of the U.S. 3. Intake structures that are dry hydrants used exclusively for firefighting activities with no stream impoundments. 4. There is no permanent change in pre-construction contours in waters of the U.S. 5. Material resulting from trench excavation is temporarily side cast into waters of the U.S. for ≤3 months and is placed in such a manner that it is not dispersed by currents or other forces. 6. The utility line is placed within and does not run a) parallel to, or b) along a streambed. 7. Stream channelization, relocation or loss of streambed including impoundments does not occur. 8. No effect on federally listed endangered or threatened species or critical habitat. 9. There is no discharge in SAS other than non-tidal wetlands. 10. Construction mats⁴ of any area necessary to conduct activities that were previously authorized, authorized under Category 1, or not subject to regulation (see Endnote 7). Authorized construction mats must be in place for <3 months, removed immediately upon work completion, and the wetlands must be restored (see GC 43). 11. Stream crossings must comply with GC 17.	1. Work not eligible for Category 1 2. ≥15,000 SF to <3 acres of inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, fragmented, or excavated). Fill area includes all temporary and permanent fill (including mats), and regulated discharges associated with excavation. 3. <i>Mechanical clearing without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for Category 2 at the discretion of the Corps.</i>
10. Linear Transportation Projects (not including stream crossings) For stream crossings, refer to Activity 23	1. <15,000 SF of inland waterway and/or wetland fill associated secondary impacts (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Construction mats are considered fill. (See GC 14.) Provided: • Historic fill + proposed impact area <15,000 SF and complies with GC 5 single and complete projects. • No work in special aquatic sites (SAS) other than wetlands. 2. Construction mats⁴ of any area necessary to conduct activities that were previously authorized, authorized under Category 1, or not subject to regulation (see Endnote 7). Authorized construction mats must be in place for <3 months, removed immediately upon work completion, and the wetlands must be restored (see GC 43). 3. No effect on federally listed endangered or threatened species or critical habitat.	1. ≥15,000 SF to <3 acres of inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, fragmented, or excavated). Fill area includes all temporary and permanent fill (including mats), and regulated discharges associated with excavation. 2. <i>Mechanical clearing without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for Category 2 at the discretion of the Corps.</i>

11. Mining Activities	1. <15,000 SF of inland waterway and/or wetland fill, associated secondary impacts, and temporary impacts. 2. The activity does not occur in navigable waters of the U.S. 3. Stream channelization, relocation or loss of streambed including impoundments or discharge of tailings into streams does not occur. 4. No effect on federally listed endangered or threatened species or critical habitat.	1. Work not eligible for Category 1. 2. ≥15,000 SF to <3 acres of inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, fragmented, or excavated). Fill area includes all temporary and permanent fill (including mats), and regulated discharges associated with excavation.
12. Boat Ramps	1. <15,000 SF of inland waterway and/or wetland fill, associated secondary impacts, and temporary impacts. 2. No effect on federally listed endangered or threatened species or critical habitat.	1. Work not eligible for Category 1 2. >15,000 SF and < 3 acres of impact.
13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects	<i>For land-based facilities:</i> 1. <15,000 SF of inland waterway and/or wetland fill, associated secondary impacts, and temporary impacts. 2. Stream channelization, relocation or loss of streambed including impoundments does not occur. 3. No effect on federally listed endangered or threatened species or critical habitat. <i>For water-based facilities and hydropower projects:</i> No new facilities are eligible. Not Applicable	<i>For land-based activities:</i> 1. Work not eligible for Category 1. 2. >15,000 SF and < 3 acres impact. 3. <i>Mechanical clearing without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for Category 2 at the discretion of the Corps.</i> <i>For water-based facilities and hydropower projects:</i> > 3 acres of impact will require an IP. Not Applicable
14. Reshaping Existing Drainage Ditches & Mosquito Management	Not Applicable	Not Applicable
15. Oil Spill and Hazardous Material Cleanup	Jurisdictional activities required for the containment and cleanup of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) provided that the work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR 112.3 or any existing state contingency plan and provided that the Regional Response Team (if one exists in the area) concurs with the proposed containment and cleanup action. SAS³ must typically be restored in place at the same elevation. <i>Note: SVN/F or a surrogate state reporting form may be submitted after the fact.</i>	Work not eligible for Category 1

16. Cleanup of Hazardous and toxic waste	Specific jurisdictional activities to effect the containment, stabilization, or removal of hazardous or toxic waste materials, including court ordered remedial action plans or related settlements, which are performed, ordered or sponsored by a government agency with established legal or regulatory authority. SAS should be restored in place at the same elevation. • <15,000 SF of inland waterway and/or wetland fill, associated secondary impacts, and temporary impacts. • No stream channelization, relocation or loss of streambed occurs. • The project does not involve establishing new disposal sites or expanding existing sites used for the disposal of hazardous or toxic waste. • No effect on federally listed endangered or threatened species or critical habitat.	Work not eligible for Category 1
17. Scientific Measurements Devices	1. Scientific measurement devices whose purpose is to measure and record scientific data, such as staff gages, water recording devices, water quality testing and improvement devices, and similar structures. This excludes any biological sampling devices. Structures may not restrict or concentrate movement of aquatic organisms. 2. No effect on federally listed endangered or threatened species or critical habitat.	Work not eligible for Category 1
18. Survey Activities	1. Jurisdictional survey activities, such as core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching, soil surveys, sampling, and historic resources surveys (but not recovery). Exploratory trenches must be restored in accordance with GC 43. The construction of temporary pads is authorized provided the discharge doesn't exceed 25 CY. This doesn't authorize permanent structures or the drilling and the discharge of excavated material from test wells for oil and gas exploration (the plugging of such wells is authorized). 2. No effect on federally listed endangered or threatened species or critical habitat.	Work not eligible for Category 1
19. Agricultural Activities	1. For those activities subject to Corps jurisdiction¹⁶, <15,000 SF of inland waterway and/or wetland fill, associated secondary impacts, and temporary impacts. 2. No stream channelization, relocation, loss of streambed, or farm ponds in streams. 3. No effect on federally listed endangered or threatened species or critical habitat.	1. ≥15,000 SF to <3 acres of inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, fragmented, or excavated). Fill area includes all temporary and permanent fill (including mats), and regulated discharges associated with excavation. 2. > 3 acres of impact will require an IP.

20. Fish and Wildlife Harvesting, Enhancement and Attraction Devices and Activities	NA - this activity in non-navigable inland waters, if not involving a discharge of dredged or fill material, is not subject to Corps jurisdiction. Note: Related structures placed in freshwater navigable waters (e.g. the upper Penobscot or Kennebec Rivers) are reviewed in the Navigable Waters section. (See B. Navigable Waters on Page 33 below.)	Not Applicable
21. Habitat Restoration, Establishment and Enhancement Activities	<15,000 SF of inland waterway and/or wetland fill, associated secondary impacts, and temporary impacts. - The activity is supported in writing by a local, state, or non-Corps Federal environmental agency. Water impoundments require PCN. - No conversion of i) a stream to wetland or vice versa, wetland to a pond or uplands, and ii) one wetland type to another. - No dam removal. - No effect on federally listed endangered or threatened species or critical habitat.	- Work not eligible for Category 1 - Aquatic habitat restoration, establishment, and enhancement of wetlands and riparian areas and the restoration and enhancement of streams and other open waters with impacts of any area $\geq 15,000$ SF, provided those activities result in net increase in overall aquatic resource functions and services.⁸
22. Previously Authorized Activities	Any work not commenced nor completed that was authorized in a written letter from the Corps under the GP in effect between October 12, 2010 and October 12, 2015. The terms and general conditions of this GP apply along with any special conditions in the written authorization.	
23. Stream & Wetland Crossings	- River, stream and brook work and crossings: - Must comply with GC 45 in particular, including: - No slip lining [see GC 45 (g)]. - No in-stream work involving fill or excavation in flowing waters [see GC 45(h)]. - In-stream work limited to Jul 15 – Sep 30 [see GC 45 (I)]. - No work in riffles and pools³. - No stream relocations. - No dams or dikes⁶. - No effect on federally listed endangered or threatened species or critical habitat. <15,000 SF of inland waterway and/or wetland fill, associated secondary impacts, and temporary impacts. - Wetland crossings must comply with the particularly relevant GC 45.	Work not eligible for Category 1
24. Aquaculture (freshwater)	For land based installations, <15,000 SF of inland waterway and/or wetland fill, associated secondary impacts, and temporary impacts. - In-stream/in-water work limited to Jul 15 – Sep 30. - No effect on federally listed endangered or threatened species or critical habitat. Note: Related structures placed in freshwater navigable waters are reviewed in the Navigable Waters section. (See B. Navigable Waters, below.)	Work not eligible for Category 1

B. NAVIGABLE WATERS	Navigable Waters of the United States: Waters that are subject to the ebb and flow of the tide and/or the tidal and non-tidal portions of the Federally designated navigable waters (the Penobscot River, Kennebec River, and Lake Umbagog) (Section 10 Rivers and Harbors Act of 1899). The jurisdictional limits are the mean high water (MHW) line in tidal waters and the ordinary high water (OHW) mark in non-tidal portions of the federally designated navigable rivers. For the purposes of this GP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands¹ to tidal waters are also reviewed in this Navigable Waters section. Projects not meeting Category 1 require an application for review as a Category 2 or Individual Permit project. All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 - 4) and General Conditions (Pages 5 - 20).
ACTIVITY	CATEGORY 1 Self-Verification Eligible (SVNF Required)
1. Repair, Replacement, and Expansion of Maintenance of Authorized (or grandfathered) Structures and Fills	CATEGORY 2 (PCN Required) 1. Repair, replacement in-kind, or maintenance⁷ of existing, currently serviceable⁷, authorized structures or fills: • All work is to be conducted in-the-dry, during low water. • Conditions of the original authorization apply. • No substantial expansion or change in use. • No new fill in SAS³. • Must be rebuilt in same footprint, however minor deviations in structure design allowed⁷. • The repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events is authorized, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. 2. <1 acre temporary or permanent fill, excavation and/or secondary impacts. Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF. 3. Standard Pile Driving Conditions. Work involving piles shall adhere to one of the four methods below: • Piles installed in-the-dry during low water or in-water between Nov. 8th - Apr. 9th, or • Must be drilled and pinned to ledge, or • Vibratory hammers used to install any size and quantity of wood, concrete or steel piles, or • Impact hammers limited to one hammer and <50 piles installed/day with the following: wood piles of any size, concrete piles ≤18-inches diameter, steel piles <12-inches diameter if the hammer is ≤3000 lbs and a wood cushion is used between the hammer and steel pile, and For the methods above: ○ In-water noise levels shall not exceed >187dB cSEL re 1μPa or 206dB peak re 1μPa at a distance >10m from the pile being installed, and ○ In-water noise levels >150dB peak re 1μPa shall not exceed 12 consecutive hours on any given day and a 12 hour recovery period (i.e., in-water noise below 150dB peak re 1μPa) must be provided between work days. • Existing derelict, degraded or abandoned piles in the project area that are affected by project activities should be removed and properly disposed of in an upland location landward of MHW or OHW and not in wetlands, tidal wetlands, their substrate or inudflats.

2. Moorings	1. Private, non-commercial, non-rental, single-boat moorings, provided: • Authorized by the local harbormaster/town. • Not associated with any boating facility.¹¹ • Boat or mooring not located in a Federal Navigation Project or buffer zone¹² other than in a Federal Anchorage¹². Moorings in a Federal Anchorage not associated with a boating facility¹¹ and are not for rent. • No interference with navigation. • No new moorings located in SAS³. Prior to installation of moorings, a site-specific eelgrass survey should be conducted to document that eelgrass is not present. • When existing, authorized moorings in SAS³ are going to be replaced, they should be replaced with low impact mooring technology that prevents mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems where practicable. 2. Minor relocation of previously authorized moorings, provided: • Authorized by the local harbormaster/town. • Not located in SAS³ • No interference with navigation. • Cannot be relocated into a Federal Navigation Project¹² other than a Federal Anchorage¹² Note: Cat 1 eligible moorings do not require SVNf.	1. Moorings associated with an existing boating facility¹¹. An eelgrass¹⁴ survey may be required. 2. Moorings that don't meet the terms in Category 1 and don't require an Individual Permit. This includes private moorings with no harbormaster or means of local approval. 3. Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits¹³ of a Federal Channel¹². (See Appendix H.) The buffer zone is equal to 3 times the authorized depth of that channel. 4. An IP is required for moorings within the horizontal limits¹¹, or with moored vessels that extend, into the horizontal limits of a Federal Navigation Project¹², except those in Federal Anchorages¹². <i>For 1-4 above, siting of new individual moorings in SAS³, including eelgrass¹⁴, should be avoided to the maximum extent practicable. If SAS³ cannot be avoided, plans should show elastic mooring systems that prevent mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems, where practicable. For moorings that appear to impact SAS, the Corps may require an eelgrass survey.</i>
3. Structures, Floats and Lifts	1. Reconfiguration of existing authorized structures shall occur in-the-dry during low water. 2. Minor relocation of previously authorized floats or moored floats/lobster cars, provided: • Authorized by the local harbormaster/town. • Not located in SAS³. • No interference with navigation. • Cannot be relocated into a Federal Navigation Project¹² other than a Federal Anchorage¹².	1. New structures or floats, including floatways/skidways, built to access waterway (seasonal and permanent). Includes both pile supported and crib supported structures. 2. Expansions to existing boating facilities¹¹ • <i>Pile-supported structures <400 SF, with attached floats totaling ≤200 SF.</i> • <i>Bottom anchored floats ≤200 SF.</i> • <i>Structures are ≤4' wide and have at least a 1:1 height:width ratio¹¹.</i> • <i>Floats supported a minimum of 18" above the substrate during all tides.</i> • <i>Structures & floats not located within 25' of any eelgrass⁸.</i> • <i>Moored vessels not positioned over SAS³.</i> • <i>The Corps may require a letter of no objection from the abutter if</i>

	<i>structure is to be within 25 feet of the property line.</i> • <i>No structure extends across >25% of the waterway width at mean low water.</i> • <i>Not located within the buffer zone of the horizontal limits¹³ of a Corps Federal Navigation Project (FNP) (App. F). The buffer zone is equal to three times the authorized depth of that FNP.</i> 3. An Individual Permit is required for structures or floats, including floatways/skidways, located such that they and/or vessels docked or moored at them are within the horizontal limits¹³ of a Corps Federal Navigation Project¹² (see App. H). 4. An Individual Permit is required for structures & floats associated with a new or previously unauthorized boating facility¹¹. 5. Standard Pile Driving Conditions. Work involving piles shall adhere to one of the four methods below: • Piles installed in-the-dry during low water or in-water between Nov. 8th - Apr. 9th, or • Must be drilled and pinned to ledge, or • Vibratory hammers used to install any size and quantity of wood, concrete or steel piles, or • Impact hammers limited to one hammer and <50 piles installed/day with the following: wood piles of any size, concrete piles ≤18-inches diameter, steel piles <12-inches diameter if the hammer is ≤3000 lbs and a wood cushion is used between the hammer and steel pile, and • For the methods above: ○ In-water noise levels shall not exceed >187dB cSEL re 1μPa or 206dB peak re 1μPa at a distance >10m from the pile being installed, and ○ In-water noise levels >150dB peak re 1μPa shall not exceed 12 consecutive hours on any given day and a 12 hour recovery period (i.e., in-water noise below 150dB peak re 1μPa) must be provided between work days. • Existing derelict, degraded or abandoned piles in the project area that are affected by project activities should be removed and properly disposed of in an upland location landward of MHW or OHW and not in wetlands, tidal wetlands, their substrate or mudflats.

4. Aids to Navigation and Temporary Recreational Structures	1. Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are removed within 30 days after use is discontinued. 2. The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard. (See 33 CFR 66, Chapter I, subchapter C).” <i>Note: Cat 1 eligible aids to navigation and regulatory markers do not require SVN.</i>	Work not eligible for Category 1
5. Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation	1. Maintenance dredging¹⁰ for navigational purposes <1,000 CY with upland disposal. Includes return water from upland contained disposal area, provided: • Proper siltation controls are used. • Dredging & disposal operation limited to Nov. 8 – Apr. 9. • No impact to SAS³. • No dredging in intertidal areas. • No dredging within 100’ of shellfish beds. • No dredging in areas designated as Critical Habitat for Atlantic salmon [see GC 8(b) & (c)]. • For dredging in tidal waters outside of Atlantic salmon critical habitat, applicants must contact NMFS (see GC 8) to ensure no impacts to listed species such as shortnose sturgeon, Atlantic sururgeon, and listed sturgeon critical habitat. • Project proponents must contact the USFWS for work on coastal beaches to ensure no impacts to piping plovers, roseate terns, rufa red knot, or their habitat [see GC 8(c)]. • No underwater blasting. 2. Maintenance dredging is not eligible for Category 1 if conducted in tidal portions of the Penobscot river upstream of a line extending from Turner point in Castine to Moose Point (formerly Squaw Point) on Cape Jellison in Stockton Springs or in tidal portions of the Kennebec or Androscoggin Rivers upstream of a line extending from Doubling point in Arrowsic to Hospital Point in West Bath.	1. Maintenance dredging¹⁰ ≥1,000 CY, new dredging <25,000 CY, or projects not meeting Category 1. Includes return water from upland contained disposal areas. Disposal includes: • Upland. • Beach nourishment (above mean high water) of any area provided the dredging’s primary purpose is navigation or the sand is from an upland source. • Open water & confined aquatic disposal, if Corps finds the material suitable. 2. Beach nourishment associated with dredging when the primary purpose is not navigation requires at least a Category 2 review. 3. Maintenance or new dredging¹⁰ and/or disposal in or affecting a SAS³ requires an Individual Permit.

6. Discharges of Dredged or Fill Material Incidental to the Construction of Bridges	1. Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the U.S., including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided the U.S. Coast Guard authorizes such discharges as part of the bridge permit or appropriate approval. 2. Causeways and approach fills are not included in this category and require Category 2 or Individual Permit authorization.	<1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF.
7. Bank and Shoreline Stabilization	1. Bank stabilization projects <200 linear feet provided: • ≤1 cubic yard of fill per linear foot placed along the bank waterward of high tide line. No fill or equipment will occur in SAS³. • Work conducted in the intertidal zone must be conducted in-the-dry during low water. • No structures angled steeper than 1H:1V and only rough-faced stone or fiber roll revetments allowed. • No driving of piles or sheeting. 2. Bank stabilization projects in excess of 200 linear feet (Applicant or Applicant + Abutters combined) must undergo Category 2 review.	1. Work not eligible for Category 1. 2. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF.
8. Residential, Commercial, Industrial, and Institutional Developments, and Recreational Facilities	Not Eligible	1. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF. 2. Conversions of previously authorized pile supported buildings over navigable waters to residences, offices, or other non-water dependent uses require at least a Category 2 review. 3. Floating house boats or businesses on floats require Category 2 review.
9. Utility Line Activities	1. Repair or maintenance of existing, currently serviceable, authorized utilities with no expansion or change in use: • Conditions of the original authorization apply. • Trenching or filling is confined to the existing footprint. • In water work conducted between Nov 8 and Apr 9. • No new impact to SAS. 3. <u>New work</u> in, over, or under navigable waters requires a PCN and Category 2 review. 4. Except for aerial utility lines, work is not eligible for Category 1 if	1. New or replacement installations or work not otherwise eligible for Category 1. 2. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF. 3. Particularly relevant is GC12

	conducted in tidal portions of the Penobscot river upstream of a line extending from Turner point in Castine to Moose Point (formerly Squaw Point) on Cape Jellison in Stockton Springs or in tidal portions of the Kennebec or Androscoggin Rivers upstream of a line extending from Doubling point in Arrowsic to Hospital Point in West Bath.	
10. Linear Transportation Projects (Not Including Stream Crossings)	Not eligible	<1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF.
11. Mining Activities	Not Eligible	Not Eligible
12. Boat Ramps and Marine Railways	1. No new impact to SAS 2. Marine railway and boat ramp work not eligible for maintenance⁷ (i.e. not currently serviceable⁷) may be replaced "in-kind" with minor deviations⁷ provided: • Work is in the intertidal zone. • No fill expansion below high tide line. • Work conducted in-the-dry during low water. 3. No new boat ramps or marine railways.	1. Work not eligible for Category 1 2. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF.
13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects	Not Eligible	1. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF. 2. No new impoundments.
14. Reshaping Existing Drainage Ditches and Mosquito Management	1. ≤500 linear feet of drainage ditch will be modified. The reshaping of the ditch cannot increase drainage capacity beyond the original as-built capacity nor can it expand the area drained by the ditch as originally constructed (i.e., the capacity of the ditch must be the same as originally constructed and it cannot drain additional wetlands or other waters of the U.S.). 2. No new ditches or relocation of drainage ditches constructed in waters of the U.S.; the location of the centerline of the reshaped drainage ditch must be approximately the same as the location of the centerline of the original drainage ditch.	1. Work not eligible for Category 1 2. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF.

	3. No effect on federally listed endangered or threatened species or critical habitat	
15. Oil Spill and Hazardous Material Cleanup	Jurisdictional activities required for the containment and cleanup of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) provided that the work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR 112.3 and any existing state contingency plan and provided that the Regional Response Team (if one exists in the area) concurs with the proposed containment and cleanup action. SAS ³ must typically be restored in place at the same elevation. <i>Note: SVNF or a surrogate state reporting form may be submitted after the fact. No SVNF is required for Category 1 eligible containment booms.</i>	Work not eligible for Category 1
16. Cleanup of Hazardous and Toxic Waste	Not eligible - except for booms placed for hazardous and toxic waste containment and absorption and prevention which are eligible for SV. <i>Note: No SVNF is required for Category 1 eligible containment booms.</i>	Specific jurisdictional activities with impacts of any area required to affect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Wetlands and other SAS must typically be restored in place at the same elevation to qualify.
17. Scientific Measurement Devices	Scientific measurement devices whose purpose is to measure and record scientific data, such as staff gages, water recording devices, water quality testing and improvement devices, and similar structures. Structures may not restrict or concentrate movement of aquatic organisms; no activity results in a hazard to navigation; and no activity requiring underwater blasting.	1. Work not eligible for Category 1 2. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass ¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass ¹⁴) <4300 SF.
18. Survey Activities	Jurisdictional survey activities such as exploratory drilling, surveying and sampling activities, excluding any biological sampling devices. Does not include any activity requiring underwater blasting, seismic exploratory operations, or oil and gas exploration and fill for roads or construction pads. No activity may result in a hazard to navigation.	1. Work not eligible for Category 1 2. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided: • Temporary or permanent fill in eelgrass ¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass ¹⁴) <4300 SF.
19. Agricultural Activities	Not Eligible	Not Eligible

20. Fish & Wildlife Harvesting, Enhancement and Attraction Devices and Activities (Not Aquaculture)	Fish and wildlife harvesting, enhancement, and attraction devices and activities such as pound nets, crab traps, crab dredging, eel pots, lobster traps, and clam and oyster digging, and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This does not authorize artificial reefs or impoundments and semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster, or the use of covered oyster trays or clam racks. No activity that may result in a hazard to navigation. <i>Note: A SVNFI is not required for these Category 1 eligible devices and activities.</i>	1. Work not eligible for Category 1. 2. Impoundments or semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster and new fish weirs with an impounded area $\leq \frac{1}{2}$ acre. For Aquaculture operations, refer to Activity 24.
21. Habitat Restoration, Establishment and Enhancement Activities	1. Culch placement in tidal waters is eligible for SV provided there are no salt marsh or vegetated shallow impacts. 2. SAS planting and transplanting ≤ 100 SF in tidal waters; 3. No artificial or living reefs. 4. The activity is authorized in writing by a local, state, or non-Corps federal environmental agency. Water impoundments require PCN. 5. No conversion of i) a stream to wetland or vice versa, wetland to a pond or uplands, and ii) one wetland type to another. 6. No dam removal. 7. Shellfish habitat enhancement such as brushing the flats is eligible for Category 1, but not the use of netting which requires Category 2 review.	1. Work not eligible for Category 1. 2. Aquatic habitat restoration, establishment and enhancement provided those activities are proactive and result in net increases in aquatic resource functions and services.⁸
22. Previously Authorized Activities	Any work not commenced nor completed that was authorized in a written letter from the Corps under the GP in effect between October 12, 2010 and October 12, 2015. The terms and general conditions of this GP apply along with any special conditions in the written authorization.	
23. Stream & Wetland Crossings	Not Eligible	All temporary or permanent crossings of tidal navigable waters or adjacent tidal wetlands not eligible as maintenance require a PCN. GC 45 applies
24. Aquaculture	Not Eligible	Shellfish & finfish aquaculture (with the exception of Atlantic salmon and any other salmonid, or other federally listed endangered or threatened species), or other aquaculture facilities with no more than minimal individual and cumulative impacts to environmental resources or navigation. This is inclusive but not limited to cages, nets, bags, racks, long lines, fences, posts, poles, predator screening, etc. Aquaculture guidelines are provided at: www.maine.gov/dmr/aquaculture/index.htm.

Endnotes/Definitions

¹**Bordering and Contiguous Wetlands:** A bordering wetland is immediately next to its adjacent waterbody and may lie at, or below, the ordinary high water mark (mean high water in navigable waters) of that waterbody and is directly influenced by its hydrologic regime. Contiguous wetlands extend landward from their adjacent waterbody to a point where a natural or manmade discontinuity exists. Contiguous wetlands include bordering wetlands as well as wetlands that are situated immediately above the ordinary high water mark and above the normal hydrologic influence of their adjacent waterbody. Note, with respect to the federally designated navigable rivers, the wetlands bordering and contiguous to the tidally influenced portions of those rivers are reviewed under "II. Navigable Waters."

² **Direct, Secondary, and Cumulative Impacts/Effects:**

Direct Impacts: The immediate loss of aquatic ecosystem within the footprint of the fill.

Secondary Impacts: These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are a) fluctuating water levels in all impoundment and downstream associated with the operation of a dam, b) septic tank leaching and surface runoff from residential or commercial developments on fill, and c) leachate and runoff from a sanitary landfill located in waters of the U.S. Put another way, secondary effects are those impacts outside the footprint of the fill that arise from and are associated with the discharge of dredged or fill material, including the operation of an activity or facility associated with the discharge. Examples may include habitat fragmentation; interruption of travel corridors for wildlife (for example, for amphibians that migrate to and from seasonal or vernal pools used as breeding habitat); hydrologic regime changes; and impacts from operation and maintenance activities for constructed facilities; such as noise/lighting, storm water runoff, and road kill of wetland dependent wildlife. Using the directions contained in the guidelines, we consider the circumstances of a proposed discharge and the project of which it is a part to evaluate the scope, extent, severity, and permanence of direct, secondary, and cumulative adverse effects upon the aquatic ecosystem.

Cumulative Impacts: The extent of past, present, and foreseeable developments in the area may be an important consideration in evaluating the significance of a particular project's impacts. Although the impacts associated with a particular discharge may be minor, the cumulative effect of numerous similar discharges can result in a large impact. Cumulative impacts should be estimated only to the extent that they are reasonable and practical.

³**Special Aquatic Sites:** Includes wetlands and saltmarsh, mudflats, riffles and pools, and vegetated shallows (predominantly comprised of eelgrass in Maine).

⁴**Construction Mats:** Constructions, swamp and timber mats (herein referred to as "construction mats") are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together. Corduroy roads, which are not considered to be construction mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures. Like construction mats, they are considered as fill whether they're installed temporarily or permanently.

⁵**Vernal Pools:** A vernal pool, also referred to as a seasonal forest pool, is a temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus* sp.), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition. For the purposes of this GP, the presence of any of the following species in any life stage in any abundance level/quantity would designate the waterbody as a vernal pool: fairy shrimp, blue spotted salamanders, spotted salamanders or wood frogs. The Corps may determine during a Category 2 review that a waterbody should not be regulated as a VP based on available evidence. For the purposes of this GP, the VP Management Areas are the: Vernal Pool Depression (includes the vernal pool depression up to the spring or fall high water mark, and includes any vegetation growing within the depression), Vernal Pool Envelope (area within 100 FT of the VP Depression's edge) and Critical Terrestrial Habitat (area within 100-750 FT of the Vernal Pool Depression's edge). [*Note: Critical Terrestrial Habitat is defined as 100 -750 FT on page 243 of the document "Science and Conservation of Vernal Pools in Northeastern North America." Calhoun and deMaynadier, 2008, which is referenced in Appendix G, page 3, Paragraph 10(b).

⁶Water Diversions: Water diversions are activities such as bypass pumping or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintained within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions.

⁷Maintenance: a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 323.4(a)(2) -- "Activities occurring before certain dates," provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification.

- Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make repair, rehabilitation, or replacement are authorized.
- Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.
- No seaward expansion for bulkheads or any other fill activity is considered Category 1 maintenance.
- Only structures or fills that were previously authorized and are in compliance with the terms and condition of the original authorization can be maintained as a non-regulated activity under 33 CFR 323.4(a)(2), or in accordance with the Category 1 or 2 thresholds in Appendix A.

b) The state's maintenance provisions may differ from the Corps and may require reporting and written authorization from the state.

c) Contact the Corps to determine whether stream crossing replacements require a written application to the Corps for at least a Category 2 review.

d) Exempted Maintenance. In accordance with 33 CFR 323.4(a)(2), any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under Section 404 of the CWA: "Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design."

⁸Aquatic Habitat Restoration, Establishment and Enhancement: The Corps will decide if a project qualifies and must determine in consultation with federal and state agencies that the net effects are beneficial. The Corps may refer to Nationwide Permit 27 published in the 3/12/07 Federal Register. Activities authorized here may include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands in inland waters; the construction of open water areas; the construction of native shellfish species habitat over unvegetated bottom for the purpose of habitat protection or restoration in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

⁹Brushing the Flats: The placement of tree boughs, wooden lath structure, or small-mesh fencing on mudflats to enhance recruitment of soft-shell clams (*Mya arenaria*).

¹⁰Maintenance Dredging: This includes only those areas and depths previously authorized by the Corps and dredged. The Corps may require proof of authorization. Maintenance dredging typically refers to the routine removal of sediment to maintain the design depths of serviceable navigation channels, harbors, basins, marinas, boat launches, and port facilities. Maintenance dredging is conducted for navigational purposes and does not include any expansion of the previously dredged area or depth. The Corps may review a maintenance dredging activity as new dredging if sufficient time has elapsed to allow for the colonization of SAS, shellfish, etc.

¹¹Boating Facilities: Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockminiums, etc.

¹²Federal Navigation Projects (FNPs): FNPs are comprised of Federal Channels and Federal Anchorages. See Appendix F for their location and contact the Corps for more information. "Horizontal Limits" is the outer edge of an FNP. "Buffer Zone" is equal to three times the authorized depth of that channel.

¹³Horizontal Limits: The outer edge of a Federal Navigation Project (FNP). See Appendix F and contact the Corps for information on FNP's.

¹⁴Elgrass (*Zostera marina*): A type of rooted aquatic vegetation that exists in intertidal and shallow subtidal areas known as vegetated shallows. See www.nono.noaa.gov/hcd/ for eelgrass survey guidance. Note: Eelgrass surveys should be conducted between May and October unless otherwise directed.

¹⁵ **Structures:** The height of structures shall at all points be equal to or exceed the width of the deck. For the purpose of this definition, height shall be measured from the marsh substrate to the bottom of the longitudinal support beam.

¹⁶ **Agricultural Activities:** The Clean Water Act exempts certain discharges associated with normal farming, ranching, and forestry activities such as plowing, cultivating, minor drainage, and harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices (Section 404(f)(1)(A)). Applicants are strongly advised to contact the Corps for a determination of whether their activity is exempt or requires a permit.



Appendix B: Self-Verification Notification Form
(for all tidal and non-tidal projects in Maine subject to Corps jurisdiction)

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

At least two weeks before work commences, complete **all** fields (write "none" if applicable) below or use the fillable form at www.nae.usace.army.mil/missions/regulatory.aspx. Send this form, a location map, any project plans, and an Official Species List (See GC 8) to the address noted below; fax to (207) 623-8206; or email to jay.l.clement@usace.army.mil. The two-week lead time is not required for emergency situations (see page 4 for definition). Please call (207) 623-8367 with questions.

Maine Project Office
U.S. Army Corps of Engineers
New England District
675 Western Avenue #3
Manchester, Maine 04351

State Permit Number: _____
Date of State Permit: _____
State Project Manager: _____

Permittee: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Contractor: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Consultant/Engineer/Designer: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Wetland/Vernal Pool Consultant: _____
Address, City, State & Zip: _____
Phone(s) and Email: _____

Project Location/Description: _____
Address, City, State & Zip: _____
Latitude/Longitude Coordinates: _____ Tax Map/Lot: _____
Waterway Name: _____
Work Description: _____

Provide any prior Corps permit numbers: _____
Proposed Work Dates: Start: _____ Finish: _____

Area of wetland impact: _____ SF (leave blank if work involves structures & no fill in Navigable Waters)
Area of waterway impact: _____ SF (leave blank if work involves structures & no fill in Navigable Waters)
Area of compensatory mitigation provided: _____ SF

Work will be done under the following Appendix A categories (circle all that apply):

- I. Inland Waters and wetlands: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
II. Navigable Waters: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Your name/signature below, as permittee, indicates that you accept and agree to comply with the terms, eligibility criteria, and general conditions of Category 1 of the Maine General Permit.

Permittee Printed Name: _____

Permittee Signature: _____ Date: _____



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of Engineers®**
New England District

Appendix C: Content of Pre-Construction Notification

In addition to the following required information, the applicant must provide additional information as the Corps deems essential to make a public interest determination including, where applicable, a determination of compliance with the Section 404(b)(1) guidelines or ocean dumping criteria. Such additional information may include environmental data and information on alternate methods and sites as may be necessary for the preparation of the required environmental documentation. For a more comprehensive checklist, go to www.nae.usace.army.mil/missions/regulatory >> Forms >> Application and Plan Guideline Checklist. Please check with the Corps for project-specific requirements.

Information required for all projects:

- ☐ Corps application form ([ENG Form 4345](#)) or appropriate state application form (see Appendix E). Forms may need to be supplemented to include the information noted below.
- ☐ Proof of notification to the SHPO and the appropriate THPOs (see Appendix E).
- ☐ Official Species List for any federally listed endangered or threatened species (Instructions at Appendix D)
- ☐ Drawings, sketches, or plans (detailed engineering plans and specifications are not required) that are legible, reproducible (color is encouraged, but features must be distinguishable in black and white), no larger than 11"x17", with bar scale. Wetland area impact sheets should have the highest resolution possible to show work within Corps jurisdiction (do not just reduce project overview or cut large-scale plan into quadrant sheets). Provide locus map and a plan overview of the entire property with a key index to the individual impact sheets. A locus map on a section of color USGS topographic map is encouraged. Digital submissions are encouraged.
- ☐ Include:
 - ☐ All direct, secondary, permanent and temporary effects the project would cause, including the anticipated amount of impacts to waters of the U.S. expected to result from the activity, in acres, linear feet, or other appropriate unit of measure.
 - ☐ Any historic permanent fill associated with each single and complete project.
 - ☐ Cross-section views of all wetland and waterway fill areas and wetland replication areas.
 - ☐ Delineation of all wetlands, other special aquatic sites (vegetated shallows, saltmarsh, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges), and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Use Federal delineation methods and include Corps wetland delineation data sheets (see GC 2).
 - ☐ MLW and MHW elevations in tidal waters. Show the HTL elevations when fill is involved. Show OHW elevation in lakes and non-tidal streams.
 - ☐ Existing and proposed conditions.
 - ☐ For vegetated shallow and eelgrass survey guidance, see www.nae.usace.army.mil/missions/regulatory >> Jurisdictional Limits and Wetlands >> Submerged Aquatic Vegetation Survey Guidance for the New England Region.
 - ☐ Show all known VPs on the project site. See GC 23 for vernal pool identification requirements.
- ☐ Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below OHW in inland waters and below the HTL

in coastal waters.

- ☐ An Official Species List of federally “listed species or critical habitat” present in the action area (see GC 8).
- ☐ A restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions (see GC 43).

Information that may be required:

- ☐ Photographs of wetland/waterway to be impacted. Photos at low tide are preferred for work in tidal waters.
- ☐ For drawings, sketches, or plans:
 - ☐ The vertical datum for all coastal projects must be in U.S. survey feet and referenced to MLLW and current tidal epochs, with a reference chart showing conversion factor to NAVD88; do not use local datum. See [>> Forms and Publications >> Vertical Datum - FEMA \(Jul 2007\)](http://www.nae.usace.army.mil/missions/regulatory);
 - ☐ The horizontal state plane coordinates shall be in U.S. survey feet and based on the appropriate state plane coordinate system.
- ☐ For the construction of a filled area or pile or float-supported platform, the use of, and specific structures to be erected on, the fill or platform.
- ☐ For the discharge of dredged or fill material into waters of the U.S. or the transportation of dredged material for the purpose of disposing of it in ocean waters, the source of the material; the purpose of the discharge, a description of the type, composition and quantity of the material; the method of transportation and disposal of the material; and the location of the disposal site.
- ☐ For the discharge of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized. Include either a statement describing how impacts to waters of the U.S. are to be compensated for or a statement explaining why compensatory mitigation should not be required for the proposed impacts.
- ☐ Purpose and need for the proposed activity;
- ☐ Limits and coordinates of any Federal Navigation Project in the vicinity of the project area.
- ☐ Limits and coordinates of any proposed mooring field, reconfiguration zone or aquaculture activity. Provide coordinates for all corners;
- ☐ Schedule of construction/activity;
- ☐ Names and addresses of adjoining property owners;
- ☐ Location and dimensions of adjacent structures;
- ☐ List of authorizations required by other Federal, interstate, state, or local agencies for the work, including all approvals received or denials already made.
- ☐ Identification and description of potential impacts to Essential Fish Habitat (defined at VI. Definitions and Acronyms).
- ☐ Identification of potential discharges of pollutants to waters, including potential impacts to impaired waters, in the project area (see GC 19).
- ☐ Invasive Species Control Plan (see GC 24). For sample control plans, see [>> Invasive Species](http://www.nae.usace.army.mil/missions/regulatory).
- ☐ Wildlife Action Plan (WAP) maps. Contact Maine Inland Fisheries & Wildlife (Appendix E) or on line at http://www.maine.gov/ifw/wildlife/conservation/action_plan.html

Information for dredging projects that may be required:

- ☐ Sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing. For projects proposing open water disposal, applicants are encouraged to contact the Corps as early as possible regarding sampling and testing protocols. Sampling and testing of sediments without such

contact should not occur and if done, would be at the applicant's risk.

- ☐ The area in square feet and volume of material to be dredged below mean high water.
- ☐ Existing and proposed water depths.
- ☐ Type of dredging equipment to be used.
- ☐ Nature of material (e.g., silty sand).
- ☐ Any existing sediment grain size and bulk sediment chemistry data for the proposed or any nearby projects.
- ☐ Information on the location and nature of municipal or industrial discharges and occurrence of any contaminant spills in or near the project area.
- ☐ Shellfish survey.
- ☐ Location of the disposal site (include locus sheet).
- ☐ Identification and description of any potential impacts to Essential Fish Habitat.
- ☐ Delineation of submerged aquatic vegetation (e.g., eelgrass beds).

Information for aquaculture projects that may be required:

- ☐ Maine Aquaculture guidelines and joint Corps/Maine DMR applications may be found at:
www.maine.gov/dmr/aquaculture/index.htm.
- ☐ In addition to the information required above, applications must also include:
 - ☐ Whether canopy predator nets are being used.

Appendix D: Instruction for USFWS iPac Project Builder/Official Species List

NOTE: These instructions are subject to change by the USFWS. Users should check this GP's Corps webpage for the latest instructions or click [here](#).

In your internet browser go to <http://ecos.fws.gov/ipac/>

1. Click on get started.
2. Click on enter project location.
3. Search or zoom to your project location. (You can enter an address and then zoom in with your mouse).
4. Define your area. (Select the polygon tool and click around the boundary of your project.) or (Use the draw a line tool for linear projects)

Note: You can change/select the map from Streets to Satellite or Topo in the lower left corner of the map.

5. Click finished drawing then click confirm and select continue.

6. On the next page under Tasks (lower left), select Request an official species list. The pane will open. Select "request official species list" again.

7. A new page will open. Fill in the project information blanks with the project name, brief description, project type, lead agency, and contact information. Be sure to check the box to verify this is a legitimate project. Click on Submit Official Species List Request.

8. You will be sent an e-mail with instructions to complete the request by clicking on the link provided.

9. The site will open Official Species List Request Completed. Under the Maine Ecological Services Field Office address you will see "Official Species List Document". Click on that link and your document will open. Save and or print a copy and **include the entire report with your application.**

Note, you will receive a second e-mail with the same information. You can save the link in the event you need to return to the IPaC site for an updated list.

If a period of time has passed since your initial "Official Species List" identifier number was generated, you may choose to generate an "UPDATED SPECIES LIST". To do this, return to the IPaC homepage at <http://ecos.fws.gov/ipac> site. In the middle of the page, click the purple "Need an updated species list" link.

On the request an "Updated Official Species List" page, complete the information in the boxes provided. You will need the project specific official consultation code generated and stated on the original official list as well as the email address entered with the original submission.

Click "Request Updated Species List". Print, or save.

Appendix E: Contacts and Tribal Areas of Interest

1. Federal

U.S. Army Corps of Engineers
Maine Project Office
675 Western Avenue #3
Manchester, ME 04351
(207) 623-8367 (phone); (207) 623-8206 (fax)

Federal Emergency Management Agency
99 High St.
Boston, MA 02110
(877) 336-2734 (phone)
(Flood Plain Management)

U.S. Environmental Protection Agency
5 Post Office Square
Suite 100 (OEP05-2)
Boston, MA 02109-3912
(617) 918-1589 (phone)

National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930
(978) 281-9102 (phone); (978) 281-9301 (fax)
(Federal endangered species & EFH)

U.S. Fish and Wildlife Service
Maine Field Office
17 Godfrey Drive, Suite 2
Orono, ME 04473
(207) 866-3344 (phone); (207) 866-3351 (fax)
(Federal endangered species)

National Park Service
North Atlantic Region
15 State Street
Boston, MA 02109
(617) 223-5203 (phone)
(Wild and Scenic Rivers)

National Marine Fisheries Service
Maine Field Office
17 Godfrey Drive Suite 1
Orono, ME 04473
(207) 866-7379 (phone); (207) 866-7342 (fax)
(Federal endangered species)

Commander (dpb)
First Coast Guard District
One South Street - Battery Bldg
New York, NY 10004-1466
(212) 668-7021 (phone); (212) 668-7967 (fax)
(bridge permits)

2. State of Maine

a. Department of Environmental Protection *(State permits & Water Quality Certifications)*

Division of Land Resource Regulation
Bureau of Land and Water Quality
17 State House Station
Augusta, Maine 04333
(207) 287-7688 (phone)

Eastern Maine Regional Office
106 Hogan Road
Bangor, Maine 04401
(207) 941-4570 (phone)

Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103
(201) 822-6300 (phone)

Northern Maine Regional Office
1235 Central Drive - Skyway Park
Presque Isle, Maine 04769
(207) 764-0477 (phone)

b. Department of Agriculture, Conservation and Forestry

i. Maine Land Use Planning Commission (LUPC) (*State permits & Water Quality
Certifications in the unorganized areas of the State*)

Augusta Office
22 State House Station
Augusta, Maine 04333-0022
(207) 287-2631 (phone); (207) 287-7439 (fax)

Greenville Regional Office
43 Lakeview Drive
P.O. Box 1107
Greenville, Maine 04441
(207) 695-2466 (phone); (207) 695-2380 (fax)

Rangeley Regional Office
133 Fyfe Road
PO Box 307
West Farmington, ME 04992
(207) 670-7493 (phone); (207) 287-7439 (fax)

Downeast Regional Office
106 Hogan Rd, Suite 8
Dorothea Dix Complex
Bangor, Maine 04401
(207) 941-4052 (phone); (207) 941-4222 (fax)

Ashland Regional Office
45 Radar Road
Ashland, ME 04732-3600
(207) 435-7963 (phone); (207) 435-7184 (fax)

East Millinocket Regional Office
191 Main Street
East Millinocket, ME 04430
(207) 746-2244 (phone); (207) 746-2243 (fax)

ii. Maine Coastal Program

Department of Agriculture, Conservation and Forestry
Bureau of Resource Information and Land Use Planning
17 Elkins Lane {physical address}
State House Station 93
Augusta, Maine 04333-0038
(207) 287-2801 (phone); (207) 287-2353 (fax)
(*CZM consistency determinations*)

iii. Division of Parks and Public Lands

22 State House Station
Augusta, Maine 04333
(207) 287-3061 (phone); (207) 287-6170 (fax)
(*submerged lands leases*)

c. Department of Marine Resources

P.O. Box 8
West Boothbay Harbor, Maine 04575
(207) 633-9500 (phone); (207) 624-6024 (fax)
(*aquaculture leases*)

3. Historic Properties

a. State Historic Preservation Officer (SHPO)

Mr. Kirk F. Mohny, Director

Maine Historic Preservation Commission (MHPC)
65 State House Station
Augusta, Maine 04333-0065
(207) 287-2132 (phone); (207) 287-2335 (fax)
Area of concern: The entire State of Maine

b. Tribal Historic Preservation Officers (THPOs)

Note: The area of concern for each tribe is the entire State of Maine

THPO & Environmental Planner
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, Maine 04730
(207) 532-4273, x215 (phone)
(207) 532-6883 (fax)
envplanner@maliseets.com
ogs1@maliseets.com

THPO
Passamaquoddy Tribe of Indians
Pleasant Point Reservation
P.O. Box 343
Perry, Maine 04667
(207) 853-2600 (phone); (207) 853-6039 (fax)
soctomah@gmail.com

THPO
Passamaquoddy Tribe of Indians
Indian Township Reservation
P.O. Box 301
Princeton, Maine 04668
(207) 796-2301 (phone)
(207) 796-5256 (fax); soctomah@gmail.com

THPO
Aroostook Band of Micmacs
7 Northern Road
Presque Isle, Maine 04769
(207) 764-1972 (phone); (207) 764-7667 (fax)
jpictou@mimca-nsn.gov

THPO
Penobscot Nation
Cultural and Historic Preservation Dept.
12 Wabanaki Way
Indian Island, Maine 04468
(207) 817-7471 (phone)
chris.sockalexis@penobscotnation.org

4. Organizational Websites (Note – Subject to Change):

U.S. Army Corps of Engineers, N.E. District
U.S. Army Corps of Engineers, Headquarters
U.S. Environmental Protection Agency
National Marine Fisheries Service
U.S. Fish and Wildlife Service
National Park Service
Maine Department of Environmental Protection
Maine Department of Agriculture,
Conservation and Forestry
Maine Land Use Planning Commission
Maine Department of Marine Resources
State of Maine - Aquaculture Guidelines

www.nae.usace.army.mil/missions/regulatory.aspx
See above link>>Useful Links>>Federal Agency Links
www.epa.gov/owow/wetlands
www.nmfs.noaa.gov
www.fws.gov/mainefieldoffice
www.nps.gov/rivers/index.html
www.maine.gov/dep
www.maine.gov/acf/index.shtml
www.maine.gov/doc/lupc/commission/offices.shtml
www.maine.gov/dmr/index.htm
www.maine.gov/dmr/aquaculture/index.htm

Appendix F: Definitions

Definitions

Attendant Features: Occurring with or as a result of; accompanying.

Biodegradable: A material that decomposes into elements found in nature within a reasonably short period of time and will not leave a residue of plastic or a petroleum derivative in the environment after degradation. Examples of biodegradable materials include jute, sisal, cotton, straw, burlap, coconut husk fiber (coir) or excelsior. In contrast, degradable plastics break down into plastic fragments that remain in the environment after degradation.

Boating facilities: These provide, rent or sell mooring space, such as marinas, yacht clubs, boat yards, dockminiums, town facilities, land/home owners, etc. Not classified as boating facilities are piers shared between two abutting properties or town mooring fields that charge an equitable user fee based on the actual costs incurred.

Brushing the Flats: The placement of tree boughs, wooden lath structure, or small-mesh fencing on mudflats, or any bottom disturbance (e.g., discing, plowing, raking, etc.), to enhance recruitment of shellfish.

Buffer Zone: The buffer zone of an FNP is equal to three times the authorized depth of the FNP.

Construction mats: Constructions, swamp and timber mats (herein referred to as “construction mats”) are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together. Corduroy roads, which are not considered to be construction mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures. Like construction mats, they are considered as fill whether they are installed temporarily or permanently.

Cumulative effects: See “Direct, secondary, and cumulative effects.”

Direct, secondary, and cumulative effects:

Direct Effects: The loss of aquatic ecosystem within the footprint of the discharge of dredged or fill material. Direct effects are caused by the action and occur at the same time and place.

Secondary Effects: These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final Section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are a) aquatic areas drained, flooded, fragmented, or mechanically cleared; b) fluctuating water levels in all impoundment and downstream associated with the operation of a dam; c) septic tank leaching and surface runoff from residential or commercial developments on fill, and d) leachate and runoff from a sanitary landfill located in waters of the U.S. See 40 CFR 230.11(h).

Cumulative Effects: The changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual 1) discharges of dredged or fill material, or 2) structures. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems. See 40 CFR 230(g).

Dredging:

Maintenance Dredging: Includes areas and depths previously authorized by the Corps and dredged. The Corps may require proof of authorization. Maintenance dredging typically refers to the routine removal of accumulated sediment from channel beds to maintain the design depths of navigation channels, harbors, marinas, boat launches and port facilities. Routine maintenance dredging is conducted regularly for navigational purposes (typically at least once every ten years) and does not include any expansion of the previously dredged area or depth. The Corps may review a maintenance dredging activity as new dredging if sufficient time has elapsed to allow for the colonization of SAS,

shellfish, etc. The main characteristics of maintenance dredging projects are variable quantities of material; soft, uncompacted soil; contaminant content possible; thin layers of material; occurring in navigation channels and harbors; repetitive activity

New Dredging: Dredging of an area or to a depth that has never been authorized by the Corps or dredged.

Dredged material & discharge of dredged material: These are defined at 323.2(c) and (d). The term dredged material means material that is excavated or dredged from waters of the U.S.

Essential Fish Habitat (EFH): This is broadly defined to include those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.

Fill material & discharge of fill material: These are defined at 323.2(e) and (f). The term fill material is defined as material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a water of the U.S.

Federal anchorages, Federal channels and Federal turning basin: Refer to Appendix H for those in Maine

Federal navigation projects (FNPs): These areas are maintained by the Corps; authorized, constructed and maintained on the premise that they will be accessible and available to all on equal terms; and are comprised of Federal Anchorages, Federal Channels and Federal Turning Basins. The buffer zone is equal to three times the authorized depth of a FNP. More information on the following FNPs is provided at www.nae.usace.army.mil/missions/navigation.aspx >> Navigation Projects.

Flume: An open artificial water channel, in the form of a gravity chute, that leads water from a diversion dam or weir completely aside a natural flow. A flume can be used to measure the rate of flow.

Frac out: During normal drilling operations, drilling fluid travels up the borehole into a pit. When the borehole becomes obstructed or the pressure becomes too great inside the borehole, the ground fractures and fluid escapes to the surface.

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Individual Permit: A Department of the Army authorization that is issued following a case-by-case evaluation of a specific structure or work in accordance with the procedures of 33 CFR 322, or a specific project involving the proposed discharge(s) in accordance with the procedures of 33 CFR 323, and in accordance with the procedures of 33 CFR 325 and a determination that the proposed discharge is in the public interest pursuant to 33 CFR 320.

Maintenance: Regulations on maintenance are provided at 33 CFR 323.4. The following definitions are applicable:

Minor deviations: Deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards, which are necessary to make repair, rehabilitation, or replacement are permitted, provided the adverse environmental effects resulting from such repair, rehabilitation, or replacement are minimal.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Marina reconfiguration zone: A Corps-authorized area in which permittees may rearrange pile-supported structures and floats without additional authorizations. A reconfiguration zone does not grant exclusive privileges to an area or an increase in structure or float area.

Navigable waters of the U.S.: See Waters of the U.S. below.

Overall project: See "single and complete linear project" below.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Permanent impacts: Permanent impacts means waters of the U.S. that are permanently affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent impacts include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. Temporary impacts include waters of the U.S. that are temporarily filled, flooded, excavated, drained or mechanically cleared because of the regulated activity.

Pre-construction notification (PCN): A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by this GP. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of these GPs. A PCN may be voluntarily submitted in cases where PCN is not required and the project proponent wants confirmation that the activity is authorized under this GP.

Secondary effects: See “Direct, secondary, and cumulative effects.”

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the U.S. (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for the purposes of this GP. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

The overall project, for purposes of this GP, includes all regulated activities that are reasonably related and necessary to accomplish the project purpose.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. For non-linear projects, the single and complete project must have independent utility (see definition).

Special aquatic sites: These include inland and saltmarsh wetlands, mud flats, vegetated shallows, sanctuaries and refuges, coral reefs, and riffle and pool complexes. These are defined at 40 CFR 230 Subpart E.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Temporary impacts: See permanent impacts above.

Utility line: Any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term ‘utility line’ does not include activities that drain a water of the U.S., such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area.

Vegetated shallows: Permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as eelgrass and widgeon grass (*Ruppia maritima*) in marine systems (doesn’t include salt marsh) as well as a number of freshwater species in rivers and lakes. Note: These areas are also commonly referred to as submerged aquatic vegetation (SAV).

Vernal pools (VPs): For the purposes of this GP, VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). Pools usually

support one or more of the following obligate indicator species: wood frog, spotted salamander, blue-spotted salamander, marbled salamander, Jefferson's salamander and fairy shrimp. However, they should preclude sustainable populations of predatory fish.

VP areas are:

- Depression (includes the VP depression up to the spring or fall high water mark, and includes any vegetation growing within the depression),
- Envelope (area within 100 feet of the VP depression's edge), and
- Critical terrestrial habitat (area within 100-750 feet of the VP depression's edge).

Note: See footnote to GC 23. The Corps may determine during the PCN review that a waterbody should not be designated as a VP based on available evidence.

Water diversions: Water diversions are activities such as bypass pumping (e.g., "dam and pump") or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintained within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions.

Weir: A barrier across a river designed to alter the flow characteristics. In most cases, weirs take the form of a barrier, smaller than most conventional dams, across a river that causes water to pool behind the structure (not unlike a dam) and allows water to flow over the top. Weirs are commonly used to alter the flow regime of the river, prevent flooding, measure discharge and help render a river navigable.

Waters of the U.S. & Waters of the United States (U.S.): The term waters of the U.S. and all other terms relating to the geographic scope of jurisdiction are defined at 33 CFR 328. Also see Section 502(7) of the Federal CWA [33 USC 1352(7)]. Waters of the U.S. include jurisdictional wetlands. Not all waters and wetlands are jurisdictional. Contact the Corps with any questions regarding jurisdiction.

Navigable waters: Refer to 33 CFR 329. These waters include the following federally designated navigable waters in New England. This list represents only those waterbodies for which affirmative determinations have been made; absence from this list should not be taken as an indication that the waterbody is not navigable:

ME: All tidal waters; Kennebec River to Moosehead Lake; Penobscot River to the confluence of the East and West Branch at Medway, Maine; Lake Umbagog within the State of Maine.

Appendix G: Additional References

1. GC 2: Federal Jurisdictional Boundaries.

(a) Corps Wetlands Delineation Manual, regional supplements, and Corps Wetland Delineation Data Sheets: www.nae.usace.army.mil/missions/regulatory and then “Wetlands and Jurisdictional Limits.”

(b) The USFWS publishes the 1988 National List of Plant Species that Occur in Wetlands (www.nwi.fws.gov).

The Natural Resources Conservation Service (NRCS) publishes the current hydric soil definition, criteria and lists: <http://soils.usda.gov/use/hydric>. For the Field Indicators for Identifying Hydric Soils in N.E., see www.neiwpcc.org/hydricsoils.asp.

2. GC 5: Single and Complete Project.

Single and complete project means the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. For example, if construction of a residential development affects several different areas of a headwater or isolated water, or several different headwaters or isolated waters, the cumulative total of all filled areas should be the basis for deciding whether or not the project will be covered by Category 1 or 2.

The *Independent utility* test is used to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

3. GC 8: Threatened and Endangered Species.

(a) The following NMFS site must be referenced to ensure that listed species or critical habitat are not present in the action area [GC 8(b)] or to provide information on federally-listed species or habitat [GC 8(e)]: www.nero.noaa.gov/prot_res/esp/ListE&Tspec.pdf. Contact the USFWS for information to check for the presence of listed species (see Appendix D for contact information & procedures).

(b) The Endangered Species Act Consultation Handbook – Procedures for Conducting Section 7 Consultations and Conferences, defines action area as “all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. [50 CFR 402.02].”

4. GC 42: Essential Fish Habitat.

As part of the GP screening process, the Corps may coordinate with NMFS in accordance with the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act to protect and conserve the habitat of marine, estuarine and anadromous finfish, mollusks, and crustaceans. This habitat is termed “Essential Fish Habitat (EFH)”, and is broadly defined to include “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” There are EFH waters throughout inland and coastal waters in Maine. For additional information, see the EFH regulations 50 CFR 600 at www.nero.noaa.gov/hcd including the “Guide for EFH Descriptions” at www.nero.noaa.gov/hcd/list.htm. Additional information on the location of EFH can be obtained from NMFS (see Appendix D for contact information).

5. GC 4: Avoidance, Minimization and Compensatory Mitigation.

(a) See www.nae.usace.army.mil/missions/regulatory and then “Mitigation” to view the April 10, 2008 “Final Compensatory Mitigation Rule” (33 CFR 332) and related documents. The Q&A document states: “In order to reduce risk and uncertainty and help ensure that the required compensation is provided, the rule establishes a preference hierarchy for mitigation options. The most preferred option

is mitigation bank credits, which are usually in place before the activity is permitted. In-lieu fee program credits are second in the preference hierarchy, because they may involve larger, more ecologically valuable compensatory mitigation projects as compared to permittee-responsible mitigation. Permittee-responsible mitigation is the third option, with three possible circumstances: (1) conducted under a watershed approach, (2) on-site and in kind, and (3) off-site/out-of-kind.

(b) Compensatory mitigation may take the form of wetland preservation, restoration, enhancement, creation, and/or in lieu fee (ILF) for inclusion into the Natural Resources Mitigation Fund for projects in DEP and LURC territories. Avoidance of wetland impacts will reduce the ILF dollar total for applicants. The ILF compensation program was established to provide applicants with a flexible compensation option over and above traditional permittee responsible compensation projects. See the Maine ILF Agreement at www.nae.usace.army.mil/missions/regulatory, “Mitigation” and then “Maine,” or www.maine.gov/dep/blwq/docstand/nrpa/ILF_and_NRCP/index.htm.

6. GCs 24, 15, and 43: Invasive Species.

(a) Information on what are considered “invasive species” is provided in our “Compensatory Mitigation Guidance” document at www.nae.usace.army.mil/missions/regulatory under “Mitigation.” The “Invasive Species” section has a reference to our “Invasive Species Control Plan (ISCP) Guidance” document, located at www.nae.usace.army.mil/missions/regulatory under “Invasive Species,” which provides information on preparing an ISCP.

(b) The June 2009 “Corps of Engineers Invasive Species Policy” is at www.nae.usace.army.mil/missions/regulatory under “Invasive Species” and provides policy, goals and objectives.

7. GC 44: Bank Stabilization.

This generally eliminates bodies of water where the reflected wave energy may interfere with or impact on harbors, marinas, or other developed shore areas. A revetment is sloped and is typically employed to absorb the direct impact of waves more effectively than a vertical seawall. It typically has a less adverse effect on the beach in front of it, abutting properties and wildlife. See the Corps Coastal Engineering Manual EM 1110-2-1100 at www.nae.usace.army.mil/missions/regulatory under “Useful Links and Documents” for design and construction guidance.

8. GC 45: Stream and Wetland Crossings.

(a) Projects should be designed and constructed to ensure long-term success using the most recent manual located at www.nae.usace.army.mil/missions/regulatory under “Stream and River Continuity,” currently “Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings, by the U.S. Forest Service.” Section 5.3.3 is of particular importance. Sections 7.5.2.3 Construction Methods and 8.2.11 Stream-Simulation Bed Material Placement both show important steps in the project construction.

(b) For more information on High-Quality Stream Segments and their components see:

i. High-Quality Stream Segments are shown at www.maine.gov/dep/gis/datamaps.

ii. Class A Waters or Class AA Waters:

www.mainelegislature.org/legis/statutes/38/title38sec465.html, and

www.mainelegislature.org/legis/statutes/38/title38sec467.html.

iii. Outstanding river segments www.mainelegislature.org/legis/statutes/38/title38sec480-P.html.

(c) The Massachusetts Dam Removal and the Wetland Regulations offer guidance to evaluate the positive and negative impacts of culvert replacement, including the loss of upstream wetlands, which may be offset by the overall benefits of the river restoration. See www.nae.usace.army.mil/missions/regulatory and then “Stream and River Continuity.”

(d) The ME DOT's document "Waterway and Wildlife Crossing Policy and Design Guide for Aquatic Organism, Wildlife Habitat, and Hydrologic Connectivity," 3rd Edition, July 2008, may be used as guidance to evaluate impacts to aquatic, wildlife and surface water resources when designing, constructing, repairing and maintaining stream crossings. Note: Adherence to this DOT document does not ensure compliance with this GP. Projects must comply with the requirements of this GP including GC 45 and the Corps General Stream Crossing Standards contained therein.

www.maine.gov/mdot/environmental-office-homepage/fishpassage/3rd%20edition%20-%20merged%20final%20version%207-01-08a1.pdf.

(e) GC 45(f): The Skidder Bridge Fact Sheet at www.nae.usace.army.mil/missions/regulatory under "Stream and River Continuity" may be a useful temporary span construction method.

9. GC 45: Wetland Crossings. The Maine DEP's crossing standards are at 06-096 DEP, Chapter 305: Permits by Rule, 9 & 10) Crossings (utility lines, pipes and cables).
www.maine.gov/dep/blwq/rules/NRPA/2009/305/305_effective_2009.pdf

10. GC 23: Protection of Vernal Pools.

(a) The state's Significant Wildlife Habitat rules (Chapter 335, Section 9(C) "Habitat management standards for significant vernal pool habitat") are located at www.maine.gov/dep/blwq/docstand/nrpapage.htm#rule under "Rules."

(b) The following documents provide conservation recommendations:

i. Best Development Practices: Conserving pool-breeding amphibians in residential and commercial development in the northeastern U.S., Calhoun and Klemens, 2002. Chapter III, Management Goals and Recommendations, Pages 15 – 26, is particularly relevant. (Available for purchase at www.maineaudubon.org/resource/index.shtml and on Corps website*.)

ii. Science and Conservation of Vernal Pools in Northeastern North America, Calhoun and deMaynadier, 2008. Chapter 12, Conservation Recommendations section, Page 241, is particularly relevant. (Available for purchase via the internet. Chapter 12 is available on Corps website*.)

* www.nae.usace.army.mil/reg under "Vernal Pools."

(c) Cape Cod Curbing: For smaller roads and driveways, the most important design feature to consider is curbing. Granite curbs and some traditional curbing can act as a barrier to amphibian and hatchling turtle movements. Large numbers of salamanders have been intercepted in their migrations by curbs and catch basins. Use of Cape Cod curbs rather than traditional curbing may be one solution. Alternatively, where storm water management systems require more traditional curbing, it may be possible to design in escape ramps on either side of each catch basin. Cape Cod curbing is shown on Page 35 of the document cited in 10.b.i above. Bituminous material is not required; other materials such as granite are acceptable.

(d) The VP Directional Buffer Guidance document is located at www.nae.usace.army.mil/missions/regulatory under: 1) "State General Permits" and then "Maine," and 2) "Vernal Pools."

11. GC 29: Maintenance. River restoration projects that are designed to accommodate the natural dynamic tendencies of the fluvial system are maintained in accordance with the project's design objectives (Category 1) or the Corps authorization letter (Category 2). These projects are generally designed to support and implement channel assessment and management practices that recognize a stream's natural dynamic tendencies.

Appendix H: Federal Navigation Projects in Maine

