

**Updated 05/15/2020**

# **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:

NOTE: Not all projects accept Electronic Bids. Please review the Notice to Contractors and see if it specifically states that Electronic Bids will be accepted.

- 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, March 2020 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](mailto:MDOT.contracts@maine.gov). Each bid package will require a separate request.

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

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via <http://www.BIDX.com>. For information on electronic bidding contact Rebecca Snowden at [rebecca.snowden@maine.gov](mailto:rebecca.snowden@maine.gov) or Diane Barnes at [diane.barnes@maine.gov](mailto:diane.barnes@maine.gov).

# NOTICE

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

Bid Enclosed - Do Not Open

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

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

Double Envelope: Bid Enclosed

PIN:

Town:

Date of Bid Opening:

Name of Contractor:

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

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

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

October 16, 2001



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

force, and effect.

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

WITNESS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

WITNESS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PRINCIPAL:

By \_\_\_\_\_

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

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

SURETY:

By \_\_\_\_\_

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

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

# NOTICE

Bidders:

Please use the attached “Request for Information” form when 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](mailto: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.



# 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.

MDOT's DBE Directory of Certified firms can also be obtained at <https://www.maine.gov/mdot/civilrights/dbe/>

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

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

### SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

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

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

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

Revised 1/12

**DBE GOAL NOTICE FFY 2019-2021**  
**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 (MaineDOT) has established a Disadvantaged Business Enterprise Program (DBE) for disadvantaged business participation in the federal-aid highway and bridge construction programs; MaineDOT contracts covered by the program include consulting, construction, supplies, manufacturing, and service contracts.

For FFY 2019-21 (October 1, 2018 through September 30, 2021) MaineDOT has established an annual DBE participation goal of **2.4%** 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, 2021. 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 placing 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 2.4% goal without the need to impose contract goals. DBE firms are listed on the MaineDOT website at:

<https://www.maine.gov/mdot/civilrights/docs/dbe/WeeklyDBEVendorList.pdf>

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](mailto:sherry.tompkins@maine.gov)

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

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

Contractor: \_\_\_\_\_ Telephone: \_\_\_\_\_ Ext \_\_\_\_\_

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

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

BID DATE: \_\_\_\_\_

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

TOTAL ANTICIPATED DBE \_\_\_\_\_% PARTICIPATION FOR THIS CONTRACT

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

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

Equal Opportunity Use:

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

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:**

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

**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 Hall Bridge Replacement in the town of **DIXFIELD** and **WILTON**, Alder Stream Bridge Replacement in the township of **JIM POND**, and Farmington Falls Bridge Replacement in the town of **CHESTERVILLE** and **FARMINGTON**" will be received from contractors at the Reception Desk, MaineDOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on September 1, 2021 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 bridge or project specific prequalification to be considered for the award of this contract. **We now accept electronic bids for 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. 2229601 WIN 022296.01

Location: In Oxford and Franklin County, Hall bridge is located on Route 2 & 17 over Hooper Brook approximately 0.06 of a mile westerly of Giles Road. In Franklin County, Alder Stream bridge is located on the Arnold Trail/ Route 27 approximately 3.6 miles northerly of Eustis town line. Farmington Falls bridge is located on Crosswell Road/ Vienna Road/ Route 41 town line over Sandy river.

Scope of Work: Hall Bridge replacement, Alder Stream Bridge replacement, and Farmington Falls Bridge replacement plus 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 Mike Wight** at (207) 624-3431, use electronic RFI form or email questions to [RFI-Contracts.MDOT@maine.gov](mailto: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 MaineDOT Building in Augusta, Maine, and at the Department of Transportation's Regional Office in Wilton. 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 \$134.00 (\$142.00 by mail). Half size plans \$67.00 (\$71.00 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

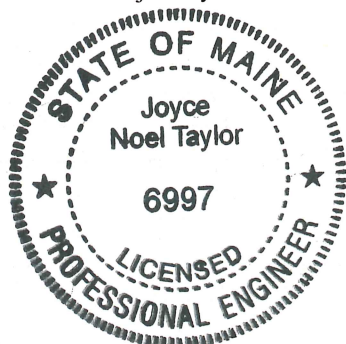
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of 5% of the bid amount, payable to Treasurer, 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, March 2020 Edition*, price \$10 [\$15 by mail], and *Standard Details, March 2020 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 MaineDOT to reject any or all bids.

Augusta, Maine  
August 4, 2021



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

JOYCE NOEL TAYLOR, P. E.  
CHIEF ENGINEER

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

With this form, the Bidder acknowledges its responsibility to check for all Amendments to the Bid Package. For each Project under Advertisement, Amendments are located at <http://www.maine.gov/mdot/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)

# NOTICE

## (COVID-19 Pandemic)

The Department considers the COVID-19 Pandemic an Uncontrollable Event as defined in Section 101.2 of the Department's Standard Specifications.

Accordingly, any documented delay to the project's Critical Path due to COVID-19 related issues, such as impacted workforce, subcontracts, or material supply, will be considered an Excusable Delay as defined in Section 109.5(A)(3) of the Department's Supplemental Specifications.

As an Excusable Delay, the Contractor is entitled to an extension of time provided that other associated notification, documentation, and procedural requirements set forth in the Contract are met.

## Maine Department of Transportation

## Proposal Schedule of Items

Proposal ID: 022296.01

Project(s): 022296.01

SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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	201.23 REMOVING SINGLE TREE TOP ONLY	15.000 EA	_____	 _____	_____	 _____
0020	201.24 REMOVING STUMP	17.000 EA	_____	 _____	_____	 _____
0030	202.08 REMOVING BUILDING NO.: 1	LUMP SUM	LUMP SUM		_____	 _____
0040	202.19 REMOVING EXISTING BRIDGE ALDER STREAM	LUMP SUM	LUMP SUM		_____	 _____
0050	202.19 REMOVING EXISTING BRIDGE FARMINGTON FALLS	LUMP SUM	LUMP SUM		_____	 _____
0060	202.19 REMOVING EXISTING BRIDGE HALL	LUMP SUM	LUMP SUM		_____	 _____
0070	202.202 REMOVING PAVEMENT SURFACE	1,325.000 SY	_____	 _____	_____	 _____
0080	203.20 COMMON EXCAVATION	6,246.000 CY	_____	 _____	_____	 _____
0090	203.2312 HEALTH AND SAFETY PLAN	LUMP SUM	LUMP SUM		_____	 _____
0100	203.2318 DISPOSAL OF SPECIAL WASTE	500.000 T	_____	 _____	_____	 _____
0110	203.2333 DISPOSAL TREATMENT OF SPECIAL EXCAVATION	400.000 T	_____	 _____	_____	 _____
0120	203.24 COMMON BORROW	1,160.000 CY	_____	 _____	_____	 _____

Maine Department of Transportation

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Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0130	203.25 GRANULAR BORROW	2,391.000 CY	_____	 _____	_____	 _____
0140	203.33 SPECIAL FILL	181.000 CY	_____	 _____	_____	 _____
0150	206.082 STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	3,755.000 CY	_____	 _____	_____	 _____
0160	206.092 STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	89.000 CY	_____	 _____	_____	 _____
0170	206.10 STRUCTURAL EARTH EXCAVATION - PIERS	587.000 CY	_____	 _____	_____	 _____
0180	206.11 STRUCTURAL ROCK EXCAVATION - PIERS	44.000 CY	_____	 _____	_____	 _____
0190	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	5,680.000 CY	_____	 _____	_____	 _____
0200	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	810.000 T	_____	 _____	_____	 _____
0210	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	82.000 T	_____	 _____	_____	 _____
0220	403.213 HOT MIX ASPHALT 12.5 MM BASE	2,100.000 T	_____	 _____	_____	 _____
0230	403.2131 12.5 MM POLYMER MODIFIED HMA BASE	240.000 T	_____	 _____	_____	 _____

## Maine Department of Transportation

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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	409.15 BITUMINOUS TACK COAT - APPLIED	2,630.000 G	_____	 _____	_____	 _____
0250	461.131 TEMPORARY PAVEMENT	410.000 T	_____	 _____	_____	 _____
0260	501.231 DYNAMIC LOADING TEST	4.000 EA	_____	 _____	_____	 _____
0270	501.54 STEEL H-BEAM PILES 117 LBS/FT, DELIVERED	840.000 LF	_____	 _____	_____	 _____
0280	501.541 STEEL H-BEAM PILES 117 LBS/FT, IN PLACE	840.000 LF	_____	 _____	_____	 _____
0290	501.90 PILE TIPS	10.000 EA	_____	 _____	_____	 _____
0300	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP SUM		LUMP SUM	_____	 _____
0310	502.219 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS ALDER STREAM	LUMP SUM		LUMP SUM	_____	 _____
0320	502.219 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS FARMINGTON FALLS	LUMP SUM		LUMP SUM	_____	 _____
0330	502.22 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (PLACED UNDER WATER)	390.000 CY	_____	 _____	_____	 _____
0340	502.239 STRUCTURAL CONCRETE PIERS	LUMP SUM		LUMP SUM	_____	 _____

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Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0350	502.24 STRUCTURAL CONCRETE PIERS (PLACED UNDER WATER)	320.000 CY	_____	 _____	_____	 _____
0360	502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES	LUMP SUM	LUMP	 SUM	_____	 _____
0370	502.31 STRUCTURAL CONCRETE APPROACH SLABS	LUMP SUM	LUMP	 SUM	_____	 _____
0380	502.49 STRUCTURAL CONCRETE CURBS AND SIDEWALKS	LUMP SUM	LUMP	 SUM	_____	 _____
0390	502.77 FIBER REINFORCED POLYMER BRIDGE DRAIN - TYPE: F	4.000 EA	_____	 _____	_____	 _____
0400	503.12 REINFORCING STEEL, FABRICATED AND DELIVERED	127,881.000 LB	_____	 _____	_____	 _____
0410	503.13 REINFORCING STEEL, PLACING	127,881.000 LB	_____	 _____	_____	 _____
0420	503.26 STAINLESS STEEL REINFORCEMENT - FABRICATED & DELIVERED	142,705.000 LB	_____	 _____	_____	 _____
0430	503.27 STAINLESS STEEL REINFORCEMENT - PLACING	142,705.000 LB	_____	 _____	_____	 _____
0440	504.702 STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED	LUMP SUM	LUMP	 SUM	_____	 _____



Maine Department of Transportation

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SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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	504.702 STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED ALDER STREAM	LUMP SUM	LUMP	SUM	_____	_____
0460	504.71 STRUCTURAL STEEL ERECTION	LUMP SUM	LUMP	SUM	_____	_____
0470	505.08 SHEAR CONNECTORS	LUMP SUM	LUMP	SUM	_____	_____
0480	507.0821 STEEL BRIDGE RAILING, 3 BAR	LUMP SUM	LUMP	SUM	_____	_____
0490	507.0822 STEEL APPROACH RAILING, 3-BAR	4.000 EA	_____	_____	_____	_____
0500	508.13 SHEET WATERPROOFING MEMBRANE	LUMP SUM	LUMP	SUM	_____	_____
0510	508.14 HIGH PERFORMANCE WATERPROOFING MEMBRANE	LUMP SUM	LUMP	SUM	_____	_____
0520	510.10 SPECIAL DETOUR _____ ROADWAY WIDTH VEHICULAR & PEDESTRIAN TRAFFIC NOT SEPARATED 16 FT, ALDER STREAM	LUMP SUM	LUMP	SUM	_____	_____
0530	510.10 SPECIAL DETOUR _____ ROADWAY WIDTH VEHICULAR & PEDESTRIAN TRAFFIC NOT SEPARATED 16 FT, FARMINGTON FALLS	LUMP SUM	LUMP	SUM	_____	_____
0540	511.07 COFFERDAM: ABUT NO.1, FARMINGTON FALLS	LUMP SUM	LUMP	SUM	_____	_____

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SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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
0550	511.07 COFFERDAM: ABUT NO.2, FARMINGTON FALLS	LUMP SUM	LUMP	SUM	_____	_____
0560	511.07 COFFERDAM: DOWNSTREAM	LUMP SUM	LUMP	SUM	_____	_____
0570	511.07 COFFERDAM: PIER, FARMINGTON FALLS	LUMP SUM	LUMP	SUM	_____	_____
0580	511.07 COFFERDAM: UPSTREAM	LUMP SUM	LUMP	SUM	_____	_____
0590	512.081 FRENCH DRAINS	LUMP SUM	LUMP	SUM	_____	_____
0600	513.22 CRUSHED STONE SLOPE PROTECTION	37.000 SY	_____	_____	_____	_____
0610	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP SUM	LUMP	SUM	_____	_____
0620	520.232 EXPANSION DEVICE - ASPHALTIC PLUG JOINT	80.000 LF	_____	_____	_____	_____
0630	523.52 BEARING INSTALLATION	15.000 EA	_____	_____	_____	_____
0640	523.5401 LAMINATED ELASTOMERIC BEARINGS, FIXED	5.000 EA	_____	_____	_____	_____
0650	523.5402 LAMINATED ELASTOMERIC BEARINGS, EXPANSION	10.000 EA	_____	_____	_____	_____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 022296.01

Project(s): 022296.01

SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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
0660	524.301 TEMPORARY STRUCTURAL SUPPORT	LUMP SUM	LUMP	SUM	_____	_____
0670	526.301 PORTABLE CONCRETE BARRIER TYPE I	LUMP SUM	LUMP	SUM	_____	_____
0680	526.302 PORTABLE CONCRETE BARRIER	290.000 LF	_____	_____	_____	_____
0690	526.305 TEMPORARY CONCRETE BARRIER, BRACED TYPE 1	LUMP SUM	LUMP	SUM	_____	_____
0700	526.323 TEXAS CLASSIC RAIL	LUMP SUM	LUMP	SUM	_____	_____
0710	527.34 WORK ZONE CRASH CUSHIONS	10.000 UN	_____	_____	_____	_____
0720	534.71 PRECAST CONCRETE BOX CULVERT	LUMP SUM	LUMP	SUM	_____	_____
0730	603.169 15 INCH CULVERT PIPE OPTION III	64.000 LF	_____	_____	_____	_____
0740	603.179 18 INCH CULVERT PIPE OPTION III	484.000 LF	_____	_____	_____	_____
0750	603.77 15 INCH INLET GRATE UNIT	1.000 EA	_____	_____	_____	_____
0760	604.092 CATCH BASIN TYPE B1-C	4.000 EA	_____	_____	_____	_____
0770	604.097 72 INCH CATCH BASIN TYPE B1-C	2.000 EA	_____	_____	_____	_____

## Maine Department of Transportation

## Proposal Schedule of Items

Proposal ID: 022296.01

Project(s): 022296.01

SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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
0780	604.16 ALTERING CATCH BASIN TO MANHOLES	1.000 EA	_____	 _____	_____	 _____
0790	604.164 REBUILDING CATCH BASIN	2.000 EA	_____	 _____	_____	 _____
0800	604.167 CHANGE CATCH BASIN GRATE TO CASCADE	2.000 EA	_____	 _____	_____	 _____
0810	604.18 ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	3.000 EA	_____	 _____	_____	 _____
0820	604.262 CATCH BASIN TYPE B5-C	2.000 EA	_____	 _____	_____	 _____
0830	605.09 6 INCH UNDERDRAIN TYPE B	860.000 LF	_____	 _____	_____	 _____
0840	606.1301 31" W-BM GR, MID-WAY SPLICE-SGL FACED	1,151.000 LF	_____	 _____	_____	 _____
0850	606.1303 31" W-BM GR, MID-WAY SPLICE-15' RAD AND LESS	25.000 LF	_____	 _____	_____	 _____
0860	606.1304 31" W-BM GR, MID-WAY SPLICE-OVER 15' RAD	100.000 LF	_____	 _____	_____	 _____
0870	606.1305 31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	6.000 EA	_____	 _____	_____	 _____
0880	606.1306 31" W-BM GR, MID-WAY SPLICE TANGENT TERMINAL	1.000 EA	_____	 _____	_____	 _____

## Maine Department of Transportation

## Proposal Schedule of Items

Proposal ID: 022296.01

Project(s): 022296.01

SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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
0890	606.1307 BRIDGE TRANSITION (ASYMMETRICAL) - TYPE 1A	4.000 EA	_____	 _____	_____	 _____
0900	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	1.000 EA	_____	 _____	_____	 _____
0910	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	24.000 EA	_____	 _____	_____	 _____
0920	606.47 SINGLE WOOD POST	1.000 EA	_____	 _____	_____	 _____
0930	606.74 GUARDRAIL - SINGLE RAIL BRIDGE MOUNTED	44.000 LF	_____	 _____	_____	 _____
0940	607.24 REMOVE AND RESET FENCE	30.000 LF	_____	 _____	_____	 _____
0950	608.08 REINFORCED CONCRETE SIDEWALK	40.000 SY	_____	 _____	_____	 _____
0960	608.26 CURB RAMP DETECTABLE WARNING FIELD	40.000 SF	_____	 _____	_____	 _____
0970	609.31 CURB TYPE 3	1,900.000 LF	_____	 _____	_____	 _____
0980	610.08 PLAIN RIPRAP	1,236.000 CY	_____	 _____	_____	 _____
0990	610.16 HEAVY RIPRAP	1,405.000 CY	_____	 _____	_____	 _____
1000	610.18 STONE DITCH PROTECTION	4.000 CY	_____	 _____	_____	 _____

## Maine Department of Transportation

## Proposal Schedule of Items

Proposal ID: 022296.01

Project(s): 022296.01

SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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
1010	610.212 STREAMBED ROCK FEATURES	47.000 CY	_____	 _____	_____	 _____
1020	610.213 VOID FILLED RIPRAP	352.000 CY	_____	 _____	_____	 _____
1030	613.319 EROSION CONTROL BLANKET	82.000 SY	_____	 _____	_____	 _____
1040	615.07 LOAM	363.000 CY	_____	 _____	_____	 _____
1050	618.13 SEEDING METHOD NUMBER 1	35.000 UN	_____	 _____	_____	 _____
1060	618.14 SEEDING METHOD NUMBER 2	24.000 UN	_____	 _____	_____	 _____
1070	619.12 MULCH	59.000 UN	_____	 _____	_____	 _____
1080	619.14 EROSION CONTROL MIX	129.000 CY	_____	 _____	_____	 _____
1090	620.58 EROSION CONTROL GEOTEXTILE	2,154.000 SY	_____	 _____	_____	 _____
1100	620.66 DRAINAGE GEOCOMPOSITE	134.000 SY	_____	 _____	_____	 _____
1110	627.18 12 " SOLID WHITE PAVEMENT MARKING	820.000 LF	_____	 _____	_____	 _____
1120	627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	9,460.000 LF	_____	 _____	_____	 _____
1130	627.77 REMOVING PAVEMENT MARKINGS	500.000 SF	_____	 _____	_____	 _____

## Maine Department of Transportation

## Proposal Schedule of Items

Proposal ID: 022296.01

Project(s): 022296.01

SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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
1140	627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	4,500.000 LF	_____	 _____	_____	 _____
1150	629.05 HAND LABOR, STRAIGHT TIME	120.000 HR	_____	 _____	_____	 _____
1160	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	30.000 HR	_____	 _____	_____	 _____
1170	631.132 SMALL BULLDOZER (INCLUDING OPERATOR)	10.000 HR	_____	 _____	_____	 _____
1180	631.15 ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR )	20.000 HR	_____	 _____	_____	 _____
1190	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	30.000 HR	_____	 _____	_____	 _____
1200	631.32 CULVERT CLEANER (INCLUDING OPERATOR)	10.000 HR	_____	 _____	_____	 _____
1210	639.18 FIELD OFFICE TYPE A	3.000 EA	_____	 _____	_____	 _____
1220	643.72 TEMPORARY TRAFFIC SIGNAL	LUMP SUM		 LUMP SUM	_____	 _____
1230	645.292 REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGNS TYPE II	25.000 SF	_____	 _____	_____	 _____
1240	652.31 TYPE I BARRICADE	40.000 EA	_____	 _____	_____	 _____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 022296.01

Project(s): 022296.01

SECTION: 1

Franklin - Oxford County BR No. 2273, 3265, 2341 Repl.

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
1250	652.312 TYPE III BARRICADE	60.000 EA	_____	 _____	_____	 _____
1260	652.33 DRUM	77.000 EA	_____	 _____	_____	 _____
1270	652.34 CONE	90.000 EA	_____	 _____	_____	 _____
1280	652.35 CONSTRUCTION SIGNS	1,120.000 SF	_____	 _____	_____	 _____
1290	652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES	LUMP SUM		LUMP SUM	_____	 _____
1300	652.38 FLAGGER	900.000 HR	_____	 _____	_____	 _____
1310	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	8.000 EA	_____	 _____	_____	 _____
1320	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM		LUMP SUM	_____	 _____
1330	659.10 MOBILIZATION	LUMP SUM		LUMP SUM	_____	 _____
1340	660.21 ON-THE-JOB TRAINING (BID)	2,000.000 HR	_____	 _____	_____	 _____
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 **022296.01** for **Hall Bridge replacement** in the town of **Dixfield and Wilton**, County of **Oxford and Franklin**, **Alder Stream Bridge replacement** in the township of **Jim Pond**, and **Farmington Falls Bridge replacement** in the town of **Farmington and Chesterville**, County of **Franklin**, 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 20, 2025**. 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, March 2020 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, March 2020 Edition, Standard Details March 2020 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 March 2020 Edition*, *Standard Details March 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **WIN 022296.01, Hall Bridge replacement, Alder Stream Bridge replacement and Farmington Falls Bridge replacement plus other incidental work**, 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, March 2020 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 March 2020 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: Bruce A. Van Note, 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 **022296.01** for **Hall Bridge replacement** in the town of **Dixfield and Wilton**, County of **Oxford and Franklin**, **Alder Stream Bridge replacement** in the township of **Jim Pond**, and **Farmington Falls Bridge replacement** in the town of **Farmington and Chesterville**, County of **Franklin**, 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 20, 2025**. 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, March 2020 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, March 2020 Edition, Standard Details March 2020 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 March 2020 Edition*, *Standard Details March 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **WIN 022296.01, Hall Bridge replacement, Alder Stream Bridge replacement and Farmington Falls Bridge replacement plus other incidental work**, 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, March 2020 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 March 2020 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: Bruce A. Van Note, 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.0112345.00, 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, March 2020 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, March 2020 Edition, Standard Details March 2020 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 March 2020 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, March 2020 Edition, Standard Details March 2020 Edition*, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

**PIN 012345.00 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, March 2020 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 March 2020 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

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

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

CONTRACTOR

**G. Award.**

Your offer is hereby accepted.  
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: Bruce A. Van Note, 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:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly .....

Print Name Legibly .....

SURETY:

Signature .....

.....

Print Name Legibly .....

Print Name Legibly .....

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

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

ADDRESS .....  
.....  
.....

TELEPHONE.....

.....

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

CONTRACT PAYMENT BOND  
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That \_\_\_\_\_  
\_\_\_\_\_ **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 .....

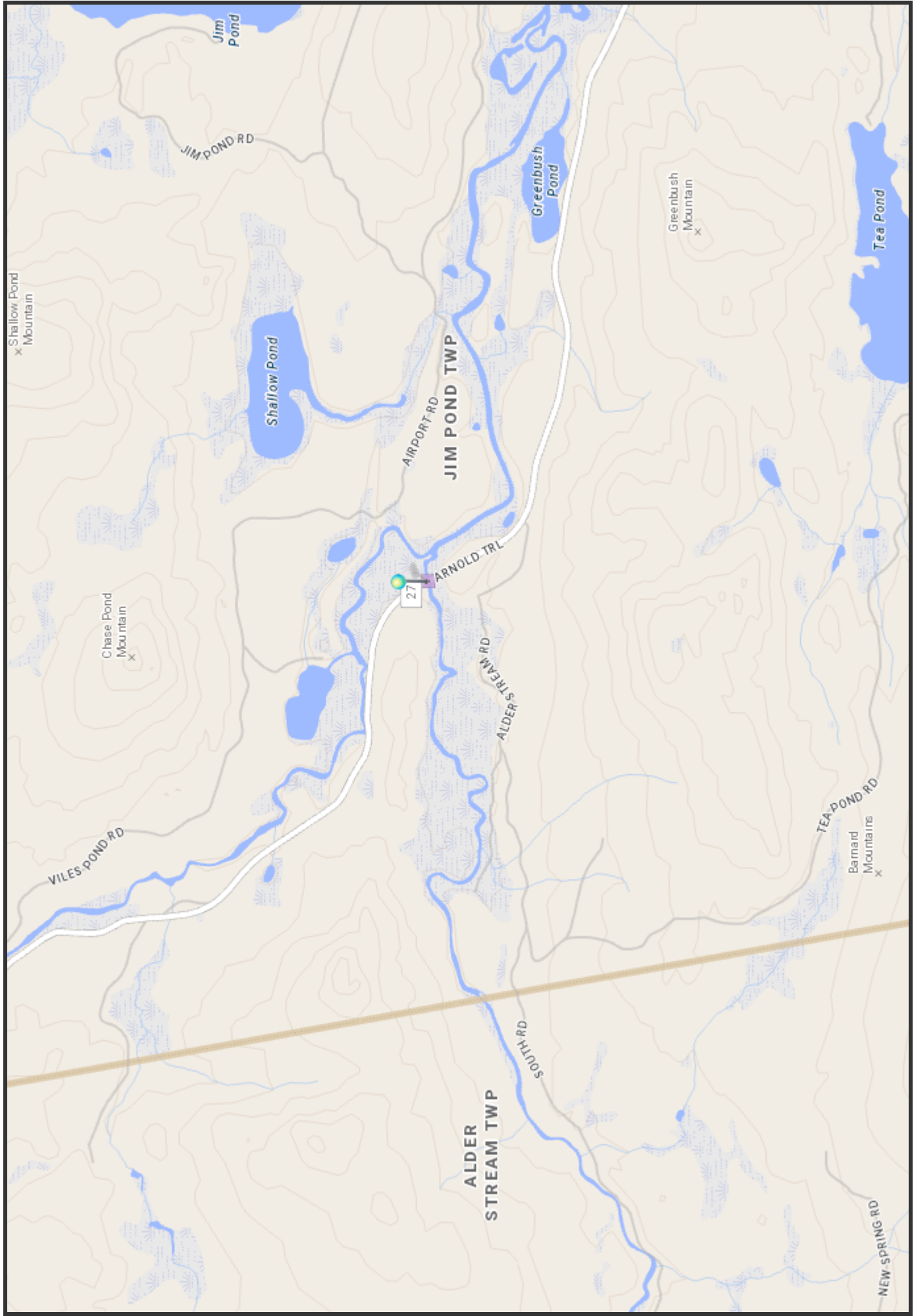
.....

.....

TELEPHONE .....

.....

# BRIDGE NO. 3265



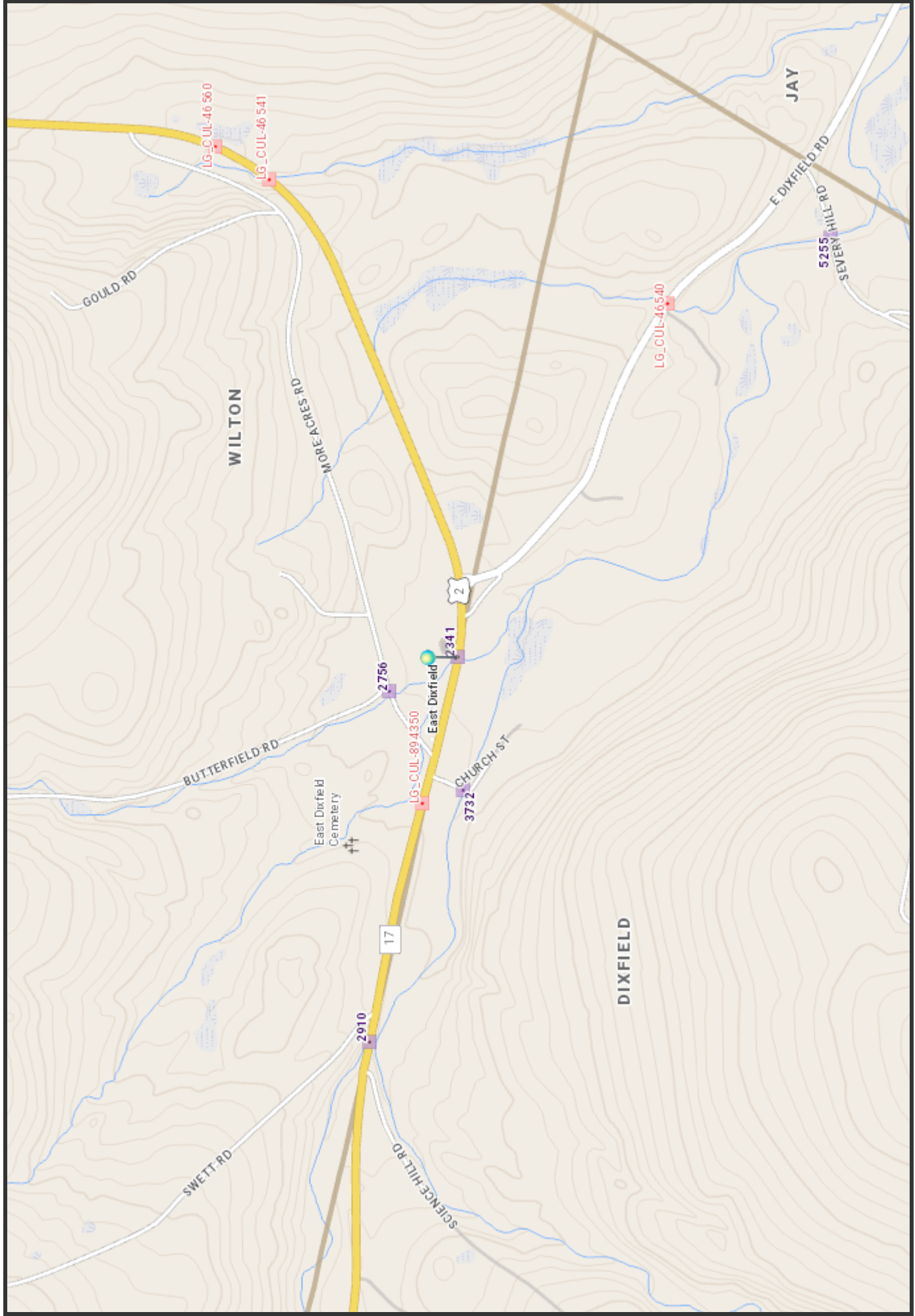
43 The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

0.8 Miles

1 inch = 0.57 miles

Date: 7/14/2021  
Time: 12:30:16 PM

# BRIDGE NO. 2341



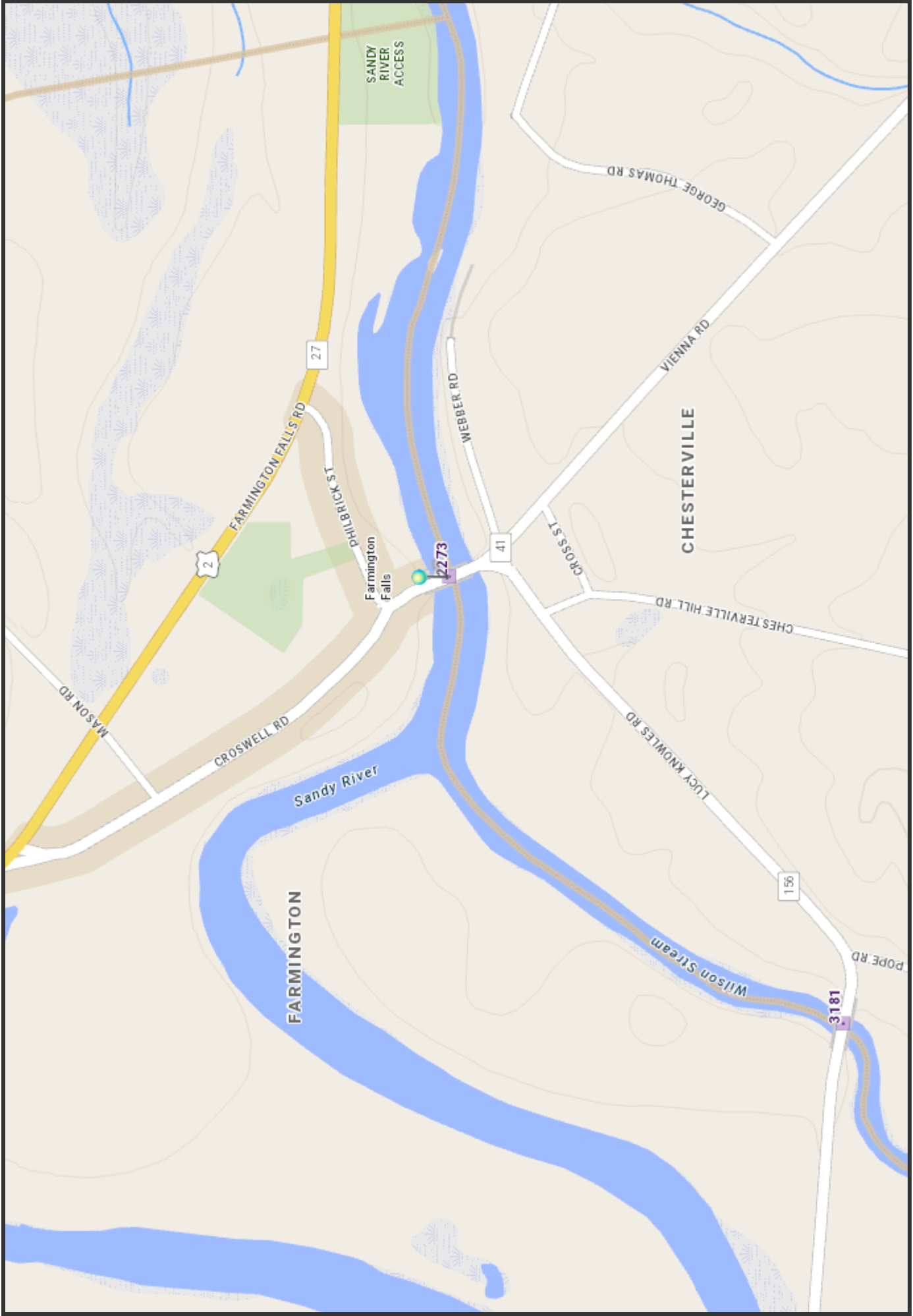
44 The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

0.4 Miles  
1 inch = 0.28 miles

Date: 7/14/2021  
Time: 12:31:23 PM



# BRIDGE NO. 2273



45  
The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

0.2 Miles  
1 inch = 0.14 miles

Date: 7/14/2021  
Time: 2:20:06 PM

"General Decision Number: ME20210040 01/01/2021

Superseded General Decision Number: ME20200040

State: Maine

Construction Type: Highway

County: Oxford County in Maine.

#### HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 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 \$10.95 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 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). 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



LABORER: wheelman.....	\$ 15.64	4.29
OPERATOR:		
Backhoe/Excavator/Trackhoe.....	\$ 18.80	4.16
OPERATOR: Bobcat/Skid		
Steer/Skid Loader.....	\$ 20.38	1.66
OPERATOR: Broom/Sweeper.....	\$ 19.09	5.20
OPERATOR: Bulldozer.....	\$ 17.30	3.50
OPERATOR: Loader.....	\$ 18.59	5.53
OPERATOR: Mechanic.....	\$ 22.07	8.73
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 21.46	8.78
OPERATOR: Screed.....	\$ 19.02	4.82
OPERATOR: roller (Earth).....	\$ 16.43	3.40
OPERATOR: roller Asphalt.....	\$ 24.16	3.55
TRAFFIC CONTROL: Flagger.....	\$ 9.38	0.00
TRAFFIC CONTROL:		
Laborer-Cones/ Barricades/Barrels -		
Setter/Mover/Sweeper.....	\$ 17.47	4.80
TRUCK DRIVER: Dump Truck.....	\$ 15.83	1.16
TRUCK DRIVER: TackTruck.....	\$ 20.18	7.75

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

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

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.

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END OF GENERAL DECISION

"

"General Decision Number: ME20210035 01/01/2021

Superseded General Decision Number: ME20200035

State: Maine

Construction Type: Highway

County: Franklin County in Maine.

#### HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 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 \$10.95 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 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). 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



OPERATOR:		
Backhoe/Excavator/Trackhoe.....	\$ 18.80	4.16
OPERATOR: Bobcat/Skid		
Steer/Skid Loader.....	\$ 21.66	4.91
OPERATOR: Broom/Sweeper.....	\$ 19.09	5.20
OPERATOR: Bulldozer.....	\$ 17.30	3.50
OPERATOR: Loader.....	\$ 18.59	5.53
OPERATOR: Mechanic.....	\$ 22.07	8.73
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 21.46	8.78
OPERATOR: Screed.....	\$ 19.02	4.82
OPERATOR: Roller (Earth).....	\$ 16.43	3.40
OPERATOR: Roller Asphalt.....	\$ 21.97	7.81
TRAFFIC CONTROL: Flagger.....	\$ 9.38	0.00
TRAFFIC CONTROL:		
Laborer-Cones/ Barricades/Barrels -		
Setter/Mover/Sweeper.....	\$ 17.47	4.80
TRUCK DRIVER: Dump Truck.....	\$ 15.07	5.15
TRUCK DRIVER: TackTruck.....	\$ 20.18	7.75
-----		
WELDERS - Receive rate prescribed for craft performing		

operation to which welding is incidental.

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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

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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

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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.

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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.

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### WAGE DETERMINATION APPEALS PROCESS

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

- \* an existing published wage determination
- \* a survey underlying a wage determination

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

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

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

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

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

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

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



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

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

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

---

END OF GENERAL DECISION

"

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

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

**2021 Fair Minimum Wage Rates  
 Heavy & Bridge Franklin County**

Occupation Title	Minimum			Occupation Title	Minimum		
	Wage	Benefit	Total		Wage	Benefit	Total
Asphalt Raker	\$ 19.51	\$ 2.14	\$ 21.65	Ironworker - Reinforcing	\$ 28.20	\$ 22.75	\$ 50.95
Backhoe Loader Operator	\$ 28.00	\$ 12.15	\$ 40.15	Ironworker - Structural	\$ 21.00	\$ 4.60	\$ 25.60
Boom Truck (Truck Crane) Operator	\$ 25.00	\$ 5.86	\$ 30.86	Laborer - Skilled	\$ 26.82	\$ 0.00	\$ 26.82
Bulldozer Operator	\$ 23.97	\$ 3.88	\$ 27.85	Laborers (Helpers & Tenders)	\$ 21.01	\$ 1.51	\$ 22.52
Carpenter	\$ 24.00	\$ 6.84	\$ 30.84	Line Erector - Power/Cable Splicer	\$ 23.25	\$ 3.21	\$ 26.46
Carpenter - Rough	\$ 25.60	\$ 5.70	\$ 31.30	Loader Operator - Front-End	\$ 25.50	\$ 4.30	\$ 29.80
Cement Mason/Finisher	\$ 24.50	\$ 0.00	\$ 24.50	Mechanic - Maintenance	\$ 22.25	\$ 5.06	\$ 27.31
Comm Transmission Erector-Microwave/Cell	\$ 22.25	\$ 3.84	\$ 26.09	Mechanic- Refrigeration	\$ 26.50	\$ 6.58	\$ 33.08
Communication Equip Installer	\$ 17.63	\$ 0.70	\$ 18.33	Millwright	\$ 27.25	\$ 6.59	\$ 33.84
Crane Operator =>15 Tons)	\$ 30.50	\$ 6.46	\$ 36.96	Painter	\$ 37.98	\$ 0.00	\$ 37.98
Diver	\$ 32.00	\$ 4.80	\$ 36.80	Paver Operator	\$ 23.91	\$ 7.36	\$ 31.27
Dry-Wall Applicator	\$ 24.00	\$ 0.00	\$ 24.00	Pipe/Steam/Sprinkler Fitter	\$ 27.38	\$ 6.67	\$ 34.05
Dry-Wall Taper & Finisher	\$ 24.00	\$ 0.84	\$ 24.84	Pipelayer	\$ 27.45	\$ 6.61	\$ 34.06
Earth Auger Operator	\$ 27.33	\$ 5.85	\$ 33.18	Plumber (Licensed)	\$ 28.00	\$ 4.19	\$ 32.19
Electrician - Licensed	\$ 29.00	\$ 6.98	\$ 35.98	Plumber Helper/Trainee	\$ 19.25	\$ 2.10	\$ 21.35
Electrician Helper/Cable Puller	\$ 19.50	\$ 4.69	\$ 24.19	Reclaimer Operator	\$ 26.83	\$ 13.25	\$ 40.08
Elevator Constructor/Installer	\$ 61.42	\$ 41.17	\$ 102.59	Rigger	\$ 26.00	\$ 7.43	\$ 33.43
Excavator Operator	\$ 29.25	\$ 8.35	\$ 37.60	Roller Operator - Earth	\$ 20.00	\$ 1.92	\$ 21.92
Fence Setter	\$ 18.50	\$ 2.00	\$ 20.50	Roller Operator - Pavement	\$ 23.91	\$ 4.70	\$ 28.61
Flagger	\$ 15.00	\$ 0.00	\$ 15.00	Screed/Wheelman	\$ 21.00	\$ 3.61	\$ 24.61
Floor Layer	\$ 22.00	\$ 4.32	\$ 26.32	Sheet Metal Worker	\$ 22.50	\$ 5.42	\$ 27.92
Grader/Scrapper Operator	\$ 23.71	\$ 4.85	\$ 28.56	Truck Driver - Heavy	\$ 23.99	\$ 1.05	\$ 25.04
Hot Top Plant Operator	\$ 23.91	\$ 10.99	\$ 34.90	Truck Driver - Light	\$ 17.00	\$ 0.52	\$ 17.52
Industrial Truck (Forklift) Operator	\$ 26.83	\$ 1.95	\$ 28.78	Truck Driver - Medium	\$ 20.95	\$ 2.02	\$ 22.97
Insulation Installer	\$ 21.00	\$ 2.12	\$ 23.12	Truck Driver - Tractor Trailer	\$ 24.38	\$ 4.41	\$ 28.79

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

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

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

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

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

A true copy

Attest: Scott R. Cotnoir  
 Scott R. Cotnoir  
 Wage & Hour Director  
 Bureau of Labor Standards

Expiration Date: 12-31-2021  
 Revised 2-25-2021

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

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

**2021 Fair Minimum Wage Rates  
 Highway & Earth Franklin County**

Occupation Title	Minimum	Minimum	Total	Occupation Title	Minimum	Minimum	Total
	Wage	Benefit			Wage	Benefit	
Asphalt Raker	\$ 19.51	\$ 4.06	\$ 23.57	Ironworker - Reinforcing	\$ 28.36	\$ 0.00	\$ 28.36
Backhoe Loader Operator	\$ 33.80	\$ 16.12	\$ 49.92	Laborer - Skilled	\$ 24.37	\$ 1.24	\$ 25.61
Boom Truck (Truck Crane) Operator	\$ 25.00	\$ 5.86	\$ 30.86	Laborers (Helpers & Tenders)	\$ 18.55	\$ 0.89	\$ 19.44
Bulldozer Operator	\$ 22.50	\$ 2.26	\$ 24.76	Loader Operator - Front-End	\$ 24.12	\$ 3.33	\$ 27.45
Carpenter - Rough	\$ 30.76	\$ 19.72	\$ 50.48	Mechanic- Maintenance	\$ 24.46	\$ 11.22	\$ 35.68
Cement Mason/Finisher	\$ 20.50	\$ 1.42	\$ 21.92	Millwright	\$ 25.75	\$ 5.41	\$ 31.16
Communication Equip Installer	\$ 22.00	\$ 0.00	\$ 22.00	Painter	\$ 20.15	\$ 0.00	\$ 20.15
Crane Operator =>15 Tons)	\$ 29.00	\$ 6.68	\$ 35.68	Paver Operator	\$ 23.91	\$ 8.82	\$ 32.73
Crusher Plant Operator	\$ 20.50	\$ 2.44	\$ 22.94	Pipelayer	\$ 25.00	\$ 3.36	\$ 28.36
Electrician - Licensed	\$ 31.98	\$ 17.24	\$ 49.22	Reclaimer Operator	\$ 26.83	\$ 13.25	\$ 40.08
Electrician Helper/Cable Puller	\$ 18.50	\$ 2.39	\$ 20.89	Roller Operator - Earth	\$ 20.00	\$ 0.81	\$ 20.81
Excavator Operator	\$ 24.18	\$ 3.08	\$ 27.26	Roller Operator - Pavement	\$ 23.91	\$ 4.70	\$ 28.61
Fence Setter	\$ 18.50	\$ 2.00	\$ 20.50	Screed/Wheelman	\$ 23.00	\$ 2.12	\$ 25.12
Flagger	\$ 15.00	\$ 0.00	\$ 15.00	Stone Mason	\$ 25.00	\$ 1.88	\$ 26.88
Grader/Scraper Operator	\$ 30.59	\$ 7.76	\$ 38.35	Truck Driver - Heavy	\$ 20.00	\$ 1.15	\$ 21.15
Highway Worker/Guardrail Installer	\$ 24.87	\$ 1.36	\$ 26.23	Truck Driver - Light	\$ 24.15	\$ 0.38	\$ 24.53
Hot Top Plant Operator	\$ 23.91	\$ 13.25	\$ 37.16	Truck Driver - Medium	\$ 20.50	\$ 1.64	\$ 22.14
Industrial Truck (Forklift) Operator	\$ 26.83	\$ 3.43	\$ 30.26	Truck Driver - Tractor Trailer	\$ 20.00	\$ 4.96	\$ 24.96

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

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

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

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

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

A true copy

Attest: Scott R. Cotnoir  
 Scott R. Cotnoir  
 Wage & Hour Director  
 Bureau of Labor Standards

Expiration Date: 12-31-2021  
 Revised 2-25-2021

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

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

**2021 Fair Minimum Wage Rates  
 Highway & Earth Oxford County**

<u>Occupation Title</u>	<u>Minimum Wage</u>	<u>Minimum Benefit</u>	<u>Total</u>	<u>Occupation Title</u>	<u>Minimum Wage</u>	<u>Minimum Benefit</u>	<u>Total</u>
Asphalt Raker	\$ 19.80	\$ 1.01	\$ 20.81	Ironworker - Reinforcing	\$ 28.36	\$ 0.00	\$ 28.36
Backhoe Loader Operator	\$ 25.46	\$ 4.33	\$ 29.79	Laborer - Skilled	\$ 24.37	\$ 0.81	\$ 25.18
Boom Truck (Truck Crane) Operator	\$ 25.00	\$ 5.86	\$ 30.86	Laborers (Helpers & Tenders)	\$ 19.50	\$ 0.94	\$ 20.44
Bulldozer Operator	\$ 23.99	\$ 4.01	\$ 28.00	Loader Operator - Front-End	\$ 20.50	\$ 3.80	\$ 24.30
Carpenter - Rough	\$ 30.76	\$ 19.72	\$ 50.48	Mechanic- Maintenance	\$ 24.00	\$ 3.92	\$ 27.92
Cement Mason/Finisher	\$ 20.50	\$ 1.42	\$ 21.92	Millwright	\$ 25.75	\$ 5.41	\$ 31.16
Communication Equip Installer	\$ 22.00	\$ 0.00	\$ 22.00	Painter	\$ 19.50	\$ 0.00	\$ 19.50
Crane Operator =>15 Tons)	\$ 29.00	\$ 6.68	\$ 35.68	Paver Operator	\$ 28.52	\$ 5.06	\$ 33.58
Crusher Plant Operator	\$ 20.00	\$ 1.94	\$ 21.94	Pipelayer	\$ 24.50	\$ 3.36	\$ 27.86
Electrician - Licensed	\$ 28.00	\$ 5.90	\$ 33.90	Reclaimer Operator	\$ 26.83	\$ 13.25	\$ 40.08
Electrician Helper/Cable Puller	\$ 18.50	\$ 2.39	\$ 20.89	Roller Operator - Earth	\$ 19.83	\$ 0.00	\$ 19.83
Excavator Operator	\$ 24.38	\$ 4.15	\$ 28.53	Roller Operator - Pavement	\$ 22.77	\$ 4.42	\$ 27.19
Fence Setter	\$ 19.00	\$ 2.00	\$ 21.00	Screed/Wheelman	\$ 24.60	\$ 4.02	\$ 28.62
Flagger	\$ 15.50	\$ 0.00	\$ 15.50	Stone Mason	\$ 25.00	\$ 1.88	\$ 26.88
Grader/Scraper Operator	\$ 27.89	\$ 8.90	\$ 36.79	Truck Driver - Heavy	\$ 20.00	\$ 0.89	\$ 20.89
Highway Worker/Guardrail Installer	\$ 24.87	\$ 1.36	\$ 26.23	Truck Driver - Light	\$ 24.15	\$ 0.38	\$ 24.53
Hot Top Plant Operator	\$ 23.91	\$ 13.25	\$ 37.16	Truck Driver - Medium	\$ 21.00	\$ 1.64	\$ 22.64
Industrial Truck (Forklift) Operator	\$ 26.83	\$ 1.48	\$ 28.31	Truck Driver - Tractor Trailer	\$ 20.00	\$ 0.72	\$ 20.72

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

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

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

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

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

A true copy

Attest: Scott R. Cotnoir  
 Scott R. Cotnoir  
 Wage & Hour Director  
 Bureau of Labor Standards

Expiration Date: 12-31-2021  
 Revised 2-25-2021

<p>MaineDOT DBE Project Attainment Target (PAT) for this Project is <u>.021 %</u></p>
---

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

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

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

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

SPECIAL PROVISION  
SECTION 104  
GENERAL RIGHTS AND RESPONSIBILITIES  
(Existing Site Conditions)

It is hereby brought to the Contractor's attention the following site conditions that need to be considered during construction. The Department does not have any plans of the following structures, only the included pictures, sketches and survey plans.

1. Old bridge foundations (pre 1931) including stone filled timber cribs and cut granite blocks in the streambed.
2. Cobbles and large boulders present in the streambed of the Sandy River.
3. Old foundations from former structures near both ends of the bridge. Some of the old buildings were burned and the foundation hole filled in.

**Pre 1931 Covered Bridge**



*Figure 1- Looking upstream at covered bridge pre 1931. Image courtesy of the Farmington Historical Society.*

Chesterville

Farmington

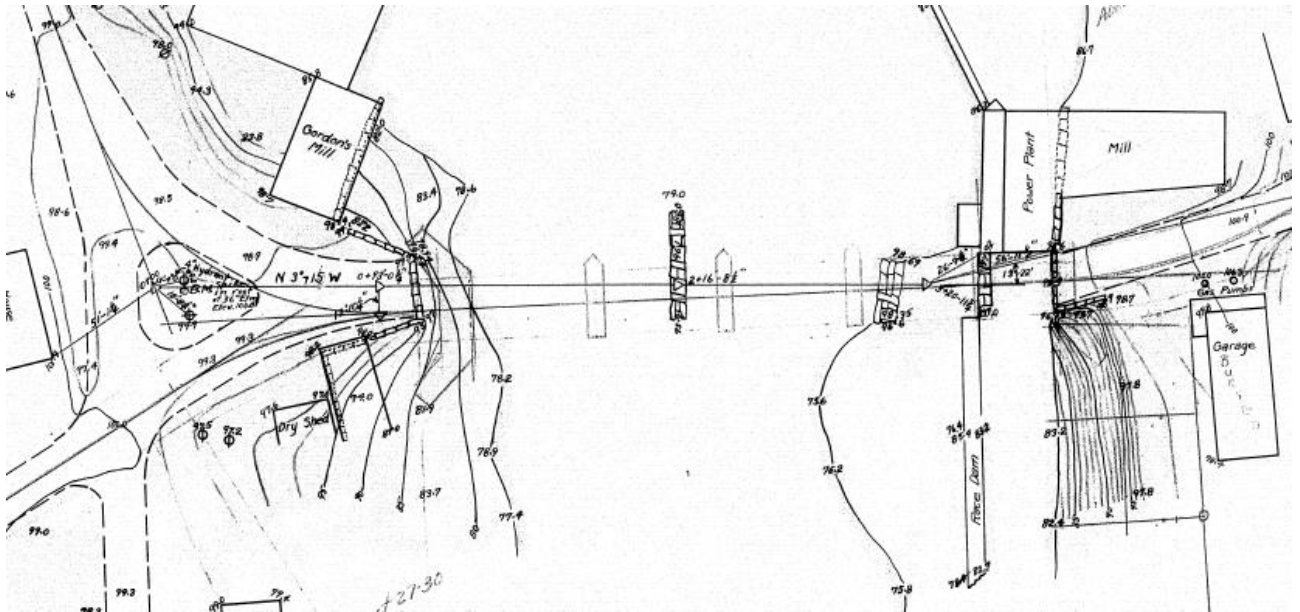


Figure 2-Plan view from page 1 of existing bridge plans dated 1931

Note: A buried concrete slab may be located at the northwest corner of the existing bridge where it is labeled power plant.

Chesterville

Farmington

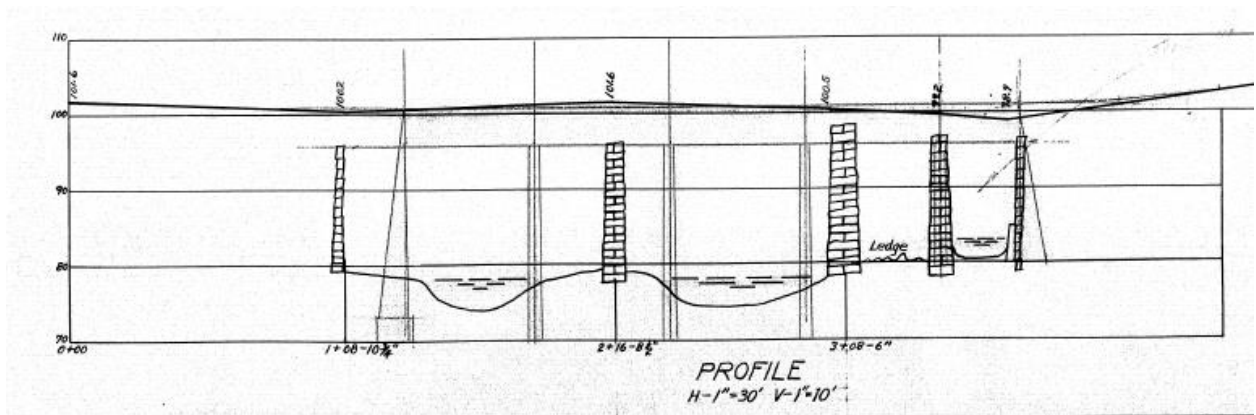
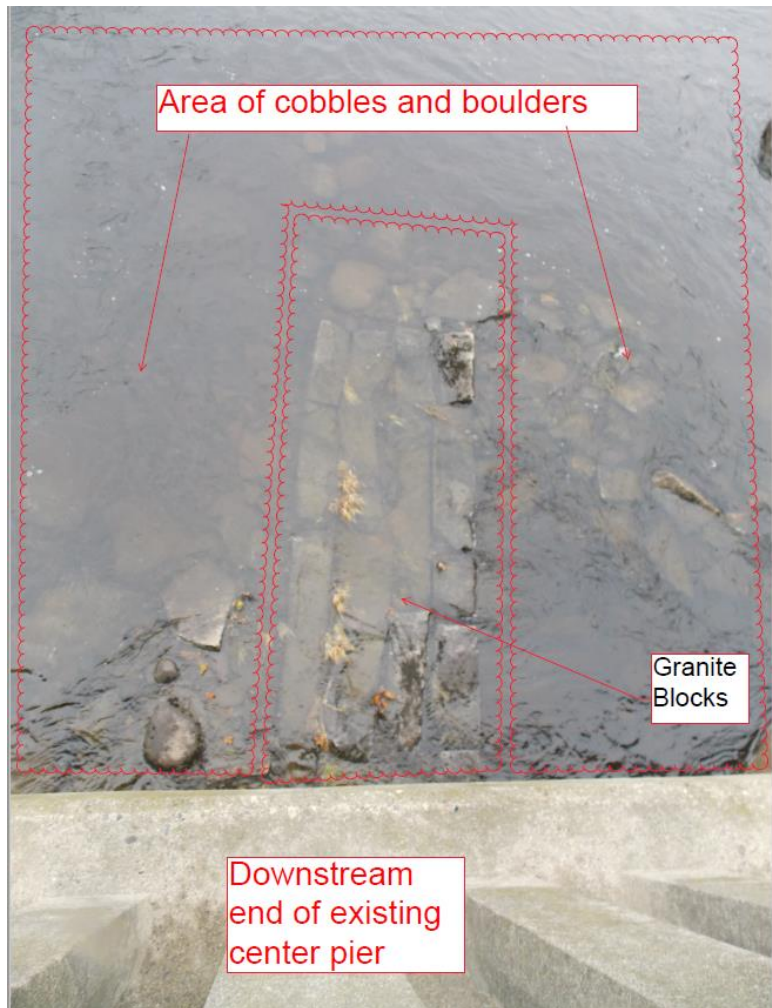


Figure 3- Profile from page 1 of the existing bridge plans dated 1931. Note: Timber cribbing is not shown on the plans, but is visible in the streambed just south of the center pier.

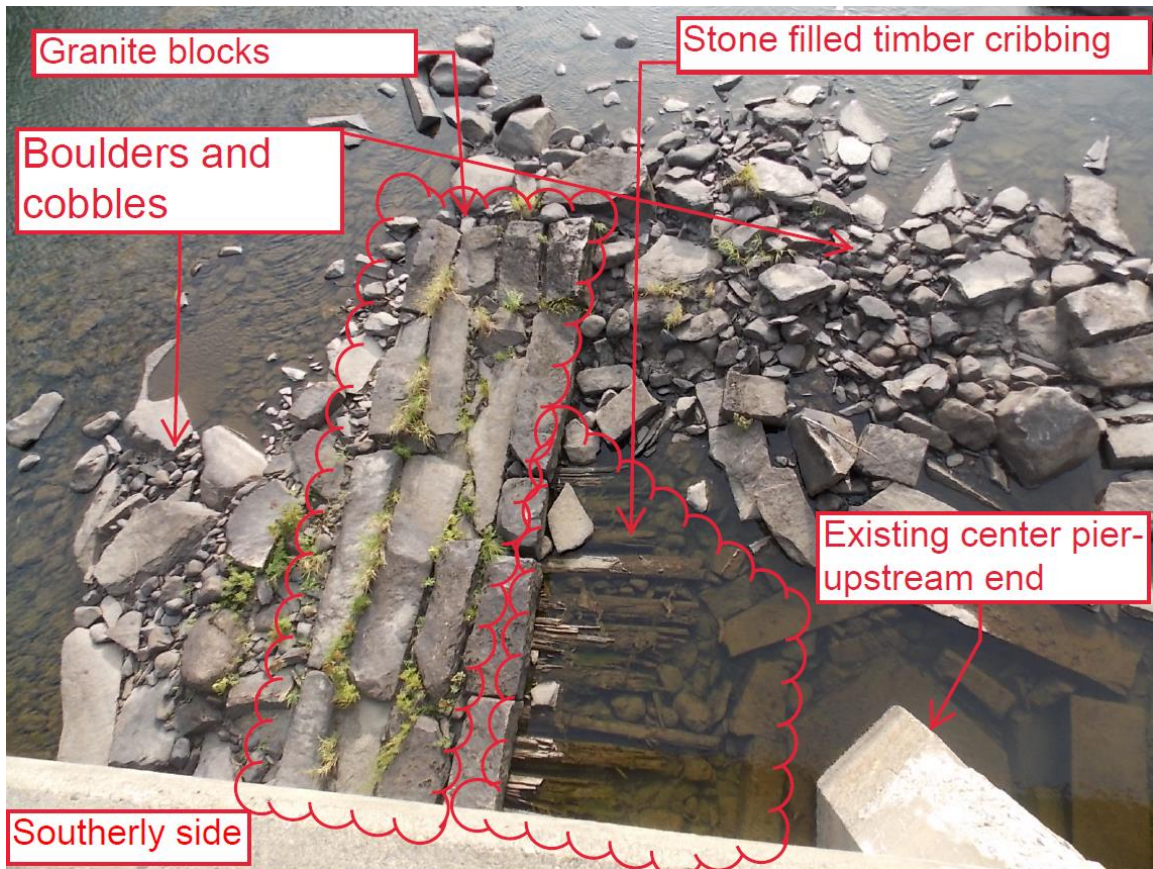
**Pre 1931 Covered Bridge- remains of foundations**

MaineDOT anticipates that the Contractor will need to construct a secondary cofferdam around the outside of the footprint for the proposed seal for the pier. This secondary cofferdam will allow the Contractor to remove the surface material (i.e. boulders, cobbles, granite blocks, etc.) to facilitate the installation of the primary cofferdam. MaineDOT anticipates that the existing rock filled timber cribbing will need to be removed to facilitate installation of the primary cofferdam for the new pier foundation.





*Figure 4 – Streambed downstream of the existing center pier*



*Figure 5 - Stream upstream from the existing center pier, south side*

Note: The rock filled timber cribbing and cut granite blocks extend along the entire length of the south side of the existing center pier.



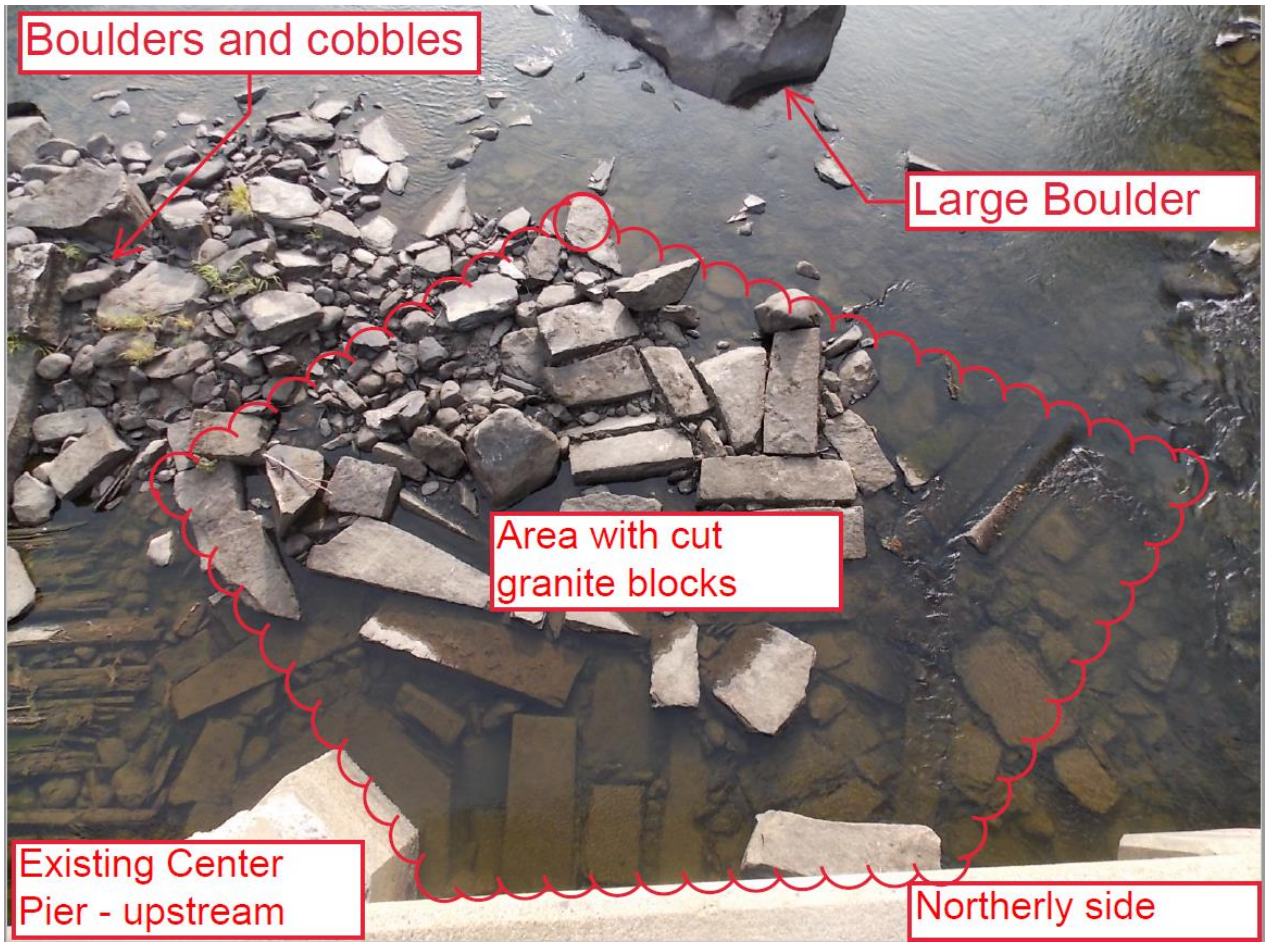


Figure 6 - Streambed upstream of the existing center pier on the north side

**Old foundations from former structures**

**Old foundations adjacent to existing north abutment- west side**



*Figure 7 - Old foundations located at the northwest corner of the existing bridge*





*Figure 8 - Old concrete foundation and cut granite block walls located at the northwest corner of the existing bridge*

**Old foundations from former structures**

**Old foundations located at the southwest corner of the existing bridge**



*Figure 9- Map showing approximate location of former buildings and underlying foundations at the southwest corner of the existing bridge. Diagram courtesy of the Maine Historic Preservation Commission (MPHC)*

Note: The foundations for the sawmill/hemp mill are in the general area of the proposed temporary detour alignment for the project. Excavation and/or pile driving in this area may be difficult.

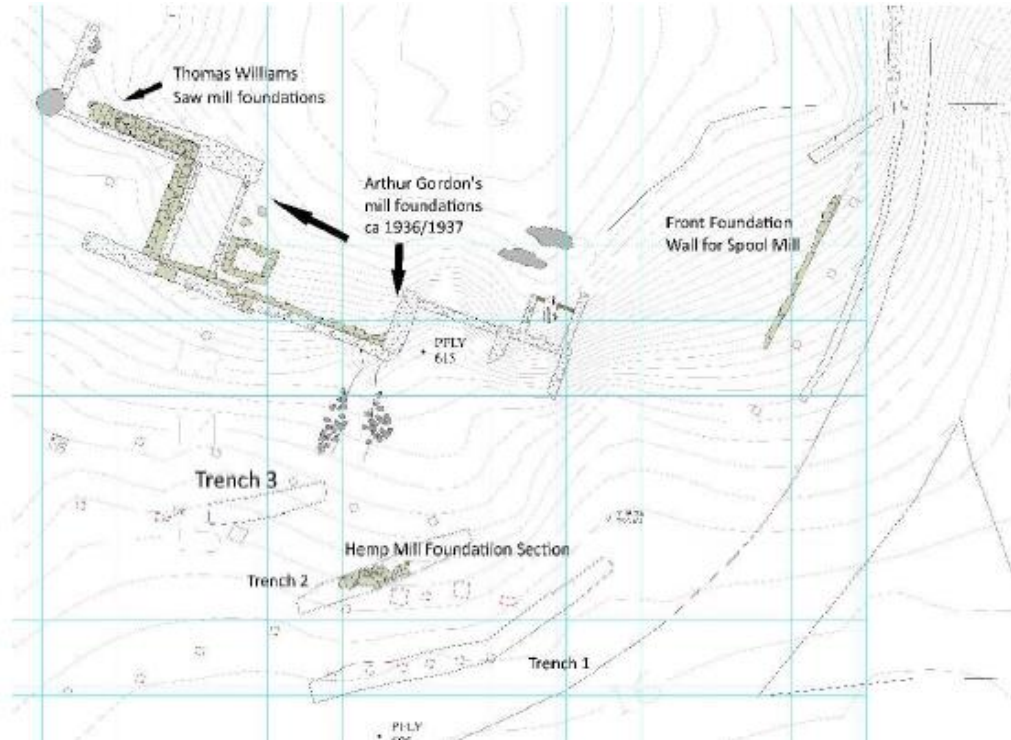


Figure 10 – Map showing the approximate location of old foundations located at the southwest corner of the existing bridge. Diagram courtesy of the Maine Historic Preservation Commission (MPPHC)



*Figure 11- Looking southwest from existing bridge at the remains of old foundations*



SPECIAL PROVISION  
SECTION 104  
GENERAL RIGHTS AND RESPONSIBILITIES  
(Reserved Limits)

It is hereby brought to the Contractor's attention that use of the following area will not become available to the Contractor until September 29, 2021 unless prior released by the Department:

- Parcel located at approximate Station 4+00 right, parcel No. 5 John Farrington (Old Barn at southeast corner of existing bridge)

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

**UTILITY COORDINATION**

The Contractor has primary responsibility for coordinating their work with utilities and/or railroad after contract award. The Contractor shall communicate directly with the utilities and/or railroad 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 and/or railroads have been notified and will be furnished a project specification.

**Overview & Utility Contact Information:**

<b>Utility</b>	<b>Aerial</b>	<b>Underground</b>	<b>Contact Name</b>	<b>Contact Number</b>
Central Maine Power Company	X		Scott Raymond	446-7244
Somerset Telephone Company	X		JasonTibbetts	431-2311

Temporary utility adjustments **{ARE}** anticipated. If any unexpected utility relocations become necessary, they shall be scheduled in accordance with Section 104 of the Standard Specifications and shall be performed by the appropriate utility company in conjunction with the work by the Contractor. Should the Contractor choose to have any poles temporarily relocated, all work shall be done at the Contractor's request and expense, with no additional cost or schedule impacts to the Department.

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

Unless otherwise specified, any underground utility/railroad 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/railroad 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 clearing and tree removal in areas where utilities are involved must be completed before the utilities are able to relocate their facilities.

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

The Contractor shall provide the utilities access to the new pole locations. Construction of any spot cuts or fills in excess of 2 feet must be completed prior to utility relocations. All cut/fill depths listed on the pole list are approximate and will need to be verified by the Contractor prior to poles being set. The Contractor shall prepare a plan for how access and the spot cuts and fills will be accomplished and what the schedule will be for performing the work. This plan will be discussed at the pre-construction utility meeting.

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

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

***Summary:***

Utility	Pole Set	New Wires/Cables	Trans. Wires/Cables	Remove Poles	Estimated Working Days
Central Maine Power Company	X		X	X	5
Somerset Telephone Company			X		2
<b>Total:</b>					<b>7</b>

***Utility Specific Issues:***

**Central Maine Power Company**

Central Maine Power Company will be setting two new poles at station 123+08.29' ft Lt and station 126+01.27' ft Lt and removing 2 old poles. Central Maine Power will also be placing alley arms from joint pole #73 to joint pole #74. The utility will be setting one stub pole off the project limits.

**Somerset Telephone Company**

Somerset Telephone Company will transfer their facilities to the new pole once Central Maine Power Company completes their work.

***Pole List:***

Existing Pole #	Existing Station	Left/Right		Existing Offset	Proposed Station	Left/Right		Proposed Offset	Comments
		LT	RT			LT	RT		
#73	123+08	X		25'					Remove
					<b>123+08</b>	<b>X</b>		<b>29'</b>	<b>New pole #73</b>
#74	125+90	X		24'					Remove
					<b>126+01</b>	<b>X</b>		<b>27'</b>	<b>New Pole #74</b>

**UNDERGROUND**

None reported

**MAINTAINING UTILITY LOCATION MARKINGS**

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

**UTILITY SIGNING**

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

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

**UTILITY COORDINATION**

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

**THE CONTRACTORS 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:**

<b>Utility</b>	<b>Aerial</b>	<b>Underground</b>
Central Maine Power Company	X	
Charter Communications	X	
Consolidated Columniations	X	

<b>Utility Contact Information</b>		
<b>Utility</b>	<b>Contact Person</b>	<b>Contact Phone</b>
Central Maine Power Company	Scott Raymond	446-7244
Charter Communications	Michael Francis	944-6238
Consolidated Columniations	Martin Pease	272-7993

Temporary utility adjustments **are** anticipated. If any unexpected utility relocations become necessary, they shall be scheduled in accordance with Section 104 of the Standard Specifications and shall be performed by the appropriate utility company in conjunction with the work by the Contractors. Should the Contractors choose to have any poles temporarily relocated, all work shall be done at the Contractors request and expense, with no additional cost or schedule impacts to the Department.

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.

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

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

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 Contractors shall have no claim against the Department if they are exceeded.

**AERIAL**

***Utility Specific Issues:***

**Central Maine Power Company** has single phase power lines that run parallel with the bridge. These lines shall remain energized, lines can be covered if requested. Any equipment used under or around the power lines must maintain powerline safety clearances. The contact for Central Maine Power is Scott Raymond 446-7244.

Depending on construction methods the Contractor may be working next to, or under the existing wires. The Contractor is encouraged to visit the site prior to bid to determine how to construct safely. Utility adjustments are anticipated for (Alley Arm off Joint pole #90). The Contractor may need to jack or slide sections of the proposed box sections into place

If any further temporary relocation becomes necessary, the Contractor shall notify the affected utilities. Any cost for temporary relocations shall be the responsibility of the Contractor. The Contractor shall not have any claims against the department if the existing lines become a construction issue. Sufficient time will need to be allowed prior to the construction for all required temporary relocations if necessary.

The Contractor shall not excavate around any pole, guy anchor to a depth that compromises the stability of the pole.

Should any conflicts arise the utility must be contacted as soon as possible. (see contacts provided within this provision)

**Charter Communications**

Charter Communications will remain in place during construction. Contractor will be working under the facilities.

**Consolidated Communications**

Consolidated Communications will remain in place during construction. Contractor will be working under the facilities.

**SUBSURFACE**

None Reported

**MAINTAINING UTILITY LOCATION MARKINGS**

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

**UTILITY SIGNING**

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

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

**UTILITY COORDINATION**

The Contractor has primary responsibility for coordinating their work with utilities and/or railroad after contract award. The Contractor shall communicate directly with the utilities and/or railroad 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 and/or railroads have been notified and will be furnished a project specification.

**Overview & Utility/Railroad Contact Information:**

<b>Utility</b>	<b>Aerial</b>	<b>Underground</b>	<b>Contact Name</b>	<b>Contact Number</b>
<b>Central Maine Power Company</b>	<b>X</b>		<b>Scott Raymond</b>	<b>446-7244</b>
<b>Consolidated Communications</b>	<b>X</b>		<b>Martin Pease</b>	<b>272-7993</b>
<b>Farmington Falls Water District</b>		<b>X</b>	<b>Andy Gilson</b>	<b>431-5514</b>

If any unexpected utility relocations become necessary, they shall be scheduled in accordance with Section 104 of the Standard Specifications and shall be performed by the appropriate utility company in conjunction with the work by the Contractor. Should the Contractor choose to have any poles temporarily relocated, all work shall be done at the Contractor's request and expense, with no additional cost or schedule impacts to the Department.

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.

Unless otherwise specified, any underground utility/railroad 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/railroad 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 clearing and tree removal in areas where utilities are involved must be completed before the utilities are able to relocate their facilities.

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

The Contractor shall provide the utilities access to the new pole locations. Construction of any spot cuts or fills in excess of 2 feet must be completed prior to utility relocations. All cut/fill depths listed on the pole list are approximate and will need to be verified by the Contractor prior to poles being set. The Contractor shall prepare a plan for how access and the spot cuts and fills will be accomplished and what the schedule will be for performing the work. This plan will be discussed at the pre-construction utility meeting.

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

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

**Summary:**

Utility	Pole Set	New Wires/Cables	Trans. Wires/Cables	Remove Poles	Estimated Working Days
Consolidated Communications		X			23
Central Maine Power Company	X	X		X	12
<b>Total:</b>					<b>45</b>

**Utility Specific Issues:**

**Central Maine Power Company**

Central Maine Power will be setting 4 new poles per the pole list provided within the 104 Special Provision. Central Maine Power Company will be framing and placing, new wire on the poles. Propose pole at station 7+56Rt will need to be alley armed temporarily for the the project. CMP will also be placing a pole for a service drop to a private building. Once Consolidated Communications has completed their work Central Maine Power Company will remove 5 existing poles as per pole list provided within this special provision.

**Consolidated Communications**

Once Central Maine Power Company has completed their work Consolidated Communications will run new wire and splice their facilities at the new pole locations.

**\*\*Note**

The pole at station 2+36.23'Rt may need to be supported during the installation of underdrain.

There are 4 different alignments on this project: mainline, Vienna Road, Webber Road, and Philbrick Road. Pole List is off the Centerline Construction #1 (Mainline).

**The aerial utilities will be relocated with taller poles according to the pole list below to allow adequate access for project work zone. Aerial utility lines are located near the bridge and OSHA aerial working clearances will need to be adhered to when using equipment around power lines. The Contractor will be required to work around this line configuration and shall plan and conduct their work accordingly.**

***Pole List:***

Existing Pole #	Existing Station	Left/Right		Existing Offset	Proposed Station	Left/Right		Proposed Offset	Comments
		LT	RT			LT	RT		
					<b>2+36</b>		<b>X</b>	<b>23'</b>	<b>Proposed Pole</b>
#1	2+40		X	21'					Remove Existing Pole
#1S	2+41	X		17'					Remove Existing Pole
					<b>4+19</b>		<b>X</b>	<b>78'</b>	<b>Proposed Pole</b>
#2	4+21		X	58'					Remove Existing Pole
#12	6+94		X	25'			<b>X</b>		Remove Existing Pole
#02	6+96		X	25'			<b>X</b>		Remove Existing Pole
					<b>7+56</b>		<b>X</b>	<b>26'</b>	<b>Proposed Pole</b>
	7+62	X		67'					<b>Remove existing pole</b>
					<b>8+00</b>	<b>X</b>		<b>36'</b>	<b>Proposed Pole</b>

**UNDERGROUND**

***Summary:***

Utility	Summary of Work	Estimated Working Days
Farmington Falls Water District	N/A	5
<b>Total:</b>		5

**Farmington Falls Water District**

Farmington Falls Water District has approximately **3 water gate valves** to adjust. Watergates will need to be adjusted down below existing pavement. The Contractor will be responsible to coordinate the adjustment with the utility. When excavation and subgrade reconstruction is taking place, the Contractor will be responsible to protect the facilities from any damage. Once the paving operation is taking place the Utility will raise their facilities back to grade. **The Contractor will be responsible to make final grade adjustments of the gate valves in conjunction with the paving operations.** The District intends to loosen and raise the gate valves to grade prior to paving surface and estimates **5 working days** to complete the adjustments. The Contractor shall provide **two weeks notification** to the District for all work to be performed by the District. The Water District also has a water main within the project limits. The water line is to remain in place and operational during the bridge project.

**PLEASE NOTE**

All underground utilities require **5 working days' notice** for any/all excavation or any other subsurface work around any underground facilities to schedule an on-site representative to be present. The Contractor shall hand dig around all the underground facilities.

**MAINTAINING UTILITY LOCATION MARKINGS**

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

**UTILITY SIGNING**

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

**SPECIAL PROVISION  
SECTION 104  
GENERAL RIGHTS & RESPONSIBILITIES  
(Bridge Closure Notification)**

Section 104, General Rights and Responsibilities, of the Standard Specifications is amended as follows:

**104.4.10 Coordination of Bridge Closure/Bridge Width Restriction Notification:**

Paragraph 2 is removed and replaced with the following:

A public notice shall be published in a local newspaper ten day prior to the closure.

**SPECIAL PROVISION**  
**SECTION 104**  
**(WAGE RATES)**

When two or more wage rate schedules appear in the bid Book, the highest rate shall prevail for each classification.

SPECIAL PROVISION  
SECTION 105  
GENERAL SCOPE OF WORK  
(Traffic Control and Management )

Section 105, General Scope of Work, of the Standard Specifications is amended as follows:

**Dixfield-Wilton, Hall Bridge #2341, WIN 023144.00**

At least one lane of traffic shall be maintained on Route 2 through the project area at all times, using temporary traffic signals or flaggers. A temporary traffic signal shall be provided for the driveway at station 11+30 +/- right. Access to the driveway at station 11+30 +/-, right shall be maintained at all times. Flaggers shall only be used for lane closures during daylight hours. The minimum roadway width shall be 14 feet. During construction, the driveway at station 8+60 left can be blocked off. The northerly end of Giles Road where it intersects Route 2 shall be blocked off during construction.

**Jim Pond TWP, Alder Stream Bridge #3265, WIN 023104.00**

At least one lane of alternating one-way traffic shall be maintained through the project area at all times, using temporary traffic signals or flaggers. Flaggers shall only be used for lane closures during daylight hours. The minimum roadway width shall be 16 feet.

**Chesterville-Farmington, Farmington Falls Br. #2273, WIN 022296.00**

At least one lane of alternating one-way traffic shall be maintained through the project area at all times, using temporary traffic signals or flaggers. A total of seven (7) temporary traffic signals shall be provided at the following approximate locations:

1. Route 41/Vienna Road immediately south of Webber Road intersection
2. Route 41/Crosswell Road immediately north of Philbrick Road intersection
3. End of Philbrook Road at intersection with Crosswell Road
4. End of Webber Road at intersection with Vienna Road
5. Route 156 west of temporary detour
6. West side of Route 41/Crosswell Road opposite the corner lot at the intersection of Route 41 and Philbrick Road (Jeff Tibbett's property).
7. West side of Route 41/Crosswell Road opposite the driveway at station 8+00 right (Neil and Brenda Sawyer's property)

The final locations of the traffic signals shall be documented in the traffic control plan and approved by the Resident. A 5' wide temporary ADA compliant sidewalk shall be maintained through the project area at all times. Flaggers shall only be used for lane closures during daylight hours. The minimum roadway width shall be 16 feet.

Town: Jim Pond Twp.

WIN: 23104.00

Date: 7/19/2021

SPECIAL PROVISION  
SECTION 105  
General Scope of Work  
(Environmental Requirements)

Work within stream (“In Stream Work,” see MaineDOT Standard Specifications 101.2 Definitions) requires special conditions to minimize impacts. The following special conditions shall apply to this project

I. In-Water Work shall not be allowed between the dates of October 1 and May 31

**(In-Water work is allowed from June 1 to September 30)**

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

1. Alder Stream at proposed bridge replacement

III. Special Conditions:

1. Special Conditions of Army Corps of Engineers (ACOE) General Permit apply (see permit and conditions in contract documents).
2. Conditions of Land Use Planning Commission (LUPC) Expedited Permit apply (see permit and conditions in contract documents).
3. The project shall be performed in accordance with setback limits stipulated by the Land Use Planning Commission associated with construction trailers, privies and any other structures placed on the project for the purpose of constructing the project. The requirements are as follows:
  - a. Great Ponds and Rivers draining 50 square miles or more - 100 feet
  - b. Tidal waters, ponds less than 10 acres, rivers draining less than 50 square miles, and P-W11 wetlands -75 feet
  - c. Traveled portion of selected state routes: Route 1, 2, 2A, 4, 9, 27, 163, 201, 161 from Caribou to Fort Kent, Route 157 in TA R7 WELS, and Route 6 in Orneville Twp - 75 feet
  - d. Traveled portion of all roads on coastal islands - 20 feet
  - e. Traveled portion of all other roads -50 feet
  - f. -Side and rear property lines -15 feet
4. All in-water excavation shall be conducted within a sealed cofferdam.
5. A vibratory hammer will be used for all pile driving activities.
6. Abutment demolitions with a hoe ram will occur inside of a dewatered cofferdam or outside of the water
7. **With the exception of placement of clean riprap and pile driving, in-water work outside of a dewatered cofferdam is prohibited.**
8. Permanent rip-rap placed in a stream below the bank full elevation (Q1) shall be covered by Void-Filled Riprap (See Special Provision Section 610).
9. The contractor shall contact Andy Walsh of MaineDOT Environmental Office (207-215-2942, Joseph.A.Walsh@maine.gov) at least 2 weeks prior to installation of any cofferdams to coordinate fish evacuation.
10. 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.
11. Grubbing (removal) of roots and stumps in wetlands shall only occur in those areas subject to permanent impacts.

12. All areas of temporary stream or wetland fill must be within the specified limits on the plans and shall be restored to their original contour and character upon completion of the project. Temporary fill includes fill that received authorization and fill that mistakenly enters a resource (i.e., from slope failures, accidental broken sandbag cofferdams, miscellaneous construction materials, etc.)
13. The contractor shall minimize vegetation clearing and soil disturbance adjacent to the river to the maximum extent practicable. Areas of disturbed soil adjacent to the waterways will be stabilized and re-vegetated with a seed mix appropriate for riparian areas in Maine
14. The contractor shall fully remove all cofferdams from the stream immediately following completion of in-stream work using techniques to minimize turbidity releases. The contractor shall restore all areas of temporary stream bottom disturbance to their original contour and character upon completion of the project.
15. Heavy construction equipment shall travel only over non-erodible stream substrate (e.g., ledge, cobble) and when approved by the MaineDOT Environmental Field Contact.
16. All off-road equipment working within 25-feet of a stream (RUS) shall be cleaned to remove all soil, seeds, vegetation, or other debris that could contain seeds or reproductive portions of plants prior to entering the area to minimize the spread of noxious weeds. All equipment shall be inspected prior to offloading to ensure they are clean.
17. No equipment, materials, or machinery shall be stored, cleaned, fueled, or repaired within any wetland or stream resource. These activities shall occur more than 100 feet from any wetland or stream resource and shall follow the specifications of the SEWPCP.
18. All pumps and generators required for in-stream work shall be cleaned of external oil, grease, dirt, and mud such that turbid water does not drain to any wetland or stream. Any leaks of this equipment shall be fixed prior to entering streams or areas that drain directly to streams or wetlands. Operation shall follow the specifications of the SEWPCP.

#### IV. Approvals:

1. Temporary Soil Erosion and Water Pollution Control Plan
2. Permitted Resource Impacts (square feet), see ACOE/LUPC documentation for locations:
  - a. Permanent RUS (riprap): 2120
  - b. Temporary RUS (cofferdams/dewatered area, temp bridge): 2390
  - c. Permanent Wetland (PFO/PSS): 1820
  - d. Temporary Wetland (PFO): 3560

V. All activities are prohibited (including placement and removal of cofferdams unless otherwise permitted by Regulatory Agencies) below the normal high water mark if outside the prescribed in-water work window, except for the following:

1. Work within a cofferdam constructed according to MaineDOT's Standard Specifications and in adherence with the contractors approved "Soil Erosion and Water Pollution Control Plan".

VI. No work is allowed that completely blocks a river, stream, or brook without providing downstream flow.

NOTE: Regulatory Review and Approval is required to modify the existing In-Water work window. Requests for work window extensions must be submitted to the MaineDOT Environmental Office. Approval of requests for work window extensions is not guaranteed and may result in delays in construction schedule that are the sole responsibility of the contractor.



SPECIAL PROVISION  
SECTION 105  
General Scope of Work  
(Environmental Requirements)

Work within stream (“In Stream Work,” see MaineDOT Standard Specifications 101.2 Definitions) requires special conditions to minimize impacts. The following special conditions shall apply to this project.

I. In-Water Work shall not be allowed between the dates of October 1 and May 31.  
**(In-Water work is allowed from June 1 to September 30)**

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

1. Butterfield Brook at proposed bridge replacement

III. Special Conditions:

1. Special Conditions of Army Corps of Engineers (ACOE) General Permit apply (see permit and conditions in contract documents).
2. All in-water excavation shall be conducted within a sealed cofferdam.
3. A vibratory hammer will be used for all pile driving activities.
4. With the exception of placement of clean riprap and pile driving, in-water work outside of a dewatered cofferdam is prohibited.
5. The contractor shall contact Justin Sweitzer of MaineDOT Environmental Office (207-441-0651, justin.l.sweitzer@maine.gov) at least 2 weeks prior to installation of any cofferdams to coordinate fish evacuation. Fish evacuation includes electrofishing. Electrofishing activities are prohibited when water temperature is greater than or equal to 22 degrees Celsius (71.6 degrees Fahrenheit).
6. Permanent riprap placed in a stream below the bankfull elevation (Q1) will be covered by streambed material.
7. The Contractor shall conduct all construction activities in accordance with the MEDOT-approved Soil Erosion and Water Pollution Control Plan. In stream turbidity shall be visually monitored and all erosion controls will be inspected daily to ensure that the measures taken are adequate. If inspection shows that the erosion controls are ineffective, immediate action shall be taken to repair, replace, or reinforce controls as necessary.
8. For any required pumping operations, the contractor shall use a screen on each pump intake sufficiently large enough so that the approach velocity does not exceed 6.10 m sec-1 (0.20 ft sec-1). Square or round screen face openings are not to exceed 2.38 mm (3/32 in) on a diagonal. Criteria for slotted face openings must not exceed 1.75 mm (approximately 1/16 in) in the narrow direction. These screen criteria follow NMFS guidelines (2008). Intake hoses shall be regularly monitored while pumping to minimize adverse effects to Atlantic salmon.
9. During construction, any disturbed soils will be temporary stabilized with BMPs, such as straw mulch, plastic sheeting, erosions control mix, or other appropriate BMPs. Disturbed areas with erodible soil can include, but are not limited to, temporary storage piles, access ways, partially constructed slopes, etc.
10. All areas of temporary waterways or wetland fill shall be restored to their original contour and character upon completion of the project.
11. The contractor shall minimize vegetation clearing and soil disturbance adjacent to the river to the maximum extent practicable. Areas of disturbed soil adjacent to the waterways will be stabilized and revegetated with a seed mix appropriate for riparian areas in Maine

12. The contractor shall fully remove all cofferdams from the stream immediately following completion of instream work using techniques to minimize turbidity releases. If a project is not completed and there will be substantial delays in construction, cofferdams will be at least partially removed to allow passage of Atlantic salmon until construction resumes. The contractor shall restore all areas of temporary stream bottom disturbance to their original contour and character upon completion of the project.
13. All cofferdams will be removed using techniques to minimize turbidity releases. This includes allowing for the slow reintroduction of water into the work area and utilizing dirty water treatment systems for turbid water.
14. Heavy construction equipment shall travel only over non-erodible stream substrate (e.g., ledge, cobble) and when approved by the MaineDOT Environmental Field Contact.
15. No equipment, materials, or machinery shall be stored, cleaned, fueled, or repaired within any wetland or stream resource. These activities shall occur more than 100 feet from any wetland or stream resource and shall follow the specifications of the SEWPCP.
16. All pumps and generators required for in-stream work shall be cleaned of external oil, grease, dirt, and mud such that turbid water does not drain to any wetland or stream. Any leaks of this equipment shall be fixed prior to entering streams or areas that drain directly to streams or wetlands. Operation shall follow the specifications of the SEWPCP.

IV. Approvals:

1. Temporary Soil Erosion and Water Pollution Control Plan
2. Permitted Resource Impacts (square feet), see ACOE Permit (NAE-2021-01363) for locations:

<u>Stream (RUS)</u>	<u>Wetlands</u>
<i>Permanent: 1130 +/- s.f.</i>	<i>No impacts anticipated.</i>
<i>Temporary: 620 +/- s.f.</i>	

V. All activities are prohibited (including placement and removal of cofferdams unless otherwise permitted by Regulatory Agencies) below the normal highwater mark if outside the prescribed in-water work window, except for the following:

1. Work within a cofferdam constructed according to MaineDOT's Standard Specifications and in adherence with the contractors approved "Soil Erosion and Water Pollution Control Plan".

VI. No work is allowed that completely blocks a river, stream, or brook without providing downstream flow. (When working in Tidal streams flow needs to be provided in both directions)

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

SPECIAL PROVISION  
SECTION 105  
General Scope of Work  
(Environmental Requirements)

Work within stream (“In Stream Work,” see MaineDOT Standard Specifications 101.2 Definitions) requires special conditions to minimize impacts. The following special conditions shall apply to this project:

I. In-Water Work shall not be allowed between the dates of April 16 and June 30.  
**(In-Water work is allowed from July 1 to April 15)**

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

1. Sandy River at proposed bridge replacement

III. Special Conditions:

1. Special Conditions of Army Corps of Engineers (ACOE) General Permit apply (see permit and conditions in contract documents).
2. Special Conditions of Endangered Species Act Maine Atlantic Salmon Programmatic Consultation for Transportation Projects with U.S. Fish and Wildlife Service apply (summarized in this Special Provision 105 and ACOE permit).
3. The Contractor shall hold a pre-construction meeting with appropriate MaineDOT Environmental Office staff, other MaineDOT staff, and the Contractor(s) to review all procedures and requirements for avoiding and minimizing effects to Atlantic salmon (ATS). The following individuals/agencies shall be invited: ACOE (Jay Clement, [jay.l.clement@usace.army.mil](mailto:jay.l.clement@usace.army.mil)); U.S. Fish and Wildlife Service (USFWS)(Patrick Dockens, [patrick\\_dockens@fws.gov](mailto:patrick_dockens@fws.gov); and Nicole Pauley, [nicole\\_pauley@fws.gov](mailto:nicole_pauley@fws.gov)), and Federal Highway Administration (FHWA; Eva Birk, [eva.birk@dot.gov](mailto:eva.birk@dot.gov)).
4. All in stream work will take place inside of a cofferdam except for the following sub activities: pile driving, clean riprap placement for temporary causeways, bridge pier demolition, and geotechnical drilling. Any in-water excavation other than removal of large rocks or debris that does not disturb the streambed shall be conducted within a sealed cofferdam.
5. A vibratory hammer will be used as much as possible for all pile driving activities.
6. Pile driving will occur during the day when fish are less active and Atlantic salmon migrations are minimized.
7. A bubble curtain that meets the design criteria defined below in Appendix I will be employed during all impact pile driving events. The bubble curtain design will mimic specifications for devices tested and employed for previous pile driving events. The contractor shall complete a performance test of the bubble curtain prior to any impact pile driving. The performance test shall confirm the calculated pressures and flow rates at each manifold ring. Bubble curtains are not required when water depths are less than 2 feet at the location where the pile is being driven.
8. Hydroacoustic monitoring for impact pile driving shall be completed as follows for at least one pile:
  - a. Largest pile driven in-water (in at least two feet of water)
  - b. A minimum of three hydrophones must be used, located approximately 33, 66, and 100 feet from the in-water sound producing activity.
9. The Contractor shall retain the services of a qualified person or firm to prepare and implement a hydroacoustic monitoring plan following the attached “Underwater Noise Monitoring Plan” template. The Contractor shall provide MaineDOT a completed draft hydroacoustic monitoring plan at least 45 days prior to implementation for review. No in-stream noise-generating activities may commence until MaineDOT has approved the monitoring protocol.
10. The Contractor shall provide Hydroacoustic monitoring data to the Department. A preliminary data report shall be submitted within 5 business days of pile driving activity. A final summary report of all of the data must be submitted within 2 months of completion of in-water construction.

11. The contractor shall be responsible for implementing noise monitoring and noise attenuation as described above. Payment shall be made as a lump sum under Pay Item 501.237.
12. Round pile size is limited to less than 30 inches in diameter. H-pile size is limited to less than 14 inches.
13. If piles are removed by cutting, they must be cut to one foot below the substrate level
14. If a pile is pulled from the substrate, the work will be completed using a BMP specifically for minimizing turbidity, such as a turbidity curtain.
15. Abutment demolitions with a hoe ram will occur inside of a dewatered cofferdam or outside of the water.
16. The contractor shall contact Eric Ham of MaineDOT Environmental Office (207-215-7356, eric.ham@maine.gov) at least 2 weeks prior to installation of any cofferdams to coordinate fish evacuation. Fish evacuation includes electrofishing. Electrofishing activities are prohibited when water temperature is greater than or equal to 22 degrees Celsius (71.6 degrees Fahrenheit).
17. Cofferdams must be dewatered to less than 2 feet deep to facilitate fish evacuation. Differing conditions must be approved by USFWS.
18. Adult Atlantic salmon are not expected in the project area. If adult Atlantic salmon are observed during active construction, all activities shall cease and the MaineDOT shall immediately contact Eric Ham with the MaineDOT at 207/215-7356, who will contact the USFWS Maine Field Office at 207/902-1586 (Patrick Dockens) or 207/902-1585 (Nicole Pauley) within 48 hours of occurrence.
19. The Contractor shall conduct all construction activities in accordance with the MaineDOT-approved Soil Erosion and Water Pollution Control Plan. In stream turbidity shall be visually monitored and all erosion controls will be inspected daily to ensure that the measures taken are adequate. If inspection shows that the erosion controls are ineffective, immediate action shall be taken to repair, replace, or reinforce controls as necessary.
20. For any required pumping operations, the contractor shall use a screen on each pump intake sufficiently large enough so that the approach velocity does not exceed 6.10 m sec<sup>-1</sup> (0.20 ft sec<sup>-1</sup>). Square or round screen face openings are not to exceed 2.38 mm (3/32 in) on a diagonal. Criteria for slotted face openings must not exceed 1.75 mm (approximately 1/16 in) in the narrow direction. These screen criteria follow NMFS guidelines (2008). Intake hoses shall be regularly monitored while pumping to minimize adverse effects to Atlantic salmon.
21. Permanent rip-rap placed in a stream below the 319.50 on the south side and 324.50 on the north side of the river shall be covered by coarse streambed material (CSM, Special Fill) defined in Special Provision 203 – Special Fill – Streambed Materials.
22. All areas of temporary waterways or wetland fill shall be restored to their original contour and character upon completion of the project. Temporary fill includes fill that received authorization and fill that mistakenly enters a resource (i.e., from slope failures, accidental broken sandbag cofferdams, miscellaneous construction materials, etc.)
23. The contractor shall minimize vegetation clearing and soil disturbance adjacent to the river to the maximum extent practicable. Areas of disturbed soil adjacent to the waterways will be stabilized and re-vegetated with a seed mix appropriate for riparian areas in Maine.
24. All areas of disturbed soil shall be mulched and seeded with an approved native or non-invasive herbaceous seed mix following construction and/or planted with native woody vegetation and trees appropriate during the first available planting season. In areas where there is little to no slope, and erosion and invasive species establishment is unlikely, the native woody vegetation on the site shall be allowed to regenerate naturally.
25. The contractor shall fully remove all cofferdams from the stream immediately following completion of in-stream work using techniques to minimize turbidity releases. The contractor shall restore all areas of temporary stream bottom disturbance to their original contour and character upon completion of the project.
26. Heavy construction equipment shall travel only over non-erodible stream substrate (e.g., ledge, cobble) and when approved by the MaineDOT Environmental Field Contact.
27. All off-road equipment working within 25-feet of a stream (RUS) shall be cleaned to remove all soil, seeds, vegetation, or other debris that could contain seeds or reproductive portions of plants prior to

entering the area to minimize the spread of noxious weeds. All equipment shall be inspected prior to offloading to ensure they are clean.

28. No equipment, materials, or machinery shall be stored, cleaned, fueled, or repaired within any wetland or stream resource. These activities shall occur more than 100 feet from any wetland or stream resource and shall follow the specifications of the Soil Erosion and Water Pollution Control Plan (SEWPCP).
29. All pumps and generators required for in-stream work shall be cleaned of external oil, grease, dirt, and mud such that turbid water does not drain to any wetland or stream. Any leaks of this equipment shall be fixed prior to entering streams or areas that drain directly to streams or wetlands. Operation shall follow the specifications of the SEWPCP.

#### IV. Approvals:

1. Temporary Soil Erosion and Water Pollution Control Plan
2. Permitted Resource Impacts (square feet), see ACOE permit for locations:

Stream:

*Permanent: RUS - 1830*

*Temporary RUS - 5,450*

Wetland:

*None*

V. All activities are prohibited (including placement and removal of cofferdams unless otherwise permitted by Regulatory Agencies) below the normal high water mark if outside the prescribed in-water work window, except for the following:

1. Work within a cofferdam constructed according to MaineDOT's Standard Specifications and in adherence with the contractor's approved "Soil Erosion and Water Pollution Control Plan".

VI. No work is allowed that completely blocks a river, stream, or brook without providing downstream flow.

NOTE: Regulatory Review and Approval is required to modify the existing In-Water work window. Requests for work window extensions must be submitted to the MaineDOT Environmental Office. Approval of requests for work window extensions is not guaranteed and may result in delays in construction schedule that are the sole responsibility of the contractor.

**SPECIAL PROVISION  
SECTION 105.9  
HISTORIC RESOURCES**

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

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

The following requirements are project specific:

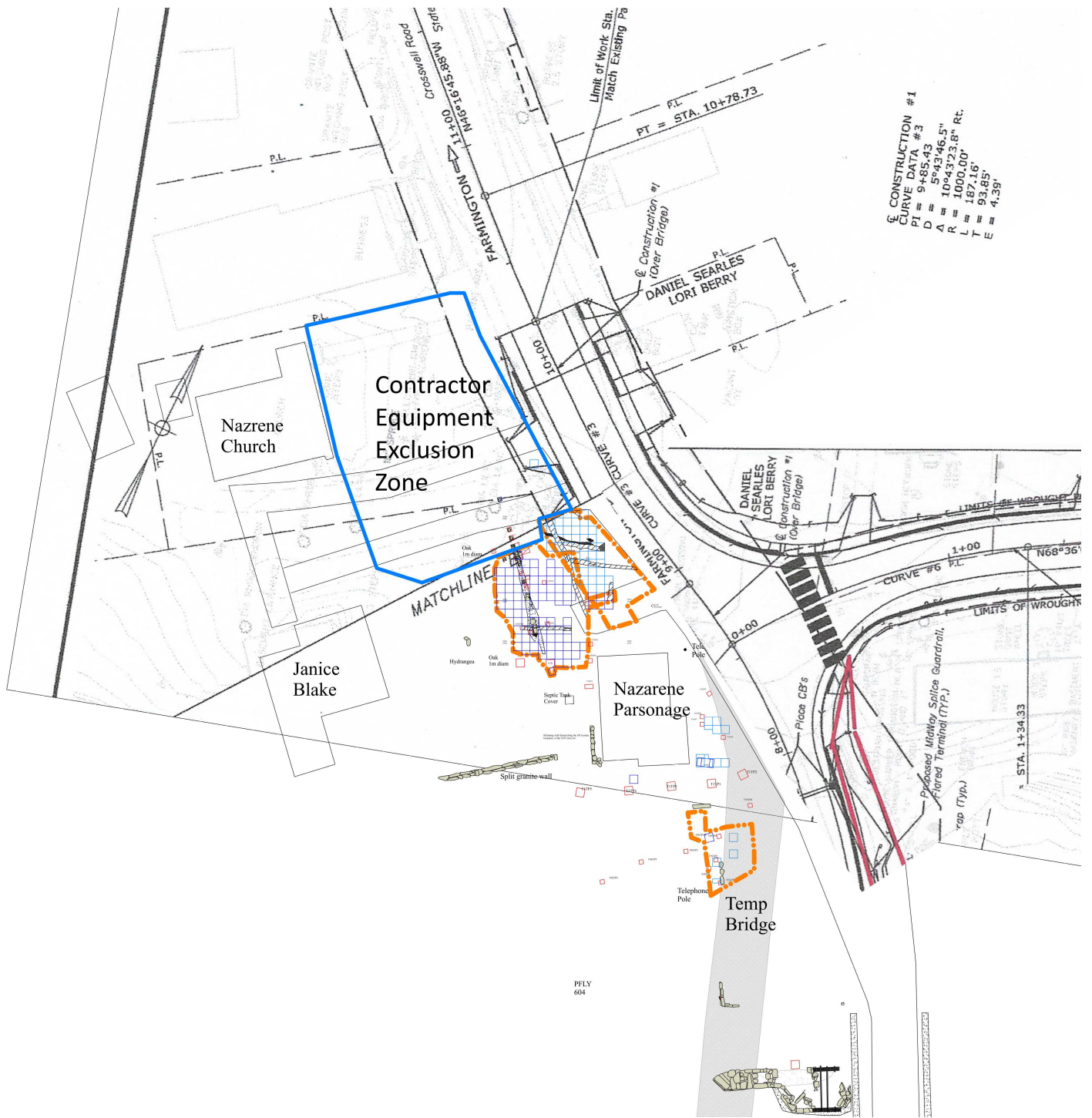
- ***The project area is adjacent to significant archaeological resources on the Farmington side of the existing bridge.***
- ***Equipment Exclusion Zone at Sta. 9+20L to Sta. 10+50L:***
  - *The Contractor shall not use or store any equipment, machinery, or any miscellaneous items between approximately Sta. 9+20L to Sta. 10+50L, as depicted on the attached plan sheet and identified as “Contractor Equipment Exclusion Zone.”*
- ***Excavation Monitoring at Sta. 8+57L to Sta. 9+75L***
  - *Excavation monitoring is not required by the Maine Historic Preservation Commission (MHPC) Archaeological Staff if excavation between Sta. 8+57L to Sta. 9+75L (adjacent to the Nazarene Parsonage) leaves a gravel substrate thickness of at least one foot minimum. If it is anticipated that excavation will exceed this amount, on-site monitoring by the MHPC Archaeological Staff is required and MaineDOT’s Historic Coordinator, Julie Senk, should be contacted as soon as possible to begin coordination with MHPC.*

The following requirements are general requirements for all projects:

- *Changes to the project during construction must be approved by the Project Manager. These changes could have adverse effects to Historic Resources, as well as jeopardize federal funding.*
- *If the Contractor or any subcontractor discovers any object of potential historic archaeological or other historic interest, all work that could disturb the object will immediately cease and will not resume until investigation of the object and related deposits have been completed, and if necessary recovered. The Contractor will notify the MaineDOT immediately. (The first indications of deposits may be burial grounds or campsites of Native Americans that reveal the bones of the dead and implements. Also the exposure of marine fossils or shells found mainly in clay deposits, as well as, exposure of dumps in landfill areas, abandoned campfire sites, and building foundations.)*

**SPECIAL PROVISION  
SECTION 105.9  
HISTORIC RESOURCES**

- *Any delay of the Contractor's operations resulting from the above will be analyzed in accordance with MaineDOT Standard Specification Section 109.5 – Adjustment for Delay, except that in no event will such delay be a compensable delay.*
- *The Contractor is notified of a Maine Statute, 27 MRSA §371, which states that artifacts, specimens, and material, which are public property by virtue of having been found on, in, or beneath State controlled lands, and places ownership of the same in the State of Maine.*



§ CONSTRUCTION #1  
 CURVE DATA #3  
 PI = 9+85.43  
 D = 5°43'46.5"  
 A = 10°43'23.8" Rt.  
 R = 1000.00'  
 L = 187.16'  
 T = 93.85'  
 E = 4.39'



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

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

- (a) The sections of highway under construction in the town of Chesterville and Farmington, Franklin County on Route 156/ 41 over the Sandy River. The section of highway under construction in the town of Chesterville, Franklin County on Webber Road.
- (b) (Route 156/ 41 Lucy Knowles Road/ Crosswell Road) over the Sandy River station 1+50.00 to station 10+24.00 of the construction plus approaches.
- (c) (Route 41/ Vienna Road) station 2+00.00 to station 5+26.51 of the construction plus approaches.
- (d) (Webber Road) station 0+00.00 to station 1+50.00 of the construction plus approaches.

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) The sections of highway under construction in the town of Chesterville and Farmington, Franklin County on Route 156/ 41 over the Sandy River.
- (b) (Route 156/ 41 Lucy Knowles Road/ Croswell Road) over the Sandy River station 1+50.00 to station 10+24.00 of the construction plus approaches.
- (c) (Route 156/ Philbrick Road) station 0+00.00 to station 2+50.00 of the construction plus approaches.

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) The section of highway under construction in the township of Jim Pond, Franklin County on Route 27 over Alder Stream.
- (b) (Arnold Trail) over Alder Stream station 122+15.00 to station 127+50.00 of the construction plus approaches.

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) The section of highway under construction in the town of Dixfield, Oxford county and in the town of Wilton, Franklin County on Route 2/ 17 over Hooper Brook.
- (b) (Route 2/ 17) over Hooper Brook station 8+95.00 to station 11+05.00 of the construction plus approaches.

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) The section of highway under construction in the town of Dixfield, Oxford county and in the town of Wilton, Franklin County on Route 2/ 17 over Hooper Brook.
- (b) (Route 2/ 17) over Hooper Brook station 8+95.00 to station 11+05.00 of the construction plus approaches.

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

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

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

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

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

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

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

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

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

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

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

Special Provision  
Section 107  
Time

(Supplemental Liquidated Damages for Fabrication Time)

107.8.1 Fabrication Time The Department has budgeted for the following amounts of continuous full time fabrication/shop QA inspection for the following Work components:

<u>Element</u>	<u>Time</u>	<u>Supplemental LD</u>
Structural Plate Girders	47 Calendar Days	\$1,000 per Calendar Day

The Contractor is responsible for requiring their fabricators and suppliers to produce these products for the Work continuously until finished, including any needed actions to correct unacceptable workmanship or materials. If the Department determines that QA inspection beyond these times is required, then the corresponding Supplemental Liquidated Damages will be deducted as they occur from the amounts otherwise due to the Contractor. These allowed Fabrication Time begins on the first day of fabrication and runs consecutively until expiration.

If a fabricator or supplier works more than one shift per day and the Department determines that inspection is required for each shift, each shift will count as a calendar day and the LD rate will be the noted amount per shift per Calendar Day in lieu of per Calendar Day.

QA inspector presence is required but not limited to the following activities:

Welding, including tack welding, heat correcting, non-destructive examination, and assembly verification.

Special Provision  
Section 107  
Time

(Supplemental Liquidated Damages for Fabrication Time)

107.8.1 Fabrication Time The Department has budgeted for the following amounts of continuous full time fabrication/shop QA inspection for the following Work components:

<u>Element</u>	<u>Time</u>	<u>Supplemental LD</u>
Precast Box Culvert=	56 days	\$1,000 per Calendar Day

The Contractor is responsible for requiring their fabricators and suppliers to produce these products for the Work continuously until finished, including any needed actions to correct unacceptable workmanship or materials. If the Department determines that QA inspection beyond these times is required, then the corresponding Supplemental Liquidated Damages will be deducted as they occur from the amounts otherwise due to the Contractor. These allowed Fabrication Time begins on the first day of fabrication and runs consecutively until expiration.

If a fabricator or supplier works more than one shift per day and the Department determines that inspection is required for each shift, each shift will count as a calendar day and the LD rate will be the noted amount per shift per Calendar Day in lieu of per Calendar Day.

QA inspector presence is required but not limited to the following activities:

Materials verification, verification of reinforcing, batching and casting of concrete, breaking of test cylinders, repairs, finishing fascia surfaces and any other times required in the 534 Standard Specifications.

The Fabricator shall notify the Fabrication Engineer a minimum of two weeks prior to the start of work if Fabrication is done in the State of Maine. Three weeks' minimum notification is required for all other locations.

Special Provision  
Section 107  
Time

(Supplemental Liquidated Damages for Fabrication Time)

107.8.1 Fabrication Time The Department has budgeted for the following amounts of continuous full time fabrication/shop QA inspection for the following Work components:

<u>Element</u>	<u>Time</u>	<u>Supplemental LD</u>
Structural Plate Girders	50 Calendar Days	\$1,000 per Calendar Day

The Contractor is responsible for requiring their fabricators and suppliers to produce these products for the Work continuously until finished, including any needed actions to correct unacceptable workmanship or materials. If the Department determines that QA inspection beyond these times is required, then the corresponding Supplemental Liquidated Damages will be deducted as they occur from the amounts otherwise due to the Contractor. These allowed Fabrication Time begins on the first day of fabrication and runs consecutively until expiration.

If a fabricator or supplier works more than one shift per day and the Department determines that inspection is required for each shift, each shift will count as a calendar day and the LD rate will be the noted amount per shift per Calendar Day in lieu of per Calendar Day.

QA inspector presence is required but not limited to the following activities:

For metal fabrication work: welding, including tack welding, heat correcting, non-destructive examination, assembly verification, and hold points in the approved Thermal Spray Coating procedure and any other times as required in the Standard Specifications or Special Provisions.



SPECIAL PROVISION  
SECTION 107  
TIME  
(Scheduling of Work and Completion Date)

The specified Contract completion date is November 20, 2025.

**Dixfield-Wilton, Hall Bridge #2341, WIN 023144.00**

Work on Hall Bridge shall be started and completed in the same calendar year except for final landscaping, surface pavement and final pavement markings. Lane closures shall not begin before April 20. The bridge shall be open to traffic by November 15<sup>th</sup>. The bridge shall be considered open to traffic when two lanes of two-way traffic are maintained and the following items are complete, in place, inspected and accepted: guardrail, base pavement, and temporary pavement markings. Before and after the long-term lane closure, the Contractor may use single lane closures with flaggers during daylight working hours for work activities with approval from the Resident. Final landscaping, surface pavement and final pavement markings shall be completed the following year on or before June 30<sup>th</sup>.

**Jim Pond TWP, Alder Stream Bridge #3265, WIN 023104.00**

The new bridge shall be open to traffic by October 7<sup>th</sup> of the calendar year following the year that construction starts. The bridge will be considered open to traffic when two lanes of two-way traffic are maintained and the following items are complete, in place, inspected and accepted: bridge rail and transitions, saw cut grooving, surface pavement, permanent pavement markings, and approach guardrail. The Special Detour shall be completely removed and the area restored on or before October 30<sup>th</sup> of the second year of construction. Before and after traffic is maintained on the Special Detour, the Contractor may use single lane closures with flaggers during daylight working hours for work activities with approval from the Resident.

**Chesterville-Farmington, Farmington Falls Br. #2273, WIN 022296.00**

The new bridge shall be open to traffic on or before June 30, 2025. The bridge will be considered open to traffic when two lanes of two-way traffic are maintained and the following items are complete, in place, inspected and accepted: bridge rail and transitions, base pavement, temporary pavement ramps, temporary pavement markings, and approach guardrail. Before and after traffic is maintained on the Special Detour, the Contractor may use single lane closures with flaggers during daylight working hours for work activities with approval from the Resident.

The Contractor will be assessed Supplemental Liquidated Damages at the rate of one thousand dollars (\$1,000.00) per Day for each Day, or any portion of a Day, that each new bridge is not open to traffic after the date above for each of the respective bridges. This assessment of Supplemental Liquidated Damages will be in addition to the Liquidated Damages specified in Standard Specifications Section 107.

**SPECIAL PROVISION**  
**SECTION 108**  
**PAYMENT**  
**(Steel Cost Adjustment)**

This Special Provision was developed to minimize risk to the Contractor and steel fabricator(s) associated with current volatile fluctuations in the cost of steel materials.

Description Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices. All prices and costs are in U.S. Dollars (USD).

Types of Steel Products An adjustment will be made for fluctuations in the cost of plate and rolled-shape steel used in the fabrication of steel for Contract pay items covered under the following sections of the Standard Specification:

- Section 504, Structural Steel
- Section 507, Railings

The adjustments shall apply to the above items when they are part of the original Contract or Extra Work added by Contract Modification and paid for by agreed unit prices. The adjustments shall not apply when the item is Extra Work added by Contract Modification and paid for at a lump sum price or by Force Account.

Documentation Sufficient documentation shall be furnished to the Department to verify the following:

1. The dates on which steel was shipped from the mill to the fabricator, and quantity of steel, in pounds, shipped on those dates.
2. The quantity of steel, in pounds, incorporated into the various pay items covered by this Special Provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment Steel cost adjustments shall be computed as follows:

$$SCA = Q \times D$$

Where:      **SCA** = steel cost adjustment, in USD  
                 **Q** = quantity of steel incorporated into the work, in pounds  
                 **D** = price factor, in USD per pound

$$D = MP_B - MP_A$$

Where: **MP<sub>B</sub>** = The Platts Steel Spot Market Prices for Plate, as published by the Engineering News- Record, for the month the steel is shipped from the mill. The price will be converted from USD per ton to USD per pound.

**MP<sub>A</sub>** = The Platts Steel Spot Market Prices for Plate, as published by the Engineering News- Record for the month prior to the bid opening, for work paid for at the Contract price; or for the month the Contract Modification is signed by the Contractor for Extra Work that is paid for by agreed unit prices. The price will be converted from USD per ton to USD per pound.

The total weight of the steel that will be used to calculate the steel cost adjustment for the respective Pay Items is shown in the following table:

<b>Standard Specification Section</b>	<b>Total Weight of Steel (lbs.)</b>
504, Structural Steel	195,615
507, Bridge Rail	15,458

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the Contract Bid date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the **MP<sub>B</sub>** will be based on the date the steel arrives at the jobsite. In this case, an adjustment will only be made when there is a decrease in steel costs.

Basis of Payment Steel cost adjustments may be positive or negative but will only be made when there is a difference between the **MP<sub>A</sub>** and **MP<sub>B</sub>** in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(\text{MP}_B - \text{MP}_A) / \text{MP}_A\} \times 100$$

Steel cost adjustments will be calculated by the Department and will be paid or deducted when all other Contract requirements for the applicable items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustments will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The steel cost adjustments shall not apply during any time after the Contract Completion Date when the Contractor is being assessed Liquidated Damages.

*Cost adjustments, if any, shall be made by Contract Modification in accordance with this Special Provision.*

**SPECIAL PROVISION**  
**SECTION 108**  
**PAYMENT**  
**(Steel Cost Adjustment)**

This Special Provision was developed to minimize risk to the Contractor and steel fabricator(s) associated with current volatile fluctuations in the cost of steel materials.

Description Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices. All prices and costs are in U.S. Dollars (USD).

Types of Steel Products An adjustment will be made for fluctuations in the cost of plate and rolled-shape steel used in the fabrication of steel for Contract pay items covered under the following sections of the Standard Specification:

- Section 504, Structural Steel
- Section 507, Railings

The adjustments shall apply to the above items when they are part of the original Contract or Extra Work added by Contract Modification and paid for by agreed unit prices. The adjustments shall not apply when the item is Extra Work added by Contract Modification and paid for at a lump sum price or by Force Account.

Documentation Sufficient documentation shall be furnished to the Department to verify the following:

1. The dates on which steel was shipped from the mill to the fabricator, and quantity of steel, in pounds, shipped on those dates.
2. The quantity of steel, in pounds, incorporated into the various pay items covered by this Special Provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment Steel cost adjustments shall be computed as follows:

$$SCA = Q \times D$$

Where:      **SCA** = steel cost adjustment, in USD  
                 **Q** = quantity of steel incorporated into the work, in pounds  
                 **D** = price factor, in USD per pound

$$D = MP_B - MP_A$$

Where: **MP<sub>B</sub>** = The Platts Steel Spot Market Prices for Plate, as published by the Engineering News- Record, for the month the steel is shipped from the mill. The price will be converted from USD per ton to USD per pound.

**MP<sub>A</sub>** = The Platts Steel Spot Market Prices for Plate, as published by the Engineering News- Record for the month prior to the bid opening, for work paid for at the Contract price; or for the month the Contract Modification is signed by the Contractor for Extra Work that is paid for by agreed unit prices. The price will be converted from USD per ton to USD per pound.

The total weight of the steel that will be used to calculate the steel cost adjustment for the respective Pay Items is shown in the following table:

<b>Standard Specification Section</b>	<b>Total Weight of Steel (lbs.)</b>
504, Structural Steel	373,600

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the Contract Bid date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the **MP<sub>B</sub>** will be based on the date the steel arrives at the jobsite. In this case, an adjustment will only be made when there is a decrease in steel costs.

Basis of Payment Steel cost adjustments may be positive or negative but will only be made when there is a difference between the **MP<sub>A</sub>** and **MP<sub>B</sub>** in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(\text{MP}_B - \text{MP}_A) / \text{MP}_A\} \times 100$$

Steel cost adjustments will be calculated by the Department and will be paid or deducted when all other Contract requirements for the applicable items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustments will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The steel cost adjustments shall not apply during any time after the Contract Completion Date when the Contractor is being assessed Liquidated Damages.

*Cost adjustments, if any, shall be made by Contract Modification in accordance with this Special Provision.*

**SPECIAL PROVISION**  
**SECTION 202**  
**REMOVAL OF STRUCTURES AND OBSTRUCTIONS**  
**(Building Removal)**

**Description**

The work shall consist of the complete demolition and removal of the following units:

Building No. 1: Barn located at the southwest corner of the existing bridge, parcel #5 currently owned by John Farrington

General: The following shall be completely removed: Foundations; slabs and footings; steps; walks; piers and posts as well as all pavement.

All excavations shall be filled and compacted using vibratory equipment in one-foot layers to the surrounding existing grade levels. In this process, the contour and grades of the abutting land are to be followed. Erosion control including loaming, seeding, and mulch shall be done and will be considered to be incidental to the contract.

Under Section 202.02 of the Standard Specifications, ownership of buildings and all equipment, fixtures, and materials therein shall be interpreted as meaning all equipment, fixtures, and materials that are recognized as real property. Any items that are recognized as personal property are excepted and are reserved to the owner. If the bidder is in doubt as to whether any item not listed is real or personal property, they shall request a determination of the matter prior to date on which bids are to be received.

All debris and unusable materials shall be removed to an approved transfer station or approved landfill. Under no circumstances shall any material or debris be disposed of by burning on the premises nor shall the debris be burned at an off premise site.

Rodent Control. With the "Notice to Proceed", or when a building becomes available to the Contractor, the Contractor will designate whether rodent control measures are required or not.

The Contractor shall not remove a building until the Contractor has certified it to be free of rodents. Should rodent control measures be required, the Contractor shall procure the extermination services as soon as possible. The Contractor will re-inspect the building within 7 days after the extermination services are performed. The cost of extermination services until the building is found to be rodent free will be paid for as a specialty item under Section 109.04(g) of the Standard Specifications.

Each building shall be removed promptly after notification that it is free of rodents. All subsequent inspection costs and extermination services necessary to assure that the building is rodent free at time of removal will be at the expense of the Contractor.

This building may or may not contain asbestos. Prior to any demolition of building(s) the Contractor will conduct an asbestos survey on the building(s) to determine if any asbestos exists. The survey will be conducted by a DEP certified Asbestos Inspector. No separate payment will be made for the survey and it shall be considered incidental. The survey results will be communicated with the Resident. If no asbestos is discovered, the demolition process may proceed. If asbestos is found, the Contractor will employ a DEP certified Asbestos Abatement Contractor for its' removal and disposal. The Department will bear all expenses incurred in the abatement of any asbestos containing material as detailed in Standard Specification 109.7.5 – Force Account. Any questions can be directed to the Office of Legal Service (624-3020).

Each building shall be removed promptly after certification that it is free of rodents. All subsequent inspection costs and extermination services necessary to assure that the building is rodent free at time of removal will be at the expense of the Contractor.

The Contractor shall remove all utility service connections prior to demolition of any building. The Contractor shall coordinate disconnection of overhead utilities with the appropriate utility companies.

The buildings are serviced by a private septic system or cistern. The system shall be pumped out to remove waste material prior to demolition work. The septic system shall be removed or broken up and backfilled to the limits of the surrounding ground.

All fill material used for foundation cavities, septic systems and other shall meet the Standard Specification requirements for Common Borrow, Section 703.18.

Removal of building shall include all attached structures including barns and garages as well as steps, slabs, walks, piers, posts, driveways and other incidentals, as directed by the Resident.

Contractor shall provide and maintain all temporary barricades, signs or other safety measures as necessary to complete the work. Contractor shall obtain any and all permits or licenses necessary for the performance of the work and conform to all Federal, State and local laws, regulations or ordinances applicable to the work.

Any oil/fuel tanks encountered will need to be properly disposed of. The fuel is a regulatory material and may be reused or disposed of in accordance to local, state, and federal regulations. The tanks shall also be disposed of in accordance to local, state, and federal regulations.



Method of Measurement: Removing building will each be measured by the lump sum.

Basis of Payment: All work for will be paid for at the contract Lump Sum price, which shall be full compensation for all materials, labor and equipment necessary for the work described above and as shown in the Plans, and/or as directed by the Resident.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
202.08 Removing Building No. 1	Lump Sum

SPECIAL PROVISION  
SECTION 202  
GENERAL RIGHTS AND RESPONSIBILITIES  
REMOVING STRUCTURES AND OBSTRUCTIONS  
(Removal of old foundations near existing bridge)

202.01 Description

*The following paragraphs are added:*

Removal of the existing bridge shall include removal of the following items:

- 1.) Section of old mill foundation southwest of existing bridge: Removal of a section of an existing foundation wall located at approximately station 3+65, left 75'+/- to provide an outlet for a riprap downspout. The exact limits of removal of the existing concrete wall shall be determined in the field by the Resident. This wall is located at the edge of the Sandy River.
- 2.) Old foundations at northwest corner of bridge: Remove the existing concrete wall and granite block wall in its entirety located between station 6+59 to 6+78 on the left offset between 6.45' and 59'. This also includes removal of two steel members and wood on the upper section of the concrete wall next to the existing north abutment. The existing concrete wall next to the river shall be removed down to the existing grade in front of the wall. This work also includes removing the top of the concrete wall to 2' below the proposed grade located about 15'+/- behind the exposed concrete wall

The Department does not have plans for either of the items to be removed.

Existing foundation to be removed at the northwest corner of existing bridge

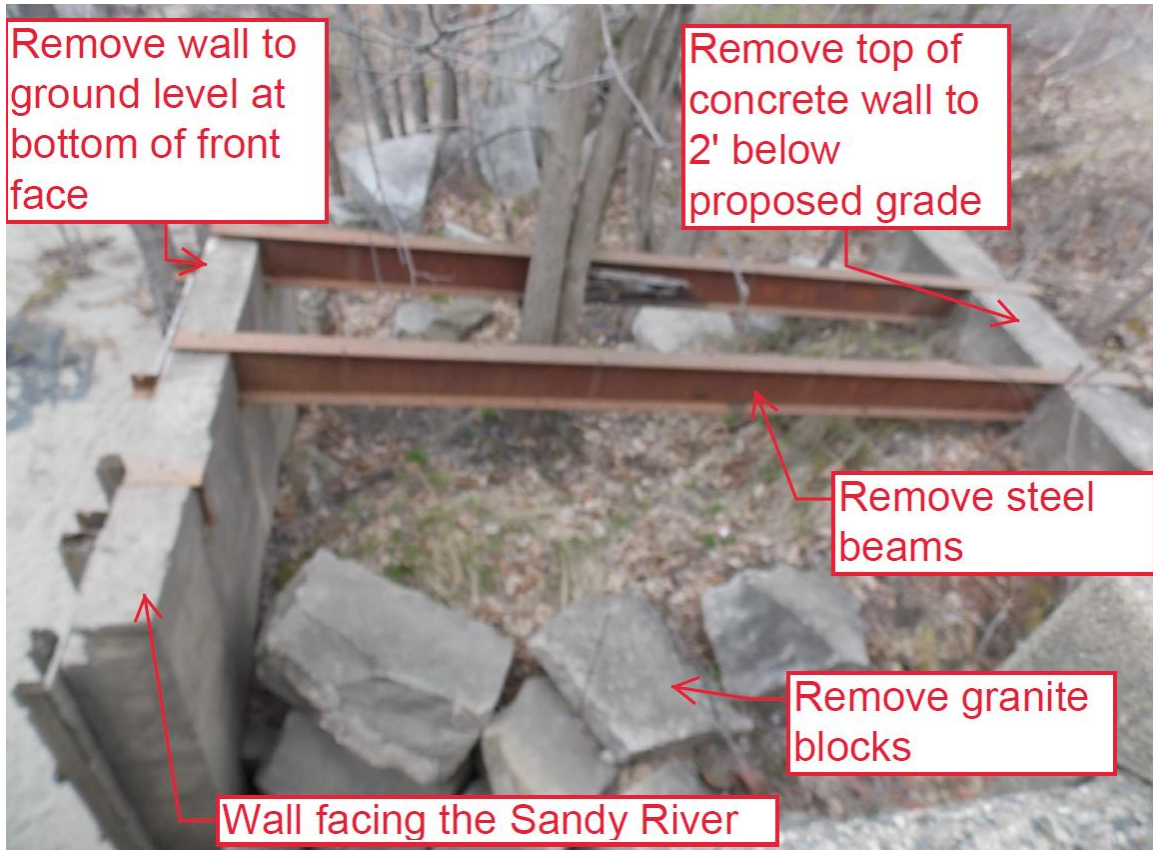


Existing foundation to be removed at the northwest corner of existing bridge





Existing foundation to be removed at the northwest corner of existing bridge



Existing foundation to be removed at the northwest corner of existing bridge



Old foundations southwest of the existing bridge





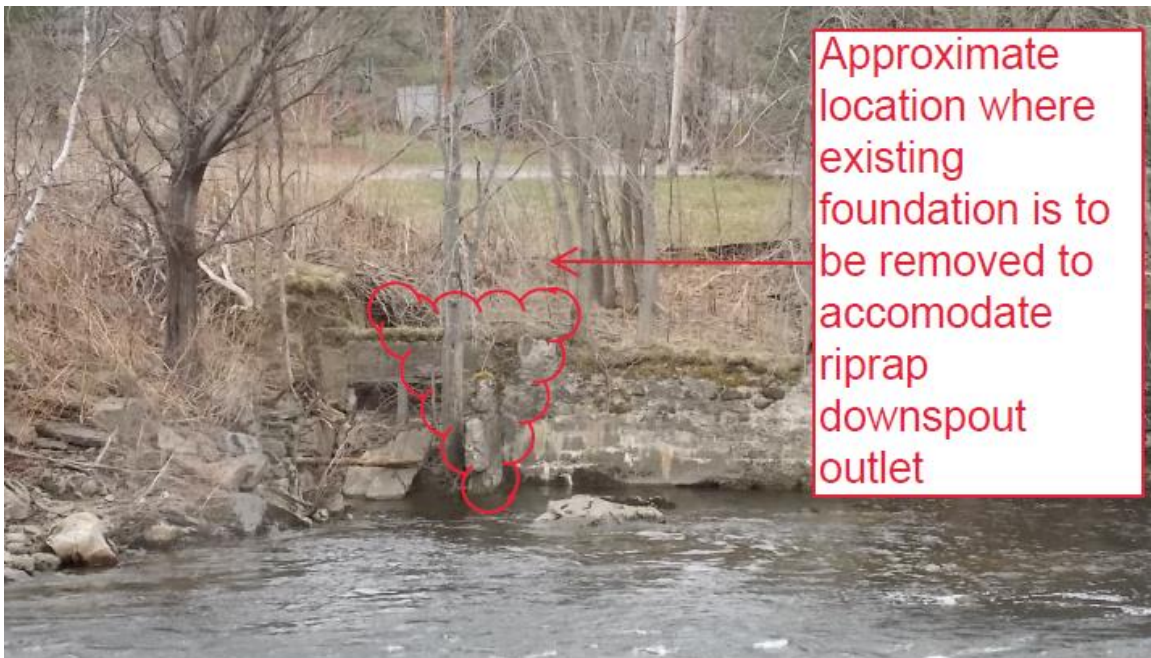
Old foundations southwest of the existing bridge





Old foundations southwest of the existing bridge (area closer to the existing bridge)





#### 202.07 Method of Measurement

*Subsection 202.07 is removed in its entirety and replaced with the following:*

Removing existing bridge and the adjacent structures as described above will each be measured by the lump sum, complete and accepted.

#### 202.08 Basis of Payment

The accept quantity of removing existing bridge will be paid for at the contract lump sum price, which price shall be full compensation for removing and disposing of the obstruction, existing bridge, old foundations down to an elevation matching the surrounding ground as directed by the Resident. The lump sum price shall include the cost of disposal off all concrete and debris. The containment and disposal of pollutants during the removal of material from the existing bridge and old foundation will not be paid for directly, but shall be incidental to the related Contract Pay Item.

Chesterville-Farmington  
WIN 022296.00  
July 1, 2021

These payment provision shall prevail over those of Section 656-Tempoary Soil Erosion and Water Pollution Control, for this work only. The payment for each contract pay item will be full compensation for furnishing all materials, labor, equipment for all formwork, and for all other incidentals necessary to complete the work.

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

The March 2020 Revision of the Standard Specifications, Section 202-Removing Structures and Obstructions, subsection 202.061-Removing Pavement Surface, has been removed and replaced in its entirety by the following:

202.061 Removing Pavement Surface The equipment for removing the bituminous surface shall be a power operated milling machine or grinder capable of removing bituminous concrete pavement to the required depth, transverse cross slope, and profile grade using an automated grade and slope control system. The controls shall automatically increase or decrease the pavement removal depth as required, and readily maintain desired cross slope, to compensate for surface irregularities in the existing pavement course. The equipment shall be capable of accurately establishing profile grades by referencing from a fixed reference such as a 30 foot minimum contact ski (floating beam), 24 foot non-contact ski (floating beam) with 3 or more sensors; or 3 non-contact sensors directly affixed at the fore, mid, and aft points of the milling machine. Systems designed to incorporate a contact sensor located at the mid-point of the milling machine in lieu of the non-contact sensor will be permitted. Grade control sensors shall all be located on the same side. A single sensor, contact or otherwise, shall not be permitted unless otherwise approved by the Department.

The rotary drum shall be a minimum of 7 feet in width and utilize carbide tip tools at a minimum triple wrap configuration. The difference in height from the top of any ridge to the bottom of the groove adjacent to that ridge shall not exceed  $\frac{1}{4}$  inch. The forward speed of the milling machine shall be adjusted to produce a milled surface meeting the groove spacing, groove depth, and surface tolerance requirements of this specification. The tools on the revolving cutting drum must be continually maintained and shall be replaced as warranted to provide a uniform pavement texture. The Department may evaluate the texture of the milled surface for information purposes by performing the Sand Patch test according to ASTM E 965.

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

On roadways with adjoining lanes carrying traffic, the Contractor shall remove the pavement surface in each lane per the conditions in Table 1, unless otherwise noted by the Department in Special Provision, Section 105 – Limitations of Operations.

TABLE 1: MILLING CONDITIONS FOR ADJOINING LANES

Depth (At Centerline)	Milling Conditions
<b>Vertical Longitudinal Joint</b>	
2" and less	The Contractor may remove the pavement on a single travel lane width for each production day and will be required to mill the adjacent section of travel lane before the end of the following calendar day.
Greater than 2"	The Contractor shall remove the pavement over the full width of the traveled way section being paved that day.
<b>12:1 Tapered Centerline Joint</b>	
1 ½" to 2"	The Contractor may remove the pavement on a single travel lane width for each production day and will be required to mill the adjacent section of travel lane before weekend or holiday suspension. A maximum unmatched centerline joint length of 0.5 miles will be permitted over the weekend.
Greater than 2"	The Contractor shall remove the pavement on a single travel lane width for each production day and will be required to mill the adjacent section of travel lane before the end of the following calendar day.

The Contractor will be required to remove the pavement over the full width of the mainline traveled way, regardless of highway type, cut depth, or longitudinal joint type prior to Memorial Day, July 4<sup>th</sup>, Labor Day, suspensions exceeding three days, or other dates as specified by Special Provision, Section 105 – Limitations of Operations.

The Contractor will also be responsible for installing additional warning signage that clearly defines the centerline elevation differential hazard. Unless otherwise addressed in the contract, the Contractor shall install additional centerline delineation such as a double RPM application, or temporary painted line. The Traffic Control Plan shall be amended to include this option and the additional requirements. All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed prior to the work, at a maximum spacing of 0.50 mile for the entire length of effected roadway section. If this option is utilized, all additional signing, labor, traffic control devices, or incidentals will not be paid for directly, will be considered incidental to the appropriate 652 items.

On roadways with immediately adjacent shoulders, the Contractor shall remove the pavement surface in each lane per the conditions in Table 2, unless otherwise noted by the Department in Special Provision, Section 105 – Limitations of Operations.

TABLE 2: MILLING CONDITIONS FOR THE EDGE OF TRAVELED WAY

Depth (At Edge of Traveled Way)	Conditions
2" and less	The Contractor may leave a vertical edge joint exposed for up to <b>21 days</b> after milling is performed. The Contractor shall treat vertical edge joints exposed beyond 21 days per the criteria below.
Greater than 2"	The Contractor shall treat vertical edge joints exposed per the criteria below.

When required by Table 2, the Contractor shall treat vertical edge joints through one of the options below:

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

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

Weepers shall be ground across the full width sections adjacent shoulders or remaining pavement surface matching the milled travel way or shoulder milled depth to minimize water ponding in any lanes carrying traffic. Weepers shall typically be 18 - 24" inches in width, installed along each lane, at a frequency of approximately one per half mile at locations as directed by the Resident or in areas that will provide drainage for the milled areas. Installation of weepers will not be paid for directly but will be considered incidental to the contracts pavement removal item. The replacement of mix in the weeper locations shall be performed concurrently within the pavement placement operation closure using the appropriate HMA item produced for the Contract or a MaineDOT approved 9.5mm HMA. There will be no separate payment for repaving the weeper locations as they are considered incidental to the square yard price of the contracts pavement removal item.

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

#### Basis of Payment

The square yard or hourly rental contract price will be full compensation for mobilizing to the site, de-mobilizing from the site, labor, supervision, cleaning of the milled surface, and all other incidentals required to complete the work. Hauling and stockpiling of the material will not be paid for directly, but will be considered incidental to the milling items.

Square Yard: Payment will be made at the contract unit price for the number of square yards removed.

Hourly: Payment will be made at the contract unit price for the number of hours of operation removing pavement surface as directed by the Resident. The equipment used for pavement removal shall be operated at the minimum speed of 50 fpm, unless the Resident directs otherwise for milled surface quality reasons, or traffic control limitations impact pavement removal operations, or site conditions make operations at the prescribed rate unreasonable. Trimming to create a vertical face along curb line, guardrail, or around structures will be considered incidental to the 202.202 items. Additional trimming beyond the incidental work described will be paid under the appropriate rental items as listed in the Contract.

<u>Pay Item</u>	<u>Pay Unit</u>
202.202 Removing Pavement Surface	S.Y.
202.20201 Removing Pavement Surface (Hourly)	Hour

SPECIAL PROVISION  
SECTION 203  
EXCAVATION AND EMBANKMENT  
(Dredge Materials)

**Description:** Dredge Material (See MaineDOT Standard Specifications § 101.2 Definitions) is regulated as a Special Waste. This material can be reused with a Beneficial Use Permit issued by the Maine Department of Environmental Protection (MDEP). Further, the Beneficial Use of Dredge Material from Class A, Class AA and Class SA water bodies is exempt from Beneficial Use Permits. Work associated with the Bridge Replacement Project in Jim Pond TWP will occur in a Class A water body; therefore, the Beneficial Use of Dredge Material from this initiative is exempt from Beneficial Use Permits.

CONSTRUCTION REQUIREMENTS

**Management:** The contractor shall ensure that all Dredge Material excavated from the Bridge Replacement Project in Jim Pond TWP is Beneficially Used in the area(s) specified by MaineDOT.

**Method of Measurement:** Dredge Material will be measured by the cubic yard of material removed.

**Basis of Payment:** Payment for the Beneficial Use of Dredge Material will be incidental to the Contract Pay Items.

Payment shall be full compensation for dewatering, managing, transporting, and placement of the Dredge Materials.



**SPECIAL PROVISION**  
**SECTION 203**  
**EXCAVATION AND EMBANKMENT**  
**(Dredge Materials)**

**Management and Disposal:** Dredge Material (See MaineDOT Standard Specifications § 101.2 Definitions) is regulated as a Special Waste.

In accordance with CMR 418, 500-cubic yards or less of Dredge Material Beneficially Used in the area(s) adjacent to and draining into the dredged water body is exempt from Beneficial Use Permits. Work associated with the Hall Bridge (BR #2341) Replacement initiative will require excavation of select Dredge Material from Butterfield Brook (Class B Waterbody). It is estimated that approximately 460 cubic yards of dredge will be excavated. There will be onsite Beneficial Use for some of this Dredge Material as directed by the Resident; the remaining Dredge Material shall be disposed of at an appropriately licensed facility.

The Contractor shall dispose of project generated Dredge Material that is not Beneficially Used on-site at a facility licensed for the management of Special Waste by the Maine Department of Environmental Protection (MDEP). The Contractor shall be responsible for making all necessary arrangements for dewatering and proper management of the Dredge Material, including any laboratory testing, in accordance with the facility's license. The Contractor shall provide documentation to the Resident that the Dredge Material was managed as specified. Submitted documentation shall consist of truck manifests, waybills, and/or related documentation that is acceptable to the Resident and shall clearly document the management site location and quantity of Dredge Material.

It is acknowledged that excavation of Dredge for this work may include some boulders. The MDEP has determined that sound boulders (rock 12-inches or more in diameter), that are free of adhering sediment or other contaminants, shall be deemed as Inert Fill material and shall not be included in Dredge Material Quantities.

**Method of Measurement:** Excavation of dredge material shall be measured for payment under related Contract items.

**Basis of Payment:** The accepted quantity of Dredge Material properly disposed of, as Special Waste, will be paid for at the contract unit price bid for Disposal of Special Waste.

Payment shall be full compensation for dewatering, testing, stockpiling, loading, managing, transporting, disposal, and all associated fees.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
203.2318	Disposal of Special Waste	Ton

**SPECIAL PROVISION**  
**SECTION 203**  
**Special Fill - Streambed Material**

203.01 Description This work consists of furnishing and placing rock, cobble and granular material inside of, and upstream and/or downstream of, a culvert to form a nature-like streambed.

203.02 Materials Special Fill shall consist of a well-graded mixture of sub-angular to sub-rounded rock, cobbles, and aggregate similar in size and shape to those found in natural channels and may be obtained as bank run or screening materials from earth borrow pits. Material from blasting or crushing operations will not be allowed.

Where applicable, suitable material excavated on-site within the limits of a stream channel in accordance with Special Provision Section 203, Excavation and Embankment - Dredge Materials, may be used in the mix to meet the gradation requirements below, or as Filler Material with the approval of the Resident. Field observations at the project site by Environmental Office staff support the likely possibility that excavation beneath the existing bridge may be suitable for streambed reconstruction on the new culvert.

Material Descriptions

Special Fill shall consist of materials generally conforming to the following requirements:

*Medium Stone ("MS")* – shall be stones between 3 and 9 inches average dimension, well graded and round to subangular; approximately 50% shall be at least 6 inches.

*Small Stone ("SS")* – shall be stones 6 inches average dimension and smaller, well graded and round to subangular; approximately 50% shall be at least 2 inches.

*Streambed Gravel ("SG")* - shall be well graded aggregate and contain only particles of rock that will pass a 6-inch sieve. The part that passes a 3-inch sieve shall meet the following grading requirements:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
½ inch	35 – 80
¼ inch	25 – 65
No. 40	5.0 – 30
No. 200	5.0 – 15

*Filler Material ("FM")* – The purpose of Filler Material is to fill and seal the voids so that water ponds on the surface of the streambed. Filler Material shall not contain oversized stones larger than 6 inches and the fines content shall be sufficient to fill and seal voids. Filler Material shall consist of a well graded mix of gravel, sand and fines free from vegetable matter, debris, peat and other unsuitable material. As appropriate, Streambed Gravel may be used as filler material, or the material may be obtained from earth borrow

pits, dredge, on-site excavation or other sources approved by the Resident. The Resident will determine the suitability of the material by visual inspection.

#### Testing and Acceptance

The Contractor shall identify the source and proposed mix for inspection at least ten (10) working days prior to the start of streambed construction. Special Fill shall conform to the grading requirements at the time it is placed to form the streambed.

- Stone: the grading of Stone shall be determined by the Resident in accordance with the Standard Specifications, Section 610.032.d Inspection.
- Streambed Gravel: the Contractor shall furnish to the Resident a copy of gradation test results from a certified laboratory for the Streambed Gravel portion of the mix, after which Verification (Process Control) testing will be performed by the Department.
- Filler Material: will be accepted on the basis of visual inspection by the Resident.

#### Special Fill Mix

Special Fill shall contain approximately 17% Medium Stone (MS), 33% Small Stone (SS) and 50% Streambed Gravel (SG), by volume. Special Fill shall be mixed and placed so as to minimize segregation; it may be mixed in the proportions

(1 part MS) : (2 part SS) : (3 parts SG)

Mix proportions and material gradations shall be within the above limits or as otherwise approved by the Department's Environmental Office and the Resident. Acceptance will be based on the test results, and visual inspection by the Resident.

#### 203.03 Construction Requirements

- A thin bedding layer, no more than 6 inches thick, of Streambed Gravel shall be placed on the culvert floor prior to all further placement of material in the culvert.
- Special Fill shall be placed in 2 equal lifts after the banklines have been placed.
- After placing each lift: firmly embed stones and fill voids by hand tamping and washing-in with water. In addition to watering-in, mechanical compaction methods may be used with the approval of the Resident. Larger individual stones protruding more than 6 inches above the average surface grade shall be embedded, re-oriented, or replaced. After the initial compaction, place, spread and wash-in Filler Material on the surface to fill and seal any remaining voids so that water ponds on the surface.
- Thoroughly saturate the culvert streambed prior to exposure to normal flow conditions. Fill any remaining voids by washing-in Filler Material as described above. After washing-in, the depth of constructed streambed shall meet the average thickness requirements shown on the Plans and stated in this Special Provision.

- Finished streambed thickness shall be no less than 1.5 feet on centerline and form a V-shaped channel as shown in the plans.

203.18 Method of Measurement

Special Fill will be measured in place by the cubic yard.

203.19 Basis of Payment

The accepted quantity of Special Fill will be paid for at the contract price per cubic yard complete in place. Payment shall be full compensation for furnishing all materials, including Filler Material, equipment and labor, and washing-in with water.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
203.33      Special Fill	CY

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

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

**Environmental Site Conditions:** The Maine Department of Transportation Environmental Office (MaineDOT-ENV) has conducted a series of assessments related to the Farmington Falls Bridge Replacement Project. An initial Phase I Environmental Assessment for the project area was completed to obtain a general understanding of the environmental conditions within and adjacent to the project area. Data garnered from this assessment was used to design a Modified, Phase II Contamination Assessment for the project. The primary focus of the assessments was to evaluate the type and extent of subsurface contamination in the project area. The Phase I Assessment included a review of relevant Maine Department of Environmental Protection (MDEP) and Environmental Protection Agency (EPA) databases and field reconnaissance of the project area. During Phase II, borings were advanced at strategic locations for investigative purposes. Using data gathered from the Contamination Assessment, two areas with impacted soil were identified. (See *Identified Areas of Contamination* below). Results of these investigations are available for review from the Senior Geologist at MaineDOT-ENV in Augusta (207-624-3000).

**Identified Areas of Contamination:** The MaineDOT-ENV investigation identified two areas of soil contamination associated with the Farmington Falls Bridge Replacement Project. For reference, these areas are designated as “**Area A**” and “**Area B**”.

The location of **Area A** is defined as being adjacent to the southwest end of the bridge where State Route 156 (Lucy Knowles Road) splits from State Route 41 and heads west-southwest in Chesterville. **Area A** is located roughly between MaineDOT Survey Station 3+00 – left of centerline (LOC) through MaineDOT Survey Station 4+66.30 – LOC. Former land use and activity at this location (Morrill Mill) as a hemp mill, historical petroleum product storage and use, and later burning and razing of the mill at this site are identified as likely sources of soil contamination within this area of the project. Some of this material may be identified as **Special Waste** (Urban Fill).

The location of **Area B** is defined as being adjacent to the northwest end of the bridge in Farmington Falls. **Area B** is located roughly between MaineDOT Survey Station 6+55 - LOC through MaineDOT Station 7+50 - LOC. Former land use and activity in this area (Franklin Mill) as a carriage factory that was destroyed by fire, and which later served as a “refuse dump”, are likely sources of contamination within this area of the project. Some of this material may be identified as **Special Waste** (Urban Fill).

**Special Waste / Urban Fill** means any solid waste generated by sources other than household and typical commercial establishments that exists in such an unusual quantity or in such a chemical or physical state, or any combination thereof, that may disrupt or impair effective waste management or threaten the public health, human safety or the environment and requires special handling, transportation and disposal procedures.

Urban Fill material (soils mixed with non-inert materials) that may be encountered in **Area A** and **Area B** shall be considered as Special Waste. Special Waste requires special handling, transportation, and disposal procedures.

**Identifying and Screening Contaminated Soil and Groundwater:** Within the contaminated sections designated **Area A** and **Area B**, excavated soils will be classified by the Resident (or MaineDOT-ENV representative) based on photo-ionization detector (PID) field screening measurements following the Leaching to Groundwater/Notification Cleanup Scenario as prescribed in Table 1 – Approved PID Field Cleanup and Notification Guidelines in MDEP Standard Operating Procedure (SOP) TS004 – COMPENDIUM of FIELD TESTING of SOIL SAMPLES for GASOLINE and FUEL OIL (10/15/2012) and visual observations.

Excavated soils within **Area A** and **Area B** shall be classified as Group 1, Group 2, or Group 3.

**Group 1** soils shall have PID field screening measurements indicating relative concentrations of volatile organic compounds (VOCs) less than or equal to 10 parts per million (ppm) as measured in a 200-gram bag-headspace sample and an “Undetected” result using an oleophilic dye test. In addition, Group 1 soils shall **NOT** include any urban fill material associated with **Area A** and **Area B**.

**Group 2** soils shall have PID field screening measurements indicating VOC concentrations greater than 10 ppm as measured in a 200-gram bag-headspace sample and less than the value indicated in Table 1 of SOP-TS004 when screened in accordance with the “Leaching to Groundwater/Notification” clean-up scenario, OR a “Slightly Positive” result using an oleophilic dye test. In addition, excavated Group 2 soils **may or may not** include urban fill material associated with **Area A** and **Area B**.

**Group 3** soils shall exceed the threshold limit stated in the TS004 Compendium of Field Testing of soil samples exceeding “Leaching to Groundwater/Notification” clean-up scenario, OR indicate a “Saturated” / “Positive” result using an oleophilic dye test. In addition, excavated Group 3 soils **may or may not** include urban fill material associated with **Area A** and **Area B**.

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

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

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

**Group 3** soils shall not be excavated without prior approval by the Resident. The Contractor shall arrange and undertake disposal of all Group 3 soils at a landfill or treatment facility licensed to accept petroleum contaminated special waste. The Contractor is responsible for all additional testing required by the receiving facility. Group 3 soils that cannot be disposed of within 8 hours of excavation shall be stored in a Temporary Secured Stockpile area. If the Contractor proposes



other disposal or treatment options, the Contractor is solely responsible for obtaining the associated permits and approvals from all relevant Municipal, State, and Federal agencies at no additional cost to the State.

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

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

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

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

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

Should the Contractor utilize a Temporary Secured Stockpile Area, they shall install a continuous 0.3-meter-high compacted soil berm around the Secured Stockpile. The Secured Stockpile shall be placed on a liner of 20-mil polyethylene and securely covered with 20-mil polyethylene. The polyethylene liner and cover shall be placed over the soil berm and be installed to ensure that precipitation water drains directly to the outside of the berm perimeter while leachate from the contaminated soil is retained within the stockpile. The Secured Stockpile and soil berm shall be enclosed within a perimeter of

concrete Jersey barriers or wooden barricades. The area within the Jersey barriers (or wooden barricades) shall be identified as a "restricted area" to prevent unauthorized access to the contaminated soils.

**Secured Stockpile Area – Materials:**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Chesterville - Farmington Falls  
WIN 22296.00  
Farmington Falls Bridge (#2273)  
Sandy River – Class B Waterbody  
June 30, 2021

**SPECIAL PROVISION**  
**SECTION 203**  
**EXCAVATION AND EMBANKMENT**  
**(Dredge Materials)**

**Management and Disposal:** Dredge Material (See MaineDOT Standard Specifications § 101.2 Definitions) is regulated as a Special Waste.

In accordance with CMR 418, 500-cubic yards or less of Dredge Material Beneficially Used in the area(s) adjacent to and draining into the dredged water body is exempt from Beneficial Use Permits. Work associated with the Farmington Falls Bridge (#2273) replacement initiative will require the excavation of select Dredge Material from the Sandy River. It is anticipated that approximately 610-cubic yards of dredge will be excavated. There will be onsite Beneficial Use for 500-cubic of this Dredge Material as directed by the Resident; the remaining Dredge Material shall be disposed of at an appropriately licensed facility.

The Contractor shall dispose of project Dredge Material that is not Beneficially Used at the site of generation, at a facility licensed by the Maine Department of Environmental Protection (MDEP) for the management of Special Waste. The Contractor shall be responsible for making all necessary arrangements for dewatering and proper management of the Dredge Material, including any laboratory testing, in accordance with the facility's license. The Contractor shall provide documentation to the Resident demonstrating that Dredge Material was managed as specified. Submitted documentation shall consist of truck manifests, waybills, or related documentation acceptable to the Resident, and shall clearly document the management site location and quantity of Dredge Material.

It is acknowledged that excavation of Dredge for this work may include some boulders. The MDEP has determined that sound boulders (rock 12-inches or more in diameter), that are free of adhering sediment or other contaminants, shall be deemed as Inert Fill material and shall not be included in Dredge Material Quantities.

**Method of Measurement:** Excavation of Dredge material will be measured for payment under related Contract Items.

**Basis of Payment:** The accepted quantity of Dredge Material properly disposed of, as Special Waste, will be paid for at the contract unit price bid for Disposal of Special Waste.

Payment shall be full compensation for dewatering, testing, stockpiling, loading, managing, transporting, disposal, and all associated fees.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
203.2318	Disposal of Special Waste	Ton

**SPECIAL PROVISION**  
**SECTION 203**  
**Special Fill - Streambed Material**

203.01 Description This work consists of furnishing and placing rock, cobble and granular material inside of, and upstream and/or downstream of, a culvert or bridge to form a nature-like streambed. Payment for Special Fill shall be incidental to riprap pay items.

203.02 Materials Special Fill shall consist of a well-graded mixture of sub-angular to sub-rounded rock, cobbles, and aggregate similar in size and shape to those found in natural channels and may be obtained as bank run or screening materials from earth borrow pits. Material from blasting or crushing operations will not be allowed.

Where applicable, suitable material excavated on-site in accordance with Special Provision Section 203, Excavation and Embankment - Dredge Materials, may be used in the mix to meet the gradation requirements below, or as Filler Material with the approval of the Resident.

Material Descriptions

Special Fill shall consist of materials generally conforming to the following requirements:

*Large Stone ("LS")* – shall be stones between 6 and 12 inches average dimension, well graded and round to subangular; approximately 35% - 50% shall be at least 9 inches.

*Medium Stone ("MS")* – shall be stones between 3 and 9 inches average dimension, well graded and round to subangular; approximately 50% shall be at least 6 inches.

*Small Stone ("SS")* – shall be 6-inch-minus, well graded and round to subangular; approximately 50% shall be at least 2 inches.

*Streambed Gravel ("SG")* - shall be well graded aggregate and contain only particles of rock that will pass a 6-inch sieve. The part that passes a 3-inch sieve shall meet the following grading requirements:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
½ inch	35 – 80
¼ inch	25 – 65
No. 40	5.0 – 30
No. 200	5.0 – 15

*Filler Material ("FM")* – The purpose of Filler Material is to fill and seal the voids so that water ponds on the surface of the streambed. Filler Material shall not contain oversized stones larger than 6 inches and the fines content shall be sufficient to fill and seal voids. Filler Material shall consist of a well graded mix of gravel, sand and fines free from vegetable matter, debris, peat and other unsuitable material. As appropriate, Streambed Gravel may be used as filler material, or the material may be obtained from earth borrow pits, dredge, on-site excavation or other sources



approved by the Resident. The Resident will determine the suitability of the material by visual inspection.

Testing and Acceptance

The Contractor shall identify the source and proposed mix for inspection at least ten (10) working days prior to the start of streambed construction. Special Fill shall conform to the material grading requirements at the time it is placed to form the streambed.

- Stone: the grading of Stone shall be determined by the Resident in accordance with the Standard Specifications, Section 610.032.d Inspection.
- Streambed Gravel: the Contractor shall furnish to the Resident a copy of gradation test results from a certified laboratory for the Streambed Gravel portion of the mix, after which Verification (Process Control) testing will be performed by the Department.
- Filler Material: will be accepted on the basis of visual inspection by the Resident.

Special Fill Mix

Special Fill shall contain approximately 10% Large Stone, 20% Medium Stone (MS), 50% Small Stone (SS) and 20% Streambed Gravel (SG), by volume. Special Fill shall be mixed and placed so as to minimize segregation; it may be mixed in the proportions

(1 part LS) : (2 part MS) : (5 parts SS) : (2 parts SG)

Mix proportions and material gradations shall be within the above limits or as otherwise approved by the Department's Environmental Office and the Resident. Acceptance will be based on the test results and visual inspection by the Resident.

203.03 Construction Requirements

- Special Fill shall be placed in 2 generally equal lifts.
- After placement of each lift: firmly embed stones and fill voids by hand tamping and washing-in with water. In addition to watering-in, mechanical compaction methods may be used with the approval of the Resident. Larger individual stones protruding more than 6 inches above the average surface grade shall be embedded, re-oriented, or replaced. After the initial compaction, place, spread and wash-in Filler Material on the surface to fill and seal any remaining voids so that water ponds on the surface.
- Thoroughly saturate the constructed streambed prior to exposure to normal flow conditions. Fill any remaining voids by washing-in Filler Material as described above. After washing-in, the depth of constructed streambed shall meet the average thickness requirements shown on the Plans and stated in this Special Provision.
- Finished streambed thickness shall be no less than 2 feet on centerline and finished grade 6 - 9 inches higher at the riprap abutment slopes, forming a V-shaped channel.

SPECIAL PROVISION  
SECTION 206  
STRUCTURAL EXCAVATION

206.05 Basis of Payment

*The following pay items are added:*

<u>Pay Item</u>	<u>Pay Unit</u>
206.10 Structural Earth Excavation-Piers	Cubic Yards
206.11 Structural Rock Excavation-Piers	Cubic Yards

## SECTION 401 - HOT MIX ASPHALT PAVEMENT

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

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

Asphalt Cement	702.01
Aggregates for HMA Pavement	703.07
RAP for HMA Pavement	703.08
HMA Mixture Composition	703.09

**401.03 Composition of Mixtures** The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), approved antistripping additive, and/or mineral filler if required. HMA shall be designed and tested according to AASHTO R 35 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF). Unless otherwise noted in Special Provision 403 - Hot Mix Asphalt Pavement, the design, verification, Quality Control, and Acceptance tests for this mix will be performed at 65 gyrations. **TABLE 1: VOLUMETRIC DESIGN CRITERIA**

Design ESAL's (Millions)	Required Density (Percent of G <sub>mm</sub> )			Voids in the Mineral Aggregate (VMA) (Minimum Percent)					Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
				Nominal Maximum Aggregate Size (mm)						
	N <sub>initial</sub>	N <sub>design</sub>	N <sub>max</sub>	25.0	19.0	12.5	9.5	4.75		
< 3.0	≤90.5	96.0	≤98.0						65-80*	0.6-1.2
3 to <10	≤89.0			13.0	14.0	15.0	16.0	16.0		
≥ 10										

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

The Contractor shall submit a JMF to the Department for each mixture to be supplied. The JMF will be approved by the Department in accordance with the MaineDOT HMA Policies and Procedures for HMA Sampling and Testing Manual. At the time of JMF submittal, the Contractor shall identify and make available the stockpiles of all proposed aggregates at the plant site. There must be a minimum of 150 ton for coarse aggregate stockpiles and 75 ton for fine aggregate stockpiles before the JMF may be submitted. The Contractor shall provide aggregate samples to the Department unless otherwise required. The Contractor shall also make available to the Department the PGAB proposed for use in the mix in sufficient quantity to test the properties of the asphalt and to produce

samples for testing of the mixture. The first day’s production shall be monitored, and the approval may be withdrawn if the mixture exhibits undesirable characteristics such as checking, shoving or displacement. The Contractor shall be allowed to submit aim changes for a JMF as outlined in the MaineDOT HMA Policies and Procedures for HMA Sampling and Testing Manual: Mix Design Approval Section.

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

401.031 Warm Mix Technology The Contractor may place Hot Mix Asphalt Pavement produced with an accepted WMA technology if approved by the Department. Methods or technologies shall generally be at the Contractors option, but will be limited to proven, Agency and Industry accepted practice. Mixture production, placement and volumetric testing details, including temperatures, shall be included in the project specific QCP, and submitted to the Department for approval prior to any work.

401.04 Temperature Requirements The temperature of the mixture shall conform to the tolerances in Table 2 as measured at the truck at the mixing plant and at the paver unless otherwise authorized by the Department.

TABLE 2: ALLOWABLE TEMPERATURE RANGES

<b>PGAB Grade(s)</b>	<b>Temperature Range (°F)</b>
PG58-28 / PG64-28	275-325
PG64E-28 / PG70E-28	285-335

401.05 Performance Graded Asphalt Binder The Contractor shall utilize either a PG58-28, PG64-28, PG64E-28, PG70E-28, or other grade as specified in the 403 Special Provision. The Contractor shall utilize a PG64-28 if no liquid grade is specified within the 403 Special Provision.

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

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

TABLE 3: SEASONAL AND TEMPERATURE LIMITATIONS

Use	Minimum Ambient Air Temperature	Zone 1 Allowable Placement Dates	Zone 2 Allowable Placement Dates
Surface course (travelway & adjacent shoulders) less than 1 in. thick placed during conditions defined as “night work”	50°F	June 1 to Saturday following September 1	
Surface course (travelway & adjacent shoulders) less than 1 in. thick	50°F	May 15 to Saturday following September 15	
Travelway surface course greater than or equal to 1 in. thick	50°F	May 1 to Saturday following October 1	April 15 to Saturday following October 15
HMA for surface course on bridge decks	50°F	May 1 to Saturday following October 1	April 15 to Saturday following October 15
HMA for base or shim course on bridge decks	50°F	April 15 to November 15	
HMA for use other than travelway surface course	40°F	April 15 to November 15	
HMA for curb, driveways, sidewalks, islands, or other incidentals	40°F	N/A	N/A
HMA produced with an approved WMA technology for base or shim course	35°F	April 15 to November 15	

The ambient air temperature shall be determined by an approved thermometer placed in the shade at the paving location. Unless otherwise specified, the Contractor shall not place Hot Mix Asphalt Pavement on a wet or frozen surface regardless of the ambient air temperature. The Hot Mix Asphalt Pavement produced with an approved WMA technology shall meet the requirements of section 401.04 - Temperature Requirements, unless otherwise approved by the Department. For the purposes of this Section, the traveled way includes truck lanes, ramps, approach roads and auxiliary lanes.

#### 401.07 Hot Mix Asphalt Plant

401.071 General Requirements HMA plants shall conform to AASHTO M 156, Standard Specification for Requirements for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures with exception of Section 4.2.1, 4.2.2, 4.3.4, 4.3.5, and 4.12.2.

All HMA plants will be inspected annually by the Department prior to producing HMA for Department projects. The Contractor shall provide the Department at least 72 hours’ notice that the plant is ready for inspection. The Contractor shall equip the plant with ladders and platforms that are accessible and safe to obtain samples of PGAB, aggregate and mix from the relevant tanks, collector belts and haul units. Silo storage time of mixtures shall not exceed 36 hours.

401.072 Stockpiles The Contractor shall provide sufficient space for stockpiles and maintain a minimum of supply for 2 days production of all aggregate products used in MaineDOT approved mix designs currently under production. A minimum stockpile supply of 100 ton (70 yards) shall be maintained at all times. The Contractor shall construct stockpiles to prevent intermingling and to

minimize segregation. All stockpiles used in MaineDOT mixes shall be identified with weatherproof signs at least 12” high and 24” wide, with reflective lettering at least 2” high.

401.073 Cold Feeds Cold Feed Bins will have bin dividers to keep aggregate products separated. Adequate means must be provided for obtaining samples of the combined flow of all Cold feed bins.

401.074 Dryer Dryer shall be capable of heating aggregate to required mixing temperature and shall be in good operation and condition. Dryer shall be subject to annual inspection prior to start-up. The Contractor shall dry and heat the aggregates for the HMA to the required temperature, adjusting flames to avoid damaging the aggregates. The Contractor shall provide the Department a minimum period of 72 hours to inspect the dryer and provide at least 24 hours’ notice that the dryer is ready for inspection.

401.075 Asphalt Binder The plant shall include a heating system and insulation to maintain the asphalt binder at a uniform temperature for proper mixing and compaction. A thermometer shall be provided in the asphalt binder line. No direct flame may come in contact with tank. A sampling valve shall be provided in the circulation line downstream of any binder additive used unless otherwise approved by the Department. The Contractor shall drain down the asphalt as low as safely possible in any tank that will be switched to a new source or grade prior to adding the new PGAB.

401.076 Additives Additives (WMA, anti-strip, etc.) introduced into the binder at the HMA plant shall be introduced per the supplier’s recommendations and shall be approved by the Department. The system for introducing additives shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all production rates and batch sizes. Additive introduction systems shall be controlled by a proportioning device to the amount required on the JMF plus or minus 0.1% of the target. Additive introduction systems shall be interlocked with the plant and the recordation (batch tickets or drum recordation) shall display the additive and the weight and percentage added. A means for sampling the PG binder with additive introduced will be provided. The sampling point shall be after the additive is mixed with the PGAB before entering the drum or mixer unit.

401.077 Batch Plants

Hot Bins Hot bins shall provide uniform continuous operation and be in good working condition. The plant shall be able to provide samples of hot bins upon request. Overflow shall be provided for each hot bin. Hot bin gates shall close without leaking. Bin walls must prevent intermingling between bins. Each hot bin shall have low level indicators which will alert the operator when the bin is empty.

Mixer Unit Clearance between blades and liner shall be 1” maximum, unless the aggregate exceeds 1 ¼” then the clearance shall be 1 ½”. The spray bar length shall be at least 75% of the mixer length. The mixer unit shall be a twin pug mill-type mixer capable of mixing continuously for at least 45 seconds after all materials have been introduced into the mixer. The blades in the mixer shall be capable of producing a homogenous mixture. If the mixer is not enclosed, it shall be equipped with an adjustable hood to prevent loss of dust by dispersion. The mixer unit shall be subject to annual inspection prior to removal of safety features and being readied for service. The Contractor shall provide the Department the opportunity to inspect the mixer unit prior to the annual inspection. The Contractor shall provide the Department a minimum period of 72 hours to inspect the mixer unit and provide at least 24 hours’ notice that the mixer unit is ready for inspection.

Mineral Filler Mineral filler and fiber shall utilize separate bins and feed systems to store and proportion the required quantity into the mixture. The feed systems shall be accurate to no more than 10% of the required weight with a convenient and accurate means of calibration. Mineral filler and fiber shall be introduced in the weigh hopper and uniformly distributed prior to the injection of the asphalt binder.

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

The HMA batch plant shall be operated within the following tolerances:

Each aggregate component	+/- 1.5% cumulative, per bin
Mineral Filler	+/- 0.5%
Bituminous Material	+/- 0.1%
Zero return (aggregate)	+/- 0.5%
Zero Return (AC)	+/- 0.1%
Additives	+/- 0.1%

Recordation All plants shall be equipped with an approved digital recording device. The printer shall mark any weight on the ticket that exceeds tolerance. The delivery slip shall contain information required under Section 108.1.3 - Provisions Relating to Certain Measurements, Mass and paragraphs a, b, and c of Section 401.078.

#### 401.078 Drum Plants

Cold Feeds and Delivery System A scalper screen shall be used to remove oversize material. The accuracy of the belt scale shall be within +/- 1.0% of the actual weight being measured. The plant shall be capable of correcting for aggregate moisture. Mineral filler and fiber shall utilize separate bin(s) and feeder systems to store and proportion the required quantity into the mixture. The feed systems shall be accurate to no more than +/- 10% of the required weight with a convenient and accurate means of calibration. The plant shall be equipped with a single control to change all feed rates. Mineral filler and fiber shall be introduced such that dry mixing is accomplished no less than 18 inches prior to the injection of the asphalt binder. The Contractor shall ensure that the mineral filler does not become entrained in the exhaust stream of the dryer.

Binder System The flow of asphalt binder shall adjust automatically with dry aggregate weights. The Department will conduct an asphalt flow meter check annually and after each change of plant location. The flow meter check must be performed prior to producing mix for Department projects. The plant must be configured to provide a convenient means to check accuracy of the flow meter. The flow meter will be considered accurate if the measured weight is within 1% of actual weight.

Drum Mixer The plant shall be equipped with a diversion system where mix can be diverted at startup/shutdown and any time. The drum mixer shall be subject to annual inspection prior to removal of safety features and being readied for service. The Contractor shall provide the Department a minimum period of 72 hours to inspect the drum mixer while providing at least 72 hours' notice that the drum mixer is ready for inspection.

Recordation An approved automatic ticket printer system shall be used to print delivery slips. The requirements for delivery slips for payment of materials measured by weight, as given in the following Sections, shall be waived: 108.1.3 a., 108.1.3 b., 108.1.3 c., and 108.1.3 d. The automatic printed ticket will be considered as the Weight Certificate. The dry aggregate weights and binder flow shall be recorded as well as mineral filler and all binder additives. The recordation of materials shall be printed a minimum of every ten minutes while in production.

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

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

401.079 Scales and Weight Checks Scales shall meeting the requirements of Section 108 - Payment. The scales shall be inspected and sealed by the State Sealer (or approved alternative) as often as the Department deems necessary to verify their accuracy. Plant scales shall be checked prior to the start of the paving season, and each time a plant is moved to a new location. Subsequent checks will be made as determined by the Resident. The Contractor will have at least ten 50 pound masses for scale testing at batch plants. At Contractor's option, the Contractor can use one single test weight that has been checked on sealed scales. This weight shall be 1,000 lbs. or greater. At least twice during each 5 days of production either of the following checks will be performed:

- a. A loaded truck may be intercepted and weighed on a platform scale that has been sealed by the State Sealer of Weights and Measures within the past 12 months. The inspector will notify the producer to take corrective action on any discrepancy over 1.0%. The producer may continue to operate for 48 hours under the following conditions.
  1. If the discrepancy does not exceed 1.5%; payment will still be governed by the printed ticket.
  2. If the discrepancy exceeds 1.5%, the plant will be allowed to operate as long as payment is determined by truck platform scale net weight.

If, after 48 hours the discrepancy has not been addressed and reduced below 1.0%, then plant operations will cease. Plant operation may resume after the discrepancy has been brought within 1.0%.

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



available, a weight with a known mass-verified and sealed annually by a licensed scale company, may be used by hanging weight from silo or surge hopper, at lower middle and upper third levels upon request to verify scale accuracy.

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

**401.08 Hauling Equipment** Units hauling HMA shall have tight, clean, and smooth metal bodies, which have been thinly coated with a small amount of approved release agent to prevent the mixture from adhering to the bodies. Release agents that dissolve or strip asphalts, including diesel fuel, will not be allowed.

All mix haul units shall have a cover of water repellent material capable of heat retention, which completely covers the mixture. The cover shall be securely fastened on the truck, unless unloading. Haul units shall have an opening on both sides near the midpoint of the body, at least 12 in above the bed, which will accommodate a thermometer stem.

**401.09 Pavers** The Contractor shall use pavers meeting the requirements of this section unless otherwise authorized by the Department. Pavers shall meet the requirements of Table 4: Paver Requirements.

TABLE 4: PAVER REQUIREMENTS

Use	Paver Requirement
Traveled Way & Auxiliary Lanes	Equipped with a 10 ft minimum main screed with activated extensions. The minimum tractor weight shall be 30,000 pounds.
	Equipped with automatic grade and slope controls that automatically adjust the screed and increase or decrease the layer thickness to compensate for irregularities in the preceding course. The controls shall maintain the proper transverse slope and be readily adjustable so that transitions and superelevated curves can be properly paved. The controls shall operate from a fixed or moving reference such as a grade wire or ski type device (floating beam) with a minimum length of 30 ft, a non-contact grade control with a minimum span of 24 ft, except that a 40 ft reference shall be used on interstate and divided highway projects.
All HMA Placement	Self-contained, self-propelled units of sufficient class and size to place Hot Mix Asphalt Pavement in full lane widths specified in the contract on the main line, shoulder, or similar construction.
	Equipped with a free-floating activated heated main screed with activated extensions. Pavers with extendible screeds shall have auger extensions and tunnel extenders as per the manufacturer’s recommendations, a copy of which shall be available if requested.
	Equipped with a receiving hopper with sufficient capacity for a uniform spreading operation and a distribution system to place the mixture uniformly, without segregation in front of the screed.
	Operated in such a manner as to produce a visually uniform surface texture and a thickness within the requirements of Section 401.11 - Surface Tolerances. The screed assembly shall produce a finished surface of the required evenness and texture without tearing, shoving, or gouging the mixture.

The Contractor shall have the paver at the project site sufficiently before the start of paving operations to be inspected and approved by the Department. The Contractor shall repair or replace any paver found worn or defective, either before or during placement, to the satisfaction of the Department. Pavers that produce an unevenly textured or non-uniform mat will be repaired or replaced before continuing to place HMA on MaineDOT projects. On a daily basis, the Contractor shall perform density testing across that mat as detailed in Section 401.191 Quality Control - Method A, B & C.

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

The Contractor shall repair or replace any roller found to be worn or defective, either before or during placement, to the satisfaction of the Department. Rollers that produce grooved, unevenly textured or non-uniform mat will be repaired or replaced before continuing to place HMA. The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor's option unless otherwise specified in the contract, provided specified density is attained and with the following requirements:

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

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

401.11 Surface Tolerances The Department will check the following surface tolerances:

- a.) Longitudinally: The pavement surface profile shall be free of deviations in excess of +/- ¼ inches from the required pavement surface profile grade. To verify the surface tolerance a straight plane shall be established using 16 foot straight edge or a taught string line placed parallel to the direction of travel and checked continuously across the width of the lane.
- b.) Transversely: The pavement surface profile shall be free of deviations in excess of 0 inches below and ¼ inches above the required cross-sectional profile grade. To verify the surface tolerance a straight plane shall be established using a 10 foot straight edge or taught string line

placed perpendicular to the direction of travel and checked continuously along the length of the lane.

The Contractor shall correct defective areas by removing defective work and replacing it with new material as directed by the Department. The Contractor shall furnish a 10 foot straightedge for the Department’s use.

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

**401.13 Spreading and Finishing** On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the Contractor shall spread, rake, and lute the HMA with hand tools to provide the required compacted thickness. Release agents that dissolve or strip asphalts, including diesel fuel, will not be allowed. On roadways with adjoining lanes carrying traffic, the Contractor shall place each course per the conditions in Table 5, unless otherwise noted by the Department in Section 403 - Hot Mix Asphalt Pavement.

TABLE 5: PLACEMENT CONDITIONS FOR ADJOINING LANES

Depth (at centerline)	Placement Conditions
<b>Vertical Longitudinal Joint</b>	
¾” and less (incl. shim)	The Contractor may place the HMA course over the full single travel lane width for each production day.
1” to 1 ¼”	The Contractor may place the HMA course over the full single travel lane width for each production day and will be required to place a matching course of HMA over the adjacent section of travel lane before weekend or holiday suspension.
1 ½” to 2”	The Contractor may place the HMA course over the full single travel lane width for each production day and will be required to place a matching course of HMA over the adjacent section of travel lane before the end of the following calendar day.
Greater than 2”	The Contractor shall place each course over the full width of the traveled way section being paved that day.
<b>Notched-Wedge Longitudinal Joint</b>	
1 ½” to 2”	The Contractor may place the HMA course over the full single travel lane width for each production day and will be required to place a matching course of HMA over the adjacent section of travel lane before weekend or holiday suspension. A maximum unmatched centerline joint length of 0.5 miles will be permitted over the weekend.
Greater than 2”	The Contractor may place the HMA course over the full single travel lane width for each production day and will be required to place a matching course of HMA over the adjacent section of travel lane before the end of the following calendar day.

The Contractor shall place the specified course over the full width of the mainline traveled way being paved, regardless of use, depth, or longitudinal joint type prior to Memorial Day, July 4<sup>th</sup>, Labor Day, paving suspensions exceeding three days, or other dates as specified by special provision.

The Contractor shall install additional warning signage that clearly defines the centerline elevation differential hazard. Unless otherwise addressed in the contract, the Contractor shall install additional centerline delineation such as a double application of raised pavement markers at 100 foot intervals, or temporary painted line. For any exposed vertical edge between the shoulder and traveled way, at a minimum, the use of temporary painted line, or RPMs placed along the edge of traveled way at 200 foot intervals is required. The Traffic Control Plan shall be amended to include this option and the additional requirements. All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed prior to the work, at a maximum spacing of 0.50 mile for the entire length of effected roadway section. If this option is utilized, all additional signing, labor, traffic control devices, or incidentals will not be paid for directly, will be considered incidental to the appropriate 652 items.

401.14 Hot Mix Asphalt Placement on Bridge Decks Hot mix asphalt pavement placed on bridges shall also conform to Section 508.04 and the following requirements.

- a. The minimum production and placement temperature for the Hot Mix Asphalt placed over membrane shall conform to the manufacturer's recommendations.
- b. The bottom course shall be placed with an approved rubber mounted paver of such type and operated in such a manner that the membrane waterproofing will not be damaged in any way.
- c. The top course shall not be placed until the bottom course has cooled sufficiently to provide stability.
- d. The Contractor will not be required to cut sample cores from the compacted pavement on the bridge deck, unless otherwise directed by Special Provision.
- e. After the top course has been placed, the shoulder areas shall be sealed 3 ft wide with two applications of an emulsified bituminous sealer meeting the requirements of Section 612.03 – Sealing and Section 702.12 - Emulsified Bituminous Sealing Compound. The first application shall be pre-mixed with fine, sharp sand, similar to mortar sand, as needed to fill all voids in the mix in the area being sealed. The second application may be applied without sand. The sealer shall be carried to the curb at the gutter line in sufficient quantity to leave a bead or fillet of material at the face of the curb. The area to be sealed shall be clean, dry and the surface shall be at ambient temperature. The furnishing and applying of the required quantity of sealer for the bridge shoulder areas shall be incidental to placing the hot mix asphalt pavement.
- f. The area between the edge of the membrane and the vertical surface shall be completely sealed with hot-applied rubberized asphalt material, meeting the requirements of Type 4 crack seal; shall be applied to form a complete seal between the membrane and the vertical surface and shall extend up the vertical surface to within ½ inch of the top of the HMA wearing surface. This work shall be considered incidental to the contract pavement items unless 508 membrane items are included in the contract.

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

The Contractor shall roll the surface when the mixture is in the proper condition and when the rolling does not cause undue displacement, cracking, or shoving. The Contractor shall prevent adhesion of the HMA to the rollers or vibrating compactors without the use of fuel oil or other petroleum-based

release agents. Solvents designed to strip asphalt binders from aggregates will not be permitted as release agents on equipment, tools, or pavement surfaces.

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

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

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

For all items requiring pavement density testing, the Contractor shall cut 6-inch diameter cores at no additional cost to the Department by the end of the working day following paving. Cores shall be cut such that the nearest edge at least 9 inches from any joint. Pre-testing of the cores will not be allowed. If the Contractor and the Department mutually determine that a core is damaged, the Contractor shall cut new core(s) at the same offset and within 3 ft of the initial sample. The Contractor and the Department will mutually determine if underlying material is adhered to the core and if so will mark the core at the point where sawing is needed. The Department will place the cores in a secure container and the Contractor shall transport the cores to the designated MaineDOT lab. The cores will be saw cut by the Department to remove underlying layers. No recuts are allowed at a test location after the core has been tested.

On all sections of overlay with wearing courses designed to be 1 in or less in thickness, there shall be no pay adjustment for density otherwise noted in Section 403 - Hot Mix Asphalt Pavement. For overlays designed to be 1 in or less in thickness, density shall be obtained by the same rolling train and methods as used on mainline travelway surface courses with a pay adjustment for density, unless otherwise directed by the Department.

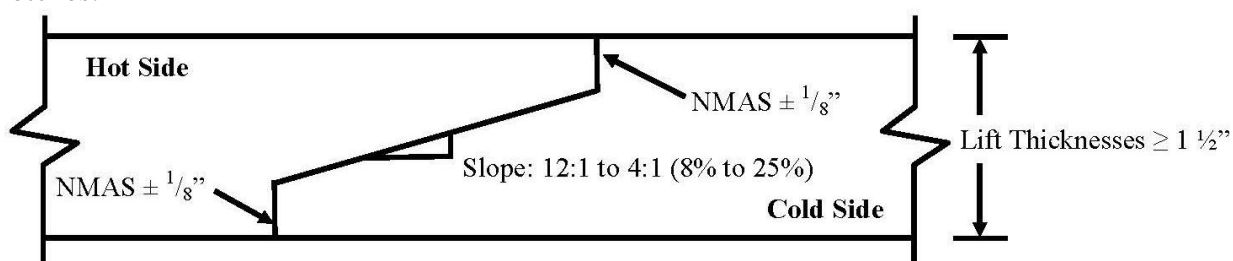
There shall be no pay adjustment for density on shoulders unless otherwise noted in Section 403 - Hot Mix Asphalt Pavement. Density for shoulders shall be obtained by the same rolling train and methods as used on mainline travelway, unless otherwise directed by the Department. Efforts to obtain optimum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

401.16 Joints The Contractor shall construct wearing course transverse and longitudinal joints in such a manner that minimum tolerances shown in Section 401.11 - Surface Tolerances are met when measured with a straightedge. The paver screed shall maintain a uniform head of HMA during transverse and longitudinal joint construction. The HMA shall be free of segregation and meet temperature requirements outlined in Section 401.04. Transverse joints of the wearing course shall

be straight and neatly trimmed. The Contractor may form a vertical face exposing the full depth of the course by inserting a header, by breaking the bond with the underlying course, or by cutting back with hand tools. The Contractor shall apply a coating of emulsified asphalt immediately before paving all joints to the vertical face and 3 in of the adjacent portion of any pavement being overlaid except those formed by pavers operating in echelon. The Contractor shall use an approved spray apparatus designed for covering a narrow surface. The Department may approve application by a brush for small surfaces, or in the event of a malfunction of the spray apparatus, but for a period of not more than one working day.

Where pavement under this contract joins an existing pavement, or when the Department directs, the Contractor shall cut the existing pavement along a smooth line, producing a neat, even, vertical joint. The Department will not permit broken or raveled edges. The cost of all work necessary for the preparation of joints is incidental to related contract pay items. Longitudinal joints shall be generally straight to the line of travel and constructed in a manner that best ensure joint integrity. Methods or activities that prove detrimental to the construction of straight, sound longitudinal joints will be discontinued.

The Contractor may utilize an approved notched wedge joint device on all HMA layers 1 ½ inches in depth or greater. A notched wedge joint shall be constructed as shown in Figure 1 using a device that is attached to the paver screed and is capable of independently adjusting the top and bottom vertical notches.



**FIGURE 1: Notched Wedge Joint**

Notes

1. An emulsified tack coat shall be applied to the vertical edges and the wedge surface so that the total rate is 0.05 G/SY plus the normal specified rate prior to placing the adjacent layer. The Contractor may elect to apply the emulsified tack coat in one or multiple passes.
2. Dimensions shown are compacted depths (after rolling is complete).

The Department reserves the right to have centerline cores cut by the Contractor's QC personnel for informational purposes to monitor the density along the joint. Informational cores at the centerline joint will be taken centered over the tapered part of the wedge joint.

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

The Contractor shall apply a coating of emulsified asphalt on the vertical and tapered surface of the longitudinal centerline joint immediately before paving if the notched wedge joint device is used.

The total rate of application shall be 0.050 G/SY plus the normal specified tack coat rate. The Contractor shall use an approved spray apparatus designed for covering a narrow surface. The Department may approve application by a brush for small surfaces.

401.17 Hot Mix Asphalt Documentation The Contractor and the Department shall agree on the amount of Hot Mix Asphalt Pavement that has been placed each day. All delivery slips shall conform to the requirements of 401.078.

401.18 Prepave Meeting Prior to placing any mix, the Department and the Contractor shall hold a Pre-paving conference to discuss the paving schedule, source of mix, type and amount of equipment to be used, sequence of paving pattern, rate of mix supply, random sampling, project lots and sublots and traffic control. A copy of the density QC random numbers to be used on the project shall be provided to the Resident. The Departments' random numbers for Acceptance testing shall be generated and on file with the Resident and the Project Manager. All personnel of the Department and the Contractor who have significant information relevant to the paving items shall attend, including the responsible onsite paving supervisor for the Contractor. The Resident will prepare minutes of the conference and distribute them to all attendees. Any requests to revise the minutes must be made to the Resident within 7 Days of Receipt. These minutes will constitute the final record of the Pre-paving conference. On the first day of paving and whenever there is a change in the onsite paving foreman or paving inspector, the Department and the Contractor shall hold an informal onsite meeting to review the minutes of the Pre-paving conference, Project Specific QCP, Plans, Typical, Special Provisions and communication process. This meeting shall be held prior to placing any mix. The onsite paving supervisor, QCT, Superintendent, Resident and/or paving inspector shall attend.

401.19 Contractor Quality Control – Method A, B, C & D

The Contractor shall operate in accordance with the approved Quality Control Plan (QCP) to assure a product meeting the contract requirements. The Contractor shall not begin paving operations until the Department approves the QCP in writing.

401.191 Quality Control The QCP shall meet the requirements of Section 106.6 - Acceptance and this Section. The QCP shall address any items that affect the quality of the Hot Mix Asphalt Pavement, and shall include the following personnel meeting these minimum requirements:

- a. QCP Administrator - The QCP Administrator must be a full-time employee of or a consultant engaged by the Contractor or paving subcontractor. The QCP Administrator shall have full authority to institute any and all actions necessary for the successful operation of the QCP. The QCP Administrator (or their designee in the QCP Administrator's absence) shall be available to communicate with the Department at all times.
  - For items accepted under Methods A and B, the QCP Administrator shall be certified as a Quality Assurance Technologist (QAT) by NETTCP.
  - For items accepted under Methods C and D, the QCP Administrator shall be certified by NETTCP as a Quality Assurance Technologist (QAT), Plant Technician, or Paving Inspector.
- b. Process Control Technician(s) (PCT) shall utilize test results and other quality control practices to assure the quality of aggregates and other mix components and control proportioning to meet the JMF(s). The PCT shall inspect all equipment used in mixing to assure it is operating

properly and that mixing conforms to the mix design(s) and other Contract requirements, and that delivery slips and plant recordation accurately reflects the mix being produced with all the required information. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one PCT is required. The Plan shall include the criteria to be utilized by the PCT to correct or reject unsatisfactory materials. The PCT shall be certified as a Plant Technician by the NETTCP.

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

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

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

a. General Requirements:

- Job Mix Formulas (JMFs)
- Name of QCP Administrator, and certification number
- Description of corrective action process
- Disposition of defective material
- A procedure to take immediate possession of acceptance samples once released by MaineDOT and deliver said samples to the designated acceptance laboratory.

b. Process Control Requirements: Each Hot Mix Asphalt plant shall have a Plant Specific Process Control Plan. At minimum the plan shall include:

- Name of Plant Specific Process Control Technician(s) and certification number(s)
- Hot mix asphalt plant details
- Stockpile Management
- Mixing & transportation
- Silo management and details
- A detailed description of RAP processing, stockpiling and introduction into the plant
- PG Binder management:
  - Tanks and storage (including polymer modified binders if applicable)
  - Binder temperature
  - Sample points
  - Method to ensure mixture contains the specified binder grade
  - Additive introduction details if introduced at the plant
- Testing and inspection plan for control of aggregates and RAP
- Mix Testing and inspection plan



c. Quality Control Requirements – Method A & B

- Name of Quality Control Technicians(s) and certification number(s)
- Laydown operations
- Longitudinal joint construction including the tacking of all joints.
- Procedures for avoiding paving in inclement weather
- Compaction of shoulders
- Methods to ensure that segregation is minimized
- Procedures to determine the maximum rolling and paving speeds based on best engineering practices and past experience in achieving acceptable pavement smoothness.
- Sequence for paving around drainage structures, under guard rail, around curb, at bridges, intersections, drives and minor approaches to ensure proper compaction, finish, and drainage.
- Type of release agent to be used on haul units, tools and rollers.

d. Quality Control Requirements – Method C and D

- Name of QCP Administrator and certification number(s) as specified in Section 401.19.
- Name of Process Control Technicians(s) and certification number(s).
- Name of Quality Control Technicians(s) and certification number(s).
- Anticipated Compaction Temperature Zones for each roller pass during placement.
- Mix TMD to be used for density gauge setting for method spec density work
- Procedures for avoiding paving in inclement weather.
- Type of release agent to be used on haul units, tools and rollers.
- A note stating that the use of petroleum-based fuel oils, such as diesel or kerosene, or asphalt stripping solvents will not be permitted.
- 

The Contractor shall also supply a Laydown Operation Plan that addresses sequence of work, layout of work, longitudinal joint construction, compaction of shoulders, methods to minimize segregation, and procedures to achieve acceptable pavement smoothness.

For each production day, a summary of each day's results, including a daily paving report, summarizing the mixture type, mixture temperature, equipment used, environmental conditions, and the number of roller passes, shall be recorded and signed by the QCT and presented to the Department's representative by 1 PM the following working day.

Unless otherwise noted in Section 403 - Hot Mix Asphalt Pavement, the Contractor shall submit a modified QC Plan detailing, how the mix is to be placed, what equipment is to be used, and what HMA plant is to be used for Items covered under the Plan. All mix designs (JMF) shall be approved and verified by MaineDOT prior to use.

A QCP, certified QC personnel, and a Prepave Meeting shall not be required for Item 403.209 - Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals) accepted under visual or Method D. An approved JMF shall be provided to the Resident prior to placement.

The Contractor shall certify the mix and the test results for each item by a Certificate of Compliance.

The Contractor shall have a testing lab at the plant site, equipped with all testing equipment necessary to complete the tests in Table 6. The Contractor shall generate QC sampling random numbers for each approved mix design. A copy of the random numbers shall be emailed to the QC.mainedot@maine.gov email address and remain on-file (in print) and be available for inspection at the QC laboratory. The Contractor shall sample, test, and evaluate Hot Mix Asphalt Pavement in accordance with the minimum frequencies per each approved mix design:

TABLE 6: MINIMUM QUALITY CONTROL FREQUENCIES

Test or Action	Frequency	Test Method
Temperature of mix	6 per day at street and plant	-
Temperature of mat	4 per day	-
%TMD (In-Place Density - Surface)	1 per 125 ton	AASHTO T 355 or AASHTO T 343
%TMD (In-Place Density - Base)	1 per 250 ton	AASHTO T 355 or AASHTO T 343
Fines / Effective Binder	1 per 500 ton	AASHTO T 312*
Gradation	1 per 500 ton	AASHTO T 30
PGAB Content	1 per 500 ton	AASHTO T 164 or AASHTO T 308
Voids at $N_{design}$	1 per 500 ton	AASHTO T 312*
VMA at $N_{design}$	1 per 500 ton	AASHTO T 312*
Rice Specific Gravity	1 per 500 ton	AASHTO T 209
Percent Fractured Particles	1 per 5,000 ton	AASHTO T 335
Flat and Elongated Particles	1 Per 5,000 ton	ASTM D4791
Fine Aggregate Angularity	1 Per 5,000 ton	AASHTO T 304

\*Method A and B only

The Contractor shall monitor plant production on each approved mix design using running average of three control charts as specified in Section 106 - Quality. Control limits shall be as noted in Table 7 below. The UCL and LCL, shall not exceed the allowable gradation control points for the particular type of mixture as outlined in Table 1 of Section 703.09.

TABLE 7: CONTROL LIMITS

Property	UCL and LCL
Percent Passing 4.75 mm and larger sieves	Target +/- 4.0
Percent Passing 2.36 mm sieve	Target +/- 2.5
Percent Passing 0.075 mm sieve	Target +/- 1.0
PGAB Content	Target +/- 0.25
VMA at $N_{design}$	LCL = LSL + 0.2
Voids at $N_{design}$	JMF Target +/- 1.2
Theoretical Maximum Specific Gravity	JMF Target +/- 0.020

The Contractor shall submit all QC test and inspection reports and updated control charts to the Resident and QC.mainedot@maine.gov by email. The reports and updated control charts shall be signed by the appropriate technician and be submitted to the Department by 1:00 P.M. on the next working day, except when otherwise noted in the QCP and approved by the Department.

The Contractor shall also retain splits of the previous 5 QC tests, with QC results enclosed for random selection and testing by the Department. Test results of splits that do not meet the Dispute Resolution

Variance Limits in Table 18 shall trigger an investigation by the MaineDOT Independent Assurance Unit and may result in that lab losing NETTCP certification and the ability to request a dispute [Section 401.50 - Process for Dispute Resolution].

The Contractor shall make density test results, including randomly sampled densities, available to the Department onsite. Summaries of each day's results, including a daily paving report summarizing the mixture type, mixture temperature, equipment used, environmental conditions, and the number of roller passes, shall be recorded and signed by the QCT and provided to the QC.mainedot@maine.gov email address and Resident in writing by 1:00 p.m. the next working day. The Contractor shall fill all holes in the pavement resulting from cutting cores by the Contractor or the Department with a properly compacted, acceptable mixture no later than the following working day. Before filling, the Contractor shall carefully clean the holes and apply a coating of emulsified asphalt. The Contractor may only cut additional cores for verification of the densometer, at a rate not to exceed 3 per day or 2 per 1000 ton placed.

If the Contractor's control chart shows the process for a given mix design to be out of control (defined as a single point outside of the control limits on the running average of three chart) on any property listed in Table 7: Control Limits, the Contractor shall notify the Resident of all affected projects in writing of the corrective action by 1:00 PM the next working day. The written description shall detail what action is being taken by the Contractor to bring the property in question back within control limits. Subsequent quality control results are expected to demonstrate an improvement and regression towards the aim. The Department reserves the right to take action, to include cessation of production, in the case of repeated results outside the Table 7 control chart control limits.

On a daily basis, or whenever equipment type or sequence is modified, the Contractor shall perform density testing across the mat being placed, prior to being compacted by equipment at 12 in intervals. If the density values vary by more than 2.0% from the mean, the Contractor shall make adjustments to the screed until the inconsistencies are remedied. Failure to replace or repair defective placement equipment may result in a letter of suspension of work and notification of a quality control violation resulting in possible monetary penalties as governed by Section 106 – Quality.

The Contractor shall cease paving operations whenever one of the following occurs:

- a. The quality level for density using all quality control tests for the current Lot is less than 60 PWL.
- b. The Coarse Aggregate Angularity or Fine Aggregate Angularity value falls below the requirements of Section 703.07, Table 3: Aggregate Consensus Properties Criteria for the design traffic level.
- c. The Flat and Elongated Particles value exceeds 10% by ASTM D4791.
- d. There is any visible damage to the aggregate due to over-densification other than on variable depth shim courses.
- e. The Contractor fails to follow the approved QCP.

The Contractor shall notify the Resident in writing as to the reason for shutdown, as well as the corrective action, by the end of the workday. Failure to do so will be treated as a second incident under 106.4.6 QCP Non-compliance. The Department will only allow the continuation of paving operations when it is satisfied the corrective action will result in an improvement in results. The Department may require the submittal of a passing verification sample to allow further production. The Department

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

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

401.192 Quality Control for Method D, (sidewalks, drives, islands & incidentals) and visual acceptance items

A QCP, certified QC personnel, or Prepave Meeting shall not be required for Item 403.209 - Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals) accepted under visual or Method D. An approved JMF shall be provided to the Resident prior to placement.

401.20 Acceptance Method A & C These methods utilize Quality Level Analysis and pay factor specifications. For Hot Mix Asphalt Pavement designated for acceptance under Quality Assurance provisions, the Department will sample once per subplot on a statistically random basis, test, and evaluate in accordance with the Acceptance Properties as outlined in Table 8:

TABLE 8: ACCEPTANCE PROPERTIES – METHOD A & C

<b>Properties</b>	<b>Point of Sampling</b>	<b>Test Method</b>
Gradation	Paver Hopper	AASHTO T 30
PGAB Content	Paver Hopper	AASHTO T 308
% TMD (In-Place Density)	Mat behind all Rollers	AASHTO T 269
Voids at $N_{design}$	Paver Hopper	AASHTO T 312
VMA at $N_{design}$	Paver Hopper	AASHTO T 312
Fines to Effective Binder	Paver Hopper	AASHTO T 312
VFB	Paver Hopper	AASHTO T 312

The Department will obtain samples of Hot Mix Asphalt Pavement in conformance with AASHTO R 97, Sampling Asphalt Mixtures, and the MaineDOT Policies and Procedures for HMA Sampling and Testing. The Contractor shall transport the samples in containers provided by the Department to the designated MaineDOT Laboratory within 48 hours except when otherwise noted in the project specific QCP or as directed by the Resident. Failure to deliver an acceptance sample to the designated acceptance laboratory will be considered the second incident under 106.4.6–QCP Non-Compliance.

Target values shall be as specified in the JMF. The Department will withhold reporting of the test results for the Acceptance sample until 7:00 AM, on the second working day of receipt of the sample, or after receipt of the Contractors results of the Acceptance sample split. Upon conclusion of each lot being evaluated under quality level analysis, where there is a minimum of four sublots, results shall be examined for statistical outliers, as stated in Section 106.7.2 - Statistical Outliers.

Lot sizes and subplot sizes shall be determined as outlined in Table 9.

TABLE 9: LOT AND SUBLOT SIZES – METHOD A & C

Lot Size*	Entire production per item per contract up to 6000 ton
Maximum Sublot Size – Mix	750 ton
Maximum Sublot Size – Density	Surface Layers – 250 ton Base / Intermediate Layers – 500 ton
Minimum Number of Samples – Mix	Four
Minimum Number of Samples – Density	Five

\*Unless otherwise agreed upon at the Prepave Meeting

If there is less than one-half of a subplot remaining at the end, then it shall be combined with the previous subplot. If there is more than one-half subplot remaining at the end, then it shall constitute the last subplot

and shall be represented by test results. If it becomes apparent partway through a Lot that, due to an underrun, there will be insufficient mix quantity to obtain the minimum number of sublots needed, the Resident may adjust the size of the remaining sublots and select new sample locations based on the estimated quantity of material remaining in the Lot. Unanticipated over-runs of up to 1500 ton shall be rolled into the last lot. Cases where the lot is terminated prior to reaching completion shall be handled in accordance with Section 106.7.3 Early Termination of Lots. In cases where density incentive/disincentive provision apply, additional cores shall be taken to attain a minimum of three for the Lot.

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

TABLE 10: ACCEPTANCE LIMITS – METHOD A & C

Property	USL and LSL	
	Method A	Method C
Percent Passing 4.75 mm and larger sieves	Target +/- 7%	Target +/- 7%
Percent Passing 2.36 mm to 1.18 mm sieves	Target +/- 4%	Target +/- 5%
Percent Passing 0.60 mm sieve	Target +/- 3%	Target +/- 4%
Percent Passing 0.30 mm to 0.075 mm sieve	Target +/- 2%	Target +/- 2%
PGAB Content	Target +/- 0.4%	Target +/- 0.4%
Voids at $N_{design}$	4.0% +/- 1.5%	N/A
Fines to Effective Binder	0.9 +/- 0.3	N/A
VMA at $N_{design}$	LSL from Table 1	N/A
VFB	Table 1 plus a 4% production tolerance for USL	N/A
% TMD (In-place Density)	94.5% +/- 2.5%	94.5% +/- 2.5%

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

TABLE 11: CEASE PRODUCTION – METHOD A & C

Property	Percent Within Limits (PWL)	
	Method A	Method C
Percent Passing NMAS sieve*	<60 PWL	<60 PWL
Percent Passing 2.36 mm sieve*		
Percent Passing 0.30 mm sieve*		
Percent Passing 0.075 mm sieve*		
PGAB Content		
Voids at N <sub>design</sub>		N/A
Fines to Effective Binder*		
VMA at N <sub>design</sub>		
VFB		
% TMD (In-place Density)		

\*Paving operations shall not be required to cease if the mean test value is equal to the LSL or USL and  $s = 0$ .

In cases where the Contractor is to cease paving operations based upon an Acceptance result or payfactor, the Contractor will submit a corrective action plan to the Department. The Department will only allow the continuation of paving operations when it is satisfied the corrective action will result in an improvement in results. The Department may require the submittal of a passing verification sample to allow further production.

401.201 Pay Adjustment - Method A & C The Department will use the following criteria for pay adjustment at the completion of the Lot using the pay adjustment factors under Section 106.7 - Quality Level Analysis:

Density Upon conclusion of each lot, density results shall be examined for statistical outliers as stated in Section 106.7.2. If the pay factor for Density falls below 0.80, all of the cores will be randomly re-cut by Sublot. A new pay factor will be calculated that combines all initial and retest results. If the resulting pay factor is below 0.80, the entire Lot shall be removed and replaced with material meeting the specifications at no additional cost to the Department, except that the Department may, when it appears that there is a distinct pattern of defective material, isolate any defective material by investigating each mix sample sublot and require removal of defective mix sample sublots only, leaving any acceptable material in place if it is found to be free of defective material. Pay factors equal to or greater than the reject level will be paid accordingly.

Mix Properties The Department will determine a pay factor (PF) using the applicable Acceptance Limits. If all three pay factors for PGAB Content, VMA at N<sub>design</sub>, and Voids at N<sub>design</sub> fall below 0.80 for Method A, then the composite pay factor for PGAB Content, VMA at N<sub>design</sub>, and Voids at N<sub>design</sub> shall be 0.50.

The following variables will be used for pay adjustment:

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

The Department will determine a pay adjustment using Table 12: Pay Adjustment Calculations as follows:

TABLE 12: PAY ADJUSTMENT CALCULATIONS – METHOD A & C

Acceptance Method	Mix Properties / Gradation	Density
Method A	$PA = (\text{Voids @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{VMA @ } N_d - 1.0)(Q)(P) \times 0.20 + (\text{PGAB Content PF} - 1.0)(Q)(P) \times 0.10$	$PA = (\text{density PF} - 1.0)(Q)(P) \times 0.50$
Method C	$PA = (\% \text{ Passing Nom. Max PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 2.36 mm PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 0.30 mm PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 0.075 mm PF} - 1.0)(Q)(P) \times 0.10 + (\text{PGAB Content PF} - 1.0)(Q)(P) \times 0.25$	$PA = (\text{density PF} - 1.0)(Q)(P) \times 0.50$

In addition, for 9.5 mm NMA mixtures the following pay adjustment shall also apply:

The average percent passing for the 0.075 mm sieve shall be evaluated for each Lot. If the average is greater than 6.5%, a pay adjustment according to Table 13 below shall apply in addition to the other pay adjustments for the given method of testing.

TABLE 13: 0.075 MM SIEVE PAY ADJUSTMENT

Average Percent Passing 0.075 mm Sieve	Pay Adjustment
6.6% - 7.0%	-5%
> 7.0%	-10%

The Department shall notify the Contractor whenever the average of at least three samples in a given Lot is greater than 6.5%.

401.21 Acceptance Method B & D Unless otherwise stated in the 403 special provision, the Lot shall be the entire mix quantity per item per contract. The Department will sample once per subplot per pay item on a statistically random basis, test, and evaluate in accordance with the Acceptance Properties in Table 14. The Department will obtain samples of Hot Mix Asphalt Pavement in conformance with AASHTO R 97, Sampling Asphalt Mixtures, and the MaineDOT Policies and Procedures for HMA Sampling and Testing. The Contractor shall transport the samples in containers provided by the Department to the designated MaineDOT Laboratory within 48 hours except when otherwise noted in the project specific QCP or as directed by the Resident. Failure to deliver an acceptance sample to the designated acceptance laboratory will be considered the second incident under 106.4.6–QCP Non-Compliance. Target values shall be as specified in the JMF. The Department will withhold reporting of the test results for the Acceptance sample until 7:00 AM, on the second working day of receipt of the sample, or after receipt of the Contractors results of the Acceptance sample split.

TABLE 14: ACCEPTANCE PROPERTIES – METHOD B &amp; D

Properties	Point of Sampling		Test Method
	Method B	Method D	
Gradation	Paver Hopper	Paver Hopper or Truck	AASHTO T 30
PGAB Content	Paver Hopper	Paver Hopper or Truck	AASHTO T 308
% TMD (In-Place Density)	Mat behind all Rollers	Mat behind all Rollers	AASHTO T 269
Voids at $N_{design}$	Paver Hopper	N/A	AASHTO T 312
VMA at $N_{design}$	Paver Hopper	N/A	AASHTO T 312
Fines to Effective Binder	Paver Hopper	N/A	AASHTO T 312
VFB	Paver Hopper	N/A	AASHTO T 312

TABLE 15: LOT AND SUBLOT SIZES – METHOD B &amp; D

Lot Size*	Entire mix quantity per item per contract	
	(Lot size $\leq$ 1000 tons)	(Lot size $>$ 1000 tons)
Maximum Sublot Size – Mix	250 ton	750 ton
Sublot Size – Density	125 ton (Max 5 Sublots)	250 ton

\*General – Lot and Sublot size may be adjusted to accommodate the work scope and schedule, or as otherwise agreed upon at the Prepave Meeting

TABLE 16: ACCEPTANCE LIMITS – METHOD B &amp; D

Property	USL and LSL	
	Method B	Method D
Percent Passing 4.75 mm and larger	Target +/- 7%	Target +/- 7%
Percent Passing 2.36 mm sieve	Target +/- 5%	Target +/- 7%
Percent Passing 1.18 mm sieve	Target +/- 5%	Target +/- 5%
Percent Passing 0.60 mm sieve	Target +/- 4%	Target +/- 4%
Percent Passing 0.30 mm sieve	Target +/- 3%	Target +/- 3%
Percent Passing 0.075 mm sieve	Target +/- 3%	Target +/- 3%
PGAB Content	Target +/- 0.5%	Target +/- 0.5%
Voids at $N_{design}$	4.0% +/- 2.0%	N/A
Fines to Effective Binder	0.9 +/- 0.3	N/A
VMA at $N_{design}$	LSL from Table 1	N/A
VFB	Table 1 plus a 4% production tolerance for USL	N/A
% TMD (In-place Density)	94.5% +/- 2.5%	LSL of 92.0%

The Contractor shall cease paving operations whenever two consecutive Method B or D tests fall outside specification limits on the same property. The Contractor will submit a corrective action plan to the Department. The Department will only allow the continuation of paving operations when it is satisfied the corrective action will result in an improvement in results. The Department may require the submittal of a passing verification sample to allow further production.



**401.211 Pay Adjustment - Method B & D** For items accepted under Method B or D, if the mix is within the tolerances listed in Table 16, the Department will pay the contract unit price, otherwise pay adjustments as shown in Table 17 shall be applied to the quantity of mix represented by the test. The Contractor shall cut one 6 in core per subplot unless otherwise noted in Section 403 - Hot Mix Asphalt Pavement. If the density result is not within the specified limits the disincentive shall apply. If the subplot density is less than 88.5 percent or greater than 99.0 percent of the subplot TMD, two additional cores shall be cut at random locations determined by the Department. If either of the additional cores has a density less than 88.5 percent or greater than 99.0 percent of the subplot TMD, the subplot shall be removed and replaced at no cost to the Department; otherwise, the average of the three cores will be used to determine the subplot pay adjustment.

TABLE 17: PAY ADJUSTMENTS – METHOD B & D

Property	Method B		Method D	
Percent Passing 2.36 mm sieve	N/A		-2.0%	
Percent Passing 0.30 mm sieve	N/A		-1.0%	
Percent Passing 0.075 mm sieve	-2.0%		-2.0%	
PGAB Content	-5.0%		-5.0%	
Voids at N <sub>design</sub>	-3.0%		N/A	
% TMD (In-place Density)	91.5% - 91.9% or 97.1% - 97.5%	-5.0%	91.5% - 91.9%	-5.0%
	90.5% - 91.4% or 97.6% - 98.5%	-10.0%	90.5% - 91.4%	-10.0%
	89.5% - 90.4% or 98.6% - 99.0%	-20.0%	89.5% - 90.4%	-20.0%
	88.5% - 89.4%	-30.0%	88.5% - 89.4%	-30.0%
	<88.5% or >99.0%	Reject	<88.5% or >99.0%	Reject

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

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

The Department will pay for the work specified in Section 401.12, for the HMA used, except that cleaning objectionable material from the pavement and furnishing and applying bituminous material to joints and contact surfaces is incidental. Payment for this work under the appropriate pay items shall be full compensation for all labor, equipment, materials, and incidentals necessary to meet all related contract requirements, including design of the JMF, implementation of the QCP, obtaining core samples, transporting cores and samples, filling core holes, applying emulsified asphalt to joints, and providing testing facilities and equipment. The Department will make a pay adjustment for quality as specified in Section 401.20 Acceptance Method A & B or 401.21 Acceptance Method C & D.

**401.50 Process for Dispute Resolution** At the time of Hot-Mix Asphalt sampling, the Department will obtain a split sample of each Acceptance test random sample for possible dispute resolution testing. The Contractor shall also obtain a split sample of the HMA at this same time. If the

Contractor wishes to retain the option of requesting dispute testing of the initial Acceptance sample, the Contractor will test their split of the Acceptance sample in accordance with applicable AASHTO procedure and accepted supplemental practice as described in the Department's HMA Sampling and Testing Policies and Procedures manual. The Contractor shall report their results to the Resident, with a copy to Contractor.mainedot@maine.gov by 7:00 AM, on the second working day from time of QA sampling, otherwise dispute resolution will not be initiated. The Department's dispute resolution split sample will be properly labeled and stored for a period of at least two weeks after it has been reported, or until the sample is tested. The properties eligible for dispute and the respective variances are shown in Table 18.

The Contractor may dispute the Department's Acceptance results and request that the dispute resolution split sample be tested by notifying the Department's Resident and QA Engineer in writing within two working days after the results of the Acceptance test are reported. The following shall be provided in the request:

- Acceptance sample reference number
- The specific test result(s) or property(ies) being disputed, and
- The complete, signed report of the Contractor's testing (In a lab certified by the NETTCP and MaineDOT) of their split of the Acceptance sample indicating that the variances in Table 18 for the specific test result(s) or property(ies) were exceeded.

TABLE 18: DISPUTE RESOLUTION VARIANCE LIMITS

Property	Method A & B	Method C & D*	Variance Limits
PGAB Content	Yes	Yes	+/- 0.4%
$G_{mb}$	Yes	No	+/- 0.030
$G_{mm}$	Yes	No	+/- 0.020
Voids at $N_{design}$	Only if $G_{mb}$ or $G_{mm}$ is not disputable	No	+/- 0.8%
VMA at $N_{design}$	Only if $G_{mb}$ or $G_{mm}$ is not disputable	No	+/- 0.8%
Percent Passing 4.75 mm and larger sieves	No	Yes	+/- 4.0%
Percent Passing 2.36 mm to 0.60 mm sieves	No	Yes	+/- 3.0%
Percent Passing 0.30 mm to 0.15 mm sieves	No	Yes	+/- 2.0 %
0.075 mm sieve	Only for 9.5 mm NMA mixes	Yes	+/- 0.8%

\*Disputes will not be allowed on Item 403.209

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

SECTION 402 - PAVEMENT SMOOTHNESS

402.00 Smoothness Projects Projects to have their pavement smoothness analyzed in accordance with this Specification will be so noted in Special Provision 403 - Hot Mix Asphalt Pavement.

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

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

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

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

Each lot shall have 2 measurements made in each wheel path. The average of the 4 measurements will determine the smoothness for that lot. The smoothness measurements will be statistically evaluated for pay factors as described in Subsection 106.7 - Quality Level Analysis, using the specification limits shown below.

TABLE 1: ACCEPTANCE LIMITS

Level	USL
I	55 in/mile
II	65 in/mile
III	75 in/mile

Computation of Smoothness Pay Adjustment:

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

where:

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

PF = smoothness pay factor for the Lot

P = Contract unit price for surface pavement

PA = pay adjustment

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

Localized surface tolerance defects will be subject to the provisions outlined in Section 401.11 Surface Tolerances.

Payment will be made under:

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

### SECTION 403 - HOT MIX ASPHALT PAVEMENT

403.01 Description This work shall consist of constructing one or more courses of Hot Mix Asphalt pavement on an approved base in accordance with these specifications, and in reasonably close conformity with the lines, grades, thickness and typical cross sections shown on the plans or established. The HMA pavement shall be composed of a mixture of aggregate, filler if required, and asphalt material.

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

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

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

403.05 Basis of Payment The accepted quantities of hot mix asphalt pavement will be paid for at the contract unit price per ton for the mixtures, including hot mix asphalt material complete in place. Method A, Method B, Method C and Method D shall be used for acceptance as specified in Section 401 - Hot Mix Asphalt Pavements. (See Complementary Notes, Section 403 - Hot Mix Asphalt Pavement, for Method location).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
403.102 Hot Mix Asphalt Pavement for Special Areas	Ton
403.206 Hot Mix Asphalt, 25 mm Nominal Maximum Size	Ton
403.207 Hot Mix Asphalt, 19.0 mm Nominal Maximum Size	Ton
403.2071 Hot Mix Asphalt, 19.0 mm Nominal Maximum Size (Polymer Modified)	Ton
403.2072 Asphalt Rich Hot Mix Asphalt, 19.0 mm Nominal Maximum Size (Asphalt Rich Base and Intermediate course)	Ton
403.208 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	Ton
403.2081 Hot Mix Asphalt - 12.5 mm Nominal Maximum Size (Polymer Modified)	Ton
403.209 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Sidewalks, Drives, Islands & Incidentals)	Ton
403.210 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	Ton
403.2101 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Polymer Modified)	Ton
403.2104 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Thin Lift Surface Treatment)	Ton
403.211 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming)	Ton
403.2111 Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming, Polymer Modified))	Ton
403.212 Hot Mix Asphalt, 4.75 mm Nominal Maximum Size	Ton
403.213 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course)	Ton
403.2131 Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course, Polymer Modified)	Ton
403.2132 Asphalt Rich Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course)	Ton
403.214 Hot Mix Asphalt, 4.75 Nominal Maximum Size (5/8" Surface Treatment)	Ton

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

Desc. Of Course	Grad Design.	Item Number	Total Thick	No. Of Layers	Comp. Notes
<b><u>6" – State Route 27 Travel Way &amp; Shoulders – Full Depth Construction</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,10
Base	12.5 mm	403.2131	1½"	1	2,4,10
Base	12.5 mm	403.213	3"	2	4,10,54
<b><u>3" – State Route 27 Travel Way, Shoulders, Guardrail Flareouts &amp; Widening</u></b>					
<b><u>- Mill &amp; Overlay</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,10
Base	12.5 mm	403.2131	1½"	1	2,4,10
<b><u>3" – Temporary Pavement</u></b>					
Temp.	12.5mm	461.131	3"	2	24

**COMPLEMENTARY NOTES**

2. The required PGAB shall be a storage-stable, homogeneous, polymer modified asphalt binder that meets **PG 64E-28** grading requirements in AASHTO M 332. All polymer modified asphalt grades utilized on the Project shall be treated with an approved liquid anti-strip. PG binders shall be treated either at the asphalt source terminal with the required dose rate on the delivery documentation, or at the hot mix asphalt plant utilizing a system integrated with the plants controls that will introduce a minimum 0.50 percent anti-strip by weight of asphalt binder used unless a rate is otherwise recommended by the anti-strip manufacturer. The PGAB and anti-strip blend shall meet the **PG 64E-28** requirements. The Contractor shall provide supporting test data showing the PGAB and anti-strip blend meet the required criteria.
4. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**.
10. Section 106.6 Acceptance, (2) **Method D** as specified Section 401.21 - Quality Assurance Methods C and D.
24. See Special Provision 461 – Temporary Pavement for project specifics.
54. A mixture meeting the gradation of 19.0 mm hot mix asphalt may be used at the option of the contractor.

Tack Coat

A tack coat of emulsified asphalt, RS-1, RS-1h, CRS-1 or CRS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd<sup>2</sup>, and on milled pavement approximately 0.05 gal/yd<sup>2</sup> prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd<sup>2</sup>. Tack used will be **paid for at the contract unit price** for Item 409.15 Bituminous Tack Coat.

**SPECIAL PROVISION**

**SECTION 403**

**HOT MIX ASPHALT PAVEMENT**

Desc. Of Course	Grad Design.	Item Number	Total Thick	No. Of Layers	Comp. Notes
<b><u>5" – State Route 2/17 Travel Way, Shoulders &amp; Widening</u></b>					
<b><u>Full Depth Construction</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,8
Base	12.5 mm	403.2131	1½"	1	2,4,8
Base	12.5 mm	403.213	2"	1	4,8
<b><u>3" – State Route 2/17 Travel Way &amp; Shoulders - Mill &amp; Overlay</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,8
Base	12.5 mm	403.2131	1½"	1	2,4,8

**COMPLEMENTARY NOTES**

2. The required PGAB shall be a storage-stable, homogeneous, polymer modified asphalt binder that meets **PG 64E-28** grading requirements in AASHTO M 332. All polymer modified asphalt grades utilized on the Project shall be treated with an approved liquid anti-strip. PG binders shall be treated either at the asphalt source terminal with the required dose rate on the delivery documentation, or at the hot mix asphalt plant utilizing a system integrated with the plants controls that will introduce a minimum 0.50 percent anti-strip by weight of asphalt binder used unless a rate is otherwise recommended by the anti-strip manufacturer. The PGAB and anti-strip blend shall meet the **PG 64E-28** requirements. The Contractor shall provide supporting test data showing the PGAB and anti-strip blend meet the required criteria.
4. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**.
8. Section 106.6 Acceptance, (2) **Method B** as specified Section 401.20 - Quality Assurance Methods A and B.

**Tack Coat**

A tack coat of emulsified asphalt, RS-1, RS-1h, CRS-1 or CRS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd<sup>2</sup>, and on milled pavement approximately 0.05 gal/yd<sup>2</sup> prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd<sup>2</sup>. Tack used will be **paid for at the contract unit price** for Item 409.15 Bituminous Tack Coat.

**SPECIAL PROVISION**

**SECTION 403**

**HOT MIX ASPHALT PAVEMENT**

Desc. Of Course	Grad Design.	Item Number	Total Thick	No. Of Layers	Comp. Notes
<b><u>3" – Farmington Falls Bridge Deck</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,8,21,30
Base	12.5 mm	403.2131	1½"	1	2,4,8,21,30
<b><u>8" – State Route 41/156 Travel Way – Full Depth Construction</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,8,21
Base	12.5 mm	403.2131	1½"	1	2,4,8,21
Base	12.5 mm	403.213	5"	2/more	4,8
<b><u>5" – State Route 41/156 Shoulders, Guardrail Flareouts &amp; Widening</u></b>					
<b><u>Full Depth Construction</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,8,21
Base	12.5 mm	403.2131	1½"	1	2,4,8,21
Base	12.5 mm	403.213	2"	1	4,8
<b><u>5" – State Route 41/156 Travel Way, Shoulders, Guardrail Flareouts &amp; Widening -</u></b>					
<b><u>Mill &amp; Overlay</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,8,21
Base	12.5 mm	403.2131	1½"	1	2,4,8,21
Base	12.5 mm	403.213	2"	1	4,8
<b><u>4" – Webber Rd. Travel Way &amp; Shoulders</u></b>					
Wearing	12.5 mm	403.2081	1½"	1	2,4,8,21
Base	12.5 mm	403.2131	2½"	1	2,4,8,21
<b><u>2" – Drives, Sidewalks and Incidentals</u></b>					
Wearing	9.5 mm	403.209	2"	2/more	3,20,30
<b><u>3" – Temporary Pavement</u></b>					
Temp.	12.5mm	461.131	3"	2	24

**COMPLEMENTARY NOTES**

2. The required PGAB shall be a storage-stable, homogeneous, polymer modified asphalt binder that meets **PG 64E-28** grading requirements in AASHTO M 332. All polymer modified asphalt grades utilized on the Project shall be treated with an approved liquid anti-strip. PG binders shall be treated either at the asphalt source terminal with the required dose rate on the delivery documentation, or at the hot mix asphalt plant utilizing a system integrated with the plants controls that will introduce a minimum 0.50 percent anti-strip by weight of asphalt binder used unless a rate is otherwise recommended by the anti-strip manufacturer. The PGAB and anti-strip blend shall meet the **PG 64E-28** requirements. The Contractor shall provide supporting test data showing the PGAB and anti-strip blend meet the required criteria.
3. The design traffic level for mix placed shall be <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**.



4. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**.
8. Section 106.6 Acceptance, (2) **Method B** as specified Section 401.20 - Quality Assurance Methods A and B.
20. The combined aggregate gradation required for this item shall be classified as a 9.5mm Thin Lift Mixture (TLM) mixture, using the Aggregate Gradation Control Points as defined in 703.09.
21. The combined aggregate gradation required for this item shall be classified as a 12.5mm “**fine graded**” mixture, (using the Primary Control Sieve control point) as defined in 703.09.
24. See Special Provision 461 – Temporary Pavement for project specifics.
30. The incentive/disincentive provisions for density shall not apply. Rollers shall meet the requirements of this special provision. The use of an oscillating steel roller shall be required to compact all mixtures pavements placed on bridge decks.

#### Tack Coat

A tack coat of emulsified asphalt, RS-1, RS-1h, CRS-1 or CRS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd<sup>2</sup>, and on milled pavement approximately 0.05 gal/yd<sup>2</sup> prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd<sup>2</sup>. Tack used will be **paid for at the contract unit price** for Item 409.15 Bituminous Tack Coat.

SPECIAL PROVISION  
SECTION 461  
LIGHT CAPITAL PAVEMENT  
(Temporary Pavement)

Description:

This work shall consist of furnishing all labor, materials and equipment, for the manufacturing, installation and removal of all Temporary Pavement in accordance with these specifications, Special Provision 403 Hot Mix Asphalt, and the Plans. Temporary pavement shall meet all mix design requirements of a 12.5 mm surface mix for the top 1½ inches, and a 12.5 mm base mix for the remaining 1½ inches.

Method of Measurement:

This work will be measured for payment by the Ton, complete in place and accepted.

Basis of Payment:

The work shall be paid for at the contract Ton price for the manufacturing, installation and removal of all Temporary Pavement.

Payment will be made under:

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

SPECIAL PROVISION  
SECTION 461  
LIGHT CAPITAL PAVEMENT  
(Temporary Pavement)

Description:

This work shall consist of furnishing all labor, materials and equipment, for the manufacturing, installation and removal of all Temporary Pavement in accordance with these specifications, Special Provision 403 Hot Mix Asphalt, and the Plans. Temporary pavement shall meet all mix design requirements of a 12.5 mm surface mix for the top 1½ inches, and a 12.5 mm base mix for the remaining 1½ inches.

Method of Measurement:

This work will be measured for payment by the Ton, complete in place and accepted.

Basis of Payment:

The work shall be paid for at the contract Ton price for the manufacturing, installation and removal of all Temporary Pavement.

Payment will be made under:

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

**SPECIAL PROVISION**  
**SECTION 502**  
**STRUCTURAL CONCRETE**  
(Fiber Reinforced Polymer Bridge Drains)

Description

This work shall consist of design, fabrication and delivery of bridge drains using FRP (Fiber Reinforced Polymer) composite materials in accordance with the plans and this specification.

Applicable Standards and References

The design and construction of FRP composite bridge drain components shall be in accordance with this Methods Specification and the relevant requirements of the following standards and specifications, unless otherwise stipulated in this specification. Standards and specifications specifically cited in the body of the specification establish requirements that shall have precedence over all others. Should the requirements in any reference conflict with those in another, the reference highest on the list shall govern. It is the Contractor's responsibility to obtain clarification of any unresolved ambiguity prior to proceeding with the design or construction.

Specifications

Work shall be done in general accordance with the following specifications:

- a. AASHTO LRFD Guide Specifications for Design of Concrete-Filled FRP Tubes for Flexural and Axial Members, 2012.
- b. American Composites Manufacturing Association, ACMA Code of Standard Practice, First Edition, 2011.
- c. ISO/IEC Guide 58, Calibration and Testing Laboratory Accreditation Systems - General Requirements for Operation and Recognition.
- d. ISO/IEC 17025 General Requirements for the Competence of testing and Calibration Laboratories.
- e. NBS Voluntary Product Standard PS15-69. Custom Contact-Mold Reinforced Polyester Chemical-Resistant Process Equipment. The Society of the Plastics Industry, Inc., 355 Lexington Ave., N.Y., N.Y. 10017

**2.3 Standards**

- A.) ASTM D 2584. *Standard Test Method for Ignition Loss of Cured Reinforced Resins*. American Society for Testing and Materials, West Conshohocken, PA.
- B.) ASTM D 3039. *Standard Test Method for Tensile Properties of Polymer Matrix Composite Materials*. American Society for Testing and Materials, West Conshohocken, PA.

- C.) ASTM D 3171. *Standard Test Methods for Constituent Content of Composite Materials*. American Society for Testing and Materials, West Conshohocken, PA.
- D.) ASTM D 4385. *Standard Practice for Classifying Visual Defects in Thermosetting Reinforced Plastic Pultruded Products*. American Society for Testing and Materials, West Conshohocken, PA.
- E.) ASTM D 570. *Test Method for Water Absorption of Plastics*. American Society for Testing and Materials, West Conshohocken, PA.
- F.) ASTM E 1356. *Standard Test Method for Assignment of the Glass Transition Temperatures by Differential Scanning Calorimetry*. American Society for Testing and Materials, West Conshohocken, PA.
- G.) ASTM E 1640. *Standard Test Method for Assignment of the Glass Transition Temperature by Dynamic Mechanical Analysis*. American Society for Testing and Materials, West Conshohocken, PA.
- H.) ASTM C 582. *Standard Specification for Contact-Mold Reinforced Thermosetting Plastic (RTP) Laminates for Corrosion-Resistant Equipment*. American Society for Testing and Materials, West Conshohocken, PA.

#### Material

Materials shall conform to the following requirements:

1. FRP composite drain and pipe material shall meet the requirements of Appendix A.
2. All material and workmanship will meet or exceed the requirements of ASTM.

#### Construction Requirements

##### FRP DRAIN MANUFACTURERS

The FRP bridge drains shall be supplied by one of the following companies:

1. Kenway Corporation
2. FRP Bridge Drain Pipe - Westfall Company
3. ACO USA

The above suppliers have been pre-certified by providing materials samples that have been tested in accordance with Appendix A. Other suppliers/manufacturers may become certified if FRP bridge drain samples are tested in accordance with the requirements in Appendix A along with the meeting the following requirements.

All manufactures or fabricators of FRP bridge drain systems/components are required to have a minimum of 3 years of experience in providing FRP composite structural grade products to the general market. Manufacturers need to provide documentation that personnel involved in manufacture/fabrication hold and maintain American Composites Manufactures Association (ACMA) certifications in a minimum of two of the following disciplines; 1) Open Molding, 2) Corrosion, 3) Vacuum Infusion, 4) Closed Molding and that the Manufacturer/Fabricator have an ISO 9001:(current year) or other independent certification to ensure that the Manufacturer's process has been independently audited for conformance.

### Design Guide for FRP Composite Scupper Bodies/Drain Inlets

#### General

The bridge shall use a size G offset FRP composite scupper (42 inch long x 12 inch wide x 12 inch diameter downspout). See Appendix B for additional details. The bottom of the downspout shall extend a minimum of 12 inches below the bottom of the beams. For bridge decks with integral concrete wearing surface, the drain pan depth shall be reduced to provide adequate concrete cover.

#### Deck/interface drain holes.

For bridge decks with pavement and waterproofing membrane, drain holes are required on both sides of the scupper to capture moisture at the interface between the top of the deck and bottom of the asphalt pavement. Three holes one half inch in diameter spaced at 6 inches on center and three and one quarter inches on center below the top of the grate, or pavement thickness, shall be placed on both sides of the scupper. If the holes are created after the molding process by punching, drilling or other mechanical means, the holes shall be sealed using a compatible epoxy compound.

#### Grates

Grates shall be bicycle friendly and designed for HL-93 Live Load unless otherwise specified. Any gaps in grates shall have a maximum clear width of two inches. The minimum clear opening size in any grating shall be 1 1/8" by 1 1/8". Grates shall be stainless steel (ASTM A995) or FRP specifically designed and meeting the HL-93 Live Load requirements.

- Steel grating shall be commercial heavy - duty grating with 1 1/2" x 5/16" bearing bars spaced at 2 3/8" and 3/8" diameter cross bars spaced at 2". The grating shall be centered in the drain top. The bearing bars shall run parallel to traffic.
- FRP grating if used shall provide an opening area at least 75% of steel grating noted above. FRP gratings that do not meet this requirement are not acceptable and shall not be used.

Grates shall be designed so that they can be removed by mechanical means. Fasteners for grates shall be stainless. Where selected grates require orientation to flow, the grates will have orienting

features included as required, i.e. for orders of paired drains one drain would have left hand orientation and the other right hand orientation.

#### Grate Frames

Grate frames may be either integrated FRP composite or of galvanized steel construction attached to the scupper/inlet body in a matter consistent with the physical design parameters.

#### Anchoring provisions

Scupper/inlet anchoring shall be bonded to the grate framing in a manner that provides a load path into the concrete decking. Anchor details to be specified as part of the shop drawings for the bridge drains and be a non-corrosive material.

#### Cross and Longitudinal Slope Compensation

The scupper/inlet designs shall provide a means to match the grate to the deck angles while maintaining the downspout in a plumb orientation. If purchased in pairs, one left handed version will be required for each right handed version. This may be achieved when a down spout portion is bonded to the scupper body, through the frame attachment to the scupper body.

#### FRP Composite Drain Sections

Bridge deck downspouts, bridge drain deck extensions, elbows and pipe for under drains shall be constructed using a circular cross section; however other cross sections are allowed with approval of the Fabrication Engineer. Drain sections shall comply with the material requirements set forth in Appendix A and maintain wall thickness of no less than 1/4 inch.

#### FRP Composite Deck Drain Extensions.

Down spout drain extensions shall be integrated and bonded directly to the scupper bodies.

#### Transitions through Connections and Components.

All transitions and joints to be manufactured through the use of smooth radius molds. Miter joint and edged transitions are not allowed. All internal joint connections are to be smooth and continuous.

#### Pigmented FRP Composite Drain Components

Pipes, fittings, bodies and all FRP composite drain system components shall be pigmented through the wall. The color used shall match the color of the metallized steel beams. Paint, gel-coat or any other exterior coating shall not be accepted.

#### Joint Connections

Joints may be welded using manufacturer recommended adhesives in accordance to the adhesive manufacturer's application procedures. Adhesives must be compatible with the FRP resins, applied in a way that ensures complete bonding and liquid tight sealing of the resins, and be compatible with the environmental conditions such as temperature, freeze thaw conditions, and wet alkaline environments.

#### Shop Drawings/Inspection

Drawings The Contractor shall prepare shop detail, erection and other necessary working drawings in accordance with Section 105.7 - Working Drawings. Drawings shall include dimensions and tolerances necessary for manufacture and installation, all hardware, orienting features, anchor details, fastener details, gasket details, cross and longitudinal matching features, joint details, transition details, material lay-up/composition

Quality Control/Quality Assurance: Within 30 calendar days, the Contractor shall submit to the Department a Quality Control Quality Assurance (QCQA) Plan for fabrication of the drains. Fabrication of drains shall not commence until the QCQA Plan has been reviewed and approved by the Department.

Notice of Beginning Work The Contractor shall give the Fabrication Engineer a minimum of two weeks notice before the beginning of work. No work shall be performed before the Fabrication Engineer has been notified. Before beginning work, a pre-fabrication meeting may be held at the discretion of the Fabrication Engineer or, if requested, by the Contractor.

The Contractor shall advise the Fabrication Engineer of the production schedule and any changes to it. If the Contractor suspends work on a project, the Fabrication Engineer will require 48 hours notice prior to the resumption of work.

Inspection Quality Control (Q.C.) is the responsibility of the Contractor. The Quality Control Inspector (Q.C.I.) shall inspect all aspects of the work and shall supervise all nondestructive examination (NDE). The Q.C.I. shall record measurements and test results in a clear and legible manner. The Q.C.I. shall reject materials and workmanship that do not meet contract requirements. The Contractor may perform NDE in addition to the minimum required. The results of all measurements and testing shall be made available to the Quality Assurance Inspector (Q.A.I.).

Quality Assurance (Q.A.) is the prerogative of the Department. The Q.A.I. will ensure that the Q.C. process and personnel is performing properly, verify documentation, periodically inspect workmanship and witness NDE. Q.A. testing deemed necessary by the Fabrication Engineer in addition to the minimum testing requirements shall be scheduled to minimize interference with the production schedule.

Inspector's Authority The Q.A.I. will have the authority to reject material or workmanship that does not meet the contract requirements. The acceptance of material or workmanship by the Q.A.I. will not prevent subsequent rejection, if found unacceptable.

Rejections Rejected material and workmanship shall be corrected or replaced by the Contractor.

Bill of Materials The Contractor shall provide the Fabrication Engineer with copies of all bills of materials used in the fabrication of the FRP bridge drains.

Packaging, Storage and Shipping of Components



FRP drains shall be stored and handled in accordance with the manufacturer's recommendation. The drains shall be stored above the ground and not be allowed to come into contact with seawater, mud, grease, dirt or other deleterious materials that may be present on the job site.

Installation

The Contractor shall install the FRP drains in accordance with the manufacturer's installation procedures and in accordance with the Plans and Working Drawings. FRP bridge drains will be accurately placed at the locations shown on the Plans or as authorized by the Resident. Adequate means shall be provided for securely holding the drains in place during placement of concrete. Any damaged drain shall be repaired or replaced at the Resident's discretion and at no additional cost to the Department.

Method of Measurement

FRP Bridge Drains will be measured by the number of units, for fabrication and delivery. Installation for the drains will be incidental to the Structural Concrete Superstructure item.

Basis of Payment

FRP Bridge Drains will be paid for at the contract unit price. Such payment will include compensation for the fabrication and delivery of the drains in accordance with this specification.

Payment will be under:

<u>Pay Item</u>		<u>Pay Unit</u>
502.77	FRP Bridge Drain –Type F	Each

**SPECIAL PROVISION**  
**SECTION 502**  
**STRUCTURAL CONCRETE**  
(Fiber Reinforced Polymer Bridge Drains)

**APPENDIX A**

**A.1 Scope**

This section specifies the material composition, properties, test requirements and reports that shall be submitted and approved prior to and after product certification of each FRP composite drain component type, e.g. scupper body or pipe component. The manufacturer is responsible for testing using an approved independent lab per section A.5.3. Once certified the approved product may be manufactured with only internal testing provided the manufacturing process and laminate composition do not change. Changes to process and or composition do require additional testing and product certification. The manufacturer shall report the individual test results per section A.5.3. If the strength is less than the required properties certification will not be granted.

**A.2 Material/Laminate Composition**

**A.2.1 Fibers**

Fiber sizings and coupling agents shall be compatible with the resin system used to impregnate them.

**A.2.2 Matrix Resins**

Commercial grades of vinyl ester and epoxy resin systems are permitted provided the finished product meets the material property requirements before and after durability conditioning as set forth in Section A. Styrene is permitted to be added to the polymer resin during processing. Added styrene shall be less than 10 percent by mass of the polymer resin. The amount of styrene, as a mass percentage of the polymer resin, added during processing shall be reported per Section A.5.3.

**A.2.3 Fillers and Additives**

Commercial grade inorganic fillers such as kaolin clay, calcium carbonate, and alumina tri-hydrate shall not exceed 20 percent by mass of the polymer resin constituent. Commercial grade additives and process-aids, such as release agents, low profile shrink additives, initiators, promoters, hardeners, catalysts, pigments, fire-retardants, and ultra-violet inhibitors are permitted and depend on the processing method. Shrink additives, if used, shall be less than 20 percent by mass of the polymer resin. Commercial grade inorganic or organic non-woven surfacing mats or veils are permitted.

#### **A.2.4 Fiber Content**

Fiber content shall be measured by ASTM D 3171 or ASTM D 2584. Fiber content shall be high enough to meet the mechanical property requirements of the FRP system laminate. The manufacturer shall report the fiber content of the end product by volume or by mass in accordance to the method used. If fiber content is not provided by the manufacturer, then the manufacturer shall provide material data sheets with the weight per unit area of the fiber reinforcement used to manufacture the part.

#### **A.2.5 Glass Transition Temperature**

The characteristic value of the glass transition temperature of the composite system, determined in accordance with ASTM E1640, shall be at least 40 degrees Fahrenheit higher than the maximum design temperature,  $T_{MaxDesign}$ , defined in section 3.12.2.2 of the AASHTO LRFD Guide Specifications for Design of Concrete-Filled FRP Tubes for Flexural and Axial Members, 2012. FRP drain systems may not be used in environments with a service temperature higher than the glass transition temperature of the resin used for their manufacturing.

#### **A.2.6 Longitudinal and Transverse Coefficients of Thermal Expansion (CTE)**

The coefficient of Thermal Expansion (CTE) of the tube may vary in the longitudinal and circumferential directions of the component depending on the laminate architecture and type of fibers and resins.

### **A.3 Mechanical Properties**

#### **A.3.1 Tensile Properties**

The tensile strength, tensile modulus of elasticity, and ultimate tensile strain shall be determined for both the axial and hoop directions of the tubular components or in transverse and longitudinal directions of inlet bodies, see Section A.5.1 Test Samples. The tensile strength as reported by the manufacturer for product certification shall be measured according to ASTM Test Method D 3039, or other tension test method designed to determine tensile properties of composite laminates at the approved frequency and number of specimens as specified in section A.5.

#### **A.3.4 Compressive Properties**

The compressive strength and ultimate compressive strain shall be determined for the longitudinal directions of the tube laminate. The compressive strength and ultimate compressive strains shall be derived from specimens tested in accordance with ASTM Test Method D 6641, or other approved compression test method designed to determine compressive properties of the composite.

#### **A.4 Durability Properties**

Material properties shall retain 85% of their baseline values for the material properties listed in Section 2.3 after conditioning for all the durability tests listed below. Durability test methods are adopted from AASHTO Guide Specifications for Design of Bonded FRP Systems for Repair and Strengthening of Concrete Bridge Elements.

Durability property testing is only required for initial product certification and not required for subsequent production orders. The testing is the responsibility of the manufacturer and shall be conducted by an approved independent testing lab per section A.5.2.

#### **A.4.1 Moisture Absorption**

Samples will be immersed in distilled water having a temperature of 100 +/-3 degrees Fahrenheit and tested after 1,000 hours of exposure.

#### **A.4.2 Resistance to Alkaline Environment**

Samples will be immersed in a saturated solution of calcium hydroxide (pH-11) at ambient temperature of 73 +/-3 degrees Fahrenheit for 1,000 hours prior to testing. The pH level will be monitored and the solution will be maintained as needed.

#### **A.4.3 Alternating Ultraviolet Light and Condensation Humidity**

Samples will be conditioned in an apparatus under Cycle I-UV exposure condition according to ASTM G154 Standard Practice. Samples will be tested within two hours after removal from the apparatus.

#### **A.4.4 Freeze-Thaw**

Samples will be exposed to 100 repeated cycles of freezing and thawing in an apparatus meeting the requirements of ASTM C666.

### **A.5 Sampling, Testing & Results.**

#### **A.5.1 Test Samples.**

The manufacturer is responsible for testing and may use samples in accordance to the test methods and needs of test equipment available. Test coupons may be cut from manufactured products or prepared using identical processes e.g. wet lay-up, vacuum infusion, etc. in a flat sheet, or witness plate, in which test coupons may be cut. Approval of the Fabrication Engineer shall be required for acceptance of test specimens produced by a different manufacturing method. Samples derived from special coupon test sheets shall be taken interior to edge sections 1.5x the width of the required coupon width. Samples shall be prepared from samples oriented with the directions illustrated in figures 1 and 2 for scupper body and drain pipes. For samples from filament wound pipes, samples shall be constructed over polygon mandrels allowing for flat panels to be removed for test purposes. Each test shall use a quantity of three samples. See Tables A.5.4 for tests, material requirements and sample breakdown.

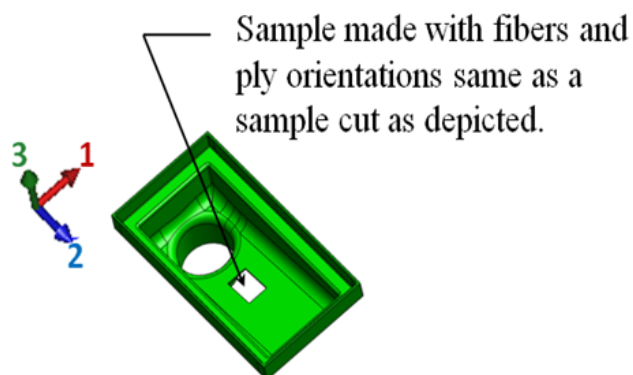


Figure 1.) Scupper Body  
Sample Orientations.

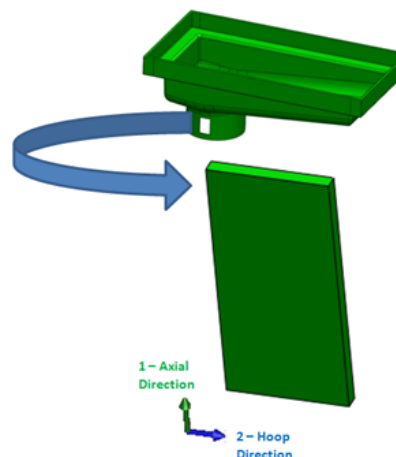


Figure 2.) Drain Pipe  
Sample Orientations.

#### **A.5.2 Test Lab Requirements.**

All testing of FRP material properties is being conducted in accordance to specified standards. Internal or external testing is to be conducted through laboratory facilities in accordance to ISO/IEC Guide 58, *Calibration and Testing Laboratory Accreditation Systems - General Requirements for Operation and Recognition* and ISO/IEC 17025 *General Requirements for the Competence of testing and Calibration Laboratories* as related by AASHTO document R18 "Recommended Practice for Establishing and Implementing a Quality System for Construction Materials Testing Laboratories."

#### **A.5.3 Production Validation (PV) Testing.**

Certification of materials used in FRP drain products must undergo PV testing of the specified material properties before and after environmental conditioning as set forth in Section A.5.4 by an independent lab. PV tests may be conducted internally by the manufacturer for development but are not acceptable for certification. Reported values for the material composition is be recorded and reported by the manufacturer, no independent audit is required.

#### **A.5.4 Production Validation Sample Quantities, Minimum Material Properties and Reported Values**

The following data shall be reported for material certification. Note that the tables shown use orientations related to FRP scupper or inlet bodies as set forth in Figure 1 of Section A.5.1. When evaluating tubular sections, orientation direction 2 as shown in Figure 2 of Section A.5.1 shall be substituted for orientation direction 3. The required number of samples have been reduced from ASTM requirements.

**Table A.5.4.a PV reported material composition data. (Recorded by the manufacturer during the manufacturing process)**

Section No.	Characteristic	Applicable Test Standard	Number of Samples	Tolerance	Reported
A.2.2	Styrene, mass percentage of polymer resin	per tolerance	N/A	10% max	
A.2.3	Inorganic fillers, mass percentage of polymer resin.	per tolerance	N/A	20% max	
	Shrink additives, mass percentage of polymer resin.	per tolerance	N/A	20% max	
A.2.4	Fiber Content	ASTM D3171 or ASTM D2584	3	Sufficient to meet mechanical properties	
A.2.5	Glass Transition Temperature	ASTM E1640	3	> Max Design Temperature	

**Table A.5.4.b PV Reported Baseline Mechanical Properties**

(Conducted by an independent laboratory. Samples as Manufactured w/o additional conditioning per Section A.3)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	10000 (psi)				
		Tensile Modulus of Elasticity			800000 (psi)				
		Ultimate Tensile Strain			0.003 in/in				
	2	Tensile Strength		10000 (psi)					
		Tensile Modulus of Elasticity		800000 (psi)					
		Ultimate Tensile Strain		0.003 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	22000 (psi)				
		Ultimate Compressive Strain			0.003 in/in				
	3	Compressive Strength		3	22000 (psi)				
		Ultimate Compressive Strain			0.003 in/in				

**Table A.5.4c PV Reported Mechanical Properties after 1000 hr. Moisture Immersion Conditioning per Section A.4.1**

(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				

**Table A.5.4d PV Reported Mechanical Properties after 1000 hr. of Alkaline Environment Conditioning per Section A.4.2**

(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				

**Table A.5.4e PV Reported Mechanical Properties after UV Light Conditioning per Section A.4.3 (ASTM G154).**  
(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		18700 (psi)					
		Ultimate Compressive Strain		0.0025 in/in					

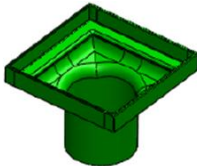
**Table A.5.4f PV Reported Mechanical Properties after 100 Freeze-Thaw Cycle Conditioning per Section A.4.4 (ASTM C666).**  
(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		18700 (psi)					
		Ultimate Compressive Strain		0.0025 in/in					

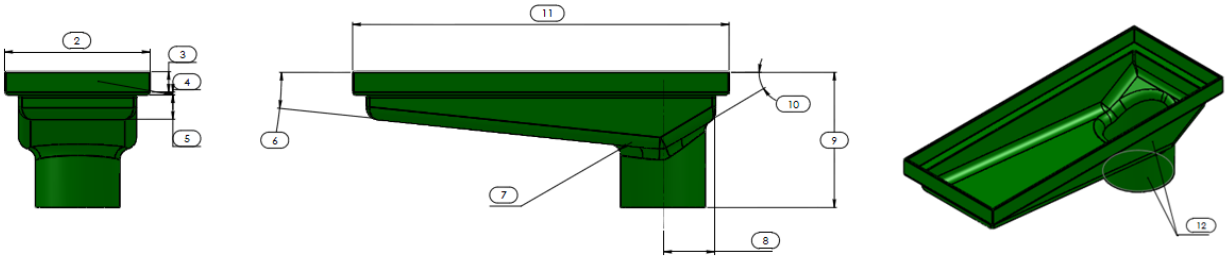
**SPECIAL PROVISION**  
**SECTION 502**  
**STRUCTURAL CONCRETE**  
(Fiber Reinforced Polymer Bridge Drains)

**APPENDIX B**

Standard Details



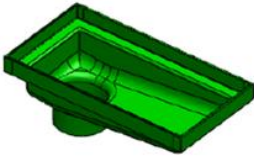
**Bridge Drain – Symmetric Inlet**



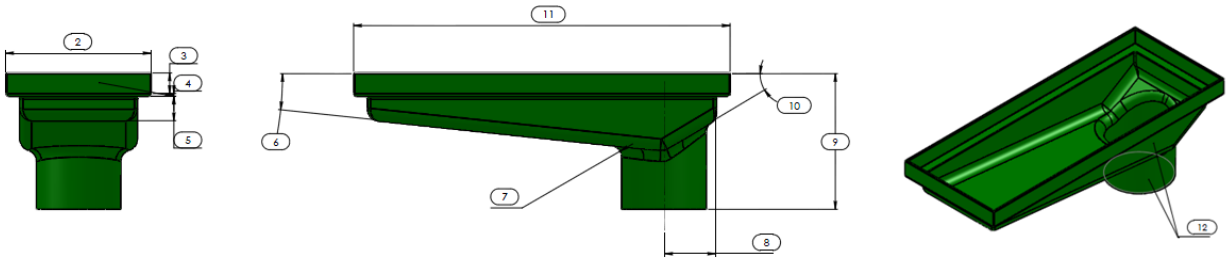


**Table B1 Preferred Symmetric FRP Composite Inlet Bodies**

Size Designation		A	B	C		
Size Dimensions (Grate Length x Width, Down Spout Diameter)		12x12xØ8	14x14xØ10	18x18xØ12		
Number	Dimension	Nominal Dimensions			Nominal Design Tolerance	Manufacturing Tolerance
	Name					
1	Down Spout Inner Diameter	8"	10"	12"	min	+/- 0.015"
2	Grate Frame Width	12"	14"	18"	+/- 1"	+/- 0.025"
3	Grate Frame Height	As required to contain grate and recessed from deck surface				
4	Grate Frame Flange & Wall Thickness	0.25"	0.25"	0.25"	min	+/- 0.025"
5	Scupper Toe Depth	4"	4"	4"	+1"/-0"	+/- 0.1"
6	Scupper Toe Slope	1:10	1:10	1:10	min	+ 1 degree
7	Scupper Body Radii	2"	2"	2"	min	+0.1"
8	Down Spout Position to Heel	6"	6"	6"	+/- 0.5"	
9	Height	18"	18"	18"	Open	+/- 0.25"
10	Scupper Heel Slope	1:10	1:10	1:10	min	+0.1"
11	Grate Frame Length	12"	14"	18"	+/- 1"	+/- 0.025"
12	Scupper and Down Spout Wall Thickness	0.25"	0.25"	0.25"	min	+0.015"



**Bridge Drain-Offset Scupper**



**Table B2 Preferred Offset FRP Composite Scupper Bodies**

Size Designation		D	E	F	G		
Size Dimensions (Grate Length x Width, Down Spout Diameter)		24x12xØ8	30x12xØ10	36x12xØ10	42x12xØ12		
Dimension Name		Nominal Dimensions				Nominal Design Tolerance	Manufacturing Tolerance
1	Down Spout Inner Diameter	8"	10"	10"	12"	min	+/- 0.015"
2	Grate Frame Width	12"	12"	12"	12"	+ 2"/-0"	+/- 0.025"
3	Grate Frame Height	As required to contain grate and recessed from deck surface					
4	Grate Frame Flange & Wall Thickness	0.25"	0.25"	0.25"	0.25"	min	+/- 0.025"
5	Scupper Toe Depth	4"	4"	4"	4"	+1"/-0"	+/- 0.1"
6	Scupper Toe Slope	1:10	1:10	1:10	1:10	min	+ 1 degree
7	Scupper Body Radii	2"	2"	2"	2"	min	+0.1"
8	Down Spout Position to Heel	6"	6"	6"	6"	+/- 0.5"	
9	Height	13.5"	16"	18"	18"	Open	+/- 0.25"
10	Scupper Heel Slope	1:10	1:10	1:10	1:10	min	+0.1"
11	Grate Frame Length	24"	30"	36"	42"	+ 2"/-0"	+/- 0.025"
12	Scupper and Down Spout Wall Thickness	0.25"	0.25"	0.25"	0.25"	min	+0.015"

**SPECIAL PROVISION**  
**SECTION 502**  
**STRUCTURAL CONCRETE**  
(Fiber Reinforced Polymer Bridge Drains)

Description

This work shall consist of design, fabrication and delivery of bridge drains using FRP (Fiber Reinforced Polymer) composite materials in accordance with the plans and this specification.

Applicable Standards and References

The design and construction of FRP composite bridge drain components shall be in accordance with this Methods Specification and the relevant requirements of the following standards and specifications, unless otherwise stipulated in this specification. Standards and specifications specifically cited in the body of the specification establish requirements that shall have precedence over all others. Should the requirements in any reference conflict with those in another, the reference highest on the list shall govern. It is the Contractor's responsibility to obtain clarification of any unresolved ambiguity prior to proceeding with the design or construction.

Specifications

Work shall be done in general accordance with the following specifications:

- a. AASHTO LRFD Guide Specifications for Design of Concrete-Filled FRP Tubes for Flexural and Axial Members, 2012.
- b. American Composites Manufacturing Association, ACMA Code of Standard Practice, First Edition, 2011.
- c. ISO/IEC Guide 58, Calibration and Testing Laboratory Accreditation Systems - General Requirements for Operation and Recognition.
- d. ISO/IEC 17025 General Requirements for the Competence of testing and Calibration Laboratories.
- e. NBS Voluntary Product Standard PS15-69. Custom Contact-Mold Reinforced Polyester Chemical-Resistant Process Equipment. The Society of the Plastics Industry, Inc., 355 Lexington Ave., N.Y., N.Y. 10017

**2.3 Standards**

- A.) ASTM D 2584. *Standard Test Method for Ignition Loss of Cured Reinforced Resins*. American Society for Testing and Materials, West Conshohocken, PA.
- B.) ASTM D 3039. *Standard Test Method for Tensile Properties of Polymer Matrix Composite Materials*. American Society for Testing and Materials, West Conshohocken, PA.

- C.) ASTM D 3171. *Standard Test Methods for Constituent Content of Composite Materials*. American Society for Testing and Materials, West Conshohocken, PA.
- D.) ASTM D 4385. *Standard Practice for Classifying Visual Defects in Thermosetting Reinforced Plastic Pultruded Products*. American Society for Testing and Materials, West Conshohocken, PA.
- E.) ASTM D 570. *Test Method for Water Absorption of Plastics*. American Society for Testing and Materials, West Conshohocken, PA.
- F.) ASTM E 1356. *Standard Test Method for Assignment of the Glass Transition Temperatures by Differential Scanning Calorimetry*. American Society for Testing and Materials, West Conshohocken, PA.
- G.) ASTM E 1640. *Standard Test Method for Assignment of the Glass Transition Temperature by Dynamic Mechanical Analysis*. American Society for Testing and Materials, West Conshohocken, PA.
- H.) ASTM C 582. *Standard Specification for Contact-Mold Reinforced Thermosetting Plastic (RTP) Laminates for Corrosion-Resistant Equipment*. American Society for Testing and Materials, West Conshohocken, PA.

#### Material

Materials shall conform to the following requirements:

1. FRP composite drain and pipe material shall meet the requirements of Appendix A.
2. All material and workmanship will meet or exceed the requirements of ASTM.

#### Construction Requirements

##### FRP DRAIN MANUFACTURERS

The FRP bridge drains shall be supplied by one of the following companies:

1. Kenway Corporation
2. FRP Bridge Drain Pipe - Westfall Company
3. ACO USA

The above suppliers have been pre-certified by providing materials samples that have been tested in accordance with Appendix A. Other suppliers/manufacturers may become certified if FRP bridge drain samples are tested in accordance with the requirements in Appendix A along with the meeting the following requirements.

All manufactures or fabricators of FRP bridge drain systems/components are required to have a minimum of 3 years of experience in providing FRP composite structural grade products to the general market. Manufacturers need to provide documentation that personnel involved in manufacture/fabrication hold and maintain American Composites Manufactures Association (ACMA) certifications in a minimum of two of the following disciplines; 1) Open Molding, 2) Corrosion, 3) Vacuum Infusion, 4) Closed Molding and that the Manufacturer/Fabricator have an ISO 9001:(current year) or other independent certification to ensure that the Manufacturer's process has been independently audited for conformance.

### Design Guide for FRP Composite Scupper Bodies/Drain Inlets

#### General

The bridge shall use a size G offset FRP composite scupper (42 inch long x 12 inch wide x 12 inch diameter downspout). See Appendix B for additional details. The bottom of the downspout shall extend a minimum of 12 inches below the bottom of the beams. For bridge decks with integral concrete wearing surface, the drain pan depth shall be reduced to provide adequate concrete cover.

#### Deck/interface drain holes.

For bridge decks with pavement and waterproofing membrane, drain holes are required on both sides of the scupper to capture moisture at the interface between the top of the deck and bottom of the asphalt pavement. Three holes one half inch in diameter spaced at 6 inches on center and three and one quarter inches on center below the top of the grate, or pavement thickness, shall be placed on both sides of the scupper. If the holes are created after the molding process by punching, drilling or other mechanical means, the holes shall be sealed using a compatible epoxy compound.

#### Grates

Grates shall be bicycle friendly and designed for HL-93 Live Load unless otherwise specified. Any gaps in grates shall have a maximum clear width of two inches. The minimum clear opening size in any grating shall be 1 1/8" by 1 1/8". Grates shall be stainless steel (ASTM A995) or FRP specifically designed and meeting the HL-93 Live Load requirements.

- Steel grating shall be commercial heavy - duty grating with 1 1/2" x 5/16" bearing bars spaced at 2 3/8" and 3/8" diameter cross bars spaced at 2". The grating shall be centered in the drain top. The bearing bars shall run parallel to traffic.
- FRP grating if used shall provide an opening area at least 75% of steel grating noted above. FRP gratings that do not meet this requirement are not acceptable and shall not be used.

Grates shall be designed so that they can be removed by mechanical means. Fasteners for grates shall be stainless. Where selected grates require orientation to flow, the grates will have orienting

features included as required, i.e. for orders of paired drains one drain would have left hand orientation and the other right hand orientation.

#### Grate Frames

Grate frames may be either integrated FRP composite or of galvanized steel construction attached to the scupper/inlet body in a matter consistent with the physical design parameters.

#### Anchoring provisions

Scupper/inlet anchoring shall be bonded to the grate framing in a manner that provides a load path into the concrete decking. Anchor details to be specified as part of the shop drawings for the bridge drains and be a non-corrosive material.

#### Cross and Longitudinal Slope Compensation

The scupper/inlet designs shall provide a means to match the grate to the deck angles while maintaining the downspout in a plumb orientation. If purchased in pairs, one left handed version will be required for each right handed version. This may be achieved when a down spout portion is bonded to the scupper body, through the frame attachment to the scupper body.

#### FRP Composite Drain Sections

Bridge deck downspouts, bridge drain deck extensions, elbows and pipe for under drains shall be constructed using a circular cross section; however other cross sections are allowed with approval of the Fabrication Engineer. Drain sections shall comply with the material requirements set forth in Appendix A and maintain wall thickness of no less than 1/4 inch.

#### FRP Composite Deck Drain Extensions.

Down spout drain extensions shall be integrated and bonded directly to the scupper bodies.

#### Transitions through Connections and Components.

All transitions and joints to be manufactured through the use of smooth radius molds. Miter joint and edged transitions are not allowed. All internal joint connections are to be smooth and continuous.

#### Pigmented FRP Composite Drain Components

Pipes, fittings, bodies and all FRP composite drain system components shall be pigmented through the wall. The color used shall match the color of the metallized steel beams. Paint, gel-coat or any other exterior coating shall not be accepted.

#### Joint Connections

Joints may be welded using manufacturer recommended adhesives in accordance to the adhesive manufacturer's application procedures. Adhesives must be compatible with the FRP resins, applied in a way that ensures complete bonding and liquid tight sealing of the resins, and be compatible with the environmental conditions such as temperature, freeze thaw conditions, and wet alkaline environments.

#### Shop Drawings/Inspection

Drawings The Contractor shall prepare shop detail, erection and other necessary working drawings in accordance with Section 105.7 - Working Drawings. Drawings shall include dimensions and tolerances necessary for manufacture and installation, all hardware, orienting features, anchor details, fastener details, gasket details, cross and longitudinal matching features, joint details, transition details, material lay-up/composition

Quality Control/Quality Assurance: Within 30 calendar days, the Contractor shall submit to the Department a Quality Control Quality Assurance (QCQA) Plan for fabrication of the drains. Fabrication of drains shall not commence until the QCQA Plan has been reviewed and approved by the Department.

Notice of Beginning Work The Contractor shall give the Fabrication Engineer a minimum of two weeks notice before the beginning of work. No work shall be performed before the Fabrication Engineer has been notified. Before beginning work, a pre-fabrication meeting may be held at the discretion of the Fabrication Engineer or, if requested, by the Contractor.

The Contractor shall advise the Fabrication Engineer of the production schedule and any changes to it. If the Contractor suspends work on a project, the Fabrication Engineer will require 48 hours notice prior to the resumption of work.

Inspection Quality Control (Q.C.) is the responsibility of the Contractor. The Quality Control Inspector (Q.C.I.) shall inspect all aspects of the work and shall supervise all nondestructive examination (NDE). The Q.C.I. shall record measurements and test results in a clear and legible manner. The Q.C.I. shall reject materials and workmanship that do not meet contract requirements. The Contractor may perform NDE in addition to the minimum required. The results of all measurements and testing shall be made available to the Quality Assurance Inspector (Q.A.I.).

Quality Assurance (Q.A.) is the prerogative of the Department. The Q.A.I. will ensure that the Q.C. process and personnel is performing properly, verify documentation, periodically inspect workmanship and witness NDE. Q.A. testing deemed necessary by the Fabrication Engineer in addition to the minimum testing requirements shall be scheduled to minimize interference with the production schedule.

Inspector's Authority The Q.A.I. will have the authority to reject material or workmanship that does not meet the contract requirements. The acceptance of material or workmanship by the Q.A.I. will not prevent subsequent rejection, if found unacceptable.

Rejections Rejected material and workmanship shall be corrected or replaced by the Contractor.

Bill of Materials The Contractor shall provide the Fabrication Engineer with copies of all bills of materials used in the fabrication of the FRP bridge drains.

Packaging, Storage and Shipping of Components

FRP drains shall be stored and handled in accordance with the manufacturer's recommendation. The drains shall be stored above the ground and not be allowed to come into contact with seawater, mud, grease, dirt or other deleterious materials that may be present on the job site.

Installation

The Contractor shall install the FRP drains in accordance with the manufacturer's installation procedures and in accordance with the Plans and Working Drawings. FRP bridge drains will be accurately placed at the locations shown on the Plans or as authorized by the Resident. Adequate means shall be provided for securely holding the drains in place during placement of concrete. Any damaged drain shall be repaired or replaced at the Resident's discretion and at no additional cost to the Department.

Method of Measurement

FRP Bridge Drains will be measured by the number of units, for fabrication and delivery. Installation for the drains will be incidental to the Structural Concrete Superstructure item.

Basis of Payment

FRP Bridge Drains will be paid for at the contract unit price. Such payment will include compensation for the fabrication and delivery of the drains in accordance with this specification.

Payment will be under:

<u>Pay Item</u>		<u>Pay Unit</u>
502.77	FRP Bridge Drain –Type F	Each



**SPECIAL PROVISION**  
**SECTION 502**  
**STRUCTURAL CONCRETE**  
(Fiber Reinforced Polymer Bridge Drains)

**APPENDIX A**

**A.1 Scope**

This section specifies the material composition, properties, test requirements and reports that shall be submitted and approved prior to and after product certification of each FRP composite drain component type, e.g. scupper body or pipe component. The manufacturer is responsible for testing using an approved independent lab per section A.5.3. Once certified the approved product may be manufactured with only internal testing provided the manufacturing process and laminate composition do not change. Changes to process and or composition do require additional testing and product certification. The manufacturer shall report the individual test results per section A.5.3. If the strength is less than the required properties certification will not be granted.

**A.2 Material/Laminate Composition**

**A.2.1 Fibers**

Fiber sizings and coupling agents shall be compatible with the resin system used to impregnate them.

**A.2.2 Matrix Resins**

Commercial grades of vinyl ester and epoxy resin systems are permitted provided the finished product meets the material property requirements before and after durability conditioning as set forth in Section A. Styrene is permitted to be added to the polymer resin during processing. Added styrene shall be less than 10 percent by mass of the polymer resin. The amount of styrene, as a mass percentage of the polymer resin, added during processing shall be reported per Section A.5.3.

**A.2.3 Fillers and Additives**

Commercial grade inorganic fillers such as kaolin clay, calcium carbonate, and alumina tri-hydrate shall not exceed 20 percent by mass of the polymer resin constituent. Commercial grade additives and process-aids, such as release agents, low profile shrink additives, initiators, promoters, hardeners, catalysts, pigments, fire-retardants, and ultra-violet inhibitors are permitted and depend on the processing method. Shrink additives, if used, shall be less than 20 percent by mass of the polymer resin. Commercial grade inorganic or organic non-woven surfacing mats or veils are permitted.

#### **A.2.4 Fiber Content**

Fiber content shall be measured by ASTM D 3171 or ASTM D 2584. Fiber content shall be high enough to meet the mechanical property requirements of the FRP system laminate. The manufacturer shall report the fiber content of the end product by volume or by mass in accordance to the method used. If fiber content is not provided by the manufacturer, then the manufacturer shall provide material data sheets with the weight per unit area of the fiber reinforcement used to manufacture the part.

#### **A.2.5 Glass Transition Temperature**

The characteristic value of the glass transition temperature of the composite system, determined in accordance with ASTM E1640, shall be at least 40 degrees Fahrenheit higher than the maximum design temperature,  $T_{MaxDesign}$ , defined in section 3.12.2.2 of the AASHTO LRFD Guide Specifications for Design of Concrete-Filled FRP Tubes for Flexural and Axial Members, 2012. FRP drain systems may not be used in environments with a service temperature higher than the glass transition temperature of the resin used for their manufacturing.

#### **A.2.6 Longitudinal and Transverse Coefficients of Thermal Expansion (CTE)**

The coefficient of Thermal Expansion (CTE) of the tube may vary in the longitudinal and circumferential directions of the component depending on the laminate architecture and type of fibers and resins.

### **A.3 Mechanical Properties**

#### **A.3.1 Tensile Properties**

The tensile strength, tensile modulus of elasticity, and ultimate tensile strain shall be determined for both the axial and hoop directions of the tubular components or in transverse and longitudinal directions of inlet bodies, see Section A.5.1 Test Samples. The tensile strength as reported by the manufacturer for product certification shall be measured according to ASTM Test Method D 3039, or other tension test method designed to determine tensile properties of composite laminates at the approved frequency and number of specimens as specified in section A.5.

#### **A.3.4 Compressive Properties**

The compressive strength and ultimate compressive strain shall be determined for the longitudinal directions of the tube laminate. The compressive strength and ultimate compressive strains shall be derived from specimens tested in accordance with ASTM Test Method D 6641, or other approved compression test method designed to determine compressive properties of the composite.

#### **A.4 Durability Properties**

Material properties shall retain 85% of their baseline values for the material properties listed in Section 2.3 after conditioning for all the durability tests listed below. Durability test methods are adopted from AASHTO Guide Specifications for Design of Bonded FRP Systems for Repair and Strengthening of Concrete Bridge Elements.

Durability property testing is only required for initial product certification and not required for subsequent production orders. The testing is the responsibility of the manufacturer and shall be conducted by an approved independent testing lab per section A.5.2.

#### **A.4.1 Moisture Absorption**

Samples will be immersed in distilled water having a temperature of 100 +/-3 degrees Fahrenheit and tested after 1,000 hours of exposure.

#### **A.4.2 Resistance to Alkaline Environment**

Samples will be immersed in a saturated solution of calcium hydroxide (pH-11) at ambient temperature of 73 +/-3 degrees Fahrenheit for 1,000 hours prior to testing. The pH level will be monitored and the solution will be maintained as needed.

#### **A.4.3 Alternating Ultraviolet Light and Condensation Humidity**

Samples will be conditioned in an apparatus under Cycle I-UV exposure condition according to ASTM G154 Standard Practice. Samples will be tested within two hours after removal from the apparatus.

#### **A.4.4 Freeze-Thaw**

Samples will be exposed to 100 repeated cycles of freezing and thawing in an apparatus meeting the requirements of ASTM C666.

### **A.5 Sampling, Testing & Results.**

#### **A.5.1 Test Samples.**

The manufacturer is responsible for testing and may use samples in accordance to the test methods and needs of test equipment available. Test coupons may be cut from manufactured products or prepared using identical processes e.g. wet lay-up, vacuum infusion, etc. in a flat sheet, or witness plate, in which test coupons may be cut. Approval of the Fabrication Engineer shall be required for acceptance of test specimens produced by a different manufacturing method. Samples derived from special coupon test sheets shall be taken interior to edge sections 1.5x the width of the required coupon width. Samples shall be prepared from samples oriented with the directions illustrated in figures 1 and 2 for scupper body and drain pipes. For samples from filament wound pipes, samples shall be constructed over polygon mandrels allowing for flat panels to be removed for test purposes. Each test shall use a quantity of three samples. See Tables A.5.4 for tests, material requirements and sample breakdown.

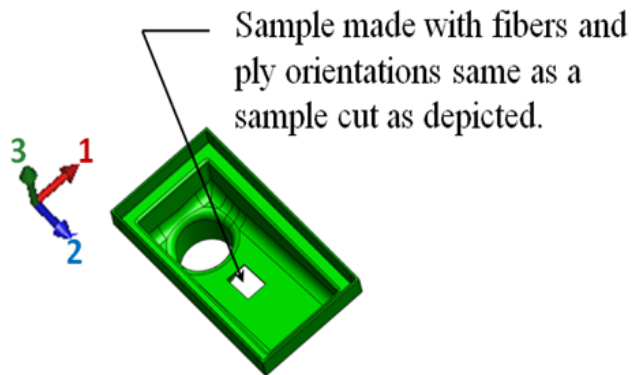


Figure 1.) Scupper Body  
Sample Orientations.

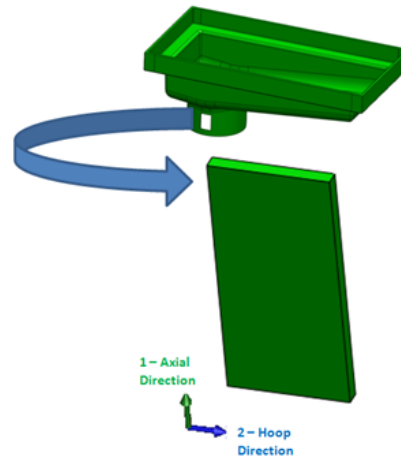


Figure 2.) Drain Pipe  
Sample Orientations.

#### **A.5.2 Test Lab Requirements.**

All testing of FRP material properties is being conducted in accordance to specified standards. Internal or external testing is to be conducted through laboratory facilities in accordance to ISO/IEC Guide 58, *Calibration and Testing Laboratory Accreditation Systems - General Requirements for Operation and Recognition* and ISO/IEC 17025 *General Requirements for the Competence of testing and Calibration Laboratories* as related by AASHTO document R18 "Recommended Practice for Establishing and Implementing a Quality System for Construction Materials Testing Laboratories."

#### **A.5.3 Production Validation (PV) Testing.**

Certification of materials used in FRP drain products must undergo PV testing of the specified material properties before and after environmental conditioning as set forth in Section A.5.4 by an independent lab. PV tests may be conducted internally by the manufacturer for development but are not acceptable for certification. Reported values for the material composition is recorded and reported by the manufacturer, no independent audit is required.

#### **A.5.4 Production Validation Sample Quantities, Minimum Material Properties and Reported Values**

The following data shall be reported for material certification. Note that the tables shown use orientations related to FRP scupper or inlet bodies as set forth in Figure 1 of Section A.5.1. When evaluating tubular sections, orientation direction 2 as shown in Figure 2 of Section A.5.1 shall be substituted for orientation direction 3. The required number of samples have been reduced from ASTM requirements.

**Table A.5.4.a PV reported material composition data. (Recorded by the manufacturer during the manufacturing process)**

Section No.	Characteristic	Applicable Test Standard	Number of Samples	Tolerance	Reported
A.2.2	Styrene, mass percentage of polymer resin	per tolerance	N/A	10% max	
A.2.3	Inorganic fillers, mass percentage of polymer resin.	per tolerance	N/A	20% max	
	Shrink additives, mass percentage of polymer resin.	per tolerance	N/A	20% max	
A.2.4	Fiber Content	ASTM D3171 or ASTM D2584	3	Sufficient to meet mechanical properties	
A.2.5	Glass Transition Temperature	ASTM E1640	3	> Max Design Temperature	

**Table A.5.4.b PV Reported Baseline Mechanical Properties**

(Conducted by an independent laboratory. Samples as Manufactured w/o additional conditioning per Section A.3)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	10000 (psi)				
		Tensile Modulus of Elasticity			800000 (psi)				
		Ultimate Tensile Strain			0.003 in/in				
	2	Tensile Strength		10000 (psi)					
		Tensile Modulus of Elasticity		800000 (psi)					
		Ultimate Tensile Strain		0.003 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	22000 (psi)				
		Ultimate Compressive Strain			0.003 in/in				
	3	Compressive Strength		3	22000 (psi)				
		Ultimate Compressive Strain			0.003 in/in				

**Table A.5.4c PV Reported Mechanical Properties after 1000 hr. Moisture Immersion Conditioning per Section A.4.1**

(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				

**Table A.5.4d PV Reported Mechanical Properties after 1000 hr. of Alkaline Environment Conditioning per Section A.4.2**

(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				

**Table A.5.4e PV Reported Mechanical Properties after UV Light Conditioning per Section A.4.3 (ASTM G154).**  
(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		3	8500 (psi)				
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				

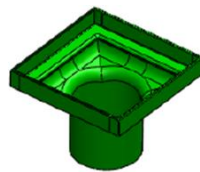
**Table A.5.4f PV Reported Mechanical Properties after 100 Freeze-Thaw Cycle Conditioning per Section A.4.4 (ASTM C666).**  
(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		3	8500 (psi)				
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				

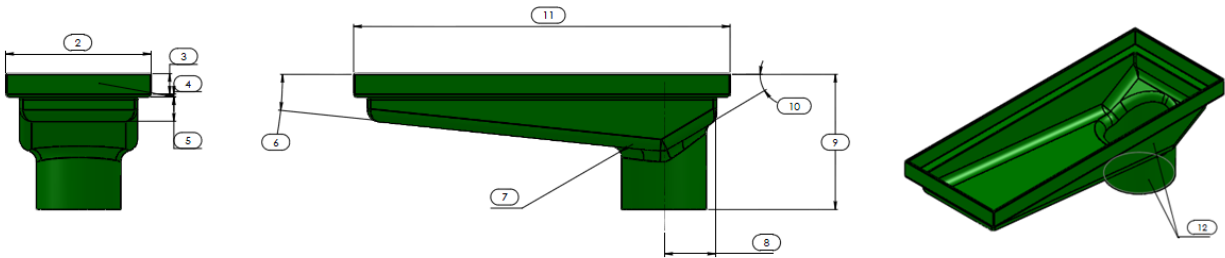
**SPECIAL PROVISION**  
**SECTION 502**  
**STRUCTURAL CONCRETE**  
(Fiber Reinforced Polymer Bridge Drains)

**APPENDIX B**

Standard Details

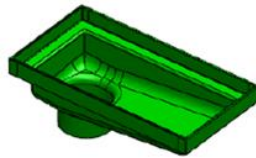


**Bridge Drain – Symmetric Inlet**

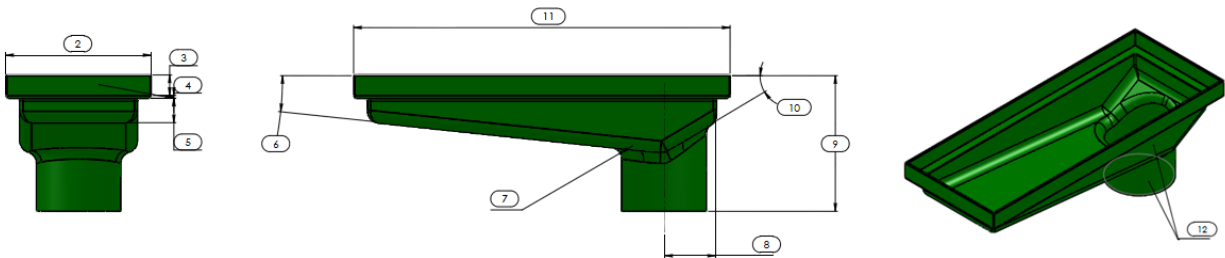


**Table B1 Preferred Symmetric FRP Composite Inlet Bodies**

Size Designation		A	B	C		
Size Dimensions (Grate Length x Width, Down Spout Diameter)		12x12xØ8	14x14xØ10	18x18xØ12		
Number	Dimension	Nominal Dimensions			Nominal Design Tolerance	Manufacturing Tolerance
	Name					
1	Down Spout Inner Diameter	8"	10"	12"	min	+/- 0.015"
2	Grate Frame Width	12"	14"	18"	+/- 1"	+/- 0.025"
3	Grate Frame Height	As required to contain grate and recessed from deck surface				
4	Grate Frame Flange & Wall Thickness	0.25"	0.25"	0.25"	min	+/- 0.025"
5	Scupper Toe Depth	4"	4"	4"	+1"/-0"	+/- 0.1"
6	Scupper Toe Slope	1:10	1:10	1:10	min	+ 1 degree
7	Scupper Body Radii	2"	2"	2"	min	+0.1"
8	Down Spout Position to Heel	6"	6"	6"	+/- 0.5"	
9	Height	18"	18"	18"	Open	+/- 0.25"
10	Scupper Heel Slope	1:10	1:10	1:10	min	+0.1"
11	Grate Frame Length	12"	14"	18"	+/- 1"	+/- 0.025"
12	Scupper and Down Spout Wall Thickness	0.25"	0.25"	0.25"	min	+0.015"



**Bridge Drain-Offset Scupper**





**Table B2 Preferred Offset FRP Composite Scupper Bodies**

Size Designation		D	E	F	G		
Size Dimensions (Grate Length x Width, Down Spout Diameter)		24x12xØ8	30x12xØ10	36x12xØ10	42x12xØ12		
Dimension Name		Nominal Dimensions				Nominal Design Tolerance	Manufacturing Tolerance
1	Down Spout Inner Diameter	8"	10"	10"	12"	min	+/- 0.015"
2	Grate Frame Width	12"	12"	12"	12"	+ 2"/-0"	+/- 0.025"
3	Grate Frame Height	As required to contain grate and recessed from deck surface					
4	Grate Frame Flange & Wall Thickness	0.25"	0.25"	0.25"	0.25"	min	+/- 0.025"
5	Scupper Toe Depth	4"	4"	4"	4"	+1"/-0"	+/- 0.1"
6	Scupper Toe Slope	1:10	1:10	1:10	1:10	min	+ 1 degree
7	Scupper Body Radii	2"	2"	2"	2"	min	+0.1"
8	Down Spout Position to Heel	6"	6"	6"	6"	+/- 0.5"	
9	Height	13.5"	16"	18"	18"	Open	+/- 0.25"
10	Scupper Heel Slope	1:10	1:10	1:10	1:10	min	+0.1"
11	Grate Frame Length	24"	30"	36"	42"	+ 2"/-0"	+/- 0.025"
12	Scupper and Down Spout Wall Thickness	0.25"	0.25"	0.25"	0.25"	min	+0.015"

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

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	502.219	Structural Concrete, Abutments and Retaining Walls	\$400.00	A
A	502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges	\$400.00	A
A	502.31	Structural Concrete Approach Slab	-	C
LP	502.49	Structural Concrete Curbs and Sidewalks	-	C

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

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

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	502.219	Structural Concrete, Abutments and Retaining Walls	\$400.00	A
A	502.22	Structural Concrete, Abutments and Retaining Walls (Placed under Water)	\$400.00	A
A	502.239	Structural Concrete Piers	\$400.00	A
S	502.24	Structural Concrete, Piers (Placed Under Water)	-	C
A	502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges	\$400.00	A
A	502.31	Structural Concrete Approach Slab	-	C
LP	502.49	Structural Concrete Curbs and Sidewalks	\$450.00	A
LP	526.323	Classic Texas Rail	\$450.00	A
A	608.08	Reinforced Concrete Sidewalk	-	C
A	608.26	Curb Ramp Detectable Warning Field	-	C

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

**SPECIAL PROVISION**  
**SECTION 507**  
**RAILINGS**  
(Steel Approach Railing)

Description

This work consists of furnishing and installing steel approach railing and its attachment to a steel bridge railing system and guardrail transition.

Materials

All materials shall conform to the requirements of the Standard Specifications, Standard Details, and Contract Plans as applicable.

Construction Requirements

All components shall be fabricated and installed in accordance with the Standard Specifications, Standard Details, and Contract Plans at locations shown on the Plans or as directed by the Resident. The steel approach railing shall be positioned so as to provide a neat and smooth transition from the bridge railing to the highway guardrail, without kinks or abrupt change in orientation.

Embankment material around the rail posts shall be thoroughly compacted. Curbing shall be set flush with the face of the bridge curb.

On 4-bar approach railing installations, the bottom tube rail that extends past the approach railing under the bridge transition guardrail will be considered part of this work. HSS spacer blocks and all hardware to attach bottom rail to guardrail posts will also be considered part of this work.

Method of Measurement

Each installation will be measured for payment as one unit, complete in place and accepted.

Basis of Payment

Steel Approach Railing will be paid for at the Contract unit price for each installation. Such payment includes fabrication and installation of the railing components and attachment to the bridge railing system, bottom tube rail for 4-bar approach railing, and any related connection hardware in accordance with the Plans, Specifications, and Standard Details.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
507.0812	Steel Approach Railing, 2-Bar	Each
507.0822	Steel Approach Railing, 3-Bar	Each



SPECIAL PROVISION  
SECTION 510  
SPECIAL DETOURS  
(Guardrail and Barrier)

This specification is amended as follows:

510.032(c) Approach Road Guardrail

This subsection is replaced with the following:

The Special Detour approaches shall have guardrail or concrete barrier where side slopes are steeper than 3 horizontal to 1 vertical, or as specified on the Plans. Approach guardrail shall be Type 3 guardrail or an approved equal and shall be attached to the bridge rail in a manner that develops the guardrail in tension. Approach barrier shall be attached to the bridge rail with a rigid connection with a similar strength capacity to the bridge rail. If the Plans specify a type of rail or barrier, that type shall be used.

The termination of approach guardrail or barrier and the end treatment of the rail shall be in accordance with the current AASHTO Roadside Design Guide.

510.09 Basis of Payment

This subsection is amended as follows:

The following sentence is inserted in the first paragraph after the second sentence:

All guardrail or concrete barrier required solely for the Special Detour shall be incidental to this item.

The second paragraph is replaced with the following:

Traffic control devices, work zone crash cushions, temporary erosion control, pavement, and dust control will be paid for in accordance with the applicable Contract items.

SPECIAL PROVISION  
SECTION 510  
SPECIAL DETOUR  
(Roadway Support During Staged Construction)

510.01 Description

*The following sentence is added:*

This work shall also include designing, fabricating, erecting, maintaining and dismantling temporary structural support wall(s) for the purpose of supporting the partially excavated roadway during staged construction that are immediately adjacent to the Special Detour.

510.031 Design

*The following sentences are added:*

The design for the Temporary Structural Support for roadway support shall be submitted to the Resident at least 3 weeks prior to construction. The design shall be in accordance with subsection 524.03 of the Standard Specifications.

510.06 Special Detour Construction

*The following sentence is added:*

Erection and removal of the Temporary Structural Support shall be in accordance with subsection 524.04 of the Standard Specifications.

510.08 Method of Measurement

*The following sentence is added:*

Special Detour and the adjacent Temporary Structural Supports used for the purpose of maintaining traffic and supporting the partially excavated roadway during staged construction will be measured by one lump sum.

510.09 Basis of Payment

Section 510.09 in the Standard Specifications is replaced in its entirety with the following:

The accepted Special Detour including the Temporary Structural Supports will be paid for at the Contract lump sum price which price shall be full compensation for the respective items as called for in the Contract, including design, construction, maintenance, complete removal rehabilitation and permanent stabilization include in loaming, seeding and mulching. All gravel or borrow material and excavation need to accommodate changes in elevation between temporary structures and existing roadways shall be incidental to this item. The lump sum price shall also include the cost of furnishing and revising, as necessary, all plans, computations and

certifications as call for in the contract. Payment will be made as follows: 60 percent of the lump sum price will be paid when the Special Detour and Temporary Structural Supports are acceptable and open to traffic; another 20 percent of the lump sum price will be paid when the Special Detour and Temporary Structural Supports are no longer needed and is closed to traffic; the final 20 percent of the lump sum price will be paid when the Special Detour and Temporary Structural Supports are removed and the area encompassing the Special Detour is acceptably restored.



SPECIAL PROVISION  
SECTION 511  
COFFERDAM

511.01 Description

*The following sentence is added:*

This work shall also include the design, construction, maintenance and removal of any secondary cofferdam needed to remove obstructions on the streambed surface prior to construction of the primary cofferdam to facilitate pile driving and/or excavation.

511.05 Method of Measurement

*The subsection is replaced in its entirety with the following:*

Cofferdam will be measured as one lump sum unit that includes any secondary cofferdam that may be needed to remove surface obstructions in order to construct the primary cofferdam.

511.06 Basis of Payment

*The following sentence is added:*

The Contract lump sum price for the respective cofferdam price shall include compensation for the any secondary cofferdam needed to remove obstructions on the streambed surface prior to construction of the primary cofferdam for an individual substructure unit.

**SPECIAL PROVISION**  
**SECTION 513**  
**SLOPE PROTECTION**

Section 513.02 of the standard specification is removed and replaced with the following:

513.02 Materials Materials shall meet the Requirement of the following Sections of Division – 700 Materials.

Stone Ditch Protection

703.29

SPECIAL PROVISION  
SECTION 520  
EXPANSION DEVICES – NON-MODULAR  
(Asphaltic Plug Joint)

520.01 Description

This work consists of furnishing and installing asphaltic plug joint systems at the locations shown on the Plans, in accordance with these Specifications, and as directed by the Resident. This work shall include furnishing, installation, and removal of all bond breaking materials used to prevent asphalt pavement layers from adhering to waterproofing membrane, all temporary header(s) installed with the intent to form the asphaltic plug joint channel, and all preparation required for the installation of the asphaltic plug joint.

This work shall also include having the approved manufacturer provide a qualified technical representative to supervise the installation of the joint systems. The representative shall instruct, train, and supervise the Contractor's personnel in the proper methods of installation. All costs associated with this service shall be included in the unit price of the work.

520.02 Submittals

Prior to construction, the Contractor shall submit the following to the Resident for review and approval:

(a) Complete and detailed Shop Drawings of the asphaltic plug joint system. Shop Drawings shall include information covering materials, their properties, installation procedures, storage and handling requirements, and Safety Data Sheets.

(b) The resume of the manufacturer's technical representative, which shall include the representative's experience installing the asphaltic plug joint system along with the names and telephone numbers of contact persons for recent projects where technical assistance was provided.

(c) Certified test reports of the asphaltic binder, closed cell foam backer rod, and the plastic compound.

(d) Certificates of Compliance for bridging plates, centering nails, and aggregate.

520.03 Materials

An asphaltic plug joint system from MaineDOT's Qualified Products List for Expansion Devices – Non-Modular (Asphaltic Plug Joints) shall be used.

The bridging plate shall be ASTM A36 steel, a minimum of 1/4 inch thick, and galvanized. Holes for the centering nails shall be approximately 1 foot center to center along the centerline of plates.

Centering nails shall be 16d or larger and hot dip galvanized in accordance with ASTM A153.

#### 520.04 Installation

The asphaltic plug joint system shall be installed in accordance with the manufacturer's latest instructions and this specification. Manufacturer's representatives shall be present during the entire installation to ensure satisfactory results are obtained.

The asphaltic plug joint system shall allow total joint movement for up to 2 inches. The installation shall be centered over the expansion joint gap as indicated on the Plans. It shall not be installed when ambient or substrate temperatures are below 40°F, when rain is imminent, or as directed by the Resident. The area shall be free of dirt, dust, moisture, petroleum, or solvents that might contaminate the joint materials or reduce the bond of the joint system to the substrate or vertical faces. The use of compressed air and heat may be required to dry the area before installing the joint system.

The asphalt pavement layers shall be removed to the required dimensions shown on the plans. The asphalt pavement shall be sawcut to a depth that will not damage the waterproofing membrane, but permit the removal of the asphalt pavement layer. The pavement layer shall be removed in a manner that will not damage the waterproofing membrane. Bond breakers such as interlayers and fabrics, or temporary header(s), may be used with new hot mix asphalt placements to avoid unnecessary sawcuts and protect the waterproofing membrane from damage. The method of attaching temporary header(s) to the concrete deck shall be approved by the Resident. The use of a temporary header shall not be allowed if it will need to be anchored into a precast prestressed concrete member. Should a concrete levelling course be required before installing the bridging plates, and the membrane layer is removed in the process, it shall be replaced before the asphaltic plug joint system is installed. Vertical surfaces of the asphalt pavement layers shall be cleaned to remove all water, dust, or other contaminants.

Backer rods shall be installed in expansion joint openings at a minimum of 1 inch depth or as indicated on the Plans.

Unless otherwise specified by the asphaltic plug joint system manufacturer, liquid asphalt binder meeting the requirements of a 64-28 or 58-28 PGAB shall be used to coat the membrane and bridging plate surfaces.

The binder shall be heated to 350°F to 410°F, or a safe temperature as recommended by manufacturer. Heating kettles shall be equipped with continuous agitation system, temperature controller, calibrated thermometer, and double steel jacket with an oil layer in between, to prevent scorching of the binder. During application, the temperature of the binder shall be maintained at a minimum of 350°F, but not greater than 410°F. It shall be poured and leveled into the expansion joint openings until overfilled, and the excess binder spread over the area covered by the bridging plates.

Steel bridging plates shall be placed from curb to curb on the roadway portion of expansion joints. The plates shall be centered over the joint opening. Centering nails shall be placed in pre-drilled holes and hammered in to secure the plates.

Once the bridging plates are installed, liquid asphalt binder shall be poured and leveled over the bridging plates and adjacent membrane surfaces in a manner that ensures full coverage. Areas with excessive application, such as pooling of liquid, should be removed or dispersed along the joint area.

Asphaltic plug joint system aggregate shall be heated in a rotating drum mixer to a minimum of 350°F but not greater than 410°F, or as recommended by the manufacturer. The thermoplastic polymeric modified asphalt binder shall be added to the mixer to pre-coat the aggregates.

Coated aggregate shall be placed into blockouts in layers as recommended by the manufacturer. Blockouts shall be overfilled with coated aggregate as required to compensate for compaction. Equipment for compaction shall be as recommended by the manufacturer. Additional thermoplastic polymeric modified asphalt binder shall be screeded over the compacted joint to fill all surface voids.

Top dressing aggregate shall be applied per the manufacturer's recommendation.

Plastic compound shall be used for repairing overcuts in bituminous concrete. Cleaning, mixing, and application shall be in conformance to the manufacturer's instructions.

Vehicular traffic may pass over finished joints two-hours after compaction, or as recommended by the manufacturer.

#### 520.05 Method of Measurement

The Asphaltic Plug Joint system will be measured by the linear foot along the top surface of installed joints to the limits shown on the Plans. Preparation of surfaces for the proposed joint system including cutting, grinding, and cleaning will not be measured separately for payment, but shall be incidental to the Asphaltic Plug Joint.

#### 520.06 Basis of Payment

The Asphaltic Plug Joint system will be paid for at the Contract unit price per linear foot, which price shall be full compensation for all labor, materials, equipment, and incidentals required for furnishing and installing the Asphaltic Plug Joint system as shown on the Plans, in accordance with these Specifications, and as directed by the Resident. Payment shall also include all work required to repair the concrete deck where anchors were used with a temporary header, and all patching needed for the waterproofing membrane.

Payment will be made under:

Pay Item

Pay Unit

520.232 Expansion Device - Asphaltic Plug Joint

Linear Foot

SPECIAL PROVISION  
SECTION 524  
TEMPORARY STRUCTURAL SUPPORTS  
(Roadway Support During Staged Construction)

524.01 Description

*The following sentence is added:*

This work shall consist of designing, fabricating, erecting, maintaining and dismantling a temporary structural support wall(s) for the purpose of supporting the partially excavated roadway during staged construction.

524.03 Design

*The following sentence is added:*

The design for the Temporary Structural Support for roadway support shall be submitted to the Resident at least 3 weeks prior to construction.

524.05 Method of Measurement

Temporary Structural Supports used for the purpose of supporting the partially excavated roadway during staged construction will be measured by one lump sum.

524.06 Basis of Payment

The Temporary Structural Supports provided under this provision will be paid for at the Contract lump sum price which shall be full compensation for all materials, equipment, labor, and incidentals necessary for the design, installation, maintenance, dismantling and removal of such support in accordance with this provision and the Standard Specifications.

Payments will be made under:

	<u>Pay Item</u>	<u>Pay Unit</u>
524.301	Temporary Structural Support	Lump Sum

**SPECIAL PROVISION**  
**SECTION 526**  
**CONCRETE BARRIER**  
(Temporary Concrete Barrier, Braced Type I)

526.01 Description The following paragraph is added:

This work shall consist of furnishing, setting, resetting and removing Temporary Concrete Barrier, Braced Type I as shown on the Plans.

The following concrete barrier designations are added:

Temporary Concrete Barrier, Braced Type I Removable concrete barrier fabricated and installed in accordance with New York Department of Transportation U.S. Customary Standard Sheet 619-01 (Temporary Concrete Barrier) available at the following web address:

<https://www.dot.ny.gov/main/business-center/engineering/cadd-info/drawings/standard-sheets-us/619>

The minimum concrete barrier length is 14 feet.

526.02 Materials The following paragraphs are added:

f. Temporary Concrete Barrier shall have a 28-day minimum compressive strength of 3,000 psi.

The following subsection is added:

526.021 Acceptance

The Resident shall have the authority to accept or reject all unacceptably damaged portions of Temporary Concrete Barrier, Braced Type I used on the Project.

526.03 Construction Requirements The following paragraph is added:

Temporary Concrete Barrier, Braced Type I All Temporary Concrete Barrier, Braced Type I shall be fabricated and constructed in accordance with New York Department of Transportation U.S. Customary Standard Sheet 619-01 (Temporary Concrete Barrier).

526.04 Method of Measurement The following paragraph is added:

Temporary Concrete Barrier, Braced Type I shall be measured for payment by the lump sum.



Setting, resetting, and temporary storage of concrete barrier between construction phases, if required, will not be measured separately for payment, but shall be incidental to the barrier Pay Item. Additionally, the bracing and/or anchoring of bridge barrier, and all associated work, will not be measured separately for payment, but shall be incidental to the cost of the barrier.

526.05 Basis of Payment The following paragraph is added:

Temporary Concrete Barrier, Braced Type I shall be paid for at the Contract lump sum price, complete in place. Payment shall be full compensation for furnishing, setting, bracing, anchoring, assembling, resetting, and removing the barrier, and all other incidentals, tools, materials and labor necessary to complete the work.

Payment shall be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
526.305	Temporary Concrete Barrier, Braced Type I	Lump Sum

**SPECIAL PROVISION**  
**SECTION 526**  
**CONCRETE BARRIER**  
**(Portable Concrete Barrier)**

526.01 Description

This work shall consist of furnishing, setting, resetting, and removing Portable Concrete Barrier as shown on the Plans or as directed by the Resident. The Portable Concrete Barriers are located near the existing and new abutments. The Department anticipates that the Contractor will need to frequently need to move and reset the Portable Concrete Barrier to provide access to the work area for the existing and new abutments.

Temporary Bi-Directional Delineators shall be installed on the roadway face of all temporary concrete barrier in conformance with Special Provision 627, Temporary Bi-Directional Delineators.

526.02 Materials

Materials shall be in accordance with subsection 526.02 of the Standard Specifications.

526.021 Acceptance

The Resident shall have the authority to accept or reject all unacceptably damaged portions of Portable Concrete Barrier used on the Project.

526.03 Construction Requirements

Construction requirements shall be in accordance with subsection 526.03 of the Standard Specifications.

526.04 Method of Measurement The following paragraph is added:

Portable Concrete Barrier shall be measured for payment by the lump sum.

Setting, resetting, and temporary storage of portable concrete barrier between construction phases, if required, will not be measured separately for payment, but shall be incidental to the Portable Concrete Barrier Pay Item.

526.05 Basis of Payment The following paragraph is added:

Portable Concrete Barrier shall be paid for at the Contract lump sum price, complete in place. Payment shall be full compensation for furnishing, setting, resetting, and removing the

barrier, installation of Temporary Bi-Directional Delineators, and all other incidentals, tools, materials, and labor necessary to complete the work.

Payment shall be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
526.302	Portland Concrete Barrier	Lump Sum

SPECIAL PROVISION  
SECTION 534  
PRECAST STRUCTURAL CONCRETE

Revise Paragraph 2 of 534.07 Quality Control to say:

Provide a copy of the Quality System Manual (QSM) to the Fabrication Engineer for review and approval.

Add the following Paragraph to 534.07 Quality Control:

QC staff shall be separate from production and shall not perform any production work.

Revise Sentence 1 in 534.17 Finishing Concrete to say:

Concrete Products shall be finished to meet the Standard Grade finish as described in the MNL-116.

SPECIAL PROVISION  
SECTION 606  
GUARDRAIL  
(Guardrail Type 3- Single Rail Bridge Mounted, Modified)

606.01 Description

*The following paragraph is added:*

This work consists of furnishing and installing bridge mounted guardrail that is attached to the top of a concrete box culvert. This work shall include drilling and anchoring the guardrail posts to the top slab of the concrete box culvert and any incidental hardware necessary for satisfactory completion of the work.

606.02 Materials:

*The following paragraph is added:*

606.03 Posts:

*The following paragraph is added:*

Bridge Mounted Guardrail:

1. Bolted posts and materials shall be installed prior to back filling over the top of the concrete box culvert.
2. Pavement around the top mounted post shall be compacted with a plate compactor prior to installing the W-Beam rail.
3. Posts shall be shop welded to the base plates and mounted to the culvert slab with four Hilti HAS-E 7/8" diameter anchors with washers and nut, installed with Hilti RE500 epoxy or an approved equal in accordance with the manufacturer's recommendations and 6" minimum embedment.
4. The guardrail posts shall be field drilled.
5. Anchor bolts for the guardrail post shall be set with a template. Nuts securing the post base shall be tightened to a snug fit and given an additional 1/6 turn.

606.09 Basis of Payment

*The following paragraph is added:*

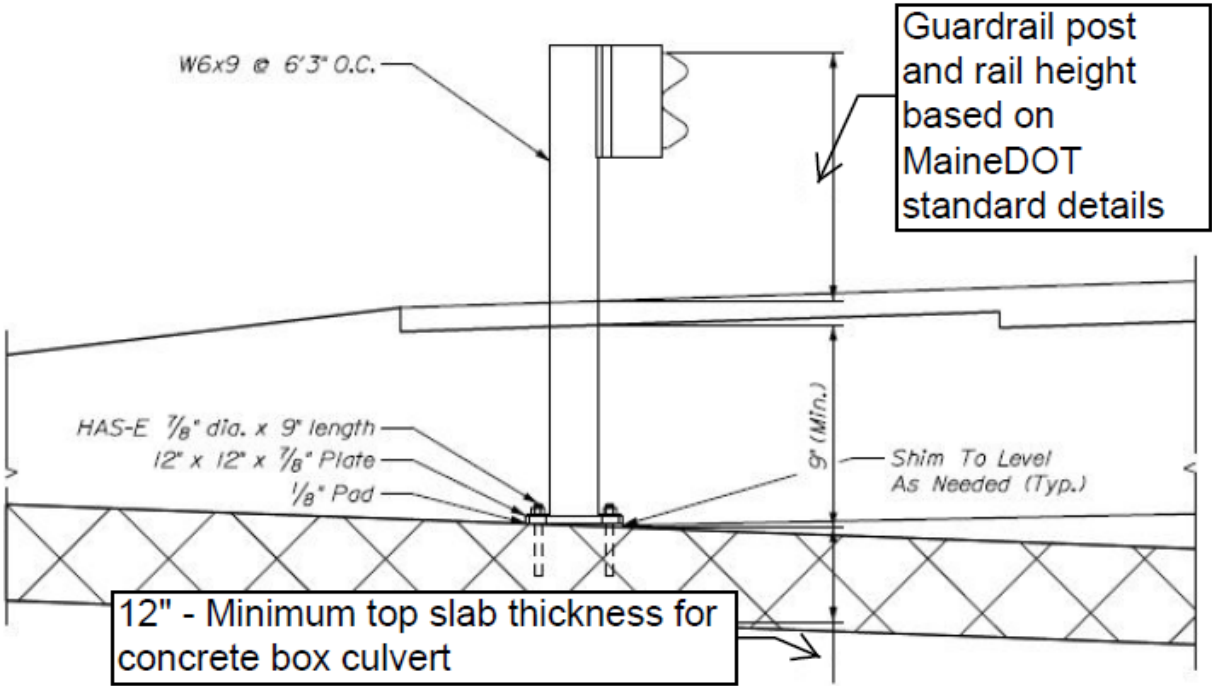
Pay Item

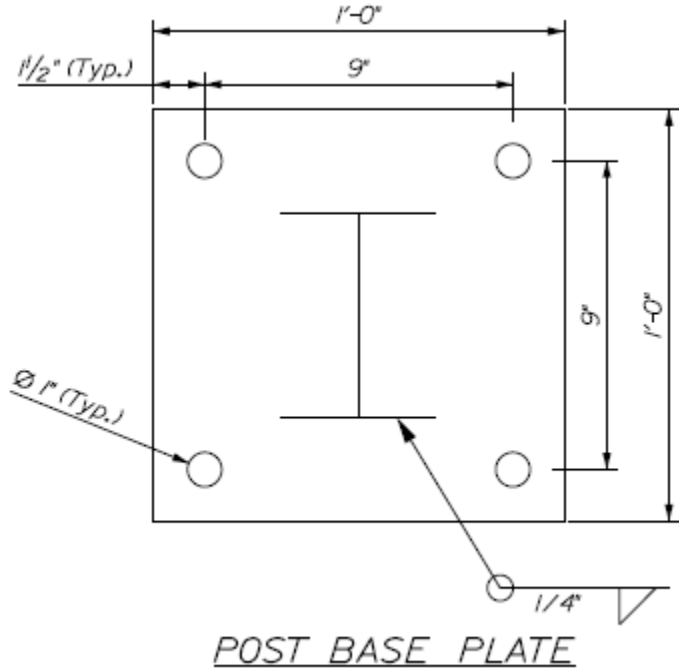
606.74 Guardrail Type 3- Single Rail Bridge Mounted, Modified

Pay Unit

Linear Foot

**Details for Bridge Mounted Guardrail**





SPECIAL PROVISION  
SECTION 608  
SIDEWALKS  
(Portland Cement Concrete Sidewalk)

608.031 Portland Cement Concrete Sidewalk

*The following sentence is added under section c:*

The concrete mix shall include a color additive using the color red. The color additive shall be used in accordance with the manufacturer's recommendations.

*The following sentence is added under section d:*

The top of the sidewalk surface shall be stamped with a form that gives the surface a brick pattern. The form used shall be approved in advance by the Resident.



**SPECIAL PROVISION**

**SECTION 610**

**Streambed Rock Features: Bendway Weirs and Cobble Bars**

610.01 Description This work consists of furnishing and placing large stones in the streambed inside and outside of a culvert to simulate naturally occurring Streambed Rock Features. For this project, these features consist of Bendway Weirs and Cobble Bars.

610.02 Materials The same material shall be used for Bendway Weirs upstream of the culvert and Cobble Bars inside the culvert. Bendway Weir rock is generically shown as large blocky material, size “W”, on the plans, and shall be governed by this Special Provision. Material for Streambed Rock Features shall consist of hard, sound durable rock that will not disintegrate by exposure to water or weather. Stone for Streambed Rock Features shall be subangular to subrounded and may be obtained by screening oversized rock from earth borrow pits or as fieldstone. Unwashed stone, and stone with naturally fractured faces will be allowed. Material from blasting or crushing operations will not be allowed unless approved by the Resident.

Based on observation by Environmental Office staff, it is likely that large rock that will be harvested and set aside during excavation may be suitable for use in Stream Rock Features. Final determination shall be made by the Resident.

Stone shall be a well graded mix of stone ranging from 9 inches to 24 inches with 50% by volume greater than 12 inches. Larger stones, 15 inches and greater, shall be set aside for use in Bendway Weirs upstream of the culvert. Remaining stone shall be set aside for use in Cobble Bars inside the culvert.

The Contractor shall identify the source and proposed stones for inspection at least ten (10) working days prior to the start of the stream channel construction. The grading of stone shall be determined by the Resident by visual inspection in accordance with the Standard Specifications, Section 610.032.d Inspection.

610.03a Construction Requirements – Bendway Weirs

1. Stones 15 inches and larger shall be used to build Bendway Weirs. Place stones individually in the location and with the shape and to the required grade as shown on the Plans or as directed by the Resident. Individual stones shall be rearranged by machine or handwork to the extent necessary to achieve the required shapes, slopes, and elevations.

2. Bendway Weirs shall be constructed of two ranks of rock. The front (downstream) rank shall be constructed of the largest weir rocks (18 inches to 24 inches) and shall be keyed into the streambed so that between 1/3 and 1/2 of the rock is showing. The back (upstream) rank shall be constructed of the remaining weir rock (greater than 9 inches) and shall be keyed in so that the typical elevation (between lowest notches and highest rocks) meets plan

requirements. Bendway Weirs shall also be keyed into the stream banks as shown on plans. Place and spread filler material along upstream and downstream edges, around the stones and wash-in with water to fill voids and prevent piping between stones in accordance with Special Provision, Section 203 - Special Fill.

610.03 Construction Requirements – Cobble Bars

1. Stones for Cobble Bars shall be placed in a compact mass on top of the streambed Special Fill finished grade. They should extend from bankline to mid-channel and be angled so as to point upstream. After placing stone, push in stone to set bar in streambed.

2. Place and spread filler material around the stones and wash-in with water to fill voids and prevent piping between stones in accordance with Special Provision, Section 203 - Special Fill. Build up filler material on upstream and downstream faces of bars. Special attention should be given to sealing where bars join riprap banklines.

610.04 Method of Measurement Streambed Rock Features will be measured by the cubic yard, complete in place.

610.05 Basis of Payment The accepted quantity of Streambed Rock Features will be paid for at the contract unit price per cubic yard complete in place Payment shall be full compensation for furnishing all materials, equipment, and labor and washing-in with water.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
610.212 Streambed Rock Features	CY

SPECIAL PROVISION  
SECTION 610  
STONE FILL, RIPRAP, STONE BLANKET, AND STONE DITCH PROTECTION  
(Void-Filled Riprap)

610.01 Description This work shall consist of furnishing and placing a mixture of stone and aggregate along stream channel banks (Banklines) as part of constructing nature like stream banks. The mixture is referred to as Void-Filled Riprap.

610.02 Materials Void-Filled Riprap shall conform to the following requirements:

Approximately 3 parts by volume shall be stone meeting the requirements of Section 703.26 - Plain and Hand Laid Riprap.

Approximately 2 parts by volume shall be aggregate meeting the requirements of Type D Gravel.

Where applicable, suitable material excavated on-site within the limits of the stream channel in accordance with Special Provision Section 203, Excavation and Embankment - Dredge Materials, may be used in the void-filled stone mixture or as filler material with the approval of the Resident.

The Contractor shall identify the source and proposed stone for inspection at least ten (10) working days prior to the start of culvert installation. The grading of stone shall be determined by the Resident in accordance with the Standard Specifications, Section 610.032.d Inspection.

Mix proportions are approximate and shall be within the above limits or as otherwise adjusted by the Resident to obtain a void-filled stone mix that has adequate material to fill voids without reducing the stability of the stone. Acceptance will be based on visual inspection by the Resident. Void-Filled Riprap shall conform to the mix requirements at the time it is placed.

610.03 Construction Requirements Mix and place Void-Filled Riprap in the areas specified on the plans and as follows:

1. Place Void-Filled Riprap in well mixed layers not to exceed 12 inches unless otherwise approved by the Resident. Pockets of either fine or coarse material shall be minimized unless otherwise called for on the plans. Larger stones may protrude above the average finished surface but shall be well embedded in the mix.
2. Void-Filled Riprap shall be thoroughly washed-in with water immediately after placement of each layer. In addition to washing-in, mechanical methods of compaction may be used

with the approval of the Resident. After the initial washing-in, place and spread Type D Gravel material on the surface as directed to fill remaining voids. Wash-in Type D Gravel material until the voids are filled prior to placing the next layer.

3. After sealing top lift, place 6 inches of Type D Gravel on surface. Wash in and finish with Type D Gravel material as described previously until water ponds on horizontal surfaces. Finished thickness of gravel surface shall be 6 inches.
4. After washing-in, the Void-Filled Riprap shall meet the required thickness.

610.04 Method of Measurement

Void-Filled Riprap will be measured in place by the cubic yard.

610.05 Basis of Payment

The accepted quantity of Void-Filled Riprap will be paid for at the contract price per cubic yard complete in place. Payment will include water and filler material added to fill voids.

Water and Type D Gravel material added to the Void Filled Riprap to fill voids shall be considered incidental to the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
610.213 Void-Filled Riprap	CY

**SPECIAL PROVISION**  
**SECTION 610**

**Stream Channel Rock - Void-Filled Riprap for Banklines**

610.01 Description This work shall consist of furnishing and placing stone and aggregate inside of a culvert and along stream channel banks to form streambed features (Banklines) from Void-Filled Riprap as part of constructing a nature-like streambed.

610.02 Materials Material for Void-Filled Riprap shall consist of Plain Riprap; Streambed Gravel; and Filler Material. Materials shall conform to the following requirements:

Plain Riprap (RR): as described in Standard Specification 703.26

Streambed Gravel (SG): as described in Special Provision 203 – Special Fill

Filler Material (FM): as described in Special Provision 203 – Special Fill

610.03 Testing and Inspection The grading of Plain Riprap shall be determined by the Resident by visual inspection in accordance with the Standard Specifications, Section 610.032.d Inspection. The grading of Streambed Gravel and Filler Material shall follow Special Provision 203 (Special Fill).

Void-Filled Riprap shall contain approximately 67% Plain Riprap and 33% Streambed Gravel. Void-Filled Riprap shall be mixed and placed so as to minimize segregation; it may be mixed in the proportions

(2 parts RR) : (1 part SG)

Mix proportions and material gradations shall be within the above limits or as otherwise approved by the Department's Environmental Office and the Resident. Acceptance will be based on the test results, and visual inspection by the Resident.

610.04 Construction Requirements

Banklines shall be constructed as shown on the plans or as established.

- Place thin bedding layer (no more than 6 inches thick) of Streambed Gravel (see Special Provision 203 – Special Fill) on floor of culvert before placing banklines; place banklines before streambed Special Fill.
- Place banklines in two lifts of equal thickness.

- After placement of each lift, seal voids by washing-in with Filler Material until water ponds on the surface.
- After sealing top lift, place 6-inches of Streambed Gravel (Special Provision 203) on surface. Wash in and finish with Filler Material as described previously until water ponds on surface.

610.05 Method of Measurement

Void-Filled Riprap shall be measured in place the by cubic yard.

610.06 Basis of Payment

The accepted quantity of Void-Filled Riprap will be paid for at the contract price per cubic yard.

Water and Filler Material added to the Stream Channel Rock to fill voids shall be considered incidental to the work.

Payment will be made under:

Pay Item

Pay Unit

610.213

Void-Filled Riprap

Cubic Yard

**SPECIAL PROVISION**  
**SECTION 620**  
**GEOTEXTILES**  
(Drainage Geocomposite)

Description This work shall consist of furnishing and placing Drainage Geocomposite and Weep Hole Connections as specified herein, as shown on the plans, and as directed by the Resident. Geocomposite Drainage shall consist of a formed polystyrene core covered on one side with a non-woven, needle-punched polypropylene filter fabric.

Materials Drainage Geocomposite must be a composite system consisting of permeable geotextile and three-dimensional polymeric core providing equal flow in two perpendicular directions.

The Contractor shall furnish and install a Drainage Geocomposite as a hydrostatic water relief system. The Drainage Geocomposite shall be tied in to a water discharge system or weep holes. The weep holes shall be fitted with Weep Hole Connections, that effectively drain water from the geocomposite through the weep holes. The Weep Hole Connections may consist of Sitedrain AWD-102, Option 2 – Drain Gate connections, or equivalent.

Drainage Geocomposite work shall consist of furnishing all materials and labor required for placing and securing Drainage Geocomposite material, connection pipes, footing drains, weep holes and Weep Hole Connections, and horizontal drains, as shown on the Plans or as directed by the Resident.

Quality Assurance Testing Drainage Geocomposite must be backed by a Letter of Certification from the Manufacturer that the flow rate in the plane of the core meets or exceeds the specified flow given herein and determined by ASTM D4716.

Submittals The required submittals are as follows:

A. Submit Letter of Certification that material meets or exceeds physical properties per the following table.

B. The design layout of the Drainage Geocomposite including type, spacing, overlap, collection drainage, and other information.

Product Specification The Drainage Geocomposite shall consist of Miradrain 6000XL, Amerdrain 500, or equal that meets or exceeds the following properties:

<b>TYPICAL PROPERTIES</b>	<b>Typical Value</b>	<b>Test Method</b>
<b>Fabric Properties</b>		
Material	Non-woven Polypropylene	
Grab tensile strength	100 lbs	ASTM D4632
Puncture strength	65 lbs	ASTM D4833
AOS	70 sieve	ASTM D4751
Permeability	0.3 cm/sec	ASTM D4491
<b>Core properties</b>		
Material	Polystyrene	
Compressive strength	15,000 psf	ASTM D1621 (Mod.)
<b>Product properties</b>		
Flow capacity per unit width <sup>1</sup>	16 gpm/ft	ASTM D4716

<sup>1</sup> In Plane Flow Rate, Gradient = 1.0

All numeric values in the above table, except AOS, represent minimum average roll values in the weakest principal direction (i.e., average test results of any roll in a lot sampled for conformance or quality assurance testing shall meet or exceed the minimum values). Values for AOS represent maximum average roll values.

Placement Requirements The Drainage Geocomposite shall be installed by methods approved by the Manufacturer.

The installer shall place the Drainage Geocomposite at the elevations and alignment shown on the Plans, as noted and as directed by the Resident. The Drainage Geocomposite shall be installed with the fabric side toward the soil.

When installing the Drainage Geocomposite:

- Start at the low point of the wall and attach the panel to the wall.
- Weep Hole Connections shall be installed in conjunction with the Drainage Geocomposite.
- Adjacent panels may be:
  - (1) Joined together with the lateral edge of the next/upper panel placed over the flanged edge of the lower panel;
  - (2) Overlap the dimples of the preceding panel onto the dimples of the previous panel by 2 inches.

The Drainage Geocomposite from the adjacent panels shall overlap the preceding panel. The overlap fabric can be adhered with the Manufacturer's approved tape or duct tape. The Drainage Geocomposite shall be attached to non-waterproofed walls with contact adhesive, tape or concrete nails. The Drainage Geocomposite will be permanently secured prior to completion of backfilling. Backfilling shall be placed within seven days of Drainage Geocomposite installation. Backfill to at least 6 inches above the top edge of the Drainage Geocomposite.



The top or terminal edge of the Drainage Geocomposite shall be covered by applying a piece of filter geotextile, meeting the requirements of MaineDOT Standard Specification Section 722.03, over the edge sufficient in width to prevent soil or other foreign construction materials from intruding into or behind the Drainage Geocomposite panels.

If necessary, the Drainage Geocomposite and filter geotextile shall be positioned by hand to minimize wrinkles.

Unanticipated subsurface drainage features exposed in the excavation shall be drained independently of the Drainage Geocomposite.

Backfill Requirements Structural backfill as shown on the Plans shall be placed immediately against the Drainage Geocomposite. Care shall be taken during the backfill operation not to damage the geotextile surface of the drain. The backfill shall be placed and compacted in accordance with the project Plans and specifications. Care shall also be taken to avoid excessive settlement of the backfill material. The Drainage Geocomposite, once installed, shall not be exposed for more than seven days prior to backfilling.

Storage Requirements The Contractor shall check the Drainage Geocomposite upon delivery to ensure that the proper material has been delivered. The Contractor shall be responsible for the storage of the Drainage Geocomposite material at the site.

Drainage Geocomposite shall be provided in rolls wrapped with a protective covering and stored in a manner, which protects the material from temperatures greater than 140° F, mud, dirt, dust, and debris. Protective wrapping shall not be removed until immediately before the Drainage Geocomposite is installed.

Drainage Geocomposite material shall be delivered and stored in original packages bearing the Manufacturer's name. The fabric shall not be exposed to direct sunlight for more than seven days during its storage and installation. The Drainage Geocomposite material shall be stored in a clean, dry environment out of the pathway of construction equipment. Each roll of Drainage Geocomposite material shall be labeled to identify the production run.

Repair Requirements Prior to the placement of the Drainage Geocomposite each roll shall be inspected for damage resulting from construction.

Any ripped, torn, or damaged areas of the Drainage Geocomposite material shall be removed and patched by placing a patch large enough to cover the damaged area and provide a sufficient overlap on all sides to fasten. The patch shall be secured to the original Drainage Geocomposite material using the Manufacturer's approved methods. If the hole width or tear width across the panel is more than 50% of the width of the material, the damaged area shall be cut out and the two portions of the Drainage Geocomposite material shall be joined in accordance with the placement requirement.

If the damage occurs to the Drainage Geocomposite material during shipping, handling, or installation, the damaged areas shall be cut out and a repair section of Drainage Geocomposite shall be installed at the Contractor's expense.

Method of Measurement Drainage Geocomposite installation shall be measured by the square yard in place and accepted. Measurements will not be made for overlaps, patches, and repairs.

Basis of Payment The accepted quantity of Drainage Geocomposite installed shall be paid for at the contract unit price per square yard, which shall be full compensation for off-loading, inspection, storage, materials, equipment, and any incidentals necessary to complete the installation.

The cost and placement of the drainage collection pipe will be incidental to the installation of the Drainage Geocomposite.

Payment will be made under:

	<u>Pay Item</u>	<u>Unit</u>
620.66	Drainage Geocomposite	Square Yard

**SPECIAL PROVISION**  
**SECTION 643**  
**TRAFFIC SIGNALS**  
(Temporary Traffic Signals)

The following is added to Standard Specifications Section 643:

The Contractor shall install and maintain temporary traffic signals at all times that alternating one-way traffic is maintained.

Signal heads at each approach to the work area shall be mounted on a temporary structure supplied by the Contractor and approved by the Resident. Two heads shall face traffic on each approach. All signal heads shall have a 12-inch red, yellow and green circular LED indications with 5-inch back plates and yellow retroreflective tape along each border.

Temporary stop bars shall be provided for the approaches. Temporary stop lines shall be removed by the Contractor at the completion of the temporary signal operations. Stop bar detection shall be provided on each approach. The Contractor shall determine the method of detection with the Resident's approval.

The Contractor shall initially program the signal controller with the following phasing and timing (in seconds):

	Phase 1 Route 27 northbound	Phase 1 Route 27 southbound
Min Green	15	15
Max Green	20	20
Yellow	5	5
All Red	27	27
Recall	OFF	OFF

**NOTE:**

The clearance time is based on a vehicle speed of 15 mph.

The times supplied above are based on one-way travel distance not to exceed 600 feet. Should staging require longer one-way distances, or differing travel speeds through the work zone, Contractor shall adjust timing accordingly.

The specified signal timing may be adjusted by a Licensed Professional Engineer as operation requires. The Resident may increase All Red Clearance times as necessary for the safety of the traveling public.

643.18 Method of Measurement Replace the third paragraph with the following:

Each stop bar detection system installed, connected to appropriate phases in the controller cabinet, complete and operational will not be measured for payment but will be considered incidental to the Temporary Traffic Signal Pay Item.

643.19 Basis of Payment Replace the fourth paragraph with the following:

The stop bar detection system will be considered incidental to the Temporary Traffic Signal, which will be full compensation for materials, labor, and equipment for each detection system installed, fully operational, and removed. If loop detectors are used as the stop bar detection system, loops may be abandoned in place.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
643.72	Temporary Traffic Signal	Lump Sum

**SPECIAL PROVISION**  
**SECTION 643**  
**TRAFFIC SIGNALS**  
 (Temporary Traffic Signals)

The following is added to Standard Specifications Section 643:

The Contractor shall install and maintain temporary traffic signals at all times that alternating one-way traffic is maintained.

Signal heads at each approach to the work area shall be mounted on a temporary structure supplied by the Contractor and approved by the Resident. Two heads shall face traffic on each approach. All signal heads shall have a 12-inch red, yellow and green circular LED indications with 5 inch back plates and yellow retroreflective tape along each border.

Temporary stop bars shall be provided for the approaches. Temporary stop lines shall be removed by the Contractor at the completion of the temporary signal operations. Stop bar detection shall be provided on each approach. The Contractor shall determine the method of detection with the Resident’s approval.

At the Resident’s direction, the Contractor shall supply sign R10-7 “DO NOT BLOCK INTERSECTION” at intersecting streets and driveways the Resident deems adversely impacted by the use of the temporary signals. These signs will be incidental to item 643.72, and no additional payment will be made for their use.

The Contractor shall initially program the signal controller with the following phasing and timing (in seconds):

	Phase 1 Route 2 westbound	Phase 2 Route 2 eastbound	Phase 3 House 916 Driveway
Min Green	15	15	7
Max Green	20	20	7
Yellow	2	2	2
All Red	15	15	15
Recall	MIN	MIN	OFF

NOTE:

The clearance time is based on a vehicle speed of 15 mph.

The times supplied above are based on one-way travel distance not to exceed 300 feet. Should staging require longer one-way distances, or differing travel speeds through the work zone, Contractor shall adjust timing accordingly.

The specified signal timing may be adjusted by a Licensed Professional Engineer as operation requires. The Resident may increase All Red Clearance times as necessary for the safety of the traveling public.

643.18 Method of Measurement Replace the third paragraph with the following:

Each stop bar detection system installed, connected to appropriate phases in the controller cabinet, complete and operational will not be measured for payment but will be considered incidental to the Temporary Traffic Signal Pay Item.

643.19 Basis of Payment Replace the fourth paragraph with the following:

The stop bar detection system will be considered incidental to the Temporary Traffic Signal, which will be full compensation for materials, labor, and equipment for each detection system installed, fully operational, and removed. If loop detectors are used as the stop bar detection system, loops may be abandoned in place.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
643.72      Temporary Traffic Signal	Lump Sum

**SPECIAL PROVISION**  
**SECTION 643**  
**TRAFFIC SIGNALS**  
(Temporary Traffic Signals)

The following is added to Standard Specifications Section 643:

The Contractor shall install and maintain temporary traffic signals at all times that alternating one-way traffic is maintained.

Signal heads at each approach to the work area shall be mounted on a temporary structure supplied by the Contractor and approved by the Resident. Two heads shall face traffic on each approach. All signal heads shall have a 12-inch red, yellow and green circular LED indications with 5 inch back plates and yellow retroreflective tape along each border.

Temporary stop bars shall be provided for the approaches that do not currently have stop lines. Temporary stop lines shall be removed by the Contractor at the completion of the temporary signal operations. Stop bar detection shall be provided on each approach. The Contractor shall determine the method of detection with the Resident's approval.

At the Resident's direction, the Contractor shall supply sign R10-7 "DO NOT BLOCK INTERSECTION" at intersecting streets and driveways the Resident deems adversely impacted by the use of the temporary signals. These signs will be incidental to item 643.72, and no additional payment will be made for their use.

At the Resident's direction, the Contractor shall supply barrels along the front of Tibbetts Parcel NO. (11), to control access while temporary signals are in use. Barrels should be set to provide a minimum 26 FT ingress and egress along the north line of the property, while discouraging access at the corner. These barrels will be incidental to item 643.72, and no additional payment will be made for their use.

The Contractor shall initially program the signal controller with the following phasing and timing (in seconds):

	Phase 1 Vienna Rd. (Route 41 N)	Phase 2 Lucy Knowles Rd. (Route 156 N)	Phase 3 Philbrick St.	Phase 4 Rt 2 WB/SB
Min Green	20	10	5	20
Max Green	30	15	10	30
Yellow	4	4	4	4
All Red	5	30	5	30
Recall	OFF	OFF	OFF	OFF

NOTE: Phase one must place a locking call on phase two and phase three must place a locking call on phase four.

The clearance time is based on a vehicle speed of 15 mph.

The specified signal timing may be adjusted by a Licensed Professional Engineer as operation requires. The Resident may increase All Red Clearance times as necessary for the safety of the traveling public.

643.18 Method of Measurement Replace the third paragraph with the following:

Each stop bar detection system installed, connected to appropriate phases in the controller cabinet, complete and operational will not be measured for payment but will be considered incidental to the Temporary Traffic Signal Pay Item.

643.19 Basis of Payment Replace the fourth paragraph with the following:

The stop bar detection system will be considered incidental to the Temporary Traffic Signal, which will be full compensation for materials, labor, and equipment for each detection system installed, fully operational, and removed. If loop detectors are used as the stop bar detection system, loops may be abandoned in place.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
643.72      Temporary Traffic Signal	Lump Sum



# Highway Lighting Quality Control Checklist

## Subsection 634.09 Field Testing

Project Pin # \_\_\_\_\_

Location (if multiple services, please be specific)- \_\_\_\_\_

Grounding Electrode Resistance at service \_\_\_\_\_

Number of Circuits \_\_\_\_\_

Hand-Off-Auto Switch? \_\_\_\_\_

### Circuit #1

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

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

**Current draw-** (during normal operation) Leg #1 \_\_\_\_\_ Leg #2 \_\_\_\_\_

**Operating Voltage at last pole** \_\_\_\_\_

### Circuit #2

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

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

**Current draw-** (during normal operation) Leg #1 \_\_\_\_\_ Leg #2 \_\_\_\_\_

**Operating Voltage at last pole** \_\_\_\_\_

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

Electrician's Signature \_\_\_\_\_

Electrician's License # \_\_\_\_\_

# Highway Lighting Quality Control Checklist

## Subsection 634.09 Field Testing

Project Pin # \_\_\_\_\_

Location (if multiple services, please be specific)- \_\_\_\_\_

Grounding Electrode Resistance at service \_\_\_\_\_

Number of Circuits \_\_\_\_\_

Hand-Off-Auto Switch? \_\_\_\_\_

### Circuit #3

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

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

**Current draw-** (during normal operation) Leg #1 \_\_\_\_\_ Leg #2 \_\_\_\_\_

**Operating Voltage at last pole** \_\_\_\_\_

### Circuit #4

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

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

**Current draw-** (during normal operation) Leg #1 \_\_\_\_\_ Leg #2 \_\_\_\_\_

**Operating Voltage at last pole** \_\_\_\_\_

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

Electrician's Signature \_\_\_\_\_

Electrician's License # \_\_\_\_\_

# Traffic Signal Quality Control Checklist

## Subsection 643.14 Field Testing

Project Pin # \_\_\_\_\_

Grounding Electrode Resistance at service \_\_\_\_\_

ID tags on loop amps / detector cards? \_\_\_\_\_

**Location** \_\_\_\_\_

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

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

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

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

Electrician's Signature \_\_\_\_\_

Electrician's License # \_\_\_\_\_

SPECIAL PROVISION  
SECTION 652  
MAINTENANCE OF TRAFFIC  
(Temporary Pedestrian Barricade-ADA Compliant)

Section 652 of the Standard Specifications shall be amended by the addition of the following:

652.1 Description The Contractor shall furnish, install, and maintain a continuous temporary pedestrian barricade along the pedestrian access route to separate pedestrians from the work zone.

652.2 Materials The temporary pedestrian barricade shall conform to the regulations and guidelines set forth in the Manual on Uniform Traffic Control Devices (MUTCD), Americans with Disabilities Act (ADA), and NCHRP-350.

One of the following Temporary Pedestrian Barricades is considered acceptable for use:

<u>Manufacturer</u>	<u>Product</u>
Pexco Plaistow, New Hampshire 603-382-6533	TPAR Barricade
Plastic Safety Systems Cleveland, Ohio 800-662-6338	SafetyRail ADA-Compliant Pedestrian Barricade
Plastic Safety Systems Cleveland, Ohio 800-662-6338	SafetyWall ADA-Compliant Pedestrian Barricade

Another acceptable Temporary Pedestrian Barricade is the use of temporary concrete barrier with the addition of the following features:

1. The gap between the individual temporary concrete barriers shall be filled in between 2 and 8 inches above the walking surface to provide a continuous surface along the side facing the sidewalk.
2. A high visibility orange colored continuous strip 6 inches wide shall be provided between 2 and 8 inches and 26 to 32 inches above the walking surface. This high visibility strips shall be attached to the temporary concrete barrier on the side facing the temporary sidewalk.

652.8 Basis of Payment Temporary Pedestrian Barricade – ADA Compliant, will be not be paid for directly. Payment shall be considered incidental to item 526.301 Temporary Concrete Barrier, Type I.

**SPECIAL PROVISION**  
**SECTION 652**  
**MAINTENANCE OF TRAFFIC**  
**(Portable-Changeable Message Sign)**

The provisions of Section 652 of the Standard Specifications shall apply with the following additions and modifications:

**652.2.5 Portable-Changeable Message Sign**

Portable-Changeable Message Signs shall be furnished by the Contractor for installation and use at the following location:

1. Farmington, Route 41, 1500'+/- north of the intersection of Route 41 and Philbrick Road
2. Farmington, Route 2 , 750' east of the intersection with Philbrick Road
3. Chesterville, Route 41, 1500'+/- south of the intersection of Route 41 and Webber Road
4. Chesterville, Route 156 , 1500' west of the intersection of Route 41 and Webber Road.

The exact location of any Portable-Changeable Message Signs shall be approved by the Resident.

The Contractor shall provide, operate and maintain the Portable-Changeable Message Signs. The Contractor shall remove, transport and maintain the signs as directed by the Resident. The Contractor will be responsible for the day to day programming and operation of the signs.

SPECIAL PROVISION  
SECTION 652  
MAINTENANCE OF TRAFFIC

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

Road Work Next X\* Miles  
Road Work 500 Feet (Ahead)  
End Road Work

Work Areas. At each work site, signs and channelizing devices shall be used as directed by the Resident.

Signs include:

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

Other typical signs include:

Be Prepared to Stop  
Low Shoulder  
Bump  
Pavement Ends

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

Unless otherwise defined in Special Provision 105/107 or submitted and approved in the Traffic Control Plan, the following shall apply:

- The Contractor shall conduct their operations in such a manner that the roadway will not be restricted to one lane for more than 2,500 feet at each work area and no more than 4,000 feet for paving and milling work areas.
- Where more than one work area restricts traffic to one lane operation, these work areas shall be separated by at least 1 mile of two-way operation.

**Temporary Centerline** A temporary centerline shall be placed each day on all new pavement to be used by traffic. The temporary centerline, when specified of reflectorized traffic paint, shall conform to the standard marking patterns used for permanent markings. Failure to apply a temporary centerline daily will result in a Traffic Control Violation and suspension of paving operations until temporary markers are applied to all previously placed pavement.

<sup>1</sup> "Road Work Ahead" to be used in short duration operations and "Road Work xx feet" to be used in stationary operations as directed by the Resident.

## 2020 STANDARD DETAIL UPDATES

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

<b><u>Detail #</u></b>	<b><u>Description</u></b>	<b><u>Revision Date</u></b>
507(20)	Steel Approach Railing 3-Bar	2/11/2021
507(21)	Steel Approach Railing 3-Bar	2/11/2021
507(22)	Steel Approach Railing 3-Bar	2/11/2021
507(23)	Steel Approach Railing 3-Bar	2/11/2021
507(27)	Steel Approach Railing	2/11/2021
526(01)	Portable Concrete Barrier	1/14/2021
526(01A)	Portable Concrete Barrier	1/14/2021
526(01B)	Portable Concrete Barrier	1/14/2021
526(02)	Portable Concrete Barrier	1/14/2021
526(02A)	Portable Concrete Barrier	1/14/2021
526(03)	Portable Concrete Barrier	1/14/2021
526(04)	Portable Concrete Barrier	1/14/2021
526(04A)	Portable Concrete Barrier	1/14/2021
526(04B)	Portable Concrete Barrier	1/14/2021
603(10)	Concrete Pipe Ties	6/10/2021
606(23)	Standard Bridge Transition – Type “1”	2/11/2021
606(24)	Standard Bridge Transition – Type “1A”	2/11/2021
608(02)	Detectable Warnings	6/10/2021
609(09)	Precast Concrete Vertical Curb	2/11/2021
643(11)	ATCC Cabinet	12/14/2020
801(11)	Pedestrian Ramp Notes	6/10/2021
801(12)	Pedestrian Ramp Requirements	6/10/2021
801(13)	Ramp Length Table	6/10/2021
801(14)	Parallel Pedestrian Ramp	6/10/2021
801(15)	Perpendicular Pedestrian Ramp – Option 1	6/10/2021
801(16)	Parallel Pedestrian Ramp – Option 2A	6/10/2021
801(17)	Perpendicular Pedestrian Ramp – Option 2A	6/10/2021
801(18)	Parallel Pedestrian Ramp – Option 2B	6/10/2021
801(19)	Perpendicular Pedestrian Ramp – Option 2B	6/10/2021

801(20)	Parallel Pedestrian Ramp – Option 3	6/10/2021
801(21)	Perpendicular Pedestrian Ramp – Option 3	6/10/2021
801(22)	Side Street Pedestrian Ramp	6/10/2021
801(23)	Parallel Pedestrian Ramp – Esplanade	6/10/2021
801(24)	Perpendicular Pedestrian Ramp – Esplanade	6/10/2021
801(25)	Island Crossings	6/10/2021
801(26)	Blended Transition	6/10/2021
801(27)	Pedestrian Ramp Adjacent to Driveway or Entrance	6/10/2021
802(05)	Roadway Culvert End Slope Treatment	1/03/2017



**SUPPLEMENTAL SPECIFICATIONS**  
**(Corrections, Additions, & Revisions to Standard Specifications – March 2020)**

**SECTION 102**  
**BIDDING**

102.11 Bid Responsiveness Revise the paragraph that states  
“The Bid is not signed by a duly authorized representative of the Bidder.” So that it reads:

**“The Bid is not signed by a duly authorized representative of the Bidder.**

- **Properly submitted electronic bids meet this requirement.**
- **Paper bids must include at least one signed copy of the Contract Agreement Offer & Award form.”**

**SECTION 104**  
**GENERAL RIGHTS AND RESPONSIBILITIES**

104.2.1 Furnishing of Right-of-Way Revise the last sentence in the first paragraph by removing  
“105.4.5 – Special Detours” and replacing it with “**105.4.5 – Maintenance of Existing Structures.**”.

**SECTION 106**  
**QUALITY**

106.6 Acceptance Revise this Subsection by replacing the paragraph beginning with “Acceptance of Hot Mix Asphalt Pavement will be based” with:

**“Acceptance of Hot Mix Asphalt Pavement will be based on Method A or C Statistical Acceptance, or Method B or D Acceptance as specified. The method of acceptance for each item is defined in Special Provision, Section 403, Hot Mix Asphalt Pavement. When items of Hot Mix Asphalt Pavement are not so designated, Method A will be utilized whenever there are more than 1000 tons per Hot Mix Asphalt Pavement item, and Method B will be utilized when there are less than or equal to 1000 tons per Hot Mix Asphalt Pavement item.”**

Revise Subsection “B” by removing it and replacing it with:

**“B. Items not designated for Statistical Acceptance will utilize Method B or D Acceptance testing to validate the quality of the material incorporated into the Project. For material paid under Item 403.209 – Method D, or designated to be visually accepted, the Contractor shall provide the Department with a Certification Letter that indicates that the material supplied complies with the Specifications. Test results representative of the certified material shall be attached to the letter.**

**The Department will randomly sample and test the certified Material for properties noted in Table 1 of Section 502 - Structural Concrete or Table 14 of Section –401.21 Acceptance Method B & D. Material will be subject to rejection as noted in Structural Concrete Section 502.195 - Quality Assurance Method C Concrete or Hot Mix Asphalt, Section 401.2022 Pay Adjustment – Method B & D.”**

106.7.1 Standard Deviation Method Revise 106.7.1, subsection H by removing the following from the first paragraph:

“Method B:  $PF = [70 + (\text{Quality Level} * 0.33)] * 0.01$ ”

## SECTION 110 INDEMNIFICATION, BONDING, AND INSURANCE

110.3.9 Administrative & General Provisions Amend this subsection by adding “**Automobile Liability**” under letter A) Additional Insured to the list of exceptions.

## SECTION 206 STRUCTURAL EXCAVATION

206.01 Description – *Structural Earth Excavation, Below Grade* delete the entire sentence and replace with “**shall consist of the removal of excavation required for unknown or unanticipated subsurface condition. See 206.04 – Method of Measurement for pay limits.**”

206.04 Method of Measurement – Drainage and Minor Structures Paragraph 1, sentence 2, delete the remainder of the sentence beginning with “...provided the maximum allowable...”

And replace with: “**...in accordance with the following limits:**”

- **Vertical pay limits:**
  - **Below a plane parallel with and 12 inches below the bottom of the drainage or minor structure or**
  - **Below the excavation limits shown in the Bid Documents; whichever is greater.**
  
- **Horizontal pay limits – The maximum allowable horizontal dimensions shall not exceed those bounded by vertical surfaces 18 inches outside the base, or extreme limits of, the structure, and to the vertical neat lines of underdrain trenches, as shown in the Contract Documents.**

## SECTION 401 HOT MIX ASPHALT PAVEMENT

401.19 Contractor Quality Control Amend this Section by adding the following to the end:

**“Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all items covered by the QCP as identified in Special Provision 403.”**

## SECTION 502 STRUCTURAL CONCRETE

502.09 Forms and Falsework Amend this subsection by adding the subsection title **“502.10 Placing Concrete”** after section “D” Removal of Forms and False work” and after the paragraph beginning with “2. Forms and False work, including blocking...”. So that a new subsection starts and reads:

**“502.10 Placing Concrete**

A. **General Concrete shall not be placed until forms ....”**

502.1701 Quality Control, Method A and B Revise this Section so that the first paragraph and the first sentence of the second paragraph read:

**“502.17 Quality Control The Contractor shall control the quality of the concrete through testing, inspection, and practices which shall be described in the QCP, sufficient to assure a product meeting the Contract requirements. The QCP shall meet the requirements of Section 106, Quality, and this specification. No work under this item shall proceed until the QCP is submitted to and approved by the Department. Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all cast-in-place items covered by the QCP, using the P value listed in Special Provision 502. If no P value is listed, a value of \$350, or bid value per cubic yard, whichever is less, shall be used.**

**502.1701 Quality Control, Method A and B The QCP shall address all elements that affect the quality of the structural concrete including, but not limited to, the following: “**

502.18, Method of Measurement, Revise Subsection ‘F’ by removing the word ‘transverse’ so that it reads: **“Saw cut grooving of concrete wearing surfaces, complete and accepted, will be measured for payment as one lump sum.”**

502.19, Basis of Payment, Revise the third paragraph by removing the word ‘transverse’ so that it reads: **“Saw cut grooving of concrete wearing surfaces will be paid for at the Contract Lump Sum Price, which shall be payment for furnishing all materials, labor, and equipment, including depth gauges and all incidentals, to satisfactorily complete the work.”**

(Also see 535.24 and 535.25 for related changes)

SECTION 506  
SHOP APPLIED PROTECTIVE COATING – STEEL

506.13 Surface Preparation Amend this section by adding this paragraph to the end:

**“Steel shall meet the requirements of SSPC SP8 Pickling prior to being immersed in the zinc tanks. Verification of the surface preparation shall be included in the QC documentation.”**

SECTION 523  
BEARINGS

523.22 Fabrication Amend this subsection by adding the following: **“Elastomeric Bearings shall be fabricated in accordance with AASHTO M251.”**

SECTION 526  
CONCRETE BARRIER

Amend this section by deleting it in its entirety and replacing it with:

**“526.01 Description This work shall consist of the furnishing, constructing, erecting, setting, resetting, and removal of concrete barrier and associated elements in accordance with these specifications, the Standard Details, and the lines and grades shown on the Plans or established by the Resident.**

The types of concrete barrier are designated as follows:

**Portable Concrete Barrier Type I Double faced removable barrier in accordance with the Standard Details.**

**Permanent Concrete Barrier Type II Double faced barrier as shown on the Plans.**

**Permanent Concrete Barrier Type IIIa Single faced barrier 32 inches high in accordance with the Standard Details or as shown on the Plans.**

**Permanent Concrete Barrier Type IIIb Single faced barrier 42 inches high in accordance with the Standard Details or as shown on the Plans.**

**Permanent Concrete Transition Barrier Barrier of various heights joining steel bridge rail to steel guardrail in accordance with the Standard Details or as shown on the Plans.**

**Permanent Texas Classic Rail Barrier Traffic rail or sidewalk rail, in accordance with the Standard Details or as shown on the Plans.**

**526.02 Materials**

a. **Concrete** Concrete for barriers, both permanent and portable, shall have a design strength of 5,000 psi.

For cast-in-place barrier: The concrete shall be Class LP, in accordance with Standard Specification Section 502, Structural Concrete.

For precast barrier: The concrete shall meet the requirements of Standard Specification 712.061, Structural Precast Concrete Units, except that the stripping strength for precast barriers is 4,000 psi.

b. **Reinforcing Steel** Reinforcing steel shall meet the requirements of Section 503, Reinforcing Steel.

c. **Structural Steel** Plates and barrier connections shall meet the requirements specified in Standard Specification 504 - Structural Steel and shall be hot dip galvanized after fabrication in accordance with Standard Specification 506, Shop Applied Protective Coating – Steel

d. **Bolts** Bolts shall meet the requirements specified in Section 713.02, High Strength Bolts.

e. **Connecting Pins for Portable Concrete Barrier** Portable concrete barriers must be connected using a 1- inch diameter pin. The connecting pin must be smooth, not deformed, i.e., reinforcing bar may not be used, and shall meet the strength requirements of ASTM A449 steel. Materials with greater strength may be used with the approval of the Department.

f. **Anchor Pins for Portable Concrete Barrier** Anchoring to concrete or asphalt will be required when specified on the Plans. When required, portable concrete barriers must be anchored using a 1 ½ - inch diameter anchor pin. The anchor pin must be smooth, not deformed, i.e., reinforcing bar may not be used, and shall meet the strength requirements of ASTM A36 steel. Materials with greater strength may be used with the approval of the Department.

g. **Device Crashworthiness** MaineDOT is transitioning to MASH2016 criteria for Portable Concrete Barrier on the following schedule:

New Portable Concrete Barrier shall be crash tested and/or evaluated to MASH2016 criteria.

Current Portable Concrete Barrier in useful serviceable condition that is successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.

**Other current Portable Concrete Barrier that is deemed acceptable by the Department may be utilized on projects off the National Highway System through December 31, 2024.**

**526.03 Construction Requirements**

**Cast-in-place barriers shall be fabricated in accordance with Standard Specification Section 502, Structural Concrete. Precast barriers shall be fabricated in accordance with Standard Specification 534, Precast Structural Concrete.**

**Concrete finish for permanent barrier shall be rubbed as defined in Standard Specification Section 502, Structural Concrete, 502.13 D2 or an approved equal.**

**Portable concrete barrier shall be generally free from fins and porous areas and shall present a neat and uniform appearance.**

**Permanent barrier shall have a protective coating applied in accordance with Standard Specification Section 515, Protective Coating for Concrete Surfaces.**

**Reflective delineators for concrete median barrier shall meet the requirements of Special Provision 645, Highway Signing.**

**Preformed Joint Filler shall meet the requirements specified in Subsection 705.01, Preformed Expansion Joint Filler.**

**Permissible dimensional tolerances for all concrete barriers shall be as follows:**

- a. Cross-sectional dimensions shall not vary from design dimensions by more than  $\frac{1}{4}$  inch. The vertical centerline shall not be out of plumb by more than  $\frac{1}{4}$  inch.**
- b. Longitudinal dimensions shall not vary from the design dimensions by more than  $\frac{1}{4}$  inch per 10 feet of barrier section and shall not exceed  $\frac{3}{4}$  inches per section.**
- c. Location of anchoring holes shall not vary by more than  $\frac{1}{2}$  inch from the dimensions shown in the concrete barrier details on the Plans.**
- d. Surface straightness shall not vary more than  $\frac{1}{4}$  inch under a 10-foot straightedge.**
- e. The barrier shall have no significant cracking. Significant cracking is defined as fractures or cracks passing through the section, or any continuous crack extending for a length of 12 inches or more, regardless of position in the section.**

**526.04 Method of Measurement Permanent Concrete Barrier Type II, IIIa, IIIb, Texas Classic Rail, and Precast Median Barrier will be measured for payment by lump sum, complete in place.**

**Portable concrete barrier, both anchored and unanchored will be measured for payment by lump sum. Lump sum measurement will include verification of the installation and removal of all portable concrete at the completion of the Contractor's operations.**

The Contractor shall replace sections of portable concrete barrier, including anchored barrier damaged by the traveling public when directed by the Resident. Replacement sections will be measured for payment in accordance with Standard Specification 109.7, Equitable Adjustments to Compensation and Time.

Transition barrier will be measured by each, complete in place.

**526.05 Basis of Payment** The accepted quantities of Concrete Barrier Type II, IIIa, IIIb, Texas Classic Rail, and Precast Median Barrier will be paid for at the Contract lump sum price for the type specified, complete in place.

The accepted quantities of Portable Concrete Barrier Type I, both anchored and unanchored will be paid for at the Contract lump sum price. Such payment shall be full compensation for furnishing all materials, assembling, moving, resetting, transporting, temporarily storing, removing barrier, furnishing new parts as necessary, and all incidentals necessary to complete the work.

Portable barrier shall become the property of the Contractor upon completion of the use of the barrier on the project and shall be removed from the project site by the Contractor.

Transition barrier will be paid for at the Contract price each, complete in place.

The accepted quantity of all types of concrete barrier, whether portable or permanent, will be paid for at the lump sum or per each price, as applicable, which payment shall be full compensation for all materials, including reinforcing steel, protective coating, reflective delineators, steel plates and hardware, equipment, labor and incidentals required, as necessary, to complete the work.

Payment will be made under:

	<u>Pay Item</u>	<u>Pay Unit</u>
526.301	Portable Concrete Barrier, Type I	Lump Sum
526.304	Portable Concrete Barrier, Anchored Type I	Lump Sum
526.312	Permanent Concrete Barrier Type II	Lump Sum
526.321	Permanent Concrete Barrier Type IIIa	Lump Sum
526.323	Texas Classic Rail	Lump Sum
526.331	Permanent Concrete Barrier Type IIIb	Lump Sum
526.34	Permanent Concrete Transition Barrier	Each
526.502	Precast Concrete Median Barrier	Lump Sum”

SECTION 527  
ENERGY ABSORBING UNIT

527.02 Materials Amend this section by deleting it in its entirety and replacing it with:

**“MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Portable Crash Cushions will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 3 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.**

**Work Zone Crash Cushions shall be selected from the Department’s Qualified Products List of Crash Cushions/Impact Attenuators or approved equal.”**

SECTION 535  
PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.24, Installation of Slabs, Beams, and Girders Revise the 5<sup>th</sup> paragraph by replacing “6.0 and 9.0” to “5.0 and 8.0” so it reads: **“Ready mixed grout shall achieve a design compressive strength of 6,000 psi at 28 days, have an entrained air content of between 5.0 and 8.0 percent, be non-shrink, flowable, and contain a non-shrink additive listed on the Department QPL for expansive cements.”**

535.25, Installation of Precast/Prestressed Deck Panels Revise the 2<sup>nd</sup> paragraph by replacing “6.0 and 9.0” to “5.0 and 8.0” so it reads: **“Ready mixed grout shall achieve a design compressive strength of 6,000 psi at 28 days, have an entrained air content of between 5.0 and 8.0 percent, be non-shrink, flowable, and contain a non-shrink additive listed on the Department QPL for expansive cements.”**

SECTION 606  
GUARDRAIL

Amend this section by replacing it with the following:

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

31” W-Beam Guardrail - Mid-Way Splice

Galvanized steel w-beam, 8” wood or composite offset blocks, galvanized steel posts

Thrie Beam

Galvanized steel thrie beam, 8” wood or composite offset blocks, galvanized steel posts

Median guardrail shall consist of two beams of the above types, mounted on single posts.



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

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

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

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

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

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

Posts for underdrain delineators shall be "U" channel steel, 8 ft long, 2 ½ lb/ft minimum and have 3/8-inch round holes, 1-inch center to center for a minimum distance of 2 ft from the top of the post.

Reflectorized Flexible Guardrail Markers shall be mounted on all guardrails. A marker shall be mounted onto guardrail posts at the flared guardrail terminal end point and tangent point, both at the leading and trailing ends of each run of guardrail. The marker's flexible posts shall be gray with either silver-white or yellow reflectors (to match the edge line striping) at the tangents, red at leading ends, and green at trailing ends. Whenever the guardrail terminal is not flared, markers will only be required at the terminal end point. These shall be red or green as appropriate. Markers shall be installed on the protected side of guardrail posts unless otherwise approved by the Resident. Reflectorized flexible guardrail markers shall be from the Department's Qualified Products List of Delineators. The marker shall be gray, flexible, durable, and of a non-discoloring material to which 3-inch by 9-inch reflectors shall be applied, and capable of recovering from repeated impacts and meeting MASH 16 requirements. Reflective material shall meet the requirements of Section 719.01 for ASTM D 4956 Type III reflective sheeting. The marker shall be secured to the guardrail post with two fasteners, as shown in the Standard Details.

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

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

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

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

Acceptable multiple mailbox assemblies shall be listed on the Department’s Qualified Products List and shall be MASH 16 tested and approved.

Flared and Tangent w-beam guardrail terminals and guardrail offset blocks shall be from the Department’s Qualified Products List. Flared terminals shall be installed with a 4 ft offset as shown in the Manufacturer’s installation instructions.

Anchorage assemblies used to anchor trailing ends, radius guardrail, or other ends not exposed to traffic shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report, Drawing SEW02a.

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

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

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

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

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

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

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

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

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

All bolts shall be of sufficient length to extend beyond the nuts but not more than ½ inch. Nuts shall be drawn tight.

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

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

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

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

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

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

Guardrail terminal, reflectorized flexible guardrail marker, terminal end, anchorage assembly, bridge transition, bridge connection, multiple mailbox post, and single post will be measured by each unit of the kind specified and installed.

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

Excavation in solid rock for placement of posts will be paid under force account unless otherwise indicated in the Bid Documents.

606.09 Basis of Payment The accepted quantities of guardrail will be paid for at the contract unit price per linear foot for the type specified, complete in place. Reflectorized beam guardrail (“butterfly”-type) delineators will not be paid for directly but will be considered incidental to guardrail items. Reflectorized flexible guardrail marker, terminal end, anchorage assembly, bridge transition, bridge connection, multiple mailbox post, and single post will be paid for at the contract unit price each for the kind specified complete in place.

Guardrail terminals will be paid for at the contract price each, complete in place which price shall be full payment for furnishing and installing all components including the terminal section, posts, offset blocks, "w" beam, cable foundation posts, plates and for all incidentals necessary to complete the installation within the limits as shown on the Standard Details or the Manufacturer’s installation instructions. Pay limits for a flared terminal will be 37.5 feet. Pay limits for a tangent terminal will be 50 feet. Each guardrail terminal will be clearly marked with the Manufacturer’s name and model number to facilitate any future needed repair. Such payment shall also be full compensation for furnishing all material, excavating, backfilling holes, assembling, and all incidentals necessary to complete the work, except that for excavation for posts or anchorages in solid ledge rock, payment will be made under 109.7.5 – Force Account. Type III Retroreflective Adhesive Sheeting shall be applied to the approach buffer end sections and sized to substantially cover the end section. On all roadways, the ends shall be marked with alternating black and retroreflective yellow stripes. The stripes shall be 3 in wide and sloped down at an angle of 45 degrees toward the side on which traffic is to pass the end section. Guardrail terminals shall also include a set of installation drawings supplied to the Resident.

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

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

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

Adjust guardrail will be paid for at the contract unit price per linear foot and will be full compensation for adjusting to grade. Payment shall also include adjusting guardrail terminals where required.

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

Remove and Reset guardrail will be paid for at the contract unit price per linear foot and will be full compensation for removing, transporting, storing, reassembling all parts, necessary cutting, furnishing new parts when necessary, reinstalling at the new location, and all other incidentals necessary to complete the work. Payment shall also include removing and resetting guardrail terminals when required.

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

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

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

No payment will be made for guardrail removed, but not reset and all costs for such removal shall be considered incidental to the various contract pay items.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
606.1301	31” W-Beam Guardrail - Mid-Way Splice – Single Faced	Linear Foot
606.1302	31” W-Beam Guardrail - Mid-Way Splice – Double Faced	Linear Foot
606.1303	31” W-Beam Guardrail - Mid-Way Splice, 15’ Radius and Less	Linear Foot
606.1304	31” W-Beam Guardrail - Mid-Way Splice, Over 15’ Radius	Linear Foot
606.1305	31” W-Beam Guardrail - Mid-Way Splice Flared Terminal	Each
606.1306	31” W-Beam Guardrail - Mid-Way Splice Tangent Terminal	Each
606.1307	Bridge Transition (Asymmetrical) – Type IA	Each
606.1721	Bridge Transition - Type I	Each
606.1722	Bridge Transition - Type II	Each
606.1731	Bridge Connection - Type I	Each

606.1732	Bridge Connection - Type II	Each
606.178	Guardrail Beam	Linear Foot
606.25	Terminal Connector	Each
606.257	Terminal Connector - Thrie Beam	Each
606.259	Anchorage Assembly	Each
606.265	Terminal End-Single Rail - Galvanized Steel	Each
606.266	Terminal End-Single Rail - Corrosion Resistant Steel	Each
606.275	Terminal End-Double Rail - Galvanized Steel	Each
606.276	Terminal End-Double Rail - Corrosion Resistant Steel	Each
606.353	Reflectorized Flexible Guardrail Marker	Each
606.354	Remove and Reset Reflectorized Flexible Guardrail Marker	Each
606.356	Underdrain Delineator Post	Each
606.358	Guardrail, Modify	Linear Foot
606.362	Guardrail, Adjust	Linear Foot
606.365	Guardrail, Remove, Modify, and Reset	Linear Foot
606.366	Guardrail, Remove and Reset	Linear Foot
606.367	Replace Unusable Existing Guardrail Posts	Each
606.47	Single Wood Post	Each
606.48	Single Galvanized Steel Post	Each
606.50	Single Steel Pipe Post	Each
606.51	Multiple Mailbox Support	Each
606.568	Guardrail, Modify - Double Rail	Linear Foot
606.63	Thrie Beam Rail Beam	Linear Foot
606.64	Guardrail Thrie Beam - Double Rail	Linear Foot
606.65	Guardrail Thrie Beam - Single Rail	Linear Foot
606.66	Terminal End Thrie Beam	Each
606.70	Transition Section - Thrie Beam	Each
606.71	Guardrail Thrie Beam - 15 ft radius and less	Linear Foot
606.72	Guardrail Thrie Beam - over 15 ft radius	Linear Foot
606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	Linear Foot
606.74	Guardrail - Single Rail Bridge Mounted	Linear Foot
606.753	Widen Shoulder for Low Volume Guardrail End	Each
606.754	Widen Shoulder for Flared Guardrail Terminal	Each
606.78	Low Volume Guardrail End	Each
606.80	Buried-in-Slope Guardrail End	Each

## SECTION 609 CURB

609.02 Materials Revise the paragraph beginning “The Contractor shall submit a concrete mix...” so that it reads:

**“The Contractor shall submit a concrete mix design for the Portland Cement Concrete to the Resident, with a minimum designed compressive strength of 3000 psi concrete fill.”**

609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections Revise this section by underlining the section number and title so that it reads in the spec book as:

**“609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections”**

Revise the last paragraph beginning with “The Contractor may elect...” so that it reads:

**“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 Concrete Fill shall meet the requirements of 609.02.”**

## SECTION 610

### STONE FILL, RIPRAP, STONE BLANKET, AND STONE DITCH PROTECTION

610.02 Materials Amend this subsection by adding the following to the end of the material list:  
**“Stone Ditch Protection 703.29”**

## SECTION 618

### SEEDING

618.08 Mulching Revise this Section so that the third sentence reads: “Mulch for Seeding Method Number 1 shall only be cellulosic fiber mulch Section 619.04 (b) or straw mulch Section 619.04 (a).”

## SECTION 619

### MULCH

619.03 General Amend this Section by adding the following sentence to the end: **“Straw mulch shall be used in all wetland areas.”**

## SECTION 626

### FOUNDATIONS, CONDUIT, AND JUNCTION BOXES FOR HIGHWAY SIGNING, LIGHTING, AND SIGNALS

626.034 Concrete Foundations Revise this Section by changing ‘626.037’ to ‘**626.036**’ in the Second Paragraph which begins with “Foundations shall consist of cast-in-place...”.

Revise the 10<sup>th</sup> paragraph beginning with “Before placing concrete, the required elbows...” by removing “...in accordance with **Standard Specification 633.**”

626.036 Precast Foundations Revise the last sentence of paragraph one so that it reads:  
**“Construction of precast foundations shall conform to the Standard Details and all requirements of 712.061.”**

## SECTION 627 PAVEMENT MARKINGS

627.06 Application Revise this subsection by replacing the paragraph beginning with “ On other final pavement markings...” with the following:

**“On other final pavement markings and on curb, where the paint is applied by hand painting or spraying, application shall be one uniform covering coat at least 16 mils thick. Before the 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.**

**Painted lines and markings shall be applied in accordance with the manufacturer’s published recommendations. These recommendations will be supplied to the Resident prior to installation.”**

## SECTION 643 TRAFFIC SIGNALS

643.021 Materials Amend this subsection by adding the following at the end:

**“MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Temporary Traffic Control Signals will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 4 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.”**

643.09 Service Connection Revise this subsection by removing the paragraph that begins with “Traffic signal services shall have...”.

And by removing the paragraphs beginning with “ A service ground rod shall be installed...” and “A total of 4, 10’ service...” and replace them with **“A total of 4, 10’ service ground rods shall be installed and properly connected together on the outside of the cabinet foundation. One ground rod shall be located at each corner and shall be either flush or slightly below finished grade. The connection between the ground rod and the ground wire shall be an exothermic connection such as a Cadweld. The ground wire from the interconnected ground rods shall be routed through a conduit in the foundation and into the base of the cabinet”**.

## SECTION 645



## HIGHWAY SIGNING

Section 645.023 Sign Support Structures. Under letter “c.”, revise the fifth paragraph beginning with “In addition to the required details...” by removing the words **”and foundation”** from the 5<sup>th</sup> sentence.

Section 645.08 Method of Measurement. Revise the second paragraph beginning with “Bridge-type, cantilever and...” by removing the words **”including the foundation”** .

Section 645.09 Basis of Payment. Revise the third paragraph beginning with “The accepted bridge-type, cantilever and...” by removing the word **”foundation”** from the second sentence. Add the following sentence to the end of the paragraph **”Conduits, Junction Boxes, and Foundations will be paid for under Section 626.”**

## SECTION 652 MAINTENANCE OF TRAFFIC

Amend this Section by adding the following new subsection:

**“652.2.6 Device Crashworthiness MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Category 1 (Cones, Drums, Tubular Markers, Flexible Delineators, and similar devices that have little chance of causing windshield penetration, tire damage, or other significant effect on the control or trajectory of a vehicle) – All Category 1 devices will be manufacturer self-certified as MASH2016 by January 1, 2025. Current Category 1 devices in useful serviceable condition that are not self-certified as MASH2016 compliant may be utilized through December 31, 2024.**

**Category 2 (Barricades, Portable Sign Supports, Category 1 devices with attachments, and similar devices that are not expected to produce significant vehicular velocity change but may be otherwise hazardous) – All Category 2 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2025. Current Category 2 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2024.**

**Category 3 (Portable Concrete Barrier, Portable Crash Cushions, Truck Mounted Attenuators, Category 2 devices weighing more than 100 pounds, and similar devices that are expected to produce significant vehicular velocity change or other harmful reactions) – All Category 3 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 3 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029. (See Standard Specification 526 for additional Portable Concrete Barrier information).**

**Category 4 (Trailer Mounted Devices: Arrow Boards, Temporary Traffic Control Signals, Area Lighting, Portable Changeable Message Sign, and other similar devices.) – All Category 4 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1,**

**2030. Current Category 4 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.”**

652.4 Flaggers Revise the first paragraph of this section so that it reads:

“The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer.”

### SECTION 681

#### PRECAST AGGREGATE-FILLED, CONCRETE BLOCK GRAVITY WALL

681.08 Basis of Payment Amend this section by adding the Item Number “**681.10**” in front of the item “Precast Aggregate-Filled Concrete Block Gravity Wall” at the end of the section.

### SECTION 703

#### AGGREGATES

Add the following to Section 703 - Aggregates

703.01 Fine Aggregate for Concrete Fine aggregate for concrete shall consist of natural sand or, when approved by the Resident, other inert materials with similar characteristics or combinations thereof, having strong, durable particles. Fine aggregate from different sources of supply shall not be mixed or stored in the same pile nor used alternately in the same class of construction or mix without permission of the Resident.

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 the reference standard color solution (laboratory designation Plate III), the fine aggregate shall be rejected.

Fine aggregate shall have a sand equivalent value of not less than 75 when tested in accordance with AASHTO T 176.

Fine aggregate sources shall meet the Alkali Silica Reactivity (ASR) requirements of Section 703.0201.

The fineness modulus shall not be less than 2.26 or more than 3.14. If this value is exceeded, the fine aggregate will be rejected unless suitable adjustments are made in proportions of coarse and fine aggregate. The fineness modulus of fine aggregate shall be determined by adding the cumulative percentages of material by weight retained on the following sieves: Nos. 4, 8, 16, 30, 50, 100 and dividing by 100.

Fine aggregate, from an individual source when tested for absorption as specified in AASHTO T 84, shall show an absorption of not more than 2.3 percent.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
$\frac{3}{8}$ inch	100
No. 4	95-100
No. 8	80-100
No. 16	50-85
No. 30	25-60
No. 50	10-30
No. 100	2-10
No. 200	0-5.0

703.02 Coarse Aggregate for Concrete Coarse aggregate for concrete shall consist of crushed stone or gravel having hard, strong, durable pieces, free from adherent coatings and of which the composite blend retained on the  $\frac{3}{8}$  inch sieve shall contain no more than 15 percent, by weight of flat and elongated particles when performed in accordance with test method ASTM D 4791, Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate, using a dimensional ratio of 1:5.

The coarse aggregate from an individual source shall have an absorption no greater than 2.0 percent by weight determined in accordance with AASHTO T 85 modified for weight of sample.

The composite blend shall have a Micro-Deval value of 18.0 percent or less as determined by AASHTO T 327 or not exceed 40 percent loss as determined by AASHTO T 96.

Coarse aggregate sources shall meet the Alkali Silica Reactivity (ASR) requirements of Section 703.0201.

Coarse aggregate shall conform to the requirements of the following table for the size or sizes designated and shall be well graded between the limits specified.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves				
	Grading	A	AA	S	LATEX
Aggregate Size	1 inch	¾ inch	1½ inch	½ inch	
2 inch			100		
1½ inch	100		95-100		
1 inch	95-100	100	-		
¾ inch	-	90-100	35-70	100	
½ inch	25-60	-	-	90-100	
⅜ inch	-	20-55	10-30	40-70	
No. 4	0-10	0-10	0-5	0-15	
No. 8	0-5	0-5	-	0-5	
No. 16	-	-	-	-	
No. 50	-	-	-	-	
No. 200	0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5	

703.0201 Alkali Silica Reactive Aggregates 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:

- a. Class F Coal Fly Ash meeting the requirements of AASHTO M 295
- b. Ground Granulated Blast Furnace Slag (Grade 100 or 120) meeting the requirements of AASHTO M 302
- c. Densified Silica Fume meeting the requirements of AASHTO M 307
- d. Lithium-based admixtures
- e. 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.

703.05 Aggregate for Sand Leveling Aggregate for sand leveling shall be sand of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The aggregate shall meet the grading requirements of the following table.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
3/8 inch	85-100
No. 200	0-5.0

703.06 Aggregate for Base and Subbase 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 1/2 inch 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.

Recycled Asphalt Pavement (RAP) shall not be used for or blended with aggregate base or subbase.

- a. Aggregate for base, Type A and B shall be crushed ledge or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a 3 inch sieve shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type A	Type B
1/2 inch	45-70	35-75
1/4 inch	30-55	25-60
No. 40	0-20	0-25
No. 200	0-6.0	0-6.0

At least 50 percent by weight of the material retained on the No. 4 sieve shall have at least one fractured face as tested by AASHTO T 335.

Type A aggregate for base shall only contain particles of rock that will pass the 2 inch square mesh sieve.

Type B aggregate for base shall only contain particles of rock that will pass the 4 inch square mesh sieve.

- b. Aggregate for base, Type C shall be crushed ledge or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The material shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type C	
4 inches	100	
3 inches	90-100	
2 inches	75-100	
1 inch	50-80	
½ inch	30-60	
No. 4	15-40	
No. 200	0-6.0	

At least 50 percent by weight of the material coarser than the No. 4 sieve shall have at least one fractured face as tested by AASHTO T 335.

- c. Aggregate for subbase shall be sand or gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a 3 inch sieve shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type D	Type E
½ in	35-80	
¼ inch	25-65	25-100
No. 40	0-30	0-50
No. 200	0-7.0	0-7.0

Type D aggregate for subbase gravel may contain up to 50 percent by weight Recycled Concrete Aggregate (RCA). When RCA is used, the portion of the resulting blend of gravel and RCA retained on a ½” square mesh sieve shall contain a total of no more than 5 percent by weight of other recycled materials such as brick, concrete masonry block, or asphalt pavement as determined by visual inspection.

RCA shall be substantially free of wood, metal, plaster, and gypsum board as defined in Note 9 in Section 7.4 of AASHTO M 319. RCA shall also be free of all substances that fall under the category of solid waste or hazardous materials.

Aggregate for subbase shall not contain particles of rock which will not pass the 6 inch square mesh sieve.

703.08 Recycled Asphalt Pavement Recycled asphalt pavement shall consist of salvaged asphalt materials from milled pavements or production waste that has been processed before use to meet the requirements of the job mix formula. It shall be free of winter sand, granular fill, construction debris, or other materials not generally considered asphalt pavement.

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:

<b>Classification</b>	<b>Maximum RAP Percentage Allowed</b>	<b>Asphalt content standard deviation</b>	<b>Percent passing 0.075 mm sieve standard deviation</b>	<b>Percent passing 0.075 mm sieve / asphalt content ratio</b>	<b>Residual aggregate M-D loss value</b>
<b>Class III</b>	<b>10%</b>	<b>≤ 1.0</b>	<b>N/A</b>	<b>≤ 4.0</b>	<b>≤ 18</b>
<b>Class II</b>	<b>20%</b>	<b>≤ 0.5</b>	<b>≤ 1.0</b>	<b>≤ 2.8</b>	
<b>Class I</b>	<b>30%</b>	<b>≤ 0.3</b>	<b>≤ 0.5</b>	<b>≤ 1.8</b>	

Table 4: Maximum Percent RAP According to Test Results

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 or PG 58-34 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 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.



## SECTION 710 FENCE AND GUARDRAIL

710.06 Fence Posts and Braces Revise the first Paragraph so that it reads:

“Wood posts shall be of cedar, white oak, or tamarack or other AWPAs approved species, of the diameter or section and length shown on the plans.”

Remove the fourth paragraph which starts “ That portion of wood posts...”.

Revise the paragraph beginning with “Braces shall be of spruce, eastern hemlock ... so that it now reads:

“Braces shall be of spruce, eastern hemlock, Norway pine, pitch pine, or tamarack timbers or other AWPAs approved species, or spruce, cedar, tamarack or other AWPAs approved species round posts of sufficient length to make a diagonal brace between adjacent posts. All wood posts and braces shall be pressure-treated in accordance with AASHTO M 133 and AWPAs U1, UC4A Commodity Specification B: Posts. “

710.07 Guardrail Posts Revise this section so that the first sentence of section a. reads:

“a. Wood posts shall be of Norway pine, southern yellow pine, pitch pine, Douglas fir, red pine, white pine, or eastern hemlock or other AWPAs approved species.”

Revise the next paragraph so that it reads:

Wood posts and offset brackets shall be preservative treated in accordance with the requirements of AASHTO M 133 and AWPAs U1, UC4A Commodity Specification B: Posts.

## SECTION 712 MISCELLANEOUS HIGHWAY MATERIAL

712.061 Structural Precast Units Amend this section by adding the following sentence to the end of the first paragraph of the Construction subsection:

**“Facilities certified by NPCA or PCI shall provide to the Fabrication Engineer a copy of their annual audit to include deficiency reports and corrective actions.”**

Revise this section by changing the letter “b” of ASTM C1611 of the Concrete Testing subsection so that it reads:

**“b. Air content shall be 5.0% to 8.0%.”**

SECTION 718  
TRAFFIC SIGNALS MATERIAL

718.03 Signal Mounting Amend the paragraph beginning with “All trunions, brackets and...” by adding “**For polycarbonate signal heads with more than 3 sections or requiring mounting extensions greater than 12 inches in length, reinforcing plates shall be used to reinforce the housings at the point of attachment.**” to the end of the paragraph.

718.08 Controller Cabinet Revise this subsection by replacing the paragraph beginning with “The cabinet shall be supplied with LED light panels...” on or about page 7-66 with “**The cabinet shall be supplied with white LED light panels which shall automatically illuminate via a door open switch whenever one of the four main cabinet doors are opened for the ground mount cabinet or two main doors for the side of pole cabinet. The ground mounted cabinet shall contain four LED light panels per side totaling eight panels for the cabinet; one panel each at the top and bottom portion of the front side and back side on the Control side and Power/Auxiliary side of the cabinet. Each light panel shall produce a minimum of 250 lumens for a total minimum lumen output of 2000 lumens with all eight panels illuminated. The minimum output per side would be 1000 lumens. The LED panels shall be protected by a clear shatterproof shield. The side of pole mounted cabinet shall contain four light panels; one at the top of the rack assembly and one at the bottom rack assembly on each side of the cabinet. A second door open status switch per door shall activate a controller input to log a report event that one of the doors was opened. All door open status switches shall be connected to the same controller input. For the ground mount cabinet, there shall be two switches on each of the four main doors. For the side-of-pole mount cabinet, there shall be two switches on each of the two main doors.**”

Revise this subsection by replacing the paragraph beginning with “The cabinet shall be supplied with a generator panel ...” on or about page 7-68 with:

**“The cabinet shall be supplied with a generator panel. The generator panel shall consist of a manual transfer switch and a twist-lock connector for generator hookup. The transfer switch knob and twist-lock connector shall be located inside a stainless steel enclosure with a separate lockable door accessed with a Corbin #2 key. The unit shall be mounted on the left, exterior of the control side wall of the ground mount cabinet a minimum of 36” above the surrounding grade and on the lower left side of the pole mounted cabinet. The generator transfer switch shall be a Reliance C30A1N Signa Series or approved equal. “**

Revise this subsection by removing the following from the paragraph beginning with “The ground mounted cabinet shall be supplied and installed with an electric service meter socket trim and electrical service disconnect switch ...” on or about page 7-69: “**(removed: thus preventing that space from being used either by equipment supplied as part of the project, or future equipment that would be installed in the rack system. Joe indicated that he would add this language to the detail so it is covered.)**”.

Revise this subsection by replacing the following in the paragraph beginning with “The Contractor shall reconfigure the default user name...” on or around page 7-70; “MaineDOT IT” with “**MaineDOT Traffic Division**”.

In the paragraph beginning with “Tests shall be conducted by the contractor...” on or around page 7-73, amend this subsection by removing “**in the state of Maine and**” after “The facility shall be”.

Amend this Section by adding the following subsection:

**718.13 Field Monitoring Unit (FMU)** This item of work shall conform to this specification. This item shall consist of furnishing and installing a Field Monitoring Unit (FMU) and software, as well as all needed accessories required for a full and complete installation, including but not limited to power adapters, Ethernet cables, and interface cables, as described herein.

Where applicable, communications from MaineDOT’s cloud-based Central Management System (CMS) to the on-street traffic signal controllers shall be made through fiber optic interconnect cable connected back to existing internet connections and/or the Field Monitoring Unit (FMU). The Contractor shall furnish and install all materials necessary for a complete and operational fiber optic interconnection to all project intersections as shown on the plans. All connections to the CMS cloud-based system shall be via a secure VPN network.

The FMU shall be the only remote connection device used by isolated intersections to connect to the cloud-based system. All connections shall be encrypted VPN tunnels. The Contractor shall coordinate all configuration settings with MaineDOT IT and the Engineer.

The FMU central web based interface shall be a separate element from the CMS.

MATERIALS: The materials for this work shall conform to the following requirements:

1. The work under this item specifies the requirements for the FMU. The FMU shall operate independent of the brand/type of intersection controller deployed in the ATC traffic cabinet.
2. The FMU shall conform to the following requirements:
  - 2.1 The FMU shall function correctly between -34 degrees C and +74 degrees C.
  - 2.2 The FMU shall be provided with appropriately rated connectors that allows the FMU to be exchanged by unplugging connectors, without tools.
  - 2.3 The FMU shall monitor and log all ATC Controller and ATC cabinet faults and or alarms.
  - 2.4 The FMU shall be wired directly to the ATC cabinet.
  - 2.5 The FMU shall have an internal cellular modem running at 4G LTE.
    - 2.5.1 The Cellular modem shall be designed to be replaced / upgraded to 5G service when available.
  - 2.6 The FMU shall incorporate an integrated GPS and cell modem.
  - 2.7 The configuration of the FMU shall be accomplished by accessing the internal web server with a browser. It shall be possible to configure the FMU without any special software.

- 2.8 The FMU shall be powered via a standard 120V input power.
- 2.9 The FMU shall allow for the routing of the controller configuration packets to and from the controller (either by Ethernet or serial communications) for any type of controller utilized by the MaineDOT. In this way it shall be possible to configure the controller and utilize the controller specific software to interrogate the controller, and the FMU shall provide the communications pipe which allows this to be accomplished.
- 2.10 The FMU shall, within the size limitations above, include a battery and battery charging/monitoring circuit, to allow the FMU to function correctly even when all power to the intersection has failed. The battery shall continue to power the FMU for a minimum of 5 hours after all power has failed to the intersection.
- 2.11 The FMU shall incorporate an integrated GPS which will allow the FMU to geo-locate itself on the FMU management software map, without configuration.
- 2.12 The FMU shall operate without requiring a static IP address. The only configuration required at the FMU is to enter the URL of where the FMU management software is hosted.
- 2.13 In the event that the cell service is interrupted or is not available, the FMU shall store any events that occur in internal memory and forward these events automatically to the FMU management software when the cell service is restored. In this way, a complete record of events at the device can be maintained even if cell service is interrupted for a period. The system will store 5000 events.
- 2.14 The FMU shall utilize HTTP and HTTPS protocols, and XML data structures, for communication with the FMU management software. In this way the data will be open for future expansion and competition. The use of secret proprietary protocols is not permitted.
- 2.15 The FMU shall include Ethernet communications via an Ethernet Port with RJ45 connector.
- 2.16 The FMU shall include weather proof antennas.

### **3. Map Display FMU Management Software**

- 3.1 The FMU shall include a scrollable, zoomable map display, with the intersections and other monitored devices shown as representative icons on the map. The map shall include the ability to see the intersections using Google Streetview.
- 3.2 The alarm status of the intersection shall be clearly indicated on the icon on the map, so that the user can see at a glance which intersections are in alarm.
- 3.3 The map display shall also include a list of intersections, with the number and priority of alarms indicated on the list. Intersections in high priority alarm shall be moved to the top

of the list, followed by medium priority, low priority and then finally by intersections not in alarm.

- 3.4 The icons shall change to be able to clearly indicate if an intersection is offline.
- 3.5 Clicking on the icon on the map shall expose a box with the current parameters of the intersection shown.
- 3.6 The default map display position and zoom shall be configurable by user, so that the user's view will default to show the intersections that the user is responsible for managing.
- 3.7 The map view shall have the ability to show Google traffic overlays on the map.

#### 4. **Intersection Detail Display FMU Management Software**

- 4.1 It shall be possible to drill down, either from the map icon or from the list, to a device level detail for the intersection, which as a minimum shall display the following parameters:
  - 4.1.1 The alarm status, with priority indicated, and a text description of the alarm (if an alarm is present for this device).
  - 4.1.2 The time since the last communication with the device
  - 4.1.3 The following parameters (real time now values, minimum for the day values, maximum for the day values, and average for the day values)
    - 4.1.3.1 The AC mains voltage (value)
    - 4.1.3.2 The battery back-up voltage (value)
    - 4.1.3.3 The cabinet temperature (value)
    - 4.1.3.4 The cabinet humidity (value)
    - 4.1.3.5 The presence of AC power (OK or Fail)
    - 4.1.3.6 The flashing status of the intersection (OK or Flashing)
    - 4.1.3.7 Stop Time status (OK or Stop Time Active)
    - 4.1.3.8 The cabinet door status (Open or Closed)
    - 4.1.3.9 The intersection fan status (Fan On or Fan off)
  - 4.1.4 It shall be possible to view graphs of each of the value parameters in graphical form, over the recent two-week period. This includes real time graphs of:
    - 4.1.4.1 The AC mains voltage
    - 4.1.4.2 The battery back-up voltage
    - 4.1.4.3 The cabinet temperature

#### 4.1.4.4 The cabinet humidity

### 5. **Diagnostics and Log Display FMU Management Software**

- 5.1 From the device level detail within the FMU management software, it shall be possible to drill down to get the raw data; the error logs; and the communications logs to allow a technician to fault-find problems.
- 5.2 It shall be possible to filter the logs by Device; by Device Type and/or by Group as well as between dates.
- 5.3 It shall be possible to print these selected logs to a local printer or a PDF file.
- 5.4 It shall be possible to export these logs to Excel on the local computer for further analysis.

### 6. **Alarms FMU Management Software**

- 6.1 The FMU management software shall have a comprehensive alarm generation capability
- 6.2 It shall be possible to configure alarms to be generated on any parameter becoming out of tolerance, including analog values, digital values and enumerated values.
- 6.3 Alarms shall be configurable to be of Low, High or Critical Priority.
- 6.4 The alarm priority shall be displayed throughout the FMU management software, on all displays, using color codes such as red-critical; yellow – high; and amber-low to indicate the priority of the alarm.
- 6.5 The current active alarms shall be accessible for view via an expandable window, to see which alarms are active and when the alarm occurred. The highest priority alarms shall rise to the top of the list.

### 7. **Alerts FMU Management Software**

- 7.1 The FMU management software shall have comprehensive alerting capability, to enable the response personnel to be notified when an abnormal situation has occurred.
- 7.2 It shall be possible to configure alerts to one or more personnel for each alarm. This will cause, as selected, an SMS and/or an email to be sent to the person when an alarm occurs.
- 7.3 The alert shall be configurable to optionally send via email and/or via SMS a message when an alarm clears.
- 7.4 The intention is that the FMU management software provides the alerts to the user in near real time. The SMS and email shall be issued within 30 seconds of the occurrence of event which results in an alert being issued.

## 8. **Hosting and Connectivity and Service FMU / FMU Management Software**

8.1 The contractor shall supply the FMU with the FMU manufacturers 10 year options for Connectivity and Service, as part of the purchase price. The Connectivity and Service agreement shall include at a minimum:

- 8.1.1 Cellular Connectivity
- 8.1.2 No cellular overage charges
- 8.1.3 Extended warranty on the hardware for the period of the Connectivity and Service Agreement
- 8.1.4 Over-the-air software updates
- 8.1.5 Over-the-air security updates
- 8.1.6 Future Connected Vehicles Service

## SECTION 720 STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS

720.12 Wood Sign Posts Revise the first sentence so that it reads:

Wood sign posts shall be rectangular, straight and sound timber, cut from live growing native spruce, red pine, hemlock, cedar trees or other AWPAs approved species, free from loose knots or other structurally weakening defects of importance, such as shake or holes or heart rot.

Revise the third paragraph that starts with “When pressure treated...” so that it reads:

All sign posts shall be pressure-treated in accordance with AASHTO M 133 and AWPAs 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."

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B. Bid Rigging Hotline To report bid rigging activities call: **1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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## SECTION 2 - FEDERAL EEO AND CIVIL RIGHTS REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 2 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Nondiscrimination & Civil Rights - Title VI The Contractor and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Department deems appropriate. The Contractor and subcontractors shall comply with Title VI of the Civil Rights Act of 1964, as amended, and with all State of Maine and other Federal Civil Rights laws.

For related provisions, see Subsection B - "Nondiscrimination and Affirmative Action - Executive Order 11246" of this Section 2 and Section 3 - Other Federal Requirements of this "Federal Contract Provisions Supplement" including section II - "Nondiscrimination" of the "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273.

B. Nondiscrimination and Affirmative Action - Executive Order 11246 Pursuant to Executive Order 11246, which was issued by President Johnson in 1965 and amended in 1967 and 1978, this Contract provides as follows.

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its efforts to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

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.

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Start of GOALS FOR EMPLOYMENT OF FEMALES AND MINORITIES  
Federally Required Contract Document

§60-4.2 Solicitations

(d) The following notice shall be included in, and shall be part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to §60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action to Ensure Equal Opportunity (Executive Order 11246)

1. The Offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

<u>Goals for female participation in each trade</u>	6.9%
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Goals for minority participation for each trade

Maine

001 Bangor, ME	0.8%
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Non-SMSA Counties (Aroostook, Hancock, Penobscot, Piscataquis, Waldo, Washington)

002 Portland-Lewiston, ME

SMSA Counties: 4243 Lewiston-Auburn, ME	0.5%
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(Androscoggin)

6403 Portland, ME	0.6%
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(Cumberland, Sagadahoc)

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

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D. Section '**D Disadvantaged Business Enterprise (DBE) Requirements**' is removed in its entirety. The DBE material is in:

**Section 105.10 EQUAL OPPORTUNITY AND CIVIL RIGHTS.**

**SECTION 3 - OTHER FEDERAL REQUIREMENTS**

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 3 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Buy America

If the cost of products purchased for permanent use in this project which are manufactured of steel, iron or the application of any coating to products of these materials exceeds 0.1 percent of the contract amount, or \$2,500.00, whichever is greater, the products shall have been manufactured and the coating applied in the United States. The coating materials are not subject to this clause, only the application of the coating. In computing that amount, only the cost of the product and coating application cost will be included.

Ore, for the manufacture of steel or iron, may be from outside the United States; however, all other manufacturing processes of steel or iron must be in the United States to qualify as having been manufactured in the United States.

United States includes the 50 United States and any place subject to the jurisdiction thereof.

Products of steel include, but are not limited to, such products as structural steel, piles, guardrail, steel culverts, reinforcing steel, structural plate and steel supports for signs, luminaries and signals.

Products of iron include, but are not limited to, such products as cast iron grates.

Application of coatings include, but are not limited to, such applications as epoxy, galvanized and paint.

To assure compliance with this section, the Contractor shall submit a certification letter on its letterhead to the Department stating the following:

“This is to certify that products made of steel, iron or the application of any coating to products of these materials whose costs are in excess of \$2,500.00 or 0.1 percent of the original contract amount, whichever is greater, were manufactured and the coating, if one was required, was applied in the United States.”

## B. Materials

### a. Convict Produced Materials References: 23 U.S.C. 114(b)(2), 23 CFR 635.417

Applicability: FHWA's prohibition against the use of convict material only applies to Federal-aid highways. Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal-aid highway construction project if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987.

Materials obtained from prison facilities (e.g., prison industries) are subject to the same requirements for Federal-aid participation that are imposed upon materials acquired from other sources. Materials manufactured or produced by convict labor will be given no preferential treatment.

The preferred method of obtaining materials for a project is through normal contracting procedures which require the contractor to furnish all materials to be incorporated in the work. The contractor selects the source, public or private, from which the materials are to be obtained (23 CFR 635.407). Prison industries are prohibited from bidding on projects directly (23 CFR 635.112e), but may act as material supplier to construction contractors.

Prison materials may also be approved as State-furnished material. However, since public agencies may not bid in competition with private firms, direct acquisition of materials from a

prison industry for use as State-furnished material is subject to a public interest finding with the Division Administrator's concurrence (23 CFR 635.407d). Selection of materials produced by convict labor as State-furnished materials for mandatory use should be cleared prior to the submittal of the Plans Specifications & Estimates (PS&E).

b. Patented/Proprietary Products References: 23 U.S.C. 112, 23 CFR 635.411

FHWA will not participate, directly or indirectly, in payment for any premium or royalty on any patented or proprietary material, specification, or process specifically set forth in the plans and specifications for a project, unless:

- the item is purchased or obtained through competitive bidding with equally suitable unpatented items,
- the STA certifies either that the proprietary or patented item is essential for synchronization with the existing highway facilities or that no equally suitable alternative exists, or
- the item is used for research or for a special type of construction on relatively short sections of road for experimental purposes. States should follow FHWA's procedures for "Construction Projects Incorporating Experimental Features" ([expermnt.htm](#)) for the submittal of work plans and evaluations.

The primary purpose of the policy is to have competition in selection of materials and allow for development of new materials and products. The policy further permits materials and products that are judged equal may be bid under generic specifications. If only patented or proprietary products are acceptable, they shall be bid as alternatives with all, or at least a reasonable number of, acceptable materials or products listed; and the Division Administrator may approve a single source if it can be found that its utilization is in the public interest.

Trade names are generally the key to identifying patented or proprietary materials. Trade name examples include 3M, Corten, etc. Generally, products identified by their brand or trade name are not to be specified without an "or equal" phrase, and, if trade names are used, all, or at least a reasonable number of acceptable "equal" materials or products should be listed. The licensing of several suppliers to produce a product does not change the fact that it is a single product and should not be specified to the exclusion of other equally suitable products.

c. State Preference References: 23 U.S.C. 112, 23 CFR 635.409

Materials produced within Maine shall not be favored to the exclusion of comparable materials produced outside of Maine. State preference clauses give particular advantage to the designated source and thus restrict competition. Therefore, State preference provisions shall not be used on any Federal-aid construction projects.

This policy also applies to State preference actions against materials of foreign origin, except as otherwise permitted by Federal law. Thus, States cannot give preference to in-State material sources over foreign material sources. Under the Buy America provisions, the States are

permitted to expand the Buy America restrictions provided that the STA is legally authorized under State law to impose more stringent requirements.

d. State Owned/Furnished/Designated Materials References: 23 U.S.C. 112, 23 CFR 635.407

Current FHWA policy requires that the contractor must furnish all materials to be incorporated in the work, and the contractor shall be permitted to select the sources from which the materials are to be obtained. Exceptions to this requirement may be made when there is a definite finding, by MaineDOT and concurred in by Federal Highway Administration's (FHWA) Division Administrator, that it is in the public interest to require the contractor to use materials furnished by the MaineDOT or from sources designated by MaineDOT. The exception policy can best be understood by separating State-furnished materials into the categories of manufactured materials and local natural materials.

Manufactured Materials When the use of State-furnished manufactured materials is approved based on a public interest finding, such use must be made mandatory. The optional use of State-furnished manufactured materials is in violation of our policy prohibiting public agencies from competing with private firms. Manufactured materials to be furnished by MaineDOT must be acquired through competitive bidding, unless there is a public interest finding for another method, and concurred in by FHWA's Division Administrator.

Local Natural Materials When MaineDOT owns or controls a local natural materials source such as a borrow pit or a stockpile of salvaged pavement material, etc., the materials may be designated for either optional or mandatory use; however, mandatory use will require a public interest finding (PIF) and FHWA's Division Administrator's concurrence.

In order to permit prospective bidders to properly prepare their bids, the location, cost, and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bidding documents.

Mandatory Disposal Sites Normally, the disposal site for surplus excavated materials is to be of the contractor's choosing; although, an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by MaineDOT, with the concurrence of the Division Administrator, that such placement is the most economical or that the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

Summarizing FHWA policy for the mandatory use of borrow or disposal sites:

- mandatory use of either requires a public interest finding and FHWA's Division Administrator's concurrence,
- mandatory use of either may be based on environmental consideration where the environment will be substantially enhanced without excessive additional cost, and
- where the use is based on environmental considerations, the discussion in the environmental document may be used as the basis for the public interest finding.

Factors to justify a public interest finding should include such items as cost effectiveness, system integrity, and local shortages of material.

C. Standard FHWA Contract Provisions - FHWA 1273

Unless expressly otherwise provided in the Bid Documents, the following “Required Contract Provisions, Federal Aid Construction Contracts”, FHWA-1273, are hereby incorporated into the Bid Documents and Contract.

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**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.”

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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.

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**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) Standard Title VI/Non-Discrimination  
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 Non-discrimination 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);

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 the FHWA.*

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Non-discrimination 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 non-discrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

**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 **Highway Program**:

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-Aid Highway Program activities*** and, in adapted form, in all proposals for negotiated agreements regardless of funding source:

"The ***Maine Department of Transportation***, 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 ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair 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.

By signing this ASSURANCE, the **Maine Department of Transportation** also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing the **FHWA and USDOT** 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 the **FHWA and USDOT**. You must keep records, reports, and submit the material for review upon request to **FHWA and USDOT**, or its designee 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.

The **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 under the **Federal Aid Highway Program**. This ASSURANCE is binding on [*insert State*], other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in the **Federal Aid Highway Program**. The person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

**MAINE DEPARTMENT OF TRANSPORTATION**  
*(Name of Recipient)*

by   
 Bruce A. Van Note, Commissioner

DATED 2/13/19



## 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 Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, *Federal Highway Administration (FHWA)*, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** 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, 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 *FHWA* 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 *FHWA*, 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 *FHWA* 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.
6. **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 *FHWA* 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 B

### CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the **Maine Department of Transportation** will accept title to the lands and maintain the project constructed thereon in accordance with **23 U.S. Code § 107**, the Regulations for the Administration of **the Federal Aid Highway Program**, and the policies and procedures prescribed by the **FHWA** of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the **Maine Department of Transportation** all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

#### (HABENDUM CLAUSE)

**TO HAVE AND TO HOLD** said lands and interests therein unto **Maine Department of Transportation** and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the **Maine Department of Transportation**, its successors and assigns.

The **Maine Department of Transportation**, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will 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 with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]\* (2) that the **Maine Department of Transportation** will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended [, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].\*

(\*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)



## APPENDIX C

### CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY, OR PROGRAM

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the **Maine Department of Transportation** pursuant to the provisions of Assurance 7(a):

- A. The (grantee, lessee, 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. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds 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.
- B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, **Maine Department of Transportation** will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.\*
- C. With respect to a deed, in the event of breach of any of the above Non-discrimination covenants, the **Maine Department of Transportation** will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities 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 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 discrimination, (3) that the (grantee, licensee, 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 USC § 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 Non-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 because of sex in education programs or activities (20 U.S.C. 1681 et seq.).



REPLY TO ATTENTION OF

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

MAINE GENERAL PERMITS (GPs)
AUTHORIZATION LETTER AND SCREENING SUMMARY

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

CORPS PERMIT # NAE-2021-01672
CORPS GPs 22
STATE ID# PBR

DESCRIPTION OF WORK:

Place temporary and permanent fill below the ordinary high water mark of Alder Stream and in adjacent freshwater wetlands at Jim Pond, Maine in order to replace the existing deteriorated Route 27 bridge. This work will result in approximately 2,390 s.f. of temporary and 2,120 s.f. of permanent stream bed impact, and 3,560 s.f. of temporary and 1,820 s.f. of permanent wetland impact and is shown on the attached plans entitled "Route 27 JIM POND TWP., Franklin County" in two sheets undated and "ALDER STREAM BIDGE, ALDER STREAM, JIM POND, FRANKLIN COUNTY" in four sheets undated.

See GENERAL and SPECIAL CONDITIONS attached.

LAT/LONG COORDINATES: 45.254418° N -70.546988° W USGS QUAD: JIM POND, 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 Federal Permit, the Maine General Permits (GPs) which can be found at: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/ 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 GPs, including the GPs conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GPs 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 45 of the GPs (page 19) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GPs on October 14, 2025. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 14, 2026.

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: 6/24/21 LEVEL OF REVIEW: SELF-VERIFICATION: \_\_\_\_\_ PRE-CONSTRUCTION NOTIFICATION: X

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

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

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA\_NO \_\_\_\_\_, USF&WS\_NO \_\_\_\_\_, NMFS\_NO \_\_\_\_\_

If you have any questions on this matter, please contact my staff at 978-318-8676 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

Digitally signed by JAY L. CLEMENT
CLEMENT.JAY.LANGDON.1006350
980
Date: 2021.07.19 06:55:26 -04'00'

JAY L. CLEMENT
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

Digitally signed by FRANK J. DEL GIUDICE
CLEMENT.JAY.LANGDON.1006350
80
Date: 2021.07.19 07:01:22 -04'00'

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



US Army Corps  
of Engineers®  
New England District

**PLEASE NOTE THE FOLLOWING GENERAL AND SPECIAL CONDITIONS FOR  
DEPARTMENT OF THE ARMY  
MAINE GENERAL PERMITS 22  
PERMIT NO. NAE-2021-01672**

**GENERAL CONDITIONS**

**3. Other Permits.** Permittees shall obtain other Federal, State, or local authorizations as required by law. Permittees are responsible for applying for and obtaining all required State of Maine or local approvals including a Flood Hazard Development Permit issued by the town/city. Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, may still be eligible for authorization under these GPs.

**23. 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.

**26. Temporary Fill.**

a. Temporary fills, including but not limited to 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.

b. 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. Temporary fill shall be placed in a manner that will prevent it from being eroded by expected high flows.

c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. washed stone, stone, etc.).

d. Appropriate measures shall 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. Materials shall be placed 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.

e. Construction debris and/or deteriorated materials shall not be placed or otherwise located in waters of the U.S.

**33. Permit(s)/Authorization Letter On-Site.** The permittee shall ensure that a copy of the terms and conditions of these GPs and any accompanying authorization letter with attached plans are at the site of the work authorized by these GPs whenever work is being performed and that all construction personnel performing work which may affect waters of the U.S. are fully aware of the accompanying 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 these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means all terms and conditions of the GPs, the GPs, and the authorization letter (including its drawings, plans, appendices and other attachments) and subsequent permit modifications as applicable. 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,

**34. Inspections.** The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is eligible for authorization under these GPs, is being, or has been performed in accordance with the terms and conditions of these GPs. To facilitate these inspections, the permittee shall complete and return to the Corps the Work-Start Notification Form and the Compliance Certification Form when either is provided with an authorization letter. **These forms are attached after the plans.**

**SPECIAL CONDITIONS**

1. In water work is restricted to June 1 to September 30 of any year in order to minimize potential impacts to fisheries and local water quality.





**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**

MaineDOT WIN: 23104.00

**Corps of Engineers Permit No:** NAE-2021-01672

**Name of Permittee:** Maine Dept. of Transportation

**Permit Issuance Date:** 7/19/2021

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

\*\*\*\*\*  
 \* MAIL TO: U.S. Army Corps of Engineers, New England District \*  
 \* Policy & Technical Support Branch \*  
 \* 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



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

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

EMAIL TO: [jay.l.clement@usace.army.mil](mailto:jay.l.clement@usace.army.mil)

-or-

MAIL TO: Jay L. Clement  
U.S. Army Corps of Engineers, Maine Project Office  
442 Civic Center Drive, Suite 350  
Augusta, Maine 04330

A Corps of Engineers Permit (No. NAE-2021-01672) was issued to the Maine Dept. of Transportation. The permit authorized the permittee to place temporary and permanent fill below the ordinary high water mark of Alder Stream and in adjacent freshwater wetlands at Jim Pond, Maine in order to replace the existing deteriorated Route 27 bridge. This work will result in approximately 2,390 s.f. of temporary and 2,120 s.f. of permanent stream bed impact, and 3,560 s.f. of temporary and 1,820 s.f. of permanent wetland impact.

MaineDOT WIN 23104.00

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: (     ) \_\_\_\_\_ (     ) \_\_\_\_\_

Proposed Work Dates: Start: \_\_\_\_\_

Finish: \_\_\_\_\_

PERMITTEE'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

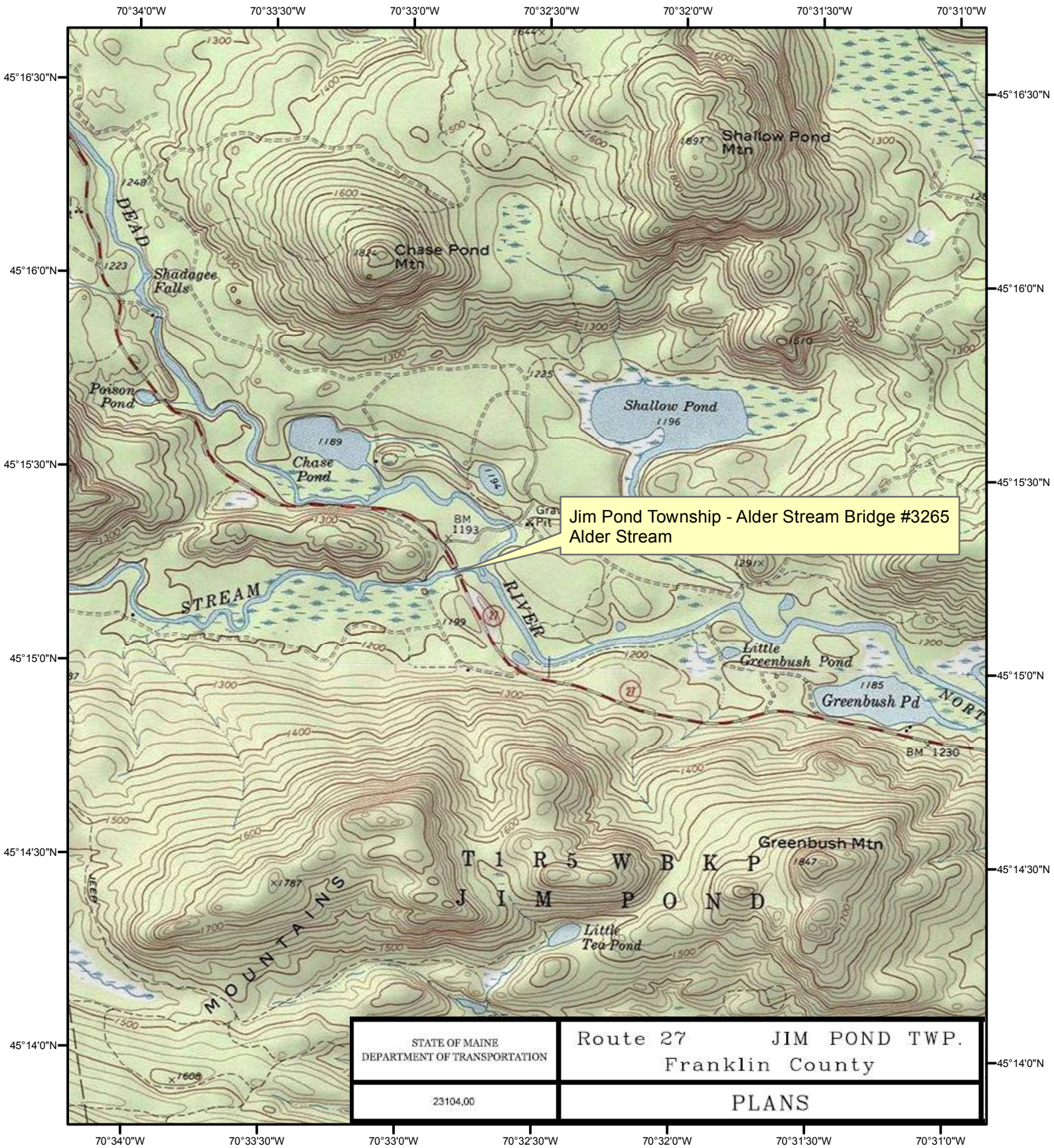
*FOR USE BY THE CORPS OF ENGINEERS*

Project Manager: Clement Submittals Required: No

Inspection Recommendation: Inspect as convenient

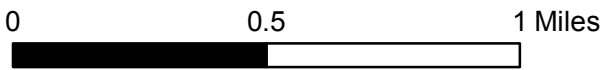


# Project Location Map

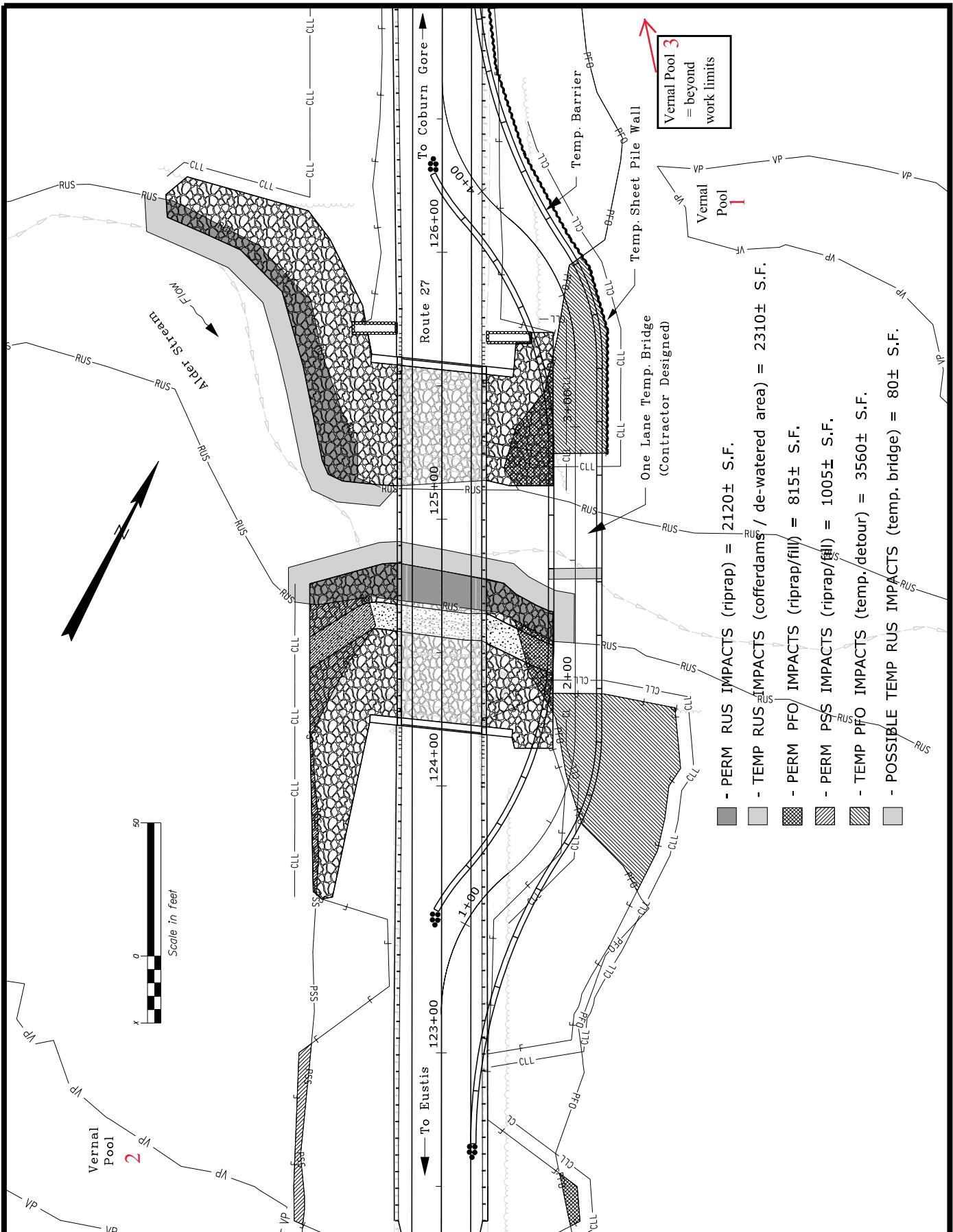


State Route 27 - Bridge Replacement  
 WIN 23104.00  
 Jim Pond Township, ME (Franklin County)

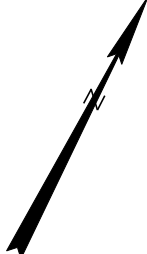
Project Location: 45.25418, -70.546988







Vernal Pool 3  
= beyond  
work limits



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

23104.00

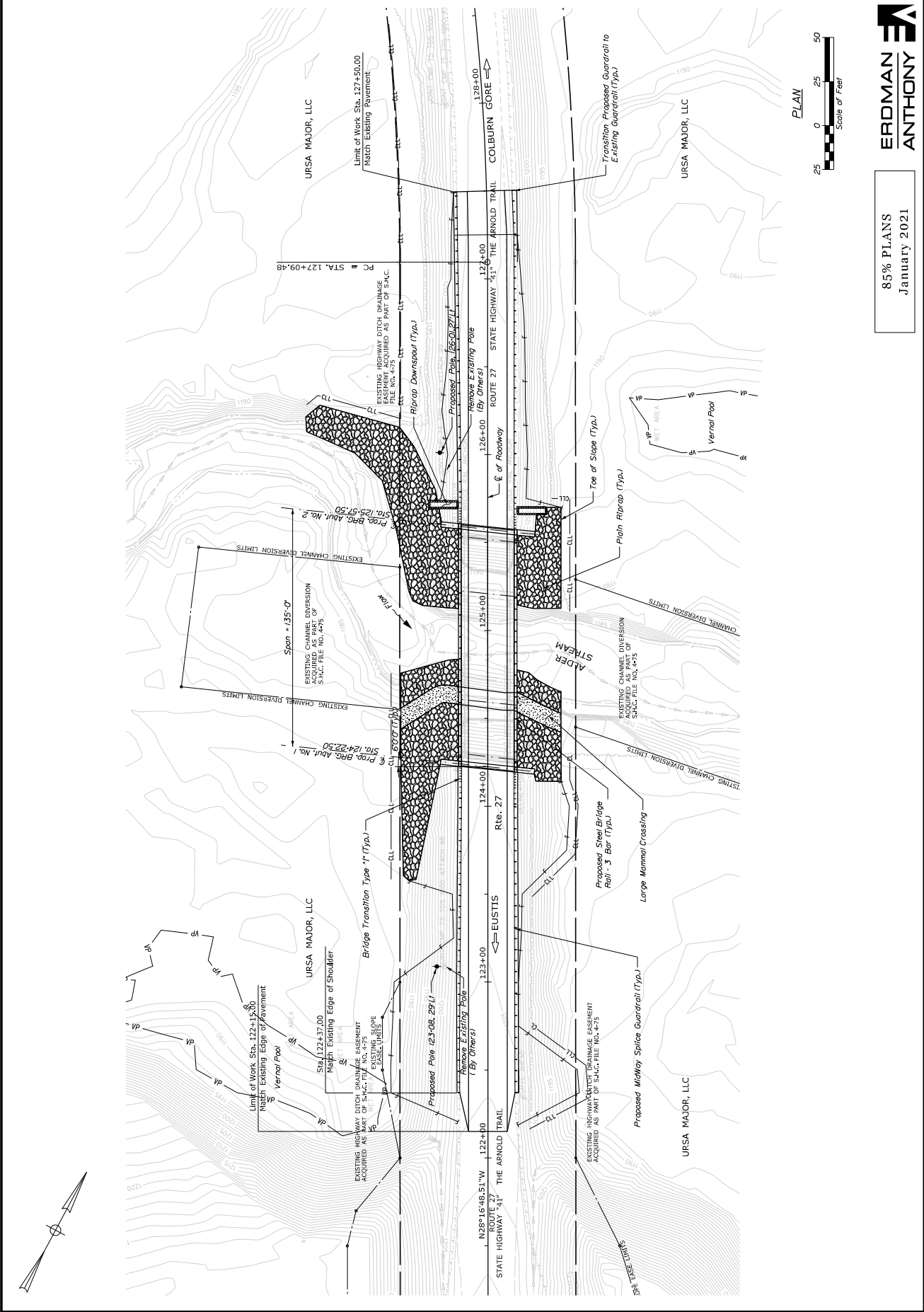
Route 27 JIM POND TWP.  
Franklin County

**PLANS**

SHEET NUMBER

**1**

OF1 344

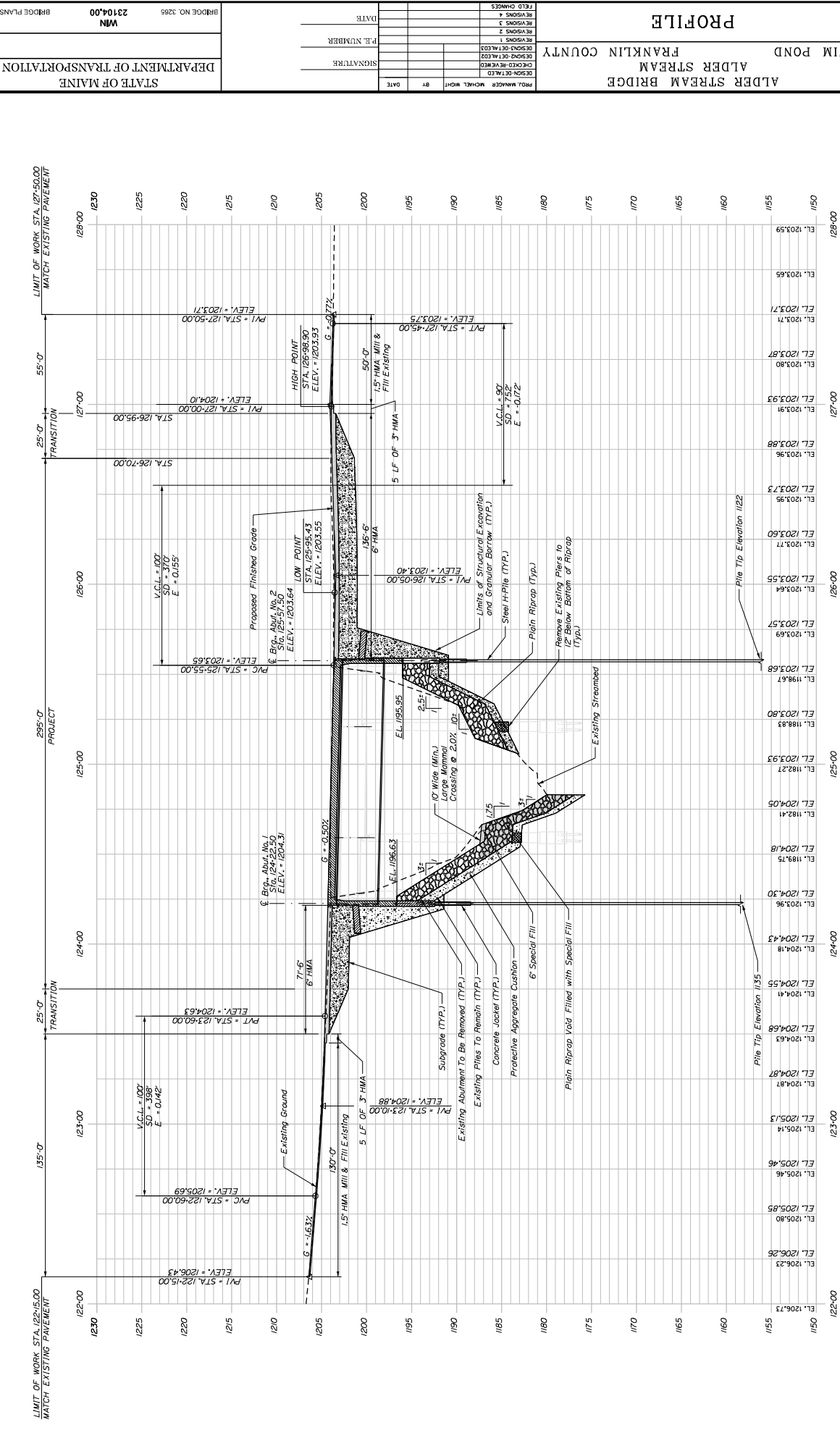


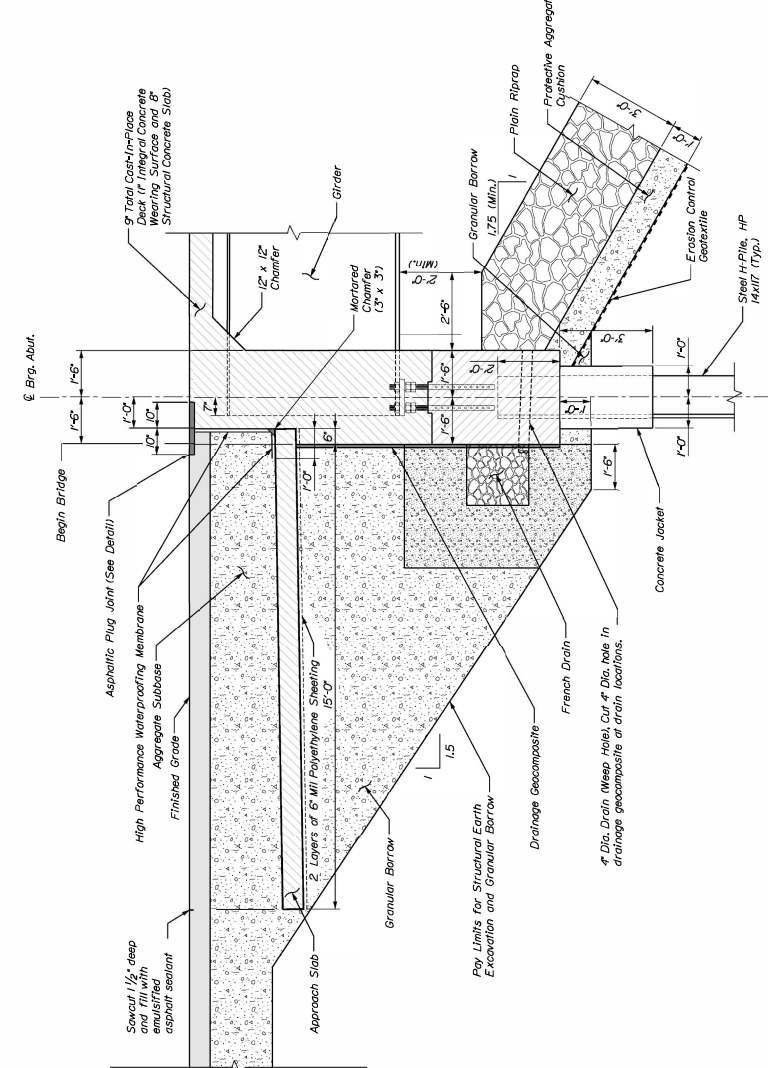
85% PLANS  
January 2021

**ERDMAN ANTHONY**

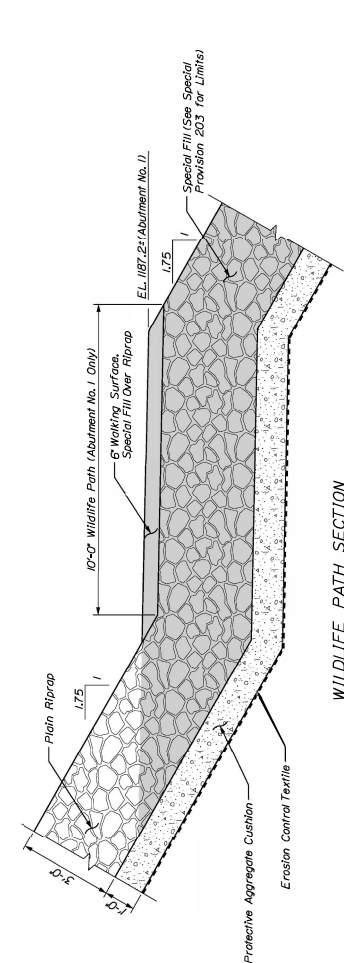
SHEET NUMBER **3** OF 37  
JIM POND  
ALDER STREAM BRIDGE  
FRANKLIN COUNTY

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 2825 WMA 23104.00	PROJ. MANAGER MICHEL MOH BY DATE	DESIGN-TEAM JIM POND ALDER STREAM BRIDGE	REGIONS 4 REGIONS 3 REGIONS 2 REGIONS 1 DESIGN-TEAM	GENERAL PLAN
SIGNATURE		P.E. NUMBER	DATE	ALDER STREAM BRIDGE FRANKLIN COUNTY GENERAL PLAN	

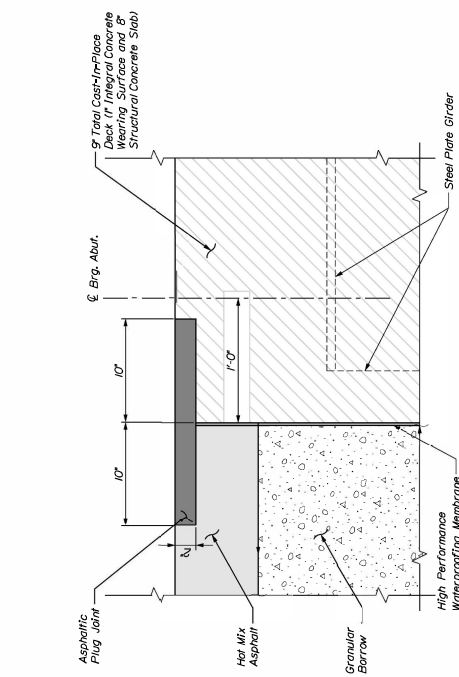




TYPICAL ABUTMENT SECTION



WILDLIFE PATH SECTION

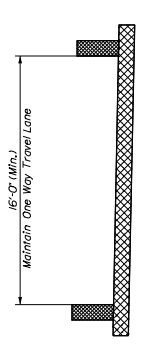
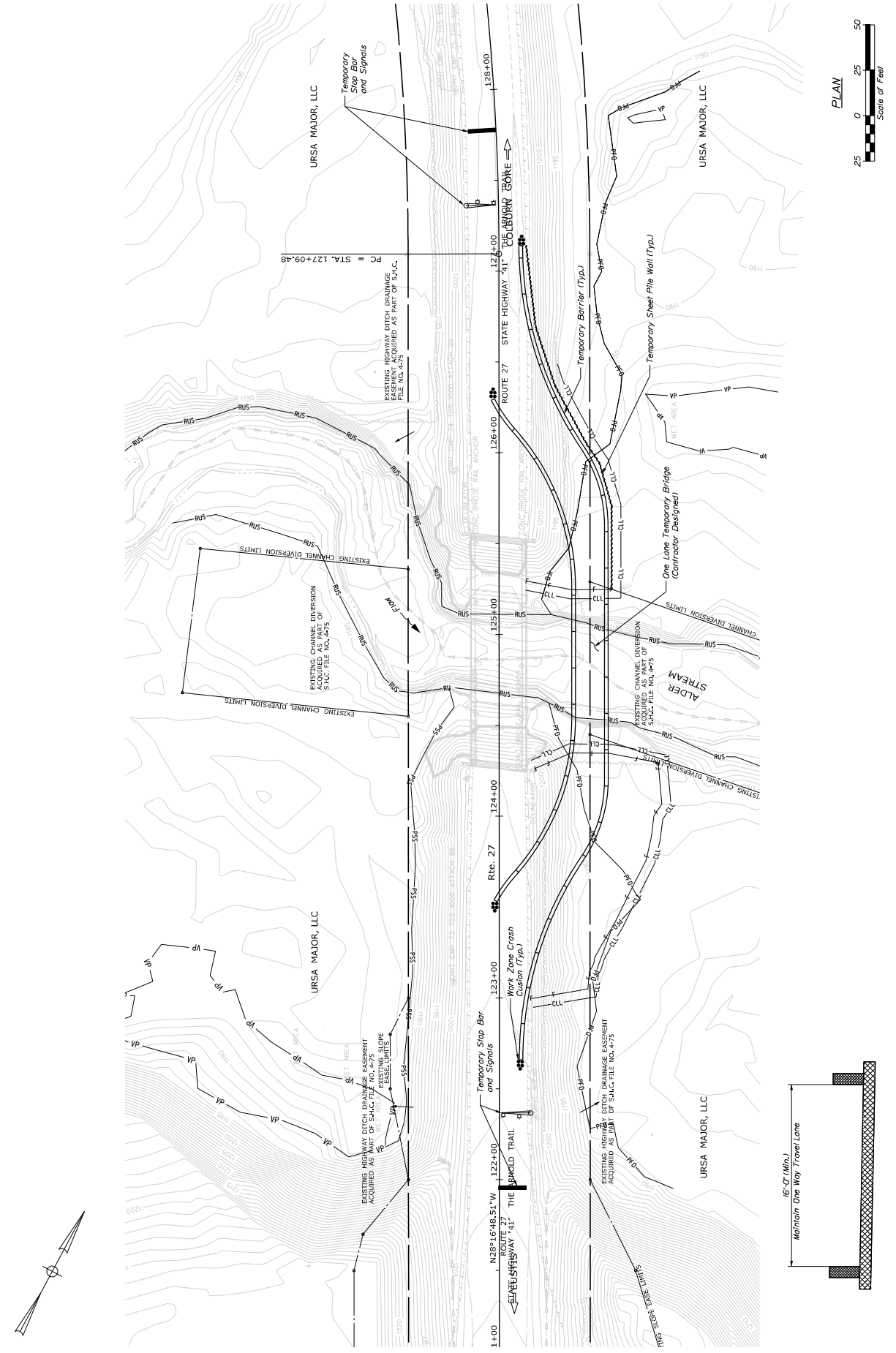


ASPHALTIC PLUG JOINT SECTION

- NOTES**
1. Transverse sowcuts in the pavement at the ends of approach slabs shall be sealed with a minimum depth of 102(12) The sowcut and emulsified asphalt sealing shall not be paid for directly but considered incidental to related Contract items.
  2. Install two layers of 6 mil polyethylene sheeting under approach slabs. Payment will be considered incidental to Item No. 502.31, Structural Concrete Approach Slab.

85% PLANS  
January 2021

**ERDMAN ANTHONY**



DETOUR BRIDGE TRANSVERSE SECTION  
SCALE: 1/4" = 1'-0"



RECEIVED

JUN 10 2021

LUPC - DOWNEAST

Maine Land Use Planning Commission  
Department of Agriculture, Conservation and Forestry

Tracking # 52670  
BCP-6033

**Expedited Permit**

For Maine Department of Transportation Projects

**1. Applicant Information**

<b>Applicant Names:</b> Maine Department of Transportation	<b>Contact Name:</b> Andrea Brady	<b>Contact #:</b> 207-592-0523	<b>Contact email:</b> andrea.f.brady@maine.gov	<b>Contact fax:</b>
<b>Mailing Address:</b> 16 State House Station Augusta, ME 04333				

**2. Project Location**

<b>Township:</b> Jim Pond	<b>County:</b> Franklin
<b>Maine DOT Pin #:</b> 23104.00	
<b>Name of Road:</b> Route 27	
<b>Name of Waterbody(s):</b> Alder Stream	
<b>Zoning (List all sub districts covering your project):</b> P-SL1, P-WL2	
<b>Level Road Project:</b> Level B - Bridge Reconstruction <i>(Projects that are Level C Road project and in subdistrict PA-R, P-FW, P-MA, P-RR, P-RT, P-WL require special exception criteria)</i>	
<b>Project Limits/Location:</b> see attached	
<b>Lat/Long:</b> 45 15' 15.1" N / 70 32' 49.2" W ( 45.25418 N 70.546988)	

**3. Proposed Activities**

**Describe in detail what activities are proposed:** (include purpose and need, dimensions of existing and proposed road/bridge/culvert, etc)  
*MaineDOT plans to replace the structurally deficient existing 3-span (30 ft. - 60 ft. - 30 ft.) bridge with an on-alignment, 135-foot, single span steel multi-girder superstructure supported on integral abutments with 400' of approaches including transitions. The bridge will retain two 11' lanes with 4' wide shoulders. A signalized single-lane, 16-foot wide temp. bridge will be constructed downstream of the existing bridge. Impacts to adjacent wetlands will be minimized by reducing the amount of slope fill on the southwest corner and by using a temporary sheet pile wall for the northern portion of the temporary detour.*

**4. Resource Impacts (in s.f.)**

**P-WL1:** stream: 2390 temp: 2120 perm wetland: 0 **P-WL2:** 3560 temp: 1820 perm **P-WL3:** 0  
 Altering more than 15,000 sf of P-WL2, P-WL3 and/or 5,000 sf of P-WL1 will require the submittal of Exhibits D and E as described in Section 5.

**5. Exhibits**

**Exhibit A:** Attach a copy of the LUPC Land Use Guidance Map and a USGS topo map with the project location clearly marked for all applications.

**Exhibit B:** Photographs of Project. A series of photographs taken within the past 2 years showing existing wetlands and water bodies. Each photograph must be labeled with the date, photographer, and clearly label direction of photo.

**Exhibit C:** Project plans or detailed notes.

**The following Exhibits must be included if project impacts are over thresholds listed in Section 4:**

**Exhibit D:** Wetland Supplement S-3 with required attachments

**Exhibit E:** Resource agency coordination documentation

**6. Certification and Application Signatures**

I have personally examined the information submitted in this application, including the accompanying exhibits, and to the best of my knowledge and belief, this application is true and accurate I certify that the above described activities will be completed in accordance with the Commission's permit conditions applicable standards and MOA. I understand that activities carried out in violation of any conditions or standards are subject to enforcement action

**Signature of Applicant:** Andrea J Brady Bridge Team Leader, MaineDOT nv. Office **Date:** 6/10/21

**LUPC Authorization (for office use)**

Based upon the information supplied by the applicant in this form and the attached exhibits, staff concludes that, if carried out in compliance with the conditions of approval of the authorization form, the proposal will meet the criteria for approval, 12 M.R.S.A 685P(4) of the Commission's statutes and the provision of the Commission's Land Use Districts and Standards (chapter 10).

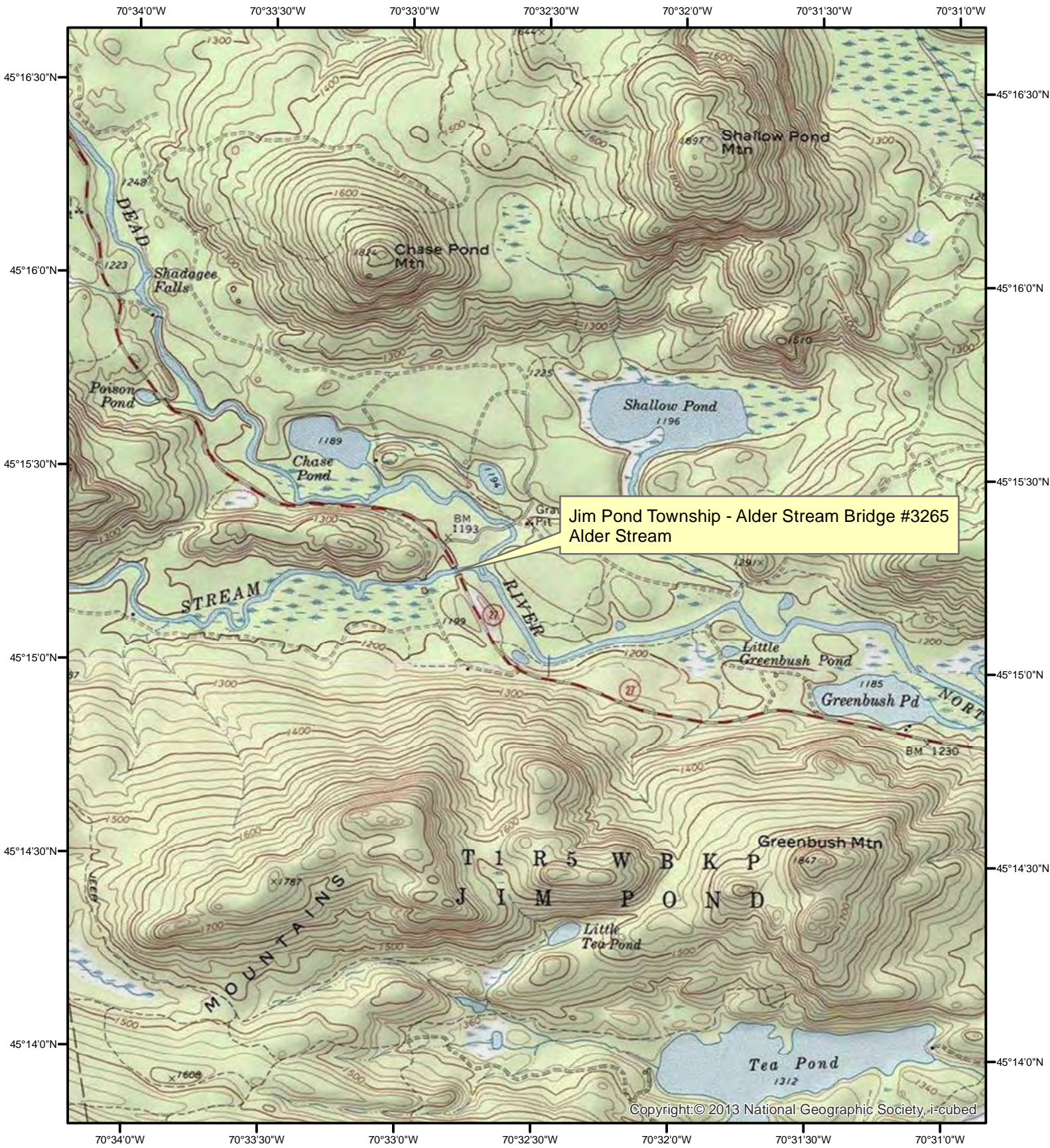
**LUPC Authorized Signature:** Samuel J. Smith **Authorized Date:** 07-01-2021

## Conditions of Approval

1. Construction activities authorized by this permit will be started within 2 years, and substantially completed within 5 years of the effective date of this permit. If such construction activities are not started and completed by this time limitation, this permit shall lapse and no activities shall then occur unless and until a new permit has been granted by the commission.
2. All imported fill material will be free of hazardous or toxic materials and must not contain debris, trash, or rubbish.
3. The project will be performed in accordance with erosion control measures conforming to the latest versions of the *State of Maine Department of Transportation Standard Specifications for Highways and Bridges* and the *Maine Department of Transportation's Best Management Practices for Erosion and Sediment Control (BMP's)* and *Maine DOT Project Specific Special Provision 656*.
4. The project will be performed in accordance with American Association of State Highway and Transportation Officials (AASHTO) *Design Standards* and the latest version of the *State of Maine Department of Transportation Standard Specifications*.
5. The project will be performed in accordance with the current version of the *MaineDOT Waterway and Wildlife Crossing Policy and Design Guide*.
6. The project will be performed in accordance with setback limits stipulated by the Land Use Planning Commission associated with construction trailers, privies and any other structures placed on the project for the purpose of constructing the project. The requirements are as follows:
  - Great Ponds and Rivers draining 50 square miles or more ..... 100 feet
  - Tidal waters, ponds less than 10 acres, rivers draining less than 50 square miles, and P-W11 wetlands ..... 75 feet
  - Traveled portion of selected state routes: Route 1, 2, 2A, 4, 9, 27, 163, 201, 161 from Caribou to Fort Kent, Route 157 in TA R7 WELS, and Route 6 in Orneville Twp ..... 75 feet
  - Traveled portion of all roads on coastal islands ..... 20 feet
  - Traveled portion of all other roads ..... 50 feet
  - Side and rear property lines ..... 15 feet
7. MaineDOT will dispose of any solid waste in accordance with applicable state and federal solid waste laws and rules. Subsurface wastewater disposal shall be in accordance with the Maine Plumbing Code.
8. Once construction is complete, MaineDOT will submit a self certification form with representative photographs, notifying the commission that all conditions of approval of this permit have been met.
9. The MaineDOT is consistent with the standards of the National Flood Insurance Program through adherence to that Presidential Executive Order 11988.
10. All necessary property rights have been or will be obtained as authorized in accordance with 23 M.R.S.A. § 153.
11. In stream work windows will be determined through MaineDOT coordination with state and federal fishery resource agencies when in stream impacts are proposed.
12. MaineDOT will conduct projects in accordance with the April 2009 Memorandum of Agreement.

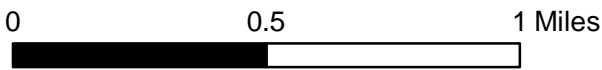


# Project Location Map

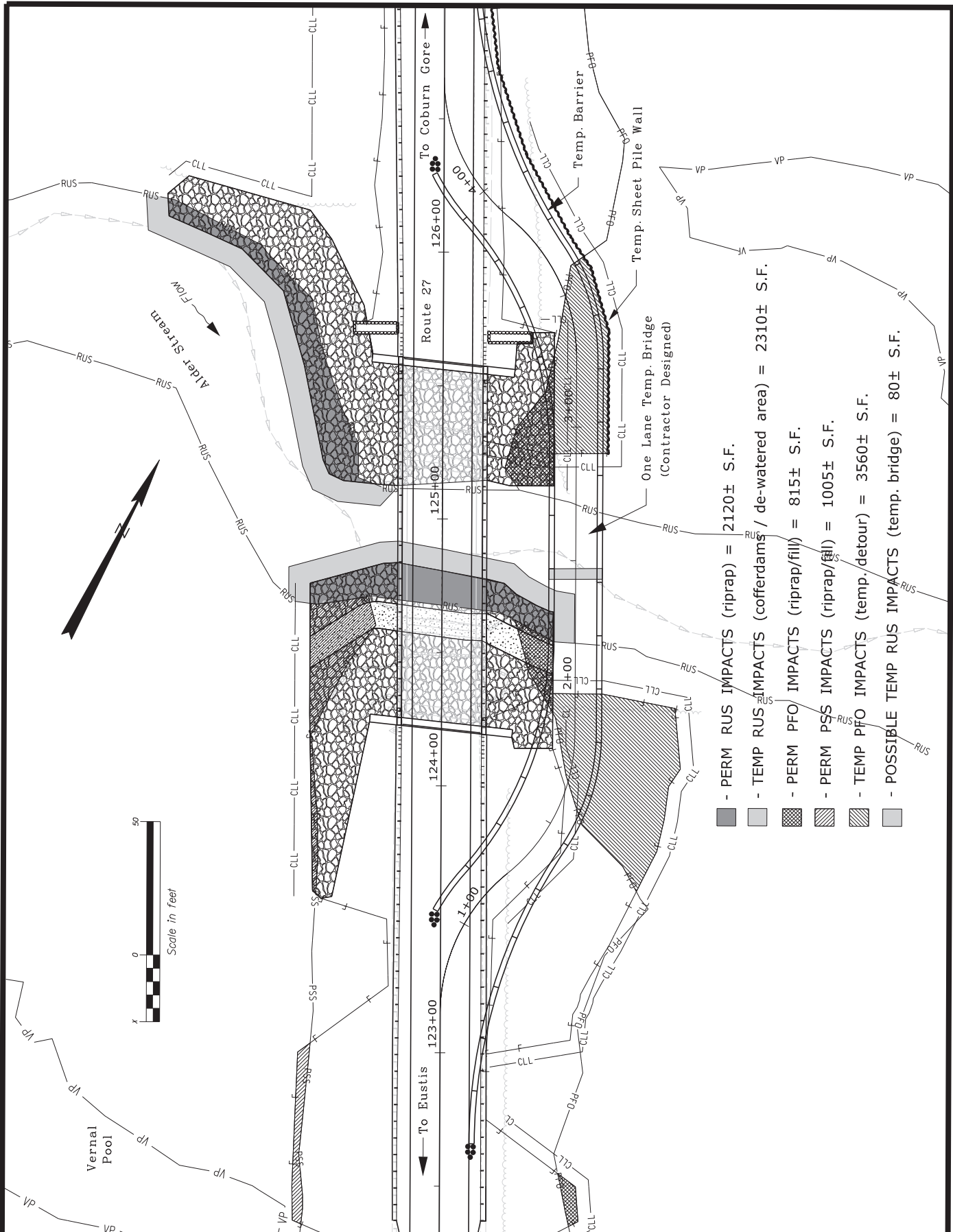


State Route 27 - Bridge Replacement  
 WIN 23104.00  
 Jim Pond Township, ME (Franklin County)

Project Location: 45.25418, -70.546988







STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

Route 27 JIM POND TWP.  
Franklin County

SHEET NUMBER  
**1**

23104.00

**PLANS**

OF1 352



REPLY TO ATTENTION OF

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

MAINE GENERAL PERMITS (GPs)
AUTHORIZATION LETTER AND SCREENING SUMMARY

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

CORPS PERMIT # NAE-2021-01363
CORPS GPs 22
STATE ID# PBR

DESCRIPTION OF WORK:

Place temporary and permanent fill below the ordinary high water mark of Butterfield Brook at Wilton, Maine in order to replace the existing deteriorated Wilton Hall Bridge (Route 2/17). This work will result in approximately 620 s.f. of temporary and 1,130 s.f. of permanent stream bed impact and is shown on the attached plans entitled "ROUTE 2/17 WILTON, FRANKLIN/OXFORD COUNTY" in two sheets undated and "HALL BRIDGE, HOOPER (BUTTERFIELD) BRK., WILTON, FRANKLIN COUNTY" in four sheets dated "MARCH 2021". See GENERAL and SPECIAL CONDITIONS attached.

LAT/LONG COORDINATES: 44.572823° N -70.300983° W USGS QUAD: EAST DIXFIELD, 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 Federal Permit, the Maine General Permits (GPs) which can be found at: https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/ 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 GPs, including the GPs conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GPs 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 45 of the GPs (page 19) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GPs on October 14, 2025. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 14, 2026.

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: 5/13/21 LEVEL OF REVIEW: SELF-VERIFICATION: \_\_\_\_\_ PRE-CONSTRUCTION NOTIFICATION: X

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

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

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA\_NO \_\_\_\_\_, USF&WS\_NO \_\_\_\_\_, NMFS\_NO \_\_\_\_\_

If you have any questions on this matter, please contact my staff at 978-318-8676 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

Digitally signed by JAY L. CLEMENT
CLEMENT.JAY.LANGDON.1006350
980
Date: 2021.06.22 11:01:24 -04'00'

JAY L. CLEMENT
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

Digitally signed by JAY L. CLEMENT
CLEMENT.JAY.LANGDON.100635098
0
Date: 2021.06.22 11:23:40 -04'00'

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



**PLEASE NOTE THE FOLLOWING GENERAL AND SPECIAL CONDITIONS FOR  
DEPARTMENT OF THE ARMY  
MAINE GENERAL PERMITS 22  
PERMIT NO. NAE-2021-01363**

**GENERAL CONDITIONS**

**3. Other Permits.** Permittees shall obtain other Federal, State, or local authorizations as required by law. Permittees are responsible for applying for and obtaining all required State of Maine or local approvals including a Flood Hazard Development Permit issued by the town/city. Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, may still be eligible for authorization under these GPs.

**23. 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.

**26. Temporary Fill.**

a. Temporary fills, including but not limited to 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.

b. 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. Temporary fill shall be placed in a manner that will prevent it from being eroded by expected high flows.

c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. washed stone, stone, etc.).

d. Appropriate measures shall 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. Materials shall be placed 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.

e. Construction debris and/or deteriorated materials shall not be placed or otherwise located in waters of the U.S.

**33. Permit(s)/Authorization Letter On-Site.** The permittee shall ensure that a copy of the terms and conditions of these GPs and any accompanying authorization letter with attached plans are at the site of the work authorized by these GPs whenever work is being performed and that all construction personnel performing work which may affect waters of the U.S. are fully aware of the accompanying 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 these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means all terms and conditions of the GPs, the GPs, and the authorization letter (including its drawings, plans, appendices and other attachments) and subsequent permit modifications as applicable. 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,

**34. Inspections.** The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is eligible for authorization under these GPs, is being, or has been performed in accordance with the terms and conditions of these GPs. To facilitate these inspections, the permittee shall complete and return to the Corps the Work-Start Notification Form and the Compliance Certification Form when either is provided with an authorization letter. **These forms are attached after the plans.**

**SPECIAL CONDITIONS**

1. In water work is restricted to June 1 to September 30 of any year in order to minimize potential impacts to fisheries and local water quality.



**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**

MaineDOT WIN 23144.00

**Corps of Engineers Permit No:** NAE-2021-01363

**Name of Permittee:** Maine Dept. of Transportation

**Permit Issuance Date:** 6/22/2021

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

\*\*\*\*\*  
 \* MAIL TO: U.S. Army Corps of Engineers, New England District \*  
 \* Policy & Technical Support Branch \*  
 \* 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



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

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

EMAIL TO: [jay.l.clement@usace.army.mil](mailto:jay.l.clement@usace.army.mil)

-or-

MAIL TO: Jay L. Clement  
U.S. Army Corps of Engineers, Maine Project Office  
442 Civic Center Drive, Suite 350  
Augusta, Maine 04330

A Corps of Engineers Permit (No. NAE-2021-01363) was issued to the Maine Dept. of Transportation. The permit authorized the permittee to place temporary and permanent fill below the ordinary high water mark of Butterfield Brook at Wilton, Maine in order to replace the existing deteriorated Wilton Hall Bridge (Route 2/17). This work will result in approximately 620 s.f. of temporary and 1,130 s.f. of permanent stream bed impact.

MaineDOT WIN 23144.00

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: (     ) \_\_\_\_\_ (     ) \_\_\_\_\_

Proposed Work Dates: Start: \_\_\_\_\_

Finish: \_\_\_\_\_

PERMITTEE'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

*FOR USE BY THE CORPS OF ENGINEERS*

Project Manager: Clement Submittals Required: No

Inspection Recommendation: Inspect as convenient



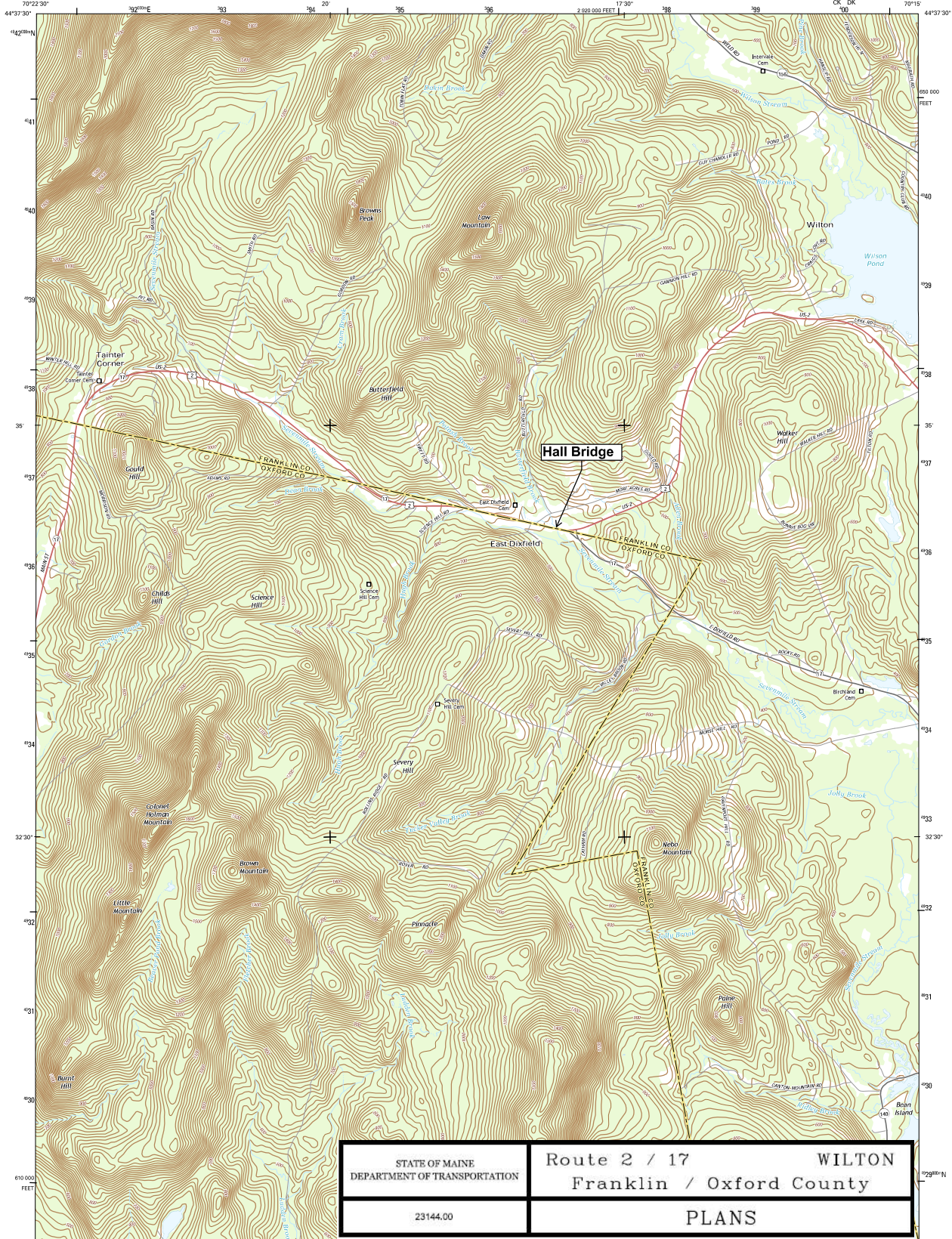
# Project Location Map



U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY



EAST DIXFIELD QUADRANGLE  
MAINE  
7.5-MINUTE SERIES  
OK, DK  
100

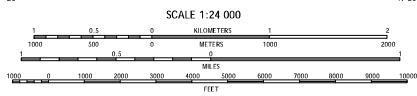


STATE OF MAINE DEPARTMENT OF TRANSPORTATION	Route 2 / 17 Franklin / Oxford County	WILTON
23144.00	PLANS	

Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84) Projection used  
1:250,000-meter grid; Universal Transverse Mercator; Zone 18T  
10,000-foot ticks; Maine Coordinate System of 1983 (east zone)

**U.S. Route 2/17 - Bridge Replacement**  
**WIN 23144.00**  
**Wilton, ME (Franklin County)**

**Project Location: 44.572823, -70.300983**



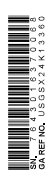
CONTOUR INTERVAL: 20 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1983  
This map was produced to conform with the  
National Geospatial Program US Topo Product Standards, 2011.  
A metadata file associated with this product is draft version 0.6.16.

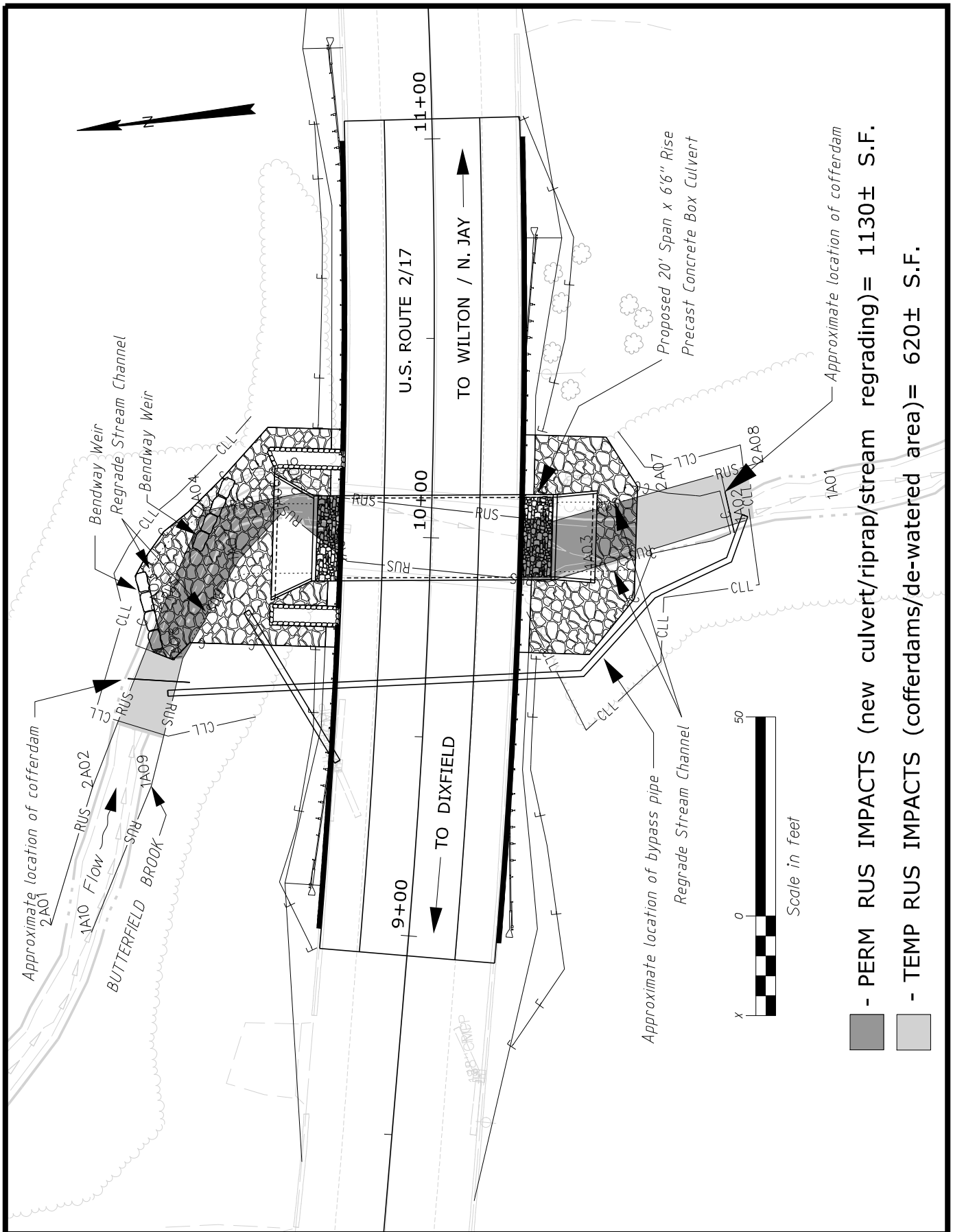


1	2	3	1 Wild
4	5	6	2 Mount Blue
7	8	9	3 Farmington
10	11	12	4 Dixfield
13	14	15	5 Wilton
16	17	18	6 Westley Pond
19	20	21	7 Canton
22	23	24	8 Lawrence Falls

ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	400D
Interstate Route	US Route
	State Route

EAST DIXFIELD, ME  
2014





- PERM RUS IMPACTS (new culvert/riprap/stream regrading)= 1130± S.F.
- TEMP RUS IMPACTS (cofferdams/de-watered area)= 620± S.F.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

Route 2 / 17 WILTON  
Franklin / Oxford County

SHEET NUMBER  
**1**

23144.00

**PLANS**

OF1 58

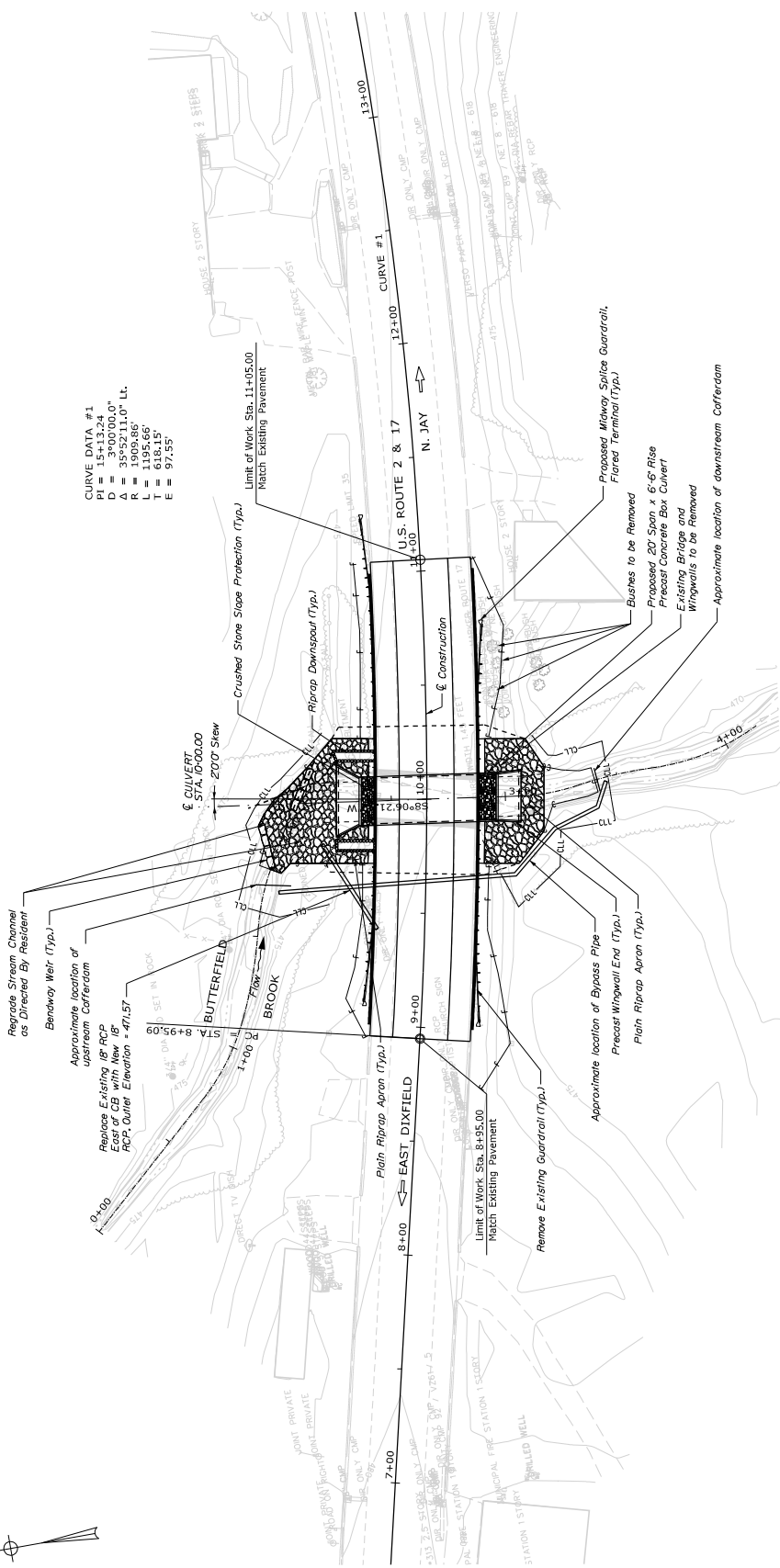
HALL BRIDGE  
HOOPER(BUTTERFIELD) BRK.  
FRANKLIN COUNTY

GENERAL PLAN

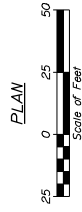
WILTON

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 23144.00 WLN
BRIDGE NO. 2341

PROJ. MANAGER	MOHEL MOHT	BY	DATE
SIGNATURE			
P.E. NUMBER			
DATE			


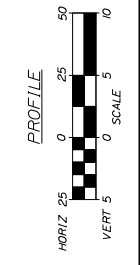


CURVE DATA #1  
 PH = 15+13.24  
 D = 30000.0'  
 A = 39.52210° Lt.  
 L = 1195.66'  
 T = 618.15'  
 E = 97.55'



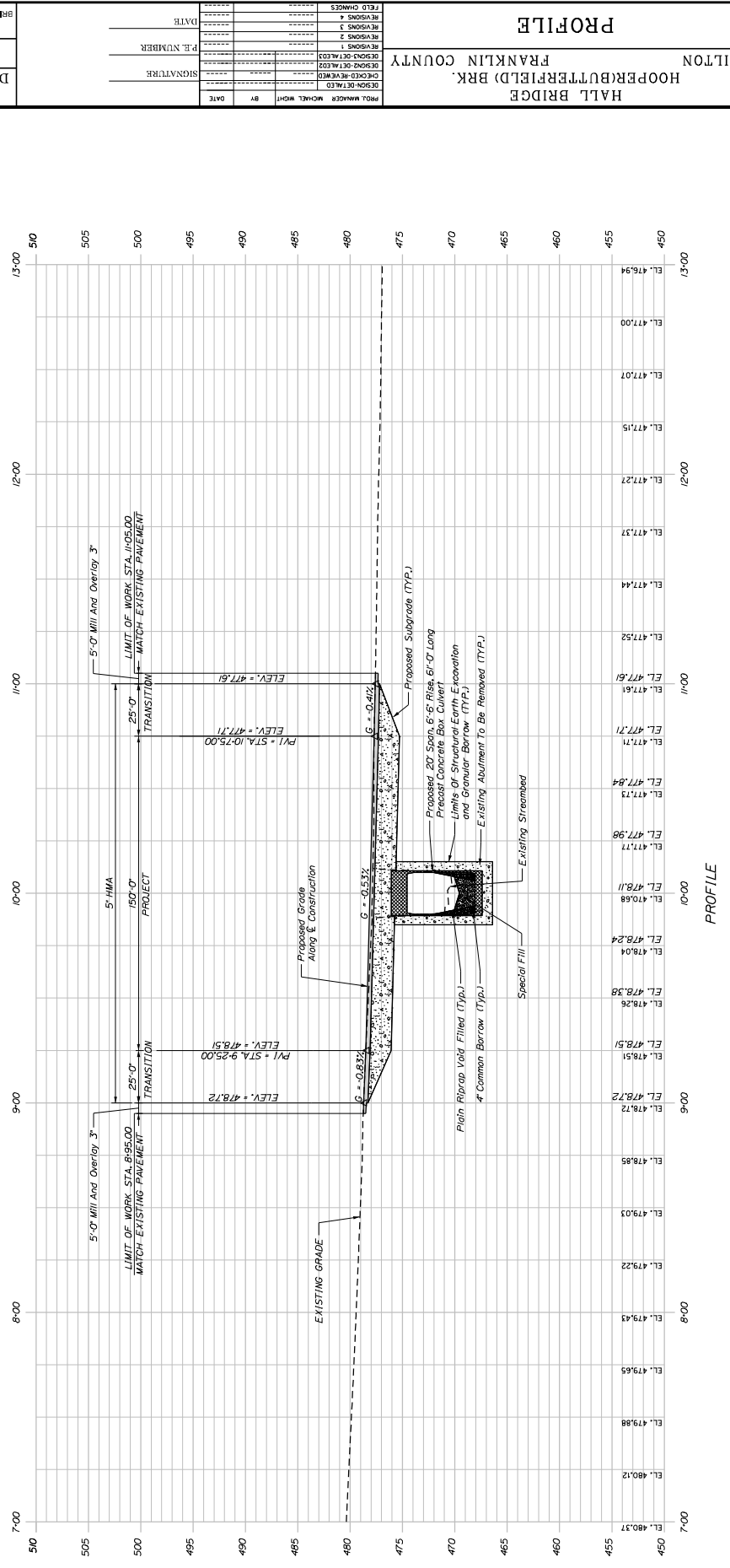


85% PLANS  
March 2021

PROFILE

PROFILE



PROJ. NUMBER	DATE	SIGNATURE	PROJ. MANAGER	MICHAEL	WIGHT	BY	DATE
REGIONS 4							
REGIONS 3							
REGIONS 2							
REGIONS 1							
DESIGN-DETAILED							
DESIGN-DETAILED							
DESIGN-DETAILED							

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 2341  
WLN  
23144.00  
BRIDGE PLANS

HALL BRIDGE  
HOOPER(BUTTERFIELD) BRK.  
FRANKLIN COUNTY  
WILTON

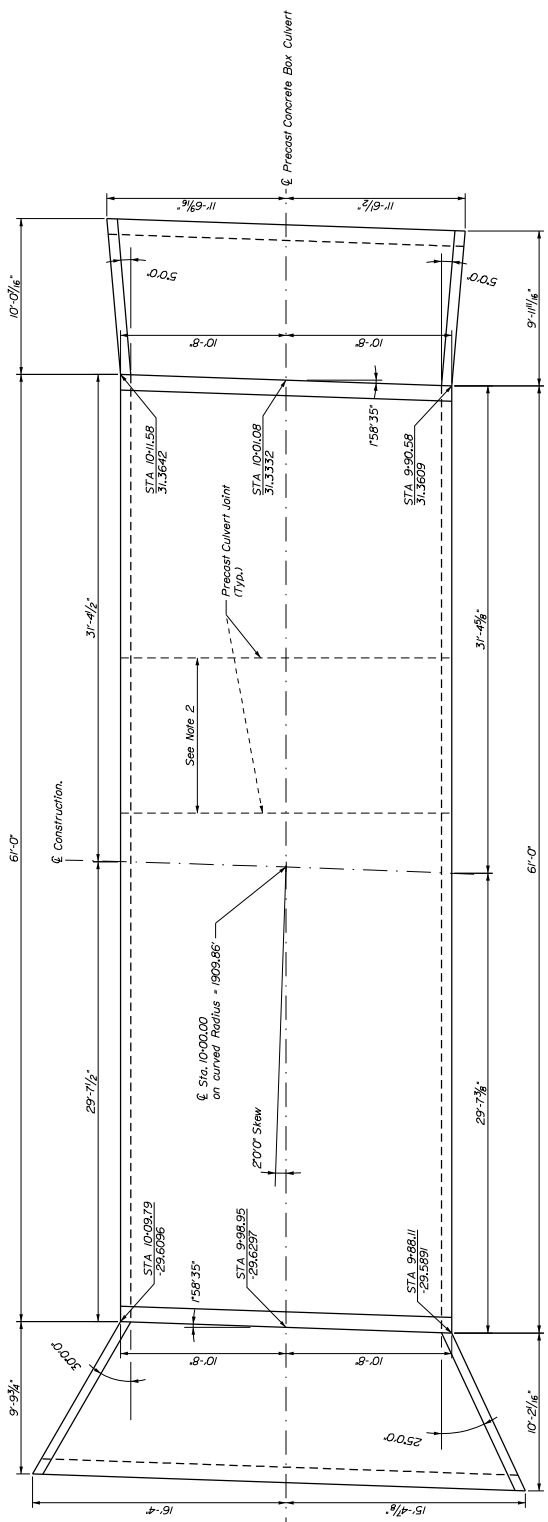
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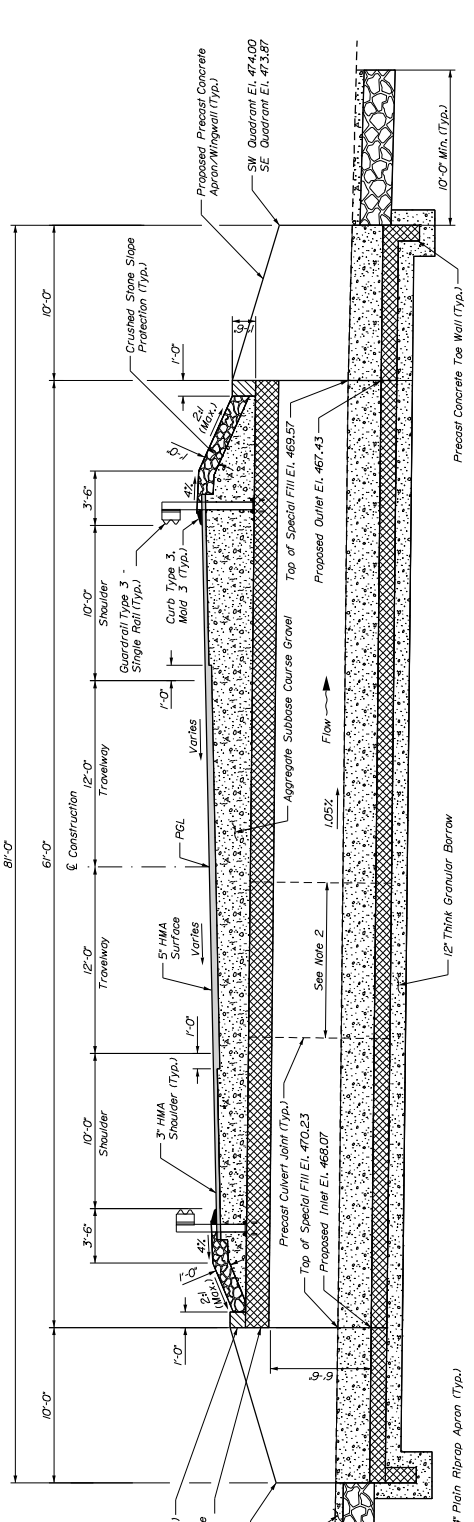
85% PLANS  
March 2021

HALL BRIDGE  
HOOPER(BUTTERFIELD) BRK.  
FRANKLIN COUNTY  
WILTON  
SPECIAL DETAIL - PRECAST  
BOX CULVERT (1 OF 4)

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 2341  
WIN  
23144.00  
BRIDGE PLANS



CULVERT PLAN



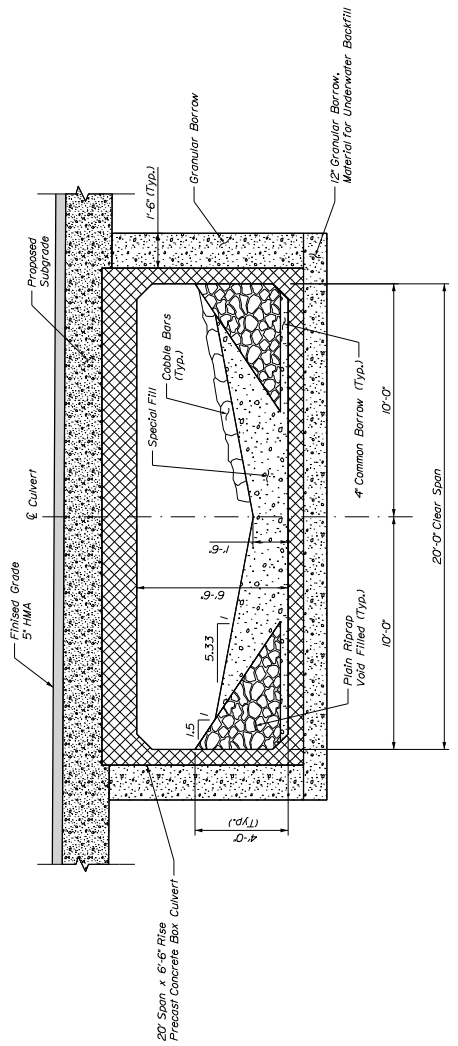
PROPOSED TRANSVERSE SECTION  
Scale: 1/4"=1'-0"

**NOTES**

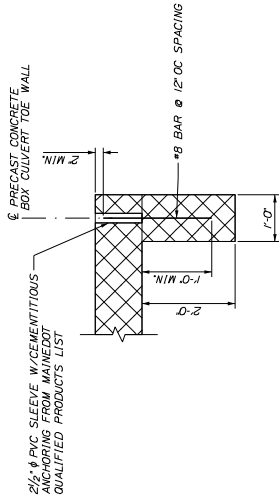
1. The construction handling and assembly of the precast units shall be in accordance with the manufacturer's recommendations and the manufacturer's recommendations as applicable.
2. The length of each culvert segment shall be in accordance with the manufacturer's recommendations with staging requirements.
3. Inside standard, neoprene waterproofing over the top, 12" down the exterior sides of the precast units, and 12" up the headwall.
4. Callouts are to be placed at both the interior and exterior of the precast structure to allow water to be pumped and removed during construction.
5. Special Fill shall be placed in accordance with Special Provision Section 203.
6. Riprap will be used to inlay around the culvert ends at both the inlet and outlet. See plan for locations.
7. With Special Fill watered-in and tamped.

**NOTES**

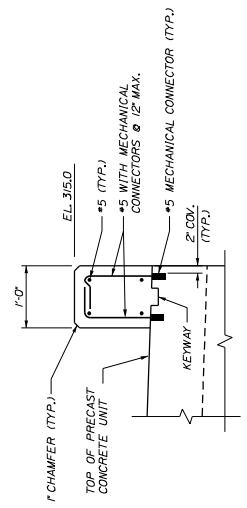
- Weepholes shall be placed at the center of the precast segment. The exact location will be determined by the Resident.
- Construct French Drains behind the Precast Structure in accordance with Standard Specification Section 512, French Drains.



TYPICAL CULVERT SECTION



PRECAST CONCRETE TOE WALL DETAIL  
N.T.S.



HEADWALL DETAIL  
NOT TO SCALE

85% PLANS  
March 2021

**ERDMAN ANTHONY**



REPLY TO  
ATTENTION OF

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

MAINE GENERAL PERMITS (GPs)  
AUTHORIZATION LETTER AND SCREENING SUMMARY

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

CORPS PERMIT # NAE-2021-0703  
CORPS GPs 22  
STATE ID# PBR

DESCRIPTION OF WORK:

Place temporary and permanent fill below the ordinary high water mark of the Sandy River at the Chesterville/Farmington, Maine town line in order to replace the existing deteriorated Route 41 bridge. This work will result in approximately 5,450 s.f. of temporary and 1,830 s.f. of permanent stream bed impact and is shown on the attached plans entitled "Rt. 41 Chesterville-Farmington, Franklin County" in two sheets undated and "FARMINGTON FALLS BRIDGE, SANDY RIVER, FARMINGTON, FRANKLIN COUNTY" in seven sheets undated.  
*See GENERAL and SPECIAL CONDITIONS attached.*

LAT/LONG COORDINATES: 44.620050° N -70.748380° W USGS QUAD: FARMINGTON FALLS, 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 Federal Permit, the Maine General Permits (GPs) which can be found at: <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/>** 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 GPs, including the GPs conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GPs 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 45 of the GPs (page 19) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GPs on October 14, 2025. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 14, 2026.

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 [  ], ISSUED [  ], DENIED [  ] DATE \_\_\_\_\_

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

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 3/11/21 LEVEL OF REVIEW: SELF-VERIFICATION:  PRE-CONSTRUCTION NOTIFICATION:

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10 \_\_\_\_\_, 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 978-318-8676 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](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0)

Digitally signed by  
CLEMENT.JAY.LANGDON.10063509  
80  
Date: 2021.05.25 14:45:46 -04'00'

JAY L. CLEMENT  
SENIOR PROJECT MANAGER  
MAINE PROJECT OFFICE

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



PLEASE NOTE THE FOLLOWING GENERAL AND SPECIAL CONDITIONS FOR  
DEPARTMENT OF THE ARMY  
MAINE GENERAL PERMIT 22  
PERMIT NO. NAE-2021-00703

**GENERAL CONDITIONS**

**3. Other Permits.** Permittees shall obtain other Federal, State, or local authorizations as required by law. Permittees are responsible for applying for and obtaining all required State of Maine or local approvals including a Flood Hazard Development Permit issued by the town/city. Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, may still be eligible for authorization under these GPs.

**23. 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.

**26. Temporary Fill.**

a. Temporary fills, including but not limited to 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.

b. 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. Temporary fill shall be placed in a manner that will prevent it from being eroded by expected high flows.

c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. washed stone, stone, etc.).

d. Appropriate measures shall 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. Materials shall be placed 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.

e. Construction debris and/or deteriorated materials shall not be placed or otherwise located in waters of the U.S.

**33. Permit(s)/Authorization Letter On-Site.** The permittee shall ensure that a copy of the terms and conditions of these GPs and any accompanying authorization letter with attached plans are at the site of the work authorized by these GPs whenever work is being performed and that all construction personnel performing work which may affect waters of the U.S. are fully aware of the accompanying 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 these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means all terms and conditions of the GPs, the GPs, and the authorization letter (including its drawings, plans, appendices and other attachments) and subsequent permit modifications as applicable. 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,

**34. Inspections.** The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is eligible for authorization under these GPs, is being, or has been performed in accordance with the terms and conditions of these GPs. To facilitate these inspections, the permittee shall complete and return to the Corps the Work-Start Notification Form and the Compliance Certification Form when either is provided with an authorization letter. **These forms are attached after the plans.**

**SPECIAL CONDITIONS**

1. In water work is restricted to July 1 and April 15 of any year in order to minimize potential impacts to fisheries and local water quality.



2. In accordance with the U.S. Fish & Wildlife Programmatic Biological Opinion dated January 23, 2017 and the Project Notification Form supporting the work described in this permit (countersigned by USFWS on June 24, 2020), the permittee shall comply with all designated Avoidance and Minimization Measures (AMMs).
3. In accordance with the attached memo dated July 20, 2020, the permittee and his contractors are prohibited from storing vehicles, equipment, or construction material within the area identified on page 3 as "Contractor Equipment Exclusion Zone" in order to avoid potential impacts to archaeological resources.



**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

MaineDOT WIN 22296.00

**Corps of Engineers Permit No:** NAE-2021-00703

**Name of Permittee:** Maine Dept. of Transportation

**Permit Issuance Date:** 5/25/2021

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

```

*****
* MAIL TO: U.S. Army Corps of Engineers, New England District      *
*           Policy & Technical Support Branch                      *
*           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



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

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

EMAIL TO: [jay.l.clement@usace.army.mil](mailto:jay.l.clement@usace.army.mil)

-or-

MAIL TO: Jay L. Clement  
U.S. Army Corps of Engineers, Maine Project Office  
442 Civic Center Drive, Suite 350  
Augusta, Maine 04330

A Corps of Engineers Permit (No. NAE-2021-00703) was issued to the Maine Dept. of Transportation. The permit authorized the permittee to place temporary and permanent fill below the ordinary high water mark of the Sandy River at the Chesterville/Farmington, Maine town line in order to replace the existing deteriorated Route 41 bridge. This work will result in approximately 5,450 s.f. of temporary and 1,830 s.f. of permanent stream bed impact.

MaineDOT WIN 22296.00

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: (     ) \_\_\_\_\_ (     ) \_\_\_\_\_

Proposed Work Dates: Start: \_\_\_\_\_

Finish: \_\_\_\_\_

PERMITTEE'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

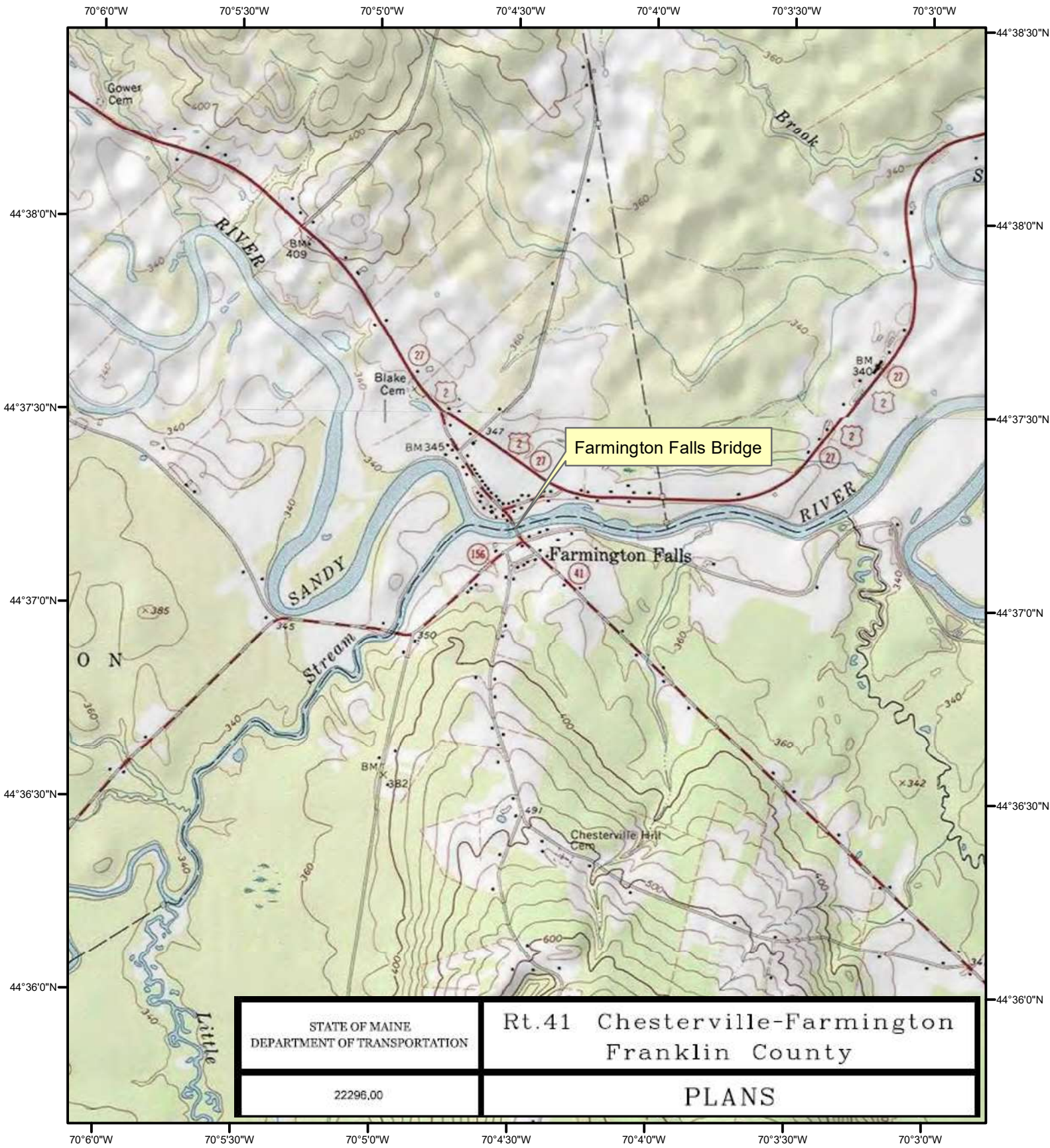
PRINTED NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

*FOR USE BY THE CORPS OF ENGINEERS*

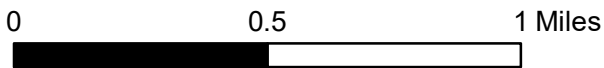
Project Manager: Clement Submittals Required: No

Inspection Recommendation: Inspect as convenient

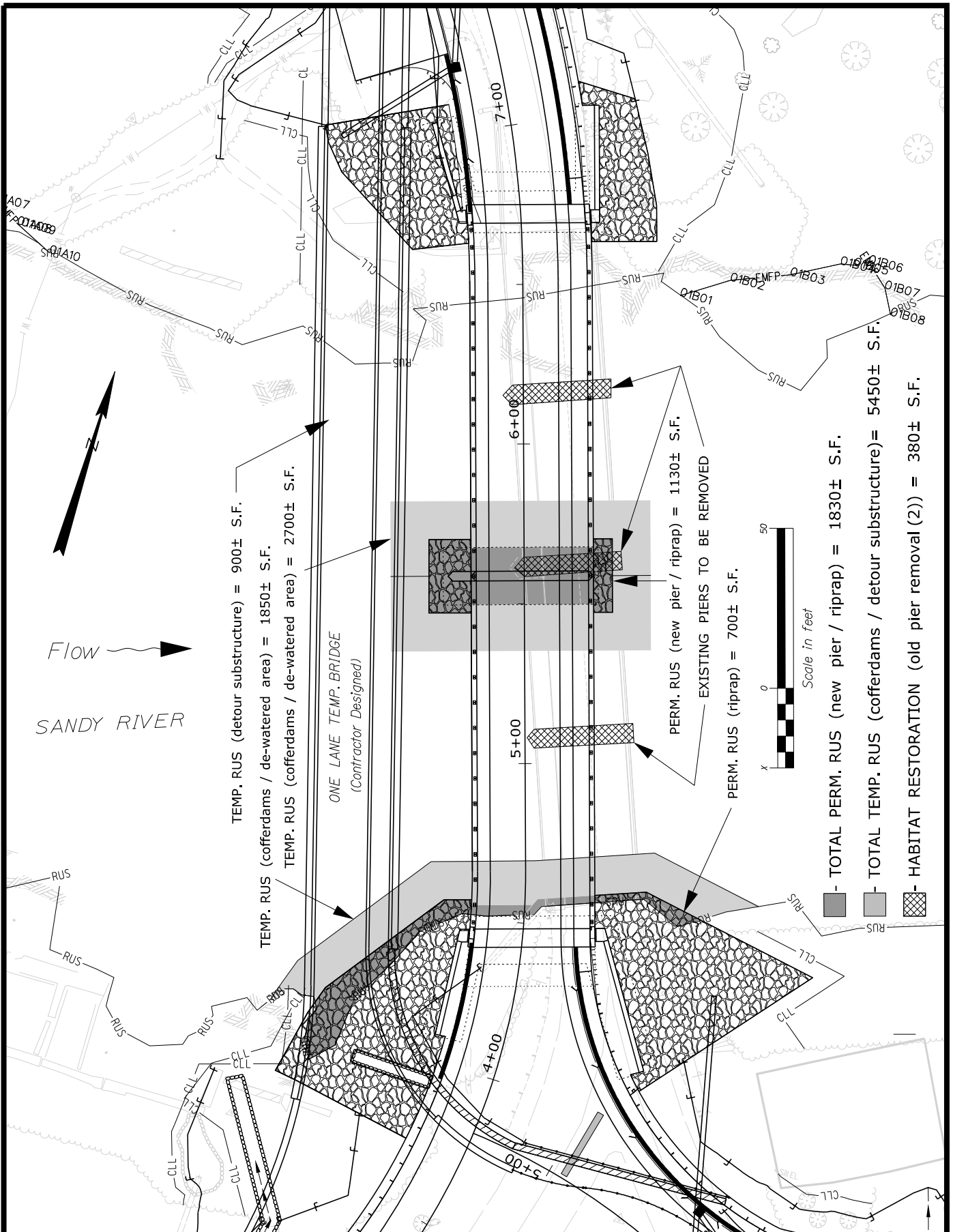
# Project Location Map



U.S. Route 2 - Bridge Replacement  
 WIN 22296.00  
 Chesterville - Farmington, ME (Franklin County)



Project Location: 44.620050, -70.074838



TEMP. RUS (detour substructure) = 900± S.F.  
 TEMP. RUS (cofferdams / de-watered area) = 1850± S.F.  
 TEMP. RUS (cofferdams / de-watered area) = 2700± S.F.

ONE LANE TEMP. BRIDGE  
 (Contractor Designed)

PERM. RUS (new pier / riprap) = 1130± S.F.  
 EXISTING PIERS TO BE REMOVED  
 PERM. RUS (riprap) = 700± S.F.

- TOTAL PERM. RUS (new pier / riprap) = 1830± S.F.
- TOTAL TEMP. RUS (cofferdams / detour substructure) = 5450± S.F.
- HABITAT RESTORATION (old pier removal (2)) = 380± S.F.



STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 22296.00

Rt.41 Chesterville-Farmington  
 Franklin County

SHEET NUMBER  
**1**  
 OF1 369

PLANS



# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



## FARMINGTON FRANKLIN COUNTY FARMINGTON FALLS BRIDGE OVER SANDY RIVER ROUTE 41

STATE PROJECT 22296.00  
PROJECT LENGTH 0.24 mi.  
BRIDGE NO. 2273

**SPECIFICATIONS**

Designs, Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017.

**DESIGN LOADING**

Live Load ..... HL-93 Modified for Strength 1

**TRAFFIC DATA**

Current (2016) AADT ..... 4261  
 Future (2036) AADT ..... 5965  
 DHV - % of AADT ..... 10  
 Design Hour Volume ..... 834  
 % Heavy Trucks (AADT) ..... 5  
 % Heavy Trucks (DHV) ..... 8  
 Directional Distribution (DHV) ..... 55  
 18 kip Equivalent P 2.0 ..... 818  
 18 kip Equivalent P 2.5 ..... 779  
 Design Speed (mph) ..... 30

**HYDROLOGIC DATA**

Drainage Area ..... 425.2 sq mi  
 Design Discharge (Q50) ..... 34,250 cfs  
 Check Discharge (Q100) ..... 39,200 cfs  
 Headwater Elevation (Q50) ..... 340.61 ft  
 Headwater Elevation (Q100) ..... 341.99 ft  
 Discharge Velocity (Q50) ..... 6.14 fps  
 Discharge Velocity (Q100) ..... 6.61 fps  
 Headwater Elevation (Q1.1) ..... 325.77 ft  
 Discharge Velocity (Q1.1) ..... 3.32 fps  
 Headwater Elevation (Q25) ..... N/A ft

**MATERIALS**

Concrete: ..... Class "LP"  
 Curb & Transition Barriers ..... Class "A"  
 All Other ..... Class "A"  
 Reinforcing: ..... ASTM A 615/A 615M, Grade 60  
 Plain Reinforcing Steel ..... ASTM A 955, Grade 75  
 Stainless Reinforcing Steel

**BASIC DESIGN STRESSES**

Concrete .....  $f'c = 4,350$  psi  
 Reinforcing Steel .....  $f_y = 60,000$  psi  
 Structural Steel:  
 ASTM A 709/A 709M, Grade 50W .....  $F_y = 50,000$  psi  
 ASTM A 709/A 709M, Grade 36 .....  $F_y = 36,000$  psi  
 ASTM A 325 .....  $F_u = 120,000$  psi

**LIST OF DRAWINGS**

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**UTILITIES**

Central Maine Power Company  
 Consolidated Communications  
 Farmington Falls Water District

**MAINTENANCE OF TRAFFIC**

The bridge site will be closed to traffic during construction. Vehicles will be maintained via a single lane temporary bridge with traffic signals along the upstream (west) side of Route 41 during construction.

<b>PROJECT LOCATION:</b>	Franklin Falls Bridge #2273 carries State Route 41 over Sandy River. Lat./Long. 44°-37'-12" N, 70°-04'-29" W
<b>PROGRAM AREA:</b>	Bridge Program
<b>OUTLINE OF WORK:</b>	Bridge Replacement

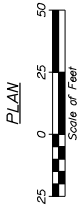
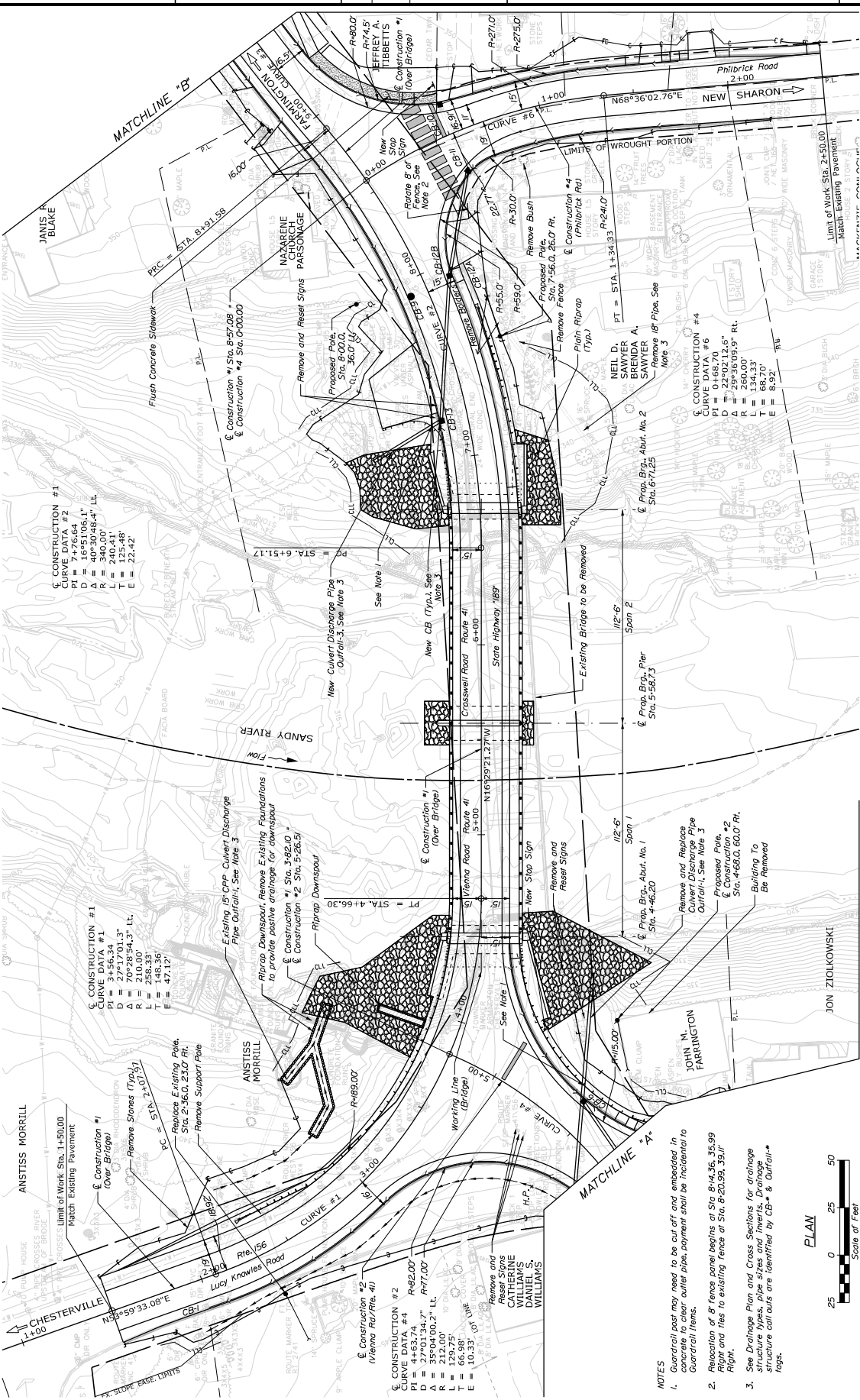
85% PLANS  
December 2020



<b>FARMINGTON</b> FARMINGTON FALLS BRIDGE TITLE SHEET	SHEET NUMBER <span style="font-size: 2em;">1</span> OF 58
PROJECT INFORMATION PROGRAM PROJECT MANAGER DESIGNER CONSULTANT CONTRACTOR PROJECT RESIDENT DATE	SIGNATURE P. E. NUMBER DATE CHIEF ENGINEER COMMISSIONER APPROVED DATE DEPARTMENT OF TRANSPORTATION STATE OF MAINE

WIN 22296.00

FARMINGTON SANDY RIVER FARMINGTON COUNTY (1 of 2) GENERAL PLAN



- NOTES
- Guardrail posts may need to be cut off and embedded in concrete to clear culvert pipe, payment shall be incidental to Guardrail Items.
  - Relocation of 8" fence, some begins at Sta. 8+45.35, 35.99 Riprap and ties to existing fence at Sta. 8+20.93, 33.01 Right.
  - See Drainage Plan and Cross Sections for drainage structure call outs are identified by CB-# & Outfall-#.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 2273  
WMN  
22296.00

DESIGN-DATE	BY	DATE
DESIGN-DATE		
DESIGN-DATE		
DESIGN-DATE		

SIGNATURE	BY	DATE

P.E. NUMBER	DATE

PROJ. MANAGER	MODEL NO.	BY	DATE

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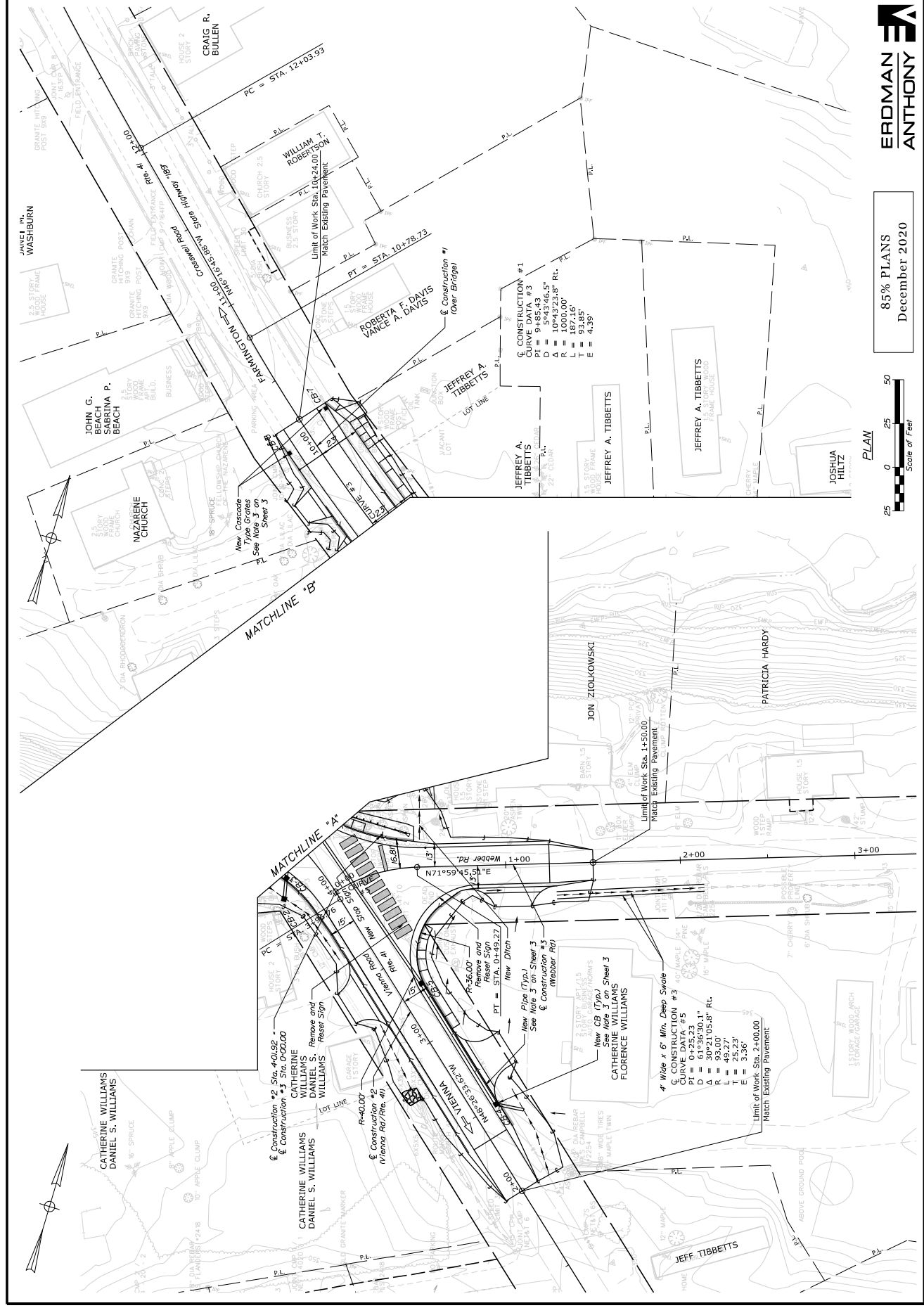
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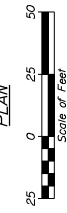
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85% PLANS  
December 2020



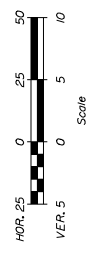
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STATE OF MAINE DEPARTMENT OF TRANSPORTATION		FARMINGTON FALLS RIVER SANDY RIVER FARMINGTON COUNTY GENERAL PLAN (2 of 2)	
BRIDGE NO. 2273 WLN 22296.00		PROJECT MANAGER MODEL NO. BY DATE	
SIGNATURES		DESIGN-DATE	
P.E. NUMBER		DESIGN-DATE	
DATE		DESIGN-DATE	



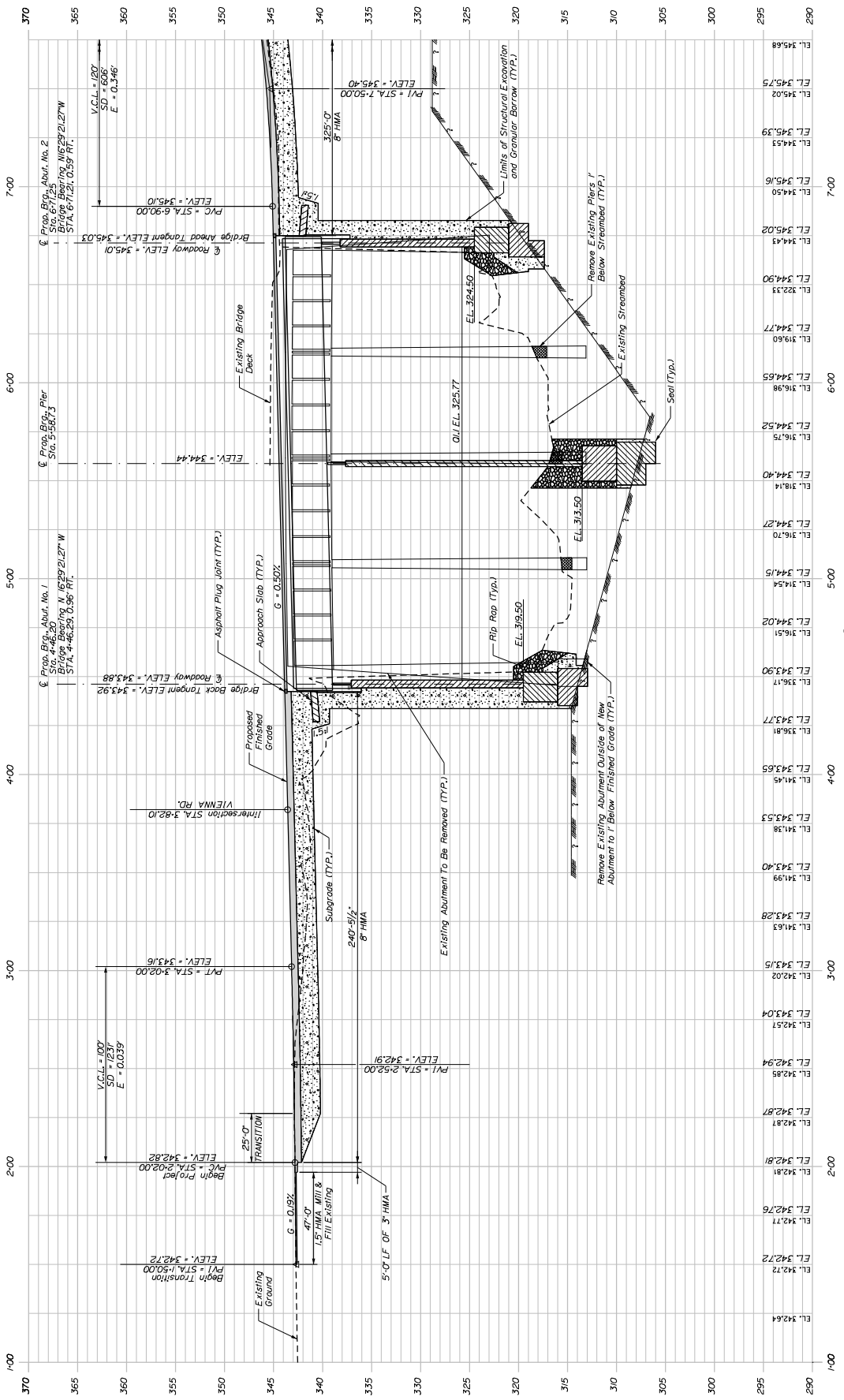


85% PLANS  
December 2020



PROFILE (Construction #1)  
VIENNA ROAD (ROUTE 41)  
STATE HIGHWAY 189

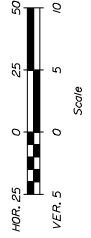
LUCY KNOWLES ROAD (ROUTE 156)



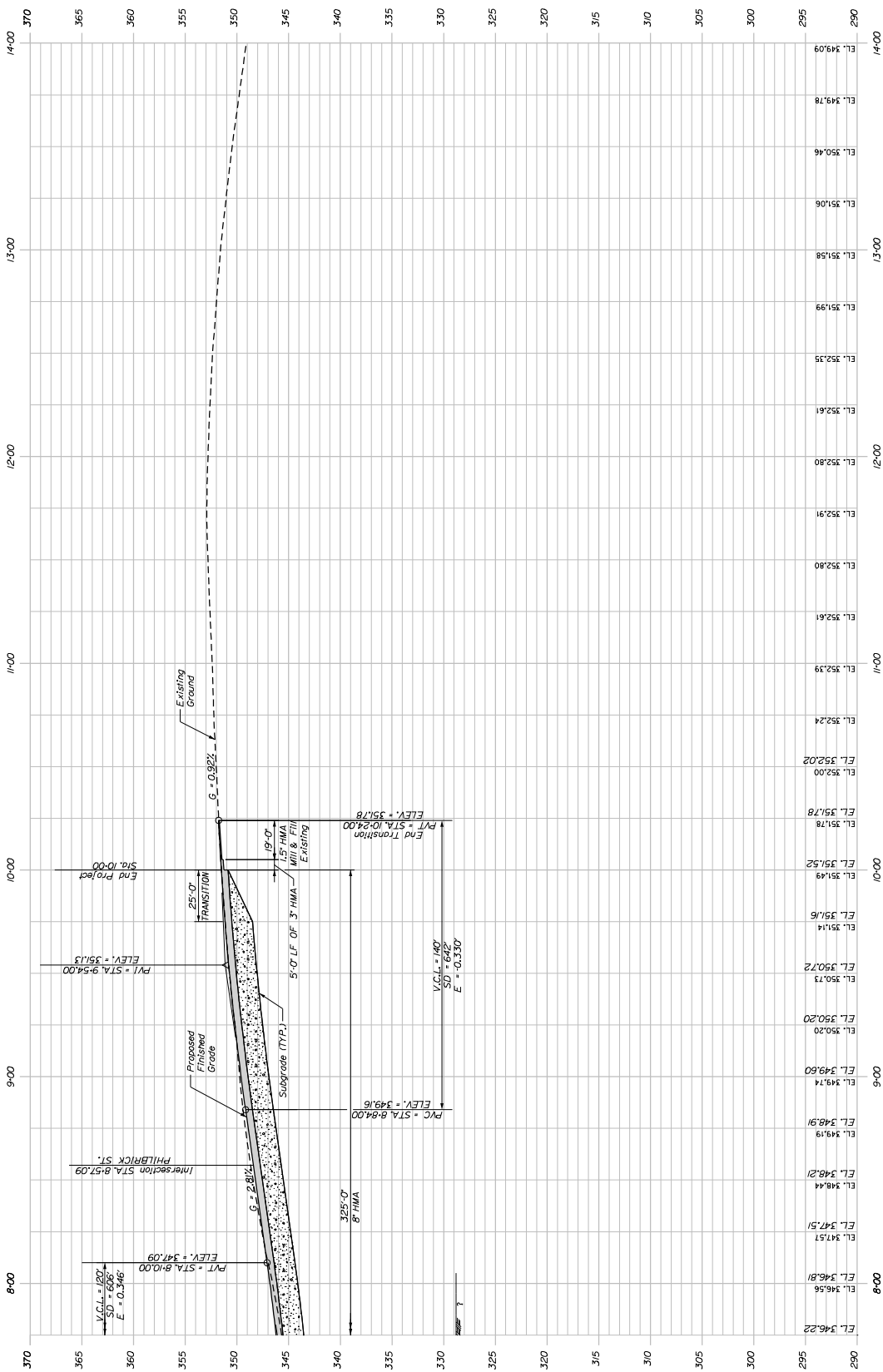
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		FARMINGTON FALLS RIVER FRANKLIN COUNTY	
BRIDGE NO. 2273 WMN 22296.00		FARMINGTON FALLS BRIDGE	
DATE		PROJ. MANAGER	
P.E. NUMBER		SHEET NUMBER	
SIGNATURE		DATE	
DESIGN-DATE		REVISED DATE	
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REVISIONS		REVISIONS	
REVISIONS 4		REVISIONS 3	
REVISIONS 3		REVISIONS 2	
REVISIONS 2		REVISIONS 1	
REVISIONS 1		REVISIONS 0	



85% PLANS  
December 2020



PROFILE (Construction #1)  
CROSSWELL ROAD (ROUTE 41)  
STATE HIGHWAY 189



SHEET NUMBER  
9  
OF 88

FARMINGTON FALLS BRIDGE  
SANDY RIVER  
FRANKLIN COUNTY  
FARMINGTON  
PROFILE  
(2 of 3)

DESIGN-DATE	BY	DATE
DESIGN-NO.	MODEL NO.	
PROJECT NO.		
REGION 1		
REGION 2		
REGION 3		
REGION 4		
FIELD CHANGES		
DATE		
P.E. NUMBER		
SIGNATURE		

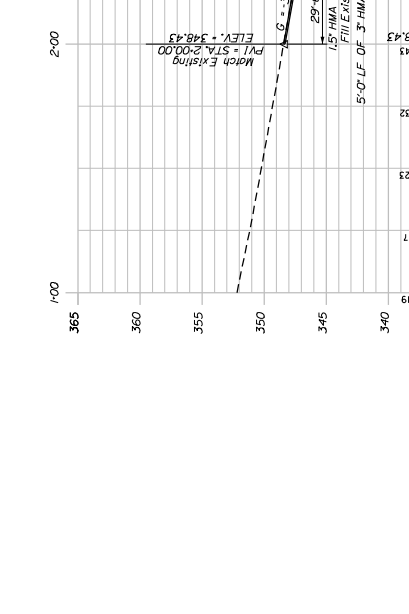
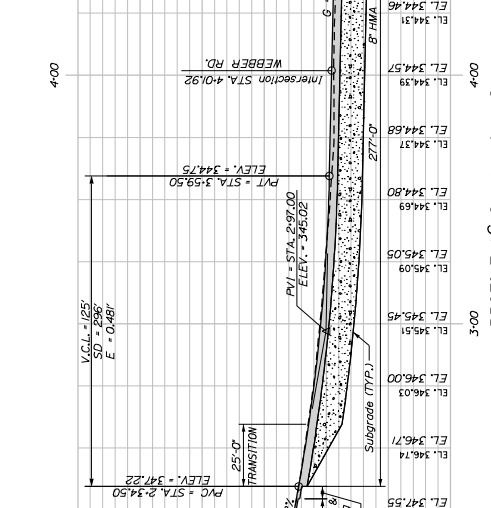
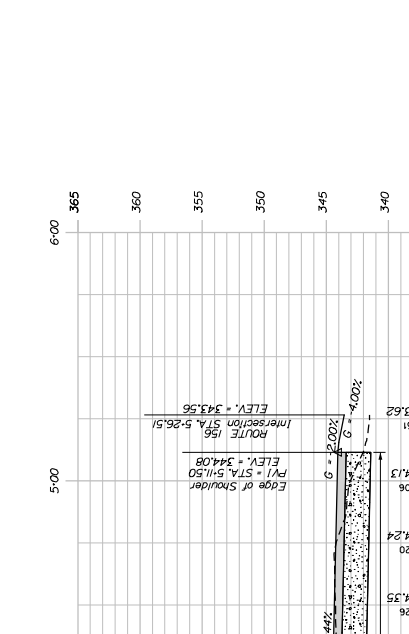
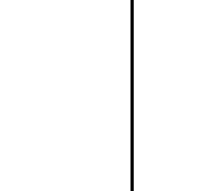
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DEPARTMENT OF TRANSPORTATION  
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BRIDGE NO. 2273

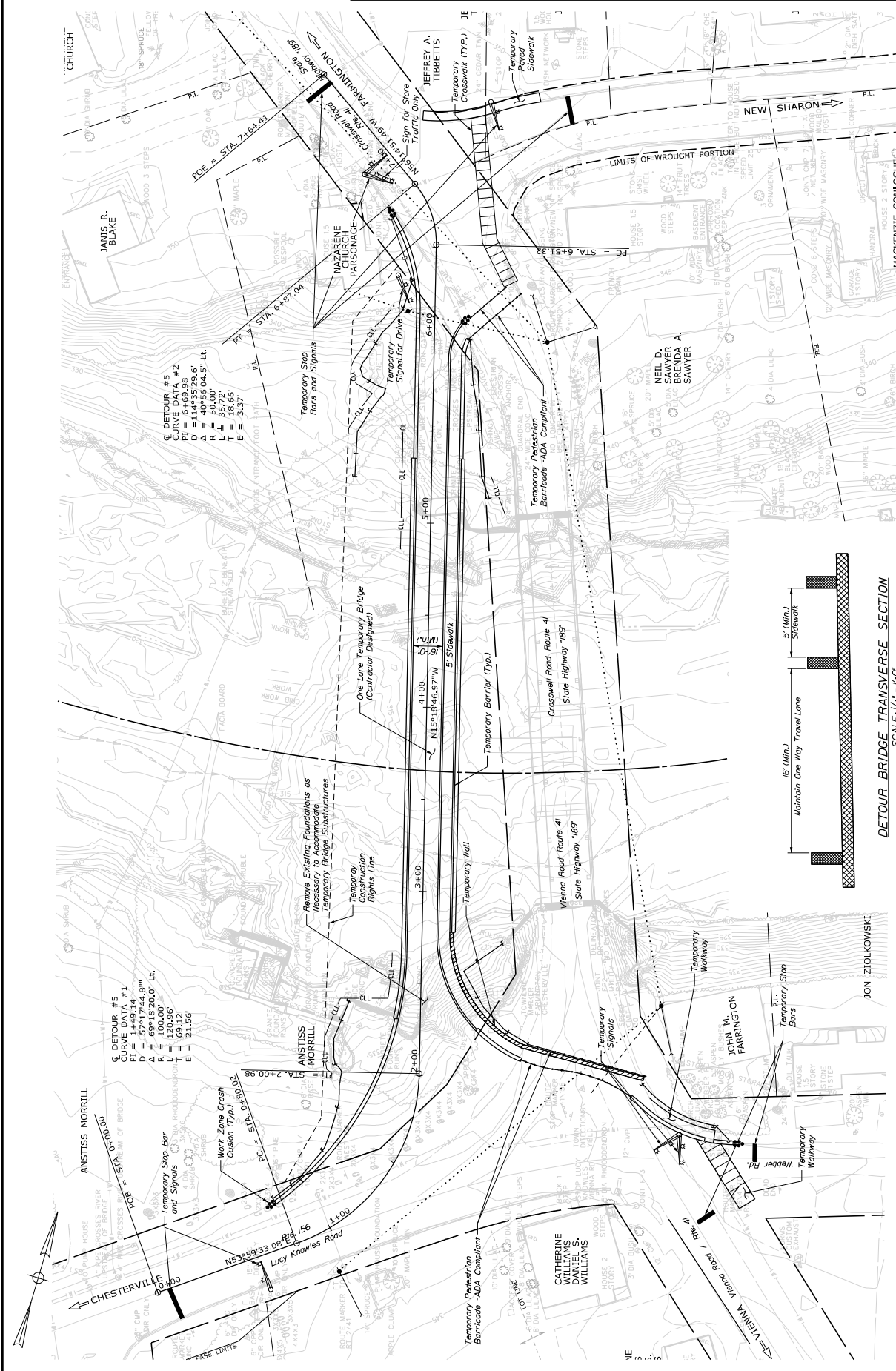
DATE \_\_\_\_\_ P.E. NUMBER \_\_\_\_\_ SIGNATURE \_\_\_\_\_ PROJECT MANAGER MODEL NO. BY DATE

REGION 4 REGION 3 REGION 2 REGION 1 DESIGN DETAILS SECTION DETAILS

FARMINGTON SANDY RIVER FARMINGTON FRANKLIN COUNTY (3 of 3) PROFILE

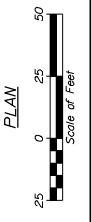
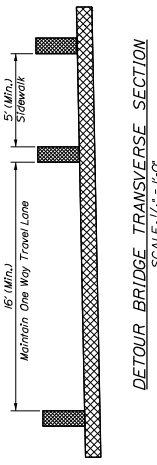
85% PLANS December 2020 ERDMAN ANTHONY

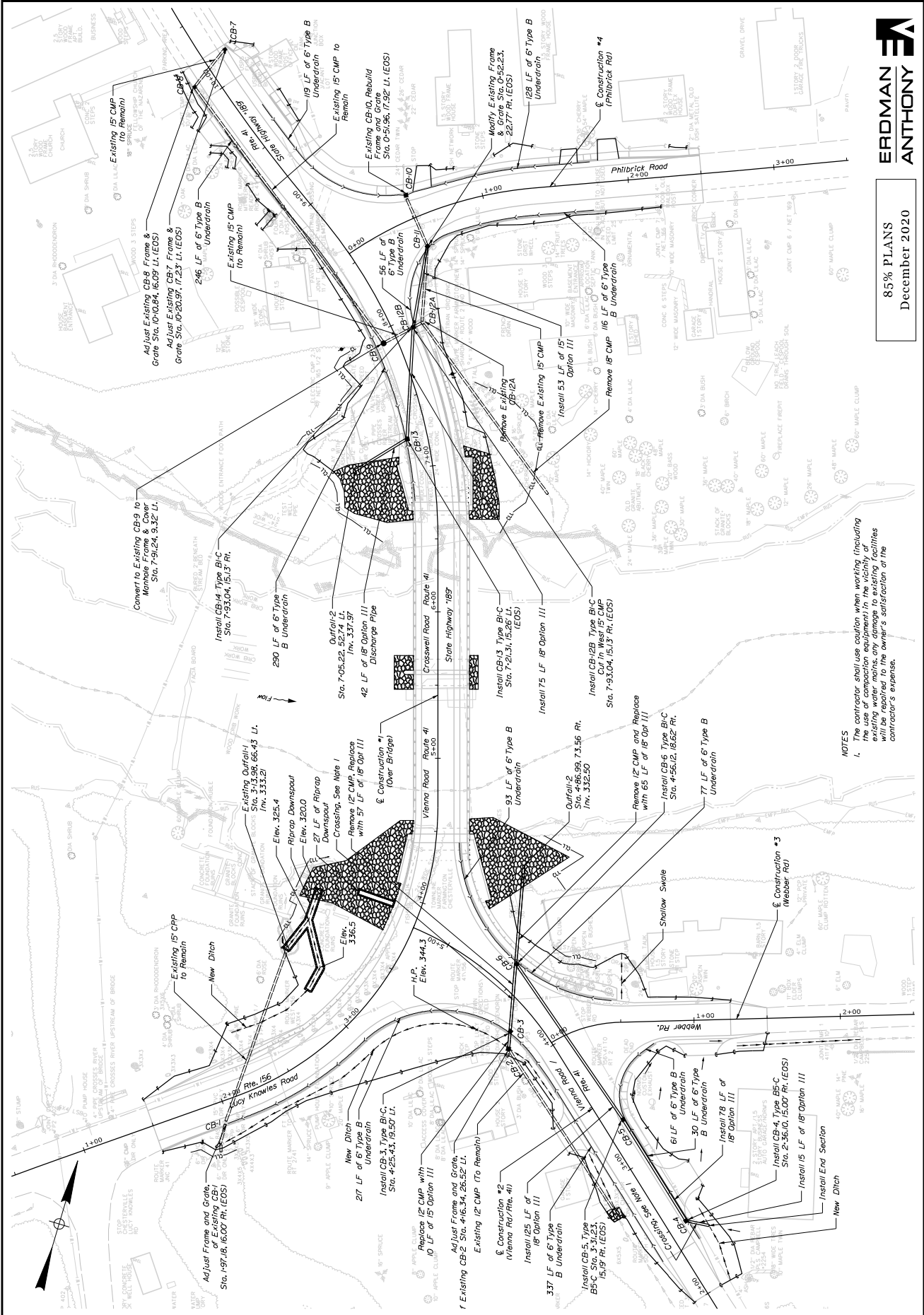




**ERDMAN ANTHONY**

85% PLANS  
December 2020





**ERDMAN ANTHONY**

85% PLANS  
December 2020

**NOTES**

1. The contractor shall use caution when working (including the use of compaction equipment) in the vicinity of existing utilities. The contractor shall be responsible for the location of all utilities and will be required to the owner's satisfaction at the contractor's expense.

## MEMORANDUM

To: Julie Senk, MDOT  
From: John Mosher and Arthur Spiess, MHPC  
Date: July 20, 2020  
RE: **Farmington Falls bridge #2273, Chesterville-Farmington Falls, WIN 22296.00**  
Phase IIB Archaeological Testing, Northwest and Southeast Corners, end of fieldwork summary

MHPC archaeologists completed Phase IIB testing of the bridge replacement at Farmington Falls on 15 July 2020. The work was concentrated in four areas, with the greatest attention paid to the **north lawn of the Nazarene parsonage**. Here we encountered over a score of features associated with pre-contact Native American site 51.2, the late Contact/Early Colonial Native American village of Amesokanti, the late 18th-century Jonathan Knowlton site, and the early 19th- to early 20th-century Williams House (Figure 1). While the context of some of these features is still being evaluated, we know that several along the south edge of the Janice Blake driveway are associated with Amesokanti based on the recovery of several glass seed and necklace beads. One of the larger features (F60) attributable to Amesokanti is a storage/refuse pit containing multiple layers of black organics sandwiched between lenses of silty, fine sand. Its resemblance to a bark-lined storage/trash pit from the Tracy Farm excavation (Starks, Dr. Ellen Cowie, circa 1995) is remarkable.

Testing of the **Williams House ell** indicates that it dates no earlier than the middle of the nineteenth century and it most likely functioned as a domestic rather than commercial space (Figure 2). The structure had a central chimney which collapsed inward during the 1929 fire. The north and east foundations were constructed of fieldstone and/or split granite, while the south foundation consisted of a stone-and-brick pier/footing that supported a load-bearing post. The cellar was an open crawl space that sloped from north to south. Though the floor was of ‘dirt’, archaeological evidence indicates that it was covered with wooden planking supported by bricks and flat stones, somewhat like a wooden pallet. Above the planking was a massive burn deposit from the 1929 fire that was capped by sand-and-gravel fill, landscape loam, and sod.

Investigations of **Charles Watson’s carriage factory** focused initially on finding and recording the north and west foundation walls that were emplaced on ponded sediments ca. 1872 (Figure 3). Tests along two sections of the foundations determined that there were no stone footings. When the carriage factory ceased operations with the death of Charles Watson’s brother Benjamin in 1918, George Weymouth purchased the Franklin Mill complex and removed the carriage-making machinery. Carriage parts, tapped rods, paint cans, and other shop detritus was dumped into the mill pond, where it accumulated along the west foundation wall. Weymouth repurposed the carriage factory in 1920 for use as a warehouse for the Farmington Falls Electric Company on the ground floor, while the second or third floors may have served as a residence. Fill deposits from inside the foundations yielded numerous fragments of ceramic insulators and iron cross-ties (used to secure cross pieces on telephone poles), as well as household debris including ceramics, glass bottles and tableware, and a treadle-operated sewing machine. These

materials accumulated in the basement as a result of the October 1929 fire that destroyed the carriage factory and several other structures. The heat of the fire was intense enough to melt glass, fracture ceramic insulators, and induce spalling of the granite foundation stones. Unfortunately, the saturated basement sediments caused significant rust to accumulate on most of the iron objects, including the sewing machine.

At the **southeast corner of the Sandy River Bridge is a dilapidated barn owned by John Farrington of Wilton** (Figure 4). It was one of a pair used to store spools in the 1870s and later sawn lumber for Arthur Gordon's saw mill (southwest corner of the bridge). The second barn abutted the existing to the north and its north façade was very likely supported by a line of large boulders situated several feet below the break in slope. Subsurface testing along the south façade of the existing barn revealed deep, modern fill deposits associated with road construction. These deposits are particularly evident along the west façade of the barn where they contact rotted sills. A single shovel test placed along the north façade of the existing barn yielded the blade of an ice skate, a wire nail, and rusted iron in redeposited dark grayish brown clayey silt with sand lenses.

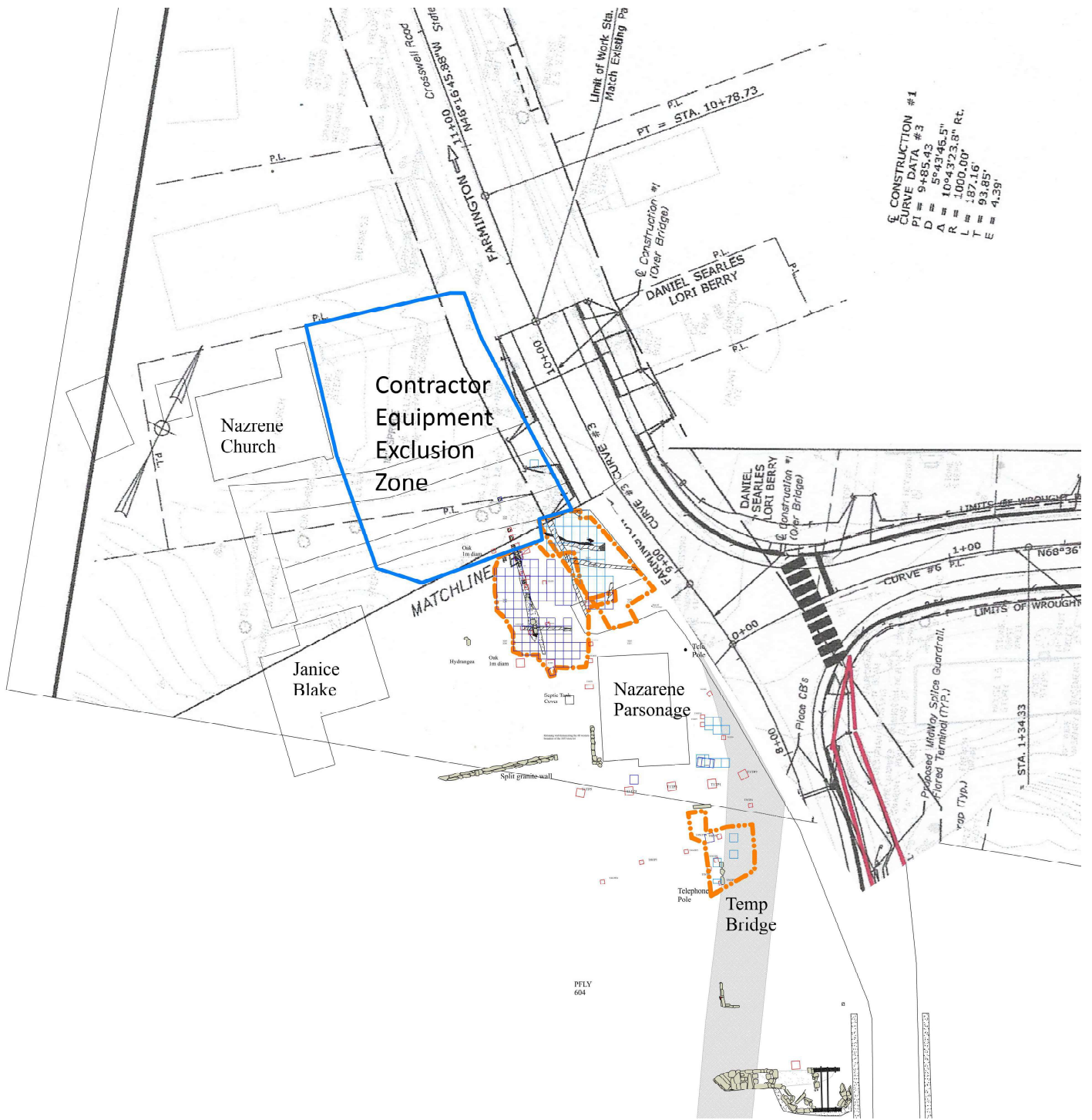
### **Summary**

Testing of the Williams House Ell, Charles Watson's carriage factory, and the Farrington barn determined that none of these three sites/locations contain NR-eligible archaeological deposits. No further archaeological investigations are necessary in advance of bridge replacement for these three areas.

Intensive archaeological investigations on the north lawn of the parsonage within and immediately abutting the MDOT construction limits (APE) have now adequately recovered and documented significant features associated with two NR-eligible sites: Amesokanti village and the Jonathan Knowlton cabin lying between the front stoop of the parsonage building and the southern edge of the Janice Blake driveway and within about 7m of Croswell Road/Rt. 41. **No further archaeology fieldwork is necessary within the APE in advance of bridge replacement.**

**However, features associated with the late Contact/Early Colonial Amesokanti village are without doubt preserved beneath the gravel-topped Blake driveway where our excavations ceased (outside the direct APE). Based on the distribution of features we found, and based on other recoveries nearby (e.g. during cellar excavations at the former Alden Gordon House circa 1970), we may reasonably expect evidence of Amesokanti to extend within the 5m-wide MDOT ROW on the west side of Croswell Road, north of the APE. Moreover, because features we identified during Phase IIA and Phase IIB investigations adjacent to the Janice Blake driveway are deeply buried, it is possible others may be found beneath Croswell Road/Rt. 41 underlayment and pavement from STA 8+57.08 to STA 10+24.00. If bridge construction activities include removing existing road pavement and gravel substrate between STA 8+57.08 and 10+24.00, an archaeological monitoring plan should be devised and implemented.**

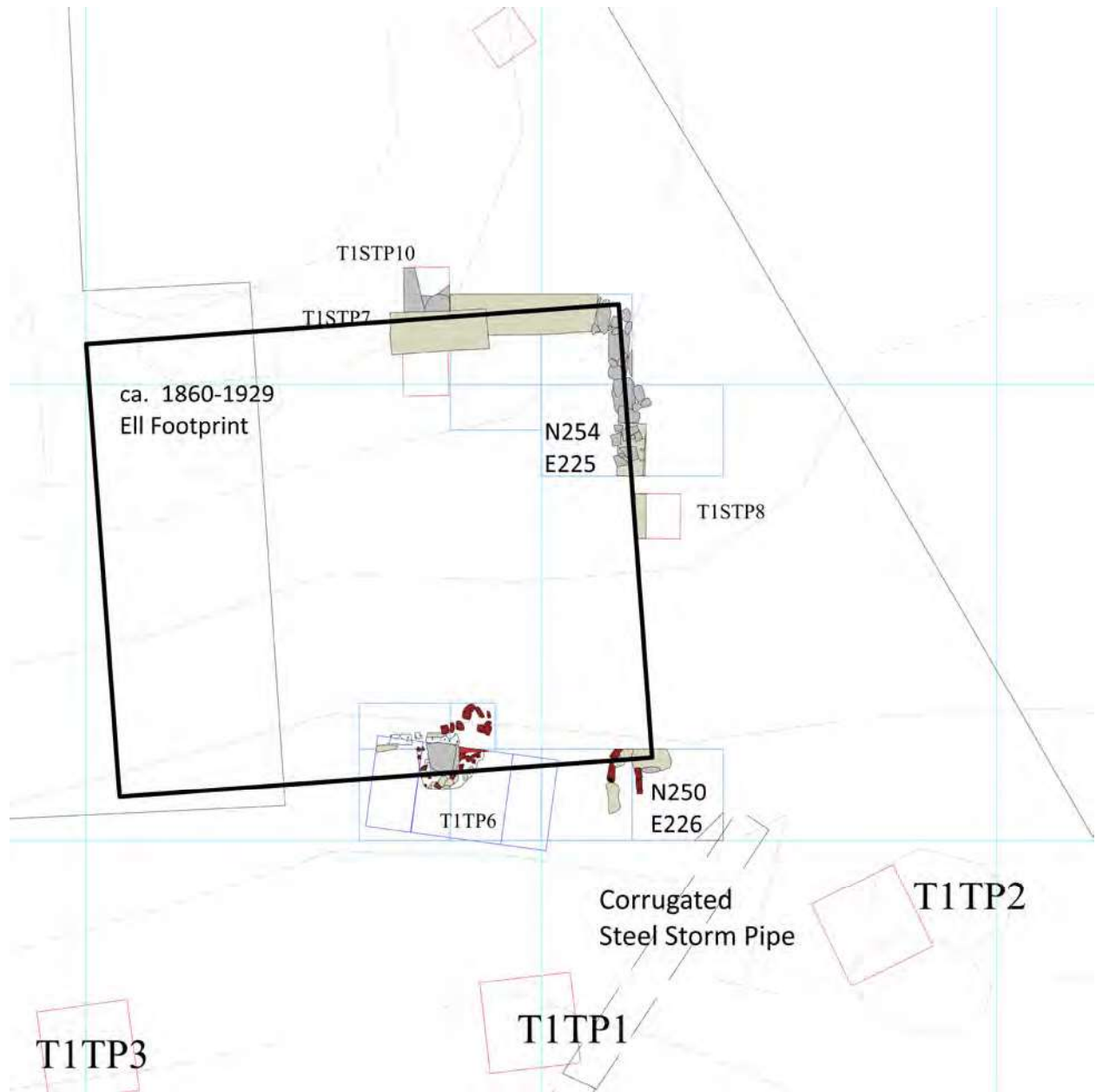
**In addition, we would ask that MDOT exclude contractor's heavy equipment (laydown) from the Janice Blake driveway and abutting adjacent church property to the north. We should be able to supply a map showing the proposed exclusion area when needed.**







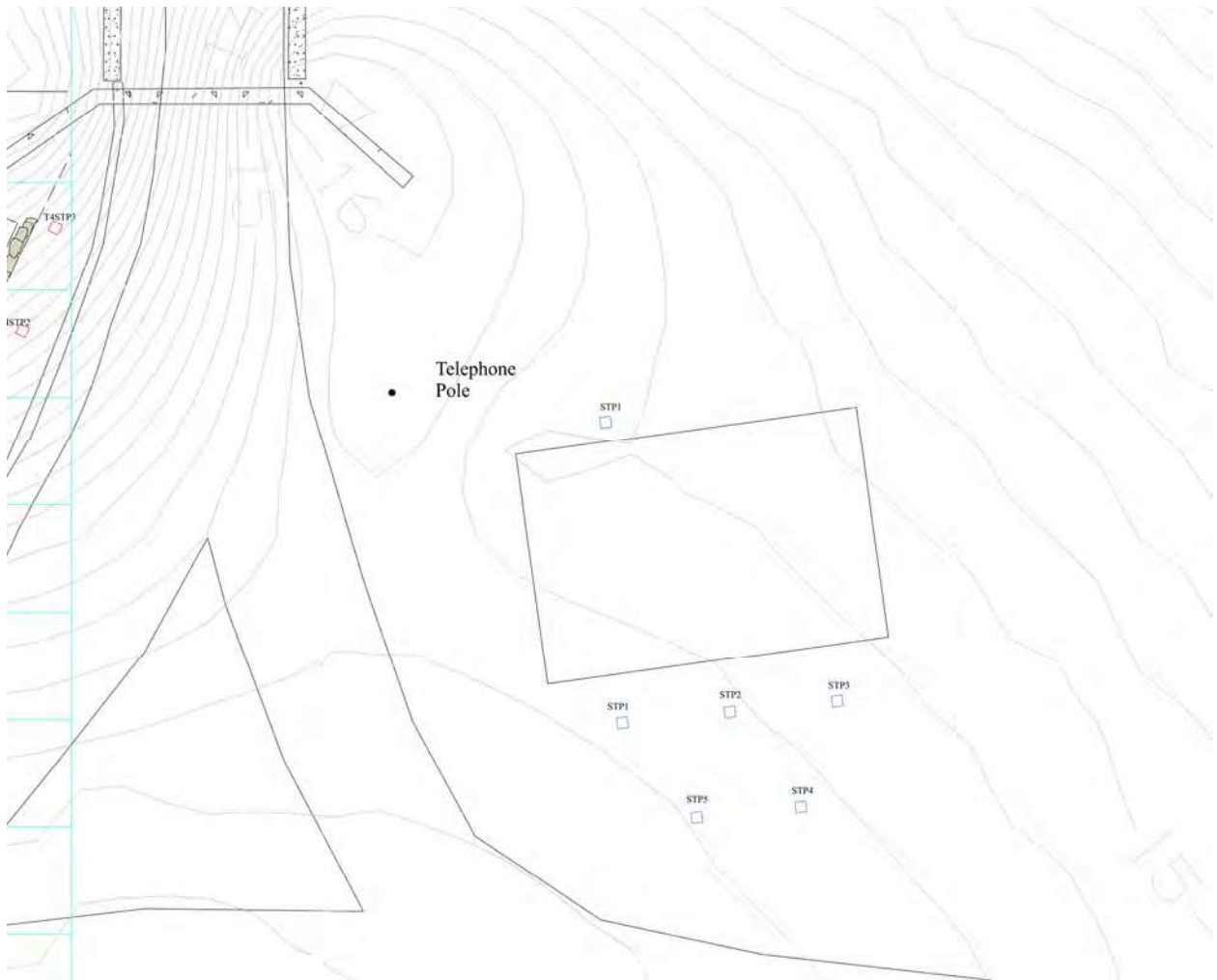
**Figure 1.** Testing around the Parsonage and south of Janice Blake driveway.



**Figure 2.** Williams House Ell testing



**Figure 3.** Carriage factory testing.



**Figure 4.** Farrington Barns testing



**Section VI: 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 found at [www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/](http://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/) The two-week lead time is not required for emergency situations. **Send this form, an Official Species List, and project plans to the following email address: [cenae-r-me@usace.army.mil](mailto:cenae-r-me@usace.army.mil)**

Maine Project Office  
U.S. Army Corps of Engineers  
442 Civic Center Drive, Suite 350  
Augusta, Maine 04330

State Permit #: \_\_\_\_\_  
Date of State Permit: \_\_\_\_\_  
State Project Manager: \_\_\_\_\_

Permittee: \_\_\_\_\_  
Address, City, State, Zip: \_\_\_\_\_  
Email, Phone: \_\_\_\_\_

Agent: \_\_\_\_\_  
Address, City, State, Zip: \_\_\_\_\_  
Email, Phone: \_\_\_\_\_

Contractor: \_\_\_\_\_  
Address, City, State, Zip: \_\_\_\_\_  
Email, Phone: \_\_\_\_\_

Project Name: \_\_\_\_\_  
Address, City, State, Zip: \_\_\_\_\_  
Lat °N, Long °W: \_\_\_\_\_ Tax Map/Lot: \_\_\_\_\_  
Waterway Name: \_\_\_\_\_  
Description of Work: \_\_\_\_\_

Proposed Starting Date: \_\_\_\_\_ Proposed Finish Date: \_\_\_\_\_

Area of wetland impact (SF): Permanent: \_\_\_\_\_ Temporary: \_\_\_\_\_  
Area of waterway impact (SF): Permanent: \_\_\_\_\_ Temporary: \_\_\_\_\_

Work will be done under the following Section V General Permits (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  
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

Have MHPC and all five federally-recognized tribes in Maine been notified of the proposed work? \_\_\_\_\_ Yes \_\_\_\_\_ No

Your signature below, as permittee, indicates that you accept and agree to comply with the terms, eligibility criteria, and general conditions for Self-Verification under the Maine General Permit.

Permittee Signature: \_\_\_\_\_ Date: \_\_\_\_\_



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

## Section VII: Content of a 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](http://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:**

- DIGITAL SUBMISSIONS ARE ENCOURAGED (email PCN to [cenae-r-me@usace.army.mil](mailto:cenae-r-me@usace.army.mil))
- Completed Corps application form (ENG Form 4345 attached below or found electronically at [www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit](http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit)) or appropriate state application form. Forms may need to be supplemented to include the information noted below.
- Proof of notification to MHPC and all five federally-recognized tribes (see Section VIII for contact info).
- Official Species List for any federally-listed endangered or threatened species and email address of the person who generated the list.
- 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 8.5"x11", with bar scale (plans overlaid on aerial photos are discouraged). Wetland area impact sheets shall 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 be on a section of color USGS topographic map.
- 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.
  - Document on project plans wetlands, other special aquatic sites (SAS) including vegetated shallows (or submerged aquatic vegetation, SAV) and mudflats, natural rocky habitat, shellfish areas, vernal pools, and other waters, such as lakes and ponds, and perennial, and intermittent streams on the project site (GC1).
  - MLW line, MHW mark, and HTL elevations in tidal waters. Show OHWM elevation in lakes and non-tidal streams.
  - Existing and proposed conditions.**
- 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 OHWM in inland waters and below the HTL in coastal waters.
- If applicable, a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions (see GC 21).



**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 and projects in towns bordering coastal waters shall be in U.S. survey feet and referenced to MLLW and include current tidal epoch, with a reference chart showing conversion factor to the North American Vertical Datum of 1988. Do not use local datum. See [www.nae.usace.army.mil/missions/regulatory](http://www.nae.usace.army.mil/missions/regulatory) >> Forms and Publications >> Vertical Datum - FEMA (Jul 2007);
  - The horizontal state plane coordinates shall be shown on plan and elevation views and shall be in the North American Datum of 1983 (NAD83) State Plane Coordinate System in U.S. survey feet.
- 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;
- Alternatives analysis;
- Wetland delineation data sheets;
- 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 (see GC 17).
- Identification of potential discharges of pollutants to waters, including potential impacts to impaired waters, in the project area.
- Invasive Species Control Plan (see GC 22). For sample control plans, see [www.nae.usace.army.mil/Missions/Regulatory/Invasive-Species](http://www.nae.usace.army.mil/Missions/Regulatory/Invasive-Species)
- Wildlife Action Plan (WAP) maps. Contact the Maine Department of Inland Fisheries & Wildlife (Section VIII) or online at [www.maine.gov/ifw/wildlife/conservation/action\\_plan.html](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 must 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 tidal crossing projects that may be required:**

- A graphic longitudinal elevation profile plot of the tidal stream channel thalweg, both up and downstream of the proposed project site. Thalweg elevations shall extend from the crossing to beyond the zone of scour, channel widening, or other channel alteration resulting from the present or pre-existing crossings. The profile plot should include labeled elevations for the:
  - crossing invert and top of the inlet and outlet
  - roadbed crown
  - lowest and highest recorded tides at the site
  - reference datums, such as MLLW, MHHW, and astronomical high tide
  - hydraulic controls and nearest crossings that could influence or be influenced by the proposed crossing
- A graphic plot of continuous tidal water levels recorded up and downstream, simultaneously, of the proposed crossing for an entire lunar cycle. The water level plot should include labeled elevations for the:
  - crossing invert and crossing top at the inlet and outlet
  - roadbed crown
  - reference datums, such as MLLW, MHHW, and astronomical high tide
- A map showing projected extents of maximum flooding within the area influenced by the crossing under current conditions and as a result of sea level rise. The present minimum sea level rise scenario suggested for planning purposes by the Maine Climate Council Scientific and Technical Subcommittee is the Intermediate Scenario, which projects an increase of 3.0-4.6 feet by 2100.

**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](http://www.maine.gov/dmr/aquaculture/index.htm)
- In addition to the information required above, applications should also include:
  - Results of coordination with Harbor Master and U.S. Coast Guard
  - Whether canopy predator nets are being used.



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

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues 23 General Permits (GPs), listed below, for activities subject to Corps jurisdiction in waters of the United States within the boundaries of the State of Maine including tribal lands, and in adjacent ocean waters to the seaward limit of the outer continental shelf. These GPs are issued in accordance with Corps regulations at 33 CFR 320 – 332 and specifically 33 CFR 325.2(e)(2). These GPs will protect the aquatic environment and the public interest while effectively authorizing activities that have no more than minimal individual and cumulative adverse environmental effects.

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**I. CORPS JURISDICTION**

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

- a. The construction of any structure in, over, or under any navigable water of the U.S. (see 33 CFR 328), 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. including wetlands. The Corps regulates these activities under Section 404 of the Clean Water Act (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 of 1972 (see 33 CFR 324).

2. Related laws: Section 408 of the Rivers and Harbors Act of 1899, Section 401 of the Clean Water Act, Section 402 of the Clean Water Act, Section 307(c) of the Coastal Zone Management Act of 1972, Section 106 of the National Historic Preservation Act of 1966, Section 7 of the Endangered Species Act, the Fish and Wildlife Coordination Act of 1956, the Magnuson-Stevens Fishery Conservation and Management Act, Section 302 of the Marine Protection, Research and Sanctuaries Act of 1972, and Section 7(a) of the Wild and Scenic Rivers Act.

## II. GENERAL CRITERIA

1. In order for activities to qualify for these General Permits (GPs), they shall meet the GPs terms and eligibility criteria on pages 1-4, all applicable general conditions (GCs) in Section IV, and terms of the Maine General Permits in Section V. Any activity not specifically listed may still be eligible for authorization under these GPs; prospective permittees are advised to contact the Corps for specific eligibility determination.
2. Under these GPs, activities may qualify for the following:
  - **SELF-VERIFICATION (SV):** Notification to the Corps is required at least two weeks before work commences; the Corps will acknowledge receipt and GP eligibility of the SV activity in writing.
  - **PRE-CONSTRUCTION NOTIFICATION (PCN):** Notification to and written verification from the Corps is required. *No work under PCN may proceed until written verification from the Corps is received.*

The thresholds for activities eligible for SV and PCN are defined in the general conditions in Section IV and Maine General Permits in Section V.

3. Prospective permittees shall review:
  - a. Section I to determine if the activity requires Corps authorization.
  - b. Sections III , IV, and V to determine if the activity is eligible for authorization under these GPs, and specifically whether it is eligible for SV, or whether a PCN is required.
4. Prospective permittees are encouraged to contact the Corps with questions at any time (U.S. Army Corps of Engineers, Maine Project Office, 442 Civic Center Drive, Suite 350, Augusta, Maine 04330, ph. 207-623-8367). Pre-application meetings, whether arranged by the Corps or requested by a prospective permittee, are encouraged to facilitate the review of projects. Pre-application meetings and/or site visits help streamline the authorization process by alerting the prospective permittee to potentially time-consuming factors 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, vernal pools, and dredging of contaminated sediments).
5. Permittees shall ensure compliance with all applicable GCs in Section IV and GPs in Section V. Non-compliance with these GPs and GCs may subject the permittee to criminal, civil, or administrative criminal penalties, and/or an ordered restoration, and/or the permit may be modified, suspended or revoked by the Corps.

### III. PROCEDURES

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

In order for authorizations under these GPs to be valid, when any of the following state approvals or statutorily-required reviews is also required, the approvals shall 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 Agriculture, Conservation and Forestry: Land Use Planning Commission (LUPC) permit.
- Maine Department of Marine Resources: Aquaculture Leases and Licenses.
- Maine Department of Agriculture, Conservation and Forestry, Bureau of Parks and Lands, Submerged Lands: Submerged Lands Lease.

2. How to Obtain/Apply for Corps Authorization.

a. **Self-Verification (SV):** Prospective permittees shall confirm that the activity meets all the applicable terms and conditions of SV. 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 (GC 15), the Endangered Species Act (GC 16), the Magnuson-Stevens Fishery Conservation and Management Act (GC 17), and the Wild and Scenic Rivers Act (GC 13). Activities that are eligible for SV are authorized under these GPs provided the prospective permittee has:

- i. Confirmed that the activity meets all applicable terms and conditions of SV.
- ii. Provided notifications to the State Historic Preservation Officer (SHPO) (the SHPO in the State of Maine is the Maine Historic Preservation Commission, or MHPC) and all five federally-recognized tribes in the State of Maine (Tribal Historic Preservation Officers, or THPOs) listed in Section VIII before submitting the SV to the Corps in order to be reviewed for the presence of historic, archeological, architectural, or tribal resources in the action area that the activity may affect (see GC 15). Prospective permittees are not required to wait for a response to their notifications before submitting the SV to the Corps.
- iii. At least two weeks before work is to commence, submitted to the Corps a Self-Verification Notification Form (SVNF, page 36) with all of the following attachments: location map, project plans, and an Official Species List of federally threatened and endangered species that may occur in the activity's action area and the email address of the person who generated the list (see GC 16).

***NOTE: A copy of a state permit application form may be an acceptable surrogate for the SVNF itself; however, the applicant shall not rely on the state permitting agency to provide the Corps a copy of their state permit application.***

b. **Pre-Construction Notification (PCN):** Notification to, and written verification from the Corps is required. For activities that do not qualify for SV or where otherwise required by the terms and conditions of the GPs, the prospective permittee shall submit a PCN and obtain written verification from the Corps before starting work in Corps jurisdiction. The Corps will coordinate review of all PCN activities with other federal and state agencies, as appropriate. The Corps will attempt to issue written verification of the PCN within 60 days of receiving a complete application.

All prospective permittees for PCN activities shall follow the instructions on found on pages 37 – 42, and in particular:

- i. Submit directly to the Corps application form *ENG Form 4345* (pages 40 – 42), or the surrogate state permit application form as noted above.

- ii. Provide project information outlined on pages 37 – 42 (Content of a Pre-Construction Notification).
- iii. Submit an Official Species List of federally threatened and endangered species that may occur in the activity's action area and the email address of the person who generated the list (GC 16).
- iv. Provide notifications to the SHPO (MHPC) and all five THPOs in the State of Maine listed in Section VIII before submitting the PCN to the Corps in order to be reviewed for the presence of historic, archeological, architectural, or tribal resources in the action area that the activity may affect (see GC 15). The PCN shall include documentation that MHPC and all of the THPOs were notified (a copy of the prospective permittee's cover letter or emails to MHPC and the THPOs is acceptable). Prospective permittees are not required to wait for a response to their notifications before submitting a PCN to the Corps.

**c. Individual Permit (IP):** Projects that are not eligible for these GPs require an IP (33 CFR 325.5(b)) and prospective permittees shall submit an application directly to the Corps. These GPs do not affect the Corps IP review process or activities exempt from Corps regulation. For general information regarding IPs prospective permittees are encouraged to contact the Corps. ***In addition, the Corps retains discretionary authority on a case-by-case basis to elevate GP-eligible activities 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 a prospective permittee that an IP is required, no work in Corps jurisdiction may be conducted until the Corps issues the required authorization in writing indicating that the work may proceed.***

**d. Emergency Situations:** Contact the Corps immediately in the event of an emergency situation for information on the verification process. Emergency situations are limited to sudden, unexpected occurrences that could potentially result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process an application under standard procedures. Emergency work is subject to the same terms and conditions of these GPs as non-emergency work, and similarly, must qualify for authorization under these GPs; otherwise an IP is required. The Corps will work with all applicable agencies to expedite verification according to established procedures in emergency situations.

#### **IV. GENERAL CONDITIONS**

An activity is authorized under the General Permits (GPs) only if that activity and the permittee satisfy all of the applicable GPs terms and following general conditions (GCs):

1. Federal Jurisdiction.
2. Minimal Direct, Secondary and Cumulative Effects.
3. Other Permits.
4. Water Quality and Coastal Zone Management.
5. Fills Within 100-Year Floodplains.
6. Discretionary Authority.
7. Single and Complete Project.
8. Use of Multiple General Permits.
9. Mitigation (Avoidance, Minimization, and Compensatory Mitigation).
10. Corps Projects and Property.
11. Navigation.
12. National Lands.
13. Wild and Scenic Rivers.
14. St. John/St. Croix Rivers.
15. Historic Properties.
16. Federal Threatened and Endangered Species.
17. Essential Fish Habitat.
18. Aquatic Life Movements and Management of Water Flows.
19. Spawning, Breeding, and Migratory Areas.
20. Vernal Pools.
21. Restoration of Special Aquatic Sites (Including Wetland Areas).
22. Invasive and Other Unacceptable Species.
23. Soil Erosion, Sediment, and Turbidity Controls.
24. Time-of-Year Work Windows/Restrictions.
25. Pile Driving and Pile Removal in Navigable Waters.
26. Temporary Fill.
27. Heavy Equipment in Wetlands or Mudflats.
28. Bank and Shoreline Stabilization Including Living Shorelines.
29. Stream Work and Crossings, and Wetland Crossings.
30. Utility Line Installation and Removal.
31. Storage of Seasonal Structures.
32. Aquaculture.
33. Permit(s)/Authorization Letter On-Site.
34. Inspections.
35. Maintenance.
36. Federal Liability.
37. Property Rights.
38. Previously Authorized Activities.
39. Transfer of GP Verifications.
40. Modification, Suspension, and Revocation.
41. Special Conditions.
42. False or Incomplete Information.
43. Abandonment.
44. Enforcement Cases.
45. Duration of Authorization.

## **1. Federal Jurisdiction.**

a. Applicability of these GPs shall be evaluated with reference to federal jurisdictional boundaries (e.g. mean high water mark, high tide line, ordinary high water mark, and wetland boundary). Activities shall be evaluated with reference to “waters of the U.S.” under the Clean Water Act (33 CFR 328) and “navigable waters of the U.S.” under Section 10 of the Rivers and Harbors Act of 1899 (33 CFR 329). Prospective permittees are responsible for ensuring that the boundaries used satisfy the federal criteria defined at 33 CFR 328 – 229. These sections prescribe the policy, practice and procedures to be used in determining the extent of the Corps jurisdiction. Note: Waters of the U.S. includes all waters pursuant to 33 CFR 328.3(a), and in adjacent wetlands as that term is defined in 33 CFR 328.3(c).

b. Permittees shall identify on project plans wetlands, other special aquatic sites (SAS) including vegetated shallows (or submerged aquatic vegetation, SAV) and mudflats, and other waters, such as lakes and ponds, and perennial and intermittent streams on the project site. Wetlands shall be delineated in accordance with the Corps of Engineers Wetlands Delineation Manual and the most recent regional supplement pertaining to the State of Maine. GP-eligible activities may utilize wetland determinations conducted by State of Maine staff in-lieu of a wetland delineation. For activities located in Essential Fish Habitat (GC 17), permittees shall also identify on project plans natural rocky habitats and shellfish areas in order to satisfy the Magnuson-Stevens Fishery Conservation and Management Act.

**2. Minimal Direct, Secondary and Cumulative Effects.** To be eligible and subsequently authorized by these GPs, an activity shall 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 these GPs and GCs. This may require project modifications involving avoidance, minimization, or compensatory mitigation for unavoidable impacts to ensure that the net adverse effects of an activity are no more than minimal.

**3. Other Permits.** Permittees shall obtain other Federal, State, or local authorizations as required by law. Permittees are responsible for applying for and obtaining all required State of Maine or local approvals including a Flood Hazard Development Permit issued by the town/city. Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, may still be eligible for authorization under these GPs.

## **4. Water Quality and Coastal Zone Management.**

a. Permittees shall satisfy any conditions imposed by the State of Maine and EPA, where applicable, in their Clean Water Act Section 401 Water Quality Certification (WQC) for these GPs, or in any Individual Section 401 WQC. See Section VIII for state-specific contact info 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 these GPs shall be designed, constructed and operated to minimize or eliminate the discharge of pollutants.

b. Permittees shall satisfy any additional conditions imposed by the State of Maine in their Coastal Zone Management (CZM) Act of 1972 consistency concurrences for these GPs, 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.

**5. Fills Within 100-Year Floodplains.** The activity shall comply with applicable Federal Emergency Management Agency (FEMA) approved State of Maine or municipal floodplain management requirements. Permittees should contact FEMA and/or the State of Maine Floodplain Management Program regarding floodplain management requirements (see Section VIII for Federal and state-specific contact info).

**6. Discretionary Authority.** Notwithstanding compliance with the terms and conditions of these GPs, the Corps retains discretionary authority to require a PCN or IP review based on concerns for the aquatic environment or for any other factor of the public interest (see 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.



**7. Single and Complete Project.** 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. These GPs shall not be used for piecemeal work and shall be applied to single and complete projects and as such, the same GP shall not be used more than once for the same single and complete project.

a. For non-linear projects, a single and complete project shall have independent utility. 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.

b. Unless the Corps determines the activity has independent utility, 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. If any component of a single and complete project requires a PCN, the entire single and complete project shall be reviewed under PCN.

c. For linear projects such as power lines or pipelines with multiple crossings, a “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.

**8. Use of Multiple General Permits.** The use of more than one GP for a single and complete project is prohibited, except when the acreage loss of waters of the U.S. authorized by the GPs does not exceed the acreage limit of the GPs with the highest specified acreage limit. For example, if a road crossing over waters is constructed under GP 10, with an associated utility line crossing authorized by GP 9, if the maximum acreage loss of waters of the U.S. for the total project is  $\geq 3$  acres it shall be evaluated as an IP.

**9. Mitigation (Avoidance, Minimization, and Compensatory Mitigation).**

a. Activities shall be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable to ensure that adverse effects to the aquatic environment are no more than minimal.

b. Compensatory mitigation for unavoidable impacts to waters of the U.S., including direct, secondary and temporal loss, will generally be required for permanent impacts that exceed the SV limits (SV limits are detailed in Section V), and may be required for temporary impacts that exceed the SV 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 secondary effects may generally be excluded from this requirement.

c. Mitigation proposals shall follow the guidelines found in the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule April 10, 2008; 33 CFR 332 (which can be found at: [www.nae.usace.army.mil/Missions/Regulatory/Mitigation](http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation) under “Compensatory Mitigation for Losses of Aquatic Resources, 33 CFR 332 (Compensatory Mitigation Rule)”) and any other regulation. Permittees considering the use of a monetary payment *in-lieu* of permittee-responsible mitigation as compensation for unavoidable impacts to waters of the U.S. in the State of Maine may utilize the Maine Natural Resources Conservation Program (MNRCP). Information regarding this compensatory program can be found at: [www.mnrpc.org](http://www.mnrpc.org) For unavoidable jurisdictional impacts affecting federally-endangered Atlantic salmon and/or its critical habitat, permittees may be required to compensate for the impacts by utilizing the Maine Atlantic Salmon Restoration and Conservation Program. Information regarding this *in-lieu-fee* compensatory program can be found at: [www.maine.gov/dmr/science-research/searun/programs/ilffacts.html](http://www.maine.gov/dmr/science-research/searun/programs/ilffacts.html)

**10. Corps Projects and Property.**

a. Corps projects and property can be found at: [www.nae.usace.army.mil/Missions/Civil-Works](http://www.nae.usace.army.mil/Missions/Civil-Works)

b. In addition to any authorization under these GPs, prospective permittees shall 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.

c. Any proposed temporary or permanent modification or use 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 or maintained but not necessarily owned by the United States), which may obstruct or impair the usefulness of the Federal project in any manner, is not eligible for SV and requires review and approval by the Corps pursuant to 33 USC 408 (Section 408).

d. A PCN is required for all work in, over, under, or within a distance of three times the authorized depth of a Corps Federal Navigation Project (FNP) and may require permission under Section 408.

e. Any structure or work that extends closer to the horizontal limits of any FNP 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.

f. Where a Section 408 permission is applicable, written verification for the PCN will not be issued prior to the decision on the Section 408 permission request.

## 11. Navigation

a. There shall be no unreasonable interference with general navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.

b. Work in, over, under, or within a distance of three times the authorized depth of an FNP shall specifically comply with GC 10.

c. Any safety lights and/or signals prescribed by the U.S. Coast Guard, State of Maine or municipality, through regulations or otherwise, shall be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S.

d. The permittee understands and agrees that, if future operations by the U.S. 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.

**12. National Lands.** Activities that impinge upon the value of any National Lands or Federal Properties including but not limited to a National Wildlife Refuge, National Forest, or any area administered by the National Park Service, U.S. Fish and Wildlife Service or U.S. Forest Service are not eligible for SV and require PCN.

## 13. Wild and Scenic Rivers.

a. The following activities in designated rivers of the National Wild and Scenic River (NWSR) System, or in a river designated by Congress as a "study river" for possible inclusion in the system, require a PCN unless the National Park Service has determined in writing to the prospective permittee that the proposed work will not adversely affect the NWSR designation or study status:

- i. Activities that occur in NWSR segments, in and 0.25 miles up or downstream of NWSR segments, or in tributaries within 0.25 miles of NWSR segments.
- ii. Activities that occur in wetlands within 0.25 miles of NWSR segments.
- iii. Activities that have the potential to alter free-flowing characteristics in NWSR segments.

b. As of October 14, 2020, National Wild and Scenic Rivers and congressional study rivers in Maine include: the 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 92.5 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 tributaries (the York River is currently under study).

**14. St. John/St. Croix Rivers.** A PCN is required for any work within the Saint John and Saint Croix River basins that requires approval of the International Joint Commission. In addition, a PCN 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.

## 15. Historic Properties.

a. No undertaking shall cause effects (as 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 Places, 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 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 archeological consultants in coordination with the Corps and the State Historic Preservation Officer (SHPO) (the SHPO in the State of Maine is the Maine Historic Preservation Commission, MHPC) and/or the five federally-recognized tribes in the State of Maine (Tribal Historic Preservation Officers, or THPOs). The MHPC, the THPOs, 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 archeological consultants in consultation with the Corps and MHPC and/or the THPO(s).

b. For activities eligible for these GPs, permittees shall ensure that the activity will not cause effects as stated above in 15(a). In order to comply with this condition, both SV and PCN prospective permittees shall notify MHPC and all five THPOs for their identification of historic properties. MHPC and the THPOs will generally respond within 30 days of receiving the notification if they believe that the activity may have an adverse effect to historic properties. A PCN is required if an activity may have an adverse effect to historic properties. The PCN shall be submitted as soon as possible if a proposed activity may cause effects as stated above in 15(a) a to ensure that the Corps is aware of any potential effects of the proposed activity on any historic property to ensure all Section 106 requirements are met.

c. All PCNs shall:

- i. Show notification to MHPC and all five THPOs 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 MHPC or the THPO(s) indicating that there are or are not historic properties affected.

d. The requirements to comply with Section 106 of the NHPA may be satisfied by a Programmatic Agreement (PA) or Programmatic Consultation (PC) with the Corps, New England District or another federal agency. New England District PAs and PCs are found at [www.nae.usace.army.mil/Missions/Regulatory](http://www.nae.usace.army.mil/Missions/Regulatory)

e. If the permittee discovers any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by these permits, the permittee shall immediately notify the district engineer of what was found, and 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.

f. Federal agencies should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Federal permittees shall provide the Corps with the appropriate documentation to demonstrate compliance with those requirements.

g. Federal and non-federal applicants should coordinate with the Corps before conducting any onsite archeological work (reconnaissance, surveys, recovery, etc.) requested by MHPC or the THPOs, as the Corps will determine the Permit Area for the consideration of historic properties based on 33 CFR 325 Appendix C. This is to ensure that work done is in accordance with Corps requirements.

## 16. Federal Threatened and Endangered Species.

- a. No activity is authorized by these GPs 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 or proposed 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;
  - iii. Is “likely to adversely affect” a listed species or critical habitat unless Section 7 consultation has been completed by the Corps or another lead action agency in coordination with the Corps under the provisions of a Programmatic Agreement (PA) or Programmatic Consultation (PC); or
  - iv. Violates the ESA.

b. All prospective permittees shall attach to their SVNF or PCN an Official Species List obtained from the U.S. Fish and Wildlife Service’s Information for Planning and Consultation (IPaC) found at: <https://ecos.fws.gov/ipac> and provide the email address of the person who generated the list.

c. For proposed activities in tidal waters, prospective permittees should also refer to the National Oceanic and Atmospheric Administration (NOAA) Fisheries’ Section 7 Mapper for federally-listed species found at: <https://noaa.maps.arcgis.com/apps/webappviewer/index.html>

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, may be affected by the proposed work. An activity may remain eligible for SV if the only listed species affected is the northern long-eared bat (*Myotis septentrionalis*), and only after Section 7 consultation has been completed by the Corps under the 4(d) Rule Streamlined Consultation.

e. Federal agencies shall follow their own procedures for complying with the requirements of the ESA while ensuring that the Corps and any other federal action agencies are included in the consultation process.

f. Non-federal representatives designated by the Corps to conduct informal consultation or prepare a biological assessment shall follow the requirements in the designation document(s) and the ESA. Non-federal representatives shall also provide the Corps with the appropriate documentation to demonstrate compliance with those requirements. The Corps will review the documentation and determine whether it is sufficient to address ESA compliance for the GP activity, or whether additional ESA consultation is necessary.

g. The requirements to comply with Section 7 of the ESA may be satisfied by a Programmatic Agreement (PA) or Programmatic Consultation (PC) with the Corps, New England District or another federal agency. New England District PAs and PCs are found at: [www.nae.usace.army.mil/Missions/Regulatory](http://www.nae.usace.army.mil/Missions/Regulatory)

## 17. Essential Fish Habitat (EFH).

a. PCN activities in tidal waters and the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration, shall be reviewed for the potential to adversely affect EFH (activities meeting SV criteria have been determined to result in no more than minimal adverse effects to EFH and therefore need no additional review):

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			

b. Prospective permittees may be required to describe and identify potential adverse effects to EFH and should refer to the NOAA Fisheries’ EFH Mapper found at:

[www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper](http://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper)

c. The requirements to comply with the Magnuson-Stevens Fishery Conservation and Management Act may be satisfied by a Programmatic Agreement (PA) or Programmatic Consultation (PC) with the Corps, New England District or another federal agency. New England District PAs and PCs are found at:

[www.nae.usace.army.mil/Missions/Regulatory](http://www.nae.usace.army.mil/Missions/Regulatory)

## **18. Aquatic Life Movements and 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 permanently 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 and wetlands shall be:

- i. Suitably spanned, bridged, culverted, 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 crossing.

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. For work in tidal waters, in-stream controls (e.g. cofferdams) should be installed in such a way as to not obstruct fish passage.

d. To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity shall 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 pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g. stream restoration or relocation activities).

e. Activities that temporarily or permanently adversely impact upstream or downstream flood conditions require a PCN.

## **19. Spawning, Breeding, and Migratory Areas.**

a. Jurisdictional activities in waters of the U.S. such as certain excavations, discharges of dredged or fill material, and/or suspended sediment producing activities 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 U.S. that provide value as breeding areas for migratory birds must be avoided to the maximum extent practicable. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the U.S. Fish and Wildlife's Maine Field Office (see Section VIII for contact info) to determine applicable measures to reduce impacts to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

## **20. Vernal Pools.**

a. A PCN is required if a discharge of dredged or fill material is proposed within a vernal pool depression located within waters of the U.S.

b. GC 20(a) above does not apply to projects that are within a municipality that meets the provisions of a Corps-approved vernal pool Special Area Management Plan (SAMP) and are otherwise eligible for SV, and the applicant meets the requirements to utilize the vernal pool SAMP.

## **21. Restoration of Special Aquatic Sites (Including Wetland Areas).**

a. In areas of authorized temporary disturbance, if trees are cut they 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.

b. The introduction or spread of invasive plant species in disturbed areas shall be controlled. If construction mats are to be used in areas of invasive plant species, they shall be thoroughly cleaned before re-use.

c. Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation. Original condition means 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. Restoration shall typically commence no later than the completion of construction.

d. Upon completion of construction, all areas of authorized disturbed wetland area shall be stabilized with a wetland seed mix containing only plant species native to New England and shall not contain any species listed in the “Invasive and Other Unacceptable Plant Species” Appendix K in the “New England District Compensatory Mitigation Guidance” found at: [www.nae.usace.army.mil/Missions/Regulatory/Mitigation](http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation)

## 22. Invasive and Other Unacceptable Species.

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 these GPs. 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 shall justify the use of non-native species or cultivars.

c. For the purposes of these GPs, plant species that are considered invasive and unacceptable are provided in Appendix K “Invasive and Other Unacceptable Plant Species” of the most recent “New England District Compensatory Mitigation Guidance” and is found at: [www.nae.usace.army.mil/Missions/Regulatory/Mitigation](http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation) The June 2009 “U.S. Army Corps of Engineers Invasive Species Policy” provides policy, goals and objectives and is located at [www.nae.usace.army.mil/Missions/Regulatory/Invasive-Species](http://www.nae.usace.army.mil/Missions/Regulatory/Invasive-Species) If an Invasive Species Control/Management Plan has been prepared it should be included with any SV or PCN.

## 23. 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, geotextilesilt 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.

**24. Time-of-Year Work (TOY) Windows/Restrictions.** In-water work shall be conducted during the following TOY work windows (work allowed) under SV and any in-water work proposed during the following TOY restrictions (no work) shall be reviewed under PCN (and shall contain written justification for deviation from the work allowed windows). The term “in-water work” does not include conditions where the work site is “in-the-dry” (e.g. intertidal areas exposed at low tide). The term also does not include work contained in a cofferdam so long as the cofferdam was installed and subsequently removed within the work allowed window.

	<u>TOY Restriction (no work)</u>	<u>TOY Work Window (work allowed)</u>
Non-tidal waters	Oct. 1 <sup>st</sup> to Jul. 14 <sup>th</sup>	Jul. 15 <sup>th</sup> to Sep. 30 <sup>th</sup>
Tidal waters	Apr. 10 <sup>th</sup> to Nov. 7 <sup>th</sup>	Nov. 8 <sup>th</sup> to Apr. 9 <sup>th</sup>

Alternate work windows proposed under PCN will generally be coordinated with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, Maine Department of Inland Fisheries and Wildlife, and/or Maine Department of Marine Resources and resulting written verifications may include species-specific work allowed windows.

## 25. Pile Driving and Pile Removal in Navigable Waters.

- a. Derelict, degraded, or abandoned piles and sheet piles in the project area shall be removed in their entirety as practicable and properly disposed of in an upland location and not in wetlands. In areas of fine-grained substrates, piles/sheets shall be removed by direct, vibratory, or clamshell pull method in order to minimize potential turbidity and sedimentation impacts. If removal is not practicable, said piles/sheets shall be cut off or driven to a depth of at least one foot below substrate.
- b. Work involving pile installation and/or removal should adhere to one of the five methods below:
  - i. "In-the-dry", or
  - ii. In-water between Nov. 8<sup>th</sup> to Apr. 9<sup>th</sup>, or
  - iii. Drilled and pinned to ledge, or
  - iv. Vibratory hammers used to install any size and quantity of wood, concrete, or steel, or impact hammers limited to one hammer and <50 piles installed/day with the following: wood piles of any diameter, concrete piles ≤18-inches diameter, steel piles ≤12-inches diameter if: (1) the hammer is ≤3,000 pounds and a wood cushion or equivalent is used between the hammer and steel pile, or (2) a soft start is used. Soft starts require an initial set of three strikes from the impact hammer at 40% energy, followed by a 1-minute waiting period between subsequent three-strike sets. The soft-start procedure shall be conducted any time hammering ceases for more than 30 minutes.

## 26. Temporary Fill.

- a. Temporary fills, including but not limited to 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.
- b. 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. Temporary fill shall be placed in a manner that will prevent it from being eroded by expected high flows.
- c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. washed stone, stone, etc.).
- d. Appropriate measures shall 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. Materials shall be placed 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.
- e. Construction debris and/or deteriorated materials shall not be placed or otherwise located in waters of the U.S.

**27. Heavy Equipment in Wetlands or Mudflats.** Operating heavy equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and to the maximum extent practicable such equipment shall not be stored, maintained or repaired in wetlands. Where construction requires heavy equipment operation in wetlands, the equipment shall: a) have low ground pressure (typically <3 psi); b) be placed on swamp/construction/timber mats (herein referred to as "mats") that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation; or c) be operated on adequately dry or frozen wetlands such that shear pressure does not cause subsidence of the wetlands immediately beneath equipment and upheaval of adjacent wetlands. Mats are to be placed in the wetland from the upland or from equipment positioned on mats if already working within a wetland. Other support structures that are capable of safely supporting equipment may be used with written Corps authorization. Similarly, the permittee may request written authorization from the Corps to waive use of mats during frozen or dry conditions. Construction mats should be managed in accordance with construction mat best management practices (BMPs) found at: [www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit](http://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit)



## **28. Bank and Shoreline Stabilization Including Living Shorelines.**

a. Projects involving construction of or repair, replacement, and maintenance of bank or shoreline stabilization structures including living shorelines within Corps jurisdiction shall be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable.

b. Prospective permittees shall design and construct these stabilization projects using this sequential avoidance and minimization process: avoidance of aquatic resource impacts, diversion of overland flow, vegetative stabilization, living shorelines, stone-sloped surfaces, and walls/bulkheads. New vertical walls/bulkheads shall only be used in situations where reflected wave energy can be tolerated. Prospective permittees proposing new vertical walls/bulkheads shall provide written justification demonstrating why other methods of stabilization are not practicable and how the surrounding area would be affected by the resulting reflected wave energy.

### **Additional conditions to meet SV eligibility criteria for *non-tidal* bank and shoreline stabilization activities:**

- a. Fill shall be  $\leq 500$  linear feet in total length as measured below the plane of the ordinary high watermark (OHWM), includes total if more than one stream bank.
- b. Fill placed below the plane of the OHWM shall be  $\leq 1$  cubic yard per linear foot.
- c. Fill shall not be angled steeper than 1H:1V.
- d. No discharge of fill in special aquatic sites other than wetlands.
- e. Stone revetment shall be comprised of angular material.
- f. No material shall be of the type, or placed in any location, or in any manner, to impair surface water flow into or out of any water of the U.S.
- g. No material shall be 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).
- h. The activity shall not be a stream channelization activity.

### **Additional conditions to meet SV eligibility criteria for *tidal* bank and shoreline stabilization activities:**

- a. All in-water work shall be conducted "in-the-dry".
- b. Fill shall be  $\leq 500$  linear feet in total length as measured below the plane of the high tide line (HTL) and shall be  $\leq 200$  linear feet in total length as measured below the plane of the mean high water mark (MHW), includes total for more than one bank. Vertical structures shall be  $\leq 200$  linear feet in total length as measured below the plane of the MHW and shall be  $\leq 18$  inches waterward of the existing vertical face.
- c. Fill placed below the plane of the HTL shall be  $\leq 1$  cubic yard per linear foot.
- d. Stone revetment shall be comprised of angular material.
- e. Shall not impact special aquatic sites (SAS, incl. submerged aquatic vegetation, SAV), impacts to natural rocky habitats are  $\leq 100$  square feet, and impacts to intertidal and shellfish areas are  $\leq 1,000$  square feet).
- f. No structures/fill shall be steeper than 1H:1V.
- g. No new groins, breakwaters, or jetties.

## **29. Stream Work and Crossings, and Wetland Crossings.**

a. A PCN is required for all new and replacement crossings in navigable waters.

b. In order to effectively size and configure crossings in navigable waters, new and replacement crossings shall consider factors including but not limited to: local tidal elevations over the range of tidal heights, basin topography and bathymetry, existing and proposed road elevations. Flood risk tolerance, conditions of habitat and natural community types present, and sea level rise during the useful life of the crossing.

c. A PCN is required for activities that result in unavoidable impacts to wetlands in excess of SV thresholds.

d. In-stream work and crossings and wetland crossings shall adhere to all applicable GCs including but not limited to:

- i. GC 16 (Federally Threatened and Endangered Species)
- ii. GC 17 (Essential Fish Habitat)
- iii. GC 18 (Aquatic Life Movements and Management of Water Flows)

- iv. GC 23 (Soil Erosion, Sediment and Turbidity Controls)
- v. GC 24 (Time-of-Year Work Windows/Restrictions)
- vi. GC 26 (Temporary Fill)
- vii. GC 28 (Bank Stabilization)
- e. Slip Lining. Work resulting in a decreased width, height, or diameter of an existing crossing (e.g. slip lining and invert lining) is discouraged and requires PCN. Written justification shall be provided for this activity.
- f. Culvert Extensions. A PCN is required for any extension to an existing culvert.
- g. Scour protection or armoring of the inlet and/or outlet of a crossing shall not disrupt normal flow patterns or 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 (see GC 18).
- h. 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 18. 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 temporary stream crossings).

**Additional conditions to meet SV eligibility criteria for Stream Work and Crossings:**

- a. Crossings shall be designed and constructed using the techniques and principles outlined in Stream Simulation, Stream Smart, Habitat Connectivity Design.
- b. Crossings shall be designed to be at least 1.2 times bankfull width. Any footings, abutments, and/or abutment armoring shall also be at least 1.2 times bankfull width.
- c. Crossings shall have a natural bottom substrate under or within the structure matching the characteristics of the substrate in the natural stream channel. Crossings shall be designed and constructed with appropriate streambed forms and streambed characteristics so that water depths and velocities are comparable to those found in the adjacent natural channel at a variety of flows.
- d. Crossings shall include a bank on both sides of the stream matching the horizontal profile of the existing stream and banks in order to allow terrestrial passage for wildlife and to prevent undermining of the footings as applicable.
- e. Closed bottom culverts shall be embedded at least 25 percent of the maximum height of the culvert.
- f. No unconfined fill or excavation in flowing waters is allowed. In-stream construction work shall be conducted “in-the-dry” under no-flow conditions or by using cofferdams, temporary flume pipes, culverts, etc. Downstream flows shall be maintained during in-stream construction. It is recommended that project plans include pertinent details for working in-the-dry and maintaining downstream flows.
- g. Conditions (a) thru (e) immediately above do not apply to temporary stream crossings; however, in addition to conditions (f) immediately above, temporary stream crossings shall adhere to the following:
  - i. Be 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 shall be large enough to allow for easy removal without disrupting the streambed.
  - ii. Be designed and maintained to withstand and pass high flows. Water height shall be no higher than the top of the culvert’s inlet. A minimum culvert diameter of two feet is required to pass debris. Culverts shall be aligned to prevent bank erosion or streambed scour.
  - iii. Be equipped with energy dissipating devices installed downstream if necessary to prevent scour.
  - iv. Be designed and maintained to prevent soil from entering the waterbody.
  - v. Be removed upon the completion of work. Impacts to the streambed or banks requires restoration to their original condition using the methods in (a) above.

**PCN Conditions for Stream Work and Crossings:**

- a. Crossings are recommended to meet the conditions for SV; written justification shall be provided for any deviation from SV conditions.
- b. Crossings shall 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, Stream Smart, or Habitat Connectivity.

### **Additional Conditions for Wetland Crossings:**

a. New and replacement wetland crossings that are permanent shall be constructed in such a manner as to preserve hydraulic and ecological connectivity, at its present level, between the wetlands on either side of the road. Crossing structures commonly include but are not limited to spans and culverts. To meet this condition, spans or culverts should be placed at least every 50 feet with an opening at least 2 feet high and 3 feet wide at ground level. Closed bottom culverts should be embedded at least 6 inches and should have a natural bottom substrate within the structure. Alternative crossing designs that preserve wetland hydraulic and ecological connectivity (e.g. “rock sandwiches”) may also be considered.

b. Any work that results in flooding, or impacts to wetland drainage from the upgradient side of the wetland crossing does not qualify for SV.

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.

### **30. Utility Line Installation and Removal.**

a. Utility lines in jurisdictional waters should be installed subsurface and shall be maintained in such a way so that they remain subsurface. If it is necessary to discharge dredged or filled material 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 casting into wetlands from utility trenches).

b. For subsurface utility lines the bottom and side slope cover associated with the initial installation under Federal Navigation Projects (FNPs) is a technical determination. The depth requirement varies based on geotechnical (composition of bottom materials and layering), hydraulic (current, or wave induced scour depth), navigation (propeller induced scour depth and ships’ anchor penetration), maintenance dredging (penetration of barge spuds), construction factors (energy from blasting potentially transmitted to utility crossings), physical conditions (exposed open water conditions or sheltered/harbor conditions), and the proposed location of the utility crossing within any FNP or within navigable waters, including areas dredged by others. On a case-by-case basis, the Corps will determine the depth and cover requirements for each proposed utility crossing. Additional conditions to the GP will be attached to address pre and post installation requirements. In waterways that do not have existing FNPs, this depth should be taken as two feet below the existing bottom or maximum depth of proposed dredging, as applicable.

c. Aerial utility lines crossing navigable waters require PCN and shall meet minimum clearances per 33 CFR 322.5(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 these GPs. 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. For new installations within waters of the U.S., any abandoned or inactive utility lines should be removed and faulty lines (e.g., leaking hazardous substances, petroleum products, etc.) shall be removed or repaired to the extent practicable. A PCN 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.

g. Trenches should be backfilled with native sediment immediately after completion of work.

h. Pre-construction elevations should be re-established. Any additional material needed to accomplish this should be of consistent type and grain-size as the existing substrate sediment.

i. Utility line activities in non-tidal waters adjacent to special aquatic sites, and all work in tidal waters should utilize horizontal directional drilling as practicable.



**31. 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 shall be stored in an upland location and not in wetlands, tidal wetlands, their substrate, or on mudflats. These seasonal structures may be stored on the fixed, pile-supported portion of a structure that is waterward of the mean high water mark or the ordinary high water mark, e.g. the storage of a ramp or gangway on the pile-supported pier. Seasonal storage of structures in navigable waters, e.g., in a protected cove, requires prior Corps approval and local harbormaster approval.

**32. Aquaculture.** Activities involving the cultivation of Atlantic salmon and other salmonids, or other federally-listed threatened or endangered species are not eligible for authorization under these GPs. All other aquaculture activities shall adhere to all applicable GCs including but not limited to:

- a. GC 3 (Other Permits) In particular, permittees shall maintain a current State of Maine Department of Marine Resources lease or license.
- b. GC 10 (Corps Projects and Property)
- c. GC 11 (Navigation)
- d. GC 16 (Federal Threatened and Endangered Species)
- e. GC 17 (Essential Fish Habitat)
- f. GC 18 (Aquatic Life Movements and Management of Water Flows)
- g. GC 31 (Storage of Seasonal Structures)

**Additional conditions to meet SV eligibility criteria for Tidal Aquaculture:**

- a. Shall not exceed 400 square feet in area.
- b. Shall receive signed approval from Harbormaster or appropriate Town Official.
- c. Shall not include enclosures or impoundments.
- d. Shall not be located in or within a distance of three times the authorized depth of a FNP.
- e. Shall not be located in or impinge upon the value of National Lands and Federal Properties including but not limited to National Parks and National Wildlife Refuges.
- f. Shall not impact special aquatic sites (SAS, incl. submerged aquatic vegetation, SAV), impacts to natural rocky habitats are  $\leq 100$  square feet, and impacts to intertidal and shellfish areas are  $\leq 1,000$  square feet.
- g. No structures, cages, gear, or shell hash shall be located in/within 25 feet of SAV.
- h. All gear, except for mooring tackle, when not in use on the site shall be stored in an upland location above the mean high water mark and not on wetland (incl. salt marsh).

**33. Permit(s)/Authorization Letter On-Site.** The permittee shall ensure that a copy of the terms and conditions of these GPs and any accompanying authorization letter with attached plans are at the site of the work authorized by these GPs whenever work is being performed and that all construction personnel performing work which may affect waters of the U.S. are fully aware of the accompanying 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 these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means all terms and conditions of the GPs, the GPs, and the authorization letter (including its drawings, plans, appendices and other attachments) and subsequent permit modifications as applicable. 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.

**34. Inspections.** The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is eligible for authorization under these GPs, is being, or has been performed in accordance with the terms and conditions of these GPs. To facilitate these inspections, the permittee shall

complete and return to the Corps the Work-Start Notification Form and the Compliance Certification Form when either is provided with an authorization letter. The Corps may also require post-construction engineering drawings and/or photographs for completed work or post-dredging survey drawings for any dredging work to verify compliance.

**35. Maintenance.** The permittee shall maintain the activity authorized by these GPs in good condition and in conformance with the terms and condition of these permits. This does not include maintenance dredging, related disposal, or beach nourishment projects, which are subject to review thresholds for GP 5 on page 30, unless specified in written authorization from the Corps.

**36. Federal Liability.** In issuing these permits, 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; or
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

**37. Property Rights.** Per 33 CFR 320.4(g)(6), these GPs do 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.

**38. Previously Authorized Activities.**

- a. Projects that received prior authorization from the Corps (via Category 1 or 2) and that completed authorized work under the previous nationwide permits, programmatic permits, regional general permits or letters of permission, shall remain authorized in accordance with the original terms and conditions of those authorizations, including their terms, general conditions, expiration date, and any special conditions provided in a written verification.
- b. Activities authorized pursuant to 33 CFR Part 330.3 (“Activities occurring before certain dates”) are not affected by these GPs.
- c. Any work not commenced, not under contract to commence, nor completed that was originally authorized by the Corps under the GP in effect between October 13, 2015 and October 13, 2020 remains authorized subject to the terms and general conditions of this GP along with any special conditions included in written authorizations. Exception: if previously authorized work has not commenced or not under contract to commence and a new federally-listed threatened or endangered species may be affected, the Corps shall consult with the U.S. Fish and Wildlife Service or NOAA Fisheries prior to re-authorizing the work under these GPs. Requests for re-authorization shall include an Official Species List per GC 16.

**39. Transfer of GP Verifications.** 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 to validate the transfer. A copy of the GP verification shall be attached to the letter, the letter shall contain the name, address, phone number and email of the transferee (new owner), shall include the following statement and signature, and be mailed to: U.S. Army Corps of Engineers, Maine Project Office, 442 Civic Center Drive, Suite 350, Augusta, Maine 04330:

“When the structures or work authorized by these GPs are still in existence at the time the property is transferred, the terms and conditions of these GPs, including any special conditions, will continue to be binding on the new owner(s) of the property.”

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

\_\_\_\_\_  
Transferee Signature                      Date

**40. Modification, Suspension, and Revocation.** These GPs and any individual authorization issued thereof may be either modified, suspended, or revoked, in whole or in part, pursuant to the policies and procedures of 33 CFR 325.7, and any such action shall not be the basis for any claim for damages against the U.S.

**41. Special Conditions.** The Corps may independently or in coordination with federal resource agencies impose special conditions on a project authorized pursuant to these GPs 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.

**42. False or Incomplete Information.** If the Corps makes a determination regarding the eligibility of a project under these GPs 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.

**43. Abandonment.** If the permittee decides to abandon the activity authorized under these GPs, 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.

**44. Enforcement cases.** These GPs do 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.

**45. Duration of Authorization.**

a. These GPs expire on October 14, 2025 unless otherwise specifically indicated in an individual authorization letter. Activities authorized under these GPs that have either commenced or are under contract to commence in reliance upon this authorization will have an additional year from the expiration date to complete the work. The permittee must be able to document to the Corps' satisfaction that the activity commenced or was under contract to commence by the expiration date of these GPs. If work is not completed within the one year extended timeframe, the permittee must contact the Corps. The Corps may issue a new authorization, provided the activity meets the applicable terms and conditions of the Maine GPs that are in effect at the time.

b. Activities authorized under these GPs will remain authorized until these GPs expire, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2(e)(2). Activities completed under the SV or PCN authorizations of these GPs will continue to be authorized after its expiration date.

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Tammy R. Turley  
Chief, Regulatory Division

## V. MAINE GENERAL PERMITS

An activity is authorized under General Permits 1 through 23 listed below only if that activity and the permittee satisfy all of the applicable GP terms and general conditions. Any activity not specifically listed may still be eligible for authorization under these GPs; prospective permittees are advised to contact the Corps for specific eligibility determination.

### 1. **Repair, Replacement, and Maintenance of Authorized Structures and Fills;**

Repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill and minor expansions thereof.

### 2. **Moorings**

New moorings and mooring fields, the relocation of previously authorized moorings, expansions, boundary reconfigurations or modifications of previously authorized mooring fields, conversion of mooring types (e.g. private to rental), and maintenance and replacement of moorings. Moored floats, lobster cars, rafts, and similar float structures are not included in this GP.

### 3. **Structures, Floats and Lifts**

New, expansions, reconfigurations or modifications of structures for navigational access in waters of the U.S. including but not limited to temporary/seasonal or permanent pile and crib-supported piers, floats, stairs, shore outhauls, and boat and float lifts/ways. Floats may include lobster cars, work floats, moored floats, swim floats, and shellfish upweller floats.

### 4. **Aids to Navigation, and Temporary Recreational Structures**

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, chapter I, subchapter C, part 66) and temporary buoys, markers, small floating docks, and similar structures placed for recreational use during specific events such as fireworks displays, water skiing competitions, and boat races or seasonal use.

### 5. **Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation**

New, maintenance, and improvement dredging, including: a) Disposal of dredged material at a confined aquatic disposal, beach nourishment, near shore, designated open water or ocean water disposal site(s), provided the Corps finds the dredged material to be suitable for such disposal; (b) Beach nourishment not associated with dredging; (c) Rock removal and relocation for navigation.

### 6. **U.S. Coast Guard Approved Bridges and Causeways**

Discharges of dredged or fill material incidental to the construction and modification of bridges across navigable waters of the U.S., including cofferdams abutments, foundation seals, piers, approach fills, and temporary construction and access fills provided that the USCG authorizes the construction of the bridge structure under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws.

### 7. **Bank and Shoreline Stabilization Including Living Shorelines**

Bank stabilization activities necessary for erosion protection along the banks of lakes, ponds, streams, and marine/tidal waters. Includes bulkheads, seawalls, riprap, revetments or slope protection & similar structures as well as vegetative planting, soil bioengineering or alternative techniques that are a combination of the two (i.e. living shorelines), specifically for the purpose of shoreline protection.

### 8. **Residential, Commercial and Institutional Developments, and Recreational Facilities**

Discharges of dredged or fill material into waters of the U.S for the construction or expansion of: residences and residential subdivisions; commercial and institutional buildings or subdivisions; and recreational facilities; and attendant features including but not limited to roads, parking lots, garages, stormwater management facilities, yards, and utilities.

## **9. Utility Line Activities**

Activities required for (a) the construction, maintenance, relocation, repair, & removal of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for utility lines; (b) the construction, maintenance or expansion of utility line substation facilities associated with a power/utility line in non-tidal waters; and (c) the construction and maintenance of foundations for overhead utility line towers, poles, and anchors provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible. This GP authorizes the construction of access roads to facilitate construction of the above activities provided the activity, in combination with all other activities included in one single and complete project.

## **10. Linear Transportation Projects**

Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features.

## **11. Mining Activities**

Temporary or permanent discharges of dredged or fill material into waters of the U.S. for mining activities.

## **12. Boat Ramps and Marine Railways**

Temporary or permanent discharges of dredged or fill material, excavation and other work in waters of the U.S. required for the construction of temporary or permanent boat ramps and marine railways.

## **13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects**

Structures and work and discharges of dredged or fill material into waters of the U.S. for the construction, expansion, modification or removal of: (a) land-based renewable energy production facilities (e.g. solar and wind) and their attendant features; (b) water-based wind or hydrokinetic renewable energy generation pilot projects and their attendant features; and (c) discharges of dredged or fill material associated with hydropower projects. Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, and parking lots.

## **14. Reshaping Existing Drainage Ditches and Mosquito Management**

Discharges to modify the cross-sectional configuration of currently serviceable drainage ditches constructed in waters of the U.S., for the purpose of improving water quality by regrading the drainage ditch with gentler slopes, which can reduce erosion, increase growth of vegetation, and increase uptake of nutrients and other substances by vegetation. Also authorized are mosquito reduction activities.

## **15. Response Operations for Oil or Hazardous Substances**

Activities conducted in response to a discharge or release of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) including containment, cleanup, and mitigation efforts, provided activities are done under either (i) The Spill Prevent, Control & Countermeasure Plan require by 40 CFR 112.3; (ii) The direction or oversight of the Federal on-site coordinator designated by 40 CFR 300; or (iii) Any approved existing State, regional or local contingency plan provided that the Regional Response Team (if one exists in the area) concurs with the proposed response efforts or does not object to the response effort. Activities required for the cleanup of oil releases in waters of the U.S. from electrical equipment that are governed by EPA's polychlorinated biphenyl (PCB) spill response regulations at 40 CFR 761. Booms placed in tidal waters. Use of temporary structures & fills for spill response training exercises.

## **16. Cleanup of Hazardous and Toxic Waste**

Specific 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.

### **17. Scientific Measurement Devices**

Scientific devices for measuring and recording scientific data, such as staff gauges, tide and current gauges, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures.

### **18. Survey Activities**

Survey activities such as soil borings, core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching and historic resources surveys (but not recovery).

### **19. Agricultural Activities**

Regulated discharges of dredged or fill material in non-tidal waters of the U.S. for agricultural activities, including the construction of building pads for farm buildings. Authorized activities include: (a) installation, placement, or construction of drainage tiles, ditches, or levees; mechanized land clearing; land leveling; the relocation of existing serviceable drainage ditches; and similar activities; (b) construction of farm ponds, excluding perennial streams, provided the farm pond is used solely for agricultural purposes; and (c) discharges of dredged or fill material to relocate existing serviceable drainage ditches constructed in non-tidal streams.

### **20. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices**

Activities in waters of the U.S. associated with fish and wildlife harvesting devices including pound nets, crab and lobster traps, crab dredging, eel pots, duck blinds, and clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This GP does not include aquaculture activities.

### **21. Habitat Restoration, Establishment and Enhancement Activities**

Activities in waters of the U.S. associated with the restoration, enhancement and establishment of non-tidal and tidal wetlands and riparian areas, including invasive, non-native or nuisance species control; the restoration and enhancement of non-tidal streams and other non-tidal open waters; the relocation of non-tidal waters, including non-tidal streams & associated wetlands for reestablishment of a natural stream morphology and reconnection of the floodplain; the restoration and enhancement of shellfish, finfish and wildlife; and the rehabilitation or enhancement of tidal streams, tidal wetlands and tidal open waters; provided those activities result in net increases in aquatic resource functions and services. Also included are shellfish enhancement measures including but not limited to “brushing”, clam pots, boxes, and netting.

### **22. Stream and Wetland Work and Crossings**

Activities required for the construction, expansion, modification, or improvement of linear transportation projects that cross waters of the U.S. (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features. Crossing structures include, but are not limited to temporary or permanent jurisdictional spans, bridges, culverts, and fords. Any stream channel modification is limited to the minimum necessary to construct or protect the project; such modifications must be in the immediate vicinity of the project.

### **23. Aquaculture**

The installation of buoys, floats, racks, trays, nets, lines or other structures in waters of the U.S. for the containment and cultivation of fish, shellfish and seaweed/kelp. Also authorized are anchored upweller floats, small-scale shellfish hatchery seawater intake/discharge structures, and discharges of dredged or fill material associated with cultivation such as the placement of cultch or spatting-shell on bottom.



**USER NOTE: All Self-Verification and Pre-Construction Notification activities shall comply with all applicable terms (pages 1 - 4), General Conditions (pages 5 - 19), and additional terms below.**

**GENERAL PERMITS FOR THE STATE OF MAINE**

	<p><b>A. INLAND WATERS AND WETLANDS</b></p>	<p>Inland Waters and Wetlands are defined as waters that are regulated under Section 404 of the Clean Water Act, including rivers, streams, lakes, ponds, and wetlands, and <i>excludes Section 10 Navigable Waters of the U.S.</i> The jurisdictional boundaries are the ordinary high water mark (OHWM) in the absence of adjacent wetlands; beyond the OHWM to the limit of adjacent wetlands when adjacent wetlands are present; and the wetland limit when only wetlands are present. For the purposes of these GPs and designated activities, fill placed in the area between the mean high water mark (MHWM) and the high tide line (HTL), and in the bordering and contiguous wetlands to tidal waters are reviewed in the Navigable Waters section below beginning on page 28.</p> <p>Activities not meeting the Self-Verification terms below require Pre-Construction Notification and activities not meeting the Pre-Construction Notification terms below require an application for an Individual Permit (IP).</p>
	<p><b>GENERAL PERMIT #</b></p>	<p><b>SELF-VERIFICATION (SV)</b></p>
<p><b>1. Repair, Replacement, and Maintenance of Authorized Structures and Fills</b> <i>(for stream crossings see GP 22)</i></p>	<p>Repair, replacement, and maintenance of existing, currently serviceable, authorized fills with no expansion or change in use, provided:</p> <ul style="list-style-type: none"> <li>• Conditions of the original authorization apply.</li> <li>• Minor deviations in fill design allowed.</li> <li>• 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 work is commenced, or is under contract to commence, within two years of the date of their destruction or damage.</li> <li>• Drawdown of impoundments for dam/levee repair does not exceed 18 months and one growing season (Apr-Sept).</li> </ul>	<p><b>PRE-CONSTRUCTION NOTIFICATION (PCN)</b></p> <p>Repair, replacement, and maintenance of existing authorized fills not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>2. Moorings</b></p>	<p>Not Applicable – these activities in non-navigable inland waters do not require Corps authorization.</p>	<p>Not Applicable – these activities in non-navigable inland waters do not require Corps authorization.</p>
<p><b>3. Structures, Floats, and Lifts</b></p>	<p>Pile-supported structures, floats and lifts located in non-navigable inland waters do not require Corps authorization.</p> <p>Solid fill or crib-supported structures with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</p>	<p>Fill activities associated with structures, floats, and lifts not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>4. Aids to Navigation and Temporary Recreational Structures</b></p>	<p>Not Applicable – these activities in non-navigable inland waters do not require Corps authorization.</p>	<p>Not Applicable – these activities in non-navigable inland waters do not require Corps authorization.</p>
<p><b>5. Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation</b></p>	<p>Those activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No stream channelization, relocation, or loss of streambed including impoundments or discharges of tailings into streams.</li> </ul>	<p>Those activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>

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<p><b>6. U.S. Coast Guard Approved Bridges and Causeways</b></p>	<p>Not applicable in inland waters and wetlands; see B. Navigable Waters on page 31 below.</p>	<p>Not applicable in inland waters and wetlands; see B. Navigable Waters on page 31 below.</p>
<p><b>7. Bank and Shoreline Stabilization Including Living Shorelines (see also GC 28)</b></p>	<p>Bank and shoreline stabilization activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• Fill is ≤500 LF in total length as measured below the plane of the OHWM, includes total if more than one stream bank.</li> <li>• Fill placed below the plane of the OHWM is ≤1 CY per linear foot.</li> <li>• There is no discharge in special aquatic sites other than wetlands.</li> <li>• Revetment is comprised of angular material.</li> <li>• In-stream work is limited to Jul. 15<sup>th</sup> to Sep. 30<sup>th</sup></li> <li>• No structures angled steeper than IH:1V.</li> </ul>	<p>Bank and shoreline stabilization activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>8. Residential, Commercial and Institutional Developments, and Recreational Facilities</b></p>	<p>Those developments and facilities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts. Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Provided:</p> <ul style="list-style-type: none"> <li>• The historic fill and proposed fill area &lt;15,000 SF specifically complies with GC 5 Single and Complete Projects.</li> <li>• No work in special aquatic sites other than wetlands.</li> </ul>	<p>Those developments and facilities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul> <p><i>Mechanical clearing of areas within Corps jurisdiction without grubbing or other soil disturbance &gt; 3 acres as a secondary impact may still be eligible for PCN at the discretion of the Corps.</i></p>
<p><b>9. Utility Line Activities (see also GC 30)</b></p>	<p>Utility line activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill (excluding mats), and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• There is no permanent change in pre-construction contours in waters in the U.S.</li> <li>• Material resulting from trench excavation is temporarily side cast into waters of the U.S. for &lt;3 months and is placed in such a manner that is not dispersed by current or other forces.</li> <li>• The line does not run parallel to, or along a streambed.</li> <li>• No stream channelization, relocation, or loss of streambed including impoundments.</li> <li>• There is no discharge in special aquatic sites other than wetlands.</li> <li>• Construction mats of any area necessary to conduct activities provided mats are removed as soon as work is completed and shall be in place no longer than one single growing season.</li> <li>• In-stream work is limited to Jul. 15<sup>th</sup> to Sep. 30<sup>th</sup></li> <li>• In-water work is conducted in-the-dry.</li> <li>• Intake structures that are dry hydrants used exclusively for firefighting activities with no stream impoundments.</li> <li>• Construction mats of any area necessary to conduct activities provided mats are removed as soon as work is completed and shall be in place no longer than one single growing season.</li> </ul>	<p>Utility line activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul> <p><i>Mechanical clearing of areas within Corps jurisdiction without grubbing or other soil disturbance &gt; 3 acres as a secondary impact may still be eligible for PCN at the discretion of the Corps.</i></p>



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<p><b>10. Linear Transportation Projects</b> <i>(for stream crossings refer to GP 22)</i></p>	<p>Linear transportation activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill (excl. mats), and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• The historic fill and proposed fill area &lt;15,000 SF specifically complies with GC 5 Single and Complete Projects.</li> <li>• There is no discharge in special aquatic sites other than wetlands.</li> <li>• Construction mats of any area necessary to conduct activities provided mats are removed as soon as work is completed and shall be in place no longer than one single growing season.</li> </ul>	<p>Linear transportation activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul> <p><i>Mechanical clearing of areas within Corps jurisdiction without grubbing or other soil disturbance &gt; 3 acres as a secondary impact may still be eligible for PCN at the discretion of the Corps.</i></p>
<p><b>11. Mining Activities</b></p>	<p>Mining activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No stream channelization, relocation, or loss of streambed including impoundments.</li> </ul>	<p>Mining activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>12. Boat Ramps</b></p>	<p>Boat ramps with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, and temporary fills.</p>	<p>Boat ramps not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects</b></p>	<p>Those facilities and projects with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No stream channelization, relocation, or loss of streambed including impoundments.</li> <li>• No new water-based facilities are eligible.</li> </ul>	<p>Those facilities and projects not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul> <p><i>Mechanical clearing of areas within Corps jurisdiction without grubbing or other soil disturbance &gt; 3 acres as a secondary impact may still be eligible for PCN at the discretion of the Corps.</i></p>
<p><b>14. Reshaping Existing Ditches and Mosquito Management</b></p>	<p>Not applicable in inland waters and wetlands; see B. Navigable Waters on page 33 below.</p>	<p>Not applicable in inland waters and wetlands; see B. Navigable Waters on page 33 below.</p>
<p><b>15. Response Operations for Oil or Hazardous Substances</b></p>	<p>The SVNf or a surrogate state reporting form may be submitted after-the-fact for response operations.</p> <p>This GP also authorizes the use of temporary structures and fills in waters of the U.S. for spill response training exercises with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts (<i>SVNF is required prior to the activity</i>).</p>	<p>Those response operations not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>

SELF-VERIFICATION (SV)

PRE-CONSTRUCTION NOTIFICATION (PCN)

<p><b>16. Cleanup of Hazardous and Toxic Waste</b></p>	<p>Those cleanup activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No stream channelization, relocation, or loss of streambed including impoundments.</li> <li>• The activity does not involve establishing new disposal sites or expanding existing sites used for the disposal of hazardous or toxic waste.</li> </ul>	<p>Those cleanup activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> <li>• The activity does not involve establishing new sites for the disposal of hazardous or toxic waste.</li> </ul>
<p><b>17. Scientific Measurements Devices</b></p>	<p>Those devices with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No biological sampling devices.</li> <li>• Devices do not restrict or concentrate movement of aquatic organisms.</li> <li>• Upon completion of use, the devices and any associated fills shall be removed in their entirety.</li> </ul>	<p>Those devices not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>18. Survey Activities</b></p>	<p>Those survey activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• Exploratory trenches are restored in accordance with GC 21.</li> <li>• No discharge of excavated material from test wells for oil and gas exploration (the plugging of such wells is authorized).</li> </ul>	<p>Those survey activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>19. Agricultural Activities</b></p>	<p>Those agricultural activities subject to Corps jurisdiction with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No stream channelization, relocation, or loss of streambed including impoundments.</li> </ul>	<p>Those agricultural activities subject to Corps jurisdiction not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>20. Fish and Wildlife Harvesting, Enhancement and Attraction Devices and Activities</b></p>	<p>Not applicable in inland waters and wetlands; see B. Navigable Waters on page 34 below.</p>	<p>Not applicable in inland waters and wetlands; see B. Navigable Waters on page 34 below.</p>
<p><b>21. Habitat Restoration, Establishment, and Enhancement</b></p>	<p>Those activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No water impoundments allowed.</li> <li>• No conversion of a stream to wetland or vice versa, a wetland to a pond or uplands, or one wetland type to another.</li> <li>• No dam removal.</li> </ul>	<p>Those activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>

SELF-VERIFICATION (SV)

PRE-CONSTRUCTION NOTIFICATION (PCN)

<p><b>22. Stream and Wetland Work and Crossings (see also GC 29)</b></p>	<p>Stream work and crossings with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No work in designated or proposed critical habitat for endangered species.</li> <li>• Crossings are designed and constructed using the techniques and principles outlined in Stream Simulation, Stream Smart, or Habitat Connectivity Design.</li> <li>• Crossings are designed to be 1.2 times bankfull width.</li> <li>• Crossings have a natural bottom substrate.</li> <li>• Crossings include a bank on both sides of the channel.</li> <li>• Closed bottom culverts are embedded at least 25% of the maximum width of the culvert.</li> <li>• In-stream work is limited to Jul. 15<sup>th</sup> to Sep. 30<sup>th</sup></li> <li>• In-stream work is conducted “in-the-dry”.</li> <li>• No slip lining.</li> <li>• No culvert extensions.</li> <li>• No stream channelization, relocation, or loss of streambed including impoundments.</li> </ul> <p>Wetland work and crossings, provided:</p> <ul style="list-style-type: none"> <li>• No flooding or impacts to wetland drainage from the upgradient side of the crossing.</li> </ul>	<p>Stream and Wetland Work and Crossings not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>
<p><b>23. Aquaculture (see also GC 32)</b></p>	<p>Aquaculture activities with &lt;15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided:</p> <ul style="list-style-type: none"> <li>• No water impoundments allowed.</li> <li>• No conversion of i) a stream to wetland or vice versa, a wetland to a pond or uplands, and ii) one wetland type to another.</li> </ul>	<p>Aquaculture activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.</li> </ul>

**USER NOTE: All Self-Verification and Pre-Construction Notification activities shall comply with all applicable terms (pages 1 - 4), General Conditions (pages 5 - 19), and additional terms below.**

<p><b>B. NAVIGABLE WATERS</b></p>	<p><b>Navigable Waters of the U.S. are defined</b> as those waters that are subject to the ebb and flow of the tide in addition to the non-tidal portions of the following federally-designated waters in Maine (the Kennebec River to Moosehead Lake, the Penobscot River to the confluence of the East and West Branch at Medway and, Lake Umbagog within the State of Maine) (Section 10 Rivers and Harbors Act of 1899). The jurisdictional limits are the mean high water mark (MHW) in tidal waters and the ordinary high water mark (OHWM) in non-tidal portions of the federally-designated navigable rivers. For the purposes of these GPs, fill placed in the area between the mean high water mark (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands to tidal waters are also reviewed in this Navigable Waters section.</p> <p>Activities not meeting the Self-Verification terms below require Pre-Construction Notification and activities not meeting the Pre-Construction Notification terms below require an application for an Individual Permit.</p>
<p><b>GENERAL PERMIT #</b></p>	<p><b>PRE-CONSTRUCTION NOTIFICATION</b></p>
<p><b>1. Repair, Replacement, and Maintenance of Authorized Structures and Fills</b>  <i>*See GC 25 for pile driving and removal conditions.</i></p>	<p><b>SELF-VERIFICATION</b></p> <p>Repair, replacement, or maintenance of previously authorized, currently serviceable structures or fills, provided:</p> <ul style="list-style-type: none"> <li>• Conditions of the original authorization apply.</li> <li>• No expansion or change in use. Shall be rebuilt in same footprint, however minor deviations in design allowed.</li> <li>• The repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events is authorized, provided that work is commenced, or is under contract to commence, within two years of the date of their destruction or damage.</li> <li>• In-water work is conducted “in-the-dry” (see GC.24).</li> <li>• No impacts to special aquatic sites (SAS) (incl. submerged aquatic vegetation, SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal area ≤1,000 SF</li> <li>• Slope stabilization is ≤500 LF in total length as measured below the plane of the HTL and is ≤200 LF in total length as measured below the plane of the MHW or OHWM. Vertical structures are ≤200 LF in total length as measured below the plane of the MHW or OHWM and are ≤18 inches waterward of existing face.</li> <li>• Dam and flood control, or levee work does not alter water levels or flood elevations.</li> <li>• Discharge of accumulated bottom sediments from or through a dam is not more than <i>de minimus</i>.</li> <li>• Tide gate work has a Corps-approved operation and maintenance plan and no effect to hydraulic regime, or tide gates that solely convey stormwater and/or Maine National Pollutant Discharge Elimination System-permitted discharges.</li> </ul> <p><b>PRE-CONSTRUCTION NOTIFICATION</b></p> <p>Repair, replacement, or maintenance of previously authorized structures or fills not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• ≤0.5 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>

SELF-VERIFICATION (SV)

PRE-CONSTRUCTION NOTIFICATION (PCN)

**2. Moorings**

Private, non-commercial, non-rental, single-boat moorings, provided:

- Authorized by the local harbormaster/town.
- Not associated with any boating facility (e.g. marinas).
- Not located within a Federal Navigational Project (other than in a Federal Anchorage) or within a distance of three times the authorized depth of a Federal Navigation Project. Moorings in a Federal Anchorage must not be associated with a boating facility and must not be for rent.
- No interference with navigation.
- Mooring is not located in SAS (incl. SAV) or intertidal areas.

Minor relocation of previously authorized moorings, provided:

- Authorized by the local harbormaster/town.
- Relocation is not within a Federal Navigational Project (other than in a Federal Anchorage) or within a distance of three times the authorized depth of a Federal Navigation Project.
- No interference with navigation.
- Relocated mooring is not located in SAS (incl. SAV) or intertidal areas.

*\*SV Moorings above do not require a SVNF.*

Moorings not eligible for SV and don't require an IP. This includes private moorings with no harbormaster or means of local approval or moorings associated with a boating facility (e.g. marina).

*Locating new moorings in SAS (incl. SAV) shall be avoided to the maximum extent practicable. If SAS cannot be avoided, consideration shall be given to alternative mooring systems that prevents mooring chains from resting or dragging on the bottom substrate at all tides.*

An IP is required for moorings located within the horizontal limits, or with moored vessels that extend into the horizontal limits of a Federal Navigation Project (other than in a Federal Anchorage).

**3. Structures, Floats, and Lifts**

Reconfiguration of such existing authorized structures with all intertidal work conducted "in-the-dry" (see GC 24).

Minor relocation of previously authorized floats provided:

- Relocation is not into a Federal Navigation Project or within a distance of three times the authorized depth of a Federal Navigation Project (other than a Federal Anchorage).
- No interference with navigation.
- Not relocated in or within 25 feet of SAV.
- Seasonal floats are stored above the MHHM and not on wetland (incl. salt marsh).

New private, non-commercial ramp and float structures attached to land (no piers) or new floats provided:

- Not located in or within a distance of three times the authorized depth of a Federal Navigation Project.
- No interference with navigation.
- No structure extends across >25% of the waterway width at mean low water.
- Not located in or within 25 feet of SAV.
- Ramp is <150 LF over salt marsh waterward of the MHHM and is ≥1:1 height:width ratio over salt marsh.

New structures, floats, and/or lifts including floatways/skidways, built to access waterway (both seasonal and permanent). Includes pile-supported, solid fill-supported, and crib-supported structures. Also includes expansions to existing authorized boating facilities (e.g. marinas).  
Provided:

- <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.
- Temporary and/or permanent fill or excavation in SAV <1,000 SF
- Permanent fill or excavation in other SAS <4,300 SF

\*See GC 25 for pile driving and pile removal conditions.

Compliance with the following is recommended:

- *Lowest part of floats are ≥18 inches above the substrate during all tides.*
- *Structures are ≥1:1 height:width ratio over salt marsh.*
- *Structures and floats are not located in or within 25 feet of SAV.*
- *Moored vessels are not positioned over SAV.*
- *Structures attached to land are located ≥ 25 feet from the property line (The Corps may require a letter of no objection from the abutter if located within 25 feet of the property line.)*



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<p><i>Cont'd from page 29</i></p>	<ul style="list-style-type: none"> <li>Ramp and floats attached to land are located <math>\geq 25</math> feet from the property line.</li> <li>Seasonal ramp and floats are stored above the HTL and not on wetland (incl. salt marsh).</li> </ul> <p>Compliance with the following is recommended:</p> <ul style="list-style-type: none"> <li><i>Lowermost part of floats is <math>\geq 18</math> inches above the substrate during all tides.</i></li> </ul>	<ul style="list-style-type: none"> <li>No structure extends across <math>&gt; 25\%</math> of the waterway width at mean low water.</li> <li>Not located within a distance of three times the authorized depth of a Corps Federal Navigation Project.</li> </ul> <p>An IP is required for structures, floats, and/or lifts including floatways/skidways, located in such that they and/or vessels docked or moored at them are within the horizontal limits of a Corps Federal Navigation Project. An IP is also required for structures and floats associated with a new or previously unauthorized boating facility (e.g. marinas).</p>
<p><b>4. Aids to Navigation and Temporary Recreational Structures</b></p>	<p>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). *These SV Aids do not require a S/VNF.</p> <p>Temporary buoys, markers, floats, etc. for recreational use during specific events, provided:</p> <ul style="list-style-type: none"> <li>They are removed within 30 days after the specific event has concluded.</li> <li>No interference with navigation.</li> <li>No impact to SAV.</li> </ul>	<p>Aids and temporary structures not eligible for SV.</p>
<p><b>5. Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation</b></p>	<p>Maintenance dredging of <math>&lt; 1,000</math> CY for navigational purposes with upland disposal including return water from upland contained disposal area, provided:</p> <ul style="list-style-type: none"> <li>Proper siltation controls are used.</li> <li>No expansion of footprint.</li> <li>No dredging in or within a distance of three times the authorized depth of a Federal Navigation Project.</li> <li>Dredging operation is limited to Nov. 8<sup>th</sup> to Apr. 9<sup>th</sup> (it is recommended that in areas populated by winter flounder, dredging should cease by March 15<sup>th</sup>).</li> <li>No impacts to SAS (incl. SAV), impacts to natural rocky habitat <math>\leq 100</math> SF, and impacts to intertidal area <math>\leq 1,000</math> SF.</li> <li>No dredging within 25 feet of SAV.</li> <li>No dredging in or within 100 feet of shellfish areas.</li> <li>No blasting.</li> <li>No dredging in designated or proposed critical habitat for endangered species.</li> </ul>	<p>Maintenance dredging not eligible for SV and new dredging <math>&lt; 25,000</math> CY Includes return water from upland contained disposal areas. Disposal includes:</p> <ul style="list-style-type: none"> <li>Upland.</li> <li>Beach nourishment (above MHW line) of any area provided the dredging's primary purpose is navigation or the sand is from an upland source.</li> <li>Open water &amp; confined aquatic disposal if Corps finds the material suitable.</li> </ul> <p>Beach nourishment associated with dredging when the primary purpose is not navigation requires at least a PCN.</p> <p>Temporary and/or permanent fill or excavation in SAV <math>&lt; 1,000</math> SF and Permanent fill or excavation in other SAS <math>&lt; 4,300</math> SF</p>

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<p><b>6. U.S. Coast Guard Approved Bridges and Causeways</b></p>	<p>Discharges of dredged or fill material associated with U.S. Coast Guard Approved Bridges and Causeways, provided:</p> <ul style="list-style-type: none"> <li>• In-water work is conducted “in-the-dry” (see GC 24).</li> <li>• Discharge of dredged or fill material &lt;15,000 SF</li> <li>• No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal area ≤1,000 SF</li> </ul> <p>Compliance with the following is recommended:</p> <ul style="list-style-type: none"> <li>• <i>Discharge of dredged or fill material should not occur within 100 feet of SAV or within 25 feet of natural rocky habitat or other SAS.</i></li> </ul> <p><i>Note: new causeways and approach fills are not eligible for SV.</i></p>	<p>Discharges of dredged or fill material associated with U.S. Coast Guard Approved Bridges and Causeways not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>7. Bank and Shoreline Stabilization Including Living Shorelines (see also GC 28)</b></p>	<p>Bank and shoreline stabilization activities, provided:</p> <ul style="list-style-type: none"> <li>• In-water work is conducted “in-the-dry” (see GC 24).</li> <li>• Fill is ≤500 LF in total length as measured below the plane of the HTL and is ≤200 LF in total length as measured below the plane of the MHHW or OHWM (includes total for more than one bank). Replacement vertical structures are ≤200 LF in total length as measured below the plane of the MHHW or OHWM and are ≤18 inches waterward of existing face.</li> <li>• Fill placed below HTL is ≤1 CY per linear foot.</li> <li>• Stone revetment is comprised of angular material.</li> <li>• No fills angled steeper than 1H:1V.</li> <li>• No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF</li> <li>• No new groins, breakwaters, or jetties.</li> </ul>	<p>Bank and shoreline stabilization activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts, provided:</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>8. Residential, Commercial and Institutional Developments, and Recreational Facilities</b></p>	<p>Not Eligible</p>	<p>Residential, commercial and institutional developments and recreational facilities, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts, provided:</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul> <p>Conversions of previously authorized pile-supported buildings over navigable waters to residences, offices, or other non-water dependent uses require PCN. Floating house boats or businesses on floats require PCN.</p>

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<p><b>9. Utility Line Activities</b> (see also GC 30)</p>	<p>Repair, replacement, or maintenance of previously authorized, currently serviceable utilities with no expansion or change in use, provided:</p> <ul style="list-style-type: none"> <li>• Conditions of the original authorization apply.</li> <li>• In-water work limited to Nov. 8<sup>th</sup> to Apr. 9<sup>th</sup>.</li> <li>• Trenching or filling confined to existing footprint and &lt;100 LF; trenches shall be backfilled immediately.</li> <li>• Jet-plow, fluidization, or other direct burial methods confined to existing footprint and &lt;200 LF</li> <li>• No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF</li> <li>• No work in designated or proposed critical habitat for endangered species.</li> </ul> <p>New work in, over, or under navigable waters including new outfalls and any intake structure work requires PCN.</p> <p>Aerial utility lines over navigable waters requires PCN.</p>	<p>Those utility activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>10. Linear Transportation Projects</b> (for stream crossings refer to GPs 6 and 22)</p>	<p>Not Eligible</p>	<p>Linear transportation projects, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>11. Mining Activities</b></p>	<p>Not Eligible</p>	<p>Not Eligible</p>
<p><b>12. Boat Ramps and Marine Railways</b></p>	<p>No new boat ramps or marine railways.</p> <p>In-water work is conducted “in-the-dry” (see GC 24).</p> <p>No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF</p> <p>Boat ramp and marine railway work not eligible for maintenance (i.e. not currently serviceable) may be replaced “in-kind” with minor deviations provided:</p> <ul style="list-style-type: none"> <li>• Work is confined to the intertidal zone.</li> <li>• No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF</li> </ul>	<p>Those ramps and railways not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts, provided:</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>



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<p><b>13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects</b></p>	<p>Not Eligible</p>	<p>Work associated with those facilities and projects, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul> <p>For each single and complete project, no more than 10 generation units (e.g., wind turbines or hydrokinetic devices) may be authorized.</p> <p>No new impoundments.</p>
<p><b>14. Reshaping Existing Ditches and Mosquito Management</b></p>	<p>≤500 LF 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 shall be the same as originally constructed and it cannot drain additional wetlands or other waters of the U.S.).</p> <p>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 shall be approximately the same as the location of the centerline of the original drainage ditch.</p> <p>No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF</p>	<p>Those activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>15. Response Operations for Oil or Hazardous Substances</b></p>	<p>The SVNf or a surrogate state reporting form may be submitted after-the-fact for spill response activities.</p> <p>This GP also authorizes the use of temporary structures and fills in waters of the U.S. for spill response training exercises (<i>SVNF is required prior to the activity</i>), provided:</p> <ul style="list-style-type: none"> <li>• No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal or shellfish areas ≤1,000 SF, and impacts to tidal resources &lt;0.5 acre</li> </ul>	<p>Those response operations not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>16. Cleanup of Hazardous and Toxic Waste</b></p>	<p>Only booms placed for hazardous and toxic waste containment and absorption and prevention are eligible for SV. <i>A SVNf is not required for these eligible containment booms.</i></p>	<p>Cleanup activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul> <p>An IP is require for the establishment of new disposal sites or expanding existing sites used for the disposal of hazardous or toxic waste.</p>

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<p><b>17. Scientific Measurements Devices</b></p>	<p>Those scientific measurements devices, provided:</p> <ul style="list-style-type: none"> <li>• Devices do not restrict or concentrate movement of aquatic organisms.</li> <li>• No interference with navigation.</li> <li>• No blasting.</li> <li>• No biological sampling devices.</li> <li>• No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal areas ≤1,000 SF, and impacts to tidal resources ≤0.5 acre</li> <li>• Upon completion of use, the devices and any associated structures or fills are removed in their entirety.</li> </ul>	<p>Those scientific measurements devices not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>18. Survey Activities</b></p>	<p>Those survey activities, provided:</p> <ul style="list-style-type: none"> <li>• No blasting.</li> <li>• No interference with navigation.</li> <li>• No seismic exploratory operations.</li> <li>• No oil and gas exploration.</li> <li>• No trenching or other silt-producing activities.</li> <li>• No fill for roads or construction pads.</li> <li>• No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal areas ≤1,000 SF, and impacts to tidal resources &lt;0.5 acre</li> <li>• No blasting.</li> <li>• No biological sampling devices.</li> </ul> <p><i>A SV/NF is not required for required sediment sampling for Corps-regulated dredge proposals.</i></p>	<p>Those survey activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>19. Agricultural Activities</b> <b>20. Fish and Wildlife Harvesting, Enhancement and Attraction Devices and Activities</b> <i>(for aquaculture refer to GP 23)</i></p>	<p>Not Eligible</p> <p>Those devices and activities, provided:</p> <ul style="list-style-type: none"> <li>• No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal areas ≤1,000 SF, and impacts to tidal resources ≤0.5 acre</li> <li>• No interference with navigation.</li> <li>• No artificial reefs or enclosures</li> <li>• No impoundments or semi-impoundments for the culture or holding of motile species such as lobster, or the use of covered oyster trays or clam racks.</li> <li>• Structures and shell hash should not be located within 25 feet of SAV.</li> <li>• All gear, except for mooring tackle, when not in use on the site is stored in an upland location above the MHHWM and not on wetland (incl. salt marsh).</li> </ul> <p><i>A SV/NF is not required for these eligible devices and activities.</i></p>	<p>Not Eligible</p> <p>Those devices and activities not eligible for SV, provided:</p> <ul style="list-style-type: none"> <li>• &lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>• Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>• Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul> <p>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 &lt;0.5 acre</p>

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<p><b>21. Habitat Restoration, Establishment, and Enhancement</b></p>	<p>Those activities, provided:</p> <ul style="list-style-type: none"> <li>No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal areas ≤1,000 SF, and impacts to tidal resources &lt;0.5 acre</li> <li>No thin layer deposition for salt marsh restoration.</li> <li>SAS planting and transplanting is &lt;100 SF</li> <li>No artificial or living reefs.</li> <li>The activity is authorized in writing by a local, state, or non-Corps federal environmental agency. Water impoundments require PCN.</li> <li>No conversion of i) a stream to wetland or vice versa, wetland to a pond or uplands, and ii) one wetland type to another.</li> <li>No dam removal.</li> </ul>	<p>Those activities not eligible for SV provided those activities are proactive and result in net increases in aquatic resource functions and services.</p>
<p><b>22. Stream and Wetland Work and Crossings (see also GC 29) (see GP 6 for bridges &amp; causeways)</b></p>	<p>Not Eligible</p>	<p>Those crossings of tidal navigable water not including bridges and causeways, provided:</p> <ul style="list-style-type: none"> <li>&lt;1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts.</li> <li>Temporary and/or permanent fill or excavation in SAV &lt;1,000 SF</li> <li>Permanent fill or excavation in other SAS &lt;4,300 SF</li> </ul>
<p><b>23. Aquaculture* (see also GC 32)</b></p>	<p>Shellfish and marine algae installations that do not exceed 400 SF in area, provided:</p> <ul style="list-style-type: none"> <li>Signed approval from Harbormaster or appropriate Town Official.</li> <li>No enclosures or impoundments.</li> <li>Not located in or within a distance of three times the authorized depth of a Federal Navigation Project.</li> <li>Not located in or impinge upon the value of any National Lands or Federal Properties.</li> <li>No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal and shellfish areas ≤1,000 SF</li> <li>No structures, cages, gear, or shell hash located in/within 25 feet of SAV.</li> <li>All gear, except for mooring tackle, when not in use on the site is stored in an upland location above the MHWM and not on wetland (incl. salt marsh).</li> </ul>	<p>Shellfish, finfish, and marine algae 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.</p> <p><b>*State of Maine Aquaculture guidelines are provided at: <a href="http://www.maine.gov/dmr/aquaculture/index.html">www.maine.gov/dmr/aquaculture/index.html</a></b></p>

## Section VIII: Agency Contacts

### 1. Federal

U.S. Army Corps of Engineers  
Maine Project Office  
442 Civic Center Drive, Suite 350  
Augusta, Maine 04330  
(207) 623-8367; (207) 623-8206 (fax)  
Email: cenae-r-me@usace.army.mil

U.S. Environmental Protection Agency  
5 Post Office Square  
Suite 100 (OEP05-2)  
Boston, Massachusetts 02109-3912  
(617) 918-1589

U.S. Fish and Wildlife Service  
Maine Field Office  
P.O. Box A  
East Orland, Maine 04431  
(207) 469-7300; (207) 902-1588 (fax)  
*(Federal endangered species)*

National Marine Fisheries Service  
Maine Field Office  
17 Godfrey Drive, Suite 1  
Orono, Maine 04473  
(207) 866-7379; (207) 866-7342 (fax)  
*(Federal endangered species)*

FEMA Region 1  
Federal Insurance and Mitigation Division  
99 High Street 6<sup>th</sup> Floor  
Boston, Massachusetts 02110  
*(floodplains)*

### 2. State of Maine

#### a. Department of Environmental Protection *(State permits & Water Quality Certifications)*

Augusta Regional Office  
17 State House Station  
Augusta, Maine 04333  
(207) 287-7688

Southern Maine Regional Office  
312 Canco Road  
Portland, Maine 04103  
(201) 822-6300

Federal Emergency Management Agency  
99 High Street  
Boston, Massachusetts 02110  
(877) 336-2734  
*(Floodplain Management)*

National Marine Fisheries Service  
55 Great Republic Drive  
Gloucester, Massachusetts 01930  
(978) 281-9102; (978) 281-9301 (fax)  
*(Federal endangered species & EFH)*

National Park Service  
North Atlantic Region  
15 State Street  
Boston, Massachusetts 02109  
(617) 223-5203  
*(Wild and Scenic Rivers)*

Commander (dpb)  
First Coast Guard District  
One South Street - Battery Building  
New York, New York 10004-1466  
(212) 668-7021; (212) 668-7967 (fax)  
*(bridge permits)*

Eastern Maine Regional Office  
106 Hogan Road  
Bangor, Maine 04401  
(207) 941-4570

Northern Maine Regional Office  
1235 Central Drive  
Presque Isle, Maine 04769  
(207) 764-0477

b. Department of Agriculture, Conservation and Forestry

i. Maine Land Use Planning Commission (LUPC) (*State permits & Water Quality Certifications for the unorganized areas of the State*)

Augusta Office  
22 State House Station  
Augusta, Maine 04333-0022  
(207) 287-2631; (207) 287-7439 (fax)

Downeast Regional Office  
106 Hogan Road, Suite 8  
Bangor, Maine 04401  
(207) 215-4685; (207) 941-4222 (fax)

Greenville Regional Office  
43 Lakeview Drive  
P.O. Box 1107  
Greenville, Maine 04441  
(207) 695-2466; (207) 695-2380 (fax)

Ashland Regional Office  
45 Radar Road  
Ashland, Maine 04732-3600  
(207) 435-7963; (207) 435-7184 (fax)

Western Region Office  
932 U.S. Route 2  
East Wilton, Maine 04992  
(207) 670-7492; (207) 287-7439 (fax)

Eastern Region Office  
191 Main Street  
East Millinocket, Maine 04430  
(207) 399-2176; (207) 746-2243 (fax)

ii. Maine Coastal Program

21 State House Station  
Augusta, Maine 04333  
(207) 707-2324; (207) 624-6024 (fax)  
*(CZM consistency determinations)*

iii. Division of Parks and Public Lands

22 State House Station  
Augusta, Maine 04333  
(207) 287-3061; (207) 287-6170 (fax)  
*(submerged lands leases)*

iv. Maine Floodplain Management Program

17 Elkins Lane  
Augusta, Maine 04333  
(207) 287-8063  
*(floodplains)*

c. Department of Marine Resources

21 State House Station  
Augusta, Maine 04333  
(207) 633-9500; (207) 624-6024 (fax)  
*(aquaculture leases/licenses)*

### 3. Historic Properties

#### a. State Historic Preservation Officer (SHPO)

Kirk F. Mohny, Director  
Maine Historic Preservation Commission  
65 State House Station  
Augusta, Maine 04333-0065  
(207) 287-2132; (207) 287-2335 (fax)

#### b. Tribal Historic Preservation Officers (THPOs)

*Houlton Band of Maliseet Indians*  
88 Bell Road  
Littleton, Maine 04730  
(207) 532-4273, x215; (207) 532-6883 (fax)  
istjohn@maliseets.com

*Passamaquoddy Tribe of Indians*  
Pleasant Point Reservation  
P.O. Box 343  
Perry, Maine 04667  
(207) 853-2600; (207) 853-6039 (fax)  
soctomah@gmail.com

*Passamaquoddy Tribe of Indians*  
Indian Township Reservation  
P.O. Box 301  
Princeton, Maine 04668  
(207) 796-2301; (207) 796-5256 (fax)  
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## Section IX: Definitions

**Action Area:** 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].”

**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)). Prospective permittees are strongly advised to contact the Corps for a determination of whether their activity is exempt or requires a permit.

**Attendant Features:** Occurring with or as a result of; accompanying.

**Aquatic 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 January 6, 2017 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 shall be planted at the site.

**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, dockominiums, 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.

**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 mark 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.

**Brushing:** 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.”

**Currently Serviceable:** Useable as-is or with some maintenance, but not so degraded as to essential require reconstruction.

**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.

**Fill area:** Fill area includes all temporary and permanent fill (including mats), and regulated discharges associated with excavation.

**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](http://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.

**Habitat Connectivity Design:** projects designed and constructed for consistency with natural stream dimensions, profiles, and dynamics, in accordance with the following technical references: U.S. Forest Service guide (Forest Service Stream-Simulation Working Group 2008), augmented by documents published by the states of Washington (Barnard et al. 2013), Vermont (Bates and Kirn 2009) and California (Love and Bates 2009).

**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.

**Living Shoreline:** Living shorelines stabilize banks and shores in coastal waters along shores with small fetch and gentle slopes that are subject to low-to mid-energy waves. A living shoreline has a footprint that is made up mostly of native material. It incorporates vegetation or other living, natural “soft” elements alone or in combination with some type of harder shoreline structure (e.g., oyster or mussel reefs or rock sills) for added protection and stability. Living shorelines shall maintain the natural continuity of the land-water interface, and retain or enhance shoreline ecological processes. Living shorelines must have a substantial biological component, either tidal or lacustrine fringe wetlands or oyster or mussel reef structures.

**Maintenance:**

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 330.3 – “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 SV 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 SV or PCN thresholds in Section V.

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 PCN.

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.”

The following definition is also 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.

**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.

**Natural Rocky Habitats:** Natural rocky habitats are intertidal and subtidal substrates composed of pebble-gravel, cobble, boulder, or rock ledge and outcrops. Manufactured stone (e.g. cut or engineered rip-rap) is not considered a natural rocky habitat. Natural rocky habitats are either found as pavement (consolidated pebble-gravel, cobble, or boulder areas) or as a mixture with fines (i.e. clay and sand) and other substrates.

**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.

**Pre-construction notification (PCN):** A request submitted by a prospective permittee 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.

**Re-establishment:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in again in aquatic resource area and functions.

**Rehabilitation:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area. Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

**Restoration:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

**Riffle and pool complexes:** Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

**Secondary effects:** See “Direct, secondary, and cumulative effects.”

**Shellfish Areas:** Areas that currently support molluscan shellfish. Information regarding these locations can be obtained from the State of Maine GeoLibrary Data Catalog at: [www.maine.gov/geolib/catalog.html](http://www.maine.gov/geolib/catalog.html)

**Shellfish seeding:** The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

**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 shall have independent utility (see definition).

**Special aquatic sites (SAS):** These are defined at 40 CFR 230 Subpart E. They include sanctuaries and refuges, wetlands, mud flats, vegetated shallows (submerged aquatic vegetation, SAV), coral reefs, and riffle and pool complexes.

**Stream:** The term “stream” in the document means rivers, streams, brooks, etc.

**Stream bed:** The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

**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.

**Stream Simulation:** A method for designing and building road-stream crossings intended to permit free and unrestricted movements of any aquatic species. Reference: <https://www.nae.usace.army.mil/Missions/Regulatory/Stream-and-River-Continuity/>

**Stream Smart Design:** projects designed to allow the stream to act like a stream by passing fish and wildlife as well as the higher flows that come with large infrequent storms while protecting the stability of the road and public safety. Stream Smart Design follows the “Four S’s”: The culvert must SPAN the stream, allowing for passage of aquatic and terrestrial wildlife. The culvert has to be SET at the right elevation. The SLOPE of the culvert must match the stream. There must be SUBSTRATE (natural sediment) in the crossing. Reference: [www1.maine.gov/mdot/publications/docs/brochures/pocket\\_guide\\_stream\\_smart\\_web.pdf](http://www1.maine.gov/mdot/publications/docs/brochures/pocket_guide_stream_smart_web.pdf)

**Temporary impacts:** Temporary impacts include waters of the U.S. that are temporarily filled, flooded, excavated, drained or mechanically cleared because of the regulated activity.

**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).

**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/Submerged Aquatic Vegetation (SAV):** Permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as eelgrass in marine systems as well as a number of freshwater species in rivers and lakes. Note: Eelgrass surveys should be conducted between May and October unless otherwise directed.

**Vernal pools (VPs):** The State of Maine, Department of Environmental Protection has specific protections for VPs. For the purposes of these GPs, 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). In most years, VPs support one or more of the following obligate indicator species: wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus* sp.). However, they should preclude sustainable populations of predatory fish.

**Water dependency:** activity requiring access or proximity to or siting within a special aquatic site (SAS) to fulfill its basic project purpose.

**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 United States (U.S.)**

**Waters of the 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 shall not be taken as an indication that the waterbody is not navigable: In Maine, navigable waters are those waters that are subject to the ebb and flow of the tide in addition to the non-tidal portions of the following federally-designated waters in Maine (the Kennebec River to Moosehead Lake, the Penobscot River to the confluence of the East and West Branch at Medway and, Lake Umbagog within the State of Maine).

**Non-tidal wetland:** A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

**Tidal wetland:** A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tideline.



Environmental Summary Sheet

WIN: 23104.00

Date Submitted: 7/19/2021

Town: Jim Pond Twp

CPD Team Leader: Andrea Brady

ENV Field Contact: Val Derosier

NEPA Complete: Programmatic Categorical Exclusion (CE) per 23 CFR 771.117 (c)(28) issued on 1/28/2021

Section 106
SHPO Concurrence - No Adverse Effect
Section 106 Resources: None

Section 4(f) and 6(f)
Section 4(f)
No use
Section 6(f)
No takes

Maine Department of Inland Fisheries and Wildlife Essential Habitat
Not Applicable Timing Window: Not Applicable

Section 7
Species of Concern: Northern Long Eared Bat-Not Likely to Adversely Affect
Comments/References: 4(d) Streamlined Consultation Complete
Species of Concern: Canada Lynx - No Effect
Comments/References: Within DPS but outside critical habitat

Essential Fish Habitat
None Present

Maine Department of Conservation/Public Lands, Submerged Land Lease
Not Applicable

Maine Land Use Planning Commission
Expedited Permit
- Self Certification Form must be submitted to LUPC upon completion of project with photos and statement that all conditions have been met.
- Special Conditions Apply - See Special Provision 105
\*Applicable Standards and Permit are included with the contract

Maine Department of Environmental Protection
Not Applicable
\*Applicable Standards and Permit are included with the contract

U.S. Army Corps of Engineers (ACOE): Section 404 of the Clean Water Act
PCN (formerly Category 2)
- Work Start Notification Form and Compliance Certification Form must be completed by the Resident and/or ENV Field Contact and submitted to the Corps with copy to Andrea Brady
- In-water Work Window: June 1 - September 30
- Special Conditions apply; See Special Provision 105
\*Applicable Standards and Permit are included with the contract

Stormwater Review
N/A

Special Provisions Required
Special Provision 105 - Environmental Requirements N/A
Special Provision 656-Minor Soil Disturbance N/A
Standard Specification 656 - Erosion Control Plan N/A
Special Provision 203 - Dredge Material N/A
Special Provision 610 - Void-Filled Riprap N/A
General Note for Hazardous Waste N/A
Special Provision 203-Hazardous Waste N/A

\*All permits and approvals based on plans/scope as of: 6/9/2021





### Environmental Summary Sheet

WIN: 23144.00

Date Submitted: 6/25/2021

Town: Wilton

CPD Team Leader: Andrea Brady

ENV Field Contact: Ryan Annis

NEPA Complete: Programmatic Categorical Exclusion 23 CFR 771.117(c)(28) on 1/28/2021

**Section 106**  
No Effect  
Section 106 Resources: none

**Section 4(f) and 6(f)**  
Section 4(f)  
Review Complete -No use  
Section 6(f)  
No takes

**Maine Department of Inland Fisheries and Wildlife Essential Habitat**  
  
Not Applicable **Timing Window: Not Applicable**

**Section 7**  
**Species of Concern: Northern Long-eared Bat - NLAA**  
**Comments/References:** 4(d) Streamlined Consultation Complete  
  
**Species of Concern: Atlantic Salmon – within DPS but outside of Critical Habitat – No Effect**  
**Comments/References:** Not in Critical Habitat; salmon are not present

**Essential Fish Habitat**  
Atlantic Salmon – Adverse Effect – Not Substantial. Abbreviated Consultation Complete.  
**Special Conditions apply. See Special Provision 105.**

**Maine Department of Conservation/Public Lands, Submerged Land Lease**  
Not applicable

**Maine Land Use Planning Commission**  
Not Applicable

**Maine Department of Environmental Protection**  
Exempt from Permitting 38 M.R.S.A. Section 480-Q2d

*\*Applicable Standards and Permit are included with the contract*

**U.S. Army Corps of Engineers (ACOE): Section 404 of the Clean Water Act**  
- Pre-Construction Notification (former Category 2)  
- Work Start Notification and Compliance Certification Form to be completed by the Resident and/or ENV Field Contact and submitted to the Corps Maine Project Office with cop to Andrea Brady.  
**- In-water work window June 1 – September 30. Special Conditions apply. See Special Provision 105.**

*\*Applicable Standards and Permit are included with the contract*

**Stormwater Review**  
N/A

<input checked="" type="checkbox"/> <b>Special Provisions Required</b>		
Special Provision 105-Environmental Requirements	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 656-Minor Soil Disturbance	N/A <input checked="" type="checkbox"/>	Applicable <input type="checkbox"/>
Standard Specification 656-Erosion Control Plan	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 203-Dredge Material	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 203-Special Fill-Streambed Materials	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 610-Stream Channel Rock	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 610-Streambed Rock Features	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
General Note for Hazardous Waste	N/A <input checked="" type="checkbox"/>	Applicable <input type="checkbox"/>
Special Provision 203-Hazardous Waste	N/A <input checked="" type="checkbox"/>	Applicable <input type="checkbox"/>

*\*All permits and approvals based on plans/scope as of: 5/3/2021*



### Environmental Summary Sheet

WIN: 22296.00

Date Submitted: 6/30/2021

Town: Chesterville-Farmington

CPD Team Leader: Andrea Brady

ENV Field Contact: Val Derosier

NEPA Complete: Programmatic Categorical Exclusion (CE) per 23 CFR 771.117 (c)(28) issued on 4/5/2021

**Section 106**  
SHPO Concurrence – No Adverse Effect with Conditional Archaeology Commitments  
**Special Conditions apply (excavation monitoring information and equipment exclusion zone; see SP 105.9)**

**Section 4(f) and 6(f)**  
Section 4(f)  
De Minimis determination signed by FHWA on 2/11/2021  
Section 6(f)  
No takes

**Maine Department of Inland Fisheries and Wildlife Essential Habitat**  
Not Applicable **Timing Window: Not Applicable**

**Section 7**  
**Species of Concern:** Atlantic Salmon DPS & Critical Habitat –Likely to Adversely Affect Atl. Salmon; Not Likely to Adversely Affect Critical Habitat  
**Comments/References:** Consultation with USFWS completed under MAP  
**Special Conditions apply; see Special Provision 105.**  
  
**Species of Concern:** Northern Long-eared Bat – Not Likely to Adversely Affect  
**Comments/References:** 4(d) Streamlined Consultation Complete

**Essential Fish Habitat**  
**Atlantic Salmon - Adverse Effect – Not Substantial.** Consultation complete.

**Maine Department of Conservation/Public Lands, Submerged Land Lease**  
Not Applicable

**Maine Land Use Planning Commission**  
Not Applicable

**Maine Department of Environmental Protection**  
Exempt from Permitting 38 M.R.S.A. Section 480-Q2d

*\*Applicable Standards and Permit are included with the contract*

**U.S. Army Corps of Engineers (ACOE): Section 404 of the Clean Water Act**  
PCN (formerly Category 2)  
- Work Start Notification Form and Compliance Certification Form must be completed by the Resident and/or ENV Field Contact and submitted to the Corps with copy to Andrea Brady  
- **In-water Work Window: July 1 – April 15**  
- **Special Conditions apply; See Special Provision 105**

*\*Applicable Standards and Permit are included with the contract*

**Stormwater Review**  
N/A

<input checked="" type="checkbox"/> <b>Special Provisions Required</b>		
Special Provision 105 – Environmental Requirements	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 105.9 – Historic Resources	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 656-Minor Soil Disturbance	N/A <input checked="" type="checkbox"/>	Applicable <input type="checkbox"/>
Standard Specification 656 – Erosion Control Plan	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 203-Dredge Material	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 203-Special Fill - Streambed Material	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>
Special Provision 203-Contaminated Soil & Groundwater Management	N/A <input type="checkbox"/>	Applicable <input checked="" type="checkbox"/>

*\*All permits and approvals based on plans/scope as of: 3/9/2021*