

**Updated 01/06/06**

# **STATE PROJECT**

## **BIDDING INSTRUCTIONS**

### **FOR ALL PROJECTS:**

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

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

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

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

a) a completed Bid using Expedite® software and submitted via the Bid Express™ web-based service, b) a Bid Guaranty (as described below) or a faxed copy of a Bid Bond (with original to be delivered within 72 hours), and c) any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening.

3. Include prices for all required items in the Schedule of Items. (“Zero is not considered a Bid price.”)
4. Include a Bid Guaranty. Acceptable forms are:
  - a. a properly completed and signed Bid Bond on the Department’s prescribed form (or on a form that does not contain any significant variations from the Department’s form as determined by the Department) for 5% of the Bid Amount or
  - b. an Official Bank Check, Cashier’s Check, Certified Check, U.S. Postal Money Order or Negotiable Certificate of Deposit in the amount stated in the Notice to Contractors.
5. If a paper Bid is to be sent, Federal Express overnight delivery is suggested as the package is delivered directly to the DOT Headquarters Building 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 in the proper amounts, and deliver to the Contracts section by 4:30 PM on bid opening day

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

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

# NOTICE

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

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

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

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

# NOTICE

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

Bid Enclosed - Do Not Open

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

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

Double Envelope: Bid Enclosed

PIN:

Town:

Date of Bid Opening:

Name of Contractor:

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

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

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

force, and effect.

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

WITNESS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

WITNESS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PRINCIPAL:

By \_\_\_\_\_

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

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

SURETY:

By \_\_\_\_\_

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

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

# NOTICE

## Bidders:

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



State of Maine  
**VENDOR FORM**

For New Vendors & for Updates on Current Vendors

Special Instructions:

**PLEASE PRINT CLEARLY**

**Return this form to:**

**\* = MUST BE COMPLETED TO PROCESS**

**ONLY ONE NAME/VENDOR PER FORM**

New Vendor	Address Change	Multi Address	Name Change	Contact Update	ID # Change
------------	----------------	---------------	-------------	----------------	-------------

Social Security Number\*  
Individual or Sole Proprietor

Federal Taxpayer ID Number\*  
Corporation

**OR**

**Please fill in ONE.**

S

Business name in "DBA" field below.

E

Business name in "Name" field below.

**This form will affect all transactions with ALL state agencies.**

**NEW:\***

**Remit to Address:** Individual or Business Name.

Name*
DBA or C/O
Address*
Tel #*

**OLD:**

Old number:

Name
DBA or C/O
Address
Tel #

<input type="checkbox"/> Is this the same name on your Social Security card?	Acct #
<input type="checkbox"/> If not, have you told Social Security about your name change?	Provider #

Signature\* \_\_\_\_\_

Contact Name \_\_\_\_\_

Print Name or Title \_\_\_\_\_

Accounts Receivable Contact Name \_\_\_\_\_

Date\* \_\_\_\_\_ (within 3 months)

Phone # if Different or for Contact Info \_\_\_\_\_

Vendor Indicators: Enter Y (Yes) For All Categories Listed Below That Apply To This Vendor

Dealer: <input type="checkbox"/>	Manufacturer: <input type="checkbox"/>	Factory Rep: <input type="checkbox"/>
Jobber: <input type="checkbox"/>	Retailer: <input type="checkbox"/>	Commodity: <input type="checkbox"/>
Individual: <input type="checkbox"/>	Partnership: <input type="checkbox"/>	Incorporated: <input type="checkbox"/>
Minority: <input type="checkbox"/>	Small Business: <input type="checkbox"/>	In-State: <input type="checkbox"/>

Information on State Agency Submitting Vendor Form

State Agency* & SHS #	Contact Person Name & Title*	Telephone #*
-----------------------	------------------------------	--------------

**Send to:** Maine Department of Transportation/ Contracts 16 SHS, Augusta, ME 04333-0014 Attn: Pat Brown

# INSTRUCTIONS FOR COMPLETING VENDOR FORM

1. **Print Clearly**
2. **All sections marked with an \* must be completed for processing**
3. **Send completed form to requesting State agency OR remit to address at bottom of form.**
4. **Do NOT send by Fax. Only originals will be accepted.**

<u><b>FIELDS</b></u>	<u><b>INFORMATION NEEDED FOR FIELD</b></u>
<i>Special Instructions</i>	<i>Instructions to Vendor from Agency requesting information.</i>
<i>Return to</i>	<i>The location of agency where the form is to be mailed back to. If none use address at bottom of form.</i>
Boxes above SSN/EIN Fields	Please check mark all that apply to the vendor. If other, please specify. If it's a new vendor only one will apply: "New Vendor"
Social Security Number	Individuals, individuals "doing business as", and individuals without a Federal Taxpayer ID #. Use if not using EIN
Federal Taxpayer ID Number*	Businesses or professionals providing services. (ID # needs to be use for REMITTANCE purposes.) Use if not using SSN
New	Current Information
Old	Old information (If another ID# had been used please put it next to "OLD")
Name	Individual's Name or Business Name. ONLY ONE name per a form.
DBA or C/O	"Doing business as" or "In Care Of"
Address	REMITTANCE ADDRESS - Street Address OR PO Box (one or the other)
Tel #	Phone Number of individual or business
Signature	Individual or authorized representative of individual or authorized representative of the business
Date	Current Date (no more than 3 months old)
Contact Name	Contact person at business
Accounts Receivable Contact Name	Contact person at business for accounts receivables.
Phone #	Phone for Act Rec Contact
Vendor Indicators	Indicate all that apply for the vendor, as needed
Agency Info	For Agency personnel submitting the form. Contact info incase of questions.

## 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 New Bridge Construction in the town of Calais U.S.A and St. Stephens Canada" will be received from contractors at the Reception Desk, Maine DOT Building, Child Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on October 25, 2006 and at that time and place publicly opened and read. Bids will be accepted from contractors prequalified by the Department of Transportation for this particular Bridge project. All other Bids may be rejected. **We now accept electronic bids for those bid packages posted on the bidx.com website. Electronic bids do not have to be accompanied by paper bids. Please note: the Department will accept a facsimile of the bid bond; however, the original bid bond must then be received at the MDOT Contract Section within 72 hours of the bid opening.** **Until further notice,, dual bids (one paper, one electronic) will be accepted, with the paper copy taking precedence.**

Description: Maine State Project No. NCPD/CBI-8483(360)X , PIN 008483.36

Location: In Washington County U.S.A, and St.Stephen N.B. Project is located at the new bridge construction of the St.Croix River Bridge over St. Croix River between Canada/ U.S.A. Route 1.

Outline of Work: 18718 M3 earth and approach work, 10688 M3 structural concrete, 1707 M prestressed concrete, 425 M steel H-piles, 1100 M3 plain riprap and other incidental work.

For general information regarding Bidding and Contracting procedures, contact Scott Bickford at (207)624-3410. Our webpage at <http://www.state.me.us/mdot/project/design/homepg.htm> contains a copy of the schedule of items, Plan Holders List, written portions of bid amendments (not drawings), and bid results. For Project-specific information fax all questions to **Project Manager Devin Anderson** at (207)624-3431. Questions received after 12:00 noon of Monday prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. Hearing impaired persons may call the Telecommunication Device for the Deaf at (207)624-3007.

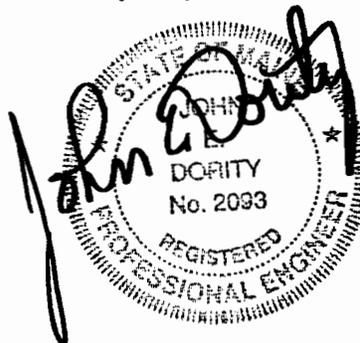
Plans, specifications and bid forms may be seen at the Maine DOT Building in Augusta, Maine and at the Department of Transportation's Regional Office in **Bangor**. They may be purchased from the Department between the hours of 8:00 a.m. to 4:30 p.m. by cash, credit card (Visa/Mastercard) or check payable 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 \$47.00 (\$51.50 by mail). Half size plans \$23.50 (\$26.50 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$290,000 payable to Treasurer, State of Maine as a Bid guarantee. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the Contract price, will be required of the successful Bidder.

All work shall be governed by "State of Maine, Department of Transportation, Standard Specifications, Revision of December 2002", price \$10 [\$13 by mail], and Standard Details, Revision of December 2002, price \$20 [\$25 by mail]. Standard Detail updates can be found at <http://www.state.me.us/mdot/project/design/homepg.htm>

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

Augusta, Maine  
September 27, 2006



JOHN E. DORITY  
CHIEF ENGINEER

SPECIAL PROVISION  
DIVISION 100  
SECTION 101  
GENERAL PROVISIONS  
Plans, Specifications, Contract Documents

Maine shall draft the Contract and shall supervise the bidding process. The bidding shall be open to Contractors from both the United States and Canada. The opening of bids shall be supervised by a representative of Maine and may also be supervised by a representative of New Brunswick, each of which shall be authorized to decide which bids, if any, are acceptable. The Contract shall be awarded in a manner consistent with the practices of Maine to the lowest, responsible, qualified bidder, subject to the joint approval of Maine and New Brunswick.

Legal Relations and Responsibility to the Public Laws to be Observed. The Contractor is assumed to be familiar with, and at all times will observe and comply with, all laws of the United States and Canada, of the State of Maine and Province of New Brunswick, and all local by-laws, ordinances and regulations in any manner affecting the conduct of the work, and will indemnify and save harmless the State of Maine and Province of New Brunswick and their representatives against any claim arising from the violation of any such laws, by-laws, ordinances or regulation, whether by the Contractor himself or by the Contractor's employees.

Custom Regulations. The Bidders are advised that materials, tools, plant and contract plans to be used for construction of the bridge as called for in the Contract will be subject to Canadian and American customs duty and taxation as outlined in the Special Provisions.

Measurement and Payment. The parties agree that American currency shall be used for both the preparation of the contract documents and for all payments thereunder. New Brunswick shall reimburse Maine for all project costs set forth and described herein in American currency or Canadian currency at the official rate of exchange in effect on the day and date of such reimbursement.

All contract invoices shall be submitted by the Contractor in U.S. dollars to Maine Department of Transportation for approval.

Accessibility of Site. Prospective bidders will take note of the fact that the Customs facilities will be constructed in conjunction with the MDOT projects. Contractors will need to plan their operations accordingly.

St. Stephen-Calais  
Border Crossing Bridge  
NCPD/CBI-8483(360)X  
12/13/2005

Prospective bidders are advised to visit the site and make themselves thoroughly familiar with the extent and nature of the work.

Wages. State of Maine, Department of Labor Wage Rates shall apply to the **INTERNATIONAL BRIDGE ACROSS THE ST. CROIX RIVER BETWEEN CALAIS, MAINE, U.S., AND ST. STEPHEN, NEW BRUNSWICK, CA.,** Federal Project NCPD/CBI-8483(360)X.

SPECIAL PROVISION  
SECTION 101.2  
DEFINITIONS  
(Holiday)

The definition of Holidays contained in Section 101.2 of Division 100 of the Maine Department of Transportation's Standard Specifications is hereby deleted and replaced by the following Special Provision.

Holidays. New Year's Day, Martin Luther King Day, President's Day, Patriot's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. For a related provision, see Section 107.3.3 - Sundays and Holidays.

SPECIAL PROVISION  
SECTION 101.2  
DEFINITIONS  
(Closeout Documentation)

The definition of Closeout Documentation contained in Section 101.2 of Division 100 of the Maine Department of Transportation's Standard Specifications is hereby deleted and replaced by the following Special Provision.

Closeout Documentation All documentation required by the Department to finish the Project in accordance with State, federal, and other requirements. These documents include:

- Letter "All Bills Paid" on Contractor's letterhead,
- Request for Final Payment on Contractor's letterhead,
- Certificate of Materials,
- Summary of all material, products, and equipment used on the project that were subject to the Canadian Duty tax as defined in Special Provision 108.6.1.B,

The Department reserves the right to amend this list of required Closeout Documentation.

**SPECIAL PROVISION 102.7.3  
ACKNOWLEDGMENT OF BID AMENDMENTS**

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

Amendment Number	Date

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

CONTRACTOR

\_\_\_\_\_  
Date

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

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

SCHEDULE OF ITEMS

CONTRACT ID: 008483.36

PROJECT(S): NCPD/CBI-8483(360)X

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

SECTION 0001 Main Item

0010	201.11 CLEARING	2.000 HA				
0020	203.20 COMMON EXCAVATION	50.000 M3				
0030	203.2318 DISPOSAL OF SPECIAL WASTE	100.000 MG				
0040	203.24 COMMON BORROW	7500.000 M3				
0050	203.25 GRANULAR BORROW	1615.000 M3				
0060	206.082 STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	1200.000 M3				
0070	206.092 STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	30.000 M3				
0080	206.10 STRUCTURAL EARTH EXCAVATION - PIERS	6000.000 M3				
0090	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	2143.000 M3				
0100	501.50 STEEL H-BEAM PILES 132 KG/M, DELIVERED	425.000 M				

SCHEDULE OF ITEMS

CONTRACT ID: 008483.36

PROJECT(S): NCPD/CBI-8483(360)X

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0110	501.501 STEEL H-BEAM PILES 132 KG/M, IN PLACE	425.000 M				
0120	501.90 PILE TIPS	48.000 EA				
0130	501.91 PILE SPLICES	12.000 EA				
0140	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP	LUMP			
0150	502.21 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	190.000 M3				
0160	502.219 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	LUMP	LUMP			
0170	502.239 STRUCTURAL CONCRETE PIERS	LUMP	LUMP			
0180	502.24 STRUCTURAL CONCRETE PIERS (PLACED UNDER WATER)	5800.000 M3				
0190	502.261 SRRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON CONCRETE BRIDGES	LUMP	LUMP			
0200	502.29 STRUCTURAL CONCRETE WEARING SURFACE ON BRIDGES	LUMP	LUMP			
0210	502.31 STRUCTURAL CONCRETE APPROACH SLABS	LUMP	LUMP			

SCHEDULE OF ITEMS

CONTRACT ID: 008483.36

PROJECT(S): NCPD/CBI-8483(360)X

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0220	502.49 STRUCTURAL CONCRETE CURBS AND SIDEWALKS	LUMP	LUMP			
0230	503.12 REINFORCING STEEL, FABRICATED AND DELIVERED	370000.000 KG				
0240	503.13 REINFORCING STEEL, PLACING	370000.000 KG				
0250	503.24 MMFX 2 REINFORCING STEEL, FABRICATED & DELIVERED	9600.000 KG				
0260	503.25 MMFX 2 REINFORCING STEEL, PLACING	9600.000 KG				
0270	507.0811 STEEL BRIDGE RAILING, 2 BAR	LUMP	LUMP			
0280	511.07 COFFERDAM: ABUT. NO. 1	LUMP	LUMP			
0290	511.07 COFFERDAM: ABUT. NO. 2	LUMP	LUMP			
0300	511.07 COFFERDAM: PIER NO. 1	LUMP	LUMP			
0310	511.07 COFFERDAM: PIER NO. 2	LUMP	LUMP			
0320	511.07 COFFERDAM: PIER NO. 3	LUMP	LUMP			

SCHEDULE OF ITEMS

CONTRACT ID: 008483.36

PROJECT(S): NCPD/CBI-8483(360)X

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0330	512.081 FRENCH DRAINS	LUMP	LUMP			
0340	514.06 CURING BOX FOR CONCRETE CYLINDERS	EA 1.000				
0350	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP	LUMP			
0360	520.21 EXPANSION DEVICE - GLAND SEAL	EA 4.000				
0370	523.5401 LAMINATED ELASTOMERIC BEARINGS, FIXED	EA 60.000				
0380	523.5402 LAMINATED ELASTOMERIC BEARINGS, EXPANSION	EA 20.000				
0390	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP	LUMP			
0400	526.34 PERMANENT CONCRETE TRANSITION BARRIER	EA 8.000				
0410	535.61 PRESTRESSED STRUCTURAL CONCRETE I-GIRDERS	LUMP	LUMP			
0420	607.2350 CHAIN LINK FENCE - 3.7 M	M 230.000				
0430	610.08 PLAIN RIPRAP	M3 1100.000				

SCHEDULE OF ITEMS

CONTRACT ID: 008483.36

PROJECT(S): NCPD/CBI-8483(360)X

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0440	613.319 EROSION CONTROL BLANKET	M2 100.000				
0450	615.07 LOAM	M3 80.000				
0460	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	UN 16.000				
0470	618.15 TEMPORARY SEEDING	KG 10.000				
0480	619.1201 MULCH - PLAN QUANTITY	UN 16.000				
0490	620.58 EROSION CONTROL GEOTEXTILE	M2 1000.000				
0500	626.21 METALLIC CONDUIT	M 6.000				
0510	626.22 NON-METALLIC CONDUIT	M 43.000				
0520	629.05 HAND LABOR, STRAIGHT TIME	HR 100.000				
0530	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	HR 10.000				
0540	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	HR 10.000				

MAINE DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF ITEMS

PAGE: 6  
 DATE: 060922  
 REVISED:

CONTRACT ID: 008483.36

PROJECT(S): NCPD/CBI-8483(360)X

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

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0550	634.2511 SERVICE POLE - 7.6 M	2.000 EA				
0560	638.01 EMBEDDED WORK IN STRUCTURES	LUMP	LUMP			
0570	639.18 FIELD OFFICE TYPE A	2.000 EA				
0580	652.38 FLAGGER	100.000 HR				
0590	652.39 WORK ZONE TRAFFIC CONTROL	LUMP	LUMP			
0600	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0610	659.10 MOBILIZATION	LUMP	LUMP			
0620	890.01 SPECIAL WORK #1	LUMP	LUMP			
	SECTION 0001 TOTAL					
ALL UNIT PRICES AND BID AMOUNTS MUST BE IN UNITED STATES CURRENCY. SEE SPECIAL PROVISION SECTION 108.2.2.1 (PAYMENT IN UNITED STATES CURRENCY).						
	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, PIN No. **8483.36**, for **New Bridge Construction in ST. Stephen N.B., Canada, Calais Maine USA**, County of **Washington Maine USA and New Brunswick Canada**. 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 **July 1, 2008**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

**C. Price.**

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

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

**D. Contract.**

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

**E. Certifications.**

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

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

**F. Offer.**

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

**PIN NO. 8483.36 ST. Stephen N. B., Canada and Calais Maine U.S.A. New Bridge Construction.**

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

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

As Offeror also agrees:

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

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

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

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

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

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

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

CONTRACTOR

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Signature of Legally Authorized Representative  
of the Contractor)

\_\_\_\_\_  
Witness

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

**G. Award.**

Your offer is hereby accepted.  
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: David A. Cole, Commissioner

\_\_\_\_\_  
Witness

## CONTRACT AGREEMENT, OFFER & AWARD

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

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

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

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

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PIN No. **8483.36**, for **New Bridge Construction in ST. Stephen N.B., Canada, Calais Maine USA**, County of **Washington Maine USA and New Brunswick Canada**. 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 **July 1, 2008**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, Revision of December 2002 and related Special Provisions.

**C. Price.**

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

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

**D. Contract.**

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

**E. Certifications.**

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

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

**F. Offer.**

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

**PIN NO. 8483.36 ST. Stephen N. B., Canada and Calais Maine U.S.A. New Bridge Construction.**

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

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

As Offeror also agrees:

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

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

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

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

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

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

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

CONTRACTOR

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Signature of Legally Authorized Representative  
of the Contractor)

\_\_\_\_\_  
Witness

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

**G. Award.**

Your offer is hereby accepted.  
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: David A. Cole, Commissioner

\_\_\_\_\_  
Witness

## CONTRACT AGREEMENT, OFFER & AWARD

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

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

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

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

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

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

### B. **Time.**

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

**C. Price.**

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

**D. Contract.**

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

**E. Certifications.**

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

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

**F. Offer.**

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

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

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

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

As Offeror also agrees:

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

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

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

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

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

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

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

**CONTRACTOR**

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

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

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

\_\_\_\_\_  
Date

**G. Award.**

Your offer is hereby accepted.

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

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: David A. Cole, Commissioner

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

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

CONTRACT PERFORMANCE BOND  
(Surety Company Form)

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

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

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

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

WITNESSES:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly .....

Print Name Legibly .....

SURETY:

Signature .....

.....

Print Name Legibly .....

Print Name Legibly .....

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

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

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

TELEPHONE.....

.....

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

CONTRACT PAYMENT BOND  
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That \_\_\_\_\_  
\_\_\_\_\_ and the State of \_\_\_\_\_, as principal,  
and.....  
a corporation duly organized under the laws of the State of ..... and having a  
usual place of business in .....  
as Surety, are held and firmly bound unto the Treasurer of the State of Maine for the use  
and benefit of claimants as herein below defined, in the sum of  
\_\_\_\_\_ and 00/100 Dollars (\$ )  
**United States Currency** 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 .....

SURETY:

Signature.....

Print Name Legibly .....

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

..... ADDRESS .....

.....

TELEPHONE .....

State of Maine  
 Department of Labor  
 Bureau of Labor Standards  
 Technical Services Division  
 Augusta, Maine 04333-0045  
 Telephone (207) 624-6445

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

**Title of Project** ----- Calais/St Stephen Int'l Border Crossing, New Bridge Over St Croix River

**Location of Project** -- Calais, Maine in Washington County

**2006 Fair Minimum Wage Rates  
 Heavy & Bridge Washington 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>
Backhoe Loader Operator	\$15 25	\$1 47	\$16 72	Ironworker - Reinforcing	\$20 15	\$16 45	\$36 60
Boilermaker	\$18 75	\$3 57	\$22 32	Ironworker - Structural	\$18 50	\$3 97	\$22 47
Boom Truck Operator	\$16 00	\$3,52	\$19 52	Laborers/Helper/Tender	\$11 85	\$1 36	\$13 21
Bulldozer Operator	\$14 75	\$1 24	\$15 99	Laborer - Skilled	\$14 00	\$3 95	\$17 95
Cable Splicer	\$15 21	\$6 25	\$21 46	Line Erector, Power	\$20 00	\$3 48	\$23 48
Carpenter	\$18 00	\$3 54	\$21 54	Loader Op, Front-End	\$14 50	\$1 03	\$15 53
Carpenter - Rough	\$16 28	\$2 85	\$19 13	Mechanic - Maintenance	\$16 00	\$2 83	\$18 83
Cement Mason/Finisher	\$18 00	\$3 83	\$21 83	Millwright	\$19 50	\$5 78	\$25 28
Commun Equip Installer	\$20 32	\$2 93	\$23 25	Painter	\$12 00	\$5 69	\$17 69
Commun Trans Erectr	\$16 25	\$2 53	\$18 78	Pile Driver Operator	\$17 50	\$4 52	\$22 02
Crane Op =>15 Tons	\$20 00	\$4 66	\$24 66	Pipe/Stm/Sprkler Fitter	\$22 36	\$11 25	\$33 61
Crusher Plant Operator	\$13 38	\$1 51	\$14 89	Pipelayer	\$15 75	\$1 69	\$17 44
Driller - Rock	\$16 00	\$2 65	\$18 65	Pump Installer	\$14 84	\$2 54	\$17 38
Earth Auger Operator	\$16 13	\$5 59	\$21 72	Rigger	\$16 50	\$4 95	\$21 45
Electncian, Licensed	\$21 50	\$8 78	\$30 28	Roller Operator - Earth	\$13 50	\$5 15	\$18 65
Electrician Hlpr (Licensed)	\$14 00	\$2 79	\$16 79	Transfer Machine Op	\$16 25	\$3 61	\$19 86
Excavator Operator	\$16 65	\$2 98	\$19 63	Truck Driver - Light	\$13 00	\$0 67	\$13 67
Flagger	\$10 00	\$0 00	\$10 00	Truck Driver - Medium	\$12 53	\$1 81	\$14 34
Grader/Scraper Operator	\$16 25	\$2 41	\$18 66	Truck Driver, Heavy	\$11 75	\$0 70	\$12 45
Hgway Wrkr/Guardrail Inst	\$11 00	\$0 83	\$11 83	Truck Driver, Tractor Trlr	\$14 00	\$1 24	\$15 24
Hot Top Plant Operator	\$14 00	\$2 49	\$16 49				

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.

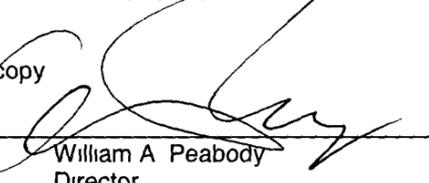
Welders are classified in the trade to which the welding is incidental.

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.

Posting of Schedule - Posting of this schedule is required in accordance with 26 MRSA §1301 et seq, by any contractor holding a State contract for construction valued at \$50,000 or more and any subcontractors to such a contractor.

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 with the Secretary of State.

Determination No      HB-007-2006  
 Filing Date            January 30, 2006  
 Expiration Date      12-31-2006

A true copy  
 Attest   
 William A. Peabody  
 Director  
 Bureau of Labor Standards

BLS 424HB (R2006) (Heavy & Bridge Washington)

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

A Construction Area located in the **City of CALAIS** 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 beginning Sta. 5+416 to Sta. 5+686 of the construction centerline, plus approaches.
- (b) Route 1 from Sta. 5+416 to Sta. 5+ 686 of the construction centerline, plus approaches.

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

- A. Must be procured from the municipal officers for a construction area within that municipality;*
- B. May require the contractor to be responsible for damage to ways used in the construction areas and may provide for:
  - (1) Withholding by the agency contracting the work of final payment under contract; or*
  - (2) The furnishing of a bond by the contractor to guarantee suitable repair or payment of damages.*

*The suitability of repairs or the amount of damage is to be determined by the Department of Transportation on state-maintained ways and bridges, otherwise by the municipal officers;**
- C. May be granted by the Department of Transportation or by the state engineer in charge of the construction contract; and*
- D. For construction areas, carries no fee and does not come within the scope of this section.”*

The Municipal Officers for the **City of CALAIS** 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.

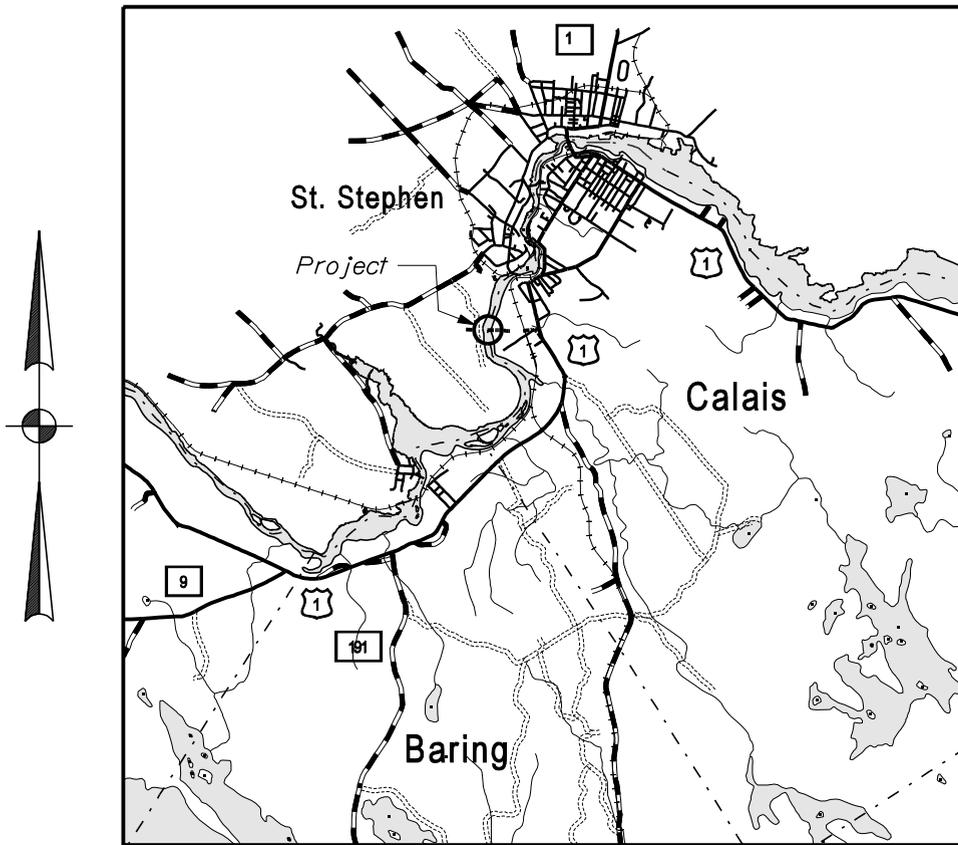
The maximum speed limits for trucks on any town way will be 25 mph (40 km per hour) unless a higher legal limit is specifically agreed upon in writing by the Municipal Officers concerned.

**PROJECT NO. NCPD/CBI-8483(360)X**

**PROJECT LENGTH 0.270 km**

**NEW BRIDGE CONSTRUCTION**

**BRIDGE NO. 6440**



LOCATION MAP



*Scale in Kilometers*

## STANDARD DETAIL UPDATES

Standard Details and Standard Detail updates are available at:

[http://www.maine.gov/mdot/contractor-consultant-information/ss\\_standard\\_details\\_updates.php](http://www.maine.gov/mdot/contractor-consultant-information/ss_standard_details_updates.php)

<b><u>Detail #</u></b>	<b><u>Description</u></b>	<b><u>Revision Date</u></b>
504(15)	Diaphragms	12/30/02
507(04)	Steel Bridge Railing	2/05/03
801(02)	Drives on Non-Sidewalk Sections	4/04/03
526(33)	Concrete Transition Barrier	8/18/03
645(06)	H-Beam Posts – Highway Signing	7/21/04
645(09)	Installation of Type II Signs	7/21/04
626(09)	Electrical Junction Box for Traffic Signals and Lighting	2/25/05
604(01)	Catch Basins	11/16/05
604(05)	Type “A” & “B” Catch Basin Tops	11/16/05
604(06)	Type “C” Catch Basin Tops	11/16/05
604(07)	Manhole Top “D”	11/16/05
604(09)	Catch Basin Type “E”	11/16/05
606(02)	Multiple Mailbox Support	11/16/05
606(07)	Reflectorized Beam Guardrail Delineator Details	11/16/05
609(06)	Vertical Bridge Curb	11/16/05
504(23)	Hand-Hold Details	12/08/05
609(03)	Curb Type 3	6/27/06
609(07)	Curb Type 1	6/27/06

## SUPPLEMENTAL SPECIFICATION

(Corrections, Additions, & Revisions to Standard Specifications - Revision of December 2002)

### SECTION 101

#### CONTRACT INTERPRETATION

##### 101.2 Definitions

Closeout Documentation Replace the sentence “A letter stating the amount.... DBE goals.” with “DBE Goal Attainment Verification Form”

Add “Environmental Information Hazardous waste assessments, dredge material test results, boring logs, geophysical studies, and other records and reports of the environmental conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

Add “Fabrication Engineer The Department’s representative responsible for Quality Assurance of pre-fabricated products that are produced off-site.”

Geotechnical Information Replace with the following: “Boring logs, soil reports, geotechnical design reports, ground penetrating radar evaluations, seismic refraction studies, and other records of subsurface conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

### SECTION 102

#### DELIVERY OF BIDS

102.7.1 Location and Time Add the following sentence “As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Agreement, Offer, & Award form, a Bid Bond or Bid Guarantee, and any other Certifications or Bid Requirements listed in the Bid Book.”

102.11.1 Non-curable Bid Defects Replace E. with “E. The unit price and bid amount is not provided or a lump sum price is not provided or is illegible as determined by the Department.”

### SECTION 103

#### AWARD AND CONTRACTING

103.3.1 Notice and Information Gathering Change the first paragraph to read as follows: “After Bid Opening and as a condition for Award of a Contract, the Department may require an Apparent Successful Bidder to demonstrate to the Department’s satisfaction that the Bidder is responsible and qualified to perform the Work.”

### SECTION 104

#### GENERAL RIGHTS AND RESPONSIBILITIES

104.3.14 Interpretation and Interpolation In the first sentence, change “...and Geotechnical Information.” to “...Environmental Information, and Geotechnical Information.”

Delete the entire Section 104.5.9 and replace with the following:

104.5.9 Landscape Subcontractors The Contractor shall retain only Landscape Subcontractors that are certified by the Department's Environmental Office Landscape Unit.

## SECTION 105 GENERAL SCOPE OF WORK

Delete the entire Section 105.6 and replace with the following:

105.6.1 Department Provided Services The Department will provide the Contractor with the description and coordinates of vertical and horizontal control points, set by the Department, within the Project Limits, for full construction Projects and other Projects where survey control is necessary. For Projects of 1,500 feet in length, or less: The Department will provide three points. For Projects between 1,500 and 5,000 feet in length: The Department will provide one set of two points at each end of the Project. For Projects in excess of 5,000 feet in length, the Department will provide one set of two points at each end of the Project, plus one additional set of two points for each mile of Project length. For non-full construction Projects and other Projects where survey control is not necessary, the Department will not set any control points and, therefore, will not provide description and coordinates of any control points. Upon request of the Contractor, the Department will provide the Department's survey data management software and Survey Manual to the Contractor, or its survey Subcontractor, for the exclusive use on the Department's Projects.

105.6.2 Contractor Provided Services Utilizing the survey information and points provided by the Department, described in Subsection 105.6.1, Department Provided Services, the Contractor shall provide all additional survey layout necessary to complete the Work. This may include, but not be limited to, reestablishing all points provided by the Department, establishing additional control points, running axis lines, providing layout and maintenance of all other lines, grades, or points, and survey quality control to ensure conformance with the Contract. The Contractor is also responsible for providing construction centerline, or close reference points, for all Utility Facilities relocations and adjustments as necessary to complete the Work. When the Work is to connect with existing Structures, the Contractor shall verify all dimensions before proceeding with the Work. The Contractor shall employ or retain competent engineering and/or surveying personnel to fulfill these responsibilities.

The Contractor must notify the Department of any errors or inconsistencies regarding the data and layout provided by the Department as provided by Section 104.3.3 - Duty to Notify Department If Ambiguities Discovered.

105.6.2.1 Survey Quality Control The Contractor is responsible for all construction survey quality control. Construction survey quality control is generally defined as, first, performing initial field survey layout of the Work and, second, performing an independent check of the initial layout using independent survey data to assure the accuracy of the initial layout; additional iterations of checks may be required if significant discrepancies are discovered in this process. Construction survey layout quality control also requires written documentation of the layout process such that the process can be followed and repeated, if necessary, by an independent survey crew.

105.6.3 Survey Quality Assurance It is the Department's prerogative to perform construction survey quality assurance. Construction survey quality assurance may, or may not, be performed by the Department. Construction survey quality assurance is generally defined as an independent check of the construction survey quality control. The construction survey quality assurance process may involve physically checking the Contractor's construction survey layout using independent survey data, or may simply involve reviewing the construction survey quality control written documentation. If the Department elects to physically check the Contractor's survey layout, the Contractor's designated surveyor may be required to be present. The Department will provide a minimum notice of 48 hours to the Contractor, whenever possible, if the Contractor's designated surveyor's presence is required. Any errors discovered through the quality assurance process shall be corrected by the Contractor, at no additional cost to the Department.

105.6.4 Boundary Markers The Contractor shall preserve and protect from damage all monuments or other points that mark the boundaries of the Right-of-Way or abutting parcels that are outside the area that must be disturbed to perform the Work. The Contractor indemnifies and holds harmless the Department from all claims to reestablish the former location of all such monuments or points including claims arising from 14 MRSA § 7554-A. For a related provision, see Section 104.3.11 - Responsibility for Property of Others.

## SECTION 106 QUALITY

106.6 Acceptance Add the following to paragraph 1 of A: "This includes Sections 401 - Hot Mix Asphalt, 402 - Pavement Smoothness, and 502 - Structural Concrete - Method A - Air Content."

Add the following to the beginning of paragraph 3 of A: "For pay factors based on Quality Level Analysis, and"

## SECTION 107 TIME

107.3.1 General Add the following: "If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. Sunday or Holiday work must be approved by the Department, except that the Contractor may work on Martin Luther King Day, President's Day, Patriot's Day, the Friday after Thanksgiving, and Columbus Day without the Department's approval."

107.7.2 Schedule of Liquidated Damages Replace the table of Liquidated Damages as follows:

<u>From</u> <u>More Than</u>	<u>Up to and</u> <u>Including</u>	<u>Amount of Liquidated</u> <u>Damages per Calendar Day</u>
\$0	\$100,000	\$100
\$100,000	\$300,000	\$200
\$300,000	\$500,000	\$400
\$500,000	\$1,000,000	\$575
\$1,000,000	\$2,000,000	\$750
\$2,000,000	\$4,000,000	\$900
\$4,000,000	and more	\$1,875

SECTION 108  
PAYMENT

108.4 Payment for Materials Obtained and Stored First paragraph, second sentence, delete the words "...Delivered on or near the Work site at acceptable storage places."

SECTION 109  
CHANGES

109.1.1 Changes Permitted Add the following to the end of the paragraph: "There will be no adjustment to Contract Time due to an increase or decrease in quantities, compared to those estimated, except as addressed through Contract Modification(s)."

109.1.2 Substantial Changes to Major Items Add the following to the end of the paragraph: "Contract Time adjustments may be made for substantial changes to Major Items when the change affects the Critical Path, as determined by the Department"

109.4.4 Investigation / Adjustment Third sentence, delete the words "subsections (A) - (E)"

109.5.1 Definitions - Types of Delays

B. Compensable Delay Replace (1) with the following; "a weather related Uncontrollable Event of such an unusually severe nature that a Federal Emergency Disaster is declared. The Contractor will only be entitled to an Equitable Adjustment if the Project falls within the geographic boundaries prescribed under the disaster declaration."

109.7.2 Basis of Payment Replace with the following: "Equitable Adjustments will be established by mutual Agreement for compensable items listed in Section 109.7.3- Compensable Items, based upon Unit or Lump Sum Prices. If Agreement cannot be reached, the Contractor shall accept payment on a Force Account basis as provided in Section 109.7.5 - Force Account Work, as full and complete compensation for all Work relating to the Equitable Adjustment."

109.7.3 Compensable Items Replace with the following: "The Contractor is entitled to compensation for the following items, with respect to agreed upon Unit or Lump Sum Prices:

1. Labor expenses for non-salaried Workers and salaried foremen.
2. Costs for Materials.
3. A 15 % markup on the totals of Items 1 and 2 of this subsection 109.7.3 for home office overhead and profit of the Contractor, its Subcontractors and suppliers, and any lower tier Subcontractors or suppliers, with no mark-ups on mark-ups.
4. Cost for Equipment, based on Blue Book Rates or leased rates, as set forth in Section 109.7.5(C), or the Contractor's Actual Costs if determined by the Department to be lower.
5. Costs for extended job-site overhead.

6. Time.
7. Subcontractor quoted Work, as set forth below in Section 109.7.5 (F).”

#### 109.7.5 Force Account Work

##### C. Equipment

Paragraph 2, delete sentence 1 which starts; “Equipment leased....”

Paragraph 6, change sentence 2 from “The Contractor may furnish...” to read “If requested by the Department, the Contractor will produce cost data to assist the Department in the establishment of such rental rate, including all records that are relevant to the Actual Costs including rental Receipts, acquisition costs, financing documents, lease Agreements, and maintenance and operational cost records.”

Add the following paragraph; “Equipment leased by the Contractor for Force Account Work and actually used on the Project will be paid for at the actual invoice amount plus 10% markup for administrative costs.”

Add the following section;

“F. Subcontractor Quoted Work When accomplishing Force Account Work that utilizes Subcontractors, the Contractor will be allowed a maximum markup of 5% for profit and overhead on the Subcontractor’s portion of the Force Account Work.”

### SECTION 110 INDEMNIFICATION, BONDING, AND INSURANCE

Delete the entire Section 110.2.3 and replace with the following:

110.2.3 Bonding for Landscape Establishment Period The Contractor shall provide a signed, valid, and enforceable Performance, Warranty, or Maintenance Bond complying with the Contract, to the Department at Final Acceptance.

The bond shall be in the full amount for all Pay Items for work pursuant to Sec 621, Landscape, payable to the “Treasurer - State of Maine,” and on the Department’s forms, on exact copies thereof, or on forms that do not contain any significant variations from the Department’s forms as solely determined by the Department.

The Contractor shall pay all premiums and take all other actions necessary to keep said bond in effect for the duration of the Landscape Establishment Period described in Special Provision 621.0036 - Establishment Period. If the Surety becomes financially insolvent, ceases to be licensed or approved to do business in the State of Maine, or stops operating in the United States, the Contractor shall file new bonds complying with this Section within 10 Days of the date the Contractor is notified or becomes aware of such change.

All Bonds shall be procured from a company organized and operating in the United States, licensed or approved to do business in the State of Maine by the State of Maine Department of Business Regulation, Bureau of Insurance, and listed on the latest Federal Department of the Treasury listing for “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies.”

By issuing a bond, the Surety agrees to be bound by all terms of the Contract, including those related to payment, time for performance, quality, warranties, and the Department’s self-help remedy provided in Section 112.1 - Default to the same extent as if all terms of the Contract are contained in the bond(s).

Regarding claims related to any obligations covered by the bond, the Surety shall provide, within 60 Days of Receipt of written notice thereof, full payment of the entire claim or written notice of all bases upon which it is denying or contesting payment. Failure of the Surety to provide such notice within the 60-day period constitutes the Surety’s waiver of any right to deny or contest payment and the Surety’s acknowledgment that the claim is valid and undisputed.

## SECTION 202 REMOVING STRUCTURES AND OBSTRUCTIONS

202.02 Removing Buildings Make the following change to the last sentence in the final paragraph, change “...Code of Maine Regulations 401.” to “...Department of Environmental Protection Maine Solid Waste Management Rules, 06-096 CMR Ch. 401, Landfill Siting, Design and Operation.”

## SECTION 203 EXCAVATION AND EMBANKMENT

203.01 Description Under b. Rock Excavation; add the following sentence: “The use of perchlorate is not allowed in blasting operations.”

## SECTION 401 HOT MIX ASPHALT PAVEMENT

401.18 Quality Control Method A & B Make the following change to paragraph a. QCP Administrator; in the final sentence, change “...certified as a Plant Technician or Paving Inspector...” to “...certified as a Quality Assurance Technologist...”

401.201 Method A Under a. Lot Size, add the following; “Each lot will be divided into a minimum of four sublots for mix properties and five sublots for percent TMD.”

401.203 Method C Second paragraph, fourth sentence, change “...Method B and C Acceptance...” to “...Method B and C Acceptance Limits, Method C the Department will pay the contract unit price. If the test results for each 250 Mg [275 ton] increment are outside these limits, the following deductions (Table 7b) shall...”

SECTION 402  
PAVEMENT SMOOTHNESS

Add the following: “Projects to have their pavement smoothness analyzed in accordance with this Specification will be so noted in Special Provision 403 - Bituminous Box.”

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

SECTION 502  
STRUCTURAL CONCRETE

502.05 Composition and Proportioning; TABLE #1; NOTE #2; third sentence; Change “...alcohol based saline sealer...” to “alcohol based silane sealer...”. Add NOTE #6 to Class S Concrete.

502.0502 Quality Assurance Method A - Rejection by Resident Change the first sentence to read: “For an individual subplot with test results failing to meet the criteria in Table #1, or if the calculated pay factor for Air Content is less than 0.80.....”

502.0503 Quality Assurance Method B - Rejection by Resident Change the first sentence to read: “For material represented by a verification test with test results failing to meet the criteria in Table #1, the Department will.....”

502.0505 Resolution of Disputed Acceptance Test Results Combine the second and third sentence to read: “Circumstances may arise, however, where the Department may .....”

502.10 Forms and False work

D. Removal of Forms and False work 1., First paragraph; first, second, and third sentence; replace “forms” with “forms and false work”

502.11 Placing Concrete

G. Concrete Wearing Surface and Structural Slabs on Precast Superstructures Last paragraph; third sentence; replace “The temperature of the concrete shall not exceed 24° C [75° F] at the time of placement.” with “The temperature of the concrete shall not exceed 24° C [75° F] at the time the concrete is placed in its final position.”

502.15 Curing Concrete First paragraph; replace the first sentence with the following; “All concrete surfaces shall be kept wet with clean, fresh water for a curing period of at least 7 days after concrete placing, with the exception of vertical surfaces as provided for in Section 501.10 (D) - Removal of Forms and False work.”

Second paragraph; delete the first two sentences.

Third paragraph; delete the entire paragraph which starts “When the ambient temperature....”

Fourth paragraph; delete “approved” to now read “...continuously wet for the entire curing period...”

Fifth paragraph; second sentence; change “...as soon as it is possible to do so without damaging the concrete surface.” to “...as soon as possible.”

Seventh paragraph; first sentence; change “...until the end of the curing period.” to “...until the end of the curing period, except as provided for in Section 502.10(D) - Removal of Forms and False work.”

502.19 Basis of Payment First paragraph, second sentence; add "pier nose armor" to the list of items included in the contract price for concrete.

## SECTION 503 REINFORCING STEEL

503.06 Placing and Fastening Change the second paragraph, first sentence from: “All tack welding shall be done in accordance with Section 504, Structural Steel.” to “All tack welding shall be done in accordance with AWS D1.4 Structural Welding Code - Reinforcing Steel.”

## SECTION 504 STRUCTURAL STEEL

504.09 Facilities for Inspection Add the follow as the last paragraph: “Failure to comply with the above requirements will be consider to be a denial to allow access to work by the Contractor. The Department will reject any work done when access for inspection is denied.”

504.18 Plates for Fabricated Members Change the second paragraph, first sentence from: “...ASTM A 898/A 898 M...” to “...ASTM A 898/A 898 M or ASTM A 435/A 435 M as applicable and...”

504.31 Shop Assembly Add the following as the last sentence: “The minimum assembly length shall include bearing centerlines of at least two substructure units.”

504.64 Non Destructive Testing-Ancillary Bridge Products and Support Structures Change the third paragraph, first sentence from “One hundred percent...” to “Twenty five percent...”

## SECTION 535 PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.02 Materials Change “Steel Strand for Concrete Reinforcement” to “Steel Strand.” Add the following to the beginning of the third paragraph; “Concrete shall be Class P conforming to the requirements in this section. 28 day compressive strength shall be as stated on the plans. Coarse aggregate....”

535.05 Inspection Facilities Add the follow as the last paragraph: “Failure to comply with the above requirements will be consider to be a denial to allow access to work by the Contractor. The Department will reject any work done when access for inspection is denied.”

535.26 Lateral Post-Tensioning Replace the first paragraph; “A final tension...” with “Overstressing strands for setting losses cannot be accomplished for chuck to chuck lengths of 7.6 m [25 ft] and less. In such instances, refer to the Plans for all materials and methods. Otherwise, post-tensioning shall be in accordance with PCI standards and shall provide the anchorage force noted in the Plans. The applied jacking force shall be no less than 100% of the design jacking force.”

### SECTION 603

#### PIPE CULVERTS AND STORM DRAINS

603.0311 Corrugated Polyethylene Pipe for Option III Replace the Minimum Mandrel Diameter Table with the following:

Nominal Size US Customary (in)	Minimum Mandrel Diameter (in)	Nominal Size Metric (mm)	Minimum Mandrel Diameter (mm)
12	11.23	300	280.73
15	14.04	375	350.91
18	16.84	450	421.09
24	22.46	600	561.45
30	28.07	750	701.81
36	33.69	900	842.18
42	39.30	1050	982.54
48	44.92	1200	1122.90

### SECTION 604

#### MANHOLES, INLETS, AND CATCH BASINS

604.02 Materials Add the following:

“Tops and Traps	712.07
Corrugated Metal Units	712.08
Catch Basin and Manhole Steps	712.09”

### SECTION 605

#### UNDERDRAINS

605.05 Underdrain Outlets Make the following change:

In the first paragraph, second sentence, delete the words “metal pipe”.

### SECTION 606

#### GUARDRAIL

606.02 Materials Delete the entire paragraph which reads “The sole patented supplier of multiple mailbox...” and replace with “Acceptable multiple mailbox assemblies shall be listed on the Department’s Approved Products List and shall be NCHRP 350 tested and approved.”

Delete the entire paragraph which reads “Retroreflective beam guardrail delineators...” and replace with “Reflectorized sheeting for Guardrail Delineators shall meet the requirements of Section 719.01 - Reflective Sheeting. Delineators shall be fabricated from high-impact, ultraviolet and weather resistant thermoplastic.

606.09 Basis of Payment First paragraph; delete the second and third sentence in their entirety and replace with “Butterfly-type guardrail reflectorized delineators shall be mounted on all W-beam guardrail at an interval of every 10 posts [62.5 ft] on tangents sections and every 5 posts [31.25 ft] on curved sections as directed by the Resident. On divided highways, the delineators shall be yellow on the left hand side and silver/white on the right hand side. On two-way roadways, the delineators shall be silver/white on the right hand side. All delineators shall have retroreflective sheeting applied to only the traffic facing side. Reflectorized guardrail delineators will not be paid for directly, but will be considered incidental to the guardrail items.”

## SECTION 609 CURB

| 609.04 Bituminous Curb f., Delete the requirement “Color Natural (White)” |

## SECTION 615 LOAM

615.02 Materials Make the following change:

<u>Organic Content</u>	<u>Percent by Volume</u>
Humus	“5% - 10%”, as determined by Ignition Test

## SECTION 618 SEEDING

618.01 Description Change the first sentence to read as follows: “This work shall consist of furnishing and applying seed .....” Also remove “,and cellulose fiber mulch” from 618.01(a).

618.03 Rates of Application In 618.03(a), remove the last sentence and replace with the following: “These rates shall apply to Seeding Method 2, 3, and Crown Vetch.”

In 618.03(c) “1.8 kg [4 lb]/unit.” to “1.95 kg [4 lb]/unit.”

618.09 Construction Method In 618.09(a) 1, sentence two, replace “100 mm [4 in]” with “25 mm [1 in] (Method 1 areas) and 50 mm [2 in] (Method 2 areas)”

618.15 Temporary Seeding Change the Pay Unit from Unit to Kg [lb].

SECTION 620  
GEOTEXTILES

620.03 Placement Section (c)

Title: Replace “Non-woven” in title with “Erosion Control”.

First Paragraph: Replace first word “Non-woven” with “Woven monofilament”.

Second Paragraph: Replace second word “Non-woven” with “Erosion Control”.

620.07 Shipment, Storage, Protection and Repair of Fabric Section (a)

Replace the second sentence with the following: “Damaged geotextiles, as identified by the Resident, shall be repaired immediately.”

620.09 Basis of Payment

Pay Item 620.58: Replace “Non-woven” with “Erosion Control”

Pay Item 620.59: Replace “Non-woven” with “Erosion Control”

SECTION 621  
LANDSCAPING

621.0036 Establishment Period In paragraph 4 and 5, change “time of Final Acceptance” to “end of the period of establishment”. In Paragraph 7, change “Final Acceptance date” to “end of the period of establishment” and change “date of Final Acceptance” to “end of the period of establishment”.

SECTION 626  
HIGHWAY SIGNING

626.034 Concrete Foundations Add to the following to the end of the second paragraph: “Pre-cast and cast-in-place foundations shall be warranted against leaning and corrosion for two years after the project is completed. If the lean is greater than 2 degrees from normal or the foundation is spalling within the first two years, the Contractor shall replace the foundation at no extra cost.”

SECTION 627  
PAVEMENT MARKINGS

627.10 Basis of Payment Add to the following to the end of the third paragraph: “If allowed by Special Provision, the Contractor may utilize Temporary Bi-Directional Yellow and White(As required) Delineators as temporary pavement marking lines and paid for at the contract lump sum price. Such payment will include as many applications as required and removal.”

SECTION 637  
DUST CONTROL

637.06 Basis of Payment Add the following after the second sentence of the third paragraph: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 637

and/or the Contractor's own Soil Erosion and Pollution Control Plan concerning Dust Control and/or the Contractor's own Traffic Control Plan concerning Dust Control and/or visible evidence of excessive dust problems, as determined by the Resident, will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department's Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Additional penalties may also be assessed in accordance with Special Provision 652 - Work Zone Traffic Control and Standard Specification 656 - Temporary Soil Erosion and Water Pollution Control."

## SECTION 639 ENGINEERING FACILITIES

639.04 Field Offices Change the forth to last paragraph from: "The Contractor shall provide a fully functional desktop copier..." to "...desktop copier/scanner..."

## SECTION 652 MAINTENANCE OF TRAFFIC

652.2.3 Flashing Arrow Board Delete the existing 5 paragraphs and replace with the following: Flashing Arrow Panels (FAP) must be of a type that has been submitted to AASHTO's National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations' Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels.

FAP units shall meet requirements of the current Manual on Uniform Traffic Control Devices (MUTCD) for Type "C" panels as described in Section 6F.56 - Temporary Traffic Control Devices. An FAP shall have matrix of a minimum of 15 low-glare, sealed beam, Par 46 elements capable of either flashing or sequential displays as well as the various operating modes as described in the MUTCD, Chapter 6-F. If an FAP consisting of a bulb matrix is used, each element should be recess-mounted or equipped with an upper hood of not less than 180 degrees. The color presented by the elements shall be yellow.

FAP elements shall be capable of at least a 50 percent dimming from full brilliance. Full brilliance should be used for daytime operation and the dimmed mode shall be used for nighttime operation. FAP shall be at least 2.4 M x 1.2 M [96" x 48"] and finished in non-reflective black. The FAP shall be interpretable for a distance not less than 1.6 km [1 mile].

Operating modes shall include, flashing arrow, sequential arrow, sequential chevron, flashing double arrow, and flashing caution. In the three arrow signals, the second light from the arrow point shall not operate.

The minimum element on-time shall be 50 percent for the flashing mode, with equal intervals of 25 percent for each sequential phase. The flashing rate shall be not less than 25 nor more than 40 flashes per minute. All on-board circuitry shall be solid state.

Primary power source shall be 12 volt solar with a battery back-up to provide continuous

operation when failure of the primary power source occurs, up to 30 days with fully charged batteries. Batteries must be capable of being charged from an onboard 110 volt AC power source and the unit shall be equipped with a cable for this purpose.

Controller and battery compartments shall be enclosed in lockable, weather-tight boxes.

The FAP shall be mounted on a pneumatic-tired trailer or other suitable support for hauling to various locations, as directed. The minimum mounting height of an arrow panel should be 2.1 M [7 feet] from the roadway to the bottom of the panel.

The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers.

A portable changeable message sign may be used to simulate an arrow panel display.”

652.2.4 Other Devices Delete the last paragraph and add the following:

“652.2.5 Portable Changeable Message Sign Trailer mounted Portable Changeable Message Signs (PCMS) must be of a type that has been submitted to AASHTO’s National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations’ Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels. The PCMS unit shall meet or exceed the current specifications of the Manual on Uniform Traffic Control Devices (MUTCD), 6F.55.

The front face of the sign should be covered with a low-glare protective material. The color of the LED elements shall be amber on a black background. The PCMS should be visible from a distance of 0.8 km [0.5 mile] day and night and have a minimum 15° viewing angle. Characters must be legible from a distance of at least 200 M [650 feet].

The message panel should have adjustable display rates (minimum of 3 seconds per phase), so that the entire message can be read at least twice at the posted speed, the off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed. Each message shall consist of either one or two phases. A phase shall consist of up to eight characters per line. The unit must be capable of displaying at least three lines of text with eight characters per line. Each character shall be 457 mm [18”] high. Each character module shall use at least a five wide and seven high pixel matrix. The text of the messages shall not scroll or travel horizontally or vertically across the face of the sign.

Units shall automatically adjust their brightness under varying light conditions to maintain legibility.

The control system shall include a display screen upon which messages can be reviewed before being displayed on the message sign. The control system shall be capable of maintaining memory when power is unavailable. Message must be changeable with either a notebook computer or an on-board keypad. The controller shall have the capability to store a minimum of 200 user-defined and 200 pre-programmed messages. Controller and battery compartments shall be enclosed in lockable, weather-tight boxes.

PCMS units shall have the capability of being made programmable by means of wireless communications. PCMS units shall also be fully capable of having an on-board radar system installed if required for a particular application.

PCMS' primary power source shall be solar with a battery back-up to provide continuous operation when failure of the primary power source occurs. Batteries must be capable of being charged from a 110 volt AC power source. The unit must also be capable of being operated solely from a 110 volt AC power source and be equipped with a cable for this purpose.

The PCMS shall be mounted on a trailer in such a way that the bottom of the message sign panel shall be a minimum of 2.1 M [7 ft] above the roadway in urban areas and 1.5 M [5 ft] above the roadway in rural areas when it is in the operating mode. PCMS trailers should be of a heavy duty type with a 51 mm [2"] ball hitch and a minimum of four leveling jacks (at each corner). The sign shall be capable of being rotated 360° relative to the trailer. The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers."

652.3.3 Submittal of Traffic Control Plan In item e. change "A list of all certified flaggers..." to "A list of all the Contractor's certified flaggers..."

In the last paragraph add the following as the second sentence: "The Department will review and provide comments to the Contractor within 14 days of receipt of the TCP."

652.3.5 Installation of Traffic Control Devices In the first paragraph, first sentence; change "Signs shall be erected..." to "Portable signs shall be erected.." In the third sentence; change "Signs must be erected so that the sign face..." to "Post-mounted signs must also be erected so that the sign face..."

652.4 Flaggers Replace the first paragraph with the following; "The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer. Flaggers shall wear safety apparel meeting ANSI 107-1999 Class 2 risk exposure and clearly identify the wearer as a person, shall be visible at a minimum distance of 300 m [1000 ft], and shall wear a hardhat with retroreflectivity. For nighttime conditions, Class 3 apparel should be considered, retroreflective or flashing SLOW/STOP paddles shall be used, and except in emergency situations the flagger station shall be illuminated to assure visibility."

Second paragraph, first sentence; change "...have sufficient distance to stop before entering the workspace." to "...have sufficient distance to stop at the intended stopping point." Third sentence; change "At a spot obstruction..." to "At a spot obstruction with adequate sight distance,..."

Fourth paragraph, delete and replace with "Flaggers shall be provided as a minimum, a 10 minute break, every 2 hours and a 30 minute or longer lunch period away from the work station. Flaggers may only receive 1 unpaid break per day; all other breaks must be paid."

Sufficient certified flaggers shall be available onsite to provide for continuous flagging operations during break periods. Breaker flaggers will not be paid for separately, but shall be considered incidental to the appropriate pay item.”

652.8.2 Other Items Replace the last paragraph with the following: “There will be no payment made under any 652 pay items after the expiration of the adjusted total contract time.”

### SECTION 653 POLYSTYRENE PLASTIC INSULATION

653.05 Placing Backfill In the second sentence; change “...shall be not less than 150 mm [6 in] loose measure.” to “...shall be not less than 250 mm [10 in] loose measure.” In the third sentence; change “...crawler type bulldozer of not more than 390 kg/m<sup>2</sup> [80 lb/ft<sup>2</sup>] ground contact pressure...” to “...crawler type bulldozer of not more than 4875 kg/m<sup>2</sup> [2000 lb/ft<sup>2</sup>] ground contact pressure...”

653.06 Compaction In the last sentence; change “...not more than 390 kg/m<sup>2</sup> [80 lb/ft<sup>2</sup>] ground contact...” to “...not more than 4875 kg/m<sup>2</sup> [2000 lb/ft<sup>2</sup>] ground contact...”

### SECTION 656 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

656.5.1 If Pay Item 656.75 Provided Replace the second paragraph with the following: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 656 and/or the Contractor’s own Soil Erosion and Pollution Control Plan will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department’s Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item.”

### SECTION 701 STRUCTURAL CONCRETE RELATED MATERIALS

701.10 Fly Ash - Chemical Requirements Change all references from “ASTM C311” to “ASTM C114”.

### SECTION 703 AGGREGATES

703.05 Aggregate for Sand Leveling Change the percent passing the 9.5 mm [3/8 in] sieve from “85 – 10” to “85 – 100”

703.06 Aggregate for Base and Subbase Delete the first paragraph: “The material shall have...” and replace with “The material shall have a minimum degradation value of 15 as determined by Washington State DOT Test Method T113, Method of Test for Determination of Degradation Value (March 2002 version), except that the reported degradation value will be

the result of testing a single specimen from that portion of a sample that passes the 12.5 mm [½ in] sieve and is retained on the 2.00 mm [No. 10] sieve, minus any reclaimed asphalt pavement used."

703.07 Aggregates for HMA Pavements Delete the forth paragraph: "The composite blend shall have..." and replace with "The composite blend, minus any reclaimed asphalt pavement used, shall have a Micro-Deval value of 18.0 or less as determined by AASHTO T 327. In the event the material exceeds the Micro Deval limit, a Washington Degradation test shall be performed. The material shall be acceptable if it has a value of 30 or more as determined by Washington State DOT Test Method T 113, Method of Test for Determination of Degradation Value (March 2002 version) except that the reported degradation value will be the result of testing a single composite specimen from that portion of the sample that passes the 12.5mm [1/2 inch] sieve and is retained on the 2.00mm [No 10] sieve, minus any reclaimed asphalt pavement used."

703.18 Common Borrow Replace the first paragraph with the following: "Common borrow shall consist of earth, suitable for embankment construction. It shall be free from frozen material, perishable rubbish, peat, and other unsuitable material including material currently or previously contaminated by chemical, radiological, or biological agents unless the material is from a DOT project and authorized by DEP for use."

703.22 Underdrain Backfill Material Change the first paragraph from "...for Underdrain Type B..." to "...for Underdrain Type B and C..."

## SECTION 706 NON-METALLIC PIPE

706.06 Corrugated Polyethylene Pipe for Underdrain, Option I and Option III Culvert Pipe Change the first sentence from "...300 mm diameters to 900 mm" to "...300 mm diameters to 1200 mm" Delete, in it's entirety, the last sentence which begins "This pipe and resins..." and replace with the following; "The manufacturing plants of polyethylene pipe shall be certified by the Eastern States Consortium. Polyethylene pipe shall be accepted based on third party certification by the AASHTO's National Transportation Product Evaluation Program."

## SECTION 709 REINFORCING STEEL AND WELDED STEEL WIRE FABIC

709.03 Steel Strand Change the second paragraph from "...shall be 12mm [½ inch] AASHTO M203M/M203 (ASTM A416/A416M)..." to "...shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)..."

## SECTION 710 FENCE AND GUARDRAIL

710.03 Chain Link Fabric Add the following sentence: "Chain Link fabric for PVC coated shall conform to the requirements of AASHTO M181, Type IV-Class B."

710.07 Guardrail Posts Section b. change "...AASHTO M183/M183M..." to "...AASHTO M 270M/M 270 Grade 250 (36)..."

## SECTION 712 MISCELLANEOUS HIGHWAY MATERIALS

712.06 Precast Concrete Units In the first paragraph, change "...ASTM C478M..." to "...AASHTO M199..." Delete the second paragraph and replace with the following; "Approved structural fibers may be used as a replacement of 6 x 6 #10 gauge welded wire fabric when used at an approved dosage rate for the construction of manhole and catch basin units. The material used shall be one of the products listed on the Maine Department of Transportation's Approved Product List of Structural Fiber Reinforcement." Delete the fifth paragraph and replace with the following; "The concrete mix design shall be approved by the Department. Concrete shall contain 6% air content, plus or minus 1½% tolerance when tested according to AASHTO T152. All concrete shall develop a minimum compressive strength of 28 MPa [4000 psi] in 28 days when tested according to AASHTO T22. The absorption of a specimen, when tested according to AASHTO T280, Test Method "A", shall not exceed nine percent of the dry mass."

Add the following:

"712.07 Tops, and Traps These metal units shall conform to the plan dimensions and to the following specification requirements for the designated materials.

Gray iron or ductile iron castings shall conform to the requirements of AASHTO M306 unless otherwise designated.

712.08 Corrugated Metal Units The units shall conform to plan dimensions and the metal to AASHTO M36/M36M. Bituminous coating, when specified, shall conform to AASHTO M190 Type A.

712.09 Catch Basin and Manhole Steps Steps for catch basins and for manholes shall conform to ASTM C478M [ASTM C478], Section 13 for either of the following material:

- (a) Aluminum steps-ASTM B221M, [ASTM B211] Alloy 6061-T6 or 6005-T5.
- (b) Reinforced plastic steps Steel reinforcing bar with injection molded plastic coating copolymer polypropylene. Polypropylene shall conform to ASTM D 4101.

712.23 Flashing Lights Flashing Lights shall be power operated or battery operated as specified.

- (a) Power operated flashing lights shall consist of housing, adapters, lamps, sockets, reflectors, lens, hoods and other necessary equipment designed to give clearly visible signal indications within an angle of at least 45 degrees and from 3 to 90 m [10 to 300 ft] under all light and atmospheric conditions.

Two circuit flasher controllers with a two-circuit filter capable of providing alternate flashing operations at the rate of not less than 50 nor more than 60 flashes per minute shall be provided.

The lamps shall be 650 lumens, 120 volt traffic signal lamps with sockets constructed to properly focus and hold the lamp firmly in position.

The housing shall have a rotatable sun visor not less than 175 mm [7 in] in length designed to shield the lens.

Reflectors shall be of such design that light from a properly focused lamp will reflect the light rays parallel. Reflectors shall have a maximum diameter at the point of contact with the lens of approximately 200 mm [8 in].

The lens shall consist of a round one-piece convex amber material which, when mounted, shall have a visible diameter of approximately 200 mm [8 in]. They shall distribute light and not diffuse it. The distribution of the light shall be asymmetrical in a downward direction. The light distribution of the lens shall not be uniform, but shall consist of a small high intensity portion with narrow distribution for long distance throw and a larger low intensity portion with wide distribution for short distance throw. Lenses shall be marked to indicate the top and bottom of the lens.

(b) Battery operated flashing lights shall be self-illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A locking device must secure the case. The light shall have a flash rate of not less than 50 nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [½ in] minimum width around the periphery. The lens shall be yellow in color and have a minimum relative luminous transmittance of 0.440 with a luminance of 2854° Kelvin. The lens shall be one-piece construction. The lens material shall be plastic and meet the luminous transmission requirements of this specification. The case containing the batteries and circuitry shall be constructed of a material capable of withstanding abuse equal to or greater than 1.21 mm thick steel [No. 18 U.S. Standard Gage Steel]. The housing and the lens frame, if of metal shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry shall completely obscure the metal. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint will not chip or crack and if scratched with a knife will not powder. The case shall be so constructed and closed as to exclude moisture that would affect the proper operation of light. The

case shall have a weep hole to allow the escape of moisture from condensation. Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 lx [20 foot candles]. Each light shall be plainly marked as to the manufacturer's name and model number.

If required by the Resident, certification as to conformance to these specifications shall be furnished based on results of tests made by an independent testing laboratory. All lights are subject to random inspection and testing. All necessary random samples shall be provided to the Resident upon request without cost to the Department. All such samples shall be returned to the Contractor upon completion of the tests.

712.32 Copper Tubing Copper tubing and fittings shall conform to the requirements of ASTM B88M Type A [ASTM B88, Type K] or better.

712.33 Non-metallic Pipe, Flexible Non-metallic pipe and pipe fittings shall be acceptable flexible pipe manufactured from virgin polyethylene polymer suitable for transmitting liquids intended for human or animal consumption.

712.34 Non-metallic Pipe, Rigid Non-metallic pipe shall be Schedule 40 polyvinylchloride (PVC) that meets the requirement of ASTM D1785. Fittings shall be of the same material.

712.341 Metallic Pipe Metallic pipe shall be ANSI, Standard B36.10, Schedule 40 steel pipe conforming to the requirements of ASTM A53 Types E or S, Grade B. End plates shall be steel conforming to ASTM A36/A36M.

Both the sleeve and end plates shall be hot dip galvanized. Pipe sleeve splices shall be welded splices with full penetration weld before galvanizing.

712.35 Epoxy Resin Epoxy resin for grouting or sealing shall consist of a mineral filled thixotropic, flexible epoxy resin having a pot life of approximately one hour at 10°C [50°F]. The grout shall be an approved product suitable for cementing steel dowels into the preformed holes of curb inlets and adjacent curbing. The sealant shall be an approved product, light gray in color and suitable for coating the surface.

712.36 Bituminous Curb The asphalt cement for bituminous curb shall be of the grade required for the wearing course, or shall be Viscosity Grade AC-20 meeting the current requirements of Subsection 702.01 Asphalt Cement. The aggregate shall conform to the requirements of Subsection 703.07. The coarse aggregate portion retained on the 2.36 mm [No. 8] sieve may be either crushed rock or crushed gravel.

The mineral constituents of the bituminous mixture shall be sized and graded and combined in a composite blend that will produce a stable durable curbing with an acceptable texture. Bituminous material for curb shall meet the requirements of Section 403 - Hot Bituminous Pavement.

712.37 Precast Concrete Slab Portland cement concrete for precast slabs shall meet the requirements of Section 502 - Structural Concrete, Class A.

The slabs shall be precast to the dimension shown on the plans and cross section and in accordance with the Standard Detail plans for Concrete Sidewalk Slab. The surface shall be finished with a float finish in accordance with Subsection 502.14(c). Lift devices of sufficient strength to hold the slab while suspended from cables shall be cast into the top or back of the slab.

712.38 Stone Slab Stone slabs shall be of granite from an acceptable source, hard, durable, predominantly gray in color, free from seams which impair the structural integrity and be of smooth splitting character. Natural color variations characteristic of the deposit will be permitted. Exposed surfaces shall be free from drill holes or indications of drill holes. The granite slabs in any one section of backslope must be all the same finish.

The granite slabs shall be scabble dressed or sawed to an approximately true plane having no projections or depressions over 13 mm [ $\frac{1}{2}$  in] under a 600 mm [2 ft] straightedge or over 25 mm [1 in] under a 1200 mm [4 ft] straightedge. The arris at the intersection of the top surface and exposed front face shall be pitched so that the arris line is uniform throughout the length of the installed slabs. The sides shall be square to the exposed face unless the slabs are to be set on a radius or other special condition which requires that the joints be cut to fit, but in any case shall be so finished that when the stones are placed side by side no space more than 20 mm [ $\frac{3}{4}$  in] shall show in the joint for the full exposed height.

Liftpin holes in all sides will be allowed except on the exposed face.

## SECTION 717 ROADSIDE IMPROVEMENT MATERIAL

717.03 C. Method #3 - Roadside Mixture #3 Change the seed proportions to the following:

Crown Vetch	25%
Perennial Lupine	25%
Red Clover	12.5%
Annual Rye	37.5%

717.05 Mulch Binder Change the third sentence to read as follows:

“Paper fiber mulch may be used as a binder at the rate of 2.3 kg/unit [5 lb/unit].”

## SECTION 720 STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS

720.08 U-Channel Posts Change the first sentence from “..., U-Channel posts...” to “..., Rib Back U-Channel posts...”

SECTION 722  
GEOTEXTILES

722.01 Stabilization/Reinforcement Geotextile Add the following to note #3; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

722.02 Drainage Geotextile Add the following to note #3; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

722.01 Erosion Control Geotextile Add the following note to Elongation in the Mechanical Property Table; “The strengths specified in the columns labeled”<50%” and “≥ 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

**Special Provision 100**  
**Environmental Requirements and Commitments**

Execution of this contract requires the Contractor to comply with all applicable environmental, laws, rules, regulation, and statutes, both for U.S. State and Federal regulatory requirements, as well as those requirements mandated by Canadian Provincial and Federal officials. It is the Contractor's responsibility to investigate and comply with all pertinent environmental regulatory requirements in U.S. and Canada. **The following is a summary of major requirements and commitments. The following are not the only regulatory requirements placed on the Contractor. Where possible conflicts arise the more stringent language applies as decided by the Resident.**

1. The Contractor shall notify the Resident at least 21 working days prior to commencement of any soil disturbance or in-stream work. The Resident, upon receiving notice from the contractor as to when soil disturbance shall actually commence, will arrange an on-site meeting with representatives from the Canadian Department of Fisheries and Oceans (DFO), the U.S. Army Corps of Engineers (ACOE), Maine Department of Environmental Protection (MDEP), New Brunswick Department of Transportation (NBDOT), Maine Department of Transportation (MaineDOT), and the Contractor. No work shall commence until said meeting has occurred and the Resident verifies with all applicable regulatory agencies having jurisdiction, that the work site is approved for the commencement of soil disturbance and in-stream work. **All in-water work in U.S Waters (Pier 3) shall be carried out between June 30 and September 30 with the exception of driving/pulling pile and tremmie sealing of cofferdams. The pile driving/cofferdam sealing operations in U.S waters (pier 3) must be completed prior to April 30, 2007 or, if not complete, cannot commence again until June 30, 2007. There are no timing restrictions for in-water work conducted in Canadian Waters of the St. Croix River (Piers 1 & 2).** In-Water work consists of any activity conducted below the normal high water mark.
2. All reasonable efforts will be made to minimize particulate matter, lighting and noise that might affect wildlife as determined by the Resident.
3. A Maine DOT biologist will do a pre-construction survey to identify and protect any wildlife in the project area. The contractor shall notify the Resident at least 14 working days prior to clearing in the U.S. Construction activities should be conducted in such a way as to avoid as much as reasonably possible migratory bird species and their nests. 10. Construction at the extreme southern end of the project shall be performed outside the bald eagle nesting period of February 15 to August 31 of any year in order to minimize potential impacts to a known eagle nest located off Route 1, approximately 2000' to the north. In addition, the

**Special Provision 100**  
**Environmental Requirements and Commitments**

- permittee shall not site construction staging areas, equipment storage, or construction vehicle parking areas within ¼ mile of the bald eagle nest.
4. Injured wildlife will be reported and/or taken to the proper authorities for rehabilitation.
  5. In the event of unexpected discovery of archaeological or historical cultural resources, all activity shall cease in the area of discovery. Immediate telephone notification of the discovery shall be made to an appropriate responsible state or federal official, as provided in the Section 105.9 of the State of Maine Department of Transportation General Conditions, Supplemental Specifications, and Supplemental Standard Details for Construction, dated February 1, 2002, and the National Historic Preservation Act of 1966. In addition, reasonable efforts to protect the cultural resources discovered shall be made. The activity may resume only after the appropriate federal and state agency officials have authorized a continuance.
  6. Measures will be taken to prevent conveyed materials, including soil and rock, from being dropped into the river or other bodies of water in order to avoid adverse effects on the current water quality.
  7. The contractor shall avoid impacting the archaeological site identified and delineated on the Canadian side of the St. Croix River. This area is to be considered “out-of-bounds”.
  8. Any soil disturbance within 100 meters (328 feet) of the St. Croix River in Canada shall be monitored by a Canadian licensed Archaeologist. The Contractor shall notify the Resident at least 14 working days prior to excavation in said area.
  9. The Contractor is responsible for following the NBDOT Environmental Protection Plan, NBDOT Environmental Field Guide, NBDOT Standard Specification Item 948, and all other applicable Provincial and Federal Regulations, Rules, Laws and Permits. The Contractor is also responsible for following the MaineDOT Standard Specifications, MaineDOT BMP Manual, and all other applicable State and Federal Regulations, Rules, Laws and Permits.
  10. Should blasting be required it is the Contractor’s responsibility to obtain all necessary written and verbal approvals prior to blasting including conducting a pre-blast survey of wells in the area and approval from Dept. of Fisheries and Oceans Canada.

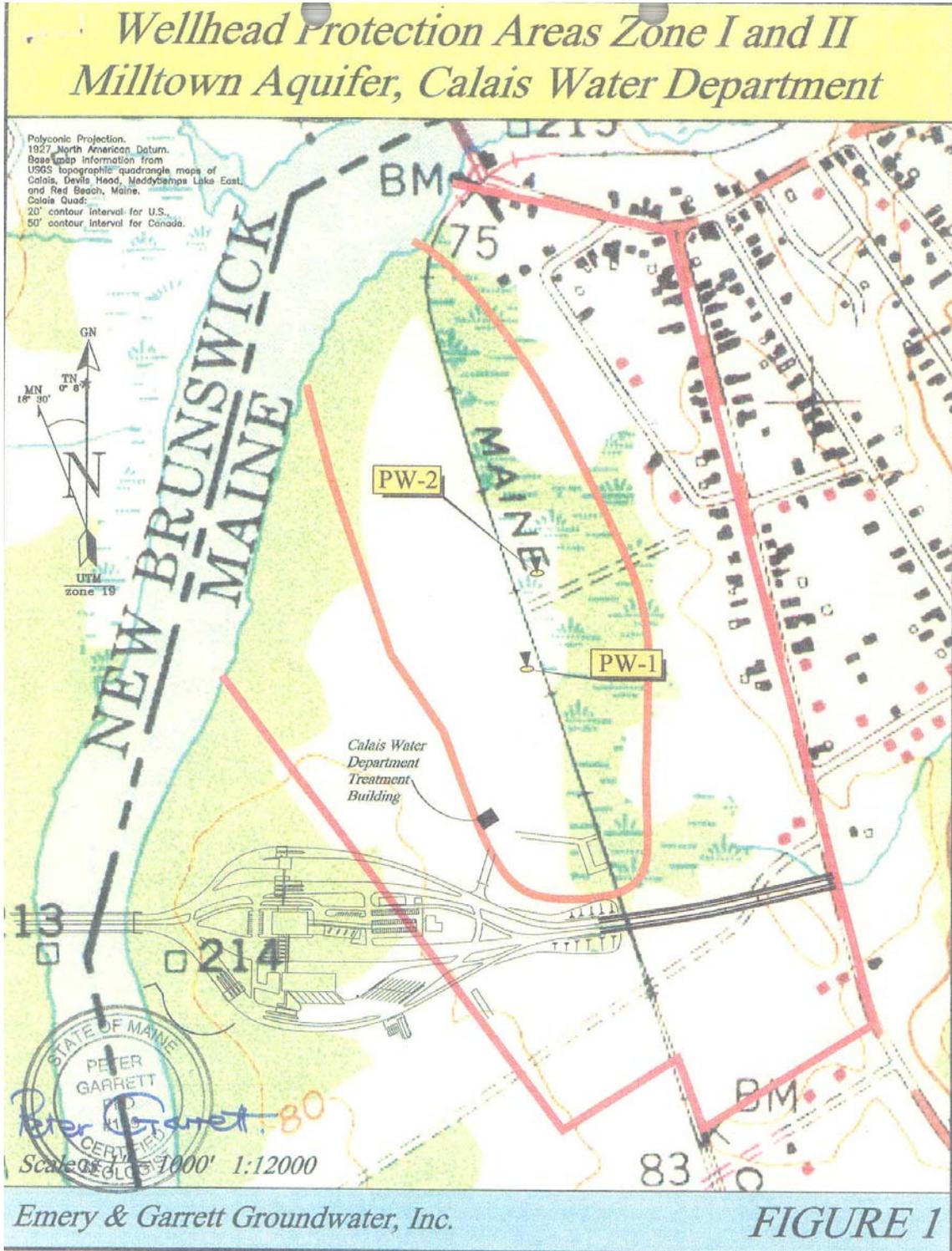
**Special Provision 100**  
**Environmental Requirements and Commitments**

11. The Contractor is required to submit to MaineDOT a Spill Prevention Plan that addresses all U.S. and Canadian requirements. Refueling operations shall not take place within Wellhead Protection Zone 1 per the City of Calais Wellhead Protection rules. Re-fueling operations may take place within Wellhead Protection Zone 2 with City of Calais Planning Board approval. It is the Contractor's responsibility to obtain permission, in writing, from the City of Calais. Said documentation shall be supplied to the Resident before any refueling is to occur within Wellhead Protection Zone 2 (see attached map).
12. The Contractor shall keep work areas free of food debris.
13. Fuel storage in Canada shall be at least 100m (328 feet) from the watercourse.
14. Environmental protection measures shall be installed prior to the commencement of work.
15. Machinery and material shall not be staged in areas in danger of flooding.
16. During dewatering operations the contractor is required to test the TSS of the effluent to ensure that it does not exceed 25 mg/L or other level approved by DFO and the Resident. The Contractor is responsible for any damages or environmental enforcement action resulting from the dewatering operation. Testing is required at the pleasure of the Resident.
17. Any natural materials produced and/or supplied by excavation either from pits and/or quarries shall not contain any friable, soluble, or reactive minerals or other deleterious material or conditions that would make the material prone to decomposition or disintegration, or present any environmental hazard, from the presence of the parent material or its byproducts, when exposed to the natural elements after placement in the Work Area. Riprap to be placed on Canadian soil or in Canadian waters shall be tested by the Contractor for acid-generating characteristics. The test results shall be made available to the Resident for review at least two weeks prior to placement. No riprap shall be placed until authorized by the Resident.
18. A copy of the Watercourse Alteration Permit shall be kept on-site for the duration of the contract, and shall be made available upon request of an inspector designated to act on behalf of DFO.
19. The contractor shall not dump, spill, or dispose of overburden, tree, brush, petroleum products, camp/field office refuse or other debris into any watercourse,

**Special Provision 100**  
**Environmental Requirements and Commitments**

- reservoir, or other natural water basin, or into any area which may ultimately cause pollution to water drainage or storage systems and/or groundwater.
20. The Contractor shall notify the Resident at least 21 working days prior to winter shutdown so as to allow sufficient time for an on-site meeting to be arranged with all appropriate environmental Regulators to assess the site prior to the Contractor leaving the site.
  21. Material removed from any watercourse shall be removed and placed in such a manner that it shall not be returned to the watercourse.
  22. Excavations for foundations in a watercourse shall be done so as to minimize sedimentation. Excavation in flowing water is not permitted except in extremely rare instances where the Resident and the MaineDOT Environmental Office agree that no other options are available. Should it be suggested that there are no other options available, the excavation may not commence until it has been approved by all permitting agencies U.S. and Canadian.
  23. The contractor shall not place an earth or rock causeway in the watercourse for the purposes of creating a temporary access structure, without specific approval, in writing, from the Resident and the appropriate U.S. and Canadian regulatory authority(ies).

**Special Provision 100**  
**Environmental Requirements and Commitments**





Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

Page 1

**AUTHORIZATION FOR WORKS OR UNDERTAKINGS AFFECTING FISH HABITAT  
AUTORISATION POUR DES OUVRAGES OU ENTREPRISES MODIFIANT L'HABITAT DU  
POISSON**

**02-HMAR-MA3-000-000297**

Authorization No. /N° de l'autorisation

Authorization issued to:  
Autorisation délivrée à :

**Name:** New Brunswick Department of Transportation (NBDoT)

**Attention:** Mr. Doug Noble  
**Address:** Design Branch, NBDOT  
Kings Place  
P.O. Box 6000  
Fredericton, New Brunswick  
E3B 5H1

**Telephone:** (506)453-5730  
**FAX:** (506) 457-6714

Location of Project/Emplacement du projet

The site is located at the NBDOT Route #1 – St. Croix River International Bridge No. 2, Milltown / St. Stephen, Charlotte County, New Brunswick. The approximate geographic NAD83 co-ordinates for the site are N7351500 and E2436850.

Valid Authorization Period/Période de validité

The valid authorization period for the harmful alteration, disruption and destruction (HADD) of fish habitat is:

**From/De:** Date Signed by the Regional Director-General **To/À:** December 31<sup>st</sup>, 2008

Description of Works or Undertakings (Type of work, schedule, etc.)  
Description des ouvrages ou entreprises (Genre de travail, calendrier, etc.)

The proposed undertaking will include the construction of a 172 meter (4 x 43 meter) span bridge that will result in the HADD of fish habitat. The proposed project includes: construction of temporary access for construction vehicles, general site preparation, erection of a cofferdam, excavation of pier foundations, pier construction, construction of a temporary trestle for bridge girder placement, bridge approaches, highway construction activity, site clean-up and restoration. The project will result in the HADD of approximately 600 square meters of fish habitat.

**AUTHORIZATION FOR WORKS OR UNDERTAKINGS AFFECTING FISH HABITAT  
AUTORISATION POUR DES OUVRAGES OU ENTREPRISES MODIFIANT L'HABITAT DU  
POISSON**

**02-HMAR-MA3-000-000297**  
Authorization No. /N° de l'autorisation

---

Conditions of Authorization/Conditions de l'autorisation

- 1 The conditions of this Authorization notwithstanding, should the above works or undertaking, due to weather conditions, different soil or other natural conditions, or for any other reason, appear, in the opinion of the Department of Fisheries and Oceans (DFO) likely to cause greater impacts than the parties previously contemplated, then DFO may direct the Proponent, and its agents, and contractors, to suspend or alter works or other activities associated with the project, to avoid or mitigate adverse impacts to fisheries resources. DFO may also direct the Proponent and its agents, and contractors, to carry out at the Proponent's expense any works or activities deemed necessary by DFO to avoid or mitigate further adverse impacts to fisheries resources. In circumstances where DFO is of the view that greater impacts may occur than were contemplated by the parties DFO may also modify or rescind this Authorization. If the Authorization is to be changed the Proponent will be given an opportunity to discuss any proposed modifications or rescissions.
- 2 Conditions that relate to the **proponent's plan**.
  - 2.1 All works shall be conducted following the detailed practices outlined in the following:
    - 2.1.1 Application for Authorization for Works or Undertakings Affecting Fish Habitat, NBDoT Route #1 Bridge No. 2, St. Croix River November 16, 2005.
    - 2.1.2 Department of Transportation, Design Branch – Fredericton, St. Croix River Bridge No. 2 November 2005.
    - 2.1.3 *Canadian Environmental Assessment Act*, Screening Report February 2006.
- 3 Conditions that relate to the **mitigation** of the potential harmful alteration, disruption, or destruction of fish habitat. The following shall be implemented.
  - 3.1 All work shall be carried out in accordance with the applicable mitigation measures found in the *Watercourse Alteration General Technical Guidelines* – New Brunswick Department of Environment (NBDOE) 2005.
  - 3.2 All work shall be carried out in accordance with the applicable measures presented in the New Brunswick Department of Transportation Environmental Protection Plan and the New Brunswick Environmental Field Guide related to the construction of watercourse crossings and the conduct of works near the water.
  - 3.3 All work shall be carried out in accordance with the application measures presented in the document "Final Environmental Management Plan, Route #1 – US Border to Church Street Project", March 2006.

**AUTHORIZATION FOR WORKS OR UNDERTAKINGS AFFECTING FISH HABITAT  
AUTORISATION POUR DES OUVRAGES OU ENTREPRISES MODIFIANT L'HABITAT DU  
POISSON**

**02-HMAR-MA3-000-000297**  
Authorization No. /N° de l'autorisation

---

3.4 The proponent shall arrange an onsite pre-construction meeting with representatives of Habitat Management Division (HMD), to review the conditions of this Authorization. At the pre-construction meeting a copy of the final plans for construction and copies of all relevant (final – approved) environmental protection documents shall be provided to DFO-HMD. Any changes identified during the pre-construction meeting, which will alter any of the conditions of this Authorization and/or modifications of supporting documents and plans will require the specific written approval of DFO-HMD prior to the commencement of any construction onsite.

3.5 All in-water work shall be carried out in the dry and no heavy equipment shall work within non-isolated sections of the watercourse.

3.6 Fish shall be rescued prior to commencement of in-water work and returned to the watercourse.

3.7 Turbid water must not be pumped from construction areas into the watercourse. Containment measures must be used to ensure that the level of the suspended solids in the water discharged to the watercourse does not exceed 25 milligram/liter (mg/l).

4 Conditions that relate to the **compensation** for the harmful alteration, disruption, and destruction of 600 square meters of fish habitat.

4.1 All works shall be carried out in accordance with the document "Potential 2006 Fish Habitat Improvement Projects on Doodle Brook, St. Stephen, NB, prepared by the St. Croix International Waterway Commission, February 2006". This document outlines compensation for this Authorization and Authorization No. 05-HMAR-MA3-000-000127.

5 Conditions that relate to the **monitoring** of the proponent (s) plan, the mitigation and the compensation.

5.1 The proponent shall prepare an as-built report to verify the effectiveness of mitigation measures, confirm the dimensions of the HADD, and demonstrate the compensation measures resulted in a net gain in productive capacity of fish habitat.

5.2 All monitoring reports shall be forwarded to DFO, prior to December 31, 2008 Maritimes Region, at the following address:

Environmental Assessment & Major Projects Division  
Department of Fisheries and Oceans  
343 University Avenue  
Moncton, New Brunswick  
EIC 9B6  
Attention: Mr. Ted Currie

**AUTHORIZATION FOR WORKS OR UNDERTAKINGS AFFECTING FISH HABITAT  
AUTORISATION POUR DES OUVRAGES OU ENTREPRISES MODIFIANT L'HABITAT DU  
POISSON**

**02-HMAR-MA3-000-000297**  
Authorization No. /N° de l'autorisation

---

The holder of this Authorization is hereby authorized under the authority of section 35(2) of the *Fisheries Act*, R.S.C., 1985, c. F. 14, to carry out the work or undertaking described herein. This Authorization is valid only with respect to fish habitat and for no other purposes. It does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

Failure to comply with any condition of this Authorization may result in charges being laid under the *Fisheries Act*.

This Authorization form should be held on site and work crews should be made familiar with the conditions attached.

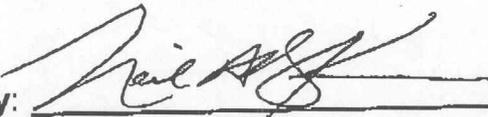
Le détenteur de la présente est autorisé en vertu du paragraphe 35(2) de la *Loi sur les pêches*, L.R.C. 1985, ch. F. 14, à exploiter les ouvrages ou entreprises décrits aux présentes. L'autorisation n'est valide qu'en ce qui concerne l'habitat du poisson et pour aucune autre fin. Elle ne dispense pas le requérant de l'obligation d'obtenir la permission d'autres organismes réglementaires concernés ou de se conformer à leurs exigences.

En vertu de la *Loi sur les pêches*, des accusations pourront être portées contre ceux qui ne respectent pas les conditions prévues dans la présente autorisation.

Cette autorisation doit être conservée sur les lieux des travaux, et les équipes de travail devraient en connaître les conditions.

---

Approved by: \_\_\_\_\_

  
Neil A. Bellefontaine  
Regional Director-General  
Department of Fisheries and Oceans  
Maritimes Region

Date of issuance: \_\_\_\_\_

3/5/06.



**PERMIT FOR WATERCOURSE AND WETLAND ALTERATION  
ALT 23307'05 Original**

(Regulations 90-80 under the Clean Water Act Chapter C-6.1, Act of New Brunswick 1989)

<b>PERMITTEE</b>	New Brunswick Department of Transportation (506)453-2608	<b>ADDRESS</b>	P.O. Box 6000 Fredericton, NB E3B 5H1
------------------	---	----------------	--

<b>LOCATIONS</b>		Easting	Northing	Datum	Zn	Easting	Northing	Datum	Zn
		633350	5002000	NAD 27	19				
<b>Affected Watercourse/Tributary:</b> St. Croix River / Passamaquoddy Bay;									
<b>Affected Regions:</b> ELG - 4			DFO - FUNDY			DNR - 3			
1:50,000 Maps - 21 G/03			County - Charlotte			Parish - Saint Stephen			

**PERMIT VALID FOR THIS PERIOD** FROM 2006/06/01 TO 2008/09/30  
(yyyy/mm/dd) (yyyy/mm/dd)

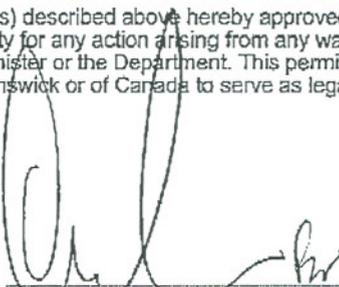
**Description of Watercourse/Wetland Alteration(s):**

This project consists of the construction of a 4 span, 172 metres long, prestressed concrete beam bridge as shown on the final "Plans For Construction" for State of Maine Department of Transportation Project No. NCPD/CBI-8483(360)X.

The Permittee may undertake only those Watercourse/Wetland Alteration(s) described above hereby approved by the Minister. Refer to Conditions of Approval stated on the attached Document "A". Responsibility for any action arising from any watercourse/wetland alteration must be borne by the Permittee and no liability shall be incurred by the Minister or the Department. This permit does not exempt or exclude the Permittee from the provisions of any Act of the Legislature of New Brunswick or of Canada to serve as legal defense to any action commenced by landowners who are adversely affected by the alteration.

Number of conditions attached to this permit: 28

Date of Issuance: 2006/06/01  
(yyyy/mm/dd)

  
 Approved by: Hon. Trevor A. Holder  
 Minister of the Environment and Local Government

New Brunswick Department of Transportation  
P.O. Box 6000  
Fredericton, NB E3B 5H1

**DOCUMENT "A" Attached to ALT 23307'05 Original  
CONDITIONS OF APPROVAL**

(Regulations 90-80 under the Clean Water Act Chapter C-6.1, Act of New Brunswick 1989)

---

- ( 1 ) that any debris and excavated material be removed from the watercourse/wetland and adjacent areas and disposed of, or placed in a manner where it cannot be returned to the watercourse/wetland;
- ( 2 ) that all necessary precautions be taken to prevent discharge or loss of any harmful material or substance into the watercourse/wetland; including but not limited to creosote, hydrocarbons, biocides, fresh cement, lime, paint or concrete;
- ( 3 ) that exposed material resulting from cut and fill operations be stabilized against erosion immediately upon completion of the project to reduce siltation of the watercourse/wetland, unless stated otherwise in these "Conditions of Approval";
- ( 4 ) that machinery and pollutants be located or stored in areas not in danger of floodwaters;
- ( 5 ) that the permittee ensure that a copy of this permit (including the conditions of approval) is kept at the alteration site for the duration of the project, and such copy shall be produced by the permittee upon the request of an inspector designated to act on behalf of the Minister of the Environment and Local Government, or an employee of the federal Department of Fisheries and Oceans Canada;
- ( 6 ) that this project be carried out as shown on the final "Plans For Construction" and stipulated in the final specifications for the State of Maine Department of Transportation Project No. NCPD/CBI-8483(360)X except where stipulated otherwise in these "Conditions of Approval";
- ( 7 ) that the intake of the suction hose used to dewater area that's isolated from the streamflow shall be screened in accordance with the Fisheries and Oceans "Freshwater Intake End-of-Pipe Fish Screen Guideline" and the energy resulting from the release of this water shall be dissipated so as to minimize scouring of the riverbed or erodible soil in the vicinity of the discharge;
- ( 8 ) that all fish occupying a reach of watercourse to be dewatered shall be rescued and relocated out of harms way immediately prior to any temporary dewatering the area;
- ( 9 ) that the removal of existing vegetation be limited to the absolute minimum necessary to carry out this project and streamside vegetation in the form of native shrubs, bushes and/or trees must be re-established in sufficient quantity to provide adequate shade to maintain a water temperature which will sustain fish and fish food;
- ( 10 ) that geotextile fabric overspread with a layer of coarse gravel be placed over any area(s) within 30 metres of the shoulders of the watercourse where machinery will be working and/or stationed;
- ( 11 ) that turbid water from dewatering operations be routed through a settling pond or over existing vegetation sufficient distance from a watercourse to ensure that the runoff entering the St. Croix River does not increase the level of suspended solids in the river more than 25 milligrams per litre above background levels;
- ( 12 ) that the applicant take necessary steps to ensure that his/her actions, and/or those of his/her agent, do not result in noticeable soil erosion or suspended sediment in the St. Croix River as a result of the activities covered by this approval;
- ( 13 ) that the regulatory agencies be afforded a minimum of 7 days notice of the pre-construction meeting;
- ( 14 ) that rip-rap be clean, durable, non-ore-bearing, non-toxic rock obtained from a non-watercourse source;
- ( 15 ) that the cofferdams used to isolate in-channel work from the streamflow consist of either an impervious self-contained unit or inert components, one of which renders the cofferdam impervious, which shall be installed and removed without mechanically manipulating or removing insitu bed or bank material;

**DOCUMENT "A" Attached to ALT 23307'05 Original  
CONDITIONS OF APPROVAL**

(Regulations 90-80 under the Clean Water Act Chapter C-6.1, Act of New Brunswick 1989)

---

- ( 16 ) that sediment control devices competent in quantity, design, diversity and function to adequately prevent the activities covered by this approval from having a negative impact on the water quality in the St. Croix River, under all runoff conditions, shall be installed prior to exposing erodible soil, added wherever necessary to control sedimentation, and maintained such that they perform their intended function until vegetation has been re-established; whenever sediment control works have failed or are not functioning properly, no further work shall take place until the problem is corrected;
- ( 17 ) that procedures for the use of explosives shall comply with the Department of Fisheries and Oceans Guidelines for the use of Explosives in or Near Canadian Fisheries Waters;
- ( 18 ) That no temporary infilling of the channel cross-section be carried out to facilitate this undertaking;
- ( 19 ) that the applicant take whatever steps necessary to ensure that his/her actions, and/or those of his/her agent, do not result in noticeable soil erosion or suspended solids in the St. Croix River as a result of the activities covered by this approval;
- ( 20 ) that the placement of rip-rap be carried out within a contained area isolated from the flow with cofferdam;
- ( 21 ) that the installation and removal of the in-channel cofferdams shall be carried out between June 1st and September 30th only unless otherwise authorized by Fisheries and Oceans Canada;
- ( 22 ) that cofferdams used to isolate a work area from the streamflow consist of either an impervious self-contained unit or inert components, one of which renders the structure impervious, and must be installed and removed without mechanically manipulating or removing insitu streambed substrate;
- ( 23 ) that the foreslopes of the approach fill which are above and/or beyond the limits of the rip-rap shall consist of or be faced either with non-erodible material or borrow "A" that is completely blanketed with hay/straw mulch at the end of each working day then overspread with topsoil and hydroseeded immediately upon final grades being reached;
- ( 24 ) that the removal of existing vegetation be limited to the absolute minimum necessary to fulfill his undertaking and replacement streamside vegetation in the form of native bushes, shrubs and trees must be re-established;
- ( 25 ) that the applicant take necessary steps to ensure that his/her actions, and/or those of his/her agent, do not result in noticeable soil erosion or suspended sediment being washed downstream in St. Croix River as a result of the activities covered by this approval;
- ( 26 ) that the energy resulting from the release of the water from a streamflow pump around operation shall be dissipated in order to minimize scouring of stream bed and bank material in the vicinity of the discharge;
- ( 27 ) that all materials and equipment used to carryout this undertaking shall be operated and stored in a manner that minimizes the chances of any deleterious substances (e.g. petroleum products silts, etc.) from entering a watercourse;
- ( 28 ) that if a trestle is to be used to erect these structures, the trestle design and construction methodology shall be submitted for review and approved by the regulatory agencies prior to construction;

SPECIAL PROVISION  
SECTION 104  
GENERAL RIGHTS AND RESPONSIBILITIES  
(Partnering)

104.4.1 Partnering

A. Definition, Purpose, and Applicability Partnering is a process of structured communication between the Department, the Contractor, its principal Subcontractors and suppliers, and other Project stakeholders for the purpose of improving efficiency and minimizing Disputes. Partnering, including the establishment of a partnership charter, does not in any way waive, alter, or otherwise affect any provision of the Contract. For a related provision, see Section 111.1.3 - Relationship to Partnering.

Due to the unique and specialized international aspects of the Calais-St Stephen Bridge project, the Partnering process will be compulsory.

The associated costs of Partnering will be agreed to mutually and shared equally between the Contractor and the Department.

B. Initial Partnering Workshop Representatives of the Contractor and the Department shall participate in Partnering. Both parties will arrange a facilitated initial Partnering Workshop, which should be held before the start of on-site construction. The Project Manager and/or the Resident and the Superintendent will determine Workshop attendees, the facilitator, agenda, duration, and location. Key Project level supervisory personnel, corporate/State level management personnel, and key Project personnel of the Contractor's principal Subcontractors and suppliers should attend. Project design Engineers, FHWA, local government representatives, environmental regulators, emergency service personnel, Utility Companies, impacted business and/or landowners, and other stakeholders may also be invited to attend. Stakeholders attending partnering shall also include Canadian agency representatives as applicable. The product of the initial Partnering Workshop will be a partnership charter. This charter will include mutually agreed upon Project goals and communication escalation procedures.

C. Follow-Up Workshops The Contractor and the Department shall agree to hold follow-up Partnering Workshops periodically throughout the duration of the Contract.

# STATE OF MAINE

## Interoffice Memorandum

Date: April 20, 2006

To: Joel Kittredge, Project Manager

Dept. MDOT - Urban & Arterial Highway

From: Julia M. Spinney, Utility Coordinator  
Highway

Dept. MDOT - Urban & Arterial

Subject: **NCPD/CBI-8483(320)X, 8483.36**

=====

All necessary arrangements have been made for utility work to be undertaken and completed as necessary for proper coordination with physical construction schedules in accordance with Federal Aid Policy Guide, Title 23, Code of Federal Regulation, Chapter 1, Subchapter G, Part 645, Subpart A, Subpart B or both.

No direct payments to utilities are anticipated as a part of this project.

JMS/sc

Cc: File

**Town: Calais**  
**Project: NCPD-CBI-8483(360)X**  
**PIN: 8483.36**  
**Date: August 25, 2006**

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

**MEETING**

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

**GENERAL INFORMATION**

These Special Provisions outline the arrangements that have been made by the Department for coordination of the work and for utility and/or railroad adjustments as defined in Subsection 104.4.6 and 104.4.8 of the Standard Specifications. 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, unless otherwise provided.

**Overview**

<b>Utility/Railroad</b>	<b>Aerial</b>	<b>Underground</b>	<b>Railroad</b>
<b>Lincolville Communications</b>	None	X	None

Temporary utility adjustments are contemplated as provided for herein.

The approximate locations of major items of existing utility plant are shown on the highway construction plans.

All utility crossings over highways will provide not less than 20 feet vertical clearance over existing ground in cut or over finished grade in fill, during construction of this project.

Manholes, valve boxes, service connections, and similar incidental utility plant are to be adjusted in cooperation with work being done by the Contractor.

Unless otherwise provided, utilities will not be required to make underground installations in frozen ground.

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.

**Town: Calais**  
**Project: NCPD-CBI-8483(360)X**  
**PIN: 8483.36**  
**Date: August 25, 2006**

**Page 2**

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

In all cases, the utilities shall be advised well in advance (generally three weeks) before work, dependent upon other work to be done by the Contractor, in any particular area, is to be commenced by them.

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 clearing and tree removal which is a part of this contract in areas where utilities are involved must be completed by the Contractor before the utilities can relocate their facilities.

**AERIAL**

There shall be no aerial involvement.

**UNDERGROUND**

**Lincolnvile Communications** plans to install a new conduit system on the new conduit hangars. They plan to do this work prior to the new bridge being open to the public but after the superstructure is completed. They are only installing one conduit pipe across the new structure. Their estimated time is five (5) working days.

They are to install this conduit from abutment to abutment including through the approach slabs.

**Town: Calais**  
**Project: NCPD-CBI-8483(360)X**  
**PIN: 8483.36**  
**Date: August 25, 2006**

**Page: 3**

**CONTRACTOR**

**Lincolville Communication** shall need assistance from the contractor for the installation of this conduit. This assistance shall be discussed in greater detail at the pre-construction utility meeting.

Some of the required assistance from the contractor are site access, safety requirements, equipment, assistance in installing conduit, etc.

**UTILITY SPECIFIC ISSUES**

Any tree removal or tree trimming required within ten feet of the electrical conductors must be done by a qualified contractor. A list of tree removal contractors qualified to remove trees or limbs within ten feet of the electrical conductors may be obtained from the power company.

**DIG SAFE**

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

**SAFE PRACTICES AROUND UTILITY FACILITIES**

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

**BLASTING**

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

**THE CONTRACTOR SHALL PLAN AND CONDUCT HIS WORK ACCORDINGLY.**

**jq**

CC: Devin Anderson, Project Manager

SPECIAL PROVISION  
SECTION 104.2.1  
(Furnishing of Right-of-Way)

Section 104.2.1, entitled, "Furnishing of Right-of-Way," of Division 100 of the Maine Department of Transportation's Standard Specifications, Revision of December 2002, is hereby deleted and replaced by the following Special Provision.

104.2.1 Furnishing of Right-of-Way The Department and the New Brunswick DOT will secure all necessary rights to real property within the Project Limits. Right-of-way information will be shown on the Contract Plans.

**MAINE DEPARTMENT OF TRANSPORTATION**

**RIGHT OF WAY CERTIFICATE**

*(No Residential/Business Dislocation)*

TOWN	Calais	PIN	008483.36
------	--------	-----	-----------

F/A PROJECT	NCPD/CBI-8483(320)X	STATE HWY.	ROUTE	1
-------------	---------------------	------------	-------	---

RIGHT OF WAY ACQUISITION REQUIRED AS DESCRIBED BELOW:

Property Owners	3	Parcels	5	Items	0
-----------------	---	---------	---	-------	---

Relocation Payments:

Number Displaced Relocated	
1	1

Moving Costs:

Miscellaneous Personal Property/Fixtures \$

Relocation Adm. & Service Costs \$

Relocation Costs are Estimated on the Basis of Current Expenditures.

**The Right of Way Division, Maine Department of Transportation hereby certifies that the right to occupy and use all the rights of way necessary for this project has been acquired by [ ] deed, [ X ] condemnation or [ ] permit to work. All right of way has been acquired in accordance with FHWA regulations (49 CFR 24) and all relocations have been accomplished...**

Without Exception  
 Except as Indicated on Reverse

**Legal Possession completed as of DATED May 2, 2006**

N/A	R/W Acquired/Physical Possession Not Available
-----	--

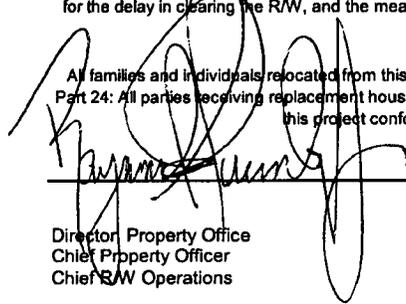
The Department of Transportation has legal title to the following properties: however, the structures and areas as indicated on the Right of Way Plans are reserved until the indicated dates.

<u>Parcel/Item</u>	<u>Name</u>	<u>Reserve Date</u>
--------------------	-------------	---------------------

Reserved limits and availability dates for these properties have been listed in the bid proposal.

The Maine Department of Transportation affirms that it is in the public interest to proceed with construction of this project. The cause for the delay in clearing the R/W, and the measures taken to protect the rights of those temporarily remaining on the project are as

All families and individuals relocated from this project have been offered decent, safe and sanitary housing, as defined in 49 CFR Part 24: All parties receiving replacement housing payments have been relocated to DS&S housing. Relocation procedures used on this project conform to the standards established by Federal regulation.

  
 \_\_\_\_\_  
 Director, Property Office  
 Chief Property Officer  
 Chief R/W Operations

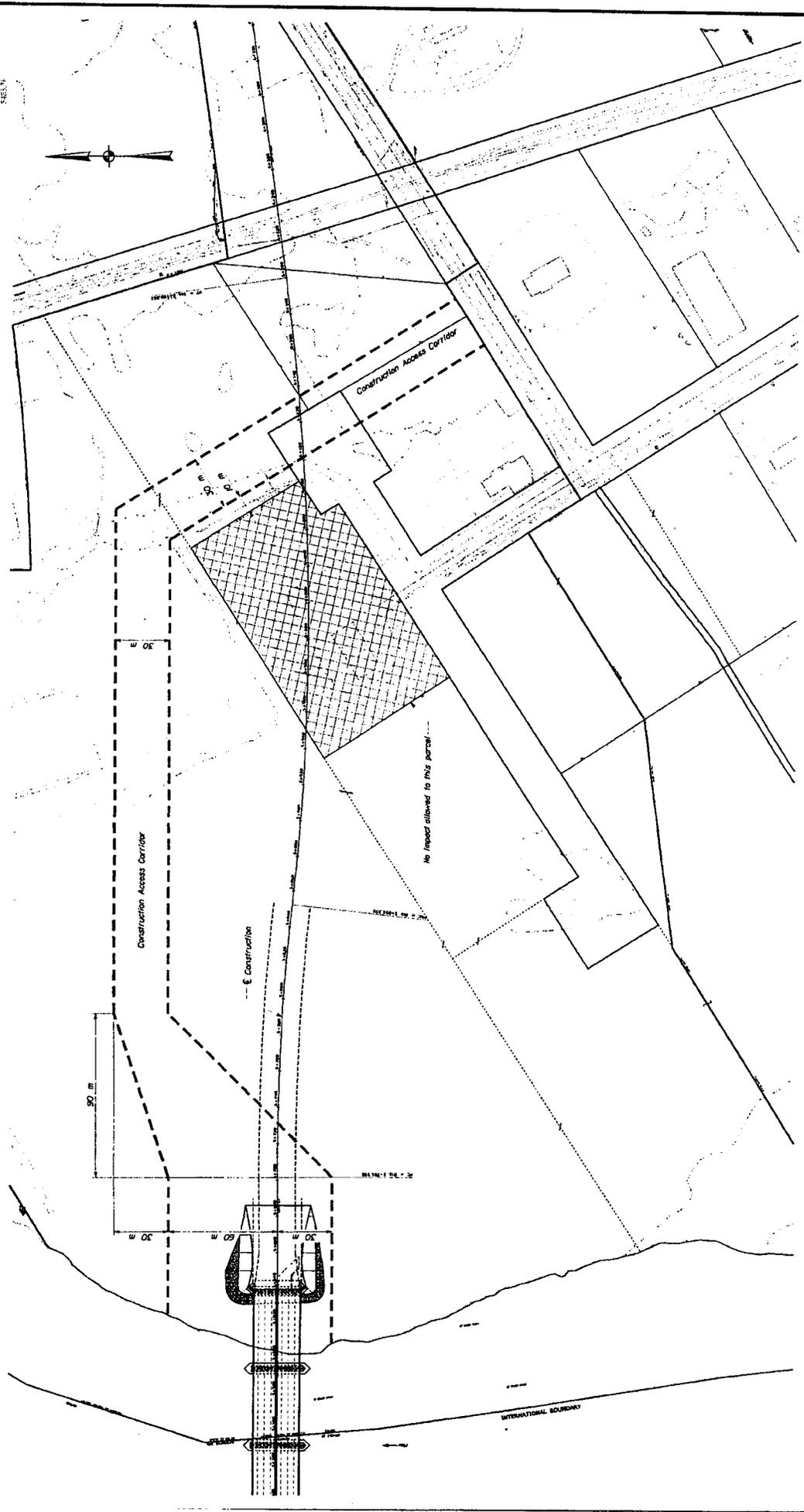
May 2, 2006  
 \_\_\_\_\_  
 Date

X

**METRIC**

1. All dimensions are in millimeters unless otherwise noted.  
2. All elevations and stations are in meters.

DATE	NO.	PROJECT NAME	SCALE
1987-10-14	1	ST. CROIX RIVER BRIDGE	AS SHOWN



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
ST. CROIX RIVER BRIDGE  
OVER  
ST. CROIX RIVER  
BETWEEN  
ST. STEPHEN, N.B., CANADA  
CALAIS, MAINE, U.S.A.  
CONSTRUCTION ACCESS PLAN  
SHEET OF

SPECIAL PROVISION  
SECTION 104.3.8.B.1  
(State of Maine Wage Rates Apply)

104.3.8.B.1 State Wage Rate

Wages. This bridge Project is not being constructed with federal funds and is not subject to the jurisdiction of the Davis-Bacon or other Federal Act that requires the Secretary of Labor to establish the minimum wages and benefits. The State of Maine minimum wage and benefits apply to the construction of this international bridge Project (PIN 8483.36). See the provisions in 26 MRSA §§ 1304 to 1313. Federal wage rates do not apply to this international bridge Project.

**SPECIAL PROVISION SECTION 104.4.7.1**

**Contractor's duty to cooperate with other contractors; liability of Contractor**

When separate contracts are awarded to contractors for work within, or adjacent to, the limits of the Project, the Contractor shall conduct its Work and the Work of its Subcontractors so as not to interfere with or hinder the progress or completion of work being performed by other contractors. The Contractor shall cooperate and coordinate with other contractors working within, or adjacent to, the limits of the Project to the extent necessary to avoid claims and to satisfactorily complete all Work pursuant to the Contract.

The Contractor shall consider all consequences, financial and otherwise, when coordinating, or failing to coordinate, its activities with other contractors working in, or adjacent to, the Project site. The Contractor agrees to assume full liability for all damages or claims that are alleged to result from inconvenience, project delays and losses due to the presence and operations of other contractors and their agents working within or outside the Project limits. The Contractor agrees to indemnify, protect and hold harmless the Department from all damages, including subcontractor claims, that result from inconvenience, project delays and losses due to the presence and operations of other contractors and their agents working within or outside the Project limits.

The Contractor agrees that the Department and the Department's authorized representatives will not be named as parties to disputes, claims or actions involving the Contractor and its Subcontractors concerning delays, additional expenses or other damages. It is agreed by all parties that disputes or actions between contractors and other parties that involve losses, expenses or damages mentioned above will not delay completion of the Work which is to be continued according to the Contract.

**SPECIAL PROVISION 105**  
**OVERLIMIT PERMITS**

**Title 29-A § 2382 MRSA Overlimit Movement Permits.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section History:

PL 1993, Ch. 683, §A2 (NEW).

PL 1993, Ch. 683, §B5 (AFF).

PL 1997, Ch. 144, §1,2 (AMD).

PL 1999, Ch. 117, §2 (AMD).

PL 1999, Ch. 125, §1 (AMD).

PL 1999, Ch. 580, §13 (AMD).

PL 2001, Ch. 671, §30 (AMD).

PL 2003, Ch. 166, §13 (AMD).

PL 2003, Ch. 452, §Q73,74 (AMD).

PL 2003, Ch. 452, §X2 (AFF).

Town: Calais  
PIN #: 8483.36 & .32  
Date: 7/7/06

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

In-water Work shall not be allowed in U.S. waters between the dates of 10/1 and 6/29  
(In-water work is allowed from 6/30 to 9/30.)

Water body Name(s) with Station #s: St. Croix River, unnamed tributary to St. Croix (0+485+/-)

1. Special Conditions: The Contractor shall notify the Resident at least 21 working days prior to commencement of any soil disturbance or in-stream work. The Resident, upon receiving notice from the contractor as to when soil disturbance shall actually commence, will arrange an on-site meeting with representatives from The New Brunswick Department of Environment (DOE), Canadian Department of Fisheries and Oceans (DFO), the U.S. Army Corps of Engineers (ACOE), Maine Department of Environmental Protection (MDEP), New Brunswick Department of Transportation (NBDOT), Maine Department of Transportation (MaineDOT), and the Contractor. No work shall commence until said meeting has occurred and the Resident verifies with all applicable regulatory agencies having jurisdiction, that the work site is approved for the commencement of soil disturbance and in-stream work. **All in-water work in U.S Waters (Pier 3) shall be carried out between June 30 and September 30 with the exception of driving/pulling pile and tremmie sealing of cofferdams. The pile driving/cofferdam sealing operations in U.S waters (pier 3) must be completed prior to April 30, 2007 or, if not complete, cannot commence again until June 30, 2007. There are no timing restrictions for in-water work conducted in Canadian Waters of the St. Croix River (Piers 1 & 2).** In-Water work consists of any activity conducted below the normal high water mark.

All activities are prohibited below the normal high water mark and non low flow conditions during the In-Water work window restriction, except for the following:

- Work within a sealed and dewatered cofferdam. Maintenance pumping within a sealed cofferdam is also allowed.

No construction activity, whether temporary or permanent, is allowed that completely blocks a river, stream, or brook without providing downstream flow.

The contractor shall abide by all permits and conditions.

**SPECIAL PROVISION**  
**SECTION 105.1.1**  
**GENERAL SCOPE OF WORK**

The Scope of Work for the Project consists of complete construction of the International Bridge between Calais, Maine and St. Stephen, New Brunswick, over the St Croix River; between STA 5+450 (Canadian side) and STA 5+655 for the USA side and as shown in the Project Plans and outlined in the Special Provisions.

**SPECIAL PROVISION**

**SECTION 105.11.1**

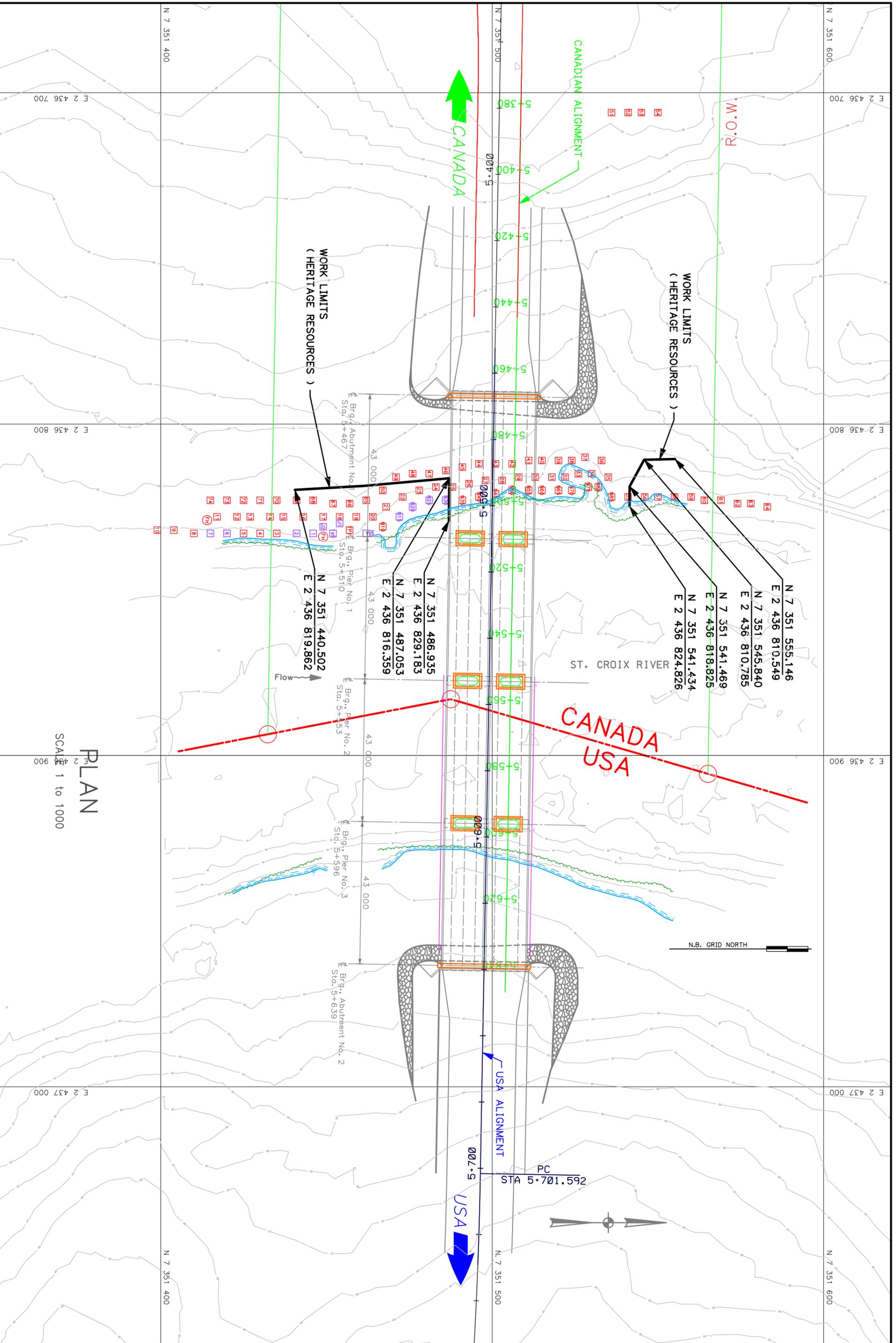
**105.11.1 BUY AMERICA REQUIREMENTS EXCLUDED**

“Buy America” requirements in this Contract, including Buy America provisions set forth in Section 3 (A), Other Federal Requirements, of Appendix A to Division 100, are not applicable to the contract for this project.

**SPECIAL PROVISION**  
**SECTION 105.9**

**ARCHEOLOGICAL SITES**  
(Maintenance of Existing Fence)

Two archeological sites have been fenced and their locations are shown on the Construction Plans. These sites must be left undisturbed. The contractor shall maintain the existing fence at each site to prevent entry into these areas. Payment for maintaining the fence will be incidental to bid Item # 607.235 Chain Link Fence.



# PLAN

SCALE 1 to 1000

MARK	REVISIONS	DATE

Mod By	Completion	Drawing

DEPARTMENT OF TRANSPORTATION  
 DESIGN BRANCH  
 FREDERICTON



ST. CROIX RIVER BRIDGE No. 2.5  
 (INTERNATIONAL)  
 ST. STEPHEN NB, CANADA to CALAIS MAINE, USA

ARCHAEOLOGICAL  
 TEST PIT LOCATIONS

File No.	Date

DWG. 1 OF 1

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

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

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

SPECIAL PROVISION

SECTION 107

TIME

(Supplemental Liquidated Damages for Fabrication Time)

107.8.1 Fabrication Time.

The Department has budgeted for the following amounts of continuous fabrication/shop inspection for certain Work components:

<u>Element</u>	<u>Time</u>	<u>Supplemental LD</u>
1) Prestressed Concrete Beams	147 calendar days	\$500 per calendar day
2) Precast Deck Panels (if used)	70 days	\$500 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 shop inspection beyond these times is required, then the corresponding Supplemental Liquidated Damages will be deducted as they occur from amounts otherwise due the Contractor. The Contractor will be notified by the Department when these times begin and when the allotted time will expire.

If the 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.

Inspection is required for tensioning of strands, batching and casting of concrete, breaking of test cylinders, and de-tensioning.

## **Special Provision Section 107**

### **(COAST GUARD NOTIFICATION)**

The St-Stephen-Calais International Border Crossing Bridge will be a new bridge over the St. Croix River connecting St. Stephen, New Brunswick with Calais, Maine.

All documents for the US Coast Guard must be submitted through the MDOT. The Coast Guard will not consider requests made by the contractor.

Attached are the Coast Guard rules for this bridge.

U.S. Coast Guard Bridge Administration Program  
**INFORMATIONAL LETTER TO BRIDGE OWNERS**

The U.S. Coast Guard Bridge Administration is a Federal Regulatory agency within the Department of Homeland Security. We exercise Federal oversight jurisdiction over all bridges over “*Navigable Waters of the United States*”.

*Navigable Waterways* are defined as: all tidal waterways, and all non-tidal waterways that are, have been, or are susceptible for use, as avenues for interstate commerce.

Bridge owners are required to maintain their bridges, operating machinery, bridge protective fender systems, and bridge navigational lighting systems, in good operable condition at all times.

No, bridge maintenance, repairs, painting, or improvements, may be performed without written approval from the *Coast Guard Bridge Administration Program*.

No other Coast Guard units are authorized to approve any bridge repairs or closures. Often times, Bridge owners mistakenly contact other “*local Coast Guard Units*” regarding bridge issues, which does not satisfy your approval requirements under Federal Law.

Only the Bridge Administration Program Office can approve bridge maintenance or regulation changes. Our addresses and contact numbers are given at the end of this letter.

**Bridge Maintenance, Repairs and Construction**

Requests must be submitted in writing *from the owner of the bridge, not a consultant or a contractor*, for all proposed bridge maintenance, repairs, and construction at least 60-days prior to the anticipated start date of the work.

Early coordination with our office is encouraged to help coordinate any special requirements such as bridge closures and or special bridge operation regulations that will be necessary to prosecute the scheduled bridge maintenance project.

Your bridge construction request package should contain the following: 1.) a cover letter from the owner of the bridge describing the necessary work requesting approval to work over the waterway. 2.) a copy of the contractor’s sequence and work schedule. 3.) a list of any closures or times and date that the bridge may need to operate under a different operation schedule. 4.) a contact list of persons with 24-hour contact numbers in case of an emergency situation during off-hours. Final approval for the work can not be granted until we receive the contractor’s sequence and schedule.

We will respond to your request in writing as soon as possible. If your request is approved we will advise you of any special conditions or stipulations that you will be

required to follow along with our “General Construction Requirements”, which is attached to this letter.

The requirements listed in our “General Construction Requirements” are required for all bridge related work and should be included in your project specifications and any advertisements for contract bids.

### **Drawbridge Operation Regulations**

#### Permanent changes:

Requests to make “*permanent changes*” to the Drawbridge Operation Regulations for moveable bridges must be submitted to the Bridge Administration Office in writing along with any supporting data such as bridge opening logs or vehicular traffic counts at least 180-days prior to the expected effective date of the proposed regulation change.

If the request is deemed reasonable we will publish a Notice of Proposed Rulemaking (NPRM) in the Federal Register. A 60-day public comment period is required as part of the regulatory process to provide the public with an opportunity to comment on the proposed rule change and to help the Coast Guard determine if the proposed regulation change will accomplish its intended purpose while continuing to meet the reasonable needs of navigation.

After the 60-day comment period concludes the Coast Guard may, as a result of comments received, process the requested regulation as proposed, revise the requested regulation to address issues raised by public comment, or withdraw the requested regulation.

A Final Rule (NFRM), must then be published in the Federal Register to implement the new regulations. The new regulations become effective 30-days after the Final Rule is published in the Federal Register.

#### Temporary Changes:

Requests to make “*temporary changes*” to the Drawbridge Operation Regulations to facilitate scheduled bridge maintenance, repairs, or construction must be submitted to the Bridge Administration Office along with a description of the work, contractor’s sequence and schedule, and the proposed regulatory changes.

Requests for regulation changes for periods up to, but not exceeding 60-days, must be submitted at least \*30-days prior to the anticipated start date along with all supporting data. This regulatory action is called a “*Temporary Deviation from the Drawbridge Operation Regulations*”. This action requires a letter of approval from the District Commander approving the regulation change to be sent to the bridge owner and publication of a Notice of Temporary Deviation in the Federal Register.

Requests for regulation changes for periods greater than 60-days must be submitted at least \*90-days prior to anticipated start date. This action requires publication of a Notice of Proposed Rulemaking (NPRM) with a \*30-day comment period and publication of a Final Rule (NFRM) effective \*30-days after publication in the Federal Register.

(\*) Advance notice requirements may be waved for processing temporary regulations for maintenance repairs when the maintenance repairs are determined to be “emergency repairs”. Emergency repairs are repairs that are necessary vital repairs that must be done with all due speed in order to assure the continued safe reliable operation of the bridge. In other words, the repairs must be performed immediately otherwise the bridge may fail at any moment.

**U.S. Coast Guard Bridge Administration Program**  
**By direction of the Commander, First Coast Guard District**

**GENERAL CONSTRUCTION REQUIREMENTS**

1. **All waterway closures, channel restrictions, and vertical clearance reductions must be requested in writing, 60 days in advance, from the First Coast Guard District Bridge Branch Office.** No substitution of bridges, closure times, or any extension of closures may be made without written approval from this office.
2. All submissions to the Coast Guard for review and approval must first be approved by the owner of the bridge or their authorized agent. All submission of plans, scope of work, and schedules of operation must be sent to the First Coast Guard District, Bridge Branch Office.
3. A copy of the contractor's construction plans, schedule, and sequence of operations, preferably in time line graphic format, including daily hours of operation, all anticipated bridge or channel closures, location of work barges during working and non-working hours, must be submitted to this office for approval. All bridge construction/repair requests must be submitted at least 30 days prior to commencement of any work. A drawing/plan of the entire project area must be included in all submissions requesting construction approval depicting the following: (1) the waterway and existing/proposed bridges. (2) The location of work barges, anchor lines during the various phases of the project. (3) A detailed drawing of scaffolding/netting indicating the location during working hours and off-hours. All vertical clearance reductions below low steel or concrete under the bridge as a result of the use of scaffolding must be clearly detailed and measured in feet.
4. Emergency 24 hour telephone numbers for all responsible individuals for this project must be submitted to this office before any phase of construction begins. Any changes in personnel or telephone numbers should be immediately forwarded to this office.
5. Scaffolding used under all spans of the bridge must be lighted with constant burning red lights on all corners. Scaffolding must not interfere with the ability of a moveable bridge to open for vessel traffic. Moveable bridges must continue to operate according to their normal schedule unless special drawbridge operation regulations have been requested. During daylight hours, warning signs for a three (3) mile range shall mark the location of these scaffoldings. The signs shall face upstream and downstream so as to draw the mariner's attention to the fact that the clearance has been reduced. Requests to change the operating schedule of a bridge should be submitted at a minimum of 90 days in advance of desired effective date.
6. **All barges placed in the waterway must be lighted with constant burning white lights on all four corners of the barge.** The contractor is required to comply with all provisions of the Navigation Rules International-Inland, regarding the use of work barges or floating equipment in the waterway. Copies are available from the U.S.

Government Bookstore, Room 110, Federal Building, 26 Federal Plaza, New York, NY 10278. Telephone (212) 264-3825.

7. Placement of construction barges in the navigable channel shall be done so as to provide a minimum horizontal clearance reduction. Only one draw of a swing bridge may be blocked by work equipment at anytime. Barges must be moved out of the navigable channel during darkness or after working hours unless approved in writing by this office at least 30 days in advance.
8. Barges held in place by anchor lines must be marked by anchor buoys, which should be lighted.
9. Changes in the horizontal or vertical clearances are not authorized as part of this construction project without Coast Guard approval. An as built survey must be taken upon completion of this project, approved by a professional engineer or land surveyor verifying the bridge clearances.
10. VHF-FM marine radios set to the bridge communication channels 16/13 or the designated channel for the bridge must be maintained at the project site monitored by the supervisor in charge. Additional marine radios monitoring the above channels must also be maintained at the main control of any floating equipment or barges on station.
11. Preventive measures must be taken to prevent any hot work, debris, or construction material from entering the waterway. This includes sandblasting material, paint, and any concrete work by-products. **Welding and burning must cease upon approach of a vessel and shall not start again until the vessel has passed the bridge.**
12. **The project supervisors must contact the local Coast Guard Marine Safety Office (MSO) via marine radio and establish radio contact before commencement of any hot work.** A cellular phone backup may be used to contact the local Coast Guard MSO at their listed phone number.
13. If permanent bridge navigational lighting cannot be maintained operational during any phase of this project, temporary battery/power lights must be installed at the same locations. These temporary lights must be visible for a distance of 2,000 yards on 90% of the nights of the year. Generally, a lamp of 20 footcandles will meet these requirements. Plans for temporary lighting shall be submitted to this office for written approval. Deviations from the approved temporary lighting shall be permitted only upon written authorization from this office.
14. Bridge protective fenders shall not be constructed or rebuilt with any metal surfaces on the rubbing face of the fender system. All bolts, spikes, or other metal fastening devices must be countersunk. Metal splicing plates, if used, shall be mounted on back of outer wales.
15. All piles including those previously damaged or broken that are not being used in the new or repaired fender shall be extracted rather than cut off at the mud line. Upon completion of all fender repairs a bottom sweep is required to determine if any piles

or debris are present in the waterway. A wire-drag sweep or side-scan sonar is the preferred method.

16. During the progress of work should any debris or equipment enter the waterway and become a hazard to navigation, immediate notice shall be given to the Coast Guard and the object removed as soon as possible. Until removal can be effected, the obstruction shall be properly marked.
17. Spillage of oil and hazardous substances is specifically prohibited by the **Federal Water Pollution Control Act**, as amended. Approved spill containment equipment and absorbent material must be located at the project site in the event of a spill into the waterway or the shoreline. The Coast Guard must be notified immediately at (800) 424-8802.
18. The bridge owner is responsible to ensure that channel depths are not affected by this work. Upon request of the Coast Guard or Corps of Engineers, the bridge owner/contractor shall provide the necessary equipment and personnel to determine the presence of any suspected obstructions in the waterway.
19. This approval may be revoked and/or civil penalties imposed for failure to ensure that the above listed stipulations are adhered to or if work is determined to hazard or impair navigation.

BRIDGE ADMINISTRATION OFFICE ADDRESSES

New York – New Jersey – Connecticut:

Commander (obr)  
First Coast Guard District  
One South Street  
Battery Park Building  
New York, NY 10004-5073  
Voice: (212) 668-7165  
Fax: (212) 668-7967

Massachusetts – Rhode Island – Maine – New Hampshire - Vermont

Commander (obr)  
First Coast Guard District  
408 Atlantic Avenue  
Boston, MA 02110-3350  
Voice: (617) 223-8364  
Fax: (617) 223-8026

U S Department of  
Homeland Security

United States  
Coast Guard

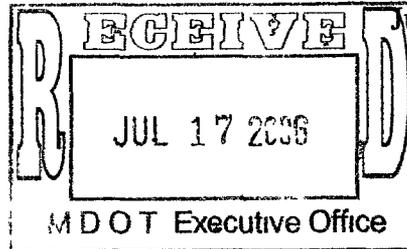


Commander  
First Coast Guard District

One South Street  
Battery Park Building  
New York, NY 10004-5073  
Staff Symbol dpb  
Phone (212) 668-7165  
Fax (212) 668-7967

16591/16 7H/  
ST CROIX RIV/ME  
July 7, 2006

Mr David A Cole, Commissioner  
Maine Department of Transportation  
16 State House Station  
Augusta, ME 04333-0016



Dear Mr Cole

Enclosed is Bridge Permit 2-06-1 dated June 16, 2006 approving the location and plans for the construction of the Route 1 Bypass International Bridge across the St Croix River, mile 16 7, between Calais, Maine and St Stephen, New Brunswick, Canada

The requirement to display permanent navigation lights at this bridge is waived This waiver may be rescinded at anytime in the future should nighttime navigation through this bridge be increased to a level determined by the District Commander to warrant lighting (generally four or more passages per week between the hours of sunset and sunrise)

During the periods of construction each pier, abutment or other obstruction may be required to be lighted for the safety of navigation This office shall be contacted during construction plan development for a determination of any temporary lighting needs

This office shall be notified 30 days prior to the actual commencement and completion of the bridge work so that appropriate announcements may be prepared for our Local Notice to Mariners publication

Please note that condition four of the permit requires a bridge fendering system be installed should the District Commander determine at some future time that navigation has increased to such an extent as to warrant such Also note that the conditions of the permit only relate to the portions of bridge that are to be within jurisdiction of the United States

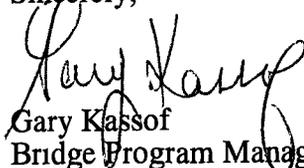
The proposed construction work is approved subject to these provisions

- a Preferably 30 days, but at least 14 days prior to the commencement of any work in the waterway, two copies of the contractor's plan, schedule, and sequence of operations, approved by your office, shall be submitted to this office for approval In addition, a sketch of the project area shall be submitted showing the following 1) the waterway, 2) the bridge, 3) the location of any barges or restrictions that will be placed in the waterway, 4) detailed description of any scaffolding or netting to be used, and 5) the placement, type, and dimensions of any cofferdams, if used, with the method of screening silt from dewatering operations The schedule should also include the daily hours of operation and should indicate whether waterborne equipment will remain in the waterway at night The contractor will be required to comply with all provisions of the Inland Navigation Rules, copies of which are available from the Superintendent of Documents, U S Government Printing Office, P O Box 371954, Pittsburgh, PA 15250 Refer to Stock No 050-012-00376-9 One copy of the plan and schedule of operations, approved by this office, will be returned to you with our approval stamp and comments as appropriate

- b Black and white, 8 ½” x 11”, glossy photographs of the completed bridge, taken from the mariner’s perspective both up and downstream of the bridge, are requested for record purposes
- c. The “as-built” clearances shall be certified in writing and submitted to this office by a responsible official of the permittee, a licensed surveyor or a registered professional engineer upon completing bridge work
- d It is the permittee’s responsibility to ensure that channel depths are not affected by this work Any material, machinery or equipment lost, dumped, thrown into, or otherwise entering the waterway must be removed immediately If immediate removal is impractical and the object entering the waterway could possibly obstruct or hazard navigation, the object must be marked immediately to protect navigation and the Coast Guard shall be notified as soon as possible Such notification shall give the location and type of obstruction and the navigational markings installed Upon project completion, the permittee or registered professional engineer shall certify that the waterway depths have not been impaired and that the waterway is clear of materials or debris resulting from bridge construction
- e Spillage of oil and hazardous substances is specifically prohibited by Section 311 of the Clean Water Act, as amended Measures including properly maintaining construction equipment, designating fuel/hazardous substance handling areas so spills are contained before reaching the waterway, instructing personnel not to dispose of oil/hazardous substances into drains or into the waterway directly, and other necessary procedures should be implemented to prevent spillage If oil/hazardous substances are spilled into the waterway in spite of such planning, the U S Coast Guard is to be notified immediately at 800-424-8802 An adequate supply of absorbent material should be readily accessible to soak up any possible spillage, pending Coast Guard arrival The use of chemical dispersing agents and emulsifiers is not authorized without prior specific, federal approval
- f Should archaeological resources be encountered during construction operations, the work shall cease and this office and the State Historic Preservation Office shall be consulted for possible recovery of those resources
- g Should the permittee fail to ensure that the contractor complies with these requirements and should the Federal Government be required to take action for the protection of navigation, the Government reserves the right to recover the cost for such work from the permittee, the contractor, or both, as applicable

The Government will assume no responsibility for any damages sustained or caused by the contractor’s equipment or barges being anchored or moored at the aforementioned location Also, this approval shall not act as a waiver of liability for any damage that may result from the applicant’s operations

Sincerely,



Gary Klassof  
Bridge Program Manager  
First Coast Guard District  
By direction of the District Commander

Enclosure (1) Bridge Permit 2-06-1 dated June 16, 2006 w/copy of approved plans

Copy COE, New England District w/encl 1  
CG Sector NNE w/encl 1  
MEDOT, Kevin Rousseau w/encl 1  
NOS, Rockville w/encl 1  
FHWA, Maine Div w/encl 1  
GSA w/encl 1  
U S State Dept w/encl 1



---

## BRIDGE PERMIT

(2-06-1)

---

JUN 16 2006

**WHEREAS** by an Act of Congress approved 26 September 1972 entitled "International Bridge Act of 1972," (33 U S C 535), the consent of Congress was granted for the construction, maintenance and operation of any bridge and approaches thereto which will connect the United States with any foreign country,

**AND WHEREAS** said consent is subject to the provisions of an act entitled "An Act to regulate the construction of bridges over navigable waters," approved 23 March 1906 (33 U S C 491-498, except Section 6 of 33 U S C 496),

**AND WHEREAS** the approval of the Secretary of Homeland Security as required by that act shall be given only subsequent to the President's approval for the construction, maintenance and operation of the International Bridge, as provided for in Section 4 of the "International Bridge Act of 1972" and said Presidential approval was granted 31 May 2005,

**AND WHEREAS** the functions, powers and duties which were vested in the Secretary of Homeland Security under Section 5 of the "International Bridge Act of 1972" as they relate to navigable waterways other than the Saint Lawrence River, have been delegated by the Secretary to the Commandant, U S Coast Guard by Department of Homeland Security Delegation Number 0170 1,

**AND WHEREAS** the - **STATE OF MAINE** - has submitted for approval the location and plans of an international bridge to be constructed across the St Croix River between Calais, Maine, and St Stephen, New Brunswick, Canada,

**NOW THEREFORE**, This is to certify that the location and plans dated June 2005 are hereby approved by the Commandant, subject to the following conditions

1 No deviation from the approved plans may be made either before or after completion of the structure unless the modification of said plans has previously been submitted to and received the approval of the Commandant

2 The construction of falsework, cofferdams or other obstructions, if required, shall be in accordance with plans submitted to and approved by the Commander, First Coast Guard District, prior to construction of the bridge All work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired Timely notice of any and all events that may affect navigation shall be given to the District Commander during construction of the bridge The channel or channels through the structure shall

be promptly cleared of all obstructions placed therein or caused by the construction of the bridge to the satisfaction of the District Commander, when in the judgment of the District Commander the construction work has reached a point where such action should be taken, but in no case later than 90 days after the bridge has been opened to traffic

3 Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of any federal, state or local authority having cognizance of any aspect of the location, construction or maintenance of said bridge

4 A bridge fendering system shall be installed and maintained in good condition by and at the expense of the owner of the bridge when so required by the District Commander Said installation and maintenance shall be for the safety of navigation and be in accordance with plans submitted to and approved by the District Commander prior to its construction

5 This bridge permit approves only that portion of the bridge to be constructed across waters under the jurisdiction of the United States

6 When the proposed bridge is no longer used for transportation purposes, that portion of the bridge constructed across waters under the jurisdiction of the United States shall be removed in its entirety or to an elevation deemed appropriate by the District Commander and the waterway cleared to the satisfaction of the District Commander Such removal and clearance shall be completed by and at the expense of the owner of the bridge upon due notice from the District Commander

7 The approval hereby granted shall cease and be null and void unless construction of the bridge is commenced within two years and completed within five years after the date of this permit

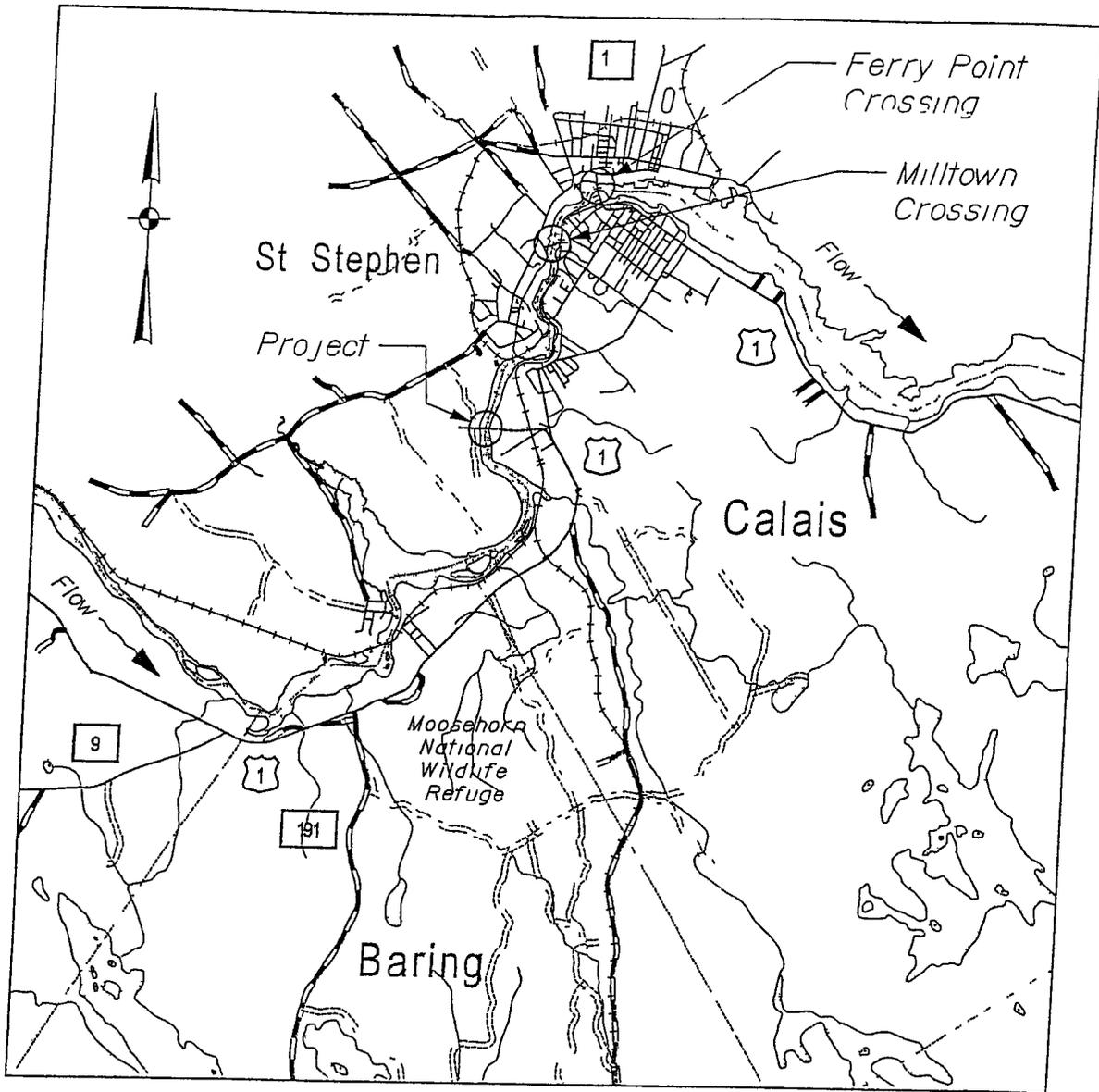


N E MPRAS

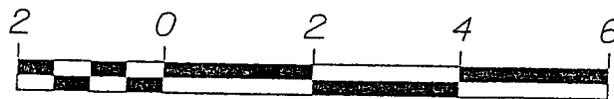
Chief, Office of Bridge Administration

U S Coast Guard

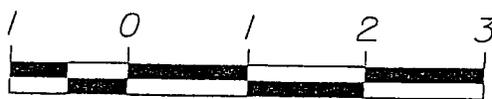
By direction of the Commandant



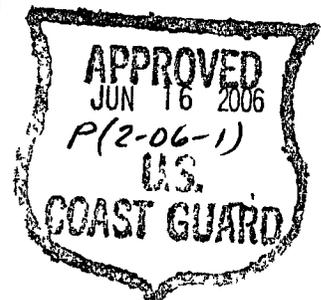
LOCATION MAP



Scale of kilometers



Scale of miles

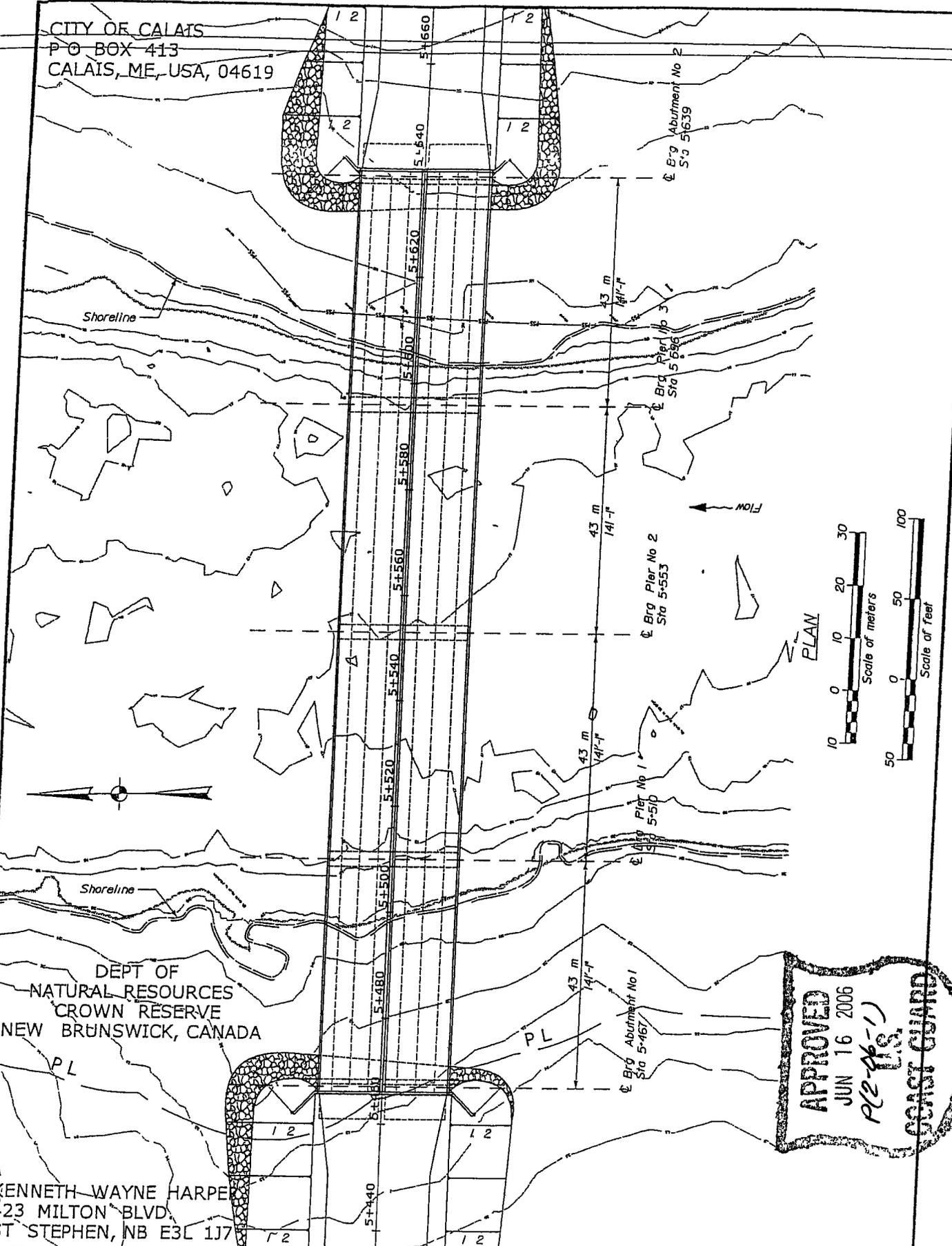


STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
June 2005  
Project No NCPD/CBI-8483(360)X  
PIN 8483 36 Mile Point 16  
Bridge No 6440  
Bridge Project Length 294 m (965 feet)

THE PROPOSED ST STEPHEN - CALAIS  
BYPASS (ROUTE 1) BRIDGE ACROSS  
THE ST CROIX RIVER, MILE 16 7 (26 9 KM)  
ST STEPHEN, CHARLOTTE CTY, NB, CANADA  
CALAIS, WASHINGTON CTY, MAINE, U S A

SHEET NUMBER  
**1**  
OF 4

CITY OF CALAIS  
 P.O. BOX 413  
 CALAIS, ME, USA, 04619



DEPT OF  
 NATURAL RESOURCES  
 CROWN RESERVE  
 NEW BRUNSWICK, CANADA

APPROVED  
 JUN 16 2006  
 PLS  
 U.S. COAST GUARD

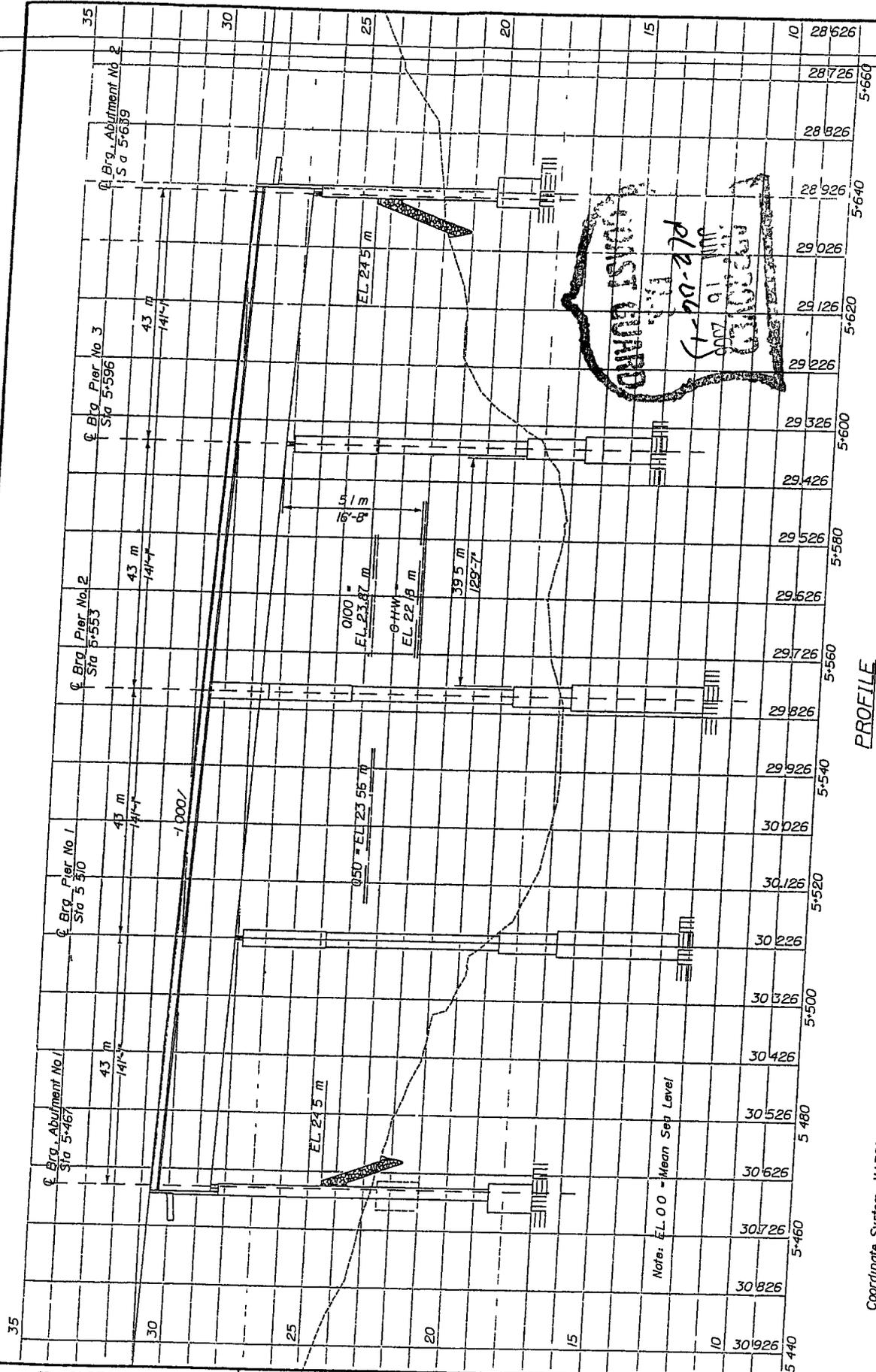
KENNETH WAYNE HARPER  
 423 MILTON BLVD.  
 ST STEPHEN, NB E3L 1J7

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 June 2005

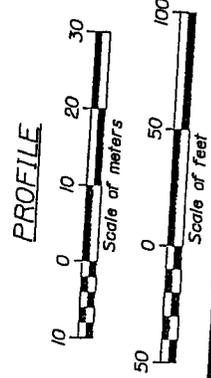
Project No NCPD/CBI-8483(360)X  
 PIN 8483 36 Mile Point 16  
 Bridge No 6440  
 Bridge Project Length 294 m (965 feet)

THE PROPOSED ST STEPHEN - CALAIS  
 BYPASS (ROUTE 1) BRIDGE ACROSS  
 THE ST CROIX RIVER, MILE 16.7 (26.9 KM)  
 ST STEPHEN, CHARLOTTE CTY, NB, CANADA  
 CALAIS, WASHINGTON CTY, MAINE, U S A

SHEET NUMBER  
 2  
 OF 4



Estimate of material to be placed below O.H.W. EL 22.18  
 Concrete 3 525 m<sup>3</sup> (4610 C.Y.)  
 Riprap: 53 m<sup>3</sup> (69 C.Y.)



Coordinate System NAD83(CSRS) NBPRCS  
 Vertical Datum 28CGVD HEN 04 16 03  
 28CGVD - 0.158 m = NAVD88  
 28CGVD + 0.046 m = NGVD29

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 June 2005  
 Project No NCPD/CBI-8483(360)X  
 PIN 8483 36 Mile Point 16  
 Bridge No 6440  
 Bridge Project Length 294 m (965 feet)

THE PROPOSED ST STEPHEN - CALAIS  
 BYPASS (ROUTE 1) BRIDGE ACROSS  
 THE ST CROIX RIVER, MILE 16.7 (26.9 KM)  
 ST STEPHEN, CHARLOTTE CTY, NB, CANADA  
 CALAIS, WASHINGTON CTY, MAINE, U.S.A

SHEET NUMBER

3

OF 4



SPECIAL PROVISION  
SECTION 107.1.1  
TIME  
(Contract Completion Date)

The Contract Completion Date is September 1, 2008.

SPECIAL PROVISION  
SECTION 107  
TIME

107.4.2 Schedule of Work Required. This Section is amended by the following:

In addition to the Contractors initial CPM Schedule, the Department will require the Contractor to update the schedule monthly to show current progress. The submittal date for monthly updates shall be determined by the Resident.

SPECIAL PROVISION  
SECTION 108.2.2.1  
(Payment in United States Currency)

Section 108.2.2.1 Payment in United States Currency

All contract bid item lump sum amounts, unit costs, bid prices, projected payment schedules, progress payments, contract modifications and all other related billing, invoices, compensation and payment for all goods, services, and incidentals used in the construction of the Calais, Maine - St. Stephen, New Brunswick International Bridge shall be represented, invoiced, calculated, submitted to the Department, compensated and otherwise accounted for in United States currency. The Contractor shall not be allowed additional compensation for, nor will any allowances or adjustments be made for, changes in monetary exchange rates between the United States and Canada after bids are submitted to the Department.

SPECIAL PROVISION  
SECTION 108.6.1  
(Canadian Duty Tax Recapitulations and Summary)

108.6.1 Submission of Quarterly Canadian Duty Tax Recapitulations and Summary

A. The Contractor shall submit to the Resident quarterly recapitulations of all material, products, and equipment used on the project that are subject to the Canadian Duty Tax. The recapitulations shall identify the material, products, and equipment used on the Project for which the Canadian Duty Tax was paid during that quarter and the location on the Project where the material, products and equipment were used. Documentation that verifies the amounts of Canadian Duty Tax paid and the dates of those payments must be attached to each recapitulation.

These recapitulations shall be submitted to the Resident no later than the fifth business day of January, April, July and October until Completion of the Project. If the Department requires additional or different information than the information that appears on any recapitulation, then the Contractor shall provide complete information to the Department within five business days of receiving the request. The quarterly recapitulations shall be submitted on forms that are approved by the Department, a copy of which appears below.

B. At the completion of the project, the contractor shall submit a summary of all material, products, and equipment used on the project that were subject to the Canadian Duty tax. The summary shall be submitted with Closeout Documentation on forms that are approved by the Department, a copy of which appears below.

C. Payment for all costs and other expenses that are required to generate the recapitulations and the closeout summary shall be Incidental to the Contract. No separate payment will be made for those costs.

D. The quarterly recapitulations and the closeout summary shall be submitted with a letter of transmittal and will contain a recapitulation summary and completed copies of forms as set forth below.

- *Canada Customs Coding Form B3-3 (04) and MaineDOT B3-3 (04) Supplemental Form*
- *MaineDOT B3-3 (04) Supplemental Form shall accompany the information presented on the Canada Customs Coding Form B3-3 (04).*
- *Duty Recapitulation Summary Form*

For related provisions, see Section 101.2 - Definition of Closeout Documentation;  
Section 107.9.4 - Closeout Documentation; Section 107.9.5 - Final Acceptance; Section  
108.5 - Right to Withhold Payments

Wages. This bridge Project is not being constructed with federal funds subject to jurisdiction of the Davis-Bacon or other Federal Act that requires the Secretary of Labor to establish the minimum wage and benefits established by the Secretary of the United States Department of Labor. The State of Maine minimum wage and benefits in 24 MRS.A §§ 1304 to 1313, not the Federal or Canadian minimum wage and benefits rates, apply to the construction of this bridge Project (PIN 8483.36).

SPECIAL PROVISION  
SECTION 108.6.2

Goods and Services Tax (GST) and Harmonized Sales Tax (HST)

108.6.2 Goods and Services Tax (GST) and Harmonized Sales Tax (HST)

Bidders are advised that on April 20, 2006, in Case Number 65184, the Canada Revenue Agency ruled that the taxable property, supplies and services acquired by the Maine Department of Transportation for use in the construction of the international bridge between Calais, Maine, United States of America and St. Stephen, New Brunswick, Canada will be exempt from the Goods and Services Tax (GST) and the Harmonized Sales Tax (HST).

The following certification is available to the Contractor for use when purchasing taxable property, supplies and services acquired for use in the Project:

Maine DOT hereby certifies that the property/service ordered is for use in the construction of the St. Stephen-Calais International Bridge and is therefore relieved from payment of GST/HST under section 2 of Part VIII of Schedule VI of the Excise Tax Act.

\_\_\_\_\_  
Signature and Title of  
Authorized State of Maine Official

\_\_\_\_\_  
Date

Bidders shall be familiar with all Canadian laws, including Canada Revenue Agency regulations and rulings and other Canadian tax law requirements, and to maintain and provide satisfactory documentation evidencing that the property and services were acquired for use by the Department as set out in Section 2 of Part VIII of Schedule VI of Canada's Excise Tax Act. Questions may be directed to the Canada Revenue Agency. That address is: Atlantic GST/HST Rulings Centre, Attention: Brenda Howard, Senior Technical Interpretations Analyst, 1557 Hollis Street, Post Office Box 638, Halifax, Nova Scotia B3J 2T5. The telephone number is (902) 426-7686 and the facsimile transmission telephone number is (902) 426-3062.



1 IMPORTER NAME AND ADDRESS NOM ET ADRESSE DE L'IMPORTATEUR		NO. - N°		2 TRANSACTION NO. - N° DE TRANSACTION						
				3 TYPE	4 OFFICE NO. N° DE BUREAU	5 GST REGISTRATION NO. N° DE TPS	6 PAYMENT CODE CODE DE PAIEMENT	7 MODE OF TRANS.	8 PORT OF UNLADING PORT DE DÉBARQ.	9 TOTAL VFD - TOTAL DE LA VD
10 SUB HDR NO. N° DE SOUS-EN-TÊTE	11 VENDOR NAME - NOM DU VENDEUR		NO. - N°		12 COUNTRY OF ORIGIN PAYS D'ORIGINE	13 PLACE OF EXPORT LIEU D'EXPORTATION	14 TARIFF TREATMENT TRAITEMENT TARIFAIRE	15 U.S. PORT OF EXIT BUREAU DE SORTIE DES E.-U.		
				16 DIRECT SHIPMENT DATE DATE D'EXPÉDITION DIRECTE M	17 CRCY. CODE DEVISE	18 TIME LIMIT - DÉLAI	19 FREIGHT - FRET			
				20 RELEASE DATE - DATE DE LA MAINLEVÉE						

21 LINE LIGNE	22 DESCRIPTION DÉSIGNATION	23 WEIGHT / KGM POIDS / KGM	PREVIOUS TRANSACTION - TRANSACTION ANTERIEURE 24 NUMBER - NUMERO		25 LINE-LIGNE	26 SPECIAL AUTHORITY AUTORISATION SPECIALE				
27 CLASSIFICATION NO. N° DE CLASSEMENT	28 TARIFF CODE TARIFAIRE	29 QUANTITY QUANTITE	30 U - M	31 VFD CODE CODE VD	32 SIMA CODE CODE DE LMSI	33 RATE OF CUSTOMS DUTY TAUX DE DROIT DE DOUANE	34 E.T. RATE TAUX T.A.	35 RATE OF GST TAUX DE TPS	36 VALUE FOR CURRENCY CONVERSION CONVERSION VALEUR POUR CHANGE	
37 VALUE FOR DUTY VALEUR EN DOUANE		38 CUSTOMS DUTIES DROITS DE DOUANE		39 SIMA ASSESSMENT COTISATION DE LMSI		40 EXCISE TAX TAUX D'ACCISE		41 VALUE FOR TAX VALEUR POUR TAXE		42 GST TPS
21 LINE LIGNE	22 DESCRIPTION DÉSIGNATION	23 WEIGHT / KGM POIDS / KGM	PREVIOUS TRANSACTION - TRANSACTION ANTERIEURE 24 NUMBER - NUMERO		25 LINE-LIGNE	26 SPECIAL AUTHORITY AUTORISATION SPECIALE				
27 CLASSIFICATION NO. N° DE CLASSEMENT	28 TARIFF CODE TARIFAIRE	29 QUANTITY QUANTITE	30 U - M	31 VFD CODE CODE VD	32 SIMA CODE CODE DE LMSI	33 RATE OF CUSTOMS DUTY TAUX DE DROIT DE DOUANE	34 E.T. RATE TAUX T.A.	35 RATE OF GST TAUX DE TPS	36 VALUE FOR CURRENCY CONVERSION CONVERSION VALEUR POUR CHANGE	
37 VALUE FOR DUTY VALEUR EN DOUANE		38 CUSTOMS DUTIES DROITS DE DOUANE		39 SIMA ASSESSMENT COTISATION DE LMSI		40 EXCISE TAX TAUX D'ACCISE		41 VALUE FOR TAX VALEUR POUR TAXE		42 GST TPS
21 LINE LIGNE	22 DESCRIPTION DÉSIGNATION	23 WEIGHT / KGM POIDS / KGM	PREVIOUS TRANSACTION - TRANSACTION ANTERIEURE 24 NUMBER - NUMERO		25 LINE-LIGNE	26 SPECIAL AUTHORITY AUTORISATION SPECIALE				
27 CLASSIFICATION NO. N° DE CLASSEMENT	28 TARIFF CODE TARIFAIRE	29 QUANTITY QUANTITE	30 U - M	31 VFD CODE CODE VD	32 SIMA CODE CODE DE LMSI	33 RATE OF CUSTOMS DUTY TAUX DE DROIT DE DOUANE	34 E.T. RATE TAUX T.A.	35 RATE OF GST TAUX DE TPS	36 VALUE FOR CURRENCY CONVERSION CONVERSION VALEUR POUR CHANGE	
37 VALUE FOR DUTY VALEUR EN DOUANE		38 CUSTOMS DUTIES DROITS DE DOUANE		39 SIMA ASSESSMENT COTISATION DE LMSI		40 EXCISE TAX TAUX D'ACCISE		41 VALUE FOR TAX VALEUR POUR TAXE		42 GST TPS
21 LINE LIGNE	22 DESCRIPTION DÉSIGNATION	23 WEIGHT / KGM POIDS / KGM	PREVIOUS TRANSACTION - TRANSACTION ANTERIEURE 24 NUMBER - NUMERO		25 LINE-LIGNE	26 SPECIAL AUTHORITY AUTORISATION SPECIALE				
27 CLASSIFICATION NO. N° DE CLASSEMENT	28 TARIFF CODE TARIFAIRE	29 QUANTITY QUANTITE	30 U - M	31 VFD CODE CODE VD	32 SIMA CODE CODE DE LMSI	33 RATE OF CUSTOMS DUTY TAUX DE DROIT DE DOUANE	34 E.T. RATE TAUX T.A.	35 RATE OF GST TAUX DE TPS	36 VALUE FOR CURRENCY CONVERSION CONVERSION VALEUR POUR CHANGE	
37 VALUE FOR DUTY VALEUR EN DOUANE		38 CUSTOMS DUTIES DROITS DE DOUANE		39 SIMA ASSESSMENT COTISATION DE LMSI		40 EXCISE TAX TAUX D'ACCISE		41 VALUE FOR TAX VALEUR POUR TAXE		42 GST TPS
21 LINE LIGNE	22 DESCRIPTION DÉSIGNATION	23 WEIGHT / KGM POIDS / KGM	PREVIOUS TRANSACTION - TRANSACTION ANTERIEURE 24 NUMBER - NUMERO		25 LINE-LIGNE	26 SPECIAL AUTHORITY AUTORISATION SPECIALE				
27 CLASSIFICATION NO. N° DE CLASSEMENT	28 TARIFF CODE TARIFAIRE	29 QUANTITY QUANTITE	30 U - M	31 VFD CODE CODE VD	32 SIMA CODE CODE DE LMSI	33 RATE OF CUSTOMS DUTY TAUX DE DROIT DE DOUANE	34 E.T. RATE TAUX T.A.	35 RATE OF GST TAUX DE TPS	36 VALUE FOR CURRENCY CONVERSION CONVERSION VALEUR POUR CHANGE	
37 VALUE FOR DUTY VALEUR EN DOUANE		38 CUSTOMS DUTIES DROITS DE DOUANE		39 SIMA ASSESSMENT COTISATION DE LMSI		40 EXCISE TAX TAUX D'ACCISE		41 VALUE FOR TAX VALEUR POUR TAXE		42 GST TPS

DECLARATION - DÉCLARATION

I  
JE \_\_\_\_\_  
PLEASE PRINT NAME - LETTRES MOULÉES S.V.P.

OF  
DE \_\_\_\_\_  
IMPORTER / AGENT - IMPORTATEUR / AGENT

DECLARE THE PARTICULARS OF THIS DOCUMENT TO BE TRUE, ACCURATE AND COMPLETE.  
DÉCLARE QUE LES RENSEIGNEMENTS CI-DESSUS SONT VRAIS ET COMPLETS.

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE

43 DEPOSIT - DÉPÔT

44 WAREHOUSE NO. - N° D'ENTREPÔT

45 CARGO CONTROL NO. - N° DE CONTRÔLE DU FRET

46 CARRIER CODE AT IMPORTATION  
CODE DE TRANSPORTEUR À L'IMPORTATION

47 CUSTOMS DUTIES  
DROITS DE DOUANE

48 SIMA ASSESSMENT  
COTISATION DE LMSI

49 EXCISE TAX  
TAUX D'ACCISE

50 GST  
TPS

51 TOTAL

CALAIS, ST CROIX RIVER BRIDGE  
PIN 8483.36

MaineDOT B3-3 (04) Supplemental Form\*

No.	Transaction Number	Date	Material / Equipment	Project Item Number & Description the duty is associated with.	How Was This Material / Equipment Used / Incorporated into the Item	Duty

\* One separate MaineDOT B3-3 (04) supplemental form shall accompany each Canadian B3-3 (04) Form

CALAIS, ST CROIX RIVER BRIDGE  
 PIN 8483.36

DUTY RECAPITULATION SUMMARY FORM

CALENDER PERIOD \_\_\_\_\_ through \_\_\_\_\_

No.	Transaction Number	Date	Material / Equipment	Project Item Number(s) & Description(s) the duty is associated with.	How Was Material Used / Incorporated into Item	Duty Amount
1						
2						
3						
4						
4						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

TOTAL DUTY FOR CALENDER PERIOD \$ \_\_\_\_\_

SPECIAL PROVISION  
SECTION 109.5.2  
(Entitlement to Adjustments)

Section 109.5.2, entitled, "Entitlement to Adjustments," of Division 100 of the Maine Department of Transportation's Standard Specifications, Revision of December 2002, is hereby deleted and replaced by the following Special Provision.

109.5.2 Entitlement to Adjustments

A. Types of Adjustments Provided the Contractor meets the requirements of Section 109.5.2(B) below and complies with the notification, documentation, and procedural requirements set forth in the Contract, the Contractor is entitled to certain adjustments to the Contract depending upon the type of Delay.

1. If an Excusable Delay, the Contractor is entitled to an extension of time, but no additional compensation.
2. If a Compensable Delay, the Contractor is entitled to an extension of time and an Equitable Adjustment as set forth in Section 109.7 - Equitable Adjustments to Compensation.
3. If an Inexcusable Delay, the Contractor is entitled to neither an extension of time nor additional compensation.
4. There will be no equitable adjustments to compensation due to contract delays resulting from the following:
  - A. Compliance or failure to comply with US and / or Canadian labor and personnel laws and in accordance with applicable Special Provisions
  - B. Compliance or failure to comply with US and Canadian customs and immigration laws and in accordance with applicable Special Provisions.
  - C. Compliance or failure to comply with US and Canadian duty and tax laws and in accordance with applicable Special Provisions.

For related provisions, see Sections 104.2.7 - Damage to Project Caused By Uncontrollable Events and 104.3.10 - Responsibility for the Damage to Work.

B. Requirements for Entitlement To be entitled to any adjustments for an Excusable Delay or a Compensable Delay, the Contractor must demonstrate all of the following.

1. The Contractor consistently utilized its Schedule of Work to schedule, coordinate, and manage the Work as evidenced by documentation created as the Work progressed including Progress Meeting minutes;
2. The Delay impacted the Critical Path of the Schedule of Work; and
3. There are no concurrent Inexcusable Delays.

C. Concurrent Delays The Contractor is not entitled to a time extension for the period of time when Excusable and Inexcusable Delays are concurrent. The Contractor also is not entitled to either time extension or an Equitable Adjustment for the period of time when Compensable and Inexcusable Delays are concurrent. In the event Compensable and Excusable Delays are concurrent, the Contractor is only entitled to time extension, not an Equitable Adjustment, for the period of time such Delays are concurrent.

St. Stephen-Calais  
Border Crossing Bridge  
NCPD/CBI-8483(320)X  
NCPD/CBI-8483(360)X  
14 September 2006

SPECIAL PROVISION  
SECTION 203  
EXCAVATION AND EMBANKMENT  
(Dredge Materials)

**Description:** Dredge Material (See MDOT Standard Specifications § 101.2) is regulated as a Special Waste.

CONSTRUCTION REQUIREMENTS

**Management and Disposal:** In accordance with Code of Maine Regulations Chapter 418, one hundred cubic yards or less of Dredge Material Beneficially Used in the area adjacent to and draining into the dredged water body is exempt from Beneficial Use Permits.

The Calais-St Stephen International Bridge will result in Dredge Materials being generated both on the Canadian and the United States sides of the St. Croix River. Only the Dredge Materials from the number three pier and the Calais abutment are from U. S. waters and these are to be Beneficially Used or disposed of in the United States; all other Dredge Materials are from Canadian waters and shall be managed in New Brunswick. No Canadian Dredge Materials shall be brought into the United States and no Dredge Materials from the U. S. shall be transported to Canada. Up to 100 cubic yards (76 cubic meters) of the U.S. generated Dredge Material from the Calais-St Stephen International Bridge may be Beneficially Used in the Calais abutment work.

The Contractor shall dispose of all United States Dredge Materials, not Beneficially Used at the Calais-St Stephen International Bridge site, at a landfill licensed by the Maine Department of Environmental Protection for the disposal of Special Waste. The Contractor shall be responsible for making all necessary arrangements for dewatering and proper disposal of the Dredge Material, including any laboratory testing, in accordance with the landfill's license. The Contractor shall provide documentation to the Resident that the Dredge Material was disposed of as specified. The submitted documentation shall consist of truck manifests, waybills, or such documentation as may be acceptable to the Resident and shall clearly document the disposal site location and the quantity of Dredge Material.

The Contractor shall manage all Canadian Dredge Materials in accordance with the laws and regulations of Canada and New Brunswick; at a minimum: Material and debris excavated from within the Work Area, including within cofferdams, shall be placed at

least 30 meters away from any watercourse or wetland. Sediment control fences and erosion control structures shall be installed prior to carrying out any earthwork to prevent runoff containing high concentrations of sediment from entering the watercourse or wetlands. Placement areas are to be immediately hydroseeded and mulched.

**Method of Measurement:** For regulatory compliance, Dredge Material will be measured by the cubic meter of material removed. For disposal; Dredge Material will be measured by the Megagram, based on weigh slips or other documentation acceptable to the Resident.

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

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 excavation, dewatering, testing, managing, transporting, disposal or placement, and all associated fees.

Payment will be made under:

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

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

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	502.21	Structural Concrete Abut & Ret Wall	\$500	A
A	502.219	Structural Concrete, Abut & Ret Wall	\$475	A
A	502.239	Structural Concrete Piers	\$475	A
S	502.24	Structural Concrete Pier UW		C
LP	502.29	Structural Concrete Wearing Surface	\$500	A
A	502.31	Structural Concrete Approach Slabs		C
LP	502.49	Structural Concrete Curbs and Sidewalks	\$500	A

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

SPECIAL PROVISION  
SECTION 502  
STRUCTURAL CONCRETE  
(Quality Level Analysis)

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

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

TABLE 1- Methods A and B

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

502.503 Delete and replace with the following;

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

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

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

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

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

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

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

TABLE 3

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

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

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

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

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

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

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

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

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

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

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

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

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

C. The Contractor fails to follow the QC Plan”

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

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

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

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

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

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

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

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

Add the following Section;

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

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

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

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

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

SPECIAL PROVISION  
 SECTION 503  
 REINFORCING STEEL

Section 503.01 Description is modified to read:

This work shall consist of furnishing and placing reinforcement, either plain, epoxy-coated or MMFX 2, in accordance with these specifications and in conformance with the Plans, Supplemental Specifications and Special Provisions.

MMFX 2 steel bars as shown on the plans shall be as manufactured by MMFX Steel Corporation of America.

Section 503.04 Protection of Material, 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph is modified to read:

Reinforcement, either plain, epoxy-coated or MMFX 2, shall be stored on skids or other supports a minimum of 300 mm (12 in) above the ground surface and protected at all times from damage and surface contamination.

Section 503.06 Placing and Fastening, 6<sup>th</sup> paragraph is modified to include:

Tie wire for MMFX 2 reinforcement shall be soft annealed wire that has been nylon, epoxy, plastic coated or 16 gauge (or heavier) black-annealed ferrous metal wire.

Section 503.07 Splicing is modified to include:

Minimum Lap Splice Length (millimeters)*									
Bar Type	Bar Size								
	#10	#13	#16	#19	#22	#25	#29	#32	#36
MMFX 2	585	752	919	1086	1378	1795	2255	2880	3507

Minimum Lap Splice Length (inches)*									
Bar Type	Bar Size								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
MMFX 2	24	30	37	44	55	72	90	114	139

\* See Footnote 1 in Standard Specification Section 503.07.

Section 503.10 Method of Measurement, 1<sup>st</sup> sentence and 3<sup>rd</sup> paragraph, respectively, are modified to read:

Reinforcing, plain, epoxy-coated and MMFX 2, shall be measured by the computed number of kilograms [pounds] of steel reinforcement authorized.

For bars, plain, epoxy-coated and MMFX 2, weights will be computed in accordance with the following table.

Section 503.11 Basis of Payment is modified to include:

- |        |  |
|--------|--|
| 503.24 | MMFX 2 Reinforcing Steel, Kilogram [Pound]<br>Fabricated and Delivered |
| 503.25 | MMFX 2 Reinforcing Steel, Kilogram [Pound]<br>Placing                  |

SPECIAL PROVISION

SECTION 511

COFFERDAMS

Section 511 is amended with the following additional requirements:

Inspection. Seal cofferdam excavations to ledge shall be inspected by the Contractor. At a minimum, the inspection shall consist of visual inspection with an illuminated underwater video camera, and a sediment/overburden measuring system. The Contractor shall provide access, equipment and personnel for checking the cleanliness and condition of each cofferdam excavation. The Contractor shall prepare and submit an Inspection Report for each cofferdam. The Report shall include written observations and measurements about soil thicknesses, videotapes, and audio records which will conclusively assess the cleanliness, loose soil content and ledge surface condition of the seal cofferdam excavation. The Contractor's Inspection Report will be submitted to the Resident for approval.

Cofferdam excavation shall be inspected after final cleaning and settlement of suspended sediment. Seal concrete placement shall not begin until the Contractor has submitted an Inspection Report for the Resident's review.

Illuminated underwater cameras shall be either remotely operated with an underwater positioning system, or manually operated by a diver. A TV-VCR will be made available to the Engineer for viewing and documenting the inspection results. Video data will be stored on tape and included as part of the Inspection Report. Continuous videotaped observations shall be made along the entire perimeter of the sheeting at the ledge elevation, and along 4 diagonal/cross-cofferdam passes at 45 degrees spacing. If underwater video data is inconclusive due to suspended sediments, the Engineer may direct the Contractor to perform a visual and tactile inspection by divers. Divers will assess cofferdam excavation condition along the cofferdam perimeter and inside area and use hard wire communications to communicate the information to a topside recorder. Audio tapes will become part of the Inspection Report.

The sediment/overburden measuring system shall consist of manual lowering of steel probes, or 600 mm long steel probes suspended with non-stretch cable or tape. The steel probes shall be #32 rebar (#10 rebar) and flat-tipped. Location-Force-Soil Thickness records will be maintained. Measurements will be taken at a minimum of 5 locations along each of 4 cofferdam walls forming the perimeter, and 5 locations along each of 4 diagonal, cross-cofferdam passes.

The seal cofferdam bottom will be considered clean if, at the time of placement of the seal concrete, more than 50 percent of the bottom area has less than 25 mm (1 inch) of sediment or loose soil, and no portion of the area has more than 50 mm (2 inches) of sediment or loose soil/rock.

Facilities shall be provided and maintained for the Resident to independently inspect each cofferdam using steel probes immediately prior to depositing the seal concrete.

All costs associated with the inspection of the seal cofferdam excavation shall be considered incidental to the cofferdam pay item, 511.07. There shall be no additional payment for repeated inspection of the same excavation.

SPECIAL PROVISION  
SECTION 526  
CONCRETE BARRIER  
(Temporary Concrete Barrier)

Materials The connecting pin shall be 1 1/8" in [28.58 mm] in diameter with a nut and washer connection.

SPECIAL PROVISION  
SECTION 607

CHAIN LINK FENCE (3.7M)

The Maine Department of Transportation Standard Specification (Revision of December 2002) section 607 shall apply to Item No. 607.235 Chain Link Fence (3.7 m).

The following is added:

The intent of the fence is to provide reasonable security against unlawful entry to and through the work area. Chain Link Fence shall be installed around both abutments as shown in the Maine DOT Construction Plans. The entire Chain Link Fence at both abutments shall be installed within 30 calendar days from Contract Award. Shop drawings of the Chain Link Fence shall be submitted to the Resident for approval. The Chain Link Fence shall be 3.7 m high with no barb wire needed at the top. The entire fence including the gate shall be made of galvanized steel. Braces shall be installed at every corner and end posts, and shall be made with two trussed rods with turnbuckles in addition to horizontal brace rails. The posts shall be installed per standard practice and embedded to prevent frost heave. Joints in the Chain Link Fence mesh shall have significant overlap. The Fence shall be installed plumb and remain so for the entire Contract.

Gates shall be installed at both abutments and the openings shall be designed according to the Contractor's requirements. The Gates shall be designed so that they can be locked when needed.

The Contractor shall maintain the Fence for the entire contract and shall leave the entire Chain Link Fence in place at the end of the Contract; at which time it shall become the property of U.S. Federal Government - General Services Administration (GSA). All work associated with furnishing, installation, and maintenance of the Fence will be paid for under Pay Item given below.

Gates shall be designed

<u>Pay Item</u>	<u>Description</u>	<u>Pay Unit</u>
607.235	Chain Link Fence (3.7 M)	M

SPECIAL PROVISION  
SECTION 634.251

SERVICE POLE (7.6 M)

The Contractor shall furnish and install two utility poles which meet Class 5 Southern Pine or Red Pine category with a height of 7.6 m at locations shown in the Construction Plans (U.S.A. only). All aspects of the Service Poles including selection and installation shall meet the requirements of ANSI O5.1 2002. The Service Poles shall be installed within 30 calendar days from Contract Award. Underground utility conduit with a minimum diameter of 76 mm and necessary hardware shall be installed from one pole to the other to facilitate power and data cables for security cameras. Electrical power shall be provided on both poles using outdoor outlets to facilitate operation of security cameras or monitoring systems.

The Contractor is responsible for maintaining the poles for the entire contract and shall leave the poles in place at the end of the contract, at which time the poles shall become the property of U.S. Federal Government – General Services Administration (GSA). All work associated with furnishing, installation and maintenance of the Poles shall be paid for as shown below. All work associated with installing the service conduits and power shall be incidental to the Service Pole item.

<u>Pay Item</u>	<u>Description</u>	<u>Qty</u>	<u>Pay Unit</u>
634.251	Service Pole (7.6 M)	2	EA

SPECIAL PROVISION  
SECTION 638  
BRIDGE LIGHTING  
(Embedded Work in Structures)

**Description:** This work shall consist of furnishing and installing conduit, junction boxes and incidentals for bridge lighting as shown on the plans and described herein. Light standards are expected to be installed at a future date and not paid for by this Contract. The Conduit system is designed for light standards to be installed directly above the intersection of the construction centerline and the Pier centerline locations.

Materials and Methods

(a) Installation of Conduit System

The Contractor shall install conduits as shown on the plans.

The conduit shall be non-metallic 75 millimeter in diameter meeting the requirements specified in Subsection 715.03 and shall be approved for the intended use by the National Electrical Code and labeled with the Underwriters Laboratories listing unless otherwise shown on the plans. All fastening hardware shall be either stainless or galvanized in accordance with ASTM A153.

Conduits embedded in concrete shall be secured in such a way as to ensure that there is no movement during the placing of concrete. Immediately after concrete has been placed, the Contractor shall inspect the complete conduit system to ensure that all conduits are properly embedded.

A waterproof expansion coupling shall be installed in the conduit every nine (9) meters.

The outlets at the Pier locations where the future light standards are expected to be installed shall be closed with water-tight caps.

Immediately after concrete has been placed, the Contractor shall inspect the complete conduit system to ensure that all conduits are clean and free of all obstructions.

(b) Hardware

Anchor bolts, nuts and circular steel washers shall be carbon steel conforming to the requirements of ASTM A325M and hot-dipped galvanized in accordance with ASTM A153M. Washers shall be hot-dipped galvanized.

(c) Junction Boxes Embedded in Structures

There shall be 1 new junction box located at Abutment #2 meeting the requirements of Subsection 715.05.

The junction box shall be located and secured such that when complete, the covers shall be watertight and locked. All openings in the boxes not used in this installation shall be plugged.

The cast iron box shall be outside flanged, recessed cover type, suitable for flush mounting or surface mounting and listed by the Underwriters Laboratories, Inc., as rain tight and watertight of zinc, neoprene gasket or an approved equivalent, and stainless steel cover screws. The inside dimensions and wall thickness shall meet the specifications of the National Electrical Code, latest edition.

The cast iron junction box shall be installed as shown on the plans.

Non-metallic – PVC (polyvinyl chloride) junction boxes may be used in place of cast iron when approved by the Engineer. Non-metallic junction boxes shall be Underwriters Laboratories, Inc. approved.

Method of Measurement

The quantity to be measured for payment for Embedded Work in Structures will be the lump sum unit.

Basis of Payment

The accepted quantity of Embedded Work in Structures will be paid for at the contract lump sum price for the complete installation of conduits, junction boxes, and hardware in structures and will be full compensation for all labor, materials, equipment, and incidentals necessary to acceptably complete the work.

Pay Item	Pay Unit
638.01 Embedded Work in Structures	Lump Sum

**SPECIAL PROVISION**  
**SECTION 639**  
**ENGINEERING FACILITIES**  
**(Telephone)**

639.09 Telephone

Paragraph 1 is amended as follows:

The contractor shall provide **two** telephone lines and two telephones,....

Add-

In addition the contractor will supply one computer broadband connection and modem lease. The type of connection supplied will be contingent upon the availability of services (i.e. DSL or Cable Broadband). It shall be the contractor's option to provide dynamic or static IP addresses through the service. **The selected service will have a minimum downstream connection of 1.5 Mbps and 384 Kbps upstream.** The contractor shall be responsible for the installation charges and all reinstallation charges following suspended periods. Monthly service and maintenance charges shall be billed by the Internet Service Provider (ISP) directly to the contractor.

**SPECIAL PROVISION**  
**SECTION 652**  
**MAINTENANCE OF TRAFFIC**  
(Traffic Control)

652.7 Method of Measurement. This entire Subsection is revised to read:  
Traffic Control Supervisor, furnishing, installation, and maintenance of all traffic control devices will be measured as one **lump sum** for all work authorized and performed.

652.8 Basis of Payment. This entire Subsection is revised to read:  
Traffic Control will be paid for at the contract **lump sum** price. Payment will be full compensation for the Traffic Control Supervisor, flaggers, approach signs, work area signs, drums, cones, panel markers, barricades, arrow boards etc. and maintenance thereof including the setting up and taking down of lane closures as many times as necessary shall be considered part of the lump sum price.

Maintenance of signs includes: replacing devices damaged, lost, or stolen, and cleaning and moving as many times as necessary throughout the life of the contract, regardless whether the work areas or projects are geographically separated or not separated.

The Lump Sum will be payable in installments as follows: 5% of the Lump Sum once the approach signing is complete and approved, with the 95% balance to be paid as the work progresses at a rate proportional to the percentage completion of the Contract.

Failure by the contractor to follow the Contracts 652 Special Provisions and/or The Manual on Uniform Traffic Control Devices (MUTCD) and/or The Contractors own Traffic Control Plan will result in a reduction in payment, computed by reducing The Lump Sum Total by 5% per occurrence. The Departments Resident or any other representative of The Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item.

All other requirements under the Standard Specifications Section 652 will be a part of the lump sum item except flaggers.

**There will be no extra payment for this pay item after the expiration of contract time.**

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
652.39 Work Zone Traffic Control	Lump Sum

SPECIAL PROVISION  
SECTION 652  
MAINTENANCE OF TRAFFIC  
Construction Sign Sheeting Material

Maine DOT is transitioning to super high intensity fluorescent retroreflective sheeting, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic), for construction signs.

Currently serviceable Type III signs will be allowed until the final transition date. New signs bought after January 19, 2005 will conform to Type VII, Type VIII, or Type IX (prismatic) requirements. All signs will be Type VII, Type VIII, or Type IX (prismatic) after the final transition date of April 1, 2007.

During this transition period, sign packages will be of the same sheeting material (all Type III or all Type VII)

All Interstate Projects advertised after January 1, 2005 will be required to use the Type VII, Type VIII, or Type IX (prismatic) sheeting.

**SPECIAL PROVISION  
SECTION 656**

Temporary Soil Erosion and Water Pollution Control

The following is added to Section 656 regarding Project Specific Information and Requirements. All references to the Maine Department of Transportation Best Management Practices for Erosion and Sediment Control (a.k.a. Best Management Practices manual or BMP Manual) are a reference to the latest revision of said manual. The "Table of Contents" of the latest version is dated "1/19/00" (available at <http://www.state.me.us/mdot/mainhtml/bmp/bmpjan2000.pdf>.)

**Procedures specified shall be according to the BMP Manual unless stated otherwise.**

Any and all references to "bark mulch" or "composted bark mix" shall be a reference to "Erosion Control Mix" in accordance with *Standard Specification, Section 619 - Mulch*.

**Project Specific Information and Requirements**

The following information and requirements apply specifically to this Project. The temporary soil erosion and water pollution control measures associated with this work shall be addressed in the SEWPCP.

1) This project is in the St. Croix River watershed, which is listed as an Outstanding River Segment and is considered **SENSITIVE** in accordance with the BMP Manual. The Contractor's SEWPCP shall comply with Section II.B., Guidelines for Sensitive Waterbodies in the BMP Manual.

2) The Contractor shall notify the Resident at least 21 working days prior to commencement of any soil disturbance or in-stream work. The Resident, upon receiving notice from the contractor as to when soil disturbance shall actually commence, will arrange an on-site meeting with representatives from The Canadian Department of Fisheries and Oceans (DFO), the U.S. Army Corps of Engineers (ACOE), Maine Department of Environmental Protection (MDEP), New Brunswick Department of Transportation (NBDOT), Maine Department of Transportation (MaineDOT), and the Contractor. No work shall commence until said meeting has occurred and the Resident verifies with all applicable regulatory agencies having jurisdiction, that the work site is approved for the commencement of soil disturbance and in-stream work. **All in-water work in U.S Waters (Pier 3) shall be carried out between June 30 and September 30 with the exception of driving/pulling pile and tremmie sealing of cofferdams. The pile driving/cofferdam sealing operations in U.S waters (pier 3) must be completed prior to April 30, 2007 or, if not complete, cannot commence again until June 30, 2007. There are no timing restrictions for in-water work conducted in Canadian Waters of the St. Croix River (Piers 1 & 2).** In-Water work consists of any activity conducted below the normal high water mark.

**SPECIAL PROVISION**  
**SECTION 656**

Temporary Soil Erosion and Water Pollution Control

- 3) Newly disturbed earth shall be mulched by the end of each workday. Mulch shall be maintained on a daily basis.
- 4) Dust control items other than those under *Standard Specification, Section 637 – Dust Control*, if applicable, shall be included in the plan.
- 5) Permanent slope stabilization measures shall be applied within one week of the last soil disturbance.
- 6) Permanent seeding shall be done in accordance with *Standard Specification, Section 618 - Seeding* unless the Contract states otherwise.
- 7) After November 1 the Contractor shall use winter stabilization methods, such as Erosion Control Mix as specified in *Standard Specification, Section 619 - Mulch*. If required, spring procedures for permanent stabilization shall also be described in the plan. Use of this product for over-winter temporary erosion control will be incidental to the contract and be paid for as part of Pay Item 656.75.
- 8) Any soil disturbance within 100 meters of the St. Croix River in Canada shall be monitored by a Canadian licensed Archaeologist. The Contractor shall notify the Resident at least 14 working days prior to excavation in said area.
- 9) All disturbed ditches shall be stabilized by the end of each workday. Stabilization shall be maintained on a daily basis.
- 10) Erosion control blanket shall be installed in the bottoms of all ditches except where a stone lining is planned. Seed shall be applied prior to the placement of the blanket.
- 11) If check dams are used, they shall be constructed of stone in accordance with BMP Manual, Section 9. *Hay Bale Temporary Check Dams* **are not allowed**. Delete all reference to them in Section 9.

**SPECIAL PROVISION  
SECTION 656**

Temporary Soil Erosion and Water Pollution Control

- 12) **CLEARING LIMIT LINES SHALL BE MINIMIZED.** Clearing shall be minimized as shown on the design plans. Areas to be cleared shall be discussed at the preconstruction field review.
- 13) Measures will be taken to prevent conveyed materials, including soil and rock, from being dropped into the river or other bodies of water in order to avoid adverse effects on the current water quality.
- 14) Grout from the post-tensioning socket sealing operation and fresh concrete shall not be allowed to contact the water. Clean out of concrete delivery trucks and the washing of tools shall be addressed in the SEWPCP.
- 15) A cofferdam sedimentation basin is required if cofferdams are used. The basin shall be located in an upland area where the water can settle and seep into the ground or be released slowly to the resource in a manner that will not cause erosion. The location of such a cofferdam sedimentation basin shall be addressed in the SEWPCP.
- 16) The Contractor is responsible for following the NBDOT Environmental Protection Plan, NBDOT Environmental Field Guide, and all other applicable Provincial and Federal Regulations, Rules, Laws and Permits. The Contractor is also responsible for following the MaineDOT Standard Specifications, MaineDOT BMP Manual, and all other applicable State and Federal Regulations, Rules, Laws and Permits. Conflicts resolved by utilizing more stringent language as directed by the Resident.
- 17) The Contractor is required to submit to MaineDOT a Spill Prevention Plan that addresses all U.S. and Canadian requirements. Refueling operations shall not take place within Wellhead Protection Zone 1 per the City of Calais Wellhead Protection rules. Re-fueling operations may take place within Wellhead Protection Zone 2 with City of Calais Planning Board approval. It is the Contractor's responsibility to obtain permission, in writing, from the City of Calais. Said documentation shall be supplied to the Resident before any refueling is to occur within Wellhead Protection Zone 2 (see map in Special Provision 100 Environmental Requirements and Commitments).
- 18) Machinery and material shall not be staged in areas in danger of flooding.
- 19) During dewatering operations the contractor is required to test the TSS of the effluent to ensure that it does not exceed 25 mg/L or other level approved by DFO and the Resident. The

**SPECIAL PROVISION  
SECTION 656**

Temporary Soil Erosion and Water Pollution Control

contractor is responsible for any damages or environmental enforcement action resulting from the dewatering operation. Testing of the effluent is required at the pleasure of the Resident.

20) A copy of the Watercourse Alteration Permit shall be kept on-site for the duration of the contract, and shall be made available upon request of an inspector designated to act on behalf of DFO.

21) The contractor shall not dump, spill, or dispose of overburden, tree, brush, petroleum products, camp/field office refuse or other debris into any watercourse, reservoir, or other natural water basin, or into any area which may ultimately cause pollution to water drainage or storage systems and/or groundwater.

22) The Contractor shall notify the Resident at least 21 working days prior to winter shutdown so as to allow sufficient time for an on-site meeting to be arranged with all appropriate environmental regulators to assess the site prior to the Contractor leaving the site.

23) Material removed from any watercourse shall be removed and placed in such a manner that it shall not be returned to the watercourse.

24) Excavations for foundations in a watercourse shall be done so as to minimize sedimentation. Excavation in flowing water is not permitted except in extremely rare instances where the Resident and the MaineDOT Environmental Office agree that no other options are available. Should it be suggested that there are no other options available, the excavation may not commence until it has been approved by all permitting agencies, U.S. and Canadian.

25) The contractor shall not place an earth or rock causeway in the watercourse for the purposes of creating a temporary access structure, without specific approval, in writing, from the Resident and the appropriate U.S. and Canadian regulatory authority(ies).

26) Any natural materials produced and/or supplied by excavation either from pits and/or quarries shall not contain any friable, soluble, or reactive minerals or other deleterious material or conditions that would make the material prone to decomposition or disintegration, or present any environmental hazard, from the presence of the parent material or its byproducts, when exposed to the natural elements after placement in the Work Area. Riprap to be placed on Canadian soil or in Canadian waters shall be tested by the Contractor for acid-generating characteristics. The test results shall be made available to the Resident for review at least two weeks prior to placement. No riprap shall be placed until authorized by the Resident.



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE HOUSE STATION 17      AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

MAINE DEPARTMENT OF TRANSPORTATION	) NATURAL RESOURCES PROTECTION ACT
Calais, Washington County	) FRESHWATER WETLAND ALTERATION
THIRD INTERNATIONAL BRIDGE	) WATER QUALITY CERTIFICATION
L-22770-L6-A-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of MAINE DEPARTMENT OF TRANSPORTATION with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The applicant is proposing to construct a third international bridge linking Calais with St. Stephan, New Brunswick, Canada. In addition to the bridge crossing, the facility will include a Border Patrol Facility run by the U.S. Department of Homeland Security. The wetland alterations for the entire site are included in this Order; the U.S government will apply for a Site License at a later date. The applicant does not propose additional wetland alteration outside the boundaries of the project. The applicant is not proposing the widening of Route 1 through the Moosehorn National Wildlife Refuge as part of this project.

The applicant is requesting a permit to alter a total of 296,540 square feet of freshwater wetland. The amounts of wetlands, type of wetland and the placement of the wetland within the site (i.e. road, station, etc.) to be altered are detailed in Exhibit 14 of the application. The project is shown on a set of plans included with the application, the first of which is entitled "Location", prepared by the applicant and dated September 8, 2004. The project site is located on Route 2 in the Town of Calais.

The Department received a request for a Public Hearing; however, no credible conflicting technical information was received by the Department and the Commissioner denied the request.

B. Current Use of the Site: The site is currently part of the Calais Industrial Park.

2. WATER QUALITY CONSIDERATIONS:

Provided that the project erosion and sedimentation controls are implemented and maintained in accordance with the MDOTs' Best Management Practices as outlined in Exhibit 8 of the application, the Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

3. HABITAT CONSIDERATIONS:

Information provided to the Department from the Department of Marine Resources (DMR) indicates that the proposed project should not cause any significant adverse impacts to marine resources, navigation or recreation.

Information provided to the Department from the Maine Department of Inland Fisheries and Wildlife indicates that there are no Essential or Significant Wildlife Habitats at the project site.

4. WETLANDS AND WATERBODIES PROTECTION RULES:

The Department's Wetlands and Waterbodies Protection Rules, Chapter 310, require that the applicant meet the following standards:

Avoidance. No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. Each application for a freshwater wetland alteration permit must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist. The applicant submitted an alternative analysis for the proposed project completed by the applicant and entitled "Reevaluation of the 2001 Environmental Assessment", dated January 2006. The analysis is included as Exhibit 20 of the application. In the alternative analysis, the applicant looked at several possible locations for the new bridge crossing along the Route 1/Route 9 corridor between Baileyville and Calais. The review of each possible location demonstrates that the proposed project as outlined in the application provides the least amount of alteration to freshwater wetlands, undeveloped lands and good agricultural areas.

b. Minimal Alteration. The amount of wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The proposed wetland alteration is the least amount necessary to construct the project.

c. Compensation. Compensation is required to achieve the goal of no net loss of wetland functions and values. Due to the amount of wetland alteration, the applicant is required to compensate for the lost functions and values of the wetlands. The applicant is proposing to preserve approximately 178 acres of wetland and associated adjacent upland to the Moosehorn National Wildlife Refuge (Refuge) and deeded to the Refuge. The

parcel is currently owned by the City of Calais. In an email dated April 4, 2006, the City indicates intent to transfer the parcel to MDOT by December 31, 2006. Due to federal regulations regarding land, the 178 acres may not have any associated encumbrances. By May 1, 2007, the applicant shall submit evidence to the Department indicating that the parcel has been accepted by and transferred to the Refuge.

The Department finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

5. OTHER CONSIDERATIONS:

The Department did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.

- I. The proposed activity is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

THEREFORE, the Department APPROVES the above noted application of Maine Department of Transportation to construct a third international bridge, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.
2. The applicant shall take all necessary measures to ensure that their activities or those of their agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
3. By May 1, 2007, the applicant shall submit evidence to the Department indicating that the parcel has been accepted by and transferred to the Refuge.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED AT AUGUSTA, MAINE, THIS 14<sup>th</sup> DAY OF April, 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

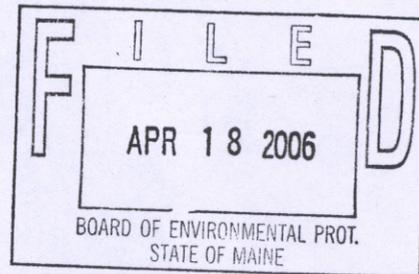
By: *David R. Littell*  
 DAVID R LITTELL, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application January 30, 2006

Date of application acceptance February 9, 2006

Date filed with Board of Environmental Protection  
 RC/57025/22770AN





## NATURAL RESOURCE PROTECTION ACT (NRPA) STANDARD CONDITIONS

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCE PROTECTION ACT, TITLE 38, M.R.S.A. SECTION 480-A ET.SEQ. UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

- A. **Approval of Variations From Plans.** The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
- B. **Compliance With All Applicable Laws.** The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. **Erosion Control.** The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.
- D. **Compliance With Conditions.** Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.
- E. **Initiation of Activity Within Two Years.** If construction or operation of the activity is not begun within two years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits shall state the reasons why the applicant will be able to begin the activity within two years form the granting of a new permit, if so granted. Reapplications for permits may include information submitted in the initial application by reference.
- F. **Reexamination After Five Years.** If the approved activity is not completed within five years from the date of the granting of a permit, the Board may reexamine its permit approval and impose additional terms or conditions to respond to significant changes in circumstances which may have occurred during the five-year period.
- G. **No Construction Equipment Below High Water.** No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.
- H. **Permit Included In Contract Bids.** A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.
- I. **Permit Shown To Contractor.** Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

SPECIAL PROVISION  
SECTION 700

MATERIALS

CLOSED CELL FOAM JOINT FILLER

The Closed Cell Foam show in the Construction Plans (CCF) shall meet the requirements of ASTM D 1056 Type 2 (Closed Cell). The Contractor shall provide documentation to the Resident for approval that the CCF selected is of concrete construction grade and can endure thermal cycles experienced by a bridge structure. Closed cell foam placed in the pier shear keys shall be Grade 2B2. Closed cell foam placed at all other places shall be Grade 2B0 or 2B1. The foam shall be sized and placed such that the final dimensions are as shown in the Construction Plans.

Care must be taken to ensure that no concrete is allowed to pass through the foam. All joints between foam sheets shall be sealed as recommended by the manufacturer. Both faces of closed cell foam shall be bonded to concrete with adhesive as recommended by the manufacturer. The exposed surfaces of the foam shall be cleaned after removal of forms to ensure that no debris will prevent movement at the joints.

The closed cell foam joints in the Piers have been designed to allow movements up to 70% of the CCF thickness. The closed cell foam joints behind the abutment diaphragms have been designed to allow 32 mm of movement in one direction (compression or expansion). The closed cell foam selected and installed by the Contractor shall meet the above mentioned movement requirements.

Payment for furnishing and installing closed cell foam shall be incidental to the Pier and Abutment items. Closed cell foam used at the Piers shall be incidental to the Structural Concrete Pier Item. Closed cell foam used at the Abutments shall be incidental to Structural Concrete Abutment and Retaining Wall Item.

SPECIAL PROVISION  
SECTION 709  
REINFORCING STEEL AND WELDED STEEL WIRE FABRIC

Section 709.01 Reinforcing Steel is modified to include:

MMFX 2 reinforcing steel shall conform to the requirements of ASTM A 1035/A 1035M – Standard Specification for Deformed and Plain, Low-carbon, Steel Bars for Concrete Reinforcement. Bars shall be deformed conforming to the requirements of AASHTO M31/M31M (ASTM A 615/A615M).

**SPECIAL PROVISION**  
**SECTION 890.01**

**UTILITY CONDUIT HANGER**  
**AND DUCT BANK SYSTEM**

**Utility Conduit Hanger System:**

The Contractor shall be responsible for supplying all labor, material and equipment required to install a utility conduit hanger system for the St. Croix River Bridge Project connecting Calais, Maine, USA to St. Stephen, New Brunswick, Canada.

Bridge superstructure design provisions have been made to accept a hanger system as shown and described. For diaphragm openings and conduit hanger insert information, see Sheet No. 39, titled "Utility Details" as provided as part of the Calais Bridge drawing package.

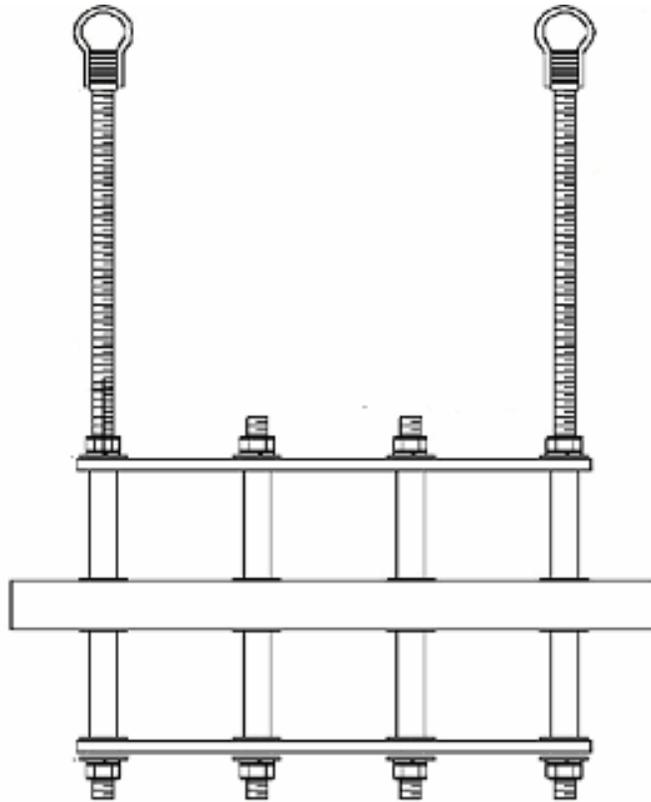
The conduit hanger system shall have provisions to support six 6" conduits and related hardware. The conduit hanger system shall be designed and constructed to support conduits made of fiberglass, bullet resistant materials, galvanized steel, PVC or any combination of material thereof. Additionally, the hanger system shall be designed to support fiber optic cables, copper conductors and / or aluminum conductors which may be installed for future electrical power distribution, lighting, telecommunications or security systems.

**Hanger System Materials:**

The conduit hanger system shall be comprised of the following. See Figure A below for reference. All material shall be provided by United Fiberglass, American U-Tel or equal.

- ½" x 2" Fiberglass Flat Stock
- 2" x 2" Fiberglass Square Tubing
- ¾" 10 NC Threaded Steel Rods at Required Lengths with Hardware
- ¾" Fiberglass Spacer Tubes as Required
- Anchors/Inserts as Required. Load Capacity: 2 kips each.
- All steel material shall be Hot Dip Galvanized unless specified otherwise.

Actual conduits to be supported by Hanger System is not part of the MaineDOT Contract and will be provided and installed by the respective utility unless otherwise agreed upon by the Contractor and utility.



**Figure A**

**Duct Bank:**

The work shall consist of furnishing of all materials and construction of the duct bank consisting of six 6" conduits as shown in the Construction Plans. This work shall include the concrete encasement at both abutments and approaches in accordance with these specifications and in close conformity with the lines and grades shown on the Construction Plans or as established by the Resident.

**Duct Bank Materials:**

Steel conduits at the abutments shall be 6" nominal,(RMC) galvanized rigid steel meeting NEMA and UL standards and installed per the NEC requirements. PVC Conduit for concrete encasement shall be 6" nominal Rigid Nonmetallic Conduit (RNC) meeting NEMA and UL standards and installed per the NEC requirements. . Concrete shall be Portland cement concrete with a minimum compressive strength of 20 MPa (3 ksi). Reinforcing steel if used shall meet the requirements of ASTM A615M Grade 420.

Construction Requirements:

Conduits, transitions, terminations, grouting and encasement shall be installed in accordance with Construction Plans and details. All ducts shall be swabbed clean after installation. All backfill and compaction shall meet Maine DOT standards.

Method of Measurement:

The Utility Conduit Hanger and the Duct Bank Systems will be measured as one lump sum. This shall include, furnishing, installing, inspection, in accordance with the dimensions shown on the plans or as directed by the Resident.

Basis of Payment:

The accepted Utility Conduit Hanger system and the Duct Bank system will be paid for at the contract lump sum price, complete in place.

Payment will be made under:

<u>Pay Item</u>	<u>Description</u>	<u>Qty</u>	<u>Pay Unit</u>
890.01	Special Work # 1	1	Lump Sum





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

REPLY TO:  
ATTENTION OF  
Regulatory Division

CENAE-R-51

Permit Number: NAE-2006-704

1 SEP 2006

2 1 SEP 2006

John E. Doherity, Chief Engineer  
Maine Dept. of Transportation  
16 State House Station  
Augusta, Maine 04333

Dear Mr. Doherity:

Enclosed are two copies of a Department of the Army permit authorizing the work described therein. Your signature is necessary to execute this permit. The authorized work cannot start until we receive a complete, signed copy of the permit. If the conditions are acceptable, please sign both copies and return one signed copy of the entire permit to "Regulatory Division" at the address above. No fee is required.

Please post the enclosed ENG Form 4336 (i.e., Notice of Authorization) in a conspicuous location at the job site whenever work is ongoing. If you need to change the plans or construction methods (i.e., for work in our jurisdiction), please contact us immediately to discuss modifying your permit prior to undertaking these changes.

This authorization requires you to 1. notify us before beginning work so we may inspect the project, and 2. submit a Compliance Certification Form. You must complete and return the enclosed Work Start Notification Form(s) to this office at least two weeks before the anticipated starting date. You must complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals).

This permit is a limited authorization containing a specific set of conditions. Please read the permit thoroughly to familiarize yourself with those conditions, including any conditions contained on the attached state water quality certification. If a contractor does the work for you, both you and the contractor are responsible for ensuring that the work is done in compliance with the permit's terms and conditions, as any violations could result in civil or criminal penalties.

Our verification of this project's wetland delineation under the 1987 Corps of Engineers Wetland Delineation Manual (U.S. Army Engineer Waterways Experiment Station Tech. Rep. Y-87-1, 1987) is valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date.

Please note that the Department of the Army permit process does not supersede any other agency's jurisdiction.

This letter contains an initial proffered permit for your activity. If you object to this permit decision because of certain terms and conditions therein, you may request that the permit be modified accordingly under Corps regulations at 33 CFR 331. Enclosed you will find a combined Notification of Appeal Process (NAP) and Request for Appeal (RFA) form. If you object to this permit decision you must submit a completed RFA form to me, Regulatory Division Chief at 696 Virginia Road, Concord, Massachusetts 01742. Direct questions regarding the Corps of Engineers appeals process to Ms. Ruth Ladd, Chief, Policy and Technical Analysis Branch at (978) 318-8818 or at the above address.

In order for the Corps to accept an RFA, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the District Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by 11 NOV 2006. It is not necessary to submit an RFA form to the District Office if you do not object to the permit decision in this letter.

If you have any questions regarding this correspondence, please contact Jay Clement at 207-623-8367 at our Manchester, Maine Project Office.

Sincerely,

Robert J. DeSista  
Chief, Regulatory Division

Enclosures

*AC*  
PROJ MCR  
*PM*  
ERS  
*PM*  
CHF POLICY  
*HL*  
BRANCH  
*JL*  
OFF COORDINATOR  
*JD*  
CHF REG DIV

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND  
REQUEST FOR APPEAL**

Applicant: Maine Dept. of Transportation		File Number: NAE-2006-704	Date:
Attached is:			See Section below
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
X	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

**SECTION II** - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/mer/functions/cw/secwo/reg> or Corps regulations at 33 CFR Part 331.

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the District Engineer for final authorization in care of "Regulatory Division." If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the District Engineer, in care of the Chief, Regulatory Division, as specified in the last paragraph of the coverletter. Your objections must be received within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT:** You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the District Engineer for final authorization in care of "Regulatory Division." If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer in care of: James W. Haggerty, Regulatory Appeals Review Officer, US Army Engineer Division, North Atlantic Fort Hamilton Military Community, Bldg. 301, General Lee Avenue, Brooklyn, NY 11252-6700 Telephone: (718) 765-7150, E-mail: [James.W.Haggerty@nad02.usace.army.mil](mailto:James.W.Haggerty@nad02.usace.army.mil). The Division Engineer must receive this form within 60 days of the date of this notice.

• C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer in care of: James W. Haggerty, Regulatory Appeals Review Officer, US Army Engineer Division, North Atlantic Fort Hamilton Military Community, Bldg. 301, General Lee Avenue, Brooklyn, NY 11252-6700. Telephone: (718) 765-7150, E-mail: James.W.Haggerty@nad02.usace.army.mil. The Division Engineer must receive this form within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer in care of: James W. Haggerty, Regulatory Appeals Review Officer, US Army Engineer Division, North Atlantic Fort Hamilton Military Community, Bldg. 301, General Lee Avenue, Brooklyn, NY 11252-6700. Phone: (718) 765-7150, E-mail: James.W.Haggerty@nad02.usace.army.mil. The Division Engineer must receive this form within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district at the address below for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION**

If you have questions regarding this decision and/or the appeal process you may contact Ms. Ruth Ladd at:

Chief, Policy Analysis/Technical Support Branch  
Corps of Engineers  
696 Virginia Road  
Concord, MA 01742 or by calling (978) 318-8818

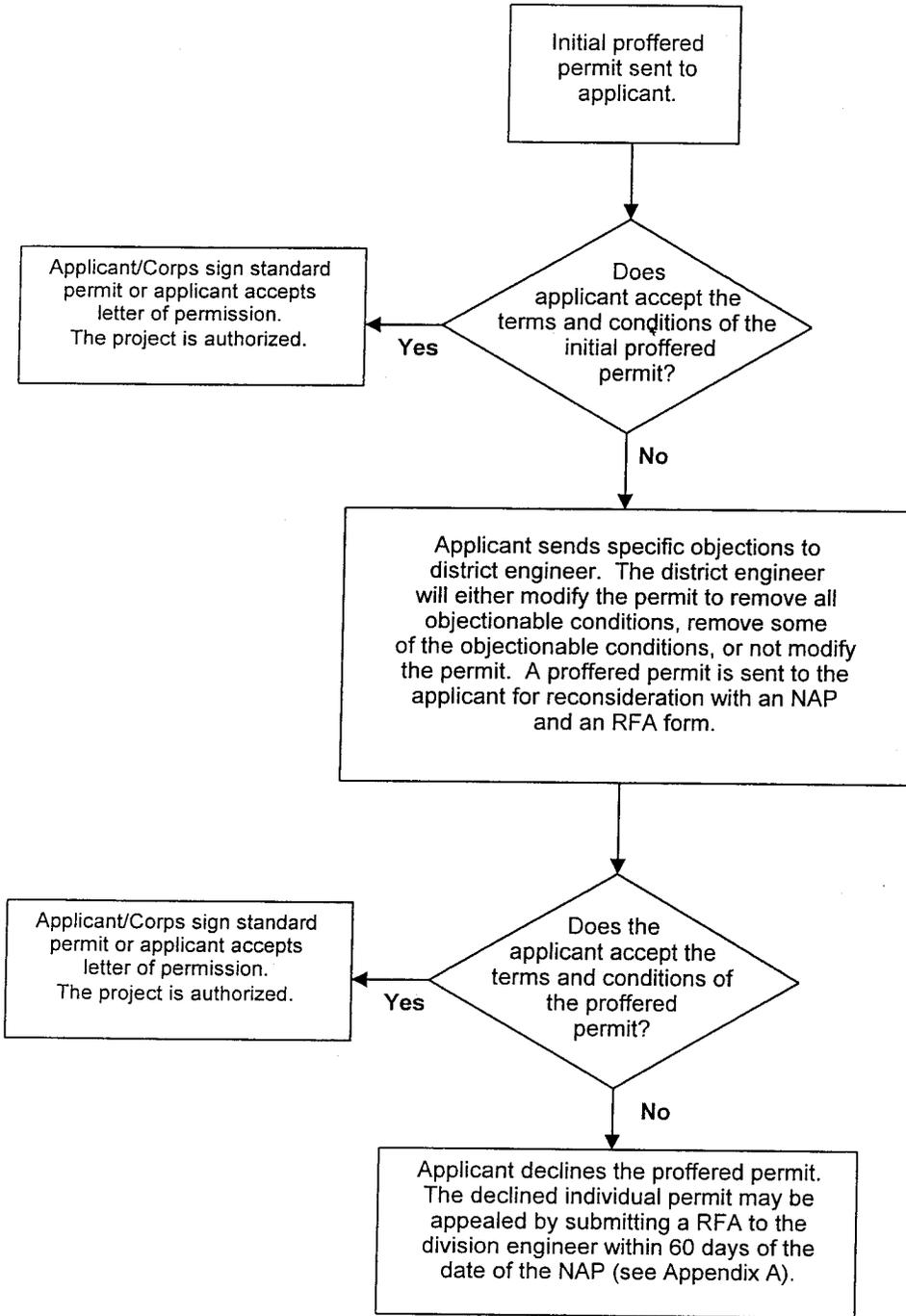
RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

\_\_\_\_\_  
Signature of appellant or agent.

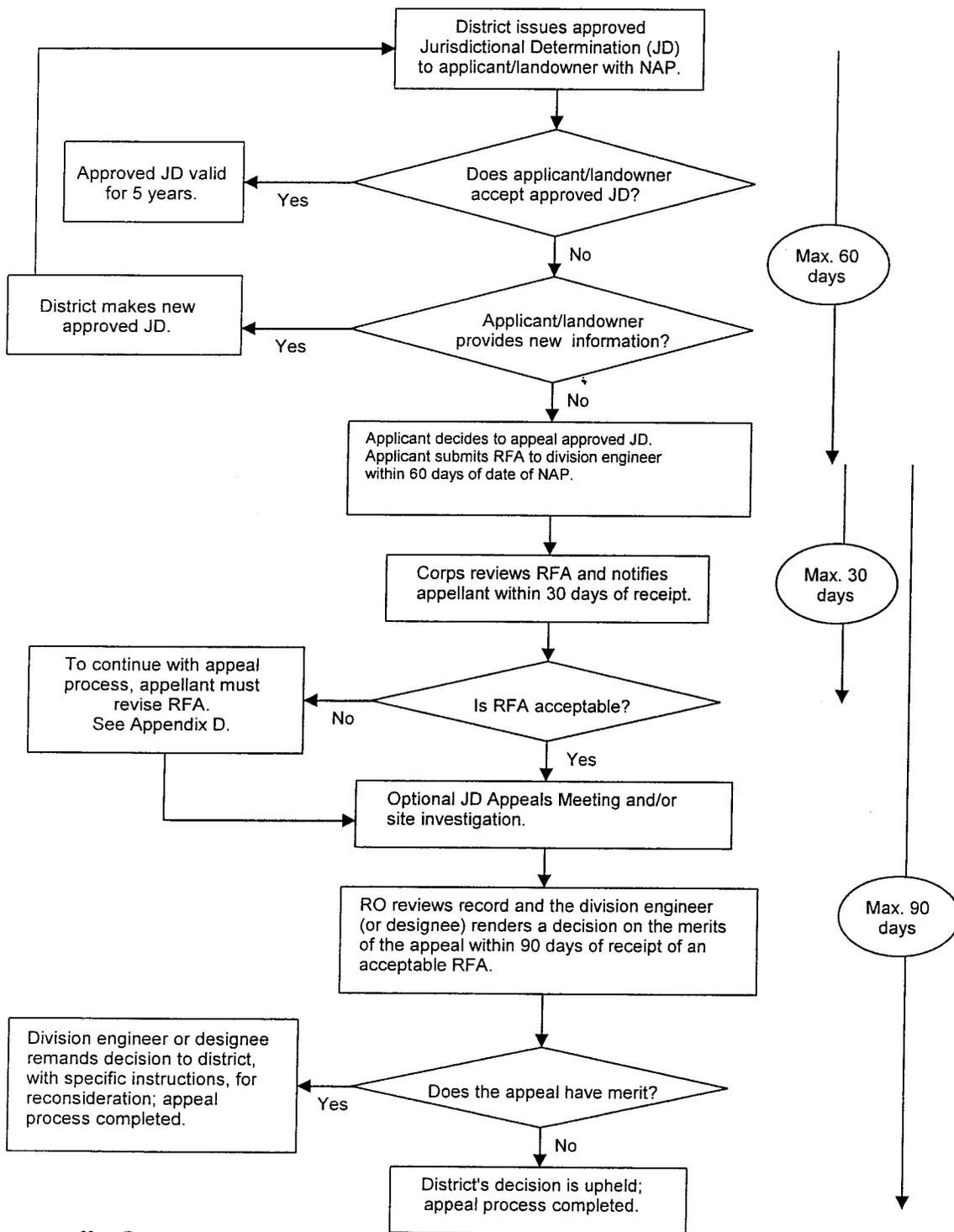
Date:

Telephone number:

## Applicant Options with Initial Proffered Permit



# Administrative Appeal Process for Approved Jurisdictional Determination



**Appendix C**

# JURISDICTIONAL DETERMINATION

Revised 8/13/04

U.S. Army Corps of Engineers

DISTRICT OFFICE: New England District

FILE NUMBER & APPLICANT: NAE-2006-704; Maine Dept. of Transportation

## PROJECT LOCATION INFORMATION:

State: Maine

County: Washington

Center coordinates of site (latitude/longitude): 43.6796072 N; 70.4434658 W.

Approximate size of area (parcel) reviewed, including uplands: 50 acres.

Name of nearest waterway: St. Croix River

Name of watershed: St. Croix

## JURISDICTIONAL DETERMINATION

Completed: Desktop determination



Date: July 7, 2000

Site visit(s)



Date(s): August 9, 2005, July 11, 2006, August 24, 2006

### Jurisdictional Determination (JD):

Preliminary JD - Based on available information,  *there appear to be* (or)  *there appear to be no* "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).

Approved JD - An approved JD is an appealable action (Reference 33 CFR part 331).  
Check all that apply:

*There are* "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area.  
Approximate size of jurisdictional area:

*There are* "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area.  
Approximate size of jurisdictional area:

*There are* "isolated, non-navigable, intra-state waters or wetlands" within the reviewed area.

Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination of No Jurisdiction.

## BASIS OF JURISDICTIONAL DETERMINATION:

### A. Waters defined under 33 CFR part 329 as "navigable waters of the United States":

The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

### B. Waters defined under 33 CFR part 328.3(a) as "waters of the United States":

(1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(2) The presence of interstate waters including interstate wetlands<sup>1</sup>.

(3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):

(i) which are or could be used by interstate or foreign travelers for recreational or other purposes.

(ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

(iii) which are or could be used for industrial purposes by industries in interstate commerce.

(4) Impoundments of waters otherwise defined as waters of the US.

(5) The presence of a tributary to a water identified in (1) - (4) above.

(6) The presence of territorial seas.

(7) The presence of wetlands adjacent<sup>2</sup> to other waters of the US, except for those wetlands adjacent to other wetlands.

**Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above).** *If the jurisdictional water or wetland is not itself a navigable water of the United States, describe connection(s) to the downstream navigable waters. If B(1) or B(3) is used as the Basis of Jurisdiction, document navigability and/or interstate commerce connection (i.e., discuss site conditions, including why the waterbody is navigable and/or how the destruction of the waterbody could affect interstate or foreign commerce). If B(2, 4, 5 or 6) is used as the Basis of Jurisdiction, document the rationale used to make the determination. If B(7) is used as the Basis of Jurisdiction, document the rationale used to make adjacency determination:* Unnamed waterways on site are tributaries to the St. Croix River which is a navigable water of the US. The wetlands are either contiguous, bordering, or neighboring to these water courses.

**Lateral Extent of Jurisdiction:** (Reference: 33 CFR parts 328 and 329)

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Ordinary High Water Mark indicated by:    | <input checked="" type="checkbox"/> High Tide Line indicated by:   |
| <input checked="" type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> oil or scum line along shore objects      |
| <input checked="" type="checkbox"/> the presence of litter and debris         | <input type="checkbox"/> fine shell or debris deposits (foreshore) |
| <input checked="" type="checkbox"/> changes in the character of soil          | <input type="checkbox"/> physical markings/characteristics         |
| <input checked="" type="checkbox"/> destruction of terrestrial vegetation     | <input type="checkbox"/> tidal gages                               |
| <input checked="" type="checkbox"/> shelving                                  | <input type="checkbox"/> other:                                    |
| <input type="checkbox"/> other:   |  |
- Mean High Water Mark indicated by:  
 survey to available datum;  physical markings;  vegetation lines/changes in vegetation types.
- Wetland boundaries, as shown on the attached wetland delineation map and/or in a delineation report prepared by: Maine DOT staff

**Basis For Not Asserting Jurisdiction:**

- The reviewed area consists entirely of uplands.
- Unable to confirm the presence of waters in 33 CFR part 328(a)(1, 2, or 4-7).
- Headquarters declined to approve jurisdiction on the basis of 33 CFR part 328.3(a)(3).
- The Corps has made a case-specific determination that the following waters present on the site are not Waters of the United States:
  - Waste treatment systems, including treatment ponds or lagoons, pursuant to 33 CFR part 328.3.
  - Artificially irrigated areas, which would revert to upland if the irrigation ceased.
  - Artificial lakes and ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
  - Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
  - Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States found at 33 CFR 328.3(a).
  - Isolated, intrastate wetland with no nexus to interstate commerce.
  - Prior converted cropland, as determined by the Natural Resources Conservation Service. Explain rationale:
  - Non-tidal drainage or irrigation ditches excavated on dry land. Explain rationale:
  - Other (explain):

**DATA REVIEWED FOR JURISDICTIONAL DETERMINATION (mark all that apply):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant.
- Data sheets prepared/submitted by or on behalf of the applicant.
- This office concurs with the delineation performed by Maine DOT staff and reviewed in the field on 8/9/05:
- This office does not concur with the delineation report, dated \_\_\_\_\_, prepared by (company): \_\_\_\_\_
- Data sheets prepared by the Corps.
- Corps' navigable waters' studies:
- U.S. Geological Survey Hydrologic Atlas:
- U.S. Geological Survey 7.5 Minute Topographic maps: Calais, ME
- U.S. Geological Survey 7.5 Minute Historic quadrangles: Calais, ME
- U.S. Geological Survey 15 Minute Historic quadrangles:
- USDA Natural Resources Conservation Service Soil Survey: Washington County, Calais, ME
- National wetlands inventory maps: Calais, ME
- State/Local wetland inventory maps:
- FEMA/FIRM maps (Map Name & Date): Calais, ME; 8/3/94
- 100-year Floodplain Elevation is: unknown (NGVD)
- Aerial Photographs (Name & Date): Calais, ME vicinity; unknown date
- Other photographs (Date): Ground photos taken by applicant in 2005
- Advanced Identification Wetland maps:
- Site visit/determination conducted on: August 9, 2005
- Applicable/supporting case law:
- Other information (please specify):

<sup>1</sup>Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

<sup>2</sup>The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.

**NON-TIDAL NAVIGABLE WATERS OF THE UNITED STATES  
NEW ENGLAND DISTRICT**

The following non-tidal waters have been determined to be Navigable Waters of the United States subject to permit jurisdiction in the New England District area.

Maine – Kennebec River to Moosehead Lake; Penobscot River to the confluence of the East and West Branch at Medway, Maine; Lake Umbagog within the State of Maine.

New Hampshire – Merrimack River from the MA – NH state line to Concord, New Hampshire; Lake Umbagog within the State of New Hampshire; Connecticut River to Pittsburg, New Hampshire.

Massachusetts – Merrimack River to the New Hampshire state line; all of the Connecticut River within the Massachusetts state line.

Connecticut – Connecticut River to the Massachusetts state line.

Vermont – Navigability studies and determination has been completed in Vermont. The following lists show the results of these determinations:

Navigable waterways based on present or potential future use for interstate commerce:

Lake Champlain  
Lake Memphremagog  
Connecticut River  
Ompompanoosuc River to Mile 3.8  
Waits River to Mile 0.9

Navigable waterways based on past historical use for interstate commerce:

Black River from mouth to Mile 25 Craftsbury  
Battenkill River to Mile 50 Manchester  
Lamoille River from mouth to Mile 79 Greensboro  
Missisquoi River from mouth to Mile 88.5 Lowell  
Otter Creek from mouth to Mile 63.8 Procter  
Winooski River from mouth to Marshfield  
Moose River from Passumpsic River to Victory Town line  
Nulhegan River from its mouth to its source including the East Branch, Back Branch,  
and Yellow Branch  
Paul Stream from mouth to source  
East Branch, Passumpsic River from Passumpsic River to East Haven  
Passumpsic River from mouth to the East Branch  
Wells River from mouth to Groton Pond  
White River from mouth to its source

DEPARTMENT OF THE ARMY PERMIT

Permittee Maine Dept. of Transportation, 16 State House Station, Augusta, Maine 04333

Permit No. NAE-2006-704

Issuing Office New England District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

Fill approximately 296,540 s.f. (6.8 acres) of wetlands and stream bed in order to construct a new International Border Crossing. The project involves new roadway and bridge construction as well as overlay and widening of existing roadways. It is split into six main components, the overlay

(Project Description Continued on Page 4)

This work is shown on the attached plans entitled "BSCR CALAIS-ST. STEPENS BORDER CROSSING" on 28 sheets undated and "ST. CROIX RIVER BRIDGE" on 4 sheets undated.

Project Location:

In unnamed tributaries to the St. Croix River and in adjacent freshwater wetlands at Calais, Maine

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on 21 SEP 2011. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions:**

1. The permittee shall ensure that a copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made a part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for work.

**(Special Conditions continued on Page 4)**

**Further Information:**

1. **Congressional Authorities:** You have been authorized to undertake the activity described above pursuant to:
  - Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
  - Section 404 of the Clean Water Act (33 U.S.C. 1344).
  - Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. **Limits of this authorization.**
  - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
  - b. This permit does not grant any property rights or exclusive privileges.
  - c. This permit does not authorize any injury to the property or rights of others.
  - d. This permit does not authorize interference with any existing or proposed Federal project.
3. **Limits of Federal Liability.** In issuing this permit, the Federal Government does not assume any liability for the following:
  - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
  - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
  - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
  - d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

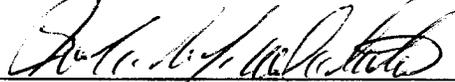
Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

\_\_\_\_\_  
(PERMITTEE) (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

  
\_\_\_\_\_  
(DISTRICT ENGINEER) (DATE)

Curtis L. Thalken  
Colonel, Corps of Engineers  
District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEE) (DATE)

(Project Description Continued from Page 1)

and widening of a 0.69 mile section of US Route 1; the construction of a 1902' long industrial park access road; the construction of an 820' long connector from the new industrial park access road to Whitlock Lane within the industrial park; the construction of an 1138' long connector road from Route 1 to the new border station; the construction of the new border station; and the construction of a new bridge over the St. Croix River to St. Stephen, NB. The new border crossing facility would be constructed and operated by the General Services Administration (GSA).

DOT PIN: 8483.32

(Special Conditions continued from Page 2)

If the permit is issued after the construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. If the permit is issued after receipt of bids or quotes, the entire permit shall be included in the contract or sub-contract as a change order. The term "entire permit" includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

2. Adequate sedimentation and erosion control devices, such as geotextile silt fences or other devices capable of filtering the fines involved, shall be installed and properly maintained to minimize impacts during construction. These devices must be removed upon completion of work and stabilization of disturbed areas. The sediment collected by these devices must also be removed and placed upland, in a manner that will prevent its later erosion and transport to a waterway or wetland. All exposed soils resulting from the construction will be promptly seeded and mulched in order to achieve vegetative stabilization.

3. The permittee shall complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.

4. The permittee shall implement all terms and conditions contained in the attached water quality certification from the Maine Dept. of Environmental Protection dated "April 14, 2006". Copies of all required submittals shall also be provided to the Corps.

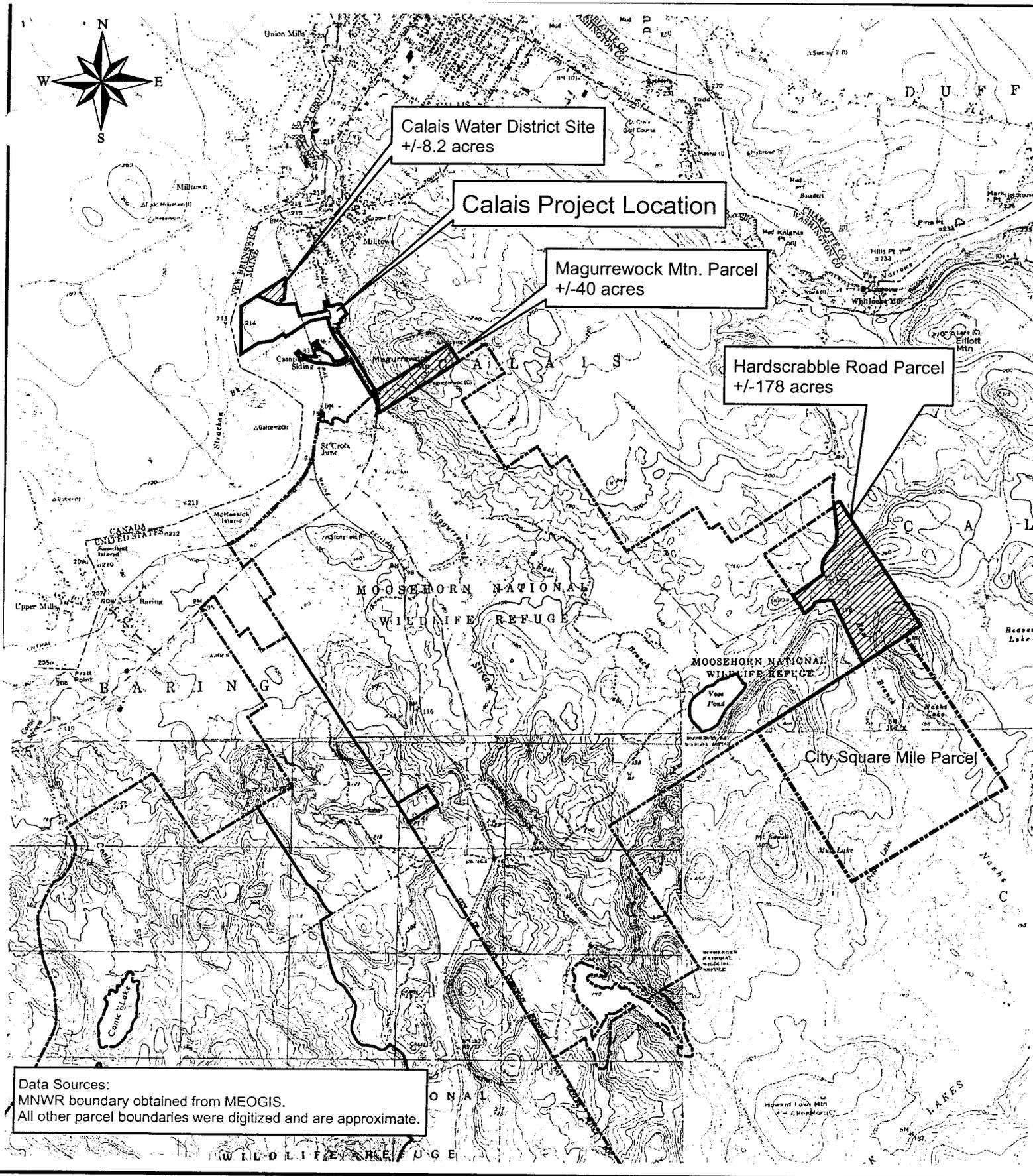
5. The permittee and his contractors shall conduct a pre-construction meeting with Corps, Maine Dept. of Environmental Protection and other appropriate resource agency staff prior to construction at the project site.

6. This permit authorizes impacts to only those areas of wetlands shown on the attached plans. No other filling, clearing or other disturbance in wetlands shall occur.

Special Conditions Continued on Page 5

Special Conditions Continued from Page 4

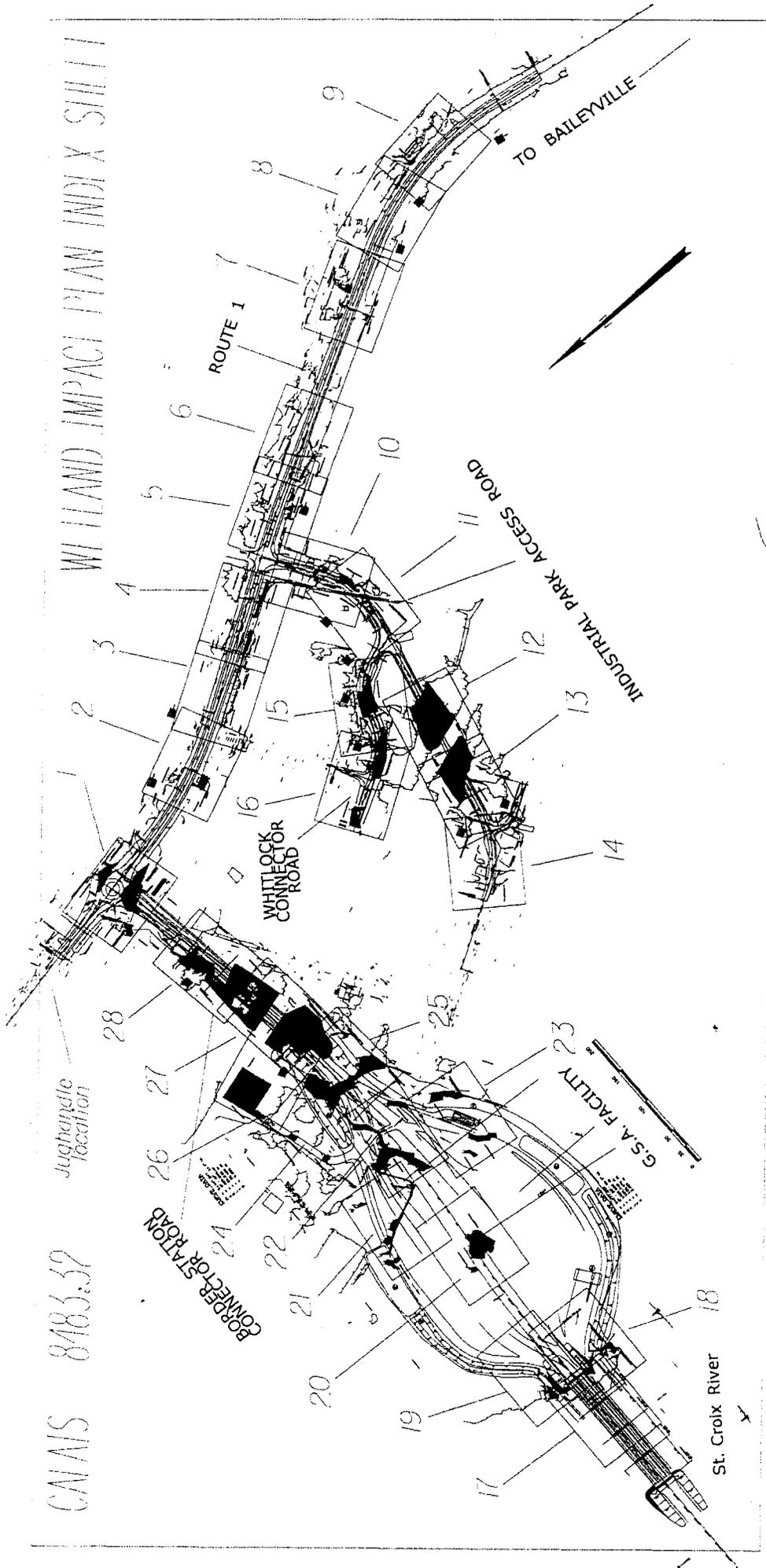
7. Culverts shall be installed with their inverts at or below existing grade so as to preserve hydraulic connectivity, at its present level, between the wetlands on either side of the road. If future inspections discover wetland damage likely due to lack of hydraulic connectivity, the Permittee shall take necessary measures to correct this deficiency. Any road crossing of wetlands shall be culverted to municipal or state standards (number & size) sufficient to prevent restriction of flows and/or faunal movement.
8. Mitigation shall be performed in accordance with the attached mitigation plan entitled, "WETLAND COMPENSATION PLAN, MAINE DOT CALAIS-ST. STEPHEN INTERNATIONAL BRIDGE AND BORDER CROSSING PROJECT" and dated "JANUARY 2006" and revised "JUNE 2006".
9. Except where stated otherwise, reports, drawings, correspondence and any other submittals required by this permit shall be marked with the words "Permit No. NAE-2006-704" and shall be addressed to "Inspection Section, CENAE-R, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751." Documents which are not marked and addressed in this manner may not reach their intended destination and do not comply with the requirements of this permit.

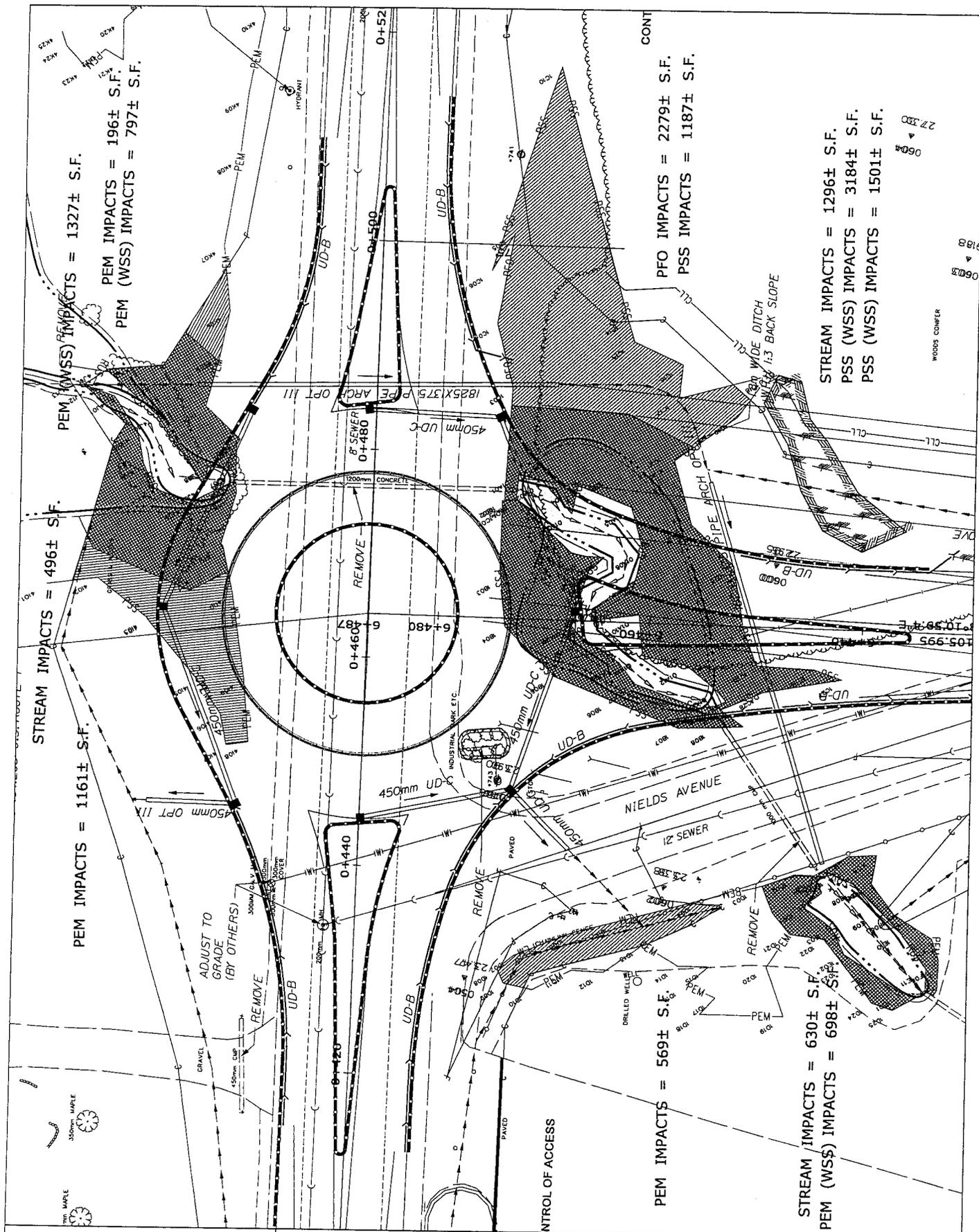


Data Sources:  
 MNWR boundary obtained from MEOGIS.  
 All other parcel boundaries were digitized and are approximate.

PREPARED BY:  <b>WOODLOT ALTERNATIVES, INC.</b> ENVIRONMENTAL CONSULTANTS	DATE: December 2005	<i>Figure 1 - Project Location Map</i> <i>Wetland Compensation Plan</i> <i>Calais - St. Stephen International Border Crossing</i> <i>MaineDOT PIN - 8483.32</i>
	SCALE: 1:1200 meters	
	JOB NO. 105131.01	
	FILE: 105131-F001-locus.mxd	

CAVAIS 8483.39 WETLAND IMPACT PLAN INDEX SHEET





PEM (WSS) IMPACTS = 1327± S.F.  
 PEM IMPACTS = 196± S.F.  
 PEM (WSS) IMPACTS = 797± S.F.

STREAM IMPACTS = 496± S.F.  
 PEM IMPACTS = 1161± S.F.

CONT  
 PFO IMPACTS = 2279± S.F.  
 PSS IMPACTS = 1187± S.F.

STREAM IMPACTS = 1296± S.F.  
 PSS (WSS) IMPACTS = 3184± S.F.  
 PSS (WSS) IMPACTS = 1501± S.F.

PEM IMPACTS = 569± S.F.

STREAM IMPACTS = 630± S.F.  
 PEM (WSS) IMPACTS = 698± S.F.

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING

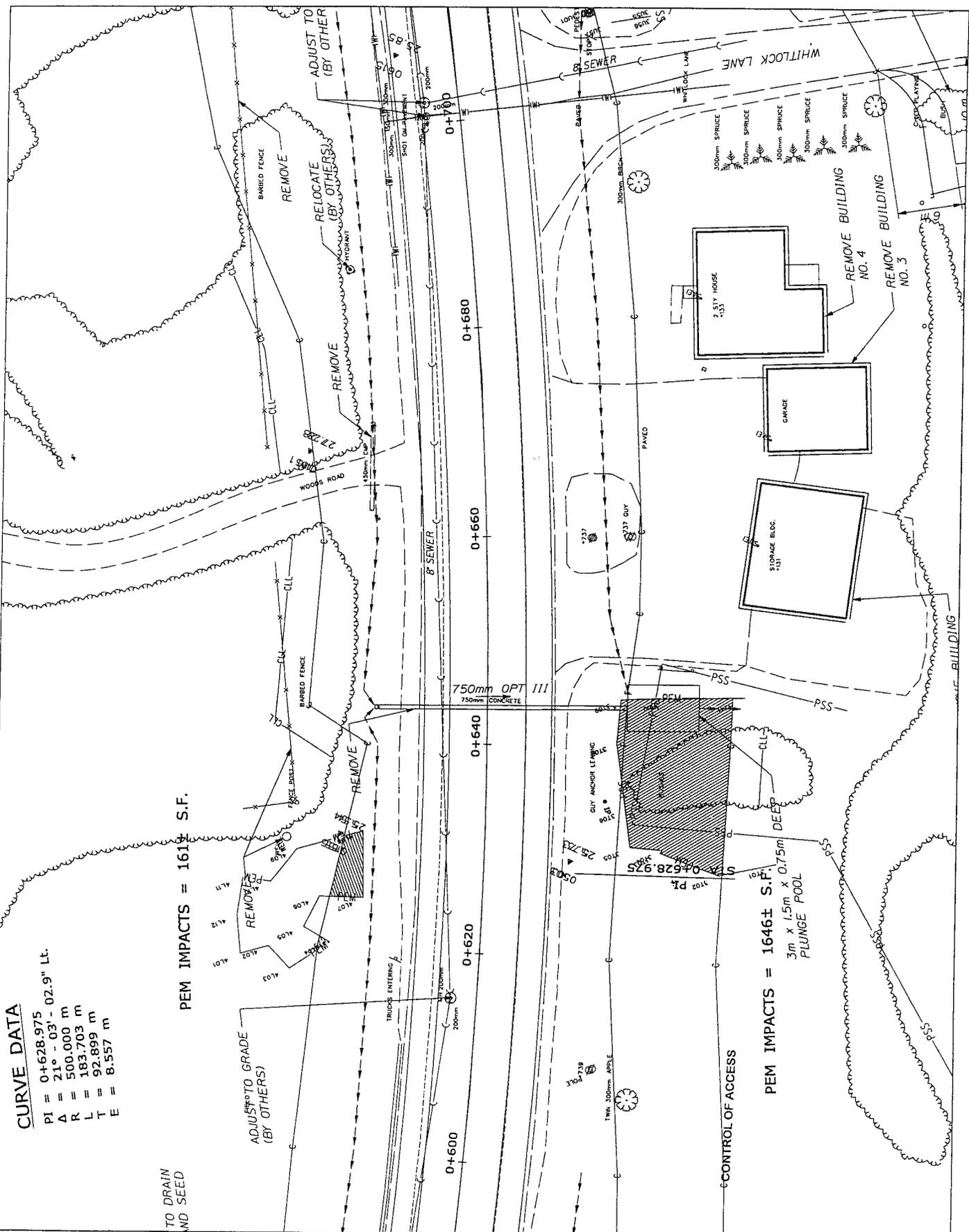
SHEET NUMBER

1

PLANS

8483.32

OF 28



**CURVE DATA**

PI = 0+628.975  
 Δ = 21° - 03' - 02.9" Lt.  
 A = 500.000 m  
 R = 183.703 m  
 LT = 92.899 m  
 E = 8.557 m

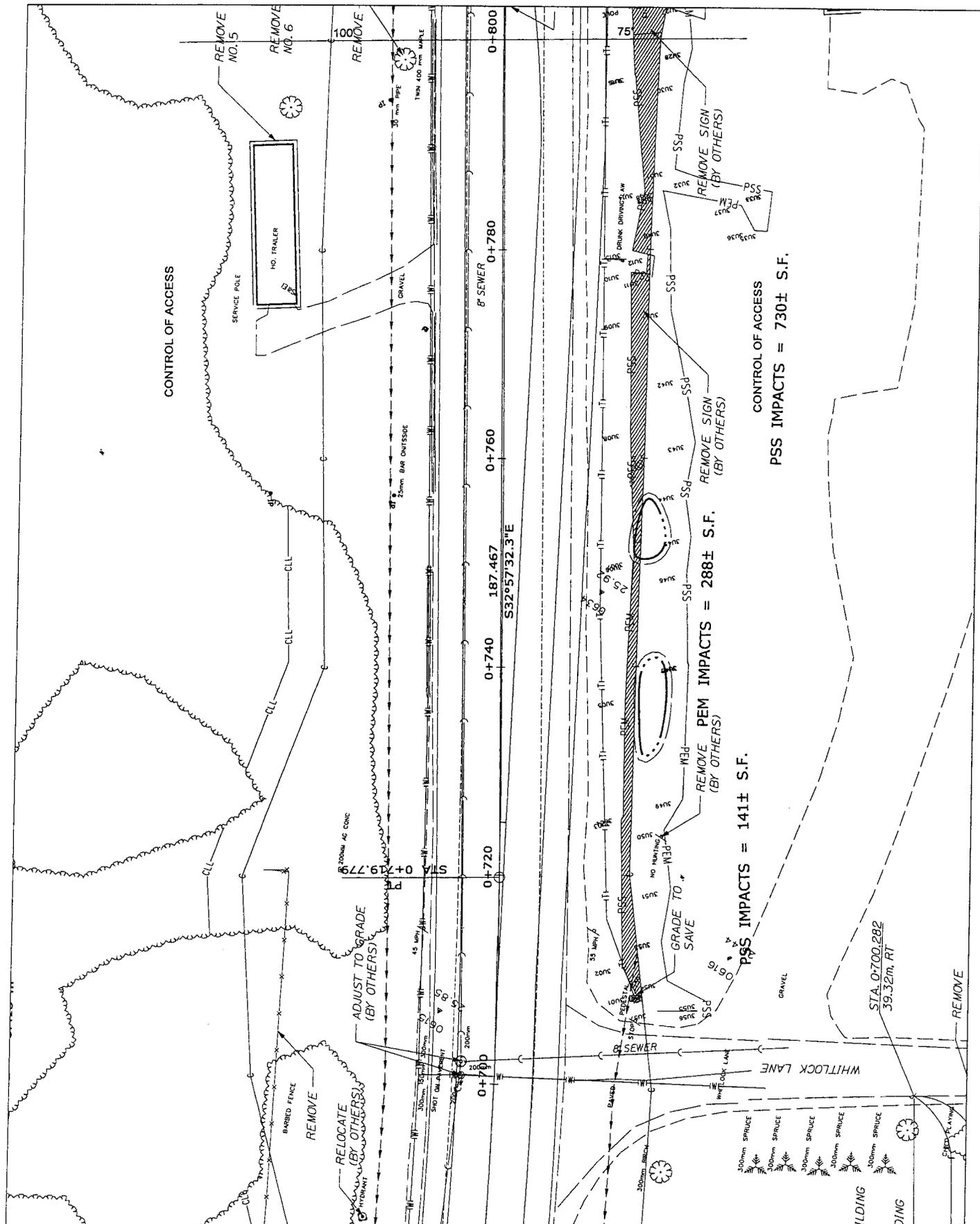
PEM IMPACTS = 161± S.F.

PEM IMPACTS = 1646± S.F.  
 3m x 1.5m x 0.75m DEEP  
 PLUNGE POOL

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 8483.32

BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING  
 PLANS

SHEET NUMBER  
 2  
 OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

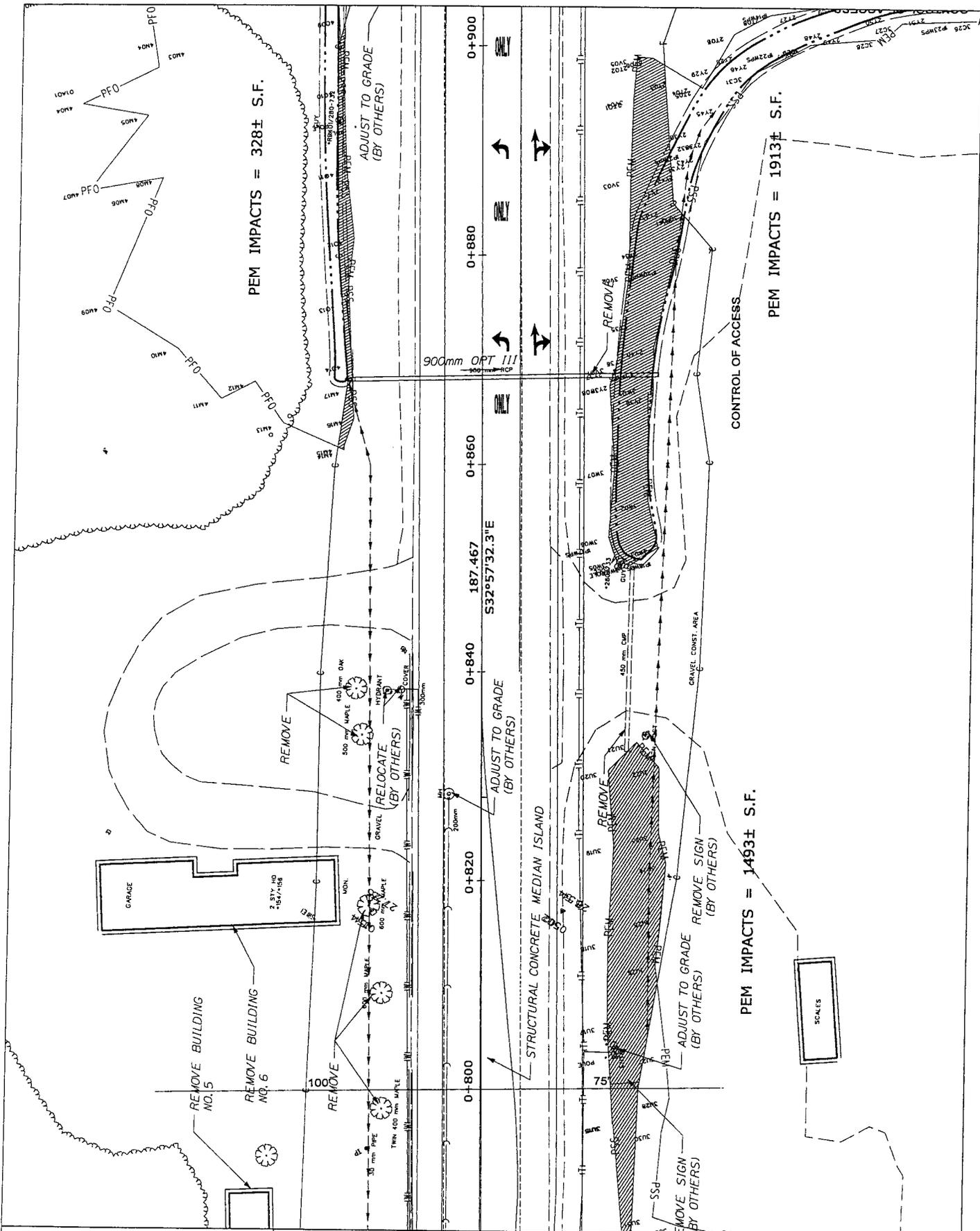
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

3

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

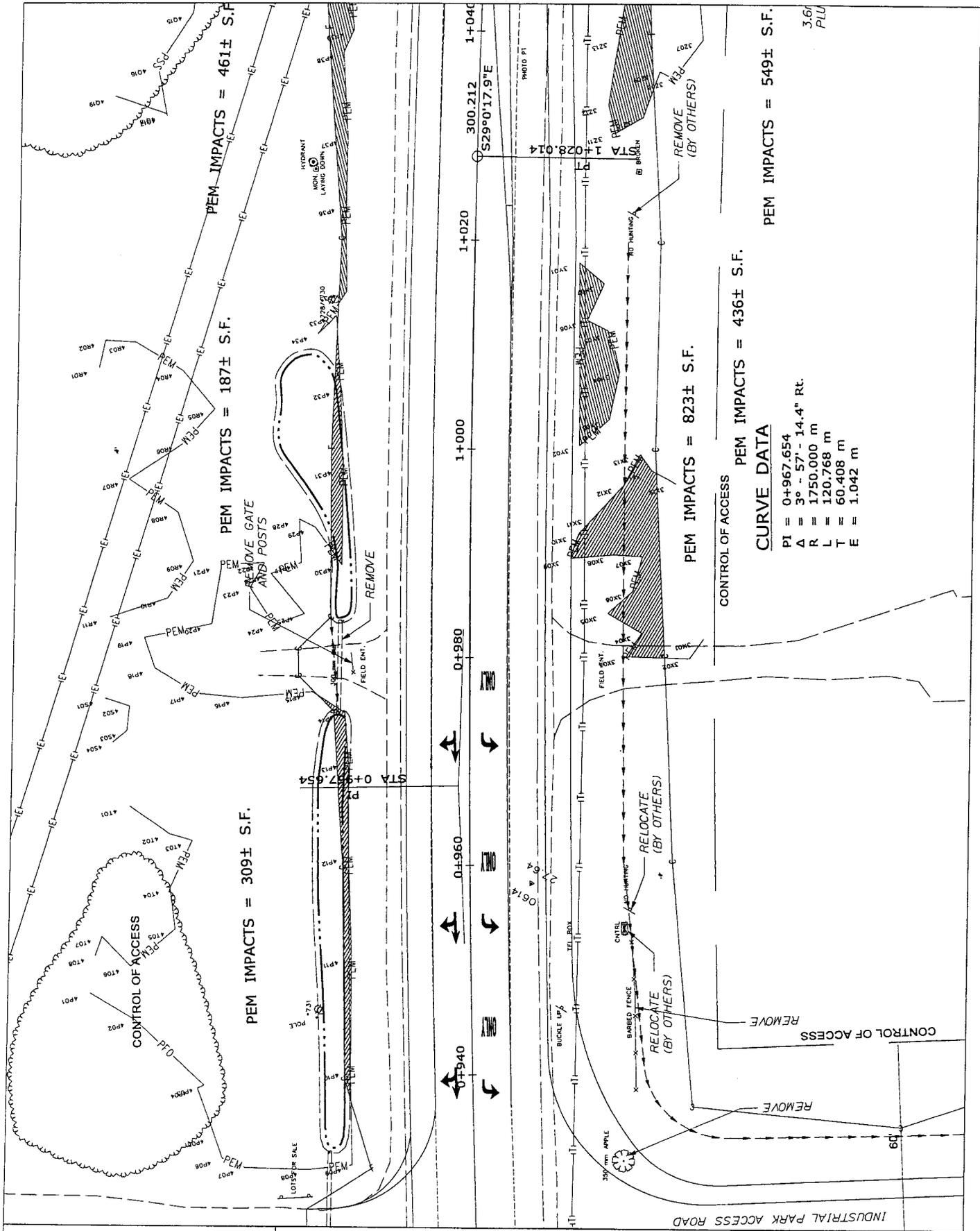
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

4

OF 28



**CURVE DATA**

PI	=	0+967.654
Δ	=	3° - 57' - 14.4" Rt.
R	=	1750.000 m
L	=	120.768 m
T	=	60.408 m
E	=	1.042 m

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

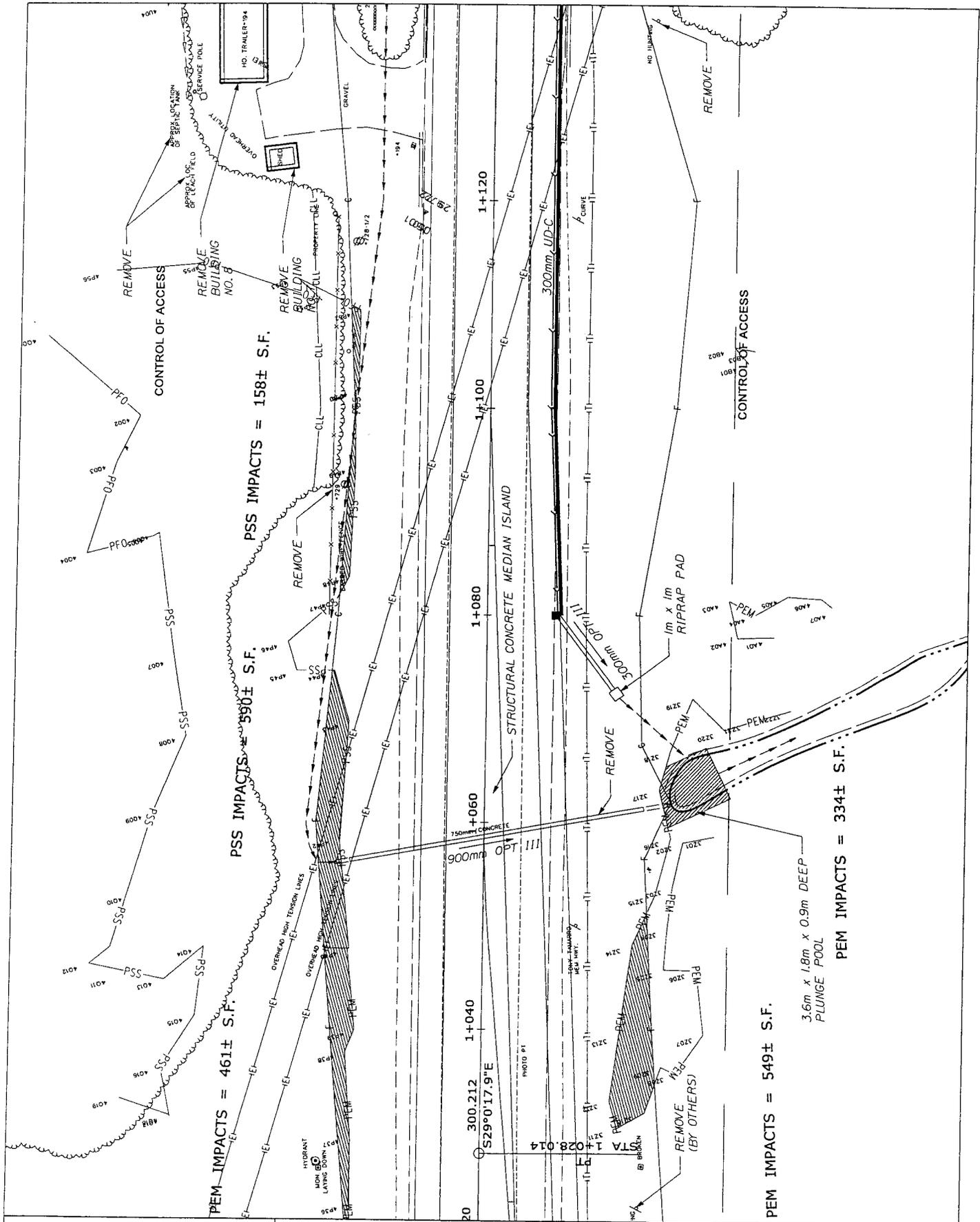
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

5

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

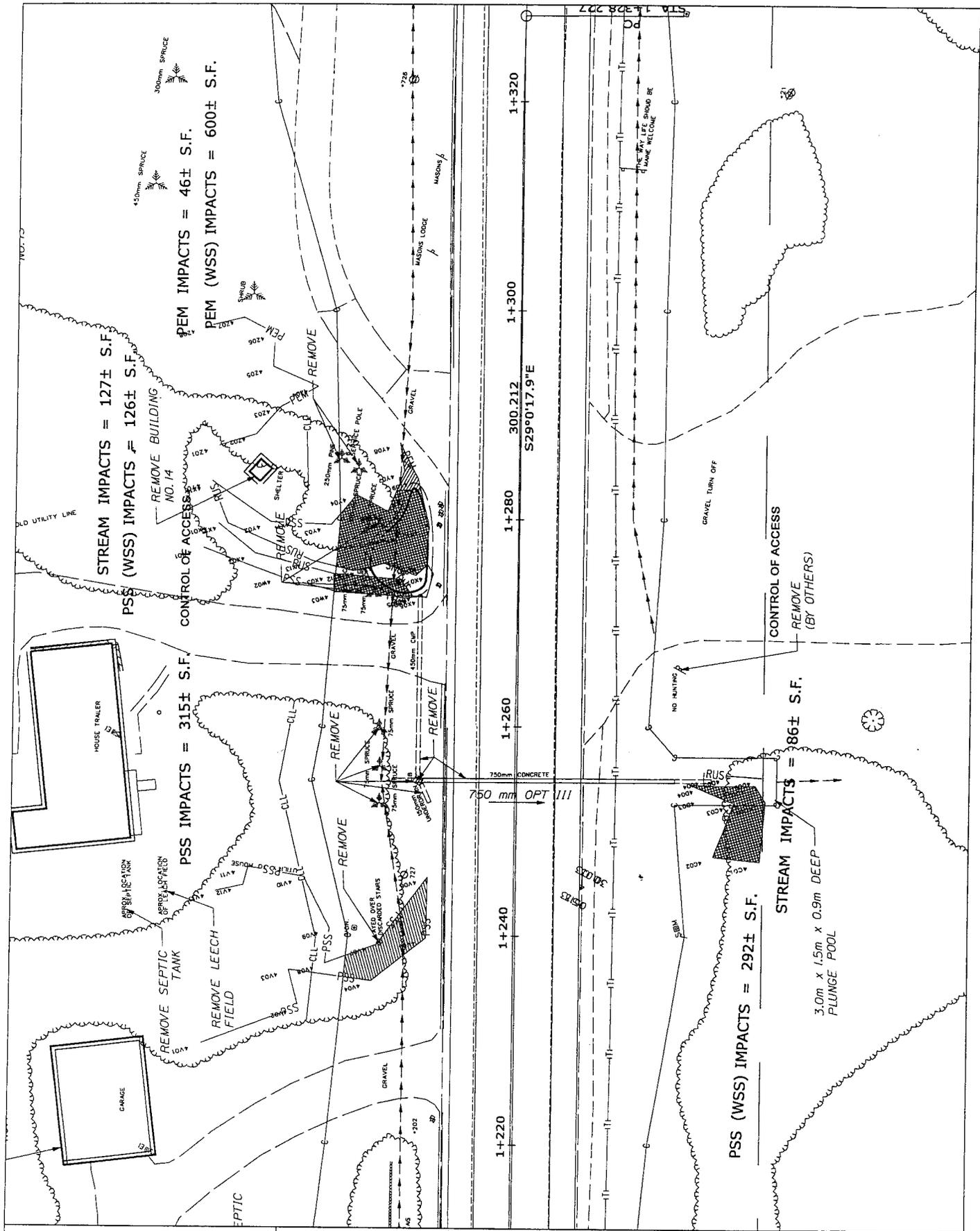
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

6

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

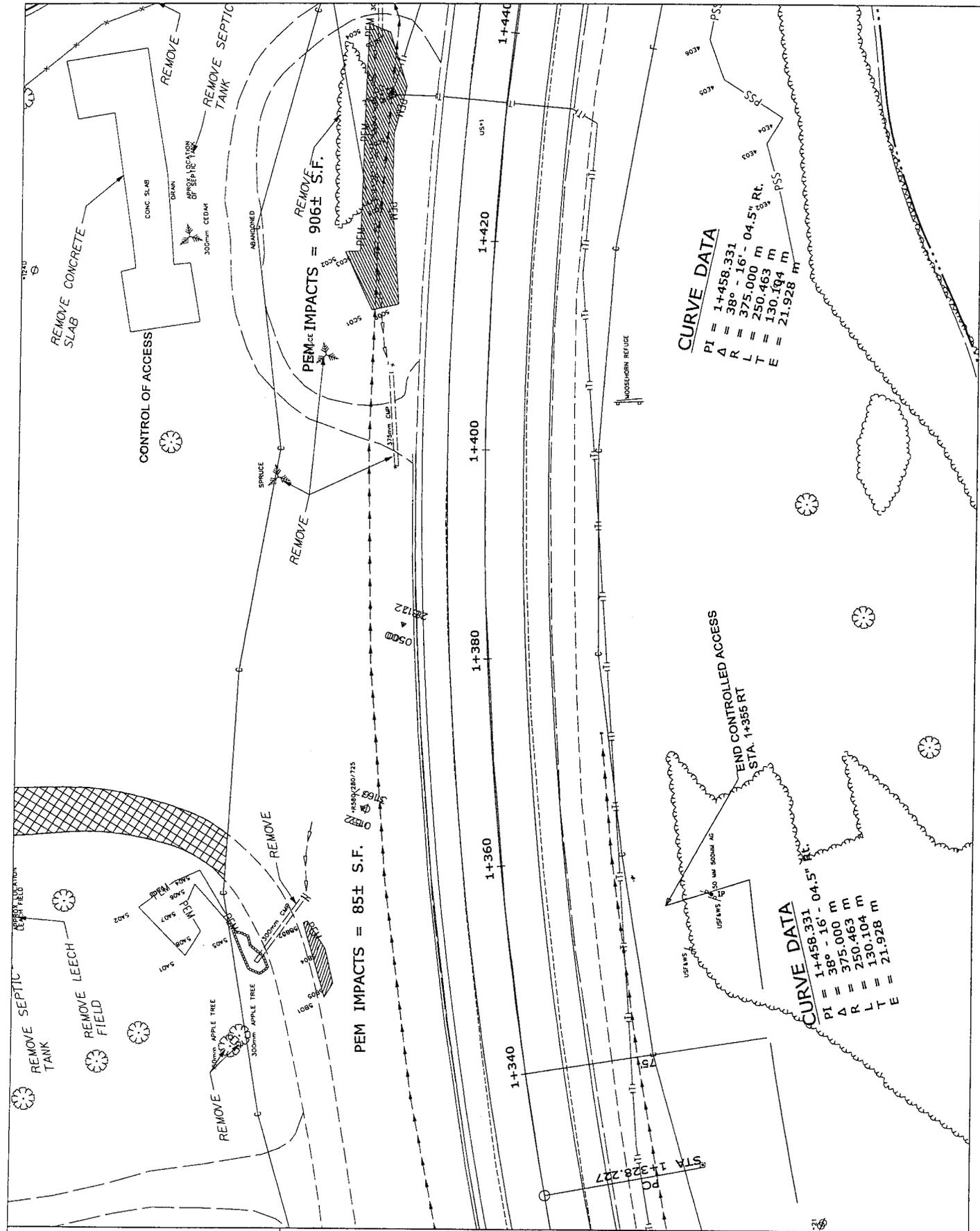
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

7

OF28



**CURVE DATA**  
 PI = 1+458.331  
 Δ = 38° - 16' - 04.5" RT;  
 R = 375.000 m  
 L = 250.463 m  
 T = 130.104 m  
 E = 21.928 m

**CURVE DATA**  
 PI = 1+458.331  
 Δ = 38° - 16' - 04.5" RT;  
 R = 375.000 m  
 L = 250.463 m  
 T = 130.104 m  
 E = 21.928 m

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING

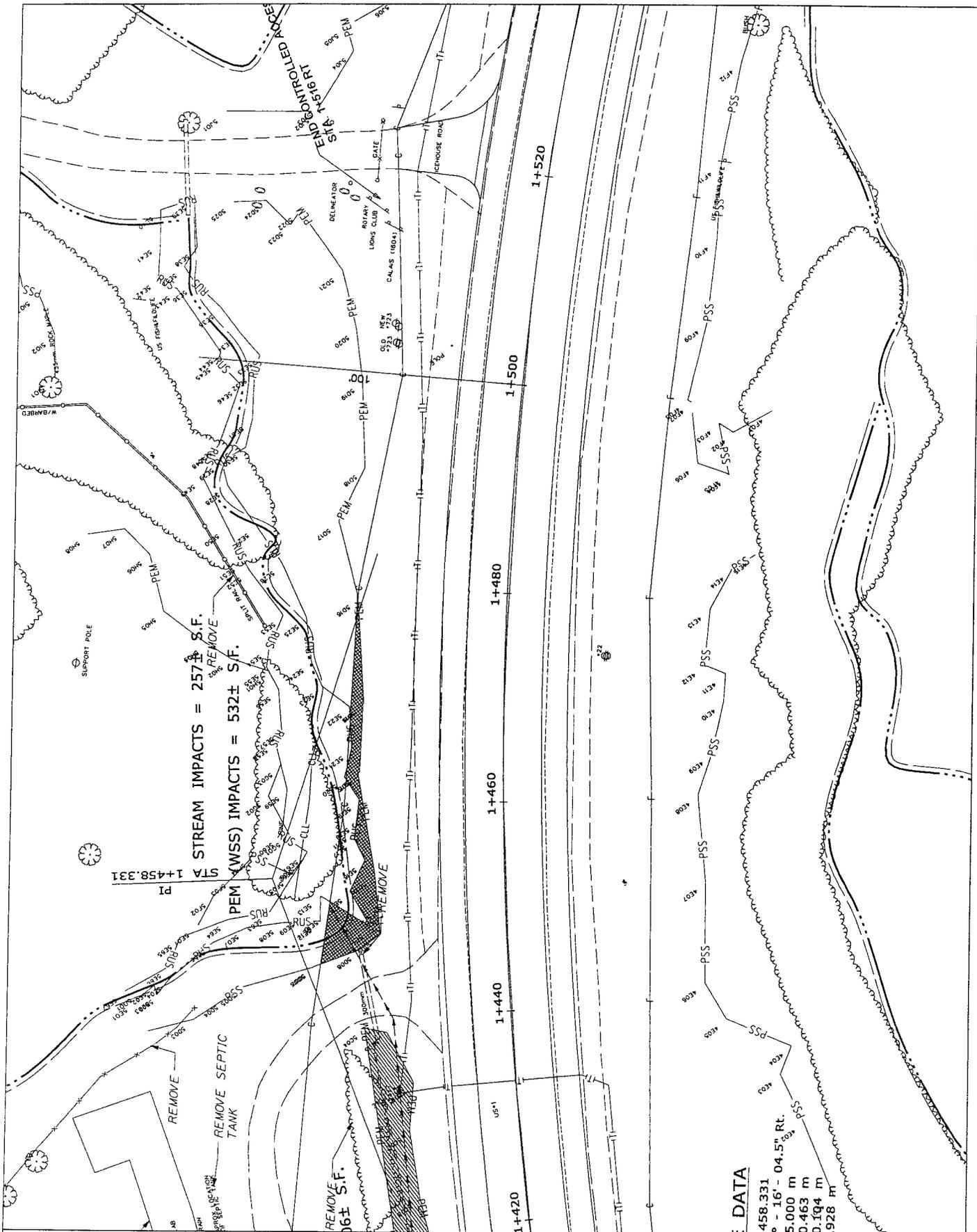
SHEET NUMBER

8483.32

PLANS

8

OF 28



REMOVE S.F.  
 REMOVE S.F.  
 REMOVE S.F. 06± S.F.  
 REMOVE S.F.

STA 1+458.331  
 PI

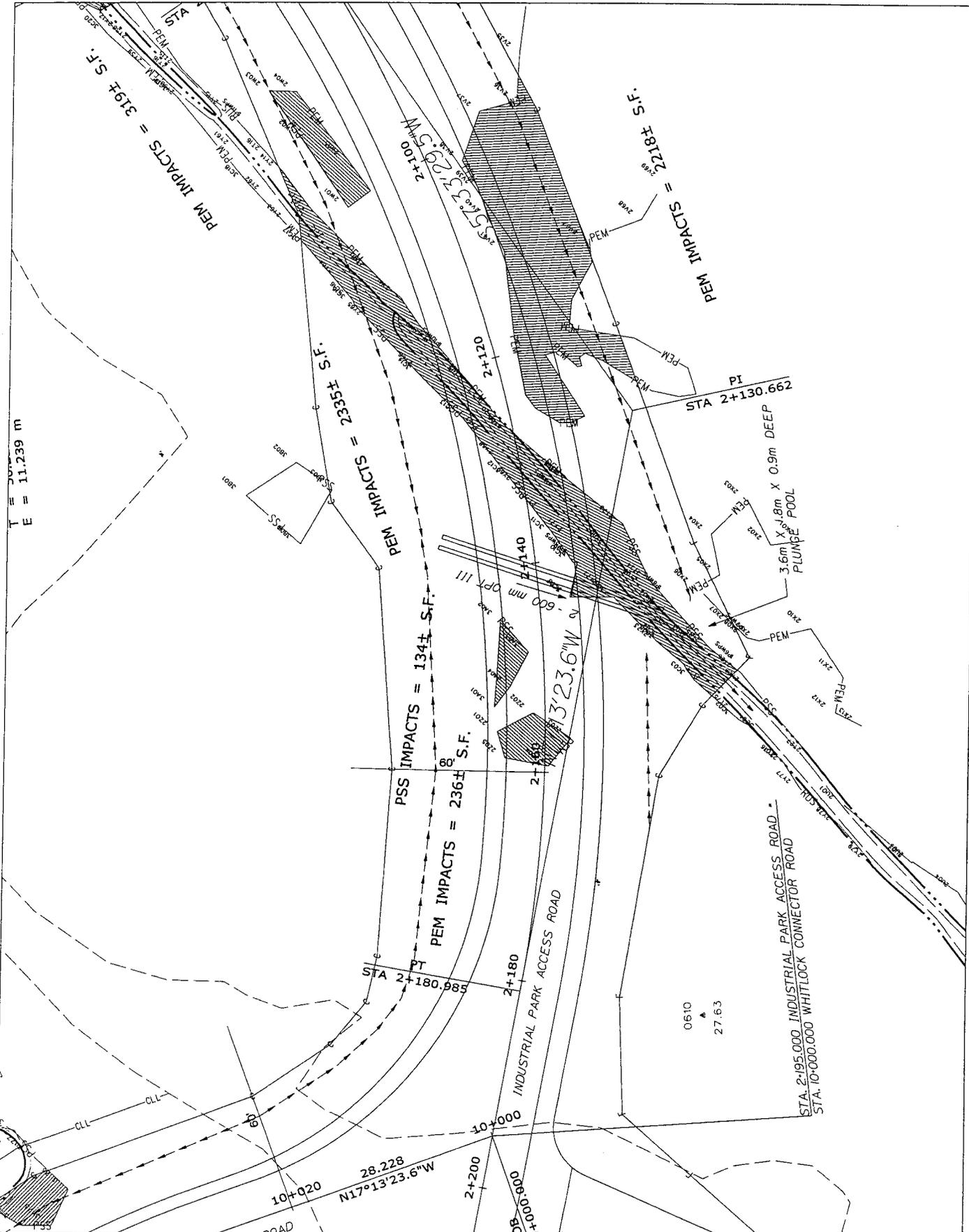
**DATA**  
 -458.331  
 0 - 16' - 04.5" Rt.  
 5.000 m  
 0.463 m  
 0.194 m  
 .928 m

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 8483.32

BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING  
 PLANS

SHEET NUMBER  
 9  
 OF 28





STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

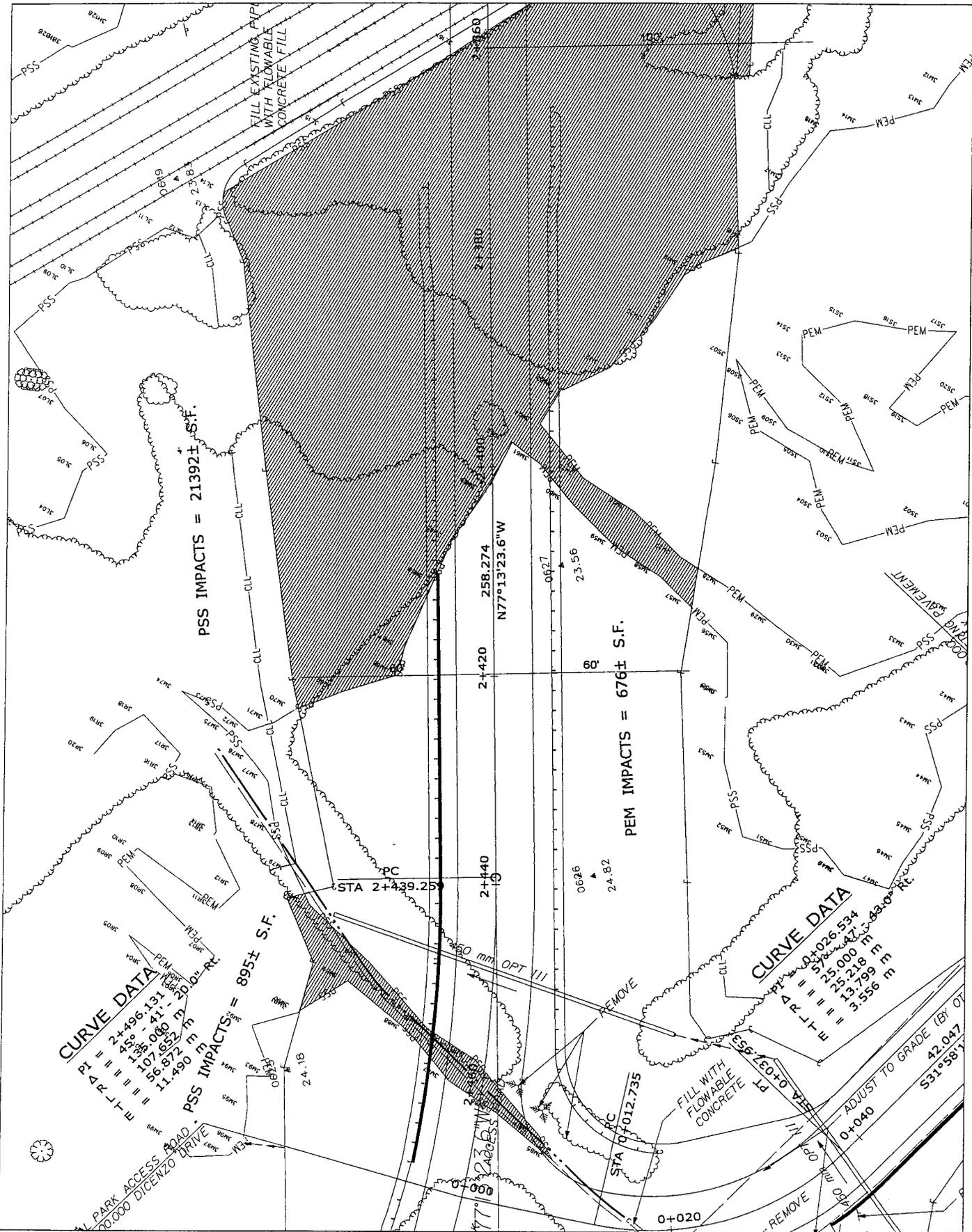
PLANS

SHEET NUMBER

11

OF 28





STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

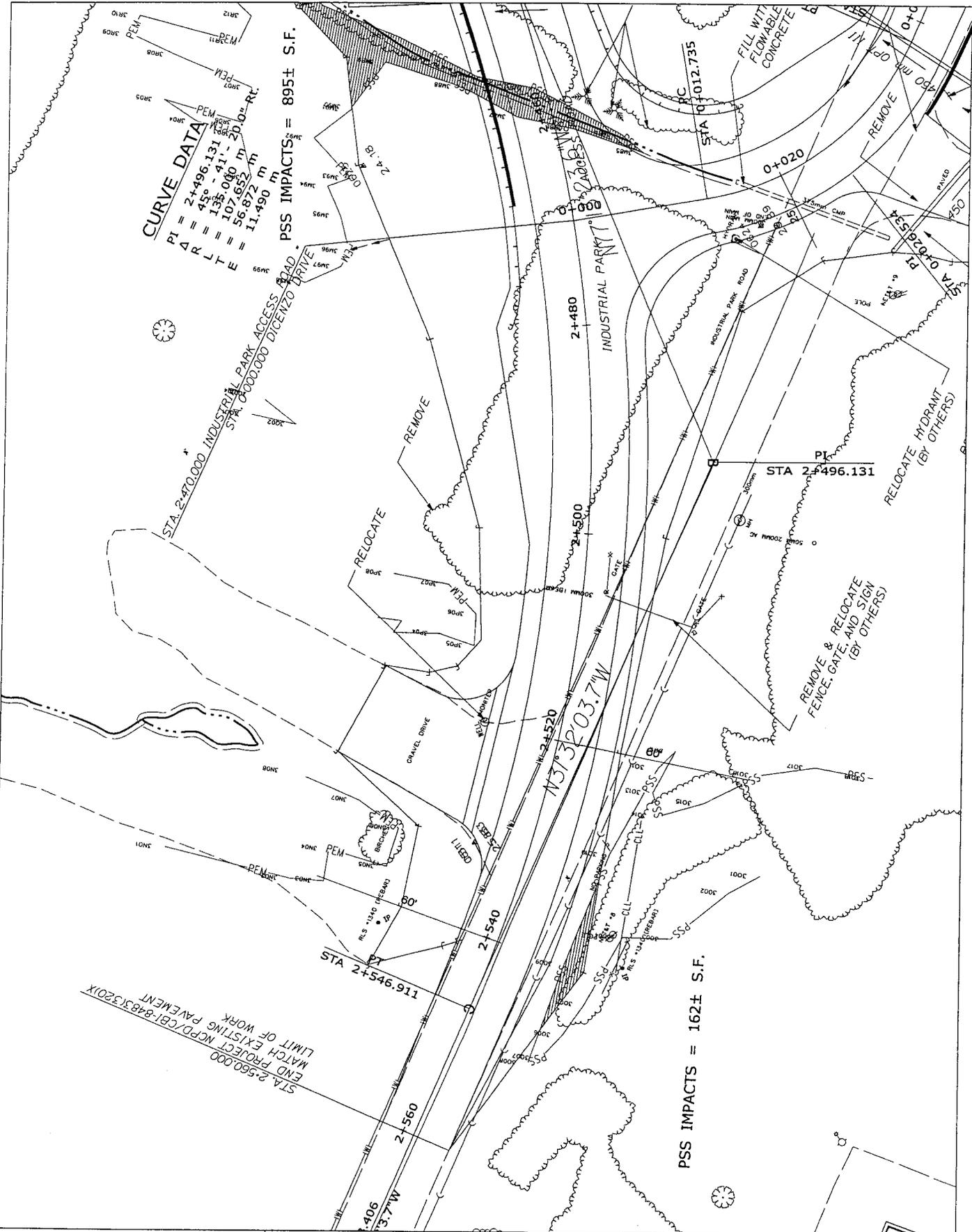
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

13

OF 28



**CURVE DATA**  
 PI = 2+496.131  
 Δ = 43° - 41'  
 L = 135.060 m  
 T = 56.872 m  
 E = 11.490 m

PSS IMPACTS = 895± S.F.

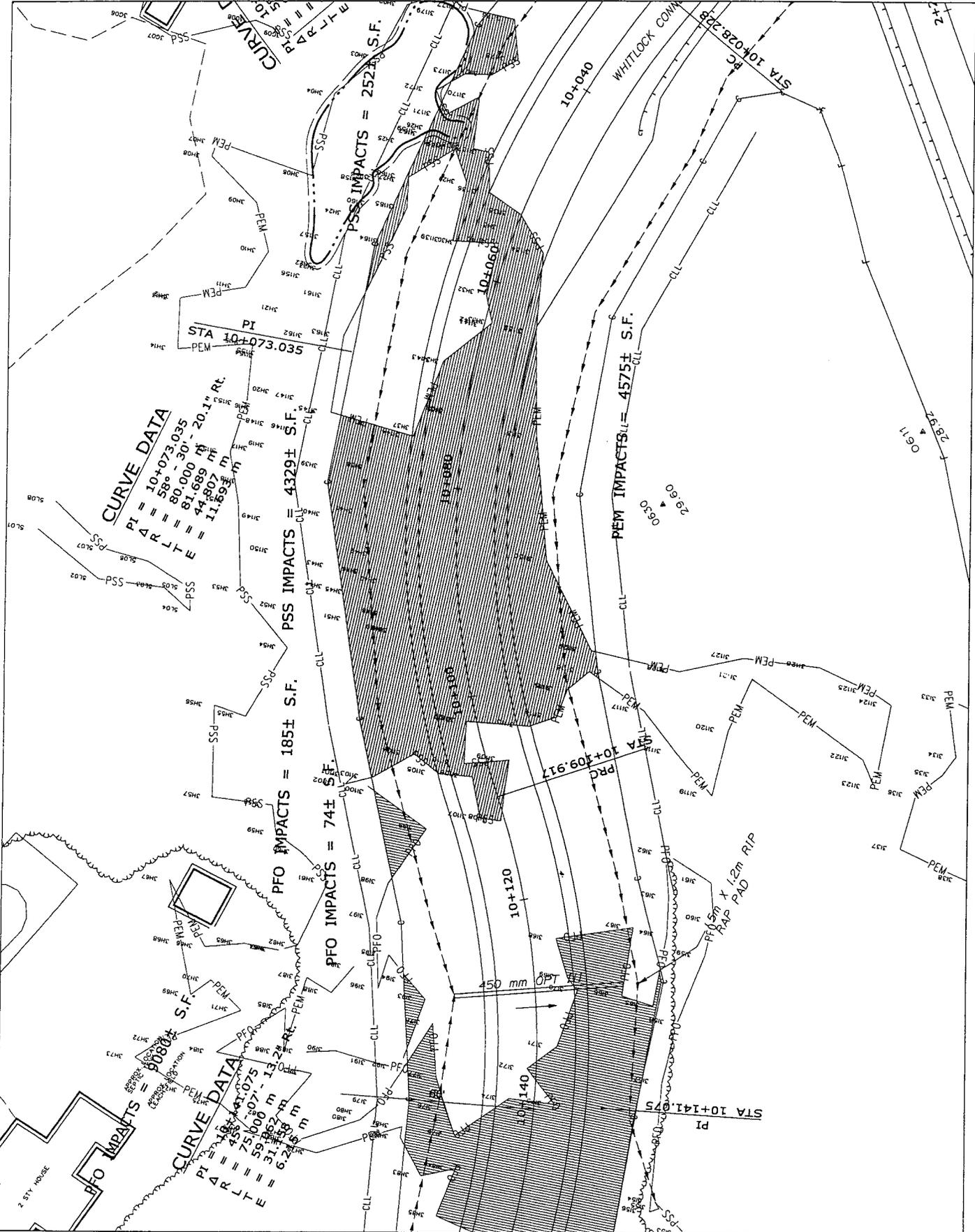
PSS IMPACTS = 162± S.F.

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING  
 PLANS

SHEET NUMBER  
 14  
 OF 28

STA 2+560.000  
 END PROJECT NCPD/CBI-8483/320X  
 LIMIT OF WORK  
 MATCH EXISTING PAVEMENT



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

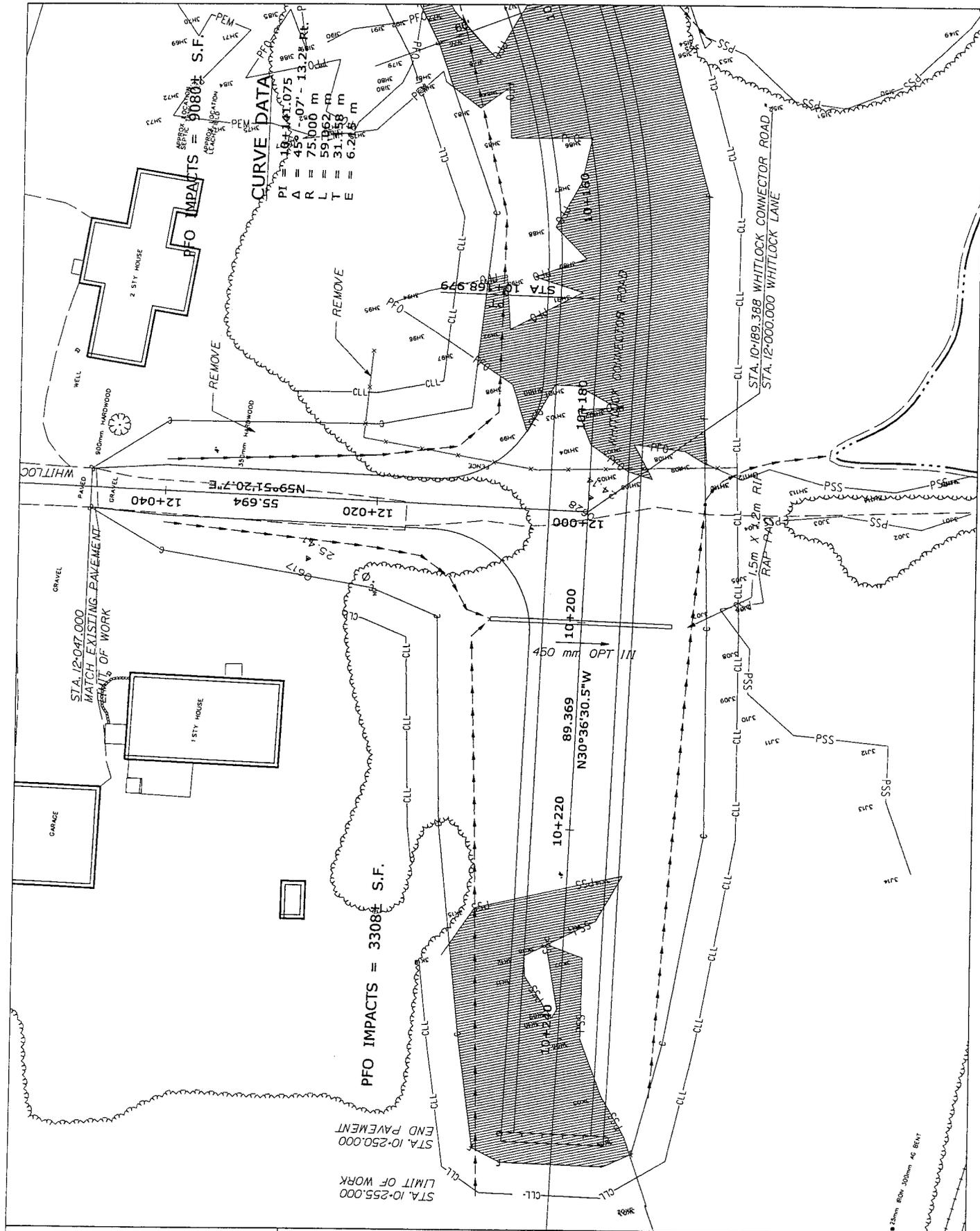
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

15

OF 28



**CURVE DATA**  
 PI = 18+141.075  
 A = 45° - 07' - 13.24" R/L  
 R = 75.000 m  
 L = 59.162 m  
 T = 31.159 m  
 E = 6.245 m

PFO IMPACTS = 9080# S.F.

PFO IMPACTS = 3308# S.F.

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING

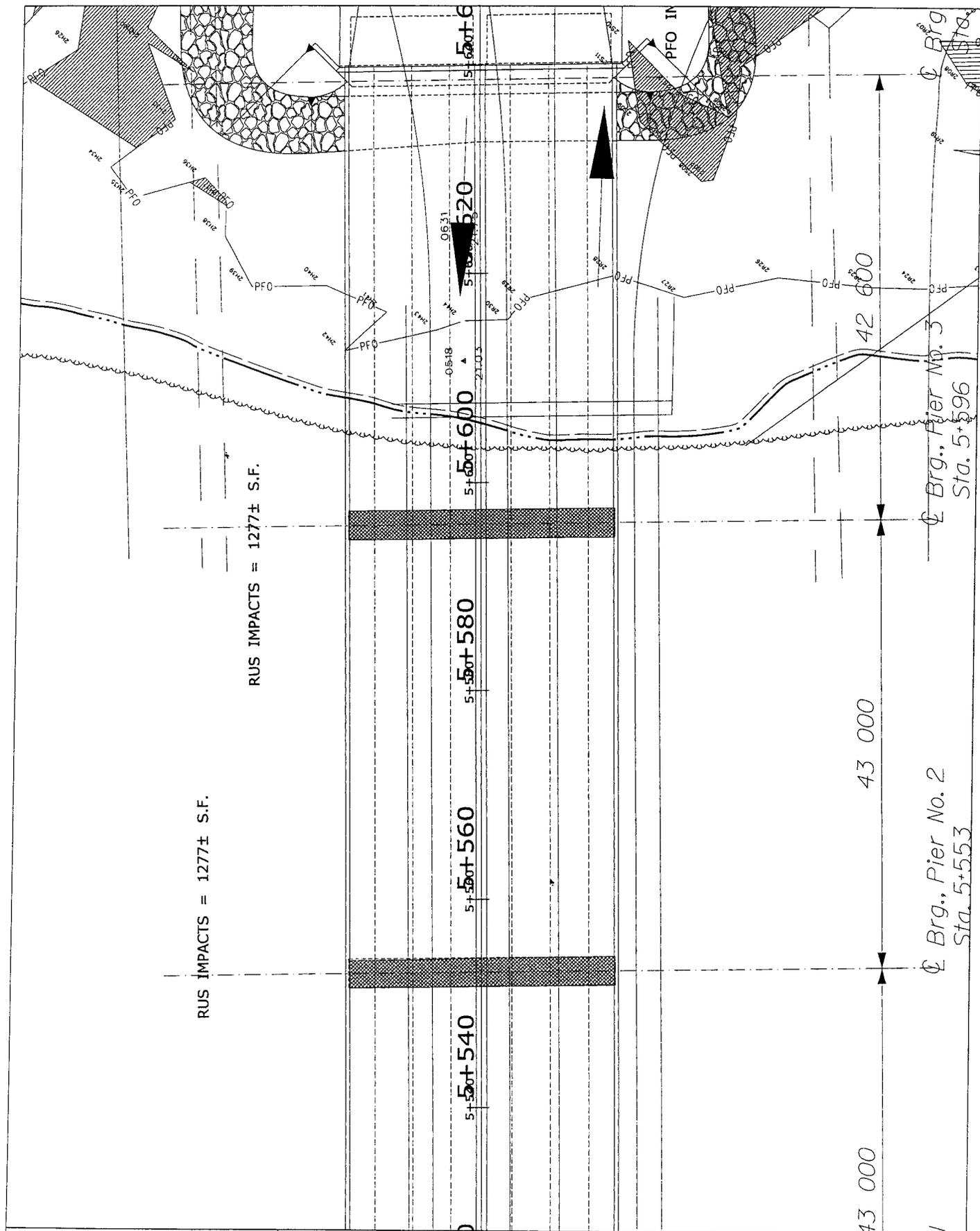
SHEET NUMBER

16

8483.32

PLANS

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

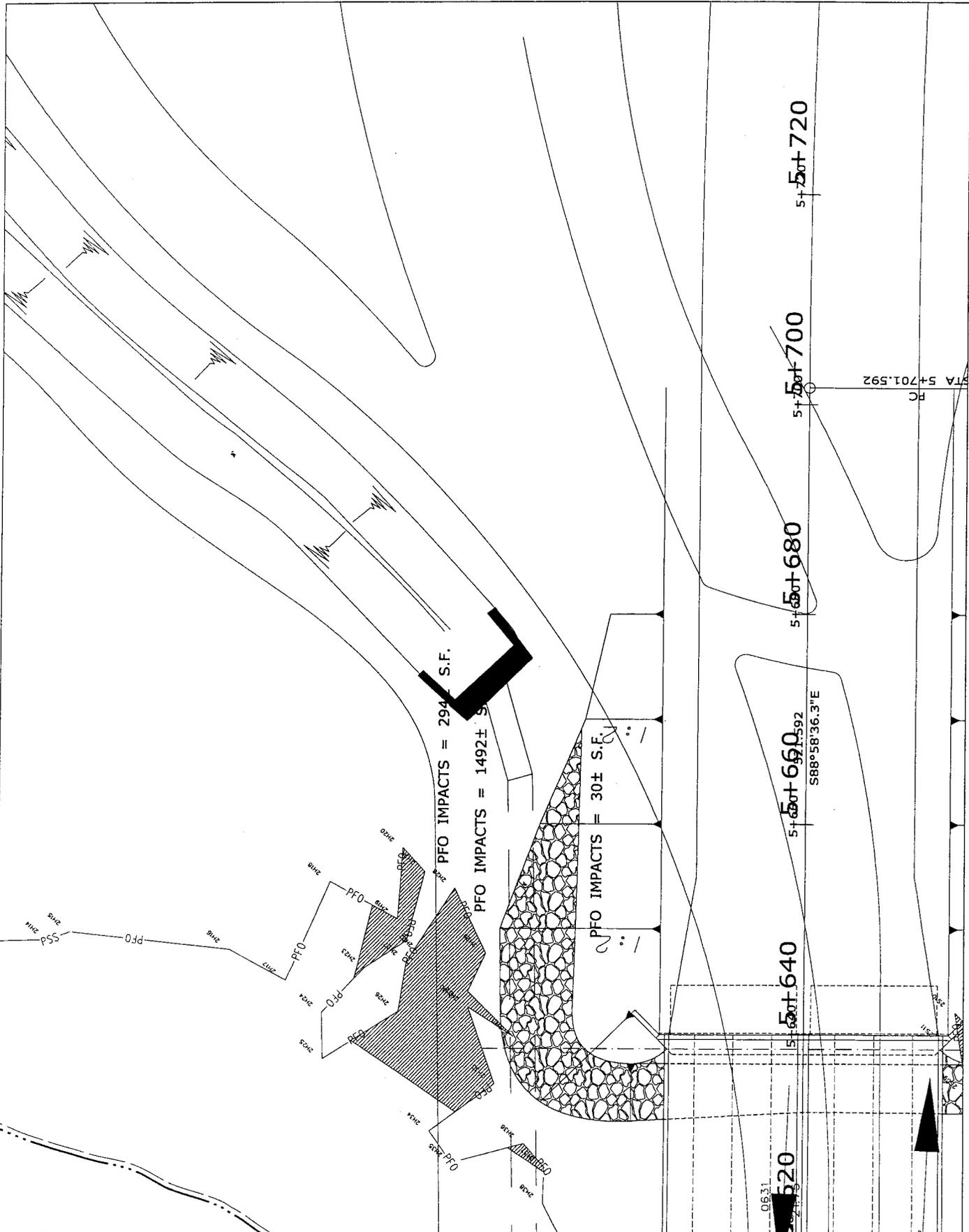
PLANS

SHEET NUMBER

17

OF 28





STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

8483.32

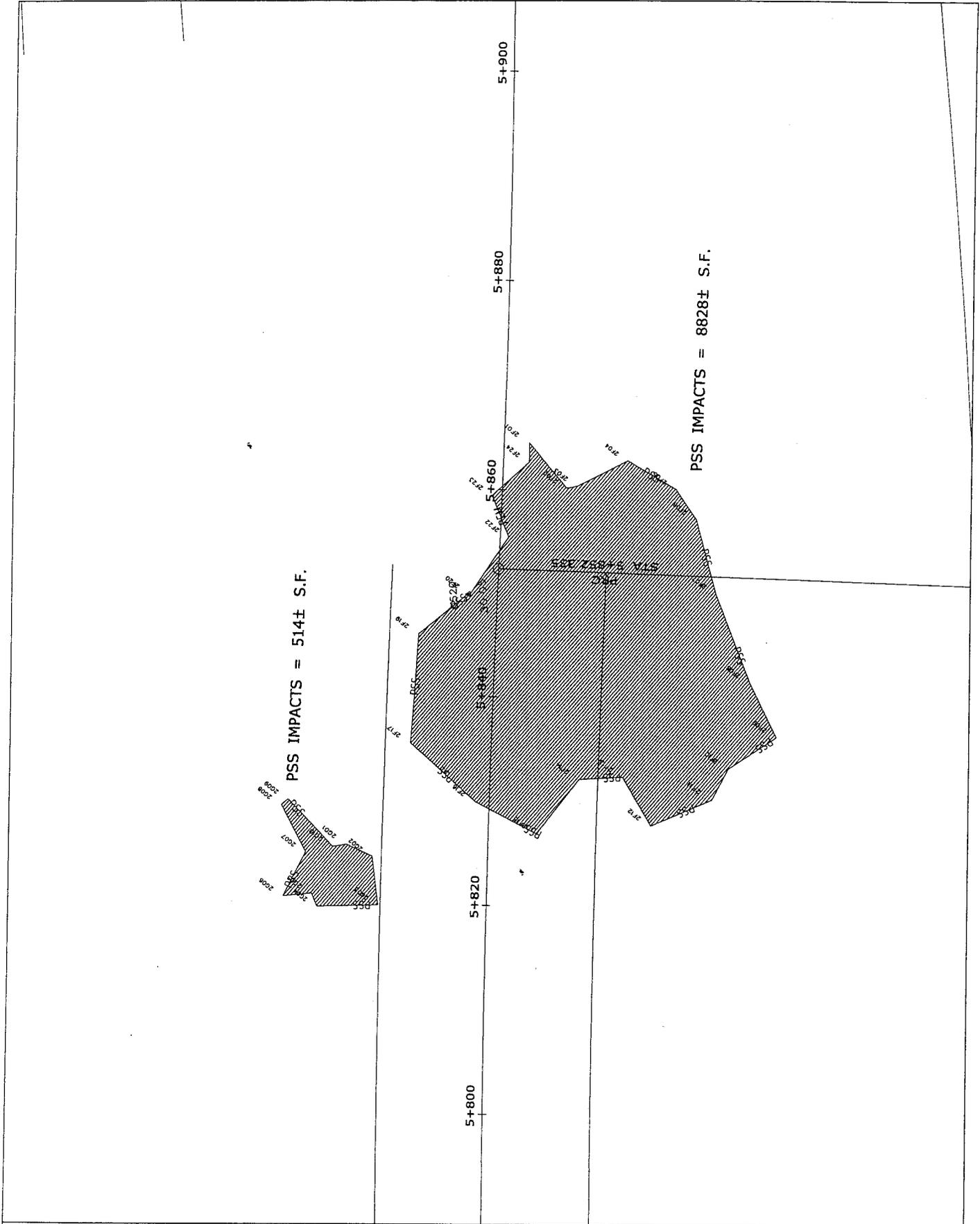
BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING

PLANS

SHEET NUMBER

19

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

SHEET NUMBER  
**20**

8483.32

PLANS

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

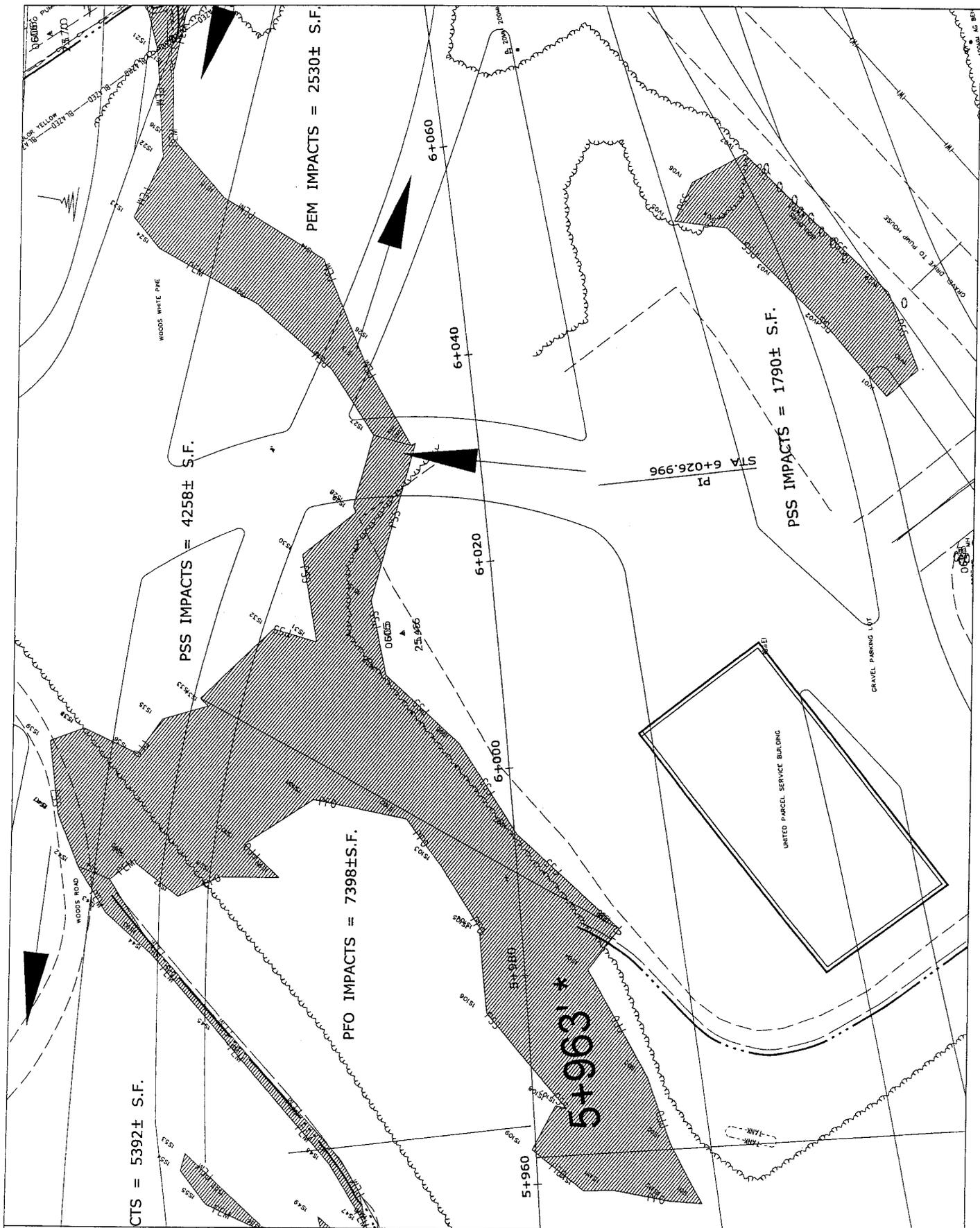
SHEET NUMBER

21

8483.32

PLANS

OF28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

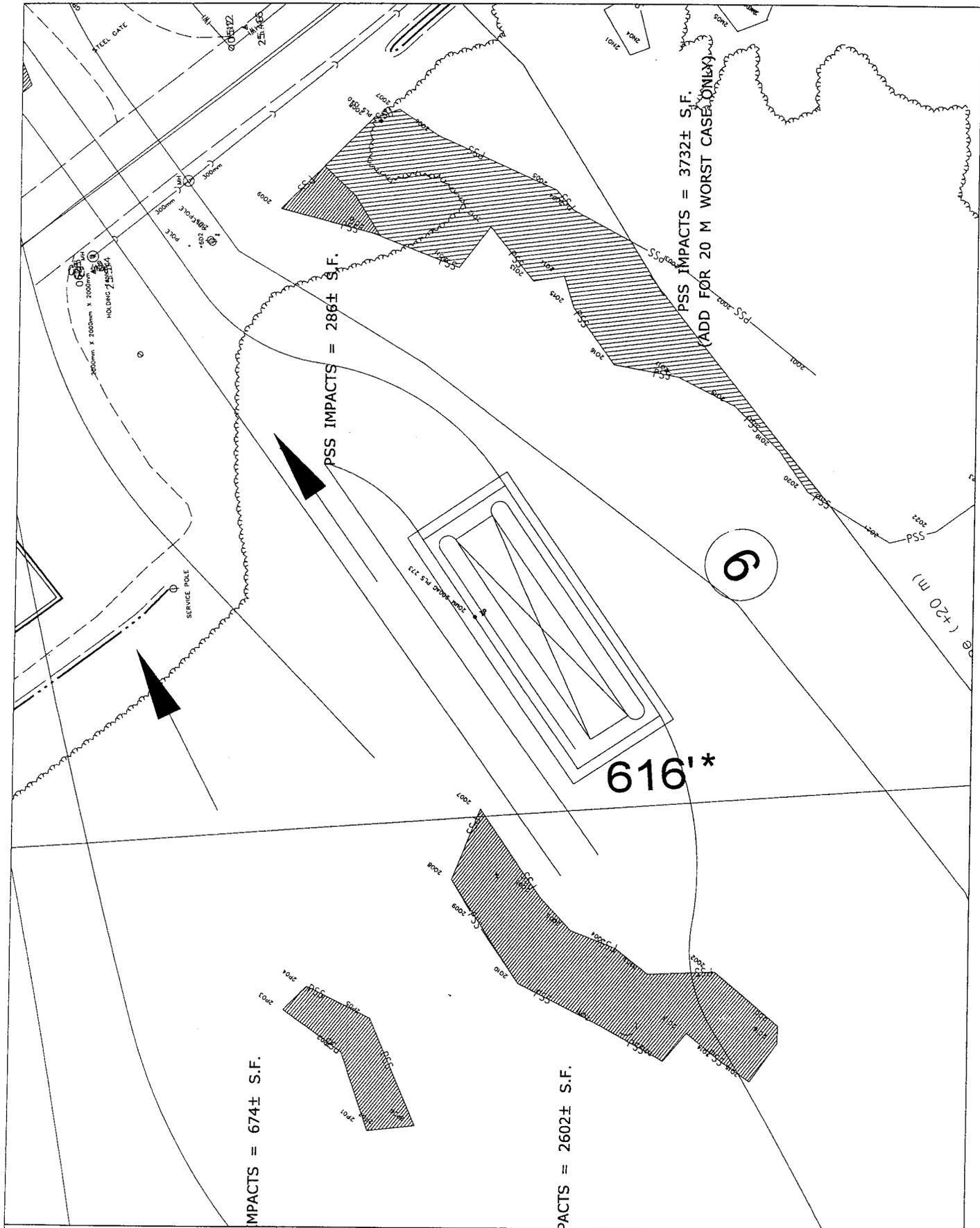
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

22

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

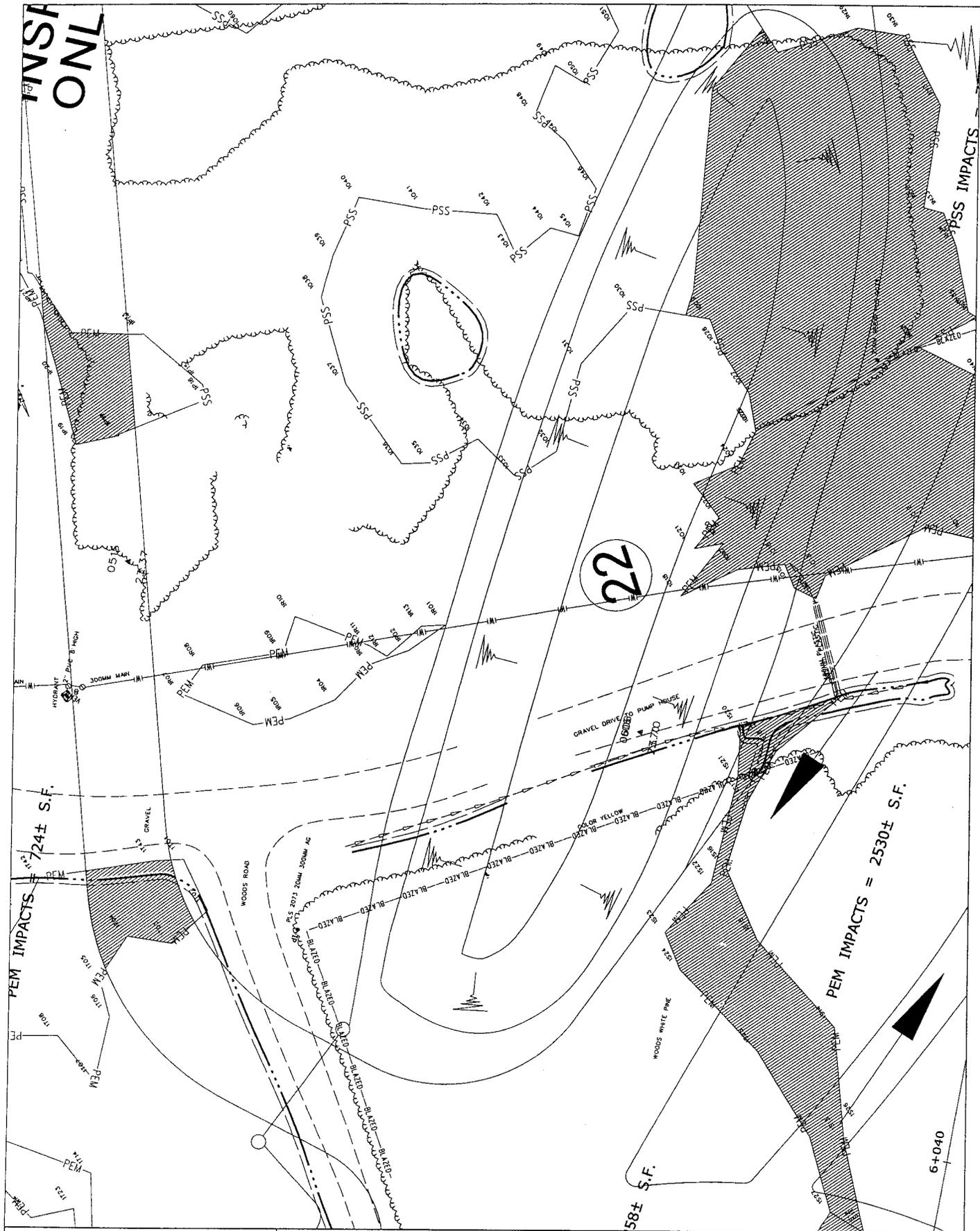
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

SHEET NUMBER  
**23**

8483.32

PLANS

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

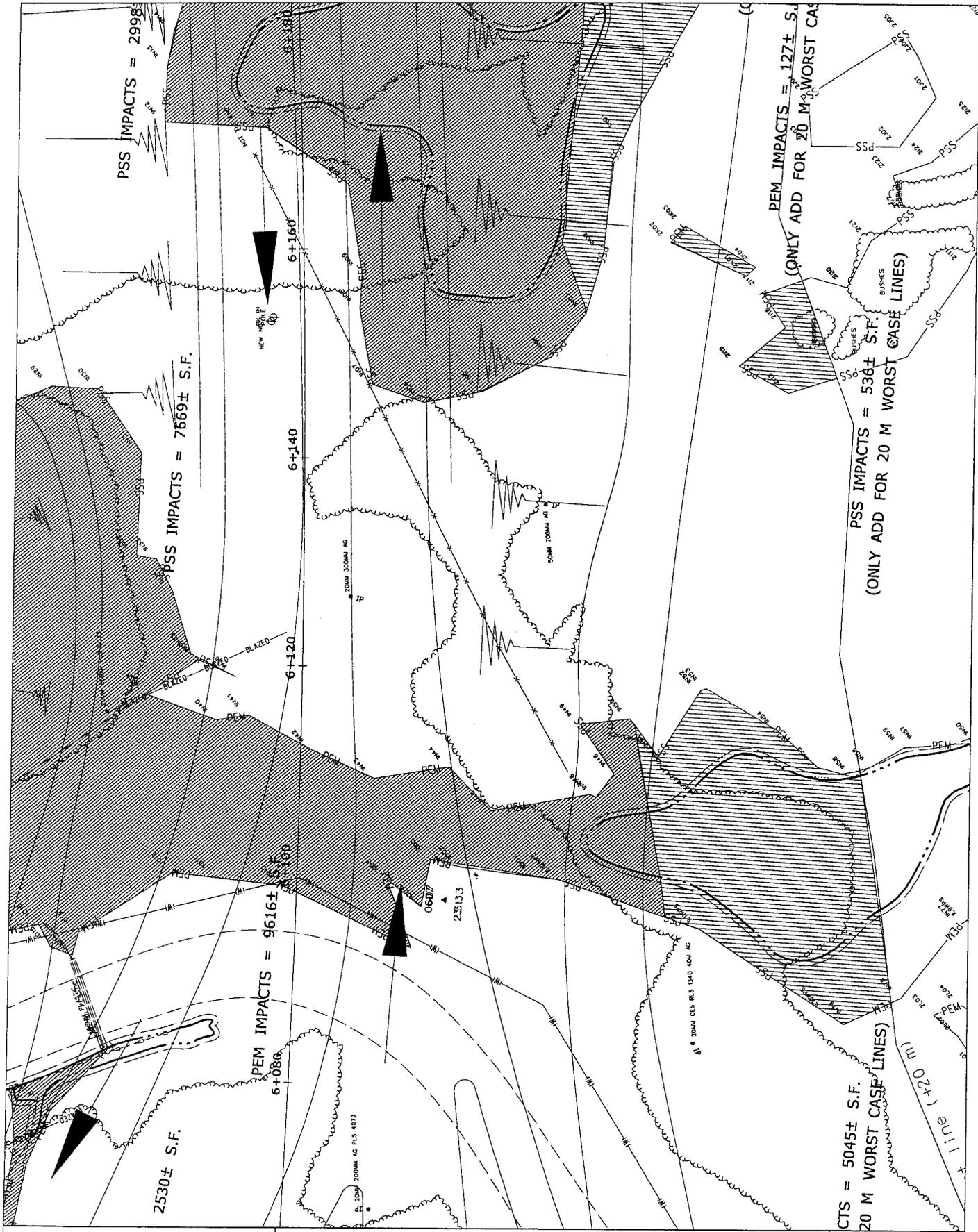
SHEET NUMBER

24

8483.32

PLANS

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

8483.32

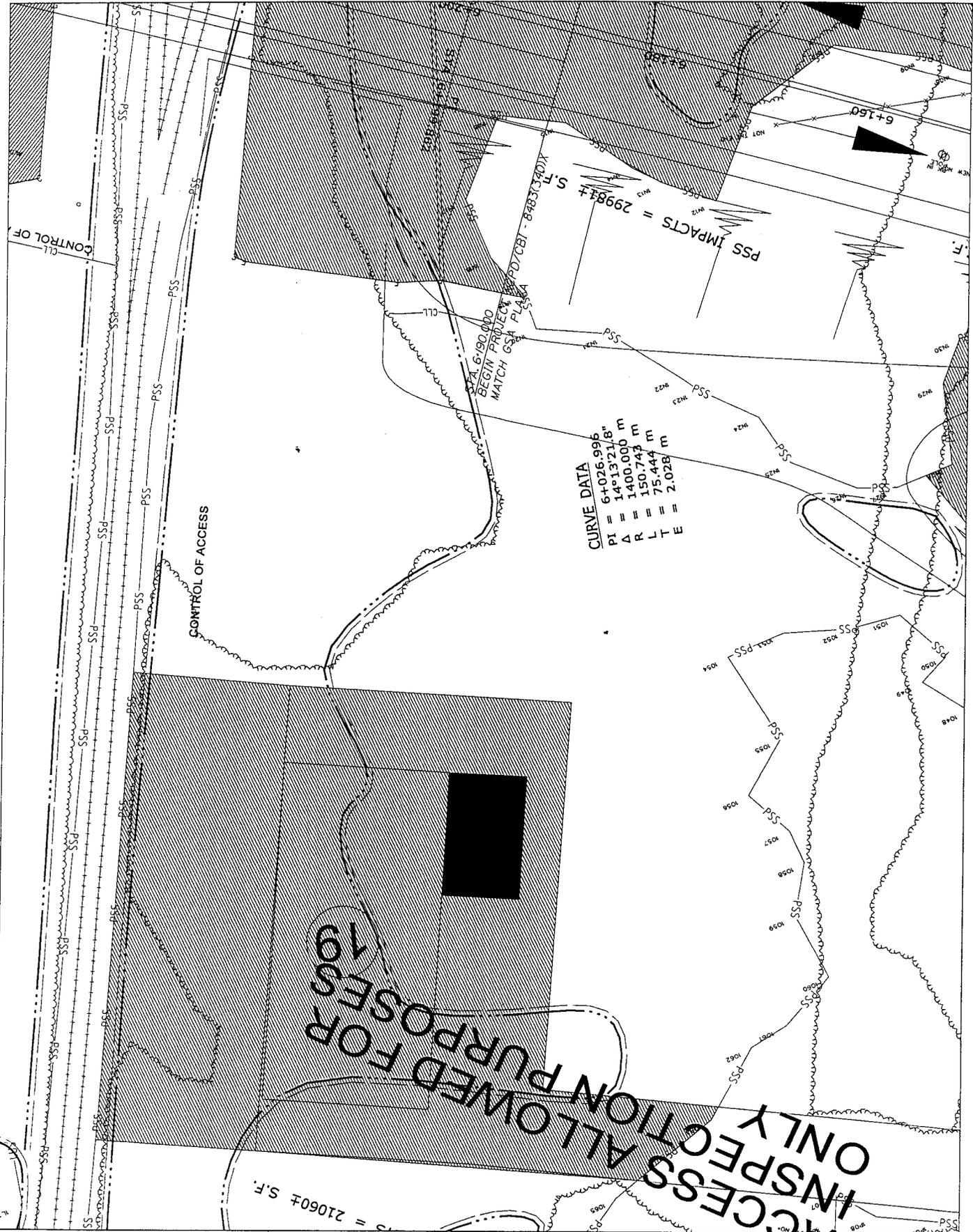
BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

PLANS

SHEET NUMBER

25

OF 28



CURVE DATA  
 PVI = 6+026.996  
 PI = 14°13'21.8"  
 Δ = 1400.000 m  
 R = 150.743 m  
 L = 75.444 m  
 T = 2.028 m  
 E

ACCESS ALLOWED FOR PURPOSES OF CONSTRUCTION ONLY

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING

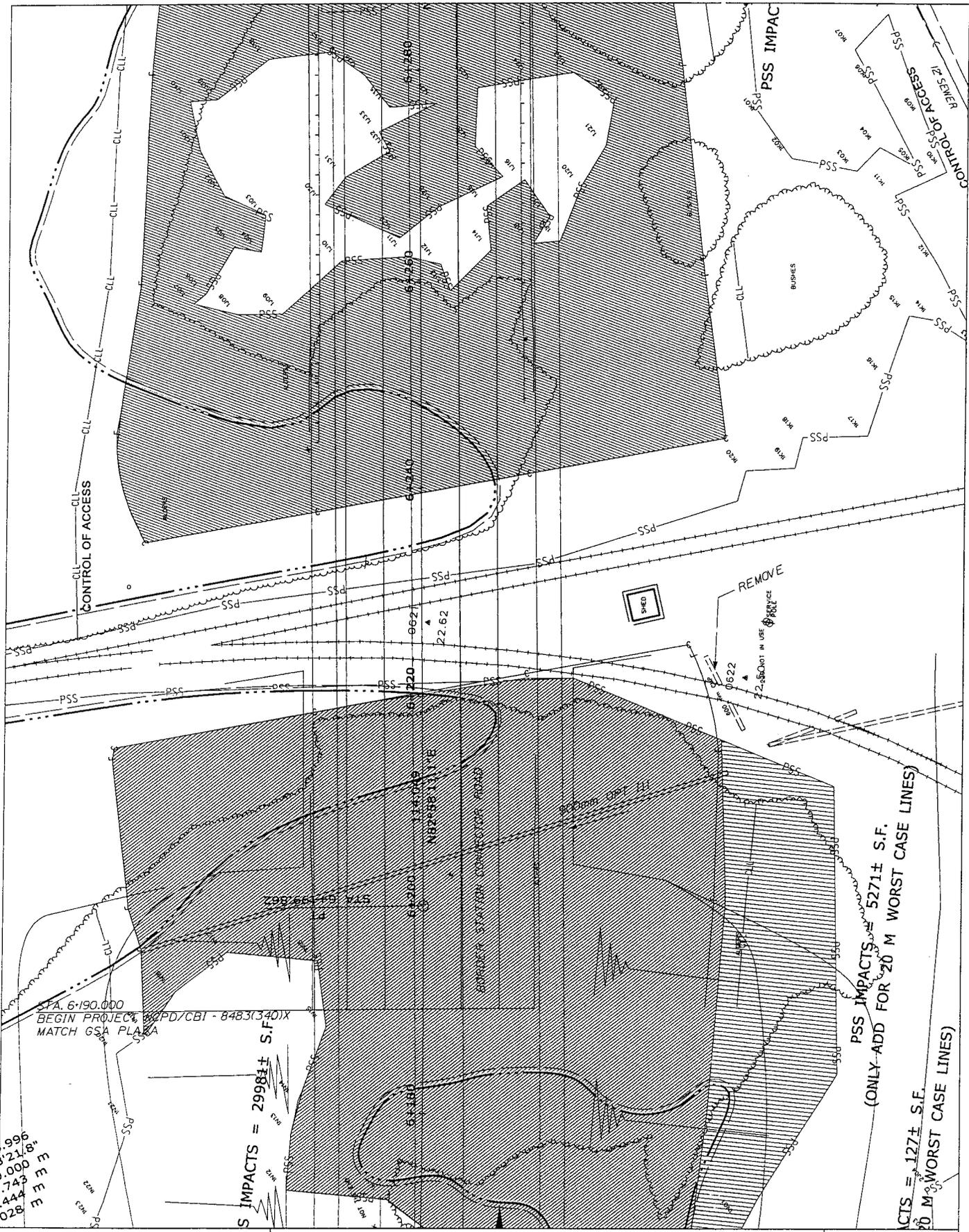
SHEET NUMBER

26

8483.32

PLANS

OF 28



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

BSCR CALAIS - ST. STEPHENS  
BORDER CROSSING

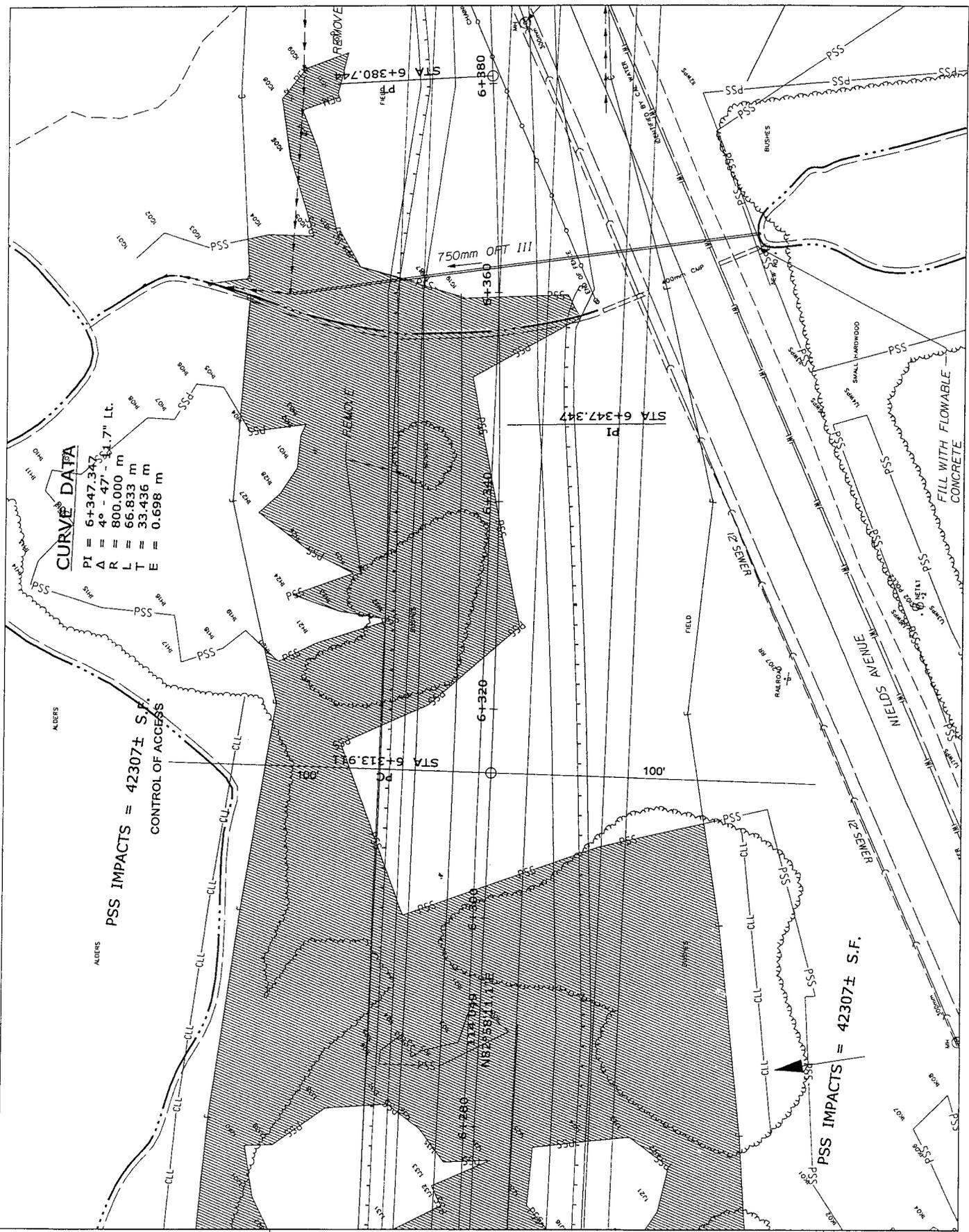
SHEET NUMBER

27

8483.32

PLANS

OF 28



**CURVE DATA**  
 PI = 6+347.347  
 A = 4° - 47' - 34.7" Lt.  
 R = 800.000 m  
 L = 66.833 m  
 T = 33.436 m  
 E = 0.698 m

PSS IMPACTS = 42307± S.F.  
 CONTROL OF ACCESS

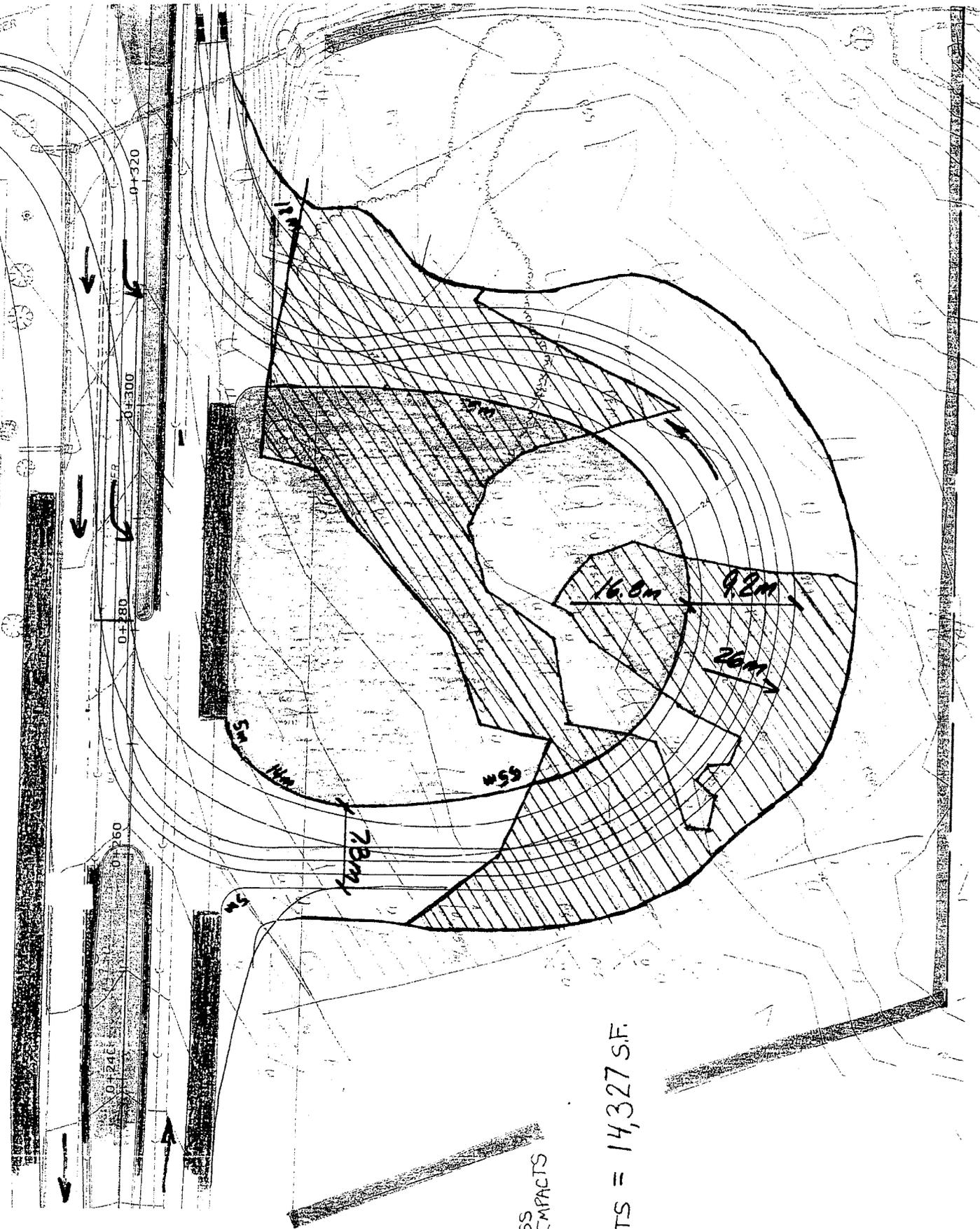
PSS IMPACTS = 42307± S.F.

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 8483.32

BSCR CALAIS - ST. STEPHENS  
 BORDER CROSSING  
 PLANS

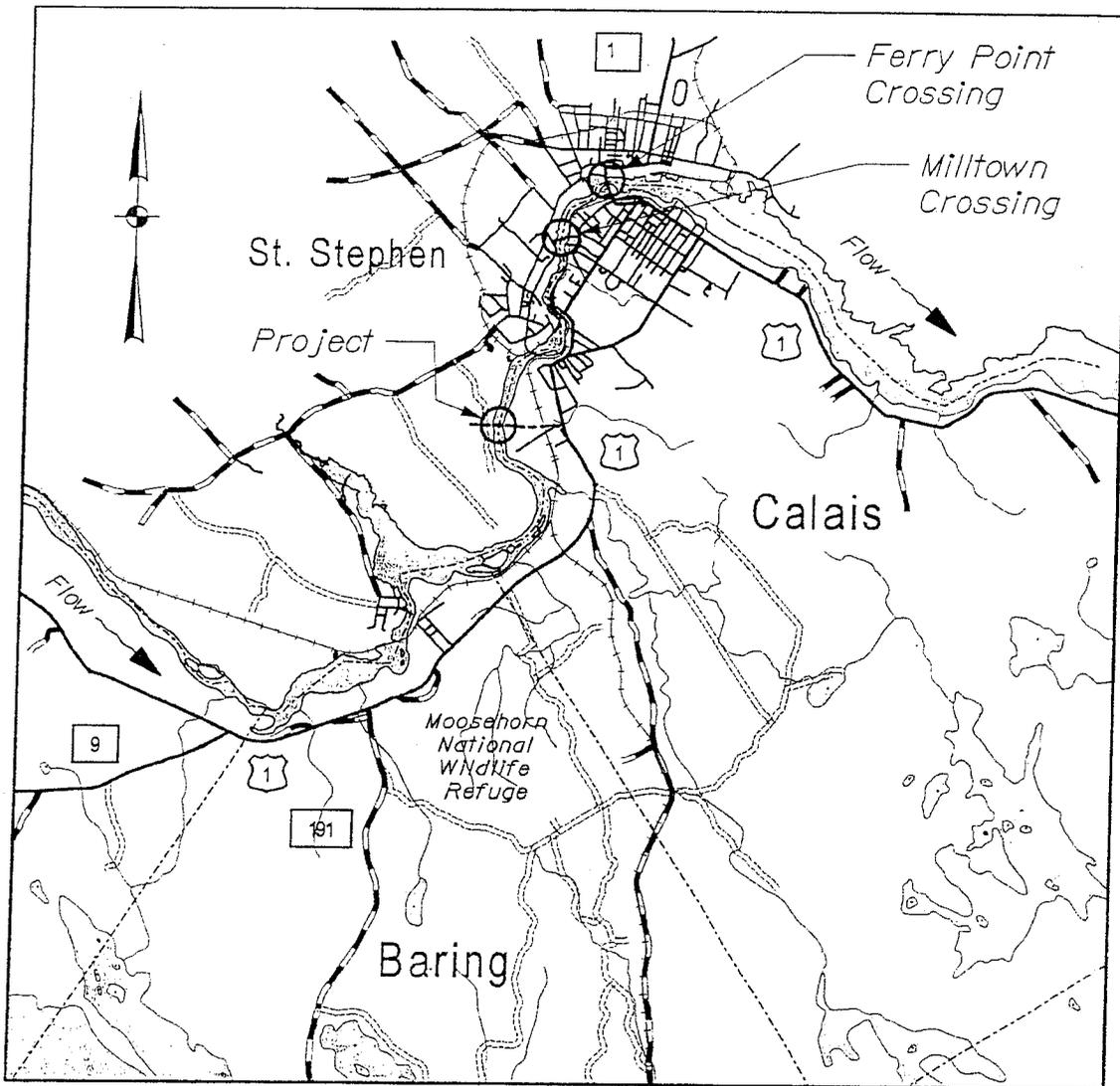
SHEET NUMBER  
 28  
 OF 28

Proposed JOG HANDLE

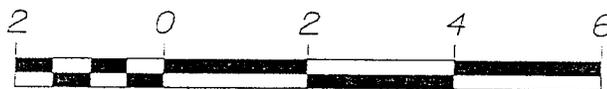


= PSS IMPACTS

PSS IMPACTS = 14,327 S.F.



LOCATION MAP



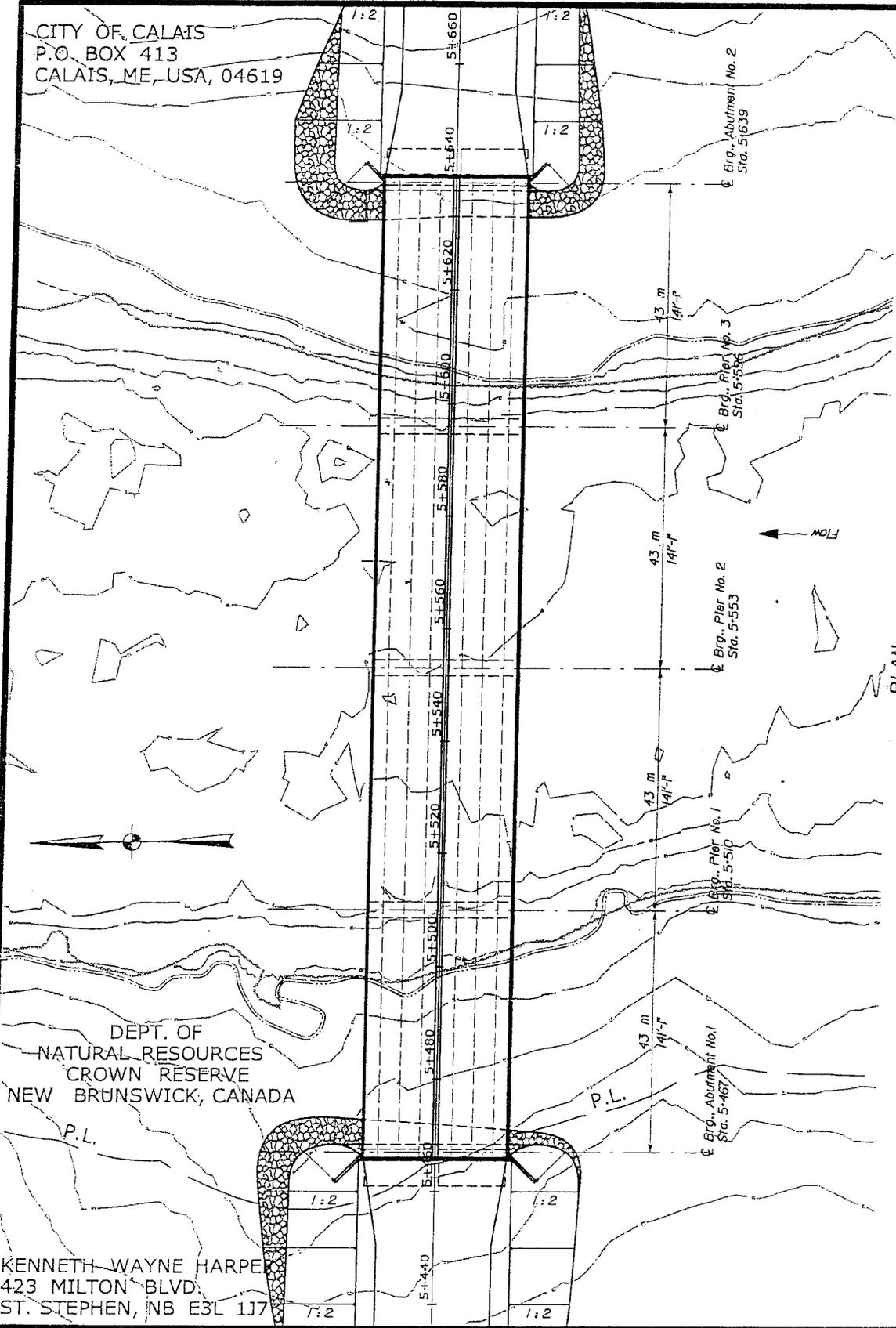
Scale of kilometers



Scale of miles

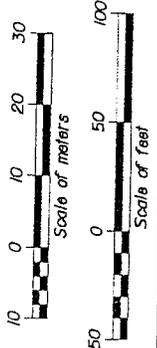
STATE OF MAINE DEPARTMENT OF TRANSPORTATION February 2005	ST. CROIX RIVER BRIDGE ST. STEPHEN, CHARLOTTE CTY., N.B., CANADA CALAIS, WASHINGTON CTY., MAINE, U.S.A.	SHEET NUMBER <b>1</b>
NCPD/CBI-8483(350)X Mile Point 16 PIN 8483.36 BRIDGE NO. 6440	<b>PRELIMINARY BRIDGE PLANS</b> OF 4	

CITY OF CALAIS  
 P.O. BOX 413  
 CALAIS, ME, USA, 04619



DEPT. OF  
 NATURAL RESOURCES  
 CROWN RESERVE  
 NEW BRUNSWICK, CANADA

KENNETH WAYNE HARPER  
 423 MILTON BLVD.  
 ST. STEPHEN, NB E3L 1J7



STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 February 2005

ST. CROIX RIVER BRIDGE  
 ST. STEPHEN, CHARLOTTE CTY., N.B., CANADA  
 CALAIS, WASHINGTON CTY., MAINE, U.S.A.

SHEET NUMBER

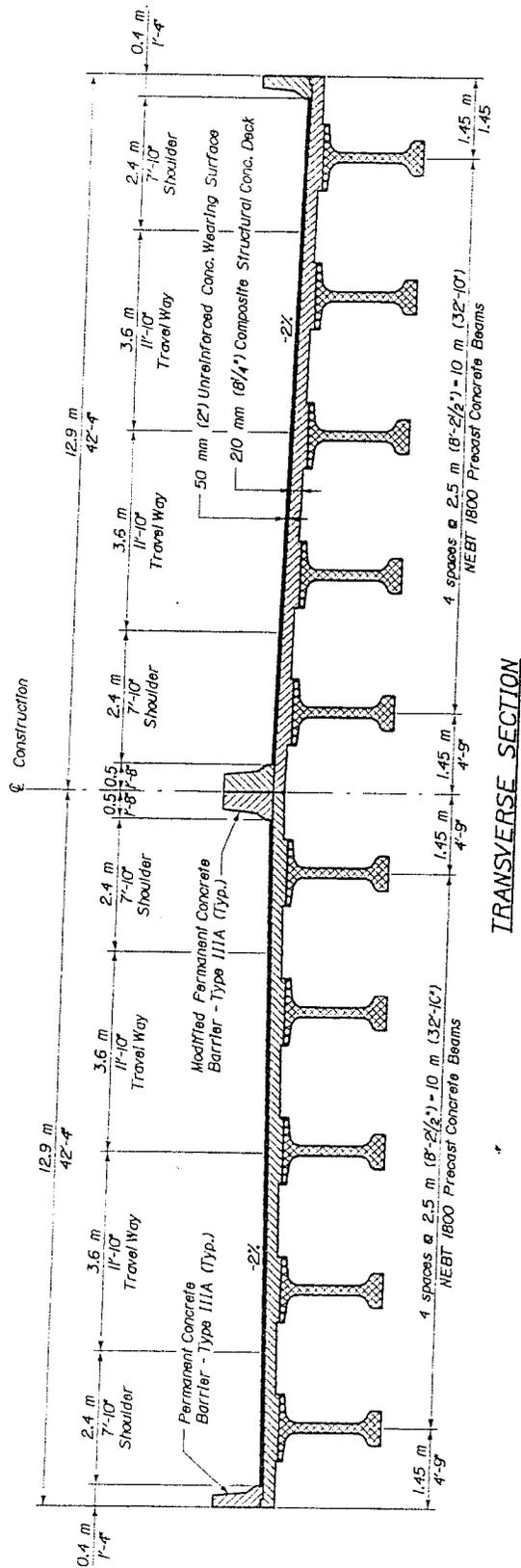
2

NCPD/CBI-8483(360)X Mile Point 16  
 PIN 8483.36 BRIDGE NO. 6440

PRELIMINARY BRIDGE PLANS

OF 4





TRANSVERSE SECTION

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 February 2005  
 NCPD/CBI-8483(360)X Mile Point 16  
 PIN 8483.36 BRIDGE NO. 6440

ST. CROIX RIVER BRIDGE  
 ST. STEPHEN, CHARLOTTE CTY., N.B., CANADA  
 CALAIS, WASHINGTON CTY., MAINE, U.S.A.  
 PRELIMINARY BRIDGE PLANS

SHEET NUMBER  
 4  
 OF 4



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE HOUSE STATION 17      AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

MAINE DEPARTMENT OF TRANSPORTATION      ) NATURAL RESOURCES PROTECTION ACT  
Calais, Washington County                    ) FRESHWATER WETLAND ALTERATION  
THIRD INTERNATIONAL BRIDGE                ) WATER QUALITY CERTIFICATION  
L-22770-L6-A-N (approval)                    ) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of MAINE DEPARTMENT OF TRANSPORTATION with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1.      PROJECT DESCRIPTION:

A.      Summary: The applicant is proposing to construct a third international bridge linking Calais with St. Stephan, New Brunswick, Canada. In addition to the bridge crossing, the facility will include a Border Patrol Facility run by the U.S. Department of Homeland Security. The wetland alterations for the entire site are included in this Order; the U.S government will apply for a Site License at a later date. The applicant does not propose additional wetland alteration outside the boundaries of the project. The applicant is not proposing the widening of Route 1 through the Moosehorn National Wildlife Refuge as part of this project.

The applicant is requesting a permit to alter a total of 296,540 square feet of freshwater wetland. The amounts of wetlands, type of wetland and the placement of the wetland within the site (i.e. road, station, etc.) to be altered are detailed in Exhibit 14 of the application. The project is shown on a set of plans included with the application, the first of which is entitled "Location", prepared by the applicant and dated September 8, 2004. The project site is located on Route 2 in the Town of Calais.

The Department received a request for a Public Hearing; however, no credible conflicting technical information was received by the Department and the Commissioner denied the request.

B.      Current Use of the Site: The site is currently part of the Calais Industrial Park.

L-22770-L6-A-N (approval)

2 of 4

2. WATER QUALITY CONSIDERATIONS:

Provided that the project erosion and sedimentation controls are implemented and maintained in accordance with the MDOTs' Best Management Practices as outlined in Exhibit 8 of the application, the Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

3. HABITAT CONSIDERATIONS:

Information provided to the Department from the Department of Marine Resources (DMR) indicates that the proposed project should not cause any significant adverse impacts to marine resources, navigation or recreation.

Information provided to the Department from the Maine Department of Inland Fisheries and Wildlife indicates that there are no Essential or Significant Wildlife Habitats at the project site.

4. WETLANDS AND WATERBODIES PROTECTION RULES:

The Department's Wetlands and Waterbodies Protection Rules, Chapter 310, require that the applicant meet the following standards:

a. Avoidance. No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. Each application for a freshwater wetland alteration permit must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist. The applicant submitted an alternative analysis for the proposed project completed by the applicant and entitled "Reevaluation of the 2001 Environmental Assessment", dated January 2006. The analysis is included as Exhibit 20 of the application. In the alternative analysis, the applicant looked at several possible locations for the new bridge crossing along the Route 1/Route 9 corridor between Baileyville and Calais. The review of each possible location demonstrates that the proposed project as outlined in the application provides the least amount of alteration to freshwater wetlands, undeveloped lands and good agricultural areas.

b. Minimal Alteration. The amount of wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The proposed wetland alteration is the least amount necessary to construct the project.

c. Compensation. Compensation is required to achieve the goal of no net loss of wetland functions and values. Due to the amount of wetland alteration, the applicant is required to compensate for the lost functions and values of the wetlands. The applicant is proposing to preserve approximately 178 acres of wetland and associated adjacent upland to the Moosehorn National Wildlife Refuge (Refuge) and deeded to the Refuge. The

L-22770-L6-A-N (approval)

3 of 4

parcel is currently owned by the City of Calais. In an email dated April 4, 2006, the City indicates intent to transfer the parcel to MDOT by December 31, 2006. Due to federal regulations regarding land, the 178 acres may not have any associated encumbrances. By May 1, 2007, the applicant shall submit evidence to the Department indicating that the parcel has been accepted by and transferred to the Refuge.

The Department finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

5. OTHER CONSIDERATIONS:

The Department did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.

L-22770-L6-A-N (approval)

4 of 4

- I. The proposed activity is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

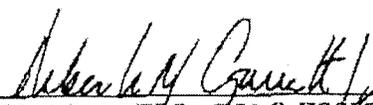
THEREFORE, the Department APPROVES the above noted application of Maine Department of Transportation to construct a third international bridge, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

- 1. Standard Conditions of Approval, a copy attached.
- 2. The applicant shall take all necessary measures to ensure that their activities or those of their agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
- 3. By May 1, 2007, the applicant shall submit evidence to the Department indicating that the parcel has been accepted by and transferred to the Refuge.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED AT AUGUSTA, MAINE, THIS 14<sup>th</sup> DAY OF April, 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

By:   
 DAVID R LITTELL, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application January 30, 2006

Date of application acceptance February 9, 2006

Date filed with Board of Environmental Protection

RC/57025/22770.AN

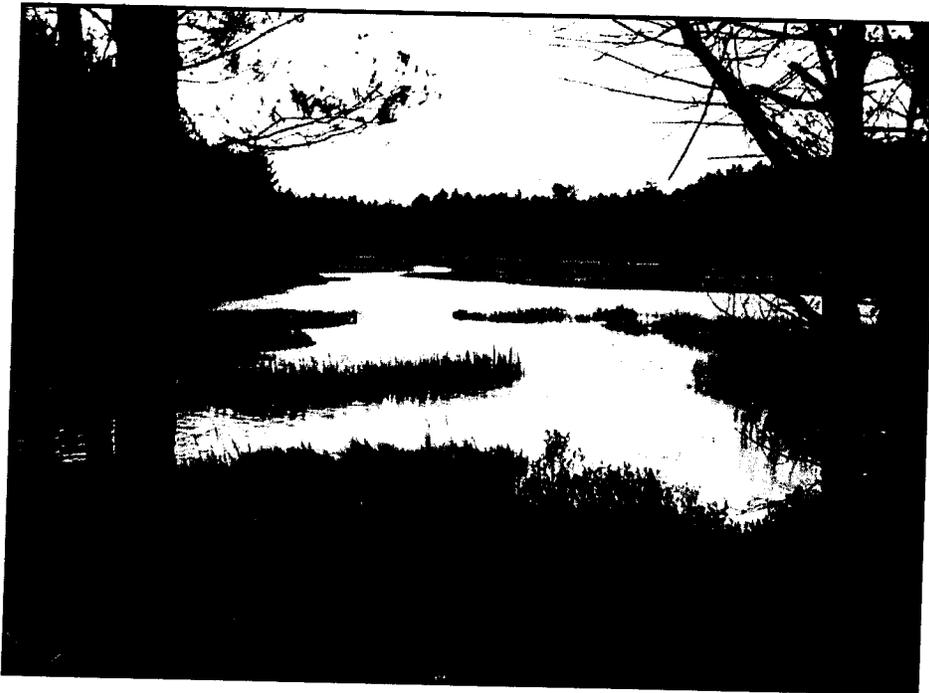
**NRPA EXHIBIT 18**

# **WETLAND COMPENSATION PLAN**

## **MAINEDOT CALAIS - ST. STEPHEN INTERNATIONAL BRIDGE AND BORDER CROSSING PROJECT**

**CALAIS, MAINE – ST. STEPHEN, NEW BRUNSWICK  
PIN 8483.32**

**JANUARY 2006 (REVISED JUNE 2006)**



PREPARED FOR

MAINE DEPARTMENT OF TRANSPORTATION  
ENVIRONMENTAL OFFICE  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

PREPARED BY

WOODLOT ALTERNATIVES, INC.  
30 PARK DRIVE  
TOPSHAM, MAINE 04086

**CONTENTS**

1.0	GENERAL INFORMATION .....	1
1.1	Project Description.....	1
1.2	Wetland Impacts .....	1
1.3	Mitigation Site Search.....	1
1.4	June 2006 Revision – Response to Review Comments .....	2
2.0	SUMMARY OF PROPOSED COMPENSATORY MITIGATION.....	2
3.0	EXISTING AND PROPOSED CONDITIONS.....	4
3.1	Water District Site .....	4
3.1.1	Existing Conditions.....	4
3.1.2	Mitigation Objectives .....	8
3.1.3	Proposed Conditions.....	8
3.2	Hardscrabble Road Parcel.....	9
3.2.1	Existing Conditions.....	9
3.2.2	Mitigation Objectives .....	11
3.2.3	Proposed Conditions.....	11
3.3	Magurrewock Mountain Parcel .....	12
4.0	EROSION CONTROL.....	12
5.0	PLANTING PLANS .....	13
5.1	Soils and Microtopography .....	13
5.2	Vegetation Establishment .....	13
5.3	Coarse Woody Debris.....	16
6.0	CONSTRUCTION MONITORING .....	17
7.0	INVASIVE AND NOXIOUS SPECIES .....	17
7.1	Risk of Invasion .....	17
7.2	Invasive Control Constraints .....	17
7.3	Invasive Species Control Plan .....	17
8.0	ATV USE .....	18
9.0	PROTECTION AND LONG-TERM STEWARDSHIP .....	18
9.1	Water District Site .....	18
9.2	Hardscrabble Road Parcel.....	18
9.3	Magurrewock Mountain Parcel .....	19
10.0	MITIGATION MONITORING PLAN .....	19
10.1	Performance Standards.....	19
10.2	Monitoring Methods .....	20
10.3	Annual Monitoring Reports .....	21
10.4	Assessment Plan .....	22
10.5	Corrective Remediation .....	22
11.0	ESTIMATED SCHEDULE.....	23

**LIST OF TABLES**

- Table 1. Summary of wetland impacts for the MaineDOT Calais – St. Stephen Bridge and Border Crossing Project.
- Table 2. Summary of proposed compensatory mitigation for the MaineDOT Calais – St. Stephen Bridge and Border Crossing Project.
- Table 3. NWI wetland types found on the Hardscrabble Road Preservation Parcel.
- Table 4. Summary of proposed planting and seeding treatments for the four planned vegetative zones at the Water District Mitigation Site
- Table 5. Typical wetland seed mixes for the Water District Mitigation Site

**LIST OF FIGURES**

- Figure 1. Location of Project Area and Wetland Mitigation Sites
- Figure 2. Calais Water District Mitigation Site – Aerial Photo of Existing Conditions
- Figure 3. Calais Water District Mitigation Site – Existing Conditions
- Figure 4. Calais Water District Mitigation Site – Proposed Conditions
- Figure 5. Calais Water District Mitigation Site – Section A
- Figure 6. Calais Water District Mitigation Site – Section B
- Figure 7. Hardscrabble Road Preservation Parcel – Aerial Photo
- Figure 8. Hardscrabble Road Preservation Parcel –Wetlands and Natural Resources
- Figure 9. Magurrewock Mountain Preservation Parcel – Aerial Photo

**LIST OF APPENDICES**

- Appendix A. Mitigation Site Search Summary
- Appendix B. Cross Reference Between Mitigation Plan and N.E. District, U.S. Army Corps of Engineers' *Mitigation Plan Checklist* (6/15/04 version).
- Appendix C. Preliminary Plan for Control of Potential Invasive Plants at the Water District Mitigation Site.
- Appendix D. DRAFT Declaration of Covenants and Restrictions for the Water District Mitigation Site
- Appendix E. Letter from Moosehorn National Wildlife Refuge to MaineDOT Regarding Acceptance of Hardscrabble Parcel
- Appendix F. U.S. Army Corps of Engineers' Comments and MaineDOT Response to Comments Memo (April 2006)

## **1.0 GENERAL INFORMATION**

### **1.1 Project Description**

The Maine Department of Transportation (MaineDOT) is proposing to construct a new international border crossing in Calais, Maine (Figure 1). The project, known as the Calais–St. Stephen Border Crossing Facility, will include a new bridge across the St. Croix River to St. Stephen, New Brunswick (Canada), a new border station, a new connector road from the river crossing to U.S. Route 1, upgrades to U.S. Route 1 (including a new roundabout intersection), and relocation of several local roads to accommodate the new facility. The project's purpose and need are detailed in Exhibits 1 and 2 of the Natural Resources Protection Act (NRPA) wetland alteration application. As described in Exhibit 11 of the application, MaineDOT has taken appropriate mitigation measures to avoid and minimize wetland impacts in the design of the project. This Wetland Compensation Plan outlines the compensatory mitigation that will be implemented to offset the unavoidable wetland impacts associated with the project. Note that this Compensation Plan was developed to meet the application requirements of both the Maine Department of Environmental Protection (DEP) and the U.S. Army Corps of Engineers (Corps) in a single document, even though the individual compensation packages being proposed are slightly different for each agency. Those differences are explained below.

### **1.2 Wetland Impacts**

The wetland impacts from the proposed project are detailed in Exhibit 14 of the NRPA application, and are summarized below in Table 1. The wetland types being impacted include approximately 1.71 acres of emergent (PEM), 4.45 acres of scrub-shrub (PSS), 0.52 acre of forested (PFO), and 0.13 acre of streambed (RUS)<sup>1</sup>. The impacted wetlands include approximately 0.25 acre of NRPA Wetlands of Special Significance (WSS). Overall, the two primary functions being impacted are water quality protection (i.e., sediment/nutrient/toxicant retention and transformation) and wildlife habitat. Other functions associated with the impacted wetlands include groundwater interchange, flood flow alteration, and aquatic habitat.

### **1.3 Mitigation Site Search**

MaineDOT conducted a search for compensatory mitigation opportunities as described and detailed in the document entitled "Mitigation Site Search Summary", contained in Appendix A. The search process led to the investigation of 15 or more sites in the general vicinity of the proposed project. All but four of these sites were dropped from consideration based on such factors as size (e.g., too small), compatibility and extent of wetland functions, effectiveness and likelihood of success, site availability, distance from project area, and agency recommendations. The two sites that were ultimately chosen were approved in concept in October 2005 by the Corps and the DEP. These two sites, and one additional site added to the package since then by MaineDOT, are described in detail in Sections 2 and 3 below. The Maine Historic Preservation Commission (MHPC) has reviewed the proposed mitigation areas pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended. In a memo dated October 27, 2005, MHPC notified the MaineDOT Permits and Cultural Resources Unit that the proposed mitigation activities would not affect any structure or site of historic or archaeological significance.

<sup>1</sup> Wetland types (i.e., PEM, PSS, PFO, etc.) per Cowardin *et al.* 1979. Classifications of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Washington, DC.

**Table 1.** Summary of wetland impacts for the MaineDOT Calais – St. Stephen Bridge and Border Crossing Project.

Wetland Type <sup>2</sup>	Estimated Impacts <sup>1</sup>		
	Square Meters	Square Feet	Acres
PEM	6,606	71,108	1.63
PEM – WSS <sup>3</sup>	317	3,417	0.08
PSS	17,532	188,712	4.33
PSS - WSS	472	5,079	0.12
PFO	2,116	22,775	0.52
PFO - WSS	0	0	0
RUS - WSS	506	5,449	0.13
Total Non-WSS	26,254	282,595	6.49
Total WSS	1,295	13,945	0.32
Total Wetland Impacts	27,549	296,540	6.81

Notes:

1. Wetland impact numbers per MaineDOT estimate, dated 1-23-06.
2. Per Cowardin *et al.* 1979.
3. WSS = Maine NRPA Freshwater Wetland of Special Significance.

#### **1.4 June 2006 Revision – Response to Review Comments**

The New England District of the Corps Regulatory Division has reviewed this wetland compensation plan (dated January 2006 and submitted with the permit application) and provided MaineDOT with a completed copy of their Mitigation Plan Checklist. That document, dated April 4, 2006, contains comments and questions regarding the plan. In a memo dated April 14, 2006, MaineDOT responded to the comments and questions raised in the Corps' review. On May 12, 2006, the Corps responded to MaineDOT, via e-mail (Paul Minkin to Mark Lickus), indicating that MaineDOT's response of April 14 contained all the information requested and addressed all of the Corps' concerns regarding the compensation plan. The Corps subsequently requested that MaineDOT submit a revised Wetland Compensation Plan that incorporates the Corps' review comments and MaineDOT's written response. Copies of the Corps' mitigation plan checklist and MaineDOT's response are attached in Appendix F.

In summary, the Corps' review concluded that the mitigation measures outlined in the Wetland Compensation Plan would provide adequate compensation for the impacted wetland functions and values. The bulk of the comments and questions raised required only clarification by MaineDOT. As the documents in Appendix F show, the primary comments and questions involved lengths of stream impacts, mitigation for stream impacts, existing and future land uses surrounding the proposed Water District mitigation site, anticipated construction schedules, organic content of mitigation topsoil, documentation on acceptance of preservation areas by the receiving agency, and control of potential invasive plant species.

## **2.0 SUMMARY OF PROPOSED COMPENSATORY MITIGATION**

The wetland mitigation measures outlined in this plan are intended to compensate for the approximately 6.8 acres of freshwater wetland and stream-bottom impacts from the proposed project. Wetland mitigation is proposed at one on-site area and one off-site area. Preservation is also proposed at an additional on-site area, which is intended to minimize impacts from future development to nearby

Moosehorn National Wildlife Refuge<sup>2</sup> (NWR). These measures are summarized in Table 2 below and described in more detail in Section 3.

The proposed on-site mitigation involves wetland enhancement, wetland creation, and upland buffer enhancement at the Water District Site, a disturbed site near the St. Croix River and directly adjacent to the proposed project area (Figure 1). The two other mitigation areas are preservation parcels abutting Moosehorn NWR. These are referred to herein as the Hardscrabble Road parcel and the Magurrewock Mountain parcel. In general, the proposed mitigation package is designed to replace and protect the types of wetland functions and values associated with the impacted wetlands, rather than to provide in-kind replacement of wetland acreages and types.

As mentioned above, the individual compensation packages being proposed are slightly different for the Corps versus the DEP. Based on approvals of the concept plans and pre-application consultations with these regulatory agencies, MaineDOT is offering the Water District site, the Hardscrabble Road parcel, and the Magurrewock Mountain parcel as a mitigation package to satisfy Corps requirements, while only the Hardscrabble Road parcel is being offered to satisfy DEP mitigation requirements. Note that Appendix B contains a checklist of the Corps' requirements, guidelines, and suggested language for mitigation plans, indicating where in this plan those items are addressed.

MaineDOT will be responsible for planning, implementing, and monitoring the on-site wetland enhancement/creation mitigation area at the Water District site, and will purchase the two preservation areas in fee to be transferred to the Moosehorn NWR for long-term ownership and management.

---

<sup>2</sup> Moosehorn NWR is owned and managed by the U.S. Fish and Wildlife Service (USFWS)

**Table 2.** Summary of proposed compensatory mitigation for the MaineDOT Calais – St. Stephen Bridge and Border Crossing Project.

Compensation Site	Type of Compensation	Size (acres)	Offered For:
1. Water District Site	Wetland Enhancement Wetland Creation Upland Buffer Enhancement	E = 0.52 C = 0.42 B = 2.56	Corps only
2. Hardscrabble Road Parcel	Wetland and Upland Preservation adjacent to Moosehorn NWR	P = ±178	Corps and DEP
3. Magurrewock Mountain Parcel	Upland Buffer Preservation adjacent to Moosehorn NWR	P = ±40	Corps only

### 3.0 EXISTING AND PROPOSED CONDITIONS

Following are descriptions of existing and proposed conditions for the three mitigation sites. Also listed are specific mitigation objectives for each site.

#### 3.1 Water District Site

**Site Description:** Disturbed site with wetland enhancement, wetland creation, and upland buffer enhancement opportunities.

**Location:** Adjacent to the proposed GSA Facility, Calais

**Type of Mitigation:** Wetland Enhancement = 0.52 acre  
Wetland Creation = 0.42 acre  
Upland Buffer Enhancement = 2.56 acres

##### 3.1.1 Existing Conditions

The Water District mitigation site is located on a parcel owned by the City of Calais, situated between some railroad tracks and the St. Croix River (Figures 1, 2, and 3). The Calais Water District currently maintains a groundwater production well on the parcel that serves as the primary water supply for the city. Prior to the installation of the well and associated infrastructure (i.e., an access road and a pump/filtration station) circa 2001, the site was disturbed some time within the last 10 years by the construction of an agricultural cranberry bog and some dug irrigation ponds, and by land grading and topsoil stripping activities (refer to Figures 2 and 3, Photos 1 and 2). Prior to the cranberry-growing operation, the site was primarily an agricultural field.

The Water District site is currently a mixture of upland and wetland habitats. Much of the topsoil within the proposed mitigation area was stripped or piled on-site when the cranberry bog was constructed, exposing a layer of marine clay subsoil. The clay overlays a relatively thin gravel aquifer layer, from which the municipal water is being pumped. According to a report produced during the well-development process<sup>3</sup>, the aquifer is sandwiched between the layer of clay and the bedrock below. The thickness of the clay layer at the site is variable, ranging from about 6–30 feet. The clay acts as a relatively impermeable “confining layer” that keeps surface water from reaching the aquifer, and with the exception of one irrigation pond that was dug deep enough to penetrate the clay layer, the site has a perched water table and effectively no interchange with groundwater. These perched conditions have resulted in the formation of several wetland pockets where surface water is retained for extended periods (Figures 2 and 3). These wetlands total approximately 1.9 acres within the proposed mitigation area. The source of their hydrology is limited to surface runoff from the surrounding up-slope drainage area. During seasonally wet periods and rain events, water from these wetland pockets drains off-site to the

<sup>3</sup> *Groundwater Exploration & Development, Milltown Aquifer, Calais, Maine*. February 23, 2003. Prepared for the City of Calais by Emery & Garrett Groundwater, Inc., 24 Common Street, Waterville, Maine.



**Photo 1.** Water District site looking west from soil stockpile toward cranberry bog (raised berm in background). Note lack of vegetative cover and topsoil. Photo by MaineDOT, October 2005.



**Photo 2.** Water District site looking northeast from cranberry bog. Note soil pile and lack of vegetative cover and topsoil. Photo by MaineDOT, October 2005.

south towards the excavated irrigation ponds and eventually to a ditch along the railroad bed that feeds into the large wetland directly to the east.

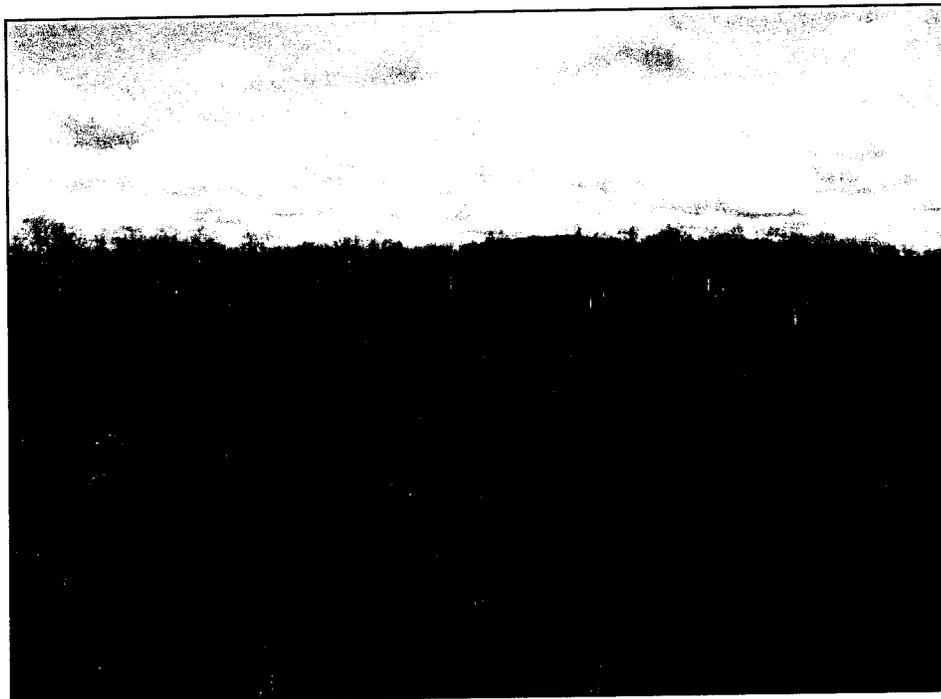
Vegetation within the proposed mitigation area is variable, and to a large extent influenced by the quality or lack of topsoil. Areas without topsoil range from unvegetated to sparsely-vegetated, while other areas are more densely vegetated with herbaceous and shrub species common in “old field” habitats (Photos 3 and 4). Common species include several species of aster (*Symphotrichum* spp.) and goldenrod (*Solidago* spp.), meadow-sweet (*Spiraea latifolia*), speckled alder (*Alnus incana*), quaking aspen shrubs (*Populus tremuloides*), gray birch shrubs (*Betula populifolia*), vetch (*Vicia* sp.), clover (*Trifolium* spp.), redtop grass (*Agrostis gigantea*), timothy (*Phleum pratense*), and many herbaceous species common to disturbed areas and pastures. Some of the wetland basins are densely vegetated with hydrophytic herbaceous and shrub species, including cat-tail (*Typha latifolia*), sedges (*Carex* spp.), wool-grass (*Scirpus cyperinus*), soft-rush (*Juncus effusus*), speckled alder, and willows (*Salix* spp.). At least one wetland basin, the largest, appears to contain areas of permanent inundation, while the rest likely exhibit seasonally-inundated to seasonally-saturated conditions.

**Wetland Functions and Values:** The functions and values associated with the existing wetland areas at the Water District site are limited by the disturbed nature of the site, but do include sediment/toxicant retention, nutrient removal and transformation, floodflow alteration (i.e., surface water detention/retention), and wildlife habitat. These wetlands are currently not functioning at a high level due to the disturbed nature of the site and low vegetative diversity. Sediment and nutrient retention are the only functions that would be considered primary, and only in the largest basin (Photo 4).

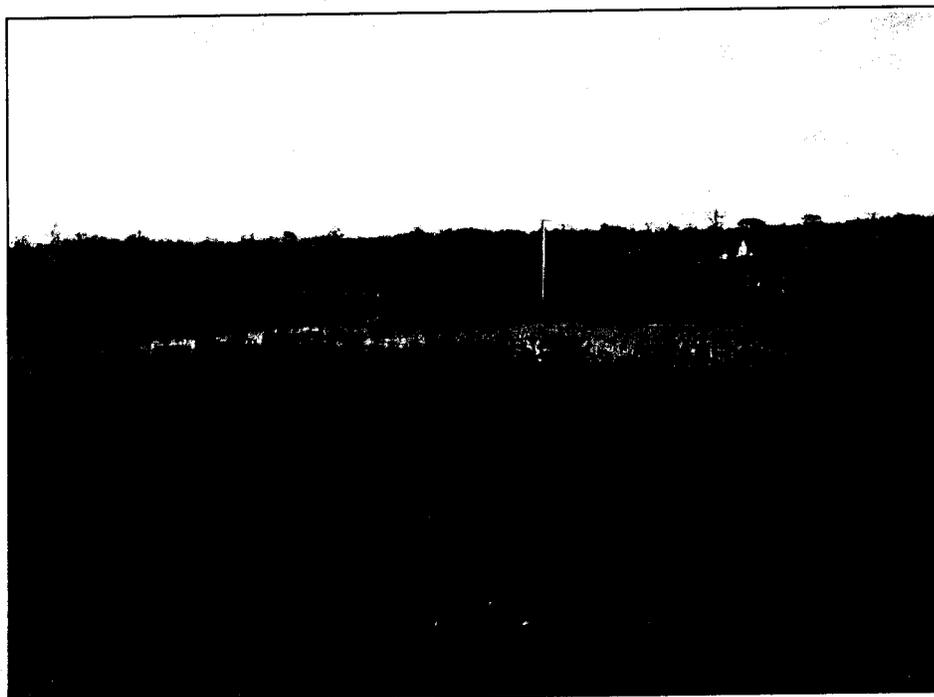
**Design Constraints:** The most notable design constraint associated with this mitigation site involves its close proximity to municipal water wells (i.e., it is within the wellhead protection zone) and to the existing irrigation pond that is reported to have a connection to the groundwater aquifer. Notwithstanding that constraint, it is both feasible and practicable to design a wetland enhancement and creation project that will not adversely affect the wells or the aquifer. This is due primarily to the existing drainage patterns and the impermeable nature of the clay soils that cover the site. First, it is expected that the permanent irrigation pond (i.e., the most southerly one) will be filled in, either by the City or in association with construction of the border crossing facility, thereby eliminating the opportunities for potential pollution of the aquifer by the mitigation activities. Second, any re-grading or soil disturbance necessary to enlarge or enhance the wetlands will be shallow and close to the surface, and as such will not penetrate the protective clay layer.

Another potential design constraint is that wetland hydrology within the mitigation area will be limited to surface runoff. However, the conditions observed in the existing wetlands and excavated pond areas suggest that the water budget from the local drainage area will be sufficient to support additional wetland acreage, and that the creation and enhancement areas will contain *at least* seasonal saturation or inundation to support persistent hydrophytic plant communities.

A third potential design constraint is the current lack of topsoil that is suitable for plant growth. This situation will be rectified by importing good quality wetland and upland soils to support plant growth and other functions (see Section 3.1.3 below).



**Photo 3.** Water District site looking northwest along northern edge of mitigation area, showing typical old field vegetation. Lighter area in center of photo is an emergent wetland basin. Photo by MaineDOT, October 2005.



**Photo 4.** Water District site looking northeast along northern edge of mitigation area showing typical vegetation. Open water in center of photo is the largest existing wetland on-site, which is likely permanently inundated. Photo by MaineDOT, October 2005.

### **3.1.2 Mitigation Objectives**

1. Enhance the soils and hydrologic conditions of the existing wetlands, where needed, to improve the density and diversity of the vegetation, thereby improving the wetland functions associated with water quality, retention of surface runoff, and wildlife habitat.
2. Enhance one of the existing shallow wetland basins to provide more plant diversity and some seasonal shallow pool habitat.
3. Create additional wetland areas through re-grading, re-soiling, seeding, and planting.
4. Create/enhance woody buffers around the existing and created wetlands to further enhance and protect their functions and values.
5. Over time, establish a patchwork of wetland and upland habitats vegetated with a mix of emergent, herbaceous, shrub, and tree species.

### **3.1.3 Proposed Conditions**

MaineDOT proposes to purchase approximately 8.2 acres of the Water District parcel and to enhance and create wetlands within that area. More specifically, the proposed mitigation at the Water District site will include: (1) enhancing portions of the existing wetland basins and drainageways through soil amendments, woody plantings, and re-grading; (2) creating new wetlands adjacent to existing ones by re-grading, adding wetland topsoil, seeding, and planting; (3) enhancing the existing on-site wetlands by re-grading soil piles, adding or amending topsoil where needed, and planting trees and shrubs on approximately 2.56 acres of adjacent upland buffer; and (4) stabilizing other on-site areas of exposed soil that are currently subject to erosion. Figure 4 illustrates in plan view the locations of various mitigation measures proposed for this site. Figures 5 and 6 contain cross sections showing existing and proposed grades and habitat types.

The proposed mitigation activities are designed to improve the overall functioning of the existing 1.9 acres of on-site wetlands, and to stabilize and re-vegetate the surrounding upland area that has been affected by past topsoil stripping and stockpiling. As shown on Figures 4, 5, and 6, one of the existing wetland basins will be deepened to provide for increased plant diversity, increased capacity for sediment/toxicant/nutrient retention, and enhanced value to wildlife (possibly including breeding amphibians<sup>4</sup>). One upland area largely devoid of vegetation will be converted to a shallow wetland basin by excavating the clay to the appropriate elevation, adding wetland topsoil, and establishing emergents, shrubs, and trees. Upland areas adjacent to the existing and created wetlands will be enhanced by establishing woody vegetation, which will eventually provide shade and increased structural diversity to benefit wildlife. Re-soiling, seeding, and planting efforts will also help to stabilize the site and reduce erosion of the silty clay soils into nearby surface waters during rain events.

<sup>4</sup> Note: Even though the deepened basin may support breeding amphibians, it is not the specific intent of MaineDOT to create vernal pool habitat at this location.

### 3.2 Hardscrabble Road Parcel

**Site Description:** Large preservation parcel adjacent to Moosehorn Wildlife Refuge  
**Location:** Off-site, in Calais, 3.5 mi from GSA Facility  
**Type of Mitigation:** Wetland/Upland Preservation = 178 acres

#### 3.2.1 Existing Conditions

The Hardscrabble Road mitigation site consists of a large preservation parcel located adjacent to the Moosehorn National Wildlife Refuge (NWR) (Figures 7 and 8). The proposed preservation parcel, which is currently owned by the City of Calais, is approximately 178 acres in size. The parcel directly abuts the easterly boundary of Moosehorn NWR, and contains a section of the East Branch of Magurrewock Stream. Hardscrabble Road, a gravel town road that provides the only access to a large block of city-owned property at the northern end of Nashs Lake, skirts and crosses the parcel. The parcel is undeveloped except for that gravel road and a small, inactive borrow pit adjacent to the road.

The cover types on the Hardscrabble Road parcel include upland forests, wetland forests, and emergent/shrub stream-associated wetlands. The predominant upland forest type is mixed coniferous-deciduous dominated by white pine (*Pinus strobus*), red spruce (*Picea rubens*), balsam fir (*Abies balsamea*), white birch (*Betula papyrifera*), northern red oak (*Quercus rubra*), and red maple (*Acer rubrum*). Much of the parcel was lightly-harvested within the last few years, but most areas appear to remain well-stocked (Photos 5 and 6, Figure 7). These forests provide high-quality habitat for several USFWS Partners in Flight high-priority species, including the bay-breasted warbler, blackburnian warbler, and black-throated blue warbler. The Gulf of Maine Habitat Analysis indicates that this area provides above-average habitat for whip-poor-wills, red-shouldered hawks, and goshawks. A mapped bald eagle nesting site (BE 072F) is located northeast of Vose Pond, near the existing refuge boundary (Figure 8).

A tally of National Wetlands Inventory (NWI) data indicates that the Hardscrabble Road parcel contains approximately 35.9 acres of wetland habitats, as outlined in Table 3 by wetland type. The Maine Natural Areas Program (MNAP) Beginning With Habitat resource maps show the stream-associated wetland areas as inland wading bird and waterfowl habitat (Photo 7, Figure 8). Information provided by Moosehorn NWR indicates that these wetlands provide habitat for pied-billed grebes, American bitterns, black ducks and wood ducks. The streams on the tract contain brook trout and American eel. The eel has been proposed for listing under the Endangered Species Act.

**Table 3.** NWI wetland types found on the Hardscrabble Road parcel.

Wetland Type	Amount (Acres)
Emergent/Scrub-Shrub	10.6
Scrub-Shrub	7.8
Forested	12.0
Open Water (Stream)	5.6
Totals:	35.9

**Design Constraints:** There are no design constraints because only preservation is proposed. However, the parcel contains an access road that the City of Calais will need to retain, as it provides the only existing access to their "City Square Mile" parcel. As a result, continued public access will be allowed and the City will continue to maintain the road (see Section 9.2 below).



**Photo 5.** Hardscrabble Road parcel, showing typical forest conditions as seen from gravel access road, looking north. Photo by MaineDOT, October 2005.



**Photo 6.** Hardscrabble Road parcel, showing a small stream and typical forest conditions as seen from gravel access road. Photo by MaineDOT, October 2005.



**Photo 7.** Hardscrabble Road parcel, showing typical high-value, stream-associated emergent-shrub-open water wetland habitats on the eastern side of the parcel. Photo by MaineDOT, October 2005.

### **3.2.2 Mitigation Objectives**

The mitigation objective for the Hardscrabble Road preservation parcel is to protect, in perpetuity, approximately 170–175 acres (i.e., the acreage of the parcel minus the access road) of wetland and upland habitats from development, for the benefit of natural communities, wildlife, and water quality. The intent is for MaineDOT to transfer ownership of this land to the USFWS to be added to the Moosehorn refuge, and to be managed by USFWS in keeping with their short- and long-term management objectives for the refuge.

### **3.2.3 Proposed Conditions**

Acquisition and preservation of this parcel will permanently protect the significant natural communities and conservation values that are currently present. It will maintain high-quality habitat for migratory birds that use both wetland and forested habitats. The uplands provide a buffer that will permanently protect portions of the Vose Pond watershed and the East Branch of Magurrewock Stream. Acquisition will also provide permanent protection for part of the designated essential habitat around the eagle nest, contributing to the Maine Department of Inland Fisheries and Wildlife bald eagle recovery plan goals. Addition of a ± 175-acre habitat block directly adjacent to the refuge will increase the value of existing refuge lands to forest interior species. Moosehorn NWR/USFWS would accept the parcel as a donation, as they have received no funding for land acquisition in FY 2004, 2005, and 2006. Potential development threats in this area include unrestricted off-road vehicle use, intensive forest harvesting, and recreational and residential development.

### **3.3 Magurrewock Mountain Parcel**

**Site Description:** Large preservation parcel adjacent to Moosehorn Wildlife Refuge  
**Location:** On-site, in Calais, along U.S. Route 1  
**Type of Mitigation:** Upland Buffer Preservation = ±40 acres

MaineDOT is proposing to preserve a second large parcel, this one along the northern boundary of the Moosehorn NWR in Calais<sup>5</sup>. The Magurrewock Mountain parcel, as it is referred to here, is located along Route 1 near the southeasterly end of the proposed border crossing project. The parcel consists of approximately 40 acres of upland forest on the slopes of Magurrewock Mountain (Figure 9). The southeastern edge of the parcel borders on U.S. Route 1 just north of Magurrewock Stream and its associated marsh. A house, utility line and two communications towers are located on the parcel. The house is slated for removal as part of the Route 1 reconstruction work, but it is anticipated that the communications towers will remain in place. MaineDOT is planning to acquire the entire parcel to address access management requirements along Route 1 as part of the right-of way acquisition for the border crossing project. Like the Hardscrabble Road parcel, MaineDOT intends to transfer this land to USFWS to be managed by Moosehorn NWR in keeping with their short- and long-term management objectives for the refuge. The transfer will be subject to all existing leases and easements.

This addition to the Moosehorn refuge of approximately 40 acres of forested upland will provide increased opportunities for the refuge to manage for various species of wildlife, including upland game and non-game passerine birds. Though this parcel contains no mapped wetland habitat (per NWI data), its preservation will maintain an undeveloped buffer along Magurrewock Stream and Route 1 in an area that may experience increased development pressures in the future.

## **4.0 EROSION CONTROL**

During construction of the Water District mitigation site, specific erosion control measures will be designed and implemented by the construction contractor(s) in accordance with MaineDOT Standard Specification #656, Temporary Soil Erosion and Water Pollution Control. These measures will follow Best Management Practices for Erosion and Sediment Control (DEP 2003<sup>6</sup>, MaineDOT 2002<sup>7</sup>), and will include the use of sediment barriers (e.g., silt fencing, erosion control berms, staked straw bales), erosion control blankets, temporary seeding, and temporary check dams, as needed.

Permanent erosion control measures will be shown on the construction plans (to be developed prior to construction). Temporary measures will be described in a detailed erosion control plan prepared by the contractor(s) in accordance with the Memorandum of Agreement between MaineDOT and DEP regarding compliance with Maine's Erosion and Sediment Control Laws (38 M.R.S.A. S. 420 C.). The project-specific Special Provision included in the contract documents will require the contractor(s) to write the Erosion Control Plan and submit it to MaineDOT prior to construction. A pre-construction meeting will be held with the contractor(s), MaineDOT's construction and mitigation staff, and a wetland specialist to explain the purpose of the mitigation project and to review the construction plans and specifications.

Erosion control measures and structures will be monitored and maintained until the site is fully stabilized with vegetation. Temporary erosion control devices and structures in and around the mitigation site will

<sup>5</sup> In response to comments received from the Corps, MaineDOT acknowledges that preservation of the Magurrewock Mountain parcel does not yield mitigation credit for impacts to aquatic resources. MaineDOT has decided, however, to include this site in the mitigation package in order to minimize impacts of the project on Moosehorn NWR by providing an additional buffer from existing and future development along this section of Route 1.

<sup>6</sup> DEP. 2003. Maine Erosion and Sediment Control Best Management Practices. Maine Dept. of Environmental Protection, Augusta, Maine. March 2003.

<sup>7</sup> MaineDOT. 2002. Best Management Practices for Erosion and Sediment Control. Maine Dept. of Transportation, Augusta, Maine. Revised September, 2002.

be disassembled and properly disposed of before November 1<sup>st</sup>, three full growing seasons after construction. Sediment collected by these devices will be removed and placed in an upland area in a manner that prevents its erosion and transport to a waterway or wetland.

## **5.0 PLANTING PLANS**

Specific planting and seeding measures will be implemented only at the Water District mitigation site. The general planting and seeding areas for the Water District site are shown on the proposed conditions plan (Figure 4). Following are details of the planting plan in regard to soils, seeding, plant species, and general planting methods.

### **5.1 Soils and Microtopography**

Because of the past disturbance to the site that removed or piled the topsoil, it is expected that either existing soils will need to be amended or topsoil will need to be added to most of the proposed planting and seeding areas. To the extent practicable, the intent is to use suitable wetland topsoil salvaged from the impact areas as a soil amendment or where topsoil needs to be added, though other sources of topsoil may be used if needed (e.g., if the salvaged soil is too mucky, it may not be suitable for upland buffer areas). Depending on the construction schedules for the project and the Water District mitigation site, the wetland soil salvaged from the impact areas will either be transported to, and placed directly on, the mitigation site, or stockpiled for later use.

In areas where topsoil is lacking or of poor quality, it will be imported to provide a suitable growing medium for the proposed plantings and seed mixes. Topsoil used in wetland creation and enhancement areas will consist of the salvaged wetland topsoil, which is expected to exceed the Corps' minimum requirement for having 4–12 percent organic carbon content (by weight). It is also expected that this wetland topsoil will provide optimum conditions for wetland plant growth and floodwater/runoff retention, as well as a viable source of seeds and propagules of wetland plants from the impact areas. In the wetland creation areas, the existing clay will be removed to a level approximately 8–12 inches below the desired finish grade, and the wetland topsoil will be added to bring the average grade up to that of the adjacent wetland areas. The salvaged topsoil will be placed loosely over the creation areas with an excavator to achieve finish grades. The intent will be to create a slightly varied microtopography, whereby shallow pits and mounds will be allowed to occur at finish grade, with a maximum variation of 4–6 inches above or below the finish grade (to be specified in the construction plans). This technique will help create slightly-varied hydrologic conditions that will be conducive to higher flora and fauna diversity and better surface water retention. Immediately following finish grading, the newly-topsoiled areas may be covered with straw mulch or erosion control blanket as needed to minimize soil erosion and desiccation.

In wetland enhancement areas where planting is proposed, the existing topsoil will be evaluated to determine the need for amendment or addition of topsoil. If amending is needed, wetland topsoil will be spread loosely 2–4 inches thick over the areas to be planted. If addition is needed, particularly for tree and shrub plantings, wetland topsoil will be spread in the planting areas to form shallow mounds approximately 8–12 inches high and large enough to accommodate the planting groups (see Section 5.2 below). If necessary, the clay soil beneath the topsoil mounds will be hand-tilled or broken up to facilitate good root penetration by woody plants.

### **5.2 Vegetation Establishment**

Plans for vegetation establishment at the Water District mitigation site include a combination of transplantings, natural recruitment from the salvaged wetland soil, existing plant cover, and installed container-grown plantings. The goal will be to accelerate the establishment of emergent, scrub-shrub, and forested cover following re-grading and re-soiling activities. Depending on the timing of the bridge/border crossing project, some or much of the plant materials to be installed at the Water District

mitigation site may be transplants from the nearby wetland impact areas, including emergent and shrub clumps, live stakes, and possibly small trees. These materials will be carefully obtained by means of an excavator, transported by truck to the mitigation site, and placed by hand or with an excavator onto the prepared wetland creation and enhancement areas. The use of transplanted material will be preferred over containerized stock in wetland areas. Nursery-grown containerized trees and shrubs in the wetland creation and enhancement areas will be used only as needed to supplement the transplanted materials and to introduce plant species that may be slow to volunteer on their own. The upland buffer areas will be planted primarily with container-grown stock obtained from a local or regional nursery. Both transplant and nursery stock materials will include quick-growing pioneer species that will provide shelter, shade and structure to benefit wildlife using the site (see Table 4). Plant species were selected based on the composition of nearby wetland and upland forest communities, commercial availability, and performance on past projects. All of the species specified are native to northern Maine. Species not specified in the plan will not be used without written approval from the Corps. Plant species listed by the Corps as invasive, non-native or otherwise undesirable will not be used.

The locations of plantings shown on the plans are approximate. During layout, a qualified mitigation specialist may relocate plant groups to best fit site-specific conditions. All relocations will stay within their designated planting zones. The planting contractor will be responsible for watering and maintaining the installed plants during the 2-year plant establishment period in accordance with MaineDOT's Standard Specifications. To protect planted material from potential herbivore damage, tree tubes or similar protectors may be installed on some stock where appropriate (i.e., on hardwood trees of sufficient height).

Four types of vegetative zones will be created or enhanced at the Water District mitigation site: (1) Emergent/Shrub/Shallow Pool Wetland; (2) Transitional Wetland/Upland Buffer; (3) Upland Buffer; and 4) Visual Screen. Plant species, types, and estimated quantities for each vegetative zone are summarized in Table 4.

**1. Emergent/Shrub/Shallow Pool Wetland:** This vegetative zone includes wetland enhancement and creation areas as shown on Figure 4. In the enhancement areas, existing herbaceous and shrub vegetation will be enhanced with additional shrub plantings and limited seeding with a wetland seed mix where needed (refer to Table 5). Only the fringe of the excavated shallow pool areas will be planted. In the wetland creation areas, the imported topsoil may be seeded with a wetland seed mix (depending on season constructed) and shrubs will be installed. It is expected that the majority of installed shrubs will be transplants salvaged from the wetland impact areas. Seeded areas will be mulched with straw as needed to promote seed germination and control soil erosion.

Proposed shrub wetland areas will consist of shrubs planted in mulched beds around the upper limits of emergent zones. Plant groups will be spaced approximately 20 feet apart, with approximately 12 shrubs per group at an overall density of 600 shrubs per acre. Planting beds will be topdressed with 3–4 inches of natural mulch material such as woodchips, bark, or other wood by-products to control weed growth around the plants. If container-grown shrubs are used, they will be 2–3 feet tall at installation.

Table 4. Summary of proposed planting and seeding treatments for the four planned vegetative zones at the Water District Mitigation Site

Proposed Vegetative Zone (Area)	Tree Species and Type	Tree Planting Density and Spacing	Shrub Species and Type	Shrub Planting Density and Spacing	Herbaceous Seeding (As Needed)	Seeding Rate
1. Emergent/Shrub/Shallow Pool Wetland (0.94 Acres)	None	N/A	Primarily transplantable shrub clumps salvaged from wetland impact areas, including Speckled alders, willows, and other wetland shrubs.	Approximately 480 shrubs total, with 12 shrubs planted in each mulched group. Overall density equivalent to approximately 600 shrubs/acre (excluding planned pool area)	Wetland Seed Mixes #1 and #2 (see Table 5).	22 lbs/ac
2. Transitional Wetland/Upland Buffer Enhancement <sup>1</sup> (0.30 Acres)	A mix of transplantable trees salvaged from wetland impact areas, including Red maple, Gray birch, and other wetland trees, and 3'-4' container grown trees including at least 4 of the following species: Red maple, Striped maple, N. White Cedar, Balsam fir, Green ash, Gray Birch, Tamarack, White pine.	Approximately 60 trees total, with 3 trees planted in each mulched group along with shrubs. Groups will be spaced approx. 15 feet o.c. Overall density equivalent to approximately 200 trees/acre	A mix of transplantable shrub clumps salvaged from wetland impact areas, including Speckled alders, willows, and other wetland shrubs, and 2'-3' container grown shrubs, including at least 2 willow species and 3 of the following: N. arrowwood, Winterberry, Speckled alder, Black chokeberry, Red-osier dogwood	Approximately 120 shrubs total, with 6 shrubs planted in each mulched group with trees. Groups will be spaced approx. 15 feet o.c. Overall density equivalent to approximately 400 shrubs/acre	Wetland Seed Mix #2 (see Table 5).	22 lbs/ac
3. Upland Buffer Enhancement (2.26 Acres)	3'-4' (0.6-1.2 m) container grown trees including at least 4 of the following species: White pine, Red pine, Balsam fir, White or Green ash, Paper birch, American beech	Approximately 768 trees total, with 10 trees planted in each mulched group with shrubs. Groups will be spaced approx. 50 feet o.c. Overall density equivalent to approximately 300 trees/acre	2'-3' container grown shrubs, including at least 3 of the following species: Black chokeberry, Sweetgale, Meadowsweet, Nannyberry	Approximately 384 shrubs total, with 5 shrubs planted in each mulched group with trees. Equivalent to approximately 150 shrubs/acre	Mixture of annual rye, red fescue and redtop for erosion control and stabilization	85 lbs/ac
4. Visual Screen	3'-4' (0.6-1.2 m) container grown trees including the following species: White pine, Red pine, Balsam fir, Northern White Cedar	Plant approximately 168 trees in 2 staggered, parallel rows, 10 feet o.c., to create a dense visual screen	None	N/A	None	N/A

<sup>1</sup> Note: The final design might include the use of Transitional Wetland/Upland groups in the Upland Buffer areas, depending on hydrologic conditions.

**Table 5.** Typical wetland seed mixes for the Water District Mitigation Site

Wetland Seed Mix #	Location	Herbaceous Species <sup>1</sup>
1	Emergent zone	Eastern burreed, Northern arrowhead, Pickerelweed, Arrow arum, Soft-stem bulrush, Hard-stem bulrush, Blue Flag iris (depending on availability)
2	Upper Emergent Zones, Scrub-Shrub zones	Virginia wild rye, Nodding Bur Marigold, Swamp Milkweed, Blue vervain, Joe-pye weed (depending on availability).

<sup>1</sup> Note: The species/mixes listed above are preliminary. The actual seed mixes used may be different based on availability and conditions at the time of seeding.

**2. Transitional Wetland/Upland Buffer Enhancement:** This treatment will consist of groups of native wetland and transitional upland trees and shrubs planted in mulched beds around the upper limit of the two proposed wetland enhancement areas (see Figure 4). The source of the plants will include salvaged transplants supplemented with container-grown nursery stock. Installed plant groups will be spaced approximately 15 feet apart, with 3 trees and 6 shrubs per group at an overall density of 600 trees and shrubs per acre. Planting beds will be topdressed with 3–4 inches of natural mulch material such as woodchips, bark, or other wood by-products to control weed growth. Container grown trees will be 3–4 feet tall, and shrubs 2–3 feet tall. The sizes and heights of salvaged plants will vary depending upon availability, time of year, whether or not plants need to be stockpiled and stored, and overall ease of handling the salvaged materials.

**3. Upland Buffer Enhancement:** This treatment will consist of groups of native upland trees and shrubs planted in mulched beds at a density of 450 trees and shrubs per acre, including trees at a minimum density of 300 per acre. Plant groups will be spaced approximately 50 feet apart, with 10 trees and 5 shrubs per group. Plants will be primarily from container grown stock (trees 3–4 feet tall, and shrubs 2–4 feet tall), though transplant materials may also be used if suitable. All tree and shrub planting beds will be topdressed with 3–4 inches of natural mulch material such as woodchips, bark, or other wood by-products to control weed growth. Each planting in the upland buffer will be individually fertilized with a slow-release granular product. The arrangement of plants in mulched groups within the upland buffer areas will result in islands of trees and shrubs that will be more resistant to herbaceous competition, and also will provide varied cover and structure to attract wildlife.

**4. Visual Screen:** This treatment will include installing two staggered rows of coniferous trees along the southerly boundary of the mitigation site to establish a year-round visual screen. Individual trees will be spaced approximately 10 feet on-center, and will be from container-grown stock 3-4 feet in height at the time of planting.

### 5.3 Coarse Woody Debris

Coarse woody debris will be spread in the enhanced and created wetland areas, including small branches and limbs within the shallow pool to provide egg-attachment potential for breeding amphibians. Approximately 4 percent of the ground surface within the enhanced and created wetlands will be covered with coarse woody debris.

## **6.0 CONSTRUCTION MONITORING**

A qualified, professional wetland scientist will be on-site to monitor construction of the Water District wetland mitigation site, as needed, to ensure compliance with this plan. In particular, the individual monitoring the construction will check that grading, re-soiling, seeding, planting, and erosion control measures are implemented properly and according to the plans and specifications. The limits of construction will be clearly marked with colored survey flagging or erosion control fencing to minimize disturbance to soils and vegetation in adjacent areas.

As-built plans will be submitted to the regulatory agencies with the first-year monitoring report. These plans will show approximate finish grades where any re-grading was done, including plan and cross-section views of the site showing upland/wetland boundaries, and general hydrologic conditions. Methods for preparation of the as-built survey will include spot elevation checks or similar means. As-built sections will be limited to areas where re-grading occurred in wetlands. Actual planting details, if significantly different than proposed, will also be shown on the as-built plans where applicable.

## **7.0 INVASIVE AND NOXIOUS SPECIES**

### **7.1 Risk of Invasion**

No common reed plants have been observed within or adjacent to the proposed Water District mitigation site. A few purple loosestrife plants have, however, been found within the cranberry bog, and it is possible that this invasive plant will need to be closely monitored and controlled at the mitigation site. Because wetland topsoil salvaged from the impact sites will be used to re-soil the wetland enhancement and creation areas, it will be necessary to have a botanist or wetland scientist survey the salvage areas for the presence of noxious invasive plant species. Efforts will be made to obtain wetland topsoil only from those areas that are deemed to be free of invasive species such as purple loosestrife, common reed, reed canarygrass (*Phalaris arundinacea*), Japanese knotweed (*Fallopia japonica*), Morrow's honeysuckle (*Lonicera morrowii*), and other aggressive, non-native plant species. Topsoil used in the uplands will also be specified to be free of the plants, roots, or rhizomes of purple loosestrife or common reed, and the source areas will be inspected prior to salvage. Seed mixes proposed for use at the site will be specified to be free of invasive species.

### **7.2 Invasive Control Constraints**

The ability to control invasive species at the Water District mitigation site will be somewhat constrained by the site's proximity to the drinking-water wellheads and the below-ground gravel aquifer. Though the chances of contaminating the wells or the aquifer are reduced because of the thick clay layer, no herbicides will be used to control invasive species should they become established. Only mechanical (e.g., hand pulling or cutting) or biological methods (e.g., release of biocontrol agents such as beetles) will be used to control invasive plants (see Section 7.3 below).

### **7.3 Invasive Species Control Plan**

The Water District mitigation site will be monitored annually during the monitoring period for signs of problem invasives. If any invasive species are identified during monitoring activities, MaineDOT will implement site-specific control measures with a goal of reducing the density of the plants or minimizing their spread. Cattail is considered an acceptable species and will not be controlled. Invasive species control may include mechanical or biological means. Descriptions of typical methods that may be used to control purple loosestrife and common reed are contained in the sample plan in Appendix C

## **8.0 ATV USE**

ATV and snowmobile use will be controlled at the Water District mitigation site to the greatest practicable extent. It is not expected that ATVs, snowmobiles, and other off-road vehicles will enter the Water District wetland mitigation area because access will be controlled by a security fence to be installed for the GSA Border Crossing facility to the south, and from other directions by the Water District's restricted access measures and policies. Signs on posts will also be installed stating that ATVs and motorized vehicles are prohibited from the mitigation area.

## **9.0 PROTECTION AND LONG-TERM STEWARDSHIP**

### **9.1 Water District Site**

MaineDOT anticipates acquiring the ±8.2-acre Water District mitigation site from the City of Calais on or before March 15, 2006. MaineDOT is currently developing a right-of-way map for the area, and will be completing an appraisal in accordance with Federal Highway Administration requirements in preparation for acquisition.

In accordance with the latest version of the Corps' Mitigation Plan Guidance document, covenants and restrictions will be placed on the parcel. A draft of the Declaration of Covenants and Restrictions document is provided in Appendix D. This document may be revised by MaineDOT pending the development of final design plans for the site. Significant changes to the draft document will be submitted to the Corps for approval prior to signature. The Declaration will be executed by MaineDOT and recorded within 90 days of permit issuance, and a copy of the recorded document will be forwarded to the Corps within 30 days of receipt of the recorded document from the Washington County registry. MaineDOT plans to retain ownership of the site until a state or federal conservation agency, or local land trust, is identified that is willing to take possession and is able to provide appropriate long-term management.

### **9.2 Hardscrabble Road Parcel**

MaineDOT anticipates acquiring the ±178-acre Hardscrabble Road preservation parcel from the City of Calais on or before December 31, 2006. In response to a request from the City, the public will retain a right to use the existing gravel road that crosses the Hardscrabble parcel, and the City will have the responsibility to maintain that road. This road allows public access to the so-called "City Square Mile", a large parcel of City-owned land that surrounds the northern end of Nashs Lake. MaineDOT has started a title search and a boundary survey of the parcel, and will be completing an appraisal in accordance with Federal Highway Administration requirements in preparation for acquisition.

Following acquisition, MaineDOT will transfer ownership of the Hardscrabble Road mitigation parcel to the USFWS so that it can be incorporated into Moosehorn NWR for long-term management and stewardship. Public access to the parcel for traditional, low-impact recreational activities such as hiking, cross-country skiing, hunting, and fishing will be maintained in accordance with existing Moosehorn NWR management plans, rules, and regulations. In keeping with US Department of Justice policy regarding land transfers to the federal government, MaineDOT will not place any affirmative restrictions on the parcel prior to transfer. Instead, MaineDOT proposes herein that incorporation of the parcel into Moosehorn NWR and management of the parcel under the existing laws and rules governing USFWS activities on wildlife refuges meets the intent of the DEP and Corps' long-term protection requirements for compensatory mitigation sites (refer to letter from Moosehorn NWR in Appendix E). MaineDOT will transfer the parcel to Moosehorn NWR within 120 days of the actual acquisition date. Documentation of the transfer will be provided to DEP and the Corps within 30 days of the transfer.

### 9.3 Magurrewack Mountain Parcel

As part of the right-of-way acquisition process for the proposed bridge and border crossing project, MaineDOT anticipates acquiring the ±40-acre Magurrewack Mountain mitigation parcel from the current owner on or before December 31, 2006. In the same manner as the Hardscrabble Road parcel, MaineDOT plans to transfer ownership of the Magurrewack Mountain parcel to the USFWS so that it can be incorporated into Moosehorn NWR for long-term management and stewardship, subject to the same conditions in regard to transfer timeframe, use restrictions, and long-term protection. Any transfer will be subject to existing leases or easements associated with the parcel.

## 10.0 MITIGATION MONITORING PLAN

Post-construction monitoring will be conducted at the Water District mitigation site to determine whether wetland enhancement and creation and buffer establishment measures are successful in meeting the specific mitigation objectives outlined in this plan, as well as the appropriate Corps' standards and guidelines<sup>8</sup>. This monitoring plan contains: (1) specific performance standards that will be used to evaluate whether the mitigation objectives and performance standards have been met; (2) detailed methods for evaluating the performance standards; and (3) a list of potential deficiencies and corresponding remedial measures. Monitoring will continue for 5 years after construction and planting have been completed at the mitigation site.

### 10.1 Performance Standards

Following are specific performance standards related to the Water District mitigation site.

**1. Volunteer and/or Planted Woody Stock:** (1) The planted wetland and wetland/upland transition areas of the site shall have at least 500 shrubs and trees per acre. The planted upland buffer areas shall have at least 360 trees and shrubs per acre. These minimum planting densities shall consist of plants that are healthy and vigorous, including volunteer and/or planted stock. (2) The site shall have at least 3 non-exotic species present (including planted and volunteer stock). To be counted, a species must be well represented on the site. Volunteer species must support the functions consistent with the design goals. *Note: It is understood that creating forested conditions (i.e., in the upland buffer) will take at least 15–20 years, the time it typically takes for plantings to attain sufficient heights to be considered trees. However, if at the end of the monitoring period the buffer areas meet the above performance standards for woody plant stocking density, it will be assumed that the mitigation objective has been met in regard to creation of forested habitats.*

**2. Percent Areal Cover:** The planned wetland portions of the mitigation site, where soils have been added or disturbed, shall have at least 80% areal cover by noninvasive hydrophytes, excluding planned open water areas and planted shrub/tree groupings. For this project, invasive species of hydrophytes are:

Common Reed – *Phragmites australis*;

Purple Loosestrife – *Lythrum salicaria*; and

For the purposes of this monitoring plan, other seeded areas (i.e., upland buffers) shall be stabilized and well-vegetated.

<sup>8</sup> Note that no monitoring will need to be done for the DEP because the mitigation package being offered to that agency includes only the preservation of the Hardscrabble Road parcel.

3. **Invasive Species Control:** Common reed and purple loosestrife plants at the mitigation site are being controlled.
4. **Erosion Control:** All slopes, soils, substrates, and constructed features within the mitigation site are stabilized.
5. **ATV Use:** Appropriate control measures are in place and being monitored for their effectiveness.

## **10.2 Monitoring Methods**

The primary objective of monitoring will be to determine how well performance standards are being met at the Water District mitigation site. Monitoring will include assessments of wetland hydrology, vegetation, plant survivorship, general wildlife use, and general site characteristics. More specifically, monitoring will consist of:

- Visiting the mitigation site to collect data for annual monitoring reports. Wetland enhancement and creation areas and planted upland buffers will be monitored for 5 years after construction has been completed. Monitoring site visits will occur two times a year for the first 3 years, and once each in years 4 and 5. The success of the mitigation will be evaluated at the end of year 5 to determine if additional monitoring or corrective measures are necessary.
- Monitoring for the first 3 years will include a spring site visit (April to June) to assess the general condition of the mitigation site and to check for significant winter damage or plant mortality. Another site visit will be conducted in the middle to end of the growing season (July to September) to collect more detailed information on wetland soils, hydrology, vegetation, and the need for corrective measures (e.g., replanting, erosion control). Site visits within the same year will be at least 30 days apart. For years 4 and 5, only the growing season site visit will be conducted.
- Establishing vegetation monitoring transects in the wetland creation and selected wetland enhancement areas of the mitigation site to sample vegetation and record signs of wetland hydrology. Transects will be located to allow for representative sampling of planted and seeded areas. Multiple transects may be established, as needed, to provide adequate sampling intensity. Vegetation data will be collected in meter-square plots located every 10–15 meters along the length of the transects. Data collected in each plot will include: (1) a list of the well represented (>10% coverage) species in the plot; (2) percent coverage by those species; (3) overall percent coverage for the plot; and (4) general hydrologic conditions (i.e., saturated to surface, inundated, etc.). A meander survey will also be done within the wetland creation and enhancement areas to assess overall vegetative cover, plant survivorship, invasive species, and soil erosion.
- Sampling a percentage of the planting groups within the upland buffer area to assess overall survivorship and plant vigor. A random stratified sample of planting groups will be selected, representing at least 30 percent of the total number of groups installed in the buffer. As a measure of survivorship, all live woody plants within the selected groups, including volunteers, will be counted and compared to the original number of plants installed in those groups. The total number of live plants found within the sample groups selected for monitoring will then be used to extrapolate the percent of overall plant survival for the entire buffer.
- Collecting data on general wildlife use or signs observed throughout the mitigation site during each site visit.
- Taking representative photographs of the mitigation site from established points to provide year-to-year comparisons of the vegetative and hydrologic conditions.

- Preparing annual monitoring reports, which will contain methods used to collect data, the results for that monitoring year, and recommended remedial actions that have been or should be implemented (see Section 10.3 below).

### **10.3 Annual Monitoring Reports**

The Water District mitigation site will be monitored for each of the first 5 full growing seasons following mitigation construction. Monitoring reports will be submitted to the Corps no later than March 31 of year following the monitoring. The reports will address the performance standards (listed in Section 10.1) and the items listed below. The reports will also include the four monitoring report appendices listed below. The first year of monitoring will be the first year that the site has been through a full growing season after completion of construction and planting. For the purposes of this monitoring plan, a growing season starts no later than May 31.

As necessary, remedial measures will be implemented by MaineDOT to ensure that the site will meet the performance standards by the end of the monitoring period. Remedial measures requiring earth movement or changes in hydrology will not be implemented without prior written approval from the Corps<sup>9</sup>.

#### ***Items for Narrative Discussion:***

- A description of the monitoring inspections that occurred since the last report.
- A description of the soils (i.e., wetland delineation soil profiles), with data to be collected after construction and every alternate year throughout the monitoring period. *Note: Because the proposed enhancement measures will not significantly alter the existing soils, soil descriptions will only be done for the wetland creation areas.*
- A description of remedial actions done during the monitoring year to meet the success standards, including actions such as replanting, controlling invasive plant species, re-grading the site, applying additional topsoil or soil amendments, adjusting site hydrology, etc.
- A report on the status of erosion control measures at the mitigation site, with a description of how they are functioning and, if temporary measures are no longer needed, whether they have been removed.
- Where soils have been added or disturbed, visual estimates of (1) percent vegetative cover and (2) percent cover of the invasive species listed in the success standards.
- A list of wildlife species that have been observed using the site, and what they use it for (nesting, feeding, shelter, etc.). This will include a list of species inhabiting or using the shallow basin that will be deepened. Use by vernal pool species will be noted but not specifically monitored because creation of a vernal pool is not one of the mitigation objectives.
- By species planted, a description of the general health and vigor of the surviving plants, the prognosis for their future survival and a diagnosis of the cause of mortality/morbidity.
- A description of remedial measures that are recommended to achieve or maintain the specific success standards or to otherwise improve the extent of functioning.

#### ***Monitoring Report Appendices:***

Appendix A – A copy of this permit's mitigation special conditions and a summary of the mitigation objectives.

---

<sup>9</sup> If there are problems that need to be addressed and if the measures to correct them require prior approval from the Corps, MaineDOT will contact the Corps to discuss the need for corrective action.

Appendix B – An as-built planting plan for the mitigation site showing the location and extent of the designed vegetative zones (refer to Figure 4). Within each of these zones, the plan will show the species planted. This will be included only in the first monitoring report unless there are additional plantings of different species in subsequent years.

Appendix C – A list of dominant volunteer species in each vegetative zone. Dominant volunteer species will include those that cover over 10% of their vegetative layer.

Appendix D – Representative photos of the mitigation site, taken from the same locations for each monitoring event.

#### **10.4 Assessment Plan**

Post-construction assessments to determine the condition of the mitigation site will be performed after the first 5 full growing seasons following completion of construction, or by the end of the monitoring period, whichever is later. “Growing season” in this context begins no later than May 31. To ensure objectivity, the person(s) who prepared the annual monitoring reports will not perform this assessment without written approval from the Corps. The assessment report will be submitted to the agencies, along with the 5<sup>th</sup> year monitoring report, by March 31 of the year following the assessment.

The post-construction assessment will include the four assessment appendices listed below, and will:

1. Summarize the original or modified mitigation objectives and discuss the level of attainment of these objectives at the mitigation site.
2. Describe significant problems and solutions during construction and maintenance (monitoring) of the mitigation site.
3. Identify agency procedures or policies that encumbered implementation of the mitigation plan. Specifically, note procedures or policies that contributed to less success or less effectiveness than anticipated in the mitigation plan.
4. Recommend measures to improve the efficiency, reduce the cost, or improve the effectiveness of similar projects in the future.

#### ***Appendices for Year Five Assessment Report:***

Appendix A – Summary of the results of function-value assessments of the mitigation site, using the same methodology used to determine the functions and values of the impacted wetlands.

Appendix B – Calculation of the area of wetland creation using the Corps’ 1987 Wetlands Delineation Manual. Supporting documents will include (1) a scaled drawing showing the wetland boundaries and representative transects, and (2) datasheets for corresponding data points along each transect.

Appendix C – Comparison of the area and extent of delineated wetlands the site (from Appendix B above) with the area and extent of created wetland proposed in the mitigation plan. This comparison will be made on a scaled drawing or as an overlay on the as-built plan. This plan will also show the major vegetation community types.

Appendix D – Photos of each mitigation site taken from the same locations as the previous monitoring photos.

#### **10.5 Corrective Remediation**

To ensure mitigation success, problems identified during monitoring visit at the Water District site will be addressed in a timely manner. The Corps will be consulted on a case-by-case basis regarding the need for

remedial measures. Given the types of wetland enhancement and creation and buffer-planting measures proposed under this plan, it is expected that potential remedial measures will be fairly minor and should not require major redesign of the mitigation site. Possible measures may include replacing dead shrubs and trees, herbivore control (e.g., fencing, tree guards), minor re-grading, supplemental seeding, fertilizing woody plantings, erosion repair, and invasive species control.

## **11.0 ESTIMATED SCHEDULE**

MaineDOT's overall schedule for construction of the Calais – St. Stephen Border Crossing Project is described in Exhibit 7 of the Corps and DEP/NRPA permit applications. The schedule has been broken down into phases that take into account the type of construction activity (i.e. bridge or highway) and the construction duration. Under the proposed schedule, the first contract to be issued will be for the St. Croix River bridge. The second contract to be issued will be for the two bridges spanning the railroad and for the associated approach work. Construction of this portion of the project is scheduled to begin in the fall of 2006. This phase of work will result in the majority of the wetland impacts associated with the project. It is anticipated that the final design of the Water District mitigation site will occur in the spring and summer of 2006, with construction and planting to follow beginning in the summer and fall of 2007 and extending into the Spring of 2008, depending on site conditions and the availability of plant materials. The following milestones for the Water District site are based on this anticipated schedule, and are subject to change by MaineDOT in consultation with the Corps and DEP.

<u>Item</u>	<u>Date</u>
▪ Final Survey/Field Data Collection	Spring 2006
▪ Final Wetland Enhancement and Creation Design	Summer 2006
▪ Submit Draft Final Construction Plans to Corps	September 2006
▪ Mitigation Project Advertised	October 2006
▪ Wetland Loam and Plant Salvage	Fall/Winter 2006
▪ Wetland Creation Earthwork	Summer 2007
▪ Wetland Enhancement and Creation Planting	Fall 2007 - Spring 2008

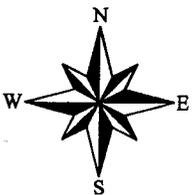
MaineDOT is submitting this narrative Compensation Plan to provide DEP and the Corps with a sufficient level of detail for NRPA and Section 404 permitting purposes. Issuance of a project permit by these agencies is contingent, in part, on regulatory approval of this Plan. The Compensation Plan will be revised, as necessary, in response to comments from the DEP and the Corps, and the final approved plan will serve as a regulatory record of compensation objectives, the proposed design, and performance standards for NRPA and Section 404 permit compliance. In addition, MaineDOT will develop final construction plans for the compensation measures proposed at the Water District Site. These plans will be submitted to the Corps for review before the mitigation project is put out to bid by MaineDOT.

**Wetland Compensation Plan**  
**MaineDOT Calais – St. Stephen Bridge and Border Crossing**

---

FIGURES





Note:  
The location of the southwesterly mitigation site boundary is subject to change pending final design of the GSA facility, but the mitigation area will be no smaller than what is shown.



Data Sources:  
Parcel Boundaries provided by MaineDOT.  
Mitigation Area Boundary was digitized by Woodlot and is approximate.

PREPARED BY:



**WOODLOT**  
ALTERNATIVES, INC.

DATE:	December 2005
SCALE:	1:60 meters
JOB NO.	105131.01
FILE:	105131_5002_420_cadnal.mxd

Figure 2 - Calais Water District Mitigation Site  
Wetland Compensation Plan  
Calais - St. Stephen International Border Crossing  
MaineDOT PIN - 8483.32

NOTES:

1. BASE MAP SURVEY INFORMATION INCLUDING TOPOGRAPHY PROVIDED BY MaineDOT. EXISTING WETLAND BOUNDARIES WERE DETERMINED BY WOODLOT ALTERNATIVES USING AERIAL PHOTO INTERPRETATION AND ARE APPROXIMATE.
2. EXISTING IRRIGATION PONDS AS SHOWN WILL REMAIN PART OF CALAIS WATER DISTRICT PROPERTY AND HAVE POTENTIAL HYDROLOGIC CONNECTIONS TO THE GROUND WATER AQUIFER UNDERLYING THE SITE.
3. REFER TO THE CROSS SECTIONS SHOWING EXISTING AND PROPOSED CONDITIONS PROVIDED IN FIGURE 5 AND FIGURE 6.

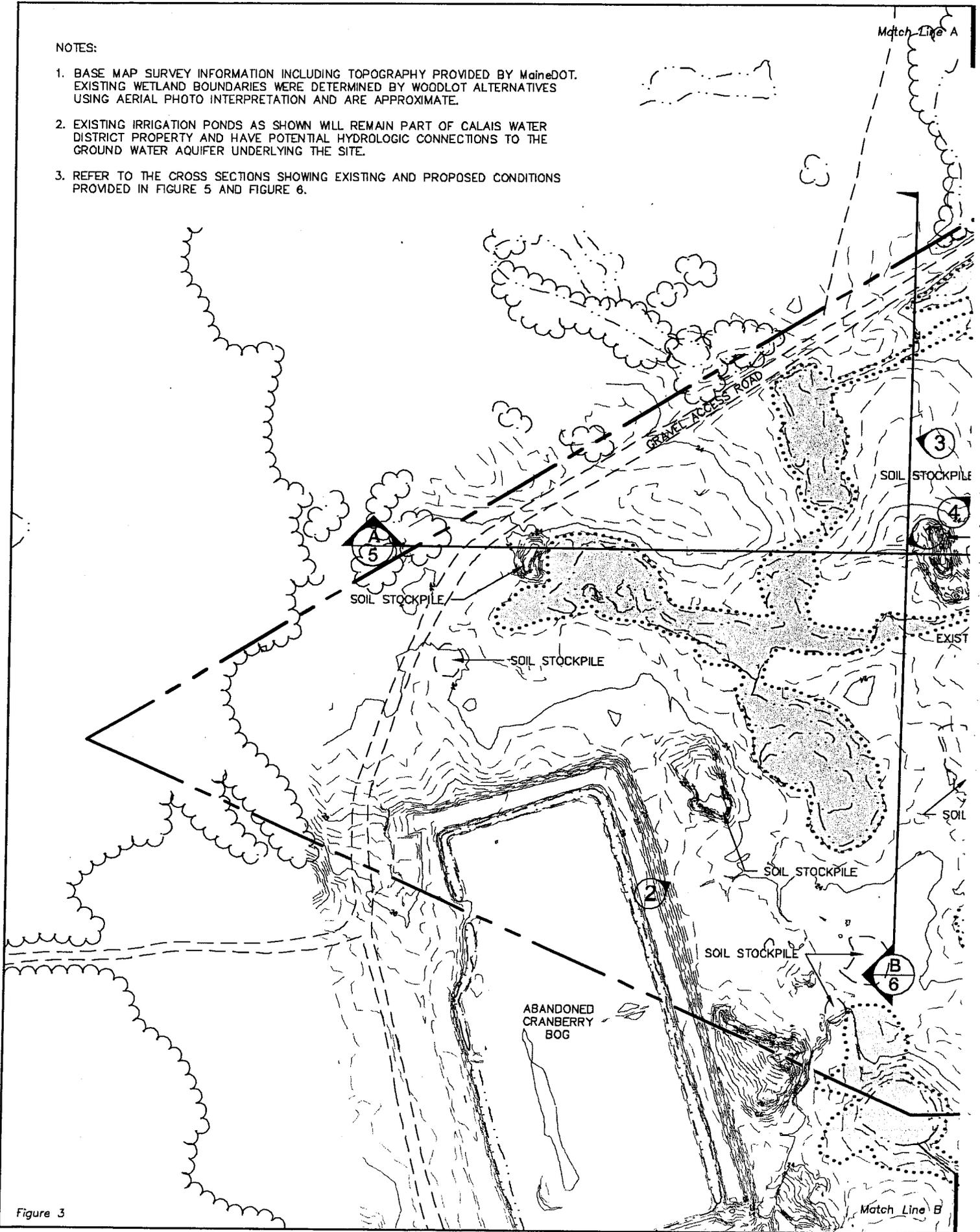
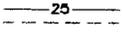
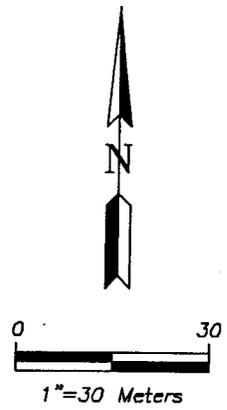
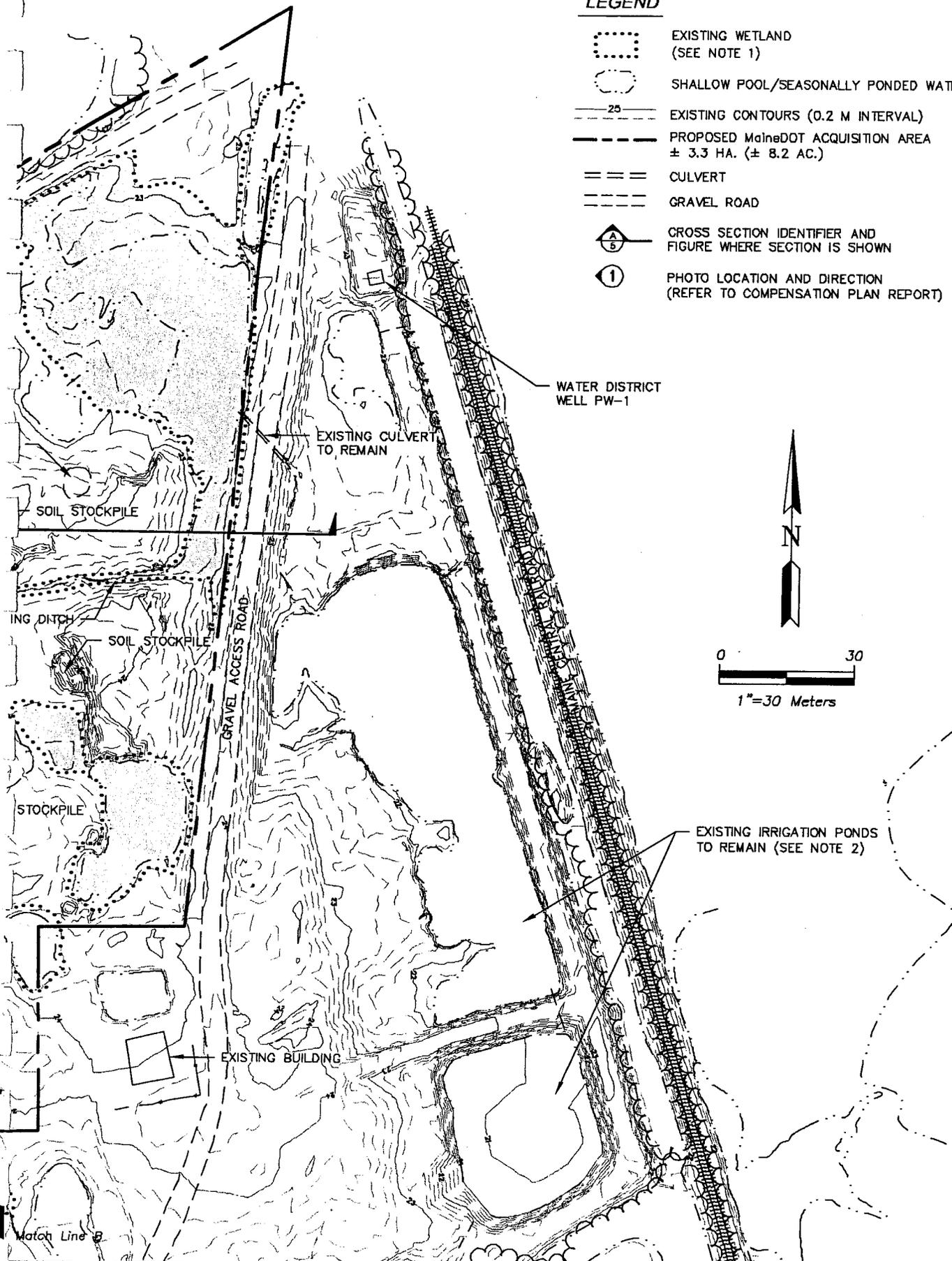


Figure 3

Match Line A

**LEGEND**

-  EXISTING WETLAND (SEE NOTE 1)
-  SHALLOW POOL/SEASONALLY PONDED WATER
-  EXISTING CONTOURS (0.2 M INTERVAL)
-  PROPOSED MaineDOT ACQUISITION AREA ± 3.3 HA. (± 8.2 AC.)
-  CULVERT
-  GRAVEL ROAD
-  CROSS SECTION IDENTIFIER AND FIGURE WHERE SECTION IS SHOWN
-  PHOTO LOCATION AND DIRECTION (REFER TO COMPENSATION PLAN REPORT)



Match Line B

PROJECT Wetland Compensation Calais - St. Stephen International Border Crossing ADDRESS Calais, Maine MAINE DOT PIN - 84R2 27	SHEET TITLE: Calais Water District Mitigation Site Existing Conditions	SCALE: 1"=30 meters	DATE: December 2005
	PREPARED BY:  WOODLOT ALTERNATIVES, INC. ENVIRONMENTAL CONSULTANTS 105131-F003-H20-existing.dwg	PROJ. NO. 105131	FIGURE NO. <b>3</b>

NOTES:

1. THE LOCATIONS AND QUANTITIES OF PLANTS SHOWN ARE PRELIMINARY. REFER TO TABLE 4 IN THE COMPENSATION PLAN NARRATIVE FOR DETAILED INFORMATION ON PLANT SPECIES, DENSITIES, AND SOURCES.
2. EXISTING IRRIGATION PONDS AS SHOWN WILL REMAIN PART OF CALAIS WATER DISTRICT PROPERTY AND HAVE POTENTIAL HYDROLOGIC CONNECTIONS TO THE GROUND WATER AQUIFER UNDERLYING THE SITE. PROPOSED MITIGATION MEASURES NOT TO AFFECT THESE PONDS.
3. REFER TO THE CROSS SECTIONS SHOWING EXISTING AND PROPOSED CONDITIONS PROVIDED IN FIGURE 5 AND FIGURE 6.
4. APPROXIMATELY 7 SOIL STOCKPILES ARE LOCATED THROUGHOUT THE COMPENSATION AREA. THESE SHALL BE ANALYZED TO DETERMINE SUITABILITY FOR PLANTINGS OR AS TOPDRESS, AND WHETHER SOIL AMENDMENTS ARE REQUIRED. STOCKPILED SOIL NOT SUITABLE FOR SITE RESTORATION SHALL BE REMOVED AS WASTE.
5. PROPOSED OUTLET AND DITCH FROM ABANDONED CRANBERRY BOG SHALL BE STABILIZED WITH STONE DITCH PROTECTION (AS NEEDED ON STEEP AREAS ONLY), GEOTEXTILE, AND SEEDING. BANKS SHALL BE PLANTED WITH GROUPINGS OF WILLOW OR DOGWOOD (LIVE STAKES OR CONTAINER PLANTS, DEPENDING ON CONSTRUCTION SCHEDULE).
6. THE ERODED AREA ADJACENT TO THE ABANDONED CRANBERRY BOG SHALL BE STABILIZED BY RE-GRADING, TOPDRESS, GEOTEXTILE, AND SEEDING.

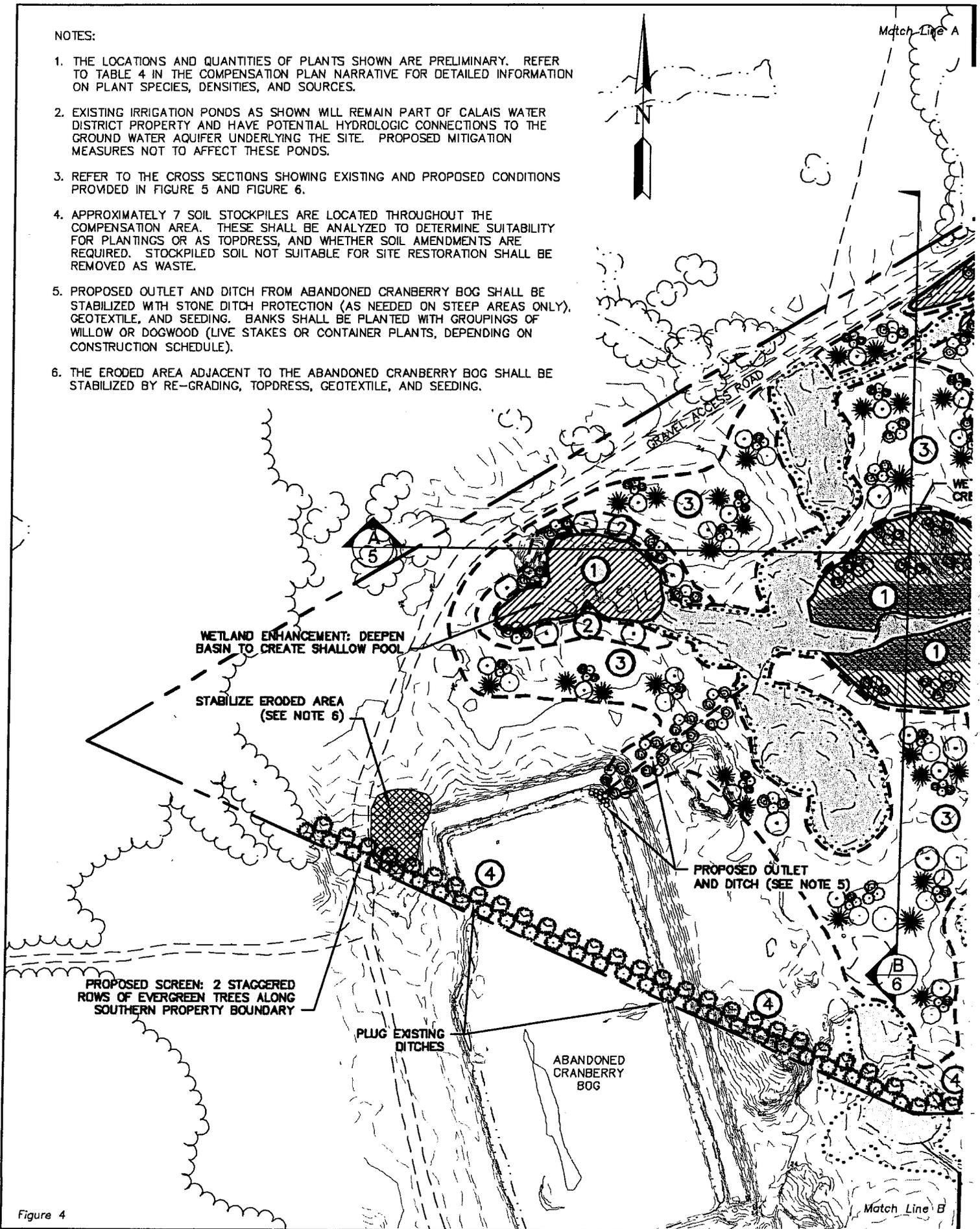


Figure 4

Match Line A

### MITIGATION TYPES

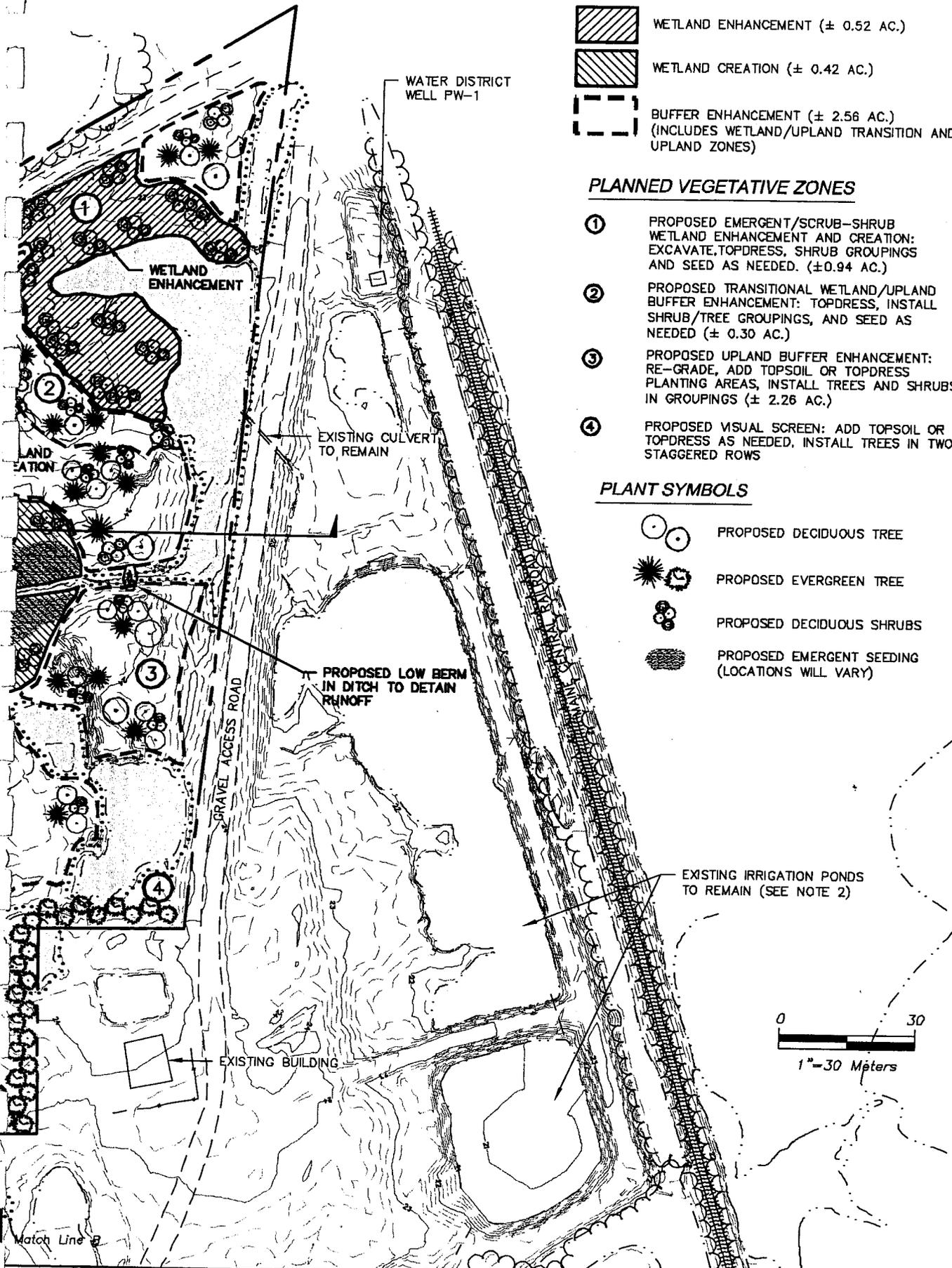
-  WETLAND ENHANCEMENT (± 0.52 AC.)
-  WETLAND CREATION (± 0.42 AC.)
-  BUFFER ENHANCEMENT (± 2.56 AC.)  
(INCLUDES WETLAND/UPLAND TRANSITION AND UPLAND ZONES)

### PLANNED VEGETATIVE ZONES

- ① PROPOSED EMERGENT/SCRUB-SHRUB WETLAND ENHANCEMENT AND CREATION: EXCAVATE, TOPDRESS, SHRUB GROUPINGS AND SEED AS NEEDED. (±0.94 AC.)
- ② PROPOSED TRANSITIONAL WETLAND/UPLAND BUFFER ENHANCEMENT: TOPDRESS, INSTALL SHRUB/TREE GROUPINGS, AND SEED AS NEEDED (± 0.30 AC.)
- ③ PROPOSED UPLAND BUFFER ENHANCEMENT: RE-GRADE, ADD TOPSOIL OR TOPDRESS PLANTING AREAS, INSTALL TREES AND SHRUBS IN GROUPINGS (± 2.26 AC.)
- ④ PROPOSED VISUAL SCREEN: ADD TOPSOIL OR TOPDRESS AS NEEDED, INSTALL TREES IN TWO STAGGERED ROWS

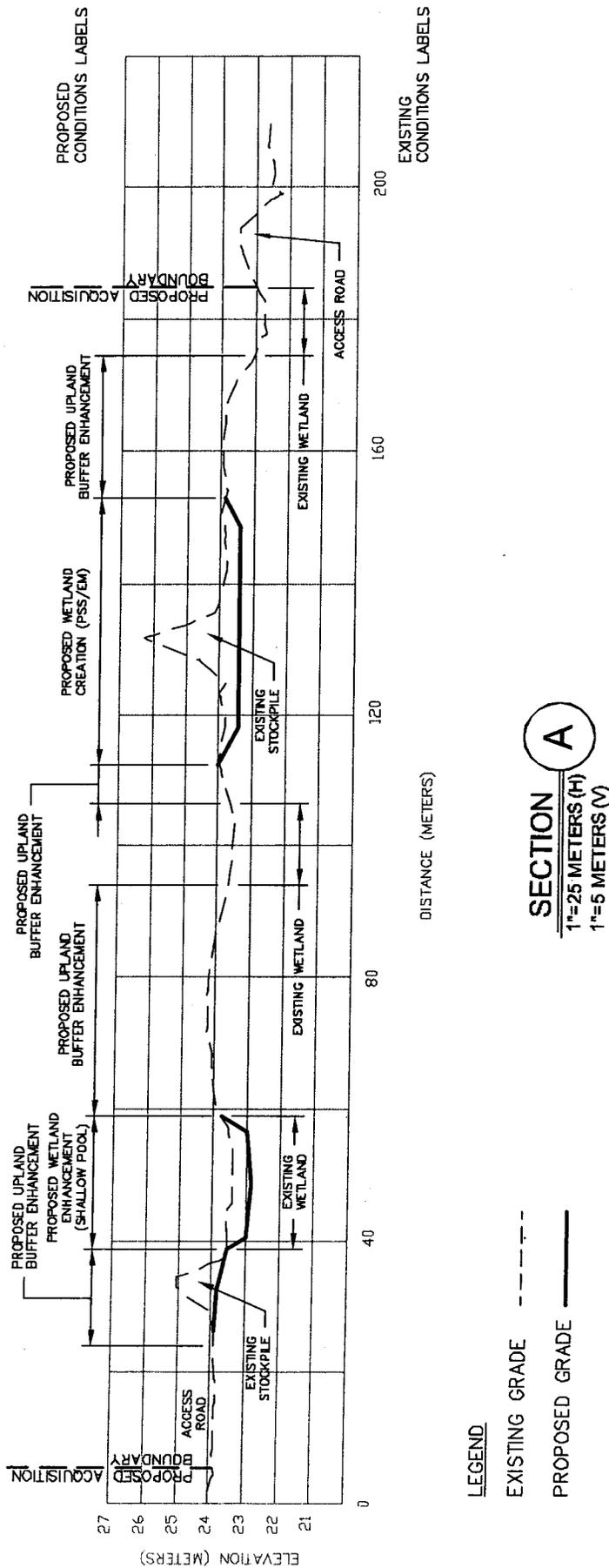
### PLANT SYMBOLS

-  PROPOSED DECIDUOUS TREE
-  PROPOSED EVERGREEN TREE
-  PROPOSED DECIDUOUS SHRUBS
-  PROPOSED EMERGENT SEEDING (LOCATIONS WILL VARY)

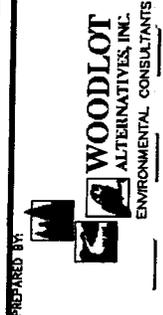


PROJECT: Wetland Compensation Calais - St. Stephen International Border Crossing		SHEET TITLE: Calais Water District Mitigation Site Proposed Conditions	
ADDRESS: Calais, Maine		SCALE: 1"=30 meters	DATE:
PREPARED BY: WOODLOT ALTERNATIVES, INC. ENVIRONMENTAL CONSULTANTS		MsineDOT DIN 0409 00	
PROJ. NO. 105131		FIGURE NO.	
		4	

Match Line B



Wetland Compensation  
 MaineDOT PIN - 8483.32



PREPARED BY

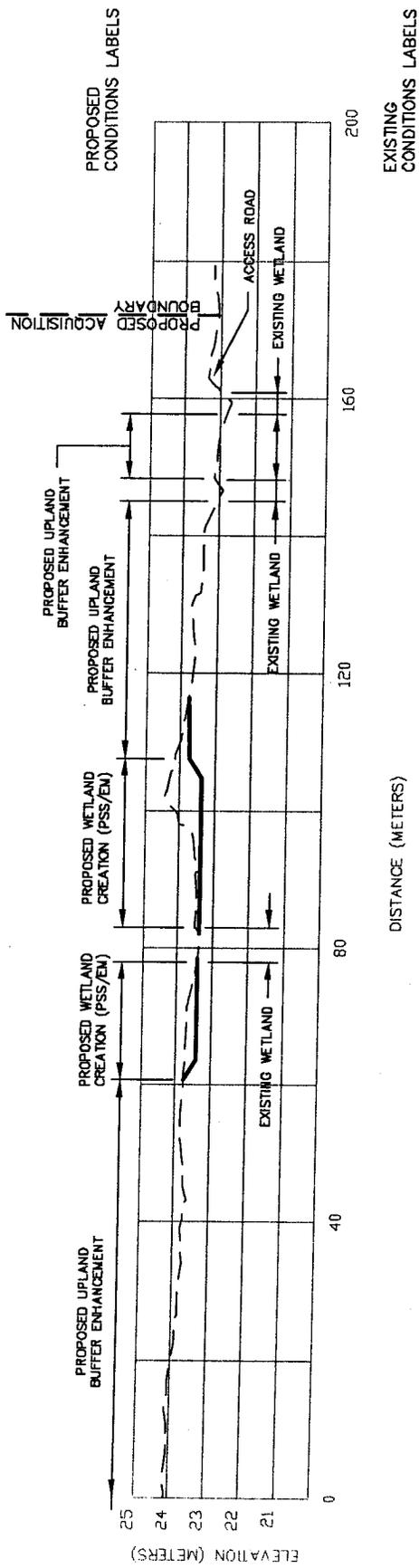
DESIGN:	DATE: December 2005
DRAFT:	JOB NO: 105131
CHECKED:	SCALE: As Shown
FILE NAME:	105131-F5_6-H20-sections.dwg

DRAWING NAME:  
**Calais Water District Mitigation Site - Cross Section A**

PROJECT:  
**Calais - St. Stephen International Border Crossing**

FIGURE NO.

**5**



**LEGEND**

EXISTING GRADE - - - - -

PROPOSED GRADE \_\_\_\_\_

**SECTION B**  
 1"=25 METERS (H)  
 1"=5 METERS (V)

Wetland Compensation  
 MaineDOT PIN - 8483.32

PREPARED BY



DESIGN:	DATE: December 2005
DRAFT:	JOB NO: 105131
CHECKED:	SCALE: As Shown
FILE NAME:	105131-F5_6-H20-sections.dwg

DRAWING NAME:

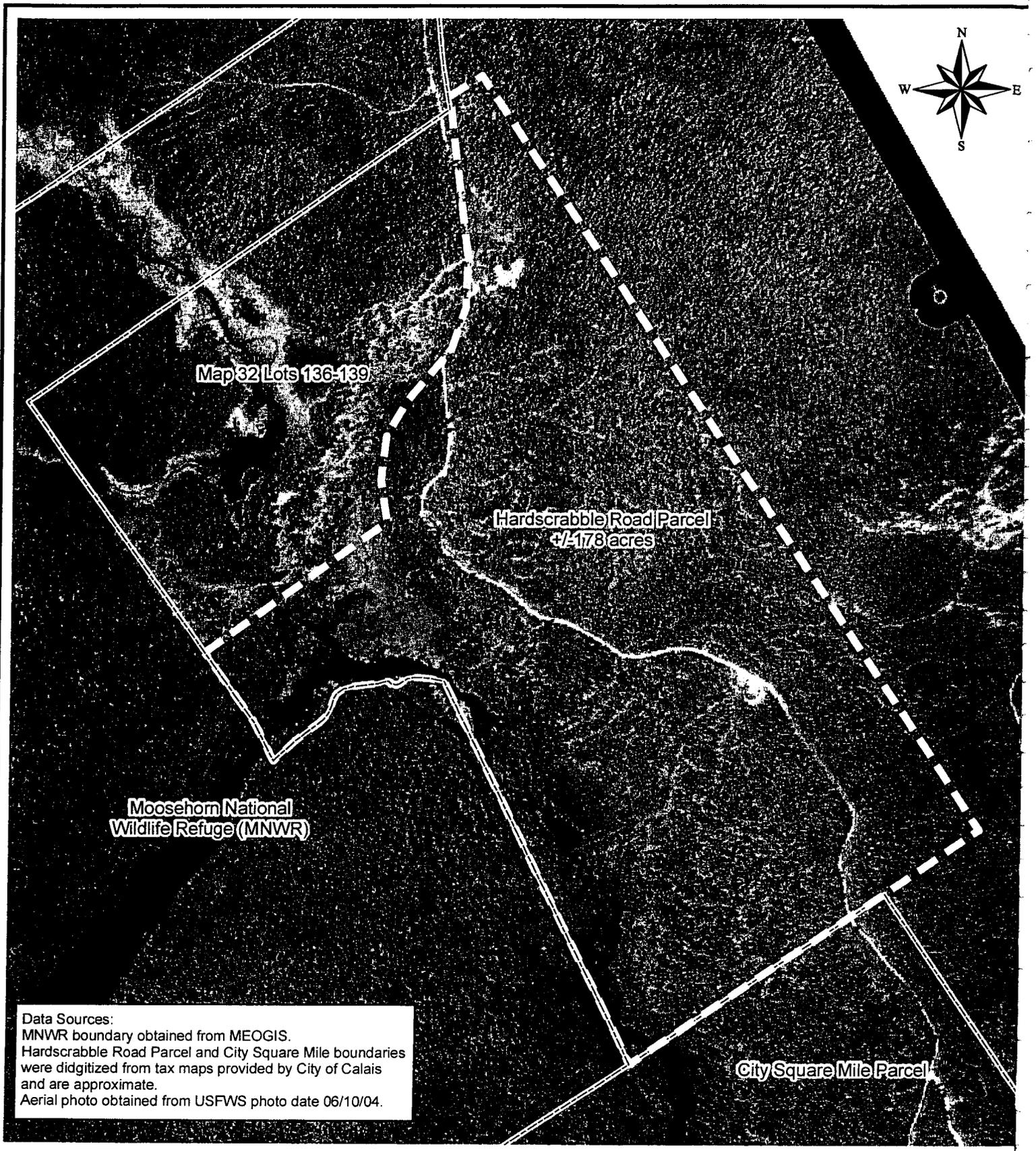
**Calais Water District Mitigation Site - Cross Section B**

PROJECT:

**Calais - St. Stephen International Border Crossing**

FIGURE NO.

**6**



Data Sources:  
 MNWR boundary obtained from MEOGIS.  
 Hardscrabble Road Parcel and City Square Mile boundaries  
 were digitized from tax maps provided by City of Calais  
 and are approximate.  
 Aerial photo obtained from USFWS photo date 06/10/04.

PREPARED BY:



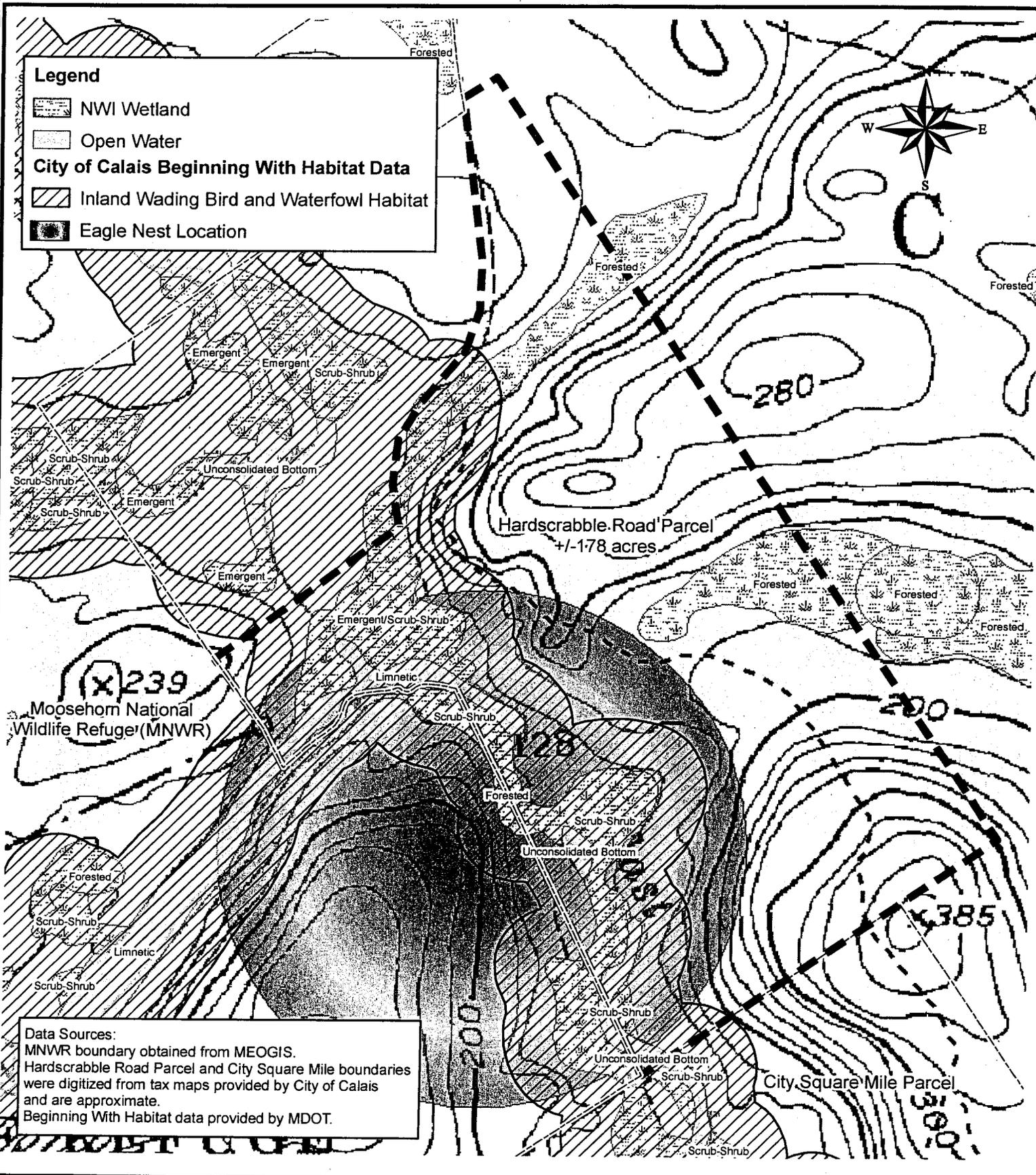
DATE: December 2005

SCALE: 1:200 meters

JOB NO. 105131.01

FILE: 105131-F007-Hard\_aerial.mxd

*Figure 7 - Hardscrabble Road Parcel  
 Wetland Compensation Plan  
 Calais - St. Stephen International Border Crossing  
 MaineDOT PIN - 8483.32*



**Legend**

- NWI Wetland
- Open Water
- City of Calais Beginning With Habitat Data**
- Inland Wading Bird and Waterfowl Habitat
- Eagle Nest Location

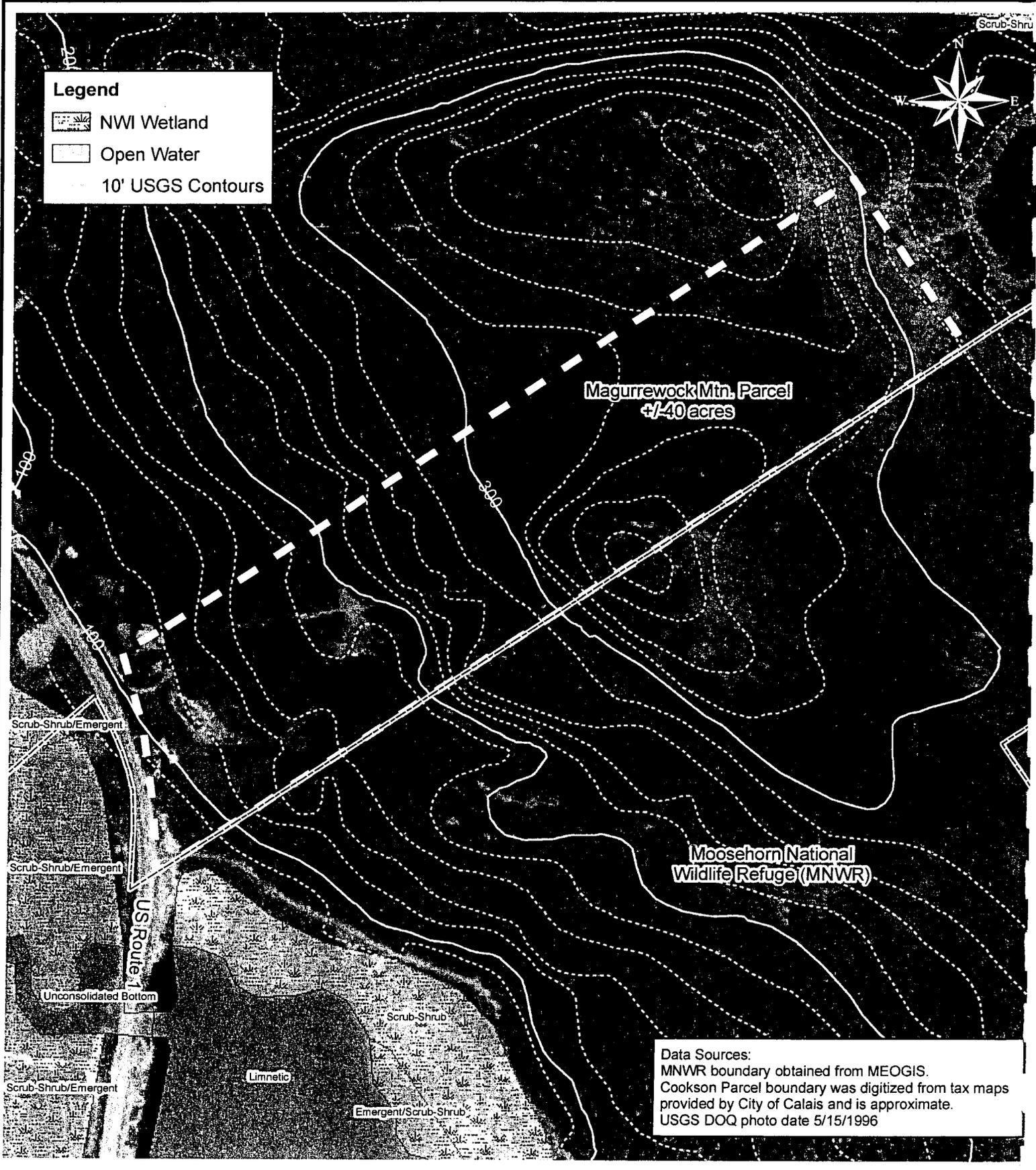
**Data Sources:**  
 MNWR boundary obtained from MEOGIS.  
 Hardscrabble Road Parcel and City Square Mile boundaries were digitized from tax maps provided by City of Calais and are approximate.  
 Beginning With Habitat data provided by MDOT.

PREPARED BY:

**WOODLOT**  
 ALTERNATIVES, INC.  
 ENVIRONMENTAL CONSULTANTS

DATE:	December 2005
SCALE:	1:200 meters
JOB NO.	105131.01
FILE:	105131-F008-Hard_quad.mxd

*Figure 8 - Hardscrabble Road Parcel  
 Wetland Compensation Plan  
 Calais - St. Stephen International Border Crossing  
 MaineDOT PIN - 8483.32*



**Legend**

-  NWI Wetland
-  Open Water
-  10' USGS Contours

**Magurrewoc Mtn. Parcel**  
±40 acres

**Moosehorn National Wildlife Refuge (MNWR)**

**Data Sources:**  
 MNWR boundary obtained from MEOGIS.  
 Cookson Parcel boundary was digitized from tax maps provided by City of Calais and is approximate.  
 USGS DOQ photo date 5/15/1996

PREPARED BY:



**WOODLOT**  
ALTERNATIVES, INC.

DATE:	December 2005
SCALE:	1:120 meters
JOB NO.	105131.01
FILE:	105131_5000_Cook_aerial.mxd

*Figure 9 - Magurrewoc Mtn. Parcel  
 Wetland Compensation Plan  
 Calais - St. Stephen International Border Crossing  
 MaineDOT PIN - 8483.32*

APPENDIX A

Mitigation Site Search Summary  
(Revised October 2005 and November 2005)

*Calais (PIN 8483.32)*

**MITIGATION SITE SEARCH SUMMARY (REVISED)**  
**MAINEDOT CALAIS-ST.STEPHEN INTERNATIONAL BRIDGE AND**  
**BORDER CROSSING PROJECT (PIN 8483.32)**

Calais, Maine – St. Stephen, New Brunswick

**OCTOBER 2005**

Prepared By:

MaineDOT Environmental Office  
Natural Resource Mitigation Unit  
State House Station 16  
Augusta, ME 04333

October 11, 2005

## MITIGATION SITE SEARCH SUMMARY

### Summary of Potential Sites, October 11, 2005

This report provides an updated summary of the potential wetland mitigation sites that MaineDOT has identified to date for the Calais-St. Stephen International Bridge and Border Crossing Project. The enclosed information is provided as a basis for agency review, site screening and final selection.

MaineDOT initiated a search in anticipation of wetland impacts of approximately 2.5 acres as reported in the Draft Environmental Assessment – Calais-St. Stephen Area International Border Crossing Study, December 2001. Prior to the 2005 field season, the amount of compensation required was estimated to be approximately 4 acres in anticipation of changes to the project during the final design process (primarily the configuration of the GSA customs facility) and updated wetland information. The impact estimate is currently being finalized, but as of 10/6/05 it is estimated that the wetland impacts will be approximately 6 acres. Therefore, the mitigation options presented in this summary report are based on the assumption that approximately 6 acres of compensation credit will be needed to meet agency mitigation requirements.

A number of potential sites were reviewed in the field with the agencies in August, 2005. Since that time, additional information has been obtained and the sites have undergone further screening. Information on additional potential sites was also collected to allow screening and concept development. As a result, DOT has developed a short-list of sites with the greatest potential to mitigate for the project impacts.

**Table 1** summarizes information about the 13 sites previously identified, and 2 additional sites that were identified since the August meeting. The attached maps of the project area show the locations of the short-listed sites.

The sites that appear to offer the best opportunity to mitigate the impacts associated with the Crossing project are described in more detail on the following pages. The description includes a representative photograph and a concept plan.

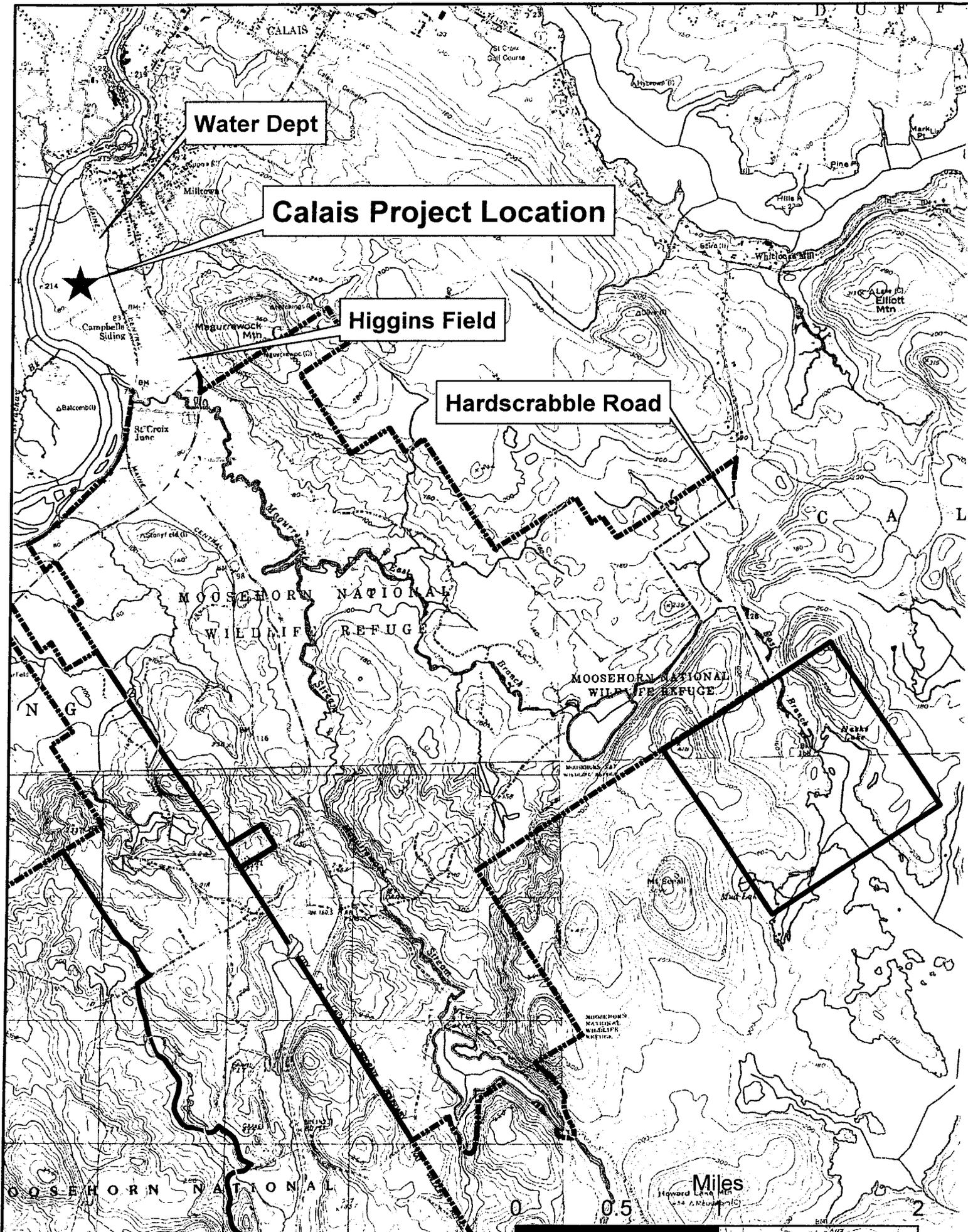
**Table 2** describes potential mitigation packages (single sites or sites in combination) for the project along with recommendations.

Questions regarding mitigation for the proposed projects in Calais should be directed to Mark Lickus, MaineDOT Environmental Office, 624-3102 or via email at [mark.lickus@maine.gov](mailto:mark.lickus@maine.gov).

Table 1. Updated Summary of Potential Mitigation Sites Reviewed by MaineDOT for the Calais-St. Stephen Project (PIN 8483.33)

ID #	Site Name	Town	Owner/Contact	Existing Conditions	Compensation Type*	Approx. Size	Potential Functions**	Comments
	October 11, 2005							
1	Water Department	Calais	City of Calais	basins excavated in upland, wetlands formed in disturbed upland	C/E	± 1.3 ac ± 4.7 ac	STR, NRT, WH	former irrigation basins with depths from 3 to 15 feet below adjacent wetland grade; basins receive runoff and backwash from filter plant; potential to backfill basins and create shallow, depositional wetlands and enhance existing wetlands through planting trees and shrubs
2	Industrial Park Lot	Calais	R. Goodwin	permitted lot with existing concrete foundation; PSS	C (some R?)	± 1 - 2 ac	STR, FFA, NRT, WH	filled, graded buildable lot, adjacent to existing PSS wetland; prior conditions unknown; existing utilities along Nields St.; limited source of hydrology and soil conditions limit feasibility, surrounded by development
3	Nields St. - North	Calais	St. Croix Investors	PSS/PFO wetland complex/stream; upland buffer	P	± 12 ac	STR, NRT, PE, WH	covers easterly portion of wellhead protection zone; near existing QRLT conservation land; landowners not interested
4	Calais waterfront	Calais	City of Calais	vacant lot, old fill along St. Croix River	R - Riparian Buffer	± 1 ac	SS, WH, VQA	currently used as City of Calais snowdump; not feasible
5	Higgins Field - Route 1	Calais	DiCenzo Realty	PFO/PSS wetlands Swale and wet meadow Upland fields	E/P	± 1.5 ac ± 3.0 ac P (maximum)	GW/STR, NRT, WH, VQA	potential to enhance existing swale and wetlands with tree and shrub plantings; and to construct stormwater BMPs; preservation of high-value wetlands adjacent to MNWR; zoned commercial; riparian interest depends on area needed
6	Cookson Parcel - Route 1	Calais	Cookson	Mixed forested upland	P (upland)	± 30 ac	WH, VQA	backland of parcel to be acquired for highway purposes; includes summit of Magurewoc Mtn.; adjacent to MNWR
7	Route 1 - Commercial Lot	Baring	Prout Ent.	former commercial lot, upland	none	N/A	none	concrete building slabs in upland adjacent to PSS wetland; no compensation value
8	Route 1 - Baring Airstrip	Baring	Bridges Bros.	former airstrip; crosses several streams; adjacent PSS wetland	R (stream), P	± 0.4 ac R	GW, STR, SS, WH	potential to reestablish stream channel and limited PSS riparian buffer; partly adjacent to MNWR; landowner not interested - restoration would restrict access and impact current commercial use of remainder
9	Moosehorn National Wildlife Inholdings	Baring	various	forested upland; PFO/PSS wetlands	P	± 5 - 30 ac	WH	private inholdings within MNWR acquisition boundary; parcels lack significant wetland area; landowners not interested
10	So. Princeton Road	Baileysville	Mahan Realty	forested upland	P (upland)	12 ac	WH	upland subdivision lot for sale; located near Waspaconhagen Stream; limited compensation value
11	DOMTAR Bark Pile	Baileysville	DOMTAR Inc.	site of former debarking mill; permitted wood waste disposal site	C/P	± 3 ac	GW/STR, NRT, WH	bark pile adjacent to Woodland Lake (St. Croix River) currently being mined/processed for landscape mulch; portion of site underlain by clay; potential to create ± 3 acres of wetland; preserve existing buffer; may require diverting intermittent stream as hydrology source
12	Sawtelle Heath	Baileysville/Princeton	Typhoon LLC, New England Forestry Foundation (NEFF)	wooded shrub and shrub heath; State-listed Focus Area	P	± 500 ac	WH, UH	NEFF holds a working forest conservation easement over lands containing the portion of the heath in Baileysville; landowner not interested in placing additional restrictions on forest management.
13	Denny's River Powerhouse - Rt 191	Meddybemps	State of Maine - Smith Family	wooden and concrete powerhouse structure over Denny's River	R/E?	TBD	SS, FSH, VQA	upstream of Rt 191 bridge, downstream of Meddybemps Lake outlet dam; adjacent to Eastern Surplus Superfund site; removal and shoreline stabilization would protect salmon habitat; legal and potential contamination issues
14	Sand/salt pile	Princeton	Passamaquoddy Tribe	sand/salt pile adjacent to forested wetland	R?	± 1 - 2 ac	STR	existing unimproved sand/salt storage facility in need of upgrade; vegetation in adjacent wetland damaged by salt leachate; potential to upgrade facility to current standards; upgrade would require acquisition of property right over tribal lands
15	Hardscrabble Road	Calais	City of Calais	PFO/PSS wetlands stream and riparian habitat; forested upland	P	± 250 ac	WH	large forested parcel adjacent to easterly boundary of MNWR; approx. one-third of parcel is riparian wetland along the East Branch of Magurewoc Stream; preservation of the parcel would protect habitat for nesting birds and waterfowl; high-priority songbirds and essential habitat around a bald eagle nesting site.





# Calais Project Location

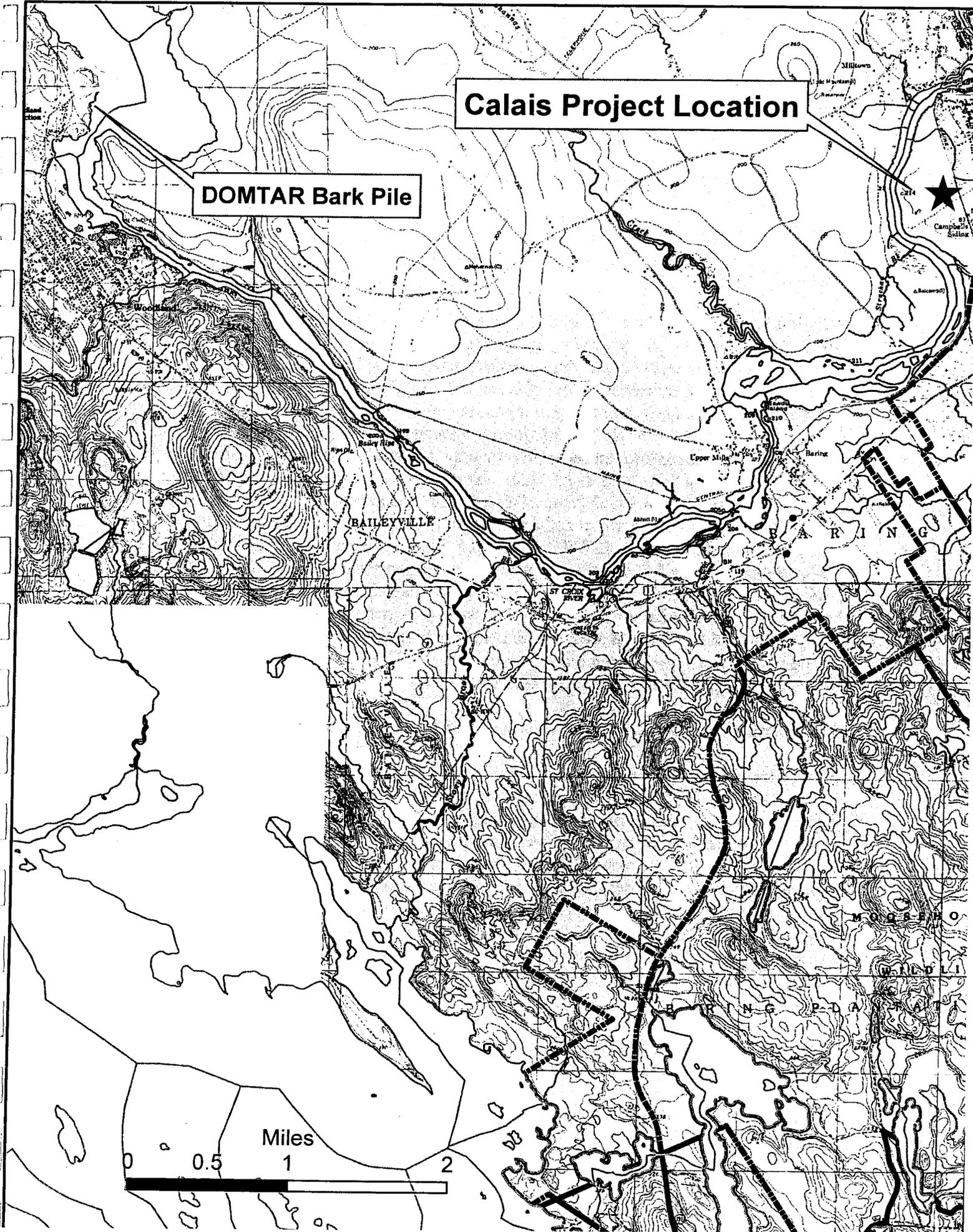
DOMTAR Bark Pile



BAILEYVILLE

BARRING

ST CROIX RIVER



## Site 1

**Site Name:** Hardscrabble Road

**Location:** Calais

**Owner:** City of Calais

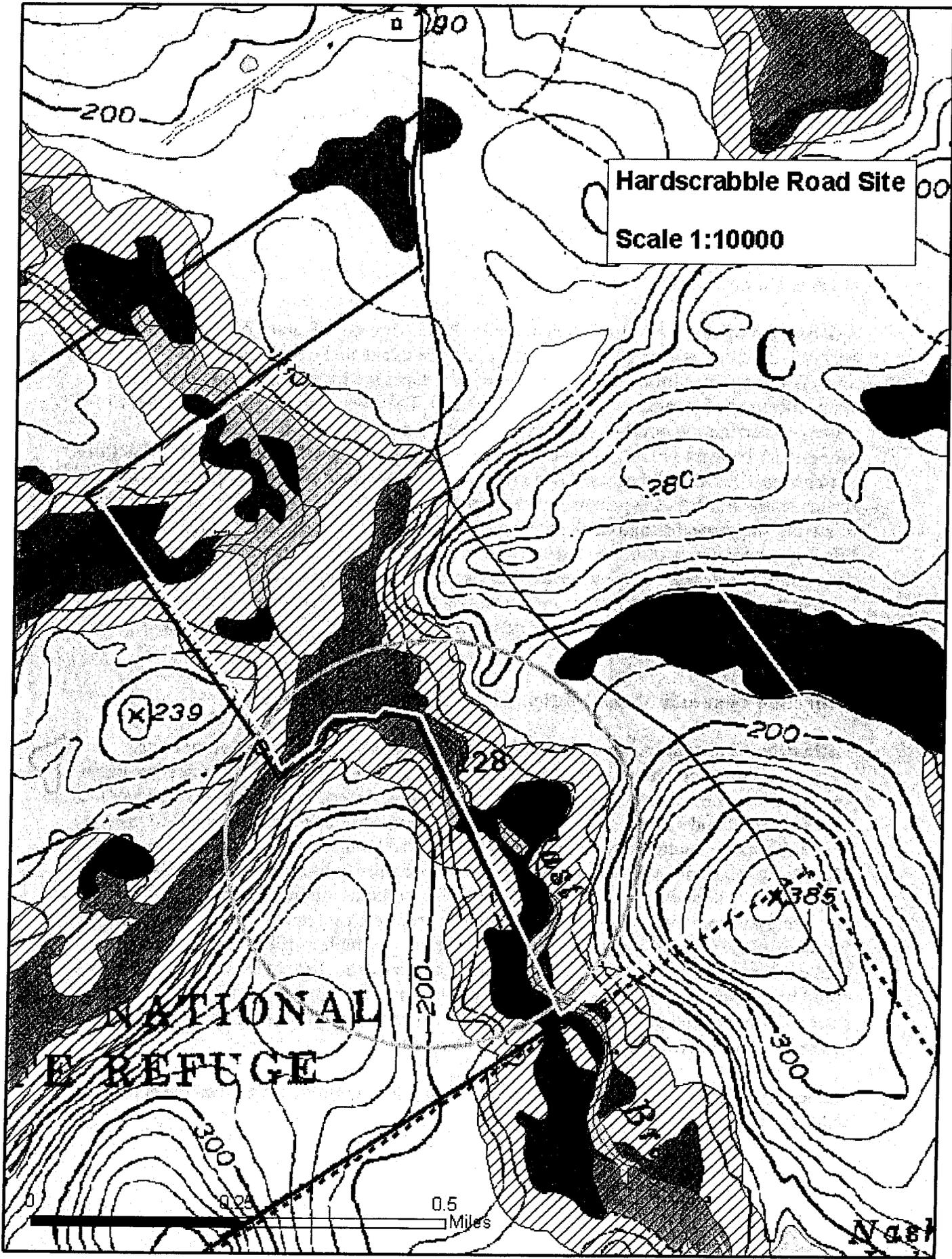
**Existing Conditions:** The ± 250 acre parcel abuts the easterly boundary of Moosehorn NWR on two sides. Hardscrabble Road, a town way that provides access to a large block of city-owned property that surrounds the northerly end of Nashs Lake, crosses the parcel. The parcel is comprised of ± 60 acres of a mix of emergent, scrub-shrub, and forested wetland in approximately equal parts, open water and stream channel, and forested uplands. The MNAP Beginning with Habitat resource maps show the wetland areas as inland wading bird and waterfowl habitat. Information provided by Moosehorn NWR indicates that the wetlands provide habitat for pied-billed grebes, American bitterns, black ducks and wood ducks. The forested uplands are a mix of red maple and white pine, with some hardwood and lowland conifer stands. These areas provide high-quality habitat for several USFWS Partners in Flight high-priority species, including the bay-breasted warbler, blackburnian warbler, and black-throated blue warbler. The Gulf of Maine Habitat Analysis indicates that this area provides above average habitat for whip-poor-wills, red-shouldered hawks, and goshawks. A mapped bald eagle nesting site (BE 072F) is located northeast of Vose Pond, near the existing refuge boundary. The streams on the tract contain brook trout and the American eel. The eel has been proposed for listing under the Endangered Species Act.

**Mitigation Type and Area:** Preservation, ± 250 acres (6+ ac credit at 40:1)

**Mitigation Potential:** Acquisition and preservation of this parcel would permanently protect the significant habitat and conservation values of this area. It would provide high-quality habitat for migratory birds that inhabit both wetland and forested habitats. The uplands provide a buffer which will permanently protect the watershed of Vose Pond and the East Branch of Magurrewock Stream. Acquisition would also provide permanent protection for part of the designated essential habitat around the eagle nest contributing to the Maine Dept. of Inland Fisheries and Wildlife bald eagle recovery plan goals. Acquisition of a ± 250 acre habitat block adjacent to the refuge would increase the value of existing refuge lands to forest interior species. Moosehorn NWR would accept the parcel as a donation as they have received no funding for land acquisition in FY 2004, 2005, and 2006.

Potential development threats in this area include unrestricted off-road vehicle use, intensive forestry and harvesting, and recreational and residential development.

**Anticipated Functions:** groundwater discharge, sediment/toxicant retention, production export, floodflow alteration, wildlife habitat



Hardscrabble Road Site  
Scale 1:10000

NATIONAL  
WILDLIFE REFUGE

0.5  
Miles

N 48°

**Site 2**

**Site Name:** Water Department

**Location:** Calais

**Owner:** City of Calais

**Existing Conditions:** Mixture of disturbed upland, approx. 1.8 acres of shallow wetland basins, a diked cranberry bog, and a series of three excavated detention basins (0.9 acres total) that range in depth from 3 to 15 feet. The basins are located between the City's water filtration plant access road and the railroad. They were originally constructed to serve as an irrigation ponds for a cranberry bog operation formerly located on the property. A brown to blue-gray silt/clay surface layer overlies the sand and gravel aquifer in this area. The underlying sand and gravel aquifer is tapped by pumping wells on-site further to the north as the primary water supply for the City of Calais. The clay layer is relatively impermeable and does not produce water (Emory and Garrett, 2003). A utility line crosses the site on the east side of the access road. Many of the existing wetlands to the west of the access road appear to have been created in depressions resulting from the construction activities at the site. Herbaceous wetland vegetation has begun to colonize the wetter areas. Soils in this area are generally poor, and woody vegetation occurs only in limited areas.

**Mitigation Type and Area:** Creation  $\pm$  1.3 ac; Enhancement  $\pm$  4.7 ac

**Mitigation Potential:** After additional review, it appears that a limited amount of wetland could be created within the area of existing basins at this site. The deepest basin appears to have penetrated the clay layer into the aquifer, and receives drainage from the filtration plant and surface runoff. The City is interested in filling these basins to protect the aquifer from contamination by surface water. Wetland creation would require backfilling the basins with compacted fine textured soils to limit infiltration, regrading the area into a series of shallow depressions with wetland microtopography, and amending the soils with wetland loam salvaged from the project. Sources of hydrology for the wetlands would include direct precipitation, available surface runoff, and backwash water from the Water Dept. In addition, the function of the existing wetlands could be enhanced by planting trees and shrubs within the upper portions and in a buffer surrounding the wetlands. A breach in the dike surrounding the cranberry bog could be repaired to maintain wetland conditions in this area.

**Anticipated Functions:** sediment/toxicant retention, nutrient removal/transformation, wildlife habitat



Photo 1. Water Dept. site – view toward east of deep basin at the south end of the site. Railroad track lies behind berm. Outlet from filtration plant is in upper left corner.

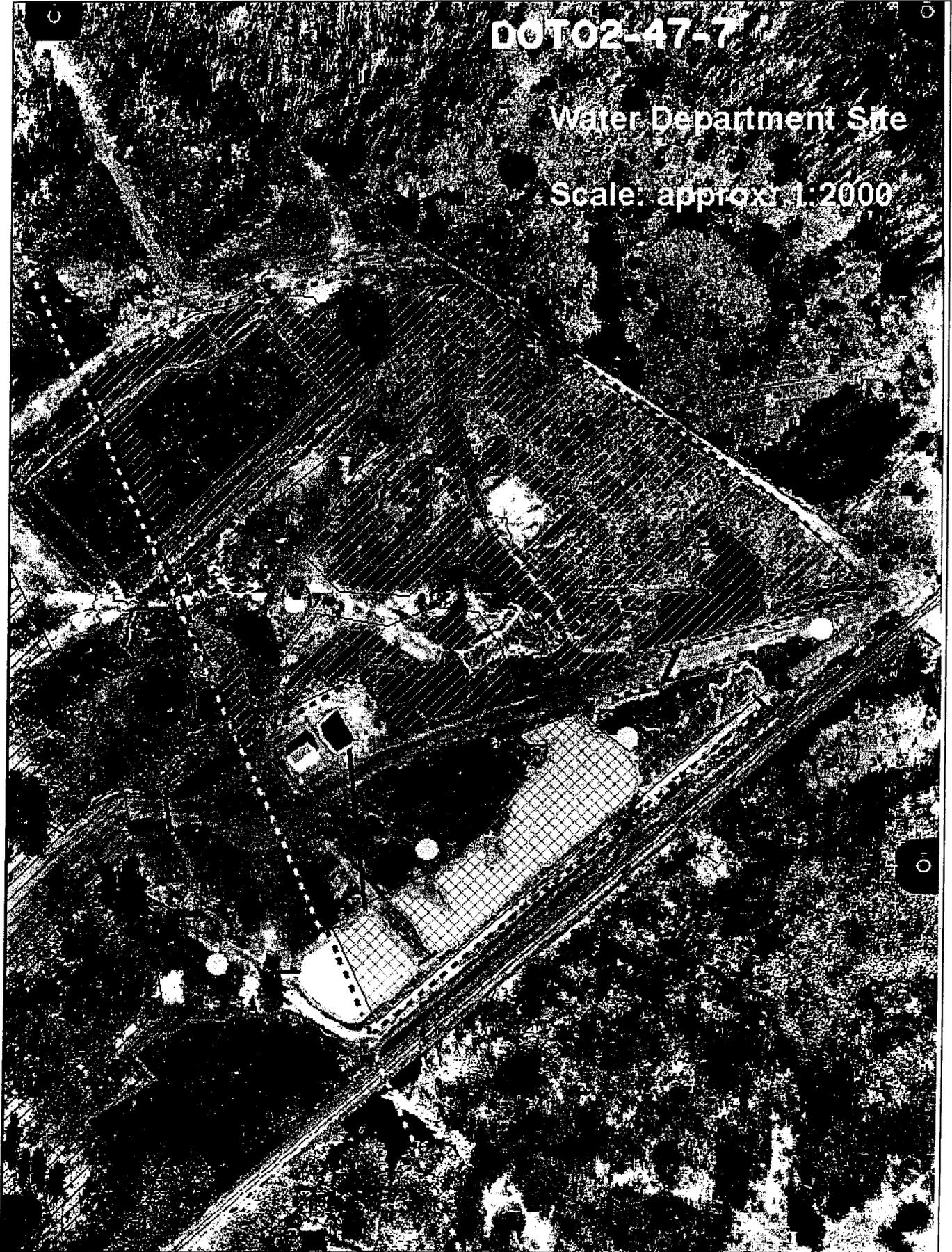


Photo 2. Water Dept. site – view toward north of second and third basins. Pipe in foreground is overflow outlet from deep basin shown in Photo 1. Railroad tracks to right of photo.

DOT02-47-7

Water Department Site

Scale: approx 1:2000



**Site 3**

**Site Name:** Higgins Field

**Location:** Calais

**Owner:** DiCenzo Realty

**Existing Conditions:** The site is comprised of a mixture of mowed field, approximately 1.5 acres of wet meadow and drainage swales, and approximately 22 acres of shrub wetlands. Soils are mapped as Wonsqueak and Bucksport in the lower portion of the site, and Lamoine-Buxton complex in the upper parts. The area is located adjacent to Route 1, less than one mile from the proposed facility, and abuts the Moosehorn National Wildlife Refuge to the south. The area currently receives drainage from Route 1. The parcel is zoned commercial.

**Mitigation Type and Area:** Enhancement  $\pm$  1.5 ac (max),  
Preservation  $\pm$  30 ac ( $\pm$  2.5 ac max @ 10:1 -15:1)

**Mitigation Type:** This site offers enhancement and preservation opportunities adjacent to Magurrewock Stream and the St. Croix River. Areas of more poorly drained soils along drainage swales and around wet meadow depressions could be planted with a buffer of trees and shrubs to provide shading and cover enhancing sediment/toxicant retention, and wildlife habitat functions. Buffer plantings could also be placed to screen the site from adjacent commercial activities. Enhancement combined with preservation of scrub/shrub wetland areas could provide functional benefits similar to the project impacts. The level of landowner interest varies with the size of the area proposed to be acquired for mitigation purposes.

**Anticipated Functions:** groundwater discharge, sediment/toxicant retention, nutrient removal/transformation, wildlife habitat, visual quality

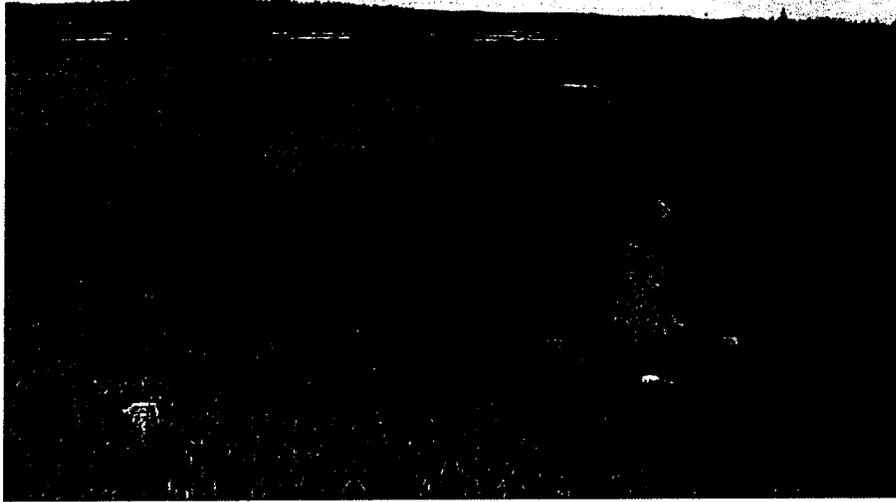


Photo 1. Higgins Field - View to west of culvert outlet and beginning of swale in mowed field. Scrub-shrub wetlands along Magurrewock Stream within Moosehorn Refuge are in the background.



Photo 2. Higgins Field - View to northwest of drainage swale along southern portion of mowed field.



Higgins Field

Scale: approx. 1:1200

**Site 4**

**Site Name:** DOMTAR Bark Pile

**Location:** Baileyville

**Owner:** DOMTAR, Inc.

**Existing Conditions:** Site of former debarking mill, permitted by former owner (Georgia Pacific) as a woodwaste disposal facility. Site is approximately 13 acres and is covered with large woodwaste pile that in the past was over 50 feet high. Woodwaste is currently being excavated and processed for use as bark mulch. The site is 9 miles (by road) from the Border Crossing project and lies along the Woodland flowage of the St. Croix River. An intermittent stream and associated wetland flows along the southerly edge of the pile. Small, isolated scrub-shrub and emergent wetlands occur adjacent to the site and along the margins of the river. Preliminary test pits found that grey marine clay, and a thin buried soil in some locations, underlies the southerly 4 acres of the site where most of the woodwaste has been removed.

**Mitigation Type and Area:** Creation  $\pm$  3.0 ac

**Mitigation Potential:** There appears to be the potential to create approximately 3 acres of wetland at this site. The source of hydrology would primarily be direct precipitation and limited surface water runoff. Runoff into the site would be limited by the relatively small size of the watershed (approx 15 acres). The underlying fine textured soil appears suitable to perch water at the surface, but groundwater is unlikely to be a large source of hydrology. Creation may require diverting a portion of flow from an adjacent intermittent stream into the creation area. The creation area would be regraded and loamed with wetland loam salvaged from the project site. The landowner is willing to grant DOT a conservation easement over the area.

**Anticipated Functions:** groundwater discharge, sediment/toxicant retention, nutrient removal/transformation, wildlife habitat



Photo 1. DOMTAR – View from top of woodwaste pile showing St. Croix River, and existing vegetated buffer. Much of the woodwaste in this area has been mined since the photo was taken.



Photo 2. DOMTAR – view of proposed wetland creation area showing partially excavated woodwaste in lower portion of site and existing vegetated buffer. St. Croix River is to the left of photo.

**DOMTAR Bark Pile Site**

**Scale 1:2500**



**Potential Mitigation Packages:**

After reviewing the potential sites and considering factors including location, kind, size, functional match/benefits, effort/cost, technical difficulty, likelihood of success, and availability, a short-list of four potential mitigation packages was developed as shown in Table 2. DOT recommends that Package 1 be selected as the preferred mitigation for the Calais project. Given the location and characteristics of the affected wetlands, this package will provide meaningful and cost-effective mitigation to off-set the functional impacts.

**Table 2. Potential Mitigation Packages for the Calais-St. Stephen Border Crossing Project (PIN 8483.32)**

<b>Package</b>	<b>Site(s)</b>	<b>Compensation Type/Area (ac)</b>	<b>Comments</b>
<b>A</b>	<b>Water Department Hardscrabble Road</b>	C / 1.0 P / 5.0	On-site Creation in basins; Off-site Preservation of ± 250 ac of wetland and upland habitat adjacent to Moosehorn NWR
<b>B</b>	Water Department	C / 1.3 E / 4.7	On-site Creation in basins; On-site Enhancement of existing small wetlands
<b>C</b>	Water Department Higgins Field (Medium-Low)	C / 1.3 E / 2.0 - 2.7 E / 0 - 0.7 P / 2.0	On-site Creation in basins and enhancement of existing small wetlands; On-site Enhancement of drainage swale and small wetlands; On-site Preservation of habitat adjacent to Moosehorn NWR
<b>D</b>	DOMTAR Hardscrabble Road	C / 1.0 P / 5.0	Off-site Creation at woodwaste disposal site; Off-site Preservation of f ± 250 ac of wetland and upland habitat adjacent to Moosehorn NWR

**Summary of Follow Up Items to October 11, 2005 Interagency Meeting and  
Revisions to the Proposed Mitigation Package for the  
MaineDOT Calais Border Crossing Project (PIN 8483.33)**

**November 9, 2005**

**Higgins Field Site:**

At the request of the Corps, after the October Interagency Meeting DOT re-contacted the owner of the Higgins Field site regarding the availability of all or portions of the property for mitigation purposes. Two options with between 0.5 and 1 acre of enhancement credit that would have provided DOT with the balance of mitigation required by the Corps were discussed. Despite an attempt to accommodate the owner's concern about the loss of land for future commercial development by leaving substantial acreage between the new industrial park access road and the proposed mitigation area, the owner stated that they were not interested in selling any of this area. Given this response, this left the City Water District property as the only remaining on-site mitigation option that was available and that provides the opportunity for wetland restoration, enhancement or creation.

**Hardscrabble Road site**

Shortly after the IA meeting, DOT received tax records and a deed from the City of Calais showing that the parcel owned by the city was in fact smaller than originally thought. The tax records show that there were 4 lots in the northwesterly corner that are privately owned. Lot 32-136 (approx. 40 acres) is owned by a local resident (Dineen) and lots 32-137, 138 & 139 (approx 34 acres) are owned by a resident of Connecticut (Voegtlin). Using the information provided by the town, each owner was contacted by letter explaining DOT's interest in their property for mitigation and requesting a meeting. The out-of-state owner has not responded and their phone number is unlisted so DOT has not been able to make contact with them. DOT will make additional attempts to reach this owner and determine whether they are interested in selling. A meeting was held with the local owner last week to inquire about their interest in selling their property. A DOT Right-of Way representative contacted the owner by phone on November 2 and was told that they were not interested.

In addition, the existing deed provided by the city suggests that there may be an approximately 11 acre gap in ownership along Magurrewock Stream between the city-owned parcel and existing land of Moosehorn refuge. The description in the deed lacks detail, and states that the lot is, "believed to contain 137 acres". Areas scaled from the tax maps however indicate that the lot is closer to 170 acres. DOT's Property Office has begun researching titles in this area and has started work on a boundary survey to confirm ownership and provide an accurate boundary description. This information will not be available in time to include in the mitigation plan, but will be provided to the agencies when it becomes available.

Despite these changes, this area still has significant wildlife habitat values identified by the refuge as important for protection. DOT plans to acquire the lot owned by the city, and the area located between that lot and the refuge. Based on the existing information available, the estimated area of the site has been revised to approximately 180 acres.

(see attached updated plan)

**Water District Site:**

After determining that the Higgins Field site was unavailable, DOT and its consultant revised the mitigation concept at the Water District site. The former irrigation pond and irrigation return ponds were determined to be better left undisturbed because of concerns expressed by FHWA about work by DOT within Zone 1 of the Wellhead Protection Zone, and because of concerns that the loss of existing stormwater detention provided by these ponds could result in potential adverse effects to the existing railroad embankment. The revised concept is shown in the attached plan.

Within the approx. 3.5 acre area shaded in green approx. 0.3 ac. of shrub wetland will be created through regrading of selected upland areas located between existing wetlands; approx. 1.5 acres of existing emergent wetland and shallow open water areas will be enhanced by approx. 3 acres of tree and shrub plantings both within selected portions of the wetlands, and in the adjacent upland areas as a buffer. The plantings are intended to jump start the establishment of native woody vegetation on this formerly disturbed site, and improve the water quality treatment and wildlife habitat functions at the site. In addition, one or two existing depressions may be deepened to prolong the hydroperiod, and provide potential amphibian breeding sites. A buffer of conifers will be planted along the r/w boundary to help screen the site from the adjacent GSA facility. This boundary (dashed yellow line) has been revised to accommodate the anticipated buffer requirements of the Department of Homeland Security. The mitigation site will, at a minimum, be comprised of the area outlined in dashed red, which encompasses the creation, enhancement and planting areas and other non-treated areas. This area will be acquired by DOT and will be protected by restrictive covenants in accordance with Corps requirements.

(see attached concept plan)

**Cookson parcel**

As a result of the changes in the area available at the Hardscrabble site, DOT is prepared to add the Cookson parcel to the mitigation package. This 30+ acre parcel is predominantly forested upland and includes the summit of Magurrewock Mtn. and abuts Moosehorn Refuge along its southerly boundary. This parcel will be acquired by DOT as a result of the access management provisions of the project. An existing house on the property is slated to be removed. Two existing telecommunications towers are located at the summit, and are serviced by a utility line running diagonally across the parcel from Route 1. Preservation of this parcel would protect a portion of the headwaters of Furlong Brook. This stream flows into the project area in the vicinity of the intersection of Route 1 and the proposed border crossing access road. Drainage from the front side of this parcel flows toward Route 1 before reaching Magurrewock Stream. DOT will add this parcel to the mitigation package at the request of the agencies.

(see attached site plan)

**Hardscrabble Road Site (REVISED)**

**Scale 1:12000**

**Voegtlin  
32-137, 138, 139**

**Dineen  
32-136**

**City of Calais  
32-132**

**US Government  
MNWR**

**City of Calais**

0

0.25

0.5  
Miles

DOT02-47-7

Water Department Site (Revised)

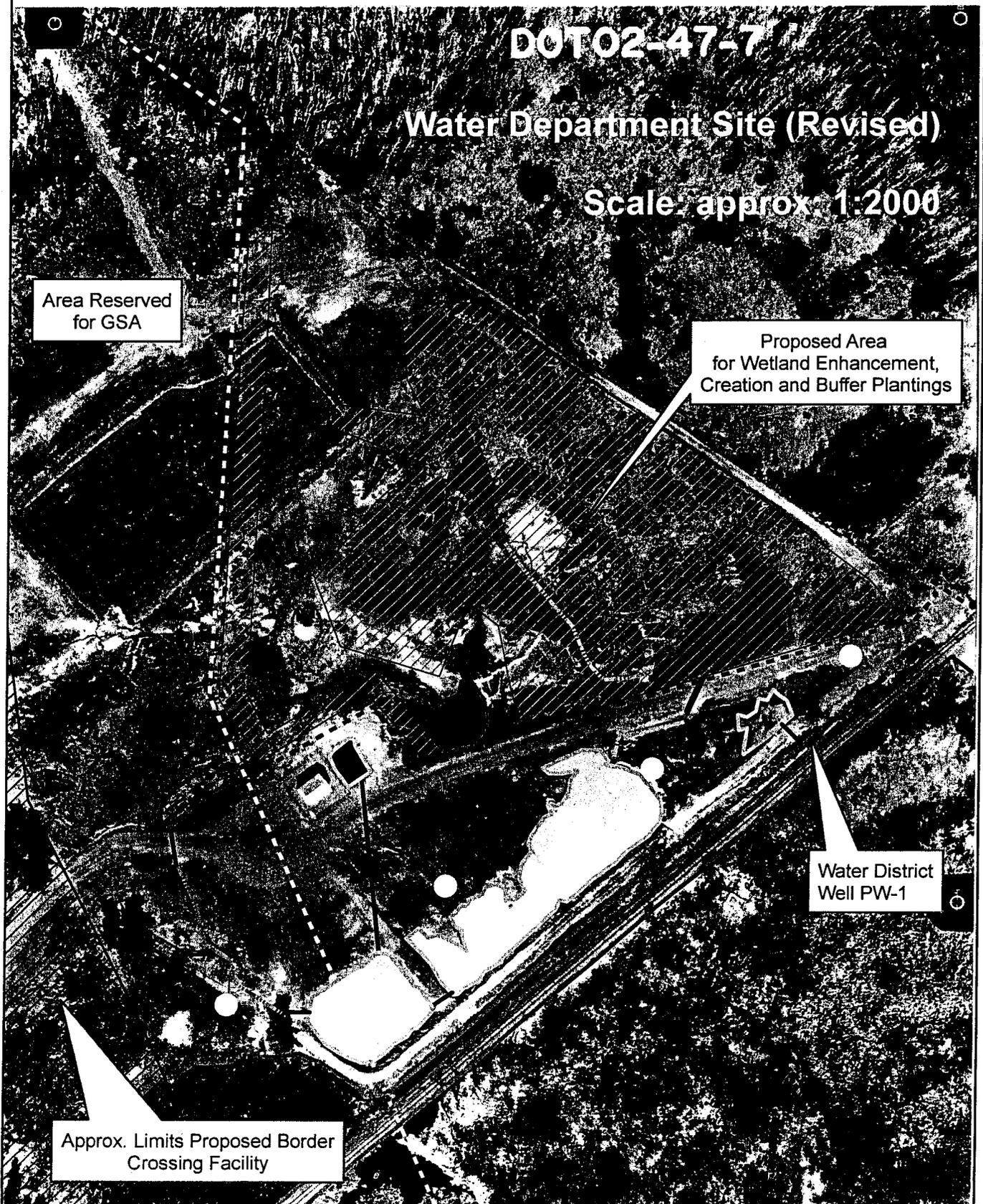
Scale: approx. 1:2000

Area Reserved  
for GSA

Proposed Area  
for Wetland Enhancement,  
Creation and Buffer Plantings

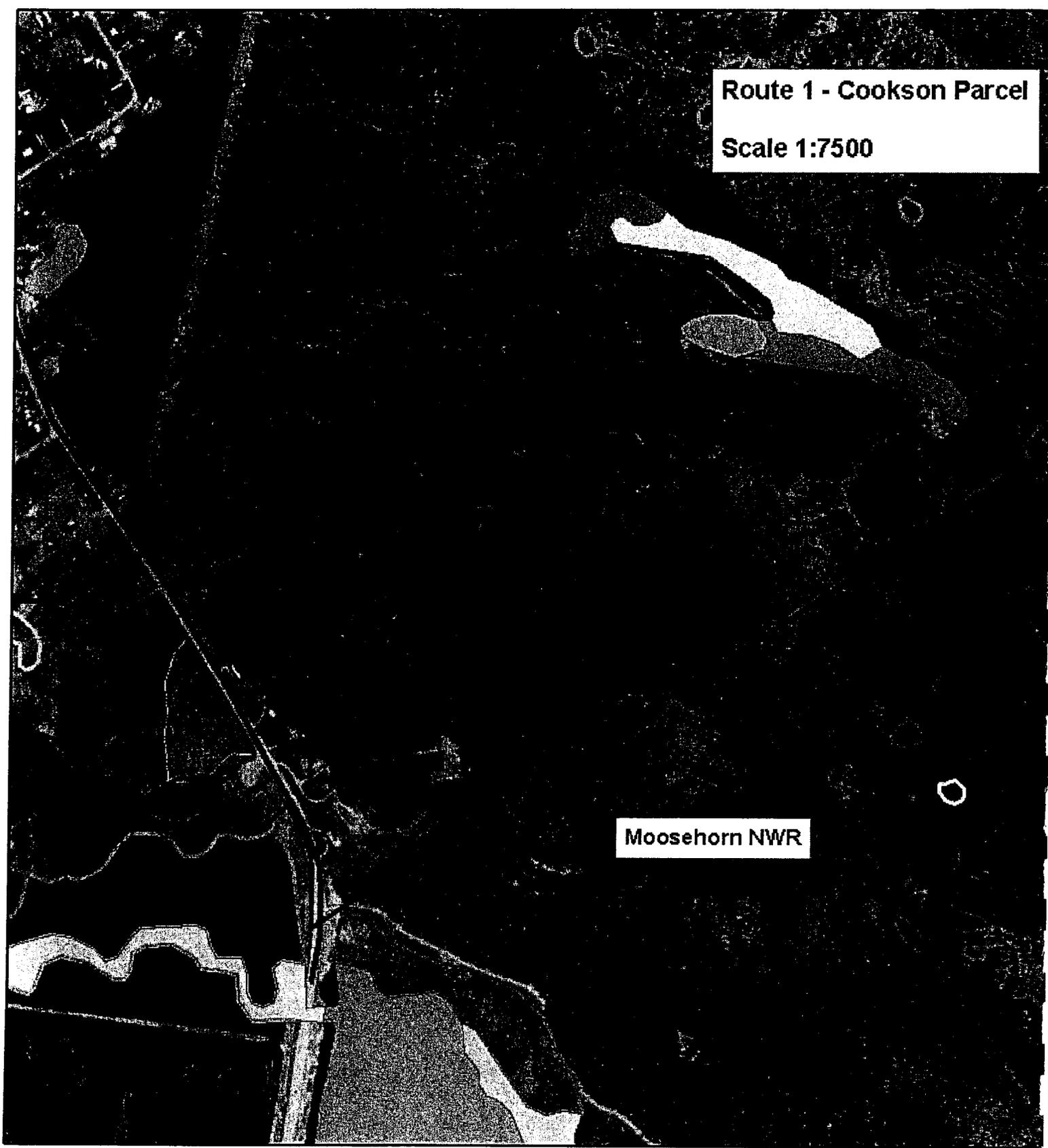
Water District  
Well PW-1

Approx. Limits Proposed Border  
Crossing Facility



**Route 1 - Cookson Parcel**  
**Scale 1:7500**

**Moosehorn NWR**



**APPENDIX B**

**Cross Reference Between Mitigation Plan  
and  
U.S. Army Corps of Engineers, N.E. District  
Mitigation Plan Checklist**

**Wetland Compensation Plan**  
**MaineDOT Calais – St. Stephen Bridge and Border Crossing**

**APPENDIX B**

Cross-reference Between Calais –St. Stephen Border Crossing Project Mitigation Plan  
 And U.S. Army Corps of Engineers, New England District *Mitigation Plan Checklist*, 6/15/04

Check-list Item	Description	Relevant Section	Page Number
<b>A. General Information</b>			
1.	One complete document	N/A	
2.a	Site location map	Figure 1	
2.b	Lat/Long	Figure 1	
3.a	Impact area - wetland acreages and stream lengths	Section 1.2	pp. 1, 2, Table 1
3.b	Impact area - wetland classes	Section 1.2	pp. 1, 2, Table 1
3.c	Impact area - wetland functions and values	Section 1.2, Exhibit 14	p. 1
3.d	Impact area - type and purpose of work	Section 1.1	p. 1
4.a	Mitigation area - wetland acreages at each site	Sections 2.0 and 3.0	pp. 2, 3, Table 2
4.b	Mitigation area - wetland classes at each site	Sections 3.0	pp. 3-11
4.c	Mitigation area - wetland functions and values proposed at each site	Sections 3.1 and 3.2	pp. 3-11
5.	Design Constraints	Sections 3.1.1 and 3.2.1	pp. 5, 8
6.	Wetland scientist to monitor construction and compliance	Section 6.0	p. 16
7.	Timing of mitigation	Section 11.0	p. 23
8.	Party responsible	Section 2.0	p. 2
<b>B. Hydrology</b>			
1.	Seasonal depth, duration, and timing of inundation/ saturation for each zone	Sections 3.1	pp. 3-7
2.	Groundwater or surface water driven, substantiation	Sections 3.1	pp. 3-7
3.	If vernal pool, evidence of adequate hydrology for at least one obligate species	N/A	
<b>C. Grading Plan</b>			
1.a	Plan View - existing 2' contours, proposed wetlands 1' contours plus spot elevations	Figures 3 and 4	
1.b	Plan View - microtopography max. and min. elevations and typical section(s)	Figures 3 and 4	
1.c	Plan View - Scale 1"=20' to 1"=100'	Figures 3 and 4	
1.d	Plan View - legible 8-1/2 x11" sheets	Figures 3 and 4	
2.	Section View(s) with seasonal water level range(s)	Figures 5 and 6	
3.	Other grading comments (if any)	N/A	
<b>D. Topsoil</b>			
1.	Proposed source	Sections 3.1 and 5.1	pp. 7, 12
2.	6-12" or more natural or man-made soil	Section 5.1	p. 12
3.	Natural soil with 4-12% o.m. (specify), or amended/created soil 50-50 o.m./mineral mix	Section 5.1	p. 12
4.	Identify subsurface soil conditions	Section 5.1	p. 12
5.	Include specific language regarding soil source,	Section 5.1	p. 12

**Wetland Compensation Plan**  
**MaineDOT Calais – St. Stephen Bridge and Border Crossing**

	thickness and composition		
<b>E. Planting Plan</b>			
1.	Use scientific names	Throughout	
2.	Native and indigenous plant materials	Sections 5.2, Table 4	pp. 12-15
3.	Classify plant communities according to Cowardin et al. (1979) or similar	Section 1.2	p. 1
4.	Plan view shows proposed locations of plantings or uniform planting areas	Figure 4	
5.	More than 50% in each planting zone are structural determinants for the community type, unlikely to volunteer	Section 5.2 and Table 4	pp. 12-15
6.	Where appropriate, at least 600 trees and shrubs per acre, including 400 trees in forested types	Section 5.2 and Table 4	pp. 12-15
7.	Herbaceous stock at 3' o.c. (spreading) or 2' o.c. (clumping)	N/A	
8.	Provide seed mix composition, no undesirable species	Section 5.2 and Table 5	pp. 12-15
9.	Representative cross-section(s)	Figures 5 and 6	
10.	Include language re: native and indigenous, no unauthorized substitutions, no invasives	Section 5.2	p. 13
11.	Include language re: allowance for/limits on relocation due to as-built conditions	Sections 5.2	p. 13
12.	Other planting comments (if any)	N/A	
<b>F. Coarse Woody Debris</b>			
	At least 2% coverage with various sizes and stages of decomposition	Section 5.3	p. 15
<b>G. Erosion Controls</b>			
	Removal of erosion control devices	Section 4.0	p. 11
<b>H. Invasive and Noxious Species</b>			
1.	Discuss/assess risk of invasion	Section 7.1	p. 16
2.	Discuss/assess regulatory and ecological constraints that influence plan to control invasives	Section 7.2	p. 16
3.	Control plan	Section 7.3 and Appendix C	p. 16
<b>I. Off-Road Vehicle Use</b>			
1.	No use in vicinity, or control measures addressed	Section 8.0	p. 17
2.	If ORV potential, barriers planned/access limited to prevent damage	Section 8.0	p. 17
<b>J. Preservation</b>			
	Include specified language	Section 9.0 and Appendix D	pp. 17-18
<b>K. Monitoring Plan</b>			
	Include specified language	Section 10.0	pp. 18-22
<b>L. Assessment Plan</b>			
	Include specified language	Section 10.4	pp. 21
<b>M. Other Comments (if any)</b>			

APPENDIX C

Preliminary Plan for Control of Potential Invasive Plants  
at the Water District Mitigation Site

**Preliminary Plan for Control of Potential Invasive Plants at the  
Water District Mitigation Site**

**Purple loosestrife** (*Lythrum salicaria*) is considered an aggressive and highly invasive non-native species that has the potential to take over and dominate natural wetland plant communities. Loosestrife produces large numbers of viable seeds and a massive seed bank can build up in the soil. Under the right conditions, seeds germinate in high numbers and prevent native wetland species from becoming established. This plant is especially invasive in areas of disturbed wetland, where it can quickly colonize exposed soils. It is difficult to eradicate once it becomes established, but can be controlled using a variety of proven methods including mechanical, chemical, or biological means.

**Common reed** (*Phragmites australis*) is also considered aggressive and highly invasive. It has the potential to quickly displace desirable native wetland species with dense monotypic stands that provide little food or shelter for wildlife. This plant is also especially invasive in areas of disturbed wetland. Common reed thrives in sunny wetland habitats and spreads to new areas by both seed and rhizome fragments. Common reed spreads predominantly by sending long rhizomes horizontally from the existing plant in all directions during the growing season. The accumulation of dead leaves and stems, as well as the pervasive rhizome system, prohibits the growth of desirable wetland plant species. Common reed is very difficult to completely eradicate. Small single plants can be hand dug, but larger stands need to be treated more aggressively.

**Control Methods**

Control of these invasive species will be done in a manner that minimizes disturbance to soils and vegetation in the wetland in order to prevent these species from re-colonizing the disturbed area. A healthy, late-successional wetland ecosystem is generally more resistant to invasive species. MaineDOT will take an Integrated Pest Management (IPM) approach in controlling invasive species at the Water District mitigation site. The range of control options is outlined below, and the choice of method(s) will depend on the degree of infestation that occurs and any regulatory or ecological constraints. The methods may be adjusted and/or combined to provide the most cost-effective control. The long term overall goal will be to reduce, not necessarily eliminate, purple loosestrife and common reed so that they do not develop into dominant, homogenous stands that can severely reduce plant species diversity. Because the Water District mitigation site is located in a wellhead protection zone, **NO HERBICIDES OR OTHER CHEMICAL TREATMENTS** will be used to control invasive plants.

***Wetland Compensation Plan***  
***MaineDOT Calais – St. Stephen Bridge and Border Crossing***

---

Early Detection and Prevention

Early detection and prevention measures will be implemented to prevent the spread of loosestrife and common reed before they become established. Meander surveys to detect these plants will be conducted at the mitigation site during early July to early August, when these plants are in flower but have not yet begun to seed. Occurrences of purple loosestrife and common reed will be documented, and may be located with Global Positioning System (GPS) for subsequent removal.

Spot Hand-Digging

Where individual loosestrife and common reed plants are present in small numbers, the hand-digging method will be used. A shovel will be used to dig up the plant. The entire plant including root rhizomes, stems, leaves, and flowers will be securely bagged and removed from the site to be properly disposed as trash. When removing these plants, the soil in a 6-inch radius surrounding the plant will be removed in order to minimize any residual seed or root fragments. Disturbance to soil and native vegetation beyond the 6-inch radius will be minimized during the removal process. Black plastic may be used to cover the disturbed area to prevent residual root fragments and potential seeds from sprouting. This process may have to be repeated each summer in those areas where scattered plants continue to sprout from an existing seed bank.

Biocontrol

Biocontrol methods may be used to control larger populations of purple loosestrife or where significant loosestrife populations occur adjacent to the mitigation site. Leaf-eating beetles (*Galerucella* sp.) that selectively feed on loosestrife and that have been approved by the U.S. Department of Agriculture for use as biocontrol agents will be released early in the growing season. The number of beetles released will vary with the level of infestation, but will be sufficient to promote the establishment of a self-sustaining population that will provide long-term control.

**APPENDIX D**

**Draft Declaration of Covenants and Restrictions  
for the Water District Mitigation Site**

**DRAFT**

*Water District Site, Calais, 12/8/05*

**DECLARATION OF COVENANTS AND RESTRICTIONS  
AFFECTING PROPERTY OF THE STATE OF MAINE, by and through its  
DEPARTMENT OF TRANSPORTATION, located at WATER DISTRICT SITE,  
CALAIS, WASHINGTON COUNTY, STATE OF MAINE**

**THIS DECLARATION** is made this \_\_\_\_\_ day of \_\_\_\_\_, 2006, by the **STATE OF MAINE**, by and through its Department of Transportation, having an address of 16 State House Station, Augusta, ME 04333-0016, (hereafter "Department");

WHEREAS, the Department holds title to certain real property situated in Calais, Maine, as described and as shown on Maine Department of Transportation Right-of-Way Map, State Highway "111", Calais, County of Washington, Federal Aid Project No. NCPD/CBI-8483(320)X (P.I.N. 8483.32), dated February 2005, on file in its office at Augusta, D.O.T. File No. 15-293, and described in Notice of Layout and Taking recorded in the Washington County Registry of Deeds on TBD, in Book TBD, Page TBD, said real property being more specifically described in Exhibit A, attached hereto and incorporated herein; and

WHEREAS, the Department was issued a permit by the US Army Corps of Engineers (hereafter "Corps") Action Number TBD pursuant to (1) Section 404 of the Clean Water Act (33 U.S.C. section 1344) or Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401) under the administrative regulatory authority of the Corps New England District, Regulatory Branch, setting forth authorization for certain dredge and/or discharge of fill activities in waters of the United States, including wetlands and streams; and

WHEREAS, said permit is attached hereto as Exhibit "B" and by this reference is made a part hereof; and

WHEREAS, dredge and/or discharge of fill material in jurisdictional waters of the United States including wetlands and streams pursuant to the Clean Water Act, Section 404, and/or the Rivers and Harbors Act of 1899, Section 10, requires compensatory mitigation and perpetual protection of the mitigation property; and

WHEREAS, the real property described in Exhibit A is being preserved, restored or enhanced as a wetland, buffer to wetlands, stream, streamside buffer, and/or upland buffer to jurisdictional waters of the United States, as well as non-jurisdictional waters of the United States where such property has been accepted as compensatory mitigation for the environmental effects of the Department's transportation project known as the Calais-St. Stephen International Bridge and Border Crossing Project (MDOT PIN 8483.32) pursuant to the permit; and

WHEREAS, the Protected Property consists of a total of TBD acres in one parcel of land; and

WHEREAS, the environmental conservation functions and values are summarized and described in Exhibit "C", attached hereto and made a part hereof; and

WHEREAS, the Department and the Corps, recognizing the functions and values of the Protected Property, have the common purpose of placing the within covenants and restrictions over the Protected Property to benefit, protect and conserve the functions and values of the Protected Property, conserve and protect the indigenous plant and animal populations, and prevent the use or development of the Protected Property for any purpose or in any manner that would conflict with its condition, for the benefit of Washington County and the people of the State of Maine; and

WHEREAS, the Protected Property shall have significant educational, aesthetic, and ecological functions and values (the "Conservation Values"); and

WHEREAS, preservation of the Protected Property is consistent with federal, state, and local governmental conservation policy; and

WHEREAS, the Department intends to convey herein to the Corps the right to preserve and protect the Conservation Values of the Protected Property by enforcing the covenants and restrictions set forth herein; and

NOW THEREFORE, in consideration of the above and as required mitigation for dredge and/or discharge of fill material in waters of the United States including wetlands and streams, the Department does hereby covenant and agree that the Protected Property is and shall be held, and if conveyed shall be subject to, the restrictions, covenants, conditions, servitudes and easements set forth in the various clauses of this Declaration, which shall inure to the benefit of and be binding upon the Department, its successors and assigns, and shall be binding upon the Protected Property as described herein.

**1. PURPOSE:** It is the purpose of this Declaration to assure that the Protected Property: (1) will be retained forever in its preserved status; and (2) will not be used in a way that will significantly impair or impede the Conservation Values of the Protected Property.

**2. RIGHTS OF THE THIRD PARTY BENEFICIARY:** To accomplish the purposes of this Declaration, the Corps, or its successor, as third party beneficiary hereof, is hereby specifically granted the authority to enforce the provisions of the Declaration and shall have the following enforcement rights:

- a. The right to preserve and protect the Conservation Values of the Protected Property;
- b. The right to enter and inspect the Protected Property over other lands, easements, or rights-of-way of the Department (if any) at any reasonable time and in any reasonable manner provided that the time and manner of such entry does not unreasonably interfere with the uses of the Protected Property permitted hereunder or the quiet

enjoyment of other lands of the Department (if any), and to enforce by proceedings at law or in equity the covenants hereinafter set forth, including the right to require restoration of the Protected Property to its condition prior to any breach hereof; and,

- c. The right to prevent any activity on or use of the Protected Property that is inconsistent with the purpose of this Declaration, however, the actual activities and outcomes will determine compliance with this Declaration; and
- d. Appropriate remedy for violation of this Declaration is contemplated to include, without limitation, injunctive relief to restrain such violation, restoration of such areas or features of the Protected Property that may be damaged by any inconsistent activity or use, administrative, civil or criminal penalties as well as any other remedy available under law or equity. However, no violation of this covenant shall result in a forfeiture or reversion of title. Nothing herein shall be construed to entitle any governmental agency to enforce the terms of this Declaration against the Department for any changes to the Protected Property due to causes beyond the Department's control, such as changes caused by fire, flood, storm, industrial accident, earth movement, or the unauthorized wrongful acts of a third party, or for any prudent action taken by the Department under emergency conditions to prevent, abate, or mitigate significant injury to the Protected Property resulting from such causes.

**3. RIGHTS OF DEPARTMENT AND USE OF THE PROPERTY:** The Protected Property shall be used only for limited educational and conservation purposes provided that any such use is consistent with the purposes of this Declaration. It is expressly understood and agreed that this covenant does not grant or convey to the general public, any rights of ownership, interest in, or use of the Protected Property. However, the protection of jurisdictional and non-jurisdictional waters of the United States, its buffers and uplands, its floodplains, vegetation, open space, aquatic and wildlife habitat, are considered herein a benefit to the general public and to the people of the State of Maine. Under this Declaration the Department reserves the following rights:

- a. The right (1) to carry out wetland restoration and creation, and enhance the natural habitat as approved by the Corps, (2) to undertake management and maintenance of the Protected Property, and (3) to carry out additional compensatory mitigation efforts, if any, as may be required by the permits described on Page 1 of this Declaration, and by applicable laws and regulations in effect on the date of this Declaration or permitted in the future.
- b. The right to manage vegetation on the Protected Property, to:
  - i. control and prevent the spread of fire and disease,
  - ii. prune or remove diseased or unsafe vegetation in accordance with current scientifically based practices recommended by the Maine Forest Service, or its successor;
  - iii. control invasive species using manual, chemical or biological methods, in accordance with all state and federal requirements; and
  - iv. maintain and improve important wildlife habitat values of the Protected Property; and

- v. as necessary to the exercise of the reserved rights in Sections c and d below
- c. The right to permit limited excavation of the surface of the Protected Property for ecological, educational, or scientific research conducted under then current generally accepted professional standards, and without adverse impact to the Conservation Values protected by this Declaration, subject to prior approval of the Maine Historic Preservation Commission ("MHPC") with regard to excavation location;
- d. The right to construct and maintain minor structures, such as: boundary signs and markers; walking trails in the uplands using pervious materials; and barriers to keep out livestock, trespassers or to protect fragile features and areas under management or study.
- e. The right to sell, give, or otherwise convey the Protected Property, provided such conveyance is subject to the terms of this Declaration and the condition that the Protected Property must remain in its current configuration, and shall not be divided, subdivided, or otherwise conveyed in lots or parcels, and the terms, conditions, covenants, restrictions and purposes imposed herein shall be binding upon the Department only so long as the Department shall own the Protected Property. Notwithstanding the foregoing, the Department shall have the right to transfer any portion of the Protected Property to a state agency, municipality or qualified conservation organization. In the event that the Protected Property shall be sold or transferred, said terms, conditions, covenants, restrictions and purposes imposed herein shall be binding upon all other successors to the Department in interest, and shall continue as a servitude running with the Protected Property in perpetuity.

**4. PROHIBITED ACTIVITIES AND USES:** Any activity on or use of the Protected Property inconsistent with the purposes of this Declaration is prohibited, including, but not limited to, the following:

- A. Residential, commercial, or industrial development, quarrying, mining, agriculture, farming or ranching;
- B. Raising of any structures, temporary or permanent, except as allowed under Section 3 above.
- C. Filling, paving, dumping, excavation or other alteration to the surface of the Protected Property other than that caused by the forces of nature, except as allowed under Section 3 above.
- D. The placement, storage or dumping of refuse, trash, debris, waste materials, vehicle bodies or parts, pollutants or other fill materials within the Protected Property,.



**10. SEVERABILITY:** If any provision of this Declaration or the application thereof is found to be invalid, the remainder of the provisions of the Declaration, or the application of such provisions to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

**11. AMENDMENTS:** The Department, its successors and assigns reserve the right to propose and implement amendments to this Declaration. This Declaration shall not be amended or extinguished except by written approval of the Corps, or its successor in administration of the Clean Water Act or the Rivers and Harbors Act of 1899.. Any such amendment shall be recorded in the Registry of Deeds of Washington County, and shall specifically cross reference this Declaration.

IN WITNESS WHEREOF the Department, has executed and sealed this document the day and year first above written.

**STATE OF MAINE  
DEPARTMENT OF  
TRANSPORTATION**

\_\_\_\_\_  
Witness

By: \_\_\_\_\_  
David A. Cole, Commissioner

STATE OF MAINE  
COUNTY OF KENNEBEC

Dated: \_\_\_\_\_, 2005

Then personally appeared the above named David A. Cole, Commissioner of the Maine Department of Transportation, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the Maine Department of Transportation.

Before me,

\_\_\_\_\_  
Attorney/Notary Public  
Print Name:  
My Commission Expires:

**EXHIBIT A**

Boundary Description - to be determined

**EXHIBIT B**

Copy of Corps Permit – to be provided

**EXHIBIT C**

Summary of Environmental Conservation Functions and Values – to be provided

**APPENDIX E**

**Letter from Moosehorn National Wildlife Refuge to MaineDOT  
Regarding Acceptance of Hardscrabble Parcel**



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

U.S. Fish & Wildlife Refuge  
Moosehorn NWR  
103 Headquarters Road  
Baring, Maine 04694



Maine Department of Transportation  
Environmental Office  
Mr. Mark Lickus  
16 State House Station  
Augusta, ME, 04333

DEC 12 2005

Dear Mark:

The refuge is very interested in accepting the Hardscrabble road property as an addition to the Baring Division of the Moosehorn NWR. The site described in our earlier letter fulfills the mission of the refuge with the unique opportunity to protect wetlands, Bald Eagle and other migratory birds. The property will be managed under the Refuge Improvement Act of 1997 and this will insure that the resources are protected to the full extent. All uses will be evaluated through the biological compatibility process to insure they are compatible with the refuge mission. The current legal uses that exist on the property will be allowed to continue until such a time that a formal evaluation can be conducted.

The U.S. Fish and Wildlife Service (Service) does not normally accept properties with restrictions on it to include conservation easements. However, it is the refuge's opinion that the current management practices and protection afforded the existing 28,000 acres at the Baring Unit will service the Hardscrabble property equally as well. The current protection should realize all the protection measures that the easement would affect on the property.

It is the refuge's desire to move forward with this process. Please contact my office at any time to speak with me or the Deputy Refuge Manager, Bob Peyton, concerning this acquisition project. The cooperation of the state DOT and its consideration of the refuge are very much appreciated by the Service.

Sincerely,

  
William J. Kolodnicki  
Project Leader

**APPENDIX F**

**U.S. Army Corps of Engineers' Comments  
and MaineDOT Response to Comments Memo  
(April 2006)**

**NEW ENGLAND DISTRICT  
MITIGATION PLAN CHECKLIST**

(see New England District Mitigation Guidance  
document for information on these items)

**Project:** MEDOT – Calais to St. Stephen  
**File No:** NAE-2006-704  
**Corps Project Manager:** Clement  
**City:** Calais  
**State:** Maine  
**Plan Title, Preparer, Date:** Wetland Compensation Plan, MEDOT Calais-St.  
Stephen International Bridge and Border Crossing Project; Woodlot Alternative, Inc.;  
January 2006

**TABLE OF CONTENTS**

- A. General Information**
- B. Impact Area(s)**
- C. Mitigation Area(s)**
- D. Hydrology**
- E. Grading Plan**
- F. Topsoil**
- G. Planting Plan**
- H. Coarse Woody Debris and Other Features**
- I. Erosion Controls**
- J. Invasive and Noxious Species**
- K. Off-Road Vehicle Use**
- L. Preservation**
- M. Monitoring Plan**
- N. Assessment Plan**
- O. Contingency**
- P. Other Comments**

**A. General Information**

1. [OK] Mitigation plan and documentation submitted as one complete package.
2. Site location:
  - a. [OK] Locus map(s)
  - b. [OK] Aerial photo(s)
  - c. [ ] Latitude/Longitude of mitigation site(s) in decimal format.

*Stated as being on Figure 1, but not there.*

- d. [ ] 8-digit Hydrologic Unit Code(s) for impact area(s) and mitigation area(s).

**B. Impact area(s)**

1. [OK] Wetland acreage at each impact site.
  - 1.71 acres PEM*
  - 4.45 acres PSS*
  - 0.52 acre PFO*
  - 0.13 acre RUS*      = total 6.81 acres

2. [OK] Wetland classes at each impact site.

3. [ ] Stream(s) at each impact site.

*Area given, but not stream length*

4. [OK] Describe both site specific and landscape level wetland and stream functions and values at each impact site.

*Primary functions impacted are water quality protection and wildlife habitat; also groundwater interchange, floodflow alteration, and aquatic habitat. Stream functions were not separated out, but presumably they include aquatic habitat and floodflow alteration.*

5. [OK] Describe type and purpose of work at each impact site.

*New bridge*

6. [ ] Watershed or regional plans for the area.

### **C. Mitigation area(s)**

1. Background information

a. [OK] Mitigation alternatives.

b. [OK] Existing wildlife use.

c. [OK] Existing soil.

d. [OK] Existing vegetation.

e. [ ] Surrounding land use.

f. [ ] USFWS and/or NOAA Clearance Letter or Biological Opinion

g. [OK] SHPO Cultural Resource Clearance Letter

2. Mitigation proposed

a. [OK] Wetland acreage proposed at each site.

*Water District - 0.52 acre enhancement*

*0.42 acre creation*

*2.56 acres upland buffer enhancement*

*Hardscrabble Road - 178 acres preservation*

*Magurrewoc Mountain - 40 acres preservation - upland, buffer to Magurrewoc Stream*

b. [ ] Wetland classes (e.g., Cowardin, et. al. and hydrogeomorphic classification) proposed at each site.

c. [OK] Site specific and landscape level functions and values proposed at each site.

*Water quality enhancement and wildlife habitat; while not specified, the preservation of various stream bank buffers in the Hardscrabble Road and Magurrewoc Mountain will preserve stream functions*

d. [ ] Describe nature of any stream mitigation.

e. [OK] Reference site(s).

f. [OK] Design Constraints

*close proximity to municipal water wells*

g. [OK] Construction oversight.

h. [ ] Project construction timing.

*Mitigation at Water District to be constructed 1-2 years after impacts*

i. [OK] Responsible parties.

j. [ ] Appropriate financial assurances.

- k.  Potential to attract waterfowl and other bird species that might pose a threat to aircraft?

**D. Hydrology**

1. [OK] Evidence of adequate hydrology to support the desired wetland or stream.
  - a. [N/A] "Typical" year water budget
  - b. [N/A] "Wet" year water budget
  - c. [N/A] "Dry" year water budget
2. [OK] Water source(s)  
*Surface runoff*
3. [N/A] Vernal pool (if any) hydrology is appropriate.

**E. Grading Plan**

1. Plan View
  - a. [OK] Existing and proposed grading plans.
  - b. [OK] Microtopography
  - c. [OK] The scale should be in the range of 1"=20' to 1"=100'.
  - d. [OK] All items on the plan must be legible on 8 ½ x 11" sheets.
  - e. [OK] Plans have a bar scale.
2. [OK] Representative cross-sections
3. [NONE] Other - Specific staff recommendations related to grading.

**F. Topsoil**

1. [OK] Proposed source of topsoil.
2. [OK] Twelve or more inches of natural or manmade topsoil in all wetland mitigation areas.  
*8-12 inches proposed; it is noted that the clay soil may need to be hand-tilled and broken to facilitate root penetration by woody plants - if this is done, care should be taken not to penetrate any confining layers*
3.  Appropriate organic content of topsoil.  
*Not specified, but anticipated that reused topsoil from impact area will meet minimum; this should be ensured*

**G. Planting Plan**

1.  Plans use scientific names.
2. [OK] Plant materials are native and indigenous to the area of the site(s).  
*Many of plants will be transplanted from impact areas*
3. [OK] Vegetation community types or zones are classified in accordance with Cowardin, et al. (1979) or other similar classification system.
4. [OK] Plan view drawings show proposed locations of planted stock.
5. [OK] More than 50% of the plantings in each zone are structural determinants for the community type designated for that zone.
6. [OK] Woody stock density is appropriate.
7.  Herbaceous stock density is appropriate.
8.  Seed mix composition is provided.
9. [OK] Representative cross section plans showing vegetative community zones.
10. [OK] Invasive species not proposed for planting or seeding.

11.  Relocation of plantings allowed when appropriate.
12. [NONE] Other - Specific staff recommendations related to planting.

**H. Coarse Woody Debris and Other Features**

[OK] Appropriate amounts and range of decomposition of coarse woody debris are proposed.

**I. Erosion Controls**

[OK] Erosion control removal deadline is included.

**J. Invasive and Noxious Species**

1. [OK] Risk
2. [OK] Constraints  
*Herbicides cannot be used due to drinking water source*
3. [OK] Control Plan

**K. Off-Road Vehicle Use**

1. [OK] No off-road vehicle use in immediate vicinity, or if so, control measures addressed.
2. [N/A] Control plan, if appropriate.

**L. Preservation**

1. [OK] Adequate buffers
2. [N/A] Wetlands within subdivisions are protected along with appropriate buffers.
3. [OK] Required preservation language is included.
4. [OK] Plans of preservation area(s).
5. [OK] Form of legal means of preservation  
*Hardscrabble Road and Magurrewock Mountain parcels to be transferred to FWS for incorporation into Moosehorn NWR*
6.  Documentation of acceptance by receiving agency (if applicable)

**M. Monitoring Plan**

Appropriate monitoring is proposed.  
*Only common reed (Phragmites australis) and purple loosestrife (Lythrum salicaria) are proposed for control at the Water District site. Reed canary grass (Phalaris arundinacea) should also be controlled. Otherwise, OK.*

**N. Assessment Plan**

[OK] An appropriate assessment plan is included.

**O. Contingency**

[OK] Plan for dealing with unanticipated site conditions or changes.

**P. Other Comments**

*The mitigation plan largely followed our mitigation checklist, which was very helpful. Appendix B also included a cross-reference between the checklist and the document. However, although this cross-reference noted the current (15 June 2004) checklist, it actually used an older version of the checklist and several necessary items were not included in the document. The missing information is noted above.*

*Overall, the proposed mitigation appears adequate compensation for impacted wetland functions and values. While there will be a net loss of wetland acreage, some functions will be enhanced at the Water District site and the two preservation areas will protect aquatic resources there from subsequent impacts.*

ERS Scientist: Paul Minkin Date Plan Reviewed: 4 April 2006



STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 16 STATE HOUSE STATION  
 AUGUSTA, MAINE  
 04333-0016

JOHN ELIAS BALDACCI  
 GOVERNOR

DAVID A. COLE  
 COMMISSIONER

**To:** Paul Minkin, Jay Clement, U.S. Army Corps of Engineers

**From:** Mark Lickus, MaineDOT Environmental Office *ML*

**Re:** MaineDOT Response to 4-04-2006 Corps Comments on Wetland Compensation Plan (January 2006) for Calais – St. Stephen International Bridge and Border Crossing Project

**Date:** 14 April 2006

**VIA EMAIL**

The MaineDOT has prepared the following response to the Corps' request for additional information and comments on the MaineDOT Wetland Compensation Plan dated January 2006 (hereafter the Plan) for the Calais – St. Stephen International Bridge and Border Crossing Project. The information and responses to comments provided below are keyed to the Table of Contents on the New England District Mitigation Plan Checklist. MaineDOT appreciates the Corps' comments and will incorporate the recommendations into the final design of the mitigation site as appropriate. Please contact me if you have any further questions about the Plan or the status of the mitigation project.

**A. General Information**

2. c. *Latitude/Longitude of the mitigation site(s) in decimal format –*

<u>Site</u>	<u>Latitude</u>	<u>Longitude</u>
Hardscrabble Road	45.138225	67.232565
Magurrewock Mountain	45.154933	67.283580
Water District	45.162550	67.295818

2. d. *8-digit Hydrologic Unit Code(s) for impact area(s) and mitigation area(s) –* The impact areas and the mitigation areas are located in the Eastern Maine Coastal – St. Croix River watershed HUC 01050001.

**B. Impact Areas**

3. *Stream(s) at each impact site –*

Sta. 0+480 = 675'

Sta. 1+255 = 400'

Sta. 1+520 = 85' (revised plans dated 3-16-06 show impacts to this stream have been avoided)

St. Croix River impacts = pier only

4. *Functions and values* – Functions and values of the impact wetlands are described in Exhibit 13 of the MaineDOT NRPA permit application and were only summarized in the Plan. The MaineDOT Environmental Office prepared the functional assessment dated 1/27/06. The principal stream functions impacted are floodflow alteration and aquatic habitat, as inferred by the Corp.
6. *Watershed or regional plans for area* – MaineDOT is not aware of any watershed management plans or regional plans for the project vicinity. The St. Croix River is outside the Downeast Maine Salmon Recovery Plan area. The Hardscrabble Road mitigation site, however, includes an area along Magurrewock Stream identified by Moosehorn Refuge as a priority area for acquisition and incorporation into the Refuge.

### **C. Mitigation Area(s)**

1. e. *Surrounding land use* – The proposed Water District mitigation site is currently surrounded by both public and private property that support commercial, public utility, and conservation land uses. The parcel to the north of the site was previously acquired by others as mitigation for impacts associated with a private development project. This parcel was conveyed to the Quoddy Regional Land Trust and is protected by a conservation easement. The parcel to the east is owned by the City of Calais and managed by the Calais Water District and contains a water supply well, pump station and gravel access road. The Calais industrial park lies to the south and west of the site. A warehouse, a commercial office and storage building, and several undeveloped lots are located adjacent to the site.

Land use to the south of the site will change with the construction of the proposed border crossing project. Several developed and undeveloped parcels in the industrial park that abut the mitigation site will be acquired by MaineDOT in order to obtain part of the right-of-way needed to construct the proposed GSA border crossing facility. The new facility will consist of access and approach roads, parking areas, customs and immigration buildings and inspection stations and will be fully lit. The new facility will be operated 24/7 by the Department of Homeland Security.

1. f. *USFWS and/or NOAA Clearance Letter or Biological Opinion* – The USFWS issued a letter to MaineDOT dated November 8, 2005 which concurred with MaineDOT's determination that the proposed border crossing project was not likely to adversely affect a bald eagle nest site located approximately 2,000 feet from the southerly limit of the project along Route 1. The Water District mitigation site is located approximately 6000 feet north of the eagle nest.
2. b. *Wetland classes proposed at each site* – Information on the proposed vegetative cover is described in the plan on p.13 and Table 4, and shown on Figure 4; however specific acreages were not included in order to allow for flexibility and additional site evaluation during the final design process. The table below summarizes the anticipated ratios of wetland classes and upland tree/shrub cover.

Compensation type	Acreage	Wetland class
Enhancement (wetland)	0.52	PEM/PSS/ PUB (shallow pool) (approx. 1:3:1 ratio)
Creation (wetland)	0.42	PEM/PSS (approx. 1:1 ratio)
<b>Subtotal</b>	<b>0.94</b>	
Enhancement (transitional wetland & upland buffer)	0.30	PSS/PFO (approx 2:1 ratio)
Enhancement (upland buffer)	2.26	Trees/Shrubs (approx 2:1 ratio)
<b>Subtotal</b>	<b>2.56</b>	

2. d. *Describe nature of any stream mitigation* – The opportunity for stream mitigation is not available at the Water District site and was not proposed in the mitigation plan. Preservation of stream channels and adjacent wetland and upland buffer areas will be provided at the Hardscrabble Road site as mitigation for adverse impacts to streams from the border crossing project.
2. h. *Project construction timing* – Section 11.0 of the Plan described the estimated project schedule at the time of permit application. The construction timing of the Water District mitigation site is currently being evaluated as part of the final design process. The border crossing project will be constructed in three phases over a period of two and a half years. In accordance with the Plan, mitigation construction at the site will be advertised as part of Phase II of the project in October 2006. Phase II consists of the construction of the border crossing access road and two bridges over the railroad and has the largest share of wetland impacts. Mitigation construction will proceed concurrently with the construction of Phase II and will be completed no later than Spring 2008. However, MaineDOT is currently assessing whether it would be feasible to complete the mitigation earthwork in 2006 and the initial planting in the Spring or Fall of 2007. In either case, mitigation construction is expected to begin 3 to 4 months after the start of bridge construction (Phase I), will be constructed concurrently with the project, and will be completed before the anticipated completion October 2008 date of Phase III (Route 1 upgrade).
2. j. *Appropriate financial assurances* – MaineDOT understands that unlike private developers public transportation agencies are not required to provide financial assurance of their ability to implement a mitigation project. The MaineDOT has budgeted funding for preliminary and final engineering, land acquisition, construction, construction engineering, and post-construction monitoring sufficient to fully implement the proposed mitigation. The Calais Border Crossing project is

one of MaineDOT's highest priority projects and has received a Congressional earmark to allow the project to be constructed.

- 2.k. *Potential wildlife attractants and threat to aircraft* – The proposed mitigation project will not result in conditions hazardous to aircraft safety as described in FAA Advisory Circular 150/5200-33. The closest municipal airport is located in Princeton, over 13 miles northwest of the Water District site.

**F. Topsoil**

2. *Topsoil thickness* - We concur with the Corps' comment that confining or perching layers of the subsoil should not be disturbed during mitigation grading in order to maintain existing wetland hydrology.
3. *Appropriate organic content of topsoil* – As described in the Plan, wetland topsoil will be salvaged selectively from the impact areas and placed on the finished subgrade of the creation area. Samples of the existing wetland topsoil will be taken and analyzed during final design to determine the organic content of the soil. Soils not meeting the minimum 4% organic content requirement as specified in the Corps guidelines will be amended with suitable upland topsoil or, depending on availability, other sources of organic carbon such as composted woodwaste, as necessary to achieve the standard.

**G. Planting Plan**

1. *Plans use scientific names* – Scientific names of vegetative species were used throughout the text, but were omitted from Table 4 for brevity. The common and scientific names of the trees and shrubs proposed for planting at the site are as follows:

	<b>Common Name</b>	<b>Scientific Name</b>
<b>Trees:</b>		
	American beech	<i>Fagus grandifolia</i>
	Balsam fir	<i>Abies balsamea</i>
	Gray birch	<i>Betula populifolia</i>
	Green ash	<i>Fraxinus pennsylvanica</i>
	Northern white cedar	<i>Thuja occidentalis</i>
	Paper birch	<i>Betula papyrifera</i>
	Red maple	<i>Acer rubrum</i>
	Red pine	<i>Pinus resinosa</i>
	Striped maple	<i>Acer pensylvanicum</i>
	Tamarack	<i>Larix laricina</i>
	White ash	<i>Fraxinus americana</i>
	White pine	<i>Pinus strobus</i>
<b>Shrubs:</b>		
	Black chokeberry	<i>Aronia melanocarpa</i>
	Meadowsweet	<i>Spiraea latifolia</i>
	Nannyberry	<i>Viburnum lentago</i>

	Northern arrowwood	<i>Viburnum recognitum</i>
	Red-osier dogwood	<i>Cornus sericea</i>
	Speckled alder	<i>Alnus incana ssp. rugosa</i>
	Sweetgale	<i>Myrica gale</i>
	Willow (native only)	<i>Salix spp.</i>
	Winterberry	<i>Ilex verticillata</i>

7. *Herbaceous stock density* – Not applicable. Herbaceous plantings are not proposed at the site.
8. *Seed mix composition* – Preliminary wetland and upland seed mixes are provided in Table 5, p. 15.
11. *Relocation of plantings* – As noted in the Plan, the species listed and the locations of the plantings shown are approximate and will be confirmed during the final design process. Species not specified in the Plan will not be used without written approval from the Corps. In accordance with Section 11.0 Estimated Schedule, final design plans for the Water District site will be submitted to the Corps for review before the mitigation project is advertised for construction by MaineDOT.

**L. Preservation**

6. *Documentation* – Appendix E of the Plan contains a letter from William J. Kolodnicki, Project Leader of Moosehorn NWR, confirming the refuge's interest in adding the Hardscrabble Road parcel to the Baring Division of the refuge. Mr. Kolodnicki has also confirmed via email the refuge's interest in accepting the Magurrewock Mountain parcel. A copy of the email is available upon request.

**M. Monitoring Plan**

*Appropriate monitoring is proposed* – Reed canary grass was not noted as a dominant herbaceous species in the areas proposed for wetland creation and enhancement, but is known to occur in wetlands and uplands in the project vicinity. Some reed canary grass establishment within the site is not unexpected and will be considered acceptable provided it is limited to scattered plants or small clumps within the site. As a preventative measure, topsoil will not be salvaged from impact wetlands infested with reed canary grass for use within the mitigation site. To reduce the potential for reed canary grass establishment, areas disturbed during mitigation construction will be seeded with a mix of native wetland and/or upland species. Areas treated with salvaged wetland topsoil are expected to revegetate quickly with desirable wetland species and will only be seeded with a temporary stabilization mix as necessary. Competition and shade from volunteer and planted vegetation within the enhancement area is expected to minimize the potential for widespread colonization of the site by reed canary grass. As noted in the Plan, herbicides will not be used to control invasive species within the mitigation site because of the site's proximity to the public drinking water wells.

**P. Other Comments**

The discrepancy between the 15 June 2004 date on the cross-reference table and the older version of the contents of the table was an oversight and will be updated in future MaineDOT compensation plans.