

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK  
**CITY OF PORTLAND**

Please Read  
Application And  
Notes, If Any,  
Attached

BUILDING INSPECTION

**PERMIT**

Permit Number: 090813

This is to certify that Delta Air Lines Inc/Shaw Brothers Const  
has permission to Apron Expansion Phase I Deicing Project install trench drain & concrete replacement with drainage structure  
AT 1001 Westbrook St CB# 208 A001002

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise closed-in. 24 HOURS NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. CAPT. R. Louben  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_  
Department Name

Charles M. Staley  
Director - Building & Inspection Services

**PENALTY FOR REMOVING THIS CARD**

**City of Portland, Maine - Building or Use Permit Application**

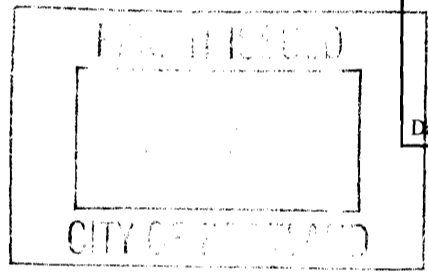
389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 09-0813	Issue Date: 8/14/09	CBL: 208 A001002
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Location of Construction: 1001 Westbrook St	Owner Name: Delta Air Lines Inc	Owner Address: Po Box 45852	Phone:
Business Name:	Contractor Name: Shaw Brothers Const	Contractor Address: PO Box 69, 511 Maine Street Gorham	Phone 2078392552
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	Zone: A-B

Past Use: Commercial / Portland Jetport	Proposed Use: Portland Jetport / Apron Expansion Phase I Deicing Project	Permit Fee: \$0.00	Cost of Work: \$2,138,000.00	CEO District: 3
Proposed Project Description: Apron Expansion Phase I Deicing Project - Install trench drain & concrete replacement with drainage structure		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <i>See Condition</i>	INSPECTION: Use Group: <i>F1</i> Type: <i>U/K</i> <i>IBI-7003</i>	
		Signature: <i>KG</i>	Signature: <i>CL</i>	
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)				
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied				
Signature: _____ Date: _____				

Permit Taken By: gg	Date Applied For: 07/31/2009	<b>Zoning Approval</b>		
<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</p>	<p>Special Zone or Reviews</p> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <input type="checkbox"/> Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	<p>Zoning Appeal</p> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied	<p>Historic Preservation</p> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	
	<p>Date: <i>7/31/09</i> <i>ABM</i></p>	<p>Date: _____</p>	<p>Date: <i>ABM</i></p>	



**CERTIFICATION**

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

**City of Portland, Maine - Building or Use Permit**

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 09-0813	Date Applied For: 07/31/2009	CBL: 208 A001002
-----------------------	---------------------------------	---------------------

Location of Construction: 1001 Westbrook St	Owner Name: Delta Air Lines Inc	Owner Address: Po Box 45852	Phone:
Business Name:	Contractor Name: Shaw Brothers Const	Contractor Address: PO Box 69, 511 Maine Street Gorham	Phone (207) 839-2552
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	

Proposed Use: Portland Jetport / Apron Expansion Phase I Deicing Project	Proposed Project Description: Apron Expansion Phase I Deicing Project - Install trench drain & concrete replacement with drainage structure
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<b>Dept:</b> Zoning	<b>Status:</b> Approved with Conditions	<b>Reviewer:</b> Ann Machado	<b>Approval Date:</b> 07/31/2009
<b>Note:</b>			<b>Ok to Issue:</b> <input checked="" type="checkbox"/>
1) Permit is being issued for trench drain system & construction of concrete deicing pads only. Any other work must be applied for under a separate permit.			
2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.			
<b>Dept:</b> Building	<b>Status:</b> Approved with Conditions	<b>Reviewer:</b> Chris Hanson	<b>Approval Date:</b> 08/14/2009
<b>Note:</b>			<b>Ok to Issue:</b> <input checked="" type="checkbox"/>
1) Separate permits are required for any electrical, plumbing, sprinkler, fire alarm or HVAC or exhaust systems. Separate plans may need to be submitted for approval as a part of this process.			
2) Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.			
<b>Dept:</b> Fire	<b>Status:</b> Approved with Conditions	<b>Reviewer:</b> Capt Keith Gautreau	<b>Approval Date:</b> 08/12/2009
<b>Note:</b>			<b>Ok to Issue:</b> <input checked="" type="checkbox"/>
1) No means of egress shall be affected by this renovation			

**Comments:**  
7/31/2009-gg: Permit Waived per Penny Littell. /gg

*Mailed*

*O.K. to Issue*  
*8/17/09*  
*Please Mail*  
*to Dwight Anderson*  
*Debra Ho Adams*  
*778 Main St.*  
*So. Portland, ME*



# General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>PORTLAND JETPORT 1001 WESTBROOK ST.</u>		
Total Square Footage of Proposed Structure/Area		Square Footage of Lot
Tax Assessor's Chart, Block & Lot Chart#      Block#      Lot#	Applicant * <u>must</u> be owner, Lessee or Buyer* Name <u>SHAW BROTHERS CONCRETE</u> Address <u>P.O. BOX 641</u> City, State & Zip <u>Gorham, ME 04038</u>	Telephone: <u>603-255-2222</u>
2000      A      001		
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name <u>Portland Jetport</u> Address <u>City of Portland</u> City, State & Zip	Cost Of Work: <u>\$1,130,000</u> C of O Fee: \$ _____ Total Fee: \$ _____
Current legal use (i.e. single family) <u>RUNWAY &amp; AIRCRAFT APRON</u> If vacant, what was the previous use? _____ Proposed Specific use: <u>EXPANSION</u> Is property part of a subdivision? <u>NO</u> If yes, please name _____ Project description: <u>APRON EXPANSION PHASE I DELIVERY PROJECT</u> <u>INSTALL TRENCH DRAIN &amp; CONCRETE REPLACEMENT WITH PEAKING STRUCTURE</u> <u>"Waived" PER Eric Giles - per Perry letter</u>		
Contractor's name: <u>SHAW BROTHERS CONCRETE, INC.</u>		
Address: <u>P.O. BOX 641 511 MAIN ST</u>		<u>DAnderson@DelucaHoffman.com</u>
City, State & Zip <u>Gorham, ME 04038</u>		Telephone: <u>603-255-2222</u>
Who should we contact when the permit is ready: <u>Dwight Anderson</u>		Telephone: <u>775-1121</u>
Mailing address: <u>DELUCA-HOFFMAN 778 MAIN ST. SO. PORTLAND, ME</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: <u>[Handwritten Signature]</u>	Date: <u>7/31/08</u>
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This is not a permit; you may not commence ANY work until the permit is issue

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**MEMORANDUM**

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**To:** FILE

**From:** Philip DiPierro

**Dept:** DRC

**Subject:** Application ID: 2008-0137

**Date:** 7/23/2009

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OK to issue building permit for construction of the concrete de-icing pads and trench drain system only.

*JOE - A - Dal 2002*

*1001 Westbrook St*

*Parthead Intersecting Jetport*

**Gayle Guertin - Fwd: Jetport DeIcing Facility**

**From:** Debra Marquis  
**To:** Gayle Guertin  
**Date:** 7/31/2009 11:31 AM  
**Subject:** Fwd: Jetport DeIcing Facility

Hi,  
Pls. print this out and put it w/the permit file. thanks

Deb Marquis  
Principal Financial Officer  
Planning & Urban Development Dept.  
City of Portland  
874-8717  
[dmm@portlandmaine.gov](mailto:dmm@portlandmaine.gov)

>>> Tammy Munson 07/31 11:00 AM >>>

>>> Penny Littell 7/18/2009 7:54:41 AM >>>  
Paul: Please have your general contractor file for any and all building permits as well as contact Barbara Barhydt or Phil DiPierro to schedule the required precon meeting . This needs to be done immediately. The City will waive the fee and the PG requirement since this is a City project.

Let me know that you have received this email. Thanks in advance for your cooperation.

>>> Barbara Barhydt 7/17/2009 3:26:20 PM >>>  
Hi Penny:

Work has begun in earnest on the Deicing facility. They did not hold a pre-construction meeting and no building permits have been issued. The approval letter required a performance guarantee, inspection fee and pre-construction meeting. As this is a City project, the City may want to waive the performance guarantee, but how do you want us to handle the site inspections and building inspections?

Thank you.

Barbara

**From:** Eric Giles  
**To:** Machado, Ann  
**Date:** 7/31/2009 10:44:26 AM  
**Subject:** Jetport Deicing Facility - Waiver of Building Permit Fee

Good Morning Ann,  
Since this application is a City of Portland project the fees have been waived for both the Site Plan and Building Permit.

Eric Giles, AICP, LEED AP  
Planner  
City of Portland  
Department of Planning and Urban Development

**CC:** Barhydt, Barbara; Jaegerman, Alex; Littell, Penny

Memorandum  
Department of Planning and Urban Development  
Planning Division

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**TO:** Phil Dipirro – Development Review Coordinator  
Assessor's Office  
Leslie Kanyor – Public Services (CD only)  
David Margolis Pineo – Public Services  
Todd Merkle – Public Services  
Jeff Tarling – Public Services  
**Marge Schmuckal – Zoning Administrator**

**FROM:** Eric Giles, AICP, Planner

**DATE:** July 23, 2009

**RE:** Final Approved Plans – Jetport Deicing Facility

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Please see attached approved plans for the Jetport Deicing Facility site plan development at 1001 Westbrook St., approved by the Planning Board on April 14, 2009.

Please contact me with any questions or concerns.

Respectfully,

Eric





FEDERAL AVIATION ADMINISTRATION

APPROVED \_\_\_\_\_ CHIEF AIRPORTS ENGINEERING AND SAFETY BRANCH

DATE \_\_\_\_\_

MAINE DEPARTMENT OF TRANSPORTATION

APPROVED \_\_\_\_\_ OFFICE OF PASSENGER TRANSPORTATION

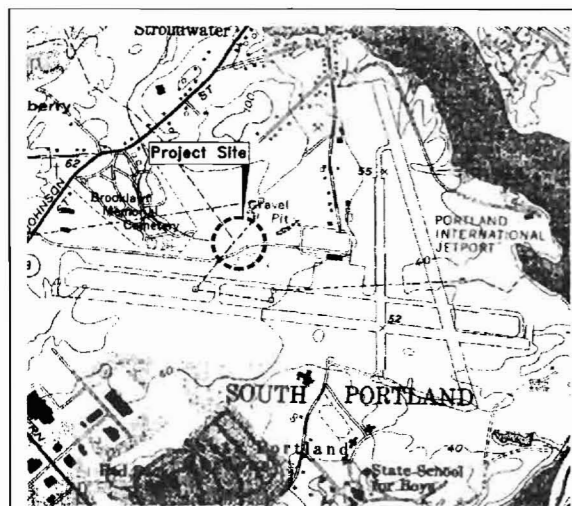
DATE \_\_\_\_\_

CITY OF PORTLAND

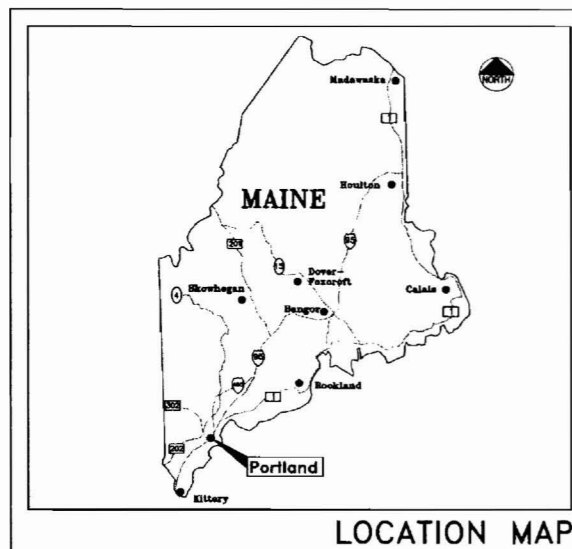
APPROVED \_\_\_\_\_ AIRPORT DIRECTOR

DATE \_\_\_\_\_

APPROVALS



VICINITY MAP



LOCATION MAP

Item	Description	Bid Qty.	Unit	Actual Qty.
P-152-4.1	Unclassified Excavation	13,260	CY	
P-152-4.2	Test Pit Excavation	60	CY	
P-154-5.1	Subbase Course	5,495	CY	
P-154-5.2	Geotextile Fabric (For Subgrade Stabilization Where Required by Engineer)	150	SY	
P-156-5.1	Hay Bales	30	EA	
P-156-5.2	Silt Fence/Stump Grndings	500	LF	
P-156-5.3	Stabilized Construction Entrance	1	EA	
P-209-5.1	Crushed Aggregate Base Course	2,154	CY	
P-401-8.1a	Bituminous Course	930	TON	
P-401-8.1b	Bituminous Shim (1/2" Mtx)	70	TON	
P-501-8.1a	Portland Cement Concrete Pavement	5,400	CY	
P-501-8.2	Saw Cut Grooving Portland Cement Concrete	8,400	SY	
P-603-5.1	Bituminous Tack Coat	275	GAL	
P-607-4.1	Pavement Milling	600	SY	
P-607-4.2	Saw Cutting Bituminous Pavement	1,500	LF	
P-620-5.1	Apron or Roadway Painting (with beads)	2,500	SF	
P-620-5.2	Remove Markings Using Black Paint	500	SF	
D701-5.1	12" Diameter Storm Drain - RCP Class V	245	LF	
D701-5.2	15" Diameter Storm Drain - RCP Class V	245	LF	
D-701-5.3	24" Diameter Storm Drain - RCP Class V	480	LF	
D-701-5.4	54" Diameter Storm Drain - RCP Class V	179	LF	
D-705-5.1	6" Underdrain Pipe (PVC)	665	LF	
D-751-5.1	Manhole - 4' Diameter	8	EA	
D-751-5.2	Manhole - 6' Diameter	2	EA	
T-901-5.1	Seeding	12	UNIT	
T-905-5.1	Topsolling	175	CY	
T-908-5.1	Mulching	1,400	SY	
100-3.1	Field Office - Engineer	1	LS	
100-3.2	Staging Area	1	LS	
200-1.1	Traffic Control, Safety and Security Measures	1	LS	
300-3.1	Mobilization and Demobilization	1	LS	
400-5.1	Hot Mix Asphalt (9.5 mm - 50 gyrations) - Sidewalk	5	TON	
400-5.2	Hot Mix Asphalt (12.5 mm - 50 gyrations)	15	TON	
400-5.3	Hot Mix Asphalt (19.0 mm - 50 gyrations)	25	TON	
500-5.1	Trench Drain	553	LF	
600-5.1	Subbase Course (MDOT) Type D	200	CY	
700-5.1	Temporary Access - Area 1	1	LS	
700-5.2	Temporary Access - Area 2	1	LS	
700-5.3	Temporary Access - Area 3	1	LS	
700-5.4	Restore Area 1	1	LS	
700-5.5	Restore Area 2	1	LS	
700-5.6	Restore Area 3	1	LS	

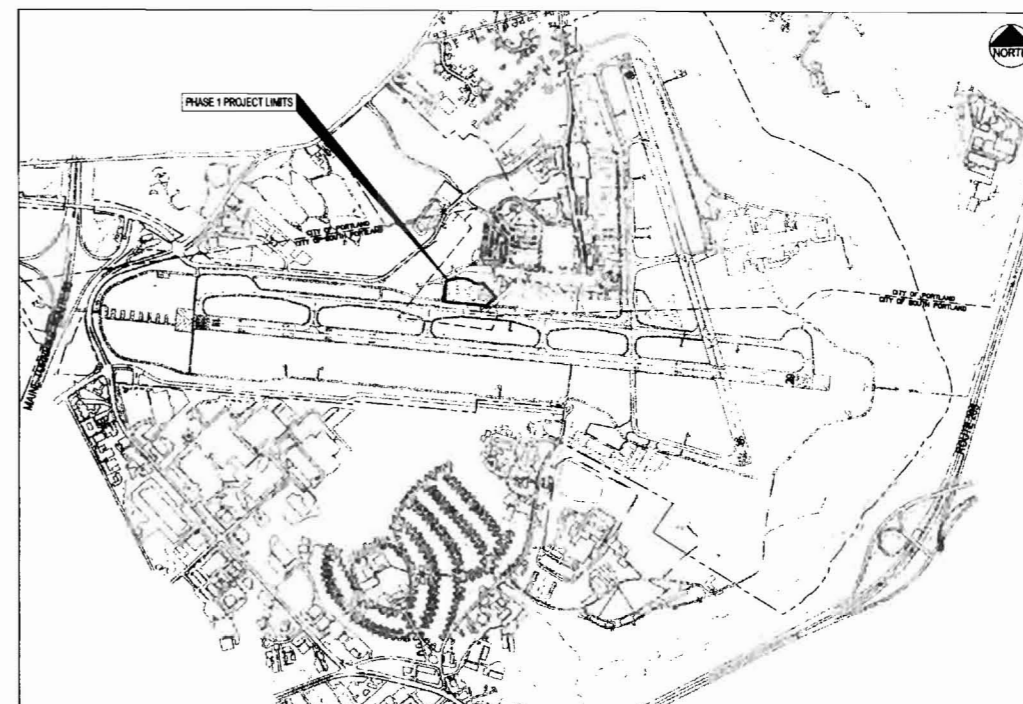
BID ITEMS AND QUANTITIES

- 1.0 Cover Sheet
- 2.0 Safety Plan
- 3.0 General Notes and Legend
- 4.0 Aircraft Apron Pavement and Striping Details
- 5.0 Drainage Details
- 6.0 Erosion Control and Staging Area Details
- 7.0 Trench Drain Details
- 8.0 Aircraft Apron Details- Sheet 1 of 2
- 9.0 Aircraft Apron Details- Sheet 2 of 2
- 10.0 Aircraft Apron Layout Plan
- 11.0 Aircraft Apron Jointing Plan
- 12.0 Aircraft Apron Grading and Drainage Plan
- 12.1 Aircraft Apron Spot Grade Plan
- 13.0 Temporary Access Road
- 14.0 Trench Storm Drain Plan and Profile
- 14.1 24" and 54" Storm Drain Plan and Profile

INDEX OF SHEETS

OWNER / APPLICANT:  
City of Portland / Portland International Jetport  
1001 WESTBROOK STREET  
PORTLAND, ME 04102

PLANS FOR  
**PORTLAND INTERNATIONAL  
JETPORT**  
PORTLAND, MAINE  
**TERMINAL APRON PHASE 1 AND DEICING  
CAPTURE PROJECT**  
AIP-3-23-0038-63



PROJECT LOCATION

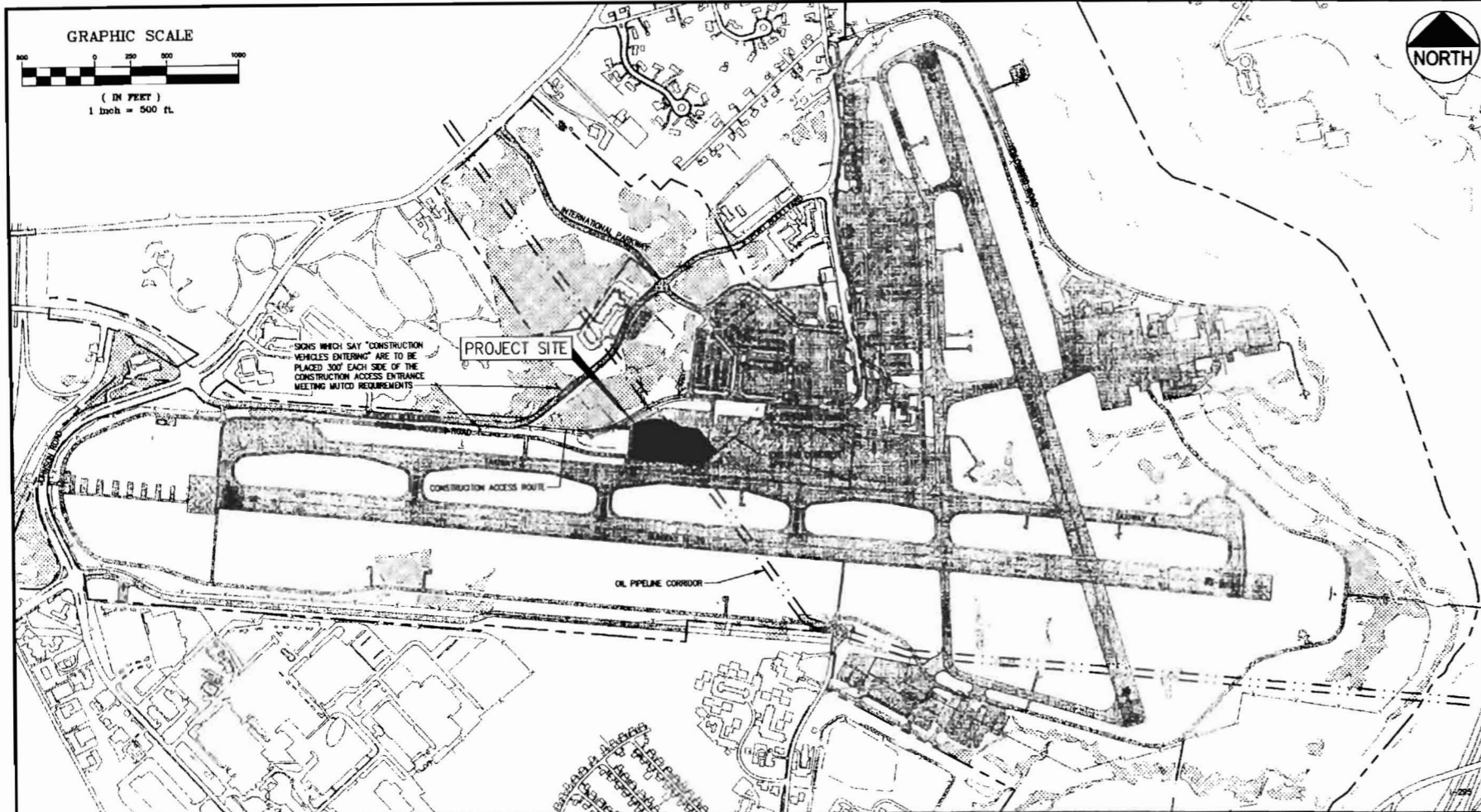
SCALE: 1" = 100'

DeLUCA - HOFFMAN ASSOC. INC. CERTIFIES THAT THE PLANS AND SPECIFICATIONS FOR THE PROJECT WERE PREPARED IN ACCORDANCE WITH CRITERIA CONTAINED IN THE CURRENT EDITION OF F.A.A. ADVISORY CIRCULARS.

*D. Anderson* 4-27-09

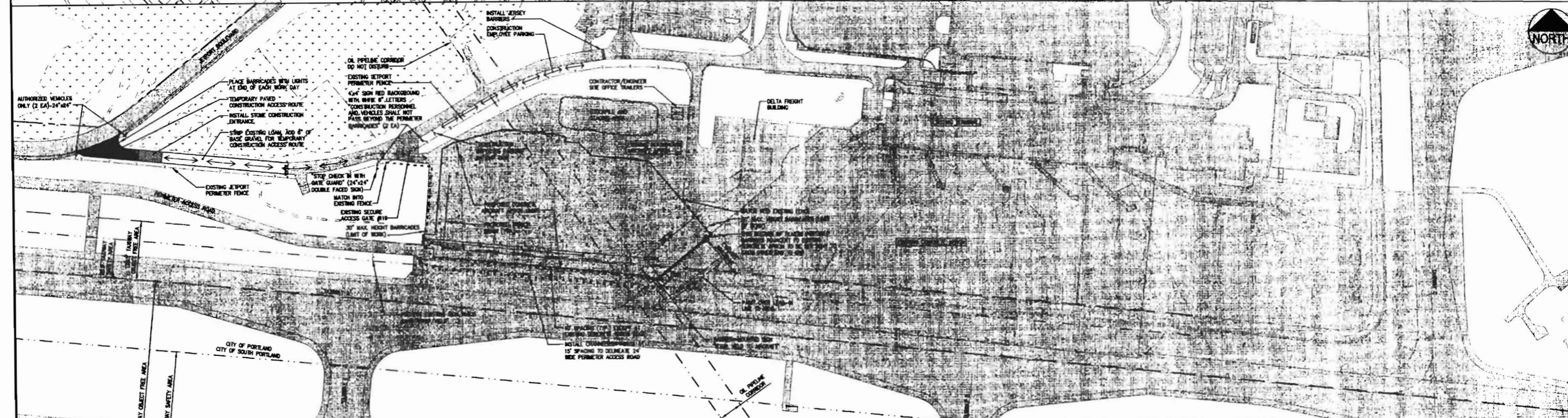
Dwight D. Anderson, P.E.  
Senior Engineer

<p>PROJECT: TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63</p>			<p>CLIENT: PORTLAND INTERNATIONAL JETPORT PORTLAND, MAINE</p>		<p>778 MAIN STREET, SUITE 6 SOUTH PORTLAND, ME 04106 207 775-1271 WWW.DELUCAHOFFMAN.COM</p>
<p>SHEET TITLE: COVER SHEET</p>					
<p>2 04.27.09 ISSUED FOR BIDDING</p>	<p>1 04.13.09 ISSUED TO FAA AND MDOT FOR REVIEW</p>	<p>DRAWN: DMB DATE: APRIL 2009 DESIGNED: ASM SCALE: AS SHOWN CHECKED: DDA JOB NO. 2819 FILE NAME: 2819-COV SHEET 1.0</p>			
<p>REVISIONS</p>		<p>P.E. DWIGHT D. ANDERSON LIC. #0275</p>			



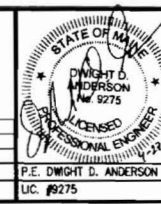
	EXISTING	PROPOSED
FENCE	---	---
EDGE OF PAVEMENT	---	---
PROPERTY LINE	---	---
STORMWATER	---	---
MANHOLE	●	●
CATCH BASIN	■	■
SIGN	---	---
WETLANDS	---	---
PAVEMENT	---	---
BUILDING	---	---
CONCRETE	---	---
30" MAX. HEIGHT LIGHTED BARRICADES	---	---
RAISED REFLECTORS	---	---

- PORTLAND PIPE LINE (PPLC) CONSTRUCTION PRACTICES:**
- THE GUIDELINES AND CONSTRUCTION PRACTICES LISTED BELOW SHALL BE FOLLOWED BY OTHER PIPELINE, UTILITY, CONSTRUCTION ORGANIZATIONS, AND OTHERS PERFORMING WORK IN THE PORTLAND PIPE LINE CORPORATION RIGHT-OF-WAY.
1. A MINIMUM DISTANCE OF 50 FEET SHALL BE MAINTAINED BETWEEN NEW STRUCTURES AND NEAREST PIPELINE (49 CFR 196.210)
  2. CROSSINGS OF THE PIPELINES SHOULD IDEALLY BE 90°, BUT IN NO CASE LESS THAN 45°.
  3. A MINIMUM VERTICAL DISTANCE BETWEEN LINES CROSSING BENEATH THE PIPELINES SHALL BE 18 INCHES. COMPACTION NEAR THE PIPELINES SHALL BE EQUAL TO ORIGINAL SOIL. CONSTRUCTION COST FIRM SOIL CONDITIONS MAY DETECT ADDITIONAL VERTICAL CLEARANCE.
  4. LINES CROSSING OVER THE PIPELINES SHALL HAVE AN 18 INCH MINIMUM VERTICAL CLEARANCE WITH 80% OR GREATER PROCTOR COMPACTION DENSITY OR PIPELINE APPROVED SUPPORTS ON BOTH SIDES OF THE PIPELINE CROSSED.
  5. EXCAVATION IN QUESTIONABLE SOILS CONDITIONS, WHERE SHEAR FAILURE OR TRENCH COLLAPSE MIGHT OCCUR, MUST BE INVESTIGATED BY A SOIL ENGINEERING CONSULTANT AND WHERE CONDITIONS WARRANT IT, SUITABLE PLANS FOR SOIL STABILIZATION SHALL BE DESIGNED AND CARRIED OUT BY A QUALIFIED ENGINEER.
  6. NO EXCAVATION IN THE VICINITY OF PIPELINES IS TO BE MADE WITHOUT A PIPELINE REPRESENTATIVE BEING PRESENT. EXCAVATION WITHIN FIVE (5) FEET OF A PIPELINE SHALL BE DONE WITH EXTREME CAUTION AND ONLY BY HAND DIGGING UNDER A PIPE LINE REPRESENTATIVE'S DIRECTION.
  7. WHERE HEAVY CONSTRUCTION VEHICLES MUST CROSS A PIPELINE, SUITABLE COMPACTED COVER AND FACING SHALL BE PLACED OVER THE PIPELINE TO PROVIDE GENERALLY NOT LESS THAN FOUR (4) FEET OF SUITABLE PROTECTIVE MATERIAL OVER THE PIPELINE. PIPE LINE REPRESENTATIVE WILL LOCATE PIPELINES FOR LANDOWNER OR CONTRACTOR UPON REQUEST.
  8. IN NO CASE SHALL COVER BE LESS THAN THAT REQUIRED BY THE DEPARTMENT OF TRANSPORTATION, CODE OF FEDERAL REGULATION OR TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE (49 CFR 196.248).
  9. ALL BLASTING IS TO BE KEPT TO AN ABSOLUTE MINIMUM AND SHALL BE DONE ACCORDING TO GOOD CONSTRUCTION PRACTICES, USING EXPERIENCED, QUALIFIED BLASTING PERSONNEL AND ONLY WITH PIPE LINE APPROVAL.
  10. BE AWARE OF POTENTIAL INTERFERENCE BETWEEN PORTLAND PIPE LINE'S DC ELECTRIC RECTIFIER SYSTEMS AND AC POWER LINE OR POWER CABLE NETWORKS. IF A POLE LINE ANCHOR IS PLACED NEAR A GROUND BED, CONTACT A CORROSION DEPARTMENT REPRESENTATIVE FOR ASSISTANCE.
  11. PORTLAND PIPE LINE IS TO BE NOTIFIED AT LEAST 48 HOURS BEFORE WORK IS PERFORMED IN THE VICINITY OF ITS PIPELINES. IN EXTREME EMERGENCIES, WHEN THIS IS NOT POSSIBLE, NOTIFICATION SHOULD BE GIVEN AT THE EARLIEST POSSIBLE TIME.
  12. NO SPILL, EITHER OF A PERMANENT OR TEMPORARY NATURE, IS TO BE DEPOSITED ON THE PIPELINES.
  13. PORTLAND PIPE LINE SHOULD BE NOTIFIED DURING INITIAL PLANNING STAGES FOR FUTURE INSTALLATIONS LOCATED NEAR PIPELINES SO THAT THE BEST MUTUALLY ACCEPTABLE DESIGN PRACTICES ARE ADOPTED.
  14. PROJECTS INVOLVING GRADING OF ACCESS OR UTILITY CROSSINGS OF PORTLAND PIPE LINE CORPORATION PIPELINES OR RIGHTS OF WAY MUST BE SUBMITTED TO PPLC FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION, WITH SUPPORTING DOCUMENTATION TO DEMONSTRATE THAT THE WORK WILL COMPLY WITH THE ABOVE REQUIREMENTS.
  15. CONTACT INFORMATION FOR PPLC: THOMAS A. HARRISON, DIRECTOR OF OPERATIONS, (207) 787-0440, 10414 STEWART JR., MAINTENANCE SUPERVISOR - MAINE (207) 787-0437, OR MAINTENANCE SUPERVISOR - NEW HAMPSHIRE / VERMONT (603) 788-2016



G:\2819\DWG\BID SET 04-24-2009\2819-PROPOSED.dwg, 2.0 SAFETY BID, 4/24/2009 9:41:02 AM, Jordan

REV	DATE	DESCRIPTION
3	04.27.09	ISSUED FOR BIDDING
2	04.13.09	ISSUED TO FAA AND MOOT FOR REVIEW
1	04.10.09	ISSUED TO FAA AND MOOT FOR REVIEW
REV	DATE	DESCRIPTION



PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-038-63	
SHEET TITLE: SAFETY PLAN	
CLIENT: PORTLAND INTERNATIONAL JETPORT PORTLAND, MAINE	DRAWN: LECJ DATE: MARCH 2009
DESIGNED: DDA SCALE: AS SHOWN	CHECKED: DDA JOB NO: 2819
FILE NAME: 2808-PROPOSED	SHEET: 2.0

**DelUCA-HOFFMAN ASSOCIATES, INC.**  
 178 MAIN STREET, SUITE 8  
 SOUTH PORTLAND, ME 04106  
 207 779 1121  
 WWW.DELUCAHOFFMAN.COM

**GENERAL NOTES:**

- ALL WORK SHALL BE COORDINATED AND PERFORMED UNDER THE SUPERVISION OF THE CITY OF PORTLAND'S AUTHORIZED REPRESENTATIVE. ALL MATERIALS AND INSTALLATION SHALL MEET MOST FAA AND/OR THE CITY OF PORTLAND SPECIFICATIONS.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND O&G SAFE (1-888-O&G-SAFE) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
- THE FOLLOWING BENCHMARK WAS ESTABLISHED FOR THE PROJECT:

USGS CORNER 2121 ELEVATION OF 83.88 (NGVD 29) LOCATED ON THE EAST FACE OF OLD ADMINISTRATION BUILDING WHICH NOW HOUSES THE CIVIL AIR PATROL AND MARINE AVIATION CORPS.

- THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE OWNERS OF ANY UTILITY (UNDERGROUND OR OVERHEAD) IN THEIR REMOVAL, REARRANGEMENT, OR REPAIR.

THE FOLLOWING UTILITY COORDINATION REQUIREMENTS APPLY TO THE PROJECT:

**UTILITY SERVICE CORPORATION:**  
THERE ARE NO KNOWN GAS LINES WITHIN THE PROJECT WORK LIMITS. HOWEVER, THIS MUST BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IF A GAS LINE IS FOUND TO EXIST WITHIN THE PROJECT LIMITS, THEN THIS LINE MUST BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM WITH UTILITY SERVICE CORPORATION THAT NO NEW LINES HAVE BEEN INSTALLED IN THE PROJECT AREA.

**PORTLAND WATER DISTRICT:**  
THE CONTRACTOR SHALL PROTECT ALL WATER MAINS AND SERVICES THROUGHOUT THE CONSTRUCTION PROCESS. REPAIR AND RELOCATIONS TO SERVICES OR TO WATER MAINS SHALL BE INCIDENTAL TO THE WORK.

**FAIRPOINT COMMUNICATIONS:**  
FAIRPOINT COMMUNICATIONS MAINTAINS UNDERGROUND UTILITY IN THE VICINITY (AIRPORT PROPERTY) HOWEVER THERE ARE NO KNOWN UTILITY LINES WITHIN THE PROJECT AREA. THE CONTRACTOR MUST CONFIRM NO UTILITY LINES EXIST WITHIN THE PROJECT WORK LIMITS PRIOR TO CONSTRUCTION. IF UTILITY LINES ARE FOUND TO EXIST THEN THE CONTRACTOR SHALL PROTECT THE UNDERGROUND LINES THROUGHOUT THE CONSTRUCTION PROCESS AND COORDINATE WITH FAIRPOINT COMMUNICATIONS FOR PROTECTION OF WIRES AND SERVICES.

**CENTRAL MAINE POWER:**  
CENTRAL MAINE POWER MAINTAINS UNDERGROUND PRIMARY UTILITY LINES AND SERVICE LINES IN THE VICINITY (AIRPORT PROPERTY) HOWEVER THERE ARE NO KNOWN UTILITY LINES WITHIN THE PROJECT AREA. THE CONTRACTOR MUST CONFIRM NO UTILITY LINES EXIST WITHIN THE PROJECT WORK LIMITS PRIOR TO CONSTRUCTION. IF UTILITY LINES ARE FOUND TO EXIST THEN THE CONTRACTOR SHALL PROTECT THE UNDERGROUND LINES THROUGHOUT THE CONSTRUCTION PROCESS AND COORDINATE WITH CENTRAL MAINE POWER FOR PROTECTION OF WIRES AND SERVICES.

**CITY OF PORTLAND PUBLIC WORKS DEPARTMENT:**  
THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT MAINTAINS GRAVITY SEWER MAINS IN THE VICINITY (AIRPORT PROPERTY) HOWEVER THERE ARE NO KNOWN SEWER MAINS WITHIN THE PROJECT AREA. THE CONTRACTOR MUST CONFIRM NO SEWER MAINS EXIST WITHIN THE PROJECT WORK LIMITS PRIOR TO CONSTRUCTION. IF A SEWER MAIN IS FOUND TO EXIST THEN THE CONTRACTOR SHALL PROTECT ALL SEWER MAINS AND SERVICES THROUGHOUT THE CONSTRUCTION PROCESS. EXISTING FACILITIES ARE IDENTIFIED ON THE DRAWINGS PER RECORD DRAWING INFORMATION AND SHALL BE RELIED UPON AS APPROXIMATE ONLY.

**FAA CABLES/WIRES:**  
ALTHOUGH NO KNOWN FAA CABLES EXIST IN THE PROJECT AREA, THE CONTACT IN CASE FAA CABLES ARE ENCOUNTERED IS:  
CONTACT: BOB DURECHER PHONE: 780-3738

**AIRPORT CABLES:**  
ALTHOUGH NO KNOWN AIRPORT CABLES EXIST IN THE PROJECT AREA, THE CONTACT IN CASE AIRPORT CABLES ARE ENCOUNTERED IS:  
CONTACT: ARTHUR SEWALL PHONE: 233-1733

- THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE THEIR OWN STAGING AND MATERIALS STORAGE IN A MANNER THAT DOES NOT IMPACT TRAFFIC FLOW OR NEIGHBORING PROPERTIES OR VIOLATE ANY FAA REGULATIONS.
- ALL AREAS OUTSIDE THE WORK AREA DAMAGED BY THE CONTRACTOR, SHALL BE REPAIRED BY THE CONTRACTOR.
- PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED AND, IF DISTURBED, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE BY A LICENSED SURVEYOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGES TO WORK AREAS DISTURBED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT. DAMAGED TREES OR SHRUBS ON PRIVATE PROPERTY SHALL BE REPLACED AS DETERMINED BY DISCUSSIONS WITH THE PROPERTY OWNER. THE CONSTRUCTION ACCESS AS SPECIFIED ON THE SITE PLANS INVOLVES RELOCATING SOME EXISTING LANDSCAPING BY THE CONTRACTOR. THESE PLANTINGS ARE TO BE RETURNED TO THEIR CURRENT LOCATIONS AT THE COMPLETION OF THIS PROJECT. MORE DETAILS CAN BE FOUND ON THE DESIGN PLANS AND WITHIN THE PROJECT SPECIFICATIONS.
- EXISTING PAVEMENT (OTHER THAN AIRPORT FACILITIES WHICH SHALL BE SAWCUT PER DETAIL B ON SHEET 4) SHALL BE SAWCUT PRIOR TO PLACEMENT OF NEW PAVEMENT OR CONCRETE. THE EXISTING PAVEMENT SURFACE SHALL BE PREPARED BY GRINDING A 11/2" DEEP, 2 FOOT WIDE SECTION TO ALLOW OVERLAP OF THE NEW PAVEMENT OVER EXISTING BASE ASPHALT.
- EXISTING DRAINAGE STRUCTURES SHALL NOT BE DISTURBED UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING TO SATISFACTORY CONDITION ANY PAVEMENT OR CONCRETE APRON THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING OR OPENING OF JOINTS PER THE DISCRETION OF OUR OFFICE OR THE CITY OF PORTLAND'S REPRESENTATIVE AIRPORT PERSONNEL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGED UTILITIES RESULTING FROM THE PROGRESS OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE ANY LAWN OR MATERIAL STORAGE AREAS NECESSARY OUT OF THE PUBLIC RIGHT-OF-WAY OR NECESSARY AIRPORT FACILITIES NEEDED BY THE AIRPORT.
- ALL WORK SHALL BE CONFINED TO THE AREAS SHOWN ON THE PLANS.
- LONG TERM (24 HRS) CLOSING OF ROADWAYS OR ANY AIRPORT FACILITIES SHALL NOT BE PERMITTED.
- ALL DISTURBED SLOPE AREAS SHALL BE LOAMED AND SEEDING PER THE PROJECT SPECIFICATIONS.
- DISPOSITION OF SURPLUS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SURPLUS MATERIAL SHALL NOT BE DISPOSED OF ON THE PROJECT SITE. DISPOSITION SHALL BE MADE ON AT WASTE AREAS WHICH ARE LICENSED TO ACCEPT SUCH MATERIALS, UNLESS THE MATERIALS CAN BE INCORPORATED IN FILLS IN OTHER PROJECTS OF THE CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS.
- MAINTENANCE OF TRAFFIC SHALL BE PER THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND ALL OTHER FAA REGULATIONS THAT APPLY TO THIS SITE.
- THE CONTRACTOR SHALL SUBMIT A PLAN TO CONTROL ALL TRAFFIC DURING THE PERIOD OF CONSTRUCTING THE IMPROVEMENTS TO THE JETPORT.
- THE CONTRACTOR SHALL PROVIDE THE CITY OF PORTLAND WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE IMPROVEMENTS AND AN EMERGENCY CONTACT LIST PRIOR TO COMMENCEMENT OF CONSTRUCTION.

**PORTLAND PIPE LINE (PPL) CONSTRUCTION PRACTICES:**

THE GUIDELINES AND CONSTRUCTION PRACTICES LISTED BELOW SHALL BE FOLLOWED BY OTHER PIPELINE, UTILITY, CONSTRUCTION ORGANIZATIONS, AND OTHERS PERFORMING WORK IN THE PORTLAND PIPE LINE CORPORATION RIGHT-OF-WAY.

- A MINIMUM DISTANCE OF 50 FEET SHALL BE MAINTAINED BETWEEN NEW STRUCTURES AND NEAREST PIPELINE (AS OFR 185.216).
- CROSSINGS OF THE PIPELINES SHOULD IDEALLY BE 90° BUT IN NO CASE LESS THAN 45°.
- A MINIMUM VERTICAL DISTANCE BETWEEN LINES CROSSING BENEATH THE PIPELINES SHALL BE 18 INCHES. COMPACTION NEAR THE PIPELINES SHALL BE EQUAL TO ORIGINAL SOIL COMPACTON. CERTAIN SOIL CONDITIONS MAY DICTATE ADDITIONAL VERTICAL CLEARANCES.
- LINES CROSSING OVER THE PIPELINES SHALL HAVE AN 18 INCH MINIMUM VERTICAL CLEARANCE WITH 90% OR GREATER PROCTOR COMPACTION DENSITY OR FINE LINE APPROVED SUPPORTS ON BOTH SIDES OF THE PIPELINE CROSSED.
- EXCAVATION IN QUESTIONABLE SOILS CONDITIONS, WHERE SHEAR FAILURE OR TRENCH COLLAPSE MIGHT OCCUR, MUST BE INVESTIGATED BY A SOIL ENGINEERING CONSULTANT AND WHERE CONDITIONS WARRANT IT, SUITABLE PLANS FOR SOIL STABILIZATION SHALL BE DESIGNED AND CARRIED OUT BY A QUALIFIED ENGINEER.
- NO EXCAVATION IN THE VICINITY OF PIPELINES IS TO BE MADE WITHOUT A PIPELINE REPRESENTATION BEING PRESENT. EXCAVATION WITHIN FIVE (5) FEET OF A PIPELINE SHALL BE DONE WITH EXTREME CAUTION AND ONLY BY HAND DIGGING UNDER A PIPE LINE REPRESENTATIVE'S DIRECTION.
- WHERE HEAVY CONSTRUCTION VEHICLES MUST CROSS A PIPELINE, SUITABLE COMPACTED COVER AND PADDING SHALL BE PLACED OVER THE PIPELINE TO PROVIDE GENERALLY NOT LESS THAN FOUR (4) FEET OF SUITABLE PROTECTIVE MATERIAL OVER THE PIPELINE. PIPE LINE REPRESENTATIVE WILL LOCATE PIPELINE APPROVED SUPPORTS UPON REQUEST.
- IN NO CASE SHALL COVER BE LESS THAN THAT REQUIRED BY THE DEPARTMENT OF TRANSPORTATION, CODE OF FEDERAL REGULATION FOR TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE (49 CFR 195.248).
- ALL BLASTING IS TO BE KEPT TO AN ABSOLUTE MINIMUM AND SHALL BE DONE ACCORDING TO GOOD CONSTRUCTION PRACTICES, USING EXPERIENCED, QUALIFIED BLASTING PERSONNEL AND ONLY THEN WITH PIPE LINE APPROVAL.
- BE AWARE OF POTENTIAL INTERFERENCE BETWEEN PORTLAND PIPE LINES DC ELECTRIC RECIEVER SYSTEMS AND AC POWER LINE OR POWER CABLE NETWORKS. IF A PIPE LINE ANCHOR IS PLACED NEAR A GROUND BED, CONTACT A CORROSION DEPARTMENT REPRESENTATIVE FOR ASSISTANCE.
- PORTLAND PIPE LINE IS TO BE NOTIFIED AT LEAST 48 HOURS BEFORE WORK IS PERFORMED IN THE VICINITY OF ITS PIPELINES. IN EXTREME EMERGENCIES, WHEN THIS IS NOT POSSIBLE, NOTIFICATION SHOULD BE GIVEN AT THE EARLIEST POSSIBLE TIME.
- NO SPOIL, EITHER OF A PERMANENT OR TEMPORARY NATURE, IS TO BE DEPOSITED ON THE PIPELINES.
- PORTLAND PIPE LINE SHOULD BE NOTIFIED DURING INITIAL PLANNING STAGES FOR FUTURE INSTALLATIONS LOCATED NEAR PIPELINES SO THAT THE BEST NATURALLY ACCEPTABLE DESIGN PRACTICES ARE ADOPTED.
- PRODUCTS INVOLVING GRABBING OF ACCESS OR UTILITY CROSSINGS OF PORTLAND PIPE LINE CORPORATION PIPELINES OR RIGHTS OF WAY MUST BE SUBMITTED TO PPL FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION, WITH SUPPORTING DOCUMENTATION TO DEMONSTRATE THAT THE WORK WILL COMPLY WITH THE ABOVE REQUIREMENTS.
- CONTACT INFORMATION FOR PPL: THOMAS A. HANDEBERG, DIRECTOR OF OPERATIONS, (207) 761-3040, RALPH STEWART, JR., MAINTENANCE SUPERVISOR, MAINE (207) 767-0437, OR MAINTENANCE SUPERVISOR - NEW HAMPSHIRE (VERMONT) (803) 788-2018.

**LAYOUT NOTES:**

- ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE EDGE OF PAVEMENT, FACE OF CURB OR BUILDING.
- ALL SIGNS INDICATED ON THE LAYOUT PLANS ARE TO MEET ALL REQUIREMENTS AND STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS WELL AS CURRENT FAA ADVISORY CIRCULARS.
- COORDINATES FOR ALL IMPROVEMENTS SHALL BE PROVIDED TO THE CONTRACTOR IN ELECTRONIC FORMAT PRIOR TO THE START OF WORK.
- PIPE LENGTH EQUALS THE CENTER TO CENTER DISTANCES BETWEEN CATCH BASINS AND/OR MANHOLES MINUS ONE HALF OF THE DIAMETER OF EACH CATCH BASIN OR MANHOLE.

**LANDSCAPE NOTES:**

- ALL PLANT MATERIALS SHALL MEET THE STANDARDS AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN. ALL TREES ARE TO BE GUYED AND STAKED PER THE DETAIL. ALL TREES, SHRUBS, ETC. ARE TO BE MULCHED WITH 4" OF SHREDDED HARDWOOD BARK MULCH.
- ALL DISTURBED AREAS TO REMAIN EXPOSED ARE TO RECEIVE A MINIMUM OF 2" OF TOPSOIL PRIOR TO PERMANENT SEEDING.
- SUBSTITUTIONS TO THE PLANTING PLAN MUST BE APPROVED BY THE LANDSCAPE ARCHITECT AND THE CITY OF PORTLAND.
- THE CONSTRUCTION ACCESS AS SPECIFIED ON THE SITE PLANS INVOLVES RELOCATING SOME EXISTING LANDSCAPING BY THE CONTRACTOR. THESE PLANTINGS ARE TO BE RETURNED TO THEIR CURRENT LOCATIONS AT THE COMPLETION OF THIS PROJECT. MORE DETAILS CAN BE FOUND ON THE DESIGN PLANS AND WITHIN THE PROJECT SPECIFICATIONS.

**GRADING AND DRAINAGE NOTES:**

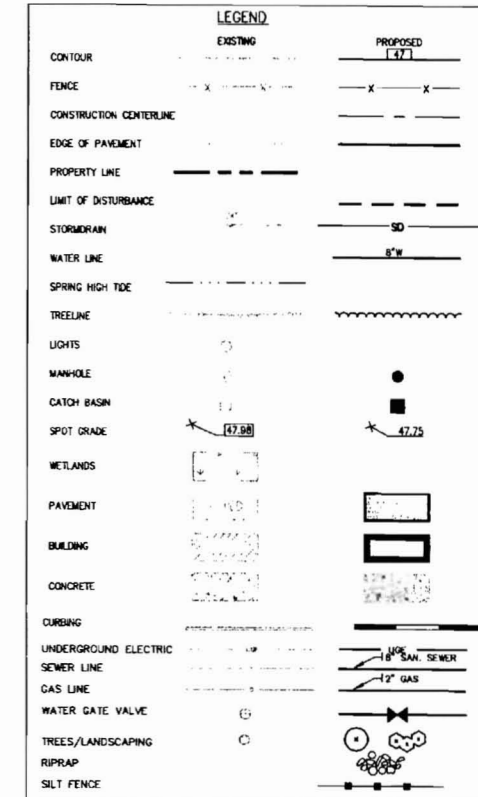
- UNLESS OTHERWISE NOTED, ALL STORM DRAIN PIPE SHALL BE IN ACCORDANCE WITH MOST SPECIFICATIONS SECTION 602 - PIPE CULVERTS AND STORM DRAINS, LATEST REVISION, WITH THE EXCEPTION THAT THE ONLY ACCEPTABLE TYPES OF PIPE ARE AS FOLLOWS:  
CLASS V REINFORCED CONCRETE PIPE (RCP) (18" AND LARGER)  
POLYETHYLENE GLYCOL PIPE (PE) (12" AND 18" ONLY)
- TOPSOIL STRIPPED IN AREAS OF CONSTRUCTION THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED ON SITE AT A LOCATION TO BE DESIGNATED BY THE OWNER. UNSUITABLE SOIL SHALL BE SEPARATED, REMOVED AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION OFF-SITE.
- THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE Dewatering AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR Dewatering. SEE THE REPORT ON SUBSURFACE AND FOUNDATION INVESTIGATION FOR PROPOSED TERMINAL AIRPORT APRON EXPANSION BY SEBAGO TECHNIQS DATED JANUARY 23, 2009 ON THE SUBSURFACE INVESTIGATION REPORT BY ATC ASSOCIATES, INC. DATED OCTOBER 8, 2008.
- THE CONTRACTOR WILL BE REQUIRED TO PROTECT OPEN TRENCHES AND BOX CUTS FROM FILLING WITH RAIN WATER.

**UTILITY NOTES:**

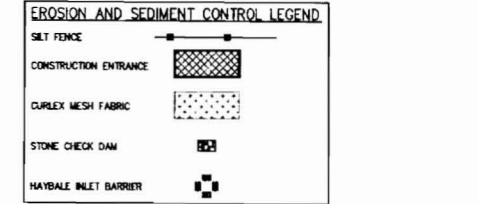
- ALL WATER UTILITY MATERIALS AND INSTALLATION METHODS SHALL CONFORM TO PORTLAND WATER DISTRICT STANDARDS. ALL WATER DISTRIBUTION PIPING SHALL BE CLASS 52 DUCTILE IRON PIPE, DOUBLE CEMENT LINED AND BITUMINOUS COATED CONFORMING TO AWWANS C194/47.4. DISINFECTION OF WATER LINES SHALL CONFORM TO AWWA STANDARD C801, LATEST REVISION.
- THRUST BLOCKS OR LOCKING RETAINER GLANDS SHALL BE PLACED ON THE WATER DISTRIBUTION LINES AT ALL BENDS, TEES, FIRE HYDRANTS, VALVES, CHANGES IN DIRECTION, ETC.. THE THRUST BLOCKS OR LOCKING RETAINER GLANDS SHALL MEET THE REQUIREMENTS OF THE PORTLAND WATER DISTRICT.
- PRIOR TO BEGINNING UTILITY WORK OR DRAINAGE, THE CONTRACTOR SHALL EXCAVATE TEST PITS TO DETERMINE LOCATION AND ELEVATION OF EXISTING UTILITIES. ALL FINDINGS SHALL BE REPORTED TO THE OWNER OR THEIR REPRESENTATIVE PRIOR TO THE START OF FURTHER WORK SO THE ENGINEER MAY REVIEW AND MAKE DESIGN ADJUSTMENTS AS NECESSARY.

**EROSION CONTROL NOTES:**

- LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT RESULTS IN THE LEAST DISTURBANCE TO THE SITE.
- PRIOR TO BEGINNING ANY CLEARING AND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL THE PARAMETER SILT FENCE(S) OR EROSION CONTROL MIX BEHIND AND THE CONSTRUCTION ENTRANCES, AND ALL OTHER EROSION CONTROL MEASURES AS SPECIFIED WITHIN THE PROJECT SPECIFICATIONS AND WITHIN THIS PLAN SET.
- ALL GROUND AREAS GRADED FOR CONSTRUCTION WILL BE GRADED, LOAMED AND SEEDED AS SOON AS POSSIBLE. PERMANENT SEED MIXTURE SHALL CONFORM TO THE BEGGING PLAN CONTAINED IN SPECIFICATIONS PREPARED FOR THIS PROJECT.
- PRIOR TO FINISH OR INSTALLATION OF CONCRETE APRON, THE CONTRACTOR SHALL FILLSH 3" FROM ALL STORM DRAIN LINES AND REMOVE ACCUMULATED SEDIMENT FROM ALL BUMPS AND MANHOLE INVERTS. SALT SHALL NOT BE FLOUSED OR DISPOSED INTO THE ADJACENT WETLANDS OR WATER COURSES.
- SILT FENCES AND/OR SEDIMENT BARRIERS SHALL BE INSPECTED, REPAIRED AND CLEANED ON A REGULAR BASIS AND ALWAYS AFTER A SIGNIFICANT RAIN EVENT.
- THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCES(S) AS IT BECOMES SATURATED WITH SEDIMENT TO ENSURE THAT IT WORKS AS PLANNED DURING CONSTRUCTION. THE CONTRACTOR SHALL SWEEP JETPORT BOULEVARD TO REMOVE ANY SEDIMENT.
- SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO IT FOR LATER USE IN LANDSCAPING OPERATIONS.
- A FULL EROSION CONTROL PLAN DOES NOT ACCOMPANY THIS PLAN SET. HOWEVER ALL PERTINENT INFORMATION REQUIRED TO PROTECT THE SITE FROM EROSION CAN BE FOUND WITHIN THIS PLAN SET.
- THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.
- ALL NON-PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE LOAMED AND SEEDING, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS TO ENSURE THAT ITS ACTIVITIES OR THOSE OF ITS AGENTS DO NOT RESULT IN NOTICEABLE EROSION OF SORTS OR NEGATIVE DUST EMISSIONS ON THE SITE DURING CONSTRUCTION AND OPERATION OF THE PROJECT.

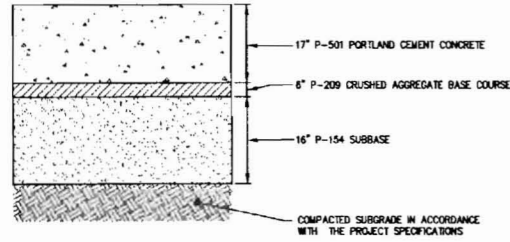


**GEOTECHNICAL INVESTIGATION NOTE:**  
GEOTECHNICAL INVESTIGATIONS BY ATC ASSOCIATES, INC. OF AVON, MA SUMMARIZED IN A REPORT TITLED "PORTLAND JETPORT APRON RECONSTRUCTION" DATED OCTOBER 8, 2008.  
• PLATE LOAD TEST BY ATC  
• BORING BY ATC/ MAINE TEST BORINGS  
• TEST PITS BY ATC  
GEOTECHNICAL INVESTIGATIONS BY SEBAGO TECHNIQS OF WESTBROOK, ME AS SUMMARIZED IN A REPORT TITLED "REPORT ON SUBSURFACE AND FOUNDATION INVESTIGATION PROPOSED TERMINAL AIRCRAFT APRON EXPANSION PORTLAND, MAINE" DATED JANUARY 23, 2009.  
• #1 NUMBER AND APPROXIMATE LOCATION OF BORINGS DRILLED BY MAINE TEST BORINGS, INC. ON OCTOBER 1 AND 2, 2008  
• #2 NUMBER AND APPROXIMATE LOCATION OF TEST PITS EXCAVATED BY R.J. ORNDEN AND SONS ON OCTOBER 8, 2008



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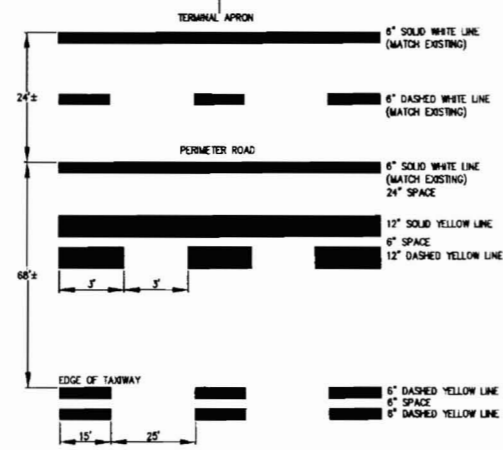
		PROJECT: TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63 SHEET TITLE: <b>GENERAL NOTES AND LEGEND</b>	DelUCA-HOFFMAN ASSOCIATES, INC. 779 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 207.775.1121 WWW.DELUCAHOFFMAN.COM
2 04.27.09 ISSUED FOR BIDDING 1 04.13.09 ISSUED TO FAA AND MOOT FOR REVIEW	P.E. DWIGHT D. ANDERSON LIC. #8275	CLIENT: <b>PORTLAND INTERNATIONAL JETPORT</b> PORTLAND, MAINE	DRAWN: DMB DATE: APRIL 2009 DESIGNED: ASM SCALE: AS SHOWN CHECKED: ODA JOB NO. 2819 FILE NAME: 2819-GEN NOTES SHEET <b>30</b>



**NOTES:**

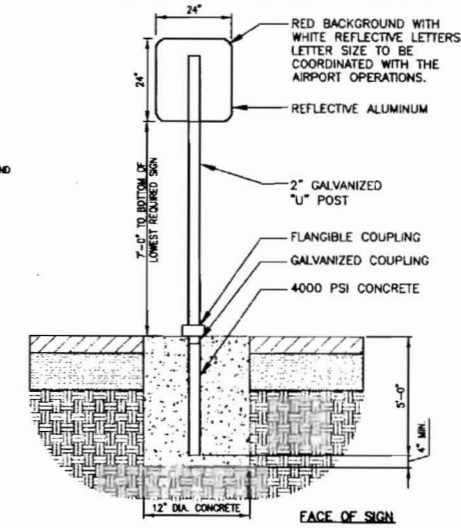
1. ALL MATERIALS SHALL CONFORM TO FAA SPECIFICATIONS, LATEST REVISION. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

**(A) HEAVY DUTY PORTLAND CEMENT CONCRETE APRON SECTION**  
N.T.S.

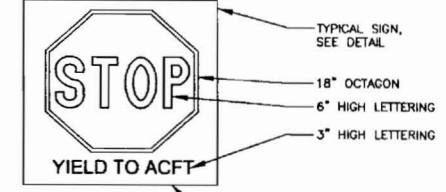


MARKINGS AT MAIN TERMINAL APRON FOR EDGE OF TAXIWAY, MOVEMENT/ NON-MOVEMENT AREA AND PERIMETER ROAD

**(D) PERIMETER ROAD STRIPING**  
N.T.S.

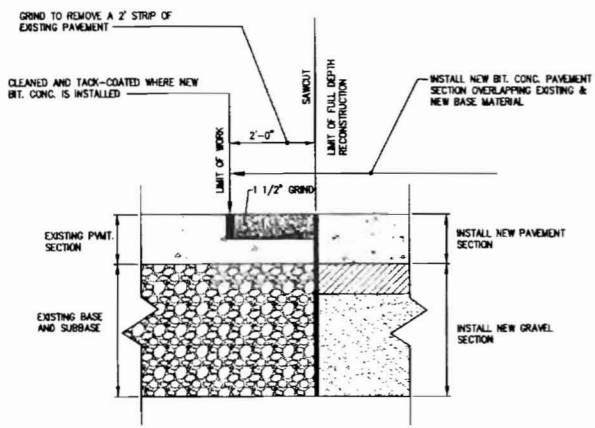


NOTE:  
REFER TO SHEET 2.0 FOR TEXT AND SIZE FOR OTHER SIGNS

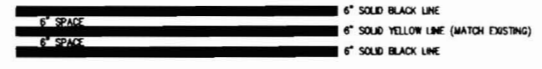


NOTE:  
RED BACKGROUND WITH WHITE REFLECTIVE LINES/ TEXTS

TYPICAL SIGN, SEE DETAIL  
18" OCTAGON  
6" HIGH LETTERING  
3" HIGH LETTERING  
THIS SIGN IS TO BE MOUNTED TO A BARRIER ON THE APRON



**(B) PAVEMENT SAWCUT DETAIL**  
N.T.S.



**(E) LEAD-IN-LINE STRIPING**  
N.T.S.

CONSTRUCTION PERSONNEL AND VEHICLES SHALL NOT PASS BEYOND THE PERIMETER BARRICADES

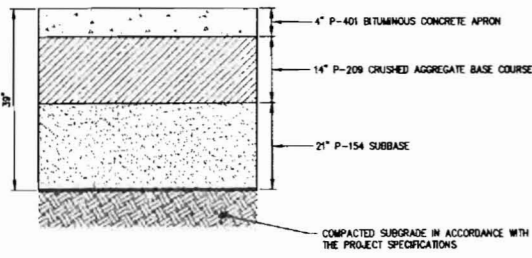
AUTHORIZED VEHICLES ONLY

STOP CHECK IN WITH GATE GUARD

CONSTRUCTION EMPLOYEE PARKING

CONSTRUCTION VEHICLES ENTERING

**(F) TRAFFIC SIGN DETAIL**  
N.T.S.



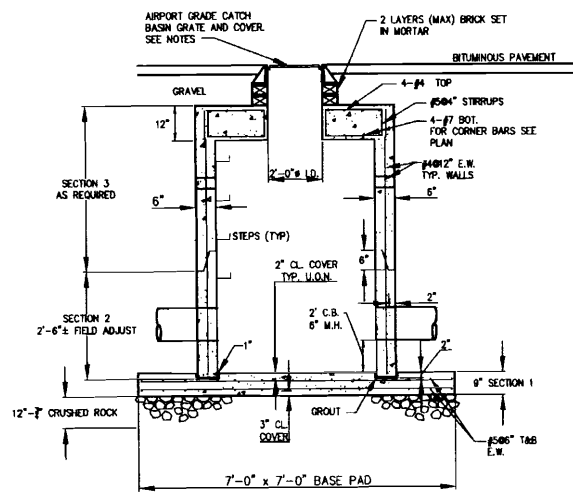
**NOTES:**

1. ALL MATERIALS SHALL CONFORM TO MDOT AND FAA SPECIFICATIONS, LATEST REVISION. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.  
2. THIS SECTION IS TO BE USED TO MATCH THE EXISTING BITUMINOUS APRON INTO THE NEW PCC APRON.

**(C) BITUMINOUS CONCRETE APRON SECTION (CONNECTION TO EXISTING APRON)**  
N.T.S.

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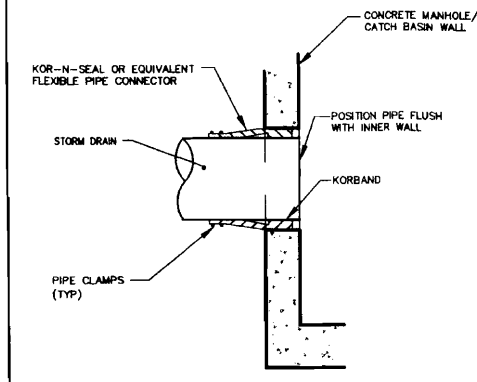
		PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63	
REV. DATE DESCRIPTION REVISIONS 2 04.31.09 ISSUED FOR BIDDING 1 04.13.09 ISSUED TO FAA AND MDOT FOR REVIEW		SHEET TITLE <b>AIRCRAFT APRON PAVEMENT AND STRIPING DETAILS</b>	DRAWN: DMB DATE: APRIL 2009 DESIGNED: ASM SCALE: AS SHOWN CHECKED: DDA JOB NO. 2819 FILE NAME: 2819-DET SHEET: 4.0
		CLIENT <b>PORTLAND INTERNATIONAL JETPORT          PORTLAND, MAINE</b>	DeLUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE B SOUTH PORTLAND, ME 04106 807.791.1121 WWW.DELUCAHOFFMAN.COM



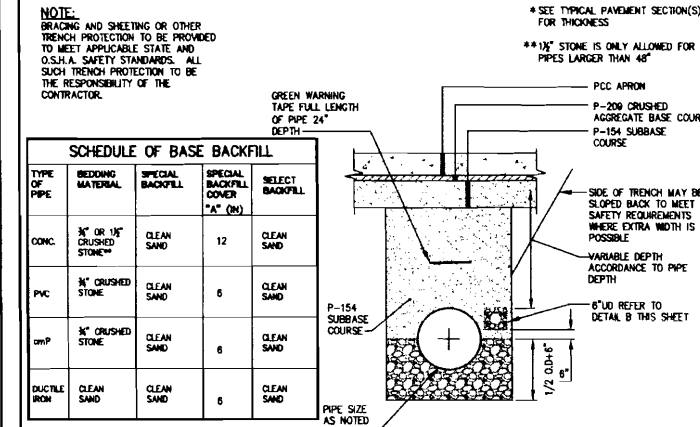
TOP SLAB REINFORCING PLAN

- NOTES:
1. CONCRETE HAS 5000 PSI COMPRESSIVE STRENGTH ( $f'_c$ ) AT 28 DAYS.
  2. REINFORCEMENT CONFORMED TO ASTM A615 GRADE 60.
  3. PRECAST SECTION 2 WAS ADJUSTED FOR OPENINGS AND HEIGHT BASED ON INVERT ELEVATIONS.
  4. PRECAST SECTIONS PROVIDED WITH LIFTING HOLES/PINS.
  5. SHIPLAP JOINTS SEALED WITH BUTYL RUBBER SEALANT.
  6. CASTED IN FLEXIBLE PIPE SLEEVES AT PIPE OPENINGS.
  7. NET ALLOWABLE SOIL BEARING PRESSURE USED FOR DESIGN IS 2000 PSF.
  8. THE MANHOLE GRATE AND FRAME ARE DUCTILE IRON CASTING CONFORMING TO ASTM A536 AND ARE ABLE TO SUPPORT 100,000 LBS WHEEL LOAD. (R-3492 (MH) OR EQUAL)
  9. REMOVABLE BOLTS TO BE PROVIDED TO SECURE COVER TO FRAME.
  10. CASTINGS TO BE GIVEN TWO COATS OF BITUMINOUS PAINT.
  11. MANHOLES TO HAVE CONCRETE INVERT.

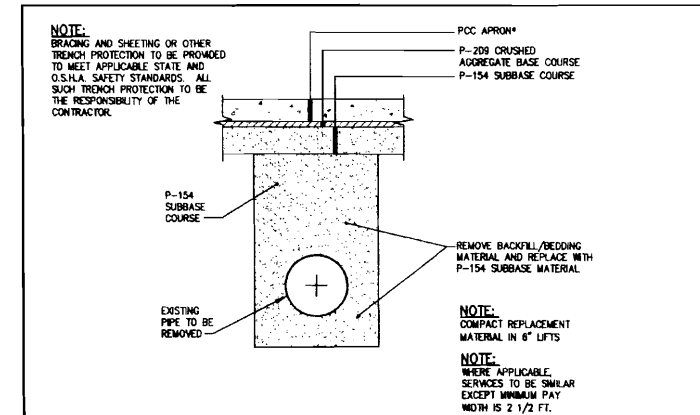
(A) HEAVY DUTY - MANHOLE  
N.T.S.



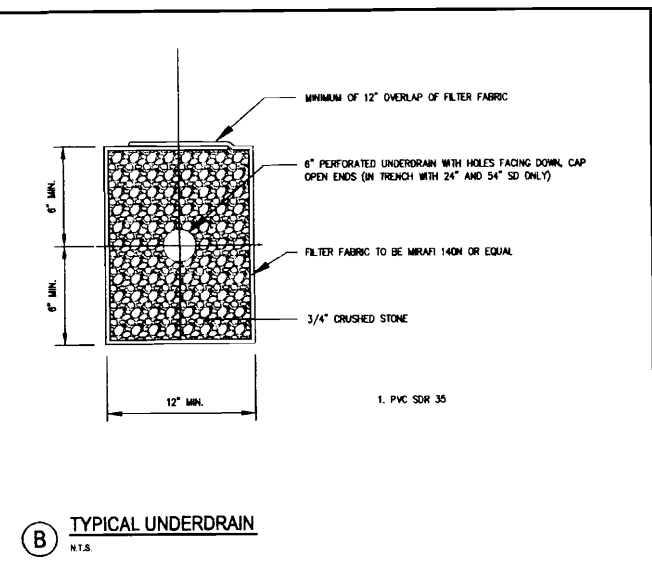
(C) PIPE CONNECTION TO PRECAST CONCRETE STORM DRAINAGE STRUCTURES  
N.T.S.



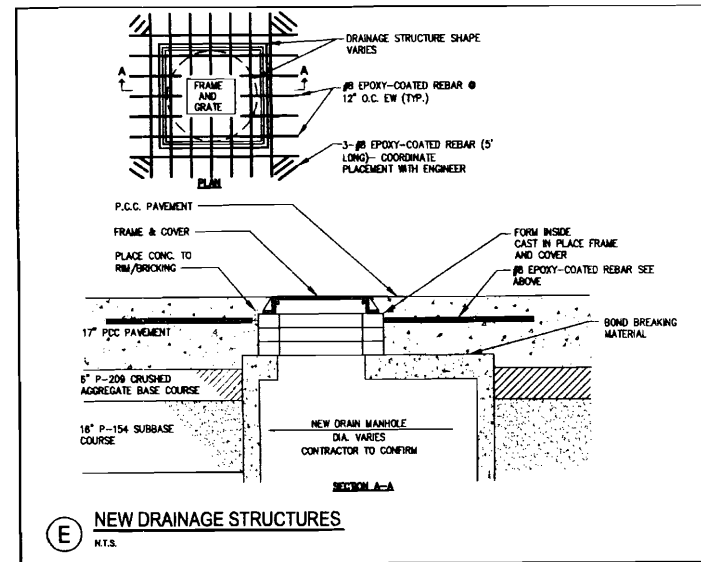
(F) TYPICAL STORM DRAIN TRENCH SECTION  
N.T.S.



(G) TYPICAL PIPE REMOVAL TRENCH SECTION  
N.T.S.



(B) TYPICAL UNDERDRAIN  
N.T.S.

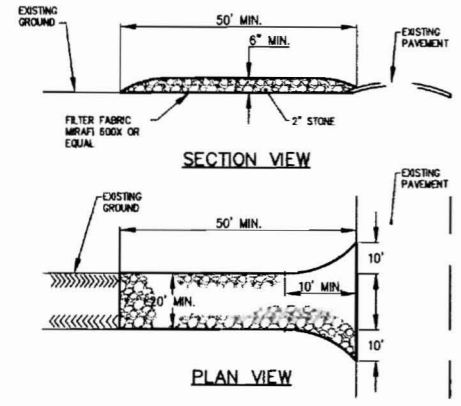


(E) NEW DRAINAGE STRUCTURES  
N.T.S.

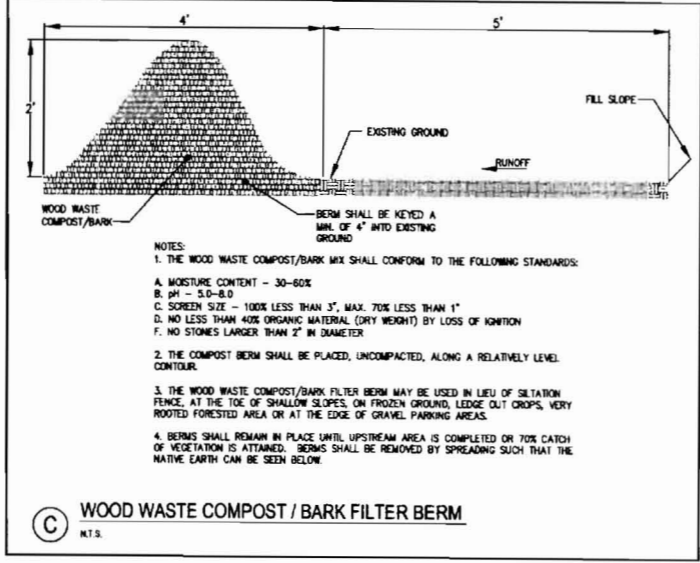
AS PART OF THIS PROJECT THE PORTLAND INTERNATIONAL JETPORT PROHIBITS THE USE OF GRATE LOCKDOWN BOLTS FOR ALL STORMWATER STRUCTURES, INCLUDING DRAIN MANHOLES, CATCH BASINS, TRENCH DRAINS, PUMP STATIONS, VALVE PITS OR ANY OTHER ASSOCIATED STRUCTURES AS SHOWN ON THE DESIGN PLANS. ANY LOCKDOWN HARDWARE SHALL BE PROVIDED TO THE JETPORT FACILITIES PERSONNEL.

G:\215\DWG\BID SET 04-24-2009\215-DET.dwg, S.O. DRAINAGE, 4/24/2009 10:17:44 AM, Jordan

		PROJECT: TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63 SHEET TITLE: DRAINAGE DETAILS	DelUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE B SOUTH PORTLAND, ME 04106 207.775.1121 WWW.DELUCAHOFFMAN.COM
2 04.27.09 ISSUED FOR BIDDING 1 04.13.09 ISSUED TO FAA AND MDT FOR REVIEW REV. DATE DESCRIPTION REVISIONS	P.E. DWIGHT D. ANDERSON LIC. #2275	CLIENT: PORTLAND INTERNATIONAL JETPORT PORTLAND, MAINE	DRAWN: DMB DATE: APRIL 2009 DESIGNED: ASM SCALE: AS SHOWN CHECKED: DDA JOB NO. 2819 FILE NAME: 2819-DET SHEET 5.0

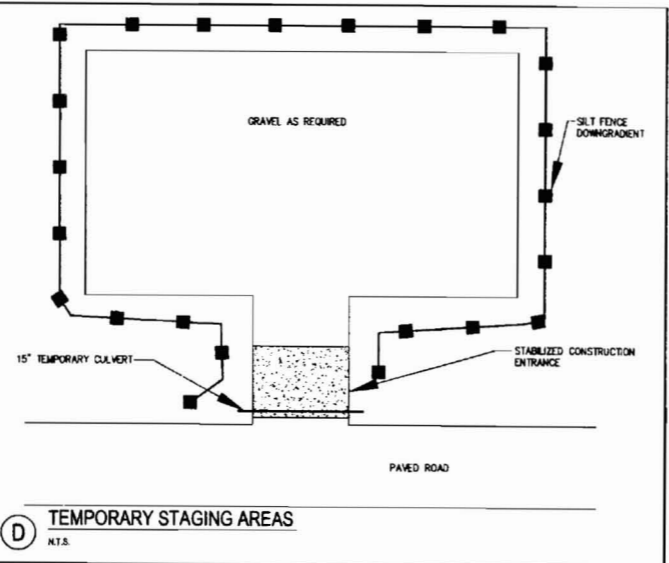


**(A) STABILIZED CONSTRUCTION ENTRANCE**  
N.T.S.

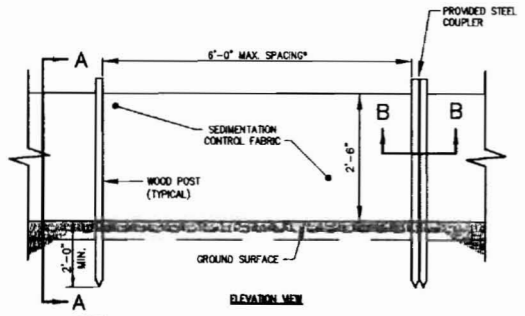


**(C) WOOD WASTE COMPOST / BARK FILTER BERM**  
N.T.S.

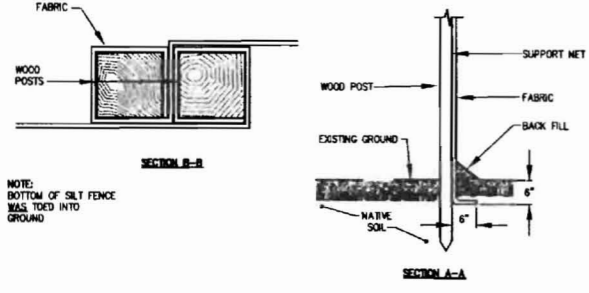
- NOTES:
1. THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:
    - A. MOISTURE CONTENT - 30-60%
    - B. pH - 5.0-8.0
    - C. SCREEN SIZE - 100% LESS THAN 3", MAX. 70% LESS THAN 1"
    - D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION
    - F. NO STONES LARGER THAN 2" IN DIAMETER
  2. THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.
  3. THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
  4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 70% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT THE NATIVE EARTH CAN BE SEEN BELOW.



**(D) TEMPORARY STAGING AREAS**  
N.T.S.



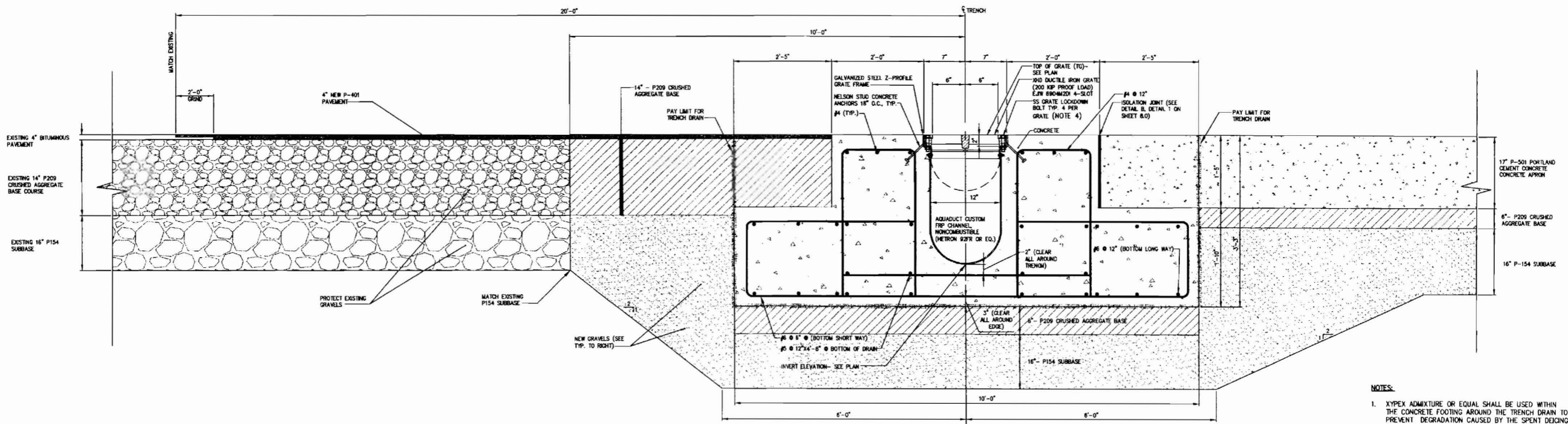
NOTE:  
THE SILT FENCE DO NOT HAVE A MINIMUM STAGING OF 6' UNLESS THE FENCE WAS SUPPORTED BY WIRE FENCE REINFORCEMENT A MINIMUM 14 GAUGE AND WITH A MINIMUM MESH SPACING OF 6".



**(B) SILTATION FENCE DETAIL**  
N.T.S.

G:\21819\DWG\BID SET 04-24-2009\2819-DET.dwg, 8.0 EROSION CONTROL & STAGING, 4/23/2009 4:08:08 PM, Jordan

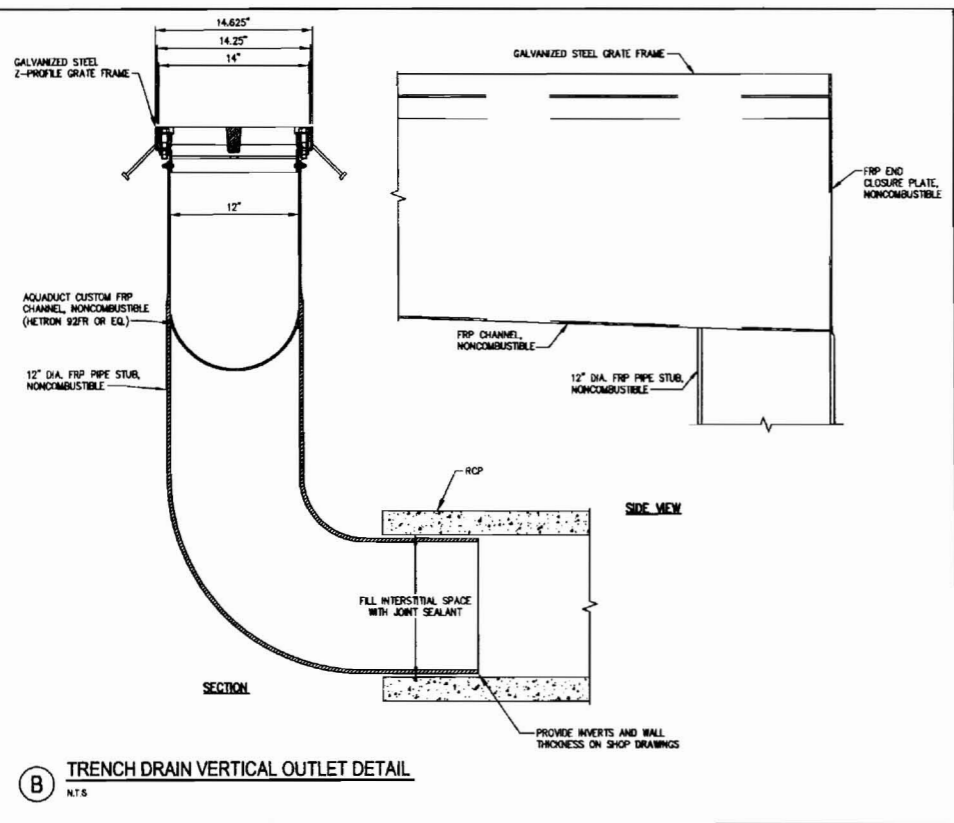
			PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63	DELUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 207.776.1121 WWW.DELUCAHOFFMAN.COM
SHEET TITLE <b>EROSION CONTROL AND          STAGING AREA DETAILS</b>			DRAWN: DMB DATE: APRIL 2009 DESIGNED: ASM SCALE: AS SHOWN CHECKED: DDA JOB NO. 2819 FILE NAME: 2819-DET SHEET <b>6.0</b>	
CLIENT <b>PORTLAND INTERNATIONAL JETPORT          PORTLAND, MAINE</b>				
2 04.27.09 ISSUED FOR BIDDING 1 04.13.09 ISSUED TO FAA AND MOOT FOR REVIEW	REV DATE DESCRIPTION	REVISIONS		



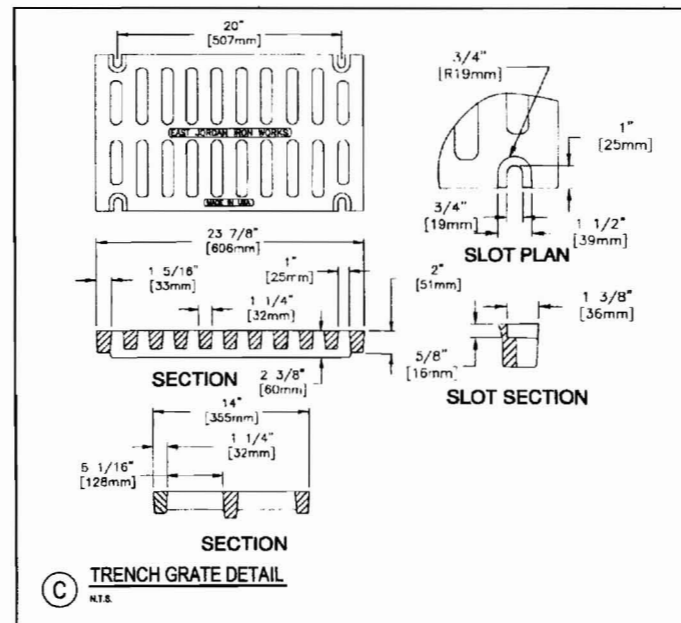
**(A) TRENCH DRAIN SECTION**  
N.T.S.

**NOTES:**

1. TYPEX ADMIXTURE OR EQUAL SHALL BE USED WITHIN THE CONCRETE FOOTING AROUND THE TRENCH DRAIN TO PREVENT DEGRADATION CAUSED BY THE SPENT DEICING FLUID PER THE PROJECT SPECIFICATIONS.
2. 4,000 PSI CONCRETE (MINIMUM)
3. PROVIDE BOND OUT FOR CAP TO ALLOW CLEARANCE FOR INSTALLATION OF LOCK DOWN BOLT.
4. BOLTS ARE NOT TO BE INSTALLED, BUT ARE TO BE FURNISHED AND PROVIDED TO THE JETPORT FACILITIES PERSONNEL.



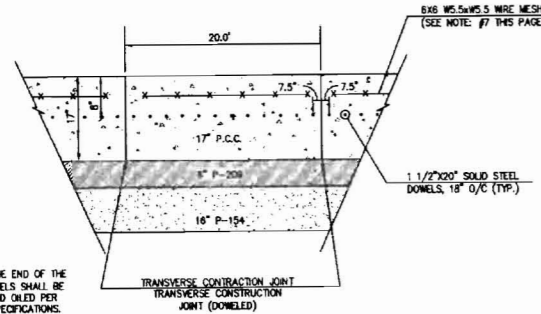
**(B) TRENCH DRAIN VERTICAL OUTLET DETAIL**  
N.T.S.



**(C) TRENCH GRATE DETAIL**  
N.T.S.

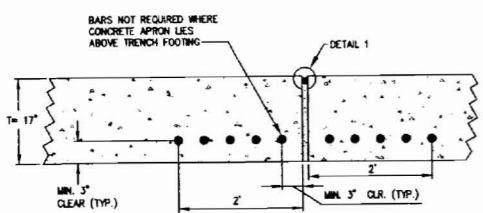
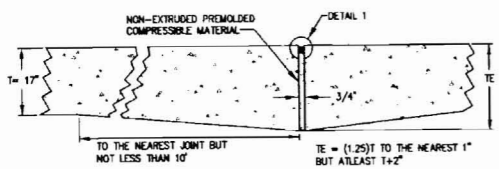
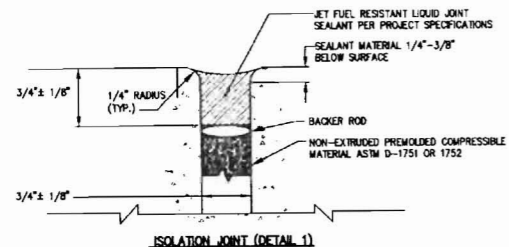
AS PART OF THIS PROJECT THE PORTLAND INTERNATIONAL JETPORT PROHIBITS THE USE OF GRATE LOCKDOWN BOLTS FOR ALL STORMWATER STRUCTURES, INCLUDING DRAIN MANHOLES, CATCH BASINS, TRENCH DRAINS, PUMP STATIONS, VALVE PITS OR ANY OTHER ASSOCIATED STRUCTURES AS SHOWN ON THE DESIGN PLANS. ANY LOCKDOWN HARDWARE SHALL BE PROVIDED TO THE JETPORT FACILITIES PERSONNEL.

PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63			DeLUCA-HOFFMAN ASSOCIATES, INC. 775 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 202.751.1101 WWW.DELUCAHOFFMAN.COM
SHEET TITLE <b>TRENCH DRAIN DETAILS</b>			
CLIENT <b>PORTLAND INTERNATIONAL JETPORT          PORTLAND, MAINE</b>		DRAWN: DMB DESIGNED: ASM CHECKED: DDA FILE NAME: 2819-DET-FAA	DATE: APRIL 2009 SCALE: AS SHOWN JOB NO: 2819
REVISIONS		P.E. DWIGHT D. ANDERSON LIC. #9275	SHEET <b>7.0</b>

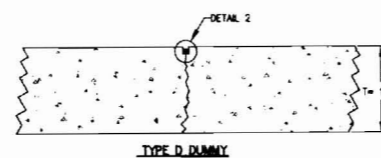
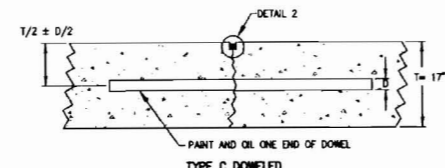
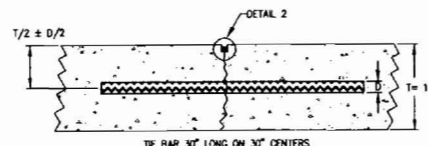
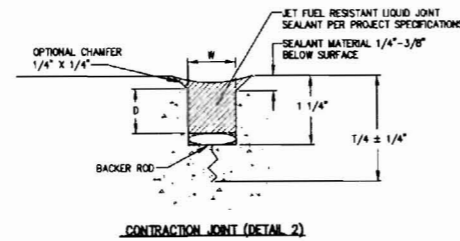


NOTE:  
AT LEAST ONE END OF THE 1 1/2\"/>

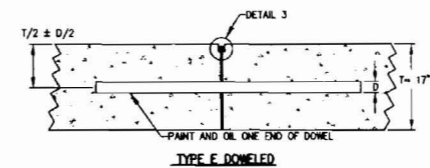
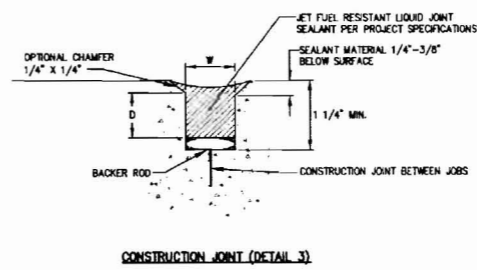
**A** LONGITUDINAL AND TRANSVERSE DOWELED JOINT DETAIL IN HEAVY DUTY PCC PAVEMENT  
N.T.S.



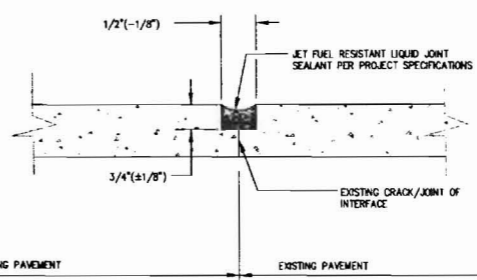
**B** HEAVY DUTY PORTLAND CEMENT CONCRETE PAVEMENT ISOLATION JOINT DETAILS  
N.T.S.



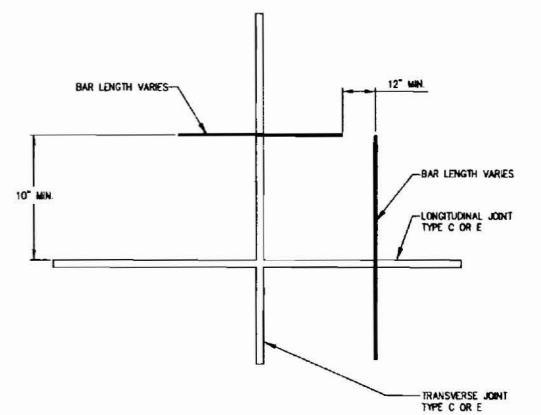
**C** HEAVY DUTY PORTLAND CEMENT CONCRETE PAVEMENT TRANSVERSE CONTRACTION JOINT DETAILS  
N.T.S.



**D** HEAVY DUTY PORTLAND CEMENT CONCRETE PAVEMENT CONSTRUCTION JOINT DETAILS  
N.T.S.



**E** BITUMINOUS SAWCUT CONTROL JOINT DETAIL  
N.T.S.

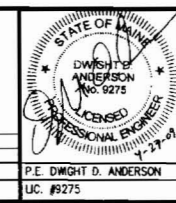


**F** POSITION OF DOWELS AT EDGE OF JOINT (TYPE C & E)  
N.T.S.

- JOINTING NOTES:**
- SEALANT RESERVOIR SIZED TO PROVIDE PROPER SHAPE FACTOR, W/D. FIELD POURED AND PERFORMED SEALANTS REQUIRE DIFFERENT SHAPE FACTORS FOR OPTIMUM PERFORMANCE.
  - BACKER ROD MATERIAL MUST BE COMPATIBLE WITH THE TYPE OF SEALANT USED AND SIZED TO PROVIDE THE DESIRED SHAPE FACTOR.
  - RECESS SEALER 3/8 INCHES TO 1/2 INCHES FOR JOINTS PERPENDICULAR TO RUNWAY GROOVES.
  - CHAMFERED EDGES ARE RECOMMENDED FOR DETAILS 2 AND 3 WHEN PAVEMENTS ARE SUBJECT TO SNOW REMOVAL EQUIPMENT OR HIGH TRAFFIC VOLUMES.
  - AN ISOLATION JOINT SHALL BE INSTALLED AROUND ALL STRUCTURES WITHIN THE CONCRETE APRON.
  - GROOVES CONSISTING OF DETAILS 1 THROUGH 3 ON THIS PAGE MUST BE FORMED BY SAWCUTTING CONCRETE APRON PER PROJECT SPECIFICATIONS. ALL SAWCUTTING SHALL BE COMPLETED WITHIN 4 HOURS OF PROPER CURING OF CONCRETE. A LACK OF MEETING THIS REQUIREMENT COULD RESULT IN LATERAL CRACKING OF THE CONCRETE PADS IN UNACCEPTABLE LOCATIONS, THUS REQUIRING THE CONTRACTOR TO REMOVE AND RECONSTRUCT THE PAD AT THE CONTRACTOR'S EXPENSE.
  - REINFORCING STEEL SHALL BE USED IN ODD-SHAPED SLABS AND WHERE LENGTH TO WIDTH RATIO EXCEEDS 1.25 TO 1
  - REFER TO AIRCRAFT APRON JOINTING PLAN (SHEET 11.0) OF THIS PLAN SET FOR LOCATIONS OF WHERE THESE SPECIFIC JOINTS ARE UTILIZED FOR THIS PROJECT.

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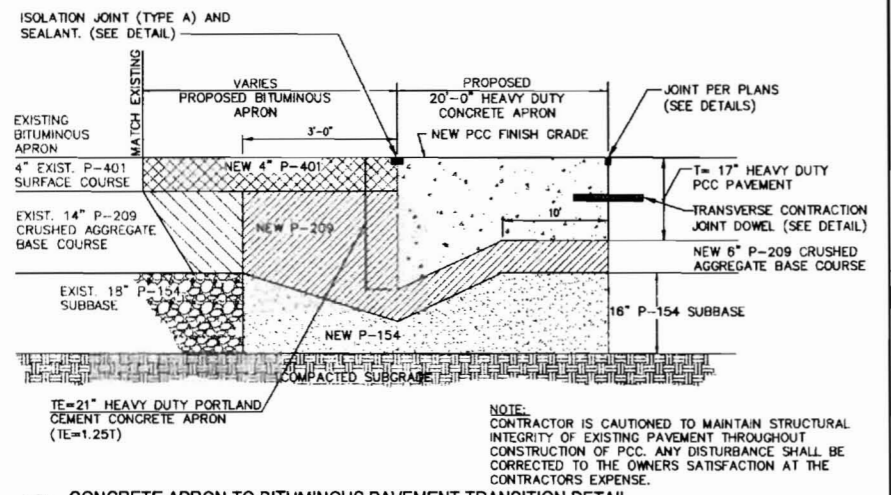
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1	04.13.09	ISSUED TO FAA AND MDOT FOR REVIEW



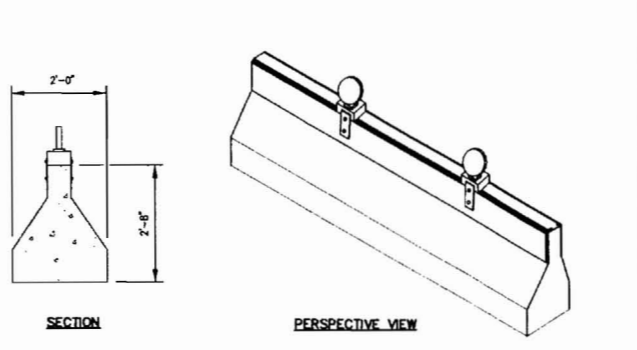
PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT  
AIP-3-23-0038-63  
SHEET TITLE  
AIRCRAFT APRON DETAILS-SHEET 1 OF 2  
CLIENT  
PORTLAND INTERNATIONAL JETPORT  
PORTLAND, MAINE

**DH** DeLUCA-HOFFMAN ASSOCIATES, INC.  
778 MAIN STREET, SUITE 8  
SOUTH PORTLAND, ME 04106  
207.778.1377  
WWW.DELUCAHOFFMAN.COM  
DRAWN: DMB DATE: APRIL 2009  
DESIGNED: ASM SCALE: AS SHOWN  
CHECKED: DCA JOB NO: 2819  
FILE NAME: 2819-DET-FAA  
SHEET 8.0

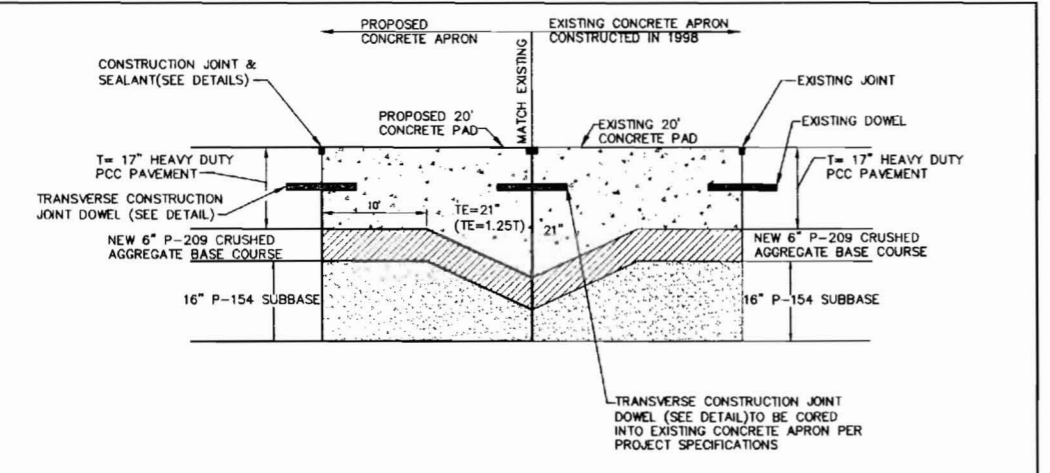




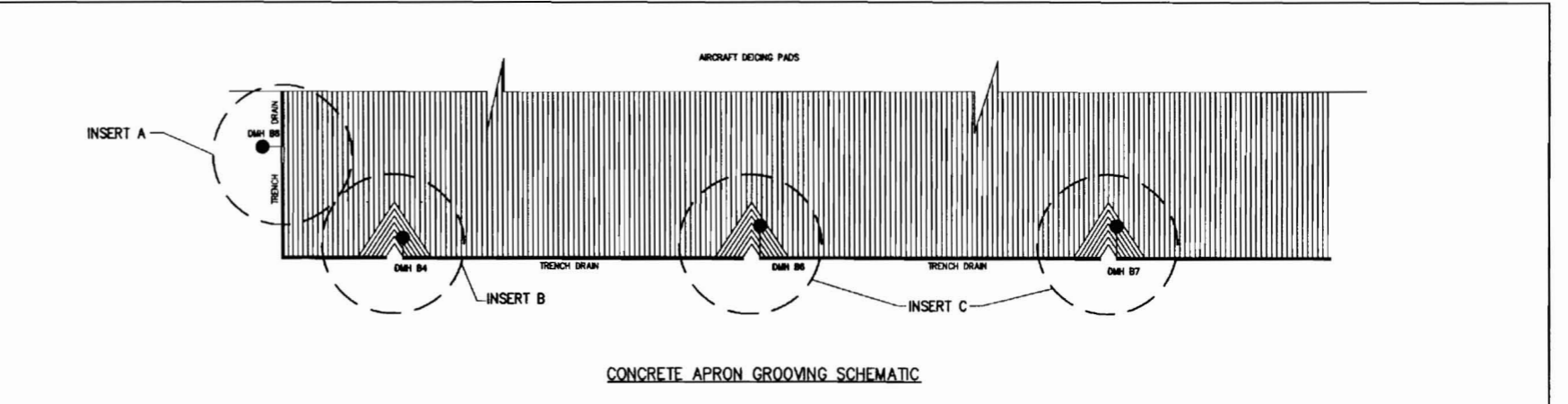
**(A) CONCRETE APRON TO BITUMINOUS PAVEMENT TRANSITION DETAIL**  
N.T.S.



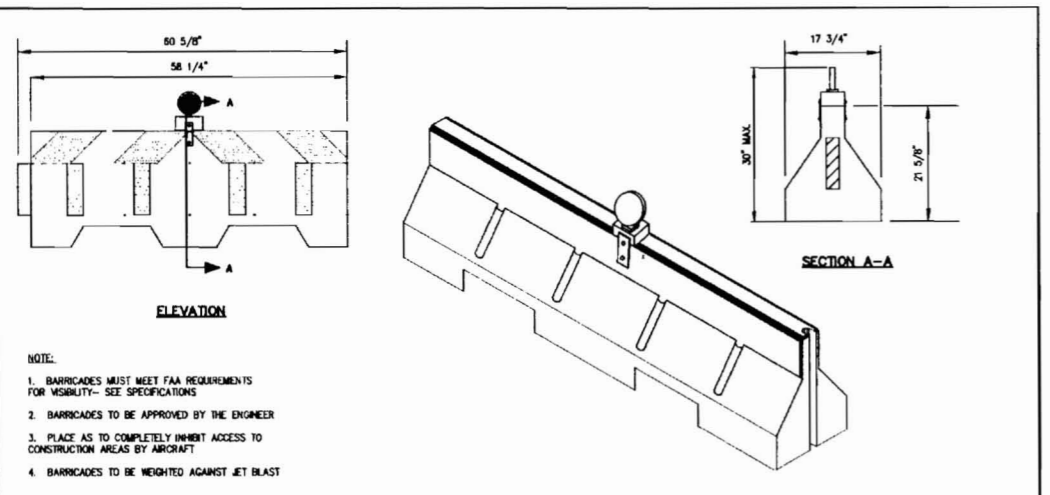
**(D) CONCRETE JERSEY BARRIER**  
N.T.S.



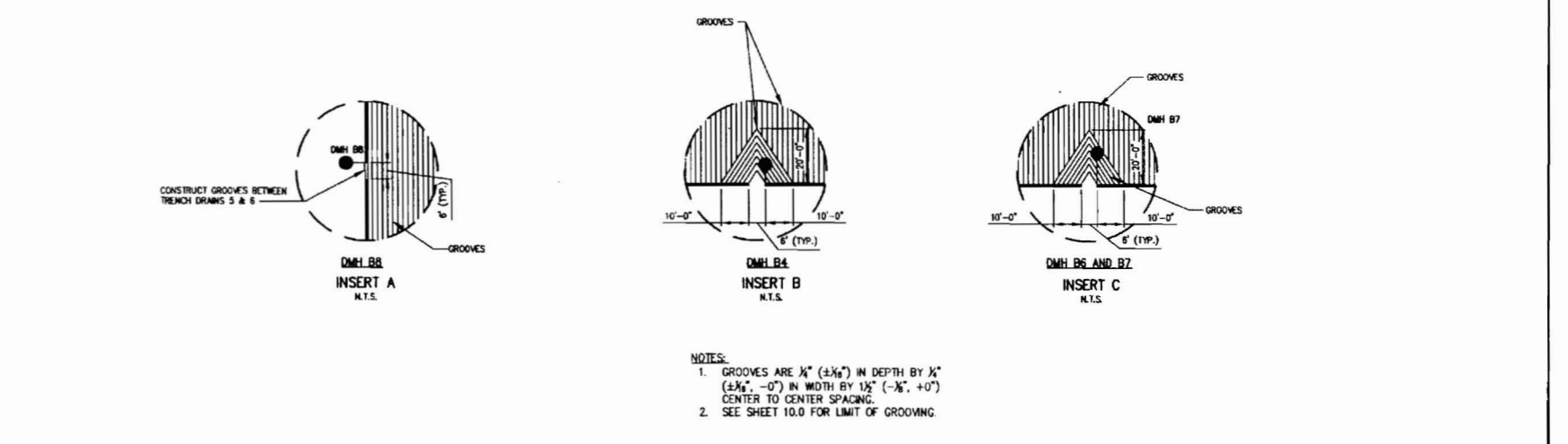
**(B) MODIFIED CONSTRUCTION JOINT CONNECTION DETAIL BETWEEN EXISTING AND PROPOSED CONCRETE APRONS**  
N.T.S.



**(E) CONCRETE APRON GROOVING DETAIL**  
N.T.S.



**(C) PLASTIC PORTABLE BARRIERS**  
N.T.S.



**(E) CONCRETE APRON GROOVING DETAIL**  
N.T.S.

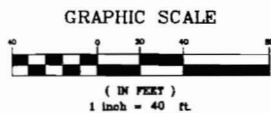
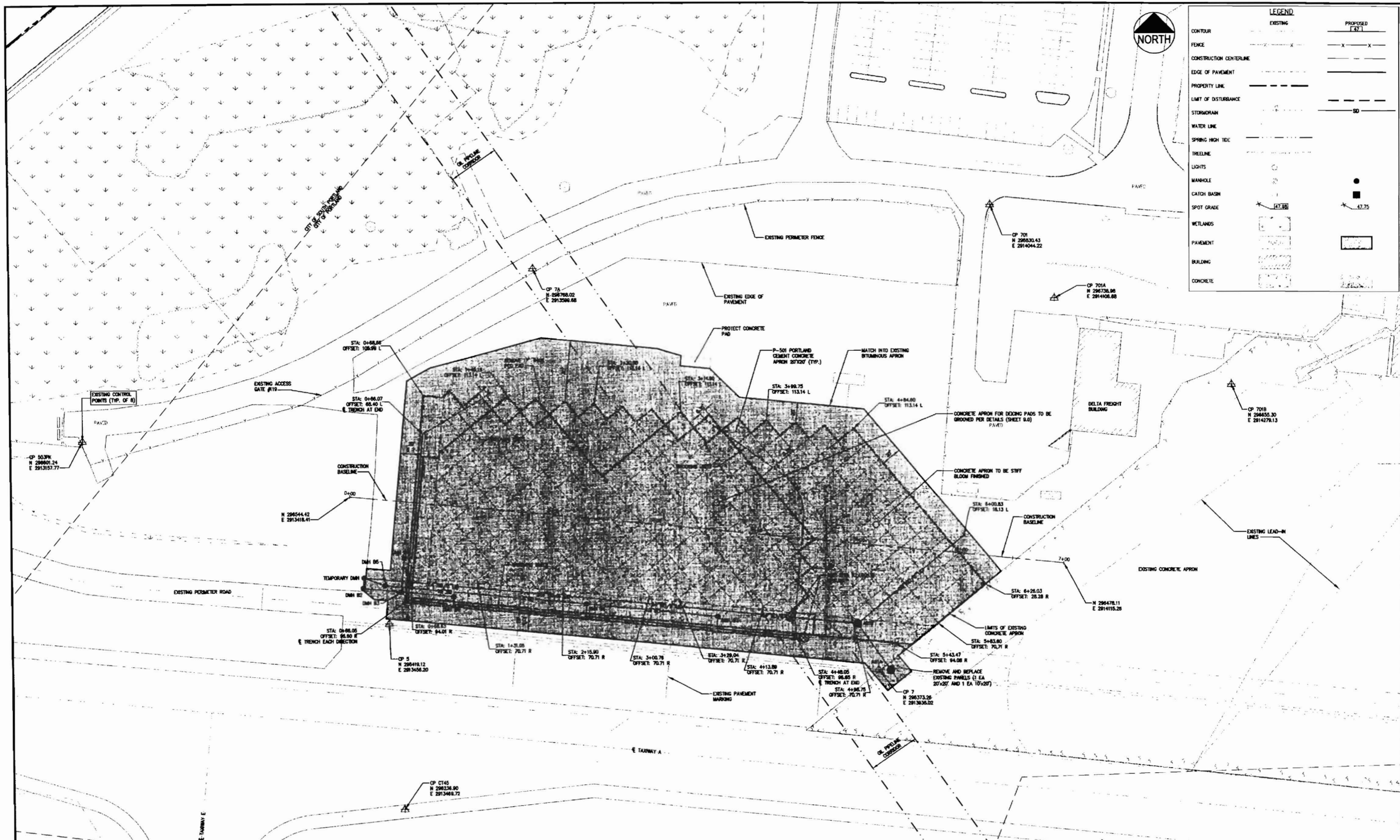
NOTE: REINFORCING STEEL SHALL BE USED IN ODD-SHAPED SLABS AND WHERE LENGTH TO WIDTH RATIO EXCEEDS 1.25 TO 1

		PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63 SHEET TITLE <b>AIRCRAFT APRON DETAILS - SHEET 2 OF 2</b>										
CLIENT <b>PORTLAND INTERNATIONAL JETPORT          PORTLAND, MAINE</b>	DRAWN: DMB DATE: APRIL 2009 DESIGNED: ASM SCALE: AS SHOWN CHECKED: DDA JOB NO. 2819 FILE NAME: 2819-DET-FAA SHEET 9.0											
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REV	DATE	DESCRIPTION										
2	04.27.09	ISSUED FOR BIDDING										
1	04.13.09	ISSUED TO FAA AND MDT FOR REVIEW										

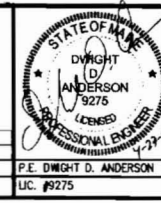
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	EXISTING	PROPOSED
CONTOUR		
FENCE		
CONSTRUCTION CENTERLINE		
EDGE OF PAVEMENT		
PROPERTY LINE		
LIMIT OF DISTURBANCE		
STORMDRAIN		
WATER LINE		
SPRING HIGH TIDE		
TREELINE		
LIGHTS		
MANHOLE		
CATCH BASIN		
SPOT GRADE		
WETLANDS		
PAVEMENT		
BUILDING		
CONCRETE		



REV	DATE	DESCRIPTION
2	04.27.09	ISSUED FOR BIDDING
1	04.13.09	ISSUED TO FAA AND MOOT FOR REVIEW



PROJECT	TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63
SHEET TITLE	AIRCRAFT APRON LAYOUT PLAN
CLIENT	PORTLAND INTERNATIONAL JETPORT PORTLAND, MAINE

DeLUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE 6 SOUTH PORTLAND, ME 04106 207.751.1101 WWW.DELUCAHOFFMAN.COM	DRAWN: LECJ DATE: MARCH 2009 DESIGNED: DDA SCALE: 1"=40' CHECKED: DDA JOB NO. 2819 FILE NAME: 2809-PROPOSED SHEET: 10.0
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EXISTING BITUMINOUS ACCESS ROAD

EXISTING BITUMINOUS APRON

FLEXIBLE BITUMINOUS PAVEMENT APRON (MATCH EXISTING) (SEE SECTION ON SHEET 4.0, DETAIL C)  
HEAVY DUTY PORTLAND CEMENT CONCRETE APRON (SEE SECTION ON SHEET 4.0, DETAIL A)

TRENCH DRAIN (SEE SHEETS 7.0 AND 14.0)  
TRENCH DRAIN CONCRETE FOUNDATION (SEE SHEET 7.0)

SPICE STORAGE PADS (SEE SHEET 7.0 AND 14.0)

PERIMETER ROAD

EXISTING CONCRETE APRON

STORMWATER IMPROVEMENTS (SEE SHEETS 5.0, 14.0 AND 14.1)

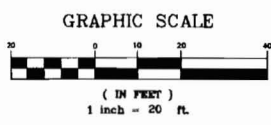
TAXIWAY A

- NOTES:
1. REINFORCED STEEL SHALL BE USED IN ODD-SHAPED (PARTIAL) SLABS AND WHERE LENGTH TO WIDTH RATIO EXCEEDS 1.25 TO 1.
  2. AN ISOLATION JOINT (TYPE A) SHALL BE INSTALLED AROUND ALL STRUCTURES WITHIN THE CONCRETE APRON.
  3. ALL CONCRETE WITHIN THE NEW APRON IS TO BE BROOM FINISHED. (SEE PROJECT SPECIFICATIONS FOR MORE INFORMATION AND SHEET 10.0 OF THIS PLAN SET).
  4. ALL CONCRETE WITHIN THE DEICING PADS IS TO BE GROOVED. (SEE PROJECT SPECIFICATIONS FOR MORE INFORMATION AND SHEET 10.0 OF THIS PLAN SET).

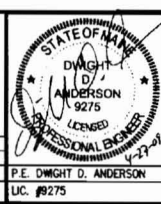
LEGEND

ISOLATION JOINT (TYPE A)*	-----	B	DETAIL (SHEET 8.0)
ISOLATION JOINT (TYPE A-1)	-----	B	
CONSTRUCTION JOINT (TYPE C)	-----	C	
CONSTRUCTION JOINT (TYPE E)	-----	D	
MODIFIED CONSTRUCTION JOINT	-----	B	(SHEET 9.0)

\*ISOLATION JOINT (TYPE A) TO BE INSTALLED AROUND ALL STRUCTURES WITHIN CONCRETE APRON



REV	DATE	DESCRIPTION
2	04.27.09	ISSUED FOR BIDDING
1	04.13.09	ISSUED TO FAA AND MDOT FOR REVIEW



PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63

SHEET TITLE  
**AIRCRAFT APRON JOINTING PLAN**

CLIENT  
**PORTLAND INTERNATIONAL JETPORT  
PORTLAND, MAINE**

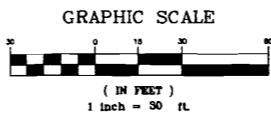
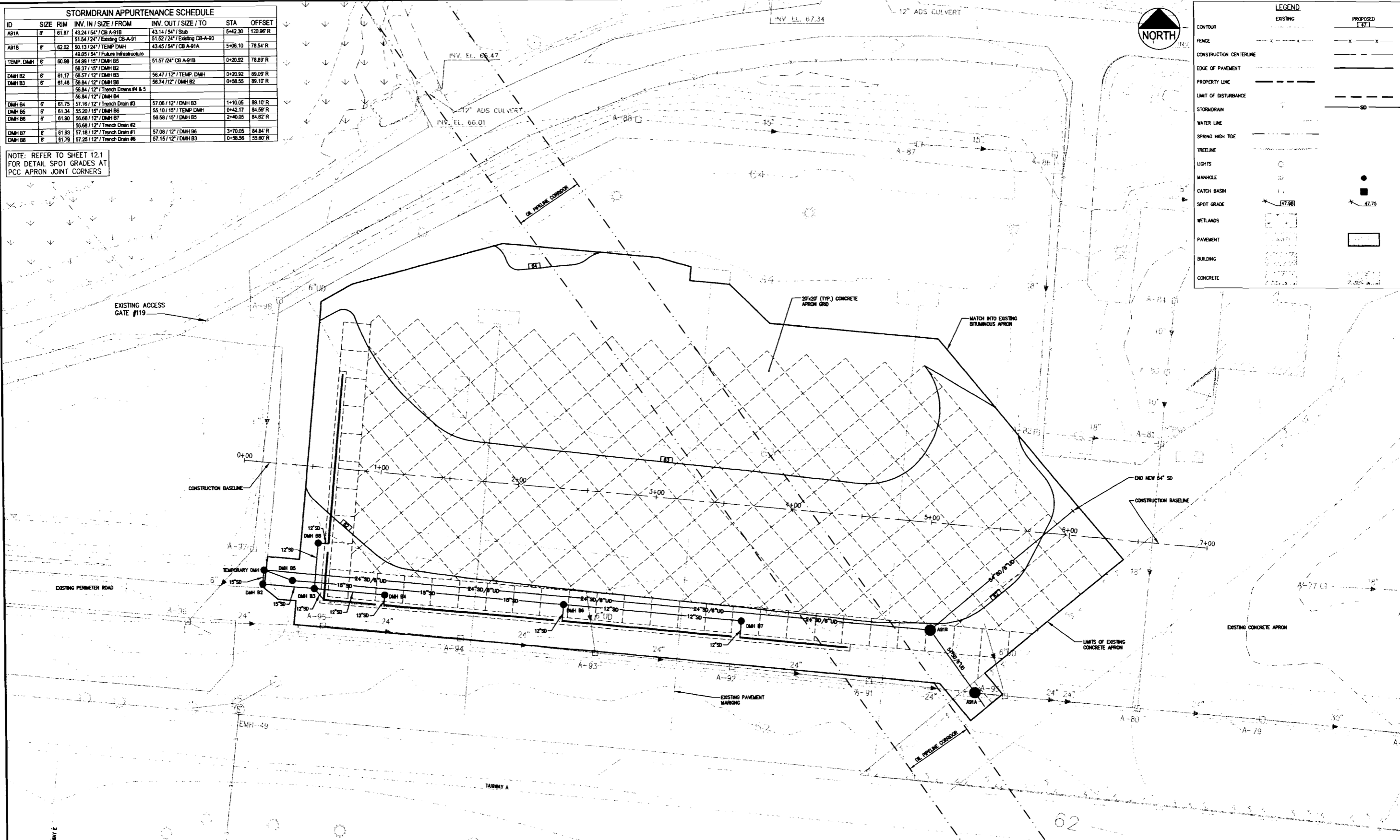
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CHECKED: DDA	JOB NO. 2819
FILE NAME: 2819-PROPOSED	
DRAWN: LECJ	DATE: MARCH 2009
SHEET 11.0	

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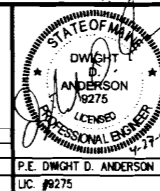
ID	SIZE	RJM	INV. IN / SIZE / FROM	INV. OUT / SIZE / TO	STA	OFFSET
A91A	8"	61.87	43.24 / 54" / CB A-91B	43.14 / 54" / Stub	5+42.30	120.96' R
A91B	8"	62.02	51.54 / 24" / Existing CB A-91	51.52 / 24" / Existing CB A-91A	5+06.10	78.54' R
TEMP. DMH	6"	60.98	49.05 / 54" / Future Infrastructure	51.57 / 24" / CB A-91B	0+20.92	78.89' R
DMH B2	6"	61.17	56.37 / 12" / DMH B3	56.47 / 12" / TEMP. DMH	0+20.92	89.09' R
DMH B3	6"	61.48	56.84 / 12" / DMH B6	56.74 / 12" / DMH B2	0+58.55	86.10' R
DMH B4	6"	61.75	57.16 / 12" / Trench Drain #3	57.06 / 12" / DMH B3	1+10.05	88.10' R
DMH B5	6"	61.34	55.20 / 16" / DMH B6	55.10 / 15" / TEMP. DMH	0+42.17	84.59' R
DMH B6	6"	61.80	56.68 / 12" / DMH B7	56.58 / 15" / DMH B5	2+40.05	84.82' R
DMH B7	6"	61.93	57.18 / 12" / Trench Drain #1	57.08 / 12" / DMH B6	3+70.05	84.84' R
DMH B8	6"	61.78	57.25 / 12" / Trench Drain #6	57.15 / 12" / DMH B3	0+58.56	55.80' R

NOTE: REFER TO SHEET 12.1 FOR DETAIL SPOT GRADES AT PCC APRON JOINT CORNERS

LEGEND	
EXISTING	PROPOSED
CONTOUR	[Symbol]
FENCE	[Symbol]
CONSTRUCTION CENTERLINE	[Symbol]
EDGE OF PAVEMENT	[Symbol]
PROPERTY LINE	[Symbol]
LIMIT OF DISTURBANCE	[Symbol]
STORMDRAIN	[Symbol]
WATER LINE	[Symbol]
SPRING HIGH TIDE	[Symbol]
TREELINE	[Symbol]
LIGHTS	[Symbol]
MANHOLE	[Symbol]
CATCH BASIN	[Symbol]
SPOT GRADE	[Symbol]
WETLANDS	[Symbol]
PAVEMENT	[Symbol]
BUILDING	[Symbol]
CONCRETE	[Symbol]



REV	DATE	DESCRIPTION
2	04.27.09	ISSUED FOR BIDDING
1	04.13.09	ISSUED TO FAA AND MOOT FOR REVIEW



PROJECT: TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT  
AIP-3-23-0038-63  
SHEET TITLE: AIRCRAFT APRON GRADING AND DRAINAGE PLAN  
CLIENT: PORTLAND INTERNATIONAL JETPORT, PORTLAND, MAINE

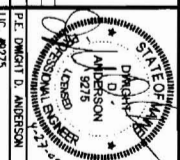
DeLUCA-HOFFMAN ASSOCIATES, INC.  
778 MAIN STREET, SUITE 8  
SOUTH PORTLAND, ME 04106  
207.781.1100  
WWW.DELUCAHOFFMAN.COM  
DRAWN: LECJ DATE: MARCH 2009  
DESIGNED: DDA SCALE: 1"=30'  
CHECKED: DDA JOB NO. 2819  
FILE NAME: 2809-PROPOSED  
SHEET: 12.0

G:\2019\DWG\BID SET 04-24-2009\2019-PROPOSED.dwg, 12.0 PLOT GRADE, 4/24/2009 11:47:32 AM, Jordan

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW SPOT GRADES AT THE CORNERS OF EACH PANEL OF THE PDC AIRCRAFT APRON. OTHER INFORMATION ON THIS SHEET HAS BEEN PLACED BACK TO MORE CLEARLY PRESENT THE PROPOSED SPOT GRADES.

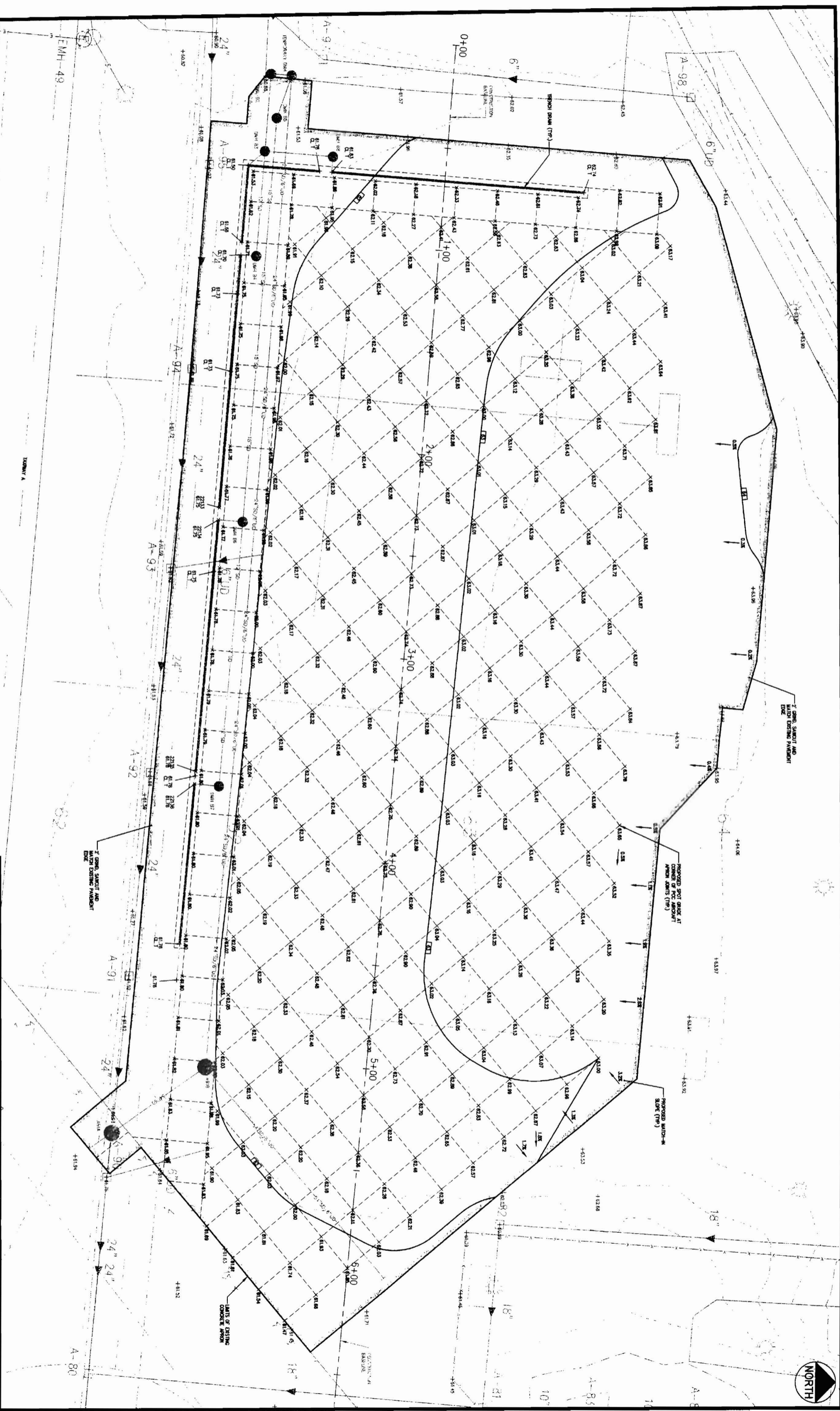


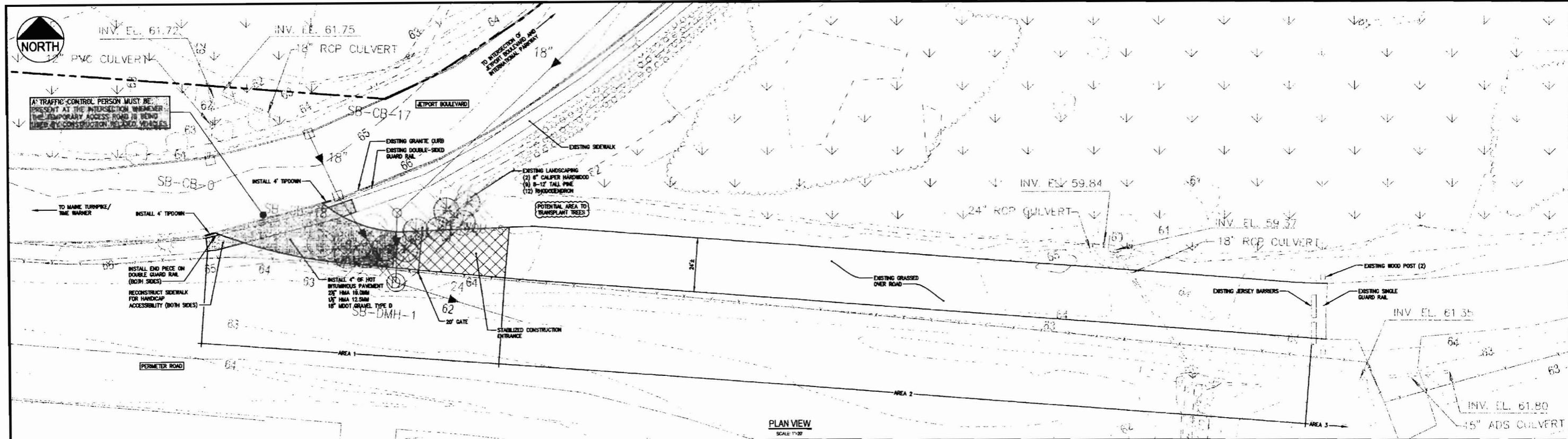
REV	DATE	DESCRIPTION	REVISIONS
2	04/27/09	ISSUED FOR BIDDING	
1	04/10/09	ISSUED TO L&M AND M&T FOR REVIEW	



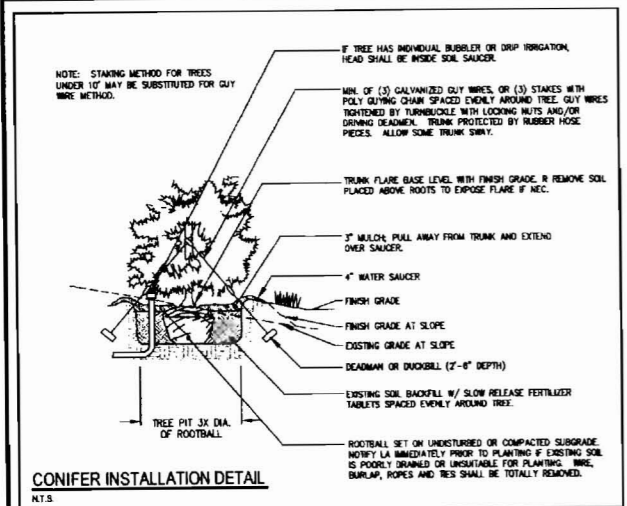
PROJECT: TERMINAL APRON PHASE 1 LAND  
 DESIGN: CAPTURE PROJECT  
 AIRCRAFT APRON SPOT GRADE PLAN  
 CLIENT: PORTLAND INTERNATIONAL AIRPORT  
 PORTLAND, MAINE

DESIGNED: LECJ DATE: MARCH 2009  
 CHECKED: DDA SCALE: 1"=20'  
 FILE NAME: 2819-PROPOSED  
 SHEET: 12.1

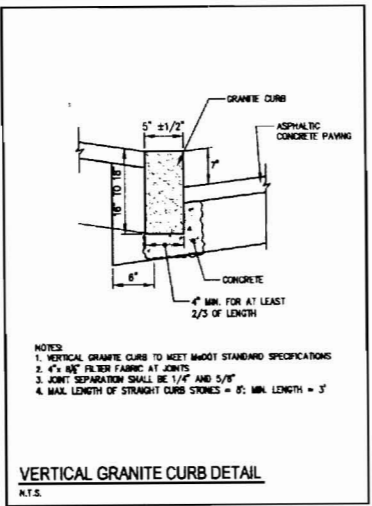




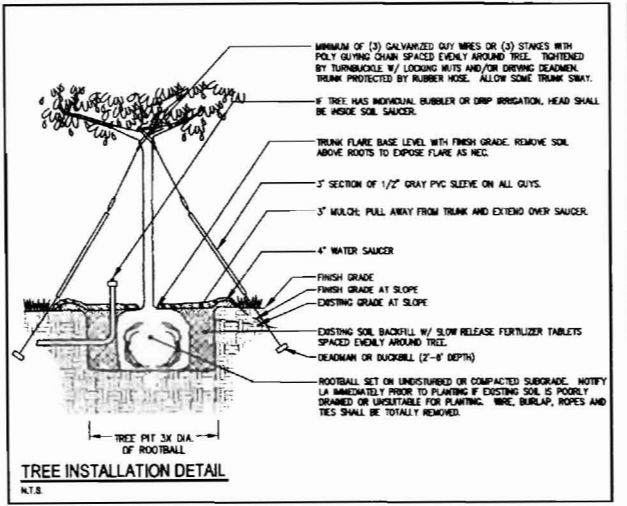
PLAN VIEW  
SCALE 1"=20'



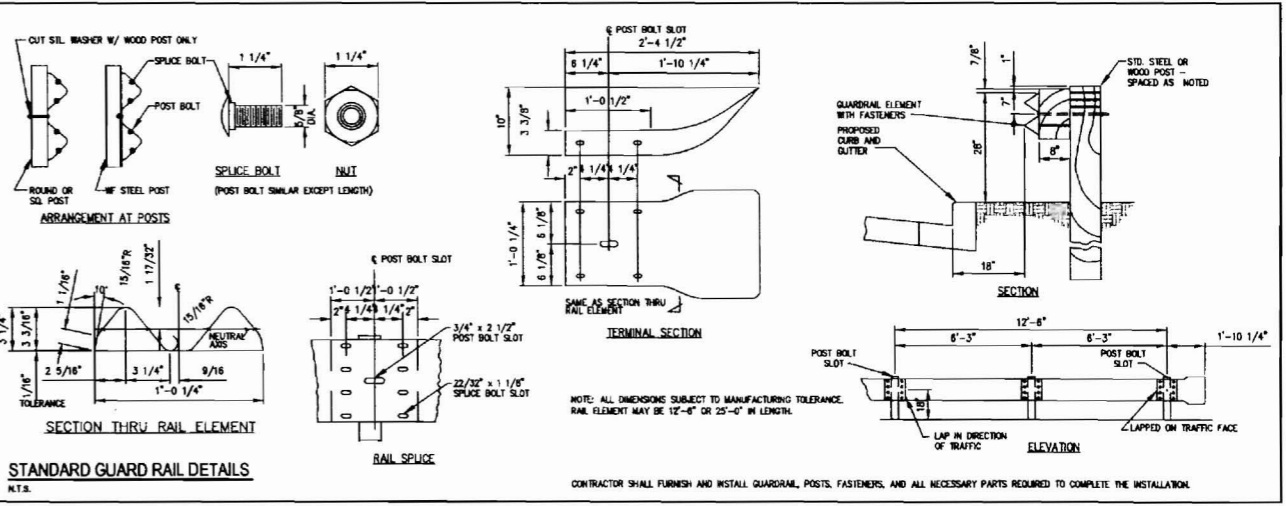
CONIFER INSTALLATION DETAIL  
N.T.S.



VERTICAL GRANITE CURB DETAIL  
N.T.S.

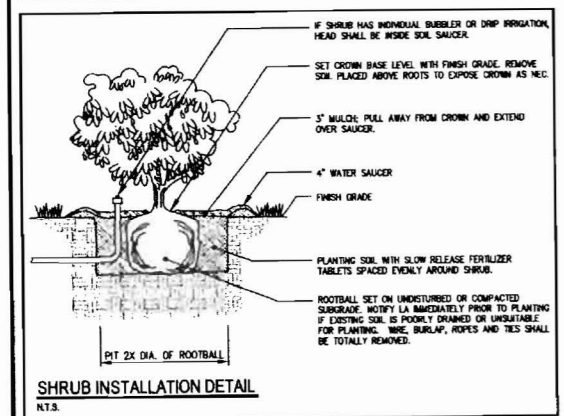


TREE INSTALLATION DETAIL  
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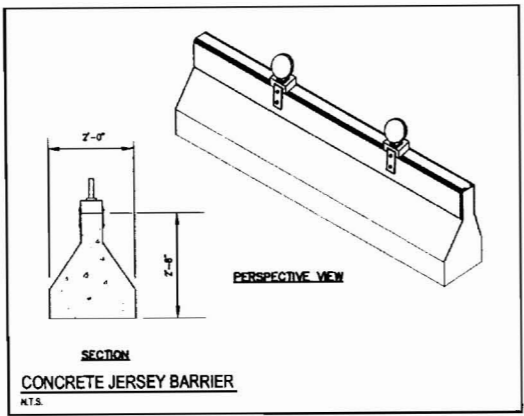


STANDARD GUARD RAIL DETAILS  
N.T.S.

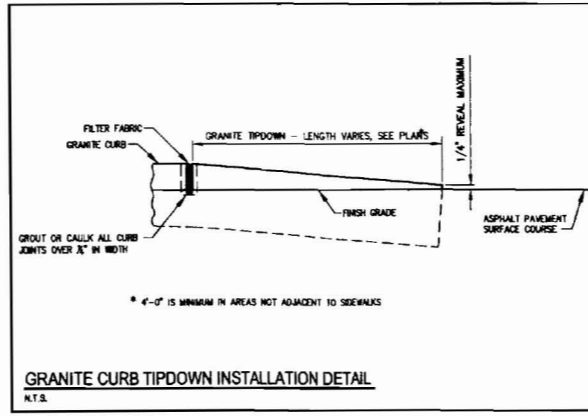
CONTRACTOR SHALL FURNISH AND INSTALL GUARDRAIL, POSTS, FASTENERS, AND ALL NECESSARY PARTS REQUIRED TO COMPLETE THE INSTALLATION.



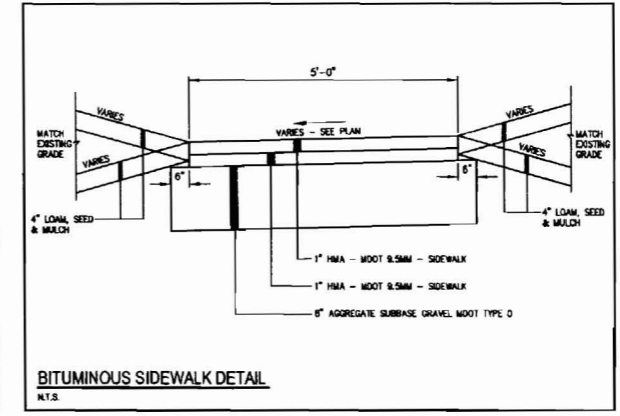
SHRUB INSTALLATION DETAIL  
N.T.S.



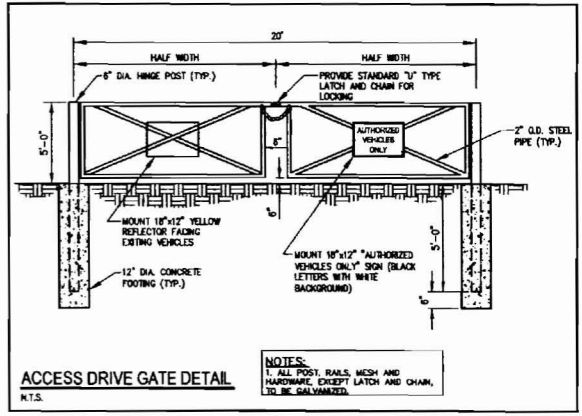
CONCRETE JERSEY BARRIER  
N.T.S.



GRANITE CURB TIPDOWN INSTALLATION DETAIL  
N.T.S.

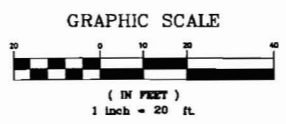


BITUMINOUS SIDEWALK DETAIL  
N.T.S.

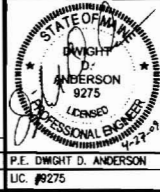


ACCESS DRIVE GATE DETAIL  
N.T.S.

PRELIMINARY NOT FOR CONSTRUCTION

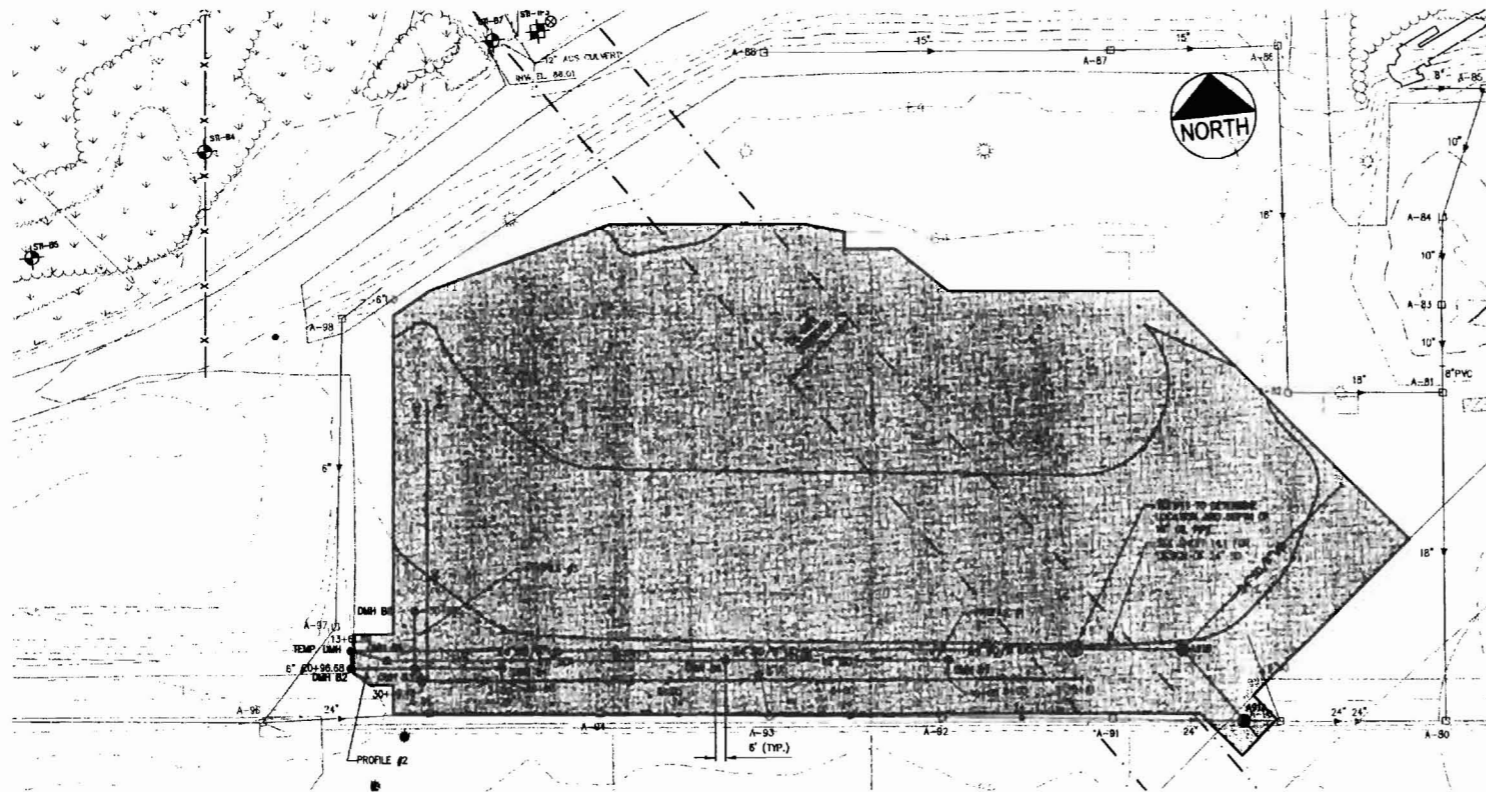


REV	DATE	DESCRIPTION
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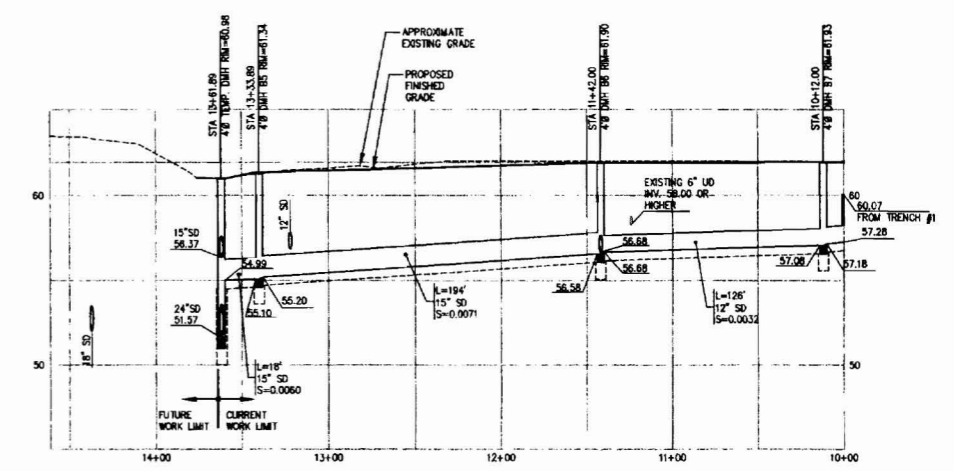


PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63		DELUCA-HOFFMAN ASSOCIATES, INC. 178 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 207 774 0101 WWW.DELUCAHOFFMAN.COM
SHEET TITLE <b>TEMPORARY ACCESS ROAD</b>		
CLIENT PORTLAND INTERNATIONAL JETPORT PORTLAND, MAINE	DRAWN: LECJ DATE: MARCH 2009 DESIGNED: DDA SCALE: 1"=20' CHECKED: DDA JOB NO.: 2819 FILE NAME: 2819-PROPOSED	SHEET <b>13.0</b>

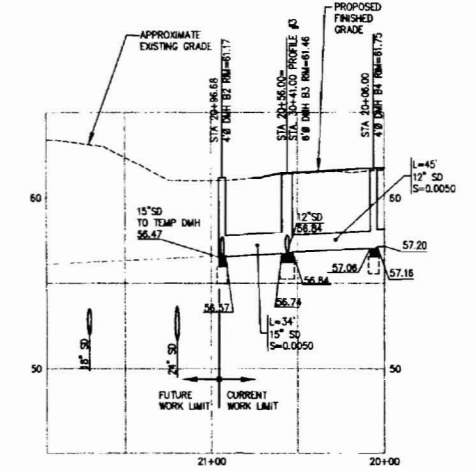
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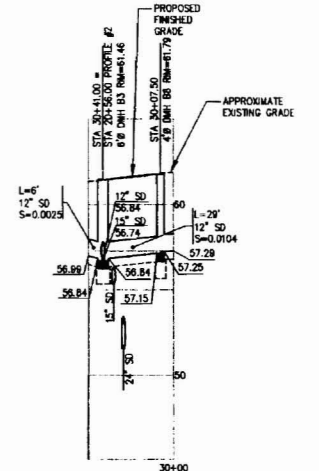
TRENCH STORM DRAIN AND DEICING COLLECTION PLAN  
SCALE: 1"=60'



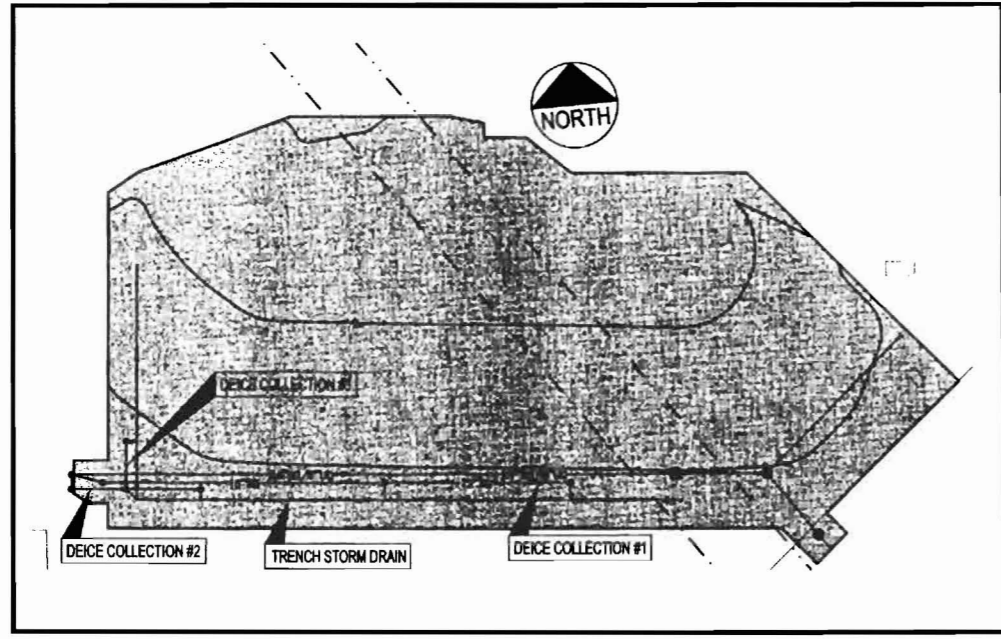
DEICE COLLECTION PROFILE #1  
SCALE: 1"=50' HORIZONTAL, 1"=5' VERTICAL



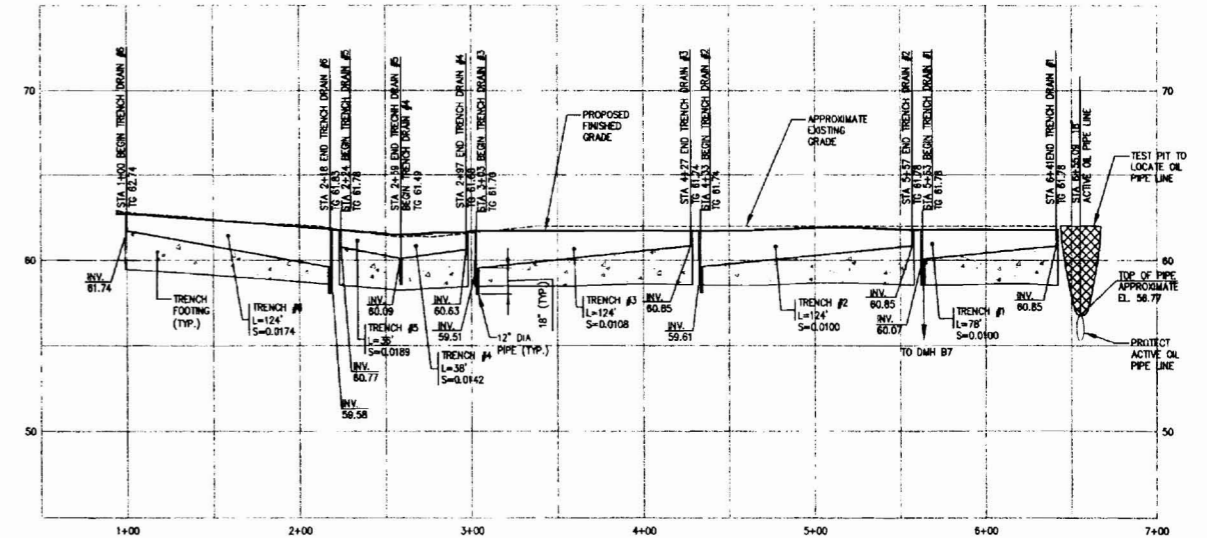
DEICE COLLECTION PROFILE #2  
SCALE: 1"=50' HORIZONTAL, 1"=5' VERTICAL



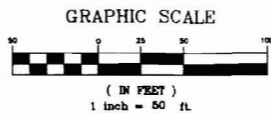
DEICE COLLECTION PROFILE #3  
SCALE: 1"=50' HORIZONTAL, 1"=5' VERTICAL



PROFILE ORIENTATION  
SCALE: 1"=60'

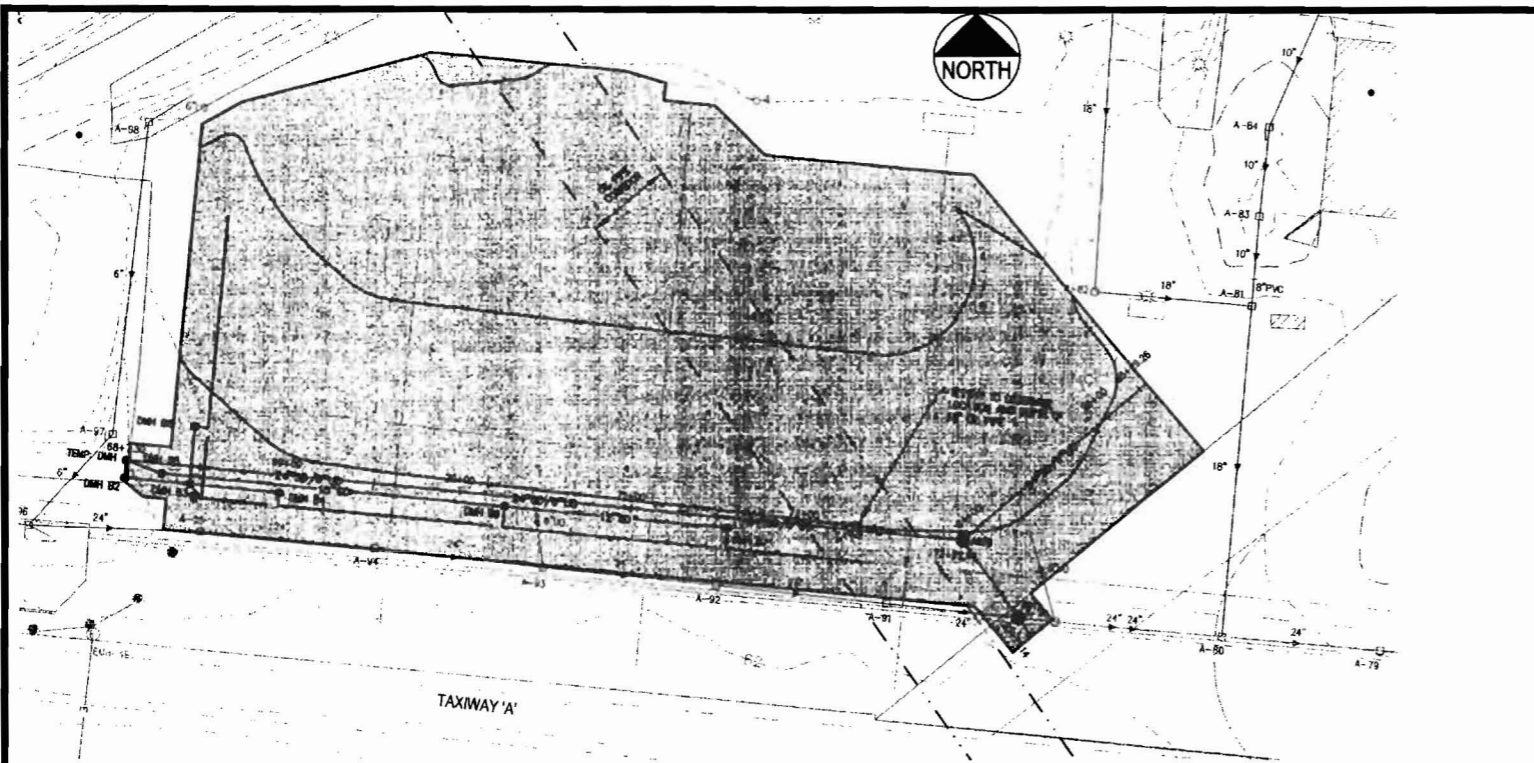


TRENCH STORM DRAIN PROFILE  
SCALE: 1"=50' HORIZONTAL, 1"=5' VERTICAL

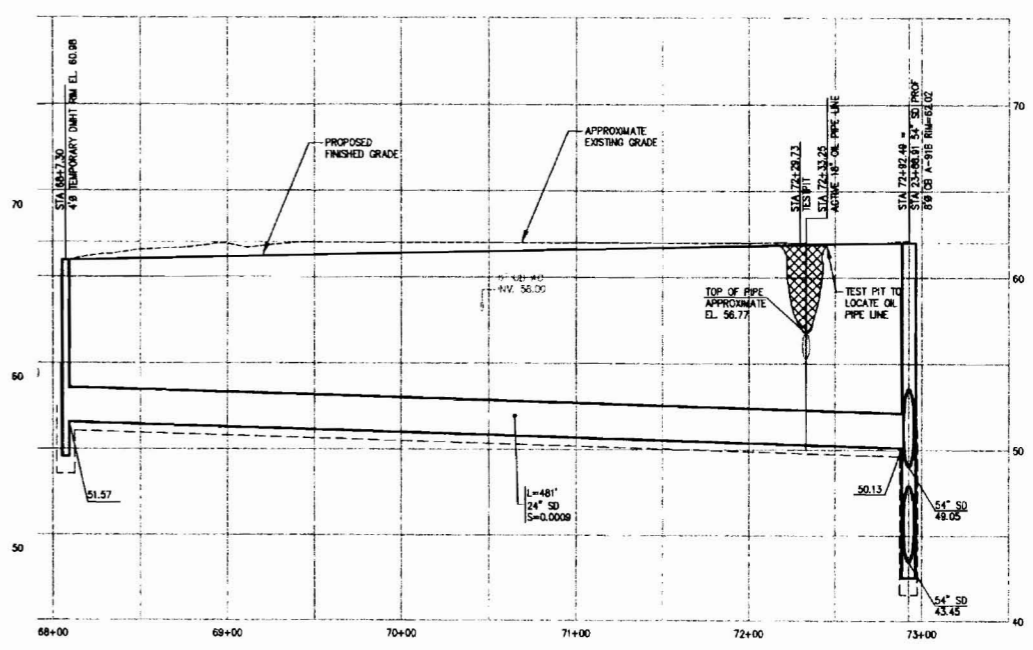


PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63			CLIENT PORTLAND INTERNATIONAL JETPORT PORTLAND, MAINE	DeLUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE 5 SOUTH PORTLAND, ME 04106 207.781.1117 WWW.DELUCAHOFFMAN.COM
SHEET TITLE <b>TRENCH STORM DRAIN PLAN AND PROFILE</b>				
2 04.27.09 ISSUED FOR BIDDING	1 04.13.09 ISSUED TO FAA AND MDT FOR REVIEW	REVISIONS		

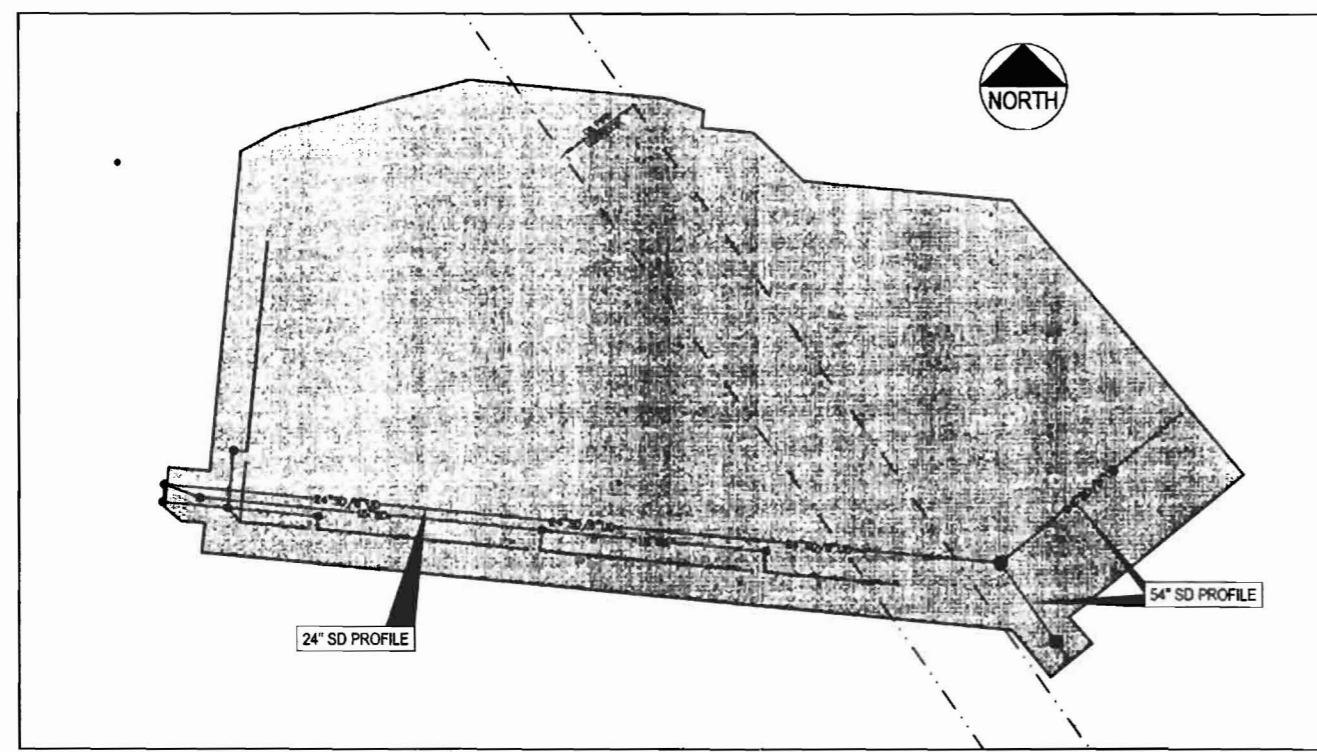
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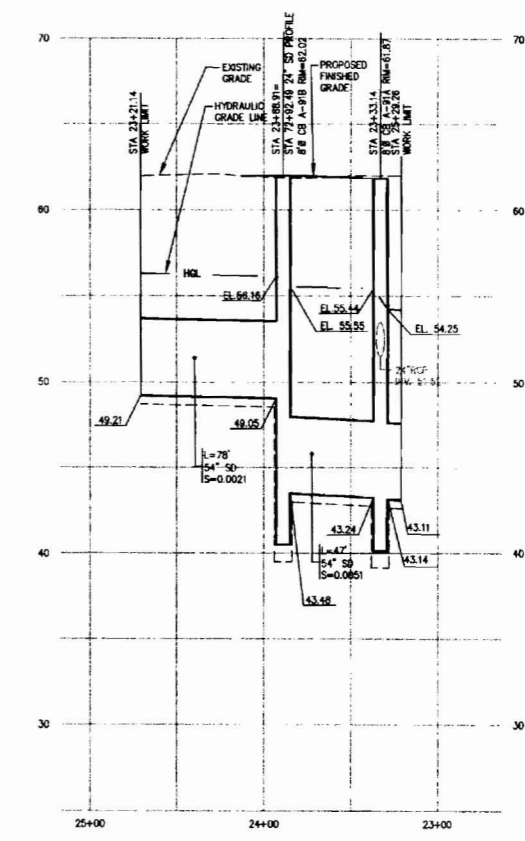
**24" AND 54" STORM DRAIN PLAN**  
SCALE: 1"=50'



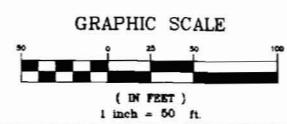
**24" STORM DRAIN PROFILE**  
SCALE: 1"=50' HORIZONTAL, 1"=5' VERTICAL



**PROFILE ORIENTATION**  
SCALE: 1"=50'



**54" STORM DRAIN PROFILE**  
SCALE: 1"=50' HORIZONTAL, 1"=5' VERTICAL



**PRELIMINARY - NOT FOR CONSTRUCTION**

G:\2819\DWG\BID SET 04-24-2009\2819-PROFILES-SD.dwg, 14.1-24" & 54" SD PLAN & PROF, 4/24/2009 11:56:11 AM, jordan

2 04.27.09 ISSUED FOR BIDDING 1 04.13.09 ISSUED TO FAA AND MOOT FOR REVIEW			PROJECT TERMINAL APRON PHASE 1 AND DEICING CAPTURE PROJECT AIP-3-23-0038-63	DeLUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE # SOUTH PORTLAND, ME 04106 207 753 1121 WWW.DELUCAHOFFMAN.COM
REVISIONS			SHEET TITLE <b>24" and 54" STORM DRAIN          PLAN AND PROFILE</b>	
		P.E. DWIGHT D. ANDERSON LIC. #9275	CLIENT <b>PORTLAND INTERNATIONAL JETPORT          PORTLAND, MAINE</b>	