

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

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

**PERMIT ISSUED**

Permit No: 01-0229	Issue Date: <b>MAR 27</b>	CBL: 072 A003001
-----------------------	------------------------------	---------------------

<b>Location of Construction:</b> 601 Danforth St	<b>Owner Name:</b> Merrill Industries Inc	<b>Owner Address:</b> 601 Danforth St	<b>Phone:</b> 207-772-3254
<b>Business Name:</b> Merrill Industries/Cargo Transport	<b>Contractor Name:</b> Merrill Industries, Inc	<b>Contractor Address:</b> 601 Danforth Street Portland	<b>Phone:</b> 2077723254
<b>Lessee/Buyer's Name</b>	<b>Phone:</b> 207-772-3254	<b>Permit Type:</b> Additions - Commercial	<b>Zone:</b> WPDZ

<b>Past Use:</b> Marine Terminal	<b>Proposed Use:</b> Marine Terminal	<b>Permit Fee:</b> 174- \$0.00	<b>Cost of Work:</b> \$25,000.00	<i>area 1</i>
-------------------------------------	---	-----------------------------------	-------------------------------------	---------------

**Proposed Project Description:**  
Phase III of project approved by P.B. 7/25/00. Task 5 of letter dated 7/7/00

<b>FIRE DEPT:</b> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	<b>INSPECTION:</b> Use Group: _____ Type: _____
Signature: <i>WMM</i>	Signature: _____

**PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)**

Action:  Approved  Approved w/Conditions  Denied

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Permit Taken By:</b> jodinea	<b>Date Applied For:</b> 03/20/2001	<b>Zoning Approval</b>	
------------------------------------	--	------------------------	--

- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- 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..

<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> <i>ok with conditions</i> Date: <i>3/26</i>	<b>Zoning Appeal</b> <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 Date: _____	<b>Historic Preservation</b> <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 Date: _____
--	---	--

**PERMIT ISSUED WITH REQUIREMENTS**

**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.

*X*  
SIGNATURE OF APPLICANT \_\_\_\_\_ ADDRESS \_\_\_\_\_ DATE \_\_\_\_\_ PHONE \_\_\_\_\_

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE \_\_\_\_\_ DATE \_\_\_\_\_ PHONE \_\_\_\_\_

01-0229

**THIS IS NOT A PERMIT/CONSTRUCTION CANNOT COMMENCE UNTIL THE PERMIT IS ISSUED**

**Building or Use Permit Pre-Application  
Attached Single Family Dwellings/Two-Family Dwelling  
Multi-Family or Commercial Structures and Additions Thereto**

In the interest of processing your application in the quickest possible manner, please complete the Information below for a Building or Use Permit.

**NOTE\*\*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 (include Portion of Building): 601 Danforth Street			
Total Square Footage of Proposed Structure 125 sf		Square Footage of Lot 1,263,240	
Tax Assessor's Chart, Block & Lot Number Chart# Map 72 Block# A Lot# 3A 7A 15A		Owner: MERRILL INDUSTRIES, INC.	Telephone#: 772-3254 x 100
Owner's Address: 601 Danforth Street Portland, ME 04102		Lessee/Buyer's Name (If Applicable)	Cost Of Work: Fee \$ 25,000 \$ 174
Proposed Project Description:(Please be as specific as possible) Phase III of project approved by Planning Board 7/25/00 Report 35/00 Task 5 of letter of 7 July 2000 attached			
Contractor's Name, Address & Telephone Self			Rec'd By 3/14/01 CAF
Current Use: Marine Terminal		Proposed Use: Marine Terminal	

Separate permits are required for Internal & External Plumbing, HVAC and Electrical installation.

- All construction must be conducted in compliance with the 1996 B.O.C.A. Building Code as amended by Section 6-Art II.
- All plumbing must be conducted in compliance with the State of Maine Plumbing Code.
- All Electrical Installation must comply with the 1996 National Electrical Code as amended by Section 6-Art III.
- HVAC (Heating, Ventilation and Air Conditioning) installation must comply with the 1993 BOCA Mechanical Code.

You must Include the following with you application:

- 1) A Copy of Your Deed or Purchase and Sale Agreement
- 2) A Copy of your Construction Contract, if available
- 3) A Plot Plan/Site Plan

*\* IF Available also  
Submit Plans on  
ADOBE or CAD Format*

Minor or Major site plan review will be required for the above proposed projects. The attached checklist outlines the minimum standards for a site plan.

**4) Building Plans**

Unless exempted by State Law, construction documents must be designed by a registered design professional.

A complete set of construction drawings showing all of the following elements of construction:

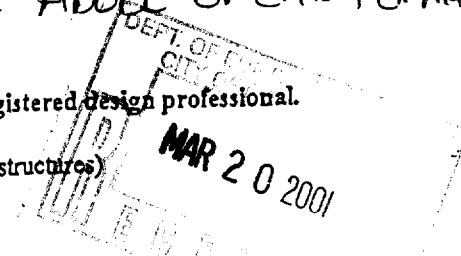
- Cross Sections w/Framing details (including porches, decks w/ railings, and accessory structures)
- Floor Plans & Elevations
- Window and door schedules
- Foundation plans with required drainage and dampproofing
- Electrical and plumbing layout. Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment (air handling) or other types of work that may require special review must be included.

**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/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 of applicant: <i>[Signature]</i>	Date: 3/14/01
--	---------------

Building Permit Fee: \$30.00 for the 1st \$1000.00 cost plus \$6.00 per \$1,000.00 construction cost thereafter.  
Additional Site review and related fees are attached on a separate addendum



BUILDING PERMIT REPORT

DATE: 24 March 2001 ADDRESS: 601 Danforth ST. CBL: 072-A-003

REASON FOR PERMIT: Phase III of project approved by P.B. Task #5

BUILDING OWNER: Merrill Industries, Inc.

PERMIT APPLICANT: \_\_\_\_\_ (CONTRACTOR Merrill Industries, Inc.)

USE GROUP: S2 CONSTRUCTION TYPE: EB CONSTRUCTION COST: \$25,000.00 PERMIT FEES: \$174.00

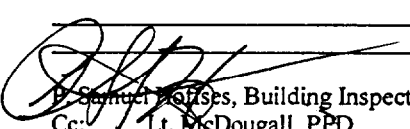
The City's Adopted Building Code (The BOCA National Building Code/1999 with City Amendments)
The City's Adopted Mechanical Code (The BOCA National Mechanical Code/1993)

CONDITION(S) OF APPROVAL

This permit is being issued with the understanding that the following conditions shall be met: \*1, #32, #20, #38

- \*1. This permit does not excuse the applicant from meeting applicable State and Federal rules and laws.
2. Before concrete for foundation is placed, approvals from the Development Review Coordinator and Inspection Services must be obtained.
3. Foundation drain shall be placed around the perimeter of a foundation that consists of gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve.
4. Foundations anchors shall be a minimum of 1/2" in diameter, 7" into the foundation wall, minimum of 12" from corners of foundation and a maximum 6' O.C. between bolts.
5. Waterproofing and dampproofing shall be done in accordance with Section 1813.0 of the building code.
6. Precaution must be taken to protect concrete and masonry.
7. It is strongly recommended that a registered land surveyor check all foundation forms before concrete is placed.
8. Private garages located beneath habitable rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be separated from adjacent interior spaces by fire partitions and floor/ceiling assembly which are constructed with not less than 1-hour fire resisting rating.
9. All chimneys and vents shall be installed and maintained as per Chapter 12 of the City's Mechanical Code.
10. Sound transmission control in residential building shall be done in accordance with Chapter 12, Section 1214.0 of the City's Building Code.
11. Guardrails & Handrails: A guardrail system is a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level.
12. Headroom in habitable space is a minimum of 7'6".
13. Stair construction in Use Group R-3 & R-4 is a minimum of 10" tread and 7 1/2" maximum rise.
14. The minimum headroom in all parts of a stairway shall not be less than 80 inches.
15. The Minimum required width of a corridor shall be determined by the most restrictive of the criteria under section 1011.3 but not less than 36".
16. Every sleeping room below the fourth story in buildings of Use Groups R and I-1 shall have at least one operable window or exterior door approved for emergency egress or rescue.
17. Each apartment shall have access to two (2) separate, remote and approved means of egress.
18. All vertical openings shall be enclosed with construction having a fire rating of at least one (1) hour, including fire doors with self closure's.
19. The boiler shall be protected by enclosing with (1) hour fire rated construction including fire doors and ceiling, or by providing automatic extinguishment.

20. All single and multiple station smoke detectors shall be of an approved type and shall be installed in accordance with the provisions of the City's Building Code Chapter 9, Section 920.3.2 (BOCA National Building Code/1999), and NFPA 101 Chapter 18 & 19. (Smoke detectors shall be installed and maintained at the following locations):
  - In the immediate vicinity of bedrooms
  - In all bedrooms
  - In each story within a dwelling unit, including basements
21. A portable fire extinguisher shall be located as per NFPA #10. They shall bear the label of an approved agency and be of an approved type. (Section 921.0)
22. The Fire Alarm System shall be installed and maintained to NFPA #72 Standard.
23. The Sprinkler System shall be installed and maintained to NFPA #13 Standard.
24. All exit signs, lights and means of egress lighting shall be done in accordance with Chapter 10 Section & Subsections 1023.0 & 1024.0 of the City's Building Code. (The BOCA National Building Code/1999)
25. Section 25 - 135 of the Municipal Code for the City of Portland states, "No person or utility shall be granted a permit to excavate or open any street or sidewalk from the time of November 15 of each year to April 15 of the following year".
26. The builder of a facility to which Section 4594-C of the Maine State Human Rights Act Title 5 MRSA refers, shall obtain a certification from a design professional that the plans commencing construction of the facility, the builder shall submit the certification the Division of Inspection Services.
27. Ventilation and access shall meet the requirements of Chapter 12 Sections 1210.0 and 1211.0 of the City's Building Code. (Crawl spaces & attics).
- \*28. All electrical, plumbing and HVAC permits must be obtained by Master Licensed holders of their trade. No closing in of walls until all electrical (min. 72 hours notice) and plumbing inspections have been done.
29. All requirements must be met before a final Certificate of Occupancy is issued.
30. All building elements shall meet the fastening schedule as per Table 2305.2 of the City's Building Code (The BOCA National Building Code/1996).
31. Ventilation of spaces within a building shall be done in accordance with the City's Mechanical code (The BOCA National Mechanical Code/1993). (Chapter M-16)
32. Please read and implement the attached Land Use Zoning report requirements. *All previous conditions and requirements shall still be met.*
33. Boring, cutting and notching shall be done in accordance with Sections 2305.3, 2305.3.1, 2305.4.4 and 2305.5.1 of the City's Building Code.
34. Bridging shall comply with Section 2305.16.
35. Glass and glazing shall meet the requirements of Chapter 24 of the building code. (Safety Glazing Section 2406.0)
36. All flashing shall comply with Section 1406.3.10.
37. All signage shall be done in accordance with Section 3102.0 signs of the City's Building Code, (The BOCA National Building Code/1999).
- \*38. *The proposed Rubby shall be installed as per the manufactures requirement and shall comply with section 3103.0 Membrane Structures of the bldg. code.*

  
 P. Schuck, Building Inspector  
 Cc: Lt. McDougall, PPD  
 Marge Schmuckal, Zoning Administrator  
 Michael Nugent, Inspection Service Manager

PSH 10/1/00

**\*\*This permit is herewith issued, on the basis of plans submitted and conditions placed on these plans, any deviations shall require a separate approval.**

**\*\*\*THIS PERMIT HAS BEEN ISSUED WITH THE UNDERSTANDING THAT ALL THE CONDITIONS OF THE APPROVAL SHALL BE COMPLETED. THEREFORE, BEFORE THE WORK IS COMPLETED A REVISED PLAN OR STATEMENT FROM THE PERMIT HOLDER SHALL BE SUBMITTED TO THIS OFFICE SHOWING OR EXPLAINING THAT THE CONDITIONS HAVE BEEN MET. IF THIS REQUIREMENT IS NOT RECEIVED YOUR CERTIFICATE OF OCCUPANCY SHALL BE WITHHELD. ( You Shall Call for Inspections )**

**\*\*\*\*ALL PLANS THAT REQUIRE A PROFESSIONAL DESIGNER'S SEAL, (AS PER SECTION 114.0 OF THE BUILDING CODE) SHALL ALSO BE PRESENTED TO THIS DIVISION ON AUTO CAD LT. 2000, DXF FORMAT OR EQUIVALENT.**

**\*\*\*\*\*CERTIFICATE OF OCCUPANCY FEE \$50.00**

# MERRILL

Since 1929

*Cargo  
Transport  
Specialists*

14 March 2001

Planning Department  
City of Portland  
Attn: Marge Schmuckal  
389 Congress Street  
Portland, ME 04101

Re: Application for Building Permit

Dear Marge:

Enclosed herewith please find our check in the amount of \$174 together with our application for a building permit for task five as outlined in my letter of July 7, 2000. Also enclosed are the following drawings describing the essential details of this project:

- 1) Site Plan 6-28-00 Sebago Technics as submitted earlier
- 2) Vortec Shop drawings  
24" Dia x 4" HMH Frame and Cover  
Bypass structure  
Installation Details  
Vortechs Stormwater Treatment System Model 5000
- 3) Drainage Maintenance Agreement

If you have any questions, please call me at 772-3254 x 100.

Thank you for your kind attention.

Sincerely,

  
P.D. Merrill

Encls. 4 drawings  
Drainage Maintenance Agreement  
1 letter dated 7/7/00  
Application  
Check

Merrill Industries, Inc.  
601A Danforth Street  
Portland, Maine USA  
04102-3903

Tel: 207-772-3254  
Fax: 207-761-3782

MERRILL

Since 1929

Cargo  
Transport  
Specialists

07 July 2000

Planning Department  
City of Portland  
Attn: Marge Schmuëkal  
389 Congress Street  
Portland, ME 04101

Re: Application for Site Plan Review

Dear Marge:

Enclosed herewith please find our check in the amount of \$500 together with 9 sets of site plans setting forth several relocations and modifications to storage facilities at our marine terminal on Danforth Street.

The purpose of these several changes is to accommodate changing customer requirements, reduce the amount of shuttle trucking we are now doing to off site storage locations, and to allow us to improve our competitive position by increasing the rate at which we can handle cargo. It is made possible by the cessation of pet coke shipments which were stored in Rubb II and Rubb IV. These two facilities will now be reused for storage of baled woodpulp and tapioca.

For discussion purposes, the project can be subdivided into elements which will be implemented over a period of five months beginning in August.

- Task #1      Extend Rubb I to rail dock and add rail dock enclosure.  
                 This is accomplished by relocating 1 section of Rubb II..
- Task #2      Install doors on Rubb IV to allow drive through as with Rubb I.
- Task #3      Relocate the balance of Rubb II to an area currently  
                 occupied by road salt storage north of Rubb IV and  
                 east of the office building
- Task #4      Install Rubb V, a narrower version of Rubb II on the wharf  
                 deck in the same footprint formerly occupied by Rubb II.  
                 The narrower footprint is designed to facilitate vessel  
                 operations while maintaining the same height as Rubb II  
                 and the adjacent Rubb III. (See attached Exhibit A)

Merrill Industries, Inc.  
601A Danforth Street  
Portland, Maine USA  
04102-3903

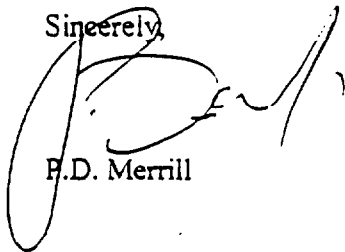
Tel: 207-772-3254  
Fax: 207-761-3782

Planning Department  
City of Portland  
Marge Schmuckal  
July 7, 2000  
Page 2.

Task #5      Install a Vortec stormwater treatment system to replace  
the sedimentation tanks which will be demolished. The  
space will be used for bulk storage.

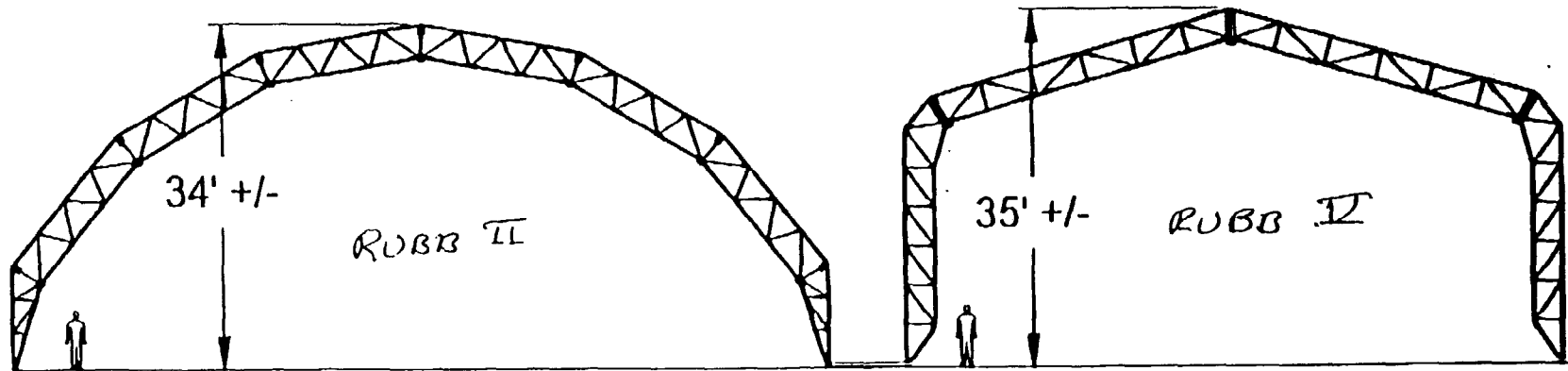
As you develop questions, please call me at any time. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "P.D. Merrill". The signature is stylized with a large, sweeping initial "P" and a long, horizontal stroke extending to the right.

P.D. Merrill

Encls. Exhibit A  
Site Plan



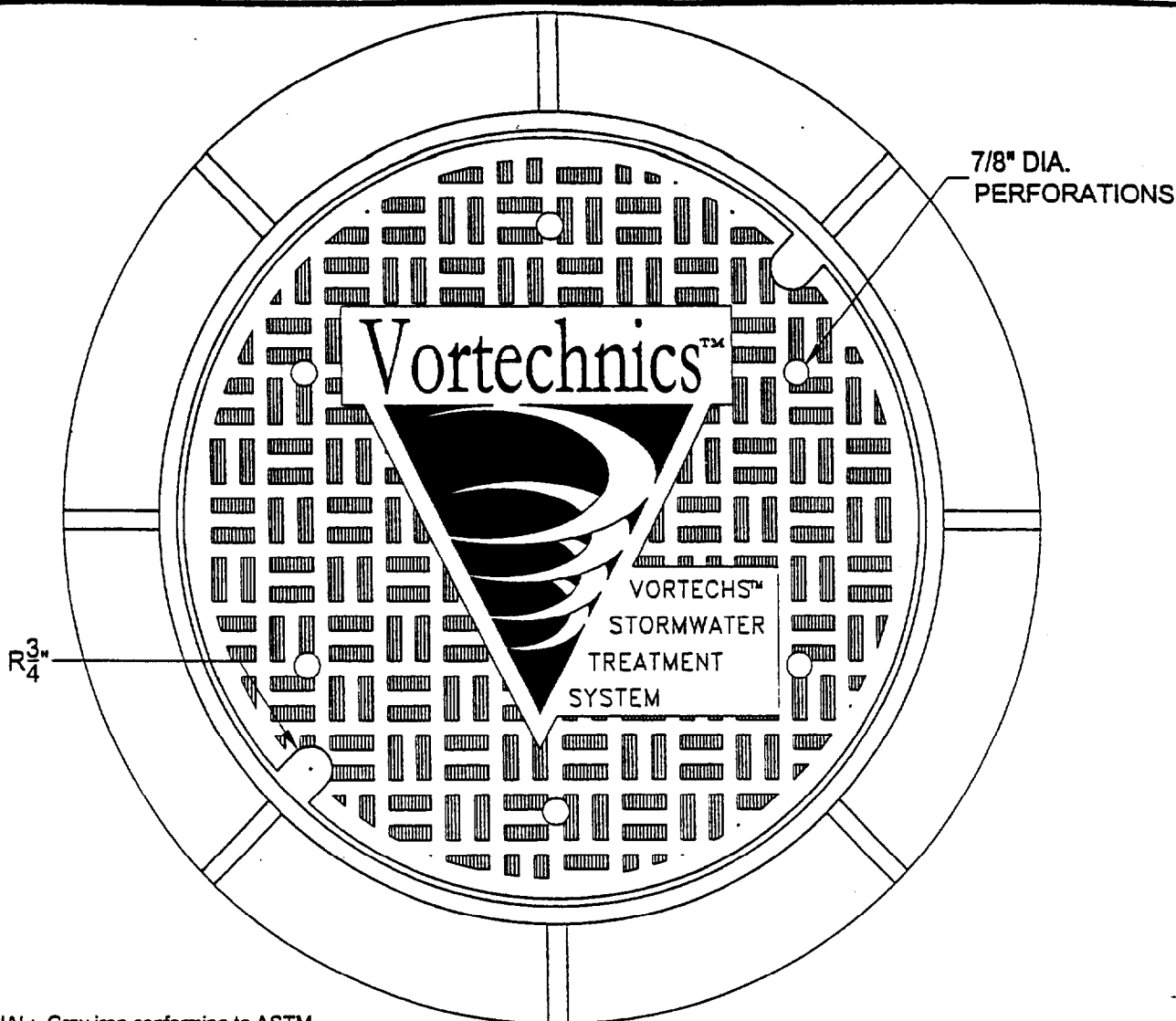
EXISTING 82' SPAN NV

65' SPAN BVE WITH 23' WALL

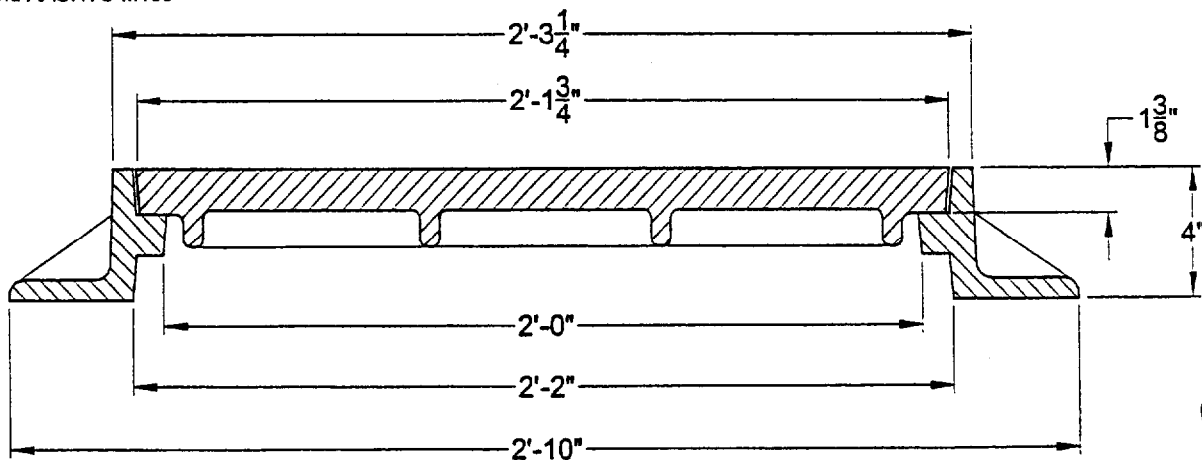
TITLE	<b>We Cover The World</b> <b>RUBB</b> BUILDING SYSTEMS			
DATE				
BY	SCALE	REVISION	DATE	REVISION

EXHIBIT A





MATERIAL: Gray iron conforming to ASTM A48, CL.30B and AASHTO M105



This drawing shows the general configuration of the casting or castings to be supplied. Dimensions are approximate and may vary. Drawings should not be scaled where there are no dimensions shown.

Weight of casting(s), when shown, is based on final dimensions and is estimated only.

There are no representations made concerning the suitability of the design of the materials specified since the manufacturer has no control whatsoever upon final construction or installation of the product herein set forth.

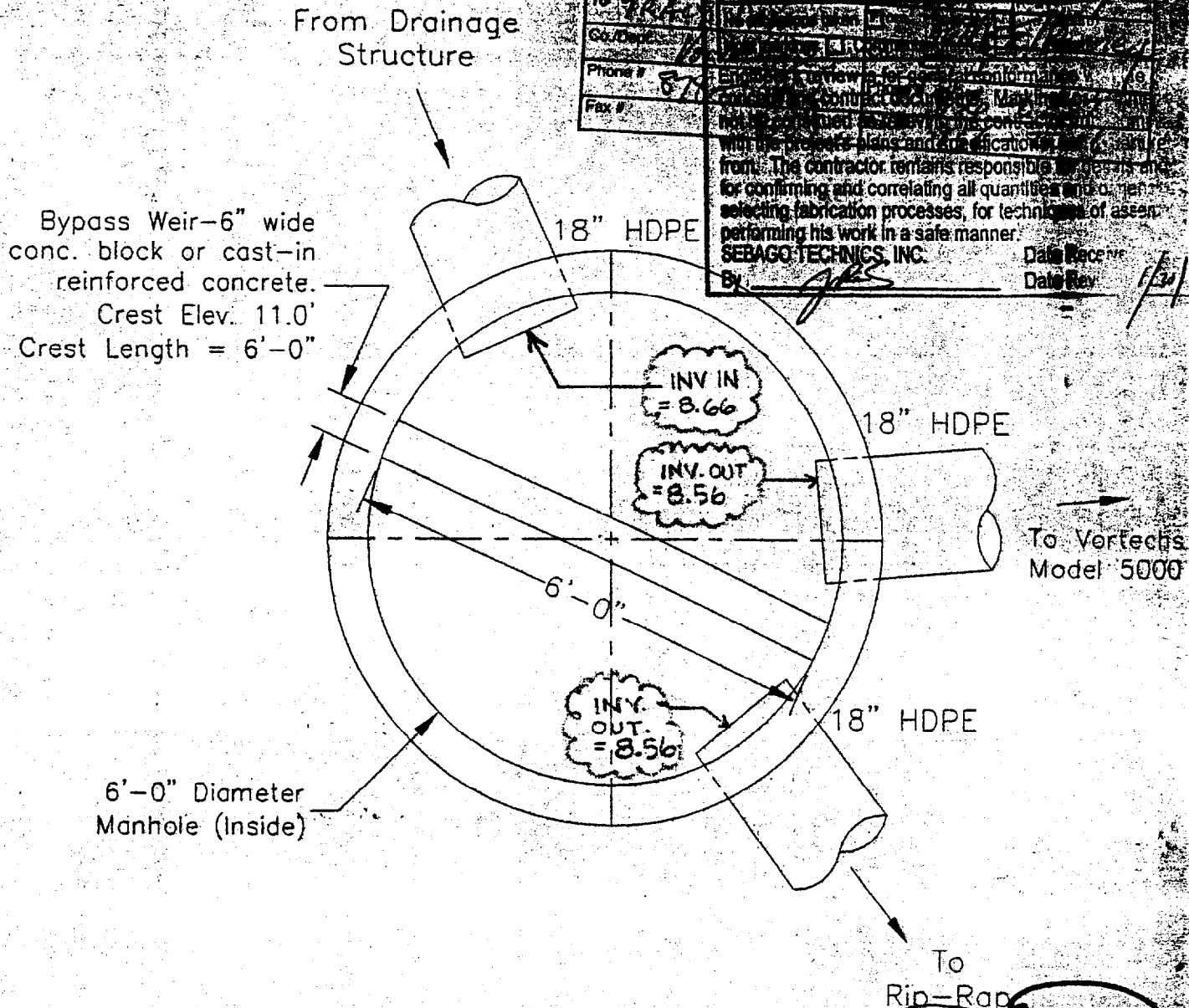
*OK*



41 Evergreen Drive  
Portland, ME 04103  
Tel.: 207-878-3662  
Fax: 207-878-8507

**VORTECHS SYSTEM - 24" DIA. x 4" H MH FRAME AND COVER**  
**AASHTO HS20-44 HIGHWAY LOADING**

Post-Its Fax #	Engineer Name	Date
To: Tracy		
Co./Dept.		
Phone # 871		
Fax #		
Engineer's review is for design conformance only. It does not constitute a contract or warranty. Making any changes without the project plans and specifications is the contractor's responsibility. The contractor remains responsible for verifying and for confirming and correlating all quantities and for selecting fabrication processes, for technicalities of assembly, performing his work in a safe manner.		
SEBAGO TECHNICS, INC.		Date Received
By: [Signature]		Date Rev [Signature]



**NOTES:**

1. Manhole shall be manufactured in accordance with all applicable local standards.
2. If manhole diameter changes from that shown, Vortechs must be advised so the weir crest length and elevation can be recalculated.

*TRACY - Please NOTE the above inverts for the Merrill project.*

FOR INFORMATIONAL PURPOSES ONLY  
 NOT INTENDED AS A CONSTRUCTION DOCUMENT  
 -NOT SUPPLIED BY VORTECHNICS-

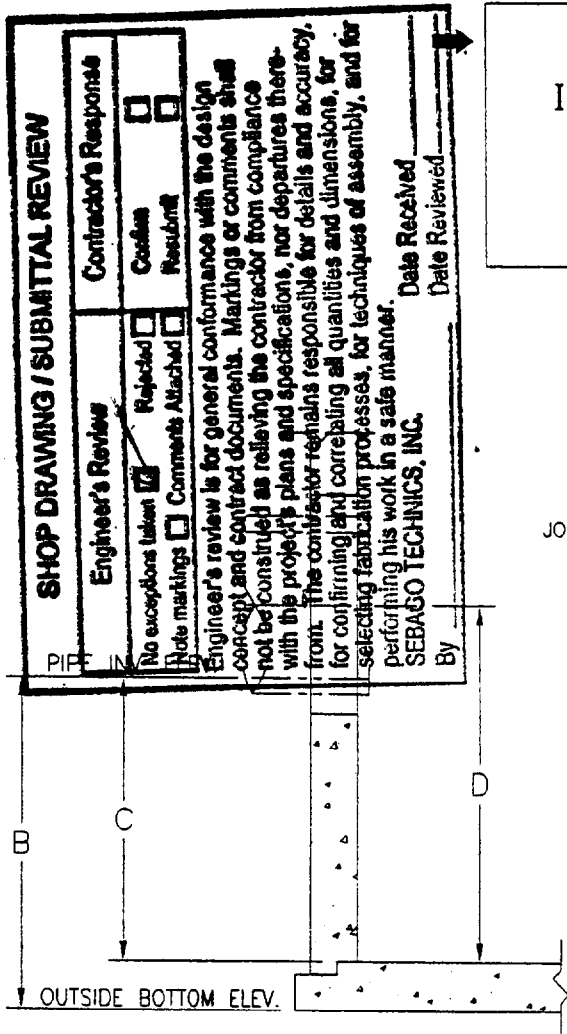
**Vortechs**  
 41 Evergreen Drive  
 Portland, ME 04103  
 Tel.: 207-878-3662  
 Fax: 207-878-4307

**PROPOSED BYPASS STRUCTURE**  
**VORTECHS™ STORMWATER TREATMENT SYSTEM**  
**MERRILL INDUSTRIES, MEAD/SD WARREN PAD AREA, PORTLAND, ME**

MAXIMUM HEAVIEST PICK = 19 TC 5

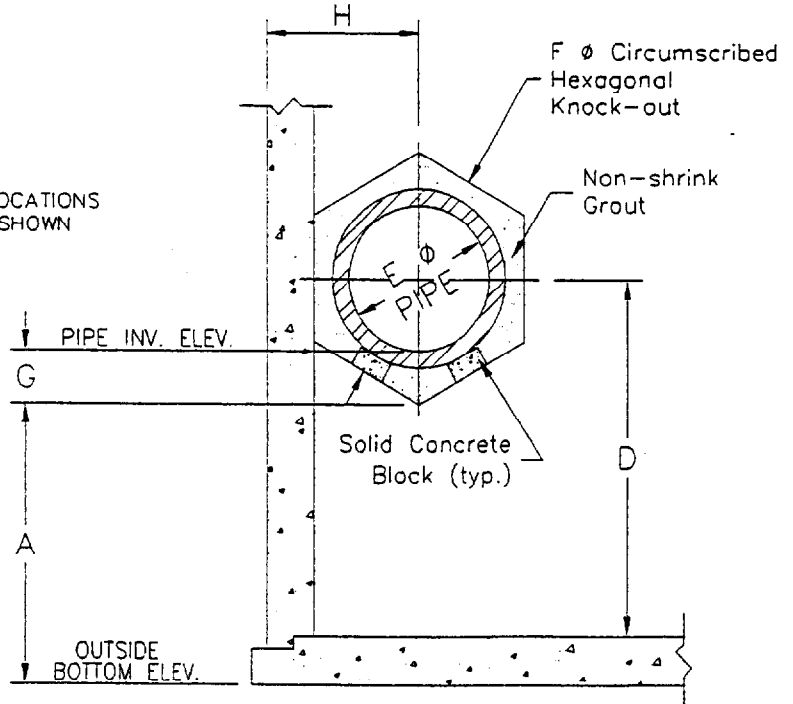
MARK	DESCRIPTION	DIMENSION
	Footprint: MAXIMUM Length & Width	14'-6" x 8'-6"
	Outside Bottom Elevation	4.48'
	Pipe Invert Elevation	8.36'
	Top of Tank Elevation	12.57'
	Rim Elevation	13.2'±
A	Distance from knock-out inv. to outside bottom	3'-7 1/2"
B	Distance from pipe invert to outside bottom	3'-10 1/2"
C	Dist. from pipe invert to floor (inside bottom)	3'-5"
D	Pipe/knock-out $\phi$ to floor (circumscribed hexagon)	4'-2"
E	Inside Diameter of pipe	1'-6"
F	Knock-out Diameter	2'-0"
G	Distance from pipe invert to knock-out invert	0'-3"
H	Pipe/knock-out $\phi$ offset (Inlet Only)	1'-6"
Ho	Pipe/knock-out $\phi$ offset (Outlet Only)	1'-4"

UNLESS OTHERWISE NOTED, INLET/OUTLET SIZE, MATERIAL AND INVERTS ARE THE SAME



**KNOCK-OUT SIDE VIEW**

INLET/OUTLET  
ORIENTATION  
MODEL 5000



**KNOCK-OUT DETAIL**



41 Evergreen Drive  
Portland, ME 04103  
Tel.: 207-878-3662  
Fax: 207-878-8507

INSTALLATION DETAILS  
**VORTECHS™ MODEL 5000** U.S. PATENT No. 5,759,415  
**MERRILL INDUSTRIES, MEAD/SD WARREN PAD AREA, PORTLAND, ME**

DATE: 12/2000 | SCALE: NOT TO SCALE | FILE NAME: 17831D | DRAWN BY: DMF | CHECKED BY: ASB

DRAINAGE MAINTENANCE AGREEMENT

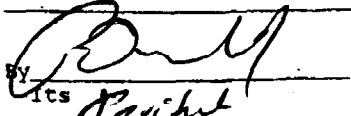
IN CONSIDERATION OF \_\_\_\_\_ approval granted by the Planning Board of the City of Portland to a plan entitled MERRILL MARINE 9000 dated 6/28/00, ~~1999~~ and filed with the City of Portland, Department of Planning and Urban Development, 389 Congress Street, Portland, Maine, a copy of which is attached hereto as Exhibit 1,\* and pursuant to a condition thereof, MERRILL IND. INC. a Maine Co-pa. Inc. with a place of business at 601 Park St., Portland, ME, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the "OWNER"), as follows:

That it will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the surface water drainage system as shown on said plan, including but not limited to the detention basin or basins and the outlet or outlets therefrom, for the benefit of the said City of Portland, all persons in lawful possession of said premises and abutters thereto; further, that the said City of Portland, said persons in lawful possession and said abutters, or any of them, may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the OWNER written notice and a reasonable time to perform, the said City of Portland may, by its authorized agents or representatives, enter upon said premises or any portion thereof for the purpose of performing the aforementioned maintenance of said surface water drainage system in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the OWNER upon demand.

This Agreement shall not confer upon the said City of Portland or any other person the right to utilize said surface water drainage system for public use or for the development of any other property, and the OWNER shall bear no financial responsibility by virtue of this Agreement for enlarging the capacity of said surface water drainage system for any reason whatsoever.

This Agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon its successors and assigns as their interests may from time to time appear.

Dated at Portland, Maine this 14<sup>th</sup> day of March, 2000.

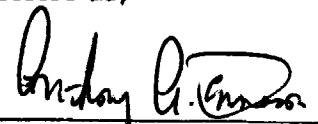
MERRILL INDUSTRIES, INC.  
  
By \_\_\_\_\_  
Its President

STATE OF MAINE  
CUMBERLAND, SS.

March 14, ~~2000~~ 2001

Personally appeared the above-named PAUL D. MERRILL,  
PRESIDENT of MERRILL INDUSTRIES, INC. and acknowledged  
the foregoing instrument to be his free act and deed in his said  
capacity, and the free act and deed of said MERRILL INDUSTRIES, INC.

Before me,



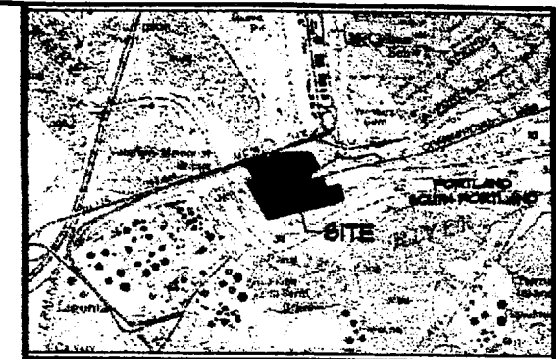
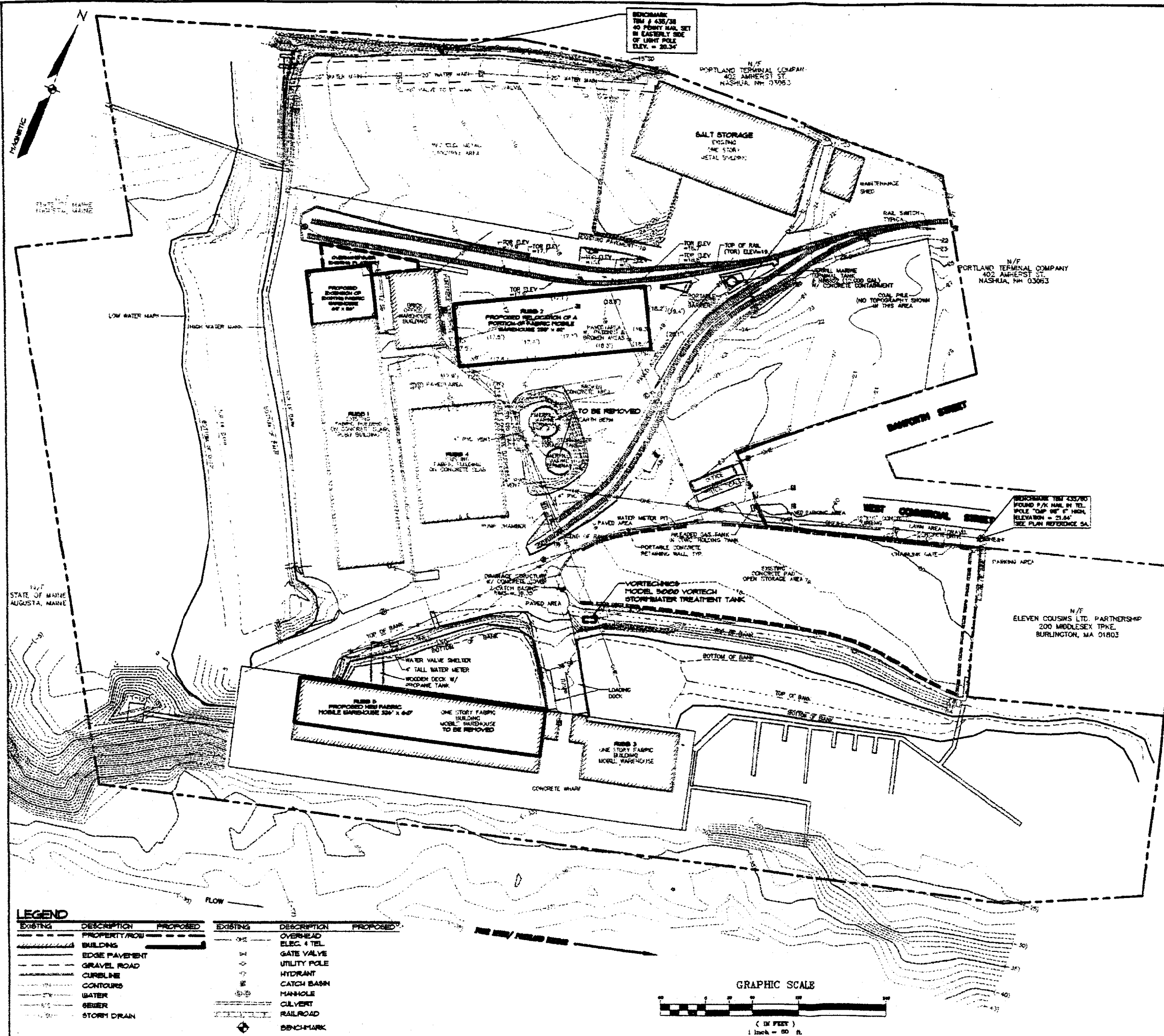
Notary Public/Attorney at Law

Anthony A. Tenneson

Print Name

MY COMMISSION EXPIRES  
SEPTEMBER 1, 2006

\*Where this Agreement is a condition of subdivision rather than  
site plan approval, this clause should instead read "and recorded  
in the Cumberland County Registry of Deeds in Plan Book \_\_\_\_\_,  
Page \_\_\_\_\_, and the drainage plan therefor, filed with the City of  
Portland, Department of Public Works, 55 Portland Street,  
Portland, Maine, a copy of which is attached hereto as Exhibit 1.



LOCATION MAP N.T.S.

- GENERAL NOTES:**
- RECORD OWNER OF PROPERTY IS MERRILL INDUSTRIES, INC. WHOSE MAILING ADDRESS IS 601 DANFORTH STREET, PORTLAND, MAINE 04102, AND IS RECORDED BY DEED BOOK 4688, PAGE 318 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
  - THE LOCUS PROPERTY IS SHOWN ON THE CITY OF PORTLAND TAX MAP 12, LOTS 3A, 1A, AND 15A.
  - TOPOGRAPHIC SURVEY WAS PERFORMED BY SEBAGO TECHNICS, INC. JUNE, 1991. ELEVATIONS ARE RELATED TO MEAN LOW WATER (MLW) + 0'.
  - PROPERTY IS LOCATED WITHIN THE (BFDZ) WATERFRONT PORT DEVELOPMENT ZONE.  
 DIMENSION REQUIREMENTS  
 MINIMUM LOT SIZE ..... NONE  
 MINIMUM FRONTAGE ..... NONE  
 SETBACK REQUIREMENTS ..... NONE  
 MAXIMUM LOT COVERAGE ..... 100%  
 MAXIMUM BUILDING HEIGHT ..... 48' (UNLESS SUBJECT TO EXCEPTIONS)
  - PLAN REFERENCE  
 A. PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERRILL'S MARINE TERMINAL, EXISTING CONDITIONS PLAN BY H.L. AND E.C. JORDAN - SURVEYORS, DATED DECEMBER 18, 1988 AND STAMPED BY JOHN P. MCGONIGLE, JR., PLS 384.  
 B. PLAN AND PROFILE OF 20' MAN UNDER VETERANS BRIDGE AT MERRILL'S COAL CO.' PLAN BY PORTLAND WATER DISTRICT, 228 DOUGLASS STREET, PORTLAND, MAINE 04104. LAST REV. DATE 3/2/89. THE EASEMENT FOR THE PORTLAND WATER DISTRICT WATER MAIN IS RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 803, PAGE 12.  
 C. PRIOR TO BEGINNING ANY CONSTRUCTION THE OWNER SHALL ACQUIRE ALL THE NECESSARY PERMITS FROM THE CITY OF PORTLAND AND NOTIFY DHS 72 HOURS IN ADVANCE OF COMMENCING EXCAVATION ACTIVITIES, TO VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES.  
 D. UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE.  
 E. CONTRACTOR OR EXCAVATOR TO FIELD VERIFY INVERTS OF EXISTING STRUCTURES TO BE ALTERED PRIOR TO EXCAVATION ACTIVITIES.

N/T  
 CLANBRO CORPORATION  
 328 WEST COMMERCIAL ST.  
 PORTLAND, MAINE 04102

A	DTM	06-28-00	SUBMITTED TO CLIENT FOR REVIEW
REV:	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

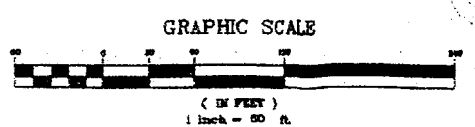
**SITE PLAN**  
 OF:  
**MERRILL MARINE TERMINAL**  
 DANFORTH AND WEST COMMERCIAL STREETS  
 PORTLAND, MAINE  
 FOR:  
**MERRILL INDUSTRIES, INC.**  
 601A DANFORTH STREET  
 PORTLAND, MAINE 04102

**Sebago Technics**  
 Engineering & Planning for the Future  
 ONE CHABOT STREET  
 WESTBROOK, ME 04098-1339  
 (207) 833-1339

DESIGN BY: BRF  
 DRAWN BY: BRF  
 CHECKED BY: DTM  
 DATE: 06-24-00  
 SCALE: 1"=60'  
 FIELD BK: 370&435  
 PROJ. NO: 00139  
 DRAWING: 00139S1  
**SHEET 1 OF 1**

**LEGEND**

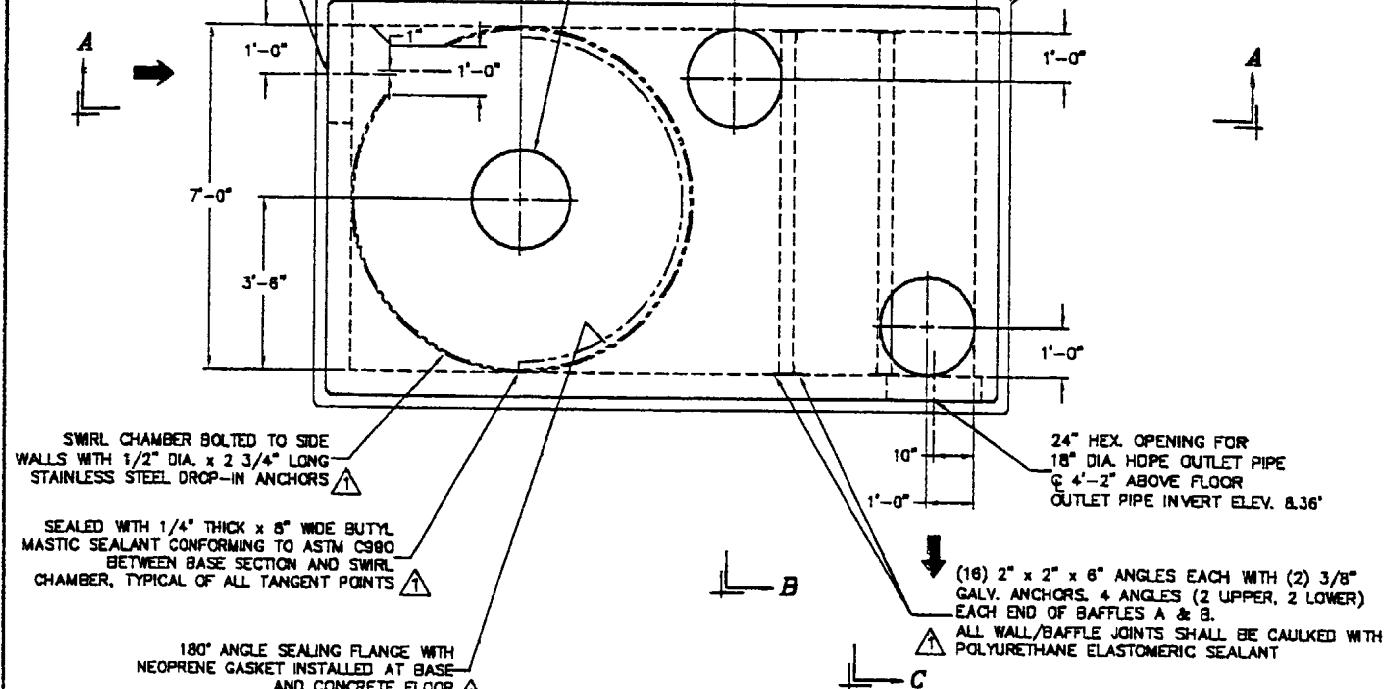
EXISTING	DESCRIPTION	PROPOSED	EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---	---	OVERHEAD	---
---	BUILDING	---	---	ELEC. & TEL	---
---	EDGE PAVEMENT	---	---	GATE VALVE	---
---	GRAVEL ROAD	---	---	UTILITY POLE	---
---	CURBLINE	---	---	HYDRANT	---
---	CONTOURS	---	---	CATCH BASIN	---
---	WATER	---	---	MANHOLE	---
---	SEWER	---	---	CULVERT	---
---	STORM DRAIN	---	---	RAILROAD	---
---		---	---	BENCHMARK	---



PIPE OPENINGS SHALL BE STENCILED "INLET" OR "OUTLET" AS APPROPRIATE

INLET PIPE MUST BE SET AT 90° TO SYSTEM WALL

24" HEX. OPENING FOR 18" DIA. HDPE INLET PIPE @ 4'-2" ABOVE FLOOR INLET PIPE INVERT ELEV. 8.36'



PLAN VIEW

SWIRL CHAMBER BOLTED TO SIDE WALLS WITH 1/2" DIA. x 2 3/4" LONG STAINLESS STEEL DROP-IN ANCHORS

SEALED WITH 1/4" THICK x 8" WIDE BUTYL MASTIC SEALANT CONFORMING TO ASTM C980 BETWEEN BASE SECTION AND SWIRL CHAMBER, TYPICAL OF ALL TANGENT POINTS

180° ANGLE SEALING FLANGE WITH NEOPRENE GASKET INSTALLED AT BASE AND CONCRETE FLOOR

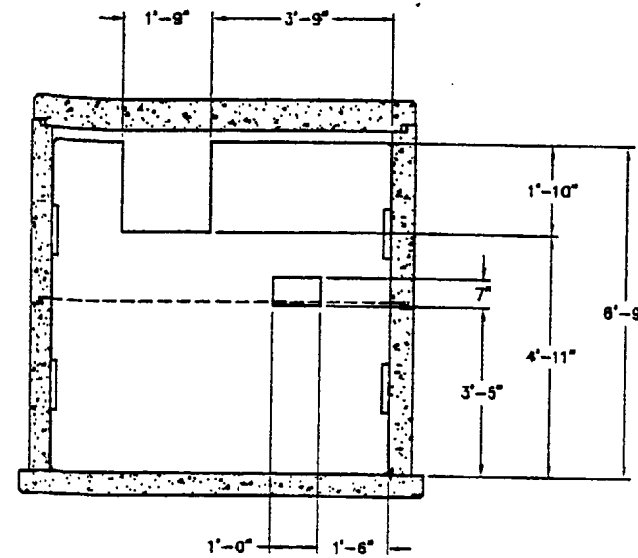
24" HEX. OPENING FOR 18" DIA. HDPE OUTLET PIPE @ 4'-2" ABOVE FLOOR OUTLET PIPE INVERT ELEV. 8.36'

(16) 2" x 2" x 6" ANGLES EACH WITH (2) 3/8" GALV. ANCHORS, 4 ANGLES (2 UPPER, 2 LOWER) EACH END OF BAFFLES A & B. ALL WALL/BAFFLE JOINTS SHALL BE CAULKED WITH POLYURETHANE ELASTOMERIC SEALANT

- DESIGN NOTES:**
1. CONCRETE MINIMUM STRENGTH - 5000 PSI @ 28 DAYS
  2. STEEL REINFORCEMENT - ASTM A-615, GRADE 60, 1" COVER
  3. DESIGN LOADING - AASHTO HS20-44
  4. CONSTRUCTION JOINT - SEALED W/ 1" DIA. BUTYL RUBBER
  5. DESIGN SPECIFICATION - ACI 318 & AASHTO LOAD FACTOR DESIGN METHOD

- ASSUMPTIONS:**
1. GROUND WATER @ 3'-6" BELOW FINISHED GRADE
  2. EARTH COVER 0'-0" MIN. 4'-6" MAX.
  3. 2'-0" LIVE LOAD SURCHARGE APPLIED TO 8'-0" DEPTH
  4. LIVE LOAD IMPACT 0" TO 1'-0" COVER I = 30%
  5. COEFFICIENT OF ACTIVE EARTH PRESSURE  $K_a = .33$
  6. DRY EARTH DENSITY 120 PCF  
DRY EARTH LATERAL PRESSURE = 120 (.33) = 39.6 PSF
  7. SATURATED EARTH DENSITY 120 PCF  
120 PCF - 82.4 = 37.6 PCF  
37.6 PCF (.33) = 12.4 PSF  
SATURATED EARTH DENSITY PRESSURE = 19.0 + 12.4 = 31.4 PSF

- GENERAL NOTES:**
1. ALL INTERNAL COMPONENTS SHALL BE FABRICATED OF STAINLESS STEEL T304 IN ACCORDANCE WITH ASTM B209.
  2. STEEL REINFORCEMENT MAY VARY FROM THAT SHOWN. FINAL CONSTRUCTION SHALL MEET HS20-44 DESIGN CRITERIA. ALL BARS CUT BY OPENINGS TO BE REPLACED (1/2 ON EACH SIDE OF OPENING).
  3. MANHOLE RISERS, GRADE RINGS OR BLOCK REQUIRED BETWEEN THE TOP OF THE VORTECHS SYSTEM AND THE BASE OF THE MANHOLE FRAMES SHALL BE THE RESPONSIBILITY OF OTHERS AND SHALL BE PROVIDED ACCORDING TO ALL APPLICABLE STANDARDS.



SECTION C-C (BAFFLE B)

NOTE: WEIR & ORIFICE PLATES TO BE SUPPLIED BY VORTECHNICS AND INSTALLED ON THE INLET FACE OF BAFFLE "B". ORIFICE PLATE OPENING IS TO BE CENTERED HORIZ. & VERT. OVER CONCRETE OPENING. WEIR PLATE OPENING IS TO BE CENTERED HORIZ. OVER CONCRETE OPENING AND TOP OF PLATE IS TO BE SET FLUSH WITH TOP OF BAFFLE "B".

SHOP DRAWING / SUBMITTAL REVIEW

Engineer's Review		Contractor's Response	
No exceptions taken <input checked="" type="checkbox"/>	Rejected <input type="checkbox"/>	Confirm <input type="checkbox"/>	
Note markings <input type="checkbox"/>	Comments Attached <input type="checkbox"/>	Resubmit <input type="checkbox"/>	

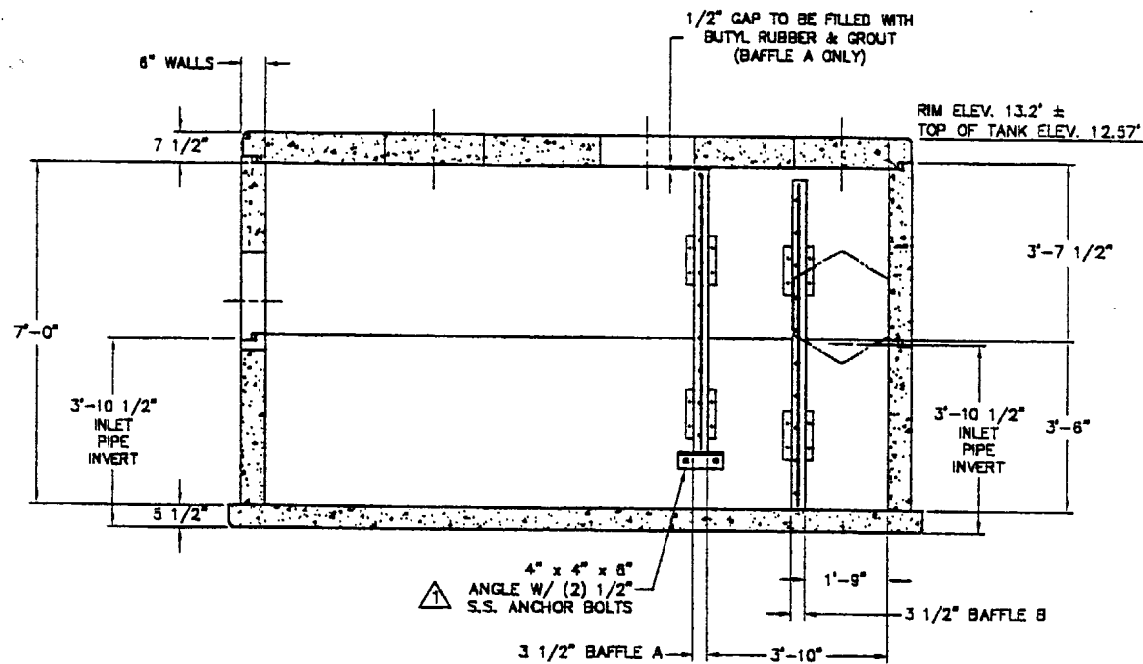
Engineer's review is for general conformance with the design concept and contract documents. Markings or comments shall not be construed as relieving the contractor from compliance with the project's plans and specifications, nor departures therefrom. The contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing his work in a safe manner.

SEBAGO TECHNICS, INC. Date Received \_\_\_\_\_  
By \_\_\_\_\_ Date Reviewed 1/30/14

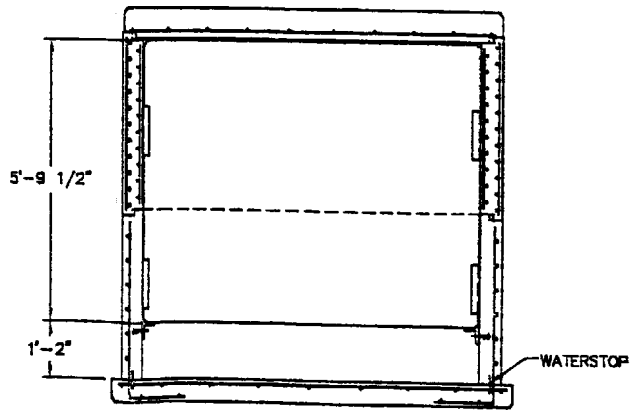
(3) 24" DIA. x 4" H. MANHOLE FRAMES AND PERFORATED COVERS SHALL BE PROVIDED BY VORTECHNICS AND SHALL BE CAMPBELL CASTING #1009A, CAST WITH THE VORTECHNICS LOGO.

APPROXIMATE WEIGHTS:  
TOP SLAB = 8 TONS  
UPPER BARREL = 6 TONS  
BASE SECTION = 13 TONS (INCLUDES BAFFLES)

SHIPPED IN TWO PIECES  
MAXIMUM HEAVIEST PICK = 19 TONS



SECTION A-A (SWIRL CHAMBER NOT SHOWN)



SECTION B-B (BAFFLE A)

This CADD file is for the purpose of specifying stormwater treatment equipment to be furnished by Vortech, Inc. and may only be transferred to other documents exactly as provided by Vortech, Inc. Title block information, including the Vortech logo and the Vortech Stormwater Treatment System designation and patent number, may be deleted if necessary. Revisions to any part of this CADD file without prior coordination with Vortech shall be considered unauthorized use of proprietary information.

REVISIONS

1	1/22/00 DMF



41 Evergreen Drive  
Portland, ME 04103  
Tel: 207-878-1662  
Fax: 207-878-8507

SCALE: 1/4" = 1'-0"

DRAWN BY:	DMF
CHECKED BY:	ASB
FILE NAME:	1783S
DATE:	1/22/00 (REVS)

MERRILL INDUSTRIES, MEAD/SD WARREN PAD AREA  
PORTLAND, ME  
STORMWATER TREATMENT SYSTEM  
VORTECHS™ MODEL 5000 U.S. PATENT No. 5,759,415