

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 05-1260	Issue Date: PERMIT ISSUED	425 A002001
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Location of Construction: 125 Presumpscot St	Owner Name: Presumpscot Street Properties Llc	Owner Address: Po Box 403	Phone:
Business Name:	Contractor Name: HardyPond Construction	Contractor Address: 1039 Riverside St Suite 11, Portland	Phone: 2077976066
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	Zone: I-M

Past Use: Vacant Land	Proposed Use: Commercial Mixed Use Facility: Single story wood framed bldg approximately 700 sf <i>Bldg # 10,1034</i>	Permit Fee: \$6,015.00	Cost of Work: \$665,200.00	CEO District: 4
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FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group <i>B</i> Type: <i>5B</i> <i>SHELLY</i> <i>10/18/05</i> Signature: <i>[Signature]</i>
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Proposed Project Description:
Mixed Use Facility: Single story wood framed bldg approximately 700 sf
Bldg #1 10,1034

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: Approved Approved w/Conditions Denied

Signature: _____ Date: _____

Permit Taken By: dmartin	Date Applied For: 09/0 112005	Zoning Approval	
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Special Zone or Reviews	Zoning Appeal	Historic Preservation
<input type="checkbox"/> Shoreland <i>N/A</i> <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <i>Panel 7 Zone X</i> <input type="checkbox"/> Subdivision <input checked="" type="checkbox"/> Site Plan <i># 2005-0088</i> Maj <input type="checkbox"/> Minor <input checked="" type="checkbox"/> MM <input type="checkbox"/> <i>of with conditions</i> Date: <i>10/11/05</i>	<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: _____	<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: _____

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: 05-1260	Date Applied For: 09/01/2005	CBL: 425 A002001
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Location of Construction: 125 Presumpscot St	Owner Name: Presumpscot Street Properties Llc	Owner Address: Po Box 403	Phone:
Business Name:	Contractor Name: HardyPond Construction	Contractor Address: 1039 Riverside St Suite 11 Portland	Phone (207) 797-6066
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	

Commercial Mixed Use Facility: Single story wood framed bldg approximately 10,103sf - Bldg #1

Mixed Use Facility: Single story wood framed bldg approximately 10,103sf - bldg #1

- 1) Information establishing project conformity with the 2003 International Energy Conservation Code.
- 2) Please provide th classification of the Roof Covering.
- 3) Shop Drawing for all manufactured wood products is required.
- 4) Plans must be submitted reflecting a code compliant access to the Mezzanine.

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Cptn Greg Cass **Approval Date:** 10/11/2005

Note: **Ok to Issue:**

- 1) Storage occupancy is limited to low or ordinary hazard materials.
- 2) All building construction to comply with NFPA 101
- 3) All required rated seperations shall be inspected prior to being enclosed

Dept: DRC **Status:** Approved with Conditions **Reviewer:** Sebago Technic **Approval Date:** 08/16/2005

Note: **Ok to Issue:**

- 1) see Planning conditions

Dept: Planning **Status:** Approved with Conditions **Reviewer:** Kandi Talbot **Approval Date:** 08/16/2005

Note: **Ok to Issue:**

- 1) **5.** The City Arborist shall review and approve the landscaping plan.
- 2) 1. That the developer shall revise the plans to reflect the comments in the memo by the Traffic Engineer dated August 15, 2005 and shall contribute \$1,000 towards the installation of a 5-section signal head to be installed at the Washington Avenue/Presumpscot Street intersection prior to issuance of a building permit.
- 3) 4. No construction shall occur until a soil assessment per DEP guidance has been approved by the DEP and DEP approval is provided to the City.

Location of Construction: 125 Presumpscot St	Owner Name: Presumpscot Street Properties Llc	Owner Address: Po Box 403	Phone:
Business Name:	Contractor Name: HardyPond Construction	Contractor Address: 1039 Riverside St Suite 11 Portland	Phone (207) 797-6066
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	

Applicant: Hardy Pond Const
Address: 125 Presumpscott St

Date: 9/25/05
C-B-L: 425-A-002

CHECK-LIST AGAINST ZONING ORDINANCE

Date - Existing Development #05-1260

Zone Location - I-M

Interior or corner lot -

Proposed Use/Work - mixed use facility - New Bldg # 1

Sewage Disposal - City

Lot Street Frontage - 60' min - 400+ shown

Front Yard - 1' for every 1' of height - 20.5' req
20.5' high

Rear Yard - 1' for every 1' of height but not more than 25' - 25' shown
20.5' high

Side Yard - 1' for every 1' of height but not more than 25' - 25' shown
20.5' high

Projections -

Width of Lot - N/A

Height - 75' MAX - 20.5' scaled

Lot Area - Nom in lot size - 6.85 acres given

Lot Coverage / Impervious Surface - 75% MAX - 62% given
By Deluxe Habitat

Area per Family - N/A

Off-street Parking - $10,103 \div 400 = 25.26$ PKG SPACES req - 36 NEPKG SPACES shown

Loading Bays - N/A

Site Plan - 2005-0088

Shoreland Zoning/ Stream Protection - N/A
M.M.O.R

Flood Plains - Panel 7 - Zone X

10' pavement setback to boundary lines - showing 10'
revised plans received on 10/7/05 ok

Roundhouse Property Expansion

Inspectors and testing agencies shall submit interim reports to the Special Inspection Coordinator as indicated below:

- 1. Upon completion of inspections of soils below footings for adequate bearing capacity and consistency with geotechnical report for each building**
- 2. Upon (1) completion inspection of the removal of unsuitable material and preparation of subgrade prior to placement of controlled fill and (2) testing of controlled fill for each building**
- 3. Upon completion of inspections of wood framed walls for each building**
- 4. Upon completion of inspection of the completed roof structure (i.e., erected and braced wood roof trusses, including the installation of roof sheathing**

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- Soils and Foundations
- Cast-in-Place Concrete
- Precast Concrete
- Masonry
- Structural Steel
- Cold-Farmed Steel Framing

- Spray Fire Resistant Material
- Wood Construction
- Exterior Insulation and Finish System
- Mechanical & Electrical Systems
- Architectural Systems
- Special Cases

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator PETER L. LINCOLN	LINCOLN/HANEY ENG'G	6 FEDERAL ST. BARRISWICK, ME 04011 729.1061 plincoln@lincolnhaney.com
2. Inspector JAMES P. CURLEY	LINCOLN/HANEY ENG'G	6 FEDERAL ST. BARRISWICK, ME 04011 729.1061 jcurley@lincolnhaney.com
3. Inspector ROGER DOMINGO, SUPERVISOR	S.W. COLE ENGINEERING	286 PORTLAND ROAD GRAY, ME 04039 657-2866
4. Testing Agency ROGER DOMINGO, SUPERVISOR	S.W. COLE ENGINEERING	286 PORTLAND ROAD GRAY, ME 04039 657-2866
5. Testing Agency		
6. Other		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category C (BLDG.1) ; D (BLDG.3)

Quality Assurance Plan Required (Y/N) No ($S_{DS} \leq 0.5g ; h < 35'$)

Description of seismic force resisting system and designated seismic systems:

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) 95 MPH

Wind Exposure Category B

Quality Assurance Plan Required (Y/N) No

Description of wind force resisting system and designated wind resisting components:

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

Soils and Foundations

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	#4 PE/GE	<p>Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.</p> <p>Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill</p>
2. Controlled Structural Fill	#4 PE/GE	<p>Perform sieve tests (ASTM D422 & 01140) and modified Proctor tests (ASTM D1557) of each source of fill material.</p> <p>Inspect placement, lift thickness and compaction of controlled fill</p> <p>Test density of each lift of fill by nuclear methods (ASTM D2922)</p> <p>Verify extent and slope of fill placement.</p>
3. Deep Foundations N/A	PE/GE	<p>Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria.</p> <p>Inspect piles for damage from driving and plumbness.</p> <p>Verify pile size, length and accessories.</p> <p>Inspect installation of drilled pier foundations. Verify pier diameter, bell diameter, lengths, embedment into bedrock and suitability of end bearing strata.</p>
4. Load Testing N/A		
4. Other: N/A		

Wood Construction

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification / Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	#2 (PE)	Inspect shop fabrication and quality control procedures for wood truss plant.
2. Material Grading	B2 (PE)	INSPECT SPECIES & GRADE OF PRIMARY FRAMING MEMBERS
3. Connections	B2 (PE)	INSPECT ANCHORAGE OF WALL PANELS TO FOUNDATION
4. Framing and Details	B2 (PE)	INSPECT SIZE & ARRANGEMENT OF PRIMARY FRAMING MEMBERS
5. Diaphragms and Shearwalls	#2 (PE)	Inspect size, configuration, blocking and fastening of shearwalls and diaphragms. Verify panel grade and thickness.
6. Prefabricated Wood Trusses	#2 (PE)	Inspect the fabrication of wood trusses.
7. Permanent Truss Bracing	B2 (PE)	INSPECT COMPLETE BRACING
8. Other:		



Commercial 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: 125 PRESUMPSCOT STREET (THE ROUNDHOUSE)		
Total Square Footage of Proposed Structure BUILDING # 1: 10,000 SF.	Square Footage of Lot 295,429 SF	
A		
Lessee/Buyer's Name (If Applicable) N/A	Applicant name, address & telephone: HARDY POND CONSTRUCTION 1039 RIVERSIDE ST. STE. 11 PORTLAND, ME 04103 (207) 797.6066 CONTACT: ERIC MORA	Cost Of Work: \$ 665,200.00 Fee: \$ 6,000.00 (6015) 75
Current Specific use: MIXED USE FACILITY (OFFICE, DAYCARE, PRODUCTION)		Total 6090
Proposed Specific use: SAME		
Project description:		
Contractor's name, address & telephone: HARDY POND CONSTRUCTION (207) 797.6066 1039 RIVERSIDE ST. STE. 11 PORTLAND, ME 04103		
Who should we contact when the permit is ready: CONTRACTOR (ERIC MORA)		
Mailing address: SAME AS ABOVE		324 5194 Phone: (207) 797.6066

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

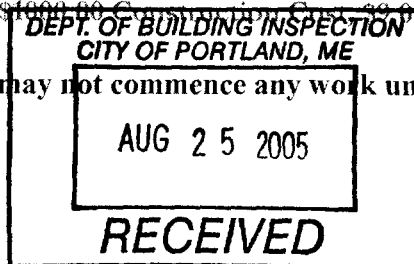
At the discretion of the Planning and Development Department, additional information may be required prior to permit approval. For further information stop by the Building Inspections office, room 315 City Hall or call 874-8703.

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 of applicant: 	Date: 8.25.05
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Permit Fee: \$30.00 for the first \$1000.00 Cost of work. Cost: \$9.00 per additional \$1000.00 cost

This is not a Permit; you may not commence any work until the Permit is issued.



Hardypond Construction
 1039 Riverside Street, Ste. 11
 Portland, ME 04103

TRANSMITTAL

To: City of Portland, Maine

Date: 10/6/05

Attention: Marge Shmukle

Job#: 0522

RE: Roundhouse Property Expansion

WE ARE SENDING YOU Attached via hand delivery the following items:

- | | | | |
|--|---|---------------------------------------|---|
| <input type="checkbox"/> Shop Drawings | <input checked="" type="checkbox"/> Plans | <input type="checkbox"/> Letter | <input type="checkbox"/> Specifications |
| <input type="checkbox"/> Samples | <input type="checkbox"/> Prints | <input type="checkbox"/> Change Order | <input type="checkbox"/> Other: |

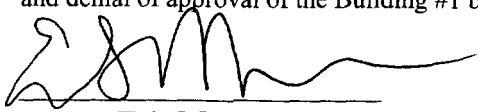
COPIES	DATE	NO.	DESCRIPTION
2	10/5/05		Revised Site Plan (Deluca-Hoffman)

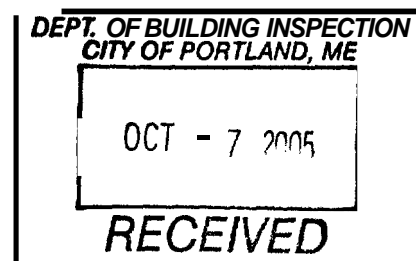
THESE ARE TRANSMITTED:

- | | | | |
|--|--|--|---|
| <input checked="" type="checkbox"/> For Review and Comment | <input checked="" type="checkbox"/> For Approval | <input type="checkbox"/> For Your Use | <input type="checkbox"/> As Requested |
| <input type="checkbox"/> Approved as Submitted | <input type="checkbox"/> Approved as Noted | <input type="checkbox"/> Returned After Loan | <input type="checkbox"/> Resubmitted |
| <input type="checkbox"/> Returned for Corrections | <input type="checkbox"/> Submitted | <input type="checkbox"/> Returned | <input type="checkbox"/> Install Fee Schedule |

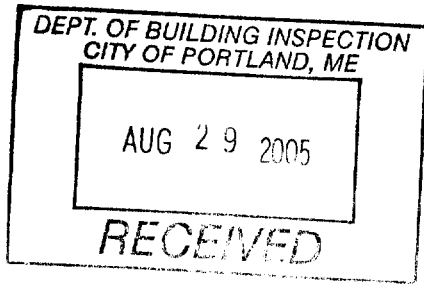
Contract

Remarks: Marge: Attached are two copies of the revised site plan from Deluca-Hoffman (Steve Bushey) showing the new parking area at Building #1 now located 10' from the property line on Presumpscot Street based on your comments and denial of approval of the Building #1 building


 Eric Mora



Cc: Project File



Building # 1

STATEMENT OF SPECIAL INSPECTIONS

PROJECT: Roundhouse Property Expansion
 LOCATION: 125 Presumpscot Street Portland, ME
 PERMIT APPLICANT: HARDY POND CONSTRUCTION
 APPLICANT'S ADDRESS: 1039 RIVERSIDE ST. PORTLAND, ME
 STRUCTURAL ENGINEER OF RECORD: William Haney Lincoln/Haney Engineering Firm
 ARCHITECT OF RECORD: Greg Ninow Cubellis Firm

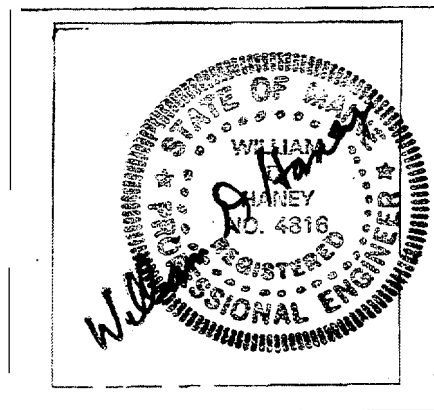
This Statement of Special Inspections is submitted in accordance with Section of the National Building Code. It includes a listing of special inspections applicable to this project as well as the name of the Special Inspector, and the names of other agencies intended to be retained for conducting these inspections.

The Special Inspector shall keep records of all inspections listed herein, and shall furnish inspection report- to the Code Official and to the Registered Design Professional of Record. All discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Code Official and to the Registered Design Professional of Record. Interim reports shall be submitted to the Code Official and to the Registered Design Professional of Record monthly, unless more frequent submissions are requested by the Code Official.

Job site safety is solely the responsibility of the Contractor. Materials and activities to be inspected are not to include the Contractor's equipment and methods used to erect or install the materials listed

Prepared By:

Lincoln/Haney Engineering



Applicant's Authorization:

William A. Haney 8/26/05
 SIGNATURE DATE

Building # 1

FROM DESIGNER: Lincoln/Haney Engineering Associates
 DATE: 8/26/05
 Job Name: Roundhouse Property Expansion
 Address of Construction: 125 Presumpscot Street Portland, ME

2003 International Building Code

Construction project was designed according to the building code criteria listed below.

Building Code and Year 07/10 Use Group Classification(s) BUSINESS
 Type of Construction V
 Will the Structure have a Fire suppressor system in Accordance with Section 903.3.1 of the 2003 IRC N
 Is the Structure mixed use? N if yes, separated or non separated (see Section 302.3) _____
 Supervisory alarm system? N Geotechnical/Soils report required? (See Section 2802.2) Yes

Drawings Submitted Y STRUCTURAL DESIGN CALCULATIONS
 No Calculations Submitted N Submitted for all structural members (108.1, 108.1.1)

PT								
9								
T								
E								
V								
U								
D								
H								
Case 1	18	2.9	13.1	3.0	-8.0	-10.9	-5.8	-8.8
Case 2	-	-	-	-	-3.1	-6.0	-0.8	-3.8

Zone 1 7.5 / 14.0 } For A
 Zone 2 7.5 / 21.1 }
 Zone 3 7.5 / 32.6 } = 50

DESIGN LOADS ON CONSTRUCTION DOCUMENTS (1803)

Uniformly distributed floor live loads (1603.1.1, 1607)

Floor Area Use	Loads Shown
Mezzanine	80 psf

Wind loads (1603.1.4, 1609)

Simplified Design option utilized (1609.1.1, 1609.6)
 Basic wind speed (V) (1609.3) 95
 Building category and wind importance factor, I_w (Table 1604.5, 1609.5) II / 1.0
 Wind exposure category (1609.4) B
 Internal pressure coefficient (ASCE 7) +/- 0.18

Earthquake design data (1803.1.5, 1814 - 1823)

General Design option utilized (1814.1)
I Seismic use group ("Category") (Table 1604.5, 1816.2)
 Spectral response coefficients, S_{ds} & S_{d1} (1815.1) SDS = .50 / SD1 = .23
E Site class (1815.1.5)

N/A Live load reduction (1603.1.1, 1607.8, 1607.10)
N/A Roof live loads (1603.1.2, 1607.11)
 Roof snow loads (1803.1.3, 1608)
60 Ground snow load, P_g (1808.2)
46.2 If $P_g > 10$ psf, flat-roof snow load, P_f (1608.3)
1.0 If $P_g > 10$ psf, snow exposure factor, C_e (Table 1808.3.1)
1.0 If $P_g > 10$ psf, snow load importance factor, I_s (Table 1604.5)
1.1 Roof thermal factor, C_t (Table 1608.3.2)
50 (min.) Sloped roof snowload, P_s (1808.4)
C Seismic design category (1816.3)
K Basic seismic-force-resisting system (Table 1817.8.2)
6 1/4 Response modification coefficient, R , and deflection amplification factor, C_d (Table 1817.8.2)
Simplified Analysis procedure (1816.6, 1817.5)
12,300 # Design base shear (1817.4, 1817.5.1)
 Flood loads (1803.1.8, 1812)
N/A Flood hazard area (1812.3)
N/A Elevation of structure
 Other loads
N/A Concentrated loads (1807.4)
N/A Partition loads (1607.5)
N/A Impact loads (1607.8)
N/A Misc. loads (Table 1607.6, 1607.6.1, 1607.7, 1607.12, 1607.13, 1810, 1811, 2404)

BUILDING #1

VISION



CITY OF PORTLAND
BUILDING CODE CERTIFICATE
389 Congress St., Room 315

TO: Inspector of Buildings City of Portland, Maine
Department of Planning & Urban Development
Division of Housing & Community Service

FROM: Gregory Nirow

RE: Certificate of Design

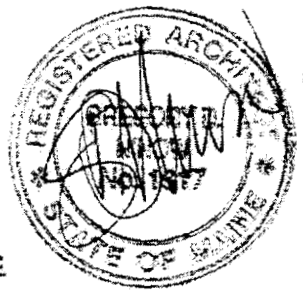
DATE: 9/25/05

These plans and / or specifications covering construction work on:

Ranchhouse 125 Presumpscot Street

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the 2003 International Building Code and local amendments.

(SEAL)



Signature: Nirow

Title: Principal

Firm: Cubellis Associates

Address: 420 Fore Street
Portland Me.

As per Maine State Law:

\$50,000.00 or more in new construction, repair expansion, addition, or modification for Building or Structures, shall be prepared by a registered design Professional



CITY OF PORTLAND
BUILDING CODE CERTIFICATE
389 Congress St., Room 315
Portland, Maine 04101

ACCESSIBILITY CERTIFICATE

Designer: Cubellis Associates
Address of Project: 125 PRAMPOUNT STREET
Nature of Project: Commercial Office space

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act.

Signature: [Signature]
Title: Principal
Firm: Cubellis Associates
Address: 420 Fore Street
Portland Me
Phone: (207) 874-2777

(SEAL)





City of Portland Site Plan 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.

Address of Proposed Development: <u>125 PRESUMPSCOT STREET (Rainhouse)</u> Zone: <u>IM</u>		
Total Square Footage of Proposed Structure: <u>23,647 SF</u>	Square Footage of Lot: <u>270,386 SF (6.85 ACRES)</u>	
Tax Assessor's Chart, Block & Lot: Chart# <u>425</u> Block# <u>A</u> Lot# <u>2</u>	Property owner's mailing address: <u>Jerome Ade</u> <u>P.O. Box 403</u> <u>PORTLAND, ME 04112</u>	Telephone #: <u>-</u>
Consultant/Agent, mailing address, phone # & contact person: <u>STEPHEN BUSHEY</u> <u>DELICA HOFFMAN ASSOCIATES INC</u> <u>778 MAIN STREET</u> <u>S. PORTLAND, MAINE 04106</u> <u>775-1121</u>	Applicant's name, mailing address, telephone #/Fax#/Pager#: <u>Jerome Ade</u> <u>P.O. Box 403</u> <u>Portland, ME 04112</u>	Project name: <u>Rainhouse</u> <u>Expansion</u>

Proposed Development (check all that apply)

New Building
 Building Addition
 Change of Use
 Residential
 Office
 Retail
 Manufacturing
 Warehouse/Distribution
 Parking lot
 Subdivision (\$500.00) + amount of lots _____ (\$25.00 per lot) \$ _____
 Site Location of Development (\$3,000.00)
 (except for residential projects which shall be \$200.00 per lot _____)
 Traffic Movement (\$1,000.00)
 Stormwater Quality (\$250.00)
 Section 14-403 Review (\$400.00 + \$25.00 per lot)
 Other _____

Major Development (more than 10,000 sq. ft.)

Under 50,000 sq. ft. (\$500.00)
 50,000 - 100,000 sq. ft. (\$1,000.00)
 Parking Lots over 100 spaces (\$1,000.00)
 100,000 - 200,000 sq. ft. (\$2,000.00)
 200,000 - 300,000 sq. ft. (\$3,000.00)
 Over 300,000 sq. ft. (\$5,000.00)
 After-the-fact Review (\$1,000.00 + applicable application fee)

Minor Site Plan Review

Less than 10,000sq. ft. (\$400.00)
 After-the-fact Review (\$1,000.00 + applicable application fee)

Plan Amendments

Planning Staff Review (\$250.00)
 Planning Board Review (\$500.00)

- Please see next page -

Who billing will be sent to: (Company, Contact Person, Address, Phone #) Jerome Ade. P.O. Box 405 Portland, ME 04112 235-1173
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- Submittals shall include (9) separate folded packets of the following:
- copy of application
 - cover letter stating the nature of the project
 - site plan containing the information found in the attached sample plans check list

Amendment to Plans: Amendment applications should include 6 separate packets of the above (a, b, & c)
ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

Section 14-522 of the Zoning Ordinance outlines the process; copies are available at the counter at .50 per page (8.5 x11) you may also visit the web site: [ci.portland.me.us_chapter 14](http://ci.portland.me.us_chapter14)

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 of applicant: <i>Steph Zuby agent</i>	Date: <i>4/20/05</i>
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This application is for site review ONLY, a building Permit application and associated fees will be required prior to construction.

Development in Portland

The City of Portland has instituted the following fees to recover the costs of reviewing development proposals under the Site Plan and Subdivision ordinances: application fee; engineering fee; and inspection fee. Performance and defect guarantees are also required by ordinance to cover all site work proposed.

The Application Fee covers general planning and administrative processing costs, and is paid at the time of application.

The Planning Division is required to send notices to neighbors upon receipt of an application and prior to public meetings. The applicant will be billed for mailing and advertisement costs. Applicants for development will be charged an Engineering Review Fee. This fee is charged by the Planning Division for review of on-site improvements of a civil engineering nature, such as storm water management as well as the engineering analysis of related improvements within the public right-of-way, such as public streets and utility connections, as assessed by the Department of Public Works. The Engineering Review fee must be paid before a building permit can be issued. Monthly invoices are sent out by the Planning Division on a monthly basis to cover engineering costs.

A Performance Guarantee will be required following approval of development plans. This guarantee covers all required improvements within the public right-of-way, plus certain site improvements such as landscaping, paving, and drainage improvements. The Planning Division will provide a cost estimate form for figuring the amount of the performance guarantee, as well as sample form letters to be filled out by a financial institution.

An Inspection Fee must also be submitted to cover inspections to ensure that sites are developed in accordance with the approved plan. The inspection fee is 2.0% of the performance guarantee amount, or as assessed by the planning or public works engineer. The minimum inspection fee is \$300 for development, unless no site improvements are proposed. Public Works inspects work within the City right-of-way and Planning inspects work within the site including pipe-laying and connections. (The contractor must work with inspectors to coordinate timely inspections, and should provide adequate notice before inspections, especially in the case of final inspection.)

Upon completion of a development project, the performance guarantee is released, and a Defect Guarantee in the amount of 10% of the performance guarantee must be provided. The Defect Guarantee will be released after a par.

Other reimbursements to the City include actual or apportioned costs for advertising and mailed notices. All fees shall be paid prior to the issuance of any building permit.

For more information on the fees or review process, please call the Planning Division at 871-8719 or 874-8721.



City Of Portland Site Plan Checklist

Project Name, Address of Project

Application Number

Submitted () & Date Item	Required Information	Section 14-525 (b,c)
<u>see site plan</u>	(1) Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	1
<u>✓ 7/20/05</u>	(2) Name and address of applicant and name of proposed development	a
<u>✓</u>	(3) Scale and north points	b
<u>✓</u>	(4) Boundaries of the site	c
<u>✓</u>	(5) Total land area of site	d
<u>✓</u>	(6) Topography - existing and proposed (2 feet intervals or less)	e
<u>✓</u>	(7) Plans based on the boundary survey including:	2
<u>✓</u>	(8) Existing soil conditions	a
<u>✓</u>	(9) Location of water courses, marshes, rock outcroppings and wooded areas	b
<u>✓</u>	(10) Location, ground floor area and grade elevations of building and other structures existing and proposed, elevation drawings of exterior facades, and materials to be used	c
<u>✓</u>	(11) Approx location of buildings or other structures on parcels abutting the site	d
<u>✓</u>	(12) Location of on-site waste receptacles	e
<u>✓</u>	(13) Public utilities	e
<u>✓</u>	(14) Water and sewer mains	e
<u>✓</u>	(15) Culverts, drains, existing and proposed, showing size and directions of flows	e
<u>✓</u>	(16) Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed	f
<u>✓</u>	(17) Location and dimensions of on-site pedestrian and vehicular access ways	
<u>✓</u>	(18) Parking areas	g
<u>✓</u>	(19) Loading facilities	g
<u>✓</u>	(20) Design of ingress and egress of vehicles to and from the site onto public streets	g
<u>✓</u>	(21) Curb and sidewalks	g
<u>✓</u>	(22) Landscape plan showing:	h
<u>✓</u>	(23) Location of existing proposed vegetation	h
<u>✓</u>	(24) Type of vegetation	h
<u>✓</u>	(25) Quantity of plantings	h
<u>✓</u>	(26) Size of proposed landscaping	h
<u>✓</u>	(27) Existing areas to be preserved	h
<u>✓</u>	(28) Preservation measures to be employed	h
<u>✓</u>	(29) Details of planting and preservation specifications	h
<u>✓</u>	(30) Location and dimensions of all fencing and screening	i
<u>✓</u>	(31) Location and intensity of outdoor lighting system	j
<u>✓</u>	(32) Location of fire hydrants, existing and proposed	k
<u>✓</u>	(33) Written statement	c
<u>✓</u>	(34) Description of proposed uses to be located on site	l
<u>✓</u>	(35) Quantity and type of residential, if any	l
<u>✓</u>	(36) Total land area of the site	b2
<u>✓</u>	(37) Total floor area and ground coverage of each proposed building and structure	b2
<u>✓</u>	(38) General summary of existing and proposed easements or other burdens	c3
<u>✓</u>	(39) Method of handling solid waste disposal	4
<u>✓</u>	(40) Applicant's evaluation of availability of off-site public facilities, including sewer, water and streets	5
<u>✓</u>	(41) Description of any problems of drainage or topography, or a representation that there are none	6
<u>✓</u>	(42) An estimate of the time period required for completion of the development	

Neighborhood Meetings

In May of 2001, the Planning Board's review procedures were revised to improve neighborhood notification and encourage communication between applicants for development and neighborhood residents.

Neighborhood meetings, organized and hosted by the applicant, are now required for zone change proposals, subdivisions of 5 or more units/lots, and for any major site plan proposals only. Notification of the neighborhood meeting must be mailed to property owners within 500 ft. of the development parcel.

Scheduling of Neighborhood Meeting:

The neighborhood meeting must be held after the first Planning Board workshop but not less than seven (7) days prior to the Planning Board public hearing.

The meeting should be held in the evening, during the week, at a location in the neighborhood.

Upon request, the Planning Division **will** provide to the applicant mailing labels for the neighborhood meeting invitation. We require 48 hours notice to generate the mailing labels. A charge of \$1.00 per sheet of labels will be payable upon receipt of the labels.

Notice:

The applicant shall send notices to property owners within 500 ft. of the development site at least 7 days **prior** to the neighborhood meeting. Notice shall contain a brief description of the project, date, time and location of the neighborhood meeting.

Sign-up Sheets and Meeting Minutes:

At the meeting, the applicant shall circulate a sign-up sheet for those in attendance. The applicant shall also keep minutes of the meeting.

After holding the neighborhood meeting, the applicant shall submit the sign-up sheet and meeting minutes to the Planning Division. The meeting minutes and sign-up sheet will be attached to the Planning Board report. A public hearing will not be scheduled until the meeting minutes and sign-up sheet are submitted to the Planning Authority.

Please call the Planning Office (874-8719) if you have any questions.

Hardypond Construction
 1039 Riverside Street, Ste. 11
 Portland, ME 04103

TRANSMITTAL

To: City of Portland, Maine

Date: 10/05/05

Attention: Mike Nugent

Job#: 0522

RE: Roundhouse Property Expansion

WE ARE SENDING YOU Attached via hand delivery the following items:

- Shop Drawings Plans Letter Specifications
 Samples Prints Change Order Other:

COPIES	DATE	NO.	DESCRIPTION
1	8/2/05		Geotechnical Report (S.W. Cole Engineering)

THESE ARE TRANSMITTED:

- For Review and Comment For Approval For Your Use As Requested
 Approved as Submitted Approved as Noted Returned After Loan Resubmitted
 Returned for Corrections Submitted Returned Install Fee Schedule

Contract

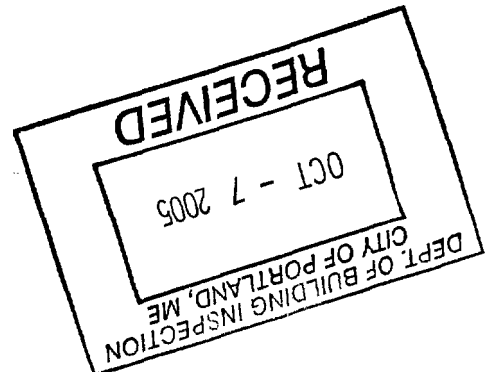
Remarks:



Eric S. Mora, Project Manager

Cc: Project File

797-6066
Eric



**GEOTECHNICAL ENGINEERING SERVICES
PROPOSED BUILDINGS 1, 2 AND 3
125 PRESUMPCOT STREET
PORTLAND, MAINE**

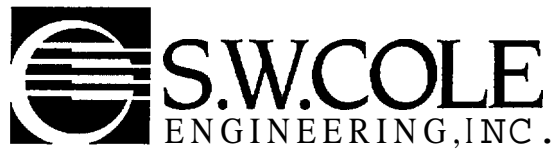
05-0357

August 2, 2005

PREPARED FOR:

Ade Property Management
Attention: Jerry Ade
P.O. Box 403
Portland, Maine

PREPARED BY:



286 Portland Road
Gray, Maine 04039

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Scope of Work	1
1.2 Proposed Construction	1
2.0 EXPLORATION AND TESTING	2
2.1 Exploration	2
2.2 Testing	2
3.0 SITE AND SUBSURFACE CONDITIONS	3
3.1 Site Conditions	3
3.2 Subsurface Conditions	3
3.3 Groundwater Conditions	4
3.4 Seismic and Frost Conditions	4
4.0 EVALUATION AND RECOMMENDATIONS	4
4.1 General Findings	4
4.2 Site and Subgrade Preparation	5
4.2.1 Building Areas	5
4.2.2 Utility Trench Subgrades	6
4.3 Foundation Design	6
4.4 Foundation Drainage	7
4.5 Slab-On-Grade Floors	7
4.6 Backfill and Compaction	8
4.7 Entrance Slabs	9
4.8 MSE Walls	9
4.9 Weather Considerations	10
4.10 Design Review and Construction Testing	11
5.0 CLOSURE	11

Attachment A	Limitations
Sheet I	Exploration Location Plan
Sheets 2 - 13	Test Pit Logs
Sheet 14	Key to the Notes and Symbols
Sheets 15 - 17	Laboratory Test Results

occupy a plan area of about 10,100 SF at a finished floor elevation (FFE) of 31.5 feet. Building 2 will occupy about 6,100 SF of plan area at a FFE of 31.5 feet. Building 3 will occupy a plan area of about 7,500 SF at a FFE of 32.5 feet. Based on the proposed site plans, we anticipate Buildings 1 and 2 will require tapered fills approaching 1 to 2 feet to establish slab elevation and Building 3 will require a tapered cut approaching 6 feet and a tapered fill approaching 2 feet. A new site retaining wall, approaching 7 feet in height, is proposed on the south and west sides of Building 3. A new below grade stormwater storage system is proposed beneath the new parking area north of Building 3. Proposed and existing site features are shown on the "Exploration Location Plan" attached as Sheet 1.

Based on our discussions with Cubellis Associates (project architect), we understand the buildings will be one-story, on-grade, wood-framed structures with wood siding. We understand spread footing foundation and on-grade floor slabs are proposed. We understand the floor slab will be for office use and building and slab loads are anticipated to be relatively light.

2.0 EXPLORATION AND TESTING

2.1 Exploration

Twenty-four test pits (TP-1 through TP-24) were made at the site on July 26, 2005 by Shaw Bros. Construction of Gorham, Maine. The approximate exploration locations are shown on the "Exploration Location Plan" attached as Sheet 1.

The test pit locations were selected by S.W. COLE ENGINEERING, INC. and were determined in the field based upon measurements from existing site features. Logs of the test pit explorations are attached as Sheets 2 through 13. A key to the notes and symbols used on the logs is attached as Sheet 14. The elevations shown on the logs were estimated based upon topographic information shown on Sheet 1.

2.2 Testing

Visual soil classification was conducted during the exploration program. The results of four soil moisture content tests are shown on the logs. The results of three soil gradation tests are presented on Sheets 15 through 17.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Site Conditions

The approximate 6.8-acre site is located at 125 Presumpscot Street in Portland, Maine. We understand the site was once a railroad repair facility with a roundhouse, several outbuildings and railroad tracks. Based on the site plans provided, we understand the proposed buildings 1, 2 and 3 will be situated over the northeast, east and southeast portions of the site. Proposed Building 1 is situated in a relatively flat area occupied by an existing building and grassed landscape areas. Proposed Building 2 is situated in a gently sloping area occupied by overgrown railroad tracks and grassed areas. Proposed Building 3 is situated in a gently sloping grassed area.

3.2 Test Pits

Test pits TP-1 through TP-6 were made in the area of proposed Building 1. These test pits encountered 3 to 8 inches of topsoil overlying dark brown silty sand with gravel, bricks, wood, concrete and coal ash (fill) overlying brown gravelly sand overlying stiff gray silty clay or hard brown silty clay. Test pits TP-1 through TP-6 were terminated within the native silty clay soils at depths of 5 to 6.3 feet below existing ground surface.

Test pits TP-13 through TP-15 were made in the area of proposed Building 2. These test pits encountered 6 to 10 inches of topsoil or stone fill overlying dark brown silty sand with gravel, bricks, coal ash and coal clinker (fill) overlying reddish brown to light brown silty sand overlying hard brown silty clay. Test pits TP-13 through TP-15 were terminated at depths of 6.5 to 7.5 feet.

Test pits TP-18 through TP-24 were made in the area of proposed Building 3. These test pits encountered 0 to 12 inches of topsoil overlying brown to dark brown silty sand with coal, bricks and concrete overlying reddish brown silty sand with gravel and cobbles. Test pits TP-17 through TP-19 were terminated in the reddish brown silty sand stratum at depths of 6.8 to 8.1 feet below the ground surface. Test pits TP-20 through TP-22 and TP-24 were terminated on refusal surfaces interpreted to be shallow bedrock at depths of 2.5 to 6.0 feet below the ground surface. Test pit TP-23 was terminated on a relic concrete slab at a depth of 3.0 feet below the ground surface.

Test pits TP-7 through TP-12, TP-16 and TP-17 were made in areas of proposed buried utilities or other site improvements.

Refer to the attached test pit logs for more detailed descriptions of the subsurface findings at the test pit locations.

3.3 Groundwater Conditions

In general, groundwater seepage was not observed within the depth explored. The soils at test pit TP-16 and TP-17 were wet at a depth of 8 feet below ground surface. The water table could not be determined due to the short extent of the explorations were left open. Groundwater will fluctuate seasonally and in response to precipitation and snowmelt. The contractor should anticipate the need for dewatering excavations during construction.

3.4 Seismic and Frost Conditions

According to the 2003 International Building Code, we interpret the site soils beneath proposed Buildings 1 and 2 to correspond to a seismic Site Class E and beneath proposed Building 3 to correspond to a seismic Site Class D. The design-freezing index for the Portland, Maine area is about 1,250 Fahrenheit degree-days, which corresponds to a frost penetration on the order of 4.5 feet.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General Findings

Based on the subsurface findings and our understanding of the proposed construction, the proposed construction appears feasible from a geotechnical standpoint. The principal geotechnical considerations relative to building foundations are the presence of uncontrolled fills and moisture sensitive silty clays and silty sands beneath proposed Buildings 1 and 2, as well as relatively shallow bedrock beneath proposed Building 3. Based on our understanding of the proposed construction and the subsurface findings, we anticipate the footings for Buildings 1 and 2 will extend through the uncontrolled fills and be founded on stable deposits of silty sand or silty clay. Similarly, we anticipate the footings for Building 3 will extend through the uncontrolled fills and be founded on stable deposits of silty sand or on bedrock that has been blasted.

4.2 Site and Subgrade Preparation

An erosion control system should be instituted prior to construction activity at the site to help protect adjacent drainageways. We recommend that site preparation begin with the removal of topsoil, organics, roots, stumps, pavements and concrete from beneath building and paved areas. As much vegetation as possible should remain over inactive construction areas to help lessen the potential for erosion.'

Groundwater and wet soil conditions may be encountered during excavations. In our opinion, ditching with sump and pump dewatering techniques should be adequate to control groundwater for foundation construction. Groundwater should be controlled to at least 12 inches below subgrade. In any case, excavations must be properly shored and/or sloped in accordance with OSHA trenching regulations to prevent sloughing and caving of the sidewalls during construction.

4.2.1 Building Areas

We recommend footing subgrades be overexcavated by at least 1 foot or until stable native, undisturbed non-organic soils are exposed. Footing excavations for Buildings 1 and 2 should be made using a smooth-edged bucket to lessen subgrade disturbance. Excavation for Building 3 may be made using a toothed bucket following blasting for bedrock removal. The width of overexcavation should extend one foot away from the edge of footings for each foot of overexcavation depth. The overexcavated area should be backfilled with compacted structural fill. The 1-foot layer of compacted Structural Fill will provide a working mat for foundation construction.

The uncontrolled fills under the building slabs should be proof-rolled and densified with a vibratory smooth drum roller weight at least 10-tons. Soft or yielding areas that develop during proof-rolling should be overexcavated and backfilled with compacted Structural Fill. Compacted Structural Fill should be used to raise grades beneath floor slabs in proposed building areas.

The bedrock encountered in Building 3 will require blasting for removal. Blasting should be performed by a qualified blasting company. An owner coordinated pre-blast survey should be performed on all structures, utilities and drinking water wells within 500 feet of

the proposed blast area. Blasting should be performed in such a manner as to control peak ground accelerations and airblast overpressures to tolerable levels. S.W. COLE ENGINEERING is available to assist in performing pre-blast surveys and to conduct monitoring during blasting activities to measure peak ground accelerations and airblast overpressures.

4.2.2 Utility Trench Subgrades

We anticipate that deeper utilities may be placed as part of the overall construction. If soft soils are encountered at the trench bottom, we recommend the soft soils be overexcavated by at least 18 inches and replaced with compacted crushed stone underlain by non-woven geotextile fabric, such as Mirafi 160N. Below manhole and vault structures, the overexcavation depth should be at least 24 inches if soft subgrades are encountered. We recommend the excavation in soft ground conditions be made with a smooth-edged bucket to lessen soil disturbance.

In areas of shallow bedrock, we recommend that bedrock be overblasted to allow at least 1 foot of bedding material between the bedrock surface and utility invert. In any case, we recommend that buried utilities be bedding with crushed stone or bedding sand as recommended by the pipe or conduit manufacturer.

4.3 Foundation Design

Considering the subsurface findings and our understanding of the proposed construction, we recommend the following geotechnical parameters for design of shallow spread footings founded on properly prepared subgrades:

Design Frost Depth	4.5 feet
Net Allowable Soil Bearing Capacity	2.0 ksf
Post-Construction Settlement	1 inch or less
Base Friction Factor	0.40
Backfill Unit Weight (Structural Fill)	125 pcf
Passive Lateral Earth Pressure Coeff.	3.3

The design-freezing index for the Portland, Maine area is approximately 1,250 Fahrenheit degree-days, which corresponds to a frost penetration depth on the order of 4.5 feet. Foundations exposed to freezing must be covered with at least **4.5** feet of soil to provide frost protection.

According to the 2003 International Building Code, we interpret the site soils beneath proposed Buildings 1 and 2 to correspond to a seismic Site Class E and beneath proposed Building 3 to correspond to a seismic Site Class D. Wall footings should be at least 18 inches wide and column footings should be at least 24 inches wide.

4.4 Foundation Drainage

We recommend that a perimeter foundation underdrain system be installed near footing grade. 4-inch diameter perforated foundation drainpipe wrapped in a filter sock should be utilized. The foundation drainpipe should be enveloped in at least 12 inches of MDOT Standard Specification 703.22 Type B "Underdrain Sand". The foundation underdrains must have a positive gravity outlet protected from backwater and freezing conditions. Exterior foundation backfill should be sealed with a surficial layer of clayey or loamy soil in areas that are not paved or occupied by entrance slabs to reduce direct surface water infiltration into the backfill. Ideally, surface grades should be sloped away from the building for positive surface water drainage.

4.5 Slab-On-Grade Floors

Concrete slab-on-grade floors in heated spaces may be designed using a subgrade reaction modulus of 150 pci provided the slab is underlain by at least 12 inches of compacted Structural Fill overlying a properly prepared subgrade.

A 15-mil vapor retarder to limit the upward migration of moisture vapors should be placed beneath all floor slabs covered with moisture sensitive flooring. We recommend that control and construction joints be installed within floor slabs to accommodate shrinkage in the concrete as it cures and that the slabs be wet-cured for a period of at least 7 days after casting as a measure to reduce the potential for curling of the concrete and excessive drying/shrinkage. Following the wet cure period, we recommend consideration be given to using a curing compound to improve the quality of the completed floor. The curing compound, if used, must be compatible with the floor coverings to be used.

4.6 Backfill and Compaction

The existing uncontrolled fills and sandy site soils may be considered suitable for reuse as fill beneath paved areas provided they are approved for reuse in the VRAP plan being assembled for the site and provided any organics and wood are removed before reuse. The native clayey soils may be considered suitable for reuse in landscape areas. Structural Fill should be used to raise site grades within building footprints and as a base material below interior slabs and footings. Backfill placed adjacent to the foundation walls, directly below sidewalks, and entrance slabs should be Structural Fill meeting the gradation requirements as given below.

Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	90 to 100
¾ inch	25 to 90
No. 40	0 to 30
No. 200	0 to 5

Crushed stone used for pipe bedding and trench bottom stabilization should meet the requirements for MDOT Standard Specification 703.22 Type C “Underdrain Aggregate” as given below. A nominal sized uniformly graded ¾-inch washed crushed stone generally meets this gradation requirement.

Sieve Size	Percent Finer by Weight
1 inch	100
¾ inch	90 to 100
3/8 inch	0 to 75
#4	0 to 25
#10	0 to 5

MDOT Standard Specification 703.22 Type B “Underdrain Sand” as given below.

Sieve Size	Percent Finer by Weight
1 inch	95 to 100
½ inch	75 to 100
#4	50 to 100
#20	15 to 80
#50	0 to 15
#200	0 to 5

Fill should be placed in horizontal lifts and compacted. Loose lift thickness should be generally limited to 6 to 12 inches such that the desired density is achieved throughout the lift thickness within 3 to 5 passes of the compaction equipment.

We recommend that fill placed below footings, slabs, sidewalks and pavement be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Backfill placed against retaining walls should be compacted to between 92 to 95 percent of ASTM D-1557 to avoid overstressing the wall. Crushed stone should be compacted to 100 percent of its dry rodded unit weight per ASTM C-29.

4.7 Entrance Slabs

Entrance slabs should be designed to reduce the effects of differential frost action. We recommend excavation beneath entrance slabs continue to **4.5** feet below finish grade. The 4.5-foot depth should extend outward from the building to the full width of the entrance slab. The Structural Fill should transition up to any adjacent sidewalk or pavement sub-base at a 3H:1V slope or flatter. Adjacent paved and grassed areas should be sloped to promote drainage away from the building periphery.

4.8 MSE Walls

Considering the subsurface findings and the proposed grades, we anticipate the proposed MSE Wall south of Building 3 will like consist of a rock cut with 2 to 3 feet of overburden and the proposed MSE Wall west of Building 3 will consist of a rock cut with 2 to 3 of overburden transitioning to a soil cut. Consequently, we recommend planning

and design consider construction of a 0.5H:1V pre-split blasted rock cut with a 2H:1V soil slope above the rock cut and in areas of all soil cut.

Alternatively, the bedrock could be blasted and removed for construction of a conventional MSE wall. For MSE Walls founded on at least 6 inches of $\frac{3}{4}$ -inch crushed stone over stable native non-organic subgrades, we recommend the following geotechnical parameters for design:

- Net Allowable Bearing Pressure = 2.0 ksf or less
- Foundation Soil Internal Friction Angle = 30 degrees
- Reinforced Zone Backfill Unit Weight = 125 pcf (Structural Fill)
- Reinforced Zone Internal Friction Angle = 32 degrees (Structural Fill)
- Retained Soil Unit Weight = 140 pcf (Granular and Rock Borrow)
- Retained Soil Internal Friction Angle = 32 degrees (Granular and Rock Borrow)

We understand that MSE Wall design will likely be completed by the MSE Wall Manufacturer including analyses of bearing capacity, overturning and internal stability of the wall. We recommend a minimum geo-grid length of 70 percent of the wall height for design consideration.

Alternatively, the retaining wall could be incorporated into the exterior wall of Building 3. In this case, the wall would likely be constructed of cast-in-place reinforced concrete and would be restrained from rotation requiring an at-rest lateral earth pressure of 0.5 for design. For this case, we recommend the wall be waterproofed and insulated and that a drainage swale be constructed to divert surface runoff away from the building.

4.9 Weather Considerations

If foundation construction takes place during cold weather, subgrades, foundations, and floor slabs must be protected during freezing conditions. Fill below structures, as well as concrete, must not be placed on frozen soil and once placed the soil and concrete must be protected from freezing. Further, the native soils are moisture sensitive, and as such subgrades will be susceptible to disturbance during wet conditions. Consequently,

sitework and construction activities should take appropriate measures to protect exposed subgrades, particularly during wet *or* freezing conditions.

4.10 Design Review and Construction Testing

S. W. COLE ENGINEERING, INC. should be retained to review the final design and specifications to determine that our earthwork and foundation recommendations have been properly interpreted and implemented.

During construction, S. W. COLE ENGINEERING, INC. should observe subgrade soils prior to fill or concrete placement to allow design changes in the event that subsurface conditions are found to differ from those anticipated prior to the start of construction. A construction materials testing program should be implemented to observe compliance with the plans, specifications, and design concepts. S. W. COLE ENGINEERING, INC. is available to provide field and laboratory testing of soil, concrete, masonry, steel and asphalt construction materials.

5.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. If you have any questions, please do not hesitate to contact us.

Sincerely,

S. W. COLE ENGINEERING, INC.

Timothy J. Boyce, P.E.
Senior Geotechnical Engineer

TJB:tjb/pfb

ATTACHMENT A

Limitations

This report has been prepared for the exclusive use of Ade Property Management for specific application to the Proposed Buildings 1, 2 and 3 at 125 Presumpscot Street in Portland, Maine. S. W. COLE ENGINEERING, INC. has endeavored to conduct the work in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and preliminary recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S. W. COLE ENGINEERING, INC.'s scope of work has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S. W. COLE ENGINEERING, INC. should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless S. W. COLE ENGINEERING, INC. reviews the changes.



PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT

LOCATION: 125 PRESUMPCOT STREET, PORTLAND, MAINE

PROJECT NO. 05-0357 &

05-0357.1

TEST PIT <u>TP-3</u>				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>30.1</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	8"	TOPSOIL	w = 5.1%	ND
S-1	2.0'	DARK BROWN SILTY SAND TRACE GRAVEL WITH BRICKS (FILL)		
S-2	3.0'	BROWN GRAVELLY SAND		
	5.1'	GRAY SILTY CLAY - STIFF -		
S-3	5.0'	BOTTOM OF EXPLORATION AT 5.1 FEET		
COMPLETION DEPTH: <u>5.1 FEET</u>		DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		

TEST PIT <u>TP-4</u>				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>30' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	8"	TOPSOIL		ND
S-1	2.0'	DARK BROWN GRAVELLY SAND SOME SILT WITH SOME COAL ASH (FILL)		
	3.4'	BROWN GRAVELLY SAND		
S-2	4.5'	GRAY SILTY CLAY - STIFF -		
S-3	5.0'	BOITOM OF EXPLORATION AT 6.0 FEET		
COMPLETION DEPTH: <u>6.0 FEET</u>		DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		



PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT

LOCATION: 125 PRESUMPCOT STREET, PORTLAND, MAINE

PROJECT NO 05-0357 &
05-0357.1

TEST PIT TP-5				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>30' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH (FT)	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	6"	TOPSOIL		
S-1	1.5'	DARK BROWN SILTY GRAVELLY SAND WITH COALASH (FILL)		ND
S-2	2.2'			
	2.4'	RUST STAINED BROWN SILTY SAND TRACE GRAVEL		
S-3	3.5'	GRAY SILTY CLAY " STIFF ~		ND
	5.0'			
		BOTTOM OF EXPLORATION AT 5.0 FEET		
COMPLETION DEPTH: <u>5.0 FEET</u> DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>				

TEST PIT TP-6				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>30' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH (FT)	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	8"	TOPSOIL		
S-1	2.5'	DARK BROWN SILTY SAND TRACE GRAVEL WITH BRICKS, CONCRETE AND COAL ASH (FILL)		ND
	3.6'			
S-2	5.5'	BROWN SILTY CLAY " HARD ~		ND
	6.0'			
		BOTTOM OF EXPLORATION AT 6.0 FEET		
COMPLETION DEPTH: <u>6.0 FEET</u> DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>				



PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT
LOCATION: 125 PRESUMPCOT STREET, PORTLAND, MAINE

PROJECT NO. 05-0357
05-0357

TEST PIT TP-7				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>31' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH (FT)	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	5"	TOPSOIL	w = 18.9%	ND
S-1	1.5'	DARK BROWN SILTY SAND TRACE GRAVEL WITH COAL ASH (FILL)		
S-2	3.0'	BROWN SILTY CLAY " HARD "		
	5.5'	BOTTOM OF EXPLORATION AT 5.5 FEET		
COMPLETION DEPTH: <u>5.5 FEET</u>		DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		

TEST PIT TP-8				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>30' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH (FT)	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	3"	TOPSOIL		ND
S-1	1.5'	BROWN GRAVEL SOME SAND (FILL)		
S-2	2.5'	BROWN SILTY CLAY " HARD "		
	3.0'	BOTTOM OF EXPLORATION AT 3.0 FEET		
COMPLETION DEPTH: <u>3.0 FEET</u>		DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		



PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT

LOCATION: 125 PRESUMPCOT STREET, PORTLAND, MAINE

PROJECT NO 05-0357 &
05-0357.1

TEST PIT TP-9

DATE: 7/26/05 SURFACE ELEVATION: 28' +/- LOCATION: SEE SHEET 1

SAMPLE		DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
NO.	DEPTH	(FT)			
		5"	BITUMINOUS ASPHALT PAVEMENT		
S-1	1.5'	4.1'	BROWN GRAVEL AND SAND WITH COBBLES (FILL)		ND
S-2	3.5'				ND
			REFUSAL AT 4.1 FEET (PROBABLE RELIC CONCRETE SLAB)		

COMPLETION DEPTH: 4.1 FEET DEPTH TO WATER: NO FREE WATER ENCOUNTERED

TEST PIT TP-10

DATE: 7/26/05 SURFACE ELEVATION: 29' +/- LOCATION: SEE SHEET 1

SAMPLE		DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
NO.	DEPTH	(FT)			
		5"	BITUMINOUS ASPHALT PAVEMENT		
S-1	1.0'	2.8'	BROWN GRAVEL AND SAND WITH COBBLES (FILL)		ND
S-2	2.8'				ND
			REFUSAL AT 2.8 FEET (PROBABLE RELIC CONCRETE SLAB)		

COMPLETION DEPTH: 2.0 FEET DEPTH TO WATER: NO FREE WATER ENCOUNTERED



PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT

LOCATION: 125 PRESUMPSCOT STREET, PORTLAND, MAINE

PROJECT NO 05-0357 &
05-0357.1

SAMPLE		DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
NO.	DEPTH	(FT)			
		6"	TOPSOIL		
S-1	1.0'		DARK BROWN SILTY SAND TRACE GRAVEL WITH COAL ASH (FILL)		ND
		1.9'			
S-2	3.5'		BROWN SILTY CLAY ~ HARD ~		ND
		4.5'			
			BOTTOM OF EXPLORATION AT 4.5 FEET		
COMPLETION DEPTH: <u>4.5 FEET</u>			DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		

SAMPLE		DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
NO.	DEPTH	(FT)			
		6"	TOPSOIL		
		1.0'	BROWN SAND TRACE GRAVEL (FILL)		
S-1	1.5'	1.6'	DARK BROWN SILTY SAND WITH BRICKS AND COAL ASH (FILL)		ND
S-2	2.5'		BROWN SILTY CLAY ~ HARD ~		ND
		4.0'			
			BOITOM OF EXPLORATION AT 4.0 FEET		
COMPLETION DEPTH: <u>4.0 FEET</u>			DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		



PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT
LOCATION: 125 PRESUMPSCOT STREET, PORTLAND, MAINE

PROJECT NO. 05-0357 & 05-0357.1

TEST PIT <u>TP-13</u>				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>30' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	10"	TOPSOIL		
S-1	1.5'	DARK BROWN SILTY SAND TRACE GRAVEL WITH BRICKS AND COAL ASH (FILL)		ND
	3.0'			
S-2	3.55'	REDDISH-BROWN SILTY SAND TRACE GRAVEL - DENSE -		ND
	7.5'	BOTTOM OF EXPLORATION AT 7.5 FEET		
COMPLETION DEPTH: <u>7.5 FEET</u>		DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		

TEST PIT <u>TP-14</u>				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>31' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	6"	TOPSOIL		
	1.9'	DARK BROWN SILTY SAND TRACE GRAVEL WITH BRICKS AND COAL ASH (FILL)		ND
			w = 9.3%	ND
		REDDISH BROWN SILTY SAND - DENSE -		
S-3	5.0'			ND
	5.9'			
	6.5'	BROWN SILTY CLAY - HARD -		
		BOTTOM OF EXPLORATION AT 6.5 FEET		
COMPLETION DEPTH: <u>6.5 FEET</u>		DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		



S.W. COLE ENGINEERING, INC.

TEST PIT LOGS

PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT

LOCATION: 125 PRESUMPCOT STREET, PORTLAND, MAINE

PROJECT NO 05-0357 &
05-0357.1

TEST PIT <u>TP-15</u>				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>32' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH (FT)	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	8"	STONE FILL		
S-1	1.5'	BROWN SAND WITH COAL ASH, COAL CLINKER AND BRICKS (FILL)		ND
S-2	3.5'			ND
	5.0'			
S-3	6.0'	LIGHT BROWN SILTY FINE TO MEDIUM SAND		ND
	7.5'			
		BOTTOM OF EXPLORATION AT 7.5'		
COMPLETION DEPTH: <u>7.5 FEET</u>		DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>		

TEST PIT <u>TP-16</u>				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>30' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH (FT)	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	8"	TOPSOIL		
S-1	1.0'	DARK BROWN SILTY SAND TRACE GRAVEL WITH COAL ASH (FILL)		ND
		BROWN SILTY SAND SOME GRAVEL WITH COBBLES		
S-2	4.5'			ND
	7.2'			
S-3	7.5'	LIGHT BROWN SILTY FINE SAND		ND
	8.0'			
		BOITOM OF EXPLORATION AT 8.0 FEET		
COMPLETION DEPTH: <u>8.0 FEET</u>		DEPTH TO WATER: <u>SOILS WET AT a FEET</u>		



PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT
LOCATION: 125 PRESUMPCOT STREET, PORTLAND, MAINE

PROJECT NO. **05-0357 &**
05-0357.1

TEST PIT TP-17

DATE: 7/26/05 SURFACE ELEVATION: 29' +/- LOCATION: SEE SHEET 1

SAMPLE NO.	DEPTH (FT)	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	4"	TOPSOIL		
S-1	1.5'	DARK BROWN SILTY SAND TRACE GRAVEL WITH COAL ASH (FILL)		ND
	2.1'			
S-2	3.0'	REDDISH BROWN SILTY SAND SOME GRAVEL WITH COBBLES		ND
S-3	5.5'			
	8.1'	BOTTOM OF EXPLORATION AT 8.1 FEET		

COMPLETION DEPTH: 8.1 FEET DEPTH TO WATER: SOILS APPEARED WET AT 8.0 FEET

TEST PIT TP-18

DATE: 7/26/05 SURFACE ELEVATION: 30' +/- LOCATION: SEE SHEET 1

SAMPLE NO.	DEPTH (FT)	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	6"	TOPSOIL		
S-1	2.0'	BROWN SILTY SAND SOME GRAVEL WITH BRICKS, METAL AND COBBLES (FILL)		ND
	2.1'			
S-2	3.5'	DARK BROWN SILTY SAND TRACE GRAVEL WITH BRICKS, COAL ASH AND COAL CLINKER (FILL)		ND
	4.0'			
S-3	6.0'	REDDISH BROWN SILTY SAND SOME GRAVEL AND COBBLES		ND
	7.0'			
		BOTTOM OF EXPLORATION AT 7.0 FEET		

COMPLETION DEPTH: 7.0 FEET DEPTH TO WATER: NO FREE WATER ENCOUNTERED



TEST PIT LOGS

PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT
 LOCATION: 125 PRESUMPCOT STREET, PORTLAND, MAINE

PROJECT NO 05-0357 &
 05-0357.1

TEST PIT TP-19				
DATE: 7/26/05		SURFACE ELEVATION: 32' +/-		LOCATION: SEE SHEET 1
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
S-1	0.5'	TOPSOIL		ND
		LIGHT BROWN SAND SOME GRAVEL (FILL)		
S-2	2.5'	DARK BROWN SILTY SAND SOME GRAVEL WITH COAL ASH, BRICKS AND WOOD (FILL)		ND
S-3	5.5'	REDDISH BROWN SILTY SAND SOME GRAVEL WITH COBBLES ~ DENSE ~		ND
		BOITOM OF EXPLORATION AT 6.8 FEET		
COMPLETION DEPTH: 6.8 FEET		DEPTH TO WATER: NO FREE WATER ENCOUNTERED		

TEST PIT TP-20				
DATE: 7/26/05		SURFACE ELEVATION: 33' +/-		LOCATION: SEE SHEET 1
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
S-1	1.5'	BROWN SAND AND GRAVEL (FILL)		ND
		DARK BROWN SILTY SAND SOME GRAVEL WITH COBBLES, BRICKS, METAL AND COAL ASH (FILL)		
S-2	3.0'			ND
S-3	6.0'	REDDISH BROWN SILTY SAND SOME GRAVEL AND COBBLES		ND
		REFUSAL AT 6.5 FEET (PROBABLE BEDROCK)		
COMPLETION DEPTH: 6.5 FEET		DEPTH TO WATER: NO FREE WATER ENCOUNTERED		



PROJECT/CLIENT: PROPOSED ROUNDHOUSE PROPERTY EXPANSION / ADE PROPERTY MANAGEMENT

LOCATION: 125 PRESUMPCOT STREET, PORTLAND, MAINE

PROJECT NO. 05-0357 & 05-0357 1

TEST PIT TP-23				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>36' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	8"	TOPSOIL		
S-1	2.0'	BROWN SILTY SAND SOME GRAVEL WITH COBBLES, WOOD AND WOOD ASH (FILL)		ND
	3.0'	REFUSAL AT 3.0 FEET (PROBABLE RELIC CONCRETE SLAB)		
COMPLETION DEPTH: <u>3.0 FEET</u> DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>				
TEST PIT TP-24				
DATE: <u>7/26/05</u>		SURFACE ELEVATION: <u>38' +/-</u>		LOCATION: <u>SEE SHEET 1</u>
SAMPLE NO.	DEPTH	STRATUM DESCRIPTION	TEST RESULTS	PID TEST RESULTS (PPM)
	1.0'	TOPSOIL		
S-1	1.5'	REDDISH BROWN SILTY SAND SOME GRAVEL WITH COBBLES " DENSE "		ND
	2.5'	REFUSAL AT 2.5 FEET (PROBABLE BEDROCK)		
COMPLETION DEPTH: <u>2.5 FEET</u> DEPTH TO WATER: <u>NO FREE WATER ENCOUNTERED</u>				



KEY TO THE NOTES & SYMBOLS

Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

W	-	water content, percent (dry weight basis)
q _u	-	unconfined compressive strength, kips/sq. ft. - based on laboratory unconfined compressive test
S _v	-	field vane shear strength, kips/sq. ft.
L _v	-	lab vane shear strength, kips/sq. ft.
q _p	-	unconfined compressive strength, kips/sq. ft. based on pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W _L	-	liquid limit - Atterberg test
W _P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass. RQD is computed from recovered core samples.
γ _T	-	total soil weight
γ _B	-	buoyant soil weight

Description of Proportions:

0 to 5% TRACE ,
5 to 12% SOME
12 to 35% "Y"
35+% AND

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

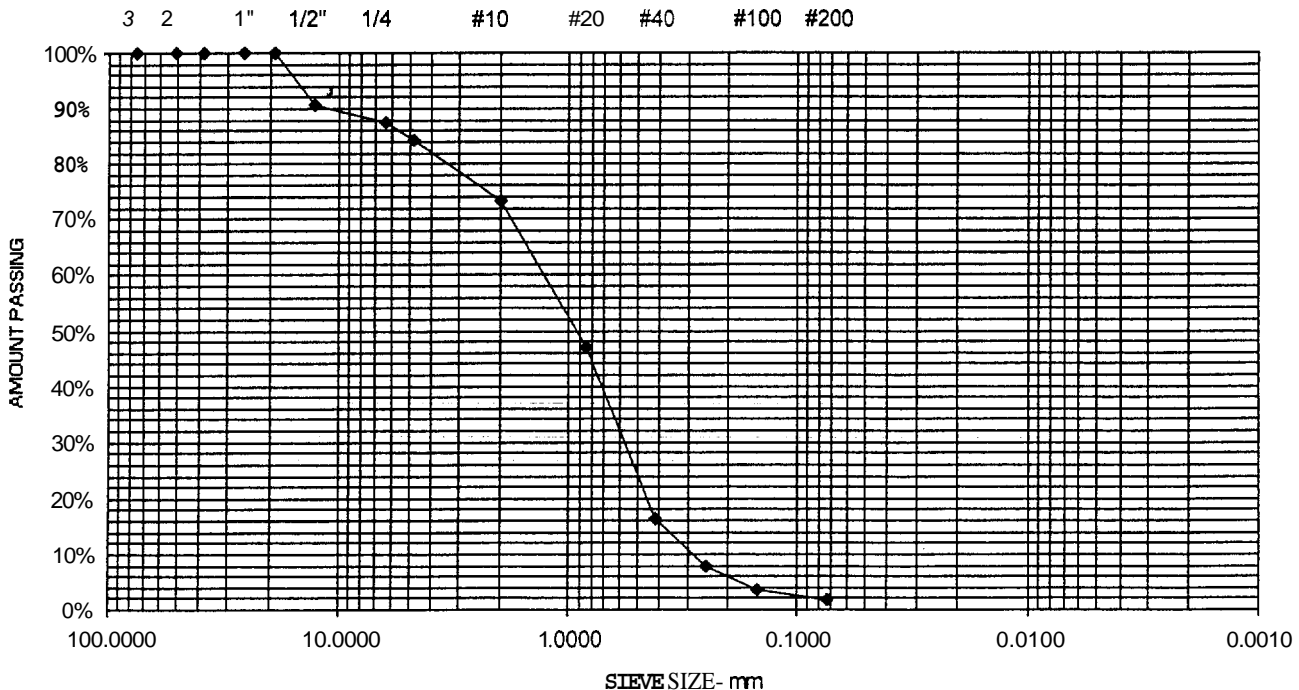
REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

Project Name ~~PORTLAND - ROUNDHOUSE PROPERTY EXPANSION -~~
GEOTECHNICAL ENGINEERING SERVICES
Client ABE PROPERTY MANAGEMENT
Exploration **TP-3 S-2**
Material Source **3.0'**

Project Number ~~05-0357~~
Lab ID 3807G
Date Received 7/28/2005
Date Complete 7/29/2005
Tested By COLIN PATTERSON

<u>STANDARD</u> <u>DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	91	
6.3 mm	1/4"	88	
4.75 mm	No. 4	84	15.5% Gravel
2.00 mm	No. 10	73	
850 μm	No. 20	47	
425 μm	No. 40	16	82.7% Sand
250 μm	No. 60	8	
150 μm	No. 100	3	
75 μm	No. 200	1.8	1.8% Fines



Project Name **PORTLAND - ROUNDHOUSE PROPERTY EXPANSION -
GEOTECHNICAL ENGINEERING SERVICES**

Client **ABE PROPERTY MANAGEMENT**

Exploration **TP-13 S-2**

Material Source **3.5'**

Project Number **05-0357**

Lab ID **3809G**

Date Received **7/28/2005**

Date Complete **7/29/2005**

Tested By **PATRICK OTTO**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0.2% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	98	
425 μm	No. 40	95	85.5% Sand
250 μm	No. 60	81	
150 μm	No. 100	49	
75 μm	No. 200	14.3	14.3% Fines

