

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

## BUILDING INSPECTION

### PERMIT

Permit Number: 070108

Please Read Application And Notes, if Any, Attached

This is to certify that Capital, LLC/Capital, LLC/ Greg Shinberg  
has permission to Bayside Medical Office Building/ Garage OCCUPATION ONLY PERMIT  
AT 84 MARGINAL WAY 034A B001001

PERMIT ISSUED  
MAY 23 2007  
CITY OF PORTLAND

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

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

Notification of inspection must be given and when permission is procured before this building or part thereof is occupied or service is closed-in. 4  
YOUR NOTICE IS REQUIRED

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

#### OTHER REQUIRED APPROVALS

Fire Dept. \_\_\_\_\_  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_  
Department Name

*Gregory J. ...*  
Director - Building & Inspection Services  
*James Bowke 5/22/07*

PENALTY FOR REMOVING THIS CARD

# Scanned

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

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

Permit No: 07-0108	Issue Date:	CBL: 034A B001001
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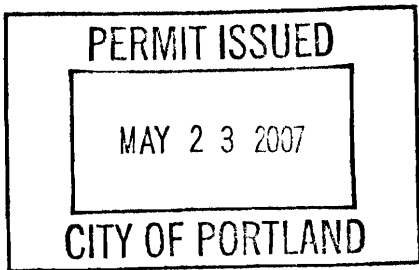
Location of Construction: 84 MARGINAL WAY	Owner Name: Capital, LLC	Owner Address: 50 Portland Peir, Suite 400	Phone: 207-828-1081
Business Name:	Contractor Name: Capital, LLC/ Greg Shinberg	Contractor Address: 50 Portland Pier Suite 400 Portland	Phone: 2078281081
Lessee/Buyer's Name	Phone:	Permit Type: Foundation Only/Commercial	Zone: B-7

Past Use: Vacant Land-See Comments	Proposed Use: Bayside Medical Office Building/ Garage FOUNDATION ONLY PERMIT	Permit Fee: \$2,620.00	Cost of Work: \$260,000.00	CEO District: 1
Proposed Project Description: Bayside Medical Office Building/ Garage FOUNDATION ONLY PERMIT		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <b>FOUNDATION</b> Type: <b>Only</b> <b>4/27/07</b> Signature: <i>[Signature]</i>	
		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: _____ Date: _____		

Permit Taken By: Idobson	Date Applied For: 01/31/2007	<b>Zoning Approval</b>
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- 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 <i>NA</i> <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <i>Panel B Zone C</i> <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan 2006-0135 Maj <input checked="" type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> OK - Foundation only Date: <i>5/22/07</i>	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input checked="" type="checkbox"/> Conditional Use <i>(Height)</i> <input type="checkbox"/> Interpretation <input checked="" type="checkbox"/> Approved <i>B, PB</i> <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: <i>S</i>
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## 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

<b>Permit No:</b> 07-0108	<b>Date Applied For:</b> 01/31/2007	<b>CBL:</b> 034A B001001
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<b>Location of Construction:</b> 84 MARGINAL WAY	<b>Owner Name:</b> Capital, LLC	<b>Owner Address:</b> 50 Portland Peir, Suite 400	<b>Phone:</b> 207-828-1081
<b>Business Name:</b>	<b>Contractor Name:</b> Capital, LLC/ Greg Shinberg	<b>Contractor Address:</b> 50 Portland Pier Suite 400 Portland	<b>Phone:</b> (207) 828-1081
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Foundation Only/Commercial	

<b>Proposed Use:</b> Bayside Medical Office Building/ Garage FOUNDATION ONLY PERMIT	<b>Proposed Project Description:</b> Bayside Medical Office Building/ Garage FOUNDATION ONLY PERMIT
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**Dept:** Zoning      **Status:** Approved with Conditions      **Reviewer:** Marge Schmuckal      **Approval Date:** 05/22/2007

**Note:** **Ok to Issue:**

- 1) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work. THIS PERMIT IS FOR A FOUNDATION ONLY. SEPARATE PERMITS ARE REQUIRED FOR THE REST OF THE BUILDING PRIOR TO THAT CONSTRUCTION.

**Dept:** Building      **Status:** Approved with Conditions      **Reviewer:** Mike Nugent      **Approval Date:** 05/22/2007

**Note:** permit has been routed to MJN for review **Ok to Issue:**

- 1) This approves the Foundation Only and is limited to the installation of concrete, no steel associated with the shell shall be erected.

**Dept:** Fire      **Status:** Approved with Conditions      **Reviewer:** Capt Greg Cass      **Approval Date:** 05/22/2007

**Note:** **Ok to Issue:**

- 1) All issues addressed on the site plan review must be resolved prior to approving the building construction permit.

**Dept:** Public Works      **Status:** Open      **Reviewer:**      **Approval Date:**

**Note:** **Ok to Issue:**

**Dept:** Zoning      **Status:** Open      **Reviewer:**      **Approval Date:**

**Note:** **Ok to Issue:**

**Dept:** Parks      **Status:** Open      **Reviewer:**      **Approval Date:**

**Note:** **Ok to Issue:**

**Dept:** Fire      **Status:** Open      **Reviewer:**      **Approval Date:**

**Note:** **Ok to Issue:**

**Dept:** DRC      **Status:** Open      **Reviewer:**      **Approval Date:**

**Note:** **Ok to Issue:**

**Dept:** Planning      **Status:** Open      **Reviewer:** Richard Knowland      **Approval Date:**

**Note:** **Ok to Issue:**

<b>Location of Construction:</b> 84 MARGINAL WAY	<b>Owner Name:</b> Capital, LLC	<b>Owner Address:</b> 50 Portland Peir, Suite 400	<b>Phone:</b> 207-828-1081
<b>Business Name:</b>	<b>Contractor Name:</b> Capital, LLC/ Greg Shinberg	<b>Contractor Address:</b> 50 Portland Pier Suite 400 Portland	<b>Phone</b> (207) 828-1081
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Foundation Only/Commercial	

**Comments:**

1/31/2007-ldobson: Permit to get the process started no plans submitted with application. Fee base below actual cost. LJD

3/15/2007-jmb: Received plans for the foundation, routed to zoning

4/10/2007-dmartin: Permit has been routed to MJN for review/ dm

4/24/2007-ldobson: PER MIKE NUGENT - Because the structurals have been designed to the 2006 IBC, Paul Becker needs to quantify the differences and any items that are less restrictive from the 2003 IBC need to be identified and waivers requested also the following specific piling info is needed:

1808.2.2 General.

Pier and pile foundations shall be designed and installed on the basis of a foundation investigation as defined in Section 1802, unless sufficient data upon which to base the design and installation is available.

The investigation and report provisions of Section 1802 shall be expanded to include, but not be limited to, the following:

1. Recommended pier or pile types and installed capacities.
2. Recommended center-to-center spacing of piers or piles.
3. Driving criteria.
4. Installation procedures.
5. Field inspection and reporting procedures (to include procedures for verification of the installed bearing capacity where required).
6. Pier or pile load test requirements.
7. Durability of pier or pile materials.
8. Designation of bearing stratum or strata.
9. Reductions for group action, where necessary.

Plus compliance with applicable sections of Chapter 18

comment submitted

Applicant: CAPITAL, LLC / Bayside Med office Bldg

Date: 1/8/07 # 070108

Address: 84 Marginal Way

C-B-L: 034A-B-001 parking  
442-A-001 portion of

CHECK-LIST AGAINST ZONING ORDINANCE

Date - New Construction

Zone Location - B-7

Interior or corner lot - Marginal Way: Preble Street EXT (condition use)

Proposed Use/Work - to construct mixed retail & medical office Bldg with attached parking structure - 4 levels of parking

Sevage Disposal - City with 4 levels of office space - 434 pkgs spc 459 " "

Lot Street Frontage - None

Needs to Front Yard - 10' min can be increased to 75% of indiv bldg facade. Abutting street is no more than 10' wide

Rear Yard - None req. a) increased area is not used for parking b) area include a functional & accessible public entrance

Side Yard - None req.

Bldg entrances: - min of 1 public ped. entrance facing A street frontage of the lot

Projections -

Width of Lot - N/A see plan 2/6/07

Height - Area A - min 4 floors / max 125' -> 115' given from ground floor to top of roof beam grade up is 118'

Lot Area - NO min 1.37 Acres or 59,577 sq ft

Lot Coverage/ Impervious Surface - 100% allowed - 75% given - ok

Area per Family - N/A

Off-street Parking - 14-299 (F) NO parking req under zoning - governed by site plan PB NO loading " " " " " "

Loading Bays -

Site Plan - # 2006-0135 - major site plan & conditional use for the parking garage

Shoreland Zoning/ Stream Protection - N/A

Flood Plains - Panel 13 - ZONE C A20.1 uses the 3rd scenario which shows 9' floor to ceiling height, a min of 25'

retail on 1st floor space shall be a min. of 9' depth from the exterior building wall

parking setback 35' from primary street ROW along Marginal Way only 35' setback - ok

Please call 874-8703 or 874-8693 to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

- Footing/Building Location Inspection: Prior to pouring concrete
- Re-Bar Schedule Inspection: Prior to pouring concrete
- Foundation Inspection: Prior to placing ANY backfill
- Framing/Rough Plumbing/Electrical: Prior to any insulating or drywalling
- Final/Certificate of Occupancy: Prior to any occupancy of the structure or use. NOTE: There is a \$75.00 fee per inspection at this point.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

~~CERTIFICATE OF OCCUPANCIES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED~~

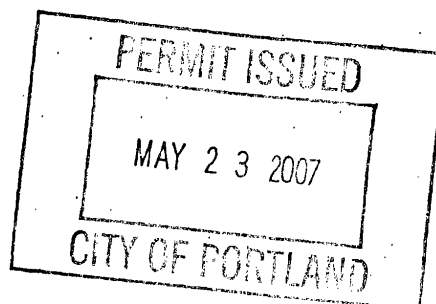
[Signature]  
Signature of Applicant/Designee

5.23.07  
Date

[Signature]  
Signature of Inspections Official

5.23.07  
Date

CBL: 34-A-B001 Building Permit #: 07-0108



<b>Location of Construction:</b> 84 MARGINAL WAY	<b>Owner Name:</b> Capital, LLC	<b>Owner Address:</b> 50 Portland Peir, Suite 400	<b>Phone:</b> 207-828-1081
<b>Business Name:</b>	<b>Contractor Name:</b> Capital, LLC/ Greg Shinberg	<b>Contractor Address:</b> 50 Portland Pier Suite 400 Portland	<b>Phone</b> (207) 828-1081
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Foundation Only/Commercial	

5/22/2007-jmb: The approval was held up due to a design issue in relation to occupancy and type of construction. An email was sent to the ICC by MJN for a code determination, see below.

Chris,  
The project is a 10 story building that will house separated mixed uses that had originally been designed for B, S2 and M. The M was on the first floor.  
They had wanted to use the following option in their design, but cannot because of the "M" use on the first floor.  
403.3.1 Type of construction.

The following reductions in the minimum construction type allowed in Table 601 shall be allowed as provided in Section 403.3:

1. Type IA construction shall be allowed to be reduced to Type IB.
2. In other than Groups F-1, M and S-1, Type IB construction shall be allowed to be reduced to Type IIA.
3. The height and area limitations of the reduced construction type shall be allowed to be the same as for the original construction type. Below is a description of the intended use and they would like to categorize it as a "B" rather than an "M" and then build the building as a 2A building rather than a 1B:

Thanks  
Mike Nugent  
Consulting Plans Examiner

>>> Judy Johnson <jljohnson@harriman.com> 05/07/07 1:57 PM >>>

Hello Mike -  
As we discussed this morning a professional pharmacy is very interested in renting the ground floor space at 84 marginal way. I had the realtor ask them to provide a description of their business so that we can see that it is not a drug store like Rite Aid or CVS. I received a description from them this morning and as we discussed it appears to be a business occupancy. Attached is a copy of the information that I was given this morning for your review. Please take a look and let me know if you agree that this is a Business Occupancy or if you have any questions.

Thanks  
Judy L. Johnson, AIA  
Senior Associate, Architect  
Harriman Associates  
Architects + Engineers  
66 Pearl Street, Suite 301  
Portland, Maine 04101  
207.775.0053 tel

## Jeanie Bourke - 84 Margianl Way

**From:** Philip DiPierro  
**To:** Bourke, Jeanie  
**Date:** 5/22/2007 3:14 PM  
**Subject:** 84 Margianl Way  
**CC:** Barhydt, Barbara

Hi Jeanie, I'm having problems accessing Urban Insight to list the conditions, but the inspection fees have been paid, the PG is in place, and the Preconstruction meeting was held. It's OK to issue the BP from my perspective.

Thanks,

phil

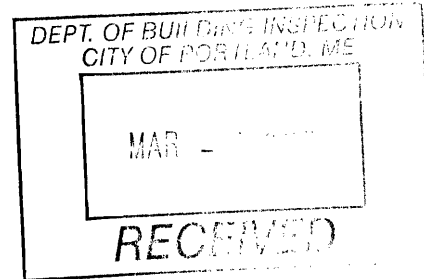


MITCHELL & ASSOCIATES  
LANDSCAPE ARCHITECTS

March 6, 2007

3/7/07  
034 A B001

Mr. Richard Knowland, Senior Planner  
Department of Planning and Development  
389 Congress Street  
Portland, Maine 04101



**Re: 84 Marginal Way, Amended Site Plan**

Dear Rick,

The following documentation and attachments address your comments and the Conditions of Approval dated January 19, 2007 for the initial approval for 84 Marginal Way. As requested, we have prepared the attached open space exhibit to document the open space calculations used to satisfy one of the conditional use criteria for the added building height. The exhibit is based on the plan we discussed with city staff at our meeting on January 26, 2007.

To address your comments concerning the Conditions of Approval we have prepared the following:

- i. That the applicant shall meet the recommendations contained in Tom Errico's (Traffic Consultant) memo dated 1-5-07 including a contribution of \$10,000 towards implementation of identified improvements for the Franklin Street Arterial and Marginal Way intersection and an additional \$22,000 contribution to the proposed Somerset Street extension between Preble/Elm Streets and Forest Avenue.

**As discussed this condition will apply to the amended site plan with the assessment of impact fees being recalculated based on the added square footage for the building.**

- ii. That the Applicant shall submit for the Planning Staff review and approval the design items summarized on page 4 of Carrie Marsh's (Urban Designer) memo dated 12-27-06

**As discussed, these comments have been addressed in the Amended Site Plan submission to meet the conditions and have been reviewed by Carrie Marsh and Staff.**

**CITY OF PORTLAND, MAINE  
DEVELOPMENT REVIEW APPLICATION  
PLANNING DEPARTMENT PROCESSING FORM  
Zoning Copy**

2006-0135  
Application I. D. Number  
  
7/26/2006  
Application Date

Capital, LLC.  
Applicant  
50 Portland Pier, Suite 400, Portland, ME 04101  
Applicant's Mailing Address

Bayside Medical Office Building  
Project Name/Description

Consultant/Agent  
Applicant Ph: (207) 828-1080 Applicant Fax: (207) 828-1048  
Applicant or Agent Daytime Telephone, Fax

84 - 84 Marginal Way, Portland, Maine  
Address of Proposed Site  
034A B001001  
Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply):  New Building  Building Addition  Change Of Use  Residential  Office  Retail  
 Manufacturing  Warehouse/Distribution  Parking Lot  Other (specify) \_\_\_\_\_

Proposed Building square Feet or # of Units \_\_\_\_\_ Acreage of Site \_\_\_\_\_ Zoning **B7**

**Check Review Required:**

- Site Plan (major/minor)  Subdivision # of lots \_\_\_\_\_  PAD Review  14-403 Streets Review
- Flood Hazard  Shoreland  Historic Preservation  DEP Local Certification
- Zoning Conditional Use (ZBA/PB)  Zoning Variance  Other \_\_\_\_\_

Fees Paid: Site Pla **\$4,000.00** Subdivision \_\_\_\_\_ Engineer Review \_\_\_\_\_ Date **7/26/2006**

**Zoning Approval Status:**

Reviewer Marge S. - Insp.  
 Denied

Approved  Approved w/Conditions See Attached

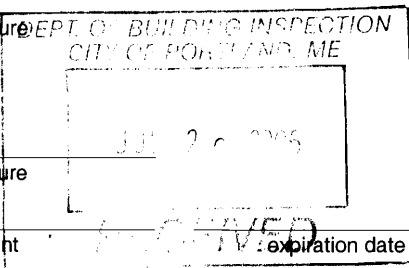
Approval Date \_\_\_\_\_ Approval Expiration \_\_\_\_\_ Extension to \_\_\_\_\_  Additional Sheets Attached

Condition Compliance \_\_\_\_\_ signature \_\_\_\_\_ date \_\_\_\_\_

**Performance Guarantee**  Required\*  Not Required

\* No building permit may be issued until a performance guarantee has been submitted as indicated below

<input type="checkbox"/> Performance Guarantee Accepted	_____	_____	_____
	date	amount	expiration date
<input type="checkbox"/> Inspection Fee Paid	_____	_____	
	date	amount	
<input type="checkbox"/> Building Permit Issue	_____		
	date		
<input type="checkbox"/> Performance Guarantee Reduced	_____	_____	_____
	date	remaining balance	signature
<input type="checkbox"/> Temporary Certificate of Occupancy	_____	<input type="checkbox"/> Conditions (See Attached)	_____
	date		expiration date
<input type="checkbox"/> Final Inspection	_____	signature	
	date		
<input type="checkbox"/> Certificate Of Occupancy	_____	signature	
	date		
<input type="checkbox"/> Performance Guarantee Released	_____	amount	_____
	date		expiration date
<input type="checkbox"/> Defect Guarantee Submitted	_____	amount	_____
	submitted date		expiration date
<input type="checkbox"/> Defect Guarantee Released	_____	signature	
	date		



7/26/06

- That a complete site lighting plan including the parking garage shall be submitted for Planning Staff review and approval. The lighting plan for the Preble Street underpass shall also be submitted for review and approval.

**The lighting plan with photometrics is currently being prepared and will be available for review before the scheduled public hearing on March 27, 2007. The bollard lighting for the underpass will be coordinated with the planning staff to select a suitable bollard style fixture.**

- iv. That the site plan shall be revised reflecting the comments of Jeff Tarling (City Arborist).

**The revised planting plan submitted for the initial site plan approval had been revised to address Mr. Tarling's comment. An Armstrong Maple was substituted for the smaller ornamental pear that was on the south west corner of the parking structure on Preble Street.**

- v. The Applicant shall apply for and receive City approval for a license permitting portions of the planter, ramp, and awning to be located within the public right-of-way.

**The applicant has prepared the legal description and exhibit for required improvements below grade, at grade and above grade and will be submitting the request to City for the license.**

- vi. That a revised circulation and parking plan of the parking garage clearly labeling the plan scale, dimensions of the parking aisles and parking spaces shall be submitted for Staff review and approval.

**The revised parking garage plan was submitted with the Amended Site Plan application.**

- vii. That a revised plan shall be submitted to the Zoning Administrator for review and approval clearly delineating the property line along Marginal Way and Preble Street and that additional information be provided to confirm the building height.

**The submitted Amended Site Plan addressed the question regarding the location of the building façade in relationship to the right-of-way/property line. The line weight assigned to the property line on the drawings was revised to clearly delineate the location of the building in relationship to the property line. Regarding the building height, we have reviewed the height issue with Marge Schmuckal as part of the submission for the Amended Site Plan.**

- viii. That public easements including the pedestrian easement shall be submitted for City staff review and approval.

**Documentation for the public and pedestrian easement shall be provided to the City staff for review.**

- ix. That the sidewalk shall be extended at the corner of Marginal Way and Preble Street to the street curb line.

**The revised site plan submitted as part of the amended Site Plan indicated the expanded area of brick sidewalk to address this condition. At your request, we have provided the attached cross section through the expanded sidewalk along Marginal Way.**

- x. The applicant shall meet with the City staff to revisit the screening of the parking garage (at the base of the office building on the fourth floor level) along Preble Street and Marginal Way to ensure its conformance with the B-3 Urban Design Guidelines.

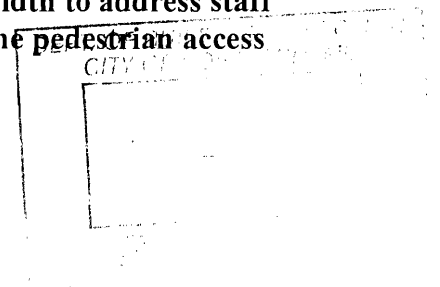
**The applicant met with Carrie Marsh and staff to review this design issue and this has also been reviewed with the Planning Board during the recent workshop session.**

- xi. The parking management plan submitted as Attachment G of the Planning Report 01-07, (Memorandum dated May 31, 2006 from Bill Cranshaw, P.E. VHB, Inc., to Greg Shinberg; copy attached) shall be finalized and submitted for staff review and approval.

**The revised parking management plan, updated by Gorrill-Palmer Consulting Engineers, Inc. was submitted with the Amended Site Plan application.**

- xii. The width and location of the stairs/planters and other elements shall be finalized in conformance with the B-3 Urban Design Guidelines subject to review and approval by the City Urban Designer.

**The amended site plan has revised stair locations and width to address staff comment. There are two stair ways, 20 feet wide and one pedestrian access at grade that is also 20 feet wide.**



### **Engineers Review Comments**

The applicant shall obtain updated letters of service from Portland Public Works for sewer capacity and from the Portland Water District.

**We have obtained updated letters from both utilities and have attached them to this submission.**

Enclosed for your review are the following documents:

- Open Space calculation exhibit
- Side walk cross section at Marginal Way
- Updated Sewer Capacity letter, City of Portland
- Updated Water Service letter, Portland Water District

The responses and attachments address your comments as well as the original conditions of approval. Should you have any questions, please do not hesitate to call me. We look forward to meeting with you and the Planning Board for the public hearing on March 27, 2007.

Sincerely,  
Mitchell & Associates



Robert B. Metcalf

Enclosure

Cc Matt Young  
Jim Hanley  
Greg Shinberg  
Judy Johnson

OPEN SPACE  
 4,666 SF  
 +1,810 SF  
 6,476 SF (11%)

\* OPEN SPACE  
 REQUIRED  
 59,576 SF  
 × 0.10  
 5,958 SF

OPEN SPACE 

4,666 SF

N/F  
 STATE OF MAINE

PREBLE STREET EXT.

120 FOOT  
 RIGHT-OF-WAY

NO PARKING  
 ON SPEED RAMP

1,810 SF

MARGINAL WAY  
 106 FOOT  
 RIGHT-OF-WAY

PROPOSED RECONFIGURED ISLAND  
 PER MARGINAL WAY MASTER PLAN

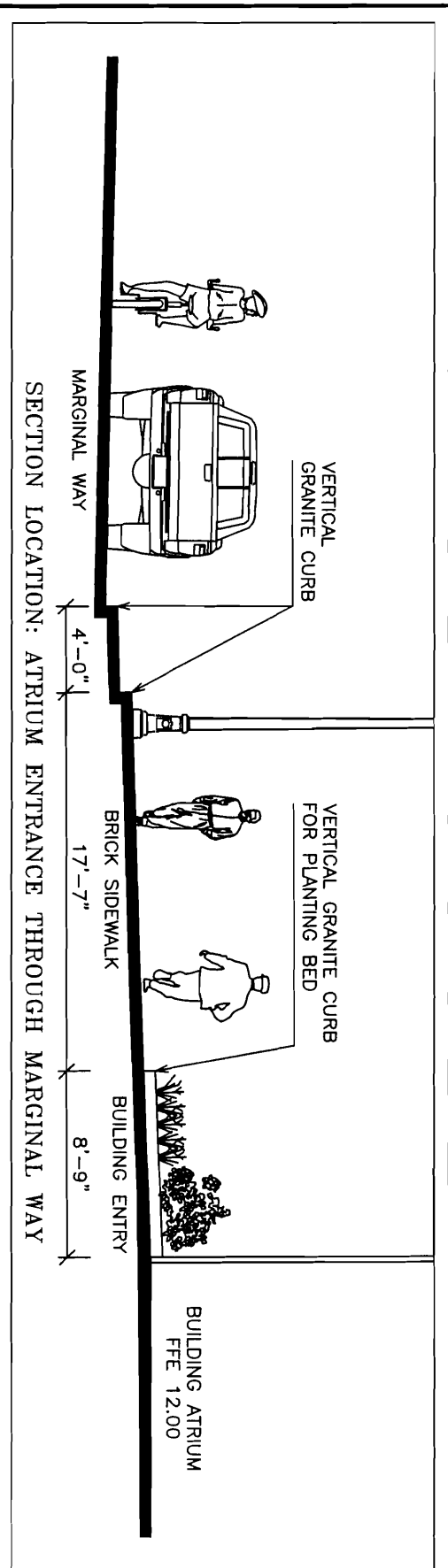
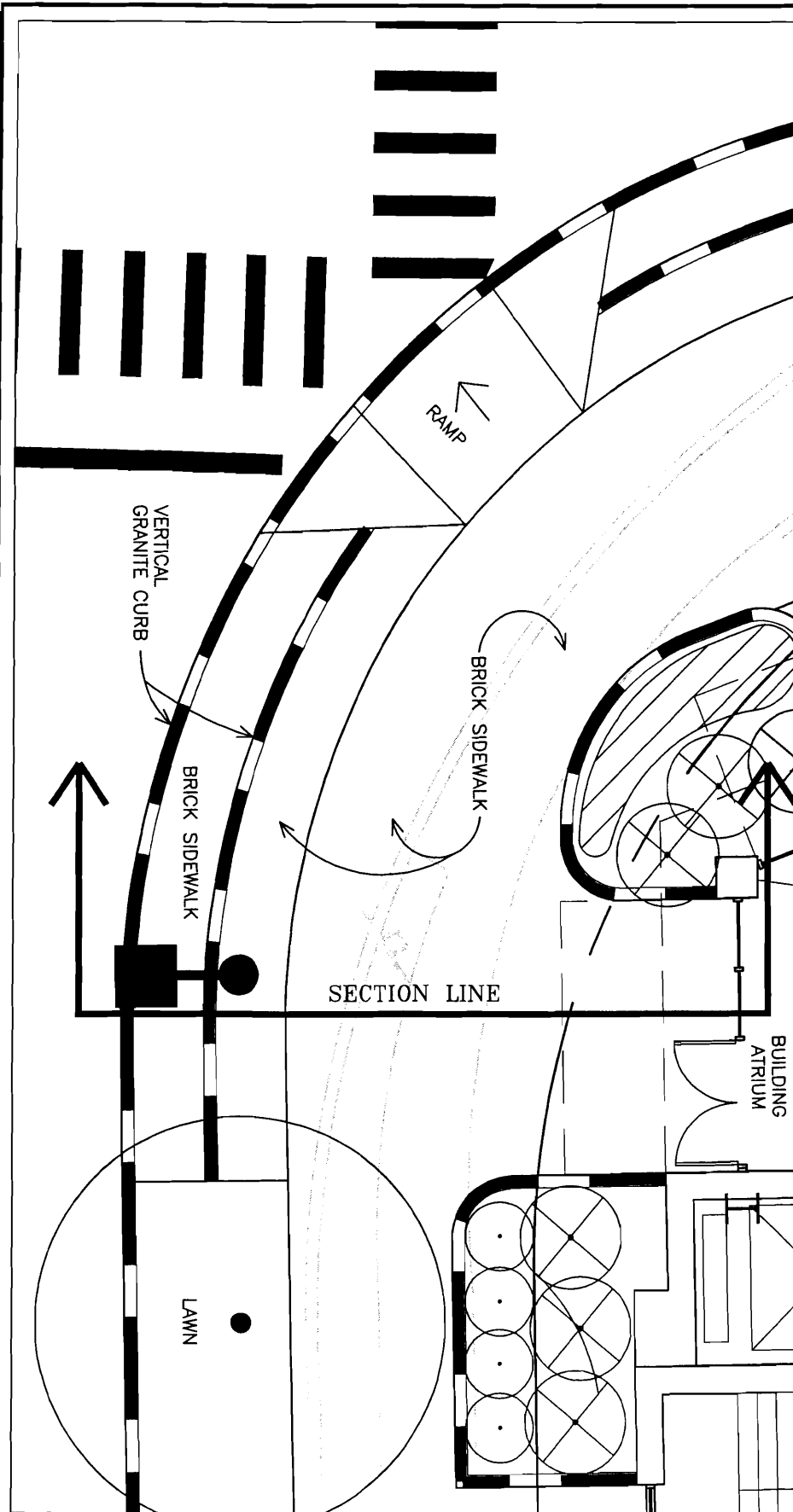
Mitchell & Associates  
 Landscape Architects  
 70 Center Street  
 Portland, Maine 04101  
 (207) 774-4427

Title: OPEN SPACE EXHIBIT  
 BUILDING HEIGHT CALCULATION

Date: MARCH 5, 2007 Scale: 1"=50'

Project: 84 MARGINAL WAY

**A**



Mitchell & Associates  
Landscape Architects  
70 Center Street  
Portland, Maine 04101  
(207) 774-4427

Title: SECTION LOCATION:  
ATRIUM ENTRANCE THROUGH MARGINAL WAY

Date: MARCH 6, 2007      Scale: 1/8"=1'-0"

Project: 84 MARGINAL WAY

1



# PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life [www.portlandmaine.gov](http://www.portlandmaine.gov)

**Public Works Department**  
Michael J. Bobinsky, Director

20 February 2007

Ms. Betsy Melrose,  
Mitchell & Associates,  
70 Center Street,  
Portland, Maine 04101

**RE: The Capacity to Handle Wastewater Flows, from 82, 90, 92, 94, 96, 98, 100  
Marginal Way, Site of a Proposed Retail, Parking Garage, and Medical Office Building.**

Dear Ms. Melrose:

This letter is in response to an Amended Site Plan Review; it supercedes the earlier letter of July 28, 2006. The existing thirty-six inch diameter reinforced concrete sanitary sewer pipe, known as the "Marginal Way West Interceptor," that fronts this site, has **adequate capacity to transport**, while The Portland Water District sewage treatment facilities, located off Marginal Way, have **adequate capacity to treat** the anticipated increased wastewater flows of **12,026 GPD**, from your proposed building.

**Anticipated Wastewater Flows from the Proposed Development:**

5,200 Sq. Feet of Proposed Retail Space @ 0.1 GPD/Sq. Foot	=	520 GPD
506 Parking Spaces @ 1 GPD/Parking Space	=	506 GPD
50 Medical Office Staff @ 80 GPD/Staff	=	4,000 GPD
800 Proposed Patients @ 5 GPD/Patient	=	4,000 GPD
200 Office Employees @ 15 GPD/Employee	=	3,000 GPD
<b>Total Proposed Increase in Wastewater Flows for this Project</b>	<b>=</b>	<b>12,026 GPD</b>

The City combined sewer overflow (C.S.O.) abatement consent agreement (with the U.S.E.P.A., and with the Maine D.E.P.) requires C.S.O. abatement, as well as storm water mitigation, in order to offset any increase in sanitary flows, from all projects. If the City can be of further assistance, please call 874-8832.

Sincerely,  
**CITY OF PORTLAND**

*Frank J. Brancely*  
Frank J. Brancely, B.A., M.A.  
Senior Engineering Technician

FJB

cc: Alexander Q. Jaegerman, Director, Planning Division, Department of Planning, and Urban Development, City of Portland  
Barbara Barhydt, Development Review Services Manager, Department of Planning, and Urban Development, City of Portland  
Rick Knowland, Senior Planner, Department of Planning, and Urban Development, City of Portland  
Dan Goyette, Project Engineer, Woodard and Curran, Incorporated  
Michael Farmer, P.E., Project Engineer, City of Portland  
Bradley A. Roland, P.E., Environmental Projects Engineer, City of Portland  
Stephen K. Harris, Assistant Engineer, City of Portland  
Jane Ward, Administrative Assistant, City of Portland  
Desk file





CUSTOMER SERVICE  
OFFICE HOURS  
8:30 A.M. - 4:30 P.M.

## Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

February 28, 2007

Mitchell & Associates, Inc.  
70 Center Street  
Portland, ME 04101

Attn: Betsy Melrose  
Re: 84 Marginal Way, Portland  
Ability to serve with PWD water

Dear Ms. Melrose:

This letter is to confirm there should be an adequate supply of clean and healthful water to serve the needs of the proposed parking garage and commercial use located at 84 Marginal Way in Portland. According to District records, we find there is an 8-inch diameter ductile iron water main on the south side of Marginal Way as well as a water hydrant located opposite the property.

The current data from the nearest hydrant indicates there should be adequate capacity of water to serve the needs of your proposed project.

Hydrant Location: Marginal Way - 500' northeast of Preble Street  
Hydrant Number: 0463  
Static Pressure: 108 PSI  
Flow: 2459 GPM  
Last Tested: 7/2/2003

We recommend that you notify your mechanical engineer of these results so that they can design your system to best fit the available pressure. If the District can be of further assistance in this matter, please let us know.

Sincerely,  
Portland Water District

Rico Spugnardi, P.E.  
Business Development Engineer  
[rspugnardi@pwd.org](mailto:rspugnardi@pwd.org)

*PO - Adequacy - 84 Marginal Way - Mitchell & Associates*



Strengthening a Remarkable City. Building a Community for Life [www.portlandmaine.gov](http://www.portlandmaine.gov)

**Planning and Development Department**  
Lee D. Urban, Director

**Planning Division**  
Alexander Jaegerman, Director

January 16, 2007

Mr. John Lufkin  
Department of Planning and Development  
City Hall  
389 Congress Street  
Portland, ME 04101

RE: Marginal Way Subdivision; 82-200 Marginal Way; 034A-B-001; #2006-0136

Dear Mr. Lufkin:

This letter is to confirm that the Portland Planning Authority has reviewed and approved certain revisions to the Marginal Way Subdivision. The approved revision involves adjusting the public easement along the easterly side of lot 5. The revised subdivision recording plat was signed by the Planning Authority on January 4, 2007.

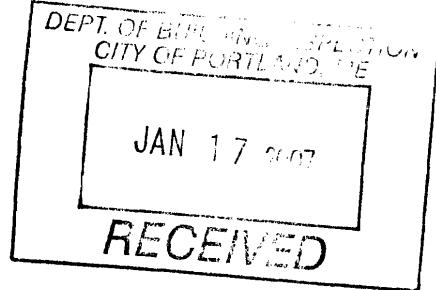
Should you have any questions concerning this letter, please contact Richard Knowland of the Planning Staff.

Sincerely,

  
Alexander Jaegerman  
Planning Division Director

- cc: Lee D. Urban, Planning and Development Department Director
- Barbara Barhydt, Development Review Services Manager
- Richard Knowland, Senior Planner
- Marge Schmuckal, Zoning Administrator
- Jeanie Bourke, Inspections Division
- Michael Bobinsky, Public Works Director
- Eric Labelle, City Engineer
- Bill Clark, Public works
- Jim Carmody, Transportation Manager
- Jeff Tarling, City Arborist
- Penny Littell, Associate Corporation Counsel
- Captain Greg Cass, Fire Prevention
- Assessor's Office
- Approval Letter File

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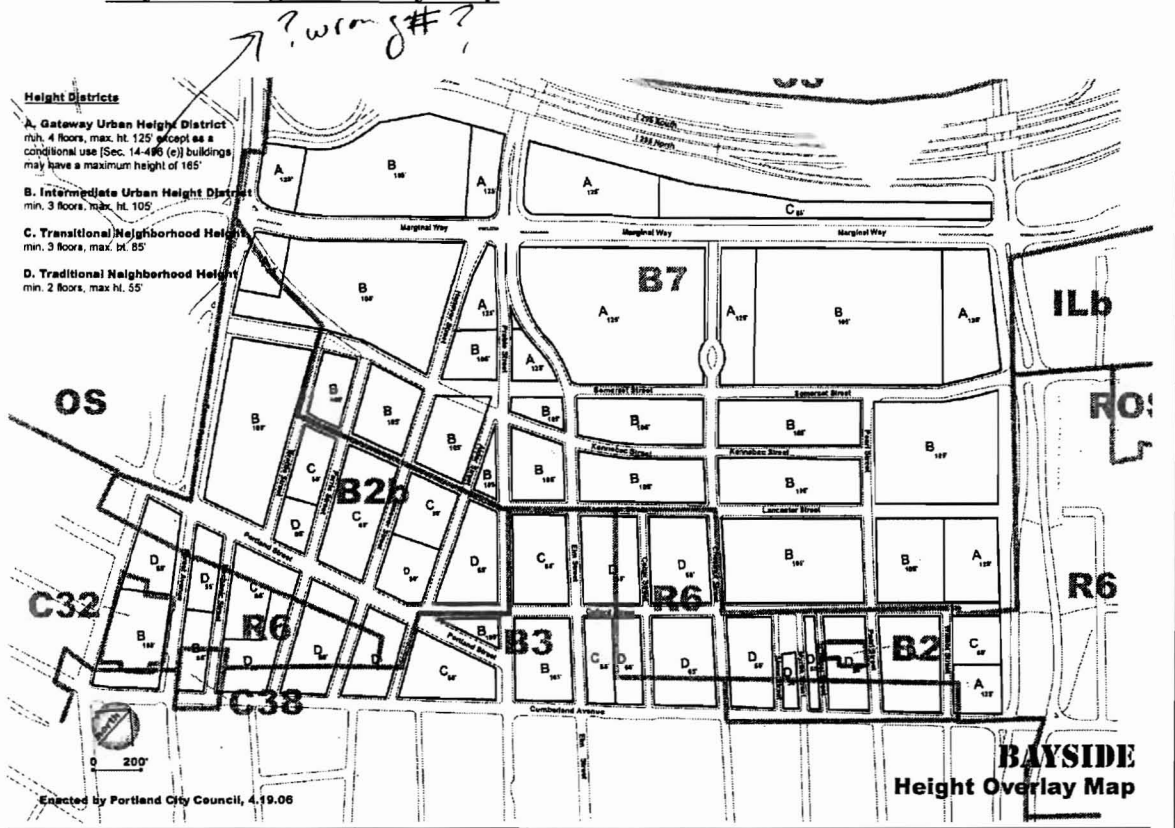
**From:** Lee Urban  
**To:** Alex Jaegerman ; Jeanie Bourke; Marge Schmuckal  
**Date:** 2/16/2007 12:31:24 PM  
**Subject:** Intermed Building/Student Housing Building

Hello, . . .

At this morning's EDTF meeting, Joe said that he would much prefer to see building permit fees for the above-captioned projects to come in after July 1, 2007.

SUBSTITUTE THE FOLLOWING:

**Bayside Height Overlay Map**



DEPT. OF BUILDING INSPECTION  
CITY OF PORTLAND, ME  
NOV 14 2006  
RECEIVED

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**MEMORANDUM**

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**To:** FILE

**From:** Marge Schmuckal

**Dept:** Zoning

**Subject:** Application ID: 2006-0135

**Date:** 1/8/2007

---

I have reviewed the plans and documentation submitted on 12/27/06. This project is within the B-7 Zone. It is a conditional use to the Planning Board because of the parking garage. I have accepted the information and comments submitted by Mitchell & Associates within their letter dated December 22, 2006. I believe that all B-7 Zoning requirements are being met. However, the current submitted plans make it difficult to know exactly where the property lines are located. I would request a bolder outline of where the property line is actually located to confirm the given information.

I would also like to confirm the actual building height. The given information begins measurement at the first floor ground level. The Zoning Ordinance begins measurement at grade, which can be averaged if grade elevations are shown around the building. The other required point for height measurement for flat roof structures is the top of the highest structural beam (excluding elevator and stair towers and other facade materials. I would like a plan with accompanying information to confirm the building height.

Marge Schmuckal  
Zoning Administrator

**From:** Marge Schmuckal  
**To:** RICK KNOWLAND  
**Date:** 1/8/2007 4:43:48 PM  
**Subject:** 84 Marginal Way

Rick,  
I put my comments in urban insight for you with the suggestions that we spoke of.  
Marge



22-Dec-06

Rick Knowland, Senior Planner  
City of Portland, Planning  
389 Congress Street  
Portland, ME 04101

Re: 84 Marginal Way *Medical office S*

Dear Rick:

On behalf of Ted West of Capital, LLC and the design team, we hereby submit our responses to the Planning Board Workshop conducted on 12-Dec-06. This submission is complete and addresses many of the concerns mentioned by the Planning Board. This submittal package will prepare us for the public hearing on 9-Jan-07.

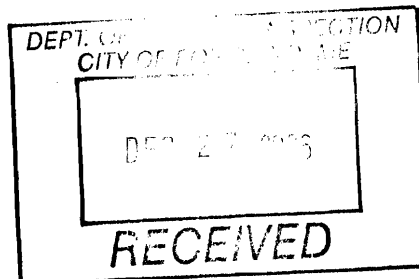
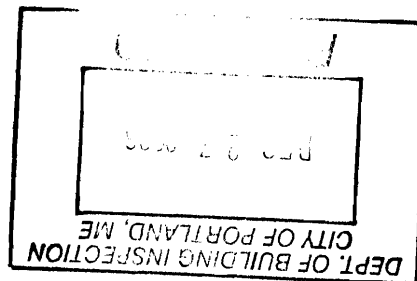
For comments and questions relating to this project, please feel free to contact me at 207-874-2323 ext. 104. This is an exciting project that we are all proud to be part of and look forward to working with you, Planning staff and the Planning Board.

Sincerely,

Pizzagalli Construction,

Matt Young  
Preconstruction Manager

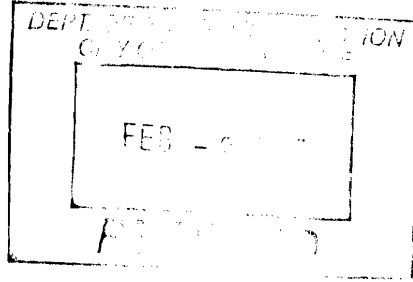
Cc: Ted West, Capital, LLC  
Pat Keating, Pizzagalli



**CITY OF PORTLAND, MAINE**  
**PLANNING BOARD**

*Marge S.*

Michael Patterson, Chair  
Janice E. Tevanian, Vice Chair  
Kevin Beal  
Bill Hall  
Lee Lowry III  
Shalom Odokara  
David Silk



January 19, 2007

Mr. Robert Metcalf  
Mitchell and Associates  
70 Center Street  
Portland, ME 04101

RE: Bayside Medical Office Building; Capital, LLC. (Applicant); 84 Marginal Way  
CBL#034A-B-001; #2006-0135

Dear Mr. Metcalf:

On January 9, 2007 the Portland Planning Board considered the conditional use (garage) and site plan application for an office building and parking garage, at 84 Marginal Way, proposed by Capital, LLC. On the basis of the application, plans, reports and other information submitted by the applicant, staff comments and recommendations contained in Planning Report #01-07, the conditional use and site plan regulations and other applicable regulations, and the testimony presented at the Planning Board hearing the Planning Board found the following:

1. The Planning Board voted (6-0, Hall absent) that the plan was in conformance with the B-7 conditional use (parking garage) standards of the land use code.
2. The Planning Board voted (6-0, Hall absent) that the plan was in conformance with the standards of a traffic movement permit, subject to the following condition of approval.
  - i. The issuance of the traffic movement permit is granted with all of the standard conditions of approval for the same dictated by MDOT. In addition, the applicant for three (3) years after 80% occupancy of the building, shall monitor the left hand turn off of Preble Street into the parking garage, to ensure ongoing pedestrian and vehicular safety. The applicant shall be responsible for addressing and making any changes through additional signage, signaling, lighting, or other improvements, etc. to address and mitigate any concerns as identified by the City Traffic Engineer.
3. The Planning Board voted (6-0, Hall absent) to waive Technical Standard III (3) which requires a 9 foot wide by 19 foot long parking space and a 24 foot aisle, for the parking garage layout as set forth by Tom Errico's e-mail (dated 1-9-07) to Richard Knowland.
4. The Planning Board voted (6-0, Hall absent) that the plan was in conformance with standards of the site plan standards of the land use code, subject to the following conditions of approval. Note that all of the conditions of approval (i to xii) shall be addressed prior to the issuance of a building permit except for the review of signage under condition ii.



- i. That the Applicant shall meet the recommendations contained in Tom Errico's (Traffic Review Consultant) memo dated 1-5-07 including a contribution of \$10,000 towards implementation of identified improvements for the Franklin Street Arterial and Marginal Way intersection and an additional \$22,000 contribution to the proposed extension of Somerset Street extension between Preble/Elm Streets and Forest Avenue.
- ii. That the Applicant shall submit for Planning Staff review and approval the design items summarized on page 4 of Carrie Marsh's (Urban Designer) memo dated 12-27-06.
- iii. That a complete site lighting plan including the parking garage shall be submitted for Planning Staff review and approval. The lighting plan for the Preble Street underpass shall also be submitted for review and approval.
- iv. That the site plan shall be revised reflecting the comments of Jeff Tarling (City Arborist).
- v. That the Applicant shall apply for and receive City approval for a license permitting portions of the planter, ramp and awning to be located within a public right-of-way.
- vi. That a revised circulation and parking plan of the parking garage clearly labeling the plan scale, dimensions of the parking aisles and parking spaces shall be submitted for Staff review and approval.
- vii. That a revised plan shall be submitted to the Zoning Administrator for review and approval clearly delineating the property line along Marginal Way and Preble Street and that additional information be provided to confirm the building height.
- viii. That public easements including the pedestrian easement shall be submitted for City staff review and approval.
- ix. That the sidewalk shall be extended at the corner of Marginal Way and Preble Street to the street curb line.
- x. The applicant shall meet with the City staff to revisit the screening of the parking garage (at the base of the office building on the fourth floor level) along Preble Street and Marginal Way to ensure its conformance with the B-3 Urban Design Guidelines.
- xi. That the parking management plan submitted as Attachment G of Planning Report 01-07, (Memorandum dated May 31, 2006 from Bill Crenshaw, P.E. VHB, Inc., to Greg Shinberg, copy attached) shall be finalized and submitted for staff review and approval.
- xii. The width and location of stairs/planters and other elements shall be finalized in conformance with the B-3 Urban Design Guidelines subject to review and approval by the City Urban Designer.

The approval is based on the submitted site plan and the findings related to site plan and conditional use review standard as contained in Planning Report #1-07. The approval includes a 66,000 sq. ft. office building and a parking garage with 4,600 sq. ft. of first floor retail space.


Please note the following provisions and requirements for all site plan approvals:

1. Where submission drawings are available in electronic form, the applicant shall submit any available electronic Autocad files (\*.dwg), release 14 or greater, with seven (7) sets of the final plans.
2. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.
3. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.
4. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
5. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
6. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Richard Knowland at 874-8725.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Patterson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Michael Patterson, Chair  
Portland Planning Board

cc: Lee D. Urban, Planning and Development Department Director  
Alexander Jaegerman, Planning Division Director  
Barbara Barhydt, Development Review Services Manager  
Richard Knowland, Senior Planner  
Development Review Coordinator  
Marge Schmuckal, Zoning Administrator  
Michael Bobinsky, Public Works Director  
Jeanie Bourke, Inspections Division  
Kathi Earley, Public Works  
Bill Clark, Public Works  
Jim Carmody, Transportation Manager  
Jeff Tarling, City Arborist  
Penny Littell, Associate Corporation Counsel  
Captain Greg Cass, Fire Prevention  
Assessor's Office  
Approval Letter File  
James Hanley, Capital LLC., 50 Portland Pier, Suite 300, Portland, ME 04101.

Attachment

Summary of Staff Memos referenced in 84 Marginal Way Conditions of Approval

## Tom Errico's Comments

Based upon discussions today, I support the applicant's plan to provide 8'-6" wide parking spaces on the first two floors of the garage, with the remaining floors providing parking stall widths equal or exceeding 8'-0". This approval is based on the premise that short-term or high-turnover parkers (customers of the medical office building) will utilize the larger size spaces and low turnover or employees will utilize the small size spaces. Based upon the above I support a waiver for parking space size and aisle width for the proposed project.

The following summarizes my final comments for the above referenced project. The City recognizes that the full implementation of the Marginal Way Master Plan will be conducted in phases and as such is supportive of the construction of a short-term or initial implementation program. In respect to the 84 Marginal Way project, a key element of the short-term implementation plan is the provision of two left-turn movements (one from a dedicated left-turn lane and one from a shared left/through lane) from Preble Street Extension onto eastbound Marginal Way. This short-term action allows for a roadway cross-section on Preble Street Extension that is consistent with the full-build Master Plan, but continues to require two Marginal Way eastbound through lanes, which is not consistent with the full-build Master Plan. The City wishes to systematically reduce the left-turn capacity from Preble Street Extension and will monitor conditions at the subject intersection during the implementation of area roadway improvements and the completion of development projects. As requested I have provided the following information as it relates to the projects compatibility with the conceptual plans developed for the Marginal Way Master Plan. Changes in pedestrian crossing distances at the Marginal Way/Preble Street intersection. Crosswalk Existing Master Plan 84 Marginal Way Marginal Way west of Preble 100 feet 65 feet 80 feet Marginal Way east of Preble 110 feet 75 feet 95 feet Preble Street Extension 110 feet 70 feet 80 feet Preble Street 90 feet 70 feet 90 feet Marginal Way west of Preble – The crossing distance does not meet the Master Plan distance due to the requirement for no modification on southerly Marginal Way curb line (in front of Gorham Savings Bank) and a larger radius on the 'AAA' corner. The radius provided is appropriate for large vehicle movements. Marginal Way east of Preble Street – The crossing distance does not meet the Master Plan distance due to the requirement for no modification on southerly Marginal Way curb line (in front of Wild Oats) and a larger radius on the applicant corner. The radius provided is appropriate for large vehicle movements. Preble Street Extension – The crossing distance does not meet the Master Plan distance due to the provision of larger radii on the corners. The radius provided is appropriate for large vehicle movements. Preble Street – No changes are proposed on the south side of Marginal Way. The proposed Master Plan concept was developed such that it will be compatible with all possible future modes of transportation, including light rail. The applicant has indicated that the proposed building location is consistent with the master plan and therefore can accommodate future rail opportunities. The applicant should clearly state that a future extension of the Narrow Gauge Railroad can be accommodated. As part of development of the interim plan for

Marginal Way, the applicant will be providing two travel lanes on Marginal Way in the eastbound direction. The applicant suggests carrying the two lanes from Preble Street towards Chestnut Street to a maximum length of 500 feet. The City would like to minimize the length of the two lanes and I would suggest that we work with the applicant and include a condition of approval that further refinement of the transition length be considered. To improve access opportunities in the Bayside area, I would suggest that the applicant participate in the funding of connecting Somerset Street between Preble Street and Elm Street. This action will minimize impacts to Marginal Way and help to offset left-turn capacity reductions from Preble Street onto Marginal Way. I would suggest that the applicant contribute \$22,000.00 to the extension of Somerset Street extension between Preble/Elm Streets and Forest Avenue. The intersection of Franklin Arterial and Marginal Way is currently operating at poor levels of service and improvements have been identified for implementation. Developments in the area have contributed to this location and I would suggest that the applicant contribute \$10,000.00 towards implementation of the identified improvements. A Travel Demand Management (TDM) Program shall be implemented that may comprise of the elements (e.g. rideshare program) noted in the traffic impact study. It is suggested that the details of the program be identified by the applicant and the program will subject to an annual review by the City. The Applicant shall be responsible for the modification of the existing traffic signal (equipment, phasing, and timings) at the Marginal Way/Preble Street intersection such that it is compatible with the proposed roadway improvements. Preliminary and Final design plans shall be submitted to the City for review and approval.

### **Carrie Marsh's Comments**

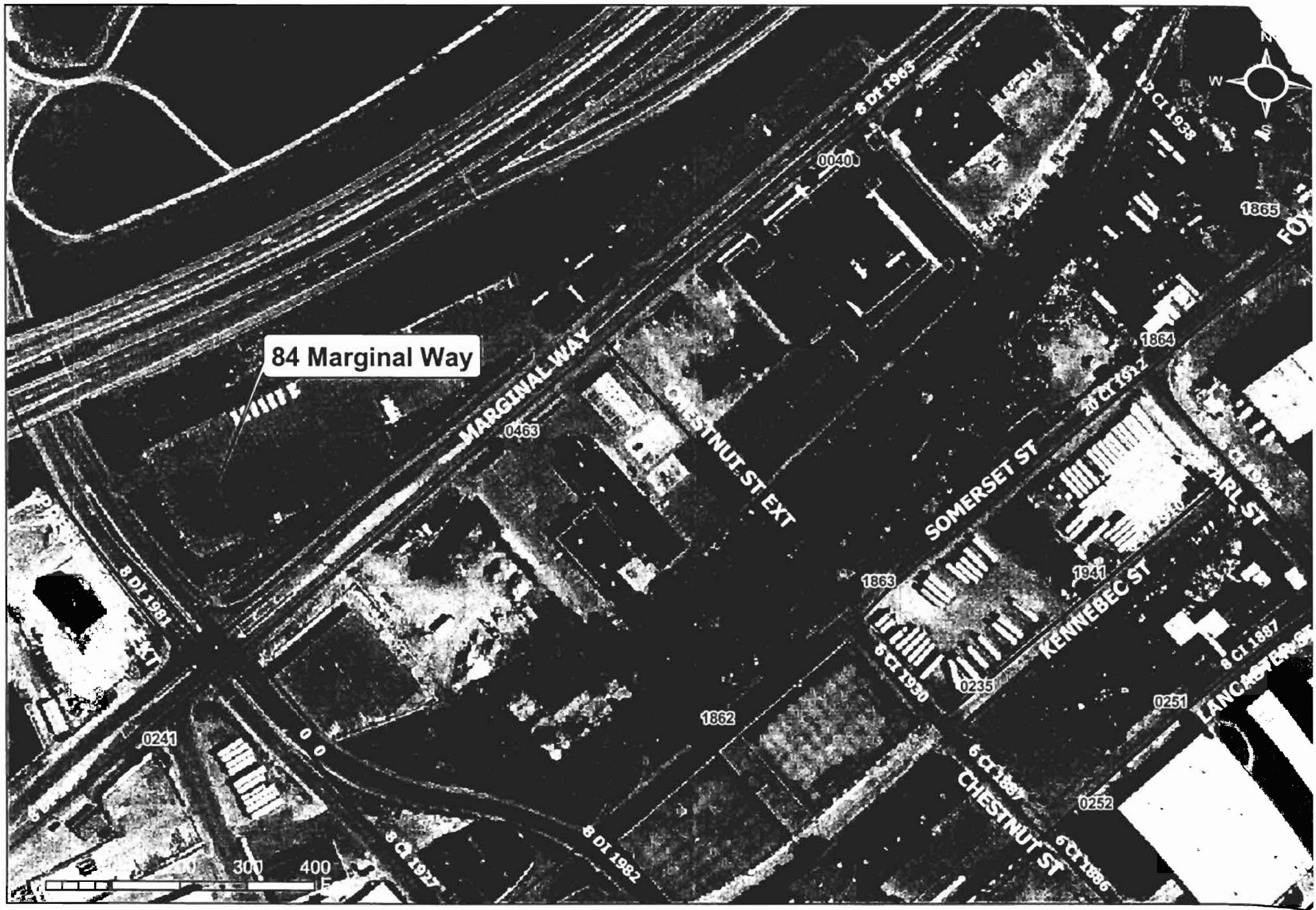
The conceptual designs for the building which were submitted on December 22, 2006 were reviewed for compliance with the *B-3 Urban Design Guidelines*. The project substantially meets the requirements of these guidelines.

The issues that are still outstanding include the following, which are suggested for inclusion in a condition of approval for staff review:

1. Samples of all building materials shall be provided.
2. Specifications for doors, windows, awnings, grills and other details shall be provided.
3. Specifications of the signage shall be provided.
4. Specifications of the planting bed design including the retaining wall shall be provided.
5. The metal product for the parapet roof at Marginal and Preble shall be provided.

### Jeff Tarling's Comment

That the site plan shall be revised for review and approval by the City Arborist reflecting replacement of the Cleveland Ornamental Pear by the Preble Street driveway with a more substantial tree (Armstrong Red Maple).



84 Marginal Way

**PORTLAND WATER DISTRICT**  
 225 Douglass Street  
 Portland, ME 04104

Drawn By: NMM  
 Date: 2/28/07

Scale: As Noted

**84 Marginal Way**

**Portland**

This map is suitable for preliminary study and analysis pending review of additional information. The data shown are only as accurate as the original data source(s) from which they were developed; resulting inconsistencies and data "mis-matching" may be evident.

Prepared for:  
 Mitchell & Associates

Sheet No. 1 of 1

84 MARGINAL WAY OFFICE BUILDING

VICINITY OF 84 MARGINAL WAY

CAPITAL, LLC., APPLICANT.

Submitted to:  
Portland Planning Board  
Portland, Maine  
January 9, 2007

Submitted by:  
Richard Knowland, Senior Planner

---

## I. Introduction

A public hearing has been scheduled to consider a proposal by Capital, LLC., (Ted West) for a proposed office building and parking garage in the vicinity of 84 Marginal Way on the corner of Marginal Way and Preble Street. The project is subject to Site Plan (including the Downtown Urban Design Guidelines) and Conditional Use (parking garage) review. A Traffic Movement Permit will be also be required. Site plans, building elevations and background information are shown on Attachments A, B and C.

121 notices were sent to area property owners.

## II. Project Summary

Zoning:	B-7
Land Area:	1.37 acres
Proposed Uses:	Parking Garage... floors 1 to 4 Retail...floor 1 Office...floors 5 to 9
Building Footprint:	44,773 sq. ft.
Building Floor Area:	261,200 sq. ft.
Office Floor Area:	66,000 sq. ft.
Parking Garage Floor Area:	175,664 sq. ft.
Retail Floor Area:	4,600 sq. ft.
Parking Spaces:	459 spaces
Building Height:	115 feet (9 floors)
Lot Coverage:	75%

### Vicinity Uses

North of the site is I-295, Back Cove and the Hannaford shopping center; to the east the proposed student housing development and the proposed Miss Portland Diner; to the south commercial development along Marginal Way including Gorham Savings Bank, Wild Oats, Green Grocer; to the west AAA building and other commercial uses along Marginal Way.

### Site Development and Façade Design Considerations

The proposed building program demonstrates an efficient and dense use of development space on the site. The site has about 515 feet of combined street frontage along Marginal Way and Preble Street with over 80% of the frontage occupied by a building wall. The stacking of an office building on top of a parking structure maximizes the amount of density on this site, which is consistent with the goals of A New Vision for Bayside and the new B-7 Zoning. The vertical nature of the development provides the opportunity to support the urban character of Bayside.



The parcel is located in Zone A (Gateway Urban Height District) of the Bayside Height Overlay Zone, which allows a maximum building height of 125 feet although as a conditional use, a building may be as high as 165 feet. The minimum height is four (4) floors. The proposal is well above the minimum height (9 floors) and just below the maximum height (120 feet).

The site is located in a highly visible gateway with exposure from Preble Street, Marginal Way and I-295. Like the adjacent housing proposal, the development of the site will form a visible impression of Bayside and peninsula from I-295.

The first floor of the building along Marginal Way is defined by retail space. The main pedestrian entrance is on the corner of Marginal Way and Preble Street.

A revised building façade plan was presented at the December 12<sup>th</sup> workshop. The plan represents a significant improvement over the initial August submission in terms of design direction and choice of materials. The design has more of a contemporary treatment with extensive use of glass (tinted glass and spandrel glass), aluminum curtain wall or storefront and use of brick to highlight certain elements of the façade. The site is in a highly visible gateway location so that the design and height of the building (120 feet) provides an opportunity to help shape and diversify the gateway experience. Since the last workshop, the project architect has updated the plan and clarified some of the façade details.

Design review comments evaluating the project under the Downtown Urban Design Guidelines are shown on Attachment S.

### **III. Staff Review**

The submitted plan and related documents have been reviewed by City staff for conformance with the applicable review standards of the site plan and conditional use (B-7 structured parking) ordinance.

#### **A. Conditional Use Review**

See 14296 (d) (1) Structure Parking Standards

Proposed parking structure must meet one of three (3) standards (a, b or c) in this section.

- a. The first floor of any parking structure shall contain one or more permitted uses (not conditional uses) found in sec. 14-295 along all primary street frontages (excluding frontage dedicated to entrances, lobbies and stair towers. Such first floor space shall be provided with a minimum of nine (9) foot floor to ceiling clearance height and a minimum twenty-five (25) foot depth (measured from the exterior building wall); or

The proposal has retail along a portion of the Marginal Way frontage but not along the Preble Street frontage.

- b. Parking garage setback at least thirty-five (35) feet from the street.

Not applicable.

- c. The parking structures shall be designed with a façade (to a height of the first two floors) that enhances the pedestrian experience as described in the City of Portland B-7 Bayside Design Standards (Downtown Urban Design Guidelines).

The proposed parking has been designed with a façade that enhances the pedestrian experience. See Attachment S for review memo from Carrie Marsh, Urban Designer.

Sec. 14-474 (c) (2)

- a. There are unique or distinctive characteristics or effects associated with proposed conditional use.

There are no known unique or distinctive impacts associated with this use. See review comments in site plan review section of this report.

- b. There will be an adverse impact upon health, safety or welfare of the public or the surrounding area.

There are no known adverse impacts on health, safety or welfare associated with this use. See review comments in site plan review section of this report.

- c. Such impact differs substantially from the impact, which would normally occur from such a use in that zone.

The impacts of this use are similar impacts that one would expect from other parking garages in this zone. See review comments in site plan review section of this report.

### III. SITE PLAN REVIEW

#### 1. Traffic

##### **Traffic Report**

A traffic impact report was prepared for this development. See Attachment D. Supplemental traffic information is shown on Attachment E. This project qualifies for a traffic movement permit. The project is forecast to generate 165 trip ends in the a.m. peak hour and 256 trip end in the p.m. peak hour. A traffic scoping meeting was held in accordance with the traffic movement permit process.

Comments from Tom Errico, Traffic Review Consultant, are shown on Attachment F.

##### **Vehicle Circulation**

Vehicle access is proposed from Marginal Way and Preble Street. Both driveways connect into the parking garage.

Marginal Way Driveway... The Marginal Way driveway has a delta island in the middle of the driveway restricting turning movements to right-hand turns only. Left hand turns were deemed unacceptable given the potential of conflicting turning movements with the Wild Oats driveway and its proximity to the Marginal Way/Preble Street intersection.

Aside from providing access into the parking garage, the Marginal Way driveway has other functions. The Bayside Village housing development has an easement to use the Marginal Way driveway for service and maintenance functions. The driveway will also be used by the Fire Dept. to gain emergency access to both buildings. The driveway is not connected into the Bayside Village parking garage.

Preble Street Driveway and Left Turn Accommodations... The Preble Street driveway is connected into the parking garage. The Preble Street driveway requires a segregated left hand turn lane on Preble Street to accommodate such turns into the site. Exiting the site is limited to right turns only. The updated plan shows the entire length of Preble Street from Marginal Way to the Hannaford driveway which provides a context for the proposed improvements. An existing island will be extended from the Marginal Way intersection to avoid conflict with turning movements from the AAA driveway, which is across the street from the proposed driveway. In order for the left-hand turn to function, traffic needs to be appropriately channeled into a left-hand lane.

Starting at a distance of about 600 feet from the project driveway (northerly) a series of traffic channelization improvements are proposed on Preble Street. This includes striping, a 125 foot-long raised island, a 350 foot-long (1 foot wide) rumble strip and then a traffic island by the project driveway. A series of signs are proposed north of the I-295 overpass indicating thru-traffic, a crosswalk and a turn for the medical office building.

The island north of the I-295 overpass features a crosswalk with a pedestrian activated flasher/sign. This addresses a long-standing concern of pedestrians crossing the street to go to Hannaford or USM. The location of the crosswalk was selected by the City's Crosswalk Committee and is adjacent to a well-worn path that takes pedestrians to the Hannaford property. The crosswalk will have pedestrian activated flasher/signs. Crossing Preble Street appears to be a regular pedestrian movement despite the challenge of crossing four (40 lanes of traffic). The crosswalk and signal provides the opportunity for a much safer passage for pedestrians.

The improvements proposed along Preble Street require an adjustment in the curb line reducing the existing sidewalk width to about 8 to 10 feet wide. This sidewalk is a critical connection to Back Cove. To help mitigate this impact the Applicant has agreed to install bollard and overhead lighting to improve the present dark and gloomy pedestrian environment under the bridge.

The student housing developer and the 84 Marginal Way developer will be jointly and separately responsible for the crosswalk, pedestrian light and bollard lighting discussed above.

The left hand turn on Preble Street into the site generated a number of questions during the review process. Staff believes the Applicant has provided sufficient documentation that the left hand turn can be appropriately and safely integrated into Preble Street and site development program. This documentation includes revisions made to the plan, submitting supplemental information and providing examples from other communities where similar left hand turns have been implemented.

### **Marginal Way Master Plan**

The proposed development and related off-site improvements have been designed to be compatible with the Marginal Way Master Plan. The Applicant will be responsible for a variety of improvements to help implement the plan. These improvements include installing a new curb line and sidewalk along the project frontage, reconfiguring an island in Marginal Way (east of the Marginal Way/Preble Street intersection), restriping travel lanes on Marginal Way and Preble Street (including bike lanes) in the vicinity of the site; and adjusting the curb line along a portion of the AAA street frontage. Tom Errico, Traffic Review Consultant, is also recommending that the Applicant contribute \$22,000 to the

Somerset Street extension extension between Preble/Elm Street and Forest Avenue and \$10,000 toward implementation of identified improvements at the Franklin Arterial and Marginal Way intersection.

As the final implementation of the Marginal Way plan will likely take place in phases it is important that development projects be designed and constructed in accordance with the master plan. For example at the Marginal Way/Preble Street intersection, two of the corners will be completed as part of the project (Marginal Way frontage and AAA frontage). The Wild Oats and Gorham Savings Bank frontage will need to be implemented later. Interim measures will need to be employed in certain cases as a transition to the full implementation of the master plan.

During the workshop process there was concern expressed that the site plan (which followed the Marginal Way plan recommendation) eliminated the existing double left hand turn on Preble Street Extension heading eastbound to Marginal Way. To address this issue, the plan was revised providing one left turn and a shared straight/left turn lane. To accomplish this dual left turn, an extra travel lane needs to be continued in front of the Wild Oats. The Marginal Way master plan called for one lane in this section of Marginal Way. An additional left hand turn lane on Marginal Way will increase the pedestrian travel distance at this intersection an additional 11 feet. This intersection represents a critical pedestrian linkage between the peninsula and off-peninsula neighborhoods including a connection to the Back Cove trail from peninsula neighborhoods and the new Bayside Trail.

With other circulation improvements being planned in Bayside including the extension of Somerset Street between Preble Street and Elm Street, this will hopefully reduce traffic pressure on the left turn turning movement as other circulation routes come on line. We view the second lane in front of Wild Oats as an interim measure until other Bayside circulation improvements are completed and traffic patterns can be fully evaluated. It may be possible that the second lane can be eliminated in the future if supported by a subsequent monitoring data.

### **Pedestrian Circulation**

The site plan indicates new public sidewalks will be constructed along the entire street frontage (Marginal Way and Preble Street) of the site. The sidewalk is eight (8) feet wide and constructed of brick.

As discussed during the Bayside Village review, a walkway is proposed behind the parking garage as a short cut to Preble Street for residents walking to Hannaford Supermarket and USM. This easement is also incorporated within the Marginal Way subdivision plat for this parcel.

Pedestrian entrances into the building are shown on the site plan. A main entry lobby is located on the corner of Marginal Way and Preble Street with two sets of doors. Doors are shown for the retail spaces along Marginal Way. A note on the plan indicates that these doors shall be open to the public during normal business hours.

We are recommending that the sidewalk at the corner of Marginal Way and Preble Street be widened eliminating the esplanade in the vicinity of the building entrance. This is a prominent building at a prominent location with a significant entrance. More room should be provided for pedestrians near the corner. The Applicant is in the process of reviewing this comment. Grading issues on the Marginal Way side of the corner may preclude the sidewalk extension.

Grading issues have posed challenges in providing pedestrian access from the public sidewalk to the retail spaces along Marginal Way. To address this concern, a raised walkway with a planter has been proposed between the public sidewalk and the building edge along Marginal Way. It is not an arcade as discussed at the workshop. The walkway varies in width but is primarily six (6) feet wide with some areas reduced to five (5) feet because of building columns. Pedestrian access near the Preble Street/Marginal Way corner is at-grade while a ramp is provided on the far easterly end of the retail frontage. In addition two sets of steps are proposed from the public sidewalk to the internal sidewalk. A ten foot wide set of steps is proposed at a midpoint along the retail frontage. This does not line-up with any doorway because it is not known exactly where the future retail users will want the doorways. The second set of steps is six (6) feet wide and is located between the 10 foot wide steps and the easterly ramp.

As discussed in the vehicle circulation section of this memo, the Preble Street sidewalk under the I-295 bridge is proposed to be reduced on both sides of the street (from 15 feet to 8-10 feet) to accommodate a left hand turn into the site from Preble Street. The sidewalk is a critical connection to the Back Cove Trail. This change is being mitigated by the proposed pedestrian crosswalk/pedestrian light on Preble Street north of the I-295 overpass as well as pedestrian lighting under the bridge.

A five (5) foot sidewalk is shown along the easterly side of the Marginal Way driveway which can be used by pedestrians entering/exiting the westerly side of the Bayside Village building. This sidewalk continues as part of the short cut to Preble Street discussed above. On the other side of the driveway there is a short sidewalk that takes a pedestrian to the parking garage.

In Mr. Errico's review memo, he summarizes the four (4) pedestrian walking distances at the Marginal Way/Preble Street intersection under existing conditions, Marginal Way Master Plan and with the 84 Marginal Way development. The proposed office street improvements will reduce the walking distance at three (3) crosswalks. As the Marginal Way Master Plan is

implemented on the southerly side of Marginal way (Wild Oats and Gorham Savings Bank) the walking distance will be reduced further.

### **Parking**

The submission indicates there will be 459 parking spaces in the four-story parking garage. Although the B-7 zone does not require off-street parking, the Planning Board under site plan review (for buildings 50,000 sq, ft or greater) determines the appropriate number of parking spaces for such developments. A parking demand analysis needs to be submitted by the Applicant.

#### 3. Health or Safety Problems

There are no known health or safety problems associated with this use or building. The student housing building at its closest is about 35 feet from the edge of the parking garage. There is a common driveway between the two buildings which also functions as an emergency access for the Fire Department. The next nearest building is the AAA building (130 feet) and the Wild Oats building (120 feet).

#### 4. Bulk, location, height of proposed building

The proposed development does not result in any substantial diminution in the value or utility to neighboring structures. The existing site is a parking lot. The only structure on the City owned Marginal Way parking lot is a bus shelter. Surface parking is not a favored use in the new B-7 zoning.

#### 5. Sewers, water and solid waste

The Portland Water District indicates there should be an adequate supply of clean and healthful water to serve the needs of the proposed development. See Attachment I. There is an existing eight (8) inch water main on the south side of Marginal Way.

Sanitary needs for the site will be accommodated by an existing 36 inch sewer pipe in Marginal Way. Public Works indicates there is sufficient capacity in this pipe to meet the needs of this development as well as adequate capacity to treat the waste at the Portland Water District, sewage treatment facilities located off Marginal Way.

An existing 30 inch storm drain within Marginal Way will serve the site.

Dan Goyette, Engineering Review Consultant, has reviewed and approved the site plan. See Attachment J.

The submitted stormwater management plan indicates the 1.37 acre site has an existing impervious area of 1.02 acres. See Attachment K. The Applicant

proposes to increase the impervious area by .22 acre. No detention is proposed on the site since stormwater will discharge quickly to the municipal storm drain and pass into Back Cove.

A Downstream Defender will be installed to address water quality concerns.

Solid waste will be stored in a dumpster near the Preble Street parking garage entrance. A private contractor will dispose of the waste.

#### 6/7. Landscaping

The existing site includes a buffer strip of landscaping and street trees that screen the existing parking lot. This landscaping will be removed to accommodate the development. Four (4) street trees are proposed along Marginal Way and two (2) street trees are proposed along Preble Street. These trees include New Harmony Elms and Nigra Taxus. The number of street trees particularly along Preble Street is limited by the proposed patient-drop-off parking areas along the street frontage of the property. Jeff Tarling City Arborist, has reviewed and approved the plan provided that a more substantial tree (Armstrong Red Maple) is planted by the Preble Street driveway replacing a Cleveland Ornamental Pear.

Along Marginal Way a series of planters (retaining wall) are proposed along the building edge. The planters will have a perennial bed with a total of seven (7) Profusion Flowering Crabs. On the Preble Street side, four (4) Maygar Ginkos are proposed along with some other understory plantings.

On the easterly side (student housing) of the parking garage, four (4) Zumi Calocarpa Flowering Crabs are proposed.

On the northerly side (I-295) of the parking garage plantings include four (4) Cornellian Cherry's and three (30) Turkish Filberts. This area features a walkway that serves as a shortcut between Marginal Way and Preble Street. A lawn will be planted to cover non-impervious surfaces. A planting area will be established between the dumpster enclosure and the parking garage entrance.

Significant existing landscaping (6 inch or greater) within the I-295 corridor (adjacent to the site) has been identified on the plan.

A dumpster pad is proposed by the Preble Street driveway. The dumpster will be enclosed by a solid wood fence and gate.

#### 8. Soil/Drainage

Five (5) catch basins are proposed within the parking garage. Stormwater will enter a water quality unit before being discharged into the City storm drain in Marginal Way.



The site is relatively flat but adjacent to the property is the I-295 berm. Stormwater from the highway drains onto the site. In order to better control this runoff, the Applicant is proposing some regrading within the I-295 right-of-way. Regrading and stormwater control within the I-295 corridor was also proposed for the student housing project. MDOT has reviewed the regrading plan and finds it acceptable.

The grading will move stormwater to an existing inlet near Preble Street. A note on the plan states "existing field inlet to be maintained. Rip rap inlet apron shall be constructed."

With the re-alignment of the curb line along Marginal Way and Preble Street, five (5) catch basins are proposed within the right-of-way.

An erosion and sedimentation control plan has been submitted. See Attachment M.

Dan Goyette, Engineering Review Consultant, has reviewed and approved the site plan. See Attachment J.

#### 9. Exterior Lighting

Attachment N includes previously submitted lighting information. The Applicant indicates (Attachment C-3) "a complete lighting plan has not been prepared for this submission. We are requesting as a condition of approval that the lighting plan be reviewed by staff. The on-street public r-o-w lighting will be the "Bayside" fixture."

Two (2) Bayside street light fixtures/poles each are proposed along the Marginal Way and Preble Street frontage of the property.

Five (5) light poles are shown on the plan covering the rear walkway and Preble Street entrance into the parking garage. Catalog cut information was not submitted on this fixture so it is not clear whether it has a cut-off fixture.

Information on the interior and exterior parking garage light fixtures has not been submitted. Catalog cut and photometric information needs to be submitted.

#### 10. Fire

Captain Cass of the Fire Department has reviewed the proposed layout and circulation of the site plan and finds it acceptable. The driveway between the student housing site and the project site serves as a common access for emergency vehicles. A new fire hydrant is proposed near the Marginal Way entrance. On the easterly side of the parking garage a section of the driveway has been widened to accommodate the needs of fire equipment.

11. Infrastructure

The proposed development is designed to be consistent with off-premises infrastructure existing or planned by the City. The Applicant has designed the street frontage of the project to be compatible with the Marginal Way Street Design Plan including street improvements such as curb alignment, streetlights (Bayside street light) and a crosswalk.

12. Natural Resources

The proposal is located in an urban infill site which was previously redeveloped. There are no known surviving significant natural resources on this site including Groundwater, surface water, wetlands, unusual natural resources or wildlife habitat. The site is on fill land created by the construction of I-295.

13. Signs

The submitted building elevations indicates the location of signage for the major tenant (Intermed). The type and size of the sign is not indicated on the plans. Signage for the retail spaces is not indicated. We are recommending a condition of approval that the Applicant submit a comprehensive sign plan for planning staff review and approval.

14. Downtown Urban Design Guidelines

Carrie Marsh, Urban Designer, has reviewed the plan for compliance with the Downtown Urban Design Guidelines. Her memo is shown as Attachment S. The memo concludes that the project substantially meets the requirements of the guidelines with the following elements incorporated as a condition of approval.

1. Samples of all building materials shall be provided.
2. Specifications for doors, windows, awnings, grills and other details shall be provided.
3. Specifications of the signage shall be provided.
4. Specifications of the planting bed design including the retaining wall shall be provided.

5. The metal product of parapet wall shall be provided.

#### **IV. REQUEST TO MODIFY TECHNICAL DESIGN GUIDELINES AND STANDARDS**

The Applicant is requesting that the parking space dimensional requirements under the Technical Design Standards and Guidelines be modified for the parking garage. The Applicant has provided additional information on the requested waiver which staff is in the process of reviewing. Staff will have a specific recommendation for Tuesday's meeting.

Revised January 9, 2006

**V. MOTIONS FOR THE BOARD TO CONSIDER**

On the basis of plans and materials submitted by the Applicant and on the basis of information contained in Planning Report #1-07, the Board finds:

- A. The plan is in conformance with the Site Plan Ordinance of the Land Use Code including Traffic Movement Permit.

Potential Conditions of Approval:

- i. That the Applicant shall meet the recommendations contained in Tom Errico's (Traffic Review Consultant) memo dated 1-5-07 including a contribution of \$10,000 towards implementation of identified improvements for the Franklin Arterial and Marginal intersection and an additional \$22,000 contribution to the proposed extension of Somerset Street extension between Preble/Elm Streets and Forest Avenue.
- ii. That the Applicant shall submit for Planning Staff review and approval the design items summarized on page 4 of Carrie Marsh's (Urban Designer) memo dated 12-27-06.
- iii. That a complete site lighting plan including the parking garage shall be submitted for Planning Staff review and approval. The lighting plan for the Preble Street underpass shall also be submitted for review and approval.
- iv. That the site plan shall be revised reflecting the comments of Jeff Tarling (City Arborist).
- v. That the Applicant apply for and receive City approval for a license permitting portions of the planter, ramp and awning to be located within a public right-of-way.
- vi. That a revised circulation and parking plan of the parking garage clearly labeling the plan scale, dimensions of the parking aisles and parking spaces shall be submitted for Staff review and approval.

- vii. That a revised plan shall be submitted to the Zoning Administrator clearly delineating the property line along Marginal Way and Preble Street.
  - viii. That a note shall be added to the site plan referencing an agreement between the City and the Applicant for public use of the parking garage for certain hours as provided for in the agreement.
  - ix. That public easements including the pedestrian easement shall be submitted for City staff review and approval.
- B. That the plan is in conformance with the B-7 Conditional Use Standards for structured parking of the Land Use Code.
  - C. The Planning Board [finds or does not find] that extraordinary conditions exist or that undue hardship may result from strict compliance with these regulations so that substantial justice may be done and the public interest secured, therefore the Planning Board [does or does not] modify the parking size and parking aisle standards of Technical and Design Standards and Guidelines for this development as shown on the submitted plan.

#### Attachments

- A. Site Plan
- B. Building Elevations
- C. Background Information
- D. Traffic Impact Study
- E. Supplemental Traffic Related Information
- F. Memo from Tom Errico, Traffic Review Consultant
- G. Parking Management Plan
- H. AAA Traffic Impact Study
- I. Public Utility Service Information
- J. Memo from Dan Goyette, Engineering Review Consultant
- K. Stormwater Management Report
- L. Soils Report
- M. Erosion and Sedimentation Control
- O. Lighting
- P. Financial and Technical Capacity

- Q. Property Purchase and Sale Agreement
- R. Neighborhood Meeting Information
- S. Memo from Carrie Marsh, Urban Designer

MITCHELL & ASSOCIATES  
LANDSCAPE ARCHITECTS

December 22, 2006

Mr. Richard Knowland, Senior Planner  
and Planning Board Members  
City of Portland  
389 Congress Street  
Portland, Maine 04101

12/27/06

**RE: Medical Office, Retail and Parking Garage  
84 Marginal Way**

Dear Rick and Board Members:

The following responses and attached documentation has been prepared to address staff review comments and board member comments raised during the last workshop.

Planning staff comments (e-mailed dated 12/14/06)

1. Submit revised landscaping plan.
  - **A revised landscaping plan has been prepared to address several comments raised by staff. These revisions include additional tree planting along the Preble Street façade of the garage and the planting plan along the raised walkway on Marginal Way.**
2. Add a note to the plan stating: "Doors for the proposed retail building spaces along Marginal Way and the main entrance at the corner of Preble Street and Marginal way shall be open to the public during normal business hours."
  - **Note #16 has been added to the site plan, Sheet 2 – Layout & Lighting.**

3. Please re-submit all lighting info. Need details on the parking garage lighting interior and exterior including photometrics.

- **A complete lighting plan has not been prepared as of this submission. We are requesting as a condition of plan approval that the lighting plan be reviewed by staff. The on-street public R.O.W. lighting will be the "Bayside" fixture.**

4. Update on the street light and pole. The official new color is Silver Metallic Aluminum (F264H) or Cardinal (T357-GR105). The aluminum components will be Top Coated T009-CLO5 Clear (Cardinal). The steel pole will be primed not galvanized, Silver Metallic Powder Coat (F264H) and will also have a top coat clear finish.

- **We have revised Note 10 on the site plan, Sheet 2, Layout and Lighting, to reflect this change. The same information will be included in the construction specifications.**

5. Please provide calculations on compliance with B-7 zoning (maximum street set back; minimum length of building wall) including building height elevation at all corners of the building.

- **The property line along Marginal Way is not one continuous bearing. The total façade along Marginal Way, not including the radius at Marginal and Preble, is 234 feet, of which 194 feet or 82% is within ten feet or less of the property line. The property line deflects to the east along the north easterly frontage where the maximum setback of 11'-10" occurs. The area that exceeds the ten feet is part of the raised pedestrian walkway that extends along the retail portion of the building.**

*where is the property line of sheet #2?*

**The building façade along Preble Street is approximately 180 feet long with 90% of the structure well within the maximum ten foot setback. The main entry to the lobby along, the acute angled façade and radius property corner is setback at 11 feet maximum for a distance of 20 feet.**

**The minimum length of building wall along Marginal Way exceeds the 75 percent minimum. Eighteen feet of frontage is for egress (site drive) to the site. The length of building along Preble Street exceeds 75 percent, there is approximately (due to radius of property line) 188 feet of building façade along approximately 240 feet of frontage.**



125' max  
The height of the building from finish floor to top of the roof beam on the office tower is 115 feet. The top of the parking garage wall is 34 feet above finish grade that varies from elevation 11 feet to 12 feet. (Refer to architectural elevations). The width of the Preble Street entry is 50 feet.

6. Respond to Carrie Marsh's comments on architectural design memo dated 12-08-06.
  - **Refer to attached response letter prepared by Harriman Associates**
7. Respond to Tom Errico's comments including memos dated 12-08-06.
  - **Refer to attached letter response prepared by Gorrill-Palmer Consulting Engineers – dated December 21, 2006.**
8. Respond to Dan Goyette's comments memo dated 12-06-06.
  - **See Engineer Responses below.**
9. Smooth out gore on left hand turn on Preble Street in to the site to assist snow plowing.
  - **Refer to detail provided in attached letter response by Gorrill-Palmer Consulting Engineers.**
10. Public Works sewer capacity letter?
  - **See enclosed letter from Frank Brancely.**
11. Transformer adjacent to Marginal way driveway. What is the size? I assume it is going to be green in color?
  - **The final size of the transformer has not been determined. Based on input from Central Maine Power, we have shown the maximum ground mounted transformer on a 9' x 9' pad, we assume the color will be green as CMP standards are being used.**
12. Submit typical layout drawing of parking garage above the first floor including typical dimensions of parking stalls and aisle width.
  - **We have enclosed as part of this submission, the floor plans for the four levels of parking. Plans have been prepared by Becker Structural Engineers.**

13. Details on dumpster enclosure including doors.

- **See attached detail.**

14. Note needed stating power lines for street lights will be underground.

- **Refer to Note 14 on Sheet 2, Layout and Lighting Plan.**

15. Net walkway width under the arcade. Width of the planter.

- **There is no arcade; this was an incorrect terminology in our previous submission. The raised area in front of the retail space is a pedestrian walkway that has recessed areas for seating. There is no overhead structure. The width of the space varies with the primary walkway being 6 feet wide and approximately 9 feet wide where the seating areas occur. The planter width varies from 5 feet wide behind the seating area, to 7 feet wide.**

16. I can't recall. Was there going to be some type of water quality system installed?

- **We have revised the interior storm drain system to address changes in the garage. There will be a Downstream Defender that is described in the section addressing engineering comments.**

17. Size of signs on the building.

- **Refer to attached responses prepared by Harriman Associates, Inc.**

18. I'm not a fan of over signage but I assume there will be signs reminding motorists about the turn restrictions at the Marginal Way driveway.

- **There will be right turn exit signs located at the Marginal Way Drive and the Preble Street Drive. Refer to Sheet 2, Layout and Lighting Plan for location.**

19. Height and material of the planter.

- **The height of the wall varies along the pedestrian walkway due to the grade along the public sidewalk. There will be a consistent top of wall elevation. The maximum height will be 24 inches with a minimum of 6 inches closer to Preble Street. The material for the wall is still being explored; we are looking at a textured cast-in-place concrete wall. We are requesting that as a condition of approval, that the final determination be approved by staff.**

## Engineer Review Comments

### General Comments

A. Preble Street is a moratorium street and will need to be reconstructed in accordance with the City moratorium street requirements.

- **This issue is understood and the City conditions and requirements will be noted on the construction documents. We assume this will be a condition of approval.**

B. It is unclear why the applicant is proposing a water line connection from Preble Street and from Marginal Way. It also appears that the connection on Marginal Way is very close to the new connection being proposed for Bayside Village. A single connection to the system could be made on Marginal Way which could service both buildings. Please provide additional information on the water line connections.

- **To respond to the first comment concerning the water service connection on Preble Street. Captain Cass, Portland Fire Department required this second connection to address fire suppression requirements.**

**To respond to the second comment concerning the Marginal Way water service. The Portland Water District required the two service connections, one for 84 Marginal Way and one for Bayside Village.**

### Oil and Water Separator

We have made minor revisions to the internal stormwater drain system to address changes resulting from redesign of the parking garage. Updated information has been attached to address the oil and water separator.

- **A 6-foot diameter Downstream Defender has been included to provide oil/water separation for the storm drain line for the parking garage. This drain line has several catch basins located in the garage to collect runoff/drips from the vehicles in addition to the collection of runoff from the building roof and a portion of exposed garage parking deck on the uppermost level. The estimated 25-year peak flow to the proposed Downstream Defender is about 5.6 cfs (see attached calculations). Based on information from EPA, the Downstream Defender will provide oil and grease removal and is designed so that these contaminants do not get re-entrained during major storm events (see attached literature).**

Attached for your review are the following documents:

- Response letter to Carrie Marsh's comments prepared by Harriman Associates.
- Oil and water separator calculations and product information provided by Gorrill-Palmer Consulting Engineers.
- Response letter to Tom Errico's comments prepared by Gorrill-Palmer Consulting Engineers.
- Public Works sewer capacity letter.
- Trash enclosure detail.

### **Plan Sheets**

#### **Mitchell & Associates**

- Sheet 2 Layout and Lighting Plan
- Sheet 3 Grading, Drainage and Utility Plan
- Sheet 4 Planting Plan
- Sheet 10 Utility and Drainage Details

#### **Harriman Associates**

- Sheet A15.1 Roof Plan
- Sheet A20.1 Exterior Elevation
- Sheet A23.2 Exterior Elevation
- Sheet A20.3 Exterior Elevation
- Sheet A20.4 Exterior Elevation
- Sheet A20.5 3D Sketch

#### **Becker Structural Engineers**

##### **Parking Garage Levels**

- Sheet P 0
  - Sheet P 1
  - Sheet P 2
  - Sheet P 3
- 
- One set of Drawings at 11 x 17

Mr. Richard Knowland and Planning Board Members

Page #7


We trust that this documentation addresses staff comments and those made by the planning board. Should you have questions or additional comments, please do not hesitate to call me. We look forward to meeting with you and the planning board on January 9, 2007 for the public hearing.

Sincerely,  
Mitchell & Associate

  
Robert B. Metcalf

Enclosure

cc: Ted West  
Greg Shinberg  
Matt Young  
Judy Johnson  
Will Haskell  
Tom Gorrill  
Todd Neal



HARRIMAN ASSOCIATES

66 Pearl Street, Suite 301  
Portland, Maine 04101

207.775.0053 telephone  
207.775.0460 fax  
www.harriman.com

Building communities  
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**84 Marginal Way  
Medical Office Building**

Responses to Planning Comments  
22 December 2006

To : Richard Knowland, Senior Planner  
From: Judy L. Johnson, AIA

Below is a summary of the status of the information that has been requested by the Planning Board and Staff in order to review the design for compliance with the Zoning Ordinance.

**Building Materials**

Samples of all building materials will be provided at the public hearing.

**Specifications for Building Components**

As the specifications are still being developed, we respectfully request that this be a condition of approval for staff review

**Specifications for the Signage**

The signage is still in the development stage and although we have identified locations for the signage, the exact size and specification has not been determined. We, therefore, respectfully request that this be a condition of approval for staff review

**Steps to retail Space**

As requested, we have increased the width of the steps to the retail space to 10'-0". This will increase the perceived accessibility of the access to the retail space and will also be more pedestrian friendly.

**Headlights**

Included in the submission materials on drawing A20.2 is a section of a car at the headlights indicating that the solid panels are above the headlights and will prevent the headlights from shining into the adjacent properties.

**East and North Elevations of Parking Garage**

Both the East and North Elevations of the Garage are included in the materials. At the pedestrian level, the garage materials is primarily a painted metal security screen with precast concrete columns which will provide a rhythm to the garage facade that will be pedestrian friendly. Planting and lighting are provided to make the exterior of the garage pedestrian friendly. The precast concrete spandrel panels are articulated with recesses to provide a pattern which enhances the garage design.

**3-D Graphics**

A 3-dimensional computer model will be presented at the Public Hearing.

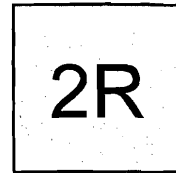
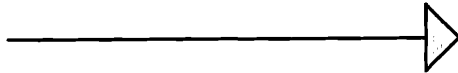
We are extremely excited about the design and the opportunities that this building affords the City of Portland. We look forward to continuing to meet with you and the planning board to discuss this exciting project.

**OIL AND WATER SEPARATOR  
CALCULATIONS AND PRODUCT  
LITERATURE**

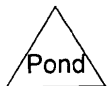




Building Roof



Oil/Water Separator



## 84 Marginal Way - Water Treatment Sizing

Prepared by Gorrill-Palmer Consulting Engineers, Inc.

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Page 2

12/21/2006

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### Area Listing (all nodes)

<u>Area (acres)</u>	<u>CN</u>	<u>Description (subcats)</u>
1.009	98	Paved parking & roofs (2-2)
<hr/>		
1.009		

**84 Marginal Way - Water Treatment Sizing**

Type III 24-hr 2-year Rainfall=3.00"

Prepared by Gorrill-Palmer Consulting Engineers, Inc.

Page 3

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12/21/2006

Time span=1.00-20.00 hrs, dt=0.03 hrs, 634 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2-2: Building Roof**

Runoff Area=43,967 sf Runoff Depth>2.64"

Tc=5.0 min CN=98 Runoff=3.02 cfs 0.222 af

**Reach 2R: Oil/Water Separator**

Inflow=3.02 cfs 0.222 af

Outflow=3.02 cfs 0.222 af

**Total Runoff Area = 1.009 ac Runoff Volume = 0.222 af Average Runoff Depth = 2.64"**

**0.00% Pervious Area = 0.000 ac 100.00% Impervious Area = 1.009 ac**

**84 Marginal Way - Water Treatment Sizing**

Type III 24-hr 10-year Rainfall=4.70"

Prepared by Gorrill-Palmer Consulting Engineers, Inc.

Page 4

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12/21/2006

Time span=1.00-20.00 hrs, dt=0.03 hrs, 634 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2-2: Building Roof**

Runoff Area=43,967 sf Runoff Depth>4.26"

Tc=5.0 min CN=98 Runoff=4.78 cfs 0.358 af

**Reach 2R: Oil/Water Separator**

Inflow=4.78 cfs 0.358 af

Outflow=4.78 cfs 0.358 af

**Total Runoff Area = 1.009 ac Runoff Volume = 0.358 af Average Runoff Depth = 4.26"**

**0.00% Pervious Area = 0.000 ac 100.00% Impervious Area = 1.009 ac**

**84 Marginal Way - Water Treatment Sizing**

Type III 24-hr 25-year Rainfall=5.50"

Prepared by Gorrill-Palmer Consulting Engineers, Inc.

Page 5

HydroCAD® 8.00 s/n 001265 © 2006 HydroCAD Software Solutions LLC

12/21/2006

Time span=1.00-20.00 hrs, dt=0.03 hrs, 634 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2-2: Building Roof**

Runoff Area=43,967 sf Runoff Depth>5.02"  
Tc=5.0 min CN=98 Runoff=5.60 cfs 0.422 af

**Reach 2R: Oil/Water Separator**

Inflow=5.60 cfs 0.422 af  
Outflow=5.60 cfs 0.422 af

**Total Runoff Area = 1.009 ac Runoff Volume = 0.422 af Average Runoff Depth = 5.02"**  
**0.00% Pervious Area = 0.000 ac 100.00% Impervious Area = 1.009 ac**



# U.S. Environmental Protection Agency

K-6

## EPA New England's Center for Environmental Industry and Technology (CEIT)

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[EPA NE Home](#)

[A-Z Index](#)

[CEIT Home](#)

[CEIT Virtual Show Home](#)

[Storm Water](#)

[Introduction](#)

[History](#)

[Virtual Storm Water Trade Show](#)

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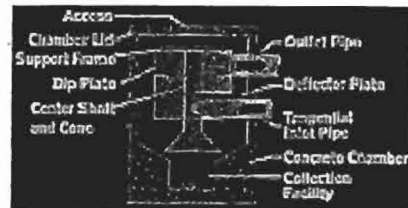
## Storm Water Virtual Trade Show Downstream Defender™

--- Select a Company/Technology ---

### Narrative Description

HIL Technology, Inc. offers cost-effective non-point source pollution prevention with the **Downstream Defender™**; a treatment device engineered to capture settleable solids, floatables, oil and grease from storm water runoff. It is one of the family of advanced Hydrodynamic Vortex

Separators provided by HIL Technology, Inc. that augments gravitational forces with complex but stabilized vortex forces to maximize solids/liquids separation. The result is a compact separator that requires a smaller land area than conventional gravitational sedimentation. A floatables trap is incorporated within the same vessel.



### Benefits

- Removes sediment, floatables, oil and grease
- Small footprint
- No pollutant re-entrainment
- No loss of treatment capacity between clean-outs
- Low head loss, typically < 12 inches
- Efficient over a wide range of flows
- Easy to install
- Low maintenance

### Applications

- New developments and retrofits
- Construction sites
- Streets and roadways
- Parking lots
- Vehicle maintenance wash-down yards
- Industrial and commercial facilities
- Wetlands protection

### Importa

Criteria innovat technol in the ir Vendor: for conf the acc informa 1 of ear informa remove

The tec descripl this site limited technol perform benefits been pr the ven was ma screen or techi Therefo confirm legal ac disclos perform informa the cor by EPA The inc compar product does nc imply e recomr EPA.

Four standard sizes are available, each designed to treat a range of flows to a specific solids removal efficiency. To meet specific performance criteria or for larger flow applications, HIL offers custom designed units up to forty (40) feet in diameter.

The **Downstream Defender™** is a primary treatment device that requires no pretreatment. However, it can be used as a pretreatment device before detention systems, mitigating wetlands or other polishing systems.

### Components:

The **Downstream Defender™** has no moving parts and no external power requirements. It consists of a concrete cylindrical vessel with polypropylene internal components and a stainless steel support frame. The concrete vessel is a standard manhole, installed below grade with a tangential inlet pipe and an overflow pipe which connect the treatment unit directly to the storm sewer. Two ports at ground level provide access for inspection and clean-out of stored floatables and sediment. The internal components consist of two concentric hollow cylinders (the dip plate and center shaft), an inverted cone (the center cone), a benching skirt and a floatables lid. The internal components are labeled on the **Downstream Defender™** Interior View.

The purpose of the internal components is two-fold:

- The components act as flow modifying members to effect a complex but stable flow regime through the device; which maximizes solids separation and prevents short circuiting.
- The components create isolated zones for pollutant capture and storage.

#### **System Dynamics:**

The Downstream Defender™ is self-activating and operates on simple fluid hydraulics. The geometry of the internal components and placement of the inlet and outlet pipes are designed to direct the flow in a pre-determined path through the vessel as described below.

Storm water is introduced tangentially into the side of the vessel and initially spirals around the perimeter, in the outer annular space (between the dip plate cylinder and manhole wall), where oil and floatables rise to the water surface and are trapped. As the flow continues to rotate about the vertical axis, it travels down towards the bottom of the dip plate. Sediment is directed toward the center and base of the vessel where it is collected in the sediment storage facility, beneath the vortex chamber. The center cone protects stored sediment and redirects the main flow upwards and inwards. Flow passes under the dip plate and up through the inner annular space, inside the dip plate (between the dip plate and center shaft cylinders), as a narrower spiraling column rotating at a slower velocity than the outer downward flow. By the time the flow reaches the top of the vessel, it is virtually free of solids and is discharged from the inner annular space, through the outlet pipe.

The dip plate and center shaft cylinders are suspended from the underside of a component support frame. This dip plate serves two purposes:

- It locates the shear zone, the interface between the outer downward circulation and the inner upward circulation where a marked difference in velocity encourages solids separation, and
- It establishes a zone between it and the outer wall where floatables, oil and grease are captured and retained after a storm.

The floatables lid covers the inner annular space between the dip plate and center shaft. It separates oil and floatables stored in the outer annular space, between the dip plate and the manhole wall, from the treated effluent in the inner annular space.

#### **Specifications**

Standard specifications are available for typical design criteria of 90% removal of all particles greater than 150 microns with a specific gravity of 2.65 at design flow. However, the **Downstream Defender™** can easily be sized to

meet higher or lower performance requirements. Headloss through the unit, at design flow, is typically less than 12 inches. At lower flows, the removal efficiencies are enhanced and headlosses decrease.

### Site Constraints/Installation Requirements

The unit should be installed in a location that is easily accessible for the maintenance vehicle, preferably in a flat area close to a roadway or parking area. The **Downstream Defender™** is delivered to site completely fabricated, ready to be installed into the excavated hole and connected to the inlet and outlet piping. It is compact and can fit within an excavation trench guard. Larger units are delivered to site in component form for final assembly at the job site. Installation time for a 6 foot unit is typically 1½ hours.

### Performance

The **Downstream Defender™** is designed to remove settleable solids, floatables, oils and grease from storm water runoff. Full-scale test results show settleable solids removal efficiencies of 90% at design flows. Because the sediment and oil storage areas are outside the main flow path through the unit, previously collected solids, oil and floatables are not re-entrained in the effluent during major storm events or surcharge conditions. In addition, treatment capacities are not reduced as pollutants accumulate between clean-outs.

### Maintenance

The **Downstream Defender™** is unique in that the sediment and oil storage areas are outside the treatment flow path. As mentioned above, previously collected solids, oil and floatables are thereby protected from re-entrainment into the effluent during major storms or surcharge conditions. Furthermore, as sediment, floatables and oil are collected and stored over a period of several months, treatment capacities are not reduced as pollutants accumulate between clean-outs.

After a storm event, the water level in the **Downstream Defender™** drains down to the invert of the outlet pipe, keeping the unit wet. Maintaining a wet unit has two major advantages:

1. It keeps the oil and floatables stored on the water surface separate from sediment stored below the vortex chamber, providing the option for separate oil disposal, such as passive skimmers, if desired.
2. It prevents stored sediment from solidifying in the base of the unit. The clean-out procedure becomes much more difficult and labor intensive if the system allows fine sediment to dry-out and consolidate. When this occurs, clean-out crews must enter the chamber and manually remove the sediment; a labor intensive operation in a hazardous environment.

The **Downstream Defender™** has large clear openings and no internal restrictions or weirs, minimizing the risk of blockage and hydraulic losses. Orifices and internal weirs can create two serious hydraulic problems:

1. Increased risk of blockage - Small orifices tend to collect debris and trash such as soda cans, sticks and Styrofoam cups which further



reduce opening size and may even block openings completely. This alters the hydraulics in a flow-through treatment device, adversely affecting operation and performance and can eventually lead to system back-ups and maintenance issues. Removing debris from a submerged orifice may require pumping down the chamber.

2. Increased head losses - Internal restrictions, such as weirs and baffles, significantly increase hydraulic losses in a flow-through treatment device. The higher the flow through the system, the higher the head loss. This problem is exacerbated during the more intense storm events, backing up the storm sewer and increasing the risk for upstream flooding.

#### **Maintenance Procedures:**

A commercially or municipally owned sump-vac is used to remove captured sediment and floatables. Access ports are located in the top of the manhole. The floatables access port is above the outer annular space between the dip plate and the manhole wall, where floatables are retained. The sediment removal access port is located directly over the hollow center shaft that leads to the sediment storage facility below the vortex chamber. Floatables and oil should be removed prior to the removal of the sediment.

The frequency of the sump-vac procedure is determined in the field after installation. During the first year of operation, the unit should be inspected every six months to determine the rate of sediment and floatables accumulation. A probe can be used to determine the level of solids in the sediment storage facility. This information can then be used to establish a maintenance schedule. When sediment depth has accumulated to the specified depth, the contents should be removed by sump-vac. In most situations, it is recommended that the units be cleaned annually.

Although a small portion of water is removed along with the pollutants during the clean-out process, the units are typically not completely dewatered - minimizing disposal costs. The sump-vac procedure for a typical 6-ft diameter **Downstream Defender™** with one foot of sediment depth and two inches of oil and debris takes about 25 minutes and removes about 150-200 gallons of water in the process.

#### **Longevity**

The **Downstream Defender™** consists of a standard concrete manhole with internal components made from either polypropylene or Type 304 stainless steel. There are no moving parts, and it has no external power requirements. With regular maintenance, the **Downstream Defender™** will treat storm water for a period in excess of 30 years.

#### **Additional Information**

HIL's professional engineers work closely with municipalities, consultants, industries and developers. They offer a full technical support service and can advise on the design of storm water treatment and storm water management schemes. Customized Plan and Elevation Views, which show hydraulic grade lines, are generated in AutoCAD 14 for each **Downstream Defender™** application.

HIL Technology offers free training and technical seminars. Standard engineering drawings (AutoCAD 14) and specifications (WordPerfect) are available on disk. For more information or to submit an on-line inquiry, visit HIL

Technology's web site at [www.hil-tech.com](http://www.hil-tech.com) [EXIT Disclaimer](#)

**Manufacturer**

Company: HIL Technology, Inc.  
Address: 94 Hutchins Drive  
Portland, ME 04102

Telephone: (207) 756-6200  
Fax: (207) 756-6212  
eMail: [hiltech@hil-tech.com](mailto:hiltech@hil-tech.com)  
Website: [www.hil-tech.com](http://www.hil-tech.com) [EXIT Disclaimer](#)

Contact: David Mongeau, Regional Sales Engineer

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Last updated on Friday, March 3rd, 2006

URL: <http://www.epa.gov/NE/assistance/ceitts/stormwater/techs/downstreamdefender.html>



December 21, 2006

Mr. Rick Knowland  
City of Portland  
389 Congress Street  
Portland, ME 04101

RE: 84 Marginal Way  
Responses to Tom Errico's Comments  
Comment Response Letter #3

Dear Rick:

Our office is providing responses to Tom Errico's comments dated December 8, 2006 and Comment 9 from you dated December 14, 2006. For convenience of review, each comment is repeated in italics followed by our response.

*Item 1: Changes in pedestrian crossing distances at the Marginal Way/Preble Street intersection:*

**Comparison of Pedestrian Crossing Lengths: Marginal Way at Preble Street**

Crosswalk	Existing	Master Plan	84 Marginal Way
Marginal Way west of Preble	100 feet	65 feet	80 feet
Marginal Way east of Preble	110 feet	75 feet	95 feet
Preble Street Extension	110 feet	70 feet	80 feet
Preble Street	90 feet	70 feet	90 feet

- *Marginal Way west of Preble: The crossing distance does not meet the Master Plan distance for the requirement for no modification on southerly Marginal Way curb line (in front of Gorham Savings Bank) and a larger radius on the 'AAA' corner. I will check this radius and make a determination on its appropriateness.*
- *Marginal Way east of Preble: The crossing distance does not meet the Master Plan distance due to the requirement for no modification on southerly Marginal Way curb line (in front of Wild Oats) and a larger radius on the Applicant corner. I will check this radius and make a determination on its appropriateness.*
- *Preble Street Extension: The crossing distance does not meet the Master Plan distance due to the provision of larger radii on the corners. I will check this and make a determination on its appropriateness.*
- *Preble Street: No changes are proposed on the south side of Marginal Way.*

**Response:** The proposed design for Preble Street Extension at Marginal Way was designed as a balance between vehicular mobility, bicycle access, and pedestrian usability. In addition, the design is in keeping of the spirit of the Marginal Way Pedestrian and Bicycle Master Plan, as it provides enhanced pedestrian and bicycle amenities at this intersection as well as along Preble Street Extension toward the Hannaford Supermarket.

The questions of pedestrian crossing lengths and turning radii at the Marginal Way/Preble Street Extension intersection are directly related, as smaller radii translate to shorter pedestrian crossings. In the case of the two radii on the Elm Street/Preble Street approach, these will not change as part of this project. Off-site improvements for the Preble Street Extension of the intersection do result in reduced radii from the existing conditions, and therefore, shorter pedestrian crossings.

As for the difference between the proposed conditions and those set forth in the Master Plan, the radii have been reduced but reduced such that mobility for larger trucks and vehicles, particularly large emergency vehicles, garbage equipment, and some freight still using the area have adequate turning areas. Further reductions in turning radii could result in significant vehicle encroachment on adjacent bicycle and parking facilities, or even driving up onto the median divider islands. Our office has arrived at the radii proposed for the project utilizing the AutoTurn software package and found them to be adequate for the majority of heavy vehicle usage.

*Item 2: The proposed Master Plan concept was developed such that it will be compatible with all possible future modes of transportation, including light rail. The applicant should provide a response ensuring the proposed project frontage design on Marginal Way allows for all possible transportation mode implementation.*

**Response:** 84 Marginal Way was designed to minimize impacts to the existing right-of-way on Marginal Way so as to allow for the full buildout of the Master Plan, which does include the potential for alternative transportation modes. Available width between the proposed face of the building and the right-of-way fronting Wild Oats exceeds the 100 feet specified for the Master Plan. In addition, the face of the building along Marginal Way aligns with that of the nearby AAA Building as well as the recently approved Bayside Village project, which provides a consistent urban environment. This again is in keeping with the long-term vision for the Marginal Way corridor.

*Item 3: As part of development of the interim plan for Marginal Way, the Applicant will be providing two travel lanes on Marginal Way in the eastbound direction. As such the Applicant should provide technical documentation on the required length of carrying the two lanes from Preble Street towards Chestnut Street. The City would like to minimize the length of the two lanes.*

**Response:** Mr. Errico also requested additional information on the use of dual receiving lanes for the left turn movement on Marginal Way. As currently proposed, the dual lanes will run for 500 feet prior to tapering. The taper was designed in conformance with standard MaineDOT design guidelines, while the length of the dual lanes was utilized to provide the dual lane movement past the Wild Oats driveways. The goal of the design was to provide drivers with adequate distance to utilize both lanes. It has been our experience that as the receiving distance is reduced in length, utilization of both lanes is lower. So while the receiving length could be reduced (to say, approximately ten times the green time or approximately 300 feet for the left turn phase, a benchmark often utilized by MaineDOT), the use of both turn lanes would be less, with a result of lower efficiency.

Mr. Rick Knowland  
December 21, 2006  
Page 3 of 4

*Item 4: The City recognizes that the full-phase implementation of the Marginal Way Master Plan will be conducted in phases and as such is supportive of the construction of a short-term or initial implementation program. In respect to the 84 Marginal Way project, a key element of the short-term implementation plan is the provision of two left-turn movements (one from a dedicated left-turn lane and one from a shared left/through lane) from Preble Street Extension onto eastbound Marginal Way. This short-term action allows for a roadway cross-section on Preble Street Extension that is consistent with the full-build Master Plan, but continues to require two Marginal Way eastbound through lanes, which is not consistent with the full-build Master Plan. The City wishes to systematically reduce the left-turn capacity from Preble Street Extension and will monitor conditions at the subject intersection during the implementation of area roadway improvements and the completion of development projects.*

**Response:** Gorrill-Palmer Consulting Engineers, Inc. is in full agreement with Tom Errico's comment regarding the dual left turn movement from Preble Street Extension to Marginal Way. This movement, while providing for two left turn lanes, results in a total of three approach lanes, or one less than the existing condition and in keeping with the Master Plan. However, the use of shared movements allows for a more efficient use of the approach. While some concerns have been raised regarding the split phase operation proposed in conjunction with the changes to lane assignment, both HCM and SimTraffic-based analysis indicates that this will result in improved operations for post-development conditions when compared to the existing phase structure. In addition, the use of split phase operation for the Preble Street movement results in fewer conflicting movements taking place at the same time. This should result in fewer side street crashes long-term.

It is both our and Mr. Errico's expectation that the dual movement not be a permanent design for the intersection. The City's goal is to extend Somerset Street to Forest Avenue, providing another through corridor for the developing Bayside area. With destinations such as Whole Foods coming on line on the Somerset Street corridor, use of Marginal Way as a through road is anticipated to decrease. As such, left and right turns from Marginal Way to Preble Street Extension and vice-versa should be reduced, as traffic relocates to Somerset Street.

*Item 5: Smooth out gore on left hand turn on Preble Street in to the site to assist snow plowing.*

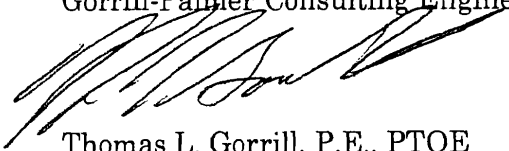
**Response:** Our office met with Jim Carmody to determine the most appropriate design for the left hand turn into 84 Marginal Way. The design will be of a flush concrete with raised delineators for visibility. A copy of this revised plan is included with this letter.

Mr. Rick Knowland  
December 21, 2006  
Page 4 of 4

Gorrill-Palmer Consulting Engineers, Inc. appreciates the opportunity to respond to these comments and looks forward to your review of our responses. Should you have any questions or require any additional information, please feel free to contact me.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.



Thomas L. Gorrill, P.E., PTOE  
President

Copy: Tom Errico, Wilbur Smith Associates  
Jim Carmody, City Traffic Engineer  
Bob Metcalf, Mitchell and Associates  
Greg Shinberg, Shinberg Consulting  
Randy Dunton, MaineDOT Division 1  
Matt Young, Pizzagalli Construction

Enclosure

TLG/jjb/JN1361.01/KnowlandResponses12-21-06.doc



# PORTLAND MAINE

*Strengthening a Remarkable City, Building a Community for Life* \* [www.portlandmaine.gov](http://www.portlandmaine.gov)

**Public Works Department**  
Michael J. Bobinsky, Director

28 July 2006

Ms. Betsy Melrose,  
Mitchell & Associates,  
70 Center Street,  
Portland, Maine 04101

**RE: The Capacity to Handle Wastewater Flows, from 82, 84, 98, 102 Marginal Way, Site of a Proposed Retail, Parking Garage, and Medical Office Building.**

Dear Ms. Melrose:

The existing thirty-six inch diameter reinforced concrete sanitary sewer pipe, known as the "Marginal Way West Interceptor," that fronts this site, has **adequate capacity to transport**, while The Portland Water District sewage treatment facilities, located off Marginal Way, have **adequate capacity to treat** the anticipated increased wastewater flows of **10,901 GPD**, from your proposed building.

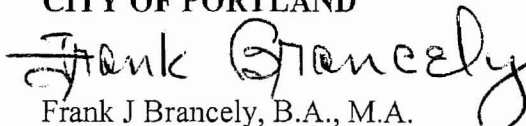
**Anticipated Wastewater Flows from the Proposed Development:**

5,172 Sq. Feet of Proposed Retail Space @ 0.1 GPD/Sq. Foot	=	517 GPD
434 Parking Spaces @ 1 GPD/Parking Space	=	434 GPD
50 Medical Office Staff @ 80 GPD/Staff	=	4,000 GPD
800 Proposed Patients @ 5 GPD/Patient	=	4,000 GPD
130 Office Employees @ 15 GPD/ Employee	=	<u>1,950 GPD</u>
<b>Total Proposed Increase in Wastewater Flows for this Project</b>	=	<b>10,901 GPD</b>

The City combined sewer overflow (C.S.O.) abatement consent agreement (with the U.S.E.P.A., and with the Maine D.E.P.) requires C.S.O. abatement, as well as storm water mitigation, in order to offset any increase in sanitary flows, from all projects.

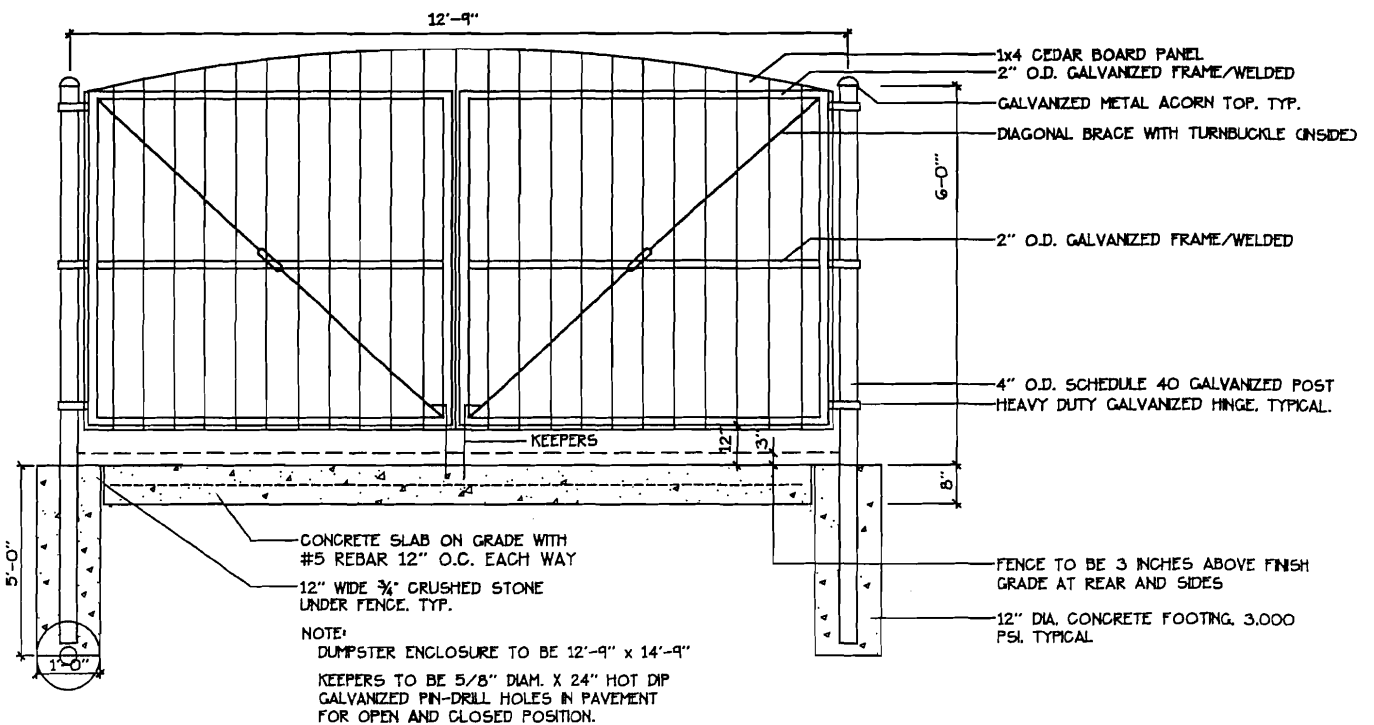
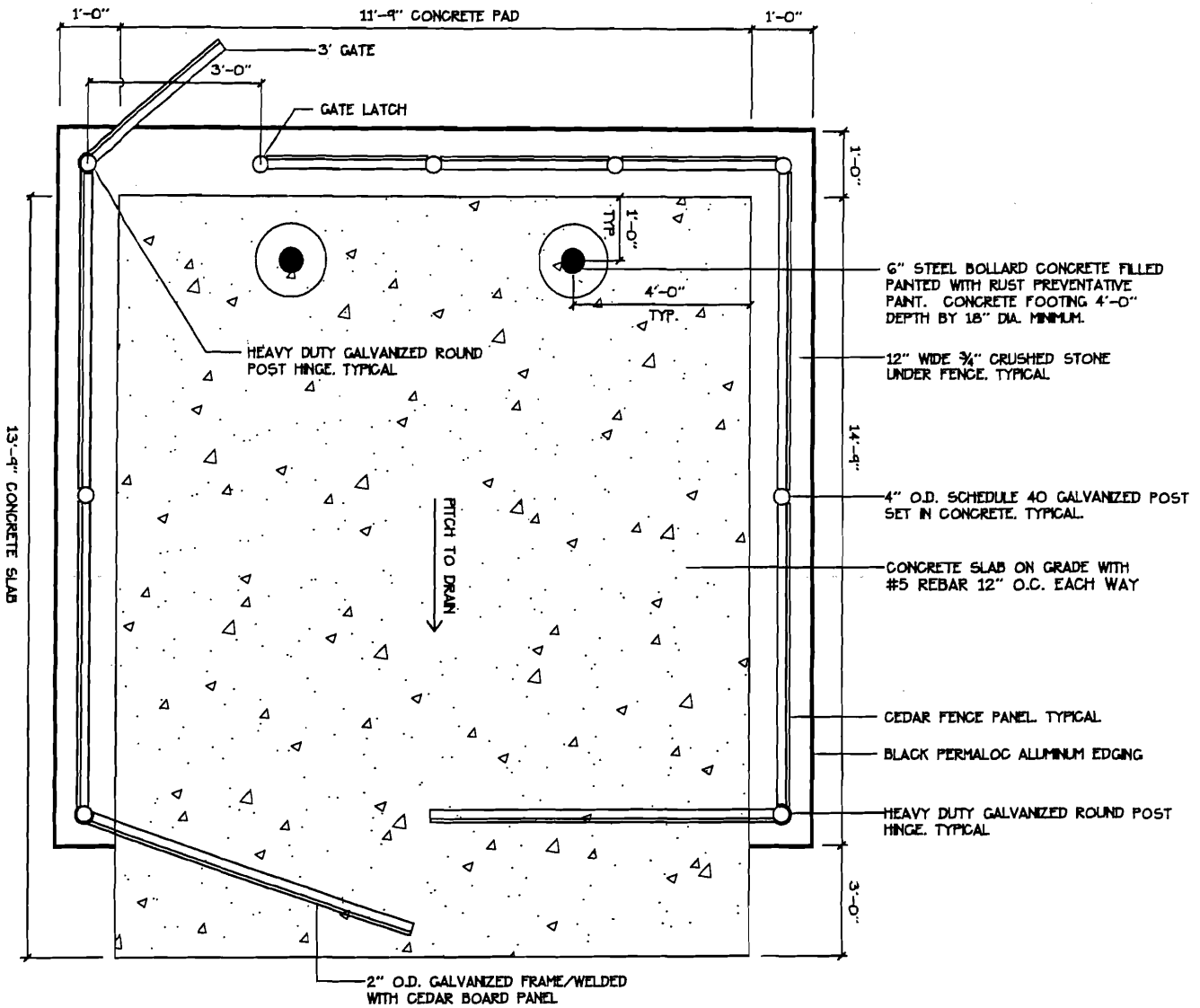
If the City can be of further assistance, please call 874-8832.

Sincerely,  
CITY OF PORTLAND

  
Frank J. Brancely, B.A., M.A.  
Senior Engineering Technician

FJB

cc: Alexander Q. Jaegerman, Director, Planning Division, Department of Planning, and Urban Development, City of Portland  
Rick Knowland, Senior Planner, Department of Planning, and Urban Development, City of Portland  
Eric Labelle, P.E., City Engineer, City of Portland  
Bradley A. Roland, P.E., Environmental Projects Engineer, City of Portland  
Stephen K. Harris, Assistant Engineer, City of Portland  
Desk file





# BECKER

STRUCTURAL ENGINEERS, INC.

07 C106

19 April 2007

Ms. Jeanie Bourke  
Inspections Division  
City of Portland  
389 Congress Street  
Portland, Maine

034A B001

BUILDING CODE  
84 MARGINAL WAY  
PORTLAND, MAINE

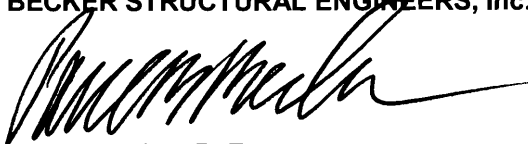
Dear Jeanie:

We are formally requesting to utilize the 2006 version of the International Building Code (IBC) for the structural design of above referenced project. Note that we submitted an informal request by email to utilize this version of the code, to which you responded positively. Copies of the referenced email correspondences are attached. We understand that the City of Portland typically enforces the 2003 version of the IBC Code. The following is our justification for the use of the newer version of the Code.

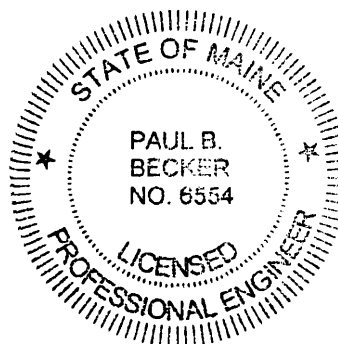
Our justification in using the 2006 Edition of the IBC Code pertains to the Seismic provisions included in the Codes. The Seismic Spectral Values used for the seismic design of buildings have been updated in the 2006 Edition of the IBC Code. The updated values are based on the 2004 Edition of the "National Earthquake Hazard Reduction Program (NEHRP) Recommended Provisions for Seismic Regulations for New Buildings and Other Structures - Part 1", Federal Emergency Management Agency (FEMA) Document 450. This document supersedes the 1998 version of the NEHRP/FEMA document, which is the basis of the 2003 Edition of the IBC Code. We understand that the updated FEMA guidelines are based on newer, more recent data provided by the United States Geological Survey (USGS). As design professionals we are of the opinion that use of the current values are appropriate for use in design of a building as they represent the latest science and data in the structural engineering field.

If you would like to discuss the matter further, please do not hesitate to contact us.

Sincerely,  
BECKER STRUCTURAL ENGINEERS, Inc.

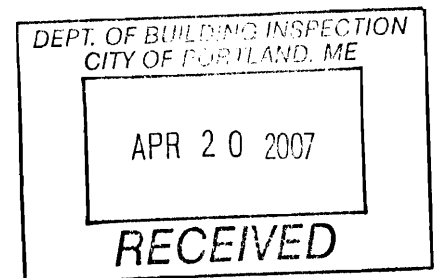


Paul B. Becker, P. E.  
President



Attachments (copies of emails)

Scanned



## Ethan Rhile

---

**From:** Jeanie Bourke [JMB@portlandmaine.gov]  
**Sent:** Thursday, November 16, 2006 8:47 AM  
**To:** ethan@beckerstructural.com  
**Cc:** resurgence@verizon.net  
**Subject:** 2003 IBC vs 2006 IBC

Hi Ethan & Al,

Since both of you have recently requested a ruling on use of the 2006 IBC for Seismic design, I contacted Mike Nugent for direction.

Apparently we would not be setting a precedent as this was allowed for the Mercy Hospital design. All the reasons point to the best and latest science on the subject and that the 2003 IBC is outdated information. Also, the 2006 IBC references the latest ASCE standards, which is what Mercy used in their design.

Mike suggested that I document this within my authority with a waiver upon approval of the permit. You should reference the code used in the design.

Al, I hope this is good news to you and hasn't caused extra work on the project you had asked about.

Take care and glad to be of assistance,

Jeanie Bourke  
Inspection Services Division Director

City of Portland  
Planning Dept./ Inspections Division  
389 Congress St. Rm 315  
Portland, ME 04101  
jmb@portlandmaine.gov  
(207) 874-8715

## Ethan Rhile

**From:** Ethan Rhile [ethan@beckerstructural.com]  
**Sent:** Tuesday, November 14, 2006 2:29 PM  
**To:** (jmb@portlandmaine.gov)  
**Cc:** Paul Becker (paul@beckerstructural.com)  
**Subject:** City of Portland: IBC 2003 vs. 2006

Hi Jeanie:

We are looking at a project out on Marginal Way, and we were wondering what the City's position is on the use of IBC 2006 vs. IBC 2003. As you may know, the seismic accelerations went down in IBC 2006. Our thought has always been that the latest thinking is generally acceptable, but we just wanted to check in and make sure.

We would appreciate any suggestions you have.

Thanks,

Ethan A. Rhile, P. E.  
Associate

Becker Structural Engineers  
75 York Street  
Portland, ME 04101  
[www.beckerstructural.com](http://www.beckerstructural.com)

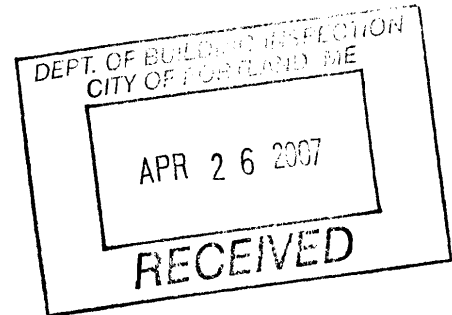
# BECKER

structural engineers, inc

25 April 2007

Ms. Jeanie Bourke  
Inspections Division  
City of Portland  
389 Congress Street  
Portland, Maine

BUILDING CODE  
84 MARGINAL WAY  
PORTLAND, MAINE



Dear Jeanie:

We have received your email correspondence in response to our correspondence dated 19 April 2007 in regards to the use of IBC 2006 for the above referenced project. The portions of the code that are less restrictive pertain the Seismic requirements of the IBC 2006 Code. Note that the other portions of Chapter 16 of IBC 2006 Code have been incorporated into the design. Based on our design, the IBC 2006 revisions to Chapter 16 other than the seismic design are largely procedural revisions or are more restrictive than the requirements of IBC 2003.

The following is a side-by-side review of the seismic design criteria comparing IBC 2003 and IBC 2006:

<u>Design Variable:</u>	<u>IBC 2006</u>	<u>IBC 2003</u>
Occupancy Category	II	II
$I_e$ , Seismic Importance Factor	1.0	1.0
$S_s$ , Mapped spectral acceleration, short period	0.314	0.368
$S_1$ , Mapped spectral acceleration, 1-sec period	0.077	0.098
Seismic Site Class	E	E
$S_{ms}$ (Maximum considered earthquake spectral acceleration, short period)	0.721	0.781
$S_{m1}$ (Maximum considered earthquake spectral acceleration, 1-sec period)	0.269	0.344
$S_{ds}$ (spectral response coefficient, short period)	0.481	0.521
$S_{d1}$ (spectral response coefficient, 1-sec period)	0.179	0.229
Seismic Design Category	C	D
R, Response modification factor	5.0	5.0
$C_s$ , Seismic response coefficient	0.0425	0.0543

To summarize the key points of this table, the updated IBC code recognizes that the design values in the previous code were over estimated, based on new research prepared by the USGS. The seismic response coefficient is directly proportional to the calculated base shear, in this case representing a 22 percent reduction in base shear.

WO1612 84 MARGINAL WAY  
PORTLAND, MAINE  
PAGE 2 OF 2

In addition, the Seismic Design Category has been reduced to "C" from "D", affecting the detailing requirements of multiple building systems.

The email also references the requirements of section 1808.2.2 of the IBC Code, and the requirement of a geotechnical investigation. A geotechnical investigation, prepared by S. W. Cole Engineering, Inc, dated May 17, 2006 has been provided for this project. We understand that this report was submitted to the City of Portland after submission of the foundation package, along with the project specifications pertaining to the project foundation. Note that the piles for this project are being provided with a design-build delivery arrangement. The pile installation contractor is to retain a Maine Licensed Professional Engineer to provide the pile design, with the basis of design requirements and capacities listed in the specifications and drawings. The specifics of the pile design, including information you specifically requested from section 1808.2.2 of the IBC code, are to be provided in a signed and sealed project submittal. We understand that this submittal is in preparation and will be received in the near future. A 16 inch solid square, precast prestressed concrete pile with a minimum net allowable capacity of 125 tons will be utilized for this project. We will request that Pizzagalli Construction Company forward the submittal to the City Inspections Office immediately upon receipt.

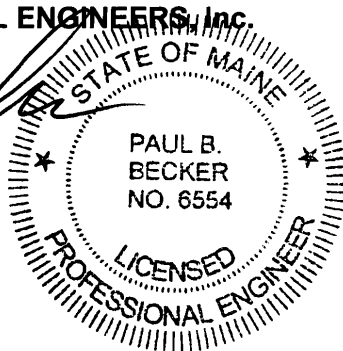
If you would like to discuss the matter further, please do not hesitate to contact us.

Sincerely,

**BECKER STRUCTURAL ENGINEERS, Inc.**



Paul B. Becker, P. E.  
President





# Certificate of Design

Date: 4/4/2007

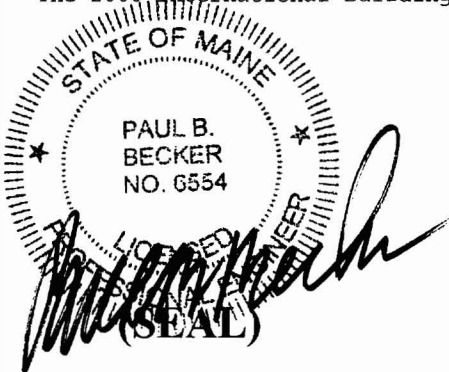
From: Paul B. Becker, P. E. Becker Structural Engineers, Portland, ME

These plans and / or specifications covering construction work on:

Foundation Permit Package, 84 Marginal Way, Marginal Way and Preble Streets, Portland, ME

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

The 2006 International Building Code was utilized for the Structural Design of this project



Signature: 

Title: Paul B. Becker, P. E., President

Firm: Becker Structural Engineers

Address: 75 York Street

Portland, Maine 04101

Phone: (207) 879-1838



For more information or to download this form and other permit applications visit the Inspections Division on our website at [www.portlandmaine.gov](http://www.portlandmaine.gov)



# Certificate of Design Application

Becker Structural Engineers, Portland ME for Structural Items

Harriman Associates, Portland ME for Architectural Items

From Designer:

Date:

4/4/2007

Job Name:

84 Marginal Way, Portland ME

Address of Construction:

84 Marginal Way, Preble Street & Marginal Way, Portland ME

## 2003 International Building Code

Construction project was designed to the building code criteria listed below:

Struct: IBC 2006

Arch: IBC 2003

Building Code & Year \_\_\_\_\_ Use Group Classification (s) B, M, S-2

Type of Construction Type 2A

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC Yes

Is the Structure mixed use? Yes If yes, separated or non separated or non separated (section 302.3) Separated

Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) Provided

### Structural Design Calculations

Completed Submitted for all structural members (106.1 - 106.11)

### Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
Passenger Car Parking	40 psf
Offices	50 psf + 20 Partition Allowance
Corridors above First	80 psf
Stairs/Lobbies	100 psf
Retail	100 psf

### Wind loads (1603.1.4, 1609)

Analytical Design option utilized (1609.1.1, 1609.6) 100 mph Basic wind speed (1809.3) Iw=1.0 Building category and wind importance Factor, C Wind exposure category (1609.4) 0.18 Internal pressure coefficient (ASCE 7) per ASCE 7-05 Component and cladding pressures (1609.1.1, 1609.6.2.2) varies per ht Main force wind pressures (7603.1.1, 1609.6.2.1) 34.9 max

### Earth design data (1603.1.5, 1614-1623)

Equip Lat Force Design option utilized (1614.1) II Seismic use group ("Category") 0.481, 0.269 Spectral response coefficients, E Site class (1615.1.5)

### Where Applicable

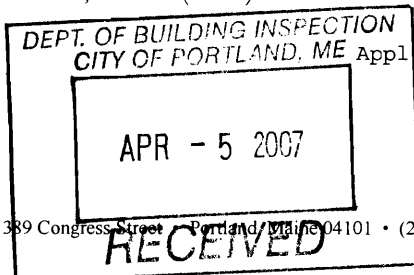
Where Applicable	Live load reduction
<u>See Snow</u>	Roof live loads (1603.1.2, 1607.11)
<u>See below</u>	Roof snow loads (1603.7.3, 1608)
<u>60 psf</u>	Ground snow load, $P_g$ (1608.2)
<u>46 psf</u>	If $P_g > 10$ psf, flat-roof snow load $P_f$
<u>1.0</u>	If $P_g > 10$ psf, snow exposure factor, $C_e$
<u>1.0</u>	If $P_g > 10$ psf, snow load importance factor, $I_s$
<u>1.1</u>	Roof thermal factor, $C_t$ (1608.4)
<u>n/a</u>	Sloped roof snowload, $P_s$ (1608.4)
<u>C</u>	Seismic design category (1616.3)
<u>Braced Frames</u>	Basic seismic force resisting system (1617.6.2)
<u>Non Mom Conns</u>	Response modification coefficient, $R$ and
<u>5.0</u>	deflection amplification factor, $C_d$ (1617.6.2)
<u>5.0</u>	Analysis procedure (1616.6, 1617.5)
<u>1366 kips</u>	Design base shear (1617.4, 1617.5.1)

### Flood loads (1803.1.6, 1612)

N/A Flood Hazard area (1612.3)  
12.0 feet Elevation of structure

### Other loads

Applied where required in IBC Live Load Table  
20 psf allowance Concentrated loads (1607.4)  
Applied as applicable Partition loads (1607.5)  
 Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)



**EXPLORATIONS AND GEOTECHNICAL SERVICES  
PROPOSED OFFICE BUILDING AND  
PARKING GARAGE  
PREBLE STREET AND MARGINAL WAY (84)  
PORTLAND, MAINE**

**06-0124 S**

**May 17, 2006**

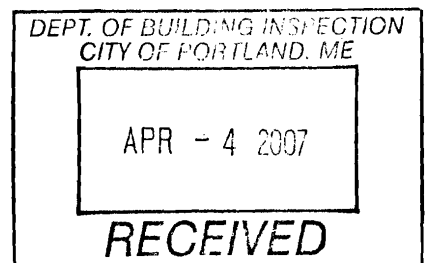
**Prepared for:**

Capital, LLC  
Attention: Greg Shinberg  
477 Congress Street, 5<sup>th</sup> Floor  
Portland ME 04101

**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 .....	4
3.4 Seismic and Frost Conditions.....	5
4.0 EVALUATION AND RECOMMENDATIONS .....	5
4.1 General Findings .....	5
4.2 Settlement Analysis.....	5
4.3 Pile Foundations.....	6
4.4 Subgrade Preparation .....	8
4.5 Excavation Work .....	9
4.6 Concrete Slabs.....	10
4.6.1 Retail and Office Area Slabs.....	10
4.6.2 Parking Garage and Exterior Slabs .....	10
4.7 Foundation Drainage.....	11
4.8 Entrances, Sidewalks and Exterior Slabs.....	12
4.9 Backfill and Compaction Requirements.....	12
4.10 Asphalt Pavement .....	13
4.11 Weather Considerations.....	14
4.12 Construction Observation and Testing .....	14
5.0 CLOSURE .....	15

### Attachment A

Sheet 1	Exploration Location Plan
Sheets 2 through 22	Test Boring Logs
Sheet 23	Key to the Notes and Symbols
Sheets 24 and 26	Grain Size Analyses
Sheets 27 and 28	Consolidation Tests



**S.W. COLE**  
ENGINEERING, INC.

• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

06-0124

May 17, 2006

Capital, LLC.  
Attn: Greg Shinberg  
477 Congress Street, 5<sup>th</sup> Floor  
Portland ME 04101

Subject: Explorations and Geotechnical Services  
Proposed Office Building and Parking Garage  
Preble Street and Marginal Way  
Portland, Maine

Dear Mr. Shinberg:

In accordance with our Agreement dated February 6, 2006, and our subsequent Agreement Addendum No. 1 dated April 12, 2006, we have made a subsurface investigation at the above referenced project. We received written authorization to proceed with our original scope of work on March 21, 2006 and Addendum No. 1 on April 17, 2006. This report summarizes our findings and recommendations and its contents are subject to the limitations set forth in Attachment A.

## **1.0 INTRODUCTION**

### **1.1 Scope of Work**

The purpose of the investigation was to explore the subsurface conditions at the site in order to provide geotechnical recommendations relative to foundations and earthwork associated with the proposed construction. The investigation has included the making of six test boring explorations, geotechnical laboratory soils testing and a geotechnical evaluation of the findings relative to the proposed construction.

### **1.2 Proposed Construction**

Based on the information provided by CWS Architects (project architect), we understand development plans call for construction of a 9-story office building and a multi-level parking garage structure at the corner of Marginal Way and Preble Street. The building will have plan dimensions of 250 by 180 feet at a finished floor at an elevation of about 10 feet (project datum). We understand that the first four levels of the building will

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consist of parking garage decks. The ground floor will have a retail area on the southerly side of the structure adjacent to Marginal Way, occupying a plan area of about 200 by 30 feet. This retail area will have parking areas on the overlying floors. An entrance atrium will be situated in the southern corner of the building to access two elevators. A 9-story office tower with plan dimensions of about 105 by 120 feet will be located at the southerly quarter of the structure. The tower will have office space on the fifth through eighth floors and will have a penthouse on the ninth floor. Proposed grades as well as structural loading information have not been provided at this time.

## **2.0 EXPLORATION AND TESTING**

### **2.1 Exploration**

Three test borings (B-1 through B-3) were conducted in areas selected by S. W. COLE ENGINEERING, INC. in early April and pursuant to your request, three additional borings (B-4 through B-6) were added in areas selected by the Becker Structural Engineering. The test borings were made at the site by Great Works Test Boring, Inc. of Rollinsford, New Hampshire working under subcontract to S. W. COLE ENGINEERING, INC. The exploration locations were established in the field based on taped measurement from existing site features. Logs of the explorations are attached as Sheets 2 through 22. A key to the notes and symbols used on the logs is attached as Sheet 23. The elevations shown on the logs were estimated based upon topographic information shown on Sheet 1.

In addition to the six test borings, eight test pits (TP-1 through TP-8) were performed at the site at locations selected and established by Greg Shinberg (Capital LLC Agent). S. W. COLE ENGINEERING, INC. was on-site to observe, screen and log the test pits. We also coordinated analytical testing of two samples obtained at the test pits. We understand that Capital LLC has engaged an environmental consultant to evaluate the test pits and to provide environmental recommendations. The preliminary results for this work were provided to you on May 2, 2006. A separate letter report for this work will be provided to you on May 17, 2006.

### **2.2 Testing**

In-situ strength test results are noted on the logs. Geotechnical laboratory testing was performed on selected soil samples recovered from the test borings. Moisture content, strength and Atterberg Limit test results are noted on the log sheets. The results of three

grain size analyses are illustrated on Sheets 24 through 26. The results of a two one-dimensional consolidation tests from test boring B-3 are illustrated on Sheets 27 and 28.

### **3.0 SITE AND SUBSURFACE CONDITIONS**

#### **3.1 Site Conditions**

The site is located at the northeasterly corner of the intersection of Marginal Way and Preble Street and is bounded by I-295 to the north and a parking lot to the east. The site is relatively flat and level existing at an elevation of about 10 feet (project datum). The site is currently open pavement and is used as a public parking lot. A raised landscape berm separates the parking lot from Marginal Way and Preble Street. The berm is about 4 to 5 feet high in the highest areas.

#### **3.2 Subsurface Conditions**

Below a surficial layer of bituminous pavement and base gravel, the explorations generally encountered miscellaneous fills. The fill soils overly a thick deposit of compressible glaciomarine clay overlying loose to medium-dense glacial outwash sands overlying a dense to very dense glacial till overlying bedrock at depths varying from about 117 to 139 feet below the ground surface. The principal strata encountered are summarized below. Refer to the attached logs for a more detailed description of the subsurface conditions encountered at the test boring locations.

Upper Fills: The surficial fills were found to range from about 2 to 9 feet in thickness and generally consisted of dark-gray, medium-dense to loose silty sand with gravel with some cobbles, bricks and some pieces of wood. Based on laboratory testing of several soil samples, it appears that the surficial fill soils have a pH of about 6.5 to 7.0.

Lower Fills: The lower fills were found to extend to depths of about 12 to 16 feet below the ground surface. The lower fills were generally black in color and loose to medium-dense and varied greatly in composition. Generally, the uncontrolled fills consisted of gravel and silt with bricks, cobbles, wood, ash, glass and organics. Several samples of the uncontrolled fill were observed to have a petroleum-like odor. Based on laboratory testing of several soil samples, it appears that the lower fills have a pH of about 6.3 to 7.2.

Glaciomarine Clay: The glaciomarine stratum generally consists of a soft relic bay-mud layer with organics and seashells overlying a relatively stiff layer of brown silty clay overlying a softer layer of gray silty clay. The relic bay-mud is relatively thin ranging in thickness from about 1 to 5 feet, where encountered. The stiff brown clay is also relatively thin ranging in thickness from about 5 to 8 feet at the test borings. The softer gray clay begins at depths ranging from about 19 to 25 feet below the ground surface and ranges in thickness from about 60 to 80 feet at the borings.

Glacial Outwash: The glacial outwash stratum found at Borings B-4, B-5 and B-6, generally consists of loose to medium dense to dense silty fine to medium sand and a trace of gravel. The outwash sands were encountered at depths ranging from about 85 to 92 feet and are interpreted to range from 5 to 7 feet in thickness. The glacial outwash was not encountered at every boring location.

Glacial Till: The glacial till stratum ranges from medium-dense gray gravelly silty sand to very dense gray silt and sand with some gravel. The glacial till stratum was generally encountered at depths ranging from about 85 to 100 feet at the explorations. Frequent cobbles and boulders were encountered below a depth of about 100 feet and the glacial till is generally dense to very dense below depths of ranging from about 90 to 120 feet.

Rock: Depths to practical refusal of the drilling equipment varied from about 125 to 139 feet at the explorations; deepest at Boring B-6. Cobbles and boulders were evident in the glacial till above the bedrock. Attempts were made to obtain rock cores at Borings B-1, B-2 and B-4. Reasonable rock recovery was obtained at Boring B-1, but limited rock recovery was obtained at Borings B-2 and B-4. The rock recovered was visually classified as gray sulfidic schist of very poor quality (highly fractured). At each of the borings, either a rock core barrel was used to obtain rock core or a roller-cone bit was advanced into the rock. A rock core barrel or roller-bit was advanced into probable bedrock varying from 4 to 7.5 feet at the explorations.

### **3.3 Groundwater**

Based on moisture conditions of the test boring samples and observations made during drilling, groundwater appeared to be at a depth of about 6 to 7 feet below the ground surface at the time of drilling. Actual long-term groundwater levels have not been determined. Groundwater levels will fluctuate seasonally and in response to

precipitation, variations in subsurface conditions, construction activities, nearby tidal fluctuates and other factors.

### **3.4 Seismic and Frost Conditions**

According to the 2003 International Building Codes, we interpret the subsurface conditions to correspond to a seismic soil Site Class 'E'. The design freezing index for the Portland area is approximately 1,250 Fahrenheit-Degree-Days, which corresponds to a frost penetration depth on the order of 4.5 feet.

## **4.0 EVALUATION AND RECOMMENDATIONS**

### **4.1 General Findings**

Based on the findings at the exploration locations, it is our opinion that the proposed construction appears feasible from a geotechnical standpoint. Due to the presence of uncontrolled fills and deep compressible glaciomarine clays beneath the site, the proposed structure will require pile-supported foundations. Because the site is underlain by uncontrolled fills, we recommend that floor slabs for proposed retail and office space also be structurally supported. We anticipate that the first floor level of the parking garage will be a concrete slab-on-grade with an elevation at about existing grade. Although proposed grades are not known at this time, we recommend new surface loads, including fills, be kept to a minimum.

Excavation work below a depth of about 5 to 6 feet will likely encounter groundwater seepage that will cause softening of subgrades and destabilize excavations. Controlling groundwater to a depth of at least 1 foot below subgrades will help to stabilize subgrades.

### **4.2 Settlement Analysis**

We have made an analysis of post-construction consolidation of the underlying compressible glaciomarine soils. Our analysis has been based on the soil profiles encountered at the borings and laboratory testing on soil samples recovered from boring B-3. Our field and laboratory testing indicates that the glaciomarine soils beneath the site are slightly overconsolidated becoming normally consolidated with depth. At this time, we have not been provided with actual building loads and have based our settlement calculations on estimated building loads based on our experience with similar structures.

We estimate that long-term consolidation of the compressible glaciomarine soils could result in at least 6 to 12 inches of total post-construction settlement beneath a typical shallow spread footing supported column. Between interior and exterior columns, differential settlements between columns could approach one-half to two-thirds of the total post-construction settlement. These total and differential settlements are not within tolerable limits for the proposed structure. Thus, on shallow spread footings are not feasible.

#### **4.3 Pile Foundations**

Considering the subsurface findings, concrete-filled steel pipe or precast-prestressed reinforced concrete piles driven to a resistance compatible with the required capacity in the dense to very dense glacial till stratum, or steel H-piles driven to practical refusal in the very dense glacial till or on bedrock appear suitable for foundation support of the proposed building and parking garage. Considering our understanding of the proposed construction, we offer the following table of pile sections and allowable axial compressive capacities.

<b>RECOMMENDED PILE CAPACITIES</b>			
<b>Pile Type</b>	<b>Section</b>	<b>Estimated Allowable Axial Compressive Capacity (kips)</b>	
Concrete-filled Steel Pipe Pile, 0.3" min wall thickness, 1" flat plate at tip	10 3/4" diameter	80	
	12 3/4" diameter	100	
Precast-Prestressed, Solid Core, Reinforced Concrete Pile (f'c = 5000 psi)	10" square	80	
	12" square	100	
Steel H-Pile with cast driving tips, 50-ksi steel, driven to practical refusal	HP 12 x 53 HP 12 x 74 HP 14 x 89 HP 14 x 117	<u>1/16" CORROSION</u>	<u>1/8" CORROSION</u>
		180	100
		280	200
		340	250
		480	380

## NOTES:

- 1) A reduction in pile capacity will need to be considered, due to soil downdrag, if surficial loads, such as new fills, are placed on the site.
- 2) The above capacities are estimates only. Actual capacities will need to be assessed by the pile contractor through a test pile and load testing program.
- 3) The estimated capacities shown above for concrete-filled steel pipe pile are based on capacities achieved at a nearby site driven into the sands or just into the glacial till. A pile capacity of at least 100 kips was required for that project. We would expect capacities of both the pipe pile and the solid core concrete piles to be nearly the same, using similar dimensional piles. We expect, however, that higher capacities of both pipe pile and solid core concrete piles could be achieved by driving these piles deeper into the glacial till stratum.

Considering the depths to dense glacial till encountered at the test borings and a pile cap depth of at-least 4.5 feet below finished grade, we estimate pile lengths may range from 95 to 120 feet for steel pipe and prestressed concrete piles. H-piles should be driven into the very dense glacial till stratum, or to bedrock, or until practical refusal surface is encountered, which may result in pile lengths generally ranging from about 100 to 120 feet, or longer, particularly in the area of B-6. Because subsurface conditions vary across the site, the actual tip elevations and lengths of driven piling will also vary with location. Steel H-piles would be particularly variable due the presence of large boulders and cobbles within the glacial till that may result in practical pile refusal. For any pile option, it is likely that some piles may encounter cobbles and/or boulders at depth and could be damaged during driving, thus the project should account for a loss of piles and/or capacity reduction, due to damage. To assess the variability of depth to bearing strata and to better refine estimates for pile lengths, we recommend that the contractor coordinate several test piles to be driven at different locations at the site.

We understand that prestressed ICP concrete piles may be considered for foundations support. We anticipate that ICP piles would have allowable axial compressive capacities similar to concrete filled steel pipe piles or precast-prestressed reinforced concrete piles. However, since this pile type is new to the Portland area, we recommend that further evaluation of this pile type by the contractor to include a test pile and load test program to evaluate drivability and allowable capacities.

Uplift capacity of the piles will be affected by the pile spacing, pile type, splices and actual depths required to achieve capacity. S. W. COLE ENGINEERING, INC. can



assist the design team to help estimate uplift capacities of the piles after a proposed pile type has been selected and again after the test piles have been driven.

Grade beams, pile caps and foundations exposed to freezing temperatures should extend at least 4.5 feet from finished grade. Piles should be spaced a minimum center-to-center distance of at least 3 pile diameters, but no less than 30 inches. Piles in groups should be driven from the interior outward to help preclude excessively hard driving conditions of the interior piles due to soil densification.

We recommend that lateral loads be resisted by passive earth pressures acting on the grade beams and pile caps. Passive lateral resistance acting on grade beams and pile caps backfilled with compacted Structural Fill should consider a total unit weight of granular backfill ( $\gamma_t$ ) of 125 pcf, an angle of internal friction of 30 degrees with an ultimate passive lateral earth pressure coefficient ( $K_p$ ) of 3.0. Additional resistance to lateral loads can be mobilized along the pile shafts and by battered piles, if needed. S. W. COLE ENGINEERING, INC. can assist with lateral pile capacities, as deemed necessary by the structural engineer.

Pile load tests are required to be performed on projects having piles with design capacities over 40 tons (80 kips). For piles with a capacity over 40 tons, we recommend the contractor coordinate a test pile program including monitoring of several piles with a Pile Driving Analyzer (PDA) to determine pile and driving equipment compatibility as well as to define the "set" criteria and allowable capacity. The test pile program should include PDA monitoring of the test piles during re-strikes in order to assess pile capacity and driving resistance after pore water pressures have relaxed. The pile driving contractor should submit a WEAP analysis and information relative to pile driving equipment prior to beginning driving. S. W. COLE ENGINEERING, INC. should be on-site during pile driving to document the pile driving.

#### **4.4 Subgrade Preparation**

Site preparation should begin with construction of an erosion control system to protect drainage ways and areas outside the construction limits. The soils that will be exposed will be subject to erosion. As much existing pavement and vegetation as possible should remain adjacent to the construction site to lessen the potential for erosion.

In general, subgrades will consist of loose to medium dense fill. Groundwater may be encountered, particularly in deeper excavations, such as foundations, elevator pits or site utilities. We recommend that pile cap and grade beam subgrades be overexcavated by about 12 inches and replaced with a layer of compacted crushed stone. The crushed stone will help to provide a stable working mat and a drainage media for dewatering. Pipe trench bottoms should also be overexcavated at least 12 inches and replaced with a layer of crushed stone overlying a non-woven geotextile fabric such as Mirafi 160N. Utility structures such as manholes, vaults and catch basins should be overexcavated at least 24 inches and replaced with a layer of crushed stone overlying a non-woven geotextile fabric. We recommend that excavation to subgrades be completed with a smooth-edged bucket to lessen disturbance of subgrade soils.

We understand that Capital, LLC has engaged others to provide environmental consulting for this project. Material handling and subgrade preparation will need to take into account the environmental recommendations provided by Capital LLC's environmental consultant.

#### **4.5 Excavation Work**

Excavation work will encounter uncontrolled miscellaneous fills. The on-site fill soils are not suitable for reuse below slabs or backfill against foundations, but it may be possible to reuse the sandy on-site upper fill for trench backfill below paved areas provided they are screened of miscellaneous debris and are at a moisture content which is consistent with the required compaction.

Groundwater and wet soil conditions will likely be encountered in the foundation excavations deeper than about 5 feet below existing grades. In our opinion, ditching with sump and pump dewatering techniques should be adequate to control groundwater in shallow foundation excavations. It should be anticipated, however, that heavy rains and/or higher than normal tides will affect groundwater levels and may require significant sumping and pumping or other means of dewatering. We recommend a 12-inch layer of crushed stone be placed over foundation subgrades to act as a drainage media from which to sump and pump. Deeper excavation, such as for utilities, will likely require trench box or braced sheetpile shoring for groundwater cutoff and excavation stability. 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.

## **4.6 Concrete Slabs**

### **4.6.1 Retail and Office Area Slabs**

We recommend that all concrete slab floors in areas other than for parking be structurally supported. These slabs should be underlain by at least 12 inches of compacted Structural Fill or crushed stone. We have assumed these slabs will be in heated areas. The Structural Fill or crushed stone below the slabs should be hydraulically connected to foundation underdrains.

We recommend that a vapor retarder be placed directly below concrete slabs in enclosed spaces. The vapor barrier should have a permeance that is less than the floor covering being applied on the slab and should be installed according to the manufacturer's recommended methods including taping all joints and wall connections. Flooring suppliers should be consulted relative to acceptable vapor barrier systems for use with their products. The vapor barrier must have sufficient durability to withstand direct contact with the subslab fill and construction activity. A subslab venting system may also be needed beneath floor slabs as deemed necessary by Capital LLCs environmental consultant. Sub-slab backfill materials should be selected in accordance with the requirements of the venting system, if needed.

### **4.6.2 Parking Garage and Exterior Slabs**

Protection against frost action below concrete pavements is particularly critical in situations with limited overhead clearance, such as in parking garages. We anticipate that concrete slabs-on-grade will be utilized for the first floor parking level. The proposed on-grade concrete slabs will be underlain by frost-susceptible fill soils and would be exposed to freezing temperatures. Given these conditions, we recommend the following options:

- Option 1 – Full Depth Non-Frost Susceptible Soils. We recommend the exposed slabs be underlain with clean non-frost susceptible material extending at least 4.5 feet below the slab surfaces consisting of 12 inches of compacted MDOT 703.06 Type A (crushed gravel) overlying compacted Structural Fill placed on woven geotextile separation fabric, such as Mirafi 500X, overlying densified subgrade soils.

- Option 2 – Insulation. We recommend the exposed slabs be underlain with 12 inches of compacted MDOT 703.06 Type A (crushed gravel) overlying 2 inches of rigid, extruded, closed-cell, polystyrene insulation overlying at least 12 inches of compacted structural fill placed on woven geotextile separation fabric, such as Mirafi 500X, overlying densified subgrade. Heavy equipment should not operate on the insulation once placed. It may be necessary to place a HPDE membrane liner below the insulation should subgrade soil contain petroleum substances.

Concrete on-grade floors in unheated areas may be designed using a subgrade reaction modulus of 150 pci provided that these slabs are underlain by prepared subgrades.

Additionally, utilities sensitive to freezing should be isolated from on-grade concrete slabs and should be buried below the design frost depth or insulated for protection against frost damage.

It should be anticipated that some settlement may occur, over time, beneath the first level parking level slabs due to the loose nature of the existing underlying fills. Design should accommodate some settlement. If some settlement is not acceptable, these slabs will also need to be structurally supported. We have assumed the first level parking slab will be constructed at or within about 12 inches of existing grades.

We recommend that control joints be installed within slabs to accommodate shrinkage in the concrete as it cures. In general, control joints are usually installed at 10 to 15 foot spacing; however, the actual spacing of control joints should be determined by the structural engineer. We recommend that all 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. We further recommend that consideration be given to using a curing paper or curing compound after the wet-cure period to improve the quality of the completed floor.

#### **4.7 Foundation Drainage**

We recommend that a perimeter foundation drain system as well as several interior sub-slab drains be provided for the structure. An underdrain should also be provided for any elevator pit areas. The foundation drains should be placed at least 4.5 feet from freezing temperatures and should consist of 4-inch diameter rigid underdrain pipe having perforations of ¼ to ½ inches. We recommend that at least 6 inches of crushed stone

bedding be provided around the foundation drains and that the stone be wrapped with a geotextile filter fabric having an apparent opening size of at least 70. The foundation drainage system must have a positive gravity outlet.

Exterior foundation backfill should be sealed with a surficial layer of clayey or loamy soil in areas that are not to be paved or occupied by entrance slabs to reduce direct surface water infiltration into the backfill. Roof drains should be routed in separate non-perforated pipes, also placed below the frost depth. Utilities in non-heated areas, extending through slabs or asphalt paving into underlying soils, should have a gasket at grade to prevent surface water from entering the underlying fills and to allow some differential movement.

#### **4.8 Entrances, Sidewalks and Exterior Slabs**

Entrance approaches, sidewalks and exterior slabs should be designed to reduce the effects of differential frost action between doorways and entrances. We recommend that excavations beneath the entire width of entrances, sidewalks, and exterior slabs continue to at least 4.5 feet below finish grade. These areas should be backfilled with compacted non-frost susceptible granular fill meeting the Structural Fill gradation to limit abrupt heave or differential movement. We recommend the structural fill be underlain by non-woven geotextile fabric. The zone of non-frost susceptible material adjacent to exterior foundations and below entrance slabs and sidewalks should transition up to any adjacent pavement subbase or loam at a 3H:1V slope or flatter.

#### **4.9 Backfill and Compaction Requirements**

As previously mentioned, the on-site fills are not suitable for reuse below pavements, slabs or adjacent to foundations. The sandy portions of the on-site upper fills may be suitable for reuse as compacted trench backfill below paved areas. Compacted granular fill below entrances, sidewalks, on-grade slabs (parking areas) and as backfill against all foundations (interior and exterior) should be clean granular material meeting the gradation for Structural Fill:

<b>Structural Fill</b>	
Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	90 to 100
¼ inch	25 to 90
No. 40	0 to 30
No. 200	0 to 5

Fill should be placed in horizontal lifts and be compacted. Lift thickness should be such that desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment. Foundation backfill and fills placed beneath soil-supported slabs, paved areas and walkways should be compacted to at least 95 percent of its maximum dry density as determined by the Modified Proctor (ASTM-D1557). Backfill below pile-supported foundations should be compacted crushed stone. Because of the loose nature of the existing fills, it will be necessary to densify subgrades below grade beams and provide compacted structural fill or crushed stone bedding.

#### **4.10 Asphalt Pavement**

We anticipate that asphalt pavement will be needed in certain areas; generally outside the building footprint, such as entrance areas. Proposed traffic loading information was not made available to us at the time of this report; thus, we have provided the following proposed pavement sections based on our experience with similar facilities and certain geotechnical assumptions. We offer the following new pavement sections for consideration:

<b>FLEXIBLE (ASPHALT) PAVEMENTS</b>			
Pavement Layer	Standard Duty	Heavy Duty	Maine DOT Standard Specification
Wearing Course	1 ¼"	1 ¼"	9.5mm Hot Mix Asphalt or MDOT Grade C
Binder Course	1 ¾"	2 ¾"	19.0mm Hot Mix Asphalt or MDOT Grade B
Crushed Base	6"	6"	703.06 Base Aggregate Type A - Crushed Gravel
Granular Subbase	12"	15"	703.06 Subbase Aggregate Type D - Gravel

We have assumed that some paved areas will have only passenger vehicle loading (standard duty) while other areas will have delivery truck traffic (heavy duty). All pavement sections need to be placed on properly prepared densified subgrades. All pavement subgrades should be densified by a vibratory roller compactor. Any areas that are soft, wet and yielding should be assessed for the need for over-excavation and replacement with structural fill and/or underlain by geotextile filter fabric. Granular base and subbase material(s) should be compacted to at least 95 percent of their maximum dry densities as determined by ASTM D-1557 at a moisture content at or near optimum moisture. Bituminous pavement should be compacted to 92 to 97 percent of its theoretical maximum density (TMD) as determined by ASTM D-2041.

Since the native soils are frost susceptible, some frost heaving and distress of pavements must be anticipated unless all frost susceptible soils are removed to a depth of at least 4.5 feet below the pavement surface and backfilled with non-frost susceptible Structural Fill.

#### **4.11 Weather Considerations**

Subgrades, foundations and floor slabs must be protected from freezing conditions. Fill soils and concrete must not be placed on frozen soil and once placed, the soil beneath the structure must be protected from freezing. Further, the existing uncontrolled fill is moisture sensitive and as such subgrades will be susceptible to disturbance during wet conditions. Consequently, site work and construction activities should take appropriate measures to protect exposed subgrades, particularly when wet. This may require the use of temporary haul roads and staging areas to preclude subgrade damage due to construction traffic. Geotextile fabric may also be needed below haul roads and/or proposed slabs to help stabilize subgrades.

#### **4.12 Construction Observation and Testing**

We recommend that S. W. COLE ENGINEERING, INC. be retained to provide consultation and testing services for the piling, excavation and foundation phases of construction. This is to observe compliance with the design recommendations, drawings and specifications and to allow design changes in the event that subsurface conditions are found to differ from those anticipated prior to the start of construction. S. W. COLE ENGINEERING, INC. is available to provide vibration monitoring, pile installation monitoring, and testing of soils, concrete, steel, masonry, fireproofing and asphalt.

**5.0 CLOSURE**

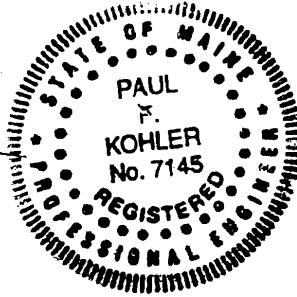
We request the opportunity to review the sitework and foundation design drawings to confirm that our recommendations have been appropriately interpreted and implemented. It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you as the design progresses and during the construction phase.

Sincerely,

**S. W. COLE ENGINEERING, INC.**



Paul F Kohler, P. E.  
Senior Geotechnical Engineer



- c: Paul Becker – Becker Structural
- c: Guy Labreque – CWS Architects

PFK:tjb/pfb

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## **Attachment A**

### **Limitations**

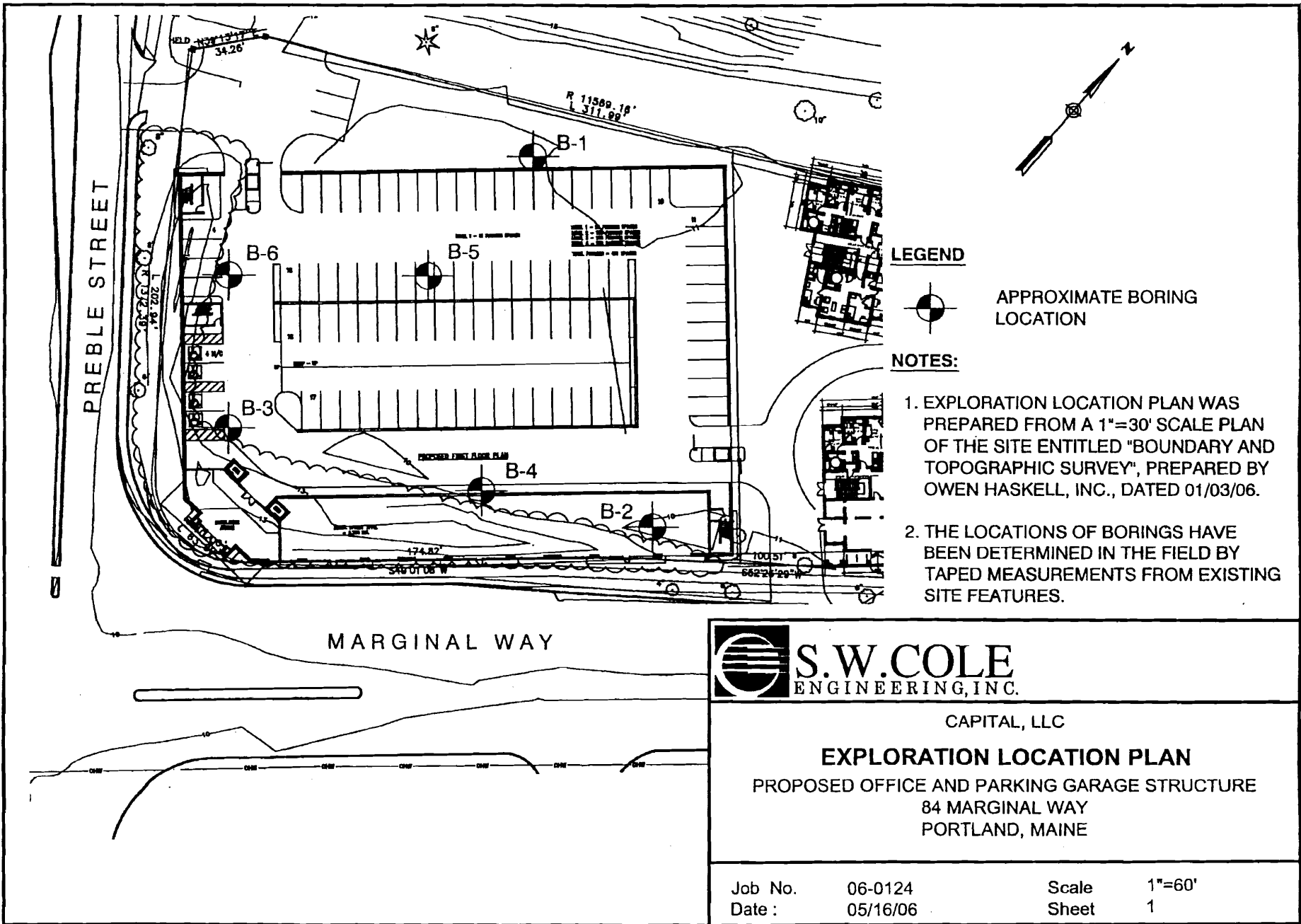
This report has been prepared for the exclusive use of Capital LLC for specific application to the proposed office building and parking garage structure at the northeasterly corner of the intersection of Preble Street and Marginal Way in Portland, Maine. S. W. COLE ENGINEERING, INC. has endeavored to 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 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.

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 the changes are reviewed by S. W. COLE ENGINEERING, INC.



PREBLE STREET

MARGINAL WAY

**LEGEND**



APPROXIMATE BORING LOCATION

**NOTES:**

1. EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1"=30' SCALE PLAN OF THE SITE ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY", PREPARED BY OWEN HASKELL, INC., DATED 01/03/06.
2. THE LOCATIONS OF BORINGS HAVE BEEN DETERMINED IN THE FIELD BY TAPED MEASUREMENTS FROM EXISTING SITE FEATURES.

**S.W. COLE**  
ENGINEERING, INC.

CAPITAL, LLC

**EXPLORATION LOCATION PLAN**  
PROPOSED OFFICE AND PARKING GARAGE STRUCTURE  
84 MARGINAL WAY  
PORTLAND, MAINE

Job No. 06-0124  
Date: 05/16/06

Scale 1"=60'  
Sheet 1



# BORING LOG

BORING NO.: B-1  
 SHEET: 1 OF 4  
 PROJECT NO.: 06-0124  
 DATE START: 4/7/2006  
 DATE FINISH: 4/10/2006  
 ELEVATION: 11' +/-  
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC  
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE  
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: DONNIE BOLSTRIDGE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	NW	3.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

WATER LEVEL INFORMATION  
 SOILS SATURATED @ 6± FEET

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
									6"	BITUMINOUS ASPHALT PAVEMENT	
	1D	24"	14"	2.5'	3	3	6	8	1.5'	BROWN GRAVELLY SAND SOME SILT (BASE FILL) ~ MEDIUM DENSE ~ pH = 6.5	
	2D	24"	10"	4.5'	8	8	10	11	5.0'	DARK GRAY SANDY SILT SOME GRAVEL SOME BRICKS (FILL) ~ MEDIUM DENSE ~	
	3D	24"	15"	7.0'	10	5	3	3		BLACK MISCELLANEOUS FILL WITH SILT, GRAVEL, COBBLES, BRICKS, GLASS AND POSSIBLE ASH ~ LOOSE TO MEDIUM DENSE ~  pH = 6.3	
	4D	24"	8"	9.0'	2	3	3	5			
	5D	24"	12"	12.0'	10	11	12	12			
	6D	24"	12"	14.0'	3	6	10	10	15.0'		
	7D	24"	24"	17.0'	3	7	10	12	16.0'	GRAY SILT WITH SEASHELLS (PROBABLE NATIVE GROUND SURFACE) ~STIFF~ qp = 7 KSF BROWN SILTY CLAY	
	8D	24"	24"	22.0'	1	1	1	1	21.0'	~ MEDIUM ~ qp = 1.5 KSF ~ SOFT ~ qp = 0.5 KSF GRAY SILTY CLAY	
	9D	24"	24"	32.0'	WOH/24"						~ SOFT ~

SAMPLES:  
 D = SPLIT SPOON  
 C = 2" SHELBY TUBE  
 S = 3" SHELBY TUBE  
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:  
 DRILLER - VISUALLY  
 SOIL TECH. - VISUALLY  
 LABORATORY TEST

REMARKS:  
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(2)

BORING NO.: B-1

