

144-A-5

716 Stevens  
Ave

College of  
Pharmacy

UNE

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

2007-0158  
Application I. D. Number

9/5/2007  
Application Date

UNE College of Pharmacy  
Project Name/Description

University Of New England  
Applicant

11 Hills Beach Rd, Biddeford, ME 04005  
Applicant's Mailing Address

\_\_\_\_\_  
Consultant/Agent

Applicant Ph: (207) 602-2253      Agent Fax:  
Applicant or Agent Daytime Telephone, Fax

716 - 716 Stevens Ave, Portland, Maine  
Address of Proposed Site

144 A005001  
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    Apt 0    Condo 0    Other (specify) \_\_\_\_\_

\_\_\_\_\_  
Proposed Building square Feet or # of Units      Acreage of Site      R5  
Zoning

**Check Review Required:**

- Site Plan (major/minor)       Zoning Conditional - PB       Subdivision # of lots \_\_\_\_\_
- Amendment to Plan - Board Review    Zoning Conditional - ZBA    Shoreland       Historic Preservation    DEP Local Certification
- Amendment to Plan - Staff Review       Zoning Variance    Flood Hazard       Site Location
- After the Fact - Major       Stormwater       Traffic Movement       Other \_\_\_\_\_
- After the Fact - Minor       PAD Review       14-403 Streets Review

Fees Paid:      Site Plan \$1,600.00      Subdivision \_\_\_\_\_      Engineer Review \_\_\_\_\_      Date 9/7/2007

**Planning Approval Status:**

Reviewer \_\_\_\_\_

- Approved**       **Approved w/Conditions**       **Denied**  
See Attached

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

OK to Issue Building Permit      \_\_\_\_\_      \_\_\_\_\_  
signature      date

**Performance Guarantee**       **Required\***       **Not Required**

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

- Performance Guarantee Accepted      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_  
date      amount      expiration date
- Inspection Fee Paid      \_\_\_\_\_      \_\_\_\_\_  
date      amount
- Building Permit Issue      \_\_\_\_\_  
date
- Performance Guarantee Reduced      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_  
date      remaining balance      signature
- Temporary Certificate of Occupancy      \_\_\_\_\_       Conditions (See Attached)      \_\_\_\_\_  
date      expiration date
- Final Inspection      \_\_\_\_\_      \_\_\_\_\_  
date      signature
- Certificate Of Occupancy      \_\_\_\_\_  
date
- Performance Guarantee Released      \_\_\_\_\_      \_\_\_\_\_  
date      signature
- Defect Guarantee Submitted      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_  
submitted date      amount      expiration date
- Defect Guarantee Released      \_\_\_\_\_      \_\_\_\_\_  
date      signature



September 5, 2007

Ms. Barbara Barhydt  
Development Review Services Manager  
Planning Division  
389 Congress St., Fourth Floor  
Portland, ME 04101

**RE: University of New England - Westbrook College Campus  
Site Plan & Conditional Use Application for: Educational Building and  
Parking Area Associated with the Integration of the College of Pharmacy**

Dear Barbara:

On behalf of University of New England (UNE), SYTDesign Consultants is pleased to submit one original and 6 copies of the Site Plan Application and Conditional Use Application for the referenced project. We have enclosed a check in the amount of \$2,000 for the following project review fees:

Site Plan Application

- Fee for service Deposit - \$200
- Major Development under 50,000 s.f. - \$500
- Parking Lots over 100 Spaces - \$1,000

Conditional Use Application

- Fee for service Deposit - \$200
- Conditional Use - \$100

Along with the following information:

- Site Plan Application, Agent Authorization Letter and Check List
- Conditional Use Application
- Subject Parcels – Table A
- Associated Application Documentation
- Associated Project Plans

We are in hopes that you can place these applications on the next available Planning Board agenda, possibly September 25<sup>th</sup>, so that we may introduce the project to the Planning Board at a workshop session. Although we are submitting a somewhat conceptual Site Plan Application at this time, we would appreciate meeting with the Planning Board as a sketch plan/workshop so that we may benefit from any comments, questions or concerns Board members may have and thus incorporate and address any

issues prior to significant design development. It is for this reason that some Site Plan Application items such as stormwater have not been fully addressed at this point. The project will also require a Site Location of Development Act permit and a Traffic Movement Permit from the City. These will be submitted under separate cover as the design progresses.

The Planning Board should also be aware that a zoning text amendment pertaining to the height of buildings on the college campus was submitted on August 29, 2007.

We look forward to meeting with the Planning Board to discuss the College of Pharmacy project. Please contact me with any questions or comments concerning these

Sincerely,

SYTDesign Consultants



T. W. Saucier, P.E.  
Principal

PBB/TWS

cc: Alan Thibeault, UNE  
Lita Semrau, Port City Architecture

SECTION 1

**APPLICATION FORMS, AGENT AUTHORIZATION & CHECKLIST**



# Site Plan Application

Department of Planning and Development  
Portland Planning Board

<b>Address of Proposed Development:</b> 716 STEVENS AVENUE UNIVERSITY OF NEW ENGLAND <b>Project Name:</b> COLLEGE OF PHARMACY		<b>Zone:</b> R5
<b>Existing Building Size:</b> NA sq. ft.	<b>Proposed Building Size:</b> 34,800 sq. ft.	
<b>Existing Acreage of Site:</b> 42± AC sq. ft.	<b>Proposed Acreage of Site:</b> 42± AC sq. ft.	
<b>Tax Assessor's Chart, Block &amp; Lot:</b> Chart#      Block #      Lot# SEE TABLE A ENCLOSED	<b>Property Owners Mailing address:</b> UNIVERSITY OF NEW ENGLAND 11 HILLS BEACH ROAD BIDDEFORD, ME 04005 CONTACT: ALAN THIBEAULT DIR. OF CAMPUS PLANNING	<b>Telephone #:</b> (207) 602-2253 <b>Cell Phone #:</b>
<b>Consultant/Agent Contact Name and mailing address, Telephone # and Cell Phone #:</b> SYTDesign Consultants 160 Longwoods Road P.O. Box 86A Cumberland, ME 04021	<b>Applicant's Name/Mailing Address:</b> Same as above	<b>Telephone #:</b> Same as above <b>Cell Phone #:</b>
<b>Contact: Tom Saucier, P.E.</b>		
<b>Fee For Service Deposit (all applications)</b> _____ (\$200.00)		
<b>Proposed Development (check all that apply)</b> <input checked="" type="checkbox"/> New Building <input type="checkbox"/> Building Addition <input type="checkbox"/> Change of Use <input type="checkbox"/> Residential <input type="checkbox"/> Office <input type="checkbox"/> Retail <input type="checkbox"/> Manufacturing <input type="checkbox"/> Warehouse/Distribution <input checked="" type="checkbox"/> Parking lot <input type="checkbox"/> Subdivision (\$500.00) + amount of lots _____ (\$25.00 per lot) \$ _____ + major site plan fee if applicable <input type="checkbox"/> Site Location of Development (\$3,000.00) (except for residential projects which shall be \$200.00 per lot _____) <input type="checkbox"/> Traffic Movement (\$1,000.00) <input type="checkbox"/> Storm water Quality (\$250.00) <input type="checkbox"/> Section 14-403 Review (\$400.00 + \$25.00 per lot) <input type="checkbox"/> Other _____		
<div style="font-size: 2em; font-weight: bold; margin-bottom: 10px;">RECEIVED</div> <div style="font-size: 1.5em; margin-bottom: 10px;">SEP - 5 2007</div> <div style="font-size: 1.2em;">City of Portland Planning Division</div>		
<b>Major Development (more than 10,000 sq. ft.)</b> <input checked="" type="checkbox"/> Under 50,000 sq. ft. (\$500.00) <input type="checkbox"/> 50,000 - 100,000 sq. ft. (\$1,000.00) <input checked="" type="checkbox"/> Parking Lots over 100 spaces (\$1,000.00) <input type="checkbox"/> 100,000 - 200,000 sq. ft. (\$2,000.00) <input type="checkbox"/> 200,000 - 300,000 sq. ft. (\$3,000.00) <input type="checkbox"/> Over 300,000 sq. ft. (\$5,000.00) <input type="checkbox"/> After-the-fact Review (\$1,000.00 + applicable application fee)		
		~ Please see next page ~

**Minor Site Plan Review**

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

**Plan Amendments**

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

**Who billing will be sent to:**

ALAN THIBEAULT, DIR. OF CAMPUS PLANNING  
 UNIVERSITY OF NEW ENGLAND  
 11 HILLS BEALH ROAD  
 BIDDEFORD, MAINE 04005

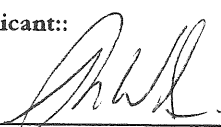
Submittals shall include (7) separate **folded** packets of the following:

- a. copy of application
- b. cover letter stating the nature of the project
- c. site plan containing the information found in the attached sample plans checklist
- d. 1 set of 11x17 plans

Section 14-522 of the Zoning Ordinance outlines the process which is available on our web site: [portlandmaine.gov](http://portlandmaine.gov)

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

**This application is for site review only; a Building Permit application and associated fees will be required prior to construction.**

Signature of Applicant: AGENT 	Date:
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University of New England – Westbrook College Campus

**TABLE A**

**Subject Parcels**

144 – A – 5, 6, 7, 8, 9

145 – A – 1, 2, 3, 6, 7, 8, 9, 10

145 – B – 1, 2, 6, 9, 10, 11, 12, 13, 14, 27, 29, 42, 46

290 – A – 3

291 – A – 5, 7

293 – C – 5

University of  
NEW ENGLAND

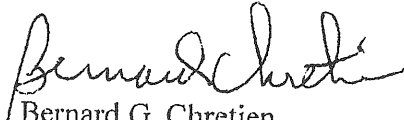
July 27, 2007

Mr. Tom Saucier  
SYTDesign Consultants  
P.O. Box 86A  
160 Longwoods Road  
Cumberland, ME 04021

TO WHOM IT MAY CONCERN:

This letter authorizes Tom Saucier to serve as an agent for University of New England for the purpose of permitting the Integration of the College of Pharmacy onto the University of New England's Westbrook College Campus in Portland Maine.

Sincerely,

  
Bernard G. Chretien  
VP for Business and Finance



## City of Portland, Maine Site Plan Checklist

UNE COLLEGE OF PHARMACY  
716 STEVENS AVENUE

Project Name, Address of Project

Application Number

Section 14-525

Submitted () & Date (b,c)	Item	Required Information	Section 14-525
<u>WAIVER REQ.</u>	(1)	Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	1
<u>✓</u>	(2)	Name and address of applicant and name of proposed development	a
<u>✓</u>	(3)	Scale and north points	b
<u>Waiver Req.</u>	(4)	Boundaries of the site	c
<u>✓</u>	(5)	Total land area of site	d
<u>✓</u>	(6)	Topography - existing and proposed (2 feet intervals or less)	e
<u>To Be Submitted</u>	(7)	Plans based on the boundary survey including:	2
<u>To Be Submitted</u>	(8)	Existing soil conditions	a
<u>✓</u>	(9)	Location of water courses, marshes, rock outcroppings and wooded areas	b
<u>To Be Submitted</u>	(10)	Location, ground floor area and grade elevations of building and other structures existing and proposed, elevation drawings of exterior facades, and materials to be used	c
<u>✓</u>	(11)	Approx location of buildings or other structures on parcels abutting the site	d
<u>✓</u>	(12)	Location of on-site waste receptacles	e
<u>✓</u>	(13)	Public utilities	e
<u>✓</u>	(14)	Water and sewer mains	e
<u>✓</u>	(15)	Culverts, drains, existing and proposed, showing size and directions of flows	e
<u>✓</u>	(16)	Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed	f
<u>✓</u>	(17)	Location and dimensions of on-site pedestrian and vehicular access ways	g
<u>✓</u>	(18)	Parking areas	g
<u>✓</u>	(19)	Loading facilities	g
<u>✓</u>	(20)	Design of ingress and egress of vehicles to and from the site onto public streets	g
<u>✓</u>	(21)	Curb and sidewalks	g
<u>To Be Submitted</u>	(22)	Landscape plan showing:	h
<u>✓</u>	(23)	Location of existing proposed vegetation	h
<u>✓</u>	(24)	Type of vegetation	h
<u>✓</u>	(25)	Quantity of plantings	h
<u>✓</u>	(26)	Size of proposed landscaping	h
<u>✓</u>	(27)	Existing areas to be preserved	h
<u>✓</u>	(28)	Preservation measures to be employed	h
<u>✓</u>	(29)	Details of planting and preservation specifications	h
<u>✓</u>	(30)	Location and dimensions of all fencing and screening	i
<u>To Be Submitted</u>	(31)	Location and intensity of outdoor lighting system	j
<u>To Be Submitted</u>	(32)	Location of fire hydrants, existing and proposed	k
<u>✓</u>	(33)	Written statement	c
<u>✓</u>	(34)	Description of proposed uses to be located on site	l
<u>✓</u>	(35)	Quantity and type of residential, if any	l
<u>✓</u>	(36)	Total land area of the site	b2
<u>✓</u>	(37)	Total floor area and ground coverage of each proposed building and structure	b2
<u>✓</u>	(38)	General summary of existing and proposed easements or other burdens	c3
<u>✓</u>	(39)	Method of handling solid waste disposal	4
<u>To Be Submitted</u>	(40)	Applicant's evaluation of availability of off-site public facilities, including sewer, water and streets	5



<u>                    </u> ✓	(41)	Description of any problems of drainage or topography, or a representation that there are none	6
<u>                    </u> ✓	(42)	An estimate of the time period required for completion of the development	7
<u>                    </u> ✓	(43)	A list of all state and federal regulatory approvals to which the development may be subject to	8
<u>                    </u> ✓	(44)	The status of any pending applications	8
<u>                    </u> ✓	(45)	Anticipated timeframe for obtaining such permits	h8
<u>                    </u> ✓	(46)	A letter of non jurisdiction	h8
<u>                    </u> ✓	(47)	Evidence of financial and technical capability to undertake and complete the development including a letter from a responsible financial institution stating that is has reviewed the planned development and would seriously consider financing it when approved.	

Note: Depending on the size and scope of the proposed development, the Planning Board or Planning Authority may request additional information, including (but not limited to):

- |  |   |
|--|---|
| - drainage patterns and facilities;                                  | - an environmental impact study;                |
| - erosion and sedimentation controls to be used during construction; | - a sun shadow study;                           |
| - a parking and/or traffic study;                                    | - a study of particulates and any other noxious |
| emissions; and   | a noise study;                                  |
| - a wind impact analysis.  |   |

Other comments:

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# Conditional Use Application

Department of Planning and Development  
Portland Planning Board

- 
1. **Applicant Information:**
- UNIVERSITY OF NEW ENGLAND  
Name
- 11 HILLS BEACH ROAD  
Address
- BIDDEFORD, ME 04005
- (207) 602-2253 (207) 602-5911  
Phone Fax
2. **Subject Property:**
- WESTBROOK COLLEGE CAMPUS  
Address
- 716 STEVENS AVENUE
- SEE TABLE A ENCLOSED  
Assessor's Reference (Chart-Block-Lot)
3. **Property Owner:**  Applicant  Other
- \_\_\_\_\_  
Name
- SAME AS ABOVE  
Address
- \_\_\_\_\_  
Phone Fax
4. **Current Zoning Designation(s):**
- R-5 RESIDENTIAL ZONE
5. **Right, Title, or Interest:** Please identify the status of the applicant's right, title, or interest in the subject property:
- SEE DEEDS ENCLOSED
- Provide documentary evidence, attached to this application, of applicant's right, title, or interest in the subject property. (For example, a deed, option or contract to purchase or lease the subject property.)
6. **Vicinity Map:** Attach a map showing the subject parcel and abutting parcels, labeled as to ownership and/or current use. (Applicant may utilize the City Zoning Map or Parcel Map as a source.)
7. **Existing Use:**
- Describe the existing use of the subject property: INSTITUTIONAL (COLLEGE)
8. **Type of Conditional Use Proposed:**
- INSTITUTIONAL - COLLEGE OF PHARMACY BUILDING & ASSOCIATED PARKING.

9. **Sketch Plan:** On a separate sheet please provide a sketch plan of the property, showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries. This may be a professionally drawn plan, or a carefully drawn plan, to scale, by the applicant. (Scale to suit, range from 1"=10' to 1"=100'.)

10. **Conditional Use Authorized by:** Section 14- 118, 2, 9

11. **Standards - Criteria for Conditional Use Appeal**

Upon a showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

- a. There are unique or distinctive characteristics or effects associated with the proposed conditional use;
- b. There will be an adverse impact upon the health, safety, or welfare of the public or the surrounding area;
- c. Such impact differs substantially from the impact which would normally occur from such a use in that zone.

12. **Application Fee:** A fee for must be submitted by check payable to the City of Portland in accordance with Section 14-54 of the Municipal Code (see below). The applicant also agrees to pay all costs of publication (or advertising) of the Workshop and Public Hearing notices as required for this application. Such amount will be billed to the applicant following the appearance of the advertisement.

Fee for Service Deposit (\$200.00)  
(Required for all applications in addition to the applicable application fee listed below)

Conditional Use \$100.00

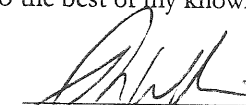
Legal Advertisements percent of total bill

Notices .55 cents each  
(workshop and public hearing)

**NOTE:** Legal notices placed in the newspaper for the public hearing meeting are required by State Statue and local ordinance. The cost of any and all Newspaper advertisements, legal advertisements and Planning Board notices will be billed directly to the applicant.

13. **Signature:** The above information is true and accurate to the best of my knowledge.

SEPT. 5, 2007  
Date of Filing

  
~~Signature of Applicant~~ Agent

**Further Information:** Please contact the Planning Division for further information regarding the conditional use process. Applicants are encouraged to make an appointment to discuss their conditional use before filing the application.

Applicants are encouraged to include a letter or narrative to accompany the conditional use application which can provide additional background or contextual information, and describe the proposed conditional use and reasons for the request in a manner that best suits the situation.

Portland Planning Board, Portland, Maine- Effective: July 6, 1998

## SECTION 2

### PROJECT DESCRIPTION

University of New England (UNE) is establishing a new College of Pharmacy on its Westbrook College Campus at 716 Stevens Avenue. This will be a Professional six year degree program with years one and two consisting of pre-professional courses on the University Campus in Biddeford and years three, four and five on the Westbrook College Campus, with a sixth year off site. UNE is projecting the program will accommodate 100 students per class with approximately 40 full time faculty members.

The Proposed project consists of the construction of a four story 35,000± s.f. building connected to the south side of Goddard Hall and an approximately 350 space parking lot on the 25±acres known as the lower campus. Because the University use is a conditional use in this zone (R-5 Residential) we have submitted a conditional use application for a concurrent review. Goddard Hall is located in the historic section of the campus so the proposed building will need to be approved by the Historic Preservation Commission Board.

The new building will house the educational components necessary for the new College of Pharmacy program. The pharmacy program components consist of research labs, teaching labs, drug information library, vivarium, and other supporting spaces. The proposed building footprint is approximately 8,700 s.f. with each of the four floors being of equal size.



Goddard Hall South Side

The establishment of the pharmacy program bringing additional students and faculty to the Westbrook College Campus will create the need for additional parking.



The parking location proposed in this application is the same parking site UNE discussed constructing in their July 19, 2000 City Site Plan Application for the construction of the lecture hall which adjoins Proctor Hall and the Blewett Science Center. A recent parking study was completed by the University showing an approximate excess of 80 spaces at peak hours. The study also determined that the current parking ratio on the Westbrook College campus is approximately .6 spaces needed per student. This enrollment and parking ratio compares favorably with the enrollment and parking ratio on UNE's Biddeford campus. This results in a projected need for approximately 180 spaces over the next four years to accommodate the demand from the proposed College of Pharmacy. UNE also wishes to be proactive and design and permit the approximately 350 space parking area on the lower campus now, and phase construction as the need arises.



Parking Area Site

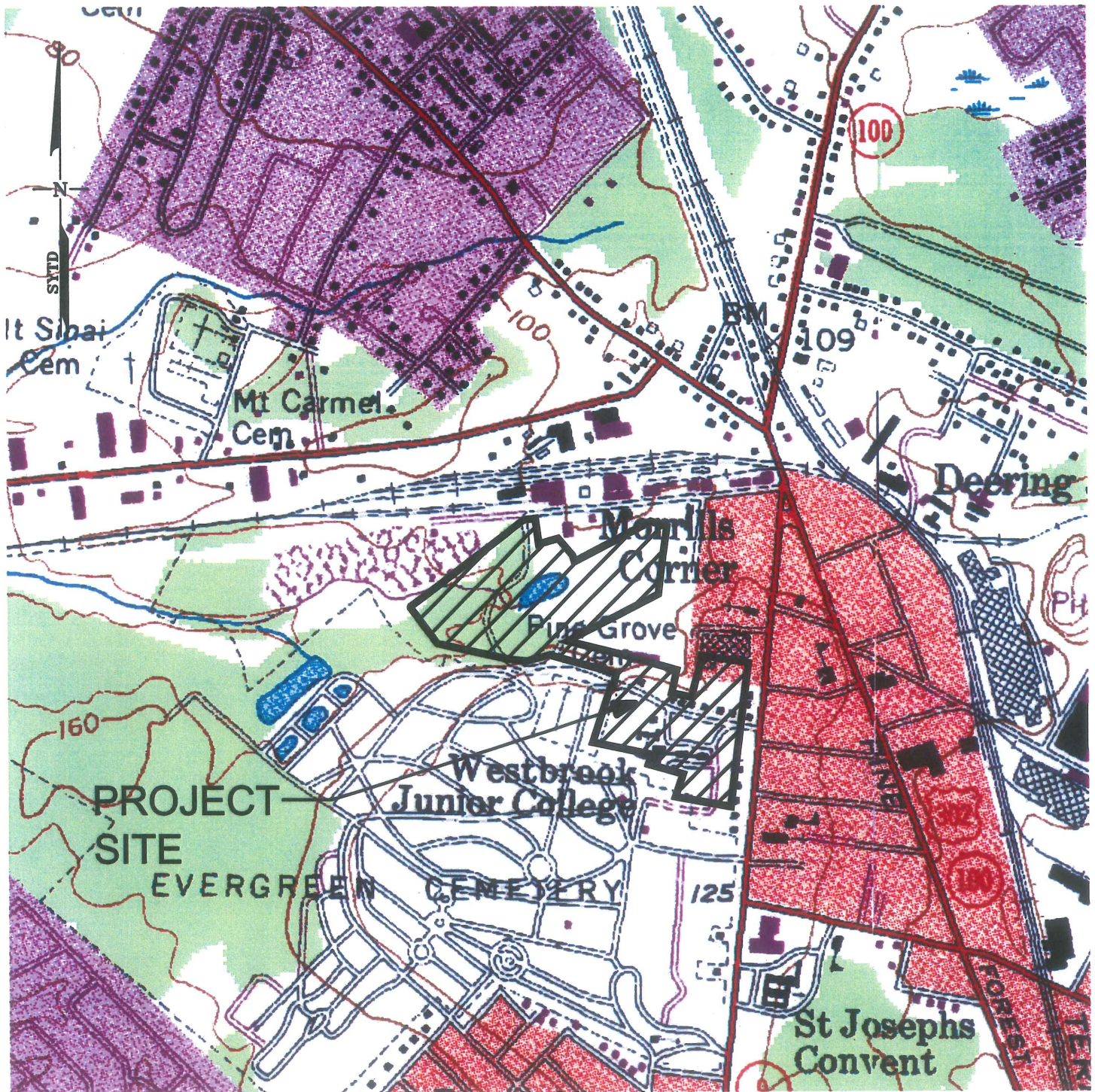
The City off-street parking requirement for schools (Sec. 14-332) requires one parking space for each ten seats or, if no seats, one parking space for each 100 s.f. of area used for instruction. By this calculation the new building would only require 13 spaces for a 126 seat classroom to be located in the building, or one space for the 4,900 s.f. of instructional space excluding labs and research space. The proposed parking area sited on the lower campus will be accessed by a drive which follows the alignment of the existing gravel drive. The access drive would be constructed with a well lit curb and walk for pedestrian travel. Emergency call boxes will also be located along the drive.

State permits which will be required are a Traffic Movement Permit (TMP) and the Site Location of Development Act (SLODA) Permit. It is our understanding that the City of Portland has delegated authority to review the TMP and the SLODA permit application with the exception of the Stormwater Management section, which will need to be reviewed by MDEP. We anticipate a Natural Resource Protection Act permit will

be needed for disturbance within 75 feet of a wetland associated with a stream, to construct the proposed drive and parking area.

UNE anticipates beginning construction on the proposed building as soon as permits have been obtained, hopefully late winter, and completing construction for the fall semester of 2009.





SOURCE: U.S. DEPARTMENT OF THE INTERIOR, U.S. GEOLOGICAL SURVEY 7.5 MINUTE SERIES PORTLAND WEST, MAINE QUAD

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SYTDesign CONSULTANTS, ANY ALTERATIONS, OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SYTDesign CONSULTANTS.

**SYTDesign**  
CONSULTANTS

CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE

P.O. Box 86A  
160 Longwoods Road  
Cumberland, Maine 04021  
tel.207.829.6994 fax.207.829.2231

DESIGN WTE  
DRAWN WTE  
CHKD TWS

**COLLEGE OF PHARMACY**  
**UNIVERSITY OF NEW ENGLAND**

**LOCATION MAP**

**UNE WESTBROOK COLLEGE CAMPUS**  
716 STEVENS AVENUE, PORTLAND, MAINE 04103

DATE AUG 2007  
SCALE 1" = 1000'

PROJ. NO.  
DWG. NO.

**06-216.07**

**FIGURE 1**

REV.



**SECTION 4**

**EVIDENCE OF RIGHT, TITLE OR INTEREST**

Please see enclosed deed documentation and documentation previously submitted to the City in 2000.



*Alex Green Ltd*

ABSTRACT OF TITLE.

*Alex Green Ltd*

FROM THE LAW OFFICES OF  
HINCKLEY & HINCKLEY  
PORTLAND, MAINE

Abstract of Title to the following described land:

A certain lot or parcel of land with the building thereon, situated number 374 Stevens Avenue in that part of said Portland formerly Deering, and being bounded and described as follows:

~~Beginning at a stone post standing on the northerly side of College~~  
Street, formerly Seminary Street, one hundred and fifty-eight (158) feet more or less from the northwesterly corner of said College Street and Stevens Avenue, and running north, twenty-four and one-fourth ( $24 \frac{1}{4}$ ) degrees east, one hundred and forty-eight and one-half ( $148 \frac{1}{2}$ ) feet to land now or late of Captain Sargent; thence south, seventy (70) degrees east by said Sargent's land one hundred and forty-one and one half ( $141 \frac{1}{2}$ ) feet more or less to said Stevens Avenue; thence southerly by said Stevens Avenue seventy-four (74) feet to land now or late of Arabella W. Roberts; thence westerly by land now or late of said Roberts in a line parallel with said College Street one hundred (100) feet; thence southerly again by land now or late of said Roberts in a line parallel with said Stevens Avenue ninety (90) feet to said College Street; and thence westerly by said College Street to point of beginning; be any or all of said measurements more or less, or however otherwise bounded, measured or described.

Being the same premises conveyed by Lydia J. Snow to Thalia L. Clement, formerly Thalia L. Scanman, by warranty deed dated April 22, 1902, and recorded in Cumberland County Registry of Deeds, Book 716, Page 326.

bounded, measured or described.

Being the same premises conveyed by Lydia J. Snow to Thalia L. Clement, formerly Thalia L. Scanman, by warranty deed dated April 22, 1902, and recorded in Cumberland County Registry of Deeds, Book 716, Page 326.

Excepting that certain lot or parcel of land conveyed by the said Thalia L. Clement to Victor Brewster by warranty deed dated October 19, 1908, and recorded in Cumberland County Registry of Deeds, Book 831, Page 38.

RECORD OF DEEDS FOR THE CITY OF PORTLAND, MAINE

377-518.

(Elizur)

Eleazer B. Forbes to Joseph C. Snow;

Warranty; July 29, 1870;

Tract embracing lot described.

478-428.

Joseph C. Snow to Lydia J. Snow, wife;

Warranty; December 13, 1880;

Same tract as 377-518.

716-326.

Lydia J. Snow to Thalia L. Scamman;

Warranty, April 22, 1902.

721-20.

Thalia L. Scamman to Portland Savings Bank;

Mortgage; September 30, 1902; Discharged on margin

Mar. 2, 1905.

Thalia L. Clement to Portland Savings Bank, June 10, 1910.

Mortgage;

Discharged on margin September 22, 1914.

At the present time there are no encumbrances of record.

Dated at Portland, Maine, this fifth day of April,

A.D. 1919.

*Quibbee Quibbee*

# Quit-Claim Deed

CORPORATION — WITH COVENANT

FROM

ALL SOULS UNIVERSALIST CHURCH OF  
PORTLAND, MAINE  
(ALL SOULS CHURCH PARISH)

TO

WESTBROOK SEMINARY AND JUNIOR COLLEGE

Dated February 9, 1940

State of Maine.

Cumberland ss. Registry of Deeds

Received FEB 9 1940

at 8 H., 36 W., P. M., and

recorded in Book 1599 Page 276

*Wm. C. ...*  
REGISTER

FROM THE OFFICE OF

Bradley, Linnell, Nulty & Brown  
192 Middle Street  
Portland, Maine

MARTIN'S, PORTLAND, MAINE — LAW OFFICE SUPPLIES AND EQUIPMENT  
MARTIN'S FORM NO. 9

21

158

0

To have and to hold the same, together with all the privileges and appurtenances thereunto belonging, to it, the said Westbrook Seminary and Junior College, its successors

~~Hold~~ and Assigns forever.

And the said Grantor Corporation does covenant with the said Westbrook Seminary and Junior College, its successors

~~Hold~~ and Assigns, that it will Warrant and Warrant Defend the premises to it, the said Grantee, its successors

~~Hold~~ and Assigns forever, against the lawful claims and demands of all persons claiming by, through, or under it.

In Witness Whereof, the said All Souls Universalist Church of Portland, Maine (All Souls Church Parish)

has caused this instrument to be sealed with its ~~corporate~~ seal

and signed in its corporate name by *Herbert B. Seal, President of its Board of Trustees,*

thereunto duly authorized, this *9th* day of February

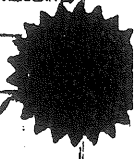
in the year one thousand nine hundred and forty.

Signed, Sealed and Delivered in presence of

*E. P. Perkins*

ALL SOULS UNIVERSALIST CHURCH OF PORTLAND, MAINE (ALL SOULS CHURCH PARISH)

By *Herbert B. Seal* Its President of Board of Trustees.



~~CORPORATE SEAL~~

*Handwritten signature*

~~CORPORATION~~

State of Maine, } ss.  
CUMBERLAND,

February 9, 1940.

Personally appeared the above named *Herbert B. Seal, President*  
*of the Board of Trustees* of said Grantor Corporation  
as aforesaid, and acknowledged the foregoing instrument to be his  
free act and deed in his said capacity, and the free act and deed of  
said corporation.



Before me,

*Elliott A. Perkins*  
Justice of the Peace

*Walter G. Whittman*  
*192 Middle Street*  
*Portland, Maine*

**Warranty Deed**

FROM

WALTER G. WHITTMAN

TO

WESTBROOK SEMINARY AND JUNIOR COLLEGE

Dated \_\_\_\_\_, 1940

State of **Maine**

County of **Lumberland** ss. Registry of Deeds

Received **MAR 28 1940**

at **4** H., **55** M., **P** M., and

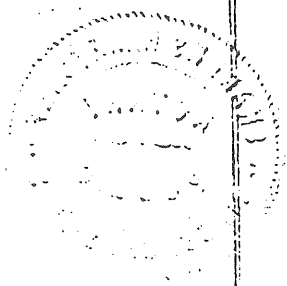
recorded in Book **1603** Page **98**

*Walter G. Whittman*  
Attest: \_\_\_\_\_  
Register.

FROM THE OFFICE OF

Bradley, Linnell, Nulty & Brown  
192 Middle Street  
Portland, Maine

MARTIN'S FORM NO. 1 - STANDARD REGISTRY FORM



*4-55*



*Ludeke*

# Know all Men by these Presents

That ALL SOULS UNIVERSALIST CHURCH OF PORTLAND, MAINE, a religious society duly organized under the laws of the State of Maine and located at Portland, in the County of Cumberland and State of Maine, formerly known as and called ALL SOULS CHURCH PARISH,

~~a corporation organized and existing under the laws of the State~~

of

~~Cumberland County~~

~~in the County of~~

~~Cumberland~~

in consideration of one dollar and other valuable consideration

paid by WESTBROOK SEMINARY AND JUNIOR COLLEGE, a corporation organized and existing under the laws of the State of Maine and located at said Portland,

the receipt whereof it does hereby acknowledge, does hereby remise,

release, bargain, sell and convey, and forever quit-claim unto the said

Westbrook Seminary and Junior College, its successors

~~beds~~ and assigns forever,

the following described premises situated in said Portland:

1. A certain lot or parcel of land situated in said Portland and bounded and described as follows: Beginning at an iron stake at the northwesterly corner of the lot of land conveyed by Ella Louise Fernald to Susie Whitman by deed dated May 11, 1908 and recorded in Cumberland County Registry of Deeds in Book 826, Page 72; thence by land conveyed to said Whitman as aforesaid and by land conveyed to said Whitman by Cordelia S. Pierce by deed dated August 3, 1892 and recorded in said Registry of Deeds, Book 593, Page 255, on a course of South sixty-four degrees forty-two minutes East (S. 64° 42' E.) two hundred thirty-three (233) feet to an iron stake; thence by other land of said Grantor on a course of North twenty-one degrees fifty-six minutes East (N. 21° 56' E.) sixty-eight and fifty-five hundredths (68.55) feet to the Southeasterly corner of the lot of land next hereinafter described and conveyed; thence by said lot of land next hereinafter described and conveyed on a course of North sixty-four degrees fifty-five minutes West (N. 64° 55' W.) two hundred twenty-one and three tenths (221.3) feet to other land of said Grantee; thence by land of said Grantee on a course of South thirty-one degrees forty-five minutes West (S. 31° 45' W.) sixty-eight and one tenth (68.1) feet to the point of beginning.

Said above described lot is subject to the life lease to Ella L. Perry as granted to her by All Souls Church Parish by lease dated October 17, 1924 and recorded in said Registry in Book 1204, Page 65.

2. A certain other lot or parcel of land in said Portland and bounded and described as follows: Beginning at a stake on the northerly line of the lot of land which Cordelia S. Pierce devised to All Souls Universalist Church of Portland, Maine under the name of Society of All Souls Church by her last will and testament

Westbrook Seminary and Junior College, its successors

beirs and assigns forever,

the following described premises situated in said Portland:

1. A certain lot or parcel of land situated in said Portland and bounded and described as follows: Beginning at an iron stake at the northwesterly corner of the lot of land conveyed by Ella Louise Fernald to Susie Whitman by deed dated May 11, 1908 and recorded in Cumberland County Registry of Deeds in Book 826, Page 72; thence by land conveyed to said Whitman as aforesaid and by land conveyed to said Whitman by Cordelia S. Pierce by deed dated August 3, 1892 and recorded in said Registry of Deeds, Book 593, Page 236, on a course of South sixty-four degrees forty-two minutes East (S. 64° 42' E.) two hundred thirty-three (233) feet to an iron stake; thence by other land of said Grantor on a course of North twenty-one degrees fifty-six minutes East (N. 21° 56' E.) sixty-eight and fifty-five hundredths (68.55) feet to the Southeasterly corner of the lot of land next hereinafter described and conveyed; thence by said lot of land next hereinafter described and conveyed on a course of North sixty-four degrees fifty-five minutes West (N. 64° 55' W.) two hundred twenty-one and three tenths (221.3) feet to other land of said Grantee; thence by land of said Grantee on a course of South thirty-one degrees forty-five minutes West (S. 31° 45' W.) sixty-eight and one tenth (68.1) feet to the point of beginning.

Said above described lot is subject to the life lease to Ella L. Perry as granted to her by All Souls Church Parish by lease dated October 17, 1924 and recorded in said Registry in Book 1204, Page 65.

2. A certain other lot or parcel of land in said Portland and bounded and described as follows: Beginning at a stake on the northerly line of the lot of land which Cordelia S. Pierce devised to All Souls Universalist Church of Portland, Maine under the name of Society of All Souls Church by her last will and testament, an abstract of which is recorded in Cumberland County Registry of Deeds in Book 757, Page 186, said stake being distant one hundred forty-five (145) feet westerly of the westerly line of Stevens Avenue as established by deed from Westbrook Seminary to the City of Portland dated May 29, 1917 and recorded in said Registry in Book 1086, Page 449; thence by other land of said Grantor on a course of South twenty-one degrees fifty-six minutes West (S. 21° 56' W.) sixty-eight and fifty-five hundredths (68.55) feet to the northerly corner of the lot of land next hereinafter described and conveyed; thence by said lot of land next hereinafter described and conveyed on a course of North sixty-four degrees fifty-five minutes West (N. 64° 55' W.) two hundred twenty-one and three tenths (221.3) feet to land of said Grantee; thence by land of said Grantee on a course of North thirty-one degrees forty-five minutes East (N. 31° 45' E.) sixty-eight and one tenth (68.1) feet to a stake; thence by land of said Grantee on a course of South sixty-five degrees eight minutes East (S. 65° 08' E.) two hundred nine and sixty-four hundredths (209.64) feet to the point of beginning.

Said aforementioned courses are magnetic and of the date of 1935.

Being a part of the property devised to All Souls Universalist Church of Portland, Maine under the name of Society of All Souls Church by the last will and testament of Cordelia S. Pierce, an abstract thereof being recorded in said Registry of Deeds in Book 757, Page 136.

On this day I have and do hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said

Westbrook Seminary and Junior College, its successors and assigns, to its and their use and behoof forever.

And I do covenant with the said Grantee, its successors and assigns, that I am lawfully seized in fee of the premises, that they are free of all incumbrances; except as aforesaid;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs shall and will warrant and defend the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons except as aforesaid.

In Witness Whereof, I, the said Walter G. Whitman,

and I, Grace B. Whitman,

wife of the said

Walter G. Whitman,

joining in this deed as Grantor, and relinquishing and conveying all right by descent and all other rights in the above described premises, have hereunto set our hands and seals this 26<sup>th</sup> day of March in the year of our Lord one thousand nine hundred and forty.

Signed, Sealed and Delivered in presence of

Sumner Wheeler

Walter S. Whitman

Grace B. Whitman



day of *March*

in the year of our Lord one thousand nine

hundred and forty.

Signed, Sealed and Delivered  
in presence of

*Summer Y. Wheeler*

*Walter G. Whitman*

*Grace B. Whitman*



COMMONWEALTH OF MASSACHUSETTS,

Essex,

ss.

*March 26, 1940.*

Personally appeared the above named

Walter G. Whitman

and acknowledged

the foregoing instrument to be his

free act and deed.

Before me,

*Charles A. Metcay*

Justice of the Peace  
Notary Public

*My commission expires Apr. 27, 1940*

28398

KNOW ALL MEN BY THESE PRESENTS, That the CITY OF PORTLAND, a body politic and corporate located in the County of Cumberland and State of Maine, in consideration of One Dollar (\$1.00) and other good and valuable considerations, paid by Westbrook College, a corporation organized and existing under the laws of the State of Maine and located at 716 Stevens Avenue in said Portland in said County and State, the receipt whereof it does hereby acknowledge, does hereby give, grant, bargain, sell and convey, unto the said Westbrook College, its successors and assigns forever, certain real estate located in said Portland, lying Westerly of College Street and Southerly of Bishop Street, bounded and described as follows:

Beginning at a point on the Northerly line of the land of Portland Railroad Company where the same intersects with land hereby conveyed and land formerly of George H. Sardon, commonly known as the Sardon Gravel Pit, formerly Read's Gravel Pit; thence from said point North  $19^{\circ} 30'$  East 28.68 rods; thence North  $60^{\circ}$  West Seven and thirty-two hundredths (7.32) rods to a point; thence South  $74^{\circ} 45'$  West Thirty-six and sixty-four hundredths (36.64) rods to a point; thence North  $5^{\circ}$  West Two and fifty-six hundredths (2.56) rods; thence North  $30^{\circ}$  West Twenty-four and four tenths (24.4) rods; thence South  $65^{\circ}$  West Forty-seven and twelve hundredths (47.12) rods to center of ditch; thence up the center of said ditch towards what is known as pasture Two Hundred Ninety-eight (298) feet; thence in a straight line to a point in line of Evergreen Cemetery indicated by a spruce stump, said stump being on the intersection between land of said Cemetery and land conveyed by Luther B. Roberts to the said City of Portland; thence from said stump North  $80^{\circ} 21'$  East Three Hundred Seventy-one and two tenths (372.2) feet to an angle; thence from said angle North  $76^{\circ} 8'$  East, Five Hundred Ninety-six and twenty-two hundredths (596.22) feet to an angle; thence from said last named angle at a right angle South  $12^{\circ} 52'$  East Seventy-five (75) feet to land of said Portland Railroad Company; thence about North  $76^{\circ} 8'$  East by said Portland Railroad Company's land to the point of beginning.

Also a certain other parcel of land, abutting the above described premises and bounded and described as follows: Beginning at the center of the ditch between the hereinabove described premises and the land hereby conveyed and in line of land now or formerly owned by Adam Wilson and running Southerly by land of said Wilson to the Westerly corner of land of Evergreen Cemetery; thence South Twenty-four ( $24^{\circ}$ ) degrees East by land of said Cemetery One hundred and seventy-five (175) feet to a point; thence by land formerly of Dennis F. Gulliver, and being the premises hereinabove described, in a straight line to a point in the center of said ditch; said point being Two Hundred Ninety-eight (298) feet from the point of beginning; thence down the center of said ditch to the point of beginning.

Excepting and reserving from the above described premises that portion thereof conveyed by the Grantor to Central Maine Power Company by deed dated February 26, 1967, recorded in said Registry of Deeds in Book 2989, Page 13.

This conveyance is made subject to the right-of-way or easement granted by the Grantor to Central Maine Power Company by deed dated December 13, 1951, recorded in said Registry of Deeds in Book 2055, Page 463.

Reserving to the Grantor, its successors and assigns, the right perpetually to enter at any and all times upon a strip of land fifty (50) feet in width lying equally on either side of the storm drain and upon a strip of land fifty (50) feet in width lying equally on either side of the brook presently located on the premises herein conveyed and the right perpetually to maintain, repair, rebuild, relocate, or remove said storm drain and brook with all necessary fixtures and appurtenances within said strips of land, granting to the Grantee, its successors and assigns, the use and enjoyment of said strips of land for such purposes only as will in no way interfere with the perpetual use thereof by the Grantor, its successors and assigns, for the purposes above mentioned, except that no buildings or structures may be erected within said strips of land. Also reserving to the Grantor, its successors and assigns, the right perpetually to enter at any and all times upon the premises herein conveyed for the purpose of access and egress by itself, its servants and/or agents to and from said strips of land.

Being the same premises conveyed to the Grantor by deed of James Gulliver, Administrator, d.b.n.c.t.a., of the Estate of Stephen Gulliver by deed dated August 23, 1935, recorded in said Registry of Deeds in Book 1476, Page 441.

Also a certain lot of land lying in the rear of College Street, in the City of Portland, bounded and described as follows, to wit:

Beginning at a point on the Northerly side line of College Street and at the Westerly corner of land belonging to Francis L. Stone; thence North 25° 22' east by land of said Stone eighty-seven and nineteen one hundredths (87.19) feet to land of the Portland Railroad Company; thence North 62° 26' west by land of said Portland Railroad Company four hundred and thirty-one and ninety three one hundredths (431.93) feet to a point; thence North 76° 08' east by land of said Portland Railroad Company five hundred (500) feet to a point; thence north 13° 52' west seventy-five (75) feet to a point; thence south 76° 08' west five hundred and ninety-six and twenty-two one hundredths (596.22) feet to a point; thence south 80° 21' west three hundred and seventy-one and two tenths (371.2) feet to the stump of a large spruce tree in the boundary of Evergreen Cemetery; thence easterly by land of Evergreen Cemetery and land of Pine Grove Cemetery about seven hundred and sixty (760) feet to a point on the end of College Street; thence north 24° 55' east by the end of College Street thirty and thirty-five one hundredths (30.35) feet to a stone

monument at the end of the northerly side line of College Street; thence south 65° 05' east one hundred and twelve and ninety-four one hundredths (112.94) feet by the northerly side line of College Street to the point of beginning. Said premises being a part of the several promises conveyed to Luther B. Roberts by deed of S. K. Hamilton, Admr., dated June 22, 1910, and by deed of Daniel H. Reed to Luther B. Roberts, dated July 26th, 1909, recorded in Cumberland, ss. Registry of Deeds, Book 843, Page 402, to which several deeds, and the references contained, reference is hereby made for further particulars of description.

Excepting and reserving from the above described premises that portion thereof conveyed by the Grantor to Alice M. Knight by deed dated January 17, 1947, recorded in said Registry of Deeds, in Book 1852, Page 109.

Being the same premises conveyed to the Grantor by Luther B. Roberts by deed dated June 24, 1910, recorded in said Registry of Deeds in Book 861, Page 282, and subject to the reservations contained therein.

By acceptance of this deed, Grantee covenants and agrees that it will:

1. Provide a landscape buffer zone at least twenty-five (25) feet in width along the northerly and easterly lines of the premises herein conveyed in a manner satisfactory to the Planning Board of the City of Portland.
2. Secure from said Planning Board prior site plan approval for development of all or any part of the premises herein conveyed as such development shall occur.

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging, to the said Westbrook College, its successors and assigns forever.

AND the said Grantor Corporation does covenant with the said Westbrook College, its successors and assigns, that it will warrant and forever defend the premises to it the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons claiming by, through, or under it.



IN WITNESS WHEREOF, the said City of Portland has caused this instrument to be sealed with its corporate seal and signed in its corporate name by JOHN G. DE PALMA, its Director of Finance, thereunto duly authorized, this <sup>8<sup>th</sup></sup> day of November in the year one thousand nine hundred and seventy-three.

SIGNED, SEALED AND DELIVERED  
IN PRESENCE OF

CITY OF PORTLAND

*Patricia S. Meally*

By *John G. DePalma*  
Director of Finance



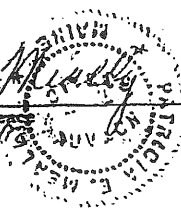
STATE OF MAINE  
CUMBERLAND, ss.

*Nov. 8*, 1973.

Personally appeared the above named John G. DePalma, Director of Finance of said Grantor Corporation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said corporation.

Before me,

*Patricia S. Meally*  
Justice of the Peace  
Notary Public



NOV 8 1973

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE

Received at <sup>2</sup> 8:27 P.M. and recorded in  
BOOK 3481 PAGE 255 *W. Ruth Kingston* Register

SECTION 5

**FINANCIAL AND TECHNICAL CAPABILITY**

Technical Capacity: The following have been retained by the owner to provide technical assistance in the design and permitting of the project.

**Civil Engineer & Landscape Architect**

SYTDesign Consultants  
Contact: Thomas W. Saucier, P.E.  
Contact: Peter Biegel, ASLA, LEED AP  
P.O. Box 86A  
Cumberland, ME 04021

**Surveyor**

Colonial Surveying Company  
Contact: Ronald Carpentier, PLS  
34 Presidential Drive  
Gray, Maine, 04039

**Architect**

Port City Architecture  
Contact: Andy Hyland, Principal, AIA  
Contact: Lita Semrau, Vice President, AIA  
65 Newbury Street  
Portland, Maine 04101

**Wetland Delineation**

Broadwater Environmental, Inc.  
Contact: Ian Broadwater, CCS, CWS, LSE  
31 Wyoming Avenue  
Portland, Maine 04103

**Construction Manager**

Allied / Cook Construction  
Contact: John Brockington  
P.O. Box 1396  
Portland, Maine 04104

**Traffic Consultant**

Eaton Traffic Engineering  
Contact: Bill Eaton, P.E.  
67E Winter Street  
Topsham, Maine 04086

Financial Capability: Please see the memorandum included with this section dated August 31, 2007 prepared by Bernard Chretien, Vice President for Business and Finance at University of New England

# MEMORANDUM

University of New England  
11 Hills Beach Rd.  
Biddeford, ME 04005

August 31, 2007

Re: Construction Project College of Pharmacy

To Whom It May Concern:

The University of New England is in the process of designing a facility on its Westbrook College Campus for the purpose of supporting a new College of Pharmacy. John Cormier, Dean of COP, anticipates a need of some 40000-50000 SF a space that will include lecture hall, classroom, and offices, a vivarium and research space. We are presently looking at a rehab for Goddard Hall as well as a new building addition and additional parking for the project.

We anticipate that funding for the project will be from gifts, grants, and from a borrowing from the Maine Health and Higher Education Authority (MHHEFA). We expect to begin discussions with MHHEFA in the next couple of weeks after we complete our Fiscal Year 2007 audited financials.

Any questions please let me know.

Bernard G. Chretien  
Vice President for Business and Finance

SECTION 6

SANITARY WASTEWATER DISPOSAL

Wastewater Disposal:

The campus is currently served by the City of Portland municipal sewer system. A letter to the Department of Public Works Engineering Department will be sent requesting a capacity to serve letter. The increase in the peak flow to the City system of 40 gpm is expected to have an insignificant impact on capacity.

**SECTION 7**

**WATER SUPPLY**

The campus is currently served by the water main located in Stevens Avenue. We will be requesting that Portland Water District provide us with a capacity to serve letter indicating the existing water main has the pressure and capacity to serve the project. Water usage estimates based on the conceptual design are 45 gpm for domestic peak and 750 gpm for fire suppression.

**SECTION 8**  
**TRAFFIC IMPACTS**

Projected enrollment figures indicate that the MDOT Traffic Movement threshold will be exceeded and a Traffic Movement Permit required. We recently met with the City Traffic Engineer and will be filing a Traffic Movement Permit Application under separate cover.

**SECTION 9**

**STORMWATER MANAGEMENT PLAN SUMMARY**

While stormwater management areas have been designated on the plans for the parking area, the design has not yet been completed. A pre-application meeting with the DEP will be necessary, prior to finalizing the design.

**SECTION 10**

**WETLANDS**

Wetlands were delineated in 2007 by Broadwater Environmental, Inc. The wetlands are shown on C-100 Existing Conditions Plan.



**SECTION 11**

**SOLID WASTE DISPOSAL AND RECYCLING**

The solid waste and recyclable products generated by the proposed project will be incorporated into the existing solid waste and recycling programs.

## Application for Traffic Movement Permit

### Project:

*College of Pharmacy  
University of New England  
Westbrook College Campus*

*716 Stevens Avenue  
Portland, Maine*

### Applicant:

University of New England  
11 Hills Beach Road  
Biddeford, Maine 04005

**December 21, 2007**

**SYTD**esign  
CONSULTANTS

**CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE**

P.O. Box 86A • 160 Longwoods Road • Cumberland, Maine 04021  
tel 207.829.6994 • fax 207.829.2231 • website [www.sytdesign.com](http://www.sytdesign.com)

**Principals**

Saucier, Thomas W., P.E.

Young, David W., P.E., P.L.S., Emeritus

Tubbs, Peter B., P.E., P.L.S.

Decker, W. Scott, P.E.

December 21, 2007

Shukria Wiar, Planner  
City of Portland Planning Division  
389 Congress Street  
Portland, Maine 04101-3509

**RE: Traffic Movement Permit Application  
College of Pharmacy  
University of New England - Westbrook College Campus  
716 Stevens Avenue  
Portland, Maine**

Dear Shukria:

On behalf of University of New England, SYTDDesign Consultants is pleased to submit three (3) copies of Sections 1-7 of a Traffic Movement Permit application for the referenced project. A check in the amount of \$1000 is enclosed for the application fee.

A Notice of Intent to File has been sent to the enclosed list of abutting property owners, Jennifer Paul of MDOT Region 1, and Tom Errico of Wilbur Smith Assoc. Said notice was also published in the *Portland Press Herald* on Friday December 14, 2007. A copy of this application has also been sent to Jennifer Paul and Tom Errico as well. Please contact us when a site meeting has been scheduled.

If you have any questions or comments or require additional information relative to the enclosed application, please contact me at (207) 829-6994 or [tsaucier@sytdesign.com](mailto:tsaucier@sytdesign.com).

Sincerely,

SYTDDesign Consultants



T.W. Saucier, P.E.  
Principal

cc: Tom Errico (one copy)  
MDOT (one copy)

## TABLE OF CONTENTS

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	Cover Letter
	Application Form
	Notice of intent to File
	Certification Form
	Letter of Authorization
	List of Abutters
1	Site Traffic Information
2	Traffic Accidents
3	Entrances & Exits with Site Plan and Survey
4	Evidence of Right, Title and Interest
5	Public/Private Rights of Way
6	Project Schedule
7	Pre & Post-Development LOS Analysis

Department of Transportation  
Traffic Engineering Division  
16 State House Station  
Augusta, Maine 04333  
Telephone: 207-287-3775

FOR MDOT USE 1/2000  
ID #

Total Fees:  
Date: Received

\*\*\*\*\*

**PERMIT APPLICATION - TRAFFIC  
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. § 704 - A**

**Please type or print:**

This application is for:

Traffic 100-200 PCE's

Traffic 200+ PCE's

Name of Applicant: University of New England

Address: 11 Hills Beach Road, Biddeford, Maine 04005 Telephone: (207) 602-2253

Name of local contact or agent: Tom Saucier - SYTDesign Consultants

Address: P.O. Box 86A, Cumberland, Maine 04021

Telephone: (207) 829-6994

Name and type of development: Academic Building - College of Pharmacy

Location of development including road, street, or nearest route number: \_\_\_\_\_

716 Stevens Avenue

City/Town/Plantation: Portland, County: Cumberland, Tax Map # \_\_\_\_\_, Lot # \_\_\_\_\_ (see Table A which follows)

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)?

Yes  No

Was this development started prior to obtaining a traffic permit?  No \_\_\_\_\_

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30 - A, chapter 187)? Yes  No

Is this project located within a compact area of an urban compact municipality? Yes  No

Is this development or any portion of the site currently subject to state or municipal enforcement action?

No \_\_\_\_\_

Existing DEP or MDOT permit number (if applicable):

\_\_\_\_\_  
Name(s) of DOT staff person(s) contacted concerning this application:

Jennifer Paul (MDOT)

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applications: NA

\_\_\_\_\_

University of New England – Westbrook College Campus

TABLE A

Subject Parcels:

Map/Lot

144A / 5,6,7,8,9

145A / 1,2,3,6,7,8,9,10

145B / 1,2,6,9,10,11,12,13,14,27,29,42,46

290A / 3

291A / 5,7

293C / 5

**NOTICE OF INTENT TO FILE**

Please take notice that

University of New England

is intending to file a Traffic Movement Permit application with the Maine Department of Transportation pursuant to the provisions of 23 M.R.S.A. § 704 - A on or about

December 21, 2007

The application is for the construction of a four story classroom building of approximately 46,000 gsf to accommodate a new College of Pharmacy. An estimated peak hour trip generation of 63 trips has been calculated for this project. The project, if approved, is expected to be complete in 2009.

At the following location:

University of New England  
Westbrook College Campus  
716 Stevens Avenue  
Portland, Maine

A request for a public hearing must be received by the Department, in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. Public comments on the application will be accepted throughout the processing of the application.

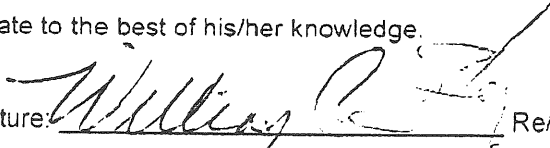
The application will be filed for public inspection at the municipal offices in Portland, Maine. A copy of the application may also be seen at the Department of Transportation Division office in Scarborough.

Written public comments may be sent to the Department of Transportation, Traffic Engineering Division, 16 State House Station, Augusta, Maine 04333.

1/2000

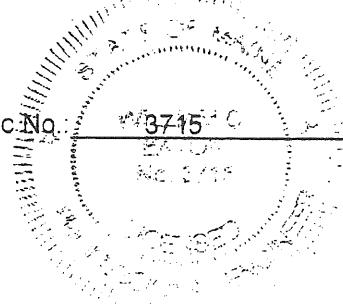
### CERTIFICATION

The traffic engineer responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the application for traffic approval is complete and accurate to the best of his/her knowledge.

Signature:  Re/Cert/Lic No: 3715

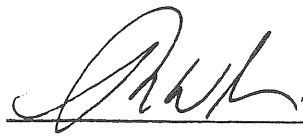
Name (print): William C. Eaton, P.E.

Date: 11/29/87



If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."



Signature of applicant

12/17/07

Date



University of  
**NEW ENGLAND**

July 27, 2007

Mr. Tom Saucier  
SYTDesign Consultants  
P.O. Box 86A  
160 Longwoods Road  
Cumberland, ME 04021

TO WHOM IT MAY CONCERN:

This letter authorizes Tom Saucier to serve as an agent for University of New England for the purpose of permitting the Integration of the College of Pharmacy onto the University of New England's Westbrook College Campus in Portland Maine.

Sincerely,



Bernard G. Chretien  
VP for Business and Finance

LIST OF ABUTTERS

<u>Parcel ID</u> <u>(Tax Chart-Block-Lot)</u>	<u>Property Location</u>	<u>Property Owner &amp; Mailing Address</u>
144-A-1, 145-A-5, 290-A-1 & 291-A-6 (lead parcel is 143-A-1)	Evergreen Cemetery	CITY OF PORTLAND 389 CONGRESS ST PORTLAND ME 04101
144-D-2 (lead parcel is 143-A-32)	671 Stevens Ave	ROMAN CATHOLIC BISHOP OF PORTLAND PO BOX 11559 PORTLAND ME 04104
144-D-3	695 Stevens Ave	ROMAN CATHOLIC BISHOP OF PORTLAND PO BOX 11559 PORTLAND ME 04104
145-A-4	74 College St	MACDONALD JAMES E 74 COLLEGE ST PORTLAND ME 04103
145-B-7	33 College St	FULLER MARGERY F 777 STEVENS AVE APT 616 PORTLAND ME 04103
145-B-8	37 College St	FULLER MARGERY F 777 STEVENS AVE APT 616 PORTLAND ME 04103
145-B-18	760 Stevens Ave	STATE OF MAINE AUGUSTA ME 04333
145-B-25	Mayfield St	VANCE JOHN B 393 WARREN AVE PORTLAND ME 04103

145-B-32	Mayfield St.	SMALL SUSAN S & ELLEN STANLEY & JEFFREY M SMALL 24 CYPRESS ST PORTLAND ME 04103
146-A-1	703 Stevens Ave	TUFANKJIAN HAIG N & KATHERINE KILCULLEN JTS 703 STEVENS AVE PORTLAND ME 04103
146-A-2	713 Stevens Ave	PARKER GERTRUDE G WID WWII VET & ARTHUR E PARKER & KARL D PARKER & JUDITH AREIDT-PARKER 713 STEVENS AVE
146-A-3	717 Stevens Ave	CHILDREN'S CENTER THE 721 STEVENS AVE PORTLAND ME 04103
146-B-1	735 Stevens Ave	LEMIEUX LOUIS N JR VN VET & THERESE M JTS 735 STEVENS AVE PORTLAND ME 04103
146-B-2	741 Steven Ave	MORRILL DENNIS S 741 STEVENS AVE PORTLAND ME 04103
146-B-26	751 Stevens Ave	DALTON E SCOTT & BETH JTS 751 STEVENS AVE # 2 PORTLAND ME 04103
146-B-29	743 Stevens Ave	LINSCOTT JOHN H KW VET & JUDY BECK LINSCOTT JTS 743 STEVENS AVE PORTLAND ME 04103
146-C-5	25 Poland St	HOME FOR THE AGED 777 STEVENS AVE PORTLAND ME 04103

290-A-2	84 College St	CITY OF PORTLAND 389 CONGRESS ST PORTLAND ME 04101
291-A-1 (lead parcel is 281-A-3)	Bishop St	PIKE INDUSTRIES INC 145 RIVER RD LEWISTON ME 04240
291-A-2 & 293-A-15	121 Bishop St	WJG LLC 3 CONGRESSIONAL DR FALMOUTH ME 04105
291-A-9 (lead parcel is 278-A-5)	250 Warren Ave	CENTRAL MAINE POWER CO LAND MANAGEMENT DEPT 83 EDISON DR AUGUSTA ME 04336
293-C-1	102 Bishop St	DEERING LODGE BUILDING CORP 651 FOREST AVE PORTLAND ME 04101
293-C-2	78 Bishop St	DIXON WILLIAM F & J WESLEY WRIGHT JR 1170 FOREST AVE PORTLAND ME 04103
293-C-3	74 Bishop St	DIXON WILLIAM F & J WESLEY WRIGHT JR 1170 FOREST AVE PORTLAND ME 04103
293-C-4	50 Bishop St	BISHOP STREET LLC & NORTHERN SKY DEVELOPMENT 29 LUNT RD FREEPORT ME 04032
293-C-9	11 Mayfield St	AUD GEORGE R & CHRISTOPHER M PORTER JTS 11 MAYFIELD ST PORTLAND ME 04103

293-C-10	17 Mayfield St	CASS JESSICA & TYLER CASS JTS 17 MAYFIELD ST PORTLAND ME 04103
293-C-11	21 Mayfield St	THISTLE MARK E 10296 FLORENCE AVE BUENA PARK CA 90620
293-C-12	29 Mayfield St	SMALL SUSAN S & ELLEN STANLEY & JEFFREY M SMALL 24 CYPRESS ST PORTLAND ME 04103
293-C-16	116 Bishop St	CENTRAL MAINE POWER CO LAND MANAGEMENT DEPT 83 EDISON DR AUGUSTA ME 04336

## Section 1

### Site and Traffic Information

#### 1.0 Overview

SYTDesign Consultants and Eaton Traffic Engineering have been retained to prepare plans and permit applications for the proposed University of New England College of Pharmacy to be located on the existing Westbrook College campus on Stevens Avenue in Portland, Maine. The development will consist of the construction of a 46,380gsf building with. Access to the site will be provided via the existing access points on Stevens Avenue – College Street and the UNE South Entrance drive.

#### 1.1 Site Description

The site is located on the westerly side of Stevens Avenue just north of Walton Street (see Figure 1). The 42 acre UNE Westbrook College Campus is relatively level and partially wooded. The proposed building will be located on the parcel of land bounded by College Street, Evergreen Cemetery, and Stevens Avenue.

#### 1.2 Existing and Proposed Uses

The project site is currently occupied by the UNE Westbrook College Campus. The proposed use is a 46,380gsf academic building with a footprint of approximately 12,000sf which will become part of the campus

#### 1.3 Site and Vicinity Boundaries

Figure 1, following this page, shows the project location and the vicinity of the site.

#### 1.4 Proposed Uses in Vicinity of the Proposed Development

The Applicant is aware that Morrill's Crossing at the intersection of Allen Avenue and Forest Avenue has been approved for development but has not yet begun construction.

#### 1.5 Trip Generation

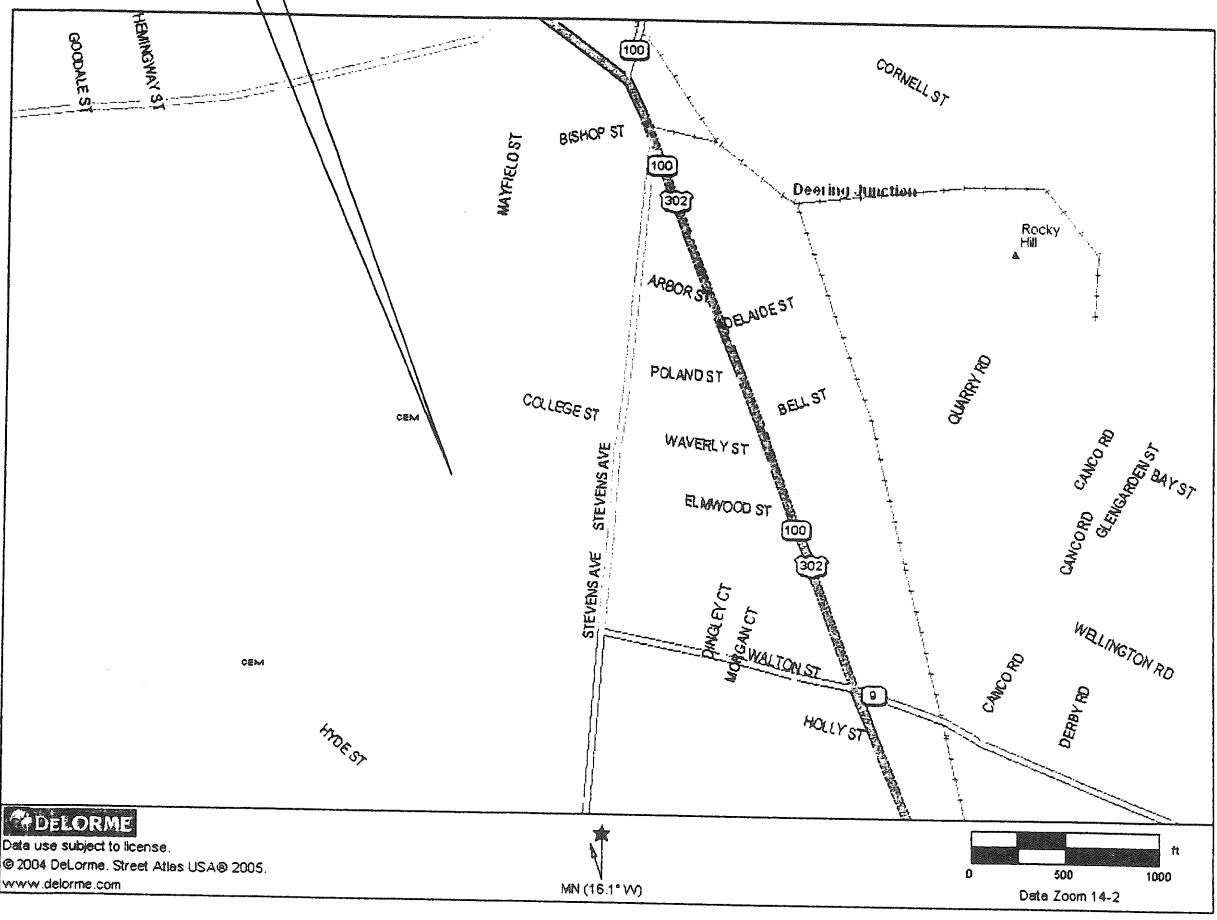
See Section 7 by Eaton Traffic Engineering.

#### 1.6 Trip Distribution and Assignment

See Section 7 by Eaton Traffic Engineering.



**SITE**



**DELORME**  
 Data use subject to license.  
 © 2004 DeLorme. Street Atlas USA © 2005.  
 www.delorme.com

MN (16.1" W)

0 500 1000 ft  
 Date Zoom 14-2

Figure 1  
 SITE LOCATION

**PROPOSED UNE COLLEGE OF PHARMACY / PORTLAND, MAINE**

**ete** EATON  
 TRAFFIC  
 ENGINEERING  
 67E Winter Street - Topsham, Maine  
 (207) 725-9805 Fax (207) 725-0847

## Site Generated Traffic

### Trip Generation

Trip generation for the proposed project was estimated using the publication Trip Generation – 7<sup>th</sup> Edition<sup>1</sup> for ITE land use code 550 “University/College”. The table below summarizes estimated trip generation based upon a total enrollment of 300 students (100 per year over a 3 year period).

Time Period	UNE College of Pharmacy 300 Students
Weekday (Daily)	714
AM Peak Hour (7-9 AM)	63
PM Peak Hour (4-6 PM)	63
AM Peak Hour (Generator)	60
PM Peak Hour (Generator)	72
Saturday (Daily)	390

The highest peak hour is the PM peak hour of the generator at 72 trips. However, this peak hour is likely to occur before the peak hour of the adjacent street (typically between 4:00 and 6:00 PM). Accordingly, the peak hour trip generation that occurs during the peak hour of the adjacent street (63 trips) will be used for analysis. Because a previous expansion of the UNE Westbrook College Campus occurred in 2002, which was estimated to generate approximately 70 PM peak

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<sup>1</sup> Institute of Transportation Engineers, 2003



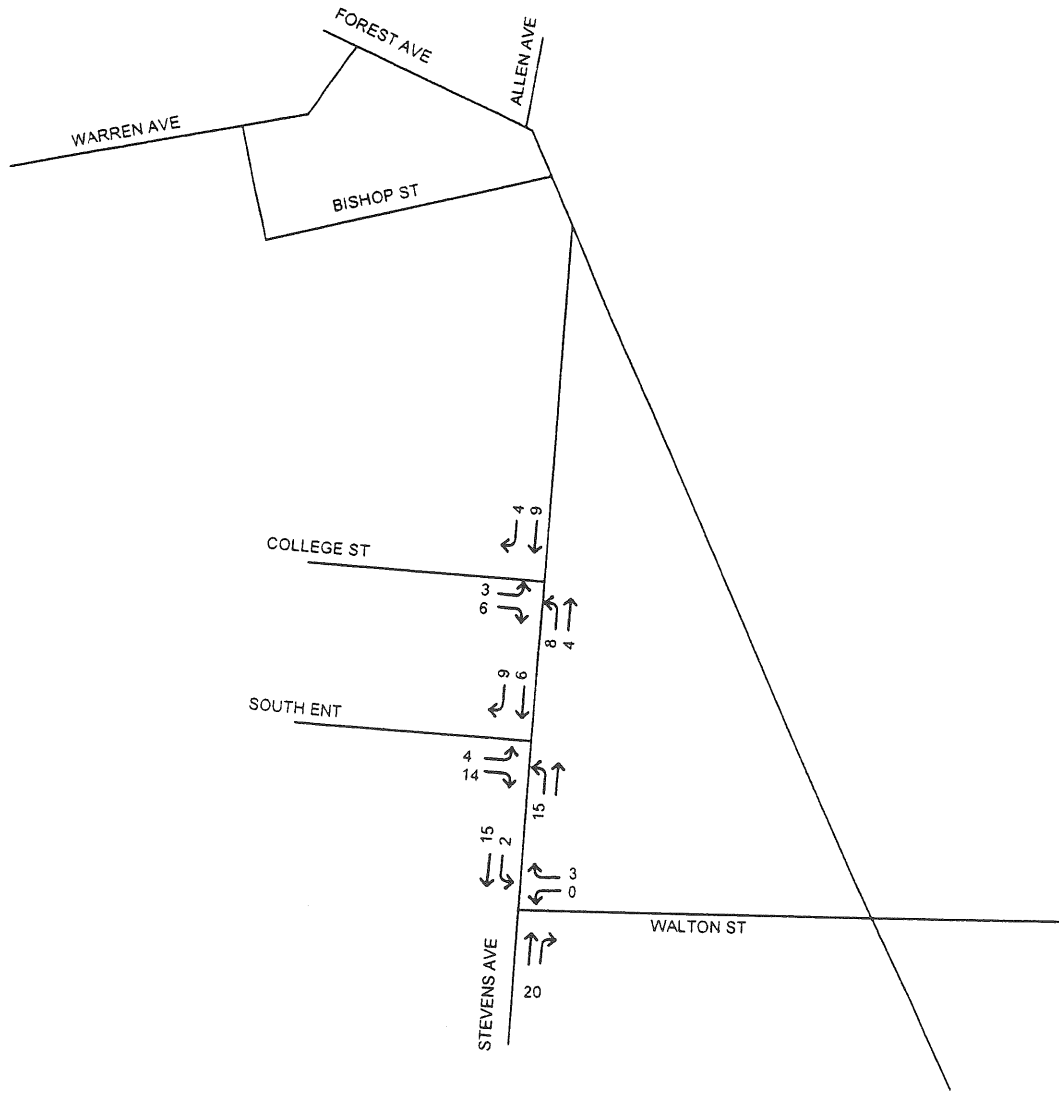
hour trips, the total new cumulative trip generation is in excess of 100 peak hour trips and an MDOT Traffic Movement Permit is required. Based upon the patterns observed from the manual traffic counts conducted at intersections in the vicinity of the site, 43 percent of site traffic enters and 57 percent exits. This differs from ITE statistics, which indicate a 30%/70% enter/exit split. Because it is best to rely on locally developed data, the 43%/57% enter/exit split will be used in this analysis.

### **Trip Distribution**

Base upon the manual traffic counts conducted at study area intersections, entering traffic is split 35% from the north and 65% from the south. Exiting traffic is 25% northbound and 75% southbound. These splits will be used to project the distribution of newly generated trips.

### **Trip Assignment**

Based upon the assumptions made above, Figure 2, at the end of this section, presents the assignment of newly generated trips in the vicinity of the site.



Not to Scale

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ENGINEERING

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Figure 2  
SITE GENERATED WEEKDAY PM PEAK HOUR TRAFFIC

**PROPOSED UNE COLLEGE OF PHARMACY / PORTLAND, MAINE**

Section 2  
Traffic Accidents

2.1 Accident Analysis

See Attachment by Eaton Traffic Engineering.

## Proposed UNE College of Pharmacy - Safety

Safety data for the most recent available 3 year period (2004-06) was obtained from the Accident Records Section of MDOT for roadways in the vicinity of the site. A summary of the accident history in the area is presented in the table below.

2004-06 Accident History in Site Vicinity

LOCATION	2004-06 ACCIDENTS	ANNUAL AVERAGE	CRITICAL RATE FACTOR <sup>1</sup>
Stevens Ave @ Arbor St	1	0.33	<1.00
Link	0	0	0
Stevens @ Poland St	1	0.33	<1.00
Link	0	0	0
Stevens @ Waverly	1	0.33	<1.00
Link	2	0.67	<1.00
Stevens @ Elmwood	0	0	0
Link	1	0.33	<1.00
Stevens @ St. Joseph	1	0.33	<1.00
Link	0	0	0
Stevens @ Walton	4	1.33	<1.00

MDOT guidelines for identification of a High Crash Location ( HCL - indicating a potential safety deficiency) is that a location must experience both 8 or more accidents in a 3 year period and have a Critical Rate Factor of 1.00 or greater. None of the locations above satisfy the criteria.

<sup>1</sup> The Critical Rate Factor is a statistical measure which compares the accident frequency at a location to similar locations throughout the State. A Critical Rate Factor of 1.00 or greater indicates that the location has a higher frequency of accidents than would be expected due to random occurrence, with a 99 percent level of confidence.

Section 4  
Title, Right or Interest

4.1 Title, Right or Interest

See Attached Documents:

The city of Portland has previously found that University of New England has demonstrated Title, Right or Interest to the subject property.

**Section 5**  
**Public or Private Rights of Way**

**5.1 Public/Private Rights of Way**

There are no new public or private rights of way created as a result of this project.

**Section 6**  
**Schedule**

**6.1 Schedule**

The current project schedule calls for an anticipated start of construction in February 2008 with a completion in March 2008. The facility is expected to reach full occupancy (300 students) by 2010.

## Section 7

### Pre- and Post-Development LOS Analysis – Revised January 2008

#### **Pre-Development PM Peak Hour Traffic**

Traffic impact analysis is typically performed for traffic conditions that occur during the weekday PM peak hour, as this is usually the time of heaviest traffic flow that occurs on a weekday. As part of the process of estimating weekday PM peak hour traffic volumes, manual traffic counts were conducted at the intersections of Stevens Avenue @ College Street (10/7/07) Stevens Avenue @ UNE South Entrance (11/26/07) and Stevens Avenue @ Walton Street (11/26/07) for the period 4:00 to 6:00 PM. Typically traffic volumes are adjusted to peak seasonal flows using MDOT adjustment factors and adjusted for “background” growth that would occur until the project is complete in 2010. In this case the “normal” mid-summer level volumes were not used to adjust the counts; rather the counts were adjusted to September levels since the facility is not in full operation in the summer. The October count was not adjusted at all (early October is similar to September); the November counts were increased by 7 percent to estimate September traffic levels. All counts were increased by 6 percent to reflect estimated background growth from 2007 to 2010 (2 percent annual growth). In addition, the PM peak hour traffic expected to be generated by the Morrill’s Crossing Development (not yet implemented) must be incorporated. Figure 3C presents the Morrill’s Crossing PM peak hour traffic. Figure 3D presents the estimated 2010 pre-development peak hour volumes.

#### **Post-Development PM Peak Hour Traffic Volumes**

Post-development weekday PM peak hour volumes are the combination of pre-development volumes presented in Figure 3D, and site generated traffic presented in Figure 2 (Revised figure attached showing site generated traffic in Morrill’s Corner per the request of the City of



Portland). Figure 4 presents projected 2010 weekday PM peak hour post-development traffic volumes.

### Operational Assessment Pre/ Post-Development Traffic Volumes

Capacity analysis was performed for the pre- and post-development PM peak hour traffic projections for the intersections in the study area using the procedures contained in the Highway Capacity Manual<sup>1</sup>. Capacity analysis provides a quantitative assessment of the quality of traffic flow at an intersection, and "rates" this quality in terms of its Level of Service (LOS). LOS ratings range from A to F, and much like a school rank card, A indicates very good conditions, and F indicates extremely congested conditions with long delays.

LOS for **signalized** intersections is based upon the average control delay for all vehicles using the intersection, which includes deceleration delay, stopped delay, queue move-up time and acceleration delay. The relationship between LOS and control delay is shown in the table below.

Signalized Intersection Level of Service Measures

Level of Service (LOS)	Control Delay Per Vehicle
A	≤ 10 Seconds
B	>10 - ≤ 20 Seconds
C	>20 - ≤ 35 Seconds
D	>35 - ≤ 55 Seconds
E	>55 - ≤ 80 Seconds
F	>80 Seconds

<sup>1</sup>, Highway Capacity Manual, HCM2000, Transportation Research Board, 2000

The results of the analysis for the signalized intersection of Stevens Avenue @ Walton Street are shown below.

Movement	Pre-Development		Post-Development	
	LOS	Delay (sec)	LOS	Delay (sec)
Walton WB	C	29.0	C	29.8
Stevens NBR	A	5.5	A	5.6
Stevens NBT	A	4.4	A	4.4
Stevens SBL	A	5.3	A	5.5
Stevens SBT	A	5.1	A	5.2
Overall	A	8.1	A	8.3

LOS for unsignalized intersections is also based upon average control delay, which takes into account the delay involved in entering a vehicle queue, waiting in a vehicle queue and start-up delay. The relationship between LOS and average total delay is shown below:

**Level of Service Measurement for Unsignalized Intersections**

Level of Service	Average Total Delay Per Vehicle
A	≤10 Seconds
B	>10 - ≤ 15 Seconds
C	>15 - ≤ 25 Seconds
D	>25 - ≤ 35 Seconds
E	>35 - ≤ 50 Seconds
F	> 50 Seconds

The results of the analysis of the unsignalized intersections in the study area are presented below.

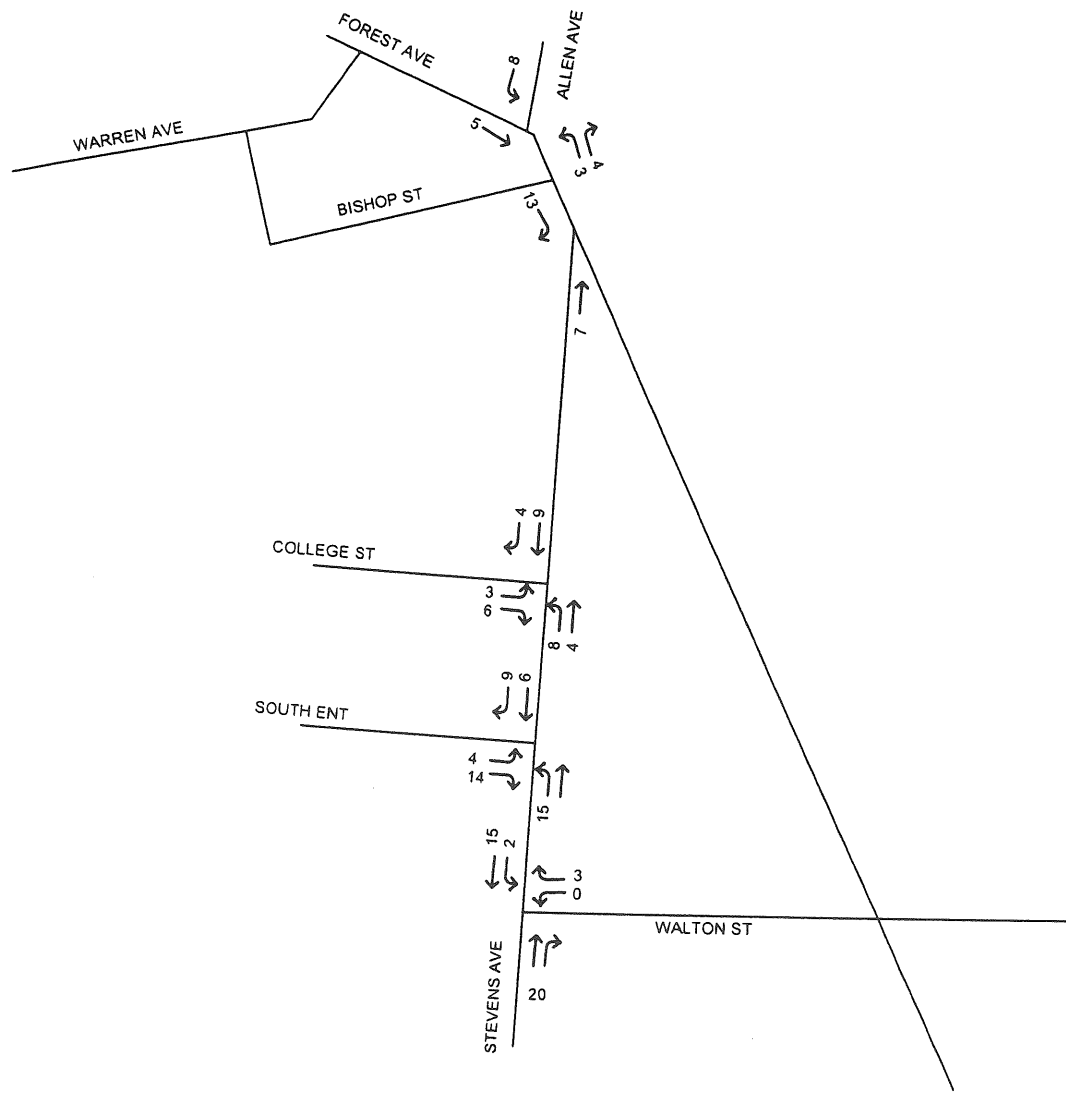
### Unsignalized Intersection Analysis

Movement	Pre-Development		Post-Development	
	LOS	Control Delay	LOS	Control Delay
Stevens Ave @ College Street				
Stevens Ave NBL	A	8.8	A	8.9
College St EB	C	19.1	C	21.6
Stevens Ave @ UNE South Entrance Drive				
Stevens Ave NBL	A	8.6	A	8.7
South Entrance EB	C	16.5	C	17.9

As can be seen in the tables above, there is minimal impact on the Level of Service for any of the movements at the study area intersections.

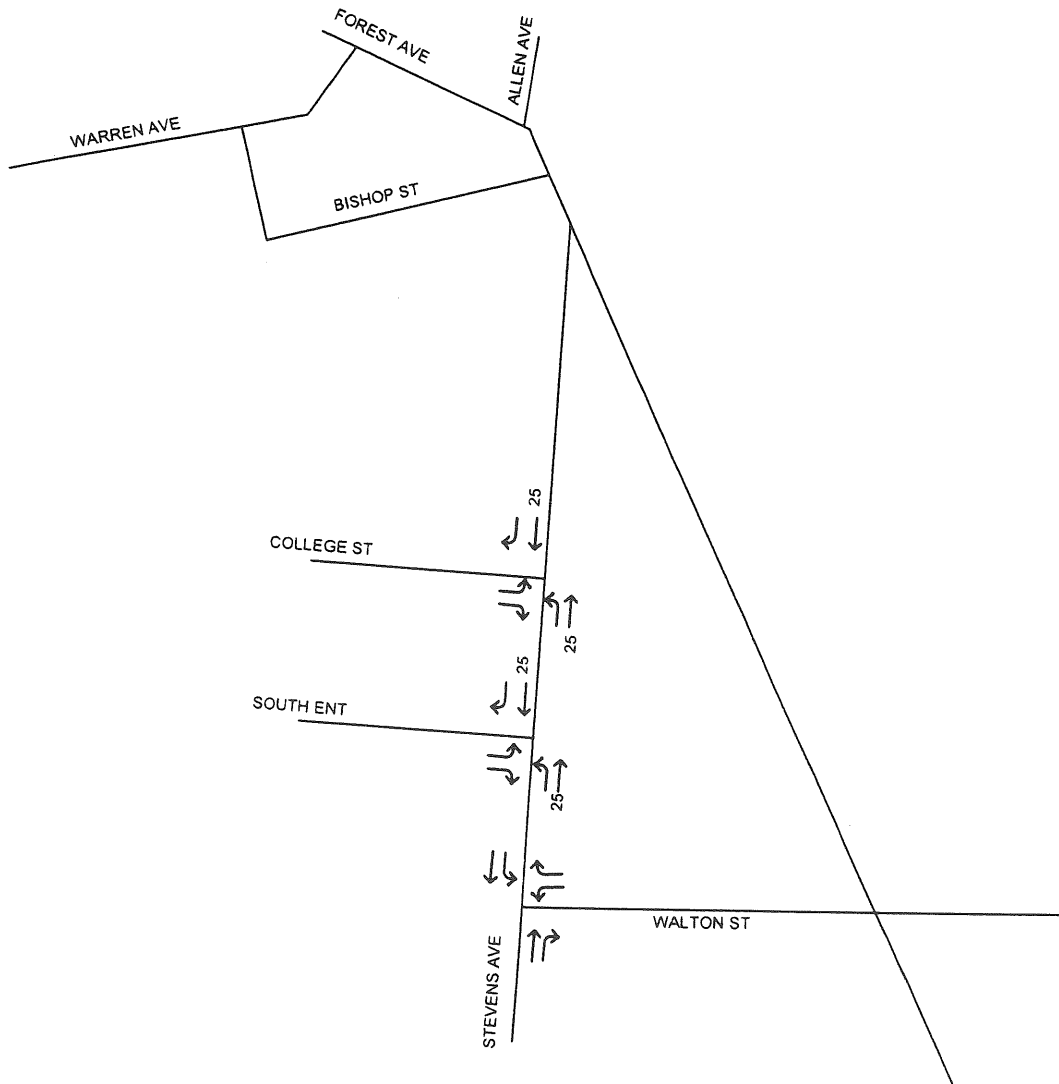
### Summary of Findings

The proposed development is projected to generate 63 net new vehicle trips during the PM peak hour - 36 entering and 27 exiting the site. The intersections of the Stevens Avenue with College Street, UNE South Entrance and Walton Street are expected to operate at satisfactory levels of service for both pre- and post-development traffic projections. There are no High Crash Locations in the immediate vicinity of the site, based upon 2004-06 accident data.



Not to Scale

Figure 2  
SITE GENERATED WEEKDAY PM PEAK HOUR TRAFFIC - EXPANDED 1/07  
PROPOSED UNE COLLEGE OF PHARMACY / PORTLAND, MAINE



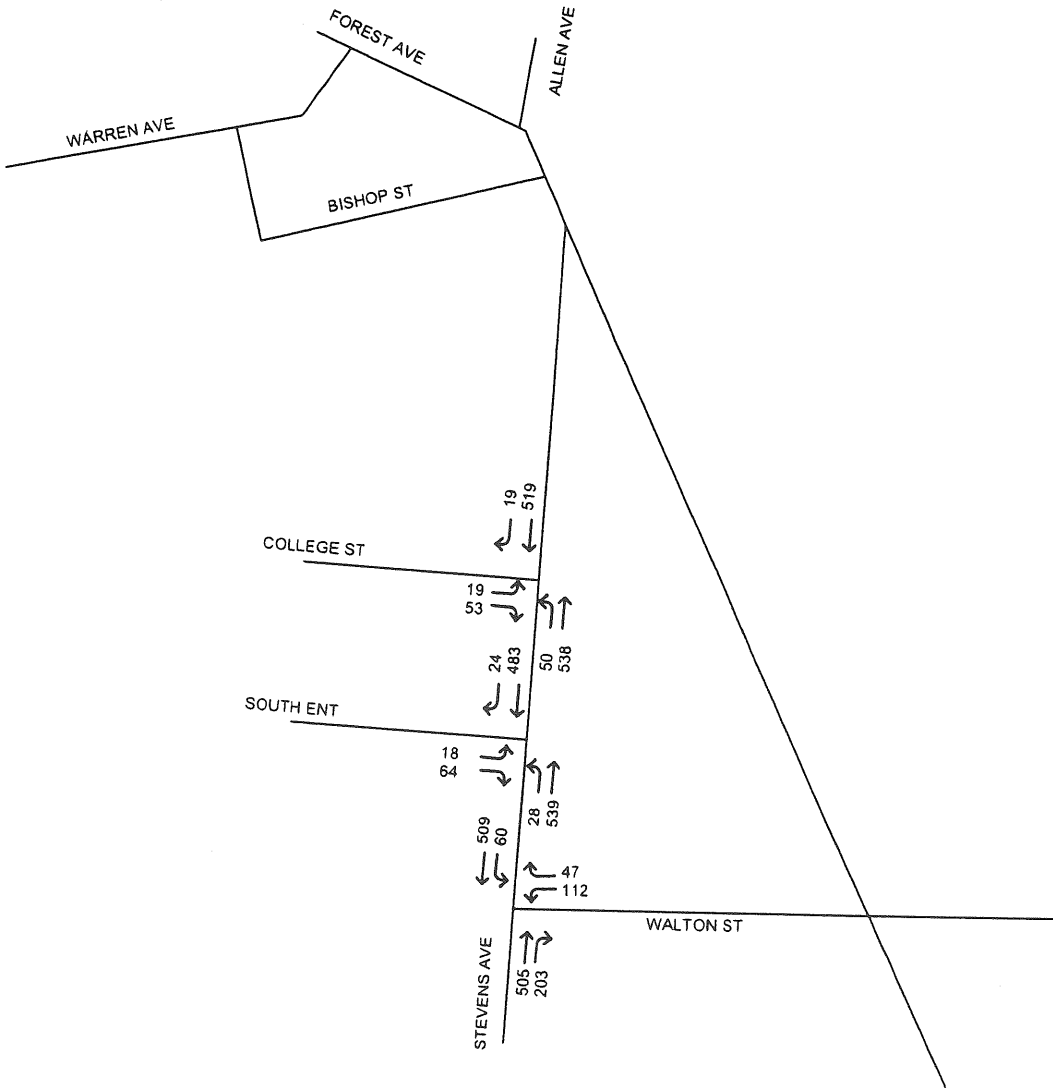
Not to Scale



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Figure 3C  
Morrill's Crossing PM Peak Hour Trips in Site Vicinity

**PROPOSED UNE COLLEGE OF PHARMACY / PORTLAND, MAINE**



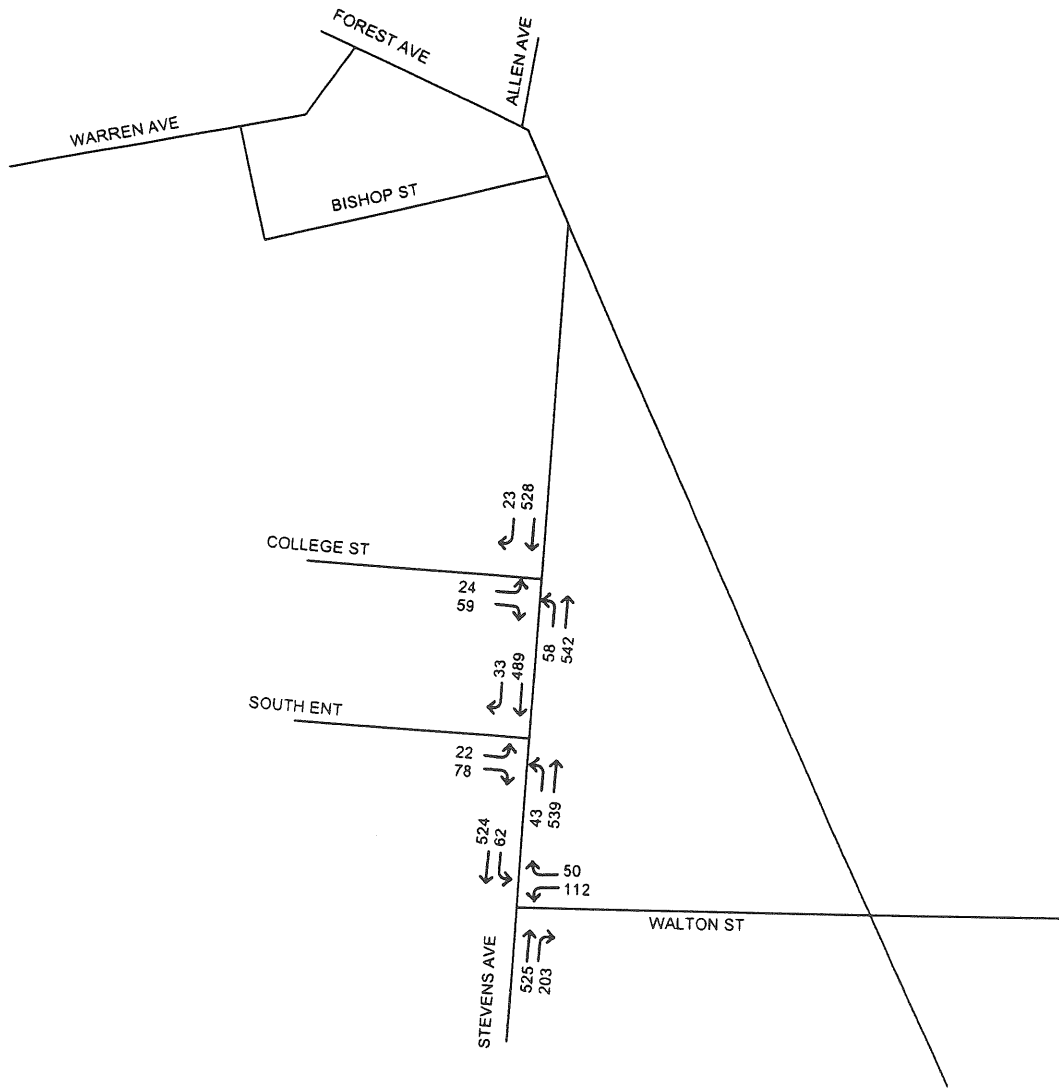
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Figure 3D  
Projected 2010 PM Peak Hour Volumes W/ Morrill's Crossing

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**PROPOSED UNE COLLEGE OF PHARMACY / PORTLAND, MAINE**



Not to Scale

Figure 4B

Projected 2020 PM Peak Hour Traffic - Post-Development W/Morrill's Crossing

**PROPOSED UNE COLLEGE OF PHARMACY / PORTLAND, MAINE**

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(207) 725-9805 Fax (207) 725-0847

TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>				<b>Site Information</b>				
Analyst	wce			Intersection	Stevens @ College			
Agency/Co.	ete			Jurisdiction	Portland			
Date Performed	11/27/2007			Analysis Year	2010			
Analysis Time Period	Weekday PM - Base							
Project Description <i>UNE College of Pharmacy</i>								
East/West Street: <i>College St</i>				North/South Street: <i>Stevens Ave</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	50	538	0	0	519	19		
Peak-Hour Factor, PHF	0.92	0.92	1.00	1.00	0.92	0.92		
Hourly Flow Rate, HFR	54	584	0	0	564	20		
Percent Heavy Vehicles	2	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
<b>Minor Street</b>	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	19	0	50		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.77	1.00	0.77		
Hourly Flow Rate, HFR	0	0	0	24	0	64		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
<b>Delay, Queue Length, and Level of Service</b>								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	54						88	
C (m) (vph)	991						342	
v/c	0.05						0.26	
95% queue length	0.17						1.01	
Control Delay	8.8						19.1	
LOS	A						C	
Approach Delay	--	--					19.1	
Approach LOS	--	--					C	



*HCS2000*<sup>TM</sup>

Version 4.1f

TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>				<b>Site Information</b>				
Analyst	wce			Intersection	Stevens @ College			
Agency/Co.	ete			Jurisdiction	Portland			
Date Performed	11/27/2007			Analysis Year	2010 w/Morrill's Crossing			
Analysis Time Period	Weekday PM - Build							
Project Description <i>UNE College of Pharmacy</i>								
East/West Street: <i>College St</i>				North/South Street: <i>Stevens Ave</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>		Northbound			Southbound			
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	58	542	0	0	528	23		
Peak-Hour Factor, PHF	0.92	0.92	1.00	1.00	0.92	0.92		
Hourly Flow Rate, HFR	63	589	0	0	573	24		
Percent Heavy Vehicles	2	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
<b>Minor Street</b>		Westbound			Eastbound			
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	24	0	59		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.77	1.00	0.77		
Hourly Flow Rate, HFR	0	0	0	31	0	76		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
<b>Delay, Queue Length, and Level of Service</b>								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	63						107	
C (m) (vph)	980						322	
v/c	0.06						0.33	
95% queue length	0.21						1.42	
Control Delay	8.9						21.6	
LOS	A						C	
Approach Delay	--	--					21.6	
Approach LOS	--	--					C	

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Version 4.1f

TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>				<b>Site Information</b>				
Analyst	wce			Intersection	Stevens @ South Entrance			
Agency/Co.	ete			Jurisdiction	Portland			
Date Performed	11/28/2007			Analysis Year	2010 W/Morrill's Xing			
Analysis Time Period	Weekday PM Peak - Base							
Project Description <i>UNE College of Pharmacy</i>								
East/West Street: <i>South Entrance</i>				North/South Street: <i>Stevens Ave</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	28	539	0	0	483	24		
Peak-Hour Factor, PHF	0.98	0.98			0.91	0.91		
Hourly Flow Rate, HFR	28	549	0	0	530	26		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
<b>Minor Street</b>	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	18	0	64		
Peak-Hour Factor, PHF				0.83		0.83		
Hourly Flow Rate, HFR	0	0	0	21	0	77		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
<b>Delay, Queue Length, and Level of Service</b>								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	28						98	
C (m) (vph)	1025						410	
v/c	0.03						0.24	
95% queue length	0.08						0.92	
Control Delay	8.6						16.5	
LOS	A						C	
Approach Delay	--	--					16.5	
Approach LOS	--	--					C	

TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>				<b>Site Information</b>				
Analyst	wce			Intersection	Stevens @ South Entrance			
Agency/Co.	ete			Jurisdiction	Portland			
Date Performed	11/28/2007			Analysis Year	2010 W/Morrill's Xing			
Analysis Time Period	Weekday PM Peak - Build							
Project Description UNE College of Pharmacy								
East/West Street: South Entrance				North/South Street: Stevens Ave				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	43	514	0	0	489	33		
Peak-Hour Factor, PHF	0.98	0.98			0.91	0.91		
Hourly Flow Rate, HFR	43	524	0	0	537	36		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
<b>Minor Street</b>	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	22	0	78		
Peak-Hour Factor, PHF				0.83		0.83		
Hourly Flow Rate, HFR	0	0	0	26	0	93		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
<b>Delay, Queue Length, and Level of Service</b>								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	43						119	
C (m) (vph)	1010						398	
v/c	0.04						0.30	
95% queue length	0.13						1.24	
Control Delay	8.7						17.9	
LOS	A						C	
Approach Delay	--	--					17.9	
Approach LOS	--	--					C	

Rights Reserved

HCS2000™

Version 4.1f

**HCS2000™ DETAILED REPORT**

**General Information**

Analyst *wce*  
 Agency or Co. *ete*  
 Date Performed *11/28/2007*  
 Time Period *Weekday PM Peak - Base*

**Site Information**

Intersection *Stevens @ Walton*  
 Area Type *All other areas*  
 Jurisdiction *Portland*  
 Analysis Year *2010 w/Morrill's Crossing*  
 Project ID *UNE College of Pharmacy*

**Volume and Timing Input**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N <sub>1</sub>	0	0	0	0	0	0	0	1	1	1	1	0
Lane group					LR			T	R	L	T	
Volume, V (vph)				112		47		505	203	60	509	
% Heavy vehicles, %HV				1		1		2	2	1	1	
Peak-hour factor, PHF				0.81		0.81		0.95	0.95	0.90	0.90	
Pretimed (P) or actuated (A)				A		A		A	A	A	A	
Start-up lost time, I <sub>1</sub>					2.0			2.0	2.0	2.0	2.0	
Extension of effective green, e					2.0			2.0	2.0	2.0	2.0	
Arrival type, AT					3			3	3	3	3	
Unit extension, UE					3.0			3.0	3.0	3.0	3.0	
Filtering/metering, I					1.000			1.000	1.000	1.000	1.000	
Initial unmet demand, Q <sub>b</sub>					0.0			0.0	0.0	0.0	0.0	
Ped / Bike / RTOR volumes	0			0		0	0		0			
Lane width					12.0			12.0	12.0	12.0	12.0	
Parking / Grade / Parking	N		N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N <sub>m</sub>												
Buses stopping, N <sub>B</sub>					0			0	0	0	0	
Min. time for pedestrians, G <sub>p</sub>		3.2			3.2			3.2				

Phasing	WB Only	02	03	04	NS Perm	SB Only	07	08
Timing	G = 10.1	G =	G =	G =	G = 38.9	G = 1.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 0	Y = 5	Y =	Y =

Duration of Analysis, T = 0.25      Cycle Length, C = 60.0

**Lane Group Capacity, Control Delay, and LOS Determination**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v					196			532	214	67	566	
Lane group capacity, c					294			1208	1026	542	1251	
v/c ratio, X					0.67			0.44	0.21	0.12	0.45	
Total green ratio, g/C					0.17			0.65	0.65	0.67	0.67	
Uniform delay, d <sub>1</sub>					23.4			5.2	4.3	5.2	4.8	

Progression factor, PF				1.000			1.000	1.000	1.000	1.000		
Delay calibration, k				0.24			0.11	0.11	0.11	0.11		
Incremental delay, $d_2$				5.7			0.3	0.1	0.1	0.3		
Initial queue delay, $d_3$		0.0		0.0			0.0	0.0	0.0	0.0		
Control delay				29.0			5.5	4.4	5.3	5.1		
Lane group LOS				C			A	A	A	A		
Approach delay				29.0				5.1				5.1
Approach LOS				C				A				A
Intersection delay	8.1		$X_c = 0.50$		Intersection LOS			A				



### HCS2000™ DETAILED REPORT

General Information				Site Information			
Analyst	wce	Agency or Co.	ete	Intersection	Stevens @ Walton		
Date Performed	11/28/2007	Area Type	All other areas				
Time Period	Weekday PM Peak - Build	Jurisdiction	Portland				
		Analysis Year	2010 W/Morrills Crossing				
		Project ID	UNE College of Pharmacy				

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N <sub>1</sub>	0	0	0	0	0	0	0	1	1	1	1	0
Lane group					LR			T	R	L	T	
Volume, V (vph)				112		50		525	203	62	524	
% Heavy vehicles, %HV				1		1		2	2	1	1	
Peak-hour factor, PHF				0.81		0.81		0.95	0.95	0.90	0.90	
Pretimed (P) or actuated (A)				A		A		A	A	A	A	
Start-up lost time, I <sub>1</sub>					2.0			2.0	2.0	2.0	2.0	
Extension of effective green, e					2.0			2.0	2.0	2.0	2.0	
Arrival type, AT					3			3	3	3	3	
Unit extension, UE					3.0			3.0	3.0	3.0	3.0	
Filtering/metering, I					1.000			1.000	1.000	1.000	1.000	
Initial unmet demand, Q <sub>b</sub>					0.0			0.0	0.0	0.0	0.0	
Ped / Bike / RTOR volumes	0			0		0	0		0			
Lane width					12.0			12.0	12.0	12.0	12.0	
Parking / Grade / Parking	N			N	N	0	N	N	0	N	N	0
Parking maneuvers, N <sub>m</sub>												
Buses stopping, N <sub>B</sub>					0			0	0	0	0	
Min. time for pedestrians, G <sub>p</sub>	3.2			3.2			3.2					
Phasing	WB Only	02	03	04	NS Perm	SB Only	07	08				
Timing	G = 10.1	G =	G =	G =	G = 38.9	G = 1.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 0	Y = 5	Y =	Y =				
Duration of Analysis, T = 0.25							Cycle Length, C = 60.0					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v					200			553	214	69	582	
Lane group capacity, c					293			1208	1026	525	1251	
v/c ratio, X					0.68			0.46	0.21	0.13	0.47	
Total green ratio, g/C					0.17			0.65	0.65	0.67	0.67	
Uniform delay, d <sub>1</sub>					23.4			5.3	4.3	5.4	4.9	

Progression factor, PF				1.000			1.000	1.000	1.000	1.000	
Delay calibration, k				0.25			0.11	0.11	0.11	0.11	
Incremental delay, $d_2$				6.4			0.3	0.1	0.1	0.3	
Initial queue delay, $d_3$		0.0		0.0			0.0	0.0	0.0	0.0	
Control delay				29.8			5.6	4.4	5.5	5.2	
Lane group LOS				C			A	A	A	A	
Approach delay				29.8				5.2			
Approach LOS				C				A			
Intersection delay	8.3		$X_c = 0.51$		Intersection LOS			A			

October 12, 2007

Ms. Shukria Wiar  
Planner  
Planning Division  
389 Congress St., Fourth Floor  
Portland, ME 04101

**RE: University of New England – College of Pharmacy  
Application #2007-0158; CBL 0144 A005001  
Additional Information**

Dear Shukria:

We have prepared the following plans and supporting documentation in response to your application review letter dated October 2, 2007. On behalf of University of New England (UNE), SYTDesign Consultants is pleased to submit one original and 6 copies of the following information for your review and comment.

- Capacity to serve letter from the Portland water District
- Letter from UNE expanding on Financial Capacity
- Construction Management Plan prepared by Allied/Cook Construction
- Occupant loading break down prepared by Port City Architecture
- Wetland Report
- Lighting Catalog Cut Sheets
- Associated Project Plans dated full size 24x36 and reduced 11x17 (not to scale)

C-100	Existing Conditions & Demolition Plan	rev A
C-101	Site Plan – Building	rev C
C-102	Grading, Drainage and Erosion Control Plan – Building	rev A
C-103	Site Utility Plan – Building	rev A
C-104	Landscape Plan – Building	rev A
C-105	Site Parking and Utility Layout Plan – Parking	rev A
C-106	Grading, Drainage and Erosion Control Plan – Parking	rev A
C-107	Landscape Plan – Parking	rev A
C-201	Access Road Grading Plan	rev A
C-300	Erosion and Sedimentation control Notes and Details	rev B
C-301	Site Details	rev B
C-302	Site Details	rev B
E-100	Photometric Site Plan – Parking Area	rev A
E-101	Photometric Site Plan – Entrance Drive	rev A
-	Architectural – East Elevation	-

- Architectural – North Elevation -
- Architectural – South Elevation -
- Architectural – West Elevation -
  
- Associated Project Plans –reduced 11x17 (not to scale)
  - Vicinity Plan -
  - A1.1 Lower Level Plan -
  - A1.2 First Floor Plan -
  - A1.3 Second Floor Plan -
  - A1.4 Third Floor Plan -

City of Portland Staff Comments are shown below in *italics*, our response to comments is in **bold**.

1. *A revised site plan showing the revised building location and proposed parking lot.*  
**Revised plans are included with this submission.**
  
2. *Lighting Plan showing location and intensity of outdoor lighting (a copy of Portland's technical standards for lighting is attached).*  
**Catalog cut sheets depicting the fixture style and a lighting photometric plan showing wattage, light type, mounting height and light intensity are included with this submittal**
  
3. *Landscaping Plan that shows both existing and proposed landscaping, which includes the type, quantity and size of plantings and any proposed techniques to preserve vegetation.*  
**A Landscape Plan is included with this submittal.**
  
4. *Utilities Plan that shows existing and proposed utilities, including fire hydrants. Please include details for water, sewer and storm drain structures and connections.*  
**A Utility Plan is included with this submittal.**
  
5. *Architectural Plans and Renderings (Colored).*  
**Architectural Plans are included with this submittal.**
  
6. *Floor Plans for the proposed building.*  
**Floor Plans, reduced copy 11x17 (not to scale) are included with this submittal**
  
7. *A delineation of wetlands boundaries prepared by a qualified professional shall be included on the plan. Submit copies of the wetland assessment, potential impacts and proposed mitigation including a narrative describing any unusual natural areas, wildlife and fisheries habitats, or archaeological sites located on or near the project site and methods to protect them.*  
**A wetland report is included with this submission.**
  
8. *Overview plans of the entire campus.*  
**Vicinity Map submitted with original Site Plan Review Application**

9. *Evidence of Financial and Technical Capacity. For other projects, we have received letters from financial institutions or a more detailed accounting of funding sources. We request more detail than what was provided in the initial application.*

**Additional financial capacity information is included with this submission.**

10. *Evidence of right, title and interest.*

**Deeds were previously submitted in Section 4 of the original Site Plan Review application.**

11. *A narrative of the estimated amount and type of recyclable material generated on-site, a description of how solid waste will be handled, and the location and screening of any solid waste disposal receptacles for the site.*

**No new waste containers are proposed on Pharmacy Building site. Solid waste and recyclable materials will be picked up utilizing the Universities existing collection system. A current estimate is eight additional yards per week.**

12. *Please submit water and sewer capacity to serve letter as you receive them.*

**A letter from the Portland Water District is included with this submittal. We have submitted a request for capacity to serve letter to the City's Engineering Department and have been in communication with Frank Brancely who will be reviewing our request. We anticipate hearing from Mr. Brancely in the very near future.**

13. Department of Public Works comments:

- a. *Construction Management Plan*

**A construction management plan prepared by Allied / Cook Construction is included.**

- b. *Updated site plans showing the new location of the building*

**Revised plans are included.**

- c. *Stormwater Plan including a narrative/ description of any problems of drainage*

**This statement hopefully addresses the more sketchy nature of the parking lot design also refer to plan C-106.**

**Review and approval of the stormwater management plan for the project by DEP is required. As a part of this process, a pre-application meeting with the DEP must be held. The stormwater management and drainage system design cannot be finalized until a pre-application meeting with the DEP has taken place. We are currently developing the information needed for submission to DEP to allow a meeting to be scheduled.**

**Since the existing building will be located on a currently paved parking lot, there will likely be no significant issues with regards to stormwater management for the building. The parking lot will be located on a currently vegetated area, and will require both stormwater quality enhancement and runoff control**

measures. Rather than finalize our design, prior to receiving input from DEP, we would prefer to wait for the meeting with DEP to take place. However, the following outlines our proposed concept; The proposed parking expansion for the UNE College of Pharmacology entails construction of an access road and parking lot resulting in approximately 190,000 SF of impervious area (net increase of 170,000 SF of impervious) and approximately 55,000 SF of landscaped stormwater Best Management Practices (BMPs) and revegetated disturbed areas. The new parking lot is graded to drain towards two bioretention cells located within the outward landscaped islands. Runoff from the paved surfaces will drain into these depressed stormwater management structures where treatment will be provided by the process of filtration through a soil media and nutrient uptake through the root zone of the plantings. The majority of the runoff entering the structures will infiltrate through the filter media and discharge via an underdrain system. Excess runoff entering the BMPs during storm events will overflow into ditch grate catch basins at the ends of the structures and discharge directly to the new storm drain system. The bioretention cells are sized in accordance with the State of Maine Stormwater BMP Manual and serve the dual purposes of stormwater treatment and landscape enhancement. For the access roadway portion of the project, stormwater treatment will be attained through the use of an underdrained filtration pond or Bioretention pond. The exact size and configuration of this structure will be decided based upon input from Maine DEP staff regarding the level and location of treatment required at the site.

Stormwater permitting will include meeting both the stormwater quality standards as well as the flooding standard. It is also possible that the project will be required to meet the Urban Impaired Stream Standard under Chapter 502 of the State Regulations. Capisic Brook is listed as an Urban Impaired Stream. The current hydrology of the project area consists of steep embankments which drain to a series of wetland pools, eventually entering the headwaters of the east branch of the Capisic Brook.

Ultimately, it is the DEP that will have to approve the stormwater management analysis for this project. We are in hopes that the information submitted, including grading, drainage and erosion control plans, and preliminary designs of stormwater management features, will allow the city to move forward with review of the parking portion of the project.

*d. Proposed Grading Plan*

**Grading Plans are included with this submission.**

*e. Location of erosion control measures*

**Erosion control measures are shown on the revised plans.**

*f. The applicant has requested a waiver from the standard boundary survey requirements. The applicant should still confirm that the survey used for the*

*project coincides with approved City standards. The survey needs to be tied to the vertical datum of NGVD 1929. Also, the project needs to be tied to the Maine State Plane Coordinate System (2-zone projection), West Zone using the NAD 1983 (HARN) Datum and the U.S. Survey Foot as the unit of measure.*

**The Applicant/Owner has retained Colonial Survey to proceed with a boundary survey. We will confirm horizontal and vertical datum with the surveyor.**

14. Zoning Administrator comments:

- a. *There is a separate application to address a text zoning amendment concerning this proposal. This property is in an R-5 residential zone, which requires a conditional use appeal to the planning board for the college expansion of buildings and parking. Therefore zoning staff can not sign-off on R-5 zoning compliance at this time.*
- b. *The concept plans indicate that most of the R-5 zone requirements could be met (other than height). For a full review, complete floor plans needs to be submitted do a parking analysis.*

**Architectural floor plans, reduced copy (not to scale) are included with this submission.**

- c. *According to the Assessors Database, the property is in different names. Planning staff will look into how this affects right, title and interest.*

15. Fire Department comments:

- a. *Please provide details for Fire and EMS response. Fire lanes are required to be 16'. If apparatus is going to operate from these locations the width is 20'*  
**Stevens Avenue is within 40 feet of the building front and a 24 ft. wide entrance drive is within 30 feet of the south side.**

- b. *Fire dept. Checklist needs to be completed.*  
**Information required to complete the checklist should be complete within a week and we would anticipate submitting the checklist at that time.**

- c. *Please break down use groups per story.*  
**Occupancy Load break down has been prepared by Port City Architecture and is included with this submission.**

- d. *A standpipe is required for new buildings more than three stories in height.*  
**Remains to be determined.**

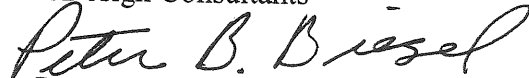
- e. *A Fire hydrant is required within 100' of this connection*  
**A fire hydrant is located along Stevens Avenue in front of the proposed building site.**

Ms. Shukria Wiar  
October 12, 2007  
Page 6 of 6

We look forward to meeting with the Planning Board to discuss the College of Pharmacy project. Please contact me with any questions or comments concerning these

Sincerely,

SYTDesign Consultants



*Peter B. Biesel*

For

T. W. Saucier, P.E.  
Principal

PBB/TWS

cc: Alan Thibeault, UNE  
Lita Semrau, Port City Architecture





Portland Water District

FROM SERAGO LAKE TO CASCO BAY

October 11, 2007

SYTDesign Consultants  
P.O. Box 86A  
160 Longwoods Road  
Cumberland, ME 04021

Attn: Peter Biegel, ASLA  
Re: UNE Westbrook College Campus - College of Pharmacy Building  
Ability to serve with PWD water

Dear Mr. Biegel:

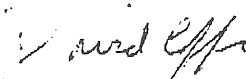
This letter is to confirm that there should be an adequate supply of clean and healthful water to serve the needs of the proposed College of Pharmacy at 716 Stevens Avenue in Portland. According to District records, there is a 12-inch water main on the west side of the street as well as a hydrant located adjacent to 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: West side of Stevens Ave., across from Elmwood St.  
Hydrant Number: POD-HYD01783  
Static Pressure: 47 psi  
Flow: 1034 gpm  
Last Tested: 07/10/1990

Please notify your mechanical engineer of these results so that they can design your system to best fit the noted conditions. If the District can be of further assistance in this matter, please let us know.

Sincerely,  
Portland Water District

  
David Coffin, P.L.S.  
Engineering Supervisor  
[dcoffin@pwd.org](mailto:dcoffin@pwd.org)





Office of Business and Finance

University of New England  
11 Hills Beach Rd.  
Biddeford, ME 04005

October 12, 2007

Re: College of Pharmacy Construction Project

To Whom It May Concern:

The University of New England is in the process of designing a facility on its Westbrook College Campus for the purpose of supporting a new College of Pharmacy. John Cormier, Dean of COP, anticipates a need of some 40000-50000 SF of space that will include lecture hall, classroom, teaching labs, offices, a vivarium and research space. We are presently looking at a stand alone building and additional parking for the project.

We anticipate that funding for the project will be from gifts, grants, and from a borrowing from the Maine Health and Higher Education Authority (MHHEFA). We have completed our Fiscal Year 2007 audited financials and are preparing a submission to MHHEFA. Our ongoing discussions with MHHEFA in this regard have been positively received and we anticipate having a commitment letter from them in November.

In addition to financing sought through MHHEFA for construction of the new College of Pharmacy, UNE is actively engaged in efforts to secure private and public support from a variety of sources. \$1.2 million has already been committed from two lead gifts, \$200,000 from the Libra Foundation, and a \$1 million pledge from the Hannaford Charitable Foundation. In collaboration with the Cities of Portland and Westbrook, UNE has applied for a \$2 million grant from the Economic Development Administration of the U.S. Department of Commerce through the Greater Portland Council of Governments. Pending the disposition of a November bond initiative, UNE plans to submit a request for significant state funding through the Maine Technology Institute. Private fund raising will continue even as public or MHHEFA financing is secured, through solicitations for naming opportunities to numerous individuals, foundations and corporations, including other retail pharmacies and pharmaceutical companies.

We look forward to providing you with a more detailed, substantive update in November and, as always, please do not hesitate to contact me should you have any questions.

Bernard G. Chretien  
Vice President for Business and Finance

# **ALLIED/COOK**

## **CONSTRUCTION**

Planners • Managers • Design/Builders  
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### **MEMORANDUM**

To: Peter Biegel, SYTDesign Consultants

From: John Brockington, Allied/Cook Construction

Date: October 11, 2007

Re: Construction Management Plan  
UNE – College of Pharmacy  
Portland, Maine

Cc: Matt Cook, Alan Thibeault, Lita Semrau

---

As requested, attached are the As-Planned Construction Schedule dated 9/26/07 and Staging Plan for the New College of Pharmacy Facility at the University of New England on Stevens Ave. in Portland.

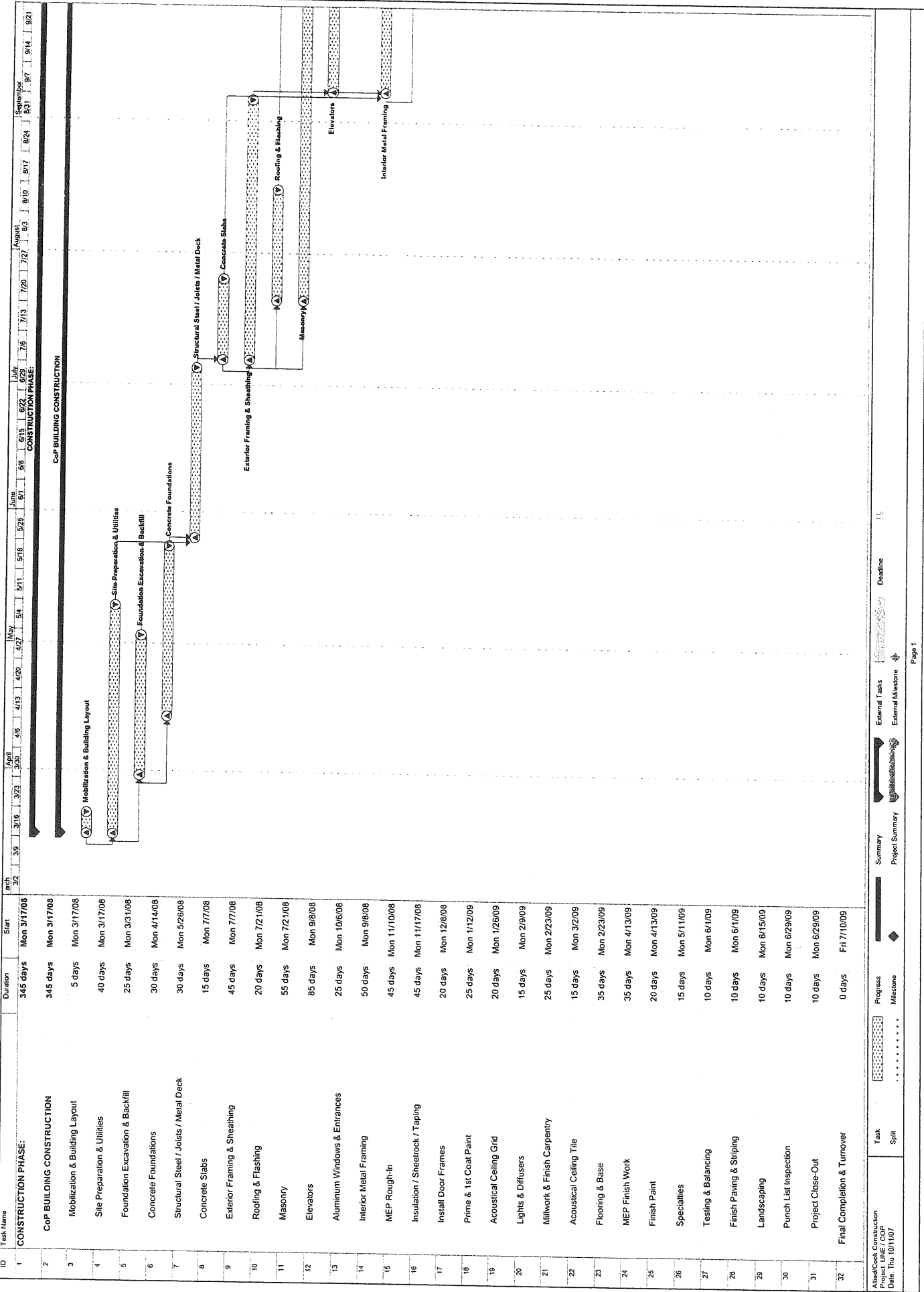
Specifically, we are planning to start construction, including excavation and foundations, beginning in March 2008 with the intent to have the major structural components of the building erected by July 2008. Underground site utilities and municipal connections will be done during this timeframe. Completion of the new facility is planned for July 2009 to facilitate occupancy prior to the Fall 2009 Academic Session.

Subsequent to the permitting and preconstruction meeting with the Portland Public Works Department, Allied/Cook Construction and its subcontractors will coordinate all work activities in the public right-of-way in a sequenced schedule. In addition, Allied/Cook Construction will coordinate on-site activities directly with the University of New England facilities and planning staff. These activities will include site safety, parking, material storage, crane, trucking and equipment access. A full time Project Superintendent will be assigned and responsible for coordinating all work on the construction site.

The Architect, Engineers, Special Inspector and testing agency, will perform regular inspections of all work to ensure conformance with the plans and specifications. Records will be maintained of all inspection and test reports as part of the project documentation.

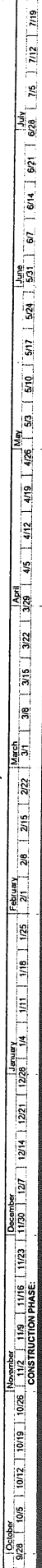
# UNIVERSITY OF NEW ENGLAND College of Pharmacy Building Portland, Maine

As Planned Construction Schedule  
As of 08/20/07

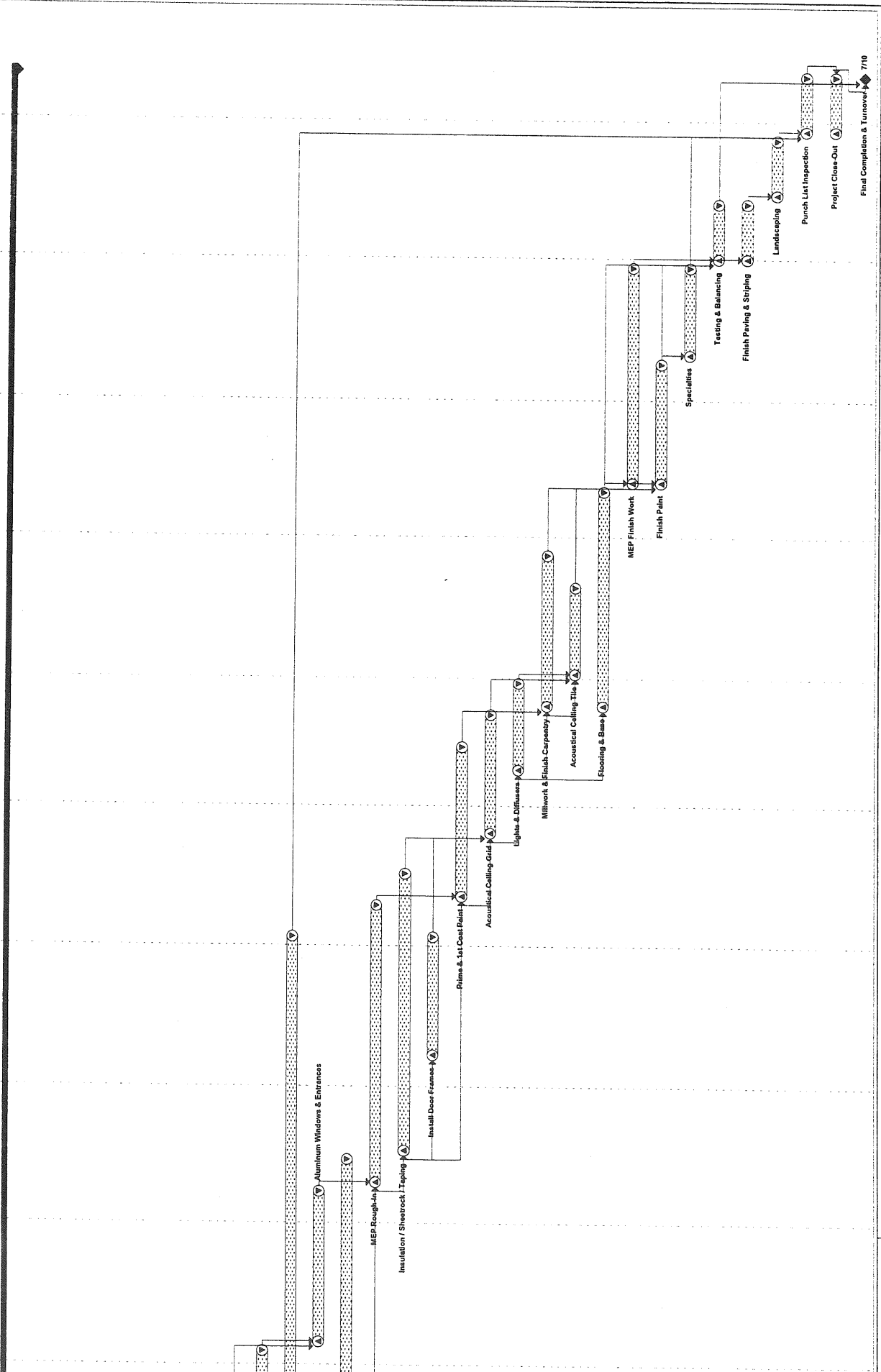


**UNIVERSITY OF NEW ENGLAND  
College of Pharmacy Building  
Portland, Maine**

As-Planned Construction Schedule  
As of: 09/26/07



CoP BUILDING CONSTRUCTION



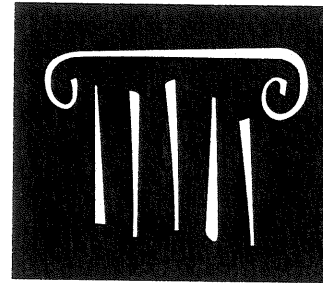
Allis/Cook Construction  
 Project: UNE / CoP  
 Date: Thu 10/11/07

Legend:  
 Task: [Solid Bar]  
 Split: [Dotted Bar]  
 Progress: [Dotted Bar]  
 Milestone: [Diamond]  
 Summary: [Thick Bar]  
 Project Summary: [Thick Bar]  
 External Tasks: [Dotted Bar]  
 External Milestone: [Diamond]

Page 2



University of New England  
College of Pharmacy  
October 12, 2007



**PORT ■ CITY**  
**ARCHITECTURE**

## Occupant Load

### Lower Level

Restricted Area – Mechanical / Vivarium		12
<b>Total</b>		<b>12</b>

### First Floor

Lecture Hall	number of seats	121
Conf. Room	20 sf gross / person	6
Student Area (Unconcentrated Assemb.)	15 sf net / person	71
Offices	# designed for	5
Teaching Lab (Shops/Labs)	50 sf net / person	44
<b>Total</b>		<b>247</b>

### Second Floor

Offices	# designed for	30
Drug Info (library)	50 sf gross / person	20
Conf. Room (classroom)	20 sf gross / person	17
Teaching Lab. (Shops/Labs)	50 sf gross / person	40
<b>Total</b>		<b>107</b>

### Third Floor

Offices	# designed for	10
Research Labs	# designed for	27
Conf. Room	20 sf gross / person	11
<b>Total</b>		<b>48</b>

<b>TOTAL for Building</b>		<b>414</b>
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**WETLAND DELINEATION REPORT FOR UNIVERSITY OF NEW ENGLAND  
PORTLAND, MAINE**

**MAY 2007**

Prepared for:  
SYTDesign Consultants, Inc.  
160 Longwoods Road  
Cumberland, Maine  
04021

Prepared by:  
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31 Wyoming Ave  
Portland, Maine  
04103



Wetland Delineation Report  
University of New England Portland, Maine  
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- Figure 1 Site Location Map
- Figure 2 Wetland Delineation Map

Attachments

- Attachment A – Photos
- Attachment B – Observation Plot Data Sheets

## 1.0 Introduction

SYTDesign Consultants, Inc. has been retained by the University of New England to evaluate a parcel of land associated with the Portland, Maine campus for potential expansion of the university. As part of this evaluation, SYTDesign Consultants, Inc. retained Broadwater Environmental, Inc. to conduct a wetland delineation and vernal pool survey on the parcel.

The purpose of this report is to provide the results of those surveys. The parcel surveyed is approximately 35 acres and its location is shown on Figure 1. Several wetland areas as well as other protected natural resources (i.e., streams) were found on the parcel.

The following report discusses the methodology and results of the wetland and vernal pool surveys.

## 2.0 Methodology

Fieldwork was initially conducted in February 2007. At that time wetland areas were flagged and surveyed with a differentially corrected Trimble Pro XR Global Positioning System (GPS) with sub-meter accuracy. Due to the time of year of the initial survey, a review of the wetland boundaries was completed in field in May 2007. At that time, additional wetland boundaries were located. The parcel and wetlands were also evaluated for characteristics of a vernal pools.

The methodology contained in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual (USACE, 1987) was used to complete the wetland delineation. Two observation plots pairs were completed in support of the delineation. The observation plot data sheets are contained in Attachment B.

## 3.0 Results

A number of wetland areas were identified on the parcel. They are discussed by area in the following narrative and the areas are shown on Figure 2.

**Wetland Area 1 and Open Water Area 1** - This wetland begins in the northeast portion of the site as a palustrine emergent wetland (PEM) (Cowardin, 1979) measuring approximately 18000 square feet (Photo 1). In this area, cattails (*Typha sp.*) and Blue flag (*Iris versicolor*) were identified as the dominant vegetation. Water in this wetland appears to be from surface water runoff. Water moves downgradient to the southwest and the wetland transitions into a Palustrine scrub-shrub (PSS) wetland dominated by Speckled alder (*Alnus rugosa*) (Photo 2). A stream channel becomes evident in the PSS wetland. The channel carries water to the southwest eventually into the large area of open water (Open Water Area 2).

Flow in the large open water area (Photo 3) is restricted at its outlet by the remnants of a retaining wall (Photo 4). The outlet of the large open water area empties into deeply

incised channel. Water is eventually passed under an old road to a perennial stream in Wetland Area 3.

The stream channel in Wetland Area 1 makes freshwater wetlands within 25 feet of the channel freshwater wetlands of special significance under Maine Department of Environmental Protection Chapter 310, Wetlands and Waterbodies Protection.

**Wetland Area 2** – This area is characterized as Palustrine forested (PFO) and PSS wetland with a deeply incised perennial stream that begins at a stormwater drain outfall and flows down along the northwest property boundary. Photo 5 shows wetland typical of Wetland Area 2 and Photo 6 shows the deeply incised stream channel. Vegetation includes Speckled alder (*Alnus rugosa*), Red maple (*Acer rubrum*), Jewel Weed (*Impatiens capensis*), Sensitive Fern (*Onoclea sensibilis*) and willow (*Salix sp.*).

The eastern most perennial stream in Wetland Area 3 eventually connects to this stream. The stream in Area 2 eventually exits the property on the west side. The water from Wetland Area 1 also empties into the eastern most perennial stream in Wetland Area 3, and flows with that water to the stream in Wetland Area 2. Wetlands within 25 feet of the stream channels are considered to be freshwater wetland of special significance.

**Wetland Area 3** – This area contains three perennial stream systems that emanate from the hillside on the west side of the south property boundary (Photo 7). Water for these streams is provided by springs on the hillside. Flow was apparent in both February and May in these streams. The two most western streams eventually merge and exit the property on its west side. Vegetation in wetlands along these streams include Sensitive fern (*Onoclea sensibilis*), Balsam fir (*Abies balsamea*) and Common winterberry (*Ilex verticillata*) Wetlands within 25 feet of the streams are freshwater wetlands of special significance under the Chapter 310.

There is also a small PFO wetland in the southwest corner of Wetland Area 3. This area is shown in Photo 8.

**Wetland Area 4** – Wetland Area 4 is a large PSS wetland that contains micro-channels that conduct surface water flow during wet periods of the year. The vegetation is largely Speckled alder (*Alnus rugosa*), Multiflora Rose (*Rosa multiflora*) and emergents (grasses, rushes) (Photo 9). Wetland Area 4 and 5 are connected hydraulically via culvert that passes water under a dirt road leading to a playing field from Wetland Area 5 to Wetland Area 4. A small drainage channel is present at the exit of the culvert. The channel eventually becomes unrecognizable in the southeast corner of Wetland Area 4. The playing field encompasses a large portion of the eastern side of the property.

The channel in this area does not appear to flow continuously for six months of the year but may be considered a stream by the Maine Department of Environmental Protection and should be reviewed with them prior to design or permit application submittal.

**Wetland Area 5** – This area contains a small forested wetland with a drainage channel that moves water to Wetland Area 4 via a culvert (Photo 10). Vegetation includes Speckled alder (*Alnus rugosa*), Red maple (*Acer rubrum*), and Sensitive fern (*Onoclea sensibilis*). The drainage channel likely does not flow continuously for more than 6 months of the year but the Maine Department of Environmental Protection may consider it a stream. An on-site review of this feature is recommended.

In addition, a long thin ditch-like feature is present along the south side of the playing field. This area was flagged as wetland as it appears to be un-maintained. Speckled alder (*Alnus rugosa*) dominates the ditch area (Photo 11).

**Open Water Area 2** - Open Water Area 2 measures approximately 240 feet by 40 feet (Photo 12 and 13). The area is a low point in the landscape with the road leading to the playing field to the south and a parking area associated with the Stevens Avenue Armory to the north. This wetland receives runoff from the armory and the campus. There was a notable amount of trash in this wetland at the time of the survey. Vegetation includes Green ash (*Fraxinus pennsylvanica*), and Speckled alder (*Alnus rugosa*).

The entire parcel was also evaluated for vernal pools, however, none were identified on the parcel.

It should also be noted that it is likely that wetlands were filled for the dirt roads and an old paved road on the west side of the parcel. There are extensive culverts under the roads. In addition, wetlands may have been previously filled when the playing field was built.

Two transects, each consisting of an upland and a wetland observation plot, were completed at the site to characterize the wetlands. One was completed in Wetland Area 3 and one was completed in Wetland Area 2. The locations of the transects are shown on Figure 2. Data sheets are presented in Attachment 2.

The MEDEP was consulted to identify any Significant Wildlife Habitat at the site. MDEP personnel checked the State Graphical Information System for threatened and endangered habitat as well as moderate to high value waterfowl habitat. No threatened or endangered species or significant habitat have been documented to occur at the site. Maine Natural Areas Program also conducted a database search for imperiled and critically imperiled natural communities and none were found in the area.

## Conclusions

The presence of wetlands and perennial streams on the parcel require consideration when planning any development on this parcel. Impacts to the freshwater wetland of special significance in Wetland Areas 1, 2, and 3 should be avoided, if possible. Impacts to freshwater wetlands of special significance, if permitted at all, require a higher compensation ratio that will result in higher development costs.

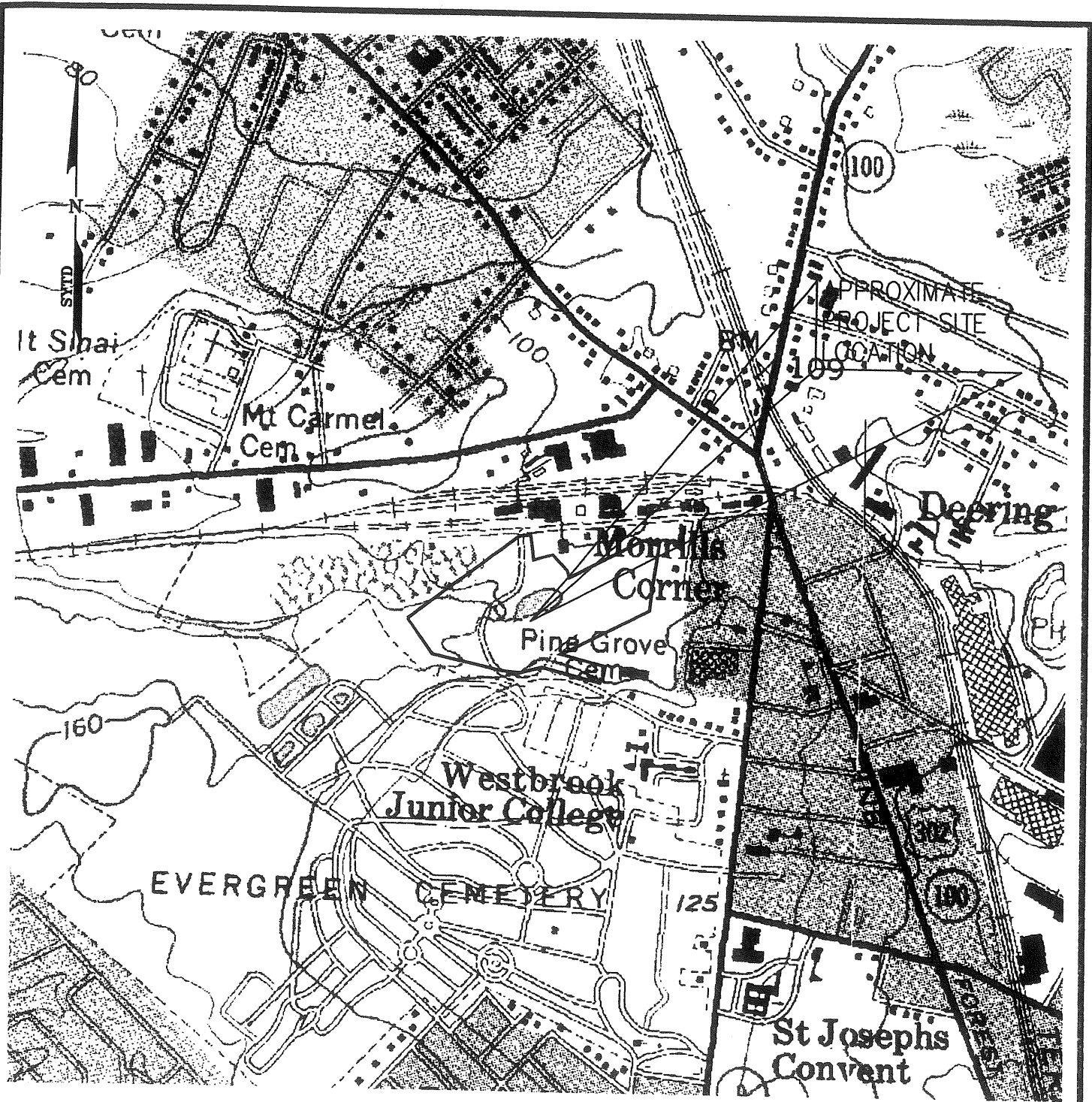
Once a plan of the property development is completed, it is recommended that the MEDEP be consulted by conducting a pre-application meeting. The meeting should include a site walkover. Prior to the meeting, a conceptual plan to compensate for any wetland impacts should be developed so it can be conveyed to the MEDEP at the meeting.

**References**

Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T., 1979 (Cowardin, 1979).  
Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish  
and Wildlife Service Publication Number FWS/OBS-79/31.

Dept. of Army, 1987 (USACE, 1987). Corps of Engineers Wetlands Delineation Manual.  
Environmental Laboratory, Department of the Army. Waterways Experiment  
Station. Corp of Engineers. Technical Report Y-87-1. January, 1987.

**Figures**



SOURCE: U.S. DEPARTMENT OF THE INTERIOR, U.S. GEOLOGICAL SURVEY 7.5 MINUTE SERIES PORTLAND WEST, MAINE QUAD

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SYTDesign CONSULTANTS, ANY ALTERATIONS, OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SYTDesign CONSULTANTS.

**SYTDesign**  
CONSULTANTS

CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE

P.O. Box 86A  
160 Longwoods Road  
Cumberland, Maine 04021  
tel. 207.829.6994 fax. 207.829.2231

DESIGN	WTE
DRAWN	WTE
CHKD	

**UNIVERSITY OF NEW ENGLAND**  
PORTLAND, MAINE

**FIGURE 1**  
**LOCATION PLAN**

DATE MAY 2007

PROJ. NO.

07-21602

REV.

SCALE 1" = 1000'

DWG. NO.

SK-1



**Attachment A  
Photos**



Photo 1- Emergent wetland area in northeast corner of parcel.



Photo 2- The transition between emergent and scrub-shrub wetland.



Photo 3- Open Water Area 1 receive water from the stream in Area 1 and discharges to the perennial stream in Wetland Area 3.



Photo 4- Flow through an old retaining wall at the outlet of Open Water Area 2. The wall constricts flow.



Photo 5 – Wetland Area 3 is a mix of PFO and PSS wetlands.



Photo 6- A deeply incised stream is present in Wetland Area 2.



Photo 7- Perennial stream in Wetland Area 3.



Photo 8- Forested wetland in Wetland Area 3.





Photo 9- Wetland Area 4 from the dirt road to south.



Photo 10- Drainage channel from Wetland Area 5 to Wetland Area 4.



Photo 11- Ditch-like feature south of the playing field.



Photo 12- Open Water Area 2,

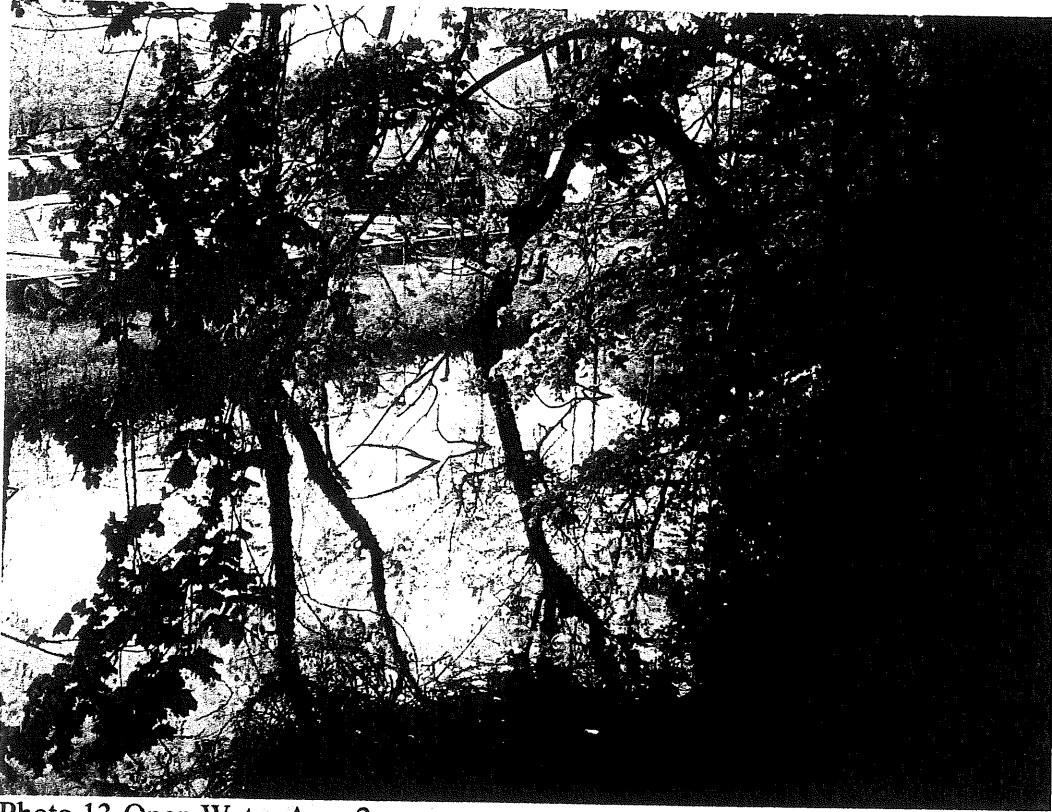


Photo 13-Open Water Area 2.



Photo 14- Upland plot at Transect 1.





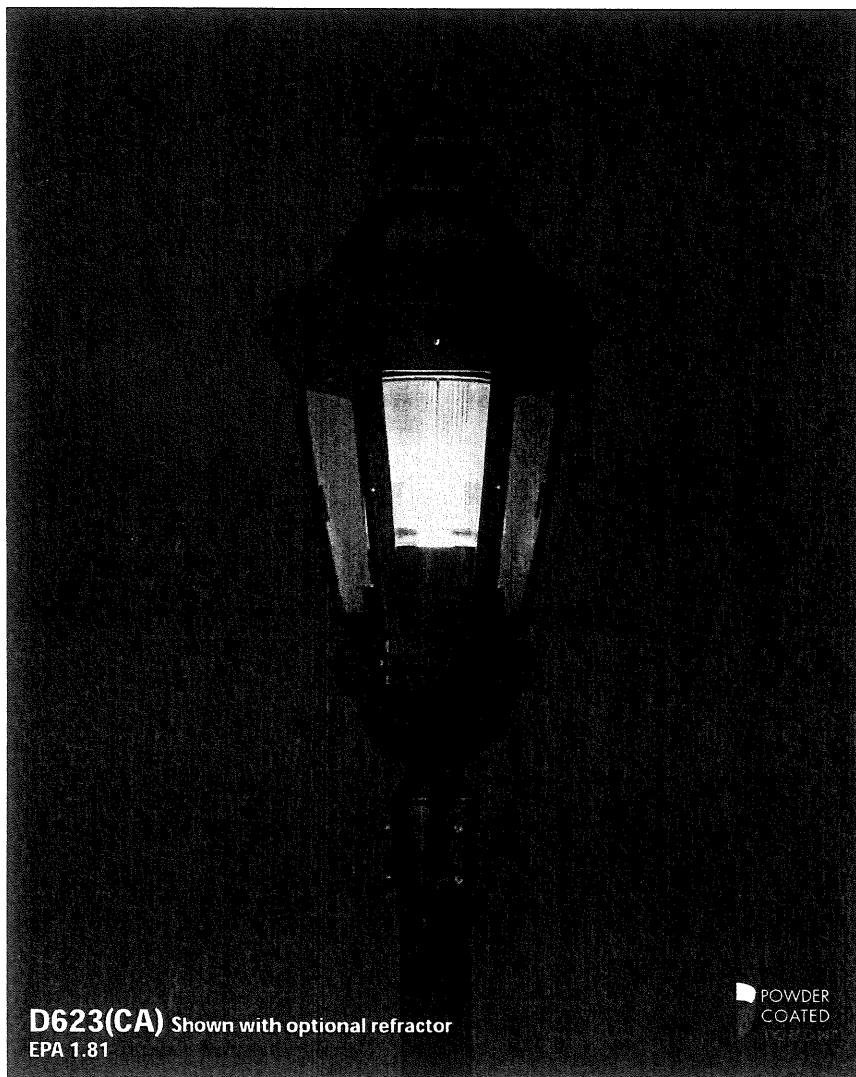
Photo 15-Wetland plot at Transect 1.



Photo 16-Upland plot at Transect 2.



Photo 17-Wetland Plot at Transect 2.

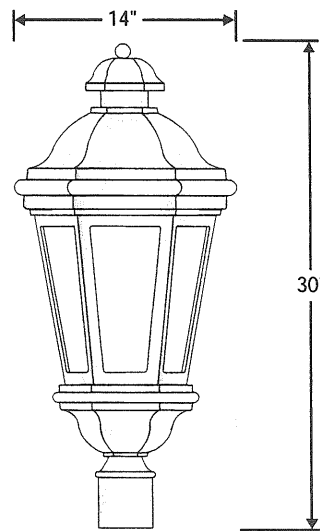


**D623(CA)** Shown with optional refractor  
EPA 1.81

POWDER  
COATED

**DESCRIPTION**

The **D623** Luminaire is a versatile 6 sided post top lantern that is best suited for poles under 10' in height. Prismatic (**PA**) or Textured Acrylic (**TA**) lenses are available for standard symmetrical light distribution, while clear lenses can be used with an optional Borosilicate glass refractor for IES Type III (**L3**) or Type V (**L5**) distribution.



**SPECIFICATIONS**

**MATERIALS**

The fixture base, cage, and cap, which enclose the ballast, are cast aluminum. All hardware is stainless steel, and exterior hardware is tamper resistant. Lenses are acrylic.

**FINISH**

The fixture will be finished with a premium quality thermoset polyester powdercoat for a durable finish.

Standard solid colors are:

- GRN** - Green
- WHT** - White
- CLB** - Classic Bronze

Premium finishes are:

- GTG** - Granite Green

- TBK** - Textured Black
- BLK** - Satin Black

- ATC** - Antique Copper

**INSTALLATION**

The luminaire will mount to a 3" OD post or tenon with (6) 5/16" socket set screws.

**ELECTRICAL**

The easily accessible ballast is a High Power Factor (HPF), core and coil type, pre-wired and tested. The glazed white porcelain socket will be medium base, 4KV pulse rated with a copper alloy nickel plated screw shell and center contact. All components are UL recognized and will be an integral part of the luminaire. The luminaire will carry an ETL label "Suitable for wet location".

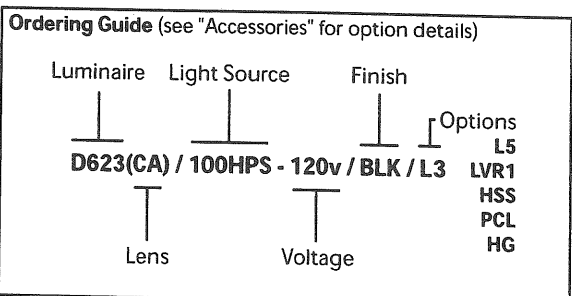
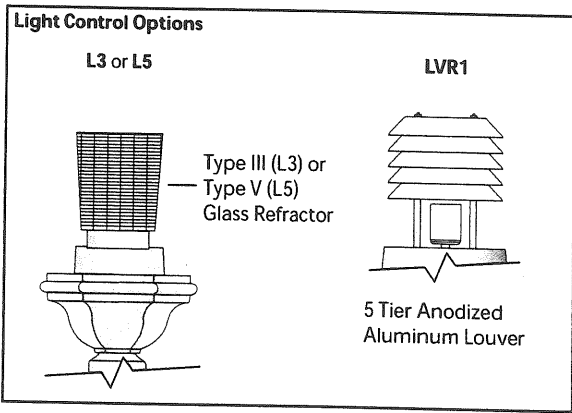
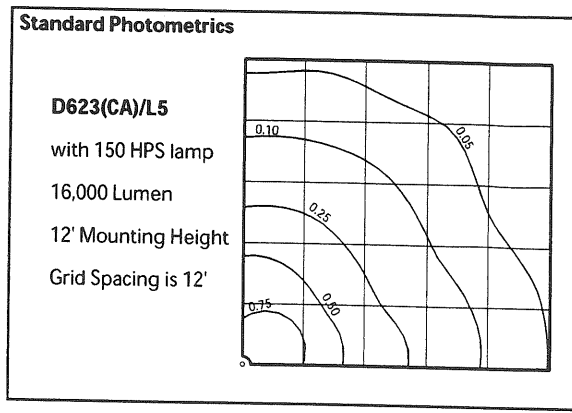
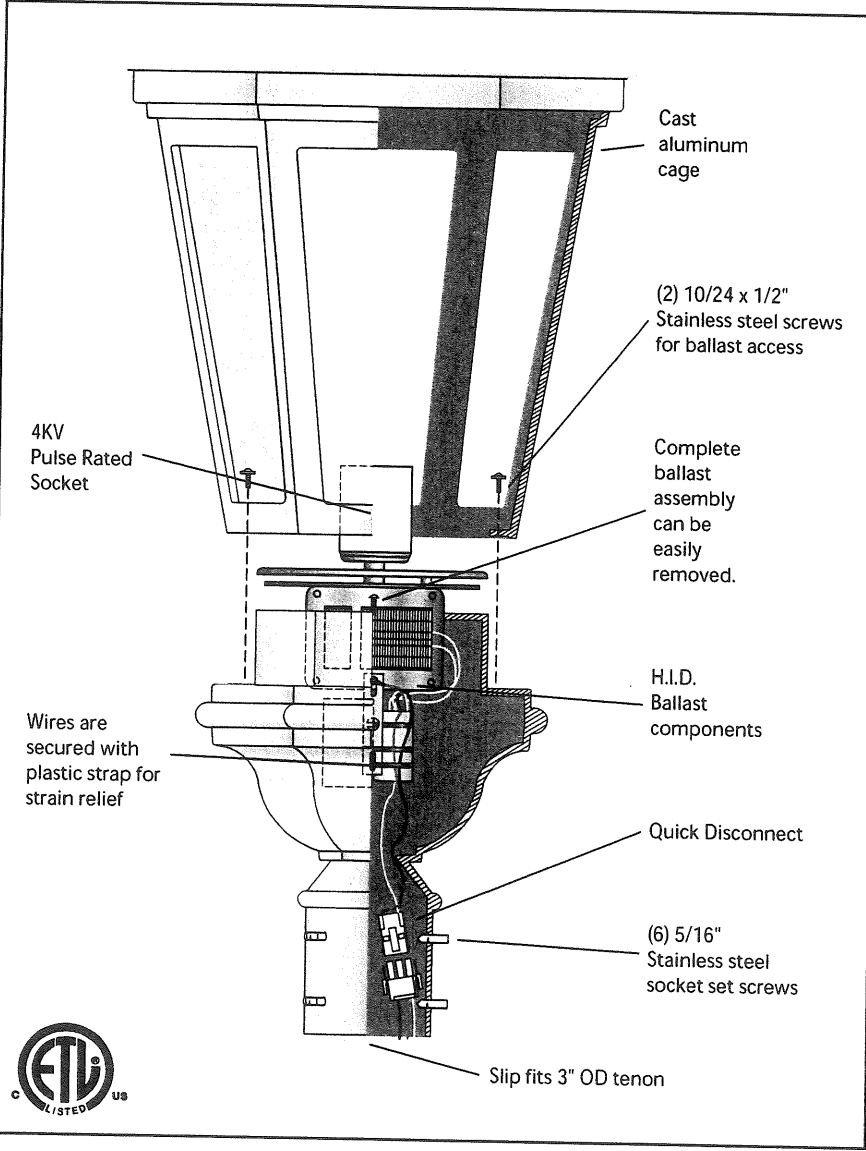
**LENSES**

- (TA)** - Textured Acrylic
- (PA)** - Prismatic Acrylic
- (CA)** - Clear Acrylic





# D623 LUMINAIRE



Order Code	Description	Voltage	Ballast Circuit Type	Min. Starting Temperature	Standard Socket
<b>50MH</b>	50 watt Metal Halide	<b>120,277</b>	HX	-20°F	Medium
<b>70MH</b>	70 watt Metal Halide	<b>120, 208, 240, 277</b>	HX	-20°F	Medium
<b>100MH</b>	100 watt Metal Halide	<b>120, 208, 240, 277</b>	HX	-20°F	Medium
<b>50HPS</b>	50 watt High Pressure Sodium	<b>120, 277</b>	R	-40°F	Medium
<b>70HPS</b>	70 watt High Pressure Sodium	<b>120, 208, 240, 277</b>	R	-40°F	Medium
<b>100HPS</b>	100 watt High Pressure Sodium	<b>120, 208, 240, 277</b>	R / HX*	-40°F	Medium
<b>150HPS</b>	150 watt High Pressure Sodium	<b>120</b>	R / HX*	-40°F	Medium
<b>PL-13 or (2)PL-13</b>	13 watt Compact Fluorescent	<b>120, 277</b>	MAGNETIC	20°F	2 - pin
<b>Q28</b>	28 watt Compact Fluorescent	<b>120, 277</b>	MAGNETIC	-20°F	2 - pin
<b>CFL 26, 32, or 42</b>	Compact Fluorescent	<b>120, 208, 240, 277</b>	ELECTRONIC	0°F	4 - pin

Ballast Circuit Type Codes: R - Reactor HX - High Reactance Autotransformer CWA - Constant Wattage Autotransformer (R / HX\* depends on voltage selected)  
480v is available on some ballasts. Contact factory for details.



4a

February 5, 2007

Shukria Wiar  
Division of Planning  
City of Portland  
389 Congress Street  
Portland, ME 04101

**RE: Site Plan Review**  
**University of New England College of Pharmacy**  
**716 Stevens Avenue**  
**Application #2007-0158; CBL 0144 A005001**

Dear Shukria:

Per our discussion with Staff and at the January 2008 Planning Board Meeting we have prepared documentation addressing the issues as listed in VI Motions For The Board To Consider section of your January 18, 2008 memorandum to the Planning Board. The numbering system used below corresponds to your memorandum.

**Conditional Use:**

1. The front entrance stair location has been revised to comply with the 30' setback requirement.
2. UNE agrees to a campus master planning process within two years and prior to any further site development requiring major site plan review by the Planning Board. The master plan will address transportation and parking.
3. Site lighting fixtures have been revised to utilize a cut-off option feature.

**Site Plan Ordinance:**

- i. Applicant is waiting for information from the Department of Public Works.
- ii. Applicant is waiting for information from the Department of Public Works.
- iii. Applicant agrees to perform a parking analysis/monitoring study every 6 months until a master plan addressing parking is in place.
- iv. See the attached parking analysis.
- v. See the attached parking analysis.
- vi. The plans have been revised to incorporate recommendations by the City Arborist.



- vii. Additional landscaping has been added along the north side of the building and the lawn area to the rear.
- viii. The light fixtures have been revised to utilize a cut-off option.

**Traffic:**

- i. A traffic plan is included with this submission.
- ii. A traffic plan is included with this submission.
- iii. Applicant has agreed to pay a mitigation fee. However, Applicant is waiting for information on formula used to calculate City proposed \$29,000 fee.

**Additional Comments:**

- 1. The Applicant will limit contractor parking during construction to the construction site and the ballfield, which has been taken off the rental list for the duration of construction. Contractors shall not be allowed to park in UNE spaces and are requested to not park on the street.

We have also included the following drawings (1 set of originals and 7 copies at full size and 1 copy at 11x17) with this submission:

Title	Drawing No.	Revision
Campus Vicinity Plan	-	-
Traffic Control Plan	-	A
Existing Conditions & Demolition Plan	C-100	H
Site Plan	C-101	I
Grading Drainage & Erosion Control	C-102	H
Site Utility Plan	C-103	H
Landscape Plan	C-104	H
Erosion & Sedimentation Control Details and Specifications	C-300	I
Site Details	C-301	J
Site Details	C-302	J
Site Details	C-303	I
First Floor	A1.2	-
Elevations	A3.1	-
Elevations	A3.2	-

We believe this information addresses the comments outlined in your January 18, 2008 memorandum as potential conditions of approval. If you have any questions or require additional information, please contact me.

Sincerely,



Tom W. Saucier, P.E.  
Principal

PBB/tws  
Enclosure

cc: Alan Thibeault, UNE, Director of Campus Planning

**University of New England  
Westbrook College Campus  
Parking Assessment  
2007**

**Existing Conditions:**

UNE has 466 on site parking spaces on its Portland campus and has a rental agreement with the State of Maine Armory for an additional 10 spaces, resulting in a total of 476 available to serve the Westbrook College Campus. An assessment of available parking was conducted during the week of October 22 to October 26, 2007, during which counts of available spaces were conducted hourly from 9am to 3pm each day. (See Attachment 1) A low of 74 available spaces was noted at 2pm and again at 3pm on October 24, 2007. This occurred at a time of day when the other days averaged 144 available spaces and thus is considered an anomaly, and is most likely a result of a special function on campus. If this count is disregarded, as we believe it should be, the next minimum number of available spaces is 106, i.e. a maximum of 370 spaces occupied at any given time.

The University has 782 seats utilized for classroom instruction (222 fixed and 560 non-fixed), located within 17,500sf of space. (See Attachment 2) Per City ordinance section 14-322(e), the University is required to have either one parking space for every 10 seats used for classroom instruction, 79 spaces, or one space for each 100sf used for classroom instruction, 175 spaces. Thus with 466 on campus parking spaces, UNE exceeds City standards for required off street parking.

Using the most recent available enrollment data there is approximately 735 students on the Portland Campus. Using this information, the ratio of occupied spaces to students is 0.50. Understanding that there are on street parking spaces available and utilized by students and staff, these spaces were considered when projecting future parking needs as a result of the proposed development. (On street parking will **not** be considered in mitigating potential parking demand.) Observations from the week of December 3 to December 7, 2007 of on street parking along Stevens Avenue and College Street indicated that a maximum of approximately 64 spaces were occupied adjacent to the campus. (See Attachment 3) This is conservative in that it assumes **all** occupied on street parking is University related. When these numbers are factored into the occupied spaces to student ratio calculation, the ratio becomes 0.59.

In September 2006 the University began offering free use of the METRO to all students and staff. Since inception of the program ridership averages 310 rides per academic month. Efforts are on going to increase this usage.

**Proposed Conditions and Mitigation Options:**

The proposed College of Pharmacy building will be located in an existing parking lot and will temporarily displace 65 parking spaces during construction. Of those, 63 spaces will be permanently displaced by the project.

This facility will have one classroom of 2,342sf with 121 fixed seats, and two teaching labs with a maximum of 68 student stations (not included as classrooms). The code requirement for parking as a result of this development is an additional 13 or 24 spaces, dependent on calculation method utilized. Thus to meet code, the University would require a total of 199 parking spaces (175 for existing facilities and 24 for the proposed development). With a current total of 466 on site parking spaces, the University will remain code compliant, subsequent to the construction and occupancy of the College of Pharmacy building.

The proposed College of Pharmacy will result in an additional 100 students per year attending classes on the Portland Campus, for three years, starting in the fall of 2009. Using the 0.59 occupied spaces to student ratio calculated above, the annual projected parking demand is presented in the following table.

Year	Total Spaces	Available	New Students	New Demand	Deficit
2007 - 08	476	106	0	0	-106
2008 - 09	413	43	0	0	-43
2009 -10	413	43	100	59	16
2010 -11	413	-16	100	59	75
2011 -12	413	-75	100	59	134

The table above illustrates that when the College of Pharmacy building is first occupied in the fall of 2009, a deficit of 16 spaces is projected. This potential deficit could be less with an increase in Metro ridership or if other parking management control options are employed.

The University has contacted the Maine State Armory to investigate the possibility of extending its parking space rental agreement. The Armory has verbally committed to extend the agreement to include 30 parking spaces. This agreement will offset the projected maximum parking deficit anticipated prior to September 2010.

In the University's first submission of a site plan application for the College of Pharmacy development, development of a parking lot was included to satisfy the projected parking demand for this development. While this parking lot development appeared to satisfy all regulatory requirements, several of the abutting neighbors, Planning Staff and Planning Board members expressed concern in regards to the potential impacts of this development. At this same time, the University announced its plans to consider the addition of a College of Dentistry to its Portland campus. Additionally, some internal discussions occurred regarding the potential future housing for the students in these two new colleges.

After consultation with senior planning staff, the University agreed to remove the proposed parking lot development from consideration at this time, in order for the University to better define its future plans to insure that the proposed solution to the projected parking demand will be the appropriate solution to meet the current and future parking demands. The University agreed to prepare a Master Plan for the campus and return to the Planning Board to share the plan, and seek the creation of a University



Overlay Zone, similar to that which was recently established for the USM Campus. The University recently established an Institutional Zone for its Biddeford campus and has found that the creation of a Master Plan and the new zoning designation has been a successful tool for the University, and the neighboring community, to manage its growth while considering and mitigating the impacts to the local community. In fact, it is now common for the representation of the local neighborhood association to support University projects at Planning Board meetings. It is the University's goal to create a similar situation on its Portland Campus, and its Board of Trustees has ratified this proposed process.

The University has begun its Strategic Planning Process, which will serve as the basis for its Master Plan development. It is anticipated that the University would be prepared to introduce the Master Plan to the Planning Staff in the latter part of 2008, and begin the process of creating a University Overlay Zone. Our goal would be to finalize the master plan and overlay zoning by the spring of 2009, which would allow the successful permitting and implementation of parking mitigation measures prior to the fall of 2010. This plan will consider and could include any of the following solutions; increased use of public transportation, carpooling, additional leased parking spaces, more efficient use of existing spaces, creation of new parking spaces, and parking management techniques such as prohibiting freshmen from having vehicles on campus or increased parking permit fees.

Further, the University would commit to no further expansion until such time as the master plan is completed and parking mitigation measures have been identified. The reality is that the City will have the ability to enforce this provision, by not accepting site plan applications for new projects.

UNE has plans for the future expansion of the Westbrook College Campus, and it is in the best interest of the University and the city if the University development proceeds in accordance with a Master Plan developed through a thoughtful planning process, in consideration of balancing the University needs, with the concerns of neighbors, the City, and other stakeholders.

Attachment 1

	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 p.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.
<b>Monday</b>							
<b>October 22, 2007</b>							
<b>WCC Available Parking Spaces</b>	25	25	24	23	21	21	22
<b>Lot 1 Alexander</b>	6	8	6	9	7	5	5
<b>Lot 2 Linnell</b>	0	3	0	0	1	0	3
<b>Lot 3 Ginn McDougall</b>	56	55	49	51	41	48	48
<b>Lot 4 Library</b>	69	67	68	68	52	56	56
<b>Lot 5 Proctor</b>	23	8	6	2	2	16	17
<b>Lot 6 Finley</b>	1	1	4	1	0	4	5
<b>Lot 7 Ludcke</b>	12	10	9	7	5	9	9
<b>Parient Parking</b>							
<b>Total Available</b>	192	177	166	161	129	159	165

**Attachment 1**

Tuesday 23-Oct-07 WCC Available Parking Spaces	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 p.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.
Lot 1 Alexander Lot	19	18	19	20	18	20	17
Lot 2 Linnell Lot	4	4	3	6	7	7	6
Lot 3 Ginn McDougall Lot	0	0	0	0	0	0	1
Lot 4 Library Lot	52	38	44	31	30	33	34
Lot 5 Proctor Lot	51	41	31	38	36	28	31
Lot 6 Finley Lot	1	1	5	14	13	13	12
Lot 7 Ludcke Lot	0	1	5	14	13	2	3
Lot 7 Patient Parking	8	3	4	13	12	10	10
<b>Total Available</b>	<b>135</b>	<b>106</b>	<b>111</b>	<b>136</b>	<b>129</b>	<b>113</b>	<b>114</b>

**Attachment 1**

	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 p.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.
<b>Wednesday</b>							
<b>24-Oct-07</b>							
<b>WCC Available Parking Spaces</b>	21	18	9	16	17	16	18
<b>Lot 1 Alexander Lot</b>							
<b>Lot 2 Linnell Lot</b>	9	7	2	6	6	5	4
<b>Lot 3 Ginn McDougall Lot</b>	0	0	0	0	1	1	1
<b>Lot 4 Library Lot</b>	52	47	45	41	50	39	38
<b>Lot 5 Proctor Lot</b>	66	52	52	58	60	7 ?	6 ?
<b>Lot 6 Finley lot</b>	23	11	20	5	4	2	3
<b>Lot 7 Ludcke Lot</b>	1	3	4	3	4	2	1
<b>Lot 7 Patient Parking</b>	13	7	8	10	9	2	3
<b>Total Available</b>	185	145	140	139	151	74	74

Attachment 1

	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 p.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.
Thursday October 25, 2007 WCC Available Parking Spaces							
Lot 1 Alexander Lot	18	20	14	14	17	14	17
Lot 2 Linnell Lot	3	4	5	5	5	3	5
Lot 3 Ginn McDougall Lot	8	5	3	0	1	0	1
Lot 4 Library Lot	53	47	44	46	45	48	43
Lot 5 Proctor Lot	52	38	42	45	35	36	33
Lot 6 Finley Lot	53	47	41	14	6	8	10
Lot 7 Ludcke Lot	7	6	5	2	3	3	3
Lot 7 Patient Parking	11	8	10	13	5	6	4
Total Available	205	175	164	139	117	120	116

**Attachment 1**

	9:00 a.m.	10:00 a.m.	11:00 a.m.	12:00 p.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.
<b>Friday 26-Oct-07</b>							
Lot 1 Alexander Lot	13	17	19	20	19	21	21
Lot 2 Linnell Lot	0	0	1	2	1	0	1
Lot 3 Ginn McDougall lot	3	3	5	6	10	12	16
Lot 4 Library Lot	40	41	39	44	48	46	49
Lot 5 Proctor Lot	62	42	47	53	37	44	56
Lot 6 Finley Lot	2	2	8	5	1	12	45
Lot 7 Ludcke Lot	1	0	7	1	3	10	18
Lot 7 Patient Parking	8	7	9	10	2	7	8
<b>Total Parking</b>	<b>129</b>	<b>112</b>	<b>135</b>	<b>141</b>	<b>121</b>	<b>152</b>	<b>214</b>

Attachment 2

ROOM ID	Building Name	Building Id	RUC NAME	Assignable Square Feet	Assignable Seat Counts	Fixed Seats	DEPARTMENT	DEPT CODE	FEATURES
W-03 011	Alumni Hall	W-03	CLASSROOM	997	45		Student Administrative Service	SAS	Classroom
W-03 015	Alumni Hall	W-03	CLASSROOM	528	16		Student Administrative Service	SAS	Classroom
W-03 017	Alumni Hall	W-03	CLASSROOM	528	16		Student Administrative Service	SAS	Classroom
W-03 021	Alumni Hall	W-03	CLASSROOM	997	20		Student Administrative Service	SAS	Classroom - Art
W-05 006	Blewett Science Center	W-05	CLASSROOM	1,280	96	96	Student Administrative Service	SAS	Classroom
W-05 021	Blewett Science Center	W-05	CLASSROOM	740	12		Student Administrative Service	SAS	Classroom
W-05 022	Blewett Science Center	W-05	CLASSROOM	307	18		Student Administrative Service	SAS	Classroom
W-05 107	Blewett Science Center	W-05	CLASSROOM	755	46		Student Administrative Service	SAS	Classroom
W-05 115	Blewett Science Center	W-05	CLASSROOM	1,280	32		Student Administrative Service	SAS	Classroom
W-05 233	Blewett Science Center	W-05	CLASSROOM	1,080	50		Student Administrative Service	SAS	Classroom
W-07 007	Coleman Dental Hygiene Building	W-07	CLASSROOM	1,146	34		Department of Dental Hygiene	DDH	Classroom
W-17 012	Proctor Hall	W-17	CLASSROOM	603	15		Student Administrative Service	SAS	Classroom
W-17 104	Proctor Hall	W-17	CLASSROOM	614	36		Student Administrative Service	SAS	Classroom
W-17 105	Proctor Hall	W-17	CLASSROOM	604	32		Student Administrative Service	SAS	Classroom
W-17 200	Proctor Hall	W-17	CLASSROOM	493	32		Student Administrative Service	SAS	Classroom
W-17 201	Proctor Hall	W-17	CLASSROOM	416	20		Student Administrative Service	SAS	Classroom
W-17 202	Proctor Hall	W-17	CLASSROOM	540	24		Student Administrative Service	SAS	Classroom
W-17 203	Proctor Hall	W-17	CLASSROOM	336	16		Student Administrative Service	SAS	Classroom
W-27 001	Parker Pavilion	W-24	CLASSROOM	2,135	126	126	Student Administrative Service	SAS	Classroom
W-02 007	Alexander Hall	W-02	CLASSROOM	1,920	84		Student Administrative Service	CAS	Classroom
W-09 209	Hersey Hall	W-09	CLASSROOM	193	12		Student Administrative Service	SAS	Classroom

Total

17,492 782 222

Attachment 3

**University of New England, Westbrook College Campus  
 Parking Assessment on Stevens Avenue  
 Stevens Avenue Armory to Finley Recreation Center**

**Parking Survey Monday December 3, - Friday December 7, 2007,**

	9:00 AM	10:00 a.m.	11:00 a.m.	12:00 p.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.
Monday 3-Dec	0	0	0	0	0	0	0
University closed due to snow storm ( Parking ban in affect until 10:00 p.m.)							
Tuesday 4-Dec	18	23	25	29	32	37	39
Wednesday 5-Dec	27	37	38	29	33	37	40
Thursday 6-Dec	20	36	37	39	42	41	40
Friday 7-Dec	29	34	37	30	39	34	30
Parking Survey Monday December 10							
Monday 10-Dec	30	33	35	32	32	34	31

Counts represent the number of vehicles parked on both side of Stevens Avenue along the University's property. There are approximately 22 parking spaces on College Street that are generally filled daily.



**Application for Site Plan and  
Conditional Use Approvals  
Under the City of Portland  
Land Use Ordinance**

***Supplemental Information***

**Project:**

***College of Pharmacy  
Educational Building***

***716 Stevens Avenue  
Portland, Maine***

**Applicant:**

University of New England  
11 Hills Beach Road  
Biddeford, Maine 04005

**December 20, 2007**

**SYTD**esign  
CONSULTANTS

**CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE**

P.O. Box 86A • 160 Longwoods Road • Cumberland, Maine 04021  
tel 207.829.6994 • fax 207.829.2231 • website [www.sytdesign.com](http://www.sytdesign.com)

**Principals**

Saucier, Thomas W., P.E.

Young, David W., P.E., P.L.S., Emeritus

Tubbs, Peter B., P.E., P.L.S.

Decker, W. Scott, P.E.

December 20, 2007

Shukria Wiar  
Division of Planning  
City of Portland  
389 Congress Street  
Portland, ME 04101

**RE: Site Plan Review**  
**University of New England College of Pharmacy**  
**716 Stevens Avenue**  
**Application #2007-0158; CBL 0144 A005001**

Dear Shukria:

On behalf of University of New England, SYTDDesign Consultants is pleased to submit the following supplemental information for a site plan application for a proposed building to accommodate integration of a College of Pharmacy into the Westbrook College Campus of UNE. As you know, per City staff recommendation, UNE has requested that the proposed parking lot portion of the application be removed from the proposal. We have included information in this submission which demonstrates that the University is currently code compliant relative to parking, and will continue to be so subsequent to the building of the proposed project.

The format of this letter follows that of your December 13, 2007 letter to us requesting the information.

1. Three copies of an MDOT traffic movement permit application are included with this submission under separate cover. Additionally, one copy each has been forwarded to Tom Errico, and to MDOT in Scarborough.
2. Relative to a stormwater management plan: Since the current request for site plan approval involves only the proposed academic building and excludes the previously proposed parking area on the lower half of the campus, the stormwater management analysis is simplified. Please refer to the narrative included as Attachment One.
3. The project as now proposed does not exceed any of the Site Location of Development Act (SLODA) thresholds. Therefore, a SLODA permit is not required.
5. Attachment Two (2) is a parking analysis which indicates that the available parking is currently compliant with City code and will continue to be subsequent to occupancy of the College of Pharmacy.

- 6. The Planning Board concerns relate to the previously proposed parking lot. As noted in Attachment Two, the parking will meet City code requirements.
- 7.A. See Attachment Three (3) for a letter addressing Fire Department concerns.
- 7.B.i This comment is not applicable at this time, since the proposed parking lot is not part of the current proposal.
- 7.B.ii A copy of the Standard Boundary Survey is included with this submission as Attachment Four (4).
- 7.B.iii The detail has been revised as requested.
- 7.B.iv This comment is no longer applicable.
- 7.B.v Relevant details have been provided as requested.
- 7.C.i See Attachment Two (2) for parking study data.
- 7.C.ii See Attachment Two (2) for this information.
- 7.C.iii See Attachment Two (2) for this information.
- 7.C.iv Ten (10) parking spaces located on the armory site are currently leased from the State.
- 7.C.v This comment is no longer applicable.
- 7.C.vi This comment is no longer applicable.
- 7.D.i No response required.
- 7.D.ii See Attachment Two (2).
- 7.D.iii No response required.
- 7.E See Attachment Five (5).

We have also included the following drawings with this submission as Attachment Six (6).

Title	Drawing No.	Revision
Campus Vicinity Plan		
Existing Conditions & Demolition Plan	C-100	F
Site Plan	C-101	G
Grading Drainage & Erosion Control	C-102	F
Site Utility Plan	C-103	F
Landscape Plan	C-104	F
Erosion & Sedimentation Control Details and Specifications	C-300	G
Site Details	C-300	G
Site Details	C-301	G

Title	Drawing No.	Revision
Site Details	C-302	G
Lower Level	A1.1	
First Floor	A1.2	
Second Floor	A1.3	
Third Floor	A1.4	
Elevations	A3.1	
Elevations	A3.2	

We believe this information addresses the comments outlined in your December 13 letter to us.

If you have any questions or require additional information, please contact me.

Sincerely,

SYTDesign Consultants



T.W. Saucier, P.E.  
Principal

Enclosure

TS/sae

cc: Alan Thibeault, UNE, Director of Campus Planning

## TABLE OF CONTENTS (ATTACHMENTS)

<u>Attachment</u>	<u>Description</u>
1	Stormwater Management Narrative
2	Parking Analysis
3	Fire Department Comments Response
4	Boundary Survey
5	Urban Designer Comments Response
6	Project Plans
	- Vicinity Map
	C-100 Existing Conditions and Demolition Plan
	C-101 Site Plan
	C-102 Grading, Drainage and Erosion Control Plan
	C-103 Site Utility Plan
	C-104 Landscape Plan
	C-300 Erosion and Sedimentation Control Notes and Detail
	C-301 Site Details
	C-302 Site Details
	A1.1 Lower Level Floor Plan
	A1.2 First Floor Plan
	A1.3 Second Floor Plan
	A1.4 Third Floor Plan
	A3.1 Building Elevations
	A3.2 Building Elevations

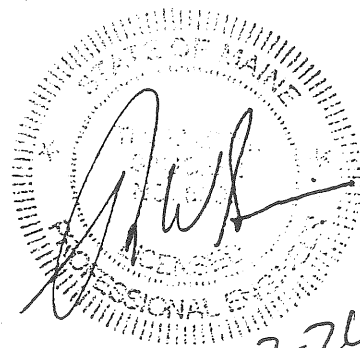
## STORM WATER NARRATIVE

This narrative is provided to meet the Site Plan Review filing requirements elicited in Section 14-525 (c)(6) of the City of Portland Land Use Ordinance.

The proposed University of New England College of Pharmacy building is located entirely on an existing paved parking lot. Runoff from this area currently enters an enclosed storm water system that drains the campus and connects to the City of Portland system in Stevens Avenue.

The development will result in the conversion of approximately 12,000 square feet of existing impervious pavement to impervious roof area. A further 6,200 square feet of existing pavement will be eliminated and converted to pervious landscaped areas around the building entrance and between the building and remaining parking area.

The project will result in a net decrease in the impervious area contributing to the existing enclosed storm water system and will hence decrease the peak runoff from the area under all storm conditions. The conversion of impervious pavement to landscaping will increase the potential for groundwater recharge through infiltration to the underlying sandy soils. This will result in a decrease in the volume of surface runoff from the area of the proposed development. Since both the peak runoff and volume of runoff from the area of the development will be reduced the project will not overburden the existing storm drain system and thus meets Section 14-526 (a)(5) of the City of Portland Land Use Ordinance.



12-20-07

**Attachment 2  
Parking Requirements**

A. Existing Conditions

- 14,077 s.f. of classroom space without fixed seating.
- Two rooms with 222 fixed seats
- Total classroom seating = 782 seats
- Total classroom s.f. = 17,492 s.f.

B. Proposed conditions – College of Pharmacy Building

- No classroom space without fixed seating
- Three rooms with 171 fixed seats
- Total classroom seating = 171 seats
- Total classroom s.f. = 5,259 s.f.

C. Totals after construction

- 14,077 s.f. of classroom space without fixed seating
- Five rooms with 393 fixed seats
- Total classroom seating = 953 seats
- Total classroom s.f. = 22,751 s.f.

D. Total parking spaces required per Section 14-332(e) of the current City ordinance

- One parking space/10 fixed seats
- One parking space/100 s.f. used for purposes of instruction

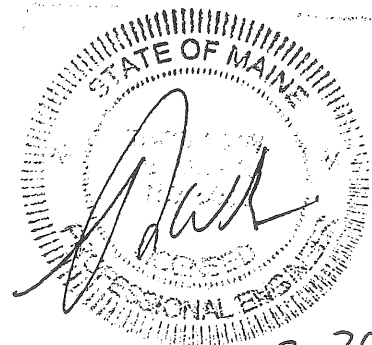
From C above:

393 Fixed seats/10 fixed seats per parking space = 40 parking spaces

14,077 s.f./100 s.f. per parking space = 141 parking spaces

Total spaces required = 181 parking spaces

Total off street spaces provided = 476



12-20-07

## UNE/METRO Ridership totals

### 2006

<u>MONTH</u>	<u>Ridership</u>
September	136
October	179
November	219
December	246

### 2007

<u>Monday</u>	<u>Ridership</u>
January	242
February	192
March	592
April	565
May	531
June	356
July	24
August	19
September	362 FREE
October	252
November	212
December	



ROOM ID	Building Name	Building Id	USE CODE	RUC NAME	ASF	ACTSTNS	DEPARTMENT	DEPT CODE	FEATURES
W-03 011	Alumni Hall	W-03	110	CLASSROOM	997	45	Student Administ	SAS	Classroom
W-03 015	Alumni Hall	W-03	110	CLASSROOM	528	16	Student Administ	SAS	Classroom
W-03 017	Alumni Hall	W-03	110	CLASSROOM	528	16	Student Administ	SAS	Classroom
W-03 021	Alumni Hall	W-03	110	CLASSROOM	997	20	Student Administ	SAS	Classroom - Art
W-05 006	Blewett Science Center	W-05	110	CLASSROOM	1280	96	Student Administ	SAS	Classroom*
W-05 021	Blewett Science Center	W-05	80	CLASSROOM	740	12	Student Administ	SAS	Classroom
W-05 022	Blewett Science Center	W-05	80	CLASSROOM	307	18	Student Administ	SAS	Classroom
W-05 107	Blewett Science Center	W-05	110	CLASSROOM	755	46	Student Administ	SAS	Classroom
W-05 115	Blewett Science Center	W-05	210	CLASSROOM	1280	32	Student Administ	SAS	Classroom
W-05 233	Blewett Science Center	W-05	110	CLASSROOM	1080	50	Student Administ	SAS	Classroom
W-07 007	Coleman Dental Hygiene Building	W-07	110	CLASSROOM	1146	34	Department of De	DDH	Classroom
W-17 012	Proctor Hall	W-17	210	CLASSROOM	603	15	Student Administ	SAS	Classroom
W-17 104	Proctor Hall	W-17	110	CLASSROOM	614	36	Student Administ	SAS	Classroom
W-17 105	Proctor Hall	W-17	110	CLASSROOM	604	32	Student Administ	SAS	Classroom
W-17 200	Proctor Hall	W-17	110	CLASSROOM	493	32	Student Administ	SAS	Classroom
W-17 201	Proctor Hall	W-17	110	CLASSROOM	416	20	Student Administ	SAS	Classroom
W-17 202	Proctor Hall	W-17	110	CLASSROOM	540	24	Student Administ	SAS	Classroom
W-17 203	Proctor Hall	W-17	110	CLASSROOM	336	16	Student Administ	SAS	Classroom
W-27 001	Parker Pavilion	W-24	720	CLASSROOM	2135	126	Student Administ	SAS	Classroom *
W-02 007	Alexander Hall	W-02	680	CLASSROOM	1920	84	Student Administ	CAS	Classroom
W-09 209	Hersey Hall	W-09	80	CLASSROOM	193	12	Student Administ	SAS	Classroom

17492 782 \*FIXED SEATING

**Principals**

Saucier, Thomas W., P.E.

Young, David W., P.E., P.L.S., Emeritus

Tubbs, Peter B., P.E., P.L.S.

Decker, W. Scott, P.E.

December 20, 2007

Ms. Shukria Wiar  
City Planner  
Planning Division  
389 Congress St., Fourth Floor  
Portland, ME 04101

**RE: University of New England - Westbrook College Campus  
College of Pharmacy – Fire Department Checklist**

Dear Shukria:

The following information is in response to the Fire Department Checklist. Both SYTDesign Consultants and Port City Architecture have reviewed the Plans with Captain Cass. A copy of this letter and plans are being sent directly to Captain Cass's attention.

1. Name, address, telephone number of applicant:  
**University of New England  
11 Hills Beach Road  
Biddeford, ME 04005  
(207) 602-2253 contact: Alan Thibeault, Director of Campus Planning**
2. *Name, address, telephone number of architect:*  
**Port City Architecture  
65 Newbury Street  
Portland, ME 04101  
(207) 761-9000 contact: Lita Semrau**
3. *Proposed use of any structures (NFPA and IBC classification):*  
**IBC Business Group B  
NFPA Business Class**
4. *Square footage of all structures (total and per story):*  
**46,380 s.f. total  
11,595 s.f. per story**
5. *Elevation of all structures:*  
**See enclosed plans**
6. *Proposed fire protection of all structures:*  
**Automatic Wet Type Sprinkler System**

7. *Hydrant locations:*  
**See enclosed letter from Portland Water District.**
  8. *water main(s) size and location:*  
**Project will tie into 12" water main on west side of Stevens Avenue.**
  9. *Access to any Fire Department connections:*  
**Stevens Avenue - See enclosed plans.**
  10. *access to all structures (min. 2 sides):*  
**We met with Captain Greg Cass on November 7, 2007 to review the site plan. It is my understanding that Captain Cass is satisfied with access from Stevens Avenue and the existing drive between the proposed site and Findley Recreation Center.**
  11. *A code summary shall be included referencing NFPA 1 and all Fire Department technical standards:*  
**Due to the following conditions, we do not believe that we fall under any additional NFPA 1 requirements:**
    - **In the Research Labs on the third floor, the research in the labs will use limited chemicals (less than the typical high school chemistry lab) and any chemicals that will be used, will be stored in the specialized fume hoods with chemical storage underneath. The cabinets are attached to the ventilation system which is filtered and is fire rated.**
    - **In the teaching labs on the first and second floor, it will be more equivalent to a nursing lab where student will be doing practical drills including counting, memorizing and handling different types of drugs that would normally be in a pharmacy. There will not be narcotics or similar drugs used in these labs due to the security implications from both the students and the public.**
- The building will meet all NFPA 101 and Life Safety and will be reviewed and permitted by the State Fire Marshall.**
12. *Elevators shall be sized to fit an 81" x 23" stretcher and two personnel:*  
**There are two elevators both sized appropriately. See enclosed plans.**
  13. *Some structures may require fire flows using annex H of NFPA 1:*  
**Not applicable**

We are hoping to be on the Planning Board Agenda for the January 22, 2008 meeting and would like to make sure we have addressed the Fire Departments concerns

Ms. Shukria Wiar  
December 20, 2007  
Page 3 of 3

prior to that. Please review the enclosed information and contact me with any questions or comments.

Sincerely,

SYTDesign Consultants



Peter Biegel, ASLA  
Project Manager

PBB

cc: Alan Thibeault, UNE  
Lita Semrau, Port City Architecture  
Captain Greg Cass, Portland Fire Department

enc. Plans



## Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

RECEIVED

10/11/2007

October 11, 2007

SYTDesign Consultants  
P.O. Box 86A  
160 Longwoods Road  
Cumberland, ME 04021

Attn: Peter Biegel, ASLA  
Re: UNE Westbrook College Campus - College of Pharmacy Building  
Ability to serve with PWD water

Dear Mr. Biegel:

This letter is to confirm that there should be an adequate supply of clean and healthful water to serve the needs of the proposed College of Pharmacy at 716 Stevens Avenue in Portland. According to District records, there is a 12-inch water main on the west side of the street as well as a hydrant located adjacent to 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: West side of Stevens Ave., across from Elmwood St.  
Hydrant Number: POD-HYD01783  
Static Pressure: 47 psi  
Flow: 1034 gpm  
Last Tested: 07/10/1990

Please notify your mechanical engineer of these results so that they can design your system to best fit the noted conditions. If the District can be of further assistance in this matter, please let us know.

Sincerely,  
Portland Water District

David Coffin, P.L.S.  
Engineering Supervisor  
[dcoffin@pwd.org](mailto:dcoffin@pwd.org)



## PORTLAND FIRE DEPARTMENT SITE REVIEW FIRE DEPARTMENT CHECKLIST

A separate drawing[s] shall be provided to the Portland Fire Department for all site plan reviews.

1. Name, address, telephone number of applicant.
  2. Name address, telephone number of architect
  3. Proposed uses of any structures [NFPA and IBC classification]
  4. Square footage of all structures [total and per story]
  5. Elevation of all structures
  6. Proposed fire protection of all structures
  7. Hydrant locations
  8. Water main[s] size and location
  9. Access to any fire department connections
  10. Access to all structures [min. 2 sides]
  11. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.
  12. Elevators shall be sized to fit an 81" x 23" stretcher and two personnel.
- Some structures may require Fire flows using annex H of NFPA 1

## ATTACHMENT 6 PLANS

Title	Drawing No.	Revision
Campus Vicinity Plan		
Existing Conditions & Demolition Plan	C-100	F
Site Plan	C-101	G
Grading Drainage & Erosion Control	C-102	F
Site Utility Plan	C-103	F
Landscape Plan	C-104	F
Erosion & Sedimentation Control Details and Specifications	C-300	G
Site Details	C-300	G
Site Details	C-301	G
Site Details	C-302	G
Lower Level	A1.1	
First Floor	A1.2	
Second Floor	A1.3	
Third Floor	A1.4	
Elevations	A3.1	
Elevations	A3.2	

November 27, 2007

Attachment 6

Shukria Wiar  
City of Portland Division of Planning  
389 Congress Street  
Portland, ME 04101

**RE: University Of New England  
College Of Pharmacy  
Westbrook College Campus  
716 Stevens Avenue**

Dear Shukria:

On behalf of University of New England (UNE), SYTDDesign Consultants is pleased to submit an original and eight (8) copies of a revised conceptual plan for a proposed parking lot to serve the proposed College of Pharmacy on UNE's Westbrook College campus.

Since we last met with the Planning Board for a workshop on November 13, 2007, we have completed a campus wide parking study to determine current parking ratios on the campus.

During the week of October 22, 2007, hourly counts of vacant spaces were undertaken for all parking lots, which have a total capacity of 466 spaces. The counts indicated a low daily vacancy rate of 74 spaces, i.e. 392 spaces occupied. Based upon the most recent available enrollment data, the student population is approximately 735 students. This yields an existing ratio of 0.53 occupied spaces per student. However, this does not include existing parking along Stevens Avenue and College Street that is occupied on any given day. Our observations indicated that most of the parking along the campus frontage and beyond, on both sides of Stevens Avenue, and in College Street, is occupied. A recent count indicated that approximately 80 spaces were occupied along these streets during the school day, 22 on College Street and 58 on Stevens Avenue. Including these 80 occupied spaces in the occupied parking space/student ratio calculation, increases the ratio to 0.64 students/space. The peak demand for the on street parking spaces may be higher, and UNE will undertake a count to confirm that. If it is higher, the ratio may also be greater.

The proposed College of Pharmacy will result in an additional 300 students attending classes on campus. It is our understanding first, second, and sixth year students will not attend classes on campus.

Based upon the above data, the 300 students associated with the College of Pharmacy would generate a parking requirement of 192 spaces. The proposed location for the College of Pharmacy will result in the elimination of 63 spaces. However, as previously noted, it appears that 74 existing spaces can be assumed to be vacant. Summarizing these numbers, results in a net deficit of 181 spaces.

We assume that the availability of parking along Stevens Avenue and College Street will remain as is subsequent to the development of the College of Pharmacy, and therefore UNE's need for parking will not be increased by future restrictions along these public streets.

As we have indicated to the Planning Board, UNE's goal is to limit construction of new parking to the actual number of spaces necessary to provide adequate parking in the vicinity of the campus.



Upon review of the plan submitted, you will note that the parking count is now 180 spaces, a reduction of 172 spaces from the previously submitted plan. The parking lot has been moved further from Mayfield Street and from the onsite stream northerly of the existing athletic field. As noted the parking may be constructed in two phases with the second phase being constructed on an as needed basis.

Per the City's request, we also analyzed parking requirements for the College under the current City ordinance. Section 14-332(e) requires either one parking space for each 10 spaces used for purposes of instruction, or one parking space for each 100 square feet used for purposes of instruction. Currently the campus has 782 seats utilized for instruction, located in 17, 500 s.f. of space. Under the City's ordinance, this would require 79 spaces or 175 spaces respectively. Neither requirement is sufficient to accommodate the current parking requirements of the college.

Based on the ordinance standard, 17 parking spaces for 161 seats, or 32 parking spaces for 3,107 s.f. of instructional space in the College of Pharmacy building would be required to accommodate the College of Pharmacy and its 300 students, along with faculty and staff. Neither would be sufficient.

The goal of the current plan is to provide sufficient parking to satisfy the reasonably foreseeable demand for parking which will be created by the proposed development in conformance with City ordinances. We believe the current plan provides for this.

We believe the parking is sited in accordance with all city and state regulatory requirements including setbacks from property lines, streams, and wetlands. We believe the parking also meets the approval standards of the City of Portland Code of Ordinances, Section 14-256.

There will be approximately 1100 s.f. of state jurisdictional freshwater wetlands impacted. None of the wetlands in the vicinity of the project meets the definition of wetland under the City code, as the wetlands are less than 10 contiguous acres in size. Stormwater runoff quantity and quality will be controlled in accordance with City and DEP regulations.

We look forward to discussing this latest plan with the Planning Board on December 11, 2007, and finalizing our application materials subsequent to that meeting. Thank you for your assistance, and as always, please feel free to contact us for additional information or clarification.

Sincerely,

SYTDesign Consultants



Tom Saucier, P.E.  
Principal

Cc: Alan Thibeault, Director of Campus Planning  
Andy Hyland, Port City Architecture

University of New England  
Proposed College of Pharmacy Building  
City of Portland Planning Board Required Neighborhood Meeting  
January 15, 2008  
6pm at Ludcke Auditorium

<u>Attendee</u>	<u>Address</u>	<u>Contact Info.</u>
Kathy Hooke	22 Waverly St, #2	774-5008
Jerry Hankinson	35 Waverly St.	797-6331

University of New England  
Proposed College of Pharmacy Building  
City of Portland Planning Board Required Neighborhood Meeting  
January 15, 2008  
6pm at Ludcke Auditorium

The meeting commenced at 6:10pm with two neighbors in attendance. A Sign-In-Sheet is attached. Alan Thibeault, UNE's Campus Planner, presented the background information in regards to the project. This included the University's thoughts on locating the program in Portland, the need for the Text Amendment to increase the allowable building height, the original plan with parking and the current plan without the lower level parking lot development.

The current site plan was presented and reviewed. Questions were raised about the availability of parking on campus, and it was noted that the University would be code compliant in regards to parking when the building was occupied. One of the neighbors noted that there was an ongoing issue with parking on Waverly Street due primarily to the Day Care Center. Discussion continued in regards to the University initiating a Master Plan of potential development over the next five years, which would include a projected parking development plan. The hope of the University would be to work with the City to have this plan evolve into a University Overlay Zone for the campus, similar to the current zone at USM.

An exterior rendering of the proposed building was reviewed. Material selections were noted as being consistent with the other buildings on campus. The neighbors inquired if exterior spotlights would be mounted on the building, and were informed that this was not planned.

The meeting was adjourned at 7:10pm.

Respectfully submitted,  
Alan Thibeault

December 13, 2007

SYTDesign Consultants  
Attention: Tom Saucier, PE  
160 Longwood Road  
PO Box 86A  
Cumberland, ME 04021

**RE: Site Plan Review:           716 Stevens Avenue  
  UNE College of Pharmacy Building  
  Application # 2007-0158; CBL 0144 A005001**

Dear Mr. Saucier,

The City of Portland has received two applications from the University of New England (UNE) for the proposed College of Pharmacy project at 716 Stevens Avenue. The application is for site plan review of the proposed building and parking lot. The City will also review the proposal under its delegated review for a Traffic Movement Permit and under Site Location of Development Act, if applicable. Portland does not have delegated review under Chapter 500, so a permit from DEP is required for the stormwater management plan.

A workshop on the site plan was held on November 13, 2007 and a public hearing is tentatively scheduled for January 22, 2008. In order to maintain this tight schedule for the review, we would request that you submit a complete site plan application no later than December 21, 2007. The hearing date may be postponed if the application is incomplete or there are significant issues to be resolved. We will notify DEP that an application has been received for review of the Site Location of Development Act and we will forward one complete application to them for their records, should the revised plan be subject to this review.

Based on the site plan submitted and the submittal requirements contained in the City's Site Plan Ordinance, Section 14-525 Final Site Plan, the following material is requested for the site plan review:

1. Applicant to apply for the Traffic Movement Permit
2. Submit a Stormwater Management Plan
3. Planning Staff needs a complete application for the Site Location of Development Act
4. Overview plans of the entire campus, showing all parking lot and spaces.
5. Campus Parking Study needs to be submitted with all the data and calculations

6. Address the additional information requested by the Planning Board. See the following:
  - a. Encourage applicant to explore other options for parking such as leasing of spaces in the surrounding neighborhood.
  - b. The Board encouraged that the proposed College of Pharmacy building be separated from the proposed parking lot; they also asked that the applicant look at the current park demand/requirement and proceed without developing the lower campus area for parking. The Board asked for a better understanding of the number of parking and circulation on campus.
  - c. The applicant has the burden to prove the proposed development, particularly the parking lot, does not have an adverse effect on the wetlands and wildlife habitat on the lower part of the campus.

7. Address technical issues raised in this Planning Board memorandum and the comments received from City staff:

A. Fire Department comments:

- i. Please provide details for Fire and EMS response. Fire lanes are required to be 16'. If apparatus is going to operate from these locations the width is 20'
- ii. Fire dept. Checklist needs to be completed.
- iii. Please break down use groups per story.
- iv. A standpipe is required for new buildings more than three stories in height.
- v. A Fire hydrant is required within 100' of this connection.

B. Dan Goyette, the City Consultant, offers the following comments:

- i. It was noted that the applicant is waiting for a capacity to serve letter for sanitary sewer. The City's CSO [Combined Sewer Overflow] master plan calls for removing stormwater runoff on College Street from the combined sewer system. DPW requests that the proposed parking lot Access Road and its drainage system be built with features that will assist the City in collecting the runoff from College Street. DPW requests that the proposed drainage system in the Access Road be designed to accommodate the runoff from College Street. The proposed storm drain should be extended to the limit of construction in College Street. UNE should convey a drainage easement to the City that will give the City the right to use the storm drain system. City staff can work with the applicant to determine the area of College Street that will be served and appropriate easement language. **[this condition will only apply if the parking lot in the lower campus is to be proposed]**
- ii. A boundary survey is underway for the project, and the applicant is waiting to confirm that the horizontal and vertical datum follows the approved City standards. In addition, the proper monumentation should be added to the end of College Street.
- iii. The "Walkway Build-Up" detail shows the asphalt pavement surface of 9.5 mm HMA. City of Portland standards call for bituminous sidewalk surface to be constructed with grading "C" bituminous pavement, which corresponds to a 12.5 mm HMA gradation.
- iv. No wall heights are provided for the Versalok retaining walls at the proposed parking lot.
- v. Details should be provided for the following items:
  - The installation of decorative pavers at the building entrance
  - A casco trap for the catch basins
  - Utility connections
  - Waterline components

- Light pole bases

C. Tom Errico, City Traffic Consultant has reviewed the site plans and offers the following comments:

- i. All back up data for the parking survey should be provided.
- ii. The applicant should provide information on total existing enrollment, class schedule, and information on use of METRO or transit options.
- iii. A graphic should be provided that illustrates existing UNE parking areas (including restrictions for employees, students, visitors, etc.) to assist in the review of the parking requirements.
- iv. Parking information for all leased parking areas should be included.
- v. With College Street becoming the primary access/egress route to the proposed parking lot, the applicant should provide information on roadway width adequacy and whether College Street meets City standards when considering on-street parking and vehicle travel.
- vi. When approaching the end of College Street, two severe horizontal curves exist. The applicant shall provide information on whether these curves meet City standards, and if not, identify mitigation requirements.

D. Marge Schmuckal, Zoning Administrator request the flowing information

- i. The Zoning requirement for school parking is based entirely upon whether the class room has fixed seating or no fixed seating. All those required parking spaces are to be off-street parking spaces.
- ii. As part of the parking analysis, provide a breakdown showing the number of class rooms with fixed seating (and the number of those seats) and the number of class rooms without fixed seats showing the amount of classroom square footage. In another words, all the class rooms broken down by either fixed seat or no fixed seats. Then on the fixed seat rooms, how many fixed seats are in each of those classrooms. On the no fixed seats rooms, what is the square footage of each of those rooms.
- iii. There may be some valid additional parking concerns by both the Planning Board and the University that goes beyond the minimum requirements under Division 20 which needs to be worked out.

E. The Urban Designer has requested the following:

- i. Building measurements;
- ii. Specifications and samples of all proposed building materials; and
- iii. Specifications of components such as windows and doors, and other details.

Please submit the information at your earliest convenience. If you have any questions please do not hesitate to call me on (207) 756-8083 or at [shukriaw@portlandmaine.gov](mailto:shukriaw@portlandmaine.gov).

Sincerely,

Shukria Wiar  
Planner

cc Alexander Jaegerman, Planning Division Director  
Barbara Barhydt, Development Review Manager

October 2, 2007

SYTDesign Consultants  
Attention: Tom Saucier, PE  
160 Longwood Road  
PO Box 86A  
Cumberland, ME 04021

**RE: Site Plan Review:                   716 Stevens Avenue  
  UNE College of Pharmacy Building  
  Application # 2007-0158; CBL 0144 A005001**

Dear Mr. Saucier,

The City of Portland has received two applications from the University Of New England (UNE) for the proposed College of Pharmacy project at 716 Stevens Avenue. The first application is a request for a zoning text amendment and the second is for site plan review of the proposed building and parking lot.

UNE's application for a text amendment to allow for an increased building height in the R-5 zone is scheduled for a second workshop with the Planning Board on October 9, 2007. A public hearing is tentatively scheduled for October 23, 2007, based upon the assumption that the Planning Board will suggest forwarding this item to a public hearing. As you know, UNE must hold a neighborhood meeting at least seven days before the public hearing. At the Planning Board public hearing, the Board will vote on a recommendation to City Council regarding the proposed amendment. Their recommendation is then forwarded to the City Council for consideration. The City Manager sets the City Council agenda; however, the first reading of the text amendment could be on the Council's November 4, 2007 agenda and then the public hearing would be held on November 19<sup>th</sup>. UNE does not need to attend the first reading, but representatives should be available at the City Council public hearing to answer questions. Michael Patterson, Chair of the Planning Board, and Alexander Jaegerman, Director of the Planning Division, present the Planning Board's recommendation at that meeting.

The site plan application for the proposed College of Pharmacy building is subject to review under the City's Site Plan Ordinance and under the City's delegated review for the Site Location of Development Act and a Traffic Movement Permit. Portland does not have delegated review under Chapter 500, so a permit from DEP is required for the stormwater management plan. The conceptual plan that has been submitted to date may be shown to the Planning Board for context regarding the text amendment, but the Board cannot act upon a site plan which does not comply

with the City's zoning ordinance. A workshop on the site plan is tentatively scheduled for November 13<sup>th</sup> (prior to the City Council's action) and a public hearing is scheduled for December 11, 2007 (after the City Council public hearing). In order to maintain this tight schedule for the review, we recommend that you submit a complete site plan application no later than October 12<sup>th</sup>. This allows time for the City staff to review the application and provide you with comments for the application. In addition, we will notify DEP that an application has been received for review and we will forward one complete application to them for their records.

Based on the conceptual plan submitted and the submittal requirements contained in the City's Site Plan Ordinance, Section 14-525 Final Site Plan, the following material is requested for the site plan review:

1. A revised site plan showing the revised building location and proposed parking lot.
2. Lighting Plan showing location and intensity of outdoor lighting (a copy of Portland's technical standards for lighting is attached).
3. Landscaping Plan that shows both existing and proposed landscaping, which includes the type, quantity and size of plantings and any proposed techniques to preserve vegetation.
4. Utilities Plan that shows existing and proposed utilities, including fire hydrants. Please include details for water, sewer and storm drain structures and connections.
5. Architectural Plans and Renderings (Colored).
6. Floor Plans for the proposed building.
7. A delineation of wetlands boundaries prepared by a qualified professional shall be included on the plan. Submit copies of the wetland assessment, potential impacts and proposed mitigation including a narrative describing any unusual natural areas, wildlife and fisheries habitats, or archaeological sites located on or near the project site and methods to protect them.
8. Overview plans of the entire campus.
9. Evidence of Financial and Technical Capacity. For other projects, we have received letters from financial institutions or a more detailed accounting of funding sources. We request more detail than what was provided in the initial application.
10. Evidence of right, title and interest.
11. A narrative of the estimated amount and type of recyclable material generated on-site, a description of how solid waste will be handled, and the location and screening of any solid waste disposal receptacles for the site.
12. Please submit water and sewer capacity to serve letter as you receive them.
13. Department of Public Works comments:
  - a. Construction Management Plan



- b. Updated site plans showing the new location of the building
- c. Stormwater Plan including a narrative/ description of any problems of drainage
- d. Proposed Grading Plan
- e. Location of erosion control measures
- f. The applicant has requested a waiver from the standard boundary survey requirements. The applicant should still confirm that the survey used for the project coincides with approved City standards. The survey needs to be tied to the vertical datum of NGVD 1929. Also, the project needs to be tied to the Maine State Plane Coordinate System (2-zone projection), West Zone using the NAD 1983 (HARN) Datum and the U.S. Survey Foot as the unit of measure.

14. Zoning Administrator comments:

- a. There is a separate application to address a text zoning amendment concerning this proposal. This property is in an R-5 residential zone, which requires a conditional use appeal to the planning board for the college expansion of buildings and parking. Therefore zoning staff can not sign-off on R-5 zoning compliance at this time.
- b. The concept plans indicate that most of the R-5 zone requirements could be met (other than height). For a full review, complete floor plans needs to be submitted do a parking analysis.
- c. According to the Assessors Database, the property is in different names. Planning staff will look into how this affects right, title and interest.

15. Fire Department comments:

- a. Please provide details for Fire and EMS response. Fire lanes are required to be 16'. If apparatus is going to operate from these locations the width is 20'
- b. Fire dept. Checklist needs to be completed.
- c. Please break down use groups per story.
- d. A standpipe is required for new buildings more than three stories in height.
- e. A Fire hydrant is required within 100' of this connection.

Please submit the information at your earliest convenience. If you have any questions please do not hesitate to call me on (207) 756-8083 or at [shukriaw@portlandmaine.gov](mailto:shukriaw@portlandmaine.gov).

Sincerely,

Shukria Wiar  
Planner

cc Alexander Jaegerman, Planning Division Director  
Barbara Barhydt, Development Review Manager

Haley & Aldrich  
75 Washington Avenue  
Suite 203  
Portland, ME 04101-2517  
Tel: 207 492 4600  
Fax: 207 775 7000  
HaleyAldrich.com



10 January 2008  
File No. 34402-010

University of New England  
11 Hills Road  
Biddeford, Maine 04005

Attention: Mr. Alan Thibeault  
Subject: Foundation Drainage System  
Proposed College of Pharmacy  
University of New England  
Portland, Maine

Dear Al:

As requested, this letter provides supplemental information regarding the foundation drainage system for the proposed College of Pharmacy (COP) building.

We provided recommendations for installation of a permanent foundation drainage system with pumps to protect the below-grade space from hydrostatic pressures and groundwater infiltration in our 2 November 2007 geotechnical report. The level of the basement floor slab has since been raised from El. 113 to El. 115 to reduce the potential for groundwater to enter the underslab drain system.

The invert level of the foundation/underslab drain system beneath the COP building will be at El. 114 (1 ft below top of basement slab). Groundwater levels at the COP site have been measured at approximately El. 108 (between October 2007 and January 2008). Groundwater at this level would not introduce water into the new COP drainage system, nor would it trigger operation of the pumps.

The proposed foundation/underslab drain system is considered to be an "emergency" system, providing protection for the slab in the case of a major storm event causing a sudden, short-term rise of the groundwater level.

University of New England  
10 January 2008  
Page 2

We trust this provides the information you require at this time. If you have any questions or require additional information, please contact us.

Sincerely yours,  
HALEY & ALDRICH, INC.



Andrew R. Blaisdell, P.E.  
Senior Engineer



Wayne A. Chadbourne, P.E.  
Vice President

c: Port City Architecture; Attn: Lita Semrau  
SYTDesign Consultants; Attn: Tom Saucier, Peter Biegel, Andy Morrill

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**FINAL REPORT ON GEOTECHNICAL INVESTIGATION AND  
FOUNDATION DESIGN RECOMMENDATIONS  
PROPOSED COLLEGE OF PHARMACY  
UNIVERSITY OF NEW ENGLAND  
PORTLAND, MAINE**

by

**Haley & Aldrich, Inc.  
Portland, Maine**

for

**University of New England  
Biddeford, Maine**

**File No. 34718-000  
Revised 16 January 2008  
2 November 2007**

Haley & Aldrich  
75 Washington Avenue  
Suite 203  
Portland, ME 04101-2617  
  
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HaleyAldrich.com

**HALEY &  
ALDRICH**

Revised 16 January 2008  
2 November 2007  
File No. 34718-000

University of New England  
11 Hills Road  
Biddeford, Maine 04005

Attention: Mr. Alan Thibeault

Subject: Geotechnical Investigation and Foundation Design Recommendations  
Proposed College of Pharmacy  
University of New England  
Portland, Maine

Ladies and Gentlemen:

This report presents the results of our subsurface explorations, engineering evaluations, and design recommendations for the proposed College of Pharmacy (COP) to be constructed at the University of New England (UNE), Westbrook Campus, in Portland, Maine. This work was undertaken at your request in accordance with our proposal originally dated 28 August 2007, revised 7 September 2007, and your subsequent authorization, and our Agreement Amendment 1 dated 2 November 2007.

This report was originally issued on 2 November 2007, but it has been updated to reflect changes to the proposed project during design development, specifically raising of the basement slab from El. 113 to El. 115.

#### **SUMMARY**

We recommend that the proposed COP building be supported on spread and continuous wall footing foundations bearing on undisturbed glacial outwash deposits, glacial marine deposits or glacial till. The footings should be designed based on an allowable bearing pressure, in pounds per square foot (psf), equal to 2,000 multiplied by the least lateral dimension of the footing in feet, up to a maximum of 8,000 psf. We recommend that the lowest floor slab be designed as an earth-supported, concrete slab-on-grade.

Specific recommendations for foundation design, drainage, pavement and construction for the COP building and the adjacent improvements are presented herein.

#### **ELEVATION DATUM**

Elevations referenced herein are in feet and are assumed to reference the National Geodetic Vertical Datum of 1929 (NGVD 1929).

## **EXISTING SITE CONDITIONS**

The Westbrook Campus of UNE is located on Stevens Avenue, as shown on Figure 1, Project Locus. The current study area includes the eastern portion of the campus, for which the existing site conditions are described below.

The easternmost portion of the campus is currently occupied by several buildings, grassed/landscaped common areas, and bituminous paved parking lots and sidewalks. The buildings that occupy the eastern portion of campus include Goddard Hall, Coleman Dental Hygiene Building and Ludcke Auditorium, the locations of which are shown on Figure 2. Existing site grades are relatively flat in the eastern portion of campus, with ground surface elevations ranging from about El. 125 to El. 130.

The northern portion of the campus is occupied by a gravel access road that extends west from the terminus of College Street and an existing athletic field, as shown on Figure 3. It is our understanding that this area is no longer planned for development as a part of this project.

## **PROPOSED DEVELOPMENT**

Our understanding of the proposed site development is based on the Design Development (DD) document set issued by Port City Architecture (PCA) dated 7 December 2007. Additional modifications have been made to the proposed development, which were discussed during several project team meetings in December 2007 and January 2008.

### **Proposed College of Pharmacy**

We understand that the proposed COP building will consist of a three-story structure with a plan footprint area of approximately 12,000 square feet (sf), the location of which is shown on Figure 2. The footprint of the COP is within the current parking lot area adjacent to Stevens Avenue, approximately 30 to 35 ft south of Ludcke Auditorium. The level of the first floor slab is proposed to be constructed at El. 130. The COP will be constructed with a full level of below grade space. We understand that the level of the basement floor slab will be constructed 15 ft below the first floor slab, corresponding to El. 115 (11 to 12.5 ft below existing site grades). Proposed site grades surrounding the building will vary from approximately El. 127 to El. 129, 0 to 2 ft above existing grades.

A vivarium is planned to be located in the basement level of the COP building. Based on discussion with the design team, we understand that the vivarium is very sensitive to moisture. As a result, the design team has chosen to install Grace Preprufe 300 positive-side waterproofing enveloping the entire basement area. It is our understanding that the waterproofing membrane will extend around the exterior side of all basement walls, below foundations, the slab and elevator pit and stairway slabs. All penetrations through the basement floor slab and foundation wall will also require waterproofing.

A 14-ft wide paved access road will be constructed along the west side of the COP building, between Coleman Dental Hygiene Building and the COP building. A 12-ft wide service drive will be constructed along the north side of the building, between the COP and Ludcke Auditorium. An entryway courtyard area will be constructed at the main entrance of the

building, which is on the west side of the building as shown on Figure 2.

## **SUBSURFACE EXPLORATIONS**

A subsurface exploration program was conducted to provide data on soil and groundwater conditions within the areas of the building and parking lot and access roadways. The program consisted of 22 test borings, designated HA07-1 through HA07-22. The subsurface explorations were drilled by Maine Test Borings, Inc. of Brewer, Maine between 13 and 19 September 2007 and 2 and 3 October 2007. All explorations were monitored by Haley & Aldrich personnel. The borings were drilled at the approximate locations shown on Figures 2 and 3.

Test borings were advanced to depths ranging from 4.0 to 37.0 ft below ground surface (BGS). All borings were terminated in naturally deposited soils or bedrock. The boreholes were backfilled with drill spoils at the completion of the exploration program. Soil samples were typically obtained either continuously or at 5-ft intervals by driving a 1 3/8-in. I.D. split-spoon sampler with a 140-lb weight dropped 30 in. as indicated on the test boring logs. The number of hammer blows required to advance the sampler for each 6-in. interval was recorded and is provided on the test boring logs. The SPT N-value is the total number of the hammer blows required to advance the sampler through the middle 12 in. of the 24-in. sampling interval. The soils samples were collected and preserved in glass jars.

Bedrock was cored in test borings HA07-20 and HA07-22 using an NQ-size core barrel. Total bedrock core lengths ranged from 4.6 to 5.0 ft. The recovered rock core was collected and stored in a wooden box and is available for review.

Test boring and core boring logs are provided in Appendix A. The locations of the test borings shown on Figures 2 and 3 are approximate and were estimated in the field by taping/pacing from existing improvements. Please note that ground surface elevations at test boring locations shown on the logs in Appendix A are approximate and were estimated using site topographic information provided by SYTDesign.

Groundwater observation wells were installed in completed boreholes HA07-3, HA07-5, HA07-13 and HA07-21. The well installation and monitoring reports are included in Appendix B.

## **SUBSURFACE CONDITIONS**

### **Soil/Bedrock Conditions**

Five principal soil units were encountered beneath a surficial layer of topsoil or bituminous concrete during the recent subsurface explorations conducted at the site: fill, organic deposit, glacial outwash deposit, glacial marine deposit and glacial till. The topsoil thickness varied from 0.3 to 2.4 ft, and the bituminous concrete thickness varied from 0.3 to 0.4 ft. Bedrock was apparently encountered beneath the glacial outwash or glacial till at five test boring locations (3 of 5 were determined by practicable drilling/sampling refusal). The soil and bedrock units encountered beneath the topsoil and bituminous concrete are described below.

Fill – Fill material was encountered at all of the test boring locations except for HA07-3 through HA07-5. The encountered fill thickness in the borings varies from 0.2 to 14.2 ft, typically ranging between 1.5 and 3.5 ft within the footprint of the COP building. The fill typically consists of loose to very dense, poorly graded to well-graded sand and silty sand, generally consisting of recompacted glacial outwash or glacial marine soils. The thickest fill (14.2 ft thick) was encountered near the southern end of the existing gravel road at the terminus of College Street (HA07-7). At this location, the fill material between 6 and 12 ft BGS consisted of 25 to 75 percent coal slag and ash. Coal slag and ash were also encountered in the fill in boring HA07-8 within 3.5 ft of existing ground surface. This indicates that the northern portion of the existing gravel road was partially filled using ash-laden and/or slag-laden soils. SPT N-values in the borings ranged from 3 to 57 blows per foot (bpf).

Organic Deposit – Soils containing organic matter were encountered below the in-situ fill material beneath the north and west perimeter of the proposed parking area (i.e., HA07-13, HA07-16, HA07-17 and HA07-18). In all of the borings except HA07-17, the organic deposit was only 0.1 to 0.2 ft thick and consisted of sandy silt to silty sand with varying amounts of organic matter. This material likely consists of topsoil that was not stripped prior to construction of the existing athletic field. In boring HA07-17, the organic deposit consisted of 1.9 ft of soft, brown sandy peat. The SPT N-value for the peat was 4 bpf.

Glacial Outwash Deposit – A glacial outwash deposit was encountered beneath the topsoil or fill at ten of the boring locations, including 3 of the 4 borings drilled within the footprint of the COP building. The thickness of the glacial outwash deposit was not determined in 7 of the 10 locations where it was encountered. Where the deposit was penetrated (within the footprint of the COP), the encountered thickness varied from approximately 2 to 21 ft. This deposit generally consists of dense to very dense poorly to well-graded sand with gravel and silt. SPT N-values ranged from 10 to greater than 100 bpf, but were typically greater than 30 bpf.

Glacial Marine Deposit – A glacial marine deposit was encountered beneath the topsoil, fill or organic deposit at the 12 boring locations where glacial outwash soils were not encountered and beneath the glacial outwash deposit in borings HA07-19 and HA07-21. The thickness of the glacial outwash deposit was not determined in 9 of the 14 locations where it was encountered. Where the deposit was penetrated, the encountered thickness varied from approximately 2 to 35 ft. Within the footprint of the COP building, the deposit varied from approximately 13 to 20 ft thick. This deposit generally consists of loose to very dense poorly-graded sand with silt. SPT N-values for the glacial marine sand ranged from 3 to greater than 100 bpf. The loose soils were only encountered beneath the existing athletic field. Approximately 1 to 3 ft of glacial marine clay was encountered beneath the north and west portions of the athletic field (in test borings HA07-13, HA07-17 and HA07-18), consisting of soft to hard lean clay with varying amounts of sand. The clay was encountered below the glacial marine sand, and the top of the clay varies from 7 to 10.5 ft BGS.

Glacial Till – Glacial till was encountered beneath the glacial marine deposit at five test boring locations, including three of the borings drilled within the COP footprint (i.e., HA07-19, HA07-21 and HA07-22). The thickness of the deposit was not determined at HA07-10, where it was greater than 2.4 ft in thickness. At other locations, the encountered thickness



varied from 0.6 to 3.2 ft. This deposit typically consists of medium dense to very dense well-graded sand and silty sand with varying amounts of silt and gravel. SPT N-values ranged from 25 to greater than 100 bpf.

**Bedrock** – Bedrock was encountered (based on practicable drilling refusal or coring) in all of the borings drilled within the COP footprint (i.e., HA07-19 through HA07-22). The measured depth to bedrock ranged from 19.9 to 25.3 ft BGS within the COP footprint. The top of rock surface is relatively flat within the COP footprint but slopes down slightly from east (approximate El. 104.5 to El. 106.5) to west (approximate El. 101 to El. 102.5). Rock core samples were collected in test borings HA07-20 and HA07-22. The cored rock is described as hard to very hard, fresh to slightly weathered schist. Rock quality designation (RQD) values for the core specimens were relatively high, varying from 64 to 88 percent.

#### **Groundwater Conditions**

The depth to groundwater was measured in several of the completed boreholes immediately after drilling. The measured groundwater depths are provided on the boring logs in Appendix A. However, these measurements were influenced by the drilling operation and may not represent static water levels.

Several water level measurements were taken in the completed observation wells in between September 2007 and January 2008. The groundwater measurements in the observation wells are summarized below:

HA07-3(OW)	El. 102.8 to El. 103.2 (23.3 to 23.7 ft BGS)
HA07-5(OW)	El. 105.4 to El. 106.3 (18.7 to 19.6 ft BGS)
HA07-13(OW)	El. 93.3 to El. 93.9 (0.1 to 0.7 ft BGS)
HA07-21(OW)	El. 107.9 to El. 108.2 (18.3 to 18.6 ft BGS)

The measured groundwater depths indicate that the water levels vary by several feet over a relatively short distance within the area of the proposed COP building, considering that observation wells HA07-3(OW), HA07-5(OW) and HA07-21(OW) are all within approximately 250 ft of each other. This variance is likely a result of differences in the permeability of the subsurface soils and/or depth to top of bedrock surface. However, the measured groundwater depth has remained relatively constant in HA07-21(OW), located within the COP building footprint, over the three-month period that measurements have been taken.

It should be noted that the groundwater measurements recorded to-date are not likely to be representative of seasonal high groundwater levels because they were taken in the summer and early fall. We anticipate that seasonal high groundwater may be as much as 4 to 6 ft higher than the levels recorded in September and October 2007 in observation wells HA07-3(OW), HA07-5(OW) and HA07-21(OW).

Groundwater levels can be expected to fluctuate, subject to seasonal variation, local soil conditions, topography and precipitation. Groundwater levels encountered during construction may differ from those observed in the test borings or observation wells. Observation well installation and monitoring reports are included in Appendix B.

**LABORATORY TEST RESULTS**

Laboratory tests were conducted on representative soil samples from the test borings to quantify physical characteristics of the soils. Laboratory tests were performed to determine the water content and particle size distribution of representative samples from the borings. A summary of laboratory test results is provided in the table below, and the laboratory test reports are provided in Appendix C.

Test Boring	Sample Depth BGS (ft)	Material Type	USCS Classification	Particle Size Distribution			Natural Water Content (%)
				Percent Gravel	Percent Sand (coarse/med./fine)	Percent Fines <sup>1</sup>	
HA07-7	2-6	Fill	SM	14	9/30/28	18	6.8
HA07-10	0-2	Fill	SM	5	8/37/33	17	15.4
HA07-13	0.7-2	Fill	SP-SM	0	3/22/69	6	8.1
HA07-19	9.5-11.5	Glacial Marine	SP	0	0/26/71	3	6.5
HA07-20	9.5-11.5	Glacial Outwash	SP	1	5/58/34	2	2.0
HA07-22	0-2	Fill	SP-SM	30	9/29/21	10	2.8

<sup>1</sup> - Refers to the percentage of soil particles finer than the No. 200 (0.075 mm) sieve.

Organic content testing and moisture content testing was also performed on the sample of peat retrieved from boring HA07-17 at a depth of 4 to 6 ft BGS. The results of the laboratory tests on the peat sample are summarized below, and the laboratory reports are provided in Appendix C.

**Peat**

- Natural Water Content - 245.0 percent
- Organic Content - 32.6 percent

**FINLEY HALL INVESTIGATIONS**

On 7 and 14 December 2007, a Haley & Aldrich engineer visited Finley Hall to observe the basement and elevator pit to check for indications of past groundwater infiltration and other conditions that could be relevant to the foundation drainage and waterproofing details for the proposed College of Pharmacy (COP) building. Our observations and conclusions were summarized in a memorandum dated 17 December 2007 and is provided in Appendix D for information.

**GEOTECHNICAL RECOMMENDATIONS**

**Structural Loading Information**

Dan Burne of Becker Structural Engineers (Becker) provided us with typical column bay spacing and structural load information for the COP building by electronic mail on 10 October 2007. We used this information for our foundation evaluations. The structural information is summarized below:

- Typical column bay spacing of 21 ft by 20 to 34 ft.

- Typical dead plus live column loads (axial compression) of 375 kips (1 kip = 1,000 lb) for interior columns, 190 kips for perimeter columns and 100 kips for corner columns.
- Typical floor live loading of 100 psf (not including dead weight of proposed 6-in. thick slab).

Based on our discussions with Becker, we understand that the axial uplift loads for the COP are sufficiently small that they can be resisted by the dead load of the foundations and/or walls.

#### **Foundation Support**

We recommend that the COP building be supported on spread and continuous wall footing foundations bearing on undisturbed glacial outwash deposits, glacial marine deposits or glacial till. The footings should be designed based on an allowable bearing pressure, in pounds per square foot (psf), equal to 2,000 multiplied by the least lateral dimension of the footing in feet, up to a maximum of 8,000 psf. We recommend that all footings be at least 2 ft wide.

At the recommended allowable bearing pressure, we anticipate that the maximum post construction settlement of individual interior footings under static loading conditions, constructed as recommended herein, will not exceed  $\frac{3}{4}$  in., with up to  $\frac{1}{2}$  in. of differential settlement between interior columns and adjacent perimeter or corner columns. If  $\frac{1}{2}$  in. of differential settlement over the proposed bay spacing is not structurally acceptable, we recommend that flexible construction joints be considered to accommodate the anticipated differential movement. Most of the settlement should occur during construction shortly after structure dead loads are placed on the foundations and during the initial snow loading of the roof.

#### **Frost Protection**

Soils at the site are considered to be moderately frost-susceptible. Bottoms of exterior footings should be founded a minimum of 4.5 ft below the lowest adjacent ground surface exposed to freezing. Bottoms of interior footings in heated areas should be founded a minimum of 1.5 ft below the top of the adjacent floor slab. However, if exposure to freezing is anticipated either during or following construction, these footings should be lowered in accordance with the recommendations for exterior footings, or the subgrades and foundations should be insulated to prevent freezing.

#### **Ground Floor Slab**

We recommend that the lowest-level floor slab be designed as a soil-supported concrete slab-on-grade. The floor slab should bear on a minimum 12-in. thick layer of crushed stone, overlain by waterproofing as discussed previously and underlain by separation filter fabric as outlined below in the foundation drainage section.

### **Resistance of Lateral Design Building Loads**

Lateral loads can be resisted by a combination of friction along the base of the footings and passive pressure on the vertical faces of footings. Frictional resistance should be computed using an ultimate base friction coefficient ( $\tan \delta$ ) between the footing concrete and the naturally deposited soils or granular fill equal to 0.30.

The net passive resistance (passive minus active) provided by the fill surrounding footings and foundation walls can be calculated using an equivalent fluid weight (triangular distribution) of 150 pounds per cubic foot (pcf). The soil within 1 ft of ground surface should be ignored unless it is confined by a slab or bituminous concrete. If the horizontal distance between adjacent footings or walls is less than twice the height of the subject structural element (measured from bottom of element to bottom of slab/ground surface), the passive pressure must be discounted proportionately to the distance (full pressure at twice the height away) to accommodate for interaction of the elements.

The frictional and passive resistance values may be used in combination without reduction. If a combination of these two resistance forces is not enough to provide adequate lateral resistance, we will consider the problem in more detail. A minimum factor of safety for sliding equal to 2.0 should be achieved for resistance of permanent lateral loads.

### **Foundation Drainage System**

As mentioned previously, we anticipate that seasonal high groundwater levels will be several feet above the current levels. We anticipate that typical, sustained seasonal high groundwater levels may rise as much as 4 to 6 ft above current levels (El. 112 to El. 114), but it will generally stay below the level of the bottom of the basement floor slab. However, the groundwater level in the vicinity of the COP building may rise to or slightly above the level of the basement floor slab (El. 115) following a major storm event (e.g., 10-year storm) causing a sudden, short-term rise of the groundwater level. Therefore, we recommend that a permanent foundation drainage system be installed for the building to protect the slab from hydrostatic pressures.

The system should include an underslab drain system installed below the basement floor slab. This system should consist of separation filter fabric placed on the prepared, approved soil subgrade, a minimum 12 in. thickness of  $\frac{3}{4}$ -in. crushed stone placed above the fabric, and a network of 4 in. diameter perforated PVC or corrugated HDPE drain pipes (laid flat) embedded mid-height in the crushed stone layer. We recommend that one section of pipe be installed in each column bay (in the north-south and east-west directions). We estimate that the invert of the pipes would be approximately 12 in. below the finish floor elevation (i.e., El. 114).

The system should also include perimeter drains installed along the exterior side of the below-grade building foundation walls adjacent to the ground floor slab. We recommend that the system consist of a 4-in. diameter continuous perforated PVC or HDPE drain pipe (laid flat), surrounded by a minimum of 6 in. of crushed stone, wrapped in separation filter fabric. The invert level of the drain pipe should be positioned above the top of the wall footings and approximately 12 in. below the bottom of the ground floor slab. Per the requirements of the

IBC Code, the perimeter drain (including the pipe, crushed stone and filter fabric) should extend a minimum of 12 in. beyond the outside edge of the footing. We recommend that free-draining granular backfill (e.g., CGF) be placed within a minimum of 5 ft of below grade portions of the foundation walls.

Perimeter and underslab drain pipes should be installed at roughly the same invert elevation and should be laid flat. The underslab and perimeter drain pipes should be connected by constructing "wall-through" or "box-out" penetrations at discrete locations in the foundation wall. Considering the proposed waterproofing system, it will be necessary to coordinate penetrations through the foundation wall with appropriate waterproofing details. It will not be feasible to discharge the foundation drainage system by gravity into an appropriate receptor (e.g., new or existing storm drain system). Therefore, it will be necessary to install a sump pit with pumps to discharge the effluent from the system. Sump pits should be equipped with dual pumps with alternating cycles. The pumps should be wired into an emergency power source (e.g., generator). Based on groundwater seepage estimates, we recommend that the pumps be capable of pumping 50 gallons per minute (gpm). We understand that the sump pit will be constructed in a manhole located on the outside of the building adjacent to the foundation wall.

Pipe cleanouts should be provided at system corners (for both perimeter and underslab drain piping) to allow for future maintenance. Haley & Aldrich will coordinate the location and invert level of the drains, wall through penetrations and sump location/orientation with the Plumbing Consultant, Site Civil Engineer and Structural Engineer. It will be necessary to coordinate cleanouts located in the basement with appropriate waterproofing details.

As an additional measure of protection, surface runoff should be directed away from the building. In general, the level of the finished ground surface adjacent to the building should be sloped downward away from the structure to divert surface runoff. To limit surface water infiltration into the drainage system, it is recommended that the upper 8 in. of backfill within 10 ft of the building, in unpaved areas, consist of topsoil or other soil having low permeability.

We will provide a foundation drainage plan along with the appropriate drain system details for inclusion in the contract documents once the location and elevations of the below slab utilities are finalized.

#### **Seismic Design Considerations**

We understand that the proposed building will be designed in accordance with the seismic requirements of Table 1615.1.1 of the 2006 International Building Code (IBC). We recommend that the site be considered as Site Class "C". We recommend the following values be used to determine the design spectral response acceleration parameters ( $S_Ds$  and  $S_{D1}$ ) and to calculate the base shear for purposes of seismic design:

- Mapped Spectral Accelerations for Short Periods:  $S_s = 0.32g$
- Mapped Spectral Accelerations for 1-Second Periods:  $S_1 = 0.078g$
- Site Coefficient for Short Periods:  $F_a = 1.2$
- Site Coefficient for 1-Second Periods:  $F_v = 1.7$

Please note that "g" refers to acceleration due to gravity.

The foundation soils are not considered to be susceptible to liquefaction.

#### **Dampproofing/Waterproofing**

We understand that the entire basement level will have positive-side waterproofing, located outside of the basement walls and below the slab and footings, to provide extra protection for the vivarium. As discussed with you, it is our opinion that subslab waterproofing is not needed, and humidity/moisture could be controlled by the proper installation of a subslab vapor barrier.

In general, we recommend that insulation be placed on the outside face of foundation walls where the adjacent interior space is below the level of the exterior ground surface, in accordance with the IBC Code.

The plans indicate that the base slab for the elevator pit is located below the invert of the underdrain system (El. 114). Therefore, the base slab should be designed to resist hydrostatic uplift loads based on a groundwater level at El. 116. We recommend that the walls and slab for the elevator pit be waterproofed.

Evaluations for the need to control humidity to prevent the formation of mold or other organisms within the building were not within the scope of work of this evaluation. If vapor barriers are used, the floor slab design and construction must be coordinated with the vapor barrier installation, as the barriers may impact concrete curing and curling.

#### **Lateral Earth Pressures on Foundation Walls**

We recommend that any exterior below-grade foundation walls retaining soil on one side and restrained at the top should be designed for static lateral earth pressures using an equivalent fluid unit weight of 60 lbs per cubic foot (pcf). Cantilever walls (i.e., walls that are free to rotate at the top) should be designed using an equivalent fluid unit weight of 40 pcf. These fluid weights assume that a free-draining granular backfill is placed within a minimum of 5 ft of the wall (with moist unit weight equal to 120 pcf) and that no unbalanced hydrostatic pressures exist (i.e., "drained condition"). Walls that are subjected to a surcharge due to floor slab live loading should be designed for an additional uniform lateral pressure equal to one-half the vertical design surcharge load, acting over the full height of the wall.

If the elevator pit is not drained, the walls should be designed for static lateral earth pressures using an equivalent fluid weight of 90 pcf.

#### **Pavement Section**

Recommendations for bituminous pavement section for auto traffic for the paved areas surrounding the COP building are provided below based upon the Maine Department of Transportation (MaineDOT) Standard Specification, Highways and Bridges (December 2002):

Standard-Duty Flexible Pavement (auto traffic/parking areas):

- 3 in. bituminous concrete, placed in two 1½ in. thick layers.
- 4 in. screened or crushed gravel base course.
- 12 in. sand or gravel subbase course.

Base and subbase course materials should conform to the following gradations:

*Screened or Crushed Gravel* - MaineDOT Standard Specification, Highways and Bridges; Section 703.06a, Type A.

*Sand or Gravel Subbase* - MaineDOT Standard Specification, Highways and Bridges; Section 703.06b, Type D. Type D aggregate should be modified to a maximum 4 in. size.

Subbase course material should be placed and compacted in separate 8 in. (maximum) thick loose lifts and compacted at approximately optimum moisture content to a minimum dry density of at least 95 percent of the maximum dry density as determined by ASTM D1557. Base course material should be placed in one loose lift and compacted with a minimum of two passes with self-propelled vibratory compaction equipment.

Prior to placement of pavement base and subbase course materials, all topsoil, organic matter and fill materials containing debris should be removed from within the limits of the proposed roadway/parking areas. The pavement recommendations are based on the assumption that a stable, firm subgrade is prepared beneath the base and subbase courses, as discussed in the Construction Considerations section of this report.

Pavement design recommendations can be provided for the access road and parking area in the northern portion of the site when design grading is available for our review.

#### **Sidewalks**

Concrete sidewalks should be supported on a minimum of 1.5 ft of CGF or subbase gravel. The soils at the site are considered to be moderately frost-susceptible and the purpose of placing free-draining granular soil below the sidewalks is to help control the potential for post-construction differential heaving and cracking. Prior to placement of CGF or subbase gravel, all topsoil, organic matter and fill materials containing debris should be removed from within the limits of the proposed roadway/parking area.

### **CONSTRUCTION CONSIDERATIONS**

#### **General**

The primary purpose of this section of the report is to comment on items related to excavation, earthwork, and other related geotechnical concerns regarding the proposed construction. This will aid individuals responsible for preparation of plans and specifications, as well as personnel appointed to monitor construction activities. The contractor must evaluate construction problems on the basis of knowledge and experience in the Portland area as well as their experience on similar projects in other localities, taking into account proposed

construction procedures, methods, equipment, and personnel.

### **Excavation**

Excavation will be required for general site grading, and for construction of building foundations, the elevator pit, underground utilities, and sidewalks. We anticipate that excavation as deep as 14 ft BGS will be required to construct the COP footings and install the foundation drainage system. We anticipate that an additional 5 ft of excavation will be required to allow construction of the elevator pit.

All topsoil, debris and organic matter encountered within the limits of the proposed sidewalk and paved areas should be stripped and removed from the site, prior to placing site fills.

We expect that excavation of the in-situ soils can typically be accomplished using normal earth-moving equipment. Considering the age of the Westbrook Campus, we anticipate that areas of uncontrolled fill or obstructions associated with previous site uses may be encountered during excavation. At the location of boring HA07-2/2A, three different boring locations met refusal on buried debris within 5 ft of the ground surface prior to advancing boring HA07-2A. We recommend that the contract documents require the contractor to include provisions for obstruction removal in their earthwork bid.

The shallowest bedrock was encountered at approximately El. 106.5 (boring HA07-22) in the southeast corner of the proposed COP building footprint, with top of rock elevations ranging from about El. 101 to El. 104.5 in the other borings drilled in the building footprint. Therefore, the available information indicates that bedrock will likely be at least 8 ft below the level of the basement slab and at least 3 ft below the bottom of the excavation for the elevator pit. If shallower rock is encountered or the bedrock surface is locally higher than the levels encountered in the test borings, the use of drilling and blasting or other excavation techniques may be required for rock removal.

If blasting is required, the excavation contractor should be made responsible for the design and implementation of a blasting plan that meets applicable local, state and federal agency requirements, is safe and does not adversely impact adjacent structures, property or the general public.

Excavations will typically be made into sand with little or no fine-grained soil. Temporary cut earth slopes should, typically, be stable if constructed no steeper than about 1.5H:1V. Some sloughing and raveling should be anticipated in temporary earth slopes, especially during and after rainfall. All temporary excavations should be made in accordance with all OSHA and other applicable regulatory agency requirements. The contractor should be responsible for the design, stability and safety of all temporary and permanent excavations.

### **Temporary Excavation Support System**

Based on the anticipated elevation of the bottom of footings in the basement area (approximately El. 112), existing site grades adjacent to the proposed basement excavation (El. 126 to El. 127) and the proximity of the property lines and Ludcke Hall relative to the location of the proposed basement area, it is likely that an excavation support system will be



required to construct the basement level of the proposed building. Based on subsurface soil, rock and groundwater conditions at the site, we anticipate that the most cost effective excavation support system will consist of a soldier pile and lagging wall. It may be necessary to socket the soldier piles into bedrock in some areas (e.g., where soldier piles extend below El. 106 to El. 101). A "benched" excavation support system may be appropriate and should be considered.

We anticipate that support of excavation systems retaining greater than 15 ft of soil will require lateral support in the form of tiebacks or internal bracing. The excavation support system will be designed by the Contractor's engineer as part of the submittal process based on the design requirements outlined in the project specifications. Soil and groundwater properties and other design parameters will be provided in the specifications.

#### **Construction Dewatering**

Groundwater has generally been measured at elevations ranging from El. 103 to El. 108 in the vicinity of the proposed COP building footprint. We anticipate that groundwater will be encountered in excavations that extend deeper than these elevations. Groundwater will likely be encountered at shallower depths if excavation is performed in the spring or early summer. We expect that dewatering in these areas may be accomplished by pumping from open sumps and temporary ditches located at the base of the excavations. Sumps should be provided with filters suitable to prevent pumping of fine grained soil particles. Rainwater or snowmelt should be directed away from exposed soil bearing surfaces.

Dewatering and discharge of dewatering effluent should be performed in accordance with all applicable local, state and federal regulations. Due to the size of the site and the non permeable nature of the near surface soils, we anticipate that on-site recharge will not be feasible and that dewatering effluent will need to be discharged to a local storm drain. Sedimentation tanks or other treatment methods may be required for legal disposal of the effluent.

The contractor should be responsible for controlling all surface runoff, infiltration and water from other sources at all times during excavation. Rainwater or snowmelt should be directed away from exposed soil bearing surfaces. Dewatering should be performed as required to maintain the undisturbed nature of the soil bearing surfaces and enable all final excavation, foundation construction and backfilling to be completed "in-the-dry."

Dewatering should be performed in accordance with all applicable regulations. Dewatering should be conducted in a manner that avoids disturbance or undermining of existing foundations, backfill, prepared foundation subgrades, and that limits pumping of fines.

#### **Subgrade Preparation**

The following guidelines are recommended to protect subgrade soils beneath the new slab and footings:

- Make final excavations into bearing soils using smooth-bladed equipment to minimize disturbance.
- All work should be performed in the dry. Prevent water from accumulating on

bearing surfaces to reduce the possibility of softening. Surfaces that become disturbed due to softening should be excavated and stabilized with placement of crushed stone and filter fabric, as necessary, with approval of a geotechnical engineer.

- Exposed bearing surfaces should be examined in the field by an experienced geotechnical engineer or technician to verify strength and bearing capacity. Excavation may be necessary to remove weak, disturbed or otherwise unacceptable soils.
- Limit equipment and worker traffic on the finished bearing surfaces.

### Footings

We recommend that the excavation work be conducted in a manner that minimizes disturbance to the subgrade soils when excavating for footing bearing surfaces. After final excavation to the design bearing levels, the exposed subgrade should be observed in the field by the Owner's on-site representative to confirm the assumed foundation bearing conditions. It may be necessary to over-excavate and replace locally weak, disturbed or otherwise unacceptable foundation bearing soils. Following excavation to the bearing stratum, exposed granular soil surfaces should be proofrolled with a minimum of two passes of a self-propelled vibratory roller or heavy hand-guided vibratory compactor, until firm, if the bearing soils are loosened by the excavation process as judged by the Owner's on-site representative. Saturated bearing soils should not be proofrolled.

Soil bearing surfaces below completed foundations and slabs must be protected against freezing, before and after foundation construction. If construction is performed during freezing weather, footings should be backfilled to a sufficient depth (up to 4.5 ft) as soon as possible after they are constructed. Alternatively, insulating blankets or other means may be used for protection against freezing.

### Slab-on-Grade

Any debris and/or disturbed material should be removed from beneath the ground floor slab and should be replaced with CGF, lean concrete or crushed stone. Existing soil should be removed to a depth of 1 ft below the bottom of the floor slab for placement of the filter fabric and crushed stone for the foundation drainage system. We recommend that floor slab subgrade surface be inspected by a geotechnical engineer prior to placement of fill or construction of the floor slab.

### Pavement Areas/Sidewalks

All topsoil, debris and organic matter should be removed within the limits of the sidewalk and pavement areas. Prior to placing any additional fill or base course material within these areas, the soil subgrade should be proofrolled with a minimum of four passes of a self-propelled vibratory roller. Any soft areas revealed by proofrolling should be removed and replaced by CGF. The surface should then be compacted with additional passes of the vibratory roller as deemed appropriate by the Owner's on-site representative.

### **Filling and Backfilling**

Filling will be required to raise grades in some areas during general site grading. All topsoil, debris and organic matter should be removed as stated above prior to placement of fill material.

Placement of compacted fills should not be conducted when air temperatures are low enough (approximately 30 degrees F., or below) to cause freezing of the moisture in the fill during or before placement. Fill materials should not be placed on snow, ice or uncompacted frozen soil. Compacted fill should not be placed on frozen soil. No fill should be allowed to freeze prior to compaction. At the end of each day's operations, the last lift of fill, after compaction, should be rolled by a smooth-wheeled roller to eliminate ridges of uncompacted soil.

### **Fill Materials**

#### Compacted Granular Fill

Compacted granular fill (CGF) placed within the ZOI of footings, beneath building slabs, and adjacent to foundation walls should consist of mineral, bank-run sand and gravel, free of organic material, snow, ice, or other unsuitable materials and should be well-graded within the following limits:

<u>Sieve Size</u>	<u>Percent Finer by Weight</u>
6 in. <sup>(1)</sup>	100
No. 4	30 - 80
No. 40	10 - 50
No. 200	0 - 8

- (1) Cobbles or boulders having a size exceeding 2/3 of the loose lift thickness should be removed prior to compaction.

CGF should be placed in lifts not exceeding 12 in. in loose measure and compacted using self-propelled vibratory equipment. The soil should be placed near its approximate optimum moisture content to achieve a dry density of at least 95 percent of the maximum dry density, as determined in accordance with ASTM D1557. In confined areas, maximum particle size should be reduced to 3 in., maximum loose layer reduced to 6 in., and compaction performed by hand-guided equipment. A minimum of four systematic passes of the compaction equipment should be used to compact each lift. Cobbles or boulders having a size exceeding 2/3 of the loose lift thickness should be removed prior to compaction.

CGF placed on the outside of the perimeter foundation walls should extend laterally a minimum of 5 ft beyond the walls. Backfill beyond this limit may consist of common fill. The top 8 in. of fill around the exterior of the building should consist of low permeability material used to minimize water infiltration adjacent to the structure. Grading should be designed to promote drainage of surface water away from the structure.

Excavated glacial outwash soils and glacial marine soils are not considered acceptable for reuse as CGF within 5 ft of the basement walls due to the fine-grained nature and relatively low permeability of these soils. In-situ fill soils within the footprint of the COP may be suitable for reuse as CGF. If the contractor wishes to reuse this material, the fill should be stripped, stockpiled and tested to confirm that the gradation requirements are met.

#### Common Fill

The in-situ fill (excluding any debris-laden material) and naturally deposited glacial outwash and glacial marine soils are acceptable for use as common fill if they meet the requirements summarized below.

Common fill should consist of mineral sandy soil, free from organic matter, plastic, metal, wood, ice, snow or other deleterious material and should have the characteristic that it can be readily placed and compacted. Common fill imported to the site should have a maximum of 80 percent passing the No. 40 sieve and a maximum of 30 percent finer than the No. 200 sieve. The largest particle size for common fill should not exceed 2/3 of the loose lift thickness. Silty common fill soils may require moisture control during placement and compaction. Common fill should be placed in maximum 12 in. thick loose lifts using compaction equipment as described above for CGF.

Where common fill is used to raise grades beneath sidewalks and paved areas and as backfill more than 5 ft from the basement walls, it is recommended that either glacial outwash soils or sandy glacial marine soils be used to promote proper compaction.

#### **Compaction Requirements**

A summary of recommended compaction requirements is as follows:

<b>Location</b>	<b>Minimum Compaction Requirements</b>
Beneath footings and building slabs	95 percent
Parking, roadways and sidewalks	92 percent up to 3 ft below finished grade 95 percent in the upper 3 ft
Basement wall backfill (within 5 ft of wall)	95 percent
Landscaped areas	90 percent nominal compaction

Minimum compaction requirements refer to percentages of the maximum dry density determined in accordance with ASTM D1557.

#### **Preparation of Contract Documents and Submittal Reviews**

The contract drawings and specifications should be written so that the requirements of the documents are consistent with the design intent of the geotechnical recommendations outlined herein. Therefore, we recommend that Haley & Aldrich either be retained to prepare or provide technical review of the specifications and contract drawings related to the following topics:

- Earthwork
- Foundation Drainage
- Construction Dewatering
- Temporary Excavation Support System

We recommend that Haley & Aldrich be retained to provide foundation drainage plans and details for the COP building.

The contract specifications will require the Contractor and the Contractor's engineer to perform analyses and submit results to the designers for review. We recommend that Haley & Aldrich be allowed to review the geotechnical-related submittals to ensure that the Contractor's analyses/submittals are in accordance with the intent of the design. Haley & Aldrich should also respond to geotechnical-related RFIs from the Contractor, as needed.

#### **Construction Monitoring**

The foundation recommendations contained herein are based on the predictable behavior of a properly engineered and constructed foundation. Monitoring of the foundation construction is required to enable the geotechnical engineer to keep in contact with procedures and techniques used in construction, and to comply with Section 1808.2.10 of the IBC Code. Therefore, it is recommended that a geotechnical engineer or experienced technician be present during construction to monitor the following activities.

- Installation/testing of temporary excavation support system(s).
- Excavation to subgrade levels and subgrade inspection prior to construction of footings and slabs.
- Installation of the foundation drainage system.
- Placement and compaction testing of site fills.
- Confirming that soils used as backfill are in accordance with the project plans and specifications, and making judgments on suitability of excavated soils for reuse as fill.
- Backfilling adjacent to foundation walls and beneath the building slab.
- Inspection of the slab and pavement subgrade prior to slab construction/pavement installation.

We ask that you consider Haley & Aldrich be allowed to provide these services.

#### **LIMITATIONS**

This report is prepared for the exclusive use of the University of New England relative to the proposed College of Pharmacy project in Portland, Maine. There are no intended beneficiaries other than the University of New England. Haley & Aldrich shall owe no duty whatsoever to any other person or entity on account of the Agreement or the report. Use of this report by any person or entity other than the University of New England for any purpose whatsoever is expressly forbidden unless such other person or entity obtains written authorization from the University of New England and from Haley & Aldrich. Use of this report by such other person or entity without the written authorization of the University of New England and Haley & Aldrich shall be at such other person's or entities sole risk, and shall be without legal exposure or liability to Haley & Aldrich.

Use of this Report by any person or entity, including by the University of New England, for a purpose other than the proposed College of Pharmacy project in Portland, Maine is expressly prohibited unless such person or entity obtains written authorization from Haley & Aldrich indicating that the Report is adequate for such other use. Use of this Report by any other person or entity for such other purpose without written authorization by Haley & Aldrich shall be at such person's or entities sole risk, and shall be without legal exposure or liability to Haley & Aldrich.

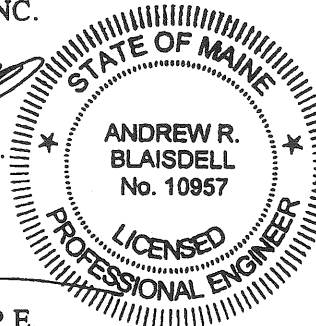
The analyses and recommendations are based, in part, upon the data obtained from the referenced subsurface explorations. The nature and extent of variations between explorations may not become evident until construction. If variations then appear, it may be necessary to reevaluate the recommendations presented in this report.

We appreciate the opportunity to provide geotechnical engineering services on this project. Please do not hesitate to call if you have any questions or comments.

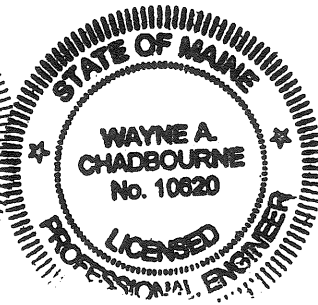
Sincerely yours,  
HALEY & ALDRICH, INC.



Andrew R. Blaisdell, P.E.  
Senior Engineer



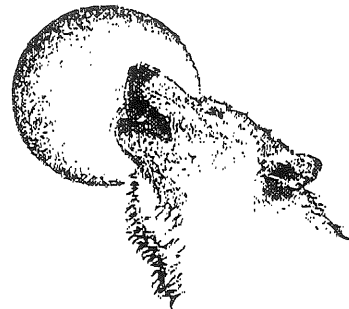
Wayne A. Chadbourne, P.E.  
Vice President



Enclosures:

- Table I - Summary of Subsurface Explorations
- Figure 1 - Project Locus
- Figure 2 - Site and Subsurface Exploration Location Plan (College of Pharmacy)
- Figure 3 - Site and Subsurface Exploration Location Plan (Parking Improvements)
- Appendix A - Test Boring Logs
- Appendix B - Observation Well Installation and Groundwater Monitoring Reports
- Appendix C - Laboratory Test Reports
- Appendix D - 17 December 2007 Memorandum by Haley & Aldrich, Inc. entitled "Summary of Site Visit, Elevator Pit in Finley Hall Athletic Center"

- c: Port City Architecture; Attn.: Lita Semrau  
SYTDesign Consultants; Attn.: Peter Biegel  
Becker Structural Engineers; Attn.: Dan Burne



# Call of the Wild Consulting and Environmental Services

December 7, 2007

Shukria Wiar, Planner  
City of Portland  
Planning & Urban Development  
389 Congress Street  
Portland, ME 04101

**RE: Peer review of "Gullivers Field" at University of New England Campus in Portland**

Dear Ms. Wiar:

At the request of Woodard & Curran, Inc., Call of the Wild Consulting was requested to provide peer review comments focusing on wildlife habitat on the proposed development project associated with "Gullivers Field" at the University of New England Campus off of Route 100 and adjacent to the Evergreen Cemetery. Call of the Wild conducted a site visit on December 5<sup>th</sup> and reviewed the Wetland Delineation Report for The University of New England, Portland, Maine, May 2007, prepared by Broadwater Environmental, Inc. Call of the Wild has also researched literature documentation on the area's wildlife habitat value. We offer the following comments as result of our review.

## Peer Review Results

Call of the Wild Consulting concurs with Broadwater Environmental's descriptions of the wetland resource types at the site. In addition, we also agree that there has been extensive wetland filling at this site for the roadways and soccer field. Does the applicant have documentation of having obtain a Army Corps Permit and other State authorization for these alterations?

This site is providing very significant migratory passerine (songbird) stopover habitat for both the spring and fall migrations. In fact, this area is a premier destination site for spring birding because of the large variety of bird species and numbers. In *A Birder's Guide to Maine* by Peirson, Peirson, and Vickery they state that "In spring, virtually every eastern warbler is found regularly at evergreen and softwood species". This includes Cape May, Blackburnian, Bay-breasted, and Blackpoll warblers. Rare species such as Blue-winged, Golden-winged, Cerulean, Hooded, Kentucky and Worm-eating warblers have also been documented here. Species such as the Winter wren and Pileated Woodpecker nests in this area. Waterfowl and gulls utilize the ponds at the site during open water seasons. Maine Audubon, has been birding this area for 35 years.

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Spring migrating passerine birds coming from Central and South America utilize these significant stopover areas to "refuel" on protein obtained from insect species associated with trees and shrubs. Wetland shrubs such as the speckled alder (*Alnus rugosa*) have one of the highest number of insect species associated with its bark and leaves. Alder is the food plant for the Luna Moth, Large Looper Moth, Lappet Moth, and Alder Leaf Beetle to name a few. It is one of the most important sources of insect food for these migrants. The Palustrine scrub-shrub (PSS) as well as the Palustrine forested wetlands (PFO) on the site are playing a very important role in providing high value migration stopover and nesting habitat. Alder wetlands also provide preferred breeding habitat for the American Woodcock and excellent drumming sites for the Ruffed Grouse.

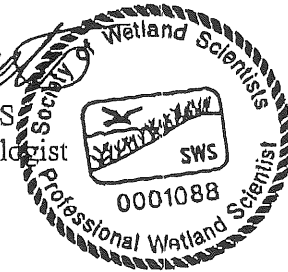
Call of the Wild observed documentation of the presence of red fox, red and gray squirrels, microtines, and mustilids at the site.

**Conclusion**

The proposed project will have significant adverse impacts on the migration stopover habitat in this area due to direct habitat loss, degraded water quality associated with parking lot run-off and light pollution. This area is a well documented, important ecological area in Portland that Call of the Wild recommends permanent protection with an out right purchase by the City or negotiating a conservation easement from the University of New England.

Sincerely,

*C. Diane Boretos*  
 C. Diane Boretos, PWS  
 Wetland/ Wildlife Biologist



Cc: D. Goyette, Woodard & Curran



COPY

John Elias Baldacci  
Governor  
State of Maine



Joseph E. Tinkham, II  
Major General  
Commissioner

SEP 5 2003  
*from Carmel*

Department of Defense, Veterans and Emergency Management  
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RENTAL AGREEMENT

BETWEEN

STATE OF MAINE

DEPARTMENT OF DEFENSE, VETERANS and EMERGENCY MANAGEMENT

(DVEM)

AND

UNIVERSITY OF NEW ENGLAND

SUBJECT: Parking at Stevens Avenue Armory, Lease Agreement (003-3)

THIS AGREEMENT, effective, the 1st day of September, 2003 by and between the State of Maine, Department of Defense, Veterans and Emergency Management (DVEM), with offices at Camp Keyes, Augusta, Maine and The University of New England.

WHEREAS the State of Maine, Department of Defense, Veterans and Emergency Management is owner of the Stevens Avenue Armory, Portland, Maine, and,

WHEREAS THEREFORE the University of New England is interested in renting parking spaces in the gravel parking lot in the front of the armory for approximately 10 vehicles.

NOW THEREFORE the State of Maine, Department of Defense, Veterans and Emergency Management hereinafter called the "DVEM" and The University of New England hereinafter called "User" agree as follows:

1. Premises. DVEM hereby rents to the University of New England the following:
  - a. Parking spaces in the gravel parking lot in front of the armory for approximately 10 vehicles,

(Hereinafter referred to as "premises") upon the conditions provided for in this agreement, except if said spaces are needed in whole or in part by the Maine National Guard for federal mobilizations and/or state emergency duty purposes.