

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Please Read Application And Notes, If Any, Attached

This is to certify that _____

has permission to _____

at _____

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

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

OTHER REQUIRED APPROVALS

Fire Dept. _____

Health Dept. _____

Appeal Board _____

Other _____

Department Name _____

PENALTY FOR REMOVING THIS CARD

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

Notification of inspection must be given and when permitted to proceed before this building or part thereof is occupied or altered. (See- in. FOR NOTIFICATION REQUIRED.)

Director - Building & Inspection Services
[Signature]

Permit Number: 041024

SHELL CASE

Build new 27819 sq. Ft. Addition for academic research.

At 96 Falmouth St

City of Portland, 114A A001001

Location of Construction: 96 Falmouth St University Of Maine	Owner Name: University Of Maine	Owner Address: 107 Maine Ave	Phone: 207-780-4751
Business Name: n/a	Contractor Name: Ktaro K. Kelly	Contractor Address: 100 Foden Road West, Suite 300 So. P	Phone: 207-874-2323
Lessee/Buyer's Name: n/a	Phone: n/a	Permit Type: Additions - Commercial	Zone: R-1

Past Use: University of Southern Maine	Proposed Use: University of Southern Maine / Build new 27819 sq. Ft. Addition for academic / research.	Permit Fee: \$1,657,056.00	CEO District: 2
Proposed Project Description: Build new 27819 sq. Ft. Addition for academic / research.	FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: 3 Type: 2	Signature: [Signature]
	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]

Permit Taken By: gg	Date Applied For: 07/22/2004	Signature: [Signature]	Date: [Date]
Zoning Approval		Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	Signature: [Signature]

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.

Special Zone or Reviews N/A	Shoreland <input type="checkbox"/>	Wetland <input type="checkbox"/>	Flood Zone Zone C	Subdivision <input type="checkbox"/>	Site Plan <input checked="" type="checkbox"/>	Date: 07/22/04
Zoning Appeal Variance on the part of [Signature]	Miscellaneous <input type="checkbox"/>	Conditional Use <input type="checkbox"/>	Interpretation <input type="checkbox"/>	Approved w/Conditions <input checked="" type="checkbox"/>	Approved <input checked="" type="checkbox"/>	Date: Sept 18, 2003
Historic Preservation <input type="checkbox"/> Not in District or Landmark	Does Not Require Review <input type="checkbox"/>	Requires Review <input type="checkbox"/>	Approved <input type="checkbox"/>	Approved <input type="checkbox"/>	Denied <input type="checkbox"/>	Date: [Date]

CERTIFICATION

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

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

2001 Ocean Road West, Suite 300 So. P (207) 874-2323

Phone: n/a
 Permit Type: Additions - Commercial

Proposed Use: University of Southern Maine / Build new 27819 sq. Ft. Addition for academic / research.
 Proposed Project Description: Build new 27819 sq. Ft. Addition for academic / research.

Dept: Zoning Status: Approved Reviewer: Marge Schmuckal
 Note: ZBA approved the height of 7'14" on Sept 18, 2003 with a two year length of approval
 Approval Date: 07/22/2004 Ok to Issue:

Dept: Building Status: Approved with Conditions Reviewer: Mike Nugent
 Note: This permit is for the Shell, separate space fit up permits are required prior to commencement of construction of the spaces.
 Approval Date: 09/14/2004 Ok to Issue:

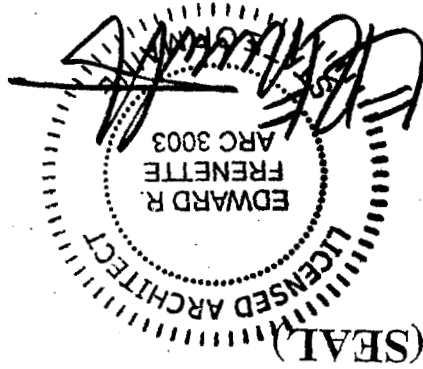
Dept: Fire Status: Approved with Conditions Reviewer: Lt. MacDougal
 Note: 1) the sprinkler system and fire alarm system shall be tested to the appropriate standard and the results shall be submitted to the Portland Fire Department
 2) the DET-6 shall comply with the City of Portland Fire Department requirement
 3) the fire alarm system shall be installed in accordance with NFPA 72 standards
 4) the sprinkler system shall be installed in accordance with NFPA 13 standards
 Approval Date: 07/29/2004 Ok to Issue:

Dept: Engineering Status: Approved with Conditions Reviewer: Tony
 Note: PUBLIC WORKS ENGINEERING REVIEW...10/15/03
 Approval Date: 10/15/2003 Ok to Issue:

I am recommending approval of this development proposal contingent upon the developers request and receipt of a sanitary sewer capacity letter from this department.

Dept: Fire Status: Approved Reviewer: Lt. MacDougal
 Note: 10/15/2003 Ok to Issue:

Dept: Planning Status: Approved Reviewer: Sarah Hopkins
 Note: 08/17/2004 Ok to Issue:



Phone: 617-547-5400

Cambridge, MA 02138

Address: 1000 Massachusetts Ave.

Firm: Symmes Maini & McKee Associates

Title: Principal

Signature: *[Handwritten Signature]*

Maine Human Rights Law and Federal Americans with Disability Act.

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the

Building Research Wing Expansion

Nature of Project: University of Southern Maine Science

Address of Project: 70 Falmouth Street, Portland, ME 04104

Designer: Symmes Maini & McKee Associates

ACCESSIBILITY CERTIFICATE

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





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

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

FROM: Symmes Maini & McKee Associates

RE: Certificate of Design

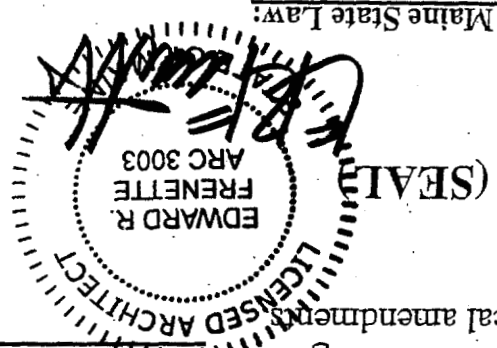
DATE: 12 July 2004

These plans and / or specifications covering construction work on:

University of Southern Maine Science Building Research Wing Expansion

70 Falmouth Street, Portland, ME 04104

Have been designed and drawn up by the undersigned, a Maine registered Architect /
Engineer according to the *BOCA National Building Code / 1999 (Fourteenth Edition)*



As per Maine State Law:

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

Signature: *Edward R. Frenette*
Title: Principal
Firm: Symmes Maini & McKee Associates
Address: 1000 Massachusetts Avenue
Cambridge, MA 02138

Signature of applicant: _____ Date: _____

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.

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

Contractor's name, address & telephone: Pizzagalli Construction Company
 Who should we contact when the permit is ready: Brian Holmes
 Mailing address: 100 Foden Rd Suite 300
South Portland ME 04106
 We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: 207-874-2323

Project description: new 70' x 130' * 8' doors
 Proposed use: new 70' x 130' * 8' doors
 Approximately how long has it been vacant: _____
 If the location is currently vacant, what was prior use: _____
 Current use: Academic/Research Building 874-2323

Tax Assessor's Chart, Block & Lot Chart# <u>114</u> Block# <u>AA001</u> Lot# <u>1</u>	Lessee/Buyer's Name (if Applicable) Applicant name, address & telephone: <u>Pizzagalli Construction Co.</u> <u>100 Foden Rd Suite 300</u> <u>South Portland ME 04106</u> telephone: <u>874-2323</u>	Cost Of Work: \$ <u>165,705</u> Fee: \$ <u>14,934.50</u>
Owner: <u>University of Southern Maine</u> <u>Facilities Management</u> Telephone: <u>207-780-4751</u>		

Square Footage of Lot: _____

This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE

DATE

PHONE

SIGNATURE OF APPLICANT

ADDRESS

DATE

PHONE

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

CERTIFICATION

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.

<input type="checkbox"/> Major <input type="checkbox"/> Minor <input type="checkbox"/> MM	<input type="checkbox"/> Site Plan <input type="checkbox"/> Subdivision <input type="checkbox"/> Flood Zone <input type="checkbox"/> Wetland <input type="checkbox"/> Shoreland	<input type="checkbox"/> Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <input type="checkbox"/> Major <input type="checkbox"/> Minor <input type="checkbox"/> MM	<input type="checkbox"/> Historic Preservation <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	<input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied	<input type="checkbox"/> Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied	<input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied
---	---	--	--	--	--	--

SEE PERMIT #041024

Zoning Approval

Date Applied For: 07/30/2004

Permit Taken By: mjm

Proposed Project Description: Demo and Steel erection only for permit #041024, for vertical expansion of the above which is under review

Past Use: Bio Science Building

Proposed Use: Demo and Steel erection only for permit #041024, for vertical expansion of the above which is under review

Signature: _____ Date: _____ Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	Signature: _____ Date: _____ Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied
FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied INSPECTION: Use Group: B Type: 2 Signature: _____ Date: _____	PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Signature: _____ Date: _____
Permit Fee: \$0.00 Cost of Work: \$0.00 CEO District: 2	Permit Type: _____ Zone: _____
Contractor Address: _____ Phone: _____	Additions - Commercial Permit Type: _____ Zone: _____

SEE PERMIT #041024
STEEL + DEMO
Signature: _____
Date: _____

Lessee/Buyer's Name		Phone:	
Contractor Address:		Phone	
Permit Type:		Additions - Commercial	

Proposed Use:	Demo and Steel erection only for permit #041024, for vertical expansion of the above which is under review
Proposed Project Description:	Demo and Steel erection only for permit #041024, for vertical expansion of the above which is under review

Dept: Zoning Status: Pending Reviewer:

Note: Ok to Issue: Approval Date: 07/30/2004

Dept: Building Status: Approved with Conditions Reviewer: Mike Nugent

Note: Ok to Issue: Approval Date: 07/30/2004

1) This project is subject to special inspections pursuant to Section 1705 of the Building Code.

2) Fire & Zoning approved see permit # 041024, all conditions apply to this permit.

Dept: Engineering Status: Approved with Conditions Reviewer: Tony

Note: PUBLIC WORKS ENGINEERING REVIEW...10/15/03

Note: Ok to Issue: Approval Date: 10/15/2003

I am recommending approval of this development proposal contingent upon the developers request and receipt of a sanitary sewer capacity letter from this department.

Dept: Fire Status: Approved Reviewer: Lt. MacDougal

Note: Ok to Issue: Approval Date: 10/15/2003

Comments:

7/30/2004-mjyn: HOLD FOR LOC/Planning approval

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



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

FROM:

Symmes Maini & McKee Associates

RE:

Certificate of Design

DATE:

12 July 2004

These plans and / or specifications covering construction work on:

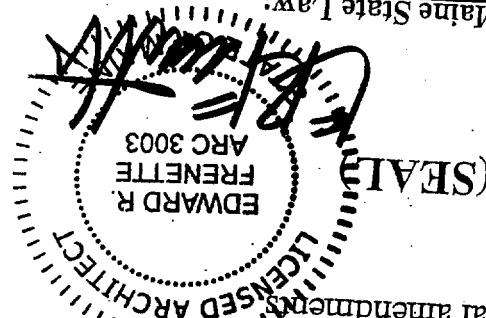
University of Southern Maine Science Building Research Wing Expansion

70 Falmouth Street, Portland, ME 04104

Have been designed and drawn up by the undersigned, a Maine registered Architect /

Engineer according to the *BOCA National Building Code / 1999 (Fourteenth Edition)* and local amendments

As per Maine State Law:



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

Signature:

Title: Principal

Firm:

Symmes Maini & McKee Associates

Address: 1000 Massachusetts Avenue

Cambridge, MA 02138

This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall

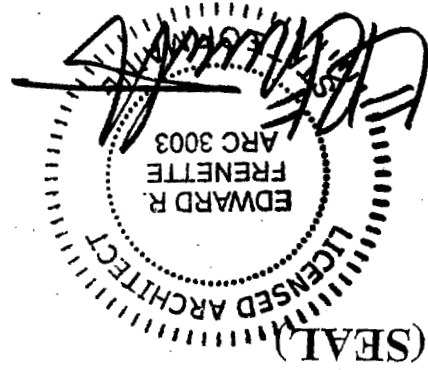
Signature of applicant:	Date:
-------------------------	-------

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.

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

Location/Address of Construction: <u>70 Falmouth Street (96 Form out)</u> Total Square Footage of Proposed Structure: <u>27,819 sf</u> Square Footage of Lot: _____	
Tax Assessor's Chart, Block & Lot Chart# <u>114</u> Block# <u>AA 001</u> Lot# _____	Owner: <u>University of Southern Maine</u> Facilities Management Telephone: <u>207-780-4751</u>
Lessee/Buyer's Name (if Applicable) Applicant name, address & telephone: <u>Pizzagalli Construction Co.</u> <u>100 Foden Rd Suite 300</u> <u>South Portland ME 04106</u> <u>874-2323</u>	Cost Of Work: \$ <u>165,7056</u> Fee: \$ <u>14,934.50</u>
Current use: <u>Academic/Research Building</u> If the location is currently vacant, what was prior use: _____ Approximately how long has it been vacant: _____ Proposed use: <u>new 70 x 130 * 3 floors</u> Project description: _____	Contractor's name, address & telephone: <u>Pizzagalli Construction Company</u> Who should we contact when the permit is ready: <u>Brian Holmes</u> Mailing address: <u>100 Foden Rd Suite 300</u> <u>South Portland ME 04106</u> We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: <u>207-874-2323</u>

Permitting arrangements must be made before permits of any kind are accepted.



Phone: 617-547-5400

Cambridge, MA 02138

Address: 1000 Massachusetts Ave.

Firm: Symmes Maini & McKee Associates

Title: Principal

Signature: *Edward R. Frenette*

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

Building Research Wing Expansion

Nature of Project: University of Southern Maine Science

Address of Project: 70 Falmouth Street, Portland, ME 04104

Designer: Symmes Maini & McKee Associates

ACCESSIBILITY CERTIFICATE

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



Wind Loads
90 MPH Basic Wind Speed
+/- .25 Internal Pressure Coefficient
B Wind Exposure Category 25 psf @ 40' Wind Design Pressure 1.0 Wind Importance Factor

Drift Incorporated.
The documents must account for Drift snow load, unbalanced snow load and Sliding snow loads as required.

Roof Snow Load
70 PSF Ground Snow Load (Pg)
49 PSF Flat Roof snow load, Pf
1.0 HFG > 10 psf, snow exposure factor, Ce
1.0 HFG > 10 psf, roof thermal factor
1.0 HFG > 10 psf, snow load importance factor, I
N/A Sloped Roof Snowload Ps
Concentrically
Basic structural system / seismic-resisting system
Braced Frame 5.0
Response modification factor, R, and deflection
amplification factor, Cd, 4.5
Earthquake Loads
Peak velocity-related acceleration, Av
1.0
Peak acceleration, Az
1.0
Seismic hazard exposure group
1
Seismic performance category
B
Soil profile type
1.0

Structural Systems

Type of Construction 2B

Building Code and Year BOCA 1999 Use Group Classification(s) B

THE BOCA NATIONAL BUILDING CODE / 1999 (FOURTEENTH EDITION)
Construction project was designed according to the building code criteria listed below:

Address of Construction: 70 Falmouth Street, Portland, ME 04104

Job Name: USM Science Building Research Wing Expansion

DATE: 12 July 2004

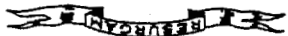
1000 Massachusetts Ave., Cambridge, MA 02138

FROM DESIGNER: Symmes Maini & McKee Associates

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

TO:

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



196 Farm out

Total Square Footage of Proposed Structure
27,819 sf

Square Footage of Lot

Tax Assessor's Chart, Block & Lot

Chart#

Block#

Lot#

Owner:
University of Southern Maine
Facilities Management

Telephone:
207-780-475

Lessee/Buyer's Name (if Applicable)

Applicant name, address &

Telephone:

Fitzgerald Construction Co.
100 Foyden Rd Suite 300
South Portland ME 04106

874-2323

Current use:

Academic/Research Building

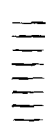
If the location is currently vacant, what was prior use:

Approximately how long has it been vacant:

Proposed use:

Now 70 x 130 * 8 floors

Cost of
\$ 165,705
Work:
\$ 14,934.51
Fee:



July 30, 2004

Mr. Mike Nugent
Inspectional Services Manager
City of Portland
Portland, Maine 04104

Re: USM Science Building Research Wing Expansion
Foundation Capacity of Existing Structure

SMAA No. 03049.00

Dear Mr. Nugent:

This letter is in response to your inquiry as to the foundation capacity of the existing Science Building at 70 Falmouth Street on the University of Southern Maine Campus.

The subject of the present building permit application for 70 Falmouth Street is detailed in the contract drawings dated 2/20/04 produced for USM by Symmes, Maini, & McKee Associates, (SMAA). These drawings add two additional framed floor levels, and a roof level to the existing addition of the Science Building, that was recently constructed in 2002. The contract drawings for the existing 2002 addition were also prepared by Symmes, Maini, & McKee Associates and were issued on 10/26/01. The structural drawings for that addition, which provided for only three framed floors, outlined the provision for future vertical construction including a fourth, fifth, and sixth floor, plus a roof level. The 2004 set of drawings issued by SMAA include a downsized version, with only two more framed levels not three.

Since it has always been the intent of USM to build upon the 2002 addition, please be assured that all structural considerations were included in the original design and construction. This includes adequate capacity in all of the floor plates, foundations, columns, and shear walls as required under the 1999 BOCA National Building Code.

Section 1705.0 of the BOCA code, "Special Inspections", will be part of the construction process as required in the project specifications, (see attached spec. sections). USM has contracted with John Turner Inspectional Services for these required inspections. They will be reporting to all parties involved and will copy your office on all inspectional reports.

We hope that this letter is sufficient to answer your questions at this time. Please feel free to contact me should you require further detail regarding this matter.

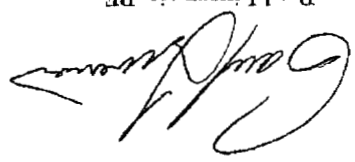
1000 Massachusetts Avenue
Cambridge, Massachusetts 02138
+ 617.547.5400 + 617.354.5758
www.smma.com

Mr. Mike Nugent
July 30, 2004

Page 2

Very truly yours,

SYMMES MAINI & MCKEE ASSOCIATES



Paul Livermois, PE
Sr. Associate

Project Structural Engineer



Richard Croswell, PE
Associate Principal

Chief Structural Engineer

cc: Dave Barbour, USM; Brian Holmes, Pizzagalli Constr. (MF)

enclosures:



File/Document

Symmes Maini & McKee Associates

SECTION 01400
QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. This Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.

2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.

3. Requirements for Contractor to provide quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Work Specified in Other Sections:

1. Section 01731, "Cutting and Patching," for repair and restoration of construction disturbed by testing and inspecting activities.

2. Divisions 2 through 16 Sections for specific test and inspection requirements.

1.02 REGULATORY REQUIREMENTS

A. Building Codes: The following codes are the principal codes applicable to this Project:

1. State Building Code: BOCA-1999
2. Fire Protection: NFPA-13 and 14.
3. Plumbing: State of Maine, Chapter 238, Internal Plumbing Rules.
4. Gas: NFPA-54
5. Mechanical Systems Code: BOCA National mechanical Code, 1993 Edition as amended by the Buildings and Building Regulations of the City of Portland Code of Ordinances.
6. Electrical Code: National Electrical Code, NFPA-70 (2002)

B. Copies of Codes and Regulations: Obtain copies of the regulations listed above and retain at Project site to be available for reference by parties who have a reasonable need.

1.03 DEFINITIONS OF TERMS USED IN THIS SECTION

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.

F. Level and plumb individual members of structure within specified AISC tolerances.

G. Establish required leveling and plumbing measurements on mean operating temperature of structure. Make allowances for difference between temperature at time of erection and mean temperature at which structure will be when completed and in service.

H. Splice members only where indicated and accepted on shop drawings.

I. Erection Bolts: On exposed welded construction, remove erection bolts, fill holes with plug welds, and grind smooth at exposed surfaces.

1. Comply with AISC Specifications for bearing, adequacy of temporary connections, alignment, and removal of paint on surfaces adjacent to field welds.

2. Do not enlarge unfair holes in members by burning or by using drift pins, except in secondary bracing members. Ream holes that must be enlarged to admit bolts.

J. Gas Cutting: Do not use gas cutting torches in field for correcting fabrication errors in primary structural framing. Cutting will be permitted only on secondary members that are not under stress, as acceptable to Architect. Finish gas-cut sections equal to a sheared appearance when permitted.

K. Touch-Up Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint. Apply paint to exposed areas using same material as used for shop painting. At galvanized members receiving field welded connections, clean welds and apply two coats of a zinc rich paint or cold galvanizing coating, ZRC or an approved equal product.

I. Apply by brush or spray to provide minimum dry film thickness of 1.5 mils.

3.02 QUALITY CONTROL

A. Owner will engage an independent testing and inspection agency to inspect high-strength bolted connections and welded connections and to perform tests and prepare test reports.

B. Testing agency shall conduct and interpret tests, state in each report whether test specimens comply with requirements, and specifically state any deviations therefrom.

C. Provide access for testing agency to places where structural steel work is being fabricated or produced so that required inspection and testing can be accomplished.

D. Testing agency may inspect structural steel at plant before shipment.

E. Correct deficiencies in structural steel work that inspections and laboratory test reports have indicated to be not in compliance with requirements. Perform additional tests, at contractor's expense, as necessary to reconfirm any noncompliance of original work and to show compliance of corrected work.

F. Field-Bolted Connections: Inspect in accordance with AISC specifications.

STRUCTURAL STEEL
20 FEB 04

USM PORTLAND/SCIENCE BUILDING RESEARCH WING EXPANSION
05120-9
SMMA NO. 03049.00



END OF SECTION 05120

- 1. For Direct Tension Indicators, "TC" Bolts, verify that splines have been severed and that all faying surfaces are in direct contact.
- G. Field Welding: Inspect and test during erection of structural steel as follows:
 - 1. Certify welders and conduct inspections and tests as required. Record types and locations of defects found in work. Record work required and performed to correct deficiencies.
 - 2. Inspect all welds visually for proper length, size, and quality. Repair all defects noted and re-inspect as required or directed by the Engineer of Record.
 - 3. Test all full penetration welds using Ultrasonic Testing Equipment. Repair all defects and re-test as required or directed by the Engineer of Record.

4. Mechanical fasteners, either powder-actuated or pneumatically driven, may be used instead of welding. The fastener manufacturer shall design the fastener sizes and spacing to provide an attachment equal to or greater than that provided by the welded attachment indicated above. Locate mechanical fasteners and install in accordance with deck manufacturer's instructions.

I. Cutting and Fitting: Cut and neatly fit deck units and accessories around other work projecting through or adjacent to the decking, as shown.

J. Reinforcement at Openings: Provide additional metal reinforcement and closure pieces as required for strength, continuity of decking, and support of other work shown.

K. Joint Covers: Provide metal joint covers at abutting ends and changes in direction of floor deck units, except where taped joints are required.

L. Roof Sump Pans: Place over openings provided in roof decking and weld to top decking surface. Space welds not more than 12 inches o.c. with at least one weld at each corner.

M. Shear Connectors: Weld shear connectors to supports through decking units in accordance with manufacturer's instructions. Do not weld shear connectors through two layers (lapped ends) of decking units. Weld only on clean, dry deck surfaces.

N. Closure Strips: Provide metal closure strips at open uncovered ends and edges of roof decking and in voids between decking and other construction. Weld into position to provide a complete decking installation.

O. Touch-Up Painting: After decking installation, wire brush, clean, and paint scarred areas, welds, and rust spots on top and bottom surfaces of decking units and supporting steel members.

I. Touch-up galvanized surfaces with galvanizing repair paint applied in accordance with manufacturer's instructions.

3.02 FIELD TESTING AND INSPECTION

A. Owner will engage an independent testing and inspection agency to inspect decking attachments and prepare inspection reports.

B. Provide access for testing agency to places where steel deck work is being performed so that required inspection and testing can be accomplished.

C. Testing agency may inspect steel deck at plant before shipment.

D. Specific duties of the testing laboratory will be determined by the Architect. As a minimum these duties shall include:

1. Visual inspection of all field welding operations.

2. Visual inspection of mechanical fasteners (including side lap screws).



- 3. Verification of welder certification.
- E. Correct deficiencies in steel deck work that inspections have indicated to be not in compliance with requirements. Perform additional inspections or tests, at contractor's expense, as necessary to reconfirm any noncompliance of original work and to show compliance of corrected work.



END OF SECTION 05310

- B. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, non-shrink grout, joint systems, curing compounds, finish materials, and others as requested by Architect.
- C. Shop drawings for reinforcement, prepared for fabrication, bending, and placement of concrete reinforcement. Comply with ACI SP-66, "ACI Detailing Manual," showing bar schedules, stirrup spacing, diagrams of bent bars, arrangement of concrete reinforcement, and grade of reinforcing. Include special reinforcement required for openings through concrete structures. Laboratory test reports for concrete materials and mix design test.
- D. Materials certifies shall be signed by manufacturer and Contractor, certifying that each material item complies with or exceeds specified requirements. Provide certification from admixture manufacturers that chloride content complies with specification requirements.
- F. Minutes of preinstallation conference.

1.05 QUALITY ASSURANCE

- A. It is the intent of the Drawings and Specifications to produce concrete which will have the required strength and appearance. Failure to comply with these requirements will require removal of sufficiently large portions of the work, as determined by the Architect, in order to properly integrate the portions to be replaced with the architectural and structural requirements of the total project. All such removal and replacement shall be made at the expense of the Contractor at no additional cost to the Owner.
- B. Coordinate concrete work with all related work which requires items to be inserted in the forms and cast in the concrete, regardless of whether such inserted items are specifically described in the Contract Documents.
- C. The Owner will employ a testing laboratory to verify design mixes, inspect placement of reinforcing steel, and perform field testing of concrete.
- D. Execute work under specified temperature conditions. Post thermometers at locations of work.
- E. Pre-Construction Conference: Conduct conference at Project site to comply with requirements of Section 01310, "Project Management and Coordination." At least 15 days prior to start of the concrete construction, conduct a meeting to review the proposed mix designs and to discuss the required methods and procedures to achieve the required concrete quality construction. Review requirements for submittals, status of coordinating work, and availability of materials. Establish preliminary work progress schedule and procedures for materials inspection, testing, and certifications.
- 1. Require representatives of each entity directly concerned with cast-in-place concrete attend the conference, including, but not limited to, the following:
 - a. Contractor's Superintendent.
 - b. Contractor's representative for field quality control.
 - c. Laboratory responsible for Contractor's field quality control.
 - d. Laboratory responsible for concrete design mixes.
 - e. Ready-mix concrete producer.

- f. Concrete subcontractor.
- g. Primary admixture manufacturers.
- h. Owner's Testing and Inspection agency.

2. Notify the Architect and the Owner's representative at least 48 hours in advance of the meeting so that they may attend.

1.06 DELIVERY, STORAGE AND HANDLING

A. Store reinforcing bars and wire mesh raised from the ground and protected from the elements.

PART 2 - PRODUCTS

2.01 FORM MATERIALS

A. Forms for Exposed Finish Concrete: Plywood, metal, metal-framed-HDO plywood faced, or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings.

B. Forms for Unexposed Finish Concrete: Plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit.

C. Plywood shall comply with U.S. Product Standard PS-1, with each piece bearing legible inspection trademark of the American Plywood Association along with the DFPA Quality stamp.

D. Form Coatings: Provide commercial formulation form-coating compounds with a maximum VOC of 350 mg/l that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

E. Form Ties: Factory-fabricated, adjustable-length, removable or snap-off metal form ties, units that will leave no metal closer than 1-1/2 inches to exposed surface. Provide ties that, when removed, will leave holes not larger than 1-inch diameter in concrete surface.

2.02 REINFORCING MATERIALS

A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.

B. Tie Wire for Reinforcement: ASTM A82, black or galvanized steel wire, 16 gauge or heavier.

C. Welded Wire Fabric: Deformed-Steel Welded Wire Fabric: ASTM A497. Furnish in flat sheets.

D. Reinforcing steel shall be bundled and tagged with grades and suitable identification marks for checking, sorting, and placing. Tags and markings shall be waterproof and shall not be removed until steel is placed.

3.16 QUALITY ASSURANCE TESTING AND INSPECTION

A. Testing laboratory field personnel will immediately notify both the Contractor and the Architect of any concrete, delivered or discharged, which does not meet the Specifications. Concrete which does not conform to all requirements of the Specifications shall not be incorporated in the structure.

B. As a minimum, sampling and testing for quality control during placement of concrete shall include the following, as directed by Architect.

1. Checking of truck delivery slips to verify that the mix, as stated on the slip, is correct.
2. Noting duration of mixing.

C. Sampling Fresh Concrete: ASTM C 172, modified for slump to comply with ASTM C 94.

1. Slump: ASTM C 143; one test at point of discharge for each truck load of concrete.

2. Air Content: ASTM C 173, volumetric method for lightweight or normal weight concrete; ASTM C 231 pressure method for normal weight concrete; one for each set of air-entrained concrete test cylinders molded.

3. Concrete Temperature: Test hourly when air temperature is 40°F (4°C) and below, when 80°F (27°C) and above, and each time a set of compression test specimens is made.

4. Compression Test Specimen: ASTM C 31; one set of 4 standard cylinders for each compressive strength test, unless otherwise directed. Mold and store cylinders for laboratory-cured test specimens except when field-cure test specimens are required.

5. Compressive Strength Tests: ASTM C 39; one set for each day's pour exceeding 5 cu yds. plus additional sets for each 50 cu. yds. more than the first 25 cu. yds. of each concrete class placed in any one day; one specimen tested at 7 days, and three specimens tested at 28 days.

6. When frequency of testing will provide fewer than 5 strength tests for a given class of concrete, conduct testing from at least 5 randomly selected batches or from each batch if fewer than 5 are used.

7. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.

8. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength, and no individual strength test result falls below specified compressive strength by more than 500 psi.

E. Inspect reinforcing bars for size, quantity, placement and condition. Notify the Contractor and Architect immediately so that the work can be corrected and reinspected prior to placement of concrete.

F. Test surface tolerances for slabs-on-grade in accordance with ASTM E 1155 within 24 hours after each placement. Notify the Architect and Contractor immediately if surface areas are found to be out of specified tolerances. Test additional slab surfaces at the Owner's option.

G. In the event the compressive strength of the cylinders, when tested, is below the required level of early test cylinders indicate that the minimum strength may not be reached in 28 days, the Architect may require test cores of the hardened structure to be taken by the testing laboratory in accordance with ASTM C42. If such test indicates that the core specimen is below the required strength, remove and replace the concrete in question without additional cost to the Owner. Replace all other work damaged as a result of this concrete removal with new materials to the satisfaction of the Architect at no additional cost to the Owner. The cost of coring will be deducted from the contract amount. Where core cylinders have been taken by the testing laboratory and the concrete proves to be satisfactory, core holes shall be filled in a manner satisfactory to the Architect at no additional cost to the Owner.

H. Test results will be reported in writing to the Architect, Ready-Mix Producer, and Contractor within 24 hours after tests. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-day tests and 28-day tests.

END OF SECTION 03310

1. Limit size of slab placements to 12,000 square feet (maximum) with an aspect ratio of 1 to 1.5 (maximum).

B. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work. Notify the Architect and field inspection/testing agency at least 24 hours in advance of the placing of any concrete.

C. Remove water from place of deposit before concrete is placed unless otherwise permitted by the Architect. Divert all flow of water into an excavation through proper side drains into a sump, or remove it by other approved methods.

D. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete that has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as specified. Deposit concrete to avoid segregation at its final location.

E. Do not freely drop concrete where reinforcement will cause segregation, nor more than 6 feet. Place concrete to maintain a plastic surface approximately horizontal, and not more than 3 feet deep. Use tremies for concrete placement over 6 feet high.

F. Concrete that has partially hardened shall not be placed in the work. The discharge of concrete shall be completed within 90 minutes of the first introduction of water into the mix.

G. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed.

1. Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.

2. Bring slab surfaces to correct level with straightedge and strike off. Use bull floats or darbies to smooth surface, free of humps or hollows. Do not disturb slab surfaces prior to beginning finishing operations.

3. Maintain reinforcing in proper position during concrete placement.

H. Pumping concrete: Concrete may be placed by pumping if first approved in writing by the Architect for the location proposed.

1. Equipment: Use pumping equipment of such size and design that ensures a practically continuous flow of concrete at the delivery end without separation of materials. Do not pump concrete through aluminum pipes.

2. Concrete Mix: Design concrete mix to the requirements specified, except that mix may be richer in lubricating components in order to allow proper pumping. Include the specified high-range or mid-range water reducing admixture in the mix.

I. Cold-Weather Placing: Comply with provisions of ACI 306 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

USM PORTLAND/SCIENCE BUILDING RESEARCH WING EXPANSION
SMMA NO. 03049.00
03310-12

CAST-IN-PLACE CONCRETE
20 FEB 04
Printed 02/24/04 10:39 AM

3.16 QUALITY ASSURANCE TESTING AND INSPECTION

A. Testing laboratory field personnel will immediately notify both the Contractor and the Architect of any concrete, delivered or discharged, which does not meet the Specifications. Concrete which does not conform to all requirements of the Specifications shall not be incorporated in the structure.

B. As a minimum, sampling and testing for quality control during placement of concrete shall include the following, as directed by Architect.

- 1. Checking of truck delivery slips to verify that the mix, as stated on the slip, is correct.
- 2. Noting duration of mixing.

C. Sampling Fresh Concrete: ASTM C 172, modified for slump to comply with ASTM C 94.

1. Slump: ASTM C 143; one test at point of discharge for each truck load of concrete.

2. Air Content: ASTM C 173, volumetric method for lightweight or normal weight concrete; ASTM C 231 pressure method for normal weight concrete; one for each set of air-entrained concrete test cylinders molded.

3. Concrete Temperature: Test hourly when air temperature is 40°F (4°C) and below, when 80°F (27°C) and above, and each time a set of compression test specimens is made.

4. Compression Test Specimen: ASTM C 31; one set of 4 standard cylinders for each compressive strength test, unless otherwise directed. Mold and store cylinders for laboratory-cured test specimens except when field-cure test specimens are required.

5. Compressive Strength Tests: ASTM C 39; one set for each day's pour exceeding 5 cu. yds. plus additional sets for each 50 cu. yds. more than the first 25 cu. yds. of each concrete class placed in any one day; one specimen tested at 7 days, and three specimens tested at 28 days.

6. When frequency of testing will provide fewer than 5 strength tests for a given class of concrete, conduct testing from at least 5 randomly selected batches or from each batch if fewer than 5 are used.

7. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.

8. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength, and no individual strength test result falls below specified compressive strength by more than 500 psi.

E. Inspect reinforcing bars for size, quantity, placement and condition. Notify the Contractor and Architect immediately so that the work can be corrected and reinspected prior to placement of concrete.

3.16

USM PORTLAND/SCIENCE BUILDING RESEARCH WING EXPANSION
SMMA NO. 03049.00

03310 - 18

CAST-IN-PLACE CONCRETE
20 FEB 04
Printed 02/24/04 10:39 AM

F. Test surface tolerances for slabs-on-grade in accordance with ASTM E 1155 within 24 hours after each placement. Notify the Architect and Contractor immediately if surface areas are found to be out of specified tolerances. Test additional slab surfaces at the Owner's option.

G. In the event the compressive strength of the cylinders, when tested, is below the required level of early test cylinders indicate that the minimum strength may not be reached in 28 days, the Architect may require test cores of the hardened structure to be taken by the testing laboratory in accordance with ASTM C42. If such test indicates that the core specimen is below the required strength, remove and replace the concrete in question without additional cost to the Owner. Replace all other work damaged as a result of this concrete removal with new materials to the satisfaction of the Architect at no additional cost to the Owner. The cost of coring will be deducted from the contract amount. Where core cylinders have been taken by the testing laboratory and the concrete proves to be satisfactory, core holes shall be filled in a manner satisfactory to the Architect at no additional cost to the Owner.

H. Test results will be reported in writing to the Architect, Ready-Mix Producer, and Contractor within 24 hours after tests. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-day tests and 28-day tests.

END OF SECTION 03310

construction has been completed, trim copper-laminate flashing flush with face of wall, leaving only the metal drip edge exposed.

D. Weeps: In the first course of masonry immediately above embedded flashing, leave every third head joint open (24 inches on center), and install plastic baffle.

E. Place cavity drainage material immediately above flashing in cavities.

F. Install reglets and nailers for flashing and other related construction where shown to be built into masonry.

3.08 FIELD QUALITY CONTROL

A. The Owner's Testing Agency will observe the preparation of specimens/samples and prisms, and will perform the following tests and inspections. Retesting of materials which fail to meet specified requirements shall be done at the Contractor's expense.

B. Flashing: Through-wall flashing will be inspected for workmanship, watertightness and proper installation. Do not cover flashing with mortar or masonry until it has been inspected and accepted.

C. Brick Tests: For each type and grade of brick, units will be tested in accordance with ASTM C 67 procedures, except 5 bricks will be selected at random for each 100,000 units or fraction thereof installed.

D. Mortar: Mortar composition and properties will be evaluated per ASTM C 780. Tests will be performed before laying of masonry begins, and for each 5000 square feet of wall area or portion thereof.

E. Prism Tests: To evaluate consistency of materials and workmanship, masonry prisms will be tested per ASTM E 447, Method B, and as follows:

1. Prepare masonry prisms for testing for each type of wall construction.

2. Prepare one set of prisms for testing at 7 days and one set for testing at 28 days.

F. Remedial Work by Contractor: If masonry is not in compliance with specified requirements, repair to Architect's satisfaction, or remove and rebuild. Pay for additional testing required to demonstrate compliance of repaired and rebuilt masonry.

3.09 REPAIRING, POINTING, AND CLEANING

A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or if units do not match adjoining units. Install new units to match adjoining units and in fresh mortar or grout, pointed to eliminate evidence of replacement.

B. Remove and replace stained and otherwise damaged precast units and units not matching approved Samples. Precast units may be repaired if methods and results are approved by Architect. If not repaired in place, replace units in a manner that results in precast units matching approved Samples, complying with other requirements, and showing no evidence of replacement.

2. Where the referenced fire-resistive design lists a thickness of less than one inch but more than 0.375 inch, the minimum allowable individual sprayed-on fireproofing thickness is the greater of 0.375 inch or 75 percent of the design thickness.

3. No reduction in average thickness is permitted for those fire-resistive designs whose fire resistance ratings were established at densities of less than 15 pcf.

3.05 INSTALLING HIGH DENSITY FIREPROOFING

A. Apply high density fireproofing in thicknesses and densities required to achieve fire-resistance ratings designated for each condition.

B. Provide a uniform finish complying with description indicated for each type of material and matching Architect's sample or, if none, finish approved for field-erected mockup.

C. Finish: Smooth trowelled.

D. In Area C (as defined in the fireproofing schedule at the end of this Section), take care to prevent fireproofing overspray from adhering to metal deck. Promptly remove overspray and clean deck to restore it to its original condition. This area will be exposed to view when the project is built-out in the future.

3.06 FIELD QUALITY CONTROL

A. Testing Agency: A qualified independent testing agency employed and paid by Owner will perform field quality-control testing.

B. Sprayed-On Fireproofing: Completed fireproofing will be tested as application on each floor level is completed. Do not proceed with fireproofing of next area until test results for previously completed fireproofing show compliance with requirements.

C. Testing agency will report test results promptly and in writing to Contractor and Architect.

D. Remove and replace fireproofing where test results indicate that it does not comply with specified requirements for cohesion and adhesion or for density or both.

E. Apply additional fireproofing per manufacturer's directions where test results indicate that the thickness does not comply with specified requirements.

F. Additional Testing: Where fireproofing is removed and replaced or repaired, additional testing will be performed to determine compliance with specified requirements.

3.07 CLEANING, REPAIR, AND PROTECTION

A. Cleaning: Immediately after completing spraying operations in each containable area of Project, remove material over-spray and fall-out from surfaces of other construction and clean exposed surfaces to remove evidence of soiling.

B. Cure exposed cementitious fireproofing materials according to fireproofing manufacturer's recommendations to prevent premature drying.

USM PORTLAND/SCIENCE BUILDING RESEARCH WING EXPANSION
 SMAA NO. 03049
 07810 - 10

Printed 04/09/04 3:08 PM

SPRAY-APPLIED FIREPROOFING
 20 FEB 04

1. Remove loose and deteriorated concrete to expose the rusting reinforcing steel. Clean with power tools to remove the rust and apply rust-inhibiting coating on the exposed steel surface.

2. Patch with approved concrete patching material, mixed and applied in accordance with manufacturer's instructions; apply bonding compound before patching if recommended by manufacturer of the patching material.

3. Finish smooth and flush with texture matching the surrounding concrete, so that the patches will not be visible after the coating is applied.

- C. Patch or level remaining surfaces to required tolerance and smoothness, using compatible leveling material recommended by the coating manufacturer. Fill surface voids. Comply with ASTM D-4258 and ASTM D-4261 for concrete substrate preparation.
- D. Complete other surface preparation as recommended by the coating manufacturer.

- E. Apply the specified coating according to manufacturer's printed directions. Apply at least two coats, to a total dry film thickness of 5 to 7 mils (nominal 4 mils per coat). Allow first coat to dry to the touch before applying the second. Apply additional coats if required to achieve uniform coverage, and to achieve uniform color and sheen, as judged by the Architect, when viewed from a distance of 10 feet.

3.06 FIELD QUALITY CONTROL

- A. Testing Agency: Owner retains the right to have its testing and inspecting agency perform field tests and inspections of the exterior insulation and finish system.
- B. Remove and replace EIFS where test results indicate that EIFS do not comply with specified requirements.
- C. Additional testing and inspecting, at Contractor's expense, shall be performed to determine compliance of replaced or additional work with specified requirements.

3.07 CLEANING AND PROTECTION

- A. Remove temporary covering and protection of other work. Promptly remove coating materials from window and door frames and other surfaces outside areas indicated to receive EIFS coatings.
- B. Provide final protection and maintain conditions, in a manner acceptable to Installer and EIFS manufacturer, that ensure that EIFS are without damage or deterioration at time of Substantial Completion.

END OF SECTION 07240

glazing stops. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lights:

- 1. Provide adequate anchorage for roll-in or drive-in wedge-shaped gaskets so gaskets cannot walk out when installation is subjected to movement.

J. Immediately after installation, attach crossed streamers to framing held away from glass to caution construction workers against damaging the glass. Do not apply markers to glass surface. Remove nonpermanent labels, and clean surfaces.

3.06 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified independent testing agency to perform testing indicated.

B. Water Spray Test: After completing the installation of 75-foot-by-2-story minimum area of glazed aluminum curtain wall system, test system for water penetration according to AAMA 501.2 in a 2-bay area directed by Architect.

C. Adjust installation until there is no water penetration and air leakage is within specified limits. Replace components that cannot be adjusted to meet the specified requirements.

D. Repair or remove that is damaged by testing; replace to conform to specified requirements.

3.07 CLEANING AND TOUCH UP

A. Clean aluminum and glass surfaces promptly after installation. Use cleaning materials and methods recommended by the manufacturers of the metal coating and glass. Take care not to damage metal finish or glass. Remove excess glazing and sealant compounds, dirt, and other contaminants.

B. Touch up damaged finish in accordance with AAMA recommendations for field repair. For painted finish, use touch-up system matching shop-applied finish. Replace components which cannot be repaired to Architect's satisfaction.

3.08 PROTECTION

A. Protect installed curtain wall from damage throughout the rest of the construction period. Comply with curtain wall manufacturer recommendations for proper procedures for protection and cleaning.

B. Protect glass from contact with contaminating substances resulting from construction operations, including weld spatter. If, despite such protection, contaminating substances do come into contact with glass, remove them immediately using methods recommended by glass manufacturer.

C. Examine glass surfaces adjacent to or below masonry at frequent intervals during construction but not less than once a month, and remove dirt, scum, alkali deposits and stains so that they do not build up.

GLAZED ALUMINUM CURTAIN WALL
 20 FEB 04

ARCHITECTURE
ENGINEERING
PLANNING
INTERIORS

SYMES MAINI & MCKEE ASSOCIATES

SMAA

FACSIMILE TRANSMITTAL

To: Mr. Mike Nugent, Inspectional Services Manager
 Date: 7/30/2004

Company: City of Portland, Project No: 03049.00

Project Name: USM - Vertical Expansion Biosciences
 From: Leslie Glynn
 Tel No: 207-874-8700

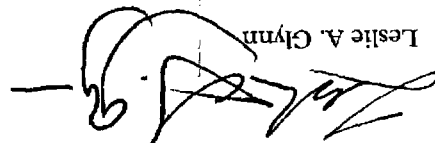
Re: USM Permit
 Pages: 19 [Page count includes this Fax Transmittal Memorandum sheet]

MESSAGE

Dear Mike;

If you have any further questions, please do not hesitate to call me on my direct line 617-520-9256.

Many Thanks,



Leslie A. Glynn

FAX copies to: _____
 Tel. # _____
 Fax # _____

/Document

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Permit Number: 041074

AUG 09 2004

Please Read Application And Notes, If Any, Attached

This is to certify that University Of Maine

Demo and Steel erection only permit for vertical expansion of the above which is under review

AT 96 Falmouth St

114A A001001

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

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

Notification inspection must be given and written permit procured before this building or structure is occupied or altered or otherwise used-in. FOR NOTIFICATION REQUIRED.

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

OTHER REQUIRED APPROVALS

Five Dept.

Health Dept.

Appeal Board

Other

Department Name

PENALTY FOR REMOVING THIS CARD

Director - Building & Inspection Services

Handwritten signature and date: 7/30/04

Applicant: University of ME
 Address: 96 Falmouth St
 Date: 2/22/04
 C-B-L: 114A-A-001

CHECK-LIST AGAINST ZONING ORDINANCE
 Permit # 04-1024

Date - Existing
 Zone Location - R-5
~~Interior or corner lot~~

Proposed Use/Work - Additional stories to existing Bldg (Bioscience Bldg) Phase II
 Sewage Disposal - City

Lot Street Frontage - 50' - 50' + Show
 Front Yard - 20' w. - 27.5' scarfed
 Rear Yard - 20' w. - 200' + scarfed
 Side Yard - 14' w. - 24d + scarfed

Projections -

Width of Lot - 80' - 90' + Show

Height - 35' MAX - Sept 18, 2003 ZBA - 71'4" grade

Lot Area -

Lot Coverage/Impervious Surface -

no change

Area per Family - N/A

N/A

Off-street Parking - Near Park garage next to the additional parking req. for SPA

Loading Bays - None from Phase I

Site Plan - # 2003-0209

Shoreland Zoning/Stream Protection - N/A

Flood Plains - Phase 13 Zone C

→ see attached study
 → see TRAFFIC study
 → see TRAFFIC study
 → see TRAFFIC study

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

Zoning Copy

2003-0209
Application I. D. Number

10/8/03

Application Date

USM Bioscience - Phase II

Project Name/Description

96 - 96 Falmouth St, Portland, Maine

Address of Proposed Site

114A A001001

Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): Building Addition Change Of Use Residential Office Retail

Other (specify)

Manufacturing Warehouse/Distribution Parking Lot

27,000 s.f.

Proposed Building square Feet or # of Units

Acreage of Site

Zoning

RS

Check Review Required:

- Site Plan (major/minor)
- Flood Hazard
- Zoning Conditional Use (ZBA/PB)
- Zoning Variance
- Shoreland
- Historic Preservation
- DEP Local Certification
- Other Amendment to S
- PAD Review
- 14-403 Streets Review

Zoning Approval Status:

- Approved
- Approved w/Conditions See Attached
- Denied
- Approval Date _____
- Approval Expiration _____
- Extension to _____
- Additional Sheets Attached
- signature _____
- date _____

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

Performance Guarantee Accepted

date 7/14/04

amount \$500.00

expiration date _____

Building Permit Issued

date _____

amount _____

expiration date _____

Performance Guarantee Reduced

date _____

remaining balance _____

signature _____

Temporary Certificate of Occupancy

date _____

signature _____

expiration date _____

Final Inspection

date _____

signature _____

Certificate Of Occupancy

date _____

signature _____

Performance Guarantee Released

date _____

signature _____

Defect Guarantee Submitted

submitted date _____

amount _____

expiration date _____



Received
Recorder of Deeds
Oct 14 2003 01:08:27P
Cumberland County
John B. O'Brien

CITY OF PORTLAND

CERTIFICATE OF VARIANCE APPROVAL

I, William Hall, the duly appointed temporary Chair of the Board of Appeals for the City of Portland, Cumberland County and State of Maine, hereby certify that on the 18th day of September, 2003, the following variance was granted pursuant to the provisions of 30-A M.R.S.A. Section 4353(5) and the City of Portland's Code of Ordinances.

1. Current Property Owner: University of Maine System

2. Property: 98 Falmouth Street CBL: 114A-A-001

3. Variance and Conditions of Variance:
To allow for relief from Section 14-120 (g) of the Zoning Ordinance in regards to the dimensional requirement to allow a height of 71 feet 4 inches instead of the required 35 feet for the biosciences research addition.

IN WITNESS WHEREOF, I have hereto set my hand and seal this 2nd day of October, 2003.

William Hall
Chair
pro tem
(Printed or Typed Name)

STATE OF MAINE
Cumberland, ss.

Then personally appeared the above-named William Hall and acknowledged the above certificate to be his free act and deed in his capacity as temporary Chairman of the Portland Board of Appeals.

Margaret Schuckel
(Printed or Typed Name)
My Commission Expires June 26, 2005
Notary Public

PURSUANT TO 30-A M.R.S.A. SECTION 4353(5), THIS CERTIFICATE MUST BE RECORDED BY THE PROPERTY OWNER IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS WITHIN 90 DAYS FROM FINAL WRITTEN APPROVAL FOR THE VARIANCE TO BE VALID. FURTHERMORE, THIS VARIANCE IS SUBJECT TO THE LIMITATIONS SET FORTH IN SECTION 14-474 OF THE CITY OF PORTLAND'S CODE OF ORDINANCES.

CITY OF PORTLAND, MAINE
ZONING BOARD OF APPEALS

To: City Clerk
From: Marge Schmuckal, Zoning Administrator

Date: October 6, 2003

RE: Action taken by the Zoning Board of Appeals on September 18, 2003.

The meeting was called to order at 7:05 p.m.

Roll call as follows:
Members present: Patric Santerre, Joseph Lewis, Nan Sawyer, John Thompson, Jr., William Hall,
Catherine Decker, Kimberly Boggiatto
Members Absent: No members absent

APPEAL AGENDA

The Board of Appeals will hold a public hearing on Thursday, September 18th, 2003 at 7:00 p.m. on the second floor in the City Council Chambers on the 2nd Floor at the Portland City Hall, 389 Congress Street, Portland, Maine, to hear the following Appeals:

1: Unfinished Business:

Conditional Use Variance
19 & 27 Second Proposed Street, David Clark, purchaser. (Tax Map #085-K-006-007 in the IR2 and IR1 Zones, respectively). In a letter received September 4, 2003, Mr. Clark withdrew his Appeal. The Board accepted Mr. Clark's withdrawal of his Appeal.

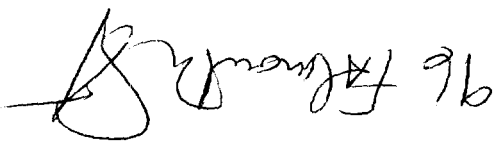
2: New Business:

A. Practical Difficulty Variance Appeal
98 Falmouth Street, University of Maine System, owner (Tax Map #114A-A-001 in the R-5 Zone). Applicant is requesting relief from §14-120(g) of the City of Portland Zoning Ordinance, which limits building height to 35'. Proposed Biosciences Research Addition would have an average height of 71'4" (averaged from each of the corners). Patric Santerre and Kimberly Boggiatto recused themselves per potential conflicts. William Hall acted as Chair for this agenda item. The Board granted the Appeal 5-0. Findings of Fact are attached.

B. Miscellaneous Appeal
468 Forest Avenue, Old Dog LLC, d/b/a Blue Mango, tenant (Tax Map #116-A-003 in the B-2b Zone). Applicant is requesting relief from §14-334 of the City of Portland Zoning Ordinance, which states that required off-street parking in nonresidential zones shall be located either on the same lot with the principal building or within 100' measured along lines of public access. The Applicant is proposing to provide additional off-street parking for their business at 494 Forest Ave., (Tax Map #116-E-002) approximately 300' from their business. This item was continued to the next meeting by a vote of 7-0, as the Applicant was not present.

C. Practical Difficulty Variance Appeal
246 Danforth Street, Nicola Eden and Gregory Day, Purchasers. (Tax Map #057-G-006 in the B-1 Zone, using the R-6 Zone requirements). The Applicant is requesting relief from §14-139(a)1 of the City of Portland Zoning Ordinance, which requires a minimum lot size of 4,500 s.f. for residential use. Subject lot is 1,458 s.f. The Board granted this Appeal 7-0.

From: Marge Schmuckal
To: Sarah Hopkins
Date: Wed, Dec 3, 2003 4:25 PM
Subject: USM - Bio Science expansion -



Sarah,
On September 18, 2003, the ZBA approved a practical difficulty variance for the height of the three new floors to go on the top on the existing building footprint. I have reviewed the parking submittal and have seen that the parking requirements for the additional floors have been met when the new parking garage is completed.

There are no other outstanding zoning issues that I am aware of at this time.

Marge Schmuckal
Zoning Administrator
12/3/03