

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

Please Read
Application And
Notes, If Any,
Attached

BUILDING INSPECTION

PERMIT

Permit Number: 070148

PERMIT ISSUED

JUN 12 2007

CITY OF PORTLANDThis is to certify that UNIVERSITY OF MAINE SYSTEM / WRIGHT RYAN CONSTRhas permission to 4 Story structure w/ partial basement & mechanical penthouse (ldg. #1)AT 65 WINSLOW ST

CITY OF PORTLAND 114 D023001

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 of inspection must be given and when permission procured before this building or part thereof is laid or closed-in. 24 HOUR NOTICE IS REQUIRED.

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

OTHER REQUIRED APPROVALS

Fire Dept. _____

Health Dept. _____

Appeal Board _____

Other _____

Department Name

6/10/07 *Cliff K...*
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 07-0148	Issue Date:	CBL: 114 D023001
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Location of Construction: 65 WINSLOW ST	Owner Name: UNIVERSITY OF MAINE SYSTE	Owner Address: 96 FALMOUTH ST	Phone:
Business Name:	Contractor Name: WRIGHT RYAN CONSTRUCTIO	Contractor Address: 10 DANFORTH STREET Portland	Phone 2077733625
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	Zone: USM

Past Use: Vacant Land	Proposed Use: Commercial / USM 4 story structure w/partial basement & mechanical penthouse (Bldg.#1)	Permit Fee: \$187,595.00	Cost of Work: \$18,750,000.00	CEO District: 2	over 10
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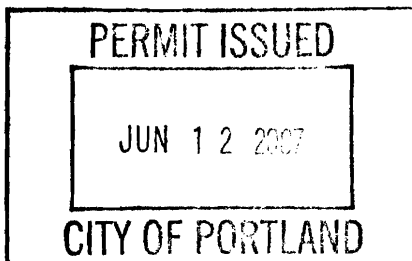
Proposed Project Description: 4 Story structure w/ partial basement & mechanical penthouse (Bldg. #1) Ashley Lefebvre Learning Institute	FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: Type: 2B Signature: Greg C...
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Signature: Greg C...	Signature: (signature)
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)	
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	
Signature: Date:	

Permit Taken By: dmartin	Date Applied For: 02/12/2007	Zoning Approval
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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 <input type="checkbox"/> Shoreland NA <input type="checkbox"/> Wetland NA <input type="checkbox"/> Flood Zone parcel 13 ZREC <input type="checkbox"/> Subdivision <input checked="" type="checkbox"/> Site Plan 2006-0450 Maj <input checked="" type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: 2/15/07	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 Date:	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:
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**CERTIFICATION**

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

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



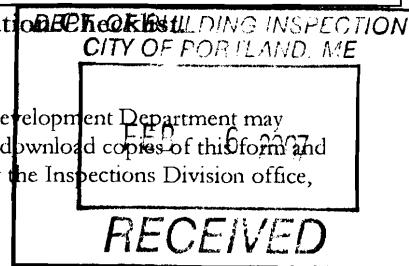
General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: 53, 60, 63, 65 Winslow & 20 Bedford		
Total Square Footage of Proposed Structure 78,350 square feet		Square Footage of Lot 189,189 square feet
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# See attached 114-B-23	Owner: See attached	Telephone: See attached
Lessee/Buyer's Name (If Applicable) NA	Applicant name, address & telephone: Carol Potter, Proj. Mng. University of Southern ME 25 Bedford Street Portland, ME 04104 228-8124	Cost Of Work: \$ 18,750,000.00 Fee: \$ 187,520.00 C of O Fee: \$ 75 x 2 = 150. <i>Due</i>
Current Specific use: <u>vacant</u> If vacant, what was the previous use? <u>University trades, maintenance & storage, carpool</u> Proposed Specific use: <u>Classroom & office</u>		
Project description: Four story structure with partial basement and mechanical penthouse, structural steel with composite slab, flat roofs, geothermal heating & cooling.		
Contractor's name, address & telephone: <u>Wright-Ryan Construction, Pat Richter Proj. Mng.</u> <u>10 Danforth Street, Portland, ME 04101, phone 773-3625</u> Who should we contact when the permit is ready: <u>Carol Potter</u> Mailing address: <u>University of Southern Maine</u> Phone: <u>228-8124</u> <u>25 Bedford Street</u> <u>Portland, ME 04104</u>		

Please submit all of the information outlined in the Commercial Application ~~on the back~~ BUILDING INSPECTION CITY OF PORTLAND, ME
Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.



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

Signature of applicant:

Carol M. Potter

Date:

2-6-07

This is not a permit; you may not commence ANY work until the permit is issued.

City of Portland, Maine - Building or Use Permit

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

Permit No: 07-0148	Date Applied For: 02/06/2007	CBL: 114 D023001
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Location of Construction: 65 WINSLOW ST	Owner Name: UNIVERSITY OF MAINE SYSTE	Owner Address: 96 FALMOUTH ST	Phone:
Business Name:	Contractor Name: WRIGHT RYAN CONSTRUCTIO	Contractor Address: 10 DANFORTH STREET Portland	Phone (207) 773-3625
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	

Proposed Use: Commercial / USM 4 story structure w/partial basement & mechanical penthouse (Bldg.#1) - Osher Life Long Learning Institute	Proposed Project Description: 4 Story structure w/ partial basement & mechanical penthouse (Bldg. #1) - Osher Life Long Learning Institute
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Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Marge Schmuckal **Approval Date:** 02/15/2007**Note:****Ok to Issue:** ☒

- 1) Separate permits shall be required for any new signage.
- 2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
- 3) Separate permits shall be required for the building addition to to the library.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 06/12/2007**Note:****Ok to Issue:** ☐

- 1) The revised statement of special inspectio
 - 2) A Complete COMCheck reports including HVAC elements and the building envelope must be submitted and approved prior to the release of the permit.
 - 3) The exterior wall shop drawings must be submitted for review and approval prior to the construction of the exterior walls.
 - 4) Shop drawings for the Spiral and Alternating Tread stair must be submitted and approved prior to installation.
 - 5) The new egress stair and guard design for the basement stair must be submitted and approved prior to installation.
- Thank you.
Mike Nugent

Dept: Fire **Status:** Approved **Reviewer:** Cptn Greg Cass **Approval Date:** 06/12/2007**Note:** working with SFMO several issues**Ok to Issue:** ☒**Dept:** Zoning **Status:** **Reviewer:** Marge Schmuckal **Approval Date:** **Ok to Issue:** ☐**Dept:** Fire **Status:** Approved **Reviewer:** **Approval Date:** **Ok to Issue:** ☐**Dept:** Planning **Status:** Pending **Reviewer:** Barbara Barhydt **Approval Date:** 03/13/2007
Note: **Ok to Issue:** ☒

Location of Construction: 65 WINSLOW ST	Owner Name: UNIVERSITY OF MAINE SYSTE	Owner Address: 96 FALMOUTH ST	Phone:
Business Name:	Contractor Name: WRIGHT RYAN CONSTRUCTIO	Contractor Address: 10 DANFORTH STREET Portland	Phone (207) 773-3625
Lessee/Buyer's Name	Phone:	Permit Type: Commercial	

Comments: 2/12/2007-dmartin: Gave Fire the life saftey plans and routed permit to zoning./dm 2/12/2007-dmartin: Entire project has been paid for. It is invoiced under Bldg. #1 application. 2nd bldg application forthcoming./dm 2/13/2007-mes: On 2/12/07 I spoke with Shukria about getting an approved site plan - she said that new plans where coming in that day and to wait - she will distribute plans to me when they come in. 2/15/2007-mes: Plans came in on 2/14/07 - this permit is only for the first building - Osher Life Long Learning Institute 6/12/2007-jmb: The revised statement of special inspections was submitted as requested			
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From: "Tom Beddall" <tbeddall@koetterkim.com>
To: "Mike Nugent" <mjn@portlandmaine.gov>
Date: 6/11/2007 8:23:44 AM
Subject: RE: USM University Commons - Updated Plans and Code Summary

Mike,

Regarding the amended statement of Special Inspections, the document dated June 4, 2007 which I left for you at the City Hall last Thursday is a revision to the one dated February 2, 2007 that was submitted with the Building Permit application. All testing agency names and contact information, which were previously listed as "TBD", have been filled in and all responsible parties have been identified by number on Pages 5 through 9.

The contractor's statements of responsibility were included in the package which I left for you at City Hall the previous week. From Page 3 of the Statement of Special Inspections, the only Quality Assurance Plan required for this project is Quality Assurance for Seismic Design. Each of the three subcontractors responsible for installation of seismic restraints - Warren Mechanical, Eastern Electrical, and Dean and Allyn, Inc. - have submitted e-mail correspondence indicating their awareness of the quality assurance requirements. Please let me know if anything further is needed.

Regarding the ComCheck report, we will submit the additional information which you request.

Tom Beddall
Koetter Kim and Associates, Inc.

-----Original Message-----

From: Mike Nugent [mailto:mjn@portlandmaine.gov]
Sent: Sunday, June 10, 2007 10:24 PM
To: Tom Beddall; Jeanie Bourke; Lannie Dobson
Subject: Re: USM University Commons - Updated Plans and Code Summary

Thank you for the additional information, the ComCheck info submitted only covered the Electrical system. Also the Inspectors and Testing agencies and contractor's statement of responsibility were omitted from the information recieved.

I am signing off with conditions.

The following conditions will be attached :

- 1) An amended statement of Special Inspections containing the contractor's statement of repsonsibility and the Inspectors and testing agencies must be sumbitted prior to the release of the permit.
- 2) A Complete COMCheck reports including HVAC elements and the building envelope must be submitted and approved prior to the release of the permit.
- 3) The exterior wall shop drawings must be submitted for review and approval prior to the construction of the exterior walls.
- 4) Shop drawings for the Spiral and Alternating Tread stair must be

submitted and approved prior to installation.

5) The new egress stair and guard design for the basement stair must be submitted and approved prior to installation.

Thank you.

Mike Nugent

CC: "Jeanie Bourke" <JMB@portlandmaine.gov>, "Lannie Dobson" <LDobson@portlandmaine.gov>, "Carol Potter" <mailto:cpotter@usm.maine.edu>

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

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

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

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

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

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

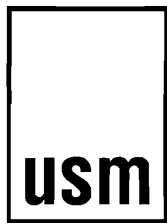
Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection

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

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

<u>Carol M. Potter</u>	<u>6-12-07</u>
Signature of Applicant/Designee.	Date
<u>Donna Martin Admin</u>	<u>6-12-07</u>
Signature of Inspections Official	Date

CBL: 114 S 023 Building Permit #: 070148



UNIVERSITY OF
SOUTHERN MAINE
Facilities Management



TO: Inspections Division
 City of Portland
 389 Congress Street
 Portland, ME 04101

Date: June 12, 2007 We Transmit:
Project No.: 2005-014 ☒ Attached ☐ Under Separate Cover via _____
Attention: Mike Nugent The Following:
Re: University Commons, ☐ Drawings ☐ Copy of Letter ☐ Specifications
 The Wishcamper Center ☐ Samples ☐ Shop Drawing ☐ Change Order
 CBL: 114-D-023 ☒ Other: _____

Copies	Date	Drawing No.	Description
1	6/4/07	9 pages	Statement of Special Inspections
1	5/8/07	1 page	Statement of Responsibility from Warren Mechanical
1	5/24/07	1 page	Statement of Responsibility from Eastern Electrical
1	5/24/07	1 page	Statement of Responsibility from Dean and Allyn, Inc.

Transmitted as checked:

☐ For approval ☐ No exception taken ☐ For review and comment
☐ For your use ☐ Make corrections noted ☐ Revise and submit
☒ As requested ☐ Rejected ☐ Prints returned after loan to us
☐ Other _____

Remarks: Mike,
Information you requested in your 6/10/07 email to Tom Beddall.

Copy to: file

From: Carol Potter

Statement of Special Inspections

Project: *University Commons.*

Location: *Bedford Street, Portland, ME*

Owner: *University of Southern Maine*

Design Professional in Responsible Charge, *Susie Kim, Koetter Kim & Associates, Inc.*

Architect:

Structural Engineer: *Stephen Lew, Weidlinger Associates, Inc.*

Geotechnical Engineer: *Wayne Chadbourne, Haley & Aldrich, Inc.*

Mechanical Engineer: *Clifton Greim, Harriman Associates*

Electrical Engineer: *Philip Morrisette, Harriman Associates*

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

☒ Structural ☒ Mechanical/Electrical/Plumbing
☒ Architectural ☒ Other: Geotechnical

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: *monthly*

or ☐ per attached schedule.

Prepared by:

Susie Kim

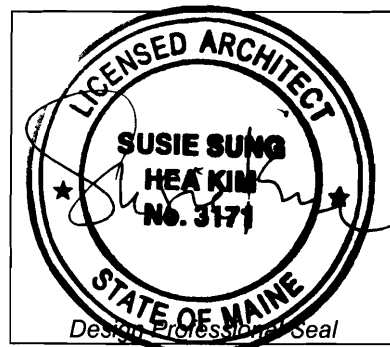
(type or print name)

Susie Kim

Signature

Rev. 06/04/07

Date



Owner's Authorization:

Building Official's Acceptance:

Carl Potter 6.4.07

Signature

Date

Signature

Date

Schedule of Inspection and Testing Agencies

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

- | | |
|--|---|
| <input checked="" type="checkbox"/> Soils and Foundations | <input checked="" type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input type="checkbox"/> Masonry | <input checked="" type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator	<i>Koetter, Kim & Associates, Inc.</i>	356 Boylston Street Boston, MA 02116 617-536-8560 tbeddall@koetterkim.com
2. Inspector—Concrete and Spray Fire Resistant Material	<i>Summit Environmental Consultants, Inc.</i>	640 Main Street Lewiston, ME 04240 207-795-6009 mwalsh@summitenv.com
3. Inspector--Steel	<i>Quality Assurance Laboratories, Inc.</i>	80 Pleasant Avenue South Portland, ME 04106 207-779-8911 artgallant@excite.com
4. Testing Agency—Concrete and Spray Fire Resistant Material	<i>Summit Environmental Consultants, Inc.</i>	640 Main Street Lewiston, ME 04240 207-795-6009 mwalsh@summitenv.com
5. Testing Agency--Steel	<i>Quality Assurance Laboratories, Inc.</i>	80 Pleasant Avenue South Portland, ME 04106 207-779-8911 artgallant@excite.com
6. Geotechnical Engineer	<i>Haley and Aldrich, Inc.</i>	75 Washington Avenue, Suite 203 Portland, ME 04101-2617 wchadbourne@haleyaldrich.com

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

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category	<i>C</i>
Quality Assurance Plan Required (Y/N)	<i>Yes</i>

Description of seismic force resisting system and designated seismic systems:
Structural Steel System not specifically detailed for seismic resistance—steel moment frames.

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust)	<i>100 MPH</i>
Wind Exposure Category	<i>C</i>
Quality Assurance Plan Required (Y/N)	<i>No</i>

Description of wind force resisting system and designated wind resisting components:
Structural steel moment resisting frame.

Statement of Responsibility

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

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
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International Code Council (ICC) Certification

ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Other

<i>SER</i>	<i>Structural Engineer of Record</i>
<i>RDP</i>	<i>Registered Design Professional (Architect or MEP Engineer of Record)</i>

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations IBC 2003 1704.7.1	6 EIT/PE	<p><i>Inspect subgrade soil conditions beneath slabs and footings to verify bearing capacity and consistency with the geotechnical design.</i></p> <p><i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of engineered fill materials.</i></p>
2. Controlled Structural Fill IBC 2003 1704.7.2, 1704.7.3	6 EIT/PE	<p><i>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) on each source of fill material.</i></p> <p><i>Inspect placement, lift thicknesses and compaction of engineered fill materials.</i></p> <p><i>Test density of each lift of engineered fill using in-situ testing methods (ASTM D2922)</i></p> <p><i>Verify extent and slope angles of fill placement.</i></p> <p><i>Inspect placement and compaction of fill adjacent to and above EPS geofoam fill.</i></p>
3. EPS Geofoam Fill	6 EIT/PE	<p><i>Inspect placement, density and construction methods of EPS geofoam fill and confirm that it is being installed in accordance with details and specifications, including the HDPE liner.</i></p> <p><i>Review material submittals for conformance with the design intent including, but not limited to, specifications and construction of EPS geofoam fill, and the HDPE liner.</i></p> <p><i>Confirm that horizontal and vertical limits of EPS geofoam fill are in conformance with contract documents.</i></p>
4. Foundation Drainage System	6 EIT/PE	<p><i>Inspect installation of underslab and perimeter foundation drain systems (including prefabricated vertical drainage board) to confirm that they are being installed in accordance with the contract documents.</i></p> <p><i>Review material submittals of drainage system to confirm that materials are in accordance with the requirements of the specifications.</i></p>

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	2 <i>ACI-CCI ICC-RCSI</i>	<i>Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.</i>
2. Material Certification	<i>SER</i>	<i>Review for conformance to Specifications.</i>
3. Reinforcement Installation	3 <i>ACI-CCI ICC-RCSI</i>	<i>Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters</i>
4. Welding of Reinforcing	3 <i>AWS-CWI</i>	<i>Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.</i>
5. Anchor Rods	3 <i>SER</i>	<i>Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.</i>
6. Concrete Placement	2 <i>ACI-CCI ICC-RCSI</i>	<i>Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.</i>
7. Sampling and Testing of Concrete	4 <i>ACI-CFTT ACI-STT</i>	<i>Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064) in accordance with Specifications.</i>
8. Curing and Protection	2 <i>ACI-CCI ICC-RCSI</i>	<i>Inspect curing, cold weather protection and hot weather protection procedures.</i>
9. Other:		

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	3 AWS/AISC- SSI ICC-SWSI	Review shop fabrication and quality control procedures. Note: Fabricator will be exempt if they comply with 05 12 00 specification requiring AISC certification. Otherwise, this is required.
2. Material Certification	3 AWS/AISC- SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes
3. Bolting	3 AWS/AISC- SSI ICC-SWSI	Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.
4. Welding	3 AWS-CWI 5 ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Provide ultrasonic testing of 100% of full-penetration welds.
5. Shear Connectors	3 AWS/AISC- SSI ICC-SWSI	Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.
7. Structural Details	3 PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.
8. Metal Deck	3 AWS-CWI	Inspect welding and side-lap fastening of metal roof and floor deck.
9. Other:		

Spray-Applied Fire Resistant Material

Item	Agency # (Qualif.)	Scope
1. Material Specifications	<i>RDP</i>	<i>Review material certificates.</i>
2. Laboratory Tested Fire Resistance Design	<i>RDP</i>	<i>Review UL fire resistive design for each rated beam, column, or assembly.</i>
3. Schedule of Thickness	<i>2</i> <i>RDP</i> <i>ICC-SFSI</i>	<i>Review approved thickness schedule.</i>
4. Surface Preparation	<i>2</i> <i>ICC-SFSI</i>	<i>Inspect surface preparation of steel prior to application of fireproofing</i>
5. Application	<i>2</i> <i>ICC-SFSI</i>	<i>Inspect application of fireproofing.</i>
6. Curing and Ambient Condition	<i>2</i> <i>ICC-SFSI</i>	<i>Verify ambient air temperature and ventilation is suitable for application and curing of fireproofing.</i>
7. Thickness	<i>4</i> <i>ICC-SFSI</i>	<i>Test the thickness of fireproofing (ASTM E605). Perform a set of thickness measurements for every 1,000 SF of floor and roof assemblies and on not less than 25% of rated beams and columns.</i>
8. Density	<i>4</i> <i>ICC-SFSI</i>	<i>Test the density of fireproofing material (ASTM E605). Perform not less than one test for each 4,000 SF of gross floor area.</i>
9. Bond Strength	<i>4</i> <i>ICC-SFSI</i>	<i>Test the cohesive/adhesive bond strength of cured fireproofing (ASTM E736). Perform not less than one test for each 4,000 SF of gross floor area.</i>
10. Other:		

Mechanical & Electrical Systems

Page 9 of 9

Item	Agency # (Qualif.)	Scope
1. Fire Protection Piping	RDP	<i>Inspect the anchorage and support of fire protection piping, and verify that it complies with approved shop drawings provided by the contractor.</i>
2. Mechanical, HVAC & Piping	RDP	<i>Inspect the anchorage and support of gas piping, and verify that it complies with approved shop drawings provided by the contractor.</i>
3. Electrical System	RDP	<i>Inspect the anchorage and support of electrical equipment used for emergency or standby power systems, and verify that it conforms with approved shop drawings provided by the contractor. These items include: emergency generator, automatic transfer switches, feeder and branch circuits, transformers and panelboards, lighting fixtures served by the life-safety automatic transfer switches, fire alarm panels and distribution, and other components as required to ensure proper operation of the building electrical life-safety systems.</i>

Mike Barton

From: Dominic DiBiase [Dominic@warrenmech.com]
Sent: Tuesday, May 08, 2007 2:21 PM
To: Mike Barton
Subject: Seismic Restraints

In response to the request from the City of Portland regarding the seismic restraints we have developed the following response.

Warren Mechanical fully recognizes the seismic restraint requirements for the project and we intend to install all of the necessary restraints as shown on the plans and described in the specifications. Specification section 220548 section 1.2 A clearly states that the design criteria for this project meets the conditions as defined in the IBC-category "C".

It is our intent at this time to have Chris Bissonette running the project. He will be assisting and overseeing the installation of the restrains with our regular work force which has in the past and will continue to install such equipment as specified on the plans and in the documents.

We have purchased our seismic package though "The John Hare Company" who in turn has put the package together with the Amber Booth Co. Amber Booth is a licensed engineering firm regularly engaged in the design and sales of seismic restraints. It is clearly stated in the specification that they will perform an inspection and report on the systems to insure that they are installed properly. Any deficiencies found during the inspection will be corrected before the building is turned over to the owner.

Please feel free to contact us with any questions.

Dominic DiBiase
Warren Mechanical Inc.
(207) 856-6746 ext. 113
(207) 232-2825
ddibiase@warrenmech.com

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.5.467 / Virus Database: 269.6.5/793 - Release Date: 5/7/2007 2:55 PM

5/24/2007

Mike Barton

From: Patrick Amoroso [PAmoroso@eecmaine.com]

Sent: Thursday, May 24, 2007 8:53 AM

To: mbarton@wright-ryan.com

Cc: MBailey@eecmaine.com

Eastern Electrical fully recognizes the seismic restraint requirements for the project and we intend to install all of the necessary restraints as shown on the plans and described in the specifications. Specification section 260500 section 1.14A clearly states that the design criteria for this project meets the conditions as defined in the International Building Code and associated supplements.

Respectfully,

Patrick Amoroso

Eastern Electrical
Patrick Amoroso
20 Bedford St. Portland, Me 04101
Tel 1 (207) 772-6762
Fax 1 (207) 772 0950
PAmoroso@eecmaine.com
<http://www.eecmaine.com>

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.5.467 / Virus Database: 269.7.7/816 - Release Date: 5/23/2007 3:59 PM

5/24/2007

Mike Barton

From: Harry King [hking@maine.rr.com]
Sent: Thursday, May 24, 2007 9:50 AM
To: Mike Barton Barton
Subject: USM Commons

The hanging, bracing, and restraint of the sprinkler system piping for the USM Commons project will be as required by NFPA #13, City of Portland, and State Fire Marshal's Office. Design of any such bracing will be done by Dean and Allyn, Inc. per the methods described by NFPA #13. Dean and Allyn's installation crews have been fully instructed in the installation of such materials by sway bracing manufactures and apprenticeship programs.

Harry King
Dean and Allyn, Inc.

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.5.467 / Virus Database: 269.7.7/816 - Release Date: 5/23/2007 3:59 PM

5/24/2007

KOETTER | KIM & ASSOCIATES | INC.

356 Boylston Street, Boston, MA 02116 **T** 617.536.8560 **F** 617.536.1217 **W** koetterkim.com

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☐ **Review & Comments**
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☐ **Record**
☐ **Information**

KKA File

Statement of Special Inspections

Project: *University Commons.*

Location: *Bedford Street, Portland, ME*

Owner: *University of Southern Maine*

Design Professional in Responsible Charge, *Susie Kim, Koetter Kim & Associates, Inc.*
Architect:

Structural Engineer: *Stephen Lew, Weidlinger Associates, Inc.*

Geotechnical Engineer: *Wayne Chadbourne, Haley & Aldrich, Inc.*

Mechanical Engineer: *Clifton Greim, Harriman Associates*

Electrical Engineer: *Philip Morrisette, Harriman Associates*

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

☒ Structural ☒ Mechanical/Electrical/Plumbing
☒ Architectural ☒ Other: Geotechnical

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: *monthly*

or ☐ per attached schedule.

Prepared by:

Susie Kim

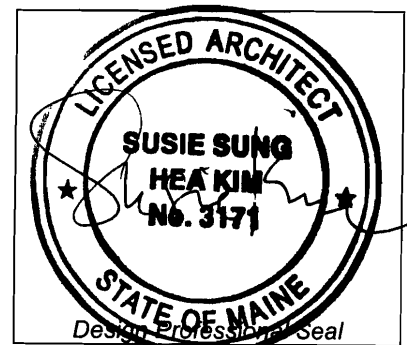
(type or print name)

Susie Kim

Signature

Rev. 06/04/07

Date



Owner's Authorization:

Building Official's Acceptance:

Carol Dotter 6.4.07

Signature

Date

Signature

Date

Schedule of Inspection and Testing Agencies

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

- | | |
|--|---|
| <input checked="" type="checkbox"/> Soils and Foundations | <input checked="" type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input type="checkbox"/> Masonry | <input checked="" type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator	<i>Koetter, Kim & Associates, Inc.</i>	356 Boylston Street Boston, MA 02116 617-536-8560 tbeddall@koetterkim.com
2. Inspector—Concrete and Spray Fire Resistant Material	<i>Summit Environmental Consultants, Inc.</i>	640 Main Street Lewiston, ME 04240 207-795-6009 mwalsh@summitenv.com
3. Inspector--Steel	<i>Quality Assurance Laboratories, Inc.</i>	80 Pleasant Avenue South Portland, ME 04106 207-779-8911 artgallant@excite.com
4. Testing Agency—Concrete and Spray Fire Resistant Material	<i>Summit Environmental Consultants, Inc.</i>	640 Main Street Lewiston, ME 04240 207-795-6009 mwalsh@summitenv.com
5. Testing Agency--Steel	<i>Quality Assurance Laboratories, Inc.</i>	80 Pleasant Avenue South Portland, ME 04106 207-779-8911 artgallant@excite.com
6. Geotechnical Engineer	<i>Haley and Aldrich, Inc.</i>	75 Washington Avenue, Suite 203 Portland, ME 04101-2617 wchadbourne@haleyaldrich.com

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

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category *C*
Quality Assurance Plan Required (Y/N) *Yes*

Description of seismic force resisting system and designated seismic systems:
Structural Steel System not specifically detailed for seismic resistance—steel moment frames.

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *100 MPH*
Wind Exposure Category *C*
Quality Assurance Plan Required (Y/N) *No*

Description of wind force resisting system and designated wind resisting components:
Structural steel moment resisting frame.

Statement of Responsibility

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

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
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International Code Council (ICC) Certification

ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Other

<i>SER</i>	<i>Structural Engineer of Record</i>
<i>RDP</i>	<i>Registered Design Professional (Architect or MEP Engineer of Record)</i>

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations IBC 2003 1704.7.1	6 EIT/PE	<p><i>Inspect subgrade soil conditions beneath slabs and footings to verify bearing capacity and consistency with the geotechnical design.</i></p> <p><i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of engineered fill materials.</i></p>
2. Controlled Structural Fill IBC 2003 1704.7.2, 1704.7.3	6 EIT/PE	<p><i>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) on each source of fill material.</i></p> <p><i>Inspect placement, lift thicknesses and compaction of engineered fill materials.</i></p> <p><i>Test density of each lift of engineered fill using in-situ testing methods (ASTM D2922)</i></p> <p><i>Verify extent and slope angles of fill placement.</i></p> <p><i>Inspect placement and compaction of fill adjacent to and above EPS geofoam fill.</i></p>
3. EPS Geofoam Fill	6 EIT/PE	<p><i>Inspect placement, density and construction methods of EPS geofoam fill and confirm that it is being installed in accordance with details and specifications, including the HDPE liner.</i></p> <p><i>Review material submittals for conformance with the design intent including, but not limited to, specifications and construction of EPS geofoam fill, and the HDPE liner.</i></p> <p><i>Confirm that horizontal and vertical limits of EPS geofoam fill are in conformance with contract documents.</i></p>
4. Foundation Drainage System	6 EIT/PE	<p><i>Inspect installation of underslab and perimeter foundation drain systems (including prefabricated vertical drainage board) to confirm that they are being installed in accordance with the contract documents.</i></p> <p><i>Review material submittals of drainage system to confirm that materials are in accordance with the requirements of the specifications.</i></p>

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	2 <i>ACI-CCI ICC-RCSI</i>	<i>Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.</i>
2. Material Certification	<i>SER</i>	<i>Review for conformance to Specifications.</i>
3. Reinforcement Installation	3 <i>ACI-CCI ICC-RCSI</i>	<i>Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters</i>
4. Welding of Reinforcing	3 <i>AWS-CWI</i>	<i>Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.</i>
5. Anchor Rods	3 <i>SER</i>	<i>Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.</i>
6. Concrete Placement	2 <i>ACI-CCI ICC-RCSI</i>	<i>Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.</i>
7. Sampling and Testing of Concrete	4 <i>ACI-CFTT ACI-STT</i>	<i>Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064) in accordance with Specifications.</i>
8. Curing and Protection	2 <i>ACI-CCI ICC-RCSI</i>	<i>Inspect curing, cold weather protection and hot weather protection procedures.</i>
9. Other:		

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	3 AWS/AISC- SSI ICC-SWSI	Review shop fabrication and quality control procedures. Note: Fabricator will be exempt if they comply with 05 12 00 specification requiring AISC certification. Otherwise, this is required.
2. Material Certification	3 AWS/AISC- SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes
3. Bolting	3 AWS/AISC- SSI ICC-SWSI	Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.
4. Welding	3 AWS-CWI 5 ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Provide ultrasonic testing of 100% of full-penetration welds.
5. Shear Connectors	3 AWS/AISC- SSI ICC-SWSI	Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.
7. Structural Details	3 PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.
8. Metal Deck	3 AWS-CWI	Inspect welding and side-lap fastening of metal roof and floor deck.
9. Other:		

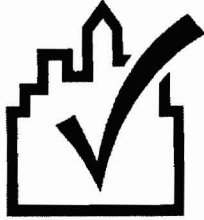
Spray-Applied Fire Resistant Material

Item	Agency # (Qualif.)	Scope
1. Material Specifications	RDP	Review material certificates.
2. Laboratory Tested Fire Resistance Design	RDP	Review UL fire resistive design for each rated beam, column, or assembly.
3. Schedule of Thickness	2 RDP ICC-SFSI	Review approved thickness schedule.
4. Surface Preparation	2 ICC-SFSI	Inspect surface preparation of steel prior to application of fireproofing
5. Application	2 ICC-SFSI	Inspect application of fireproofing.
6. Curing and Ambient Condition	2 ICC-SFSI	Verify ambient air temperature and ventilation is suitable for application and curing of fireproofing.
7. Thickness	4 ICC-SFSI	Test the thickness of fireproofing (ASTM E605). Perform a set of thickness measurements for every 1,000 SF of floor and roof assemblies and on not less than 25% of rated beams and columns.
8. Density	4 ICC-SFSI	Test the density of fireproofing material (ASTM E605). Perform not less than one test for each 4,000 SF of gross floor area.
9. Bond Strength	4 ICC-SFSI	Test the cohesive/adhesive bond strength of cured fireproofing (ASTM E736). Perform not less than one test for each 4,000 SF of gross floor area.
10. Other:		

Mechanical & Electrical Systems

Page 9 of 9

Item	Agency # (Qualif.)	Scope
1. Fire Protection Piping	RDP	<i>Inspect the anchorage and support of fire protection piping, and verify that it complies with approved shop drawings provided by the contractor.</i>
2. Mechanical, HVAC & Piping	RDP	<i>Inspect the anchorage and support of gas piping, and verify that it complies with approved shop drawings provided by the contractor.</i>
3. Electrical System	RDP	<i>Inspect the anchorage and support of electrical equipment used for emergency or standby power systems, and verify that it conforms with approved shop drawings provided by the contractor. These items include: emergency generator, automatic transfer switches, feeder and branch circuits, transformers and panelboards, lighting fixtures served by the life-safety automatic transfer switches, fire alarm panels and distribution, and other components as required to ensure proper operation of the building electrical life-safety systems.</i>



COMcheck Software Version 3.4.1

Lighting and Power Compliance Certificate

90.1 (2001) Standard

Report Date: 06/04/07

Data filename: C:\Documents and Settings\jfeinstein\Local Settings\Temporary Internet Files\OLK5B\USM COMCHECK.cck

Section 1: Project Information

Project Title: USM University Commons

Construction Site:
Portland, ME

Owner/Agent:

Designer/Contractor:

Section 2: General Information

Building Use Description by:
Project Type:

New Construction

Building Type

School/University

Floor Area

49245

Section 3: Requirements Checklist

Interior Lighting:

- ☐ 1. Total actual watts must be less than or equal to total allowed watts.

Allowed Watts	Actual Watts	Complies
73868	48019	YES

Exterior Lighting:

- ☐ 2. Minimum efficacy of 60 lumen/watt for lamps greater than 100W.
- ☐ 3. Lighting power for canopies, entrances, and exits meets the following criteria (trade-offs allowed among these applications):
- (i) Lighting power for free-standing canopy areas or building entrances with canopies is less than or equal to 3 watts per square foot.
 - (ii) Lighting power for building entrances without a canopy is less than or equal to 33 watts per linear foot of door width.
 - (iii) Lighting power for building exits is less than or equal to 20 watts per linear foot of exit door width.
- ☐ 4. Lighting power for building facades is less than or equal to 0.25 watts per square foot of the illuminated area.

Exceptions:

Controlled by motion sensor, signal or advertising signage, highlighting features of historic monuments and buildings, or required for safety or security.

Controls, Switching, and Wiring:

- ☐ 5. Independent manual or occupancy sensing controls for each space (remote switch with indicator allowed for safety or security).
- ☐ 6. Automatic shutoff control for lighting in >5000 sq.ft buildings by time-of-day device, occupant sensor, or other automatic control.

Exceptions:

24 hour operation lighting.

- ☐ 7. Master switch at entry to hotel/motel guest room.
- ☐ 8. Separate control device for display/accent lighting, case lighting, task lighting, nonvisual lighting, lighting for sale, and demonstration lighting.
- ☐ 9. Photocell/astronomical time switch on exterior lights.

Exceptions:

Covered vehicle entrance/exit areas requiring lighting for safety, security and eye adaptation.

- ☐ 10. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exceptions:

Electronic high-frequency ballasts;

Luminaires not on same switch;

Recessed luminaires 10 ft. apart or surface/pendant not continuous;

Luminaires on emergency circuits.

Voltage Drop:

- ☐ 11. Feeder conductors have been designed for a maximum voltage drop of 2 percent.
- ☐ 12. Branch circuit conductors have been designed for a maximum voltage drop of 3 percent.

Section 4: Compliance Statement

Compliance Statement: The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 90.1 (2001) Standard requirements in COMcheck Version 3.4.1 and to comply with the mandatory requirements in the Requirements Checklist.

<u>JOSEPH FEINSTEIN - PRINCIPAL</u>	<u>Joseph Feinstein</u>	<u>6.4.07</u>
Name - Title	Signature	Date

SLATED FEINSTEIN
INTEGRATED LIGHTING

Section 5: Post Construction Compliance Statement



COMcheck Software Version 3.4.1

Lighting Application Worksheet

90.1 (2001) Standard

Report Date:

Data filename: C:\Documents and Settings\jfeinstein\Local Settings\Temporary Internet Files\OLK5B\USM COMCHECK.cck

Section 1: Allowed Lighting Power Calculation

A	B Floor Area	C Allowed Watts / ft ²	D Allowed Watts
School/University	49245	1.5	73868
Total Allowed Watts =			73868

Section 2: Actual Lighting Power Calculation

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
School/University (49245 sq.ft.)				
HID 1: DR1: ADJUST. ACCENT / Metal Halide 150W / Electronic	1	5	155	775
Linear Fluorescent 1: FC1: COVE / 48" T8 32W / Electronic	2	4	64	256
Linear Fluorescent 2: FC2: LINEAR STRIP / 48" T8 32W / Electronic	2	12	61	732
Compact Fluorescent 1: FC3: QUAD STRIP / Other / Electronic	3	1	82	82
Linear Fluorescent 3: FC4: LINEAR STRIP / 48" T8 32W / Electronic	1	3	31	93
Linear Fluorescent 4: FP1: PENDANT / 48" T8 32W / Electronic	2	54	61	3294
Compact Fluorescent 2: FP3: SEMI RECESSED / Triple 4-pin 32W / Electronic	2	1	61	61
Compact Fluorescent 3: FP4: PENDANT / Triple 4-pin 32W / Electronic	2	1	64	64
Linear Fluorescent 5: FP5: LINEAR PENDANT / 48" T8 32W / Electronic	2	48	61	2928
HID 2: FP8: PENDANT / Metal Halide 100W / Electronic	1	8	108	864
Linear Fluorescent 6: FR1: 2 X 4 RECESSED / 48" T8 32W / Electronic	2	51	61	3111
Linear Fluorescent 7: FR1A: 2 X 4 RECESSED / 48" T8 32W / Electronic	2	3	61	183
Linear Fluorescent 8: FR1B: 2 X 4 RECESSED / 48" T8 32W / Electronic	2	3	61	183
Compact Fluorescent 4: FR2: RECESSED / Other / Electronic	1	4	30	120
Linear Fluorescent 9: FR4: RECESSED SLOT / 48" T8 32W / Electronic	1	131	31	4061
Compact Fluorescent 5: FR5: RECESSED / Triple 4-pin 32W / Electronic	1	18	37	666
Linear Fluorescent 10: FR8: RECESSED 4 X 4 / 48" T8 32W / Electronic	4	4	122	488
Linear Fluorescent 11: FR9: RECESSED WALL WASH / 48" T8 32W / Electronic	1	18	37	666
Linear Fluorescent 12: FR9A: RECESSED WALL WASH / 48" T8 32W / Electronic	1	5	37	185
Linear Fluorescent 13: FR10: RECESSED 2 X 4 / 48" T8 32W / Electronic	2	3	111	333
Compact Fluorescent 6: FR11: RECESSED / Triple 4-pin 32W / Electronic	1	119	37	4403
Linear Fluorescent 14: FR12: WALL SLOT / 48" T8 32W / Electronic	2	41	74	3034
Linear Fluorescent 15: FR13: WALL SLOT / 48" T8 32W / Electronic	1	14	37	518
Linear Fluorescent 16: FR14: RECESSED SLOT / 48" T8 32W / Electronic	2	42	74	3108
Linear Fluorescent 17: FR14A: RECESSED SLOT / 48" T8 32W / Electronic	2	51	74	3774
Compact Fluorescent 7: FR15: RECESSED 2 X 2 / Twin Tube 40W / Electronic	1	137	46	6302
Linear Fluorescent 18: FS2: LINEAR SURFACE / 46" T5 54W / Electronic	1	11	62	682
Compact Fluorescent 8: FS3: SURFACE MOUNT / Other / Electronic	2	19	60	1140
Compact Fluorescent 9: FS4: SURFACE MOUNT / Quad 4-pin 13W / Electronic	2	18	30	540
Linear Fluorescent 19: FS5: LINEAR SURFACE / 48" T8 32W / Electronic	1	12	37	444
Linear Fluorescent 20: FW4: LINEAR WALL MOUNT / 48" T8 32W / Electronic	2	14	74	1036
Compact Fluorescent 10: FW5: WALL MOUNT / Quad 4-pin 13W / Electronic	2	20	30	600
Compact Fluorescent 11: FW6: STEP LIGHT / Quad 4-pin 13W / Electronic	1	15	15	225
Compact Fluorescent 12: FW7: WALL MOUNT / Other / Electronic	2	7	60	420

Linear Fluorescent 21: FW8: WALL MOUNT / 48" T8 32W / Electronic	4	8	147	1176
Incandescent 1: IRI: ADJUST. ACCENT / Incandescent 250W	1	2	265	530
Incandescent 2: IT1: TRACK FIXTURE / Incandescent 150W	1	6	157	942
				Total Actual Watts = 48019

Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Actual Watts is greater than or equal to zero, the building complies.

Total Allowed Watts = 73868
Total Actual Watts = 48019
Project Compliance = 25848

Lighting PASSES: Design 35% better than code.

May 30, 2007

**Mr. Michael Nugent
Consulting Plans Examiner
City Hall, Building Dept.
389 Congress Street
Portland, ME 04101**

**Re: University of Southern Maine
University Commons**

Dear Mike,

Koetter Kim has reviewed the questions you raised in you April 28, 2007 e-mail, and we have already addressed some of these in subsequent e-mails. To summarize and answer the remaining issues, our responses are as follows:

- 1. The inspectors and testing agencies to be involved on this project have been determined, and letters from the inspectors which serve as the contractor's statement of responsibility are attached.**
- 2. The two openings between the First and Second Floors are to be considered floor openings separated from the First Floor by fire shutters in the event of a fire, and not atriums. Please refer to the enclosed memorandum from R. W. Sullivan. In addition, attached is a copy of the revised Code Summary for this project, which gives additional information about our approach, and revised First and Second Floor plans along with plans indicating the revised location of fire rated walls.**
- 3. Per Koetter Kim's May 4 e-mail, the exterior walls of the proposed building are not rated, and treated wood blocking has been reduced in the exterior wall shop drawings.**
- 4. The stairways serving four stories have a two-hour fire rating, and the stairways serving three or fewer stories and their supporting structure have a one-hour fire rating – see Section 4 in the attached Code Summary.**
- 5. The walls separating the two A-3 assembly spaces on the First Floor from the remainder of the First Floor are one-hour rated construction. The ceiling /floor assemblies above are also of one-hour rated construction, and the steel beams and columns supporting this ceiling structure will also be protected by one-hour rated sprayed-on fireproofing.**
- 6. Per Koetter Kim's May 4 e-mail, no wood grille ceiling will be used in this building.**

K. K & A
ARCHITECTUR
E

356 Boylston Street, Boston, MA 02116 T 617.536.8560 F 617.536.1217 W koetterkim.com

- 7. The ducts that penetrate the two-story spaces of the OLLI Atrium and the Muskie Forum do not require fire dampers because these two spaces are being tread as floor openings from the Second Floor – refer to Section 8 of the attached Code Summary.**
- 8. Per Koetter Kim's May 4 e-mail, typical fire stairs will have a clear width of 44 inches, while the stairs from the Basement to the First floor, serving less than 50 occupants, will have a clear width of 36 inches.**
- 9. Per Koetter Kim's May 4 e-mail, the railings in this building will have a clear width between guard elements of less than 4 inches.**
- 10. The Muskie Forum stair has been designed to meet Section 1009.9 "Spiral Stairways" of the 2003 IBC, and not Section 1009.7. This stair is not an egress stair.**
- 11. The new egress stair from the Basement to grade, in place of the areaway ladder shown in the permit application drawings, will have closed risers. In place of a "trap door", the upper part of the stair opening will be protected by a 42 inch high guardrail where it passes through the areaway grating.**
- 12. Per your e-mail dated May 22, we will be providing an alternating tread instead of a stairway from the Fourth Floor to the main roof/ Mechanical Penthouse level, and another alternating tread from the Mechanical Penthouse to the Penthouse roof, with a 16 SF roof hatch.**
- 13. Attached is the ComCheck report which is being reviewed by our electrical engineer; a signed copy will be sent to you.**
- 14. Per the attached May 22 e-mail from Dana Tuttle, the plumbing fixture count as shown in the drawings submitted for Building Permit complies with the State Plumbing Code.**
- 15. The assembly aisles are to be dimensioned as noted in the attached Code Summary – 36 inches clear width for stairs with seating on one side and for level aisles with seating on one side, and 42 inches for level aisles with seating on both sides. Note that all seating is moveable, and seats will be fastened together per 2003 IBC Section 1024.**
- 16. The locational requirements for safety glazing are set out in the specification sections involving glass – Sections 08 42 25 All Glass Assemblies, 08 63 10 Metal Framed Skylights, 08 81 10 Interior Glass, and 08 81 15 Exterior Glass. We will be reviewing the shop drawings to ensure that exterior glazing complies with all of the requirements of 2033 IBC Chapter 24.**
- 17. Per Koetter Kim's May 9 e-mail, as standpipe system is being provided.**

Please let me know if any additional information is needed. If the responses provide are acceptable, we will send you a set of stamped and signed revised drawings to revise the floor plan and code summary sheets which were submitted with the Building Permit application. along with a revised copy of the Statement of Special Inspections and the signed ComCheck report .

Sincerely yours,

A handwritten signature in black ink, appearing to read "Thomas G. Beddall". The signature is fluid and cursive, with the first name "Thomas" being more prominent.

Thomas G. Beddall

Associate

Koetter, Kim & Associates, Inc.

Mike Barton

From: Dominic DiBiase [Dominic@warrenmech.com]
Sent: Tuesday, May 08, 2007 2:21 PM
To: Mike Barton
Subject: Seismic Restraints

In response to the request from the City of Portland regarding the seismic restraints we have developed the following response.

Warren Mechanical fully recognizes the seismic restraint requirements for the project and we intend to install all of the necessary restraints as shown on the plans and described in the specifications. Specification section 220548 section 1.2 A clearly states that the design criteria for this project meets the conditions as defined in the IBC-category "C".

It is our intent at this time to have Chris Bissonette running the project. He will be assisting and overseeing the installation of the restrains with our regular work force which has in the past and will continue to install such equipment as specified on the plans and in the documents.

We have purchased our seismic package though "The John Hare Company" who in turn has put the package together with the Amber Booth Co. Amber Booth is a licensed engineering firm regularly engaged in the design and sales of seismic restraints. It is clearly stated in the specification that they will perform an inspection and report on the systems to insure that they are installed properly. Any deficiencies found during the inspection will be corrected before the building is turned over to the owner.

Please feel free to contact us with any questions.

Dominic DiBiase
Warren Mechanical Inc.
(207) 856-6746 ext. 113
(207) 232-2825
ddibiase@warrenmech.com

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.5.467 / Virus Database: 269.6.5/793 - Release Date: 5/7/2007 2:55 PM

5/24/2007

Mike Barton

From: Patrick Amoroso [PAmoroso@eecmaine.com]

Sent: Thursday, May 24, 2007 8:53 AM

To: mbarton@wright-ryan.com

Cc: MBailey@eecmaine.com

Eastern Electrical fully recognizes the seismic restraint requirements for the project and we intend to install all of the necessary restraints as shown on the plans and described in the specifications. Specification section 260500 section 1.14A clearly states that the design criteria for this project meets the conditions as defined in the International Building Code and associated supplements.

Respectfully,

Patrick Amoroso

Eastern Electrical

Patrick Amoroso

20 Bedford St. Portland, Me 04101

Tel 1 (207) 772-6762

Fax 1 (207) 772 0950

PAmoroso@eecmaine.com

<http://www.eecmaine.com>

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Version: 7.5.467 / Virus Database: 269.7.7/816 - Release Date: 5/23/2007 3:59 PM

5/24/2007

Mike Barton

From: Harry King [hking@maine.rr.com]

Sent: Thursday, May 24, 2007 9:50 AM

To: Mike Barton Barton

Subject: USM Commons

The hanging, bracing, and restraint of the sprinkler system piping for the USM Commons project will be as required by NFPA #13, City of Portland, and State Fire Marshal's Office. Design of any such bracing will be done by Dean and Allyn, Inc. per the methods described by NFPA #13. Dean and Allyn's installation crews have been fully instructed in the installation of such materials by sway bracing manufactures and apprenticeship programs.

Harry King
Dean and Allyn, Inc.

No virus found in this incoming message.

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Version: 7.5.467 / Virus Database: 269.7.7/816 - Release Date: 5/23/2007 3:59 PM

5/24/2007

Sullivan Code Group

R.W. Sullivan, Inc.

MEMORANDUM

TO: Tom Beddall, Koetter Kim & Associates

FROM: Doug Anderson

DATE: May 22, 2007

SUBJECT: OLLI Muskie Floor Openings

This memo is written in response to the City of Portland's request for defining the subject building's floor openings.

The IBC's approach to floor openings is to classify them either as "atriums" (Section 404) or "floor openings not requiring a shaft enclosure" (Section 707.2 Exceptions).

This approach is confirmed by the 2003 IBC Commentary, which indicates in Section 404 that *"Section 404 is applicable when a shaft enclosure would normally be required by Section 707.2, but because of the nature, design or use of the space, the shaft enclosure is not provided and, therefore, does not comply with the provisions of Section 707."*

The subject floor openings meet all exceptions of IBC Section 707.2 Exception 7. If this exception, or any of the others in Section 707.2, was not met, then by default the floor openings become an "atrium" and must therefore meet the requirements of Section 404; or the openings would be required to be enclosed in shaft enclosures.

J:\2005\9147-00\Code Info\OLLI - Muskie Floor Opening memo.doc

The Schrafft Center
529 Main Street, Suite 203
Boston, MA 02129-1107

617.523.8227 (p)
617.523.8016 (f)
www.rwsullivan.com

Sullivan Code Group

R.W. Sullivan, Inc.

CODE SUMMARY, 100% CD with addenda

University Commons, University of Southern Maine
Portland, Maine

Date: May 24, 2007

Prepared By: Mark Verrochi

Reviewed By: Doug Anderson

The following code summary is based on our review of the 100% Construction Documents dated November 17, 2006; with addenda dated December 11, 2006 and January 5, 2007.

As currently designed the OLLI/Muskie building will be a 4-story building with mechanical penthouse; and 1 partial basement level below grade for mechanical and storage use.

APPLICABLE CODES

City of Portland Ordinances

- 2003 International Building Code, amended
- 2003 NFPA 101: Life Safety Code, amended

When the Building Code and Life Safety Code conflict, the more restrictive requirement is used.

2003 INTERNATIONAL BUILDING CODE

1. Occupancy Classification:

Use Group A-3 (Large classrooms, multi-purpose rooms)
Use Group B (Offices, Adult Educational Classrooms)

2. Min. Construction Type:

Type IIB

3. Height and Area Limitations:

The height and area limitations are indicated on the table below for the two proposed use groups:

The Schrafft Center
529 Main Street, Suite 203
Boston, MA 02129-1107

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617.523.8016 (f)
www.rwsullivan.com

Height and Area Limitations

Code Reference	Construction Type IIB, B		Construction Type IIB, A-3	
	Height	Area	Height	Area
Table 503	4 St, 55'	23,000 ft ²	2 St, 55'	9,500 ft ²
Section 504.2 Sprinkler Height Increase	+ 1 St, 20'		+ 1 St, 20'	
Section 506.3 Sprinkler Area Modification		+ 46,000 ft ² A		+ 19,000 ft ² A
Total Allowed	5 St, 75'	69,000 ft²	3 St, 75'	28,500 ft²
Actual Size Height and Area	4 St, 55'	11,530 ft²	1 St, 15'	2,926 ft²
Total Aggregate Area Allowed		207,000 ft²		85,500 ft²
Actual Aggregate Area		49,006 ft²		2,926 ft²

A. Additional increase is available due to street frontage, but is not necessary for this project.

The building complies with non-separated use groups for area but not for height. Construction Type IIB can be used when the more height restrictive A-3 use group is separated from the less restrictive B use group by a one-hour floor and wall separations. This would require that all construction supporting the separated floor also be one-hour construction.

The following spaces are required to be one hour separated: Lee Hall and the Multi-Purpose Room. These spaces are considered assembly spaces and are required to be one hour separated from the business uses.

The Use Group separation is illustrated on the Table below:

4	Use Group B		
3	Use Group B		
2	Use Group B		
1	Use Group A-3	Use Group B	Use Group A-3

4. Fire Resistance Ratings:

The table shown below summarizes the requirements for the building as outlined in Table 601 & 602.

Building Element	Type 2B Ratings (Hours)
Structural frame Including columns, girders, trusses	0 ^B
Bearing walls Exterior	0 ^B
Bearing walls Interior	0 ^B
Non-Bearing Walls and Partitions Exterior	0 ^A
Non-Bearing Walls and Partitions Interior	0
Floor Construction Including supporting beams and joists	0 ^B
Roof Construction Including supporting beams and joists	0
Shaft Enclosures	2 ^C
Storage rooms (greater than 100 ft ²)	1 or sprinkler system
Boiler Rooms (over 15 psi and 10 horsepower)	1 or sprinkler system
Trash Rooms (over 100 ft ²)	1 or sprinkler system
Emergency Generator Room (EPS)	2 ^D
Elevator Machine room	2

- A. Not less than rating based on fire separation distance (see non-loadbearing exterior walls)
- B. Not less than rating of walls supported
- C. One hour when connecting three or fewer stories. Also see Section 8 of this report for floor opening and shaft enclosure requirements.
- D. Two hour required by NFPA-110 (2002)

5. Exterior Wall Openings & Fire Resistance Rating:

The exterior wall rating requirements and opening limitations are based on the fire separation distance for each wall. The fire separation distance is measured perpendicular to the exterior wall to the centerline of a public street, an interior lot line, or an imaginary lot line between two buildings on the same lot (Section 702).

If the fire separation distance is greater than 10 feet the exterior walls of the building are not required to be rated and may have unlimited

openings (Table 704.8 Exception g).

6. Interior Finish:

The following interior wall and ceiling finishes are allowable per 2003 IBC Table 803.5:

- Exit Stairs & Passageways – Class B
- Exit Access Corridors – Class C (Class B for Use Group A-3)
- Other Rooms and Spaces – Class C

7. Means of Egress:

The occupant load for each floor calculated in accordance with Table 1004.1.2 is as follows:

Occupant Load

Floor (ft ²)	Area	Floor Area (ft ²)	Floor Area Per Occupant (ft ² /occupant)	Occupant Load
Basement (4,693)	Mechanical/Storage	4,692	300 gross	16
	Floor Total =			16
1 st Floor (12,736)	Business	5,926	100 gross	60
	Multi-Purpose Room	1,484	7 net	212
	Lee Comm Hall - Seating	1,352	Actual Seats	97 ^A
	Lee Comm Hall - Presenter Area	90	15 net	6
	Classroom	483	20 net	25
	Public Forum Seating Area	735	15 net	49
	Olli Lobby	90	15 net	6
	Library & Computer Labs	910	50 net	19
	Reading, Lounges, Conference, Meeting, & Art Rooms	1,204	15 net	81
	Kitchen	156	100 gross	2
	Storage	306	300 gross	2
	Floor Total =			559
2 nd Floor (11,443)	Business	8,320	100 gross	84
	Classrooms	2,195	20 net	110
	Meeting & Work Rooms	268	15 net	18
	Faculty Lounge	365	15 net	25
	Storage & Electrical	295	300 gross	1
	Floor Total =			238
3 rd Floor (11,530)	Business	9,510	100 gross	96
	Conference & Meeting Rooms	1,155	15 net	77
	Library	600	50 net	40
	Storage & Electrical	265	300 gross	1

	Storage & Electrical	265	300 gross	1
	Floor Total =			214
4 th Floor (11,530)	Business	10,279	100 gross	103
	Meeting, Conf Rooms & Small Classrooms	1,042	15 net	70
	Storage & Electrical	209	300 gross	1
	Floor Total =			174

A. This value is greater than the calculated value of 91 occupants.

Based on the occupant loads estimated above, the following minimum number of exits are required from each floor level:

Number of Required Exits

Floor	Occupant Load	Required Number of Exits	Number of Exits Provided
Basement	16	2	2
1 st Floor	559	3	6
2 nd Floor	238	2	2
3 rd Floor	214	2	2
4 th Floor	174	2	2

Exit Capacity (Modified with NFPA 101 – More restrictive)

Floor	Occupant Load	Exit Allowance (in/person)	Total Exit Capacity Provided (persons)		Status
Basement	16	0.3 (Stair) 0.2 (Door)	Stair 099 36"door/0.2=180 36"stair/0.3=120	Areaway ^A 70"door/0.2=350 36"stair/0.3=120	Compliant
			Total = 240		
1 st Floor	559	0.3 (Stair) 0.2 (Door)	Vestibule 110 70"door/0.2=350	Stair 191 34"door/0.2=170	Compliant
			Vestibule 111 52"door/0.2=260	Forum Doors 70"door/0.2=350	
			Stair 194 34"door/0.2=170	Vestibule 126 70"door/0.2=350	
			Total = 1,650		
2 nd Floor	238	0.3 (Stair) 0.2 (Door)	Stair 291 34"door/0.2=170 44"stair/0.3=146	Stair 294 34"door/0.2=170 48"stair/0.3=160	Compliant
			Total = 306		
3 rd Floor	214	0.3 (Stair) 0.2 (Door)	Stair 391 34"door/0.2=170 44"stair/0.3=146	Stair 394 34"door/0.2=170 48"stair/0.3=160	Compliant
			Total = 306		

4 th Floor	174	0.3 (Stair) 0.2 (Door)	Stair 391 34"door/0.2=170 44"stair/0.3=146	Stair 494 34"door/0.2=170 48"stair/0.3=160	Compliant
			Total = 306		

A. Minimum width of stairs is 36 inches per NFPA 101 Table 7.2.2.2.1(a).

Other egress requirements:

- Two exits are required from a boiler, incinerator and furnace room over 500 ft². The two exits must be spaced at least ½ of the maximum horizontal distance of the room (2003 IBC 1014.3).
- All exit stair doors and doors serving more than 50 people must swing in the direction of egress travel
- Maximum Exit Access Travel Distance < 250 feet (2003 IBC Table 1015.1).
- Maximum Dead End Corridor Length < 20 feet (2003 IBC 1016.3) for Assembly Use. Maximum Dead End Corridor Length < 50 feet (2003 IBC 1016.3) for Business Use. NFPA-101 allows 50' dead end corridors for all uses.

Theatre Egress

Both rooms (multi-purpose and Lee) must meet the applicable requirements of IBC Section 1024.0. This section addresses the minimum required aisle width, spacing between rows of seats, tread and riser sizes, etc.

In assembly spaces with theater style seating, the minimum width of the aisle shall be (2003 IBC 1024.9.1):

- 36" for stairs with seating on one side
- 42" for level or ramped aisles with seating on both sides
- 36" for level or ramped aisles with seating on one side

8. Floor Openings:

The current plans indicate two two-story floor openings located

between the first and second floors. The IBC and NFPA-101 treat two story floor openings differently.

IBC Section 707.2 Exception 7 states that a shaft enclosure is not required for a floor opening that complies with the following:

- A. Does not connect more than two stories.

The floor opening is only two stories.

- B. Is not part of the required means of egress system except as permitted in Section 1019.1.

The stairways that are not a required means of egress element are not required to be enclosed (IBC Section 1019.1). The two enclosed stairwells provide adequate capacity for the second and third floors and the stairways in the openings are not required in order to meet the occupancy load requirement.

- C. Is not open to a corridor in Group I and R occupancies.

The building does not contain any Group I or R occupancies.

- D. Is not open to a corridor on nonsprinklered floors in any occupancy.

The building is fully sprinklered.

- E. Is separated from floor openings serving other floors by construction conforming to required shaft enclosures.

The only floor openings occur between the first and second floors.

The IBC's approach to floor openings is to classify them either as "atriums" (Section 404) or "floor openings not requiring a shaft enclosure" (Section 707.2 Exceptions).

This approach is confirmed by the 2003 IBC Commentary, which indicates in Section 404 that "*Section 404 is applicable when a shaft enclosure would normally be required by Section 707.2, but because*

of the nature, design or use of the space, the shaft enclosure is not provided and, therefore, does not comply with the provisions of Section 707."

The subject floor openings meet all exceptions of IBC Section 707.2 Exception 7. If this exception, or any of the others in Section 707.2, was not met, then by default the floor openings become an "atrium" and must therefore meet the requirements of Section 404; or the openings would be required to be enclosed in shaft enclosures.

The floor openings are not considered atria and are not required to comply with IBC Section 404.

NFPA 101 Section 38.3.1.1 requires vertical openings to be enclosed in accordance with Section 8.6. This Section provides options for compliance so that the openings may remain unenclosed (i.e. not in a shaft enclosure). Section 8.6.8.1 states that a vertical opening serving as other than an exit enclosure, connecting only two adjacent stories, and piercing only one floor shall be permitted to be open to one of the two stories.

To confine the vertical opening to only the second floor, fire shutters have been added on both sides of the Olli Lobby and at the West ends of the North and South Corridors on the first floor. NFPA 101 8.6.8.1 does not require a specific rating for the shutters.

9. Fire Protection Systems:

The following is a list of fire protection systems required:

- Automatic Sprinkler System (2006 IBC Section 903)
- Standpipe System (2006 IBC Section 905)
- Fire Alarm and Detection Systems (2006 IBC Section 907)

10. Accessibility:

Accessibility must meet both the provisions of IBC Chapter 11 and the ADA.



COMcheck Software Version 3.4.1

Lighting and Power Compliance Certificate

90.1 (2001) Standard

Report Date: 05/25/07

Data filename: C:\Documents and Settings\jfeinstein\Local Settings\Temporary Internet Files\OLK5B\USM COMCHECK.ckk

Section 1: Project Information

Project Title: USM University Commons

Construction Site:
Portland, ME

Owner/Agent:

Designer/Contractor:

Section 2: General Information

Building Use Description by:

Project Type: **New Construction**

Building Type

School/University

Floor Area

49245

Section 3: Requirements Checklist

Interior Lighting:

- ☐ 1. Total actual watts must be less than or equal to total allowed watts.

Allowed Watts	Actual Watts	Complies
73868	48019	YES

Exterior Lighting:

- ☐ 2. Minimum efficacy of 60 lumen/watt for lamps greater than 100W.
- ☐ 3. Lighting power for canopies, entrances, and exits meets the following criteria (trade-offs allowed among these applications):
- (i) Lighting power for free-standing canopy areas or building entrances with canopies is less than or equal to 3 watts per square foot.
 - (ii) Lighting power for building entrances without a canopy is less than or equal to 33 watts per linear foot of door width.
 - (iii) Lighting power for building exits is less than or equal to 20 watts per linear foot of exit door width.
- ☐ 4. Lighting power for building facades is less than or equal to 0.25 watts per square foot of the illuminated area.

Exceptions:

Controlled by motion sensor, signal or advertising signage, highlighting features of historic monuments and buildings, or required for safety or security.

Controls, Switching, and Wiring:

- ☐ 5. Independent manual or occupancy sensing controls for each space (remote switch with indicator allowed for safety or security).
- ☐ 6. Automatic shutoff control for lighting in >5000 sq.ft buildings by time-of-day device, occupant sensor, or other automatic control.

Exceptions:

24 hour operation lighting.

- ☐ 7. Master switch at entry to hotel/motel guest room.
- ☐ 8. Separate control device for display/accent lighting, case lighting, task lighting, nonvisual lighting, lighting for sale, and demonstration lighting.
- ☐ 9. Photocell/astrophysical time switch on exterior lights.

Exceptions:

Covered vehicle entrance/exit areas requiring lighting for safety, security and eye adaptation.

- ☐ 10. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exceptions:

Electronic high-frequency ballasts;

Luminaires not on same switch;

Recessed luminaires 10 ft. apart or surface/pendant not continuous;

Luminaires on emergency circuits.

Voltage Drop:

- ☐ 11. Feeder conductors have been designed for a maximum voltage drop of 2 percent.
- ☐ 12. Branch circuit conductors have been designed for a maximum voltage drop of 3 percent.

Section 4: Compliance Statement

Compliance Statement: The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 90.1 (2001) Standard requirements in COMcheck Version 3.4.1 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title

Signature

Date

Section 5: Post Construction Compliance Statement



Lighting Application Worksheet

90.1 (2001) Standard

Report Date:

Data filename: C:\Documents and Settings\jfeinstein\Local Settings\Temporary Internet Files\OLK5B\USM COMCHECK.cck

Section 1: Allowed Lighting Power Calculation

A	B Floor Area	C Allowed Watts / ft ²	D Allowed Watts
School/University	49245	1.5	73868
Total Allowed Watts =			73868

Section 2: Actual Lighting Power Calculation

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
School/University (49245 sq.ft.)				
HID 1: DR1: ADJUST. ACCENT / Metal Halide 150W / Electronic	1	5	155	775
Linear Fluorescent 1: FC1: COVE / 48" T8 32W / Electronic	2	4	64	256
Linear Fluorescent 2: FC2: LINEAR STRIP / 48" T8 32W / Electronic	2	12	61	732
Compact Fluorescent 1: FC3: QUAD STRIP / Other / Electronic	3	1	82	82
Linear Fluorescent 3: FC4: LINEAR STRIP / 48" T8 32W / Electronic	1	3	31	93
Linear Fluorescent 4: FP1: PENDANT / 48" T8 32W / Electronic	2	54	61	3294
Compact Fluorescent 2: FP3: SEMI RECESSED / Triple 4-pin 32W / Electronic	2	1	61	61
Compact Fluorescent 3: FP4: PENDANT / Triple 4-pin 32W / Electronic	2	1	64	64
Linear Fluorescent 5: FP5: LINEAR PENDANT / 48" T8 32W / Electronic	2	48	61	2928
HID 2: FP8: PENDANT / Metal Halide 100W / Electronic	1	8	108	864
Linear Fluorescent 6: FR1: 2 X 4 RECESSED / 48" T8 32W / Electronic	2	51	61	3111
Linear Fluorescent 7: FR1A: 2 X 4 RECESSED / 48" T8 32W / Electronic	2	3	61	183
Linear Fluorescent 8: FR1B: 2 X 4 RECESSED / 48" T8 32W / Electronic	2	3	61	183
Compact Fluorescent 4: FR2: RECESSED / Other / Electronic	1	4	30	120
Linear Fluorescent 9: FR4: RECESSED SLOT / 48" T8 32W / Electronic	1	131	31	4061
Compact Fluorescent 5: FR5: RECESSED / Triple 4-pin 32W / Electronic	1	18	37	666
Linear Fluorescent 10: FR8: RECESSED 4 X 4 / 48" T8 32W / Electronic	4	4	122	488
Linear Fluorescent 11: FR9: RECESSED WALL WASH / 48" T8 32W / Electronic	1	18	37	666
Linear Fluorescent 12: FR9A: RECESSED WALL WASH / 48" T8 32W / Electronic	1	5	37	185
Linear Fluorescent 13: FR10: RECESSED 2 X 4 / 48" T8 32W / Electronic	2	3	111	333
Compact Fluorescent 6: FR11: RECESSED / Triple 4-pin 32W / Electronic	1	119	37	4403
Linear Fluorescent 14: FR12: WALL SLOT / 48" T8 32W / Electronic	2	41	74	3034
Linear Fluorescent 15: FR13: WALL SLOT / 48" T8 32W / Electronic	1	14	37	518
Linear Fluorescent 16: FR14: RECESSED SLOT / 48" T8 32W / Electronic	2	42	74	3108
Linear Fluorescent 17: FR14A: RECESSED SLOT / 48" T8 32W / Electronic	2	51	74	3774
Compact Fluorescent 7: FR15: RECESSED 2 X 2 / Twin Tube 40W / Electronic	1	137	46	6302
Linear Fluorescent 18: FS2: LINEAR SURFACE / 46" T5 54W / Electronic	1	11	62	682
Compact Fluorescent 8: FS3: SURFACE MOUNT / Other / Electronic	2	19	60	1140
Compact Fluorescent 9: FS4: SURFACE MOUNT / Quad 4-pin 13W / Electronic	2	18	30	540
Linear Fluorescent 19: FS5: LINEAR SURFACE / 48" T8 32W / Electronic	1	12	37	444
Linear Fluorescent 20: FW4: LINEAR WALL MOUNT / 48" T8 32W / Electronic	2	14	74	1036
Compact Fluorescent 10: FW5: WALL MOUNT / Quad 4-pin 13W / Electronic	2	20	30	600
Compact Fluorescent 11: FW6: STEP LIGHT / Quad 4-pin 13W / Electronic	1	15	15	225
Compact Fluorescent 12: FW7: WALL MOUNT / Other / Electronic	2	7	60	420

Linear Fluorescent 21: FW8: WALL MOUNT / 48" T8 32W / Electronic	4	8	147	1176
Incandescent 1: IRI: ADJUST. ACCENT / Incandescent 250W	1	2	265	530
Incandescent 2: IT1: TRACK FIXTURE / Incandescent 150W	1	6	157	942
				Total Actual Watts = 48019

Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Actual Watts is greater than or equal to zero, the building complies.

Total Allowed Watts = 73868
Total Actual Watts = 48019
Project Compliance = 25848

Lighting PASSES: Design 35% better than code.

Tom Beddall

From: Susan Hathaway [shathaway@harriman.com]
Sent: Tuesday, May 22, 2007 9:08 AM
To: Tom Beddall
Subject: FW: USM Portland Commons

-----Original Message-----

From: Tuttle, Dana C [mailto:Dana.C.Tuttle@maine.gov]
Sent: Tuesday, May 22, 2007 7:51 AM
To: Susan Hathaway
Subject: RE: USM Portland Commons

Susan,

I spoke with Mike Nugent and we concur that the fixture calculations with option 3 meet the minimum requirements of the Maine State Internal Plumbing Code. If I can be of any further assistance please feel free to contact me.

Dana C. Tuttle
Senior Plumbing Inspector

-----Original Message-----

From: Susan Hathaway [mailto:shathaway@harriman.com]
Sent: Tuesday, May 15, 2007 10:06 AM
To: Tuttle, Dana C
Subject: FW: USM Portland Commons

-----Original Message-----

From: Mike Nugent [mailto:MJN@portlandmaine.gov]
Sent: Thursday, August 03, 2006 12:27 PM
To: shathaway@harriman.com
Cc: dana.c.tuttle@maine.gov
Subject: Fwd: USM Portland Commons

This appears to be compliant with the State Plumbing Code. I'm going to forward it to Dana Tuttle For Comment.
Thanks for your hard work on this!

>>> Susan Hathaway <shathaway@harriman.com> 7/26/2006 11:08:03 AM >>>

Mike, I have attached the four floor plans and an evaluation of the minimum plumbing fixtures required for the USM Portland Commons project. Using the method described in Option 3, the current layout satisfies the Maine State Internal Plumbing Code minimum fixture requirements per Table 4-1. The architect is making slight modifications to the plans (not shown on attached plans), and are as follows: The men's restroom on the first floor will be adjusted to widen the water closet stall to meet ADA guidelines. The unisex restroom will remain as shown and is counted in the quantity of men's wc's for this exercise. In the men's restroom on the third and fourth floors, one lavatory will be omitted to provide the additional space required to widen the water closet stall to meet ADA guidelines. Please review the attached documents and call with any questions or comments you may have. Thank you for your assistance with this project. Susan G. Hathaway Harriman Associates Architects + Engineers One Auburn Business Park Auburn, ME 04210 207.784.5100 tel 207.782.3017 fax
Building communities since 1870
www.harriman.com

Statement of Special Inspections

Project: *University Commons.*

Location: *Bedford Street, Portland, ME*

Owner: *University of Southern Maine*

Design Professional in Responsible Charge, *Susie Kim, Koetter Kim & Associates, Inc.*

Architect:

Structural Engineer: *Stephen Lew, Weidlinger Associates, Inc.*

Geotechnical Engineer: *Wayne Chadbourne, Haley & Aldrich, Inc.*

Mechanical Engineer: *Clifton Greim, Harriman Associates*

Electrical Engineer: *Philip Morrissette, Harriman Associates*

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Structural | <input checked="" type="checkbox"/> Mechanical/Electrical/Plumbing |
| <input checked="" type="checkbox"/> Architectural | <input checked="" type="checkbox"/> Other: <u>Geotechnical</u> |

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: *monthly*

or ☐ per attached schedule.

Prepared by:

Susie Kim

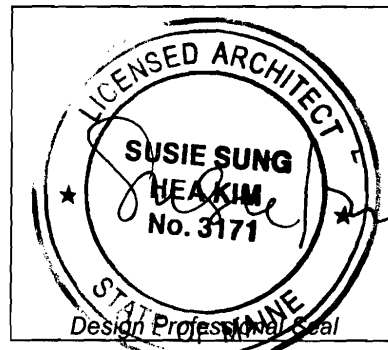
(type or print name)

Susie Kim

Signature

02/02/07

Date



Owner's Authorization:

Building Official's Acceptance:

Carol M. Potter 2.6.07

Signature

Date

Signature

Date

Schedule of Inspection and Testing Agencies

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

- | | |
|--|---|
| <input checked="" type="checkbox"/> Soils and Foundations | <input checked="" type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input type="checkbox"/> Masonry | <input checked="" type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator	<i>To be determined</i>	<i>To be determined</i>
2. Inspector--Concrete	<i>To be determined</i>	<i>To be determined</i>
3. Inspector--Steel	<i>To be determined</i>	<i>To be determined</i>
4. Testing Agency--Concrete	<i>To be determined</i>	<i>To be determined</i>
5. Testing Agency--Steel	<i>To be determined</i>	<i>To be determined</i>
6. Geotechnical Engineer	<i>Haley and Aldrich, Inc.</i>	<i>75 Washington Avenue, Suite 203 Portland, ME 04101-2617 wchadbourn@haleyaldrich.com</i>

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

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category *C*
Quality Assurance Plan Required (Y/N) *Yes*

Description of seismic force resisting system and designated seismic systems:

Structural Steel System not specifically detailed for seismic resistance—steel moment frames.

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *100 MPH*
Wind Exposure Category *C*
Quality Assurance Plan Required (Y/N) *No*

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

Structural steel moment resisting frame.

Statement of Responsibility

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

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
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International Code Council (ICC) Certification

ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Other

<i>SER</i>	<i>Structural Engineer of Record</i>
<i>RDP</i>	<i>Registered Design Professional (Architect or MEP Engineer of Record)</i>

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations <i>IBC 2003 1704.7.1</i>	6 <i>EIT/PE</i>	<p><i>Inspect subgrade soil conditions beneath slabs and footings to verify bearing capacity and consistency with the geotechnical design.</i></p> <p><i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of engineered fill materials.</i></p>
2. Controlled Structural Fill <i>IBC 2003 1704.7.2, 1704.7.3</i>	6 <i>EIT/PE</i>	<p><i>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) on each source of fill material.</i></p> <p><i>Inspect placement, lift thicknesses and compaction of engineered fill materials.</i></p> <p><i>Test density of each lift of engineered fill using in-situ testing methods (ASTM D2922)</i></p> <p><i>Verify extent and slope angles of fill placement.</i></p> <p><i>Inspect placement and compaction of fill adjacent to and above EPS geofoam fill.</i></p>
3. EPS Geofoam Fill	6 <i>EIT/PE</i>	<p><i>Inspect placement, density and construction methods of EPS geofoam fill and confirm that it is being installed in accordance with details and specifications, including the HDPE liner.</i></p> <p><i>Review material submittals for conformance with the design intent including, but not limited to, specifications and construction of EPS geofoam fill, and the HDPE liner.</i></p> <p><i>Confirm that horizontal and vertical limits of EPS geofoam fill are in conformance with contract documents.</i></p>
4. Foundation Drainage System	6 <i>EIT/PE</i>	<p><i>Inspect installation of underslab and perimeter foundation drain systems (including prefabricated vertical drainage board) to confirm that they are being installed in accordance with the contract documents.</i></p> <p><i>Review material submittals of drainage system to confirm that materials are in accordance with the requirements of the specifications.</i></p>

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	TBD ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Material Certification	SER	Review for conformance to Specifications.
3. Reinforcement Installation	TBD ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
4. Welding of Reinforcing	TBD AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
5. Anchor Rods	TBD SER	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
6. Concrete Placement	TBD ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
7. Sampling and Testing of Concrete	TBD ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064) in accordance with Specifications.
8. Curing and Protection	TBD ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.
9. Other:		

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	TBD AWS/AISC- SSI ICC-SWSI	Review shop fabrication and quality control procedures. Note: Fabricator will be exempt if they comply with 05 12 00 specification requiring AISC certification. Otherwise, this is required.
2. Material Certification	TBD AWS/AISC- SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes
3. Bolting	TBD AWS/AISC- SSI ICC-SWSI	Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.
4. Welding	TBD AWS-CWI ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Provide ultrasonic testing of 100% of full-penetration welds.
5. Shear Connectors	TBD AWS/AISC- SSI ICC-SWSI	Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.
7. Structural Details	TBD PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.
8. Metal Deck	TBD AWS-CWI	Inspect welding and side-lap fastening of metal roof and floor deck.
9. Other:		

Spray-Applied Fire Resistant Material

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Item	Agency # (Qualif.)	Scope
1. Material Specifications	RDP	Review material certificates.
2. Laboratory Tested Fire Resistance Design	RDP	Review UL fire resistive design for each rated beam, column, or assembly.
3. Schedule of Thickness	TBD RDP ICC-SFSI	Review approved thickness schedule.
4. Surface Preparation	TBD ICC-SFSI	Inspect surface preparation of steel prior to application of fireproofing
5. Application	TBD ICC-SFSI	Inspect application of fireproofing.
6. Curing and Ambient Condition	TBD ICC-SFSI	Verify ambient air temperature and ventilation is suitable for application and curing of fireproofing.
7. Thickness	TBD ICC-SFSI	Test the thickness of fireproofing (ASTM E605). Perform a set of thickness measurements for every 1,000 SF of floor and roof assemblies and on not less than 25% of rated beams and columns.
8. Density	TBD ICC-SFSI	Test the density of fireproofing material (ASTM E605). Perform not less than one test for each 4,000 SF of gross floor area.
9. Bond Strength	TBD ICC-SFSI	Test the cohesive/adhesive bond strength of cured fireproofing (ASTM E736). Perform not less than one test for each 4,000 SF of gross floor area.
10. Other:		

Mechanical & Electrical Systems

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Item	Agency # (Qualif.)	Scope
1. Fire Protection Piping	RDP	<i>Inspect the anchorage and support of fire protection piping, and verify that it complies with approved shop drawings provided by the contractor.</i>
2. Mechanical, HVAC & Piping	RDP	<i>Inspect the anchorage and support of gas piping, and verify that it complies with approved shop drawings provided by the contractor.</i>
3. Electrical System	RDP	<i>Inspect the anchorage and support of electrical equipment used for emergency or standby power systems, and verify that it conforms with approved shop drawings provided by the contractor. These items include: emergency generator, automatic transfer switches, feeder and branch circuits, transformers and panelboards, lighting fixtures served by the life-safety automatic transfer switches, fire alarm panels and distribution, and other components as required to ensure proper operation of the building electrical life-safety systems.</i>