

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

## BUILDING DEPARTMENT

### PERMIT

Permit Number: 100984

# PERMIT ISSUED

Please Read Application And Notes, if Any, Attached

This is to certify that WATERFRONT MAINE / Metropolitan Construction  
has permission to Phase 1 Masonry Restoration North End of Building  
AT 254 COMMERCIAL ST CE 041 A017003 AUG 27 2010

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 written permission procured before this building or part thereof is lathed or otherwise red-in. 24 HOURS 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. CAPT. K. Sanheat  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_  
Department Name

*[Handwritten Signature]*  
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: 10-0984	Issue Date:	CBL: 041 A017001
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Location of Construction: 254 COMMERCIAL ST	Owner Name: WATERFRONT MAINE	Owner Address: 14 MAINE ST	Phone:
Business Name:	Contractor Name: Metric Construction Inc	Contractor Address: 55 Henshaw Street Boston	Phone: 6177871158
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial	Zone: WCT

Past Use: Commercial Storage	Proposed Use: Commercial Business Use Office - Phase 1 Masonry Restoration North End of Building	Permit Fee: \$2,520.00	Cost of Work: \$250,000.00	CEO District: 1
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied *See Conditions	INSPECTION: Use Group: B Type: 3B IBC 2003	

Proposed Project Description: Phase 1 Masonry Restoration North End of Building	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: Idobson	Date Applied For: 08/12/2010	<b>Zoning Approval</b>
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>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..</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetland</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p>Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> <input type="checkbox"/> Denied</p> <p>Date: <i>8/16/10</i></p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p>Date: <i>8/16/10</i></p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in District or Landmark</p> <p><input type="checkbox"/> Does Not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: <i>[Signature]</i></p>
	<p><b>PERMIT ISSUED</b></p> <p>AUG 27 2010</p> <p>City of Portland</p>		

**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 \_\_\_\_\_

## **BUILDING PERMIT INSPECTION PROCEDURES**

**Please call 874-8703 or 874-8693 (ONLY)**

**or email: [buildinginspections@portlandmaine.gov](mailto:buildinginspections@portlandmaine.gov)**

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the City of Portland Inspection Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months, if the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue with construction.**

  X   **An inspection of the installation of the exterior masonry ties shall be conducted by a licensed structural engineer.**

  X   **Progress inspections shall be conducted by the designing engineer of the repointing and repinning.**

**The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.**

**IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.**

**PERMIT ISSUED**

**AUG 27 2010**

**City of Portland**

**City of Portland, Maine - Building or Use Permit**

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

<b>Permit No:</b> 10-0984	<b>Date Applied For:</b> 08/12/2010	<b>CBL:</b> 041 A017001
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<b>Location of Construction:</b> 254 COMMERCIAL ST	<b>Owner Name:</b> WATERFRONT MAINE	<b>Owner Address:</b> 14 MAINE ST	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Metric Construction Inc	<b>Contractor Address:</b> 55 Henshaw Street Boston	<b>Phone:</b> (617) 787-1158
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Alterations - Commercial	

<b>Proposed Use:</b> Commercial Business Use Office - Phase I Masonry Restoration North End of Building	<b>Proposed Project Description:</b> Phase I Masonry Restoration North End of Building
---------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------

<b>Dept:</b> Zoning	<b>Status:</b> Approved with Conditions	<b>Reviewer:</b> Marge Schmuckal	<b>Approval Date:</b> 08/16/2010
<b>Note:</b>			<b>Ok to Issue:</b> ✓
1) Separate permits are required for the change of use and other structural changes.			
2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.			
<b>Dept:</b> Building	<b>Status:</b> Approved with Conditions	<b>Reviewer:</b> Tammy Munson	<b>Approval Date:</b> 08/27/2010
<b>Note:</b>			<b>Ok to Issue:</b> ✓
1) As discussed, this permit authorizes exterior brick work only as shown on the plan.			
<b>Dept:</b> Fire	<b>Status:</b> Approved with Conditions	<b>Reviewer:</b> Capt Keith Gautreau	<b>Approval Date:</b> 08/25/2010
<b>Note:</b>			<b>Ok to Issue:</b> ✓
1) Permit is approved for Masonry Restoration only. Any other construction shall require additional permits.			

<b>Comments:</b> 8/16/2010-ldobson: Paid check#3289
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**PERMIT ISSUED**  
AUG 27 2010  
Portland

**Winton Scott Architects, PA**

5 milk street portland, me 04101 t. 207.774.4811 f.207.774.3083 www.wintonscott.com

April 7, 2009

Ms. Tammy Munson  
Code Enforcement Officer, Plan Reviewer  
City of Portland  
389 Congress Street  
Portland, ME 04101

RE: Building Permit Application – Cumberland Cold Storage Building Renovations

Dear Tammy,

Attached please find two copies of a completed Building Permit Application and supporting materials for the above referenced project. As you know from our previous discussions, the building owner is hoping to get approval to proceed with some limited scope portions of the project relating to masonry restoration work, demolition and re-roofing prior to submittal and approval of complete construction documents for the project. The first set of construction drawings and specs. For the first phase of masonry restoration is included in this package for your review.

The intent of this submittal is to provide you with all of the materials we have completed to date and then follow up with complete documents which are projected for completion in late September. As discussed in our recent plan review meeting along with Captain Gautreau, I have prepared and included formal interpretation/waiver requests for the windows on the west elevation and structural items relating to seismic design and the addition of new window openings on the south wall facing the water. I have also had a meeting with Ron Peaslee of the State Fire Marshal's office to review the plans. Ron had some specific comments as follows:

1. Second floor:

At the second floor, Stair 2, we had designed an arrangement where there was a vestibule at the stair with a door to the adjacent elevator lobby and a door into Pierce Atwood's space. The idea was that the door to the lobby would be locked to keep the general public out of the vestibule which provided security to Pierce Atwood. When the fire alarm was activated the lobby door would unlock allowing emergency access from the public elevator lobby to the stair. Ron would not accept the idea that on the second floor a person would only have access to this stair in an alarm situation. He felt strongly that all building occupants should have access to two exits at each floor even if the building is not in alarm. We have revised the layout so that the stair is always accessible from the elevator lobby and it is illustrated on the enclosed code plans.

2. Re-entry into stairs:

Ron pointed out that in buildings four stories or higher, NFPA requires that building occupants can re-enter the stair from different levels. We had planned to have all of the stair doors locked on the stair side and then equip the doors with card readers to allow P/A staff to use the stairs as a communicating stair but keep the general public from leaving the stair except at the ground level where they discharge. Ron indicated that we can keep the doors locked but they must

release during building alarm so that in an emergency people can come and go from the stair at any level to avoid any hazard that may be in their way.

### 3. Ground Floor Lobby-Open Stair:

Keith had expressed concern about the open flight of stairs proposed at the ground floor lobby where the exit stair would be open for the first run up from the lobby and then from the first landing up through the 5<sup>th</sup> floor would be enclosed with a 2 hr. rated enclosure. Ron reviewed this situation and ran it by Rich McCarthy. They will accept the proposed design provided that all of the walls enclosing the elevator lobby are 1 hr. rated and the floor is rated to separate it from basement space under the lobby. AS there are potential tenant spaces directly flanking the lobby, the rated partitions will have rated doors on hold opens (tied to the fire alarm) to allow visual connection for tenants (like a coffee shop) to the lobby. This arrangement is depicted in the enclosed code plans.

Other than the three items described above, Ron did not have any other concerns with the proposed design.

The Building Permit fee due to the City is \$78,699. As discussed earlier, the building owner needs guidance from the City on how to pay the fee. Is it all due now as part of this partial submission or can it be apportioned some how between now and the final submission in September? Please let us know how it should be handled and I will have the owner submit the required fee amount.

I have included on the following page a list of what I have included in this submission and what still needs to be submitted for a complete package.

I look forward to continuing to work with you through the permit process and please don't hesitate to contact me if you have any questions or need additional information relative to this application.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Weatherhead". The signature is written in a cursive, somewhat stylized font.

**SUMMARY OF DOCUMENTS SUBMITTED:**

Building Permit Application – *Complete except for structural design information required on the Certificate of Design form that will be provided in the complete submission.*

Written Code Summaries – *Complete summary of NFPA and IBC requirements.*

Code Plans – *Complete showing all information required by the Fire Dept. except emergency lighting and exit sign locations which will be provided in the complete submission.*

Code interpretation/waiver - *Becker Structural Engineers has prepared a formal review request for seismic design requirements and Winton Scott Architects has prepared a formal request to address the windows located in the west wall of the building which is located at the property line.*

Masonry Restoration - *Drawings & specs prepared by Becker Structural Engineers for review*  
Phase 1 Construction Docs.

**SUMMARY OF DOCUMENTS TO BE SUBMITTED IN SEPTEMBER:**

Structural Portion of Certificate of Design form.

Statement of Special Inspections

Completed Construction Drawings for complete project



# 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: <b>MERRILL'S WHARF, 254 COMMERCIAL STREET</b> <b>PHASE 1</b>		
Total Square Footage of Proposed Structure/Area <b>93,665 S.F.</b>	Square Footage of Lot <b>69,313 S.F.</b>	
Tax Assessor's Chart, Block & Lot Chart# <b>41</b> Block# <b>A</b> Lot# <b>18</b>	Applicant * <b>must be owner, Lessee or Buyer*</b> Name <b>WATERFRONT MAINE, LP</b> Address <b>14 MAINE ST.</b> City, State & Zip <b>BRUNSWICK, ME04011</b>	Telephone: <b>CHRIS PACHIOS/ DONAL CARROLL 212-695-8090</b>
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name <b>SAME AS APPLICANT</b> Address City, State & Zip	Cost Of <b>PHASE 1</b> Work: \$ <b>\$250,000</b> C of O Fee: \$ <b>0</b> Total Fee: \$ <b>2,520</b>
Current legal use (i.e. single family) <b>STORAGE USE - S1-MODERATE HAZARD</b>		
If vacant, what was the previous use?		
Proposed Specific use: <b>BUSINESS USE-OFFICE FLRS 2-5 / FLR. 1 NOT YET DETERMINED</b>		
Is property part of a subdivision? <b>NO</b> If yes, please name		
Project description: <b>PHASE 1 SCOPE OF WORK INCLUDES MASONRY RESTORATION WORK AT THE NORTH END OF THE BUILDING AS DESCRIBED IN THE ATTACHED DRAWINGS AND SPECIFICATIONS.</b>		
Contractor's name: <b>METRIC CONSTRUCTION, INC.</b>		
Address: <b>55 HENSHAW STREET</b>		
City, State & Zip <b>BOSTON, MA 01235</b>		Telephone: <b>617-787-1158</b>
Who should we contact when the permit is ready: <b>DONAL CARROLL</b>		Telephone: <b>212-695-8090</b>
Mailing address: <b>WATERFRONT MAINE, LP, 14 MAINE ST., BRUNSWICK, ME 04011</b>		

**Please submit all of the information outlined on the applicable Checklist. 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](http://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:

Date: **AUGUST 11, 2010**

**This is not a permit; you may not commence ANY work until the permit is issue**





# Certificate of Design Application

From Designer:

STEPHEN WEATHERHEAD, WINTON SCOTT ARCHITECTS, PA

Date:

AUGUST 11, 2010

Job Name:

RENOVATIONS TO THE CUMBERLAND COLD STORAGE BUILDING

Address of Construction:

MERRILL'S WHARF, 254 COMMERCIAL STREET

## 2003 International Building Code

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

Building Code & Year IBC, 2003 Use Group Classification (s) BUSINESS USE FLRS 2-5/FLR 1 NOT YET DETERMINED  
 Type of Construction NFPA 101, 2006 TYPE III - B  
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC YES  
 Is the Structure mixed use? YES If yes, separated or non separated or non separated (section 302.3) SEPARATED  
 Supervisory alarm System? YES Geotechnical/Soils report required? (See Section 1802.2) YES

### Structural Design Calculations

Submitted for all structural members (106.1 - 106.11)

### Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use Loads Shown

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**THE STRUCTURAL PORTION OF THIS  
 PAGE WILL BE COMPLETED BY THE  
 STRUCTURAL ENGINEER OF RECORD  
 AND SUBMITTED WITH THE FINAL  
 STRUCTURAL CONSTRUCTION DOCUMENTS**

\_\_\_\_\_  
Live load reduction

\_\_\_\_\_  
Roof live loads (1603.1.2, 1607.11)

\_\_\_\_\_  
Roof snow loads (1603.7.3, 1608)

\_\_\_\_\_  
Ground snow load,  $P_g$  (1608.2)

\_\_\_\_\_  
If  $P_g > 10$  psf, flat-roof snow load  $p_f$

\_\_\_\_\_  
If  $P_g > 10$  psf, snow exposure factor,  $C_e$

\_\_\_\_\_  
If  $P_g > 10$  psf, snow load importance factor,  $I_s$

\_\_\_\_\_  
Roof thermal factor,  $C_t$  (1608.4)

\_\_\_\_\_  
Sloped roof snowload,  $p_s$  (1608.4)

\_\_\_\_\_  
Seismic design category (1616.3)

### Wind loads (1603.1.4, 1609)

\_\_\_\_\_  
Design option utilized (1609.1.1, 1609.6)

\_\_\_\_\_  
Basic wind speed (1809.3)

\_\_\_\_\_  
Building category and wind importance Factor,  $I_w$   
table 1604.5, 1609.5)

\_\_\_\_\_  
Wind exposure category (1609.4)

\_\_\_\_\_  
Internal pressure coefficient (ASCE 7)

\_\_\_\_\_  
Component and cladding pressures (1609.1.1, 1609.6.2.2)

\_\_\_\_\_  
Main force wind pressures (7603.1.1, 1609.6.2.1)

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

\_\_\_\_\_  
Design option utilized (1614.1)

\_\_\_\_\_  
Seismic use group ("Category")

\_\_\_\_\_  
Spectral response coefficients,  $S_D$  &  $S_M$  (1615.1)

\_\_\_\_\_  
Site class (1615.1.5)

\_\_\_\_\_  
Basic seismic force resisting system (1617.6.2)

\_\_\_\_\_  
Response modification coefficient,  $R_d$  and

\_\_\_\_\_  
deflection amplification factor,  $C_d$  (1617.6.2)

\_\_\_\_\_  
Analysis procedure (1616.6, 1617.5)

\_\_\_\_\_  
Design base shear (1617.4, 1617.5.1)

### Flood loads (1803.1.6, 1612)

\_\_\_\_\_  
Flood Hazard area (1612.3)

\_\_\_\_\_  
Elevation of structure

### Other loads

\_\_\_\_\_  
Concentrated loads (1607.4)

\_\_\_\_\_  
Partition loads (1607.5)

\_\_\_\_\_  
Misc. loads (Table 1607.8, 1607.6.1, 1607.7,  
1607.12, 1607.13, 1610, 1611, 2404)



# Commercial Interior & Change of Use Permit Application Checklist

All of the following information is required and must be submitted. Checking off each item as you prepare your application package will ensure your package is complete and will help to expedite the permitting process.

**One (1) complete set of construction drawings must include:**

Note: Construction documents for costs in excess of \$50,000.00 must be prepared by a Design Professional and bear their seal.

- Cross sections w/framing details
- Detail of any new walls or permanent partitions
- Floor plans and elevations
- Window and door schedules
- Complete electrical and plumbing layout.
- Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment or other types of work that may require special review
- Insulation R-factors of walls, ceilings, floors & U-factors of windows as per the IEFC 2003
- Proof of ownership is required if it is inconsistent with the assessors records.
- Reduced plans or electronic files in PDF format are required if originals are larger than 11" x 17".
- Per State Fire Marshall, all new bathrooms must be ADA compliant.

Separate permits are required for internal and external plumbing, HVAC & electrical installations.

**For additions less than 500 sq. ft. or that does not affect parking or traffic, a site plan exemption should be filed including:**

- The shape and dimension of the lot, footprint of the existing and proposed structure and the distance from the actual property lines.
- Location and dimensions of parking areas and driveways, street spaces and building frontage.
- Dimensional floor plan of existing space and dimensional floor plan of proposed space.

**A Minor Site Plan Review is required for any change of use between 5,000 and 10,000 sq. ft. (cumulatively within a 3-year period)**

**Fire Department requirements. NOT APPLICABLE TO PHASE 1 WORK**

The following shall be submitted on a separate sheet:

- Name, address and phone number of applicant and the project architect.
- Proposed use of structure (NFPA and IBC classification)
- Square footage of proposed structure (total and per story)
- Existing and proposed fire protection of structure.
- Separate plans shall be submitted for
  - a) Suppression system
  - b) Detection System (separate permit is required)
- A separate Life Safety Plan must include:
  - a) Fire resistance ratings of all means of egress
  - b) Travel distance from most remote point to exit discharge
  - c) Location of any required fire extinguishers
  - d) Location of emergency lighting
  - e) Location of exit signs
  - f) NFPA 101 code summary
- Elevators shall be sized to fit an 80" x 24" stretcher.

**For questions on Fire Department requirements call the Fire Prevention Officer at (207) 874-8405.**

**Please submit all of the information outlined in this application checklist. If the application is incomplete, the application may be refused.**

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](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

**Permit Fee: \$30.00 for the first \$1000.00 construction cost, \$10.00 per additional \$1000.00 cost**

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



# Accessibility Building Code Certificate

**Designer:** STEPHEN WEATHERHEAD, WINTON SCOTT ARCHITECTS, PA

**Address of Project:** MERRILL'S WHARF, 254 COMMERCIAL STREET

**Nature of Project:** RENOVATION OF 5 STORY BRICK WAREHOUSE BUILDING FOR CONVERSION INTO COMMERCIAL OFFICE SPACE. PROJECT INCLUDES ALL NEW SYSTEMS INCLUDING HVAC, ELEC, SPRINKLER, ALARM, ELEVATORS, EXIT STAIRS, BATHROOMS. ALSO MASONRY RESTORATION, WINDOWS AND ROOFING

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.

NOT APPLICABLE TO PHASE 1 WORK

Signature: 

Title: SENIOR ASSOCIATE

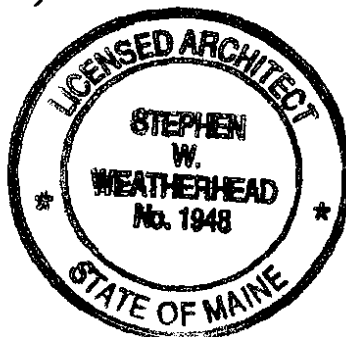
Firm: WINTON SCOTT ARCHITECTS, PA

Address: 5 MILK STREET

PORTLAND, ME 04101

Phone: 207-774-4811 EXT. 3

(SEAL)



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



# Certificate of Design

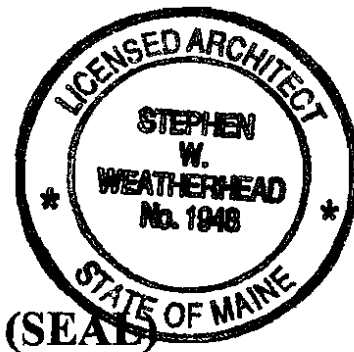
Date: AUGUST 11, 2010

From: STEPHEN WEATHERHEAD, WINTON SCOTT ARCHITECTS, PA

These plans and / or specifications covering construction work on:

RENOVATIONS TO THE CUMBERLAND COLD STORAGE BUILDING AT MERRILL'S WHARF,  
254 COMMERCIAL STREET, PORTLAND, ME

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



Signature: *Stephen W. Weatherhead*

Title: SENIOR ASSOCIATE

Firm: WINTON SCOTT ARCHITECTS

Address: 5 MILK STREET

PORTLAND, ME 04101

Phone: 207-774-4811 EXT. 3

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

**Winton Scott Architects, PA**

5 milk street portland, me 04101 t. 207.774.4811 f.207.774.3083 www.wintonscott.com

**Cumberland Cold Storage Building Renovations**

**Conversion from Storage Use to Business Use**

Merrill's Wharf, Portland

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**2003 IBC CODE SUMMARY**

8.4.10

**Background Information:**

Project Architect: Stephen Weatherhead, Winton Scott Architects 774-4811 ext. 3

General Building Description: The existing Cumberland Cold Storage Building consists of a five story brick building with a four story wing at the north end totaling approximately 94,000 S.F. of area excluding the basement. The structure consists of heavy timber primary beams and columns with wood joists and wood floor decks.

Renovation Scenario: The building renovation will create commercial office space on the top four floors with floors 3, 4, and 5 being occupied by a single tenant and the floor 2 being multi-tenant. The ground floor will also consist of rentable tenant space for a variety of marine related businesses.

The renovation scope includes structural repairs and reinforcements, exterior masonry restoration, new roofing , windows, and building insulation. The south wall facing the water will be modified to add new window openings and related structural reinforcements. In addition, new building systems will be installed including HVAC, plumbing, electrical, fire alarm, telecom, and sprinklers. An existing freight elevator will remain in operation and two passenger elevators and fire exit stairs will be added.

Square Footage:

First Floor:	19,025 S.F.
Second Floor:	19,025 S.F.
Third Floor:	19,025 S.F.
Fourth Floor:	19,025 S.F.
Fifth Floor:	17,565 S.F.
TOTAL AREA:	93,665 S.F.

Business Description: Multi -Tenant Office /Business Use

Occupancy Classification: Business Group B

Sprinkler & Fire Alarm: Building will be equipped with an approved automatic , supervised

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Sprinkler system per NFPA 13 and fire alarm system.

**Construction Type:**

Type III B (unprotected)– Non combustible construction for exterior walls and all interior construction consisting of any material permitted by code.

Existing building consists of solid brick masonry exterior walls with heavy timber primary beams and columns with wood joists and deck.

**Area & Height Limitations:**

Type III B Construction, Business Use =  
4 stories/ 19,000 S.F. per floor. Max. Height 55'.

Sprinklered building increases the above height limits to (per table 503): 5 stories / Max. Height 75'

Building frontage on public way increases the above area limits to:

Area increase(%) =  $100 * [\text{perimeter of bldg. facing open public way} / \text{total perimeter} - .25] * \text{width of public way} / 30 =$

$100 * [363' / 847' - 0.25] * 48' / 30 = 28.5\% \text{ increase} =$   
 $19,000 * 1.285 = 24,415 \text{ S.F. Max Area per Floor.}$

**Area & Height Limitations Met.**

**Occupancy Loads:**

Business Use @ 100 s.f./person:

**Floor 1: = 191 people**

**Floor 2: = 191 people**

**Floor 3: = 191 people**

**Floor 4: = 191 people**

**Floor 5: = 176 people**

**TOTAL: = 940 People total.**

**Applicable Primary Requirements:**

**1. General Egress Components / Ratings**

**Egress Capacity Factors:**

*Stairs .3"/person for stairways; .2"/person for level components and ramps (Table 1005.1) Reduced to .2" and .15" respectively if sprinklered. Minimum clear width of new stairs is 44" (Section 1009.1).*

**Both Stairwells have 48" clear width.**

**Typical occupancy load per floor = 19,025 /100 =191 people.  
Each stair has an egress width capacity = 48"/.2" = 240 people  
Total capacity of 2 stairs = 220x2 = 480 people.**

**All doors are 36" width yielding a 34" clear opening.  
34"/.15" = 226 people. A single 36" door at each stair has  
sufficient capacity to meet the stair capacity.**

**Ground level exit doors = (3) 36" wide doors:  
34"/.15" = 226 people x 3 = 678 people**

**Travel Distance Limits:**

*Common Path Limit: 100' (sprinklered-Section 1013.3.1)  
Dead-end Corridor: 50' (sprinklered- Section 1016.3.2)  
Travel Distance: 300' (sprinklered-Table 1015.1)*  
**Requirements Met – See drawings**

**Remoteness of Exits:**

*(1014.2.1) Where two exits are required, their exit access  
doorways shall be located a minimum distance apart equal to 50%  
of the maximum diagonal length of the building. A reduction to  
1/3 the diagonal distance is allowed if the building is sprinklered.*

**Requirement Met – Max. diagonal distance = 365' /3= 122'.  
Exit access doors are 175' apart. See drawings**

**Required Fire Resistance Ratings:**

*(707.4) 2 hour rating required for floor openings connecting more  
than 4 stories when enclosure is new construction. All enclosed  
stairs, elevator shafts and mechanical shafts are 2 hour rated.*

*(707.14.1) Elevator Lobby, Exceptions: In office buildings,  
separations are not required from a street floor elevator lobby  
provided the entire street floor is equipped with an automatic  
sprinkler system. Requirement Met.*

*(708.1.3) Walls separating tenant spaces have no rating  
requirement.*

*(1016.1)- Table 1016.1 Corridors: No rating required for  
corridors in Use Group B when building is sprinklered.  
Requirement Met.*

**Occupancy Separation:**

*Floors 2-4 of the building will be occupied by Business Use  
tenants (Office). The first floor has not been leased yet and tenants  
are not known at this time. If tenants fall under a different use  
group than Business, occupancy separations will be required.  
Possible Use Groups that may be accommodated include:*



**S2- Storage:** 2 hr. separation required reduced to 1 hr. if bldg. is sprinklered. If the Storage Use Occupies less than 10% of the total area of the floor it resides on, no separation required.

**R2-Residential:** 2 hr. separation required reduced to 1 hr. if bldg. is sprinklered.

**M-Mercantile:** 2 hr. separation required reduced to 1 hr. if bldg. is sprinklered.

**Accessory Assembly Uses:**

*(302.2.10) - Assembly Uses: Accessory assembly areas are not considered separate occupancies if the floor area is equal to or less than 750 S.F.*

On floor 5 there are several conference rooms and an employee lunch room and adjacent roof deck. Each of these assembly areas are less than 750 sq. ft. in size and therefore, they meet the Accessory Assembly Area definition and do not require a Use Group separation. **Requirement Met.**

**Exit Access Doorways:**

*(10.14.1 - Table 1014.1) If a space exceeds the maximum Occupant Loads listed in the Table, two exit access doors are required and they must be separated from each other by a distance of 1/3 the max. diagonal of the area served (if bldg. is sprinklered).*

While the conference rooms and lunch room spaces are considered accessory, they are still treated as Assembly Use spaces for the purpose of calculating occupant load. Using 15 s.f. per person (loose table and chair arrangement) any Accessory Assembly Use space exceeding 750 S.F. in size (resulting in an occupant load of 50) requires 2 exit access doors located as described above. The 5<sup>th</sup> floor lounge requires two exit access doors.

**Requirement Met.**

**Unique conditions:**

At Fire Exit Stair #2, it is proposed to have the bottom flight of stairs to be open to the main lobby at ground level. Starting at the first intermediate landing at the top of the open stair run, the stair is enclosed with 2 hour rated partitions and rated doors for all of the upper levels served.

*(1023.1-Exit Discharge) Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or*

*or shall provide direct access to grade. The exit discharge shall not re-enter the building. Exception: A maximum of 50% of the number and capacity of the exit enclosures is permitted to egress through areas on the level of discharge provided all of the following criteria are met:*

- 1.1 Such exit enclosures egress to a free and unobstructed way to the exterior of the building which is readily visible and identifiable from the point of termination of the exit enclosure.*
- 1.2 The entire area of the level of exit discharge is separated from areas below by construction conforming to the fire-resistance rating for the exit enclosure.*
- 1.3 The egress path from the exit enclosure on the level of exit discharge is protected throughout by an automatic sprinkler system. All portions of the level of discharge with access to the egress path shall either be protected throughout with an automatic sprinkler system .... Or separated from the egress path in accordance with the requirements for the enclosure of exits.*

**This condition requires review by the authorities having jurisdiction to determine if the proposed design meets this requirement.**

## Winton Scott Architects, PA

5 milk street portland, me 04101 t. 207.774.4811 f.207.774.3083 www.wintonscott.com

### Cumberland Cold Storage Building Renovations

#### Conversion from Storage Use to Business Use

Merrill's Wharf, Portland

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### 2006 NFPA CODE SUMMARY

8.4.10

#### Background Information:

Project Architect: Stephen Weatherhead, Winton Scott Architects 774-4811 ext. 3

General Building Description: The existing Cumberland Cold Storage Building consists of a five story brick building with a four story wing at the north end totaling approximately 94,000 S.F. of area excluding the basement. The structure consists of heavy timber primary beams and columns with wood joists and wood floor decks.

Renovation Scenario: The building renovation will create commercial office space on the top four floors with floors 3, 4, and 5 being occupied by a single tenant and the floor 2 being multi-tenant. The ground floor will also consist of rentable tenant space for a variety of marine related businesses.

The renovation scope includes structural repairs and reinforcements, exterior masonry restoration, new roofing, windows, and building insulation. The south wall facing the water will be modified to add new window openings and related structural reinforcements. In addition, new building systems will be installed including HVAC, plumbing, electrical, fire alarm, telecom, and sprinklers. An existing freight elevator will remain in operation and two passenger elevators and fire exit stairs will be added.

Square Footage:	First Floor:	19,025 S.F.
	Second Floor:	19,025 S.F.
	Third Floor:	19,025 S.F.
	Fourth Floor:	19,025 S.F.
	Fifth Floor:	17,565 S.F.
	TOTAL AREA:	93,665 S.F.

Business Description: Multi -Tenant Office /Business Use

Occupancy Classification: Business Use (B) Offices

**Sprinkler & Fire Alarm:** Building will be equipped with an approved automatic , supervised Sprinkler system per NFPA 13 and fire alarm system.

**Construction Type:** Type III (200)– Non combustibile construction for exterior walls and all interior construction consisting of any material permitted by code.  
Existing building consists of solid brick masonry exterior walls with heavy timber primary beams and columns with wood joists and deck.

**Occupancy Loads:** Business Use @ 100 s.f./person:

**Floor 1: = 191 people**

**Floor 2: = 191 people**

**Floor 3: = 191 people**

**Floor 4: = 191 people**

**Floor 5: = 176 people**

**TOTAL: = 940 People total.**

## **Applicable Primary Requirements:**

### **1. General Egress Components / Ratings**

**Egress Capacity Factors:** *Stairs .3"/person for stairways; .2"/person for level components and ramps (Table 7.3.3.1) Minimum clear width of new stairs is 44" for occupant load <2,000 (Table 7.2.2.2.1.2(B)).*  
**Both Stairwells have 48" clear width.**  
**Typical occupancy load per floor = 19,025 /100 =191 people.**  
**Each stair has an egress width capacity = 48"/.3" = 160 people**  
**Total capacity of 2 stairs = 160x2 = 320.**

**All doors are 36" width yielding a 34" clear opening.**  
**34"/.2" = 170 people. A single 36" door at each stair has sufficient capacity to meet the stair capacity.**

**Ground level exit doors = (3) 36" wide doors:**  
**34"/.2" = 170 people x 3 = 510 people.**

**Travel Distance Limits:** *Common Path Limit: 100' (sprinklered-Table A.7.6)*  
*Dead-end Corridor: 50' (sprinklered--Table A.7.6))*  
*Travel Distance: 300' (sprinklered--Table A.7.6))*

**Requirements Met – See drawings**

Remoteness of Exits:

*(7.5.1.3.2) Where two exits or exit access doors are required, they shall be located at a distance from one another not less than one half the length of the maximum overall diagonal dimension of the building or area served, measured in a straight line between the nearest edge of the exit doors or exit access doors.....*

*(7.5.1.3.3) In buildings protected throughout by an approved supervised sprinkler system... the minimum distance is reduced to 1/3 the maximum overall diagonal dimension.*

**Requirement Met – Max. diagonal distance =  $365' / 3 = 122'$ .  
Exit access doors are 175' apart. See drawings**

Required Fire Resistance Rating:

*(8.6.5) Enclosures for floor openings connecting four stories or more in new construction require a 2 hour rating . All enclosed stairs, elevator shafts and mechanical shafts are 2 hour rated.*

*(38.3.6.1) Exit access corridors require a fire resistance rating of 1 hour. Exception: (A.38.3.6.1(3)) No rating is required in buildings protected throughout by an approved supervised automatic sprinkler system. Requirement Met.*

**Walls separating tenant spaces: No Requirements**

Occupancy Separation:

*Floors 2-4 of the building will be occupied by Business Use tenants (Office). The first floor has not been leased yet and tenants are not known at this time. If tenants fall under a different use group than Business, occupancy separations will be required. Possible Use Groups that may be accommodated include:*

**Storage (low to ordinary hazard): 2 hr. separation required reduced to 1 hr. if bldg. is sprinklered.**

**Dormitory: 2 hr. separation required reduced to 1 hr. if bldg. is sprinklered.**

**Mercantile: 2 hr. separation required reduced to 1 hr. if bldg. is sprinklered.**

Accessory Assembly Uses:

*(A6.1.14.1.3)- Where incidental to another occupancy, areas used as follows shall be permitted to be considered part of the predominant occupancy and shall be subject to the provisions of the code that apply to the predominant occupancy. (A.6.1.14.1.3(2) Assembly use with fewer than 50 persons within a business occupancy.*

On floor 5 there are several conference rooms and an employee lunch room and adjacent roof deck. Each of these assembly areas are less than 750 sq. ft. in size generating an occupant load (using Assembly Use –Loose Tables & Chairs -15 s.f. per person) of less than 50 people therefore they meet the Accessory Assembly Area definition and do not require a Use Group separation.

**Requirement Met.**

**Exit Access Doorways:**

*(38.2.4.2) A single exit shall be permitted for a room or area with a total occupant load of fewer than 100 persons.*

**Requirement Met.**

*(7.5.1.3.3) In buildings protected throughout by an approved supervised automatic sprinkler system, the minimum separation distance between two exits or exit access doors shall be not less than one-third the length of the maximum overall diagonal dimension of the building area to be served.*

**Requirement Met.**

*(7.2.1.4.2) Doors required to be of the side hinged or pivoted swing type shall swing in the direction of egress travel where serving a room or area with an occupant load of 50 or more...*

**Requirement Met.**

**Exit Doorways:**

*(7.2.1.5.7) Every door in a stair enclosure serving more than four stories, unless permitted by 7.2.1.5.7.2 shall meet one of the following: (2) An automatic release that is actuated with the initiation of the building fire alarm system shall be provided to unlock all stair enclosure doors to allow re-entry.*

**Requirement Met.**

**Unique conditions:**

At Fire Exit Stair #2, it is proposed to have the bottom flight of stairs to be open to the main lobby at ground level. Starting at the first intermediate landing at the top of the open stair run, the stair is enclosed with 2 hour rated partitions and rated doors for all of the upper levels served.

*(7.7.2) Discharge through Areas on Level of Exit Discharge: Not more than 50% of the required number of exits, and not more than 50% of the required egress capacity are permitted to discharge through areas on the Level of Exit Discharge, unless otherwise permitted in 7.7.2.1 and 7.7.2.2 and provided that the criteria of 7.7.2.3 through 7.7.2.7 also are met.*

**7.7.2.1 – Not applicable.**

7.7.2.2 – **Not applicable.**

7.7.2.3 *The discharge specified in 7.7.2 shall lead to a free and unobstructed way to the exterior of the building and such way shall be readily visible and identifiable from the point of discharge from the exit. Requirement Met.*

7.7.2.4 *The level of discharge shall be protected throughout by an approved supervised automatic sprinkler system....*

**Requirement Met.**

7.7.2.5 - **Not applicable.**

7.7.2.6 *The entire area on the level of exit discharge shall be separated from areas below by construction having a fire resistance rating not less than than that required for the exit enclosure unless otherwise provided in 7.7.2.7*

7.7.2.7-*Not applicable.*



# 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: <b>MERRILL'S WHARF, 254 COMMERCIAL STREET</b>		
Total Square Footage of Proposed Structure/Area <b>93,665 S.F.</b>	Square Footage of Lot <b>69,313 S.F.</b>	
Tax Assessor's Chart, Block & Lot Chart# <b>41</b> Block# <b>A</b> Lot# <b>18</b>	Applicant * <u>must</u> be owner, Lessee or Buyer* Name <b>WATERFRONT MAINE, LP</b> Address <b>14 MAINE ST.</b> City, State & Zip <b>BRUNSWICK, ME 04011</b>	Telephone: <b>CHRIS PACHIOS/ DONAL CARROLL 212-695-8090</b>
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name <b>SAME AS APPLICANT</b> Address City, State & Zip	Cost Of Work: \$ <b>7,857,000</b> C of O Fee: \$ <b>75<sup>00</sup></b> Total Fee: \$ <b>78,669</b>
Current legal use (i.e. single family) <u>STORAGE USE - S1-MODERATE HAZARD</u> If vacant, what was the previous use? Proposed Specific use: <u>BUSINESS USE-OFFICE FLRS 2-5 / FLR. 1 NOT YET DETERMINED</u> Is property part of a subdivision? <u>NO</u> If yes, please name _____ Project description: <u>RENOVATION OF EXISTING 5 STORY BRICK WAREHOUSE BLDG. FOR CONVERSION INTO COMMERCIAL OFFICE SPACE. ALL NEW SYSTEMS INCLUDING HVAC, ELEC., SPRINKLERS, ALARM, ELEVATORS, STAIRS</u>		
Contractor's name: <u>METRIC CONSTRUCTION, INC.</u> Address: <u>55 HENSHAW STREET</u> City, State & Zip <u>BOSTON, MA 01235</u> Telephone: <u>617-787-1158</u> Who should we contact when the permit is ready: <u>DONAL CARROLL</u> Telephone: <u>212-695-8090</u> Mailing address: <u>WATERFRONT MAINE, LP, 14 MAINE ST., BRUNSWICK, ME 04011</u>		

**Please submit all of the information outlined on the applicable Checklist. 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](http://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: *Donal Carroll* Date: **AUGUST 11, 2010**

**This is not a permit; you may not commence ANY work until the permit is issue**





# Certificate of Design Application

From Designer:

STEPHEN WEATHERHEAD, WINTON SCOTT ARCHITECTS, PA

Date:

AUGUST 11, 2010

Job Name:

RENOVATIONS TO THE CUMBERLAND COLD STORAGE BUILDING

Address of Construction:

MERRILL'S WHARF, 254 COMMERCIAL STREET

## 2003 International Building Code

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

Building Code & Year IBC, 2003 Use Group Classification (s) BUSINESS USE FLRS 2-5/FLR 1 NOT YET  
Type of Construction NFPA 101, 2006 TYPE III - B DETERMINED

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

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

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

### Structural Design Calculations

\_\_\_\_\_ Submitted for all structural members (106.1 - 106.11)

\_\_\_\_\_ Live load reduction

\_\_\_\_\_ Roof *live* loads (1603.1.2, 1607.11)

\_\_\_\_\_ Roof snow loads (1603.7.3, 1608)

\_\_\_\_\_ Ground snow load,  $P_g$  (1608.2)

\_\_\_\_\_ If  $P_g > 10$  psf, flat-roof snow load  $P_f$

\_\_\_\_\_ If  $P_g > 10$  psf, snow exposure factor,  $C_e$

\_\_\_\_\_ If  $P_g > 10$  psf, snow load importance factor,  $I_s$

\_\_\_\_\_ Roof thermal factor,  $C_t$  (1608.4)

\_\_\_\_\_ Sloped roof snowload,  $P_s$  (1608.4)

\_\_\_\_\_ Seismic design category (1616.3)

### Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use

Loads Shown

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**THE STRUCTURAL PORTION OF THIS  
PAGE WILL BE COMPLETED BY THE  
STRUCTURAL ENGINEER OF RECORD  
AND SUBMITTED WITH THE FINAL  
STRUCTURAL CONSTRUCTION DOCUMENTS.**

### Wind loads (1603.1.4, 1609)

\_\_\_\_\_ Design option utilized (1609.1.1, 1609.6)

\_\_\_\_\_ Basic wind speed (1809.3)

\_\_\_\_\_ Building category and wind importance Factor,  $I_w$   
table 1604.5, 1609.5)

\_\_\_\_\_ Wind exposure category (1609.4)

\_\_\_\_\_ Internal pressure coefficient (ASCE 7)

\_\_\_\_\_ Component and cladding pressures (1609.1.1, 1609.6.2.2)

\_\_\_\_\_ Main force wind pressures (7603.1.1, 1609.6.2.1)

\_\_\_\_\_ Basic seismic force resisting system (1617.6.2)

\_\_\_\_\_ Response modification coefficient,  $R$ , and

deflection amplification factor,  $C_d$  (1617.6.2)

\_\_\_\_\_ Analysis procedure (1616.6, 1617.5)

\_\_\_\_\_ Design base shear (1617.4, 1617.5.1)

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

\_\_\_\_\_ Design option utilized (1614.1)

\_\_\_\_\_ Seismic use group ("Category")

\_\_\_\_\_ Spectral response coefficients,  $S_D$  &  $S_I$  (1615.1)

\_\_\_\_\_ Site class (1615.1.5)

### Flood loads (1803.1.6, 1612)

\_\_\_\_\_ Flood Hazard area (1612.3)

\_\_\_\_\_ Elevation of structure

### Other loads

\_\_\_\_\_ Concentrated loads (1607.4)

\_\_\_\_\_ Partition loads (1607.5)

\_\_\_\_\_ Misc. loads (Table 1607.8, 1607.6.1, 1607.7,  
1607.12, 1607.13, 1610, 1611, 2404)



# Commercial Interior & Change of Use Permit Application Checklist

All of the following information is required and must be submitted. Checking off each item as you prepare your application package will ensure your package is complete and will help to expedite the permitting process.

**One (1) complete set of construction drawings must include:**

**Note:** Construction documents for costs in excess of \$50,000.00 must be prepared by a Design Professional and bear their seal.

- Cross sections w/framing details
- Detail of any new walls or permanent partitions
- Floor plans and elevations
- Window and door schedules
- Complete electrical and plumbing layout.
- Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment or other types of work that may require special review
- Insulation R-factors of walls, ceilings, floors & U-factors of windows as per the IECC 2003
- Proof of ownership is required if it is inconsistent with the assessors records.
- Reduced plans or electronic files in PDF format are required if originals are larger than 11" x 17".
- Per State Fire Marshall, all new bathrooms must be ADA compliant.

**Separate permits are required for internal and external plumbing, HVAC & electrical installations.**

**For additions less than 500 sq. ft. or that does not affect parking or traffic, a site plan exemption should be filed including:**

- The shape and dimension of the lot, footprint of the existing and proposed structure and the distance from the actual property lines.
- Location and dimensions of parking areas and driveways, street spaces and building frontage.
- Dimensional floor plan of existing space and dimensional floor plan of proposed space.

**A Minor Site Plan Review is required for any change of use between 5,000 and 10,000 sq. ft. (cumulatively within a 3-year period)**

**Fire Department requirements. SEE ATTACHED WRITTEN CODE SUMMARIES AND CODE PLANS**

The following shall be submitted on a separate sheet:

- Name, address and phone number of applicant **and** the project architect.
- Proposed use of structure (NFPA and IBC classification)
- Square footage of proposed structure (total and per story)
- Existing and proposed fire protection of structure.
- Separate plans shall be submitted for
  - a) Suppression system
  - b) Detection System (separate permit is required)
- A separate Life Safety Plan must include:
  - a) Fire resistance ratings of all means of egress
  - b) Travel distance from most remote point to exit discharge
  - c) Location of any required fire extinguishers
  - d) Location of emergency lighting
  - e) Location of exit signs
  - f) NFPA 101 code summary
- Elevators shall be sized to fit an 80" x 24" stretcher.

**For questions on Fire Department requirements call the Fire Prevention Officer at (207) 874-8405.**

**Please submit all of the information outlined in this application checklist. If the application is incomplete, the application may be refused.**

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](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

**Permit Fee: \$30.00 for the first \$1000.00 construction cost, \$10.00 per additional \$1000.00 cost**

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



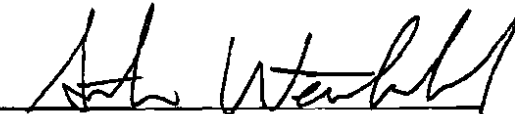
# Accessibility Building Code Certificate

**Designer:** STEPHEN WEATHERHEAD, WINTON SCOTT ARCHITECTS, PA

**Address of Project:** MERRILL'S WHARF, 254 COMMERCIAL STREET

**Nature of Project:** RENOVATION OF 5 STORY BRICK WAREHOUSE BUILDING FOR CONVERSION INTO COMMERCIAL OFFICE SPACE. PROJECT INCLUDES ALL NEW SYSTEMS INCLUDING HVAC, ELEC, SPRINKLER, ALARM, ELEVATORS, EXIT STAIRS, BATHROOMS. ALSO MASONRY RESTORATION, WINDOWS AND ROOFING

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.

Signature: 

Title: SENIOR ASSOCIATE

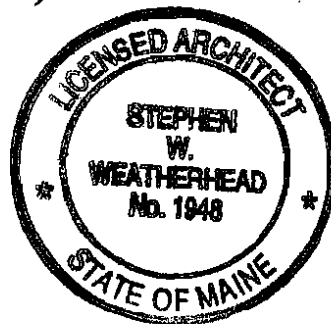
Firm: WINTON SCOTT ARCHITECTS, PA

Address: 5 MILK STREET

PORTLAND, ME 04101

Phone: 207-774-4811 EXT. 3

(SEAL)



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



# Certificate of Design

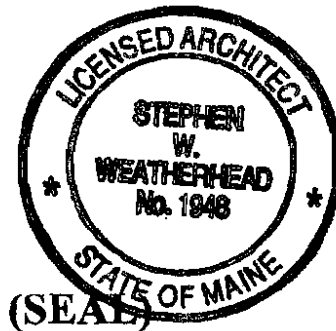
Date: AUGUST 11, 2010

From: STEPHEN WEATHERHEAD, WINTON SCOTT ARCHITECTS, PA

These plans and / or specifications covering construction work on:

RENOVATIONS TO THE CUMBERLAND COLD STORAGE BUILDING AT MERRILL'S WHARF,  
254 COMMERCIAL STREET, PORTLAND, ME

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



Signature: *Stephen W. Weatherhead*

Title: SENIOR ASSOCIATE

Firm: WINTON SCOTT ARCHITECTS

Address: 5 MILK STREET

PORTLAND, ME 04101

Phone: 207-774-4811 EXT. 3

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

# BECKER

structural engineers, inc.

August 9, 2010

Ms. Tammy Munson  
Code Enforcement Officer / Plan Reviewer  
Inspections Services Division  
City of Portland  
389 Congress Street  
Portland, Maine

**STRUCTURAL BUILDING CODE AND CODE INTERPRETATIONS FOR PROPOSED RENOVATIONS TO  
FORMER CUMBERLAND COLD STORAGE BUILDING  
PORTLAND, MAINE**

Dear Tammy,

We are formally requesting to utilize the 2006 version of the International Building Code (IBC) for the structural design of above referenced project. We understand that the City of Portland is currently enforcing the 2003 version of the IBC Code. The following is our justification for the use of the newer version of the Code.

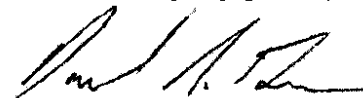
Our justification in using the 2006 Edition of the IBC Code pertains to the Seismic provisions included in the Codes. The Seismic Spectral Values used for the seismic design of buildings have been updated in the 2006 Edition of the IBC Code. The updated values are based on the 2004 Edition of the "National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

Our Code interpretations for seismic requirements, as they relate to this project are as follows:

1. As the change in occupancy does not place the existing structure in a higher occupancy category, a seismic upgrade of the lateral force resisting system to meet current Code requirements, due to change of occupancy, is not required.
2. As the proposed alterations will not increase the seismic force in any lateral force resisting element by more than 10%, or decrease the strength in any lateral force resisting element by more than 10% (with exception noted in item 3), a seismic upgrade of the lateral force resisting system to meet current Code requirements, due to alterations, is not required.
3. The southeast wall (water-side) is an exception to item 2. Proposed openings in this wall result in exceeding the 10%. Per previous conference call with Portland Code Enforcement, it is acceptable to reinforce the one affected wall to meet current Code requirements, without upgrading other areas of the structure, provided that we supply calculations that show the reinforced wall to meet current Code requirements.
4. New masonry stair and elevator shafts will be detailed as lateral force resisting members and will act to stiffen the existing structure and serve as voluntary improvements to the lateral force resisting system.

Thank you for your consideration and please let us know any questions or comments. We would be happy to meet and discuss further if desired.

Sincerely,  
**BECKER STRUCTURAL ENGINEERS, Inc.**



Daniel S. Burne, P. E.  
Associate

**Winton Scott Architects, PA**

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August 11, 2010

Ms. Tammy Munson  
Code Enforcement Officer, Plan Reviewer  
City of Portland  
389 Congress Street  
Portland, ME 04101

RE: IBC Code Interpretation Request – Renovations to the Cumberland Cold Storage Building at Merrill's Wharf, 254 Commercial St.

Dear Tammy,

As you may recall from our earlier discussions, the west wall of the Cumberland Cold Storage Building sits on the property line. The wall contains 149 existing window openings all of which have been in filled with masonry but the original granite sills and brick arches are still in tact. Of these 149 windows, we are proposing to reopen 126 of them and install new windows as well as adding 9 new windows.

The 2003 IBC code has a provision under section 704.8 that addresses allowable area of openings in exterior walls. Table 704.8 indicates the allowable percentage of the exterior wall that can consist of protected or unprotected openings based on the distance to the property line or adjacent buildings. Section 804.8.1 also states that if the building in question is sprinklered, the less strict values shown in the table for protected openings can be used.

Under the protected category, the table indicates that for a separation distance of 0'-3' no openings are allowed. At a distance of 3'-5' 15% of the wall can have openings and at a distance of 5'-10' an opening area of 25% is allowed. As shown in the attached elevation drawing, the proposed number of windows have an area equal to 17.8% of the total wall area for the portion of the building on the property line meaning we should have more than an 5' setback to meet the requirement.

The 2009 IBC code for Existing Buildings provides some relief on the above described requirements for existing building as follows:

**912.6.3 Opening protectives.** Openings in exterior walls shall be protected as required by the International Building Code. Where openings in the exterior walls are required to be protected because of their distance from the property line, the sum of the area of such openings shall not exceed 50 percent of the total area of the wall in each story.

**Exceptions:**

1. Where the International Building Code permits openings in excess of 50 percent.
2. Protected openings shall not be required in buildings of Group R occupancy that do not exceed three stories in height and that are located not less than 3 feet (914 mm) from the property line.
3. Where exterior opening protectives are required, an automatic sprinkler system throughout may be

substituted for opening protection.

4. Exterior opening protectives are not required when the change of occupancy group is to an equal or lower hazard classification in accordance with Table 912.6.

This project meets the requirements of 912.6.3 that stipulates a maximum area of protected openings to be 50% of the total wall area. As stated above, the total area of proposed openings is 17.8%. Exception #3 allows the openings to remain unprotected if the building is equipped throughout by an automatic sprinkler system. This requirement is met as the renovated building will be equipped with an approved supervised automatic sprinkler system designed in accordance with NFPA 13. Exception #4 allows openings to remain unprotected if the building's occupancy use group classification is changed to a lower hazard use. The building is currently used for a self storage business that provides lockers of various sizes for rent to individuals. This type of storage includes items such as furniture, books, clothes, household items etc. In Section 311, IBC defines storage that includes paper, furniture, cloth, boxes, etc. as moderate hazard storage (S-1). If one compares the building height and area limits set forth in IBC for Business Use versus S1 Storage, it is clear that IBC treats S1 Storage as a more hazardous use than Business.

This is an existing building that originally had 149 windows equal to 18.8% of the total area at the wall in question which we are proposing to reduce to 17.8% by leaving some openings blocked up and adding new openings as shown on the attached elevation. In addition, the building is being changed to a less hazardous use and will be sprinklered.

We would like to formally request that we may apply the 2009 IBC Existing Building Code for that would allow the windows to be installed as proposed and described above.

Thank you for your consideration and please let me know if you need any additional information to facilitate your review of this request.

Sincerely,



Steve Weatherhead, Associate  
Winton Scott Architects



**SECTION 04 01 20**

**CLAY MASONRY RESTORATION AND CLEANING**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. This Section includes restoration and cleaning of brick as follows:
  - 1. Repairing clay masonry, including replacing damaged units.
  - 2. Re-Building clay masonry to re-establish integrity of wall
  - 3. Repointing mortar joints.
  - 4. Cleaning exposed clay masonry and surfaces.
  - 5. Mechanical anchorage and crack stitching.
- B. Related Sections include the following:
  - 1. Division 01 – Submittal Procedures
- C. Allowances: Base Bid includes clay masonry work based on the scope of work indicated in the contract documents.
  - 1. Provide unit prices for additions or deletions from the project. Unit prices shall be established for the following
    - a. masonry removal & rebuilding
    - b. masonry rake & repointing
    - c. masonry pinning and crack stitching
    - d. caulking.
  - 2. Unit prices apply to additions or deletions to Work as authorized by Change Orders.

**1.03 DEFINITIONS**

- A. Low-Pressure Spray: 100 to 400 psi (690 to 2750 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

**1.04 SUBMITTALS**

- A. Product Data: For each type of product indicated. Include recommendations for application and use. Include test data substantiating that products comply with requirements.
- B. Samples: Provide samples as follows;
  - 1. For each type of mortar proposed for pointing and repair and re-building, provide a sample mortar strip 6 inches long by 12 inch wide, set in aluminum or plastic channels.

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2. Each type of masonry repair anchor.
- C. **Qualifications Data:** For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
  - D. **Cleaning Program:** Describe cleaning process in detail, including materials, methods and equipment to be used and protection of surrounding materials on buildings and project site, and control of runoff during operations.
    1. If materials and methods other than those indicated are proposed for cleaning work, provide a written description, including evidence of successful use on comparable projects, and a testing program to demonstrate their effectiveness for this project.
  - E. **LEED Documentation:** Refer to paragraph 1.09 of this section and Division 1

**1.05 QUALITY ASSURANCE**

- A. **Source Limitations:** Obtain each type of material for masonry restoration (face brick, cement, sand, etc.) from one source with resources to provide materials of consistent quality in appearance and physical properties.
- B. **Masonry Restoration Company Qualifications:** Company shall have been performing work of a similar nature to the proposed project for a minimum of 5 years.
- C. **Chemical Manufacturer Qualifications:** A company regularly engaged in producing masonry cleaners that have been used for similar applications with successful results, and with factory-trained representatives who are available for consultation and Project site inspection and assistance at no additional cost.
- D. **Mockups:** Prepare field samples for restoration methods and cleaning procedures to demonstrate aesthetic effects and qualities of materials and execution. Use materials and methods proposed for completed Work and prepare samples under same weather conditions to be expected during remainder of Work.
  1. Locate mockups on the building where directed by Architect/Owner.
  2. **Masonry Repair:** Prepare sample panels of size indicated for each type of masonry material indicated to be patched, rebuilt, or replaced. Erect sample panels into an existing wall, unless otherwise indicated, to demonstrate the quality of materials and workmanship.
  3. **Cleaning:** Prepare sample approximately 25 sq. ft. in area for each type of clay masonry and surface condition. Test cleaners and methods on samples of adjacent materials for possible adverse reactions, unless cleaners and methods are known to have a deleterious effect. Allow a waiting period of not less than 7 days after completion of sample cleaning to permit a study of sample panels for negative reactions.
  4. **Repointing:** Prepare 2 separate sample areas approximately 36 inches high by 72 inches wide for each type of repointing required; 1 for demonstrating methods and quality of workmanship expected in removing mortar from joints and the other for demonstrating quality of materials and workmanship expected in pointing mortar joints.
  5. Notify Architect/Owner 7 days in advance of the dates and times when samples will be prepared.

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6. Obtain Architect/Owner's approval of mockups before starting the remainder of clay masonry restoration and cleaning.
  7. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
- E. Pre-Installation Conference: Conduct conference at Project site to comply with requirements in Division 01 and this spec.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver masonry units to Project site strapped together in suitable packs or pallets or in heavy-duty cartons. Palletize and store salvaged brick on site until ready to use.
- B. Deliver other materials to Project site in manufacturer's original and unopened containers, labeled with manufacturer's name and type of products.
- C. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- D. Store hydrated lime in manufacturer's original and unopened containers. Discard lime if containers have been damaged or have been opened for more than two days.
- E. Store lime putty covered with water in sealed containers.
- F. Store sand where grading and other required characteristics can be maintained and contamination avoided.

**1.07 PROJECT CONDITIONS**

- A. Repoint mortar joints and repair masonry only when air temperature is between and 40 and 90 deg F (4 and 32 deg C) and is predicted to remain so for at least 7 days after completion of work.
- B. Cold-Weather Requirements: Comply with the following procedures for masonry repair and mortar-joint pointing:
  1. When air temperature is below 40 deg F (4 deg C), heat mortar ingredients, masonry repair materials, and existing masonry walls to produce temperatures between 40 and 120 deg F (4 and 49 deg C).
  2. When mean daily air temperature is below 40 deg F (4 deg C), provide enclosure and heat to maintain temperatures above 32 deg F (0 deg C) within the enclosure for 7 days after repair and pointing.
- C. Hot-Weather Requirements: Protect masonry repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials. Provide artificial shade and wind breaks and use cooled materials as required. Do not apply mortar to substrates with temperatures of 90 deg F (32 deg C) and above.
- D. Patch masonry only when air and surface temperatures are between and 55 and 100 deg F (13 and 38 deg C) and are predicted to remain above 55 deg F (13 deg C) for at least 7 days after completion of work. On days when air temperature is predicted to go above 90 deg F (32 deg C), schedule patching work to coincide with time that surface being patched will be in shade or during cooler morning hours.

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- E. Clean masonry surfaces only when air temperature is 40 deg F (4 deg C) and above and is predicted to remain so for at least 7 days after completion of cleaning.

**1.08 SEQUENCING AND SCHEDULING**

- A. Order replacement materials at earliest possible date, to avoid delaying completion of the Work.
- B. Perform masonry restoration work in the following sequence:
  1. Repair existing masonry, including replacing existing masonry with new masonry materials.
  2. Rake out existing mortar from joints indicated to be repointed.
  3. Inspect for open mortar joints and repair before cleaning to prevent the intrusion of water and other cleaning materials into the wall.
  4. Point existing mortar joints of masonry indicated to be restored.
  5. Clean masonry surfaces.
- C. As scaffolding is removed, patch anchor holes used to attach scaffolding. Patch holes in masonry units to match existing color and texture. Patch holes in mortar joints to comply existing color and texture.

**1.09 LEED Requirements**

- A. Local/Regional Materials: Masonry and mortar supplier shall be located within 500 miles of the project location. In addition, all ingredients within the mortar mix shall be extracted, harvested or recovered within 500 miles of the project location. Submit documentation of manufacturing locations and origins of materials.
- B. Low emitting adhesives and sealants: Provide water-based, biodegradable form coating with maximum VOC content of 55 grams/liter. Provide cut sheet and/or material safety data sheet for form coating with VOC levels highlighted.
- C. Waste Management:
  1. Before work commences, designate locations or uses for excess mortar.
  2. Designate a location for cleaning out mixers.
  3. Collect waste and place in designated area for recycling.

**PART 2 -PRODUCTS**

**2.01 MASONRY MATERIALS**

- A. Salvaged Face Brick and Accessories: Provide face brick to the greatest extent possible using salvaged bricks from the same job site. Bricks shall be clean and free of mortar/paint and other foreign material. If salvaged bricks are not available in sufficient quantity or quality, provide new face brick and accessories.
  1. Source salvaged bricks from demolition areas or other new exterior wall openings.

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- B. **New Face Brick and Accessories:** Provide new face brick and accessories, including specially molded, ground, cut, or sawed shapes where required to complete masonry restoration work.
  - 1. Provide units with colors, size and shape, surface texture, and physical properties to match existing and meet owner's approval.
  - 2. Provide specially molded shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.
  - 3. Provide specially ground units, shaped to match patterns, for arches and where indicated.
- C. **Building Brick:** Provide building bricks complying with ASTM C 62, of same vertical dimension as face brick, for masonry work concealed from view.
  - 1. Grade SW, MW, or NW for concealed backup.

## 2.02 MORTAR MATERIALS

- A. **Portland Cement:** ASTM C 150, Type I or Type II.
- B. **Hydrated Lime:** ASTM C 207, Type S.
- C. **Factory-Prepared Lime Putty:** Screened, fully-slaked lime putty, prepared from pulverized lime complying with ASTM C 5.
- D. **Mortar Sand:** ASTM C 144, unless otherwise indicated.
  - 1. For pointing mortar, provide sand with rounded edges.
  - 2. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands, if necessary, to achieve suitable match.
- E. **Mortar Pigments:** Natural and synthetic iron oxides and chromium oxides, compounded for mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortars. Use as required to match existing mortar color.
- F. **Water:** Potable

## 2.03 CLEANING MATERIALS

- A. **Water for Cleaning:** Potable.
- B. **Job-Mixed Detergent Solution:** Solution prepared by mixing 2 cups (0.5 L) of tetrasodium polyphosphate (TSP), 1/2 cup (125 mL) of laundry detergent, and 20 quarts (20 L) of hot water for every 5 gal. (20 L) of solution required.
- C. **Nonacidic Gel Cleaner:** Manufacturer's standard nonacidic gel containing detergents and chelating agents and specifically formulated for cleaning masonry surfaces. Cleaner shall have a pH between 6 and 9 and shall not be considered a hazardous waste according to 40 CFR 261.
- D. **Nonacidic Liquid Cleaner:** Manufacturer's standard mildly alkaline liquid cleaner formulated for removing mold, mildew, and other organic soiling from ordinary building materials, including polished stone, brick, aluminum, plastics, and wood.
- E. **Alkaline Prewash Cleaner:** Manufacturer's standard alkaline cleaner for prewash applications used only where followed by an acidic cleaner of type indicated for afterwash.
- F. **Products:** Subject to compliance with requirements, provide one of the following:

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1. Restoration Cleaning:
  - a. Restoration Cleaner; ProSoCo, Inc.
  - b. Diedrich 101; Diedrich Chemicals, Inc.
  - c. 801 Heavy Duty Masonry Cleaner; ABR Products, Inc.
2. Nonacidic Liquid Cleaner:
  - a. Bio-Cleanse; Dominion Restoration, Inc.
3. Alkaline Prewash Cleaner:
  - a. Sure Klean 766 Prewash; ProSoCo, Inc.

#### 2.04 MISCELLANEOUS MATERIALS

- A. Masonry Veneer Anchors, Triangular, Non-Adjustable Type: Anchors designed for masonry veneer attachment consisting of a 3/16-inch - diameter, hot-dipped galvanized triangular tie factory assembled to 12 gage, hot-dipped galvanized anchor with 5/16" hole for fastener.
- B. Masonry Repair Anchors, Spiral Type: Type 304 stainless-steel spiral rods designed to anchor to backing and veneer. Anchors are flexible in plane of veneer but rigid perpendicular to it.
  1. Provide driven in anchors designed to be installed in drilled holes and relying on screw effect rather than adhesive to secure them to backup and veneer.
    - a. Helifix 8mm Stainless Steel Helibar™
    - b. Heckmann Building Products, Inc. #391 Remedial Tie
    - c. Hohmann & Bamard, Inc., Helix Spiro-Ties
- C. Concrete Masonry Units: ASTM C90, Type 1 Standard, F'm: 1500 psi in 28 Days.

#### 2.05 MORTAR MIXES

- A. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
  1. Mixing Pointing Mortar: Thoroughly mix cementitious materials and sand together before adding any water. Then mix again adding only enough water to produce a damp, workable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for 15 to 30 minutes. Add remaining water in small portions until mortar reaches desired consistency. Use mortar within one hour of final mixing; do not re-temper or use partially hardened material.
- B. Do not use admixtures of any kind in mortar, unless otherwise indicated.
- C. Mortar Proportions: Mix mortar materials in the following proportions:
  1. Pointing Mortar for Brick: 1 part portland cement, 1 parts lime, and 6 parts sand (Type N).
  2. Rebuilding (Setting) Mortar: Same as pointing mortar.
- D. Colored Mortar: Produce mortar of color required by using selected ingredients. Do not adjust proportions without Architect's approval.
  1. Mortar Pigments: Where mortar pigments are indicated, do not exceed a pigment-to-cement ratio of 1:10 by weight.

### **PART 3 -EXECUTION**

#### **3.01 PROTECTION**

- A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from masonry restoration work.
  - 1. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during course of restoration and cleaning work.
  
- B. Prevent mortar from staining face of surrounding masonry and other surfaces.
  - 1. Cover sills, ledges, and projections to protect from mortar droppings.
  - 2. Keep wall area wet below rebuilding and pointing work to discourage mortar from adhering.
  - 3. Immediately remove mortar in contact with exposed masonry and other surfaces.
  - 4. Clean mortar splatters from scaffolding at end of each day.
  
- C. Cleaning
  - 1. Prevent chemical cleaning solutions from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be injured by such contact.
  - 2. Do not clean masonry during winds of sufficient force to spread cleaning solutions to unprotected surfaces. Neutralize and collect alkaline wastes for disposal off Owner's property. (NOTE: Contractor may seek approval for environmentally friendly materials, through Utility, to allow for their runoff into the city storm sewer.).
  - 3. Dispose of runoff from cleaning operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.
  - 4. Erect temporary protection covers over pedestrian walkways and at points of entrance and exit for persons and vehicles that must remain in operation during course of masonry restoration work.

#### **3.02 UNUSED ANCHOR REMOVAL**

- A. Remove masonry anchors, brackets, wood nailers, embedded ferrous metals and other extraneous items no longer in use unless indicated to remain.
  - 1. Remove items carefully to avoid spalling or cracking masonry.
  - 2. If item cannot be removed without damaging surrounding masonry, cut off item flush with surface and core drill surrounding masonry and item as close around item as practical. Core to a minimum depth of 2" below surface and a maximum depth of 4". Remove core and cut back item. Patch brick or replace brick as required.
  - 3. Patch holes where items were removed unless directed to remove and replace units.

#### **3.03 BRICK REMOVAL AND REPLACEMENT**

- A. Remove bricks that are damaged, heavily spalled, deteriorated, or as otherwise indicated. Carefully demolish or remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits replacement with full-size units.
  - 1. When removing single bricks, remove material from center of brick and work toward

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outside edges.

- B. Support and protect remaining masonry that surrounds removal area. Maintain flashing, reinforcement, lintels, and adjoining construction in an undamaged condition.
- C. Notify Engineer of unforeseen detrimental conditions including voids, cracks, bulges, and loose masonry units in existing masonry backup, rotted wood, rusted metal, and other deteriorated items.
- D. Remove in an undamaged condition (Salvage) as many whole bricks as possible.
  - 1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.
  - 2. Store brick for reuse, as indicated.
  - 3. Deliver cleaned brick not required for reuse to Owner, unless otherwise directed.
- E. Clean bricks surrounding removal areas by removing mortar, dust, and loose particles in preparation for replacement.
- F. Install replacement brick into bonding and coursing pattern of existing brick. If cutting is required, use a motor-driven saw designed to cut masonry with clean, sharp, unchipped edges.
- G. In areas of rebuild, repoint back-up wythe, mortar collar joint, and fasten new wythe to sound back-up with veneers anchors spaced at 24" o.c. (max) horizontal and 16" o.c. (max) vertical.
- H. Lay replacement brick with completely filled bed, head, and collar joints. Butter ends with sufficient mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C 67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per min. (30 g/194 sq. cm per min.). Use wetting methods that ensure that units are nearly saturated but surface is dry when laid. Maintain joint width for replacement units to match existing joints.
  - 1. Tool exposed mortar joints to be concave.

### 3.04 CLEANING MASONRY, GENERAL

- A. Proceed with cleaning in an orderly manner; work from top to bottom of each scaffold width and from one end of each elevation to the other.
- B. Use only those cleaning methods indicated for each masonry material and location.
  - 1. Do not use wire brushes or brushes that are not resistant to chemical cleaner being used. Do not use plastic-bristle brushes if natural-fiber brushes will resist chemical cleaner being used.
  - 2. Use spray equipment that provides controlled application at volume and pressure indicated, measured at spray tip. Adjust pressure and volume to ensure that cleaning methods do not damage masonry.
    - a. Equip units with pressure gages.
  - 3. For water spray application, use fan-shaped spray tip that disperses water at an angle of 25 to 50 degrees.
- C. Perform each cleaning method indicated in a manner that results in uniform coverage of all surfaces, including corners, moldings, and interstices, and that produces an even effect



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without streaking or damaging masonry surfaces.

- D. Preliminary Cleaning: Before beginning general cleaning, remove extraneous substances that are resistant to cleaning methods being used. Extraneous substances include paint, caulking, asphalt, and tar.
  - 1. Carefully remove heavy accumulations of material from surface of masonry with a sharp chisel. Do not scratch or chip masonry surface.
- E. Water Spray Applications: Unless otherwise indicated, hold spray nozzle at least 6 inches (150 mm) from surface of masonry and apply water in horizontal back and forth sweeping motion, overlapping previous strokes to produce uniform coverage.
- F. After cleaning is complete, remove protection no longer required. Remove tape and adhesive marks.

### 3.05 CLEANING BRICKWORK

- A. Detergent Cleaning:
  - 1. Wet masonry with cold water applied by low-pressure spray.
  - 2. Scrub masonry with detergent solution using medium-soft brushes until soil is thoroughly dislodged and can be removed by rinsing. Use small brushes to remove soil from mortar joints and crevices. Dip brush in solution often to ensure that adequate fresh detergent is used and that masonry surface remains wet.
  - 3. Rinse with cold water applied by medium-pressure spray to remove detergent solution and soil.
  - 4. Repeat procedure above where required to produce the cleaning effect established by mockup.

### 3.06 REPOINTING MASONRY

- A. Rake out and re-point mortar joints to the following extent:
  - 1. All joints in areas indicated.
  - 2. Joints where mortar is missing or where they contain holes.
  - 3. Cracked joints where cracks can be penetrated at least 1/4 inch (6 mm) by a knife blade 0.027 inch (0.7 mm) thick.
  - 4. Cracked joints where cracks are 1/8 inch (3 mm) or more in width and of any depth.
  - 5. Joints where they sound hollow when tapped by metal object.
  - 6. Joints where they are worn back 1/4 inch (6 mm) or more from surface.
  - 7. Joints where they are deteriorated to point that mortar can be easily removed by hand.
  - 8. Joints, other than those indicated as sealant-filled joints, where they have been filled with substances other than mortar.
- B. Do not rake out and re-point joints where not required
- C. Rake out joints as follows:
  - 1. Remove mortar from joints to depth not less than 1 inch or not less than that required to expose sound, unweathered mortar.

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2. Remove mortar from masonry surfaces within raked-out joints to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.
3. Do not spall edges of masonry units or widen joints. Replace or patch damaged masonry units as directed by Architect/Engineer.
  - a. Cut out mortar by hand with chisel and mallet. Power-operated grinders may be used with Engineer's approval based on demonstrated ability of operators to use tools without damaging masonry. In no case shall vertical joints be cut with power tools.
  - b. Cut out center of mortar bed joints using angle grinders with diamond-impregnated metal blades. Remove remaining mortar by hand with chisel and mallet.
- D. Notify Architect/Engineer of unforeseen detrimental conditions including voids in mortar joints, cracks, loose masonry units, rotted wood, rusted metal, and other deteriorated items.
- E. Point joints as follows:
  1. Rinse masonry-joint surfaces with water to remove dust and mortar particles. Time rinsing application so, at time of pointing, joint surfaces are damp but free of standing water. If rinse water dries, dampen masonry-joint surfaces before pointing.
  2. Apply pointing mortar first to areas where existing mortar was removed to depths greater than surrounding areas. Apply in layers not greater than 3/8 inch (9 mm) until a uniform depth is formed. Fully compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.
  3. After low areas have been filled to same depth as remaining joints, point all joints by placing mortar in layers not greater than 1/4 inch (6 mm). Fully compact each layer and allow to become thumbprint hard before applying next layer. Where existing bricks have worn or rounded edges, slightly recess finished mortar surface below face of masonry to avoid widened joint faces. Take care not to spread mortar over edges onto exposed masonry surfaces or to feather edge mortar.
  4. When mortar is thumbprint hard, tool joints to concave. Remove excess mortar from edge of joint by brushing.
- F. Cure mortar by maintaining in thoroughly damp condition for at least 72 hours including weekends and holidays.
  1. Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic mist spraying using system of pipes, mist heads, and timers.
  2. Adjust curing methods to ensure that pointing mortar is damp throughout its depth without eroding surface mortar.
- G. Where repointing work precedes cleaning of existing masonry, allow mortar to harden at least 30 days before beginning cleaning work.

### 3.07 FINAL CLEANING

- A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, spray applied at low pressure.
  1. Do not use metal scrapers or brushes.
  2. Do not use acidic or alkaline cleaners.
- B. Wash adjacent woodwork and other non-masonry surfaces. Use detergent and soft brushes or



# CITY OF PORTLAND, MAINE

Department of Building & Construction

## Original Receipt

8.16 2010

Received from

Water Stone Inc

Location of Work

254 Commercial

Cost of Construction \$ \_\_\_\_\_

Building Fee: \_\_\_\_\_

Permit Fee \$ \_\_\_\_\_

Site Fee: \_\_\_\_\_

Certificate of Occupancy Fee: \_\_\_\_\_

Total:

2520.00

Building (11) \_\_\_\_\_

Plumbing (15) \_\_\_\_\_

Electrical (12) \_\_\_\_\_

Site Plan (12) \_\_\_\_\_

Other \_\_\_\_\_

CEL: 41-A-17

Check #: 3289

Total Collected \$

2520.00

**No work is to be started until permit issued.  
Please keep original receipt for your records.**

Taken by: [Signature]

WHITE - Applicant's Copy  
YELLOW - Office Copy  
PINK - Permit Copy

Renovations to Cumberland Cold Storage Building  
Phase One Façade Restoration  
August 6, 2010

cloths.

- C. Clean masonry debris from roof; remove debris from gutters and downspouts. Rinse off roof and flush gutters and downspouts.
- D. Sweep and rake adjacent pavement and grounds to remove masonry debris. Where necessary, pressure wash surfaces to remove mortar, dust, dirt, and stains.

**3.08 FIELD QUALITY CONTROL**

- A. Owner's Project Representatives: Project representatives will be observing progress and quality of portion of the Work completed. Allow Project representatives use of scaffolding, as needed, to observe progress and quality of portion of the Work completed.
- B. Notify Project representatives in advance of times when lift devices and scaffolding will be relocated. Do not relocate lift devices and scaffolding until Project representatives have had reasonable opportunity to make observations of work areas at lift device or scaffold location.

**END OF SECTION**