

June 5, 2013

**Mr. Anthony Ackil**  
c/o  
**anthonyackil@bgood.com**

*Re: Facility located at 15 Exchange Street  
Portland, ME  
Architectural Code Review: International Building Code (IBC-2009 edition), the  
International Existing Building Code (IEBC-2009 edition), MUBEC, NFPA 101-2009,  
NFPA 1-2006.*

Dear Anthony:

The following represents a summary of the applicable regulations of the MUBEC, IBC-2009, IEBC-2009, NFPA 101-2009 and NFPA 1-2006 as they affect the above referenced project. It is based, by reference, upon the architectural documents prepared by The Architect's Forum, d: 3-8-13 used with Owner's permission. As discussed, this summary shall be presented to Ms. Jeannie Bourke, CEO/LPI/Plan Reviewer (City of Portland) and Lt. Benjamin Wallace Jr., Fire Prevention Officer (City of Portland Fire Dept.) for review and approval. Please note that this summary and the attached Code plan are preliminary and do not constitute final construction documents. It is understood that such final plans will be revised as necessary pending City review.

Per tenant input the proposed facility shall have a maximum occupancy load of 49 persons. It has been noted that existing Code violations associated with the existing building outside of the tenant area are under review by the Building Owner with the City. We have depicted the existing second floor tenant path of egress which passes through the adjacent residential corridor in order to establish the length of travel. It is understood that the resolution of any Code violations outside of the tenant space are the building Owner's responsibility.

**A. WORKSHEET DATA: IBC-2009, IEBC-2009**

**Section 1 - Site Information and Setbacks** – existing to remain.

**Section 2 - Property Ownership/Authorized Agent**

Owner: **INSERT**

Tenant: **INSERT**

Agent: Mr. Anthony Ackil

**Section 3 - Construction Services, Section 5 - General Contractor:**  
pending

**Section 4 - Worker's Compensation Insurance Affidavit**  
pending

**Section 5 - Professional and Construction Services required by Construction Control pursuant to 780 CMR:**

Architectural: Jordan O'Connor & Associates, 57 Maple Lane,  
Petersham, MA 01366  
(508) 754-3475  
Principal: Mr. Jordan O'Connor, AIA, ME License # 3726

**Section 6 - Description of Proposed Work:**

A continuation of a Restaurant use in a portion of a first and second floor space. Associated storage shall continue in the basement with some limited storage and staff break area on the second floor. Adjacent space on the first floor is composed of mercantile use. Adjacent space on the second floor is Residential. The nature and scope of the interior renovations is limited to the creation of new finishes, uni-sex first floor restroom, kitchen separation walls and associated kitchen equipment, mechanical and electrical utility work.

**Section 7 - Use Group and Construction Type:**

Refer to Code plan:

**Existing:** Assumed A-2 Restaurant per IBC-2009: 303.1 on first and second floors with moderate hazard storage S-1 in basement.

**Proposed:** Per IBC-2009: 303.1, exception 1: *"A building or tenant space used for assembly purposes with an occupant load of less than 50 persons shall be classified as a Group B occupancy."* Per this exception the first floor tenant space shall be considered B-Business, second floor area a mixed use of S-1(mod. hazard storage) and B, and the basement tenant space as S-1.

**Construction type:** The facility is composed of a number of additions built over many years by way of past building codes. In the tenant area the walls are composed of load bearing masonry, first floor framing is non-fire retardant wood framing. Portions of interior walls are constructed of combustible wood studs and non-rated sheathing. **The tenant portion appears to be within type IIIB construction.**

**Fire Protection:** The entire facility is sprinklered.

**Fire Alarm:** A fire alarm with horn/strobes exists.

## Section 8 - Renovation

Applicable per IEBC – 2009

### A.1 Maine State Building Code Review (IBC-2009) Chapter 34 and with Maine Amendments

- 3401.4.1 To the best of our knowledge and belief no existing original materials already in use in the building have been deemed by the building code official to be dangerous to life, safety or health.
- 3401.4.2 New materials shall meet new code requirements. Patching of existing material may be allowed to match original materials.
- 3404.1 Alteration work shall conform to new code requirements.
- 3404.3/  
3404.4 No alteration work shall involve changes to the gravity or lateral load capacity.
- 3404.5 The work will not involve seismic improvements beyond that required by Chapter 34.
- 3404.6 Although allowed to meet the code requirements for egress at the time of the original construction, the means of egress offered in the renovated area shall meet current code for egress capacity factors.
- 3408.1 The original use of the tenant first and second floor space is assumed to have been A-2 Restaurant (IBC-2009: 303.1). Per exception 1 with a total tenant occupancy less than 50 persons the tenant first and second floor space may be classified as B-Business. The tenant basement storage remains S-1 (mod. Hazard storage). **We do not consider the classification of a low occupancy restaurant use as business to constitute a Change in Occupancy.** This appears consistent with the language expressed in this section: *“Subject to the approval of the building official,, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all the requirements of this code for those groups, providing the new or proposed use is less hazardous, based upon life and fire risk, than the existing use.”* The egress parameters associated with spaces associated with one exit are equal in A and B uses. Exit travel distance is more restrictive in the A use (250’) vs the B use (300’). Corridor fire resistance ratings are the same for the A and B use. The max. occupants per *first* floor and travel

distance are the same for the A and B use. The structural live loads for B and A are identical on the *first* floor. For these reasons we again feel that the classification of the first and second floor tenant space a B use is not a Change in Occupancy.

- 3409.0 The existing building is not a historic structure. **This item requires verification.**
- 3411.3 The alteration work shall not decrease the existing level of accessibility.
- 3411.9.4 A new accessible restroom shall be created that will be located on the first floor.
- 3412 Compliance Alternatives – not required.

## **A.2 IEBC International Existing Building Code – 2009 and with Maine Amendments**

### **Chapter 1: Scope and Administration**

#### 101.4.2

##### *MUBEC*

##### *Section 5,3*

“Building previously occupied. The legal occupancy of any building existing on the date of the adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, *NFPA #1: fire codes and standards adopted pursuant to Title 24; section 2452 and 2465* or as is deemed necessary by the code official for the general safety and welfare of the occupants and the public”.

#### 101.5/

#### 101.5.2

The compliance method used shall be via the Work Area Compliance Method. Conformance with requirements of Chapters 4 through 12 are required as applicable.

#### 101.5.4

Evaluation and design procedures: No changes are proposed that affect the existing building’s seismic resistance or increase the floor loading. It appears that the Occupancy Categories (per IBC-2009, Table 1604.5) remains as a category III.

There is no change to the following: lateral load capacity, fire protection systems (other than reconfiguration to provided needed coverage due to new partitions), fire resistive construction, hazardous materials or energy conservation.

#### 106.2.3

Means of Egress: The work area in the existing first and second floor is limited to the designated renovation area as show on the Code Plans.

106.2.4 The exterior envelope of the renovated existing first and second floor shall remain.

#### **Chapter 4: Classification of Work**

401.3 Work area: basement = S-1, first and second floor combination of B and S-1 per IBC-2009: 303.1 (exception 1), 311.2.

404.1 The proposed renovation work entails the reconfiguration of interior non-loadbearing partitions, doors and associated portions of the utility systems to support these spaces. The proposed work is in an area that is less than 50% of the *building's total* area. As such it qualifies as Alteration – Level 2.

404.2 Work is required to conform to Chapter 6 for level 1 and Chapter 7 for level 2.

405.0 The work area of the alterations does not exceed 50% of the aggregate area of the *building*. Therefore conformance to Level 3 is not required.

406.1 Technically there is a change in occupancy due to the classification of an A-2 use of less than 50 occupants as a B-Business use. **Refer to 3408.1 discussion above.**

#### **Chapter 6: Alterations – Level 1**

602.1 All new interior finishes shall conform to Chapter 8 of IBC. *The more stringent use group A shall be used.*

Per IBC Table 803.9 for A-2 use in sprinklered facility: Class B\* for exit enclosures/exit passageways and corridors; Class C in rooms & enclosed spaces. (\* Note: Class C materials are allowed for wainscoting and paneling of not more than 1,000 sf of applied surface in the grade lobby when applied to a non-combustible base per 803.11.1.)

602.2 Interior floor finish: shall comply with section 804 of IBC. Per IBC 804.4.1 for A-2 use: Floor finish shall be not less than Class II.

602.3 Interior trim shall conform to IBC section 806.

Per 806.1 for A use: all curtains, draperies, hangings and other decorative materials shall meet the flame propagation criteria of NFPA 701 or be non-combustible.

- 603.1 The work shall maintain the level of fire protection currently provided.
- 604.1 The work shall maintain the level of protection provided for the means of egress.
- 605.1 The existing front first floor entry is technically infeasible to alter to an accessible entry. A new accessible restroom is being added to the first floor.
- 606.1 Existing conditions to remain.
- 607.1 No renovation work affects the existing thermal shell environment.

### **Chapter 7: Alterations – Level 2**

- 701.3 Per exception 3 and 705.6 a B use may be allowed to have a maximum of a 50' dead end corridor. Per exception 4 the minimum ceiling height of newly created habitable and occupiable spaces and corridors may be 7'-0".
- 703.2 Any existing vertical openings (ie: plumbing chases) to be removed shall be blocked at the ceiling of the work area by the equivalent of 2" of solid wood per 703.2.1(2). Per 703.2.1(5.2) B use stair enclosure not required in sprinklered facility.
- 703.2.2 No remedial work is required for vertical openings throughout the floor as the work area is less than 50% of the *building's* floor area, OK.
- 703.2.3 No remedial work required for supplemental stairway enclosures. **Please note that a 1 hour rated enclosure shall be added to the first floor of existing Stair B.**
- 703.4 The interior finish of walls in exits and corridors in the work area shall comply with the IBC – refer to discussion on Chapter 6 above.
- 703.4.1 No remedial work on the interior finish of the existing exits and corridors (serving the work area) throughout the floor is required as the work area does not exceed 50% of the *building's* floor area.
- 704.1.1 Corridor rating for sprinklered facility may be reduced per IBC. Per IBC: Table 1018.1 for B use in sprinklered facility and corridor serving "All" = zero (0) hours required.
- 704.2 The building is equipped with an automatic sprinkler system. The system shall be modified as required to meet the IBC requirements within the work area.

- 704.2.1.1 Due to the work area not exceeding 50% of the *building's* floor area: no remedial sprinkler work is required outside of the work area.
- 704.2.2 The occupancy load exceeds 30 persons. Sprinkler coverage is required and provided.
- 705.1 The work area is part of a one tenant space. Per 705.1 the provisions of 705.0 do not apply. Per commentary: “... *in multiple-tenant buildings where the reconfiguration of space takes place within one of the tenant spaces and does not include corridors or exits that affect others, the tenant space undergoing alterations need only comply with the means of egress requirements of Section 604.*” Refer to below summary of conformance with applicable provisions of IBC, Chapter 10 which apply (as cited in 106.2.3 above).
- 705.2 Note per exception: “2. *Means of egress conforming to the requirements of the building code under which the building was constructed shall be considered compliant means of egress if, in the opinion of the code official, they do not constitute a distinct hazard to life.*” **For this reason it is assumed that all means of egress associated with basement have been, and remain, acceptable.**

**IBC-2009:  
Chapter 10 Means of Egress**

- 1003.3.3 The corridors may have a 4” projection from the side when located 27” to 80” above the walking surface.
- 1003.3.4 Protruding objects shall not reduce the minimum clear width required in section 1104.
- 1004.1.1 Refer to Code Plan for occupant load location and summary.  
  - First = 25 seats dining
  - Second floor = 20 seats dining
  - Staff first = 3 persons
  - Staff second = 1 person

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Total occupant load for basement + first + second = 49 persons.
- 1005.1 Egress width = .2” per occupant for “other egress components” (ie: non-stairs).

First floor door width offered:  $x1 = 34''$  clear width =  $34'' / .2''$  per person = 170 occupants > actual 28 occupants, OK.

First floor door x5 offers 32" clear width =  $32"/.2$  per person = 160 occupants > actual of 3 staff, OK.

Second floor door x7 offers 32" clear width =  $32"/.2$  per person = 160 occupants > actual of 24 persons actual, OK.

- 1005.2 Door encroachment: Doors opening into the path of egress travel shall not reduce the required width to less than  $\frac{1}{2}$  during the course of the swing. When fully open the door shall not project more than 7" into the required width. Second floor residential corridor width adjacent to door x7 is assumed required 36" per 1018.2 (2). Actual corridor minimum width is 3'-5" leading to fire escape. Door x7 does not encroach more than the required  $\frac{1}{2}$  of the 38" path.
- 1006.1 Illumination conformance by others.
- 1007.1 Per exception 1 accessible means of egress are not required in alterations to existing buildings.
- 1008.1.1 Size of doors: Doors x1, x5, 103 and x7 all offer a minim clear width of 32".
- 1008.1.2 Doors serving an occupancy of 49 persons or less are **not** required to swing in the direction of egress travel.
- 1008.1.10 The renovated work area has a potential occupant load = 49 persons > 50 persons, therefore egress doors are **not** required to offer panic hardware.
- 1009.1 Note: The existing communicating stair between the first and second floors is not a means of egress component. The existing basement stair B will remain – refer to 705.2 above. Existing residential stair C offers 4'-9" clear width.  $57"/.3$  per person = 190 person capacity. It would appear that the combined converged load of the residential and second floor restaurant use would be less than 190 persons.
- 1011.1 Exit signs conformance by others.
- 1014.2.1 Per exception and past accepted means of egress: *"The means of egress from a smaller tenant space shall not be prohibited from passing through a larger adjoining tenant space where such rooms or spaces of the smaller tenant occupy less than 10 percent of the area of the larger tenant space through which they pass; are the same or of similar occupancy group; a discernible path of egress travel to an exit is provided; and the means of egress into the adjoining space is not subject to locking from the egress side."* The second floor restaurant tenant appears to be well less than 10% of the residential second floor tenant floor area;



the B or A use is of a very small number and does not appear to be a distinctly more hazardous use; the corridor and exit signs and lighting offer a discernible path to the first floor exit door by way of the existing internal residential stair; the egress door x7 is equipped with panic hardware.

- 1014.3 Common path of travel is not applicable due to the tenant space offering only a single means of egress.
- 1015.1 Per Table 1015.1 the basement S-storage space has less than 29 occupants and qualifies for having only one exit. The first and second floor have a combined occupant load of less than 49 occupants and also qualify for having only one exit.
- 1016.1 Travel distance: Per Table 1016.1 for S-1 use, sprinklered = 250' maximum > 74'+/- provided (from room 001 to door x5 exit). For B use on first floor: 300' maximum > 56' provided (from room 102 to door x1 exit). For B use on second floor: 300' maximum > 62' from Dining to exit door x13 and 71' from Storage to exit door x13, OK.
- 1018.1 Per Table 1018.1 for A/B/S use with sprinkler: corridor rating required = 0 hour.
- 1018.2 The occupancy load is less than 50, therefore a 36" corridor is the minimum required.
- 1018.4 Dead end maximum allowed = 50' for B use, actual provided = 18'-6 in Ex. Corridor 206', OK.
- 1018.5.1 Return air is ducted.
- 1021.1 Per Table 1021.3:  
  
Basement S use = 29 occupants max. and 100' max. travel distance. Provided = less than 29 occupants and travel distance = 74', OK for story with one exit.  
  
First Floor B use = 49 occupants max. and 100' max. travel (due to sprinklers). Provided = less than 49 occupants and travel distance = 56', OK for story with one exit.  
  
Second floor S use = 29 occupants max. and 75' max. travel distance. Provided = less than 29 occupants and travel distance = 71', OK for story with one exit.  
  
Second Floor B use = 29 occupants max. and 75' max. travel. Provided = less than 49 occupants and travel distance = 62', OK for story with one exit.

Note: Doors x7 and x6 are rated for 1 ½ hours. Exiting through door x7 and to the street via Ex. Stair C to door x14 appears to be a more direct route. The max. length of travel for the B use to door x14 = 91' and the S use to door x14 = 110'. Although over the 75' limit (but less than the 300' cited in 1016.1) it would appear that the existing party wall and the 1 ½ hour rated door x7 would offer the mitigating factor of a horizontal exit. **Building inspector review is requested on this item.**

1022.1/

703.2.1(5)

IEBC

Existing stair A is not a required means of egress and shall remain non-enclosed.

1027.6

The exits offered via doors x1, x5 & x13 and x14 all lead to a public way.

### **IEBC – 2009 cont.**

705.3.1.1

Per item 1 max. travel distance for B & S uses is 75'. Refer to IBC-2009: 1021.1 review which allows 100' on first floor for B/S use.

705.3.1.2.1

Fire Escape: *As noted by the Authorities having Jurisdiction: Any continued use of the existing fire escape D will require a structural review.*

705.4.2.1

The work area is less than 50% of the first floor level. As such no remedial work on door swings throughout the floor (outside of the work area) is required.

705.4.3

Door closing: In the work area all corridor doors are in non-rated construction and are not required to have closers. All doors within rated construction shall have closers.

705.4.3.1

The work area is less than 50% of the first and second building floor area. As such no remedial work on door closing throughout the facility (outside of the work area) is required.

705.4.4

The B use does not require panic hardware.

705.5/

705.5.3

As cited in 704.1.1 above the corridors may be non-rated. Note: However, new door 103 shall be rated.

705.5.3.1

The work area is less than 50% of the *building* floor areas. As such no remedial work is required throughout the facility (outside the work area) regarding corridor windows, grills, sashes and other openings on the floor may remain as is.

- 705.5.4 The work area is less than 50% of the *building* floor areas. As such no remedial work is required (outside of the work area) as described in 705.5.1 through 705.5.3.
- 705.6 Dead ends per exception (3): 70' max. provided = 18'-6", OK.
- 705.7 Means of egress lighting within the work area shall meet the requirements.
- 705.7.1 Artificial lighting within the work area shall meet the requirements.
- 705.7.2 The work area is less than 50% of the building floor areas. As such no remedial work is required throughout the facility (outside the work area) regarding means of egress lighting.
- 705.8 Exit signs within the work area shall meet the requirements.
- 705.8.2 The work area is less than 50% of the building floor areas. As such no remedial work is required throughout the facility (outside the work area) regarding supplemental exit signs.
- 705.9 Interior corridor hand rails exist and shall remain.
- 706.1 Refer to plans.
- 707 Not applicable
- 708 By others.
- 709 Not applicable
- 710.0 By others.
- 711.1 The altered elements within the work area are limited to patching.

**Chapter 8: Alterations – Level 3**

Not applicable

**Chapter 9: Change of Occupancy**

Not applicable.

**Chapter 10: Additions**

Not applicable.

**Chapter 11: Historic Buildings**

Not applicable.

**Chapter 12: Relocated or Moved Buildings**

Not applicable.

**Other:**

Note: Per IBC-2009: Table 508.4: No rated separation is required between B and S-1 uses.

**End of IEBC Review**

Review of NFPA 101 and NFPA 1 pending.

Very truly yours,

Jordan O'Connor, AIA

*Attachment: 15 Exchange Street Code Plans, d: 6-5-13  
copy: file*