G2 | Code Analysis/ General Notes/ Scope of Work

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 08/04/15

APPLICABLE BUILDING CODES (COMMERCIAL)

Locality: Portland, Maine
Cumberland County

Maine Uniform Building and Energy Code (MUBEC) and state amendments based on:
Building - 2009 International Building Code (excluding Chapters 11, 28-30)
Energy- 2009 International Energy Conservation Code
Life Safety - NFPA 101 (2009 Edition)
Fire - NFPA 1
Property Maintenance - NFPA 1
Electrical - NFPA 1
Plumbing - Maine State Plumbing Code

Zoning - Zoning Ordinance of Portland, ME
Zone: B3
Proposed Change of Use to Mixed Use, Including Residential is Allowed

Historic Preservation - Project is within the Congress Street Historic District
(Scope of Exterior Work requires Historic Preservation Program Internal review. Planning Board review is not required)

BUILDING CODE ANALYSIS (IBC - 2009, NFPA 101 - 2009)

SEE EXTENDED CODE ANALYSIS BY FIRE PRO ON SHEET G3.
Proposed Scope of Work:
Basement: Storage and Spa facilities (Accessory to Retail on 1st Floor)
1st Floor: Existing Tenant to remain
2nd Floor: Existing Tenant to remain
3rd Floor: Existing Tenant to remain
4th Floor: New Residential (Residential Use, R-3), 1 unit on 2 Floors
5th Floor: New Residential (Residential Use, R-3), 1 unit on 2 Floors

Existing Construction Type: III-B (IBC), III-200 (NFPA)
Proposed Construction Type: III-B (IBC), III- 200 (NFPA) (No Change)
Stories : 5 + Basement
Existing Use: Primary: IBC/NFPA -Business: 5 Stories and Basement

Proposed Use: Primary: IBC/NFPA - Business: Stories 1-3 and Basement/ Residential R-3: 4th and 5th floors

Sprinkler:
Existing Building: Yes
Proposed Mixed Use: Yes

Mixed-Use: Yes
Required Separation: Yes, 1 hour minimum separation between
R-3 and Business between 3rd floor and 4th floor. See page 6 on sheet G3 for detail.

BUILDING AREA (approx)

Existing Basement Floor	= 2,681sf	(No Change)
Existing 1st Floor	= 2,681sf	(No Change)
Existing 2nd Floor	= 2,681sf	(No Change)
Existing 3rd Floor	= 2,681sf	(No Change)
Existing 4th Floor	= 2,681sf	(No Change)
Existing 5th Floor	= 1,487sf	(No Change)
Total Existing Building Area	= 4,168sf	
Total Proposed Area of Renovation	**= 14,892sf**	

FIRE RESISTANCE RATINGS (III-B/III-000 Construction)
Table 601, Table A.8.2.12:

Primary Structural Frame:	0 hr
Bearing Wall (Exterior):	2 hr
Bearing Wall (Interior):	0 hr
Non-Bearing Wall (Exterior):	0 hr
Non-Bearing Wall (Interior):	0 hr
Floor Construction:	0 hr
Roof Construction:	0 hr

Means of Ratings (Chapter 10, IBC)

Exit Enclosures:	1 hr (if connecting 4 stories or less)
Corridors:	0.5 hr (if serving more than 10 occupants, sprinklered, Table 1018.1)
Dwelling Unit Separation:	0.5hr (sprinklered, 709.3 exc. 2)

Dwelling Unit Minimum Sound Transmission Requirements (Section 1207)
Minimum STC Rating (Walls, Floors/Ceiling): 50 STC (45 STC if field tested)
Minimum IIC Rating (Walls, Floors/Ceiling): 50 IIC (45 IIC if field tested)

MINIMUM INSULATION VALUES (IECC 2009 table 402.1.1)
Existing Buildings where a change of use does not increase the heating and cooling demands from the previous use are exempt from meeting IECC requirements.
Climate zone: 6A-Moist (IECC 301.1)
Windows / doors: U-value 0.35
Ceilings: R-49
Walls (wood framed): R-20 (total) or R13 + R5
Walls (CMU): R-5 (ext), R-10 (int)

ACCESSIBILITY ANALYSIS (IBC - 2009, MAINE HUMAN RIGHTS ACT, ANSI 117.1 - 2009, FEDERAL FAIR HOUSING ACT)

Fully Accessible Building:	The fourth and fifth floors are being combined to provide one new residential unit, which is being added as a change of use. A single family residence is not required to meet accessibility requirements.
Elevators:	Existing elevator will continue to service all 5 floors.
Dwelling Units:	The fourth and fifth floors are being combined to provide one new residential unit, which is being added as a change of use.

LIFE SAFETY SIGNAGE
TBD AT A LATER DATE

- Exit Sign — NEW OR EXISTING — DIRECTION
- Emergency Lighting — NEW OR EXISTING
- Fire Extinguisher — NEW OR EXISTING
- Fire Strobe Audible/Visual Device — NEW OR EXISTING
- Fire Pull Station — NEW OR EXISTING
- Smoke Detection — NEW OR EXISTING
- Heat Detector — NEW OR EXISTING
- Mini-Sounder — NEW OR EXISTING
- Elevator Recall — NEW OR EXISTING

OCCUPANCY
Per most restrictive per 2009-IBC Table 1004.1.1 or 2009 NFPA Table 7.3.1.2

Business Areas	= 100sf gross/person
Residential Areas	= 200sf gross/person

See Notes on Plan

ESTIMATED OCCUPANCY BY FLOOR:

Basement (Business)	= N/A
1st Floor (Business)	= N/A
2nd Floor (Business)	= N/A
3rd Floor (Business)	= N/A
4th Floor (Residential)	= 13
5th Floor (Residential)	= 7
Proposed Total Building Occupancy	**= 20**

EGRESS ANALYSIS FOR BUILDING IMPROVEMENTS
Per most restrictive per 2009-IBC or 2009 NFPA Table A.7.6

Stories = 4th and 5th only
Number of Exits Required = 1[1]

Exit Access Travel Distance (1016, Table A.7.6)
Allowed Max = 250'-0" (sprinkled, per IBC 1016)

Dead End Limit (1018.4, Table A.7.6)
Allowed Max = 50'-0 (sprinkled, per NFPA Table A.7.6)

Separation Distance where Required (1015.2, 7.5.1.3.2)
Allowed = No less than 1/3" overall diagonal of space (Sprinklered)

[1] Per IBC Table 1021.1 only one exit is required within and from an individual dwelling unit with a maximum occupant load of 20 where the dwelling unit is equipped with an automatic sprinkler system. All 4th Floor bedrooms are provided with a second emergency rescue and escape opening in accordance with Section 1029 per note "c" of Table 1021.2. Additionally, section 1021.2 states that only one exit shall be required from a Group R-3 occupancy.

4th Flr-Proposed
0 4 8 12

EXISTING AND NEW FIRE ALARM SYSTEM COMPONENTS:
EXISTING FIRE ALARM SYSTEM SHALL BE INSPECTED FOR COMPLIANCE FOR A CHANGE OF USE FROM BUSINESS TO A MIXED-USE OCCUPANCY. ALL NON-CONFORMING OR MISSING NOTIFICATIONS & COMPONENTS SHALL BE REPLACED OR ADDED TO BRING BUILDING INTO COMPLIANCE TO MEET NFPA 72. THE ALARM SYSTEM PLANS SHALL BE PROVIDED UNDER A SEPARATE COVER. TYP. FOR THE 4TH AND 5TH FLOORS.

5th Flr-Proposed
0 4 8 12

Roof Deck-Proposed
0 4 8 12

OUTLINE SPECS: 44 OAK STREET, PORTLAND, MAINE

0. Project Description:
Forty-Four Oak Street is a 5 story building in the Congress Street Historic District and is currently used for business on all five levels. The Owner is changing the use to a Residential Condominium on the Fourth and Fifth floors. Interior Work includes minimal non-structural demolition, the fit-out of the Fourth floor for the main part of the residence w/ living, dining, kitchen, baths, bedrooms and the fit-out of the Fifth floor w/ a Bathroom and new interior wall finishes at the perimeter. Exterior Work includes the replacement of both the fourth and fifth floor roofs, including temporary relocation and reinstallation of the roof top mechanical units on the fourth floor roof, which supply heat to all floor levels. The fifth floor exterior siding and windows will be removed and replaced.

1. General Notes:
All dimensions to face of rough stud unless otherwise noted.
Dimension s should not be scaled from drawings. Consult architect if clarification is needed.
All dimensions to be confirmed by contractor in field. Report any significant discrepancies to architect for clarification before proceeding with work.

2. Site work:
Contractor shall be responsible for coordination of all material unloading with the City of Portland as required.

3. Concrete:
Not Used

4. Masonry
Repoint existing brick chimney on southeast corner of fourth floor. Height approximately 8'-0"+/- v.i.f.

5. Metals
See Thermal and Moisture Protection for roof fascia system.

6. Wood and plastics
All framing lumber shall be kiln dried, eastern spruce #2 or better unless otherwise specified.
Pressure treated lumber to be used for all wood in direct contact with concrete.
All pressure treated lumber shall be .40 #/cu.ft. Retention unless otherwise specified..
All flush framed horizontal members shall be attached with joist hangers sized for the loads imposed.
Confirm any unknown load requirements with architect.
Nailing shall be in accordance with recommended nailing schedule of manual for house framing and other recommendations of NFPA. A copy of this schedule is available from the architect.
Exterior fifth floor wall finish: as specified on drawings.
Interior Wood trim Package: Match Existing Window Opening Trim.

7. Thermal and moisture protection
As Specified on drawings and as follows.
All new windows shall be Loewen aluminum clad Awning and fixed units w/ low-e argon filled 1" insulated glass. Provide an 8" wide underlayment of bituthene (ice and water shield) at perimeter of each window. Turn underlayment onto window frame and lap to shed water from head to sill. Provide sill pans and counter flashing at sill/wall/roof connection.
Roof System: Provide and install a Carlisle fully adhered EDPM roof system w/ all required and necessary accessories for a complete watertight system, including all design enhancements as required to achieve a 30 year total system warranty covering both labor and all materials with no dollar limit. Peak wind gusts of 100 mph are based on ASCE 705 for Portland Maine. Roofing contractor shall be responsible for calculating and verifying peak wind gusts for this application, which is for a roof height of 60'-0" above grade plus/minus verify in field.
Flexible roof Flashing as recommended by roof manufacturer as per project and site conditions.
Metal perimeter fascia system at roofs: 16 gauge continuous galv. cleat w/ .050" thick anodized aluminum fascia w/ drip edge. Fascia Finish-Kynar 500- Dark Bronze @ fourth floor roof edges and gray to match wall panels as closely as possible on fifth floor roof edges.
All joints in vapor barriers and air infiltration barriers shall be taped with mfr. Recommended tape.
All gaps around framed openings in walls, floors and roofs shall be filled with polyurethane foam

8. Doors and windows
Windows and doors as called out on drawings and as follows.
All wood jambs shall be solid and not finger jointed.
Contractor must confirm door and window sizes for accuracy before ordering. If necessary, consult with architect. Architect will accept no responsibility unless order is confirmed by architect.

9. Finishes
As Specified on drawings.
GWB as specified on drawings. Provide tear-away strips adjacent to all exposed wood timbers or steel members typical at beams, columns, joists, rafters, etc. Provide heat-formed tear-away strips at all adjacent complex geometric components.

10. Specialties
Fireplace in living area with vertical dbl. wall flue. Extend up through fourth floor roof. Provide Flush hearth stone and proper clearances to adjacent finishes.

11. Kitchen Equipment

Supplied by owner or as specified on drawings.

15. Plumbing
Comply with current State of Maine plumbing codes. Inform architect of any conflicts between the drawings and plumbing codes.
Plumber shall be alert to any situation that may lead to winter freeze up and take measures to prevent them.
Problems foreseen by plumber shall be discussed with architect and recommend changes.
Plumbing drawings as required beyond what is shown on the architectural plans shall be provided at time of plumbing permit application.
Plumber shall not cut joists and rafters which will impair their structural capacity. if cuts are necessary, plumber shall consult with contractor.
Obtain manufacturer's Recommendations for drilling and cutting manufactured structural products.

15a. Heating
Design-Build for a 5-zone heating system. Zones are as follows: Living spaces (one per floor), Master Suite, Master Bath and Guest Bedroom. Provide layout of system and specifications for equipment to be used.

16. Electrical
Comply with national electric code currently in force. All convenience outlets in kitchen, baths, utility rooms, basement, and exterior shall be on ground fault circuit interrupters. Confirm color of switches, receptacles and cover plates with architect before ordering. Electrical plan with lighting, outlets and switching shall be provided as required at time of electrical permit application.

LICENSED ARCHITECT
CALEB N. JOHNSON
NO. 2919
STATE OF MAINE

PERMIT SET
5/28/15

CALEB JOHNSON ARCHITECTS + B
265 MAIN STREET, SUITE 201 BIDDEFO
T: 207.283.8777 F: 207.283.8778

PROJECT STATUS: Schematic design
STUDIO MANAGER:
PROJECT ARCHITECT:

SUBMISSIONS:

CONSULTANTS:
SURVEY - LOVER VILLAGE SURVEY CO. 207.947.3545
STRUCTURE - -

DRAFTSPERSON: DGB
DATE OF ISSUE: 7/28/15
PROJECT STATUS: Schematic design

44 Oak Street
Michael Keon
44 Oak Street Portland ME 04101

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