

7 November 2013

Planning Staff
City of Portland, Maine

RE: Building Code Summary – 118 Congress Street

Applicable Codes: MUBEC (Maine Uniform Building and Energy Code)
International Building Code, 2009 (IBC)
International Energy Conservation Code, 2009 (IECC)
NFPA 101 Life Safety (to be separately reviewed by Fire Protection Engineer)

Summary: 118 Congress is a new construction mixed-use project of three (3) stories of condominiums (12 total units) above ground floor retail and parking space. The first floor enclosed parking area will be non-combustible construction, which allows for the IBC exception 509.4 which counts only number of stories above the parking level.

Building Footprint:	9,122 sq.ft.
Building Height:	50'-0"
Total Building Area:	
First Floor –	
Parking (S-2):	6,545 sq.ft.
Mercantile:	2,577 sq.ft.
Second Floor –	9,003 sq.ft.
Third Floor –	9,003 sq.ft.
Fourth Floor –	<u>9,003 sq.ft.</u>
Total:	36,131 sq.ft.

Structure is equipped throughout with an approved automatic sprinkler system in accordance with Chapter 9 of the IBC (901.6.1 NFPA 13).

International Building Code, 2009 (preliminary review of major chapters):

Chapter 3 – Occupancy Classification
 Section 310.1 R-2 – Residential Apartment
 Section 309.1 M – Mercantile (Retail)
 Section 311.3 S-2 – Low Hazard Storage (Parking)

Chapter 5 – General Building Heights and Areas

Table 503 –

R-2	Allowable Area 22,890 sq.ft. for Type 5B with increases for sprinkler (14,000) and frontage (1890) Footprint Area 9,122 sq.ft. Allowable Height 3 stories (above parking level – See 509.4)
S-2	Allowable Area 79,000 sq.ft. for Type 1B without increases Footprint Area 9,122 sq.ft. Allowable Height 1 Story (509.4 – Parking Beneath Group R)
M	Allowable Area 27,000 sq.ft. for Type 5B with increases for sprinkler (Tabular 9,000 + 18,000 I _s) Allowable Height 1 Story (Table 503 without increases)

Chapter 6 – Types of Construction

Table 601 – Type 5B (Residential and Mercantile)

Primary Structural Frame – 0 Hours
Bearing Walls, Exterior – 0 Hours
Bearing Walls, Interior – 0 Hours
Non-bearing Walls and Partitions – 0 Hours
Floor Construction – 0 Hours
Roof Construction – 0 Hours

Table 601 – Type 1B (S-2 Parking Garage)

Primary Structural Frame – 2 Hours
Bearing Walls, Exterior – 2 Hours
Bearing Walls, Interior – 2 Hours
Non-bearing Walls and Partitions – 0 Hours
Floor Construction – 2 Hours
Roof Construction – 1 Hours

Chapter 7 – Fire and Smoke Features

Section 708.2	Shaft Enclosure where 4 stories – 2 Hours
Section 709.3	Corridor Fire Partitions (Non-Bearing) – 1/2 Hour
Section 709.3 ex.2	Dwelling Unit Separation – 1/2 Hour
Table 715.4	Corridor Doors – 0.33 Hours (20 Min.)

A R C H I T E C T Y P E

- Section 715.4.3.1 Corridor Doors to have Smoke Control
- Section 708.14.1 ex.4 Enclosed Elevator Lobbies not required where sprinkled

Chapter 9 – Fire Protection Systems

- Section 901.6.1 Supervised automatic sprinkler system
- Section 903.3.1.1 NFPA 13 sprinkler system
- Section 905.3.1 Class III Standpipe in stairwells
- Section 906.1.1 Portable Fire Extinguishers required
- Section 907.2.9.1 Manual Fire Alarm System not required where sprinkled
- Section 907.2.9.2 Single and Multi-station smoke alarms required
- Section 912.1 Fire Department Connection required

Chapter 10 – Means of Egress

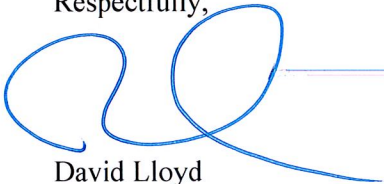
- Section 1007.2.1 Elevator Back-up Generator required
- Section 1022.1 Exit Enclosures 2 Hours where connecting 4 stories

Chapter 30 – Elevators and Conveying Systems

- Section 3006.4 Elevator Machine Room rated 2 Hours

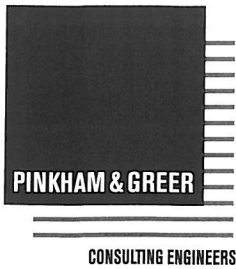
If you have any questions with regards to this letter, please contact our office. As indicated above, the review of the NFPA Codes is being provided by our Fire Protection Engineer. The code review contained herein is preliminary and deals with the major chapter headings and building elements, and does not constitute the complete analysis which will be provided at the time of the Building Permit application.

Respectfully,



David Lloyd
Maine Licensed Architect #936

End of Memo



118 on Munjoy Hill

Code Review

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Project Description: This building will have 12 residential units located on the top 3 floors of the building. The ground floor will be occupied by two commercial spaces of 1800 sq. ft, an 18 space parking garage, and associated service facilities. It is located at the corner of Congress Street and St. Lawrence Street. A garage door access comes from St. Lawrence Street and the retail and residential front doors are from Congress Street.

The building will be fully protected with an automatic sprinkler system. A sprinkler room will be assessable off St. Lawrence Street. The building is assessable from both Congress Street and St. Lawrence Street via a ladder truck. The project meets the NFPA Chapter 1 requirements.

- The front door is less than 50' from an access road.
- The access around the building is less than 450'.
- The closest fire hydrant is less than 100' from the building, located on St. Lawrence Street.
- The hydrant located on St. Lawrence Street has a blue bonnet, indicating flow in excess of 1,500 GPM. It is highly likely that adequate water will be available for the sprinkler system. The final design of the system will include review of existing test data or a new flow test will be completed.

Based on these review standards, this project will meet the City requirements for fire protection. Final testing of the hydrant's capacity would need to be confirmed.