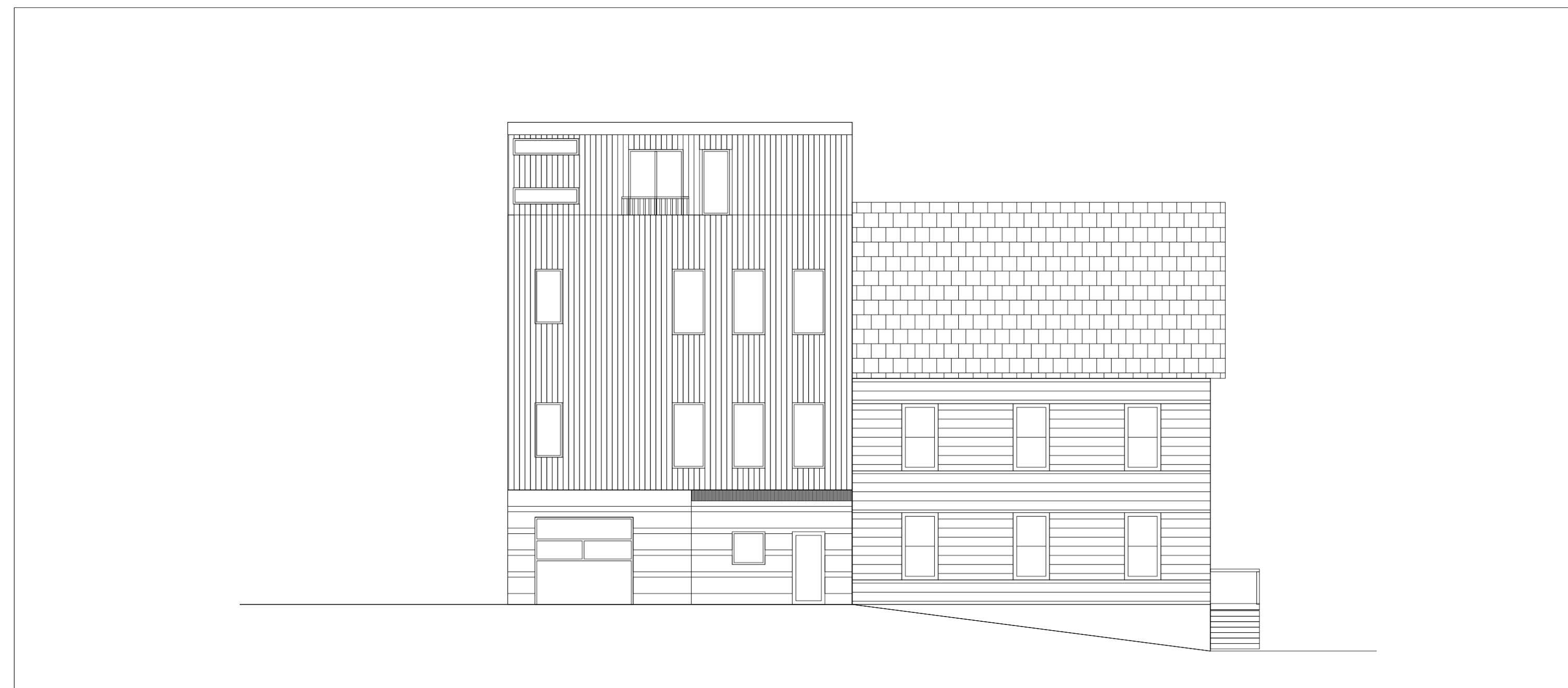


# 49 Hancock Street Building Addition

## Portland, Maine

IBC Relevant Codes	Reference	Discussion or Finding
Use Group R-2, Residential Occupancy	310	
Use Group U, Utility, (garage)	406.1.1	Private Garage less than 1000 sf
Separation of Garage from residential occupancy	406.1.4	proposed 1 hour wall and ceiling assembly exceeds requirements
garage floor sloped	406.2.6	
Separation Walls	420.2	1 hour fire partitions required, no reduction for NFPA 13R sprinkler
Horizontal Separation	420.3	1 hour fire partitions required, no reduction for NFPA 13R sprinkler
Construction Type: VB	Table 601	Primary structural frame 0 Bearing walls 0 Exterior 0 Interior 0 Non Bearing Exterior per Table 602 Floor construction and secondary members 0 Roof construction and secondary members 0
Building Height and Area limitations	Table 503	Type VB= 2 stories, 40' and 7000 sf. Floor area provided is less than allowable
Building Height increase for sprinkler = 1 story and 20'	504.2	Height limit = 3 stories, 60'
Mezzanine provided for unit at 3rd floor	505	see 3rd floor plan for mezzanine area and openness calculation
Exterior Walls	Table 602	South wall: 1 hour rated
Openings in Exterior Wall for Sprinkled Building	Table 705.8	25% max openings with fire separation distance of 5' to less than 10' 45% max openings with fire separation distance of 10' to less than 15' See Sheets A2.1, A2.2, and A2.3 for calculations
Parapet not required	705.11	Exception 5.1 Fire retardant roof sheathing used 4' in from exterior wall
Fire Barriers	707	Stair enclosure, elevator enclosure Continuous wall assembly for height of shaft
Shaft Enclosure	708	Stairs and Elevator: 1 hour rated shaft required
Shaft Enclosure Openings	708.7	Provide self or automatic closing doors
Shaft Enclosure at the top of the shaft	708.12	Stair shaft enclosure separated from stair to mezzanine by 1 hour rated construction
Fire Partitions	709	Walls separating existing structure from building addition
Horizontal Assemblies	712.3	One hour separation between floors, no exception for NFPA 13R sprinkler
Support of Horizontal Assemblies	712.4 except 2	Supporting structure in VB construction not required to be rated
Firestopping of Penetrations	713	Contractor shall firestop all penetrations as required by IBC section 713
Fire Door Protection	Table 715.4	Shaft Enclosure, exit passageway: 1 hour Corridor Walls at 2nd floor
Sprinkler System Required	903.2.8 903.2.10	Sprinkler required in all R occupancies Sprinkler required at enclosed garage is located below other groups Sprinkler design/build by licensed sprinkler contractor by separate permit
NFPA 13R system shall be provided	9.3.3.1.2	Group R Occupancy, 4 stories or less
Standpipe not required	905.3.1	3 story building with 3rd floor less than 30' above lowest level of fire department access
Fire Extinguishers Required	906.1	1 per floor in accordance with NFPA 10
Manual Fire Alarm System not required	907.2.9.1	building is 3 stories
Smoke Alarms Provided	907.2.11	Smoke alarms shall be photoelectric and installed per City of Portland Requirements
Occupant Load (occupied space = existing building)	Table 1004.1.1	1st floor: 1155sf = 6 occupants 2nd floor: 1155sf = 6 occupants 3rd floor: 1155sf = 6 occupants
Means of Egress Illumination	1006.3	Emergency power for illumination not required where 1 exit only required
Stairway Width	1009.1	3-0 minimum required 3-6 provided
Single means of egress permitted	1015.1.1 except.	Maximum occupant load per dwelling unit of 20 with sprinkler
Exit Access Travel Distance	Table 1016.1	250' allowed 49' maximum provided
Corridor Rating	Table 1018.1	Rating at corridor required by other sections: 420.2 and 420.3
Dead Ends in Corridors	1018.4	
Single Exit Permitted	1021.1 except. 4 Table 1021.2	Maximum occupant load per dwelling unit of 20 with sprinkler 2nd floor maximum travel distance to exit: 50' allowed 49' provided 3rd floor maximum travel distance to exit: 50' allowed 50' provided
Single Exit Permitted	1021 IBC 2012 Table 1021.2(a)	Travel distance increased to 125', provided building is sprinklered and egress windows are provided in accordance with section 1029
Exterior Wall of exit Stair Rated	1022.6	exit enclosure wall on west elevation to be 2 hour rated
Exit Passageway at 1st Lobby	1023.3	1 hour rated fire barriers and horizontal assemblies required
2nd emergency escape and rescue openings required in sleeping rooms by IBC	table 1021.2 footnote c	egress windows required by Laws of the Fire Service, State of Maine for single exit building. Floor plans at all stories show egress windows at bedrooms
Sound Transmission	1207.2 1207.3	minimum STC 50 at walls and floor/ceilings separating dwelling units Minimum IIC 50 at floor/ceilings separating dwelling units
Interior Dwelling Unit Space Dimensions	1208.2	7-0 minimum ceiling height at bathrooms, storage rooms



Minimum Insulation Required (per IECC Table 402.1.1) Climate Zone 6	
Windows and doors U Factor	0.35
Ceiling/roof	R-30
Wood framed wall	R-13 Cavity, R-5 continuous
Floor	R-30
Slab	R-10 48" deep

NOTE: provide spray foam insulation to seal all rim locations.  
Spray foam at rims shall be as follows:

- Maximum 3/4" thick
- Density of foam shall be between 1.5 and 2.0 pcf
- The foam plastic shall have a flame spread index of 25 or less and an accompanying smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723

NFPA 101 Relevant Codes	Reference	Discussion or Finding
Existing Apartment Building/ New Addition		
Dwelling units permitted above non-residential occupancy (parking garage) when non-residential use has sprinkler system	30.1.2.3	The garage shall be sprinklered in accordance with NFPA 13. The apartment building shall be sprinklered in accordance with NFPA 13R Sprinkler system shall be supervised
Occupant Load: 1 per 200 sf gross	Table 7.3.1.2	1st floor: 1155sf = 6 occupants 2nd floor: 1155sf = 6 occupants 3rd floor: 1155sf = 6 occupants
2 Means of Escape from bedrooms and living rooms within dwelling units, provided by egress windows	30.2.1.2	NFPA13R Sprinkler eliminates requirement for egress window under 24.2.2.3 note: egress windows required by Laws of the Fire Service, State of Maine for single exit building
Exit Enclosure shall be 1 hour rated with 1 hour rated doors	30.2.2.1.2	Assumes sprinklered building
Single (stair enclosure) exit permitted	30.2.4.4	
Common path of travel: Unit door to stair enclosure	30.2.5.3.2	50' allowed
Dead end Corridor	30.2.5.4.2	35' allowed
Travel Distance to corridor door: within dwelling unit	30.2.6.2	125' allowed
Travel Distance to Exits: Unit door to stair enclosure	30.2.6.3.1	200' allowed
Illumination of Means of Egress	30.2.8	Lighting provided at corridors, exit enclosure, exit passageway, and exit discharge
Emergency Lighting, per requirements of 7.9	30.2.9	not required in building 3 stories or less
Vertical Openings 1 hour rated with 1 hour doors	30.3.1.1.4	
Protections from Hazards	Table 30.3.2.1.1	
Fire Alarm System.	30.3.4.1.2	Not required for apartment buildings less than 4 stories
Smoke Alarms	30.3.4.5	provided at all sleeping rooms and outside each sleeping room. Type and location of units shall be per requirements of the City of Portland

#### LAWS FOR THE FIRE SERVICE, STATE OF MAINE

any apartment building of 3 stories or less is permitted to have a single exit under the condition that the building is protected throughout by an approved automatic sprinkler system, meets the requirements of the applicable chapter of NFPA 101 and every sleeping room has a 2nd means of escape.

#### ACCESSIBILITY

This project has been design to comply with the requirements of the Maine Human Rights Act and applicable sections of ANSI ICC A117.1

#### Interior Finishes: (NFPA)

##### Interior Wall and Ceiling Finish:

Interior wall and ceiling finish materials complying with shall be permitted as follows:

- Exit Class A
- Exit Access Corridors Class A or B
- Other spaces Class A, B, or C

##### Interior floor finish:

Interior floor finish in exit enclosures and exit access corridors shall be not less than Class II.

#### List of Drawings

##### Introduction

- COV1 Coversheet, code reviews
- COV2 Coversheet, summary

##### Architectural

- A1.1 First Floor Plan
- A1.2 Second Floor Plan
- A1.3 Third Floor Plan
- A1.4 Mezzanine and Roof Plan
- A2.1 West Elevation
- A2.2 East Elevation
- A2.3 South and North Elevations
- A3.1 Section A
- A3.2 Section B
- A4.1 Details- Wall and Floor Types
- A4.2 Details- Stairs and Rails

##### Site

- X-1 - Existing Conditions Plan & Survey
- C-1 Site Plan
- C-2 Street Parking Diagram

##### C-3 Demolition Plan

##### Structural

- S0.0 Structural Notes
- S1.1 Framing Plans
- S2.1 Structural Details

##### Life Safety

- LS1.1 Life Safety Plan and Travel Distances

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PROJECT NO.  
**2016**  
PROJECT NAME  
**49 HANCOCK STREET  
PORTLAND, MAINE**

REVISIONS  
1 - 3/29/16  
2 -  
3 -  
4 -  
5 -

PERMITTING  
DOCUMENTS

DRAWN BY  
**LRC**  
SHEET TITLE  
**COVER**

ISSUE DATE  
**1/9/15**  
SHEET SCALE

**COV**

**1.0**