

Existing Residential Apartments

Option 4 - Buildings provided with an approved, supervised automatic sprinkler system

Entire Building shall be equipped with Approved Supervised Automatic Sprinkler System in accordance with NFPA 13
Contractor shall submit full sprinkler plans to State Fire Marshal's Office and City of Portland Fire Department for Approvals and Permitting

1. **Occupancy Classification** - Residential Group R-2 (Existing Apartments)

Occupant Load - Apartments

Approximate apartment floor areas:

Sixth floor:	7 apartments (748 sf each)	28 occupants
Fifth floor:	7 apartments (748 sf each)	28 occupants
Fourth floor:	7 apartments (748 sf each)	28 occupants
Third floor:	7 apartments (748 sf each)	28 occupants
Second floor:	7 apartments (748 sf each)	28 occupants
First floor:	6 apartments (748 sf each)	24 occupants
Basement:	1 apartment (972 sf)	5 occupants

42 apartments (31,640 SF) 169 occupants

2. **Egress capacity** -

Level and Ramps
0.2 inches width per person
Stairways 0.3 inches width per person

3. **Construction Type III B** - Exterior Brick Walls (2Hr), Wood Roof, Interior wood walls & columns

4. **Separation of Occupancy** Table 6.1.14.4.1 (1 Hour if more than 10% basement floor area used for storage)
Apartment Building / Incidental Storage (Ordinary Hazard) - no rating required*
Maximum 10% of floor area in Basements shall be used for Storage (*AHJ-City Fire Dept. shall Approve)

5. **Number of Means of Egress**

Two Exits Required (Existing - Three exit Stairs)

- **Common Path of Travel:** - Shall not exceed 50 feet with sprinkler system (Section 31.2.5.3.2)

Dead End Corridors shall not exceed 50 feet

Travel Distance -
Travel Distance from Dwelling Unit Apartment Door to nearest exit shall not exceed 200 feet with sprinkler system.
Travel Distance within Dwelling Unit to a corridor door shall not exceed 125 feet with sprinkler system.

7. **Hazardous Area Protection:**

- a) Boiler & fuel-fired heater rooms serving more than one unit - 1 Hour Separation or Sprinklers
- b) Laundries larger than 100 SF outside of dwelling units - 1 Hour Separation or Sprinklers
- c) Trash Collection Rooms - 1 Hour Separation or Sprinklers

8. **Stairs:**

Vertical Stair openings shall be enclosed with 2 hour fire resistance rated assemblies and 1 1/2 Hour fire rated Doors and Frames, self closing, smoke sealed, and positive latched.
Existing 2x4 wood walls with lath & plaster and existing wood frames in stairwells allowed to remain. (*AHJ-City Fire Dept. shall Approve)

9. **Emergency Lighting:**

- a) Emergency lighting shall be provided at all exits, aisles, corridors and passageways leading to an exit.
illumination shall be provided for a minimum of 1 1/2 hours. emergency illumination facilities shall be arranged to provide initial illumination that is not less than an average of 1 ft-candle (10.8 lux) and, at any point, not less than 0.1 ft-candle (1.1 lux) measured along the path of egress at floor level.
- b) Periodic emergency lighting testing shall be in accordance with NFPA 101 code and local authority having jurisdiction. Owner shall coordinate this requirement.
- c) Emergency generators shall be in accordance with NFPA 110
- d) Unit equipment, battery systems and emergency lighting inverters for emergency luminaires shall be listed to ANSI/UL 924 and shall be an uninterruptible power system.

10. **Marking of Means of Egress: (31.2.10)**

Marking of Means of Egress shall have signs in buildings requiring more than one exit.

11. **Interior Finishes:**

Interior wall and ceiling finishes shall be classified in accordance with ASTM E 84 or UL 723.

Interior wall and ceiling finishes shall be:
Exit Enclosures - Class A or Class B.

Lobbies and Corridors - Class A or Class B.
Other spaces - Class A, Class B or Class C.
Interior floor finishes in exit enclosures shall be not less than Class II.

Floor coverings, other than carpet shall have a minimum critical radiant flux of 0.1 w/cm².

Carpet and carpet like interior floor finishes shall comply with ASTM D 2859 *Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials*.

interior floor finish in exit access corridors shall be not less than Class II.

12. **Manual Fire Pull** Stations at all exits exists and are part of existing fire alarm system to remain.

13. **Fire Extinguishers:**

Portable fire extinguishers shall be provided for Class A fire hazards in accordance with NFPA 10. Ordinary hazard occupancy min. rated single extinguisher is 2-A. Maximum travel distance to extinguisher is 75 feet. Extinguisher weighing 40lbs or less shall be installed so that the tops are not more than 5 feet above the floor. (more than 40lbs shall be 3 1/2 feet above floor). See Drawing A3 for existing extinguishers to be relocated.

14. **Smoke Alarms** are required. - interconnected is optional. (Confrim with City Fire Department)

Smoke Detector Alarms shall be located:

- a) **Inside Dwelling Units:**
 - every sleeping area
 - outside of every sleeping areas in vicinity of bedrooms
 - on all levels of units
 - Heat Detectors shall be located within each room of the living unit (31.3.4.4.2)

b) **Outside of Living Units:**

- In all common areas and work spaces outside the living units such as exit stairs, corridors, storage rooms, equipment rooms and other tenantless spaces.

15. **Carbon Monoxide** detectors are required . interconnected is optional. (Confrim with City Fire Department)

Locations shall be:

- inside every apartment unit
- immediately outside of every sleeping area
- on all levels of units (including Basement)
- Basement Storage and Mechanical Areas where fossil fuels are used

16. **Occupant Notification** shall be provided automatically and shall have audio/visual signals and a positive alarm sequence in accordance with codes. An Annunciator Panel, whose location shall be approved by local jurisdiction, shall be connected with the required fire alarm system. Fire Dept notification shall be in accordance with Section 9.6.4 and coordinated with local Fire Department.

17. **Signage**

Floor numbering in stairs is required. See Drawing A3 for requirements.

18. **illumination of Means of Egress:**

- a) Shall be continuous during the time that the conditions of occupancy require the means of egress be available for use.
- b) The minimum illumination for floors and walking surfaces, other than new stairs, shall be to values of at least 1 ft-candle (10.8 lux) measured at the floor.
- c) During conditions of stair use, the the minimum illumination for new stairs shall be at least 10-ft-candle (108 lux) measured at the walking surface.
- d) Required illumination shall be arranged such that failure of any single lighting unit does not result in illumination level of less than 0.2 ft-candle (2.2 lux) in any designated area.
- e) Illumination Source shall be Building Electrical System unless approved by AHJ-City Fire Department.

18. All work shall be in accordance with IBC 2009 by ICC, 2009 NFPA 101 Life Safety Code, NFPA 1, NFPA 10, 2010 ADA Standards for Accessible Design, Maine Uniform Building Code, NFPA-70 National Electric Code, NFPA 54 National Fuel & Gas Code, NFPA 96, and any other NFPA codes applicable to Mechanical, Electrical or HVAC installation. Maine State Plumbing Code, ASHRAE, ASTM, UL (Underwriters Laboratories) and all local, State and Federal requirements.

19. All applicable Federal, State and Municipal regulations shall be followed, including the Federal Department of Labor Occupational Safety and Health Act (OSHA)

20. All required City and State permits must be obtained before any construction begins.

21. It is the contractor's sole responsibility to determine erection procedures and sequence to ensure the safety of the building and its components during erection. This includes the addition of necessary shoring, sheeting, temporary bracing, guys or tie-downs. Such material shall remain the property of the contractor after completion of the project.

22. All fire ratings indicated shall be continuous to underside of roof deck/floor as indicated. Seal all openings & mechanical penetrations with approved fire safing material and/or rated fire dampers as applicable.

23. All egress doors shall have positive self-closer and latch mechanisms. Door width in the required existing means of egress shall provide a clear width of 28 inches minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. (Refer to Life Safety Plans & Door Schedule)

24. Structural, Mechanical, Electrical, Plumbing, Heating, Ventilating and Air Conditioning Engineering Design by others. Coordination with Architectural plans by General Contractor. Obtain necessary Permits and Conform to applicable codes.

25. Dimensions shown are approximate and are measured to the face of existing plaster/gyp. bd. walls U.N.O. The prefix letter (E) represents "existing". Contractor shall verify actual field dimensions and locations of existing structural elements, masonry bearing walls, window, doors and stairs. Any discrepancies shall be brought to the attention of Architect/Engineer before proceeding with the affected part of the work.

26. **Doors:**

Doors from residential apartments that open onto exit access corridors shall have not less than 20 minute fire protection rating (Sprinklered Building) and be tested in accordance with NFPA 252 or UL 10C without the hose stream test, be self closing, smoke sealed and be equipped with positive latching mechanism. Existing Doors shall meet requirements or be replaced with choice of a 1 3/4" thick solid bonded wood core, a steel clad wood, or a metal door. Existing wood door frames may remain (subject to approval from AHJ-City Fire Dept).

- a) Doors that open from egress stairs shall be not less than 1 1/2 hour fire protection rating, labeled door & frame (*existing wood frames allowed to remain-AHJ-City Fire Dept. shall Approve*), smoke sealed, self closing and equipped with positive latching mechanism.

- b) Door width in the required existing means of egress shall provide a clear width of 28 inches minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees.

Vision lights, if provided, shall be limited in size to Mfgr's fire labeling authority.

All required fire resistant rated doors/frames shall be approved, U.L listed, and labeled including accompanying hardware.

27. **Stairs:**

Existing Egress Stairs (exterior & interior) shall be approved by AHJ-City Fire Dept.

IBC Section 1009 -
Minimum Tread width - 36 inches
Minimum 11" Tread Depth; Maximum 7" Riser Height
Minimum 80" Clear Headroom Height
Handrails both sides

- a) Exit Stairs shall be enclosed with 2 Hour fire resistance ratings.
- b) Stairways serving and contained within a single individual dwelling unit in Group R-2 are not required to be enclosed. [1022.1(3)]

28. **Guards:**

Existing non-conforming Egress Stair components indicated on floor plans (exterior & interior) shall be approved by AHJ-City Fire Dept.

Guard rails shall be minimum 42" high above walking surface (all open sides exceeding 30" above the floor require Guards)

Where the top of the guard also serves as the handrail on the open sides of the stair, the top of the guard shall not be less than 34 inches and not more than 38 inches measured vertically from a line connecting the leading edges of the treads.

Guards shall be 42 inches in height measured vertically above adjacent walking surfaces and shall not have openings which allow passage of a sphere 4 inches in diameter from the walking surface to the required guard height.

29. **Balusters**

Balusters, if selected, shall be arranged such that a 4"Ø sphere cannot pass thru any openings. Openings forming the triangular areas at the tread / risers shall not pass a 6"Ø sphere.

30. **Handrails:**

Handrails shall be not less than 34" nor more than 38" above the walking surface

Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Handrail shall extend at the required height to at least those points above the top and bottom risers. handrail ends shall be returned to wall, floor or terminate at newel posts. handrails with a circular cross section shall have an outside diameter of at least 1 1/4" and not greater than 2". if the handrail is not circular, it shall have a perimeter dimension of at least 4" and not greater than 6 1/4" with a minimum cross-section dimension of 2 1/4" provided that graspable edges are rounded so as to provide a radius of not less than 1/8". edges shall have a minimum radius of 0.01 inch. clearance space between the handrail and the wall or other surface shall be minimum of 2 1/4" and shall be free of any sharp or abrasive elements.

31. **Handrail & Guard rail Structural Strength:**

Handrails and guardrails shall be adequate in strength and attachments to resist a load of 50 pounds per lineal foot applied in any direction at the top and to transfer this load through the supports to the structure. they shall also be able to resist a single concentrated load of 200 pounds, applied in any direction at any point along the top, and to transfer this load through the supports to the structure. intermediate rails (all those except the handrail) balusters and panel fillers shall be designed to withstand a horizontal applied normal load of 50 pounds on an area equal to 1 square foot, including openings and space between rails.

32. **Attic Access** (Section 1209)

Any Attic Area having clear height of over 30" shall have an opening not less than 20" x 30" and clear headroom height of 30" above access area.

In buildings four stories or more above grade plane, one stairway shall extend to the roof surface. Buildings without an occupied roof , access is permitted by an *alternating tread device*.

33. **Energy Efficiency**

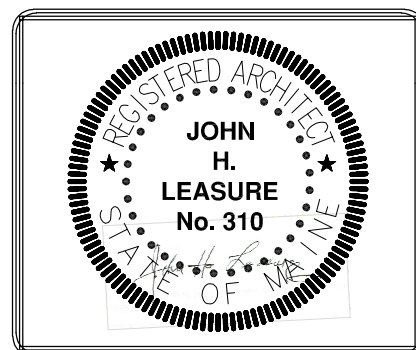
Compliance with the International Energy Conservation Code (IECC) for alterations shall be such that the existing building is no less conforming to the provisions of this code than the existing building was prior to the alterations. Any alterations to the existing building shall conform to the provisions of this Energy Code as they relate to new construction without requiring the unaltered portions to comply with this code.

Climate Zone 6

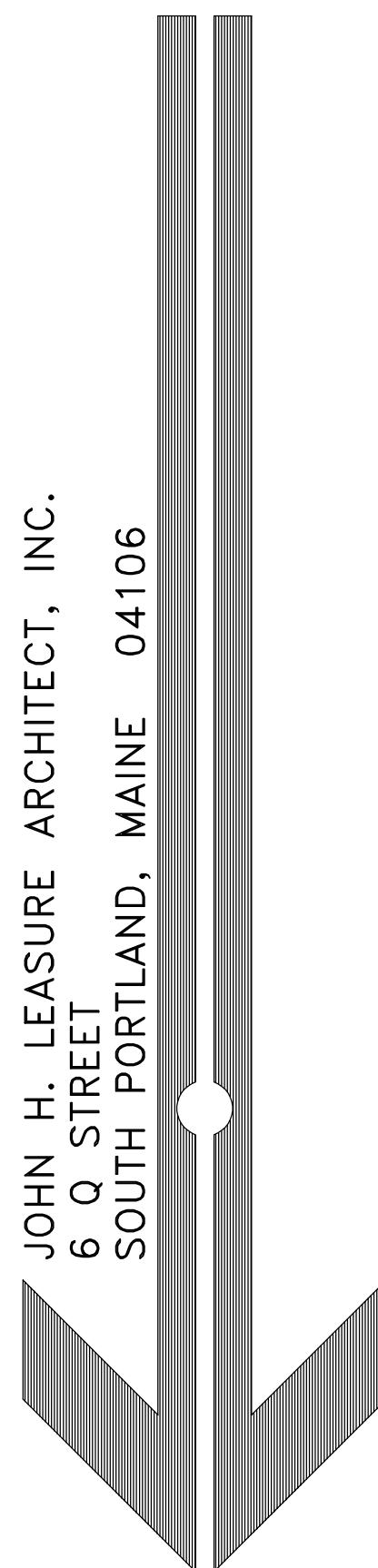
Residential:
Wood framed Walls - R21
Attic & other - R49
Floor Joist framing - R30 (Steel floor joists R38)
Opaque Doors - Swinging R2.7 (U-0.37)

Other:
Wood framed Walls - R21
Above Grade Mass Walls -R13.3ci (continuous insulation)
Attic & other - R49
Opaque Doors - Swinging R2.7 (U-0.37)

Vertical Fixed Fenestration - R2.7(U-0.36)
Operable Fenestration - R2.3(U-0.43)



REV.	DATE	REVISIONS	STATUS	
			1	3-08-18



Existing Apartment Building
59 STATE STREET
PORTLAND, MAINE
GENERAL NOTES

