Code Analysis - Health Resonates- Portland Maine

773 Congress Street, Portland Maine 04101

Health Resonates has purchased and will do minor renovations to existing Business space in a wood–framed building. Business space consists of 3 rooms on the First Floor. (680.74 Square feet) Building is not sprinklered. Building is in a Historical District.

Portland Ordinance

Zoning District	B2b – Community Business Zone
Front setback	Minimum – None
	Maximum – 10'
Side setback	None
Rear setback	10'
Minimum lot size	None
Maximum impervious lot coverage	90%
Minimum Street Frontage	20'
Maximum Height	50' if first floor is partially or wholly occupied by a commercial use.

IBC 2009 Code Review

Chapter 3 Use and Occupancy Classification

Section 304	Business Group B (Professional Services)

Chapter 5 General Building Heights and Areas

Construction Type	VB
Table 503 – Area limitations (B)	9,000 sf per floor
	Existing Conditions – OK
Height limitations	2 Stories
	Existing Conditions – OK
Maximum Height	40'
	Existing Conditions – OK
Section 506 – Area Modifications	N/A

Table 508 Required Separation of Occupancies

Between B and R	No change of existing occupencies–No Separation Required – OK

Chapter 6 Types of Construction

Table 601 Ratings of Structure Elements

Structural frame	0 Hour / Existing to remain, 0 hr – OK
Exterior bearing walls	0 Hour / Existing to remain, 0 hr – OK
Interior bearing walls	0 Hour / Existing to remain, 0 hr – OK
Nonbearing walls and partitions	0 Hour / Existing to remain, 0 hr – OK
Floor construction	0 Hour / Existing to remain, 0 hr – OK
Roof construction	0 Hour / Existing to remain, 0 hr – OK

Table 602 Fire Resistance Rating Requirements for Exterior Walls

Less than 10'	0 Hour
More than 10'	0 Hour

Chapter 7 Fire and Smoke Protection Features

Table 705.8 Max Area of Exterior Wall Openings Based on Fire Separation Dist.

0 to 3' (Unprotected, Sprinklered)	Not permitted
3' to 5'	15%
5' to 10'	25
10' to 15'	45%
15' to 20'	75%
More than 25'	No limit

Table 715.4 Fire Door and Fire Shutter Fire Protective Ratings

Fire walls, 2 hour	1 1/2 Hour rating
Shaft, 1 hour	1 Hour
Exit enclosures, 1 hour	1 Hour
Corridor walls, 1 hour	20 Minute

Chapter 8 Interior Finishes

Sec 803.1.1 ew Interior wall and ceiling finish material

Class A	Flame spread index 0–25; smoke–developed index 0–450
Class B	Flame spread index 26–75; smoke–developed index 0–450
Class C	Flame spread index 76–200; smoke–developed index 0–450

Sec 803.9 Interior Wall and Ceiling Finish Requirements by Occupancy (B), non sprinklered

Exit enclosures and passageways	Existing Conditions – OK
Corridors	Existing Conditions – OK
Rooms and enclosed spaces	Existing Conditions – OK

Sec 804.4 Interior floor finish requirements

Interior floor finish when not sprinklered	Existing Conditions – OK

Sec 806 Decorative Materials and Trim (B)

Fabric partitions suspended from the ceiling and not supported from floor	Shall meet flame propagation performance criteria of NFPA 701 and Sec 806.2

Chapter 9 Fire Protective Systems (Existing buildings)

Sec 907.22 Group B – Manual fire alarm system	Required if occupant load more than 500 persons or more than 100 persons above or below the lowest level of exit discharge. N/A

Chapter 10 Means of Egress

Section 1003.2 Ceiling height	Not less than 7'–6"
Section 1003.3.1 Headroom	Protruding objects permitted to 80" if not more than 50% of the ceiling area is reduced
Exception	Door closers and stops shall not reduce to less than 78"
When vertical clearance less than 80"	Provide a barrier with a leading edge located 27" max above the floor
Section 1003.3.3 Horizontal projections	
Horizontal projections	Shall not project more than 4" when located between 27" and 80" above the walking surface
Exceptions	Handrails allowed to project 4 1/2"
Table 1004.1.2 Occupant Load	
First Floor	6 Occupants (refer to drawings)
Table 1005 Egress Width	
Stairways	.30" per person
Doors, ramps, and corridors	.2" per person

Sec 1007.1 Accessible Means of Egress

Accessible spaces must be provided with an accessible means of egress. Exception, accessible means of egress not required in alterations to existing buildings where said alteration would be unreasonable.

Sec 1007.3 Stairways	
Minimum width between handrails	48" unless sprinklered, see Sec 1009.1
Sec 1009.1 Stairway width	
Minimum width	3'–8"
Exception serving less than 50	3'–0"
Min headroom	6'–8"
Sec 1009.4 Stair treads and risers	
Stair riser	Max 7"
Stair riser	Min 4"
Stair tread	Min 11"
Sec 1013.1 Guards	
When more than 30" above floor	Guards required
Height	3'–6"
Sec 1014.2 Egress through intervening spaces	Shall not pass through adjoining spaces, including kitchens and storage rooms
Sec 1014.3 Common path of egress travel	
Occupancy B	Not more than 75'
Table 1015.1 Spaces with 1 exit	
Occupancy B	Max occupant load = 49 – Proposed 6 OK Occupant load = 116, 2 exits required N/A
Table 1016.1 Travel Distance Limitations	
Occupancy B	200'
Table 1018.1 Corridor Fire–Resistance Rating	
Occupancy B, corridor serving Less than 30	0 Hour rated
Sec 1018.2 Corridor Width	
Req occupant capacity less than 50	3'–0"
Sec 1018.4 Dead Ends	
Group B	Max 20' Not limited when corridor is less than 2.5 times the least width of the corridor
Table 1021.2 Stories with One Exit (B)	
First story or basement	30 Occupants and 75' travel distance – 1 Exit provided – OK
Sec 1022 Exit Enclosures	
Stairway enclosure	Existing Conditions – OK
Sec 1027.3 Exit discharge location	
Exterior balconies, stairways, ramps	Located at least 10' from lot lines

Chapter 11 Accessibility – Not Required

Business Class – Fewer than 14 Full–time Employees – 3 employees – OK

NFPA 101 Life Safety Code Review

Sec 39.1 – 39.7.4	Existing Business Occupancy

Chapter 7 Means of Egress

Sec 7.1.3.1 Exit Access Corridor	1 Hour when occupant load exceeds 30 N/A
Exception	Does not apply to existing buildings if occupancy classification does not change – OK
Sec 7.1.5.1 Means of egress headroom	Not less than 7'–6" with projections not less than 6'–8"
Sec 7.1.5.1.1 Existing building	Not less than 7'–0"
Table 7.2.2.2.1.1 New Stairs	N/A
Sec 7.2.2.3.4 Stair landings	Not required to exceed 48"
Sec 7.2.2.4.5.2 Guard details	Guards shall be not less than 42" high Existing guards on existing stairs shall be permitted to not less than 30" high
Sec 7.2.2.4.5.3 Open guards	4" Sphere must not pass though any opening to a height of 34" Triangular openings at stairs, 6" opening max
Table 7.3.1.2 Occupant Load	
Tenant Space	6 Occupants (refer to drawings)
Sec 38.2.5.3.1 Common path of travel	Shall not exceed 75'
Sec 37.2.5.11 Access through areas	Shall be permitted to pass through storerooms provided not more than 50 percent of exit access through storeroom and storeroom shall not be subject to locking.
Sec 38.2.6.3 Travel distance to exits	Shall not exceed 75'
Sec 38.3.3.2.1 Interior wall and ceiling finish	
Interior wall and ceiling finish	Class A or B
Interior floor finish	Class I or II

2015 Uniform Plumbing Code

102.4 Alterations, Renovations, or Repairs

Total occupant load	6 Occupants / 1 Unisex Required
Lavatories, both	1 Per WC – OK
Drinking fountain	1 DF required per 1:150 – Tenant must provide drinking water free of charge to clients.
Separate facilities for each sex required	if business occupancy with floor area more than 1,500 sf – N/A

2009 International Energy Conservation Code

Chapter 5 Commercial Energy Efficiency

Table 502.1(1) Building Envelope Requirements – Opaque Assemblies (Zone 6)

Existing Conditions – OK

1 Life Safety Plan

Scale: 1/4" = 1'-0"

NOTES

1. Life safety equipment and locations shall conform to all applicable codes.
2. Provide one smoke and carbon dioxide detector in each tenant space – alarm test every three months.
3. Electrical outlets shall be provided for all plug–in equipment. All other outlets shall be located per all applicable codes.
4. Provide laminated floor plan at each public room indicating direction to building exit.
5. Exit signage must comply w/ NFPA 101.7.10

Fire Extinguisher

FEC–1	Class 2–A Fire Extinguisher with mounting bracket H–5932 by Uline or approved equivalent – top of extinguisher at 48" above finish floor.

Portable Fire Extinguishers:
1. Location of fire extinguishers and cabinets shall conform to NFPA 10 Standards for Fire Extinguisher Cabinets.
2. Portable fire extinguisher rating shall be 2–A, spacing shall not exceed a maximum of 75' and 3,000 sf.

EXIT FROM FIRST FLOOR

IBC

Door Egress
34" Wide / .15" =
227 Egress Allowable
35 Existing – OK

NFPA 101

Door Egress
34" Opening / .2" =
170 Egress Allowable
35 Existing – OK

Egress - IBC (Table 1004.1.1)			Egress - Life Safety (Table 7.3.1.2)		
First Floor			First Floor		
Business Area	402.3 sf @ 100 sf gross =	4 Occupants	Business Area	402.3 sf @ 100 sf gross =	4 Occupants
Business Area/Reception	278.4 sf @ 100 sf gross =	2 Occupants	Business Area/Reception	278.4 sf @ 100 sf gross =	2 Occupants
Total First Floor	680.74 sf =	6 Occupants	Total First Floor	680.74 sf =	6 Occupants

David Matero
Architecture
100 Front Street
Suite 40
Bath, Maine 04530
207.389.4278
info@davidmatero.com

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Consultants

Revisions

Health Resonates

773 Congress Street
Portland, Maine

LICENSED ARCHITECT DAVID S. MATERO No. 2705 STATE OF MAINE

Job Number: 17.026
Date: 09.27.17
Scale: As Noted

Drawing Title:

Code Analysis, Life and Safety Plan

R.2

Issue for Permit

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