

CODE SUMMARY

IBC 2009

4/8/2014

Project address:	65 Warren Avenue, Portland, ME	
Project type:	Assembly Type A3	
Construction type:	Type IIB - with approved automatic sprinkler system	602
Building code:	IBC 2009	Code Ref
Primary use:	Assembly - recreation	303.1
Accessory uses:	N/A	
Definitions:		
Occupiable space:	Total area of all buildings or structures on a lot	202
Habitable space:	Eating/living/cooking rm., ex. clgs. sloped<5' or furred<7'	202
Nonhabitable spc:	Bathrms, toilets, closets, halls, storage, utility spaces etc.	202
Grade plane:	Average of finished ground at building exterior, Note: If ground slopes away, use lowest points within 6' of building (or at the lot line, if the lot line is <6' away)	502.1 Definition
Heights & Areas	Occupancy: A-3 Construction: Type IIB w/ sprinklers Area: 13,058 SF (including Mezzanine)	Table 503 504.2
Max Height:	55'-0" (+ 20'-0" w/ automatic sprinkler system)	
Max Stories:	2 (+ 1w/ automatic sprikler system)	
Max Area / Fl:	9,500 SF (x2 w/ wautomatic sprinkler system)	
Fire Resistance Ratings	Type II B Primary Structural Frame (columns, girders & trusses) Bearing Walls - Exterior Bearing Walls - Interior Nonbearing Walls: Exterior Nonbearing Walls: Interior Floor Construction (including supporting beams & joists) Roof Construction (including supporting beams & joists)	Table 601 0 hours 0 hours 0 hours Table 602 0 hours 0 hours 0 hours
Exterior wall FRR:	X < 5' separation distance = 1 hour 5' to <10' separation distance = 1 hour 10' to 30' separtion distance = IIB = 0 hour > 30' seperation distance = 0 hour Exterior Walls: >10' separation = rated for fire from inside Exterior Walls: <10' separation = rated for fire from both sides	Table 602 705.5 705.5
Fire separation distance definition:	Measured from building face to: 1. Lot line 2. centerline street 3. Imaginary line between 2 buildings on the property	702.1
Exterior openings:	Unlimited unprotected openings if wall doesn't need a FRR 0 to < 3' unprotected, sprinklered, Not Permitted 3 to < 5' unprotected, sprinklered, 15% 5' to < 10' unprotected, sprinklered, 25% 10' to < 15' unprotected, sprinklered, 45%	705.8.1.2 Table 705.8
Height of ext wall:	Exterior rated walls to have parapets except	704.6 & 704.11
Parapet not req:	At exterior walls that are not required to be rated	704.11 exceptpn 1
Parapet not req:	If roof is class C & sheathg is noncombust./fire retard. wd.	704.11 exceptpn 5.1

Parapet not req:	If roof is class C & protected below by Type X GWB 4' min.	704.11 exceptn 5.2
Parapet not req:	At exterior walls allowed ≥25% unprotected openings	704.11 exceptn 6
Shaft enclosures:	Shaft FR = 2hr min. if connecting ≥ 4 storeys	707.4
	Shaft FR = 1hr min. if connecting < 4 storeys	707.4
	Shaft FR = floor FR min. of floor being penetrated	707.4
Elevators:	Shafts to be per 707.4 & Chapter 30	707.14
Draftstopping:	Req. in ceiling/floor cavities in line w/ FR separations	717.3.2
	Not req. in floor/ceiling spaces protected by NFPA-13R	717.3.2.2
Sprinklers:	Group A-3 to be sprinklered where the following exists: Fire area > 12,000 SF Fire area occupant load > 300 Fire area located on a floor other than level of exit discharge	903.2.1.3
Standpipes:	Class I standpipe system allowed in building with automatic sprinkler system	905.3.1 (ex. 1)
Fire Alarms:	Min. one (1) fire alarm box	907.2 & 907.2.1
Occupant load:	Exercise rooms = 50 gross Business areas = 100 gross	Table 1004.1.1
Exit:	Clear width, ceiling height, protrusions	1003
	Exits serving >1 floor, only occupant load per floor used	1004.4
	Accessible egress	1007
Egress stair:	Min. clear stair width = 44" (or 36" if occupant load < 50)	1009.1
	Min. clear stair & landing headroom = 80"	1009.2
	Max. stair riser = 7", min. stair tread = 11"	1009.4.2
	R-2 Inside Units: 7 3/4" rise, 10" tread	1009.4.2.5
	Landings top & bottom, min depth = stair width	1009.5
	Max Stair Flight Vertical Rise = 12'-0"	1009.7
Exit Access:	Max. Group A common path of egress travel = 75' sprinklered	1014.3
Number of Exit from Spaces:	Group A, Two Exits required if Occ Load > 49 or if Common Path Egress Travel > 75'-0" If 2 exits req'd, separation = 1/3 of max diagonal	1015.1.1 1015.1.2 1015.2.1.2
Exit Access Travel Distance:	Exit Access Travel Distance: 250' w/ sprinkler	1016.1
Corridors:	0 hr min. Fire Rating (w/ sprinklers)	Table 1018.1
	44" min width except	1018.2
	Dead End corridors = max 50'-0" R-2 Sprinklered	1018.4
Number of exits:	Exit access for all spaces on each story to Table 1021.1 Occupant load 1-500 = 2 exits min.	1021 Table 1021.1
Exit enclosure:	Mezzanines not included	1022.1
<u>NFPA 101 2009</u>		
Occupancy:	Assembly	Code Ref 3.3.178.2
Exits:	If Exit is separated, 1 Hour for 3 or less stories, or sprinklered	7.1.3.2.1
Occupant Load:	First Floor <u>Assembly</u> : Exercise room w equipment = 50 SF / person	Table 7.3.1.2

1st Floor Gym Area: 6558 SF, 6558/50 = 131	131
<u>Business:</u> 100 SF/ person 1st Area: 1752 SF, 1752/100 = 18	18
<u>Utility Area:</u> 121 SF, 500 SF/ person, 121/300 <1	1
Mezzanine	
<u>Mezzanine Office:</u> 807 SF/100 = 8	8
<u>Mezzanine Exercise Area with Equipment:</u> 50 SF/ Person, 1891/50 = 38	38
TOTAL	196

# Means of Egress:	2 means of egress except as under Chapter 11 -> 43	7.4.1
Number of Exits:	New Assembly Occupancies	
	2 Means of Egress	12.2.4.1
	Single Exit for Mezzanine if Mezz. Occupancy <50	12.2.4.5
Means of Egress:	Common Path of Travel for first 75' for Occupancy <50	12.2.5.1.2
	Or for first 20' for any number occupancy	
	Dead end corridors < 20'	12.2.5.1.3
	Mezzanine Occupant Load = 46<50, therefore Required common path of travel = 75'	Table A.7.6 Sprinkled
Travel Distance:	200' Max. 250' Max w/ automatic sprinkler system	12.2.6.2
Detection & Alarm:	Req'd for occupant loads >300	12.3.4.1.1
<u>NFPA 1 2009</u>		
Dimensions:	Fire Department Access Roads not less that 20' width	18.2.3.4.1.1
	FD Access Roads to have unobstructed vertical clearane not less than 13'-6"	18.2.3.4.1.2
Surface:	FD Acces Roads designed and maintained to support fire apparatus loads and have all-weather driving surface	18.2.3.4.2
Turning Radius:	Raduis shall comply with Authority Having Jurisdiction (AHJ)	18.2.3.4.3.1
Water Supplies & Hydrants:	An approved water supply capable of supplying the required fire flow	18.3.1
Fire Flow Requirements:	Buildings other than one- and two-family dwellings	18.4.5.2
	Minimum required Fire Flow and Flow Duration for Buildings:	Table 18.4.5.1.2
	Type II(000) = Type IIB (IBC): for 13,058 SF: Fire Flow gpm = 2,500 for 2 hr. duration	
	Or: 1000 gpm with automatic sprinkler system	18.4.5.2.1
	Or: 600 gpm with quick response automatic sprinkler system	18.4.5.2.2

