

PROJECT NAME:

**WAYNFLETE GYM**

NEW CONSTRUCTION

WAYNFLETE SCHOOL  
360 SPRING STREET  
PORTLAND, MAINE 04102

SEAL:

**NOT FOR CONSTRUCTION**

THIS DRAWING IS THE PROPERTY OF SCOTT SIMONS ARCHITECTS (SSA) AND IS NOT TO BE COPIED OR REPRODUCED IN PART OR WHOLE 2015 © SCOTT SIMONS ARCHITECTS, LLC

REVISION:

NO.	DATE
1	DATE
2	DATE
3	DATE
4	DATE
5	DATE
6	DATE

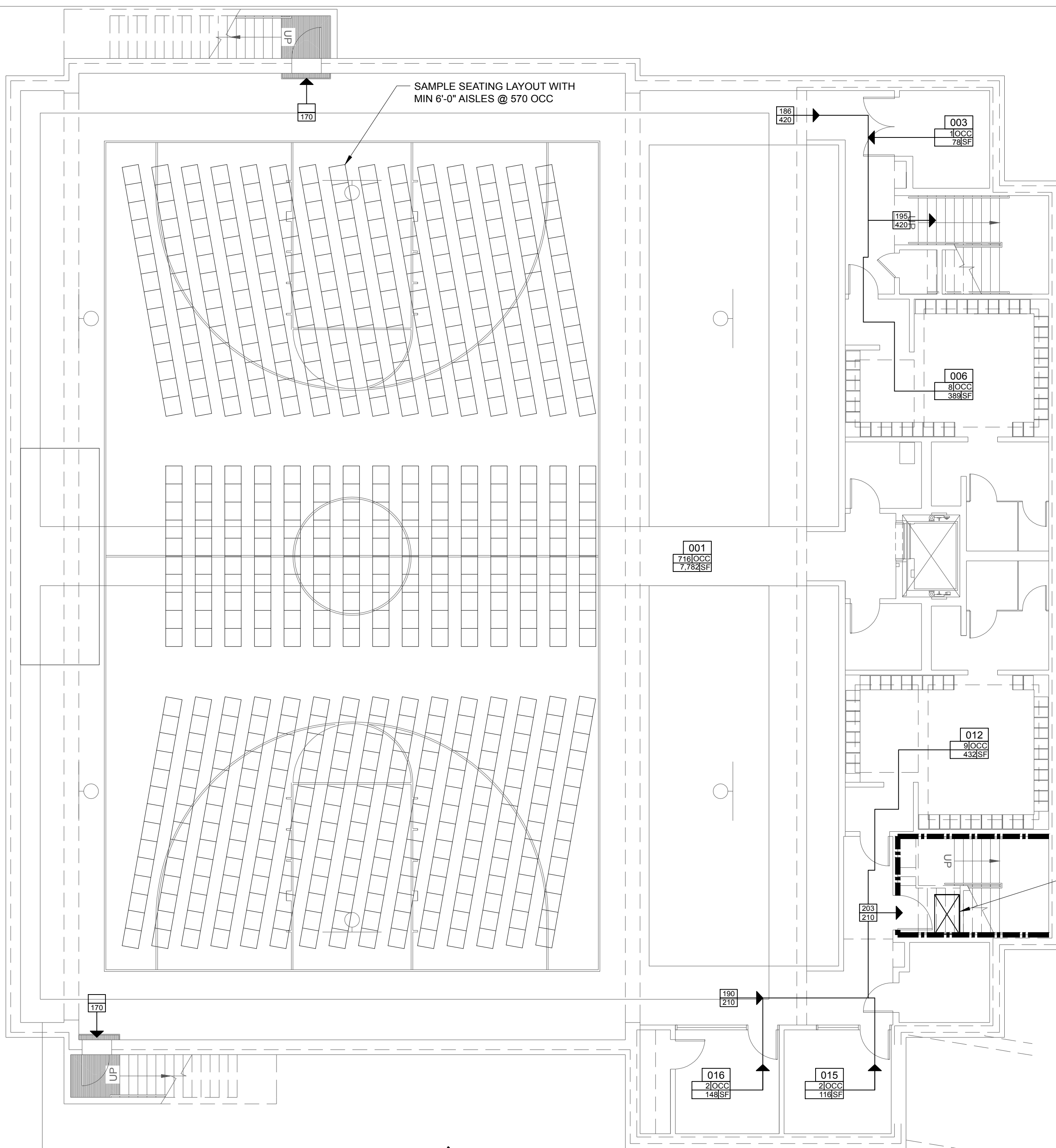
DATE OF ISSUE: 16 FEBRUARY 2016

PROJECT NUMBER: 2014-0080

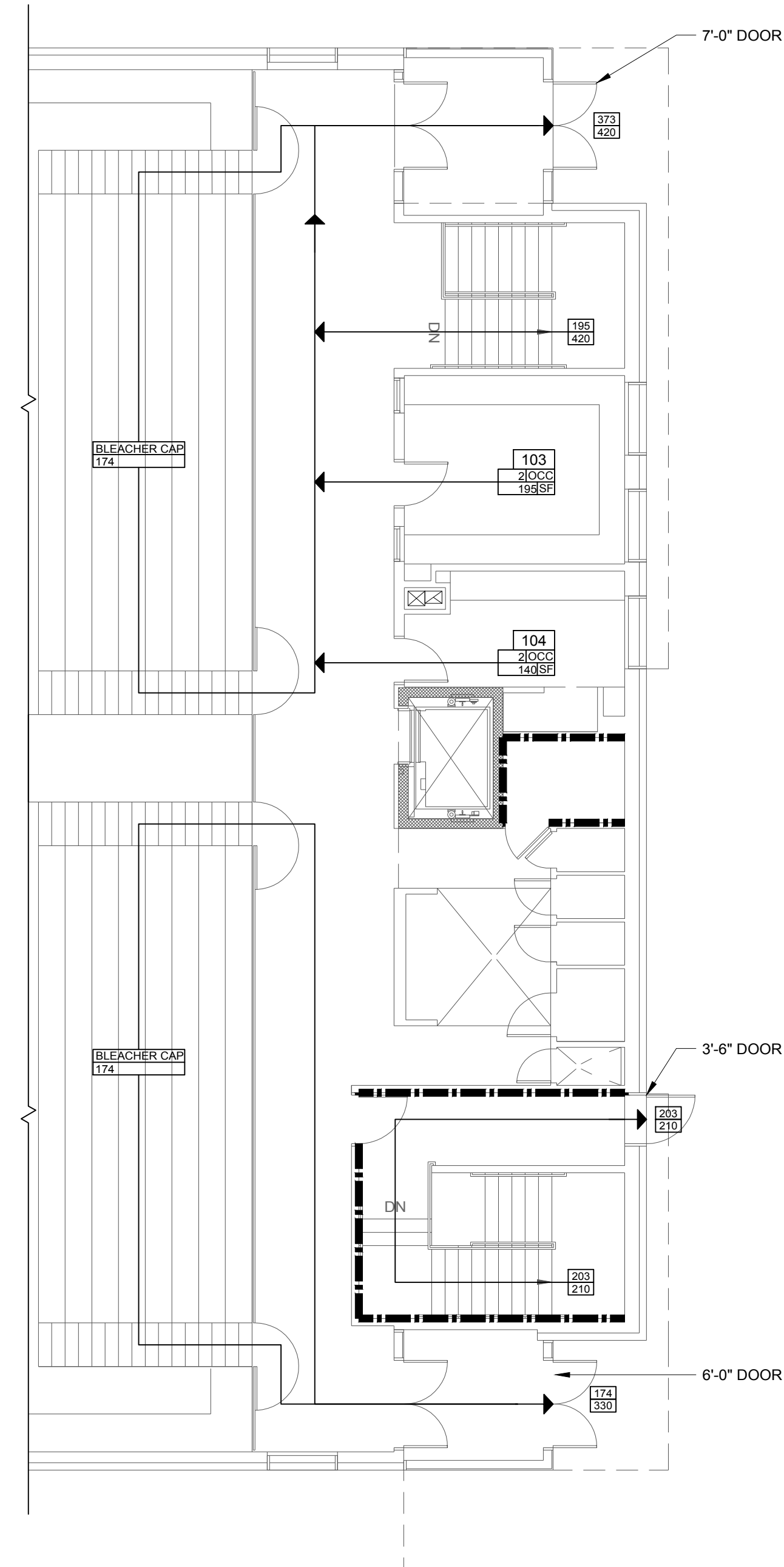
STATUS: PLANNING BOARD SUBMISSION

**LIFE SAFETY PLAN + CODE ANALYSIS**

**G002**



**GYMNASIUM OCCUPANCY CALCULATIONS:**  
OPTION A:  
TOTAL OCCUPIABLE GYM AREA WITH BLEACHERS CLOSED: 7782 SF  
7782 / 7 SF = 1111 OCC.  
OPTION B:  
TOTAL OCCUPIABLE GYM AREA WITH BLEACHERS OPEN: 6542 SF  
6542 / 7 SF = 934 OCC.  
BLEACHER CAPACITY: 348 OCC  
TOTAL OCCUPANTS: 1282 OCC



**LIFE SAFETY PLAN LEGEND**

SEE A102 FOR PARTITION TYPES

- FIRE EXTINGUISHER
- ROOM NUMBER
- OCCUPANTS
- ROOM AREA

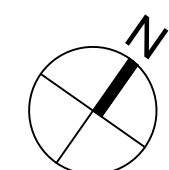
- OCCUPANT EGRESS LOAD AT DOOR
- DOOR OCCUPANT CAPACITY
- DIRECTION OF EGRESS

1-HOUR FIRE RATED SEPARATION WITH 1 HOUR OPENINGS

SMOKE SEPARATION WITH 20 MINUTE OPENINGS

**1 LOWER LEVEL LIFE SAFETY PLAN**

SCALE: 1/8" = 1'-0"



**CODE SUMMARY**

**APPLICABLE CODES**

Maine Uniform Building and Energy Code "MUBEC"  
Consists of the following applicable codes:

- 2009 International Building Code (IBC)
- 2009 International Existing Building Code (IEBC)
- 2009 International Energy Conservation Code (IECC)
- 2007 ASHRAE 62.1 (Ventilation for Acceptable Indoor Air Quality)
- 2007 ASHRAE 90.1 - (Energy Standard for Buildings except Low-Rise Residential Buildings) editions without addenda.
- E-1465-2006, Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.
- Maine State Internal Plumbing Code based on the 2009 Uniform Plumbing Code
- State of Maine Subsurface Wastewater Disposal Rules Version dated: Jan 18, 2011
- 2011 National Electrical Code (NEC)

**Fire Life Safety**

NFPA Life Safety Code as adopted by the State of Maine  
Including but not limited to:

- 2009 NFPA 101: Life Safety Code
- 2007 NFPA 13: Installation of Sprinkler Systems, [2010 Edition through Equivalency]

**Accessibility**

2010 ADA Standards for Accessible Design

NOTE: All codes shall include changes/amendments by the State of Maine

**OCCUPANCY CLASSIFICATION** (IBC Sec 302, 303, 304) (NFPA )  
Assembly A-3

**AUTOMATIC SUPPRESSION SYSTEM** (NFPA 13)

Automatic sprinkler system provide per NFPA 13 throughout

**GENERAL BUILDING INFORMATION AND ALLOWABLE BUILDING HEIGHTS AND AREA** (IBC Chapter 5, Table 503) (NFPA)

Building Height (To mid-height of the roof) - 2 Stories  
Total Area 12,500  
Perimeter 436'

Allowable Building Height  
55' Maximum + 20' (Sprinkler Benefit) = 75'  
2 Stories Maximum + 1 (Sprinkler Benefit) = 3 Stories

**Allowable Building Area**

FLOOR	OCCUPANCY (PER IBC CHAPTER 3)	CONSTRUCTION TYPE (PER IBC CHAPTER 6)	ALLOWABLE AREA (IBC TABLE 503 MODIFIED PER IBC 506)	ACTUAL AREA
LOWER FLOOR LEVEL	A-3	IIB	9,500 TABULAR 28,000 ALLOWABLE	10,250 NEW
GROUND FLOOR LEVEL	A-3	IIB	9,500 TABULAR 28,000 ALLOWABLE	2,330 NEW

**Building Area Modifications** (IBC Sec 506.1, 506.2, 506.3)

Automatic Sprinkler Increase (IBC 506.3)

Taken: 200% Increase

**REQUIRED OCCUPANCY SEPARATIONS** (IBC Table 508.4) (NFPA)

A-3 + E (None)

**TYPES OF CONSTRUCTION** (IBC Table 601, Sec 602) (NFPA 220)

Type IIB

**FIRE RESISTIVE RATINGS** (IBC Table 601) (NFPA Table A.8.2.1.2)

	TYPE IIB	II (0,0,0)
STRUCTURAL FRAME	0	0
BEARING WALLS, EXTERIOR AND INTERIOR	0	0
NON-BEARING WALLS AND PARTITIONS, EXTERIOR	0	0
NON-BEARING WALLS AND PARTITIONS, INTERIOR	0	0
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0	0
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0	0

**OCCUPANCY LOAD** (IBC Table 1004.1.1) (NFPA )

- Business B 100 Gross Sqft per Occupant
- Assembly A-3
- Gym 7 Net Sqft per Occupant
- Exercise Rooms 50 Gross Sqft per Occupant
- Locker Rooms 50 Gross Sqft per Occupant
- Accessory Storage 300 Gross Sqft per Occupant
- Mechanical 300 Gross Sqft per Occupant
- Stage 15 Net Sqft per Occupant

**MEANS OF EGRESS** (IBC Chapter 10)

**EGRESS WIDTH PER OCCUPANT** (IBC 1005.1) (IEBC Table 1301.6.11(1))

- 0.3 Inches per occupant for stairways
- 0.2 Inches for other egress components

**STAIRWAY WIDTH** (IEBC 1301.6.11)

0.3 Inches per occupant

**EXIT ACCESS**

**Common path of egress travel** (IBC 1014.3) (IBC 1028.8)

For Assembly <30'  
For Business <75'

**Corridor Fire Resistance** (IBC 1018.1)

1 hour

**Corridor Width** (IBC 1018.2)

Not less than 44"

**Dead-End Corridor** (IEBC 705.6)

Dead-end corridors in occupancy E ≤50'

Dead-end corridors in occupancy A-3 ≤20'

Travel distance to exit: 250'

**PLUMBING FIXTURE COUNT** (IBC Table 2902.1)