



**CODE ANALYSIS**  
 NFPA 101 Life Safety Code - 2009/2015 Edition (\*) Denotes if fully Sprinkled/Alarmed  
 Building Classification: Existing Business 4 Mercantile  
 Total First Floor Area (Mercantile) = 9,506 sf  
 Total Second thru Fifth Floor Area (Business) = 38,024 sf  
 Building Total Floor Area = 47,530 sf  
 Fourth Floor Area - Business Use - 9,506 gross sf  
 Ordinary Hazard  
 Type III (OOO)  
 SF Mercantile @ 30 sf/occupant = 317 occupants  
 SF Business @ 100 sf/occupant = 381 occupants  
 Total Building Occupant Load = 698 occupants  
 Fourth Floor Occupant Load = 96 occupants  
 Separation of Use Rating: 2 hours (1 hour)  
 Janitor, Mech, Stor Rating: 1 hour  
 Stair Rating: 2 hours (1 hour)  
 Elevator Shaft Rating: 2 hours (over 3 stories)  
 Minimum Stair width: 44" clear; 36" if less than 50 occupants  
 Maximum Riser height: 7"  
 Minimum Tread width: 11"  
 Minimum Headroom: 6'-8" at stairs; 7'-6" at occupied areas  
 Maximum ht between landings: 12'-0"  
 Handrail height: 34"-36" @ 42" guardrail  
 Handrail top extension: 12" horz.  
 Handrail bottom extension: 11" angled + 12" horz.  
 Handrail diameter: 1-1/4" O.D.  
 Maximum baluster open space: less than 4"  
 Building Uses: Business  
 (\*) denotes if building is fully sprinkled  
 Max. Allowable Travel Distance: 200' (300')  
 Max. Allowable Common Path: 75' (100')  
 Max. Dead End Corridor Length: 20' (50')  
 Minimum Corridor Width: 44"/36" if >50 occ.  
 Minimum Number of Required Exits: 2 (1 if less than 100 Occupants and less than 100' travel distance to egress floor level exit)  
 Minimum Horiz Egress Enclosure rating: 1 hr (none)  
 Minimum Separation of exits: 0.5 diagonal (0.33)  
 Fire Escapes as means of egress: Allowed (NA)  
 Minimum Egress Door Width: 36"  
 Exit Lighting: Required  
 Emergency Lighting: Required  
 Fire Alarm System: Required  
 Fire Sprinkler System: Required  
 Portable Fire Extinguishers: Required  
 Exit Devices/Panic Hardware: Required  
 City of Portland Compliance: NFPA 1 4 Portland City Code 10

**CODE ANALYSIS (CONT.)**  
 2009 International Building Code  
 (\*) denotes if building is fully sprinkled  
 Use Group Classification: Existing Mercantile - Use Group M - 9,506 sf  
 Existing Business - Use Group B - 9,506 sf/floor  
 Type III - Combustible/Non-Combustible, Unprotected  
 M @ 100 sf/occupant = 381 occupants  
 B @ 30 sf/occupant = 317 occupants  
 Total Building Occupant Load = 698 occupants  
 Fourth Floor Occupant Load = 96 occupants  
 Area Use Separation Ratings:  
 Janitor, Mech & Storage Rooms: 1 hour  
 Building Limitations  
 Construction Type: III B Unprotected  
 Maximum Height: 2 story /55' @ M (+1 story /20')  
 3 story /55' @ B (+1 story /20')  
 Maximum Area / Floor: 12,500 sf @ M (+25,000 sf)  
 19,000 sf @ B (+38,000 sf)  
 48,020 SF 4 5 Stories (Existing)  
 Fire Resistance Ratings  
 Load Bearing Exterior Walls: 2 hours  
 Fire Separation Exits (Stairs): 2 hours (1 hour)  
 Fire Separation of Uses: 2 hours  
 Elevator / Shafts: 1 hour (none)  
 Exit Corridors: 2 per occupancy type (1 if less than 30 occupants and 75' travel distance to exit from 2nd floor to exterior)  
 Minimum Number of Exits: 20/50' at system furniture under 6' high 75' (100')  
 Maximum Dead End Corridor Length: 200' (300')  
 Maximum Common Travel Path: 75' (100')  
 Minimum Corridor Width: 44"/36" if >50 occupants  
 44"/36" if > 50 occupants  
 Minimum Stair Width: 7"  
 Maximum Riser Height: 11"  
 Minimum Tread Depth: 11"  
 Minimum Ramp Width: 44"/36" if > 50 occupants  
 Maximum Ramp Pitch: 1:12  
 Handrails: Same as NFPA 101  
 Minimum Ceiling Height: 7'-6"  
 Fire Alarm System: Required  
 Emergency Lighting: Required  
 Fire Sprinkler System: Required  
 Portable Fire Extinguishers: Required  
 Exit Lighting: Required  
 Emergency Lighting: Required  
 Building Live Loads  
 Office: 50 psf  
 Lobbies: 100 psf  
 Corridors: 80 psf  
 Storage: 125 psf @ light; 250 psf @ heavy  
 Maine State Plumbing Code/LPC  
 Occupancy Classification: Business  
 Occupancy Area: 9,604 sf gross  
 Occupancy Load: 96 per IBC Table Method  
 96 Occupants - 48 male/48 female  
 FIXTURES TOILETS URINALS LAVS SHOWERS  
 Men 1 1 1 NR  
 Women 3 0 1 NR  
 Drinking Fountain: 1/150 Occupants - 1 Required  
 (or water station)  
 End of Analysis

**NFPA LEGEND**

SYMBOL	DESCRIPTION
	EXIT LIGHT
	ABC FIRE EXTINGUISHER w/ BRACKET
	EMERGENCY LIGHT
	EMERGENCY LIGHT - CEILING
	SMOKE DETECTOR
	FIRE ALARM PULL STATION
	HORN / STROBE - WALL
	STROBE - WALL
	EMERGENCY / EXIT LIGHT
(E)	EXISTING

**SYMBOLS LEGEND**

	DIAGONAL
	EGRESS PATH
	EGRESS PATH DISTANCE IN FEET
	2 HR RATED

**WALL TYPES**

	EXISTING WALLS
	NEW PARTITIONS
	EXISTING (NO WORK)

- LIFE SAFETY NOTES**
1. MODIFY EXISTING NFPA 1 3 FIRE SUPPRESSION SPRINKLER SYSTEM AS REQUIRED. SPRINKLER SYSTEM MODIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE STATE OF MAINE FIRE MARSHAL AS WELL AS THE LOCAL AUTHORITY HAVING JURISDICTION. THE SPRINKLER CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR THE DESIGN AND INSTALLATION OF THE SYSTEM FOR OCCUPANCY.
  2. MODIFY EXISTING FIRE ALARM SYSTEM AS REQUIRED FOR COMPLIANCE WITH NFPA 101 LIFE SAFETY CODE. COORDINATE WITH SPRINKLER SYSTEM. VERIFY LOCATION OF ALARM AND NOTIFICATION PANELS WITH THE AUTHORITY HAVING JURISDICTION.
  3. SEE ACCESSIBILITY DETAILS FOR MOUNTING HEIGHTS OF LIFE SAFETY DETAILS.

**FOURTH FLOOR CODE COMPLIANCE PLAN**

SCALE: 3/16" = 1'-0"  
 NOTE: SEE SHEET LS-1 FOR ADDITIONAL INFORMATION.

