



Certificate of Design Application

From Designer: David A. Price, PE - Structural Design only
 Date: 8/18/10
 Job Name: New 3-Unit Building
 Address of Construction: 62 Cumberland Ave; Portland ME

2003 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year 2003 Use Group Classification (s) Residential
 Type of Construction Wood Frame
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC _____
 Is the Structure mixed use? _____ If yes, separated or non separated or non separated (section 302.3) _____
 Supervisory alarm System? _____ Geotechnical/Soils report required? (See Section 1802.2) _____

Structural Design Calculations

See Plans for Member Sizes Submitted for all structural members (106.1 - 106.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)
 Floor Area Use Loads Shown
Live Load (Private Rooms) 40 psf
Live Load (Private Decks) 40 psf
Live Load (Public Areas) 100 psf

Wind loads (1603.1.4, 1609)

Method 2 Design option utilized (1609.1.1, 1609.6)
100 Basic wind speed (1809.3)
Low Rise/1-0 Building category and wind importance Factor, I_w (table 1604.5, 1609.5)
B Wind exposure category (1609.4)
+/- .18 Internal pressure coefficient (ASCE 7)
26 psf Component and cladding pressures (1609.1.1, 1609.6.2.2)
18 psf Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

IBC 2003 Design option utilized (1614.1)
I Seismic use group ("Category")
-.35/-16 Spectral response coefficients, S_D & S_I (1615.1)
D Site class (1615.1.5)

Yes Live load reduction
N/A Roof line loads (1603.1.2, 1607.11)
35 psf Roof snow loads (1603.7.3, 1608)
50 psf Ground snow load, P_g (1608.2)
35 psf If $P_g > 10$ psf, flat-roof snow load P_f
1.0 If $P_g > 10$ psf, snow exposure factor, C_e
1.0 If $P_g > 10$ psf, snow load importance factor, I_s
1.0 Roof thermal factor, C_t (1608.4)
35 psf Sloped roof snowload, P_B (1608.4)
C Seismic design category (1616.3)
Wood shear wall Basic seismic force resisting system (1617.6.2)
6-5 Response modification coefficient, R , and deflection amplification factor, C_d (1617.6.2)
Equiv. Lateral Force Analysis procedure (1616.6, 1617.5)
10300 lbs. Design base shear (1617.4, 1617.5.1)

Flood loads (1803.1.6, 1612)

_____ Flood Hazard area (1612.3)
 _____ Elevation of structure

Other loads

_____ Concentrated loads (1607.4)
 _____ Partition loads (1607.5)
 _____ Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)