



Certificate of Design Application

From Designer:

Eric Grondahl #3328

Date:

December 4, 2015

Job Name:

72 Munjoy St - Foundation Only

Address of Construction:

72 Munjoy Street

2009 International Building Code

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

Building Code & Year IBC 2009 Use Group Classification (s) R-2 / U

Type of Construction 5-A

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IBC yes

Is the Structure mixed use? yes If yes, separated or non separated or non separated (section 302.3) separated

Supervisory alarm System? yes Geotechnical/Soils report required? (See Section 1802.2) —

Structural Design Calculations

N/A 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
<u>Residential/Apt</u>	<u>40 live / 15 dead</u>

Wind loads (1603.1.4, 1609)

Alternate Design option utilized (1609.1.1, 1609.6)

100 MPH Basic wind speed (1809.3)

(II) I = 1.00 Building category and wind importance Factor, I_w (table 1604.5, 1609.5)

B Wind exposure category (1609.4)

+/- 0.18 Internal pressure coefficient (ASCE 7)

+/- 25 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)

Design option utilized (1614.1)

Seismic use group ("Category")

Spectral response coefficients, S_D & S_{D1} (1615.1)

Site class (1615.1.5)

Live load reduction

Roof live loads (1603.1.2, 1607.11)

39 Roof snow loads (1603.7.3, 1608)

50 Ground snow load, P_g (1608.2)

39 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)

1.0 Sloped roof snowload, P_s (1608.4)

Seismic design category (1616.3)

Basic seismic force resisting system (1617.6.2)

Response modification coefficient, R_f and

deflection amplification factor, C_d (1617.6.2)

Analysis procedure (1616.6, 1617.5)

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)