



Certificate of Design Application

From Designer:

ALPHA architects

Date:

1-11-2016

Job Name:

Chestnut st. 3rd Fl. Apartment

Address of Construction:

17 Chestnut St, Portland ME 04101

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) R-3, Residential

Type of Construction III B Unprotected Combustible

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC No

Is the Structure mixed use? Yes If yes, separated or non separated or non separated (section 302.3) No

Supervisory alarm System? N/A Geotechnical/Soils report required? (See Section 1802.2) NA

Structural Design Calculations

NR 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>NA</u>	

Wind loads (1603.1.4, 1609)

Design option utilized (1609.1.1, 1609.6)

Basic wind speed (1809.3)

NA Building category and wind importance Factor, w_p table 1604.5, 1609.5)

Wind exposure category (1609.4)

Internal pressure coefficient (ASCE 7)

Component and cladding pressures (1609.1.1, 1609.6.2.2)

Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

Design option utilized (1614.1)

NA Seismic use group ("Category")

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

Site class (1615.1.5)

NA Live load reduction

Roof live loads (1603.1.2, 1607.11)

Roof snow loads (1603.7.3, 1608)

Ground snow load, P_g (1608.2)

If $P_g > 10$ psf, flat-roof snow load P_f

If $P_g > 10$ psf, snow exposure factor, C_e

If $P_g > 10$ psf, snow load importance factor, I_s

Roof thermal factor, C_t (1608.4)

Sloped roof snowload, P_s (1608.4)

Seismic design category (1616.3)

Basic seismic force resisting system (1617.6.2)

Response modification coefficient, R 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)

NA Flood Hazard area (1612.3)

Elevation of structure

Other loads

NA 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)