



Certificate of Design Application

From Designer: Ryan Senatore Architecture
 Date: 11/24/14
 Job Name: Blake window opening
 Address of Construction: 7 Custom House ~~Commercial~~ Street, Portland, ME

2009 International Building Code

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

Building Code & Year IBC 2009 Use Group Classification (s) Business
 Type of Construction 3B
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC Yes
 Is the Structure mixed use? Yes If yes, separated or non separated or non separated (section 302.3) N/A
 Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) N/A

Structural Design Calculations

— Submitted for all structural members (106.1 - 106.11)

Design Loads on Construction Documents (1603)

Floor Area Use	Loads Shown
<u>OFFICE</u>	<u>50 PSF</u>

Wind loads (1603.1.4, 1609)

ANALYTICAL Design option utilized (1609.1.1, 1609.6)
100 MPH Basic wind speed (1609.3)
ENCLOSED 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)
20 Component and cladding pressures (1609.1.1, 1609.6.2.2)
16 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_1 (1615.1)
— Site class (1615.1.5)

NONE 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)
B Seismic design category (1616.3)
SHEAR WALL Basic seismic force resisting system (1617.6.2)
WIND-CONTROLLED Response modification coefficient, R_d 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)
MASONRY: 115 PSF Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)