



# Certificate of Design Application

From Designer:

PINKHAM AND GILBERT, CONSULTING ENGINEERS

Date:

4/29/2013

Job Name:

ROOF REPAIRS

Address of Construction:

243-247 CONGRESS 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) \_\_\_\_\_

Type of Construction WOOD FRAMES, BRICK BEARING WALLS

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

### 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>N/A</u>	

<u>N/A</u>	Live load reduction
<u>N/A</u>	Roof live loads (1603.1.2, 1607.11)
<u>42 PSF</u>	Roof snow loads (1603.7.3, 1608)
<u>60 PSF</u>	Ground snow load, $P_g$ (1608.2)
<u>42 PSF</u>	If $P_g > 10$ psf, flat-roof snow load $P_f$
<u>1.0</u>	If $P_g > 10$ psf, snow exposure factor, $C_e$
<u>1.0</u>	If $P_g > 10$ psf, snow load importance factor, $I_s$
<u>1.0</u>	Roof thermal factor, $C_t$ (1608.4)
<u>N/A</u>	Sloped roof snowload, $P_s$ (1608.4)
<u>N/A</u>	Seismic design category (1616.3)
<u>N/A</u>	Basic seismic force resisting system (1617.6.2)
<u>N/A</u>	Response modification coefficient, $R_f$ and deflection amplification factor, $C_d$ (1617.6.2)
<u>N/A</u>	Analysis procedure (1616.6, 1617.5)
<u>N/A</u>	Design base shear (1617.4, 1617.5.1)

### Wind loads (1603.1.4, 1609)

METHOD 1 Design option utilized (1609.1.1, 1609.6)

100 MPH Basic wind speed (1809.3)

1.0 Building category and wind importance Factor,  $I_w$ , table 1604.5, 1609.5)

B Wind exposure category (1609.4)

N/A Internal pressure coefficient (ASCE 7)

17.8 PSF Component and cladding pressures (1609.1.1, 1609.6.2.2)

16.7 PSF Main force wind pressures (7603.1.1, 1609.6.2.1)

### Flood loads (1803.1.6, 1612)

<u>N/A</u>	Flood Hazard area (1612.3)
<u>N/A</u>	Elevation of structure

### Earth design data (1603.1.5, 1614-1623)

<u>N/A</u>	Design option utilized (1614.1)
<u>N/A</u>	Seismic use group ("Category")
<u>N/A</u>	Spectral response coefficients, $S_D$ s & $S_{D1}$ (1615.1)
<u>N/A</u>	Site class (1615.1.5)

### Other loads

<u>N/A</u>	Concentrated loads (1607.4)
<u>N/A</u>	Partition loads (1607.5)
<u>N/A</u>	Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)