



# Certificate of Design Application

From Designer: Archetype Architects  
 Date: 7/2/15  
 Job Name: 415 Cumberland Ave.  
 Address of Construction: 415 Cumberland Ave.

## 2009 International Building Code

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

Building Code & Year IBC 2009 Use Group Classification (s) B - S-2  
 Type of Construction 5A

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) separated  
 Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) no

### Structural Design Calculations

\_\_\_\_\_ Submitted for all structural members (106.1 - 106.11)

### Design Loads on Construction Documents (1603)

Floor Area Use	Loads Shown
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

### Wind loads (1603.1.4, 1609)

\_\_\_\_\_ Design option utilized (1609.1.1, 1609.6)  
 \_\_\_\_\_ Basic wind speed (1809.3)  
 \_\_\_\_\_ Building category and wind importance Factor,  $I_w$ ,  
 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)  
 \_\_\_\_\_ 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)  
 \_\_\_\_\_ Roof snow loads (1603.7.3, 1608)  
 \_\_\_\_\_ Ground snow load,  $P_g$  (1608.2)  
 \_\_\_\_\_ If  $P_g > 10$  psf, flat-roof snow load  $I_T$   
 \_\_\_\_\_ 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,  $R_f$  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)