Certificate of Design Application

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 11/22/16

From Designer: Archetype

Date: 8/5/2016

Job Name: Event Space

Address of Construction: 1 Thompson Point

2009 International Building Code

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

Building Code & Year IBC 2009 Use Group Classification (s) A2 & A3

Type of Construction 3A,2B

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? No If yes, separated or non separated or non separated (section 302.3) _____

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)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
Assembly	100 psf

Wind loads (1603.1.4, 1609)

Analytical Design option utilized (1609.1.1, 1609.6)

100 mph Basic wind speed (1809.3)

Cat. III, 1.15 Building category and wind importance Factor, I_w table 1604.5, 1609.5)

C Wind exposure category (1609.4)

0.18 Internal pressure coefficient (ASCE 7)

25.2, 26.9 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)

Equiv. Lat. F Design option utilized (1614.1)

C Seismic use group ("Category")

0.347, 0.123 Spectral response coefficients, S_{DS} & S_{D1} (1615.1)

D Site class (1615.1.5)

none Live load reduction

_____ Roof *live* loads (1603.1.2, 1607.11)

42 Roof snow loads (1603.7.3, 1608)

60 Ground snow load, P_g (1608.2)

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

.9 If P_g > 10 psf, snow exposure factor, C_e

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

1.00 Roof thermal factor, C_t (1608.4)

42 Sloped roof snowload, P_s (1608.4)

C Seismic design category (1616.3)

Steel brace fr Basic seismic force resisting system (1617.6.2)

3.25 Response modification coefficient, R_I and deflection amplification factor C_d (1617.6.2)

Equiv. Lat. Fc Analysis procedure (1616.6, 1617.5)

67 k Design base shear (1617.4, 16175.5.1)

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