Certificate of Design Application

From Designer: MARK SENGELMANN d/b/a ALPHAarchitects.

Date: 1-7-2015

Job Name: PORTLAND PROPERTY HOLDINGS LLC

Address of Construction: 2282 CONGRESS ST. PORTLAND ME 04102

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) (M) MERCANTILE

Type of Construction V (000)

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC NR

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

Supervisory alarm System? NO Geotechnical/Soils report required? (See Section 1802.2) _____

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
GROUND FLOOR	75 PSF

Wind loads (1603.1.4, 1609)

6.4 ASCE-7 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)

+18PSF -24 PSF Component and cladding pressures (1609.1.1, 1609.6.2.2)

ZONE A 22PSF Main force wind pressures (7603.1.1, 1609.6.2.1)

ZONE B 14 PSF

Earth design data (1603.1.5, 1614-1623)

ASCE-7 Design option utilized (1614.1)

B Seismic use group ("Category")

S_{DS} = 0.25 S_{D1} = 0.09 Spectral response coefficients, S_{Ds} & S_{D1} (1615.1)

C Site class (1615.1.5)

N/A Live load reduction

N/A Roof *live* loads (1603.1.2, 1607.11)

46 PSF Roof snow loads (1603.7.3, 1608)

60 PSF Ground snow load, P_g (1608.2)

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

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

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

1.1 Roof thermal factor, C_t (1608.4)

46 PSF Sloped roof snowload, P_s (1608.4)

B Seismic design category (1616.3)

A 13 Basic seismic force resisting system (1617.6.2)

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

SIMPLIFIED Analysis procedure (1616.6, 1617.5)

4.5K Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

_____ Flood Hazard area (1612.3)

N/A 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