Certificate of Design Application

From Designer: SMRT

Date: January 8, 2014

Job Name: Immucell Cleanroom

Address of Construction: 56 Evergreen Drive, Portland, ME

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) F1 Industrial

Type of Construction Type 2B

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the ~~2009 IRC~~ complying with NFPA 13

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

no 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
mezz. grating area	60 psf

Wind loads (1603.1.4, 1609)

n/a 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)

sp.footings Design option utilized (1614.1)

cat. II Seismic use group ("Category")

0.328/0.124 Spectral response coefficients, SDs & SD1 (1615.1)

D Site class (1615.1.5)

n/a Live load reduction

n/a Roof *live* loads (1603.1.2, 1607.11)

n/a 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)

Stl. Brace Basic seismic force resisting system (1617.6.2)

R-3, Cd-3 Response modification coefficient, R_I and deflection amplification factor C_d (1617.6.2)

ELFP Analysis procedure (1616.6, 1617.5)

1.0k Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

n/a Flood Hazard area (1612.3)

Elevation of structure

Other loads

n/a Concentrated loads (1607.4)

n/a Partition loads (1607.5)

n/a Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404