Certificate of Design Application

From Designer: CHRISTOPHER RAY, P.E.

Date: 12/19/12

Job Name: Port City Glass Dormer Perm.t

Address of Construction: 50 India St, Portland, ME

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 V(B)

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) _____

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

Wind loads (1603.1.4, 1609)

MWFRS Design option utilized (1609.1.1, 1609.6)

100 MPH Basic wind speed (1809.3)

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

B Wind exposure category (1609.4)

+.18 Internal pressure coefficient (ASCE 7)

+18, -22 psf Component and cladding pressures (1609.1.1, 1609.6.2.2)

±15 psf 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, SDs & SD1 (1615.1)

_____ Site class (1615.1.5)

_____ Live load reduction

_____ Roof *live* loads (1603.1.2, 1607.11)

39 psf Roof snow loads (1603.7.3, 1608)

50psf Ground snow load, P_g (1608.2)

_____ If P_g > 10 psf, flat-roof snow load $_{Pf}$

_____ If P_g > 10 psf, snow exposure factor, $_{Ce}$

_____ If P_g > 10 psf, snow load importance factor, $_{Is}$

_____ Roof thermal factor, $_{Ct}$ (1608.4)

_____ Sloped roof snowload, $_{Ps}$ (1608.4)

_____ Seismic design category (1616.3)

_____ Basic seismic force resisting system (1617.6.2)

_____ Response modification coefficient, $_{RI}$ and deflection amplification factor $_{Cd}$ (1617.6.2)

_____ Analysis procedure (1616.6, 1617.5)

_____ 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