Certificate of Design Application

From Designer: ASSOCIATED DESIGN PARTNERS, INC

Date: 4-6-15

Job Name: 52 Canco Rd Roof Repairs

Address of Construction: 52 Canco Rd, Portland ME

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 04/09/15

2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) Storage Low Hazard - S2

Type of Construction VB

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IBC Y - Existing

Is the Structure mixed use? Y If yes, separated or non separated or non separated (section 302.3) Separated

Supervisory alarm System? Unknown Geotechnical/Soils report required? (See Section 1802.2) N

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
NA - project is for roof only	

Wind loads (1603.1.4, 1609)

ANALYTICAL Design option utilized (1609.1.1, 1609.6)

98 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)

+/- 0.18 Internal pressure coefficient (ASCE 7)

PER ASCE BASED ON EWA Component and cladding pressures (1609.1.1, 1609.6.2.2)

15PSF Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

ASCE 12.8.1 Design option utilized (1614.1)

I Seismic use group ("Category")

0.245 / .125 Spectral response coefficients, S_{DS} & S_{D1} (1615.1)

D Site class (1615.1.5)

NO Live load reduction

20 Roof *live* loads (1603.1.2, 1607.11)

42+drift 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

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

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

1.0 Roof thermal factor, C_t (1608.4)

NA Sloped roof snowload, P_s (1608.4)

B Seismic design category (1616.3)

OPMSW Basic seismic force resisting system (1617.6.2)

(1.5/1.25) Response modification coefficient, R_l and deflection amplification factor C_d (1617.6.2)

ASCE 12.8.1 Analysis procedure (1616.6, 1617.5)

95K Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

NA Flood Hazard area (1612.3)

NA Elevation of structure

Other loads

NA Concentrated loads (1607.4)

NA Partition loads (1607.5)

NA Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404