Certificate of Design Application

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 12/30/15

From Designer: TTL Architects, LLC. and Resurgence Engineering and Preservation, Inc. (Structural)

Date: 10.02.15

Job Name:

Address of Construction: 131 Washington Avenue, Portland, ME 0410

2009 International Building Code

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

Building Code & Year 2009 IBC/ASCE 7-05 Use Group Classification (s) 160,000 Please provide use group classification

Type of Construction IIIB

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

Is the Structure mixed use? YES If yes, separated or non separated or non separated (section 302.3) NON-SEPERATED

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

Structural Design Calculations

SEPaRATE 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 (Main Blk)	100 psf live load
Second Floor (Main Blk)	80 psf live load

Wind loads (1603.1.4, 1609)

METHOD 2- ANALYTICAL 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)

C Wind exposure category (1609.4)

+/- 0.18 Internal pressure coefficient (ASCE 7)

+22.7,-35.8 Component and cladding pressures (1609.1.1, 1609.6.2.2)

+20 PSF Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

BEARING WALL Design option utilized (1614.1)

II Seismic use group ("Category")

.324g, .123g Spectral response coefficients, S_{Ds} & S_{D1} (1615.1)

D Site class (1615.1.5)

N/A Live load reduction

_____ Roof *live* loads (1603.1.2, 1607.11)

46.2 Roof snow loads (1603.7.3, 1608)

60 psf Ground snow load, P_g (1608.2)

46.2 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, 1.2 Roof thermal factor, C_t (1608.4)

46.2 (Cs=0.95) Sloped roof snowload, P_s (1608.4)

B Seismic design category (1616.3)

SHEAR WALLS Basic seismic force resisting system (1617.6.2)

2,2 Response modification coefficient, R_l and deflection amplification factor C_d (1617.6.2)

EQUIVALANT LATERAL FORCE Analysis procedure (1616.6, 1617.5)

12 KIPS Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

N/A 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