



Certificate of Design Application

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PDT Architects

From Designer:

Date:

Job Name:

Address of Construction:

March 21, 2016

Portland Gastroenterology Center

161 Marginal Way (Floors 3 & 4), 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) Business

Type of Construction IBC: Type IIA

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 ~~IBC~~ IBC Yes

Is the Structure mixed use? No ^{per IBC:} If yes, separated or non separated or non separated (section 302.3) _____

Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) Not applicable

Structural Design Calculations

Completed _____ 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
Existing Office	50 psf + partitions
(no change in occupancy, so loads not provided on structural drawings)	

Wind loads (1603.1.4, 1609)

Analytical Method Design option utilized (1609.1.1, 1609.6)

100 pmh Basic wind speed (1809.3)

Cat II, lw=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)

Per ASCE 7-05 Component and cladding pressures (1609.1.1, 1609.6.2.2)

Per ASCE 7-05 Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

C&C Ch. 13 Design option utilized (1614.1)

Cat II Seismic use group ("Category")

0.481 Spectral response coefficients, S_D s & S_{DI} (1615.1)

0.180 Site class (1615.1.5)

Not applicable Live load reduction

Snow Loads Govern Roof live loads (1603.1.2, 1607.11)

42 psf Roof snow loads (1603.7.3, 1608)

60 psf Ground snow load, P_g (1608.2)

42 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

1.0 Roof thermal factor, C_t (1608.4)

42 psf Sloped roof snowload, P_s (1608.4)

C Seismic design category (1616.3)

Braced Frames Basic seismic force resisting system (1617.6.2)

C&C, N/A Response modification coefficient, R_d and deflection amplification factor, C_d (1617.6.2)

C&C Ch. 13 Analysis procedure (1616.6, 1617.5)

C&C, N/A Design base shear (1617.4, 1617.5.1)

Flood loads (1803.1.6, 1612)

N/A Flood Hazard area (1612.3)

N/A Elevation of structure

Other loads

Unit Wgts per MEP 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)