



Certificate of Design Application

From Designer: Thomas W. Perkins, PE
 Date: 6/1/16
 Job Name: ecomaine Men's Locker Room Renovations
 Address of Construction: 64 Blueberry Road, Portland, Maine 04102

2009 International Building Code

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

Building Code & Year IBC 2012 Use Group Classification (s) FACTORY INDUSTRIAL GROUP F-1 + BUSINESS GROUP B
 Type of Construction GROUND LEVEL: TYPE IIA (222) LEVEL 2: TYPE IIB (111), NFPA TYPE 1B, IBC
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC _____
 Is the Structure mixed use? YES If yes, separated or non separated or non separated (section 302.3) SEPARATED
 Supervisory alarm System? _____ Geotechnical/Soils report required? (See Section 1802.2) N/A

Structural Design Calculations

See Attachment 1 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
Business	100 PSF
_____	_____
_____	_____
_____	_____
_____	_____

Wind loads (1603.1.4, 1609)

N/A Design option utilized (1609.1.1, 1609.6)
 N/A Basic wind speed (1809.3)
 N/A Building category and wind importance Factor, I_w (table 1604.5, 1609.5)
 N/A Wind exposure category (1609.4)
 N/A Internal pressure coefficient (ASCE 7)
 N/A Component and cladding pressures (1609.1.1, 1609.6.2.2)
 N/A Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

N/A Design option utilized (1614.1)
 N/A Seismic use group ("Category")
 N/A Spectral response coefficients, S_D & S_{D1} (1615.1)
 N/A 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)
 N/A Ground snow load, P_g (1608.2)
 N/A If $P_g > 10$ psf, flat-roof snow load P_f
 N/A If $P_g > 10$ psf, snow exposure factor, C_e
 N/A If $P_g > 10$ psf, snow load importance factor, I_s
 N/A Roof thermal factor, C_t (1608.4)
 N/A Sloped roof snowload, P_s (1608.4)
 N/A Seismic design category (1616.3)
 N/A Basic seismic force resisting system (1617.6.2)
 N/A Response modification coefficient, R and deflection amplification factor C_d (1617.6.2)
 N/A Analysis procedure (1616.6, 1617.5)
 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

_____ 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)