



Certificate of Design Application

From Designer: Port City Architecture / Becker Structural Engineers
 Date: 5/1/15
 Job Name: University of New England - Alumni Hall Renovation
 Address of Construction: _____

2009 International Building Code
 Construction project was designed to the building code criteria listed below:

Building Code & Year 2009 IBC / IEBC Use Group Classification (s) _____

Type of Construction _____

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) Yes / Completed

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
CORRIDORS ABOVE 1ST FLR	80 PSF
STAIRS	100 PSF
OFFICES	50 PSF + 15 PSF PARTITION
PUBLIC AREAS AND CORRIDORS SERVING	100 PSF

Wind loads (1603.1.4, 1609)

MTHD 2 Design option utilized (1609.1.1, 1609.6)
100 MPH 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 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)

EQUIV. LAT. FORCE Design option utilized (1614.1)
II Seismic use group ("Category")
0.328, 0.124 Spectral response coefficients, S_D & S_{D1} (1615.1)
D Site class (1615.1.5)

N/A Live load reduction
20 PSF Roof *live* loads (1603.1.2, 1607.11)
46 PSF+DRIFT Roof snow loads (1603.7.3, 1608)
60 PSF Ground snow load, P_g (1608.2)
46 PSF + DRIFT 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 Roof thermal factor, C_t (1608.4)
46 PSF + DRIFT Sloped roof snowload, P_S (1608.4)
B Seismic design category (1616.3)
R.MAS SW, WD SW Basic seismic force resisting system (1617.6.2)
2.0, 1.75 Response modification coefficient, R_f and
 deflection amplification factor, C_d (1617.6.2)
Equiv. Lat. Force Analysis procedure (1616.6, 1617.5)
Per ASCE 7-05 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

N/A Concentrated loads (1607.4)
Included Partition loads (1607.5)
N/A Misc. loads (Table 1607.8, 1607.6.1, 1607.7,
 1607.12, 1607.13, 1610, 1611, 2404)