



# Certificate of Design Application

From Designer:

Ryan Senatore Architecture

Date:

01/31/17

Job Name:

Baxter Academy - Interior Fit-Up

Address of Construction:

185 Lancaster Street

## 2009 International Building Code

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

Building Code & Year 2009 Use Group Classification (s) E

Type of Construction 3B

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

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

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

### 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
<u>CLASSROOMS</u>	<u>40 PSF</u>

<u>STAIRS</u>	<u>100 PSF</u>
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<u>MEETING ROOMS</u>	<u>100 PSF</u>
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<u>CORRIDORS ABOVE 1ST FLOOR</u>	<u>80 PSF</u>
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### 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, SDs & SDI (1615.1)

N/A Site class (1615.1.5)

N/A Live load reduction

N/A Roof *live* loads (1603.1.2, 1607.11)

46 PSF Roof snow loads (1603.7.3, 1608)

60 PSF Ground snow load,  $P_g$  (1608.2)

46 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,  $I_s$

1.1 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,  $R_f$  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

N/A 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)