Certificate of Design Application

From Designer: John H. Leasure Architect Inc.

Date: April 24, 2015

Job Name: Laser Tag, Arcade and Restroom Renovation

Address of Construction: 867 Riverside Stree, Ptld, ME 04103

2009 International Building Code

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

Building Code & Year 2009 Use Group Classification (s) Assembly A-3 (Special Amusement)

Type of Construction TYPE II (000)

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IBC Full NFPA13

Is the Structure mixed use? _____ If yes, separated or non separated or non separated (section 302.3) _____

Supervisory alarm System? YES Geotechnical/Soils report required? (See Section 1802.2) NO

Structural Design Calculations

YES 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
Assembly	100 PSF
Stairs, Exitways	100 PSF
Lobbies	100 PSF
Bowling Alleys	75 PSF

Wind loads (1603.1.4, 1609)

_____ 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)

C Wind exposure category (1609.4)

+- 0.18 Internal pressure coefficient (ASCE 7)

NA Component and cladding pressures (1609.1.1, 1609.6.2.2)

NA Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

1617.5 Design option utilized (1614.1)

II Seismic use group ("Category")

0.312/0.144 Spectral response coefficients, S_{DS} & S_{D1} (1615.1)

D Site class (1615.1.5)

NA Live load reduction

NA Roof *live* loads (1603.1.2, 1607.11)

NA Roof snow loads (1603.7.3, 1608)

NA Ground snow load, P_g (1608.2)

NA If P_g > 10 psf, flat-roof snow load P_f

NA If P_g > 10 psf, snow exposure factor, C_e

NA If P_g > 10 psf, snow load importance factor, I_s

NA Roof thermal factor, C_t (1608.4)

NA Sloped roof snowload, P_s (1608.4)

C Seismic design category (1616.3)

4G Basic seismic force resisting system (1617.6.2)

6.0 Response modification coefficient, R_I and

5.0 deflection amplification factor C_d (1617.6.2)

1617.5 Analysis procedure (1616.6, 1617.5)

0.075W Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

_____ Flood Hazard area (1612.3)

_____ Elevation of structure

Other loads

NA Concentrated loads (1607.4)

NA Partition loads (1607.5)

NA Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404