



# Certificate of Design Application

From Designer:

E.S. COFFIN ENGINEERING

Date:

4/23/14

Job Name:

80-90 MIDDLE STREET (9) RTU'S

Address of Construction:

80-90 MIDDLE STREET

## 2009 International Building Code

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

Building Code & Year 2009 IBC Use Group Classification (s) MIXED (B) (M)

Type of Construction TYPE 3 UNPROTECTED

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

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

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

### 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

### Wind loads (1603.1.4, 1609)

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

### Earth design data (1603.1.5, 1614-1623)

	Design option utilized (1614.1)
	Seismic use group ("Category")
	Spectral response coefficients, $S_A$ & $S_D$ (1615.1)
	Site class (1615.1.5)

	Live load reduction
	Roof live loads (1603.1.2, 1607.11)
	Roof snow loads (1603.7.3, 1608)
	Ground snow load, $P_g$ (1608.2)
	If $P_g > 10$ psf, flat-roof snow load $P_f$
	If $P_g > 10$ psf, snow exposure factor, $C_e$
	If $P_g > 10$ psf, snow load importance factor, $I_s$
	Roof thermal factor, $C_t$ (1608.4)
	Sloped roof snowload, $P_s$ (1608.4)
	Seismic design category (1616.3)
	Basic seismic force resisting system (1617.6.2)
	Response modification coefficient, $R$ , and deflection amplification factor $C_d$ (1617.6.2)
	Analysis procedure (1616.6, 1617.5)
	Design base shear (1617.4, 16175.5.1)

### Flood loads (1803.1.6, 1612)

	Flood Hazard area (1612.3)
	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)



# Accessibility Building Code Certificate

Designer: \_\_\_\_\_

Address of Project: \_\_\_\_\_

Nature of Project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

N/A

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.

(SEAL)

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

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# Certificate of Design

Date: 4/23/14

From: E.S. COFFIN ENGINEERING

These plans and / or specifications covering construction work on:

(a) RTW's to 80-90 Middle Street.

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the **2009 International Building Code** and local amendments.



*Ben Murray*  
4/23/14

Signature: *Ben Murray*

Title: PROJECT ENGINEER

Firm: E.S. COFFIN ENGINEERING

Address: P.O. Box 4687

AUGUSTA, ME 04330

Phone: 623-9475

For more information or to download this form and other permit applications visit the Inspections Division on our website at [www.portlandmaine.gov](http://www.portlandmaine.gov)