



Certificate of Design

Date: B 12/2/15

From: Bruce W. MacLeod, PE

These plans and / or specifications covering construction work on:

Wilson residence
88 Berkshire ~~Street~~ Road

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

Signature: Bruce W. MacLeod

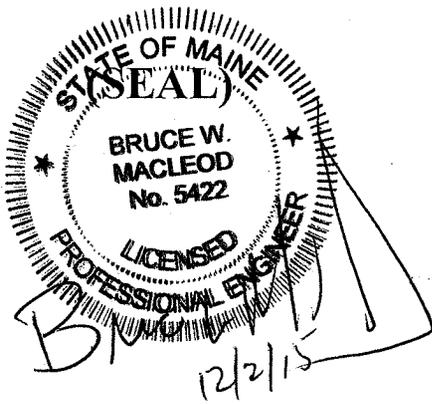
Title: Professional Engineer

Firm: MacLeod Structural Engineers

Address: 90 Bridge St. Suite 252
Westbrook, Me 04092

Phone: 207-839-0980

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For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov



Reviewed for Code Compliance
Inspection Division
Approved with Conditions
Date: 02/04/16

Certificate of Design Application

From Designer: Bruce W. MacLeod, P.E.
 Date: 12/2/15
 Job Name: Wilson Residence
 Address of Construction: 88 Berkshire ~~Road~~ Road

2009 International Building Code

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

Building Code & Year IRC 2009, where applicable Use Group Classification (s) R-3
 Type of Construction I (wood frame)
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC _____
 Is the Structure mixed use? NO If yes, separated or non separated or non separated (section 302.3) _____
 Supervisory alarm System? NO Geotechnical/Soils report required? (See Section 1802.2) _____

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
1st Flr	40 psf LL
2nd Flr.	30 psf @ sleeping rooms
_____	_____
_____	_____

Wind loads (1603.1.4, 1609)

_____ Design option utilized (1609.1.1, 1609.6)
100 mph Basic wind speed (1809.3)
 _____ Building category and wind importance Factor, w_b (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_D & S_{D1} (1615.1)
 _____ Site class (1615.1.5)

_____ Live load reduction
 _____ Roof live loads (1603.1.2, 1607.11)
Varies dep. on pitch Roof snow loads (1603.7.3, 1608)
60 psf 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, 1617.5.1)

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)