



# Certificate of Design Application

From Designer: Todd Neal  
 Date: April 1, 2015  
 Job Name: Fore Street Stair #2 Replacement  
 Address of Construction: 427 Fore Street, Portland, ME 04101

## 2009 International Building Code

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

Building Code & Year IBC 2009 Use Group Classification (s) S2 Parking Garage (Existing)

Type of Construction Existing

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC Existing

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

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

### 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

Floor Area Use	Loads Shown
<u>Stairs/landings</u>	<u>100psf or 300 lb concentrated load</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

### Wind loads (1603.1.4, 1609)

NA Design option utilized (1609.1.1, 1609.6)  
NA Basic wind speed (1809.3)  
NA Building category and wind importance Factor,  $I_w$  (table 1604.5, 1609.5)  
NA Wind exposure category (1609.4)  
NA 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)

NA Design option utilized (1614.1)  
NA Seismic use group ("Category")  
NA Spectral response coefficients,  $S_D$ s &  $S_{D1}$  (1615.1)  
NA 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)  
NA Seismic design category (1616.3)  
Existing Basic seismic force resisting system (1617.6.2)  
NA Response modification coefficient,  $R$ , and deflection amplification factor,  $C_d$  (1617.6.2)  
NA Analysis procedure (1616.6, 1617.5)  
NA Design base shear (1617.4, 1617.5.1)

### Flood loads (1803.1.6, 1612)

NA Flood Hazard area (1612.3)  
NA 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: Todd Neal

Address of Project: 427 Fore Street, Portland, ME 04101

Nature of Project: Replacement of existing stairs and  
landings to be code compliant

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.



Signature: 

Title: Vice President

Firm: Becker Structural Engineers

Address: 75 York Street  
Portland, ME 04101

Phone: 207-879-1838

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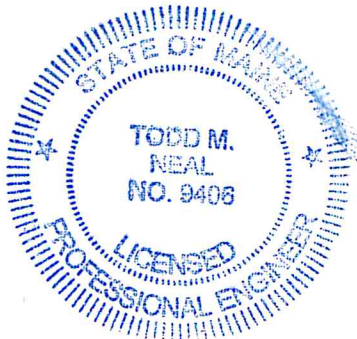
Date: April 1, 2015

From: Todd Neal

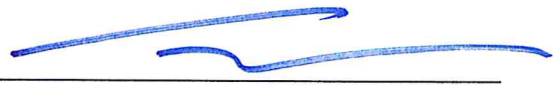
These plans and / or specifications covering construction work on:

Fore Street Parking Garage Stair #2 Replacement

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



**(SEAL)**

Signature: 

Title: Vice President

Firm: Becker Structural Engineers

Address: 75 York Street

Portland, ME 04101

Phone: 207-879-1838

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