



Envelope Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**

Project Title : Maine Wharf

Construction Site:

68 Commercial St
Portland, ME 04101

Owner/Agent:

Maine Wharf LLC
72 Commercial St
Portland, ME 04101

Designer/Contractor:

Archetype Architects
48 Union Wharf
Portland, ME 04101
207-772-6022

Section 2: General Information

Building Location (for weather data):

Portland, Maine

Climate Zone:

6a

Building Space Conditioning Type(s):

Nonresidential

Vertical Glazing / Wall Area Pct.:

31%**Activity Type(s)****Floor Area**

Dining: Bar Lounge/Leisure

4600

Office

7250

Section 3: Requirements Checklist

Envelope PASSES: Design 2% better than code.**Climate-Specific Requirements:**

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor ^(a)
Roof 1: Insulation Entirely Above Deck	4985	---	20.0	0.048	0.048
Roof 2: Insulation Entirely Above Deck	850	---	20.0	0.048	0.048
Exterior Wall 1: Steel-Framed, 16" o.c.	8555	19.0	10.0	0.052	0.064
Window 1: Metal Frame, Perf. Type: Other testing/cert. Product ID: AND-N-139, SHGC 0.22, PF 2.30 (c)	26	---	---	0.330	0.550
Window 2: Metal Frame, Perf. Type: Other testing/cert. Product ID: AND-N-139, SHGC 0.22 (c)	26	---	---	0.330	0.550
Window 3: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8351 Casement, SHGC 0.52 (c)	72	---	---	0.420	0.350
Window 4: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8351 Casement, SHGC 0.52 (c)	126	---	---	0.420	0.350
Window 5: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8351 Casement, SHGC 0.52 (c)	195	---	---	0.420	0.350
Window 6: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8351 Casement, SHGC 0.49, PF 2.30 (c)	669	---	---	0.420	0.350
Window 7: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8351 Casement, SHGC 0.52 (c)	264	---	---	0.420	0.350
Window 8: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8351 Casement, SHGC 0.52 (c)	121	---	---	0.420	0.350
Window 9: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8351 Casement, SHGC 0.49 (c)	68	---	---	0.420	0.350
Window 10: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8351 Casement, SHGC 0.52 (c)	44	---	---	0.420	0.350

Window 11: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8361 Fixed Casement, SHGC 0.63 (c)	245	---	---	0.430	0.350
Window 12: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8361 Fixed Casement, SHGC 0.63 (c)	160	---	---	0.430	0.350
Window 13: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8361 Fixed Casement, SHGC 0.63 (c)	114	---	---	0.430	0.350
Window 14: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8361 Fixed Casement, SHGC 0.63 (c)	38	---	---	0.430	0.350
Window 15: Vinyl Frame, Perf. Type: Other testing/cert. Product ID: 8361 Fixed Casement, SHGC 0.63 (c)	58	---	---	0.430	0.350
Window 16: Metal Frame, Perf. Type: Other testing/cert. Product ID: AND-N-139, SHGC 0.22 (c)	290	---	---	0.330	0.550
Window 17: Metal Frame, Perf. Type: Other testing/cert. Product ID: AND-N-139, SHGC 0.22 (c)	97	---	---	0.330	0.550
Floor 1: Slab-On-Grade:Unheated, Horizontal without vertical 4 ft.	4450	--	5.0	---	---

- (a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
 (b) 'Other' components require supporting documentation for proposed U-factors.
 (c) Fenestrations product performance must be certified in accordance with NFRC and requires supporting documentation.


Air Leakage, Component Certification, and Vapor Retarder Requirements:

- 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- 2. Windows, doors, and skylights certified as meeting leakage requirements.
- 3. Component R-values & U-factors labeled as certified.
- 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- 5. 'Other' components have supporting documentation for proposed U-Factors.
- 6. Insulation installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.
- 7. Stair, elevator shaft vents, and other outdoor air intake and exhaust openings in the building envelope are equipped with motorized dampers.
- 8. Cargo doors and loading dock doors are weather sealed.
- 9. Recessed lighting fixtures installed in the building envelope are Type IC rated as meeting ASTM E283, are sealed with gasket or caulk.
- 10. Building entrance doors have a vestibule equipped with self-closing devices.
Exceptions:
 - Building entrances with revolving doors.
 - Doors not intended to be used as a building entrance.
 - Doors that open directly from a space less than 3000 sq. ft. in area.
 - Doors used primarily to facilitate vehicular movement or materials handling and adjacent personnel doors.
 - Doors opening directly from a sleeping/dwelling unit.

Section 4: Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2009 IECC requirements in COMcheck Version 3.9.3 and to comply with the mandatory requirements in the Requirements Checklist.

WILLIAM HOPKINS
ARCHITECT


 Signature

2-5-14
 Date