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Envelope Compliance Certificate

Section 1: Project Information

Energy Code: **2009 IECC**

Project Title: 502 Deering Center

Project Type: New Construction

Construction Site:

502 Stevens Ave
Portland, Maine 04103

Owner/Agent:

Denis Lachman
502 Deering Center LLC
55 Hamblet Ave
Portland, Maine 04103
207-831-8585
denis@lachmanarchitects.com

Designer/Contractor:

Denis Lachman
Lachman Architects & Planners
55 Hamblet Ave
Portland, Maine 04103
207-831-8585
denis@lachmanarchitects.com

Building Location (for weather data):

Climate Zone:

Vertical Glazing / Wall Area Pct.:

Portland, Maine

6a

18%

Building Use: Activity Type(s)

Floor Area

1-Multifamily : Nonresidential

5010

2-Retail : Nonresidential

2640

Section 2: Envelope Assemblies and Requirements Checklist

Envelope PASSES: Design 2% better than code.

Envelope Assemblies:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor ^(a)
Roof: Insulation Entirely Above Deck, [Bldg. Use 1 - Multifamily]	2505	---	38.0	0.026	0.048
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Multifamily]	4800	25.0	0.0	0.057	0.051
Window: Vinyl Frame, Perf. Specs.: Product ID 135-00149-00001, SHGC 0.30, [Bldg. Use 1 - Multifamily] (b)	696	---	---	0.300	0.350
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 2 - Retail]	2420	25.0	0.0	0.057	0.051
Window: Vinyl Frame, Perf. Specs.: Product ID 136-00017-00001, SHGC 0.28, [Bldg. Use 2 - Retail] (b)	450	---	---	0.280	0.350
Door: , Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 2 - Retail]	180	---	---	0.800	0.800
Floor: Unheated Slab-On-Grade, Horizontal with vertical 4 ft., [Bldg. Use 2 - Retail]	227	---	10.0	---	---

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

(b) Fenestration 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.

~~N/A~~ 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 3: 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-Web and to comply with the mandatory requirements in the Requirements Checklist.

Denis Lachman, Architect



7/10/17

Name - Title

Signature

Date