COM*check* Software Version 4.0.5.0

Envelope Compliance Certificate

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/08/17

Section 1: Project Information

Energy Code: **2009 IECC**
Project Title: Medical Office
Project Type: New Construction

Construction Site:
1945 Congress St
Portland, ME 04102
Permit No. BP#2017-00017

Owner/Agent:
Brad Fries
Diversified Partners LLC
17 South Street, 3rd Floor
Portland, ME 04101
(207) 780-0223
brad@northlandus.com

Designer/Contractor:
Kevin Gough
Archetype
48 Union Wharf
Portland, ME 04101
207-772-6022
gough@archetypepa.com

Building Location (for weather data): Portland, Maine
Climate Zone: 6a
Vertical Glazing / Wall Area Pct.: **15%**

Building Use: Activity Type(s)	Floor Area
1-Slab on Grade (Office) : Nonresidential	7655
2-Roof A (Office) : Nonresidential	1986
3-Roof B (Office) : Nonresidential	2182
4-Roof C (Office) : Nonresidential	1162
5-Roof D (Office) : Nonresidential	3061
6-North Wall (Office) : Nonresidential	4344
7-East Wall (Office) : Nonresidential	2266
8-South Wall (Office) : Nonresidential	4194
9-West Wall (Office) : Nonresidential	2667
10-Basement North (Office) : Nonresidential	159
11-Basement South (Office) : Nonresidential	922
12-Basement West (Office) : Nonresidential	232
13-Basement East (Office) : Nonresidential	885

Section 2: Envelope Assemblies and Requirements Checklist

Envelope PASSES: Design 1% 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)
Floor 1: Slab-On-Grade:Unheated, Vertical 4 ft., [Bldg. Use 1 - Slab on Grade]	475	---	0.0	---	---
Basement Wall 1: Solid Concrete:10" Thickness, Normal Density, Furring: Metal, Wall Ht 10.2, Depth B.G. 7.0, [Bldg. Use 10 - Basement North]	159	21.0	0.0	0.131	0.108
Basement Wall 2: Solid Concrete:10" Thickness, Normal Density, Furring: Metal, Wall Ht 10.2, Depth B.G. 7.0, [Bldg. Use 11 - Basement South]	922	21.0	0.0	0.131	0.108
Basement Wall 3: Solid Concrete:10" Thickness, Normal Density, Furring: Metal, Wall Ht 10.2, Depth B.G. 7.0, [Bldg. Use 12 - Basement West]	232	21.0	0.0	0.131	0.108
Basement Wall 4: Solid Concrete:10" Thickness, Normal Density, Furring: Metal, Wall Ht 10.2, Depth B.G. 7.0, [Bldg. Use 13 - Basement East]	885	21.0	0.0	0.131	0.108
Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 6 - North Wall]	4344	13.0	10.0	0.045	0.051

Window 1: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Kohltech Select Casement, SHGC 0.54, [Bldg. Use 6 - North Wall] (b)	540	---	---	0.280	0.350
Window 5: Metal Frame Curtain Wall/Storefront, Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 6 - North Wall]	260	---	---	0.800	0.450
Door 1: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 6 - North Wall]	21	---	---	0.800	0.800
Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 7 - East Wall]	2266	13.0	10.0	0.045	0.051
Window 2: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Kohltech Select Casement, SHGC 0.54, [Bldg. Use 7 - East Wall] (b)	282	---	---	0.280	0.350
Door 2: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 7 - East Wall]	21	---	---	0.800	0.800
Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 8 - South Wall]	4194	13.0	10.0	0.045	0.051
Window 3: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Kohltech Select Casement, SHGC 0.54, [Bldg. Use 8 - South Wall] (b)	526	---	---	0.280	0.350
Window 6: Metal Frame Curtain Wall/Storefront, Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 8 - South Wall]	264	---	---	0.800	0.450
Door 3: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 8 - South Wall]	21	---	---	0.800	0.800
Exterior Wall 4: Wood-Framed, 16" o.c., [Bldg. Use 9 - West Wall]	2667	13.0	10.0	0.045	0.051
Window 4: Vinyl/Fiberglass Frame, Perf. Specs.: Product ID Kohltech Select Casement, SHGC 0.54, [Bldg. Use 9 - West Wall] (b)	198	---	---	0.280	0.350
Door 4: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 9 - West Wall]	21	---	---	0.800	0.800
Door 5: Insulated Metal, Swinging, [Bldg. Use 9 - West Wall]	32	---	---	0.498	0.700
Roof 1: Insulation Entirely Above Deck, [Bldg. Use 2 - Roof A]	1986	---	40.0	0.025	0.048
Roof 2: Insulation Entirely Above Deck, [Bldg. Use 3 - Roof B]	2182	---	40.0	0.025	0.048
Roof 3: Attic Roof with Wood Joists, [Bldg. Use 4 - Roof C]	1162	38.0	0.0	0.027	0.027
Roof 4: Insulation Entirely Above Deck, [Bldg. Use 5 - Roof D]	3061	---	40.0	0.025	0.048

(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.

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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.
- N/A ☐ 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, specificat and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2009 IE requirements in COM*check* Version 4.0.5.0 and to comply with the mandatory requirements in the Requirements Checklist.

KEVIN GOUGH, ARCHITECT — Name - Title

Signature

12 APRIL 2017 — Date

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