Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 02/29/16

COM*check* Software Version 4.0.1
Envelope Compliance Certificate

Section 1: Project Information

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

Construction Site:
1039 Riverside Street
Unit #9
Portland, ME 04103

Owner/Agent:
Patrick Keeley
Moongate Properties, LLC
Portland, ME 040103

Designer/Contractor:
Biskup Construction, Inc.
16 Danielle Drive
Windham, ME 04062
207-892-9800

Building Location (for weather data): Portland, Maine
Climate Zone: 6a
Vertical Glazing / Wall Area Pct.: **0%**

Building Use: Activity Type(s)	Floor Area
1-Manufacturing Facility : Nonresidential	10925

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)
Roof (Standing Seam): Other Metal Building Roof, [Bldg. Use 1 - Manufacturing Facility] (b) Comments: Liner System R-11 + R-19 Ashrae Table A2.3	10925	---	---	0.040	0.049
Concrete Block Wall: Concrete Block:8", Partially Grouted, Cells Empty,Normal Density , Furring: None, [Bldg. Use 1 - Manufacturing Facility]	306	---	0.0	0.550	0.080
Alum. Entrance: Glass (> 50% glazing):Metal Frame, Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 1 - Manufacturing Facility]	15	---	---	0.800	0.800
Metal Bldg. Walls: Other Metal Building Wall, [Bldg. Use 1 - Manufacturing Facility] (b) Comments: 6" R-19 MBI, Ashrae Table A3.2	7841	---	---	0.084	0.069
Overhead doors (Clopay): Insulated Metal, Non-Swinging, [Bldg. Use 1 - Manufacturing Facility] Comments: Clopay Model 3717	220	---	---	0.066	0.500
3070 pass door: Insulated Metal, Swinging, [Bldg. Use 1 - Manufacturing Facility] Comments: Ashrae Table A7.1 B	42	---	---	0.500	0.700
Alum. Entrance: Glass (> 50% glazing):Metal Frame, Perf. Type: Energy code default, Double Pane with Low-E, Clear , SHGC 0.70, [Bldg. Use 1 - Manufacturing Facility]	26	---	---	0.800	0.800
Concrete Kicker Wall: Solid Concrete:8" Thickness,Normal Density , Furring: Metal, [Bldg. Use 1 - Manufacturing Facility]	573	0.0	5.0	0.131	0.080
Overhead doors: Insulated Metal, Non-Swinging, [Bldg. Use 1 - Manufacturing Facility] Comments: Clopay Model 3717	20	---	---	0.066	0.500
3070 pass door: Insulated Metal, Swinging, [Bldg. Use 1 - Manufacturing Facility] Comments: Ashrae Table A7.1 B	6	---	---	0.500	0.700
Floor 1: Slab-On-Grade:Unheated, Vertical 4 ft., [Bldg. Use 1 - Manufacturing Facility]	420	---	10.0	---	---

(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.

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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.
- ☑ 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 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 COM*check* Version 4.0.1 and to comply with the mandatory requirements in the Requirements Checklist.

President		12/29/15
Name - Title	Signature	Date

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Clopay Model 3717 Specifications

PART 1 GENERAL

1.01 Section Includes

A. Upward Acting Sectional Steel Doors, including unit sections, brackets, tracks, glazing, counter balance mechanisms, and hardware.

1.02 Related Work

A. Opening preparation, miscellaneous or structural steel, finish or field painting, electrical wires, wiring, disconnect switches, conduit are in the scope of the work of other sections or trades.

B. Submit manufacturer's product data and installation instructions for each type of sectional door. Include both published data and any specific data prepared for this project.

1.03 Single Source Responsibility

A. Provide door, tracks, motors and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

PART 2 PRODUCT

2.01 Manufacturer

A. Upward Acting Sectional Steel Doors are to be Clopay® Model 3717 as manufactured by Clopay Building Products Company, Inc.

2.02 Material /Construction

A. Type: 1-3/4" (44.45 mm) thick, sandwich construction, roll-formed commercial steel.

B. Size: Standard maximum door size is 26'2" (7.98 m) wide by 20' (6.1 m) high.

C. Section Joint: Sections to form a weather-tight tongue and groove joint.

D. Material : Hot-dipped galvanized, complying with ASTM A-924, A-653, exterior and interior skins separated to form thermal break and filled by foamed-in-place polyurethane core; standard lift operating style with track and hardware; complying with DASMA 102, commercial application.

E. Finish: Pre-finished interior and exterior skins with 1-mil, three coat baked-on polyester topcoat over primer on a phosphate coating.

1. Exterior Skin: 27 gauge (.016", (.40 mm) minimum) exterior steel face sheet with stucco texture, shallow U-ribbed. Color: white, brown, tan, grey, Trinar® white, Trinar® beige

2. Interior Skin: 27 gauge (.016", (.40 mm) minimum) interior steel face sheet with stucco texture, shallow U-ribbed. Color: white

2.03 Related Door Components

A. End Stiles: Galvanized steel. Attachment hardware to have pre-punched holes.

1. 18 gauge (.045", (1.14 mm) minimum) single end hinge style.

2. 16 gauge (.056", (1.42 mm) minimum) double end hinge style.

B. Hinge and Roller Assemblies: Hinges and brackets to be 14 gauge (.070", (1.78 mm) minimum) galvanized steel.

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1. Ten-ball steel rollers to be full-floating ball bearing in case hardened steel races and mounted to fit the taper of the track.

C. Hinge Back-up Plate: 19 gauge (.034", (.86 mm) minimum) galvanized steel.

1. Located at the top and bottom on the inside of each section.

2. 2" (50.8 mm) x 3" (76.2 mm) plates spaced at 44" (1.12 m) O.C.

2.04 Insulation

A. 1-3/4" Foamed- In-Place Polyurethane: R-value = 15.05, U-value = .066

2.05 Tracks

A. Horizontal Track: To be 14 gauge (.075", (1.91 mm) minimum) galvanized steel reinforced with 13 gauge (.085", (2.16 mm) minimum) galvanized steel angles.

B. Rolled Galvanized Steel (select one): Standard lift track, vertical lift track, high lift track, follow-the-roof slope track, low headroom track provide: 2" (50.8 mm) or 3" (76.2 mm) as required.

C. Vertical Tracks: To be 16 gauge (.060", (1.52 mm) minimum) galvanized steel, tapered and mounted for wedge type closing.

D. Mounting: Interior face mounted on a prepared surface.

E. Track Mounting (select one):

1. Bracket Mounting: Galvanized steel mounting brackets 12 gauge (.101", (2.57 mm) minimum) thick for wood jambs.

2. Continuous or Reverse Galvanized Steel Angle Mounting: 12 gauge (.101", (2.57 mm) minimum) angle for steel jambs; splice plates 12 gauge (.101", (2.57 mm) minimum).

2.06 Spring Counterbalance

A. Springs: Shall be torsion type, low stress, helically wound, oil-tempered spring on a galvanized steel tube or solid steel shaft. Wire to provide 10,000 cycles minimum.

1. 25,000 cycles

2. 50,000 cycles

3. 100,000 cycles

B. Cable Drums: Die cast aluminum.

C. Cable: Pre-formed galvanized steel aircraft cable to provide a minimum of a 7:1 safety factor.

2.07 Operation

A. Operation Shall Be: Manual push-up, chain hoist, or motor operated.

B. For Manual Operation: Requiring maximum exertion of the greater of 5% of door weight or 25 lbs. 111.2 N) force to open. Use pull rope supplied.

C. Inside and outside roll-grip handle.

2.08 Weather-stripping

A. Section Joint Seal Tape: Neoprene foam seal, one-piece full length between joint of sections.

B. Field Installed Jamb/Header Weather-stripping: Extruded vinyl, placed in moderate contact with outside of door sections.