



# COMcheck Software Version 3.5.0 Envelope Compliance Certificate

## 90.1 (2004) Standard

Report Date: 10/23/07

Data filename: C:\Program Files\Check\COMcheck\McD's-Portland-ME.cck

### Section 1: Project Information

Project Title: McDonald's Restaurant

Construction Site:  
332 St John Street  
Portland, ME

Owner/Agent:

Designer/Contractor:  
Landry Architects  
389 Main Street - 2nd Floor  
Salem, NH 03079  
603-890-6414

### Section 2: General Information

Building Location (for weather data): **Portland, Maine**  
Heating Degree Days (base 65 degrees F): **7378**  
Cooling Degree Days (base 50 degrees F): **1943**  
Building Type for Envelope Requirements: **Non-Residential**  
Project Type: **New Construction**  
Vertical Glazing / Wall Area Pct.: **14%**

**Activity Type(s)** **Floor Area**  
Common Space Types: Dining Area - Family Restaurant 5408

### Section 3: Requirements Checklist

**Envelope PASSES: Design 5% 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
Roof 1: All-Wood Joist/Rafter/Truss	5408	0.0	30.0	0.032	0.027
Exterior Wall 1: Wood Frame, Any Spacing	5194	19.0	0.0	0.067	0.089
Window 1: Metal Frame with Thermal Break: Double Pane with Low-E, Clear, Fixed, SHGC 0.63	700	---	---	0.540	0.570
Door 1: Glass, Other, SHGC 0.40	42	---	---	0.350	0.570
Door 2: Insulated Metal, Swinging	56	---	---	0.600	0.700
Floor 1: Slab-On-Grade: Unheated, Horizontal without vertical 4 ft.	320	---	10.0	---	---

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

#### Insulation:

- 1. Open-blown or poured loose-fill insulation has not been used in attic roof spaces with ceiling slope greater than 3 in 12.
- 2. Wherever vents occur, they are baffled to deflect incoming air above the insulation.
- 3. Recessed lights, equipment and ducts are not affecting insulation thickness.
- 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- 5. All exterior insulation is covered with protective material.
- 6. Cargo and loading dock doors are equipped with weather seals.

#### Fenestration and Doors:

- 7. Windows and skylights are labeled and certified by the manufacturer for U-factor and SHGC.
- 8. Fixed windows and skylights unlabeled by the manufacturer have been site labeled using the default U-factor and SHGC.
- 9. Other unlabeled vertical fenestration, operable and fixed, that are unlabeled by the manufacturer have been site labeled using the default U-factor and SHGC. No credit has been given for metal frames with thermal breaks, low-emissivity coatings, gas fillings, or insulating spacers.

**Air Leakage and Component Certification:**

- 10. All joints and penetrations are caulked, gasketed, weather-stripped, or otherwise sealed.
- 11. Windows, doors, and skylights certified as meeting leakage requirements.
- 12. Component R-values & U-factors labeled as certified.
- 13. Building entrance doors have a vestibule and equipped with closing devices.

*Exceptions:*

Buildings less than four stories above grade. Building entrances with revolving doors.

Doors that open directly from a space less than 3000 sq. ft. in area.

- 14. 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.

**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 90.1 (2004) Standard requirements in COMcheck Version 3.5.0 and to comply with the mandatory requirements in the Requirements Checklist.

RICHARD E. LANDRY, SR., AIA            10/24/07  
 Name - Title      PRINCIPAL ARCHITECT      Signature      Date