

Permit #
Permit Date



COMcheck Software Version 3.2.0

# Envelope Compliance Certificate

## 2003 IECC

Report Date: 03/02/06

Data filename: C:\Documents and Settings\d3a746\My Documents\FILES\BSGP\Training\COMcheck Online\Bubbas.cck

### Section 1: Project Information

Project Title: Bubba's Place

Construction Site:

Owner/Agent:

Designer/Contractor:

### Section 2: General Information

Building Location (for weather data): **Cooperstown, North Dakota**  
 Climate Zone: **17**  
 Heating Degree Days (base 65 degrees F): **9316**  
 Cooling Degree Days (base 65 degrees F): **495**  
 Project Type: **New Construction**  
 Vertical Glazing / Wall Area Pct.: **10%**

<b>Building Type</b>	<b>Floor Area</b>
Restaurant	1000

### Section 3: Requirements Checklist

**Envelope FAILS: Mandatory Requirements Violated**

#### Climate-Specific Requirements:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor
Roof 1: Non-Wood Joist/Rafter/Truss	1000	19.0	5.0	0.045	0.043
<i>Exterior Wall 1: Metal Frame, 16" o.c.</i>	1170	13.0	0.0	0.132	0.064
Window 1: Vinyl Frame:Double Pane, Clear, SHGC 0.40	70	---	---	0.560	0.520
Door 1: Glass, Clear, SHGC 0.40	42	---	---	0.920	0.520
Door 2: Solid	21	---	---	0.700	0.108
Floor 1: Slab-On-Grade:Unheated	130	---	---	---	---

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.  
 (b) This component fails a mandatory U-factor/R-value requirement (components that fail are printed in italics).

#### 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. 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.
- 5. Stair, elevator shaft vents, and other dampers integral to the building envelope are equipped with motorized dampers.
- 6. Cargo doors and loading dock doors are weather sealed.

- 7. Recessed lighting fixtures are: (i) Type IC rated and sealed or gasketed; or (ii) installed inside an appropriate air-tight assembly with a 0.5 inch clearance from combustible materials and with 3 inches clearance from insulation material.
- 8. Building entrance doors have a vestibule and equipped with closing devices.  
*Exceptions:*
  - Building entrances with revolving doors.
  - Doors that open directly from a space less than 3000 sq. ft. in area.
- 9. Vapor retarder installed.

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# Lighting Compliance Certificate

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### Section 1: Project Information

Project Title: Bubba's Place

Construction Site:

Owner/Agent:

Designer/Contractor:

### Section 2: General Information

Building Use Description by:

Project Type: **New Construction**

**Building Type**

Restaurant

**Floor Area**

1000

### Section 3: Requirements Checklist

#### Interior Lighting:

1. Total actual watts must be less than or equal to total allowed watts.

Allowed Watts	Actual Watts	Complies
1600	0	YES

2. Exit signs 5 Watts or less per side.

#### Exterior Lighting:

3. Efficacy greater than 45 lumens/W.

*Exceptions:*

Specialized lighting highlighting features of historic buildings; signage; safety or security lighting; low-voltage landscape lighting.

#### Controls, Switching, and Wiring:

4. Independent controls for each space (switch/occupancy sensor).

*Exceptions:*

Areas designated as security or emergency areas that must be continuously illuminated.  
Lighting in stairways or corridors that are elements of the means of egress.

5. Master switch at entry to hotel/motel guest room.

6. Individual dwelling units separately metered.

7. Each space provided with a manual control to provide uniform light reduction by at least 50%.

*Exceptions:*

Only one luminaire in space;  
An occupant-sensing device controls the area;  
The area is a corridor, storeroom, restroom, public lobby or guest room;  
Areas that use less than 0.6 Watts/sq.ft.

8. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

9. Photocell/astronomical time switch on exterior lights.

*Exceptions:*

Lighting intended for 24 hour use.

- 10. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

*Exceptions:*

Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

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# Lighting Application Worksheet

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### Section 1: Allowed Lighting Power Calculation

A	B Floor Area	C Allowed Watts / ft2	D Allowed Watts
Restaurant	1000	1.6	1600
Total Allowed Watts =			1600

### Section 2: Actual Lighting Power Calculation

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Total Actual Watts =				0

### Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Actual Watts is greater than or equal to zero, the building complies.

Total Allowed Watts = 1600  
 Total Actual Watts = 0  
 Project Compliance = 1600

**Lighting FAILS: Design 100% worse than code.**

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# Mechanical Compliance Certificate

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## Section 1: Project Information

Project Title: Bubba's Place

Construction Site:

Owner/Agent:

Designer/Contractor:

## Section 2: General Information

Building Location (for weather data):	<b>Cooperstown, North Dakota</b>
Climate Zone:	<b>17</b>
Heating Degree Days (base 65 degrees F):	<b>9316</b>
Cooling Degree Days (base 65 degrees F):	<b>495</b>
Project Type:	<b>New Construction</b>

## Section 3: Mechanical Systems List

Quantity   System Type & Description

## Section 4: Requirements Checklist



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# Mechanical Requirements Description

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