# COM*check* Software Version 3.9.4
# Envelope Compliance Certificate

## 2012 IECC

## Section 1: Project Information

Project Type: **New Construction**
Project Title : MARQUIS AT BARTON TRAILS

Construction Site:
5417 S. MOPAC
AUSTIN, TX 78749

Owner/Agent:
KELLY GROSSMAN ARCHITECTS
260 ADDIE ROY RD #210
AUSTIN, TX 78746
512-327-3397

Designer/Contractor:
EN INCORPORATED
13581 POND SPRINGS RD
SUITE 400
AUSTIN , TX 78729
512-918-9315

Additional Efficiency Package: **Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.**

## Section 2: General Information

| | |
|---|---|
| Building Location (for weather data): | **Austin, Texas** |
| Climate Zone: | **2a** |
| Building Space Conditioning Type(s): | **Nonresidential** |
| Vertical Glazing / Wall Area Pct.: | **23%** |

| Building Type | Floor Area |
|---|---|
| Office | 1602 |


## Section 3: Envelope Assemblies

**Envelope PASSES**: Design 1% 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(a) |
|---|---|---|---|---|---|
| Roof 1: Attic Roof with Wood Joists | 1602 | 38.0 | 0.0 | 0.027 | 0.027 |
| FRONT: Wood-Framed, 16" o.c. | 1395 | 15.0 | 2.0 | 0.069 | 0.064 |
| Window 1: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25 (b) | 26 | --- | --- | 0.400 | 0.500 |
| Window 2: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.33 (b) | 27 | --- | --- | 0.400 | 0.500 |
| Window 3: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.17 (b) | 293 | --- | --- | 0.400 | 0.500 |
| Window 4: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.33 (b) | 9 | --- | --- | 0.400 | 0.500 |
| Window 5: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.17 (b) | 53 | --- | --- | 0.400 | 0.500 |
| Window 6: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.17 (b) | 36 | --- | --- | 0.400 | 0.500 |
| Door 1: Wood, Non-Swinging | 64 | --- | --- | 0.400 | 0.400 |
| BACK: Wood-Framed, 16" o.c. | 1604 | 15.0 | 2.0 | 0.069 | 0.064 |
| Window 7: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.46 (b) | 48 | --- | --- | 0.400 | 0.500 |
| Window 8: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.50 (b) | 72 | --- | --- | 0.400 | 0.500 |
| Window 9: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 1.38 (b) | 45 | --- | --- | 0.400 | 0.500 |

| | | | | | |
|---|---|---|---|---|---|
| Window 10: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.50 (b) | 180 | --- | --- | 0.400 | 0.500 |
| Door 2: Glass (> 50% glazing):Metal Frame, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25, PF 0.46 (b) | 48 | --- | --- | 0.400 | 0.830 |
| RIGHT: Wood-Framed, 16" o.c. | 367 | 15.0 | 2.0 | 0.069 | 0.064 |
| Window 11: Wood Frame:Double Pane with Low-E, Perf. Type: Other testing/cert. Product ID: NA, SHGC 0.25 (b) | 12 | --- | --- | 0.400 | 0.500 |
| LEFT: Wood-Framed, 16" o.c. | 400 | 15.0 | 2.0 | 0.069 | 0.064 |
| Floor 1: Slab-On-Grade:Unheated | 1048 | --- | --- | --- | --- |

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

(b) Fenestrations product performance must be certfied in accordance with NFRC and requires supporting documentation.

## 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 2012 IECC requirements in COM*check* Version 3.9.4 and to comply with the mandatory requirements in the Requirements Checklist.

ERIN GOOD — Name - Title

Erin Good — Signature

08/14/14 — Date

# COM*check* Software Version 3.9.4
# Interior Lighting and Power Compliance Certificate

## 2012 IECC

## Section 1: Project Information

Project Type: **New Construction**
Project Title : MARQUIS AT BARTON TRAILS

Construction Site:
5417 S. MOPAC
AUSTIN, TX 78749

Owner/Agent:
KELLY GROSSMAN ARCHITECTS
260 ADDIE ROY RD #210
AUSTIN, TX 78746
512-327-3397

Designer/Contractor:
EN INCORPORATED
13581 POND SPRINGS RD
SUITE 400
AUSTIN , TX 78729
512-918-9315

Additional Efficiency Package: **Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.**

## Section 2: Interior Lighting and Power Calculation

| A | B<br>Floor Area | C<br>Allowed Watts / ft2 | D<br>Allowed Watts |
|---|---|---|---|
| Office | 1602 | 0.85 | 1362 |
| | | Total Allowed Watts = | 1362 |

## Section 3: Interior Lighting Fixture Schedule

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/ Fixture | C<br># of Fixtures | D<br>Fixture Watt. | E<br>(C X D) |
|---|---|---|---|---|
| **Office (1602 sq.ft.)** | | | | |
| Compact Fluorescent 1: A: RECSSED CAN: Twin Tube 18W: Electronic: | 1 | 15 | 18 | 270 |
| Incandescent 1: G: DF-1 CHANDELIER: Incandescent 30W: | 8 | 1 | 420 | 420 |
| Incandescent 2: L: DF-2 WALL SCONCE: Incandescent 40W: | 1 | 2 | 40 | 80 |
| Incandescent 3: H: DF-3 PENDANT CHANDLIER: Incandescent 40W: | 4 | 1 | 160 | 160 |
| Linear Fluorescent 1: B: DF-4 OFFICES & STORAGE: Other: Electronic: | 2 | 2 | 64 | 128 |
| Linear Fluorescent 2: D: DF-6 RESTROOM LINEAR: 22" T5 HO 24W: Electronic: | 1 | 4 | 24 | 96 |
| Compact Fluorescent 2: E: DF-7 RESTROOM CEILING MOUNTED: Other: Electronic: | 1 | 2 | 64 | 128 |
| Linear Fluorescent 3: J: DF-8 BUSINESS CENTER LINEAR: Other: Electronic: | 1 | 1 | 35 | 35 |
| Linear Fluorescent 4: K: DF-9 RECESSED KITCHEN WALL: Other: Electronic: | 1 | 1 | 28 | 28 |
| | | | Total Proposed Watts = | 1345 |

**Interior Lighting PASSES**: Design 1% better than code.

## Section 4: Compliance Statement

*Compliance Statement:* The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2012 IECC requirements in COM*check* Version 3.9.4 and to comply with the mandatory requirements in the Requirements Checklist.

ERIN GOOD — Name - Title
Erin Good — Signature
08/14/14 — Date

## Section 5: Post Construction Compliance Statement

## Record Drawings and Operating and Maintenance Manuals:

☐ 1. Construction documents with record drawings and operating and maintenance manuals provided to the owner.

| Lighting Designer or Contractor Name | Signature | Date |
|---|---|---|

COM*check* Software Version 3.9.4

# Exterior Lighting Compliance Certificate

## 2012 IECC

## Section 1: Project Information

Project Type: **New Construction**
Project Title : MARQUIS AT BARTON TRAILS
Exterior Lighting Zone: **2 (Residential mixed use area)**

Construction Site:
5417 S. MOPAC
AUSTIN, TX 78749

Owner/Agent:
KELLY GROSSMAN ARCHITECTS
260 ADDIE ROY RD #210
AUSTIN, TX 78746
512-327-3397

Designer/Contractor:
EN INCORPORATED
13581 POND SPRINGS RD
SUITE 400
AUSTIN , TX 78729
512-918-9315

Additional Efficiency Package: **Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.**

## Section 2: Exterior Lighting Area/Surface Power Calculation

| A<br>Exterior Area/Surface | B<br>Quantity | C<br>Allowed Watts / Unit | D<br>Tradable Wattage | E<br>Allowed Watts (B x C) | F<br>Proposed Watts |
|---|---|---|---|---|---|
| ENTRY (Main entry) | 58 ft of door width | 20 | Yes | 1160 | 78 |
| BACK PORCH (Entry canopy) | 101 ft2 | 0.25 | Yes | 25 | 78 |
| BACK PORCH (Entry canopy) | 221 ft2 | 0.25 | Yes | 55 | 182 |
| CORRIDOR (Illuminated area of facade wall or surface) | 94 ft2 | 0.1 | No | 9 | 52 |
| | | | Total Tradable Watts* = | 1241 | 338 |
| | | | Total Allowed Watts = | 1250 | |
| | | | Total Allowed Supplemental Watts** = | 600 | |

* Wattage tradeoffs are only allowed between tradable areas/surfaces.

** A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

## Section 3: Exterior Lighting Fixture Schedule

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/ Fixture | C<br># of Fixtures | D<br>Fixture Watt. | E<br>(C X D) |
|---|---|---|---|---|
| **ENTRY ( Main entry 58 ft of door width): Tradable Wattage** | | | | |
| Compact Fluorescent 1: C: CLG MTD: Spiral 26W: Electronic: | 1 | 1 | 26 | 26 |
| Compact Fluorescent 5: F: WALL MTD: Spiral 26W: Electronic: | 1 | 2 | 26 | 52 |
| **BACK PORCH ( Entry canopy 101 ft2): Tradable Wattage** | | | | |
| Compact Fluorescent 2: C: CLG MTD: Spiral 26W: Electronic: | 1 | 1 | 26 | 26 |
| Compact Fluorescent 7: F: WALL MTD: Spiral 26W: Electronic: | 1 | 2 | 26 | 52 |
| **BACK PORCH ( Entry canopy 221 ft2): Tradable Wattage** | | | | |
| Compact Fluorescent 3: C: CLG MTD: Spiral 26W: Electronic: | 1 | 2 | 26 | 52 |
| Compact Fluorescent 6: F: WALL MTD: Spiral 26W: Electronic: | 1 | 5 | 26 | 130 |
| **CORRIDOR ( Illuminated area of facade wall or surface 94 ft2): Non-tradable Wattage** | | | | |
| Compact Fluorescent 4: C: CLG MTD: Spiral 26W: Electronic: | 1 | 2 | 26 | 52 |
| | | | Total Tradable Proposed Watts = | 338 |

## Section 4: Compliance Statement

*Compliance Statement:* The proposed exterior lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2012 IECC requirements in COM*check* Version 3.9.4 and to comply with the mandatory requirements in the Requirements Checklist.

| ERIN GOOD | Erin Good | 08/14/14 |
|---|---|---|
| Name - Title | Signature | Date |

# COM*check* Software Version 3.9.4
# Mechanical Compliance Certificate

## 2012 IECC

## Section 1: Project Information

Project Type: **New Construction**
Project Title : MARQUIS AT BARTON TRAILS

Construction Site:
5417 S. MOPAC
AUSTIN, TX 78749

Owner/Agent:
KELLY GROSSMAN ARCHITECTS
260 ADDIE ROY RD #210
AUSTIN, TX 78746
512-327-3397

Designer/Contractor:
EN INCORPORATED
13581 POND SPRINGS RD
SUITE 400
AUSTIN , TX 78729
512-918-9315

Additional Efficiency Package: **Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.**

## Section 2: General Information

Building Location (for weather data): **Austin, Texas**
Climate Zone: **2a**

## Section 3: Mechanical Systems List

**Quantity** **System Type & Description**

1 HVAC System 1 (Single Zone) :
Heating: 1 each - Central Furnace, Electric, Capacity = 49 kBtu/h
No minimum efficiency requirement applies
Cooling: 1 each - Split System, Capacity = 5 kBtu/h, Air-Cooled Condenser, Unknown Economizer
Proposed Efficiency = 13.50 SEER, Required Efficiency = 13.00 SEER
Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 2000 CFM, 0.3 motor nameplate hp

## Section 5: Compliance Statement

*Compliance Statement:* The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2012 IECC requirements in COM*check* Version 3.9.4 and to comply with the mandatory requirements in the Requirements Checklist.

ERIN GOOD — Name - Title
Erin Good — Signature
08/14/14 — Date

## Section 6: Post Construction Compliance Statement

- ☐ HVAC record drawings of the actual installation and performance data for each equipment provided to the owner within 90 days after system acceptance.
- ☐ HVAC O&M documents for all mechanical equipment and system provided to the owner within 90 days after system acceptance.
- ☐ Written HVAC balancing report provided to the owner.

The above post construction requirements have been completed.

Principal Mechanical Designer-Name _____ Signature _____ Date _____