

TOWN OF TOPSHAM
RESIDENTIAL ENERGY COMPLIANCE APPLICATION

2015 IECC Residential Energy Code Compliance Path Options—Climate Zone 6A

In Accordance with the 2015 International Energy Conservation Code, Projects shall comply with one of following. Please mark your choices: **Option 1**—R401 through R404, **Option 2**—R405, or **Option 3**—R406 Energy Rating Index (ERI).*

Option 1: Prescriptive ↔ **Option 3: ERI (HERS Index)**
 Prescriptive Component Table ↔ **Option 2: Performance**

Table R402.1.2 Insulation and Fenestration Requirements by Component

| CLIMATE ZONE | FENESTRATION U-FACTOR ^b | SKYLIGHT ^b U-FACTOR | GLAZED FENESTRATION SHGC ^{b, c} | CEILING R-VALUE | WOOD FRAME WALL R-VALUE | MASS WALL R-VALUE ⁱ | FLOOR R-VALUE | BASEMENT ^c WALL R-VALUE | SLAB ^d R-VALUE & DEPTH | CRAWL SPACE ^c WALL R-VALUE |
|--------------|------------------------------------|--------------------------------|--|-----------------|----------------------------|--------------------------------|-----------------|------------------------------------|-----------------------------------|---------------------------------------|
| 6A | 0.32 | 0.55 | NR | 49 | 20+5 or 13+10 ^h | 15/20 | 30 ^g | 15/19 | 10, 4ft | 15/19 |
| | | | | | | | | | | |

OR

Prescriptive U-Factor Table

Table R402.1.4 Equivalent U-Factors

| CLIMATE ZONE | FENESTRATION U-FACTOR | SKYLIGHT U-FACTOR | CEILING U-FACTOR | FRAME WALL U-FACTOR | MASS WALL U-FACTOR ^b | FLOOR U-FACTOR | BASEMENT WALL U-FACTOR | CRAWL SPACE WALL U-FACTOR |
|--------------|-----------------------|-------------------|------------------|---------------------|---------------------------------|----------------|------------------------|---------------------------|
| 6A | 0.32 | 0.55 | 0.026 | 0.045 | 0.060 | 0.033 | 0.050 | 0.055 |
| | | | | | | | | |

RESCHECK (<https://www.energycodes.gov>) :
Submit generated report.

Complete Table R402.4.1.1
(Inspections Required)

Air Leakage Testing (Mandatory)
R402.4 (For New Buildings Only)

Duct Testing (Mandatory) R403.3.3 New
R503.1.2 Existing System

Performance Option R405—Performance-based compliance using simulated energy performance analysis. Such analysis includes heating, cooling and service water heating energy only.
(Mandatory Provisions Must Be Met)

Energy Rating Index Option R406
Climate Zone 6A ≤ 54
(Mandatory Provisions Must Be Met)

Meets or Exceeds 2015 IECC

Date: _____ Applicant Name: _____ Signature: _____

CONSTRUCTION DOCUMENTS

R103.2 Information on construction documents.

Construction documents shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted where *approved* by the *code official*. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the *building*, systems and equipment as herein governed. Details shall include, but are not limited to, the following as applicable:

1. Insulation materials and their *R*-values.
2. Fenestration *U*-factors and solar heat gain coefficients (SHGC).
3. Area-weighted *U*-factor and solar heat gain coefficients (SHGC) calculations.
4. Mechanical system design criteria.
5. Mechanical and service water-heating system and equipment types, sizes and efficiencies.
6. Equipment and system controls.
7. Duct sealing, duct and pipe insulation and location.
8. Air sealing details.

R103.2.1 Building thermal envelope depiction.

The *building's thermal envelope* shall be represented on the construction documents.

R104.2 Required inspections.

The *code official* or his or her designated agent, upon notification, shall make the inspections set forth in [Sections R104.2.1](#) through [R104.2.5](#).

R104.2.1 Footing and foundation inspection.

Inspections associated with footings and foundations shall verify compliance with the code as to *R*-value, location, thickness, depth of burial and protection of insulation as required by the code and *approved* plans and specifications.

R104.2.2 Framing and rough-in inspection.

Inspections at framing and rough-in shall be made before application of interior finish and shall verify compliance with the code as to types of insulation and corresponding *R*-values and their correct location and proper installation; fenestration properties (*U*-factor and SHGC) and proper installation; and air leakage controls as required by the code and approved plans and specifications.

R104.2.3 Plumbing rough-in inspection.

Inspections at plumbing rough-in shall verify compliance as required by the code and *approved* plans and specifications as to types of insulation and corresponding *R*-values and protection, and required control.

R104.2.4 Mechanical rough-in inspection.

Inspections at mechanical rough-in shall verify compliance as required by the code and *approved* plans and specifications as to installed HVAC equipment type and size, required controls, system insulation and corresponding *R*-value, system air leakage control, programmable thermostats, dampers, whole-house ventilation, and minimum fan efficiency.

Exception: Systems serving multiple dwelling units shall be inspected in accordance with [Section C104.2.4](#).

R104.2.5 Final inspection.

The *building* shall have a final inspection and shall not be occupied until *approved*. The final inspection shall include verification of the installation of all required *building* systems, equipment and controls and their proper operation and the required number of high-efficacy lamps and fixtures.



2015 IECC PERFORMANCE TESTING COMPLIANCE CERTIFICATE

Job Address: _____

Date: _____

Building Permit Number: BP _____

DUCT LEAKAGE TESTING VERIFICATION

Choose option used for compliance: per 2015 IECC Section R403.3.4, system tested @ 25 Pascals across, including the manufacturer's air handler enclosure.

- Rough- in test Option** (see code for test specifics) Results of test: _____ CFM
- Post Construction Option** (see code for test specifics): Results of test: _____ CFM

I certify that I have conducted a duct blaster test and it has passed the requirements of the 2015 International Energy Conservation Code. I further certify that I am certified to perform duct testing, leakage test certified by national or state organizations as approved by the Building Official. I certify I am an independent third – party entity, nor am I employed or have any financial interest in the Company that constructs the structure.

BPI Certification Number – Agency: _____

Printed Name of Inspector / Testing Technician: _____

Signature of Inspector / Testing Technician: _____

BUILDING THERMAL ENVELOPE LEAKAGE TESTING VERIFICATION

Compliance requirements: per 2015 IECC Section R402.4.1.2, building thermal envelope tested @ 50 Pascals in accordance with ASTM E779 or ASTM E1827 to verify an air leakage of not exceeding three air changes per hour.

Building Thermal Envelop Leakage Testing: Results of Test: _____ air changes per hour

I certify that I have conducted an air leakage test and it has passed the requirements of the 2015 International Energy Conservation Code. I further certify that I am certified to perform air infiltration testing certified by national or state organizations as approved by the Building Official. I certify I am an independent third – party entity, nor am I employed or have any financial interest in the Company that constructs the structure.

BPI Certification Number – Agency: _____

Printed Name of Inspector / Testing Technician: _____

Signature of Inspector / Testing Technician: _____