

## Residential Air Leakage and Insulation Installation Checklist

ECCNYS-2020

Table 402.4.1.1

Date: \_\_\_\_\_ Name of Evaluator(s): \_\_\_\_\_

Building Name & Address: \_\_\_\_\_ Conditioned Floor Area: \_\_\_\_\_ ft<sup>2</sup>

Building Contact: Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Compliance Approach:  Prescriptive (402.1.2 or 402.1.3)  UA Trade-off (402.1.4)  Building Performance (405)  REScheck  ERI Method (R406)

State: \_\_\_\_\_ Jurisdiction: \_\_\_\_\_

Building Type: 1- and 2-Family, Detached:  Single Family  Modular  Townhouse

Multifamily:  Apartment  Condominium

Project Type:  New Construction  Addition to existing building  Existing building renovation

COMPONENT	CRITERIA <sup>a</sup>	PLAN REVIEW			SITE INSPECTION		
		Y	N	N/A	Y	N	N/A
1. Air barrier and thermal barrier	A continuous air barrier shall be installed in the building envelope.	<input type="checkbox"/>					
	Exterior thermal envelope contains a continuous air barrier.	<input type="checkbox"/>					
	Breaks or joints in the air barrier shall be sealed.	<input type="checkbox"/>					
	Air-permeable insulation shall not be used as a sealing material.	<input type="checkbox"/>					
2. Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier sealed.	<input type="checkbox"/>					
	Access openings, drop down stair or knee wall doors to unconditioned attic spaces shall be sealed.	<input type="checkbox"/>					
3. Walls	Corners and headers shall be insulated and the junction of the foundation and sill plate shall be sealed.	<input type="checkbox"/>					
	The junction of the top plate and top of exterior walls shall be sealed.	<input type="checkbox"/>					
	Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.	<input type="checkbox"/>					
	Knee walls shall be sealed.	<input type="checkbox"/>					
4. Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing, shall be sealed.	<input type="checkbox"/>					
5. Rim joists	Rim joists shall be insulated and include the air barrier.	<input type="checkbox"/>					
6. Floors (including built-over garage and cantilevered floors)	Insulation shall be installed to maintain permanent contact with underside of subfloor decking.	<input type="checkbox"/>					
	The air barrier shall be installed at any exposed edge of insulation.	<input type="checkbox"/>					
6. Crawl space walls	Where provided in lieu of floor insulation, insulation shall be permanently attached to the crawlspace walls.	<input type="checkbox"/>					
	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	<input type="checkbox"/>					
7. Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	<input type="checkbox"/>					
8. Narrow cavities	Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space.	<input type="checkbox"/>					
9. Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	<input type="checkbox"/>					
10. Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be air tight, IC rated, and sealed to the drywall.	<input type="checkbox"/>					
11. Plumbing and wiring	Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.	<input type="checkbox"/>					
12. Shower/tub on exterior wall	Exterior walls adjacent to showers and tubs shall be insulated and the air barrier installed separating them from the showers and tubs.	<input type="checkbox"/>					
13. Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air sealed boxes shall be installed.	<input type="checkbox"/>					
14. HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall.	<input type="checkbox"/>					
15. Concealed Sprinklers	Sprinkler systems passing through building envelope shall be sealed ONLY in a manner allowed by the sprinkler manufacturer, in order to best limit air leakage						
15. Fireplace	An air barrier shall be installed on fireplace walls. Fireplaces shall have gasketed doors.	<input type="checkbox"/>					

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

**Frankfort Codes Department**  
**RESIDENTIAL DUCT & ENVELOPE TESTING (DET) FORM**

House Address: \_\_\_\_\_ Permit #: \_\_\_\_\_ Date: \_\_\_\_\_

Permit holder: \_\_\_\_\_ Phone: \_\_\_\_\_

**I Building Envelope Air Leakage (mandatory):**

**Blower door test (Mandatory)**

**Test Result:**

Fan Flow at 50 Pascals = \_\_\_\_\_ CFM50      Total Conditioned Volume = \_\_\_\_\_ ft<sup>3</sup>  
ACH50 = CFM50 x 60 / Volume = \_\_\_\_\_ ACH50\*

Testing company: \_\_\_\_\_ Phone: \_\_\_\_\_

Tester Name (print): \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

BPI or HERS certification number: BPI no: \_\_\_\_\_ HERS Rater no: \_\_\_\_\_ HERS RFI no: \_\_\_\_\_

\*For Simulated Performance Alternative and Energy Rating Index Paths, value must match IECC Energy Cost Report or Final ERI Report

**II. Heating and Cooling System Duct Leakage**

I certify that all portions of the ducts are located entirely within the building thermal envelope. Testing is not required.

Owner or approved third party signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Total duct leakage test**

Energy code compliance path:     Prescriptive (including REScheck)     Performance or Energy Rating Index

Type of test performed:     Rough-in with air handler     Rough-in without air handler     Post construction

**Test Result System 1:**

Fan Flow at 25 Pascals (CFM25) \_\_\_\_\_ CFM      Conditioned Floor Area (CFA) served by system = \_\_\_\_\_ ft<sup>2</sup>  
CFM25 / CFA x 100 = \_\_\_\_\_ CFM/100 ft<sup>2</sup>

**Test Result System 2 (if present):**

Fan Flow at 25 Pascals (CFM25) \_\_\_\_\_ CFM      Conditioned Floor Area (CFA) served by system = \_\_\_\_\_ ft<sup>2</sup>  
CFM25 / CFA x 100 = \_\_\_\_\_ CFM/100 ft<sup>2</sup>

Testing company: \_\_\_\_\_ Phone: \_\_\_\_\_

Tester Name (print): \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

BPI or HERS certification number: BPI no: \_\_\_\_\_ HERS Rater no: \_\_\_\_\_ HERS RFI no: \_\_\_\_\_