**Massachusetts Residential IECC Energy Performance Testing Certificate**

## House Address: Permit #: Date: Permit holder: Phone:

1. **Building Envelope Air Leakage (mandatory):**

## Blower door test (Mandatory)

Testing company: Phone:

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

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

**Test Result:**

Fan Flow at 50 Pascals = CFM50 Total Conditioned Volume = ft3

ACH50 = CFM50 x 60 / Volume = ACH50 **(must be ≤ 3.0 ACH50)**

## Visual Inspection (Mandatory)

* Air Barrier and Insulation Installation checklist completed, signed and included with this certificate.

# Heating and Cooling System Duct Leakage

# All portions of the ducts are located entirely within the building thermal envelope. Testing is not required\*.

**Duct leakage test**

Testing company: Phone:

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

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

Total duct leakage test (choose 1):

* Rough-in w/ air handler (must be ≤ 4.0 CFM/100 ft2)
* Post construction (must be ≤ 4.0 CFM/100 ft2)
* Rough-in w/o air handler (must be ≤ 3.0 CFM/100 ft2)

**Test Result:**

**System 1:**

Fan Flow at 25 Pascals (CFM25) \_\_\_\_\_\_\_\_ CFM Conditioned Floor Area (CFA) served by system = \_\_\_\_\_\_\_\_\_ft2

CFM25 / CFA x 100 = \_\_\_\_\_\_\_\_\_\_ CFM/100 ft2

**System 2 (if present):**

Fan Flow at 25 Pascals (CFM25) \_\_\_\_\_\_\_\_ CFM Conditioned Floor Area (CFA) served by system = \_\_\_\_\_\_\_\_\_ft2

CFM25 / CFA x 100 = \_\_\_\_\_\_\_\_\_\_ CFM/100 ft2

***\*Note:*** When following the Energy Rating Index (ERI) path, a leakage to outdoors test is required per RESNET standards.

# Whole-house Ventilation System Airflow Test

**Verifier:**

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

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

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

**Required airflow (Q):**

Infiltration credit portion of equation is optional



Required inputs:

CFA = Conditioned Floor Area = \_\_\_\_\_\_\_\_\_\_ ft2

Nbr = Number of bedrooms = \_\_\_\_\_\_\_\_

Optional inputs:

Q50 = Blower door test result = \_\_\_\_\_\_\_\_ CFM50

S = Building height factor = \_\_\_\_\_\_\_

WSF = Weather and shielding factor = \_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Stories above grade plane** | **1** | **2** | **3** |
| S | 1.00 | 1.32 | 1.55 |

|  |  |
| --- | --- |
| **County** | **WSF** |
| Barnstable | 0.60 |
| Berkshire | 0.52 |
| Bristol | 0.54 |
| Dukes | 0.59 |
| Essex | 0.58 |
| Franklin | 0.52 |
| Hampden | 0.49 |
| Hampshire | 0.59 |
| Middlesex | 0.55 |
| Nantucket | 0.61 |
| Norfolk | 0.52 |
| Plymouth | 0.53 |
| Suffolk | 0.66 |
| Worcester | 0.59 |

**Required airflow (Q) =** \_\_\_\_\_\_\_\_\_\_\_\_ CFM

**Tested airflow =** \_\_\_\_\_\_\_\_\_\_\_\_\_ CFM

(must be ≥ required airflow)

* Fan controlled to operate continuously

**Fan efficacy:**

* In-line fan (max 2.8 CFM/W)
* Bathroom/utility room fan: 10-89 CFM (max 1.4 CFM/W)
* Bathroom/utility room fan: 90+ CFM (max 2.8 CFM/W)

**HVI-Rated fan efficacy = \_\_\_\_\_\_\_\_\_ CFM/W**

# Qualified Performance Testing Providers:

Find qualified performance testers at:

<http://nehers.org/find-hers-rater>

<http://www.resnet.us/directory/search>

<https://bpi.org/locator-tool/find-a-contractor>