

Blower Door Testing and Mechanical Ventilation

The Florida Building Code (FBC) requires blower door testing for all residential dwelling units. This would include single family houses, town houses, duplexes, and each condominium and apartment unit where the building is three stories or less. The FBC further requires mechanical ventilation if the blower door test has a result of less than seven (7) air changes per hour (ACH), and the Energy Code requires that the ACH be three (3) or less, thus mechanical ventilation is now required in all the above referenced dwelling units. The purpose of this bulletin is to provide direction on who can perform the testing, what needs to be submitted to the Building Inspection Division (BID), and when it needs to be submitted.

PLAN REVIEW

How you will be achieving mechanical ventilation must now be shown on one of the mechanical drawings. Please provide a clear, distinctive note so the plan reviewer doesn't have to hunt or guess at your intent, and possibly reject your submittal. It is not our intent to scrutinize your design, just to ensure you are providing mechanical ventilation.

The plans will now be required to show the volume of the dwelling unit. This is the thermal envelope volume, and would not include any unconditioned space.

Who can perform the Blower Door Test?

Individuals with the following certifications/licensures will be approved:

- Individuals defined under FL 553.993 (5) or (7)
Energy Auditor or Energy Rater
Currently Certified through RESNET or BUILDING PERFORMANCE INSTITUTE
- Individuals licensed under FL 489.105 (3) (f), (g) or (i);
Class A Air Conditioning Contractor
Class B Air Conditioning Contractor
Mechanical Contractor
- Individuals who have obtained blower door testing certification from a recognized agency

What needs to be submitted and when?

The attached Blower Door Test Form is to be completed by the tester along with tester's certifications. The Blower door test form is required to be signed by the license holder or the certificate holder. The blower door test form is to be provided to the Town of Indian River Shores before a Certificate of Occupancy will be issued.

Envelope Leakage Test Report

(Blower Door Test)
R402.4.1.2 Compliance

Permit #: _____

Job Information

Builder: _____ Community: _____ Lot: _____

Address: _____ Unit: _____

City: _____ State: FL Zip: _____

Air Leakage Test Results *Passing results must be between 3 ACH and Max 7*

$$\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 = \text{ACH}(50)$$

Method for calculating building volume:

 Retrieved from architectural plans
 Code software calculated
 Field measured and calculated

When ACH(50) is equal to or less than 3, Mechanical Ventilation installation must be verified by Building Department. (Submit how to obtain continuous Mechanical Ventilation per M1507 to Plan Review prior to field verification.)

Certification of Test Results

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ANSI/ASHRAE/ACCA 90.1 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 653.983(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 499.105(3)(f), (g) or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

Testing Company

Company Name: _____ Phone: _____

I hereby verify that the above Air Leakage results are in accordance with the 7th Edition Florida Building Code Energy Conservation requirements per Section R402.4.1.2, Climate Zone 2.

Date of Test: _____

Signature of Tester: _____

Printed Name of Tester: _____

License/Certification #: _____ Issuing Authority: _____