**Table 406.2 Credit Summary (Circle All That Apply)**

<table>
<thead>
<tr>
<th>Selection for Required Energy Efficiency Credits based upon Dwelling Size (From Table 406.2 in WSEC)</th>
<th>Circle Appropriate Credit</th>
<th>Prescriptive Energy Code Compliance for Adjusted Credits as Selected Credit Selections from Table 406.2 Categories 1a - 1d are represented here</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option</strong></td>
<td><strong>Descriiption</strong></td>
<td><strong>Credits</strong></td>
</tr>
<tr>
<td>1a</td>
<td>Efficient Building Envelope</td>
<td>0.5</td>
</tr>
<tr>
<td>1b</td>
<td>Efficient Building Envelope</td>
<td>1.0</td>
</tr>
<tr>
<td>1c</td>
<td>Large Dwelling Unit</td>
<td>2.0</td>
</tr>
</tbody>
</table>

---

**Mechanical System Ventilation / Source Specific Fan Efficiency / Minimum Source Specific Exhaust**

Refer to IBC Section 717 for Duct Draft Stops and Fire Safety on Multi-Family Construction

Note: No more than 1 selection in Credit Divisions 1 thru 3

**Table 403.8.1**

<table>
<thead>
<tr>
<th>Optional High Efficiency HVAC System</th>
<th>Factor</th>
<th>Minimum 94% AFUE / Fuel - Fired Furnace or Minimum 95% AFUE / Fuel - Fired Boiler</th>
<th>Minimum 105% AFUE / Fuel - Fired Furnace or Minimum 106% AFUE / Fuel - Fired Boiler</th>
<th>IWAC Table 403.8.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a</td>
<td>Efficient Water Heating</td>
<td>1</td>
<td>Minimum 1.0 - 2.0 S.F.</td>
<td>Minimum 1.0 - 2.0 S.F.</td>
</tr>
<tr>
<td>3b</td>
<td>Efficient Water Heating</td>
<td>1.5</td>
<td>Source Heat Pump with minimum COP of 3.0</td>
<td>Water Source Heat Pump with minimum COP of 3.0</td>
</tr>
<tr>
<td>3c</td>
<td>Whole House Ventilation (Prescriptive WHV)</td>
<td>1.5</td>
<td>Minimum 0.5 Credits</td>
<td>Minimum 0.5 Credits</td>
</tr>
<tr>
<td>3d</td>
<td>Interim Whole House Mechanical Ventilation System Factors</td>
<td>2</td>
<td>Minimum 45%</td>
<td>Minimum 45%</td>
</tr>
</tbody>
</table>

**Efficient Building Envelope**

- **1a** Glazing: U-0.28 / F/ R-38 / Entire Slab on grade: R-10 OR Component Analysis for 10% Total UA Reduction
- **1b** Glazing: U-0.28 / F/ R-38 / Present Walls & R-4.4 / Entire Slab on grade: R-10 / Basement Walls: R-21 / R+6.0 ci / Component Analysis for 10% Total UA Reduction
- **1c** Dwellings greater than 5,000 Sq. Ft.

**Efficient Water Heating**

- **3a** Minimum 94% AFUE / Fuel - Fired Furnace or Minimum 95% AFUE / Fuel - Fired Boiler
- **3b** Source Heat Pump with minimum COP of 3.0
- **3c** Water Source Heat Pump with minimum COP of 3.0

**Whole House Ventilation (Prescriptive WHV)**

- **3d** Dwellings greater than 5,000 Sq. Ft.

**Interrim Whole House Mechanical Ventilation System Factors**

- **4** Minimum 45%
The 2015 WSEC section R402.4.1.2 requires air leakage testing for all new houses and additions. The requirement is met if the structure has a leakage rate of 5 air changes per hour (5 ACH) when depressurized with a blower to 50 Pascals or less. Pascal is a measurement of pressure. 249 Pascals are equal to 1” of water column.

Blower Door Building Air Leakage Testing

The test must be performed using a Blower Door device which consists of a large fan, a frame and panel. A manometer (pressure gauge) is used to read house and fan pressures. WSEC states that the test may be performed at any time after rough in. NOTE: It is advised to conduct the test shortly thereafter in order that duct sealing and leaks may be addressed prior to full enclosure and finish. All penetrations in the building envelope must be sealed, including those for utilities, plumbing, electrical, ventilation, and combustion appliances. The code also states that when required by the building official, the test shall be conducted by an approved third party.

Total Duct Leakage Test

Testing Procedure Application:

- This test is appropriate in new construction when ducts are to be tested at the rough-in stage before the house envelope is intact and can also be done post construction. The test measures the total collected leaks in the system at an induced pressure of 25 Pascals (PA). Compared to the leakage to exterior test, the total leakage test is simpler, but does not discriminate between leakage to inside and outside the heated space; as such, this test is not recommended for homes with complete house envelopes and HVAC systems. In such cases, the leakage to outside test is recommended.

Standard:

1. For certification, the measured duct leakage must not exceed 0.04 CFM<sub>x</sub> per square foot (in square feet) served by the system at rough-in when the air handler is installed.

2. The measured duct leakage at rough-in must not exceed 0.03 CFM<sub>x</sub> per square foot served by the system when the air handler is not installed.

3. If testing post construction, the total leakage must not exceed 0.04 CFM<sub>x</sub> per square foot served by the system. Preference if test is conducted prior to interior drywall in order that corrections may be made.

WAC M1507.3 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM

Whole-house mechanical ventilation systems shall be designed in accordance with Section M1507.3.1 through M1507.3.3.

M1507.3.2 Control and operation. OR

M1507.3.4 Whole-house ventilation using exhaust fans. OR

M1507.3.5 Whole-house ventilation integrated with a forced-air system. OR

M1507.3.6 Whole-house ventilation using a supply fan. OR

M1507.3.7 Whole-house ventilation using a heat recovery ventilation system.

Required Residential Building Air Leakage Test Results:

http://www.energy.wsu.edu/Documents/Blower%20door%20results%20for%20new%20construction.pdf

Required Duct Testing Affidavit (New Construction):