

2011 Georgia Residential Energy Code Summary of Changes

[Please Note: This document is a short list of the major changes to the residential requirements from the 2006 IECC with GA Amendments to the 2009 IECC with GA Amendments. This is not intended to demonstrate all changes. Please refer to the 2009 IECC and the 2011 GA Amendments to the 2009 IECC for all code requirements.] The Georgia State Supplements and Amendments to the 2009 IECC can be found at the following DCA link: <http://www.dca.state.ga.us/development/constructioncodes/programs/codeAmendments.asp>

CERTIFIED DUCT AND ENVELOPE TIGHTNESS (DET) VERIFIER: A certified DET verifier shall be a certified Home Energy Rating Systems (HERS) rater, or be a certified Home Performance with ENERGY STAR contractor, or be a Building Performance Institute (BPI) Analyst, or successfully complete a certified DET verifier course that is approved by the Georgia Department of Community Affairs. (Effective January 1, 2011) **Chapter 2 - Definitions**

Building Envelope Tightness Testing: Section 404.4.2.1

- Building envelope tightness testing is required for all one and two family dwellings and townhouses. This testing must be done by a Certified Duct and Envelope Tightness (DET) Verifier. See Section 402.4.2 of the 2011 GA Amendments to the 2009 IECC for the full requirements.

Sealing Duct Systems: Section 403.2.2

- The joints and seams of all duct systems must be made substantially airtight by means of tapes, mastics, liquid sealants, gasketing or other approved closure systems. Without exception, all closure systems shall have mastic applied that is at least 0.08 inches (2mm) thick.
- Building framing cavities shall not be used as supply or return ducts. All supply and return ducts must be lined with metal, flex duct, duct board, or other material approved in Section M1601 of the IRC.

Duct Tightness Testing: Section 403.2.2

- All new residential structures shall pass either a 'rough-in' or 'post-construction' duct tightness test. The only exception is if the entire duct system and air handler are located within conditioned space.
- For renovations that effect the duct system, duct tightness testing is only required if more than 50% of the duct system is modified.

Power Attic Ventilators: Section 403.10

- In new construction, power attic ventilators shall not be connected to the electric grid. Solar powered attic ventilators are allowed.

Lighting Equipment: Section 404.1

- A minimum of 50% of the permanently installed lighting fixtures shall contain only high-efficacy (CFL, LED, etc.) lamps or be controlled with an occupancy/vacancy sensor or automated lighting control system.

Certificate: Section 401.3

- ... The certificate shall list the calculated heating load, sensible cooling load, latent cooling load and cfm for space conditioning. The certificate shall also list the duct tightness and envelope tightness test results.

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Attic Knee walls: Table 402.1.1

- R-18 minimum requirement. Attic side shall have a sealed air barrier.

Fenestration access hatches and doors: Section 402.2.3

- Access doors from conditioned spaces to unconditioned spaces (e.g., attics, unconditioned basements and crawl spaces) shall be weather-stripped and insulated in accordance with Table 402.1.1 and Table 402.1.3 Fenestration U-Factor and the following insulation values:
 1. Hinged vertical doors shall have a R-5 minimum;
 2. Hatches/scuttle hole covers shall have a R-19 minimum; and
 3. Pull down stairs shall have a minimum of 75 percent of the panel area having R- 5 minimum insulation.

Ceilings with attic spaces.... at the eaves: Section 402.2.1

- For attic HVAC attic platforms, R-19 shall be deemed to meet the requirements of R-30/38 in the ceiling. R-19 is deemed acceptable for up to 32 square feet of attic decking per HVAC system.
- R-19 shall be deemed acceptable for a maximum 32 inch wide passage to the HVAC system as referenced under Section M1305.1.3 of the International Residential Code.

Wind wash baffle and air-permeable insulation dam: Section 402.2.1.1

- For air permeable insulation in vented attics, baffles shall be installed adjacent to soffit and eave vents. A minimum of a 1-inch of space shall be provided between the insulation and the roof sheathing and at the location of the vent. The baffle shall extend over the top of the insulation inward until it is at least 4 inches vertically above the top of the insulation. Any solid material such as cardboard or thin insulating sheathing shall be permissible as the baffle.

Floors: Section 402.2.6

- Floor insulation shall be installed to maintain continuous permanent contact with the underside of the subfloor decking.

Additions, renovations, alterations or repairs: Section 402.4.2.1 (Exception)

- Building envelope tightness testing for additions, renovations, alterations or repairs shall only be conducted in the case of construction that affects all aspects of the building envelope.

Glazed Fenestration Requirements: Table 402.1.1

| Climate Zone | U-factor (2006/2009) | SHGC (2006/2009) |
|--------------|----------------------|------------------|
| 2 | 0.65/0.50 | 0.40/0.30 |
| 3 | 0.65/0.50 | 0.40/0.30 |
| 4 | 0.40/0.35 | 0.40/0.30 |