



IMPORTANT

IRC 2007 Code Changes
You Need To Know About



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Amendments and Revisions Overview

1. Wind speed design criteria R-301.2.1.1 does not go into effect till July 1, 2007.
2. GA amendment R309.2 Exception 1: - 7. Self closing device and positive latching on doors into the house in a garage that is sprinkled in-lieu of gypsum.
3. GA amendment R309.2 Exception 2. Fire retardant pull down stairs in garage.
4. GA amendment R312.1 Guard on 30 inch or higher walls attached to house.
5. GA amendment R502.2.2.1 Deck ledger construction, connection between a pressure preservative treated southern pine (or approved decay-resistant species) deck ledger and a 2-inch (51 mm) nominal band joist bearing on a sill plate or wall plate shall be constructed with ½-inch (13 mm) bolts with washers.
6. R502.2.2.2 Deck ledger connection to band joist (wood I-joists with rim board).
7. R502.2.2.3 Deck ledger connection to open web floor truss system –per web manufacture’s design and installation specifications or professional engineer.
8. GA amendment TR703.4 Weather-Resistant Siding Attachment – joints sealed
9. GA amendment on EIFS shall have ICC Evaluation Report - R703.9 Exterior insulation finish systems, general. Exterior Insulation Finish Systems (EIFS) shall be from manufacturers with a current ICC Evaluation Report and shall be installed in accordance with ANSI 99A, ASTM C 1397, ASTM C 1535, ASTM E 2273, ICC EIFS Evaluation Reports, manufacturer’s installation instructions and the requirements of this section.
10. Flex duct guidelines are now Appendix C to the IMC and subject to local adoption see: <http://www.dca.state.ga.us/development/constructioncodes/programs/downloads/codespdf/IMC%202007.pdf> Expect some jurisdictions to require submittal of ACCA Manual J - 8th edition and ACCA Manual D duct design.
11. There will be a Task Force set up in 2007 to review the differences between IPC and IRC Plumbing – Expect the IRC Plumbing with GA amendments to become the GA Residential Code once the Task Force completes its task.
12. The 2006 IRC Table 302.1 changed permitted non-rated walls from 3 feet to 5 feet or more from property line, less than 5 feet shall be a one (1) hour time rated wall.
13. IRC R309.2 Habitable rooms above a garage shall have 5/8” Type X gypsum on garage ceiling. Note: some jurisdictions will permit ½” Gypsum when the garage is sprinkled and doors are self-closing.
14. IRC R313.2 Smoke alarms in each bedroom or sleeping room and outside each bedroom. Alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.
15. IRC 703.1 Water resistant barrier (type 15 felt or equivalent) on exterior walls and proper flashing. See IRC Table 703.4. Note: not all house wraps qualify as a water resistant barrier – they are air infiltration barriers!
16. Window flashing IRC R-703.8 Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage.



IRC 2007 CODE CHANGES AND ENFORCEMENT EMPHASIS

References

2007 GA Residential Code and GA 2006 IRC Amendments:

<http://www.dca.state.ga.us/development/constructioncodes/programs/downloads/codespdf/IRC%202007.pdf>

Gwinnett County Code Site:

<http://www.co.gwinnett.ga.us/cgi-bin/gwincty/egov/ep/gcbrowse.do?channelId=-27661&channelPage=%2Fep%2Fchannel%2Fdefault.jsp&pageTypeId=536880236>

Important Notices

The provisions of Section R301.2.1.1, Design criteria, of the 2006 edition of the International Residential Code for One- and Two-Family Dwellings, shall not become effective until July 1, 2007. For the period from January 1, 2007, through June 30, 2007, the provisions of Section R301.2.1.1, Design criteria, of the 2000 edition of the International Residential Code for One- and Two-Family Dwellings, shall remain in effect.

The 2000 IRC 302.1 permitted non-rated walls 3 feet or more from property line; the **2006 IRC Table 302.1** has increased that distance to 5' – now has to be 1 hour fire wall if less than 5' from property line.

Georgia Amendments for Garages and Carports

*Revise Section R309.2 'Separation required' to add exceptions as follows:

R309.2 Separation required.

Exception #1:

Separation is not required in garages protected by an automatic sprinkler system that meets the following criteria:

1. Maximum protected area is 600 square feet (55.74 m²).
2. Maximum number of sprinkler heads per domestic system is six.
3. Minimum pipe size supplying domestic water system shall be ¾-inch (19 mm) nominal diameter.
4. Maximum area of coverage per sprinkler head of 100 square feet (9.29 m²).
5. No control valve to isolate the sprinkler head(s) unless supervised.
6. Protected area is defined by physical barriers that extend from floor to ceiling of construction that will resist the passage of smoke.
7. Doors through physical barriers shall be equipped with self-closing devices and be positive-latching.

Exception #2:

A disappearing/pull-down stairway with minimum ¾-inch (9.53 mm) (nominal) fire-retardant-treated structural panel is deemed to meet the 20-minute thermal barrier test based on ASTM E 119, *Test Methods for Fire Tests of Building Construction and Materials*, or deemed to have the fire resistance of or equivalent to ½-inch (12.7 mm) gypsum wall board.

(Effective January 1, 2007)

Georgia Amendment for Section R312: Guards

*Revise Section R312.1 'Guards' to add at end as follows:

R312.1 Guards.

(Beginning of section left unchanged.)

...or grade below. The finish grade surface to a retaining wall attached to a house that has a vertical drop on its opposite side of more than 30 inches (762 mm) below the grade shall have a guard (guardrail) not less than 36 inches (914 mm) in height.

(Effective January 1, 2007)

Georgia Amendments for Smoke Alarms

R313.1 Smoke detection and notification. All smoke alarms shall be listed in accordance with UL 217 and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72. Household fire alarm systems installed in accordance with NFPA 72 that include smoke alarms, or a combination of smoke detector and audible notification device installed as required by this section for smoke alarms, shall be permitted. The household fire alarm system shall provide the same level of smoke detection and alarm as required by this section for smoke alarms in the event the fire alarm panel is removed or the system is not connected to a central station.

R313.2 Location. Smoke alarms shall be installed in the following locations:

1. **In each sleeping room.**
2. **Outside each separate sleeping area** in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.

Georgia Amendments for Deck Connection

R502.2.2.1 Deck ledger connection to band joist (conventional framing). For residential applications and a total design load of 50 psf (2.39 kPa), the connection between a pressure preservative treated southern pine (or approved decay-resistant species) deck ledger and a 2-inch (51 mm) nominal band joist bearing on a sill plate or wall plate shall be constructed with ½-inch (13 mm) bolts with washers per Table R502.2.2.1.

R502.2.2.2 Deck ledger connection to band joist (wood I-joists with rim board). For residential applications and a total design load of 50 psf (2.39 kPa), when attaching the ledger to manufactured wood floor assemblies that include manufactured rim boards supported by a structural bearing, the installation shall comply with the manufacturer's design and installation specifications. When rim boards are not fully supported by direct bearing, the installation shall be detailed by a registered design professional.

(Effective January 1, 2007)

*Add new Section R502.2.2.3 'Deck ledger connection to open web floor truss system' as follows:

R502.2.2.3 Deck ledger connection to open web floor truss system. For residential applications and a total design load of 50 psf (2.39 kPa), when attaching the ledger to manufactured open web floor truss systems, the installation shall comply with the manufacturer's design and installation specifications. The deck ledger connection to the floor truss system shall be designed and approved by the truss system manufacturer's registered design professional.

(Effective January 1, 2007)

Georgia Amendment for Siding Attachment

TR703.4 Weather-Resistant Siding Attachment And Minimum Thickness.

Footnote 'a':

Where joints are required to be sealed, ASTM C 1193 shall be deemed to meet the intent of Section R703.

(Effective January 1, 2007)

Georgia Amendment for General Exterior Insulation Systems

**Revise first sentence of Section R703.9 'Exterior insulation finish systems, general' to read as follows:*

R703.9 Exterior insulation finish systems, general. Exterior Insulation Finish Systems (EIFS) shall be from manufacturers with a current ICC Evaluation Report and shall be installed in accordance with ANSI 99A, ASTM C 1397, ASTM C 1535, ASTM E 2273, ICC EIFS Evaluation Reports, manufacturer's installation instructions and the requirements of this section. Decorative trim shall not...

(Remainder of section left unchanged.)

(Effective January 1, 2007)

Georgia Amendment for Flexible Duct

Flex duct guidelines are now Appendix C to the IMC and subject to local adoption

<http://www.dca.state.ga.us/development/constructioncodes/programs/downloads/codespdf/IMC%202007.pdf>

New Code From the 2006 IRC

GARAGE CEILINGS

Rooms above a garage shall have Type X gypsum on garage ceiling:

R309.2 Separation required. The garage shall be separated from the residence and its attic area by not less than 1/2-inch (12.7 mm) gypsum board applied to the garage side. **Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch (15.9 mm) Type X gypsum board or equivalent.**

WATER-RESISTIVE BARRIER

A material behind an exterior wall covering that is intended to resist liquid water that has penetrated behind the exterior covering from further intruding into the exterior wall assembly.

R703.1 General. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.8. The exterior wall envelope shall be designed and constructed in a manner that prevents the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer as required by Section R703.2, and a means of draining water that enters the assembly to the exterior. Protection against condensation in the exterior wall assembly shall be provided in accordance with Chapter 11 of this code. **(See IRC Table 703.4 on following page)**

WINDOW FLASHING

R703.8 Flashing. Approved corrosion-resistant flashing shall be applied shingle-fashion in such a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:

1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage.

TABLE R703.4 WEATHER-RESISTANT SIDING ATTACHMENT AND MINIMUM THICKNESS

SIDING MATERIAL	NOMINAL THICKNESS ^a (inches)	JOINT TREATMENT	WATER-RESISTIVE BARRIER REQUIRED	TYPE OF SUPPORTS FOR THE SIDING MATERIAL AND FASTENERS ^{b,c,d}						Number or spacing of fasteners
				Wood or wood structural panel sheathing	Fiberboard sheathing into stud	Gypsum sheathing into stud	Foam plastic sheathing into stud	Direct to studs		
Horizontal aluminum ^e	Without insulation	0.019 ^f	Lap	Yes	0.120 nail 1½" long	0.120 nail 2" long	0.120 nail 2" long	0.120 nail ^g	Not allowed	Same as stud spacing
		0.024	Lap	Yes	0.120 nail 1½" long	0.120 nail 2" long	0.120 nail 2" long	0.120 nail ^g	Not allowed	
	With insulation	0.019	Lap	Yes	0.120 nail 1½" long	0.120 nail 2½" long	0.120 nail 2½" long	0.120 nail ^g	0.120 nail 1½" long	
Brick veneer ^z Concrete masonry veneer ^z	2 2	Section R703	Yes (Note 1)	See Section R703 and Figure R703.7 ^h						
Hardboard ^k Panel siding-vertical	7/16	—	Yes	Note n	Note n	Note n	Note n	Note n	Note n	6" panel edges 12" inter. sup. ^o
Hardboard ^k Lap-siding-horizontal	7/16	Note q	Yes	Note p	Note p	Note p	Note p	Note p	Note p	Same as stud spacing 2 per bearing
Steel ^h	29 ga.	Lap	Yes	0.113 nail 1¾" Staple-1¾"	0.113 nail 2¾" Staple-2½"	0.113 nail 2½" Staple-2½"	0.113 nail ^g Staple ^g	Not allowed	Same as stud spacing	
Stone veneer	2	Section R703	Yes (Note 1)	See Section R703 and Figure R703.7 ^h						
Particleboard panels	3/8 - 1/2	—	Yes	6d box nail (2" x 0.099")	6d box nail (2" x 0.099")	6d box nail (2" x 0.099")	box nail ^g	6d box nail (2" x 0.099"), 3/8 not allowed	6" panel edge, 12" inter. sup.	
	5/8	—	Yes	6d box nail (2" x 0.099")	8d box nail (2½" x 0.113")	8d box nail (2½" x 0.113")	box nail ^g	6d box nail (2" x 0.099")		
Plywood panel ⁱ (exterior grade)	3/8	—	Yes	0.099 nail-2"	0.113 nail-2½"	0.099 nail-2"	0.113 nail ^g	0.099 nail-2"	6" on edges, 12" inter. sup.	
Vinyl siding ^m	0.035	Lap	Yes	0.120 nail 1½" Staple-1¾"	0.120 nail 2" Staple-2½"	0.120 nail 2" Staple-2½"	0.120 nail ^g Staple ^g	Not allowed	Same as stud spacing	
Wood ^l rustic, drop	3/8 Min	Lap	Yes	Fastener penetration into stud-1"				0.113 nail-2½" Staple-2"	Face nailing up to 6" widths, 1 nail per bearing; 8" widths and over, 2 nails per bearing	
Shiplap	19/32 Average	Lap	Yes							
Bevel	7/16	Lap	Yes							
Butt tip	3/16	Lap	Yes							
Fiber cement panel siding ^f	5/16	Note s	Yes Note x	6d corrosion-resistant nail ^l	6d corrosion-resistant nail ^l	6d corrosion-resistant nail ^l	6d corrosion-resistant nail ^l ^y	4d corrosion-resistant nail ^l	6" o.c. on edges, 12" o.c. on intermed. studs	
Fiber cement lap siding ^f	5/16	Note v	Yes Note x	6d corrosion-resistant nail ^l	6d corrosion-resistant nail ^l	6d corrosion-resistant nail ^l	6d corrosion-resistant nail ^l ^y	6d corrosion-resistant nail ^w	Note w	

For SI: 1 inch = 25.4 mm.

- a. Based on stud spacing of 16 inches on center where studs are spaced 24 inches, siding shall be applied to sheathing approved for that spacing.
- b. Nail is a general description and shall be T-head, modified round head, or round head with smooth or deformed shanks.
- c. Staples shall have a minimum crown width of 7/16-inch outside diameter and be manufactured of minimum 16 gage wire.
- d. Nails or staples shall be aluminum, galvanized, or rust-preventative coated and shall be driven into the studs for fiberboard or gypsum backing.
- e. Aluminum nails shall be used to attach aluminum siding.
- f. Aluminum (0.019 inch) shall be unbacked only when the maximum panel width is 10 inches and the maximum flat area is 8 inches. The tolerance for aluminum siding shall be +0.002 inch of the nominal dimension.
- g. All attachments shall be coated with a corrosion-resistant coating.
- i. Three-eighths-inch plywood shall not be applied directly to studs spaced more than 16 inches on center when long dimension is parallel to studs. Plywood 1/2-inch or thinner shall not be applied directly to studs spaced more than 24 inches on center. The stud spacing shall not exceed the panel span rating provided by the manufacturer unless the panels are installed with the face grain perpendicular to the studs or over sheathing approved for that stud spacing.
- j. Wood board sidings applied vertically shall be nailed to horizontal nailing strips or blocking set 24 inches on center. Nails shall penetrate 1 1/2 inches into studs, studs and wood sheathing combined, or blocking. A weather-resistive membrane shall be installed weatherboard fashion under the vertical siding unless the siding boards are lapped or battens are used.
- k. Hardboard siding shall comply with AHA A135.6.
- l. For masonry veneer, a weather-resistive sheathing paper is not required over a sheathing that performs as a weather-resistive barrier when a 1-inch air space is provided between the veneer and the sheathing. When the 1-inch space is filled with mortar, a weather-resistive sheathing paper is required over studs or sheathing.
- m. Vinyl siding shall comply with ASTM D 3679.
- n. Minimum shank diameter of 0.092 inch, minimum head diameter of 0.225 inch, and nail length must accommodate sheathing and penetrate framing 1 1/2 inches.
- o. When used to resist shear forces, the spacing must be 4 inches at panel edges and 8 inches on interior supports.
- p. Minimum shank diameter of 0.099 inch, minimum head diameter of 0.240 inch, and nail length must accommodate sheathing and penetrate framing 1 1/2 inches.
- q. Vertical end joints shall occur at studs and shall be covered with a joint cover or shall be caulked.
- r. Fiber cement siding shall comply with the requirements of ASTM C 1186.
- s. See Section R703.10.1.
- t. Minimum 0.102" smooth shank, 0.255" round head.
- u. Minimum 0.099" smooth shank, 0.250" round head.
- v. See Section R703.10.2.
- w. Face nailing: 2 nails at each stud. Concealed nailing: one 11 gage 1 1/2 galv. roofing nail (0.371" head diameter, 0.120" shank) or 6d galv. box nail at each stud.
- x. See Section R703.2 exceptions.
- y. Minimum nail length must accommodate sheathing and penetrate framing 1 1/2 inches.
- z. Adhered masonry veneer shall comply with the requirements in Sections 6.1 and 6.3 of ACI 530/ASCE 5/TMS-402.