

## **Errata Central (160223)**

Following are errata discovered in the 2012 North Carolina State Building Codes. Errata will be updated online on a periodic basis. From time to time, ICC issues a new printing of the code, which is given on the copyright page of the book. At the time of the printing, the known errata will be picked up in that printing.

Review ICC errata online and NC Code errata below. If you have any questions or believe you have discovered additional errata, please e-mail them to [barry.gupton@ncdoi.gov](mailto:barry.gupton@ncdoi.gov).

### **Quick Link to ICC Errata**

2009 International Codes (base documents for the 2012 North Carolina Codes)  
<http://www.iccsafe.org/cs/codes/pages/errata.aspx>

### **2012 NC State Building Codes Errata**

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**On page 5-6, Section 107.3**

**107.3 Approval required.** Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the code enforcement official. The code enforcement official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or shall notify the permit holder or an agent of the permit holder that the work fails to comply with the technical codes. The code enforcement official shall identify code violations and when requested shall identify the specific sections of the technical codes. Any work that does not comply shall be corrected and shall not be covered or concealed until authorized by the code enforcement official.

**903.2.1.3. Group A-3.** An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m<sup>2</sup>).
2. The fire area has an occupant load of 300 or more; or

**Exceptions:** *(should be printed under Item 2)*

1. This requirement shall not apply to assembly occupancies used primarily for worship with fixed seating and part of a separated use.
2. This requirement shall not apply to assembly occupancies used primarily for worship consisting of a single multipurpose room that are not used for exhibition or display and are part of a separated use.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

#### **1022.1 Enclosures required.**

**Exceptions:**

9. In other than Group H and I occupancies, interior egress stairways serving only the first and second stories of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 are not required to be enclosed, provided at least two means of egress are provided from both floors served by the ~~enclosed~~ **unenclosed** stairways. Such interconnected stories shall not be open to other stories. Unenclosed exit stairways shall be remotely located as required in Section 1015.2.

#### **On page 258, Section 1106.2**

**1106.2 Groups R-2 and R-3.** At least 2 percent of all parking spaces, or a minimum of one space per Type A dwelling unit, whichever is greater, shall be **but not less than one of each type of parking space** provided for occupancies in Groups R-2 and Groups R-3, which are required to have *Accessible, Type A or Type B dwelling or sleeping units*, shall be *accessible*. Where parking is provided within or beneath a building, *accessible* parking spaces shall also be provided within or beneath the building.

**2109.1.1 Limitations.** The use of empirical design of masonry shall be limited as follows (see Table 2109.1.1 for clarification):

*(no change to items 1 through 6)*

7. Empirical design shall not be used for AAC masonry.

*(space separate paragraph)*

In buildings that exceed one or more of the above limitations, masonry shall be designed in accordance with the engineered design provisions of Section 2107 or 2108 or the foundation wall provisions of Section 1807.1.5.

#### **TABLE 2306.7**

**ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES FOR SHEAR WALLS OF LATH AND PLASTER OR GYPSUM BOARD WOOD FRAMED WALL ASSEMBLIES**

*(NC Item 5, Gypsum sheathing is a duplicate of ICC Item 4, Gypsum sheathing)*

On page 476, Table 2308.9.3(2)

TABLE 2308.9.3(2)

EXPOSED PLYWOOD PANEL SIDING

MINIMUM THICKNESS <sup>a</sup> (inch)	MINIMUM NUMBER OF PLYS	STUD SPACING (inches) Plywood siding applied directly to studs or over sheathing
3/8	3	16 <sup>b</sup>
1/2	4	24

For SI: 1 inch = 25.4 mm.

- a. Thickness of grooved panels is measured at bottom of grooves.
- b. Spans are permitted to be 24 inches if plywood siding applied with face grain perpendicular to studs or over one of the following: (1) 1-inch board sheathing, (2) 7/16 - inch wood structural panel sheathing or (3) 3/8-inch wood structural panel sheathing with strength axis (which is the long direction of the panel unless otherwise marked) of sheathing perpendicular to studs.

*(was omitted from publication)*



	required) = 0.90 Winter (all hours when heating is required) = 0.90 <sup>c</sup> External shading: none	

**TABLE 405.5.2(1)—continued  
SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED  
DESIGNS**

<b>BUILDING COMPONENT</b>	<b>STANDARD REFERENCE DESIGN</b>	<b>PROPOSED DESIGN</b>
Air exchange rate	Specific leakage area (SLA) <sup>d</sup> = <del>0.00021</del> 0.00028 or <del>3</del> 5 ACH50.	For residences that are not tested, the same as the standard reference design.
Heating systems <sup>g,h,i,j</sup>	As proposed Capacity: sized in accordance with the North Carolina Mechanical Code and North Carolina Residential Code. Fuel type: same as proposed design	As proposed
Cooling systems <sup>h,i,j,k</sup>	As proposed Capacity: sized in accordance with the North Carolina Mechanical Code and North Carolina Residential Code.	As proposed
Service water heating <sup>h,i,k,l</sup>	As proposed Fuel type: use: same as proposed design	As proposed  gal/day = 30 + (10 x Nbr)
Thermal distribution systems	A thermal distribution system efficiency (DSE) of 0.88 shall be applied to both the heating and cooling system efficiencies for all systems other than tested duct systems. Duct insulation: From Section 403.2.1. For tested duct systems, the leakage rate shall be the applicable maximum rate from Section 403.2.2.	As tested or as specified in Table 405.5.2(2) if not tested

<p>Lighting</p>	<p>kWh/yr = (455 + 0.80 * CFA) + ΔkWh/yr</p> <p>where:</p> <p>ΔkWh/yr = [29.5 – 0.5189*CFA * <b>50</b> <b>75%</b> – 295.12*<b>50</b> <b>75%</b> + 0.0519*CFA]</p> <p>Internal gains in the Standard Reference Design shall be reduced by 90% of the impact from efficient lighting, calculated in Btu/day using the following equation:</p> <p><math>\Delta IG_{\text{lighting}} = - 0.90 * \Delta kWh/yr * 10^6 / 293 / 365</math></p>	<p>kWh/yr = (455 + 0.80 * CFA) + ΔkWh/yr</p> <p>where:</p> <p>ΔkWh/yr = [29.5 – 0.5189*CFA*FL% – 295.12*FL% + 0.0519*CFA]</p> <p>FL% = the ratio of Qualifying Light Fixtures to all light fixtures in Qualifying Light Fixture Locations.</p> <p>The Proposed Design shall not have FL% more than <b>50</b> <b>75%</b> from CFL.</p> <p>Internal gains in the Proposed Design shall be reduced by 90% of the impact from efficient lighting, calculated in Btu/day using the following equation:</p> <p><math>\Delta IG_{\text{lighting}} = 0.90 * \Delta kWh/yr * 10^6 / 293 / 365</math></p>
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**On page 29, Table 502.2(1)**

**TABLE 502.2(1)  
BUILDING ENVELOPE REQUIREMENTS – OPAQUE ASSEMBLIES**

Climate Zone	3		4		5	
	All Other	Group R	All Other	Group R	All Other	Group R
<b>Roofs</b>						
Insulation entirely above deck	R - 25 ci	R-25 ci	R - 30 ci	R-30 ci	R - 30 ci	R-30 ci
Metal buildings (with R-5 thermal blocks) <sup>a,b</sup>	R-10 + R-19 FC	R-10 + R-19 FC	R-19 + R-11 Ls	R-19 + R-11 Ls	R-19 + R-11 Ls	R-19 + R-11 Ls
Attic and other - wood framing <sup>d</sup>	R-38	R-38	R-42	R-42	R-42	R-42
Attic and other - steel framing <sup>d</sup>	R-38	R-38	R-49	R-49	R-49	R-49

Walls, Above Grade						
Mass	R-7.6 ci	R-9.5 ci	R-9.5 ci	R-11.4 ci	R-11.4 ci	R-15 ci
Metal building <sup>b</sup>	R-0+R-13 ci	R-0 + R-19 ci	R-0 + R-15.8 ci	R-0 + R-19 ci	R-0 + R-19 ci	R-0 + R-19 ci
Metal framed	R-13 + 7.5 ci	R- 13 + R-7.5 ci	R-13 + R-10 ci	R-13 + R-12.5 ci	R-13 + R-12.5 ci	R- 13 + R-15 ci
Wood framed and other	R-13 + R-3.8 ci	R-19, R-13+ R-5, or R-15 + R-3 <sub>g</sub>	R-13 + R-7.5 ci	R-19, R-13+ R-5, or R-15 + R-3 <sub>g</sub>	R-13 + R-10 ci	R-19, R-13+ R-5, or R-15 + R-3 <sub>g</sub>
Walls, Below Grade						
Below-grade wall <sup>c</sup>	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-10 ci	R-7.5 ci	R-10 ci
Floors						
Mass	R-12.5 ci	R-12.5 ci	R-14.6 ci	R-16.7 ci	R-14.6 ci	R-16.7 ci
Joist / Framing	R-30 <sup>e</sup>	R-30 <sup>e</sup>	R-38	R-38	R-38	R-38
Slab-on-Grade Floors <sup>d</sup>						
Unheated slabs	NR	R-10 for 24 in.	R-15 for 24 in.	R-15 for 24 in.	R-15 for 24 in.	R-20 for 24 in.
Heated slabs	R-15 for 24 in.	R-15 for 24 in.	R-20 for 24 in.	R-20 for 48 in.	R-20 for 48 in.	R-20 for 48 in.
Opaque Doors						
Swinging	U – 0.70	U – 0.50	U – 0.50	U – 0.50	U – 0.50	U – 0.50
Roll-up or sliding	U - 0.50	U - 0.50	U - 0.50	U - 0.50	U - 0.50	U - 0.50

For SI: 1 inch = 25.4 mm.

CI = Continuous insulation. FC = Filled Cavity. LS = Liner System. NR = No requirement.

a. When using *R*-value compliance method, a thermal spacer block is required, otherwise use the *U*-factor compliance method. [see Tables 502.1.2 and 502.2(2)].

b. Assembly descriptions can be found in Table 502.2(2).

c. R-5.7 ci is allowed to be substituted with concrete block walls complying with ASTM C 90, ungrouted or partially grouted at 32 inches or less on center vertically and 48 inches or less on center horizontally, with ungrouted cores filled with material having a maximum thermal conductivity of 0.44 Btu-in./h-<sup>2</sup>F.

d. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix 1.C)

e. Steel floor joist systems shall to be R-38.

f. R-30 shall be deemed to satisfy the requirement for R-38 wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Similarly, R-38 shall be deemed to satisfy the requirement for R-42 or R-49 wherever the full height of uncompressed R-38 insulation extends over the wall top plate at the eaves.

## On page 30, Table 502.2(2)

TABLE 502.2(2)  
BUILDING ENVELOPE REQUIREMENTS—OPAQUE ASSEMBLIES

ROOFS	DESCRIPTION
R-10 + R-19FC	Filled cavity fiberglass insulation.  A continuous vapor barrier is installed below the purlins and uninterrupted by framing members. Both layers of uncompressed, unfaced fiberglass insulation rest on top of the vapor barrier and are installed parallel, between the purlins. A minimum R-5 thermal spacer block is placed above the purlin/batt, and the roof deck is secured to the purlins. Drawings of typical details are shown in Appendix 2.1.
R-19 + R11 Ls	Liner System with minimum R-3.5 thermal spacer block.  A continuous membrane is installed below the purlins and uninterrupted by framing members. Uncompressed, unfaced insulation rests on top of the membrane between the purlins. Drawings of typical details are shown in Appendix 2.1.
WALLS	
R-0 + R-13 ci R-0 + R-19 ci	The second rated R-value is for continuous rigid insulation installed between the metal wall panel and steel framing, or on the interior of the steel framing. Drawings of typical details are shown in Appendix 2.1.

## On page 55, Table 506.2.1(5) 506.2.1(6) CHILLERS - EFFICIENCY REQUIREMENTS

**On page 55, Table 506.2.1(6) 506.2.1(7)**  
**ABSORPTION CHILLERS - EFFICIENCY REQUIREMENTS**

**On page 57, Section 507.5.2**  
**507.5.2 Thermal blocks.** The standard reference design and proposed design shall be analyzed using identical thermal blocks as required in Section 507.5.1.1 507.5.2.1, 507.2.2 or 507.5.2.3.

**On page 94, Figure**  
**APPENDIX 2.2: COMMERCIAL BUILDING OPAQUE ASSEMBLIES**  
**Table 502.2(2) Roofs.**

R-3.5 R-5 THERMAL SPACER BLOCK

**On page 95, Figure**  
**Table 502.2(2) Roofs.**  
R-3.5 R-5 THERMAL SPACER BLOCK

**On page 101, Table 4B**  
- Change the highlighted values below

CZ	Fenestration	Skylight	Ceiling	Frame Wall	Mass Wall	Floor	Basement	Crawl
3	0.32	0.65	0.030	0.061	0.141	0.047	0.059	0.065
4	0.32	0.60	0.030	0.061	0.141	0.047	0.059	0.065
5	0.32	0.60	0.030	0.061	0.082	0.033	0.059	0.055

**On page 104, Form 4D.2**  
**Air sealing: Testing option (Section 402.4.2.2)**  
**Sample Worksheet for Alternative Residential Energy Code for Higher Efficiency**

**For Test Criteria 1** above, the report shall be produced in the following manner:  
Perform the blower door test and record the *CFM50*\_\_\_\_\_. Calculate the total square feet of surface area for the building thermal envelope, all floors, ceilings, and walls (this includes windows and doors) and record the area\_\_\_\_\_. Divide *CFM50* by the total square feet and record the result below. If the result is less than or equal to [0.30 0.24 *CFM50/SFSA*] the envelope tightness is acceptable; or

**For Test Criteria 2** above, the report shall be produced in the following manner:  
Perform a blower door test and record the *CFM50*\_\_\_\_\_. Multiply the *CFM50* by 60 minutes to create *CFHour50* and record \_\_\_\_\_. Then calculate the total conditioned volume of the home and record\_\_\_\_\_. Divide the *CFH50* by the total volume and record the result below. If the result is less than or equal to [5 4 *ACH50*] the envelope tightness is acceptable.

**SECTION 108  
BOARD OF APPEALS**

See the provisions of the *North Carolina Administrative Code and Policies* and applicable North Carolina General Statutes.

**108.1 Board of appeals established.** In order to hear and decide appeals of orders, decisions or determinations made by the *fire code official* relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The *fire code official* shall be an ex officio member of said board but shall have no vote on any matter before the board. The board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *fire code official*.

**108.2 Limitations on authority.** An application for appeal shall be based on a claim that the intent of this code or the rules legally adopted hereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent method of protection or safety is proposed. The board shall have no authority to waive requirements of this code.

**108.3 Qualifications.** The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosions, hazardous conditions or *fire protection systems* and are not employees of the jurisdiction.

**202**

**R-3.** Child care facilities that provide accommodations for five eight or fewer persons with no more than five for a preschool of any age for less than 24 hours.

**1002**

**Suite.** A group of rooms within a Group I-2 occupancy that comply with the requirements of Sections ~~1014.1.1~~ 1014.2.3 – 1014.2.7.

**1008.1.9.3 Locks and latches.**

**2.3.** The use of a key-operated device is revocable by the building official for violations of this Section 1008.1.9.3.

**1009.11. Ship Ladders.**

Ship ladders shall have a minimum tread depth of 5 inches (127mm). The tread shall be projected such that the total of the tread depth plus the nosing projection is not less than ~~8~~ 1/2 inches (216mm). The minimum riser height shall be 9 1/2 inches (241mm) pitch of 60 to 75 degrees (1.05 to 1.31 rad), maximum width of 30 inches (762 mm) to the outside of

the handrails, minimum tread depth of 5 inches (127 mm), riser height of 9 ½ inches (241.3mm) to 12 inches (304.8mm), 1 ¼ inch (31.75 mm) pipe handrail. The vertical rise between floor levels or landings shall not exceed 20 feet (6096 mm).

**1013.3 Opening limitations.** Required guards shall not have openings which allow passage of a sphere 4 inches (102 mm) in diameter from the walking surface to the required guard height. A bottom rail or curb shall be provided that will reject the passage of a 2 inch-diameter (51 mm) sphere.

**1013.5 Mechanical equipment.** Guards shall be provided where appliances, equipment, fans, roof hatch openings or other components that require service are located within ~~10-6~~ feet (3048 1829 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762mm) above the floor, roof or grade below.....

**1018.2 Corridor width.**

**Exceptions:** *(no errata to Exceptions 1, 3, 4)*

2. Thirty six inches (914mm) – In other than Groups I-1, I-2 and I-3 with a required occupant capacity less than 50.
5. Seventy-two inches (1829 mm) – In corridors and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be not capable of self-preservation and resident areas of Group I-1 and I-2.
6. Ninety-six inches (2439 mm) – In Group I-2 in patient areas and in areas where required for bed movement.

**Table 1018.1.** Add Table 1018.1 including additional footnotes d, e, and f.

**TABLE 1018.1  
CORRIDOR FIRE-RESISTANCE RATING<sup>a</sup>**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system <sup>c</sup>
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B <sup>f</sup> , E <sup>d</sup> , F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5
I-2 <sup>a</sup> , I-4	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1 <sup>b</sup>

- a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.
- b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
- d. ~~Adult and child day care facilities without automatic sprinkler systems shall have 1-hour fire-resistance-rated corridors regardless of occupant load.~~
- e. For requirements for residential care facilities, see Section 425.
- f. ~~Exit access corridors are not required to be rated on any single tenant floor or in any single tenant space, when 1-hour fire-resistance-rated tenant demising walls are provided between all tenant spaces and 1-hour fire-resistance-rated floor/ceiling assemblies are provided in multistory buildings.~~

**Table 1021.2. – Stories with one exit**

Add the following footnote f that applies to Group R occupancies:

f. Group R-4 adult and child care facilities shall have two exits or the rooms where the occupants receive care shall be located on the level of exit discharge and each of these rooms shall have an exit door directly to the exterior.

**1022.1 Exit enclosures.** *Add exceptions 8 and 9.*

8. In other than Group H and I occupancies, a maximum of 50 percent of egress stairways serving one adjacent floor are not required to be enclosed, provided at least two means of egress are provided from both floors served by the unenclosed stairways. Any two such interconnected floors shall not be open to other floors. Unenclosed exit stairways shall be remotely located as required in Section 1015.2.

9. In other than Group H and I occupancies, interior egress stairways serving only the first and second stories of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 are not required to be enclosed, provided at least two means of egress are provided from both floors served by the enclosed stairways. Such interconnected stories shall not be open to other stories. Unenclosed exit stairways shall be remotely located as required in Section 1015.2

**Section 1029 Emergency Escape and Rescue**

**Section 1029.1 General.** In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in Group E classrooms, Group R and I-1 occupancies. Basements.....*(remainder of paragraph is unchanged)*

**Exceptions:** *Add exception 8.*

8. In Group E where the room or space complies with the following:

8.1. Doors open directly to a corridor with exit access in one direction and provide access through adjacent classrooms or directly to a separate smoke compartment with exit access in the other direction;

8.2. The compartments are separated by smoke barriers having a 1-hour fire resistance rating with self-closing or automatic closing doors;

8.3. The length of travel to exits along such paths shall not exceed 150 feet (45m);

8.4. Each communicating door shall be identified; and

8.5. No locking device shall be allowed on the communicating doors.

**Section 1029.3 Maximum height from floor.** Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor. For classrooms serving children grade 5 and lower, the bottom of the clear opening shall be not more than 32 inches (810 mm) measured from the floor.

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**On page 20, TABLE 403.1 - continued**

**MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES.**

Factory and Industrial (See OSHA 29 CFR paragraph 1910.14.1 1910.141)

**On page 25, Section 410.1**

**410.1 Approval.** Drinking fountains shall conform to ASME A112.19.1M, ASME A112.19.2M or ASME A112.19.9M and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9. Where water is served in restaurants, night clubs, taverns, or bars, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, water coolers or bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required drinking fountains.

**On page 59, TABLE 709.1**

**DRAINAGE FIXTURE UNITS FOR FIXTURES AND GROUPS**

Shower (based on the total flow rate through showerheads and body sprays)

5.7 gpm or less                      2                      1½ 2

**On page 69, Section 909.1, 909.3**

**909.1 Wet vent permitted.** Any combination of fixtures within two bathroom groups located on the same floor level is permitted to be vented by a horizontal wet vent. The wet vent shall be considered the vent for the fixtures and shall extend from the connection of the dry vent along the direction of the flow in the drain pipe to the most downstream fixture drain connection to the horizontal branch drain. Each wet-vented fixture drain shall connect independently to the horizontal wet vent. Only the fixtures within the bathroom groups shall connect to the wet-vented horizontal branch drain. A residential clothes washer drain line shall not be used as a wet vent.

**909.3 Size.** The wet vent serving the wet vent shall be sized based on the largest required diameter of pipe within the wet vent system served by the dry vent. The wet vent shall be of a minimum size as specified in Table 909.3, based on the fixture unit discharge to the wet vent.

**On page 70, TABLE 912.3**

**SIZE OF COMBINATION DRAIN AND VENT PIPE**

Deleted.

**On page 1, Section R101.2**

**R101.2 Scope** (change Section reference in Item 2, no other changes)

2. The building is supported on a wood foundation of a minimum 2x6 or 3x4 mud sill of approved wood in accordance with Section 323 **R317**: and

**On page 32, Table R301.7**

**ALLOWABLE DEFLECTION OF STRUCTURAL MEMBERS**

Floors and plastered ceilings L/360<sup>f</sup>

**On page 46, Section R313.1, Exception 1**

1. Townhouses constructed with a common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 provided such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with the North Carolina Electrical Code. Penetrations for electrical outlet boxes shall be in accordance with Section R302.4.

**On page 46, Section R313.1.1**

**R313.1.1 Design and installation.** Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with Appendix P, Section P2904.

**On page 47, Section R315**

**R315.1 Carbon monoxide alarms.** In new construction, one-and two-family dwellings and townhouses within which fuel-fired appliances or fireplaces are installed or that have attached garages shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area in the immediate vicinity of the bedroom(s) as directed by the alarm manufacturer.

**R315.2 Where required-existing dwellings.** For existing dwellings, where interior alterations, repairs, fuel-fired appliance replacements, or additions requiring a building permit occurs, or where one or more sleeping rooms are added or created, or where fuel-fired appliances or fireplaces are added or replaced, carbon monoxide alarms shall be provided in accordance with Section 315.1.

**Exception:**

Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, or the installation of a fuel-fire appliance that cannot introduce carbon monoxide to the interior of the dwelling, are exempt from the requirements of this section.

**R315.3 Alarm requirements.** The required carbon monoxide alarms shall be audible in all bedrooms over background noise levels with all intervening doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be

installed in accordance with this code and the manufacturer's installation instructions.  
**Battery powered, plug-in, or hard-wired alarms are acceptable for use.**

**On page 51, Section R318.4.3**

**R318.4.3 Slab on grade (non- structural).** Foam plastic shall be installed along the vertical edge and underneath the slab as specified in Section ~~R318.5.5~~ **R318.4.5**.

**On page 51, Section R318.4.5.1**

**R318.4.5.1 Inspection and treatment gaps.** Foam plastic in contact with the ground shall not be continuous to the bottom of the weather-resistant siding. A clear and unobstructed 2-inch (51 mm) minimum inspection gap shall be maintained from the bottom of the weather-resistant siding to the top of any foam plastic. A minimum 4-inch (102 mm) treatment gap shall be provided beginning not more than 6 inches (152 mm) below grade. The top and bottom edges of the foam plastic installed between the inspection gap and the treatment gap shall be cut at a 45-degree (0.79 rad) angle. See Appendix 0.

**Exception:** For ICF foundations see Section ~~R404.4.7.2~~ **R404.1.2.3.6.1**.

**On page 85, Heading**

**- SECTION R408 ~~UNDER-FLOOR SPACE~~ WALL VENTED CRAWL SPACES**

**On page 87, Section R409.8.1.1**

**R409.8.1.1 Foam plastic termite inspection gap.** For outside walls Section **R318.4** governs applications. When expanded polystyrene, polyisocyanurate, or other foam plastic insulation is installed on the inside surface of the exterior foundation walls, provisions in Sections R409.8.1.1.1 through R409.8.1.1.2 below apply.

**On page 87, Section R409.8.1.1.2**

**R409.8.1.1.2 Concrete floor surfaced crawl spaces.**

Provide a clear and unobstructed 3-inch minimum termite inspection gap between the top of the foam plastic wall insulation and the bottom of the wood sill. Provide a continuous 3-inch minimum clearance gap between the bottom edge of the foam plastic wall insulation and the earth floor surface. Refer to Section **N1102.2.9** to determine maximum allowances for insulation gaps.

**On page 87, Section R409.8.1.2**

**R409.8.1.2 Porous insulation material.**

When fiberglass, rockwool, cellulose or other porous insulation materials are installed on the inside wall surface of a closed crawl space, provide a clear and unobstructed 3-inch minimum termite inspection gap between the top of the porous wall insulation and the bottom of the wood sill.

To reduce wicking potential, porous insulation ground contact is not allowed in earth floored or concrete surfaces crawl spaces. Provide a continuous 3-inch minimum wicking gap between the bottom edge of the porous wall insulation and the earth or concrete floor

surface. Refer to Section [N1102.2.9](#) to determine maximum allowances for insulation gaps.

**On page 130, Table R603.3(1)**

**FLOOR FRAMING**

Rim joist to top plate (toe-nailed) 2½” x 0.113” (3d box)<sup>c</sup> 6” o.c. **4” o.c.**

**On page 344, Section R703.7.3.2**

**R703.7.3.2** The allowable span shall not exceed 18 feet 3 inches (5562 mm) and shall be constructed to comply with [Figure R703.7.3.2](#) and the following:

**On page 405, Section R807**

**R807.1 Attic access.** An attic access opening shall be provided to attic areas that exceed 400 square feet (37.16 m<sup>2</sup>) and have a vertical height of 60 inches (1524 mm) or greater. The net clear opening shall not be less than 20 inches by 30 inches (508 mm by 762 mm) and shall be located in a hallway or other readily accessible location. A 30-inch (762 mm) minimum unobstructed headroom in the attic space shall be provided at some point above the access opening. See [the North Carolina Mechanical Code](#) for access requirements where mechanical equipment is located in attics.

**On page 432, Table N1102.1**

- Change the highlighted values below

CZ	Fenestration	Sky Light <sup>b</sup>	Glazed Fenest <sup>b,e</sup>	Ceiling <sup>k</sup>	Frame Wall <sup>e</sup>	Mass Wall <sup>i</sup>	Floor	Basement <sup>c</sup>	Slab <sup>d</sup>	Crawl
3	0.35	0.65	0.30	30	13	5/10	19	10/13 <sup>f</sup>	0	5/13
4	0.35	0.60	0.30	38 or 30 cont. <sup>j</sup>	15, 13 + 2.5 <sup>h</sup>	5/10	19	10/13	10 <sup>d</sup>	10/13
5	0.35	0.60	NR	38 or 30 cont. <sup>j</sup>	<b>19</b> , 13 + 5, 15 + 3 <sup>e,h</sup>	13/17	30 <sup>g</sup>	10/13	10 <sup>d</sup>	10/13

**On page 433, Table N1102.1.2**

- Change the highlighted values below

CZ	Fenestration	Skylight	Ceiling	Frame Wall	Mass Wall	Floor	Basement	Crawl
3	0.35	0.65	0.035	0.082	0.141	0.047	0.059	0.136
4	0.35	0.60	0.030	<b>0.077</b>	0.141	0.047	0.059	0.065
5	0.35	0.60	0.030	<b>0.061</b>	0.082	0.033	0.059	0.065

**On page 889, Appendix E-4 Table E-4B**

- Change the highlighted values below

CZ	Fenestration	Skylight	Ceiling	Frame Wall	Mass Wall	Floor	Basement	Crawl
3	0.32	0.65	<b>0.030</b>	<b>0.061</b>	0.141	0.047	0.059	<b>0.065</b>
4	0.32	0.60	0.030	<b>0.061</b>	0.141	0.047	0.059	0.065

5	0.32	0.60	0.030	<b>0.061</b>	0.082	0.033	0.059	<b>0.055</b>
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