

# North Carolina Building Code Council

Staffed by the NC Department of Insurance

1202 Mail Service Center  
Raleigh, NC 27699-1202

**Jim Long**, Commissioner  
**Christian Noles, PE**, Secretary

322 Chapanoke Road, Suite 200  
Raleigh, NC 27603

(919) 661-5880  
(919) 662-4414 Fax

## Building Code Council

### Chairman:

Dan Tingen -11  
(Home Builder)

### Vice Chairman:

John Hitch, AIA -10  
(Architect)

### Members:

J. Albert Bass, Jr., PE -  
09  
(Mechanical Engineer)

Lon Culbertson -07  
(Electrical Engineer)

Terry B. Greene -07  
(Gas Industry)

Steve L. Knight -09  
(Structural Engineer)

Bradley C. Lail -11  
(Public Representative)

Barry J. Maness -07  
(Mechanical Contractor)

Dan Murray -11  
(State Agency)

Jack F. Neel -10  
(Municipal-Gov't Rep)

Mack Nixon -10  
(County Gov't Rep)

Alan W. Perdue -09  
(Fire Services)

Gordon T. Reynolds -07  
(Electrical Contractor)

Robert F. Ruffner, Jr. -09  
(General Contractor)

Walter L. Simmons -09  
(Building Inspector)

David L. Smith -10  
(Coastal Residential  
Contractor)

Tom Turner, FAIA -10  
(Architect)

February 13, 2008

Dan Tingen  
Tingen Construction Company  
8411 Garvey Drive/#101  
Raleigh, NC 27616

RE: Agenda for the March 10 - 11, 2008 NC Building Code  
Council Meeting.

Mr. Tingen:

This is officially to notify you and other interested parties of a regularly scheduled meeting of the NC Building Code Council. The March NC Building Code Council meeting will be held at the NC Legislative Building, Third Floor Auditorium, 16 West Jones Street, Raleigh. Persons requiring auxiliary services should notify the Council at least ten business days prior to the meeting.

1. The Work Session will begin at 9:00AM on Monday, March 10, 2008 and is open to the public on a noncontributing basis.
2. The Electrical Committee will meet at the close of the Work Session to review Public Comments.
3. The Public Hearing will begin at 1:00PM on Monday, March 10, 2008. The Council will receive comments for the items marked as "C" at this time. At the close of the hearing, committees may meet.
4. The General Construction Committee will meet at the close of the Public Hearing to discuss 12/11 Item B-5.
5. The NC Building Code Council meeting will begin at 9:00AM on Tuesday, March 11, 2008. Appeals, if any, will be heard at the close of the meeting.
6. The Mechanical Committee will meet at the close of the Council Meeting to discuss Hot Water Piping Insulation and Rainwater Recycling.

## **Part A – Administrative Items**

**Item A – 1 Executive Order: Inquire upon conflicts of interest or appearance of conflicts of interest that exist within the Council.**

**Item A – 2 Approval of minutes of the December 11, 2007 NC Building Code Council Meeting.**

**Item A – 3 Letter from Carlos L. Bell, Jr., with Thomas Harris Building & Design, requesting the replacement of excerpted Plumbing, Mechanical, Electrical and Fuel Gas Chapters in the NC Residential Code Book.**

**Item A – 4 Information for the Building Code Council about the Ocean Isle Beach fire.**

**Item A – 5 Rules Review Commission meeting report – 1/20/08.**

**Item A – 6 Public Comments**

## **Part B – New Petitions for Rulemaking**

**Item B – 1 Request by Wanda Edwards, with IBHS, to amend the 2006 NC Residential Code for One and Two Family Dwellings, Section R202. The proposed amendment is as follows:**

**R202 Definitions. WINDBORNE DEBRIS REGION.** Areas within hurricane-prone regions defined as ~~that area east of the inland waterway from the NC/SC state line north to Beaufort Inlet and from that point to include the barrier islands to the NC/VA state line.~~ within one mile of the coastal mean high water line where the basic wind speed is 110 mph or greater, or where the basic wind speed is equal to or greater than 120 mph or Hawaii.

**Item B – 2 Request by Wanda Edwards, with IBHS, to amend the 2006 NC Building Code, Section 1609.2. The proposed amendment is as follows:**

**1609.2 DEFINITIONS. WIND-BORNE DEBRIS REGION.** Areas within hurricane-prone regions defined as ~~that area east of the inland waterway from the NC/SC state line north to Beaufort Inlet and from that point to include the barrier islands to the NC/VA state line.~~ within one mile of the coastal mean high water line where the basic wind speed is 110 mph or greater, or where the basic wind speed is equal to or greater than 120 mph or Hawaii.

**Item B – 3 Request by Craig J. Froeter, Froet Industries LLC, to amend the 2006 NC Plumbing Code, Section 1105. The proposed amendment is as follows:**

**1107.3 Sizing of secondary drains.** Secondary (emergency) roof drain systems shall be sized in accordance with section 1106 based on the rainfall rate indicated in figure ~~1106.1a~~ 1106.1.

**Item B – 4 Request by Craig J. Froeter, Froet Industries LLC, to amend the 2006 NC Plumbing Code, Section 1105. The proposed amendment is as follows:**

**1105.1 Strainers.** Roof drains shall have strainers extending not less than 4 3 inches (~~402mm~~ 76mm) above the surface of the roof.

**Item B – 5 Other Petitions for Rulemaking.**

**Part C – Notice of Rulemaking Proceedings and Public Hearing**

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings has been made. The Public Hearing will be held March 10, 2008 and the Final Adoption meeting may take place on or after June 10, 2008.

**Item C – 1 Request by Bryan T. Reading, APA – The Engineered Wood Association to amend the 2006 NC Residential Code for One and Two Family Dwellings, Section 4404.4. The proposed amendment is as follows:**

**4404.4 Exterior Concrete Slab-on-grade Footings.** Vertical reinforcement shall be installed at intervals not to exceed Table 4404.1.1 and shall terminate in a double sole plate.

**Exception:** Vertical reinforcement (anchorage) shall be installed at intervals not to exceed Table 4401.1a. where the bars terminate in a single sole plate. Approved strap anchors or wood structural panels shall be installed to provide a continuous load-path from the single sole plate to the wall.

**4406.3 Gable endwalls.** Gable endwalls in the 110, 120, and 130 mph (48 m/s, 53 m/s, 57 m/s) wind zones shall either be supported by lateral bracing at the ceiling or have continuous studs from the floor to the roof. 2 x 4 studs at 16 inches (406 mm) on center are limited to 10 feet (3048) in length between supports. Nonbearing 2 x 6 SPF No.2 studs at 16 inches (406 mm) on center with 3/8 inch wood structural panel sheathing are limited to unsupported lengths of 18 feet (5486) in 110 mph (48 m/s), 16 feet (4877) in 120 mph (53 m/s) and 14 feet (4267 mm) in 130 mph (57 m/s) wind zones. Wood structural panel sheathing shall extend 12 inches (305 mm) beyond horizontal construction joints except where the horizontal joint occurs over minimum 1 inch (25 mm) thick OSB or plywood rimboard with a minimum 1-1/2 inch (38 mm) overlap.

**4408.4 Anchorage using wood structural panels.** Wood structural panel sheathing may be used to resist both lateral load and uplift simultaneously. Panels shall be installed as follows:

1. Panels may be installed with face grain parallel or perpendicular to studs.
2. Panels shall be 3/8 inch (9 mm) minimum thickness.
3. Nail spacing shall be 8d at 6 inches (152 mm) on center along vertical edges of panel and 12 inches (305 mm) at intermediate vertical framing.

4. Horizontal nail spacing at double row of 8d staggered at 3 inches (76 mm) on center.
5. Panel shall extend 12 inches (305 mm) beyond horizontal construction joints and shall overlap girders their full depth except where the horizontal joint occurs over minimum 1 inch (25 mm) thick OSB or plywood rimboard with a minimum 1-1/2 inch (38 mm) overlap.
6. Panel attachment to framing shall be as illustrated in Figure 4408.4.
7. Blocking shall be required at all joints if sheathing is used to resist uplift.

**Item C – 2 Request by Julius Ballanco, President of JB Engineering and Code Consulting, P.C., to amend the 2006 NC Mechanical Code, Section 504.2. The proposed amendment is as follows:**

**504.2 Exhaust penetrations.** Where a clothes dryer exhaust duct penetrates a wall or ceiling membrane, the annular space shall be sealed with noncombustible material, approved fire caulking, or a noncombustible dryer exhaust duct wall receptacle. Ducts that exhaust clothes dryers shall not penetrate or be located within any fireblocking, draftstopping or any wall, floor/ceiling or other assembly required by the International Building Code to be fire-resistance rated, unless such duct is constructed of galvanized steel or aluminum of the thickness specified in Section 603.4 and the fire-resistance rating is maintained in accordance with the International Building Code. Fire dampers, combination fire/smoke dampers and any similar devices that will obstruct the exhaust flow, shall be prohibited in clothes dryer exhaust ducts.

**Item C – 3 Request by Curt Willis, Construction Inspections Administrator with the City of Raleigh, to amend the 2006 NC Building Code. The proposed amendment is as follows:**

**704.15 Soffit in Group R.** In Group R buildings of combustible construction the soffit material shall be securely attached to framing members and shall be constructed using either non-combustible soffit material, fire retardant treated soffit material, vinyl soffit installed over 3/4 inch wood sheathing of 5/8 inch gypsum board, or aluminum soffit installed over 3/4 inch wood sheathing or 5/8 inch gypsum board. Venting requirements shall apply to both soffit and underlayments and shall be per section 1203.2 of the NCSBC.

**1405.13.2 Flame Spread.** Vinyl Siding and vinyl soffit materials when used in Group R buildings shall have a Flame Spread Index of 25 or less as tested in accordance with ASTM E-84.

**R302.4 Flame Spread.** Vinyl Siding and vinyl soffit materials when used in Townhouse construction shall have a Flame Spread Index of 25 or less as tested in accordance with ASTM E-84.

**Item C – 4 Request by David Smith, Residential Committee, to further amend the proposed 2009 NC Residential Code for One and Two Family Dwellings, Section R302. The proposed amendment is as follows:**

**Delete the 2006 IRC Section R302, including Table R302.1, and replace with the following language from the 2003 IRC with NC Amendments.**

## **SECTION R302**

### **LOCATION ON LOT**

**R302.1 Exterior walls.** Exterior walls with a fire separation distance less than 3 feet (914mm) shall have not less than a one-hour fire-resistive rating with exposure from both sides. Projections shall not extend to a point closer than 2 feet (610 mm) from the line used to determine the fire separation distance.

**Exception:** Detached garages accessory to a dwelling located within 2 feet of a lot line shall be permitted to have roof eave projections not exceeding 4 inches.

Projections extending into the fire separation distance shall have not less than one-hour fire-resistive construction on the underside. The above provisions shall not apply to walls which are perpendicular to the line used to determine the fire separation distance.

#### **Exceptions:**

1. Tool and storage sheds, playhouses and similar structures exempted from permits by R105.2 are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.

2. In Townhouse construction (with 3 or more attached dwellings) the soffit material shall be securely attached to framing members and shall be constructed using either non-combustible soffit material; fire retardant treated soffit material; vinyl soffit installed over 3/4 inch wood sheathing or 5/8 inch gypsum board; or aluminum soffit installed over 3/4 inch wood sheathing or 5/8 inch gypsum board. Venting requirements shall be provided in both soffit and underlayments. Vents shall be either nominal 2-inch continuous or equivalent intermittent and shall not exceed the minimum net free air requirements established in section R806.2 by more than 50%. Vents in soffit are not allowed within four feet of fire walls or property lines.

**R302.2 Openings.** Openings shall not be permitted in the exterior wall of a dwelling or accessory building with a fire separation distance less than 3 feet (914 mm). This distance shall be measured perpendicular to the line used to determine the fire separation distance.

#### **Exceptions:**

1. Openings shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.

2. Foundation vents installed in compliance with this code are permitted.

**R302.3 Penetrations.** Penetrations located in the exterior wall of a dwelling with a fire separation distance less than 3 feet (914 mm) shall be protected in accordance with Section R317.3.

**Exception:** Penetrations shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.

**(R302.1 Exception 2 is currently in the Rules process under a separate amendment.)**

**Part D – Final Adoption**

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings and Public Hearing has been made. The Public Hearings were held December 10, 2007. The Final Adoption meeting will take place on March 11, 2008. The Council will give no further consideration to Petitions that are disapproved. Petitions that are approved will proceed through the Rulemaking process.

**Item D – 1 Request by David Smith, Chairman of the Residential Standing Committee, to amend the 2006 NC Residential Code for One and Two Family Dwellings, Section R311.5.6.3. The proposed amendment is as follows:**

**R311.5.6.3 Handrail grip size.** All required handrails shall be of one of the following types or provide equivalent graspability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of at least 1<sup>1</sup>/<sub>4</sub> inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 6<sup>1</sup>/<sub>4</sub> inches (160 mm) with a maximum cross section of dimension of 2<sup>1</sup>/<sub>4</sub> inches (57 mm).
2. Type II. Handrails with a perimeter greater than 6<sup>1</sup>/<sub>4</sub> inches (160 mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for at least 3/8 inch (10 mm) to a level that is not less than 1<sup>3</sup>/<sub>4</sub> inches (45 mm) below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1<sup>1</sup>/<sub>4</sub> inches (32 mm) to a maximum of 2<sup>3</sup>/<sub>4</sub> inches (70 mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm).

**Exception:** Exterior handrails (garages and areas exposed to the weather) shall not be more than 3-1/2 inches in cross-section dimension.

**Item D – 2 Request by David Smith, Chairman of the Residential Standing Committee, to amend the 2006 NC Residential Code for One and Two Family Dwellings, Section R302.1. The proposed amendment is as follows:**

**R302.1 Exterior walls.** Exterior walls with a fire separation distance less than 3 feet (914 mm) shall have not less than a one-hour fire-resistive rating with exposure from both sides. Projections shall not extend to a point closer than 2 feet (610 mm) from the line used to determine the fire separation distance.

**Exception:** Detached garages accessory to a dwelling located within 2 feet of a lot line shall be permitted to have roof eave projections not exceeding 4 inches.

Projections extending into the fire separation distance shall have not less than one-hour fire-resistive construction on the underside. The above provisions shall not apply to walls which are perpendicular to the line used to determine the fire separation distance.

**Exceptions:**

1. Tool and storage sheds, playhouses and similar structures exempted from permits by Chapter 1 are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
2. In Townhouse construction (with 3 or more attached dwellings) the soffit material shall be securely attached to framing members and shall be constructed using either non-combustible soffit material, fire retardant treated soffit material, vinyl soffit installed over 3/4 inch wood sheathing or 5/8 inch gypsum board, or aluminum soffit installed over 3/4 inch wood sheathing or 5/8 inch gypsum board. Venting requirements shall be provided in both soffit and underlayments. Vents shall be either nominal 2-inch continuous or intermittent and shall not exceed the minimum net free air requirements established in section R806.2 by more than 50%. Vents in soffit are not allowed within four feet of fire walls or property lines.

**Item D – 3 Request by the Staff of the NC Department of Insurance to adopt the following codes with the NC Amendments:**

- A. 2006 International Building Code, with 2009 NC Amendments – All Accessibility requirements are included in Chapter 11 and the referenced ANSI A117.1 Standard.
- B. 2006 International Energy Conservation Code, with 2009 NC Amendments
- C. 2006 International Fire Code, with 2009 NC Amendments
- D. 2006 International Fuel Gas Code, with 2009 NC Amendments
- E. 2006 International Mechanical Code, with 2009 NC Amendments
- F. 2006 International Plumbing Code, with 2009 NC Amendments
- G. 2006 International Residential Code, with 2009 NC Amendments
- H. 2008 National Electrical Code, with 2008 NC Amendments

2008 NC/NEC 2008 - The Base Document for the 2008 NC Electrical Code is the 2008 NEC.

2009 NC/ICC 2006 – The Base Documents for the 2009 NC State Building Codes are the 2006 I-Codes.

The NC Amendments are proposed replacements to the Sections printed in the Base Documents.

Proposed amendments may be viewed at the following links:  
[http://www.ncdoi.com/OSFM/Engineering/engineering\\_home.asp](http://www.ncdoi.com/OSFM/Engineering/engineering_home.asp)  
-STATE BUILDING CODES  
-BUILDING CODES - 2009 EDITION - PROPOSED AMENDMENTS

**OR**

<http://www.ncbuildingcodes.com/OSFM/Engineering/BCC/ncbuildingcodes.asp>  
-ADOPTED CODE INFORMATION  
-NC STATE BUILDING CODES  
-BUILDING CODES - 2009 EDITION - PROPOSED AMENDMENTS

The 2006 I-Codes are available at [www.iccsafe.org](http://www.iccsafe.org) for purchase.  
The 2008 NEC is available at [www.nfpa.org](http://www.nfpa.org) for purchase.  
Single copies are available by November 1, 2007 for **REVIEW ONLY** at the following locations:

Asheville Inspections	828-259-5846
Davie County Inspections, Mocksville	336-753-6050
NC Department of Insurance, Raleigh	919-661-5880 x 254
Greenville Inspections	252-329-4466

The anticipated adoption date of the 2008 NC Electrical Code and the 2009 NC State Building Codes is March 11, 2008.

The proposed effective date for the 2008 NC Electrical Code is **June 1, 2008**.

The proposed effective date for the 2009 NC State Building Codes is **January 1, 2009**.

**Item D – 4 Request by John Hitch, Chairman of the General Construction Standing Committee, to amend the 2006 International Building Code, Table 1017.1 in conjunction with Item 3A above. The Council granted a petition on 9/11/07 to add the following Footnote “f” to Table 1017.1, to “Occupancy B”, unsprinklered. The proposed amendment is as follows:**

**Table 1017.1 Corridor Fire-Resistance Rating.**

f. Exit access corridors are not required to be rated on any single tenant floor or in any single tenant space, when 1-hour rated tenant demising walls are provided between all tenant spaces and 1-hour rated floor/ceiling assemblies are provided in multi-story buildings.

**Part E – Reports**

**Chairman’s Report**

**Ad Hoc Committee Reports**

**Standing Committee Reports**

- Mechanical Committee (Partial) – 1/11/08
- Residential Committee – 2/12/08

**Staff Reports**

**Public Comments**

**Part F – Appeals**

Sincerely,

A handwritten signature in black ink, appearing to read "Christian Noles". The signature is written in a cursive, somewhat stylized font.

Christian Noles, P.E.  
Secretary, NC Building Code Council