Minutes of the North Carolina Building Code Council
December 9, 2014
Raleigh, NC

All members of the North Carolina Building Code Council were present for the Council Meeting.

The following are summary minutes. The official minutes of this meeting are recorded on CD. Anyone desiring verbatim CDs or excerpts from these CDs should contact the Engineering Division of the NC Department of Insurance for information and reproduction costs. The next scheduled NC Building Code Council meeting will be held **Tuesday, March 10, 2015**. The location will be announced 30 days before the meeting.

Part A – Administrative Items

Item A – 1 Ethics Statement: Inquire upon conflicts of interest or appearance of conflicts of interest that exist within the Council.

There were no actual or potential conflicts of interest noted.

Item A – 2 Approval of minutes of the September 9, 2014 NC Building Code Council Meeting.

A **motion** to accept the September 9th meeting minutes, was made, **seconded** by Ralph Euchner, and **approved**.

Item A – 3 Rules Review Commission Meeting Report

The D-Items from the September 2014 BCC meeting were approved by the Rules Review Committee.

Item A – 5 Public Comments

There were no public comments.

Part B – New Petitions for Rulemaking
The following Petitions for Rulemaking have been received since the last Council meeting. The Council will vote either to deny or grant these Petitions. The Council will give no further consideration to Petitions that are denied. Petitions that are granted may proceed through the Rulemaking process. The Council may send any Petition to the appropriate committee. The hearing will take place during or after the March 2015 meeting.

Item B – 1 Request by Paul Coats, PE, CBO, to amend the 2012 NC Building Code, Sections 602.4 and 2302.1, and the 2012 NC Residential Code, Sections R502, R602, and R802. . The proposed amendment is as follows:

2012 NC Building Code:

Add a definition in Chapter 2:
[BS] CROSS-LAMINATED TIMBER. A prefabricated engineered wood product consisting of not less than three layers of solid-sawn lumber or *structural composite lumber* where the adjacent layers are cross oriented and bonded with structural adhesive to form a solid wood element.

Revise as follows:
602.4 Type IV. Type IV construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid or laminated wood without concealed spaces. The details of Type IV construction shall comply with the provisions of this section and Section 2304.10. ~~*Fire*~~

~~*retardant treated wood* framing~~ Exterior walls complying with Section ~~2303.2~~ 602.4.1 or 602.4.2 shall be ~~permitted within exterior wall assemblies with a 2-hour rating or less~~ permitted. Minimum solid sawn nominal dimensions are required for structures built using Type IV construction (HT). For glued-laminated members, the equivalent net finished width and depths corresponding to the minimum nominal width and depths of solid sawn lumber are required as specified in Table 602.4. *Cross-laminated timber* (CLT) dimensions used in this section are actual dimensions.

602.4.1 Fire-retardant-treated wood in exterior wall. Fire-retardant wood framing complying with Section 2303.2 shall be permitted within exterior wall assemblies with a 2-hour rating or less.

602.4.2 Cross-laminated timber in exterior walls. Cross-laminated timber complying with Section 2303.1.4 shall be permitted within exterior wall assemblies with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one of the following:

1. Fire-retardant-treated wood sheathing complying with Section 2303.2 and not less than 15/32 inch (12 mm) thick;

2. Gypsum board not less than ½ inch (12.7 mm) thick; or

3. A noncombustible material

~~**602.4.1**~~ **602.4.3 Columns.** *(no change, only renumbering)*

~~**602.4.2**~~ **602.4.4 Floor framing.** *(no change, only renumbering)*

~~**602.4.3**~~ **602.4.5 Roof framing.** *(no change, only renumbering)*

~~**602.4.4**~~ **602.4.6 Floors.** *(no change, only renumbering)*

602.4.6.1 Cross-laminated timber floors. Cross-laminated timber shall be not less than 4 inches (102 mm) in thickness. Cross-laminated timber shall be continuous from support to support and mechanically fastened to one another. Cross-laminated timber shall be permitted to be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbelling of masonry walls under the floor shall be permitted to be used.

~~**602.4.5**~~ **602.4.7 Roofs.** Roofs shall be without concealed spaces and wood roof decks shall be sawn or glued-laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness~~,~~; 11/8-inch-thick (32 mm) wood structural panel (exterior glue)~~,~~; ~~or of~~ planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors~~.~~; or cross-laminated timber. Other types of decking shall be permitted to be used if providing equivalent *fire resistance* and structural properties.

Cross-laminated timber roofs shall be not less than 3 inches (76 mm) nominal in thickness and shall be continuous from support to support and mechanically fastened to one another.

~~**602.4.6**~~ **602.4.8 Partitions and walls.** Partitions and walls shall comply with Section 602.4.8.1 or 602.4.8.2.

602.4.8.1 Interior walls and partitions. Interior walls and p~~P~~artitions shall be of solid wood construction formed by not less than two layers of 1-inch (25 mm)

matched boards or laminated construction 4 inches (102 mm) thick, or of 1-hour fire-resistance-rated construction.

602.4.8.2 Exterior walls. Exterior walls shall be one of the following:

1. Noncombustible materials

2. Not less than 6 inches (152 mm) in thickness and constructed of one of the following:

   2.1 Fire-retardant-treated wood in accordance with Section 2303.2 and complying with Section 602.4.1.

   2.2 Cross-laminated timber complying with Section 602.4.2.

~~**602.4.7**~~ **602.4.9 Exterior structural members.** *(no change, only renumbering)*

2302.1 Definitions.

Insert as follows:
CROSS-LAMINATED TIMBER. A prefabricated engineered wood product consisting of not less than three layers of solid-sawn lumber or *structural composite lumber* where the adjacent layers are cross oriented and bonded with structural adhesive to form a solid wood element.

Revise as follows:
2303.1.4 Structural glued cross-laminated timber. Cross-laminated timbers shall be manufactured and identified in accordance with ANSI/APA PRG 320.

~~**2303.1.4**~~ **2303.1.5 Wood structural panels.** *(no change, only renumbering)*

(Renumber subsequent sections accordingly)

Add to Chapter 35 under APA:
ANSI/APA PRG 320-2012 Standard for Performance-rated Cross Laminated Timber.....2303.1.4

Motion – David Smith/**Second –** Lon McSwain/**Approved**. The request was granted and sent to the Building, Fire, Residential and Structural Committees. The proposed effective date of this rule is January 1, 2016.

2012 NC Residential Code:

Add a definition in Chapter 2:
CROSS-LAMINATED TIMBER. A prefabricated engineered wood product consisting of not less than three layers of solid-sawn lumber or *structural composite lumber* where the adjacent layers are cross oriented and bonded with structural adhesive to form a solid wood element.

Revise as follows:
R502.1.6 Cross-laminated timber. Cross-laminated timber shall be manufactured and identified as required by ANSI/APA PRG 320.

Revise as follows:
R502.8.2 Engineered wood products. Cuts, notches and holes bored in trusses, structural glue-laminated members, cross-laminated timber members or I-joists are prohibited except where permitted by the manufacturer's recommendations or where the

effects of such alterations are specifically considered in the design of the member by a *registered design professional*.
Revise as follows:

R602.1.3 Cross-laminated timber. Cross-laminated timber shall be manufactured and identified as required by ANSI/APA PRB 320.

~~**R602.1.3**~~ **R602.1.4 Structural log members.** *(no change, only renumbering)*

Revise as follows:
R802.1.5 Cross-laminated timber. Cross-laminated timber shall be manufactured and identified as required by ANSI/APA PRB 320.

~~**R802.1.5**~~ **R802.1.6 Structural log members.** *(no change, only renumbering)*

Revise as follows:
R802.7.2 Engineered wood products. Cuts, notches and holes bored in trusses, structural composite lumber, structural glue-laminated, cross-laminated timber members or I-joists are prohibited except where permitted by the manufacturer's recommendations or where the effects of such alterations are specifically considered in the design of the member by a *registered design professional*.

Add to Chapter 44 under APA:
ANSI/APA PRG 320-2012 Standard for Performance-rated Cross Laminated Timber.....R502.1.6, R602.1.3, R802.1.5

Motion – David Smith/**Second –** Lon McSwain/**Approved**. The request was granted and sent to the Building, Fire, Residential and Structural Committees. The proposed effective date of this rule is January 1, 2016.

Item B – 2 Request by Paul Coats, PE, CBO, to amend the 2012 NC Energy Conservation Code, TABLE 502.1.2. The proposed amendment is as follows:

TABLE 502.1.2
BUILDING ENVELOPE REQUIREMENTS OPAQUE ELEMENT, MAXIMUM U-FACTORS

Climate Zone	3		4		5	
	All Other	Group R	All Other	Group R	All Other	Group R
Roofs						
Insulation entirely above deck	U-0.039	U-0.039	U-0.032	U-0.032	U-0.032	U-0.032
Metal buildings (with R-5 thermal blocks[a])	U-0.041	U-0.041	U-0.035	U-0.035	U-0.035	U-0.035
Attic and other	U-0.027	U-0.041	U-0.021	U-0.021	U-0.021	U-0.021
Walls, Above Grade						
Mass	U-0.123	U-0.104	U-0.104	U-0.090	U-0.090	U-0.060
Metal Building	U-0.072	U-0.050	U-0.060	U-0.050	U-0.050	U-0.050
Metal framed	U-0.064	U-0.064	~~U-0.055~~ U-0.064	~~U-0.049~~ U-0.064	~~U-0.049~~ U-0.064	~~U-0.043~~ U-0.064
Wood framed and other	U-0.064	~~U-0.051~~ U-0.064	~~U-0.051~~ U-0.064	~~U-0.045~~ U-0.064	~~U-0.045~~ U-0.064	~~U-0.041~~ U-0.064
Walls, Below Grade						
Below-grade wall[a]	C-0.119	C-0.119	C-0.119	C-0.092	C-0.119	C-0.092
Floors						
Mass	U-0.064	U-0.064	U-0.057	U-0.051	U-0.057	U-0.051
Joist/Framing	U-0.033	U-0.033	U-0.027	U-0.027	U-0.027	U-0.027
Slab-on-Grade Floors						
Unheated slabs	F-0.730	F-0.540	F-0.520	F-0.520	F-0.520	F-0.510
Heated slabs	F-0.860	F-0.860	F-0.688	F-0.688	F-0.688	F-0.688

a. When heated slabs are placed below-grade, below grade walls must meet the *F*-factor requirements for perimeter insulation according to the heated slab-on-grade construction.

Motion – Ralph Euchner/**Second –** Robbie Davis/**Approved**. The request was granted. The proposed effective date of this rule is January 1, 2016.

Item B – 3 Request by Richard Strickland, representing NCDOI-Engineering, to amend the 2012 NC Fire Prevention Code, Section 106. The proposed amendment is as follows:

SECTION 106
INSPECTIONS

In order to preserve and protect public health and safety and to satisfy the requirements of General Statute 153A-364 and General Statute 160A-424, political subdivisions assuming inspection duties, as set out in General Statute 153A-351 and General Statute 160A-411, shall have a periodic inspection schedule for the purpose of identifying activities and conditions in buildings, structures and premises that pose dangers of fire, explosion or related hazards. Such inspection schedule shall be approved by the local governing body and shall be submitted to the Office of State Fire Marshal of the Department of Insurance. In no case shall inspections be conducted less frequently than described in the schedule below:

Once every year	Hazardous, institutional, high-rise assembly except those noted below, and Residential except one- and two family dwellings and only interior common areas of dwelling units of multi-family occupancies. <u>New and existing lodging establishments (hotels, motels, bed and breakfast homes and inns, tourist homes, and extended stay lodging establishments for the installation and maintenance of carbon monoxide alarms and/or detectors in accordance with G.S. 143-138(b2).</u>
Once every two years	Industrial and educational (except public schools).
Once every three years	Assembly occupancies with an occupant load less than 100, business, mercantile, storage, churches, synagogues, and miscellaneous Group U occupancies.

Frequency rates for inspections of occupancies as mandated by the North Carolina General Statutes shall supersede this schedule. Nothing in this section is intended to prevent a jurisdiction from conducting more frequent inspections than the schedule listed above or the schedule filed with the Office of State Fire Marshal of the Department of Insurance.

On unattended or vacant structures, the fire code official shall affix a letter on the premises in a conspicuous place at or near the entrance to such premises requesting an inspection in accordance with this section. This order of notice shall be mailed by registered or certified mail with return receipt requested, to the last known address of the owner, occupant or both. If the owner, occupant or both shall fail to respond to said notice within 10 calendar days, these actions by the fire code official shall be deemed to constitute an inspection in accordance with this section.

Motion/**Second**/**Approved**. The request was granted. The proposed effective date of this rule is August 1, 2015.

Item B – 4 Request by Richard Strickland, representing NCDOI-Engineering, to amend the 2012 NC Fire Prevention Code, Section 908.7. The proposed amendment is as follows:

SECTION 915
CARBON MONOXIDE DETECTION

915.1 General. Carbon monoxide detection shall be installed in new buildings in accordance with Sections 915.1.1 through 915.6. ~~Carbon monoxide detection shall be installed in existing buildings in accordance with Section 1103.9.~~

915.1.1 Where required. Carbon monoxide detection shall be provided in Group I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 915.2 where any of the conditions in Sections 915.1.2 through 915.1.6 exist.

915.1.2 Fuel-burning appliances and fuel-burning fireplaces. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

915.1.3 Forced air furnaces. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

Exception: Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where carbon monoxide detection is provided in the first room or area served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.

915.1.4 Fuel-burning appliances outside of dwelling units, sleeping units and classrooms. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms located in buildings that contain fuel-burning appliances or fuel-burning fireplaces.

Exceptions:

1. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms if there are no communicating openings between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom.

2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms if carbon monoxide detection is provided in one of the following locations:

   2.1 In an approved location between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom.

   2.2 On the ceiling of the room containing the fuel-burning appliance or fuel-burning fireplace.

915.1.5 Private garages. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms in buildings with attached private garages.

Exceptions:

1. Carbon monoxide detection shall not be required where there are no communicating openings between the private garage and the dwelling unit, sleeping unit or classroom.

2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms located more than one story above or below a private garage.

3. Carbon monoxide detection shall not be required where the private garage connects to the building through an open-ended corridor.

4. Where carbon monoxide detection is provided in an approved location between openings to a private garage and dwelling units, sleeping units or classrooms, carbon monoxide detection shall not be required in the dwelling units, sleeping units or classrooms.

915.1.6 Exempt garages. For determining compliance with Section 915.1.5, an open parking garage complying with Section 406.5 of the International Building Code or an enclosed parking garage complying with Section 406.6 of the International Building Code shall not be considered a private garage.

915.2 Locations. Where required by Section 915.1.1, carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.3.

915.2.1 Dwelling units. Carbon monoxide detection shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.

915.2.2 Sleeping units. Carbon monoxide detection shall be installed in sleeping units.

Exception: Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom does not contain a fuel-burning appliance and is not served by a forced air furnace.

915.2.3 Group E occupancies. Carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.

Exception: Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that it staffed by school personnel in Group E occupancies with an occupant load of 30 or less.

915.3 Detection equipment. Carbon monoxide detection required by Sections 915.1 through 915.2.3 shall be provided by carbon monoxide alarms complying with Section 915.4 or with carbon monoxide detection systems complying with Section 915.5.

915.4 Carbon monoxide alarms. Carbon monoxide alarms shall comply with Sections 915.4.1 through 915.4.3.

915.4.1 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

Exception: Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.

915.4.2 Listings. Carbon monoxide alarms shall be listed in accordance with UL 2034.

915.4.3 Combination alarms. Combination carbon monoxide/smoke alarms shall be an acceptable alternative to carbon monoxide alarms. Combination carbon monoxide/smoke alarms shall be listed in accordance with UL 2034 and UL 217.

915.5 Carbon monoxide detection systems. Carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide alarms and shall comply with Sections 915.5.1 through 915.5.3.

915.5.1 General. Carbon monoxide detection systems shall comply with NFPA 720. Carbon monoxide detectors shall be listed in accordance with UL 2075.

915.5.2 Locations. Carbon monoxide detectors shall be installed in the locations specified in Section 915.2. These locations supersede the locations specified in NFPA 720.

915.5.3 Combination detectors. Combination carbon monoxide/smoke detectors installed in carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide detectors, provided they are listed in accordance with UL 2075 and UL 268.

915.6 Maintenance. Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 720. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

[NOTE: The numbering needs to be coordinated with the current code**]**

Add the following definition to:

SECTION 202
GENERAL DEFINITIONS

[B] PRIVATE GARAGE. A building or portion of a building in which motor vehicles used by the tenants of the building or buildings on the premises are stored or kept, without provisions for repairing or servicing such vehicles for profit.

Revise Chapter 47 as follows:
NFPA 720 – ~~09 –~~ 12

Motion – Alan Perdue/**Second –** Lon McSwain/**Approved**. The request was granted. The proposed effective date of this rule is August 1, 2015.

Item B – 5 Request by Jerry Fraker, City of Raleigh, to amend the 2012 NC Plumbing Code, Section 715.1. The proposed amendment is as follows:

715.1 Sewage backflow. ~~Where the flood level rims of plumbing fixtures are~~ Where plumbing fixtures are installed on a floor with a finished floor elevation below the elevation of the manhole cover of the next upstream manhole in the *public sewer*, such fixtures shall be protected by a backwater valve installed in the *building drain*, *branch* of the *building drain* or horizontal *branch* serving such fixtures. ~~Plumbing fixtures having flood level rims above the~~ Plumbing fixtures installed on a floor with a finished floor elevation above the elevation of the manhole cover of the next upstream manhole in the *public sewer* shall not discharge through a backwater valve.

Motion – Al Bass/**Second –** David Smith/**Approved**. The request was granted. The proposed effective date of this rule is January 1, 2016.

Item B – 6 Request by Ron George, CPD, President, Plumb-Tech Design & Consulting Services, LLC, on behalf of Wavin, HEPVO, to amend the 2012 NC Plumbing Code, Sections 1002.1, 1002.3, 1002.4, & Chapter 13 REFERENCED STANDARDS. The proposed amendment is as follows:

1002.1 Fixture traps. Each plumbing fixture shall be separately trapped by a liquid-seal trap, except as otherwise permitted by this code. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches (610 mm), and the horizontal distance shall not exceed 30 inches (762 mm) measured from the centerline of the fixture outlet to the centerline of the inlet of the trap. The height of a clothes washer standpipe above a trap shall conform to Section 802.4. A fixture shall not be double trapped.

Exceptions:

1. This section shall not apply to fixtures with integral traps.

2. A combination plumbing fixture or up to three similar fixtures is permitted to be installed on one trap, provided that one compartment is not more than 6 inches (152 mm) deeper than the other compartment and the waste outlets are not more than 30 inches (762 mm) apart.

3. A grease interceptor intended to serve as a fixture trap in accordance with the manufacturer's installation instructions shall be permitted to serve as the trap for a single fixture or a combination sink of not more than three compartments where the vertical distance from the fixture outlet to the inlet of the interceptor does not exceed 30 inches (762 mm) and the *developed length* of the waste pipe from the most upstream fixture outlet to the inlet of the interceptor does not exceed 60 inches (1524 mm).

4. The connection of a laundry tray complying with Section 802.4.

5. In 1 and 2 family applications or in residential applications, devices that comply with ASME A112.18.8-2009 "In-Line Sanitary Waste

Valves for Plumbing Drainage Systems" shall not be required to have a liquid seal.

6. Devices conforming to ASME A112.18.8 shall be used on fixture drains 1½ inches in diameter and smaller.

1002.3 Prohibited traps. The following types of traps are prohibited:

1. Traps that depend on moving parts to maintain the seal.
2. Bell traps.
3. Crown-vented traps.
4. Traps not integral with a fixture and that depend on interior partitions for the seal, except those traps constructed of an *approved* material that is resistant to corrosion and degradation.
5. "S" traps.
6. Drum traps.

Exceptions:

1. Drum traps used as solids interceptors and drum traps serving chemical waste systems shall not be prohibited.

2. In residential applications or in 1 and 2 family dwellings, devices that comply with ASME A112.18.8-2009 "In-Line Sanitary Waste Valves for Plumbing Drainage Systems" shall be permitted.

1002.4 Trap seals. Each fixture trap shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a trap seal primer valve shall be installed. Trap seal primer valves shall connect to the trap at a point above the level of the trap seal. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044.

Approved Means of Maintaining Trap Seals. Approved means of maintaining trap seals include the following, but are not limited to the methods cited:

1. A listed trap seal primer conforming to ASSE 1018 and ASSE 1044.
2. A hose bibb or bibbs within the same room.
3. Drainage from an untrapped lavatory discharging to the tailpiece of those fixture traps which require priming. All fixtures shall be in the same room and on the same floor level as the trap primer.
4. Barrier type floor drain trap seal protection devices meeting ASSE Standard 1072.
5. Deep seal p-trap.
6. Devices conforming to ASME A112.18.8 "In-Line Sanitary Waste Valves for Plumbing Drainage Systems."

[NOTE: The Council needs to ask for a revised version of the above code change**]**

CHAPTER 13: REFERENCED STANDARDS

Standard Reference Number	Title	Referenced in code section number
A112.18.8—2009	In-Line Sanitary Waste Valves for Plumbing Drainage Systems	1002.1, 1002.3, 1002.4

Motion – Al Bass/**Second –** Frankie Meads/**Approved**. The request was granted. The proposed effective date of this rule is January 1, 2016.

Item B – 7 Request by Jerry Fraker, City of Raleigh, to amend the 2012 NC Plumbing Code, Section 606.1, Item #2. The proposed amendment is as follows:

606.1 Location of full-open valves. Full-open valves shall be installed in the following locations:

2. A full-open valve shall be located either outside the building within 5 feet (1524 mm) of the foundation wall in a readily accessible valve box, in the crawl space within 3 feet (914 mm) of the crawl space access door or within the building or each individual occupancy in a location where it may be accessed without the use of a ladder or a tool.

Motion – John Hitch/**Second**/**Denied**. The request was denied.

Item B – 8 Request by Terry Cromer, NC Association of Electrical Contractors, to amend the 2011 NEC, Section 300.9. The proposed amendment is as follows:

300.9 Raceways in Wet Locations Above Grade. Where raceways are in wet locations above grade, the interior of these raceways shall be considered to be a wet location. ~~Insulated conductors and cables installed in raceway in wet locations above grade shall comply with 310.10(C)~~ unless all fittings and enclosures are approved for outdoors. Where condensation is known to be a problem the requirements of 300.7(A) shall apply.

Motion – Cindy Browning/**Second –** Tim Fowler/**Approved**. The request was granted. The proposed effective date of this rule is January 1, 2016.

Item B – 9 Request by Leon Skinner, representing the NCEBC Ad-Hoc Committee, to amend the 2015 NC Existing Building Code, Sections 202, 403.7, 703.2, 1203.13, and 1401.2.6. The proposed amendment is as follows:

Add the following definition to Section 202

[B] PRIVATE GARAGE. A building or portion of a building in which motor vehicles used by the tenants of the building or buildings on the premises are stored or kept, without provisions for repairing or servicing such vehicles for profit.

Add Section to Chapter 4

403.7 Carbon monoxide detection.

403.7.1 General. Carbon monoxide detection shall be installed in accordance with Sections 403.7.1 through 403.7.6.

403.7.1.1 Where required. Carbon monoxide detection shall be provided in Group I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 403.7.2 where any of the conditions in Sections 403.7.1.2 through 403.7.1.6 exist.

403.7.1.2 Fuel-burning appliances and fuel-burning fireplaces. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

403.7.1.3 Forced air furnaces. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

> **Exception:** Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where carbon monoxide detection is provided in the first room or area served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.

403.7.1.4 Fuel-burning appliances outside of dwelling units, sleeping units and classrooms. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms located in buildings that contain fuel-burning appliances or fuel-burning fireplaces.

Exceptions:

1. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms if there are no communicating openings between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom.

2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms if carbon monoxide detection is provided in one of the following locations:

    2.1. In an approved location between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom.

    2.2. On the ceiling of the room containing the fuel-burning appliance or fuel-burning fireplace.

403.7.1.5 Private garages. Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms in buildings with attached private garages.

Exceptions:

1. Carbon monoxide detection shall not be required where there are no communicating openings between the private garage and the dwelling unit, sleeping unit or classroom.

2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms located more than one story above or below a private garage.

3. Carbon monoxide detection shall not be required where the private garage connects to the building through an open-ended corridor.

4. Where carbon monoxide detection is provided in an approved location between openings to a private garage and dwelling units, sleeping units or classrooms, carbon monoxide detection shall not be required in the dwelling units, sleeping units or classrooms.

403.7.1.6 Exempt garages. For determining compliance with Section 403.7.1.5, an open parking garage complying with Section 406.5 of the International Building Code or an enclosed parking garage complying with Section 406.6 of the International Building Code shall not be considered a private garage.

403.7.2 Locations. Where required by Section 403.7.1.1, carbon monoxide detection shall be installed in the locations specified in Sections 403.7.2.1 through 403.7.2.3.

403.7.2.1 Dwelling units. Carbon monoxide detection shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.

403.7.2.2 Sleeping units. Carbon monoxide detection shall be installed in sleeping units.

Exception: Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom does not contain a fuel-burning appliance and is not served by a forced air furnace.

403.7.2.3 Group E occupancies. Carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.

Exception: Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 30 or less.

403.7.3 Detection equipment. Carbon monoxide detection required by Sections 403.7.1 through 403.7.2.3 shall be provided by carbon monoxide alarms complying with Section 403.7.4 or with carbon monoxide detection systems complying with Section 403.7.5.

403.7.4 Carbon monoxide alarms. Carbon monoxide alarms shall comply with Sections 403.7.4.1 through 403.7.4.3.

403.7.4.1 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

Exception: Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.

403.7.4.2 Listings. Carbon monoxide alarms shall be listed in accordance with UL 2034.

403.7.4.3 Combination alarms. Combination carbon monoxide/smoke alarms shall be an acceptable alternative to carbon monoxide alarms. Combination carbon monoxide/smoke alarms shall be listed in accordance with UL 2034 and UL 217.

403.7.5 Carbon monoxide detection systems. Carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide alarms and shall comply with Sections 403.7.5.1 through 403.7.5.3.

403.7.5.1 General. Carbon monoxide detection systems shall comply with NFPA 720. Carbon monoxide detectors shall be listed in accordance with UL 2075.

403.7.5.2 Locations. Carbon monoxide detectors shall be installed in the locations specified in Section 403.7.2. These locations supersede the locations specified in NFPA 720.

403.7.5.3 Combination detectors. Combination carbon monoxide/smoke detectors installed in carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide detectors, provided they are listed in accordance with UL 2075 and UL 268.

403.7.6 Maintenance. Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 720. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

Add Section Chapter 7

703.2. Carbon monoxide detection. Carbon monoxide detection shall be installed in accordance with Section 403.7.

Add Section to Chapter 12

1203.13 Carbon monoxide detection. Group I-1, I-2, I-4 and R occupancies and classrooms in Group E occupancies shall be provided with carbon monoxide detection in accordance with Section 403.7.

Add Section to Chapter 14

1401.2.6 Carbon monoxide detection. Group R occupancies and classrooms in Group E occupancies shall be provided with carbon monoxide detection in accordance with Section 403.7.

Motion – David Smith/**Second –** Alan Perdue/**Approved**. The request was granted. The proposed effective date of this rule is January 1, 2016.

Item B-10 Request by Leon Skinner, representing the NCEBC Ad-Hoc Committee, to amend the 2015 NC Existing Building Code, Sections 403, 404, 603, and 703. The proposed amendment is as follows:

Add to Chapter 4

403.6.1 Smoke alarms in one- and two-family dwellings and townhouses. Detached one- and two-family dwellings and townhouses shall be provided with smoke alarms installed in accordance with Section 804.4.1.

404.6 Smoke alarms. Smoke alarms shall be provided and installed in accordance with Section 804.4.

Add Section to Chapter 6

603.2 Smoke alarms. Smoke alarms shall be provided and installed in accordance with Section 804.4.

Add Section to Chapter 7

703.3 Smoke alarms. Smoke alarms shall be provided and installed in accordance with Section 804.4.

Motion – Alan Perdue/**Second –** Lon McSwain/**Approved**. The request was granted. The proposed effective date of this rule is January 1, 2016.

Item B-11 Request by Ralph Euchner, representing the Fuel Gas Committee, to amend the 2012 NC Fuel Gas Code, Section 310.1.1 CSST. The proposed amendment is as follows:

310.1.1 CSST. Corrugated stainless steel tubing (CSST) gas piping systems shall be bonded to the electrical service grounding electrode system ~~at the point where the gas service enters the building~~. The bonding jumper shall be not smaller than 6 AWG copper wire or equivalent.

ADD THE FOLLOWING NEW TEXT:

CSST with an arc-resistant jacket listed by an approved agency for installation without the direct bonding, as prescribed in this section, shall be installed in accordance with Section 310.1 and the manufacturer's installation instructions.

Motion – Ralph Euchner/**Second**/**Approved**. The request was granted. The proposed effective date of this rule is January 1, 2016.

Item B-12 Request by David Smith, representing the Energy Standing Committee and the Residential Standing Committee, to amend the 2012 NC Energy Conservation Code, Tables 402.1.1 and 402.1.3 and Sections 402.3.5 and 402.5; the 2012 NC Residential Code, Tables N1102.1, N1102.1.2 and Sections N1102.3.5 and N1102.5. The proposed amendment is as follows:

For the 2012 NCECC, Chapter 4, modify Table 402.1.1 as follows:

TABLE 402.1.1

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION U-FACTOR b, l	SKYLIGHT[b] U-FACTOR	GLAZED FENESTRATION SHGC b,e, m	CEILING R-VALUE[k]	WOOD FRAME WALL R-VALUE e	MASS WALL R-VALUE[i]	FLOOR R-VALUE	BASEMENT[c] WALL R-VALUE	SLAB[d] R-VALUE & DEPTH	CRAWL SPACE[c] WALL R-VALUE
3	0.35	0.65	0.30	30	13	5/10	19	10/13[f]	0	5/13
4	0.35	0.60	0.30	38 or 30 cont.[j]	15, 13+2.5[h]	5/10	19	10/13	10	10/13
5	0.35	0.60	NR	38 or 30 cont.[j]	19, 13+5, or 15+3[eh]	13/17	30[g]	10/13	10	10/13

l. In addition to the exemption in Section 402.3.3, a maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

m. In addition to the exemption in Section 402.3.3, a maximum of two glazed fenestration product assemblies having a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

For the 2012 NCECC, Chapter 4, modify Table 402.1.3 as follows:

TABLE 402.1.3

EQUIVALENT U-FACTORS[a]

CLIMATE ZONE	FENESTRATION U-FACTOR e	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR[b]	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR[d]	CRAWL SPACE WALL U-FACTOR[c]
3	0.35	0.65	0.035	0.082	0.141	0.047	0.059	0.136
4	0.35	0.60	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.60	0.030	0.061	0.082	0.033	0.059	0.065

e. A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty. When applying this note and using the REScheck "UA Trade-off" compliance method, to allow continued use of the software, the applicable fenestration products shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products actual U-factor and actual SHGC shall be noted in the comments section of the software for documentation of application of this note to the applicable products. Compliance for these substitute products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

For the 2012 NCECC, Chapter 4, add an exception to:

402.3.5 Thermally isolated conditioned sunroom U-factor and SHGC. The maximum fenestration U-factor shall be 0.40 and the maximum skylight *U*-factor shall be 0.75. Sunrooms with cooling systems shall have a maximum fenestration SHGC of 0.40 for all glazing.
New windows and doors separating the sunroom from conditioned space shall meet the building thermal envelope requirements. Sunroom additions shall maintain thermal isolation; and shall be served by a separate heating or cooling system, or be thermostatically controlled as a separate zone of the existing system.

Exception: A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and, when cooling is provided, a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

402.5 Maximum fenestration *U*-factor and SHGC (Mandatory Requirements). The area-weighted average maximum fenestration *U*-factor permitted using trade-offs from Section 402.1.4 shall be 0.40. Maximum skylight *U*-factors shall be 0.65 in zones 4 and 5 and 0.60 in zone 3. The area-weighted average maximum fenestration SHGC permitted using trade-offs from Section 405 in Zones 3 and 4 shall be 0.40.

Exception: A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

For the 2012 NC Residential Code, Chapter 11, modify Table N1102.1as follows:

TABLE N1102.1

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENTa

CLIMATE ZONE	FENESTRATION U-FACTOR b, l	SKYLIGHTb U-FACTOR	GLAZED FENESTRATION SHGC b,e, m	CEILING R-VALUEk	WOOD FRAME WALL R-VALUE e	MASS WALL R-VALUEi	FLOOR R-VALUE	BASEMENTc WALL R-VALUE	SLABd R-VALUE & DEPTH	CRAWL SPACEc WALL R-VALUE
3	0.35	0.65	0.30	30	13	5/10	19	10/13f	0	5/13
4	0.35	0.60	0.30	38 or 30 cont. j	15, 13+2.5h	5/10	19	10/13	10	10/13
5	0.35	0.60	NR	38 or 30 cont. j	19, 13+5, or 15+3eh	13/17	30g	10/13	10	10/13

l. In addition to the exemption in Section N1102.3.3, a maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

m. In addition to the exemption in Section N1102.3.3, a maximum of two glazed fenestration product assemblies having a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

For the 2012 NC Residential Code, Chapter 11, modify Table N1102.1.2 as follows:

TABLE N1102.1.2

EQUIVALENT U-FACTORS[a]

CLIMATE ZONE	FENESTRATION U-FACTOR e	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR[b]	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR[d]	CRAWL SPACE WALL U-FACTOR[c]
3	0.35	0.65	0.035	0.082	0.141	0.047	0.059	0.136
4	0.35	0.60	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.60	0.030	0.061	0.082	0.033	0.059	0.065

e. A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty. When applying this note and using the REScheck "UA Trade-off" compliance method, to allow continued use of the software, the applicable fenestration products shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products actual U-factor and actual SHGC shall be noted in the comments section of the software for documentation of application of this note to the applicable products. Compliance for these substitute products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

For the 2012 NC Residential Code, add an exception to:

N1102.3.5 Thermally isolated conditioned sunroom *U*-factor and SHGC. The maximum fenestration *U*-factor shall be 0.40 and the maximum skylight *U*-factor shall be 0.75. Sunrooms with cooling systems shall have a maximum fenestration SHGC of 0.40 for all glazing.
New windows and doors separating the sunroom from conditioned space shall meet the building thermal envelope requirements. Sunroom additions shall maintain thermal isolation; and shall be served by a separate heating or cooling system, or be thermostatically controlled as a separate zone of the existing system.

Exception: A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and, when cooling is provided, a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

N1102.5 Maximum fenestration *U*-factor and SHGC. The area-weighted average maximum fenestration *U*-factor permitted using trade-offs from Section 1102.1.3 shall be 0.40. Maximum skylight *U*-factors shall be 0.65 in zones 4 and 5 and 0.60 in zone 3.

Exception: A maximum of two glazed fenestration product assemblies having a U-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty.

Motion – David Smith/**Second –** Steve Knight/**Approved**. The request was granted. The proposed effective date of this rule is January 1, 2016.

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 was held December 9, 2014 and the Final Adoption meeting may take place on or after March 10, 2015. The written public comment period expires on January 16, 2015.

Item C – 1 Request by Ken Szymanski, representing the Apartment Association of North Carolina, to amend the 2011 NEC, Article 230.2 (B). The proposed amendment is as follows:

230.2 (B) Special Occupancies. By special permission, additional services shall be permitted for ~~either~~ any of the following:

(1) Multiple-occupancy buildings where there is no available space for service equipment accessible to all occupants

(2) A single building or other structure sufficiently large to make two or more services necessary

(3) Multiple service locations are allowed in R-2 four story and less buildings with each service location limited to 6 disconnects and separated by at least 50 feet

Ken Szymanski, with the Apartment Association of North Carolina, recommends that the Council adopt this code change. Ken will request a formal interpretation.

Mark Matheny, City of Asheville, recommends that the Council adopt this code change.

Terry Cromer, with the NC Association of Electrical Contractors, recommends that the Council adopt this code change.

Alan Perdue and Ron Chilton will discuss a friendly amendment with Ken Szymanski.

Item C – 2 Request by Amy Musser, representing Vandemusser Design, PLLC, to amend the 2012 NC Energy Conservation Code, Section 402.5. The proposed amendment is as follows:

TABLE 405.5.2(1)
SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS
(Air exchange rate and Mechanical ventilation components only)

BUILDING COMPONENT	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
Air exchange rate	~~Specific leakage area (SLA)d = 0.00028 or 5 ACH50.~~ 5 ACH50 The mechanical ventilation rate shall be in addition to the air leakage rate and the same as in the proposed design, but no greater than continuous operation at 0.01 x CFA + 7.5 (N_{br} + 1) where: CFA = conditioned floor area N_{br} = number of bedrooms Energy recovery shall not be assumed for mechanical ventilation.	For residences that are not tested, the same as the standard reference design. For tested residences, the measured air exchange rate. [e] The mechanical ventilation rate shall be in addition to the air leakage rate and shall be as proposed. [f]
Mechanical ventilation	None, except where mechanical ventilation is specified by the proposed design, in which case: Annual vent fan energy use: kWh/yr = 0.03942 x CFA + 29.565 X (N_{br} + 1) where: CFA = conditioned floor area N_{br} = number of bedrooms	As proposed

Billy Hinton, NCDOI, spoke on behalf of this request.

Item C – 3 Request by Larry Gill, representing IPEX USA LLC, to amend the 2012 NC Fuel Gas Code, Section 502.1. The proposed amendment is as follows:

502.1 General. All vents, except as provided in Section 503.7, shall be *listed* and *labeled*. Type B and BW vents shall be tested in accordance with UL 441. Type L vents shall be tested in accordance with UL 641. Vents for Category II, ~~and~~ III and IV appliances shall be tested in accordance with UL 1738. ~~Plastic vents for Category IV appliances shall not be required to be *listed* and *labeled* where such vents are as specified by the *appliance* manufacturer and are installed in accordance with the *appliance* manufacturer's installation instructions.~~

Ron George, with Plumb-Tech Design and Constructing, does not recommend that the Council adopt this code change.

Rick Whitaker, with Brown Brothers Plumbing and Heating, does not recommend that the Council adopt this code change.

Item C – 4 Request by Gary Phillips, representing VIM Products, to amend the 2012 NC Plumbing Code, Section 417.5.2. The proposed amendment is as follows:

417.5.2.6 Liquid-type, trowel-applied, load-bearing, bonded waterproof materials. Liquid-type, trowel-applied, load-bearing, bonded waterproof materials shall meet the requirements of ANSI A118.10 and shall be applied in accordance with the manufacturer's instructions.

Craig Tierny, representing VIM Products, recommends that the Council adopt this code change.

Rick Whitaker, with VIM Products, does not recommend that the Council adopt this code change.

Item C – 5 Request by Jonathan P. Leonard, representing Charlotte Fire Department, to amend the 2012 NC Fire Code, Chapter 2 DEFINITIONS & Section 310. The proposed amendment is as follows:

CHAPTER 2

DEFINITIONS

SMOKING LOUNGE. An enclosed facility in any building or room within a building closed in by a roof and four walls with appropriate openings for ingress and egress, used for the purpose of smoking.

SMOKING. Shall include any of the following: (1) the combustion of any cigar, cigarette, pipe, or any similar article, using any form of tobacco or other combustible substance in any form, or (2) the holding or carrying of a lighted cigar, cigarette, pipe or any other lighted smoking device, or (3) emitting or exhaling the smoke directly from a cigar, cigarette, pipe, hookah pipe or any other lighted smoking device.

310.9 Smoking Lounges shall comply with all of the following:

1. Adequate ventilation is required to prevent the accumulation of carbon monoxide. Locations shall comply with the North Carolina Mechanical Code Table 403.3.
2. A mechanical exhaust hood system shall be installed in preparation areas used for the lighting of coals, charcoal or other cooking mediums.
3. A 2-A: 20-B:C type fire extinguisher shall be installed adjacent to the area where coals are prepared.
4. Coals shall not be lit with portable type flaming devices or torches.
5. Coals removed from the preparation area shall be placed in a ceramic, metal, or other non-combustible container. All devices used to transfer coals to the hookah pipe shall be of non-combustible material. Hookah pipes shall not be moved with burning coal or other lit material in place.
6. Hookah pipes shall be securely fastened in place to prevent overturning.
7. Used coals shall not be discarded in such a manner that could cause ignition of combustible materials. Used coals shall be removed and placed into a sealed metal or ceramic container with a lid.
8. All combustible decorative materials shall be flame resistant, this includes; curtains, tablecloths, upholstery, and materials hung from the ceiling and walls.

Jon Leonard, with Charlotte Fire Department, recommends that the Council adopt this code change.

Jerry Coble, with Guilford County FMO, recommends that the Council adopt this code change.

Dan Dittman, NCDOI, spoke on behalf of this request.

Dara McKinney, with Petra Hookah Lounge, recommends that the Council adopt this code change.

Don Sheffield, with City of Greensboro, recommends that the Council adopt this code change.

Item C – 6 Request by Wayne Hamilton, representing the NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Section 605.11. The proposed amendment is as follows:

Add new NC Fire Code section as follows:

605.11 Solar photovoltaic power systems. Solar photovoltaic power systems shall be installed in accordance with Sections 605.11.1 through 605.11.2, the *International Building Code* and NFPA 70.

605.11.1 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 605.11.1.1 through 605.11.1.3.3.

Exceptions:

1. Detached, non-habitable Group U structures including, but not limited to, parking shade structures, carports, solar trellises, and similar structures.

2. Roof access, pathways and spacing requirements need not be provided where the fire chief has determined that rooftop operations will not be employed.

605.11.1.1 Roof access points. Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors, and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires or signs.

605.11.1.2 Solar photovoltaic systems for Group R-3 buildings. Solar photovoltaic systems for Group R-3 buildings shall comply with Sections 605.11.1.2.1 through 605.11.1.2.5.

Exception: These requirements shall not apply to one and two family dwelling and townhomes.

605.11.1.2.1 Size of solar photovoltaic array. Each photovoltaic array shall be limited to 150 feet (45 720 mm) by 150 feet (45 720 mm). Multiple arrays shall be separated by a 3-foot-wide (914 mm) clear access pathway.

605.11.1.2.2 Hip roof layouts. Panels and modules installed on Group R-3 buildings with hip roof layouts shall be located in a manner that provides a 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels and

modules are located. The access pathway shall be at a location on the building capable of supporting the fire fighters accessing the roof.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.1.2.3 Single-ridge roofs. Panels and modules installed on Group R-3 buildings with a single ridge shall be located in a manner that provides two, 3-foot-wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels and modules are located.

Exception: This requirement shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.1.2.4 Roofs with hips and valleys. Panels and modules installed on Group R-3 buildings with roof hips and valleys shall not be located closer than 18 inches (457 mm) to a hip or a valley where panels/modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.1.2.5 Allowance for smoke ventilation operations. Panels and modules installed on Group R-3 buildings shall be located not less than 3 feet (914 mm) from the ridge in order to allow for fire department smoke ventilation operations.

Exception: Panels and modules shall be permitted to be located up to the roof ridge where an alternative ventilation method *approved* by the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.

605.11.1.3 Other than Group R-3 buildings. Access to systems for buildings, other than those containing Group R-3 occupancies, shall be provided in accordance with Sections 605.11.1.3.1 through 605.11.1.3.3.

Exception: Where it is determined by the fire code official that the roof configuration is similar to that of a Group R-3 occupancy, the residential access and ventilation requirements in Sections 605.11.1.2.1 through 605.11.1.2.5 shall be permitted to be used.

605.11.1.3.1 Access. There shall be a minimum 6 foot-wide (1829 mm) clear perimeter around the edges of the roof.

Exception: Where either axis of the building is 250 feet (76 200 mm) or less, the clear perimeter around the edges of the roof shall be permitted to be reduced to a minimum 4 foot wide (1290 mm).

605.11.1.3.2 Pathways. The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:

1. The pathway shall be over areas capable of supporting fire fighters accessing the roof.

2. The centerline axis pathways shall be provided in both axes of the roof. Centerline axis pathways shall run where the roof structure is capable of supporting fire fighters accessing the roof.

3. Pathways shall be a straight line not less than 4 feet (1290 mm) clear to roof standpipes or ventilation hatches.

4. Pathways shall provide not less than 4 feet (1290 mm) clear around roof access hatch with not less than one singular pathway not less than 4 feet (1290 mm) clear to a parapet or roof edge.

605.11.1.3.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. Arrays shall not be greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in distance in either axis in order to create opportunities for fire department smoke ventilation operations.

2. Smoke ventilation options between array sections shall be one of the following:

   2.1 A pathway 8 feet (2438 mm) or greater in width.

   2.2 A 4-foot (1290 mm) or greater in width pathway and bordering roof skylights or gravity-operated dropout smoke and heat vents on not less than one side.

   2.3 A 4-foot (1290 mm) or greater in width pathway and bordering all sides of non-gravity-operated dropout smoke and heat vents.

   2.4 A 4-foot (1290 mm) or greater in width pathway and bordering 4-foot by 8-foot (1290 mm by 2438 mm) "venting cutouts" every 20 feet (6096 mm) on alternating sides of the pathway.

605.11.2 Ground-mounted photovoltaic arrays. Ground-mounted photovoltaic arrays shall comply with Section 605.11 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be required for ground-mounted photovoltaic arrays.

Jerry Coble, with Guilford County FMO, recommends that the Council adopt this code change.

Ron Chilton, NCDOI, spoke on behalf of this request.

Item C – 7 Request by Michael Rettie, representing the Orange County Inspections Department, to amend the 2012 NC Residential Code, Section R302.6, TABLE R302.6, & the NC Residential-Mechanical Code: 603.7. The proposed amendment is as follows:

R302.6 Dwelling and finished habitable space/garage fire separation. The garage shall be separated as required by TABLE R302.6. Openings in garage walls shall comply with Section R302.5. This provision does not apply to garage walls that are perpendicular to the adjacent *dwelling unit* wall.

TABLE R302.6
FINISHED HABITABLE, DWELLING/GARAGE SEPARATION

SEPARATION	MATERIAL
From the residence and attics	Not less than ½-inch gypsum board or equivalent applied to the garage side
From all habitable rooms above the garage	Not less than 5/8-inch Type X gypsum board or equivalent
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than ½-inch gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than ½-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area

603.7 Rigid duct penetrations. Ducts in a private garage and ducts penetrating the walls or ceilings separating a *dwelling* unit or finished habitable space from a private garage shall be continuous and constructed of a minimum 26 gage [0.0187 inch (0.4712 mm)] galvanized sheet metal or other approved noncombustible material and shall not have openings into the garage…

Robert Privott, with the NC Home Builders Association, does not recommend that the Council adopt this code change.

Mark Matheny, NC BIA, provided clarification on the change.

Item C – 8 Request by David Smith, representing the NC Residential Ad-hoc Committee, to amend the 2012 NC Residential Code, Section R311.7.1. The proposed amendment is as follows:

R311.7.1 Width. Stairways shall not be less than 36 inches (914 mm) in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4.5 inches (114 mm) on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31½ inches (787 mm) where a handrail is installed on one side and 27 inches (698 mm) where handrails are provided on both sides.

Exceptions:

1. The width of spiral stairways shall be in accordance with Section R311.7.9.1.

2. Stairways not required for egress may be as narrow as 26 inches.

Robert Privott, with the NC Home Builders Association, recommends that the Council adopt this code change.

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 September 9, 2014. The Final Adoption meeting took place on December 9, 2014. 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, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Administrative Code, Section 107. The proposed amendment is as follows:

SECTION 107
INSPECTIONS

107.1 General. The inspection department shall perform the following inspections:

1. Footing inspection;
2. Under slab inspection, as appropriate;
3. Foundation inspection~~, wood frame construction~~;
4. Rough-in inspection;
5. Building Framing <u>inspection</u>;
6. Insulation inspection;
7. Fire protection inspection; and
8. Final inspection.

Commentary: The code enforcement official makes these inspections during certain phases of construction and is not on site at all times when construction is in progress. The code official verifies code compliance and/or code defects visible and subject to discovery during the above listed inspections and spot checks numerous similar items.

Nothing in any of Sections 107.1.1-107.1.8 requirements is intended to prevent partial inspections of the inspection types listed in Section 107.1 "General" as requested by the permit holder as allowed by the local inspection department. Cumulative partial inspections approved by the code official shall satisfy the same degree of readiness for inspection for viewing as described in Sections 107.1.1 – 107.1.8.

Not all items, such as, but not limited to, nailing of roof or other sheathing material, are always visible at framing inspection, but remain the responsibility of the permit holder to comply with the code.

Temporary electrical service poles may be inspected at any phase of construction as requested by the permit holder. Temporary utility (TU) applications deemed safe by the AHJ or as otherwise permitted by the code shall be allowed.

107.1.1 Footing inspection. Footing inspections shall be made after the trenches are excavated, all grade stakes are installed, all reinforcing steel and supports are in place and appropriately tied, all necessary forms and bulkheads are in place and braced~~, and~~ before any concrete is placed.

107.1.2 Under-slab inspection. Under-slab inspections, as appropriate, shall be made after all materials and equipment to be concealed by the concrete slab are completed.

107.1.3 Foundation inspection, crawl space. Foundation and crawl space inspections shall be made after all foundation supports are installed. ~~The inspection is to check foundation supports, crawl space leveling, ground clearances and positive drainage when required.~~

Commentary: Foundation inspections are conducted to verify correct installation and proper bearing support. Poured concrete and masonry walls that have reinforcement steel should be inspected prior to concrete placement. Crawl space leveling, ground clearances, positive drainage and waterproofing/dampproofing, when required, may be inspected at future inspections prior to concealment.

107.1.4 Rough-in inspection. Rough-in inspections shall be made when all building framing and parts of the electrical, plumbing, fire protection, or heating-ventilation or cooling system that will be hidden from view in the finished building have been placed but before any wall, ceiling finish or building insulation is installed.

Commentary: Plumbing, mechanical, and electrical components installed underground should be considered as rough-in inspections and may be inspected at any point during construction prior to covering.

107.1.5 Building Framing Inspection. Framing inspections shall be made after the roof, excluding permanent roof coverings, wall, ceiling and floor framing is complete with appropriate blocking, bracing and firestopping in place. The following items shall be in place and visible for inspection:

1. Pipes;
2. Chimneys and vents;
3. Flashing for roofs and chimneys~~, and wall openings~~;
4. Insulation baffles; and
5. All lintels that are required to be bolted to the framing for support shall not be covered by any exterior or interior wall or ceiling finish material before approval. Work may continue without approval for lintels supported on masonry or concrete.

Commentary: Intent of this section is to identify a building's level of readiness and what can be visible at this stage of construction. This stage of construction is intended to review structural components. The permanent roof covering may or may not be installed prior to framing inspection.

The following items should be in place and visible for inspection: pipes, chimneys and vents, flashing, and required exterior water-resistant barriers.

107.1.6 Insulation inspection. Insulation inspection shall be made after an approved building framing and rough-in inspection and after the permanent roof covering is installed, with all insulation and vapor retarders in place, but before any wall or ceiling covering is applied.

Commentary: Insulation baffles that cannot be seen at this inspection, such as vaulted ceilings with concealed rafter cavities, should have baffles installed at framing inspection for verification.

It is acceptable that wall cavity insulation enclosed by an air barrier material behind tubs, showers, and fireplace units installed on exterior walls may not be observable by the code official.

107.1.7 Fire protection inspection. Fire protection inspections shall be made in all buildings where any material is used for fire protection purposes. The permit holder or his agent shall notify the inspection department after all fire protection materials are in place. Fire protection materials shall not be concealed until inspected and approved by the code enforcement official.

Commentary: Fire protection inspection is typically performed in commercial building structures and is required in addition to any special inspection as listed in Chapter 17 of the North Carolina Building Code.

107.1.8 Final inspection. Final inspections shall be made for each trade after completion of the work authorized under the technical codes.

Commentary: Each trade shall complete a final inspection giving approval to permitted work. Work required by the technical codes shall be complete before being requested. Temporary power and temporary certificate of occupancy (TCO) requests are allowed prior to final inspection.

Motion – David Smith/**Second**/**Adopted**, as revised, with an effective date of January 1, 2016.

Item D – 2 Request by Amy Musser, representing Vandemusser Design, PLLC, to amend the 2012 NC Energy Conservation Code, Section 402.5. The proposed amendment is as follows:

402.5 Maximum fenestration *U*-factor and SHGC (Mandatory Requirements). The area-weighted average maximum fenestration *U*-factor permitted using trade-offs from Section 402.1.4 shall be 0.40. Maximum skylight *U*-factors shall be 0.65 in zones 4 and 5 and 0.60 in zone 3. The area-weighted average maximum fenestration SHGC permitted using trade-offs from Section 405 in zones 3 ~~and 4~~ shall be ~~0.40~~ 0.50.

Motion – Ralph Euchner/**Second** – Leah Faile/**Adopted** with an effective date of January 1, 2016.

Item D – 3 Request by Leon Skinner, representing the NC Existing Building Code Committee, to amend the 2015 NC Existing Building Code, Section 505.1. The proposed amendment is as follows:

505.1 Scope. Level 3 Alteration (Reconstruction) ~~apply~~ applies where the work area exceeds 50 percent of the aggregate area of the building in any 12 month period.

Exception: Alterations limited to displays or showrooms in Group M Occupancies.

Motion – Lon McSwain/**Second** – Leah Faile/**Adopted** with an effective date of January 1, 2016.

Item D – 4 Request by Leon Skinner, representing the NC Existing Building Code Committee, to amend the 2015 NC Existing Building Code, Section 805.2. The proposed amendment is as follows:

805.2 General. The means of egress shall comply with the requirements of this section.

Exceptions:

1. Where the work area and the means of egress serving it complies with NFPA 101.

2. Means of egress conforming to the requirements of the building code under which the building was constructed shall be considered compliant means of egress if, in the opinion of the code official, they do not constitute a distinct hazard of life.

3. In One and Two Family Dwelling stairways not required for egress are permitted to be as narrow as 26 inches.

Motion – Lon McSwain/**Second** – Alan Perdue/**Adopted** as revised, with an effective date of January 1, 2016.

Item D – 5 Request by Leon Skinner, representing the NC Existing Building Code Committee, to amend the 2015 NC Existing Building Code, Section 805.6. The proposed amendment is as follows:

805.6 Dead-end corridors. Dead-end corridors in any work area shall not exceed 35 feet.

Exception:

1. Where dead-end corridors of greater length are permitted by the International Building Code.

2. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet in buildings equipped throughout with an automatic fire alarm system install in accordance with the International Building Code.

3. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet in buildings equipped throughout with an automatic sprinkler system installed in accordance with the International Building Code.

~~4. In other than Group A and H occupancies, the maximum length of a newly constructed, or extended dead-end corridor shall not exceed 50 feet on floors equipped with an automatic sprinkler system installed in accordance with the International Building Code.~~

Motion – Lon McSwain/**Second** – Leah Faile/**Adopted** with an effective date of January 1, 2016.

Item D – 6 Request by Leon Skinner, representing the NC Existing Building Code Committee, to amend the 2015 NC Building Code, Chapter 34. The proposed amendment is as follows:

Delete Chapter 34, Existing Building And Structures, from the 2012 NC Building Code.

Motion – David Smith/**Second** – Lon McSwain/**Adopted** with an effective date of January 1, 2016.

Item D – 7 Request by Clint Latham, representing the North Carolina Plumbing Inspectors Association, to amend the 2012 NC Plumbing Code, Section 706.4. The proposed amendment is as follows:

706.4 Heel- or side-inlet quarter bends. ~~Heel inlet quarter bends shall be an acceptable means of connection, except where the quarter bend serves a water closet. A low heel inlet shall not be used as a wet vented connection. Side inlet quarter bends shall be an acceptable means of connection for drainage, wet venting and *stack* venting arrangements.~~ Deleted.

[NOTE]: This item was sent back to committee for review and will be placed on the March 2015 Agenda as a D-Item.

Item D – 8 **Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2012 NC Residential Code, Figure AM111. The proposed amendment is as follows:**

Revisions to note concerning guards in FIGURE AM111

Guards at a Minimum 36" required per R312.1 with 30" drop and opening limits per R312.2 & R312.3 ~~(4" on vertical pickets, 6" on horizontal and ornamental guardrails)~~, top rail and post to support 200 lbs with infill to meet 50 lbs per Table R301.5 and footnotes.

Motion – David Smith/**Second** – Paula Strickland/**Adopted** with an effective date of January 1, 2016.

Item D – 9 **Request by Steve Knight, PE, BCC Structural Committee Chair, to amend the 2012 NC Residential Code, Sections AM 106 and AM 111 as follows:**

Section AM106: ***Delete partial reprint of Table R502.3.1(2) without substitution.***

Section AM111: ***In Figure AM111 delete partial reprint of Table R502.5(1) without substitution.***

Motion – Steve Knight/**Second**/**Adopted** with an immediate effective date of April 1, 2015.

Item D-10 **Request by Steve Knight, PE, BCC Structural Committee Chair, to amend the 2012 NC Residential Code, Appendix N, Tables N-1 and N-2 as follows:**

Appendix N: Delete Tables N-1 and N-2 and substitute tables at the following link:

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Minutes/2014%2006%2014~June%2010,%202014%20(Items%20B-11%20through%20B-21,%20for%20public%20comment)_.pdf

Motion – Steve Knight/**Second**/**Adopted** with an immediate effective date of April 1, 2015.

Item D-11 **Request by Steve Knight, PE, BCC Structural Committee Chair, to amend the 2012 NC Residential Code, Appendix N, Examples as follows:**

Appendix N Example at the top of Page 918 – Change as follows:

By using Table N-1, the required beam is 4 @ 2x12 ~~SYP or~~ SPF

OR

By using Table N-2, the required minimum flitch beam is 2 @ 2x8 with ~~1/2"~~ 5/8" x 7" steel plate bolted with 1/2" bolts space at 2' o.c.

Appendix N Example at the bottom of Page 918 – Change as follows:

By using Table N-1, the required beam is ~~3~~ 4 @ 2x12 Southern Pine or 4 @ 2x12 Spruce-pine-fir

OR

By using Table N-2, the required minimum flitch is 2 @ 2x8 with ~~3/8"~~ 1/2" x 7" steel plate bolted with 1/2" bolts spaced at 2' o.c.

Motion – Steve Knight/**Second**/**Adopted** with an immediate effective date of April 1, 2015.

Item D-12 **Request by Steve Knight, PE, BCC Structural Committee Chair, to amend the 2012 NC Building and Residential Codes pertaining to Docks, Piers, Bulkheads and Waterway Structures as follows:**

The complete amendment text is published at the following link:

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Agendas/2014%2012~December,%202014%20Agenda%20Item%20D-12_.pdf

Motion – Steve Knight/**Second**/**Adopted** as amended with an immediate effective date of April 1, 2015.

Item D-13 **Request by Wayne Hamilton, NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Section 319 as follows:**

SECTION 319 ROOFTOP GARDENS AND LANDSCAPED ROOFS

319.1 General. Rooftop gardens and landscaped roofs shall be installed and maintained in accordance with Sections 319.2 through 319.5 and Sections 1505.0 and 1507.16 of the *International Building Code.*

319.2 Rooftop garden or landscaped roof size. Rooftop garden or landscaped roof areas shall not exceed 15,625 square feet (1,450 m2) in size for any single area with a maximum dimension of 125 feet (39 m) in length or width. A minimum 6-foot-wide (1.8 m) clearance consisting of a Class A-rated roof system complying with ASTM E 108 or UL 790 shall be provided between adjacent rooftop gardens or landscaped roof areas.

319.3 Rooftop structure and equipment clearance. For all vegetated roofing systems abutting combustible vertical surfaces, a Class A-rated roof system complying with ASTM E 108 or UL 790 shall be achieved for a minimum 6-foot-wide (1.8 m) continuous border placed around rooftop structures and all rooftop equipment including, but not limited to, mechanical and machine rooms, penthouses, skylights, roof vents, solar panels, antenna supports, and building service equipment.

319.4 Vegetation. Vegetation shall be maintained in accordance with Sections 319.4.1 and 319.4.2.

319.4.1 Irrigation. Supplemental irrigation shall be provided to maintain levels of hydration necessary to keep green roof plants alive and to keep dry foliage to a minimum.

319.4.2 Dead foliage. Excess biomass, such as overgrown vegetation, leaves and other dead and decaying material, shall be removed at regular intervals not less than two times per year.

319.4.3 Maintenance plan. The *fire code official* is authorized to require a maintenance plan for vegetation placed on roofs due to the size of a roof garden, materials used, or when a fire hazard exists to the building or exposures due to the lack of maintenance.

319.5 Maintenance equipment. Fueled equipment stored on roofs and used for the care and maintenance of vegetation on roofs shall be stored in accordance with Section 313.

Motion – Alan Perdue/**Second** – Lon McSwain/**Adopted** with an effective date of January 1, 2016.

Item D-14 **Request by Wayne Hamilton, NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Section 509.1.1 as follows:**

509.1.1 Utility identification. Gas shutoff valves, electric meters, service switches and other utility equipment shall be clearly and legibly marked to identify the unit or space that it serves. Identification shall be made in a manner that is readily visible and shall be maintained.

Motion – Alan Perdue/**Second** – Lon McSwain/**Adopted** as revised with an effective date of January 1, 2016.

Item D-15 **Request by Wayne Hamilton, NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Section 1208.2 as follows:**

1208.2 Automatic sprinkler system. An *automatic sprinkler system* shall be installed in accordance with Section 903.3.1.1 throughout dry cleaning plants containing Type II, Type III-A or Type III-B dry cleaning systems.

Exceptions:

1. An *automatic sprinkler system* shall not be required in Type III-A dry cleaning plants where the aggregate quantity of Class III-A solvent in dry cleaning machines and storage does not exceed 330 gallons (1250 L) and dry cleaning machines are equipped with a feature that will accomplish any one of the following:

1.1. Prevent oxygen concentrations from reaching 8 percent or more by volume.

1.2. Keep the temperature of the solvent at least 30 □F below the flash point.

1.3. Maintain the solvent vapor concentration at a level lower than 25 percent of the lower explosive limit (LEL).

1.4. Utilize equipment *approved* for use in Class I, Division 2 hazardous locations in accordance with NFPA 70.

1.5. Utilize an integrated dry-chemical, clean agent or water-mist automatic fire-extinguishing system designed in accordance with Chapter 9.

2. An *automatic sprinkler system* shall not be required in Type III-B dry cleaning plants where the aggregate quantity of Class III-B solvent in dry cleaning machines and storage does not exceed 3,300 gallons (12 490 L).

Motion – Alan Perdue/**Second** – Lon McSwain/**Adopted** as amended with an effective date of January 1, 2016.

Item D-16 **Request by Wayne Hamilton, NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Chapter 17 including definitions as follows:**

Delete Chapter 17 and substitute text published at the following link:

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Minutes/2014%2006%2014~June%2010,%202014%20(Items%20B-11%20through%20B-21,%20for%20public%20comment)_.pdf

Motion – Alan Perdue/**Second** – Lon McSwain/**Adopted** with an effective date of January 1, 2016.

Item D-17 **Request by Wayne Hamilton, NC Fire Service Code Revision Committee, to amend the 2012 NC Fire Code, Chapter 47 as follows:**

The complete list of revised standards is published at the following link:

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Minutes/2014%2006%2014~June%2010,%202014%20(Items%20B-11%20through%20B-21,%20for%20public%20comment)_.pdf

Motion – Alan Perdue/**Second** – Lon McSwain/**Adopted** with an effective date of January 1, 2016.

Item D-18 **Request by Terry Cromer, NC Association of Electrical Contractors, to amend the 2011 NC Electrical Code, Article 338.10(B)(4)(a) as follows:**

(4) Installation Methods for Branch Circuits and Feeders.

(a) *Interior Installations.* In addition to the provisions of this article, Type SE service-entrance cable used for interior wiring shall comply with the installation requirements of Part II of Article 334, excluding 334.80. ~~Where installed in thermal insulation the ampacity shall be in accordance with the 60°C (140°F) conductor temperature rating. The maximum conductor temperature rating shall be permitted to be used for ampacity adjustment and correction purposes, if the final derated ampacity does not exceed that for a 60°C (140°F) rated conductor.~~

[NOTE]: This Item has been sent back to the Electrical Committee.

Item D-19 **Request by Ron Zemke, WindowZ, to amend the 2012 NC Residential Code, Sections R202 DEFINITIONS; R301.2.1 Wind limitations; Table R301.2 (2); R301.2.1.2 Protection of openings; R613.3 Performance; R703.4 Attachments as follows:**

The complete amendment text is published at the following link:

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/BCC_Minutes/2014%2006%2014~June%2010,%202014%20(Items%20B-11%20through%20B-21,%20for%20public%20comment)_.pdf

THE FOLLOWING MODIFIED WORDING WAS PRESENTED BY THE RESIDENTIAL AD-HOC COMMITTEE:

R202 DEFINITIONS

SCREEN ENCLOSURE. A building or part thereof, in whole or in part self-supporting, and having walls of insect screening with or without removable vinyl or acrylic wind break panels 10 mil or less with a Class A Flame Spread, and a roof.

R301.2.1 Wind limitations

R301.2.1 Wind limitations. Buildings and portions thereof shall be limited by wind speed, as defined in Table R301.2 (1) and construction methods in accordance with this code. Basic wind speeds shall be determined from Figure R301.2 (4). Where different construction methods and structural materials are used for various portions of a building, the applicable requirements of this section for each portion shall apply. Where loads for curtain walls exterior windows, skylights, garage doors and exterior doors are not otherwise specified, the loads listed in Table R301.2(2) adjusted for height and exposure using Table R301.2(3) shall be used to determine design load performance requirements for curtain walls, exterior windows, skylights, garage doors and exterior doors.

Exception: Openings for exterior balconies, decks or porches under roofs enclosed with screen or removable vinyl or acrylic wind break panels shall be exempt from the loads listed in Table R301.2(2) and the height and exposure factors listed in Table R301.2(3). Vinyl and acrylic glazed panels shall be removable. Removable panels shall be identified as removable by a decal. The identification decal shall essentially state "Removable panel SHALL be removed when wind speeds exceed 65 mph (34 m/s)." Decals shall be placed such that the decal is visible when the panel is installed.

TABLE R301.2(2) COMPONENT AND CLADDING LOADS FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 30FEET LOCATED IN EXPOSURE B (psf) a,b,c,d,

TABLE R301.2(2)
COMPONENT AND CLADDING LOADS FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 30 FEET LOCATED IN EXPOSURE B (psf)a,b,c,d,e.f

(No change to table values)

NOTES:

a. The effective wind area shall be equal to the span length multiplied by an effective width. This width shall be permitted to be not ~~be~~ less than one-third the span length. For cladding fasteners, the effective wind area shall not be greater than the area that is tributary to an individual fastener.

b. For effective areas between those given above, the load may be interpolated; otherwise, use the load associated with the lower effective area.

c. Table values shall be adjusted for height and exposure by multiplying by the adjustment coefficient in Table R301.2(3).

d. See Figure R301.2(7) for location of zones.

e. Plus and minus signs signify pressures acting toward and away from the building surfaces.

f. Openings for exterior balconies, decks or porches under roofs enclosed with screen or removable vinyl or acrylic wind break panels shall be exempt from the loads listed in Table R301.2(2) and the height and exposure factors listed in Table R301.2(3). Vinyl and acrylic glazed panels shall be removable. Removable panels shall be identified as removable by a decal. The identification decal shall essentially state "Removable panel SHALL be removed when wind speeds exceed 65 mph (34 m/s)." Decals shall be placed such that the decal is visible when the panel is installed.

R301.2.1.2 Protection of openings

R301.2.1.2 Protection of openings. Windows in buildings located in windborne debris regions shall have glazed openings protected from windborne debris. Glazed opening protection for windborne debris shall meet the requirements of the Large Missile Test of ASTM E 1996 and ASTM E 1886 referenced therein. Garage door glazed opening protection for windborne debris shall meet the requirements of an approved impact resisting standard or ANSI/DASMA 115.

Exceptions:

1. Wood structural panels with a minimum thickness of 7/16 inch (11 mm) and a maximum span of 8 feet (2438 mm) shall be permitted for opening protection in one - and two-story buildings. Panels shall be precut so that they can be attached to the framing surrounding the opening containing the product with the glazed opening. Panels shall be predrilled as required for the anchorage method so that they can be secured with the attachment hardware provided. Attachments shall be designed to resist the component and cladding

loads determined in accordance with either Table R301.2 (2) or ASCE 7, with the permanent corrosion resistant attachment hardware provided. Attachment in accordance with Table R301.2.1.2 is permitted for buildings with a mean roof height of 33 feet (10 058 mm) or less where wind speeds do not exceed 130 miles per hour (58 m/s).

2. Openings for exterior balconies, decks or porches under roofs enclosed with screen or removable vinyl or acrylic wind break panels shall not be required to be protected provided the spaces are separated from the building interior by a wall and all openings in the wall separating the unit from the balcony, deck or porch are protected in accordance with this section. Vinyl and acrylic glazed panels shall be removable. Removable panels shall be identified as removable by a decal. The identification decal shall essentially state "Removable panel SHALL be removed when wind speeds exceed 65 mph (34 m/s)." Decals shall be placed such that the decal is visible when the panel is installed.

R612.5 Performance

R613.3 Performance. Exterior windows and doors shall be designed to resist the design wind loads specified in Table R301.2(2)adjusted for height and exposure per Table R301.2(3).

Exception: Openings for exterior balconies, decks or porches under roofs enclosed with screen or removable vinyl or acrylic wind break panels shall be exempt from the loads listed in Table R301.2(2) and the height and exposure factors listed in Table R301.2(3). Vinyl and acrylic glazed panels shall be removable. Removable panels shall be identified as removable by a decal. The identification decal shall essentially state "Removable panel SHALL be removed when wind speeds exceed 65 mph (34 m/s)." Decals shall be placed such that the decal is visible when the panel is installed.

R703.4 Attachments

R703.4 Attachments. Unless specified otherwise, all wall coverings shall be securely fastened in accordance with Table R703.4 or with other approved aluminum, stainless steel, zinc-coated or other approved corrosion-resistive fasteners. Where the basic wind speed per FigureR301.2(4) is 110 miles per hour(49 m/s) or higher, the attachment of wall coverings shall be designed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3).

Exception: Openings for exterior balconies, decks or porches under roofs enclosed with screen or removable vinyl or acrylic wind break panels shall be exempt from the loads listed in Table R301.2(2) and the height and exposure factors listed in Table R301.2(3). Vinyl and acrylic glazed panels shall be removable. Removable panels shall be identified as removable by a decal. The identification decal shall essentially state "Removable panel SHALL be removed when wind speeds exceed 65 mph (34 m/s)." Decals shall be placed such that the decal is visible when the panel is installed.

Motion – David Smith/**Second**/**Adopted** as amended with an immediate effective date of April 1, 2015.

Part E – Reports

Chairman's Report
-Dan Tingen asked the Council to consider a change in the 2012 NC Administrative Codes and Policies. The change is as follows:

204.3.5 Design professional seal required.

Exceptions:

1. A family residence, up to eight units attached with grade-level exit, which is not a part of or physically connected with any other buildings or residential units. ~~More than one such set of attached units on a site is determined to be a complex and will require the seal of a registered design professional;~~

A **motion** was made to delay this item until the March 2015 meeting/**Second**/**Passed**.

-The council discussed the BCC meeting schedule. The March meeting will be a two day meeting with the Work Session and Committee meetings on Monday and the Council meeting on Tuesday.

Ad Hoc Committee Reports
-Cindy Register reported that the Electrical Ad Hoc/Standing Committee continued their meetings on the NC Electrical Code. The economic cost analysis will be submitted to OSBM so that it will become a B-Item at the March 2015 Council meeting. Mrs. Register made a **motion** for the Council's approval to move forward/**Second**/**Passed**.

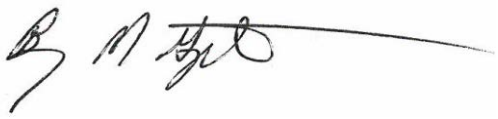
Standing Committee Reports
There were none.

Staff Reports
There were none.

Public Comments
There were none.

Part F – Appeals
VIM – NCDOI – scheduled for 10am, Tuesday, February 10, 2015 at the NCDOI, Dobbs building in the Jim Long Hearing Room.

Sincerely,



Barry Gupton, P.E.
Secretary, NC Building Code Council