Minutes of the North Carolina Building Code Council
June 13, 2017
Raleigh, NC

All members of the North Carolina Building Code Council were present for the Council Meeting with the exception of Tony Sears and Leon Skinner.

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, September 12, 2017.** The location will be announced 30 days before the meeting.

Dan Tingen introduced Brian Taylor, the Senior Deputy Commissioner of NC OSFM and Cliff Isaac, the Deputy Commissioner of Engineering. Both Taylor and Isaac made welcoming comments.

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 March 14, 2017 NC Building Code Council Meeting.

A motion to accept the March 14, 2017 meeting minutes was made, seconded and approved.

Item A – 3 Rules Review Commission Meeting Report

There were no D items from the March 14, 2017 meeting.

Item A – 4 Public Comments

Nancy Monda, representing herself, spoke about Low Energy efficient windows, and the fire hazard they may present, based on her personal experience. She was following up from her previous address to the Council urging them to generate public awareness about this and also have some type of code or regulation in place to help avoid this kind of situation from happening again in the future.

Part B – New Petition 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 September 2017 meeting.

Commercial / Residential Super Committees

There were no objections by the Super Committees.

Item B – 1 Request by Jesse Wade White, Jr., PE, representing Electrical Ad Hoc Committee, to adopt the 2017 NEC with North Carolina Amendments to be known as the 2017 North Carolina Electrical Code available at the links below.

The 2017 NC Committee amendments are posted at the link below and are replacements to the Articles printed in the Base Documents.
http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Codes_-_Current_and_Past&user=State_Building_Codes

The 2017 National Electrical Code is available at the link below for purchase or for public access.
http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=70

Motion/Second/Approved – The request was granted.

Item B – 2 Request by Daniel Priest, representing NCBCC and Appendix B Ad-Hoc Committee Chairman, to amend the 2012 & 2018 Administrative Code and Policies, Section 204.3.4 as follows:

204.3.4 Information Required. A permit application shall be filed with the Inspection Department on a form furnished for that purpose. The Inspection Department shall make available a list of information which must be submitted with the building permit application, including a complete building code summary (see Appendix B) and a permit application information sheet (see Appendix A). The Inspection Department's building code summary shall be in the exact format as, and contain only the information in, Appendix B of the Administrative Code and Policies. The Inspection Department shall only modify its building code summary as set fort in section 103.5 Modifications, or as necessary to reflect any changes by the Building Code Council Appendix B of the Administrative Code and Policies.

The 2018 Appendix B – Building Code Summary is available at the link below for public access.
http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Code_Enforcement_-_Design_Tools&user=Code_Enforcement_Resources

Motion/Second/Approved – The request was granted.

Item B – 3 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2012 NC Building Code, Section 1301.1.1 as follows:

1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the *International Emergency Conservation Code.*
Exception: Per G.S 143-138 (b18), no energy conservation code provisions shall Apply to any structure for which the primary occupancy classification is Group F, S, or U. This exclusion shall apply to the entire building area.

Item B – 4 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2012 NC Energy Code, Section 101.2

101.2 Scope. This code applies to *residential* and *commercial* buildings.
Exception: Per G.S 143-138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U pursuant to Chapter 3 of the 2012 North Carolina Building Code. This exclusion shall apply to the entire building area.

Item B – 5 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2015 NC Existing Building Code, Section 101.12 by adding the following:

101.12 Energy conservation.
Per G.S 143-138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U. This exclusion shall apply to the entire building area.

Item B – 6 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2018 NC Building Code, Section 1301.1.1 as follows:

1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the *International Energy Conservation Code.*
Exception: Per G.S 143-138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U. This exclusion shall apply to the entire building area.

Item B – 7 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2018 NC Existing Building Code, Section 101.12 by adding the following:

101.12 Energy conservation.
Per G.S. 143-138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U. This exclusion shall apply to the entire building area.

Item B – 8 Request by the NC Building Code Council, representing the NC General Assembly, to amend the 2018 NC Energy Code, Section C101.2 as follows:

C101.2 Scope.
This code applies to *commercial buildings* and the buildings' sites and associated systems and equipment.

Exceptions.
1. Energy expended in support of *process energy* applications does not invoke energy conservation code requirements or building thermal envelope requirements unless otherwise required in specific sections of this code.
2. Per G.S 143-138 (b18), no energy conservation code provisions shall apply to any structure for which the primary occupancy classification is Group F, S, or U pursuant to Chapter 3 of the 2018 North Carolina Building Code. This exclusion shall apply to the entire building area.

Motion to accept items B – 3 through B - 8/Second/Approved – The request was granted.

Item B – 9 Request from Robert Privott and Buddy Hughes, representing the North Carolina Home Builders Association, LOGIX, Inc. to amend the 2012 Residential Code, Section R404.1.2.3.6.1 as follows:

R404.1.2.3.6.1 Stay-in-place forms. Stay-in place concrete forms shall comply with this section.
1. Surface burning characteristics. The flame-spread index and smoke-developed index of forming material, other than foam plastic, left exposed on the interior shall comply with Section R302. The surface burning characteristics of foam plastic used in insulating concrete forms shall comply with Section R316.3.
2. Interior covering. Stay-in-place forms constructed of rigid foam plastic shall be protected on the interior of the building as required by Section R316. Where gypsum board is used to protect the foam plastic, it shall be installed with a mechanical fastening system. Use of adhesives in addition to mechanical fasteners is permitted.

3. Exterior wall covering. Stay-in-place forms constructed of rigid foam plastics shall be protected from sunlight and physical damage by the application of an *approved* exterior wall covering complying with this code. Exterior surfaces of other stay-in-place forming systems shall be protected in accordance with this code.

4. Termite hazards. In areas where hazard of termite damage is ~~very~~ moderate - heavy in accordance with Figure R301.2(6), foam plastic insulation shall be permitted below *grade* on foundation walls in accordance with one of the following conditions:

4.1. Where in addition to the requirements in Section R318.1, ~~an *approved*~~ a method of protecting the foam plastic and structure from subterranean termite damage is provided.

4.2. The structural members of walls, floors, ceilings and roofs are entirely of noncombustible materials or pressure-preservative-treated wood.

4.3. On the interior side of *basement* walls.

Motion/Second/Approved – The request was granted.

Item B – 10 Request from Robert Privott, representing the North Carolina Home Builders Association, to amend the 2018 Residential Code, Chapter 2 Definitions by adding a definition for Farm Building as follows:

FARM BUILDING. Any building not used for sleeping purposes that is not accessed by the general public and is used primarily for a ~~bona fide~~ farm purpose. ~~Bona fide farm~~ Farm purposes include~~s~~ but are not limited to structures or buildings for equipment and/or storage and processing of agricultural products or commodities such as: crops, fruits, vegetables, ornamental or flowering plants, dairy, timber, livestock, poultry and all other such forms of agricultural products by the specific farm on which the structure or building is located. ~~Bona fide farm~~ Farm purposes do not include structures or buildings for uses such as education facilities, research facilities, or aircraft hangers.

Motion/Second/Approved – The request was granted.

Item B – 11 Request from Robert Privott and Buddy Hughes, representing the North Carolina Home Builders Association, LOGIX, Inc., to amend the 2018 Residential Code, Section R318.4.5.1 as follows:

R318.4.5.1 Inspection and treatment gaps.

Foam plastic in contact with the ground shall not be continuous to the bottom of the weather-resistant siding. A clear and unobstructed 2-inch (51 mm) minimum inspection gap shall be maintained from the bottom of the weather-resistant siding to the top of any foam plastic. A minimum 4-inch (102 mm) treatment gap shall be provided beginning not more than 6 inches (152 mm) below grade. The

top and bottom edges of the foam plastic installed between the inspection gap and the treatment gap shall be cut at a 45-degree (0.79 rad) angle. See Appendix O. ~~For additional requirements for ICF foundations see Section R404.1.3.3.6.1.~~

Exception: For ICF foundations see Section R404.1.3.3.6.1

Motion/Second/Approved – The request was granted.

Item B – 12 Request from Robert Privott and Buddy Hughes, representing the North Carolina Home Builders Association, LOGIX, Inc., to amend the 2018 Residential Code, Section R404.1.3.3.6.1 as follows:

R404.1.3.3.6.1 Stay-in-place forms. Stay-in-place concrete forms shall comply with this section.

1. Surface burning characteristics. The flame-spread index and smoke-developed index of forming material, other than foam plastic, left exposed on the interior shall comply with Section R302. The surface burning characteristics of foam plastic used in insulating concrete forms shall comply with Section R316.3.

2. Interior covering. Stay-in-place forms constructed of rigid foam plastic shall be protected on the interior of the building as required by Section R316. Where gypsum board is used to protect the foam plastic, it shall be installed with a mechanical fastening system. Use of adhesives in addition to mechanical fasteners is permitted.

3. Exterior wall covering. Stay-in-place forms constructed of rigid foam plastics shall be protected from sunlight and physical damage by the application of an approved exterior wall covering complying with this code. Exterior surfaces of other stay-in-place forming systems shall be protected in accordance with this code.

4. Deleted. ~~Termite protection. In areas where the probability of termite infestation is "very heavy" as indicated by Table R301.2(1) or Figure R301.2(6), foam plastic insulation shall be permitted below grade on foundation walls in accordance with Section R318.4.~~

    4.1. Where in addition to the requirements in Section R318.1, ~~an approved~~ a method of protecting the foam plastic and structure from subterranean termite damage is provided.

    4.2. The structural members of walls, floors, ceilings and roofs are entirely of noncombustible materials or pressure-preservative-treated wood.

4.3. On the interior side of basement walls.

5. Flat ICF wall system forms shall conform to ASTM E 2634.

Motion/Second/Approved – The request was granted.

Item B – 13 Request from Robert Privott, representing the North Carolina Home Builders Association, to amend the 2018 Residential Code, Section Table N1102.1.2 and the 2018 Energy Conservation Code, Section Table R402.1.2 as follows:

TABLES N1102.1.2 and R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION b , j *U*-FACTOR	SKYLIGHT b *U*-FACTOR	GLAZED FENESTRATION SHGCb, e , k	CEILING *R*-VALUEm	WOOD FRAME WALL *R*-VALUE	MASS WALL *R*-VALUEi	FLOOR R-VALUE	BASEMENT c,o WALL *R*-VALUE	SLABd *R*-VALUE & DEPTH	CRAWL SPACEc WALL *R*-VALUE
3	0.35	~~0.55~~ 0.65	0.30	~~38 or 30ci~~ 30	~~15 or 13+2.~~ ~~6h~~ 13	~~5/13 or 5/10ci~~ 5/10	19	~~5/13~~[f] 10/13[f]	0	5/13
4	0.35	~~0.55~~ 0.60	0.30	38 or 30cont j .	15 or 13+2.5 h	~~5/13 or 5/10ci~~ 5/10	19	10 /~~15~~ 13	10[d]	10/~~15~~ 13
5	0.35	~~0.55~~ 0.60	NR	38 or 30cont j .	~~19 n or~~ 15, 13+5[h] or 15+3[e,h]	13/17 ~~or13/2.5~~[ei]	30[g]	10/ ~~15~~ 13	10[d]	10 /~~19~~ 13

For SI: 1 foot = 304.8 mm.
a. R-values are minimums. U-factors and SHGC are maximums.
b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
c. " 10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall or crawl space wall.
d. For monolithic slabs, insulation shall be applied from the inspection gap downward to the bottom of the footing or a maximum of 18 inches below grade whichever is less. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less. (See Appendix O) R-5 shall be added to the required slab edge R-values for heated slabs.
e. R-19 fiberglass batts compressed and installed in a nominal 2 × 6 framing cavity is deemed to comply. Fiberglass batts rated R-19 or higher compressed and installed in a 2 × 4 wall is not deemed to comply.
f. Basement wall insulation is not required in warm-humid locations as defined by Figure ~~N1101.2(1)~~ and (2) N1101.7 and Table ~~N1101.2.~~ N1101.7
g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
h. "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. 15+3 means R-15 cavity insulation plus R-3 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2. 13+2.5 means R-13 cavity insulation plus R-2.5 sheathing.
i. For Mass Walls, the second R-value applies when more than half the insulation is on the interior of the mass wall.
j. R-30 shall be deemed to satisfy the ceiling insulation requirement wherever the full height of uncompressed R-30 insulation extends over the wall top plate at the eaves. Otherwise R-38 insulation is required where adequate clearance exists or insulation must extend to either the insulation baffle or within 1" of the attic roof deck.
k. Table value required except for roof edge where the space is limited by the pitch of the roof, there the insulation must fill the space up to the air baffle.

Motion/Second/Approved – The request was granted.

Item B – 14 Request from Leon Skinner, representing the City of Raleigh, to amend the 2018 NC Plumbing Code – Chapter 2 Definition for Water service pipe as follows:

Water service pipe. The pipe from the water main or other source of potable water supply, or from the meter when the meter is at the public right of way, to the water distribution system of the building served. ~~Water service pipe shall terminate 5 feet (1524 mm) outside the foundation wall.~~

Motion/Second/Approved – The request was granted.

Item B – 15 Request from Leon Skinner, representing the City of Raleigh, to amend the 2018 NC Plumbing Code, Section 605.3 as follows:

605.3 Water service pipe. Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table 605.3. ~~All~~ Water service pipe or tubing, installed and underground and outside of the structure, shall

have a minimum working pressure rating of 160 psi (1100 kPa) at 73.4ºF (23ºC). Where the water pressure exceeds 160 psi (1100 kPa), piping material shall have a minimum rated working pressure equal to the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate ~~5 feet (1524 mm) outside the building~~ at or before the full-open valve located at the entrance to the structure. ~~All~~ Ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.

Motion/Second/Approved – The request was granted.

Item B – 16 Request from Jesse Wade White, Jr., PE, representing the BCC Electrical Standing Committee, to amend the NC Electrical Code, all sections as follows:

Amendment 680.21(C)(2)
(C) GFCI Protection. Outlets supplying pool pump motors connected to single-phase, 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, shall be provided with ground-fault circuit-interrupter protection for personnel.

(2) Existing Pool Pump Motor Branch Circuit and Overcurrent Protection. All existing single-phase, 120-volt through 240-volt branch circuits and overcurrent devices that supply power to a pool pump motor by direct connection or outlet shall comply with the provisions of 680.21(C) when the branch circuits or overcurrent devices are altered, installed, modified, relocated, repaired, or replaced.

Motion/Second/Approved – The request was granted.

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 June 13, 2017 and the Final Adoption meeting may take place on or after September 12, 2017. The written public comment period expires on July 14, 2017.

Item C – 1 Request by Pat Griffith Rose, representing NC Ellis Cannady Chapter of the IAEI, to amend the 2014 NC Electrical Code, Section 300.3 (B) (5) as follows:
300.3 Conductors
(B) Conductors of the Same Circuit. All conductors of the same circuit and, where used, the grounded conductor and all equipment grounding conductors and bonding conductors shall be contained within the same raceway, auxiliary gutter, cable tray, cable bus assembly, trench, cable, or cord, unless otherwise permitted in accordance with 300.3(B) (1) through (B) (4).

(1) Paralleled Installations. Conductors shall be permitted to be run in parallel in accordance with the provisions of 310.10(H). The requirement to run all circuit conductors within the same raceway, auxiliary gutter, cable tray, trench, cable, or cord shall apply separately to each portion of the paralleled installation, and the equipment grounding conductors shall comply with the provisions of 250.122. Parallel runs in cable tray shall comply with the provisions of 392.20(C).

Exception: Conductors installed in nonmetallic raceways run underground shall be permitted to be arranged as isolated phase installations. The raceways shall be installed in close proximity, and the conductors shall comply with the provisions of 300.20(B).

(2) Grounding and Bonding Conductors. Equipment grounding conductors shall be permitted to be installed outside a raceway or cable assembly where in accordance with the provisions of 250.130(C) for certain existing installations or in accordance with 250.134(B), Exception No. 2, for dc circuits. Equipment bonding conductors shall be permitted to be installed on the outside of raceways in accordance with 250.102(E).

(3) Nonferrous Wiring Methods. Conductors in wiring methods with a nonmetallic or other nonmagnetic sheath, where run in different raceways, auxiliary gutters, cable trays, trenches, cables, or cords, shall comply with the provisions of
300.20(B). Conductors in single-conductor Type MI cable with a nonmagnetic sheath shall comply with the provisions of
332.31. Conductors of single-conductor Type MC cable with a nonmagnetic sheath shall comply with the provisions of
330.31, 330.116, and 300.20(B).

(4) Enclosures. Where an auxiliary gutter runs between a column-width panelboard and a pull box, and the pull box includes neutral terminations, the neutral conductors of circuits supplied from the panelboard shall be permitted to originate in the pull box.

(5) Existing Dwelling Panelboards. An equipment grounding conductor for an existing one-and two-family dwelling shall be permitted to be installed separately and outside of the raceway or cable assembly where all the following conditions apply:

(a)When relocating or installing an additional service disconnecting means:
(b) Enacting 300.3(B)(5)(a) redefines the existing service entrance conductors as a feeder in Article 100; and
(c) Replacement of the existing service entrance conductors requires the removal of the building finish or deemed impractical by the AHJ.

Item C – 2 Request from Pat Griffith Rose, representing NC Ellis Cannady Chapter of the IAEI, to amend the 2014 NC Electrical Code, Section 250.140. Exceptions 1 & 2 as follows:

250.140 Frames of Ranges and Clothes Dryers. Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and outlet

or junction boxes that are part of the circuit for these appliances shall be connected to the equipment grounding conductor in the manner specified by 250.134 or 250.138.

Exception No. 1: For existing branch-circuit installations only where an equipment grounding conductor is not present in the outlet or junction box, the frames of electric ranges, wall-mounted ovens, counter mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the circuit for these appliances shall be permitted to be connected to the grounded circuit conductor if all the following conditions are met.

(1) The supply circuit is 120/240-volt, single phase, 3 wire; or 208Y / 120-volt derived from a 3-phase, 4 wire, wye-connected system.

(2) The grounded conductor is not smaller than 10 AWG copper or 8 AWG aluminum.

(3) Any of the following:

a) The grounded conductor is insulated;

b) The grounded conductor is uninsulated and part or a Type SE service-entrance cable and the branch circuit originates at the service.

c) The grounded conductor is uninsulated and part of a cable assembly and all current-carrying conductors are protected by a ground fault circuit interrupter at the origination of the branch circuit; or

d) A new 3-wire cable assembly not smaller than the existing conductors shall be permitted to be extended from the service to an enclosure where the existing conductors shall be spliced together and provisions are made so that the grounded conductors are insulated by tape, heat-shrink or other approved means inside the enclosure.

(4) Grounding contacts of receptacles furnished as part of the equipment are bonded to the equipment.

Exception No. 2: For existing branch-circuit installations only where an equipment grounding conductor is not present in the outlet or junction box, an equipment grounding conductor sized in accordance with 250.122 shall be permitted to be run separately from the circuit conductors.

Item C - 3 Request from Pat Griffith Rose, representing NC Ellis Cannady Chapter of the IAEI, to amend the 2014 NC Electrical Code, Section 250.142 (B) as follows:

250.142 Use of Grounded Circuit Conductor for Grounding Equipment.

(B) Load-Site Equipment. Except as permitted in 250.30(A)(1) and 250.32(B) Exception, a grounded circuit conductor shall not be used for grounding non–current carrying metal parts of equipment on the load side of the service disconnecting means or on the load side of a separately derived system disconnecting means or the overcurrent devices for a separately derived system not having a main disconnecting means.

Exception No. 1: The frames of ranges, wall-mounted ovens, counter-mounted cooking units, and clothes dryers under the conditions permitted for existing installations by 250.140 shall be permitted to be connected to the grounded circuit conductor.

Exception No. 2: It shall be permissible to ground meter enclosures by connection to the grounded circuit conductor on the load side of the service disconnect where all of the following conditions apply:
(1) No service ground-fault protection is installed.
(2) All meter enclosures are located immediately adjacent to the service disconnecting means.
(3) The size of the grounded circuit conductor is not smaller than the size specified in Table 250.122 for equipment grounding conductors.

Exception No. 3: Direct-current systems shall be permitted to be grounded on the load side of the disconnecting means or overcurrent device in accordance with 250.164.

Exception No. 4: Electrode-type boilers operating at over 1000 volts shall be grounded as required in 490.72(E)(1) and 490.74.

Exception No. 5: It shall be permissible to ground an existing panelboard enclosure by connection to the grounded circuit conductor for a one- and two-family dwelling where all the following conditions apply:

1. When relocating or installing an additional main disconnecting means;
2. Enacting 250.142(B) Exception No. 5: (1) redefines the existing service entrance conductors as a feeder in Article 100;
3. An equipment grounding conductor in the existing panelboard is not present;
4. Replacement of the existing service entrance conductors requires either the removal of the building finish or deemed impractical by the AHJ.
5. All grounding electrode conductors are removed completely from the existing panelboard; and
6. The grounded conductors are insulated by tape, heat-shrink, or other approved means except where covered by the sheathing of a cable assembly or as needed for joints, splices, and termination purposes.

Item C – 4 Request from Robert D. Richardson, representing Professional Trade Manufacturing, LLC, to amend the 2012 (2018?) NC Plumbing Code, Section 305.6 as follows:

305.6 FREEZING. The top of water pipes, installed below grade outside the building, shall be below the frost line or a minimum of 12 inches (305mm) below finished grade, whichever is greater. Water pipes installed in a wall exposed to the exterior shall be located on the heated side of the wall insulation. Water piping components and appurtenances installed in an unconditioned attic or unconditioned utility room or unconditioned garage or crawl space shall have

insulation with a minimum R-factor of 6.5 determined at 75 degrees F (24 C) in accordance with ASTM C-177.

Item C – 5 Request from Terry Cromer, representing NC Association of Electrical Contractors, to amend the 2014 NC Electrical Code, Article 250.53(A)(2) Supplemental Electrode Required as follows:

(2) Supplemental Electrode Required.

Exception No. 1: If a single rod, pipe, or plate grounding electrode has a resistance to earth of 25 ohms or less, the supplemental electrode shall not be required.

Exception No. 2: The supplemental ground electrode shall not be required at temporary electrical service installation (saw service pole) at a construction site ~~for one and two family residences, provided the temporary electrical service does not exceed 150 volts to ground or 100A.~~ provided all ungrounded circuits do not exceed 150 volts to ground, and the rating of the single disconnecting means or the summation of the ratings of multiple overcurrent devices that serve together as the disconnecting means, does not exceed 100 amperes.

Item C – 6 Request from Terry Cromer, representing NC Association of Electrical Contractors, to amend the 2014 NC Electrical Code, Article 300.9 Raceways in Wet Locations Above Grade 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).

Exception: The raceway shall not be considered a wet location if:
(1) The section of raceway routed in a wet location above grade does not exceed ~~1500 mm (5 ft)~~
1.8 m (6 ft) in length;
(2) Any fittings or conduit bodies are watertight and listed for use in wet locations; and
~~(3) Raceway is open at its termination point in a dry location.~~
(3) All termination points of the raceway are only open in any of the following:
a. a dry location;
b. equipment suitable for outdoor use
c. equipment listed for use in a wet location.

Part D – Final Adoption

Item D - 1 **Request by the NC Building Code Council, Ad-Hoc Committees, to adopt the 2018 North Carolina State Building Codes. The Base Documents for the 2018 NC Codes are the 2015 International Codes. The 2018 NC Ad-Hoc Committee amendments are posted at the link below and are replacements to the Sections printed in the Base Documents.**

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Default.aspx?field1=Codes_-_Current_and_Past&user=State_Building_Codes

Item D - 1.1 NC State Building Code, Volume – 2018 Building Code

Motion for final approval. Second. Adopted.
Goes to Rules then ICC for publication. Effective date for 2018 NC State Building Codes is January 1, 2019.

Item D - 1.2 NC State Building Code, Volume - 2018 Energy Conservation Code, including Residential Energy

Motion for final approval.
Correlations to be included in motions.
Exemptions noted to include in motion.
Exemptions approved by Committee.
Second. Adopted as modified.

Item D – 1.3 NC State Building Code, Volume – 2018 Existing Building Code
Discussed additions – coordinated items.
Read into record: 406.3; 702.5, 805.12.
Motion for final approval. Second. Adopted as Modified.

Item D – 1.4 NC State Building Code, Volume – 2018 Fire Prevention Code

Motion to adopt. Second. Adopted.

Item D – 1.5 NC State Building Code, Volume – 2018 Fuel Gas Code

Motion to adopt. Second.
Correlations to be included in motion.
Adopted as modified.

Item D – 1.6 NC State Building Code, Volume – 2018 Mechanical Code
Correlations to be included in motion.

Motion to adopt. Second. Adopted as modified.

Item D – 1.7 NC State Building Code, Volume – 2018 Plumbing Code

Motion to adopt. Second. Adopted.

Item D – 1.8 NC State Building Code, Volume – 2018 Residential Code
Correlations to be included in motion.
Motion to adopt. Second. Adopted as modified.

Item D - 2 Additional individual requests to further amend the 2018 North Carolina Energy Conservation Code

Item D – 2.1 Request from Ryan Miller, representing North Carolina Building Performance Association, to revise the 2018 NC Energy Conservation Code, Section 403.3.3 Duct Leakage (Perspective and duct testing (Mandatory).

403.3.3 Duct leakage (Perspective) and duct testing (Mandatory). Duct testing and duct leakage shall be verified by compliance with either Section 403.3.3.1or 403.3.3.2. Duct testing shall be performed and reported by the permit holder, a NC licensed general contractor, a NC licensed HVAC contractor, a NC licensed Home Inspector, a registered design professional, a certified BPI Envelope Professional or a certified HERS rater. A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the duct testing fan assembly(s) has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E1554-07.

The duct leakage information, including duct leakage test selected and result, tester name, date and contact information, shall be included on the certificate described in Section 401.3.

For the Test Criteria, the report shall be produced in the following manner: perform the HVAC system air leakage test and record the CFM25. Calculate the total square feet of Conditioned Floor Area (CFA) served by that system. Multiply CFM25 by 100, divide the result by the CFA and record the result. If the result is less than or equal to 5 CFM25/100SF for the "Total duct leakage test or less than or equal to 4CFM25/100SF for the "Duct leakage to the outside" test, then the HVAC system air tightness is acceptable. Appendix 3C contains optional sample worksheets for duct testing for the permit holder's use only.

Exceptions to testing requirements:

1. Duct systems or portions thereof inside the building thermal envelope shall not be required to be leak tested.
2. Installation of a partial system as part of replacement, renovation or addition does not require a duct leakage test.
3. Duct systems (complete) serving areas of 750 sq. ft. or less shall not need to be required to be leak tested.

Motion to adopt with exemption #3. Second. Adopted.

Item D – 2.2 Request from Bridget Herring, representing Mathis Consulting Company, to revise the 2018 NC Energy Conservation Code, Section C402.

Bridget Herring, Mathis Consulting, requested to withdraw this item.

Item D – 2.3 Request from Chuck Perry, representing Appalachian State University, to revise the 2018 NC Energy Conservation Code, Section R406 Energy Rating Index Compliance Alternative.

SECTION R406
ENERGY RATING INDEX COMPLIANCE ALTERNATIVE

R406.1 Scope. This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis.

R406.2 Mandatory requirements.
Compliance with this section requires that the ~~mandatory~~ provisions identified in Sections ~~R401.2~~ R401 through R404 labeled as "mandatory" ~~and Section R403.5.3~~ be met. The building .2 thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table 402.1.1 or 402.1.3 of the ~~2009 International Energy Conservation Code~~ 2012 NC Energy Conservation Code. Minimum standards associated with compliance shall be the ANSI RESNET ICC Standard 301-2014 "Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index." A North Carolina licensed design professional **or** ***Certified HERS Rater*** is required to perform the analysis if required by North Carolina licensure laws.

Exception: ~~Supply and return ducts not completely inside the building thermal envelope shall be insulated to a minimum of R-6.~~ Supply and return ducts in unconditioned space and outdoors shall be insulated to a minimum R-8. Supply ducts inside semi-conditioned space shall be insulated to a minimum R-4; return ducts inside conditioned and semi-conditioned space are not required to be insulated. Ducts located inside conditioned space are not

required to be insulated other than as may be necessary for preventing the formation of condensation on the exterior of cooling ducts.

R406.3 Energy Rating Index.
The Energy Rating Index (ERI) shall be a numerical integer value that is based on a linear scale constructed such that the *ERI reference design* has an Index value of 100 and a *residential building* that uses no net purchased energy has an Index value of 0. Each integer value on the scale shall represent a 1-percent change in the total energy use of the rated design relative to the total energy use of the *ERI reference design*. The ERI shall consider all energy used in the *residential building*.

R406.3.1 ERI reference design.
The *ERI reference design* shall be configured such that it meets the minimum requirements of the 2006 *International Energy Conservation Code* prescriptive requirements**.**

The proposed *residential building* shall be shown to have an annual total normalized modified load less than or equal to the annual total loads of the *ERI reference design*.

R406.4 ERI-based compliance.
Compliance based on an ERI analysis requires that the *rated design* be shown to have an ERI less than or equal to the appropriate value listed in Table R406.4.1 or Table R406.4.2 when compared to the *ERI reference design*.

~~TABLE R406.4~~
~~MAXIMUM ENERGY RATING INDEX~~

~~**CLIMATE ZONE**~~	~~**ENERGY RATING INDEX**~~
~~1~~	~~52~~
~~2~~	~~52~~
~~3~~	~~51~~
~~4~~	~~54~~
~~5~~	~~55~~
~~6~~	~~54~~
~~7~~	~~53~~
~~8~~	~~53~~

TABLE R406.4.1 MAXIMUM ENERGY RATING INDEX without calculation of on-site renewable energy

Climate Zone	Jan 1, 2019 – Dec 31, 2022	Jan 1, 2023 and forward
3	65	61
4	67	63
5	67	63

TABLE R406.4.2 MAXIMUM ENERGY RATING INDEX including calculation of on-site renewable energy

Climate Zone	Jan 1, 2019 – Dec 31, 2022	Jan 1, 2023 and forward
3	51	47
4	54	50
5	55	51

R406.5 Verification ~~by approved agency~~.
Verification of compliance with Section R406 shall be performed by the licensed design professional ***or Certified HERS Rater*** and the compliance documentation shall be provided to the code official. The code official shall inspect according to the requirements of Section R406.6.2 ~~completed by an *approved* third party.~~

R406.6 Documentation.
Documentation of the software used to determine the ERI and the parameters for the residential building shall be in accordance with Sections R406.6.1 through R406.6.3.

R406.6.1 Compliance software tools.
~~Documentation verifying that the methods and accuracy of the compliance software tools conform to the provisions of this section shall be provided to the *code official.*~~ Compliance software tools for this section shall be in compliance with ANSI RESNET ICC Standard 301-2014.

R406.6.2 Compliance report.
Compliance software tools shall generate a report that documents that the ERI of the *rated design* complies with Sections R406.3 and R406.4. The compliance documentation shall include the following information:

1. Address or other identification of the residential building.

2. An inspection checklist documenting the building component characteristics of the *rated design*. The inspection checklist shall show results for both the *ERI reference design* and the *rated design*, and shall document all inputs entered by the user necessary to reproduce the results.

3. Name of individual completing the compliance report.

4. Name and version of the compliance software tool.

Exception: ~~Multiple orientations. Where an otherwise identical building model is offered in multiple orientations, compliance for any orientation shall be permitted by documenting that the building meets the performance requirements in each of the four (north, east, south and west) cardinal orientations.~~

R406.6.3 Additional documentation.
Deleted. ~~The *code official* shall be permitted to require the following documents:~~

~~1. Documentation of the building component characteristics of the *ERI reference design.*~~

~~2. A certification signed by the builder providing the building component characteristics of the *rated design.*~~

~~3. Documentation of the actual values used in the software calculations for the *rated design.*~~

R406.7 Calculation software tools. Calculation software, where used, shall be in accordance with Sections R406.7.1 through R406.7.3.

R406.7.1 Minimum capabilities.
Calculation procedures used to comply with this section shall be software tools capable of calculating the ERI as described in Section R406.3, and shall be in compliance with ANSI RESNET ICC Standard 301-2014 ~~and shall include the following capabilities~~. The software shall include the following capabilities:

1. Computer generation of the *ERI reference design* using only the input for the *rated design*.

The calculation procedure shall not allow the user to directly modify the building component characteristics of the *ERI reference design*.

2. Calculation of whole building, as a single *zone*, sizing for the heating and cooling equipment in the *ERI reference design* residence in accordance with Section R403.7.

3. Calculations that account for the effects of indoor and outdoor temperatures and part-load ratios on the performance of heating, ventilating and air-conditioning equipment based on climate and equipment sizing.

4. Printed *code official* inspection checklist listing each of the *rated design* component characteristics determined by the analysis to provide compliance, along with their respective performance ratings.

R406.7.2 Specific approval.
Deleted. ~~Performance analysis tools meeting the applicable sections of Section R406 shall be *approved*. Tools are permitted to be *approved* based on meeting a specified threshold for a jurisdiction. The *code official* shall approve tools for a specified application or limited scope.~~

R406.7.3 Input values.
Deleted. ~~When calculations require input values not specified by Sections R402, R403, R404 and R405, those input values shall be taken from an approved source.~~

Motion to approve. Second. Adopted as modified.

Item D – 2.4 Request from Chuck Perry, representing Appalachian State University, to revise the 2018 NC Energy Conservation Code, Section N1106 Energy Rating Index Compliance Alternative.

SECTION N1106
ENERGY RATING INDEX COMPLIANCE ALTERNATIVE

N1106.1 Scope. This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis.

N1106.2 Mandatory requirements.
Compliance with this section requires that the ~~mandatory~~ provisions identified in Sections ~~N1101.2~~ N1101 through N1104 labeled as "mandatory" ~~and Section N1103.5.3~~ be met. The building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table 1102.1.1 or 1102.1.3 of the ~~2009 *International Energy Conservation Code*~~ *2012 NC Energy Conservation Code*. Minimum standards associated with compliance shall be the ANSI RESNET ICC Standard 301-2014 "Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index." A North Carolina licensed design professional ***or Certified HERS Rater*** is required to perform the analysis if required by North Carolina licensure laws.

Exception: ~~Supply and return ducts not completely inside the building thermal envelope shall be insulated to a minimum of R-6.~~ Supply and return ducts in unconditioned space and outdoors shall be insulated to a minimum R-8. Supply ducts inside semi-conditioned space shall be insulated to a minimum R-4; return ducts inside conditioned and semi-conditioned space are not required to be insulated. Ducts located inside conditioned space are not required to be insulated other than as may be necessary for preventing the formation of condensation on the exterior of cooling ducts.

N1106.3 Energy Rating Index.
The Energy Rating Index (ERI) shall be a numerical integer value that is based on a linear scale constructed such that the *ERI reference design* has an Index value of 100 and a *residential building* that uses no net purchased energy has an Index value of 0. Each integer value on the scale shall represent a 1-percent change in the total energy use of the rated design relative to the total energy use of the *ERI reference design*. The ERI shall consider all energy used in the *residential building*.

N1106.3.1 ERI reference design.
The *ERI reference design* shall be configured such that it meets the minimum requirements of the 2006 *International Energy Conservation Code* prescriptive requirements**.**

The proposed *residential building* shall be shown to have an annual total normalized modified load less than or equal to the annual total loads of the *ERI reference design*.

N1106.4 ERI-based compliance.
Compliance based on an ERI analysis requires that the *rated design* be shown to have an ERI less than or equal to the appropriate value listed in Table N1106.4.1 or Table N1106.4.2 when compared to the *ERI reference design*.

~~TABLE N1106.4~~
~~MAXIMUM ENERGY RATING INDEX~~

~~**CLIMATE ZONE**~~	~~**ENERGY RATING INDEX**~~
~~1~~	~~52~~
~~2~~	~~52~~
~~3~~	~~51~~
~~4~~	~~54~~
~~5~~	~~55~~
~~6~~	~~54~~
~~7~~	~~53~~
~~8~~	~~53~~

TABLE N1106.4.1 MAXIMUM ENERGY RATING INDEX without calculation of on-site renewable energy.

Climate Zone	Jan 1, 2019 – Dec 31, 2022	Jan 1, 2023 and forward
3	65	61
4	67	63

5	67	63

TABLE N1106.4.2 MAXIMUM ENERGY RATING INDEX including calculation of on-site renewable energy

Climate Zone	Jan 1, 2019 – Dec 31, 2022	Jan 1, 2023 and forward
3	51	47
4	54	50
5	55	51

N1106.5 Verification ~~by approved agency~~.
Verification of compliance with Section N1106 shall be performed by the licensed design professional ***or Certified HERS Rater*** and the compliance documentation shall be provided to the code official. The code official shall inspect according to the requirements of Section N1106.6.2 ~~completed by an *approved* third party.~~

N1106.6 Documentation.
Documentation of the software used to determine the ERI and the parameters for the residential building shall be in accordance with Sections N1106.6.1 through N1106.6.3.

N1106.6.1 Compliance software tools.
~~Documentation verifying that the methods and accuracy of the compliance software tools conform to the provisions of this section shall be provided to the *code official.*~~ Compliance software tools for this section shall be in compliance with ANSI RESNET ICC Standard 301-2014.

N1106.6.2 Compliance report. Compliance software tools shall generate a report that documents that the ERI of the *rated design* complies with Sections N1106.3 and N1106.4. The compliance documentation shall include the following information:

1. Address or other identification of the residential building.

2. An inspection checklist documenting the building component characteristics of the *rated design*. The inspection checklist shall show results for both the *ERI reference design* and the *rated design*, and shall document all inputs entered by the user necessary to reproduce the results.

3. Name of individual completing the compliance report.

4. Name and version of the compliance software tool.

Exception: ~~Multiple orientations. Where an otherwise identical building model is offered in multiple orientations, compliance for any orientation shall be permitted by documenting that the building meets the performance requirements in each of the four (north, east, south and west) cardinal orientations.~~

N1106.6.3 Additional documentation.
Deleted. ~~The *code official* shall be permitted to require the following documents:~~

~~1. Documentation of the building component characteristics of the *ERI reference design.*~~

~~2. A certification signed by the builder providing the building component characteristics of the *rated design.*~~

~~3. Documentation of the actual values used in the software calculations for the *rated design.*~~

N1106.7 Calculation software tools. Calculation software, where used, shall be in accordance with Sections N1106.7.1 through N1106.7.3.

N1106.7.1 Minimum capabilities.
Calculation procedures used to comply with this section shall be software tools capable of calculating the ERI as described in Section N1106.3, and shall be in compliance with ANSI RESNET ICC Standard 301-2014 ~~and shall include the following capabilities.~~ The software shall include the following capabilities:

1. Computer generation of the *ERI reference design* using only the input for the *rated design*.
   The calculation procedure shall not allow the user to directly modify the building component characteristics of the *ERI reference design*.

2. Calculation of whole building, as a single *zone*, sizing for the heating and cooling equipment in the *ERI reference design* residence in accordance with Section N1103.7.

3. Calculations that account for the effects of indoor and outdoor temperatures and part-load ratios on the performance of heating, ventilating and air-conditioning equipment based on climate and equipment sizing.

4. Printed *code official* inspection checklist listing each of the *rated design* component characteristics determined by the analysis to provide compliance, along with their respective performance ratings.

N1106.7.2 Specific approval.

Deleted. ~~Performance analysis tools meeting the applicable sections of Section N1106 shall be *approved*. Tools are permitted to be *approved* based on meeting a specified threshold for a jurisdiction. The *code official* shall approve tools for a specified application or limited scope.~~

N1106.7.3 Input values.
Deleted. ~~When calculations require input values not specified by Sections N1102, N1103, N1104 and N1105, those input values shall be taken from an approved source.~~

Motion to approve. Second. Adopted as modified.

Item D – 3 Request from Dave Crawford, representing AIA-North Carolina, to revise the 2018 NC Building Code, Section 2902.1.2, and the 2018 NC Plumbing Code, Section 403.1 and Section 403.2 Separate Facilities

2018 NC Building Code
Section 2902.1.2: delete the words "in assembly and mercantile occupancies". Add the words "in all occupancies noted in Table 2902.1"

2018 NC Plumbing Code
Section 403.1: add the following new section
403.1.1 Single-occupancy toilet facility and bathing room fixtures.
The plumbing fixtures located in single- occupancy toilet facilities and bathing rooms, including family or assisted-use toilet and bathing rooms that are required by Section 1109.2.1 of the North Carolina Building Code, and including all occupancies noted in Table 403.1, shall contribute towards the total number of required plumbing fixtures for a building or tenant space.

Section 403.2 Separate facilities:
(add the following)

Exceptions:
5. Except as provided in Section 403.2.1.

403.2.1. Single- occupancy toilet facilities and bathing rooms, and family or assisted- use toilet and bathing rooms shall not be required to be identified by gender.

Motion to deny. Second. Motion Denied.
There will be no further action taken on this item.

Item D – 4 **Request from Terry Cromer, representing NC Association of Electrical Contractors, to amend the 2014 NC Electrical Code, Section 680.21(C)(1) Pool Pump Motor Replacement as follows:**

680.21(C)(1) Pool Pump Motor Replacement. Whenever a pool pump motor requires replacing and the existing branch circuit or receptacle, providing power to the pump motor, does not provide ground-fault circuit-interrupter protection for personnel the branch circuit or receptacle shall be updated to provide ground-fault circuit-interrupter protection for personnel.

Item D: Request from Jesse Wade White, Jr., PE representing the NC Building Code Council Electrical Ad-Hoc Committee as Chair, to "Amend from the floor" the 'D' Item Amendment 680.21(C)(1) for clarification. Inserting "*as required by 68021(C)*" into amending language as follows:

AMENDMENT 680.21(C)(1)

(C) GFCI Protection. Outlets supplying pool pump motors connected to single-phase, 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, shall be provided with ground-fault circuit-interrupter protection for personnel.

(1) Pool Pump Motor Replacement. Whenever a pool pump motor requires replacing and the existing branch circuit or receptacle providing power to the pump motor does not provide ground-fault circuit-interrupter protection for personnel, the branch circuit or receptacle shall be updated to provide ground-fault circuit-interrupter protection for personnel.

"Amending from the floor," replace with:

(C) GFCI Protection. Outlets supplying pool pump motors connected to single-phase, 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, shall be provided with ground-fault circuit-interrupter protection for personnel.

(1) Pool Pump Motor Replacement. Whenever a pool pump motor requires replacing and the existing branch circuit or receptacle providing power to the pump motor does not provide ground-fault circuit-interrupter protection for personnel as required by 680.21(c), the branch circuit or receptacle shall be updated to provide ground-fault circuit-interrupter protection for personnel.

Motion to adopt with floor amendment. Second. Adopted as modified.
Effective January 1, 2018.

Item D – 5 Request from Daniel Priest, representing Priest Architecture, PLLC, to amend Section 901.1 from the 2018 NC Fire Prevention Code, as follows:

901.1 Scope. ~~The provisions of this chapter shall specify where fire protection systems are required and shall apply to the design, installation, inspection, operation, testing and maintenance of all *fire protection systems*.~~

901.1 Scope. The provisions of the International Building Code shall specify where *fire protection systems* are required and shall apply to the design, installation, inspection, operation, testing of all fire protection systems. Fire protection systems shall be repaired, operated and maintained in accordance to the *International Fire Code*.

Motion made by Robbie Davis to postpone until September meeting.
Motion passed to send back to Committee.

Item D – 6 Request from Robbie Davis, representing the NC Building Code Council Building/Fire Ad-Hoc Committees, to amend the 2018 NC Building Code, Section [A] 101.2 Scope, as follows:

[A] 101.2 Scope. The provisions of this code shall apply to the construction, *alteration*, relocation, enlargement, replacement, *repair*, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exceptions: If any of the following apply the building or structure is exempt from the provisions of this code:

1. Detached one- and two-family *dwellings* and multiple single-family *dwellings (townhouses)* not more than three *stories above grade plane* in height with a separate *means of egress*, and their accessory structures not more than three *stories above grade plane* in height, shall comply with the *International Residential Code*.

~~2. Farm *buildings* located outside of the buildings rules jurisdiction of any municipality.~~

~~**Exception:** All buildings used for sleeping purposes shall conform to the provisions of the technical codes.~~

2. *Farm buildings* not used for:
   a. Sleeping purposes, or
   b. Storage of hazardous materials in excess of those listed in Tables 307.1(1) and 307.1(2) within the building rules jurisdiction of any municipality.

3. The design construction, location, installation or operation of equipment for storing, handling and transporting liquefied petroleum gases for fuel purposes up to the outlet of the first stage pressure regulator, anhydrous ammonia or other liquid fertilizer.

4. The design construction, location, installation or operation of equipment or facilities of a public utility, as defined in NC G.S. 62-3, or electric or telephone membership corporation, including without limitation poles, towers and other structures supporting electric or communication lines from the distribution network up to the meter location.

Note: All *buildings* owned and operated by a public utility or an electric or telephone membership corporation shall meet the provisions of this code.

5. The storage and handling of hazardous chemicals as they relate to NC G.S. 95, Article 18 - Hazardous Chemicals Right to Know Act.

SECTION 202 DEFINITIONS
FARM BUILDING. Any building not used for sleeping purposes that is not accessed by the general public and is used primarily for a farm purpose. Farm purposes includes but is not limited to structures or *buildings* for equipment storage and processing of agricultural products or commodities such as: crops, fruits, vegetables, ornamental or flowering plants, dairy, timber, livestock, poultry and all other such forms of agricultural products by the specific farm on which the structure or *building* is located. Farm purposes do not include structures or *buildings* for uses such as education facilities, research facilities, or aircraft hangers.

Robbie Davis discussed changing definition – remove "Bona-fide" and leave with farm building and adding "equipment" to definition.
Robbie Davis made motion to approve with modifications. Second. Adopted as modified.

Item D – 7 Request by Robbie Davis, representing the NC Building Code Council Building/Fire Ad-Hoc Committees, to amend the 2018 NC Fire Prevention Code, Chapter 1, Section 102.13 Exception to applicability and Chapter 2, as follows:

CHAPTER 1 CHANGES NC Fire Prevention Code
102.13 Exception to applicability.
The provisions of this code shall not apply to the following:

1. Occupancy of one- and two-family dwellings.

~~2. Farm buildings located outside the building rules jurisdiction of any municipality.~~

~~**Exception:** All buildings used for sleeping purposes shall conform to the provisions of the technical codes.~~

2. *Farm buildings* not used for:
   a. Sleeping purposes, or
   b. Storage of hazardous materials in excess of those listed in Tables 5003.1(1) and 5003.1(2) within the building rules jurisdiction of any municipality.

3. The design, construction, location, installation or operation of equipment for storing, handling, and transporting liquefied petroleum gases for fuel purposes up to the first stage regulator, liquefied natural gases, and anhydrous ammonia or other liquid fertilizers.

4. The design, construction, location, installation or operation of equipment or facilities of a public utility, as defined in *N.C.G.S* 62-3, or an electric or telephone membership corporation, including without limitation poles, towers and other structures supporting electric or communication lines from the distribution network up to the meter location.

Exception: All buildings owned and operated by a public utility or an electric or telephone membership corporation shall meet the provisions of the code.

5. The Storage and Handling of Hazardous Chemicals Right to Know Act. North Carolina *N.C.G.S* 95-173 through 95-218.

6. Open burning pursuant to *N.C.G.S.* 106 - 940 through 106 - 950 under the jurisdiction of the North Carolina Department of Agriculture and Consumer Services.

CHAPTER 2 CHANGES

FARM BUILDING. *Any building not used for sleeping purposes that is not accessed by the general public and is used primarily for a farm purpose. Farm purposes includes but is not limited to structures or buildings for equipment storage and processing of agricultural products or commodities such as: crops, fruits, vegetables, ornamental or flowering plants, dairy, timber, livestock, poultry and all other such forms of agricultural products by the specific farm on which the structure or building is located. Farm purposes do not include structures or buildings for uses such as education facilities, research facilities, or aircraft hangars.*

Motion to adopt with alternate language. Second. Adopted as modified.

Item D – 8 **Request from Robbie Davis, representing the NC Building Code Council Building/Fire Ad-Hoc Committees, to amend the 2018 NC Fire Prevention Code, Chapter 1, Section 105.6.45 Temporary membrane structures and tents (mandatory permit), Section 105.7.18 Temporary membrane structures and tents and Chapter 31, Section 3103.2 Approval required, as follows:**

CHAPTER 1 CHANGES

105.6.45 Temporary membrane structures and tents (mandatory permit). An operational permit is required to operate an air-supported temporary membrane structure ,or a temporary stage canopy having an area in excess of 400 square feet (37 m2) or a tent having an area in excess of ~~400~~ 800 square feet (~~37~~ 74 m2).

Exceptions:

1. Tents used exclusively for recreational camping purposes.

2. Tents open on all sides, which comply with all of the following:

2.1. Individual tents having a maximum size of ~~700~~ 1800 square feet (~~65~~ 167 m2).

2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed ~~700~~ 1800 square feet (~~65~~ 148 m2) total.

2.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.

3. Funeral tents and curtains or extensions attached thereto, when used for funeral services.

[A] 105.7.18 Temporary membrane structures and tents. A construction permit is required to erect an air-supported temporary membrane structure, or a temporary stage canopy having an area in excess of 400 square feet (37 m2) or a tent having an area in excess of ~~400~~ 800 square feet (~~37~~ 74 m2).

Exceptions:

1. Tents used exclusively for recreational camping purposes.

2. Tents open on all sides, which comply with all of the following:

2.1. Individual tents having a maximum size of ~~700~~ 1800 square feet (~~65~~ 148 m2).

2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed ~~700~~ 1800 square feet (~~65~~ 148 m2) total.

2.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.

3. Funeral tents and curtains or extensions attached thereto, when used for funeral services.

CHAPTER 31 CHANGES

3103.2 Approval required. Tents and membrane structures ~~having an area in excess of 400 square feet (37 m2)~~ shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the *fire code official*.

3103.2.1 Membrane Structures.

Membrane structures having an area in excess of 400 square feet (37 m2)

3103.2.2 Tents.

Tents having an area in excess of 800 square feet (74.32 m2).

Exceptions:

1. Tents used exclusively for recreational camping purposes.

2. Tents open ~~on all sides~~ without sidewalls, drops or other physical obstructions on 75 percent or more of the perimeter that comply with all of the following:

2.1. Individual tents having a maximum size of ~~700~~ 1800 square feet (~~65~~ 148.6 m2).

2.2. The aggregate area of multiple tents placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding ~~700~~ 1800 square feet (~~65~~ 148.6 m2) total.

2.3. A minimum clearance of 12 feet (3658 mm) to all structures and other tents.

3. Funeral tents and curtains or extensions attached thereto, when used for funeral services.

3103.5 Use period. A t~~T~~emporary tent~~s~~, air-supported, air-inflated or tensioned membrane structures shall not be erected for a period of more than 180 consecutive days within a 12-month period on a single premises.

Robbie Davis made motion to approve. Second.
Wayne Hamilton made it known he disapproves of this code and how responsibility goes back to the builder.
Dan Austin brought forth correlating changes to be made.
Adopted.

Item D – 9 Request from Robbie Davis, representing the NC Building Code Council Building/Fire Ad-Hoc Committees, to amend the 2018 NC Fire Prevention Code, Chapter 34, Section 3406.1 Required access, as follows:

3406.1 Required access.

New tire storage yards shall be provided with fire apparatus access roads in accordance with Section 503 and Section 3406.2. Existing tire storage yards shall be provided with fire apparatus access roads where required in ~~Chapter 11~~ Section 3406.1.1.

3406.1.1 Existing tire storage yards.
Existing tire storage yards in excess of 150,000 cubic feet shall be provided with fire apparatus access roads in accordance with Section 3406.1.1.1 and 3406.1.1.2.

3406.1.1.1 Access to piles.
Access roadways shall be within 150 feet (45 720 mm) of any point in the storage yard where storage piles are located not less than 20 feet (6096 mm) from any storage pile.

3406.1.1.2 Location within piles.
Fire apparatus access roads shall be located within all pile clearances identified in Section 3405.4 and within all fire breaks required in Section 3405.5.

Discussion was had as to why this was brought forth.
Motion to adopt. Second. Adopted.

Item D – 10 Request from Robbie Davis, representing the NC Building Code Council Building/Fire Ad-Hoc Committees, to amend the 2018 NC Building Code, Section 1107.6.2.2.1 Type A units, as follows:

1107.6.2.2.1 Type A units.
In Group R-2 occupancies containing ~~11 or~~ more than 20 *dwelling units* or *sleeping units*, at least ~~5~~ 2 percent but not less than one of the units shall be a *Type A unit*. ~~For a site with more than 100 units, at least 2 percent of the number of units exceeding 100 shall be Type A units.~~ All Group R-2 units on a *site* shall be considered to determine the total number of units and the required number of *Type A units*. *Type A units* shall be dispersed among the various classes of units. Bedrooms in monasteries and convents shall be counted as *sleeping units* for the purpose of determining the number of units. Where the *sleeping units* are grouped into suites, only one *sleeping unit* in each suite shall count towards the number of required *Type A unit*

Exceptions:
1. The number of *Type A units* is permitted to be reduced in accordance with Section 1107.7.

2. *Existing structures* on a *site* shall not contribute to the total number of units on a *site*.

Melanie Butler brought forth correlating changes to be made.
Motion to adopt. Second. Adopted.

Item D – 11 Request from Robbie Davis, representing the NC Building Code Council Building/Fire Ad-Hoc Committees, to amend the 2018 NC Fire Prevention Code, Chapter 9, Section 903.4.1 Monitoring, as follows:

903.4.1 Monitoring.
Alarm, supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an *approved* supervising station, where approved by the *fire code official*, shall be an audible signal at a constantly attended location.

Exceptions:

1. Underground key or hub valves in roadway boxes provided by the municipality or public utility are not required to be monitored.

2. Backflow prevention device test valves located in limited area sprinkler system supply piping shall be locked in the open position. In occupancies required to be equipped with a fire alarm system, the backflow preventer valves shall be electrically supervised by a tamper switch installed in accordance with NFPA 72 and separately annunciated.

~~3. A group R-2 building sprinklered in accordance with NFPA 13R where sprinklers are provided for porches, balconies, corridors and stairs that are open and attached and installed supervised in accordance with Section 903.4. At a minimum an approved audible alarm device shall be provided on every sprinklered R-2 building in accordance with Section 903.4.2 of the North Carolina Fire Code. No on-site supervision is required at a constantly attended location.~~

Wade Hamilton discussed the basis for this and asked about companion changes in the building code as well.
Motion. Second. Adopted.

Super Committees approved all D items with their blessing.

Part E – Reports

- **Chairman's Report**
  There was discussion of preview codes being available online for free. It's limited but made to encourage people to purchase the CD.
  Discussion was had about being able to copy & paste without format problems.
  Goal for live on July 1st.

Council stated they like the 2-day schedule and would like to continue to follow that schedule for future meetings.
Monday 1/2 day with start being after lunch.
Tuesday Building Code Council meeting.
Proposed separate hearing dates from Council meetings.

Discussion was had regarding the possible use of SharePoint for documents instead of hard copies.

- **Ad-Hoc Committee Reports**
  None

- **Standing Committee Reports**
  None

- **Staff Reports**
  None.

- **Public Comments**
  None.

Part F – Appeals

The Rising Star Christian Academy Appeal was scheduled for Wednesday June 14, 2017. The appeal was dismissed. No further action is required.

The Nicholas De Gennaro Appeal was scheduled for Monday July 10, 2017. The appeal took place in the Albemarle Building, 325 North Salisbury Street, Raleigh, NC 27603, 2nd Floor Training Room 240.