

**Minutes of the North Carolina Building Code Council**  
**September 14, 2021**  
**Raleigh, NC**

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, December 14, 2021** at 325 Salisbury Street, Raleigh, NC.

Facebook Live was provided for the purpose of allowing the public to watch and listen the meeting as it was taking place.

A roll call of Council members was completed. All members of the North Carolina Building Code Council were present for the Council meeting except Ralph Euchner. The following members attended virtually: Charles Conner, Gloria Shealey, and Victoria Watlington.

**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 Swearing-in of new Council members**

The following new members were sworn-in at a special Building Code Council meeting that was held on August 20, 2021: Chris Berg, PE (Structural Engineer), David Gieser, RA (Building Inspector), Natalie MacDonald, PE (Mechanical Engineer), Gloria Shealey (General Contractor), and Jason Shepherd (Fire Services).

**Item A – 3 Election of Council Chairman**

The election of a new Chair took place at a special Building Code Council meeting that was held on August 20, 2021. Bridget Herring was elected to the position of Building Code Council Chair.

NOTE: Item C-6 from the June 8, 2021 meeting was left off the September 14, 2021 agenda in error. This item should have been moved to the D items for this meeting. A vote was held to add this item to the September 14, 2021 agenda as a D item.

**K. Humiston made a motion to amend the agenda to make item C-6 from the June 8, 2021 meeting item D-6 for this meeting. 2<sup>nd</sup> made by M. Ali.  
Motion passed.**

**Item A – 4 Approval of minutes of the June 8, 2021 NC Building Code Council meeting.**

**R. Zapple made a motion to approve the minutes. 2<sup>nd</sup> made by K. Humiston.  
Motion passed.**

**Item A – 5 Request for approval of an amendment to the Code of Ordinances of the Town of North Topsail Beach for the adoption of the 2018 NC Fire Code and Appendices.**

Charlie Johnson addressed the Council regarding this item giving his recommendation to approve the request.

**J. Shepherd made a motion to approve this request. 2<sup>nd</sup> made by K. Humiston.  
Motion passed.**

**Item A – 6 Request from the City of Burlington Inspections Department for approval to perform local plan review.**

Carl Martin addressed the Council regarding this item giving his recommendation to approve the request.

**R. Zapple made a motion to approve this request. 2<sup>nd</sup> made by D. Gieser.  
Motion passed.**

**Item A – 7 Rules Review Commission Meeting Report**

Carl Martin addressed the Council giving a summary on the status of items submitted. All code amendments submitted from the June 2021 meeting were accepted on July 15<sup>th</sup> except the 2020 Electrical Code.

Nathan Childs (Attorney for the NC Building Code Council) spoke regarding the objections of the 2020 Electrical Code that had been given to the RRC at an August 19<sup>th</sup> meeting. Those objections focused on how the code changes would impact the Residential Code for 1- 2- family dwellings. His recommendation was to re-submit the request and amend with an additional statement that the change ‘shall not apply to 1- and 2- family dwellings. The 2017 code shall apply to 1- and 2- family dwellings. He also proposed changing the effective date of the 2020 Electrical Code to November 1, 2021.

Before a vote could take place by the Commercial Super Committee, a new chair had to be elected.

**J. Shepherd made a motion to elect Michael Ali as the new Chair for the Commercial Super Committee. 2<sup>nd</sup> made by K. Humiston.  
Motion passed.**

**Commercial Super Committee: K. Humiston made a motion to adopt/retain the existing NC Code Amendment with the language modification suggested by the Council's attorney. 2<sup>nd</sup> made by D. Priest.  
Motion passed.**

**Building Code Council: D. Gieser made a motion to accept the recommendation from the Commercial Super Committee. 2<sup>nd</sup> made by K. Humiston.  
Motion passed.**

**2020 NEC NC amendments as passed at the June 8, 2021 meeting, as modified with technical changes required to comply with NC statutes highlighted in yellow and approved by the Council, now reads as follows:**

**Article 10 - ADMINISTRATIVE SECTION**

**10.1 TITLE**

These Administrative Regulations along with the requirements included in the 2020 Edition of the National Electrical Code (NFPA-70 - 2020) as adopted by the North Carolina Building Code Council on June 8, 2021, to be effective **November** 1, 2021, with the following amendments:

- |                          |                          |
|--------------------------|--------------------------|
| <u>(1) 110.26(E)(2)</u>  | <u>(17) 250.140</u>      |
| <u>(2) 210.8</u>         | <u>(18) 250.142(B)</u>   |
| <u>(3) 210.8(A)</u>      | <u>(19) 300.3(B)</u>     |
| <u>(4) 210.8(A)(2)</u>   | <u>(20) Table 300.5</u>  |
| <u>(5) 210.8(A)(3)</u>   | <u>(21) 300.9</u>        |
| <u>(6) 210.8(A)(5)</u>   | <u>(22) 320.23(A)</u>    |
| <u>(7) 210.8(B)(4)</u>   | <u>(23) 334.15(C)</u>    |
| <u>(8) 210.8(F)</u>      | <u>(24) 406.4(D)(4)</u>  |
| <u>(9) 210.12(D)</u>     | <u>(25) 410.2</u>        |
| <u>(10) 210.52(B)(2)</u> | <u>(26) 410.16(C)</u>    |
| <u>(11) 210.52(C)(2)</u> | <u>(27) 555.10(3)</u>    |
| <u>(12) 230.67</u>       | <u>(28) 555.35(A)(3)</u> |
| <u>(13) 230.71(B)</u>    | <u>(29) 680.4</u>        |
| <u>(14) 230.85</u>       | <u>(30) 680.21(D)</u>    |
| <u>(15) 250.50</u>       | <u>(31) 695.2</u>        |

shall be known as the North Carolina Electrical Code, and may be cited as such or as the State Electrical Code; and will be referred to herein as “the code” or “this code”. This code shall not apply to one- and two-family dwellings. The 2017 State Electrical Code shall apply to one- and two-family dwellings.

### **10.2 SCOPE**

Article 80 Administration and Enforcement of the code is hereby not adopted and does not apply for this code. For Scope and Exceptions to Applicability of Technical Codes, refer to the North Carolina Administrative Code and Policies. This code shall not apply to one- and two-family dwellings.

### **10.3 PURPOSE**

The purpose of the code is to provide minimum standards, provisions and requirements of safe and stable design, methods of construction and uses of materials in buildings or structures hereafter erected, constructed, enlarged, altered, repaired, moved, converted to other uses or demolished and to regulate the electrical systems, equipment, maintenance, use and occupancy of all buildings or structures. All regulations contained in this code have a reasonable and substantial connection with the public health, safety, morals, or general welfare, and their provisions shall be construed reasonably to those ends.

### **10.4 ADMINISTRATION**

For administrative regulations pertaining to inspection (rough-ins and finals), permits and Certificates of Electrical Compliance, see local ordinances and the North Carolina Administrative Code and Policies. When the provisions of other codes are determined to be contrary to the requirements of this code, this code shall prevail.

### **10.5 DEFINITION**

Unless the context indicates otherwise, whenever the word “building” is used in this chapter, it shall be deemed to include the word “structure” and all installations such as plumbing systems, heating systems, cooling systems, electrical systems, elevators and other installations which are parts of, or permanently affixed to, the building or structure.

### **10.6 APPLICATION OF CODE TO EXISTING BUILDINGS**

For requirements of existing structures, refer to the North Carolina Administrative Code and Policies.

## **10.7 SERVICE UTILITIES**

**10.7.1 Connection of Service Utilities** – No person shall make connections from a utility, source of energy, fuel or power to any building or system that is regulated by the technical codes until approved by the Inspection Department and a Certificate of Compliance is issued (General Statute 143-143.2)

**10.7.2 Authority to disconnect Service Utilities** – The Inspection Department shall have the authority to require disconnecting a utility service to the building, structure or system regulated by the technical codes, in case of emergency or where necessary to eliminate an imminent hazard to life or property. The Inspection Department shall have the authority to disconnect a utility service when a building has been occupied prior to Certificate of Compliance or entry into the building for purposes of making inspections cannot be readily granted. The Inspection Department shall notify the serving utility, and whenever possible the owner or occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant shall be notified in writing within eight (8) working hours (General Statutes 143-143.2, 153A-365, 153A-366, 160A-425 and 160A-426).

## **10.8 TEMPORARY POWER**

**10.8.1 Scope.** The provisions of this section apply to the utilization of portions of the wiring system within a building to facilitate construction.

**10.8.2 Provisions for Temporary Power.** The Code enforcement official shall give permission and issue a permit to energize the electrical service when the provisions of 10.8 and the following requirements have been met:

- 1) The service wiring and equipment, including the meter socket enclosure, are installed, the service wiring terminated, and the service equipment covers installed.
- 2) The portions of the electrical system that are to be energized are complete and physically protected.
- 3) The grounding electrode system is complete.
- 4) The grounding and the grounded conductors are terminated in the service equipment.
- 5) At least one receptacle outlet with ground fault circuit interrupter protection for personnel is installed with the circuit wiring terminated.
- 6) The applicable requirements of the North Carolina Electrical Code apply.

**10.8.3 Uses Prohibited.** In no case shall any portion of the permanent wiring be energized until the portions have been inspected and approved by an electrical Code Enforcement Official. Failure to comply with this section may result in disconnection of power or revocation of permit.

**10.8.4 Application for Temporary Power.** Application for temporary power shall be made by and in the name of the applicant. The application shall explicitly state the portions of the energized electrical system, mechanical system, or plumbing system for which application is made, its intended use and duration.

**10.8.5 Security and Notification.** The applicant shall maintain the energized electrical system or that portion of the building containing the energized

electrical system in a secured and locked manner or under constant supervision to exclude unauthorized personnel. The applicant shall alert personnel working in the vicinity of the energized electrical system to its presence.

### **10.9 REQUIREMENTS OF OTHER STATE AGENCIES, OCCUPATIONAL LICENSING BOARDS, OR COMMISSIONS**

The North Carolina State Building Codes do not include all additional requirements for buildings and structures that may be imposed by other State agencies, occupational licensing boards, and commissions. It shall be the responsibility of a permit holder, design professional, contractor, or occupational license holder to determine whether any additional requirements exist.

### **10.10 INSPECTIONS OF CABLE TIES FOR SECURING AND SUPPORTING OF WIRING METHODS.**

The electrical inspector shall not require evidence that cable ties are listed and identified where used for securement and support of wiring methods allowed in Chapter 3 of this code. Nothing in this section prohibits an electrical inspector from requiring evidence that cable ties are listed for use in a plenum where applicable.

#### **110.26(E)**

**(2) Outdoor.** Outdoor installations shall comply with 110.26(E)(2)(a) through (E)(2)(c).

(a) *Installation Requirements.* Outdoor electrical equipment shall be the following:

(1) Installed in identified enclosures

(2) Protected from accidental contact by unauthorized personnel or by vehicular traffic

(3) Protected from accidental spillage or leakage from piping systems

(b) *Work Space.* The working clearance space shall include the zone described in 110.26(A). No architectural appurtenance or other equipment shall be located in this zone.

*Exception: Structural overhangs or roof extensions shall be permitted in this zone.*

(c) ~~(Deleted) *Dedicated Equipment Space.* The space equal to the width and depth of the equipment, and extending from grade to a height of 1.8 m (6 ft) above the equipment, shall be dedicated to the electrical installation.~~

~~No piping or other equipment foreign to the electrical installation shall be located in this zone.~~

*Exception: Structural overhangs or roof extensions shall be permitted in this zone.*

### **210.8 Ground-Fault Circuit-Interrupter Protection for Personnel.**

Ground-fault circuit-interrupter protection for personnel shall be provided as required in 210.8(A) through (F). The ground-fault circuit interrupter shall be installed in a readily accessible location.

Informational Note No. 1: See 215.9 for ground-fault circuit-interrupter protection for personnel on feeders.

Informational Note No. 2: See 422.5(A) for GFCI requirements for appliances.

Informational Note No. 3: See 555.9 for GFCI requirements for boat hoists.

Informational Note No. 4: Additional GFCI requirements for specific circuits and equipment are contained in Chapters 4, 5, and 6.

For the purposes of this section, when determining the distance from receptacles the distance shall be measured as the shortest path the supply cord of an appliance connected to the receptacle would follow without piercing a floor, wall, ceiling, or fixed barrier, or the shortest path without passing through a window, door or doorway, excluding cabinet doors.

**(A) Dwelling Units.** All 125-volt through 250-volt receptacles installed in the locations specified in 210.8(A)(1) through (A)(11) and supplied by single-phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel.

*Exception: A 250-volt receptacle installed specifically for supplying a clothes dryer, range, oven, counter-mounted cooking unit, or similar household cooking appliance fastened in place shall not be required to have ground-fault circuit-interrupter protection.*

(2) Garages, and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use.

*Exception to (2): Single or duplex receptacles that are located more than 2.44 m (8 ft) above the floor and specifically for connection to permanently installed cord-and-plug garage door openers. A duplex receptacle shall only be permitted under this exception where two cord-and-plug garage door openers utilize both contact devices of the duplex receptacle.*

(3) Outdoors

*Exception No. 1 to (3): Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.*

*Exception No. 2 to (3): A single outlet receptacle supplied by a dedicated branch circuit that is located and identified for specific use by a sewage lift pump.*

(5) ~~Basements~~ Unfinished portions or areas of the basement not intended as habitable rooms

*Exception to (5): A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection.*

Informational Note: See 760.41(B) and 760.121(B) for power supply requirements for fire alarm systems.

Receptacles installed under the exception to 210.8(A)(5) shall not be considered as meeting the requirements of 210.52(G).

**(B) Other Than Dwelling Units.**

(4) Outdoors

*Exception No. 1 to (3) and (4): Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.*

*Exception No. 2 to (4): In industrial establishments only, where the conditions of maintenance and supervision ensure that only qualified personnel are involved, an assured equipment grounding conductor program as specified in 590.6(B)(2) shall be permitted for only those receptacle outlets used to supply equipment that would create a greater hazard if power is interrupted or having a design that is not compatible with GFCI protection.*

*Exception No. 3 to (4): A single outlet receptacle supplied by a dedicated branch circuit that is located and identified for specific use by a sewage lift pump.*

**(F) Outdoor Outlets.** ~~(Deleted) All outdoor outlets for dwellings, other than those covered in 210.8(A)(3), Exception to (3), that are supplied by single-phase branch circuits rated 150 volts to ground or less, 50 amperes or less, shall have ground-fault circuit-interrupter protection for personnel.~~

*Exception: Ground-fault circuit interrupter protection shall not be required on lighting outlets other than those covered in 210.8(C).*

### **210.12 Arc-Fault Circuit-Interrupter Protection.**

**(D) Branch Circuit Extensions or Modifications — Dwelling Units, Dormitory Units, and Guest Rooms and Guest Suites.** Where branch circuit wiring for any of the areas specified in 210.12(A), (B), or (C) is modified, replaced, or extended, the branch circuit shall be protected by one of the following:

- (1) By any of the means described in 210.12(A)(1) through (A)(6)
- (2) A listed outlet branch-circuit-type AFCI located at the first receptacle outlet of the existing branch circuit

*Exception: AFCI protection shall not be required where the extension of the existing branch circuit conductors is not more than ~~1.8 m (6 ft)~~ 15.24 m (50 ft) and does not include any additional outlets or devices, other than splicing devices. This measurement shall not include the conductors inside an enclosure, cabinet, or junction box.*

### **210.52 Dwelling Unit Receptacle Outlets.**

#### **(B) Small Appliances.**

**(2) No Other Outlets.** The two or more small-appliance branch circuits specified in 210.52(B)(1) shall have no other outlets.

*Exception No. 1: A receptacle installed solely for the electrical supply to and support of an electric clock in any of the rooms specified in 210.52(B)(1).*

*Exception No. 2: Receptacles installed to provide power for supplemental equipment and lighting on gas-fired ranges, ovens, or counter mounted cooking units.*

*Exception No. 3: Receptacles installed inside a dwelling and within 1.8 m (6 ft) of any kitchen sink measured by the shortest path the cord of an appliance connected to the receptacle would follow without piercing a floor, wall, ceiling, or fixed barrier.*

#### **(C) Countertops and Work Surfaces.**

~~**(2) Island and Peninsular Countertops and Work Surfaces.** Receptacle outlets shall be installed in accordance with 210.52(C)(2)(a) and (C)(2)(b).~~

**2) Island and Peninsular Countertops and Work Surfaces.** Receptacle outlets shall be installed in accordance with 210.52(C)(2)(a) ~~and~~, 210.52(C)(2)(b), 210.52(C)(2)(c), and 210.52(C)(2)(d).

~~(a) At least one receptacle outlet shall be provided for the first 0.84 m<sup>2</sup> (9 ft<sup>2</sup>), or fraction thereof, of the countertop or work surface. A receptacle outlet shall be provided for every additional 1.7 m<sup>2</sup> (18 ft<sup>2</sup>), or fraction thereof, of the countertop or work surface. **Island Countertop Spaces.** At least one receptacle shall be installed at each island countertop space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater.~~

~~(b) At least one receptacle outlet shall be located within 600 mm (2 ft) of the outer end of a peninsular countertop or work surface. Additional required receptacle outlets shall be permitted to be located as determined by the installer, designer, or building owner. The location of the receptacle outlets shall be in accordance with 210.52(C)(3). **Peninsular Countertop Spaces.** At least one receptacle outlet shall be installed at each peninsular countertop long dimension space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater. A peninsular countertop shall be measured from the connecting perpendicular wall. At least one receptacle outlet shall be located within 600 mm (2 ft) of the outer end of the peninsular countertop.~~

~~A peninsular countertop shall be measured from the connecting perpendicular wall.~~

~~(c) **Required and Additional Receptacles.** Receptacle outlets required by 210.52(C)(2) shall be in accordance with 210.52(C)(3). Additional receptacle outlets shall be permitted to be located outside the provisions of 210.52(C)(3).~~

~~(d) **Separate Spaces.** Countertop spaces separated by range-tops, refrigerators, or sinks shall be considered as separate countertop spaces in applying the requirements of 210.52(C)(2). If a range, counter-mounted cooking unit, or sink is installed in an island or peninsular countertop and the depth of the countertop behind the range, counter-mounted cooking unit, or sink is less than 300 mm (12 in.), the range, counter-mounted cooking unit, or sink shall be considered to divide the countertop space into two separate countertop spaces. Each separate countertop space shall comply with the applicable requirements in 210.52(C).~~

### **230.67 Surge Protection.** ~~(Deleted)~~

~~(A) **Surge Protective Device.** All services supplying dwelling units shall be provided with a surge protective device (SPD).~~

~~(B) **Location.** The SPD shall be an integral part of the service equipment or shall be located immediately adjacent thereto.~~

~~(C) **Type.** The SPD shall be a Type 1 or Type 2 SPD.~~

~~**Replacement.** Where service equipment is replaced, all of the requirements of this section shall apply~~

**230.71 Maximum Number of Disconnects.**

**(B) Two to Six Service Disconnecting Means.** Two to six service disconnects shall be permitted for each service by 230.2 or for each set of service-entrance conductors permitted by 230.40, Exception No. 1, 3, 4, or 5. The two to six service disconnecting means shall be permitted to consist of a combination of any of the following:

- (1) Separate enclosures with a main service disconnecting means in each enclosure
- (2) Panelboards with a main service disconnecting means in each panelboard enclosure
- (3) Switchboard(s) where there is only one service disconnect in each separate vertical section where there are barriers separating each vertical section
- (4) Service disconnects in switchgear or metering centers where each disconnect is located in a separate compartment
- (5) Panelboards for temporary electrical service installations (saw service pole) at a construction site provided all the following:
  - a. ungrounded circuits do not exceed 150 volts to ground
  - b. the summation of the ratings of the overcurrent devices that serve together as the disconnecting means does not exceed 100 amperes
  - c. the number of circuit breaker handles, identified handle ties, or combination thereof that operate as the service disconnecting means does not exceed six operations of the hand

**230.85 Emergency Disconnects.** For one- and two-family dwelling units, all service conductors shall terminate in disconnecting means having a short-circuit current rating equal to or greater than the available fault current, installed in a readily accessible outdoor location. If more than one disconnect is provided, they shall be grouped. Each disconnect shall be one of the following:

- (1) Service disconnects marked as follows:

EMERGENCY DISCONNECT,  
SERIVCE DISCONNECT

- (2) Meter disconnects installed per 230.82(3) and marked as follows:

EMERGENCY DISCONNECT,  
METER DISCONNECT,  
NOT SERVICE EQUIPMENT

- (3) Other listed disconnect switches or circuit breakers on the supply side of each service disconnect that are suitable for use as service equipment and marked as follows:

EMERGENCY DISCONNECT,  
NOT SERVICE EQUIPMENT

Markings shall comply with 110.21(B). Transfer switches and panelboards, including meter-panel combination enclosures, that include a main breaker or other listed means to disconnect all service conductors shall be considered emergency disconnects and shall comply with subsection (1) of this section when installed as a service disconnect.

**250.50 Grounding Electrode System.** All grounding electrodes as described in 250.52(A)(1) through (A)(7) that are ~~present~~ available at each building or structure served shall be bonded together to form the grounding electrode system. Where none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A)(4) through (A)(8) shall be installed and used.

*Exception: Concrete-encased electrodes of existing buildings or structures shall not be required to be part of the grounding electrode system where the steel reinforcing bars or rods are not accessible for use without disturbing the concrete.*

**250.53 Grounding Electrode Required.**

**(A) Rod, Pipe, and Plate Electrodes.**

**(2) Supplemental Electrode Required.** A single rod, pipe, or plate electrode shall be supplemented by an additional electrode of a type specified in 250.52(A)(2) through (A)(8). The supplemental electrode shall be permitted to be bonded to one of the following:

- (1) Rod, pipe, or plate electrode
- (2) Grounding electrode conductor
- (3) Grounded service-entrance conductor
- (4) Nonflexible grounded service raceway
- (5) Any grounded service enclosure

*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 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.

**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) ~~The grounded conductor is insulated, or the grounded conductor is uninsulated and part of a Type SE service-entrance cable and the branch circuit originates at the service equipment.~~ Any of the following:*

*a. The grounded conductor is insulated;*

*b. The grounded conductor is uninsulated and part of 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.

## **250.142 Use of Grounded Circuit Conductor for Grounding Equipment.**

**(B) Load-Side Equipment.** Except as permitted in 250.30(A)(1), 250.32(B)(1), Exception No.1, and Part X of Article 250, a grounded circuit conductor shall not be connected to 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 connect meter enclosures to the grounded circuit conductor on the load side of the service disconnect if all of the following conditions apply:*

*(1) Ground-fault protection of equipment is not 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: Electrode-type boilers operating at over 1000 volts shall be grounded as required in 490.72(E)(1) and 490.74.*

*Exception No. 4: 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.

### **300.3 Conductor.**

**(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, cablebus 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(G). 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 250.122. Connections, taps, or extensions made from paralleled conductors shall connect to all conductors of the paralleled set, grounded and ungrounded, as applicable. Parallel runs in cable trays 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, neutral, and grounded conductor installations. The raceways shall be installed in close proximity, and the isolated phase, neutral, and grounded 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, 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 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 330.31, 330.116, and 300.20(B).

**(4) Column-Width Panelboard 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 the supply feeder of an existing panelboard in one-and two-family dwellings 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.

**Table 300.5 Minimum Cover Requirements, 0 to 1000 Volts, Nominal, Burial in Millimeters (Inches)**

Location of Wiring Method or Circuit	Type of Wiring Method or Circuit									
	Column 1 Direct Burial Cables or Conductors		Column 2 Rigid Metal Conduit or Intermediate Metal Conduit		Column 3 Nonmetallic Raceways Listed for Direct Burial Without Concrete Encasement or Other Approved Raceways		Column 4 Residential <del>Branch</del> Circuits Rated <del>120</del> 250 Volts or Less with GFCI Protection and Maximum Overcurrent Protection of <del>20</del> 50 Amperes		Column 5 Circuits for Control of Irrigation and Landscape Lighting Limited to Not More Than 30 Volts and Installed with Type UF or in Other Identified Cable or Raceway	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
All locations not specified below	600	24	150	6	450	18	300	12	150 <sup>a,b</sup>	6 <sup>a,b</sup>
In trench below 5 mm (2 in.) thick concrete or equivalent	450	18	150	6	300	12	150	6	150	6
Under a building	0	0	0	0	0	0	0	0	0	0
	(in raceway or Type MC or Type MI cable identified for direct burial)						(in raceway or Type MC or Type MI cable identified for direct burial)		(in raceway or Type MC or Type MI cable identified for direct burial)	
Under minimum of 102 mm (4 in.) thick concrete exterior slab with no vehicular traffic and the slab extending not less than 152 mm (6 in.) beyond the underground installation	450	18	100	4	100	4	150	6	150	6
							(direct burial)		(direct burial)	
							100	4	100	4
							(in raceway)		(in raceway)	
Under streets, highways, roads, alleys, driveways, and parking lots	600	24	600	24	600	24	600	24	600	24
One- and two-family dwelling driveways and outdoor parking areas, and used only for dwelling-related purposes	450	18	450	18	450	18	300	12	450	18
In or under airport runways, including adjacent areas where trespassing prohibited	400	18	450	18	450	18	450	18	450	18

<sup>a</sup>A lesser depth shall be permitted where specified in the installation instructions of a listed low-voltage lighting system.

<sup>b</sup>A depth of 150 mm (6 in.) shall be permitted for pool, spa, and fountain lighting, installed in a nonmetallic raceway, limited to not more than 30 volts where part of a listed low-voltage lighting system.

Notes:

1. Cover is defined as the shortest distance in mm (in.) measured between a point on the top surface of any direct-buried conductor, cable, conduit, or other raceway and the top surface of finished grade, concrete, or similar cover.

2. Raceways approved for burial only where concrete encased shall require concrete envelope not less than 50 mm (2 in.) thick.
3. Lesser depths shall be permitted where cables and conductors rise for terminations or splices or where access is otherwise required.
4. Where one of the wiring method types listed in Columns 1 through 3 is used for one of the circuit types in Columns 4 and 5, the shallowest depth of burial shall be permitted.
5. Where solid rock prevents compliance with the cover depths specified in this table, the wiring shall be installed in a metal raceway, or a nonmetallic raceway permitted for direct burial. The raceways shall be covered by a minimum of 50 mm (2 in.) of concrete extending down to rock.

**300.9 Raceways in Wet Locations Abovegrade.** Where raceways are installed in wet locations abovegrade, the interior of these raceways shall be considered to be a wet location. Insulated conductors and cables installed in raceways in wet locations above grade shall comply with 310.10(C).

Exception: The interior of these raceways shall not be considered a wet location if:

(1) The section of raceway routed in a wet location above grade does not exceed 1.8 m (6 ft) in length;

(2) Any fittings or conduit bodies are watertight and listed for use in wet locations; and

(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; or

c. Equipment listed for use in a wet location.

**320.23 In Accessible Attics.** Type AC cables in accessible attics or roof spaces shall be installed as specified in 320.23(A) and (B).

**(A) Cabled Run Across the Top of Floor Joists.** ~~Where run across the top of floor joists, or within 2.1 m (7 ft) of the floor or floor joists across the face of ceiling rafters or studding, the cable shall be protected by guard strips that are at least as high as the cable, unless the cables are physically considered outside any floored area. Where this space is not accessible by permanent stairs or ladders, protection shall only be required within 1.8 m (6 ft) of the nearest edge of the scuttle hole or attic entrance where cables are run across the top of floor (ceiling) joists. The cable shall be protected by guard strips that are at least as high as the cable where one of the following applies:~~

(1) Where this space is accessible by permanent stairs or ladders, protection shall be required in the area directly over a permanent floor not exceeding 2.1 m (7 ft) vertically from the floor, or where run across the top of floor joists.

(2) Where this space is not accessible by permanent stairs or ladders, protection shall be required within 1.8 m (6 ft) horizontally of the nearest edge of the scuttle hole or attic entrance where run across the top of any flooring, or flooring or ceiling joists. Protection is not required where run across the face of overhead roofing trusts or rafters.

Exception: For the purpose of this section, pull-down type stairs and portable ladders are not to be considered as permanent stairs or ladders.

### **334.15 Exposed Work.**

**(C) In Unfinished Basements and Crawl Spaces.** Where cable is run at angles with joists in unfinished basements and crawl spaces, it shall be permissible to secure cables not smaller than two 6 AWG or three 8 AWG conductors directly to the lower edges of the joists. Smaller cables shall be run either through bored holes in joists or on running boards. Nonmetallic-sheathed cable installed on the wall of an unfinished basement shall be permitted to be installed in a listed conduit or tubing or shall be protected in accordance with 300.4. Conduit or tubing shall be provided with a suitable insulating bushing or adapter at the point the cable enters the raceway. The sheath of the nonmetallic-sheathed cable shall extend through the conduit or tubing and into the outlet or device box not less than 6 mm (1/4 in.). The cable shall be secured within 300 mm (12 in.) of the point where the cable enters the conduit or tubing. Metal conduit, tubing, and metal outlet boxes shall be connected to an equipment grounding conductor complying with the provisions of 250.86 and 250.148.

**406.4(D)(4) Arc-Fault Circuit-Interrupter Protection.** ~~(Deleted) If a receptacle outlet located in any areas specified in 210.12(A), (B), or (C) is replaced, a replacement receptacle at this outlet shall be one of the following:~~

~~(1) A listed outlet branch circuit type arc fault circuit interrupter receptacle~~

~~(2) A receptacle protected by a listed outlet branch circuit type arc fault circuit interrupter type receptacle~~

~~(3) A receptacle protected by a listed combination type arc fault circuit interrupter type circuit breaker~~

~~Exception: Section 210.12(D), Exception, shall not apply to replacement of receptacles.~~

**410.2 Definition.** The definition in this section shall apply only within this article.

**Clothes Closet Storage Space.** The volume bounded by the sides and back closet walls and planes extending from the closet floor vertically to a height of 1.8 m (6 ft) or to the highest clothes-hanging rod and parallel to the walls at a

horizontal distance of 600 mm (24 in.) from the sides and back of the closet walls, respectively, and continuing vertically to the closet ceiling parallel to the walls at a horizontal distance of 300 mm (12 in.) or the width of the shelf, whichever is greater; for a closet that permits access to both sides of a hanging rod, this space includes the volume below the highest rod extending 300 mm (12 in.) on either side of the rod on a plane horizontal to the floor extending the entire length of the rod. See Figure 410.2.

Exception: Where a shelf is not present in the area of wall above the closet's entrance opening or doorway extending from the top of such opening or doorway vertically to the ceiling, including the area of ceiling extending perpendicular from the area of wall directly above the closet's entrance opening or doorway to a horizontal distance of 300 mm (12 in.), this shall not be defined as closet storage space. See Figure 410.2 Exception.

## **Item A – 8 Public Comments**

Kaine Riggan with the Department of Public Safety spoke to the Council regarding the six-year code cycle. He explained how cities and counties of North Carolina have the potential to lose millions of dollars from FEMA funding by continuing to use the six-year cycle as it impacts the grading/scoring system used to determine who receives funding.

Carl Martin, NC DOI Staff, also addressed the Council regarding the six-year cycle and how it impacts the ISO ratings, potentially causing higher insurance rates.

Tim Henshaw, Greensboro Fire Department, also addressed the Council regarding the six-year cycle and confirmed the ISO process and its impact on insurance rates.

A request was made for the Council to vote on researching the impact of the 6-year code cycle on the state.

Cody Campbell, local valet trash owner, spoke to the Council regarding the effective date of the 2018 NC Fire Code Section 304.4.2.3 and how the limited availability and expense of approved trash cans will have a negative impact on his business.

**Residential Super Committee: C. Berg made a motion to study the 3-year versus the 6-year code cycle. 2<sup>nd</sup> made by D. Gieser.  
Motion passed.**

**Commercial Super Committee: D. Gieser made a motion to study the code cycle. 2<sup>nd</sup> made by M. Humiston.  
Motion passed.**

**Building Code Council: M. Humiston made a motion to study the code cycle. 2<sup>nd</sup> made by N. MacDonald.  
Motion passed.**

## Part B – New Petition for Rulemaking

The following Petitions for Rulemaking have been received since the last Council meeting. The Council voted either to deny or grant these Petitions. The Council gives 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 December 14, 2021 meeting.

### Item B – 1 Request by David Smith representing the NC BCC Residential Ad Hoc Committee to amend the 2018 NC Residential Building Code, Section R404.4 as follows:

**R404.4 Retaining Walls.** Retaining walls that meet the following shall be designed by a *registered design professional*.

1. Any retaining wall ~~systems~~ on a residential site that cross over adjacent property lines regardless of vertical height, or
2. Retaining walls that support buildings and their accessory structures, undercutting footings 10' or less per R403.1.9 and Figure 403.1.9, or
3. Individual Retaining walls supporting unbalanced backfill exceeding 4 feet (1219mm) 5 feet (1524 mm) of unbalanced backfill in height within a horizontal distance of 15 feet (4572 mm) or less, or
4. Multiple Retaining walls systems providing a cumulative vertical relief of unbalanced backfill heights greater than 5 Feet (1524 mm) in height within a horizontal separation distance of 50 feet (15M) 15 feet (4572 mm) or less.

Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning.

David Smith spoke to the Council on this item.

**Residential Super Committee: D. Smith made a motion to accept this item. 2<sup>nd</sup> made by D. Shearin.**

**Motion passed.**

**Building Code Council: D. Priest made a motion to accept this item. 2<sup>nd</sup> made by D. Gieser.**

**Motion passed.**

### Item B – 2 Request by Carl Martin representing the Department of Insurance to amend the 2018 NC Building Code, Section 116 as follows:

## SECTION 116 UNSAFE STRUCTURES AND EQUIPMENT

~~Deleted. See the North Carolina Administrative Code and Policies~~

**116.1 General.** Unsafe structures and equipment must comply with the NC Administrative Code and Policies, Section 204.2.8.

**116.2 Public access.** The structure owner or his representative shall secure the unsafe structure by a method *approved* by the local *building official* to prevent public access. The *approved* method shall be in place within the time limit specified in writing by the *building official* in the notice of unsafe building.

Carl Martin spoke to the Council on this item.

**Commercial Super Committee: D. Priest made a motion to accept this item. 2<sup>nd</sup> made by J. Shepherd.  
Motion passed.**

**Building Code Council: D. Priest made a motion to accept this item. 2<sup>nd</sup> made by C. Berg.  
Motion passed.**

**Item B – 3 Request by Carl Martin representing the Department of Insurance to amend the 2018 Building Code, Section 3006.2 as follows:**

**3006.2 Hoistway opening protection required.** Elevator hoistway door openings for occupied and unoccupied stories shall be protected in accordance with Section 3006.3 where an elevator hoistway connects more than three *stories*, is required to be enclosed within a *shaft enclosure* in accordance with Section 712.1.1 and any of the following conditions apply:

1. The building is not protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
2. The building contains a Group I-1, Condition 2 occupancy.
3. The building contains a Group I-2 occupancy.
4. The building contains a Group I-3 occupancy.
5. The building is a high rise and the elevator hoistway is more than 75 feet (22 860 mm) in height. The height of the hoistway shall be measured from the *lowest floor* to the highest floor of the floors served by the hoistway.

### **Exceptions:**

1. Protection of elevator hoistway door openings is not required where the elevator serves only *open parking garages* in accordance with Section 406.5.
2. Protection of elevator hoistway door openings is not required at the level(s) of exit discharge, provided that the level(s) of exit discharge is equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

3. Enclosed elevator lobbies and protection of elevator hoistway door openings are not required on levels where the elevator hoistway opens to the exterior.

Carl Martin spoke to the Council regarding this item.

**Commercial Super Committee: D. Priest made a motion to accept this item. 2<sup>nd</sup> made by M. Humiston.**

**Motion passed.**

**Building Code Council: D. Gieser made motion to accept this item. 2<sup>nd</sup> made by M. Ali.**  
**Motion passed.**

**Item B – 4 Request by Carl Martin representing the Department of Insurance to amend the 2018 NC Building Code, Section 3006.3 as follows:**

**3006.3 Hoistway opening protection.** Where Section 3006.2 requires protection of the elevator hoistway door opening, the protection shall be provided by one of the following:

1. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway *shaft enclosure* doors from each floor by fire partitions in accordance with Section 708. In addition, doors protecting openings in the elevator lobby enclosure walls shall comply with Section 716.5.3 as required for *corridor* walls. Penetrations of the enclosed elevator lobby by ducts and air transfer openings shall be protected as required for *corridors* in accordance with Section 717.5.4.1.

2. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway *shaft enclosure* doors from each floor by smoke partitions in accordance with Section 710 where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition, doors protecting openings in the *smoke partitions* shall comply with Sections 710.5.2.2, 710.5.2.3 and 716.5.9. Penetrations of the enclosed elevator lobby by ducts and air transfer openings shall be protected as required for *corridors* in accordance with Section 717.5.4.1.

3. Additional doors shall be provided at each elevator hoistway door opening in accordance with Section 3002.6. Such door shall comply with the smoke and draft control door assembly requirements in Section 716.5.3.1 when tested in accordance with UL 1784 without an artificial bottom seal and contain a vision panel as allowed by Table 716.5. The door shall not be installed in a way that affects the fire-resistance-rating or operation of the normal elevator shaft doors.

4. The elevator hoistway shall be pressurized in accordance with Section 909.21.

Carl Martin spoke to the Council regarding this item.

**Commercial Super Committee: J. Shepherd made a motion to accept this item. 2<sup>nd</sup> made by D. Priest.  
Motion passed.**

**Building Code Council: D. Gieser made a motion to accept this item. 2<sup>nd</sup> made by D. Priest.  
Motion passed.**

**Item B – 5 Request by Colin Triming representing the NC Fire Code Revision Committee to amend the 2018 NC Fire Code, Section 304.4.2.3 as follows:**

**304.4.2.3.** Containers used for valet trash collection shall not exceed a capacity of 2.0 cubic feet (15 gallons, 0.06 cubic meters) and shall be provided with tight-fitting or self-closing lids. Containers and lids shall ~~comply with either:~~

~~1. Containers and lids located in an area that is protected by fire sprinklers shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 300 kW/m<sup>2</sup> when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m<sup>2</sup> in the horizontal orientation. Containers and lids shall be listed or bear the label of an approved agency that validates compliance with this requirement.~~

~~2. Containers and lids located in an area that is not protected by fire sprinklers shall be constructed entirely of noncombustible materials or materials that meet a peak rate of heat release not exceeding 150 kW/m<sup>2</sup> when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m<sup>2</sup> in the horizontal orientation. Containers and lids shall be listed or bear the label of an approved agency that validates compliance with this requirement~~

Tim Henshaw stepped in for Colin Triming to speak to the Council regarding this item.

**Commercial Super Committee: J. Shepherd made a motion to accept this item. 2<sup>nd</sup> made by D. Gieser.  
Motion passed.**

**Building Code Council: J. Shepherd made a motion to accept this item. 2<sup>nd</sup> made by G. Embler.  
Motion passed.**

**Commercial Super Committee: J. Shepherd made a motion to delay the effective date of Item D-1 of the September 2020 meeting to June 1, 2022 in order to allow additional time for companies to get the approved trash cans in their supply for customers. 2<sup>nd</sup> made by M. Humiston.  
Motion passed.**

**Building Code Council: G. Embler made a motion to accept the delayed effective date of Item D-1 of the September 2020 meeting to June 1, 2022. 2<sup>nd</sup> made by M. Ali. Motion passed.**

**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 on September 14, 2021 and the Final Adoption meeting may take place on or after December 14, 2021. The written public comment period expires on October 15, 2021.

**Item C – 1 Request by Carl Martin representing the Department of Insurance to amend the NC Administrative Code, Section 204.3.5 as follows (210608 Item B-1):**

**204.3.5 Design professional seal required.** Where the General Statutes require, no permit shall be issued unless the construction documents (drawings and specifications), bear the North Carolina seal of a registered design professional. Construction documents shall include the name and address of the business entity (individual, corporation or partnership) with whom the registered design professional is affiliated. Questions concerning this section should be directed to the North Carolina Board of Architecture or the North Carolina Board of Examiners for Engineers and Land Surveyors.

**Exceptions:** For permitting purposes, the seal of a registered design professional is not required when the building, structure or project involved is in one of the categories listed below, unless otherwise required pursuant to the provisions of the General Statutes or the technical codes:

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;
2. A building upon any farm that is for the use of any farmer, unless the building is of such nature and intended for such use as to substantially involve the health or safety of the public;
3. An institutional or commercial building if it does not have a total cost of construction exceeding ~~\$90,000~~ \$200,000;
4. An institutional or commercial building if the total building area does not exceed ~~2,500~~ 3,000 square feet (2.32 m<sup>2</sup>) in gross floor area;
5. Alteration, remodeling or renovation of an existing building that is exempt under this section, or alteration, remodeling or renovation of an existing building or building site that does not alter or affect the structural system of the building; change the building's access or exit pattern; or change the live or dead load on the building's structural system. This subdivision shall not limit

or change any other exemptions to this chapter or to the practice of engineering under Chapter 89C of the General Statutes.

6. The preparation and use of details and shop drawings, assembly or erection drawings, or graphic descriptions utilized to detail or illustrate a portion of the work required to construct the project in accordance with the plans and specifications prepared or to be prepared under the requirements or exemptions of this chapter.

7. Nothing in this ~~chapter~~ section shall be construed to prevent any individual from making plans or data for buildings for himself or herself. This exemption does not apply to plans for places of religious worship.

(General Statute 83A-13)

Carl Martin spoke to the Council as the proponent of this item.

**Item C – 2 Request by Carl Martin representing the Department of Insurance to amend the NC Administrative Code, Sections 106.3.1 and 106.3.2 as follows** (210608 Item B-2):

**106.3.1 Information required.** A permit application shall be filed with the Inspection Department on a form (see Appendix A) 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~~ Building Code Summary (see ~~Appendix A of the Administrative Code and Policies~~ Appendix B) complying with 106.3.2.

**Exception:** A Building Code Summary is not required if the AHJ determines plan review can be performed without the Building Code Summary.

**106.3.2 Building Code Summary.** ~~The Inspection Department's building code summary~~ Building Code Summary used by an AHJ shall be in the exact format as, and contain only the information in, Appendix B of the Administrative Code and Policies. ~~The Inspection Department~~ An AHJ shall only modify ~~its the building code summary~~ Building Code Summary as set forth in Section 103.5 Modifications, or as necessary to reflect any changes by the Office of State Fire Marshal to Appendix B which have been approved by the Building Code Council.

Carl Martin spoke to the Council as the proponent of this item.

**Item C – 3 Request from Jeff Griffin and Bob Haynes representing the NC Building Inspector’s Association to amend the 2018 NC Residential Building Code, Sections R302.2, R313.1, and R202 as follows (210608 Item B-7):**

**R302.2 Townhouses.** Each *townhouse* shall be considered a separate building and shall be separated by fire-resistance rated wall assemblies meeting the requirements of Section ~~R302.1 for exterior walls.~~ R302.2.1 or R302.2.2.

**Exception:** ~~If an automatic residential fire sprinkler is installed, a common 1-hour fire resistance rated wall assembly tested in accordance with ASTM E119 or UL263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior wall sheathing and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Section R302.4.~~

**R302.2.1 Double walls.** Each townhouse shall be separated by two 1-hour fire resistance-rated wall assemblies tested in accordance with ASTM E11, UL263 or Section 703.3 of the 2018 NC Building Code.

**R302.2.2 Common Walls.** Common walls separating townhouses shall be assigned a fire-resistance rating in accordance with Item #1 or 2. The common wall shared by two townhouses shall be constructed without plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be in accordance with Chapter 34 through 43. Penetrations of the membrane of common walls for electrical outlet boxes shall be in accordance with Section R302. 4.

1. Where a fire sprinkler system in accordance with Section P2904 is provided, the common wall shall be not less than a 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263 or Section 703.3 of the NC Building Code.

2. Where a fire sprinkle in accordance with Section P2904 is not provided, the common wall shall be not less than a 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263 or Section 703.3 of the NC Building Code.

**R302.2.5 Townhouse eave protection.** In townhouse construction (~~with three or more attached dwellings~~) projections extending into the fire separation distance shall have not less than 1-hour fire resistive construction on the underside. Soffit material beyond the fire separation distance shall be securely attached to framing members and shall be constructed using either

noncombustible soffit material; fire-retardant-treated soffit material; vinyl soffit installed over 3/4-inch (19 mm) wood sheathing or 5/8-inch (15.9 mm) gypsum board; or aluminum soffit installed over 3/4-inch (19 mm) wood sheathing or 5/8-inch (15.9mm) gypsum board. Venting requirements shall be provided in both soffit and underlayment's. Vents shall be either nominal 2-inch (51 mm) continuous or equivalent intermittent and shall not exceed the minimum net free air requirements established in Section R806.2 by more than 50 percent. Vents in soffit are not allowed within 4 feet (1219 mm) of fire walls or property lines.

**R313.1 Townhouse automatic fire sprinkler systems. (Deleted)**

~~An automatic residential fire sprinkler system shall be installed in townhouses.~~

**Exceptions:**

~~1. Townhouses constructed with a common 2-hour fire resistance rated wall assembly tested in accordance with ASTM E119 or UL 263, provided such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior wall sheathing and the underside of the roof sheathing. Electrical installations shall be installed in accordance with the *North Carolina Electrical Code*. Penetrations for electrical outlet boxes shall be in accordance with Section R302.4.~~

~~2. An automatic residential fire sprinkler system shall not be required where additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed~~

**R202 Definitions.**

**[RB] DWELLING.** Any building that contains one or two dwelling units (duplex) on the same parcel of land, used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes.

**[RB] DWELLING UNIT.** A single unit providing complete independent living facilities for a single family ~~one or more persons~~, including permanent provisions for living, sleeping, eating, cooking and sanitation.

**[RB] TOWNHOUSE.** A single-family dwelling unit constructed in a group of two ~~three~~ or more attached units separated by property lines in which each unit extends from foundation to roof and with a yard or public way on not less than two sides.

Robert Privott with the NC Home Builders Association spoke to the Council in opposition of 302.2. He suggested that once a D – item, this be sent back to the Ad-Hoc committee to discuss more and clean-up the language.

**Item C – 4 Request from Bob Haynes & Jeff Griffin representing the NC Building Inspectors Association to amend the 2018 NC Residential Building Code, Appendix Q and delete Section R328 as follows (210608 Item B-8):**

**APPENDIX Q**  
**TINY HOUSES**

The provisions contained in this appendix are adopted as part of this code.

**SECTION AQ101**  
**GENERAL**

**AQ101.1 Scope.** This appendix shall be applicable to *tiny houses* used as *single dwelling unit*. *Tiny houses* shall comply with this code except as otherwise stated in this appendix.

**SECTION AQ102**  
**DEFINITIONS**

**AQ102.1 General.** The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

**LANDING PLATFORM.** A landing provided as the top step of a stairway accessing a *loft*.

**HABITABLE LOFT.** A floor level located more than 30 inches above the main floor and open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches and used as a living or sleeping space.

**TINY HOUSE.** A *dwelling* that is 400 square feet or less in floor area excluding *lofts*.

**SECTION AQ103**  
**LOFTS**

**AQ103.1 General.** *Lofts* used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AQ103.1.1 through AQ103.1.4.

**AQ103.1.1 Minimum area.** *Lofts* shall have a floor area of not less than 35 square feet.

**AQ103.1.2 Minimum dimensions.** *Lofts* shall be not less than 5 feet in any horizontal dimension.

**AQ103.1.3 Minimum ceiling height.** *Habitable space* and hallways in *tiny houses* shall have a ceiling height of not less than 6 feet 8 inches. Bathrooms, toilet rooms and kitchens shall have a ceiling height of not less than 6 feet 4 inches. Obstructions including, but not limited to, beams, girders, ducts and lighting, shall not extend below these minimum ceiling heights.

**Exception:** Ceiling heights in *lofts* are permitted to be less than 6 feet 8 inches.

**AQ104.1.4 Height effect on loft area.** Portions of a *loft* with a sloped ceiling measuring less than 3 feet from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

**Exception:** Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a *loft* with a sloped ceiling measuring less than 16 inches from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

**SECTION AQ104**  
**MEANS OF EGRESS**

**AQ104.1 Loft access.** The access to and primary egress from lofts shall be of any type described in Sections AQ104.2.1 through AQ104.2.4.

**AQ104.2.1 Stairways.** Stairways accessing lofts shall comply with this code or with Sections AQ104.2.1.1 through AQ104.2.1.5.

**AQ104.2.1.1 Width.** Stairways accessing a loft shall not be less than 20 inches in clear width including handrail.

**AQ104.2.1.2 Headroom.** The headroom in stairways accessing a loft shall be not less than 6 feet 2 inches, as measured vertically, from a sloped line connecting the tread or landing platform nosing in the middle of their width.

**AQ104.2.1.3 Treads and risers.** Risers for stairs accessing a loft shall be a maximum of 12 inches in height and every riser shall be uniform within a tolerance of  $\frac{3}{4}$ ". Tread depth shall be a minimum 12" with all treads uniform within a tolerance  $\frac{3}{4}$ ".

**AQ104.2.1.4 Landing platforms.** The top tread and riser of stairways accessing lofts shall be constructed as a landing platform where the loft ceiling height is less than 6 feet 2 inches where the stairway meets the loft. The landing platform shall be the width of the stairs with a minimum depth of 18" inches measured from the nosing of the landing platform to the edge of the loft, and 16 to 18 inches in height measured from the landing platform to the loft floor.

**AQ104.2.1.5 Handrails.** Handrails shall comply with Section R311.7.8.

**AQ104.2.1.6 Stairway guards.** Guards at open sides of stairways shall comply with Section R312.1.

**AQ104.2.2 Ladders.** Non-removable ladders accessing lofts shall comply with Sections AQ104.2.2.1.

**Exception:** Ladders that slide out of away from the loft opening that are with reach of the loft occupant.

**AQ104.2.2.1 Size and capacity.** Ladders accessing lofts shall have a rung width of not less than 12 inches, and no more than 18-inches spacing between rungs. Ladders shall be capable of supporting a 200-pound load on any rung. Rung spacing shall be uniform within  $\frac{3}{8}$  inch.

**AQ104.2.3 Ship's ladders.** Ship's ladders accessing lofts shall be installed at 70 to 80 degrees from horizontal are permitted to be used as an element of a means of egress from lofts. Ship ladders shall comply with Sections R311.7.12.

**AQ104.2.4 Loft Guards.** Loft guards complying with R312.1 shall be located along the open side of lofts. Loft guards shall be not less than 36 inches in height or one-half of the clear height to the ceiling, whichever is less.

**SECTION AQ105**  
**EMERGENCY ESCAPE AND RESCUE**

**AS105.1 Emergency Escape and Rescue.** Tiny houses and their lofts shall meet the requirements of Section R310 for emergency escape and rescue openings.

**SECTION AQ106**  
**SMOKE AND CARBON MONOXIDE DETECTORS**

**AQ106.1 Smoke and Carbon monoxide detectors.** Smoke and carbon monoxide detectors shall be installed as required in Sections R314 and R315 and just below the highest point of any loft.

**SECTION AQ107**  
**FOUNDATION**

**AQ107.1 Foundation options.** Tiny Houses are permitted to be constructed without a masonry or concrete foundation per Section AQ107.1.1 and AQ107.1.2, except in *coastal high hazard, ocean hazard and flood hazard areas.*

**AQ107.1.1 Wood Foundation.** The building is supported on a wood foundation of minimum 4-inch by 4-inch or 6-inch by 6-inch mudsill or runner of approved wood in accordance with Section R317. Structural floor system which include joists and subfloor material shall also comply with Section R317, item #1.

**AQ107.1.2. Anchorage.** Tiny houses with wood foundations per AQ107 shall be designed and anchored to resist overturning and sliding.

**Exception:** Tiny houses with no more than 12' vertical mean roof height shall be anchored to resist overturning and sliding by installing a minimum of one ground anchor at each corner of the building. The total resisting force of the anchors shall be equal to 20psf (958 Pa) times the plan area of the building.

**Section R202**  
**Definitions**

**LANDING PLATFORM.** A landing provided as the top step of a stairway accessing a loft.

**LOFT.** A floor level located more than 30 inches (762 mm) above the main floor and open to it on at least one side with a ceiling height of less than 6 feet 8 inches (2032 mm), used as a living or sleeping space.

**R305.1 Minimum height.** Habitable space, hallways and portions of basements containing these spaces shall have a ceiling height of not less than 7 feet (2134 mm). Bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches (2032 mm).

**Exceptions:**

1. For rooms with sloped ceilings, the required floor area of the room shall have a ceiling height of not less than 5 feet (1524 mm) and not less than 50 percent of the required floor area shall have a ceiling height of not less than 7 feet (2134 mm).

2. The ceiling height above bathroom and toilet room fixtures shall be such that the fixture is capable of being used for its intended purpose. A shower or tub equipped with a showerhead shall have a ceiling height of not less than 6 feet 8 inches (2032 mm) above an area of not less than 30 inches (762 mm) by 30 inches (762 mm) at the showerhead.
3. Beams, girders, ducts or other obstructions in *habitable space* shall be permitted to project to within 6 feet 4 inches (1931 mm) of the finished floor.
4. Ceiling heights in lofts are permitted to be less than 6 feet 8 inches.

## **Section R328**

### **Lofts**

**R328.1 Minimum loft area and dimensions.** Lofts used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections R328.1.1 through R328.1.4.

**R328.1.1 Minimum area.** Lofts shall have floor area of not less than 35 square feet (3.25 m<sup>2</sup>).

**R328.1.2 Maximum area.** Lofts shall have a floor area not greater than 70 square feet (6.50 m<sup>2</sup>).

**R328.1.3 Minimum dimensions.** Lofts shall not be less than 5 feet (1524 mm) in any horizontal dimension.

**R328.1.4 Height effect on loft area.** Portions of a loft with a sloping ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

**Exception:** Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50 percent slope) portions of a loft with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

**R328.2 Loft access.** The access to and primary egress from lofts shall be any type described in Sections R328.2.1 through R328.2.4.

**R328.2.1 Stairways.** Stairways accessing lofts shall comply with this code or with Sections R328.2.1.1 through R328.2.1.5.

**R328.2.1.1 Width.** Stairways accessing a loft shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The minimum below the handrail shall be not less than 20 inches (508 mm).

**R328.2.1.2 Headroom.** The headroom in stairways accessing a loft shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.

**R328.2.1.3 Treads and Risers.** Risers for stairs accessing a loft shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus 4/3 of the riser height;  
or

~~2. The riser height shall be 15 inches (381 mm) minus  $\frac{3}{4}$  of the tread depth.~~  
~~**R328.2.1.4 Landing platforms.** The top tread and riser of stairways accessing lofts shall be constructed as a landing platform where the loft ceiling height is less than 6 feet 2 inches (1880 mm) where the stairway meets the loft. The landing platform shall be 18 inches to 22 inches (457 to 559 mm) in depth measured from the nosing of the landing platform to the edge of the loft, and 16 to 18 inches (406 to 457 mm) in height measured from the landing platform to the loft floor.~~  
~~**R328.2.1.5 Handrails.** Handrails shall comply with Section R311.7.8.~~  
~~**R328.2.1.6 Stairway guards.** Guards at open sides of stairways shall comply with Section R312.1.~~  
~~**R328.2.2 Ladders.** Ladders accessing lofts shall comply with Sections R328.2.2.1 and R328.2.2.2.~~  
~~**R328.2.2.1 Size and capacity.** Ladders accessing lofts shall have a rung width of not less than 12 inches (305 mm) and 10 inches (254 mm) to 14 inches (356 mm) spacing between rungs. Ladders shall be capable of supporting a 200 pound (75 kg) load on any rung. Rung spacing shall be uniform within  $\frac{3}{8}$  inch (9.5 mm).~~  
~~**R328.2.2.2 Incline.** Ladders shall be installed at 70 to 80 degrees from horizontal.~~  
~~**R328.2.4 Ships ladders.** Ships ladders accessing lofts shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).~~  
~~**R328.2.5 Loft Guards.** Loft guards shall be located along the open side of lofts. Loft guards shall not be less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less.~~

No comments.

**Item C – 5 Request from Barry Gupton representing the NC Manufactured Building Division to amend the 2018 NC Residential Code, Sections 4602, 4605.5 as follows (210608 Item B-9):**

## **SECTION R4602 DEFINITIONS**

~~**COASTAL HIGH HAZARD AREA.** An area subject to coastal flooding and high velocity waters including storm wave wash, as shown by Federal Emergency Management Agency Maps and subject to the approval of the Building Code Council.~~

**COASTAL HIGH HAZARD AREA.** An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The coastal high hazard area is identified as either V Zone or Coastal A Zone on Flood Insurance Rate Maps (FIRMs).

**CORROSION RESISTANCE AREA.** Areas within hurricane prone regions defined as that area east of the Intracoastal Waterway from the NC/SC state line north to Beaufort Inlet and from that point to include the barrier islands to the NC/VA state line.

**OCEAN HAZARD AREA.** An area, as identified by the North Carolina Coastal Resources Commission, ~~and subject to approval by the Building Code Council,~~ near the shoreline of the Atlantic Ocean that has been identified as subject to at least one of the following hazards: (A) Historical or predicted future trends of long-term erosion, (B) erosion expected to occur during a coastal storm reaching the base flood elevation, or (C) shoreline fluctuations due to tidal inlets.

### **SECTION R4606** **FASTENER CORROSION RESISTANCE**

**R4605.5 R4606. Fastener corrosion resistance.**

In the Coastal High Hazard Area, the Corrosion Resistance Area and the Ocean Hazard Area, all metal connectors and fasteners outside of conditioned spaces shall be hot-dip galvanized steel after fabrication and meet ASTM A 153. Exposed metal connectors, such as tie-down straps on porches, decks, and areas under the structure, shall be a minimum 3/16-inch (5 mm) thick, and shall be hot-dip galvanized after fabrication and meet ASTM A 123 or ASTM A 153. Stainless steel light-gage metal connectors shall be permitted in exposed or partially exposed locations. Metal connectors of approved equivalent corrosion-resistant material are permitted to be accepted. See Table R4605.5 R4606.

**TABLE R4605.5<sup>a</sup> R4606<sup>a</sup>**  
**CORROSION RESISTANCE**

	<b>OPEN (exterior, porches, under house)</b>	<b>EXPOSURE LEVEL VENTED/ENCLOSED (attic, floor trusses, enclosed crawl spaces and stud cavity)</b>	<b>CONDITIONED (heated/cooled living areas)</b>
Nails, staples, screws	Hot-dip galvanized	Hot-dip galvanized	-
Nuts, bolts, washers, tie rods	Hot-dip galvanized	Hot-dip galvanized	-
Steel connection plates & straps (3/16" minimum thickness)	Hot-dip galvanized after fabrication	Hot-dip galvanized	-
Sheet metal connectors, wind anchors, joists hangers, steel joists and beams	Stainless steel or hot- dipped galvanized after fabrication	Hot-dip galvanized after plate fabrication or triple galvanized <sup>b</sup>	Hot-dip galvanized or triple galvanized <sup>b</sup>
Truss plates	Stainless steel or hot- dipped galvanized after fabrication	Hot-dip galvanized after fabrication, stainless steel, triple galvanized <sup>b</sup> or in accordance with TPI-1 of the Truss Plate Institute within 6'-0" of a gable louver, ridge or soffit vent. Otherwise, standard galvanized <sup>b</sup>	Standard galvanized

- a. Applies only to structures located in Coastal High Hazard Area, Corrosion Resistance Area and Ocean High Hazard Area.
- b. Triple galvanizing – G185, standard galvanizing – G60, both per ASTM A 653 / A 653M.

**(RENUMBER THE REMAINDER OF R4605.6 – R4605.8)**

No comments.

**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 on June 8, 2021. The Final Adoption meeting will take place on September 14, 2021. The Council will give no further consideration to Petitions that are disapproved. Petitions that are approved will proceed through the Rulemaking process. The effective date is January 1, 2022 unless otherwise noted.

**Item D – 1 Request from Carl Martin representing the Department of Insurance to amend the 2018 NC Administration Code, Chapters 1, 2, and 3 as follows (210309 Item B-1):**

**106.1 Permit required.** A current permit is required for all work described in the technical codes unless specifically exempted by the North Carolina General Statutes or the technical codes.

*Commentary: Reference North Carolina General Statutes ~~153A-357 and 160A-417~~ Statute 160D-1110 for exceptions.*

**106.2.3 Review and approval.** When the inspection department issues a permit, it shall approve, in writing or by stamp, all sets of drawings and specifications “Reviewed for Code Compliance”.

**Exception:** Nothing in this section shall require the review and approval of one- and two-family dwelling plans.

*Commentary: Drawings and specifications shall be kept in a manner prescribed by North Carolina General Statutes ~~153A-373 and 160A-433~~ Statute 160D-1126.*

**202.9.1 Engineering division.** A written technical interpretation shall be provided as specified in Section ~~203.1.2.1.2~~ 203.2.1.2. Any person may appeal in writing an order, decision or determination pertaining to the code or any state building law by filing written notice with the Commissioner of Insurance or his designee within 10 days after the order, decision or determination. A copy of the appeal shall be furnished to each party.

(General Statutes ~~143-140, 153A-374 and 160A-434~~ and 160D-1127)

**202.9.2.2** The Notice or Appeal shall be received no later than 30 days from the date of the decision of the State enforcement agency. (General Statute 143-141).

**203.1.1.3 Buildings within primary fire limits.** The Commissioner of Insurance or his or her designee shall review all permits to erect, alter, repair or move any wood-frame building or structure within the primary fire district of a municipality. Such permits shall be received and approved by the Inspection Department and approved by the Municipal Council prior to the Commissioner or his or her designee’s approval.

(General Statutes ~~153A-375 and 160A-436~~ Statute 160D-1128)

**203.2.2 Appeals.** Any person may appeal in writing an order, decision or determination of a code enforcement official pertaining to the code or any state building law. The appeal shall be addressed to the Chief Engineer for the Department of Insurance by filing written notice within 10 days after the order, decision or determination. The appeal shall contain the type and size of

the building in question, the location of the building and shall reference the code sections in question. The decision shall be in writing and shall set forth the facts found. The decision rendered shall be based on the technical provisions of the code, public health and safety and shall be construed liberally to those ends. A decision shall be binding on all parties unless an

appeal is submitted to the Building Code Council as specified in Section ~~201.9.2~~ 202.9.2. A copy of the appeal and written decision shall be furnished to each party.

(General Statutes ~~153A-374 and 160A-434~~ Statute 160D-1127)

**204.1 General.** The powers, duties and responsibilities of the code enforcement official are generally described in ~~the following General Statutes:~~ 1. ~~GS153A-352 for counties,~~ and 2. ~~GS160A-412 for cities~~ Statute 160D, Article 11.

**204.2.2 Jurisdiction.** A municipal inspection department shall have jurisdiction over all areas within the city limits, all extraterritorial areas that the city has jurisdiction pursuant to state laws, and over any areas in which the municipal limits have contracted with another unit of government to perform code enforcement. A county inspection department shall have jurisdiction over all unincorporated areas outside any municipal jurisdiction located within the county, all areas in which a municipality has requested the county to enforce the code, and within the jurisdiction of another unit of government in which the county has contracted to perform code enforcement. A joint inspection department created by two or more units of government shall have the authority to enforce the code in all areas of legal jurisdiction of all units of government supporting the joint department.

(General Statutes ~~153A-352 and 153A-353 for counties,~~ and ~~160A-411 and 160A-413 for cities~~ 160D-1104 and 160D-1107)

**204.2.3 Duties.** Inspection departments shall:

1. Receive applications and supporting data for permits;
2. Issue or deny permits;
3. Make all necessary inspections to ensure code compliance;
4. Identify technical provisions found to be inconsistent with the inspection;
5. Issue or deny certificates of compliance and certificates of occupancy;
6. Issue stop work orders or orders to correct violations;
7. Maintain adequate records of permits issued or denied, inspections made, corrections ordered and certifications issued; and
8. Take other actions that may be required to adequately enforce the code.

(General Statutes ~~153A-352 and 160A-412~~ Statute 160D-1104)

**204.2.4 Code enforcement official's qualifications.** No state or local government employee shall enforce any provision of the North Carolina State Building Codes who does not possess an appropriate valid certificate issued by the North Carolina Code Official's Qualification Board as specified in General Statutes ~~143-151.13, 153A-351.1 and 160A-411.1~~ and 160D-1103.

**204.2.5 Conflict of interest.** Information about conflict of interest for code enforcement officials can be found in General Statutes ~~153A-355 for counties and 160A-415 for cities~~ Statute 160D-1108.

**204.2.6 Right of entry.** The code enforcement official shall have the right to enter buildings or premises as described in General Statutes ~~153A-360 and 153A-364 for counties, and 160A-420 and 160A-421 for cities~~ 160D-1113 and 160D-1117.

**204.2.7 Stop work orders.** General Statute ~~153A-361~~ 160D-404 authorizes a county code enforcement official to issue stop work orders. General Statute ~~160A-421~~ authorizes a city code enforcement official to issue stop work orders. ~~These statutes describe~~ The statute describes when a stop work order can be issued, and how the stop work order is to be issued, ~~and how the stop work order may be appealed.~~ See Section 204.10 for appeal of stop work orders.

**204.2.8 Unsafe building or systems.** A ~~county~~ code enforcement official's authority to condemn an unsafe building is found in General Statute ~~153A-366~~ 160D-1119. A ~~city~~ code enforcement official's authority to condemn an unsafe building is found in General Statute ~~160A-426.~~

**204.3.1 General.** No person may commence or proceed with:

1. The construction, reconstruction, alteration, repair, movement to another site, removal or demolition of any building;
2. The installation, extension or general repair of any plumbing system;
3. The installation, extension, alteration or general repair of any heating or cooling equipment system; or
4. The installation, extension, alteration or general repair of any electrical wiring, devices, appliances or equipment without first securing from the Inspection Department with jurisdiction over the site of the work each permit required by the North Carolina State Building Codes and other State or local law or local ordinance or regulation applicable to the work.  
(General Statute ~~153A-357 and 160A-417~~ 160D-1110)

**204.3.2 Validity.** In accordance with General Statutes ~~153A-358 for counties and 160A-418 for cities~~ Statute 160D-1111, a permit expires 6 months, or any lesser time fixed by local ordinances, after the date of issuance if the work authorized by the permit has not been commenced. If, after commencement, the work is discontinued for a period of 12 months, the permit immediately expires. No work authorized by a permit that has expired may be performed until a new permit has been issued.

**204.3.6 Contractor license required.** When the General Statutes require that general construction, plumbing, mechanical, electrical, fire protection or gas work be performed by an appropriately licensed individual, no permit for such type work shall be issued to an unlicensed person or firm. Additional requirements may be found in General Statutes 87-14, 87-21(e), 87-43.1, 87-58, 153A-134, ~~153A-357,~~ 160A-194 and ~~160A-417~~ 160D-1110.

**204.4.1 Action on permits.** In accordance with General Statute ~~153A-357 for counties and General Statute 160A-417 for cities~~ 160D-1110, the Inspection

Department shall examine each application for a permit to determine if it is in compliance with the requirements of the technical codes and other pertinent laws and ordinances. If the inspection department is satisfied that the work described in the application conforms to the requirements of the technical codes and other pertinent laws and ordinances, it shall issue a permit to the applicant.

If the application does not conform to the requirements of the technical codes and other pertinent laws and ordinances, the application shall be returned to the applicant with the reasons for refusal stated.

(General Statutes ~~153A 352, 160A 412 and 160A 417~~ 160D-1104 and 160D-1110)

**204.5.2 Permit intent.** A permit issued shall be construed as permission to proceed with the work and not as authority to violate, cancel, alter or set aside any of the provisions of the technical codes. Issuance of a permit shall not prevent the inspection department from requiring correction of errors in plans, construction or violations of this code.

(General Statutes ~~153A 357 and 160A 417~~ Statute 160D-1110)

**204.5.3.2 Violation of code provisions.** The code enforcement official may revoke a permit upon determination that the work for which the permit was issued is in violation of, or not in conformity with, the provisions of this or the technical codes.

(General Statute ~~153A 362, 160A 422~~ 160D-1115)

**204.6.1 Fees.** A permit shall not be issued until the fees prescribed by the local governing authority have been paid. No amendment to a permit shall be released until the additional fee, if any, has been paid.

(General Statutes ~~153A 354 and 160A 414~~ Statute 160D-402)

**204.6.2 Work commencing before permit issuance.** If any person commences any work on a building or service systems before obtaining the necessary permit, he or she shall be subject to a penalty as established by the local governing body.

(General Statutes ~~153A 354 and 160A 414~~ Statute 160D-402)

**204.7.1 Periodic inspections for hazardous or unlawful conditions.** The inspection department shall make periodic inspections as specified in General Statutes ~~153A 364 for counties and 160A 424 for cities~~ Statute 160D-1117.

**204.8.1 Building occupancy.** A new building shall not be occupied, or a change made in the occupancy, nature or use of a building or part of a building until after the inspection department has issued a certificate of compliance. The certificate of compliance shall not be issued until all required service systems have been inspected for compliance with the technical codes and other applicable laws and ordinances and released by the inspection department.

(General Statutes ~~153A-363 and 160A-423~~ Statute 160D-1116)

**204.8.2 Certificate of compliance.** Upon satisfactory completion of a building, plumbing, mechanical, electrical, fire protection or gas system, or portion thereof, a certificate of compliance shall be issued. The certificate of compliance represents that a structure or system is complete and for certain types of permits is permission granted for connection to a utility system. The certificate of compliance shall not be construed to grant authority to occupy a building.

(General Statutes ~~153A-363 and 160A-423~~ Statute 160D-1116)

**204.8.3 Temporary/partial occupancy.** A temporary/partial certificate of compliance may be issued permitting occupancy for a stated period for specific portions of a building or service system that the inspector finds safe for occupancy prior to final completion of the entire building or system.

(General Statutes ~~153A-363 and 160A-423~~ Statute 160D-1116)

**204.9.2 Temporary connection.** The inspection department may authorize the temporary connection of the building or system to the utility source of energy, fuel or power for the purpose of testing building service systems.

(General Statutes ~~153A-363 and 160A-423~~ Statute 160D-1116)

**204.10 Appeal of stop work orders.** Whenever a stop order has been issued by an inspection department involving alleged violations of the State Building Codes, the owner or builder may appeal in writing to the Commissioner of Insurance, or his or her designee, within 5 days after the date the order is issued, with a copy of the appeal to the inspection department. No further work may take place in violation of a stop order. The Commissioner, or his or her designee, shall promptly conduct an investigation. The inspection department and the owner or builder shall be permitted to submit relevant evidence for the investigation. The Commissioner of Insurance, or his or her designee, shall provide a written statement of the decision setting forth the facts found, the decision reached and the reasons for the decision. In the event of dissatisfaction with the decision, the person affected shall have the option of appealing as set forth in Section 203.1.2.

(General Statutes ~~153A-361 and 160A-421~~ Statute 160D-1114)

**204.14 Code enforcement official not fulfilling responsibilities.** When the code enforcement official does not fulfill his responsibilities as specified in Section 204.13, the Commissioner of Insurance or his designee may institute any appropriate actions or proceedings available.

(General Statutes ~~14-230, 14-231, 14-232, 153A-356 and 160A-41~~ 160D-1109)

## **CHAPTER 3 REPRINT OF THE GENERAL STATUTES PERTAINING TO THE ENFORCEMENT OF THE NORTH CAROLINA STATE BUILDING CODE**

The North Carolina State Building Codes do not include all additional requirements for buildings and structures that may be imposed by other State agencies, occupational licensing boards and commissions. It shall be the responsibility of a permit holder, design professional, contractor or occupational license holder to determine whether any additional requirements exist.

The current language of the General Statutes may be viewed at [www.ncleg.gov](http://www.ncleg.gov).

The following list, while extensive, may not include all applicable General Statutes.

1-539.2 Dismantling portion of building  
14-68 Failure of owner of property to comply with orders of public authorities  
14-228–232 Misconduct in public office  
14-414 Pyrotechnics defined; exceptions  
15-27.2 Administrative search and inspection warrants

42 Article 5 Landlord Tenant  
58-2-95 Commissioner to supervise local inspectors  
58-31-40 Commissioner to inspect state property; plans submitted  
58-79-20 Inspection of premises; dangerous material removed  
66-23–27 Electrical materials, devices, appliances and equipment  
83A-1–13 Architects  
87-1–15 General contractors  
87-21 Plumbing, heating and fire sprinkler contractor  
87-43 Electrical contractors  
87-57–58 Refrigeration contractors  
89C-3–23 Engineers  
95-69 Uniform boiler and pressure vessel act  
105-130–151 Accessibility tax credit  
106-581.1 Agriculture Defined  
115C-525 Public schools  
119 Article 5 Liquefied petroleum gases  
130A-336–339 Wastewater system construction  
133-1–4 Public works  
143-135.1 Inspection of state owned buildings  
143-136–143 Building Code Council and Building Code  
143-141 Appeals to Building Code Council  
143-151.8–21 Code officials qualification board  
143-151.42 Prohibition of master meters for electric and natural gas service  
143-151.43–64 North Carolina home inspector board  
150B-18–21 Administrative Procedures Act  
~~153A-97–375 Counties~~  
~~160A-167–438 Cities~~  
160D Article 11 Building Code Enforcement



APPENDIX E  
 APPEALS  
 NORTH CAROLINA  
 BUILDING CODE COUNCIL  
 325 North Salisbury Street, Room 5\_44  
 Raleigh, North Carolina 27603  
 (919) 647-0009

APPEAL TO NCDOI/NCBCC Hearing Date \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
 GS 153A-374, GS 160A-434, 160D-1127 GS 143-140, GS 143-141  
 Formal Interpretation by NCDOI \_\_\_\_\_ Appeal of Local  
 Decision to NCBCC \_\_\_\_\_  
 Appeal of Local Decision to NCDOI \_\_\_\_\_ Appeal of  
 NCDOI Decision to NCBCC \_\_\_\_\_

APPELLANT \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ x \_\_\_\_\_  
 REPRESENTING: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 E-MAIL: \_\_\_\_\_ FAX: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

North Carolina State Building Code, Volume \_\_\_\_\_ - Section \_\_\_\_\_

**REQUEST ONE:** [ ] Formal Interpretation by NCDOI [ ] Appeal of Local Decision to NCBCC  
 [ ] Appeal of Local Decision to NCDOI [ ] Appeal of NCDOI Decision to  
 NCBCC

Type or print. Include all background information as required by the referenced General Statutes and the attached policies. Attach additional supporting information.

REASON:

NCDOI/NCBCC APPEAL TO  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_ FORM 3/14/17

**Residential Super Committee: D Smith made a motion to accept this item. 2<sup>nd</sup> made by D. Shearin.  
Motion passed.**

**Commercial Super Committee: D. Priest made a motion to accept this item. 2<sup>nd</sup> made by D. Gieser.  
Motion passed.**

**Building Code Council: G. Embler made a motion to accept this item. 2<sup>nd</sup> made by D. Gieser.  
Motion passed.**

**Item D – 2 Request from Wayne Hamilton representing the NC Building Code Council Tent Ad-hoc Committee to amend the 2018 NC Fire Code, Section 3103.4 as follows (210309 Item B-3):**

**3103.4 Permits.** Permits shall be required as set forth in Sections 105.6 and 105.7. The fire code official shall refer the permit applicant to the appropriate agency for other applicable occupational licensing or construction permitting requirements.

**Commercial Super Committee: J. Shepherd made a motion to accept this item. 2<sup>nd</sup> made by D. Gieser.  
Motion passed.**

**Building Code Council: D. Priest made a motion to accept this item. 2<sup>nd</sup> made by M. Humiston.  
Motion passed.**

**Item D – 3 Request from Bryan Dale Robinson representing the City of Raleigh to amend the 2018 NC Building Code and 2018 NC Fire Code, Section 1004.2 as follows (210309 Item B-5):**

**1004.2 Increased Occupant Load** – Where approved by the Building Official, the *occupant load* permitted in any building, or portion thereof, is permitted to be increased from the number established for the occupancies in Table 1004.1.2, provided that all other requirements of the code are met based on such modified number and the occupant load does not exceed one occupant per 7 square feet (0.65 m<sup>2</sup>) of occupiable floor space. Where required by the *building official*, an *approved aisle*, seating or fixed equipment diagram substantiating any increase in *occupant load* shall be submitted. Where required by the *building official*, such diagram shall be posted.

**Commercial Super Committee: D. Priest made a motion to accept this item. 2<sup>nd</sup> made by M. Ali.  
Motion passed.**

**Building Code Council: D. Priest made a motion to accept this item. 2<sup>nd</sup> made by D. Gieser.  
Motion passed.**

**Item D – 4 Request from Drew Crawford representing DIYtiny, INC to add to the 2018 NC Building Code, Sections 101.2.6 and amend Section 202 as follows (210309 Item B-6):**  
**101.2.6** A *Tiny House* shall be constructed in accordance with the *International Residential Code* and shall be separated in accordance with Table 602.

**Section 202 Definitions**

TINY HOUSE. A detached single-family dwelling that is 400 square feet (37 m<sup>2</sup>) or less in floor area, excluding lofts.

The proponent requested this item be tabled until the December 2021 meeting.

**Residential Super Committee: At the request of the proponent, D. Priest made a motion to table this item until the December 2021 meeting. 2<sup>nd</sup> made by J. Shepherd.  
Motion passed.**

**No action taken by the full Building Code Council.**

**Item D – 5 Request from Drew Crawford representing DIYtiny, INC to amend the 2018 NC Residential Building Code, Sections R202, R305.1, R328 as follows (210309 Item B-7):**

**Section R202 Definitions**

TINY HOUSE A detached single-family *dwelling* that is 400 square feet (37 m<sup>2</sup>) or less in floor area excluding lofts.

**R305.1 Minimum height.** *Habitable space*, hallways and portions of *basements* containing these spaces shall have a ceiling height of not less than 7 feet (2134 mm). Bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches (2032 mm).

Exceptions:

1. For rooms with sloped ceilings, the required floor area of the room shall have a ceiling height of not less than 5 feet (1524 mm) and not less than 50 percent of the required floor area shall have a ceiling height of not less than 7 feet (2134 mm).

2. The ceiling height above bathroom and toilet room fixtures shall be such that the fixture is capable of being used for its intended purpose. A shower or tub equipped with a showerhead shall have a ceiling height of not less than 6

feet 8 inches (2032 mm) above an area of not less than 30 inches (762 mm) by 30 inches (762 mm) at the showerhead.

3. Beams, girders, ducts or other obstructions in *habitable space* shall be permitted to project to within 6 feet 4 inches (1931 mm) of the finished floor.

4. Ceiling heights in lofts are permitted to be less than 6 feet 8 inches.

5. Kitchens shall have a ceiling height of not less than 6 feet 8 inches in a tiny house.

**R328.1.2 Maximum area.** *Lofts* shall have a floor area not greater than ~~70~~ 100 square feet (~~6.50~~ 9.29 m<sup>2</sup>).

**R328.1.3 Minimum horizontal dimensions.** *Lofts* shall not be less than 5 feet (1524 mm) in any horizontal dimension.

**R328.2 Loft access and egress.** The access to and primary egress from *lofts* shall be any type described in Sections R328.2.1 through R328.2.4. The loft access and egress elements along its required minimum width, shall meet the loft where its ceiling height is not less than 3 feet (914mm).

**R328.2.1.2 Headroom.** The headroom ~~in above~~ stairways accessing a *loft* shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread, ~~or~~ landing, or landing platform nosings in the ~~middle~~ center of their width, and vertically from the landing platform along the center of its width.

**R328.2.1.4 Landings.** Intermediate landings and landings at the bottom of stairways shall comply with Section R311.7.6, except that the depth in the direction of travel shall be not less than 24 inches (610 mm).

~~R328.2.1.4~~ **R328.2.1.5 Landing platforms.** The top tread and riser of stairways accessing *lofts* shall be constructed as a landing platform where the *loft* ceiling height is less than 6 feet 2 inches (1880 mm) where the *stairway* meets the *loft*. The landing platform shall be ~~18 inches to 22 inches (457 to 559)~~ not less than 20 inches (508 mm) in width and in depth measured horizontally from and perpendicular to the nosing of the landing platform. The landing platform riser height to the edge of the loft, and 16 to floor shall be not less than 16 inches (406 mm) and not greater than 18 inches (406 to 457 mm) in height measured from the landing platform to the loft floor.

~~R328.2.1.5~~ **R328.2.1.6 Handrails.** *Handrails* shall comply with Section R311.7.8.

~~R328.2.1.6~~ **R328.2.1.7 Stairway guards.** *Guards* at open sides of *stairways*, landings and landing platforms shall comply with Section R312.1.

**R328.2.2.1 Size and capacity.** Ladders accessing lofts shall have a rung width of not less than 12 inches (305 mm) and 10 inches (254 mm) to 14 inches (356 mm) spacing between rungs. Ladders shall be capable of supporting a ~~200~~ 300 pound (~~75~~ 136 kg) load on any rung. Rung spacing shall be uniform within 3/8-inch (9.5 mm).

**R328.2.5 Loft Guards.** *Loft guards* shall be located along the open ~~side~~ sides of *lofts*. *Loft guards* shall not be less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less. *Loft guards* shall comply with Section R312.1.3 and Table R301.5 for their components.

The proponent requested this item be tabled until the December 2021 meeting.

**Residential Super Committee: At the request of the proponent, D. Smith made a motion to table this item until the December 2021 meeting. 2<sup>nd</sup> made by D. Gieser. Motion passed.**

**No action taken by the full Building Code Council.**

**Item D – 6 Request from Kerry Sutton representing American Concrete Institute (ACI), Dave Tepke representing ACI Carolinas Chapter, Mark LeMay representing International Concrete Repair Institute (ICRI), Bill Brickey representing ICRI Carolinas Chapter, Keith Kesner representing CVM, Tim Cooke representing SKA Consulting Engineering, and Douglas Allen representing Simpson Strong-Tie to add to the 2018 NC Existing Building Code, Section 606.1.1 and to amend Chapter 16 as follows (210309 Item B-9):**

**606.1.1 Repairs to structural concrete.** Repairs to structural concrete elements in accordance with ACI 562 shall be permitted.

**Exception:**

1. Where seismic design governs. ACI 562 shall not be used for evaluation and design.

2. Dwellings and accessory buildings constructed under the NC Residential Code.

Add new referenced standard to Chapter 16 as follows:

**Chapter 16**

**ACI**

American Concrete  
Institute 38800 Country  
Club Drive Farmington  
Hills, MI 48331

**562-16: Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures**

606.1.1

**Commercial Super Committee: C. Berg made a motion to accept this item. 2<sup>nd</sup> made by D. Priest.  
Motion passed.**

**Building Code Council: M. Ali made a motion to accept this item. 2<sup>nd</sup> made by N. MacDonald.  
Motion passed.**

## **Part E – Reports**

### **❖ Ad-Hoc Committee Reports**

The Residential Ad-hoc Committee is working on reviewing the 2024 Codes. Two meetings have been scheduled for October 5<sup>th</sup> and 28<sup>th</sup>. These will be held both virtually and in-person.

The Building and Fire Committee reports that J. Shepherd will be taking over as Chair for the Fire committee taking over for W. Hamilton. A virtual meeting is scheduled for September 16<sup>th</sup> at 9:00am. The next meetings are scheduled for October 13<sup>th</sup> & 14<sup>th</sup> at 9:00am.

Tony Conner was asked to take over as Chair for the Existing Building and Structural Committees.

The Energy Ad-hoc Committee has formed and is waiting for directives from the Building Code Council Chair with discussion of October 1<sup>st</sup> as a possible meeting date.

### **❖ Standing Committee Reports**

The Chair is working on putting together the Standing Committees at this time so there are currently no reports.

### **❖ Staff Reports**

Carl Martin, NC DOI staff, reported Dan Dittman has taken the position of supervisor over the trades and will also handle the energy code interpretations. This currently leaves Dan's old position vacant. Pak Yip has moved to commercial interpretations, leaving the residential position vacant, although Pak will continue to assist with residential until that position has been filled.

### **❖ Chairman's Report**

Chair Herring appreciates everyone's patience as she learns this new role within the Council.

Ms. Herring will be updating the committees with the new members to gain the best representation for each committee.

Ms. Herring will be meeting with different stakeholders who are affected by the building codes, hoping to open the lines of communication.

Chair Herring explained the travel reimbursement to the new members explaining the importance of submitting the reimbursement requests in a timely manner as state policy requires travel to be reimbursed within 30 days of travel.

**Part F – Appeals:**

The Jenkins Consulting Engineers, P.A. appeal is scheduled for January 26, 2022 at 10:00am in the Albemarle building at 325 N. Salisbury Street, Raleigh.

Adjourned.