**Minutes of the North Carolina Building Code Council**
**June 12, 2018**
**Raleigh, NC**

All members of the North Carolina Building Code Council were present for the Council meeting, except Tony Sears and Eric Tjalma.

The following are summary minutes. The official minutes of this meeting are recorded on CD. Anyone desiring verbatim CDs or excerpts from these CDs should contact the Engineering Division of the NC Department of Insurance for information and reproduction costs. The next scheduled NC Building Code Council meeting will be held **Tuesday, September 11, 2018.** The location will be announced 30 days before the meeting.

**Part A Administrative Items**

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

There were no actual or potential conflicts of interest noted.

**Item A – 2 Approval of Minutes of the March 13, 2018 NC Building Code Council Meeting.**

A motion to accept the March 13, 2018 meeting minutes was made, seconded and approved, with a modification to Item C-7 regarding the statement of the Residential Super Committee motion.

**Item A – 3 Request by Ronnie Hayes representing Town of Leland, for approval of the Town Fire Protection and Prevention Ordinance.**

Ronnie Hayes addressed the background of the new fire ordinance. Wayne Hamilton made some recommended changes and gave an overview on why the ordinance is coming to the Building Code Council. Approval of the ordinance must be done by local government before coming to the NCBCC.

**Item A – 4 Rules Review Commission Meeting Report**

Barry Gupton reported that the March D-items were submitted to the RCC and approved.

**Item A – 5 Public Comments**

Michael Rettie representing the Orange County Inspections office requested Orange County be permitted to perform additional inspections on residential projects. This would only be granted to Orange County and Hillsborough Municipality.
NCBCC requested this be approved by county commissioners first. It was suggested they get the approval from both Orange County and Hillsborough.
This will remain an A item before the BCC in September.

Cliff Isaac with NC Department of Insurance addressed Section 107.1.4 of the NC Administrative Codes regarding Rough-in Inspections. He suggested that a Standard Operating Procedure be created for inspectors to follow to help clarify this part of the Code.

**Part B – New Petition for Rulemaking**

The following Petitions for Rulemaking have been received since the last Council meeting. The Council will vote either to deny or grant these Petitions. The Council will give no further consideration to Petitions that are denied. Petitions that are granted may proceed through the Rulemaking process. The council may send any Petition to the appropriate committee. The hearing will take place during or after the September 11, 2018 meeting.

**Item B – 1 Request by Andrew Ewens representing self, to revise the NC State Building Code, Section 1015, Table 1015.1, Footnote A and Section 1021, Table 1021.2, Footnote E as follows:**

Day care and Group E classrooms maximum occupant load is 10. Exits shall be independent, with one entry opening directly to the outside.

Due to the economic impact of this request, Barry Gupton took it to OSBM for review and approval. Mr. Ewens asked this be postponed until September.

**A motion was made by Daniel Priest to postpone. Second. Approved.**

**Item B – 2 Request by William T. Noland P.E. representing Noland Construction Consulting, PLLC – Agent for Onslow County to amend the 2018 NC Building Code, Section 1704 Special Inspections as follows:**

**1705.4 Masonry construction.**

**Exception:** Special inspections and tests shall not be required for:

4. Non-load bearing masonry partition walls and screens as determined and designated as such by the registered design professional in or added to the construction documents.

**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B – 3 Request by Michael Rettie representing Orange County Inspections to amend the 2018 NC Residential Code, Section AM111.1 as follows:**

**AM111.2 Guard rail post.**
Guard rail posts nominal 4x4 or larger may be notched at their support up to 1½ inches (3.81 cm).

**Residential Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B – 4 Request by Randall Shackelford, P.E. representing Simpson Strong-Tie Co., Inc. to amend the 2018 NC Residential Building Code, Section AM109 as follows:**

**AM109.1 Deck bracing.**
Decks shall be braced to provide lateral stability. Lateral stability shall be provided in accordance with one of the methods in Sections AM109.1.1 through AM109.1.5.

**AM109.1.1. Lateral bracing not required.**
When the deck floor height is less than 4 feet (1219 mm) above finished grade as shown in Figure AM109.1(1) and the deck is attached to the structure in accordance with Section AM104, lateral bracing is not required. Lateral bracing is not required for freestanding decks with a deck floor height 30 inches (762 mm) or less above finished grade.

**AM109.1.2. Knee bracing.**
4x4 wood knee braces are permitted to be provided on each column in both directions for freestanding decks or parallel to the structure at the exterior column line for attached decks per Figure AM109.1(2). The knee braces shall attach to each post at a point not less than 1/3 of the post length from the top of the post, and the braces shall be angled between 45 degrees (0.79 rad) and 60 degrees (1.05 rad) from the horizontal. Knee braces shall be ~~bolted~~ fastened to the post and the girder/double band in accordance with one ~~5/8 inch (16 mm) hot dip galvanized bolt with nut and washer at both ends of the brace~~ of the methods shown in Table AM109.1; ~~as shown in Figure AM109.1(2)~~.

**TABLE AM109.1**
**FASTENING OF BRACE TO POST AND GIRDER/BAND (CHOOSE ONE)**

| Fastener | Installation | Minimum Distances |
|---|---|---|
| One 5/8” diameter hot dipped galvanized through bolt with nut and washer | Perpendicular to post or girder/band | 2-3/16” end distance |
| Two hot dipped galvanized (ASTM A153, Class C, minimum) screws having minimum diameter of 0.270” and long enough to achieve 3” penetration into the post or girder/band. | Perpendicular to post or girder/band | 1” edge distance, 1-1/2” horizontal spacing, minimum 3” end distance |

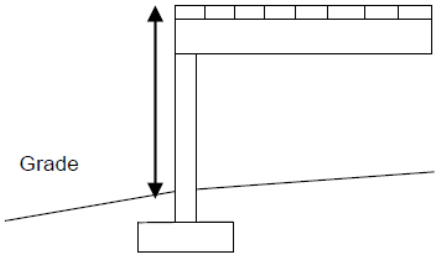
**AM109.1.3. Post embedment.**
For free standing decks without knee braces or diagonal bracing, lateral stability is permitted to be provided by embedding the post in accordance with Figure AM109.1(3) and Table AM109.~~1~~2.

**TABLE AM109.~~1~~2**
**POST EMBEDMENT FOR FREE STANDING DECKS**

| POST SIZE | MAXIMUM TRIBUTARY AREA | MAXIMUM POST HEIGHT | EMPEDMENT DEPTH | CONCRETE DIAMETER |
|---|---|---|---|---|
| 4” x 4” | 48 SF | 4’-0” | 2’-6” | 1’-0” |
| 6” x 6” | 120 SF | 6’-0” | 3’-6” | 1’-8” |

**AM109.1.4. Cross bracing.**
2x6 diagonal vertical cross bracing is permitted to be provided in two perpendicular directions for free standing decks or parallel to the structure at the exterior column line for attached decks. The 2x6 bracing shall be attached to the posts with one 5/8 inch (16 mm) hot dip galvanized bolt with nut and washer at each end of each bracing member per Figure AM109.1(4).

**AM109.1.5. Piles in coastal regions.**
For embedment of piles in coastal regions, see Chapter 46.

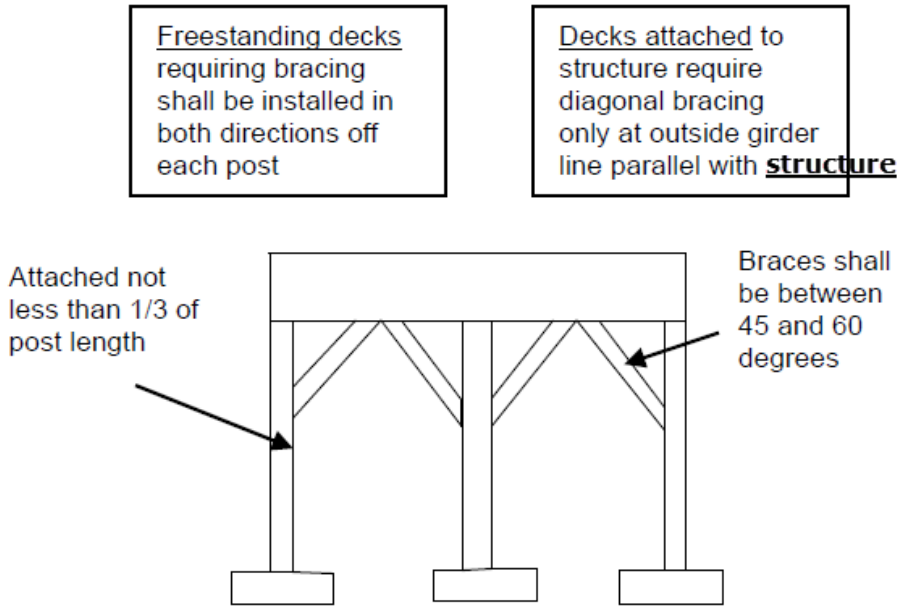



Less than 4’ (decking to grade) and attached to structure no bracing required

For SI: 1 inch = 25.4, 1 foot = 304.8 mm

**FIGURE AM109.1(1)**
**NO LATERAL BRACING**

(No change)




For SI: 1 inch = 25.4, 1 foot = 304.8 mm

**FIGURE AM109.1(2)**
**KNEE BRACING**

**Residential Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B – 5 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Building/Fire Codes, Sections 915.1.1, 915.1.2, 915.1.3, 915.4.1 as follows:**

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

**915.1.2 Fuel-burning appliances and fuel-burning fireplaces.** Carbon monoxide detection shall be provided in Group A-2 occupancies, dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

**915.1.3 Forced air furnaces.** Carbon monoxide detection shall be provided in Group A-2 occupancies, dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

**915.4.1 Power source.** Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery.

Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

**Exceptions:**

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

2. In A-2 occupancies the carbon monoxide detector shall be permitted to be battery powered.

**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B – 6 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Mechanical Code, Sections 313.4.1.2, 313.4.1.3, 313.4.1.1, 313.4.4.1 as follows:**

**313.4.1.2 Fuel-burning appliances and fuel-burning fireplaces.** Carbon monoxide shall be provided in Group A-2 occupancies, dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

**313.4.1.3 Forced air furnaces.** Carbon monoxide detection shall be provided in Group A-2 occupancies, dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

**313.4.1.1 Where required.** Carbon monoxide detection shall be provided in Group A-2, I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 313.4.2 where any of the conditions in Sections 313.4.1.2 through 313.4.1.6 exist.

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

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

2. In A-2 occupancies the carbon monoxide detector shall be permitted to be battery powered.

**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B – 7 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Fuel Gas Code, Sections 311.4.1.1, 311.4.1.2, 311.4.1.3, 313.4.4.1 as follows:**

**311.4.1.1 Where required.** Carbon monoxide detection shall be provided in Group A-2, I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 311.4.2 where any of the conditions in Sections 311.4.1.2 through 311.4.1.6 exist.

**311.4.1.2 Fuel-burning appliances and fuel-burning fireplaces.** Carbon monoxide shall be provided in Group A-2 occupancies, dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

**311.4.1.3 Forced air furnaces.** Carbon monoxide detection shall be provided in Group A-2 occupancies, dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

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

**Exceptions:**
1. Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.
2. In A-2 occupancies the carbon monoxide detector shall be permitted to be battery powered.

**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B – 8 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Existing Building Code, Sections 311.4.1.2, 311.4.1.3, 403.7.1.1, 403.7.4.1 as follows:**

**311.4.1.2 Fuel-burning appliances and fuel-burning fireplaces.** Carbon monoxide detection shall be provided in Group A-2 occupancies, dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

**311.4.1.3 Forced air furnaces.** Carbon monoxide detection shall be provided in Group A-2 occupancies, dwelling units, sleeping units and classrooms served by a fuel-burning, forced air furnace.

**403.7.1.1 Where Required.** Carbon monoxide detection shall be provided in Group A-2, I-1, I-2, I-4 and R occupancies and in classrooms in Group E

occupancies in the locations specified in Section 403.7.2 where any of the conditions in Sections 403.7.1.2 through 403.7.1.6 exist.

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

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

2. In A-2 occupancies the carbon monoxide detector shall be permitted to be battery powered.

**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B – 9 Request by Colin Triming, representing the NC Fire Code Revision Committee, to amend the 2018 NC Fire Code, Section 404.2.3 as follows:**

~~**404.2.3 Lockdown plans.** Where facilities develop a lockdown plan, it shall be in accordance with Sections 404.2.3.1 through 404.2.3.3.~~

~~**404.2.3.1 Lockdown plans contents.** Lockdown plans shall be *approved* by the *fire code official* and shall include the following:~~

~~1. Initiation. The plan shall include instructions for reporting an emergency that requires a lockdown.~~

~~2. Accountability. The plan shall include accountability procedures for staff to report the presence or absence of occupants.~~

~~3. Recall. The plan shall include a prearranged signal for returning to normal activity.~~

~~4. Communications and coordination. The plan shall include an approved means of two way communication between a central location and each secured area.~~

**404.2.3 Lockdown plans.** Lockdown plans shall only be permitted where such plans are approved by the *fire code official* and are in compliance with Sections 404.2.3.1 and 404.2.3.2.

**404.2.3.1 Lockdown plan contents.** Lockdown plans shall include the following:

1. Identification of individuals authorized to issue a lockdown order.

2. Security measures used during normal operations, when the building is occupied, that could adversely affect egress or fire department operations.

3. A description of identified emergency and security threats addressed by the plan, including specific lockdown procedures to be implemented for each threat condition.

4. Means and methods of initiating a lockdown plan for each threat, including:

4.1. The means of notifying occupants of a lockdown event, which shall be distinct from the fire alarm signal.

4.2. Identification of each door or other access point that will be secured.

4.3. A description of the means or methods used to secure doors and other access points.

4.4. A description of how locking means and methods are in compliance with the requirements of this code for egress and accessibility.

5. Procedures for reporting to the fire department any lockdown condition affecting egress or fire department operations.

6. Procedures for determining and reporting the presence or absence of occupants to emergency response agencies during a lockdown.

7. Means for providing two-way communication between a central location and each area subject to being secured during a lockdown.

8. Identification of the prearranged signal for terminating the lockdown.

9. Identification of individuals authorized to issue a lockdown termination order.

10. Procedures for unlocking doors and verifying that the means of egress has been returned to normal operations upon termination of the lockdown.

11. Training procedures and frequency of lockdown plan drills.

**404.2.3.2 Drills.** Lockdown plan drills shall be conducted in accordance with the approved plan. Such drills shall not be substituted for fire and evacuation drills required by Section 405.2.

**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B-10 Request by Robert Privott, representing the NC Home Builders Association, to amend the 2017 NC Electrical Code, Article 210.8(A) Ground-Fault Circuit-Interrupter Protection for Personnel as follows:**

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

**(A) Dwelling Units.** All 125-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified in 210.8 (A)(1) through (10) shall have ground-fault circuit-interrupter protection for personnel.

(1) Bathrooms
(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 No. 1 to (2): Receptacles that are not readily accessible.*

*Exception No. 2 to (2): A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug connected in accordance with 400.10(A)(6), (A)(7), or (A)(8).*

Receptacles installed under the exceptions to 210.8(A)(2) shall not be considered as meeting the requirements of 210.52(G)

**Residential Super Committee: Motion to accept. Second. Accepted.**
**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

**Item B – 11 Request by Terry Cromer, representing the NC Association of Electrical Contractors, Inc., to amend the 2017 NC Electrical Code, Table 300.5 as follows:**

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

| Locution of Wiring Method or Circuit | Type or 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 ~~Branch~~ Circuits Rated ~~120~~ 125/250 Volts or Less with GFCI Protection and Maximum Overcurrent Protection of ~~20~~ 50 Amperes | | Column 5 Circuits for Control or Irrigation and Landscape Lighting Limited to Not More Than 30 Volts und 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 | 6 |
| In trench below 50 mm (2 in.) thick concrete or e4uivalcn1 | 450 | 18 | 150 | 6 | 300 | 12 | 150 | 6 | 150 | 6 |
| Under a building | 0 (in raceway or Type MC or Type Ml cable identified for direct burial) | 0 | 0 | 0 | 0 | 0 | 0 (in raceway or Type MC or Type MI cable identified for direct burial) | 0 | 0 (in raceway or Type MC or Type MI cable identified for direct burial) | 0 |
| Under minimum of 102 mm (4 in.) thick concrete exterior slab with no vehicular traffic and the slab extending not less than 152 mm (6in) beyond the underground installation | 450 | 18 | 100 | 4 | 100 | 4 | 150 (direct burial) 100 (in raceway) | 6 4 | 150 (d1rcc1 burial) 100 (in raceway) | 6 4 |
| Under streets, highways. mads. alleys. driveways, und 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 | 450 | 18 | 450 | 18 | 450 | 18 | 450 | 18 | 450 | 18 |

Notes:

1. Cover is defined as the shnrtcs1 dis1ance in millimeters (inches) measured between a point on the top surfaces or any direct-hurled conductor. cable, conduit. or other raceway and the lop 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 (2in) thick.
3. Lesser depths shall be permitted where cables and conductors rise for termations 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 metal or 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.



**Residential Super Committee: Motion to accept. Second. Accepted.**
**Commercial Super Committee: Motion to accept. Second. Accepted.**

**Building Code Council. Motion. Second. Granted.**

**Item B – 12 Request by David Smith, representing the Residential Ad-Hoc Committee, to amend the 2018 NC Residential Code, Sections R202, R305, R310, R328 as follows:**

Revisions to Sections R202, R305 and R310
Added Section R328

**Section R202**
**Definitions**

**EGRESS ROOF ACCESS WINDOW.** A skylight or roof window designed and installed to satisfy the emergency escape and rescue opening requirements in Section R310.2.

**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.

**Section R305**
**Ceiling Height**

**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 R310**
**Emergency Escape and Rescue Openings**

**R310.2.5 Egress roof access window.** Egress roof access windows shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.

**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 $m^2$).

**R328.1.2 Maximum area.** *Lofts* shall have a floor area not greater than 70 square feet (6.50 $m^2$).

**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 ¾ 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 R328.2.1 and R328.2.2.

**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 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.

**Residential Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion. Second. Granted.**

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

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings has been made. The Public Hearing was held June 12, 2018 and the Final Adoption meeting may take place on or after September 11, 2018. The written public comment period expires on July 16, 2018.

**Item C – 1 Request by Joe Gorza, representing Space Walk of Currituck, to amend the 2018 N.C. State Building Code, Volume Fire Code – Section 105.6.43 & 2403.2 as follows:**

Exception #3 tents, membrane & air inflated structures associated with single family dwellings less than 800 sq. ft.

Michael Rettie spoke in opposition, Wayne Hamilton and Bridget Herring questioned the need for the amendment.

**Item C - 2 Request by Randall Shackelford, P.E., representing Simpson Strong-Tie Company, to amend the 2018 N.C. State Building Code, Volume Residential – Section AM105.1 as follows:**

**AM105.1 General.**
Girders shall bear directly on the support post with the post attached at top to prevent lateral displacement or be connected to the side of the posts ~~with two 5/8 inch (16 mm) hot dip galvanized bolts with nut and washer~~ with one of the methods shown in Table AM105.1. Girder support is permitted to be installed in accordance with Figure AM105.1(1) for top mount; Figure AM105.1(2) for side mount and Figure AM105.1(3) for split girders. See Figure AM105.1(4) for cantilevered girders.

**Table AM105.1 Girder Connection to Side of Post**

| Maximum Girder Thickness | | |
|---|---|---|
| Any | 3” (Double 2X) | 1-1/2” (Single 2X) |
| Two 5/8” diameter bolts[1] | Four 6” long screws[2] | Three 4” long screws[2] |

1. Bolts shall be hot dip galvanized through bolts with nut and washer
2. Screws shall be hot dipped galvanized self-drilling screw fastener having a minimum diameter of 0.270”, staggered so that the screws are not in a line, and having a minimum edge distance of 1-1/2 inches.

Randall Shackelford, P.E. spoke in favor of this.

Rick Frady, Building Inspector, was neither for or against this; but did suggest other options besides the hot dip galvanized bolts.

**Item C – 3 Request by Randall Shackelford, P.E., representing Simpson Strong-Tie Company, to amend the 2018 N.C. State Building Code, Volume Residential – Section R4603.6 as follows:**

Beams and girders shall fully bear on pilings and butt joints shall occur over pilings. ~~If~~ S~~s~~ills, beams or girders ~~are~~ shall be attached to the piling ~~a minimum of two 5/8-inch (16 mm) galvanized steel bolts per beam member shall be through bolted~~ using either bolts or screws at each piling connection in accordance with Table R4603.6 and Figure R4~~5~~603.6 (a). When the piling is notched so that the cross-section is reduced below 50 percent or the girder is top bearing, sills, beams or girders shall be attached using 3/16 × 4 × 18-inch (5 × 102 × 467 mm) hot dip galvanized straps, one each side, ~~bolted with two 5/8 inch (15.9 mm) galvanized through bolts~~ fastened top and bottom in accordance with either bolts or screws in accordance with Table R4603.6 and Figure R4603.6(b) and Figure R4~~5~~603.6(c). Where butt joints occur over the piling and screws are used, there shall be two straps on each side of the piling, having a minimum size of 3/16 by 2 by 18 inches (5 × 51 × 467 mm), with four self-drilling screws as described in each end.

**Table R4603.6 Minimum Fastening of Beams and Girders to Pilings**

| Amount Piling is Notched | Beam/Girder Continuous | | Beam/Girder Butt Joint | |
|---|---|---|---|---|
| | Bolts | Screws | Bolts | Screws |
| ≤ 50% | two 5/8" bolts[2] | four screws[3] | four 5/8" bolts[2] | eight screws[3] |
| > 50%[1] | two 5/8" bolts[2] | four screws[3] | four 5/8" bolts[3] | eight screws |

1. Where piling is notched over 50%, use strap as required in Section 4603.6. Install the specified number of bolts or screws in each end of the strap.
2. Bolts shall be 5/8" diameter hot dipped galvanized through bolts with nuts and washers.
3. Screws shall be 0.270" (6.9 mm) minimum in diameter, hot dipped galvanized to a minimum of A153, Class C, and having a minimum length of 4", and also shall be long enough to penetrate at least one inch through the remaining pile and into the girder.

**R4603.6.1 Tying at corners.** At corners, girders shall be connected to the pile with a minimum 3/16 × 4 × 18-inch (5 × 102 × 467 mm) hot dip galvanized strap bolted with two
5/8 inch (15.9 mm) galvanized through bolts on the exterior and a minimum L4 x 3/16 x 1'-6" (102 × 5 × 467 mm) galvanized steel angle bolted with two 5/8 inch (15.9 mm) galvanized through bolts on the interior in accordance with Figure R4603.6(d).

**R4603.6.2 Bracing of Pilings.** Bracing of pile foundations is required where the clear height from ground to sill, beam or girder exceeds 10 feet (3048 mm) or the dwelling is more than one story above piles. A line of X-bracing is defined as a row of piles with X-bracing provided in at least two bays. A line of X-bracing shall be provided at all exterior pile lines. Where the perimeter lines of X-bracing exceed 40 feet (12 192 mm), an additional line of X-bracing shall be provided near the center of the building. See Figure R4603.6(e). X-bracing shall be with
2 × 10s through bolted with two 3/4-inch (19.1 mm) bolts at each end. The code official is permitted to accept alternate bracing designs if they bear the seal of a registered design professional.
Revise Figures as follows:

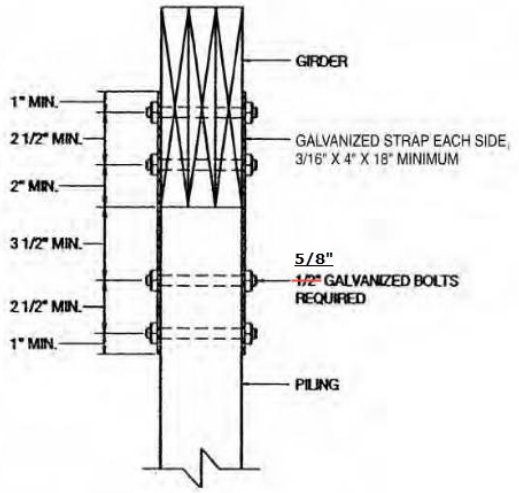



**FIGURE R4603.6(b)**
**TOP MOUNTED GIRDER**

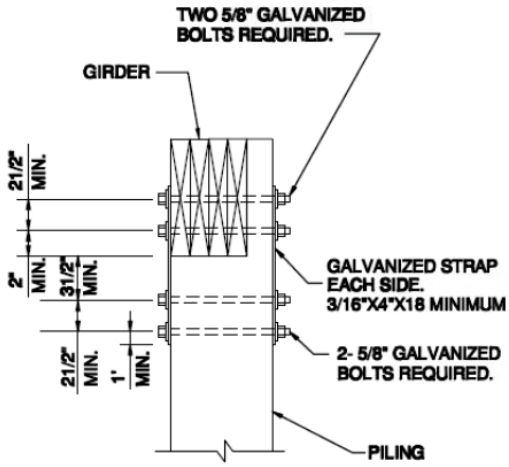



**FIGURE R4603.6(c)**
**PILING NOTCHED MORE THAN 50%**

Randall Shackelford, P.E. spoke as a proponent.

**Item C – 4 Request from Terry Cromer representing the NC Association of Electrical Contractors to amend the NC Electrical Building Code as follows:**

**410.2 Definition.**
**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.) shall not be defined as closet storage space. See Figure 410.2 Exception.*

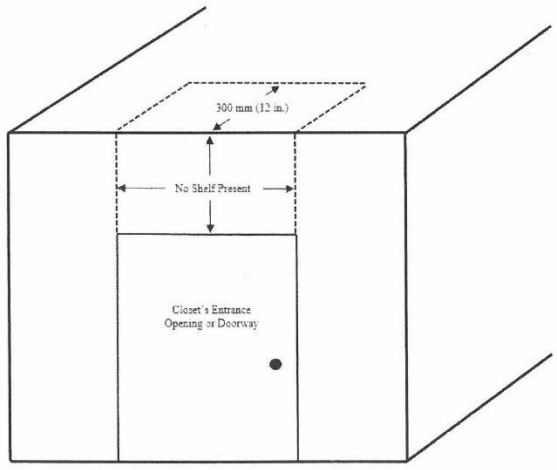



**Figure 410.2 Exception Closet Storage Space Exception**

Terry Cromer spoke as a proponent.

**Item C – 5 Request by Terry Cromer, representing the NC Association of Electrical Contractors to amend the NC State Electrical Code as follows:**

**410.16 Luminaires in Clothes Closets.**
**(C) Location.** The minimum clearance between luminaires installed in clothes closets and the nearest point of a closet storage space shall be as follows:
(1) 300 mm (12 in.) for surface-mounted incandescent or LED luminaires with a completely enclosed light source installed on the wall above the door or on the ceiling.
(2) 150 mm (6 in.) for surface-mounted fluorescent luminaires installed on the wall above the door or on the ceiling.
(3) 150 mm (6 in.) for recessed incandescent or LED luminaires with a completely enclosed light source installed in the wall or the ceiling.
(4) 150 mm (6 in.) for recessed fluorescent luminaires installed in the wall or the ceiling.
(5) Surface-mounted fluorescent or LED luminaires shall be permitted to be installed within the closet storage space where identified for this use.

(6) LED luminaires with a completely enclosed light source or fluorescent luminaires shall be permitted to be installed within the area defined in 410.2 Exception.

Terry Cromer spoke as a proponent.
Rick Frady would like it made clear as to whether the fluorescent open or closed.

**Item C – 6 Request by Jonathan Leonard representing the NC Fire Code Revisions Committee to amend the NC Fire Code 2018, Section 314.4 as follows:**

**314.4 Vehicles.** Liquid- or gas-fueled vehicles, boats or other motorcraft shall not be located indoors except as follows:

1. Batteries are disconnected.
   Exception: Alternative-Fueled vehicles in which manufacturer prohibits disconnection of power supply
2. Fuel in fuel tanks does not exceed one-quarter tank or 5 gallons (19L) (whichever is least).
   Exception: Diesel fueled vehicles-maximum fuel amount permitted shall be 20 gallons.
3. Fuel tanks and fill openings are closed and sealed to prevent tampering and the release of vapors.
4. Vehicles, boats or other motorcraft equipment are not fueled or defueled within the building.

Colin Triming spoke on behalf of the proponent.

**Item C – 7 Request by Jonathan Leonard representing the NC Fire Code Revisions Committee to amend the 2018 Fire and Building Code, Section 1010.1.9.11 as follows:**

**[BE] 1010.1.9.11 Stairway doors.**
Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.

2. This section shall not apply to doors arranged in accordance with Section 403.5.3 of the International Building Code.

3. ~~In stairways serving not more than four stories, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.~~

3. Stairway exit doors are permitted to be locked from the side opposite the egress side, provided that they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building and upon activation of the fire alarm if present.

4. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F, M and S occupancies where the only interior access to the tenant space is from a single exit stairway where permitted in Section 1006.3.2.

5. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the dwelling unit is from a single exit stairway where permitted in Section 1006. 3.2.

6. ~~In other than highrise, stairways serving floors above a 3 hour horizontal building separation, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon activation of the building fire alarm system.~~

Colin Triming spoke on behalf of the proponent.

**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 March 13, 2017. The Final Adoption meeting took place on June 12, 2018. The Council will give no further consideration to Petitions that are disapproved. Petitions that are approved will proceed through the Rulemaking process.

**Item D - 1 Request by Terry Cromer representing the N.C. Association of Electrical Contractors, Inc. to amend the 2017 North Carolina Electrical Code Amendment 320.23(A) as follows:**

**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.~~

Replace with:

**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) Cables Run Across the Top of Floor 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 where run across the top of floor joists, or the area directly over a permanent floor and not exceeding 2.1 m (7 ft) vertically from the floor.

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 are not to be considered as permanent stairs or ladders.*

**Residential Super Committee: Motion to accept. Second. Accepted.**
**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion to adopt. Second. Adopted.**

**Item D – 2 Request by Leon Skinner representing the City of Raleigh to amend the NC State Building Code, Volume 2018 NC Mechanical Code – Section 306.5 as follows:**

**306.5** Equipment and appliances on roofs or elevated structures. Where equipment and appliances requiring periodic maintenance are installed on roofs or elevated structures at a height exceeding 16 feet (4877 mm), such access shall be provided by a permanent approved means of access, the extent of which shall be from grade or floor level to the equipment and appliances' level service space. Such access shall not require climbing over obstructions greater than 30 inches (762 mm) high or walking on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope). Where access involves climbing over parapet walls, the height shall be measured to the top of the parapet wall.

**Exception:** Where permanent means of access is technically infeasible, wall-mounted equipment and appliance maintenance, replacement and repairs that are over 16 feet can be serviced by motorized equipment *upon*

*approval*.-The owner/tenant shall provide a maintenance service and cleaning schedule contract which shall be renewed annually.

**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion to adopt. Second. Adopted.**

**Item D – 3 Request by Leon Skinner representing the City of Raleigh to amend the NC State Building Code, Volume 2018 NC Fire Code – Section 1013.6.1 as follows:**

1013.6.1 Equipment and appliances on roofs or elevated structures. Where equipment and appliances requiring periodic maintenance are installed on roofs or elevated structures at a height exceeding 16 feet (4877 mm), such access shall be provided by a permanent approved means of access, the extent of which shall be from grade or floor level to the equipment and appliances' level service space. Such access shall not require climbing over obstructions greater than 30 inches (762 mm) high or walking on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope). Where access involves climbing over parapet walls, the height shall be measured to the top of the parapet wall.

**Exception:** Where permanent means of access is technically infeasible, wall-mounted equipment and appliance maintenance, replacement and repairs that are over 16 feet can be serviced by motorized equipment *upon approval*.-The owner/tenant shall provide a maintenance service and cleaning schedule contract which shall be renewed annually.

**Item withdrawn.**

**Item D – 4 Request by Daniel Priest representing the NC Building Code Council to amend the NC State Building Code, Volume 2018 Administrative Code and Policies, Section 106 as follows:**

**106.3 Permit Application.**
**106.3.1 Information required.** A permit application shall be filed with the Inspection Department on a form furnished for that purpose. The Inspection Department shall make available a list of information which must be submitted with the building permit application, including a complete building code summary (*see* Appendix A of the Administrative Code and Policies). The Inspection Department's building code summary shall be in the exact format as, and contain only the information in, Appendix B of the Administrative Code and Policies. The Inspection Department shall only modify its building code summary as set 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 of by the Building Code Council.

# 2018 APPENDIX B
# BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
## (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)

(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: _____

Address: _____ Zip Code _____

Owner/Authorized Agent: _____ Phone # ( _____ ) _____ - _____ E-Mail _____

Owned By: ☐ City/County ☐ Private ☐ State

Code Enforcement Jurisdiction: ☐ City_____ ☐ County_____ ☐ State

**CONTACT:** _____

| DESIGNER | FIRM | NAME | LICENSE # | TELEPHONE # | E-MAIL |
|---|---|---|---|---|---|
| Architectural | | | | (___)_____ | |
| Civil | | | | (___)_____ | |
| Electrical | | | | (___)_____ | |
| Fire Alarm | | | | (___)_____ | |
| Plumbing | | | | (___)_____ | |
| Mechanical | | | | (___)_____ | |
| Sprinkler-Standpipe | | | | (___)_____ | |
| Structural | | | | (___)_____ | |
| Retaining Walls >5' High | | | | (___)_____ | |
| Other | | | | (___)_____ | |

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

**2018 NC BUILDING CODE:** ☐ New Building ☐ Addition ☐ 1st Time Interior Completions ☐ Shell/Core* ☐ Phased Construction*

*Contact the local inspection jurisdiction for possible additional procedures and requirements.

**2018 NC EXISTING BUILDING CODE:** (check all that apply) ☐ Prescriptive ☐ Repair ☐ Chapter 14 ☐ Alteration Level I ☐ Alteration Level II ☐ Alteration Level III ☐ Historic Property ☐ Change of Use

**CONSTRUCTED:** (date) _____ **CURRENT OCCUPANCY(S)** (Ch. 3): _____

**RENOVATED:** (date) _____ **PROPOSED OCCUPANCY(S)** (Ch. 3): _____

**OCCUPANCY CATEGORY** (Table 1604.5): **Current:** _____ **Proposed:** _____

**BASIC BUILDING DATA**

**Construction Type:** ☐ I-A ☐ I-B ☐ II-A ☐ II-B ☐ III-A ☐ III-B ☐ IV ☐ V-A ☐ V-B

**Sprinklers:** ☐ No ☐ Partial ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D

**Standpipes:** ☐ No Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry

**Primary Fire District:** ☐ No ☐ Yes **Flood Hazard Area:** ☐ No ☐ Yes

**Special Inspections Required:** ☐ Yes ☐ No If special inspections are required, contact the local inspection jurisdiction for additional procedures and requirements.

**Gross Building Area Table**

| FLOOR | EXISTING (SQ FT) | NEW (SQ FT) | SUB-TOTAL |
|---|---|---|---|
| 3rd Floor | | | |
| 2nd Floor | | | |
| Mezzanine | | | |
| 1st Floor | | | |
| Basement | | | |
| TOTAL | | | |

## ALLOWABLE AREA

**Primary Occupancy Classification(s):**

Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
Business ☐
Educational ☐
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 ☐ I-2 I-1 & I-2 Condition ☐ 1 ☐ 2
☐ I-3 ☐ I-4 I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
Mercantile ☐
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Miscellaneous ☐

**Accessory Occupancy Classification(s):** _____

**Incidental Uses** (Table 509): _____

**Special Uses (Chapter 4 – List Code Sections):** _____

**Special Provisions: (Chapter 5 – List Code Sections)**: _____

**Mixed Occupancy:** ☐ No ☐ Yes Separation: _____ Hr. Exception: _____

☐ Non-Separated Use (508.3)

☐ Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\textit{Actual Area of Occupancy A}}{\textit{Allowable Area of Occupancy A}} + \frac{\textit{Actual Area of Occupancy B}}{\textit{Allowable Area of Occupancy B}} \leq 1$$

_____ + _____ + ... ... = _____ ≤ 1.00

| STORY NO. | DESCRIPTION AND USE | (A) BLDG AREA PER STORY (ACTUAL) | (B) TABLE 506.2[4] AREA | (C) AREA FOR FRONTAGE INCREASE[1,5] | (D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,3] |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

[1] Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
b. Total Building Perimeter = _____ (P)
c. Ratio (F/P) = _____ (F/P)
d. W = Minimum width of public way = _____ (W)

[2] Unlimited area applicable under conditions of Section 507.

[3] Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2).

[4] The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.

[5] Frontage increase is based on the unsprinklered area value in Table 506.2.

## ALLOWABLE HEIGHT

| | ALLOWABLE | SHOWN ON PLANS | CODE REFERENCE |
|---|---|---|---|
| Building Height in Feet (Table 504.3) | | | |
| Building Height in Stories (Table 504.4) | | | |

[1] Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

## FIRE PROTECTION REQUIREMENTS

| BUILDING ELEMENT | FIRE SEPARATION DISTANCE (FEET) | RATING REQ'D | RATING PROVIDED (W/_____* REDUCTION) | DETAIL # AND SHEET # | DESIGN # FOR RATED ASSEMBLY | SHEET # FOR RATED PENETRATION | SHEET # FOR RATED JOINTS |
|---|---|---|---|---|---|---|---|
| Structural Frame, including columns, girders, trusses | | | | | | | |
| Bearing Walls | | | | | | | |
| Exterior | | | | | | | |
| North | | | | | | | |
| East | | | | | | | |
| West | | | | | | | |
| South | | | | | | | |
| Interior | | | | | | | |
| Nonbearing Walls and Partitions Exterior walls | | | | | | | |
| North | | | | | | | |
| East | | | | | | | |
| West | | | | | | | |
| South | | | | | | | |
| Interior walls and partitions | | | | | | | |
| Floor Construction Including supporting beams and joists | | | | | | | |
| Floor Ceiling Assembly | | | | | | | |
| Columns Supporting Floors | | | | | | | |
| Roof Construction, including supporting beams and joists | | | | | | | |
| Roof Ceiling Assembly | | | | | | | |
| Columns Supporting Roof | | | | | | | |
| Shaft Enclosures - Exit | | | | | | | |
| Shaft Enclosures - Other | | | | | | | |
| Corridor Separation | | | | | | | |
| Occupancy/Fire Barrier Separation | | | | | | | |
| Party/Fire Wall Separation | | | | | | | |
| Smoke Barrier Separation | | | | | | | |
| Smoke Partition | | | | | | | |
| Tenant/Dwelling Unit/ Sleeping Unit Separation | | | | | | | |
| Incidental Use Separation | | | | | | | |

* Indicate section number permitting reduction

## PERCENTAGE OF WALL OPENING CALCULATIONS

| Fire Separation Distance (Feet) from Property lines | Degree of openings Protection (Table 705.8) | Allowable area (%) | Actual shown on plans (%) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

## LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ☐ Yes
Exit Signs: ☐ No ☐ Yes
Fire Alarm: ☐ No ☐ Yes
Smoke Detection Systems: ☐ No ☐ Yes ☐ Partial _____
Carbon Monoxide Detection: ☐ No ☐ Yes

## LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _____

- ☐ Fire and/or smoke rated wall locations (Chapter 7)
- ☐ Assumed and real property line locations (if not on the site plan)
- ☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
- ☐ Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
- ☐ Occupant loads for each area
- ☐ Exit access travel distances (1017)
- ☐ Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
- ☐ Dead end lengths (1020.4)
- ☐ Clear exit widths for each exit door
- ☐ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- ☐ Actual occupant load for each exit door
- ☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- ☐ Location of doors with panic hardware (1010.1.10)
- ☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
- ☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
- ☐ Location of doors equipped with hold-open devices
- ☐ Location of emergency escape windows (1030)
- ☐ The square footage of each fire area (202)
- ☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
- ☐ Note any code exceptions or table notes that may have been utilized regarding the items above

## ACCESSIBLE DWELLING UNITS
(SECTION 1107)

| TOTAL UNITS | ACCESSIBLE UNITS REQUIRED | ACCESSIBLE UNITS PROVIDED | TYPE A UNITS REQUIRED | TYPE A UNITS PROVIDED | TYPE B UNITS REQUIRED | TYPE B UNITS PROVIDED | TOTAL ACCESSIBLE UNITS PROVIDED |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## ACCESSIBLE PARKING
(SECTION 1106)

| LOT OR PARKING AREA | TOTAL # OF PARKING SPACES | | # OF ACCESSIBLE SPACES PROVIDED | | | TOTAL # ACCESSIBLE PROVIDED |
|---|---|---|---|---|---|---|
| | REQUIRED | PROVIDED | REGULAR WITH 5' ACCESS AISLE | VAN SPACES WITH 132" ACCESS AISLE | VAN SPACES WITH 8' ACCESS AISLE | |
| | | | | | | |
| | | | | | | |
| TOTAL | | | | | | |

## PLUMBING FIXTURE REQUIREMENTS
**(TABLE 2902.1)**

| USE | | WATERCLOSETS | | | URINALS | LAVATORIES | | | SHOWERS /TUBS | DRINKING FOUNTAINS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MALE | FEMALE | UNISEX | | MALE | FEMALE | UNISEX | | REGULAR | ACCESSIBLE |
| SPACE | EXIST'G | | | | | | | | | | |
| | NEW | | | | | | | | | | |
| | REQ'D | | | | | | | | | | |

## SPECIAL APPROVALS

**Special approval:** (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

## ENERGY SUMMARY

**ENERGY REQUIREMENTS:**
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

**Existing building envelope complies with code:** ☐ (If checked the remainder of this section is not applicable.)

**Exempt Building:** ☐ Provide code or statutory reference:

**Climate Zone:** ☐ 3A ☐ 4A ☐ 5A

**Method of Compliance:**

Energy Code ☐ Performance ☐ Prescriptive
ASHRAE 90.1 ☐ Performance ☐ Prescriptive
Other ☐ Performance (specify source) _____

**THERMAL ENVELOPE** (Prescriptive method only)

**Roof/ceiling Assembly** (each assembly)

Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

**Exterior Walls** (each assembly)

Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Openings (windows or doors with glazing)
U-Value of assembly: _____
Solar heat gain coefficient: _____
projection factor: _____
Door R-Values: _____

**Walls below grade** (each assembly)

Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____

**Floors over unconditioned space** (each assembly)

Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____

**Floors slab on grade**

Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
slab heated: _____

# 2018 APPENDIX B
# BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
### STRUCTURAL DESIGN
### (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

**DESIGN LOADS:**

**Importance Factors:** Wind ($I_W$) _____
Snow ($I_S$) _____
Seismic ($I_E$) _____

**Live Loads:** Roof _____ psf
Mezzanine _____ psf
Floor _____ psf

**Ground Snow Load:** _____ psf

**Wind Load:** Basic Wind Speed _____ mph (ASCE-7)
Exposure Category _____

**SEISMIC DESIGN CATEGORY:** ☐ A ☐ B ☐ C ☐ D

Provide the following Seismic Design Parameters:

**Occupancy Category** (Table 1604.5) ☐ I ☐ II ☐ III ☐ IV

**Spectral Response Acceleration** $S_S$_____ %g $S_1$_____ %g

**Site Classification** (ASCE 7) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F
Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data

**Basic structural system** (check one)
☐ Bearing Wall ☐ Dual w/Special Moment Frame
☐ Building Frame ☐ Dual w/Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum

**Analysis Procedure:** ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic

**Architectural, Mechanical, Components anchored?** ☐ Yes ☐ No

**LATERAL DESIGN CONTROL:** Earthquake ☐ Wind ☐

**SOIL BEARING CAPACITIES:**
Field Test (provide copy of test report) _____ psf
Presumptive Bearing capacity _____ psf
Pile size, type, and capacity _____

# 2018 APPENDIX B
# BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
## MECHANICAL DESIGN
## (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

### MECHANICAL SUMMARY

**MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**

**Thermal Zone**

winter dry bulb: _____
summer dry bulb: _____

**Interior design conditions**

winter dry bulb: _____
summer dry bulb: _____
relative humidity: _____

**Building heating load:** _____

**Building cooling load:** _____

**Mechanical Spacing Conditioning System**

Unitary
- description of unit: _____
- heating efficiency: _____
- cooling efficiency: _____
- size category of unit: _____

Boiler
- Size category. If oversized, state reason.: _____

Chiller
- Size category. If oversized, state reason.: _____

**List equipment efficiencies:** _____

# 2018 APPENDIX B
# BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

**ELECTRICAL DESIGN**
**(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)**

**ELECTRICAL SUMMARY**

**ELECTRICAL SYSTEM AND EQUIPMENT**

**Method of Compliance:**

Energy Code: ☐ Prescriptive ☐ Performance
ASHRAE 90.1: ☐ Prescriptive ☐ Performance

**Lighting schedule** (each fixture type)

lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
total interior wattage specified vs. allowed (whole building or space by space)
total exterior wattage specified vs. allowed

**Additional Prescriptive Compliance**

☐ 506.2.1 More Efficient Mechanical Equipment
☐ 506.2.2 Reduced Lighting Power Density
☐ 506.2.3 Energy Recovery Ventilation Systems
☐ 506.2.4 Higher Efficiency Service Water Heating
☐ 506.2.5 On-Site Supply of Renewable Energy
☐ 506.2.6 Automatic Daylighting Control Systems

**Commercial Super Committee: Motion to accept. Second. Accepted.**
**Building Code Council: Motion to adopt. Second. Adopted.**

**Part E – Reports**

- **Chairman's Report**
  Chairman Robbie Davis reminded Council members that Committee meetings are open to all committee members. Committee meetings will now begin at 1:00. Committees were also reminded that Counsel is available to attend the meetings if requested.

- **Ad-Hoc Committee Reports**
  Council member Leon Skinner brought up HB 255 legislative report.
  Robbie Davis will call an Administrative Committee meeting to discuss how to report.
  Randall Shackelford addressed the wait times with ICC evaluation services as it is currently 6 months.
  Wade White addressed reliability of Electric Service Boards and would like a way to quantitatively measure the reliability of the electric service as well as other services. Would like an industry group created to work on this.

- **Standing Committee Reports**
  Electrical, Fire, and Building Committees met on June 11th and reviewed the items on the agenda.

- **Staff Reports**
  Barry Gupton reported the 2018 Codes are in the proof stage and at the printer except for the Administrative Codes. Codes will be printed in July and pre-orders are being accepted.
  Cliff Isaac addressed:
  - Section 107 in the Administrative Code and requested a group be formed to review and fix the issues regarding the inspections.
  - writing a guidance for jurisdictions for farm buildings.
  - whether guidelines need to be amended to exempt certain size docks and piers for permit because it's in the building codes.

- **Public Comments**
  Robert Privott with the NC Home Builders Association addressed a letter from Sen. Wade sent to a Developer in High Point regarding villa type – single family rental dwellings and interpretation issues for sprinkler requirements. He requested an Ad-Hoc committee be formed to provide clarification.

**Part F – Appeals**

The Isaac Woods and BBUDC, Inc. Appeal is scheduled for Wednesday, August 1, 2018. The appeal will take place in the Albemarle Building, 325 North Salisbury Street, Raleigh, NC 27603, 2nd Floor Training Room 240.

**Adjourned.**