



North Carolina Building Code Council

Staffed by the NC Office of State Fire Marshal

Brian Taylor, State Fire Marshal
David Bruce Rittlinger, PE, Secretary

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Building Code Council

Chair:

Bridget Herring - 29
(Public Representative)

Vice Chairman:

Mark Matheny - 27
(Building Inspector)

Members:

Michael Ali, PE - 29
(State Agency)

Robert Axford - 25
(Electrical Contractor)

Chris Berg, PE - 27
(Structural Engineer)

Andrew C. Cole, AIA - 28
(Architect)

Ralph Euchner - 25
(Gas Industry)

David Gieser, RA - 28
(Architect)

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(General Contractor)

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(Plumbing & Heating Contractor)

Jason B. Shepherd - 27
(Fire Services)

Derrick Thompson - 28
(Municipal Government Rep)

Kim Wooten, PE - 25
(Electrical Engineer)

Robert Zapple - 28
(County Gov't Rep)

August 15, 2024

Bridget Herring
P.O. Box 7148
Asheville, NC 28802

RE: Agenda for the September 10, 2024 NC Building Code
Council Meeting

Ms. Herring:

This is officially to notify you and other interested parties of a regularly scheduled meeting of the NC Building Code Council. Persons requiring auxiliary services should notify the Council at least ten business days prior to the meeting.

1. The NC Building Code Council Standing Committee Meeting will begin at 1:00PM Monday, September 9, 2024, in Room 240 (Albemarle Building) 325 North Salisbury Street, Raleigh, NC 27603.
2. The NC Building Code Council Meeting and Public Hearing will begin at 9:00AM on Tuesday, September 10, 2024, in Room 245 (Albemarle Building) 325 North Salisbury Street, Raleigh, NC 27603. The meeting can be viewed remotely via Facebook Live (<https://www.facebook.com/NCOSFMEngineering>). Remote access does not provide capability to address the council.
3. The Agenda is printed as follows:
 - A- Items – Administrative items that require Council action and temporary rules.
 - B- Items – New amendment petitions introduced at this meeting.
 - C- Items – Amendments that have been granted by the Council and advertised in the NC Register for public hearing.
 - D- Items – Adoption of amendments by the Council prior to approval by the Rules Review Commission.
 - E- Items – Reports from Committees and Staff.
 - F- Items – Notice of Appeal Hearings.

Part A – Administrative Items

- Item A – 1 Ethics Statement: Inquire upon conflicts of interest or appearance of conflicts that exist within the Council.**
- Item A – 2 Approval of minutes of the June 11, 2024 and June 17, 2024 NC Building Code Council Public Hearing and Meetings.**
- Item A – 3 OSFM request for 6-month overlap period concerning use of the 2018 and 2024 North Carolina State Building Code.**
- Item A – 4 Rules Review Commission Meeting Report**
- Item A – 5 Public Comments**

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 public hearing will take place after the September 10, 2024 meeting, at the next available public hearing. All B items can be viewed and downloaded from: <https://www.ncosfm.gov/news/events/building-code-council-public-hearing-september-10-2024>

There will be no B items received from the floor.

- Item B – 1 Request from Tammy Pratt representing Family Child Care Homes of North Carolina to amend the 2024 NC Building Code, Section 310.4 Residential Group R-3 and 2024 NC Fire Code 203.10.3 Residential Group R-3 as follows:**

2024 NCBC:

310.4 Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

....

~~Child day care facilities that provide accommodations meeting one of the following criteria: for eight or fewer persons with no more than five for a preschool for less than 24 hours.~~

....

310.4.3 Family Child Care Home. A licensed family child care home meeting the criteria outlined in N.C.G.S. 110-86 (3)b and having a capacity that does not exceed the limits prescribed in N.C.G.S. 110-91 (7)b shall be classified as Group R-3 occupancy and shall comply with Section 431.

....

2024 NCFC:

203.10.3 Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

....

~~Child day care facilities that provide accommodations meeting one of the following criteria: for eight or fewer persons with no more than five for a preschool for less than 24 hours.~~

....

203.10.3.3 Family Child Care Home. A licensed family child care home meeting the criteria outlined in N.C.G.S. 110-86 (3)b and having a capacity that does not exceed the limits prescribed in N.C.G.S. 110-91 (7)b shall be classified as Group R-3 occupancy and shall comply with Section 431 of the *International Building Code*.

Message from OSFM staff: Of note, Item B-1 requires a fiscal note to be approved by the NC Office of State Budget Management (OSBM) per the requirements of N.C.G.S 143-138(a1)(1). A fiscal note has been provided by the proponent by the date of this printing of the agenda. If this code-change petition is approved at this meeting to proceed to rule-making proceedings, OSFM staff will send this code-change petition and fiscal note to OSBM for their consideration.

Item B – 2 Request from Carl Martin representing himself to amend the 2024 NC Building Code, Section 1108.6.1.2 Type B units as follows:

1108.6.1.2 Type B units. (Deleted)

~~In structures with four or more dwelling units or sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.~~

~~**Exception:** The number of Type B units is permitted to be reduced in accordance with Section 1108.7.~~

Item B – 3 Request from Anthony L. Smith and Kerry J. Smith representing Carteret Boat Storage to amend the 2018 NC Fire Code and the 2024 NC Fire Code by adding an exception to Section 906.1 as follows:

2018 NC Fire Code

906.1 Where required. Portable fire extinguishers shall be installed in all of the following locations:

1. In new and existing Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.

Exception:

Exceptions:

1. In Group R-2 occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each *dwelling unit* is provided with a portable fire extinguisher having a minimum rating of 1-A:10-B:C.
2. Where one-story Group S storage units are leased and locked, and there is no common corridor for exit.

....

2024 NC Fire Code

906.1 Where required. Portable fire extinguishers shall be installed in all of the following locations:

1. In new and existing Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.

Exceptions:

1. In Group R-2 occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each dwelling unit is provided with a portable fire extinguisher having a minimum rating of 1-A:10-B:C.
2. In Group E occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each classroom is provided with a portable fire extinguisher having a minimum rating of 2-A:20-B:C.
3. In storage areas of Group S occupancies where forklift, powered industrial truck or powered cart operators are the primary

occupants, fixed extinguishers, as specified in NFPA 10, shall not be required where in accordance with all of the following:

- 3.1. Use of vehicle-mounted extinguishers shall be *approved* by the *fire code official*.
 - 3.2. Each vehicle shall be equipped with a 10-pound, 40A:80B:C extinguisher affixed to the vehicle using a mounting bracket *approved* by the extinguisher manufacturer or the *fire code official* for vehicular use.
 - 3.3. Not less than two spare extinguishers of equal or greater rating shall be available on-site to replace a discharged extinguisher.
 - 3.4. Vehicle operators shall be trained in the proper operation, use and inspection of extinguishers.
 - 3.5. Inspections of vehicle-mounted extinguishers shall be performed daily.
4. Where one-story Group S storage units are leased and locked, and there is no common corridor for exit.

Additional information to support this proposal is provided at the link below: <https://www.ncosfm.gov/news/events/building-code-council-public-hearing-september-10-2024>

Message from OSFM staff: Of note, the proponent indicated on the Appendix C Code Proposal Form that this petition will not cause a substantial economic. In consultation with OSFM staff, it is our opinion that the exemption of installing fire extinguishers for one-story Group S storage units that are leased and locked, and with no common corridor for exit would create a substantial economic impact statewide of more than \$ 1 million. Given this determination, OSFM recommends to the NCBCC that a fiscal note to be approved by the NC Office of State Budget Management (OSBM) per the requirements of N.C.G.S 143-138(a1)(1) is required for this code change petition. If the NCBCC determines that a fiscal note is required and if this code-change petition is approved at the 9/10/24 NCBCC to proceed to rule-making proceedings, the proponent will be required to provide a fiscal note approved by OSBM prior to the 11/15/24 publication of the NC Register as per N.C.G.S. 150B-21.2. If the NCBCC determines that a fiscal note is not required, then no further action towards developing a fiscal note by the proponent would be required.

Part C – Notice of Rulemaking Proceedings and Public Hearing

The following Petitions for Rulemaking have been granted by the Council. Notice of Rulemaking proceedings has been made. The Public Hearing will be held on September 10, 2024, and the Final Adoption meeting may take place after the public comment period ends. The written public comment period expires on October 14, 2024.

On-site Sign-up Sheet: 3 minutes for public comments.

Item C – 1 Request from David Rittinger representing the NC Office of State Fire Marshal to amend Chapter 36 of the 2018 NC Building Code to reflect the requirements of North Carolina General Assembly Session Law 2023-137, Section 35 “Restore 2009 Building Code Standards for Piers and Docks Constructed in Estuarine Waters”. (2024611 Item B-1)

Due to size, this petition can be conveniently viewed at the link below:
<https://www.ncosfm.gov/news/events/building-code-council-public-hearing-june-11-2024>

Item C – 2 Request from David Rittinger representing the NC Office of State Fire Marshal to amend Chapter 36 of the 2024 NC Building Code to reflect the requirements of North Carolina General Assembly Session Law 2023-137, Section 35 “Restore 2009 Building Code Standards for Piers and Docks Constructed in Estuarine Waters”. (2024611 Item B-2)

Due to size, this petition can be conveniently viewed at the link below:
<https://www.ncosfm.gov/news/events/building-code-council-public-hearing-june-11-2024>

Item C – 3 Request from Joseph Starling, PE representing the NC Office of State Fire Marshal to amend the 2023 NC Electrical Code, Article 100 – Definitions – Selective Coordination as follows (2024611 Item B-3):

Article 100 – Definitions

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Coordination, Selective. (Selective Coordination) Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, ~~accomplished~~ for fault current events that extend beyond 0.1 second, and accomplished by the selection and installation of overcurrent protective devices and their ratings or settings for the full range of available overcurrents, from overload to the available fault current, under such conditions, whether originating from overload, ground-fault or short circuit, and for the full range of overcurrent protective device opening times associated with those overcurrents. applicable to such events.

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Item C – 4 Request from Joseph Starling, PE representing the NC Office of State Fire Marshal to amend the 2023 NC Electrical Code, Section 551.71(F)(C), Receptacles Installed in Recreational Vehicle Site Equipment as follows (2021611 Item B-4):

Current Amendment of the 2023 North Carolina Electrical Code:

~~**Item 26: Requiring GFCI for 30- and 50-amp receptacles in RV site equipment the same as non-RV site equipment in (A) for RV parks; Retaining 2020 Code requirements.**~~

~~**AMENDMENT 551.71(F)(2)**~~

~~Amend NEC 2023, page 516:~~

~~**(2) Receptacles Installed in Recreational Vehicle Site Equipment.**~~

~~Ground fault circuit interrupter protection shall be provided as required in 210.8(B).~~

~~Informational Note No. 1: The definition of Feed Assembly clarifies that the power supply cord to a recreational vehicle is considered a feeder.~~

~~Repeal Amendment and Replace with Original Text of the 2023 NEC in the 2023 North Carolina Electrical Code:~~

(2) Receptacles Installed in Recreational Vehicle Site Equipment.

Ground-fault circuit-interrupter protection shall only be required for 125-volt, single-phase, 15- and 20-ampere receptacles.

Informational Note No. 1: Appliances used within- the recreational vehicle can create leakage current levels at the supply receptacle(s) that could exceed the limits of a Class A GFCI device.

Informational Note No. 2: The definition of Feed Assembly clarifies that the power supply cord to a recreational vehicle is considered a feeder.

Item C – 5 Request from Dan Dittman representing the NC Office of State Fire Marshal to amend the 2018 NC Energy Conservation Code, Sections R402.2.2.1, R402.2.2.2, Table R402.1.2, and R402.1.4 to reflect the requirements of North Carolina General Assembly Session Law 2023-108, Section 5 “Amend Insulation Requirements for Unvented Attic and Enclosed Rafter Assemblies” as follows (2024611 Item B-5):

R402.2.2 Ceilings without attic spaces.

R402.2.2.1 Roof Ceiling Assemblies. Where Section R402.1.2 would require R-38 insulation and the design of the roof/ceiling assembly, including cathedral ceilings, bay windows and other similar areas, does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. This reduction of insulation from the requirements of Section R402.1.2 shall be limited to 500 square feet (46 m²) of the total insulated ceiling area. This reduction shall not apply to the *U*-factor alternative approach in Section R402.1.4 and the total UA alternative in Section R402.1.5.

R402.2.2.2 Unvented attic and unvented enclosed rafter assembly alternate.

Where Table R402.1.2 requires R-38 insulation in the ceiling, or Table R402.1.4 requires a ceiling U-factor of 0.030, installing air-impermeable insulation, as follows, to the underside or directly above the roof deck shall be deemed to satisfy the R-38 requirements: (i) R-20 (equivalent U-factor 0.05) for climate zone 3;(ii) R-25 (equivalent U-factor 0.037) for climate zone 4; and (iii) R-25 (equivalent U-factor 0.037) for climate zone 5. These air-impermeable insulation alternative R-value minimums apply in residences meeting the following criteria:

- (1) The unvented attic or unvented enclosed rafter assemblies are constructed under Section R806.5 of the North Carolina Residential Code.
- (2) The residence contains a mechanical ventilation system that operates on a positive, balanced, or hybrid pressure strategy in accordance with North Carolina Mechanical Code Section 403.3.
- (3) For residences with air-impermeable insulation installed below the roof deck, exposed portions of the roof rafters are wrapped by a minimum of R-3 insulation unless directly covered by drywall or finished ceiling material. For residences with air-impermeable insulation installed above the roof deck, roof rafters do not require insulation wrapping if air-impermeable insulation installed above the roof deck is continuous.
- (4) The residence obtains an ACH50 blower door test result of less than 3.0.
- (5) The residence contains heating, cooling, and ventilation equipment and ductwork within thermal envelope.

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**TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a**

CLIMATE ZONE	FENESTRATION U-FACTOR ^{b,i}	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SI	CEILING R-VALUE ^{m,p}	WOOD FRAME WA VALUE	MASS WALL VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^{c,o} W R-VALUE	SLAB R-VAL DEPTH	CRAWL SP WALL R-VA
3	0.35	0.55	0.30	38 or 30ci ^l	15 or 13+2	5/13 or 5/1	19	5/13 ^f	0	5/13
4	0.35	0.55	0.30	38 or 30ci ^l	15 or 13+2	5/13 or 5/1	19	10/15	10	10/15
5	0.35	0.55	NR	38 or 30ci ^l	19 ⁿ or 13+ 15+3 ^h	13/17 or 13/12.5ci	30 ^g	10/15	10	10/19

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p. Alternately, per North Carolina General Assembly Session Law 2023-108, Section 6 (effective 8/16/23), unvented attic and unvented enclosed rafter assemblies can utilize R402.2.2.2 where the assembly can comply with the criteria listed under R402.2.2.2.

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**TABLE R402.1.4
EQUIVALENT U-FACTORS^a**

CLIMATE ZONE	FENESTRATION U-FACTOR ^d	SKYLIGHT U-FACTOR	CEILING U-FACTOR ^e	FRAME WA FACTOR	MASS WALL FACTOR ^b	FLOOR U-FACTOR	BASEMENT WALL U-FACTO	CRAWL SPA WALL U-FA
3	0.35	0.55	0.030	0.077	0.141	0.047	0.091 ^c	0.136
4	0.35	0.55	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.55	0.030	0.061	0.082	0.033	0.059	0.065

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e. Alternately, per North Carolina General Assembly Session Law 2023-108, Section 6 (effective 8/16/23), unvented attic and unvented enclosed rafter assemblies can utilize R402.2.2.2 where the assembly can comply with the criteria listed under R402.2.2.2.

Of note, this amendment is being filed to comply with the requirements of N.C. Sess. L. 2023-1 108, § 6 (eff. Aug. 16, 2023). As such, the proposal was not vetted for cost of construction, increasing the cost of a dwelling by \$80 or more, affecting Local or State funds, or if it will cause a substantial impact. Likewise, a cost-benefit analysis was not performed because the code change was a directive by the North Carolina General Assembly to codify the language.

Item C – 6 Request from Dan Dittman representing the NC Office of State Fire Marshal to amend the 2024 NC Energy Conservation Code, Section R402 Building Thermal Envelope to reflect the requirements of North Carolina General Assembly Session Law 2023-108, Section 5 “Amend Insulation Requirements for Unvented Attic and Enclosed Rafter Assemblies” as follows (2024611 Item B-6):

Due to size, this petition can be conveniently viewed at the link below:
<https://www.ncosfm.gov/news/events/building-code-council-public-hearing-june-11-2024>

Message from OSFM staff: A fiscal note as required by N.C.G.S. 143-138 (a1)(1) and approved by OSBM is in development. A cost benefit analysis as required by N.C.G.S. 143-138 (a1)(2) was completed after the start of the public comment period on 8/15/24 as is available at the link to the petition above. This petition will require another public comment period and hearing in which the fiscal note and cost benefit analysis is provided to the public for the entire duration of the public comment period and hearing.

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 10, 2024 for all petitions. The written public comment period expired on July 15, 2024. The Final Adoption meeting will take place on September 10, 2024. 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, 2025, *unless* otherwise noted.

Item D – 1 Request from Phillip Scott of BFPE International to amend the 2024 NC Fire Code, Section 510.1 Emergency responder communication coverage in new buildings, Exception #4 as follows (240319 Item B-1):

Exceptions:

....

4. ~~New buildings 7,500 square feet or less and not more than 1 story above grade plane.~~ One-story buildings not exceeding 12,000 square feet with no below-ground area(s).

Message from OSFM staff: Item D-1 requires a fiscal note to be approved by the NC Office of State Budget Management per the

requirements of N.C.G.S 143-138(a1)(1). A fiscal note has not been provided by the proponent by the date of this printing of the agenda.

Item D – 2 Request from Adam Smith representing Carolina’s Association of RV Parks and Campgrounds to amend the 2023 NC Electrical Code, Section 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel, (F) Outdoor Outlets as follows (240319 Item B-2):

(F) Outdoor Outlets. For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection:

- (1)Garages that have floors located at or below grade level
- (2)Accessory buildings
- (3)Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.

Exception No. 3: GFCI protection for an RV park pedestal is covered in 551.71(F).

Item D – 3 Request from David Rittlinger representing staff to amend the 2024 edition of the North Carolina Administrative Code and Policies, Table 202.5 and Appendix C as follows (240319 Item B-4):

**Table 202.5.5
Typical Timeline Example for Adopted Rules**

Rule Petition Received:	February 1
Standing Committee First Review:	February – March <u>June</u>
Rule Petition Granted for Public Hearing : <u>Hearing (B-items)</u> :	March BCC meeting
Notice of Hearing Published:	April NC Register
Hearing Held : <u>Held (C-items)</u> :	June BCC public hearing
Standing Committee Final Review:	June – September <u>BCC Standing Committee meeting</u>
Final Rule Adoption : <u>Adoption (D-items)</u> :	September <u>June</u> BCC meeting
Rules Review Meeting:	November <u>July or August</u> RRC meeting
Effective:	First day of the month following the month the adopted rule is approved by RRC or a delayed effective date approved by the BCC.

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Typical Timeline Example for Adopted Rules	
Rule Petition Received:	February 1
Standing Committee First Review	February - March <u>June</u>
Rule Petition Granted for Public Hearing : <u>Hearing items)</u> :	March BCC meeting
Notice of Hearing Published:	April NC Register
Hearing Held : <u>Held (C-items)</u> :	June BCC public hearing
Standing Committee Final Review	June – September <u>BCC Standing Committee meeting</u>
Final Rule Adoption : <u>Adoption (D-items)</u> :	September <u>June</u> BCC meeting
Rules Review Meeting:	November <u>July or August</u> RRC meetin
Effective:	First day of the month following the mo the adopted rule is approved by RRC o delayed effective date approved by the B

Part E – Reports

- ❖ **Ad-Hoc Committee Reports**
- ❖ **Standing Committee Reports**
- ❖ **Staff Reports**
- ❖ **Chairman’s Report**

Part F – Appeals

BBUDC, Inc vs. Durham City/County Inspections Department is scheduled for 9:00 AM on Wednesday, October 30, 2024, Room 240 of the Albemarle Building located at 325 North Salisbury Street, Raleigh NC, 27603.

Sincerely,



David Bruce Rittlinger, PE. Secretary,
NC Building Code Council