

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Application of the 2020 State Electrical Code with Respect to the Scope of the Residential Code for One- and Two-Family Dwellings

Code: 2020 Electrical Code
Sections: 10.1 & 10.2

Date: November 1, 2021

Question 1:

Sections 10.1 and 10.2 of the 2020 State Electrical Code (2020 NEC with 2020 North Carolina adopted Amendments) exclude one- and two-family dwellings by North Carolina Amendment. Are townhouses and accessory buildings for one- and two-family dwellings also excluded by Amendment from the provisions of the 2020 State Electrical Code?

Answer 1:

The text within sections 10.1 and 10.2 of the Amendments that exclude one- and two-family dwellings was adopted to ensure compliance with the N.C. General Statute 143-138(d); which prohibits revision of the Residential Code for One- and Two-Family Dwellings until January 1, 2025. It is the opinion of the State Electrical Division that the intent of the statute and the Amendment is to require that all structures within the scope of the Residential Code for One- and Two-Family Dwellings are regulated by the electrical code that was applicable at the current Residential Code's time of adoption, which was the 2017 State Electrical Code (2017 NEC with 2017 North Carolina adopted Amendments).

Therefore, the electrical systems of all structures described in the scope of section R101.2 of the Residential Code for One- and Two-Family Dwellings are regulated by the 2017 State Electrical Code. Such scope includes townhouses that are not more than three stories above grade plane in height with a separate means of egress, and accessory structures that are not more than three stories above grade plane in height. Common accessory structures which typically include electrical equipment are detached garages and storage buildings, swimming pools, spas, and docks. Accessory structures must be an accessory to a structure or future structure that is also regulated by the Residential Code for One- and Two-Family Dwellings. Residential multifamily structures, such as triplexes, condominiums, apartments, are not within the scope of the Residential Code for One- and Two-Family Dwellings and therefore subjected to the requirements of the 2020 State Electrical Code.

A reprint of the scope of the Residential Code for One- and Two-Family Dwellings (section R101.2) as applicable at the time of this interpretation is provided on the last page of this document.

Question 2:

Are the 2017 North Carolina adopted Amendments applicable to one- and two-family dwellings?

Answer 2:

Yes. All structures within the scope of the Residential Code for One- and Two-Family Dwellings (section R101.2) are regulated by the 2017 State Electrical Code. When the phrase “State Electrical Code” is used, that phrase is specific to both an adopted version of the NEC and the Amendments that are approved by the Building Code Council and Rules Review Commission. Amendments are not automatically rolled into each Code cycle; the Amendments are written specific for each Code cycle.

Question 3:

As of November 1, 2021, does North Carolina possess more than one official State Electrical Code?

Answer 3:

No. As of November 1, 2021, the one and only official electrical code is the 2020 State Electrical Code (2020 NEC with 2020 North Carolina adopted Amendments). The Amendments of the 2020 State Electrical Code dictate that another standard shall be used to regulate the electrical system for one- and two-family dwellings. That standard just happens to be the 2017 State Electrical Code (2017 NEC with 2017 North Carolina adopted Amendments).

R101.2 Scope.

The provisions of the *International Residential Code for One- and Two-family Dwellings* shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height. Single family dwellings otherwise permitted by this code shall include bed and breakfast homes.

Exceptions:

1. Livework units located in townhouses and complying with the requirements of Section 419 of the *International Building Code* shall be permitted to be built as one- and two- family dwellings or townhouses. Fire suppression required by Section 419.5 of the *International Building Code* where constructed under the *International Residential Code* for One- and Two-family Dwellings shall conform to Section P2904.
2. Deleted.

R101.2.1 Accessory buildings.

Accessory buildings with any dimension greater than 12 feet (3658 mm) shall meet the provisions of this code. Accessory buildings are permitted to be constructed without a masonry or concrete foundation, except in coastal high hazard or ocean hazard areas, provided all of the following conditions are met:

1. The accessory building shall not exceed 400 square feet (37 m²) or one story in height.
2. The building is supported on a wood foundation of minimum 2-inch by 6-inch (51-mm by 152-mm) or 3-inch by 4-inch (76-mm by 102-mm) mudsill of approved wood in accordance with Section R317, and
3. The building is 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 20 psf (958 Pa) times the plan area of the building.

R101.2.2 Accessory structures.

The following accessory structures shall meet the provisions of this code.

1. Decks, see Appendix M.
2. Gazebos.
3. Retaining walls, see Section R404.4.
4. Detached masonry chimneys located less than 10 feet (3048 mm) from other buildings or lot lines.
5. Swimming pools and spas, see Appendix V.
6. Detached carports.
7. Docks, piers, bulkheads, and waterway structures, see Section R327.

Exception: Portable, lightweight carports not exceeding 400 square feet (37 m²) or 12 feet (3658 mm) mean roof height.