### Welcome

# Construction Regulation in NC

History – Legislative Update – Permitting -Amendments



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### Disclaimer:

"THE NORTH CAROLINA LICENSING BOARD FOR GENERAL CONTRACTORS HAS APPROVED THIS COURSE ONLY AS TO ITS RELEVANCE TO THE PRACTICE OF GENERAL CONTRACTING IN NORTH CAROLINA. THE COURSE PROVIDER AND INSTRUCTOR ARE RESPONSIBLE FOR THE ACCURACY OF THE CONTENT AND COMPLIANCE WITH ALL STATE AND FEDERAL LAWS DURING THE ADMINISTRATION OF THE COURSE".



### A FEW HOUSE KEEPING RULES



- 1. Each credit hour consists of 50 minutes instruction and 10-minute break
- 2. Class will consist of 6 hours of elective CE and 2 hours of board mandatory CE training
- 3. Each credit hour consists of 50 minutes instruction and 10-minute break
- 4. Open discussion knowledge review at the end of each section
- 5. Certificate of completion emailed after class along with a feedback survey







# Construction Regulation in NC

Course objectives

- 1. Identify key challenges to the construction industry and future implications
- 2. Review current legislative action impacting NC
- 3. Review current permit requirements
- 4. Review amendments to the current 2018 NC Building and Residential Codes



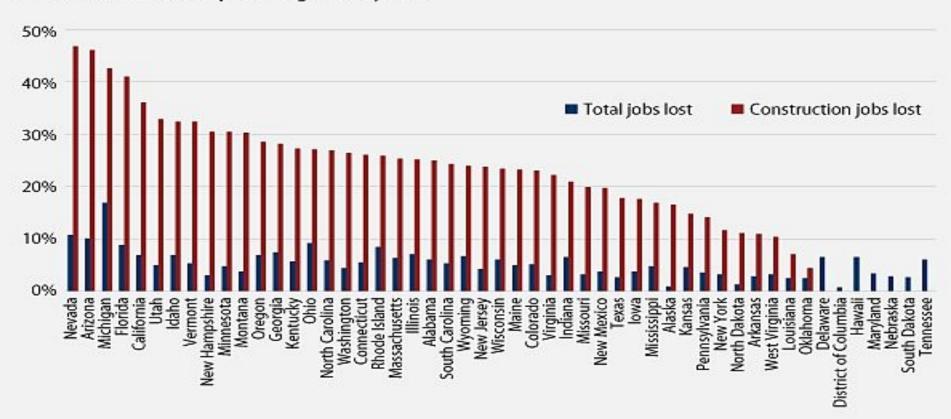


Loss of skilled labor & historical knowledge

### Decline in jobs during the Great Recession

Accelerated loss 2008-2009

Construction and total percentage loss by state



Source: Data from Bureau of Labor Statistics Employment Data. Individual state data was not available for Delaware, District of Columbia, Hawaii, Maryland, Nebraska, South Dakota, and Tennessee.

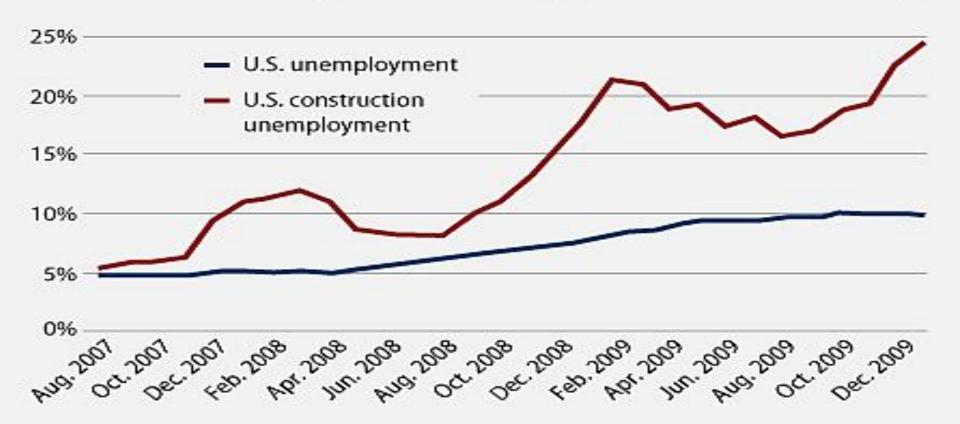
Note that the job loss data date varies by state as each state may have a different date for peak employment. The calculations were prepared from individual state peaks to December 2009.



Loss of skilled labor & historical knowledge

### U.S. unemployment, August 2007 to December 2009

U.S. construction industry sees higher unemployment than national average



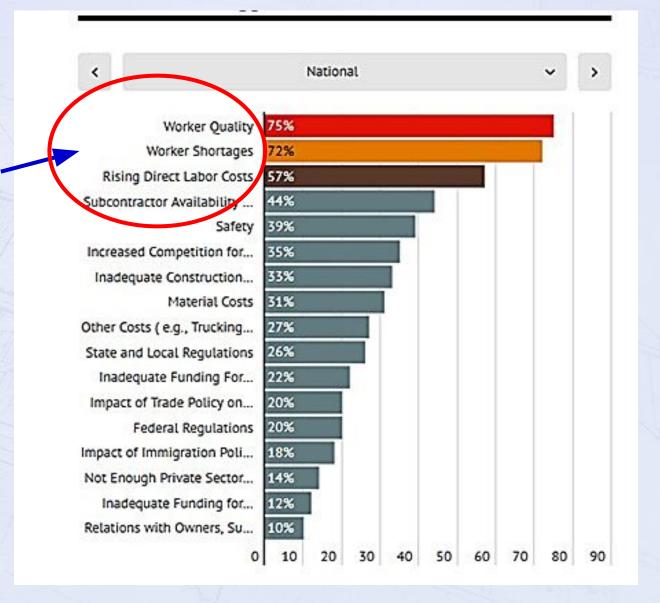
Source: Home Performance Resource Center.



Most construction companies continue to add jobs but #1 concern is Worker Quality

### **Industry Challenges**

Loss of skilled labor & historical knowledge

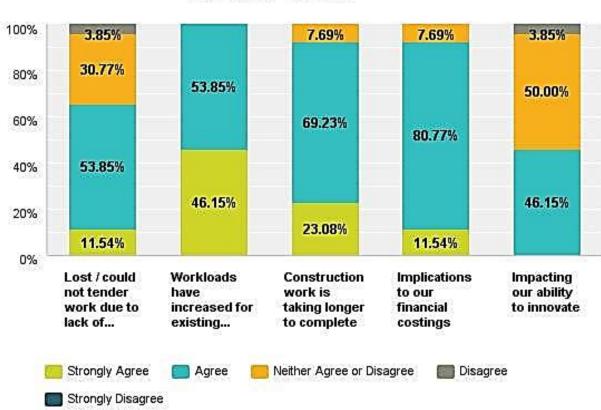




Loss of skilled labor & historical knowledge

### Q11 What effect has the skills shortage had on your company?











Loss of skilled labor & historical knowledge

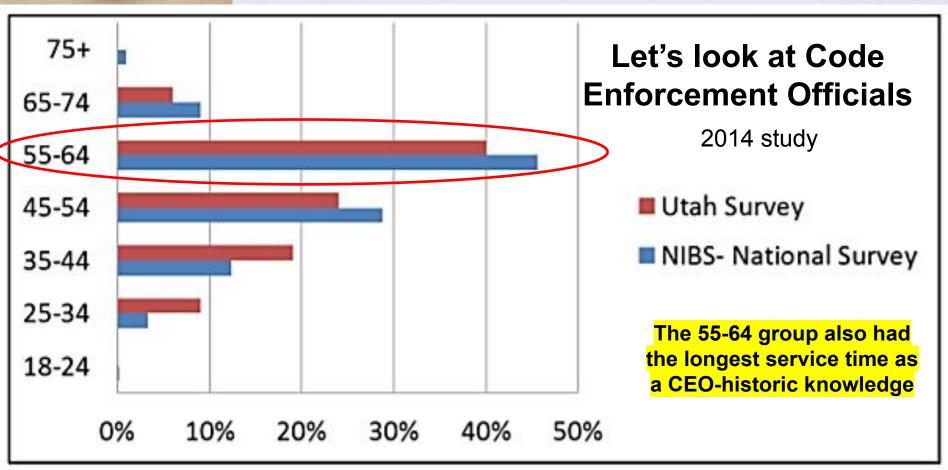


Figure 6-1: Ages of Code Professionals



Loss of skilled labor & historical knowledge

Code
Enforcement
Officials
Similar concerns
with skilled labor

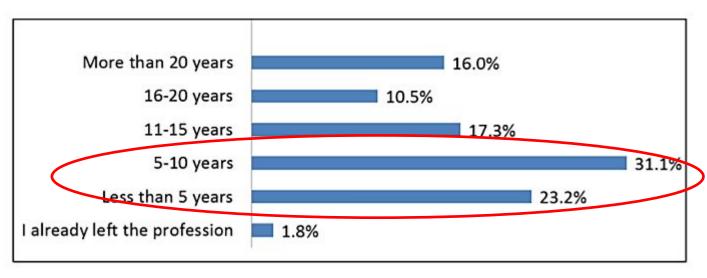


Figure 6-2: Projected Retirement Timeframes



At the time of release of the NIBS Study in 2014 they projected a loss of 82% of certified Code Officials over the next 15years. The national population 41,000 code professionals with ICC certifications would have a loss of 33,000 certified professionals and most of that loss would occur in the first 5-7 years from release of the study. These figures outline the magnitude and urgency associated with code professionals leaving the industry

Go Back

### Global Media Center

Global Membership Council Webinar Series: Addressing Challenges with Incorporating New Technologies in Buildings

Watch the December 15, 2021 discussion among a panel of experts from the ICC Global Membership Council as they share their global design and regulatory consulting expertise in a discussion about innovation in the building and construction sector.

### Global Membership Council Webinar Series: Addressing Skills Shortages

Watch the March 23, 2021 discussion among a panel of experts from Australia the United Kingdom Canada and the United States as they discuss common challenges and innovative solutions related to the looming skills shortage crisis in the building regulatory industry worldwide.





Loss of skilled labor & historical knowledge

### **Current challenges**

- Material shortages along with labor issues
- Inflation
- Interest rate hikes projected in 2022
- An aging construction workforce the average age is 43
- In the last decade, the average monthly turnover rate in construction has been 5.2%, compared to 3.6% for all industries, according to the Bureau of Labor Statistics. And until workforce numbers meet demand companies will increasingly look to technology to replace some open positions.



### It's Clear more is needed such as:

- Shop classes
- Mentoring Programs
- Apprenticeship programs
- Incentive programs to retain and advance employee skill sets
- What else can be done???



### Technology and Innovation helps stay up with demands

- Prefabricated products/automation
- Product innovation like 3D printing and others designed to expedite the construction process & help fill the experience gap

One of the fastest construction builds was just complete in 2021 in China named the Living Building is a 10-story apartment building constructed on site in 28 hours and 45 minutes and can be just as easily moved to another location





### Technology and Innovation helps stay up with demands

However, this still takes time to train on the changes needed to implement new technology and new product installation correctly which is a significant challenge when market production demands remain strong.









### Technology and Innovation helps stay up with demands

However, this still takes time to train on the changes needed to implement new technology and new product installation correctly which is a significant challenge when market production demands remain strong.

In summary over the last decade what we have lost is a tremendous historical knowledge & skill in our construction workforce due to:

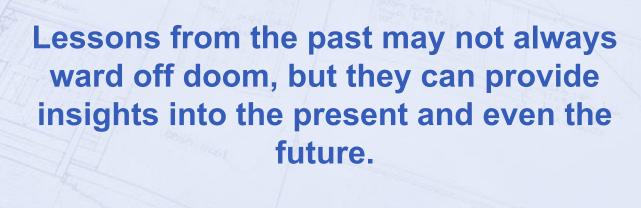
- 2009 layoffs that did not return
- Aging/retiring workforce of skilled labor
- Lack of apprenticeship or training programs to continue to pass this knowledge along to the next generation.

# Let's start with at a quick look back on the history of construction regulations

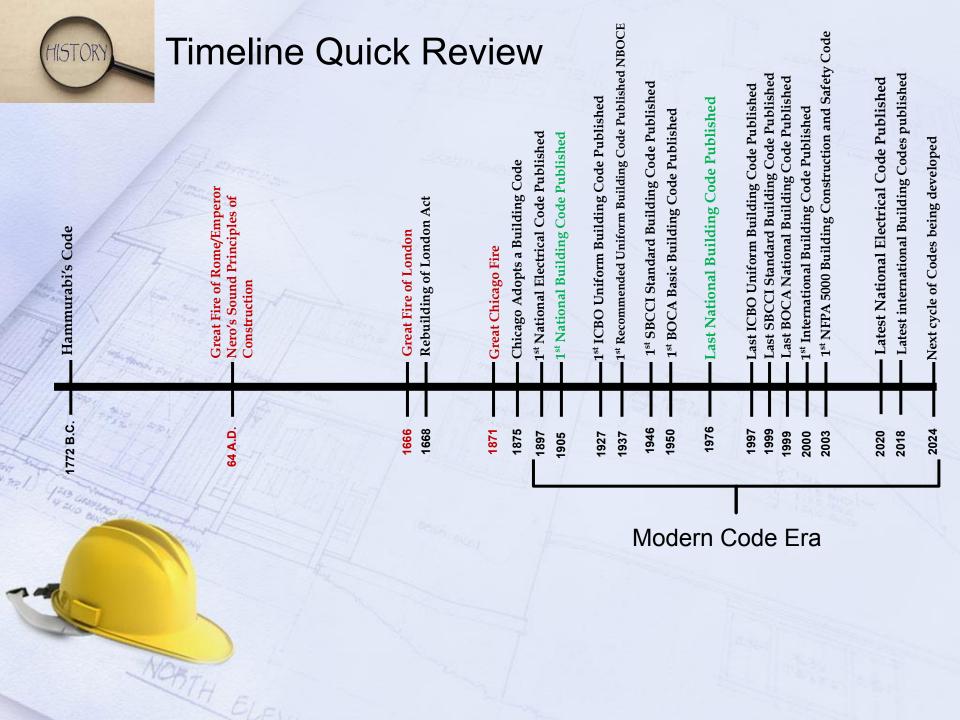


### Why Look at the Past?

Winston Churchill wrote, "Those that fail to learn from history are doomed to repeat it."









## The Law Code of Hammurabi's 1792-1750 BC

- In the National Museum in Iran
- Stands about 7' tall
- Has 49 columns listing 282 codes or laws
- Land and houses can be found in codes 26-65





It can be traced through recorded history for over 4000 years. The great Babylonian King Hammurabi, in 2000 BC instituted a performance-type code which was based on the simple principle of "an eye for an eye", where the Builder was responsible "in kind" for any damages that occurred due to the failure of the structure. If the Building owner died as a result of a collapse, then the Builder would be killed as restitution. If the Building owner lost an arm as a result of collapse, then the Builder would sacrifice his arm.

Source: Wikipedia (The Free Encyclopedia)



Guide to the Certificate of

Process and

Design Review Guidelines

(COA)

Appropriateness

### Old Salem, NC

### 1788 first formal building code written in the US (in German)

### Old Salem Historic District



Source: Published online guidelines by the City-County Planning Department of Winston-Salem and Forsyth County, North Carolina, 2012

In 1948, the Old Salem Historic District was established as the first locally-zoned historic district in the State of North Carolina. Creation of the Old Salem Historic District was achieved in order to protect one of the most unique and significant historical, architectural, archaeological, and cultural resources in the United States. Since that time, a monumental effort has been undertaken by public and private entities, nonprofit organizations, religious and educational institutions, and private citizens to ensure that the physical integrity of this nationally-recognized site has been, and continues to be, conserved, restored, rehabilitated, and preserved for present and future generations.

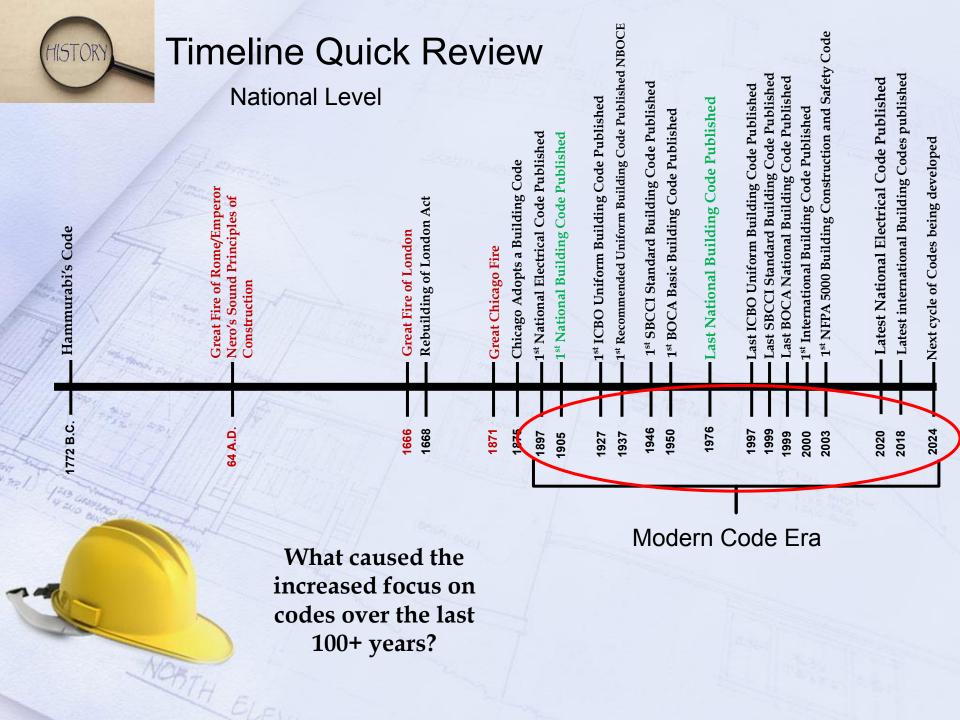
In 2008, the Forsyth County Historic Resources
Commission determined that it was time to
comprehensively revise the Old Salem Historic
District Design Review Guidelines, as the
existing Guidelines had not been changed for
over 20 years. As a result, a 12-person

subcommittee was formed to review and update the Guidelines. The subcommittee's membership included present and former members of the Commission, residential property owners, representatives of the nonprofit and institutional property owners within the District, and preservation and building professionals with an understanding of historic resources. Over the course of two years, the subcommittee met and worked with the intention of clarifying and updating subject matter, clearly illustrating appropriate and inappropriate work, and providing general information, while introducing new categories to assist property owners and the Commission. The end product is a user-friendly document that reflects the last twenty years of experience, as well as time-tested knowledge and new technology

in the preservation field



ap of Salem, from a Detail of te Salem Town Lot, 1774, by hilip Christian Gottlieb Reuter. ourtesy of Moravian Archives,





# Modern Code Era Considered to Start with the National Codes



- In 1897, The first national electrical code was published.
- In 1905, a U.S. insurance group, the National Board of Fire Underwriters, created the National Building Code to minimize risks to property and building occupants. The existence of this code led to the formation of organizations of building officials. By 1940, the United States had three regional code organizations, each with its own code.

ICBO
International Conference of Building Officials

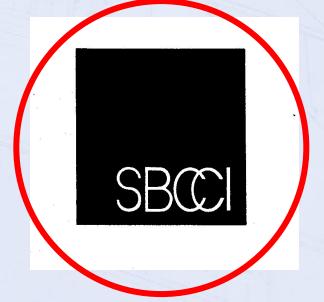
BOCA

Building Officials & Code Administrators International



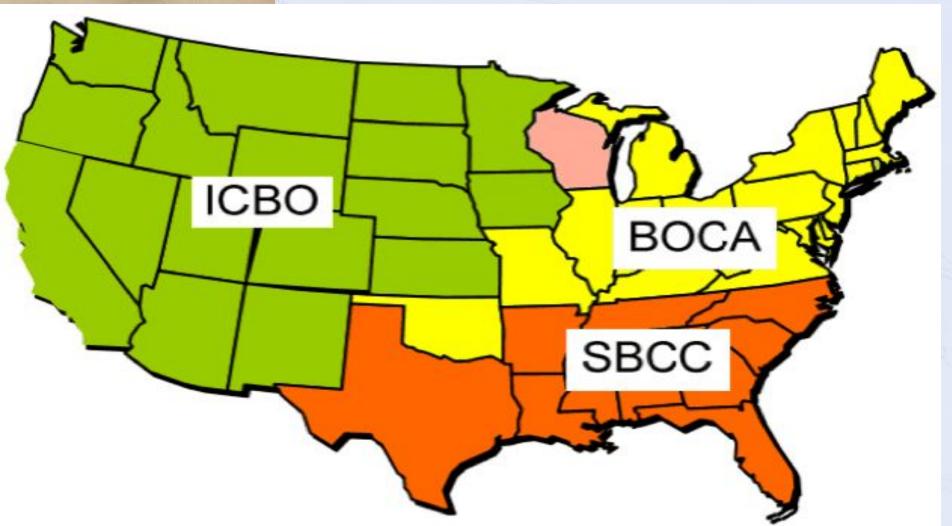
SBCCI
Southern Building Code Congress International





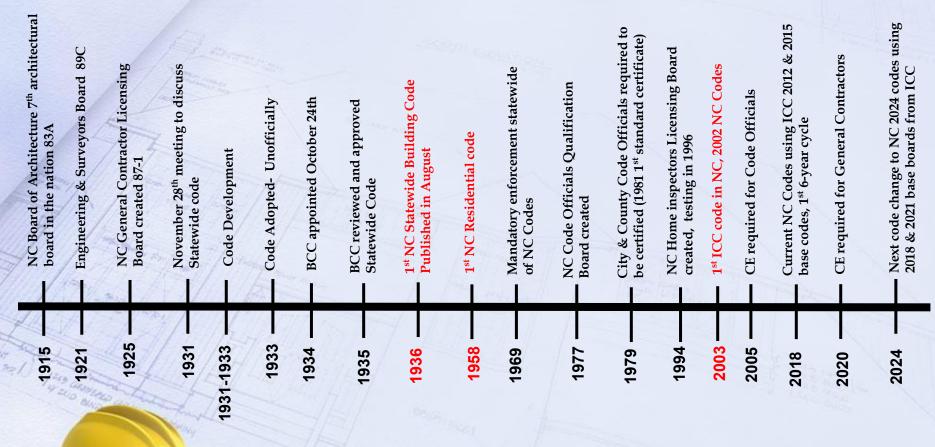


# Modern Code Era Considered to Start with the National Codes





### NC Timeline Statewide Construction Standards





### North Carolina Modern Code Era

- November 28, 1931, a meeting was held at North Carolina State College at the instigation of W. G. Geile, Chairman of the Building Code Committee of the North Carolina Society of Engineers.
- 1931-1933. A number of meetings were held in the next two years, during which time a proposed Code for North Carolina was adopted. The total membership of the Council reached one hundred and twenty-four, and the proposed Code was endorsed by the following organizations: North Carolina Society of Engineers; North Carolina Chapter of the American Institute of Architects; North Carolina Branch of the American General Contractors of America; State Board of Health; North Carolina Chapter of the Society of Civil Engineers; and the North Carolina Association of Plumbing and Heating Contractors.
- 1933. Before the General Assembly of 1933 a bill was introduced entitled: "An Act to Create a Building Code Council for North Carolina." This bill was passed without any opposition.



### North Carolina Modern Code Era

- <u>1934.</u> The appointment by the Governor of the official Building Code Council provided for by the bill introduced by Senator Griffin did not take place until July 24, 1934. The appointed members were as follows: George W. Kane, Durham; W. W. Hook, Charlotte; W. R. Dosher, Wilmington; R. R. Lawrence, Winston Salem; Harry Tucker, Raleigh.
- 1935. The Building Code Council, as soon as it had been officially appointed, proceeded to a thorough study of the Building Code as adopted by the unofficial Building Code Council of North Carolina. The Code was finally assembled in a satisfactory shape during the early part of 1935 and received the full approval of the Building Code Council.

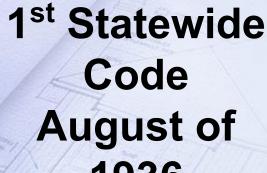




### North Carolina Modern Code Era

- 1935 continued. There remained the task of having the Code printed and distributed to those individuals, companies, and public officials who were interested in seeing its provisions put into effect. The printing of the code has been a real task. The Legislature in 1933 made no appropriation for financing the expenses of the Building Code Council, nor did it provide funds for printing the code. It was hoped that the Legislature of 1935 would not only provide a sufficient sum for printing and distributing the code, but would likewise make an appropriation to the Insurance Department for thorough enforcement of the provisions of the code. Neither was done. The publication of the code has, therefore, been delayed for over a year due to lack of the necessary funds.
- The printing has finally been made possible by securing a limited number of advertisers.

### Code **August of** 1936



### OFFICIAL PUBLICATION

AUGUST, 1936

NORTH CAROLINA STATE COLLEGE AGRICULTURE AND ENGINEERING THE UNIVERSITY OF NORTH-CAROLINA

### North Carolina Building Code

The North Carolina Building Code Council



BULLETIN No. 10 ENGINEERING EXPERIMENT STATION STATE COLLEGE STATION RALEIGH

PUBLISHED MONTHLY BY THE NORTH CAROLINA STATE COLLEGE
OF AGRICULTURE AND ENGINEERING

Price One Bollar



### 1st Statewide Code August of 1936

### North Carolina Building Code Council:

W. W. HOOK, *Chairman*Charlotte

GEORGE W. KANE Durham

R. R. LAWRENCE Winston-Salem

W. H. SULLIVAN Greensboro

HARRY TUCKER, Secretary
State College Station
Raleigh

2

### 1<sup>st</sup> Statewide Code August of 1936

Book was 144 pages before advertisements

Source: Free online version posted at he NCDOI.gov

### THE ENGINEERING EXPERIMENT STATION

The Engineering Experiment Station of the North Carolina State College of Agriculture and Engineering of the University of North Carolina was established in 1923, as provided by an act of the General Assembly of that year. It is an integral part of the School of Engineering, and is engaged in an organized program of research consisting of individual projects carefully defined and approved, which are carried on by engineering teachers. The Station fits uniquely into the program of instruction, research, and extension of State College.

#### PURPOSE

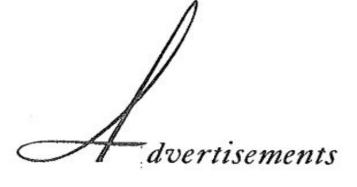
The work of the Engineering Experiment Station is directed along the following lines:

- (a) The investigation of resources and processes, through experimentation and tests, with the object of opening and developing wider fields for the use of the natural resources of the State.
- (b) Coöperation with industrial organizations in the solution of technical problems which require such facilities and equipment as are available at State College.
- (c) The coordination of research work undertaken by the Engineering School.
- (d) The publication of the results of experimental and research projects made by the Engineering Experiment Station and the several engineering departments of State College.

For copies of publications or for other information address:

HARRY TUCKER, Director Engineering Experiment Station State College Station Raleigh, N. C.

### 1st Statewide Code August of 1936



**NCDOI.gov** 

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#### Statesville, N. C.



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> > Mount Airy, North Carolina

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OF

THE NORTH CARC BUILDING COD

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Fire Protection:

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Simplex Sprinkler Systems—for prop hazard is not severe and where city water Outside Open Head Systems (Water protection against exposure fires.

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erties. Also Air Conditioning Type for
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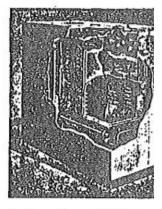
Humidifying Systems and Devices. Pipe, Valves, Traps and Heating Specialt

Literature and engineering information on a furnished on request.



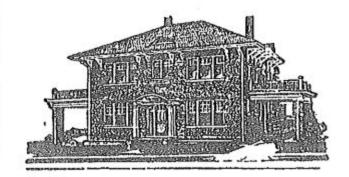
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Source: Free online version posted at he NCDOI.gov

153

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177 pages total with introduction and 19 total advertisements



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	PAGE
American Brass Company	147
American Lumber and Treating Company	148
Associated General Contractors of America	160
Atlas Supply Company	157
Bonsal, W. R., Company	151
Borden Brick and Tile Company	154
Buckingham-Virginia Slate Corporation	158
Capital Printing Company	155
Dillon Supply Company	153
Grinnell Company	152
Grove Stone and Sand Company	156
Martin Millwork Company	156
North Carolina Chapter, American Architects	150
North Carolina Granite Corporation	147
North Carolina Home Insurance Company	148
Pomona Terra-Cotta Company	149
Thompson Electrical Company	157
Virginia-Carolina Clays, Inc.	146
Vestinghouse Electric Company	159

Codes ~

OSFM » Codes » Codes - Current and Past

## **Codes - Current and Past**

### Past Codes and Amendments

+ Code Applicability Dates

+ 1936

+ 1953

+ 1958

+ 1961 (Plumbing Only)

+ 1963

https://www.ncosfm.gov/co des/codes-current-and-past



## **Knowledge Check**

- What year was the first Statewide building code in NC?
- What year was the first NC Residential Building Code?
- According to the National survey by the AGC what is the #1 industry concern?







## 2021 Legislative Updates





# NCDOI publication-supports items found in chapter 3 of the NC Administrative Code & Policies



Source: Free online version posted at he NCDOI.gov

NC Administrative Code and Policies, Chapter 3 supplement (rev 2021-5-22)
NC General Statutes Pertaining to the Enforcement of the North Carolina State Building Code

#### CHAPTER 1 CIVIL PROCEDURE

#### § 1-539.2. Dismantling portion of building.

When one person owns a portion of a building and another or other persons own the remainder of said building, neither of said owners shall dismantle his portion of said building without making secure the portions of said building belonging to other persons. Any person violating the provisions of this section shall be responsible in damages to the owners of other portions of such building. (1955, c. 1359.)

#### CHAPTER 14 CRIMINAL LAW

#### § 14-68. Failure of owner of property to comply with orders of public authorities.

If the owner or occupant of any building or premises shall fail to comply with the duly authorized orders of the chief of the fire department, or of the Commissioner of Insurance, or of any municipal or county inspector of buildings or of particular features, facilities, or installations of buildings, he shall be guilty of a Class 3 misdemeanor, and punished only by a fine of not less than ten (\$10.00) nor more than fifty dollars (\$50.00) for each day's neglect, failure, or refusal to obey such orders. (1899, c. 58, s. 4; Rev., s. 3343; C.S., s. 4247; 1969, c. 1063, s. 1; 1993, c. 539, s. 30; 1994, Ex. Sess., c. 24, s. 14(c).)

### Article 31 Misconduct in Public Office.

#### § 14-228. Buying and selling offices.

If any person shall bargain away or sell an office or deputation of an office, or any part or parcel thereof, or shall take money, reward or other profit, directly or indirectly, or shall take any promise, covenant, bond or assurance for money, reward or other profit, for an office or the deputation of an office, or any part thereof, which office, or any part thereof, shall touch or concern the administration or execution of justice, or the receipt, collection, control or disbursement of the public revenue, or shall concern or touch any clerkship in any court of record wherein justice is administered; or if any person shall give or pay money, reward or other profit, or shall make any promise, agreement, bond or assurance for any of such offices, or for the deputation of any of them, or for any part of them, the person so offending in any of the cases aforesaid shall be guilty of a Class I felony. (5, 6 Edw. VI, c. 16, ss. 1, 5; R.C., c. 34, s. 33; Code, s. 998; Rev., s. 3571; C.S., s. 4382; 1993, c. 539, s. 1213; 1994, Ex. Sess., c. 24, s. 14(c).)

#### § 14-229. Acting as officer before qualifying as such.

If any officer shall enter on the duties of his office before he executes and delivers to the authority entitled to receive the same the bonds required by law, and qualifies by taking and subscribing and filing in the proper office the oath of office prescribed, he shall be guilty of a Class 1 misdemeanor and shall be ejected from his office. (Code, s. 79; Rev., s. 3565; C.S., s. 4383; 1999-408, s. 2.)

#### § 14-230. Willfully failing to discharge duties.

If any clerk of any court of record, sheriff, magistrate, school board member, county commissioner, county surveyor, coroner, treasurer, or official of any of the State institutions, or of any county, city or town, shall willfully omit, neglect or refuse to discharge any of the duties of his office, for default whereof it is not elsewhere provided that he shall be indicted, he shall be guilty of a Class 1 misdemeanor. If it shall be proved that such officer, after his qualification, willfully and corruptly omitted, neglected or refused to discharge any of the duties of his office, or willfully and corruptly violated his oath of office according to the true intent and meaning thereof, such officer shall be guilty of misbehavior in office, and shall be punished by removal therefrom under the sentence of the court as a part of the punishment for the offense. (1901, c. 270, s. 2; Rev., s. 3592; C.S., s. 4384; 1943, c. 347; 1973, c. 108, s. 5; 1993, c. 539, s. 142; 1994, Ex. Sess., c. 24, s. 14(c); 2009-107, s. 1.)

#### § 14-231. Failing to make reports and discharge other duties.

If any State or county officer shall fail, neglect or refuse to make, file or publish any report, statement or other paper, or to deliver to his successor all books and other property belonging to his office, or to pay over or deliver to the proper person all moneys which come into his hands by virtue or color of his office, or to discharge any duty devolving upon him by virtue of his office and required of him by law, he shall be guilty of a Class 1 misdemeanor. (Rev., s. 3576; C.S., s. 4385; 1993, c. 539, s. 143; 1994, Ex. Sess., c. 24, s. 14(c).)

#### § 14-232. Swearing falsely to official reports.

If any clerk, sheriff, register of deeds, county commissioner, county treasurer, magistrate or other county officer shall willfully swear falsely to any report or statement required by law to be made or filed, concerning or touching the county, State or school revenue, he shall be guilty of a Class 1 misdemeanor. (1874-5, c. 151, s. 4; 1876-7, c. 276, s. 4; Code, s. 731; Rev., s. 3605; C.S., s. 4386; 1973, c. 108, s. 6; 1993, c. 539, s. 144; 1994, Ex. Sess., c. 24, s. 14(c).)



## 2021 Legislative Updates



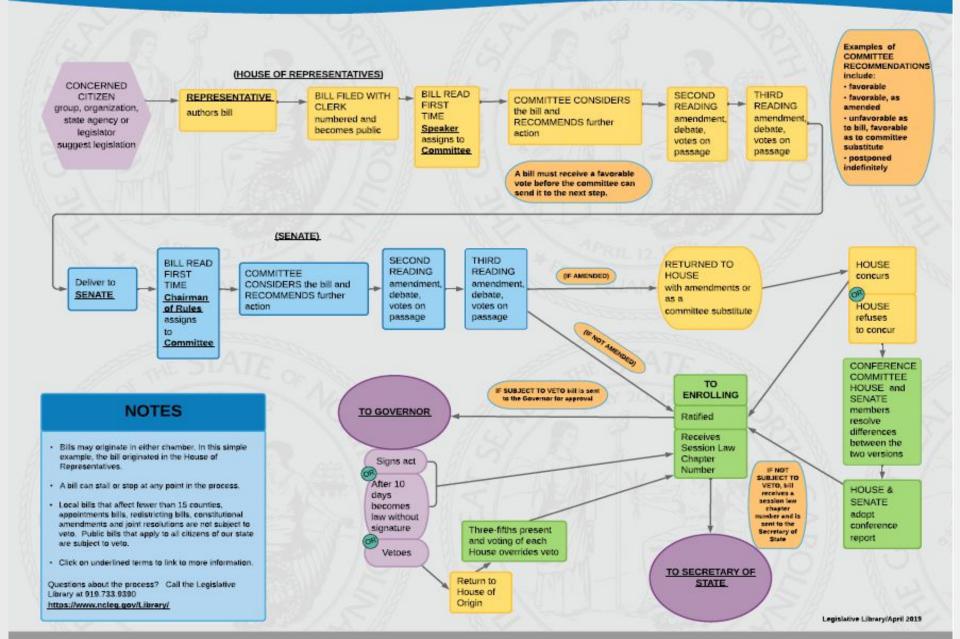
2021 Legislative Session

Code Enforcement-Related Bill Tracking

More than 30 Bills and a complete update to the development regulation statutes with combining and changing some language found in 153A & 160A into 160D.

Bill	Initial Date	Sponsors	Title	Summary	Latest Action
5329	3/22/2021	Jarvis, Johnson, David	An Act to Exempt Certain Small Projects from Architectural building code and building permit requirements.	Raises licensed professional exemption project cost from \$200k to \$300k. No permit for commercial projects under \$20k and residential under \$15k	5/4/21 - Reptd Fav (Senate action)
H342	3/22/2021	Butler, von Haefen, Brockman, Brown	An Act to require the amendment fo the North Carloina Residential Building Code for One- and Two-Family dwellings to require that new residential constuction include an electric circuit capable of accomodating an electric vehile charging device.	Requires the NC Residential Code for One- and Two-Family Dwellings, including applicable provisions from the NC Energy Code and the NC Electrical Code, to provide that all new one- and two-family dwellings include at least one electric vehicle-ready parking space, as defined, and with a dedicated branch circuit as described, unless no parking spaces are provided for the dwelling unit. Directs the NC Building Code Council to amend the NC Residential Code for One- and Two-Family Dwellings and applicable provisions from the NC Energy Code and the NC Electrical Code consistent with the described provisions, to become effective January 1, 2022.	3/23/21 - Ref to the Com on Local Government - Land Use, Planning and Development, if favorable, Rules, Calendar, and Operations of the House (House action)
5319	3/17/2021	Lowe	An act granting local covernment units the authority to exempt property being developed for affordable housing from system development fees.	Amends GS 162A-203 to allow a local government unit or a joint agency the exempt affodable housing parcels from a system development fee. Requires the unit or joint agency to adopt criteria for determining whether a parcel qualifies fo the exemption.	3/18/21 - Ref To Com On Rules and Operations of the Senate (Senate action)
5316	3/17/2021	Jarvis, Johnson, Britt	AN ACT TO ALLOW FOR CERTAIN EXEMPTIONS FOR PLUMBING, HEATING, FIRE SPRINKLER, AND ELECTRICAL CONTRACTORS.	indomines and soles to the orderia or 0.5 07-1.1 that must be assessed for plumbing and meating contractors licensed under Article 2 (Article 2 licensees) and electrical contractors licensed under Article 4 (Article 4 licensees) of 65 Chapter 87 to be exempt from the general contractor licensure requirements of 65 87-1, for Article 2 licensees to be exempt from the plumbing and heating licensure requirements of 65 87-21 (a) 67 No longer limits the exemptions to when the licensee is bidding or contracting directly with the owner of a public building project, instead expands the exemption to apply when the licensee is bidding or contracting directly with the owner of a public building project, instead expands the exemption to apply when the licensee is bidding or contracting directly with the owner of any building project when the three existing criteria are satisfied, along with the following new condition. Requires that the total amount of work that falls under either Article 2 (Plumbing and Heating Contractors) or Article 4 (Electrical Contractors) not exceed the percentage of the total bid price pursuant to rules established by the State Board of Plumbing, Heating, and Fire Sprinkler Contractors and the State Board of Examiners of Electrical Contractors.  Enacts new GS 87-21(m) to exempt Article 4 licensees from the plumbing and heating licensure requirements of Article 2 when the licensee is bidding and contracting directly with the owner of a building project and (1) an Article 2 licensee performs all work that falls within the classification of work that requires Article 2 licensure under the statute and rules established by the State Board of Examiners of Plumbing, Heating, and Fire Sprinkler Contractors, and (3) an appropriate Article 4 licensee performs all work that falls within the classification of Examiners of Plumbing the Article 4 licensee is bidding and contracting directly with the owner of a building project and (1) an Article 4 licensee is bidding and contracting directly with the owner of a b	4/14/21 - Re-ref to Commerce and Insurance. If fav. re-ref to Rules and Operations of the Senate (Senate action
<u>\$437</u>	3/31/2021	Mayfield, Bazemore	AN ACT AUTHORIZING COUNTIES AND CITIES TO IMPOSE IMPACT PEES.	Enacts new GS 1600-1321, providing as follows. Allows a city or country to adopt an ordinance (after public hearing) to impose impact fees on all new construction within its corporate limits. Requires cities imposing the fee to also impose impact fees on all new construction in its extraterritorial jurisdiction. Requires the amount of each fee to be uniform and based upon the capital costs to be incurred by the city/country because of the new construction. Defines capital costs as costs spent for developing community service facilities (as defined in the act); limits these costs to capital outlay items listed in the "Uniform Accounting System for local Government in North Carolina" procedural manual. Also defines new construction and developer. Allows the creation of zones within which the costs of providing community service facilities are estimated. Requires funds for each community service facilities are estimated. Requires funds for each community service facilities are estimated. Requires funds for each community service facilities are estimated. Requires funds for each community service facilities are estimated as a separate capital reserve fund. Requires the ordinance to include credits against the required impact fees when a developer installs improvements that are of a type that generally would be paid for by the city/county out of a capital reserve account funded by impact fees. Sets out the process under which a developer may challenge an impact fee. Effective July 1, 2021.  Amends GS 143-138/el. which sets out exceptions to the North Carolina State Buildine Code. Allows any	4/1/21 - Ref To Com On Rules and Operations of the Senate (Senate action)

### How an Idea Becomes a Law in North Carolina



## Recent bills approved and signed into Law

- S329/H110
- S372
- · S308
- H366
- H489
- S188

### GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2021 SESSION LAW 2021-192 SENATE BILL 329

\*S329-v-6\* AN ACT TO MODIFY ARCHITECT LICENSURE AND SEAL, ENGINEER SEAL, AND BUILDING PERMIT EXEMPTION CRITERIA FOR CERTAIN CONSTRUCTION PROJECTS AND TO DELAY THE APPLICABILITY OF REVISIONS TO THE NORTH CAROLINA TIMESHARE ACT TO TIMESHARE TRANSFER SERVICES AND TRANSFER SERVICE PROVIDERS.



Source:

https://www.ncleg.gov/Sessions/2021/Bills/Senate/PDF/S329v6.pdf

## GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2021 SESSION LAW 2022-11 SENATE BILL 372

\*S372-v-6\* AN ACT TO MAKE VARIOUS CHANGES TO ELECTRICAL CONTRACTING LICENSES, WASTEWATER, SEDIMENTATION, AND BUILDING CODE LAWS.



Source:

https://www.ncleg.gov/Sessions/2021/Bills/Senate/PDF/S372v6.pdf



## SB372 – An Act To Modify The Classification Of Electrical Contracting Licenses. Senator McInnis, Jarvis & Galey

Senate Bill 372 would change and codify the experience requirements for the three classifications of electrical contractor licenses.

License Classification	Current Experience Requirements 21 NCAC 18B .0201	S372 Experience Requirements
Limited license	2 years (4,000 hours) including 1 year primary experience	1.5 years (3,000 hours) including 1 year primary experience
Intermediate license	4 years (8,000 hours) including 2.5 years primary experience	2.875 years (5750 hours) including 2.5 years primary experience
Unlimited license	5 years (10,000 hours) including 4 years primary experience	4.5 years (9,000 hours) including 4 years primary experience

**EFFECTIVE DATE:** This act would become effective October 1, 2021, and apply to applicants for licensure on or after that date.

OVERVIEW: Senate Bill 372 would codify a reduction of the hours of experience required for limited, intermediate, and unlimited electrical contractor licenses.

Source: www.ncleg.gov/BillLookup/

### GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2021 SESSION LAW 2021-183 SENATE BILL 308

\*S308-v-6\* AN ACT TO PREVENT DELAY IN THE ISSUANCE OF TEMPORARY CERTIFICATES OF OCCUPANCY, TO CLARIFY ELECTRIC WIRING REQUIREMENT REFERENCES, AND TO MODIFY ONE- OR TWO-FAMILY DWELLING RESIDENTIAL DEVELOPMENT FIRE APPARATUS ACCESS ROAD REQUIREMENTS.



Source:

https://www.ncleg.gov/Sessions/2021/Bills/Senate/PDF/S308v6.pdf

## GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2021 SESSION LAW 2021-117 HOUSE BILL 366

\*H366-v-7\* AN ACT TO PROVIDE FURTHER REGULATORY RELIEF TO THE CITIZENS OF NORTH CAROLINA.



https://www.ncleg.gov/Sessions/2021/Bills/House/PDF/H366v7.pdf

## GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2021 SESSION LAW 2021-121 HOUSE BILL 489

\*H489-v-7\* AN ACT TO PROVIDE VARIOUS BUILDING CODE AND DEVELOPMENT REGULATORY REFORMS.

Source:

https://www.ncleg.gov/Sessions/2021/Bills/House/PDF/H489v7.pdf



## Portion of code change proposal form that asks for cost impacts



Granted by BCC\_

Denied by BCC\_\_\_

## APPENDIX C CODE CHANGE PROPOSAL NORTH CAROLINA BUILDING CODE COUNCIL

325 North Salisbury Street, Room 5\_44 Raleigh, North Carolina 27603 (919) 647-0095

Carl.Martin@ncdoi.gov

Petition for Rule Making

Adopted by BCC\_\_\_\_\_ Disapproved by BCC\_\_\_\_\_ Item Number \_\_\_\_\_

Approved by RRC\_\_\_\_\_ Objection by RRC\_\_\_\_\_

Please type. Continue proposal or reason on plain paper attached to this form. See reverse side for instructions.



Will this proposal change the cost of construction? Decrease [ ]	Increase [	] No[x]
Will this proposal increase the cost of a dwelling by \$80 or more?	Yes[]	No[x
Will this proposal affect Local or State funds? Local [ ]	State [ ]	No[x]
Will this proposal cause a substantial economic impact (≥ \$1,000,000)?	Yes[]	No [x

Non-Substantial - Provide an economic analysis including benefit/cost estimates.

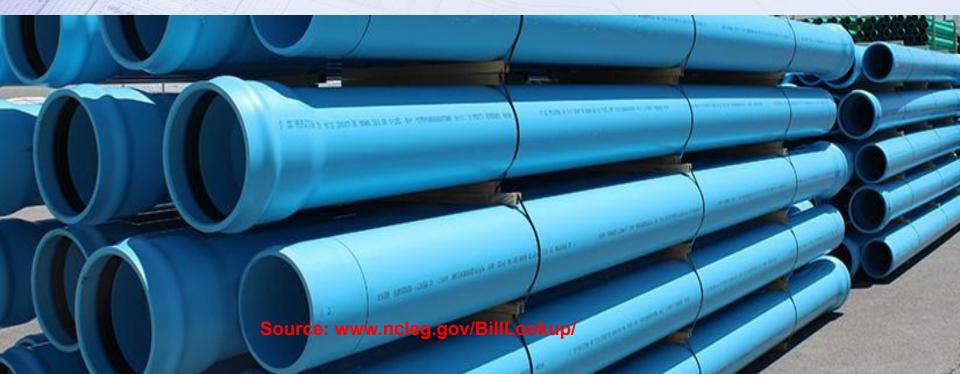
Substantial - The economic analysis must also include 2-alternatives, time value of money and risk analysis.

Source: www.ncleg.gov/BillLookup/



## H 489 – Regulatory Reform Representative Brody

**SECTION 7.(c) Implementation.** – Notwithstanding any provision of the Code or law to the contrary, for the purposes of the water service pipe material and standard conformance requirements under Section P2906.4 and Table P2906.4 of the 2018 North Carolina Residential Code, and Section 605.3 and Table 605.3 of the 2018 North Carolina Plumbing Code, the American Water Works Association (AWWA) C900 standard is an acceptable standard for polyvinyl chloride (PVC) plastic pipe.





## H 489 – Regulatory Reform Representative Brody

## **SECTION 7.(c) Implementation.**

- DOI issued a formal interpretation to allow the use of such pipe.
- Requires it to be tested by a third-party inspector.



## GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2021 SESSION LAW 2021-81 SENATE BILL 188

\*S188-v-4\* AN ACT TO ALLOW FOR REGISTRATION OF INTERIOR DESIGNERS AND TO MODIFY THE NORTH CAROLINA BOARD OF ARCHITECTURE.



https://www.ncleg.gov/Sessions/2021/Bills/Senate/PDF/S188v4.pdf



## S 188/H 223 – Interior Designers

Chapter 83A. "Architects and Registered Interior Designers. § 83A-1. Definitions. When used in this Chapter, unless the context otherwise requires:

- (1) "Architect" means a Architect. A person who is duly licensed to practice architecture.
  - (1a) Architect Emeritus. A person who has been duly licensed as an architect by the Board and who chooses to relinquish or not to renew a license to practice architecture and who applies to and is approved by the Board after review of record, including any disciplinary action, to be granted the use of the honorific title "Architect Emeritus."
- (1) "Board" means the Board. The North Carolina Board of Architecture and Registered Interior Designers.
  (2a) CIDQ. The Council for Interior Design Qualification.
- (1) "Corporate certificate" means a Firm certificate. A certificate of corporate firm registration issued by the Board recognizing the corporation firm named in the certificate as meeting the requirements for the corporate firm practice of architecture or interior design.
- **"Corporate Firm practice of architecture"** means "practice" architecture. "Practice of architecture," as defined in G.S. 83A-1(7) by a corporation firm which is organized or domesticated in this State, and which holds a current "corporate "firm certificate" from this Board.
- (3) "Good moral character" means such character Character as tends to assure the faithful discharge of the fiduciary duties of an architect or registered interior designer to his or her client. Evidence of lack of such character shall include the willful commission of an offense justifying discipline under this Chapter, the practice of architecture in violation of this Chapter, the practice of interior design in violation of this Chapter, or of the laws of another jurisdiction, or the conviction of a felony.

Source: www.ncleg.gov/BillLookup/



## **S** 188 – Interior Designers

- Regulated by the NC Board of Architecture.
- Cannot affect loadbearing structure or exits/egress.







## Seal options-Different layout

Seals - Other States

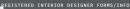
### Arkansas





Source: www.ncleg.gov/BillLookup/





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Legislative Update

ity of the North Carolina Board of ed Interior Designers is to safeguard and welfare of the people of North at those individuals licensed to registered interior designer in this



### Board now has on their main page that registration is now open



Source: www.ncleg.gov/BillLookup/

## INTERIOR DESIGNER REGISTRATION NOW OPEN!!!

Individuals who wish to apply for registration as an interior designer may now do so by completing the form at this link.

The rules and qualifications are found here.

#### 21 NCAC 02 .0306 INTERIOR DESIGN REGISTRATION

- (a) Those individuals who wish to become registered to practice as a registered interior designer in North Carolina,
- shall demonstrate that they have satisfied the educational and professional experience eligibility requirements
- adopted by the Council for Interior Design Qualification (CIDQ) to sit for the Council for Interior Design
- Qualification Examination (NCIDQ), shall successfully complete the NCIDQ Examination and submit the Board
- application for registration and fee. Revocation of the certificate by NCIDQ shall automatically suspend the interior
- designer's registration to practice in North Carolina until such time as the certificate is reinstated by NCIDQ.
- (b) An architect may be granted registration to practice interior design so long as they are currently licensed and in  $\,$
- good standing in the State of North Carolina and submit the Board application for registration and fee.
- (c) The Board in order to augment the evidence submitted in an application may interview with the applicant to
- satisfy the Board, or its designee that the applicant has had sufficient interior design practice experience to be able to
- competently practice registered interior design in this state.
- (d) The standards of the CIDQ and NCIDQ and its components are hereby incorporated by reference including
- subsequent amendments and editions, and can be accessed at no charge at www.cidq.org.



### 3-page application

More to come as new rules are developed





email.

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The North Carolina 434 Favetteville St. Raleigh, NC 27601 984-328-1161 ncb The North Carolina Board of Architecture and Registered Interior Designers 434 Fayetteville St Suite 2005

Raleigh, NC 27601

984-328-1161 ncba@ncbarch.org

www.ncbarch.org

### Application for I

### Application for Registration as an Interior Designer Page Two

	Design. My NCIDQ Certificate is current and in good standing. I under
stand that revocation of the NCIDQ certificate by CIDQ as until such time as the certificate is reinstated by CIDQ	shall automatically terminate my registration to practice in North Carol 2.
	governing the practice of registered interior design in North Carolina and of conduct published by the North Carolina Board of Architecture
I have never had a credential or license/registration evoked.	on denied, limited, reprimanded, suspended, disciplined in any manner of
I have never been convicted of a felony or misdem	eanor under any laws.
There are no criminal charges pending against me.	
I have not been found guilty of misconduct, unprofice by any court, board, agency, college, university or profice.	essional conduct, dishonest or fraudulent practice, or incompetent prac- rofessional organization.
There are no charges pending against me before a conduct, dishonest or fraudulent practice or incompetent	ny court, board, agency, or professional organization for unprofessional practice.
I certify that I have read and understand the Publice Statement is found at http://www.ic.nc.gov/121317E	c Notice Statement required by NCGS § 143-764(a)(5). The Public No- CSPublicNotice.pdf
I certify that I have not been investigated for emperaployee misclassification should be directed to NC Ind	loyee misclassification per NCGS 143-764(a)(5). Questions regarding lustrial Commission at 919-807-2582
	details on a separate sheet of paper attached to the application and, if gned, deposes and says that he/she is the person making the forgoing every respect.
Signature of Applicant	Date
Printed Name	
Version 12-21	

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If the applicant is cial review in the certify below. dure Act, North to follow them n (Full N istrative Procedu

## **Knowledge Check**

(use the chat room to respond to the following)

- Interior designers are regulated by what board in NC?
- If you are using ungraded lumber from a sawmill how many conditions must be met?
- What is the threshold for when an architect is needed on a commercial project (cost and square footage)?







## North Carolina Building Permits





## NC General Statute 160D-1110 Building Permits (New location)

### 160D-1110. Building permits.

- (a) Except as provided in subsection (c) of this section, no person shall commence or proceed with any of the following without first securing all permits required by the State Building Code and any other State or local laws applicable to any of the following activities:
  - (1) The construction, reconstruction, alteration, repair, movement to another site, removal, or demolition of any building or structure.
  - The installation, extension, or general repair of any plumbing system except that in any one- or two-family dwelling unit a permit is not required for the connection of a water heater that is being replaced if (i) the work is performed by a person licensed under G.S. 87-21 who personally examines the work at completion and ensures that a leak test has been performed on the gas piping, and (ii) the energy use rate or thermal input is not greater than that of the water heater that is being replaced, there is no change in fuel, energy source, location, capacity, or routing or sizing of venting and piping, and the replacement is installed in accordance with the current edition of the State Building Code.
  - (3) The installation, extension, alteration, or general repair of any heating or cooling equipment system.
  - (4) The installation, extension, alteration, or general repair of any electrical wiring, devices, appliances, or equipment, except that in any one- or two-family dwelling unit a permit is not required for repair or replacement of electrical lighting fixtures or devices, such as receptacles and lighting switches, or for the connection of an existing branch circuit to an electric water heater that is being replaced if all of the following requirements are met:
    - a. With respect to electric water heaters, the replacement water heater is placed in the same location and is of the same or less capacity and electrical rating as the original.
    - b. With respect to electrical lighting fixtures and devices, the replacement is with a fixture or device having the same voltage and the same or less amperage.
    - c. The work is performed by a person licensed under G.S. 87-43.
    - d. The repair or replacement installation meets the current edition of the State Building Code, including the State Electrical Code.

However, a building permit is **not required** for the installation, maintenance, or replacement of any load control device or equipment by an electric power supplier, as defined in G.S. 62-133.8, or an electrical contractor contracted by the electric power supplier, so long as the work is subject to supervision by an electrical contractor licensed under Article 4 of Chapter 87 of the General Statutes. The electric power supplier shall provide such installation, maintenance, or replacement in accordance with (i) an activity or program ordered, authorized, or approved by the North Carolina Utilities Commission pursuant to G.S. 62-133.8 or G.S. 62-133.9 or (ii) a similar program undertaken by a municipal electric service provider, whether the installation, modification, or replacement is made before or after the point of delivery of electric service to the customer. The exemption under this subsection applies to all existing installations.



7-4



## NC General Statute 160D-1110 Building Permits (New location)

A building permit shall be in writing and shall contain a provision that the work done shall comply (b) with the North Carolina State Building Code and all other applicable State and local laws. Nothing in this section requires a local government to review and approve residential building plans submitted to the local government pursuant to the North Carolina Residential Code, provided that the local government may review and approve the residential building plans as it deems necessary. If a local government chooses to review residential building plans for any structures subject to regulation under the North Carolina Residential Code for One- and Two-Family Dwellings, all initial reviews for the building permit must be performed within 15 business days of submission of the plans. A local government shall not require residential building plans for one- and two-family dwellings to be sealed by a licensed engineer or licensed architect unless required by the North Carolina State Building Code. No building permits shall be issued unless the plans and specifications are identified by the name and address of the author thereof, and, if the General Statutes of North Carolina require that plans for certain types of work be prepared only by a licensed architect or licensed engineer, no building permit shall be issued unless the plans and specifications bear the North Carolina seal of a licensed architect or of a licensed engineer. When any provision of the General Statutes of North Carolina or of any ordinance or development or zoning regulation requires that work be done by a licensed specialty contractor of any kind, no building permit for the work shall be issued unless the work is to be performed by such a duly licensed contractor.

Section (b

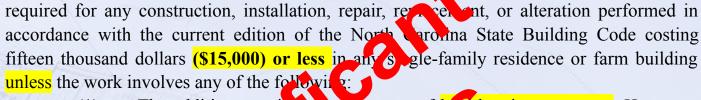


## NC General Statute 160D-1110 Building Permits (New location)

## Section (c)

(c)

The exclusion section



The addition, regain or applacement of lead tearing structures. However, no permit is required for replacement at pinchws, doors, exterior siding, or the pickets, rail 1983 stair treads, and leading of porches and exterior decks.

No permit issued under Article 9 or 9C of Chatter 143 of the General Statutes is

- The add to or change in the decisis of plumbing. However, no permit is required to replacements the wise meeting the requirements of this succession that do not carrie size or capacity.
- (3) The addition, tept cement, or change in the design of heating, air-conditioning, or electrical wiring, devices, appliances, or equipment, other than like-kind replacement of electrical devices and lighting fixtures.
- (4) The use of materials not permitted by the North Carolina Residential Code for One- and Two-Family Dwellings.
- (5) The addition (excluding replacement) of roofing.





## Section (c)

The exclusion section add all the same exclusion from residential to commercial



## NC General Statute160D-1110(c) Building Permits (New location)

SECTION 4.(a) G.S. 160D-1110(c) reads as rewritten:

- "(c) No permit issued under Article 9 or 9C of Chapter 143 of the General Statutes is required for any construction, installation, repair, replacement, or alteration performed in accordance with the current edition of the North Carolina State Building Code costing fifteen thousand dollars (\$15,000) twenty thousand dollars (\$20,000) or less in any single-family residence or residence, farm building building, or commercial building onless the work involves any of the following:
  - (1) The addition, repair, or replacement of load-bearing structures. However, no permit is required for replacement of windows, doors, exterior siding, or the pickets, railings, stair treads, and decking of porches and exterior decks.decks that otherwise meet the requirements of this subsection.
  - (2) The addition or change in the design of plumbing. However, no permit is required for replacements otherwise meeting the requirements of this subsection that do not change size or capacity.
  - (3) The addition, replacement, or change in the design of heating, air-conditioning, or electrical wiring, devices, appliances, or equipment, other than like-kind replacement of electrical devices and lighting fixtures.

Page 2 Session Law 2021-192

Senate Bill 329

New changes effective December 15th, 2021



## NC General Statute160D-1110(c) Building Permits (New location)

- (4) The use of materials not permitted by the North Carolina Residential Code for One- and Two-Family Dwellings. State Building Code.
- (5) The addition (excluding replacement) of roofing.
- (6) Any changes to which the North Carolina Fire Prevention Code applies."

**SECTION 2.(a)** G.S. 143-138, as amended by Section 2 of S.L. 2021-121, is amended by adding a new subsection to read:

"(b21) Exclusion for Certain Minor Activities in Commercial Buildings and Structures. – No permit shall be required under the Code or any local variance thereof approved under subsection (e) of this section for any construction, installation, repair, replacement, or alteration performed in accordance with the current edition of the North Carolina State Building Code costing twenty thousand dollars (\$20,000) or less in any commercial building or structure unless the work involves any of the activities described in subdivisions (1) through (6) of subsection (b5) of this

section. For the purpose of determining applicability of permit exclusions for a commercial building or structure under this subsection, subsection (b5) of this section, and G.S. 160D-1110(c), cost is the total cost of work, including all building addition, demolition, alteration, and repair work, occurring on the property within 12 consecutive months."

Section (c)

The exclusion section

Another section of SB329

New changes effective December 15th, 2021



## Section (d-i) General



## NC General Statute160D-1110(d) Building Permits (New location)

- (d) A local government shall not require more than one building permit for the complete installation or replacement of any natural gas, propane gas, or electrical appliance on an existing structure when the installation or replacement is performed by a person licensed under G.S. 87-21 or G.S. 87-43. The cost of the building permit for such work shall not exceed the cost of any one individual trade permit issued by that local government, nor shall the local government increase the costs of any fees to offset the loss of revenue caused by this provision.
- (e) No building permit shall be issued pursuant to subsection (a) of this section for any land-disturbing activity, as defined in G.S. 113A-52(6), or for any activity covered by G.S. 113A-57, unless an erosion and sedimentation control plan for the site of the activity or a tract of land including the site of the activity has been approved under the Sedimentation Pollution Control Act.
- (f) No building permit shall be issued pursuant to subsection (a) of this section for any land-disturbing activity that is subject to, but does not comply with, the requirements of G.S. 113A-71.
- (g) No building permit shall be issued pursuant to subdivision (1) of subsection (a) of this section where the cost of the work is thirty thousand dollars (\$30,000) or more, other than for improvements to an existing single-family residential dwelling unit as defined in G.S. 87-15.5(7) that the owner occupies as a residence, or for the addition of an accessory building or accessory structure as defined in the North Carolina Uniform Residential Building Code, the use of which is incidental to that residential dwelling unit, unless the name, physical and mailing address, telephone number, facsimile number, and electronic mail address of the lien agent designated by the owner pursuant to G.S. 44A-11.1(a) is conspicuously set forth in the permit or in an attachment thereto. The building permit may contain the lien agent's electronic mail address. The lien agent information for each permit issued pursuant to this subsection shall be maintained by the inspection department in the same manner and in the same location in which it maintains its record of building permits issued. Where the improvements to a real property leasehold are limited to the purchase, transportation, and setup of a manufactured home, as defined in G.S. 143-143.9(6), the purchase price of the manufactured home shall be excluded in determining whether the cost of the work is thirty thousand dollars (\$30,000) or more.
- (h) No local government may withhold a building permit or certificate of occupancy that otherwise would be eligible to be issued under this section to compel, with respect to another property or parcel, completion of work for a separate permit or compliance with land-use regulations under this Chapter unless otherwise authorized by law or unless the local government reasonably determines the existence of a public safety issue directly related to the issuance of a building permit or certificate of occupancy.
- (i) Violation of this section constitutes a Class 1 misdemeanor. (2019-111, s. 2.4; 2020-3, s. 4.33(a); 2020-25, ss. 30, 51(a), (b), (d).)

## **Knowledge Check**

- Is a permit required for non-structural work on a commercial building over \$5,000 dollars?
- What condition allows a water heater to be replaced without permits?
- Is there a condition where I can replace outlets in a home without permits?







# 2018 Administrative Code **Amendments**





### 2018 NC Administrative Code

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 that 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 that have been approved by the Building Code Council.

The delayed effective date of this Rule is January 1, 2019. The Statutory authority for Rule-making is G. S. 143-136; 143-138.

Free online source to 2018 Code Amendments: https://www.ncosfm.gov/codes/codes-current-and-past



## 2018 Administrative Code



### DESIGN PROFESSIONAL INSPECTION FORM

RECORD OF THE INSPECTION OF A COMPONENT OR ELEMENT BY A NC LICENSED ARCHITECT OR ENGINEER

Project Information:

Residential Single-Family Project: Y N	Commercial Project: Y N
Code Enforcement Project No:	Permit No:
Project Name:	Owner:
Project Address:	Suite No:
Date Inspected:	Contractor Name:
Component Inspected:	

lame:		
irm Name:		
hone Numbers:	Office:	Mobile:
mail Address:		
Mailing Address:		
	Building Code; 2018 NC mponent/Type of Inspec	RC = 2018 NC Residential Code tion: *
Attestation/Signat By signing below, I do on this form has bee 160D-11-6 and is in co for the project. This is referenced	ertify that the componer in inspected by me or s impliance with the Code	nt and/or element of the building as identifie omeone under my direct supervision per G. e or other proposal of the architect or enginee ace with all of the requirements of the above eded.
Attestation/Signat By signing below, I do on this form has bee 160D-11-6 and is in co for the project. This is referenced	ure: ertify that the componer in inspected by me or s empliance with the Code inspection is in complian	omeone under my direct supervision per G. or other proposal of the architect or engineer ace with all of the requirements of the above

### **Inspection Department disclaimer:**

Upon the receipt of a signed written document as required by G.S. 160D-11-6, Code Enforcement shall be discharged and released from any liabilities, duties and responsibilities imposed by this article or in common law from any claim arising out of or attributed to the component or element in the construction of the building for which the signed written document was submitted. Be aware that this inspection will be noted in all inspection records including the Certificate of Occupancy or Certificate of Compliance. This inspection does not address any local ordinances or zoning requirements.

The delayed effective date of this Rule is January 1, 2021.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.

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### 2018 Administrative Code

### 2018 NC Administrative Code

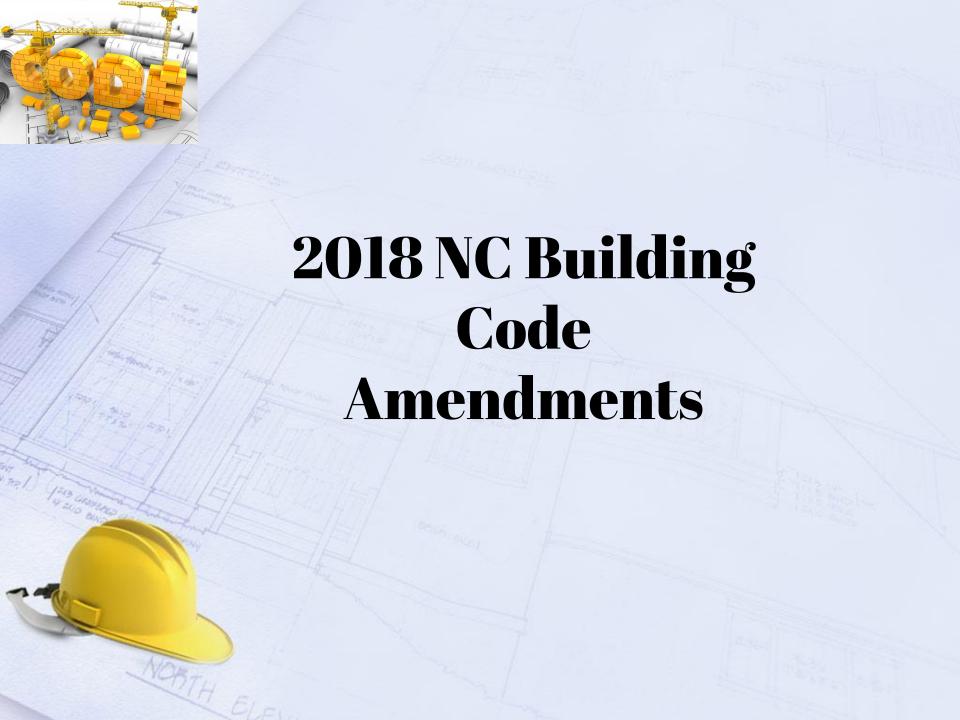
**106.4 Site address signage.** It is the responsibility of the permit applicant or designee to post the 911 site address on an active jobsite at the commencement of work regulated by the NC Building Codes. The signage shall be temporary or permanent per 106.4.1 or 106.4.3.

**106.4.1 Temporary signage.** Signage to identify a construction site location can be temporary. Acceptable temporary signage may include such items as a permit placard, an address written on job box, yard signage or other *approved* temporary method. Temporary street name markers shall be required if permanent street signs are not in place for new developments or subdivisions.

**106.4.2 Temporary Signage Location.** Address signage shall be placed such that it is legible from the street or road that fronts the property at all times during construction.

**106.4.3 Permanent signage**. Address signage meeting the requirements of the *International Residential Code* Section R319 for One- and Two-family Dwellings, *International Building Code* Section 501.2 *or International Fire Code* Section 505.1 for commercial buildings shall be deemed as meeting the requirements of this section.

The delayed effective date of this Rule is January 1, 2022. The Statutory authority for Rule-making is G. S. 143-136; 143-138.





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

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

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

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

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

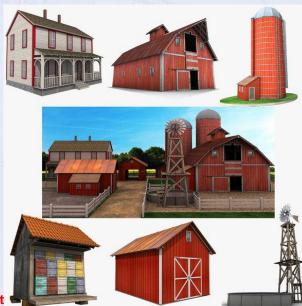




#### **SECTION 202 DEFINITIONS**

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







#### 312.1 General.

Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

Agricultural buildings

Aircraft hangars, accessory to a one- or two-family residence (see Section 412.5)

Barns

Carports

Fences and ground signs more than 6 feet (1829 mm) in height

Grain silos, accessory to a residential occupancy

Greenhouses

Livestock shelters

Photovoltaic panel system (mounted at grade)

Private garages

Retaining walls

Sheds

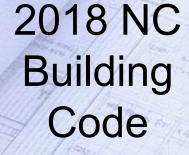
Stables

Tanks

Towers

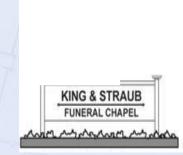
The delayed effective date of this Rule is January 1, 2020.

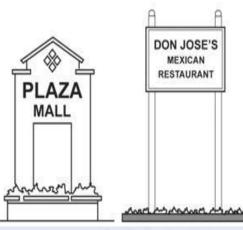
The Statutory authority for Rule-making is G. S. 143-136; 143-138.





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# TABLE 602 FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE<sup>a,d,g</sup>

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H <sup>e</sup>	OCCUPANCY GROUP F-1, M, S-1	OCCUPANCY GROUP A, B, E, F-2, I, R <sup>i,j</sup> , S- 2, U <sup>h</sup>
X < 5 <sup>b</sup>	All	3	2	1
5 ≤ <b>X</b> < 10	IA Others	3 2	2	1 1
10 ≤ X < 30	IA, IB IIB, VB Others	2 1 1	1 0 1	1 0 1
X ≥ 30	A11	0	0	0

For SI: 1 foot = 304.8 mm.

- a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
- b. See Section 706.1.1 for party walls.
- c. Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
- d. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
- e. For special requirements for Group H occupancies, see Section 415.6.
- f. For special requirements for Group S aircraft hangars, see Section 412.4.1.
- g. Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.
- h. For a building containing only a Group U occupancy private garage or carport, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater.
- i. For Group R-3 detached one- and two-family dwellings of any construction type and not more than three stories above grade plane in height with a separate means of egress, a fire separation distance of 5 feet or less shall be 1-hour fire-resistant rated and shall be 0-hour fire-resistant rated for distances greater than 5 feet.
- j. For Group R-3 attached one- and two-family dwellings of any construction type separated with fire walls complying with Section 706, containing no other occupancy classification, and not more than three *stories* above grade plane in height with a separate means of egress, a fire separation distance of 5 feet or less shall be 1-hour fire-resistant rated and shall be 0-hour fire-resistant rated for distances greater than 5 feet.





#### 705.12 Soffit in Group R.

In Group R buildings of combustible construction, the soffit material shall be securely attached to framing members and shall be constructed using one of the following methods:

- Non-combustible soffit material;
- 2. Fire retardant treated soffit material;
- 3. Vinyl soffit installed over 3/4-inch wood sheathing;
- Vinyl soffit installed over 5/8-inch gypsum board;
- Aluminum soffit installed over 3/4-inch wood sheathing; or
- Aluminum soffit installed over 5/8-inch gypsum board.

Venting requirements shall apply to both soffit and underlayment and shall be per Section 1203.2. Vent openings shall not be located within 5 feet horizontally of any unprotected wall opening located within 3 feet vertically below the soffit.

#### Exceptions:

- Vinyl and aluminum soffit material may be installed without wood sheathing or gypsum backing board if the exterior wall finish is noncombustible for a minimum distance of 10 feet above finished grade or the building is equipped throughout with an automatic sprinkler system in accordance with 903.3.1.1.
- Location of vent openings in soffits shall not be limited in buildings equipped throughout with an
  automatic sprinkler system complying with Section 903.3.1.1. Detached one- and two- family
  dwellings and townhouses.



### 2018 NC Building Code

714.4.2 Membrane penetration. (190312 Item B-2)

### 714.4.2 Membrane penetrations.

Penetrations of membranes that are part of a *horizontal assembly* shall comply with Section 714.4.1.1 or 714.4.1.2. Where floor/ceiling assemblies are required to have a *fire-resistance rating*, recessed fixtures shall be installed such that the required *fire resistance* will not be reduced.

### Exceptions:

7. The ceiling membrane of 1- and 2-hour fire-resistance-rated horizontal assemblies is permitted to be interrupted with the double wood top plate of a wall assembly that is sheathed with Type X gypsum wallboard, provided that all penetrating items through the double top plate are protected in accordance with Section 714.4.1.1 or 714.4.1.2 and the ceiling membrane is tight to the top plate. For 2-hour fire-resistance-rated horizontal assemblies the wall assembly must be sheathed with Type X gypsum wallboard.



2018 NC Building Code 901.1 Scope. (161213 Item B-6)

# 2018 NC Building Code

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

901.1 Scope. The provisions of the *International Building Code* shall specify where *fire protection systems* are required. The provisions of the *International Fire Code* shall determine the design, installation, inspection, operation, testing and maintenance of all *fire protection systems*.

The delayed effective date of this Rule for the 2018 NC Building Code is January 1, 2019. The Statutory authority for Rule-making is G. S. 143-136; 143-138.

(Note: Also printed in 2018 Fire Prevention Code, Section 901.1.)



Free online source to 2018 Code Amendments: https://www.ncosfm.gov/codes/codes-current and past



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 <u>Group A-2 occupancies</u>, 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 <u>Group A-2 occupancies</u>, 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:

 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.

The delayed effective date of this Rule is January 1, 2020. The Statutory authority for Rule-making is G. S. 143-136; 143-138.

[Note: This Rule will also be printed in the 2018 NC Fire Code, 915 Carbon Monoxide Alarm and Detection Systems.]



2018 NC Building Code 1010.1.9.7 Delayed Egress. (200901 Item B-1)

2018 NC Building Code [BE] 1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving the following occupancies any occupancy except Group A, E and H in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907: The locking system shall be installed and operated in accordance with all of the following:

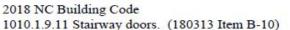
Group B, F, I, M, R, S and U occupancies.

Group E classrooms with an occupant load of less than 50.

Exception: Delayed egress locking systems shall be permitted to be installed on exit or exit access doors, other than the main exit or exit access door, serving a courtroom in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.







[BE] 1010.1.9.11 Stairway doors.

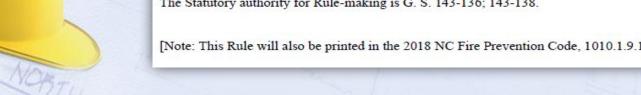
Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

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 high rise, 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.

The delayed effective date of this Rule is January 1, 2020. The Statutory authority for Rule-making is G. S. 143-136; 143-138.

[Note: This Rule will also be printed in the 2018 NC Fire Prevention Code, 1010.1.9.11 Stairway doors.]



Free online source to 2018 Code Amendments: https://www.ncosfm.gov/codes/codes-current-and-past

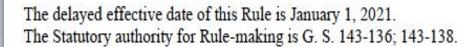


2018 NC Building Code 1107.6.2.2.1 Type A Units. (190910 Item B-2)

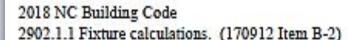
1107.6.2.2.1. Type A Units. In Group R-2 occupancies containing more than 45 20 dwelling units or sleeping units, at least 5 percent but not less than one of the units shall be a Type A unit. All Group R-2 units on a site shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units. Bedrooms in monasteries and convents shall be counted as sleeping units for the purpose of determining the number of units. Where the sleeping units are grouped into suites, only one sleeping unit in each suite shall count towards the number of required Type A units.

#### Exceptions:

- 1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7.
- 2. Existing structures on a site shall not contribute to the total number of units on a site.
- 3. For a site with more than 100 units, at least 2 percent of the number of units exceeding 100 shall be Type A units.







#### 2902.1.1 Fixture calculations.

To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with Table 403.1. Fractional numbers resulting from applying the fixture ratios of Table 403.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

#### Exceptions:

- The total occupant load shall not be required to be divided in half where approved statistical data indicates a distribution of the sexes of other than 50 percent of each sex.
- 2. In buildings that contain dwellings or sleeping units that have a pool dedicated to the residents, a percentage reduction of the total required fixtures provided for a pool and pool deck without bleachers and grandstands may be taken equal to the percentage of total residential units whose entries fall within a 500 feet foot horizontal travel distance of the pool deck. In multi-story structures, the residential units located not more than one story above or below the pool and pool deck may be included in the percentage. Travel from the pool to the required toilet facilities shall be on an accessible route.

The delayed effective date of this Rule is January 1, 2019. The Statutory authority for Rule-making is G. S. 143-136; 143-138.

(Note: Also printed in 2018 Plumbing Code, Section 403.1.1, Exception 2.)



2018 NC Building Code 2902.2 Separate Facilities. (191210 Item B-15)

[P] 2902.2 Separate facilities.
Where plumbing fixtures are required, separate facilities shall be provided for each sex.

#### Exceptions:

- 1. Separate facilities shall not be required for dwelling units and sleeping units.
- Separate facilities shall not be required in business occupancies with a total occupant load, including both employees and customers, of 30 or fewer. Separate facilities shall not be required in all other structures or tenant spaces with a total occupant load, including employees and customers, of 25 or fewer.
- Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load
  is 100 or less.
- 4. Except as provided in Section 405.3.2 of the North Carolina Plumbing Code.
- Where the code requires only one toilet facility for each sex, two unisex facilities may be substituted for separate sex facilities.



2018 NC Building Code 2902.6 Small Occupancies. (191210 Item B-13)

[P] 2902.6 Small occupancies. Drinking fountains shall not be required for an occupant load of 45 30 or fewer.







2018 NC Building Code 312.1, H101.2, H109.2, Ground Signs. (180911 Item B-15)

#### SECTION H101 GENERAL

H101.2 Signs exempt from permits. The following signs are exempt from the requirements to obtain a permit before erection:

- Nonilluminated wall signs.
- 2. Temporary signs.
- 3. Signs erected by transportation authorities.
- Projecting signs not exceeding 6 square feet (0.56 m<sup>2</sup>).
- The changing of moveable parts of an approved sign that is designed for such changes, or the repainting or repositioning of display matter shall not be deemed an alteration.
- Ground signs less than 6 feet (1829 mm) in height above finished grade.

#### SECTION H109 GROUND SIGNS

H109.2 Required Clearance. The bottom coping of every ground sign shall be not less than 3 feet (914 mm) above the ground or street level, which space can be filled with platform decorative trim or light wooden construction.

Exception: Signs that have a solid base of masonry, steel or similar material, commonly known as monument signs.





2018 NC Building Code 1301.1.1 Criteria. (170613 Item B-6)

1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the International Energy Conservation Code.

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





2018 NC Residential Code

R101.2.2 Accessory structures. (200901 Item B-19)

#### R101.2.2 Accessory structures.

Only 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,
- Detached carports,

Exception: Portable lightweight carports not exceeding 400 square feet (37 m<sup>2</sup>) or 12 foot (3658 mm) mean roof height.

7. Docks, piers, bulkheads, and waterway structures, see Section R327.

The delayed effective date of this Rule is January 1, 2022.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.



R101.2.2 Accessory structures. (200901 Item B-19)

PRIVATE POND. A body of water owned entirely by a single property owner and located on the same parcel of land as a detached single-family dwelling.

2018 NC Residential Code

The delayed effective date of this Rule is January 1, 2022.

The Statutory authority for Rule-making is G. S. 143-136; 143-138.





2018 NC Residential Code R302.2 R313.1 & R202 Townhouses. (210608 Item B-7)

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

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



### Section R310 Emergency Escape and Rescue Openings

R310.2.6 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.

The delayed effective date of this Rule is January 1, 2020. The Statutory authority for Rule-making is G. S. 143-136; 143-138.





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2018 NC Residential Code R328 Demolition. (200714 Item B-20)

ERRATA - Changed Section number from R328 to R329 because R328 was already used

### 2018 NC Residential Code

#### SECTION R329 DEMOLITION

R328.1 Demolition. Where a building or structure regulated by this code has been demolished or removed, the lot shall not create a new hazard to the site or to adjoining properties. All utilities shall be properly terminated.









2018 NC Residential Code R404.4 Retaining walls. (200714 Item B-18)

R404.4 Retaining walls. Retaining walls that are not laterally supported at the top and that retain in excess of 48 inches (1219 mm) of unbalanced fill, shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. In addition, any retaining wall that meets meet the following shall be designed by a registered design professional.

- Any retaining wall systems on a residential site that cross over adjacent property lines regardless of vertical height, and
- 2. Retaining walls that support buildings and their accessory structures.
- 3. Retaining walls exceeding 4 feet (1524 mm) of unbalanced backfill height, or
- Retaining wall systems providing a cumulative vertical relief greater than 5 feet (1524 mm) in height within a horizontal distance of 50 feet (15 m) or less.

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







2018 NC Residential Code R506.2.1 Fill. (190611 Item B-9)

### 2018 NC Residential Code

R506.2.1 Fill. Fill material shall be free of vegetation and foreign material. The fill shall be compacted to ensure uniform support of the slab, and except where *approved*, the fill depths shall not exceed 24 inches (610 mm) for clean sand or gravel and 8 inches (203 mm) for earth.

Exception: #57 or #67 stone may be used as fill without a compaction test for a maximum depth of 4 feet.







#### TABLE R602.3(5) SIZE, HEIGHT AND SPACING OF WOOD STUDS™

			BEARING WA	LLS		NONBE.	
STUD SIZE (inches)	Laterally unsupported stud height (feet)	Maximum spacing when supporting a roof-ceiling assembly or a habitable attic assembly, only (inches)	Maximum spacing when supporting one floor, plus a roof- ceiling assembly or a habitable attic assembly (inches)	Maximum spacing when supporting two floors, plus a roof- ceiling assembly or a habitable attic assembly (inches)	Maximum spacing when supporting one floor height (inches)	Laterally unsupported a stud height (feet)	Maximum spacing (inches)
ъ						10	16
2 × 3 b		-		=======================================	0-0	10	10
$2 \times 4$	10	24 <sup>e</sup>	16°	e <u>d</u>	24	.4	24
3×4	10	24	24	16	24	14	24
2 × 5	10	24	24	_	24	16	24
2-6	10	2.4	2.4	1.6	24	20	2.4

2018 NC Residential Code

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

  a. Listed heights are distances between points of lateral support placed perpendicular to the plane of the wall. Bearing walls shall be sheathed on not less than one side of bridging shall be installed not greater than 4 feet apart measured vertically from either end of the stud. Increases in unsupported height are permitted where in compliance with Exception 2 of Spetion R602.3.1 or designed in accordance with accepted engineering practice.
- Shall not be used in exterior walls.
- A habitable attic assembly supported by 2 tuds is limited to a roof span of 32 feet. Where the roof span exceeds 32 feet, the wall studs shall be increased to 2 × 6 or the studs shall be designed in accordance with accepted engineering practice.
- on each side of the opening as king stusole plate to top plate of the wall-
- ed. 2 x 4 studs at 12 inches maximum spacing are permitted in accordance with Table R4505(b).

2018 NC Residential Code

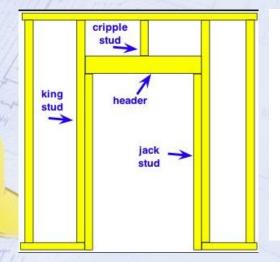
Table R602.7.5 Minimum Number of Full Height King Studs at Each End of Exterior Walls. (191210 Item

TABLE R602.7.5 MINIMUM NUMBER OF FULL HEIGHT KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN	MAXIMUM STUD SPACING (inches) [per Table R602.3(5)]		
(feet) ≤3'	16	24 1	
4' 8'	3	1 2	
12° 16°	6	4	

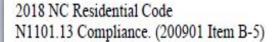
HEADER SPAN (feet)	MINIMUM NUMBER OF FULL HEIGHT STUDS (King)
Up to 3'	<u>1</u>
>3' to 6'	2
>6' to 9'	<u>3</u>
>9' to 12'	<u>4</u>
>12' to 15'	<u>5</u>

The delayed effective date of this The Statutory authority for Rule-making is G. S. 143-136; 143-138.



HEADER SPAN (feet)	MINIMUM NUMBER OF FULL HEIGHT STUDS (King)
Up to 3'	1
>3' to 6'	2
>6' to 9'	3
>9' to 12'	4
>12' to 15'	5





#### N1101.13 (R401.2) Compliance.

Projects shall comply with one of the following:

- Section N1101.14 through N1104.
- Section N1105 and the provisions of Section N1101.14 labeled "Mandatory."
- 3. An energy rating index (ERI) approach in Section N1106.
- 4. North Carolina specific REScheck keyed to the 2018 IECC shall be permitted to demonstrate compliance with this Code. Envelope requirements may not be traded off against the use of high efficiency heating or cooling equipment. No tradeoff calculations are needed for required termite inspection and treatment gaps.









2018 NC Residential Code Appendix Q Tiny Houses & R328 Lofts. (210608 Item B-8)

#### APPENDIX Q TINY HOUSES

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

#### SECTION AQ101 GENERAL

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

#### SECTION AQ102 DEFINITIONS

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

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

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

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

#### SECTION AQ103 LOFTS

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

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

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

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

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

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

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

#### SECTION AQ104 MEANS OF EGRESS

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

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

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

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- AQ104.2.1.2 Headroom. The headroom in stairways accessing a loft shall be not less than 6 feet 2 inches, as measured vertically, from a sloped line connecting the tread or landing platform nosing in the middle of their width.
- AQ104.2.1.3 Treads and risers. Risers for stairs accessing a loft shall be a maximum of 12 inches in height and every riser shall be uniform within a tolerance of ¾". Tread depth shall be a minimum 12" with all treads uniform within a tolerance ¾".
- AQ104.2.1.4 Landing platforms. The top tread and riser of stairways accessing lofts shall be constructed as a landing platform where the loft ceiling height is less than 6 feet 2 inches where the stairway meets the loft. The landing platform shall be the width of the stairs with a minimum depth of 18" inches measured from the nosing of the landing platform to the edge of the loft, and 16 to 18 inches in height measured from the landing platform to the loft floor.
- AQ104.2.1.5 Handrails. Handrails shall comply with Section R311.7.8.
- AQ104.2.1.6 Stairway guards. Guards at open sides of stairways shall comply with Section R312.1.
- AQ104.2.2 Ladders. Non-removable ladders accessing *lofts* shall comply with Sections AQ104.2.2.1.

  Exception: Ladders that slide out away from the *loft* opening that are within reach of the *loft* occupant.
- AQ104.2.2.1 Size and capacity. Ladders accessing *lofts* shall have a rung width of not less than 12 inches, and no more than 18-inches spacing between rungs. Ladders shall be capable of supporting a 200-pound load on any rung. Rung spacing shall be uniform within 3/8 inch.
- AQ104.2.3 Ship's ladders. Ship's ladders accessing *lofts* shall be installed at 70 to 80 degrees from horizontal and are permitted to be used as an element of a means of egress from *lofts*. Ship ladders shall comply with Sections R311.7.12.
- AQ104.2.4 Loft Guards. Loft guards complying with R312.1 shall be located along the open side of lofts. Loft guards shall be not less than 36 inches in height or one-half of the clear height to the ceiling, whichever is less.

#### SECTION AQ105 EMERGENCY ESCAPE AND RESCUE

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

#### SECTION AQ106 SMOKE AND CARBON MONOXIDE DETECTORS

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

#### SECTION AQ107 FOUNDATION

- AQ107.1 Foundation options. Tiny Houses are permitted to be constructed without a masonry or concrete foundation per Section AQ107.1.1 and AQ107.1.2, except in coastal high hazard, ocean hazard and flood hazard areas.
- AQ107.1.1 Wood Foundation. The building shall be supported on a wood foundation of minimum 4-inch by 4-inch or 6-inch by 6-inch mudsill or runner of approved wood in accordance with Section R317. Structural floor systems that include joists and subfloor material shall also comply with Section R317.1 item #1.
- AQ107.1.2. Anchorage. Tiny houses with wood foundations per AQ107.1.1 shall be designed and anchored to resist overturning and sliding.

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

The delayed effective date of this Rule is January 1, 2023. The Statutory authority for Rule-making is G. S. 143-136; 143-138.

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# **Knowledge Check**

- What is the maximum height of #57 stone when preparing a slab before a soil compaction test is needed?
- A body of water owned entirely by a single property owner and on the same land as a single-family dwelling is called a \_\_\_\_\_?
- A ground sign that is higher than \_\_\_\_\_ feet requires a permit?





# Questions?



Thank You!