APPENDIX C
CODE CHANGE PROPOSAL
NORTH CAROLINA
BUILDING CODE COUNCIL

B-5

325North Salisbury Street, Room 5_44
Raleigh, North Carolina 27603
(919) 647-0009
carl.martin@ncdoi.gov

Petition for Rule Making Item Number _____

Granted by BCC	_____	**Adopted by BCC**	_____	**Approved by RRC**	_____
Denied by BCC	_____	**Disapproved by BCC**	_____	**Objection by RRC**	_____

PROPONENT: BCC Existing Building Ad-Hoc Committee PHONE: (919)888-0284
REPRESENTING: BCC Existing Building Ad-Hoc Committee
ADDRESS: Mail Service Center 1202
CITY: Raleigh STATE: NC ZIP: 27699-1202
E-MAIL: carl.martin@ncdoi.gov FAX: ( ) -

North Carolina State Building Code, Volume 2024 Building Code - Section

CHECK ONE: [ ] Revise section to read as follows: [ ] Delete section and substitute the following:
[X] Add new section to read as follows: [ ] Delete section without substitution:

~~LINE THROUGH MATERIAL TO BE DELETED~~ UNDERLINE MATERIAL TO BE ADDED

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

The 2024 NCBC is based on the 2021 IEBC which can be viewed at: Digital Codes (iccsafe.org)
The NC amendments to the 2021 IEBC that make up the 2024 NCEBC are shown in ATTACHMENT A below.

Will this proposal change the cost of construction? Decrease [ ] Increase [ ] No [X]
Will this proposal increase to the cost of a dwelling by $80 or more? Yes [ ] No [X]
Will this proposal affect the 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.
- Pursuant to §143-138(a1)(2) a cost-benefit analysis is required for all proposed amendments to the NC Energy Conservation Code. The Building Code Council shall also require same for the NC Residential Code, Chapter 11.

REASON: This amendment is proposed to protect the public by updating the code to current standards of practice.

Signature: *CARL MARTIN* Date: November 1, 2022

ATTACHMENT A

THIS DOCUMENT CONTAINS PROPOSED NORTH CAROLINA AMENDMENTS TO THE 2021 EDITION OF THE INTERNTATIONAL EXISTING BUILDING CODE (IEBC) FOR THE PURPOSE OF ESTABLISHING THE 2024 EDITION OF THE NORTH CAROLINA BUILDING CODE.

UNDERLINED TEXT INDICATE NORTH CAROLINA PROPOSED AMENDMENTS TO THE 2021 INTERNATIONAL IEBC FOR THE 2024 NORTH CAROLINA EXISTING BUILDING CODE.

S~~TRUCKTHROUGH~~ TEXT INDICATES IBC TEXT THAT IS PROPOSED TO BE REMOVED FROM THE 2024 NORTH CAROLINA EXISTING BUILDING CODE.

TEXT THAT IS HIGHLIGHTED IN YELLOW INDICATES PROPOSED NORTH CAROLINA AMENDMENTS THAT ARE NEW OR DIFFERRENT THAN THE 2018 NORTH CAROLINA EXISTING BUILDING CODE.

CHAPTER 1
SCOPE AND ADMINISTRATION

~~**User note:**~~

~~***About this chapter:*** *Chapter 1 establishes the limits of applicability of the code and describes how the code is to be applied and enforced. Chapter 1 is in two parts: Part 1—Scope and Administration (Sections 101–102) and Part 2—Administration and Enforcement (Sections 103–117). Section 101 identifies which buildings and structures come under its purview and references other I-Codes® as applicable.*~~

~~*This code is intended to be adopted as a legally enforceable document, and it cannot be effective without adequate provisions for its administration and enforcement. The provisions of Chapter 1 establish the authority and duties of the code official appointed by the authority having jurisdiction and also establish the rights and privileges of the registered design professional, contractor and property owner.*~~

PART 1—SCOPE AND APPLICATION

SECTION 101
SCOPE AND GENERAL REQUIREMENTS

[A] 101.1 Title. These regulations shall be known as the *North Carolina Existing Building Code* as adopted by the North Carolina Building Code Council on (month day, year) to be effective January 1, 2024. Reference to the *International Codes* shall mean the *North Carolina Codes*. The North Carolina amendments to the *International Codes* are underlined. ~~of [NAME OF JURISDICTION], herein after referred to as "this code."~~

[A] 101.2 Scope. The provisions of this code shall apply to the *repair*, *alteration*, *change of occupancy*, *addition* to and relocation of *existing buildings*.

Exception: Detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the *International Residential Code*.

101.2.1 Application of fire code. Deleted ~~Where work regulated by this code is also regulated by the construction requirements for *existing buildings* in Chapter 11 of the *International Fire Code*, such work shall comply with applicable requirements in both codes.~~

[A] 101.4 Applicability. This code shall apply to the *repair*, *alteration*, *change of occupancy*, *addition* and relocation of *existing buildings*, regardless of occupancy, subject to the criteria of Sections 101.4.1 and 101.4.2.

[A] 101.4.1 Buildings not previously legally occupied. A building or portion of a building that has not been previously ~~occupied~~ *legally occupied* or used for its intended purpose, in accordance with the laws in existence at the time of its completion, shall be permitted to comply with the provisions of the laws in existence at the time of its original permit unless such permit has expired. Subsequent permits shall comply with the *International Building Code* or *International Residential Code*, as applicable, for new construction.

[A] 101.4.2 Buildings previously legally occupied. The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the *International Fire Code*~~, or the *International Property Maintenance Code*~~, or as is deemed necessary by the *code official* for the general safety and welfare of the occupants and the public.

[A] 101.6 Appendices. Provisions in the appendices shall not apply unless specifically adopted or referenced in this code. ~~The *code official* is authorized to require retrofit of buildings, structures or individual structural members in accordance with the appendices of this code if such appendices have been individually adopted.~~

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

101.9 Mixed use buildings. Each portion of a building shall be separately classified as to use. The requirements of this code shall apply to each portion of the building based on the *occupancy classification* of that portion, except that the most restrictive requirements of this code for fire suppression shall apply to the entire building.

Exception: An automatic fire suppression system shall not be required for uses that would not otherwise require suppression provided that there is a 1-hour separation between the uses requiring suppression and the other uses in the same building. A 2-hour fire separation shall be required to apply this exception to Group H.

101.10 High-rise buildings. *High-rise buildings* constructed prior to 1978 shall at a minimum comply with North Carolina General Statute 143-138, Section (i). The statute may be viewed at the following web address: http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_143/GS_143-138.html.

101.11. Accessibility for townhouses. In townhouses, where there are four or more dwelling units in a single structure, the provisions for accessibility of this code for Group R-3 shall apply.

101.12. Energy conservation exceptions. The following exceptions apply to the *North Carolina Energy Conservation Code* provisions in existing buildings in accordance with NC General Statutes:

1. In accordance with N.C.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.

2. In accordance with N.C.G.S. 143-138 (b19), for residential buildings, no energy code provisions shall apply to detached and attached garages located on the same lot as a dwelling.

PART 2—ADMINISTRATION AND ENFORCEMENT

SECTION 103
CODE COMPLIANCE AGENCY

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

~~**[A] 103.1 Creation of agency.** The **[INSERT NAME OF DEPARTMENT]** is hereby created, and the official in charge thereof shall be known as the *code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.~~

~~**[A] 103.2 Appointment.** The *code official* shall be appointed by the chief appointing authority of the jurisdiction.~~

~~**[A] 103.3 Deputies.** In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the *code official* shall have the authority to appoint a deputy *code official*, other related technical officers, inspectors and other employees. Such employees shall have powers as delegated by the *code official*.~~

SECTION 104
DUTIES AND POWERS OF CODE OFFICIAL

[A] 104.1 General. Deleted. See the *North Carolina Administrative Code and Policies*. ~~The *code official* is hereby authorized and directed to enforce the provisions of this code. The *code official* shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.~~

[A] 104.2 Applications and permits. Deleted. See the *North Carolina Administrative Code and Policies*. ~~The *code official* shall receive applications, review construction documents and issue permits for the *repair*, *alteration*, *addition*, demolition, *change of occupancy* and relocation of buildings; inspect the premises for which such permits have been issued; and enforce compliance with the provisions of this code.~~

~~**[A] 104.2.1 Determination of substantially improved or substantially damaged *existing buildings* and structures in flood hazard areas.** For applications for reconstruction, rehabilitation, repair, *alteration*, *addition* or other improvement of *existing buildings* or structures located in *flood hazard areas*, the building official shall determine where the proposed work constitutes *substantial improvement* or *repair* of *substantial damage*. Where the building official determines that the proposed work constitutes *substantial improvement* or *repair* of *substantial damage*, and where required by this code, the building official shall require the building to meet the requirements of Section 1612 of the *International Building Code*, or Section R322 of the *International Residential Code*, as applicable.~~

~~**[A] 104.2.2 Preliminary meeting.** When requested by the permit applicant or the *code official*, the *code official* shall meet with the permit applicant prior to the application for a construction permit to discuss plans for the proposed work or *change of occupancy* in order to establish the specific applicability of the provisions of this code.~~

Exception: *Repairs* and Level 1 *alterations*.

[A] 104.2.2.1 Building evaluation. The *code official* is authorized to require an *existing building* to be investigated and evaluated by a registered design professional based on the circumstances agreed on at the preliminary meeting. The design professional shall notify the *code official* if any potential noncompliance with the provisions of this code is identified.

[A] 104.3 Notices and orders. Deleted. See the *North Carolina Administrative Code and Policies*. The *code official* shall issue necessary notices or orders to ensure compliance with this code.

[A] 104.4 Inspections. Deleted. See the *North Carolina Administrative Code and Policies*. The *code official* shall make the required inspections, or the *code official* shall have the authority to accept reports of inspection by *approved* agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such *approved* agency or by the responsible individual. The *code official* is authorized to engage such expert opinion as deemed necessary to report on unusual technical issues that arise, subject to the approval of the appointing authority.

[A] 104.5 Identification. Deleted. See the *North Carolina Administrative Code and Policies*. The *code official* shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

[A] 104.6 Right of entry. Deleted. See the *North Carolina Administrative Code and Policies*. Where it is necessary to make an inspection to enforce the provisions of this code, or where the *code official* has reasonable cause to believe that there exists in a structure or on a premises a condition that is contrary to or in violation of this code that makes the structure or premises *unsafe*, *dangerous* or hazardous, the *code official* is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided that if such structure or premises be occupied that credentials be presented to the occupant and entry requested. If such structure or premises be unoccupied, the *code official* shall first make a reasonable effort to locate the owner, the owner's authorized agent or other person having charge or control of the structure or premises and request entry. If entry is refused, the *code official* shall have recourse to the remedies provided by law to secure entry.

[A] 104.7 Department records. Deleted. See the *North Carolina Administrative Code and Policies*. The *code official* shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period required for retention of public records.

[A] 104.8 Liability. Deleted. See the *North Carolina Administrative Code and Policies*. The *code official*, member of the Board of Appeals or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered civilly or criminally liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties.

[A] 104.8.1 Legal defense. Any suit or criminal complaint instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by legal representatives of the jurisdiction until the final termination of the proceedings. The *code official* or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.

[A] 104.9 Approved materials and equipment. Deleted. See the *North Carolina Administrative Code and Policies*. Materials, equipment and devices *approved* by the *code official* shall be constructed and installed in accordance with such approval.

[A] 104.9.1 Used materials and equipment. The use of used materials that meet the requirements of this code for new materials is permitted. Used equipment and devices shall be permitted to be reused subject to the approval of the *code official*.

[A] 104.10 Modifications. Wherever there are practical difficulties involved in carrying out the provisions of this code, the *code official* shall have the authority to grant modifications for individual cases on application of the owner or owner's authorized representative, provided that the *code official* shall first find that special individual reason makes the strict letter of this code impractical, the modification is in compliance with the intent and purpose of this code and such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the Department of Building Safety.

[A] 104.10.1 Flood hazard areas. For *existing buildings* located in *flood hazard areas* for which *repairs*, *alterations* and *additions* constitute *substantial improvement*, the *code official* shall not grant modifications to provisions related to flood resistance unless a determination is made that:

1. The applicant has presented good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render compliance with the flood-resistant construction provisions inappropriate.
2. Failure to grant the modification would result in exceptional hardship.

3. The granting of the modification will not result in increased flood heights, additional threats to public safety, extraordinary public expense nor create nuisances, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.
4. The modification is the minimum necessary to afford relief, considering the flood hazard.
5. A written notice will be provided to the applicant specifying, if applicable, the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation and that construction below the design flood elevation increases risks to life and property.

Local ordinances more restrictive than the requirements of this section supersede these requirements.

SECTION 105
PERMITS

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

[**A] 105.1 Required.** Any owner or owner's authorized agent who intends to *repair*, add to, alter, relocate, demolish or change the occupancy of a building or to *repair*, install, add, alter, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be performed, shall first make application to the *code official* and obtain the required permit.

[A] 105.1.1 Annual permit. Instead of an individual permit for each *alteration* to an already *approved* electrical, gas, mechanical, or plumbing installation, the *code official* is authorized to issue an annual permit on application therefor to any person, firm or corporation regularly employing one or more qualified trade persons in the building, structure, or on the premises owned or operated by the applicant for the permit.

[A] 105.1.2 Annual permit records. The person to whom an annual permit is issued shall keep a detailed record of *alterations* made under such annual permit. The *code official* shall have access to such records at all times, or such records shall be filed with the *code official* as designated.

[A] 105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. Sidewalks and driveways not more than 30 inches (762 mm) above grade and not over any basement or story below and that are not part of an accessible route.
2. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
3. Temporary motion picture, television, and theater stage sets and scenery.
4. Shade cloth structures constructed for nursery or agricultural purposes, and not including service systems.
5. Window awnings supported by an exterior wall of Group R-3 or Group U occupancies.
6. Nonfixed and movable cases, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

Electrical:

1. **Repairs and maintenance:** Minor *repair* work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.
2. **Radio and television transmitting stations:** The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply, the installations of towers and antennas.
3. **Temporary testing systems:** A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating appliance.
2. Portable ventilation equipment.

3. Portable cooling unit.

4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.

5. Replacement of any part that does not alter its approval or make it unsafe.

6. Portable evaporative cooler.

7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.

2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided that such *repairs* do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

[A] 105.2.1 Emergency repairs. Where equipment replacements and *repairs* must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the *code official*.

[A] 105.2.2 Repairs. Application or notice to the *code official* is not required for *repairs* to structures and items listed in Section 105.2 provided that such *repairs* do not include any of the following:

1. The cutting away of any wall, partition or portion thereof.

2. The removal or cutting of any structural beam or load-bearing support.

3. The removal or change of any required means of egress or rearrangement of parts of a structure affecting the egress requirements.

4. Any *addition* to, *alteration* of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, or electric wiring.

5. Mechanical or other work affecting public health or general safety.

[A] 105.2.3 Public service agencies. A permit shall not be required for the installation, *alteration* or *repair* of generation, transmission, distribution or metering, or other related equipment that is under the ownership and control of public service agencies by established right.

[A] 105.3 Application for permit. To obtain a permit, the applicant shall first file an application therefor in writing on a form furnished by the Department of Building Safety for that purpose. Such application shall:

1. Identify and describe the work in accordance with Chapter 3 to be covered by the permit for which application is made.

2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.

3. Indicate the use and occupancy for which the proposed work is intended.

4. Be accompanied by construction documents and other information as required in Section 106.3.

5. State the valuation of the proposed work.

6. Be signed by the applicant or the applicant's authorized agent.

7. Give such other data and information as required by the *code official*.

[A] 105.3.1 Action on application. The *code official* shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the *code official* shall reject such application in writing, stating the reasons therefor. If the *code official* is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the *code official* shall issue a permit therefor as soon as practicable.

[A] 105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the *code official* is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

[A] 105.4 Validity of permit. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Permits presuming to give authority

to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the *code official* from requiring the correction of errors in the construction documents and other data. The *code official* is authorized to prevent occupancy or use of a structure where in violation of this code or of any other ordinances of this jurisdiction.

[A] 105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The *code official* is authorized to grant, in writing, one or more extensions of time for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

[A] 105.6 Suspension or revocation. The *code official* is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.

[A] 105.7 Placement of permit. The building permit or copy shall be kept on the site of the work until the completion of the project.

SECTION 106
CONSTRUCTION DOCUMENTS

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

[A] 106.1 General. Submittal documents consisting of construction documents, special inspection and structural observation programs, investigation and evaluation reports, and other data shall be submitted in two or more sets, or in a digital format where allowed by the *code official*, with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the *code official* is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The *code official* is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that reviewing of construction documents is not necessary to obtain compliance with this code.

[A] 106.2 Construction documents. Construction documents shall be in accordance with Sections 106.2.1 through 106.2.6.

[A] 106.2.1 Construction documents. Construction documents shall be dimensioned and drawn on suitable material. Electronic media documents are permitted to be submitted where *approved* by the *code official*. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the *code official*. The *work areas* shall be shown.

[A] 106.2.2 Fire protection system(s) shop drawings. Shop drawings for the fire protection system(s) shall be submitted to indicate compliance with this code and the construction documents and shall be *approved* prior to the start of system installation. Shop drawings shall contain information as required by the referenced installation standards in Chapter 9 of the *International Building Code*.

[A] 106.2.3 Means of egress. The construction documents for *Alterations* – Level 2, *Alterations* – Level 3, *additions* and *changes of occupancy* shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. The construction documents shall designate the number of occupants to be accommodated in every *work area* of every floor and in all affected rooms and spaces.

[A] 106.2.4 Exterior wall envelope. Construction documents for work affecting the *exterior wall envelope* shall describe the *exterior wall envelope* in sufficient detail to determine compliance with this code. The construction documents shall provide details of the *exterior wall envelope* as required, including windows, doors, flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water resistive barriers and details around openings.

The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the wind and weather resistance of the *exterior wall envelope*. The supporting documentation shall fully describe the exterior wall system that was tested, where applicable, as well as the test procedure used.

[A] 106.2.5 Exterior balconies and elevated walking surfaces. Where the scope of work involves balconies or other elevated walking surfaces have weather-exposed surfaces, and the structural framing is protected by an impervious moisture barrier, the construction documents shall include details for all elements of the impervious moisture barrier system. The construction documents shall include manufacturer's installation instructions.

[A] 106.2.6 Site plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and *existing structures* on the site, distances from lot lines, the established street grades, and the proposed finished grades; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of *existing structures* and construction that are to remain on the site or plot. The *code official* is authorized to waive or modify the requirement for a site plan where the application for permit is for *alteration*, *repair* or *change of occupancy*.

[A] 106.3 Examination of documents. The *code official* shall examine or cause to be examined the submittal documents and shall ascertain by such examinations whether the construction or occupancy indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.

[A] 106.3.1 Approval of construction documents. Where the *code official* issues a permit, the construction documents shall be *approved* in writing or by stamp as "Reviewed for Code Compliance." One set of construction documents so reviewed shall be retained by the *code official*. The other set shall be returned to the applicant, shall be kept at the site of work, and shall be open to inspection by the *code official* or a duly authorized representative.

[A] 106.3.2 Previous approval. This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been issued and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

[A] 106.3.3 Phased approval. The *code official* is authorized to issue a permit for the construction of foundations or any other part of a building before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such permit for the foundation or other parts of a building shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted.

[A] 106.3.4 Deferred submittals. Deferral of any submittal items shall have the prior approval of the *code official*. The *registered design professional in responsible charge* shall list the *deferred submittals* on the construction documents for review by the *code official*.

Submittal documents for *deferred submittal* items shall be submitted to the *registered design professional in responsible charge* who shall review them and forward them to the *code official* with a notation indicating that the *deferred submittal* documents have been reviewed and that they have been found to be in general conformance to the design of the building. The *deferred submittal* items shall not be installed until their *deferred submittal* documents have been *approved* by the *code official*.

[A] 106.4 Amended construction documents. Work shall be installed in accordance with the reviewed construction documents, and any changes made during construction that are not in compliance with the *approved* construction documents shall be resubmitted for approval as an amended set of construction documents.

[A] 106.5 Retention of construction documents. One set of *approved* construction documents shall be retained by the *code official* for a period of not less than the period required for retention of public records.

[A] 106.6 Design professional in responsible charge. Where it is required that documents be prepared by a registered design professional, the *code official* shall be authorized to require the owner or the owner's authorized agent to engage and designate on the building permit application a registered design professional who shall act as the *registered design professional in responsible charge*. If the circumstances require, the owner or the owner's authorized agent shall designate a substitute *registered design professional in responsible charge* who shall perform the duties required of the original *registered design professional in responsible charge*. The *code official* shall be notified in writing by the owner or the owner's authorized agent if the *registered design professional in responsible charge* is changed or is unable to continue to perform the duties. The *registered design professional in responsible charge* shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and *deferred submittal* items, for compatibility with the design of the building. Where structural observation is required, the inspection program shall name the individual or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur.

SECTION 107
TEMPORARY STRUCTURES AND USES

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

[A] 107.1 General. The *code official* is authorized to issue a permit for temporary uses. Such permits shall be limited as to time of service but shall not be permitted for more than 180 days. The *code official* is authorized to grant extensions for demonstrated cause.

[A] 107.2 Conformance. Temporary uses shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure the public health, safety and general welfare.

[A] 107.3 Temporary power. The *code official* is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in NFPA 70.

[A] 107.4 Termination of approval. The *code official* is authorized to terminate such permit for a temporary use and to order the temporary use to be discontinued.

SECTION 108
FEES

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

[A] 108.1 Payment of fees. A permit shall not be valid until the fees prescribed by law have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

[A] 108.2 Schedule of permit fees. Where a permit is required, a fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority.

[A] 108.3 Permit valuations. The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of work, including materials and labor for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. If, in the opinion of the *code official*, the valuation is underestimated on the application, the permit shall be denied unless the applicant can show detailed estimates to meet the approval of the *code official*. Final building permit valuation shall be set by the *code official*.

[A] 108.4 Work commencing before permit issuance. Any person who commences any work before obtaining the necessary permits shall be subject to a fee established by the *code official* that shall be in addition to the required permit fees.

[A] 108.5 Related fees. The payment of the fee for the construction, *alteration*, removal or demolition of work done in connection to or concurrently with the work authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

[A] 108.6 Refunds. The *code official* is authorized to establish a refund policy.

SECTION 109
INSPECTIONS

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

[A] 109.1 General. Construction or work for which a permit is required shall be subject to inspection by the *code official*, and such construction or work shall remain visible and able to be accessed for inspection purposes until *approved*. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the permit applicant to cause the work to remain visible and able to be accessed for inspection purposes. Neither the *code official* nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

[A] 109.2 Preliminary inspection. Before issuing a permit, the *code official* is authorized to examine or cause to be examined buildings and sites for which an application has been filed.

[A] 109.3 Required inspections. The *code official*, on notification, shall make the inspections set forth in Sections 109.3.1 through 109.3.11.

[A] 109.3.1 Footing or foundation inspection. Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready-mixed in accordance with ASTM C94, the concrete need not be on the job.

[A] 109.3.2 Concrete slab or under-floor inspection. Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place but before any concrete is placed or floor sheathing installed, including the subfloor.

[A] 109.3.3 Lowest floor elevation. For *additions* and *substantial improvements* to *existing buildings* in *flood hazard areas*, on placement of the lowest floor, including basement, and prior to further vertical construction, the elevation documentation required in the *International Building Code*, or the *International Residential Code*, as applicable, shall be submitted to the *code official*.

[A] 109.3.4 Frame inspection. Framing inspections shall be made after the roof deck or sheathing, framing, fire blocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are *approved*.

[A] 109.3.5 Lath or gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place but before any plastering is applied or before gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

[A] 109.3.6 Weather-exposed balcony and walking surface waterproofing. Where the scope of work involves balconies or other elevated walking surfaces that have weather-exposed surfaces and the structural framing is protected by an impervious moisture barrier, all elements of the impervious moisture barrier system shall not be concealed until inspected and *approved*.

Exception: Where special inspections are provided in accordance with Section 1705.1.1, Item 3, of the *International Building Code*.

[A] 109.3.7 Fire- and smoke-resistant penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and *approved*.

[A] 109.3.8 Other inspections. In addition to the inspections specified in Sections 109.2 through 109.3.7, the *code official* is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the Department of Building Safety.

[A] 109.3.9 Special inspections. Special inspections shall be required in accordance with the *International Building Code*.

[A] 109.3.10 Flood hazard documentation. Where a building is located in a *flood hazard area*, documentation of the elevation of the lowest floor as required in the *International Building Code* or the *International Residential Code*, as applicable, shall be submitted to the *code official* prior to the final inspection.

[A] 109.3.11 Final inspection. The final inspection shall be made after work required by the building permit is completed.

[A] 109.4 Inspection agencies. The *code official* is authorized to accept reports of *approved* inspection agencies, provided that such agencies satisfy the requirements as to qualifications and reliability.

[A] 109.5 Inspection requests. It shall be the duty of the holder of the building permit or their duly authorized agent to notify the *code official* when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for any inspections of such work that are required by this code.

[A] 109.6 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the *code official*. The *code official*, on notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed or shall notify the permit holder or an agent of the permit holder wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the *code official*.

SECTION 110
CERTIFICATE OF OCCUPANCY

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

[A] 110.1 Change of occupancy. A structure shall not be used or occupied in whole or in part, and a *change of occupancy* of a structure or portion thereof shall not be made until the *code official* has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code

or of other ordinances of the jurisdiction. Certificates presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid.

Exception: Certificates of occupancy are not required for work exempt from permits in accordance with Section 105.2.

[A] 110.2 Certificate issued. After the *code official* inspects the structure and does not find violations of the provisions of this code or other laws that are enforced by the department, the *code official* shall issue a certificate of occupancy that contains the following:

1. The permit number.
2. The address of the structure.
3. The name and address of the owner or the owner's authorized agent.
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
6. The name of the *code official*.
7. The edition of the code under which the permit was issued.
8. The use and occupancy in accordance with the provisions of the *International Building Code*.
9. The type of construction as defined in the *International Building Code*.
10. The design occupant load and any impact the *alteration* has on the design occupant load of the area not within the scope of the work.
11. Where an automatic sprinkler system is provided, and whether an automatic sprinkler system is required.
12. Any special stipulations and conditions of the building permit.

[A] 110.3 Temporary occupancy. The *code official* is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely. The *code official* shall set a time period during which the temporary certificate of occupancy is valid.

[A] 110.4 Revocation. The *code official* is authorized to suspend or revoke a certificate of occupancy or completion issued under the provisions of this code, in writing, wherever the certificate is issued in error or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of the provisions of this code or other ordinance of the jurisdiction.

SECTION 111
SERVICE UTILITIES

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

[A] 111.1 Connection of service utilities. A person shall not make connections from a utility, source of energy, fuel, power, water system or sewer system to any building or system that is regulated by this code for which a permit is required, until *approved* by the *code official*.

[A] 111.2 Temporary connection. The *code official* shall have the authority to authorize the temporary connection of the building or system to the utility, source of energy, fuel, power, water system or sewer system for the purpose of testing systems or for use under a temporary approval.

[A] 111.3 Authority to disconnect service utilities. The *code official* shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the referenced codes and standards in case of emergency where necessary to eliminate an immediate hazard to life or property or where such utility connection has been made without the approval required by Section 111.1 or 111.2. The *code official* shall notify the serving utility and, wherever possible, the owner or the owner's authorized agent and the occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner, the owner's authorized agent or occupant of the building, structure or service system shall be notified in writing, as soon as practical thereafter.

SECTION 112
MEANS OF APPEALS

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

[A] 112.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the *code official* relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the applicable governing authority and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *code official*.

[A] 112.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equivalent or better form of construction is proposed. The board shall not have authority to waive requirements of this code or interpret the administration of this code.

[A] 112.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

[A] 112.4 Administration. The *code official* shall take immediate action in accordance with the decision of the board.

SECTION 113
VIOLATIONS

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

[A] 113.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to *repair*, alter, extend, add, move, remove, demolish or change the occupancy of any building or equipment regulated by this code or cause same to be done in conflict with or in violation of any of the provisions of this code.

[A] 113.2 Notice of violation. The *code official* is authorized to serve a notice of violation or order on the person responsible for the *repair*, *alteration*, extension, *addition*, moving, removal, demolition or change in the occupancy of a building in violation of the provisions of this code or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

[A] 113.3 Prosecution of violation. If the notice of violation is not complied with promptly, the *code official* is authorized to request the legal counsel of the jurisdiction to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

[A] 113.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who *repairs* or alters or changes the occupancy of a building or structure in violation of the approved construction documents or directive of the *code official* or of a permit or certificate issued under the provisions of this code shall be subject to penalties as prescribed by law.

SECTION 114
STOP WORK ORDER

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

[A] 114.1 Authority. Where the *code official* finds any work regulated by this code being performed in a manner contrary to the provisions of this code or in a *dangerous* or *unsafe* manner, the *code official* is authorized to issue a stop work order.

[A] 114.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume.

[A] 114.3 Emergencies. Where an emergency exists, the *code official* shall not be required to give a written notice prior to stopping the work.

[A] 114.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or *unsafe* condition, shall be subject to fines established by the authority having jurisdiction.

SECTION 115
UNSAFE STRUCTURES AND EQUIPMENT

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

[A] 115.1 Unsafe conditions. Structures or existing equipment that are or hereafter become *unsafe*, insanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or that constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an *unsafe* condition. *Unsafe* structures shall be taken down and removed or made safe as the *code official* deems necessary and as provided for in this code. A vacant structure that is not secured against unauthorized entry shall be deemed *unsafe*.

[A] 115.2 Record. The *code official* shall cause a report to be filed on an *unsafe* condition. The report shall state the occupancy of the structure and the nature of the *unsafe* condition.

[A] 115.3 Notice. If an *unsafe* condition is found, the *code official* shall serve on the owner of the structure or the owner's authorized agent a written notice that describes the condition deemed *unsafe* and specifies the required *repairs* or improvements to be made to abate the *unsafe* condition, or that requires the *unsafe* building to be demolished within a stipulated time. Such notice shall require the person thus notified to declare immediately to the *code official* acceptance or rejection of the terms of the order.

[A] 115.4 Method of service. Such notice shall be deemed properly served where a copy thereof is served in accordance with one of the following methods:

1. A copy is delivered to the owner or the owner's authorized agent personally.
2. A copy is sent by certified or registered mail addressed to the owner at the last known address with the return receipt requested.
3. A copy is delivered in any other manner as prescribed by local law.

If the certified or registered letter is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice. Service of such notice in the foregoing manner on the owner's authorized agent shall constitute service of notice on the owner.

[A] 115.5 Restoration or abatement. The structure or equipment determined to be *unsafe* by the *code official* is permitted to be restored to a safe condition. The owner, the owner's authorized agent, operator or occupant of a structure, premises or equipment deemed *unsafe* by the *code official* shall abate or cause to be abated or corrected such *unsafe* conditions either by *repair*, rehabilitation, demolition or other *approved* corrective action. To the extent that *repairs*, *alterations* or *additions* are made, or a *change of occupancy* occurs during the restoration of the structure, such *repairs*, *alterations*, *additions* or *change of occupancy* shall comply with the requirements of this code.

SECTION 116
EMERGENCY MEASURES

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

[A] 116.1 Imminent danger. Where, in the opinion of the *code official*, there is imminent danger of failure or collapse of a building that endangers life, or where any building or part of a building has fallen and life is endangered by the occupation of the building, or where there is actual or potential danger to the building occupants or those in the proximity of any structure because of explosives, explosive fumes or vapors, or the presence of toxic fumes, gases, or materials, or operation of defective or dangerous equipment, the *code official* is hereby authorized and empowered to order and require the occupants to vacate the premises forthwith. The *code official* shall cause to be posted at each entrance to such structure a notice reading as follows: "This Structure Is Unsafe and Its Occupancy Has Been Prohibited by the Code Official." It shall be unlawful for any person to enter such structure except for the purpose of securing the structure, making the required *repairs*, removing the hazardous condition, or of demolishing the same.

[A] 116.2 Temporary safeguards. Notwithstanding other provisions of this code, whenever, in the opinion of the *code official*, there is imminent danger due to an *unsafe* condition, the *code official* shall order the necessary work to be done, including the boarding up of openings, to render such structure temporarily safe whether or not the legal procedure herein described has been instituted; and shall cause such other action to be taken as the *code official* deems necessary to meet such emergency.

[A] 116.3 Closing streets. Where necessary for public safety, the *code official* shall temporarily close structures and close or order the authority having jurisdiction to close sidewalks, streets, public ways and places adjacent to *unsafe* structures, and prohibit the same from being utilized.

[A] 116.4 Emergency repairs. For the purposes of this section, the *code official* shall employ the necessary labor and materials to perform the required work as expeditiously as possible.

[A] 116.5 Costs of emergency repairs. Costs incurred in the performance of emergency work shall be paid by the jurisdiction. The legal counsel of the jurisdiction shall institute appropriate action against the owner of the premises or the owner's authorized agent where the *unsafe* structure is or was located for the recovery of such costs.

[A] 116.6 Hearing. Any person ordered to take emergency measures shall comply with such order forthwith. Any affected person shall thereafter, on petition directed to the appeals board, be afforded a hearing as described in this code.

SECTION 117
DEMOLITION

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

[A] 117.1 General. The *code official* shall order the owner or owner's authorized agent of any premises on which is located any structure that in the *code official's* judgment is so old or dilapidated, or has become so out of *repair* as to be *dangerous*, *unsafe*, insanitary or otherwise unfit for human habitation of occupancy, and such that it is unreasonable to *repair* the structure, to demolish and remove such structure; or if such structure is capable of being made safe by *repairs*, to *repair* and make safe and sanitary or to demolish and remove to the owner's or the owner's authorized agent's option; or where there has been a cessation of normal construction of any structure for a period of more than two years, to demolish and remove such structure.

[A] 117.2 Notices and orders. Notices and orders shall comply with Section 113.

[A] 117.3 Failure to comply. If the owner or the owner's authorized agent of a premises fails to comply with a demolition order within the time prescribed, the *code official* shall cause the structure to be demolished and removed, either through an available public agency or by contract or arrangement with private persons, and the cost of such demolition and removal shall be charged against the real estate on which the structure is located and shall be a lien on such real estate.

[A] 117.4 Salvage materials. Where any structure has been ordered demolished and removed, the governing body or other designated officer under said contract or arrangement aforesaid shall have the right to sell the salvage and valuable materials at the highest price obtainable. The net proceeds of such sale, after deducting the expenses of such demolition and removal, shall be promptly remitted with a report of such sale or transaction, including the items of expense and the amounts deducted, for the person who is entitled thereto, subject to any order of a court. If such a surplus does not remain to be turned over, the report shall so state.

CHAPTER 2

DEFINITIONS

~~**User note:**~~

~~***About this chapter:*** Codes, by their very nature, are technical documents. Every word, term and punctuation mark can add to or change the meaning of a technical requirement. It is necessary to maintain a consensus on the specific meaning of each term contained in the code. Chapter 2 performs this function by stating clearly what specific terms mean for the purpose of the code.~~

[A] APPROVED. Acceptable to the *code official*~~.~~ or authority having jurisdiction for compliance with the provisions of the applicable code or reference.

BOARDING HOUSE. A building arranged or used for lodging for compensation, with or without meals, and not occupied as a single-family unit.

CARBON MONOXIDE ALARM. A single- or multiple-station alarm intended to detect carbon monoxide gas and alert occupants by a distinct audible signal. It incorporates a sensor, control components and an alarm notification appliance in a single unit.

CARBON MONOXIDE DETECTOR. A device with an integral sensor to detect carbon monoxide gas and transmit an alarm signal to a connected alarm control unit.

[A] CHANGE OF OCCUPANCY. Any of the following shall be considered as a change of occupancy where the current *International Building Code* requires a greater degree of safety, accessibility, structural strength, fire protection, means of egress, ventilation or sanitation than is existing in the current building or structure:

1. Any change in the *occupancy classification* ~~of a building structure.~~
2. Any change ~~in the purpose of, or a change in the level of activity within, a building or structure.~~ from one group to another group within an *occupancy classification*.
3. Any change in use within a group for which there is a change in application of the requirements of this code.

COMMERCIAL BUILDING. For energy conservation provisions, all buildings that are not included in the definition of "Residential building."

~~**[A] DEFERRED SUBMITTAL.** Those portions of the design that are not submitted at the time of the application and that are to be submitted to the *code official* within a specified period.~~

[A] EXISTING BUILDING. ~~A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.~~ A building *legally occupied* or *legally occupied* prior to a current vacant status.

HIGH-RISE BUILDING. A building with an occupied floor located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

LEGALLY OCCUPIED. A building that has a current certificate of occupancy or equivalent documentation provided by the permit holder acceptable to the local code enforcement official.

LISTED. Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintain periodic inspections of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

NIGHT CLUB. An A-2 occupancy meeting all of the following conditions:

1. The aggregate floor area of concentrated use and standing space that is used for dancing or viewing of per formers exceeds 10 percent of the Group A-2 fire area, excluding adjacent lobby areas;
2. Provides live or recorded entertainment by performing artist; and
3. Allows alcoholic beverage consumption.

OCCUPANCY CLASSIFICATION. Occupant type as listed in Chapter 3 of the *North Carolina Building Code* (i.e., A, B, E, F, H, I, M, R, S, U).

OCCUPANCY GROUP. A subset of the occupancy group as listed in Chapter 3 of the *North Carolina Building Code* (i.e., A-1, A-2, A-3, A-4, A-5, B, E, F-1, F-2, H-1, H-2, H-3, H-4, H-5, I-1, I-2, I-3, I-4, M, R-1, R-2, R-3, R-4, S-1, S-2, and U).

OCCUPANCY USE. The function of the space and not necessarily the *occupancy classification*.

OPERATIONAL ACCESS. Building access that allows use of a building during and after an emergency event.

~~**[A] REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.** A registered design professional engaged by the owner or the owner's authorized agent to review and coordinate certain aspects of the project, as determined by the *code official*, for compatibility with the design of the building or structure, including submittal documents prepared by others, *deferred submittal* documents and phased submittal documents.~~

[B] REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed. A design by a registered design professional is not required where exempt under the registration or license laws.

RESIDENTIAL BUILDING. For energy conservation provisions, includes detached one- and two-family dwellings and multiple single-family dwellings (townhouses) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane.

[BS] ROOF REPAIR. Reconstruction, restoration, or renewal of any part of an existing roof for the purpose of correcting damage or restoring the predamage condition.

SYSTEM. Primary structural, mechanical, plumbing, electrical, fire protection, or occupant service components of a building including any equipment, fixtures, connections, conduits, wires, pipes, ducts, as well as any associated sensors, controls, distribution or safety elements.

TECHNICALLY INFEASIBLE. An *alteration* of a *facility* that a registered design professional and code official agree has little likelihood of being accomplished because the existing structural conditions require the removal or *alteration* of a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.

TEMPORARY OVERFLOW SHELTER. A shelter that provides temporary overflow accommodations from an approved homeless shelter in accordance with Section 411.

UNSAFE. ~~Buildings, structures or equipment that are unsanitary, or that are deficient due to inadequate means of egress *facilities*, inadequate light and ventilation, or that constitute a fire hazard, or in which the structure or individual structural members meet the definition of *"Dangerous,"* or that are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance shall be deemed *unsafe*. A vacant structure that is not secured against entry shall be deemed *unsafe*.~~ See the *North Carolina General Statutes (N.C.G.S.) 160D-1119.*

CHAPTER 3

PROVISIONS FOR ALL COMPLIANCE METHODS

~~**User note:**~~

~~***About this chapter:*** *Chapter 3 explains the three compliance options for alterations and additions available in the code. In addition, this chapter also lays out the methods to be used for seismic design and evaluation throughout this code. Finally, this chapter clarifies that provisions in other I-Codes® related to repairs, alterations, additions, relocation and changes of occupancy must also be addressed unless they conflict with this code. In that case, this code takes precedence.*~~

301.3 Alteration, addition or change of occupancy. The *alteration*, *addition* or *change of occupancy* of all *existing buildings* shall comply with one of the methods listed in Section 301.3.1, 301.3.2 or 301.3.3 as selected by the applicant. Sections 301.3.1 through 301.3.3 shall not be applied in combination with each other.

Exception: Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code. Buildings constructed prior to the existence of an applicable *North Carolina State Building Code* and in structurally sound condition shall be considered complying with the laws in existence at the time the building or the affected portion of the building was built. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to the following:

1. *Alterations* for accessibility required by Section 306.
2. *Alterations* that constitute *substantial improvement* in *flood hazard areas*, which shall comply with Sections 503.2, 701.3 or 1301.3.3.
3. Structural provisions of Section 304, Chapter 5 or to the structural provisions of Sections 706, 805 and 906.

302.2 Additional codes. *Alterations*, *repairs*, *additions* and *changes of occupancy* to, or relocation of, *existing buildings* and structures shall comply with the provisions for *alterations*, *repairs*, *additions* and *changes of occupancy* or relocation, respectively, in this code and the *International Energy Conservation Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code*, ~~*International Private Sewage Disposal Code*, *International Property Maintenance Code*,~~ and *International Residential Code* ~~and NFPA 70~~. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

303.1 Storm shelters. This section applies to the construction of storm shelters constructed as rooms or spaces within *existing buildings* for the purpose of providing protection during storms that produce high winds, such as tornados and hurricanes. Such structures shall be designated to be hurricane shelters, tornado shelters, or combined hurricane and tornado shelters. Such structures shall be constructed in accordance with ~~this code~~ the *International Building Code* ~~and ICC 500~~.

303.2 Addition to a Group E occupancy. Deleted ~~Where an *addition* is added to an existing Group E occupancy located in an area where the shelter design wind speed for tornados is 250 mph (402.3 km/h) in accordance with Figure 304.2(1) of ICC 500 and the occupant load in the *addition* is 50 or more, the *addition* shall have a storm shelter constructed in accordance with ICC 500.~~

~~**Exceptions:**~~

~~1. Group E day care *facilities*.~~

~~2. Group E occupancies accessory to places of religious worship.~~

~~3. *Additions* meeting the requirements for shelter design in ICC 500.~~

~~**303.2.1 Required occupant capacity.** The required occupant capacity of the storm shelter shall include all buildings on the site, and shall be the total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.~~

~~**Exceptions:**~~

~~1. Where an *addition* is being added on an existing Group E site, and where the *addition* is not of sufficient size to accommodate the required occupant capacity of the storm shelter for all of the buildings on site, the storm shelter shall at a minimum accommodate the required capacity for the *addition*.~~

~~2. Where *approved* by the *code official*, the required occupant capacity of the shelter shall be permitted to be reduced by the occupant capacity of any existing storm shelters on the site.~~

303.2.2 Occupancy classification. The occupancy classification for storm shelters shall be determined in accordance with Section 423.3 of the *International Building Code*.

[BS] 304.3 Seismic evaluation and design procedures. Deleted. Where required, seismic evaluation or design shall be based on the procedures and criteria in this section, regardless of which compliance method is used.

Exception: Seismic requirements shall not apply to detached one- and two-family dwellings.

[BS] 304.3.1 Compliance with full seismic forces. Where compliance requires the use of full seismic forces, the criteria shall be in accordance with one of the following:

1. One hundred percent of the values in the *International Building Code*. Where the existing seismic force resisting system is a type that can be designated as "Ordinary," values of R, Ω_0 and C_d used for analysis in accordance with Chapter 16 of the *International Building Code* shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system.
2. ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 304.3.1 for the applicable *risk category*.

[BS] TABLE 304.3.1
PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH FULL SEISMIC FORCES

RISK CATEGORY (Based on IBC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1N EARTHQUAKE HAZARD LEVEL	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2N EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3)	Collapse Prevention (S-5)
II	Life Safety (S-3)	Collapse Prevention (S-5)
III	Damage Control (S-2)	Limited Safety (S-4)
IV	Immediate Occupancy (S-1)	Life Safety (S-3)

[BS] 304.3.2 Compliance with reduced seismic forces. Where seismic evaluation and design is permitted to use reduced seismic forces, the criteria used shall be in accordance with one of the following:

1. The *International Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 304.3.1 of this code.
2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.4 and subject to the limitations of the respective Appendix A chapters shall be deemed to comply with this section.
    2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in *Risk Category* I or II are permitted to be based on the procedures specified in Appendix Chapter A1.
    2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in *Risk Category* I or II are permitted to be based on the procedures specified in Chapter A2.
    2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in *Risk Category* I or II are permitted to be based on the procedures specified in Chapter A3.
    2.4. Seismic evaluation and design of soft, weak or open-front wall conditions in multiple-unit residential buildings of wood construction in *Risk Category* I or II are permitted to be based on the procedures specified in Chapter A4.

~~3. ASCE 41, using the performance objective in Table 304.3.2 for the applicable *risk category*.~~

~~[BS] TABLE 304.3.2~~
~~PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH REDUCED SEISMIC FORCES~~

~~RISK CATEGORY (Based on IBC Table 1604.5)~~	~~STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1E EARTHQUAKE HAZARD LEVEL~~	~~STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2E EARTHQUAKE HAZARD LEVEL~~
~~I~~	~~Life Safety (S-3). See Note a~~	~~Collapse Prevention (S-5)~~
~~II~~	~~Life Safety (S-3). See Note a~~	~~Collapse Prevention (S-5)~~
~~III~~	~~Damage Control (S-2). See Note a~~	~~Limited Safety (S-4). See Note b~~
~~IV~~	~~Immediate Occupancy (S-1)~~	~~Life Safety (S-3). See Note c~~

~~a. For Risk Categories I, II and III, the Tier 1 and Tier 2 procedures need not be considered for the BSE-1E earthquake hazard level.~~
~~b. For Risk Category III, the Tier 1 screening checklists shall be based on the Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS*-factors that are the average of the values for Collapse Prevention and Life Safety.~~
~~c. For Risk Category IV, the Tier 1 screening checklists shall be based on Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS*-factors for Life Safety.~~

306.1 Scope. The provisions of Sections 306.1 through 306.7.1~~6~~7 apply to maintenance and *repair*, *change of occupancy*, *additions* and *alterations* to *existing buildings*, including those identified as *historic buildings*.

Exception: Repairs in accordance with Chapter 4 and Level 1 Alterations in accordance with Chapter 7 that do not reduce the level of accessibility that exists prior to work shall be exempt from the requirements of this section.

306.3.2 Fuel dispensers. Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

306.5 Change of occupancy. *Existing buildings* that undergo a change of group or occupancy shall comply with Section 306.7. Where an entire building undergoes a change of occupancy, shall have all of the following accessible features:

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to *primary function* areas.
3. Signage complying with Section 1112 of the *International Building Code*.
4. Accessible parking, where parking is being provided.
5. At least one accessible passenger loading zone, when loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

Exception:

1. Type B dwelling or sleeping units required by Section 1108 of the *International Building Code* are not required to be provided in *existing buildings* and *facilities* undergoing a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the building.
2. The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.

3. Where it is *technically infeasible* to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the requirements to the maximum extent *technically feasible*.

306.7.6 Accessible route. Exterior accessible routes, including curb ramps, shall be not less than ~~36~~ 48 inches (~~914~~ 1219 mm) minimum in width.

306.7.6.1 Ramps. Where steeper slopes than allowed by Section 1012.2 of the *International Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 306.7.6.1.

Table 306.7.6.1
RAMPS

SLOPE	MAXIMUM RISE
Steeper than 1:10 but not steeper than 1:8	3 inches
Steeper than 1:12 but not steeper than 1:10	6 inches

For SI: 1 inch – 25.4 mm.

306.7.8.1 Inclined stairway chairlifts. Inclined stairway chairlifts that do not reduce the required means of egress and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route in alterations of existing occupancies in:

1. Religious organizations or entities controlled by religious organizations, including places of worship; or
2. Private clubs or establishments exempted under Title II of the Civil Rights Act of 1964.

Such inclined stairway chairlifts shall be approved for commercial use by the manufacturer and installed by approved factory trained installers.

306.7.15 Amusement rides. Where ~~the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design,~~ access to the amusement ride is altered, the amusement ride access shall comply with requirements for new construction in Section 1111.4.8 of the *International Building Code*.

306.7.16.1 Site arrival points. Not fewer than one exterior accessible route, including curb ramps from a site arrival point to an accessible entrance, shall be provided and shall not be less than ~~36~~ 48 inches (~~914~~ 1219 mm) minimum in width.

306.7.17 Thresholds. The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such thresholds shall have beveled edges on each side.

SECTION 307
~~SMOKE ALARMS~~ FIRE PROTECTION

~~**307.1 Smoke alarms.** Where an *alteration*, *addition*, *change of occupancy* or relocation of a building is made to an *existing building* or structure of a Group R and I-1 occupancy, the *existing building* shall be provided with smoke alarms in accordance with the *International Fire Code* or Section R314 of the *International Residential Code*.~~

~~**Exception:** Work classified as Level 1 *Alterations* in accordance with Chapter 7.~~

307.1 Fire alarm and detection. Fire alarms and detection systems shall be installed in accordance with Sections 307.2 and 307.3.

307.2 Fire alarms. Work areas that do not have an existing fire alarm system are not required to install a fire alarm system. Work areas where new fire alarm systems are installed shall be in accordance with Section 907 of the *North Carolina Building Code*.

307.3 Smoke alarms. Individual sleeping units and individual dwelling units in any work area in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with Section 907.2.11 of the *North Carolina Building Code*. Smoke alarms for Group R occupancy are permitted to be radio frequency type appliances as allowed and installed by NFPA 72.

Exception: Interconnection of smoke alarms outside of the work area shall not be required.

307.3.1 Smoke detection Group R mixed use. Any nonresidential occupancy work area located directly below Group R shall be provided with single- or multiple-station smoke detectors complying with NFPA 72 and shall provide an audible alarm in

each dwelling unit located on floors above the nonresidential work area. The detectors shall be AC powered with battery backup.

Exceptions:

1. Hardwired, interconnected smoke detectors installed throughout the building shall be accepted as complying with this section.
2. The work area of the nonresidential occupancy is less than 50 percent of the gross floor area of the nonresidential occupancy.

307.3.2 Smoke alarms in one- and two-family dwellings and townhouses. Detached one- and two-family dwellings and townhouses shall be provided with smoke alarms installed in accordance with Section R314 of the *North Carolina Residential Code*.

SECTION 308
CARBON MONOXIDE ALARMS AND DETECTION

~~**308.1 Carbon monoxide detection.** Where an *addition*, *alteration*, *change of occupancy* or relocation of a building is made to Group I-1, I-2, I-4 and R occupancies and classrooms of Group E occupancies, the *existing building* shall be provided with carbon monoxide detection in accordance with the *International Fire Code* or Section R315 of the *International Residential Code*.~~

~~**Exceptions:**~~

1. ~~Work involving the exterior surfaces of buildings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of porches or decks.~~
2. ~~Installation, alteration or *repairs* of plumbing or mechanical systems, other than fuel-burning appliances.~~
3. ~~Work classified as Level 1 *Alterations* in accordance with Chapter 7.~~

308.1 Carbon monoxide alarms. Individual sleeping units and individual dwelling units in Group R and I occupancies and classrooms in Group E occupancies and Group A-2 occupancies that contain a fuel-burning appliance or a fuel-burning fireplace shall be provided with carbon monoxide alarms in accordance with Section 915 of the *North Carolina Building Code*, except that the carbon monoxide alarms shall be allowed to be solely battery operated.

308.2 Carbon monoxide alarms in one- and two-family dwellings and townhouses. Detached one- and two-family dwellings and townhouses shall be provided with carbon monoxide alarms installed in accordance with Section R315 of the *North Carolina Residential Code*.

SECTION 310
FIRE DISTRICT

310.1 General. The provisions of Section 310 shall comply with the *International Building Code*.

SECTION 311
TEMPORARY OVERFLOW EMERGENCYSHELTERS FOR THE HOMELESS

311.1 General. Existing A-2 and A-3 occupancies shall be permitted to provide facilities for temporary overflow emergency shelters for the homeless provided that all of the following conditions are met and approved by the local code official and fire marshal.

311.1.1 Occupant load and age. The total number of homeless occupants is limited to 20 individuals who are ambulatory. The homeless occupants must be 18 years of age or older.

Exception: Occupants may be less than 18 years of age if the temporary shelter meets all of the following conditions:

1. Is intended to serve homeless families with children and their parents or other legal guardian;
2. Consists of a group of churches or other nonprofit religious entities that have agreed to host the shelter occupants on the premises of each church or religious entity on a rotating basis; and
3. Equipped with smoke detectors meeting applicable code provisions for such devices in all sleeping areas.

311.1.2 Construction type. The building must be of Type I, II, or III construction.

311.1.3 Staff. The temporary overflow emergency shelter must be staffed by a minimum of two individuals of 21 years of age or older trained in accordance with Chapter 4 of the *North Carolina Fire Code* and at least one trained individual shall be awake to monitor the sleeping room and restrooms throughout the time the facility is occupied by the homeless.

311.1.4 Fire alarm and detection systems. Functioning smoke detection and a local fire alarm system in accordance with Section 907.2.8 of the *North Carolina Building Code* shall be provided throughout the sleeping room and exit access corridors and stairs of the temporary overflow emergency shelter. The building owner shall submit documentation illustrating that the fire alarm system is approved and that all emergency batteries have been tested and are operational.

311.1.5 Means of egress. There shall be a minimum of two separate code compliant means of egress serving the temporary overflow emergency shelter. An evacuation route approved by the local building and fire code officials shall be posted and be in compliance with Sections 404, 406, and 408 of the *North Carolina Fire Code*.

311.1.5.1 Illumination. The temporary overflow emergency shelter sleeping room and exit access corridors and stairs shall have unswitched illumination and emergency powered illumination with a duration of not less than 90 minutes.

311.1.6 Automatic sprinkler system. No fire protection sprinkler system is required by Section 903.2.8, Exception 2 of the *North Carolina Building Code*.

311.1.7 Ventilation and temperature control. Heating, cooling, and ventilation must be provided by equipment installed and approved for such use. Use of space heaters shall be prohibited.

311.1.8 Fire extinguishers. There must be an adequate number of fire extinguishers to serve the temporary overflow emergency shelter as determined by the local fire marshal. Travel distance to an approved fire extinguisher shall not exceed 50 feet (15 240 mm). Minimum rating of extinguishers shall be 3A40BC.

311.1.9 Occupant restrictions. No smoking is permitted in the temporary overflow emergency shelter.

311.1.10 Permits. Temporary overflow emergency shelters must be approved by the local code official for occupancy by issuance of an approved occupancy permit. Drawings of the temporary overflow emergency shelter sealed by a *registered design professional* must be provided for local code official review and approval. Occupancy of a temporary overflow emergency shelter shall be for a maximum of 150 calendar days within any 365 day time span.

311.1.11 Accessibility. For temporary overflow emergency shelters, compliance with Chapter 11 and Section 1007 of the *North Carolina Building Code* is not required provided that the local jurisdiction has other shelter facilities that are accessible by the disabled.

SECTION 312

LICENSED CARE FACILITES

312.1 General. Licensed care facilities shall comply with Section 312.1.1 through 312.1.3.

312.1.1 SMALL RESIDENTIAL CARE FACILITIES. Licensed small residential care facilities shall comply with North Carolina Residential Code Section 332.

312.1.2 LICENSED LARGE RESIDENTIAL CARE FACILITIES. Licensed large residential care facilities shall comply with North Carolina Building Code Section 430.

312.1.3 LICENSED ADULT AND CHILD DAY CARE. Licensed adult and child day care facilities shall comply with North Carolina Building Code Section 431.

CHAPTER 4
REPAIRS

~~**User note:**~~

~~***About this chapter:*** *Chapter 4 provides requirements for repairs of existing buildings. The provisions define conditions under which repairs may be made using materials and methods like those of the original construction or the extent to which repairs must comply with requirements for new buildings.~~

402.2 Wind-borne debris protection. Replacement of window units shall require compliance with Section 1609.2 of the *North Carolina Building Code* or Section R609.6 of the *North Carolina Residential Code*. Replacement of individual glass panes or sashes shall not require compliance with Section 1609.2 of the *North Carolina Building Code* and R609.6 of the *North Carolina Residential Code*.

SECTION 403
FIRE PROTECTION

403.1 General. *Repairs* shall be done in a manner that maintains the level of fire protection ~~provided~~ that exists.

SECTION 404
MEANS OF EGRESS

404.1 General. *Repairs* shall be done in a manner that maintains the level of protection ~~provided~~ that exists for the means of egress.

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

Exceptions:

1. Where seismic design governs, ACI 562 shall not be used for evaluation and design.
2. Dwellings and accessory buildings constructed under the NC Residential Code.

[BS] 405.2.3 Substantial structural damage to vertical elements of the lateral force-resisting system. A building that has sustained *substantial structural damage* to the vertical elements of its lateral force-resisting system shall be evaluated in accordance with Section 405.2.3.1, and either repaired in accordance with Section 405.2.3.2 or repaired and retrofitted in accordance with Section 405.2.3.3, depending on the results of the evaluation.

Exceptions:

1. Buildings assigned to Seismic Design Category A, B or C whose *substantial structural damage* was not caused by earthquake need not be evaluated or retrofitted for load combinations that include earthquake effects.
2. Detached One- and two-family dwellings need not be evaluated or retrofitted for load combinations that include earthquake effects.

[BS] 405.2.4.1 Lateral force-resisting elements. Regardless of the level of damage to vertical elements of the lateral force-resisting system, if *substantial structural damage* to gravity load-carrying components was caused primarily by wind or seismic effects, then the building shall be evaluated in accordance with Section 405.2.3.1 and, if noncompliant, retrofitted in accordance with Section 405.2.3.3.

Exceptions:

1. Buildings assigned to Seismic Design Category A, B or C whose *substantial structural damage* was not caused by earthquake need not be evaluated or retrofitted for load combinations that include earthquake effects.
2. Detached One- and two-family dwellings need not be evaluated or retrofitted for load combinations that include earthquake effects.

408.1 General. Existing plumbing systems undergoing *repair* shall not make the building less conforming than it was before the *repair* was undertaken.

408.~~1~~2 Materials. Plumbing materials and supplies shall not be used for *repairs* that are prohibited in the *International Plumbing Code*.

408.~~2~~3 Water closet replacement. The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.6 gallons (6 L) per flushing cycle.

Exception: Blowout-design water closets [3.5 gallons (13 L) per flushing cycle].

408.~~3~~4 Health care facilities. Portions of medical gas systems being repaired in Group I-2, ambulatory care *facilities* and outpatient clinics shall comply with NFPA 99 requirements for *repairs*.

408.5 Water supply system test. Existing water supply systems that are repaired shall be allowed to be tested and proved tight under a water pressure of normal operating pressure of the existing water supply system. The pressure shall be held at least 15 minutes.

SECTION 409
ENERGY CONSERVATION

409.1 Minimum requirements. *Repair* to *existing buildings* or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the *International Energy Conservation Code* or *International Residential Code*.

CHAPTER 5

PRESCRIPTIVE COMPLIANCE METHOD

~~**User note:**~~

~~***About this chapter:*** *Chapter 5 provides details for the prescriptive compliance method—one of the three main options of compliance available in this code for buildings and structures undergoing alteration, addition or change of occupancy.*~~

501.2 Fire-resistance ratings. Where *approved* by the *code official*, in buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code* has been added, and the building is now sprinklered throughout, the required fire-resistance ratings of building elements and materials shall be permitted to meet the requirements of the current building code. Fire assemblies that serve multiple purposes in a building shall comply with all the requirements that are applicable for each of the individual fire assemblies. The building is required to meet the other applicable requirements of the *International Building Code*.

Plans, investigation and evaluation reports, and other data shall be submitted indicating which building elements and materials the applicant is requesting the *code official* to review and approve for determination of applying the current building code fire-resistance ratings. ~~Any~~ All special construction features, including fire-resistance-rated assemblies and smoke-resistive assemblies, conditions of occupancy, means of egress conditions, fire code deficiencies, *approved* modifications or *approved* alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted. Where fire-resistance rated assemblies serve more than one function, each function shall be identified and individually evaluated under the requirements of the current code.

[BS] 502.4 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an *addition* and its related *alterations* cause an increase in design dead, live or snow load, including snow drift effects, of more than ~~5~~ 10 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose vertical load-carrying capacity is decreased as part of the *addition* and its related *alterations* shall be considered to be an altered element subject to the requirements of Section 503.3. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered to be an existing lateral load-carrying structural element subject to the requirements of Section 502.5.

Exception: Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and the *addition* together comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

~~**502.6 Enhanced classroom acoustics.** In Group E occupancies, enhanced classroom acoustics shall be provided in all classrooms in the *addition* with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

503.1 General. ~~*Alterations* to any building or structure shall comply with the requirements of the *International Building Code* for new construction.~~ *Alterations* shall be such that the *existing building* or structure is not less complying with the provisions of the *International Building Code* than the *existing building* or structure was prior to the *alteration*.

Exceptions:

1. An existing stairway shall not be required to comply with the requirements of Section 1011 of the *International Building Code* where the existing space and construction does not allow a reduction in pitch or slope.
2. Handrails otherwise required to comply with Section 1011.11 of the *International Building Code* shall not be required to comply with the requirements of Section 1014.6 of the *International Building Code* regarding full extension of the handrails where such extensions would be hazardous because of plan configuration.
3. Where provided in below-grade transportation stations, existing and new escalators shall be permitted to have a clear width of less than 32 inches (815 mm).

[BS] 503.3 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than ~~5~~ 10 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any

existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design dead, live and snow loads including snow drift effects required by the *International Building Code* for new structures.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. Buildings in which the increased dead load is due entirely to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.

[BS] 503.5 Seismic Design Category F. Deleted. ~~Where the *work area* exceeds 50 percent of the building area, and where the building is assigned to Seismic Design Category F, the structure of the altered building shall meet the requirements of Sections 1609 and 1613 of the *International Building Code*. Reduced seismic forces shall be permitted.~~

[BS] 503.6 Bracing for unreinforced masonry parapets on reroofing. Deleted. ~~Where the intended *alteration* requires a permit for reroofing and involves removal of roofing materials from more than 25 percent of the roof area of a building assigned to Seismic Design Category D, E or F that has parapets constructed of unreinforced masonry, the work shall include installation of parapet bracing to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. Reduced seismic forces shall be permitted.~~

[BS] 503.7 Anchorage for concrete and reinforced masonry walls. Deleted. ~~Where the *work area* exceeds 50 percent of the building area, the building is assigned to Seismic Design Category C, D, E or F and the building's structural system includes concrete or reinforced masonry walls with a flexible roof diaphragm, the *alteration* work shall include installation of wall anchors at the roof line, unless an evaluation demonstrates compliance of existing wall anchorage. Use of reduced seismic forces shall be permitted.~~

[BS] 503.8 Anchorage for unreinforced masonry walls in major alterations. Deleted. ~~Where the *work area* exceeds 50 percent of the building area, the building is assigned to Seismic Design Category C, D, E or F and the building's structural system includes unreinforced masonry bearing walls, the *alteration* work shall include installation of wall anchors at the floor and roof lines, unless an evaluation demonstrates compliance of existing wall anchorage. Reduced seismic forces shall be permitted.~~

[BS] 503.9 Bracing for unreinforced masonry parapets in major alterations. Deleted. ~~Where the *work area* exceeds 50 percent of the building area, and where the building is assigned to Seismic Design Category C, D, E or F, parapets constructed of unreinforced masonry shall have bracing installed as needed to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. Reduced seismic forces shall be permitted.~~

[BS] 503.10 Anchorage of unreinforced masonry partitions in major alterations. Deleted. ~~Where the *work area* exceeds 50 percent of the building area, and where the building is assigned to Seismic Design Category C, D, E or F, unreinforced masonry partitions and nonstructural walls within the *work area* and adjacent to egress paths from the *work area* shall be anchored, removed or altered to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. Use of reduced seismic forces shall be permitted.~~

[BS] 503.12 Roof diaphragms resisting wind loads in high-wind regions. Deleted. ~~Where the intended *alteration* requires a permit for reroofing and involves removal of roofing materials from more than 50 percent of the roof diaphragm of a building or section of a building located where the ultimate design wind speed is greater than 130 mph (58 m/s) in accordance with Figure 1609.3(1) of the *International Building Code*, roof diaphragms, connections of the roof diaphragm to roof framing members, and roof-to-wall connections shall be evaluated for the wind loads specified in Section 1609 of the *International Building Code*, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in Section 1609 of the *International Building Code*.~~

~~**Exception:** Buildings that have been demonstrated to comply with the wind load provisions in ASCE 7-88 or later editions.~~

503.14 Smoke compartments. In Group I-2 occupancies where the *alteration* is on a story used for sleeping rooms ~~for more than 30 care recipients~~, the story shall be divided into not less than two compartments by smoke barrier walls in accordance with Section 407.5 of the *International Building Code* as required for new construction.

503.16 Enhanced classroom acoustics. In Group E occupancies, where the *work area* exceeds 50 percent of the building area, ~~enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced~~ enhanced classroom acoustics shall comply with ~~the reverberation time in Section 808 of ICC A117.1.~~ Section 1207.5 of the *International Building Code* as required for new construction.

[BE] 504.1.1 New buildings. Deleted. ~~Fire escapes shall not constitute any part of the required means of egress in new buildings.~~

[BE] 504.1.3 New fire escapes. New fire escapes for *existing buildings* shall be permitted only where exterior stairways cannot be utilized because of lot lines limiting stairway size or because of sidewalks, alleys or roads at grade level. New fire escapes shall not incorporate ladders or access by windows. This provision shall not apply to additions.

504.6 Marking The open space under fire escape stairways shall not be used for any purpose. Approved signs or other approved markings that include the words FIRE ESCAPE – KEEP CLEAR shall be provided to prohibit the obstruction thereof.

505.3 Replacement window emergency escape and rescue openings. Where windows are required to provide *emergency escape and rescue openings* in Group E classrooms, Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, replacement windows shall be exempt from the requirements of Section 1031.3 of the *International Building Code* and Section R310.2 of the *International Residential Code*, provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. Where the replacement of the window is part of a *change of occupancy*, it shall comply with Section 1011.5.6.

506.5.1 Live loads. Structural elements carrying tributary live loads from an area with a *change of occupancy* shall satisfy the requirements of Section 1607 of the *International Building Code*. Design live loads for areas of new occupancy shall be based on Section 1607 of the *International Building Code*. Design live loads for other areas shall be permitted to use previously *approved* design live loads.

Exception: Structural elements whose demand-capacity ratio considering the *change of occupancy* is not more than ~~5~~ 10 percent greater than the demand-capacity ratio based on previously *approved* live loads need not comply with this section.

506.6 Enhanced classroom acoustics. In Group E occupancies, where the *work area* exceeds 50 percent of the building area, ~~enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced~~ enhanced classroom acoustics shall comply with ~~the reverberation time in Section 808 of ICC A117.1.~~ Section 1207.5 of the *International Building Code* as required for new construction.

506.7 Energy conservation. Spaces undergoing a change of occupancy shall comply with the *NC Energy Conservation Code*.

CHAPTER 6

CLASSIFICATION OF WORK

~~**User note:**~~

~~***About this chapter:*** *Chapter 6 provides an overview of the Work Area Method available as an option for rehabilitation of a building. The chapter defines the different classifications of alterations and provides general requirements for alterations, change of occupancy, additions and historic buildings. Detailed requirements for all of these are given in Chapters 7 through 12.*~~

604.1 Scope. Level 3 *alterations* apply where the *work area* exceeds 50 percent of the *building area*~~.~~ in any 12-month time period.

Exception: Alterations limited to displays or showrooms in Group M occupancies.

CHAPTER 7

ALTERATIONS—LEVEL 1

~~**User note:**~~

~~***About this chapter:*** *Chapter 7 provides the technical requirements for those existing buildings that undergo Level 1 alterations as described in Section 603, which includes replacement or covering of existing materials, elements, equipment or fixtures using new materials for the same purpose. This chapter, similar to other chapters of this code, covers all building-related subjects, such as structural, mechanical, plumbing, electrical and accessibility as well as the fire and life safety issues when the alterations are classified as Level 1. The purpose of this chapter is to provide detailed requirements and provisions to identify the required improvements in the existing building elements, building spaces and building structural system. This chapter is distinguished from Chapters 8 and 9 by involving only replacement of building components with new components. In contrast, Level 2 alterations involve more space reconfiguration, and Level 3 alterations involve more extensive space reconfiguration, exceeding 50 percent of the building area.*~~

702.5 Replacement window for emergency escape and rescue openings. Where windows are required to provide *emergency escape and rescue openings* in Group E classrooms, Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, replacement windows shall be exempt from the requirements of Section 1031.3 of the *International Building Code* and Section R310.2 of the *International Residential Code*, provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening.
2. Where the replacement window is part of a *change of occupancy* it shall comply with Section 1011.5.6.

703.1 General. *Alterations* shall be done in a manner that maintains the level of fire protection ~~provided~~ that exists.

704.1 General. *Alterations* shall be done in a manner that maintains the level of protection ~~provided~~ that exists for the means of egress.

[BS] 705.1 General. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15 of the *International Building Code*.

Exceptions:

1. *Roof replacement* or roof recover of existing low-slope roof coverings shall not be required to meet the minimum design slope requirement of $^1/_4$ unit vertical in 12 units horizontal (2-percent slope) in Section 1507 of the *International Building Code* for roofs that provide positive roof drainage.
2. Recovering or replacing an existing roof covering shall not be required to meet the requirement for secondary (emergency overflow) drains or scuppers in Section 1502 of the *International Building Code* for roofs that provide for positive roof drainage. For the purposes of this exception, existing secondary drainage or scupper systems required in accordance with this code shall not be removed unless they are replaced by secondary drains or scuppers designed and installed in accordance with Section 1502 of the *International Building Code*.
3. Reroofing for buildings in the primary or secondary fire district shall follow the provisions of Appendix D of the *North Carolina Building Code*.

[BS] 705.2 Roof replacement. *Roof replacement* shall include the removal of all existing layers of roof coverings down to the roof deck.

Exception: Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane in accordance with Section 1507 of the *International Building Code* and Section R905 of the *International Residential Code*.

[BS] 706.3 Additional requirements for reroof permits. Deleted. ~~The requirements of this section shall apply to *alteration* work requiring reroof permits.~~

~~**[BS] 706.3.1 Bracing for unreinforced masonry bearing wall parapets.** Where a permit is issued for reroofing for more than 25 percent of the roof area of a building assigned to Seismic Design Category D, E or F that has parapets constructed of~~

unreinforced masonry, the work shall include installation of parapet bracing unless an evaluation demonstrates compliance of such items. Reduced seismic forces shall be permitted.

[BS] 706.3.2 Roof diaphragms resisting wind loads in high-wind regions. Where roofing materials are removed from more than 50 percent of the roof diaphragm or section of a building located where the ultimate design wind speed, V_{ult}, determined in accordance with Figure 1609.3(1) of the *International Building Code*, is greater than 130 mph (58 m/s), roof diaphragms, connections of the roof diaphragm to roof framing members, and roof-to-wall connections shall be evaluated for the wind loads specified in the *International Building Code*, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in the *International Building Code*.

Exception: Buildings that have been demonstrated to comply with the wind load provisions in ASCE 7-88 or later editions.

CHAPTER 8
ALTERATIONS—LEVEL 2

~~**User note:**~~

~~***About this chapter:*** *Like Chapter 7, the purpose of this chapter is to provide detailed requirements and provisions to identify the required improvements in the existing building elements, building spaces and building structural system when a building is being altered. This chapter is distinguished from Chapters 7 and 9 by involving space reconfiguration that could be up to and including 50 percent of the area of the building. In contrast, Level 1 alterations (Chapter 7) do not involve space reconfiguration, and Level 3 alterations (Chapter 9) involve extensive space reconfiguration that exceeds 50 percent of the building area. Depending on the nature of alteration work, its location within the building, and whether it encompasses one or more tenants, improvements and upgrades could be required for the open floor penetrations, sprinkler system or the installation of additional means of egress such as stairs or fire escapes.*~~

SECTION 801
GENERAL

801.1 Scope. Level 2 *alterations* as described in Section 603 shall comply with the requirements of this chapter.

Exception: Deleted. ~~Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section 306.7.1 shall be permitted to comply with Chapter 7.~~

SECTION 802
BUILDING ELEMENTS AND MATERIALS

802.1 Scope. The requirements of this section are limited to *work areas* in which Level 2 *alterations* are being performed and shall apply beyond the *work area* where specified.

802.2.1 Existing vertical openings. Existing interior vertical openings connecting two or more floors shall be enclosed with *approved* assemblies having a fire-resistance rating of not less than 1 hour with *approved* opening protectives.

Exceptions:

1. Where vertical opening enclosure is not required by the *International Building Code* or the *International Fire Code*.
2. Interior vertical openings other than stairways may be blocked at the floor and ceiling of the *work area* by installation of not less than 2 inches (51 mm) of solid wood or equivalent construction.
3. The enclosure shall not be required where:
    3.1. Connecting the main floor and mezzanines; or
    3.2. All of the following conditions are met:
        3.2.1. The communicating area has a low-hazard occupancy or has a moderate-hazard occupancy that is protected throughout by an automatic sprinkler system.
        3.2.2. The lowest or next-to-the-lowest level is a street floor.
        3.2.3. The entire area is open and unobstructed in a manner such that it is reasonable to assume that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants.
        3.2.4. Exit capacity is sufficient to provide egress simultaneously for all occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity.
        3.2.5. Each floor level, considered separately, has not less than one-half of its individual required exit capacity provided by an exit or exits leading directly out of that level without having to traverse another communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level.
4. In Group A occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories.
5. In Group B occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

5.1. Buildings not exceeding 3,000 square feet (279 m^2) per floor.

5.2. Buildings protected throughout by an *approved* automatic fire sprinkler system.

6. In Group E occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where the building is protected throughout by an *approved* automatic fire sprinkler system.
7. In Group F occupancies, the enclosure shall not be required in the following locations:

   7.1. Vertical openings not exceeding three stories.

   7.2. Special-purpose occupancies where necessary for manufacturing operations and direct access is provided to not fewer than one protected stairway.

   7.3. Buildings protected throughout by an *approved* automatic sprinkler system.
8. In Group H occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where necessary for manufacturing operations and every floor level has direct access to not fewer than two remote enclosed stairways or other *approved* exits.
9. In Group M occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

   9.1. Openings connecting only two floor levels.

   9.2. Occupancies protected throughout by an *approved* automatic sprinkler system.
10. In Group R-1 occupancies, the enclosure shall not be required for vertical openings not exceeding three stories in the following locations:

    10.1. Buildings protected throughout by an *approved* automatic sprinkler system.

    10.2. Buildings with less than 25 dwelling units or sleeping units where every sleeping room above the second floor is provided with direct access to a fire escape or other *approved* second exit by means of an *approved* exterior door or window having a sill height of not greater than 44 inches (1118 mm) and where both of the following conditions are met:

        10.2.1. Any exit access corridor exceeding 8 feet (2438 mm) in length that serves two means of egress, one of which is an unprotected vertical opening, shall have not fewer than one of the means of egress separated from the vertical opening by a 1-hour fire barrier.

        10.2.2. The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the *International Building Code*.
11. In Group R-2 occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 802.2.1, shall not be required in the following locations:

    11.1. Vertical openings not exceeding two stories with not more than four dwelling units per floor.

    11.2. Buildings protected throughout by an *approved* automatic sprinkler system.

    11.3. Buildings with not more than four dwelling units per floor where every sleeping room above the second floor is provided with direct access to a fire escape or other *approved* second exit by means of an *approved* exterior door or window having a sill height of not greater than 44 inches (1118 mm) and the building is protected throughout by an automatic fire alarm system complying with Section 803.4.
12. One- and two-family dwellings.
13. Group S occupancies where connecting not more than two floor levels or where connecting not more than three floor levels and the structure is equipped throughout with an *approved* automatic sprinkler system.
14. Group S occupancies where vertical opening protection is not required for open parking garages and ramps.

15. In Group I-3 occupancies, the vertical opening protection may be omitted if either of the following conditions is met:

    15.1. The building is in compliance with NFPA 101, Chapter 15; or

    15.2. The building is equipped throughout with an automatic fire suppression system.

16. Vertical opening enclosure is not required where the vertical opening enclosure meets the code requirements under which the building was constructed or previously altered.

802.3 Smoke compartments. In Group I-2 occupancies where the *work area* is on a story used for sleeping rooms ~~for more than 30 care recipients~~, the story shall be divided into not less than two compartments by smoke barrier walls in accordance with Section 407.5 of the *International Building Code* as required for new construction.

802.7 Incidental Uses. *Alteration* of spaces classified as incidental uses as described in the *International Building Code* shall comply with the requirements of Table 509.1.

802.8 Fireblocking and draftstopping. When the work being performed exposes the framing of any wall, floor, ceiling or roof, the exposed framing shall comply with Section 718 of the *North Carolina Building Code*.

Exception: One- and two-family dwellings shall comply with Sections R302.11 and R302.12 of the *North Carolina Residential Code*.

802.9 Group R mixed-use separation. Any nonresidential occupancy that is located directly below Group R shall be 1- hour separated from the Group R occupancy. The 1-hour assembly is only required to be rated from the nonresidential side.

Exception: If the work area of the nonresidential occupancy is less than 50 percent of the gross floor area of the nonresidential occupancy, Section 803.8 shall not apply.

803.2.1 High-rise and low-rise buildings.

803.2.1.1 High-rise buildings. ~~In high-rise buildings, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection in the entire *work area* where the *work area* is located on a floor that has a sufficient sprinkler water supply system from an existing standpipe or a sprinkler riser serving that floor.~~ See Section 101.10.

803.2.1.2 Low-rise buildings. Work areas that increase the fire area or calculated occupant load above the limits listed in Section 903.2 of the *International Building Code* shall meet the requirements of those sections.

~~**803.2.1.1 Supplemental automatic sprinkler system requirements.** Where the *work area* on any floor exceeds 50 percent of that floor area, Section 803.2.1 shall apply to the entire floor on which the *work area* is located.~~

~~**Exception:** Occupied tenant spaces that are entirely outside the *work area*.~~

803.2.2 Groups A, B, E, F-1, H, I-1, I-3, I-4, M, R-1, R-2, R-4, S-1 and S-2. Deleted. ~~In buildings with occupancies in Groups A, B, E, F-1, H, I-1, I-3, I-4, M, R-1, R-2, R-4, S-1 and S-2, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection where both of the following conditions occur:~~

~~1. The *work area* is required to be provided with automatic sprinkler protection in accordance with the *International Building Code* as applicable to new construction.~~

~~2. The *work area* exceeds 50 percent of the floor area.~~

~~**Exception:** If the building does not have sufficient municipal water supply for design of a fire sprinkler system available to the floor without installation of a new fire pump, *work areas* shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the *International Building Code*.~~

~~**803.2.2.1 Mixed uses.** In *work areas* containing mixed uses, one or more of which requires automatic sprinkler protection in accordance with Section 803.2.2, such protection shall not be required throughout the *work area* provided that the uses requiring such protection are separated from those not requiring protection by fire-resistance-rated construction having a minimum 2-hour rating for Group H and a minimum 1-hour rating for all other occupancy groups.~~

803.2.3 Group I-2. Deleted. ~~In Group I-2 occupancies, an automatic sprinkler system installed in accordance with Section 903.3.1.1 of the *International Fire Code* shall be provided in the following~~

~~1. In Group I-2, Condition 1, throughout the *work area*.~~

~~2. In Group I-2, Condition 2, throughout the *work area* where the *work area* is 50 percent or less of the smoke compartment.~~

~~3. In Group I-2, Condition 2, throughout the smoke compartment in which the work occurs where the *work area* exceeds 50 percent of the smoke compartment.~~

803.2.4 Windowless stories. ~~Work located in a windowless story, as determined in accordance with the *International Building Code*, shall be sprinklered where the *work area* is required to be sprinklered under the provisions of the *International Building*~~

~~*Code* for newly constructed buildings and the building has a sufficient municipal water supply without installation of a new fire pump.~~ In all buildings, any windowless story located below the seventh story above grade that is created by the work being performed or any existing windowless story located below the seventh story where the work area exceeds 50 percent of the gross enclosed floor area of the windowless story, shall be equipped throughout with an automatic fire suppression system installed in accordance with Section 903.2.11.1 of the *North Carolina Fire Code*.

Exceptions:

1. Stories or basements shall not be considered windowless where fire-fighter access through openings meeting all of the following are provided:

   1.1. Openings such as doors, windows, or access panels are located on at least one side of the story or basement;

   1.2. The openings on each story or basement shall be a minimum of 32 inches by 48 inches (813 mm by 1219 mm) in size and located horizontally a maximum of 100 feet (3048 mm) apart or 22 inches by 42 inches (558 mm by 1066 mm) in size and located horizontally a maximum of 30 feet (9144 mm) apart;

   1.3. Openings shall be unobstructed to allow fire-fighting and rescue operations from the exterior;

   1.4. Openings in stories above grade shall have a sill height of not more than 36 inches (914 mm) measured from the finished floor level. Openings in basements shall have no sill height restrictions;

   1.5. Openings shall be readily identifiable and openable from the outside; and

   1.6. Where openings are provided only on one wall of a story or basement, the maximum distance to the opposite wall is 75 feet (22 860 mm).

2. Windowless basements 3,000 gross square feet (279 m^2) or less in area shall not require automatic fire suppression when a supervised automatic fire alarm is provided in accordance with Section 907 of the *North Carolina Fire Code*.

3. Windowless basements greater than 3,000 gross square feet (279 m^2) but less than 10,000 gross square feet (9.29 m^2) shall be permitted to connect to the domestic water supply when all of the following conditions are met:

   3.1. The automatic fire suppression system shall be provided with a fire department connection, which shall be marked with a sign reading "Basement Area Sprinkler Water Supply;" and

   3.2. A supervised automatic fire alarm system shall be installed in accordance with Section 907 of the *North Carolina Fire Code*.

803.2.5 Other required automatic sprinkler systems. Deleted. ~~In buildings and areas listed in Table 903.2.11.6 of the *International Building Code*, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions~~

~~1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the *International Building Code* applicable to new construction; and~~

~~2. The building has sufficient municipal water supply for design of an automatic sprinkler system available to the floor without installation of a new fire pump.~~

803.2.6 Supervision. All newly installed complete or partial sprinkler systems shall comply with Section 903.4 of the *North Carolina Building Code*. ~~Fire sprinkler systems required by this section shall be supervised by one of the following methods:~~

~~1. *Approved* central station system in accordance with NFPA 72.~~

~~2. *Approved* proprietary system in accordance with NFPA 72.~~

~~3. *Approved* remote station system of the jurisdiction in accordance with NFPA 72.~~

~~4. Where *approved* by the *code official*, *approved* local alarm service that will cause the sounding of an alarm in accordance with NFPA 72.~~

Exception: Supervision is not required for the following:

1. Underground ~~key or hub gate valves in~~ gate valve with roadway boxes.

~~2. Halogenated extinguishing systems.~~

~~3. Carbon dioxide extinguishing systems.~~

~~4. Dry- and wet-chemical extinguishing systems.~~

~~5~~ 2. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic and automatic sprinkler systems and a separate shutoff valve for the automatic sprinkler system is not provided.

803.2.7 Group H. An automatic sprinkler system shall be installed in all Group H occupancies complying with Section 903.2.5 of the *North Carolina Building Code*.

803.3 Standpipes. Deleted. ~~Where the *work area* includes exits or corridors shared by more than one tenant and is located more than 50 feet (15 240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an *approved* fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the *International Building Code*.~~

~~**Exceptions:**~~

~~1. A pump shall not be required provided that the standpipes are capable of accepting delivery by fire department apparatus of not less than 250 gallons per minute (gpm) at 65 pounds per square inch (psi) (946 L/m at 448 KPa) to the topmost floor in buildings equipped throughout with an automatic sprinkler system or not less than 500 gpm at 65 psi (1892 L/m at 448 KPa) to the topmost floor in all other buildings. Where the standpipe terminates below the topmost floor, the standpipe shall be designed to meet (gpm/psi) (L/m/KPa) requirements of this exception for possible future extension of the standpipe.~~

~~2. The interconnection of multiple standpipe risers shall not be required.~~

803.4.1.1 Group E. A fire alarm system shall be installed in *work areas* of Group E occupancies as required by the *International ~~Fire~~ Building Code* for existing Group E occupancies.

803.4.1.2 Group I-1. An automatic fire alarm system shall be installed in *work areas* of Group I-1 *facilities* as required by Chapter ~~11~~ 9 of the *International ~~Fire~~ Building Code* for existing Group I-1 occupancies.

803.4.1.3 Group I-2. An automatic fire alarm system shall be installed throughout Group I-2 occupancies as required by Chapter ~~11~~ 9 of the *International ~~Fire~~ Building Code*.

803.4.1.4 Group I-3. A fire alarm system shall be installed in *work areas* of Group I-3 occupancies as required by the *International ~~Fire~~ Building Code*.

803.4.1.5 Group R-1. A fire alarm system shall be installed in Group R-1 occupancies as required by the *International ~~Fire~~ Building Code* for existing Group R-1 occupancies.

803.4.1.6 Group R-2. A fire alarm system shall be installed in *work areas* of Group R-2 apartment buildings as required by the *International ~~Fire~~ Building Code* for existing Group R-2 occupancies.

804.2 General. The means of egress shall comply with the requirements of this section.

Exceptions:

1. Where the *work area* and the means of egress serving it complies with NFPA 101.
2. Means of egress complying with the requirements of the building code under which the building was constructed shall be considered to be compliant means of egress if, in the opinion of the *code official*, they do not constitute a distinct hazard to life.
3. In one- and two-family dwellings, stairways not required for egress shall be permitted to be a minimum width of 26 inches (660 mm).

804.2.1 Means of egress capacity. The capacity of the means of egress in each work area shall be sufficient for the maximum permitted occupant load of the work area and any adjacent spaces served by that means of egress as calculated on a per floor basis. Means of egress shall be measured in units of exit width of 22 inches (559 mm). The maximum permitted occupant load of a space shall be determined by the capacity of the means of egress serving the space as calculated in accordance with Table 804.2.1. The building owner shall have the option of establishing a reasonable restriction on the occupant load of the space based on the existing capacity of the means of egress or of providing additional egress capacity.

TABLE 804.2.1[a,b]
CAPACITY PER UNIT OF EGRESS WIDTH

USE GROUP	NUMBER OF OCCUPANTS			
	Without Fire Suppression		With Fire Suppression	
	Stairway	Doors, Ramps and Corridors	Stairways	Doors, Ramps and Corridors
A[c]	75	100	113	150
B	60	100	90	150
E	75	100	113	150
F	60	100	90	150
H	N/A	N/A	60	100
I-1	60	100	90	100
I-2	22	30	35	45
I-3	60	100	90	150
M	60	100	90	150
R	75	100	113	150
S	60	100	90	150

Unit of egress width = 22 inches.
N/A = Not Allowed.
a. The occupant load may be equal to the total number of occupants for which exit capacity is provided as determined by Table 804.2.1.
b. Interpolation shall be allowed in determining capacity of egress width.
c. For Use Group A occupancies, the resulting total occupant load shall not exceed one occupant per five square feet of net floor area over entire use.

804.4.1.2.1 Fire escape access and details. Fire escapes shall comply with all of the following requirements:

1. Occupants shall have unobstructed access to the fire escape without having to pass through a room subject to locking.
2. Access to a new fire escape shall be through a door, except that windows shall be permitted to provide access from single dwelling units or sleeping units in Group R-1, R-2 and I-1 occupancies or to provide access from spaces having a maximum occupant load of 10 in other occupancy classifications.
    2.1. The window shall have a minimum net clear opening of 5.7 square feet (0.53 m^2) or 5 square feet (0.46 m^2) where located at grade.
    2.2. The minimum net clear opening height shall be 24 inches (610 mm) and net clear opening width shall be 20 inches (508 mm).
    2.3. The bottom of the clear opening shall not be greater than 44 inches (1118 mm) above the floor.
    2.4. The operation of the window shall comply with the operational constraints of the *International Building Code*.
3. Newly constructed fire escapes shall be permitted only where exterior stairways cannot be utilized because of lot lines limiting the stairway size or because of the sidewalks, alleys, or roads at grade level.
4. Openings within 10 feet (3048 mm) of fire escape stairways shall be protected by fire assemblies having minimum $^3/_4$-hour fire-resistance ratings.

    Exception: Opening protection shall not be required in buildings equipped throughout with an *approved* automatic sprinkler system.
5. In all buildings of Group E occupancy, up to and including the 12th grade, buildings of Group I occupancy, ~~room~~ing *boarding houses* and childcare centers, ladders of any type are prohibited on fire escapes used as a required means of egress.

Exception: Two independent means of egress are not required where the travel distance to an exit does not exceed 100 feet (30 480 mm) and the building is protected throughout with an automatic sprinkler system.

804.4.3 Main entrance—Group A. Where the main entrance is included in the alteration, buildings of Group A with an occupant load of 300 or more shall be provided with a main entrance capable of serving as the main exit with an egress capacity of not less than one-half of the total occupant load. The remaining exits shall be capable of providing one-half of the total required exit capacity.

Exception: Where a main exit is not well defined or where multiple main exits are provided, exits shall be permitted to be distributed around the perimeter of the building provided that the total width of egress is not less than 100 percent of the required width.

804.5 Egress doorways. Egress doorways in any *work area* shall comply with Sections 804.5.1 through 804.5.5.

804.5.1 Two egress doorways required. Work areas shall be provided with two egress doorways in accordance with the requirements of Sections 804.5.1.1 ~~and 804.5.1.2~~ through 804.5.1.3.

804.5.1.1 Occupant load and travel distance. In any *work area*, all rooms and spaces having an occupant load greater than 50 or in which the travel distance to an exit exceeds 75 feet (22 860 mm) shall have not fewer than two egress doorways.

Exceptions:

1. Storage rooms having a maximum occupant load of 10.
2. Where the *work area* is served by a single exit in accordance with Section 804.4.1.1.
3. The occupant load of the space may be restricted to comply with Section 1006 of the *North Carolina Building Code*. Signage indicating the allowed quantity of occupants shall be permanently mounted in the building at a location approved by the local fire marshal.

804.5.1.2 Group I-2. In Group I-2, Condition 2 *work areas* that include altered care suites shall comply with Sections 407.4.4 through 407.4.4.6.2 of the *International Building Code*. Remote locking shall comply with Section 407.11 of the *North Carolina Building Code*.

805.4.1.3 Group E licensed adult and child day care.
Group E and R-4 adult and child day care facilities shall have two means of egress. Rooms where occupants receive care and that meet all of the following shall have a minimum of one means of egress:

1. Located on the level of exit discharge; and
2. The egress door discharges directly to the exterior.

804.5.4.1 Supplemental requirements for panic hardware. Deleted. ~~Where the *work area* exceeds 50 percent of the floor area, panic hardware shall comply with Section 804.5.4 throughout the floor.~~

~~**Exception:** Means of egress within a tenant space that is entirely outside the *work area*.~~

804.7 Dead-end corridors. Dead-end corridors in any *work area* shall not exceed 35 feet (10 670 mm). In Group I-2 occupancies, dead-end corridors shall not exceed 30 feet (9144 mm).

Exceptions:

1. Where dead-end corridors of greater length are permitted by the *International Building Code*.
2. In other than Group A, I-2 and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet (15 240 mm) in buildings equipped throughout with an automatic fire alarm system installed in accordance with the *International Building Code*.
3. In other than Group A, I-2 and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet (21 356 mm) in buildings equipped throughout with an automatic sprinkler system installed in accordance with the *International Building Code*.
4. Deleted. ~~In other than Group A, I-2 and H occupancies, the maximum length of an existing, newly constructed, or extended dead-end corridor shall not exceed 50 feet (15 240 mm) on floors equipped with an automatic sprinkler system installed in accordance with the *International Building Code*.~~

804.13 Emergency escape and rescue openings. When the work being performed creates a classroom in a Group E occupancy or a bedroom below the fourth floor in a Group R occupancy, at least one window or exterior door shall comply with Section 1031 of the *North Carolina Building Code*.

[BS] 805.2 Existing structural elements carrying gravity loads. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design dead, live or snow load, including snow drift effects, of more than ~~5~~ 10 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design dead, live and snow loads, including snow drift effects, required by the *International Building Code* for new structures.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the altered building complies with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.
2. Buildings in which the increased dead load is attributable to the addition of a second layer of roof covering weighing 3 pounds per square foot (0.1437 kN/m^2) or less over an existing single layer of roof covering.

[BS] 805.3 Existing structural elements resisting lateral loads. Except as permitted by Section 805.4, where the *alteration* increases design lateral loads, or where the alteration results in prohibited structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the structure of the altered building or structure shall meet the requirements of Sections 1609 and 1613 of the *International Building Code*. Reduced seismic forces shall be permitted.

Exception:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with Sections 1609 and 1613 of the *International Building Code*. Reduced seismic forces shall be permitted. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction.
2. Buildings in which the increase in the demand-capacity ratio is due entirely to the addition of rooftop-supported mechanical equipment individually having an operating weight less than 400 pounds (181.4 kg) and where the total additional weight of all rooftop equipment placed after initial construction of the building is less than 10 percent of the roof dead load. For purposes of this exception, "roof" shall mean the roof level above a particular story.

CHAPTER 9

ALTERATIONS—LEVEL 3

~~**User note:**~~

~~***About this chapter**: Chapter 9 provides the technical requirements for those existing buildings that undergo Level 3 alterations. The purpose of this chapter is to provide detailed requirements and provisions to identify the required improvements in the existing building elements, building spaces and building structural system. This chapter is distinguished from Chapters 7 and 8 by involving alterations that cover 50 percent or more of the aggregate area of the building. In contrast, Level 1 alterations do not involve space reconfiguration, and Level 2 alterations involve extensive space reconfiguration that does not exceed 50 percent of the building area. Depending on the nature of alteration work, its location within the building, and whether it encompasses one or more tenants, improvements and upgrades could be required for the open floor penetrations, sprinkler system or the installation of additional means of egress such as stairs or fire escapes. At times and under certain situations, this chapter also is intended to improve the safety of certain building features beyond the work area and in other parts of the building where no alteration work might be taking place.*~~

902.1 High-rise buildings. Any building having occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall comply with the requirements of Sections 902.1.1 ~~and 902.1.2.~~ through 902.1.3.

902.1.3 Luminous egress path markings. Luminous egress markings shall be installed as required by Section 1025 of the *North Carolina Building Code*.

902.3 Group H. Where the work area includes a Group H occupancy, the building shall comply with all the requirements of the *North Carolina Building Code* for the Group H occupancy.

903.2 Fire ~~partitions~~ separation in Group R-3. Fire separation in Group R-3 occupancies shall be in accordance with Section 903.2.1.

903.2.1 Separation required. Where the *work area* is in any attached dwelling unit in Group R-3 or any multiple single-family dwelling (townhouse)~~,~~ or any two-family dwellings, walls separating the dwelling units that are not continuous from the foundation to the underside of the roof sheathing shall be constructed to provide a continuous fire separation using construction materials consistent with the existing wall or complying with the requirements for new structures. Work shall be performed on the side of the dwelling unit wall that is part of the *work area*.

Exceptions:

1. Where *alterations* or *repairs* do not result in the removal of wall or ceiling finishes exposing the structure, walls are not required to be continuous through concealed floor spaces.
2. If not currently existing, separation is not required in the crawl space of two-family dwellings.

903.4 Enhanced classroom acoustics. In Group E occupancies, where the *work area* is a Level 3 alteration, enhanced ~~classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced~~ classroom acoustics shall comply with ~~the reverberation time in Section 808 of ICC A117.1.~~ Section 1207.5 of the *International Building Code* as required for new construction.

904.1.1 High-rise buildings. ~~An automatic sprinkler system shall be provided in *work areas* where the high-rise building has a sufficient municipal water supply for the design and installation of an automatic sprinkler system at the site.~~ High-rise buildings constructed prior to 1978 shall at a minimum comply with North Carolina General Statute 143-138, Section (i). The statute may be viewed at the following web address: http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_143/GS_143-138.html.

904.1.2 Rubbish and linen chutes. Deleted. ~~Rubbish and linen chutes located in the *work area* shall be provided with automatic sprinkler system protection or an *approved* automatic fire-extinguishing system where protection of the rubbish and linen chute would be required under the provisions of the *International Building Code* for new construction.~~

904.1.3 Upholstered furniture or mattresses. Deleted. ~~*Work areas* shall be provided with an automatic sprinkler system in accordance with the *International Building Code* where any of the following conditions exist:~~

~~1. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m^2).~~

~~2. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m^2).~~

~~3. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m^2).~~

904.1.5 Group I-2. In Group I-2 occupancies, an automatic sprinkler system installed in accordance with Section 903.3.1.1 of the *International ~~Fire~~ Building Code* shall be provided in the following:

1. In Group I-2, Condition 1, throughout the *work area*.
2. In Group I-2, Condition 2, throughout the *work area* where the *work area* is 50 percent or less of the smoke compartment.
3. In Group I-2, Condition 2, throughout the smoke compartment in which the work occurs where the *work area* exceeds 50 percent of the smoke compartment.

904.1.7 Other required automatic sprinkler systems. ~~In buildings and areas listed in Table 903.2.11.6 of the *International Building Code*, *work areas* shall be provided with an automatic sprinkler system under the following conditions:~~

~~1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the *International Building Code* applicable to new construction.~~

~~2. The building site has sufficient municipal water supply for design and installation of an automatic sprinkler system.~~

In buildings and areas listed in Table 903.2.11.6 of the *North Carolina Building Code*, work areas that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the *North Carolina Building Code* applicable to new construction;
2. The building has sufficient municipal water supply for design of an automatic sprinkler system available to the floor without installation of a new water storage tank; and
3. The work area is separated from the remainder of the building with fire barriers complying with the *North Carolina Building Code*.

904.3 Standpipes. Where the *work area* includes exits or corridors shared by more than one tenant and is located more than 30 feet (15 240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an approved fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the *North Carolina Building Code*. Standpipes systems shall be provided for high-rise buildings as required by N.C.G.S. 143-138(i).

Exception: The interconnection of multiple standpipe risers shall not be required.

[BS] 906.2 Existing structural elements resisting lateral loads. ~~Where work involves a *substantial structural alteration*, the lateral load-resisting system of the altered building shall be shown to satisfy the requirements of Sections 1609 and 1613 of the *International Building Code*. Reduced seismic forces shall be permitted.~~ Existing structural elements resisting lateral loads shall comply with Section 805.3. Sections 503.4 through 503.11 shall apply when existing elements of the lateral force-resisting system have been damaged due to a wind or seismic event. Repair work such as termite or rot damage shall comply with Section 606.1.

Exceptions:

1. Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes that are altered based on the conventional light-frame construction methods of the *International Building Code* or in compliance with the provisions of the *International Residential Code*.
2. Deleted. ~~Where the intended alteration involves only the lowest story of a building, only the lateral load-resisting components in and below that story need comply with this section.~~

~~**[BS] 906.3 Seismic Design Category F.** Where the building is assigned to Seismic Design Category F, the structure of the altered building shall meet the requirements of Sections 1609 and 1613 of the *International Building Code*. Reduced seismic forces shall be permitted.~~

[BS] 906.3 Seismic evaluation and design procedures. Where required, seismic evaluation or design shall be based on the procedures and criteria in this section.

Exception: Seismic requirements shall not apply to detached one- and two-family dwellings.

[BS] 906.3.1 Compliance with full seismic forces. Where compliance requires the use of full seismic forces, the criteria shall be in accordance with one of the following:

1. One-hundred percent of the values in the *International Building Code*. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of R, Ω_0 and C_d used for analysis in accordance with Chapter 16 of the *International Building Code* shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system.
2. ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 906.3.1 for the applicable *risk category*.

[BS] TABLE 906.3.1
PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH FULL SEISMIC FORCES

RISK CATEGORY (Based on IBC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1N EARTHQUAKE HAZARD LEVEL	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2N EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3)	Collapse Prevention (S-5)
II	Life Safety (S-3)	Collapse Prevention (S-5)
III	Damage Control (S-2)	Limited Safety (S-4)
IV	Immediate Occupancy (S-1)	Life Safety (S-3)

[BS] 906.3.2 Compliance with reduced seismic forces. Where seismic evaluation and design is permitted to use reduced seismic forces, the criteria used shall be in accordance with one of the following:

1. The *International Building Code* using 75 percent of the prescribed forces. Values of R, Ω_0 and C_d used for analysis shall be as specified in Section 906.3.1 of this code.
2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.4 and subject to the limitations of the respective Appendix A chapters shall be deemed to comply with this section.
   - 2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in *Risk Category* I or II are permitted to be based on the procedures specified in Appendix Chapter A1.
   - 2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in *Risk Category* I or II are permitted to be based on the procedures specified in Chapter A2.
   - 2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in *Risk Category* I or II are permitted to be based on the procedures specified in Chapter A3.
   - 2.4. Seismic evaluation and design of soft, weak or open-front wall conditions in multiple-unit residential buildings of wood construction in *Risk Category* I or II are permitted to be based on the procedures specified in Chapter A4.
3. ASCE 41, using the performance objective in Table 906.3.2 for the applicable *risk category*.

[BS] TABLE 906.3.2
PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH REDUCED SEISMIC FORCES

RISK CATEGORY (Based on IBC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1E EARTHQUAKE HAZARD LEVEL	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2E EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3). See Note a	Collapse Prevention (S-5)
II	Life Safety (S-3). See Note a	Collapse Prevention (S-5)
III	Damage Control (S-2). See Note a	Limited Safety (S-4). See Note b
IV	Immediate Occupancy (S-1)	Life Safety (S-3). See Note c

a. For Risk Categories I, II and III, the Tier 1 and Tier 2 procedures need not be considered for the BSE-1E earthquake hazard level.
b. For Risk Category III, the Tier 1 screening checklists shall be based on the Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS*-factors that are the average of the values for Collapse Prevention and Life Safety.
c. For Risk Category IV, the Tier 1 screening checklists shall be based on Collapse Prevention, except that checklist statements using the Quick Check provisions shall be based on *MS*-factors for Life Safety.

[BS] 906.4 Anchorage for concrete and masonry buildings. Deleted. ~~For any building assigned to Seismic Design Category D, E or F with a structural system that includes concrete or reinforced masonry walls with a flexible roof diaphragm, the *alteration* work shall include installation of wall anchors at the roof line of all subject buildings and at the floor lines of unreinforced masonry buildings unless an evaluation demonstrates compliance of existing wall anchorage. Reduced seismic forces shall be permitted.~~

[BS] 906.5 Anchorage for unreinforced masonry walls. Deleted. ~~For any building assigned to Seismic Design Category C, D, E or F with a structural system that includes unreinforced masonry bearing walls, the *alteration* work shall include installation of wall anchors at the roof line, unless an evaluation demonstrates compliance of existing wall anchorage. Reduced seismic forces shall be permitted.~~

[BS] 906.6 Bracing for unreinforced masonry parapets. Deleted. ~~Parapets constructed of unreinforced masonry in buildings assigned to Seismic Design Category C, D, E or F shall have bracing installed as needed to resist the reduced *International Building Code* level seismic forces in accordance with Section 304.3, unless an evaluation demonstrates compliance of such items. Use of reduced seismic forces shall be permitted.~~

[BS] 906.7 Anchorage of unreinforced masonry partitions. Deleted. ~~Where the building is assigned to Seismic Design Category C, D, E or F, unreinforced masonry partitions and nonstructural walls within the *work area* and adjacent to egress paths from the *work area* shall be anchored, removed, or altered to resist out-of-plane seismic forces, unless an evaluation demonstrates compliance of such items. Use of reduced seismic forces shall be permitted.~~

CHAPTER 10
CHANGE OF OCCUPANCY

~~**User note:**~~

~~***About this chapter**: The purpose of this chapter is to provide regulations for the circumstances where an existing building is subject to a change of occupancy or a change of occupancy classification. A change of occupancy is not to be confused with a change of occupancy classification. The* International Building Code® *defines different occupancy classifications in Chapter 3 and special occupancy requirements in Chapter 4. Within specific occupancy classifications there can be many different types of actual activities that can take place. For instance, a Group A-3 occupancy classification deals with a wide variation of different types of activities, including bowling alleys and courtrooms, indoor tennis courts and dance halls. When a facility changes use from, for example, a bowling alley to a dance hall, the occupancy classification remains A-3, but the different uses could lead to drastically different code requirements. Therefore, this chapter deals with the special circumstances that are associated with a change in the use of a building within the same occupancy classification as well as a change of occupancy classification.*~~

SECTION 1001
GENERAL

1001.1 Scope. The provisions of this chapter shall apply where a *change of occupancy* occurs, as defined in Section 202~~.~~, including:

1. Where the occupancy use is changed; or
2. Where there is a change in occupancy classification or the occupancy group designation changes.

Any *repair* or *alteration* work undertaken in connection with a *change of occupancy* shall conform to the other applicable chapters of this code.

~~**1001.2 Certificate of occupancy.** A *change of occupancy* or a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the *International Building Code* shall not be made to any structure without the approval of the *code official*. A certificate of occupancy shall be issued where it has been determined that the requirements for the *change of occupancy* have been met.~~

~~**1001.2.1 Change of use.** Any work undertaken in connection with a change in use that does not involve a *change of occupancy* classification or a change to another group within an occupancy classification shall conform to the applicable requirements for the work as classified in Chapter 6 and to the requirements of Sections 1002 through 1010.~~

~~**Exception:** As modified in Section 1204 for *historic buildings*.~~

1001.2 Change in occupancy with no change of occupancy classification. A change in occupancy, as defined in Section 202, with no *change of occupancy* classification shall not be made to any structure that will subject the structure to any special provisions of the applicable *International Codes*, including the provisions of Sections 1002 through 1011, without the approval of the *code official*. A certificate of occupancy shall be issued where it has been determined that the requirements for the change in occupancy have been met.

1001.2.1 Additional requirements for Group A-2 nightclubs. When a Group A-2 occupancy changes the use to a nightclub, fire protection shall be provided in accordance with Section 1012.2 in addition to the requirements of Section 1001.2.

1001.2.2 Repair and alteration with no change of occupancy classification. Any *repair* or *alteration* work undertaken in connection with a *change of occupancy* that does not involve a *change of occupancy* classification shall conform to the applicable requirements for the work as classified in Chapter 5 and to the requirements of Sections 1002 through 1011.

1001.2.3 Change or partial change of occupancy classification or group. Where the occupancy classification changes, the provisions of Sections 1002 through 1012 shall apply. This includes a *change of occupancy* classification

within a group as well as a *change of occupancy* classification from one group to a different group.

1001.2.2 Change of occupancy classification or group. Deleted. ~~Where the occupancy classification of a building changes, the provisions of Sections 1002 through 1011 shall apply. This includes a change of occupancy classification and a change to another group within an occupancy classification.~~

1001.2.2.1 Partial change of occupancy. Deleted. ~~Where the occupancy classification or group of a portion of an *existing building* is changed, Section 1011 shall apply.~~

1001.3 Certificate of occupancy required. A new certificate of occupancy shall be ~~issued~~ required where a *change of occupancy* occurs that results in a different occupancy classification as determined by Chapter 3 of the *International Building Code*.

[BS] 1006.1 Live loads. Structural elements carrying tributary live loads from an area with a *change of occupancy* shall satisfy the requirements of Section 1607 of the *International Building Code*. Design live loads for areas of new occupancy shall be based on Section 1607 of the *International Building Code*. Design live loads for other areas shall be permitted to use previously *approved* design live loads.

Exceptions:

1. Structural elements whose demand-capacity ratio considering the *change of occupancy* is not more than ~~5~~ 10 percent greater than the demand-capacity ratio based on previously *approved* live loads.
2. A *change of occupancy* from Group R-3 to Group B or E occupancy is permitted when the gravity live load is increased by 10 pounds per square foot (0.48 kN/m$_2$) or less.

1007.3 Service upgrade. Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new load requires an increase in service, the electrical service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy.

SECTION 1010
OTHER REQUIREMENTS

1010.1 Light and ventilation. Natural Light and natural ventilation shall comply with the requirements of the *International Building Code* or the *North Carolina Residential Code* for the new occupancy.

SECTION 1011
CHANGE OF OCCUPANCY CLASSIFICATION

1011.1 General. The provisions of this section shall apply to buildings or portions thereof undergoing a change of occupancy classification. This includes a change of occupancy classification within a group as well as a change of occupancy classification from one group to a different group or where there is a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the *International Building Code*. Such buildings shall also comply with Sections 1002 through 1010 of this code. For the purposes of this section, Group R-3 shall also include detached one- and two-family dwellings and townhouses.

1011.2.1 Fire sprinkler system. Where a change in occupancy classification occurs or where there is a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the *International Building Code* that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*. The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the change of occupancy by one of the following:

1. Nonrated permanent partition and horizontal assemblies.
2. Fire partition.
3. Smoke partition.
4. Smoke barrier.

5. Fire barrier.
6. Fire wall.

Exceptions:

1. An automatic sprinkler system shall not be required in a one- or two-family dwelling constructed in accordance with the *International Residential Code*.
2. Automatic sprinkler system shall not be required in a townhouse constructed in accordance with the *International Residential Code*.
3. The townhouse shall be separated from adjoining units in accordance with Section R302.2 of the *International Residential Code*.

Table 1011.2.1

SPRINKLER HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY USE CLASSIFCATIONS
1 (Highest Hazard)	H, I, Nightclub
2	A-2, R-1, R-2
3	A-1, A-3
4	F-1, M, S-1
5	A-4, E
6 (Lowest Hazard)	B, F-2, R-3, R-4, S-2, U

1011.2.1.1 Change to higher hazard category. When a change of use is made to a higher hazard category as shown in Table 1011.2.1, the building shall be provided with an automatic fire suppression system as required by Section 903 of the *North Carolina Building Code*.

Exception: When an area of a building is changed to a higher hazard category and the proposed use is separated from the existing use(s) by assemblies that meet the applicable fire rating in Table 508.4 of the *North Carolina Building Code*, an automatic fire suppression system as required above shall be installed only in the area changed.

1011.2.1.2 Change to equal or lesser hazard category.
When a change of use is made to an equal or lesser hazard category as shown in Table 1011.2.1, there is no requirement to install an automatic fire suppression system.

Exceptions:

1. In areas where work being performed in connection with the change of use triggers a requirement for suppression.
2. In windowless stories an automatic fire suppression system shall be installed as required by Section 903 of the *North Carolina Building Code.*

1011.2.1.3 Change in NFPA 13 hazard level. Notwithstanding the relative hazard as determined by Table 1011.2.1, when a change in the character of the use is made to a higher degree of hazard as defined by NFPA 13 (Light Hazard, Ordinary Hazard Group 1, Ordinary Hazard Group 2, Extra Hazard Group 1, Extra Hazard Group 2 and Special Occupancy Hazards), the sprinkler system shall be evaluated and, where required by NFPA 13, altered to conform to the required density and maximum sprinkler protection area per head for the proposed occupancy.

1011.4 Enhanced classroom acoustics. Deleted. ~~In Group E occupancies, where the *work area* is a Level 3 *alteration*, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

1011.5 Means of egress, general. Hazard categories in regard to life safety and means of egress shall be in accordance with Table 1011.5.

TABLE 1011.5
MEANS OF EGRESS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H

2	I-2; I-3; I-4
3	A; E; I-1; M; R-1; R-2; R-4, Condition 2
4	B; F-1; R-3[a]; R-4, Condition 1; S-1
5 (Lowest Hazard)	F-2; S-2; U

a. Detached one- and two-family dwellings and townhouses are relative hazard 5.

1011.5.1 Means of egress for change to a higher-hazard category. Where a change of occupancy classification is made to a higher-hazard category (lower number) as shown in Table 1011.5, the means of egress shall comply with the requirements of Chapter 10 of the *International Building Code*.

Exceptions:

1. Stairways shall be enclosed in compliance with the applicable provisions of Section 903.1.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 9 shall be permitted for continued use subject to approval of the *code official*.
3. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.
4. Existing corridor walls constructed on both sides of wood lath and plaster in good condition or $^1/_2$-inch-thick (12.7 mm) gypsum wallboard shall be permitted where 1-hour rated separation is required. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections 804.6.1, 804.6.2 and 804.6.3.
6. Existing dead-end corridors shall comply with the requirements in Section 804.7.
7. An operable window complying with Section 1011.5.6 shall be accepted as an *emergency escape and rescue opening*.

1011.5.3 Egress capacity. Egress capacity shall meet or exceed the occupant load as specified in the *International Building Code* for the new occupancy.

Exception: The occupant load of the space may be restricted to comply with Section 1006 of the *North Carolina Building Code*. Signage indicating the allowed quantity of occupants shall be permanently mounted in the building at a location approved by the local fire marshal.

1011.5.6 Existing emergency escape and rescue openings. Where a *change of occupancy* would require an *emergency escape and rescue opening* in accordance with Section 1031 of the *International Building Code* or Section R310 of the *North Carolina Residential Code*, operable windows serving as the *emergency escape and rescue opening* shall comply with the following:

1. An existing operable window shall provide a minimum net clear opening of 4 square feet (0.38 m^2) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm).
2. A replacement window where such window complies with both of the following:
   2.1. The replacement window meets the size requirements in Item 1.
   2.2. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

1011.6 Heights and areas. Hazard categories in regard to height and area shall be in accordance with Table 1011.6.

TABLE 1011.6
HEIGHTS AND AREAS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H[a]

2	A-1; A-2; A-3; A-4; I[a]; ~~R-1; R-2; R-4, Condition 2~~
3	E; F-1; S-1; M; R-1; R-2; R-4, Condition 2
4 (Lowest Hazard)	B; F-2; S-2; A-5; R-3; R-4, Condition 1; U

a. H-1 and I-2 are not permitted in Type VB construction.

1011.7 Exterior wall fire-resistance ratings. Hazard categories in regard to fire-resistance ratings of exterior walls shall be in accordance with Table 1011.7.

TABLE 1011.7
EXPOSURE OF EXTERIOR WALLS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	F-1; M[a]; S-1
3	A; B; E; I; R
4 (Lowest Hazard)	F-2; S-2; U

a. Group M occupancy of 12,000 square feet (1114 m_2) or less shall be relative hazard category 3.

1011.8 Enclosure of vertical shafts. Enclosure of vertical shafts shall be in accordance with Sections 1011.8.1 through 1011.8.4.

1011.8.1 Minimum requirements. Vertical shafts shall be designed to meet the *International Building Code* requirements for atriums or the requirements of this section.

Exception: Shafts for Group M occupancies in buildings that are less than 3,000 square feet (278 m_2) or less per floor and three stories or less are not required to be enclosed.

1011.8.4 Openings. Openings into existing fire-resistance-rated vertical shaft enclosures shall be protected by fire assemblies having a fire protection rating of not less than 1 hour and shall be maintained self-closing or shall be automatic-closing by actuation of a smoke detector. Other openings shall be fire protected in an *approved* manner. Existing fusible link-type automatic door-closing devices shall be permitted in all shafts except stairways if the fusible link rating does not exceed 135°F (57°C).

1011.9 Dwelling unit separation.

1011.9.1 Townhouses. *Existing buildings* that establish new townhouse dwelling units shall comply with the separation requirements of Section R302.2 of the *North Carolina Residential Code* and related subsections.

1011.9.2 Two-family dwellings. *Existing buildings* that establish new detached two-family dwelling units shall comply with separation requirements of Section R302.3 of the *North Carolina Residential Code* and related subsections.

1011.9.3 Group I-1, R-1, R-2 or R3. *Existing buildings* that establish new Group I-1, R-1, R-2 or R-3 dwelling or sleeping units shall comply with separation requirements of Section 420 of the *North Carolina Building Code*.

CHAPTER 11
ADDITIONS

~~**User note:**~~

~~***About this chapter:*** *Chapter 11 provides the requirements for additions, which correlate to the code requirements for new construction. There are, however, some exceptions that are specifically stated within this chapter. An "Addition" is defined in Chapter 2 as "an extension or increase in the floor area, number of stories or height of a building or structure." Chapter 11 contains the minimum requirements for an addition that is not separated from the existing building by a fire wall.*~~

1101.4 Enhanced classroom acoustics. Deleted. ~~In Group E occupancies, enhanced classroom acoustics shall be provided in all classrooms in the *addition* with a volume of 20,000 cubic feet (565 m^3) or less. Enhanced classroom acoustics shall comply with the reverberation time in Section 808 of ICC A117.1.~~

1102.3 Fire protection systems. Existing fire areas increased by the *addition* shall comply with Chapter 9 of the *International Building Code*.

Exception: This requirement shall not apply to increases to the allowable fire area of 5 percent or less.

[BS] 1103.1 Additional gravity loads. Any existing gravity load-carrying structural element for which an *addition* and its related *alterations* cause an increase in design dead, live or snow load, including snow drift effects, of more than ~~5~~ 10 percent shall be replaced or altered as needed to carry the gravity loads required by the *International Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *addition* and its related *alterations* shall be considered to be an altered element subject to the requirements of Section 805.2. Any existing element that will form part of the lateral load path for any part of the *addition* shall be considered to be an existing lateral load-carrying structural element subject to the requirements of Section 1103.3.

Exception: Buildings of Group R occupancy with not more than five dwelling units or sleeping units used solely for residential purposes where the *existing building* and the *addition* together comply with the conventional light-frame construction methods of the *International Building Code* or the provisions of the *International Residential Code*.

CHAPTER 12
HISTORIC BUILDINGS

~~**User note:**~~

~~***About this chapter**: Chapter 12 provides some exceptions from code requirements when the building in question has historic value. The most important criterion for application of this chapter is that the building must be essentially accredited as being of historic significance by a state or local authority after careful review of the historical value of the building. Most, if not all, states have such authorities, as do many local jurisdictions. The agencies with such authority can be located at the state or local government level or through the local chapter of the American Institute of Architects (AIA). Other considerations include the structural condition of the building (i.e., is the building structurally sound), its proposed use, its impact on life safety and how the intent of the code, if not the letter, will be achieved.*~~

1201.6 Ceiling height. Existing ceiling heights shall be permitted to remain.

1202.2.1 Wind-borne debris protection. Replacement of window units shall require compliance with Section 1609.2 of the *North Carolina Building Code* or Section R609.6 of the *North Carolina Residential Code*. Replacement of individual glass panes or sashes shall not require compliance with Section 1609.2 of the *North Carolina Building Code* or Section R609.6 of the *North Carolina Residential Code*.

1203.2 General. Every *historic building* that does not conform to the construction requirements specified in this code for the occupancy or use and that constitutes a distinct fire hazard as identified by the *code official* ~~defined herein~~ shall be provided with an *approved* automatic fire-extinguishing system as determined appropriate by the *code official*. However, an automatic fire-extinguishing system shall not be used to substitute for, or act as an alternative to, the required number of exits from any *facility*.

1203.12 Automatic fire-extinguishing systems. Deleted. ~~Every *historic building* that cannot be made to conform to the construction requirements specified in the *International Building Code* for the occupancy or use and that constitutes a distinct fire hazard shall be deemed to be in compliance if provided with an *approved* automatic fire-extinguishing system.~~

~~**Exception:** Where the *code official* approves an alternative life-safety system.~~

CHAPTER 13

PERFORMANCE COMPLIANCE METHODS

~~**User note:**~~

~~***About this chapter:*** *Chapter 13 allows for existing buildings to be evaluated so as to show that alterations, while not meeting new construction requirements, will improve the current existing situation. Provisions are based on a numerical scoring system involving 19 various safety parameters and the degree of code compliance for each issue.*~~

1301.2.7 Occupant load increase. Where the existing occupant load is increased by more than 20 percent or in Group A occupancies where the occupant load is greater than 300, compliance with this chapter is not permitted. Compliance with other methods in this code shall be permitted.

CHAPTER 14

RELOCATED OR MOVED BUILDINGS

~~**User note:**~~

~~***About this chapter:*** Chapter 14 is applicable to any building that is moved or relocated. The relocation of a building will automatically cause an inspection and evaluation process that enables the jurisdiction to determine the level of compliance with the International Fire Code® and the International Property Maintenance Code®. These two codes, by their scope, are applicable to existing buildings. This is the case regardless of any repair, remodeling, alteration work or change of occupancy occurring (see the International Fire Code and International Property Maintenance Code).~~

[BS] 1402.5 Snow loads. Structures shall comply with *International Building Code* or *International Residential Code* snow loads, as applicable, where snow loads at the new location are higher than those at the previous location.

Exception: Structural elements whose stress is not increased by more than ~~5~~ 10 percent.

CHAPTER 15

CONSTRUCTION SAFEGUARDS

~~**User note:**~~

~~***About this chapter:*** *Chapter 15 looks to the construction process. Parameters are provided for demolition and for protecting adjacent property during demolition and construction. Issues such as how to provide egress and adequate water supply while the building is growing, the timing of standpipe and sprinkler installation, and protection of pedestrians are addressed. Note that this chapter is consistent with Chapter 33 of the* International Building Code *and Chapter 33 of the* International Fire Code*.*~~

[F] 1507.1 Completion before occupancy. In buildings where an automatic sprinkler system is required by this code or the *International Building Code*, it shall be unlawful to occupy any portions of a building or structure until the automatic sprinkler system installation has been tested and *approved*, except as provided in ~~Section 110.3.~~ N.C.G.S. 160D-1116.

CHAPTER 16

REFERENCED STANDARDS

~~***User note:***~~

~~***About this chapter:*** *This code contains numerous references to standards that are used to regulate materials and methods of construction. Chapter 16 contains a comprehensive list of all standards that are referenced in the code, including the appendices. The standards are part of the code to the extent of the reference to the standard. Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the building code official, contractor, designer and owner.*~~

~~*This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section 102.4.*~~

ACI 562-19:

Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures

405.1.1

IECC—21

International Energy Conservation Code®

302.2, 409.1, 702.7, 708.1, 809.1, 907.1, 1104.1

Appendix A: GUIDELINES FOR THE SEISMIC RETROFIT OF EXISTING BUILDINGS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

CHAPTER A1

SEISMIC STRENGTHENING PROVISIONS FOR UNREINFORCED MASONRY BEARING WALL BUILDINGS

~~***User note:***~~

~~***About this appendix:*** *Appendix A provides guidelines for upgrading the seismic-resistance capacity of different types of existing buildings. It is organized into separate chapters that deal with buildings of different types, including unreinforced masonry buildings, reinforced concrete and reinforced masonry wall buildings, and light-frame wood buildings.*~~

APPENDIX B

SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS FOR EXISTING BUILDINGS AND FACILITIES

~~*The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.*~~

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

~~**User note:**~~

~~***About this appendix:** Chapter 11 of the* International Building Code® *contains provisions that set forth requirements for accessibility to buildings and their associated sites and facilities for people with physical disabilities. Sections 306 and 1508 in the code address accessibility provisions and alternatives permitted in existing buildings. Appendix B was added to address accessibility in construction for items that are not typically enforceable through the traditional building code enforcement process.~~

APPENDIX C: GUIDELINES FOR THE WIND RETROFIT OF EXISTING BUILDINGS

CHAPTER C1

GABLE END RETROFIT FOR HIGH-WIND AREAS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

~~**User note:**~~

~~***About this appendix:*** *Appendix C is intended to provide guidance for retrofitting existing structures to strengthen their resistance to wind forces. This appendix is similar in scope to Appendix A, which addresses seismic retrofits for existing buildings, except that the subject matter is related to wind retrofits. These retrofits are voluntary measures that serve to better protect the public and reduce damage from high-wind events for existing buildings.*~~

~~*The purpose of this appendix is to provide prescriptive alternatives for addressing retrofit of buildings in high-wind areas. Currently there are two chapters that deal with the retrofit of gable ends and the fastening of roof decks, Appendix Chapters C1 and C2, respectively.*~~

APPENDIX D

BOARD OF APPEALS

DELETED.

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

User notes:

About this appendix: *Appendix D provides criteria for Board of Appeals members. Also provided are procedures by which the Board of Appeals should conduct its business.*

Code development reminder: *Code change proposals to this appendix will be considered by the Administrative Code Development Committee during the 2022 (Group B) Code Development Cycle.*

SECTION D101
GENERAL

[A] D101.1 Scope. A board of appeals shall be established within the jurisdiction for the purpose of hearing applications for modification of the requirements of this code pursuant to the provisions of Section 112. The board shall be established and operated in accordance with this section, and shall be authorized to hear evidence from appellants and the *code official* pertaining to the application and intent of this code for the purpose of issuing orders pursuant to these provisions.

[A] D101.2 Application for appeal. Any person shall have the right to appeal a decision of the *code official* to the board. An application for appeal shall be based on a claim that the intent of this code or the rules legally adopted hereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The application shall be filed on a form obtained from the *code official* within 20 days after the notice was served.

[A] D101.2.1 Limitation of authority. The board shall not have authority to waive requirements of this code or interpret the administration of this code.

[A] D101.2.2 Stays of enforcement. Appeals of notice and orders, other than Imminent Danger notices, shall stay the enforcement of the notice and order until the appeal is heard by the board.

[A] D101.3 Membership of board. The board shall consist of five voting members appointed by the chief appointing authority of the jurisdiction. Each member shall serve for **[INSERT NUMBER OF YEARS]** years or until a successor has been appointed. The board member's terms shall be staggered at intervals, so as to provide continuity. The *code official* shall be an ex officio member of said board but shall not vote on any matter before the board.

[A] D101.3.1 Qualifications. The board shall consist of five individuals, who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

[A] D101.3.2 Alternate members. The chief appointing authority is authorized to appoint two alternate members who shall be called by the board chairperson to hear appeals during the absence or disqualification of a member. Alternate members shall possess the qualifications required for board membership, and shall be appointed for the same term or until a successor has been appointed.

[A] D101.3.3 Vacancies. Vacancies shall be filled for an unexpired term in the same manner in which original appointments are required to be made.

[A] D101.3.4 Chairperson. The board shall annually select one of its members to serve as chairperson.

[A] D101.3.5 Secretary. The chief appointing authority shall designate a qualified clerk to serve as secretary to the board. The secretary shall file a detailed record of all proceedings, which shall set forth the reasons for the board's decision, the vote of each member, the absence of a member and any failure of a member to vote.

[A] D101.3.6 Conflict of interest. A member with any personal, professional or financial interest in a matter before the board shall declare such interest and refrain from participating in discussions, deliberations and voting on such matters.

[A] D101.3.7 Compensation of members. Compensation of members shall be determined by law.

[A] D101.3.8 Removal from the board. A member shall be removed from the board prior to the end of their terms only for cause. Any member with continued absence from regular meeting of the board may be removed at the discretion of the chief appointing authority.

[A] D101.4 Rules and procedures. The board shall establish policies and procedures necessary to carry out its duties consistent with the provisions of this code and applicable state law. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be presented.

[A] D101.5 Notice of meeting. The board shall meet upon notice from the chairperson, within 10 days of the filing of an appeal or at stated periodic intervals.

[A] D101.5.1 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the *code official* and any person whose interests are affected shall be given an opportunity to be heard.

[A] D101.5.2 Quorum. Three members of the board shall constitute a quorum.

[A] D101.5.3 Postponed hearing. When five members are not present to hear an appeal, either the appellant or the appellant's representative shall have the right to request a postponement of the hearing.

[A] D101.6 Legal counsel. The jurisdiction shall furnish legal counsel to the board to provide members with general legal advice concerning matters before them for consideration. Members shall be represented by legal counsel at the jurisdiction's expense in all matters arising from service within the scope of their duties.

[A] D101.7 Board decision. The board shall only modify or reverse the decision of the *code official* by a concurring vote of three or more members.

[A] D101.7.1 Resolution. The decision of the board shall be by resolution. Every decision shall be promptly filed in writing in the office of the *code official* within three days and shall be open to the public for inspection. A certified copy shall be furnished to the appellant or the appellant's representative and to the *code official*.

[A] D101.7.2 Administration. The *code official* shall take immediate action in accordance with the decision of the board.

[A] D101.8 Court review. Any person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law following the filing of the decision in the office of the chief administrative officer.