2018 NC Energy Conservation Code C401.2 Application. (191210 Item B-3)

C401.2 Application

Commercial buildings shall comply with one of the following:

- 1. The requirements of ANSI/ASHRAE/IESNA 90.1.
- 2. The requirements of Sections C402 through C405. In addition, commercial buildings shall comply with Section C406 and tenant spaces shall comply with Section C406.1.1.
- 3. The requirements of Sections C402.5, C403.2, C404, C405.2, C405.3, C405.5, C405.6 and C407. The building energy cost shall be equal to or less than 85 percent of the standard reference design building.
- <u>4. North Carolina specific</u> COMcheck <u>keyed to the 2018 IECC</u> or ASHRAE 90.1—<u>2013</u> 2016 COMcheck shall be permitted to demonstrate compliance with this code.

2018 NC Energy Conservation Code R01.2 Application. (191210 Item B-3)

R401.2 Compliance.

Projects shall comply with one of the following:

- 1. Sections R401 through R404.
- 2. Section R405 and the provisions of Sections R401 through R404 labeled "Mandatory."
- 3. An energy rating index (ERI) approach in Section R406.
- 4. North Carolina specific REScheck keyed to the 2018 IECC shall be permitted to demonstrate compliance with this code. Envelope requirements may not be traded off against the use of high efficiency heating or cooling equipment. No tradeoff calculations are needed for required termite inspection and treatment gaps.

2018 NC Residential Code

Table R602.7.5 Minimum Number of Full Height King Studs at Each End of Exterior Walls. (191210 Item B-7)

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

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

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

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

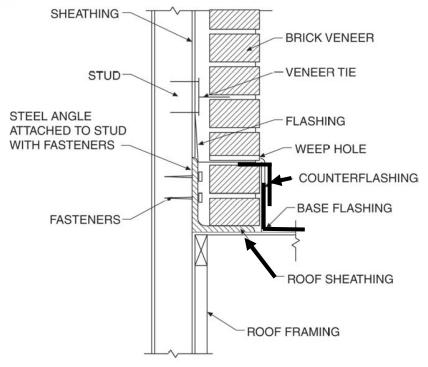
The Statutory authority for Rule-making is G. S. 143-136; 143-138.

2018 NC Residential Code R703.8.2.1 Support by Steel Angle. (191210 Item B-11)

R703.8.2.1 Support by steel angle. A minimum 6-inch by 4-inch by 5/16-inch (152 mm by 102 mm by 8 mm) steel angle, with the long leg placed vertically, shall be anchored to double 2-inch by 4-inch (51 mm by 102 mm) wood studs at a maximum on-center spacing of 16 inches (406 mm). Anchorage of the steel angle at every double stud spacing shall be a minimum of not less than two 7/16-inch diameter (11 mm) by 4-inch (102 mm) lag screws for wood construction at every double stud or shall be a minimum of two 7/16-inch diameter (11.1 mm) by 4 inches (102 mm) lag screws into solid double blocking with each pair of lag screws spaced at horizontal intervals not to exceed 16 inches (406 mm). The steel angle shall have a minimum clearance to underlying construction of 1/16 inch (1.6 mm). Not less than A minimum of two-thirds the width of the masonry veneer thickness shall bear on the steel angle. Flashing and weep holes shall be located in the masonry veneer in accordance with Figure R703.8.2.1. The maximum height of masonry veneer above the steel angle support shall be 12 feet 8 inches (3861 mm). The airspace separating the masonry veneer from the wood backing shall be in accordance with Sections R703.8.4 and R703.8.4.2. The method of support for the masonry veneer on wood construction steel angle shall be constructed in accordance with Figure R703.8.2.1.

The maximum slope of the roof construction without stops shall be 7:12. Roof construction with slopes greater than 7:12 but not more than 12:12 shall have stops of a minimum 3-inch by 3-inch by ½-inch (76 mm by 76 mm by 6.4 mm) steel plate welded to the angle at 24 inches (610 mm) on center along the angle or as *approved* by the *building official*.





SUPPORT BY STEEL ANGLE

FIGURE R703.8.2.1 EXTERIOR MASONRY VENEER SUPPORT BY STEEL ANGLES



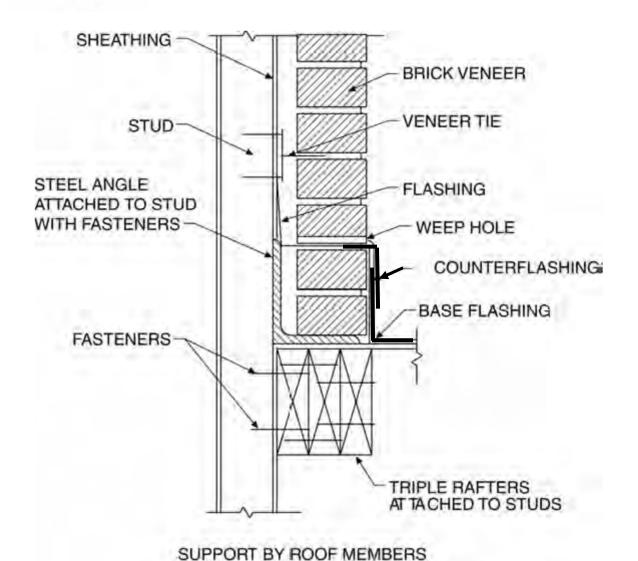


FIGURE R703.8.2.2

EXTERIOR MASONRY VENEER SUPPORT BY ROOF MEMBER

2018 NC Building Code

Table 2902.1 Minimum Number of Required Plumbing Fixtures. (191210 Item B-17 and B-19) (Only affected portions of the table are displayed here. Other portions of the table are unchanged by this amendment.)

[P] TABLE 2902.1

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

				WATER CLOSETS (URINALS: SEE SECTION 419.2 OF THE INTERNATIONAL PLUMBING CODE)		(URINALS: SEE SECTION 419.2 OF THE INTERNATIONAL			DRINKING FOUNTAIN (SEE SECTION 410 OF THE INTERNATI ONAL	
NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	MALE	FEMALE	MALE	FEMALE	BATHTUBS/ SHOWERS	PLUMBING CODE)	OTHER
2	Business (see sections 403.2,403.3 and 403.3.3.1)	В	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 30 for the first 50 30 and 1 per 50 for the remainder exceeding 50 30		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		_	1 per 100	1 service sink ^o
6	Mercantile (see sections 2902.2,2902.3 and 2902.3.3.2)	М	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		_	100 - 1,000 1 greater than 1,000 require 1 more for each additional 1,000	1 service sink ^{e,Ω}

- a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code.
- b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.
- c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient *sleeping units* shall be permitted, provided that each patient *sleeping unit* has direct access to the toilet room and provisions for privacy for the toilet room user are provided.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. The number of fixtures provided shall be based on either the capacity of the church sanctuary or the church educational building (including fellowship halls and multiple purpose rooms), whichever is larger and within 300 feet (91.44 m).
- f. For attached one- and two-family dwellings, one automatic clothes washer connection shall be required per 20 dwelling units.
- g. A mop receptacle with a water supply, or a hose bib and floor drain, may be used in lieu of a service sink.
- h. A can wash may be used in lieu of a service sink.
- i. See Section 2902.9 for additional information on plumbing fixtures for schools.
- j. When the rearrangement of an area or space increases the occupant content, the plumbing facilities shall be increased in accordance with this code.
- k. For baseball stadiums, the number of fixtures shall be reduced by 50 percent.
- 1. Service sink may be omitted when located within a single-family dwelling.
- m. Self-service mini-storage facilities without an office area are exempt.
- n. Unheated storage buildings which are used periodically are not required to have toilet rooms.
- o. For business and mercantile occupancies with an occupant load of $\frac{25}{20}$ or fewer, service sinks shall not be required.
- p. See section 2902.7 for adjustments in occupant count.

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

[P] 2902.2 Separate facilities.

Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

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

2018 NC Plumbing Code

Table 403.1 Minimum Number of Required Plumbing Fixtures. (191210 Item B-18 and B-20) (Only affected portions of the table are displayed here. Other portions of the table are unchanged by this amendment.)

TABLE 403.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

				WATER CLOSETS (URINALS: SEE SECTION 419.2)		LAVATORIES			DRINKING FOUNTAIN (SEE	
NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	MALE	FEMALE	MALE	FEMALE	BATHTUBS/ SHOWERS	SECTION 410)	OTHER
2	Business (see sections 403.2,403.3 and 403.3.3.1)	В	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 30 for the first 50 30 and 1 per 50 for the remainder exceeding 50 30		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		_	1 per 100	1 service sink ^o
6	Mercantile (see sections 403.2,403.3 and 403.3.3.2)	М	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 г	per 750	_	100 - 1,000 1 greater than 1,000 require 1 more for each additional 1,000	1 service sink ^o

- a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code.
- b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.
- c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient *sleeping units* shall be permitted, provided that each patient *sleeping unit* has direct access to the toilet room and provisions for privacy for the toilet room user are provided.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. The number of fixtures provided shall be based on either the capacity of the church sanctuary or the church educational building (including fellowship halls and multiple purpose rooms), whichever is larger and within 300 feet (91.44 m).
- f. For attached one- and two-family dwellings, one automatic clothes washer connection shall be required per 20 dwelling units.
- g. A mop receptacle with a water supply, or a hose bib and floor drain, may be used in lieu of a service sink.
- h. A can wash may be used in lieu of a service sink.
- i. See Section 403.9 for additional information on plumbing fixtures for schools.
- j. When the rearrangement of an area or space increases the occupant content, the plumbing facilities shall be increased in accordance with this code.
- k. For baseball stadiums, the number of fixtures shall be reduced by 50 percent.
- 1. Service sink may be omitted when located within a single-family dwelling.
- m. Self-service mini-storage facilities without an office area are exempt.
- n. Unheated storage buildings which are used periodically are not required to have toilet rooms.
- o. For business and mercantile occupancies with an occupant load of $\frac{25}{20}$ or fewer, service sinks shall not be required.
- p. See section 403.6 for adjustments in occupant count.

2018 NC Plumbing Code 403.2 Separate Facilities. (191210 Item B-16)

403.2 Separate facilities.

Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

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

2018 NC Fire Code

1031.10 Fire Escape Stairs and Ladders. (190910 Item B-4)

Section 1031.10 Fire Escape Stairways.

All fire escape *stairways* and *ladders* shall be kept clear and unobstructed at all times and shall be maintained in good working order. All fire escape *stairways* that need to be replaced or repaired shall comply with the requirements of the *International Existing Building Code*.

Section 1031.10.1 Examination.

Fire escape *stairways*, balconies, and *ladders* shall be examined for structural adequacy and safety in accordance with Section 1031.10 by a *registered design professional* every 5 years, or as required by the fire code official.

Section 1031.10.2 Examination Report.

Records of inspections, testing, and maintenance shall be maintained in accordance with Section 107.3.

Section 1031.10.3 Marking.

The open space under fire escape *stairways* or *ladders* 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 <u>obstruction thereof.</u>

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

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

2018 NC Existing Building Code 405.6 Marking. (190910 Item B-5)

405.6 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.