

REQUEST FOR TECHNICAL CHANGE

AGENCY: Building Code Council

RULE CITATION: 2018 NC Residential Code, R4603.6

**DEADLINE FOR RECEIPT: Wednesday, November 7, 2018**

***PLEASE NOTE: This request may extend to several pages. Please be sure you have reached the end of the document.***

The Rules Review Commission staff has completed its review of this Rule prior to the Commission's next meeting. The Commission has not yet reviewed this Rule and therefore there has not been a determination as to whether the Rule will be approved. You may call our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

R4603.6:

*In the first line, is the term "fully bear" known to your regulated public?*

*On the final line, should it not be "3/16 x 2 x 18 inches" (omitting the "by") to be consistent with the rest of the language?*

*Also on the last line, "as described" where?*

R4603.6.1:

*The measurements you provide for the angle do not seem to be the measurements in Figure R4603.6(d). Please confirm this is correct.*

Figure 4603.6(c):

*There do not appear to be any changes to this Figure from what is currently in the Code. Please confirm this is correct.*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: October 24, 2018

**R4603.6 Tying and bracing of wood piles.**

Beams and girders shall fully bear on pilings and butt joints shall occur over pilings. If sills, beams or girders are shall be attached to the piling a minimum of two 5/8 inch (16 mm) galvanized steel bolts per beam member shall be through bolted using either bolts or screws at each piling connection in accordance with Table R4603.6 and Figure R4503.6(a) R4603.6(a). When the piling is notched so that the cross-section is reduced below 50 percent or the girder is top bearing, sills, beams or girders shall be attached using 3/16 × 4 × 18-inch (5 × 102 × 467 mm) hot dip galvanized straps, one each side, bolted with two 5/8 inch (15.9 mm) galvanized through bolts fastened top and bottom with either bolts or screws in accordance with Table R4603.6 and Figure R4603.6(b) and Figure R4503.6(e) R4603.6(c). Where butt joints occur over the piling and screws are used, there shall be two straps on each side of the piling, having a minimum size of 3/16 by 2 by 18 inches (5 × 51 × 467 mm), with four self-drilling screws as described in each end.

**Table R4603.6 Minimum Fastening of Beams and Girders to Pilings**

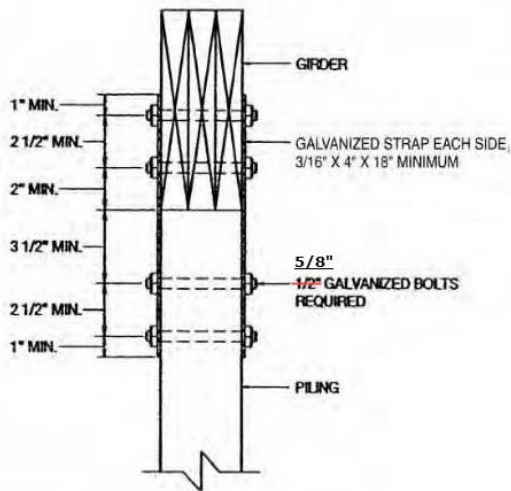
<u>Amount Piling is Notched</u>	<u>Beam/Girder Continuous</u>		<u>Beam/Girder Butt Joint</u>	
	<u>Bolts</u>	<u>Screws</u>	<u>Bolts</u>	<u>Screws</u>
<u>≤ 50%</u>	<u>two 5/8" bolts<sup>2</sup></u>	<u>four screws<sup>3</sup></u>	<u>four 5/8" bolts<sup>2</sup></u>	<u>eight screws<sup>3</sup></u>
<u>≥ 50%<sup>1</sup></u>	<u>two 5/8" bolts<sup>2</sup></u>	<u>four screws<sup>3</sup></u>	<u>four 5/8" bolts<sup>3</sup></u>	<u>eight screws</u>

1. Where piling is notched over 50%, use strap as required in Section 4603.6. Install the specified number of bolts or screws in each end of the strap.
2. Bolts shall be 5/8" diameter hot dipped galvanized through bolts with nuts and washers.
3. Screws shall be 0.270" (6.9 mm) minimum in diameter, hot dipped galvanized to a minimum of A153, Class C, and having a minimum length of 4", and also shall be long enough to penetrate at least one inch through the remaining pile and into the girder.

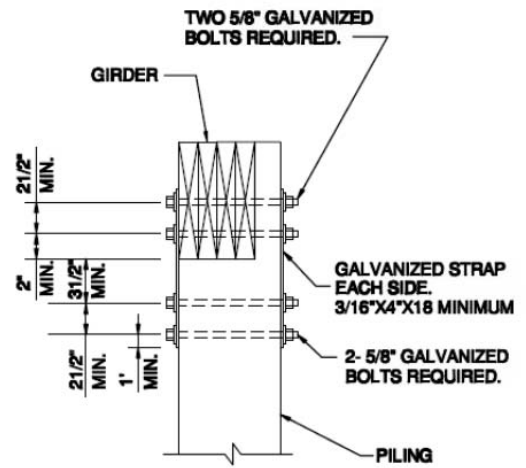
**R4603.6.1 Tying at corners.** At corners, girders shall be connected to the pile with a minimum 3/16 × 4 × 18-inch (5 × 102 × 467 mm) hot dip galvanized strap bolted with two 5/8 inch (15.9 mm) galvanized through bolts on the exterior and a minimum L4 x 3/16 x 1'-6" (102 × 5 × 467 mm) galvanized steel angle bolted with two 5/8 inch (15.9 mm) galvanized through bolts on the interior in accordance with Figure R4603.6(d).

**R4603.6.2 Bracing of Pilings.** Bracing of pile foundations is required where the clear height from ground to sill, beam or girder exceeds 10 feet (3048 mm) or the dwelling is more than one story above piles. A line of X-bracing is defined as a row of piles with X-bracing provided in at least two bays. A line of X-bracing shall be provided at all exterior pile lines. Where the perimeter lines of X-bracing exceed 40 feet (12 192 mm), an additional line of X-bracing shall be provided near the center of the building. See Figure R4603.6(e). X-bracing shall be with 2 × 10s through bolted with two 3/4-inch (19.1 mm) bolts at each end. The code official is permitted to accept alternate bracing designs if they bear the seal of a registered design professional.

Revise Figures as follows:



**FIGURE R4603.6(b)  
TOP MOUNTED GIRDER**



**FIGURE R4603.6(c)  
PILING NOTCHED MORE THAN 50%**

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

**AM105.1 General.**

Girders shall bear directly on the support post with the post attached at top to prevent lateral displacement or be connected to the side of the posts ~~with two 5/8 inch (16 mm) hot dip galvanized bolts with nut and washer~~ with one of the methods shown in Table AM105.1. Girder support is permitted to be installed in accordance with Figure AM105.1(1) for top mount; Figure AM105.1(2) for side mount and Figure AM105.1(3) for split girders. See Figure AM105.1(4) for cantilevered girders.

**Table AM105.1 Girder Connection to Side of Post**

<u>Maximum Girder Thickness</u>		
<u>Any</u>	<u>3" (Double 2X)</u>	<u>1-1/2" (Single 2X)</u>
<u>Two 5/8" diameter bolts<sup>1</sup></u>	<u>Four 6" long screws<sup>2</sup></u>	<u>Three 4" long screws<sup>2</sup></u>

1. Bolts shall be hot dip galvanized through bolts with nut and washer
2. Screws shall be hot dipped galvanized self-drilling screw fastener having a minimum diameter of 0.270", staggered so that the screws are not in a line, and having a minimum edge distance of 1-1/2 inches.

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

REQUEST FOR TECHNICAL CHANGE

AGENCY: Building Code Council

RULE CITATION: 2018 NC Fire Prevention Code, 314.4

**DEADLINE FOR RECEIPT: Wednesday, November 7, 2018**

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In reviewing this Rule, the staff recommends the following technical changes be made:

*In Exception 1, consider stating “prohibits the disconnection...”*

*Also, please end the sentence with a period.*

*In Exception 2, why isn't “Diesel-fueled” hyphenated, as it is in Exception 1?*

*Consider stating “vehicles, the maximum...”*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: October 24, 2018

2018 NC Fire Prevention Code  
314.4 Vehicles. (180313 Item B-9)

**314.4 Vehicles.** Liquid- or gas-fueled vehicles, boats or other motorcraft shall not be located indoors except as follows:

1. Batteries are disconnected.

Exception: Alternative-Fueled vehicles in which manufacturer prohibits disconnection of power supply

2. Fuel in fuel tanks does not exceed one-quarter tank or 5 gallons (19L) (whichever is least).

Exception: Diesel fueled vehicles-maximum fuel amount permitted shall be 20 gallons.

3. Fuel tanks and fill openings are closed and sealed to prevent tampering and the release of vapors.

4. Vehicles, boats or other motorcraft equipment are not fueled or defueled within the building.

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

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

**[BE] 1010.1.9.11 Stairway doors.**

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

Exceptions:

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
2. This section shall not apply to doors arranged in accordance with Section 403.5.3 of the International Building Code.
3. ~~In stairways serving not more than four stories, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.~~
3. Stairway exit doors are permitted to be locked from the side opposite the egress side, provided that they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building and upon activation of the fire alarm if present.
4. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F, M and S occupancies where the only interior access to the tenant space is from a single exit stairway where permitted in Section 1006.3.2.
5. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the dwelling unit is from a single exit stairway where permitted in Section 1006.3.2.
6. ~~In other than high rise, stairways serving floors above a 3 hour horizontal building separation, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon activation of the building fire alarm system.~~

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

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

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

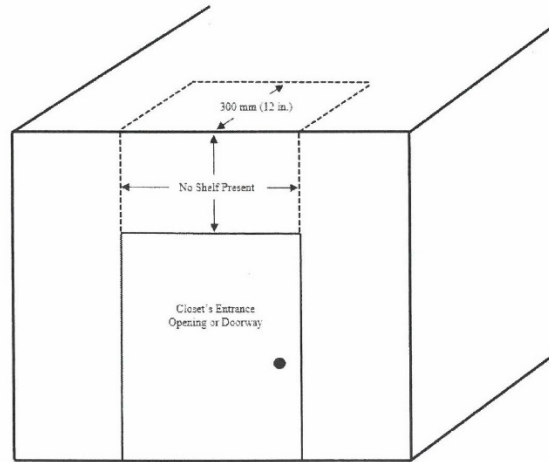
**410.2 Definition.**

**Closet Storage Space.** The volume bounded by the sides and back closet walls and planes extending from the closet floor vertically to a height of 1.8 m (6 ft) or to the highest clothes-hanging rod and parallel to the walls at a horizontal distance of 600 mm (24 in.) from the sides and back of the closet walls, respectively, and continuing vertically to the closet ceiling parallel to the walls at a horizontal distance of 300 mm (12 in.) or the width of the shelf, whichever is greater; for a closet that permits access to both sides of a hanging rod, this space includes the volume below the highest rod extending 300 mm (12 in.) on either side of the rod on a plane horizontal to the floor extending the entire length of the rod. See Figure 410.2.

Exception:

Where a shelf is not present in the area of wall above the closet's entrance opening or doorway extending from the top of such opening or doorway vertically to the ceiling, including the area of ceiling extending perpendicular from the area of wall directly above the closet's entrance opening or doorway to a horizontal distance of 300 mm (12 in.), shall not be defined as closet storage space. See Figure 410.2

Exception.



**Figure 410.2 Exception Closet Storage Space Exception**

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

**410.16 Luminaires in Clothes Closets.**

**(C) Location.** The minimum clearance between luminaires installed in clothes closets and the nearest point of a closet storage space shall be as follows:

- (1) 300 mm (12 in.) for surface-mounted incandescent or LED luminaires with a completely enclosed light source installed on the wall above the door or on the ceiling.
- (2) 150 mm (6 in.) for surface-mounted fluorescent luminaires installed on the wall above the door or on the ceiling.
- (3) 150 mm (6 in.) for recessed incandescent or LED luminaires with a completely enclosed light source installed in the wall or the ceiling.
- (4) 150 mm (6 in.) for recessed fluorescent luminaires installed in the wall or the ceiling.
- (5) Surface-mounted fluorescent or LED luminaires shall be permitted to be installed within the closet storage space where identified for this use.
- (6) LED luminaires with a completely enclosed light source or fluorescent luminaires shall be permitted to be installed within the area defined in 410.2 Exception.

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