## 1309.0602 SECTION R602, WOOD WALL FRAMING.

Subpart 1. **IRC Table R602.3.1.** Table R602.3.1 is amended to read as follows:

TABLE R602.3.1

MAXIMUM ALLOWABLE LENGTH OF WOOD WALL STUDS EXPOSED TO WIND SPEEDS OF 115 MPH OR LESS[b,c,d,e,f,g,h,i,j]

Where conditions are not within the parameters of footnotes "b," "c," "d," "e," "f," "g," "h," "i," and "j," design is required.

ROOF SPANS UP TO 22' SUPPORTING A ROOF ONLY

| Maximum Wall Height (feet) | Exposure Category[h,i] | On-Center Spacing (inches) | | | |
|---|---|---|---|---|---|
| | | 24 | 16 | 12 | 8 |
| 10 | B | 2x6 | 2x4 | 2x4 | 2x4 |
| | C | 2x6 | 2x6 | 2x4 | 2x4 |
| 12 | B | 2x6 | 2x6 | 2x4 | 2x4 |
| | C | 2x6 | 2x6 | 2x6 | 2x4 |
| 14 | B | 2x6 | 2x6 | 2x6 | 2x4 |
| | C | 2x6 | 2x6 | 2x6 | 2x6 |
| 16 | B | 2x8 | 2x6 | 2x6 | 2x6 |
| | C | 2x8 | 2x6 | 2x6 | 2x6 |
| 18 | B | 2x8 | 2x8 | 2x6 | 2x6 |
| | C | 2x8 | 2x8 | 2x6 | 2x6 |
| 20 | B | 2x8 | 2x8 | 2x8 | 2x6 |
| | C | NA[a] | 2x8 | 2x8 | 2x6 |
| 24 | B | NA[a] | 2x8 | 2x8 | 2x8 |
| | C | NA[a] | NA[a] | 2x8 | 2x8 |

ROOF SPANS GREATER THAN 22' AND UP TO 26' SUPPORTING A ROOF ONLY

| Maximum Wall Height (feet) | Exposure Category[h,i] | On-Center Spacing (inches) | | | |
|---|---|---|---|---|---|
| | | 24 | 16 | 12 | 8 |
| 10 | B | 2x6 | 2x6 | 2x4 | 2x4 |
| | C | 2x6 | 2x6 | 2x6 | 2x4 |
| 12 | B | 2x6 | 2x6 | 2x6 | 2x4 |
| | C | 2x8 | 2x6 | 2x6 | 2x6 |
| 14 | B | 2x6 | 2x6 | 2x6 | 2x6 |
| | C | 2x8 | 2x8 | 2x6 | 2x6 |
| 16 | B | 2x8 | 2x6 | 2x6 | 2x6 |
| | C | 2x8 | 2x8 | 2x6 | 2x6 |
| 18 | B | 2x8 | 2x8 | 2x6 | 2x6 |
| | C | NA[a] | 2x8 | 2x8 | 2x6 |
| 20 | B | NA[a] | 2x8 | 2x8 | 2x6 |
| | C | NA[a] | NA[a] | 2x8 | 2x8 |
| 24 | B | NA[a] | NA[a] | 2x8 | 2x8 |
| | C | NA[a] | NA[a] | NA[a] | 2x8 |

ROOF SPANS GREATER THAN 26' AND UP TO 30' SUPPORTING A ROOF ONLY

| Maximum Wall Height (feet) | Exposure Category[h,i] | On-Center Spacing (inches) | | | |
|---|---|---|---|---|---|
| | | 24 | 16 | 12 | 8 |
| 10 | B | 2x6 | 2x6 | 2x4 | 2x4 |
| | C | 2x6 | 2x6 | 2x6 | 2x4 |
| 12 | B | 2x6 | 2x6 | 2x6 | 2x4 |

| | | | | | |
|---|---|---|---|---|---|
| | C | 2x8 | 2x6 | 2x6 | 2x6 |
| 14 | B | 2x8 | 2x6 | 2x6 | 2x6 |
| | C | 2x8 | 2x8 | 2x6 | 2x6 |
| 16 | B | 2x8 | 2x6 | 2x6 | 2x6 |
| | C | 2x8 | 2x8 | 2x8 | 2x6 |
| 18 | B | 2x8 | 2x8 | 2x6 | 2x6 |
| | C | NA[a] | 2x8 | 2x8 | 2x8 |
| 20 | B | NA[a] | 2x8 | 2x8 | 2x6 |
| | C | NA[a] | NA[a] | 2x8 | 2x8 |
| 24 | B | NA[a] | NA[a] | 2x8 | 2x8 |
| | C | NA[a] | NA[a] | NA[a] | 2x8 |

ROOF SPANS GREATER THAN 30' AND UP TO 34' SUPPORTING A ROOF ONLY

| Maximum Wall Height (feet) | Exposure Category[h,i] | On-Center Spacing (inches) | | | |
|---|---|---|---|---|---|
| | | 24 | 16 | 12 | 8 |
| 10 | B | 2x6 | 2x6 | 2x4 | 2x4 |
| | C | 2x6 | 2x6 | 2x6 | 2x4 |
| 12 | B | 2x6 | 2x6 | 2x6 | 2x4 |
| | C | 2x8 | 2x6 | 2x6 | 2x6 |
| 14 | B | 2x8 | 2x6 | 2x6 | 2x6 |
| | C | 2x8 | 2x8 | 2x6 | 2x6 |
| 16 | B | 2x8 | 2x8 | 2x6 | 2x6 |
| | C | NA[a] | 2x8 | 2x8 | 2x6 |
| 18 | B | 2x8 | 2x8 | 2x6 | 2x6 |
| | C | NA[a] | NA[a] | 2x8 | 2x8 |
| 20 | B | NA[a] | 2x8 | 2x8 | 2x6 |

| | | | | | |
|---|---|---|---|---|---|
| | C | NA[a] | NA[a] | 2x8 | 2x8 |
| 24 | B | NA[a] | NA[a] | 2x8 | 2x8 |
| | C | NA[a] | NA[a] | NA[a] | 2x8 |

[a] Design required.

[b] Applicability of these tables assumes the following: SPF#2 or better, Ground snow = 60 psf, Roof snow = 42 psf, Component and Cladding Zone 4 - 50 square feet (Exposure B = 14.3 psf, Exposure C = 18.4 psf), eaves not greater than 2.0 feet in dimension.

[c] The exterior of the wall shall be continuously sheathed in accordance with one of the materials listed in items 30 to 36 in Table R602.3(1), including the prescribed fastening. All wall bracing requirements shall be in accordance with Section R602.10.

[d] Studs shall be continuous full height. Where studs do not extend full height due to a wall opening, full height studs shall be provided on each side of the opening, equal in number to the spacing of the required full height studs multiplied by half the width of the opening, plus one stud. Where multiple openings occur adjacent to one another, framing between openings shall include the total of all full height studs required for both openings combined.

[e] Full depth blocking is required at 10-foot spacing maximum.

[f] Utility, standard, stud, and No. 3 grade lumber of any species are not permitted.

[g] This table is based on a maximum allowable deflection limit of L/120.

[h] Where the sill plate of the frame wall bears on the supporting foundation and the frame wall is less than 12 feet in height, anchor the sill plate to the supporting foundation wall with 1/2-inch diameter anchor bolts spaced a maximum of 6 feet on center. For frame walls more than 12 feet but not exceeding 24 feet in height, anchor the sill plate to the supporting foundation wall with 1/2-inch diameter anchor bolts spaced a maximum of 3 feet on center.

[i] Where the sill plate of the frame wall bears on the supporting floor framing, it shall be fastened to the rim board through the subfloor using 8d common (3-1/2 by 0.131) nails or equivalent fastening spaced at 6 inches on center.

[j] For frame walls up to 20 feet in height, fasten the studs to the top and sole plates in accordance with Table R602.3(1). For frame walls that are more than 20 feet in height, fasten the studs to the top plate and sole plate using fastening or an approved fastener that is capable of supporting at least 450 pounds.

Subp. 2. [Repealed, 44 SR 764]

**Statutory Authority:** *MS s 16B.59; 16B.61; 16B.64; 326B.02; 326B.101; 326B.106; 326B.13*

**History:** *32 SR 12; L 2007 c 140 art 4 s 61; art 13 s 4; 39 SR 91; 44 SR 764*

**Published Electronically:** *March 31, 2020*