



ERRATA
to the 2012 Edition of
the Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings
(web version dated 11-11)

Page **Revision**

254 Revise footnote “a” in Table 3.20B Footnotes as follows:

- a. Maximum stud lengths in Table 3.20B are based on interior zone loads and assume that all studs are covered on the inside with a minimum of 1/2 inch gypsum wallboard, attached in accordance with minimum building code requirements and sheathed on the exterior side with a minimum of 3/8 inch wood structural panel sheathing with all panel joints occurring over studs or blocking and attached using a minimum 8d common nails spaced a maximum of 6" on center at panel edges and 12" on center at intermediate framing members. To address additional end zone loading requirements, end zone stud spacings shall be multiplied by 0.80 for framing located within 4 feet of corners. The additional bending capacity provided by the reduced stud spacing is assumed to be sufficient to resist the additional end zone loading requirements.



2015 ADDENDUM
to
ANSI/AWC WFCM-2012
WOOD FRAME CONSTRUCTION MANUAL FOR ONE- AND TWO-FAMILY DWELLINGS
(electronic versions dated November 2011 and November 2014 and printed version dated October 2013)

Effective June 1, 2013, the following tables in the 2012 Wood-Frame Construction Manual (WFCM) are revised to reflect changes to all grades of 2x4, 2x6, 2x8, 2x10, and 2x12 Southern Pine.

2012 WFCM Table	Page Reference	Description	Action
Tables 2.2C and 3.4C	65, 174, and 175	Rake Overhang Outlooker Uplift Connection Loads/Requirements	Revise Tables 2.2C and 3.4C as shown below.

Table 2.2C Rake Overhang Outlooker Uplift Connection Loads

700-yr. Wind Speed 3-second gust (mph)	110	115	120	130	140	150	160	170	180	195
Outlooker Spacing (in.)	Uplift Connection Loads (lbs.) ^{1,2,3}									
12	187	205	223	262	304	349	397	448	502	589
16	250	273	298	349	405	465	529	597	669	786
24	375	410	446	524	607	697	793	896 ⁴	1004 ⁴	1178 ⁴

- 1 Tabulated outlooker uplift connection loads assume a building located in Exposure B with a mean roof height of 33 feet. For buildings located in other exposures, or with mean roof heights less than 33 feet, the tabulated values shall be multiplied by the appropriate adjustment factor in Section 2.1.3.1.
- 2 Tabulated outlooker uplift connection loads are based on 2 foot overhangs. For overhangs less than 2 feet, tabulated values shall be permitted to be multiplied by $[(2' + OH)/4']^2$ (OH measured in feet).
- 3 For overhangs located in Zone 2 per the figures of Table 2.4, tabulated uplift loads shall be permitted to be multiplied by 0.65.
- 4 Outlooker overhang length shall be limited to 20 inches. See footnote 2 to calculate reduced uplift connection load.

Table 3.4C Rake Overhang Outlooker Uplift Connection Requirements

Exposure B

700-yr. Wind Speed 3-second gust (mph)	110	115	120	130	140	150	160	170	180	195
Outlooker Spacing (in.)	Uplift Connection Loads (lbs.) ^{1,2}									
12	187	205	223	262	304	349	397	448	502	589
16	250	273	298	349	405	465	529	597	669	786
24	375	410	446	524	607	697	793	896 ³	1004 ³	1178 ³

- 1 Tabulated outlooker uplift connection loads are based on 2 foot overhangs. For overhangs less than 2 feet, tabulated values shall be permitted to be multiplied by $[(2' + OH)/4']^2$ (OH measured in ft.).
- 2 For overhangs located in Zone 2 per the figures of Table 2.4, tabulated uplift loads shall be permitted to be multiplied by 0.65.
- 3 Outlooker overhang length shall be limited to 20 inches. See footnote 1 to calculate reduced uplift connection load.

CONTINUED ON NEXT PAGE

Table 3.4C Rake Overhang Outlooker Uplift Connection Requirements**Exposure C**

700-yr. Wind Speed 3-second gust (mph)	110	115	120	130	140	150	160	170	180	195
Outlooker Spacing (in.)	Uplift Connection Loads (lbs.) ^{1,2}									
12	260	285	310	364	422	484	551	622	697	818
16	347	379	413	485	562	646	735	829	930 ³	1091 ³
24	521	569	620	727	844	968 ³	1102 ³	1244 ³	1395 ³	1637 ^{3,4}

- 1 Tabulated outlooker uplift connection loads are based on 2 foot overhangs. For overhangs less than 2 feet, tabulated values shall be permitted to be multiplied by $[(2' + OH)/4']^2$ (OH measured in ft.).
- 2 For overhangs located in Zone 2 per the figures of Table 2.4, tabulated uplift loads shall be permitted to be multiplied by 0.65.
- 3 Outlooker overhang length shall be limited to 20 inches. See footnote 1 to calculate reduced uplift connection load.
- 4 Outlooker overhang length shall be limited to 16 inches. See footnote 1 to calculate reduced uplift connection load.

November 2014

ERRATA
to the 2012 Edition of
the Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings
(web version dated 11-11)

Page **Revision**

68 In Table 2.5A, delete reference to footnote 2 from the column header as follows:

Unit Lateral Loads for Roof Diaphragm, $w_{\text{roof},L}$, (plf) ^{1,2,3,4,5}

69 In Table 2.5B, delete reference to footnote 2 from the column header as follows:

Unit Lateral Loads for Roof Diaphragm, $w_{\text{roof},L}$, (plf) ^{1,2,3,4,5}

84 Replace Table 2.9C with revised Table 2.9C as shown in this Attachment.

199-

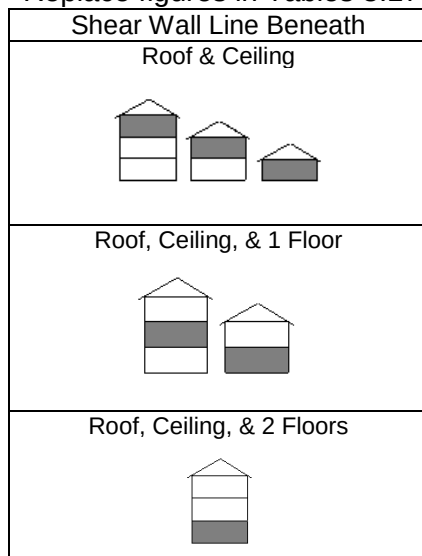
200 Replace Table 3.15 with revised Table 3.15 as shown in this Attachment.

202-

206 Replace Tables 3.16A and B with revised Tables 3.16A and B as shown in this Attachment.

214-

216 Replace figures in Tables 3.17C1, C2, and C3 with the following:



Reason for figure replacement: Shear wall sheathing length requirements for seismic in Tables 3.17C are based on seismic weight and are not based on a specific roof ridge-to-eave height as for wind.

Page Revision

219 In Table 3.17D, revise edge spacing as follows:

7/16" Wood Structural Panels (Blocked), maximum stud spacing 24" on center	8d common nails - 4" edge spacing						
No Sheathing or Non-Rated Sheathing		451	322	3.5:1	2:1 ⁴	0.97	0.74
1/2" Gypsum Wallboard (Unblocked) ²	5d cooler nails - 7" edge spacing	526	322	3.5:1	2:1 ⁴	0.83	0.74
7/16" Wood Structural Panels (Blocked)	8d common nails - 6" 4" edge spacing	902	644	3.5:1	2:1 ⁴	0.48	0.37
15/32" Wood Structural Panels (Blocked), maximum stud spacing 24" on center	8d common nails - 4" edge spacing						
No Sheathing or Non-Rated Sheathing		490	350	3.5:1	2:1 ⁴	0.89	0.68
1/2" Gypsum Wallboard (Unblocked) ²	5d cooler nails - 7" edge spacing	565	350	3.5:1	2:1 ⁴	0.77	0.68
7/16" Wood Structural Panels (Blocked)	8d common nails - 6" 4" edge spacing	980	700	3.5:1	2:1 ⁴	0.44	0.34

254 Revise Footnote "a" for Table 3.20B as follows:
Maximum stud lengths in Table 3.20B are based on interior zone loads and assume that all studs are covered on the inside with a minimum of 1/2 inch gypsum wallboard, attached in accordance with minimum building code requirements and sheathed on the exterior side with a minimum of 3/8 inch wood structural panel sheathing with all panel joints occurring over studs or blocking and attached using a minimum 8d common nails spaced a maximum of 6" on center at panel edges and 12" on center at intermediate framing members. To address additional end zone loading requirements, end zone stud spacings shall be multiplied by 0.80. The additional bending capacity provided by the ~~wood structural panels or~~ reduced stud spacing is assumed to be sufficient to resist the additional end zone loading requirements.

255 In Table 3.21, revise number of 16d common nails for 36 ft. building dimension of wall as follows:

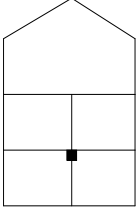
Building Dimension of Wall Containing Top Plate Splice (ft)	Number of 16d Common Nails per Each Side of Splice ^{1,2,3}
36	10 14

272,
274 Revise the titles to Table 3.24A (dropped headers) and Table 3.24B (dropped headers) as follows:
Table 3.24A 1 Laterally Unsupported (Dropped) Header Spans for Interior Loadbearing Walls
Table 3.24B 1 Laterally Unsupported (Dropped) Header Spans for Interior Loadbearing Walls

273,
275 Replace Table 3.24A (raised headers) and Table 3.24B (raised headers) with revised Table 3.24A2 and Table 3.24B2, respectively, as shown in this Attachment.

Page Revision

276 In Table 3.24C, revise header span column for header supporting two floors as follows:

Header Supporting	Header Span (ft)
Two Floors (Center Bearing) 	20 <u>2</u>
	0 <u>4</u>
	2 <u>6</u>
	4 <u>8</u>
	6 <u>10</u>
	8 <u>12</u>
	10 <u>14</u>
	16
	18
	20

279 Revise the title to Table 3.25B as follows:
(Uninhabitable Attics ~~Without~~ With Limited Storage, Live Load = 20 psf, $L/\Delta = 240$)

281 Revise the title to Table 3.26B as follows:
(Ceiling ~~Not~~ Attached to Rafters, Live Load = 20 psf, $L/\Delta = 240$)

285 Revise the title to Table 3.26D as follows:
(Ceiling ~~Not~~ Attached to Rafters, Ground Snow Load = 30 psf, $L/\Delta = 240$)

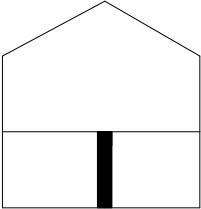
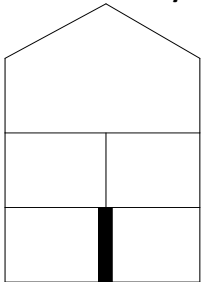
287 Revise the title to Table 3.26F as follows:
(Ceiling ~~Not~~ Attached to Rafters, Ground Snow Load = 50 psf, $L/\Delta = 240$)

289 Revise the title to Table 3.26H as follows:
(Ceiling ~~Not~~ Attached to Rafters, Ground Snow Load = 70 psf, $L/\Delta = 240$)

293 Replace Table 3.29 with revised Table 3.29 as shown in this Attachment.

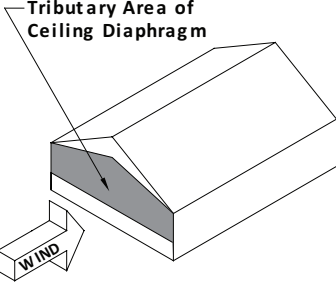
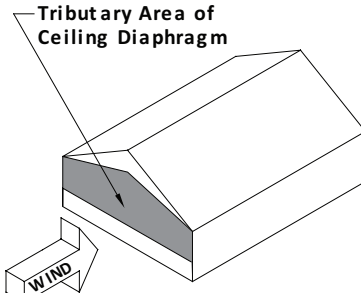
Table 2.9C Interior Loadbearing Wall Stud Compression Stresses from Live Loads

(Dead Load Assumptions: Wall Assembly DL = 121plf, Floor Assembly DL = 10 psf,
Floor LL = 40 psf)

Loadbearing Wall Supporting	Stud Spacing	Stud Size	Building Width (ft)			
			12	24	36	60
			Induced f_c (psi) ¹			
1 Floor Only 	12 in.	2x4	80	137	194	309
		2x6	51	87	124	196
		2x8	39	66	94	149
	16 in.	2x4	107	183	259	412
		2x6	68	117	165	262
		2x8	52	88	125	199
	24 in.	2x4	160	275	389	618
		2x6	102	175	248	393
		2x8	77	133	188	298
2 Floors Only 	12 in.	2x4	160	275	389	618
		2x6	102	175	248	393
		2x8	77	133	188	298
	16 in.	2x4	214	366	519	823
		2x6	136	233	330	524
		2x8	103	177	250	397
	24 in.	2x4	321	549	778	1235
		2x6	204	350	495	786
		2x8	155	265	376	596

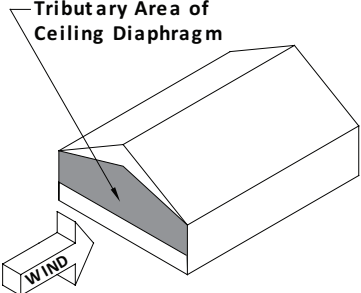
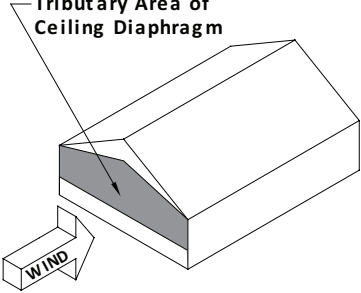
- ¹ Tabulated compression stresses (f_c) shall be less than or equal to the allowable compression perpendicular to grain design value ($F_{c\perp}$) for top and bottom plates, and less than or equal to the allowable compression parallel to grain design value ($F_{c\parallel}$) for studs.

Table 3.15 Minimum Attic Floor/Ceiling Length When Bracing Gable Endwall for Wind Loads**Exposure B**

700-yr. Wind Speed 3-second gust (mph)			110	115	120	130	140	150	160	170	180	195
Assemblies	Roof Pitch	Roof Span (ft)	Length of Ceiling Diaphragm (ft) ^{1,2,3} (measured perpendicular to gable endwall)									
Sheathing Grade: Sheathing and Single-Floor Attic Floor or Ceiling Diaphragm Bracing Gable Endwall (Wind Parallel to Ridge) 	1:12-3:12	12	4	4	4	4	4	4	4	4	4	4
		24	8	8	8	8	8	8	8	8	8	8
		36	12	12	12	12	12	12	12	12	12	13
	4:12	12	4	4	4	4	4	4	4	4	4	4
		24	8	8	8	8	8	8	8	8	8	9
		36	12	12	12	12	12	12	12	12	12	14
	5:12	12	4	4	4	4	4	4	4	4	4	5
		24	8	8	8	8	8	8	8	8	8	9
		36	12	12	12	12	12	12	12	12	12	14
	6:12	12	4	4	4	4	4	4	4	4	4	5
		24	8	8	8	8	8	8	8	8	8	9
		36	12	12	12	12	12	12	12	12	13	15
	7:12	12	4	4	4	4	4	4	4	4	4	5
		24	8	8	8	8	8	8	8	8	8	10
		36	12	12	12	12	12	12	12	12	14	16
Gypsum Ceiling Diaphragm Bracing Gable Endwall (Wind Parallel to Ridge) ⁴ 	1:12-3:12	12	5	5	5	6	7	8	9	10	11	13
		24	9	9	10	12	14	16	18	20	23	26
		36	13	15	16	19	22	25	28	32	35	41
	4:12	12	5	5	5	6	7	8	9	10	12	14
		24	9	10	11	12	14	16	19	21	23	27
		36	14	16	17	20	23	26	30	33	37	44
	5:12	12	5	5	6	6	7	8	10	11	12	14
		24	9	10	11	13	15	17	19	22	24	29
		36	15	16	18	21	24	28	31	35	40	46
	6:12	12	5	5	6	7	8	9	10	11	12	14
		24	10	11	12	13	16	18	20	23	25	30
		36	16	17	19	22	25	29	33	37	42	49
	7:12	12	5	5	6	7	8	9	10	11	12	14
		24	10	11	12	14	16	18	21	24	26	31
		36	17	18	20	23	27	31	35	39	44	51
	8:12	12	5	5	6	7	8	9	10	11	13	15
		24	11	11	12	14	17	19	22	24	27	32
		36	17	19	21	24	28	32	36	41	46	54
	9:12	12	5	6	6	7	8	9	10	12	13	15
		24	11	12	13	15	17	20	22	25	28	33
		36	18	20	22	25	29	34	38	43	48	56
	10:12	12	5	6	6	7	8	9	11	12	13	15
		24	11	12	13	15	18	20	23	26	29	34
		36	19	21	23	26	31	35	40	45	50	59
	11:12	12	5	6	6	7	8	9	11	12	13	16
		24	12	13	14	16	18	21	24	27	30	35
		36	20	22	24	28	32	36	41	47	52	61
	12:12	12	5	6	6	7	8	10	11	12	14	16
		24	12	13	14	16	19	22	25	28	31	36
		36	21	23	24	29	33	38	43	49	54	64

See footnotes 1-4.

Table 3.15 Minimum Attic Floor/Ceiling Length When Bracing Gable Endwall for Wind Loads**Exposure C**

700-yr. Wind Speed 3-second gust (mph)			110	115	120	130	140	150	160	170	180	195
Assemblies	Roof Pitch	Roof Span (ft)	Length of Ceiling Diaphragm (ft) ^{1,2,3} (measured perpendicular to gable endwall)									
Sheathing Grade: Sheathing and Single-Floor Attic Floor or Ceiling Diaphragm Bracing Gable Endwall (Wind Parallel to Ridge) 	1:12-3:12	12	4	4	4	4	4	4	4	5	5	6
		24	8	8	8	8	8	8	8	9	10	11
		36	12	12	12	12	12	12	12	13	15	18
	4:12	12	4	4	4	4	4	4	4	5	5	6
		24	8	8	8	8	8	8	8	9	10	12
		36	12	12	12	12	12	12	13	14	16	19
	5:12	12	4	4	4	4	4	4	4	5	5	6
		24	8	8	8	8	8	8	8	9	11	12
		36	12	12	12	12	12	12	13	15	17	20
	6:12	12	4	4	4	4	4	4	4	5	5	6
		24	8	8	8	8	8	8	9	10	11	13
		36	12	12	12	12	12	12	14	16	18	21
	7:12	12	4	4	4	4	4	4	4	5	5	6
		24	8	8	8	8	8	8	9	10	11	13
		36	12	12	12	12	12	13	15	17	19	22
	8:12	12	4	4	4	4	4	4	5	5	6	6
		24	8	8	8	8	8	8	9	11	12	14
		36	12	12	12	12	12	14	16	17	20	23
	9:12	12	4	4	4	4	4	4	5	5	6	7
		24	8	8	8	8	8	9	10	11	12	14
		36	12	12	12	12	13	14	16	18	20	24
	10:12	12	4	4	4	4	4	4	5	5	6	7
		24	8	8	8	8	8	9	10	11	13	15
		36	12	12	12	12	13	15	17	19	21	25
	11:12	12	4	4	4	4	4	4	5	5	6	7
		24	8	8	8	8	8	9	10	12	13	15
		36	12	12	12	12	14	16	18	20	22	26
	12:12	12	4	4	4	4	4	4	5	5	6	7
		24	8	8	8	8	8	9	11	12	13	16
		36	12	12	12	12	14	16	18	21	23	27
Gypsum Ceiling Diaphragm Bracing Gable Endwall (Wind Parallel to Ridge)⁴ 	1:12-3:12	12	6	7	7	8	10	11	12	14	16	18
		24	12	13	14	16	19	22	25	28	31	36
		36	19	20	22	26	30	34	39	44	49	57
	4:12	12	6	7	7	9	10	11	13	14	16	19
		24	12	14	15	17	20	23	26	29	32	38
		36	20	21	23	27	32	36	41	46	52	61
	5:12	12	6	7	8	9	10	12	13	15	16	19
		24	13	14	15	18	21	24	27	30	34	40
		36	21	23	25	29	33	38	43	49	55	64
	6:12	12	7	7	8	9	10	12	13	15	17	20
		24	13	15	16	19	21	25	28	31	35	41
		36	22	24	26	30	35	40	46	51	58	68
	7:12	12	7	7	8	9	11	12	14	15	17	20
		24	14	15	16	19	22	25	29	33	36	43
		36	23	25	27	32	37	42	48	54	61	71
	8:12	12	7	7	8	9	11	12	14	16	17	20
		24	14	16	17	20	23	26	30	34	38	44
		36	24	26	29	33	39	44	50	57	64	75
	9:12	12	7	8	8	10	11	12	14	16	18	21
		24	15	16	18	21	24	27	31	35	39	46
		36	25	27	30	35	40	46	53	59	67	78
	10:12	12	7	8	8	10	11	13	14	16	18	21
		24	15	17	18	21	25	28	32	36	40	47
		36	26	29	31	36	42	48	55	62	70	81
	11:12	12	7	8	8	10	11	13	15	17	18	22
		24	16	17	19	22	25	29	33	37	42	49
		36	27	30	32	38	44	50	57	65	72	85
	12:12	12	7	8	9	10	12	13	15	17	19	22
		24	16	18	19	23	26	30	34	38	43	50
		36	28	31	34	40	46	53	60	67	75	88

See footnotes 1-4.

Table 3.16A1 Roof Diaphragm Limits for Wind ¹

(Applicable to All Roof Slopes with and without Roof Irregularities)

**Exposure B
All Slopes**

700-yr. Wind Speed 3-second gust (mph)		110	115	120	130	140	150	160	170	180	195		
Maximum Top Plate to Ridge Height (ft)	Roof Diaphragm Width (ft) ²	Roof Diaphragm Length (ft) ³											
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
5	12	4	36	4	36	4	36	4	36	4	35	4	31
	16	6	48	6	48	6	48	6	48	6	47	6	42
	20	7	60	7	60	7	60	7	60	7	59	7	52
	24	8	72	8	72	8	72	8	72	8	71	8	63
	28	10	80	10	80	10	80	10	80	10	80	10	74
	32	11	80	11	80	11	80	11	80	11	80	12	75
	36	12	80	12	80	12	80	12	80	12	80	14	80
10	12	4	36	4	36	4	36	4	33	5	28	5	25
	16	6	48	6	48	6	48	6	44	6	38	7	33
	20	7	60	7	60	7	60	7	55	7	48	8	42
	24	8	72	8	72	8	72	8	66	9	57	10	50
	28	10	80	10	80	10	80	10	77	10	67	11	59
	32	11	80	11	80	11	80	11	80	12	77	13	67
	36	12	80	12	80	12	80	12	80	13	80	15	76
15	12	4	36	4	36	4	35	4	29	5	25	6	22
	16	6	48	6	48	6	46	6	39	7	34	7	29
	20	7	60	7	60	7	58	7	49	8	42	9	37
	24	8	72	8	72	8	70	8	59	10	51	11	44
	28	10	80	10	80	10	80	10	69	11	60	13	52
	32	11	80	11	80	11	80	11	79	13	68	14	59
	36	12	80	12	80	12	80	12	80	14	77	16	67
20	12	4	34	4	31	4	28	5	24	6	21	7	18
	16	6	45	6	41	6	38	7	32	8	28	9	24
	20	7	56	7	52	7	47	8	40	10	35	11	30
	24	8	68	8	62	8	57	10	48	11	42	13	36
	28	10	79	10	72	10	66	11	57	13	49	15	42
	32	11	80	11	80	11	76	13	65	15	56	17	48
	36	12	80	12	80	12	80	14	73	17	63	19	55

1 Roof sheathing applied with long dimension perpendicular to roof framing and staggered.

2 Roof diaphragm width dimension measured parallel to direction of framing span.

3 Roof diaphragm length dimension measured perpendicular to direction of framing span.

Table 3.16A2 Roof Diaphragm Limits for Wind ¹

(Applicable to Simple Gable and Hip Roofs with Roof Slopes $\leq 6:12$
without Roof Irregularities (dormers, accent panels, etc))

Exposure B Low Slopes

700-yr. Wind Speed 3-second gust (mph)		110	115	120	130	140	150	160	170	180	195		
Maximum Top Plate to Ridge Height (ft)	Roof Diaphragm Width (ft) ²	Roof Diaphragm Length (ft) ³											
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
0 (flat roof)	12	4	36	4	36	4	36	4	36	4	36	4	36
	16	6	48	6	48	6	48	6	48	6	48	6	48
	20	7	60	7	60	7	60	7	60	7	60	7	60
	24	8	72	8	72	8	72	8	72	8	72	8	72
	28	10	80	10	80	10	80	10	80	10	80	10	80
	32	11	80	11	80	11	80	11	80	11	80	11	80
	36	12	80	12	80	12	80	12	80	12	80	12	80
5	12	4	36	4	36	4	36	4	36	4	36	5	34
	16	6	48	6	48	6	48	6	48	6	48	6	45
	20	7	60	7	60	7	60	7	60	7	60	8	57
	24	8	72	8	72	8	72	8	72	8	72	9	68
	28	10	80	10	80	10	80	10	80	10	80	11	79
	32	11	80	11	80	11	80	11	80	11	80	12	80
	36	12	80	12	80	12	80	12	80	12	80	14	80
10	12	4	36	4	36	4	36	4	36	5	34	6	27
	16	6	48	6	48	6	48	6	48	7	45	8	36
	20	7	60	7	60	7	60	7	60	8	57	9	50
	24	8	72	8	72	8	72	8	72	9	68	10	60
	28	10	80	10	80	10	80	10	80	10	80	11	60
	32	11	80	11	80	11	80	11	80	12	80	13	71
	36	12	80	12	80	12	80	12	80	13	80	14	63

1 Roof sheathing applied with long dimension perpendicular to roof framing and staggered.

2 Roof diaphragm width dimension measured parallel to direction of framing span.

3 Roof diaphragm length dimension measured perpendicular to direction of framing span.

Table 3.16A3 Roof Diaphragm Limits for Wind ¹

(Applicable to All Roof Slopes with and without Roof Irregularities)

**Exposure C
All Slopes**

700-yr. Wind Speed 3-second gust (mph)		110	115	120	130	140	150	160	170	180	195		
Maximum Top Plate to Ridge Height (ft)	Roof Diaphragm Width (ft) ²	Roof Diaphragm Length (ft) ³											
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
5	12	4	36	4	36	4	36	4	33	5	29	5	25
	16	6	48	6	48	6	48	6	44	6	39	7	34
	20	7	60	7	60	7	60	7	56	8	48	9	42
	24	8	72	8	72	8	72	8	67	9	58	10	51
	28	10	80	10	80	10	80	10	78	11	68	12	60
	32	11	80	11	80	11	80	11	80	12	78	14	68
	36	12	80	12	80	12	80	12	80	13	80	15	77
10	12	4	36	4	35	4	32	5	27	6	23	6	20
	16	6	48	6	47	6	43	6	37	7	31	8	27
	20	7	60	7	59	7	54	8	46	9	39	10	34
	24	8	72	8	70	8	65	9	55	11	47	12	41
	28	10	80	10	80	10	76	11	64	12	55	14	48
	32	11	80	11	80	11	80	12	74	14	63	16	55
	36	12	80	12	80	12	80	13	80	16	71	18	62
15	12	4	30	5	27	5	25	6	21	7	18	8	16
	16	6	40	6	36	7	33	8	28	9	24	10	21
	20	7	50	8	45	8	42	9	35	11	30	12	26
	24	8	60	9	55	10	50	11	43	13	37	15	32
	28	10	70	10	64	11	58	13	50	15	43	17	37
	32	11	80	12	73	13	67	15	57	17	49	20	43
	36	12	80	13	80	14	75	17	64	19	55	22	48
20	12	5	24	6	22	6	20	7	17				
	16	7	32	7	29	8	27	9	23				
	20	8	40	9	37	10	34	11	29				
	24	10	49	11	44	12	41	13	35				
	28	11	57	12	52	13	48	16	41				
	32	13	65	14	59	15	55	18	46				
	36	14	73	16	67	17	61	20	52				

1 Roof sheathing applied with long dimension perpendicular to roof framing and staggered.

2 Roof diaphragm width dimension measured parallel to direction of framing span.

3 Roof diaphragm length dimension measured perpendicular to direction of framing span.

Table 3.16A4 Roof Diaphragm Limits for Wind ¹

(Applicable to Simple Gable and Hip Roofs with Roof Slopes $\leq 6:12$
without Roof Irregularities (dormers, accent panels, etc))

Exposure C Low Slopes

700-yr. Wind Speed 3-second gust (mph)		110	115	120	130	140	150	160	170	180	195		
Maximum Top Plate to Ridge Height (ft)	Roof Diaphragm Width (ft) ²	Roof Diaphragm Length (ft) ³											
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
0 (flat roof)	12	4	36	4	36	4	36	4	36	4	36	5	28
	16	6	48	6	48	6	48	6	48	6	48	6	37
	20	7	60	7	60	7	60	7	60	7	60	7	47
	24	8	72	8	72	8	72	8	72	8	72	9	56
	28	10	80	10	80	10	80	10	80	10	80	10	66
	32	11	80	11	80	11	80	11	80	11	80	12	75
	36	12	80	12	80	12	80	12	80	12	80	13	80
5	12	4	36	4	36	4	36	5	35	5	31	6	21
	16	6	48	6	48	6	48	6	47	7	41	8	28
	20	7	60	7	60	7	60	7	60	8	59	9	35
	24	8	72	8	72	8	72	8	72	9	71	10	42
	28	10	80	10	80	10	80	10	80	11	80	12	49
	32	11	80	11	80	11	80	11	80	12	80	14	56
	36	12	80	12	80	12	80	12	80	13	80	15	63
10	12	4	36	4	36	5	36	6	32	6	28	7	16
	16	6	48	6	48	6	48	7	43	8	37	9	22
	20	7	60	7	60	7	60	8	60	9	53	10	27
	24	8	72	8	72	8	72	9	72	11	64	12	33
	28	10	80	10	80	10	80	11	80	12	75	14	38
	32	11	80	11	80	11	80	12	80	14	80	16	44
	36	12	80	12	80	12	80	13	80	16	80	18	50

1 Roof sheathing applied with long dimension perpendicular to roof framing and staggered.

2 Roof diaphragm width dimension measured parallel to direction of framing span.

3 Roof diaphragm length dimension measured perpendicular to direction of framing span.

Table 3.16B Floor Diaphragm Limits for Wind ¹**Exposure B**

700-yr. Wind Speed 3-second gust (mph)		110		115		120		130		140		150		160		170		180		195	
Wall Height (ft)	Floor Diaphragm	Floor Diaphragm Length (ft) ³																			
	Width (ft) ²	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
8	12	4	36	4	36	4	36	4	36	4	36	4	35	5	31	5	27	6	24	7	21
	16	6	48	6	48	6	48	6	48	6	48	6	47	6	42	7	37	7	33	9	28
	20	7	60	7	60	7	60	7	60	7	60	7	59	7	52	8	46	9	41	11	35
	24	8	72	8	72	8	72	8	72	8	72	8	71	9	63	10	55	11	49	13	42
	28	10	80	10	80	10	80	10	80	10	80	10	80	10	73	11	65	13	58	15	49
	32	11	80	11	80	11	80	11	80	11	80	11	80	11	80	13	74	14	66	17	56
	36	12	80	12	80	12	80	12	80	12	80	12	80	13	80	14	80	16	74	19	63
10	12	4	36	4	36	4	36	4	36	4	33	5	29	6	25	6	22	7	20	8	17
	16	6	48	6	48	6	48	6	48	6	45	6	39	7	34	8	30	9	27	11	23
	20	7	60	7	60	7	60	7	60	7	56	8	49	9	43	10	38	11	34	13	29
	24	8	72	8	72	8	72	8	72	8	67	9	58	11	51	12	45	13	40	15	34
	28	10	80	10	80	10	80	10	80	10	78	11	68	12	60	14	53	15	47	18	40
	32	11	80	11	80	11	80	11	80	11	80	12	78	14	68	16	61	17	54	20	46
	36	12	80	12	80	12	80	12	80	12	80	14	80	16	77	18	68	20	61	23	52

- 1 Floor sheathing applied with long dimension perpendicular to floor framing and staggered.
- 2 Floor diaphragm width dimension measured parallel to direction of framing span.
- 3 Floor diaphragm length dimension measured perpendicular to direction of framing span.

Table 3.16B Floor Diaphragm Limits for Wind ¹**Exposure C**

700-yr. Wind Speed 3-second gust (mph)		110		115		120		130		140		150		160		170		180		195	
Wall Height (ft)	Floor Diaphragm	Floor Diaphragm Length (ft) ³																			
	Width (ft) ²	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
8	12	4	36	4	36	4	36	4	34	5	29	6	25	6	22	7	20	8	17	9	15
	16	6	48	6	48	6	48	6	45	6	39	7	34	8	30	9	26	10	23	12	20
	20	7	60	7	60	7	60	7	57	8	49	9	43	10	37	11	33	13	29	15	25
	24	8	72	8	72	8	72	8	68	9	59	11	51	12	45	13	40	15	35	17	30
	28	10	80	10	80	10	80	10	80	11	69	12	60	14	53	16	47	17	41	20	35
	32	11	80	11	80	11	80	11	80	12	79	14	69	16	60	18	53	20	47	23	40
	36	12	80	12	80	12	80	12	80	14	80	16	77	18	68	20	60	22	53	26	45
10	12	4	36	4	36	4	33	5	28	6	24	7	21	7	18	8	16	9	14	11	12
	16	6	48	6	48	6	44	7	37	8	32	9	28	10	24	11	21	12	19	15	16
	20	7	60	7	60	7	55	8	46	9	40	11	35	12	31	14	27	15	24	18	20
	24	8	72	8	72	8	66	10	56	11	48	13	42	14	37	16	32	18	29	21	25
	28	10	80	10	80	10	77	11	65	13	56	15	49	17	43	19	38	21	34	25	29
	32	11	80	11	80	11	80	13	75	15	64	17	56	19	49	22	43	24	39	28	33
	36	12	80	12	80	12	80	14	80	17	72	19	63	21	55	24	49	27	44	32	37

- 1 Floor sheathing applied with long dimension perpendicular to floor framing and staggered.
- 2 Floor diaphragm width dimension measured parallel to direction of framing span.
- 3 Floor diaphragm length dimension measured perpendicular to direction of framing span.

Table 3.24A2 Laterally Supported (Raised) Header Spans for Interior Loadbearing Walls

(Supporting One Center Bearing Floor)

Dead Load Assumptions: Floor Assembly = 10 psf

Raised Interior

Headers Supporting	Size	Building Width (ft)		
		12	24	36
		Maximum Header/Girder Spans (ft-in.) for Common Lumber Species ^{1,3,4}		
One Floor Only (Center Bearing)	1-2x6	4 - 4	3 - 1	2 - 6
	1-2x8	5 - 5	3 - 10	3 - 2
	1-2x10	6 - 8	4 - 9	3 - 10
	1-2x12	7 - 9	5 - 6	4 - 6
	2-2x4	4 - 4	3 - 1	2 - 6
	2-2x6	6 - 5	4 - 6	3 - 8
	2-2x8	8 - 1	5 - 9	4 - 8
	2-2x10	9 - 11	7 - 0	5 - 9
	2-2x12	11 - 6	8 - 1	6 - 7
	3-2x8	10 - 2	7 - 2	5 - 10
	3-2x10	12 - 5	8 - 9	7 - 2
	3-2x12	14 - 4	10 - 2	8 - 3
	4-2x8	11 - 6	8 - 3	6 - 9
	4-2x10	14 - 4	10 - 1	8 - 3
	4-2x12	16 - 7	11 - 9	9 - 7
	Size	Maximum Header/Girder Spans (ft-in.) for Glued Laminated Beams ^{2,3,4}		
	3.125x5.500	7 - 5	5 - 10	4 - 10
	3.125x6.875	9 - 3	7 - 4	6 - 0
	3.125x8.250	11 - 1	8 - 9	7 - 3
	3.125x9.625	12 - 11	10 - 3	8 - 5
	3.125x11.000	14 - 9	11 - 8	9 - 8
	3.125x12.375	16 - 7	13 - 2	10 - 10
	3.125x13.750	18 - 5	14 - 8	12 - 1
	3.125x15.125	20-0†	16 - 1	13 - 3
	3.125x16.500	20-0†	17 - 7	14 - 6
	3.125x17.875	20-0†	19 - 0	15 - 8
	3.125x19.250	20-0†	20-0†	16 - 11
	3.125x20.625	20-0†	20-0†	18 - 1
	5.125x5.500	8 - 8	6 - 11	6 - 0
	5.125x6.875	10 - 10	8 - 8	7 - 6
	5.125x8.25	13 - 1	10 - 4	9 - 1
	5.125x9.625	15 - 3	12 - 1	10 - 7
	5.125x11.000	17 - 5	13 - 10	12 - 1
	5.125x12.375	19 - 7	15 - 6	13 - 7
	5.125x13.750	20-0†	17 - 3	15 - 1
	5.125x15.125	20-0†	19 - 0	16 - 7
	5.125x16.500	20-0†	20-0†	18 - 1
	5.125x17.875	20-0†	20-0†	19 - 7

† Spans are limited to 20 feet in length.

¹ Tabulated spans are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine, or Spruce-Pine-Fir). For #3 Grade lumber, spans shall be multiplied by 0.75.

² Tabulated spans assume 20F combination glulam with a minimum F_{bx} =2,000psi, F_{vx} =210psi, and E =1,500,000psi.

³ Tabulated spans assume headers supporting single span floor joists. For headers supporting continuous two span floor joists, tabulated spans shall be multiplied by 0.89.

⁴ The number of jack studs required at each end of the header shall be determined from Table 3.24C.

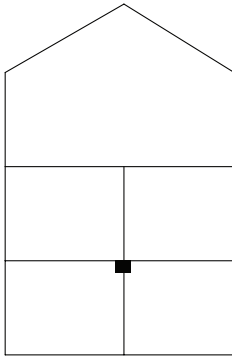
Table 3.24B2 Laterally Supported (Raised) Header Spans for Interior Loadbearing Walls

(Supporting Two Center Bearing Floors)

Dead Load Assumptions: Floor Assembly = 10 psf

Raised Interior

Headers Supporting	Size	Building Width (ft)		
		12	24	36
		Maximum Header/Girder Spans (ft.-in.) for Common Lumber Species ^{1,3,4}		
Two Floors Only (Center Bearing)	1-2x6	2 - 9	2 - 1	1 - 8
	1-2x8	3 - 6	2 - 7	2 - 2
	1-2x10	4 - 4	3 - 2	2 - 8
	1-2x12	5 - 0	3 - 8	3 - 1
	2-2x4	2 - 10	2 - 1	1 - 8
	2-2x6	4 - 1	3 - 1	2 - 6
	2-2x8	5 - 3	3 - 10	3 - 2
	2-2x10	6 - 5	4 - 9	3 - 11
	2-2x12	7 - 5	5 - 6	4 - 6
	3-2x8	6 - 6	4 - 10	4 - 0
	3-2x10	8 - 0	5 - 11	4 - 11
	3-2x12	9 - 3	6 - 10	5 - 8
	4-2x8	7 - 7	5 - 7	4 - 8
	4-2x10	9 - 3	6 - 10	5 - 8
	4-2x12	10 - 8	7 - 11	6 - 7
	Size	Maximum Header/Girder Spans (ft.-in.) for Glued Laminated Beams ^{2,3,4}		
	3.125x5.500	5 - 5	4 - 0	3 - 4
	3.125x6.875	6 - 9	5 - 0	4 - 2
	3.125x8.250	8 - 1	6 - 0	5 - 0
	3.125x9.625	9 - 5	7 - 0	5 - 9
	3.125x11.000	10 - 10	8 - 0	6 - 7
	3.125x12.375	12 - 2	9 - 0	7 - 5
	3.125x13.750	13 - 6	10 - 0	8 - 3
	3.125x15.125	14 - 10	11 - 0	9 - 1
	3.125x16.500	16 - 2	12 - 0	9 - 11
	3.125x17.875	17 - 7	13 - 0	10 - 9
	3.125x19.250	18 - 11	14 - 0	11 - 7
	3.125x20.625	20-0†	15 - 0	12 - 5
	3.125x22.000	20-0†	16 - 0	13 - 3
	3.125x23.375	20-0†	16 - 11	14 - 1
	3.125x24.750	20-0†	17 - 11	14 - 11
	5.125x5.500	6 - 11	5 - 1	4 - 3
	5.125x6.875	8 - 8	6 - 5	5 - 4
	5.125x8.25	10 - 4	7 - 8	6 - 4
	5.125x9.625	12 - 1	8 - 11	7 - 5
	5.125x11.000	13 - 10	10 - 3	8 - 6
	5.125x12.375	15 - 6	11 - 6	9 - 6
	5.125x13.750	17 - 3	12 - 9	10 - 7
	5.125x15.125	18 - 11	14 - 1	11 - 8
	5.125x16.500	20-0†	15 - 4	12 - 8
	5.125x17.875	20-0†	16 - 6	13 - 9
	5.125x19.250	20-0†	17 - 7	14 - 9
	5.125x20.625	20-0†	18 - 9	15 - 8
	5.125x22.000	20-0†	19 - 10	16 - 8
	5.125x23.375	20-0†	20-0†	17 - 7



† Spans are limited to 20 feet in length.

¹ Tabulated spans are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine, or Spruce-Pine-Fir). For #3 Grade lumber, spans shall be multiplied by 0.75.

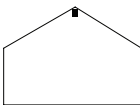
² Tabulated spans assume 20F combination glulam with a minimum $F_{bx}=2,000\text{psi}$, $F_{vx}=210\text{psi}$, and $E=1,500,000\text{psi}$.

³ Tabulated spans assume headers supporting single span floor joists. For headers supporting continuous two span floor joists, tabulated spans shall be multiplied by 0.89.

⁴ The number of jack studs required at each end of the header shall be determined from Table 3.24C.

Table 3.29 Ridge Beam Spans

(Dead Load Assumptions: Roof/Ceiling Assembly = 20 psf)

		Roof Live Load			Ground Snow Load								
		20 psf			30 psf			50 psf			70 psf		
		Building Width (ft)											
		12	24	36	12	24	36	12	24	36	12	24	36
Ridge Beam Supporting	Size	Maximum Ridge Beam Spans (ft.-in.) for Common Lumber Species ¹											
Roof and Ceiling (attached to rafters) 	1-2x6	5 - 5	3 - 10	3 - 1	5 - 0	3 - 6	2 - 10	4 - 3	3 - 0	2 - 6	3 - 10	2 - 8	2 - 2
	1-2x8	6 - 10	4 - 10	3 - 11	6 - 4	4 - 5	3 - 8	5 - 5	3 - 10	3 - 1	4 - 10	3 - 5	2 - 9
	1-2x10	8 - 4	5 - 11	4 - 10	7 - 8	5 - 5	4 - 5	6 - 7	4 - 8	3 - 10	5 - 11	4 - 2	3 - 5
	1-2x12	9 - 8	6 - 10	5 - 7	8 - 11	6 - 4	5 - 2	7 - 8	5 - 5	4 - 5	6 - 10	4 - 10	3 - 11
	2-2x4	5 - 6	3 - 10	3 - 2	5 - 1	3 - 7	2 - 11	4 - 4	3 - 1	2 - 6	3 - 10	2 - 9	2 - 3
	2-2x6	8 - 0	5 - 8	4 - 7	7 - 5	5 - 3	4 - 3	6 - 4	4 - 6	3 - 8	5 - 8	4 - 0	3 - 3
	2-2x8	10 - 1	7 - 2	5 - 10	9 - 4	6 - 7	5 - 5	8 - 0	5 - 8	4 - 8	7 - 2	5 - 1	4 - 1
	2-2x10	12 - 4	8 - 9	7 - 2	11 - 5	8 - 1	6 - 7	9 - 10	6 - 11	5 - 8	8 - 9	6 - 2	5 - 0
	2-2x12	14 - 4	10 - 2	8 - 3	13 - 3	9 - 4	7 - 8	11 - 4	8 - 0	6 - 7	10 - 1	7 - 2	5 - 10
	3-2x8	12 - 8	9 - 0	7 - 4	11 - 9	8 - 3	6 - 9	10 - 1	7 - 1	5 - 10	8 - 11	6 - 4	5 - 2
	3-2x10	15 - 6	10 - 11	8 - 11	14 - 4	10 - 1	8 - 3	12 - 3	8 - 8	7 - 1	10 - 11	7 - 9	6 - 4
	3-2x12	17 - 11	12 - 8	10 - 4	16 - 7	11 - 9	9 - 7	14 - 3	10 - 1	8 - 3	12 - 8	9 - 0	7 - 4
	4-2x8	14 - 8	10 - 4	8 - 5	13 - 6	9 - 7	7 - 10	11 - 7	8 - 2	6 - 8	10 - 4	7 - 4	6 - 0
	4-2x10	17 - 10	12 - 8	10 - 4	16 - 6	11 - 8	9 - 6	14 - 2	10 - 0	8 - 2	12 - 7	8 - 11	7 - 3
	4-2x12	20 - 9	14 - 8	12 - 0	19 - 2	13 - 7	11 - 1	16 - 5	11 - 7	9 - 6	14 - 8	10 - 4	8 - 5
	Size	Maximum Ridge Beam Spans (ft.-in.) for Glued Laminated Timber Beams ²											
	3.125x5.500	10 - 6	7 - 5	6 - 0	9 - 8	6 - 10	5 - 7	8 - 4	5 - 10	4 - 9	7 - 5	5 - 3	4 - 3
	3.125x6.875	13 - 1	9 - 3	7 - 7	12 - 1	8 - 7	7 - 0	10 - 4	7 - 4	6 - 0	9 - 3	6 - 6	5 - 4
	3.125x8.250	15 - 8	11 - 1	9 - 1	14 - 6	10 - 3	8 - 4	12 - 5	8 - 10	7 - 2	11 - 1	7 - 10	6 - 5
	3.125x9.625	18 - 4	12 - 11	10 - 7	16 - 11	12 - 0	9 - 9	14 - 6	10 - 3	8 - 5	12 - 11	9 - 2	7 - 5
3.125x11.000	20 - 11	14 - 10	12 - 1	19 - 4	13 - 8	11 - 2	16 - 7	11 - 9	9 - 7	14 - 9	10 - 5	8 - 6	
3.125x12.375	23 - 6	16 - 8	13 - 7	21 - 9	15 - 5	12 - 7	18 - 8	13 - 2	10 - 9	16 - 7	11 - 9	9 - 7	
3.125x13.750	26 - 2	18 - 6	15 - 1	24 - 2	17 - 1	14 - 0	20 - 9	14 - 8	12 - 0	18 - 5	13 - 1	10 - 8	
3.125x15.125	28 - 8	20 - 4	16 - 7	26 - 7	18 - 10	15 - 4	22 - 10	16 - 2	13 - 2	20 - 4	14 - 4	11 - 9	
3.125x16.500	31 - 1	22 - 2	18 - 1	28 - 10	20 - 6	16 - 9	24 - 11	17 - 7	14 - 4	22 - 2	15 - 8	12 - 9	
3.125x17.875	33 - 5	24 - 0	19 - 8	31 - 0	22 - 3	18 - 2	26 - 9	19 - 1	15 - 7	23 - 11	17 - 0	13 - 10	
3.125x19.250	35 - 8	25 - 8	21 - 2	33 - 1	23 - 10	19 - 6	28 - 7	20 - 6	16 - 9	25 - 7	18 - 3	14 - 11	
3.125x20.625	38 - 0	27 - 4	22 - 6	35 - 3	25 - 4	20 - 11	30 - 6	21 - 11	18 - 0	27 - 3	19 - 7	16 - 0	
3.125x22.000	40 - 3	29 - 0	23 - 10	37 - 4	26 - 10	22 - 2	32 - 4	23 - 3	19 - 2	28 - 11	20 - 9	17 - 1	
3.125x23.375	42 - 7	30 - 7	25 - 3	39 - 6	28 - 4	23 - 5	34 - 1	24 - 6	20 - 3	30 - 6	21 - 11	18 - 1	
3.125x24.750	44 - 10	32 - 2	26 - 7	41 - 7	29 - 10	24 - 8	35 - 11	25 - 10	21 - 4	32 - 2	23 - 1	19 - 1	
5.125x5.500	12 - 7	9 - 6	7 - 9	12 - 0	8 - 9	7 - 2	10 - 1	7 - 6	6 - 2	9 - 0	6 - 8	5 - 5	
5.125x6.875	15 - 8	11 - 10	9 - 8	14 - 11	10 - 11	8 - 11	12 - 7	9 - 5	7 - 8	11 - 3	8 - 4	6 - 10	
5.125x8.250	18 - 10	14 - 2	11 - 7	17 - 11	13 - 2	10 - 9	15 - 2	11 - 3	9 - 2	13 - 6	10 - 0	8 - 2	
5.125x9.625	22 - 0	16 - 7	13 - 6	20 - 11	15 - 4	12 - 6	17 - 8	13 - 2	10 - 9	15 - 9	11 - 8	9 - 7	
5.125x11.000	25 - 1	18 - 11	15 - 6	23 - 11	17 - 6	14 - 4	20 - 2	15 - 0	12 - 3	18 - 0	13 - 4	10 - 11	
5.125x12.375	28 - 3	21 - 3	17 - 5	26 - 11	19 - 8	16 - 1	22 - 8	16 - 11	13 - 10	20 - 3	15 - 0	12 - 3	
5.125x13.750	31 - 4	23 - 5	19 - 3	29 - 11	21 - 8	17 - 10	25 - 3	18 - 9	15 - 4	22 - 6	16 - 9	13 - 8	
5.125x15.125	34 - 6	25 - 6	21 - 0	32 - 11	23 - 8	19 - 6	27 - 9	20 - 5	16 - 10	24 - 9	18 - 4	15 - 0	
5.125x16.500	37 - 8	27 - 7	22 - 9	35 - 7	25 - 7	21 - 1	30 - 3	22 - 1	18 - 3	27 - 1	19 - 10	16 - 4	
5.125x17.875	40 - 9	29 - 8	24 - 5	38 - 3	27 - 6	22 - 8	32 - 9	23 - 9	19 - 7	29 - 4	21 - 3	17 - 7	
5.125x19.250	43 - 11	31 - 9	26 - 2	40 - 11	29 - 5	24 - 3	35 - 4	25 - 5	21 - 0	31 - 7	22 - 9	18 - 9	
5.125x20.625	47 - 0	33 - 9	27 - 10	43 - 7	31 - 4	25 - 10	37 - 8	27 - 1	22 - 4	33 - 8	24 - 3	20 - 0	
5.125x22.000	49 - 9	35 - 9	29 - 6	46 - 2	33 - 2	27 - 4	39 - 11	28 - 8	23 - 8	35 - 9	25 - 8	21 - 2	
5.125x23.375	52 - 7	37 - 10	31 - 2	48 - 9	35 - 1	28 - 11	42 - 2	30 - 4	25 - 0	37 - 9	27 - 2	22 - 4	
5.125x24.750	55 - 5	39 - 10	32 - 10	51 - 4	36 - 11	30 - 5	44 - 5	31 - 11	26 - 4	39 - 9	28 - 7	23 - 7	

1 Tabulated spans are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine, or Spruce-Pine-Fir). For #3 Grade lumber, spans shall be multiplied by 0.75.

2 Tabulated spans assume 20F combination glulam with a minimum F_{bx} =2,000psi, F_{vx} =210psi, and E =1,500,000psi.

2013 ADDENDUM
to
ANSI/AWC WFCM-2012
WOOD FRAME CONSTRUCTION MANUAL FOR ONE- AND TWO-FAMILY DWELLINGS
(web version dated November 2011)

Effective June 1, 2013, the following tables in the 2012 Wood-Frame Construction Manual (WFCM) are revised to reflect changes to all grades of 2x4, 2x6, 2x8, 2x10, and 2x12 Southern Pine. These tables supersede tables published in the AWC May 2013 and April 2012 Addenda.

2012 WFCM Table	Page Reference	Description	Action
Tables 3.18A and B	224 and 225	Floor joist spans for common lumber species.	<u>Replace</u> with revised Tables 3.18A and B as shown in this Attachment.
Tables 3.20A1 through A6	228 to 239	Maximum exterior stud lengths for common lumber species resisting interior zone wind loads. (<i>Fully sheathed with a minimum sheathing material</i>)	<u>Replace</u> with revised Tables 3.20A1 through A6 as shown in this Attachment.
Tables 3.20B1 through B6	242 to 253	Maximum exterior stud lengths for common lumber species resisting interior zone wind loads. (<i>Fully sheathed with a minimum of 3/8" wood structural panels</i>)	<u>Replace</u> with revised Tables 3.20B1 through B6 as shown in this Attachment.
Tables 3.22A1 and A2 through Tables 3.22E1 and E2	256 to 265	Header spans for exterior walls resisting gravity loads.	Revise Footnote 1 as follows: Tabulated spans are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine , or Spruce-Pine-Fir). <u>Where #2 Grade Southern Pine is used, tabulated spans shall be multiplied by 0.93 or, alternatively, #1 or higher grade of Southern Pine shall be required.</u> For #3 Grade lumber Hem-Fir, Douglas Fir-Larch, or Spruce-Pine-Fir, <u>tabulated spans shall be multiplied by 0.75 and, for #3 Grade Southern Pine, tabulated spans shall be multiplied by 0.70.</u>
Table 3.23A	267 and 268	Header spans for exterior walls resisting (out-of-plane) wind loads.	Revise Footnote 3 as follows: Tabulated values are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine , or Spruce-Pine-Fir). <u>Where #2 Grade Southern Pine is used, tabulated spans shall be multiplied by 0.93 or, alternatively, #1 or higher grade of Southern Pine shall be required.</u>
Table 3.23B	269	Header spans for exterior non-loadbearing walls and window sill plates resisting (out-of-plane) wind loads.	Revise Footnote 3 as follows: Tabulated values are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine , or Spruce-Pine-Fir). <u>Where #2 Grade</u>

			<u>Southern Pine is used, tabulated spans shall be multiplied by 0.93 or, alternatively, #1 or higher grade of Southern Pine shall be required.</u>
Tables 3.24A and B	272 to 275	Header spans for interior walls resisting gravity loads.	Revise Footnote 1 as follows: Tabulated spans are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine , or Spruce-Pine-Fir). <u>Where #2 Grade Southern Pine is used, tabulated spans shall be multiplied by 0.93 or, alternatively, #1 or higher grade of Southern Pine shall be required.</u> For #3 Grade lumber Hem-Fir, Douglas Fir-Larch, or Spruce-Pine-Fir, <u>tabulated spans shall be multiplied by 0.75 and, for #3 Grade Southern Pine, tabulated spans shall be multiplied by 0.70.</u>
Tables 3.25A and B	278 and 279	Ceiling joist spans for common lumber species.	<u>Replace</u> with revised Tables 3.25A and B as shown in this Attachment.
Tables 3.26A through H	280 to 289	Rafter spans for common lumber species.	<u>Replace</u> with revised Tables 3.26A through H as shown in this Attachment.
Table 3.28	292	Hip and valley beam sizes.	Revise Footnote 1 as follows: Tabulated values are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine , or Spruce-Pine-Fir). <u>Where #2 Grade Southern Pine is used, tabulated spans shall be multiplied by 0.93 or, alternatively, #1 or higher grade of Southern Pine shall be required.</u>
Table 3.29	293	Ridge beam spans.	Revise Footnote 1 as follows: Tabulated spans are based on #2 Grade Hem-Fir, and are applicable to species with equal or greater F_b and E from the NDS Supplement (i.e., Douglas Fir-Larch, Southern Pine , or Spruce-Pine-Fir). <u>Where #2 Grade Southern Pine is used, tabulated spans shall be multiplied by 0.93 or, alternatively, #1 or higher grade of Southern Pine shall be required.</u> For #3 Grade lumber Hem-Fir, Douglas Fir-Larch, or Spruce-Pine-Fir, <u>tabulated spans shall be multiplied by 0.75 and, for #3 Grade Southern Pine, tabulated spans shall be multiplied by 0.70.</u>

Table 3.18A Floor Joist Spans for Common Lumber Species**LL = 30 psf**

(Residential Sleeping Areas, Live Load = 30 psf, L/Δ = 360)

L/Δ = 360

			Dead Load = 10 psf				Dead Load = 20 psf			
			2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
Maximum Floor Joist Spans										
Joist Spacing	Species and Grade		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12 in.	Douglas Fir-Larch	SS	12 - 6	16 - 6	21 - 0	25 - 7	12 - 6	16 - 6	21 - 0	25 - 7
	Douglas Fir-Larch	No.1	12 - 0	15 - 10	20 - 3	24 - 8	12 - 0	15 - 7	19 - 0	22 - 0
	Douglas Fir-Larch	No.2	11 - 10	15 - 7	19 - 10	23 - 4	11 - 8	14 - 9	18 - 0	20 - 11
	Douglas Fir-Larch	No.3	9 - 11	12 - 7	15 - 5	17 - 10	8 - 11	11 - 3	13 - 9	16 - 0
	Hem-Fir	SS	11 - 10	15 - 7	19 - 10	24 - 2	11 - 10	15 - 7	19 - 10	24 - 2
	Hem-Fir	No.1	11 - 7	15 - 3	19 - 5	23 - 7	11 - 7	15 - 3	18 - 9	21 - 9
	Hem-Fir	No.2	11 - 0	14 - 6	18 - 6	22 - 6	11 - 0	14 - 4	17 - 6	20 - 4
	Hem-Fir	No.3	9 - 8	12 - 4	15 - 0	17 - 5	8 - 8	11 - 0	13 - 5	15 - 7
	Southern Pine	SS	12 - 3	16 - 2	20 - 8	25 - 1	12 - 3	16 - 2	20 - 8	25 - 1
	Southern Pine	No.1	11 - 10	15 - 7	19 - 10	24 - 2	11 - 10	15 - 7	18 - 7	22 - 0
	Southern Pine	No.2	11 - 3	14 - 11	18 - 1	21 - 4	10 - 9	13 - 8	16 - 2	19 - 1
	Southern Pine	No.3	9 - 2	11 - 6	14 - 0	16 - 6	8 - 2	10 - 3	12 - 6	14 - 9
	Spruce-Pine Fir	SS	11 - 7	15 - 3	19 - 5	23 - 7	11 - 7	15 - 3	19 - 5	23 - 7
	Spruce-Pine Fir	No.1	11 - 3	14 - 11	19 - 0	23 - 0	11 - 3	14 - 7	17 - 9	20 - 7
	Spruce-Pine Fir	No.2	11 - 3	14 - 11	19 - 0	23 - 0	11 - 3	14 - 7	17 - 9	20 - 7
	Spruce-Pine Fir	No.3	9 - 8	12 - 4	15 - 0	17 - 5	8 - 8	11 - 0	13 - 5	15 - 7
16 in.	Douglas Fir-Larch	SS	11 - 4	15 - 0	19 - 1	23 - 3	11 - 4	15 - 0	19 - 1	23 - 3
	Douglas Fir-Larch	No.1	10 - 11	14 - 5	18 - 5	21 - 4	10 - 8	13 - 6	16 - 5	19 - 1
	Douglas Fir-Larch	No.2	10 - 9	14 - 2	17 - 5	20 - 3	10 - 1	12 - 9	15 - 7	18 - 1
	Douglas Fir-Larch	No.3	8 - 7	10 - 11	13 - 4	15 - 5	7 - 8	9 - 9	11 - 11	13 - 10
	Hem-Fir	SS	10 - 9	14 - 2	18 - 0	21 - 11	10 - 9	14 - 2	18 - 0	21 - 11
	Hem-Fir	No.1	10 - 6	13 - 10	17 - 8	21 - 1	10 - 6	13 - 4	16 - 3	18 - 10
	Hem-Fir	No.2	10 - 0	13 - 2	16 - 10	19 - 8	9 - 10	12 - 5	15 - 2	17 - 7
	Hem-Fir	No.3	8 - 5	10 - 8	13 - 0	15 - 1	7 - 6	9 - 6	11 - 8	13 - 6
	Southern Pine	SS	11 - 2	14 - 8	18 - 9	22 - 10	11 - 2	14 - 8	18 - 9	22 - 10
	Southern Pine	No.1	10 - 9	14 - 2	18 - 0	21 - 4	10 - 9	13 - 9	16 - 1	19 - 1
	Southern Pine	No.2	10 - 3	13 - 3	15 - 8	18 - 6	9 - 4	11 - 10	14 - 0	16 - 6
	Southern Pine	No.3	7 - 11	10 - 0	12 - 1	14 - 4	7 - 1	8 - 11	10 - 10	12 - 10
	Spruce-Pine Fir	SS	10 - 6	13 - 10	17 - 8	21 - 6	10 - 6	13 - 10	17 - 8	21 - 4
	Spruce-Pine Fir	No.1	10 - 3	13 - 6	17 - 2	19 - 11	9 - 11	12 - 7	15 - 5	17 - 10
	Spruce-Pine Fir	No.2	10 - 3	13 - 6	17 - 2	19 - 11	9 - 11	12 - 7	15 - 5	17 - 10
	Spruce-Pine Fir	No.3	8 - 5	10 - 8	13 - 0	15 - 1	7 - 6	9 - 6	11 - 8	13 - 6
19.2 in.	Douglas Fir-Larch	SS	10 - 8	14 - 1	18 - 0	21 - 10	10 - 8	14 - 1	18 - 0	21 - 4
	Douglas Fir-Larch	No.1	10 - 4	13 - 7	16 - 9	19 - 6	9 - 8	12 - 4	15 - 0	17 - 5
	Douglas Fir-Larch	No.2	10 - 1	13 - 0	15 - 11	18 - 6	9 - 3	11 - 8	14 - 3	16 - 6
	Douglas Fir-Larch	No.3	7 - 10	10 - 0	12 - 2	14 - 1	7 - 0	8 - 11	10 - 11	12 - 7
	Hem-Fir	SS	10 - 1	13 - 4	17 - 0	20 - 8	10 - 1	13 - 4	17 - 0	20 - 7
	Hem-Fir	No.1	9 - 10	13 - 0	16 - 7	19 - 3	9 - 7	12 - 2	14 - 10	17 - 2
	Hem-Fir	No.2	9 - 5	12 - 5	15 - 6	17 - 11	8 - 11	11 - 4	13 - 10	16 - 1
	Hem-Fir	No.3	7 - 8	9 - 9	11 - 10	13 - 9	6 - 10	8 - 8	10 - 7	12 - 4
	Southern Pine	SS	10 - 6	13 - 10	17 - 8	21 - 6	10 - 6	13 - 10	17 - 8	21 - 6
	Southern Pine	No.1	10 - 1	13 - 4	16 - 5	19 - 6	9 - 11	12 - 7	14 - 8	17 - 5
	Southern Pine	No.2	9 - 6	12 - 1	14 - 4	16 - 10	8 - 6	10 - 10	12 - 10	15 - 1
	Southern Pine	No.3	7 - 3	9 - 1	11 - 0	13 - 1	6 - 5	8 - 2	9 - 10	11 - 8
	Spruce-Pine Fir	SS	9 - 10	13 - 0	16 - 7	20 - 2	9 - 10	13 - 0	16 - 7	19 - 6
	Spruce-Pine Fir	No.1	9 - 8	12 - 9	15 - 8	18 - 3	9 - 1	11 - 6	14 - 1	16 - 3
	Spruce-Pine Fir	No.2	9 - 8	12 - 9	15 - 8	18 - 3	9 - 1	11 - 6	14 - 1	16 - 3
	Spruce-Pine Fir	No.3	7 - 8	9 - 9	11 - 10	13 - 9	6 - 10	8 - 8	10 - 7	12 - 4
24 in.	Douglas Fir-Larch	SS	9 - 11	13 - 1	16 - 8	20 - 3	9 - 11	13 - 1	16 - 5	19 - 1
	Douglas Fir-Larch	No.1	9 - 7	12 - 4	15 - 0	17 - 5	8 - 8	11 - 0	13 - 5	15 - 7
	Douglas Fir-Larch	No.2	9 - 3	11 - 8	14 - 3	16 - 6	8 - 3	10 - 5	12 - 9	14 - 9
	Douglas Fir-Larch	No.3	7 - 0	8 - 11	10 - 11	12 - 7	6 - 3	8 - 0	9 - 9	11 - 3
	Hem-Fir	SS	9 - 4	12 - 4	15 - 9	19 - 2	9 - 4	12 - 4	15 - 9	18 - 5
	Hem-Fir	No.1	9 - 2	12 - 1	14 - 10	17 - 2	8 - 7	10 - 10	13 - 3	15 - 5
	Hem-Fir	No.2	8 - 9	11 - 4	13 - 10	16 - 1	8 - 0	10 - 2	12 - 5	14 - 4
	Hem-Fir	No.3	6 - 10	8 - 8	10 - 7	12 - 4	6 - 2	7 - 9	9 - 6	11 - 0
	Southern Pine	SS	9 - 9	12 - 10	16 - 5	19 - 11	9 - 9	12 - 10	16 - 5	19 - 8
	Southern Pine	No.1	9 - 4	12 - 4	14 - 8	17 - 5	8 - 10	11 - 3	13 - 1	15 - 7
	Southern Pine	No.2	8 - 6	10 - 10	12 - 10	15 - 1	7 - 7	9 - 8	11 - 5	13 - 6
	Southern Pine	No.3	6 - 5	8 - 2	9 - 10	11 - 8	5 - 9	7 - 3	8 - 10	10 - 5
	Spruce-Pine Fir	SS	9 - 2	12 - 1	15 - 5	18 - 9	9 - 2	12 - 1	15 - 0	17 - 5
	Spruce-Pine Fir	No.1	9 - 0	11 - 6	14 - 1	16 - 3	8 - 1	10 - 3	12 - 7	14 - 7
	Spruce-Pine Fir	No.2	9 - 0	11 - 6	14 - 1	16 - 3	8 - 1	10 - 3	12 - 7	14 - 7
	Spruce-Pine Fir	No.3	6 - 10	8 - 8	10 - 7	12 - 4	6 - 2	7 - 9	9 - 6	11 - 0

Check sources for availability of lumber in lengths greater than 20 feet.

Table 3.18B Floor Joist Spans for Common Lumber Species**LL = 40 psf**
L/Δ = 360

(Residential Living Areas, Live Load = 40 psf, L/Δ = 360)

Joist Spacing	Species and Grade		Dead Load = 10 psf				Dead Load = 20 psf			
			2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
			Maximum Floor Joist Spans							
			(ft-in.)	(ft-in.)	(ft-in.)	(ft-in.)	(ft-in.)	(ft-in.)	(ft-in.)	(ft-in.)
12 in.	Douglas Fir-Larch	SS	11 - 4	15 - 0	19 - 1	23 - 3	11 - 4	15 - 0	19 - 1	23 - 3
	Douglas Fir-Larch	No.1	10 - 11	14 - 5	18 - 5	22 - 0	10 - 11	14 - 2	17 - 4	20 - 1
	Douglas Fir-Larch	No.2	10 - 9	14 - 2	18 - 0	20 - 11	10 - 8	13 - 6	16 - 5	19 - 1
	Douglas Fir-Larch	No.3	8 - 11	11 - 3	13 - 9	16 - 0	8 - 1	10 - 3	12 - 7	14 - 7
	Hem-Fir	SS	10 - 9	14 - 2	18 - 0	21 - 11	10 - 9	14 - 2	18 - 0	21 - 11
	Hem-Fir	No.1	10 - 6	13 - 10	17 - 8	21 - 6	10 - 6	13 - 10	17 - 1	19 - 10
	Hem-Fir	No.2	10 - 0	13 - 2	16 - 10	20 - 4	10 - 0	13 - 1	16 - 0	18 - 6
	Hem-Fir	No.3	8 - 8	11 - 0	13 - 5	15 - 7	7 - 11	10 - 0	12 - 3	14 - 3
	Southern Pine	SS	11 - 2	14 - 8	18 - 9	22 - 10	11 - 2	14 - 8	18 - 9	22 - 10
	Southern Pine	No.1	10 - 9	14 - 2	18 - 0	21 - 11	10 - 9	14 - 2	16 - 11	20 - 1
	Southern Pine	No.2	10 - 3	13 - 6	16 - 2	19 - 1	9 - 10	12 - 6	14 - 9	17 - 5
	Southern Pine	No.3	8 - 2	10 - 3	12 - 6	14 - 9	7 - 5	9 - 5	11 - 5	13 - 6
	Spruce-Pine Fir	SS	10 - 6	13 - 10	17 - 8	21 - 6	10 - 6	13 - 10	17 - 8	21 - 6
	Spruce-Pine Fir	No.1	10 - 3	13 - 6	17 - 3	20 - 7	10 - 3	13 - 3	16 - 3	18 - 10
	Spruce-Pine Fir	No.2	10 - 3	13 - 6	17 - 3	20 - 7	10 - 3	13 - 3	16 - 3	18 - 10
	Spruce-Pine Fir	No.3	8 - 8	11 - 0	13 - 5	15 - 7	7 - 11	10 - 0	12 - 3	14 - 3
16 in.	Douglas Fir-Larch	SS	10 - 4	13 - 7	17 - 4	21 - 1	10 - 4	13 - 7	17 - 4	21 - 1
	Douglas Fir-Larch	No.1	9 - 11	13 - 1	16 - 5	19 - 1	9 - 8	12 - 4	15 - 0	17 - 5
	Douglas Fir-Larch	No.2	9 - 9	12 - 9	15 - 7	18 - 1	9 - 3	11 - 8	14 - 3	16 - 6
	Douglas Fir-Larch	No.3	7 - 8	9 - 9	11 - 11	13 - 10	7 - 0	8 - 11	10 - 11	12 - 7
	Hem-Fir	SS	9 - 9	12 - 10	16 - 5	19 - 11	9 - 9	12 - 10	16 - 5	19 - 11
	Hem-Fir	No.1	9 - 6	12 - 7	16 - 0	18 - 10	9 - 6	12 - 2	14 - 10	17 - 2
	Hem-Fir	No.2	9 - 1	12 - 0	15 - 2	17 - 7	8 - 11	11 - 4	13 - 10	16 - 1
	Hem-Fir	No.3	7 - 6	9 - 6	11 - 8	13 - 6	6 - 10	8 - 8	10 - 7	12 - 4
	Southern Pine	SS	10 - 2	13 - 4	17 - 0	20 - 9	10 - 2	13 - 4	17 - 0	20 - 9
	Southern Pine	No.1	9 - 9	12 - 10	16 - 1	19 - 1	9 - 9	12 - 7	14 - 8	17 - 5
	Southern Pine	No.2	9 - 4	11 - 10	14 - 0	16 - 6	8 - 6	10 - 10	12 - 10	15 - 1
	Southern Pine	No.3	7 - 1	8 - 11	10 - 10	12 - 10	6 - 5	8 - 2	9 - 10	11 - 8
	Spruce-Pine Fir	SS	9 - 6	12 - 7	16 - 0	19 - 6	9 - 6	12 - 7	16 - 0	19 - 6
	Spruce-Pine Fir	No.1	9 - 4	12 - 3	15 - 5	17 - 10	9 - 1	11 - 6	14 - 1	16 - 3
	Spruce-Pine Fir	No.2	9 - 4	12 - 3	15 - 5	17 - 10	9 - 1	11 - 6	14 - 1	16 - 3
	Spruce-Pine Fir	No.3	7 - 6	9 - 6	11 - 8	13 - 6	6 - 10	8 - 8	10 - 7	12 - 4
19.2 in.	Douglas Fir-Larch	SS	9 - 8	12 - 10	16 - 4	19 - 10	9 - 8	12 - 10	16 - 4	19 - 6
	Douglas Fir-Larch	No.1	9 - 4	12 - 4	15 - 0	17 - 5	8 - 10	11 - 3	13 - 8	15 - 11
	Douglas Fir-Larch	No.2	9 - 2	11 - 8	14 - 3	16 - 6	8 - 5	10 - 8	13 - 0	15 - 1
	Douglas Fir-Larch	No.3	7 - 0	8 - 11	10 - 11	12 - 7	6 - 5	8 - 2	9 - 11	11 - 6
	Hem-Fir	SS	9 - 2	12 - 1	15 - 5	18 - 9	9 - 2	12 - 1	15 - 5	18 - 9
	Hem-Fir	No.1	9 - 0	11 - 10	14 - 10	17 - 2	8 - 9	11 - 1	13 - 6	15 - 8
	Hem-Fir	No.2	8 - 7	11 - 3	13 - 10	16 - 1	8 - 2	10 - 4	12 - 8	14 - 8
	Hem-Fir	No.3	6 - 10	8 - 8	10 - 7	12 - 4	6 - 3	7 - 11	9 - 8	11 - 3
	Southern Pine	SS	9 - 6	12 - 7	16 - 0	19 - 6	9 - 6	12 - 7	16 - 0	19 - 6
	Southern Pine	No.1	9 - 2	12 - 1	14 - 8	17 - 5	9 - 0	11 - 5	13 - 5	15 - 11
	Southern Pine	No.2	8 - 6	10 - 10	12 - 10	15 - 1	7 - 9	9 - 10	11 - 8	13 - 9
	Southern Pine	No.3	6 - 5	8 - 2	9 - 10	11 - 8	5 - 11	7 - 5	9 - 0	10 - 8
	Spruce-Pine Fir	SS	9 - 0	11 - 10	15 - 1	18 - 4	9 - 0	11 - 10	15 - 1	17 - 9
	Spruce-Pine Fir	No.1	8 - 9	11 - 6	14 - 1	16 - 3	8 - 3	10 - 6	12 - 10	14 - 10
	Spruce-Pine Fir	No.2	8 - 9	11 - 6	14 - 1	16 - 3	8 - 3	10 - 6	12 - 10	14 - 10
	Spruce-Pine Fir	No.3	6 - 10	8 - 8	10 - 7	12 - 4	6 - 3	7 - 11	9 - 8	11 - 3
24 in.	Douglas Fir-Larch	SS	9 - 0	11 - 11	15 - 2	18 - 5	9 - 0	11 - 11	15 - 0	17 - 5
	Douglas Fir-Larch	No.1	8 - 8	11 - 0	13 - 5	15 - 7	7 - 11	10 - 0	12 - 3	14 - 3
	Douglas Fir-Larch	No.2	8 - 3	10 - 5	12 - 9	14 - 9	7 - 6	9 - 6	11 - 8	13 - 6
	Douglas Fir-Larch	No.3	6 - 3	8 - 0	9 - 9	11 - 3	5 - 9	7 - 3	8 - 11	10 - 4
	Hem-Fir	SS	8 - 6	11 - 3	14 - 4	17 - 5	8 - 6	11 - 3	14 - 4	16 - 10
	Hem-Fir	No.1	8 - 4	10 - 10	13 - 3	15 - 5	7 - 10	9 - 11	12 - 1	14 - 0
	Hem-Fir	No.2	7 - 11	10 - 2	12 - 5	14 - 4	7 - 4	9 - 3	11 - 4	13 - 1
	Hem-Fir	No.3	6 - 2	7 - 9	9 - 6	11 - 0	5 - 7	7 - 1	8 - 8	10 - 1
	Southern Pine	SS	8 - 10	11 - 8	14 - 11	18 - 1	8 - 10	11 - 8	14 - 11	18 - 0
	Southern Pine	No.1	8 - 6	11 - 3	13 - 1	15 - 7	8 - 1	10 - 3	12 - 0	14 - 3
	Southern Pine	No.2	7 - 7	9 - 8	11 - 5	13 - 6	7 - 0	8 - 10	10 - 5	12 - 4
	Southern Pine	No.3	5 - 9	7 - 3	8 - 10	10 - 5	5 - 3	6 - 8	8 - 1	9 - 6
	Spruce-Pine Fir	SS	8 - 4	11 - 0	14 - 0	17 - 0	8 - 4	11 - 0	13 - 8	15 - 11
	Spruce-Pine Fir	No.1	8 - 1	10 - 3	12 - 7	14 - 7	7 - 5	9 - 5	11 - 6	13 - 4
	Spruce-Pine Fir	No.2	8 - 1	10 - 3	12 - 7	14 - 7	7 - 5	9 - 5	11 - 6	13 - 4
	Spruce-Pine Fir	No.3	6 - 2	7 - 9	9 - 6	11 - 0	5 - 7	7 - 1	8 - 8	10 - 1

Check sources for availability of lumber in lengths greater than 20 feet.

Table 3.20A1 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/180**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-4	20-0†	20-0†	12-8	20-0†	20-0†
	DFL	No.1	14-0††	20-0†	20-0†	14-0	20-0†	20-0†	13-7	20-0†	20-0†	12-10	20-0†	20-0†	12-2	19-7	20-0†
	DFL	No.2	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-7	20-0†	20-0†	11-11	19-2	20-0†
	DFL	No.3/Stud	13-6	20-0†	20-0†	13-1	20-0†	20-0†	12-8	20-0†	20-0†	12-0	19-2	20-0†	11-5	17-8	20-0†
	DFL	Standard	12-10	-	-	12-3	-	-	11-9	-	-	10-9	-	-	9-11	-	-
	HF	SS	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-7	20-0†	20-0†	11-11	19-2	20-0†
	HF	No.1	13-10	20-0†	20-0†	13-5	20-0†	20-0†	13-0	20-0†	20-0†	12-3	19-9	20-0†	11-8	18-9	20-0†
	HF	No.2	13-2	20-0†	20-0†	12-9	20-0†	20-0†	12-4	19-10	20-0†	11-8	18-9	20-0†	11-1	17-10	20-0†
	HF	No.3/Stud	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-3	20-0†
	HF	Standard	12-7	-	-	12-0	-	-	11-5	-	-	10-6	-	-	9-8	-	-
	SP	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	20-0	20-0†
	SP	No.1	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-7	20-0†	20-0†	11-11	19-2	20-0†
	SP	No.2	13-6	20-0†	20-0†	13-1	20-0†	20-0†	12-8	20-0†	20-0†	12-0	19-3	20-0†	11-5	18-3	20-0†
	SP	No.3	13-2	20-0†	20-0†	12-9	19-11	20-0†	12-4	19-0	20-0†	11-6	17-5	20-0†	10-7	16-1	20-0†
	SP	Stud	13-2	20-0†	20-0†	12-9	19-11	20-0†	12-4	19-0	20-0†	11-6	17-5	20-0†	10-7	16-1	20-0†
	SP	Standard	11-7	-	-	11-1	-	-	10-7	-	-	9-8	-	-	9-0	-	-
16	SPF	SS	13-10	20-0†	20-0†	13-5	20-0†	20-0†	13-0	20-0†	20-0†	12-3	19-9	20-0†	11-8	18-9	20-0†
	SPF	No.1	13-6	20-0†	20-0†	13-1	20-0†	20-0†	12-8	20-0†	20-0†	12-0	19-3	20-0†	11-5	18-3	20-0†
	SPF	No.2	13-6	20-0†	20-0†	13-1	20-0†	20-0†	12-8	20-0†	20-0†	12-0	19-3	20-0†	11-5	18-3	20-0†
	SPF	No.3/Stud	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-3	20-0†
	SPF	Standard	12-7	-	-	12-0	-	-	11-5	-	-	10-6	-	-	9-8	-	-
	DFL	SS	13-7	20-0†	20-0†	13-2	20-0†	20-0†	12-9	20-0†	20-0†	12-1	19-4	20-0†	11-5	18-5	20-0†
	DFL	No.1	13-0	20-0†	20-0†	12-8	20-0†	20-0†	12-3	19-8	20-0†	11-7	18-8	20-0†	11-0	17-8	20-0†
	DFL	No.2	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-4	20-0†
	DFL	No.3/Stud	12-2	19-7	20-0†	11-10	18-8	20-0†	11-6	17-10	20-0†	10-10	16-5	20-0†	10-1	15-2	19-6
	DFL	Standard	11-0	-	-	10-6	-	-	10-0	-	-	9-3	-	-	8-6	-	-
	HF	SS	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-4	20-0†
	HF	No.1	12-6	20-0†	20-0†	12-1	19-5	20-0†	11-9	18-10	20-0†	11-1	17-10	20-0†	10-7	16-11	20-0†
	HF	No.2	11-10	19-1	20-0†	11-6	18-6	20-0†	11-2	17-11	20-0†	10-7	17-0	20-0†	10-0	16-1	20-0†
	HF	No.3/Stud	11-7	18-6	20-0†	11-2	18-0	20-0†	10-10	17-5	20-0†	10-3	16-0	20-0†	9-9	14-9	19-0
	HF	Standard	10-9	-	-	10-3	-	-	9-10	-	-	9-0	-	-	8-4	-	-
	SP	SS	13-4	20-0†	20-0†	12-11	20-0†	20-0†	12-6	20-0†	20-0†	11-10	19-0	20-0†	11-3	18-1	20-0†
	SP	No.1	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-4	20-0†
24	SP	No.2	12-2	19-7	20-0†	11-10	19-0	20-0†	11-6	18-5	20-0†	10-10	17-5	20-0†	10-4	16-6	20-0†
	SP	No.3	11-9	17-11	20-0†	11-3	17-1	20-0†	10-9	16-4	20-0†	9-10	15-0	19-2	9-1	13-10	17-8
	SP	Stud	11-9	17-11	20-0†	11-3	17-1	20-0†	10-9	16-4	20-0†	9-10	15-0	19-2	9-1	13-10	17-8
	SP	Standard	9-11	-	-	9-6	-	-	9-1	-	-	8-4	-	-	-	-	-
	SPF	SS	12-6	20-0†	20-0†	12-1	19-5	20-0†	11-9	18-10	20-0†	11-1	17-10	20-0†	10-7	16-11	20-0†
	SPF	No.1	12-2	19-7	20-0†	11-10	19-0	20-0†	11-6	18-5	20-0†	10-10	17-5	20-0†	10-4	16-6	20-0†
	SPF	No.2	12-2	19-7	20-0†	11-10	19-0	20-0†	11-6	18-5	20-0†	10-10	17-5	20-0†	10-4	16-6	20-0†
	SPF	No.3/Stud	11-7	18-6	20-0†	11-2	18-0	20-0†	10-10	17-5	20-0†	10-3	16-0	20-0†	9-9	14-9	19-0
	SPF	Standard	10-9	-	-	10-3	-	-	9-10	-	-	9-0	-	-	8-4	-	-
	DFL	SS	11-9	18-11	20-0†	11-5	18-4	20-0†	11-1	17-9	20-0†	10-6	16-10	20-0†	9-11	16-0	20-0†
	DFL	No.1	11-4	18-2	20-0†	11-0	17-7	20-0†	10-8	17-1	20-0†	10-1	16-2	20-0†	9-7	15-4	20-0†
	DFL	No.2	11-1	17-10	20-0†	10-9	17-3	20-0†	10-5	16-9	20-0†	9-10	15-10	20-0†	9-4	15-0	20-0†
	DFL	No.3/Stud	10-6	15-9	20-0†	10-0	15-1	19-5	9-7	14-4	18-6	8-9	13-2	17-0	8-1	12-2	15-8
	DFL	Standard	8-10	-	-	8-6	-	-	8-1	-	-	-	-	-	-	-	-
	HF	SS	11-1	17-10	20-0†	10-9	17-3	20-0†	10-5	16-9	20-0†	9-10	15-10	20-0†	9-4	15-0	20-0†
	HF	No.1	10-10	17-5	20-0†	10-6	16-10	20-0†	10-2	16-4	20-0†	9-8	15-6	20-0†	9-2	14-8	19-8
	HF	No.2	10-4	16-7	20-0†	10-0	16-0	20-0†	9-8	15-7	20-0†	9-2	14-9	19-8	8-9	14-0	18-8
	HF	No.3/Stud	10-0	15-4	19-10	9-9	14-8	18-11	9-4	14-0	18-1	8-7	12-10	16-7	7-11	11-10	15-3
	HF	Standard	8-8	-	-	8-3	-	-	7-11	-	-	-	-	-	-	-	-
	SP	SS	11-7	18-6	20-0†	11-2	18-0	20-0†	10-10	17-5	20-0†	10-3	16-6	20-0†	9-9	15-8	20-0†
	SP	No.1	11-1	17-10	20-0†	10-9	17-3	20-0†	10-5	16-9	20-0†	9-10	15-10	20-0†	9-4	15-0	20-0†
	SP	No.2	10-7	17-0	20-0†	10-3	16-6	20-0†	10-0	16-0	20-0†	9-5	15-1	20-0†	8-11	14-4	19-2
	SP	No.3	9-6	14-5	18-5	9-0	13-9	17-7	8-8	13-1	16-10	7-11	12-0	15-5	-	11-1	14-3
	SP	Stud	9-6	14-5	18-5	9-0	13-9	17-7	8-8	13-1	16-10	7-11	12-0	15-5	-	11-1	14-3
	SP	Standard	8-0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10-10	17-5	20-0†	10-6	16-10	20-0†	10-2	16-4	20-0†	9-8	15-6	20-0†	9-2	14-8	19-8
	SPF	No.1	10-7	17-0	20-0†	10-3	16-6	20-0†	10-0	16-0	20-0†	9-5	15-1	20-0†	8-11	14-4	19-2
	SPF	No.2	10-7	17-0	20-0†	10-3	16-6	20-0†	10-0	16-0	20-0†	9-5	15-1	20-0†	8-11	14-4	19-2
	SPF	No.3/Stud	10-0	15-4	19-10	9-9	14-8	18-11	9-4	14-0	18-1	8-7	12-10	16-7	7-11	11-10	15-3
	SPF	Standard	8-8	-	-	8-3	-	-	7-11	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A1 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/180**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12 - 1	19 - 5	20-0†	11 - 6	18 - 6	20-0†	11 - 1	17 - 9	20-0†	10 - 8	17 - 1	20-0†	10 - 1	16 - 2	20-0†
	DFL	No.1	11 - 7	18 - 8	20-0†	11 - 1	17 - 10	20-0†	10 - 8	17 - 1	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†
	DFL	No.2	11 - 4	18 - 3	20-0†	10 - 10	17 - 5	20-0†	10 - 5	16 - 9	20-0†	10 - 0	16 - 1	20-0†	9 - 6	15 - 2	20-0†
	DFL	No.3/Stud	10 - 10	16 - 5	20-0†	10 - 2	15 - 4	19 - 9	9 - 7	14 - 4	18 - 6	9 - 0	13 - 6	17 - 5	8 - 3	12 - 5	16 - 0
	DFL	Standard	9 - 3	-	-	8 - 7	-	-	8 - 1	-	-	-	-	-	-	-	-
	HF	SS	11 - 4	18 - 3	20-0†	10 - 10	17 - 5	20-0†	10 - 5	16 - 9	20-0†	10 - 0	16 - 1	20-0†	9 - 6	15 - 2	20-0†
	HF	No.1	11 - 1	17 - 10	20-0†	10 - 8	17 - 1	20-0†	10 - 2	16 - 4	20-0†	9 - 9	15 - 9	20-0†	9 - 3	14 - 10	19 - 10
	HF	No.2	10 - 7	17 - 0	20-0†	10 - 1	16 - 3	20-0†	9 - 8	15 - 7	20-0†	9 - 4	14 - 11	20 - 0	8 - 10	14 - 2	18 - 11
	HF	No.3/Stud	10 - 3	16 - 0	20-0†	9 - 10	14 - 11	19 - 3	9 - 4	14 - 0	18 - 0	8 - 9	13 - 2	16 - 11	8 - 0	12 - 1	15 - 7
	HF	Standard	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-	-	-	-
	SP	SS	11 - 10	19 - 0	20-0†	11 - 4	18 - 2	20-0†	10 - 10	17 - 5	20-0†	10 - 5	16 - 9	20-0†	9 - 10	15 - 10	20-0†
	SP	No.1	11 - 4	18 - 3	20-0†	10 - 10	17 - 5	20-0†	10 - 5	16 - 9	20-0†	10 - 0	16 - 1	20-0†	9 - 6	15 - 2	20-0†
	SP	No.2	10 - 10	17 - 5	20-0†	10 - 4	16 - 8	20-0†	9 - 11	16 - 0	20-0†	9 - 7	15 - 4	20-0†	9 - 0	14 - 6	19 - 4
	SP	No.3	9 - 10	15 - 0	19 - 2	9 - 2	14 - 0	17 - 11	8 - 7	13 - 1	16 - 9	8 - 1	12 - 4	15 - 9	-	11 - 4	14 - 6
	SP	Stud	9 - 10	15 - 0	19 - 2	9 - 2	14 - 0	17 - 11	8 - 7	13 - 1	16 - 9	8 - 1	12 - 4	15 - 9	-	11 - 4	14 - 6
	SP	Standard	8 - 4	-	-	7 - 9	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 1	17 - 10	20-0†	10 - 8	17 - 1	20-0†	10 - 2	16 - 4	20-0†	9 - 9	15 - 9	20-0†	9 - 3	14 - 10	19 - 10
	SPF	No.1	10 - 10	17 - 5	20-0†	10 - 4	16 - 8	20-0†	9 - 11	16 - 0	20-0†	9 - 7	15 - 4	20-0†	9 - 0	14 - 6	19 - 4
	SPF	No.2	10 - 10	17 - 5	20-0†	10 - 4	16 - 8	20-0†	9 - 11	16 - 0	20-0†	9 - 7	15 - 4	20-0†	9 - 0	14 - 6	19 - 4
	SPF	No.3/Stud	10 - 3	16 - 0	20-0†	9 - 10	14 - 11	19 - 3	9 - 4	14 - 0	18 - 0	8 - 9	13 - 2	16 - 11	8 - 0	12 - 1	15 - 7
	SPF	Standard	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-	-	-	-
16	DFL	SS	10 - 11	17 - 6	20-0†	10 - 5	16 - 9	20-0†	10 - 0	16 - 1	20-0†	9 - 7	15 - 5	20-0†	9 - 1	14 - 7	19 - 6
	DFL	No.1	10 - 6	16 - 10	20-0†	10 - 0	16 - 1	20-0†	9 - 8	15 - 5	20-0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9
	DFL	No.2	10 - 3	16 - 6	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 3
	DFL	No.3/Stud	9 - 4	14 - 1	18 - 1	8 - 9	13 - 1	16 - 11	8 - 2	12 - 4	15 - 10	-	11 - 7	14 - 11	-	10 - 7	13 - 8
	DFL	Standard	7 - 11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	10 - 3	16 - 6	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 4
	HF	No.1	10 - 1	16 - 2	20-0†	9 - 7	15 - 5	20-0†	9 - 3	14 - 9	19 - 9	8 - 10	14 - 2	19 - 0	8 - 5	13 - 5	17 - 11
	HF	No.2	9 - 7	15 - 4	20-0†	9 - 2	14 - 8	19 - 7	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 1	8 - 0	12 - 9	17 - 1
	HF	No.3/Stud	9 - 1	13 - 8	17 - 8	8 - 6	12 - 9	16 - 6	8 - 0	12 - 0	15 - 5	-	11 - 3	14 - 6	-	10 - 4	13 - 4
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	17 - 2	20-0†	10 - 3	16 - 5	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 2	20-0†	8 - 11	14 - 4	19 - 2
	SP	No.1	10 - 3	16 - 6	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 4
	SP	No.2	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 4	8 - 2	13 - 0	16 - 10
	SP	No.3	8 - 5	12 - 10	16 - 5	7 - 11	12 - 0	15 - 4	-	11 - 3	14 - 4	-	10 - 7	13 - 6	-	9 - 8	12 - 5
	SP	Stud	8 - 5	12 - 10	16 - 5	7 - 11	12 - 0	15 - 4	-	11 - 3	14 - 4	-	10 - 7	13 - 6	-	9 - 8	12 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	16 - 2	20-0†	9 - 7	15 - 5	20-0†	9 - 3	14 - 9	19 - 9	8 - 10	14 - 2	19 - 0	8 - 5	13 - 5	17 - 11
	SPF	No.1	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SPF	No.2	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SPF	No.3/Stud	9 - 1	13 - 8	17 - 8	8 - 6	12 - 9	16 - 6	8 - 0	12 - 0	15 - 5	-	11 - 3	14 - 6	-	10 - 4	13 - 4
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	9 - 6	15 - 3	20-0†	9 - 1	14 - 6	19 - 5	8 - 8	13 - 11	18 - 7	8 - 4	13 - 5	17 - 11	7 - 11	12 - 8	16 - 11
	DFL	No.1	9 - 1	14 - 8	19 - 7	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	8 - 0	12 - 11	16 - 11	-	12 - 1	15 - 7
	DFL	No.2	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 2	8 - 2	13 - 2	17 - 0	7 - 10	12 - 5	16 - 0	-	11 - 5	14 - 8
	DFL	No.3/Stud	-	11 - 4	14 - 7	-	10 - 7	13 - 7	-	9 - 11	12 - 9	-	9 - 4	12 - 0	-	8 - 7	11 - 0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 4	8 - 2	13 - 2	17 - 6	7 - 10	12 - 7	16 - 10	-	11 - 11	15 - 11
	HF	No.1	8 - 9	14 - 0	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 4
	HF	No.2	8 - 4	13 - 4	17 - 10	7 - 11	12 - 9	17 - 0	-	12 - 3	16 - 4	-	11 - 9	15 - 6	-	11 - 1	14 - 3
	HF	No.3/Stud	-	11 - 0	14 - 2	-	10 - 3	13 - 3	-	9 - 8	12 - 5	-	9 - 1	11 - 8	-	8 - 4	10 - 9
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	SP	No.1	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 4	8 - 2	13 - 2	17 - 6	7 - 10	12 - 7	16 - 10	-	11 - 11	15 - 11
	SP	No.2	8 - 6	13 - 8	17 - 11	8 - 2	13 - 0	16 - 9	7 - 10	12 - 2	15 - 8	-	11 - 5	14 - 9	-	10 - 6	13 - 6
	SP	No.3	-	10 - 4	13 - 3	-	9 - 8	12 - 4	-	9 - 0	11 - 7	-	8 - 6	10 - 10	-	7 - 10	10 - 0
	SP	Stud	-	10 - 4	13 - 3	-	9 - 8	12 - 4	-	9 - 0	11 - 7	-	8 - 6	10 - 10	-	7 - 10	10 - 0
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8 - 9	14 - 0	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SPF	No.1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	15 - 9	-	11 - 3	14 - 6
	SPF	No.2	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	15 - 9	-	11 - 3	14 - 6
	SPF	No.3/Stud	-	11 - 0	14 - 2	-	10 - 3	13 - 3	-	9 - 8	12 - 5	-	9 - 1	11 - 8	-	8 - 4	10 - 9
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A2 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/240**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 7	20-0†	20-0†	13 - 2	20-0†	20-0†	12 - 9	20-0†	20-0†	12 - 1	19 - 4	20-0†	11 - 5	18 - 5	20-0†
	DFL	No.1	13 - 0	20-0†	20-0†	12 - 8	20-0†	20-0†	12 - 3	19 - 8	20-0†	11 - 7	18 - 8	20-0†	11 - 0	17 - 8	20-0†
	DFL	No.2	12 - 9	20-0†	20-0†	12 - 5	19 - 10	20-0†	12 - 0	19 - 3	20-0†	11 - 4	18 - 3	20-0†	10 - 9	17 - 4	20-0†
	DFL	No.3/Stud	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 6	18 - 5	20-0†	10 - 10	17 - 5	20-0†	10 - 4	16 - 6	20-0†
	DFL	Standard	12 - 2	-	-	11 - 10	-	-	11 - 6	-	-	10 - 9	-	-	9 - 11	-	-
	HF	SS	12 - 9	20-0†	20-0†	12 - 5	19 - 10	20-0†	12 - 0	19 - 3	20-0†	11 - 4	18 - 3	20-0†	10 - 9	17 - 4	20-0†
	HF	No.1	12 - 6	20-0†	20-0†	12 - 1	19 - 5	20-0†	11 - 9	18 - 10	20-0†	11 - 1	17 - 10	20-0†	10 - 7	16 - 11	20-0†
	HF	No.2	11 - 10	19 - 1	20-0†	11 - 6	18 - 6	20-0†	11 - 2	17 - 11	20-0†	10 - 7	17 - 0	20-0†	10 - 0	16 - 1	20-0†
	HF	No.3/Stud	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	HF	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 8	-	-
	SP	SS	13 - 4	20-0†	20-0†	12 - 11	20-0†	20-0†	12 - 6	20-0†	20-0†	11 - 10	19 - 0	20-0†	11 - 3	18 - 1	20-0†
	SP	No.1	12 - 9	20-0†	20-0†	12 - 5	19 - 10	20-0†	12 - 0	19 - 3	20-0†	11 - 4	18 - 3	20-0†	10 - 9	17 - 4	20-0†
	SP	No.2	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 6	18 - 5	20-0†	10 - 10	17 - 5	20-0†	10 - 4	16 - 6	20-0†
	SP	No.3	11 - 10	19 - 1	20-0†	11 - 6	18 - 6	20-0†	11 - 2	17 - 11	20-0†	10 - 7	17 - 0	20-0†	10 - 0	16 - 1	20-0†
	SP	Stud	11 - 10	19 - 1	20-0†	11 - 6	18 - 6	20-0†	11 - 2	17 - 11	20-0†	10 - 7	17 - 0	20-0†	10 - 0	16 - 1	20-0†
	SP	Standard	11 - 7	-	-	11 - 1	-	-	10 - 7	-	-	9 - 8	-	-	9 - 0	-	-
	SPF	SS	12 - 6	20-0†	20-0†	12 - 1	19 - 5	20-0†	11 - 9	18 - 10	20-0†	11 - 1	17 - 10	20-0†	10 - 7	16 - 11	20-0†
	SPF	No.1	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 6	18 - 5	20-0†	10 - 10	17 - 5	20-0†	10 - 4	16 - 6	20-0†
	SPF	No.2	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 6	18 - 5	20-0†	10 - 10	17 - 5	20-0†	10 - 4	16 - 6	20-0†
	SPF	No.3/Stud	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	SPF	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 8	-	-
16	DFL	SS	12 - 3	19 - 8	20-0†	11 - 11	19 - 1	20-0†	11 - 6	18 - 6	20-0†	10 - 11	17 - 6	20-0†	10 - 4	16 - 8	20-0†
	DFL	No.1	11 - 10	18 - 11	20-0†	11 - 5	18 - 4	20-0†	11 - 1	17 - 10	20-0†	10 - 6	16 - 10	20-0†	10 - 0	16 - 0	20-0†
	DFL	No.2	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	DFL	No.3/Stud	11 - 0	17 - 8	20-0†	10 - 8	17 - 2	20-0†	10 - 4	16 - 8	20-0†	9 - 10	15 - 9	20-0†	9 - 4	15 - 0	19 - 6
	DFL	Standard	11 - 0	-	-	10 - 6	-	-	10 - 0	-	-	9 - 3	-	-	8 - 6	-	-
	HF	SS	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	HF	No.1	11 - 3	18 - 2	20-0†	10 - 11	17 - 7	20-0†	10 - 8	17 - 1	20-0†	10 - 1	16 - 2	20-0†	9 - 7	15 - 4	20-0†
	HF	No.2	10 - 9	17 - 3	20-0†	10 - 5	16 - 9	20-0†	10 - 1	16 - 3	20-0†	9 - 7	15 - 4	20-0†	9 - 1	14 - 7	19 - 6
	HF	No.3/Stud	10 - 5	16 - 9	20-0†	10 - 2	16 - 3	20-0†	9 - 10	15 - 9	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 2	18 - 11
	HF	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 0	-	-	8 - 4	-	-
	SP	SS	12 - 0	19 - 4	20-0†	11 - 8	18 - 9	20-0†	11 - 4	18 - 2	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 4	20-0†
	SP	No.1	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	SP	No.2	11 - 0	17 - 8	20-0†	10 - 8	17 - 2	20-0†	10 - 4	16 - 8	20-0†	9 - 10	15 - 9	20-0†	9 - 4	15 - 0	20 - 0
	SP	No.3	10 - 9	17 - 3	20-0†	10 - 5	16 - 9	20-0†	10 - 1	16 - 3	20-0†	9 - 7	15 - 0	19 - 2	9 - 1	13 - 10	17 - 8
	SP	Stud	10 - 9	17 - 3	20-0†	10 - 5	16 - 9	20-0†	10 - 1	16 - 3	20-0†	9 - 7	15 - 0	19 - 2	9 - 1	13 - 10	17 - 8
	SP	Standard	9 - 11	-	-	9 - 6	-	-	9 - 1	-	-	8 - 4	-	-	-	-	-
	SPF	SS	11 - 3	18 - 2	20-0†	10 - 11	17 - 7	20-0†	10 - 8	17 - 1	20-0†	10 - 1	16 - 2	20-0†	9 - 7	15 - 4	20-0†
	SPF	No.1	11 - 0	17 - 8	20-0†	10 - 8	17 - 2	20-0†	10 - 4	16 - 8	20-0†	9 - 10	15 - 9	20-0†	9 - 4	15 - 0	20 - 0
	SPF	No.2	11 - 0	17 - 8	20-0†	10 - 8	17 - 2	20-0†	10 - 4	16 - 8	20-0†	9 - 10	15 - 9	20-0†	9 - 4	15 - 0	20 - 0
	SPF	No.3/Stud	10 - 5	16 - 9	20-0†	10 - 2	16 - 3	20-0†	9 - 10	15 - 9	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 2	18 - 11
	SPF	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 0	-	-	8 - 4	-	-
24	DFL	SS	10 - 8	17 - 1	20-0†	10 - 4	16 - 7	20-0†	10 - 0	16 - 1	20-0†	9 - 6	15 - 2	20-0†	9 - 0	14 - 5	19 - 3
	DFL	No.1	10 - 3	16 - 5	20-0†	9 - 11	15 - 11	20-0†	9 - 8	15 - 6	20-0†	9 - 1	14 - 7	19 - 6	8 - 8	13 - 11	18 - 7
	DFL	No.2	10 - 0	16 - 1	20-0†	9 - 9	15 - 7	20-0†	9 - 5	15 - 2	20-0†	8 - 11	14 - 4	19 - 2	8 - 6	13 - 7	18 - 2
	DFL	No.3/Stud	9 - 7	15 - 4	20-0†	9 - 3	14 - 11	19 - 5	9 - 0	14 - 4	18 - 6	8 - 6	13 - 2	17 - 0	8 - 1	12 - 2	15 - 8
	DFL	Standard	8 - 10	-	-	8 - 6	-	-	8 - 1	-	-	-	-	-	-	-	-
	HF	SS	10 - 0	16 - 1	20-0†	9 - 9	15 - 7	20-0†	9 - 5	15 - 2	20-0†	8 - 11	14 - 4	19 - 2	8 - 6	13 - 7	18 - 2
	HF	No.1	9 - 10	15 - 9	20-0†	9 - 6	15 - 3	20-0†	9 - 3	14 - 10	19 - 9	8 - 9	14 - 0	18 - 8	8 - 3	13 - 4	17 - 9
	HF	No.2	9 - 4	15 - 0	20 - 0	9 - 1	14 - 6	19 - 5	8 - 9	14 - 1	18 - 10	8 - 4	13 - 4	17 - 9	7 - 11	12 - 8	16 - 11
	HF	No.3/Stud	9 - 1	14 - 7	19 - 5	8 - 10	14 - 1	18 - 10	8 - 6	13 - 8	18 - 1	8 - 1	12 - 10	16 - 7	-	11 - 10	15 - 3
	HF	Standard	8 - 8	-	-	8 - 3	-	-	7 - 11	-	-	-	-	-	-	-	-
	SP	SS	10 - 5	16 - 9	20-0†	10 - 2	16 - 3	20-0†	9 - 10	15 - 9	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 2	18 - 11
	SP	No.1	10 - 0	16 - 1	20-0†	9 - 9	15 - 7	20-0†	9 - 5	15 - 2	20-0†	8 - 11	14 - 4	19 - 2	8 - 6	13 - 7	18 - 2
	SP	No.2	9 - 7	15 - 4	20-0†	9 - 3	14 - 11	19 - 11	9 - 0	14 - 5	19 - 4	8 - 6	13 - 8	18 - 3	8 - 1	13 - 0	17 - 4
	SP	No.3	9 - 4	14 - 5	18 - 5	9 - 0	13 - 9	17 - 7	8 - 8	13 - 1	16 - 10	7 - 11	12 - 0	15 - 5	-	11 - 1	14 - 3
	SP	Stud	9 - 4	14 - 5	18 - 5	9 - 0	13 - 9	17 - 7	8 - 8	13 - 1	16 - 10	7 - 11	12 - 0	15 - 5	-	11 - 1	14 - 3
	SP	Standard	8 - 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 10	15 - 9	20-0†	9 - 6	15 - 3	20-0†	9 - 3	14 - 10	19 - 9	8 - 9	14 - 0	18 - 8	8 - 3	13 - 4	17 - 9
	SPF	No.1	9 - 7	15 - 4	20-0†	9 - 3	14 - 11	19 - 11	9 - 0	14 - 5	19 - 4	8 - 6	13 - 8	18 - 3	8 - 1	13 - 0	17 - 4
	SPF	No.2	9 - 7	15 - 4	20-0†	9 - 3	14 - 11	19 - 11	9 - 0	14 - 5	19 - 4	8 - 6	13 - 8	18 - 3	8 - 1	13 - 0	17 - 4
	SPF	No.3/Stud	9 - 1	14 - 7	19 - 5	8 - 10	14 - 1	18 - 10	8 - 6	13 - 8	18 - 1	8 - 1	12 - 10	16 - 7	-	11 - 10	15 - 3
	SPF	Standard	8 - 8	-	-	8 - 3	-	-	7 - 11	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A2 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/240**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	10 - 11	17 - 6	20-0†	10 - 5	16 - 9	20-0†	10 - 0	16 - 1	20-0†	9 - 7	15 - 5	20-0†	9 - 1	14 - 7	19 - 6
	DFL	No.1	10 - 6	16 - 10	20-0†	10 - 0	16 - 1	20-0†	9 - 8	15 - 5	20-0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9
	DFL	No.2	10 - 3	16 - 6	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 4
	DFL	No.3/Stud	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	19 - 9	9 - 0	14 - 4	18 - 6	8 - 8	13 - 6	17 - 5	8 - 2	12 - 5	16 - 0
	DFL	Standard	9 - 3	-	-	8 - 7	-	-	8 - 1	-	-	-	-	-	-	-	-
	HF	SS	10 - 3	16 - 6	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 4
	HF	No.1	10 - 1	16 - 2	20-0†	9 - 7	15 - 5	20-0†	9 - 3	14 - 9	19 - 9	8 - 10	14 - 2	19 - 0	8 - 5	13 - 5	17 - 11
	HF	No.2	9 - 7	15 - 4	20-0†	9 - 2	14 - 8	19 - 7	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 1	8 - 0	12 - 9	17 - 1
	HF	No.3/Stud	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 0	8 - 2	13 - 2	16 - 11	7 - 9	12 - 1	15 - 7
	HF	Standard	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	17 - 2	20-0†	10 - 3	16 - 5	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 2	20-0†	8 - 11	14 - 4	19 - 2
	SP	No.1	10 - 3	16 - 6	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 4
	SP	No.2	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SP	No.3	9 - 7	15 - 0	19 - 2	9 - 2	14 - 0	17 - 11	8 - 7	13 - 1	16 - 9	8 - 1	12 - 4	15 - 9	-	11 - 4	14 - 6
	SP	Stud	9 - 7	15 - 0	19 - 2	9 - 2	14 - 0	17 - 11	8 - 7	13 - 1	16 - 9	8 - 1	12 - 4	15 - 9	-	11 - 4	14 - 6
	SP	Standard	8 - 4	-	-	7 - 9	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	16 - 2	20-0†	9 - 7	15 - 5	20-0†	9 - 3	14 - 9	19 - 9	8 - 10	14 - 2	19 - 0	8 - 5	13 - 5	17 - 11
	SPF	No.1	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SPF	No.2	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SPF	No.3/Stud	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 0	8 - 2	13 - 2	16 - 11	7 - 9	12 - 1	15 - 7
	SPF	Standard	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-	-	-	-
16	DFL	SS	9 - 11	15 - 10	20-0†	9 - 5	15 - 2	20-0†	9 - 1	14 - 6	19 - 5	8 - 8	14 - 0	18 - 8	8 - 3	13 - 2	17 - 8
	DFL	No.1	9 - 6	15 - 3	20-0†	9 - 1	14 - 7	19 - 6	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	7 - 11	12 - 8	17 - 0
	DFL	No.2	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	DFL	No.3/Stud	8 - 11	14 - 1	18 - 1	8 - 6	13 - 1	16 - 11	8 - 2	12 - 4	15 - 10	-	11 - 7	14 - 11	-	10 - 7	13 - 8
	DFL	Standard	7 - 11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	HF	No.1	9 - 1	14 - 7	19 - 6	8 - 8	14 - 0	18 - 8	8 - 4	13 - 4	17 - 10	8 - 0	12 - 10	17 - 2	-	12 - 2	16 - 3
	HF	No.2	8 - 8	13 - 11	18 - 7	8 - 3	13 - 3	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 3	16 - 4	-	11 - 7	15 - 5
	HF	No.3/Stud	8 - 5	13 - 6	17 - 8	8 - 1	12 - 9	16 - 6	-	12 - 0	15 - 5	-	11 - 3	14 - 6	-	10 - 4	13 - 4
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 8	15 - 7	20-0†	9 - 3	14 - 10	19 - 10	8 - 11	14 - 3	19 - 0	8 - 6	13 - 8	18 - 4	8 - 1	12 - 11	17 - 4
	SP	No.1	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	SP	No.2	8 - 11	14 - 3	19 - 0	8 - 6	13 - 7	18 - 2	8 - 2	13 - 1	17 - 5	7 - 10	12 - 7	16 - 9	-	11 - 10	15 - 10
	SP	No.3	8 - 5	12 - 10	16 - 5	7 - 11	12 - 0	15 - 4	-	11 - 3	14 - 4	-	10 - 7	13 - 6	-	9 - 8	12 - 5
	SP	Stud	8 - 5	12 - 10	16 - 5	7 - 11	12 - 0	15 - 4	-	11 - 3	14 - 4	-	10 - 7	13 - 6	-	9 - 8	12 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 1	14 - 7	19 - 6	8 - 8	14 - 0	18 - 8	8 - 4	13 - 4	17 - 10	8 - 0	12 - 10	17 - 2	-	12 - 2	16 - 3
	SPF	No.1	8 - 11	14 - 3	19 - 0	8 - 6	13 - 7	18 - 2	8 - 2	13 - 1	17 - 5	7 - 10	12 - 7	16 - 9	-	11 - 10	15 - 10
	SPF	No.2	8 - 11	14 - 3	19 - 0	8 - 6	13 - 7	18 - 2	8 - 2	13 - 1	17 - 5	7 - 10	12 - 7	16 - 9	-	11 - 10	15 - 10
	SPF	No.3/Stud	8 - 5	13 - 6	17 - 8	8 - 1	12 - 9	16 - 6	-	12 - 0	15 - 5	-	11 - 3	14 - 6	-	10 - 4	13 - 4
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8 - 7	13 - 9	18 - 5	8 - 2	13 - 2	17 - 7	7 - 10	12 - 7	16 - 10	-	12 - 1	16 - 2	-	11 - 5	15 - 4
	DFL	No.1	8 - 3	13 - 3	17 - 8	7 - 11	12 - 8	16 - 11	-	12 - 2	16 - 2	-	11 - 8	15 - 7	-	11 - 0	14 - 9
	DFL	No.2	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	DFL	No.3/Stud	-	11 - 4	14 - 7	-	10 - 7	13 - 7	-	9 - 11	12 - 9	-	9 - 4	12 - 0	-	8 - 7	11 - 0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	HF	No.1	7 - 11	12 - 8	16 - 11	-	12 - 1	16 - 2	-	11 - 7	15 - 6	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	HF	No.2	-	12 - 1	16 - 1	-	11 - 6	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 0	13 - 5
	HF	No.3/Stud	-	11 - 0	14 - 2	-	10 - 3	13 - 3	-	9 - 8	12 - 5	-	9 - 1	11 - 8	-	8 - 4	10 - 9
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8 - 5	13 - 6	18 - 0	8 - 1	12 - 11	17 - 3	-	12 - 4	16 - 6	-	11 - 11	15 - 11	-	11 - 3	15 - 0
	SP	No.1	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	SP	No.2	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 6
	SP	No.3	-	10 - 4	13 - 3	-	9 - 8	12 - 4	-	9 - 0	11 - 7	-	8 - 6	10 - 10	-	7 - 10	10 - 0
	SP	Stud	-	10 - 4	13 - 3	-	9 - 8	12 - 4	-	9 - 0	11 - 7	-	8 - 6	10 - 10	-	7 - 10	10 - 0
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7 - 11	12 - 8	16 - 11	-	12 - 1	16 - 2	-	11 - 7	15 - 6	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	SPF	No.1	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SPF	No.2	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SPF	No.3/Stud	-	11 - 0	14 - 2	-	10 - 3	13 - 3	-	9 - 8	12 - 5	-	9 - 1	11 - 8	-	8 - 4	10 - 9
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A3 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/360**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	11-9	18-11	20-0 ⁺	11-5	18-4	20-0 ⁺	11-1	17-9	20-0 ⁺	10-6	16-10	20-0 ⁺	9-11	16-0	20-0 ⁺
	DFL	No.1	11-4	18-2	20-0 ⁺	11-0	17-7	20-0 ⁺	10-8	17-1	20-0 ⁺	10-1	16-2	20-0 ⁺	9-7	15-4	20-0 ⁺
	DFL	No.2	11-1	17-10	20-0 ⁺	10-9	17-3	20-0 ⁺	10-5	16-9	20-0 ⁺	9-10	15-10	20-0 ⁺	9-4	15-0	20-0 ⁺
	DFL	No.3/Stud	10-7	17-0	20-0 ⁺	10-3	16-6	20-0 ⁺	10-0	16-0	20-0 ⁺	9-5	15-1	20-0 ⁺	8-11	14-4	19-2
	DFL	Standard	10-7	-	-	10-3	-	-	10-0	-	-	9-5	-	-	8-11	-	-
	HF	SS	11-1	17-10	20-0 ⁺	10-9	17-3	20-0 ⁺	10-5	16-9	20-0 ⁺	9-10	15-10	20-0 ⁺	9-4	15-0	20-0 ⁺
	HF	No.1	10-10	17-5	20-0 ⁺	10-6	16-10	20-0 ⁺	10-2	16-4	20-0 ⁺	9-8	15-6	20-0 ⁺	9-2	14-8	19-8
	HF	No.2	10-4	16-7	20-0 ⁺	10-0	16-0	20-0 ⁺	9-8	15-7	20-0 ⁺	9-2	14-9	19-8	8-9	14-0	18-8
	HF	No.3/Stud	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	HF	Standard	10-0	-	-	9-9	-	-	9-5	-	-	8-11	-	-	8-6	-	-
	SP	SS	11-7	18-6	20-0 ⁺	11-2	18-0	20-0 ⁺	10-10	17-5	20-0 ⁺	10-3	16-6	20-0 ⁺	9-9	15-8	20-0 ⁺
	SP	No.1	11-1	17-10	20-0 ⁺	10-9	17-3	20-0 ⁺	10-5	16-9	20-0 ⁺	9-10	15-10	20-0 ⁺	9-4	15-0	20-0 ⁺
	SP	No.2	10-7	17-0	20-0 ⁺	10-3	16-6	20-0 ⁺	10-0	16-0	20-0 ⁺	9-5	15-1	20-0 ⁺	8-11	14-4	19-2
	SP	No.3	10-4	16-7	20-0 ⁺	10-0	16-0	20-0 ⁺	9-8	15-7	20-0 ⁺	9-2	14-9	19-8	8-9	14-0	18-8
	SP	Stud	10-4	16-7	20-0 ⁺	10-0	16-0	20-0 ⁺	9-8	15-7	20-0 ⁺	9-2	14-9	19-8	8-9	14-0	18-8
	SP	Standard	10-0	-	-	9-9	-	-	9-5	-	-	8-11	-	-	8-6	-	-
	SPF	SS	10-10	17-5	20-0 ⁺	10-6	16-10	20-0 ⁺	10-2	16-4	20-0 ⁺	9-8	15-6	20-0 ⁺	9-2	14-8	19-8
	SPF	No.1	10-7	17-0	20-0 ⁺	10-3	16-6	20-0 ⁺	10-0	16-0	20-0 ⁺	9-5	15-1	20-0 ⁺	8-11	14-4	19-2
	SPF	No.2	10-7	17-0	20-0 ⁺	10-3	16-6	20-0 ⁺	10-0	16-0	20-0 ⁺	9-5	15-1	20-0 ⁺	8-11	14-4	19-2
	SPF	No.3/Stud	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	SPF	Standard	10-0	-	-	9-9	-	-	9-5	-	-	8-11	-	-	8-6	-	-
16	DFL	SS	10-8	17-1	20-0 ⁺	10-4	16-7	20-0 ⁺	10-0	16-1	20-0 ⁺	9-6	15-2	20-0 ⁺	9-0	14-5	19-3
	DFL	No.1	10-3	16-5	20-0 ⁺	9-11	15-11	20-0 ⁺	9-8	15-6	20-0 ⁺	9-1	14-7	19-6	8-8	13-11	18-7
	DFL	No.2	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	DFL	No.3/Stud	9-7	15-4	20-0 ⁺	9-3	14-11	19-11	9-0	14-5	19-4	8-6	13-8	18-3	8-1	13-0	17-4
	DFL	Standard	9-7	-	-	9-3	-	-	9-0	-	-	8-6	-	-	8-1	-	-
	HF	SS	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	HF	No.1	9-10	15-9	20-0 ⁺	9-6	15-3	20-0 ⁺	9-3	14-10	19-9	8-9	14-0	18-8	8-3	13-4	17-9
	HF	No.2	9-4	15-0	20-0	9-1	14-6	19-5	8-9	14-1	18-10	8-4	13-4	17-9	7-11	12-8	16-11
	HF	No.3/Stud	9-1	14-7	19-5	8-10	14-1	18-10	8-6	13-8	18-4	8-1	12-11	17-4	-	12-4	16-5
	HF	Standard	9-1	-	-	8-10	-	-	8-6	-	-	8-1	-	-	-	-	-
	SP	SS	10-5	16-9	20-0 ⁺	10-2	16-3	20-0 ⁺	9-10	15-9	20-0 ⁺	9-4	14-11	19-11	8-10	14-2	18-11
	SP	No.1	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	SP	No.2	9-7	15-4	20-0 ⁺	9-3	14-11	19-11	9-0	14-5	19-4	8-6	13-8	18-3	8-1	13-0	17-4
	SP	No.3	9-4	15-0	20-0	9-1	14-6	19-5	8-9	14-1	18-10	8-4	13-4	17-9	7-11	12-8	16-11
	SP	Stud	9-4	15-0	20-0	9-1	14-6	19-5	8-9	14-1	18-10	8-4	13-4	17-9	7-11	12-8	16-11
	SP	Standard	9-1	-	-	8-10	-	-	8-6	-	-	8-1	-	-	-	-	-
	SPF	SS	9-10	15-9	20-0 ⁺	9-6	15-3	20-0 ⁺	9-3	14-10	19-9	8-9	14-0	18-8	8-3	13-4	17-9
	SPF	No.1	9-7	15-4	20-0 ⁺	9-3	14-11	19-11	9-0	14-5	19-4	8-6	13-8	18-3	8-1	13-0	17-4
	SPF	No.2	9-7	15-4	20-0 ⁺	9-3	14-11	19-11	9-0	14-5	19-4	8-6	13-8	18-3	8-1	13-0	17-4
	SPF	No.3/Stud	9-1	14-7	19-5	8-10	14-1	18-10	8-6	13-8	18-4	8-1	12-11	17-4	-	12-4	16-5
	SPF	Standard	9-1	-	-	8-10	-	-	8-6	-	-	8-1	-	-	-	-	-
24	DFL	SS	9-3	14-10	19-10	9-0	14-5	19-2	8-8	14-0	18-8	8-3	13-2	17-8	7-10	12-6	16-9
	DFL	No.1	8-11	14-3	19-1	8-7	13-10	18-6	8-4	13-5	17-11	7-11	12-8	17-0	-	12-1	16-1
	DFL	No.2	8-8	14-0	18-8	8-5	13-6	18-1	8-2	13-2	17-7	7-9	12-5	16-7	-	11-10	15-9
	DFL	No.3/Stud	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	DFL	Standard	8-4	-	-	8-1	-	-	7-10	-	-	-	-	-	-	-	-
	HF	SS	8-8	14-0	18-8	8-5	13-6	18-1	8-2	13-2	17-7	7-9	12-5	16-7	-	11-10	15-9
	HF	No.1	8-6	13-8	18-3	8-3	13-3	17-8	8-0	12-10	17-2	-	12-2	16-3	-	11-6	15-5
	HF	No.2	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-8
	HF	No.3/Stud	7-11	12-8	16-10	-	12-3	16-4	-	11-11	15-11	-	11-3	15-0	-	10-8	14-3
	HF	Standard	7-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-1	14-7	19-5	8-10	14-1	18-10	8-6	13-8	18-4	8-1	12-11	17-4	-	12-4	16-5
	SP	No.1	8-8	14-0	18-8	8-5	13-6	18-1	8-2	13-2	17-7	7-9	12-5	16-7	-	11-10	15-9
	SP	No.2	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	SP	No.3	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-3
	SP	Stud	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-3
	SP	Standard	7-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-6	13-8	18-3	8-3	13-3	17-8	8-0	12-10	17-2	-	12-2	16-3	-	11-6	15-5
	SPF	No.1	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	SPF	No.2	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	SPF	No.3/Stud	7-11	12-8	16-10	-	12-3	16-4	-	11-11	15-11	-	11-3	15-0	-	10-8	14-3
	SPF	Standard	7-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A3 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/360**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	9 - 6	15 - 3	20-0†	9 - 1	14 - 6	19 - 5	8 - 8	13 - 11	18 - 7	8 - 4	13 - 5	17 - 11	7 - 11	12 - 8	16 - 11
	DFL	No.1	9 - 1	14 - 8	19 - 7	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	8 - 0	12 - 11	17 - 2	-	12 - 2	16 - 3
	DFL	No.2	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 4	8 - 2	13 - 2	17 - 6	7 - 10	12 - 7	16 - 10	-	11 - 11	15 - 11
	DFL	No.3/Stud	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	DFL	Standard	8 - 6	-	-	8 - 2	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 4	8 - 2	13 - 2	17 - 6	7 - 10	12 - 7	16 - 10	-	11 - 11	15 - 11
	HF	No.1	8 - 9	14 - 0	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	HF	No.2	8 - 4	13 - 4	17 - 10	7 - 11	12 - 9	17 - 0	-	12 - 3	16 - 4	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	HF	No.3/Stud	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	HF	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	SP	No.1	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 4	8 - 2	13 - 2	17 - 6	7 - 10	12 - 7	16 - 10	-	11 - 11	15 - 11
	SP	No.2	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	SP	No.3	8 - 4	13 - 4	17 - 10	7 - 11	12 - 9	17 - 0	-	12 - 3	16 - 4	-	11 - 9	15 - 8	-	11 - 1	14 - 6
	SP	Stud	8 - 4	13 - 4	17 - 10	7 - 11	12 - 9	17 - 0	-	12 - 3	16 - 4	-	11 - 9	15 - 8	-	11 - 1	14 - 6
	SP	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8 - 9	14 - 0	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SPF	No.1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	SPF	No.2	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	SPF	No.3/Stud	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	SPF	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	8 - 7	13 - 9	18 - 5	8 - 2	13 - 2	17 - 7	7 - 10	12 - 7	16 - 10	-	12 - 1	16 - 2	-	11 - 5	15 - 4
	DFL	No.1	8 - 3	13 - 3	17 - 8	7 - 11	12 - 8	16 - 11	-	12 - 2	16 - 2	-	11 - 8	15 - 7	-	11 - 0	14 - 9
	DFL	No.2	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	DFL	No.3/Stud	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 8
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	HF	No.1	7 - 11	12 - 8	16 - 11	-	12 - 1	16 - 2	-	11 - 7	15 - 6	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	HF	No.2	-	12 - 1	16 - 1	-	11 - 6	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 0	13 - 5
	HF	No.3/Stud	-	11 - 9	15 - 8	-	11 - 2	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 9	13 - 0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8 - 5	13 - 6	18 - 0	8 - 1	12 - 11	17 - 3	-	12 - 4	16 - 6	-	11 - 11	15 - 11	-	11 - 3	15 - 0
	SP	No.1	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	SP	No.2	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SP	No.3	-	12 - 1	16 - 1	-	11 - 6	15 - 4	-	11 - 1	14 - 4	-	10 - 7	13 - 6	-	9 - 8	12 - 5
	SP	Stud	-	12 - 1	16 - 1	-	11 - 6	15 - 4	-	11 - 1	14 - 4	-	10 - 7	13 - 6	-	9 - 8	12 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7 - 11	12 - 8	16 - 11	-	12 - 1	16 - 2	-	11 - 7	15 - 6	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	SPF	No.1	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SPF	No.2	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SPF	No.3/Stud	-	11 - 9	15 - 8	-	11 - 2	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 9	13 - 0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	-	11 - 11	15 - 11	-	11 - 5	15 - 3	-	10 - 11	14 - 7	-	10 - 6	14 - 1	-	9 - 11	13 - 3
	DFL	No.1	-	11 - 6	15 - 4	-	11 - 0	14 - 8	-	10 - 6	14 - 1	-	10 - 1	13 - 6	-	9 - 7	12 - 9
	DFL	No.2	-	11 - 3	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 11	13 - 3	-	9 - 4	12 - 6
	DFL	No.3/Stud	-	10 - 9	14 - 4	-	10 - 3	13 - 7	-	9 - 10	12 - 9	-	9 - 4	12 - 0	-	8 - 7	11 - 0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	11 - 3	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 11	13 - 3	-	9 - 4	12 - 6
	HF	No.1	-	11 - 0	14 - 8	-	10 - 6	14 - 0	-	10 - 1	13 - 5	-	9 - 8	12 - 11	-	9 - 2	12 - 3
	HF	No.2	-	10 - 6	14 - 0	-	10 - 0	13 - 4	-	9 - 7	12 - 10	-	9 - 3	12 - 4	-	8 - 9	11 - 8
	HF	No.3/Stud	-	10 - 2	13 - 7	-	9 - 9	13 - 0	-	9 - 4	12 - 5	-	9 - 0	11 - 8	-	8 - 4	10 - 9
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	11 - 9	15 - 8	-	11 - 2	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 9	13 - 0
	SP	No.1	-	11 - 3	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 11	13 - 3	-	9 - 4	12 - 6
	SP	No.2	-	10 - 9	14 - 4	-	10 - 3	13 - 8	-	9 - 10	13 - 2	-	9 - 5	12 - 7	-	8 - 11	11 - 11
	SP	No.3	-	10 - 4	13 - 3	-	9 - 8	12 - 4	-	9 - 0	11 - 7	-	8 - 6	10 - 10	-	7 - 10	10 - 0
	SP	Stud	-	10 - 4	13 - 3	-	9 - 8	12 - 4	-	9 - 0	11 - 7	-	8 - 6	10 - 10	-	7 - 10	10 - 0
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	11 - 0	14 - 8	-	10 - 6	14 - 0	-	10 - 1	13 - 5	-	9 - 8	12 - 11	-	9 - 2	12 - 3
	SPF	No.1	-	10 - 9	14 - 4	-	10 - 3	13 - 8	-	9 - 10	13 - 2	-	9 - 5	12 - 7	-	8 - 11	11 - 11
	SPF	No.2	-	10 - 9	14 - 4	-	10 - 3	13 - 8	-	9 - 10	13 - 2	-	9 - 5	12 - 7	-	8 - 11	11 - 11
	SPF	No.3/Stud	-	10 - 2	13 - 7	-	9 - 9	13 - 0	-	9 - 4	12 - 5	-	9 - 0	11 - 8	-	8 - 4	10 - 9
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A4 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/180**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 4	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 7	20-0†	20-0†	11 - 11	19 - 1	20-0†	11 - 4	18 - 2	20-0†
	DFL	No.1	12 - 10	20-0†	20-0†	12 - 6	20-0†	20-0†	12 - 1	19 - 5	20-0†	11 - 5	18 - 4	20-0†	10 - 10	17 - 5	20-0†
	DFL	No.2	12 - 7	20-0†	20-0†	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 2	18 - 0	20-0†	10 - 8	17 - 1	20-0†
	DFL	No.3/Stud	12 - 0	19 - 2	20-0†	11 - 8	18 - 4	20-0†	11 - 4	17 - 6	20-0†	10 - 8	16 - 0	20-0†	9 - 10	14 - 10	19 - 1
	DFL	Standard	10 - 9	-	-	10 - 3	-	-	9 - 10	-	-	9 - 0	-	-	8 - 4	-	-
	HF	SS	12 - 7	20-0†	20-0†	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 2	18 - 0	20-0†	10 - 8	17 - 1	20-0†
	HF	No.1	12 - 4	19 - 9	20-0†	11 - 11	19 - 2	20-0†	11 - 7	18 - 7	20-0†	11 - 0	17 - 7	20-0†	10 - 5	16 - 8	20-0†
	HF	No.2	11 - 8	18 - 10	20-0†	11 - 4	18 - 3	20-0†	11 - 0	17 - 8	20-0†	10 - 5	16 - 9	20-0†	9 - 11	15 - 11	20-0†
	HF	No.3/Stud	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 0	20-0†	10 - 2	15 - 8	20-0†	9 - 7	14 - 5	18 - 7
	HF	Standard	10 - 6	-	-	10 - 0	-	-	9 - 7	-	-	8 - 10	-	-	8 - 2	-	-
	SP	SS	13 - 1	20-0†	20-0†	12 - 9	20-0†	20-0†	12 - 4	19 - 10	20-0†	11 - 8	18 - 9	20-0†	11 - 1	17 - 10	20-0†
	SP	No.1	12 - 7	20-0†	20-0†	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 2	18 - 0	20-0†	10 - 8	17 - 1	20-0†
	SP	No.2	12 - 0	19 - 3	20-0†	11 - 8	18 - 8	20-0†	11 - 4	18 - 2	20-0†	10 - 8	17 - 2	20-0†	10 - 2	16 - 4	20-0†
	SP	No.3	11 - 6	17 - 6	20-0†	11 - 0	16 - 8	20-0†	10 - 6	15 - 11	20-0†	9 - 8	14 - 8	18 - 9	8 - 11	13 - 6	17 - 4
	SP	Stud	11 - 6	17 - 6	20-0†	11 - 0	16 - 8	20-0†	10 - 6	15 - 11	20-0†	9 - 8	14 - 8	18 - 9	8 - 11	13 - 6	17 - 4
	SP	Standard	9 - 9	-	-	9 - 3	-	-	8 - 10	-	-	8 - 2	-	-	-	-	-
16	SPF	SS	12 - 4	19 - 9	20-0†	11 - 11	19 - 2	20-0†	11 - 7	18 - 7	20-0†	11 - 0	17 - 7	20-0†	10 - 5	16 - 8	20-0†
	SPF	No.1	12 - 0	19 - 3	20-0†	11 - 8	18 - 8	20-0†	11 - 4	18 - 2	20-0†	10 - 8	17 - 2	20-0†	10 - 2	16 - 4	20-0†
	SPF	No.2	12 - 0	19 - 3	20-0†	11 - 8	18 - 8	20-0†	11 - 4	18 - 2	20-0†	10 - 8	17 - 2	20-0†	10 - 2	16 - 4	20-0†
	SPF	No.3/Stud	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 0	20-0†	10 - 2	15 - 8	20-0†	9 - 7	14 - 5	18 - 7
	SPF	Standard	10 - 6	-	-	10 - 0	-	-	9 - 7	-	-	8 - 10	-	-	8 - 2	-	-
	DFL	SS	12 - 1	19 - 5	20-0†	11 - 9	18 - 10	20-0†	11 - 5	18 - 3	20-0†	10 - 9	17 - 3	20-0†	10 - 3	16 - 5	20-0†
	DFL	No.1	11 - 8	18 - 8	20-0†	11 - 3	18 - 1	20-0†	10 - 11	17 - 7	20-0†	10 - 4	16 - 7	20-0†	9 - 10	15 - 9	20-0†
	DFL	No.2	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 3	20-0†	9 - 7	15 - 5	20-0†
	DFL	No.3/Stud	10 - 10	16 - 5	20-0†	10 - 5	15 - 8	20-0†	10 - 0	15 - 0	19 - 4	9 - 2	13 - 9	17 - 9	8 - 5	12 - 8	16 - 4
	DFL	Standard	9 - 3	-	-	8 - 10	-	-	8 - 5	-	-	-	-	-	-	-	-
	HF	SS	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 3	20-0†	9 - 7	15 - 5	20-0†
	HF	No.1	11 - 2	17 - 10	20-0†	10 - 9	17 - 4	20-0†	10 - 6	16 - 10	20-0†	9 - 11	15 - 11	20-0†	9 - 5	15 - 1	20-0†
	HF	No.2	10 - 7	17 - 0	20-0†	10 - 3	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 4	19 - 2
	HF	No.3/Stud	10 - 4	16 - 0	20-0†	10 - 0	15 - 3	19 - 8	9 - 8	14 - 7	18 - 10	8 - 11	13 - 5	17 - 3	8 - 3	12 - 4	15 - 11
	HF	Standard	9 - 0	-	-	8 - 7	-	-	8 - 3	-	-	-	-	-	-	-	-
	SP	SS	11 - 10	19 - 1	20-0†	11 - 6	18 - 6	20-0†	11 - 2	17 - 11	20-0†	10 - 7	16 - 11	20-0†	10 - 0	16 - 1	20-0†
24	SP	No.1	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 3	20-0†	9 - 7	15 - 5	20-0†
	SP	No.2	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 8
	SP	No.3	9 - 10	15 - 0	19 - 3	9 - 5	14 - 4	18 - 4	9 - 0	13 - 8	17 - 6	8 - 3	12 - 6	16 - 1	-	11 - 7	14 - 10
	SP	Stud	9 - 10	15 - 0	19 - 3	9 - 5	14 - 4	18 - 4	9 - 0	13 - 8	17 - 6	8 - 3	12 - 6	16 - 1	-	11 - 7	14 - 10
	SP	Standard	8 - 4	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 2	17 - 10	20-0†	10 - 9	17 - 4	20-0†	10 - 6	16 - 10	20-0†	9 - 11	15 - 11	20-0†	9 - 5	15 - 1	20-0†
	SPF	No.1	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 8
	SPF	No.2	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 8
	SPF	No.3/Stud	10 - 4	16 - 0	20-0†	10 - 0	15 - 3	19 - 8	9 - 8	14 - 7	18 - 10	8 - 11	13 - 5	17 - 3	8 - 3	12 - 4	15 - 11
	SPF	Standard	9 - 0	-	-	8 - 7	-	-	8 - 3	-	-	-	-	-	-	-	-
	DFL	SS	10 - 6	16 - 10	20-0†	10 - 2	16 - 4	20-0†	9 - 11	15 - 10	20-0†	9 - 4	15 - 0	20-0†	8 - 10	14 - 3	19 - 0
	DFL	No.1	10 - 1	16 - 2	20-0†	9 - 9	15 - 8	20-0†	9 - 6	15 - 3	20-0†	9 - 0	14 - 5	19 - 3	8 - 6	13 - 8	18 - 3
	DFL	No.2	9 - 11	15 - 10	20-0†	9 - 7	15 - 5	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 1	18 - 10	8 - 4	13 - 5	17 - 7
	DFL	No.3/Stud	8 - 10	13 - 3	17 - 1	8 - 5	12 - 7	16 - 3	8 - 0	12 - 1	15 - 6	-	11 - 1	14 - 3	-	10 - 3	13 - 2
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 11	15 - 10	20-0†	9 - 7	15 - 5	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 1	18 - 10	8 - 4	13 - 5	17 - 11
	HF	No.1	9 - 8	15 - 6	20-0†	9 - 4	15 - 0	20-0†	9 - 1	14 - 7	19 - 6	8 - 7	13 - 10	18 - 5	8 - 2	13 - 1	17 - 6
	HF	No.2	9 - 2	14 - 9	19 - 9	8 - 11	14 - 4	19 - 1	8 - 8	13 - 11	18 - 7	8 - 2	13 - 2	17 - 6	7 - 9	12 - 6	16 - 8
	HF	No.3/Stud	8 - 7	12 - 11	16 - 7	8 - 2	12 - 3	15 - 10	7 - 10	11 - 9	15 - 2	-	10 - 9	13 - 11	-	10 - 0	12 - 10
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10 - 4	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 8	15 - 7	20-0†	9 - 2	14 - 8	19 - 8	8 - 8	14 - 0	18 - 8
	SP	No.1	9 - 11	15 - 10	20-0†	9 - 7	15 - 5	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 1	18 - 10	8 - 4	13 - 5	17 - 11
	SP	No.2	9 - 5	15 - 2	20-0†	9 - 2	14 - 8	19 - 7	8 - 11	14 - 3	19 - 0	8 - 5	13 - 6	17 - 6	8 - 0	12 - 6	16 - 2
	SP	No.3	7 - 11	12 - 1	15 - 5	-	11 - 6	14 - 9	-	11 - 0	14 - 1	-	10 - 1	12 - 11	-	9 - 4	11 - 11
	SP	Stud	7 - 11	12 - 1	15 - 5	-	11 - 6	14 - 9	-	11 - 0	14 - 1	-	10 - 1	12 - 11	-	9 - 4	11 - 11
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 8	15 - 6	20-0†	9 - 4	15 - 0	20-0†	9 - 1	14 - 7	19 - 6	8 - 7	13 - 10	18 - 5	8 - 2	13 - 1	17 - 6
	SPF	No.1	9 - 5	15 - 2	20-0†	9 - 2	14 - 8	19 - 7	8 - 11	14 - 3	19 - 0	8 - 5	13 - 6	18 - 0	8 - 0	12 - 10	17 - 1
	SPF	No.2	9 - 5	15 - 2	20-0†	9 - 2	14 - 8	19 - 7	8 - 11	14 - 3	19 - 0	8 - 5	13 - 6	18 - 0	8 - 0	12 - 10	17 - 1
	SPF	No.3/Stud	8 - 7	12 - 11	16 - 7	8 - 2	12 - 3	15 - 10	7 - 10	11 - 9	15 - 2	-	10 - 9	13 - 11	-	10 - 0	12 - 10
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A4 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180 (Cont.)

Exposure C H/180

(Fully Sheathed with a Minimum Sheathing Material)^a

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	10-9	17-3	20-0†	10-3	16-6	20-0†	9-10	15-10	20-0†	9-6	15-3	20-0†	9-0	14-5	19-3
	DFL	No.1	10-4	16-7	20-0†	9-11	15-11	20-0†	9-6	15-3	20-0†	9-1	14-8	19-7	8-8	13-10	18-6
	DFL	No.2	10-2	16-3	20-0†	9-8	15-7	20-0†	9-4	14-11	19-11	8-11	14-4	19-2	8-5	13-7	17-10
	DFL	No.3/Stud	9-2	13-9	17-9	8-7	12-10	16-6	8-0	12-0	15-6	-	11-4	14-7	-	10-5	13-5
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	10-2	16-3	20-0†	9-8	15-7	20-0†	9-4	14-11	19-11	8-11	14-4	19-2	8-5	13-7	18-1
	HF	No.1	9-11	15-11	20-0†	9-6	15-2	20-0†	9-1	14-7	19-6	8-9	14-0	18-9	8-3	13-3	17-8
	HF	No.2	9-5	15-2	20-0†	9-0	14-6	19-4	8-8	13-10	18-6	8-4	13-4	17-10	7-10	12-7	16-10
	HF	No.3/Stud	8-11	13-5	17-3	8-4	12-6	16-1	7-10	11-9	15-1	-	11-0	14-2	-	10-1	13-0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10-7	17-0	20-0†	10-1	16-2	20-0†	9-8	15-6	20-0†	9-4	14-11	19-11	8-10	14-1	18-10
	SP	No.1	10-2	16-3	20-0†	9-8	15-7	20-0†	9-4	14-11	19-11	8-11	14-4	19-2	8-5	13-7	18-1
	SP	No.2	9-8	15-6	20-0†	9-3	14-10	19-10	8-10	14-3	19-0	8-6	13-8	17-11	8-1	12-9	16-5
	SP	No.3	8-3	12-7	16-1	-	11-9	15-0	-	11-0	14-1	-	10-4	13-3	-	9-6	12-2
	SP	Stud	8-3	12-7	16-1	-	11-9	15-0	-	11-0	14-1	-	10-4	13-3	-	9-6	12-2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-11	15-11	20-0†	9-6	15-2	20-0†	9-1	14-7	19-6	8-9	14-0	18-9	8-3	13-3	17-8
	SPF	No.1	9-8	15-6	20-0†	9-3	14-10	19-10	8-10	14-3	19-0	8-6	13-8	18-3	8-1	12-11	17-3
	SPF	No.2	9-8	15-6	20-0†	9-3	14-10	19-10	8-10	14-3	19-0	8-6	13-8	18-3	8-1	12-11	17-3
	SPF	No.3/Stud	8-11	13-5	17-3	8-4	12-6	16-1	7-10	11-9	15-1	-	11-0	14-2	-	10-1	13-0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	9-9	15-8	20-0†	9-4	14-11	20-0	8-11	14-4	19-2	8-7	13-9	18-5	8-1	13-0	17-5
	DFL	No.1	9-4	15-0	20-0†	9-0	14-4	19-2	8-7	13-9	18-5	8-3	13-3	17-8	7-10	12-6	16-2
	DFL	No.2	9-2	14-9	19-8	8-9	14-1	18-9	8-5	13-6	17-9	8-1	12-11	16-8	-	11-11	15-4
	DFL	No.3/Stud	7-10	11-10	15-2	-	11-0	14-2	-	10-4	13-3	-	9-8	12-6	-	8-11	11-6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9-2	14-9	19-8	8-9	14-1	18-9	8-5	13-6	18-0	8-1	13-0	17-4	-	12-3	16-4
	HF	No.1	9-0	14-5	19-3	8-7	13-9	18-4	8-3	13-2	17-7	7-11	12-8	16-11	-	12-0	16-0
	HF	No.2	8-6	13-8	18-3	8-2	13-1	17-6	7-10	12-6	16-9	-	12-1	16-1	-	11-5	14-10
	HF	No.3/Stud	-	11-6	14-10	-	10-9	13-10	-	10-1	12-11	-	9-5	12-2	-	8-8	11-2
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-7	15-4	20-0†	9-2	14-8	19-7	8-9	14-1	18-9	8-5	13-6	18-0	8-0	12-9	17-1
	SP	No.1	9-2	14-9	19-8	8-9	14-1	18-9	8-5	13-6	18-0	8-1	13-0	17-4	-	12-3	16-4
	SP	No.2	8-9	14-1	18-8	8-4	13-5	17-5	8-0	12-8	16-4	-	11-11	15-4	-	10-11	14-1
	SP	No.3	-	10-9	13-9	-	10-0	12-10	-	9-5	12-1	-	8-10	11-4	-	8-2	10-5
	SP	Stud	-	10-9	13-9	-	10-0	12-10	-	9-5	12-1	-	8-10	11-4	-	8-2	10-5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-0	14-5	19-3	8-7	13-9	18-4	8-3	13-2	17-7	7-11	12-8	16-11	-	12-0	16-0
	SPF	No.1	8-9	14-1	18-9	8-4	13-5	17-11	8-0	12-10	17-2	-	12-4	16-5	-	11-8	15-1
	SPF	No.2	8-9	14-1	18-9	8-4	13-5	17-11	8-0	12-10	17-2	-	12-4	16-5	-	11-8	15-1
	SPF	No.3/Stud	-	11-6	14-10	-	10-9	13-10	-	10-1	12-11	-	9-5	12-2	-	8-8	11-2
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8-5	13-7	18-1	8-1	13-0	17-4	7-9	12-5	16-7	-	11-11	15-11	-	11-4	15-1
	DFL	No.1	8-2	13-1	17-3	7-9	12-6	16-1	-	11-9	15-1	-	11-0	14-2	-	10-1	13-0
	DFL	No.2	8-0	12-8	16-4	-	11-10	15-3	-	11-1	14-3	-	10-5	13-5	-	9-7	12-4
	DFL	No.3/Stud	-	9-6	12-3	-	8-10	11-5	-	8-4	10-8	-	7-10	10-1	-	-	9-3
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-0	12-9	17-1	-	12-3	16-4	-	11-8	15-8	-	11-3	15-0	-	10-8	14-2
	HF	No.1	7-9	12-6	16-8	-	11-11	15-11	-	11-5	14-11	-	10-11	14-0	-	10-0	12-10
	HF	No.2	-	11-11	15-10	-	11-4	14-9	-	10-9	13-10	-	10-1	13-0	-	9-3	11-11
	HF	No.3/Stud	-	9-3	11-11	-	8-8	11-1	-	8-1	10-5	-	-	9-10	-	-	9-0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-4	13-4	17-9	7-11	12-9	17-0	-	12-2	16-3	-	11-9	15-8	-	11-1	14-10
	SP	No.1	8-0	12-9	17-1	-	12-3	16-4	-	11-8	15-5	-	11-3	14-6	-	10-4	13-4
	SP	No.2	-	11-8	15-0	-	10-10	14-0	-	10-2	13-2	-	9-7	12-4	-	8-10	11-4
	SP	No.3	-	8-8	11-1	-	8-1	10-4	-	-	9-8	-	-	9-1	-	-	8-5
	SP	Stud	-	8-8	11-1	-	8-1	10-4	-	-	9-8	-	-	9-1	-	-	8-5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7-9	12-6	16-8	-	11-11	15-11	-	11-5	15-3	-	11-0	14-8	-	10-5	13-11
	SPF	No.1	-	12-2	16-1	-	11-8	15-0	-	10-11	14-1	-	10-3	13-3	-	9-5	12-2
	SPF	No.2	-	12-2	16-1	-	11-8	15-0	-	10-11	14-1	-	10-3	13-3	-	9-5	12-2
	SPF	No.3/Stud	-	9-3	11-11	-	8-8	11-1	-	8-1	10-5	-	-	9-10	-	-	9-0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A5 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/240**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12 - 1	19 - 5	20-0†	11 - 9	18 - 10	20-0†	11 - 5	18 - 3	20-0†	10 - 9	17 - 3	20-0†	10 - 3	16 - 5	20-0†
	DFL	No.1	11 - 8	18 - 8	20-0†	11 - 3	18 - 1	20-0†	10 - 11	17 - 7	20-0†	10 - 4	16 - 7	20-0†	9 - 10	15 - 9	20-0†
	DFL	No.2	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 3	20-0†	9 - 7	15 - 5	20-0†
	DFL	No.3/Stud	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 1
	DFL	Standard	10 - 9	-	-	10 - 3	-	-	9 - 10	-	-	9 - 0	-	-	8 - 4	-	-
	HF	SS	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 3	20-0†	9 - 7	15 - 5	20-0†
	HF	No.1	11 - 2	17 - 10	20-0†	10 - 9	17 - 4	20-0†	10 - 6	16 - 10	20-0†	9 - 11	15 - 11	20-0†	9 - 5	15 - 1	20-0†
	HF	No.2	10 - 7	17 - 0	20-0†	10 - 3	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 4	19 - 2
	HF	No.3/Stud	10 - 4	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 8	15 - 7	20-0†	9 - 2	14 - 8	19 - 8	8 - 8	14 - 0	18 - 7
	HF	Standard	10 - 4	-	-	10 - 0	-	-	9 - 7	-	-	8 - 10	-	-	8 - 2	-	-
	SP	SS	11 - 10	19 - 1	20-0†	11 - 6	18 - 6	20-0†	11 - 2	17 - 11	20-0†	10 - 7	16 - 11	20-0†	10 - 0	16 - 1	20-0†
	SP	No.1	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 3	20-0†	9 - 7	15 - 5	20-0†
	SP	No.2	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 8
	SP	No.3	10 - 7	17 - 0	20-0†	10 - 3	16 - 6	20-0†	10 - 0	15 - 11	20-0†	9 - 5	14 - 8	18 - 9	8 - 11	13 - 6	17 - 4
	SP	Stud	10 - 7	17 - 0	20-0†	10 - 3	16 - 6	20-0†	10 - 0	15 - 11	20-0†	9 - 5	14 - 8	18 - 9	8 - 11	13 - 6	17 - 4
	SP	Standard	9 - 9	-	-	9 - 3	-	-	8 - 10	-	-	8 - 2	-	-	-	-	-
	SPF	SS	11 - 2	17 - 10	20-0†	10 - 9	17 - 4	20-0†	10 - 6	16 - 10	20-0†	9 - 11	15 - 11	20-0†	9 - 5	15 - 1	20-0†
	SPF	No.1	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 8
	SPF	No.2	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 8
	SPF	No.3/Stud	10 - 4	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 8	15 - 7	20-0†	9 - 2	14 - 8	19 - 8	8 - 8	14 - 0	18 - 7
	SPF	Standard	10 - 4	-	-	10 - 0	-	-	9 - 7	-	-	8 - 10	-	-	8 - 2	-	-
16	DFL	SS	10 - 11	17 - 7	20-0†	10 - 7	17 - 0	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 7	20-0†	9 - 3	14 - 10	19 - 10
	DFL	No.1	10 - 6	16 - 11	20-0†	10 - 2	16 - 4	20-0†	9 - 11	15 - 11	20-0†	9 - 4	15 - 0	20-0†	8 - 11	14 - 3	19 - 1
	DFL	No.2	10 - 4	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 8	15 - 7	20-0†	9 - 2	14 - 8	19 - 8	8 - 8	14 - 0	18 - 8
	DFL	No.3/Stud	9 - 10	15 - 9	20-0†	9 - 6	15 - 4	20-0†	9 - 3	14 - 10	19 - 4	8 - 9	13 - 9	17 - 9	8 - 4	12 - 8	16 - 4
	DFL	Standard	9 - 3	-	-	8 - 10	-	-	8 - 5	-	-	-	-	-	-	-	-
	HF	SS	10 - 4	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 8	15 - 7	20-0†	9 - 2	14 - 8	19 - 8	8 - 8	14 - 0	18 - 8
	HF	No.1	10 - 1	16 - 2	20-0†	9 - 9	15 - 8	20-0†	9 - 6	15 - 2	20-0†	9 - 0	14 - 5	19 - 3	8 - 6	13 - 8	18 - 3
	HF	No.2	9 - 7	15 - 4	20-0†	9 - 3	14 - 11	19 - 11	9 - 0	14 - 6	19 - 4	8 - 6	13 - 8	18 - 3	8 - 1	13 - 0	17 - 4
	HF	No.3/Stud	9 - 4	14 - 11	20 - 0	9 - 0	14 - 6	19 - 4	8 - 9	14 - 1	18 - 9	8 - 4	13 - 4	17 - 3	7 - 11	12 - 4	15 - 11
	HF	Standard	9 - 0	-	-	8 - 7	-	-	8 - 3	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	17 - 3	20-0†	10 - 5	16 - 8	20-0†	10 - 1	16 - 2	20-0†	9 - 7	15 - 4	20-0†	9 - 1	14 - 7	19 - 5
	SP	No.1	10 - 4	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 8	15 - 7	20-0†	9 - 2	14 - 8	19 - 8	8 - 8	14 - 0	18 - 8
	SP	No.2	9 - 10	15 - 9	20-0†	9 - 6	15 - 4	20-0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9	8 - 4	13 - 4	17 - 10
	SP	No.3	9 - 7	15 - 0	19 - 3	9 - 3	14 - 4	18 - 4	9 - 0	13 - 8	17 - 6	8 - 3	12 - 6	16 - 1	-	11 - 7	14 - 10
	SP	Stud	9 - 7	15 - 0	19 - 3	9 - 3	14 - 4	18 - 4	9 - 0	13 - 8	17 - 6	8 - 3	12 - 6	16 - 1	-	11 - 7	14 - 10
	SP	Standard	8 - 4	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	16 - 2	20-0†	9 - 9	15 - 8	20-0†	9 - 6	15 - 2	20-0†	9 - 0	14 - 5	19 - 3	8 - 6	13 - 8	18 - 3
	SPF	No.1	9 - 10	15 - 9	20-0†	9 - 6	15 - 4	20-0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9	8 - 4	13 - 4	17 - 10
	SPF	No.2	9 - 10	15 - 9	20-0†	9 - 6	15 - 4	20-0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9	8 - 4	13 - 4	17 - 10
	SPF	No.3/Stud	9 - 4	14 - 11	20 - 0	9 - 0	14 - 6	19 - 4	8 - 9	14 - 1	18 - 9	8 - 4	13 - 4	17 - 3	7 - 11	12 - 4	15 - 11
	SPF	Standard	9 - 0	-	-	8 - 7	-	-	8 - 3	-	-	-	-	-	-	-	-
24	DFL	SS	9 - 6	15 - 3	20-0†	9 - 2	14 - 9	19 - 9	8 - 11	14 - 4	19 - 2	8 - 5	13 - 7	18 - 1	8 - 0	12 - 10	17 - 2
	DFL	No.1	9 - 2	14 - 8	19 - 7	8 - 10	14 - 2	19 - 0	8 - 7	13 - 9	18 - 5	8 - 2	13 - 0	17 - 5	-	12 - 5	16 - 6
	DFL	No.2	8 - 11	14 - 4	19 - 2	8 - 8	13 - 11	18 - 7	8 - 5	13 - 6	18 - 0	8 - 0	12 - 9	17 - 1	-	12 - 1	16 - 2
	DFL	No.3/Stud	8 - 6	13 - 3	17 - 1	8 - 3	12 - 7	16 - 3	8 - 0	12 - 1	15 - 6	-	11 - 1	14 - 3	-	10 - 3	13 - 2
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 11	14 - 4	19 - 2	8 - 8	13 - 11	18 - 7	8 - 5	13 - 6	18 - 0	8 - 0	12 - 9	17 - 1	-	12 - 1	16 - 2
	HF	No.1	8 - 9	14 - 0	18 - 9	8 - 6	13 - 7	18 - 2	8 - 3	13 - 2	17 - 8	7 - 9	12 - 6	16 - 8	-	11 - 10	15 - 10
	HF	No.2	8 - 4	13 - 4	17 - 10	8 - 1	12 - 11	17 - 3	7 - 10	12 - 7	16 - 9	-	11 - 10	15 - 10	-	11 - 3	15 - 1
	HF	No.3/Stud	8 - 1	12 - 11	16 - 7	7 - 10	12 - 3	15 - 10	-	11 - 9	15 - 2	-	10 - 9	13 - 11	-	10 - 0	12 - 10
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 4	14 - 11	20 - 0	9 - 0	14 - 6	19 - 4	8 - 9	14 - 1	18 - 9	8 - 4	13 - 4	17 - 9	7 - 11	12 - 8	16 - 10
	SP	No.1	8 - 11	14 - 4	19 - 2	8 - 8	13 - 11	18 - 7	8 - 5	13 - 6	18 - 0	8 - 0	12 - 9	17 - 1	-	12 - 1	16 - 2
	SP	No.2	8 - 6	13 - 8	18 - 3	8 - 3	13 - 3	17 - 9	8 - 0	12 - 11	17 - 3	-	12 - 2	16 - 3	-	11 - 7	15 - 5
	SP	No.3	7 - 11	12 - 1	15 - 5	-	11 - 6	14 - 9	-	11 - 0	14 - 1	-	10 - 1	12 - 11	-	9 - 4	11 - 11
	SP	Stud	7 - 11	12 - 1	15 - 5	-	11 - 6	14 - 9	-	11 - 0	14 - 1	-	10 - 1	12 - 11	-	9 - 4	11 - 11
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8 - 9	14 - 0	18 - 9	8 - 6	13 - 7	18 - 2	8 - 3	13 - 2	17 - 8	7 - 9	12 - 6	16 - 8	-	11 - 10	15 - 10
	SPF	No.1	8 - 6	13 - 8	18 - 3	8 - 3	13 - 3	17 - 9	8 - 0	12 - 11	17 - 3	-	12 - 2	16 - 3	-	11 - 7	15 - 5
	SPF	No.2	8 - 6	13 - 8	18 - 3	8 - 3	13 - 3	17 - 9	8 - 0	12 - 11	17 - 3	-	12 - 2	16 - 3	-	11 - 7	15 - 5
	SPF	No.3/Stud	8 - 1	12 - 11	16 - 7	7 - 10	12 - 3	15 - 10	-	11 - 9	15 - 2	-	10 - 9	13 - 11	-	10 - 0	12 - 10
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A5 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/240**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	9 - 9	15 - 8	20-0†	9 - 4	14 - 11	20 - 0	8 - 11	14 - 4	19 - 2	8 - 7	13 - 9	18 - 5	8 - 1	13 - 0	17 - 5
	DFL	No.1	9 - 4	15 - 0	20-0†	9 - 0	14 - 4	19 - 2	8 - 7	13 - 9	18 - 5	8 - 3	13 - 3	17 - 8	7 - 10	12 - 6	16 - 9
	DFL	No.2	9 - 2	14 - 9	19 - 8	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 0	8 - 1	13 - 0	17 - 4	-	12 - 3	16 - 4
	DFL	No.3/Stud	8 - 9	13 - 9	17 - 9	8 - 4	12 - 10	16 - 6	8 - 0	12 - 0	15 - 6	-	11 - 4	14 - 7	-	10 - 5	13 - 5
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 2	14 - 9	19 - 8	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 0	8 - 1	13 - 0	17 - 4	-	12 - 3	16 - 4
	HF	No.1	9 - 0	14 - 5	19 - 3	8 - 7	13 - 9	18 - 4	8 - 3	13 - 2	17 - 7	7 - 11	12 - 8	16 - 11	-	12 - 0	16 - 0
	HF	No.2	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 6	7 - 10	12 - 6	16 - 9	-	12 - 1	16 - 1	-	11 - 5	15 - 3
	HF	No.3/Stud	8 - 4	13 - 4	17 - 3	7 - 11	12 - 6	16 - 1	-	11 - 9	15 - 1	-	11 - 0	14 - 2	-	10 - 1	13 - 0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 7	15 - 4	20-0†	9 - 2	14 - 8	19 - 7	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 0	8 - 0	12 - 9	17 - 1
	SP	No.1	9 - 2	14 - 9	19 - 8	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 0	8 - 1	13 - 0	17 - 4	-	12 - 3	16 - 4
	SP	No.2	8 - 9	14 - 1	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SP	No.3	8 - 3	12 - 7	16 - 1	-	11 - 9	15 - 0	-	11 - 0	14 - 1	-	10 - 4	13 - 3	-	9 - 6	12 - 2
	SP	Stud	8 - 3	12 - 7	16 - 1	-	11 - 9	15 - 0	-	11 - 0	14 - 1	-	10 - 4	13 - 3	-	9 - 6	12 - 2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 0	14 - 5	19 - 3	8 - 7	13 - 9	18 - 4	8 - 3	13 - 2	17 - 7	7 - 11	12 - 8	16 - 11	-	12 - 0	16 - 0
	SPF	No.1	8 - 9	14 - 1	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SPF	No.2	8 - 9	14 - 1	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SPF	No.3/Stud	8 - 4	13 - 4	17 - 3	7 - 11	12 - 6	16 - 1	-	11 - 9	15 - 1	-	11 - 0	14 - 2	-	10 - 1	13 - 0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	8 - 10	14 - 2	18 - 11	8 - 5	13 - 6	18 - 1	8 - 1	12 - 11	17 - 4	7 - 9	12 - 5	16 - 7	-	11 - 9	15 - 9
	DFL	No.1	8 - 6	13 - 7	18 - 2	8 - 1	13 - 0	17 - 4	7 - 9	12 - 5	16 - 8	-	12 - 0	16 - 0	-	11 - 4	15 - 1
	DFL	No.2	8 - 4	13 - 4	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 2	16 - 3	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	DFL	No.3/Stud	7 - 10	11 - 10	15 - 2	-	11 - 0	14 - 2	-	10 - 4	13 - 3	-	9 - 8	12 - 6	-	8 - 11	11 - 6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 4	13 - 4	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 2	16 - 3	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	HF	No.1	8 - 1	13 - 0	17 - 5	7 - 9	12 - 5	16 - 7	-	11 - 11	15 - 11	-	11 - 6	15 - 4	-	10 - 10	14 - 6
	HF	No.2	-	12 - 5	16 - 6	-	11 - 10	15 - 10	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	HF	No.3/Stud	-	11 - 6	14 - 10	-	10 - 9	13 - 10	-	10 - 1	12 - 11	-	9 - 5	12 - 2	-	8 - 8	11 - 2
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8 - 8	13 - 10	18 - 6	8 - 3	13 - 3	17 - 8	7 - 11	12 - 8	17 - 0	-	12 - 3	16 - 4	-	11 - 7	15 - 5
	SP	No.1	8 - 4	13 - 4	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 2	16 - 3	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	SP	No.2	7 - 11	12 - 8	17 - 0	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	SP	No.3	-	10 - 9	13 - 9	-	10 - 0	12 - 10	-	9 - 5	12 - 1	-	8 - 10	11 - 4	-	8 - 2	10 - 5
	SP	Stud	-	10 - 9	13 - 9	-	10 - 0	12 - 10	-	9 - 5	12 - 1	-	8 - 10	11 - 4	-	8 - 2	10 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8 - 1	13 - 0	17 - 5	7 - 9	12 - 5	16 - 7	-	11 - 11	15 - 11	-	11 - 6	15 - 4	-	10 - 10	14 - 6
	SPF	No.1	7 - 11	12 - 8	17 - 0	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 7	14 - 2
	SPF	No.2	7 - 11	12 - 8	17 - 0	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 7	14 - 2
	SPF	No.3/Stud	-	11 - 6	14 - 10	-	10 - 9	13 - 10	-	10 - 1	12 - 11	-	9 - 5	12 - 2	-	8 - 8	11 - 2
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	-	12 - 3	16 - 5	-	11 - 9	15 - 8	-	11 - 3	15 - 0	-	10 - 10	14 - 5	-	10 - 3	13 - 8
	DFL	No.1	-	11 - 10	15 - 9	-	11 - 3	15 - 1	-	10 - 10	14 - 5	-	10 - 5	13 - 11	-	9 - 10	13 - 0
	DFL	No.2	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 5	-	9 - 7	12 - 4
	DFL	No.3/Stud	-	9 - 6	12 - 3	-	8 - 10	11 - 5	-	8 - 4	10 - 8	-	7 - 10	10 - 1	-	-	9 - 3
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	HF	No.1	-	11 - 4	15 - 1	-	10 - 10	14 - 5	-	10 - 4	13 - 10	-	9 - 11	13 - 3	-	9 - 5	12 - 7
	HF	No.2	-	10 - 9	14 - 4	-	10 - 3	13 - 9	-	9 - 10	13 - 2	-	9 - 6	12 - 8	-	9 - 0	11 - 11
	HF	No.3/Stud	-	9 - 3	11 - 11	-	8 - 8	11 - 1	-	8 - 1	10 - 5	-	9 - 10	-	-	-	9 - 0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	12 - 0	16 - 1	-	11 - 6	15 - 4	-	11 - 0	14 - 9	-	10 - 7	14 - 2	-	10 - 0	13 - 5
	SP	No.1	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	SP	No.2	-	11 - 0	14 - 9	-	10 - 7	14 - 0	-	10 - 1	13 - 2	-	9 - 7	12 - 4	-	8 - 10	11 - 4
	SP	No.3	-	8 - 8	11 - 1	-	8 - 1	10 - 4	-	-	9 - 8	-	-	9 - 1	-	-	8 - 5
	SP	Stud	-	8 - 8	11 - 1	-	8 - 1	10 - 4	-	-	9 - 8	-	-	9 - 1	-	-	8 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	11 - 4	15 - 1	-	10 - 10	14 - 5	-	10 - 4	13 - 10	-	9 - 11	13 - 3	-	9 - 5	12 - 7
	SPF	No.1	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 2
	SPF	No.2	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 2
	SPF	No.3/Stud	-	9 - 3	11 - 11	-	8 - 8	11 - 1	-	8 - 1	10 - 5	-	-	9 - 10	-	-	9 - 0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A6 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/360**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft-in.) ¹																	
12	DFL	SS	10-6	16-10	20-0†	10-2	16-4	20-0†	9-11	15-10	20-0†	9-4	15-0	20-0†	8-10	14-3	19-0
	DFL	No.1	10-1	16-2	20-0†	9-9	15-8	20-0†	9-6	15-3	20-0†	9-0	14-5	19-3	8-6	13-8	18-3
	DFL	No.2	9-11	15-10	20-0†	9-7	15-5	20-0†	9-4	14-11	19-11	8-10	14-1	18-10	8-4	13-5	17-11
	DFL	No.3/Stud	9-5	15-2	20-0†	9-2	14-8	19-7	8-11	14-3	19-0	8-5	13-6	18-0	8-0	12-10	17-1
	DFL	Standard	9-5	-	-	9-2	-	-	8-11	-	-	8-5	-	-	8-0	-	-
	HF	SS	9-11	15-10	20-0†	9-7	15-5	20-0†	9-4	14-11	19-11	8-10	14-1	18-10	8-4	13-5	17-11
	HF	No.1	9-8	15-6	20-0†	9-4	15-0	20-0†	9-1	14-7	19-6	8-7	13-10	18-5	8-2	13-1	17-6
	HF	No.2	9-2	14-9	19-9	8-11	14-4	19-1	8-8	13-11	18-7	8-2	13-2	17-6	7-9	12-6	16-8
	HF	No.3/Stud	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	HF	Standard	8-11	-	-	8-8	-	-	8-5	-	-	8-0	-	-	-	-	-
	SP	SS	10-4	16-6	20-0†	10-0	16-0	20-0†	9-8	15-7	20-0†	9-2	14-8	19-8	8-8	14-0	18-8
	SP	No.1	9-11	15-10	20-0†	9-7	15-5	20-0†	9-4	14-11	19-11	8-10	14-1	18-10	8-4	13-5	17-11
	SP	No.2	9-5	15-2	20-0†	9-2	14-8	19-7	8-11	14-3	19-0	8-5	13-6	18-0	8-0	12-10	17-1
	SP	No.3	9-2	14-9	19-9	8-11	14-4	19-1	8-8	13-11	18-7	8-2	13-2	17-6	7-9	12-6	16-8
	SP	Stud	9-2	14-9	19-9	8-11	14-4	19-1	8-8	13-11	18-7	8-2	13-2	17-6	7-9	12-6	16-8
	SP	Standard	8-11	-	-	8-8	-	-	8-5	-	-	8-0	-	-	-	-	-
	SPF	SS	9-8	15-6	20-0†	9-4	15-0	20-0†	9-1	14-7	19-6	8-7	13-10	18-5	8-2	13-1	17-6
	SPF	No.1	9-5	15-2	20-0†	9-2	14-8	19-7	8-11	14-3	19-0	8-5	13-6	18-0	8-0	12-10	17-1
	SPF	No.2	9-5	15-2	20-0†	9-2	14-8	19-7	8-11	14-3	19-0	8-5	13-6	18-0	8-0	12-10	17-1
	SPF	No.3/Stud	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	SPF	Standard	8-11	-	-	8-8	-	-	8-5	-	-	8-0	-	-	-	-	-
16	DFL	SS	9-6	15-3	20-0†	9-2	14-9	19-9	8-11	14-4	19-2	8-5	13-7	18-1	8-0	12-10	17-2
	DFL	No.1	9-2	14-8	19-7	8-10	14-2	19-0	8-7	13-9	18-5	8-2	13-0	17-5	-	12-5	16-6
	DFL	No.2	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	DFL	No.3/Stud	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	DFL	Standard	8-6	-	-	8-3	-	-	8-0	-	-	-	-	-	-	-	-
	HF	SS	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	HF	No.1	8-9	14-0	18-9	8-6	13-7	18-2	8-3	13-2	17-8	7-9	12-6	16-8	-	11-10	15-10
	HF	No.2	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	HF	No.3/Stud	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-8
	HF	Standard	8-1	-	-	7-10	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-4	14-11	20-0	9-0	14-6	19-4	8-9	14-1	18-9	8-4	13-4	17-9	7-11	12-8	16-10
	SP	No.1	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	SP	No.2	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SP	No.3	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	14-10
	SP	Stud	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	14-10
	SP	Standard	8-1	-	-	7-10	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-9	14-0	18-9	8-6	13-7	18-2	8-3	13-2	17-8	7-9	12-6	16-8	-	11-10	15-10
	SPF	No.1	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SPF	No.2	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SPF	No.3/Stud	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-8
	SPF	Standard	8-1	-	-	7-10	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8-3	13-3	17-8	8-0	12-10	17-1	7-9	12-5	16-7	-	11-9	15-9	-	11-2	14-11
	DFL	No.1	7-11	12-9	17-0	-	12-4	16-6	-	12-0	16-0	-	11-4	15-1	-	10-9	14-4
	DFL	No.2	7-9	12-5	16-8	-	12-1	16-1	-	11-9	15-8	-	11-1	14-10	-	10-6	14-1
	DFL	No.3/Stud	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-2
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	7-9	12-5	16-8	-	12-1	16-1	-	11-9	15-8	-	11-1	14-10	-	10-6	14-1
	HF	No.1	-	12-2	16-3	-	11-10	15-9	-	11-6	15-4	-	10-10	14-6	-	10-3	13-9
	HF	No.2	-	11-7	15-6	-	11-3	15-0	-	10-11	14-7	-	10-4	13-9	-	9-9	13-1
	HF	No.3/Stud	-	11-3	15-1	-	10-11	14-7	-	10-7	14-2	-	10-0	13-5	-	9-6	12-9
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-8
	SP	No.1	7-9	12-5	16-8	-	12-1	16-1	-	11-9	15-8	-	11-1	14-10	-	10-6	14-1
	SP	No.2	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-5
	SP	No.3	-	11-7	15-5	-	11-3	14-9	-	10-11	14-1	-	10-1	12-11	-	9-4	11-11
	SP	Stud	-	11-7	15-5	-	11-3	14-9	-	10-11	14-1	-	10-1	12-11	-	9-4	11-11
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	12-2	16-3	-	11-10	15-9	-	11-6	15-4	-	10-10	14-6	-	10-3	13-9
	SPF	No.1	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-5
	SPF	No.2	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-5
	SPF	No.3/Stud	-	11-3	15-1	-	10-11	14-7	-	10-7	14-2	-	10-0	13-5	-	9-6	12-9
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A6 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/360**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
			Maximum Allowable Stud Length (ft.-in.) ¹														
12	DFL	SS	8 - 5	13 - 7	18 - 1	8 - 1	13 - 0	17 - 4	7 - 9	12 - 5	16 - 7	-	11 - 11	15 - 11	-	11 - 4	15 - 1
	DFL	No.1	8 - 2	13 - 1	17 - 5	7 - 9	12 - 6	16 - 8	-	12 - 0	16 - 0	-	11 - 6	15 - 4	-	10 - 10	14 - 6
	DFL	No.2	8 - 0	12 - 9	17 - 1	-	12 - 3	16 - 4	-	11 - 8	15 - 8	-	11 - 3	15 - 0	-	10 - 8	14 - 2
	DFL	No.3/Stud	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 5
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 0	12 - 9	17 - 1	-	12 - 3	16 - 4	-	11 - 8	15 - 8	-	11 - 3	15 - 0	-	10 - 8	14 - 2
	HF	No.1	7 - 9	12 - 6	16 - 8	-	11 - 11	15 - 11	-	11 - 5	15 - 3	-	11 - 0	14 - 8	-	10 - 5	13 - 11
	HF	No.2	-	11 - 11	15 - 10	-	11 - 4	15 - 2	-	10 - 11	14 - 6	-	10 - 6	14 - 0	-	9 - 11	13 - 3
	HF	No.3/Stud	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8 - 4	13 - 4	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 2	16 - 3	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	SP	No.1	8 - 0	12 - 9	17 - 1	-	12 - 3	16 - 4	-	11 - 8	15 - 8	-	11 - 3	15 - 0	-	10 - 8	14 - 2
	SP	No.2	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 7
	SP	No.3	-	11 - 11	15 - 10	-	11 - 4	15 - 0	-	10 - 11	14 - 1	-	10 - 4	13 - 3	-	9 - 6	12 - 2
	SP	Stud	-	11 - 11	15 - 10	-	11 - 4	15 - 0	-	10 - 11	14 - 1	-	10 - 4	13 - 3	-	9 - 6	12 - 2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7 - 9	12 - 6	16 - 8	-	11 - 11	15 - 11	-	11 - 5	15 - 3	-	11 - 0	14 - 8	-	10 - 5	13 - 11
	SPF	No.1	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 7
	SPF	No.2	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 7
	SPF	No.3/Stud	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	-	12 - 3	16 - 5	-	11 - 9	15 - 8	-	11 - 3	15 - 0	-	10 - 10	14 - 5	-	10 - 3	13 - 8
	DFL	No.1	-	11 - 10	15 - 9	-	11 - 3	15 - 1	-	10 - 10	14 - 5	-	10 - 5	13 - 11	-	9 - 10	13 - 1
	DFL	No.2	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	DFL	No.3/Stud	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 3	-	9 - 8	12 - 6	-	8 - 11	11 - 6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	HF	No.1	-	11 - 4	15 - 1	-	10 - 10	14 - 5	-	10 - 4	13 - 10	-	9 - 11	13 - 3	-	9 - 5	12 - 7
	HF	No.2	-	10 - 9	14 - 4	-	10 - 3	13 - 9	-	9 - 10	13 - 2	-	9 - 6	12 - 8	-	9 - 0	11 - 11
	HF	No.3/Stud	-	10 - 5	14 - 0	-	10 - 0	13 - 4	-	9 - 7	12 - 9	-	9 - 2	12 - 2	-	8 - 8	11 - 2
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	12 - 0	16 - 1	-	11 - 6	15 - 4	-	11 - 0	14 - 9	-	10 - 7	14 - 2	-	10 - 0	13 - 5
	SP	No.1	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	SP	No.2	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 3
	SP	No.3	-	10 - 9	13 - 9	-	10 - 0	12 - 10	-	9 - 5	12 - 1	-	8 - 10	11 - 4	-	8 - 2	10 - 5
	SP	Stud	-	10 - 9	13 - 9	-	10 - 0	12 - 10	-	9 - 5	12 - 1	-	8 - 10	11 - 4	-	8 - 2	10 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	11 - 4	15 - 1	-	10 - 10	14 - 5	-	10 - 4	13 - 10	-	9 - 11	13 - 3	-	9 - 5	12 - 7
	SPF	No.1	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 3
	SPF	No.2	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 3
	SPF	No.3/Stud	-	10 - 5	14 - 0	-	10 - 0	13 - 4	-	9 - 7	12 - 9	-	9 - 2	12 - 2	-	8 - 8	11 - 2
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	-	10 - 8	14 - 3	-	10 - 2	13 - 7	-	9 - 9	13 - 0	-	9 - 5	12 - 6	-	8 - 10	11 - 10
	DFL	No.1	-	10 - 3	13 - 8	-	9 - 10	13 - 1	-	9 - 5	12 - 6	-	9 - 0	12 - 1	-	8 - 6	11 - 5
	DFL	No.2	-	10 - 0	13 - 5	-	9 - 7	12 - 10	-	9 - 2	12 - 3	-	8 - 10	11 - 10	-	8 - 4	11 - 2
	DFL	No.3/Stud	-	9 - 6	12 - 3	-	8 - 10	11 - 5	-	8 - 4	10 - 8	-	7 - 10	10 - 1	-	-	9 - 3
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	10 - 0	13 - 5	-	9 - 7	12 - 10	-	9 - 2	12 - 3	-	8 - 10	11 - 10	-	8 - 4	11 - 2
	HF	No.1	-	9 - 10	13 - 1	-	9 - 5	12 - 6	-	9 - 0	12 - 0	-	8 - 8	11 - 6	-	8 - 2	10 - 11
	HF	No.2	-	9 - 4	12 - 5	-	8 - 11	11 - 11	-	8 - 7	11 - 5	-	8 - 3	11 - 0	-	7 - 9	10 - 4
	HF	No.3/Stud	-	9 - 1	11 - 11	-	8 - 8	11 - 1	-	8 - 1	10 - 5	-	-	9 - 10	-	-	9 - 0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	10 - 5	14 - 0	-	10 - 0	13 - 4	-	9 - 7	12 - 9	-	9 - 2	12 - 3	-	8 - 8	11 - 7
	SP	No.1	-	10 - 0	13 - 5	-	9 - 7	12 - 10	-	9 - 2	12 - 3	-	8 - 10	11 - 10	-	8 - 4	11 - 2
	SP	No.2	-	9 - 7	12 - 9	-	9 - 2	12 - 3	-	8 - 9	11 - 9	-	8 - 5	11 - 3	-	8 - 0	10 - 8
	SP	No.3	-	8 - 8	11 - 1	-	8 - 1	10 - 4	-	-	9 - 8	-	-	9 - 1	-	-	8 - 5
	SP	Stud	-	8 - 8	11 - 1	-	8 - 1	10 - 4	-	-	9 - 8	-	-	9 - 1	-	-	8 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	9 - 10	13 - 1	-	9 - 5	12 - 6	-	9 - 0	12 - 0	-	8 - 8	11 - 6	-	8 - 2	10 - 11
	SPF	No.1	-	9 - 7	12 - 9	-	9 - 2	12 - 3	-	8 - 9	11 - 9	-	8 - 5	11 - 3	-	8 - 0	10 - 8
	SPF	No.2	-	9 - 7	12 - 9	-	9 - 2	12 - 3	-	8 - 9	11 - 9	-	8 - 5	11 - 3	-	8 - 0	10 - 8
	SPF	No.3/Stud	-	9 - 1	11 - 11	-	8 - 8	11 - 1	-	8 - 1	10 - 5	-	-	9 - 10	-	-	9 - 0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20B1 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/180
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺
	DFL	No.1	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺
	DFL	No.2	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-9	20-0 ⁺	20-0 ⁺
	DFL	No.3/Stud	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	19-3	20-0 ⁺
	DFL	Standard	14-0 ⁺	-	-	14-0 ⁺	-	-	13-6	-	-	12-5	-	-	11-5	-	-
	HF	SS	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-9	20-0 ⁺	20-0 ⁺
	HF	No.1	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-5	20-0 ⁺	20-0 ⁺
	HF	No.2	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-5	20-0 ⁺	20-0 ⁺	12-9	19-9	20-0 ⁺
	HF	No.3/Stud	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	20-0 ⁺	20-0 ⁺	12-5	18-9	20-0 ⁺
	HF	Standard	14-0 ⁺	-	-	13-10	-	-	13-2	-	-	12-1	-	-	11-2	-	-
	SP	SS	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺
	SP	No.1	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-9	20-0 ⁺	20-0 ⁺
	SP	No.2	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	20-0 ⁺	20-0 ⁺
	SP	No.3	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-3	19-0	20-0 ⁺	12-3	17-7	20-0 ⁺
	SP	Stud	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-3	19-0	20-0 ⁺	12-3	17-7	20-0 ⁺
	SP	Standard	13-5	-	-	12-9	-	-	12-2	-	-	11-2	-	-	10-4	-	-
16	SPF	SS	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-5	20-0 ⁺	20-0 ⁺
	SPF	No.1	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	20-0 ⁺	20-0 ⁺
	SPF	No.2	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	20-0 ⁺	20-0 ⁺
	SPF	No.3/Stud	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	20-0 ⁺	20-0 ⁺	12-5	18-9	20-0 ⁺
	SPF	Standard	14-0 ⁺	-	-	13-10	-	-	13-2	-	-	12-1	-	-	11-2	-	-
	DFL	SS	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-11	20-0 ⁺	20-0 ⁺	13-2	20-0 ⁺	20-0 ⁺
	DFL	No.1	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-4	20-0 ⁺	20-0 ⁺	12-8	19-8	20-0 ⁺
	DFL	No.2	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	20-0 ⁺	20-0 ⁺	12-5	19-3	20-0 ⁺
	DFL	No.3/Stud	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-7	20-0 ⁺	20-0 ⁺	13-3	19-6	20-0 ⁺	12-6	17-10	20-0 ⁺	11-7	16-6	20-0 ⁺
	DFL	Standard	12-8	-	-	12-1	-	-	11-7	-	-	10-7	-	-	9-10	-	-
	HF	SS	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	20-0 ⁺	20-0 ⁺	12-5	19-3	20-0 ⁺
	HF	No.1	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-11	20-0 ⁺	20-0 ⁺	13-6	20-0 ⁺	20-0 ⁺	12-10	19-10	20-0 ⁺	12-2	18-10	20-0 ⁺
	HF	No.2	13-8	20-0 ⁺	20-0 ⁺	13-3	20-0 ⁺	20-0 ⁺	12-10	19-11	20-0 ⁺	12-2	18-10	20-0 ⁺	11-7	17-11	20-0 ⁺
	HF	No.3/Stud	13-4	20-0 ⁺	20-0 ⁺	12-11	19-10	20-0 ⁺	12-6	19-0	20-0 ⁺	11-10	17-5	20-0 ⁺	11-3	16-1	19-11
	HF	Standard	12-5	-	-	11-10	-	-	11-4	-	-	10-4	-	-	9-7	-	-
	SP	SS	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-8	20-0 ⁺	20-0 ⁺	12-11	20-0 ⁺	20-0 ⁺
24	SP	No.1	14-0 ⁺	20-0 ⁺	20-0 ⁺	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-10	20-0 ⁺	20-0 ⁺	13-1	20-0 ⁺	20-0 ⁺	12-5	19-3	20-0 ⁺
	SP	No.2	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-7	20-0 ⁺	20-0 ⁺	13-3	20-0 ⁺	20-0 ⁺	12-6	19-4	20-0 ⁺	11-10	18-4	20-0 ⁺
	SP	No.3	13-7	19-6	20-0 ⁺	12-11	18-7	20-0 ⁺	12-4	17-9	20-0 ⁺	11-4	16-4	20-0 ⁺	10-6	15-1	18-6
	SP	Stud	13-7	19-6	20-0 ⁺	12-11	18-7	20-0 ⁺	12-4	17-9	20-0 ⁺	11-4	16-4	20-0 ⁺	10-6	15-1	18-6
	SP	Standard	11-6	-	-	10-11	-	-	10-5	-	-	9-7	-	-	8-10	-	-
	SPF	SS	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-11	20-0 ⁺	20-0 ⁺	13-6	20-0 ⁺	20-0 ⁺	12-10	19-10	20-0 ⁺	12-2	18-10	20-0 ⁺
	SPF	No.1	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-7	20-0 ⁺	20-0 ⁺	13-3	20-0 ⁺	20-0 ⁺	12-6	19-4	20-0 ⁺	11-10	18-4	20-0 ⁺
	SPF	No.2	14-0 ⁺	20-0 ⁺	20-0 ⁺	13-7	20-0 ⁺	20-0 ⁺	13-3	20-0 ⁺	20-0 ⁺	12-6	19-4	20-0 ⁺	11-10	18-4	20-0 ⁺
	SPF	No.3/Stud	13-4	20-0 ⁺	20-0 ⁺	12-11	19-10	20-0 ⁺	12-6	19-0	20-0 ⁺	11-10	17-5	20-0 ⁺	11-3	16-1	19-11
	SPF	Standard	12-5	-	-	11-10	-	-	11-4	-	-	10-4	-	-	9-7	-	-
	DFL	SS	13-7	20-0 ⁺	20-0 ⁺	13-2	20-0 ⁺	20-0 ⁺	12-9	19-9	20-0 ⁺	12-1	18-8	20-0 ⁺	11-5	17-9	20-0 ⁺
	DFL	No.1	13-0	20-0 ⁺	20-0 ⁺	12-8	19-7	20-0 ⁺	12-3	19-0	20-0 ⁺	11-7	18-0	20-0 ⁺	11-0	17-1	20-0 ⁺
	DFL	No.2	12-9	19-9	20-0 ⁺	12-5	19-2	20-0 ⁺	12-0	18-7	20-0 ⁺	11-4	17-7	20-0 ⁺	10-9	16-8	20-0 ⁺
	DFL	No.3/Stud	12-1	17-2	20-0 ⁺	11-6	16-5	20-0 ⁺	11-0	15-8	19-4	10-1	14-4	17-9	9-4	13-3	16-5
	DFL	Standard	10-3	-	-	9-9	-	-	9-4	-	-	8-7	-	-	7-11	-	-
	HF	SS	12-9	19-9	20-0 ⁺	12-5	19-2	20-0 ⁺	12-0	18-7	20-0 ⁺	11-4	17-7	20-0 ⁺	10-9	16-8	20-0 ⁺
24	HF	No.1	12-6	19-4	20-0 ⁺	12-1	18-9	20-0 ⁺	11-9	18-2	20-0 ⁺	11-1	17-2	20-0 ⁺	10-7	16-4	20-0 ⁺
	HF	No.2	11-10	18-5	20-0 ⁺	11-6	17-10	20-0 ⁺	11-2	17-4	20-0 ⁺	10-7	16-4	20-0 ⁺	10-0	15-6	20-0 ⁺
	HF	No.3/Stud	11-7	16-9	20-0 ⁺	11-2	16-0	19-9	10-9	15-3	18-10	9-10	14-0	17-4	9-1	12-11	16-0
	HF	Standard	10-0	-	-	9-6	-	-	9-1	-	-	8-4	-	-	-	-	-
	SP	SS	13-4	20-0 ⁺	20-0 ⁺	12-11	20-0	20-0 ⁺	12-6	19-5	20-0 ⁺	11-10	18-4	20-0 ⁺	11-3	17-5	20-0 ⁺
	SP	No.1	12-9	19-9	20-0 ⁺	12-5	19-2	20-0 ⁺	12-0	18-7	20-0 ⁺	11-4	17-7	20-0 ⁺	10-9	16-8	20-0 ⁺
	SP	No.2	12-2	18-10	20-0 ⁺	11-10	18-3	20-0 ⁺	11-6	17-9	20-0 ⁺	10-10	16-9	20-0 ⁺	10-4	15-11	20-0 ⁺
	SP	No.3	10-11	15-8	19-3	10-5	15-0	18-5	9-11	14-3	17-7	9-2	13-1	16-1	8-5	12-1	14-11
	SP	Stud	10-11	15-8	19-3	10-5	15-0	18-5	9-11	14-3	17-7	9-2	13-1	16-1	8-5	12-1	14-11
	SP	Standard	9-3	-	-	8-10	-	-	8-5	-	-	-	-	-	-	-	-
	SPF	SS	12-6	19-4	20-0 ⁺	12-1	18-9	20-0 ⁺	11-9	18-2	20-0 ⁺	11-1	17-2	20-0 ⁺	10-7	16-4	20-0 ⁺
	SPF	No.1	12-2	18-10	20-0 ⁺	11-10	18-3	20-0 ⁺	11-6	17-9	20-0 ⁺	10-10	16-9	20-0 ⁺	10-4	15-11	20

Table 3.20B1 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180 (Cont.)

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/180
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 11	20-0†	20-0†	13 - 3	20-0†	20-0†	12 - 9	19 - 9	20-0†	12 - 3	18 - 11	20-0†	11 - 7	17 - 11	20-0†
	DFL	No.1	13 - 4	20-0†	20-0†	12 - 9	19 - 9	20-0†	12 - 3	19 - 0	20-0†	11 - 9	18 - 3	20-0†	11 - 2	17 - 3	20-0†
	DFL	No.2	13 - 1	20-0†	20-0†	12 - 6	19 - 5	20-0†	12 - 0	18 - 7	20-0†	11 - 6	17 - 10	20-0†	10 - 11	16 - 10	20-0†
	DFL	No.3/Stud	12 - 6	17 - 11	20-0†	11 - 9	16 - 8	20-0†	11 - 0	15 - 8	19 - 4	10 - 4	14 - 8	18 - 2	9 - 6	13 - 6	16 - 8
	DFL	Standard	10 - 8	-	-	9 - 11	-	-	9 - 4	-	-	8 - 9	-	-	8 - 0	-	-
	HF	SS	13 - 1	20-0†	20-0†	12 - 6	19 - 5	20-0†	12 - 0	18 - 7	20-0†	11 - 6	17 - 10	20-0†	10 - 11	16 - 10	20-0†
	HF	No.1	12 - 10	19 - 10	20-0†	12 - 3	18 - 11	20-0†	11 - 9	18 - 2	20-0†	11 - 3	17 - 5	20-0†	10 - 8	16 - 6	20-0†
	HF	No.2	12 - 2	18 - 10	20-0†	11 - 8	18 - 0	20-0†	11 - 2	17 - 3	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	20-0†
	HF	No.3/Stud	11 - 10	17 - 5	20-0†	11 - 4	16 - 3	20-0†	10 - 9	15 - 3	18 - 10	10 - 1	14 - 4	17 - 9	9 - 3	13 - 2	16 - 3
	HF	Standard	10 - 5	-	-	9 - 8	-	-	9 - 1	-	-	8 - 7	-	-	7 - 10	-	-
	SP	SS	13 - 8	20-0†	20-0†	13 - 1	20-0†	20-0†	12 - 6	19 - 4	20-0†	12 - 0	18 - 7	20-0†	11 - 4	17 - 7	20-0†
	SP	No.1	13 - 1	20-0†	20-0†	12 - 6	19 - 5	20-0†	12 - 0	18 - 7	20-0†	11 - 6	17 - 10	20-0†	10 - 11	16 - 10	20-0†
	SP	No.2	12 - 6	19 - 4	20-0†	11 - 11	18 - 6	20-0†	11 - 5	17 - 9	20-0†	11 - 0	17 - 0	20-0†	10 - 5	16 - 1	20-0†
	SP	No.3	11 - 4	16 - 4	20-0†	10 - 7	15 - 3	18 - 9	9 - 11	14 - 3	17 - 6	9 - 4	13 - 5	16 - 6	8 - 7	12 - 4	15 - 2
	SP	Stud	11 - 4	16 - 4	20-0†	10 - 7	15 - 3	18 - 9	9 - 11	14 - 3	17 - 6	9 - 4	13 - 5	16 - 6	8 - 7	12 - 4	15 - 2
	SP	Standard	9 - 7	-	-	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-
16	SPF	SS	12 - 10	19 - 10	20-0†	12 - 3	18 - 11	20-0†	11 - 9	18 - 2	20-0†	11 - 3	17 - 5	20-0†	10 - 8	16 - 6	20-0†
	SPF	No.1	12 - 6	19 - 4	20-0†	11 - 11	18 - 6	20-0†	11 - 5	17 - 9	20-0†	11 - 0	17 - 0	20-0†	10 - 5	16 - 1	20-0†
	SPF	No.2	12 - 6	19 - 4	20-0†	11 - 11	18 - 6	20-0†	11 - 5	17 - 9	20-0†	11 - 0	17 - 0	20-0†	10 - 5	16 - 1	20-0†
	SPF	No.3/Stud	11 - 10	17 - 5	20-0†	11 - 4	16 - 3	20-0†	10 - 9	15 - 3	18 - 10	10 - 1	14 - 4	17 - 9	9 - 3	13 - 2	16 - 3
	SPF	Standard	10 - 5	-	-	9 - 8	-	-	9 - 1	-	-	8 - 7	-	-	7 - 10	-	-
	DFL	SS	12 - 7	19 - 6	20-0†	12 - 0	18 - 7	20-0†	11 - 6	17 - 10	20-0†	11 - 1	17 - 2	20-0†	10 - 6	16 - 2	20-0†
	DFL	No.1	12 - 1	18 - 9	20-0†	11 - 7	17 - 11	20-0†	11 - 1	17 - 2	20-0†	10 - 8	16 - 6	20-0†	10 - 1	15 - 7	20-0†
	DFL	No.2	11 - 10	18 - 4	20-0†	11 - 4	17 - 6	20-0†	10 - 10	16 - 10	20-0†	10 - 5	16 - 2	20-0†	9 - 10	15 - 3	19 - 1
	DFL	No.3/Stud	10 - 9	15 - 4	19 - 0	10 - 1	14 - 4	17 - 8	9 - 5	13 - 5	16 - 7	8 - 11	12 - 7	15 - 7	8 - 2	11 - 7	14 - 4
	DFL	Standard	9 - 1	-	-	8 - 6	-	-	8 - 0	-	-	-	-	-	-	-	-
	HF	SS	11 - 10	18 - 4	20-0†	11 - 4	17 - 6	20-0†	10 - 10	16 - 10	20-0†	10 - 5	16 - 2	20-0†	9 - 10	15 - 3	19 - 10
	HF	No.1	11 - 7	17 - 11	20-0†	11 - 1	17 - 2	20-0†	10 - 7	16 - 5	20-0†	10 - 2	15 - 9	20-0†	9 - 8	14 - 11	19 - 5
	HF	No.2	11 - 0	17 - 1	20-0†	10 - 6	16 - 4	20-0†	10 - 1	15 - 7	20-0†	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5
	HF	No.3/Stud	10 - 6	14 - 11	18 - 6	9 - 10	13 - 11	17 - 3	9 - 2	13 - 1	16 - 2	8 - 8	12 - 3	15 - 2	7 - 11	11 - 3	13 - 11
	HF	Standard	8 - 11	-	-	8 - 4	-	-	7 - 9	-	-	-	-	-	-	-	-
	SP	SS	12 - 4	19 - 1	20-0†	11 - 10	18 - 3	20-0†	11 - 4	17 - 6	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†
24	SP	No.1	11 - 10	18 - 4	20-0†	11 - 4	17 - 6	20-0†	10 - 10	16 - 10	20-0†	10 - 5	16 - 2	20-0†	9 - 10	15 - 3	19 - 10
	SP	No.2	11 - 4	17 - 6	20-0†	10 - 10	16 - 9	20-0†	10 - 4	16 - 0	20-0†	10 - 0	15 - 5	19 - 2	9 - 5	14 - 2	17 - 7
	SP	No.3	9 - 9	14 - 0	17 - 2	9 - 1	13 - 1	16 - 0	8 - 6	12 - 3	15 - 0	8 - 0	11 - 6	14 - 2	-	10 - 7	13 - 0
	SP	Stud	9 - 9	14 - 0	17 - 2	9 - 1	13 - 1	16 - 0	8 - 6	12 - 3	15 - 0	8 - 0	11 - 6	14 - 2	-	10 - 7	13 - 0
	SP	Standard	8 - 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 7	17 - 11	20-0†	11 - 1	17 - 2	20-0†	10 - 7	16 - 5	20-0†	10 - 2	15 - 9	20-0†	9 - 8	14 - 11	19 - 5
	SPF	No.1	11 - 4	17 - 6	20-0†	10 - 10	16 - 9	20-0†	10 - 4	16 - 0	20-0†	10 - 0	15 - 5	20-0†	9 - 5	14 - 7	18 - 10
	SPF	No.2	11 - 4	17 - 6	20-0†	10 - 10	16 - 9	20-0†	10 - 4	16 - 0	20-0†	10 - 0	15 - 5	20-0†	9 - 5	14 - 7	18 - 10
	SPF	No.3/Stud	10 - 6	14 - 11	18 - 6	9 - 10	13 - 11	17 - 3	9 - 2	13 - 1	16 - 2	8 - 8	12 - 3	15 - 2	7 - 11	11 - 3	13 - 11
	SPF	Standard	8 - 11	-	-	8 - 4	-	-	7 - 9	-	-	-	-	-	-	-	-
	DFL	SS	10 - 11	16 - 11	20-0†	10 - 5	16 - 2	20-0†	10 - 0	15 - 6	20-0†	9 - 7	14 - 10	19 - 4	9 - 1	14 - 1	18 - 3
	DFL	No.1	10 - 6	16 - 3	20-0†	10 - 0	15 - 6	20-0†	9 - 8	14 - 11	18 - 10	9 - 3	14 - 4	17 - 9	8 - 9	13 - 2	16 - 3
	DFL	No.2	10 - 3	15 - 11	20-0†	9 - 10	15 - 2	19 - 0	9 - 5	14 - 5	17 - 10	9 - 1	13 - 6	16 - 9	8 - 7	12 - 5	15 - 4
	DFL	No.3/Stud	8 - 8	12 - 4	15 - 3	8 - 1	11 - 6	14 - 3	-	10 - 9	13 - 4	-	10 - 2	12 - 6	-	9 - 4	11 - 6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	10 - 3	15 - 11	20-0†	9 - 10	15 - 2	19 - 9	9 - 5	14 - 7	19 - 0	9 - 1	14 - 0	18 - 3	8 - 7	13 - 3	17 - 3
	HF	No.1	10 - 1	15 - 7	20-0†	9 - 7	14 - 10	19 - 4	9 - 3	14 - 3	18 - 6	8 - 10	13 - 8	17 - 6	8 - 5	13 - 0	16 - 0
	HF	No.2	9 - 7	14 - 10	19 - 3	9 - 2	14 - 2	18 - 5	8 - 9	13 - 7	17 - 3	8 - 5	13 - 0	16 - 3	8 - 0	12 - 1	14 - 11
	HF	No.3/Stud	8 - 6	12 - 0	14 - 10	7 - 11	11 - 3	13 - 10	-	10 - 6	13 - 0	-	9 - 11	12 - 3	-	9 - 1	11 - 3
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	16 - 7	20-0†	10 - 3	15 - 10	20-0†	9 - 10	15 - 2	19 - 9	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11
	SP	No.1	10 - 3	15 - 11	20-0†	9 - 10	15 - 2	19 - 9	9 - 5	14 - 7	19 - 0	9 - 1	14 - 0	18 - 1	8 - 7	13 - 3	16 - 7
	SP	No.2	9 - 10	15 - 2	18 - 9	9 - 5	14 - 1	17 - 6	9 - 0	13 - 3	16 - 5	8 - 7	12 - 5	15 - 5	7 - 10	11 - 5	14 - 2
	SP	No.3	7 - 10	11 - 3	13 - 10	-	10 - 6	12 - 11	-	9 - 10	12 - 1	-	9 - 3	11 - 4	-	8 - 6	10 - 5
	SP	Stud	7 - 10	11 - 3	13 - 10	-	10 - 6	12 - 11	-	9 - 10	12 - 1	-	9 - 3	11 - 4	-	8 - 6	10 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	15 - 7	20-0†	9 - 7	14 - 10	19 - 4	9 - 3	14 - 3	18 - 6	8 - 10	13 - 8	17 - 10	8 - 5	12 - 11	16 - 10
	SPF	No.1	9 - 10	15 - 2	19 - 9	9 - 5	14 - 6	18 - 9	9 - 0	13 - 11	17 - 6	8 - 8	13 - 4	16 - 6	8 - 2	12 - 3	15 - 2
	SPF	No.2	9 - 10	15 - 2	19 - 9	9 - 5	14 - 6	18 - 9	9 - 0	13 - 11	17 - 6	8 - 8	13 - 4	16 - 6	8 - 2	12 - 3	15 - 2
	SPF	No.3/Stud	8 - 6	12 - 0	14 - 10	7 - 11	11 - 3	13 - 10	-	10 - 6	13 - 0	-	9 - 11	12 - 3	-	9 - 1	11 - 3
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B2 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/240
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-2	20-0†	20-0†
	DFL	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-4	20-0†	20-0†	12-8	19-8	20-0†
	DFL	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	19-3	20-0†
	DFL	No.3/Stud	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	DFL	Standard	14-0††	-	-	13-7	-	-	13-3	-	-	12-5	-	-	11-5	-	-
	HF	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	19-3	20-0†
	HF	No.1	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-6	20-0†	20-0†	12-10	19-10	20-0†	12-2	18-10	20-0†
	HF	No.2	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-10	19-11	20-0†	12-2	18-10	20-0†	11-7	17-11	20-0†
	HF	No.3/Stud	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	HF	Standard	13-4	-	-	12-11	-	-	12-6	-	-	11-10	-	-	11-2	-	-
	SP	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	12-11	20-0†	20-0†
	SP	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	19-3	20-0†
	SP	No.2	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	SP	No.3	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-10	19-11	20-0†	12-2	18-10	20-0†	11-7	17-7	20-0†
	SP	Stud	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-10	19-11	20-0†	12-2	18-10	20-0†	11-7	17-7	20-0†
	SP	Standard	13-4	-	-	12-9	-	-	12-2	-	-	11-2	-	-	10-4	-	-
	SPF	SS	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-6	20-0†	20-0†	12-10	19-10	20-0†	12-2	18-10	20-0†
	SPF	No.1	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	SPF	No.2	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	SPF	No.3/Stud	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	SPF	Standard	13-4	-	-	12-11	-	-	12-6	-	-	11-10	-	-	11-2	-	-
16	DFL	SS	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-7	19-5	20-0†	11-11	18-6	20-0†
	DFL	No.1	13-7	20-0†	20-0†	13-2	20-0†	20-0†	12-9	19-9	20-0†	12-1	18-9	20-0†	11-6	17-9	20-0†
	DFL	No.2	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	DFL	No.3/Stud	12-8	19-8	20-0†	12-4	19-1	20-0†	11-11	18-6	20-0†	11-4	17-6	20-0†	10-9	16-6	20-0†
	DFL	Standard	12-8	-	-	12-1	-	-	11-7	-	-	10-7	-	-	9-10	-	-
	HF	SS	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	HF	No.1	13-0	20-0†	20-0†	12-7	19-6	20-0†	12-3	18-11	20-0†	11-7	17-11	20-0†	11-0	17-0	20-0†
	HF	No.2	12-4	19-2	20-0†	12-0	18-7	20-0†	11-8	18-0	20-0†	11-0	17-0	20-0†	10-5	16-2	20-0†
	HF	No.3/Stud	12-0	18-7	20-0†	11-8	18-1	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†	10-2	15-9	19-11
	HF	Standard	12-0	-	-	11-8	-	-	11-4	-	-	10-4	-	-	9-7	-	-
	SP	SS	13-10	20-0†	20-0†	13-5	20-0†	20-0†	13-1	20-0†	20-0†	12-4	19-1	20-0†	11-9	18-2	20-0†
	SP	No.1	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	SP	No.2	12-8	19-8	20-0†	12-4	19-1	20-0†	11-11	18-6	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†
	SP	No.3	12-4	19-2	20-0†	12-0	18-7	20-0†	11-8	17-9	20-0†	11-0	16-4	20-0†	10-5	15-1	18-6
	SP	Stud	12-4	19-2	20-0†	12-0	18-7	20-0†	11-8	17-9	20-0†	11-0	16-4	20-0†	10-5	15-1	18-6
	SP	Standard	11-6	-	-	10-11	-	-	10-5	-	-	9-7	-	-	8-10	-	-
	SPF	SS	13-0	20-0†	20-0†	12-7	19-6	20-0†	12-3	18-11	20-0†	11-7	17-11	20-0†	11-0	17-0	20-0†
	SPF	No.1	12-8	19-8	20-0†	12-4	19-1	20-0†	11-11	18-6	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†
	SPF	No.2	12-8	19-8	20-0†	12-4	19-1	20-0†	11-11	18-6	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†
	SPF	No.3/Stud	12-0	18-7	20-0†	11-8	18-1	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†	10-2	15-9	19-11
	SPF	Standard	12-0	-	-	11-8	-	-	11-4	-	-	10-4	-	-	9-7	-	-
24	DFL	SS	12-3	19-0	20-0†	11-11	18-5	20-0†	11-6	17-10	20-0†	10-11	16-11	20-0†	10-4	16-0	20-0†
	DFL	No.1	11-10	18-3	20-0†	11-5	17-8	20-0†	11-1	17-2	20-0†	10-6	16-3	20-0†	10-0	15-5	20-0†
	DFL	No.2	11-7	17-10	20-0†	11-2	17-4	20-0†	10-10	16-10	20-0†	10-3	15-11	20-0†	9-9	15-1	19-8
	DFL	No.3/Stud	11-0	17-1	20-0†	10-8	16-5	20-0†	10-4	15-8	19-4	9-10	14-4	17-9	9-4	13-3	16-5
	DFL	Standard	10-3	-	-	9-9	-	-	9-4	-	-	8-7	-	-	7-11	-	-
	HF	SS	11-7	17-10	20-0†	11-2	17-4	20-0†	10-10	16-10	20-0†	10-3	15-11	20-0†	9-9	15-1	19-8
	HF	No.1	11-3	17-6	20-0†	10-11	16-11	20-0†	10-8	16-5	20-0†	10-1	15-7	20-0†	9-7	14-9	19-2
	HF	No.2	10-9	16-7	20-0†	10-5	16-1	20-0†	10-1	15-8	20-0†	9-7	14-9	19-3	9-1	14-1	18-3
	HF	No.3/Stud	10-5	16-2	20-0†	10-2	15-8	19-9	9-10	15-2	18-10	9-4	14-0	17-4	8-10	12-11	16-0
	HF	Standard	10-0	-	-	9-6	-	-	9-1	-	-	8-4	-	-	-	-	-
	SP	SS	12-0	18-7	20-0†	11-8	18-1	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†	10-2	15-9	20-0†
	SP	No.1	11-7	17-10	20-0†	11-2	17-4	20-0†	10-10	16-10	20-0†	10-3	15-11	20-0†	9-9	15-1	19-8
	SP	No.2	11-0	17-1	20-0†	10-8	16-6	20-0†	10-4	16-1	20-0†	9-10	15-2	19-9	9-4	14-5	18-9
	SP	No.3	10-9	15-8	19-3	10-5	15-0	18-5	9-11	14-3	17-7	9-2	13-1	16-1	8-5	12-1	14-11
	SP	Stud	10-9	15-8	19-3	10-5	15-0	18-5	9-11	14-3	17-7	9-2	13-1	16-1	8-5	12-1	14-11
	SP	Standard	9-3	-	-	8-10	-	-	8-5	-	-	-	-	-	-	-	-
	SPF	SS	11-3	17-6	20-0†	10-11	16-11	20-0†	10-8	16-5	20-0†	10-1	15-7	20-0†	9-7	14-9	19-2
	SPF	No.1	11-0	17-1	20-0†	10-8	16-6	20-0†	10-4	16-1	20-0†	9-10	15-2	19-9	9-4	14-5	18-9
	SPF	No.2	11-0	17-1	20-0†	10-8	16-6	20-0†	10-4	16-1	20-0†	9-10	15-2	19-9	9-4	14-5	18-9
	SPF	No.3/Stud	10-5	16-2	20-0†	10-2	15-8	19-9	9-10	15-2	18-10	9-4	14-0	17-4	8-10	12-11	16-0
	SPF	Standard	10-0	-	-	9-6	-	-	9-1	-	-	8-4	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B2 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

Exposure B
H/240
3/8" WSP

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12 - 7	19 - 6	20-0 ⁺	12 - 0	18 - 7	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺	10 - 6	16 - 2	20-0 ⁺
	DFL	No.1	12 - 1	18 - 9	20-0 ⁺	11 - 7	17 - 11	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺
	DFL	No.2	11 - 10	18 - 4	20-0 ⁺	11 - 4	17 - 6	20-0 ⁺	10 - 10	16 - 10	20-0 ⁺	10 - 5	16 - 2	20-0 ⁺	9 - 10	15 - 3	19 - 10
	DFL	No.3/Stud	11 - 4	17 - 6	20-0 ⁺	10 - 10	16 - 8	20-0 ⁺	10 - 4	15 - 8	19 - 4	10 - 0	14 - 8	18 - 2	9 - 5	13 - 6	16 - 8
	DFL	Standard	10 - 8	-	-	9 - 11	-	-	9 - 4	-	-	8 - 9	-	-	8 - 0	-	-
	HF	SS	11 - 10	18 - 4	20-0 ⁺	11 - 4	17 - 6	20-0 ⁺	10 - 10	16 - 10	20-0 ⁺	10 - 5	16 - 2	20-0 ⁺	9 - 10	15 - 3	19 - 10
	HF	No.1	11 - 7	17 - 11	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺	10 - 7	16 - 5	20-0 ⁺	10 - 2	15 - 9	20-0 ⁺	9 - 8	14 - 11	19 - 5
	HF	No.2	11 - 0	17 - 1	20-0 ⁺	10 - 6	16 - 4	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5
	HF	No.3/Stud	10 - 9	16 - 7	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 10	15 - 2	18 - 10	9 - 5	14 - 4	17 - 9	8 - 11	13 - 2	16 - 3
	HF	Standard	10 - 5	-	-	9 - 8	-	-	9 - 1	-	-	8 - 7	-	-	7 - 10	-	-
	SP	SS	12 - 4	19 - 1	20-0 ⁺	11 - 10	18 - 3	20-0 ⁺	11 - 4	17 - 6	20-0 ⁺	10 - 10	16 - 10	20-0 ⁺	10 - 3	15 - 11	20-0 ⁺
	SP	No.1	11 - 10	18 - 4	20-0 ⁺	11 - 4	17 - 6	20-0 ⁺	10 - 10	16 - 10	20-0 ⁺	10 - 5	16 - 2	20-0 ⁺	9 - 10	15 - 3	19 - 10
	SP	No.2	11 - 4	17 - 6	20-0 ⁺	10 - 10	16 - 9	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 5	14 - 7	18 - 11
	SP	No.3	11 - 0	16 - 4	20-0 ⁺	10 - 6	15 - 3	18 - 9	9 - 11	14 - 3	17 - 6	9 - 4	13 - 5	16 - 6	8 - 7	12 - 4	15 - 2
	SP	Stud	11 - 0	16 - 4	20-0 ⁺	10 - 6	15 - 3	18 - 9	9 - 11	14 - 3	17 - 6	9 - 4	13 - 5	16 - 6	8 - 7	12 - 4	15 - 2
	SP	Standard	9 - 7	-	-	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-
	SPF	SS	11 - 7	17 - 11	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺	10 - 7	16 - 5	20-0 ⁺	10 - 2	15 - 9	20-0 ⁺	9 - 8	14 - 11	19 - 5
	SPF	No.1	11 - 4	17 - 6	20-0 ⁺	10 - 10	16 - 9	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 5	14 - 7	18 - 11
	SPF	No.2	11 - 4	17 - 6	20-0 ⁺	10 - 10	16 - 9	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 5	14 - 7	18 - 11
	SPF	No.3/Stud	10 - 9	16 - 7	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 10	15 - 2	18 - 10	9 - 5	14 - 4	17 - 9	8 - 11	13 - 2	16 - 3
	SPF	Standard	10 - 5	-	-	9 - 8	-	-	9 - 1	-	-	8 - 7	-	-	7 - 10	-	-
16	DFL	SS	11 - 5	17 - 7	20-0 ⁺	10 - 11	16 - 10	20-0 ⁺	10 - 5	16 - 2	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺	9 - 6	14 - 8	19 - 1
	DFL	No.1	10 - 11	16 - 11	20-0 ⁺	10 - 6	16 - 2	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺	9 - 8	14 - 11	19 - 5	9 - 1	14 - 1	18 - 4
	DFL	No.2	10 - 9	16 - 7	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 10	15 - 2	19 - 9	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11
	DFL	No.3/Stud	10 - 3	15 - 4	19 - 0	9 - 9	14 - 4	17 - 8	9 - 4	13 - 5	16 - 7	8 - 11	12 - 7	15 - 7	8 - 2	11 - 7	14 - 4
	DFL	Standard	9 - 1	-	-	8 - 6	-	-	8 - 0	-	-	-	-	-	-	-	-
	HF	SS	10 - 9	16 - 7	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 10	15 - 2	19 - 9	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11
	HF	No.1	10 - 6	16 - 2	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺	9 - 7	14 - 10	19 - 4	9 - 3	14 - 3	18 - 7	8 - 9	13 - 6	17 - 7
	HF	No.2	10 - 0	15 - 5	20-0 ⁺	9 - 6	14 - 9	19 - 2	9 - 2	14 - 2	18 - 4	8 - 9	13 - 7	17 - 8	8 - 4	12 - 10	16 - 8
	HF	No.3/Stud	9 - 8	14 - 11	18 - 6	9 - 3	13 - 11	17 - 3	8 - 11	13 - 1	16 - 2	8 - 6	12 - 3	15 - 2	7 - 11	11 - 3	13 - 11
	HF	Standard	8 - 11	-	-	8 - 4	-	-	7 - 9	-	-	-	-	-	-	-	-
	SP	SS	11 - 2	17 - 3	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 8
	SP	No.1	10 - 9	16 - 7	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 10	15 - 2	19 - 9	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11
	SP	No.2	10 - 3	15 - 10	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 4	14 - 6	18 - 10	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2
	SP	No.3	9 - 9	14 - 0	17 - 2	9 - 1	13 - 1	16 - 0	8 - 6	12 - 3	15 - 0	8 - 0	11 - 6	14 - 2	-	10 - 7	13 - 0
	SP	Stud	9 - 9	14 - 0	17 - 2	9 - 1	13 - 1	16 - 0	8 - 6	12 - 3	15 - 0	8 - 0	11 - 6	14 - 2	-	10 - 7	13 - 0
	SP	Standard	8 - 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 6	16 - 2	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺	9 - 7	14 - 10	19 - 4	9 - 3	14 - 3	18 - 7	8 - 9	13 - 6	17 - 7
	SPF	No.1	10 - 3	15 - 10	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 4	14 - 6	18 - 10	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2
	SPF	No.2	10 - 3	15 - 10	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 4	14 - 6	18 - 10	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2
	SPF	No.3/Stud	9 - 8	14 - 11	18 - 6	9 - 3	13 - 11	17 - 3	8 - 11	13 - 1	16 - 2	8 - 6	12 - 3	15 - 2	7 - 11	11 - 3	13 - 11
	SPF	Standard	8 - 11	-	-	8 - 4	-	-	7 - 9	-	-	-	-	-	-	-	-
24	DFL	SS	9 - 11	15 - 3	19 - 10	9 - 5	14 - 7	19 - 0	9 - 1	14 - 0	18 - 2	8 - 8	13 - 5	17 - 6	8 - 3	12 - 9	16 - 6
	DFL	No.1	9 - 6	14 - 8	19 - 1	9 - 1	14 - 1	18 - 3	8 - 9	13 - 6	17 - 6	8 - 4	12 - 11	16 - 10	7 - 11	12 - 3	15 - 11
	DFL	No.2	9 - 4	14 - 5	18 - 9	8 - 11	13 - 9	17 - 11	8 - 6	13 - 2	17 - 2	8 - 2	12 - 8	16 - 6	7 - 9	12 - 0	15 - 4
	DFL	No.3/Stud	8 - 8	12 - 4	15 - 3	8 - 1	11 - 6	14 - 3	-	10 - 9	13 - 4	-	10 - 2	12 - 6	-	9 - 4	11 - 6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 4	14 - 5	18 - 9	8 - 11	13 - 9	17 - 11	8 - 6	13 - 2	17 - 2	8 - 2	12 - 8	16 - 6	7 - 9	12 - 0	15 - 7
	HF	No.1	9 - 1	14 - 1	18 - 4	8 - 8	13 - 5	17 - 6	8 - 4	12 - 11	16 - 9	8 - 0	12 - 5	16 - 1	-	11 - 9	15 - 3
	HF	No.2	8 - 8	13 - 5	17 - 5	8 - 3	12 - 10	16 - 8	7 - 11	12 - 3	15 - 11	-	11 - 9	15 - 4	-	11 - 2	14 - 6
	HF	No.3/Stud	8 - 5	12 - 0	14 - 10	7 - 11	11 - 3	13 - 10	-	10 - 6	13 - 0	-	9 - 11	12 - 3	-	9 - 1	11 - 3
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 8	15 - 0	19 - 6	9 - 3	14 - 4	18 - 8	8 - 11	13 - 9	17 - 10	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	SP	No.1	9 - 4	14 - 5	18 - 9	8 - 11	13 - 9	17 - 11	8 - 6	13 - 2	17 - 2	8 - 2	12 - 8	16 - 6	7 - 9	12 - 0	15 - 7
	SP	No.2	8 - 11	13 - 9	17 - 10	8 - 6	13 - 2	17 - 1	8 - 2	12 - 7	16 - 4	7 - 10	12 - 1	15 - 5	-	11 - 5	14 - 2
	SP	No.3	7 - 10	11 - 3	13 - 10	-	10 - 6	12 - 11	-	9 - 10	12 - 1	-	9 - 3	11 - 4	-	8 - 6	10 - 5
	SP	Stud	7 - 10	11 - 3	13 - 10	-	10 - 6	12 - 11	-	9 - 10	12 - 1	-	9 - 3	11 - 4	-	8 - 6	10 - 5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 1	14 - 1	18 - 4	8 - 8	13 - 5	17 - 6	8 - 4	12 - 11	16 - 9	8 - 0	12 - 5	16 - 1	-	11 - 9	15 - 3
	SPF	No.1	8 - 11	13 - 9	17 - 10	8 - 6	13 - 2	17 - 1	8 - 2	12 - 7	16 - 4	7 - 10	12 - 1	15 - 9	-	11 - 5	14 - 10
	SPF	No.2	8 - 11	13 - 9	17 - 10	8 - 6	13 - 2	17 - 1	8 - 2	12 - 7	16 - 4	7 - 10	12 - 1	15 - 9	-	11 - 5	14 - 10
	SPF	No.3/Stud	8 - 5	12 - 0	14 - 10	7 - 11	11 - 3	13 - 10	-	10 - 6	13 - 0	-	9 - 11	12 - 3	-	9 - 1	11 - 3
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B3 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/360
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 7	20-0†	20-0†	13 - 2	20-0†	20-0†	12 - 9	19 - 9	20-0†	12 - 1	18 - 8	20-0†	11 - 5	17 - 9	20-0†
	DFL	No.1	13 - 0	20-0†	20-0†	12 - 8	19 - 7	20-0†	12 - 3	19 - 0	20-0†	11 - 7	18 - 0	20-0†	11 - 0	17 - 1	20-0†
	DFL	No.2	12 - 9	19 - 9	20-0†	12 - 5	19 - 2	20-0†	12 - 0	18 - 7	20-0†	11 - 4	17 - 7	20-0†	10 - 9	16 - 8	20-0†
	DFL	No.3/Stud	12 - 2	18 - 10	20-0†	11 - 10	18 - 3	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 9	20-0†	10 - 4	15 - 11	20-0†
	DFL	Standard	12 - 2	-	-	11 - 10	-	-	11 - 6	-	-	10 - 10	-	-	10 - 4	-	-
	HF	SS	12 - 9	19 - 9	20-0†	12 - 5	19 - 2	20-0†	12 - 0	18 - 7	20-0†	11 - 4	17 - 7	20-0†	10 - 9	16 - 8	20-0†
	HF	No.1	12 - 6	19 - 4	20-0†	12 - 1	18 - 9	20-0†	11 - 9	18 - 2	20-0†	11 - 1	17 - 2	20-0†	10 - 7	16 - 4	20-0†
	HF	No.2	11 - 10	18 - 5	20-0†	11 - 6	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 7	16 - 4	20-0†	10 - 0	15 - 6	20-0†
	HF	No.3/Stud	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	HF	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 9	-	-
	SP	SS	13 - 4	20-0†	20-0†	12 - 11	20 - 0	20-0†	12 - 6	19 - 5	20-0†	11 - 10	18 - 4	20-0†	11 - 3	17 - 5	20-0†
	SP	No.1	12 - 9	19 - 9	20-0†	12 - 5	19 - 2	20-0†	12 - 0	18 - 7	20-0†	11 - 4	17 - 7	20-0†	10 - 9	16 - 8	20-0†
	SP	No.2	12 - 2	18 - 10	20-0†	11 - 10	18 - 3	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 9	20-0†	10 - 4	15 - 11	20-0†
	SP	No.3	11 - 10	18 - 5	20-0†	11 - 6	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 7	16 - 4	20-0†	10 - 0	15 - 6	20-0†
	SP	Stud	11 - 10	18 - 5	20-0†	11 - 6	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 7	16 - 4	20-0†	10 - 0	15 - 6	20-0†
	SP	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 9	-	-
	SPF	SS	12 - 6	19 - 4	20-0†	12 - 1	18 - 9	20-0†	11 - 9	18 - 2	20-0†	11 - 1	17 - 2	20-0†	10 - 7	16 - 4	20-0†
	SPF	No.1	12 - 2	18 - 10	20-0†	11 - 10	18 - 3	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 9	20-0†	10 - 4	15 - 11	20-0†
	SPF	No.2	12 - 2	18 - 10	20-0†	11 - 10	18 - 3	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 9	20-0†	10 - 4	15 - 11	20-0†
	SPF	No.3/Stud	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	SPF	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 9	-	-
16	DFL	SS	12 - 3	19 - 0	20-0†	11 - 11	18 - 5	20-0†	11 - 6	17 - 10	20-0†	10 - 11	16 - 11	20-0†	10 - 4	16 - 0	20-0†
	DFL	No.1	11 - 10	18 - 3	20-0†	11 - 5	17 - 8	20-0†	11 - 1	17 - 2	20-0†	10 - 6	16 - 3	20-0†	10 - 0	15 - 5	20-0†
	DFL	No.2	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	DFL	No.3/Stud	11 - 0	17 - 1	20-0†	10 - 8	16 - 6	20-0†	10 - 4	16 - 1	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 9
	DFL	Standard	11 - 0	-	-	10 - 8	-	-	10 - 4	-	-	9 - 10	-	-	9 - 4	-	-
	HF	SS	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	HF	No.1	11 - 3	17 - 6	20-0†	10 - 11	16 - 11	20-0†	10 - 8	16 - 5	20-0†	10 - 1	15 - 7	20-0†	9 - 7	14 - 9	19 - 2
	HF	No.2	10 - 9	16 - 7	20-0†	10 - 5	16 - 1	20-0†	10 - 1	15 - 8	20-0†	9 - 7	14 - 9	19 - 3	9 - 1	14 - 1	18 - 3
	HF	No.3/Stud	10 - 5	16 - 2	20-0†	10 - 2	15 - 8	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 8	8 - 10	13 - 8	17 - 9
	HF	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 4	-	-	8 - 10	-	-
	SP	SS	12 - 0	18 - 7	20-0†	11 - 8	18 - 1	20-0†	11 - 4	17 - 6	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 9	20-0†
	SP	No.1	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	SP	No.2	11 - 0	17 - 1	20-0†	10 - 8	16 - 6	20-0†	10 - 4	16 - 1	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 9
	SP	No.3	10 - 9	16 - 7	20-0†	10 - 5	16 - 1	20-0†	10 - 1	15 - 8	20-0†	9 - 7	14 - 9	19 - 3	9 - 1	14 - 1	18 - 3
	SP	Stud	10 - 9	16 - 7	20-0†	10 - 5	16 - 1	20-0†	10 - 1	15 - 8	20-0†	9 - 7	14 - 9	19 - 3	9 - 1	14 - 1	18 - 3
	SP	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 4	-	-	8 - 10	-	-
	SPF	SS	11 - 3	17 - 6	20-0†	10 - 11	16 - 11	20-0†	10 - 8	16 - 5	20-0†	10 - 1	15 - 7	20-0†	9 - 7	14 - 9	19 - 2
	SPF	No.1	11 - 0	17 - 1	20-0†	10 - 8	16 - 6	20-0†	10 - 4	16 - 1	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 9
	SPF	No.2	11 - 0	17 - 1	20-0†	10 - 8	16 - 6	20-0†	10 - 4	16 - 1	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 9
	SPF	No.3/Stud	10 - 5	16 - 2	20-0†	10 - 2	15 - 8	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 8	8 - 10	13 - 8	17 - 9
	SPF	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 4	-	-	8 - 10	-	-
24	DFL	SS	10 - 8	16 - 6	20-0†	10 - 4	16 - 0	20-0†	10 - 0	15 - 6	20-0†	9 - 6	14 - 8	19 - 1	9 - 0	13 - 11	18 - 1
	DFL	No.1	10 - 3	15 - 10	20-0†	9 - 11	15 - 4	20 - 0	9 - 8	14 - 11	19 - 5	9 - 1	14 - 1	18 - 4	8 - 8	13 - 5	17 - 5
	DFL	No.2	10 - 0	15 - 6	20-0†	9 - 9	15 - 0	19 - 7	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11	8 - 6	13 - 1	17 - 0
	DFL	No.3/Stud	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	DFL	Standard	9 - 7	-	-	9 - 3	-	-	9 - 0	-	-	8 - 6	-	-	7 - 11	-	-
	HF	SS	10 - 0	15 - 6	20-0†	9 - 9	15 - 0	19 - 7	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11	8 - 6	13 - 1	17 - 0
	HF	No.1	9 - 10	15 - 2	19 - 9	9 - 6	14 - 8	19 - 1	9 - 3	14 - 3	18 - 7	8 - 9	13 - 6	17 - 7	8 - 3	12 - 10	16 - 8
	HF	No.2	9 - 4	14 - 5	18 - 9	9 - 1	14 - 0	18 - 2	8 - 9	13 - 7	17 - 8	8 - 4	12 - 10	16 - 8	7 - 11	12 - 2	15 - 10
	HF	No.3/Stud	9 - 1	14 - 0	18 - 3	8 - 10	13 - 7	17 - 8	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3	-	11 - 10	15 - 5
	HF	Standard	9 - 1	-	-	8 - 10	-	-	8 - 6	-	-	8 - 1	-	-	-	-	-
	SP	SS	10 - 5	16 - 2	20-0†	10 - 2	15 - 8	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 8	8 - 10	13 - 8	17 - 9
	SP	No.1	10 - 0	15 - 6	20-0†	9 - 9	15 - 0	19 - 7	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11	8 - 6	13 - 1	17 - 0
	SP	No.2	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	SP	No.3	9 - 4	14 - 5	18 - 9	9 - 1	14 - 0	18 - 2	8 - 9	13 - 7	17 - 7	8 - 4	12 - 10	16 - 1	7 - 11	12 - 1	14 - 11
	SP	Stud	9 - 4	14 - 5	18 - 9	9 - 1	14 - 0	18 - 2	8 - 9	13 - 7	17 - 7	8 - 4	12 - 10	16 - 1	7 - 11	12 - 1	14 - 11
	SP	Standard	9 - 1	-	-	8 - 10	-	-	8 - 5	-	-	-	-	-	-	-	-
	SPF	SS	9 - 10	15 - 2	19 - 9	9 - 6	14 - 8	19 - 1	9 - 3	14 - 3	18 - 7	8 - 9	13 - 6	17 - 7	8 - 3	12 - 10	16 - 8
	SPF	No.1	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	SPF	No.2	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	SPF	No.3/Stud	9 - 1	14 - 0	18 - 3	8 - 10	13 - 7	17 - 8	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3	-	11 - 10	15 - 5
	SPF	Standard	9 - 1	-	-	8 - 10	-	-	8 - 6	-	-	8 - 1	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B3 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/360
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	10-11	16-11	20-0†	10-5	16-2	20-0†	10-0	15-6	20-0†	9-7	14-10	19-4	9-1	14-1	18-3
	DFL	No.1	10-6	16-3	20-0†	10-0	15-6	20-0†	9-8	14-11	19-4	9-3	14-4	18-7	8-9	13-6	17-7
	DFL	No.2	10-3	15-11	20-0†	9-10	15-2	19-9	9-5	14-7	19-0	9-1	14-0	18-3	8-7	13-3	17-3
	DFL	No.3/Stud	9-10	15-2	19-9	9-5	14-6	18-10	9-0	13-11	18-1	8-8	13-4	17-5	8-2	12-8	16-5
	DFL	Standard	9-10	-	-	9-5	-	-	9-0	-	-	8-8	-	-	8-0	-	-
	HF	SS	10-3	15-11	20-0†	9-10	15-2	19-9	9-5	14-7	19-0	9-1	14-0	18-3	8-7	13-3	17-3
	HF	No.1	10-1	15-7	20-0†	9-7	14-10	19-4	9-3	14-3	18-6	8-10	13-8	17-10	8-5	12-11	16-10
	HF	No.2	9-7	14-10	19-3	9-2	14-2	18-5	8-9	13-7	17-8	8-5	13-0	16-11	8-0	12-4	16-0
	HF	No.3/Stud	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	HF	Standard	9-4	-	-	8-11	-	-	8-6	-	-	8-2	-	-	7-9	-	-
	SP	SS	10-9	16-7	20-0†	10-3	15-10	20-0†	9-10	15-2	19-9	9-5	14-7	19-0	8-11	13-10	17-11
	SP	No.1	10-3	15-11	20-0†	9-10	15-2	19-9	9-5	14-7	19-0	9-1	14-0	18-3	8-7	13-3	17-3
	SP	No.2	9-10	15-2	19-9	9-5	14-6	18-10	9-0	13-11	18-1	8-8	13-4	17-5	8-2	12-8	16-5
	SP	No.3	9-7	14-10	19-3	9-2	14-2	18-5	8-9	13-7	17-6	8-5	13-0	16-6	8-0	12-4	15-2
	SP	Stud	9-7	14-10	19-3	9-2	14-2	18-5	8-9	13-7	17-6	8-5	13-0	16-6	8-0	12-4	15-2
	SP	Standard	9-4	-	-	8-11	-	-	8-5	-	-	7-11	-	-	-	-	-
	SPF	SS	10-1	15-7	20-0†	9-7	14-10	19-4	9-3	14-3	18-6	8-10	13-8	17-10	8-5	12-11	16-10
	SPF	No.1	9-10	15-2	19-9	9-5	14-6	18-10	9-0	13-11	18-1	8-8	13-4	17-5	8-2	12-8	16-5
	SPF	No.2	9-10	15-2	19-9	9-5	14-6	18-10	9-0	13-11	18-1	8-8	13-4	17-5	8-2	12-8	16-5
	SPF	No.3/Stud	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	SPF	Standard	9-4	-	-	8-11	-	-	8-6	-	-	8-2	-	-	7-9	-	-
16	DFL	SS	9-11	15-3	19-10	9-5	14-7	19-0	9-1	14-0	18-2	8-8	13-5	17-6	8-3	12-9	16-6
	DFL	No.1	9-6	14-8	19-1	9-1	14-1	18-3	8-9	13-6	17-6	8-4	12-11	16-10	7-11	12-3	15-11
	DFL	No.2	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	DFL	No.3/Stud	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-7	-	11-5	14-4
	DFL	Standard	8-11	-	-	8-6	-	-	8-0	-	-	-	-	-	-	-	-
	HF	SS	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	HF	No.1	9-1	14-1	18-4	8-8	13-5	17-6	8-4	12-11	16-9	8-0	12-5	16-1	-	11-9	15-3
	HF	No.2	8-8	13-5	17-5	8-3	12-10	16-8	7-11	12-3	15-11	-	11-9	15-4	-	11-2	14-6
	HF	No.3/Stud	8-5	13-0	16-11	8-1	12-5	16-2	-	11-11	15-6	-	11-6	14-11	-	10-10	13-11
	HF	Standard	8-5	-	-	8-1	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-8	15-0	19-6	9-3	14-4	18-8	8-11	13-9	17-10	8-6	13-2	17-2	8-1	12-6	16-3
	SP	No.1	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	SP	No.2	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-9	-	11-5	14-10
	SP	No.3	8-8	13-5	17-2	8-3	12-10	16-0	7-11	12-3	15-0	-	11-6	14-2	-	10-7	13-0
	SP	Stud	8-8	13-5	17-2	8-3	12-10	16-0	7-11	12-3	15-0	-	11-6	14-2	-	10-7	13-0
	SP	Standard	8-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-1	14-1	18-4	8-8	13-5	17-6	8-4	12-11	16-9	8-0	12-5	16-1	-	11-9	15-3
	SPF	No.1	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-9	-	11-5	14-10
	SPF	No.2	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-9	-	11-5	14-10
	SPF	No.3/Stud	8-5	13-0	16-11	8-1	12-5	16-2	-	11-11	15-6	-	11-6	14-11	-	10-10	13-11
	SPF	Standard	8-5	-	-	8-1	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8-7	13-3	17-3	8-2	12-8	16-6	7-10	12-2	15-10	-	11-8	15-2	-	11-1	14-4
	DFL	No.1	8-3	12-9	16-7	7-11	12-2	15-10	-	11-8	15-2	-	11-3	14-7	-	10-7	13-10
	DFL	No.2	8-1	12-6	16-3	-	11-11	15-6	-	11-5	14-11	-	11-0	14-4	-	10-5	13-6
	DFL	No.3/Stud	-	11-11	15-3	-	11-5	14-3	-	10-9	13-4	-	10-2	12-6	-	9-4	11-6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-1	12-6	16-3	-	11-11	15-6	-	11-5	14-11	-	11-0	14-4	-	10-5	13-6
	HF	No.1	7-11	12-3	15-11	-	11-8	15-2	-	11-2	14-7	-	10-9	14-0	-	10-2	13-3
	HF	No.2	-	11-7	15-1	-	11-1	14-5	-	10-8	13-10	-	10-3	13-4	-	9-8	12-7
	HF	No.3/Stud	-	11-4	14-8	-	10-10	13-10	-	10-4	13-0	-	9-11	12-3	-	9-1	11-3
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-5	13-0	16-11	8-1	12-5	16-2	-	11-11	15-6	-	11-6	14-11	-	10-10	14-1
	SP	No.1	8-1	12-6	16-3	-	11-11	15-6	-	11-5	14-11	-	11-0	14-4	-	10-5	13-6
	SP	No.2	-	11-11	15-6	-	11-5	14-10	-	10-11	14-2	-	10-6	13-8	-	9-11	12-11
	SP	No.3	-	11-3	13-10	-	10-6	12-11	-	9-10	12-1	-	9-3	11-4	-	8-6	10-5
	SP	Stud	-	11-3	13-10	-	10-6	12-11	-	9-10	12-1	-	9-3	11-4	-	8-6	10-5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7-11	12-3	15-11	-	11-8	15-2	-	11-2	14-7	-	10-9	14-0	-	10-2	13-3
	SPF	No.1	-	11-11	15-6	-	11-5	14-10	-	10-11	14-2	-	10-6	13-8	-	9-11	12-11
	SPF	No.2	-	11-11	15-6	-	11-5	14-10	-	10-11	14-2	-	10-6	13-8	-	9-11	12-11
	SPF	No.3/Stud	-	11-4	14-8	-	10-10	13-10	-	10-4	13-0	-	9-11	12-3	-	9-1	11-3
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B4 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure C
H/180
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 8	20-0†	20-0†	13 - 0	20-0†	20-0†
	DFL	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 11	20-0†	20-0†	13 - 2	20-0†	20-0†	12 - 6	19 - 4	20-0†
	DFL	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 8	20-0†	20-0†	12 - 11	20-0	20-0†	12 - 3	19 - 0	20-0†
	DFL	No.3/Stud	13 - 10	20-0†	20-0†	13 - 5	19 - 11	20-0†	13 - 0	19 - 1	20-0†	12 - 4	17 - 6	20-0†	11 - 4	16 - 2	20 - 0
	DFL	Standard	12 - 5	-	-	11 - 10	-	-	11 - 4	-	-	10 - 5	-	-	9 - 7	-	-
	HF	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 8	20-0†	20-0†	12 - 11	20 - 0	20-0†	12 - 3	19 - 0	20-0†
	HF	No.1	14-0††	20-0†	20-0†	13 - 9	20-0†	20-0†	13 - 4	20-0†	20-0†	12 - 7	19 - 6	20-0†	12 - 0	18 - 6	20-0†
	HF	No.2	13 - 6	20-0†	20-0†	13 - 1	20-0†	20-0†	12 - 8	19 - 8	20-0†	12 - 0	18 - 7	20-0†	11 - 5	17 - 8	20-0†
	HF	No.3/Stud	13 - 1	20-0†	20-0†	12 - 9	19 - 5	20-0†	12 - 4	18 - 7	20-0†	11 - 8	17 - 0	20-0†	11 - 1	15 - 9	19 - 5
	HF	Standard	12 - 2	-	-	11 - 7	-	-	11 - 1	-	-	10 - 2	-	-	9 - 5	-	-
	SP	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 5	20-0†	20-0†	12 - 9	19 - 9	20-0†
	SP	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 8	20-0†	20-0†	12 - 11	20 - 0	20-0†	12 - 3	19 - 0	20-0†
	SP	No.2	13 - 10	20-0†	20-0†	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†
	SP	No.3	13 - 3	19 - 1	20-0†	12 - 8	18 - 2	20-0†	12 - 1	17 - 5	20-0†	11 - 1	15 - 11	19 - 7	10 - 3	14 - 9	18 - 1
	SP	Stud	13 - 3	19 - 1	20-0†	12 - 8	18 - 2	20-0†	12 - 1	17 - 5	20-0†	11 - 1	15 - 11	19 - 7	10 - 3	14 - 9	18 - 1
	SP	Standard	11 - 3	-	-	10 - 8	-	-	10 - 3	-	-	9 - 5	-	-	8 - 8	-	-
	SPF	SS	14-0††	20-0†	20-0†	13 - 9	20-0†	20-0†	13 - 4	20-0†	20-0†	12 - 7	19 - 6	20-0†	12 - 0	18 - 6	20-0†
	SPF	No.1	13 - 10	20-0†	20-0†	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†
	SPF	No.2	13 - 10	20-0†	20-0†	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†
	SPF	No.3/Stud	13 - 1	20-0†	20-0†	12 - 9	19 - 5	20-0†	12 - 4	18 - 7	20-0†	11 - 8	17 - 0	20-0†	11 - 1	15 - 9	19 - 5
	SPF	Standard	12 - 2	-	-	11 - 7	-	-	11 - 1	-	-	10 - 2	-	-	9 - 5	-	-
16	DFL	SS	13 - 11	20-0†	20-0†	13 - 6	20-0†	20-0†	13 - 1	20-0†	20-0†	12 - 5	19 - 2	20-0†	11 - 9	18 - 3	20-0†
	DFL	No.1	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 7	19 - 6	20-0†	11 - 11	18 - 5	20-0†	11 - 4	17 - 6	20-0†
	DFL	No.2	13 - 1	20-0†	20-0†	12 - 9	19 - 8	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†	11 - 1	17 - 2	20-0†
	DFL	No.3/Stud	12 - 6	17 - 11	20-0†	12 - 0	17 - 1	20-0†	11 - 6	16 - 4	20-0†	10 - 7	15 - 0	18 - 6	9 - 9	13 - 10	17 - 1
	DFL	Standard	10 - 8	-	-	10 - 2	-	-	9 - 9	-	-	8 - 11	-	-	8 - 3	-	-
	HF	SS	13 - 1	20-0†	20-0†	12 - 9	19 - 8	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†	11 - 1	17 - 2	20-0†
	HF	No.1	12 - 10	19 - 10	20-0†	12 - 5	19 - 3	20-0†	12 - 1	18 - 8	20-0†	11 - 5	17 - 8	20-0†	10 - 10	16 - 9	20-0†
	HF	No.2	12 - 2	18 - 11	20-0†	11 - 10	18 - 4	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 10	20-0†	10 - 4	15 - 11	20-0†
	HF	No.3/Stud	11 - 10	17 - 6	20-0†	11 - 6	16 - 8	20-0†	11 - 2	15 - 11	19 - 8	10 - 3	14 - 7	18 - 1	9 - 6	13 - 6	16 - 8
	HF	Standard	10 - 5	-	-	9 - 11	-	-	9 - 6	-	-	8 - 8	-	-	8 - 1	-	-
	SP	SS	13 - 8	20-0†	20-0†	13 - 3	20-0†	20-0†	12 - 10	19 - 11	20-0†	12 - 2	18 - 10	20-0†	11 - 7	17 - 10	20-0†
	SP	No.1	13 - 1	20-0†	20-0†	12 - 9	19 - 8	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†	11 - 1	17 - 2	20-0†
	SP	No.2	12 - 6	19 - 4	20-0†	12 - 2	18 - 9	20-0†	11 - 9	18 - 3	20-0†	11 - 2	17 - 3	20-0†	10 - 7	16 - 4	20-0†
	SP	No.3	11 - 5	16 - 4	20-0†	10 - 10	15 - 7	19 - 2	10 - 4	14 - 11	18 - 4	9 - 6	13 - 8	16 - 10	8 - 10	12 - 7	15 - 6
	SP	Stud	11 - 5	16 - 4	20-0†	10 - 10	15 - 7	19 - 2	10 - 4	14 - 11	18 - 4	9 - 6	13 - 8	16 - 10	8 - 10	12 - 7	15 - 6
	SP	Standard	9 - 7	-	-	9 - 2	-	-	8 - 9	-	-	8 - 1	-	-	-	-	-
	SPF	SS	12 - 10	19 - 10	20-0†	12 - 5	19 - 3	20-0†	12 - 1	18 - 8	20-0†	11 - 5	17 - 8	20-0†	10 - 10	16 - 9	20-0†
	SPF	No.1	12 - 6	19 - 4	20-0†	12 - 2	18 - 9	20-0†	11 - 9	18 - 3	20-0†	11 - 2	17 - 3	20-0†	10 - 7	16 - 4	20-0†
	SPF	No.2	12 - 6	19 - 4	20-0†	12 - 2	18 - 9	20-0†	11 - 9	18 - 3	20-0†	11 - 2	17 - 3	20-0†	10 - 7	16 - 4	20-0†
	SPF	No.3/Stud	11 - 10	17 - 6	20-0†	11 - 6	16 - 8	20-0†	11 - 2	15 - 11	19 - 8	10 - 3	14 - 7	18 - 1	9 - 6	13 - 6	16 - 8
	SPF	Standard	10 - 5	-	-	9 - 11	-	-	9 - 6	-	-	8 - 8	-	-	8 - 1	-	-
24	DFL	SS	12 - 1	18 - 8	20-0†	11 - 9	18 - 2	20-0†	11 - 5	17 - 7	20-0†	10 - 9	16 - 8	20-0†	10 - 3	15 - 10	20-0†
	DFL	No.1	11 - 8	18 - 0	20-0†	11 - 3	17 - 5	20-0†	10 - 11	16 - 11	20-0†	10 - 4	16 - 0	20-0†	9 - 10	15 - 2	19 - 5
	DFL	No.2	11 - 5	17 - 7	20-0†	11 - 0	17 - 1	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	19 - 11	9 - 7	14 - 10	18 - 5
	DFL	No.3/Stud	10 - 2	14 - 5	17 - 10	9 - 8	13 - 9	17 - 0	9 - 3	13 - 2	16 - 3	8 - 6	12 - 1	14 - 11	7 - 10	11 - 2	13 - 9
	DFL	Standard	8 - 7	-	-	8 - 2	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	11 - 5	17 - 7	20-0†	11 - 0	17 - 1	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	20-0†	9 - 7	14 - 11	19 - 4
	HF	No.1	11 - 2	17 - 3	20-0†	10 - 9	16 - 8	20-0†	10 - 6	16 - 2	20-0†	9 - 11	15 - 4	19 - 11	9 - 5	14 - 7	18 - 11
	HF	No.2	10 - 7	16 - 5	20-0†	10 - 3	15 - 11	20-0†	10 - 0	15 - 5	20-0†	9 - 5	14 - 7	19 - 0	9 - 0	13 - 10	17 - 10
	HF	No.3/Stud	9 - 11	14 - 1	17 - 4	9 - 5	13 - 5	16 - 7	9 - 0	12 - 10	15 - 10	8 - 3	11 - 9	14 - 6	-	10 - 10	13 - 5
	HF	Standard	8 - 5	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	11 - 10	18 - 4	20-0†	11 - 6	17 - 10	20-0†	11 - 2	17 - 3	20-0†	10 - 7	16 - 4	20-0†	10 - 0	15 - 6	20-0†
	SP	No.1	11 - 5	17 - 7	20-0†	11 - 0	17 - 1	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	20-0†	9 - 7	14 - 11	19 - 4
	SP	No.2	10 - 10	16 - 10	20-0†	10 - 6	16 - 4	20-0†	10 - 3	15 - 10	20 - 0	9 - 8	14 - 10	18 - 4	9 - 2	13 - 8	16 - 11
	SP	No.3	9 - 2	13 - 2	16 - 2	8 - 9	12 - 6	15 - 5	8 - 4	12 - 0	14 - 9	-	11 - 0	13 - 6	-	10 - 2	12 - 6
	SP	Stud	9 - 2	13 - 2	16 - 2	8 - 9	12 - 6	15 - 5	8 - 4	12 - 0	14 - 9	-	11 - 0	13 - 6	-	10 - 2	12 - 6
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 2	17 - 3	20-0†	10 - 9	16 - 8	20-0†	10 - 6	16 - 2	20-0†	9 - 11	15 - 4	19 - 11	9 - 5	14 - 7	18 - 11
	SPF	No.1	10 - 10	16 - 10	20-0†	10 - 6	16 - 4	20-0†	10 - 3	15 - 10	20-0†	9 - 8	15 - 0	19 - 5	9 - 2	14 - 2	18 - 1
	SPF	No.2	10 - 10	16 - 10	20-0†	10 - 6	16 - 4	20-0†	10 - 3	15 - 10	20-0†	9 - 8	15 - 0	19 - 5	9 - 2	14 - 2	18 - 1
	SPF	No.3/Stud	9 - 11	14 - 1	17 - 4	9 - 5	13 - 5	16 - 7	9 - 0	12 - 10	15 - 10	8 - 3	11 - 9	14 - 6	-	10 - 10	13 - 5
	SPF	Standard	8 - 5	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B4 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

Exposure C
H/180
3/8" WSP

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12 - 5	19 - 2	20-0†	11 - 10	18 - 4	20-0†	11 - 4	17 - 7	20-0†	10 - 11	16 - 11	20-0†	10 - 4	16 - 0	20-0†
	DFL	No.1	11 - 11	18 - 5	20-0†	11 - 5	17 - 8	20-0†	10 - 11	16 - 11	20-0†	10 - 6	16 - 3	20-0†	9 - 11	15 - 4	19 - 9
	DFL	No.2	11 - 8	18 - 1	20-0†	11 - 2	17 - 3	20-0†	10 - 8	16 - 7	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	18 - 8
	DFL	No.3/Stud	10 - 7	15 - 0	18 - 6	9 - 10	14 - 0	17 - 4	9 - 3	13 - 1	16 - 2	8 - 8	12 - 4	15 - 3	8 - 0	11 - 4	14 - 0
	DFL	Standard	8 - 11	-	-	8 - 4	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	11 - 8	18 - 1	20-0†	11 - 2	17 - 3	20-0†	10 - 8	16 - 7	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 7
	HF	No.1	11 - 5	17 - 8	20-0†	10 - 11	16 - 11	20-0†	10 - 6	16 - 2	20-0†	10 - 1	15 - 7	20-0†	9 - 6	14 - 8	19 - 2
	HF	No.2	10 - 10	16 - 10	20-0†	10 - 5	16 - 1	20-0†	10 - 0	15 - 5	20-0†	9 - 7	14 - 10	19 - 3	9 - 1	14 - 0	18 - 1
	HF	No.3/Stud	10 - 3	14 - 7	18 - 1	9 - 7	13 - 8	16 - 10	9 - 0	12 - 9	15 - 9	8 - 6	12 - 0	14 - 10	7 - 9	11 - 0	13 - 8
	HF	Standard	8 - 9	-	-	8 - 2	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	12 - 2	18 - 10	20-0†	11 - 8	18 - 0	20-0†	11 - 2	17 - 3	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	20-0†
	SP	No.1	11 - 8	18 - 1	20-0†	11 - 2	17 - 3	20-0†	10 - 8	16 - 7	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 7
	SP	No.2	11 - 2	17 - 3	20-0†	10 - 8	16 - 6	20-0†	10 - 3	15 - 10	19 - 11	9 - 10	15 - 2	18 - 9	9 - 3	13 - 11	17 - 2
	SP	No.3	9 - 6	13 - 8	16 - 10	8 - 11	12 - 9	15 - 8	8 - 4	12 - 0	14 - 8	7 - 10	11 - 3	13 - 10	-	10 - 4	12 - 8
	SP	Stud	9 - 6	13 - 8	16 - 10	8 - 11	12 - 9	15 - 8	8 - 4	12 - 0	14 - 8	7 - 10	11 - 3	13 - 10	-	10 - 4	12 - 8
	SP	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 5	17 - 8	20-0†	10 - 11	16 - 11	20-0†	10 - 6	16 - 2	20-0†	10 - 1	15 - 7	20-0†	9 - 6	14 - 8	19 - 2
	SPF	No.1	11 - 2	17 - 3	20-0†	10 - 8	16 - 6	20-0†	10 - 3	15 - 10	20-0†	9 - 10	15 - 2	19 - 9	9 - 3	14 - 4	18 - 5
	SPF	No.2	11 - 2	17 - 3	20-0†	10 - 8	16 - 6	20-0†	10 - 3	15 - 10	20-0†	9 - 10	15 - 2	19 - 9	9 - 3	14 - 4	18 - 5
	SPF	No.3/Stud	10 - 3	14 - 7	18 - 1	9 - 7	13 - 8	16 - 10	9 - 0	12 - 9	15 - 9	8 - 6	12 - 0	14 - 10	7 - 9	11 - 0	13 - 8
	SPF	Standard	8 - 9	-	-	8 - 2	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	11 - 3	17 - 4	20-0†	10 - 9	16 - 7	20-0†	10 - 3	15 - 11	20-0†	9 - 11	15 - 3	19 - 10	9 - 4	14 - 5	18 - 9
	DFL	No.1	10 - 9	16 - 8	20-0†	10 - 4	16 - 0	20-0†	9 - 11	15 - 4	19 - 8	9 - 6	14 - 8	18 - 6	9 - 0	13 - 8	16 - 11
	DFL	No.2	10 - 7	16 - 4	20-0†	10 - 1	15 - 7	19 - 10	9 - 8	15 - 0	18 - 7	9 - 4	14 - 1	17 - 5	8 - 10	12 - 11	16 - 0
	DFL	No.3/Stud	9 - 1	12 - 10	15 - 11	8 - 5	12 - 0	14 - 10	7 - 11	11 - 3	13 - 11	-	10 - 7	13 - 1	-	9 - 8	12 - 0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	10 - 7	16 - 4	20-0†	10 - 1	15 - 7	20-0†	9 - 8	15 - 0	19 - 6	9 - 4	14 - 5	18 - 9	8 - 10	13 - 7	17 - 8
	HF	No.1	10 - 4	16 - 0	20-0†	9 - 10	15 - 3	19 - 10	9 - 6	14 - 8	19 - 0	9 - 1	14 - 1	18 - 3	8 - 7	13 - 4	16 - 9
	HF	No.2	9 - 10	15 - 2	19 - 9	9 - 5	14 - 6	18 - 11	9 - 0	13 - 11	18 - 0	8 - 8	13 - 5	16 - 11	8 - 2	12 - 7	15 - 6
	HF	No.3/Stud	8 - 10	12 - 6	15 - 6	8 - 3	11 - 8	14 - 5	-	10 - 11	13 - 6	-	10 - 4	12 - 9	-	9 - 5	11 - 8
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	11 - 0	17 - 0	20-0†	10 - 6	16 - 3	20-0†	10 - 1	15 - 7	20-0†	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5
	SP	No.1	10 - 7	16 - 4	20-0†	10 - 1	15 - 7	20-0†	9 - 8	15 - 0	19 - 6	9 - 4	14 - 5	18 - 9	8 - 10	13 - 7	17 - 4
	SP	No.2	10 - 1	15 - 7	19 - 6	9 - 8	14 - 9	18 - 3	9 - 3	13 - 9	17 - 1	8 - 11	13 - 0	16 - 1	8 - 2	11 - 11	14 - 9
	SP	No.3	8 - 2	11 - 9	14 - 5	-	10 - 11	13 - 5	-	10 - 3	12 - 7	-	9 - 8	11 - 10	-	8 - 10	10 - 11
	SP	Stud	8 - 2	11 - 9	14 - 5	-	10 - 11	13 - 5	-	10 - 3	12 - 7	-	9 - 8	11 - 10	-	8 - 10	10 - 11
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 4	16 - 0	20-0†	9 - 10	15 - 3	19 - 10	9 - 6	14 - 8	19 - 0	9 - 1	14 - 1	18 - 4	8 - 7	13 - 4	17 - 4
	SPF	No.1	10 - 1	15 - 7	20-0†	9 - 8	14 - 11	19 - 5	9 - 3	14 - 3	18 - 3	8 - 11	13 - 9	17 - 2	8 - 5	12 - 9	15 - 9
	SPF	No.2	10 - 1	15 - 7	20-0†	9 - 8	14 - 11	19 - 5	9 - 3	14 - 3	18 - 3	8 - 11	13 - 9	17 - 2	8 - 5	12 - 9	15 - 9
	SPF	No.3/Stud	8 - 10	12 - 6	15 - 6	8 - 3	11 - 8	14 - 5	-	10 - 11	13 - 6	-	10 - 4	12 - 9	-	9 - 5	11 - 8
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	9 - 9	15 - 1	19 - 7	9 - 4	14 - 5	18 - 9	8 - 11	13 - 10	17 - 11	8 - 7	13 - 3	17 - 3	8 - 1	12 - 6	16 - 4
	DFL	No.1	9 - 4	14 - 6	18 - 1	9 - 0	13 - 8	16 - 10	8 - 7	12 - 9	15 - 9	8 - 3	12 - 0	14 - 10	7 - 9	11 - 0	13 - 8
	DFL	No.2	9 - 2	13 - 10	17 - 1	8 - 9	12 - 11	15 - 11	8 - 5	12 - 1	14 - 11	8 - 0	11 - 4	14 - 0	-	10 - 5	12 - 11
	DFL	No.3/Stud	-	10 - 4	12 - 9	-	9 - 8	11 - 11	-	9 - 1	11 - 2	-	8 - 6	10 - 6	-	7 - 10	9 - 8
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 2	14 - 2	18 - 5	8 - 9	13 - 7	17 - 8	8 - 5	13 - 0	16 - 11	8 - 1	12 - 6	16 - 3	-	11 - 10	15 - 4
	HF	No.1	9 - 0	13 - 10	17 - 10	8 - 7	13 - 3	16 - 7	8 - 3	12 - 7	15 - 7	7 - 11	11 - 10	14 - 8	-	10 - 11	13 - 5
	HF	No.2	8 - 6	13 - 2	16 - 7	8 - 2	12 - 6	15 - 5	7 - 10	11 - 8	14 - 6	-	11 - 0	13 - 7	-	10 - 1	12 - 6
	HF	No.3/Stud	-	10 - 1	12 - 5	-	9 - 5	11 - 7	-	8 - 10	10 - 11	-	8 - 4	10 - 3	-	-	9 - 5
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 7	14 - 9	19 - 3	9 - 2	14 - 2	18 - 4	8 - 9	13 - 7	17 - 7	8 - 5	13 - 0	16 - 11	8 - 0	12 - 4	16 - 0
	SP	No.1	9 - 2	14 - 2	18 - 5	8 - 9	13 - 7	17 - 3	8 - 5	13 - 0	16 - 2	8 - 1	12 - 3	15 - 2	-	11 - 3	13 - 11
	SP	No.2	8 - 9	12 - 8	15 - 8	8 - 2	11 - 10	14 - 8	-	11 - 1	13 - 9	-	10 - 5	12 - 11	-	9 - 7	11 - 10
	SP	No.3	-	9 - 5	11 - 7	-	8 - 10	10 - 10	-	8 - 3	10 - 2	-	7 - 9	9 - 6	-	-	8 - 9
	SP	Stud	-	9 - 5	11 - 7	-	8 - 10	10 - 10	-	8 - 3	10 - 2	-	7 - 9	9 - 6	-	-	8 - 9
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 0	13 - 10	18 - 0	8 - 7	13 - 3	17 - 3	8 - 3	12 - 8	16 - 6	7 - 11	12 - 3	15 - 11	-	11 - 7	15 - 0
	SPF	No.1	8 - 9	13 - 6	16 - 10	8 - 4	12 - 8	15 - 8	8 - 0	11 - 11	14 - 8	-	11 - 2	13 - 10	-	10 - 3	12 - 8
	SPF	No.2	8 - 9	13 - 6	16 - 10	8 - 4	12 - 8	15 - 8	8 - 0	11 - 11	14 - 8	-	11 - 2	13 - 10	-	10 - 3	12 - 8
	SPF	No.3/Stud	-	10 - 1	12 - 5	-	9 - 5	11 - 7	-	8 - 10	10 - 11	-	8 - 4	10 - 3	-	-	9 - 5
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B5 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure C
H/240
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 11	20-0 ⁺	20-0 ⁺	13 - 6	20-0 ⁺	20-0 ⁺	13 - 1	20-0 ⁺	20-0 ⁺	12 - 5	19 - 2	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺
	DFL	No.1	13 - 5	20-0 ⁺	20-0 ⁺	13 - 0	20-0 ⁺	20-0 ⁺	12 - 7	19 - 6	20-0 ⁺	11 - 11	18 - 5	20-0 ⁺	11 - 4	17 - 6	20-0 ⁺
	DFL	No.2	13 - 1	20-0 ⁺	20-0 ⁺	12 - 9	19 - 8	20-0 ⁺	12 - 4	19 - 1	20-0 ⁺	11 - 8	18 - 1	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺
	DFL	No.3/Stud	12 - 6	19 - 4	20-0 ⁺	12 - 2	18 - 9	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 2	20 - 0
	DFL	Standard	12 - 5	-	-	11 - 10	-	-	11 - 4	-	-	10 - 5	-	-	9 - 7	-	-
	HF	SS	13 - 1	20-0 ⁺	20-0 ⁺	12 - 9	19 - 8	20-0 ⁺	12 - 4	19 - 1	20-0 ⁺	11 - 8	18 - 1	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺
	HF	No.1	12 - 10	19 - 10	20-0 ⁺	12 - 5	19 - 3	20-0 ⁺	12 - 1	18 - 8	20-0 ⁺	11 - 5	17 - 8	20-0 ⁺	10 - 10	16 - 9	20-0 ⁺
	HF	No.2	12 - 2	18 - 11	20-0 ⁺	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 9	20-0 ⁺	10 - 10	16 - 10	20-0 ⁺	10 - 4	15 - 11	20-0 ⁺
	HF	No.3/Stud	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	19 - 5
	HF	Standard	11 - 10	-	-	11 - 6	-	-	11 - 1	-	-	10 - 2	-	-	9 - 5	-	-
	SP	SS	13 - 8	20-0 ⁺	20-0 ⁺	13 - 3	20-0 ⁺	20-0 ⁺	12 - 10	19 - 11	20-0 ⁺	12 - 2	18 - 10	20-0 ⁺	11 - 7	17 - 10	20-0 ⁺
	SP	No.1	13 - 1	20-0 ⁺	20-0 ⁺	12 - 9	19 - 8	20-0 ⁺	12 - 4	19 - 1	20-0 ⁺	11 - 8	18 - 1	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺
	SP	No.2	12 - 6	19 - 4	20-0 ⁺	12 - 2	18 - 9	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺
	SP	No.3	12 - 2	18 - 11	20-0 ⁺	11 - 10	18 - 2	20-0 ⁺	11 - 6	17 - 5	20-0 ⁺	10 - 10	15 - 11	19 - 7	10 - 3	14 - 9	18 - 1
	SP	Stud	12 - 2	18 - 11	20-0 ⁺	11 - 10	18 - 2	20-0 ⁺	11 - 6	17 - 5	20-0 ⁺	10 - 10	15 - 11	19 - 7	10 - 3	14 - 9	18 - 1
	SP	Standard	11 - 3	-	-	10 - 8	-	-	10 - 3	-	-	9 - 5	-	-	8 - 8	-	-
	SPF	SS	12 - 10	19 - 10	20-0 ⁺	12 - 5	19 - 3	20-0 ⁺	12 - 1	18 - 8	20-0 ⁺	11 - 5	17 - 8	20-0 ⁺	10 - 10	16 - 9	20-0 ⁺
	SPF	No.1	12 - 6	19 - 4	20-0 ⁺	12 - 2	18 - 9	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺
	SPF	No.2	12 - 6	19 - 4	20-0 ⁺	12 - 2	18 - 9	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺
	SPF	No.3/Stud	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	19 - 5
	SPF	Standard	11 - 10	-	-	11 - 6	-	-	11 - 1	-	-	10 - 2	-	-	9 - 5	-	-
16	DFL	SS	12 - 7	19 - 6	20-0 ⁺	12 - 3	18 - 11	20-0 ⁺	11 - 10	18 - 4	20-0 ⁺	11 - 3	17 - 4	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺
	DFL	No.1	12 - 1	18 - 9	20-0 ⁺	11 - 9	18 - 2	20-0 ⁺	11 - 5	17 - 8	20-0 ⁺	10 - 9	16 - 8	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺
	DFL	No.2	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺
	DFL	No.3/Stud	11 - 4	17 - 6	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 8	16 - 4	20-0 ⁺	10 - 1	15 - 0	18 - 6	9 - 7	13 - 10	17 - 1
	DFL	Standard	10 - 8	-	-	10 - 2	-	-	9 - 9	-	-	8 - 11	-	-	8 - 3	-	-
	HF	SS	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺
	HF	No.1	11 - 7	17 - 11	20-0 ⁺	11 - 3	17 - 5	20-0 ⁺	10 - 11	16 - 11	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	9 - 10	15 - 2	19 - 9
	HF	No.2	11 - 0	17 - 1	20-0 ⁺	10 - 8	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 9
	HF	No.3/Stud	10 - 9	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	10 - 1	15 - 7	19 - 8	9 - 7	14 - 7	18 - 1	9 - 1	13 - 6	16 - 8
	HF	Standard	10 - 5	-	-	9 - 11	-	-	9 - 6	-	-	8 - 8	-	-	8 - 1	-	-
	SP	SS	12 - 4	19 - 2	20-0 ⁺	12 - 0	18 - 7	20-0 ⁺	11 - 8	18 - 0	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 5	16 - 2	20-0 ⁺
	SP	No.1	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺
	SP	No.2	11 - 4	17 - 6	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 10	19 - 3
	SP	No.3	11 - 0	16 - 4	20-0 ⁺	10 - 8	15 - 7	19 - 2	10 - 4	14 - 11	18 - 4	9 - 6	13 - 8	16 - 10	8 - 10	12 - 7	15 - 6
	SP	Stud	11 - 0	16 - 4	20-0 ⁺	10 - 8	15 - 7	19 - 2	10 - 4	14 - 11	18 - 4	9 - 6	13 - 8	16 - 10	8 - 10	12 - 7	15 - 6
	SP	Standard	9 - 7	-	-	9 - 2	-	-	8 - 9	-	-	8 - 1	-	-	-	-	-
	SPF	SS	11 - 7	17 - 11	20-0 ⁺	11 - 3	17 - 5	20-0 ⁺	10 - 11	16 - 11	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	9 - 10	15 - 2	19 - 9
	SPF	No.1	11 - 4	17 - 6	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 10	19 - 3
	SPF	No.2	11 - 4	17 - 6	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 10	19 - 3
	SPF	No.3/Stud	10 - 9	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	10 - 1	15 - 7	19 - 8	9 - 7	14 - 7	18 - 1	9 - 1	13 - 6	16 - 8
	SPF	Standard	10 - 5	-	-	9 - 11	-	-	9 - 6	-	-	8 - 8	-	-	8 - 1	-	-
24	DFL	SS	10 - 11	16 - 11	20-0 ⁺	10 - 7	16 - 5	20-0 ⁺	10 - 3	15 - 11	20-0 ⁺	9 - 9	15 - 1	19 - 7	9 - 3	14 - 4	18 - 7
	DFL	No.1	10 - 6	16 - 3	20-0 ⁺	10 - 2	15 - 9	20-0 ⁺	9 - 11	15 - 4	19 - 11	9 - 4	14 - 6	18 - 10	8 - 11	13 - 9	17 - 11
	DFL	No.2	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	DFL	No.3/Stud	9 - 10	14 - 5	17 - 10	9 - 6	13 - 9	17 - 0	9 - 3	13 - 2	16 - 3	8 - 6	12 - 1	14 - 11	7 - 10	11 - 2	13 - 9
	DFL	Standard	8 - 7	-	-	8 - 2	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	HF	No.1	10 - 1	15 - 7	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 6	14 - 8	19 - 1	9 - 0	13 - 10	18 - 0	8 - 6	13 - 2	17 - 1
	HF	No.2	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 2	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	HF	No.3/Stud	9 - 4	14 - 1	17 - 4	9 - 0	13 - 5	16 - 7	8 - 9	12 - 10	15 - 10	8 - 3	11 - 9	14 - 6	-	10 - 10	13 - 5
	HF	Standard	8 - 5	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 9	19 - 3	9 - 1	14 - 0	18 - 3
	SP	No.1	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	SP	No.2	9 - 10	15 - 2	19 - 9	9 - 6	14 - 9	19 - 2	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7	8 - 4	12 - 10	16 - 8
	SP	No.3	9 - 2	13 - 2	16 - 2	8 - 9	12 - 6	15 - 5	8 - 4	12 - 0	14 - 9	-	11 - 0	13 - 6	-	10 - 2	12 - 6
	SP	Stud	9 - 2	13 - 2	16 - 2	8 - 9	12 - 6	15 - 5	8 - 4	12 - 0	14 - 9	-	11 - 0	13 - 6	-	10 - 2	12 - 6
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	15 - 7	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 6	14 - 8	19 - 1	9 - 0	13 - 10	18 - 0	8 - 6	13 - 2	17 - 1
	SPF	No.1	9 - 10	15 - 2	19 - 9	9 - 6	14 - 9	19 - 2	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7	8 - 4	12 - 10	16 - 8
	SPF	No.2	9 - 10	15 - 2	19 - 9	9 - 6	14 - 9	19 - 2	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7	8 - 4	12 - 10	16 - 8
	SPF	No.3/Stud	9 - 4	14 - 1	17 - 4	9 - 0	13 - 5	16 - 7	8 - 9	12 - 10	15 - 10	8 - 3	11 - 9	14 - 6	-	10 - 10	13 - 5
	SPF	Standard	8 - 5	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B5 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

Exposure C
H/240
3/8" WSP

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	11-3	17-4	20-0†	10-9	16-7	20-0†	10-3	15-11	20-0†	9-11	15-3	19-10	9-4	14-5	18-9
	DFL	No.1	10-9	16-8	20-0†	10-4	16-0	20-0†	9-11	15-4	19-11	9-6	14-8	19-1	9-0	13-11	18-1
	DFL	No.2	10-7	16-4	20-0†	10-1	15-7	20-0†	9-8	15-0	19-6	9-4	14-5	18-9	8-10	13-7	17-8
	DFL	No.3/Stud	10-1	15-0	18-6	9-8	14-0	17-4	9-3	13-1	16-2	8-8	12-4	15-3	8-0	11-4	14-0
	DFL	Standard	8-11	-	-	8-4	-	-	7-10	-	-	-	-	-	-	-	-
	HF	SS	10-7	16-4	20-0†	10-1	15-7	20-0†	9-8	15-0	19-6	9-4	14-5	18-9	8-10	13-7	17-8
	HF	No.1	10-4	16-0	20-0†	9-10	15-3	19-10	9-6	14-8	19-0	9-1	14-1	18-4	8-7	13-4	17-4
	HF	No.2	9-10	15-2	19-9	9-5	14-6	18-11	9-0	13-11	18-1	8-8	13-5	17-5	8-2	12-8	16-5
	HF	No.3/Stud	9-7	14-7	18-1	9-2	13-8	16-10	8-9	12-9	15-9	8-5	12-0	14-10	7-9	11-0	13-8
	HF	Standard	8-9	-	-	8-2	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	11-0	17-0	20-0†	10-6	16-3	20-0†	10-1	15-7	20-0†	9-8	15-0	19-6	9-2	14-2	18-5
	SP	No.1	10-7	16-4	20-0†	10-1	15-7	20-0†	9-8	15-0	19-6	9-4	14-5	18-9	8-10	13-7	17-8
	SP	No.2	10-1	15-7	20-0†	9-8	14-11	19-5	9-3	14-3	18-7	8-11	13-9	17-10	8-5	13-0	16-11
	SP	No.3	9-6	13-8	16-10	8-11	12-9	15-8	8-4	12-0	14-8	7-10	11-3	13-10	-	10-4	12-8
	SP	Stud	9-6	13-8	16-10	8-11	12-9	15-8	8-4	12-0	14-8	7-10	11-3	13-10	-	10-4	12-8
	SP	Standard	8-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10-4	16-0	20-0†	9-10	15-3	19-10	9-6	14-8	19-0	9-1	14-1	18-4	8-7	13-4	17-4
16	DFL	SS	10-2	15-8	20-0†	9-8	15-0	19-6	9-4	14-5	18-8	8-11	13-10	18-0	8-5	13-1	17-0
	DFL	No.1	9-9	15-1	19-8	9-4	14-5	18-9	8-11	13-10	18-0	8-7	13-3	17-3	8-2	12-7	16-4
	DFL	No.2	9-7	14-9	19-3	9-2	14-2	18-4	8-9	13-7	17-7	8-5	13-0	16-11	8-0	12-4	16-0
	DFL	No.3/Stud	9-1	12-10	15-11	8-5	12-0	14-10	7-11	11-3	13-11	-	10-7	13-1	-	9-8	12-0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9-7	14-9	19-3	9-2	14-2	18-4	8-9	13-7	17-7	8-5	13-0	16-11	8-0	12-4	16-0
	HF	No.1	9-4	14-5	18-9	8-11	13-10	18-0	8-7	13-3	17-3	8-3	12-9	16-7	7-9	12-0	15-8
	HF	No.2	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-5	7-10	12-1	15-9	-	11-5	14-11
	HF	No.3/Stud	8-8	12-6	15-6	8-3	11-8	14-5	-	10-11	13-6	-	10-4	12-9	-	9-5	11-8
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10-0	15-5	20-0†	9-6	14-9	19-2	9-1	14-1	18-4	8-9	13-7	17-8	8-4	12-10	16-8
	SP	No.1	9-7	14-9	19-3	9-2	14-2	18-4	8-9	13-7	17-7	8-5	13-0	16-11	8-0	12-4	16-0
	SP	No.2	9-1	14-1	18-4	8-9	13-6	17-6	8-4	12-11	16-10	8-0	12-5	16-1	-	11-9	14-9
	SP	No.3	8-2	11-9	14-5	-	10-11	13-5	-	10-3	12-7	-	9-8	11-10	-	8-10	10-11
	SP	Stud	8-2	11-9	14-5	-	10-11	13-5	-	10-3	12-7	-	9-8	11-10	-	8-10	10-11
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-4	14-5	18-9	8-11	13-10	18-0	8-7	13-3	17-3	8-3	12-9	16-7	7-9	12-0	15-8
24	DFL	SS	8-10	13-7	17-9	8-5	13-0	16-11	8-1	12-6	16-3	7-9	12-0	15-7	-	11-4	14-9
	DFL	No.1	8-6	13-1	17-0	8-1	12-6	16-3	7-9	12-0	15-7	-	11-6	14-10	-	10-11	13-8
	DFL	No.2	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	14-11	-	11-4	14-0	-	10-5	12-11
	DFL	No.3/Stud	-	10-4	12-9	-	9-8	11-11	-	9-1	11-2	-	8-6	10-6	-	7-10	9-8
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	HF	No.1	8-1	12-7	16-4	7-9	12-0	15-7	-	11-6	14-11	-	11-1	14-4	-	10-5	13-5
	HF	No.2	-	11-11	15-6	-	11-5	14-10	-	10-11	14-3	-	10-6	13-7	-	9-11	12-6
	HF	No.3/Stud	-	10-1	12-5	-	9-5	11-7	-	8-10	10-11	-	8-4	10-3	-	-	9-5
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-8	13-4	17-5	8-3	12-9	16-7	7-11	12-3	15-11	-	11-9	15-4	-	11-2	14-6
	SP	No.1	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	SP	No.2	7-11	12-3	15-8	-	11-8	14-8	-	11-1	13-9	-	10-5	12-11	-	9-7	11-10
	SP	No.3	-	9-5	11-7	-	8-10	10-10	-	8-3	10-2	-	7-9	9-6	-	-	8-9
	SP	Stud	-	9-5	11-7	-	8-10	10-10	-	8-3	10-2	-	7-9	9-6	-	-	8-9
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-1	12-7	16-4	7-9	12-0	15-7	-	11-6	14-11	-	11-1	14-4	-	10-5	13-7
	SPF	No.1	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	13-10	-	10-2	12-8
	SPF	No.2	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	13-10	-	10-2	12-8
	SPF	No.3/Stud	-	10-1	12-5	-	9-5	11-7	-	8-10	10-11	-	8-4	10-3	-	-	9-5
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B6 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure C
H/360
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12-1	18-8	20-0 ⁺	11-9	18-2	20-0 ⁺	11-5	17-7	20-0 ⁺	10-9	16-8	20-0 ⁺	10-3	15-10	20-0 ⁺
	DFL	No.1	11-8	18-0	20-0 ⁺	11-3	17-5	20-0 ⁺	10-11	16-11	20-0 ⁺	10-4	16-0	20-0 ⁺	9-10	15-2	19-9
	DFL	No.2	11-5	17-7	20-0 ⁺	11-0	17-1	20-0 ⁺	10-9	16-7	20-0 ⁺	10-2	15-8	20-0 ⁺	9-7	14-11	19-4
	DFL	No.3/Stud	10-10	16-10	20-0 ⁺	10-6	16-4	20-0 ⁺	10-3	15-10	20-0 ⁺	9-8	15-0	19-5	9-2	14-2	18-6
	DFL	Standard	10-10	-	-	10-6	-	-	10-3	-	-	9-8	-	-	9-2	-	-
	HF	SS	11-5	17-7	20-0 ⁺	11-0	17-1	20-0 ⁺	10-9	16-7	20-0 ⁺	10-2	15-8	20-0 ⁺	9-7	14-11	19-4
	HF	No.1	11-2	17-3	20-0 ⁺	10-9	16-8	20-0 ⁺	10-6	16-2	20-0 ⁺	9-11	15-4	19-11	9-5	14-7	18-11
	HF	No.2	10-7	16-5	20-0 ⁺	10-3	15-11	20-0 ⁺	10-0	15-5	20-0 ⁺	9-5	14-7	19-0	9-0	13-10	18-0
	HF	No.3/Stud	10-4	15-11	20-0 ⁺	10-0	15-5	20-0 ⁺	9-8	15-0	19-6	9-2	14-2	18-5	8-8	13-6	17-6
	HF	Standard	10-4	-	-	10-0	-	-	9-8	-	-	9-2	-	-	8-8	-	-
	SP	SS	11-10	18-4	20-0 ⁺	11-6	17-10	20-0 ⁺	11-2	17-3	20-0 ⁺	10-7	16-4	20-0 ⁺	10-0	15-6	20-0 ⁺
	SP	No.1	11-5	17-7	20-0 ⁺	11-0	17-1	20-0 ⁺	10-9	16-7	20-0 ⁺	10-2	15-8	20-0 ⁺	9-7	14-11	19-4
	SP	No.2	10-10	16-10	20-0 ⁺	10-6	16-4	20-0 ⁺	10-3	15-10	20-0 ⁺	9-8	15-0	19-5	9-2	14-2	18-6
	SP	No.3	10-7	16-5	20-0 ⁺	10-3	15-11	20-0 ⁺	10-0	15-5	20-0 ⁺	9-5	14-7	19-0	9-0	13-10	18-0
	SP	Stud	10-7	16-5	20-0 ⁺	10-3	15-11	20-0 ⁺	10-0	15-5	20-0 ⁺	9-5	14-7	19-0	9-0	13-10	18-0
	SP	Standard	10-4	-	-	10-0	-	-	9-8	-	-	9-2	-	-	8-8	-	-
16	SPF	SS	11-2	17-3	20-0 ⁺	10-9	16-8	20-0 ⁺	10-6	16-2	20-0 ⁺	9-11	15-4	19-11	9-5	14-7	18-11
	SPF	No.1	10-10	16-10	20-0 ⁺	10-6	16-4	20-0 ⁺	10-3	15-10	20-0 ⁺	9-8	15-0	19-5	9-2	14-2	18-6
	SPF	No.2	10-10	16-10	20-0 ⁺	10-6	16-4	20-0 ⁺	10-3	15-10	20-0 ⁺	9-8	15-0	19-5	9-2	14-2	18-6
	SPF	No.3/Stud	10-4	15-11	20-0 ⁺	10-0	15-5	20-0 ⁺	9-8	15-0	19-6	9-2	14-2	18-5	8-8	13-6	17-6
	SPF	Standard	10-4	-	-	10-0	-	-	9-8	-	-	9-2	-	-	8-8	-	-
	DFL	SS	10-11	16-11	20-0 ⁺	10-7	16-5	20-0 ⁺	10-3	15-11	20-0 ⁺	9-9	15-1	19-7	9-3	14-4	18-7
	DFL	No.1	10-6	16-3	20-0 ⁺	10-2	15-9	20-0 ⁺	9-11	15-4	19-11	9-4	14-6	18-10	8-11	13-9	17-11
	DFL	No.2	10-4	15-11	20-0 ⁺	10-0	15-5	20-0 ⁺	9-8	15-0	19-6	9-2	14-2	18-5	8-8	13-6	17-6
	DFL	No.3/Stud	9-10	15-2	19-9	9-6	14-9	19-2	9-3	14-4	18-7	8-9	13-6	17-7	8-4	12-10	16-8
	DFL	Standard	9-10	-	-	9-6	-	-	9-3	-	-	8-9	-	-	8-3	-	-
	HF	SS	10-4	15-11	20-0 ⁺	10-0	15-5	20-0 ⁺	9-8	15-0	19-6	9-2	14-2	18-5	8-8	13-6	17-6
	HF	No.1	10-1	15-7	20-0 ⁺	9-9	15-1	19-8	9-6	14-8	19-1	9-0	13-10	18-0	8-6	13-2	17-1
	HF	No.2	9-7	14-10	19-3	9-3	14-4	18-8	9-0	13-11	18-2	8-6	13-2	17-2	8-1	12-6	16-3
	HF	No.3/Stud	9-4	14-5	18-9	9-0	14-0	18-2	8-9	13-7	17-8	8-4	12-10	16-8	7-11	12-2	15-10
	HF	Standard	9-4	-	-	9-0	-	-	8-9	-	-	8-4	-	-	7-11	-	-
	SP	SS	10-9	16-7	20-0 ⁺	10-5	16-1	20-0 ⁺	10-1	15-7	20-0 ⁺	9-7	14-9	19-3	9-1	14-0	18-3
	SP	No.1	10-4	15-11	20-0 ⁺	10-0	15-5	20-0 ⁺	9-8	15-0	19-6	9-2	14-2	18-5	8-8	13-6	17-6
	SP	No.2	9-10	15-2	19-9	9-6	14-9	19-2	9-3	14-4	18-7	8-9	13-6	17-7	8-4	12-10	16-8
	SP	No.3	9-7	14-10	19-3	9-3	14-4	18-8	9-0	13-11	18-2	8-6	13-2	16-10	8-1	12-6	15-6
	SP	Stud	9-7	14-10	19-3	9-3	14-4	18-8	9-0	13-11	18-2	8-6	13-2	16-10	8-1	12-6	15-6
	SP	Standard	9-4	-	-	9-0	-	-	8-9	-	-	8-1	-	-	-	-	-
24	SPF	SS	10-1	15-7	20-0 ⁺	9-9	15-1	19-8	9-6	14-8	19-1	9-0	13-10	18-0	8-6	13-2	17-1
	SPF	No.1	9-10	15-2	19-9	9-6	14-9	19-2	9-3	14-4	18-7	8-9	13-6	17-7	8-4	12-10	16-8
	SPF	No.2	9-10	15-2	19-9	9-6	14-9	19-2	9-3	14-4	18-7	8-9	13-6	17-7	8-4	12-10	16-8
	SPF	No.3/Stud	9-4	14-5	18-9	9-0	14-0	18-2	8-9	13-7	17-8	8-4	12-10	16-8	7-11	12-2	15-10
	SPF	Standard	9-4	-	-	9-0	-	-	8-9	-	-	8-4	-	-	7-11	-	-
	DFL	SS	9-6	14-8	19-1	9-2	14-3	18-6	8-11	13-10	18-0	8-5	13-1	17-0	8-0	12-5	16-2
	DFL	No.1	9-2	14-1	18-4	8-10	13-8	17-10	8-7	13-3	17-3	8-2	12-7	16-4	-	11-11	15-6
	DFL	No.2	8-11	13-10	18-0	8-8	13-5	17-5	8-5	13-0	16-11	8-0	12-4	16-0	-	11-8	15-2
	DFL	No.3/Stud	8-6	13-2	17-2	8-3	12-10	16-8	8-0	12-5	16-2	-	11-9	14-11	-	11-2	13-9
	DFL	Standard	8-6	-	-	8-2	-	-	7-10	-	-	-	-	-	-	-	-
	HF	SS	8-11	13-10	18-0	8-8	13-5	17-5	8-5	13-0	16-11	8-0	12-4	16-0	-	11-8	15-2
	HF	No.1	8-9	13-6	17-7	8-6	13-1	17-1	8-3	12-9	16-7	7-9	12-0	15-8	-	11-5	14-10
	HF	No.2	8-4	12-10	16-9	8-1	12-6	16-3	7-10	12-1	15-9	-	11-5	14-11	-	10-10	14-2
	HF	No.3/Stud	8-1	12-6	16-3	7-10	12-1	15-9	-	11-9	15-4	-	11-2	14-6	-	10-7	13-5
	HF	Standard	8-1	-	-	7-10	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-4	14-5	18-9	9-0	14-0	18-2	8-9	13-7	17-8	8-4	12-10	16-8	7-11	12-2	15-10
	SP	No.1	8-11	13-10	18-0	8-8	13-5	17-5	8-5	13-0	16-11	8-0	12-4	16-0	-	11-8	15-2
	SP	No.2	8-6	13-2	17-2	8-3	12-10	16-8	8-0	12-5	16-2	-	11-9	15-3	-	11-2	14-6
	SP	No.3	8-4	12-10	16-2	8-1	12-6	15-5	7-10	12-0	14-9	-	11-0	13-6	-	10-2	12-6
	SP	Stud	8-4	12-10	16-2	8-1	12-6	15-5	7-10	12-0	14-9	-	11-0	13-6	-	10-2	12-6
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-9	13-6	17-7	8-6	13-1	17-1	8-3	12-9	16-7	7-9	12-0	15-8	-	11-5	14-10
	SPF	No.1	8-6	13-2	17-2	8-3	12-10	16-8	8-0	12-5	16-2	-	11-9	15-3	-	11-2	14-6
	SPF	No.2	8-6	13-2	17-2	8-3	12-10	16-8	8-0	12-5	16-2	-	11-9	15-3	-	11-2	14-6
	SPF	No.3/Stud	8-1	12-6	16-3	7-10	12-1	15-9	-	11-9	15-4	-	11-2	14-6	-	10-7	13-5
	SPF	Standard	8-1	-	-	7-10	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B6 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360 (Cont.)

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure C
H/360
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	9-9	15-1	19-7	9-4	14-5	18-9	8-11	13-10	17-11	8-7	13-3	17-3	8-1	12-6	16-4
	DFL	No.1	9-4	14-6	18-10	9-0	13-10	18-0	8-7	13-3	17-3	8-3	12-9	16-7	7-10	12-1	15-8
	DFL	No.2	9-2	14-2	18-5	8-9	13-7	17-8	8-5	13-0	16-11	8-1	12-6	16-3	-	11-10	15-4
	DFL	No.3/Stud	8-9	13-6	17-7	8-4	12-11	16-10	8-0	12-5	16-2	-	11-11	15-3	-	11-3	14-0
	DFL	Standard	8-9	-	-	8-4	-	-	7-10	-	-	-	-	-	-	-	-
	HF	SS	9-2	14-2	18-5	8-9	13-7	17-8	8-5	13-0	16-11	8-1	12-6	16-3	-	11-10	15-4
	HF	No.1	9-0	13-10	18-0	8-7	13-3	17-3	8-3	12-8	16-6	7-11	12-3	15-11	-	11-7	15-0
	HF	No.2	8-6	13-2	17-2	8-2	12-7	16-5	7-10	12-1	15-9	-	11-7	15-1	-	11-0	14-3
	HF	No.3/Stud	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-8
	HF	Standard	8-4	-	-	7-11	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-7	14-9	19-3	9-2	14-2	18-4	8-9	13-7	17-7	8-5	13-0	16-11	8-0	12-4	16-0
	SP	No.1	9-2	14-2	18-5	8-9	13-7	17-8	8-5	13-0	16-11	8-1	12-6	16-3	-	11-10	15-4
	SP	No.2	8-9	13-6	17-7	8-4	12-11	16-10	8-0	12-5	16-2	-	11-11	15-6	-	11-3	14-8
	SP	No.3	8-6	13-2	16-10	8-2	12-7	15-8	7-10	12-0	14-8	-	11-3	13-10	-	10-4	12-8
	SP	Stud	8-6	13-2	16-10	8-2	12-7	15-8	7-10	12-0	14-8	-	11-3	13-10	-	10-4	12-8
	SP	Standard	8-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-0	13-10	18-0	8-7	13-3	17-3	8-3	12-8	16-6	7-11	12-3	15-11	-	11-7	15-0
16	DFL	SS	8-10	13-7	17-9	8-5	13-0	16-11	8-1	12-6	16-3	7-9	12-0	15-7	-	11-4	14-9
	DFL	No.1	8-6	13-1	17-0	8-1	12-6	16-3	7-9	12-0	15-7	-	11-6	15-0	-	10-11	14-2
	DFL	No.2	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	DFL	No.3/Stud	7-11	12-3	15-11	-	11-8	14-10	-	11-3	13-11	-	10-7	13-1	-	9-8	12-0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	HF	No.1	8-1	12-7	16-4	7-9	12-0	15-7	-	11-6	14-11	-	11-1	14-4	-	10-5	13-7
	HF	No.2	-	11-11	15-6	-	11-5	14-10	-	10-11	14-3	-	10-6	13-8	-	9-11	12-11
	HF	No.3/Stud	-	11-7	15-1	-	11-1	14-5	-	10-8	13-6	-	10-3	12-9	-	9-5	11-8
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-8	13-4	17-5	8-3	12-9	16-7	7-11	12-3	15-11	-	11-9	15-4	-	11-2	14-6
	SP	No.1	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	SP	No.2	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	14-0	-	10-2	13-3
	SP	No.3	-	11-9	14-5	-	10-11	13-5	-	10-3	12-7	-	9-8	11-10	-	8-10	10-11
	SP	Stud	-	11-9	14-5	-	10-11	13-5	-	10-3	12-7	-	9-8	11-10	-	8-10	10-11
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-1	12-7	16-4	7-9	12-0	15-7	-	11-6	14-11	-	11-1	14-4	-	10-5	13-7
	SPF	No.1	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	14-0	-	10-2	13-3
	SPF	No.2	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	14-0	-	10-2	13-3
	SPF	No.3/Stud	-	11-7	15-1	-	11-1	14-5	-	10-8	13-6	-	10-3	12-9	-	9-5	11-8
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	-	11-10	15-4	-	11-4	14-8	-	10-10	14-1	-	10-5	13-6	-	9-10	12-10
	DFL	No.1	-	11-5	14-9	-	10-10	14-2	-	10-5	13-7	-	10-0	13-0	-	9-6	12-4
	DFL	No.2	-	11-2	14-6	-	10-8	13-10	-	10-2	13-3	-	9-10	12-9	-	9-3	12-1
	DFL	No.3/Stud	-	10-4	12-9	-	9-8	11-11	-	9-1	11-2	-	8-6	10-6	-	7-10	9-8
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	11-2	14-6	-	10-8	13-10	-	10-2	13-3	-	9-10	12-9	-	9-3	12-1
	HF	No.1	-	10-11	14-2	-	10-5	13-6	-	10-0	13-0	-	9-7	12-6	-	9-1	11-9
	HF	No.2	-	10-4	13-6	-	9-11	12-10	-	9-6	12-4	-	9-1	11-10	-	8-8	11-3
	HF	No.3/Stud	-	10-1	12-5	-	9-5	11-7	-	8-10	10-11	-	8-4	10-3	-	-	9-5
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	11-7	15-1	-	11-1	14-5	-	10-8	13-10	-	10-3	13-3	-	9-8	12-7
	SP	No.1	-	11-2	14-6	-	10-8	13-10	-	10-2	13-3	-	9-10	12-9	-	9-3	12-1
	SP	No.2	-	10-8	13-10	-	10-2	13-3	-	9-9	12-8	-	9-4	12-2	-	8-10	11-6
	SP	No.3	-	9-5	11-7	-	8-10	10-10	-	8-3	10-2	-	7-9	9-6	-	-	8-9
	SP	Stud	-	9-5	11-7	-	8-10	10-10	-	8-3	10-2	-	7-9	9-6	-	-	8-9
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	10-11	14-2	-	10-5	13-6	-	10-0	13-0	-	9-7	12-6	-	9-1	11-9
	SPF	No.1	-	10-8	13-10	-	10-2	13-3	-	9-9	12-8	-	9-4	12-2	-	8-10	11-6
	SPF	No.2	-	10-8	13-10	-	10-2	13-3	-	9-9	12-8	-	9-4	12-2	-	8-10	11-6
	SPF	No.3/Stud	-	10-1	12-5	-	9-5	11-7	-	8-10	10-11	-	8-4	10-3	-	-	9-5
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.25A Ceiling Joist Spans for Common Lumber Species**LL = 10 psf**

(Uninhabitable Attics Without Storage, Live Load = 10 psf, L/Δ = 240)

L/Δ = 240

Dead Load = 5 psf

			2x4	2x6	2x8	2x10
Maximum Ceiling Joist Spans ¹						
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	13 - 2	20 - 8	26 - 0	26 - 0
	Douglas Fir-Larch	No.1	12 - 8	19 - 11	26 - 0	26 - 0
	Douglas Fir-Larch	No.2	12 - 5	19 - 6	25 - 8	26 - 0
	Douglas Fir-Larch	No.3	11 - 1	16 - 3	20 - 7	25 - 2
	Hem-Fir	SS	12 - 5	19 - 6	25 - 8	26 - 0
	Hem-Fir	No.1	12 - 2	19 - 1	25 - 2	26 - 0
	Hem-Fir	No.2	11 - 7	18 - 2	24 - 0	26 - 0
	Hem-Fir	No.3	10 - 10	15 - 10	20 - 1	24 - 6
	Southern Pine	SS	12 - 11	20 - 3	26 - 0	26 - 0
	Southern Pine	No.1	12 - 5	19 - 6	25 - 8	26 - 0
	Southern Pine	No.2	11 - 10	18 - 8	24 - 7	26 - 0
	Southern Pine	No.3	10 - 1	14 - 11	18 - 9	22 - 9
	Spruce-Pine Fir	SS	12 - 2	19 - 1	25 - 2	26 - 0
	Spruce-Pine Fir	No.1	11 - 10	18 - 8	24 - 7	26 - 0
	Spruce-Pine Fir	No.2	11 - 10	18 - 8	24 - 7	26 - 0
	Spruce-Pine Fir	No.3	10 - 10	15 - 10	20 - 1	24 - 6
16	Douglas Fir-Larch	SS	11 - 11	18 - 9	24 - 8	26 - 0
	Douglas Fir-Larch	No.1	11 - 6	18 - 1	23 - 10	26 - 0
	Douglas Fir-Larch	No.2	11 - 3	17 - 8	23 - 4	26 - 0
	Douglas Fir-Larch	No.3	9 - 7	14 - 1	17 - 10	21 - 9
	Hem-Fir	SS	11 - 3	17 - 8	23 - 4	26 - 0
	Hem-Fir	No.1	11 - 0	17 - 4	22 - 10	26 - 0
	Hem-Fir	No.2	10 - 6	16 - 6	21 - 9	26 - 0
	Hem-Fir	No.3	9 - 5	13 - 9	17 - 5	21 - 3
	Southern Pine	SS	11 - 9	18 - 5	24 - 3	26 - 0
	Southern Pine	No.1	11 - 3	17 - 8	23 - 4	26 - 0
	Southern Pine	No.2	10 - 9	16 - 11	21 - 7	25 - 7
	Southern Pine	No.3	8 - 9	12 - 11	16 - 3	19 - 9
	Spruce-Pine Fir	SS	11 - 0	17 - 4	22 - 10	26 - 0
	Spruce-Pine Fir	No.1	10 - 9	16 - 11	22 - 4	26 - 0
	Spruce-Pine Fir	No.2	10 - 9	16 - 11	22 - 4	26 - 0
	Spruce-Pine Fir	No.3	9 - 5	13 - 9	17 - 5	21 - 3
19.2	Douglas Fir-Larch	SS	11 - 3	17 - 8	23 - 3	26 - 0
	Douglas Fir-Larch	No.1	10 - 10	17 - 0	22 - 5	26 - 0
	Douglas Fir-Larch	No.2	10 - 7	16 - 8	21 - 4	26 - 0
	Douglas Fir-Larch	No.3	8 - 9	12 - 10	16 - 3	19 - 10
	Hem-Fir	SS	10 - 7	16 - 8	22 - 0	26 - 0
	Hem-Fir	No.1	10 - 4	16 - 4	21 - 6	26 - 0
	Hem-Fir	No.2	9 - 11	15 - 7	20 - 6	25 - 3
	Hem-Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5
	Southern Pine	SS	11 - 0	17 - 4	22 - 10	26 - 0
	Southern Pine	No.1	10 - 7	16 - 8	22 - 0	26 - 0
	Southern Pine	No.2	10 - 2	15 - 7	19 - 8	23 - 5
	Southern Pine	No.3	8 - 0	11 - 9	14 - 10	18 - 0
	Spruce-Pine Fir	SS	10 - 4	16 - 4	21 - 6	26 - 0
	Spruce-Pine Fir	No.1	10 - 2	15 - 11	21 - 0	25 - 8
	Spruce-Pine Fir	No.2	10 - 2	15 - 11	21 - 0	25 - 8
	Spruce-Pine Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5
24	Douglas Fir-Larch	SS	10 - 5	16 - 4	21 - 7	26 - 0
	Douglas Fir-Larch	No.1	10 - 0	15 - 9	20 - 1	24 - 6
	Douglas Fir-Larch	No.2	9 - 10	15 - 0	19 - 1	23 - 3
	Douglas Fir-Larch	No.3	7 - 10	11 - 6	14 - 7	17 - 9
	Hem-Fir	SS	9 - 10	15 - 6	20 - 5	26 - 0
	Hem-Fir	No.1	9 - 8	15 - 2	19 - 10	24 - 3
	Hem-Fir	No.2	9 - 2	14 - 5	18 - 6	22 - 7
	Hem-Fir	No.3	7 - 8	11 - 2	14 - 2	17 - 4
	Southern Pine	SS	10 - 3	16 - 1	21 - 2	26 - 0
	Southern Pine	No.1	9 - 10	15 - 6	20 - 5	24 - 0
	Southern Pine	No.2	9 - 3	13 - 11	17 - 7	20 - 11
	Southern Pine	No.3	7 - 2	10 - 6	13 - 3	16 - 1
	Spruce-Pine Fir	SS	9 - 8	15 - 2	19 - 11	25 - 5
	Spruce-Pine Fir	No.1	9 - 5	14 - 9	18 - 9	22 - 11
	Spruce-Pine Fir	No.2	9 - 5	14 - 9	18 - 9	22 - 11
	Spruce-Pine Fir	No.3	7 - 8	11 - 2	14 - 2	17 - 4

1 Bracing shall be provided in accordance with 3.3.1.4.

NOTE: Spans are limited to 26 feet in length. Check sources for availability of lumber in lengths greater than 20 feet.

Table 3.25B Ceiling Joist Spans for Common Lumber Species **LL = 20 psf**
(Uninhabitable Attics With Storage, Live Load = 20 psf, L/Δ = 240)
L/Δ = 240
Dead Load = 10 psf

Joist Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x10
			Maximum Ceiling Joist Spans ¹			
			(ft-in.)	(ft-in.)	(ft-in.)	(ft-in.)
12	Douglas Fir-Larch	SS	10 - 5	16 - 4	21 - 7	26 - 0
	Douglas Fir-Larch	No.1	10 - 0	15 - 9	20 - 1	24 - 6
	Douglas Fir-Larch	No.2	9 - 10	15 - 0	19 - 1	23 - 3
	Douglas Fir-Larch	No.3	7 - 10	11 - 6	14 - 7	17 - 9
	Hem-Fir	SS	9 - 10	15 - 6	20 - 5	26 - 0
	Hem-Fir	No.1	9 - 8	15 - 2	19 - 10	24 - 3
	Hem-Fir	No.2	9 - 2	14 - 5	18 - 6	22 - 7
	Hem-Fir	No.3	7 - 8	11 - 2	14 - 2	17 - 4
	Southern Pine	SS	10 - 3	16 - 1	21 - 2	26 - 0
	Southern Pine	No.1	9 - 10	15 - 6	20 - 5	24 - 0
	Southern Pine	No.2	9 - 3	13 - 11	17 - 7	20 - 11
	Southern Pine	No.3	7 - 2	10 - 6	13 - 3	16 - 1
	Spruce-Pine Fir	SS	9 - 8	15 - 2	19 - 11	25 - 5
	Spruce-Pine Fir	No.1	9 - 5	14 - 9	18 - 9	22 - 11
	Spruce-Pine Fir	No.2	9 - 5	14 - 9	18 - 9	22 - 11
	Spruce-Pine Fir	No.3	7 - 8	11 - 2	14 - 2	17 - 4
16	Douglas Fir-Larch	SS	9 - 6	14 - 11	19 - 7	25 - 0
	Douglas Fir-Larch	No.1	9 - 1	13 - 9	17 - 5	21 - 3
	Douglas Fir-Larch	No.2	8 - 11	13 - 0	16 - 6	20 - 2
	Douglas Fir-Larch	No.3	6 - 10	9 - 11	12 - 7	15 - 5
	Hem-Fir	SS	8 - 11	14 - 1	18 - 6	23 - 8
	Hem-Fir	No.1	8 - 9	13 - 7	17 - 2	21 - 0
	Hem-Fir	No.2	8 - 4	12 - 8	16 - 0	19 - 7
	Hem-Fir	No.3	6 - 8	9 - 8	12 - 4	15 - 0
	Southern Pine	SS	9 - 4	14 - 7	19 - 3	24 - 7
	Southern Pine	No.1	8 - 11	14 - 0	17 - 9	20 - 9
	Southern Pine	No.2	8 - 0	12 - 0	15 - 3	18 - 1
	Southern Pine	No.3	6 - 2	9 - 2	11 - 6	14 - 0
	Spruce-Pine Fir	SS	8 - 9	13 - 9	18 - 2	23 - 1
	Spruce-Pine Fir	No.1	8 - 7	12 - 10	16 - 3	19 - 10
	Spruce-Pine Fir	No.2	8 - 7	12 - 10	16 - 3	19 - 10
	Spruce-Pine Fir	No.3	6 - 8	9 - 8	12 - 4	15 - 0
19.2	Douglas Fir-Larch	SS	8 - 11	14 - 0	18 - 5	23 - 7
	Douglas Fir-Larch	No.1	8 - 7	12 - 6	15 - 10	19 - 5
	Douglas Fir-Larch	No.2	8 - 2	11 - 11	15 - 1	18 - 5
	Douglas Fir-Larch	No.3	6 - 2	9 - 1	11 - 6	14 - 1
	Hem-Fir	SS	8 - 5	13 - 3	17 - 5	22 - 3
	Hem-Fir	No.1	8 - 3	12 - 4	15 - 8	19 - 2
	Hem-Fir	No.2	7 - 10	11 - 7	14 - 8	17 - 10
	Hem-Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8
	Southern Pine	SS	8 - 9	13 - 9	18 - 2	23 - 1
	Southern Pine	No.1	8 - 5	12 - 9	16 - 2	18 - 11
	Southern Pine	No.2	7 - 4	11 - 0	13 - 11	16 - 6
	Southern Pine	No.3	5 - 8	8 - 4	10 - 6	12 - 9
	Spruce-Pine Fir	SS	8 - 3	12 - 11	17 - 1	21 - 8
	Spruce-Pine Fir	No.1	8 - 0	11 - 9	14 - 10	18 - 2
	Spruce-Pine Fir	No.2	8 - 0	11 - 9	14 - 10	18 - 2
	Spruce-Pine Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8
24	Douglas Fir-Larch	SS	8 - 3	13 - 0	17 - 2	21 - 3
	Douglas Fir-Larch	No.1	7 - 8	11 - 2	14 - 2	17 - 4
	Douglas Fir-Larch	No.2	7 - 3	10 - 8	13 - 6	16 - 5
	Douglas Fir-Larch	No.3	5 - 7	8 - 1	10 - 3	12 - 7
	Hem-Fir	SS	7 - 10	12 - 3	16 - 2	20 - 6
	Hem-Fir	No.1	7 - 7	11 - 1	14 - 0	17 - 1
	Hem-Fir	No.2	7 - 1	10 - 4	13 - 1	16 - 0
	Hem-Fir	No.3	5 - 5	7 - 11	10 - 0	12 - 3
	Southern Pine	SS	8 - 1	12 - 9	16 - 10	21 - 6
	Southern Pine	No.1	7 - 8	11 - 5	14 - 6	16 - 11
	Southern Pine	No.2	6 - 7	9 - 10	12 - 6	14 - 9
	Southern Pine	No.3	5 - 1	7 - 5	9 - 5	11 - 5
	Spruce-Pine Fir	SS	7 - 8	12 - 0	15 - 10	19 - 5
	Spruce-Pine Fir	No.1	7 - 2	10 - 6	13 - 3	16 - 3
	Spruce-Pine Fir	No.2	7 - 2	10 - 6	13 - 3	16 - 3
	Spruce-Pine Fir	No.3	5 - 5	7 - 11	10 - 0	12 - 3

¹ Bracing shall be provided in accordance with 3.3.1.4.

NOTE: Spans are limited to 26 feet in length. Check sources for availability of lumber in lengths greater than 20 feet.

Table 3.26A Rafter Spans for Common Lumber Species(Ceiling Not Attached to Rafters, Live Load = 20 psf, $L/\Delta = 180$)**LL = 20 psf**
 $L/\Delta = 180$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans ^{1,2,3}												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	11 - 6	18 - 0	23 - 9	26-0†	26-0†	11 - 6	18 - 0	23 - 9	26-0†	26-0†
	Douglas Fir-Larch	No.1	11 - 1	17 - 4	22 - 5	26-0†	26-0†	10 - 6	15 - 4	19 - 5	23 - 9	26-0†
	Douglas Fir-Larch	No.2	10 - 10	16 - 10	21 - 4	26-0†	26-0†	10 - 0	14 - 7	18 - 5	22 - 6	26-0†
	Douglas Fir-Larch	No.3	8 - 9	12 - 10	16 - 3	19 - 10	23 - 0	7 - 7	11 - 1	14 - 1	17 - 2	19 - 11
	Hem-Fir	SS	10 - 10	17 - 0	22 - 5	26-0†	26-0†	10 - 10	17 - 0	22 - 5	26-0†	26-0†
	Hem-Fir	No.1	10 - 7	16 - 8	22 - 0	26-0†	26-0†	10 - 4	15 - 2	19 - 2	23 - 5	26-0†
	Hem-Fir	No.2	10 - 1	15 - 11	20 - 8	25 - 3	26-0†	9 - 8	14 - 2	17 - 11	21 - 11	25 - 5
	Hem-Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
	Southern Pine	SS	11 - 3	17 - 8	23 - 4	26-0†	26-0†	11 - 3	17 - 8	23 - 4	26-0†	26-0†
	Southern Pine	No.1	10 - 10	17 - 0	22 - 5	26-0†	26-0†	10 - 6	15 - 8	19 - 10	23 - 2	26-0†
	Southern Pine	No.2	10 - 4	15 - 7	19 - 8	23 - 5	26-0†	9 - 0	13 - 6	17 - 1	20 - 3	23 - 10
	Southern Pine	No.3	8 - 0	11 - 9	14 - 10	18 - 0	21 - 4	6 - 11	10 - 2	12 - 10	15 - 7	18 - 6
	Spruce-Pine Fir	SS	10 - 7	16 - 8	22 - 0	26-0†	26-0†	10 - 7	16 - 8	21 - 9	26-0†	26-0†
	Spruce-Pine Fir	No.1	10 - 4	16 - 3	21 - 0	25 - 8	26-0†	9 - 10	14 - 4	18 - 2	22 - 3	25 - 9
	Spruce-Pine Fir	No.2	10 - 4	16 - 3	21 - 0	25 - 8	26-0†	9 - 10	14 - 4	18 - 2	22 - 3	25 - 9
	Spruce-Pine Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
16	Douglas Fir-Larch	SS	10 - 5	16 - 4	21 - 7	26-0†	26-0†	10 - 5	16 - 3	20 - 7	25 - 2	26-0†
	Douglas Fir-Larch	No.1	10 - 0	15 - 4	19 - 5	23 - 9	26-0†	9 - 1	13 - 3	16 - 10	20 - 7	23 - 10
	Douglas Fir-Larch	No.2	9 - 10	14 - 7	18 - 5	22 - 6	26-0†	8 - 7	12 - 7	16 - 0	19 - 6	22 - 7
	Douglas Fir-Larch	No.3	7 - 7	11 - 1	14 - 1	17 - 2	19 - 11	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Hem-Fir	SS	9 - 10	15 - 6	20 - 5	26-0†	26-0†	9 - 10	15 - 6	19 - 11	24 - 4	26-0†
	Hem-Fir	No.1	9 - 8	15 - 2	19 - 2	23 - 5	26-0†	9 - 0	13 - 1	16 - 7	20 - 4	23 - 7
	Hem-Fir	No.2	9 - 2	14 - 2	17 - 11	21 - 11	25 - 5	8 - 5	12 - 3	15 - 6	19 - 0	22 - 0
	Hem-Fir	No.3	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10
	Southern Pine	SS	10 - 3	16 - 1	21 - 2	26-0†	26-0†	10 - 3	16 - 1	21 - 2	25 - 7	26-0†
	Southern Pine	No.1	9 - 10	15 - 6	19 - 10	23 - 2	26-0†	9 - 1	13 - 7	17 - 2	20 - 1	23 - 10
	Southern Pine	No.2	9 - 0	13 - 6	17 - 1	20 - 3	23 - 10	7 - 9	11 - 8	14 - 9	17 - 6	20 - 8
	Southern Pine	No.3	6 - 11	10 - 2	12 - 10	15 - 7	18 - 6	6 - 0	8 - 10	11 - 2	13 - 6	16 - 0
	Spruce-Pine Fir	SS	9 - 8	15 - 2	19 - 11	25 - 5	26-0†	9 - 8	14 - 10	18 - 10	23 - 0	26-0†
	Spruce-Pine Fir	No.1	9 - 5	14 - 4	18 - 2	22 - 3	25 - 9	8 - 6	12 - 5	15 - 9	19 - 3	22 - 4
	Spruce-Pine Fir	No.2	9 - 5	14 - 4	18 - 2	22 - 3	25 - 9	8 - 6	12 - 5	15 - 9	19 - 3	22 - 4
	Spruce-Pine Fir	No.3	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10
19.2	Douglas Fir-Larch	SS	9 - 10	15 - 5	20 - 4	25 - 11	26-0†	9 - 10	14 - 10	18 - 10	23 - 0	26-0†
	Douglas Fir-Larch	No.1	9 - 5	14 - 0	17 - 9	21 - 8	25 - 2	8 - 4	12 - 2	15 - 4	18 - 9	21 - 9
	Douglas Fir-Larch	No.2	9 - 1	13 - 3	16 - 10	20 - 7	23 - 10	7 - 10	11 - 6	14 - 7	17 - 10	20 - 8
	Douglas Fir-Larch	No.3	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3	6 - 0	8 - 9	11 - 2	13 - 7	15 - 9
	Hem-Fir	SS	9 - 3	14 - 7	19 - 2	24 - 6	26-0†	9 - 3	14 - 4	18 - 2	22 - 3	25 - 9
	Hem-Fir	No.1	9 - 1	13 - 10	17 - 6	21 - 5	24 - 10	8 - 2	12 - 0	15 - 2	18 - 6	21 - 6
	Hem-Fir	No.2	8 - 8	12 - 11	16 - 4	20 - 0	23 - 2	7 - 8	11 - 2	14 - 2	17 - 4	20 - 1
	Hem-Fir	No.3	6 - 9	9 - 11	12 - 7	15 - 4	17 - 9	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
	Southern Pine	SS	9 - 8	15 - 2	19 - 11	25 - 5	26-0†	9 - 8	15 - 2	19 - 7	23 - 4	26-0†
	Southern Pine	No.1	9 - 3	14 - 3	18 - 1	21 - 2	25 - 2	8 - 4	12 - 4	15 - 8	18 - 4	21 - 9
	Southern Pine	No.2	8 - 2	12 - 3	15 - 7	18 - 6	21 - 9	7 - 1	10 - 8	13 - 6	16 - 0	18 - 10
	Southern Pine	No.3	6 - 4	9 - 4	11 - 9	14 - 3	16 - 10	5 - 6	8 - 1	10 - 2	12 - 4	14 - 7
	Spruce-Pine Fir	SS	9 - 1	14 - 3	18 - 9	24 - 0	26-0†	9 - 1	13 - 7	17 - 2	21 - 0	24 - 4
	Spruce-Pine Fir	No.1	8 - 10	13 - 1	16 - 7	20 - 3	23 - 6	7 - 9	11 - 4	14 - 4	17 - 7	20 - 4
	Spruce-Pine Fir	No.2	8 - 10	13 - 1	16 - 7	20 - 3	23 - 6	7 - 9	11 - 4	14 - 4	17 - 7	20 - 4
	Spruce-Pine Fir	No.3	6 - 9	9 - 11	12 - 7	15 - 4	17 - 9	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
24	Douglas Fir-Larch	SS	9 - 1	14 - 4	18 - 10	23 - 9	26-0†	9 - 1	13 - 3	16 - 10	20 - 7	23 - 10
	Douglas Fir-Larch	No.1	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
	Douglas Fir-Larch	No.2	8 - 2	11 - 11	15 - 1	18 - 5	21 - 4	7 - 0	10 - 4	13 - 0	15 - 11	18 - 6
	Douglas Fir-Larch	No.3	6 - 2	9 - 1	11 - 6	14 - 1	16 - 3	5 - 4	7 - 10	10 - 0	12 - 2	14 - 1
	Hem-Fir	SS	8 - 7	13 - 6	17 - 10	22 - 9	26-0†	8 - 7	12 - 10	16 - 3	19 - 10	23 - 0
	Hem-Fir	No.1	8 - 5	12 - 4	15 - 8	19 - 2	22 - 2	7 - 4	10 - 9	13 - 7	16 - 7	19 - 3
	Hem-Fir	No.2	7 - 11	11 - 7	14 - 8	17 - 10	20 - 9	6 - 10	10 - 0	12 - 8	15 - 6	17 - 11
	Hem-Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8	15 - 11	5 - 3	7 - 8	9 - 9	11 - 10	13 - 9
	Southern Pine	SS	8 - 11	14 - 1	18 - 6	23 - 8	26-0†	8 - 11	13 - 10	17 - 6	20 - 10	24 - 8
	Southern Pine	No.1	8 - 7	12 - 9	16 - 2	18 - 11	22 - 6	7 - 5	11 - 1	14 - 0	16 - 5	19 - 6
	Southern Pine	No.2	7 - 4	11 - 0	13 - 11	16 - 6	19 - 6	6 - 4	9 - 6	12 - 1	14 - 4	16 - 10
	Southern Pine	No.3	5 - 8	8 - 4	10 - 6	12 - 9	15 - 1	4 - 11	7 - 3	9 - 1	11 - 0	13 - 1
	Spruce-Pine Fir	SS	8 - 5	13 - 3	17 - 5	21 - 8	25 - 2	8 - 4	12 - 2	15 - 4	18 - 9	21 - 9
	Spruce-Pine Fir	No.1	8 - 0	11 - 9	14 - 10	18 - 2	21 - 0	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3
	Spruce-Pine Fir	No.2	8 - 0	11 - 9	14 - 10	18 - 2	21 - 0	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3
	Spruce-Pine Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8	15 - 11	5 - 3	7 - 8	9 - 9	11 - 10	13 - 9

† Spans are limited to 26 feet in length.

See footnotes 1-3.

Table 3.26B Rafter Spans for Common Lumber Species(Ceiling Attached to Rafters, Live Load = 20 psf, $L/\Delta = 240$)**LL = 20 psf**
 $L/\Delta = 240$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans ^{1,2,3}												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	10 - 5	16 - 4	21 - 7	26-0†	26-0†	10 - 5	16 - 4	21 - 7	26-0†	26-0†
	Douglas Fir-Larch	No.1	10 - 0	15 - 9	20 - 10	26-0†	26-0†	10 - 0	15 - 4	19 - 5	23 - 9	26-0†
	Douglas Fir-Larch	No.2	9 - 10	15 - 6	20 - 5	26-0†	26-0†	9 - 10	14 - 7	18 - 5	22 - 6	26-0†
	Douglas Fir-Larch	No.3	8 - 9	12 - 10	16 - 3	19 - 10	23 - 0	7 - 7	11 - 1	14 - 1	17 - 2	19 - 11
	Hem-Fir	SS	9 - 10	15 - 6	20 - 5	26-0†	26-0†	9 - 10	15 - 6	20 - 5	26-0†	26-0†
	Hem-Fir	No.1	9 - 8	15 - 2	19 - 11	25 - 5	26-0†	9 - 8	15 - 2	19 - 2	23 - 5	26-0†
	Hem-Fir	No.2	9 - 2	14 - 5	19 - 0	24 - 3	26-0†	9 - 2	14 - 2	17 - 11	21 - 11	25 - 5
	Hem-Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
	Southern Pine	SS	10 - 3	16 - 1	21 - 2	26-0†	26-0†	10 - 3	16 - 1	21 - 2	26-0†	26-0†
	Southern Pine	No.1	9 - 10	15 - 6	20 - 5	26-0†	26-0†	9 - 10	15 - 6	19 - 10	23 - 2	26-0†
	Southern Pine	No.2	9 - 5	14 - 9	19 - 6	23 - 5	26-0†	9 - 0	13 - 6	17 - 1	20 - 3	23 - 10
	Southern Pine	No.3	8 - 0	11 - 9	14 - 10	18 - 0	21 - 4	6 - 11	10 - 2	12 - 10	15 - 7	18 - 6
	Spruce-Pine Fir	SS	9 - 8	15 - 2	19 - 11	25 - 5	26-0†	9 - 8	15 - 2	19 - 11	25 - 5	26-0†
	Spruce-Pine Fir	No.1	9 - 5	14 - 9	19 - 6	24 - 10	26-0†	9 - 5	14 - 4	18 - 2	22 - 3	25 - 9
	Spruce-Pine Fir	No.2	9 - 5	14 - 9	19 - 6	24 - 10	26-0†	9 - 5	14 - 4	18 - 2	22 - 3	25 - 9
	Spruce-Pine Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
16	Douglas Fir-Larch	SS	9 - 6	14 - 11	19 - 7	25 - 0	26-0†	9 - 6	14 - 11	19 - 7	25 - 0	26-0†
	Douglas Fir-Larch	No.1	9 - 1	14 - 4	18 - 11	23 - 9	26-0†	9 - 1	13 - 3	16 - 10	20 - 7	23 - 10
	Douglas Fir-Larch	No.2	8 - 11	14 - 1	18 - 5	22 - 6	26-0†	8 - 7	12 - 7	16 - 0	19 - 6	22 - 7
	Douglas Fir-Larch	No.3	7 - 7	11 - 1	14 - 1	17 - 2	19 - 11	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Hem-Fir	SS	8 - 11	14 - 1	18 - 6	23 - 8	26-0†	8 - 11	14 - 1	18 - 6	23 - 8	26-0†
	Hem-Fir	No.1	8 - 9	13 - 9	18 - 2	23 - 1	26-0†	8 - 9	13 - 1	16 - 7	20 - 4	23 - 7
	Hem-Fir	No.2	8 - 4	13 - 1	17 - 3	21 - 11	25 - 5	8 - 4	12 - 3	15 - 6	19 - 0	22 - 0
	Hem-Fir	No.3	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10
	Southern Pine	SS	9 - 4	14 - 7	19 - 3	24 - 7	26-0†	9 - 4	14 - 7	19 - 3	24 - 7	26-0†
	Southern Pine	No.1	8 - 11	14 - 1	18 - 6	23 - 2	26-0†	8 - 11	13 - 7	17 - 2	20 - 1	23 - 10
	Southern Pine	No.2	8 - 7	13 - 5	17 - 1	20 - 3	23 - 10	7 - 9	11 - 8	14 - 9	17 - 6	20 - 8
	Southern Pine	No.3	6 - 11	10 - 2	12 - 10	15 - 7	18 - 6	6 - 0	8 - 10	11 - 2	13 - 6	16 - 0
	Spruce-Pine Fir	SS	8 - 9	13 - 9	18 - 2	23 - 1	26-0†	8 - 9	13 - 9	18 - 2	23 - 0	26-0†
	Spruce-Pine Fir	No.1	8 - 7	13 - 5	17 - 9	22 - 3	25 - 9	8 - 6	12 - 5	15 - 9	19 - 3	22 - 4
	Spruce-Pine Fir	No.2	8 - 7	13 - 5	17 - 9	22 - 3	25 - 9	8 - 6	12 - 5	15 - 9	19 - 3	22 - 4
	Spruce-Pine Fir	No.3	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10
19.2	Douglas Fir-Larch	SS	8 - 11	14 - 0	18 - 5	23 - 7	26-0†	8 - 11	14 - 0	18 - 5	23 - 0	26-0†
	Douglas Fir-Larch	No.1	8 - 7	13 - 6	17 - 9	21 - 8	25 - 2	8 - 4	12 - 2	15 - 4	18 - 9	21 - 9
	Douglas Fir-Larch	No.2	8 - 5	13 - 3	16 - 10	20 - 7	23 - 10	7 - 10	11 - 6	14 - 7	17 - 10	20 - 8
	Douglas Fir-Larch	No.3	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3	6 - 0	8 - 9	11 - 2	13 - 7	15 - 9
	Hem-Fir	SS	8 - 5	13 - 3	17 - 5	22 - 3	26-0†	8 - 5	13 - 3	17 - 5	22 - 3	25 - 9
	Hem-Fir	No.1	8 - 3	12 - 11	17 - 1	21 - 5	24 - 10	8 - 2	12 - 0	15 - 2	18 - 6	21 - 6
	Hem-Fir	No.2	7 - 10	12 - 4	16 - 3	20 - 0	23 - 2	7 - 8	11 - 2	14 - 2	17 - 4	20 - 1
	Hem-Fir	No.3	6 - 9	9 - 11	12 - 7	15 - 4	17 - 9	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
	Southern Pine	SS	8 - 9	13 - 9	18 - 2	23 - 1	26-0†	8 - 9	13 - 9	18 - 2	23 - 1	26-0†
	Southern Pine	No.1	8 - 5	13 - 3	17 - 5	21 - 2	25 - 2	8 - 4	12 - 4	15 - 8	18 - 4	21 - 9
	Southern Pine	No.2	8 - 1	12 - 3	15 - 7	18 - 6	21 - 9	7 - 1	10 - 8	13 - 6	16 - 0	18 - 10
	Southern Pine	No.3	6 - 4	9 - 4	11 - 9	14 - 3	16 - 10	5 - 6	8 - 1	10 - 2	12 - 4	14 - 7
	Spruce-Pine Fir	SS	8 - 3	12 - 11	17 - 1	21 - 9	26-0†	8 - 3	12 - 11	17 - 1	21 - 0	24 - 4
	Spruce-Pine Fir	No.1	8 - 1	12 - 8	16 - 7	20 - 3	23 - 6	7 - 9	11 - 4	14 - 4	17 - 7	20 - 4
	Spruce-Pine Fir	No.2	8 - 1	12 - 8	16 - 7	20 - 3	23 - 6	7 - 9	11 - 4	14 - 4	17 - 7	20 - 4
	Spruce-Pine Fir	No.3	6 - 9	9 - 11	12 - 7	15 - 4	17 - 9	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
24	Douglas Fir-Larch	SS	8 - 3	13 - 0	17 - 2	21 - 10	26-0†	8 - 3	13 - 0	16 - 10	20 - 7	23 - 10
	Douglas Fir-Larch	No.1	8 - 0	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
	Douglas Fir-Larch	No.2	7 - 10	11 - 11	15 - 1	18 - 5	21 - 4	7 - 0	10 - 4	13 - 0	15 - 11	18 - 6
	Douglas Fir-Larch	No.3	6 - 2	9 - 1	11 - 6	14 - 1	16 - 3	5 - 4	7 - 10	10 - 0	12 - 2	14 - 1
	Hem-Fir	SS	7 - 10	12 - 3	16 - 2	20 - 8	25 - 1	7 - 10	12 - 3	16 - 2	19 - 10	23 - 0
	Hem-Fir	No.1	7 - 8	12 - 0	15 - 8	19 - 2	22 - 2	7 - 4	10 - 9	13 - 7	16 - 7	19 - 3
	Hem-Fir	No.2	7 - 3	11 - 5	14 - 8	17 - 10	20 - 9	6 - 10	10 - 0	12 - 8	15 - 6	17 - 11
	Hem-Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8	15 - 11	5 - 3	7 - 8	9 - 9	11 - 10	13 - 9
	Southern Pine	SS	8 - 1	12 - 9	16 - 10	21 - 6	26-0†	8 - 1	12 - 9	16 - 10	20 - 10	24 - 8
	Southern Pine	No.1	7 - 10	12 - 3	16 - 2	18 - 11	22 - 6	7 - 5	11 - 1	14 - 0	16 - 5	19 - 6
	Southern Pine	No.2	7 - 4	11 - 0	13 - 11	16 - 6	19 - 6	6 - 4	9 - 6	12 - 1	14 - 4	16 - 10
	Southern Pine	No.3	5 - 8	8 - 4	10 - 6	12 - 9	15 - 1	4 - 11	7 - 3	9 - 1	11 - 0	13 - 1
	Spruce-Pine Fir	SS	7 - 8	12 - 0	15 - 10	20 - 2	24 - 7	7 - 8	12 - 0	15 - 4	18 - 9	21 - 9
	Spruce-Pine Fir	No.1	7 - 6	11 - 9	14 - 10	18 - 2	21 - 0	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3
	Spruce-Pine Fir	No.2	7 - 6	11 - 9	14 - 10	18 - 2	21 - 0	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3
	Spruce-Pine Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8	15 - 11	5 - 3	7 - 8	9 - 9	11 - 10	13 - 9

† Spans are limited to 26 feet in length.

See footnotes 1-3.

Table 3.26C Rafter Spans for Common Lumber Species

(Ceiling Not Attached to Rafters,
Ground Snow Load = 30 psf, $L/\Delta = 180$)

GSL = 30 psf
 $L/\Delta = 180$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans [†]												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	10 - 0	15 - 9	20-0†	20-0†	20-0†	10 - 0	15 - 9	20-0†	20-0†	20-0†
	Douglas Fir-Larch	No.1	9 - 8	14 - 9	18 - 8	20-0†	20-0†	9 - 0	13 - 2	16 - 8	20-0†	20-0†
	Douglas Fir-Larch	No.2	9 - 6	14 - 0	17 - 8	20-0†	20-0†	8 - 6	12 - 6	15 - 10	19 - 4	20-0†
	Douglas Fir-Larch	No.3	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2	6 - 6	9 - 6	12 - 1	14 - 9	17 - 1
	Hem-Fir	SS	9 - 6	14 - 10	19 - 7	20-0†	20-0†	9 - 6	14 - 10	19 - 7	20-0†	20-0†
	Hem-Fir	No.1	9 - 3	14 - 6	18 - 5	20-0†	20-0†	8 - 11	13 - 0	16 - 6	20-0†	20-0†
	Hem-Fir	No.2	8 - 10	13 - 7	17 - 2	20-0†	20-0†	8 - 4	12 - 2	15 - 4	18 - 9	20-0†
	Hem-Fir	No.3	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Southern Pine	SS	9 - 10	15 - 6	20-0†	20-0†	20-0†	9 - 10	15 - 6	20-0†	20-0†	20-0†
	Southern Pine	No.1	9 - 6	14 - 10	19 - 0	20-0†	20-0†	9 - 0	13 - 5	17 - 0	19 - 11	20-0†
	Southern Pine	No.2	8 - 7	12 - 11	16 - 4	19 - 5	20-0†	7 - 8	11 - 7	14 - 8	17 - 4	20-0†
	Southern Pine	No.3	6 - 7	9 - 9	12 - 4	15 - 0	17 - 9	5 - 11	8 - 9	11 - 0	13 - 5	15 - 10
	Spruce-Pine Fir	SS	9 - 3	14 - 7	19 - 2	20-0†	20-0†	9 - 3	14 - 7	18 - 8	20-0†	20-0†
	Spruce-Pine Fir	No.1	9 - 1	13 - 9	17 - 5	20-0†	20-0†	8 - 5	12 - 4	15 - 7	19 - 1	20-0†
	Spruce-Pine Fir	No.2	9 - 1	13 - 9	17 - 5	20-0†	20-0†	8 - 5	12 - 4	15 - 7	19 - 1	20-0†
	Spruce-Pine Fir	No.3	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
16	Douglas Fir-Larch	SS	9 - 1	14 - 4	18 - 10	20-0†	20-0†	9 - 1	14 - 0	17 - 8	20-0†	20-0†
	Douglas Fir-Larch	No.1	8 - 9	12 - 9	16 - 2	19 - 9	20-0†	7 - 10	11 - 5	14 - 5	17 - 8	20-0†
	Douglas Fir-Larch	No.2	8 - 3	12 - 1	15 - 4	18 - 9	20-0†	7 - 5	10 - 10	13 - 8	16 - 9	19 - 5
	Douglas Fir-Larch	No.3	6 - 4	9 - 3	11 - 8	14 - 3	16 - 7	5 - 8	8 - 3	10 - 6	12 - 9	14 - 10
	Hem-Fir	SS	8 - 7	13 - 6	17 - 10	20-0†	20-0†	8 - 7	13 - 6	17 - 1	20-0†	20-0†
	Hem-Fir	No.1	8 - 5	12 - 7	15 - 11	19 - 6	20-0†	7 - 8	11 - 3	14 - 3	17 - 5	20-0†
	Hem-Fir	No.2	8 - 0	11 - 9	14 - 11	18 - 2	20-0†	7 - 2	10 - 6	13 - 4	16 - 3	18 - 10
	Hem-Fir	No.3	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Southern Pine	SS	8 - 11	14 - 1	18 - 6	20-0†	20-0†	8 - 11	14 - 1	18 - 5	20-0†	20-0†
	Southern Pine	No.1	8 - 7	13 - 0	16 - 6	19 - 3	20-0†	7 - 10	11 - 7	14 - 9	17 - 3	20-0†
	Southern Pine	No.2	7 - 6	11 - 2	14 - 2	16 - 10	19 - 10	6 - 8	10 - 0	12 - 8	15 - 1	17 - 9
	Southern Pine	No.3	5 - 9	8 - 6	10 - 8	13 - 0	15 - 4	5 - 2	7 - 7	9 - 7	11 - 7	13 - 9
	Spruce-Pine Fir	SS	8 - 5	13 - 3	17 - 5	20-0†	20-0†	8 - 5	12 - 9	16 - 2	19 - 9	20-0†
	Spruce-Pine Fir	No.1	8 - 2	11 - 11	15 - 1	18 - 5	20-0†	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2
	Spruce-Pine Fir	No.2	8 - 2	11 - 11	15 - 1	18 - 5	20-0†	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2
	Spruce-Pine Fir	No.3	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
19.2	Douglas Fir-Larch	SS	8 - 7	13 - 6	17 - 9	20-0†	20-0†	8 - 7	12 - 9	16 - 2	19 - 9	20-0†
	Douglas Fir-Larch	No.1	8 - 0	11 - 8	14 - 9	18 - 0	20-0†	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Douglas Fir-Larch	No.2	7 - 7	11 - 0	14 - 0	17 - 1	19 - 10	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9
	Douglas Fir-Larch	No.3	5 - 9	8 - 5	10 - 8	13 - 1	15 - 2	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6
	Hem-Fir	SS	8 - 1	12 - 9	16 - 9	20-0†	20-0†	8 - 1	12 - 4	15 - 7	19 - 1	20-0†
	Hem-Fir	No.1	7 - 10	11 - 6	14 - 7	17 - 9	20-0†	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5
	Hem-Fir	No.2	7 - 4	10 - 9	13 - 7	16 - 7	19 - 3	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3
	Hem-Fir	No.3	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Southern Pine	SS	8 - 5	13 - 3	17 - 5	20-0†	20-0†	8 - 5	13 - 3	16 - 10	20-0†	20-0†
	Southern Pine	No.1	8 - 0	11 - 10	15 - 1	17 - 7	20-0†	7 - 1	10 - 7	13 - 5	15 - 9	18 - 8
	Southern Pine	No.2	6 - 10	10 - 2	12 - 11	15 - 4	18 - 1	6 - 1	9 - 2	11 - 7	13 - 9	16 - 2
	Southern Pine	No.3	5 - 3	7 - 9	9 - 9	11 - 10	14 - 0	4 - 8	6 - 11	8 - 9	10 - 7	12 - 6
	Spruce-Pine Fir	SS	7 - 11	12 - 5	16 - 5	20-0†	20-0†	7 - 11	11 - 8	14 - 9	18 - 0	20-0†
	Spruce-Pine Fir	No.1	7 - 5	10 - 11	13 - 9	16 - 10	19 - 6	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6
	Spruce-Pine Fir	No.2	7 - 5	10 - 11	13 - 9	16 - 10	19 - 6	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6
	Spruce-Pine Fir	No.3	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
24	Douglas Fir-Larch	SS	8 - 0	12 - 6	16 - 2	19 - 9	20-0†	7 - 10	11 - 5	14 - 5	17 - 8	20-0†
	Douglas Fir-Larch	No.1	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Douglas Fir-Larch	No.2	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9	6 - 0	8 - 10	11 - 2	13 - 8	15 - 10
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 7	6 - 9	8 - 7	10 - 5	12 - 1
	Hem-Fir	SS	7 - 6	11 - 10	15 - 7	19 - 1	20-0†	7 - 6	11 - 0	14 - 0	17 - 1	19 - 9
	Hem-Fir	No.1	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5	6 - 3	9 - 2	11 - 8	14 - 3	16 - 6
	Hem-Fir	No.2	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10
	Southern Pine	SS	7 - 10	12 - 3	16 - 2	20-0†	20-0†	7 - 10	11 - 10	15 - 0	17 - 11	20-0†
	Southern Pine	No.1	7 - 1	10 - 7	13 - 5	15 - 9	18 - 8	6 - 4	9 - 6	12 - 0	14 - 1	16 - 8
	Southern Pine	No.2	6 - 1	9 - 2	11 - 7	13 - 9	16 - 2	5 - 5	8 - 2	10 - 4	12 - 3	14 - 6
	Southern Pine	No.3	4 - 8	6 - 11	8 - 9	10 - 7	12 - 6	4 - 2	6 - 2	7 - 10	9 - 6	11 - 2
	Spruce-Pine Fir	SS	7 - 4	11 - 7	14 - 9	18 - 0	20-0†	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.1	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7
	Spruce-Pine Fir	No.2	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10

† Spans are limited to 20 feet in length.

See footnote 1.

Table 3.26D Rafter Spans for Common Lumber Species

(Ceiling Attached to Rafters,
Ground Snow Load = 30 psf, $L/\Delta = 240$)

GSL = 30 psf
 $L/\Delta = 240$

			Dead Load = 10 psf				Dead Load = 20 psf					
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans ¹												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	9 - 1	14 - 4	18 - 10	20-0†	20-0†	9 - 1	14 - 4	18 - 10	20-0†	20-0†
	Douglas Fir-Larch	No.1	8 - 9	13 - 9	18 - 2	20-0†	20-0†	8 - 9	13 - 2	16 - 8	20-0†	20-0†
	Douglas Fir-Larch	No.2	8 - 7	13 - 6	17 - 8	20-0†	20-0†	8 - 6	12 - 6	15 - 10	19 - 4	20-0†
	Douglas Fir-Larch	No.3	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2	6 - 6	9 - 6	12 - 1	14 - 9	17 - 1
	Hem-Fir	SS	8 - 7	13 - 6	17 - 10	20-0†	20-0†	8 - 7	13 - 6	17 - 10	20-0†	20-0†
	Hem-Fir	No.1	8 - 5	13 - 3	17 - 5	20-0†	20-0†	8 - 5	13 - 0	16 - 6	20-0†	20-0†
	Hem-Fir	No.2	8 - 0	12 - 7	16 - 7	20-0†	20-0†	8 - 0	12 - 2	15 - 4	18 - 9	20-0†
	Hem-Fir	No.3	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Southern Pine	SS	8 - 11	14 - 1	18 - 6	20-0†	20-0†	8 - 11	14 - 1	18 - 6	20-0†	20-0†
	Southern Pine	No.1	8 - 7	13 - 6	17 - 10	20-0†	20-0†	8 - 7	13 - 5	17 - 0	19 - 11	20-0†
	Southern Pine	No.2	8 - 3	12 - 11	16 - 4	19 - 5	20-0†	7 - 8	11 - 7	14 - 8	17 - 4	20-0†
	Southern Pine	No.3	6 - 7	9 - 9	12 - 4	15 - 0	17 - 9	5 - 11	8 - 9	11 - 0	13 - 5	15 - 10
	Spruce-Pine Fir	SS	8 - 5	13 - 3	17 - 5	20-0†	20-0†	8 - 5	13 - 3	17 - 5	20-0†	20-0†
	Spruce-Pine Fir	No.1	8 - 3	12 - 11	17 - 0	20-0†	20-0†	8 - 3	12 - 4	15 - 7	19 - 1	20-0†
	Spruce-Pine Fir	No.2	8 - 3	12 - 11	17 - 0	20-0†	20-0†	8 - 3	12 - 4	15 - 7	19 - 1	20-0†
	Spruce-Pine Fir	No.3	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
16	Douglas Fir-Larch	SS	8 - 3	13 - 0	17 - 2	20-0†	20-0†	8 - 3	13 - 0	17 - 2	20-0†	20-0†
	Douglas Fir-Larch	No.1	8 - 0	12 - 6	16 - 2	19 - 9	20-0†	7 - 10	11 - 5	14 - 5	17 - 8	20-0†
	Douglas Fir-Larch	No.2	7 - 10	12 - 1	15 - 4	18 - 9	20-0†	7 - 5	10 - 10	13 - 8	16 - 9	19 - 5
	Douglas Fir-Larch	No.3	6 - 4	9 - 3	11 - 8	14 - 3	16 - 7	5 - 8	8 - 3	10 - 6	12 - 9	14 - 10
	Hem-Fir	SS	7 - 10	12 - 3	16 - 2	20-0†	20-0†	7 - 10	12 - 3	16 - 2	20-0†	20-0†
	Hem-Fir	No.1	7 - 8	12 - 0	15 - 10	19 - 6	20-0†	7 - 8	11 - 3	14 - 3	17 - 5	20-0†
	Hem-Fir	No.2	7 - 3	11 - 5	14 - 11	18 - 2	20-0†	7 - 2	10 - 6	13 - 4	16 - 3	18 - 10
	Hem-Fir	No.3	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Southern Pine	SS	8 - 1	12 - 9	16 - 10	20-0†	20-0†	8 - 1	12 - 9	16 - 10	20-0†	20-0†
	Southern Pine	No.1	7 - 10	12 - 3	16 - 2	19 - 3	20-0†	7 - 10	11 - 7	14 - 9	17 - 3	20-0†
	Southern Pine	No.2	7 - 6	11 - 2	14 - 2	16 - 10	19 - 10	6 - 8	10 - 0	12 - 8	15 - 1	17 - 9
	Southern Pine	No.3	5 - 9	8 - 6	10 - 8	13 - 0	15 - 4	5 - 2	7 - 7	9 - 7	11 - 7	13 - 9
	Spruce-Pine Fir	SS	7 - 8	12 - 0	15 - 10	20-0†	20-0†	7 - 8	12 - 0	15 - 10	19 - 9	20-0†
	Spruce-Pine Fir	No.1	7 - 6	11 - 9	15 - 1	18 - 5	20-0†	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2
	Spruce-Pine Fir	No.2	7 - 6	11 - 9	15 - 1	18 - 5	20-0†	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2
	Spruce-Pine Fir	No.3	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
19.2	Douglas Fir-Larch	SS	7 - 9	12 - 3	16 - 1	20-0†	20-0†	7 - 9	12 - 3	16 - 1	19 - 9	20-0†
	Douglas Fir-Larch	No.1	7 - 6	11 - 8	14 - 9	18 - 0	20-0†	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Douglas Fir-Larch	No.2	7 - 4	11 - 0	14 - 0	17 - 1	19 - 10	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9
	Douglas Fir-Larch	No.3	5 - 9	8 - 5	10 - 8	13 - 1	15 - 2	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6
	Hem-Fir	SS	7 - 4	11 - 7	15 - 3	19 - 5	20-0†	7 - 4	11 - 7	15 - 3	19 - 1	20-0†
	Hem-Fir	No.1	7 - 2	11 - 4	14 - 7	17 - 9	20-0†	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5
	Hem-Fir	No.2	6 - 10	10 - 9	13 - 7	16 - 7	19 - 3	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3
	Hem-Fir	No.3	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Southern Pine	SS	7 - 8	12 - 0	15 - 10	20-0†	20-0†	7 - 8	12 - 0	15 - 10	20-0†	20-0†
	Southern Pine	No.1	7 - 4	11 - 7	15 - 1	17 - 7	20-0†	7 - 1	10 - 7	13 - 5	15 - 9	18 - 8
	Southern Pine	No.2	6 - 10	10 - 2	12 - 11	15 - 4	18 - 1	6 - 1	9 - 2	11 - 7	13 - 9	16 - 2
	Southern Pine	No.3	5 - 3	7 - 9	9 - 9	11 - 10	14 - 0	4 - 8	6 - 11	8 - 9	10 - 7	12 - 6
	Spruce-Pine Fir	SS	7 - 2	11 - 4	14 - 11	19 - 0	20-0†	7 - 2	11 - 4	14 - 9	18 - 0	20-0†
	Spruce-Pine Fir	No.1	7 - 0	10 - 11	13 - 9	16 - 10	19 - 6	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6
	Spruce-Pine Fir	No.2	7 - 0	10 - 11	13 - 9	16 - 10	19 - 6	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6
	Spruce-Pine Fir	No.3	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
24	Douglas Fir-Larch	SS	7 - 3	11 - 4	15 - 0	19 - 1	20-0†	7 - 3	11 - 4	14 - 5	17 - 8	20-0†
	Douglas Fir-Larch	No.1	7 - 0	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Douglas Fir-Larch	No.2	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9	6 - 0	8 - 10	11 - 2	13 - 8	15 - 10
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 7	6 - 9	8 - 7	10 - 5	12 - 1
	Hem-Fir	SS	6 - 10	10 - 9	14 - 2	18 - 0	20-0†	6 - 10	10 - 9	14 - 0	17 - 1	19 - 9
	Hem-Fir	No.1	6 - 8	10 - 3	13 - 0	15 - 11	18 - 5	6 - 3	9 - 2	11 - 8	14 - 3	16 - 6
	Hem-Fir	No.2	6 - 4	9 - 7	12 - 2	14 - 10	17 - 3	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10
	Southern Pine	SS	7 - 1	11 - 2	14 - 8	18 - 9	20-0†	7 - 1	11 - 2	14 - 8	17 - 11	20-0†
	Southern Pine	No.1	6 - 10	10 - 7	13 - 5	15 - 9	18 - 8	6 - 4	9 - 6	12 - 0	14 - 1	16 - 8
	Southern Pine	No.2	6 - 1	9 - 2	11 - 7	13 - 9	16 - 2	5 - 5	8 - 2	10 - 4	12 - 3	14 - 6
	Southern Pine	No.3	4 - 8	6 - 11	8 - 9	10 - 7	12 - 6	4 - 2	6 - 2	7 - 10	9 - 6	11 - 2
	Spruce-Pine Fir	SS	6 - 8	10 - 6	13 - 10	17 - 8	20-0†	6 - 8	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.1	6 - 6	9 - 9	12 - 4	15 - 1	17 - 6	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7
	Spruce-Pine Fir	No.2	6 - 6	9 - 9	12 - 4	15 - 1	17 - 6	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10

† Spans are limited to 20 feet in length.

See footnote 1.

Table 3.26E Rafter Spans for Common Lumber Species

(Ceiling Not Attached to Rafters,
Ground Snow Load = 50 psf, $L/\Delta = 180$)

GSL = 50 psf
 $L/\Delta = 180$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans [†]												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	8 - 5	13 - 3	17 - 6	20-0†	20-0†	8 - 5	13 - 3	17 - 3	20-0†	20-0†
	Douglas Fir-Larch	No.1	8 - 2	12 - 0	15 - 3	18 - 7	20-0†	7 - 7	11 - 2	14 - 1	17 - 3	20 - 0
	Douglas Fir-Larch	No.2	7 - 10	11 - 5	14 - 5	17 - 8	20-0†	7 - 3	10 - 7	13 - 4	16 - 4	18 - 11
	Douglas Fir-Larch	No.3	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Hem-Fir	SS	8 - 0	12 - 6	16 - 6	20-0†	20-0†	8 - 0	12 - 6	16 - 6	20-0†	20-0†
	Hem-Fir	No.1	7 - 10	11 - 10	15 - 0	18 - 4	20-0†	7 - 6	11 - 0	13 - 11	17 - 0	19 - 9
	Hem-Fir	No.2	7 - 5	11 - 1	14 - 0	17 - 2	19 - 11	7 - 0	10 - 3	13 - 0	15 - 10	18 - 5
	Hem-Fir	No.3	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
	Southern Pine	SS	8 - 4	13 - 1	17 - 2	20-0†	20-0†	8 - 4	13 - 1	17 - 2	20-0†	20-0†
	Southern Pine	No.1	8 - 0	12 - 3	15 - 6	18 - 2	20-0†	7 - 7	11 - 4	14 - 5	16 - 10	20 - 0
	Southern Pine	No.2	7 - 0	10 - 6	13 - 4	15 - 10	18 - 8	6 - 6	9 - 9	12 - 4	14 - 8	17 - 3
	Southern Pine	No.3	5 - 5	8 - 0	10 - 1	12 - 3	14 - 6	5 - 0	7 - 5	9 - 4	11 - 4	13 - 5
	Spruce-Pine Fir	SS	7 - 10	12 - 3	16 - 2	20-0†	20-0†	7 - 10	12 - 3	15 - 9	19 - 3	20-0†
	Spruce-Pine Fir	No.1	7 - 8	11 - 3	14 - 3	17 - 5	20-0†	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.2	7 - 8	11 - 3	14 - 3	17 - 5	20-0†	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.3	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
16	Douglas Fir-Larch	SS	7 - 8	12 - 1	15 - 11	19 - 9	20-0†	7 - 8	11 - 10	14 - 11	18 - 3	20-0†
	Douglas Fir-Larch	No.1	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Douglas Fir-Larch	No.2	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9	6 - 3	9 - 2	11 - 7	14 - 2	16 - 5
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 9	7 - 0	8 - 10	10 - 10	12 - 6
	Hem-Fir	SS	7 - 3	11 - 5	15 - 0	19 - 1	20-0†	7 - 3	11 - 5	14 - 5	17 - 8	20-0†
	Hem-Fir	No.1	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5	6 - 6	9 - 6	12 - 1	14 - 9	17 - 1
	Hem-Fir	No.2	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3	6 - 1	8 - 11	11 - 3	13 - 9	15 - 11
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 8	6 - 10	8 - 8	10 - 7	12 - 3
	Southern Pine	SS	7 - 6	11 - 10	15 - 7	19 - 11	20-0†	7 - 6	11 - 10	15 - 7	18 - 6	20-0†
	Southern Pine	No.1	7 - 1	10 - 7	13 - 5	15 - 9	18 - 8	6 - 7	9 - 10	12 - 5	14 - 7	17 - 3
	Southern Pine	No.2	6 - 1	9 - 2	11 - 7	13 - 9	16 - 2	5 - 8	8 - 5	10 - 9	12 - 9	15 - 0
	Southern Pine	No.3	4 - 8	6 - 11	8 - 9	10 - 7	12 - 6	4 - 4	6 - 5	8 - 1	9 - 10	11 - 7
	Spruce-Pine Fir	SS	7 - 1	11 - 2	14 - 8	18 - 0	20-0†	7 - 1	10 - 9	13 - 8	16 - 8	19 - 4
	Spruce-Pine Fir	No.1	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2
	Spruce-Pine Fir	No.2	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 8	6 - 10	8 - 8	10 - 7	12 - 3
19.2	Douglas Fir-Larch	SS	7 - 3	11 - 4	14 - 9	18 - 0	20-0†	7 - 3	10 - 9	13 - 8	16 - 8	19 - 4
	Douglas Fir-Larch	No.1	6 - 6	9 - 6	12 - 0	14 - 8	17 - 1	6 - 0	8 - 10	11 - 2	13 - 7	15 - 9
	Douglas Fir-Larch	No.2	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 8	8 - 4	10 - 7	12 - 11	15 - 0
	Douglas Fir-Larch	No.3	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5
	Hem-Fir	SS	6 - 10	10 - 9	14 - 2	17 - 5	20-0†	6 - 10	10 - 5	13 - 2	16 - 1	18 - 8
	Hem-Fir	No.1	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10	5 - 11	8 - 8	11 - 0	13 - 5	15 - 7
	Hem-Fir	No.2	6 - 0	8 - 9	11 - 1	13 - 7	15 - 9	5 - 7	8 - 1	10 - 3	12 - 7	14 - 7
	Hem-Fir	No.3	4 - 7	6 - 9	8 - 6	10 - 5	12 - 1	4 - 3	6 - 3	7 - 11	9 - 7	11 - 2
	Southern Pine	SS	7 - 1	11 - 2	14 - 8	18 - 3	20-0†	7 - 1	11 - 2	14 - 2	16 - 11	20 - 0
	Southern Pine	No.1	6 - 6	9 - 8	12 - 3	14 - 4	17 - 1	6 - 0	9 - 0	11 - 4	13 - 4	15 - 9
	Southern Pine	No.2	5 - 7	8 - 4	10 - 7	12 - 6	14 - 9	5 - 2	7 - 9	9 - 9	11 - 7	13 - 8
	Southern Pine	No.3	4 - 3	6 - 4	8 - 0	9 - 8	11 - 5	4 - 0	5 - 10	7 - 4	8 - 11	10 - 7
	Spruce-Pine Fir	SS	6 - 8	10 - 6	13 - 5	16 - 5	19 - 1	6 - 8	9 - 10	12 - 5	15 - 3	17 - 8
	Spruce-Pine Fir	No.1	6 - 1	8 - 11	11 - 3	13 - 9	15 - 11	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9
	Spruce-Pine Fir	No.2	6 - 1	8 - 11	11 - 3	13 - 9	15 - 11	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9
	Spruce-Pine Fir	No.3	4 - 7	6 - 9	8 - 6	10 - 5	12 - 1	4 - 3	6 - 3	7 - 11	9 - 7	11 - 2
24	Douglas Fir-Larch	SS	6 - 8	10 - 5	13 - 2	16 - 1	18 - 8	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Douglas Fir-Larch	No.1	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
	Douglas Fir-Larch	No.2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6	5 - 1	7 - 6	9 - 5	11 - 7	13 - 5
	Douglas Fir-Larch	No.3	4 - 3	6 - 2	7 - 10	9 - 6	11 - 1	3 - 11	5 - 8	7 - 3	8 - 10	10 - 3
	Hem-Fir	SS	6 - 4	10 - 0	12 - 9	15 - 7	18 - 0	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Hem-Fir	No.1	5 - 9	8 - 5	10 - 8	13 - 0	15 - 1	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Hem-Fir	No.2	5 - 4	7 - 10	9 - 11	12 - 1	14 - 1	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Hem-Fir	No.3	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9	3 - 10	5 - 7	7 - 1	8 - 7	10 - 0
	Southern Pine	SS	6 - 7	10 - 4	13 - 8	16 - 4	19 - 3	6 - 7	10 - 0	12 - 8	15 - 2	17 - 10
	Southern Pine	No.1	5 - 10	8 - 8	11 - 0	12 - 10	15 - 3	5 - 5	8 - 0	10 - 2	11 - 11	14 - 1
	Southern Pine	No.2	5 - 0	7 - 5	9 - 5	11 - 3	13 - 2	4 - 7	6 - 11	8 - 9	10 - 5	12 - 3
	Southern Pine	No.3	3 - 10	5 - 8	7 - 1	8 - 8	10 - 3	3 - 6	5 - 3	6 - 7	8 - 0	9 - 6
	Spruce-Pine Fir	SS	6 - 2	9 - 6	12 - 0	14 - 8	17 - 1	6 - 0	8 - 10	11 - 2	13 - 7	15 - 9
	Spruce-Pine Fir	No.1	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Spruce-Pine Fir	No.2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Spruce-Pine Fir	No.3	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9	3 - 10	5 - 7	7 - 1	8 - 7	10 - 0

† Spans are limited to 20 feet in length.

See footnote 1.

Table 3.26F Rafter Spans for Common Lumber Species(Ceiling Attached to Rafters,
Ground Snow Load = 50 psf, $L/\Delta = 240$)**GSL = 50 psf**
 $L/\Delta = 240$

Joist Spacing (in.)	Species	Grade	Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
			Maximum Rafter Spans [†]									
			(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	7 - 8	12 - 1	15 - 11	20-0†	20-0†	7 - 8	12 - 1	15 - 11	20-0†	20-0†
	Douglas Fir-Larch	No.1	7 - 5	11 - 8	15 - 3	18 - 7	20-0†	7 - 5	11 - 2	14 - 1	17 - 3	20 - 0
	Douglas Fir-Larch	No.2	7 - 3	11 - 5	14 - 5	17 - 8	20-0†	7 - 3	10 - 7	13 - 4	16 - 4	18 - 11
	Douglas Fir-Larch	No.3	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Hem-Fir	SS	7 - 3	11 - 5	15 - 0	19 - 2	20-0†	7 - 3	11 - 5	15 - 0	19 - 2	20-0†
	Hem-Fir	No.1	7 - 1	11 - 2	14 - 8	18 - 4	20-0†	7 - 1	11 - 0	13 - 11	17 - 0	19 - 9
	Hem-Fir	No.2	6 - 9	10 - 8	14 - 0	17 - 2	19 - 11	6 - 9	10 - 3	13 - 0	15 - 10	18 - 5
	Hem-Fir	No.3	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
	Southern Pine	SS	7 - 6	11 - 10	15 - 7	19 - 11	20-0†	7 - 6	11 - 10	15 - 7	19 - 11	20-0†
	Southern Pine	No.1	7 - 3	11 - 5	15 - 0	18 - 2	20-0†	7 - 3	11 - 4	14 - 5	16 - 10	20 - 0
	Southern Pine	No.2	6 - 11	10 - 6	13 - 4	15 - 10	18 - 8	6 - 6	9 - 9	12 - 4	14 - 8	17 - 3
	Southern Pine	No.3	5 - 5	8 - 0	10 - 1	12 - 3	14 - 6	5 - 0	7 - 5	9 - 4	11 - 4	13 - 5
	Spruce-Pine Fir	SS	7 - 1	11 - 2	14 - 8	18 - 9	20-0†	7 - 1	11 - 2	14 - 8	18 - 9	20-0†
	Spruce-Pine Fir	No.1	6 - 11	10 - 11	14 - 3	17 - 5	20-0†	6 - 11	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.2	6 - 11	10 - 11	14 - 3	17 - 5	20-0†	6 - 11	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.3	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
16	Douglas Fir-Larch	SS	7 - 0	11 - 0	14 - 5	18 - 5	20-0†	7 - 0	11 - 0	14 - 5	18 - 3	20-0†
	Douglas Fir-Larch	No.1	6 - 9	10 - 5	13 - 2	16 - 1	18 - 8	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Douglas Fir-Larch	No.2	6 - 7	9 - 10	12 - 6	15 - 3	17 - 9	6 - 3	9 - 2	11 - 7	14 - 2	16 - 5
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 9	7 - 0	8 - 10	10 - 10	12 - 6
	Hem-Fir	SS	6 - 7	10 - 4	13 - 8	17 - 5	20-0†	6 - 7	10 - 4	13 - 8	17 - 5	20-0†
	Hem-Fir	No.1	6 - 5	10 - 2	13 - 0	15 - 11	18 - 5	6 - 5	9 - 6	12 - 1	14 - 9	17 - 1
	Hem-Fir	No.2	6 - 2	9 - 7	12 - 2	14 - 10	17 - 3	6 - 1	8 - 11	11 - 3	13 - 9	15 - 11
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 8	6 - 10	8 - 8	10 - 7	12 - 3
	Southern Pine	SS	6 - 10	10 - 9	14 - 2	18 - 1	20-0†	6 - 10	10 - 9	14 - 2	18 - 1	20-0†
	Southern Pine	No.1	6 - 7	10 - 4	13 - 5	15 - 9	18 - 8	6 - 7	9 - 10	12 - 5	14 - 7	17 - 3
	Southern Pine	No.2	6 - 1	9 - 2	11 - 7	13 - 9	16 - 2	5 - 8	8 - 5	10 - 9	12 - 9	15 - 0
	Southern Pine	No.3	4 - 8	6 - 11	8 - 9	10 - 7	12 - 6	4 - 4	6 - 5	8 - 1	9 - 10	11 - 7
	Spruce-Pine Fir	SS	6 - 5	10 - 2	13 - 4	17 - 0	20-0†	6 - 5	10 - 2	13 - 4	16 - 8	19 - 4
	Spruce-Pine Fir	No.1	6 - 4	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2
	Spruce-Pine Fir	No.2	6 - 4	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 8	6 - 10	8 - 8	10 - 7	12 - 3
19.2	Douglas Fir-Larch	SS	6 - 7	10 - 4	13 - 7	17 - 4	20-0†	6 - 7	10 - 4	13 - 7	16 - 8	19 - 4
	Douglas Fir-Larch	No.1	6 - 4	9 - 6	12 - 0	14 - 8	17 - 1	6 - 0	8 - 10	11 - 2	13 - 7	15 - 9
	Douglas Fir-Larch	No.2	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 8	8 - 4	10 - 7	12 - 11	15 - 0
	Douglas Fir-Larch	No.3	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5
	Hem-Fir	SS	6 - 2	9 - 9	12 - 10	16 - 5	19 - 11	6 - 2	9 - 9	12 - 10	16 - 1	18 - 8
	Hem-Fir	No.1	6 - 1	9 - 5	11 - 11	14 - 6	16 - 10	5 - 11	8 - 8	11 - 0	13 - 5	15 - 7
	Hem-Fir	No.2	5 - 9	8 - 9	11 - 1	13 - 7	15 - 9	5 - 7	8 - 1	10 - 3	12 - 7	14 - 7
	Hem-Fir	No.3	4 - 7	6 - 9	8 - 6	10 - 5	12 - 1	4 - 3	6 - 3	7 - 11	9 - 7	11 - 2
	Southern Pine	SS	6 - 5	10 - 2	13 - 4	17 - 0	20-0†	6 - 5	10 - 2	13 - 4	16 - 11	20 - 0
	Southern Pine	No.1	6 - 2	9 - 8	12 - 3	14 - 4	17 - 1	6 - 0	9 - 0	11 - 4	13 - 4	15 - 9
	Southern Pine	No.2	5 - 7	8 - 4	10 - 7	12 - 6	14 - 9	5 - 2	7 - 9	9 - 9	11 - 7	13 - 8
	Southern Pine	No.3	4 - 3	6 - 4	8 - 0	9 - 8	11 - 5	4 - 0	5 - 10	7 - 4	8 - 11	10 - 7
	Spruce-Pine Fir	SS	6 - 1	9 - 6	12 - 7	16 - 0	19 - 1	6 - 1	9 - 6	12 - 5	15 - 3	17 - 8
	Spruce-Pine Fir	No.1	5 - 11	8 - 11	11 - 3	13 - 9	15 - 11	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9
	Spruce-Pine Fir	No.2	5 - 11	8 - 11	11 - 3	13 - 9	15 - 11	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9
	Spruce-Pine Fir	No.3	4 - 7	6 - 9	8 - 6	10 - 5	12 - 1	4 - 3	6 - 3	7 - 11	9 - 7	11 - 2
24	Douglas Fir-Larch	SS	6 - 1	9 - 7	12 - 7	16 - 1	18 - 8	6 - 1	9 - 7	12 - 2	14 - 11	17 - 3
	Douglas Fir-Larch	No.1	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
	Douglas Fir-Larch	No.2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6	5 - 1	7 - 6	9 - 5	11 - 7	13 - 5
	Douglas Fir-Larch	No.3	4 - 3	6 - 2	7 - 10	9 - 6	11 - 1	3 - 11	5 - 8	7 - 3	8 - 10	10 - 3
	Hem-Fir	SS	5 - 9	9 - 1	11 - 11	15 - 2	18 - 0	5 - 9	9 - 1	11 - 9	14 - 5	16 - 8
	Hem-Fir	No.1	5 - 8	8 - 5	10 - 8	13 - 0	15 - 1	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Hem-Fir	No.2	5 - 4	7 - 10	9 - 11	12 - 1	14 - 1	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Hem-Fir	No.3	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9	3 - 10	5 - 7	7 - 1	8 - 7	10 - 0
	Southern Pine	SS	6 - 0	9 - 5	12 - 5	15 - 10	19 - 3	6 - 0	9 - 5	12 - 5	15 - 2	17 - 10
	Southern Pine	No.1	5 - 9	8 - 8	11 - 0	12 - 10	15 - 3	5 - 5	8 - 0	10 - 2	11 - 11	14 - 1
	Southern Pine	No.2	5 - 0	7 - 5	9 - 5	11 - 3	13 - 2	4 - 7	6 - 11	8 - 9	10 - 5	12 - 3
	Southern Pine	No.3	3 - 10	5 - 8	7 - 1	8 - 8	10 - 3	3 - 6	5 - 3	6 - 7	8 - 0	9 - 6
	Spruce-Pine Fir	SS	5 - 8	8 - 10	11 - 8	14 - 8	17 - 1	5 - 8	8 - 10	11 - 2	13 - 7	15 - 9
	Spruce-Pine Fir	No.1	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Spruce-Pine Fir	No.2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Spruce-Pine Fir	No.3	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9	3 - 10	5 - 7	7 - 1	8 - 7	10 - 0

† Spans are limited to 20 feet in length.
See footnote 1.

Table 3.26G Rafter Spans for Common Lumber Species

(Ceiling Not Attached to Rafters,
Ground Snow Load = 70 psf, $L/\Delta = 180$)

GSL = 70 psf
 $L/\Delta = 180$

Joist Spacing (in.)	Species	Grade	Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
			Maximum Rafter Spans [†]									
			(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	7 - 7	11 - 10	15 - 8	19 - 9	20-0†	7 - 7	11 - 10	15 - 3	18 - 7	20-0†
	Douglas Fir-Larch	No.1	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 8	9 - 10	12 - 5	15 - 2	17 - 7
	Douglas Fir-Larch	No.2	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 10	7 - 1	9 - 0	11 - 0	12 - 9
	Hem-Fir	SS	7 - 2	11 - 3	14 - 9	18 - 10	20-0†	7 - 2	11 - 3	14 - 8	18 - 0	20-0†
	Hem-Fir	No.1	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5	6 - 7	9 - 8	12 - 3	15 - 0	17 - 5
	Hem-Fir	No.2	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3	6 - 2	9 - 1	11 - 6	14 - 0	16 - 3
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Southern Pine	SS	7 - 5	11 - 8	15 - 4	19 - 7	20-0†	7 - 5	11 - 8	15 - 4	18 - 10	20-0†
	Southern Pine	No.1	7 - 1	10 - 7	13 - 5	15 - 9	18 - 8	6 - 9	10 - 0	12 - 8	14 - 10	17 - 7
	Southern Pine	No.2	6 - 1	9 - 2	11 - 7	13 - 9	16 - 2	5 - 9	8 - 7	10 - 11	12 - 11	15 - 3
	Southern Pine	No.3	4 - 8	6 - 11	8 - 9	10 - 7	12 - 6	4 - 5	6 - 6	8 - 3	10 - 0	11 - 10
	Spruce-Pine Fir	SS	7 - 0	11 - 0	14 - 6	18 - 0	20-0†	7 - 0	11 - 0	13 - 11	17 - 0	19 - 8
	Spruce-Pine Fir	No.1	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 3	9 - 2	11 - 8	14 - 2	16 - 6
16	Spruce-Pine Fir	No.2	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 3	9 - 2	11 - 8	14 - 2	16 - 6
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Douglas Fir-Larch	SS	6 - 10	10 - 9	14 - 0	17 - 1	19 - 10	6 - 10	10 - 5	13 - 2	16 - 1	18 - 8
	Douglas Fir-Larch	No.1	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3
	Douglas Fir-Larch	No.2	5 - 10	8 - 7	10 - 10	13 - 3	15 - 4	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Douglas Fir-Larch	No.3	4 - 6	6 - 6	8 - 3	10 - 1	11 - 9	4 - 3	6 - 2	7 - 10	9 - 6	11 - 1
	Hem-Fir	SS	6 - 6	10 - 2	13 - 5	16 - 6	19 - 2	6 - 6	10 - 1	12 - 9	15 - 7	18 - 0
	Hem-Fir	No.1	6 - 1	8 - 11	11 - 3	13 - 9	16 - 0	5 - 9	8 - 5	10 - 8	13 - 0	15 - 1
	Hem-Fir	No.2	5 - 8	8 - 4	10 - 6	12 - 10	14 - 11	5 - 4	7 - 10	9 - 11	12 - 1	14 - 1
	Hem-Fir	No.3	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9
	Southern Pine	SS	6 - 9	10 - 7	14 - 0	17 - 4	20-0†	6 - 9	10 - 7	13 - 9	16 - 4	19 - 3
	Southern Pine	No.1	6 - 2	9 - 2	11 - 8	13 - 8	16 - 2	5 - 10	8 - 8	11 - 0	12 - 10	15 - 3
	Southern Pine	No.2	5 - 3	7 - 11	10 - 0	11 - 11	14 - 0	5 - 0	7 - 5	9 - 5	11 - 3	13 - 2
	Southern Pine	No.3	4 - 1	6 - 0	7 - 7	9 - 2	10 - 10	3 - 10	5 - 8	7 - 1	8 - 8	10 - 3
19.2	Spruce-Pine Fir	SS	6 - 4	10 - 0	12 - 9	15 - 7	18 - 1	6 - 4	9 - 6	12 - 0	14 - 8	17 - 1
	Spruce-Pine Fir	No.1	5 - 9	8 - 5	10 - 8	13 - 1	15 - 2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3
	Spruce-Pine Fir	No.2	5 - 9	8 - 5	10 - 8	13 - 1	15 - 2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3
	Spruce-Pine Fir	No.3	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9
	Douglas Fir-Larch	SS	6 - 6	10 - 1	12 - 9	15 - 7	18 - 1	6 - 6	9 - 6	12 - 0	14 - 8	17 - 1
	Douglas Fir-Larch	No.1	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Douglas Fir-Larch	No.2	5 - 4	7 - 10	9 - 11	12 - 1	14 - 0	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Douglas Fir-Larch	No.3	4 - 1	6 - 0	7 - 7	9 - 3	10 - 8	3 - 10	5 - 7	7 - 1	8 - 8	10 - 1
	Hem-Fir	SS	6 - 1	9 - 7	12 - 4	15 - 1	17 - 6	6 - 1	9 - 2	11 - 8	14 - 2	16 - 6
	Hem-Fir	No.1	5 - 7	8 - 2	10 - 3	12 - 7	14 - 7	5 - 3	7 - 8	9 - 8	11 - 10	13 - 9
	Hem-Fir	No.2	5 - 2	7 - 7	9 - 7	11 - 9	13 - 7	4 - 11	7 - 2	9 - 1	11 - 1	12 - 10
	Hem-Fir	No.3	4 - 0	5 - 10	7 - 4	9 - 0	10 - 5	3 - 9	5 - 6	6 - 11	8 - 6	9 - 10
	Southern Pine	SS	6 - 4	10 - 0	13 - 2	15 - 10	18 - 8	6 - 4	9 - 10	12 - 6	14 - 11	17 - 7
	Southern Pine	No.1	5 - 8	8 - 5	10 - 8	12 - 5	14 - 9	5 - 4	7 - 11	10 - 0	11 - 9	13 - 11
24	Southern Pine	No.2	4 - 10	7 - 3	9 - 2	10 - 10	12 - 9	4 - 6	6 - 10	8 - 8	10 - 3	12 - 1
	Southern Pine	No.3	3 - 8	5 - 6	6 - 11	8 - 4	9 - 11	3 - 6	5 - 2	6 - 6	7 - 11	9 - 4
	Spruce-Pine Fir	SS	6 - 0	9 - 2	11 - 8	14 - 3	16 - 6	5 - 11	8 - 8	11 - 0	13 - 5	15 - 7
	Spruce-Pine Fir	No.1	5 - 3	7 - 8	9 - 9	11 - 11	13 - 10	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Spruce-Pine Fir	No.2	5 - 3	7 - 8	9 - 9	11 - 11	13 - 10	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Spruce-Pine Fir	No.3	4 - 0	5 - 10	7 - 4	9 - 0	10 - 5	3 - 9	5 - 6	6 - 11	8 - 6	9 - 10
	Douglas Fir-Larch	SS	6 - 0	9 - 0	11 - 5	13 - 11	16 - 2	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3
	Douglas Fir-Larch	No.1	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Douglas Fir-Larch	No.2	4 - 9	7 - 0	8 - 10	10 - 10	12 - 6	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10
	Douglas Fir-Larch	No.3	3 - 8	5 - 4	6 - 9	8 - 3	9 - 7	3 - 5	5 - 0	6 - 4	7 - 9	9 - 0
	Hem-Fir	SS	5 - 8	8 - 9	11 - 0	13 - 6	15 - 7	5 - 7	8 - 3	10 - 5	12 - 8	14 - 9
	Hem-Fir	No.1	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0	4 - 8	6 - 10	8 - 8	10 - 7	12 - 4
	Hem-Fir	No.2	4 - 8	6 - 9	8 - 7	10 - 6	12 - 2	4 - 4	6 - 5	8 - 1	9 - 11	11 - 6
	Hem-Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10
24	Southern Pine	SS	5 - 11	9 - 3	11 - 11	14 - 2	16 - 8	5 - 11	8 - 10	11 - 2	13 - 4	15 - 9
	Southern Pine	No.1	5 - 0	7 - 6	9 - 6	11 - 1	13 - 2	4 - 9	7 - 1	9 - 0	10 - 6	12 - 5
	Southern Pine	No.2	4 - 4	6 - 5	8 - 2	9 - 9	11 - 5	4 - 1	6 - 1	7 - 9	9 - 2	10 - 9
	Southern Pine	No.3	3 - 4	4 - 11	6 - 2	7 - 6	8 - 10	3 - 1	4 - 7	5 - 10	7 - 1	8 - 4
	Spruce-Pine Fir	SS	5 - 6	8 - 3	10 - 5	12 - 9	14 - 9	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Spruce-Pine Fir	No.1	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.2	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10

† Spans are limited to 20 feet in length.

See footnote 1.

Table 3.26H Rafter Spans for Common Lumber Species(Ceiling Attached to Rafters,
Ground Snow Load = 70 psf, $L/\Delta = 240$)**GSL = 70 psf**
 $L/\Delta = 240$

Joist Spacing (in.)	Species	Grade	Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
			Maximum Rafter Spans [†]									
			(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	6 - 10	10 - 9	14 - 3	18 - 2	20-0†	6 - 10	10 - 9	14 - 3	18 - 2	20-0†
	Douglas Fir-Larch	No.1	6 - 7	10 - 5	13 - 2	16 - 1	18 - 8	6 - 7	9 - 10	12 - 5	15 - 2	17 - 7
	Douglas Fir-Larch	No.2	6 - 6	9 - 10	12 - 6	15 - 3	17 - 9	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 10	7 - 1	9 - 0	11 - 0	12 - 9
	Hem-Fir	SS	6 - 6	10 - 2	13 - 5	17 - 2	20-0†	6 - 6	10 - 2	13 - 5	17 - 2	20-0†
	Hem-Fir	No.1	6 - 4	10 - 0	13 - 0	15 - 11	18 - 5	6 - 4	9 - 8	12 - 3	15 - 0	17 - 5
	Hem-Fir	No.2	6 - 1	9 - 6	12 - 2	14 - 10	17 - 3	6 - 1	9 - 1	11 - 6	14 - 0	16 - 3
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Southern Pine	SS	6 - 9	10 - 7	14 - 0	17 - 10	20-0†	6 - 9	10 - 7	14 - 0	17 - 10	20-0†
	Southern Pine	No.1	6 - 6	10 - 2	13 - 5	15 - 9	18 - 8	6 - 6	10 - 0	12 - 8	14 - 10	17 - 7
	Southern Pine	No.2	6 - 1	9 - 2	11 - 7	13 - 9	16 - 2	5 - 9	8 - 7	10 - 11	12 - 11	15 - 3
	Southern Pine	No.3	4 - 8	6 - 11	8 - 9	10 - 7	12 - 6	4 - 5	6 - 6	8 - 3	10 - 0	11 - 10
	Spruce-Pine Fir	SS	6 - 4	10 - 0	13 - 2	16 - 9	20-0†	6 - 4	10 - 0	13 - 2	16 - 9	19 - 8
	Spruce-Pine Fir	No.1	6 - 2	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 2	11 - 8	14 - 2	16 - 6
	Spruce-Pine Fir	No.2	6 - 2	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 2	11 - 8	14 - 2	16 - 6
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
16	Douglas Fir-Larch	SS	6 - 3	9 - 10	12 - 11	16 - 6	19 - 10	6 - 3	9 - 10	12 - 11	16 - 1	18 - 8
	Douglas Fir-Larch	No.1	6 - 0	9 - 0	11 - 5	13 - 11	16 - 2	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3
	Douglas Fir-Larch	No.2	5 - 10	8 - 7	10 - 10	13 - 3	15 - 4	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Douglas Fir-Larch	No.3	4 - 6	6 - 6	8 - 3	10 - 1	11 - 9	4 - 3	6 - 2	7 - 10	9 - 6	11 - 1
	Hem-Fir	SS	5 - 11	9 - 3	12 - 2	15 - 7	18 - 11	5 - 11	9 - 3	12 - 2	15 - 7	18 - 0
	Hem-Fir	No.1	5 - 9	8 - 11	11 - 3	13 - 9	16 - 0	5 - 9	8 - 5	10 - 8	13 - 0	15 - 1
	Hem-Fir	No.2	5 - 6	8 - 4	10 - 6	12 - 10	14 - 11	5 - 4	7 - 10	9 - 11	12 - 1	14 - 1
	Hem-Fir	No.3	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9
	Southern Pine	SS	6 - 1	9 - 7	12 - 8	16 - 2	19 - 8	6 - 1	9 - 7	12 - 8	16 - 2	19 - 3
	Southern Pine	No.1	5 - 11	9 - 2	11 - 8	13 - 8	16 - 2	5 - 10	8 - 8	11 - 0	12 - 10	15 - 3
	Southern Pine	No.2	5 - 3	7 - 11	10 - 0	11 - 11	14 - 0	5 - 0	7 - 5	9 - 5	11 - 3	13 - 2
	Southern Pine	No.3	4 - 1	6 - 0	7 - 7	9 - 2	10 - 10	3 - 10	5 - 8	7 - 1	8 - 8	10 - 3
	Spruce-Pine Fir	SS	5 - 9	9 - 1	11 - 11	15 - 3	18 - 1	5 - 9	9 - 1	11 - 11	14 - 8	17 - 1
	Spruce-Pine Fir	No.1	5 - 8	8 - 5	10 - 8	13 - 1	15 - 2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3
	Spruce-Pine Fir	No.2	5 - 8	8 - 5	10 - 8	13 - 1	15 - 2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3
	Spruce-Pine Fir	No.3	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9
19.2	Douglas Fir-Larch	SS	5 - 10	9 - 3	12 - 2	15 - 6	18 - 1	5 - 10	9 - 3	12 - 0	14 - 8	17 - 1
	Douglas Fir-Larch	No.1	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Douglas Fir-Larch	No.2	5 - 4	7 - 10	9 - 11	12 - 1	14 - 0	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Douglas Fir-Larch	No.3	4 - 1	6 - 0	7 - 7	9 - 3	10 - 8	3 - 10	5 - 7	7 - 1	8 - 8	10 - 1
	Hem-Fir	SS	5 - 6	8 - 8	11 - 6	14 - 8	17 - 6	5 - 6	8 - 8	11 - 6	14 - 2	16 - 6
	Hem-Fir	No.1	5 - 5	8 - 2	10 - 3	12 - 7	14 - 7	5 - 3	7 - 8	9 - 8	11 - 10	13 - 9
	Hem-Fir	No.2	5 - 2	7 - 7	9 - 7	11 - 9	13 - 7	4 - 11	7 - 2	9 - 1	11 - 1	12 - 10
	Hem-Fir	No.3	4 - 0	5 - 10	7 - 4	9 - 0	10 - 5	3 - 9	5 - 6	6 - 11	8 - 6	9 - 10
	Southern Pine	SS	5 - 9	9 - 1	11 - 11	15 - 3	18 - 6	5 - 9	9 - 1	11 - 11	14 - 11	17 - 7
	Southern Pine	No.1	5 - 6	8 - 5	10 - 8	12 - 5	14 - 9	5 - 4	7 - 11	10 - 0	11 - 9	13 - 11
	Southern Pine	No.2	4 - 10	7 - 3	9 - 2	10 - 10	12 - 9	4 - 6	6 - 10	8 - 8	10 - 3	12 - 1
	Southern Pine	No.3	3 - 8	5 - 6	6 - 11	8 - 4	9 - 11	3 - 6	5 - 2	6 - 6	7 - 11	9 - 4
	Spruce-Pine Fir	SS	5 - 5	8 - 6	11 - 3	14 - 3	16 - 6	5 - 5	8 - 6	11 - 0	13 - 5	15 - 7
	Spruce-Pine Fir	No.1	5 - 3	7 - 8	9 - 9	11 - 11	13 - 10	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Spruce-Pine Fir	No.2	5 - 3	7 - 8	9 - 9	11 - 11	13 - 10	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Spruce-Pine Fir	No.3	4 - 0	5 - 10	7 - 4	9 - 0	10 - 5	3 - 9	5 - 6	6 - 11	8 - 6	9 - 10
24	Douglas Fir-Larch	SS	5 - 5	8 - 7	11 - 3	13 - 11	16 - 2	5 - 5	8 - 6	10 - 9	13 - 2	15 - 3
	Douglas Fir-Larch	No.1	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Douglas Fir-Larch	No.2	4 - 9	7 - 0	8 - 10	10 - 10	12 - 6	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10
	Douglas Fir-Larch	No.3	3 - 8	5 - 4	6 - 9	8 - 3	9 - 7	3 - 5	5 - 0	6 - 4	7 - 9	9 - 0
	Hem-Fir	SS	5 - 2	8 - 1	10 - 8	13 - 6	15 - 7	5 - 2	8 - 1	10 - 5	12 - 8	14 - 9
	Hem-Fir	No.1	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0	4 - 8	6 - 10	8 - 8	10 - 7	12 - 4
	Hem-Fir	No.2	4 - 8	6 - 9	8 - 7	10 - 6	12 - 2	4 - 4	6 - 5	8 - 1	9 - 11	11 - 6
	Hem-Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10
	Southern Pine	SS	5 - 4	8 - 5	11 - 1	14 - 2	16 - 8	5 - 4	8 - 5	11 - 1	13 - 4	15 - 9
	Southern Pine	No.1	5 - 0	7 - 6	9 - 6	11 - 1	13 - 2	4 - 9	7 - 1	9 - 0	10 - 6	12 - 5
	Southern Pine	No.2	4 - 4	6 - 5	8 - 2	9 - 9	11 - 5	4 - 1	6 - 1	7 - 9	9 - 2	10 - 9
	Southern Pine	No.3	3 - 4	4 - 11	6 - 2	7 - 6	8 - 10	3 - 1	4 - 7	5 - 10	7 - 1	8 - 4
	Spruce-Pine Fir	SS	5 - 0	7 - 11	10 - 5	12 - 9	14 - 9	5 - 0	7 - 9	9 - 10	12 - 0	13 - 11
	Spruce-Pine Fir	No.1	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.2	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10

† Spans are limited to 20 feet in length.
See footnote 1.



April 2012

ADDENDUM
to
ANSI/AWC WFCM-2012
WOOD FRAME CONSTRUCTION MANUAL FOR ONE- AND TWO-FAMILY DWELLINGS
(web version date November 2011)

Effective June 1, 2012, the following tables in the 2012 Wood-Frame Construction Manual (WFCM) are revised to reflect changes to 2x4 Southern Pine No.2, No.3, Construction, Standard, and Utility grades:

2012 WFCM Table	Page Reference	Description	Action
Tables 3.20A1 through A6	228 to 239	Maximum exterior stud lengths for common lumber species resisting interior zone wind loads. <i>(Fully sheathed with a minimum sheathing material)</i>	<u>Replace</u> with revised Tables 3.20A1 through A6 as shown in the Attachment.
Tables 3.20B1 through B6	242 to 253	Maximum exterior stud lengths for common lumber species resisting interior zone wind loads. <i>(Fully sheathed with a minimum of 3/8" wood structural panels)</i>	<u>Replace</u> with revised Tables 3.20B1 through B6 as shown in the Attachment.
Tables 3.22A1 and A2 through Tables 3.22E1 and E2	256 to 265	Header spans for exterior walls resisting gravity loads.	Tabulated spans for "2-2x4", <u>shall not apply</u> to Southern Pine.
Table 3.23A	267 and 268	Header spans for exterior walls resisting (out-of-plane) wind loads.	Tabulated spans for "2-2x4", <u>shall not apply</u> to Southern Pine.
Table 3.23B	269	Header spans for exterior walls and window sill plate spans resisting (out-of-plane) wind loads.	Tabulated spans for "2-2x4", <u>shall not apply</u> to Southern Pine.
Tables 3.24A and B	272 to 275	Header spans for interior walls resisting gravity loads.	Tabulated spans for "2-2x4", <u>shall not apply</u> to Southern Pine.
Tables 3.25A and B	278 and 279	Ceiling joist spans for common lumber species.	<u>Replace</u> with revised Tables 3.25A and B as shown in the Attachment.
Tables 3.26A through H	280 to 289	Rafter spans for common lumber species.	<u>Replace</u> with revised Tables 3.26A through H as shown in the Attachment.
Table 3.29	293	Ridge beam spans.	Tabulated spans for "2-2x4", <u>shall not apply</u> to Southern Pine.

Table 3.20A1 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/180**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-4	20-0†	20-0†	12-8	20-0†	20-0†
	DFL	No.1	14-0††	20-0†	20-0†	14-0	20-0†	20-0†	13-7	20-0†	20-0†	12-10	20-0†	20-0†	12-2	19-7	20-0†
	DFL	No.2	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-7	20-0†	20-0†	11-11	19-2	20-0†
	DFL	No.3/Stud	13-6	20-0†	20-0†	13-1	20-0†	20-0†	12-8	20-0†	20-0†	12-0	19-2	20-0†	11-5	17-8	20-0†
	DFL	Standard	12-10	-	-	12-3	-	-	11-9	-	-	10-9	-	-	9-11	-	-
	HF	SS	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-7	20-0†	20-0†	11-11	19-2	20-0†
	HF	No.1	13-10	20-0†	20-0†	13-5	20-0†	20-0†	13-0	20-0†	20-0†	12-3	19-9	20-0†	11-8	18-9	20-0†
	HF	No.2	13-2	20-0†	20-0†	12-9	20-0†	20-0†	12-4	19-10	20-0†	11-8	18-9	20-0†	11-1	17-10	20-0†
	HF	No.3/Stud	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-3	20-0†
	HF	Standard	12-7	-	-	12-0	-	-	11-5	-	-	10-6	-	-	9-8	-	-
	SP	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	20-0	20-0†
	SP	No.1	14-0††	20-0†	20-0†	14-0	20-0†	20-0†	13-7	20-0†	20-0†	12-10	20-0†	20-0†	12-2	19-7	20-0†
	SP	No.2	13-6	20-0†	20-0†	13-1	20-0†	20-0†	12-8	20-0†	20-0†	12-0	20-0†	20-0†	11-5	19-2	20-0†
	SP	No.3	12-9	20-0†	20-0†	12-5	20-0†	20-0†	12-0	20-0†	20-0†	11-0	19-3	20-0†	10-2	18-3	20-0†
	SP	Stud	12-9	20-0†	20-0†	12-5	20-0†	20-0†	12-0	20-0†	20-0†	11-0	19-3	20-0†	10-2	18-3	20-0†
	SP	Standard	11-3	-	-	10-9	-	-	10-3	-	-	9-5	-	-	8-9	-	-
	SPF	SS	13-10	20-0†	20-0†	13-5	20-0†	20-0†	13-0	20-0†	20-0†	12-3	19-9	20-0†	11-8	18-9	20-0†
	SPF	No.1	13-6	20-0†	20-0†	13-1	20-0†	20-0†	12-8	20-0†	20-0†	12-0	19-3	20-0†	11-5	18-3	20-0†
	SPF	No.2	13-6	20-0†	20-0†	13-1	20-0†	20-0†	12-8	20-0†	20-0†	12-0	19-3	20-0†	11-5	18-3	20-0†
	SPF	No.3/Stud	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-3	20-0†
	SPF	Standard	12-7	-	-	12-0	-	-	11-5	-	-	10-6	-	-	9-8	-	-
16	DFL	SS	13-7	20-0†	20-0†	13-2	20-0†	20-0†	12-9	20-0†	20-0†	12-1	19-4	20-0†	11-5	18-5	20-0†
	DFL	No.1	13-0	20-0†	20-0†	12-8	20-0†	20-0†	12-3	19-8	20-0†	11-7	18-8	20-0†	11-0	17-8	20-0†
	DFL	No.2	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-4	20-0†
	DFL	No.3/Stud	12-2	19-7	20-0†	11-10	18-8	20-0†	11-6	17-10	20-0†	10-10	16-5	20-0†	10-1	15-2	19-6
	DFL	Standard	11-0	-	-	10-6	-	-	10-0	-	-	9-3	-	-	8-6	-	-
	HF	SS	12-9	20-0†	20-0†	12-5	19-10	20-0†	12-0	19-3	20-0†	11-4	18-3	20-0†	10-9	17-4	20-0†
	HF	No.1	12-6	20-0†	20-0†	12-1	19-5	20-0†	11-9	18-10	20-0†	11-1	17-10	20-0†	10-7	16-11	20-0†
	HF	No.2	11-10	19-1	20-0†	11-6	18-6	20-0†	11-2	17-11	20-0†	10-7	17-0	20-0†	10-0	16-1	20-0†
	HF	No.3/Stud	11-7	18-6	20-0†	11-2	18-0	20-0†	10-10	17-5	20-0†	10-3	16-0	20-0†	9-9	14-9	19-0
	HF	Standard	10-9	-	-	10-3	-	-	9-10	-	-	9-0	-	-	8-4	-	-
	SP	SS	13-4	20-0†	20-0†	12-11	20-0†	20-0†	12-6	20-0†	20-0†	11-10	19-0	20-0†	11-3	18-1	20-0†
	SP	No.1	13-0	20-0†	20-0†	12-8	20-0†	20-0†	12-3	19-8	20-0†	11-7	18-8	20-0†	11-0	17-8	20-0†
	SP	No.2	12-2	20-0†	20-0†	11-10	19-10	20-0†	11-6	19-3	20-0†	10-10	18-3	20-0†	10-4	17-4	20-0†
	SP	No.3	11-3	19-7	20-0†	10-9	19-0	20-0†	10-3	18-5	20-0†	9-5	17-3	20-0†	8-9	15-11	20-0†
	SP	Stud	11-3	19-7	20-0†	10-9	19-0	20-0†	10-3	18-5	20-0†	9-5	17-3	20-0†	8-9	15-11	20-0†
	SP	Standard	9-8	-	-	9-3	-	-	8-10	-	-	8-1	-	-	-	-	-
	SPF	SS	12-6	20-0†	20-0†	12-1	19-5	20-0†	11-9	18-10	20-0†	11-1	17-10	20-0†	10-7	16-11	20-0†
	SPF	No.1	12-2	19-7	20-0†	11-10	19-0	20-0†	11-6	18-5	20-0†	10-10	17-5	20-0†	10-4	16-6	20-0†
	SPF	No.2	12-2	19-7	20-0†	11-10	19-0	20-0†	11-6	18-5	20-0†	10-10	17-5	20-0†	10-4	16-6	20-0†
	SPF	No.3/Stud	11-7	18-6	20-0†	11-2	18-0	20-0†	10-10	17-5	20-0†	10-3	16-0	20-0†	9-9	14-9	19-0
	SPF	Standard	10-9	-	-	10-3	-	-	9-10	-	-	9-0	-	-	8-4	-	-
24	DFL	SS	11-9	18-11	20-0†	11-5	18-4	20-0†	11-1	17-9	20-0†	10-6	16-10	20-0†	9-11	16-0	20-0†
	DFL	No.1	11-4	18-2	20-0†	11-0	17-7	20-0†	10-8	17-1	20-0†	10-1	16-2	20-0†	9-7	15-4	20-0†
	DFL	No.2	11-1	17-10	20-0†	10-9	17-3	20-0†	10-5	16-9	20-0†	9-10	15-10	20-0†	9-4	15-0	20-0†
	DFL	No.3/Stud	10-6	15-9	20-0†	10-0	15-1	19-5	9-7	14-4	18-6	8-9	13-2	17-0	8-1	12-2	15-8
	DFL	Standard	8-10	-	-	8-6	-	-	8-1	-	-	-	-	-	-	-	-
	HF	SS	11-1	17-10	20-0†	10-9	17-3	20-0†	10-5	16-9	20-0†	9-10	15-10	20-0†	9-4	15-0	20-0†
	HF	No.1	10-10	17-5	20-0†	10-6	16-10	20-0†	10-2	16-4	20-0†	9-8	15-6	20-0†	9-2	14-8	19-8
	HF	No.2	10-4	16-7	20-0†	10-0	16-0	20-0†	9-8	15-7	20-0†	9-2	14-9	19-8	8-9	14-0	18-8
	HF	No.3/Stud	10-0	15-4	19-10	9-9	14-8	18-11	9-4	14-0	18-1	8-7	12-10	16-7	7-11	11-10	15-3
	HF	Standard	8-8	-	-	8-3	-	-	7-11	-	-	-	-	-	-	-	-
	SP	SS	11-7	18-6	20-0†	11-2	18-0	20-0†	10-10	17-5	20-0†	10-3	16-6	20-0†	9-9	15-8	20-0†
	SP	No.1	11-4	18-2	20-0†	11-0	17-7	20-0†	10-8	17-1	20-0†	10-1	16-2	20-0†	9-7	15-4	20-0†
	SP	No.2	10-7	17-10	20-0†	10-3	17-3	20-0†	10-0	16-9	20-0†	9-5	15-10	20-0†	8-11	15-0	20-0†
	SP	No.3	9-1	16-7	20-0†	8-8	15-10	20-0†	8-3	15-1	19-7	-	13-10	18-0	-	12-10	16-7
	SP	Stud	9-1	16-7	20-0†	8-8	15-10	20-0†	8-3	15-1	19-7	-	13-10	18-0	-	12-10	16-7
	SP	Standard	7-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10-10	17-5	20-0†	10-6	16-10	20-0†	10-2	16-4	20-0†	9-8	15-6	20-0†	9-2	14-8	19-8
	SPF	No.1	10-7	17-0	20-0†	10-3	16-6	20-0†	10-0	16-0	20-0†	9-5	15-1	20-0†	8-11	14-4	19-2
	SPF	No.2	10-7	17-0	20-0†	10-3	16-6	20-0†	10-0	16-0	20-0†	9-5	15-1	20-0†	8-11	14-4	19-2
	SPF	No.3/Stud	10-0	15-4	19-10	9-9	14-8	18-11	9-4	14-0	18-1	8-7	12-10	16-7	7-11	11-10	15-3
	SPF	Standard	8-8	-	-	8-3	-	-	7-11	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A1 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/180**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12 - 1	19 - 5	20 - 0†	11 - 6	18 - 6	20 - 0†	11 - 1	17 - 9	20 - 0†	10 - 8	17 - 1	20 - 0†	10 - 1	16 - 2	20 - 0†
	DFL	No.1	11 - 7	18 - 8	20 - 0†	11 - 1	17 - 10	20 - 0†	10 - 8	17 - 1	20 - 0†	10 - 3	16 - 5	20 - 0†	9 - 8	15 - 6	20 - 0†
	DFL	No.2	11 - 4	18 - 3	20 - 0†	10 - 10	17 - 5	20 - 0†	10 - 5	16 - 9	20 - 0†	10 - 0	16 - 1	20 - 0†	9 - 6	15 - 2	20 - 0†
	DFL	No.3/Stud	10 - 10	16 - 5	20 - 0†	10 - 2	15 - 4	19 - 9	9 - 7	14 - 4	18 - 6	9 - 0	13 - 6	17 - 5	8 - 3	12 - 5	16 - 0
	DFL	Standard	9 - 3	-	-	8 - 7	-	-	8 - 1	-	-	-	-	-	-	-	-
	HF	SS	11 - 4	18 - 3	20 - 0†	10 - 10	17 - 5	20 - 0†	10 - 5	16 - 9	20 - 0†	10 - 0	16 - 1	20 - 0†	9 - 6	15 - 2	20 - 0†
	HF	No.1	11 - 1	17 - 10	20 - 0†	10 - 8	17 - 1	20 - 0†	10 - 2	16 - 4	20 - 0†	9 - 9	15 - 9	20 - 0†	9 - 3	14 - 10	19 - 10
	HF	No.2	10 - 7	17 - 0	20 - 0†	10 - 1	16 - 3	20 - 0†	9 - 8	15 - 7	20 - 0†	9 - 4	14 - 11	20 - 0	8 - 10	14 - 2	18 - 11
	HF	No.3/Stud	10 - 3	16 - 0	20 - 0†	9 - 10	14 - 11	19 - 3	9 - 4	14 - 0	18 - 0	8 - 9	13 - 2	16 - 11	8 - 0	12 - 1	15 - 7
	HF	Standard	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-	-	-	-
	SP	SS	11 - 10	19 - 0	20 - 0†	11 - 4	18 - 2	20 - 0†	10 - 10	17 - 5	20 - 0†	10 - 5	16 - 9	20 - 0†	9 - 10	15 - 10	20 - 0†
	SP	No.1	11 - 7	18 - 8	20 - 0†	11 - 1	17 - 10	20 - 0†	10 - 8	17 - 1	20 - 0†	10 - 3	16 - 5	20 - 0†	9 - 8	15 - 6	20 - 0†
	SP	No.2	10 - 10	18 - 3	20 - 0†	10 - 4	17 - 5	20 - 0†	9 - 11	16 - 9	20 - 0†	9 - 7	16 - 1	20 - 0†	9 - 0	15 - 2	20 - 0†
	SP	No.3	9 - 5	17 - 3	20 - 0†	8 - 10	16 - 1	20 - 0†	8 - 3	15 - 1	19 - 7	7 - 9	14 - 2	18 - 5	-	13 - 0	16 - 11
	SP	Stud	9 - 5	17 - 3	20 - 0†	8 - 10	16 - 1	20 - 0†	8 - 3	15 - 1	19 - 7	7 - 9	14 - 2	18 - 5	-	13 - 0	16 - 11
	SP	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 1	17 - 10	20 - 0†	10 - 8	17 - 1	20 - 0†	10 - 2	16 - 4	20 - 0†	9 - 9	15 - 9	20 - 0†	9 - 3	14 - 10	19 - 10
	SPF	No.1	10 - 10	17 - 5	20 - 0†	10 - 4	16 - 8	20 - 0†	9 - 11	16 - 0	20 - 0†	9 - 7	15 - 4	20 - 0†	9 - 0	14 - 6	19 - 4
	SPF	No.2	10 - 10	17 - 5	20 - 0†	10 - 4	16 - 8	20 - 0†	9 - 11	16 - 0	20 - 0†	9 - 7	15 - 4	20 - 0†	9 - 0	14 - 6	19 - 4
	SPF	No.3/Stud	10 - 3	16 - 0	20 - 0†	9 - 10	14 - 11	19 - 3	9 - 4	14 - 0	18 - 0	8 - 9	13 - 2	16 - 11	8 - 0	12 - 1	15 - 7
	SPF	Standard	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-	-	-	-
16	DFL	SS	10 - 11	17 - 6	20 - 0†	10 - 5	16 - 9	20 - 0†	10 - 0	16 - 1	20 - 0†	9 - 7	15 - 5	20 - 0†	9 - 1	14 - 7	19 - 6
	DFL	No.1	10 - 6	16 - 10	20 - 0†	10 - 0	16 - 1	20 - 0†	9 - 8	15 - 5	20 - 0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9
	DFL	No.2	10 - 3	16 - 6	20 - 0†	9 - 10	15 - 9	20 - 0†	9 - 5	15 - 1	20 - 0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 3
	DFL	No.3/Stud	9 - 4	14 - 1	18 - 1	8 - 9	13 - 1	16 - 11	8 - 2	12 - 4	15 - 10	-	11 - 7	14 - 11	-	10 - 7	13 - 8
	DFL	Standard	7 - 11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	10 - 3	16 - 6	20 - 0†	9 - 10	15 - 9	20 - 0†	9 - 5	15 - 1	20 - 0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 4
	HF	No.1	10 - 1	16 - 2	20 - 0†	9 - 7	15 - 5	20 - 0†	9 - 3	14 - 9	19 - 9	8 - 10	14 - 2	19 - 0	8 - 5	13 - 5	17 - 11
	HF	No.2	9 - 7	15 - 4	20 - 0†	9 - 2	14 - 8	19 - 7	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 1	8 - 0	12 - 9	17 - 1
	HF	No.3/Stud	9 - 1	13 - 8	17 - 8	8 - 6	12 - 9	16 - 6	8 - 0	12 - 0	15 - 5	-	11 - 3	14 - 6	-	10 - 4	13 - 4
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	17 - 2	20 - 0†	10 - 3	16 - 5	20 - 0†	9 - 10	15 - 9	20 - 0†	9 - 5	15 - 2	20 - 0†	8 - 11	14 - 4	19 - 2
	SP	No.1	10 - 6	16 - 10	20 - 0†	10 - 0	16 - 1	20 - 0†	9 - 8	15 - 5	20 - 0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9
	SP	No.2	9 - 10	16 - 6	20 - 0†	9 - 5	15 - 9	20 - 0†	9 - 0	15 - 1	20 - 0†	8 - 8	14 - 6	19 - 5	8 - 2	13 - 9	18 - 4
	SP	No.3	8 - 1	14 - 9	19 - 2	-	13 - 10	17 - 11	-	12 - 11	16 - 9	-	12 - 2	15 - 9	-	11 - 2	14 - 6
	SP	Stud	8 - 1	14 - 9	19 - 2	-	13 - 10	17 - 11	-	12 - 11	16 - 9	-	12 - 2	15 - 9	-	11 - 2	14 - 6
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	16 - 2	20 - 0†	9 - 7	15 - 5	20 - 0†	9 - 3	14 - 9	19 - 9	8 - 10	14 - 2	19 - 0	8 - 5	13 - 5	17 - 11
	SPF	No.1	9 - 10	15 - 9	20 - 0†	9 - 5	15 - 1	20 - 0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SPF	No.2	9 - 10	15 - 9	20 - 0†	9 - 5	15 - 1	20 - 0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SPF	No.3/Stud	9 - 1	13 - 8	17 - 8	8 - 6	12 - 9	16 - 6	8 - 0	12 - 0	15 - 5	-	11 - 3	14 - 6	-	10 - 4	13 - 4
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	9 - 6	15 - 3	20 - 0†	9 - 1	14 - 6	19 - 5	8 - 8	13 - 11	18 - 7	8 - 4	13 - 5	17 - 11	7 - 11	12 - 8	16 - 11
	DFL	No.1	9 - 1	14 - 8	19 - 7	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	8 - 0	12 - 11	16 - 11	-	12 - 1	15 - 7
	DFL	No.2	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 2	8 - 2	13 - 2	17 - 0	7 - 10	12 - 5	16 - 0	-	11 - 5	14 - 8
	DFL	No.3/Stud	-	11 - 4	14 - 7	-	10 - 7	13 - 7	-	9 - 11	12 - 9	-	9 - 4	12 - 0	-	8 - 7	11 - 0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 4	8 - 2	13 - 2	17 - 6	7 - 10	12 - 7	16 - 10	-	11 - 11	15 - 11
	HF	No.1	8 - 9	14 - 0	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 4
	HF	No.2	8 - 4	13 - 4	17 - 10	7 - 11	12 - 9	17 - 0	-	12 - 3	16 - 4	-	11 - 9	15 - 6	-	11 - 1	14 - 3
	HF	No.3/Stud	-	11 - 0	14 - 2	-	10 - 3	13 - 3	-	9 - 8	12 - 5	-	9 - 1	11 - 8	-	8 - 4	10 - 9
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	SP	No.1	9 - 1	14 - 8	19 - 7	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	8 - 0	12 - 11	17 - 2	-	12 - 2	16 - 3
	SP	No.2	8 - 6	14 - 4	19 - 2	8 - 2	13 - 8	18 - 4	-	13 - 2	17 - 6	-	12 - 7	16 - 10	-	11 - 10	15 - 7
	SP	No.3	-	11 - 11	15 - 5	-	11 - 1	14 - 5	-	10 - 5	13 - 6	-	9 - 10	12 - 8	-	9 - 0	11 - 8
	SP	Stud	-	11 - 11	15 - 5	-	11 - 1	14 - 5	-	10 - 5	13 - 6	-	9 - 10	12 - 8	-	9 - 0	11 - 8
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8 - 9	14 - 0	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SPF	No.1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	15 - 9	-	11 - 3	14 - 6
	SPF	No.2	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	15 - 9	-	11 - 3	14 - 6
	SPF	No.3/Stud	-	11 - 0	14 - 2	-	10 - 3	13 - 3	-	9 - 8	12 - 5	-	9 - 1	11 - 8	-	8 - 4	10 - 9
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A2 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/240**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 7	20-0†	20-0†	13 - 2	20-0†	20-0†	12 - 9	20-0†	20-0†	12 - 1	19 - 4	20-0†	11 - 5	18 - 5	20-0†
	DFL	No.1	13 - 0	20-0†	20-0†	12 - 8	20-0†	20-0†	12 - 3	19 - 8	20-0†	11 - 7	18 - 8	20-0†	11 - 0	17 - 8	20-0†
	DFL	No.2	12 - 9	20-0†	20-0†	12 - 5	19 - 10	20-0†	12 - 0	19 - 3	20-0†	11 - 4	18 - 3	20-0†	10 - 9	17 - 4	20-0†
	DFL	No.3/Stud	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 6	18 - 5	20-0†	10 - 10	17 - 5	20-0†	10 - 4	16 - 6	20-0†
	DFL	Standard	12 - 2	-	-	11 - 10	-	-	11 - 6	-	-	10 - 9	-	-	9 - 11	-	-
	HF	SS	12 - 9	20-0†	20-0†	12 - 5	19 - 10	20-0†	12 - 0	19 - 3	20-0†	11 - 4	18 - 3	20-0†	10 - 9	17 - 4	20-0†
	HF	No.1	12 - 6	20-0†	20-0†	12 - 1	19 - 5	20-0†	11 - 9	18 - 10	20-0†	11 - 1	17 - 10	20-0†	10 - 7	16 - 11	20-0†
	HF	No.2	11 - 10	19 - 1	20-0†	11 - 6	18 - 6	20-0†	11 - 2	17 - 11	20-0†	10 - 7	17 - 0	20-0†	10 - 0	16 - 1	20-0†
	HF	No.3/Stud	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	HF	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 8	-	-
	SP	SS	13 - 4	20-0†	20-0†	12 - 11	20-0†	20-0†	12 - 6	20-0†	20-0†	11 - 10	19 - 0	20-0†	11 - 3	18 - 1	20-0†
	SP	No.1	13 - 0	20-0†	20-0†	12 - 8	20-0†	20-0†	12 - 3	19 - 8	20-0†	11 - 7	18 - 8	20-0†	11 - 0	17 - 8	20-0†
	SP	No.2	12 - 2	20-0†	20-0†	11 - 10	19 - 10	20-0†	11 - 6	19 - 3	20-0†	10 - 10	18 - 3	20-0†	10 - 4	17 - 4	20-0†
	SP	No.3	11 - 7	19 - 7	20-0†	11 - 2	19 - 0	20-0†	10 - 10	18 - 5	20-0†	10 - 3	17 - 5	20-0†	9 - 9	16 - 6	20-0†
	SP	Stud	11 - 7	19 - 7	20-0†	11 - 2	19 - 0	20-0†	10 - 10	18 - 5	20-0†	10 - 3	17 - 5	20-0†	9 - 9	16 - 6	20-0†
	SP	Standard	11 - 3	-	-	10 - 9	-	-	10 - 3	-	-	9 - 5	-	-	8 - 9	-	-
	SPF	SS	12 - 6	20-0†	20-0†	12 - 1	19 - 5	20-0†	11 - 9	18 - 10	20-0†	11 - 1	17 - 10	20-0†	10 - 7	16 - 11	20-0†
	SPF	No.1	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 6	18 - 5	20-0†	10 - 10	17 - 5	20-0†	10 - 4	16 - 6	20-0†
	SPF	No.2	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 6	18 - 5	20-0†	10 - 10	17 - 5	20-0†	10 - 4	16 - 6	20-0†
	SPF	No.3/Stud	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	SPF	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 8	-	-
16	DFL	SS	12 - 3	19 - 8	20-0†	11 - 11	19 - 1	20-0†	11 - 6	18 - 6	20-0†	10 - 11	17 - 6	20-0†	10 - 4	16 - 8	20-0†
	DFL	No.1	11 - 10	18 - 11	20-0†	11 - 5	18 - 4	20-0†	11 - 1	17 - 10	20-0†	10 - 6	16 - 10	20-0†	10 - 0	16 - 0	20-0†
	DFL	No.2	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	DFL	No.3/Stud	11 - 0	17 - 8	20-0†	10 - 8	17 - 2	20-0†	10 - 4	16 - 8	20-0†	9 - 10	15 - 9	20-0†	9 - 4	15 - 0	19 - 6
	DFL	Standard	11 - 0	-	-	10 - 6	-	-	10 - 0	-	-	9 - 3	-	-	8 - 6	-	-
	HF	SS	11 - 7	18 - 6	20-0†	11 - 2	18 - 0	20-0†	10 - 10	17 - 5	20-0†	10 - 3	16 - 6	20-0†	9 - 9	15 - 8	20-0†
	HF	No.1	11 - 3	18 - 2	20-0†	10 - 11	17 - 7	20-0†	10 - 8	17 - 1	20-0†	10 - 1	16 - 2	20-0†	9 - 7	15 - 4	20-0†
	HF	No.2	10 - 9	17 - 3	20-0†	10 - 5	16 - 9	20-0†	10 - 1	16 - 3	20-0†	9 - 7	15 - 4	20-0†	9 - 1	14 - 7	19 - 6
	HF	No.3/Stud	10 - 5	16 - 9	20-0†	10 - 2	16 - 3	20-0†	9 - 10	15 - 9	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 2	18 - 11
	HF	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 0	-	-	8 - 4	-	-
	SP	SS	12 - 0	19 - 4	20-0†	11 - 8	18 - 9	20-0†	11 - 4	18 - 2	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 4	20-0†
	SP	No.1	11 - 10	18 - 11	20-0†	11 - 5	18 - 4	20-0†	11 - 1	17 - 10	20-0†	10 - 6	16 - 10	20-0†	10 - 0	16 - 0	20-0†
	SP	No.2	11 - 0	18 - 6	20-0†	10 - 8	18 - 0	20-0†	10 - 4	17 - 5	20-0†	9 - 10	16 - 6	20-0†	9 - 4	15 - 8	20-0†
	SP	No.3	10 - 5	17 - 8	20-0†	10 - 2	17 - 2	20-0†	9 - 10	16 - 8	20-0†	9 - 4	15 - 9	20-0†	8 - 9	15 - 0	20 - 0
	SP	Stud	10 - 5	17 - 8	20-0†	10 - 2	17 - 2	20-0†	9 - 10	16 - 8	20-0†	9 - 4	15 - 9	20-0†	8 - 9	15 - 0	20 - 0
	SP	Standard	9 - 8	-	-	9 - 3	-	-	8 - 10	-	-	8 - 1	-	-	-	-	-
	SPF	SS	11 - 3	18 - 2	20-0†	10 - 11	17 - 7	20-0†	10 - 8	17 - 1	20-0†	10 - 1	16 - 2	20-0†	9 - 7	15 - 4	20-0†
	SPF	No.1	11 - 0	17 - 8	20-0†	10 - 8	17 - 2	20-0†	10 - 4	16 - 8	20-0†	9 - 10	15 - 9	20-0†	9 - 4	15 - 0	20 - 0
	SPF	No.2	11 - 0	17 - 8	20-0†	10 - 8	17 - 2	20-0†	10 - 4	16 - 8	20-0†	9 - 10	15 - 9	20-0†	9 - 4	15 - 0	20 - 0
	SPF	No.3/Stud	10 - 5	16 - 9	20-0†	10 - 2	16 - 3	20-0†	9 - 10	15 - 9	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 2	18 - 11
	SPF	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 0	-	-	8 - 4	-	-
24	DFL	SS	10 - 8	17 - 1	20-0†	10 - 4	16 - 7	20-0†	10 - 0	16 - 1	20-0†	9 - 6	15 - 2	20-0†	9 - 0	14 - 5	19 - 3
	DFL	No.1	10 - 3	16 - 5	20-0†	9 - 11	15 - 11	20-0†	9 - 8	15 - 6	20-0†	9 - 1	14 - 7	19 - 6	8 - 8	13 - 11	18 - 7
	DFL	No.2	10 - 0	16 - 1	20-0†	9 - 9	15 - 7	20-0†	9 - 5	15 - 2	20-0†	8 - 11	14 - 4	19 - 2	8 - 6	13 - 7	18 - 2
	DFL	No.3/Stud	9 - 7	15 - 4	20-0†	9 - 3	14 - 11	19 - 5	9 - 0	14 - 4	18 - 6	8 - 6	13 - 2	17 - 0	8 - 1	12 - 2	15 - 8
	DFL	Standard	8 - 10	-	-	8 - 6	-	-	8 - 1	-	-	-	-	-	-	-	-
	HF	SS	10 - 0	16 - 1	20-0†	9 - 9	15 - 7	20-0†	9 - 5	15 - 2	20-0†	8 - 11	14 - 4	19 - 2	8 - 6	13 - 7	18 - 2
	HF	No.1	9 - 10	15 - 9	20-0†	9 - 6	15 - 3	20-0†	9 - 3	14 - 10	19 - 9	8 - 9	14 - 0	18 - 8	8 - 3	13 - 4	17 - 9
	HF	No.2	9 - 4	15 - 0	20 - 0	9 - 1	14 - 6	19 - 5	8 - 9	14 - 1	18 - 10	8 - 4	13 - 4	17 - 9	7 - 11	12 - 8	16 - 11
	HF	No.3/Stud	9 - 1	14 - 7	19 - 5	8 - 10	14 - 1	18 - 10	8 - 6	13 - 8	18 - 1	8 - 1	12 - 10	16 - 7	-	11 - 10	15 - 3
	HF	Standard	8 - 8	-	-	8 - 3	-	-	7 - 11	-	-	-	-	-	-	-	-
	SP	SS	10 - 5	16 - 9	20-0†	10 - 2	16 - 3	20-0†	9 - 10	15 - 9	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 2	18 - 11
	SP	No.1	10 - 3	16 - 5	20-0†	9 - 11	15 - 11	20-0†	9 - 8	15 - 6	20-0†	9 - 1	14 - 7	19 - 6	8 - 8	13 - 11	18 - 7
	SP	No.2	9 - 7	16 - 1	20-0†	9 - 3	15 - 7	20-0†	9 - 0	15 - 2	20-0†	8 - 6	14 - 4	19 - 2	8 - 1	13 - 7	18 - 2
	SP	No.3	9 - 1	15 - 4	20-0†	8 - 8	14 - 11	19 - 11	8 - 3	14 - 5	19 - 4	-	13 - 8	18 - 0	-	12 - 10	16 - 7
	SP	Stud	9 - 1	15 - 4	20-0†	8 - 8	14 - 11	19 - 11	8 - 3	14 - 5	19 - 4	-	13 - 8	18 - 0	-	12 - 10	16 - 7
	SP	Standard	7 - 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 10	15 - 9	20-0†	9 - 6	15 - 3	20-0†	9 - 3	14 - 10	19 - 9	8 - 9	14 - 0	18 - 8	8 - 3	13 - 4	17 - 9
	SPF	No.1	9 - 7	15 - 4	20-0†	9 - 3	14 - 11	19 - 11	9 - 0	14 - 5	19 - 4	8 - 6	13 - 8	18 - 3	8 - 1	13 - 0	17 - 4
	SPF	No.2	9 - 7	15 - 4	20-0†	9 - 3	14 - 11	19 - 11	9 - 0	14 - 5	19 - 4	8 - 6	13 - 8	18 - 3	8 - 1	13 - 0	17 - 4
	SPF	No.3/Stud	9 - 1	14 - 7	19 - 5	8 - 10	14 - 1	18 - 10	8 - 6	13 - 8	18 - 1	8 - 1	12 - 10	16 - 7	-	11 - 10	15 - 3
	SPF	Standard	8 - 8	-	-	8 - 3	-	-	7 - 11	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A2 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/240**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	10 - 11	17 - 6	20-0†	10 - 5	16 - 9	20-0†	10 - 0	16 - 1	20-0†	9 - 7	15 - 5	20-0†	9 - 1	14 - 7	19 - 6
	DFL	No.1	10 - 6	16 - 10	20-0†	10 - 0	16 - 1	20-0†	9 - 8	15 - 5	20-0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9
	DFL	No.2	10 - 3	16 - 6	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 4
	DFL	No.3/Stud	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	19 - 9	9 - 0	14 - 4	18 - 6	8 - 8	13 - 6	17 - 5	8 - 2	12 - 5	16 - 0
	DFL	Standard	9 - 3	-	-	8 - 7	-	-	8 - 1	-	-	-	-	-	-	-	-
	HF	SS	10 - 3	16 - 6	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 1	14 - 6	19 - 5	8 - 7	13 - 9	18 - 4
	HF	No.1	10 - 1	16 - 2	20-0†	9 - 7	15 - 5	20-0†	9 - 3	14 - 9	19 - 9	8 - 10	14 - 2	19 - 0	8 - 5	13 - 5	17 - 11
	HF	No.2	9 - 7	15 - 4	20-0†	9 - 2	14 - 8	19 - 7	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 1	8 - 0	12 - 9	17 - 1
	HF	No.3/Stud	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 0	8 - 2	13 - 2	16 - 11	7 - 9	12 - 1	15 - 7
	HF	Standard	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	17 - 2	20-0†	10 - 3	16 - 5	20-0†	9 - 10	15 - 9	20-0†	9 - 5	15 - 2	20-0†	8 - 11	14 - 4	19 - 2
	SP	No.1	10 - 6	16 - 10	20-0†	10 - 0	16 - 1	20-0†	9 - 8	15 - 5	20-0†	9 - 3	14 - 10	19 - 10	8 - 9	14 - 0	18 - 9
	SP	No.2	9 - 10	16 - 6	20-0†	9 - 5	15 - 9	20-0†	9 - 0	15 - 1	20-0†	8 - 8	14 - 6	19 - 5	8 - 2	13 - 9	18 - 4
	SP	No.3	9 - 4	15 - 9	20-0†	8 - 10	15 - 1	20-0†	8 - 3	14 - 5	19 - 3	7 - 9	13 - 10	18 - 5	-	13 - 0	16 - 11
	SP	Stud	9 - 4	15 - 9	20-0†	8 - 10	15 - 1	20-0†	8 - 3	14 - 5	19 - 3	7 - 9	13 - 10	18 - 5	-	13 - 0	16 - 11
	SP	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	16 - 2	20-0†	9 - 7	15 - 5	20-0†	9 - 3	14 - 9	19 - 9	8 - 10	14 - 2	19 - 0	8 - 5	13 - 5	17 - 11
	SPF	No.1	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SPF	No.2	9 - 10	15 - 9	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 5	19 - 3	8 - 8	13 - 10	18 - 6	8 - 2	13 - 1	17 - 6
	SPF	No.3/Stud	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 0	8 - 2	13 - 2	16 - 11	7 - 9	12 - 1	15 - 7
	SPF	Standard	9 - 0	-	-	8 - 5	-	-	7 - 11	-	-	-	-	-	-	-	-
16	DFL	SS	9 - 11	15 - 10	20-0†	9 - 5	15 - 2	20-0†	9 - 1	14 - 6	19 - 5	8 - 8	14 - 0	18 - 8	8 - 3	13 - 2	17 - 8
	DFL	No.1	9 - 6	15 - 3	20-0†	9 - 1	14 - 7	19 - 6	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	7 - 11	12 - 8	17 - 0
	DFL	No.2	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	DFL	No.3/Stud	8 - 11	14 - 1	18 - 1	8 - 6	13 - 1	16 - 11	8 - 2	12 - 4	15 - 10	-	11 - 7	14 - 11	-	10 - 7	13 - 8
	DFL	Standard	7 - 11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	HF	No.1	9 - 1	14 - 7	19 - 6	8 - 8	14 - 0	18 - 8	8 - 4	13 - 4	17 - 10	8 - 0	12 - 10	17 - 2	-	12 - 2	16 - 3
	HF	No.2	8 - 8	13 - 11	18 - 7	8 - 3	13 - 3	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 3	16 - 4	-	11 - 7	15 - 5
	HF	No.3/Stud	8 - 5	13 - 6	17 - 8	8 - 1	12 - 9	16 - 6	-	12 - 0	15 - 5	-	11 - 3	14 - 6	-	10 - 4	13 - 4
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 8	15 - 7	20-0†	9 - 3	14 - 10	19 - 10	8 - 11	14 - 3	19 - 0	8 - 6	13 - 8	18 - 4	8 - 1	12 - 11	17 - 4
	SP	No.1	9 - 6	15 - 3	20-0†	9 - 1	14 - 7	19 - 6	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	7 - 11	12 - 8	17 - 0
	SP	No.2	8 - 11	14 - 11	19 - 11	8 - 6	14 - 3	19 - 1	8 - 2	13 - 8	18 - 3	7 - 10	13 - 2	17 - 7	-	12 - 5	16 - 7
	SP	No.3	8 - 1	14 - 3	19 - 0	-	13 - 7	17 - 11	-	12 - 11	16 - 9	-	12 - 2	15 - 9	-	11 - 2	14 - 6
	SP	Stud	8 - 1	14 - 3	19 - 0	-	13 - 7	17 - 11	-	12 - 11	16 - 9	-	12 - 2	15 - 9	-	11 - 2	14 - 6
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 1	14 - 7	19 - 6	8 - 8	14 - 0	18 - 8	8 - 4	13 - 4	17 - 10	8 - 0	12 - 10	17 - 2	-	12 - 2	16 - 3
	SPF	No.1	8 - 11	14 - 3	19 - 0	8 - 6	13 - 7	18 - 2	8 - 2	13 - 1	17 - 5	7 - 10	12 - 7	16 - 9	-	11 - 10	15 - 10
	SPF	No.2	8 - 11	14 - 3	19 - 0	8 - 6	13 - 7	18 - 2	8 - 2	13 - 1	17 - 5	7 - 10	12 - 7	16 - 9	-	11 - 10	15 - 10
	SPF	No.3/Stud	8 - 5	13 - 6	17 - 8	8 - 1	12 - 9	16 - 6	-	12 - 0	15 - 5	-	11 - 3	14 - 6	-	10 - 4	13 - 4
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8 - 7	13 - 9	18 - 5	8 - 2	13 - 2	17 - 7	7 - 10	12 - 7	16 - 10	-	12 - 1	16 - 2	-	11 - 5	15 - 4
	DFL	No.1	8 - 3	13 - 3	17 - 8	7 - 11	12 - 8	16 - 11	-	12 - 2	16 - 2	-	11 - 8	15 - 7	-	11 - 0	14 - 9
	DFL	No.2	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	DFL	No.3/Stud	-	11 - 4	14 - 7	-	10 - 7	13 - 7	-	9 - 11	12 - 9	-	9 - 4	12 - 0	-	8 - 7	11 - 0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	HF	No.1	7 - 11	12 - 8	16 - 11	-	12 - 1	16 - 2	-	11 - 7	15 - 6	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	HF	No.2	-	12 - 1	16 - 1	-	11 - 6	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 0	13 - 5
	HF	No.3/Stud	-	11 - 0	14 - 2	-	10 - 3	13 - 3	-	9 - 8	12 - 5	-	9 - 1	11 - 8	-	8 - 4	10 - 9
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8 - 5	13 - 6	18 - 0	8 - 1	12 - 11	17 - 3	-	12 - 4	16 - 6	-	11 - 11	15 - 11	-	11 - 3	15 - 0
	SP	No.1	8 - 3	13 - 3	17 - 8	7 - 11	12 - 8	16 - 11	-	12 - 2	16 - 2	-	11 - 8	15 - 7	-	11 - 0	14 - 9
	SP	No.2	-	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	SP	No.3	-	11 - 11	15 - 5	-	11 - 1	14 - 5	-	10 - 5	13 - 6	-	9 - 10	12 - 8	-	9 - 0	11 - 8
	SP	Stud	-	11 - 11	15 - 5	-	11 - 1	14 - 5	-	10 - 5	13 - 6	-	9 - 10	12 - 8	-	9 - 0	11 - 8
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7 - 11	12 - 8	16 - 11	-	12 - 1	16 - 2	-	11 - 7	15 - 6	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	SPF	No.1	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SPF	No.2	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SPF	No.3/Stud	-	11 - 0	14 - 2	-	10 - 3	13 - 3	-	9 - 8	12 - 5	-	9 - 1	11 - 8	-	8 - 4	10 - 9
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A3 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/360**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	11-9	18-11	20-0 ⁺	11-5	18-4	20-0 ⁺	11-1	17-9	20-0 ⁺	10-6	16-10	20-0 ⁺	9-11	16-0	20-0 ⁺
	DFL	No.1	11-4	18-2	20-0 ⁺	11-0	17-7	20-0 ⁺	10-8	17-1	20-0 ⁺	10-1	16-2	20-0 ⁺	9-7	15-4	20-0 ⁺
	DFL	No.2	11-1	17-10	20-0 ⁺	10-9	17-3	20-0 ⁺	10-5	16-9	20-0 ⁺	9-10	15-10	20-0 ⁺	9-4	15-0	20-0 ⁺
	DFL	No.3/Stud	10-7	17-0	20-0 ⁺	10-3	16-6	20-0 ⁺	10-0	16-0	20-0 ⁺	9-5	15-1	20-0 ⁺	8-11	14-4	19-2
	DFL	Standard	10-7	-	-	10-3	-	-	10-0	-	-	9-5	-	-	8-11	-	-
	HF	SS	11-1	17-10	20-0 ⁺	10-9	17-3	20-0 ⁺	10-5	16-9	20-0 ⁺	9-10	15-10	20-0 ⁺	9-4	15-0	20-0 ⁺
	HF	No.1	10-10	17-5	20-0 ⁺	10-6	16-10	20-0 ⁺	10-2	16-4	20-0 ⁺	9-8	15-6	20-0 ⁺	9-2	14-8	19-8
	HF	No.2	10-4	16-7	20-0 ⁺	10-0	16-0	20-0 ⁺	9-8	15-7	20-0 ⁺	9-2	14-9	19-8	8-9	14-0	18-8
	HF	No.3/Stud	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	HF	Standard	10-0	-	-	9-9	-	-	9-5	-	-	8-11	-	-	8-6	-	-
	SP	SS	11-7	18-6	20-0 ⁺	11-2	18-0	20-0 ⁺	10-10	17-5	20-0 ⁺	10-3	16-6	20-0 ⁺	9-9	15-8	20-0 ⁺
	SP	No.1	11-4	18-2	20-0 ⁺	11-0	17-7	20-0 ⁺	10-8	17-1	20-0 ⁺	10-1	16-2	20-0 ⁺	9-7	15-4	20-0 ⁺
	SP	No.2	10-7	17-10	20-0 ⁺	10-3	17-3	20-0 ⁺	10-0	16-9	20-0 ⁺	9-5	15-10	20-0 ⁺	8-11	15-0	20-0 ⁺
	SP	No.3	10-0	17-0	20-0 ⁺	9-9	16-6	20-0 ⁺	9-5	16-0	20-0 ⁺	8-11	15-1	20-0 ⁺	8-6	14-4	19-2
	SP	Stud	10-0	17-0	20-0 ⁺	9-9	16-6	20-0 ⁺	9-5	16-0	20-0 ⁺	8-11	15-1	20-0 ⁺	8-6	14-4	19-2
	SP	Standard	10-0	-	-	9-9	-	-	9-5	-	-	8-11	-	-	8-6	-	-
	SPF	SS	10-10	17-5	20-0 ⁺	10-6	16-10	20-0 ⁺	10-2	16-4	20-0 ⁺	9-8	15-6	20-0 ⁺	9-2	14-8	19-8
	SPF	No.1	10-7	17-0	20-0 ⁺	10-3	16-6	20-0 ⁺	10-0	16-0	20-0 ⁺	9-5	15-1	20-0 ⁺	8-11	14-4	19-2
	SPF	No.2	10-7	17-0	20-0 ⁺	10-3	16-6	20-0 ⁺	10-0	16-0	20-0 ⁺	9-5	15-1	20-0 ⁺	8-11	14-4	19-2
	SPF	No.3/Stud	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	SPF	Standard	10-0	-	-	9-9	-	-	9-5	-	-	8-11	-	-	8-6	-	-
16	DFL	SS	10-8	17-1	20-0 ⁺	10-4	16-7	20-0 ⁺	10-0	16-1	20-0 ⁺	9-6	15-2	20-0 ⁺	9-0	14-5	19-3
	DFL	No.1	10-3	16-5	20-0 ⁺	9-11	15-11	20-0 ⁺	9-8	15-6	20-0 ⁺	9-1	14-7	19-6	8-8	13-11	18-7
	DFL	No.2	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	DFL	No.3/Stud	9-7	15-4	20-0 ⁺	9-3	14-11	19-11	9-0	14-5	19-4	8-6	13-8	18-3	8-1	13-0	17-4
	DFL	Standard	9-7	-	-	9-3	-	-	9-0	-	-	8-6	-	-	8-1	-	-
	HF	SS	10-0	16-1	20-0 ⁺	9-9	15-7	20-0 ⁺	9-5	15-2	20-0 ⁺	8-11	14-4	19-2	8-6	13-7	18-2
	HF	No.1	9-10	15-9	20-0 ⁺	9-6	15-3	20-0 ⁺	9-3	14-10	19-9	8-9	14-0	18-8	8-3	13-4	17-9
	HF	No.2	9-4	15-0	20-0	9-1	14-6	19-5	8-9	14-1	18-10	8-4	13-4	17-9	7-11	12-8	16-11
	HF	No.3/Stud	9-1	14-7	19-5	8-10	14-1	18-10	8-6	13-8	18-4	8-1	12-11	17-4	-	12-4	16-5
	HF	Standard	9-1	-	-	8-10	-	-	8-6	-	-	8-1	-	-	-	-	-
	SP	SS	10-5	16-9	20-0 ⁺	10-2	16-3	20-0 ⁺	9-10	15-9	20-0 ⁺	9-4	14-11	19-11	8-10	14-2	18-11
	SP	No.1	10-3	16-5	20-0 ⁺	9-11	15-11	20-0 ⁺	9-8	15-6	20-0 ⁺	9-1	14-7	19-6	8-8	13-11	18-7
	SP	No.2	9-7	16-1	20-0 ⁺	9-3	15-7	20-0 ⁺	9-0	15-2	20-0 ⁺	8-6	14-4	19-2	8-1	13-7	18-2
	SP	No.3	9-1	15-4	20-0 ⁺	8-10	14-11	19-11	8-6	14-5	19-4	8-1	13-8	18-3	-	13-0	17-4
	SP	Stud	9-1	15-4	20-0 ⁺	8-10	14-11	19-11	8-6	14-5	19-4	8-1	13-8	18-3	-	13-0	17-4
	SP	Standard	9-1	-	-	8-10	-	-	8-6	-	-	8-1	-	-	-	-	-
	SPF	SS	9-10	15-9	20-0 ⁺	9-6	15-3	20-0 ⁺	9-3	14-10	19-9	8-9	14-0	18-8	8-3	13-4	17-9
	SPF	No.1	9-7	15-4	20-0 ⁺	9-3	14-11	19-11	9-0	14-5	19-4	8-6	13-8	18-3	8-1	13-0	17-4
	SPF	No.2	9-7	15-4	20-0 ⁺	9-3	14-11	19-11	9-0	14-5	19-4	8-6	13-8	18-3	8-1	13-0	17-4
	SPF	No.3/Stud	9-1	14-7	19-5	8-10	14-1	18-10	8-6	13-8	18-4	8-1	12-11	17-4	-	12-4	16-5
	SPF	Standard	9-1	-	-	8-10	-	-	8-6	-	-	8-1	-	-	-	-	-
24	DFL	SS	9-3	14-10	19-10	9-0	14-5	19-2	8-8	14-0	18-8	8-3	13-2	17-8	7-10	12-6	16-9
	DFL	No.1	8-11	14-3	19-1	8-7	13-10	18-6	8-4	13-5	17-11	7-11	12-8	17-0	-	12-1	16-1
	DFL	No.2	8-8	14-0	18-8	8-5	13-6	18-1	8-2	13-2	17-7	7-9	12-5	16-7	-	11-10	15-9
	DFL	No.3/Stud	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	DFL	Standard	8-4	-	-	8-1	-	-	7-10	-	-	-	-	-	-	-	-
	HF	SS	8-8	14-0	18-8	8-5	13-6	18-1	8-2	13-2	17-7	7-9	12-5	16-7	-	11-10	15-9
	HF	No.1	8-6	13-8	18-3	8-3	13-3	17-8	8-0	12-10	17-2	-	12-2	16-3	-	11-6	15-5
	HF	No.2	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-8
	HF	No.3/Stud	7-11	12-8	16-10	-	12-3	16-4	-	11-11	15-11	-	11-3	15-0	-	10-8	14-3
	HF	Standard	7-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-1	14-7	19-5	8-10	14-1	18-10	8-6	13-8	18-4	8-1	12-11	17-4	-	12-4	16-5
	SP	No.1	8-11	14-3	19-1	8-7	13-10	18-6	8-4	13-5	17-11	7-11	12-8	17-0	-	12-1	16-1
	SP	No.2	8-4	14-0	18-8	8-1	13-6	18-1	7-10	13-2	17-7	-	12-5	16-7	-	11-10	15-9
	SP	No.3	7-11	13-4	17-10	-	12-11	17-3	-	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	SP	Stud	7-11	13-4	17-10	-	12-11	17-3	-	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	SP	Standard	7-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-6	13-8	18-3	8-3	13-3	17-8	8-0	12-10	17-2	-	12-2	16-3	-	11-6	15-5
	SPF	No.1	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	SPF	No.2	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	SPF	No.3/Stud	7-11	12-8	16-10	-	12-3	16-4	-	11-11	15-11	-	11-3	15-0	-	10-8	14-3
	SPF	Standard	7-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A3 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure B
H/360**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	9 - 6	15 - 3	20-0†	9 - 1	14 - 6	19 - 5	8 - 8	13 - 11	18 - 7	8 - 4	13 - 5	17 - 11	7 - 11	12 - 8	16 - 11
	DFL	No.1	9 - 1	14 - 8	19 - 7	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	8 - 0	12 - 11	17 - 2	-	12 - 2	16 - 3
	DFL	No.2	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 4	8 - 2	13 - 2	17 - 6	7 - 10	12 - 7	16 - 10	-	11 - 11	15 - 11
	DFL	No.3/Stud	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	DFL	Standard	8 - 6	-	-	8 - 2	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	8 - 11	14 - 4	19 - 2	8 - 6	13 - 8	18 - 4	8 - 2	13 - 2	17 - 6	7 - 10	12 - 7	16 - 10	-	11 - 11	15 - 11
	HF	No.1	8 - 9	14 - 0	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	HF	No.2	8 - 4	13 - 4	17 - 10	7 - 11	12 - 9	17 - 0	-	12 - 3	16 - 4	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	HF	No.3/Stud	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	HF	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 4	14 - 11	19 - 11	8 - 11	14 - 3	19 - 1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 2	17 - 7	7 - 9	12 - 5	16 - 7
	SP	No.1	9 - 1	14 - 8	19 - 7	8 - 9	14 - 0	18 - 8	8 - 4	13 - 5	17 - 11	8 - 0	12 - 11	17 - 2	-	12 - 2	16 - 3
	SP	No.2	8 - 6	14 - 4	19 - 2	8 - 2	13 - 8	18 - 4	7 - 10	13 - 2	17 - 6	-	12 - 7	16 - 10	-	11 - 11	15 - 11
	SP	No.3	8 - 1	13 - 8	18 - 3	-	13 - 1	17 - 5	-	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	SP	Stud	8 - 1	13 - 8	18 - 3	-	13 - 1	17 - 5	-	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	SP	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8 - 9	14 - 0	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SPF	No.1	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	SPF	No.2	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 5	7 - 10	12 - 6	16 - 9	-	12 - 0	16 - 1	-	11 - 5	15 - 2
	SPF	No.3/Stud	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	SPF	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	8 - 7	13 - 9	18 - 5	8 - 2	13 - 2	17 - 7	7 - 10	12 - 7	16 - 10	-	12 - 1	16 - 2	-	11 - 5	15 - 4
	DFL	No.1	8 - 3	13 - 3	17 - 8	7 - 11	12 - 8	16 - 11	-	12 - 2	16 - 2	-	11 - 8	15 - 7	-	11 - 0	14 - 9
	DFL	No.2	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	DFL	No.3/Stud	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 8
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 1	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	HF	No.1	7 - 11	12 - 8	16 - 11	-	12 - 1	16 - 2	-	11 - 7	15 - 6	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	HF	No.2	-	12 - 1	16 - 1	-	11 - 6	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 0	13 - 5
	HF	No.3/Stud	-	11 - 9	15 - 8	-	11 - 2	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 9	13 - 0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8 - 5	13 - 6	18 - 0	8 - 1	12 - 11	17 - 3	-	12 - 4	16 - 6	-	11 - 11	15 - 11	-	11 - 3	15 - 0
	SP	No.1	8 - 3	13 - 3	17 - 8	7 - 11	12 - 8	16 - 11	-	12 - 2	16 - 2	-	11 - 8	15 - 7	-	11 - 0	14 - 9
	SP	No.2	-	13 - 0	17 - 4	-	12 - 5	16 - 7	-	11 - 10	15 - 10	-	11 - 5	15 - 3	-	10 - 9	14 - 5
	SP	No.3	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SP	Stud	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7 - 11	12 - 8	16 - 11	-	12 - 1	16 - 2	-	11 - 7	15 - 6	-	11 - 2	14 - 11	-	10 - 7	14 - 1
	SPF	No.1	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SPF	No.2	-	12 - 4	16 - 6	-	11 - 10	15 - 9	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	SPF	No.3/Stud	-	11 - 9	15 - 8	-	11 - 2	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 9	13 - 0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	-	11 - 11	15 - 11	-	11 - 5	15 - 3	-	10 - 11	14 - 7	-	10 - 6	14 - 1	-	9 - 11	13 - 3
	DFL	No.1	-	11 - 6	15 - 4	-	11 - 0	14 - 8	-	10 - 6	14 - 1	-	10 - 1	13 - 6	-	9 - 7	12 - 9
	DFL	No.2	-	11 - 3	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 11	13 - 3	-	9 - 4	12 - 6
	DFL	No.3/Stud	-	10 - 9	14 - 4	-	10 - 3	13 - 7	-	9 - 10	12 - 9	-	9 - 4	12 - 0	-	8 - 7	11 - 0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	11 - 3	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 11	13 - 3	-	9 - 4	12 - 6
	HF	No.1	-	11 - 0	14 - 8	-	10 - 6	14 - 0	-	10 - 1	13 - 5	-	9 - 8	12 - 11	-	9 - 2	12 - 3
	HF	No.2	-	10 - 6	14 - 0	-	10 - 0	13 - 4	-	9 - 7	12 - 10	-	9 - 3	12 - 4	-	8 - 9	11 - 8
	HF	No.3/Stud	-	10 - 2	13 - 7	-	9 - 9	13 - 0	-	9 - 4	12 - 5	-	9 - 0	11 - 8	-	8 - 4	10 - 9
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	11 - 9	15 - 8	-	11 - 2	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 9	13 - 0
	SP	No.1	-	11 - 6	15 - 4	-	11 - 0	14 - 8	-	10 - 6	14 - 1	-	10 - 1	13 - 6	-	9 - 7	12 - 9
	SP	No.2	-	11 - 3	15 - 0	-	10 - 9	14 - 4	-	10 - 4	13 - 9	-	9 - 11	13 - 3	-	9 - 4	12 - 6
	SP	No.3	-	10 - 9	14 - 4	-	10 - 3	13 - 8	-	9 - 10	13 - 2	-	9 - 5	12 - 7	-	8 - 11	11 - 8
	SP	Stud	-	10 - 9	14 - 4	-	10 - 3	13 - 8	-	9 - 10	13 - 2	-	9 - 5	12 - 7	-	8 - 11	11 - 8
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	11 - 0	14 - 8	-	10 - 6	14 - 0	-	10 - 1	13 - 5	-	9 - 8	12 - 11	-	9 - 2	12 - 3
	SPF	No.1	-	10 - 9	14 - 4	-	10 - 3	13 - 8	-	9 - 10	13 - 2	-	9 - 5	12 - 7	-	8 - 11	11 - 11
	SPF	No.2	-	10 - 9	14 - 4	-	10 - 3	13 - 8	-	9 - 10	13 - 2	-	9 - 5	12 - 7	-	8 - 11	11 - 11
	SPF	No.3/Stud	-	10 - 2	13 - 7	-	9 - 9	13 - 0	-	9 - 4	12 - 5	-	9 - 0	11 - 8	-	8 - 4	10 - 9
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A4 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/180**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 4	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 7	20-0†	20-0†	11 - 11	19 - 1	20-0†	11 - 4	18 - 2	20-0†
	DFL	No.1	12 - 10	20-0†	20-0†	12 - 6	20-0†	20-0†	12 - 1	19 - 5	20-0†	11 - 5	18 - 4	20-0†	10 - 10	17 - 5	20-0†
	DFL	No.2	12 - 7	20-0†	20-0†	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 2	18 - 0	20-0†	10 - 8	17 - 1	20-0†
	DFL	No.3/Stud	12 - 0	19 - 2	20-0†	11 - 8	18 - 4	20-0†	11 - 4	17 - 6	20-0†	10 - 8	16 - 0	20-0†	9 - 10	14 - 10	19 - 1
	DFL	Standard	10 - 9	-	-	10 - 3	-	-	9 - 10	-	-	9 - 0	-	-	8 - 4	-	-
	HF	SS	12 - 7	20-0†	20-0†	12 - 2	19 - 7	20-0†	11 - 10	19 - 0	20-0†	11 - 2	18 - 0	20-0†	10 - 8	17 - 1	20-0†
	HF	No.1	12 - 4	19 - 9	20-0†	11 - 11	19 - 2	20-0†	11 - 7	18 - 7	20-0†	11 - 0	17 - 7	20-0†	10 - 5	16 - 8	20-0†
	HF	No.2	11 - 8	18 - 10	20-0†	11 - 4	18 - 3	20-0†	11 - 0	17 - 8	20-0†	10 - 5	16 - 9	20-0†	9 - 11	15 - 11	20-0†
	HF	No.3/Stud	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 0	20-0†	10 - 2	15 - 8	20-0†	9 - 7	14 - 5	18 - 7
	HF	Standard	10 - 6	-	-	10 - 0	-	-	9 - 7	-	-	8 - 10	-	-	8 - 2	-	-
	SP	SS	13 - 1	20-0†	20-0†	12 - 9	20-0†	20-0†	12 - 4	19 - 10	20-0†	11 - 8	18 - 9	20-0†	11 - 1	17 - 10	20-0†
	SP	No.1	12 - 10	20-0†	20-0†	12 - 6	20-0†	20-0†	12 - 1	19 - 5	20-0†	11 - 5	18 - 4	20-0†	10 - 10	17 - 5	20-0†
	SP	No.2	12 - 0	20-0†	20-0†	11 - 8	19 - 7	20-0†	11 - 4	19 - 0	20-0†	10 - 8	18 - 0	20-0†	10 - 2	17 - 1	20-0†
	SP	No.3	11 - 0	19 - 3	20-0†	10 - 6	18 - 8	20-0†	10 - 1	18 - 2	20-0†	9 - 3	16 - 10	20-0†	8 - 6	15 - 7	20-0†
	SP	Stud	11 - 0	19 - 3	20-0†	10 - 6	18 - 8	20-0†	10 - 1	18 - 2	20-0†	9 - 3	16 - 10	20-0†	8 - 6	15 - 7	20-0†
	SP	Standard	9 - 5	-	-	9 - 0	-	-	8 - 7	-	-	7 - 11	-	-	-	-	-
	SPF	SS	12 - 4	19 - 9	20-0†	11 - 11	19 - 2	20-0†	11 - 7	18 - 7	20-0†	11 - 0	17 - 7	20-0†	10 - 5	16 - 8	20-0†
	SPF	No.1	12 - 0	19 - 3	20-0†	11 - 8	18 - 8	20-0†	11 - 4	18 - 2	20-0†	10 - 8	17 - 2	20-0†	10 - 2	16 - 4	20-0†
	SPF	No.2	12 - 0	19 - 3	20-0†	11 - 8	18 - 8	20-0†	11 - 4	18 - 2	20-0†	10 - 8	17 - 2	20-0†	10 - 2	16 - 4	20-0†
	SPF	No.3/Stud	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 0	20-0†	10 - 2	15 - 8	20-0†	9 - 7	14 - 5	18 - 7
	SPF	Standard	10 - 6	-	-	10 - 0	-	-	9 - 7	-	-	8 - 10	-	-	8 - 2	-	-
16	DFL	SS	12 - 1	19 - 5	20-0†	11 - 9	18 - 10	20-0†	11 - 5	18 - 3	20-0†	10 - 9	17 - 3	20-0†	10 - 3	16 - 5	20-0†
	DFL	No.1	11 - 8	18 - 8	20-0†	11 - 3	18 - 1	20-0†	10 - 11	17 - 7	20-0†	10 - 4	16 - 7	20-0†	9 - 10	15 - 9	20-0†
	DFL	No.2	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 3	20-0†	9 - 7	15 - 5	20-0†
	DFL	No.3/Stud	10 - 10	16 - 5	20-0†	10 - 5	15 - 8	20-0†	10 - 0	15 - 0	19 - 4	9 - 2	13 - 9	17 - 9	8 - 5	12 - 8	16 - 4
	DFL	Standard	9 - 3	-	-	8 - 10	-	-	8 - 5	-	-	-	-	-	-	-	-
	HF	SS	11 - 5	18 - 3	20-0†	11 - 0	17 - 9	20-0†	10 - 9	17 - 2	20-0†	10 - 2	16 - 3	20-0†	9 - 7	15 - 5	20-0†
	HF	No.1	11 - 2	17 - 10	20-0†	10 - 9	17 - 4	20-0†	10 - 6	16 - 10	20-0†	9 - 11	15 - 11	20-0†	9 - 5	15 - 1	20-0†
	HF	No.2	10 - 7	17 - 0	20-0†	10 - 3	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 5	15 - 1	20-0†	9 - 0	14 - 4	19 - 2
	HF	No.3/Stud	10 - 4	16 - 0	20-0†	10 - 0	15 - 3	19 - 8	9 - 8	14 - 7	18 - 10	8 - 11	13 - 5	17 - 3	8 - 3	12 - 4	15 - 11
	HF	Standard	9 - 0	-	-	8 - 7	-	-	8 - 3	-	-	-	-	-	-	-	-
	SP	SS	11 - 10	19 - 1	20-0†	11 - 6	18 - 6	20-0†	11 - 2	17 - 11	20-0†	10 - 7	16 - 11	20-0†	10 - 0	16 - 1	20-0†
	SP	No.1	11 - 8	18 - 8	20-0†	11 - 3	18 - 1	20-0†	10 - 11	17 - 7	20-0†	10 - 4	16 - 7	20-0†	9 - 10	15 - 9	20-0†
	SP	No.2	10 - 10	18 - 3	20-0†	10 - 6	17 - 9	20-0†	10 - 3	17 - 2	20-0†	9 - 8	16 - 3	20-0†	9 - 2	15 - 5	20-0†
	SP	No.3	9 - 5	17 - 4	20-0†	9 - 0	16 - 6	20-0†	8 - 7	15 - 9	20-0†	7 - 11	14 - 6	18 - 9	-	13 - 4	17 - 4
	SP	Stud	9 - 5	17 - 4	20-0†	9 - 0	16 - 6	20-0†	8 - 7	15 - 9	20-0†	7 - 11	14 - 6	18 - 9	-	13 - 4	17 - 4
	SP	Standard	8 - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 2	17 - 10	20-0†	10 - 9	17 - 4	20-0†	10 - 6	16 - 10	20-0†	9 - 11	15 - 11	20-0†	9 - 5	15 - 1	20-0†
	SPF	No.1	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 8
	SPF	No.2	10 - 10	17 - 5	20-0†	10 - 6	16 - 11	20-0†	10 - 3	16 - 5	20-0†	9 - 8	15 - 6	20-0†	9 - 2	14 - 9	19 - 8
	SPF	No.3/Stud	10 - 4	16 - 0	20-0†	10 - 0	15 - 3	19 - 8	9 - 8	14 - 7	18 - 10	8 - 11	13 - 5	17 - 3	8 - 3	12 - 4	15 - 11
	SPF	Standard	9 - 0	-	-	8 - 7	-	-	8 - 3	-	-	-	-	-	-	-	-
24	DFL	SS	10 - 6	16 - 10	20-0†	10 - 2	16 - 4	20-0†	9 - 11	15 - 10	20-0†	9 - 4	15 - 0	20-0†	8 - 10	14 - 3	19 - 0
	DFL	No.1	10 - 1	16 - 2	20-0†	9 - 9	15 - 8	20-0†	9 - 6	15 - 3	20-0†	9 - 0	14 - 5	19 - 3	8 - 6	13 - 8	18 - 3
	DFL	No.2	9 - 11	15 - 10	20-0†	9 - 7	15 - 5	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 1	18 - 10	8 - 4	13 - 5	17 - 7
	DFL	No.3/Stud	8 - 10	13 - 3	17 - 1	8 - 5	12 - 7	16 - 3	8 - 0	12 - 1	15 - 6	-	11 - 1	14 - 3	-	10 - 3	13 - 2
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 11	15 - 10	20-0†	9 - 7	15 - 5	20-0†	9 - 4	14 - 11	19 - 11	8 - 10	14 - 1	18 - 10	8 - 4	13 - 5	17 - 11
	HF	No.1	9 - 8	15 - 6	20-0†	9 - 4	15 - 0	20-0†	9 - 1	14 - 7	19 - 6	8 - 7	13 - 10	18 - 5	8 - 2	13 - 1	17 - 6
	HF	No.2	9 - 2	14 - 9	19 - 9	8 - 11	14 - 4	19 - 1	8 - 8	13 - 11	18 - 7	8 - 2	13 - 2	17 - 6	7 - 9	12 - 6	16 - 8
	HF	No.3/Stud	8 - 7	12 - 11	16 - 7	8 - 2	12 - 3	15 - 10	7 - 10	11 - 9	15 - 2	-	10 - 9	13 - 11	-	10 - 0	12 - 10
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10 - 4	16 - 6	20-0†	10 - 0	16 - 0	20-0†	9 - 8	15 - 7	20-0†	9 - 2	14 - 8	19 - 8	8 - 8	14 - 0	18 - 8
	SP	No.1	10 - 1	16 - 2	20-0†	9 - 9	15 - 8	20-0†	9 - 6	15 - 3	20-0†	9 - 0	14 - 5	19 - 3	8 - 6	13 - 8	18 - 3
	SP	No.2	9 - 5	15 - 10	20-0†	9 - 2	15 - 5	20-0†	8 - 11	14 - 11	19 - 11	8 - 5	14 - 1	18 - 10	7 - 11	13 - 5	17 - 11
	SP	No.3	-	13 - 11	18 - 0	-	13 - 3	17 - 2	-	12 - 8	16 - 5	-	11 - 8	15 - 1	-	10 - 9	13 - 11
	SP	Stud	-	13 - 11	18 - 0	-	13 - 3	17 - 2	-	12 - 8	16 - 5	-	11 - 8	15 - 1	-	10 - 9	13 - 11
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 8	15 - 6	20-0†	9 - 4	15 - 0	20-0†	9 - 1	14 - 7	19 - 6	8 - 7	13 - 10	18 - 5	8 - 2	13 - 1	17 - 6
	SPF	No.1	9 - 5	15 - 2	20-0†	9 - 2	14 - 8	19 - 7	8 - 11	14 - 3	19 - 0	8 - 5	13 - 6	18 - 0	8 - 0	12 - 10	17 - 1
	SPF	No.2	9 - 5	15 - 2	20-0†	9 - 2	14 - 8	19 - 7	8 - 11	14 - 3	19 - 0	8 - 5	13 - 6	18 - 0	8 - 0	12 - 10	17 - 1
	SPF	No.3/Stud	8 - 7	12 - 11	16 - 7	8 - 2	12 - 3	15 - 10	7 - 10	11 - 9	15 - 2	-	10 - 9	13 - 11	-	10 - 0	12 - 10
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A4 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/180**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	10-9	17-3	20-0†	10-3	16-6	20-0†	9-10	15-10	20-0†	9-6	15-3	20-0†	9-0	14-5	19-3
	DFL	No.1	10-4	16-7	20-0†	9-11	15-11	20-0†	9-6	15-3	20-0†	9-1	14-8	19-7	8-8	13-10	18-6
	DFL	No.2	10-2	16-3	20-0†	9-8	15-7	20-0†	9-4	14-11	19-11	8-11	14-4	19-2	8-5	13-7	17-10
	DFL	No.3/Stud	9-2	13-9	17-9	8-7	12-10	16-6	8-0	12-0	15-6	-	11-4	14-7	-	10-5	13-5
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	10-2	16-3	20-0†	9-8	15-7	20-0†	9-4	14-11	19-11	8-11	14-4	19-2	8-5	13-7	18-1
	HF	No.1	9-11	15-11	20-0†	9-6	15-2	20-0†	9-1	14-7	19-6	8-9	14-0	18-9	8-3	13-3	17-8
	HF	No.2	9-5	15-2	20-0†	9-0	14-6	19-4	8-8	13-10	18-6	8-4	13-4	17-10	7-10	12-7	16-10
	HF	No.3/Stud	8-11	13-5	17-3	8-4	12-6	16-1	7-10	11-9	15-1	-	11-0	14-2	-	10-1	13-0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10-7	17-0	20-0†	10-1	16-2	20-0†	9-8	15-6	20-0†	9-4	14-11	19-11	8-10	14-1	18-10
	SP	No.1	10-4	16-7	20-0†	9-11	15-11	20-0†	9-6	15-3	20-0†	9-1	14-8	19-7	8-8	13-10	18-6
	SP	No.2	9-8	16-3	20-0†	9-3	15-7	20-0†	8-10	14-11	19-11	8-6	14-4	19-2	8-1	13-7	18-1
	SP	No.3	7-11	14-6	18-9	-	13-6	17-6	-	12-8	16-5	-	11-11	15-5	-	10-11	14-2
	SP	Stud	7-11	14-6	18-9	-	13-6	17-6	-	12-8	16-5	-	11-11	15-5	-	10-11	14-2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-11	15-11	20-0†	9-6	15-2	20-0†	9-1	14-7	19-6	8-9	14-0	18-9	8-3	13-3	17-8
	SPF	No.1	9-8	15-6	20-0†	9-3	14-10	19-10	8-10	14-3	19-0	8-6	13-8	18-3	8-1	12-11	17-3
	SPF	No.2	9-8	15-6	20-0†	9-3	14-10	19-10	8-10	14-3	19-0	8-6	13-8	18-3	8-1	12-11	17-3
	SPF	No.3/Stud	8-11	13-5	17-3	8-4	12-6	16-1	7-10	11-9	15-1	-	11-0	14-2	-	10-1	13-0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	9-9	15-8	20-0†	9-4	14-11	20-0	8-11	14-4	19-2	8-7	13-9	18-5	8-1	13-0	17-5
	DFL	No.1	9-4	15-0	20-0†	9-0	14-4	19-2	8-7	13-9	18-5	8-3	13-3	17-8	7-10	12-6	16-2
	DFL	No.2	9-2	14-9	19-8	8-9	14-1	18-9	8-5	13-6	17-9	8-1	12-11	16-8	-	11-11	15-4
	DFL	No.3/Stud	7-10	11-10	15-2	-	11-0	14-2	-	10-4	13-3	-	9-8	12-6	-	8-11	11-6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9-2	14-9	19-8	8-9	14-1	18-9	8-5	13-6	18-0	8-1	13-0	17-4	-	12-3	16-4
	HF	No.1	9-0	14-5	19-3	8-7	13-9	18-4	8-3	13-2	17-7	7-11	12-8	16-11	-	12-0	16-0
	HF	No.2	8-6	13-8	18-3	8-2	13-1	17-6	7-10	12-6	16-9	-	12-1	16-1	-	11-5	14-10
	HF	No.3/Stud	-	11-6	14-10	-	10-9	13-10	-	10-1	12-11	-	9-5	12-2	-	8-8	11-2
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-7	15-4	20-0†	9-2	14-8	19-7	8-9	14-1	18-9	8-5	13-6	18-0	8-0	12-9	17-1
	SP	No.1	9-4	15-0	20-0†	9-0	14-4	19-2	8-7	13-9	18-5	8-3	13-3	17-8	7-10	12-6	16-9
	SP	No.2	8-9	14-9	19-8	8-4	14-1	18-9	8-0	13-6	18-0	-	13-0	17-4	-	12-3	16-2
	SP	No.3	-	12-5	16-1	-	11-7	15-0	-	10-10	14-1	-	10-2	13-3	-	9-4	12-2
	SP	Stud	-	12-5	16-1	-	11-7	15-0	-	10-10	14-1	-	10-2	13-3	-	9-4	12-2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-0	14-5	19-3	8-7	13-9	18-4	8-3	13-2	17-7	7-11	12-8	16-11	-	12-0	16-0
	SPF	No.1	8-9	14-1	18-9	8-4	13-5	17-11	8-0	12-10	17-2	-	12-4	16-5	-	11-8	15-1
	SPF	No.2	8-9	14-1	18-9	8-4	13-5	17-11	8-0	12-10	17-2	-	12-4	16-5	-	11-8	15-1
	SPF	No.3/Stud	-	11-6	14-10	-	10-9	13-10	-	10-1	12-11	-	9-5	12-2	-	8-8	11-2
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8-5	13-7	18-1	8-1	13-0	17-4	7-9	12-5	16-7	-	11-11	15-11	-	11-4	15-1
	DFL	No.1	8-2	13-1	17-3	7-9	12-6	16-1	-	11-9	15-1	-	11-0	14-2	-	10-1	13-0
	DFL	No.2	8-0	12-8	16-4	-	11-10	15-3	-	11-1	14-3	-	10-5	13-5	-	9-7	12-4
	DFL	No.3/Stud	-	9-6	12-3	-	8-10	11-5	-	8-4	10-8	-	7-10	10-1	-	-	9-3
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-0	12-9	17-1	-	12-3	16-4	-	11-8	15-8	-	11-3	15-0	-	10-8	14-2
	HF	No.1	7-9	12-6	16-8	-	11-11	15-11	-	11-5	14-11	-	10-11	14-0	-	10-0	12-10
	HF	No.2	-	11-11	15-10	-	11-4	14-9	-	10-9	13-10	-	10-1	13-0	-	9-3	11-11
	HF	No.3/Stud	-	9-3	11-11	-	8-8	11-1	-	8-1	10-5	-	-	9-10	-	-	9-0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-4	13-4	17-9	7-11	12-9	17-0	-	12-2	16-3	-	11-9	15-8	-	11-1	14-10
	SP	No.1	8-2	13-1	17-5	7-9	12-6	16-8	-	12-0	16-0	-	11-6	15-4	-	10-10	14-6
	SP	No.2	-	12-9	17-1	-	12-3	16-1	-	11-6	15-1	-	10-10	14-2	-	9-11	13-0
	SP	No.3	-	10-0	12-11	-	9-4	12-1	-	8-9	11-4	-	8-3	10-8	-	-	9-9
	SP	Stud	-	10-0	12-11	-	9-4	12-1	-	8-9	11-4	-	8-3	10-8	-	-	9-9
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7-9	12-6	16-8	-	11-11	15-11	-	11-5	15-3	-	11-0	14-8	-	10-5	13-11
	SPF	No.1	-	12-2	16-1	-	11-8	15-0	-	10-11	14-1	-	10-3	13-3	-	9-5	12-2
	SPF	No.2	-	12-2	16-1	-	11-8	15-0	-	10-11	14-1	-	10-3	13-3	-	9-5	12-2
	SPF	No.3/Stud	-	9-3	11-11	-	8-8	11-1	-	8-1	10-5	-	-	9-10	-	-	9-0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A5 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/240**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12-1	19-5	20-0†	11-9	18-10	20-0†	11-5	18-3	20-0†	10-9	17-3	20-0†	10-3	16-5	20-0†
	DFL	No.1	11-8	18-8	20-0†	11-3	18-1	20-0†	10-11	17-7	20-0†	10-4	16-7	20-0†	9-10	15-9	20-0†
	DFL	No.2	11-5	18-3	20-0†	11-0	17-9	20-0†	10-9	17-2	20-0†	10-2	16-3	20-0†	9-7	15-5	20-0†
	DFL	No.3/Stud	10-10	17-5	20-0†	10-6	16-11	20-0†	10-3	16-5	20-0†	9-8	15-6	20-0†	9-2	14-9	19-1
	DFL	Standard	10-9	-	-	10-3	-	-	9-10	-	-	9-0	-	-	8-4	-	-
	HF	SS	11-5	18-3	20-0†	11-0	17-9	20-0†	10-9	17-2	20-0†	10-2	16-3	20-0†	9-7	15-5	20-0†
	HF	No.1	11-2	17-10	20-0†	10-9	17-4	20-0†	10-6	16-10	20-0†	9-11	15-11	20-0†	9-5	15-1	20-0†
	HF	No.2	10-7	17-0	20-0†	10-3	16-6	20-0†	10-0	16-0	20-0†	9-5	15-1	20-0†	9-0	14-4	19-2
	HF	No.3/Stud	10-4	16-6	20-0†	10-0	16-0	20-0†	9-8	15-7	20-0†	9-2	14-8	19-8	8-8	14-0	18-7
	HF	Standard	10-4	-	-	10-0	-	-	9-7	-	-	8-10	-	-	8-2	-	-
	SP	SS	11-10	19-1	20-0†	11-6	18-6	20-0†	11-2	17-11	20-0†	10-7	16-11	20-0†	10-0	16-1	20-0†
	SP	No.1	11-8	18-8	20-0†	11-3	18-1	20-0†	10-11	17-7	20-0†	10-4	16-7	20-0†	9-10	15-9	20-0†
	SP	No.2	10-10	18-3	20-0†	10-6	17-9	20-0†	10-3	17-2	20-0†	9-8	16-3	20-0†	9-2	15-5	20-0†
	SP	No.3	10-4	17-5	20-0†	10-0	16-11	20-0†	9-8	16-5	20-0†	9-2	15-6	20-0†	8-6	14-9	19-8
	SP	Stud	10-4	17-5	20-0†	10-0	16-11	20-0†	9-8	16-5	20-0†	9-2	15-6	20-0†	8-6	14-9	19-8
	SP	Standard	9-5	-	-	9-0	-	-	8-7	-	-	7-11	-	-	-	-	-
16	SPF	SS	11-2	17-10	20-0†	10-9	17-4	20-0†	10-6	16-10	20-0†	9-11	15-11	20-0†	9-5	15-1	20-0†
	SPF	No.1	10-10	17-5	20-0†	10-6	16-11	20-0†	10-3	16-5	20-0†	9-8	15-6	20-0†	9-2	14-9	19-8
	SPF	No.2	10-10	17-5	20-0†	10-6	16-11	20-0†	10-3	16-5	20-0†	9-8	15-6	20-0†	9-2	14-9	19-8
	SPF	No.3/Stud	10-4	16-6	20-0†	10-0	16-0	20-0†	9-8	15-7	20-0†	9-2	14-8	19-8	8-8	14-0	18-7
	SPF	Standard	10-4	-	-	10-0	-	-	9-7	-	-	8-10	-	-	8-2	-	-
	DFL	SS	10-11	17-7	20-0†	10-7	17-0	20-0†	10-3	16-6	20-0†	9-9	15-7	20-0†	9-3	14-10	19-10
	DFL	No.1	10-6	16-11	20-0†	10-2	16-4	20-0†	9-11	15-11	20-0†	9-4	15-0	20-0†	8-11	14-3	19-1
	DFL	No.2	10-4	16-6	20-0†	10-0	16-0	20-0†	9-8	15-7	20-0†	9-2	14-8	19-8	8-8	14-0	18-8
	DFL	No.3/Stud	9-10	15-9	20-0†	9-6	15-4	20-0†	9-3	14-10	19-4	8-9	13-9	17-9	8-4	12-8	16-4
	DFL	Standard	9-3	-	-	8-10	-	-	8-5	-	-	-	-	-	-	-	-
	HF	SS	10-4	16-6	20-0†	10-0	16-0	20-0†	9-8	15-7	20-0†	9-2	14-8	19-8	8-8	14-0	18-8
	HF	No.1	10-1	16-2	20-0†	9-9	15-8	20-0†	9-6	15-2	20-0†	9-0	14-5	19-3	8-6	13-8	18-3
	HF	No.2	9-7	15-4	20-0†	9-3	14-11	19-11	9-0	14-6	19-4	8-6	13-8	18-3	8-1	13-0	17-4
	HF	No.3/Stud	9-4	14-11	20-0	9-0	14-6	19-4	8-9	14-1	18-9	8-4	13-4	17-3	7-11	12-4	15-11
	HF	Standard	9-0	-	-	8-7	-	-	8-3	-	-	-	-	-	-	-	-
	SP	SS	10-9	17-3	20-0†	10-5	16-8	20-0†	10-1	16-2	20-0†	9-7	15-4	20-0†	9-1	14-7	19-5
	SP	No.1	10-6	16-11	20-0†	10-2	16-4	20-0†	9-11	15-11	20-0†	9-4	15-0	20-0†	8-11	14-3	19-1
	SP	No.2	9-10	16-6	20-0†	9-6	16-0	20-0†	9-3	15-7	20-0†	8-9	14-8	19-8	8-4	14-0	18-8
	SP	No.3	9-4	15-9	20-0†	9-0	15-4	20-0†	8-7	14-10	19-10	7-11	14-0	18-9	-	13-4	17-4
	SP	Stud	9-4	15-9	20-0†	9-0	15-4	20-0†	8-7	14-10	19-10	7-11	14-0	18-9	-	13-4	17-4
	SP	Standard	8-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	SPF	SS	10-1	16-2	20-0†	9-9	15-8	20-0†	9-6	15-2	20-0†	9-0	14-5	19-3	8-6	13-8	18-3
	SPF	No.1	9-10	15-9	20-0†	9-6	15-4	20-0†	9-3	14-10	19-10	8-9	14-0	18-9	8-4	13-4	17-10
	SPF	No.2	9-10	15-9	20-0†	9-6	15-4	20-0†	9-3	14-10	19-10	8-9	14-0	18-9	8-4	13-4	17-10
	SPF	No.3/Stud	9-4	14-11	20-0	9-0	14-6	19-4	8-9	14-1	18-9	8-4	13-4	17-3	7-11	12-4	15-11
	SPF	Standard	9-0	-	-	8-7	-	-	8-3	-	-	-	-	-	-	-	-
	DFL	SS	9-6	15-3	20-0†	9-2	14-9	19-9	8-11	14-4	19-2	8-5	13-7	18-1	8-0	12-10	17-2
	DFL	No.1	9-2	14-8	19-7	8-10	14-2	19-0	8-7	13-9	18-5	8-2	13-0	17-5	-	12-5	16-6
	DFL	No.2	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	DFL	No.3/Stud	8-6	13-3	17-1	8-3	12-7	16-3	8-0	12-1	15-6	-	11-1	14-3	-	10-3	13-2
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	HF	No.1	8-9	14-0	18-9	8-6	13-7	18-2	8-3	13-2	17-8	7-9	12-6	16-8	-	11-10	15-10
	HF	No.2	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	HF	No.3/Stud	8-1	12-11	16-7	7-10	12-3	15-10	-	11-9	15-2	-	10-9	13-11	-	10-0	12-10
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-4	14-11	20-0	9-0	14-6	19-4	8-9	14-1	18-9	8-4	13-4	17-9	7-11	12-8	16-10
	SP	No.1	9-2	14-8	19-7	8-10	14-2	19-0	8-7	13-9	18-5	8-2	13-0	17-5	-	12-5	16-6
	SP	No.2	8-6	14-4	19-2	8-3	13-11	18-7	8-0	13-6	18-0	-	12-9	17-1	-	12-1	16-2
	SP	No.3	-	13-8	18-0	-	13-3	17-2	-	12-8	16-5	-	11-8	15-1	-	10-9	13-11
	SP	Stud	-	13-8	18-0	-	13-3	17-2	-	12-8	16-5	-	11-8	15-1	-	10-9	13-11
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-9	14-0	18-9	8-6	13-7	18-2	8-3	13-2	17-8	7-9	12-6	16-8	-	11-10	15-10
	SPF	No.1	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SPF	No.2	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SPF	No.3/Stud	8-1	12-11	16-7	7-10	12-3	15-10	-	11-9	15-2	-	10-9	13-11	-	10-0	12-10
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A5 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/240**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	9 - 9	15 - 8	20-0†	9 - 4	14 - 11	20 - 0	8 - 11	14 - 4	19 - 2	8 - 7	13 - 9	18 - 5	8 - 1	13 - 0	17 - 5
	DFL	No.1	9 - 4	15 - 0	20-0†	9 - 0	14 - 4	19 - 2	8 - 7	13 - 9	18 - 5	8 - 3	13 - 3	17 - 8	7 - 10	12 - 6	16 - 9
	DFL	No.2	9 - 2	14 - 9	19 - 8	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 0	8 - 1	13 - 0	17 - 4	-	12 - 3	16 - 4
	DFL	No.3/Stud	8 - 9	13 - 9	17 - 9	8 - 4	12 - 10	16 - 6	8 - 0	12 - 0	15 - 6	-	11 - 4	14 - 7	-	10 - 5	13 - 5
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 2	14 - 9	19 - 8	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 0	8 - 1	13 - 0	17 - 4	-	12 - 3	16 - 4
	HF	No.1	9 - 0	14 - 5	19 - 3	8 - 7	13 - 9	18 - 4	8 - 3	13 - 2	17 - 7	7 - 11	12 - 8	16 - 11	-	12 - 0	16 - 0
	HF	No.2	8 - 6	13 - 8	18 - 3	8 - 2	13 - 1	17 - 6	7 - 10	12 - 6	16 - 9	-	12 - 1	16 - 1	-	11 - 5	15 - 3
	HF	No.3/Stud	8 - 4	13 - 4	17 - 3	7 - 11	12 - 6	16 - 1	-	11 - 9	15 - 1	-	11 - 0	14 - 2	-	10 - 1	13 - 0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 7	15 - 4	20-0†	9 - 2	14 - 8	19 - 7	8 - 9	14 - 1	18 - 9	8 - 5	13 - 6	18 - 0	8 - 0	12 - 9	17 - 1
	SP	No.1	9 - 4	15 - 0	20-0†	9 - 0	14 - 4	19 - 2	8 - 7	13 - 9	18 - 5	8 - 3	13 - 3	17 - 8	7 - 10	12 - 6	16 - 9
	SP	No.2	8 - 9	14 - 9	19 - 8	8 - 4	14 - 1	18 - 9	8 - 0	13 - 6	18 - 0	-	13 - 0	17 - 4	-	12 - 3	16 - 4
	SP	No.3	7 - 11	14 - 1	18 - 9	-	13 - 5	17 - 6	-	12 - 8	16 - 5	-	11 - 11	15 - 5	-	10 - 11	14 - 2
	SP	Stud	7 - 11	14 - 1	18 - 9	-	13 - 5	17 - 6	-	12 - 8	16 - 5	-	11 - 11	15 - 5	-	10 - 11	14 - 2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 0	14 - 5	19 - 3	8 - 7	13 - 9	18 - 4	8 - 3	13 - 2	17 - 7	7 - 11	12 - 8	16 - 11	-	12 - 0	16 - 0
	SPF	No.1	8 - 9	14 - 1	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SPF	No.2	8 - 9	14 - 1	18 - 9	8 - 4	13 - 5	17 - 11	8 - 0	12 - 10	17 - 2	-	12 - 4	16 - 6	-	11 - 8	15 - 7
	SPF	No.3/Stud	8 - 4	13 - 4	17 - 3	7 - 11	12 - 6	16 - 1	-	11 - 9	15 - 1	-	11 - 0	14 - 2	-	10 - 1	13 - 0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	8 - 10	14 - 2	18 - 11	8 - 5	13 - 6	18 - 1	8 - 1	12 - 11	17 - 4	7 - 9	12 - 5	16 - 7	-	11 - 9	15 - 9
	DFL	No.1	8 - 6	13 - 7	18 - 2	8 - 1	13 - 0	17 - 4	7 - 9	12 - 5	16 - 8	-	12 - 0	16 - 0	-	11 - 4	15 - 1
	DFL	No.2	8 - 4	13 - 4	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 2	16 - 3	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	DFL	No.3/Stud	7 - 10	11 - 10	15 - 2	-	11 - 0	14 - 2	-	10 - 4	13 - 3	-	9 - 8	12 - 6	-	8 - 11	11 - 6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 4	13 - 4	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 2	16 - 3	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	HF	No.1	8 - 1	13 - 0	17 - 5	7 - 9	12 - 5	16 - 7	-	11 - 11	15 - 11	-	11 - 6	15 - 4	-	10 - 10	14 - 6
	HF	No.2	-	12 - 5	16 - 6	-	11 - 10	15 - 10	-	11 - 4	15 - 2	-	10 - 11	14 - 7	-	10 - 4	13 - 9
	HF	No.3/Stud	-	11 - 6	14 - 10	-	10 - 9	13 - 10	-	10 - 1	12 - 11	-	9 - 5	12 - 2	-	8 - 8	11 - 2
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8 - 8	13 - 10	18 - 6	8 - 3	13 - 3	17 - 8	7 - 11	12 - 8	17 - 0	-	12 - 3	16 - 4	-	11 - 7	15 - 5
	SP	No.1	8 - 6	13 - 7	18 - 2	8 - 1	13 - 0	17 - 4	7 - 9	12 - 5	16 - 8	-	12 - 0	16 - 0	-	11 - 4	15 - 1
	SP	No.2	7 - 11	13 - 4	17 - 9	-	12 - 9	17 - 0	-	12 - 2	16 - 3	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	SP	No.3	-	12 - 5	16 - 1	-	11 - 7	15 - 0	-	10 - 10	14 - 1	-	10 - 2	13 - 3	-	9 - 4	12 - 2
	SP	Stud	-	12 - 5	16 - 1	-	11 - 7	15 - 0	-	10 - 10	14 - 1	-	10 - 2	13 - 3	-	9 - 4	12 - 2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8 - 1	13 - 0	17 - 5	7 - 9	12 - 5	16 - 7	-	11 - 11	15 - 11	-	11 - 6	15 - 4	-	10 - 10	14 - 6
	SPF	No.1	7 - 11	12 - 8	17 - 0	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 7	14 - 2
	SPF	No.2	7 - 11	12 - 8	17 - 0	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 7	14 - 2
	SPF	No.3/Stud	-	11 - 6	14 - 10	-	10 - 9	13 - 10	-	10 - 1	12 - 11	-	9 - 5	12 - 2	-	8 - 8	11 - 2
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	-	12 - 3	16 - 5	-	11 - 9	15 - 8	-	11 - 3	15 - 0	-	10 - 10	14 - 5	-	10 - 3	13 - 8
	DFL	No.1	-	11 - 10	15 - 9	-	11 - 3	15 - 1	-	10 - 10	14 - 5	-	10 - 5	13 - 11	-	9 - 10	13 - 0
	DFL	No.2	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 5	-	9 - 7	12 - 4
	DFL	No.3/Stud	-	9 - 6	12 - 3	-	8 - 10	11 - 5	-	8 - 4	10 - 8	-	7 - 10	10 - 1	-	-	9 - 3
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	HF	No.1	-	11 - 4	15 - 1	-	10 - 10	14 - 5	-	10 - 4	13 - 10	-	9 - 11	13 - 3	-	9 - 5	12 - 7
	HF	No.2	-	10 - 9	14 - 4	-	10 - 3	13 - 9	-	9 - 10	13 - 2	-	9 - 6	12 - 8	-	9 - 0	11 - 11
	HF	No.3/Stud	-	9 - 3	11 - 11	-	8 - 8	11 - 1	-	8 - 1	10 - 5	-	9 - 10	-	-	-	9 - 0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	12 - 0	16 - 1	-	11 - 6	15 - 4	-	11 - 0	14 - 9	-	10 - 7	14 - 2	-	10 - 0	13 - 5
	SP	No.1	-	11 - 10	15 - 9	-	11 - 3	15 - 1	-	10 - 10	14 - 5	-	10 - 5	13 - 11	-	9 - 10	13 - 1
	SP	No.2	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	SP	No.3	-	10 - 0	12 - 11	-	9 - 4	12 - 1	-	8 - 9	11 - 4	-	8 - 3	10 - 8	-	-	9 - 9
	SP	Stud	-	10 - 0	12 - 11	-	9 - 4	12 - 1	-	8 - 9	11 - 4	-	8 - 3	10 - 8	-	-	9 - 9
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	11 - 4	15 - 1	-	10 - 10	14 - 5	-	10 - 4	13 - 10	-	9 - 11	13 - 3	-	9 - 5	12 - 7
	SPF	No.1	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 2
	SPF	No.2	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 2
	SPF	No.3/Stud	-	9 - 3	11 - 11	-	8 - 8	11 - 1	-	8 - 1	10 - 5	-	-	9 - 10	-	-	9 - 0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A6 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/360**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	10-6	16-10	20-0†	10-2	16-4	20-0†	9-11	15-10	20-0†	9-4	15-0	20-0†	8-10	14-3	19-0
	DFL	No.1	10-1	16-2	20-0†	9-9	15-8	20-0†	9-6	15-3	20-0†	9-0	14-5	19-3	8-6	13-8	18-3
	DFL	No.2	9-11	15-10	20-0†	9-7	15-5	20-0†	9-4	14-11	19-11	8-10	14-1	18-10	8-4	13-5	17-11
	DFL	No.3/Stud	9-5	15-2	20-0†	9-2	14-8	19-7	8-11	14-3	19-0	8-5	13-6	18-0	8-0	12-10	17-1
	DFL	Standard	9-5	-	-	9-2	-	-	8-11	-	-	8-5	-	-	8-0	-	-
	HF	SS	9-11	15-10	20-0†	9-7	15-5	20-0†	9-4	14-11	19-11	8-10	14-1	18-10	8-4	13-5	17-11
	HF	No.1	9-8	15-6	20-0†	9-4	15-0	20-0†	9-1	14-7	19-6	8-7	13-10	18-5	8-2	13-1	17-6
	HF	No.2	9-2	14-9	19-9	8-11	14-4	19-1	8-8	13-11	18-7	8-2	13-2	17-6	7-9	12-6	16-8
	HF	No.3/Stud	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	HF	Standard	8-11	-	-	8-8	-	-	8-5	-	-	8-0	-	-	-	-	-
	SP	SS	10-4	16-6	20-0†	10-0	16-0	20-0†	9-8	15-7	20-0†	9-2	14-8	19-8	8-8	14-0	18-8
	SP	No.1	10-1	16-2	20-0†	9-9	15-8	20-0†	9-6	15-3	20-0†	9-0	14-5	19-3	8-6	13-8	18-3
	SP	No.2	9-5	15-10	20-0†	9-2	15-5	20-0†	8-11	14-11	19-11	8-5	14-1	18-10	8-0	13-5	17-11
	SP	No.3	8-11	15-2	20-0†	8-8	14-8	19-7	8-5	14-3	19-0	8-0	13-6	18-0	-	12-10	17-1
	SP	Stud	8-11	15-2	20-0†	8-8	14-8	19-7	8-5	14-3	19-0	8-0	13-6	18-0	-	12-10	17-1
	SP	Standard	8-11	-	-	8-8	-	-	8-5	-	-	7-11	-	-	-	-	-
	SPF	SS	9-8	15-6	20-0†	9-4	15-0	20-0†	9-1	14-7	19-6	8-7	13-10	18-5	8-2	13-1	17-6
	SPF	No.1	9-5	15-2	20-0†	9-2	14-8	19-7	8-11	14-3	19-0	8-5	13-6	18-0	8-0	12-10	17-1
	SPF	No.2	9-5	15-2	20-0†	9-2	14-8	19-7	8-11	14-3	19-0	8-5	13-6	18-0	8-0	12-10	17-1
	SPF	No.3/Stud	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	SPF	Standard	8-11	-	-	8-8	-	-	8-5	-	-	8-0	-	-	-	-	-
16	DFL	SS	9-6	15-3	20-0†	9-2	14-9	19-9	8-11	14-4	19-2	8-5	13-7	18-1	8-0	12-10	17-2
	DFL	No.1	9-2	14-8	19-7	8-10	14-2	19-0	8-7	13-9	18-5	8-2	13-0	17-5	-	12-5	16-6
	DFL	No.2	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	DFL	No.3/Stud	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	DFL	Standard	8-6	-	-	8-3	-	-	8-0	-	-	-	-	-	-	-	-
	HF	SS	8-11	14-4	19-2	8-8	13-11	18-7	8-5	13-6	18-0	8-0	12-9	17-1	-	12-1	16-2
	HF	No.1	8-9	14-0	18-9	8-6	13-7	18-2	8-3	13-2	17-8	7-9	12-6	16-8	-	11-10	15-10
	HF	No.2	8-4	13-4	17-10	8-1	12-11	17-3	7-10	12-7	16-9	-	11-10	15-10	-	11-3	15-1
	HF	No.3/Stud	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-8
	HF	Standard	8-1	-	-	7-10	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-4	14-11	20-0	9-0	14-6	19-4	8-9	14-1	18-9	8-4	13-4	17-9	7-11	12-8	16-10
	SP	No.1	9-2	14-8	19-7	8-10	14-2	19-0	8-7	13-9	18-5	8-2	13-0	17-5	-	12-5	16-6
	SP	No.2	8-6	14-4	19-2	8-3	13-11	18-7	8-0	13-6	18-0	-	12-9	17-1	-	12-1	16-2
	SP	No.3	8-1	13-8	18-3	7-10	13-3	17-9	-	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SP	Stud	8-1	13-8	18-3	7-10	13-3	17-9	-	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SP	Standard	8-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-9	14-0	18-9	8-6	13-7	18-2	8-3	13-2	17-8	7-9	12-6	16-8	-	11-10	15-10
	SPF	No.1	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SPF	No.2	8-6	13-8	18-3	8-3	13-3	17-9	8-0	12-11	17-3	-	12-2	16-3	-	11-7	15-5
	SPF	No.3/Stud	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-8
	SPF	Standard	8-1	-	-	7-10	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8-3	13-3	17-8	8-0	12-10	17-1	7-9	12-5	16-7	-	11-9	15-9	-	11-2	14-11
	DFL	No.1	7-11	12-9	17-0	-	12-4	16-6	-	12-0	16-0	-	11-4	15-1	-	10-9	14-4
	DFL	No.2	7-9	12-5	16-8	-	12-1	16-1	-	11-9	15-8	-	11-1	14-10	-	10-6	14-1
	DFL	No.3/Stud	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-2
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	7-9	12-5	16-8	-	12-1	16-1	-	11-9	15-8	-	11-1	14-10	-	10-6	14-1
	HF	No.1	-	12-2	16-3	-	11-10	15-9	-	11-6	15-4	-	10-10	14-6	-	10-3	13-9
	HF	No.2	-	11-7	15-6	-	11-3	15-0	-	10-11	14-7	-	10-4	13-9	-	9-9	13-1
	HF	No.3/Stud	-	11-3	15-1	-	10-11	14-7	-	10-7	14-2	-	10-0	13-5	-	9-6	12-9
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-1	13-0	17-4	7-10	12-7	16-10	-	12-3	16-4	-	11-7	15-5	-	11-0	14-8
	SP	No.1	7-11	12-9	17-0	-	12-4	16-6	-	12-0	16-0	-	11-4	15-1	-	10-9	14-4
	SP	No.2	-	12-5	16-8	-	12-1	16-1	-	11-9	15-8	-	11-1	14-10	-	10-6	14-1
	SP	No.3	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-5
	SP	Stud	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-5
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	12-2	16-3	-	11-10	15-9	-	11-6	15-4	-	10-10	14-6	-	10-3	13-9
	SPF	No.1	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-5
	SPF	No.2	-	11-11	15-10	-	11-6	15-5	-	11-2	14-11	-	10-7	14-2	-	10-1	13-5
	SPF	No.3/Stud	-	11-3	15-1	-	10-11	14-7	-	10-7	14-2	-	10-0	13-5	-	9-6	12-9
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20A6 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360 (Cont.)

(Fully Sheathed with a Minimum Sheathing Material)^a

**Exposure C
H/360**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	8 - 5	13 - 7	18 - 1	8 - 1	13 - 0	17 - 4	7 - 9	12 - 5	16 - 7	-	11 - 11	15 - 11	-	11 - 4	15 - 1
	DFL	No.1	8 - 2	13 - 1	17 - 5	7 - 9	12 - 6	16 - 8	-	12 - 0	16 - 0	-	11 - 6	15 - 4	-	10 - 10	14 - 6
	DFL	No.2	8 - 0	12 - 9	17 - 1	-	12 - 3	16 - 4	-	11 - 8	15 - 8	-	11 - 3	15 - 0	-	10 - 8	14 - 2
	DFL	No.3/Stud	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 5
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8 - 0	12 - 9	17 - 1	-	12 - 3	16 - 4	-	11 - 8	15 - 8	-	11 - 3	15 - 0	-	10 - 8	14 - 2
	HF	No.1	7 - 9	12 - 6	16 - 8	-	11 - 11	15 - 11	-	11 - 5	15 - 3	-	11 - 0	14 - 8	-	10 - 5	13 - 11
	HF	No.2	-	11 - 11	15 - 10	-	11 - 4	15 - 2	-	10 - 11	14 - 6	-	10 - 6	14 - 0	-	9 - 11	13 - 3
	HF	No.3/Stud	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8 - 4	13 - 4	17 - 9	7 - 11	12 - 9	17 - 0	-	12 - 2	16 - 3	-	11 - 9	15 - 8	-	11 - 1	14 - 10
	SP	No.1	8 - 2	13 - 1	17 - 5	7 - 9	12 - 6	16 - 8	-	12 - 0	16 - 0	-	11 - 6	15 - 4	-	10 - 10	14 - 6
	SP	No.2	-	12 - 9	17 - 1	-	12 - 3	16 - 4	-	11 - 8	15 - 8	-	11 - 3	15 - 0	-	10 - 8	14 - 2
	SP	No.3	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 7
	SP	Stud	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 7
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7 - 9	12 - 6	16 - 8	-	11 - 11	15 - 11	-	11 - 5	15 - 3	-	11 - 0	14 - 8	-	10 - 5	13 - 11
	SPF	No.1	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 7
	SPF	No.2	-	12 - 2	16 - 3	-	11 - 8	15 - 7	-	11 - 2	14 - 11	-	10 - 9	14 - 4	-	10 - 2	13 - 7
	SPF	No.3/Stud	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	-	12 - 3	16 - 5	-	11 - 9	15 - 8	-	11 - 3	15 - 0	-	10 - 10	14 - 5	-	10 - 3	13 - 8
	DFL	No.1	-	11 - 10	15 - 9	-	11 - 3	15 - 1	-	10 - 10	14 - 5	-	10 - 5	13 - 11	-	9 - 10	13 - 1
	DFL	No.2	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	DFL	No.3/Stud	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 3	-	9 - 8	12 - 6	-	8 - 11	11 - 6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	HF	No.1	-	11 - 4	15 - 1	-	10 - 10	14 - 5	-	10 - 4	13 - 10	-	9 - 11	13 - 3	-	9 - 5	12 - 7
	HF	No.2	-	10 - 9	14 - 4	-	10 - 3	13 - 9	-	9 - 10	13 - 2	-	9 - 6	12 - 8	-	9 - 0	11 - 11
	HF	No.3/Stud	-	10 - 5	14 - 0	-	10 - 0	13 - 4	-	9 - 7	12 - 9	-	9 - 2	12 - 2	-	8 - 8	11 - 2
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	12 - 0	16 - 1	-	11 - 6	15 - 4	-	11 - 0	14 - 9	-	10 - 7	14 - 2	-	10 - 0	13 - 5
	SP	No.1	-	11 - 10	15 - 9	-	11 - 3	15 - 1	-	10 - 10	14 - 5	-	10 - 5	13 - 11	-	9 - 10	13 - 1
	SP	No.2	-	11 - 7	15 - 5	-	11 - 1	14 - 9	-	10 - 7	14 - 2	-	10 - 2	13 - 7	-	9 - 7	12 - 10
	SP	No.3	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 2
	SP	Stud	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	11 - 4	15 - 1	-	10 - 10	14 - 5	-	10 - 4	13 - 10	-	9 - 11	13 - 3	-	9 - 5	12 - 7
	SPF	No.1	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 3
	SPF	No.2	-	11 - 0	14 - 9	-	10 - 7	14 - 1	-	10 - 1	13 - 6	-	9 - 9	13 - 0	-	9 - 2	12 - 3
	SPF	No.3/Stud	-	10 - 5	14 - 0	-	10 - 0	13 - 4	-	9 - 7	12 - 9	-	9 - 2	12 - 2	-	8 - 8	11 - 2
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	-	10 - 8	14 - 3	-	10 - 2	13 - 7	-	9 - 9	13 - 0	-	9 - 5	12 - 6	-	8 - 10	11 - 10
	DFL	No.1	-	10 - 3	13 - 8	-	9 - 10	13 - 1	-	9 - 5	12 - 6	-	9 - 0	12 - 1	-	8 - 6	11 - 5
	DFL	No.2	-	10 - 0	13 - 5	-	9 - 7	12 - 10	-	9 - 2	12 - 3	-	8 - 10	11 - 10	-	8 - 4	11 - 2
	DFL	No.3/Stud	-	9 - 6	12 - 3	-	8 - 10	11 - 5	-	8 - 4	10 - 8	-	7 - 10	10 - 1	-	-	9 - 3
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	10 - 0	13 - 5	-	9 - 7	12 - 10	-	9 - 2	12 - 3	-	8 - 10	11 - 10	-	8 - 4	11 - 2
	HF	No.1	-	9 - 10	13 - 1	-	9 - 5	12 - 6	-	9 - 0	12 - 0	-	8 - 8	11 - 6	-	8 - 2	10 - 11
	HF	No.2	-	9 - 4	12 - 5	-	8 - 11	11 - 11	-	8 - 7	11 - 5	-	8 - 3	11 - 0	-	7 - 9	10 - 4
	HF	No.3/Stud	-	9 - 1	11 - 11	-	8 - 8	11 - 1	-	8 - 1	10 - 5	-	-	9 - 10	-	-	9 - 0
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	10 - 5	14 - 0	-	10 - 0	13 - 4	-	9 - 7	12 - 9	-	9 - 2	12 - 3	-	8 - 8	11 - 7
	SP	No.1	-	10 - 3	13 - 8	-	9 - 10	13 - 1	-	9 - 5	12 - 6	-	9 - 0	12 - 1	-	8 - 6	11 - 5
	SP	No.2	-	10 - 0	13 - 5	-	9 - 7	12 - 10	-	9 - 2	12 - 3	-	8 - 10	11 - 10	-	8 - 4	11 - 2
	SP	No.3	-	9 - 7	12 - 9	-	9 - 2	12 - 1	-	8 - 9	11 - 4	-	8 - 3	10 - 8	-	-	9 - 9
	SP	Stud	-	9 - 7	12 - 9	-	9 - 2	12 - 1	-	8 - 9	11 - 4	-	8 - 3	10 - 8	-	-	9 - 9
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	9 - 10	13 - 1	-	9 - 5	12 - 6	-	9 - 0	12 - 0	-	8 - 8	11 - 6	-	8 - 2	10 - 11
	SPF	No.1	-	9 - 7	12 - 9	-	9 - 2	12 - 3	-	8 - 9	11 - 9	-	8 - 5	11 - 3	-	8 - 0	10 - 8
	SPF	No.2	-	9 - 7	12 - 9	-	9 - 2	12 - 3	-	8 - 9	11 - 9	-	8 - 5	11 - 3	-	8 - 0	10 - 8
	SPF	No.3/Stud	-	9 - 1	11 - 11	-	8 - 8	11 - 1	-	8 - 1	10 - 5	-	-	9 - 10	-	-	9 - 0
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20A footnotes.

Table 3.20B1 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/180
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†
	DFL	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†
	DFL	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-9	20-0†	20-0†
	DFL	No.3/Stud	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	19-3	20-0†
	DFL	Standard	14-0††	-	-	14-0††	-	-	13-6	-	-	12-5	-	-	11-5	-	-
	HF	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-9	20-0†	20-0†
	HF	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-5	20-0†	20-0†
	HF	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-5	20-0†	20-0†	12-9	19-9	20-0†
	HF	No.3/Stud	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	18-9	20-0†
	HF	Standard	14-0††	-	-	13-10	-	-	13-2	-	-	12-1	-	-	11-2	-	-
	SP	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†
	SP	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†
	SP	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†
	SP	No.3	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	12-8	20-0†	20-0†	11-9	20-0†	20-0†
	SP	Stud	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	12-8	20-0†	20-0†	11-9	20-0†	20-0†
	SP	Standard	13-0	-	-	12-5	-	-	11-10	-	-	10-10	-	-	10-0	-	-
16	SPF	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-5	20-0†	20-0†
	SPF	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†
	SPF	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†
	SPF	No.3/Stud	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	18-9	20-0†
	SPF	Standard	14-0††	-	-	13-10	-	-	13-2	-	-	12-1	-	-	11-2	-	-
	DFL	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-2	20-0†	20-0†
	DFL	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-4	20-0†	20-0†	12-8	19-8	20-0†
	DFL	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	19-3	20-0†
	DFL	No.3/Stud	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	19-6	20-0†	12-6	17-10	20-0†	11-7	16-6	20-0†
	DFL	Standard	12-8	-	-	12-1	-	-	11-7	-	-	10-7	-	-	9-10	-	-
	HF	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	19-3	20-0†
	HF	No.1	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-6	20-0†	20-0†	12-10	19-10	20-0†	12-2	18-10	20-0†
	HF	No.2	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-10	19-11	20-0†	12-2	18-10	20-0†	11-7	17-11	20-0†
	HF	No.3/Stud	13-4	20-0†	20-0†	12-11	19-10	20-0†	12-6	19-0	20-0†	11-10	17-5	20-0†	11-3	16-1	19-11
	HF	Standard	12-5	-	-	11-10	-	-	11-4	-	-	10-4	-	-	9-7	-	-
24	SP	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	12-11	20-0†	20-0†
	SP	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-4	20-0†	20-0†	12-8	19-8	20-0†
	SP	No.2	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	20-0†	20-0†	11-10	19-3	20-0†
	SP	No.3	13-0	20-0†	20-0†	12-5	20-0†	20-0†	11-10	20-0†	20-0†	10-10	18-10	20-0†	10-0	17-4	20-0†
	SP	Stud	13-0	20-0†	20-0†	12-5	20-0†	20-0†	11-10	20-0†	20-0†	10-10	18-10	20-0†	10-0	17-4	20-0†
	SP	Standard	11-2	-	-	10-7	-	-	10-2	-	-	9-4	-	-	8-7	-	-
	SPF	SS	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-6	20-0†	20-0†	12-10	19-10	20-0†	12-2	18-10	20-0†
	SPF	No.1	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	SPF	No.2	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	SPF	No.3/Stud	13-4	20-0†	20-0†	12-11	19-10	20-0†	12-6	19-0	20-0†	11-10	17-5	20-0†	11-3	16-1	19-11
	SPF	Standard	12-5	-	-	11-10	-	-	11-4	-	-	10-4	-	-	9-7	-	-
24	DFL	SS	13-7	20-0†	20-0†	13-2	20-0†	20-0†	12-9	19-9	20-0†	12-1	18-8	20-0†	11-5	17-9	20-0†
	DFL	No.1	13-0	20-0†	20-0†	12-8	19-7	20-0†	12-3	19-0	20-0†	11-7	18-0	20-0†	11-0	17-1	20-0†
	DFL	No.2	12-9	19-9	20-0†	12-5	19-2	20-0†	12-0	18-7	20-0†	11-4	17-7	20-0†	10-9	16-8	20-0†
	DFL	No.3/Stud	12-1	17-2	20-0†	11-6	16-5	20-0†	11-0	15-8	19-4	10-1	14-4	17-9	9-4	13-3	16-5
	DFL	Standard	10-3	-	-	9-9	-	-	9-4	-	-	8-7	-	-	7-11	-	-
	HF	SS	12-9	19-9	20-0†	12-5	19-2	20-0†	12-0	18-7	20-0†	11-4	17-7	20-0†	10-9	16-8	20-0†
	HF	No.1	12-6	19-4	20-0†	12-1	18-9	20-0†	11-9	18-2	20-0†	11-1	17-2	20-0†	10-7	16-4	20-0†
	HF	No.2	11-10	18-5	20-0†	11-6	17-10	20-0†	11-2	17-4	20-0†	10-7	16-4	20-0†	10-0	15-6	20-0†
	HF	No.3/Stud	11-7	16-9	20-0†	11-2	16-0	19-9	10-9	15-3	18-10	9-10	14-0	17-4	9-1	12-11	16-0
	HF	Standard	10-0	-	-	9-6	-	-	9-1	-	-	8-4	-	-	-	-	-
	SP	SS	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	SP	No.1	13-0	20-0†	20-0†	12-8	19-7	20-0†	12-3	19-0	20-0†	11-7	18-0	20-0†	11-0	17-1	20-0†
	SP	No.2	12-2	19-9	20-0†	11-10	19-2	20-0†	11-6	18-7	20-0†	10-10	17-7	20-0†	10-4	16-8	20-0†
	SP	No.3	10-6	18-1	20-0†	10-0	17-3	20-0†	9-6	16-6	20-0†	8-9	15-1	18-10	8-1	14-0	17-4
	SP	Stud	10-6	18-1	20-0†	10-0	17-3	20-0†	9-6	16-6	20-0†	8-9	15-1	18-10	8-1	14-0	17-4
	SP	Standard	9-0	-	-	8-7	-	-	8-2	-	-	-	-	-	-	-	-
	SPF	SS	12-6	19-4	20-0†	12-1	18-9	20-0†	11-9	18-2	20-0†	11-1	17-2	20-0†	10-7	16-4	20-0†
	SPF	No.1	12-2	18-10	20-0†	11-10	18-3	20-0†	11-6	17-9	20-0†	10-10	16-9	20-0†	10-4	15-11	20-0†
	SPF	No.2	12-2	18-10	20-0†	11-10	18-3	20-0†	11-6	17-9	20-0†	10-10	16-9	20-0†	10-4	15-11	20-0†
	SPF	No.3/Stud	11-7	16-9	20-0†	11-2	16-0	19-9	10-9	15-3	18-10	9-10	14-0	17-4	9-1	12-11	16-0
	SPF	Standard	10-0	-	-	9-6	-	-	9-1	-	-	8-4	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B1 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180 (Cont.)

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/180
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 11	20-0†	20-0†	13 - 3	20-0†	20-0†	12 - 9	19 - 9	20-0†	12 - 3	18 - 11	20-0†	11 - 7	17 - 11	20-0†
	DFL	No.1	13 - 4	20-0†	20-0†	12 - 9	19 - 9	20-0†	12 - 3	19 - 0	20-0†	11 - 9	18 - 3	20-0†	11 - 2	17 - 3	20-0†
	DFL	No.2	13 - 1	20-0†	20-0†	12 - 6	19 - 5	20-0†	12 - 0	18 - 7	20-0†	11 - 6	17 - 10	20-0†	10 - 11	16 - 10	20-0†
	DFL	No.3/Stud	12 - 6	17 - 11	20-0†	11 - 9	16 - 8	20-0†	11 - 0	15 - 8	19 - 4	10 - 4	14 - 8	18 - 2	9 - 6	13 - 6	16 - 8
	DFL	Standard	10 - 8	-	-	9 - 11	-	-	9 - 4	-	-	8 - 9	-	-	8 - 0	-	-
	HF	SS	13 - 1	20-0†	20-0†	12 - 6	19 - 5	20-0†	12 - 0	18 - 7	20-0†	11 - 6	17 - 10	20-0†	10 - 11	16 - 10	20-0†
	HF	No.1	12 - 10	19 - 10	20-0†	12 - 3	18 - 11	20-0†	11 - 9	18 - 2	20-0†	11 - 3	17 - 5	20-0†	10 - 8	16 - 6	20-0†
	HF	No.2	12 - 2	18 - 10	20-0†	11 - 8	18 - 0	20-0†	11 - 2	17 - 3	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	20-0†
	HF	No.3/Stud	11 - 10	17 - 5	20-0†	11 - 4	16 - 3	20-0†	10 - 9	15 - 3	18 - 10	10 - 1	14 - 4	17 - 9	9 - 3	13 - 2	16 - 3
	HF	Standard	10 - 5	-	-	9 - 8	-	-	9 - 1	-	-	8 - 7	-	-	7 - 10	-	-
	SP	SS	13 - 8	20-0†	20-0†	13 - 1	20-0†	20-0†	12 - 6	19 - 4	20-0†	12 - 0	18 - 7	20-0†	11 - 4	17 - 7	20-0†
	SP	No.1	13 - 4	20-0†	20-0†	12 - 9	19 - 9	20-0†	12 - 3	19 - 0	20-0†	11 - 9	18 - 3	20-0†	11 - 2	17 - 3	20-0†
	SP	No.2	12 - 6	20-0†	20-0†	11 - 11	19 - 5	20-0†	11 - 5	18 - 7	20-0†	11 - 0	17 - 10	20-0†	10 - 5	16 - 10	20-0†
	SP	No.3	10 - 11	18 - 10	20-0†	10 - 2	17 - 7	20-0†	9 - 6	16 - 5	20-0†	9 - 0	15 - 6	19 - 3	8 - 3	14 - 2	17 - 8
	SP	Stud	10 - 11	18 - 10	20-0†	10 - 2	17 - 7	20-0†	9 - 6	16 - 5	20-0†	9 - 0	15 - 6	19 - 3	8 - 3	14 - 2	17 - 8
	SP	Standard	9 - 4	-	-	8 - 8	-	-	8 - 2	-	-	-	-	-	-	-	-
	SPF	SS	12 - 10	19 - 10	20-0†	12 - 3	18 - 11	20-0†	11 - 9	18 - 2	20-0†	11 - 3	17 - 5	20-0†	10 - 8	16 - 6	20-0†
	SPF	No.1	12 - 6	19 - 4	20-0†	11 - 11	18 - 6	20-0†	11 - 5	17 - 9	20-0†	11 - 0	17 - 0	20-0†	10 - 5	16 - 1	20-0†
	SPF	No.2	12 - 6	19 - 4	20-0†	11 - 11	18 - 6	20-0†	11 - 5	17 - 9	20-0†	11 - 0	17 - 0	20-0†	10 - 5	16 - 1	20-0†
	SPF	No.3/Stud	11 - 10	17 - 5	20-0†	11 - 4	16 - 3	20-0†	10 - 9	15 - 3	18 - 10	10 - 1	14 - 4	17 - 9	9 - 3	13 - 2	16 - 3
	SPF	Standard	10 - 5	-	-	9 - 8	-	-	9 - 1	-	-	8 - 7	-	-	7 - 10	-	-
16	DFL	SS	12 - 7	19 - 6	20-0†	12 - 0	18 - 7	20-0†	11 - 6	17 - 10	20-0†	11 - 1	17 - 2	20-0†	10 - 6	16 - 2	20-0†
	DFL	No.1	12 - 1	18 - 9	20-0†	11 - 7	17 - 11	20-0†	11 - 1	17 - 2	20-0†	10 - 8	16 - 6	20-0†	10 - 1	15 - 7	20-0†
	DFL	No.2	11 - 10	18 - 4	20-0†	11 - 4	17 - 6	20-0†	10 - 10	16 - 10	20-0†	10 - 5	16 - 2	20-0†	9 - 10	15 - 3	19 - 1
	DFL	No.3/Stud	10 - 9	15 - 4	19 - 0	10 - 1	14 - 4	17 - 8	9 - 5	13 - 5	16 - 7	8 - 11	12 - 7	15 - 7	8 - 2	11 - 7	14 - 4
	DFL	Standard	9 - 1	-	-	8 - 6	-	-	8 - 0	-	-	-	-	-	-	-	-
	HF	SS	11 - 10	18 - 4	20-0†	11 - 4	17 - 6	20-0†	10 - 10	16 - 10	20-0†	10 - 5	16 - 2	20-0†	9 - 10	15 - 3	19 - 10
	HF	No.1	11 - 7	17 - 11	20-0†	11 - 1	17 - 2	20-0†	10 - 7	16 - 5	20-0†	10 - 2	15 - 9	20-0†	9 - 8	14 - 11	19 - 5
	HF	No.2	11 - 0	17 - 1	20-0†	10 - 6	16 - 4	20-0†	10 - 1	15 - 7	20-0†	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5
	HF	No.3/Stud	10 - 6	14 - 11	18 - 6	9 - 10	13 - 11	17 - 3	9 - 2	13 - 1	16 - 2	8 - 8	12 - 3	15 - 2	7 - 11	11 - 3	13 - 11
	HF	Standard	8 - 11	-	-	8 - 4	-	-	7 - 9	-	-	-	-	-	-	-	-
	SP	SS	12 - 4	19 - 1	20-0†	11 - 10	18 - 3	20-0†	11 - 4	17 - 6	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†
	SP	No.1	12 - 1	18 - 9	20-0†	11 - 7	17 - 11	20-0†	11 - 1	17 - 2	20-0†	10 - 8	16 - 6	20-0†	10 - 1	15 - 7	20-0†
	SP	No.2	11 - 4	18 - 4	20-0†	10 - 10	17 - 6	20-0†	10 - 4	16 - 10	20-0†	10 - 0	16 - 2	20-0†	9 - 5	15 - 3	19 - 10
	SP	No.3	9 - 4	16 - 1	20-0†	8 - 8	15 - 0	18 - 9	8 - 2	14 - 1	17 - 6	-	13 - 3	16 - 6	-	12 - 2	15 - 2
	SP	Stud	9 - 4	16 - 1	20-0†	8 - 8	15 - 0	18 - 9	8 - 2	14 - 1	17 - 6	-	13 - 3	16 - 6	-	12 - 2	15 - 2
	SP	Standard	8 - 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 7	17 - 11	20-0†	11 - 1	17 - 2	20-0†	10 - 7	16 - 5	20-0†	10 - 2	15 - 9	20-0†	9 - 8	14 - 11	19 - 5
	SPF	No.1	11 - 4	17 - 6	20-0†	10 - 10	16 - 9	20-0†	10 - 4	16 - 0	20-0†	10 - 0	15 - 5	20-0†	9 - 5	14 - 7	18 - 10
	SPF	No.2	11 - 4	17 - 6	20-0†	10 - 10	16 - 9	20-0†	10 - 4	16 - 0	20-0†	10 - 0	15 - 5	20-0†	9 - 5	14 - 7	18 - 10
	SPF	No.3/Stud	10 - 6	14 - 11	18 - 6	9 - 10	13 - 11	17 - 3	9 - 2	13 - 1	16 - 2	8 - 8	12 - 3	15 - 2	7 - 11	11 - 3	13 - 11
	SPF	Standard	8 - 11	-	-	8 - 4	-	-	7 - 9	-	-	-	-	-	-	-	-
24	DFL	SS	10 - 11	16 - 11	20-0†	10 - 5	16 - 2	20-0†	10 - 0	15 - 6	20-0†	9 - 7	14 - 10	19 - 4	9 - 1	14 - 1	18 - 3
	DFL	No.1	10 - 6	16 - 3	20-0†	10 - 0	15 - 6	20-0†	9 - 8	14 - 11	18 - 10	9 - 3	14 - 4	17 - 9	8 - 9	13 - 2	16 - 3
	DFL	No.2	10 - 3	15 - 11	20-0†	9 - 10	15 - 2	19 - 0	9 - 5	14 - 5	17 - 10	9 - 1	13 - 6	16 - 9	8 - 7	12 - 5	15 - 4
	DFL	No.3/Stud	8 - 8	12 - 4	15 - 3	8 - 1	11 - 6	14 - 3	-	10 - 9	13 - 4	-	10 - 2	12 - 6	-	9 - 4	11 - 6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	10 - 3	15 - 11	20-0†	9 - 10	15 - 2	19 - 9	9 - 5	14 - 7	19 - 0	9 - 1	14 - 0	18 - 3	8 - 7	13 - 3	17 - 3
	HF	No.1	10 - 1	15 - 7	20-0†	9 - 7	14 - 10	19 - 4	9 - 3	14 - 3	18 - 6	8 - 10	13 - 8	17 - 6	8 - 5	13 - 0	16 - 0
	HF	No.2	9 - 7	14 - 10	19 - 3	9 - 2	14 - 2	18 - 5	8 - 9	13 - 7	17 - 3	8 - 5	13 - 0	16 - 3	8 - 0	12 - 1	14 - 11
	HF	No.3/Stud	8 - 6	12 - 0	14 - 10	7 - 11	11 - 3	13 - 10	-	10 - 6	13 - 0	-	9 - 11	12 - 3	-	9 - 1	11 - 3
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	16 - 7	20-0†	10 - 3	15 - 10	20-0†	9 - 10	15 - 2	19 - 9	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11
	SP	No.1	10 - 6	16 - 3	20-0†	10 - 0	15 - 6	20-0†	9 - 8	14 - 11	19 - 4	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7
	SP	No.2	9 - 10	15 - 11	20-0†	9 - 5	15 - 2	19 - 9	8 - 10	14 - 7	18 - 10	8 - 4	14 - 0	17 - 9	-	12 - 10	16 - 3
	SP	No.3	-	13 - 0	16 - 2	-	12 - 1	15 - 1	-	11 - 4	14 - 1	-	10 - 8	13 - 3	-	9 - 10	12 - 2
	SP	Stud	-	13 - 0	16 - 2	-	12 - 1	15 - 1	-	11 - 4	14 - 1	-	10 - 8	13 - 3	-	9 - 10	12 - 2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	15 - 7	20-0†	9 - 7	14 - 10	19 - 4	9 - 3	14 - 3	18 - 6	8 - 10	13 - 8	17 - 10	8 - 5	12 - 11	16 - 10
	SPF	No.1	9 - 10	15 - 2	19 - 9	9 - 5	14 - 6	18 - 9	9 - 0	13 - 11	17 - 6	8 - 8	13 - 4	16 - 6	8 - 2	12 - 3	15 - 2
	SPF	No.2	9 - 10	15 - 2	19 - 9	9 - 5	14 - 6	18 - 9	9 - 0	13 - 11	17 - 6	8 - 8	13 - 4	16 - 6	8 - 2	12 - 3	15 - 2
	SPF	No.3/Stud	8 - 6	12 - 0	14 - 10	7 - 11	11 - 3	13 - 10	-	10 - 6	13 - 0	-	9 - 11	12 - 3	-	9 - 1	11 - 3
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B2 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/240
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-2	20-0†	20-0†
	DFL	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-4	20-0†	20-0†	12-8	19-8	20-0†
	DFL	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	19-3	20-0†
	DFL	No.3/Stud	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	DFL	Standard	14-0††	-	-	13-7	-	-	13-3	-	-	12-5	-	-	11-5	-	-
	HF	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-10	20-0†	20-0†	13-1	20-0†	20-0†	12-5	19-3	20-0†
	HF	No.1	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-6	20-0†	20-0†	12-10	19-10	20-0†	12-2	18-10	20-0†
	HF	No.2	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-10	19-11	20-0†	12-2	18-10	20-0†	11-7	17-11	20-0†
	HF	No.3/Stud	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	HF	Standard	13-4	-	-	12-11	-	-	12-6	-	-	11-10	-	-	11-2	-	-
	SP	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	12-11	20-0†	20-0†
	SP	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13-4	20-0†	20-0†	12-8	19-8	20-0†
	SP	No.2	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	20-0†	20-0†	11-10	19-3	20-0†
	SP	No.3	13-4	20-0†	20-0†	12-11	20-0†	20-0†	12-6	20-0†	20-0†	11-10	19-4	20-0†	11-3	18-4	20-0†
	SP	Stud	13-4	20-0†	20-0†	12-11	20-0†	20-0†	12-6	20-0†	20-0†	11-10	19-4	20-0†	11-3	18-4	20-0†
	SP	Standard	13-0	-	-	12-5	-	-	11-10	-	-	10-10	-	-	10-0	-	-
	SPF	SS	14-0††	20-0†	20-0†	13-11	20-0†	20-0†	13-6	20-0†	20-0†	12-10	19-10	20-0†	12-2	18-10	20-0†
	SPF	No.1	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	SPF	No.2	14-0††	20-0†	20-0†	13-7	20-0†	20-0†	13-3	20-0†	20-0†	12-6	19-4	20-0†	11-10	18-4	20-0†
	SPF	No.3/Stud	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	SPF	Standard	13-4	-	-	12-11	-	-	12-6	-	-	11-10	-	-	11-2	-	-
16	DFL	SS	14-0††	20-0†	20-0†	13-8	20-0†	20-0†	13-3	20-0†	20-0†	12-7	19-5	20-0†	11-11	18-6	20-0†
	DFL	No.1	13-7	20-0†	20-0†	13-2	20-0†	20-0†	12-9	19-9	20-0†	12-1	18-9	20-0†	11-6	17-9	20-0†
	DFL	No.2	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	DFL	No.3/Stud	12-8	19-8	20-0†	12-4	19-1	20-0†	11-11	18-6	20-0†	11-4	17-6	20-0†	10-9	16-6	20-0†
	DFL	Standard	12-8	-	-	12-1	-	-	11-7	-	-	10-7	-	-	9-10	-	-
	HF	SS	13-4	20-0†	20-0†	12-11	20-0	20-0†	12-6	19-5	20-0†	11-10	18-4	20-0†	11-3	17-5	20-0†
	HF	No.1	13-0	20-0†	20-0†	12-7	19-6	20-0†	12-3	18-11	20-0†	11-7	17-11	20-0†	11-0	17-0	20-0†
	HF	No.2	12-4	19-2	20-0†	12-0	18-7	20-0†	11-8	18-0	20-0†	11-0	17-0	20-0†	10-5	16-2	20-0†
	HF	No.3/Stud	12-0	18-7	20-0†	11-8	18-1	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†	10-2	15-9	19-11
	HF	Standard	12-0	-	-	11-8	-	-	11-4	-	-	10-4	-	-	9-7	-	-
	SP	SS	13-10	20-0†	20-0†	13-5	20-0†	20-0†	13-1	20-0†	20-0†	12-4	19-1	20-0†	11-9	18-2	20-0†
	SP	No.1	13-7	20-0†	20-0†	13-2	20-0†	20-0†	12-9	19-9	20-0†	12-1	18-9	20-0†	11-6	17-9	20-0†
	SP	No.2	12-8	20-0†	20-0†	12-4	20-0	20-0†	11-11	19-5	20-0†	11-4	18-4	20-0†	10-9	17-5	20-0†
	SP	No.3	12-0	19-8	20-0†	11-8	19-1	20-0†	11-4	18-6	20-0†	10-9	17-6	20-0†	10-0	16-7	20-0†
	SP	Stud	12-0	19-8	20-0†	11-8	19-1	20-0†	11-4	18-6	20-0†	10-9	17-6	20-0†	10-0	16-7	20-0†
	SP	Standard	11-2	-	-	10-7	-	-	10-2	-	-	9-4	-	-	8-7	-	-
	SPF	SS	13-0	20-0†	20-0†	12-7	19-6	20-0†	12-3	18-11	20-0†	11-7	17-11	20-0†	11-0	17-0	20-0†
	SPF	No.1	12-8	19-8	20-0†	12-4	19-1	20-0†	11-11	18-6	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†
	SPF	No.2	12-8	19-8	20-0†	12-4	19-1	20-0†	11-11	18-6	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†
	SPF	No.3/Stud	12-0	18-7	20-0†	11-8	18-1	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†	10-2	15-9	19-11
	SPF	Standard	12-0	-	-	11-8	-	-	11-4	-	-	10-4	-	-	9-7	-	-
24	DFL	SS	12-3	19-0	20-0†	11-11	18-5	20-0†	11-6	17-10	20-0†	10-11	16-11	20-0†	10-4	16-0	20-0†
	DFL	No.1	11-10	18-3	20-0†	11-5	17-8	20-0†	11-1	17-2	20-0†	10-6	16-3	20-0†	10-0	15-5	20-0†
	DFL	No.2	11-7	17-10	20-0†	11-2	17-4	20-0†	10-10	16-10	20-0†	10-3	15-11	20-0†	9-9	15-1	19-8
	DFL	No.3/Stud	11-0	17-1	20-0†	10-8	16-5	20-0†	10-4	15-8	19-4	9-10	14-4	17-9	9-4	13-3	16-5
	DFL	Standard	10-3	-	-	9-9	-	-	9-4	-	-	8-7	-	-	7-11	-	-
	HF	SS	11-7	17-10	20-0†	11-2	17-4	20-0†	10-10	16-10	20-0†	10-3	15-11	20-0†	9-9	15-1	19-8
	HF	No.1	11-3	17-6	20-0†	10-11	16-11	20-0†	10-8	16-5	20-0†	10-1	15-7	20-0†	9-7	14-9	19-2
	HF	No.2	10-9	16-7	20-0†	10-5	16-1	20-0†	10-1	15-8	20-0†	9-7	14-9	19-3	9-1	14-1	18-3
	HF	No.3/Stud	10-5	16-2	20-0†	10-2	15-8	19-9	9-10	15-2	18-10	9-4	14-0	17-4	8-10	12-11	16-0
	HF	Standard	10-0	-	-	9-6	-	-	9-1	-	-	8-4	-	-	-	-	-
	SP	SS	12-0	18-7	20-0†	11-8	18-1	20-0†	11-4	17-6	20-0†	10-9	16-7	20-0†	10-2	15-9	20-0†
	SP	No.1	11-10	18-3	20-0†	11-5	17-8	20-0†	11-1	17-2	20-0†	10-6	16-3	20-0†	10-0	15-5	20-0†
	SP	No.2	11-0	17-10	20-0†	10-8	17-4	20-0†	10-4	16-10	20-0†	9-10	15-11	20-0†	9-4	15-1	19-8
	SP	No.3	10-5	17-1	20-0†	10-0	16-6	20-0†	9-6	16-1	20-0†	8-9	15-1	18-10	8-1	14-0	17-4
	SP	Stud	10-5	17-1	20-0†	10-0	16-6	20-0†	9-6	16-1	20-0†	8-9	15-1	18-10	8-1	14-0	17-4
	SP	Standard	9-0	-	-	8-7	-	-	8-2	-	-	-	-	-	-	-	-
	SPF	SS	11-3	17-6	20-0†	10-11	16-11	20-0†	10-8	16-5	20-0†	10-1	15-7	20-0†	9-7	14-9	19-2
	SPF	No.1	11-0	17-1	20-0†	10-8	16-6	20-0†	10-4	16-1	20-0†	9-10	15-2	19-9	9-4	14-5	18-9
	SPF	No.2	11-0	17-1	20-0†	10-8	16-6	20-0†	10-4	16-1	20-0†	9-10	15-2	19-9	9-4	14-5	18-9
	SPF	No.3/Stud	10-5	16-2	20-0†	10-2	15-8	19-9	9-10	15-2	18-10	9-4	14-0	17-4	8-10	12-11	16-0
	SPF	Standard	10-0	-	-	9-6	-	-	9-1	-	-	8-4	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B2 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

Exposure B
H/240
3/8" WSP

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12-7	19-6	20-0 ⁺	12-0	18-7	20-0 ⁺	11-6	17-10	20-0 ⁺	11-1	17-2	20-0 ⁺	10-6	16-2	20-0 ⁺
	DFL	No.1	12-1	18-9	20-0 ⁺	11-7	17-11	20-0 ⁺	11-1	17-2	20-0 ⁺	10-8	16-6	20-0 ⁺	10-1	15-7	20-0 ⁺
	DFL	No.2	11-10	18-4	20-0 ⁺	11-4	17-6	20-0 ⁺	10-10	16-10	20-0 ⁺	10-5	16-2	20-0 ⁺	9-10	15-3	19-10
	DFL	No.3/Stud	11-4	17-6	20-0 ⁺	10-10	16-8	20-0 ⁺	10-4	15-8	19-4	10-0	14-8	18-2	9-5	13-6	16-8
	DFL	Standard	10-8	-	-	9-11	-	-	9-4	-	-	8-9	-	-	8-0	-	-
	HF	SS	11-10	18-4	20-0 ⁺	11-4	17-6	20-0 ⁺	10-10	16-10	20-0 ⁺	10-5	16-2	20-0 ⁺	9-10	15-3	19-10
	HF	No.1	11-7	17-11	20-0 ⁺	11-1	17-2	20-0 ⁺	10-7	16-5	20-0 ⁺	10-2	15-9	20-0 ⁺	9-8	14-11	19-5
	HF	No.2	11-0	17-1	20-0 ⁺	10-6	16-4	20-0 ⁺	10-1	15-7	20-0 ⁺	9-8	15-0	19-6	9-2	14-2	18-5
	HF	No.3/Stud	10-9	16-7	20-0 ⁺	10-3	15-10	20-0 ⁺	9-10	15-2	18-10	9-5	14-4	17-9	8-11	13-2	16-3
	HF	Standard	10-5	-	-	9-8	-	-	9-1	-	-	8-7	-	-	7-10	-	-
	SP	SS	12-4	19-1	20-0 ⁺	11-10	18-3	20-0 ⁺	11-4	17-6	20-0 ⁺	10-10	16-10	20-0 ⁺	10-3	15-11	20-0 ⁺
	SP	No.1	12-1	18-9	20-0 ⁺	11-7	17-11	20-0 ⁺	11-1	17-2	20-0 ⁺	10-8	16-6	20-0 ⁺	10-1	15-7	20-0 ⁺
	SP	No.2	11-4	18-4	20-0 ⁺	10-10	17-6	20-0 ⁺	10-4	16-10	20-0 ⁺	10-0	16-2	20-0 ⁺	9-5	15-3	19-10
	SP	No.3	10-9	17-6	20-0 ⁺	10-2	16-9	20-0 ⁺	9-6	16-0	20-0 ⁺	9-0	15-5	19-3	8-3	14-2	17-8
	SP	Stud	10-9	17-6	20-0 ⁺	10-2	16-9	20-0 ⁺	9-6	16-0	20-0 ⁺	9-0	15-5	19-3	8-3	14-2	17-8
	SP	Standard	9-4	-	-	8-8	-	-	8-2	-	-	-	-	-	-	-	-
	SPF	SS	11-7	17-11	20-0 ⁺	11-1	17-2	20-0 ⁺	10-7	16-5	20-0 ⁺	10-2	15-9	20-0 ⁺	9-8	14-11	19-5
	SPF	No.1	11-4	17-6	20-0 ⁺	10-10	16-9	20-0 ⁺	10-4	16-0	20-0 ⁺	10-0	15-5	20-0 ⁺	9-5	14-7	18-11
	SPF	No.2	11-4	17-6	20-0 ⁺	10-10	16-9	20-0 ⁺	10-4	16-0	20-0 ⁺	10-0	15-5	20-0 ⁺	9-5	14-7	18-11
	SPF	No.3/Stud	10-9	16-7	20-0 ⁺	10-3	15-10	20-0 ⁺	9-10	15-2	18-10	9-5	14-4	17-9	8-11	13-2	16-3
	SPF	Standard	10-5	-	-	9-8	-	-	9-1	-	-	8-7	-	-	7-10	-	-
16	DFL	SS	11-5	17-7	20-0 ⁺	10-11	16-10	20-0 ⁺	10-5	16-2	20-0 ⁺	10-0	15-6	20-0 ⁺	9-6	14-8	19-1
	DFL	No.1	10-11	16-11	20-0 ⁺	10-6	16-2	20-0 ⁺	10-0	15-6	20-0 ⁺	9-8	14-11	19-5	9-1	14-1	18-4
	DFL	No.2	10-9	16-7	20-0 ⁺	10-3	15-10	20-0 ⁺	9-10	15-2	19-9	9-5	14-7	19-0	8-11	13-10	17-11
	DFL	No.3/Stud	10-3	15-4	19-0	9-9	14-4	17-8	9-4	13-5	16-7	8-11	12-7	15-7	8-2	11-7	14-4
	DFL	Standard	9-1	-	-	8-6	-	-	8-0	-	-	-	-	-	-	-	-
	HF	SS	10-9	16-7	20-0 ⁺	10-3	15-10	20-0 ⁺	9-10	15-2	19-9	9-5	14-7	19-0	8-11	13-10	17-11
	HF	No.1	10-6	16-2	20-0 ⁺	10-0	15-6	20-0 ⁺	9-7	14-10	19-4	9-3	14-3	18-7	8-9	13-6	17-7
	HF	No.2	10-0	15-5	20-0 ⁺	9-6	14-9	19-2	9-2	14-2	18-4	8-9	13-7	17-8	8-4	12-10	16-8
	HF	No.3/Stud	9-8	14-11	18-6	9-3	13-11	17-3	8-11	13-1	16-2	8-6	12-3	15-2	7-11	11-3	13-11
	HF	Standard	8-11	-	-	8-4	-	-	7-9	-	-	-	-	-	-	-	-
	SP	SS	11-2	17-3	20-0 ⁺	10-8	16-6	20-0 ⁺	10-3	15-10	20-0 ⁺	9-10	15-2	19-9	9-4	14-5	18-8
	SP	No.1	10-11	16-11	20-0 ⁺	10-6	16-2	20-0 ⁺	10-0	15-6	20-0 ⁺	9-8	14-11	19-5	9-1	14-1	18-4
	SP	No.2	10-3	16-7	20-0 ⁺	9-9	15-10	20-0 ⁺	9-4	15-2	19-9	9-0	14-7	19-0	8-6	13-10	17-11
	SP	No.3	9-4	15-10	20-0 ⁺	8-8	15-0	18-9	8-2	14-1	17-6	-	13-3	16-6	-	12-2	15-2
	SP	Stud	9-4	15-10	20-0 ⁺	8-8	15-0	18-9	8-2	14-1	17-6	-	13-3	16-6	-	12-2	15-2
	SP	Standard	8-0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10-6	16-2	20-0 ⁺	10-0	15-6	20-0 ⁺	9-7	14-10	19-4	9-3	14-3	18-7	8-9	13-6	17-7
	SPF	No.1	10-3	15-10	20-0 ⁺	9-9	15-1	19-8	9-4	14-6	18-10	9-0	13-11	18-1	8-6	13-2	17-2
	SPF	No.2	10-3	15-10	20-0 ⁺	9-9	15-1	19-8	9-4	14-6	18-10	9-0	13-11	18-1	8-6	13-2	17-2
	SPF	No.3/Stud	9-8	14-11	18-6	9-3	13-11	17-3	8-11	13-1	16-2	8-6	12-3	15-2	7-11	11-3	13-11
	SPF	Standard	8-11	-	-	8-4	-	-	7-9	-	-	-	-	-	-	-	-
24	DFL	SS	9-11	15-3	19-10	9-5	14-7	19-0	9-1	14-0	18-2	8-8	13-5	17-6	8-3	12-9	16-6
	DFL	No.1	9-6	14-8	19-1	9-1	14-1	18-3	8-9	13-6	17-6	8-4	12-11	16-10	7-11	12-3	15-11
	DFL	No.2	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-4
	DFL	No.3/Stud	8-8	12-4	15-3	8-1	11-6	14-3	-	10-9	13-4	-	10-2	12-6	-	9-4	11-6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	HF	No.1	9-1	14-1	18-4	8-8	13-5	17-6	8-4	12-11	16-9	8-0	12-5	16-1	-	11-9	15-3
	HF	No.2	8-8	13-5	17-5	8-3	12-10	16-8	7-11	12-3	15-11	-	11-9	15-4	-	11-2	14-6
	HF	No.3/Stud	8-5	12-0	14-10	7-11	11-3	13-10	-	10-6	13-0	-	9-11	12-3	-	9-1	11-3
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-8	15-0	19-6	9-3	14-4	18-8	8-11	13-9	17-10	8-6	13-2	17-2	8-1	12-6	16-3
	SP	No.1	9-6	14-8	19-1	9-1	14-1	18-3	8-9	13-6	17-6	8-4	12-11	16-10	7-11	12-3	15-11
	SP	No.2	8-11	14-5	18-9	8-6	13-9	17-11	8-2	13-2	17-2	7-10	12-8	16-6	-	12-0	15-7
	SP	No.3	-	13-0	16-2	-	12-1	15-1	-	11-4	14-1	-	10-8	13-3	-	9-10	12-2
	SP	Stud	-	13-0	16-2	-	12-1	15-1	-	11-4	14-1	-	10-8	13-3	-	9-10	12-2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-1	14-1	18-4	8-8	13-5	17-6	8-4	12-11	16-9	8-0	12-5	16-1	-	11-9	15-3
	SPF	No.1	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-9	-	11-5	14-10
	SPF	No.2	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-9	-	11-5	14-10
	SPF	No.3/Stud	8-5	12-0	14-10	7-11	11-3	13-10	-	10-6	13-0	-	9-11	12-3	-	9-1	11-3
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B3 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/360
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 7	20-0†	20-0†	13 - 2	20-0†	20-0†	12 - 9	19 - 9	20-0†	12 - 1	18 - 8	20-0†	11 - 5	17 - 9	20-0†
	DFL	No.1	13 - 0	20-0†	20-0†	12 - 8	19 - 7	20-0†	12 - 3	19 - 0	20-0†	11 - 7	18 - 0	20-0†	11 - 0	17 - 1	20-0†
	DFL	No.2	12 - 9	19 - 9	20-0†	12 - 5	19 - 2	20-0†	12 - 0	18 - 7	20-0†	11 - 4	17 - 7	20-0†	10 - 9	16 - 8	20-0†
	DFL	No.3/Stud	12 - 2	18 - 10	20-0†	11 - 10	18 - 3	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 9	20-0†	10 - 4	15 - 11	20-0†
	DFL	Standard	12 - 2	-	-	11 - 10	-	-	11 - 6	-	-	10 - 10	-	-	10 - 4	-	-
	HF	SS	12 - 9	19 - 9	20-0†	12 - 5	19 - 2	20-0†	12 - 0	18 - 7	20-0†	11 - 4	17 - 7	20-0†	10 - 9	16 - 8	20-0†
	HF	No.1	12 - 6	19 - 4	20-0†	12 - 1	18 - 9	20-0†	11 - 9	18 - 2	20-0†	11 - 1	17 - 2	20-0†	10 - 7	16 - 4	20-0†
	HF	No.2	11 - 10	18 - 5	20-0†	11 - 6	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 7	16 - 4	20-0†	10 - 0	15 - 6	20-0†
	HF	No.3/Stud	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	HF	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 9	-	-
	SP	SS	13 - 4	20-0†	20-0†	12 - 11	20 - 0	20-0†	12 - 6	19 - 5	20-0†	11 - 10	18 - 4	20-0†	11 - 3	17 - 5	20-0†
	SP	No.1	13 - 0	20-0†	20-0†	12 - 8	19 - 7	20-0†	12 - 3	19 - 0	20-0†	11 - 7	18 - 0	20-0†	11 - 0	17 - 1	20-0†
	SP	No.2	12 - 2	19 - 9	20-0†	11 - 10	19 - 2	20-0†	11 - 6	18 - 7	20-0†	10 - 10	17 - 7	20-0†	10 - 4	16 - 8	20-0†
	SP	No.3	11 - 7	18 - 10	20-0†	11 - 2	18 - 3	20-0†	10 - 10	17 - 9	20-0†	10 - 3	16 - 9	20-0†	9 - 9	15 - 11	20-0†
	SP	Stud	11 - 7	18 - 10	20-0†	11 - 2	18 - 3	20-0†	10 - 10	17 - 9	20-0†	10 - 3	16 - 9	20-0†	9 - 9	15 - 11	20-0†
	SP	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 9	-	-
	SPF	SS	12 - 6	19 - 4	20-0†	12 - 1	18 - 9	20-0†	11 - 9	18 - 2	20-0†	11 - 1	17 - 2	20-0†	10 - 7	16 - 4	20-0†
	SPF	No.1	12 - 2	18 - 10	20-0†	11 - 10	18 - 3	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 9	20-0†	10 - 4	15 - 11	20-0†
	SPF	No.2	12 - 2	18 - 10	20-0†	11 - 10	18 - 3	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 9	20-0†	10 - 4	15 - 11	20-0†
	SPF	No.3/Stud	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	SPF	Standard	11 - 7	-	-	11 - 2	-	-	10 - 10	-	-	10 - 3	-	-	9 - 9	-	-
16	DFL	SS	12 - 3	19 - 0	20-0†	11 - 11	18 - 5	20-0†	11 - 6	17 - 10	20-0†	10 - 11	16 - 11	20-0†	10 - 4	16 - 0	20-0†
	DFL	No.1	11 - 10	18 - 3	20-0†	11 - 5	17 - 8	20-0†	11 - 1	17 - 2	20-0†	10 - 6	16 - 3	20-0†	10 - 0	15 - 5	20-0†
	DFL	No.2	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	DFL	No.3/Stud	11 - 0	17 - 1	20-0†	10 - 8	16 - 6	20-0†	10 - 4	16 - 1	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 9
	DFL	Standard	11 - 0	-	-	10 - 8	-	-	10 - 4	-	-	9 - 10	-	-	9 - 4	-	-
	HF	SS	11 - 7	17 - 10	20-0†	11 - 2	17 - 4	20-0†	10 - 10	16 - 10	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 8
	HF	No.1	11 - 3	17 - 6	20-0†	10 - 11	16 - 11	20-0†	10 - 8	16 - 5	20-0†	10 - 1	15 - 7	20-0†	9 - 7	14 - 9	19 - 2
	HF	No.2	10 - 9	16 - 7	20-0†	10 - 5	16 - 1	20-0†	10 - 1	15 - 8	20-0†	9 - 7	14 - 9	19 - 3	9 - 1	14 - 1	18 - 3
	HF	No.3/Stud	10 - 5	16 - 2	20-0†	10 - 2	15 - 8	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 8	8 - 10	13 - 8	17 - 9
	HF	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 4	-	-	8 - 10	-	-
	SP	SS	12 - 0	18 - 7	20-0†	11 - 8	18 - 1	20-0†	11 - 4	17 - 6	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 9	20-0†
	SP	No.1	11 - 10	18 - 3	20-0†	11 - 5	17 - 8	20-0†	11 - 1	17 - 2	20-0†	10 - 6	16 - 3	20-0†	10 - 0	15 - 5	20-0†
	SP	No.2	11 - 0	17 - 10	20-0†	10 - 8	17 - 4	20-0†	10 - 4	16 - 10	20-0†	9 - 10	15 - 11	20-0†	9 - 4	15 - 1	19 - 8
	SP	No.3	10 - 5	17 - 1	20-0†	10 - 2	16 - 6	20-0†	9 - 10	16 - 1	20-0†	9 - 4	15 - 2	19 - 9	8 - 10	14 - 5	18 - 9
	SP	Stud	10 - 5	17 - 1	20-0†	10 - 2	16 - 6	20-0†	9 - 10	16 - 1	20-0†	9 - 4	15 - 2	19 - 9	8 - 10	14 - 5	18 - 9
	SP	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 4	-	-	8 - 7	-	-
	SPF	SS	11 - 3	17 - 6	20-0†	10 - 11	16 - 11	20-0†	10 - 8	16 - 5	20-0†	10 - 1	15 - 7	20-0†	9 - 7	14 - 9	19 - 2
	SPF	No.1	11 - 0	17 - 1	20-0†	10 - 8	16 - 6	20-0†	10 - 4	16 - 1	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 9
	SPF	No.2	11 - 0	17 - 1	20-0†	10 - 8	16 - 6	20-0†	10 - 4	16 - 1	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 9
	SPF	No.3/Stud	10 - 5	16 - 2	20-0†	10 - 2	15 - 8	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 8	8 - 10	13 - 8	17 - 9
	SPF	Standard	10 - 5	-	-	10 - 2	-	-	9 - 10	-	-	9 - 4	-	-	8 - 10	-	-
24	DFL	SS	10 - 8	16 - 6	20-0†	10 - 4	16 - 0	20-0†	10 - 0	15 - 6	20-0†	9 - 6	14 - 8	19 - 1	9 - 0	13 - 11	18 - 1
	DFL	No.1	10 - 3	15 - 10	20-0†	9 - 11	15 - 4	20 - 0	9 - 8	14 - 11	19 - 5	9 - 1	14 - 1	18 - 4	8 - 8	13 - 5	17 - 5
	DFL	No.2	10 - 0	15 - 6	20-0†	9 - 9	15 - 0	19 - 7	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11	8 - 6	13 - 1	17 - 0
	DFL	No.3/Stud	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	DFL	Standard	9 - 7	-	-	9 - 3	-	-	9 - 0	-	-	8 - 6	-	-	7 - 11	-	-
	HF	SS	10 - 0	15 - 6	20-0†	9 - 9	15 - 0	19 - 7	9 - 5	14 - 7	19 - 0	8 - 11	13 - 10	17 - 11	8 - 6	13 - 1	17 - 0
	HF	No.1	9 - 10	15 - 2	19 - 9	9 - 6	14 - 8	19 - 1	9 - 3	14 - 3	18 - 7	8 - 9	13 - 6	17 - 7	8 - 3	12 - 10	16 - 8
	HF	No.2	9 - 4	14 - 5	18 - 9	9 - 1	14 - 0	18 - 2	8 - 9	13 - 7	17 - 8	8 - 4	12 - 10	16 - 8	7 - 11	12 - 2	15 - 10
	HF	No.3/Stud	9 - 1	14 - 0	18 - 3	8 - 10	13 - 7	17 - 8	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3	-	11 - 10	15 - 5
	HF	Standard	9 - 1	-	-	8 - 10	-	-	8 - 6	-	-	8 - 1	-	-	-	-	-
	SP	SS	10 - 5	16 - 2	20-0†	10 - 2	15 - 8	20-0†	9 - 10	15 - 2	19 - 9	9 - 4	14 - 5	18 - 8	8 - 10	13 - 8	17 - 9
	SP	No.1	10 - 3	15 - 10	20-0†	9 - 11	15 - 4	20 - 0	9 - 8	14 - 11	19 - 5	9 - 1	14 - 1	18 - 4	8 - 8	13 - 5	17 - 5
	SP	No.2	9 - 7	15 - 6	20-0†	9 - 3	15 - 0	19 - 7	9 - 0	14 - 7	19 - 0	8 - 6	13 - 10	17 - 11	8 - 1	13 - 1	17 - 0
	SP	No.3	9 - 1	14 - 10	19 - 3	8 - 10	14 - 4	18 - 8	8 - 6	13 - 11	18 - 1	8 - 1	13 - 2	17 - 2	-	12 - 6	16 - 3
	SP	Stud	9 - 1	14 - 10	19 - 3	8 - 10	14 - 4	18 - 8	8 - 6	13 - 11	18 - 1	8 - 1	13 - 2	17 - 2	-	12 - 6	16 - 3
	SP	Standard	9 - 0	-	-	8 - 7	-	-	8 - 2	-	-	-	-	-	-	-	-
	SPF	SS	9 - 10	15 - 2	19 - 9	9 - 6	14 - 8	19 - 1	9 - 3	14 - 3	18 - 7	8 - 9	13 - 6	17 - 7	8 - 3	12 - 10	16 - 8
	SPF	No.1	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	SPF	No.2	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 1	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	SPF	No.3/Stud	9 - 1	14 - 0	18 - 3	8 - 10	13 - 7	17 - 8	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3	-	11 - 10	15 - 5
	SPF	Standard	9 - 1	-	-	8 - 10	-	-	8 - 6	-	-	8 - 1	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B3 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure B
H/360
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	10-11	16-11	20-0†	10-5	16-2	20-0†	10-0	15-6	20-0†	9-7	14-10	19-4	9-1	14-1	18-3
	DFL	No.1	10-6	16-3	20-0†	10-0	15-6	20-0†	9-8	14-11	19-4	9-3	14-4	18-7	8-9	13-6	17-7
	DFL	No.2	10-3	15-11	20-0†	9-10	15-2	19-9	9-5	14-7	19-0	9-1	14-0	18-3	8-7	13-3	17-3
	DFL	No.3/Stud	9-10	15-2	19-9	9-5	14-6	18-10	9-0	13-11	18-1	8-8	13-4	17-5	8-2	12-8	16-5
	DFL	Standard	9-10	-	-	9-5	-	-	9-0	-	-	8-8	-	-	8-0	-	-
	HF	SS	10-3	15-11	20-0†	9-10	15-2	19-9	9-5	14-7	19-0	9-1	14-0	18-3	8-7	13-3	17-3
	HF	No.1	10-1	15-7	20-0†	9-7	14-10	19-4	9-3	14-3	18-6	8-10	13-8	17-10	8-5	12-11	16-10
	HF	No.2	9-7	14-10	19-3	9-2	14-2	18-5	8-9	13-7	17-8	8-5	13-0	16-11	8-0	12-4	16-0
	HF	No.3/Stud	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	HF	Standard	9-4	-	-	8-11	-	-	8-6	-	-	8-2	-	-	7-9	-	-
	SP	SS	10-9	16-7	20-0†	10-3	15-10	20-0†	9-10	15-2	19-9	9-5	14-7	19-0	8-11	13-10	17-11
	SP	No.1	10-6	16-3	20-0†	10-0	15-6	20-0†	9-8	14-11	19-4	9-3	14-4	18-7	8-9	13-6	17-7
	SP	No.2	9-10	15-11	20-0†	9-5	15-2	19-9	9-0	14-7	19-0	8-8	14-0	18-3	8-2	13-3	17-3
	SP	No.3	9-4	15-2	19-9	8-11	14-6	18-10	8-6	13-11	18-1	8-2	13-4	17-5	7-9	12-8	16-5
	SP	Stud	9-4	15-2	19-9	8-11	14-6	18-10	8-6	13-11	18-1	8-2	13-4	17-5	7-9	12-8	16-5
	SP	Standard	9-4	-	-	8-8	-	-	8-2	-	-	-	-	-	-	-	-
	SPF	SS	10-1	15-7	20-0†	9-7	14-10	19-4	9-3	14-3	18-6	8-10	13-8	17-10	8-5	12-11	16-10
	SPF	No.1	9-10	15-2	19-9	9-5	14-6	18-10	9-0	13-11	18-1	8-8	13-4	17-5	8-2	12-8	16-5
	SPF	No.2	9-10	15-2	19-9	9-5	14-6	18-10	9-0	13-11	18-1	8-8	13-4	17-5	8-2	12-8	16-5
	SPF	No.3/Stud	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	SPF	Standard	9-4	-	-	8-11	-	-	8-6	-	-	8-2	-	-	7-9	-	-
16	DFL	SS	9-11	15-3	19-10	9-5	14-7	19-0	9-1	14-0	18-2	8-8	13-5	17-6	8-3	12-9	16-6
	DFL	No.1	9-6	14-8	19-1	9-1	14-1	18-3	8-9	13-6	17-6	8-4	12-11	16-10	7-11	12-3	15-11
	DFL	No.2	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	DFL	No.3/Stud	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-7	-	11-5	14-4
	DFL	Standard	8-11	-	-	8-6	-	-	8-0	-	-	-	-	-	-	-	-
	HF	SS	9-4	14-5	18-9	8-11	13-9	17-11	8-6	13-2	17-2	8-2	12-8	16-6	7-9	12-0	15-7
	HF	No.1	9-1	14-1	18-4	8-8	13-5	17-6	8-4	12-11	16-9	8-0	12-5	16-1	-	11-9	15-3
	HF	No.2	8-8	13-5	17-5	8-3	12-10	16-8	7-11	12-3	15-11	-	11-9	15-4	-	11-2	14-6
	HF	No.3/Stud	8-5	13-0	16-11	8-1	12-5	16-2	-	11-11	15-6	-	11-6	14-11	-	10-10	13-11
	HF	Standard	8-5	-	-	8-1	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-8	15-0	19-6	9-3	14-4	18-8	8-11	13-9	17-10	8-6	13-2	17-2	8-1	12-6	16-3
	SP	No.1	9-6	14-8	19-1	9-1	14-1	18-3	8-9	13-6	17-6	8-4	12-11	16-10	7-11	12-3	15-11
	SP	No.2	8-11	14-5	18-9	8-6	13-9	17-11	8-2	13-2	17-2	7-10	12-8	16-6	-	12-0	15-7
	SP	No.3	8-5	13-9	17-10	8-1	13-2	17-1	-	12-7	16-4	-	12-1	15-9	-	11-5	14-10
	SP	Stud	8-5	13-9	17-10	8-1	13-2	17-1	-	12-7	16-4	-	12-1	15-9	-	11-5	14-10
	SP	Standard	8-0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-1	14-1	18-4	8-8	13-5	17-6	8-4	12-11	16-9	8-0	12-5	16-1	-	11-9	15-3
	SPF	No.1	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-9	-	11-5	14-10
	SPF	No.2	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-4	7-10	12-1	15-9	-	11-5	14-10
	SPF	No.3/Stud	8-5	13-0	16-11	8-1	12-5	16-2	-	11-11	15-6	-	11-6	14-11	-	10-10	13-11
	SPF	Standard	8-5	-	-	8-1	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8-7	13-3	17-3	8-2	12-8	16-6	7-10	12-2	15-10	-	11-8	15-2	-	11-1	14-4
	DFL	No.1	8-3	12-9	16-7	7-11	12-2	15-10	-	11-8	15-2	-	11-3	14-7	-	10-7	13-10
	DFL	No.2	8-1	12-6	16-3	-	11-11	15-6	-	11-5	14-11	-	11-0	14-4	-	10-5	13-6
	DFL	No.3/Stud	-	11-11	15-3	-	11-5	14-3	-	10-9	13-4	-	10-2	12-6	-	9-4	11-6
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-1	12-6	16-3	-	11-11	15-6	-	11-5	14-11	-	11-0	14-4	-	10-5	13-6
	HF	No.1	7-11	12-3	15-11	-	11-8	15-2	-	11-2	14-7	-	10-9	14-0	-	10-2	13-3
	HF	No.2	-	11-7	15-1	-	11-1	14-5	-	10-8	13-10	-	10-3	13-4	-	9-8	12-7
	HF	No.3/Stud	-	11-4	14-8	-	10-10	13-10	-	10-4	13-0	-	9-11	12-3	-	9-1	11-3
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-5	13-0	16-11	8-1	12-5	16-2	-	11-11	15-6	-	11-6	14-11	-	10-10	14-1
	SP	No.1	8-3	12-9	16-7	7-11	12-2	15-10	-	11-8	15-2	-	11-3	14-7	-	10-7	13-10
	SP	No.2	-	12-6	16-3	-	11-11	15-6	-	11-5	14-11	-	11-0	14-4	-	10-5	13-6
	SP	No.3	-	11-11	15-6	-	11-5	14-10	-	10-11	14-1	-	10-6	13-3	-	9-10	12-2
	SP	Stud	-	11-11	15-6	-	11-5	14-10	-	10-11	14-1	-	10-6	13-3	-	9-10	12-2
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	7-11	12-3	15-11	-	11-8	15-2	-	11-2	14-7	-	10-9	14-0	-	10-2	13-3
	SPF	No.1	-	11-11	15-6	-	11-5	14-10	-	10-11	14-2	-	10-6	13-8	-	9-11	12-11
	SPF	No.2	-	11-11	15-6	-	11-5	14-10	-	10-11	14-2	-	10-6	13-8	-	9-11	12-11
	SPF	No.3/Stud	-	11-4	14-8	-	10-10	13-10	-	10-4	13-0	-	9-11	12-3	-	9-1	11-3
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B4 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure C
H/180
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 8	20-0†	20-0†	13 - 0	20-0†	20-0†
	DFL	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 11	20-0†	20-0†	13 - 2	20-0†	20-0†	12 - 6	19 - 4	20-0†
	DFL	No.2	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 8	20-0†	20-0†	12 - 11	20 - 0	20-0†	12 - 3	19 - 0	20-0†
	DFL	No.3/Stud	13 - 10	20-0†	20-0†	13 - 5	19 - 11	20-0†	13 - 0	19 - 1	20-0†	12 - 4	17 - 6	20-0†	11 - 4	16 - 2	20 - 0
	DFL	Standard	12 - 5	-	-	11 - 10	-	-	11 - 4	-	-	10 - 5	-	-	9 - 7	-	-
	HF	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 8	20-0†	20-0†	12 - 11	20 - 0	20-0†	12 - 3	19 - 0	20-0†
	HF	No.1	14-0††	20-0†	20-0†	13 - 9	20-0†	20-0†	13 - 4	20-0†	20-0†	12 - 7	19 - 6	20-0†	12 - 0	18 - 6	20-0†
	HF	No.2	13 - 6	20-0†	20-0†	13 - 1	20-0†	20-0†	12 - 8	19 - 8	20-0†	12 - 0	18 - 7	20-0†	11 - 5	17 - 8	20-0†
	HF	No.3/Stud	13 - 1	20-0†	20-0†	12 - 9	19 - 5	20-0†	12 - 4	18 - 7	20-0†	11 - 8	17 - 0	20-0†	11 - 1	15 - 9	19 - 5
	HF	Standard	12 - 2	-	-	11 - 7	-	-	11 - 1	-	-	10 - 2	-	-	9 - 5	-	-
	SP	SS	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 5	20-0†	20-0†	12 - 9	19 - 9	20-0†
	SP	No.1	14-0††	20-0†	20-0†	14-0††	20-0†	20-0†	13 - 11	20-0†	20-0†	13 - 2	20-0†	20-0†	12 - 6	19 - 4	20-0†
	SP	No.2	13 - 10	20-0†	20-0†	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 4	20 - 0	20-0†	11 - 8	19 - 0	20-0†
	SP	No.3	12 - 9	20-0†	20-0†	12 - 2	20-0†	20-0†	11 - 7	20-0†	20-0†	10 - 8	18 - 5	20-0†	9 - 10	17 - 0	20-0†
	SP	Stud	12 - 9	20-0†	20-0†	12 - 2	20-0†	20-0†	11 - 7	20-0†	20-0†	10 - 8	18 - 5	20-0†	9 - 10	17 - 0	20-0†
	SP	Standard	10 - 11	-	-	10 - 5	-	-	9 - 11	-	-	9 - 1	-	-	8 - 5	-	-
	SPF	SS	14-0††	20-0†	20-0†	13 - 9	20-0†	20-0†	13 - 4	20-0†	20-0†	12 - 7	19 - 6	20-0†	12 - 0	18 - 6	20-0†
	SPF	No.1	13 - 10	20-0†	20-0†	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†
	SPF	No.2	13 - 10	20-0†	20-0†	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†
	SPF	No.3/Stud	13 - 1	20-0†	20-0†	12 - 9	19 - 5	20-0†	12 - 4	18 - 7	20-0†	11 - 8	17 - 0	20-0†	11 - 1	15 - 9	19 - 5
	SPF	Standard	12 - 2	-	-	11 - 7	-	-	11 - 1	-	-	10 - 2	-	-	9 - 5	-	-
16	DFL	SS	13 - 11	20-0†	20-0†	13 - 6	20-0†	20-0†	13 - 1	20-0†	20-0†	12 - 5	19 - 2	20-0†	11 - 9	18 - 3	20-0†
	DFL	No.1	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 7	19 - 6	20-0†	11 - 11	18 - 5	20-0†	11 - 4	17 - 6	20-0†
	DFL	No.2	13 - 1	20-0†	20-0†	12 - 9	19 - 8	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†	11 - 1	17 - 2	20-0†
	DFL	No.3/Stud	12 - 6	17 - 11	20-0†	12 - 0	17 - 1	20-0†	11 - 6	16 - 4	20-0†	10 - 7	15 - 0	18 - 6	9 - 9	13 - 10	17 - 1
	DFL	Standard	10 - 8	-	-	10 - 2	-	-	9 - 9	-	-	8 - 11	-	-	8 - 3	-	-
	HF	SS	13 - 1	20-0†	20-0†	12 - 9	19 - 8	20-0†	12 - 4	19 - 1	20-0†	11 - 8	18 - 1	20-0†	11 - 1	17 - 2	20-0†
	HF	No.1	12 - 10	19 - 10	20-0†	12 - 5	19 - 3	20-0†	12 - 1	18 - 8	20-0†	11 - 5	17 - 8	20-0†	10 - 10	16 - 9	20-0†
	HF	No.2	12 - 2	18 - 11	20-0†	11 - 10	18 - 4	20-0†	11 - 6	17 - 9	20-0†	10 - 10	16 - 10	20-0†	10 - 4	15 - 11	20-0†
	HF	No.3/Stud	11 - 10	17 - 6	20-0†	11 - 6	16 - 8	20-0†	11 - 2	15 - 11	19 - 8	10 - 3	14 - 7	18 - 1	9 - 6	13 - 6	16 - 8
	HF	Standard	10 - 5	-	-	9 - 11	-	-	9 - 6	-	-	8 - 8	-	-	8 - 1	-	-
	SP	SS	13 - 8	20-0†	20-0†	13 - 3	20-0†	20-0†	12 - 10	19 - 11	20-0†	12 - 2	18 - 10	20-0†	11 - 7	17 - 10	20-0†
	SP	No.1	13 - 5	20-0†	20-0†	13 - 0	20-0†	20-0†	12 - 7	19 - 6	20-0†	11 - 11	18 - 5	20-0†	11 - 4	17 - 6	20-0†
	SP	No.2	12 - 6	20-0†	20-0†	12 - 2	19 - 8	20-0†	11 - 9	19 - 1	20-0†	11 - 2	18 - 1	20-0†	10 - 7	17 - 2	20-0†
	SP	No.3	10 - 11	18 - 10	20-0†	10 - 5	18 - 0	20-0†	9 - 11	17 - 2	20-0†	9 - 1	15 - 9	19 - 7	8 - 5	14 - 7	18 - 1
	SP	Stud	10 - 11	18 - 10	20-0†	10 - 5	18 - 0	20-0†	9 - 11	17 - 2	20-0†	9 - 1	15 - 9	19 - 7	8 - 5	14 - 7	18 - 1
	SP	Standard	9 - 4	-	-	8 - 11	-	-	8 - 6	-	-	7 - 10	-	-	-	-	-
	SPF	SS	12 - 10	19 - 10	20-0†	12 - 5	19 - 3	20-0†	12 - 1	18 - 8	20-0†	11 - 5	17 - 8	20-0†	10 - 10	16 - 9	20-0†
	SPF	No.1	12 - 6	19 - 4	20-0†	12 - 2	18 - 9	20-0†	11 - 9	18 - 3	20-0†	11 - 2	17 - 3	20-0†	10 - 7	16 - 4	20-0†
	SPF	No.2	12 - 6	19 - 4	20-0†	12 - 2	18 - 9	20-0†	11 - 9	18 - 3	20-0†	11 - 2	17 - 3	20-0†	10 - 7	16 - 4	20-0†
	SPF	No.3/Stud	11 - 10	17 - 6	20-0†	11 - 6	16 - 8	20-0†	11 - 2	15 - 11	19 - 8	10 - 3	14 - 7	18 - 1	9 - 6	13 - 6	16 - 8
	SPF	Standard	10 - 5	-	-	9 - 11	-	-	9 - 6	-	-	8 - 8	-	-	8 - 1	-	-
24	DFL	SS	12 - 1	18 - 8	20-0†	11 - 9	18 - 2	20-0†	11 - 5	17 - 7	20-0†	10 - 9	16 - 8	20-0†	10 - 3	15 - 10	20-0†
	DFL	No.1	11 - 8	18 - 0	20-0†	11 - 3	17 - 5	20-0†	10 - 11	16 - 11	20-0†	10 - 4	16 - 0	20-0†	9 - 10	15 - 2	19 - 5
	DFL	No.2	11 - 5	17 - 7	20-0†	11 - 0	17 - 1	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	19 - 11	9 - 7	14 - 10	18 - 5
	DFL	No.3/Stud	10 - 2	14 - 5	17 - 10	9 - 8	13 - 9	17 - 0	9 - 3	13 - 2	16 - 3	8 - 6	12 - 1	14 - 11	7 - 10	11 - 2	13 - 9
	DFL	Standard	8 - 7	-	-	8 - 2	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	11 - 5	17 - 7	20-0†	11 - 0	17 - 1	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	20-0†	9 - 7	14 - 11	19 - 4
	HF	No.1	11 - 2	17 - 3	20-0†	10 - 9	16 - 8	20-0†	10 - 6	16 - 2	20-0†	9 - 11	15 - 4	19 - 11	9 - 5	14 - 7	18 - 11
	HF	No.2	10 - 7	16 - 5	20-0†	10 - 3	15 - 11	20-0†	10 - 0	15 - 5	20-0†	9 - 5	14 - 7	19 - 0	9 - 0	13 - 10	17 - 10
	HF	No.3/Stud	9 - 11	14 - 1	17 - 4	9 - 5	13 - 5	16 - 7	9 - 0	12 - 10	15 - 10	8 - 3	11 - 9	14 - 6	-	10 - 10	13 - 5
	HF	Standard	8 - 5	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	11 - 10	18 - 4	20-0†	11 - 6	17 - 10	20-0†	11 - 2	17 - 3	20-0†	10 - 7	16 - 4	20-0†	10 - 0	15 - 6	20-0†
	SP	No.1	11 - 8	18 - 0	20-0†	11 - 3	17 - 5	20-0†	10 - 11	16 - 11	20-0†	10 - 4	16 - 0	20-0†	9 - 10	15 - 2	19 - 9
	SP	No.2	10 - 10	17 - 7	20-0†	10 - 6	17 - 1	20-0†	10 - 3	16 - 7	20-0†	9 - 8	15 - 8	20-0†	9 - 2	14 - 11	19 - 4
	SP	No.3	8 - 9	15 - 2	18 - 10	8 - 4	14 - 6	18 - 0	8 - 0	13 - 10	17 - 2	-	12 - 8	15 - 9	-	11 - 9	14 - 7
	SP	Stud	8 - 9	15 - 2	18 - 10	8 - 4	14 - 6	18 - 0	8 - 0	13 - 10	17 - 2	-	12 - 8	15 - 9	-	11 - 9	14 - 7
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 2	17 - 3	20-0†	10 - 9	16 - 8	20-0†	10 - 6	16 - 2	20-0†	9 - 11	15 - 4	19 - 11	9 - 5	14 - 7	18 - 11
	SPF	No.1	10 - 10	16 - 10	20-0†	10 - 6	16 - 4	20-0†	10 - 3	15 - 10	20-0†	9 - 8	15 - 0	19 - 5	9 - 2	14 - 2	18 - 1
	SPF	No.2	10 - 10	16 - 10	20-0†	10 - 6	16 - 4	20-0†	10 - 3	15 - 10	20-0†	9 - 8	15 - 0	19 - 5	9 - 2	14 - 2	18 - 1
	SPF	No.3/Stud	9 - 11	14 - 1	17 - 4	9 - 5	13 - 5	16 - 7	9 - 0	12 - 10	15 - 10	8 - 3	11 - 9	14 - 6	-	10 - 10	13 - 5
	SPF	Standard	8 - 5	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B4 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/180 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

Exposure C
H/180
3/8" WSP

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12 - 5	19 - 2	20-0†	11 - 10	18 - 4	20-0†	11 - 4	17 - 7	20-0†	10 - 11	16 - 11	20-0†	10 - 4	16 - 0	20-0†
	DFL	No.1	11 - 11	18 - 5	20-0†	11 - 5	17 - 8	20-0†	10 - 11	16 - 11	20-0†	10 - 6	16 - 3	20-0†	9 - 11	15 - 4	19 - 9
	DFL	No.2	11 - 8	18 - 1	20-0†	11 - 2	17 - 3	20-0†	10 - 8	16 - 7	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	18 - 8
	DFL	No.3/Stud	10 - 7	15 - 0	18 - 6	9 - 10	14 - 0	17 - 4	9 - 3	13 - 1	16 - 2	8 - 8	12 - 4	15 - 3	8 - 0	11 - 4	14 - 0
	DFL	Standard	8 - 11	-	-	8 - 4	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	11 - 8	18 - 1	20-0†	11 - 2	17 - 3	20-0†	10 - 8	16 - 7	20-0†	10 - 3	15 - 11	20-0†	9 - 9	15 - 1	19 - 7
	HF	No.1	11 - 5	17 - 8	20-0†	10 - 11	16 - 11	20-0†	10 - 6	16 - 2	20-0†	10 - 1	15 - 7	20-0†	9 - 6	14 - 8	19 - 2
	HF	No.2	10 - 10	16 - 10	20-0†	10 - 5	16 - 1	20-0†	10 - 0	15 - 5	20-0†	9 - 7	14 - 10	19 - 3	9 - 1	14 - 0	18 - 1
	HF	No.3/Stud	10 - 3	14 - 7	18 - 1	9 - 7	13 - 8	16 - 10	9 - 0	12 - 9	15 - 9	8 - 6	12 - 0	14 - 10	7 - 9	11 - 0	13 - 8
	HF	Standard	8 - 9	-	-	8 - 2	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	12 - 2	18 - 10	20-0†	11 - 8	18 - 0	20-0†	11 - 2	17 - 3	20-0†	10 - 9	16 - 7	20-0†	10 - 2	15 - 8	20-0†
	SP	No.1	11 - 11	18 - 5	20-0†	11 - 5	17 - 8	20-0†	10 - 11	16 - 11	20-0†	10 - 6	16 - 3	20-0†	9 - 11	15 - 4	20 - 0
	SP	No.2	11 - 2	18 - 1	20-0†	10 - 8	17 - 3	20-0†	10 - 3	16 - 7	20-0†	9 - 10	15 - 11	20-0†	9 - 3	15 - 1	19 - 7
	SP	No.3	9 - 2	15 - 9	19 - 7	8 - 6	14 - 9	18 - 4	8 - 0	13 - 9	17 - 2	-	13 - 0	16 - 2	-	11 - 11	14 - 10
	SP	Stud	9 - 2	15 - 9	19 - 7	8 - 6	14 - 9	18 - 4	8 - 0	13 - 9	17 - 2	-	13 - 0	16 - 2	-	11 - 11	14 - 10
	SP	Standard	7 - 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	11 - 5	17 - 8	20-0†	10 - 11	16 - 11	20-0†	10 - 6	16 - 2	20-0†	10 - 1	15 - 7	20-0†	9 - 6	14 - 8	19 - 2
	SPF	No.1	11 - 2	17 - 3	20-0†	10 - 8	16 - 6	20-0†	10 - 3	15 - 10	20-0†	9 - 10	15 - 2	19 - 9	9 - 3	14 - 4	18 - 5
	SPF	No.2	11 - 2	17 - 3	20-0†	10 - 8	16 - 6	20-0†	10 - 3	15 - 10	20-0†	9 - 10	15 - 2	19 - 9	9 - 3	14 - 4	18 - 5
	SPF	No.3/Stud	10 - 3	14 - 7	18 - 1	9 - 7	13 - 8	16 - 10	9 - 0	12 - 9	15 - 9	8 - 6	12 - 0	14 - 10	7 - 9	11 - 0	13 - 8
	SPF	Standard	8 - 9	-	-	8 - 2	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	11 - 3	17 - 4	20-0†	10 - 9	16 - 7	20-0†	10 - 3	15 - 11	20-0†	9 - 11	15 - 3	19 - 10	9 - 4	14 - 5	18 - 9
	DFL	No.1	10 - 9	16 - 8	20-0†	10 - 4	16 - 0	20-0†	9 - 11	15 - 4	19 - 8	9 - 6	14 - 8	18 - 6	9 - 0	13 - 8	16 - 11
	DFL	No.2	10 - 7	16 - 4	20-0†	10 - 1	15 - 7	19 - 10	9 - 8	15 - 0	18 - 7	9 - 4	14 - 1	17 - 5	8 - 10	12 - 11	16 - 0
	DFL	No.3/Stud	9 - 1	12 - 10	15 - 11	8 - 5	12 - 0	14 - 10	7 - 11	11 - 3	13 - 11	-	10 - 7	13 - 1	-	9 - 8	12 - 0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	10 - 7	16 - 4	20-0†	10 - 1	15 - 7	20-0†	9 - 8	15 - 0	19 - 6	9 - 4	14 - 5	18 - 9	8 - 10	13 - 7	17 - 8
	HF	No.1	10 - 4	16 - 0	20-0†	9 - 10	15 - 3	19 - 10	9 - 6	14 - 8	19 - 0	9 - 1	14 - 1	18 - 3	8 - 7	13 - 4	16 - 9
	HF	No.2	9 - 10	15 - 2	19 - 9	9 - 5	14 - 6	18 - 11	9 - 0	13 - 11	18 - 0	8 - 8	13 - 5	16 - 11	8 - 2	12 - 7	15 - 6
	HF	No.3/Stud	8 - 10	12 - 6	15 - 6	8 - 3	11 - 8	14 - 5	-	10 - 11	13 - 6	-	10 - 4	12 - 9	-	9 - 5	11 - 8
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	11 - 0	17 - 0	20-0†	10 - 6	16 - 3	20-0†	10 - 1	15 - 7	20-0†	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5
	SP	No.1	10 - 9	16 - 8	20-0†	10 - 4	16 - 0	20-0†	9 - 11	15 - 4	19 - 11	9 - 6	14 - 8	18 - 1	9 - 0	13 - 11	18 - 1
	SP	No.2	10 - 1	16 - 4	20-0†	9 - 8	15 - 7	20-0†	9 - 3	15 - 0	19 - 6	8 - 8	14 - 5	18 - 6	8 - 0	13 - 5	16 - 11
	SP	No.3	7 - 10	13 - 6	16 - 10	-	12 - 7	15 - 8	-	11 - 10	14 - 8	-	11 - 1	13 - 10	-	10 - 2	12 - 8
	SP	Stud	7 - 10	13 - 6	16 - 10	-	12 - 7	15 - 8	-	11 - 10	14 - 8	-	11 - 1	13 - 10	-	10 - 2	12 - 8
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 4	16 - 0	20-0†	9 - 10	15 - 3	19 - 10	9 - 6	14 - 8	19 - 0	9 - 1	14 - 1	18 - 4	8 - 7	13 - 4	17 - 4
	SPF	No.1	10 - 1	15 - 7	20-0†	9 - 8	14 - 11	19 - 5	9 - 3	14 - 3	18 - 3	8 - 11	13 - 9	17 - 2	8 - 5	12 - 9	15 - 9
	SPF	No.2	10 - 1	15 - 7	20-0†	9 - 8	14 - 11	19 - 5	9 - 3	14 - 3	18 - 3	8 - 11	13 - 9	17 - 2	8 - 5	12 - 9	15 - 9
	SPF	No.3/Stud	8 - 10	12 - 6	15 - 6	8 - 3	11 - 8	14 - 5	-	10 - 11	13 - 6	-	10 - 4	12 - 9	-	9 - 5	11 - 8
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	9 - 9	15 - 1	19 - 7	9 - 4	14 - 5	18 - 9	8 - 11	13 - 10	17 - 11	8 - 7	13 - 3	17 - 3	8 - 1	12 - 6	16 - 4
	DFL	No.1	9 - 4	14 - 6	18 - 1	9 - 0	13 - 8	16 - 10	8 - 7	12 - 9	15 - 9	8 - 3	12 - 0	14 - 10	7 - 9	11 - 0	13 - 8
	DFL	No.2	9 - 2	13 - 10	17 - 1	8 - 9	12 - 11	15 - 11	8 - 5	12 - 1	14 - 11	8 - 0	11 - 4	14 - 0	-	10 - 5	12 - 11
	DFL	No.3/Stud	-	10 - 4	12 - 9	-	9 - 8	11 - 11	-	9 - 1	11 - 2	-	8 - 6	10 - 6	-	7 - 10	9 - 8
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9 - 2	14 - 2	18 - 5	8 - 9	13 - 7	17 - 8	8 - 5	13 - 0	16 - 11	8 - 1	12 - 6	16 - 3	-	11 - 10	15 - 4
	HF	No.1	9 - 0	13 - 10	17 - 10	8 - 7	13 - 3	16 - 7	8 - 3	12 - 7	15 - 7	7 - 11	11 - 10	14 - 8	-	10 - 11	13 - 5
	HF	No.2	8 - 6	13 - 2	16 - 7	8 - 2	12 - 6	15 - 5	7 - 10	11 - 8	14 - 6	-	11 - 0	13 - 7	-	10 - 1	12 - 6
	HF	No.3/Stud	-	10 - 1	12 - 5	-	9 - 5	11 - 7	-	8 - 10	10 - 11	-	8 - 4	10 - 3	-	-	9 - 5
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 7	14 - 9	19 - 3	9 - 2	14 - 2	18 - 4	8 - 9	13 - 7	17 - 7	8 - 5	13 - 0	16 - 11	8 - 0	12 - 4	16 - 0
	SP	No.1	9 - 4	14 - 6	18 - 10	9 - 0	13 - 10	18 - 0	8 - 7	13 - 3	17 - 3	8 - 3	12 - 9	16 - 7	7 - 10	12 - 1	15 - 4
	SP	No.2	8 - 6	14 - 2	18 - 1	7 - 11	13 - 4	16 - 10	-	12 - 6	15 - 9	-	11 - 9	14 - 10	-	10 - 10	13 - 8
	SP	No.3	-	10 - 11	13 - 6	-	10 - 2	12 - 7	-	9 - 6	11 - 10	-	9 - 0	11 - 1	-	8 - 3	10 - 3
	SP	Stud	-	10 - 11	13 - 6	-	10 - 2	12 - 7	-	9 - 6	11 - 10	-	9 - 0	11 - 1	-	8 - 3	10 - 3
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9 - 0	13 - 10	18 - 0	8 - 7	13 - 3	17 - 3	8 - 3	12 - 8	16 - 6	7 - 11	12 - 3	15 - 11	-	11 - 7	15 - 0
	SPF	No.1	8 - 9	13 - 6	16 - 10	8 - 4	12 - 8	15 - 8	8 - 0	11 - 11	14 - 8	-	11 - 2	13 - 10	-	10 - 3	12 - 8
	SPF	No.2	8 - 9	13 - 6	16 - 10	8 - 4	12 - 8	15 - 8	8 - 0	11 - 11	14 - 8	-	11 - 2	13 - 10	-	10 - 3	12 - 8
	SPF	No.3/Stud	-	10 - 1	12 - 5	-	9 - 5	11 - 7	-	8 - 10	10 - 11	-	8 - 4	10 - 3	-	-	9 - 5
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B5 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure C
H/240
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	13 - 11	20-0 ⁺	20-0 ⁺	13 - 6	20-0 ⁺	20-0 ⁺	13 - 1	20-0 ⁺	20-0 ⁺	12 - 5	19 - 2	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺
	DFL	No.1	13 - 5	20-0 ⁺	20-0 ⁺	13 - 0	20-0 ⁺	20-0 ⁺	12 - 7	19 - 6	20-0 ⁺	11 - 11	18 - 5	20-0 ⁺	11 - 4	17 - 6	20-0 ⁺
	DFL	No.2	13 - 1	20-0 ⁺	20-0 ⁺	12 - 9	19 - 8	20-0 ⁺	12 - 4	19 - 1	20-0 ⁺	11 - 8	18 - 1	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺
	DFL	No.3/Stud	12 - 6	19 - 4	20-0 ⁺	12 - 2	18 - 9	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 2	20 - 0
	DFL	Standard	12 - 5	-	-	11 - 10	-	-	11 - 4	-	-	10 - 5	-	-	9 - 7	-	-
	HF	SS	13 - 1	20-0 ⁺	20-0 ⁺	12 - 9	19 - 8	20-0 ⁺	12 - 4	19 - 1	20-0 ⁺	11 - 8	18 - 1	20-0 ⁺	11 - 1	17 - 2	20-0 ⁺
	HF	No.1	12 - 10	19 - 10	20-0 ⁺	12 - 5	19 - 3	20-0 ⁺	12 - 1	18 - 8	20-0 ⁺	11 - 5	17 - 8	20-0 ⁺	10 - 10	16 - 9	20-0 ⁺
	HF	No.2	12 - 2	18 - 11	20-0 ⁺	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 9	20-0 ⁺	10 - 10	16 - 10	20-0 ⁺	10 - 4	15 - 11	20-0 ⁺
	HF	No.3/Stud	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	19 - 5
	HF	Standard	11 - 10	-	-	11 - 6	-	-	11 - 1	-	-	10 - 2	-	-	9 - 5	-	-
	SP	SS	13 - 8	20-0 ⁺	20-0 ⁺	13 - 3	20-0 ⁺	20-0 ⁺	12 - 10	19 - 11	20-0 ⁺	12 - 2	18 - 10	20-0 ⁺	11 - 7	17 - 10	20-0 ⁺
	SP	No.1	13 - 5	20-0 ⁺	20-0 ⁺	13 - 0	20-0 ⁺	20-0 ⁺	12 - 7	19 - 6	20-0 ⁺	11 - 11	18 - 5	20-0 ⁺	11 - 4	17 - 6	20-0 ⁺
	SP	No.2	12 - 6	20-0 ⁺	20-0 ⁺	12 - 2	19 - 8	20-0 ⁺	11 - 9	19 - 1	20-0 ⁺	11 - 2	18 - 1	20-0 ⁺	10 - 7	17 - 2	20-0 ⁺
	SP	No.3	11 - 10	19 - 4	20-0 ⁺	11 - 6	18 - 9	20-0 ⁺	11 - 2	18 - 3	20-0 ⁺	10 - 7	17 - 3	20-0 ⁺	9 - 10	16 - 4	20-0 ⁺
	SP	Stud	11 - 10	19 - 4	20-0 ⁺	11 - 6	18 - 9	20-0 ⁺	11 - 2	18 - 3	20-0 ⁺	10 - 7	17 - 3	20-0 ⁺	9 - 10	16 - 4	20-0 ⁺
	SP	Standard	10 - 11	-	-	10 - 5	-	-	9 - 11	-	-	9 - 1	-	-	8 - 5	-	-
	SPF	SS	12 - 10	19 - 10	20-0 ⁺	12 - 5	19 - 3	20-0 ⁺	12 - 1	18 - 8	20-0 ⁺	11 - 5	17 - 8	20-0 ⁺	10 - 10	16 - 9	20-0 ⁺
	SPF	No.1	12 - 6	19 - 4	20-0 ⁺	12 - 2	18 - 9	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺
	SPF	No.2	12 - 6	19 - 4	20-0 ⁺	12 - 2	18 - 9	20-0 ⁺	11 - 9	18 - 3	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺
	SPF	No.3/Stud	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	19 - 5
	SPF	Standard	11 - 10	-	-	11 - 6	-	-	11 - 1	-	-	10 - 2	-	-	9 - 5	-	-
16	DFL	SS	12 - 7	19 - 6	20-0 ⁺	12 - 3	18 - 11	20-0 ⁺	11 - 10	18 - 4	20-0 ⁺	11 - 3	17 - 4	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺
	DFL	No.1	12 - 1	18 - 9	20-0 ⁺	11 - 9	18 - 2	20-0 ⁺	11 - 5	17 - 8	20-0 ⁺	10 - 9	16 - 8	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺
	DFL	No.2	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺
	DFL	No.3/Stud	11 - 4	17 - 6	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 8	16 - 4	20-0 ⁺	10 - 1	15 - 0	20-0 ⁺	9 - 7	13 - 10	17 - 1
	DFL	Standard	10 - 8	-	-	10 - 2	-	-	9 - 9	-	-	8 - 11	-	-	8 - 3	-	-
	HF	SS	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺
	HF	No.1	11 - 7	17 - 11	20-0 ⁺	11 - 3	17 - 5	20-0 ⁺	10 - 11	16 - 11	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	9 - 10	15 - 2	19 - 9
	HF	No.2	11 - 0	17 - 1	20-0 ⁺	10 - 8	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	9 - 10	15 - 2	20-0 ⁺	9 - 4	14 - 5	18 - 9
	HF	No.3/Stud	10 - 9	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 7	20-0 ⁺	9 - 1	13 - 6	16 - 8
	HF	Standard	10 - 5	-	-	9 - 11	-	-	9 - 6	-	-	8 - 8	-	-	8 - 1	-	-
	SP	SS	12 - 4	19 - 2	20-0 ⁺	12 - 0	18 - 7	20-0 ⁺	11 - 8	18 - 0	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 5	16 - 2	20-0 ⁺
	SP	No.1	12 - 1	18 - 9	20-0 ⁺	11 - 9	18 - 2	20-0 ⁺	11 - 5	17 - 8	20-0 ⁺	10 - 9	16 - 8	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺
	SP	No.2	11 - 4	18 - 4	20-0 ⁺	11 - 0	17 - 10	20-0 ⁺	10 - 8	17 - 3	20-0 ⁺	10 - 1	16 - 4	20-0 ⁺	9 - 7	15 - 6	20-0 ⁺
	SP	No.3	10 - 9	17 - 6	20-0 ⁺	10 - 5	17 - 0	20-0 ⁺	9 - 11	16 - 6	20-0 ⁺	9 - 1	15 - 7	20-0 ⁺	8 - 5	14 - 7	18 - 1
	SP	Stud	10 - 9	17 - 6	20-0 ⁺	10 - 5	17 - 0	20-0 ⁺	9 - 11	16 - 6	20-0 ⁺	9 - 1	15 - 7	20-0 ⁺	8 - 5	14 - 7	18 - 1
	SP	Standard	9 - 4	-	-	8 - 11	-	-	8 - 6	-	-	7 - 10	-	-	-	-	-
	SPF	SS	11 - 7	17 - 11	20-0 ⁺	11 - 3	17 - 5	20-0 ⁺	10 - 11	16 - 11	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	9 - 10	15 - 2	19 - 9
	SPF	No.1	11 - 4	17 - 6	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 10	19 - 3
	SPF	No.2	11 - 4	17 - 6	20-0 ⁺	11 - 0	17 - 0	20-0 ⁺	10 - 8	16 - 6	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 10	19 - 3
	SPF	No.3/Stud	10 - 9	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 7	20-0 ⁺	9 - 1	13 - 6	16 - 8
	SPF	Standard	10 - 5	-	-	9 - 11	-	-	9 - 6	-	-	8 - 8	-	-	8 - 1	-	-
24	DFL	SS	10 - 11	16 - 11	20-0 ⁺	10 - 7	16 - 5	20-0 ⁺	10 - 3	15 - 11	20-0 ⁺	9 - 9	15 - 1	19 - 7	9 - 3	14 - 4	18 - 7
	DFL	No.1	10 - 6	16 - 3	20-0 ⁺	10 - 2	15 - 9	20-0 ⁺	9 - 11	15 - 4	19 - 11	9 - 4	14 - 6	18 - 10	8 - 11	13 - 9	17 - 11
	DFL	No.2	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	DFL	No.3/Stud	9 - 10	14 - 5	17 - 10	9 - 6	13 - 9	17 - 0	9 - 3	13 - 2	16 - 3	8 - 6	12 - 1	14 - 11	7 - 10	11 - 2	13 - 9
	DFL	Standard	8 - 7	-	-	8 - 2	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	HF	No.1	10 - 1	15 - 7	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 6	14 - 8	19 - 1	9 - 0	13 - 10	18 - 0	8 - 6	13 - 2	17 - 1
	HF	No.2	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 2	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	HF	No.3/Stud	9 - 4	14 - 1	17 - 4	9 - 0	13 - 5	16 - 7	8 - 9	12 - 10	15 - 10	8 - 3	11 - 9	14 - 6	-	10 - 10	13 - 5
	HF	Standard	8 - 5	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10 - 9	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 9	19 - 3	9 - 1	14 - 0	18 - 3
	SP	No.1	10 - 6	16 - 3	20-0 ⁺	10 - 2	15 - 9	20-0 ⁺	9 - 11	15 - 4	19 - 11	9 - 4	14 - 6	18 - 10	8 - 11	13 - 9	17 - 11
	SP	No.2	9 - 10	15 - 11	20-0 ⁺	9 - 6	15 - 5	20-0 ⁺	9 - 3	15 - 0	19 - 6	8 - 9	14 - 2	18 - 5	8 - 4	13 - 6	17 - 6
	SP	No.3	8 - 9	15 - 2	18 - 10	8 - 4	14 - 6	18 - 0	8 - 0	13 - 10	17 - 2	-	12 - 8	15 - 9	-	11 - 9	14 - 7
	SP	Stud	8 - 9	15 - 2	18 - 10	8 - 4	14 - 6	18 - 0	8 - 0	13 - 10	17 - 2	-	12 - 8	15 - 9	-	11 - 9	14 - 7
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10 - 1	15 - 7	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 6	14 - 8	19 - 1	9 - 0	13 - 10	18 - 0	8 - 6	13 - 2	17 - 1
	SPF	No.1	9 - 10	15 - 2	19 - 9	9 - 6	14 - 9	19 - 2	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7	8 - 4	12 - 10	16 - 8
	SPF	No.2	9 - 10	15 - 2	19 - 9	9 - 6	14 - 9	19 - 2	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7	8 - 4	12 - 10	16 - 8
	SPF	No.3/Stud	9 - 4	14 - 1	17 - 4	9 - 0	13 - 5	16 - 7	8 - 9	12 - 10	15 - 10	8 - 3	11 - 9	14 - 6	-	10 - 10	13 - 5
	SPF	Standard	8 - 5	-	-	8 - 0	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B5 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/240 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

Exposure C
H/240
3/8" WSP

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	11-3	17-4	20-0†	10-9	16-7	20-0†	10-3	15-11	20-0†	9-11	15-3	19-10	9-4	14-5	18-9
	DFL	No.1	10-9	16-8	20-0†	10-4	16-0	20-0†	9-11	15-4	19-11	9-6	14-8	19-1	9-0	13-11	18-1
	DFL	No.2	10-7	16-4	20-0†	10-1	15-7	20-0†	9-8	15-0	19-6	9-4	14-5	18-9	8-10	13-7	17-8
	DFL	No.3/Stud	10-1	15-0	18-6	9-8	14-0	17-4	9-3	13-1	16-2	8-8	12-4	15-3	8-0	11-4	14-0
	DFL	Standard	8-11	-	-	8-4	-	-	7-10	-	-	-	-	-	-	-	-
	HF	SS	10-7	16-4	20-0†	10-1	15-7	20-0†	9-8	15-0	19-6	9-4	14-5	18-9	8-10	13-7	17-8
	HF	No.1	10-4	16-0	20-0†	9-10	15-3	19-10	9-6	14-8	19-0	9-1	14-1	18-4	8-7	13-4	17-4
	HF	No.2	9-10	15-2	19-9	9-5	14-6	18-11	9-0	13-11	18-1	8-8	13-5	17-5	8-2	12-8	16-5
	HF	No.3/Stud	9-7	14-7	18-1	9-2	13-8	16-10	8-9	12-9	15-9	8-5	12-0	14-10	7-9	11-0	13-8
	HF	Standard	8-9	-	-	8-2	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	11-0	17-0	20-0†	10-6	16-3	20-0†	10-1	15-7	20-0†	9-8	15-0	19-6	9-2	14-2	18-5
	SP	No.1	10-9	16-8	20-0†	10-4	16-0	20-0†	9-11	15-4	19-11	9-6	14-8	19-1	9-0	13-11	18-1
	SP	No.2	10-1	16-4	20-0†	9-8	15-7	20-0†	9-3	15-0	19-6	8-11	14-5	18-9	8-5	13-7	17-8
	SP	No.3	9-2	15-7	19-7	8-6	14-9	18-4	8-0	13-9	17-2	-	13-0	16-2	-	11-11	14-10
	SP	Stud	9-2	15-7	19-7	8-6	14-9	18-4	8-0	13-9	17-2	-	13-0	16-2	-	11-11	14-10
	SP	Standard	7-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	10-4	16-0	20-0†	9-10	15-3	19-10	9-6	14-8	19-0	9-1	14-1	18-4	8-7	13-4	17-4
16	DFL	SS	10-2	15-8	20-0†	9-8	15-0	19-6	9-4	14-5	18-8	8-11	13-10	18-0	8-5	13-1	17-0
	DFL	No.1	9-9	15-1	19-8	9-4	14-5	18-9	8-11	13-10	18-0	8-7	13-3	17-3	8-2	12-7	16-4
	DFL	No.2	9-7	14-9	19-3	9-2	14-2	18-4	8-9	13-7	17-7	8-5	13-0	16-11	8-0	12-4	16-0
	DFL	No.3/Stud	9-1	12-10	15-11	8-5	12-0	14-10	7-11	11-3	13-11	-	10-7	13-1	-	9-8	12-0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	9-7	14-9	19-3	9-2	14-2	18-4	8-9	13-7	17-7	8-5	13-0	16-11	8-0	12-4	16-0
	HF	No.1	9-4	14-5	18-9	8-11	13-10	18-0	8-7	13-3	17-3	8-3	12-9	16-7	7-9	12-0	15-8
	HF	No.2	8-11	13-9	17-10	8-6	13-2	17-1	8-2	12-7	16-5	7-10	12-1	15-9	-	11-5	14-11
	HF	No.3/Stud	8-8	12-6	15-6	8-3	11-8	14-5	-	10-11	13-6	-	10-4	12-9	-	9-5	11-8
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	10-0	15-5	20-0†	9-6	14-9	19-2	9-1	14-1	18-4	8-9	13-7	17-8	8-4	12-10	16-8
	SP	No.1	9-9	15-1	19-8	9-4	14-5	18-9	8-11	13-10	18-0	8-7	13-3	17-3	8-2	12-7	16-4
	SP	No.2	9-1	14-9	19-3	8-9	14-2	18-4	8-4	13-7	17-7	8-0	13-0	16-11	-	12-4	16-0
	SP	No.3	7-10	13-6	16-10	-	12-7	15-8	-	11-10	14-8	-	11-1	13-10	-	10-2	12-8
	SP	Stud	7-10	13-6	16-10	-	12-7	15-8	-	11-10	14-8	-	11-1	13-10	-	10-2	12-8
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-4	14-5	18-9	8-11	13-10	18-0	8-7	13-3	17-3	8-3	12-9	16-7	7-9	12-0	15-8
	SPF	No.1	9-1	14-1	18-4	8-9	13-6	17-6	8-4	12-11	16-10	8-0	12-5	16-2	-	11-9	15-3
	SPF	No.2	9-1	14-1	18-4	8-9	13-6	17-6	8-4	12-11	16-10	8-0	12-5	16-2	-	11-9	15-3
	SPF	No.3/Stud	8-8	12-6	15-6	8-3	11-8	14-5	-	10-11	13-6	-	10-4	12-9	-	9-5	11-8
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	8-10	13-7	17-9	8-5	13-0	16-11	8-1	12-6	16-3	7-9	12-0	15-7	-	11-4	14-9
	DFL	No.1	8-6	13-1	17-0	8-1	12-6	16-3	7-9	12-0	15-7	-	11-6	14-10	-	10-11	13-8
	DFL	No.2	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	14-11	-	11-4	14-0	-	10-5	12-11
	DFL	No.3/Stud	-	10-4	12-9	-	9-8	11-11	-	9-1	11-2	-	8-6	10-6	-	7-10	9-8
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	HF	No.1	8-1	12-7	16-4	7-9	12-0	15-7	-	11-6	14-11	-	11-1	14-4	-	10-5	13-5
	HF	No.2	-	11-11	15-6	-	11-5	14-10	-	10-11	14-3	-	10-6	13-7	-	9-11	12-6
	HF	No.3/Stud	-	10-1	12-5	-	9-5	11-7	-	8-10	10-11	-	8-4	10-3	-	-	9-5
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-8	13-4	17-5	8-3	12-9	16-7	7-11	12-3	15-11	-	11-9	15-4	-	11-2	14-6
	SP	No.1	8-6	13-1	17-0	8-1	12-6	16-3	7-9	12-0	15-7	-	11-6	15-0	-	10-11	14-2
	SP	No.2	7-11	12-10	16-8	-	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-8
	SP	No.3	-	10-11	13-6	-	10-2	12-7	-	9-6	11-10	-	9-0	11-1	-	8-3	10-3
	SP	Stud	-	10-11	13-6	-	10-2	12-7	-	9-6	11-10	-	9-0	11-1	-	8-3	10-3
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-1	12-7	16-4	7-9	12-0	15-7	-	11-6	14-11	-	11-1	14-4	-	10-5	13-7
	SPF	No.1	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	13-10	-	10-2	12-8
	SPF	No.2	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	13-10	-	10-2	12-8
	SPF	No.3/Stud	-	10-1	12-5	-	9-5	11-7	-	8-10	10-11	-	8-4	10-3	-	-	9-5
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B6 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360

(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

**Exposure C
H/360
3/8" WSP**

700-yr. Wind Speed 3-second gust (mph)			110			115			120			130			140		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	12 - 1	18 - 8	20-0 ⁺	11 - 9	18 - 2	20-0 ⁺	11 - 5	17 - 7	20-0 ⁺	10 - 9	16 - 8	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺
	DFL	No.1	11 - 8	18 - 0	20-0 ⁺	11 - 3	17 - 5	20-0 ⁺	10 - 11	16 - 11	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	9 - 10	15 - 2	19 - 9
	DFL	No.2	11 - 5	17 - 7	20-0 ⁺	11 - 0	17 - 1	20-0 ⁺	10 - 9	16 - 7	20-0 ⁺	10 - 2	15 - 8	20-0 ⁺	9 - 7	14 - 11	19 - 4
	DFL	No.3/Stud	10 - 10	16 - 10	20-0 ⁺	10 - 6	16 - 4	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 8	15 - 0	19 - 5	9 - 2	14 - 2	18 - 6
	DFL	Standard	10 - 10	-	-	10 - 6	-	-	10 - 3	-	-	9 - 8	-	-	9 - 2	-	-
	HF	SS	11 - 5	17 - 7	20-0 ⁺	11 - 0	17 - 1	20-0 ⁺	10 - 9	16 - 7	20-0 ⁺	10 - 2	15 - 8	20-0 ⁺	9 - 7	14 - 11	19 - 4
	HF	No.1	11 - 2	17 - 3	20-0 ⁺	10 - 9	16 - 8	20-0 ⁺	10 - 6	16 - 2	20-0 ⁺	9 - 11	15 - 4	19 - 11	9 - 5	14 - 7	18 - 11
	HF	No.2	10 - 7	16 - 5	20-0 ⁺	10 - 3	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 5	14 - 7	19 - 0	9 - 0	13 - 10	18 - 0
	HF	No.3/Stud	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	HF	Standard	10 - 4	-	-	10 - 0	-	-	9 - 8	-	-	9 - 2	-	-	8 - 8	-	-
	SP	SS	11 - 10	18 - 4	20-0 ⁺	11 - 6	17 - 10	20-0 ⁺	11 - 2	17 - 3	20-0 ⁺	10 - 7	16 - 4	20-0 ⁺	10 - 0	15 - 6	20-0 ⁺
	SP	No.1	11 - 8	18 - 0	20-0 ⁺	11 - 3	17 - 5	20-0 ⁺	10 - 11	16 - 11	20-0 ⁺	10 - 4	16 - 0	20-0 ⁺	9 - 10	15 - 2	19 - 9
	SP	No.2	10 - 10	17 - 7	20-0 ⁺	10 - 6	17 - 1	20-0 ⁺	10 - 3	16 - 7	20-0 ⁺	9 - 8	15 - 8	20-0 ⁺	9 - 2	14 - 11	19 - 4
	SP	No.3	10 - 4	16 - 10	20-0 ⁺	10 - 0	16 - 4	20-0 ⁺	9 - 8	15 - 10	20-0 ⁺	9 - 2	15 - 0	19 - 5	8 - 8	14 - 2	18 - 6
	SP	Stud	10 - 4	16 - 10	20-0 ⁺	10 - 0	16 - 4	20-0 ⁺	9 - 8	15 - 10	20-0 ⁺	9 - 2	15 - 0	19 - 5	8 - 8	14 - 2	18 - 6
	SP	Standard	10 - 4	-	-	10 - 0	-	-	9 - 8	-	-	9 - 1	-	-	8 - 5	-	-
	SPF	SS	11 - 2	17 - 3	20-0 ⁺	10 - 9	16 - 8	20-0 ⁺	10 - 6	16 - 2	20-0 ⁺	9 - 11	15 - 4	19 - 11	9 - 5	14 - 7	18 - 11
	SPF	No.1	10 - 10	16 - 10	20-0 ⁺	10 - 6	16 - 4	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 8	15 - 0	19 - 5	9 - 2	14 - 2	18 - 6
	SPF	No.2	10 - 10	16 - 10	20-0 ⁺	10 - 6	16 - 4	20-0 ⁺	10 - 3	15 - 10	20-0 ⁺	9 - 8	15 - 0	19 - 5	9 - 2	14 - 2	18 - 6
	SPF	No.3/Stud	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	SPF	Standard	10 - 4	-	-	10 - 0	-	-	9 - 8	-	-	9 - 2	-	-	8 - 8	-	-
16	DFL	SS	10 - 11	16 - 11	20-0 ⁺	10 - 7	16 - 5	20-0 ⁺	10 - 3	15 - 11	20-0 ⁺	9 - 9	15 - 1	19 - 7	9 - 3	14 - 4	18 - 7
	DFL	No.1	10 - 6	16 - 3	20-0 ⁺	10 - 2	15 - 9	20-0 ⁺	9 - 11	15 - 4	19 - 11	9 - 4	14 - 6	18 - 10	8 - 11	13 - 9	17 - 11
	DFL	No.2	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	DFL	No.3/Stud	9 - 10	15 - 2	19 - 9	9 - 6	14 - 9	19 - 2	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7	8 - 4	12 - 10	16 - 8
	DFL	Standard	9 - 10	-	-	9 - 6	-	-	9 - 3	-	-	8 - 9	-	-	8 - 3	-	-
	HF	SS	10 - 4	15 - 11	20-0 ⁺	10 - 0	15 - 5	20-0 ⁺	9 - 8	15 - 0	19 - 6	9 - 2	14 - 2	18 - 5	8 - 8	13 - 6	17 - 6
	HF	No.1	10 - 1	15 - 7	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 6	14 - 8	19 - 1	9 - 0	13 - 10	18 - 0	8 - 6	13 - 2	17 - 1
	HF	No.2	9 - 7	14 - 10	19 - 3	9 - 3	14 - 4	18 - 8	9 - 0	13 - 11	18 - 2	8 - 6	13 - 2	17 - 2	8 - 1	12 - 6	16 - 3
	HF	No.3/Stud	9 - 4	14 - 5	18 - 9	9 - 0	14 - 0	18 - 2	8 - 9	13 - 7	17 - 8	8 - 4	12 - 10	16 - 8	7 - 11	12 - 2	15 - 10
	HF	Standard	9 - 4	-	-	9 - 0	-	-	8 - 9	-	-	8 - 4	-	-	7 - 11	-	-
	SP	SS	10 - 9	16 - 7	20-0 ⁺	10 - 5	16 - 1	20-0 ⁺	10 - 1	15 - 7	20-0 ⁺	9 - 7	14 - 9	19 - 3	9 - 1	14 - 0	18 - 3
	SP	No.1	10 - 6	16 - 3	20-0 ⁺	10 - 2	15 - 9	20-0 ⁺	9 - 11	15 - 4	19 - 11	9 - 4	14 - 6	18 - 10	8 - 11	13 - 9	17 - 11
	SP	No.2	9 - 10	15 - 11	20-0 ⁺	9 - 6	15 - 5	20-0 ⁺	9 - 3	15 - 0	19 - 6	8 - 9	14 - 2	18 - 5	8 - 4	13 - 6	17 - 6
	SP	No.3	9 - 4	15 - 2	19 - 9	9 - 0	14 - 9	19 - 2	8 - 9	14 - 4	18 - 7	8 - 4	13 - 6	17 - 7	7 - 11	12 - 10	16 - 8
	SP	Stud	9 - 4	15 - 2	19 - 9	9 - 0	14 - 9	19 - 2	8 - 9	14 - 4	18 - 7	8 - 4	13 - 6	17 - 7	7 - 11	12 - 10	16 - 8
	SP	Standard	9 - 4	-	-	8 - 11	-	-	8 - 6	-	-	7 - 10	-	-	-	-	-
	SPF	SS	10 - 1	15 - 7	20-0 ⁺	9 - 9	15 - 1	19 - 8	9 - 6	14 - 8	19 - 1	9 - 0	13 - 10	18 - 0	8 - 6	13 - 2	17 - 1
	SPF	No.1	9 - 10	15 - 2	19 - 9	9 - 6	14 - 9	19 - 2	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7	8 - 4	12 - 10	16 - 8
	SPF	No.2	9 - 10	15 - 2	19 - 9	9 - 6	14 - 9	19 - 2	9 - 3	14 - 4	18 - 7	8 - 9	13 - 6	17 - 7	8 - 4	12 - 10	16 - 8
	SPF	No.3/Stud	9 - 4	14 - 5	18 - 9	9 - 0	14 - 0	18 - 2	8 - 9	13 - 7	17 - 8	8 - 4	12 - 10	16 - 8	7 - 11	12 - 2	15 - 10
	SPF	Standard	9 - 4	-	-	9 - 0	-	-	8 - 9	-	-	8 - 4	-	-	7 - 11	-	-
24	DFL	SS	9 - 6	14 - 8	19 - 1	9 - 2	14 - 3	18 - 6	8 - 11	13 - 10	18 - 0	8 - 5	13 - 1	17 - 0	8 - 0	12 - 5	16 - 2
	DFL	No.1	9 - 2	14 - 1	18 - 4	8 - 10	13 - 8	17 - 10	8 - 7	13 - 3	17 - 3	8 - 2	12 - 7	16 - 4	-	11 - 11	15 - 6
	DFL	No.2	8 - 11	13 - 10	18 - 0	8 - 8	13 - 5	17 - 5	8 - 5	13 - 0	16 - 11	8 - 0	12 - 4	16 - 0	-	11 - 8	15 - 2
	DFL	No.3/Stud	8 - 6	13 - 2	17 - 2	8 - 3	12 - 10	16 - 8	8 - 0	12 - 5	16 - 2	-	11 - 9	14 - 11	-	11 - 2	13 - 9
	DFL	Standard	8 - 6	-	-	8 - 2	-	-	7 - 10	-	-	-	-	-	-	-	-
	HF	SS	8 - 11	13 - 10	18 - 0	8 - 8	13 - 5	17 - 5	8 - 5	13 - 0	16 - 11	8 - 0	12 - 4	16 - 0	-	11 - 8	15 - 2
	HF	No.1	8 - 9	13 - 6	17 - 7	8 - 6	13 - 1	17 - 1	8 - 3	12 - 9	16 - 7	7 - 9	12 - 0	15 - 8	-	11 - 5	14 - 10
	HF	No.2	8 - 4	12 - 10	16 - 9	8 - 1	12 - 6	16 - 3	7 - 10	12 - 1	15 - 9	-	11 - 5	14 - 11	-	10 - 10	14 - 2
	HF	No.3/Stud	8 - 1	12 - 6	16 - 3	7 - 10	12 - 1	15 - 9	-	11 - 9	15 - 4	-	11 - 2	14 - 6	-	10 - 7	13 - 5
	HF	Standard	8 - 1	-	-	7 - 10	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9 - 4	14 - 5	18 - 9	9 - 0	14 - 0	18 - 2	8 - 9	13 - 7	17 - 8	8 - 4	12 - 10	16 - 8	7 - 11	12 - 2	15 - 10
	SP	No.1	9 - 2	14 - 1	18 - 4	8 - 10	13 - 8	17 - 10	8 - 7	13 - 3	17 - 3	8 - 2	12 - 7	16 - 4	-	11 - 11	15 - 6
	SP	No.2	8 - 6	13 - 10	18 - 0	8 - 3	13 - 5	17 - 5	8 - 0	13 - 0	16 - 11	-	12 - 4	16 - 0	-	11 - 8	15 - 2
	SP	No.3	8 - 1	13 - 2	17 - 2	7 - 10	12 - 10	16 - 8	-	12 - 5	16 - 2	-	11 - 9	15 - 3	-	11 - 2	14 - 6
	SP	Stud	8 - 1	13 - 2	17 - 2	7 - 10	12 - 10	16 - 8	-	12 - 5	16 - 2	-	11 - 9	15 - 3	-	11 - 2	14 - 6
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8 - 9	13 - 6	17 - 7	8 - 6	13 - 1	17 - 1	8 - 3	12 - 9	16 - 7	7 - 9	12 - 0	15 - 8	-	11 - 5	14 - 10
	SPF	No.1	8 - 6	13 - 2	17 - 2	8 - 3	12 - 10	16 - 8	8 - 0	12 - 5	16 - 2	-	11 - 9	15 - 3	-	11 - 2	14 - 6
	SPF	No.2	8 - 6	13 - 2	17 - 2	8 - 3	12 - 10	16 - 8	8 - 0	12 - 5	16 - 2	-	11 - 9	15 - 3	-	11 - 2	14 - 6
	SPF	No.3/Stud	8 - 1	12 - 6	16 - 3	7 - 10	12 - 1	15 - 9	-	11 - 9	15 - 4	-	11 - 2	14 - 6	-	10 - 7	13 - 5
	SPF	Standard	8 - 1	-	-	7 - 10	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.20B6 Maximum Exterior Loadbearing¹ and Non-Loadbearing Stud Lengths for Common Lumber Species Resisting Interior Zone Wind Loads - Stud Deflection Limit = H/360 (Cont.)
(Fully Sheathed with a Minimum of 3/8" Wood Structural Panels)^a

Exposure C
H/360
3/8" WSP

700-yr. Wind Speed 3-second gust (mph)			150			160			170			180			195		
Stud Spacing (in.)	Species	Grade	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8	2x4	2x6	2x8
Maximum Allowable Stud Length (ft.-in.) ¹																	
12	DFL	SS	9-9	15-1	19-7	9-4	14-5	18-9	8-11	13-10	17-11	8-7	13-3	17-3	8-1	12-6	16-4
	DFL	No.1	9-4	14-6	18-10	9-0	13-10	18-0	8-7	13-3	17-3	8-3	12-9	16-7	7-10	12-1	15-8
	DFL	No.2	9-2	14-2	18-5	8-9	13-7	17-8	8-5	13-0	16-11	8-1	12-6	16-3	-	11-10	15-4
	DFL	No.3/Stud	8-9	13-6	17-7	8-4	12-11	16-10	8-0	12-5	16-2	-	11-11	15-3	-	11-3	14-0
	DFL	Standard	8-9	-	-	8-4	-	-	7-10	-	-	-	-	-	-	-	-
	HF	SS	9-2	14-2	18-5	8-9	13-7	17-8	8-5	13-0	16-11	8-1	12-6	16-3	-	11-10	15-4
	HF	No.1	9-0	13-10	18-0	8-7	13-3	17-3	8-3	12-8	16-6	7-11	12-3	15-11	-	11-7	15-0
	HF	No.2	8-6	13-2	17-2	8-2	12-7	16-5	7-10	12-1	15-9	-	11-7	15-1	-	11-0	14-3
	HF	No.3/Stud	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-8
	HF	Standard	8-4	-	-	7-11	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	9-7	14-9	19-3	9-2	14-2	18-4	8-9	13-7	17-7	8-5	13-0	16-11	8-0	12-4	16-0
	SP	No.1	9-4	14-6	18-10	9-0	13-10	18-0	8-7	13-3	17-3	8-3	12-9	16-7	7-10	12-1	15-8
	SP	No.2	8-9	14-2	18-5	8-4	13-7	17-8	8-0	13-0	16-11	-	12-6	16-3	-	11-10	15-4
	SP	No.3	8-4	13-6	17-7	7-11	12-11	16-10	-	12-5	16-2	-	11-11	15-6	-	11-3	14-8
	SP	Stud	8-4	13-6	17-7	7-11	12-11	16-10	-	12-5	16-2	-	11-11	15-6	-	11-3	14-8
	SP	Standard	7-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	9-0	13-10	18-0	8-7	13-3	17-3	8-3	12-8	16-6	7-11	12-3	15-11	-	11-7	15-0
	SPF	No.1	8-9	13-6	17-7	8-4	12-11	16-10	8-0	12-5	16-2	-	11-11	15-6	-	11-3	14-8
	SPF	No.2	8-9	13-6	17-7	8-4	12-11	16-10	8-0	12-5	16-2	-	11-11	15-6	-	11-3	14-8
	SPF	No.3/Stud	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-8
	SPF	Standard	8-4	-	-	7-11	-	-	-	-	-	-	-	-	-	-	-
16	DFL	SS	8-10	13-7	17-9	8-5	13-0	16-11	8-1	12-6	16-3	7-9	12-0	15-7	-	11-4	14-9
	DFL	No.1	8-6	13-1	17-0	8-1	12-6	16-3	7-9	12-0	15-7	-	11-6	15-0	-	10-11	14-2
	DFL	No.2	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	DFL	No.3/Stud	7-11	12-3	15-11	-	11-8	14-10	-	11-3	13-11	-	10-7	13-1	-	9-8	12-0
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	8-4	12-10	16-8	7-11	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	HF	No.1	8-1	12-7	16-4	7-9	12-0	15-7	-	11-6	14-11	-	11-1	14-4	-	10-5	13-7
	HF	No.2	-	11-11	15-6	-	11-5	14-10	-	10-11	14-3	-	10-6	13-8	-	9-11	12-11
	HF	No.3/Stud	-	11-7	15-1	-	11-1	14-5	-	10-8	13-6	-	10-3	12-9	-	9-5	11-8
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	8-8	13-4	17-5	8-3	12-9	16-7	7-11	12-3	15-11	-	11-9	15-4	-	11-2	14-6
	SP	No.1	8-6	13-1	17-0	8-1	12-6	16-3	7-9	12-0	15-7	-	11-6	15-0	-	10-11	14-2
	SP	No.2	7-11	12-10	16-8	-	12-3	15-11	-	11-9	15-3	-	11-4	14-8	-	10-8	13-11
	SP	No.3	-	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	13-10	-	10-2	12-8
	SP	Stud	-	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	13-10	-	10-2	12-8
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	8-1	12-7	16-4	7-9	12-0	15-7	-	11-6	14-11	-	11-1	14-4	-	10-5	13-7
	SPF	No.1	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	14-0	-	10-2	13-3
	SPF	No.2	7-11	12-3	15-11	-	11-8	15-3	-	11-3	14-7	-	10-9	14-0	-	10-2	13-3
	SPF	No.3/Stud	-	11-7	15-1	-	11-1	14-5	-	10-8	13-6	-	10-3	12-9	-	9-5	11-8
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	DFL	SS	-	11-10	15-4	-	11-4	14-8	-	10-10	14-1	-	10-5	13-6	-	9-10	12-10
	DFL	No.1	-	11-5	14-9	-	10-10	14-2	-	10-5	13-7	-	10-0	13-0	-	9-6	12-4
	DFL	No.2	-	11-2	14-6	-	10-8	13-10	-	10-2	13-3	-	9-10	12-9	-	9-3	12-1
	DFL	No.3/Stud	-	10-4	12-9	-	9-8	11-11	-	9-1	11-2	-	8-6	10-6	-	7-10	9-8
	DFL	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HF	SS	-	11-2	14-6	-	10-8	13-10	-	10-2	13-3	-	9-10	12-9	-	9-3	12-1
	HF	No.1	-	10-11	14-2	-	10-5	13-6	-	10-0	13-0	-	9-7	12-6	-	9-1	11-9
	HF	No.2	-	10-4	13-6	-	9-11	12-10	-	9-6	12-4	-	9-1	11-10	-	8-8	11-3
	HF	No.3/Stud	-	10-1	12-5	-	9-5	11-7	-	8-10	10-11	-	8-4	10-3	-	-	9-5
	HF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SP	SS	-	11-7	15-1	-	11-1	14-5	-	10-8	13-10	-	10-3	13-3	-	9-8	12-7
	SP	No.1	-	11-5	14-9	-	10-10	14-2	-	10-5	13-7	-	10-0	13-0	-	9-6	12-4
	SP	No.2	-	11-2	14-6	-	10-8	13-10	-	10-2	13-3	-	9-10	12-9	-	9-3	12-1
	SP	No.3	-	10-8	13-6	-	10-2	12-7	-	9-6	11-10	-	9-0	11-1	-	8-3	10-3
	SP	Stud	-	10-8	13-6	-	10-2	12-7	-	9-6	11-10	-	9-0	11-1	-	8-3	10-3
	SP	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SPF	SS	-	10-11	14-2	-	10-5	13-6	-	10-0	13-0	-	9-7	12-6	-	9-1	11-9
	SPF	No.1	-	10-8	13-10	-	10-2	13-3	-	9-9	12-8	-	9-4	12-2	-	8-10	11-6
	SPF	No.2	-	10-8	13-10	-	10-2	13-3	-	9-9	12-8	-	9-4	12-2	-	8-10	11-6
	SPF	No.3/Stud	-	10-1	12-5	-	9-5	11-7	-	8-10	10-11	-	8-4	10-3	-	-	9-5
	SPF	Standard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See Table 3.20B footnotes.

Table 3.25A Ceiling Joist Spans for Common Lumber Species**LL = 10 psf**

(Uninhabitable Attics Without Storage, Live Load = 10 psf, L/Δ = 240)

L/Δ = 240

Dead Load = 5 psf

Joist Spacing (in.)	Species	Grade	Maximum Ceiling Joist Spans ¹			
			2x4	2x6	2x8	2x10
12	Douglas Fir-Larch	SS	13 - 2	20 - 8	26 - 0	26 - 0
	Douglas Fir-Larch	No.1	12 - 8	19 - 11	26 - 0	26 - 0
	Douglas Fir-Larch	No.2	12 - 5	19 - 6	25 - 8	26 - 0
	Douglas Fir-Larch	No.3	11 - 1	16 - 3	20 - 7	25 - 2
	Hem-Fir	SS	12 - 5	19 - 6	25 - 8	26 - 0
	Hem-Fir	No.1	12 - 2	19 - 1	25 - 2	26 - 0
	Hem-Fir	No.2	11 - 7	18 - 2	24 - 0	26 - 0
	Hem-Fir	No.3	10 - 10	15 - 10	20 - 1	24 - 6
	Southern Pine	SS	12 - 11	20 - 3	26 - 0	26 - 0
	Southern Pine	No.1	12 - 8	19 - 11	26 - 0	26 - 0
	Southern Pine	No.2	11 - 10	19 - 6	25 - 8	26 - 0
	Southern Pine	No.3	9 - 8	17 - 0	21 - 8	25 - 7
	Spruce-Pine Fir	SS	12 - 2	19 - 1	25 - 2	26 - 0
	Spruce-Pine Fir	No.1	11 - 10	18 - 8	24 - 7	26 - 0
	Spruce-Pine Fir	No.2	11 - 10	18 - 8	24 - 7	26 - 0
	Spruce-Pine Fir	No.3	10 - 10	15 - 10	20 - 1	24 - 6
16	Douglas Fir-Larch	SS	11 - 11	18 - 9	24 - 8	26 - 0
	Douglas Fir-Larch	No.1	11 - 6	18 - 1	23 - 10	26 - 0
	Douglas Fir-Larch	No.2	11 - 3	17 - 8	23 - 4	26 - 0
	Douglas Fir-Larch	No.3	9 - 7	14 - 1	17 - 10	21 - 9
	Hem-Fir	SS	11 - 3	17 - 8	23 - 4	26 - 0
	Hem-Fir	No.1	11 - 0	17 - 4	22 - 10	26 - 0
	Hem-Fir	No.2	10 - 6	16 - 6	21 - 9	26 - 0
	Hem-Fir	No.3	9 - 5	13 - 9	17 - 5	21 - 3
	Southern Pine	SS	11 - 9	18 - 5	24 - 3	26 - 0
	Southern Pine	No.1	11 - 6	18 - 1	23 - 10	26 - 0
	Southern Pine	No.2	10 - 9	17 - 8	23 - 4	26 - 0
	Southern Pine	No.3	8 - 5	14 - 9	18 - 9	22 - 2
	Spruce-Pine Fir	SS	11 - 0	17 - 4	22 - 10	26 - 0
	Spruce-Pine Fir	No.1	10 - 9	16 - 11	22 - 4	26 - 0
	Spruce-Pine Fir	No.2	10 - 9	16 - 11	22 - 4	26 - 0
	Spruce-Pine Fir	No.3	9 - 5	13 - 9	17 - 5	21 - 3
19.2	Douglas Fir-Larch	SS	11 - 3	17 - 8	23 - 3	26 - 0
	Douglas Fir-Larch	No.1	10 - 10	17 - 0	22 - 5	26 - 0
	Douglas Fir-Larch	No.2	10 - 7	16 - 8	21 - 4	26 - 0
	Douglas Fir-Larch	No.3	8 - 9	12 - 10	16 - 3	19 - 10
	Hem-Fir	SS	10 - 7	16 - 8	22 - 0	26 - 0
	Hem-Fir	No.1	10 - 4	16 - 4	21 - 6	26 - 0
	Hem-Fir	No.2	9 - 11	15 - 7	20 - 6	25 - 3
	Hem-Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5
	Southern Pine	SS	11 - 0	17 - 4	22 - 10	26 - 0
	Southern Pine	No.1	10 - 10	17 - 0	22 - 5	26 - 0
	Southern Pine	No.2	10 - 2	16 - 8	22 - 0	26 - 0
	Southern Pine	No.3	7 - 8	13 - 6	17 - 2	20 - 3
	Spruce-Pine Fir	SS	10 - 4	16 - 4	21 - 6	26 - 0
	Spruce-Pine Fir	No.1	10 - 2	15 - 11	21 - 0	25 - 8
	Spruce-Pine Fir	No.2	10 - 2	15 - 11	21 - 0	25 - 8
	Spruce-Pine Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5
24	Douglas Fir-Larch	SS	10 - 5	16 - 4	21 - 7	26 - 0
	Douglas Fir-Larch	No.1	10 - 0	15 - 9	20 - 1	24 - 6
	Douglas Fir-Larch	No.2	9 - 10	15 - 0	19 - 1	23 - 3
	Douglas Fir-Larch	No.3	7 - 10	11 - 6	14 - 7	17 - 9
	Hem-Fir	SS	9 - 10	15 - 6	20 - 5	26 - 0
	Hem-Fir	No.1	9 - 8	15 - 2	19 - 10	24 - 3
	Hem-Fir	No.2	9 - 2	14 - 5	18 - 6	22 - 7
	Hem-Fir	No.3	7 - 8	11 - 2	14 - 2	17 - 4
	Southern Pine	SS	10 - 3	16 - 1	21 - 2	26 - 0
	Southern Pine	No.1	10 - 0	15 - 9	20 - 10	26 - 0
	Southern Pine	No.2	9 - 1	15 - 6	20 - 1	24 - 0
	Southern Pine	No.3	6 - 10	12 - 0	15 - 4	18 - 1
	Spruce-Pine Fir	SS	9 - 8	15 - 2	19 - 11	25 - 5
	Spruce-Pine Fir	No.1	9 - 5	14 - 9	18 - 9	22 - 11
	Spruce-Pine Fir	No.2	9 - 5	14 - 9	18 - 9	22 - 11
	Spruce-Pine Fir	No.3	7 - 8	11 - 2	14 - 2	17 - 4

1 Bracing shall be provided in accordance with 3.3.1.4.

NOTE: Spans are limited to 26 feet in length. Check sources for availability of lumber in lengths greater than 20 feet.

Table 3.25B Ceiling Joist Spans for Common Lumber Species **LL = 20 psf**
(Uninhabitable Attics With Storage, Live Load = 20 psf, L/Δ = 240)
L/Δ = 240
Dead Load = 10 psf

Joist Spacing (in.)	Species	Grade	Maximum Ceiling Joist Spans ¹			
			2x4	2x6	2x8	2x10
			(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	10 - 5	16 - 4	21 - 7	26 - 0
	Douglas Fir-Larch	No.1	10 - 0	15 - 9	20 - 1	24 - 6
	Douglas Fir-Larch	No.2	9 - 10	15 - 0	19 - 1	23 - 3
	Douglas Fir-Larch	No.3	7 - 10	11 - 6	14 - 7	17 - 9
	Hem-Fir	SS	9 - 10	15 - 6	20 - 5	26 - 0
	Hem-Fir	No.1	9 - 8	15 - 2	19 - 10	24 - 3
	Hem-Fir	No.2	9 - 2	14 - 5	18 - 6	22 - 7
	Hem-Fir	No.3	7 - 8	11 - 2	14 - 2	17 - 4
	Southern Pine	SS	10 - 3	16 - 1	21 - 2	26 - 0
	Southern Pine	No.1	10 - 0	15 - 9	20 - 10	26 - 0
	Southern Pine	No.2	9 - 1	15 - 6	20 - 1	24 - 0
	Southern Pine	No.3	6 - 10	12 - 0	15 - 4	18 - 1
	Spruce-Pine Fir	SS	9 - 8	15 - 2	19 - 11	25 - 5
	Spruce-Pine Fir	No.1	9 - 5	14 - 9	18 - 9	22 - 11
	Spruce-Pine Fir	No.2	9 - 5	14 - 9	18 - 9	22 - 11
	Spruce-Pine Fir	No.3	7 - 8	11 - 2	14 - 2	17 - 4
16	Douglas Fir-Larch	SS	9 - 6	14 - 11	19 - 7	25 - 0
	Douglas Fir-Larch	No.1	9 - 1	13 - 9	17 - 5	21 - 3
	Douglas Fir-Larch	No.2	8 - 11	13 - 0	16 - 6	20 - 2
	Douglas Fir-Larch	No.3	6 - 10	9 - 11	12 - 7	15 - 5
	Hem-Fir	SS	8 - 11	14 - 1	18 - 6	23 - 8
	Hem-Fir	No.1	8 - 9	13 - 7	17 - 2	21 - 0
	Hem-Fir	No.2	8 - 4	12 - 8	16 - 0	19 - 7
	Hem-Fir	No.3	6 - 8	9 - 8	12 - 4	15 - 0
	Southern Pine	SS	9 - 4	14 - 7	19 - 3	24 - 7
	Southern Pine	No.1	9 - 1	14 - 4	18 - 11	23 - 1
	Southern Pine	No.2	7 - 10	13 - 6	17 - 5	20 - 9
	Southern Pine	No.3	5 - 11	10 - 5	13 - 3	15 - 8
	Spruce-Pine Fir	SS	8 - 9	13 - 9	18 - 2	23 - 1
	Spruce-Pine Fir	No.1	8 - 7	12 - 10	16 - 3	19 - 10
	Spruce-Pine Fir	No.2	8 - 7	12 - 10	16 - 3	19 - 10
	Spruce-Pine Fir	No.3	6 - 8	9 - 8	12 - 4	15 - 0
19.2	Douglas Fir-Larch	SS	8 - 11	14 - 0	18 - 5	23 - 7
	Douglas Fir-Larch	No.1	8 - 7	12 - 6	15 - 10	19 - 5
	Douglas Fir-Larch	No.2	8 - 2	11 - 11	15 - 1	18 - 5
	Douglas Fir-Larch	No.3	6 - 2	9 - 1	11 - 6	14 - 1
	Hem-Fir	SS	8 - 5	13 - 3	17 - 5	22 - 3
	Hem-Fir	No.1	8 - 3	12 - 4	15 - 8	19 - 2
	Hem-Fir	No.2	7 - 10	11 - 7	14 - 8	17 - 10
	Hem-Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8
	Southern Pine	SS	8 - 9	13 - 9	18 - 2	23 - 1
	Southern Pine	No.1	8 - 7	13 - 6	17 - 9	21 - 1
	Southern Pine	No.2	7 - 2	12 - 3	15 - 10	18 - 11
	Southern Pine	No.3	5 - 5	9 - 6	12 - 1	14 - 4
	Spruce-Pine Fir	SS	8 - 3	12 - 11	17 - 1	21 - 8
	Spruce-Pine Fir	No.1	8 - 0	11 - 9	14 - 10	18 - 2
	Spruce-Pine Fir	No.2	8 - 0	11 - 9	14 - 10	18 - 2
	Spruce-Pine Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8
24	Douglas Fir-Larch	SS	8 - 3	13 - 0	17 - 2	21 - 3
	Douglas Fir-Larch	No.1	7 - 8	11 - 2	14 - 2	17 - 4
	Douglas Fir-Larch	No.2	7 - 3	10 - 8	13 - 6	16 - 5
	Douglas Fir-Larch	No.3	5 - 7	8 - 1	10 - 3	12 - 7
	Hem-Fir	SS	7 - 10	12 - 3	16 - 2	20 - 6
	Hem-Fir	No.1	7 - 7	11 - 1	14 - 0	17 - 1
	Hem-Fir	No.2	7 - 1	10 - 4	13 - 1	16 - 0
	Hem-Fir	No.3	5 - 5	7 - 11	10 - 0	12 - 3
	Southern Pine	SS	8 - 1	12 - 9	16 - 10	21 - 6
	Southern Pine	No.1	8 - 0	12 - 6	15 - 10	18 - 10
	Southern Pine	No.2	6 - 5	11 - 0	14 - 2	16 - 11
	Southern Pine	No.3	4 - 10	8 - 6	10 - 10	12 - 10
	Spruce-Pine Fir	SS	7 - 8	12 - 0	15 - 10	19 - 5
	Spruce-Pine Fir	No.1	7 - 2	10 - 6	13 - 3	16 - 3
	Spruce-Pine Fir	No.2	7 - 2	10 - 6	13 - 3	16 - 3
	Spruce-Pine Fir	No.3	5 - 5	7 - 11	10 - 0	12 - 3

¹ Bracing shall be provided in accordance with 3.3.1.4.

NOTE: Spans are limited to 26 feet in length. Check sources for availability of lumber in lengths greater than 20 feet.

Table 3.26A Rafter Spans for Common Lumber Species(Ceiling Not Attached to Rafters, Live Load = 20 psf, $L/\Delta = 180$)**LL = 20 psf**
 $L/\Delta = 180$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans ^{1,2,3}												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	11 - 6	18 - 0	23 - 9	26-0†	26-0†	11 - 6	18 - 0	23 - 9	26-0†	26-0†
	Douglas Fir-Larch	No.1	11 - 1	17 - 4	22 - 5	26-0†	26-0†	10 - 6	15 - 4	19 - 5	23 - 9	26-0†
	Douglas Fir-Larch	No.2	10 - 10	16 - 10	21 - 4	26-0†	26-0†	10 - 0	14 - 7	18 - 5	22 - 6	26-0†
	Douglas Fir-Larch	No.3	8 - 9	12 - 10	16 - 3	19 - 10	23 - 0	7 - 7	11 - 1	14 - 1	17 - 2	19 - 11
	Hem-Fir	SS	10 - 10	17 - 0	22 - 5	26-0†	26-0†	10 - 10	17 - 0	22 - 5	26-0†	26-0†
	Hem-Fir	No.1	10 - 7	16 - 8	22 - 0	26-0†	26-0†	10 - 4	15 - 2	19 - 2	23 - 5	26-0†
	Hem-Fir	No.2	10 - 1	15 - 11	20 - 8	25 - 3	26-0†	9 - 8	14 - 2	17 - 11	21 - 11	25 - 5
	Hem-Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
	Southern Pine	SS	11 - 3	17 - 8	23 - 4	26-0†	26-0†	11 - 3	17 - 8	23 - 4	26-0†	26-0†
	Southern Pine	No.1	11 - 1	17 - 4	22 - 11	26-0†	26-0†	11 - 1	17 - 3	21 - 9	25 - 10	26-0†
	Southern Pine	No.2	10 - 2	17 - 0	22 - 5	26-0†	26-0†	8 - 9	15 - 1	19 - 5	23 - 2	26-0†
	Southern Pine	No.3	7 - 8	13 - 6	17 - 2	20 - 3	24 - 1	6 - 8	11 - 8	14 - 10	17 - 6	20 - 11
	Spruce-Pine Fir	SS	10 - 7	16 - 8	22 - 0	26-0†	26-0†	10 - 7	16 - 8	21 - 9	26-0†	26-0†
	Spruce-Pine Fir	No.1	10 - 4	16 - 3	21 - 0	25 - 8	26-0†	9 - 10	14 - 4	18 - 2	22 - 3	25 - 9
	Spruce-Pine Fir	No.2	10 - 4	16 - 3	21 - 0	25 - 8	26-0†	9 - 10	14 - 4	18 - 2	22 - 3	25 - 9
	Spruce-Pine Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
16	Douglas Fir-Larch	SS	10 - 5	16 - 4	21 - 7	26-0†	26-0†	10 - 5	16 - 3	20 - 7	25 - 2	26-0†
	Douglas Fir-Larch	No.1	10 - 0	15 - 4	19 - 5	23 - 9	26-0†	9 - 1	13 - 3	16 - 10	20 - 7	23 - 10
	Douglas Fir-Larch	No.2	9 - 10	14 - 7	18 - 5	22 - 6	26-0†	8 - 7	12 - 7	16 - 0	19 - 6	22 - 7
	Douglas Fir-Larch	No.3	7 - 7	11 - 1	14 - 1	17 - 2	19 - 11	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Hem-Fir	SS	9 - 10	15 - 6	20 - 5	26-0†	26-0†	9 - 10	15 - 6	19 - 11	24 - 4	26-0†
	Hem-Fir	No.1	9 - 8	15 - 2	19 - 2	23 - 5	26-0†	9 - 0	13 - 1	16 - 7	20 - 4	23 - 7
	Hem-Fir	No.2	9 - 2	14 - 2	17 - 11	21 - 11	25 - 5	8 - 5	12 - 3	15 - 6	19 - 0	22 - 0
	Hem-Fir	No.3	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10
	Southern Pine	SS	10 - 3	16 - 1	21 - 2	26-0†	26-0†	10 - 3	16 - 1	21 - 2	26-0†	26-0†
	Southern Pine	No.1	10 - 0	15 - 9	20 - 10	25 - 10	26-0†	10 - 0	15 - 0	18 - 10	22 - 4	26-0†
	Southern Pine	No.2	8 - 9	15 - 1	19 - 5	23 - 2	26-0†	7 - 7	13 - 0	16 - 10	20 - 1	23 - 7
	Southern Pine	No.3	6 - 8	11 - 8	14 - 10	17 - 6	20 - 11	5 - 9	10 - 1	12 - 10	15 - 2	18 - 1
	Spruce-Pine Fir	SS	9 - 8	15 - 2	19 - 11	25 - 5	26-0†	9 - 8	14 - 10	18 - 10	23 - 0	26-0†
	Spruce-Pine Fir	No.1	9 - 5	14 - 4	18 - 2	22 - 3	25 - 9	8 - 6	12 - 5	15 - 9	19 - 3	22 - 4
	Spruce-Pine Fir	No.2	9 - 5	14 - 4	18 - 2	22 - 3	25 - 9	8 - 6	12 - 5	15 - 9	19 - 3	22 - 4
	Spruce-Pine Fir	No.3	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10
19.2	Douglas Fir-Larch	SS	9 - 10	15 - 5	20 - 4	25 - 11	26-0†	9 - 10	14 - 10	18 - 10	23 - 0	26-0†
	Douglas Fir-Larch	No.1	9 - 5	14 - 0	17 - 9	21 - 8	25 - 2	8 - 4	12 - 2	15 - 4	18 - 9	21 - 9
	Douglas Fir-Larch	No.2	9 - 1	13 - 3	16 - 10	20 - 7	23 - 10	7 - 10	11 - 6	14 - 7	17 - 10	20 - 8
	Douglas Fir-Larch	No.3	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3	6 - 0	8 - 9	11 - 2	13 - 7	15 - 9
	Hem-Fir	SS	9 - 3	14 - 7	19 - 2	24 - 6	26-0†	9 - 3	14 - 4	18 - 2	22 - 3	25 - 9
	Hem-Fir	No.1	9 - 1	13 - 10	17 - 6	21 - 5	24 - 10	8 - 2	12 - 0	15 - 2	18 - 6	21 - 6
	Hem-Fir	No.2	8 - 8	12 - 11	16 - 4	20 - 0	23 - 2	7 - 8	11 - 2	14 - 2	17 - 4	20 - 1
	Hem-Fir	No.3	6 - 9	9 - 11	12 - 7	15 - 4	17 - 9	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
	Southern Pine	SS	9 - 8	15 - 2	19 - 11	25 - 5	26-0†	9 - 8	15 - 2	19 - 11	25 - 5	26-0†
	Southern Pine	No.1	9 - 5	14 - 10	19 - 7	23 - 7	26-0†	9 - 3	13 - 8	17 - 2	20 - 5	24 - 4
	Southern Pine	No.2	8 - 0	13 - 9	17 - 9	21 - 2	24 - 10	6 - 11	11 - 11	15 - 4	18 - 4	21 - 6
	Southern Pine	No.3	6 - 1	10 - 8	13 - 7	16 - 0	19 - 1	5 - 3	9 - 3	11 - 9	13 - 10	16 - 6
	Spruce-Pine Fir	SS	9 - 1	14 - 3	18 - 9	24 - 0	26-0†	9 - 1	13 - 7	17 - 2	21 - 0	24 - 4
	Spruce-Pine Fir	No.1	8 - 10	13 - 1	16 - 7	20 - 3	23 - 6	7 - 9	11 - 4	14 - 4	17 - 7	20 - 4
	Spruce-Pine Fir	No.2	8 - 10	13 - 1	16 - 7	20 - 3	23 - 6	7 - 9	11 - 4	14 - 4	17 - 7	20 - 4
	Spruce-Pine Fir	No.3	6 - 9	9 - 11	12 - 7	15 - 4	17 - 9	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
24	Douglas Fir-Larch	SS	9 - 1	14 - 4	18 - 10	23 - 9	26-0†	9 - 1	13 - 3	16 - 10	20 - 7	23 - 10
	Douglas Fir-Larch	No.1	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
	Douglas Fir-Larch	No.2	8 - 2	11 - 11	15 - 1	18 - 5	21 - 4	7 - 0	10 - 4	13 - 0	15 - 11	18 - 6
	Douglas Fir-Larch	No.3	6 - 2	9 - 1	11 - 6	14 - 1	16 - 3	5 - 4	7 - 10	10 - 0	12 - 2	14 - 1
	Hem-Fir	SS	8 - 7	13 - 6	17 - 10	22 - 9	26-0†	8 - 7	12 - 10	16 - 3	19 - 10	23 - 0
	Hem-Fir	No.1	8 - 5	12 - 4	15 - 8	19 - 2	22 - 2	7 - 4	10 - 9	13 - 7	16 - 7	19 - 3
	Hem-Fir	No.2	7 - 11	11 - 7	14 - 8	17 - 10	20 - 9	6 - 10	10 - 0	12 - 8	15 - 6	17 - 11
	Hem-Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8	15 - 11	5 - 3	7 - 8	9 - 9	11 - 10	13 - 9
	Southern Pine	SS	8 - 11	14 - 1	18 - 6	23 - 8	26-0†	8 - 11	14 - 1	18 - 6	22 - 11	26-0†
	Southern Pine	No.1	8 - 9	13 - 9	17 - 9	21 - 1	25 - 2	8 - 3	12 - 3	15 - 4	18 - 3	21 - 9
	Southern Pine	No.2	7 - 2	12 - 3	15 - 10	18 - 11	22 - 2	6 - 2	10 - 8	13 - 9	16 - 5	19 - 3
	Southern Pine	No.3	5 - 5	9 - 6	12 - 1	14 - 4	17 - 1	4 - 8	8 - 3	10 - 6	12 - 5	14 - 9
	Spruce-Pine Fir	SS	8 - 5	13 - 3	17 - 5	21 - 8	25 - 2	8 - 4	12 - 2	15 - 4	18 - 9	21 - 9
	Spruce-Pine Fir	No.1	8 - 0	11 - 9	14 - 10	18 - 2	21 - 0	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3
	Spruce-Pine Fir	No.2	8 - 0	11 - 9	14 - 10	18 - 2	21 - 0	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3
	Spruce-Pine Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8	15 - 11	5 - 3	7 - 8	9 - 9	11 - 10	13 - 9

† Spans are limited to 26 feet in length.

See footnotes 1-3.

Table 3.26B Rafter Spans for Common Lumber Species(Ceiling Attached to Rafters, Live Load = 20 psf, $L/\Delta = 240$)**LL = 20 psf**
 $L/\Delta = 240$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans ^{1,2,3}												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	10 - 5	16 - 4	21 - 7	26 - 0†	26 - 0†	10 - 5	16 - 4	21 - 7	26 - 0†	26 - 0†
	Douglas Fir-Larch	No.1	10 - 0	15 - 9	20 - 10	26 - 0†	26 - 0†	10 - 0	15 - 4	19 - 5	23 - 9	26 - 0†
	Douglas Fir-Larch	No.2	9 - 10	15 - 6	20 - 5	26 - 0†	26 - 0†	9 - 10	14 - 7	18 - 5	22 - 6	26 - 0†
	Douglas Fir-Larch	No.3	8 - 9	12 - 10	16 - 3	19 - 10	23 - 0	7 - 7	11 - 1	14 - 1	17 - 2	19 - 11
	Hem-Fir	SS	9 - 10	15 - 6	20 - 5	26 - 0†	26 - 0†	9 - 10	15 - 6	20 - 5	26 - 0†	26 - 0†
	Hem-Fir	No.1	9 - 8	15 - 2	19 - 11	25 - 5	26 - 0†	9 - 8	15 - 2	19 - 2	23 - 5	26 - 0†
	Hem-Fir	No.2	9 - 2	14 - 5	19 - 0	24 - 3	26 - 0†	9 - 2	14 - 2	17 - 11	21 - 11	25 - 5
	Hem-Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
	Southern Pine	SS	10 - 3	16 - 1	21 - 2	26 - 0†	26 - 0†	10 - 3	16 - 1	21 - 2	26 - 0†	26 - 0†
	Southern Pine	No.1	10 - 0	15 - 9	20 - 10	26 - 0†	26 - 0†	10 - 0	15 - 9	20 - 10	25 - 10	26 - 0†
	Southern Pine	No.2	9 - 5	15 - 6	20 - 5	26 - 0†	26 - 0†	8 - 9	15 - 1	19 - 5	23 - 2	26 - 0†
	Southern Pine	No.3	7 - 8	13 - 6	17 - 2	20 - 3	24 - 1	6 - 8	11 - 8	14 - 10	17 - 6	20 - 11
	Spruce-Pine Fir	SS	9 - 8	15 - 2	19 - 11	25 - 5	26 - 0†	9 - 8	15 - 2	19 - 11	25 - 5	26 - 0†
	Spruce-Pine Fir	No.1	9 - 5	14 - 9	19 - 6	24 - 10	26 - 0†	9 - 5	14 - 4	18 - 2	22 - 3	25 - 9
	Spruce-Pine Fir	No.2	9 - 5	14 - 9	19 - 6	24 - 10	26 - 0†	9 - 5	14 - 4	18 - 2	22 - 3	25 - 9
	Spruce-Pine Fir	No.3	8 - 7	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
16	Douglas Fir-Larch	SS	9 - 6	14 - 11	19 - 7	25 - 0	26 - 0†	9 - 6	14 - 11	19 - 7	25 - 0	26 - 0†
	Douglas Fir-Larch	No.1	9 - 1	14 - 4	18 - 11	23 - 9	26 - 0†	9 - 1	13 - 3	16 - 10	20 - 7	23 - 10
	Douglas Fir-Larch	No.2	8 - 11	14 - 1	18 - 5	22 - 6	26 - 0†	8 - 7	12 - 7	16 - 0	19 - 6	22 - 7
	Douglas Fir-Larch	No.3	7 - 7	11 - 1	14 - 1	17 - 2	19 - 11	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Hem-Fir	SS	8 - 11	14 - 1	18 - 6	23 - 8	26 - 0†	8 - 11	14 - 1	18 - 6	23 - 8	26 - 0†
	Hem-Fir	No.1	8 - 9	13 - 9	18 - 2	23 - 1	26 - 0†	8 - 9	13 - 1	16 - 7	20 - 4	23 - 7
	Hem-Fir	No.2	8 - 4	13 - 1	17 - 3	21 - 11	25 - 5	8 - 4	12 - 3	15 - 6	19 - 0	22 - 0
	Hem-Fir	No.3	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10
	Southern Pine	SS	9 - 4	14 - 7	19 - 3	24 - 7	26 - 0†	9 - 4	14 - 7	19 - 3	24 - 7	26 - 0†
	Southern Pine	No.1	9 - 1	14 - 4	18 - 11	24 - 1	26 - 0†	9 - 1	14 - 4	18 - 10	22 - 4	26 - 0†
	Southern Pine	No.2	8 - 7	14 - 1	18 - 6	23 - 2	26 - 0†	7 - 7	13 - 0	16 - 10	20 - 1	23 - 7
	Southern Pine	No.3	6 - 8	11 - 8	14 - 10	17 - 6	20 - 11	5 - 9	10 - 1	12 - 10	15 - 2	18 - 1
	Spruce-Pine Fir	SS	8 - 9	13 - 9	18 - 2	23 - 1	26 - 0†	8 - 9	13 - 9	18 - 2	23 - 0	26 - 0†
	Spruce-Pine Fir	No.1	8 - 7	13 - 5	17 - 9	22 - 3	25 - 9	8 - 6	12 - 5	15 - 9	19 - 3	22 - 4
	Spruce-Pine Fir	No.2	8 - 7	13 - 5	17 - 9	22 - 3	25 - 9	8 - 6	12 - 5	15 - 9	19 - 3	22 - 4
	Spruce-Pine Fir	No.3	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10
19.2	Douglas Fir-Larch	SS	8 - 11	14 - 0	18 - 5	23 - 7	26 - 0†	8 - 11	14 - 0	18 - 5	23 - 0	26 - 0†
	Douglas Fir-Larch	No.1	8 - 7	13 - 6	17 - 9	21 - 8	25 - 2	8 - 4	12 - 2	15 - 4	18 - 9	21 - 9
	Douglas Fir-Larch	No.2	8 - 5	13 - 3	16 - 10	20 - 7	23 - 10	7 - 10	11 - 6	14 - 7	17 - 10	20 - 8
	Douglas Fir-Larch	No.3	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3	6 - 0	8 - 9	11 - 2	13 - 7	15 - 9
	Hem-Fir	SS	8 - 5	13 - 3	17 - 5	22 - 3	26 - 0†	8 - 5	13 - 3	17 - 5	22 - 3	25 - 9
	Hem-Fir	No.1	8 - 3	12 - 11	17 - 1	21 - 5	24 - 10	8 - 2	12 - 0	15 - 2	18 - 6	21 - 6
	Hem-Fir	No.2	7 - 10	12 - 4	16 - 3	20 - 0	23 - 2	7 - 8	11 - 2	14 - 2	17 - 4	20 - 1
	Hem-Fir	No.3	6 - 9	9 - 11	12 - 7	15 - 4	17 - 9	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
	Southern Pine	SS	8 - 9	13 - 9	18 - 2	23 - 1	26 - 0†	8 - 9	13 - 9	18 - 2	23 - 1	26 - 0†
	Southern Pine	No.1	8 - 7	13 - 6	17 - 9	22 - 8	26 - 0†	8 - 7	13 - 6	17 - 2	20 - 5	24 - 4
	Southern Pine	No.2	8 - 0	13 - 3	17 - 5	21 - 2	24 - 10	6 - 11	11 - 11	15 - 4	18 - 4	21 - 6
	Southern Pine	No.3	6 - 1	10 - 8	13 - 7	16 - 0	19 - 1	5 - 3	9 - 3	11 - 9	13 - 10	16 - 6
	Spruce-Pine Fir	SS	8 - 3	12 - 11	17 - 1	21 - 9	26 - 0†	8 - 3	12 - 11	17 - 1	21 - 0	24 - 4
	Spruce-Pine Fir	No.1	8 - 1	12 - 8	16 - 7	20 - 3	23 - 6	7 - 9	11 - 4	14 - 4	17 - 7	20 - 4
	Spruce-Pine Fir	No.2	8 - 1	12 - 8	16 - 7	20 - 3	23 - 6	7 - 9	11 - 4	14 - 4	17 - 7	20 - 4
	Spruce-Pine Fir	No.3	6 - 9	9 - 11	12 - 7	15 - 4	17 - 9	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
24	Douglas Fir-Larch	SS	8 - 3	13 - 0	17 - 2	21 - 10	26 - 0†	8 - 3	13 - 0	16 - 10	20 - 7	23 - 10
	Douglas Fir-Larch	No.1	8 - 0	12 - 6	15 - 10	19 - 5	22 - 6	7 - 5	10 - 10	13 - 9	16 - 9	19 - 6
	Douglas Fir-Larch	No.2	7 - 10	11 - 11	15 - 1	18 - 5	21 - 4	7 - 0	10 - 4	13 - 0	15 - 11	18 - 6
	Douglas Fir-Larch	No.3	6 - 2	9 - 1	11 - 6	14 - 1	16 - 3	5 - 4	7 - 10	10 - 0	12 - 2	14 - 1
	Hem-Fir	SS	7 - 10	12 - 3	16 - 2	20 - 8	25 - 1	7 - 10	12 - 3	16 - 2	19 - 10	23 - 0
	Hem-Fir	No.1	7 - 8	12 - 0	15 - 8	19 - 2	22 - 2	7 - 4	10 - 9	13 - 7	16 - 7	19 - 3
	Hem-Fir	No.2	7 - 3	11 - 5	14 - 8	17 - 10	20 - 9	6 - 10	10 - 0	12 - 8	15 - 6	17 - 11
	Hem-Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8	15 - 11	5 - 3	7 - 8	9 - 9	11 - 10	13 - 9
	Southern Pine	SS	8 - 1	12 - 9	16 - 10	21 - 6	26 - 0†	8 - 1	12 - 9	16 - 10	21 - 6	26 - 0†
	Southern Pine	No.1	8 - 0	12 - 6	16 - 6	21 - 1	25 - 2	8 - 0	12 - 3	15 - 4	18 - 3	21 - 9
	Southern Pine	No.2	7 - 2	12 - 3	15 - 10	18 - 11	22 - 2	6 - 2	10 - 8	13 - 9	16 - 5	19 - 3
	Southern Pine	No.3	5 - 5	9 - 6	12 - 1	14 - 4	17 - 1	4 - 8	8 - 3	10 - 6	12 - 5	14 - 9
	Spruce-Pine Fir	SS	7 - 8	12 - 0	15 - 10	20 - 2	24 - 7	7 - 8	12 - 0	15 - 4	18 - 9	21 - 9
	Spruce-Pine Fir	No.1	7 - 6	11 - 9	14 - 10	18 - 2	21 - 0	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3
	Spruce-Pine Fir	No.2	7 - 6	11 - 9	14 - 10	18 - 2	21 - 0	6 - 11	10 - 2	12 - 10	15 - 8	18 - 3
	Spruce-Pine Fir	No.3	6 - 1	8 - 10	11 - 3	13 - 8	15 - 11	5 - 3	7 - 8	9 - 9	11 - 10	13 - 9

† Spans are limited to 26 feet in length.

See footnotes 1-3.

Table 3.26C Rafter Spans for Common Lumber Species

(Ceiling Not Attached to Rafters,
Ground Snow Load = 30 psf, $L/\Delta = 180$)

GSL = 30 psf
 $L/\Delta = 180$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans [†]												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	10 - 0	15 - 9	20-0 [†]	20-0 [†]	20-0 [†]	10 - 0	15 - 9	20-0 [†]	20-0 [†]	20-0 [†]
	Douglas Fir-Larch	No.1	9 - 8	14 - 9	18 - 8	20-0 [†]	20-0 [†]	9 - 0	13 - 2	16 - 8	20-0 [†]	20-0 [†]
	Douglas Fir-Larch	No.2	9 - 6	14 - 0	17 - 8	20-0 [†]	20-0 [†]	8 - 6	12 - 6	15 - 10	19 - 4	20-0 [†]
	Douglas Fir-Larch	No.3	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2	6 - 6	9 - 6	12 - 1	14 - 9	17 - 1
	Hem-Fir	SS	9 - 6	14 - 10	19 - 7	20-0 [†]	20-0 [†]	9 - 6	14 - 10	19 - 7	20-0 [†]	20-0 [†]
	Hem-Fir	No.1	9 - 3	14 - 6	18 - 5	20-0 [†]	20-0 [†]	8 - 11	13 - 0	16 - 6	20-0 [†]	20-0 [†]
	Hem-Fir	No.2	8 - 10	13 - 7	17 - 2	20-0 [†]	20-0 [†]	8 - 4	12 - 2	15 - 4	18 - 9	20-0 [†]
	Hem-Fir	No.3	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Southern Pine	SS	9 - 10	15 - 6	20-0 [†]	20-0 [†]	20-0 [†]	9 - 10	15 - 6	20-0 [†]	20-0 [†]	20-0 [†]
	Southern Pine	No.1	9 - 8	15 - 2	20 - 0	20-0 [†]	20-0 [†]	9 - 8	14 - 10	18 - 8	20-0 [†]	20-0 [†]
	Southern Pine	No.2	8 - 5	14 - 5	18 - 8	20-0 [†]	20-0 [†]	7 - 6	12 - 11	16 - 8	19 - 11	20-0 [†]
	Southern Pine	No.3	6 - 4	11 - 2	14 - 3	16 - 10	20-0 [†]	5 - 8	10 - 0	12 - 9	15 - 1	17 - 11
	Spruce-Pine Fir	SS	9 - 3	14 - 7	19 - 2	20-0 [†]	20-0 [†]	9 - 3	14 - 7	18 - 8	20-0 [†]	20-0 [†]
	Spruce-Pine Fir	No.1	9 - 1	13 - 9	17 - 5	20-0 [†]	20-0 [†]	8 - 5	12 - 4	15 - 7	19 - 1	20-0 [†]
	Spruce-Pine Fir	No.2	9 - 1	13 - 9	17 - 5	20-0 [†]	20-0 [†]	8 - 5	12 - 4	15 - 7	19 - 1	20-0 [†]
	Spruce-Pine Fir	No.3	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
16	Douglas Fir-Larch	SS	9 - 1	14 - 4	18 - 10	20-0 [†]	20-0 [†]	9 - 1	14 - 0	17 - 8	20-0 [†]	20-0 [†]
	Douglas Fir-Larch	No.1	8 - 9	12 - 9	16 - 2	19 - 9	20-0 [†]	7 - 10	11 - 5	14 - 5	17 - 8	20-0 [†]
	Douglas Fir-Larch	No.2	8 - 3	12 - 1	15 - 4	18 - 9	20-0 [†]	7 - 5	10 - 10	13 - 8	16 - 9	19 - 5
	Douglas Fir-Larch	No.3	6 - 4	9 - 3	11 - 8	14 - 3	16 - 7	5 - 8	8 - 3	10 - 6	12 - 9	14 - 10
	Hem-Fir	SS	8 - 7	13 - 6	17 - 10	20-0 [†]	20-0 [†]	8 - 7	13 - 6	17 - 1	20-0 [†]	20-0 [†]
	Hem-Fir	No.1	8 - 5	12 - 7	15 - 11	19 - 6	20-0 [†]	7 - 8	11 - 3	14 - 3	17 - 5	20-0 [†]
	Hem-Fir	No.2	8 - 0	11 - 9	14 - 11	18 - 2	20-0 [†]	7 - 2	10 - 6	13 - 4	16 - 3	18 - 10
	Hem-Fir	No.3	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Southern Pine	SS	8 - 11	14 - 1	18 - 6	20-0 [†]	20-0 [†]	8 - 11	14 - 1	18 - 6	20-0 [†]	20-0 [†]
	Southern Pine	No.1	8 - 9	13 - 9	18 - 1	20-0 [†]	20-0 [†]	8 - 8	12 - 10	16 - 2	19 - 2	20-0 [†]
	Southern Pine	No.2	7 - 3	12 - 6	16 - 2	19 - 3	20-0 [†]	6 - 6	11 - 2	14 - 5	17 - 3	20-0 [†]
	Southern Pine	No.3	5 - 6	9 - 8	12 - 4	14 - 7	17 - 4	4 - 11	8 - 8	11 - 0	13 - 0	15 - 6
	Spruce-Pine Fir	SS	8 - 5	13 - 3	17 - 5	20-0 [†]	20-0 [†]	8 - 5	12 - 9	16 - 2	19 - 9	20-0 [†]
	Spruce-Pine Fir	No.1	8 - 2	11 - 11	15 - 1	18 - 5	20-0 [†]	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2
	Spruce-Pine Fir	No.2	8 - 2	11 - 11	15 - 1	18 - 5	20-0 [†]	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2
	Spruce-Pine Fir	No.3	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
19.2	Douglas Fir-Larch	SS	8 - 7	13 - 6	17 - 9	20-0 [†]	20-0 [†]	8 - 7	12 - 9	16 - 2	19 - 9	20-0 [†]
	Douglas Fir-Larch	No.1	8 - 0	11 - 8	14 - 9	18 - 0	20-0 [†]	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Douglas Fir-Larch	No.2	7 - 7	11 - 0	14 - 0	17 - 1	19 - 10	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9
	Douglas Fir-Larch	No.3	5 - 9	8 - 5	10 - 8	13 - 1	15 - 2	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6
	Hem-Fir	SS	8 - 1	12 - 9	16 - 9	20-0 [†]	20-0 [†]	8 - 1	12 - 4	15 - 7	19 - 1	20-0 [†]
	Hem-Fir	No.1	7 - 10	11 - 6	14 - 7	17 - 9	20-0 [†]	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5
	Hem-Fir	No.2	7 - 4	10 - 9	13 - 7	16 - 7	19 - 3	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3
	Hem-Fir	No.3	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Southern Pine	SS	8 - 5	13 - 3	17 - 5	20-0 [†]	20-0 [†]	8 - 5	13 - 3	17 - 5	20-0 [†]	20-0 [†]
	Southern Pine	No.1	8 - 3	13 - 0	16 - 6	19 - 7	20-0 [†]	7 - 11	11 - 9	14 - 9	17 - 6	20-0 [†]
	Southern Pine	No.2	6 - 8	11 - 5	14 - 9	17 - 7	20-0 [†]	6 - 0	10 - 2	13 - 2	15 - 9	18 - 5
	Southern Pine	No.3	5 - 0	8 - 10	11 - 3	13 - 4	15 - 10	4 - 6	7 - 11	10 - 1	11 - 11	14 - 2
	Spruce-Pine Fir	SS	7 - 11	12 - 5	16 - 5	20-0 [†]	20-0 [†]	7 - 11	11 - 8	14 - 9	18 - 0	20-0 [†]
	Spruce-Pine Fir	No.1	7 - 5	10 - 11	13 - 9	16 - 10	19 - 6	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6
	Spruce-Pine Fir	No.2	7 - 5	10 - 11	13 - 9	16 - 10	19 - 6	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6
	Spruce-Pine Fir	No.3	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
24	Douglas Fir-Larch	SS	8 - 0	12 - 6	16 - 2	19 - 9	20-0 [†]	7 - 10	11 - 5	14 - 5	17 - 8	20-0 [†]
	Douglas Fir-Larch	No.1	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Douglas Fir-Larch	No.2	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9	6 - 0	8 - 10	11 - 2	13 - 8	15 - 10
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 7	6 - 9	8 - 7	10 - 5	12 - 1
	Hem-Fir	SS	7 - 6	11 - 10	15 - 7	19 - 1	20-0 [†]	7 - 6	11 - 0	14 - 0	17 - 1	19 - 9
	Hem-Fir	No.1	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5	6 - 3	9 - 2	11 - 8	14 - 3	16 - 6
	Hem-Fir	No.2	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10
	Southern Pine	SS	7 - 10	12 - 3	16 - 2	20-0 [†]	20-0 [†]	7 - 10	12 - 3	16 - 2	19 - 8	20-0 [†]
	Southern Pine	No.1	7 - 8	11 - 9	14 - 9	17 - 6	20-0 [†]	7 - 1	10 - 6	13 - 2	15 - 8	18 - 8
	Southern Pine	No.2	6 - 0	10 - 2	13 - 2	15 - 9	18 - 5	5 - 4	9 - 2	11 - 9	14 - 1	16 - 6
	Southern Pine	No.3	4 - 6	7 - 11	10 - 1	11 - 11	14 - 2	4 - 0	7 - 1	9 - 0	10 - 8	12 - 8
	Spruce-Pine Fir	SS	7 - 4	11 - 7	14 - 9	18 - 0	20-0 [†]	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.1	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7
	Spruce-Pine Fir	No.2	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10

[†] Spans are limited to 20 feet in length.

See footnote 1.

Table 3.26D Rafter Spans for Common Lumber Species(Ceiling Attached to Rafters,
Ground Snow Load = 30 psf, $L/\Delta = 240$)**GSL = 30 psf**
 $L/\Delta = 240$

Joist Spacing (in.)	Species	Grade	Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
			Maximum Rafter Spans ¹									
			(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	9 - 1	14 - 4	18 - 10	20-0†	20-0†	9 - 1	14 - 4	18 - 10	20-0†	20-0†
	Douglas Fir-Larch	No.1	8 - 9	13 - 9	18 - 2	20-0†	20-0†	8 - 9	13 - 2	16 - 8	20-0†	20-0†
	Douglas Fir-Larch	No.2	8 - 7	13 - 6	17 - 8	20-0†	20-0†	8 - 6	12 - 6	15 - 10	19 - 4	20-0†
	Douglas Fir-Larch	No.3	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2	6 - 6	9 - 6	12 - 1	14 - 9	17 - 1
	Hem-Fir	SS	8 - 7	13 - 6	17 - 10	20-0†	20-0†	8 - 7	13 - 6	17 - 10	20-0†	20-0†
	Hem-Fir	No.1	8 - 5	13 - 3	17 - 5	20-0†	20-0†	8 - 5	13 - 0	16 - 6	20-0†	20-0†
	Hem-Fir	No.2	8 - 0	12 - 7	16 - 7	20-0†	20-0†	8 - 0	12 - 2	15 - 4	18 - 9	20-0†
	Hem-Fir	No.3	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Southern Pine	SS	8 - 11	14 - 1	18 - 6	20-0†	20-0†	8 - 11	14 - 1	18 - 6	20-0†	20-0†
	Southern Pine	No.1	8 - 9	13 - 9	18 - 2	20-0†	20-0†	8 - 9	13 - 9	18 - 2	20-0†	20-0†
	Southern Pine	No.2	8 - 3	13 - 6	17 - 10	20-0†	20-0†	7 - 6	12 - 11	16 - 8	19 - 11	20-0†
	Southern Pine	No.3	6 - 4	11 - 2	14 - 3	16 - 10	20-0†	5 - 8	10 - 0	12 - 9	15 - 1	17 - 11
	Spruce-Pine Fir	SS	8 - 5	13 - 3	17 - 5	20-0†	20-0†	8 - 5	13 - 3	17 - 5	20-0†	20-0†
	Spruce-Pine Fir	No.1	8 - 3	12 - 11	17 - 0	20-0†	20-0†	8 - 3	12 - 4	15 - 7	19 - 1	20-0†
	Spruce-Pine Fir	No.2	8 - 3	12 - 11	17 - 0	20-0†	20-0†	8 - 3	12 - 4	15 - 7	19 - 1	20-0†
	Spruce-Pine Fir	No.3	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
16	Douglas Fir-Larch	SS	8 - 3	13 - 0	17 - 2	20-0†	20-0†	8 - 3	13 - 0	17 - 2	20-0†	20-0†
	Douglas Fir-Larch	No.1	8 - 0	12 - 6	16 - 2	19 - 9	20-0†	7 - 10	11 - 5	14 - 5	17 - 8	20-0†
	Douglas Fir-Larch	No.2	7 - 10	12 - 1	15 - 4	18 - 9	20-0†	7 - 5	10 - 10	13 - 8	16 - 9	19 - 5
	Douglas Fir-Larch	No.3	6 - 4	9 - 3	11 - 8	14 - 3	16 - 7	5 - 8	8 - 3	10 - 6	12 - 9	14 - 10
	Hem-Fir	SS	7 - 10	12 - 3	16 - 2	20-0†	20-0†	7 - 10	12 - 3	16 - 2	20-0†	20-0†
	Hem-Fir	No.1	7 - 8	12 - 0	15 - 10	19 - 6	20-0†	7 - 8	11 - 3	14 - 3	17 - 5	20-0†
	Hem-Fir	No.2	7 - 3	11 - 5	14 - 11	18 - 2	20-0†	7 - 2	10 - 6	13 - 4	16 - 3	18 - 10
	Hem-Fir	No.3	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Southern Pine	SS	8 - 1	12 - 9	16 - 10	20-0†	20-0†	8 - 1	12 - 9	16 - 10	20-0†	20-0†
	Southern Pine	No.1	8 - 0	12 - 6	16 - 6	20-0†	20-0†	8 - 0	12 - 6	16 - 2	19 - 2	20-0†
	Southern Pine	No.2	7 - 3	12 - 3	16 - 2	19 - 3	20-0†	6 - 6	11 - 2	14 - 5	17 - 3	20-0†
	Southern Pine	No.3	5 - 6	9 - 8	12 - 4	14 - 7	17 - 4	4 - 11	8 - 8	11 - 0	13 - 0	15 - 6
	Spruce-Pine Fir	SS	7 - 8	12 - 0	15 - 10	20-0†	20-0†	7 - 8	12 - 0	15 - 10	19 - 9	20-0†
	Spruce-Pine Fir	No.1	7 - 6	11 - 9	15 - 1	18 - 5	20-0†	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2
	Spruce-Pine Fir	No.2	7 - 6	11 - 9	15 - 1	18 - 5	20-0†	7 - 3	10 - 8	13 - 6	16 - 6	19 - 2
	Spruce-Pine Fir	No.3	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
19.2	Douglas Fir-Larch	SS	7 - 9	12 - 3	16 - 1	20-0†	20-0†	7 - 9	12 - 3	16 - 1	19 - 9	20-0†
	Douglas Fir-Larch	No.1	7 - 6	11 - 8	14 - 9	18 - 0	20-0†	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Douglas Fir-Larch	No.2	7 - 4	11 - 0	14 - 0	17 - 1	19 - 10	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9
	Douglas Fir-Larch	No.3	5 - 9	8 - 5	10 - 8	13 - 1	15 - 2	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6
	Hem-Fir	SS	7 - 4	11 - 7	15 - 3	19 - 5	20-0†	7 - 4	11 - 7	15 - 3	19 - 1	20-0†
	Hem-Fir	No.1	7 - 2	11 - 4	14 - 7	17 - 9	20-0†	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5
	Hem-Fir	No.2	6 - 10	10 - 9	13 - 7	16 - 7	19 - 3	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3
	Hem-Fir	No.3	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Southern Pine	SS	7 - 8	12 - 0	15 - 10	20-0†	20-0†	7 - 8	12 - 0	15 - 10	20-0†	20-0†
	Southern Pine	No.1	7 - 6	11 - 9	15 - 6	19 - 7	20-0†	7 - 6	11 - 9	14 - 9	17 - 6	20-0†
	Southern Pine	No.2	6 - 8	11 - 5	14 - 9	17 - 7	20-0†	6 - 0	10 - 2	13 - 2	15 - 9	18 - 5
	Southern Pine	No.3	5 - 0	8 - 10	11 - 3	13 - 4	15 - 10	4 - 6	7 - 11	10 - 1	11 - 11	14 - 2
	Spruce-Pine Fir	SS	7 - 2	11 - 4	14 - 11	19 - 0	20-0†	7 - 2	11 - 4	14 - 9	18 - 0	20-0†
	Spruce-Pine Fir	No.1	7 - 0	10 - 11	13 - 9	16 - 10	19 - 6	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6
	Spruce-Pine Fir	No.2	7 - 0	10 - 11	13 - 9	16 - 10	19 - 6	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6
	Spruce-Pine Fir	No.3	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
24	Douglas Fir-Larch	SS	7 - 3	11 - 4	15 - 0	19 - 1	20-0†	7 - 3	11 - 4	14 - 5	17 - 8	20-0†
	Douglas Fir-Larch	No.1	7 - 0	10 - 5	13 - 2	16 - 1	18 - 8	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Douglas Fir-Larch	No.2	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9	6 - 0	8 - 10	11 - 2	13 - 8	15 - 10
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 7	6 - 9	8 - 7	10 - 5	12 - 1
	Hem-Fir	SS	6 - 10	10 - 9	14 - 2	18 - 0	20-0†	6 - 10	10 - 9	14 - 0	17 - 1	19 - 9
	Hem-Fir	No.1	6 - 8	10 - 3	13 - 0	15 - 11	18 - 5	6 - 3	9 - 2	11 - 8	14 - 3	16 - 6
	Hem-Fir	No.2	6 - 4	9 - 7	12 - 2	14 - 10	17 - 3	5 - 10	8 - 7	10 - 10	13 - 3	15 - 5
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10
	Southern Pine	SS	7 - 1	11 - 2	14 - 8	18 - 9	20-0†	7 - 1	11 - 2	14 - 8	18 - 9	20-0†
	Southern Pine	No.1	7 - 0	10 - 11	14 - 5	17 - 6	20-0†	7 - 0	10 - 6	13 - 2	15 - 8	18 - 8
	Southern Pine	No.2	6 - 0	10 - 2	13 - 2	15 - 9	18 - 5	5 - 4	9 - 2	11 - 9	14 - 1	16 - 6
	Southern Pine	No.3	4 - 6	7 - 11	10 - 1	11 - 11	14 - 2	4 - 0	7 - 1	9 - 0	10 - 8	12 - 8
	Spruce-Pine Fir	SS	6 - 8	10 - 6	13 - 10	17 - 8	20-0†	6 - 8	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.1	6 - 6	9 - 9	12 - 4	15 - 1	17 - 6	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7
	Spruce-Pine Fir	No.2	6 - 6	9 - 9	12 - 4	15 - 1	17 - 6	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10

† Spans are limited to 20 feet in length.

See footnote 1.

Table 3.26E Rafter Spans for Common Lumber Species

(Ceiling Not Attached to Rafters,
Ground Snow Load = 50 psf, $L/\Delta = 180$)

GSL = 50 psf
 $L/\Delta = 180$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans [†]												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	8 - 5	13 - 3	17 - 6	20-0†	20-0†	8 - 5	13 - 3	17 - 3	20-0†	20-0†
	Douglas Fir-Larch	No.1	8 - 2	12 - 0	15 - 3	18 - 7	20-0†	7 - 7	11 - 2	14 - 1	17 - 3	20 - 0
	Douglas Fir-Larch	No.2	7 - 10	11 - 5	14 - 5	17 - 8	20-0†	7 - 3	10 - 7	13 - 4	16 - 4	18 - 11
	Douglas Fir-Larch	No.3	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Hem-Fir	SS	8 - 0	12 - 6	16 - 6	20-0†	20-0†	8 - 0	12 - 6	16 - 6	20-0†	20-0†
	Hem-Fir	No.1	7 - 10	11 - 10	15 - 0	18 - 4	20-0†	7 - 6	11 - 0	13 - 11	17 - 0	19 - 9
	Hem-Fir	No.2	7 - 5	11 - 1	14 - 0	17 - 2	19 - 11	7 - 0	10 - 3	13 - 0	15 - 10	18 - 5
	Hem-Fir	No.3	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
	Southern Pine	SS	8 - 4	13 - 1	17 - 2	20-0†	20-0†	8 - 4	13 - 1	17 - 2	20-0†	20-0†
	Southern Pine	No.1	8 - 2	12 - 10	16 - 10	20-0†	20-0†	8 - 2	12 - 6	15 - 9	18 - 9	20-0†
	Southern Pine	No.2	6 - 10	11 - 9	15 - 3	18 - 2	20-0†	6 - 4	10 - 11	14 - 1	16 - 10	19 - 9
	Southern Pine	No.3	5 - 2	9 - 2	11 - 8	13 - 9	16 - 4	4 - 10	8 - 5	10 - 9	12 - 9	15 - 2
	Spruce-Pine Fir	SS	7 - 10	12 - 3	16 - 2	20-0†	20-0†	7 - 10	12 - 3	15 - 9	19 - 3	20-0†
	Spruce-Pine Fir	No.1	7 - 8	11 - 3	14 - 3	17 - 5	20-0†	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.2	7 - 8	11 - 3	14 - 3	17 - 5	20-0†	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.3	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
16	Douglas Fir-Larch	SS	7 - 8	12 - 1	15 - 11	19 - 9	20-0†	7 - 8	11 - 10	14 - 11	18 - 3	20-0†
	Douglas Fir-Larch	No.1	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Douglas Fir-Larch	No.2	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9	6 - 3	9 - 2	11 - 7	14 - 2	16 - 5
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 9	7 - 0	8 - 10	10 - 10	12 - 6
	Hem-Fir	SS	7 - 3	11 - 5	15 - 0	19 - 1	20-0†	7 - 3	11 - 5	14 - 5	17 - 8	20-0†
	Hem-Fir	No.1	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5	6 - 6	9 - 6	12 - 1	14 - 9	17 - 1
	Hem-Fir	No.2	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3	6 - 1	8 - 11	11 - 3	13 - 9	15 - 11
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 8	6 - 10	8 - 8	10 - 7	12 - 3
	Southern Pine	SS	7 - 6	11 - 10	15 - 7	19 - 11	20-0†	7 - 6	11 - 10	15 - 7	19 - 11	20-0†
	Southern Pine	No.1	7 - 5	11 - 8	14 - 9	17 - 6	20-0†	7 - 4	10 - 10	13 - 8	16 - 2	19 - 4
	Southern Pine	No.2	6 - 0	10 - 2	13 - 2	15 - 9	18 - 5	5 - 6	9 - 5	12 - 2	14 - 7	17 - 1
	Southern Pine	No.3	4 - 6	7 - 11	10 - 1	11 - 11	14 - 2	4 - 2	7 - 4	9 - 4	11 - 0	13 - 1
	Spruce-Pine Fir	SS	7 - 1	11 - 2	14 - 8	18 - 0	20-0†	7 - 1	10 - 9	13 - 8	16 - 8	19 - 4
	Spruce-Pine Fir	No.1	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2
	Spruce-Pine Fir	No.2	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 8	6 - 10	8 - 8	10 - 7	12 - 3
19.2	Douglas Fir-Larch	SS	7 - 3	11 - 4	14 - 9	18 - 0	20-0†	7 - 3	10 - 9	13 - 8	16 - 8	19 - 4
	Douglas Fir-Larch	No.1	6 - 6	9 - 6	12 - 0	14 - 8	17 - 1	6 - 0	8 - 10	11 - 2	13 - 7	15 - 9
	Douglas Fir-Larch	No.2	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 8	8 - 4	10 - 7	12 - 11	15 - 0
	Douglas Fir-Larch	No.3	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5
	Hem-Fir	SS	6 - 10	10 - 9	14 - 2	17 - 5	20-0†	6 - 10	10 - 5	13 - 2	16 - 1	18 - 8
	Hem-Fir	No.1	6 - 5	9 - 5	11 - 11	14 - 6	16 - 10	5 - 11	8 - 8	11 - 0	13 - 5	15 - 7
	Hem-Fir	No.2	6 - 0	8 - 9	11 - 1	13 - 7	15 - 9	5 - 7	8 - 1	10 - 3	12 - 7	14 - 7
	Hem-Fir	No.3	4 - 7	6 - 9	8 - 6	10 - 5	12 - 1	4 - 3	6 - 3	7 - 11	9 - 7	11 - 2
	Southern Pine	SS	7 - 1	11 - 2	14 - 8	18 - 9	20-0†	7 - 1	11 - 2	14 - 8	18 - 7	20-0†
	Southern Pine	No.1	7 - 0	10 - 8	13 - 5	16 - 0	19 - 1	6 - 8	9 - 11	12 - 5	14 - 10	17 - 8
	Southern Pine	No.2	5 - 5	9 - 4	12 - 0	14 - 4	16 - 10	5 - 0	8 - 8	11 - 2	13 - 4	15 - 7
	Southern Pine	No.3	4 - 1	7 - 3	9 - 2	10 - 10	12 - 11	3 - 10	6 - 8	8 - 6	10 - 1	12 - 0
	Spruce-Pine Fir	SS	6 - 8	10 - 6	13 - 5	16 - 5	19 - 1	6 - 8	9 - 10	12 - 5	15 - 3	17 - 8
	Spruce-Pine Fir	No.1	6 - 1	8 - 11	11 - 3	13 - 9	15 - 11	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9
	Spruce-Pine Fir	No.2	6 - 1	8 - 11	11 - 3	13 - 9	15 - 11	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9
	Spruce-Pine Fir	No.3	4 - 7	6 - 9	8 - 6	10 - 5	12 - 1	4 - 3	6 - 3	7 - 11	9 - 7	11 - 2
24	Douglas Fir-Larch	SS	6 - 8	10 - 5	13 - 2	16 - 1	18 - 8	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Douglas Fir-Larch	No.1	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
	Douglas Fir-Larch	No.2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6	5 - 1	7 - 6	9 - 5	11 - 7	13 - 5
	Douglas Fir-Larch	No.3	4 - 3	6 - 2	7 - 10	9 - 6	11 - 1	3 - 11	5 - 8	7 - 3	8 - 10	10 - 3
	Hem-Fir	SS	6 - 4	10 - 0	12 - 9	15 - 7	18 - 0	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Hem-Fir	No.1	5 - 9	8 - 5	10 - 8	13 - 0	15 - 1	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Hem-Fir	No.2	5 - 4	7 - 10	9 - 11	12 - 1	14 - 1	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Hem-Fir	No.3	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9	3 - 10	5 - 7	7 - 1	8 - 7	10 - 0
	Southern Pine	SS	6 - 7	10 - 4	13 - 8	17 - 5	20-0†	6 - 7	10 - 4	13 - 8	16 - 7	19 - 5
	Southern Pine	No.1	6 - 5	9 - 7	12 - 0	14 - 4	17 - 1	6 - 0	8 - 10	11 - 2	13 - 3	15 - 9
	Southern Pine	No.2	4 - 10	8 - 4	10 - 9	12 - 10	15 - 1	4 - 6	7 - 9	10 - 0	11 - 11	13 - 11
	Southern Pine	No.3	3 - 8	6 - 5	8 - 3	9 - 9	11 - 7	3 - 5	6 - 0	7 - 7	9 - 0	10 - 8
	Spruce-Pine Fir	SS	6 - 2	9 - 6	12 - 0	14 - 8	17 - 1	6 - 0	8 - 10	11 - 2	13 - 7	15 - 9
	Spruce-Pine Fir	No.1	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Spruce-Pine Fir	No.2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Spruce-Pine Fir	No.3	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9	3 - 10	5 - 7	7 - 1	8 - 7	10 - 0

† Spans are limited to 20 feet in length.

See footnote 1.

Table 3.26F Rafter Spans for Common Lumber Species(Ceiling Attached to Rafters,
Ground Snow Load = 50 psf, $L/\Delta = 240$)**GSL = 50 psf**
 $L/\Delta = 240$

			Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
Maximum Rafter Spans [†]												
Joist Spacing (in.)	Species	Grade	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	7 - 8	12 - 1	15 - 11	20-0†	20-0†	7 - 8	12 - 1	15 - 11	20-0†	20-0†
	Douglas Fir-Larch	No.1	7 - 5	11 - 8	15 - 3	18 - 7	20-0†	7 - 5	11 - 2	14 - 1	17 - 3	20 - 0
	Douglas Fir-Larch	No.2	7 - 3	11 - 5	14 - 5	17 - 8	20-0†	7 - 3	10 - 7	13 - 4	16 - 4	18 - 11
	Douglas Fir-Larch	No.3	6 - 0	8 - 9	11 - 0	13 - 6	15 - 7	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Hem-Fir	SS	7 - 3	11 - 5	15 - 0	19 - 2	20-0†	7 - 3	11 - 5	15 - 0	19 - 2	20-0†
	Hem-Fir	No.1	7 - 1	11 - 2	14 - 8	18 - 4	20-0†	7 - 1	11 - 0	13 - 11	17 - 0	19 - 9
	Hem-Fir	No.2	6 - 9	10 - 8	14 - 0	17 - 2	19 - 11	6 - 9	10 - 3	13 - 0	15 - 10	18 - 5
	Hem-Fir	No.3	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
	Southern Pine	SS	7 - 6	11 - 10	15 - 7	19 - 11	20-0†	7 - 6	11 - 10	15 - 7	19 - 11	20-0†
	Southern Pine	No.1	7 - 5	11 - 8	15 - 4	19 - 7	20-0†	7 - 5	11 - 8	15 - 4	18 - 9	20-0†
	Southern Pine	No.2	6 - 10	11 - 5	15 - 0	18 - 2	20-0†	6 - 4	10 - 11	14 - 1	16 - 10	19 - 9
	Southern Pine	No.3	5 - 2	9 - 2	11 - 8	13 - 9	16 - 4	4 - 10	8 - 5	10 - 9	12 - 9	15 - 2
	Spruce-Pine Fir	SS	7 - 1	11 - 2	14 - 8	18 - 9	20-0†	7 - 1	11 - 2	14 - 8	18 - 9	20-0†
	Spruce-Pine Fir	No.1	6 - 11	10 - 11	14 - 3	17 - 5	20-0†	6 - 11	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.2	6 - 11	10 - 11	14 - 3	17 - 5	20-0†	6 - 11	10 - 5	13 - 2	16 - 1	18 - 8
	Spruce-Pine Fir	No.3	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
16	Douglas Fir-Larch	SS	7 - 0	11 - 0	14 - 5	18 - 5	20-0†	7 - 0	11 - 0	14 - 5	18 - 3	20-0†
	Douglas Fir-Larch	No.1	6 - 9	10 - 5	13 - 2	16 - 1	18 - 8	6 - 7	9 - 8	12 - 2	14 - 11	17 - 3
	Douglas Fir-Larch	No.2	6 - 7	9 - 10	12 - 6	15 - 3	17 - 9	6 - 3	9 - 2	11 - 7	14 - 2	16 - 5
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 9	7 - 0	8 - 10	10 - 10	12 - 6
	Hem-Fir	SS	6 - 7	10 - 4	13 - 8	17 - 5	20-0†	6 - 7	10 - 4	13 - 8	17 - 5	20-0†
	Hem-Fir	No.1	6 - 5	10 - 2	13 - 0	15 - 11	18 - 5	6 - 5	9 - 6	12 - 1	14 - 9	17 - 1
	Hem-Fir	No.2	6 - 2	9 - 7	12 - 2	14 - 10	17 - 3	6 - 1	8 - 11	11 - 3	13 - 9	15 - 11
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 8	6 - 10	8 - 8	10 - 7	12 - 3
	Southern Pine	SS	6 - 10	10 - 9	14 - 2	18 - 1	20-0†	6 - 10	10 - 9	14 - 2	18 - 1	20-0†
	Southern Pine	No.1	6 - 9	10 - 7	13 - 11	17 - 6	20-0†	6 - 9	10 - 7	13 - 8	16 - 2	19 - 4
	Southern Pine	No.2	6 - 0	10 - 2	13 - 2	15 - 9	18 - 5	5 - 6	9 - 5	12 - 2	14 - 7	17 - 1
	Southern Pine	No.3	4 - 6	7 - 11	10 - 1	11 - 11	14 - 2	4 - 2	7 - 4	9 - 4	11 - 0	13 - 1
	Spruce-Pine Fir	SS	6 - 5	10 - 2	13 - 4	17 - 0	20-0†	6 - 5	10 - 2	13 - 4	16 - 8	19 - 4
	Spruce-Pine Fir	No.1	6 - 4	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2
	Spruce-Pine Fir	No.2	6 - 4	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 8	6 - 10	8 - 8	10 - 7	12 - 3
19.2	Douglas Fir-Larch	SS	6 - 7	10 - 4	13 - 7	17 - 4	20-0†	6 - 7	10 - 4	13 - 7	16 - 8	19 - 4
	Douglas Fir-Larch	No.1	6 - 4	9 - 6	12 - 0	14 - 8	17 - 1	6 - 0	8 - 10	11 - 2	13 - 7	15 - 9
	Douglas Fir-Larch	No.2	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 8	8 - 4	10 - 7	12 - 11	15 - 0
	Douglas Fir-Larch	No.3	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5
	Hem-Fir	SS	6 - 2	9 - 9	12 - 10	16 - 5	19 - 11	6 - 2	9 - 9	12 - 10	16 - 1	18 - 8
	Hem-Fir	No.1	6 - 1	9 - 5	11 - 11	14 - 6	16 - 10	5 - 11	8 - 8	11 - 0	13 - 5	15 - 7
	Hem-Fir	No.2	5 - 9	8 - 9	11 - 1	13 - 7	15 - 9	5 - 7	8 - 1	10 - 3	12 - 7	14 - 7
	Hem-Fir	No.3	4 - 7	6 - 9	8 - 6	10 - 5	12 - 1	4 - 3	6 - 3	7 - 11	9 - 7	11 - 2
	Southern Pine	SS	6 - 5	10 - 2	13 - 4	17 - 0	20-0†	6 - 5	10 - 2	13 - 4	17 - 0	20-0†
	Southern Pine	No.1	6 - 4	9 - 11	13 - 1	16 - 0	19 - 1	6 - 4	9 - 11	12 - 5	14 - 10	17 - 8
	Southern Pine	No.2	5 - 5	9 - 4	12 - 0	14 - 4	16 - 10	5 - 0	8 - 8	11 - 2	13 - 4	15 - 7
	Southern Pine	No.3	4 - 1	7 - 3	9 - 2	10 - 10	12 - 11	3 - 10	6 - 8	8 - 6	10 - 1	12 - 0
	Spruce-Pine Fir	SS	6 - 1	9 - 6	12 - 7	16 - 0	19 - 1	6 - 1	9 - 6	12 - 5	15 - 3	17 - 8
	Spruce-Pine Fir	No.1	5 - 11	8 - 11	11 - 3	13 - 9	15 - 11	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9
	Spruce-Pine Fir	No.2	5 - 11	8 - 11	11 - 3	13 - 9	15 - 11	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9
	Spruce-Pine Fir	No.3	4 - 7	6 - 9	8 - 6	10 - 5	12 - 1	4 - 3	6 - 3	7 - 11	9 - 7	11 - 2
24	Douglas Fir-Larch	SS	6 - 1	9 - 7	12 - 7	16 - 1	18 - 8	6 - 1	9 - 7	12 - 2	14 - 11	17 - 3
	Douglas Fir-Larch	No.1	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3	5 - 5	7 - 10	10 - 0	12 - 2	14 - 1
	Douglas Fir-Larch	No.2	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6	5 - 1	7 - 6	9 - 5	11 - 7	13 - 5
	Douglas Fir-Larch	No.3	4 - 3	6 - 2	7 - 10	9 - 6	11 - 1	3 - 11	5 - 8	7 - 3	8 - 10	10 - 3
	Hem-Fir	SS	5 - 9	9 - 1	11 - 11	15 - 2	18 - 0	5 - 9	9 - 1	11 - 9	14 - 5	16 - 8
	Hem-Fir	No.1	5 - 8	8 - 5	10 - 8	13 - 0	15 - 1	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Hem-Fir	No.2	5 - 4	7 - 10	9 - 11	12 - 1	14 - 1	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Hem-Fir	No.3	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9	3 - 10	5 - 7	7 - 1	8 - 7	10 - 0
	Southern Pine	SS	6 - 0	9 - 5	12 - 5	15 - 10	19 - 3	6 - 0	9 - 5	12 - 5	15 - 10	19 - 3
	Southern Pine	No.1	5 - 10	9 - 3	12 - 0	14 - 4	17 - 1	5 - 10	8 - 10	11 - 2	13 - 3	15 - 9
	Southern Pine	No.2	4 - 10	8 - 4	10 - 9	12 - 10	15 - 1	4 - 6	7 - 9	10 - 0	11 - 11	13 - 11
	Southern Pine	No.3	3 - 8	6 - 5	8 - 3	9 - 9	11 - 7	3 - 5	6 - 0	7 - 7	9 - 0	10 - 8
	Spruce-Pine Fir	SS	5 - 8	8 - 10	11 - 8	14 - 8	17 - 1	5 - 8	8 - 10	11 - 2	13 - 7	15 - 9
	Spruce-Pine Fir	No.1	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Spruce-Pine Fir	No.2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Spruce-Pine Fir	No.3	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9	3 - 10	5 - 7	7 - 1	8 - 7	10 - 0

† Spans are limited to 20 feet in length.
See footnote 1.

Table 3.26G Rafter Spans for Common Lumber Species

(Ceiling Not Attached to Rafters,
Ground Snow Load = 70 psf, $L/\Delta = 180$)

GSL = 70 psf
 $L/\Delta = 180$

Joist Spacing (in.)	Species	Grade	Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
			Maximum Rafter Spans [†]									
			(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	7 - 7	11 - 10	15 - 8	19 - 9	20-0†	7 - 7	11 - 10	15 - 3	18 - 7	20-0†
	Douglas Fir-Larch	No.1	7 - 1	10 - 5	13 - 2	16 - 1	18 - 8	6 - 8	9 - 10	12 - 5	15 - 2	17 - 7
	Douglas Fir-Larch	No.2	6 - 9	9 - 10	12 - 6	15 - 3	17 - 9	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 10	7 - 1	9 - 0	11 - 0	12 - 9
	Hem-Fir	SS	7 - 2	11 - 3	14 - 9	18 - 10	20-0†	7 - 2	11 - 3	14 - 8	18 - 0	20-0†
	Hem-Fir	No.1	7 - 0	10 - 3	13 - 0	15 - 11	18 - 5	6 - 7	9 - 8	12 - 3	15 - 0	17 - 5
	Hem-Fir	No.2	6 - 7	9 - 7	12 - 2	14 - 10	17 - 3	6 - 2	9 - 1	11 - 6	14 - 0	16 - 3
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Southern Pine	SS	7 - 5	11 - 8	15 - 4	19 - 7	20-0†	7 - 5	11 - 8	15 - 4	19 - 7	20-0†
	Southern Pine	No.1	7 - 3	11 - 5	14 - 9	17 - 6	20-0†	7 - 3	11 - 1	13 - 11	16 - 6	19 - 8
	Southern Pine	No.2	6 - 0	10 - 2	13 - 2	15 - 9	18 - 5	5 - 7	9 - 7	12 - 5	14 - 10	17 - 5
	Southern Pine	No.3	4 - 6	7 - 11	10 - 1	11 - 11	14 - 2	4 - 3	7 - 5	9 - 6	11 - 3	13 - 4
	Spruce-Pine Fir	SS	7 - 0	11 - 0	14 - 6	18 - 0	20-0†	7 - 0	11 - 0	13 - 11	17 - 0	19 - 8
	Spruce-Pine Fir	No.1	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 3	9 - 2	11 - 8	14 - 2	16 - 6
16	Spruce-Pine Fir	No.2	6 - 8	9 - 9	12 - 4	15 - 1	17 - 6	6 - 3	9 - 2	11 - 8	14 - 2	16 - 6
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Douglas Fir-Larch	SS	6 - 10	10 - 9	14 - 0	17 - 1	19 - 10	6 - 10	10 - 5	13 - 2	16 - 1	18 - 8
	Douglas Fir-Larch	No.1	6 - 2	9 - 0	11 - 5	13 - 11	16 - 2	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3
	Douglas Fir-Larch	No.2	5 - 10	8 - 7	10 - 10	13 - 3	15 - 4	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Douglas Fir-Larch	No.3	4 - 6	6 - 6	8 - 3	10 - 1	11 - 9	4 - 3	6 - 2	7 - 10	9 - 6	11 - 1
	Hem-Fir	SS	6 - 6	10 - 2	13 - 5	16 - 6	19 - 2	6 - 6	10 - 1	12 - 9	15 - 7	18 - 0
	Hem-Fir	No.1	6 - 1	8 - 11	11 - 3	13 - 9	16 - 0	5 - 9	8 - 5	10 - 8	13 - 0	15 - 1
	Hem-Fir	No.2	5 - 8	8 - 4	10 - 6	12 - 10	14 - 11	5 - 4	7 - 10	9 - 11	12 - 1	14 - 1
	Hem-Fir	No.3	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9
	Southern Pine	SS	6 - 9	10 - 7	14 - 0	17 - 10	20-0†	6 - 9	10 - 7	14 - 0	17 - 10	20-0†
	Southern Pine	No.1	6 - 7	10 - 2	12 - 9	15 - 2	18 - 1	6 - 5	9 - 7	12 - 0	14 - 4	17 - 1
	Southern Pine	No.2	5 - 2	8 - 10	11 - 5	13 - 8	16 - 0	4 - 10	8 - 4	10 - 9	12 - 10	15 - 1
	Southern Pine	No.3	3 - 11	6 - 10	8 - 9	10 - 4	12 - 3	3 - 8	6 - 5	8 - 3	9 - 9	11 - 7
19.2	Spruce-Pine Fir	SS	6 - 4	10 - 0	12 - 9	15 - 7	18 - 1	6 - 4	9 - 6	12 - 0	14 - 8	17 - 1
	Spruce-Pine Fir	No.1	5 - 9	8 - 5	10 - 8	13 - 1	15 - 2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3
	Spruce-Pine Fir	No.2	5 - 9	8 - 5	10 - 8	13 - 1	15 - 2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3
	Spruce-Pine Fir	No.3	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9
	Douglas Fir-Larch	SS	6 - 6	10 - 1	12 - 9	15 - 7	18 - 1	6 - 6	9 - 6	12 - 0	14 - 8	17 - 1
	Douglas Fir-Larch	No.1	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Douglas Fir-Larch	No.2	5 - 4	7 - 10	9 - 11	12 - 1	14 - 0	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Douglas Fir-Larch	No.3	4 - 1	6 - 0	7 - 7	9 - 3	10 - 8	3 - 10	5 - 7	7 - 1	8 - 8	10 - 1
	Hem-Fir	SS	6 - 1	9 - 7	12 - 4	15 - 1	17 - 6	6 - 1	9 - 2	11 - 8	14 - 2	16 - 6
	Hem-Fir	No.1	5 - 7	8 - 2	10 - 3	12 - 7	14 - 7	5 - 3	7 - 8	9 - 8	11 - 10	13 - 9
	Hem-Fir	No.2	5 - 2	7 - 7	9 - 7	11 - 9	13 - 7	4 - 11	7 - 2	9 - 1	11 - 1	12 - 10
	Hem-Fir	No.3	4 - 0	5 - 10	7 - 4	9 - 0	10 - 5	3 - 9	5 - 6	6 - 11	8 - 6	9 - 10
	Southern Pine	SS	6 - 4	10 - 0	13 - 2	16 - 9	20-0†	6 - 4	10 - 0	13 - 2	16 - 5	19 - 2
	Southern Pine	No.1	6 - 3	9 - 3	11 - 8	13 - 10	16 - 6	5 - 11	8 - 9	11 - 0	13 - 1	15 - 7
24	Southern Pine	No.2	4 - 8	8 - 1	10 - 5	12 - 5	14 - 7	4 - 5	7 - 7	9 - 10	11 - 9	13 - 9
	Southern Pine	No.3	3 - 7	6 - 3	8 - 0	9 - 5	11 - 2	3 - 4	5 - 11	7 - 6	8 - 10	10 - 7
	Spruce-Pine Fir	SS	6 - 0	9 - 2	11 - 8	14 - 3	16 - 6	5 - 11	8 - 8	11 - 0	13 - 5	15 - 7
	Spruce-Pine Fir	No.1	5 - 3	7 - 8	9 - 9	11 - 11	13 - 10	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Spruce-Pine Fir	No.2	5 - 3	7 - 8	9 - 9	11 - 11	13 - 10	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Spruce-Pine Fir	No.3	4 - 0	5 - 10	7 - 4	9 - 0	10 - 5	3 - 9	5 - 6	6 - 11	8 - 6	9 - 10
	Douglas Fir-Larch	SS	6 - 0	9 - 0	11 - 5	13 - 11	16 - 2	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3
	Douglas Fir-Larch	No.1	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Douglas Fir-Larch	No.2	4 - 9	7 - 0	8 - 10	10 - 10	12 - 6	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10
	Douglas Fir-Larch	No.3	3 - 8	5 - 4	6 - 9	8 - 3	9 - 7	3 - 5	5 - 0	6 - 4	7 - 9	9 - 0
	Hem-Fir	SS	5 - 8	8 - 9	11 - 0	13 - 6	15 - 7	5 - 7	8 - 3	10 - 5	12 - 8	14 - 9
	Hem-Fir	No.1	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0	4 - 8	6 - 10	8 - 8	10 - 7	12 - 4
	Hem-Fir	No.2	4 - 8	6 - 9	8 - 7	10 - 6	12 - 2	4 - 4	6 - 5	8 - 1	9 - 11	11 - 6
	Hem-Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10
24	Southern Pine	SS	5 - 11	9 - 3	12 - 2	15 - 7	18 - 2	5 - 11	9 - 3	12 - 2	14 - 8	17 - 2
	Southern Pine	No.1	5 - 7	8 - 4	10 - 5	12 - 5	14 - 9	5 - 3	7 - 10	9 - 10	11 - 8	13 - 11
	Southern Pine	No.2	4 - 3	7 - 3	9 - 4	11 - 1	13 - 0	4 - 0	6 - 10	8 - 9	10 - 6	12 - 4
	Southern Pine	No.3	3 - 2	5 - 7	7 - 1	8 - 5	10 - 0	3 - 0	5 - 3	6 - 9	7 - 11	9 - 5
	Spruce-Pine Fir	SS	5 - 6	8 - 3	10 - 5	12 - 9	14 - 9	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Spruce-Pine Fir	No.1	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.2	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10
	Spruce-Pine Fir	No.1	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.2	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10

† Spans are limited to 20 feet in length.

See footnote 1.

Table 3.26H Rafter Spans for Common Lumber Species(Ceiling Attached to Rafters,
Ground Snow Load = 70 psf, $L/\Delta = 240$)**GSL = 70 psf**
 $L/\Delta = 240$

Joist Spacing (in.)	Species	Grade	Dead Load = 10 psf					Dead Load = 20 psf				
			2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
			Maximum Rafter Spans [†]									
			(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Douglas Fir-Larch	SS	6 - 10	10 - 9	14 - 3	18 - 2	20-0†	6 - 10	10 - 9	14 - 3	18 - 2	20-0†
	Douglas Fir-Larch	No.1	6 - 7	10 - 5	13 - 2	16 - 1	18 - 8	6 - 7	9 - 10	12 - 5	15 - 2	17 - 7
	Douglas Fir-Larch	No.2	6 - 6	9 - 10	12 - 6	15 - 3	17 - 9	6 - 4	9 - 4	11 - 9	14 - 5	16 - 8
	Douglas Fir-Larch	No.3	5 - 2	7 - 7	9 - 7	11 - 8	13 - 6	4 - 10	7 - 1	9 - 0	11 - 0	12 - 9
	Hem-Fir	SS	6 - 6	10 - 2	13 - 5	17 - 2	20-0†	6 - 6	10 - 2	13 - 5	17 - 2	20-0†
	Hem-Fir	No.1	6 - 4	10 - 0	13 - 0	15 - 11	18 - 5	6 - 4	9 - 8	12 - 3	15 - 0	17 - 5
	Hem-Fir	No.2	6 - 1	9 - 6	12 - 2	14 - 10	17 - 3	6 - 1	9 - 1	11 - 6	14 - 0	16 - 3
	Hem-Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Southern Pine	SS	6 - 9	10 - 7	14 - 0	17 - 10	20-0†	6 - 9	10 - 7	14 - 0	17 - 10	20-0†
	Southern Pine	No.1	6 - 7	10 - 5	13 - 8	17 - 6	20-0†	6 - 7	10 - 5	13 - 8	16 - 6	19 - 8
	Southern Pine	No.2	6 - 0	10 - 2	13 - 2	15 - 9	18 - 5	5 - 7	9 - 7	12 - 5	14 - 10	17 - 5
	Southern Pine	No.3	4 - 6	7 - 11	10 - 1	11 - 11	14 - 2	4 - 3	7 - 5	9 - 6	11 - 3	13 - 4
	Spruce-Pine Fir	SS	6 - 4	10 - 0	13 - 2	16 - 9	20-0†	6 - 4	10 - 0	13 - 2	16 - 9	19 - 8
	Spruce-Pine Fir	No.1	6 - 2	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 2	11 - 8	14 - 2	16 - 6
16	Spruce-Pine Fir	No.2	6 - 2	9 - 9	12 - 4	15 - 1	17 - 6	6 - 2	9 - 2	11 - 8	14 - 2	16 - 6
	Spruce-Pine Fir	No.3	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Douglas Fir-Larch	SS	6 - 3	9 - 10	12 - 11	16 - 6	19 - 10	6 - 3	9 - 10	12 - 11	16 - 1	18 - 8
	Douglas Fir-Larch	No.1	6 - 0	9 - 0	11 - 5	13 - 11	16 - 2	5 - 10	8 - 6	10 - 9	13 - 2	15 - 3
	Douglas Fir-Larch	No.2	5 - 10	8 - 7	10 - 10	13 - 3	15 - 4	5 - 6	8 - 1	10 - 3	12 - 6	14 - 6
	Douglas Fir-Larch	No.3	4 - 6	6 - 6	8 - 3	10 - 1	11 - 9	4 - 3	6 - 2	7 - 10	9 - 6	11 - 1
	Hem-Fir	SS	5 - 11	9 - 3	12 - 2	15 - 7	18 - 11	5 - 11	9 - 3	12 - 2	15 - 7	18 - 0
	Hem-Fir	No.1	5 - 9	8 - 11	11 - 3	13 - 9	16 - 0	5 - 9	8 - 5	10 - 8	13 - 0	15 - 1
	Hem-Fir	No.2	5 - 6	8 - 4	10 - 6	12 - 10	14 - 11	5 - 4	7 - 10	9 - 11	12 - 1	14 - 1
	Hem-Fir	No.3	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9
	Southern Pine	SS	6 - 1	9 - 7	12 - 8	16 - 2	19 - 8	6 - 1	9 - 7	12 - 8	16 - 2	19 - 8
	Southern Pine	No.1	6 - 0	9 - 5	12 - 5	15 - 2	18 - 1	6 - 0	9 - 5	12 - 0	14 - 4	17 - 1
	Southern Pine	No.2	5 - 2	8 - 10	11 - 5	13 - 8	16 - 0	4 - 10	8 - 4	10 - 9	12 - 10	15 - 1
	Southern Pine	No.3	3 - 11	6 - 10	8 - 9	10 - 4	12 - 3	3 - 8	6 - 5	8 - 3	9 - 9	11 - 7
19.2	Spruce-Pine Fir	SS	5 - 9	9 - 1	11 - 11	15 - 3	18 - 1	5 - 9	9 - 1	11 - 11	14 - 8	17 - 1
	Spruce-Pine Fir	No.1	5 - 8	8 - 5	10 - 8	13 - 1	15 - 2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3
	Spruce-Pine Fir	No.2	5 - 8	8 - 5	10 - 8	13 - 1	15 - 2	5 - 5	8 - 0	10 - 1	12 - 4	14 - 3
	Spruce-Pine Fir	No.3	4 - 4	6 - 4	8 - 1	9 - 10	11 - 5	4 - 1	6 - 0	7 - 7	9 - 4	10 - 9
	Douglas Fir-Larch	SS	5 - 10	9 - 3	12 - 2	15 - 6	18 - 1	5 - 10	9 - 3	12 - 0	14 - 8	17 - 1
	Douglas Fir-Larch	No.1	5 - 8	8 - 3	10 - 5	12 - 9	14 - 9	5 - 4	7 - 9	9 - 10	12 - 0	13 - 11
	Douglas Fir-Larch	No.2	5 - 4	7 - 10	9 - 11	12 - 1	14 - 0	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2
	Douglas Fir-Larch	No.3	4 - 1	6 - 0	7 - 7	9 - 3	10 - 8	3 - 10	5 - 7	7 - 1	8 - 8	10 - 1
	Hem-Fir	SS	5 - 6	8 - 8	11 - 6	14 - 8	17 - 6	5 - 6	8 - 8	11 - 6	14 - 2	16 - 6
	Hem-Fir	No.1	5 - 5	8 - 2	10 - 3	12 - 7	14 - 7	5 - 3	7 - 8	9 - 8	11 - 10	13 - 9
	Hem-Fir	No.2	5 - 2	7 - 7	9 - 7	11 - 9	13 - 7	4 - 11	7 - 2	9 - 1	11 - 1	12 - 10
	Hem-Fir	No.3	4 - 0	5 - 10	7 - 4	9 - 0	10 - 5	3 - 9	5 - 6	6 - 11	8 - 6	9 - 10
	Southern Pine	SS	5 - 9	9 - 1	11 - 11	15 - 3	18 - 6	5 - 9	9 - 1	11 - 11	15 - 3	18 - 6
	Southern Pine	No.1	5 - 8	8 - 11	11 - 8	13 - 10	16 - 6	5 - 8	8 - 9	11 - 0	13 - 1	15 - 7
24	Southern Pine	No.2	4 - 8	8 - 1	10 - 5	12 - 5	14 - 7	4 - 5	7 - 7	9 - 10	11 - 9	13 - 9
	Southern Pine	No.3	3 - 7	6 - 3	8 - 0	9 - 5	11 - 2	3 - 4	5 - 11	7 - 6	8 - 10	10 - 7
	Spruce-Pine Fir	SS	5 - 5	8 - 6	11 - 3	14 - 3	16 - 6	5 - 5	8 - 6	11 - 0	13 - 5	15 - 7
	Spruce-Pine Fir	No.1	5 - 3	7 - 8	9 - 9	11 - 11	13 - 10	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Spruce-Pine Fir	No.2	5 - 3	7 - 8	9 - 9	11 - 11	13 - 10	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0
	Spruce-Pine Fir	No.3	4 - 0	5 - 10	7 - 4	9 - 0	10 - 5	3 - 9	5 - 6	6 - 11	8 - 6	9 - 10
	Douglas Fir-Larch	SS	5 - 5	8 - 7	11 - 3	13 - 11	16 - 2	5 - 5	8 - 6	10 - 9	13 - 2	15 - 3
	Douglas Fir-Larch	No.1	5 - 0	7 - 4	9 - 4	11 - 5	13 - 2	4 - 9	6 - 11	8 - 9	10 - 9	12 - 5
	Douglas Fir-Larch	No.2	4 - 9	7 - 0	8 - 10	10 - 10	12 - 6	4 - 6	6 - 7	8 - 4	10 - 2	11 - 10
	Douglas Fir-Larch	No.3	3 - 8	5 - 4	6 - 9	8 - 3	9 - 7	3 - 5	5 - 0	6 - 4	7 - 9	9 - 0
	Hem-Fir	SS	5 - 2	8 - 1	10 - 8	13 - 6	15 - 7	5 - 2	8 - 1	10 - 5	12 - 8	14 - 9
	Hem-Fir	No.1	5 - 0	7 - 3	9 - 2	11 - 3	13 - 0	4 - 8	6 - 10	8 - 8	10 - 7	12 - 4
	Hem-Fir	No.2	4 - 8	6 - 9	8 - 7	10 - 6	12 - 2	4 - 4	6 - 5	8 - 1	9 - 11	11 - 6
	Hem-Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10
24	Southern Pine	SS	5 - 4	8 - 5	11 - 1	14 - 2	17 - 2	5 - 4	8 - 5	11 - 1	14 - 2	17 - 2
	Southern Pine	No.1	5 - 3	8 - 3	10 - 5	12 - 5	14 - 9	5 - 3	7 - 10	9 - 10	11 - 8	13 - 11
	Southern Pine	No.2	4 - 3	7 - 3	9 - 4	11 - 1	13 - 0	4 - 0	6 - 10	8 - 9	10 - 6	12 - 4
	Southern Pine	No.3	3 - 2	5 - 7	7 - 1	8 - 5	10 - 0	3 - 0	5 - 3	6 - 9	7 - 11	9 - 5
	Spruce-Pine Fir	SS	5 - 0	7 - 11	10 - 5	12 - 9	14 - 9	5 - 0	7 - 9	9 - 10	12 - 0	13 - 11
	Spruce-Pine Fir	No.1	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.2	4 - 8	6 - 11	8 - 9	10 - 8	12 - 4	4 - 5	6 - 6	8 - 3	10 - 1	11 - 8
	Spruce-Pine Fir	No.3	3 - 7	5 - 2	6 - 7	8 - 1	9 - 4	3 - 4	4 - 11	6 - 3	7 - 7	8 - 10

[†] Spans are limited to 20 feet in length.
See footnote 1.

2012 WFCM Changes

John “Buddy” Showalter, P.E., Bradford K. Douglas, P.E.,
Philip Line, P.E., Peter J. Mazikins, P.Eng., and Loren Ross, E.I.T.

Introduction

The 2001 Edition of the *Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings (ANSI/AF&PA WFCM-2001)* was recently updated. The updated standard designated *ANSI/AWC WFCM-2012* was approved November 29, 2011 (Figure 1). The 2012 WFCM was developed by the American Wood Council’s (AWC) Wood Design Standards Committee and is referenced in the 2012 *International Residential Code (IRC)* and 2012 *International Building Code (IBC)*.

Primary changes to the 2012 WFCM are listed here and are subsequently covered in more detail:

- Design load provisions are updated per *ASCE/SEI 7-10 Minimum Design Loads for Buildings and Other Structures*
- Wood structural panels are permitted to resist wind uplift
- Shear wall story offset provisions are clarified
- Design values for lumber, structural glued laminated timber, and fasteners are in accordance with the 2012 *National Design Specification® (NDS®) for Wood Construction* and 2012 *NDS Supplement: Design Values for Wood Construction*
- Engineering design of horizontal diaphragm assemblies and vertical wall assemblies are in accordance with *Special Design Provisions for Wind and Seismic, ANSI/AWC SDPWS-2008*
- Wind exposure categories B and C are incorporated together in Chapter 3 prescriptive provisions
- Header tables include both “dropped” and “raised” header conditions

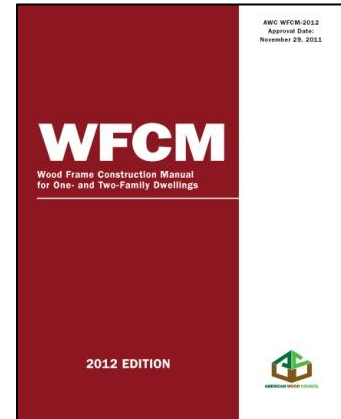


Figure 1. Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings, 2012 Edition

ASCE 7-10 Load Provisions

Tabulated engineered and prescriptive design provisions in WFCM Chapters 2 and 3, respectively are based on the following loads from ASCE 7-10:

- 0-70 psf ground snow loads
- 110-195 mph 700-year return period 3-second gust basic wind speeds
- Seismic Design Categories A-D

Ground snow loads in the WFCM take into account both balanced and unbalanced snow load conditions. Unbalanced snow load provisions were revised in ASCE 7-05 which resulted in reduced loads (O’Rourke 2006). Those provisions are relatively unchanged in ASCE 7-10, resulting in net reductions to snow loads where unbalanced cases govern.

All seismic-related tables in the 2012 WFCM are updated to new ASCE 7-10 seismic provisions. New risk-based maps generally reduce areas of highest seismic risk along the New Madrid fault and in the Charleston, SC area. Revised map contours will influence Seismic Design Categories of some geographic areas.

All wind-related tables in the 2012 WFCM are updated to 700-year return, 3-second gust wind speeds. Revised wind speed maps are on a “strength design” basis. Wind speeds are higher, but load factors for design are also adjusted so that the net effect will be a reduction of wind pressures in some regions (Line 2011). There are separate wind speed maps for each Risk Category in the code, and Exposure D will become applicable again in hurricane prone regions.

When basic wind speeds from *ASCE 7-05* are used, the value shall be converted to the *ASCE 7-10* basis using Table 1.

While the 90 mph wind speed zone from *ASCE 7-05* and the *2012 IRC* covers approximately the same geographical area as the 115 mph wind speed zone in *ASCE 7-10*, Table 1 shows a slight difference of 116 mph versus 115 mph due to rounding in the direct conversion from the *ASCE 7-05* basis to the *ASCE 7-10* basis. The local authority having jurisdiction should be consulted to determine whether conversion to a 115 mph basis is permissible.

Table 1. Wind Speed Conversion

ASCE 7-05 Basic Wind Speeds based on 50 yr. return period 3 second gust (mph)							
85	90	100	110	120	130	140	150
Equivalent ASCE 7-10 Basic Wind Speeds based on 700 yr. return period 3 second gust (mph)							
110	116	129	142	155	168	181	194

Wood Structural Panels Resisting Wind Uplift

Wood structural panels can be used to resist uplift alone or simultaneously resist uplift and shear from wind forces. These provisions were adapted from *the 2008 SDPWS* (Coats 2010). Section 3.2.3 of the *2012 WFCM* now contains provisions for the use of certain wood structural panel shear walls, with a list of requirements for installation and illustrations for nailing. Capacities are based on provisions in the *2005 NDS* and have been verified by full scale testing.

The primary characteristic of this method is increased nailing of panels to framing to provide a continuous load path and enabling uplift loads to be transferred to existing wall anchorage at the foundation. A desire to investigate the inherent uplift capacity of nailed wood structural panel shear walls was the impetus for development of this design method. In the last two decades, as design standards have evolved to address losses associated with high-wind events, designers and home builders have been challenged by the substantially "beefed up" methods and equipment required to resist wind forces. Among the concerns is the number of tie-downs required for shear walls, which can present both cost increases and practical construction challenges. Traditional methods of providing for uplift resistance with additional tie-downs at shear walls can be cumbersome and expensive.

An integral Appendix of the *2012 WFCM* still contains uplift strap and ridge strap capacity tables for those wishing to maintain that option.

Shear Wall Story Offsets

Shear wall story offset provisions were clarified in the *2012 WFCM*. Shear wall segments are permitted to be offset out-of-plane from the story below by a maximum distance equal to the depth, *d*, of the floor joists (Figure 2) where all of the following conditions are met:

- Upper and lower story shear wall segments are attached to the floor diaphragm through wall plate-to blocking connection and wall plate-to band joist connections
- Floor diaphragm wood structural panel sheathing is nailed to blocking and band joist at 6" o.c.
- Allowable unit shear capacity for the shear wall above does not exceed 436 plf for wind or 239 plf for seismic
- Floor joists supporting the shear wall are nominal 2x8 or larger, tripled at ends of shear walls, and provide support for loads from roof and ceiling only
- Continuous load path is provided for uplift and overturning.

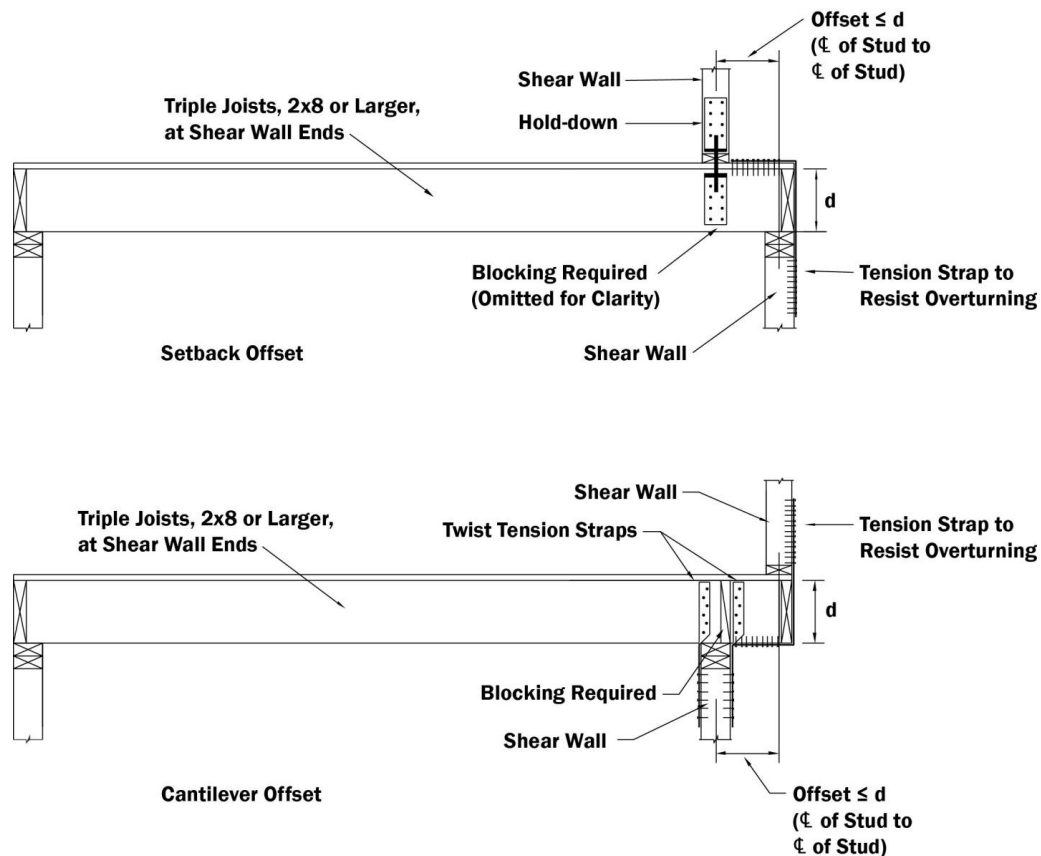


Figure 2. Shear Wall Story Offset Limits.

Design Values

Design values for structural lumber, structural glued laminated (glulam) timber, and fasteners were incorporated in the integral Supplement of the 2001 WFCM. The 2012 WFCM now references the 2012 NDS Supplement for lumber and glulam design values. For fastener design values, the 2012 NDS is the reference standard.

Shear Wall and Diaphragm Design

Design properties for horizontal diaphragms and shear walls were incorporated in the integral Supplement of the 2001 WFCM. The 2012 WFCM now references the 2008 SDPWS for engineered design of shear walls and diaphragms. Prescriptive tables in WFCM Chapter 3 still contain shear wall and diaphragm tables similar to the 2001 WFCM.

Wind Exposure B and C Tables

Wind Exposure C tables were incorporated in a separate Appendix in the 2001 WFCM. The 2012 WFCM now integrates Exposure B and C tables together in the prescriptive provisions of Chapter 3.

More Details

A comprehensive table listing section by section changes to the WFCM, including modifications to Supplement and Appendix material, is included as an appendix to this document.

WFCM Availability

The 2012 WFCM is currently available for purchase in electronic format (PDF) only. Once the WFCM Commentary is updated (which is to be included with the WFCM) printed copies will be available for purchase. Check the AWC website (www.awc.org) for status updates on the 2012 WFCM. Once the

WFCM Commentary is complete, those who purchased electronic versions of the 2012 *WFCM* will receive the *WFCM Commentary* in electronic format at no additional charge.

Conclusion

The 2012 *WFCM* represents the state-of-the-art for design of one- and two-family dwellings for high wind, high seismic, and high snow loads. Its reference in the 2012 *IBC* and 2012 *IRC* will allow for its use in those jurisdictions adopting the latest building code. However, building officials are also apt to accept designs prepared in accordance with newer reference standards even if the latest building code has not been adopted in their jurisdiction. *IBC* 104.11 and *IRC* R104.11 for alternate materials and design provides the authority having jurisdiction with that leeway.

Authors

John “Buddy” Showalter, P.E. is Vice President of Technology Transfer, Bradford K. Douglas, P.E. is Vice President of Engineering, Philip Line, P.E. is Director of Structural Engineering, Peter J. Mazikins is Senior Manager of Engineering Standards, and Loren Ross is Manager of Engineering Research with the American Wood Council. Contact Mr. Showalter (bshowalter@awc.org) with questions.

References

American Society of Civil Engineers. ASCE/SEI 7-10 Minimum Design Loads for Buildings and Other Structures. Reston, VA. 2010.

American Wood Council. 2012 National Design Specification® (NDS®) for Wood Construction. Leesburg, VA. 2012.

American Wood Council. 2008 Special Design Provisions for Wind and Seismic. Leesburg, VA. 2008.

American Wood Council. 2012 Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings. Leesburg, VA. 2012.

American Wood Council. 2001 Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings. Leesburg, VA. 2001.

Coats, Paul. Use of Wood Structural Panels to Resist Combined Shear and Uplift from Wind. *Wood Design Focus*. Vol. 20, No. 2. 2010.

International Code Council. 2012 International Building Code. Washington, DC. 2012.

International Code Council. 2012 International Residential Code. Washington, DC. 2012.

Line, Philip and Bill Coulbourne. ASCE 7-10 Wind Provisions and Effects on Wood Design and Construction. *STRUCTURE Magazine*. January 2011.

O’Rourke, Michael, Peter Mazikins, and John “Buddy” Showalter. Snow Provisions of ASCE 7-05. *STRUCTURE Magazine*. December 2006.

Appendix – 2012 WFCM Summary of Changes

Section	Description
Chapter 1	1) Replaced reference to 2000 IBC with reference to ASCE 7-10 for all loading conditions addressed in the WFCM. All tabulated values adjusted to new loading requirements. 2) Added ASCE 7-10 Wind Map for Category II (Residential) structures. 3) Moved mean roof height (MRH) adjustments for building heights and exposure conditions from Chapter 1 to Chapter 2. These adjustments only apply to Chapter 2 and were moved to avoid misapplication to Chapter 3 tables and provisions. 4) Removed provision for separate check of minimum vertical projected area load for MWFRS as this provision has been reduced from 10 psf to 5 psf roof/10 psf wall in ASCE 7-10 and is now directly checked in the affected WFCM tables. 5) Added provision to clarify that special design requirements for torsional load cases have not been checked. WFCM assumes that the lateral force resisting system is in the exterior envelop of the building. 6) Added provision to clarify that sliding snow requirements have not been checked since loading condition will be building specific. 7) Deleted building aspect ratio limits to avoid confusion with diaphragm aspect ratio limits in Chapters 2 and 3. 8) Moved limitations on floor, wall, and roof assemblies and coordinated with specific limitations in Chapters 2 and 3 to avoid confusion. 9) Added provision to clarify that design of ancillary structures such as decks, balconies, carports, and porches are not addressed in this standard. 10) Updated reference standards. 11) Updated definitions to be consistent with the 2012 NDS, 2008 SDPWS, and ASCE 7-10 standards. 12) Revised notation to match variable names used in this versions of the standard. 13) Moved figures describing Chapter 2 and 3 applicability limits from Chapter 1 to respective chapters and updated references to all figures.
Chapter 2	1) Moved mean roof height (MRH) adjustments for building heights and exposure conditions from Chapter 1 to Chapter 2. These adjustments only apply to Chapter 2 and were moved to avoid misapplication to Chapter 3 tables and provisions. Added column for Exposure B to clarify that the MRH adjustment is 1.0 for all cases up to 33 feet. 2) Added provisions that require additional loading from habitable attics to be considered in design. 3) Deleted shear walls from all floor joist cantilever and setback limits in 2.1.3.2c and 2.1.3.2d to clarify that these provisions are for gravity design only. Offsets

Section	Description
	for shear walls are covered in 2.1.3.3d. 4) Modified shear wall offset provisions to prohibit upper story shear wall segments from being offset in-plane or out-of-plane from lower story shear wall segments unless designed (2.1.3.3.d). 5) Replaced shear wall aspect ratio limit with reference to SDPWS to incorporate sheathing-type specific limits. 6) Replaced lumber, glulam, and SCL design provisions and WFCM Supplement design values with reference to 2012 NDS and 2012 NDS Design Value Supplement, respectively, to ensure proper design and that framing design values are current. 7) Replaced shear wall and diaphragm design provisions and WFCM Supplement design values with reference to 2008 SDPWS to ensure proper design and that shear wall and diaphragm design values are current. 8) Replaced nail design provisions and WFCM Supplement design values with reference to 2012 NDS to ensure proper design and that fastener design values are current. 9) Updated Tables 2.5A and 2.5B for wind perpendicular and parallel to ridge respectively, and Table 2.6 for seismic motion to meet new provisions in ASCE 7-10. 10) Replaced reference to TPI's <i>Commentary and Recommendations for Handling, Installing and Bracing Metal Plate Connected Wood Trusses, HIB-91</i> with SBCA/TPI's <i>Building Component Safety Information (BCSI) – Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses</i>. 11) Clarified that rafter spans in Tables 2.14A-D are based on horizontal projected length. 12) Moved figures describing Chapter 2 applicability limits from Chapter 1 to Chapter 2 and updated references to all figures. 13) Updated tables to use new design loads per ASCE 7-10.
Chapter 3	1) Limited prescriptive designs in Chapter 3 to Wind Exposures B and C only. Tables for both exposures are now included in Chapter 3. 2) Replaced provision that required an attic to be considered a separate story when the roof slope is greater than 6 in 12 with a) new requirement that habitable attics be considered an additional floor for purposes of determining gravity and seismic loads, and b) new footnotes to all lateral wind design tables (diaphragm, shear wall, and shear connection tables) that adjust bracing requirements for increased roof slopes and eave-to-ridge heights. 3) Deleted shear walls from all floor joist cantilever and setback limits in 3.1.3.2c and 3.1.3.2d to clarify that these provisions are for gravity design only. Offsets for shear walls are covered in 3.1.3.3d. 4) Clarified provisions in 3.1.3.3c for shear wall line offsets exceeding 4 feet. Added language to exception providing guidance on distribution of shear loads

Section	Description
	into shear wall lines proportional to the diaphragm area tributary to each shear wall line or by other accepted engineering practice. 5) Modified shear wall offset provision to prohibit upper story shear wall segments from being offset in-plane or out-of-plane from lower story shear wall segments (3.1.3.3.d) with an exception that permits out-of-plane offsets up to the floor joist depth when designed in accordance with specific limits. 6) Moved prescriptive uplift strap connection table (3.4B), which is based on generic steel strapping values, to the appendix (A-3.4). 7) Added provisions requiring roof-to-top plate connections to be on the same side of the wall as top plate to stud connections unless other methods are used to prevent twisting of the top plate due to eccentric loading. 8) Added provisions permitting wood structural panels (WSPs) to be used to resist uplift when designed in accordance with a new section (3.2.3) on design of WSPs to resist uplift. The provisions of and figures in the new WSP uplift section were taken directly from the 2008 SDPWS standard. 9) Moved prescriptive ridge strap connection table (3.6A), which is based on generic steel strapping values, to the appendix (A-3.6). 10) Moved stud height limit from Tables 3.23A-B footnote to a new Table 3.23C and referenced the table directly in the provisions. 11) Revised the reference shear wall configuration to wall studs spaced at a maximum of 16" o.c., sheathed with 3/8 inch wood structural panels on the exterior attached with 8d common nails at 6 inch o.c. at panel edges and 12 inches o.c. in the field, and 1/2 inch gypsum wallboard on the interior attached with 5d cooler nails at 7 inches o.c. at panel edges and 10 inches o.c. in the field. All affected tables revised. 12) Deleted requirement for adding an extra story to the building design when the bottom floor is elevated above grade. The new seismic shear wall, diaphragm and connection tables have been increased by the loads from the out-of-plane foundation walls. The foundations are assumed to be rigid and not contribute to the vertical redistribution of forces in the structure. 13) Replaced complicated interior shear wall geometry requirements with simpler provisions that require the structure to be designed as separate structures attached in the plane of the interior shear wall and clarifying that the shear wall length of the shared wall (interior shear wall) shall be the sum of the lengths required for the shear wall of each attached structure. 14) Added clarification that the shear wall length requirements in both Tables 3.17A and 3.17C must be multiplied by the appropriate full-height sheathing length adjustment factors in Table 3.17E. 15) Added clarification that hold-down capacities in Table 3.17F must be divided by the appropriate length adjustment factor in Table 3.17D. 16) Clarified that rafter spans in Tables 3.26A-H are based on horizontal projected length. 17) Moved figures describing Chapter 3 applicability limits from Chapter 1 to

Section	Description
	Chapter 3 and updated references to all figures. 18) Updated tables to use new design loads per ASCE 7-10 and resistances per 2012 NDS and 2008 SDPWS. Specific revisions to tables include the following: 1. All lateral wind bracing tables (diaphragm, shear wall, and shear connection tables) have been calculated assuming an eave-to-ridge height of 10 feet and a wall height of 10'. Tabulated requirements are based on the wind perpendicular to ridge condition (worst case) rather than providing separate tables for parallel and perpendicular to ridge removing need to specify parallel and perpendicular to ridge directionality and addressing effects of dormers, Dutch hips, etc. New footnotes to all lateral wind design tables adjust bracing requirements for increased roof slopes and eave-to-ridge heights. 2. All lateral seismic bracing tables (diaphragm, shear wall, and shear connection tables) have been calculated assuming a reference condition with the following dead load assumptions: a. Roof/Ceiling Assembly = 15 psf b. Floor Assembly = 12 psf c. Exterior Wall Assembly = 18 psf d. Partition Wall = 8 psf Adjustment factors are used to adjust for various combinations of other dead load conditions: a. Roof/Ceiling Assembly = 25 psf b. Floor Assembly = 20 psf c. Exterior Wall Assembly = 11 psf 3. New table added (Table 3.4A) that provides maximum roof spans for each wind speed that can utilize wood structural panels to resist uplift. 4. Roof sheathing attachment requirements for wind loads (Table 3.10) has been expanded to address two specific gravity ranges directly in tabular values rather than in complicated footnotes. 5. Shear wall design values and adjustment factors for various shear wall configurations were updated for consistency with 2008 SDPWS. 6. Exterior stud design tables (Table 3.20A&B) for wind were modified to cover h/180, h/240, and h/360 deflection limits as required in current model codes for flexible finishes (with gypsum wallboard on the interior), brittle finishes, and very brittle finishes (plaster or stucco), respectively. The 2001 WFCM limited deflection to h/120, previously the only code-required wall deflection limit for wind. After review of test data and analysis, it was determined that the Wall Stud Repetitive Member factor (C_r) for wind design from 2008 SDPWS is applicable to wall studs up to 24" o.c. and that a composite action factor at least equal to the C_r factor is applicable to bending stiffness calculations. These changes were incorporated into the new tables. 7. Header tables were expanded to include single-ply headers consistent with

Section	Description
	new energy code provisions, spans up to 20' to accommodate double-car garage doors, and new glulam header sizes. Also, header tables were calculated for dropped headers and raised header support conditions. 8. Rafter live load span tables were separated from rafter snow load span tables to clarify that design for wind loading of rafters can be addressed by adjusting the live load tables with simple factors covered in the footnotes.
Appendix	1) Removed Exposure C prescriptive wind design tables from Appendix since they are now included in Chapter 3. 2) Moved prescriptive uplift strap connection table (3.4B), which is based on generic steel strapping values, to the appendix (A-3.4). 3) Moved prescriptive ridge strap connection table (3.6A), which is based on generic steel strapping values, to the appendix (A-3.6).
Supplement	WFCM design value supplement tables were previously based on the 2001 NDS or other sources. With direct reference to these standards, this duplication is no longer necessary or warranted. Only those tables which are not referenced in the 2012 NDS or 2008 SDPWS are included in the WFCM Supplement section. These tables include: 1) Table S-1 Maximum Spans and Allowable Total Uniform Loads for Floor Sheathing 2) Table S-2 Maximum Spans and Allowable Total Uniform Loads for Roof Sheathing (live and snow loads) 3) Table S-3 Shear Capacities for Horizontal Diaphragm Assemblies (for gypsum wallboard ceiling diaphragms)