



DEPARTMENT OF COMMUNITY DEVELOPMENT

Kristal Deininger - Administrator

HELPFUL BUILDING GUIDELINES

PATIO COVERS and PORCHES



SECTION AH101 GENERAL

AH101.1 Scope. Patio covers shall conform to the requirements of Sections AH101 through AH105.

AH101.2 Permitted uses. Patio covers shall be permitted to be detached from or attached to *dwelling units*. Patio covers shall be used only for recreational, outdoor living purposes, and not as carports, garages, storage rooms or habitable rooms.

SECTION AH102 DEFINITION

AH102.1 General. The following word and term shall, for the purposes of this appendix, have the meaning shown herein.

PATIO COVER. A structure with open or glazed walls which is used for recreational, outdoor living purposes associated with a dwelling unit.

SECTION AH103 EXTERIOR WALLS AND OPENINGS

AH 103.1 Enclosure walls. Enclosure walls shall be permitted to be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 6 feet, 8 inches (2032 mm) of each wall, measured from the floor. Openings shall be permitted to be enclosed with the following:

1. Insect screening;
2. Approved translucent or transparent plastic not more than 0.125 inch (3.2 mm) in thickness;
3. Glass conforming to the provisions of Section R308; or
4. Any combination of the foregoing.

AH103.2 Light, ventilation and emergency egress. Exterior openings required for light and ventilation shall be permitted to open into a patio structure conforming to Section AH101, provided that the patio structure shall be unenclosed if such openings are serving as emergency egress or rescue openings from sleeping rooms. Where such exterior openings serve as an exit from the *dwelling unit*, the patio structure, unless unenclosed, shall be provided with exits conforming to the provisions of Section R310.

SECTION AH104 HEIGHT

AH104.1 Height. Patio covers are limited to one-story Structures not exceeding 12 feet (3657 mm) in height.

SECTION AH105 STRUCTURAL PROVISIONS

AH105.1 Design loads. Patio covers shall be designed and constructed to sustain, within the stress limits of this code, all dead loads plus a minimum vertical live load of 10 pounds per square foot (0.48 kN/m²), except that snow loads shall be used where such snow loads exceed this minimum. Such covers shall be designed to resist the minimum wind loads set forth in Section R301.2.1.

AH105.2 Footings. In areas with a frostline depth of zero as specified in Table R301.2(1), a patio cover shall be permitted to be supported on a slab-on-grade without footings, provided the slab conforms to the provisions of Section R506, is not less than 3.5 inches (89 mm) thick and the columns do not support live and dead loads in excess of 750 pounds (3.34 kN) per column.



PATIO COVERS and PORCHES

TABLE R802.4(1)
CEILING JOIST SPANS FOR COMMON LUMBER SPECIES
(Uninhabitable attics without storage, live load = 10 psf, L/Δ = 240)

CEILING JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 5 psf			
			2 × 4	2 × 6	2 × 8	2 × 10
			Maximum ceiling joist spans			
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	
12	Douglas fir-larch	SS	13-2	20-8	Note a	Note a
	Douglas fir-larch	#1	12-8	19-11	Note a	Note a
	Douglas fir-larch	#2	12-5	19-6	25-8	Note a
	Douglas fir-larch	#3	10-10	15-10	20-1	24-6
	Hem-fir	SS	12-5	19-6	25-8	Note a
	Hem-fir	#1	12-2	19-1	25-2	Note a
	Hem-fir	#2	11-7	18-2	24-0	Note a
	Hem-fir	#3	10-10	15-10	20-1	24-6
	Southern pine	SS	12-11	20-3	Note a	Note a
	Southern pine	#1	12-8	19-11	Note a	Note a
	Southern pine	#2	12-5	19-6	25-8	Note a
	Southern pine	#3	11-6	17-0	21-8	25-7
	Spruce-pine-fir	SS	12-2	19-1	25-2	Note a
	Spruce-pine-fir	#1	11-10	18-8	24-7	Note a
	Spruce-pine-fir	#2	11-10	18-8	24-7	Note a
	Spruce-pine-fir	#3	10-10	15-10	20-1	24-6
16	Douglas fir-larch	SS	11-11	18-9	24-8	Note a
	Douglas fir-larch	#1	11-6	18-1	23-10	Note a
	Douglas fir-larch	#2	11-3	17-8	23-0	Note a
	Douglas fir-larch	#3	9-5	13-9	17-5	21-3
	Hem-fir	SS	11-3	17-8	23-4	Note a
	Hem-fir	#1	11-0	17-4	22-10	Note a
	Hem-fir	#2	10-6	16-6	21-9	Note a
	Hem-fir	#3	9-5	13-9	17-5	21-3
	Southern pine	SS	11-9	18-5	24-3	Note a
	Southern pine	#1	11-6	18-1	23-1	Note a
	Southern pine	#2	11-3	17-8	23-4	Note a
	Southern pine	#3	10-0	14-9	18-9	22-2
	Spruce-pine-fir	SS	11-0	17-4	22-10	Note a
	Spruce-pine-fir	#1	10-9	16-11	22-4	Note a
	Spruce-pine-fir	#2	10-9	16-11	22-4	Note a
	Spruce-pine-fir	#3	9-5	13-9	17-5	21-3

PATIO COVERS and PORCHES

TABLE R802.4(1)—continued
CEILING JOIST SPANS FOR COMMON LUMBER SPECIES
 (Uninhabitable attics without storage, live load = 10 psf, L/Δ = 240)

CEILING JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 5 psf			
			2 × 4	2 × 6	2 × 8	2 × 10
			Maximum ceiling joist spans			
			(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
19.2	Douglas fir-larch	SS	11-3	17-8	23-3	Note a
	Douglas fir-larch	#1	10-10	17-0	22-5	Note a
	Douglas fir-larch	#2	10-7	16-7	21-0	25-8
	Douglas fir-larch	#3	8-7	12-6	15-10	19-5
	Hem-fir	SS	10-7	16-8	21-11	Note a
	Hem-fir	#1	10-4	16-4	21-6	Note a
	Hem-fir	#2	9-11	15-7	20-6	25-3
	Hem-fir	#3	8-7	12-6	15-10	19-5
	Southern -pine	SS	11-0	17-4	22-10	Note a
	Southern pine	#1	10-10	17-0	22-5	Note a
	Southern pine	#2	10-7	16-8	21-11	Note a
	Southern pine	#3	9-1	13-6	17-2	20-3
	Spruce-pine-fir	SS	10-4	16-4	21-6	Note a
	Spruce-pine-fir	#1	10-2	15-11	21-0	25-8
	Spruce-pine-fir	#2	10-2	15-11	21-0	25-8
	Spruce-pine-fir	#3	8-7	12-6	15-10	19-5
24	Douglas fir-larch	SS	10-5	16-4	21-7	Note a
	Douglas fir-larch	#1	10-0	15-9	20-1	24-6
	Douglas fir-larch	#2	9-10	14-10	18-9	22-11
	Douglas fir-larch	#3	7-8	11-2	14-2	17-4
	Hem-fir	SS	9-10	15-6	20-5	Note a
	Hem-fir	#1	9-8	15-2	19-7	23-11
	Hem-fir	#2	9-2	14-5	18-6	22-7
	Hem-fir	#3	7-8	11-2	14-2	17-4
	Southern pine	SS	10-3	16-1	21-2	Note a
	Southern pine	#1	10-0	15-9	20-10	Note a
	Southern pine	#2	9-10	15-6	20-1	23-11
	Southern pine	#3	8-2	12-0	15-4	18-1
	Spruce-pine-fir	SS	9-8	15-2	19-11	25-5
	Spruce-pine-fir	#1	9-5	14-9	18-9	22-11
	Spruce-pine-fir	#2	9-5	14-9	18-9	22-11
	Spruce-pine-fir	#3	7-8	11-2	14-2	17-4

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

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479kPa.

a. Span exceeds 26 feet in length.

PATIO COVERS and PORCHES

TABLE R802.5.1(1)
RAFTER SPANS FOR COMMON LUMBER SPECIES
 (Roof live load=20 psf, ceiling not attached to rafters, L/Δ = 180)

Rafter Spacing (inches)	Species and Grade	Dead Load = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum Rafter Spans				
		(feets - inches)	(feets - inches)	(feets - inches)	(feets - inches)	(feets - inches)
12	Douglas fir-larch SS	11' - 6"	18' - 0"	23' - 5"	Note b	Note b
	Douglas fir-larch #1	10' - 6"	15' - 4"	19' - 5"	23' - 9"	Note b
	Douglas fir-larch #2	9' - 10"	14' - 4"	18' - 2"	22' - 3"	25' - 9"
	Douglas fir-larch #3	7' - 5"	10' - 10"	13' - 9"	16' - 9"	19' - 6"
	Hem-fir SS	10' - 10"	17' - 0"	22' - 5"	Note b	Note b
	Hem-fir #1	10' - 3"	14' - 11"	18' - 11"	23' - 2"	Note b
	Hem-fir #2	9' - 8"	14' - 2"	17' - 11"	21' - 11"	25' - 5"
	Hem-fir #3	7' - 5"	10' - 10"	13' - 9"	16' - 9"	19' - 6"
	Southern Pine SS	11' - 3"	17' - 8"	23' - 4"	Note b	Note b
	Southern Pine #1	11' - 1"	17' - 3"	21' - 9"	25' - 10"	Note b
	Southern Pine #2	10' - 6"	15' - 1"	19' - 5"	23' - 2"	Note b
	Southern Pine #3	7' - 11"	11' - 8"	14' - 10"	17' - 6"	20' - 11"
	Spruce -pine-fir SS	10' - 7"	16' - 8"	21' - 9"	Note b	Note b
	Spruce -pine-fir #1	9' - 10"	14' - 4"	18' - 2"	22' - 3"	25' - 9"
	Spruce -pine-fir #2	9' - 10"	14' - 4"	18' - 2"	22' - 3"	25' - 9"
	Spruce -pine-fir #3	7' - 5"	10' - 10"	13' - 9"	16' - 9"	19' - 6"
16	Douglas fir-larch SS	10' - 5"	16' - 0"	20' - 3"	24' - 9"	Note b
	Douglas fir-larch #1	9' - 1"	13' - 3"	16' - 10"	20' - 7"	23' - 10"
	Douglas fir-larch #2	8' - 6"	12' - 5"	15' - 9"	19' - 3"	22' - 4"
	Douglas fir-larch #3	6' - 5"	9' - 5"	11' - 11"	14' - 6"	16' - 10"
	Hem-fir SS	9' - 10"	15' - 6"	19' - 11"	24' - 4"	Note b
	Hem-fir #1	8' - 10"	12' - 11"	16' - 5"	20' - 0"	23' - 3"
	Hem-fir #2	8' - 5"	12' - 3"	15' - 6"	18' - 11"	22' - 0"
	Hem-fir #3	6' - 5"	9' - 5"	11' - 11"	14' - 6"	16' - 10"
	Southern Pine SS	10' - 3"	16' - 1"	21' - 2"	Note b	Note b
	Southern Pine #1	10' - 0"	15' - 0"	18' - 10"	22' - 4"	Note b
	Southern Pine #2	9' - 1"	13' - 0"	16' - 10"	20' - 1"	23' - 7"
	Southern Pine #3	6' 10"	10' - 1"	12' - 10"	15' - 2"	18' - 1"
	Spruce -pine-fir SS	9' - 8"	14' - 10"	18' - 10"	23' - 0"	Note b
	Spruce -pine-fir #1	8' - 6"	12' - 5"	15' - 9"	19' - 3"	22' - 4"
	Spruce -pine-fir #2	8' - 6"	12' - 5"	15' - 9"	19' - 3"	22' - 4"
	Spruce -pine-fir #3	6' - 5"	9' - 5"	11' - 11"	14' - 6"	16' - 10"
19.2	Douglas fir-larch SS	9' - 10"	14' - 7"	18' - 6"	22' - 7"	Note b
	Douglas fir-larch #1	8' - 4"	12' - 2"	15' - 4"	18' - 9"	21' - 10"
	Douglas fir-larch #2	7' - 9"	11' - 4"	14' - 4"	17' - 7"	20' - 4"
	Douglas fir-larch #3	5' - 10"	8' - 7"	10' - 10"	13' - 3"	15' - 5"
	Hem-fir SS	9' - 3"	14' - 4"	18' - 2"	22' - 3"	25' - 9"
	Hem-fir #1	8' - 1"	11' - 10"	15' - 0"	18' - 4"	21' - 3"
	Hem-fir #2	7' - 8"	11' - 2"	14' - 2"	17' - 4"	20' - 1"
	Hem-fir #3	5' - 10"	8' - 7"	10' - 10"	13' - 3"	15' - 5"
	Southern Pine SS	9' - 8"	15' - 2"	19' - 11"	25' - 5"	Note b
	Southern Pine #1	9' - 3"	13' - 8"	17' - 2"	20' - 5"	24' - 4"
	Southern Pine #2	8' - 4"	11' - 11"	15' - 4"	18' - 4"	21' - 6"
	Southern Pine #3	6' - 3"	9' - 3"	11' - 9"	13' - 10"	16' - 6"
	Spruce -pine-fir SS	9' - 1"	13' - 7"	17' - 2"	21' - 0"	24' - 4"
	Spruce -pine-fir #1	7' - 9"	11' - 4"	14' - 4"	17' - 7"	20' - 4"
	Spruce -pine-fir #2	7' - 9"	11' - 4"	14' - 4"	17' - 7"	20' - 4"
	Spruce -pine-fir #3	5' - 10"	8' - 7"	10' - 10"	13' - 3"	15' - 5"

PATIO COVERS and PORCHES

TABLE R802.5.1(1)
RAFTER SPANS FOR COMMON LUMBER SPECIES
 (Roof live load=20 psf, ceiling not attached to rafters, L/Δ = 180)

Rafter Spacing (inches)	Species and Grade		Dead Load = 20 psf				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum Rafter Spans				
			(feets - inches)	(feets - inches)	(feets - inches)	(feets - inches)	(feets - inches)
24	Douglas fir-larch	SS	8' - 11"	13' - 1"	16' - 7"	20' - 3"	23' - 5"
	Douglas fir-larch	#1	7' - 5"	10' - 10"	13' - 9"	16' - 9"	19' - 6"
	Douglas fir-larch	#2	6' - 11"	10' - 2"	12' - 10"	15' - 8"	18' - 3"
	Douglas fir-larch	#3	5' - 3"	7' - 8"	9' - 9"	11' - 10"	13' - 9"
	Hem-fir	SS	8' - 7"	12' - 10"	16' - 3"	19' - 10"	23' - 0"
	Hem-fir	#1	7' - 3"	10' - 7"	13' - 5"	16' - 4"	19' - 0"
	Hem-fir	#2	6' - 10"	10' - 0"	12' - 8"	15' - 6"	17' - 11"
	Hem-fir	#3	5' - 3"	7' - 8"	9' - 9"	11' - 10"	13' - 9"
	Southern Pine	SS	8' - 11"	14' - 1"	18' - 6"	22' - 11"	Note b
	Southern Pine	#1	8' - 3"	12' - 3"	15' - 4"	18' - 3"	21' - 9"
	Southern Pine	#2	7' - 5"	10' - 8"	13' - 9"	16' - 5"	19' - 3"
	Southern Pine	#3	5' - 7"	8' - 3"	10' - 6"	12' - 5"	14' - 9"
	Spruce -pine-fir	SS	8' - 4"	12' - 2"	15' - 4"	18' - 9"	21' - 9"
	Spruce -pine-fir	#1	6' - 11"	10' - 2"	12' - 10"	15' - 8"	18' - 3"
	Spruce -pine-fir	#2	6' - 11"	10' - 2"	12' - 10"	15' - 8"	18' - 3"
	Spruce -pine-fir	#3	5' - 3"	7' - 8"	9' - 9"	11' - 10"	13' - 9"

PATIO COVERS and PORCHES

TABLE R802.5.1(2)
RAFTER SPANS FOR COMMON LUMBER SPECIES
 (Roof live load=20 psf, ceiling attached to rafters, L/Δ = 240)

Rafter Spacing (inches)	Species and Grade		Dead Load = 20 psf				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum Rafter Spans				
			(feets - inches)	(feets - inches)	(feets - inches)	(feets - inches)	(feets - inches)
12	Douglas fir-larch	SS	10' - 5"	16' - 4"	21' - 7"	Note b	Note b
	Douglas fir-larch	#1	10' - 0"	15' - 4"	19' - 5"	23' - 9"	Note b
	Douglas fir-larch	#2	9' - 10"	14' - 4"	18' - 2"	22' - 3"	25' - 9"
	Douglas fir-larch	#3	7' - 5"	10' - 10"	13' - 9"	16' - 9"	19' - 6"
	Hem-fir	SS	9' - 10"	15' - 6"	20' - 5"	Note b	Note b
	Hem-fir	#1	9' - 8"	14' - 11"	18' - 11"	23' - 2"	Note b
	Hem-fir	#2	9' - 2"	14' - 2"	17' - 11"	21' - 11"	25' - 5"
	Hem-fir	#3	7' - 5"	10' - 10"	13' - 9"	16' - 9"	19' - 6"
	Southern Pine	SS	10' - 3"	16' - 1"	21' - 2"	Note b	Note b
	Southern Pine	#1	10' - 0"	15' - 9"	20' - 10"	25' - 10"	Note b
	Southern Pine	#2	9' - 10"	15' - 1"	19' - 5"	23' - 2"	Note b
	Southern Pine	#3	7' - 11"	11' - 8"	14' - 10"	17' - 6"	20' - 11"
	Spruce -pine-fir	SS	9' - 8"	15' - 2"	19' - 11"	25' - 5"	Note b
	Spruce -pine-fir	#1	9' - 5"	14' - 4"	18' - 2"	22' - 3"	25' - 9"
	Spruce -pine-fir	#2	9' - 5"	14' - 4"	18' - 2"	22' - 3"	25' - 9"
	Spruce -pine-fir	#3	7' - 5"	10' - 10"	13' - 9"	16' - 9"	19' - 6"
16	Douglas fir-larch	SS	9' - 6"	14' - 11"	19' - 7"	24' - 9"	Note b
	Douglas fir-larch	#1	9' - 1"	13' - 3"	16' - 10"	20' - 7"	23' - 10"
	Douglas fir-larch	#2	8' - 6"	12' - 5"	15' - 9"	19' - 3"	22' - 4"
	Douglas fir-larch	#3	6' - 5"	9' - 5"	11' - 11"	14' - 6"	16' - 10"
	Hem-fir	SS	8' - 11"	14' - 1"	18' - 6"	23' - 8"	Note b
	Hem-fir	#1	8' - 9"	12' - 11"	16' - 5"	20' - 0"	23' - 3"
	Hem-fir	#2	8' - 4"	12' - 3"	15' - 6"	18' - 11"	22' - 0"
	Hem-fir	#3	6' - 5"	9' - 5"	11' - 11"	14' - 6"	16' - 10"
	Southern Pine	SS	9' - 4"	14' - 7"	19' - 3"	24' - 7"	Note b
	Southern Pine	#1	9' - 1"	14' - 4"	18' - 10"	22' - 4"	Note b
	Southern Pine	#2	8' - 11"	13' - 0"	16' - 10"	20' - 1"	23' - 7"
	Southern Pine	#3	6' - 10"	10' - 1"	12' - 10"	15' - 2"	18' - 1"
	Spruce -pine-fir	SS	8' - 9"	13' - 9"	18' - 1"	23' - 0"	Note b
	Spruce -pine-fir	#1	8' - 6"	12' - 5"	15' - 9"	19' - 3"	22' - 4"
	Spruce -pine-fir	#2	8' - 6"	12' - 5"	15' - 9"	19' - 3"	22' - 4"
	Spruce -pine-fir	#3	6' - 5"	9' - 5"	11' - 11"	14' - 6"	16' - 10"
19.2	Douglas fir-larch	SS	8' - 11"	14' - 0"	18' - 5"	22' - 7"	Note b
	Douglas fir-larch	#1	8' - 4"	12' - 2"	15' - 4"	18' - 9"	21' - 9"
	Douglas fir-larch	#2	7' - 9"	11' - 4"	14' - 4"	17' - 7"	20' - 4"
	Douglas fir-larch	#3	5' - 10"	8' - 7"	10' - 10"	13' - 3"	15' - 5"
	Hem-fir	SS	8' - 5"	13' - 3"	17' - 5"	22' - 3"	25' - 9"
	Hem-fir	#1	8' - 1"	11' - 10"	15' - 0"	18' - 4"	21' - 3"
	Hem-fir	#2	7' - 8"	11' - 2"	14' - 2"	17' - 4"	20' - 1"
	Hem-fir	#3	5' - 10"	8' - 7"	10' - 10"	13' - 3"	15' - 5"

PATIO COVERS and PORCHES

TABLE R802.5.1(2)
RAFTER SPANS FOR COMMON LUMBER SPECIES
 (Roof live load=20 psf, ceiling attached to rafters, $L/\Delta = 240$)

Rafter Spacing (inches)	Species and Grade	Dead Load = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum Rafter Spans				
		(feets - inches)	(feets - inches)	(feets - inches)	(feets - inches)	(feets - inches)
19.2	Southern Pine SS	8' - 9"	13' - 9"	18' - 1"	23' - 1"	Note b
	Southern Pine #1	8' - 7"	13' - 6"	17' - 2"	20' - 5"	24' - 4"
	Southern Pine #2	8' - 4"	11' - 11"	15' - 4"	18' - 4"	21' - 6"
	Southern Pine #3	6' - 3"	9' - 3"	11' - 9"	13' - 10"	16' - 6"
	Spruce-pine-fir SS	8' - 3"	12' - 11"	17' - 1"	21' - 0"	24' - 4"
	Spruce-pine-fir #1	7' - 9"	11' - 4"	14' - 4"	17' - 7"	20' - 4"
	Spruce-pine-fir #2	7' - 9"	11' - 4"	14' - 4"	17' - 7"	20' - 4"
	Spruce-pine-fir #3	5' - 10"	8' - 7"	10' - 10"	13' - 3"	15' - 4"
24	Douglas fir-larch SS	8' - 3"	13' - 0"	16' - 7"	20' - 3"	23' - 5"
	Douglas fir-larch #1	7' - 5"	10' - 10"	13' - 9"	16' - 9"	19' - 6"
	Douglas fir-larch #2	6' - 11"	10' - 2"	12' - 10"	15' - 8"	18' - 3"
	Douglas fir-larch #3	5' - 3"	7' - 8"	9' - 9"	11' - 10"	13' - 9"
	Hem-fir SS	7' - 10"	12' - 2"	16' - 2"	19' - 10"	23' - 0"
	Hem-fir #1	7' - 3"	10' - 7"	13' - 5"	16' - 4"	19' - 0"
	Hem-fir #2	6' - 10"	10' - 0"	12' - 8"	15' - 6"	17' - 11"
	Hem-fir #3	5' - 3"	7' - 8"	9' - 9"	11' - 10"	13' - 9"
	Southern Pine SS	8' - 1"	12' - 9"	16' - 10"	21' - 6"	Note b
	Southern Pine #1	8' - 0"	12' - 3"	15' - 4"	18' - 3"	21' - 9"
	Southern Pine #2	7' - 5"	10' - 8"	13' - 9"	16' - 5"	19' - 3"
	Southern Pine #3	5' - 7"	8' - 3"	10' - 6"	12' - 5"	14' - 9"
	Spruce -pine-fir SS	7' - 8"	12' - 0"	15' - 4"	18' - 9"	21' - 9"
	Spruce -pine-fir #1	6' - 11"	10' - 2"	12' - 10"	15' - 8"	18' - 3"
	Spruce -pine-fir #2	6' - 11"	10' - 2"	12' - 10"	15' - 8"	18' - 3"
	Spruce -pine-fir #3	5' - 3"	7' - 8"	9' - 9"	11' - 10"	13' - 9"

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

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

a. The tabulated rafter spans assume that ceiling joists are located at the bottom of the attic space or that some other method of resisting the outward push of the rafters on the bearing walls, such as rafter ties, is provided at that location. When ceiling joists or rafter ties are located higher in the attic space, the rafter spans shall be multiplied by the factors given below:

H_c/H_R	Rafter Span Adjustment Factor
1/3	0.67
1/4	0.76
1/5	0.83
1/6	0.90
1/7.5 or less	1.00

where:

H_c = Height of ceiling joists or rafter ties measured vertically above the top of the rafter support walls.

H_R = Height of roof ridge measured vertically above the top of the rafter support walls.

b. Span exceeds 26 feet in length.