



# DEPARTMENT OF COMMUNITY DEVELOPMENT

Jaclynn Workman- 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 AH106.

**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 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 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 R311 of this code.

#### SECTION AH104 HEIGHT

**AH104.1 Height.** Patio covers are limited to one-story Structures not exceeding 12 feet 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, 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 thick and the columns do not support live and dead loads in excess of 750 pounds per column.



# PATIO COVERS and PORCHES

Table R802.4(1)						
Ceiling Joist Spans for Common Lumber Species						
<i>Uninhabitable attics <u>without</u> storage, live load = 10psf.</i>						
Ceiling Joist Spacing (inches)	Species and Grade		Dead Load = 5psf			
			2 x 4	2 x 6	2 x 8	2 x 10
			Maximum Span			
			(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
16	Douglas Fir	SS	11-11	18-9	24-8	Note a
		#1	11-6	18-1	23-10	Note a
		#2	11-3	17-8	23-0	Note a
	Southern Pine	SS	11-9	18-5	24-3	Note a
		#1	11-6	18-1	23-1	Note a
		#2	11-3	17-8	23-4	Note a
24	Douglas Fir	SS	10-5	16-4	21-7	Note a
		#1	10-0	15-9	20-1	24-6
		#2	9-10	14-10	18-9	22-11
	Southern Pine	SS	10-3	16-1	21-2	Note a
		#1	10-0	15-9	20-10	Note a
		#2	9-10	15-6	20-1	23-11

\*Note a: Span Exceeds 26 feet in length.

Table R802.4(2)						
Ceiling Joist Spans for Common Lumber Species						
<i>Uninhabitable attics <u>with limited</u> storage, live load = 20psf.</i>						
Ceiling Joist Spacing (inches)	Species and Grade		Dead Load = 5psf			
			2 x 4	2 x 6	2 x 8	2 x 10
			Maximum Span			
			(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
16	Douglas Fir	SS	9-6	14-11	19-7	25-0
		#1	9-1	13-9	17-5	21-3
		#2	8-9	12-10	16-3	19-10
	Southern Pine	SS	9-4	14-7	19-3	24-7
		#1	9-1	14-4	18-11	23-1
		#2	8-11	13-6	17-5	20-9
24	Douglas Fir	SS	8-3	13-0	17-1	20-11
		#1	7-8	11-2	14-2	17-4
		#2	7-2	10-6	13-3	16-3
	Southern Pine	SS	8-1	12-9	16-10	21-6
		#1	8-0	12-6	15-10	18-10
		#2	7-8	11-0	14-2	16-11

\*Note a: Span Exceeds 26 feet in length.

**The charts above are an excerpt of the full charts provided in the IRC,**

**table reference is provided for your convenience.**

**You are not limited to the information provided above. This is simply a quick reference.**

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# PATIO COVERS and PORCHES

Table R802.5.1(1)							
Rafter Spans for Common Lumber Species							
Roof live loads = 20psf, ceiling <u>not</u> attached to rafters.							
Rafter Spacing (inches)	Species and Grade		Dead Load = 20psf				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum Span				
			(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
16	Douglas Fir	SS	10-5	16-0	20-3	24-9	Note b
		#1	9-1	13-3	16-10	20-7	23-10
		#2	8-6	12-5	15-9	19-3	22-4
	Southern Pine	SS	10-3	16-1	21-2	Note b	Note b
		#1	10-0	15-0	18-10	22-4	Note b
		#2	9-1	13-0	16-10	20-1	23-7
24	Douglas Fir	SS	8-11	13-1	16-7	20-3	23-5
		#1	7-5	10-10	13-9	16-9	19-6
		#2	6-11	10-2	12-10	15-8	18-3
	Southern Pine	SS	8-11	14-1	18-6	22-11	Note b
		#1	8-3	12-3	15-4	18-3	21-9
		#2	7-5	10-8	13-9	16-5	19-3

\*Note a: Span Exceeds 26 feet in length.

Table R802.5.1(2)							
Rafter Spans for Common Lumber Species							
Roof live load = 20psf, ceiling <u>attached</u> to rafters.							
Rafter Spacing (inches)	Species and Grade		Dead Load = 5psf				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum Span				
			(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
16	Douglas Fir	SS	9-6	14-11	19-7	24-9	Note b
		#1	9-1	13-3	16-10	20-7	23-10
		#2	8-6	12-5	15-9	19-3	22-4
	Southern Pine	SS	9-4	14-7	19-3	24-7	Note b
		#1	9-1	14-4	18-10	22-4	Note b
		#2	8-11	13-0	16-10	20-1	23-7
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		#1	7-5	10-10	13-9	16-9	19-6
		#2	6-11	10-2	12-10	15-8	18-3
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