

ALLOWABLE SPAN TABLES FOR ROOF RAFTERS

w psf

California Building Code 2007 Edition (CBC), NDS 2005

Lumber: Douglas Fir-Larch, Surfaced-Dry condition (19% maximum moisture content).

Roofing: Clay or Concrete Tile, Mineral Aggregate, Built Up Roofing, including ceiling with gypsum board.

Design Criteria: 20# LL + 20 DL =40# TL per sq. ft. and Deflection L/240 for LL (Roof Slopes less than 5:12).

19# LL + 20 DL =39# TL per sq. ft. and Deflection L/240 for LL (Roof Slopes 5:12 or Steeper).

15% Repetitive member factor included where applicable. 25% Duration load adjustment applied.

ROOF SLOPE LESS THAN 5:12 (40#/sf)							ROOF SLOPE 5:12 OR GREATER (39#/sf)								
SIZE		GRADE	RAFTER SPACING IN INCHES					SIZE		GRADE	RAFTER SPACING IN INCHES				
W x D	12		16	24	32	42	W x D	12	16		24	32	42		
2 x 4	SS	10-3	9-3	8-3	7-6	6-9	2 x 4	SS	10-6	9-6	8-3	7-6	6-9		
	#1+	10-0	9-3	8-0	7-0	6-0		#1+	10-3	9-3	8-0	7-0	6-0		
	#1	10-0	9-0	7-3	6-3	5-6		#1	10-0	9-0	7-6	6-6	5-6		
	#2	9-9	8-6	7-0	6-0	5-3		#2	10-0	8-6	7-0	6-0	5-3		
	#3	7-6	6-6	5-3	4-6	4-0		#3	7-6	6-6	5-3	4-6	4-0		
2 x 6	SS	16-3	14-9	12-9	11-6	10-0	2 x 6	SS	16-6	15-0	13-0	11-6	10-0		
	#1+	16-0	14-6	11-9	10-3	8-9		#1+	16-3	14-6	12-0	10-3	9-0		
	#1	15-3	13-3	10-9	9-3	8-0		#1	15-6	13-3	10-9	9-6	8-3		
	#2	14-6	12-6	10-3	8-9	7-9		#2	14-6	12-9	10-3	9-0	7-9		
	#3	11-0	9-6	7-9	6-9	5-9		#3	11-3	9-6	7-9	6-9	6-0		
2 x 8	SS	21-6	19-6	16-9	14-6	12-6	2 x 8	SS	21-9	19-9	17-0	14-9	12-9		
	#1+	21-0	18-3	15-0	13-0	11-3		#1+	21-6	18-6	15-0	13-0	11-6		
	#1	19-3	16-9	13-6	11-9	10-3		#1	19-6	17-0	13-9	12-0	10-6		
	#2	18-3	15-9	13-0	11-3	9-9		#2	18-6	16-0	13-0	11-3	9-9		
	#3	14-0	12-0	9-9	8-6	7-6		#3	14-3	12-3	10-0	8-6	7-6		
2 x 10	SS	27-6	25-0	20-6	17-9	15-6	2 x 10	SS	28-0	25-3	20-9	18-0	15-6		
	#1+	26-0	22-6	18-3	15-9	13-9		#1+	26-3	22-9	18-6	16-0	14-0		
	#1	23-6	20-6	16-9	14-6	12-6		#1	24-0	20-9	17-0	14-6	12-9		
	#2	22-6	19-6	15-9	13-9	12-0		#2	22-9	19-9	16-0	13-9	12-0		
	#3	17-0	14-9	12-0	10-6	9-0		#3	17-3	15-0	12-3	10-6	9-3		
SIZE		GRADE	RAFTER SPACING IN INCHES					SIZE		GRADE	RAFTER SPACING IN INCHES				
W x D	32		42	48	60	72	W x D	32	42		48	60	72		
4 x 4	SS	9-9	9-0	8-6	8-0	7-3	4 x 4	SS	10-0	9-3	8-9	8-0	7-6		
	#1+	9-9	8-9	8-0	7-3	6-6		#1+	9-9	8-9	8-3	7-3	6-9		
	#1	9-0	7-9	7-3	6-6	6-0		#1	9-3	8-0	7-6	6-9	6-0		
	#2	8-6	7-6	7-0	6-3	5-9		#2	8-9	7-6	7-0	6-3	5-9		
4 x 6	SS	15-6	14-3	13-3	11-9	10-9	4 x 6	SS	15-9	14-3	13-6	12-0	11-0		
	#1+	14-6	12-9	11-9	10-6	9-9		#1+	14-9	12-9	12-0	10-9	9-9		
	#1	13-3	11-6	10-9	9-9	8-9		#1	13-6	11-9	11-0	9-9	9-0		
	#2	12-6	11-0	10-3	9-3	8-3		#2	12-9	11-0	10-6	9-3	8-6		
4 x 8	SS	20-6	18-9	17-6	15-9	14-3	4 x 8	SS	21-0	19-0	17-9	15-9	14-6		
	#1+	19-3	16-9	15-9	14-0	12-9		#1+	19-6	17-0	15-9	14-3	13-0		
	#1	17-6	15-3	14-3	12-9	11-9		#1	17-9	15-6	14-6	13-0	11-9		
	#2	16-6	14-6	13-6	12-0	11-0		#2	16-9	14-9	13-9	12-3	11-3		
4 x 10	SS	26-3	23-0	21-6	19-3	17-6	4 x 10	SS	26-9	23-3	21-9	19-6	17-9		
	#1+	23-6	20-6	19-3	17-3	15-9		#1+	23-9	20-9	19-6	17-6	15-9		
	#1	21-6	18-9	17-6	15-9	14-3		#1	21-9	19-0	17-9	15-9	14-6		
	#2	20-6	17-9	16-9	14-9	13-6		#2	20-9	18-0	16-9	15-0	13-9		
SIZE		GRADE	RAFTER SPACING IN INCHES				SIZE		GRADE	RAFTER SPACING IN INCHES					
W x D	48		60	72	96	W x D	48	60		72	96				
6 x 6	SS	14-6	13-0	12-0	10-3	6 x 6	SS	14-9	13-3	12-0	10-6				
	#1	13-0	11-9	10-6	9-3		#1	13-3	11-9	10-9	9-3				
	#2	10-3	9-3	8-3	7-3		#2	10-6	9-3	8-6	7-3				
6 x 8	SS	20-0	17-9	16-3	14-0	6 x 8	SS	20-3	18-0	16-6	14-3				
	#1	17-9	16-0	14-6	12-6		#1	18-0	16-3	14-9	12-9				
	#2	14-0	12-6	11-6	10-0		#2	14-3	12-9	11-6	10-0				
6 x 10	SS	25-9	23-3	21-3	18-6	6 x 10	SS	26-3	23-9	21-6	18-9				
	#1	24-0	21-6	19-6	17-0		#1	24-3	21-9	19-9	17-3				
	#2	19-3	17-3	15-9	13-6		#2	19-6	17-6	16-0	13-9				
8 x 8	SS	22-6	20-9	19-0	16-6	8 x 8	SS	23-0	21-0	19-3	16-9				
	#1	20-9	18-9	17-0	14-9		#1	21-0	18-9	17-3	15-0				
	#2	16-6	14-9	13-6	11-6		#2	16-9	15-0	13-6	11-9				

**DIVISION OF BUILDING AND SAFETY
COUNTY OF VENTURA**

**B & S
STD B-30**

BUILDING OFFICIAL _____

Jim MacDonald

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