

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, not supporting ceiling finish.

Design Criteria: 20# LL + 15 DL =35# TL per sq. ft. and Deflection L/180 for LL (Roof Slopes less than 5:12).

19# LL + 15 DL =34# TL per sq. ft. and Deflection L/180 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 (35#/sf)						ROOF SLOPE 5:12 OR GREATER (34#/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	11-3	10-3	9-0	8-3	7-3	2	x 4	SS	11-6	10-6	9-3	8-3	7-3
		#1+	11-3	10-0	8-6	7-6	6-6			#1+	11-3	10-3	8-9	7-6	6-6
		#1	11-0	9-6	7-9	6-9	5-9			#1	11-0	9-9	8-0	6-9	6-0
		#2	10-6	9-0	7-6	6-6	5-6			#2	10-9	9-3	7-6	6-6	5-9
		#3	8-0	7-0	5-6	4-9	4-3			#3	8-0	7-0	5-9	5-0	4-3
2	x 6	SS	18-0	16-3	14-0	12-3	10-6	2	x 6	SS	18-3	16-6	14-3	12-3	10-9
		#1+	17-6	15-6	12-6	11-0	9-6			#1+	18-0	15-9	12-9	11-0	9-6
		#1	16-3	14-0	11-6	10-0	8-9			#1	16-6	14-3	11-9	10-0	8-9
		#2	15-6	13-3	11-0	9-6	8-3			#2	15-9	13-6	11-0	9-6	8-3
		#3	11-9	10-3	8-3	7-3	6-3			#3	12-0	10-3	8-6	7-3	6-3
2	x 8	SS	23-9	21-6	17-9	15-6	13-6	2	x 8	SS	24-0	21-9	18-3	15-9	13-9
		#1+	22-9	19-6	16-0	13-9	12-0			#1+	23-0	20-0	16-3	14-0	12-3
		#1	20-9	17-9	14-6	12-6	11-0			#1	21-0	18-3	14-9	12-9	11-3
		#2	19-6	17-0	13-9	12-0	10-6			#2	20-0	17-3	14-0	12-0	10-6
		#3	15-0	13-0	10-6	9-0	8-0			#3	15-3	13-0	10-9	9-3	8-0
2	x 10	SS	30-3	26-9	21-9	19-0	16-6	2	x 10	SS	30-9	27-3	22-3	19-3	16-9
		#1+	27-9	24-0	19-6	17-0	14-9			#1+	28-0	24-3	19-9	17-3	15-0
		#1	25-3	21-9	17-9	15-6	13-6			#1	25-9	22-3	18-0	15-9	13-9
		#2	24-0	20-9	17-0	14-6	12-9			#2	24-3	21-0	17-3	14-9	13-0
		#3	18-3	15-9	12-9	11-3	9-9			#3	18-6	16-0	13-0	11-3	9-9
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	10-9	10-0	9-6	8-9	7-9	4	x 4	SS	11-0	10-0	9-6	8-9	8-0
		#1+	10-6	9-3	8-9	7-9	7-0			#1+	10-9	9-3	8-9	7-9	7-0
		#1	9-9	8-6	7-9	7-0	6-6			#1	9-9	8-6	8-0	7-0	6-6
		#2	9-3	8-0	7-6	6-9	6-0			#2	9-3	8-0	7-6	6-9	6-3
4	x 6	SS	17-0	15-3	14-3	12-9	11-6	4	x 6	SS	17-6	15-6	14-6	12-9	11-9
		#1+	15-6	13-6	12-9	11-3	10-3			#1+	15-9	13-9	12-9	11-6	10-6
		#1	14-3	12-3	11-6	10-3	9-6			#1	14-6	12-6	11-9	10-6	9-6
		#2	13-6	11-9	11-0	9-9	9-0			#2	13-9	12-0	11-0	10-0	9-0
4	x 8	SS	22-6	20-0	18-9	16-9	15-3	4	x 8	SS	23-0	20-3	19-0	17-0	15-6
		#1+	20-6	18-0	16-9	15-0	13-9			#1+	20-9	18-3	17-0	15-3	13-9
		#1	18-9	16-3	15-3	13-9	12-6			#1	19-0	16-6	15-6	13-9	12-9
		#2	17-9	15-6	14-6	13-0	11-9			#2	18-0	15-9	14-9	13-3	12-0
4	x 10	SS	28-3	24-6	23-0	20-6	18-9	4	x 10	SS	28-6	25-0	23-3	20-9	19-0
		#1+	25-3	22-0	20-6	18-6	16-9			#1+	25-6	22-3	20-9	18-9	17-0
		#1	23-0	20-0	18-9	16-9	15-3			#1	23-3	20-3	19-0	17-0	15-6
		#2	21-9	19-0	17-9	16-0	14-6			#2	22-3	19-3	18-0	16-3	14-9
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	15-6	14-0	12-9	11-0	6	x 6	SS	15-9	14-3	13-0	11-3		
		#1	14-0	12-6	11-3	9-9			#1	14-3	12-9	11-6	10-0		
		#2	11-0	9-9	9-0	7-9			#2	11-3	10-0	9-0	7-9		
6	x 8	SS	21-3	19-0	17-6	15-0	6	x 8	SS	21-9	19-3	17-9	15-3		
		#1	19-0	17-0	15-6	13-6			#1	19-3	17-3	15-9	13-9		
		#2	15-0	13-6	12-3	10-6			#2	15-3	13-9	12-6	10-9		
6	x 10	SS	28-0	25-0	22-9	19-9	6	x 10	SS	28-3	25-3	23-3	20-0		
		#1	25-9	23-0	21-0	18-0			#1	26-0	23-3	21-3	18-3		
		#2	20-9	18-6	16-9	14-6			#2	21-0	18-9	17-0	14-9		
8	x 8	SS	24-9	22-3	20-3	17-6	8	x 8	SS	25-3	22-6	20-9	17-9		
		#1	22-3	20-0	18-3	15-9			#1	22-6	20-3	18-6	16-0		
		#2	17-6	15-9	14-3	12-6			#2	17-9	16-0	14-6	12-6		

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

**B & S
STD B-28**

BUILDING OFFICIAL _____

Jim MacDonald

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