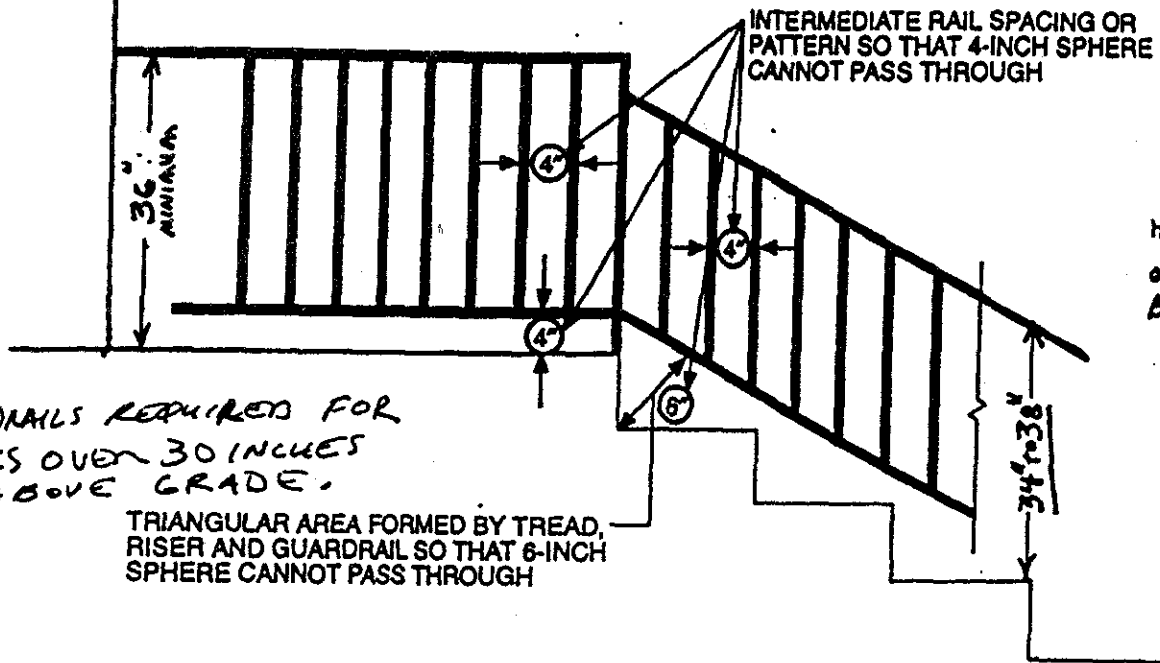


RESIDENTIAL REQUIREMENTS

GUARDRAILS, LANDINGS & STEPS. REQUIREMENTS



● GUARDRAILS REQUIRED FOR DECKS OVER 30 INCHES ABOVE GRADE.

TRIANGULAR AREA FORMED BY TREAD, RISER AND GUARDRAIL SO THAT 6-INCH SPHERE CANNOT PASS THROUGH

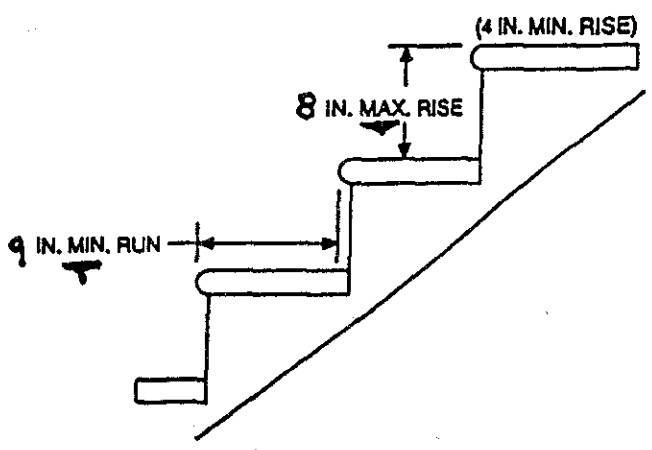
HANDGRIP PORTION OF RAIL SHALL BE 1 1/4" TO 2"

HANDRAIL

GUARDRAILS

● REQUIREMENTS WHEN YOU HAVE **FOUR** OR MORE STEPS.

RESIDENTIAL



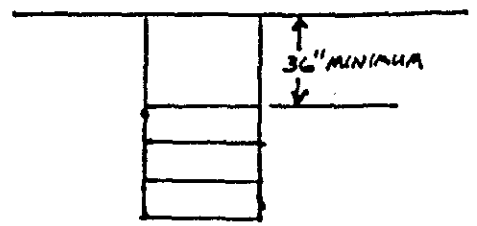
STEPS

RISE AND RUN
FIGURE 1003-17

(9" MINIMUM TREAD & 8" MAXIMUM RISE)

RESIDENTIAL

HOME



MINIMUM WIDTH IS THE WIDTH OF THE STAIRS AND/OR DOOR.

LANDING IS REQUIRED.

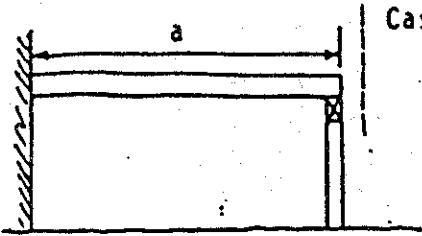
POST SPACING

JOIST LENGTH

Span	Joist Size	Joist Length													
		6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'			
4'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	1 - 2x6	1 - 2x8	1 - 2x8	1 - 2x10	1 - 2x8	1 - 2x10	1 - 2x8	1 - 2x10	1 - 2x12	1 - 2x10	1 - 2x12	1 - 2x12	1 - 2x12	
5'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	1 - 2x6	2 - 2x6	2 - 2x6	1 - 2x8	1 - 2x8	1 - 2x10	1 - 2x8	1 - 2x10	1 - 2x12	1 - 2x10	1 - 2x12	1 - 2x12	1 - 2x12	
6'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	2 - 2x6	2 - 2x6	2 - 2x6	1 - 2x8	1 - 2x8	1 - 2x10	2 - 2x8	2 - 2x10	2 - 2x12	2 - 2x10	2 - 2x12	2 - 2x12	2 - 2x12	
7'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	2 - 2x6	3 - 2x6	3 - 2x6	2 - 2x8	2 - 2x8	2 - 2x10	3 - 2x8	2 - 2x10	2 - 2x12	2 - 2x10	2 - 2x12	2 - 2x12	2 - 2x12	
8'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	3 - 2x6	3 - 2x6	3 - 2x6	3 - 2x8	3 - 2x8	3 - 2x10	3 - 2x8	3 - 2x10	3 - 2x12	3 - 2x10	3 - 2x12	3 - 2x12	3 - 2x12	
9'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	4 - 2x6	4 - 2x6	4 - 2x6	3 - 2x8	3 - 2x8	3 - 2x10	4 - 2x8	3 - 2x10	3 - 2x12	3 - 2x10	3 - 2x12	4 - 2x10	4 - 2x12	
10'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	4 - 2x6	3 - 2x8	3 - 2x8	3 - 2x8	4 - 2x8	4 - 2x8	4 - 2x8	3 - 2x10	3 - 2x12	3 - 2x10	3 - 2x12	4 - 2x10	4 - 2x12	
11'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	3 - 2x8	3 - 2x8	4 - 2x8	4 - 2x8	3 - 2x10	3 - 2x10	3 - 2x10	4 - 2x10	3 - 2x12	4 - 2x10	3 - 2x12	4 - 2x10	4 - 2x12	
12'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	3 - 2x8	4 - 2x8	4 - 2x8	3 - 2x10	3 - 2x10	3 - 2x12	4 - 2x10	4 - 2x10	3 - 2x12	3 - 2x12	3 - 2x12	3 - 2x12	3 - 2x12	
13'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	3 - 2x8	4 - 2x8	3 - 2x10	4 - 2x10	4 - 2x10	4 - 2x12	3 - 2x10	3 - 2x12	4 - 2x10	4 - 2x12	4 - 2x12	4 - 2x12	4 - 2x12	
14'	JOIST SIZE	2x6 24"OC	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 12"OC	2x10 12"OC	2x12 16"OC	2x12 16"OC	
	BEAM SIZE	4 - 2x8	3 - 2x10	4 - 2x10	4 - 2x10	4 - 2x10	3 - 2x12	4 - 2x10	4 - 2x12	4 - 2x12	4 - 2x12	4 - 2x12	4 - 2x12	4 - 2x12	

Based on the use of Ponderosa Pine No. 2 or better (reated for weather and/or ground exposure).

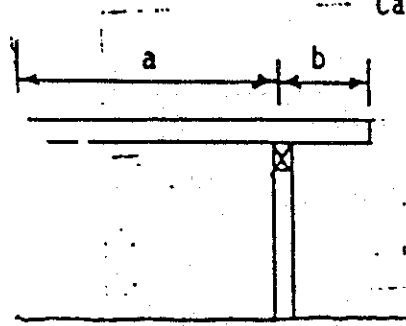
WOOD DECKS - SAMPLE CALCULATIONS FOR USING THE SPAN TABLE



Case I Solution: Refer to table for joist and beam sizes.

Example: $a = 12'$, Post Spacing = $8'$

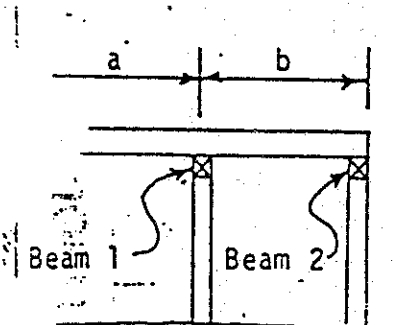
Refer to the span table. Joist size may be either 2x8's 12" O.C. or 2x10's 16" O.C. Beam size may be either 3-2x8's or 2-2x10's.



Case II Solution: Use "a" for joist size and "a" + "b" to determine beam size (The length of "b" is restricted by both the length of "a" and the size of the joists).

Example: $a = 8'$, $b = 2'$, Post Spacing = $10'$

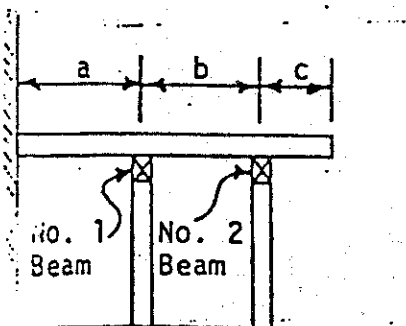
Find the joist size required by looking under 8' on the table. Joist length is indicated as 2x6's 16" O.C. or 2x8's 24" O.C. For sizing the beam, use a joist length of 10' ($8' + 2' = 10'$) and a post spacing of 10'. The table indicates that 4-2x8's or 3-2x10's are required for the beam.



Case III Solution: Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b" to determine the size of Beam No. 1 and use joist length "b" to determine the size of Beam No. 2.

Example: $a = 6'$, $b = 7'$, Post Spacing = $9'$

The joist length (7') is determined by the longest span joist ("b"). The table indicates that 2x6's 16" O.C. or 2x8's 24" O.C. are required for a 7' span. For Beam No. 1, use joist length of 13' ($6' + 7' = 13'$) and post spacing of 9'. The table indicates that 3-2x10's or 2-2x12's are required for Beam No. 1. For Beam No. 2 use joist length of 7' with a post spacing of 9'. The table indicates that 4-2x6's or 3-2x8's are required for Beam No. 2.



Case IV Solution: Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b" to determine the size of Beam No. 1 and "b" + "c" to determine the size of Beam No. 2. (The length of "c" is restricted by both the length of "b" and the size of the joist).

Example: $a = 7'$, $b = 8'$, $c = 2'$, Post Spacing = $12'$

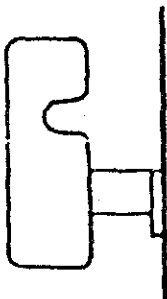
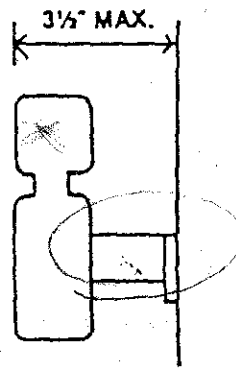
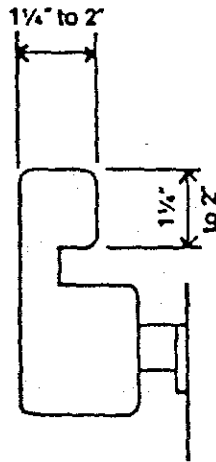
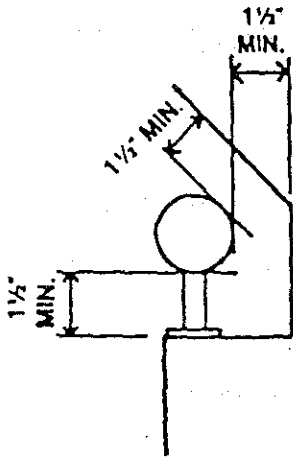
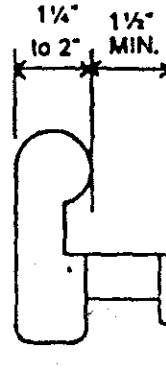
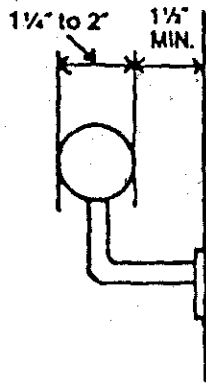
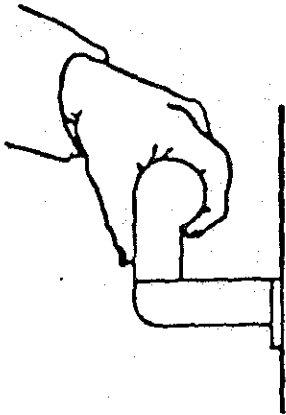
The longest joist span is 8'; therefore, the table indicates that 2x6's 16" O.C. or 2x8's 24" O.C. are required. For Beam No. 1, use joist length of 15' ($7' + 8' = 15'$) and post spacing of 12'. The table indicates that 3-2x12's are required for Beam No. 1. For Beam No. 2, use joist length of 10' ($8' + 2' = 10'$) and post spacing of 12'. The table indicates that 3-2x10's or 3-2x12's are required for Beam No. 2.

NOTES: Post size must be adequate to provide full beam bearing, i.e., one-member and two-member beams must be placed on a 4x4 post, three-member beams must be placed on 4x6 or 6x6 posts, and four-member beams must be placed on 8x8 posts.

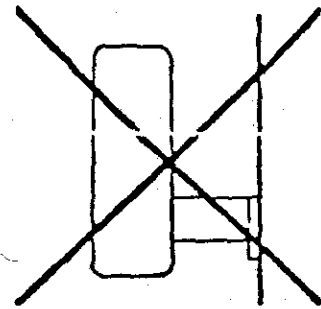
Most of the boxes in this table contain two optional means of support. Wood

ACCEPTABLE HANDRAIL DETAILS

~~(Section 3300 U)~~



NOTE:
OTHER SHAPES MAY BE ACCEPTABLE
IF THEY PROVIDE AN
EQUIVALENT GRIPPING SERVICE.
~~SEE THIRD PARAGRAPH OF~~
~~SECTION 3300 U.~~



NOT
ACCEPTABLE