



Town of Alpine

DECK AFFIDAVIT

Affidavits will not be approved if applicant has failed to submit all the requested information identified on the affidavit application; and/or has not paid all the required permitting fees.

Complete the affidavit in its entirety, if for any reason items on the affidavit are not completed, the Town of Alpine reserves the right to return the incomplete affidavit and a permit/approval will not be issued.

NO EXCEPTIONS WILL BE GIVEN!



Deck Affidavit Fees are: \$200.00

All fees are non-refundable and there is no waiver of fees.

Should you have any questions please contact the Town of Alpine at:

(307) 654-7757, extension #7

Email address: planning@alpinewy.gov



DECK AFFIDAVIT



Please complete this affidavit in its entirety

DATE:	
NAME:	
MAILING ADDRESS:	
CONTACT NUMBER:	
FAX NUMBER OR EMAIL ADDRESS:	
LEGAL DESCRIPTION FOR THE PROJECT:	
PHYSICAL ADDRESS FOR PROJECT:	
ZONING DISTRICT FOR PROJECT:	
TYPE OF DECK:	
SIZE OF DECK:	
HEIGHT OF DECK: (from ground level)	
NAME OF CONTRACTOR:	

(1) Site Plan: Is required with submission of the affidavit:

On a separate sheet give a detailed description of project; your site plan must include drawing of the proposed deck; (along with a drawing of the deck elevation); setback distances; property corners/line and measurements according to the surveyor's dimensions; location and dimensions of the proposed deck (as it relates to your property boundaries); location and dimensions of all buildings on property; elevations; detailed utilities & electrical plan connections to the structure (water, sewer, power, telephone, propane tank, etc.); detailed deck framing plan (identify landings and/or number of stairs etc., in addition to the guard and/or handrail details); dimensions of deck; building material use and application of material. Also specify how you will be attaching the deck to the permanent structure.

(2) Ownership/Deed:

Do you own the property upon which the proposed deck will be constructed?

_____Yes _____No

If you do not own the property, you must provide a letter from the property owner granting their consent or the property owner must sign this affidavit.

(3) Easements:

Are there any easements, electrical, telephone, road, canals, or ditches located in the area of your proposed deck?

_____Yes _____No

If yes, indicate the easement(s) on your site plan. *You are responsible for locating all easements located on your property prior to starting your project. If your project traverses any easement; you must provide a letter granting permission from the easement holder prior to obtaining the permit.

(4) Property Boundaries:

I/We have located the survey markings that correspond with this property.

_____Yes _____No

(5) Permit Conditions:

The approval of this affidavit shall constitute a Permit from the Town of Alpine, to build a deck as represented in this affidavit in accordance with any and all of the attachments provided by the applicant. Any material omissions, false representations, or inaccurate information used by the applicant to obtain this permit shall be reason to deny the affidavit. **Failure to provide information as requested shall be reason to deny the affidavit.**

Authorization/Statement of Verification

I/We hereby authorize the Town of Alpine, its agents or employees, the right of ingress-egress to and from the property described in this application for any and all purposes necessary to inspect and investigate the information and work conducted under this permit.

I/We shall construct the deck project as specified by the Town of Alpine and in accordance with the latest adopted version of the **International Residential Code (IRC)**, adopted by the Town of Alpine. I/We further acknowledge that it is our sole responsibility to research the appropriate regulations as related to our project and do not hold the Town of Alpine responsible for any material omissions of the Town of Alpine Land Use and Development Code regulations to this affidavit.

I/We represent that we have read and understand the terms of this affidavit. I/We further understand that any construction not in accordance with this affidavit will be subject to **immediate removal** and can be further be subjected to violations and/or penalties as imposed by the Town of Alpine.

I/We hereby certify, under penalty of perjury, that all the information provided is true and correct and we have paid the associated permit fees.

Signature of Property Owner

Date

Signature of Applicant
(If Different from Property Owner)

Date

{For Office Use}

Date Received:	
Received By: (Name & Position)	

Permit Number:	
Expiration Date:	

Permit Fees:	
Paid Fees: Check Number	

Town Building Official Review Date:	
Town Building Official Approval Date:	
Notes:	

Notification of Affidavit Approved By:	
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ANY ADDITIONAL NOTES:



Basic Guidelines for Residential Decks

The provided information are basic guidelines to assist you in building your deck. Nothing in the provided information should be construed as a substitute for the currently adopted version of the International Residential Code; for more specific requirements please reference the 2021 International Residential Code (IRC).

Railing:

- Guard rail required when the height of the deck is 30" or greater above grade, from a walking surface to a lower surface that is more than 36" out from below grade. (Refer to attached information sheets.)
- A 4" sphere/ball cannot fit between the spacing.
- Graspable handrail height must be between 34" and 38" (measured vertically from the sloped plane adjoining the tread nosing).
- Guard rail height must be at least 36" in height.

Steps:

- Hand railing is required on four (4) risers or more between grade and deck.
- Riser height maximum of 7 $\frac{3}{4}$ ".
- Tread depth - minimum of 10" with $\frac{3}{4}$ " - 1 $\frac{1}{4}$ " nosing (measured horizontally between vertical planes of treads leading edge).
- Tread depth minimum 11" without nosing.

Footings:

- Must be below the frost line (36") when attached to the primary structure.

If Attached to Structure:

- Ledgers must be bolted to the structure and including joist hangers; (See Attached Information Sheets.)

Setbacks:

<u>R1</u>		<u>R2</u>		<u>MRC</u>	
Front	-	25'	Front	-	25'
Side	-	15'	Side	-	15'
Rear	-	20'	Rear	-	20'

PROTECTION FROM FALLS

The IRC intends to protect occupants from fall injuries at prescribed locations considered hazardous by regulating the location, design and installation of guards and the height of window sills.

Guards

The IRC generally requires a minimum 36-inch-high guard as protection against falling from a walking surface to a lower surface that is more than 30 inches below. In determining where a guard is required, the vertical distance from the walking surface to the grade or floor below is measured to the lowest point within 36 inches horizontally from the edge of the open sided walking surface. The 36-inch horizontal measurement accounts for the increased hazard of a steep slope or sudden drop-off near a deck or porch. The minimum guard height is measured from the walking surface (Figure 8-14). At the sides of stairs, the minimum guard height is reduced to 34 inches to correlate with the minimum handrail height. The top rail of a stair guard often also serves as the stair handrail.

You Should Know

Wood deck guards

DCA 6—Prescriptive Residential Wood Deck Construction Guide

- Published by American Wood Council (AWC)
- Available at www.awc.org/codes-standards/publications/dca6
- Provides construction and connection details for wood deck guards
- Complies with the IRC
- Only one option
- Many other construction methods can be used. ●

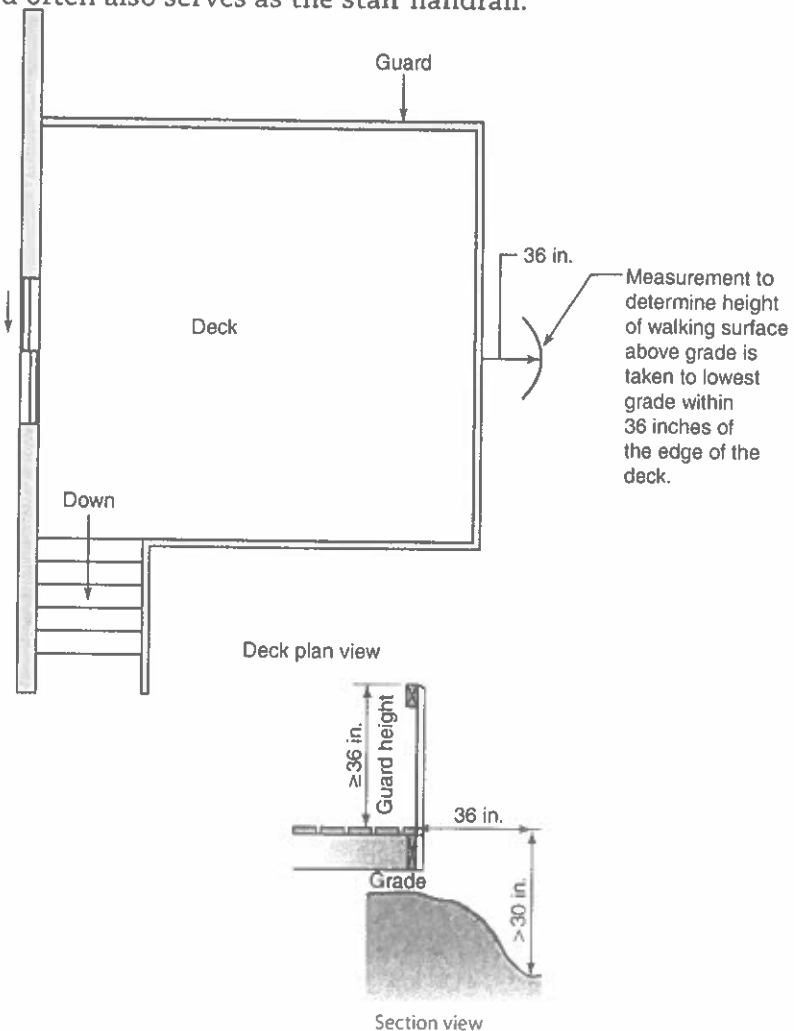


FIGURE 8-14 Determining when a guard is required at a deck

Guards also must be constructed in such a way that a 4-inch sphere will not pass through, a dimension determined after lengthy research to prevent small children from maneuvering through or becoming entrapped in such a barrier. The code grants two exceptions at the sides of stairs. The first increases the dimension to a 6-inch sphere at the triangle formed by the tread, riser, and bottom rail because of the impracticality of reducing the triangle and the negligible hazard. The second stipulates that a 4 $\frac{3}{8}$ -inch sphere cannot pass through a guard on the sides of stairs, a measurement that accommodates a practical wood spindle layout for staircases when building to the code-prescribed stair dimensions. Both exceptions are reasonable compromises, particularly when considered against the more common incidence of a child falling down the stair itself (Figure 8-15).

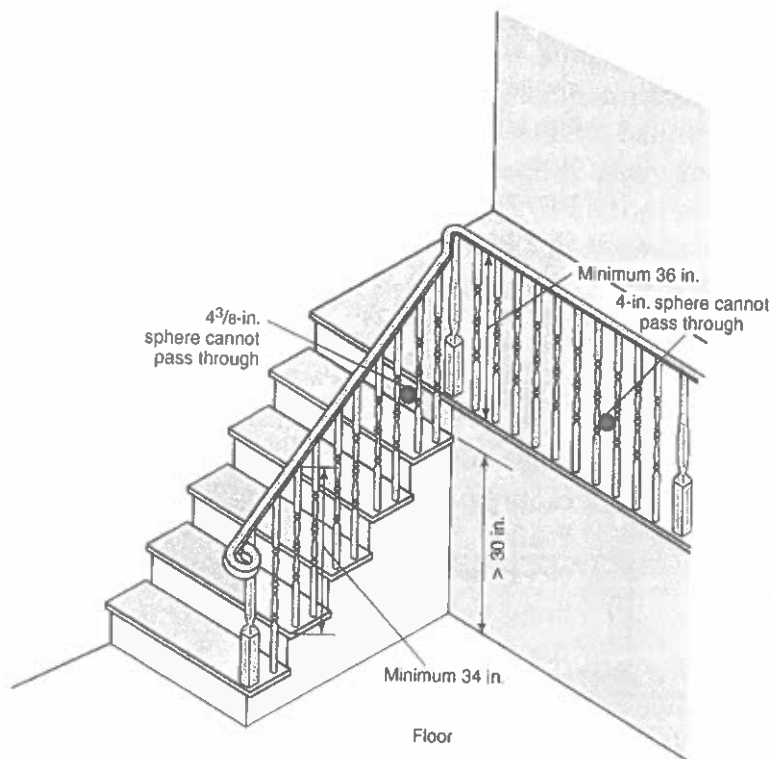
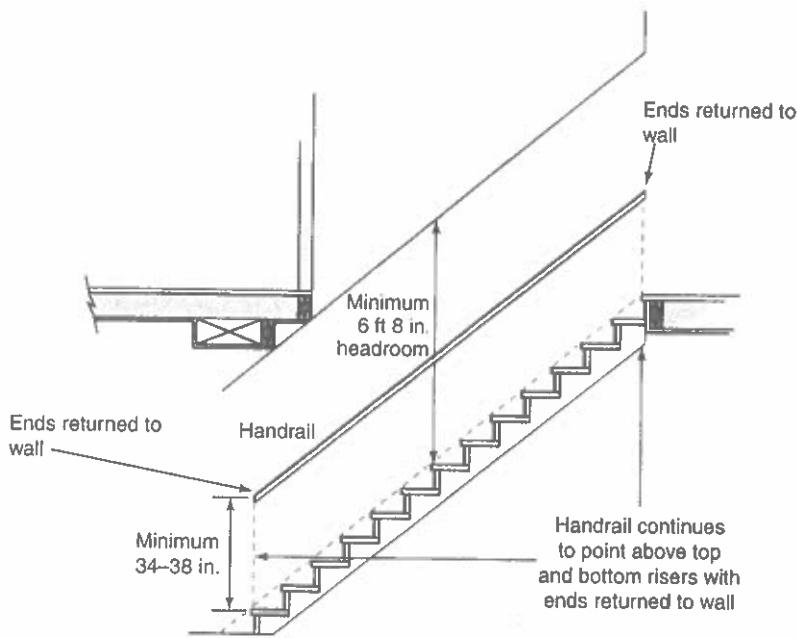


FIGURE 8-15 Guard at interior stair and landing open on one side

The height and allowable openings in guards are prescriptive requirements that are objectively measurable for compliance with the code. On the other hand, construction of a top rail to resist a single concentrated load of 200 pounds applied in any direction and the infill components to resist a 50-pound horizontal load applied to an area of 1 square foot are performance requirements. The adequacy of a guard or handrail to resist these loading requirements is not so easily measured or verified, though an experienced builder or inspector can fairly accurately gage the strength and stiffness of a guard or handrail assembly. For additional information on construction of guards, see the discussion of live loads in Chapter 4.

STEPS/STAIRS



Stairs

The code endeavors to improve stair safety and prevent injuries from falls by limiting the slope of the stair and by providing for minimum tread size, clearances, uniformity, and graspable handrails. The minimum 10-inch treads and maximum $7\frac{3}{4}$ -inch risers determine the maximum steepness of the stairway, but just as important in stair safety is the uniformity of those treads and risers for the full flight of the stair. As a person walks a stair, he or she anticipates that the next step will be the same as the previous one. Variations that are not visually apparent may break the user's rhythm or otherwise cause a misstep and fall (Figures 8-6 through 8-8). [Ref. R311.7]

FIGURE 8-6 Stairway headroom and handrail height

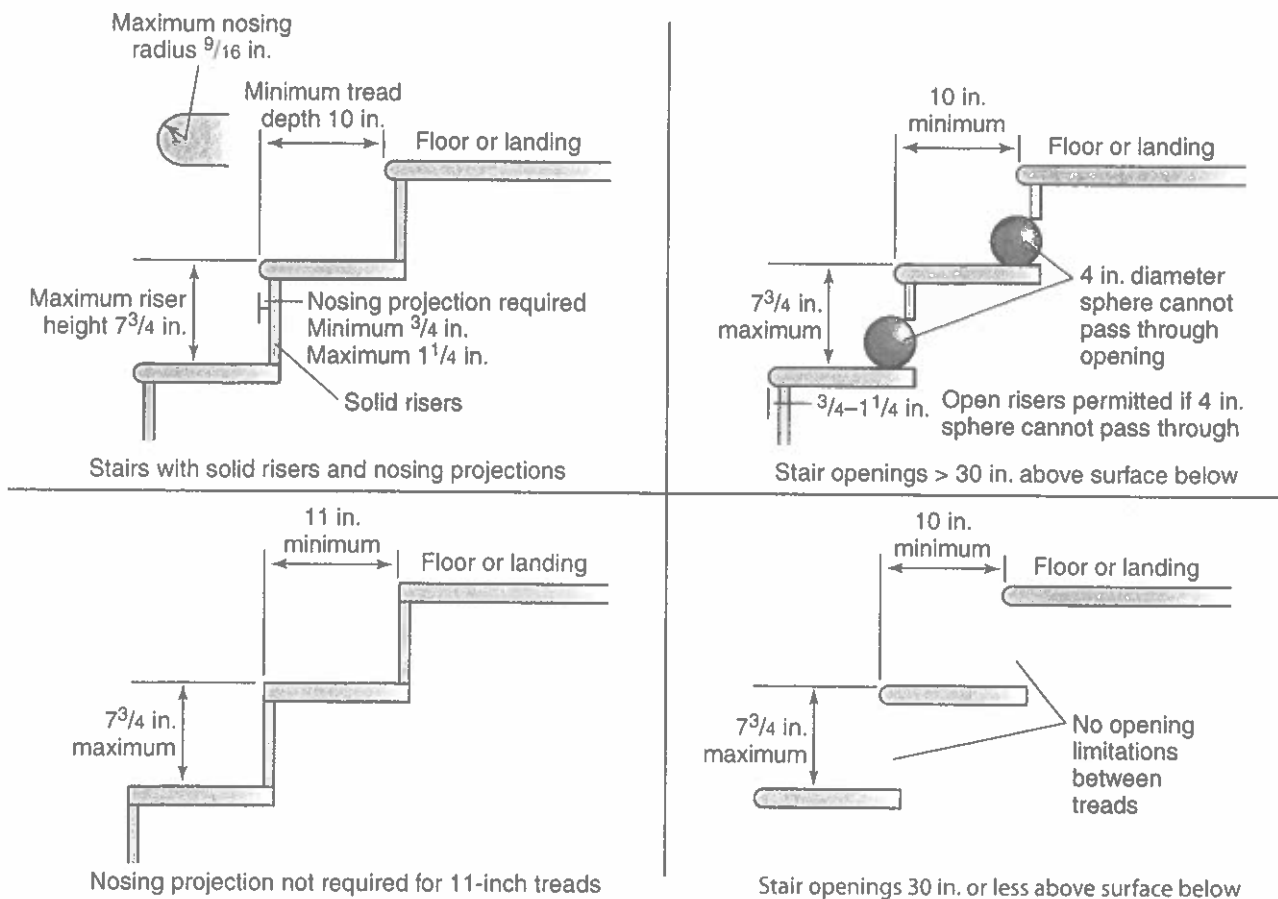


FIGURE 8-8 Stair profiles

DECKS

The IRC provides prescriptive methods for conventional wood deck construction that reflect widely accepted construction techniques in use over many decades. The provisions do not intend to limit design flexibility, and other approved methods may be used. Deck support provisions describe maximum joist and beam spans, appropriate joist spacing for the type of decking material, minimum post sizes, connections between beams and posts, and minimum bearing lengths. Details also are provided for attachment of the deck to the structure. Deck posts must be supported on footings and restrained at the bottom to prevent lateral movement. [Ref. R507]

Deck footings

The code prescribes the minimum size and depth of concrete deck footings based on the tributary area, snow or deck live load, and soil bearing pressure. The IRC Table provides prescriptive values for either square or round footings (Table 6-5 and Figure 6-18). See Figure 5-8 in Chapter 5 for more information on tributary loads. [Ref. R507.3]

EXAMPLE 6-3

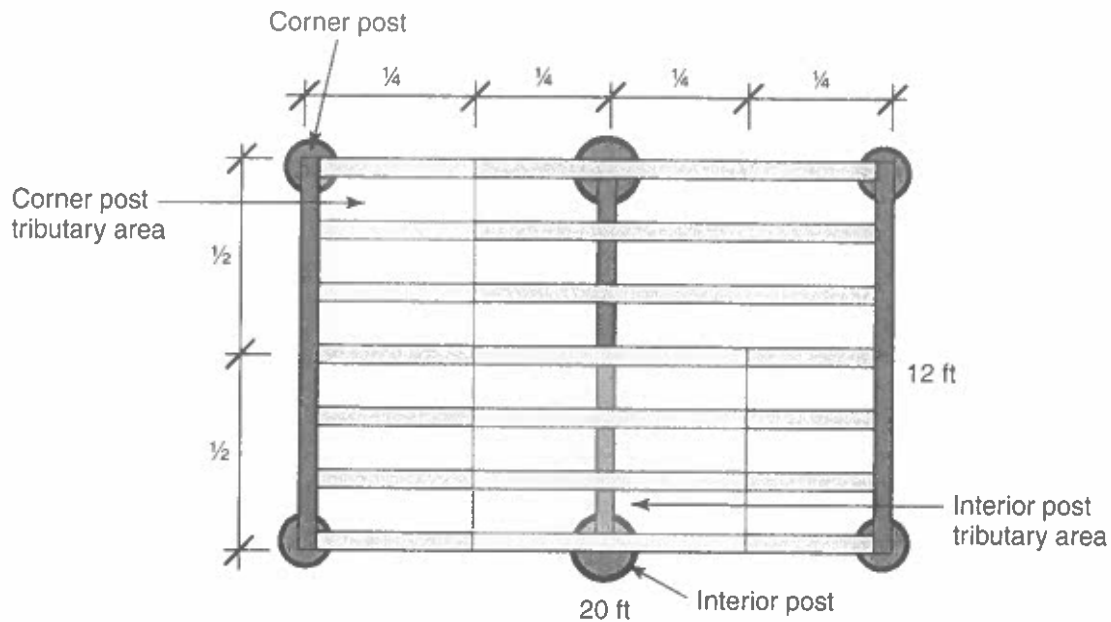
Determine the minimum round concrete footing size for the deck corner post and interior post of a 20-foot × 12-foot free-standing deck based on Table 6-5 and Figure 6-18. The live load is 40 psf and exceeds the snow load. The presumed soil bearing pressure is 2000 psf.

TABLE 6-5 Minimum concrete footing size for decks

Live or Ground Snow Load (psf)	Tributary area (ft ²)	Load Bearing Value of Soil (psf)					
		1500			2000		
		Side of a square footing (in)	Diameter of a round footing (in)	Thickness (in)	Side of a square footing (in)	Diameter of a round footing (in)	Thickness (in)
40	20	12	14	6	12	14	6
	40	14	16	6	12	14	6
	60	17	19	6	15	17	6
	80	20	22	7	17	19	6
	100	22	25	8	19	21	6
	120	24	27	9	21	23	7
	140	26	29	10	22	25	8
	160	28	31	11	24	27	9

[Ref. Excerpt of Table R507.3.1]

Spans are given in feet and inches.

**Tributary area – Corner post**

Length is $\frac{1}{4}$ of total length = $20 \text{ ft} \times \frac{1}{4} = 5 \text{ ft}$

Width is $\frac{1}{2}$ of total width = $12 \text{ ft} \times \frac{1}{2} = 6 \text{ ft}$

Area = $5 \text{ ft} \times 6 \text{ ft} = 30 \text{ ft}^2$

Tributary area – Interior post

Length is $\frac{1}{2}$ of total length = $20 \text{ ft} \times \frac{1}{2} = 10 \text{ ft}$

Width is $\frac{1}{2}$ of total width = $12 \text{ ft} \times \frac{1}{2} = 6 \text{ ft}$

Area = $10 \text{ ft} \times 6 \text{ ft} = 60 \text{ ft}^2$

Footing size – Corner post

Min. 14 in. diameter

Min. 6 in. thick

Footing size – Interior post

Min. 17 in. diameter

Min. 6 in. thick

FIGURE 6-18 Determining concrete footing size based on deck tributary area and Table 6-5

Deck joists and beams

The joist and beam span values in Tables 6-6 and 6-7 assume outdoor, potentially wet conditions and include wood species such as redwood, western cedars, ponderosa pine and red pine that are commonly used in deck construction. Minimum bearing lengths match those for interior floor joists and beams: $1\frac{1}{2}$ inches on wood or metal and 3 inches on concrete or masonry.

Joists framing into the side of a ledger board or beam require joist hangers (Figure 6-19). [Ref. R507.5, R507.6, Table R507.5, Table R507.6]

TABLE 6-6 Deck joist spans (feet – inches)

Species	Size	Allowable joist span			Maximum cantilever		
		Spacing of deck joists with no cantilever (in.)			Spacing of deck joists with cantilevers (in.)		
		12	16	24	12	16	24
Southern pine	2 x 6	9-11	9-0	7-7	1-3	1-4	1-6
	2 x 8	13-1	11-10	9-8	2-1	2-3	2-5
	2 x 10	16-2	14-0	11-5	3-4	3-6	2-10
	2 x 12	18-0	16-6	13-6	4-6	4-2	3-4
Douglas fir-larch, hem-fir, spruce-pine-fir	2 x 6	9-6	8-8	7-2	1-2	1-3	1-5
	2 x 8	12-6	11-1	9-1	1-11	2-1	2-3
	2 x 10	15-8	13-7	11-1	3-1	3-5	2-9
	2 x 12	18-0	15-9	12-10	4-6	3-11	3-3
Redwood, western cedars, ponderosa pine, red pine	2 x 6	8-10	8-0	7-0	1-0	1-1	1-2
	2 x 8	11-8	10-7	8-8	1-8	1-10	2-0
	2 x 10	14-11	13-0	10-7	2-8	2-10	2-8
	2 x 12	17-5	15-1	12-4	3-10	3-9	3-1

[Ref. excerpt of Table R507.6]

Note: Spans based on No. 2 grade lumber with wet service factor.

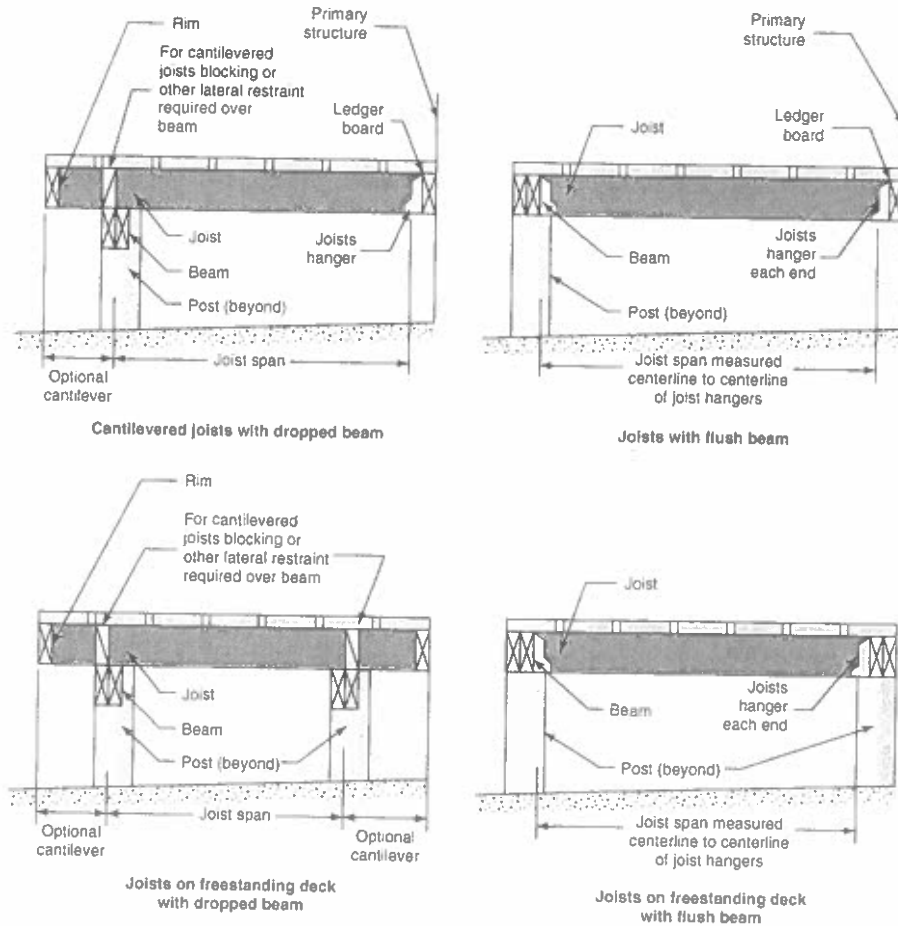


FIGURE 6-19 Typical deck joist span and supports

TABLE 6-7 Deck beam spans (feet - inches)

Species	Size	Deck joist span (ft.)				
		8	10	12	14	16
Southern pine	2-2x8	7-7	6-9	6-2	5-9	5-4
	2-2x10	9-0	8-0	7-4	6-9	6-4
	2-2x12	10-7	9-5	8-7	8-0	7-6
	3-2x8	9-6	8-6	7-9	7-2	6-8
	3-2x10	11-3	10-0	9-2	8-6	7-11
	3-2x12	13-3	11-10	10-9	10-0	9-4
Douglas fir-larch, hem-fir, spruce-pine-fir, redwood, western cedars, ponderosa pine, red pine	2-2x8	5-11	5-4	4-10	4-6	4-1
	2-2x10	7-3	6-6	5-11	5-6	5-1
	2-2x12	8-5	7-6	6-10	6-4	5-11
	3-2x8	8-6	7-7	6-11	6-5	6-0
	3-2x10	10-5	9-4	8-6	7-10	7-4
	3-2x12	12-1	10-9	9-10	9-1	8-6

[Ref. excerpt of Table R507.5]

Note: Spans based on No. 2 grade lumber with wet service factor

Deck posts

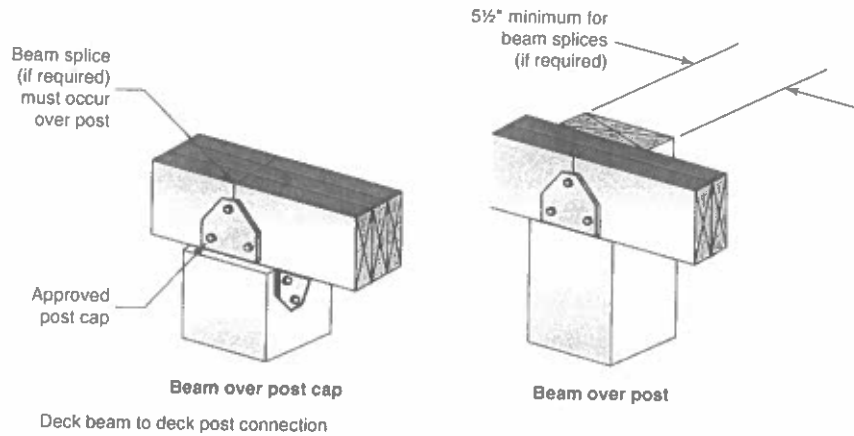
Provisions for sizing wood deck posts are limited to single-level decks and are based on the height of the post measured to the bottom of the beam. The code prescribes either a notched post with two through-bolts or a manufactured post cap for connecting the post to the beam. In the case of a notched post, the post must be at least a 4 × 6 or 6 × 6 to provide a minimum cross section of 5½ inches for notching (Table 6-8, Figure 6-20). A manufactured connector is required for the post connection to the footing unless the post is embedded at least 12 inches in the ground or concrete pier. [Ref. R507.4, R507.5, Table R507.4]

TABLE 6-8 Deck post size and height for single-level wood-framed decks

Deck post size	Maximum height*(ft.)	Notes
4 × 4	8	When supporting one-ply or two-ply beams
4 × 4	6-9	When supporting three-ply beams on a post cap
4 × 6	8	
6 × 6	14	
8 × 8	14	

[Ref. Table R507.4]

*Measured to the underside of the beam



Deck beam to deck post connection

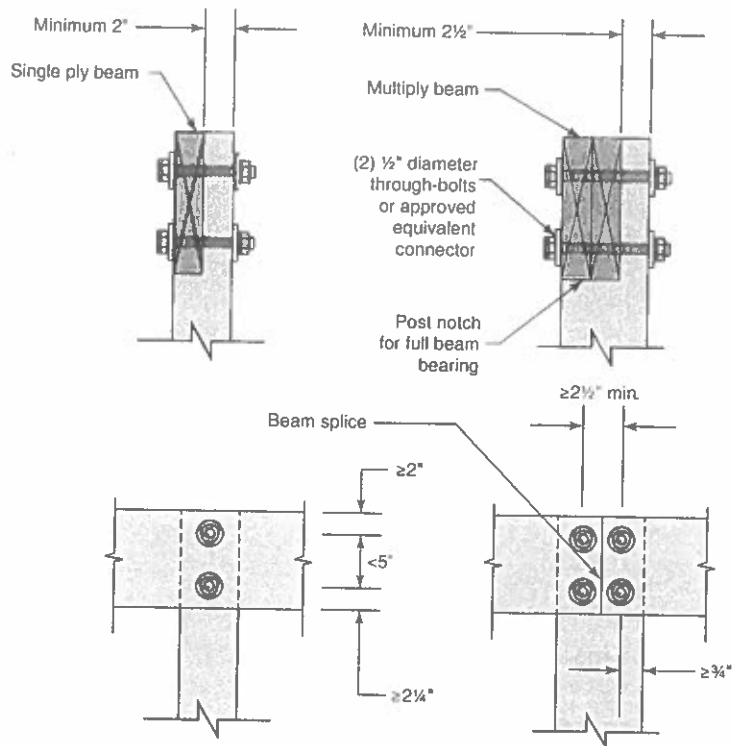


FIGURE 6-20 Connection of deck posts to deck beam

Deck attachment

The prescriptive methods for deck attachment apply to a minimum 2 by 8 deck ledger connected to a 2-inch nominal solid-sawn lumber band joist or a minimum 1-inch by 9½-inch Douglas fir laminated veneer lumber (LVL) rim board. Attachment to other structural composite lumber band joists requires a design in accordance with accepted engineering practice. Fasteners must be minimum ½-inch diameter hot-dipped galvanized or stainless steel lag screws or bolts installed with washers of the same material. The maximum spacing is based on the deck joist span. The code requires a staggered fastener pattern with the bolts or lag screws located not less than 2 inches from the top edge and not less than ¾ inch from the bottom edge

You Should Know

Wood deck reference:
DCA 6—Prescriptive Residential Wood Deck Construction Guide

- Published by American Wood Council (AWC)
- Available at www.awc.org/codes-standards/publications/dca6
- Includes foundation details
- Provides construction and connection details
- Meets or exceeds IRC requirements
- Other construction methods can be used •

of the deck ledger and from 2 to 5 inches from the end of the ledger (Table 6-9 and Figure 6-21). Other methods may still be used, and often are, to provide equivalent connection capacities, as long as the method is approved by the building official. For example, proprietary fasteners are commonly installed following the manufacturer's instructions and based on equivalent capacities. [Ref. R507.9]

TABLE 6-9 Fastener spacing for a southern pine or hem-fir deck ledger and a 2-inch nominal solid-sawn spruce-pine-fir band joist (deck live load = 40 psf, deck dead load = 10 psf)

Joist span	6'-0"	6'-1"	8'-1"	10'-1"	12'-1"	14'-1"	16'-1"
	and less	to 8'-0"	to 10'-0"	to 12'-0"	to 14'-0"	to 16'-0"	to 18'-0"
Connection details	On-center spacing of fasteners						
1/2" diameter lag screw with 1/2" maximum WSP sheathing	30	23	18	15	13	11	10
1/2" diameter bolt with 1/2" maximum WSP sheathing	36	36	34	29	24	21	19
1/2" diameter bolt with 1" maximum sheathing	36	36	29	24	21	18	16

[Ref. Table R507.9.1.3(1)]

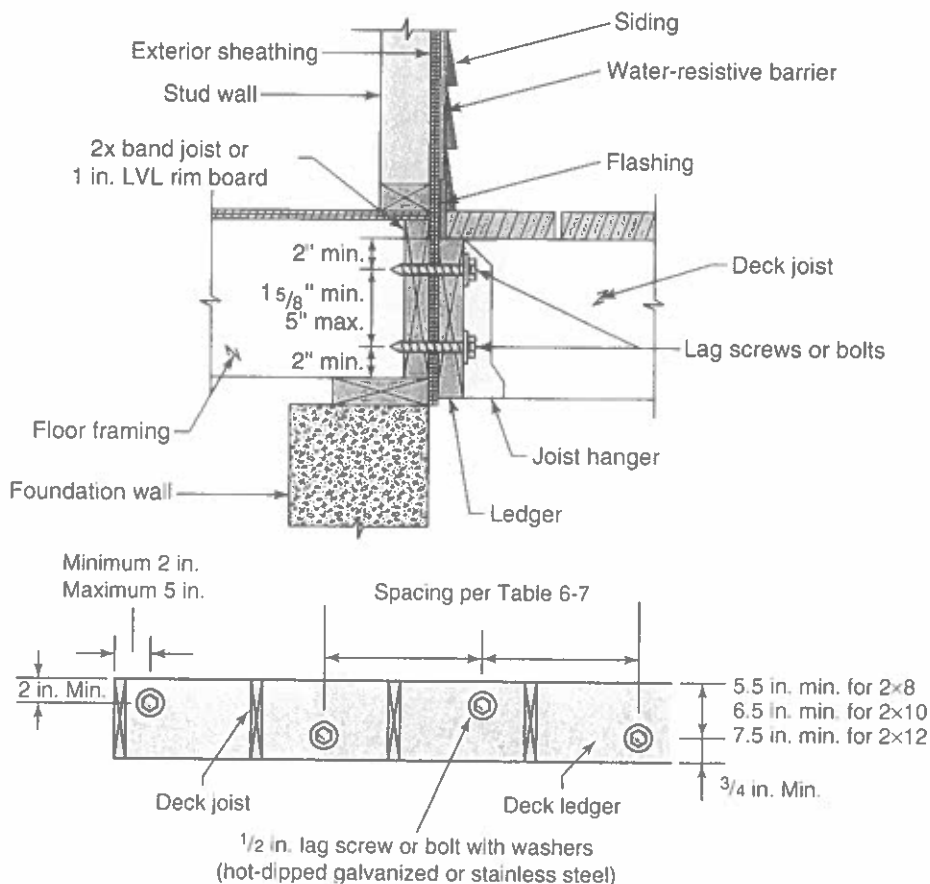


FIGURE 6-21 Deck ledger connection to band joist