



Decks

The construction of a deck requires a permit prior to starting construction.

Permit Office

Mon-Fri
8 a.m. -5 p.m.

1840 Simon Kenton Way
Suite 3400
Covington, KY 41011

859-957-2408

Main:
859-331-8980

Fax:
859-331-8987

Website:
www.pdskc.org

Applications for a Deck Permit require the following:

1. A completed Zoning/Building Permit [application](#) & associated fee

2. Required information for contractor:

- a. An affidavit of assurances, pursuant to KRS 198B.060(10)
- b. Occupational license number for the city/county work is being performed
- c. Proof of Kentucky Workers Compensation coverage & liability insurance

3. One set of construction drawings including site plan:

Construction drawings including:

- a. Size of deck(s)
- b. Footing information (show size and indicate depth below grade-frost line is 30")
- c. Decking span or joist spacing
- d. Joist span or beam spacing
- e. Beam span or post spacing
- f. Joist, column, beam, and decking size(s)
- g. Spacing, size, and number of anchors for attachment to building
- h. Guardrails required if deck is greater than 30 inches above finished grade at any point-guardrails to be a minimum of 36 inches high
- i. All lumber to be pressure treated
- j. Lumber size, type, and grade

If applicable, the following items must be shown:

- Stair riser height shall be a maximum of 8.25 inches and tread depth shall be a minimum of 9 inches
- The greatest riser height within any flights of steps (stairs) shall not exceed the smallest by more than 3/8 inch
- Handrails shall be a minimum of 34 inches and a maximum of 38 inches
- All handrail grip portions shall not exceed 2'-5/8" in cross sectional dimension
- All handrails shall be continuous without interruption for the entire length of stairways and ends shall be returned to a wall or post
- Intermediate rails of guardrails on any deck, landing, or stair shall be spaced such that a four inch sphere will not pass through.

Site plan indicating:

- a. Location of all existing and proposed easements
- b. Identification of any street adjacent to the property
- c. Proposed or existing septic tank, leach field, or other septic system shall be shown to scale
- d. Property lines with bearing and dimensions
- e. Location of existing and proposed building(s) and uses. The distance from the existing and proposed building to the front and/or right of way lines, side and rear lines
- f. Location of driveway, sidewalks, and other off street parking areas as well as type of surfacing used
- g. Provisions for erosion control, hillside slippage, and sedimentation indicating the temporary and permanent control practices and measures which will be implemented during all phases of clearing, grading, and construction
- h. Water drainage and grading lines
- i. The existing and proposed topography, shown by contours with intervals not to exceed five feet.

Required information can be emailed to permits@pdskc.org in PDF format. After receipt of permit paperwork our office will contact you for credit card payment



Standard Drawings and Applications For Residential Deck Construction

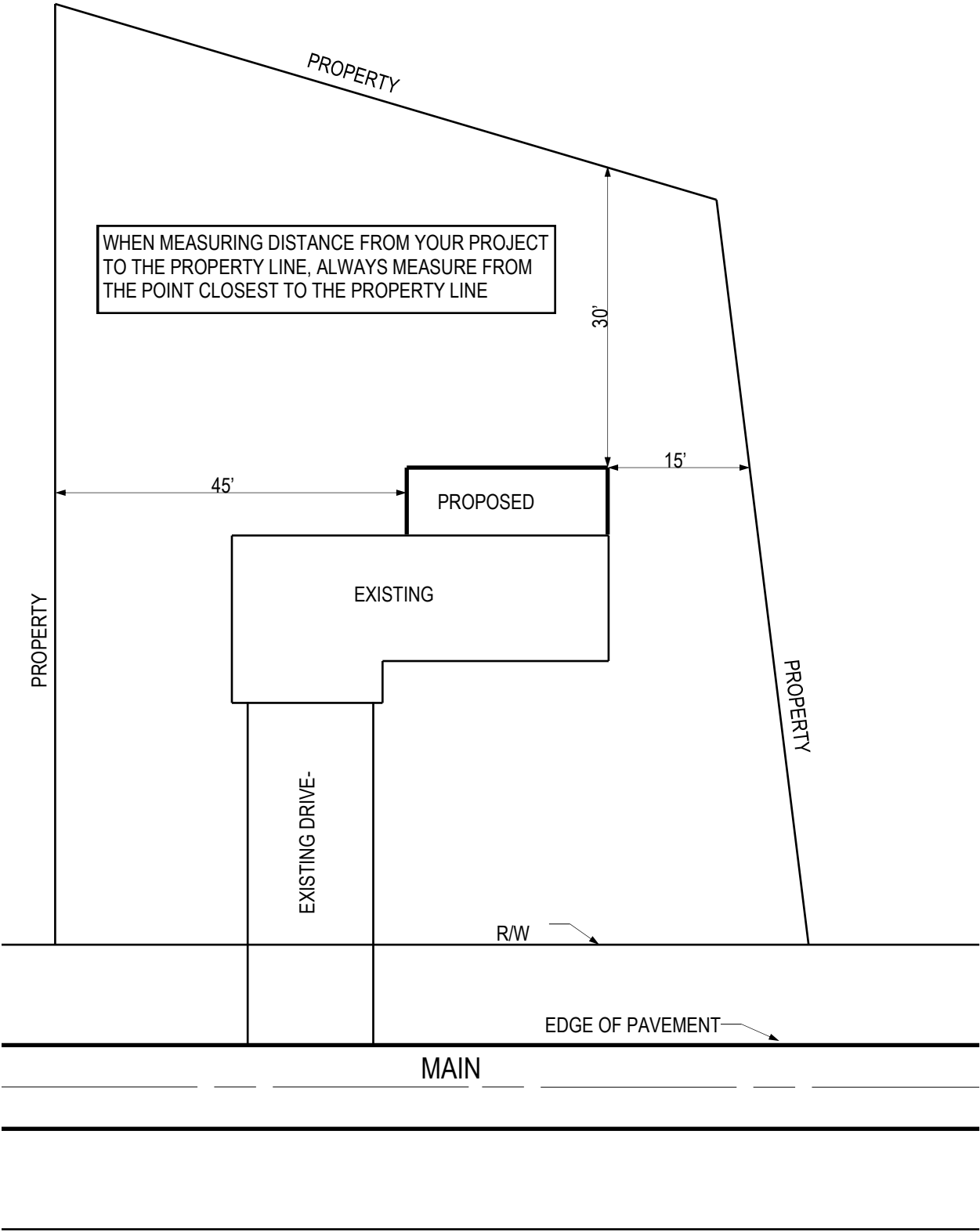
From the Kentucky Residential Code
As enforced by Planning and Development Services of Kenton County

*NOTE:
FASTENERS (SCREWS, NAILS, BOLTS, HANGERS ETC.) FOR PRESSURE TREATED WOOD
MUST BE OF THE FOLLOWING: HOT DIPPED GALVANIZED STEEL, STAINLESS STEEL, OR AS
APPROVED BY THE MANUFACTURER'S REQUIREMENTS.*

No permit is required for decks that meet ALL the criteria listed below:

1. Less than 200 square feet
2. Less than 30 inches above grade
3. Not attached to the house or primary structure
4. Does not serve the required means of egress.

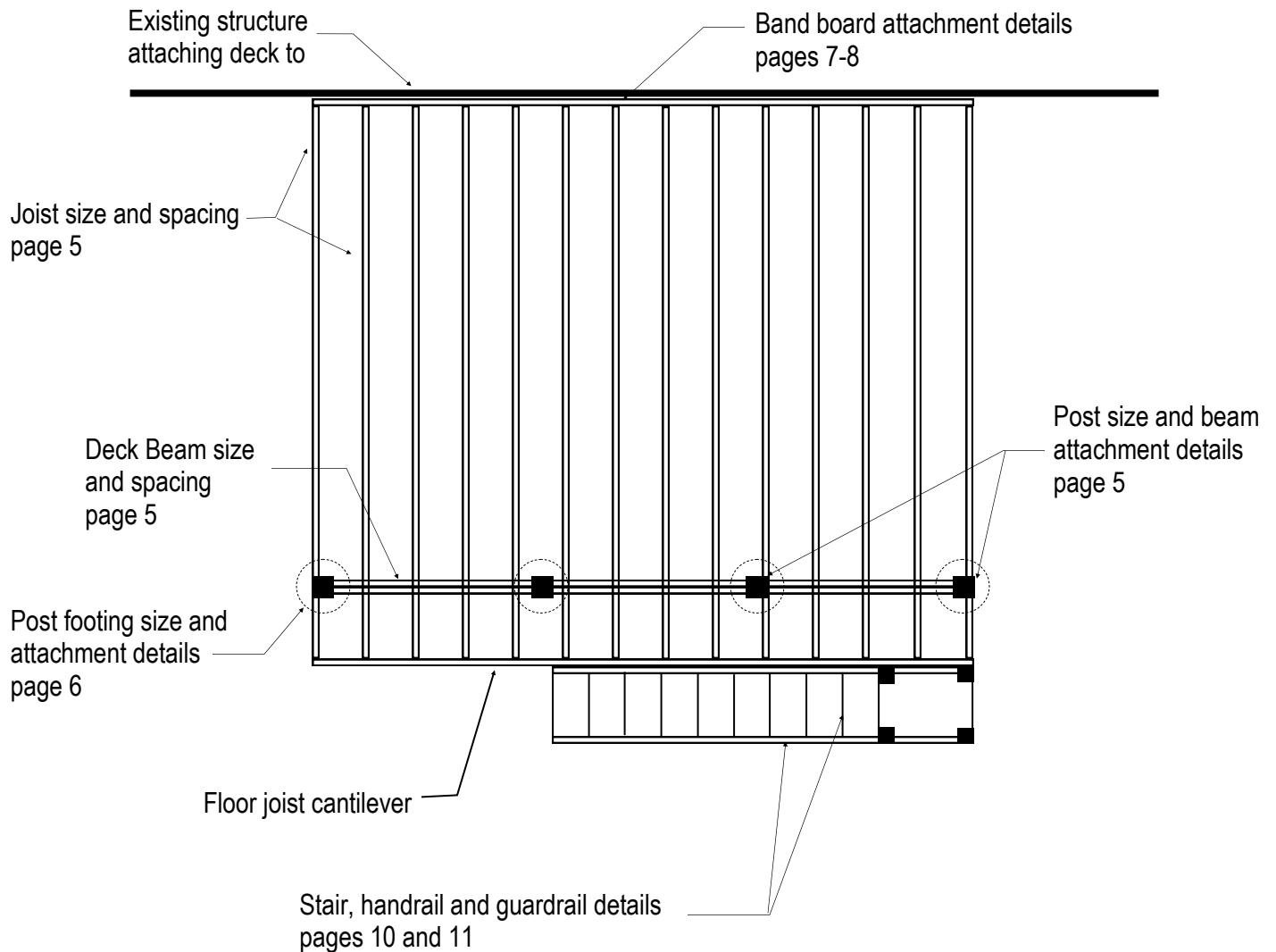
SITE PLAN



Deck Plan Requirements

Your deck plans must provide the information shown below.
Use the page references to find the requirements for each item.

Deck ledgers shall not be supported on stone or masonry veneer unless specifically designed by a design professional, or supported by an approved listed and labeled fastening method.



If you plan to attach your deck ledger to brick



You can NOT support a deck by attaching it to brick veneer, even if it is bolted through the brick and fastened to the house band board or floor joists, unless specifically designed by a design professional, or supported by an approved listed and labeled fastening method.

What will the deck ledger board be attached to/supported by: _____

Ex: wood frame structure with vinyl siding or concrete foundation wall

Fastener type used to attach ledger to structure: Lag Screw, Bolt or Other _____

Note: Lag Screws cannot span as far as Bolts

Fastener Diameter _____ Fastener Length _____ Fastener Spacing _____

Floor Joist size, span and spacing _____ Floor Joist Cantilever (extension past beam): _____

Beam Size (example 2-2 x 10) _____ Beam Span (between posts): _____ Post Size _____

Post Height _____ Post Footing Diameter _____ Footing Depth below grade _____

Min. depth 30"

Will this deck have a hot tub or any other special feature: _____ If so please provide documentation stating the design

will support all loads imposed by a fully loaded hot tub or special feature.

I have read this document in its entirety and agree to construct this deck according to these specifications

_____ Title: _____

MAXIMUM JOIST SPACING BASED ON DECKING MATERIAL TYPE AND THICKNESS		
Material Type and Nominal Size	Maximum On-Center Joist Spacing	
	Perpendicular To Joist	Diagonal To Joist
1 1/4 inch thick wood	16 inches	12 inches
2 inch thick wood	24 inches	16 inches
Plastic composite	In accordance with section R 507.3	In accordance with section R 507.3

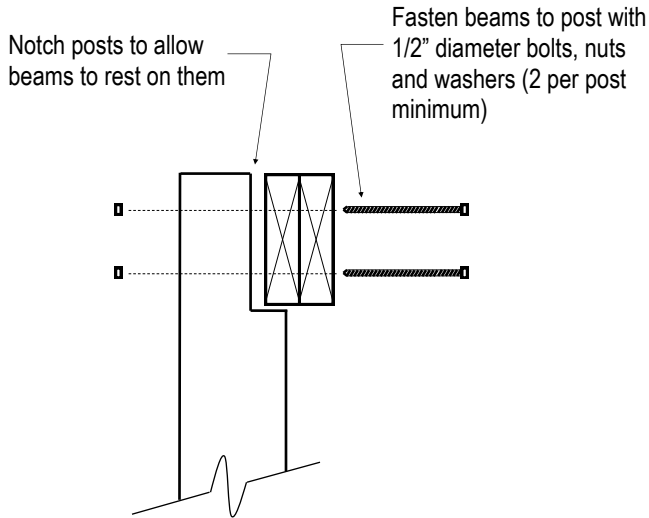
R 507.3 Plastic composite exterior deck boards, stair treads, guards and handrails shall comply with the requirements of ASTM D 7032 and the requirements of Section 507.3. Plastic composites shall bear a label that indicates compliance to ASTM D 7032 and include the allowable load and maximum allowable span determined in accordance with ASTM D 7032. Such labels shall also bear information regarding flame spread index, decay resistance and termite resistance.

DECK JOIST SPANS FOR SOUTHERN PINE						
Size	Spacing Of Deck Joists With No Cantilever			Spacing Of Deck Joists With Cantilevers		
	12	16	24	12	16	24
2 x 6	9-11	9-0	7-7	6-8	6-8	6-8
2 x 8	13-1	11-10	9-8	10-1	10-1	9-8
2 x 10	16-2	14-0	11-5	14-6	14-0	11-5
2 x 12	18-0	16-6	13-6	18-0	16-6	13-6

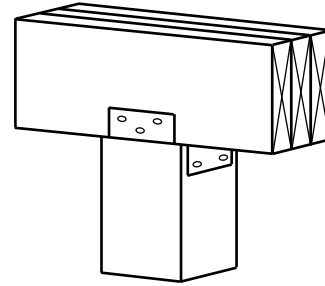
DECK BEAM SPAN LENGTHS <small>ft-in</small>								
Species	Beam Size	Deck Joist Span Less Than Or Equal To:						
		6'	8'	10'	12'	14'	16'	18'
Southern Pine	2- 2 x 6	6-11	5-11	5-4	4-10	4-6	4-3	4-0
	2- 2 x 8	8-9	7-7	6-9	6-2	5-9	5-4	5-0
	2- 2 x 10	10-4	9-0	8-0	7-4	6-9	6-4	6-0
	2- 2 x 12	12-2	10-7	9-5	8-7	8-0	7-6	7-0
	3- 2 x 6	8-2	7-5	6-8	6-1	5-8	5-3	5-0
	3- 2 x 8	10-10	9-6	8-6	7-9	7-2	6-8	6-4
	3- 2 x 10	13-0	11-3	10-0	9-2	8-6	7-11	7-6
	3- 2 x 12	15-3	13-3	11-10	10-9	10-0	9-4	8-10

DECK POST HEIGHT	
Deck Post Size	Maximum Height (underside of beam)
4 x 4	8'
4 x 6	8'
6 x 6	14'

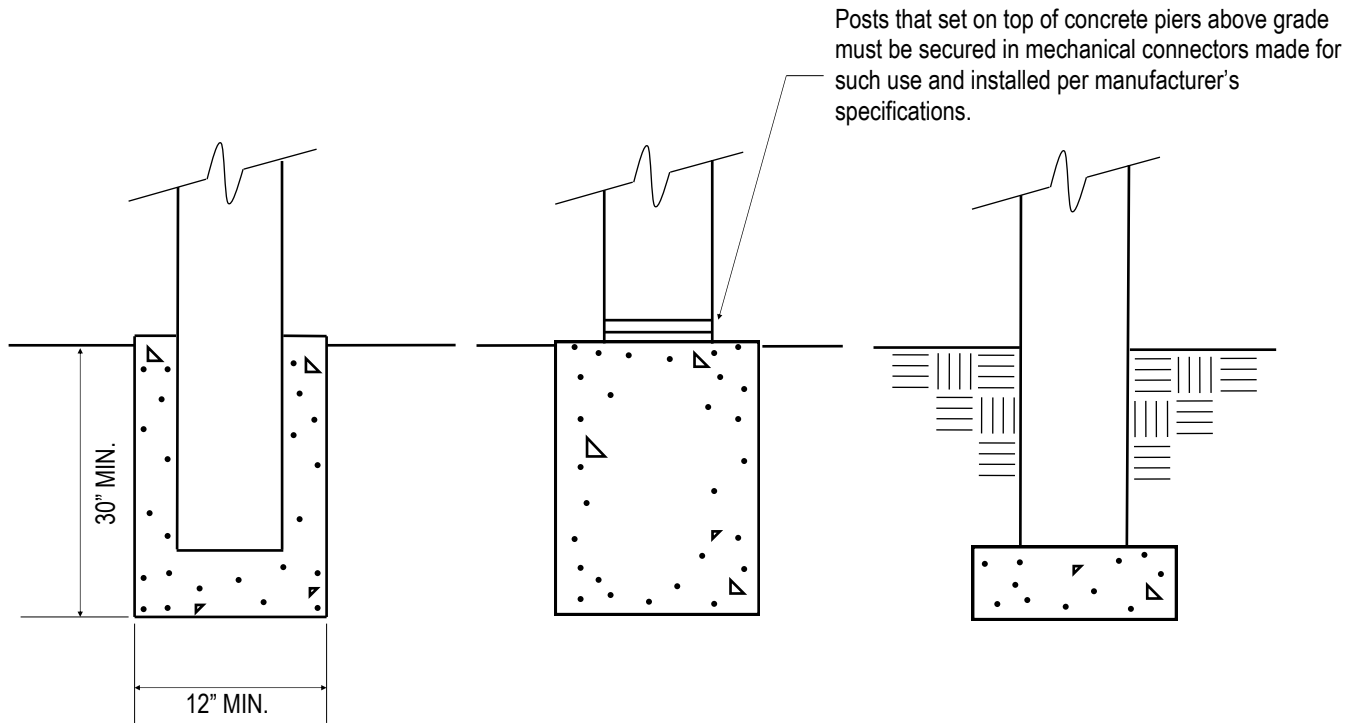
POST-BEAM DETAILS



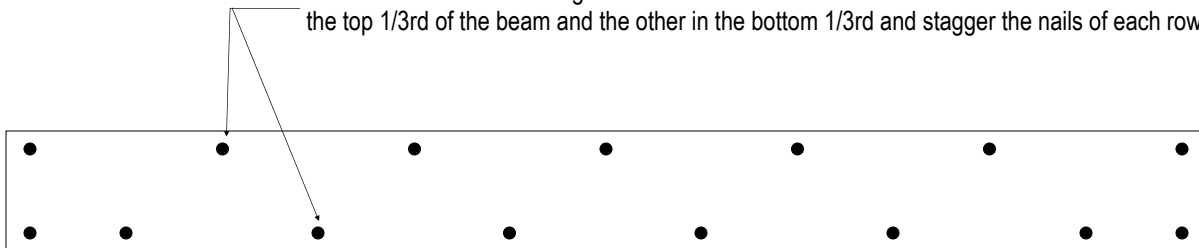
Deck beams that are not notched into posts must be secured by other means capable of resisting lateral displacement. Manufactured post to beam connectors shall be sized for the post and beam sizes.



POST FOOTING DETAILS



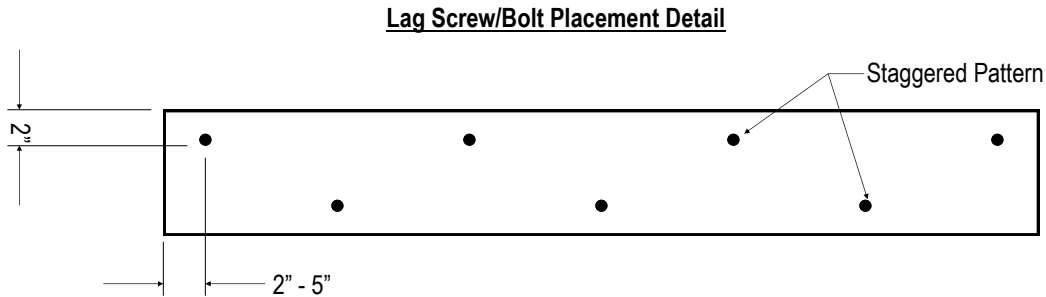
Beams must be fastened together with two rows of 10d nails at 32" on center. Place one row in the top 1/3rd of the beam and the other in the bottom 1/3rd and stagger the nails of each row.



Placement of Lag Screws and Bolts in Ledgers

R507.1 Exterior Decks. Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self-supporting. For decks with cantilevered framing members connections to exterior walls or other framing members shall be designed and constructed to resist uplift resulting from the full live load acting on the cantilevered portion of the deck.

R507.2.1 Ledger Details. Deck ledgers shall be a minimum 2 x 8 nominal, pressure treated, or approved naturally durable No. 2 grade or better lumber. Deck ledgers shall not support concentrated loads from beams or girders. Deck ledgers shall not be supported on stone or masonry.



**TABLE R507.2
DECK LEDGER CONNECTION TO BAND JOIST
AND A 2-INCH NOMINAL SOLID-SAWN SPRUCE-PINE-FIR BAND JOIST^{c, f, g}
(Deck live load = 40 psf, deck dead load = 10 psf)**

JOIST SPAN	6' or less	6'1" to 8'	8'1" to 10'	10'1" to 12'	12'1" to 14'	14'1" to 16'	16'1" to 18'
Connection details	On-center spacing of fasteners ^{d, e}						
½ inch diameter lag screw with ½ inch maximum sheathing ^a	30	23	18	15	13	11	10
½ inch diameter bolt with ½ inch maximum sheathing	36	36	34	29	24	21	19
½ inch diameter bolt with 1 inch maximum sheathing	36	36	29	24	21	18	16

For SI: 1-inch = 25.4 mm, 1 foot = 304.8 mm. 1 pound per square foot = 0.0479kPa.

- a. Ledgers shall be flashed in accordance with Section R 703.8 to prevent water from contacting the house band joist
- b. Snow load shall not be assumed to act concurrently with live load.
- c. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
- d. Sheathing shall be wood structural panel or solid sawn lumber.
- e. Sheathing shall be permitted to be wood structural panel, gypsum board, fiberboard, lumber or foam sheathing. Up to 1/2 inch thickness of stacked washers shall be permitted to substitute for up to 1/2 inch of allowable sheathing thickness where combined with wood structural panel or lumber sheathing.

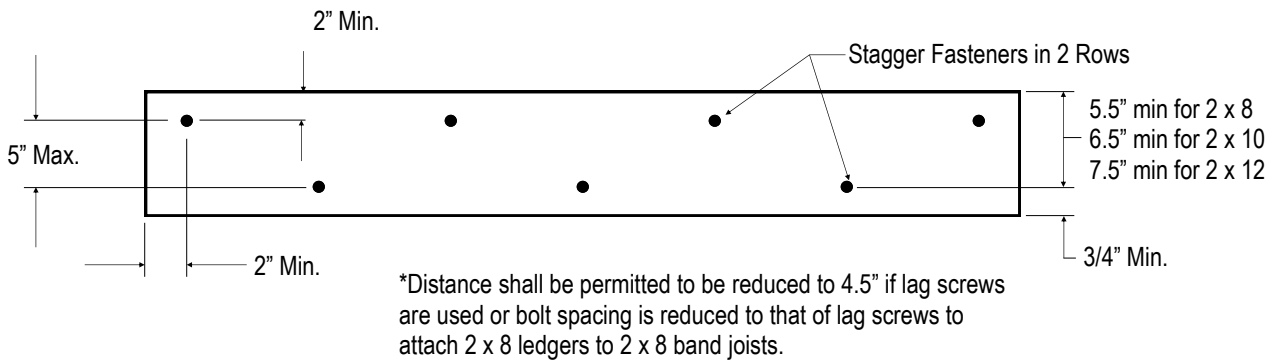
**Table 507.2.1
Placement of Lag Screws and Bolts in Deck Ledgers and Band Joists**

Placement of Lag Screws and Bolts in Deck Ledgers and Band Joists				
	Top Edge	Bottom Edge	Ends	Row Spacing
Ledger a	2 inches d	3/4 inch	2 inches b	1-5/8 inches b
Band Joist c	3/4 inch	2 inches	2 inches b	1-5/8 inches b

For SI: 1 inch = 25.4 mm

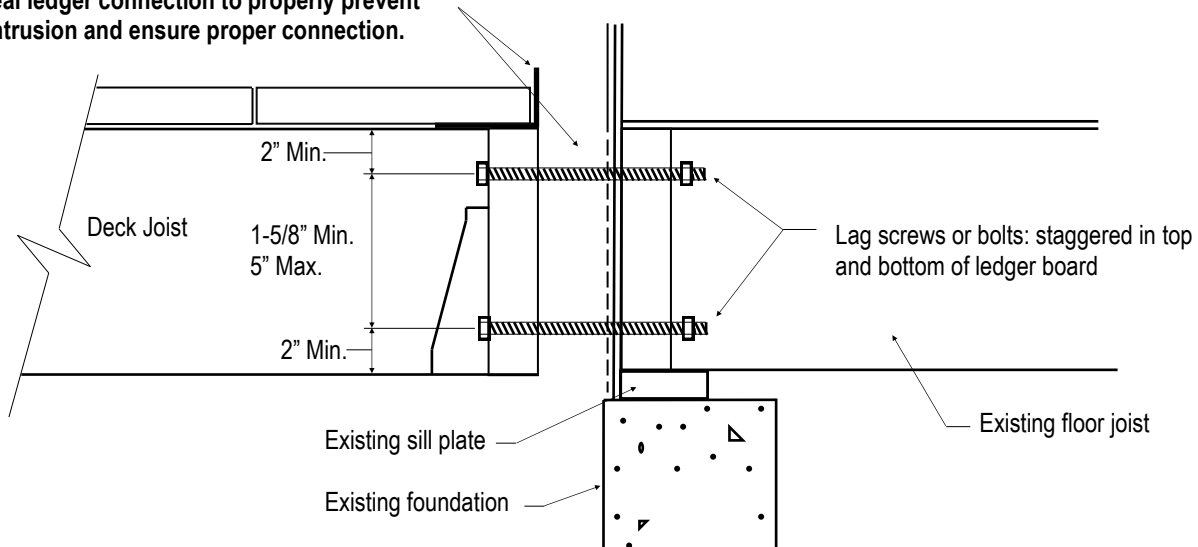
- A. Lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figure R507.2.1(1).
- B. Maximum 5 inches.
- C. For engineered rim joists, the manufacturer's recommendations shall govern.
- D. The minimum distance from the bottom row of lag screws or bolts to the top edge of the ledger shall be in accordance with Figure R507.2.1(1)

**Figure 507.2.1 (1)
Placement of Lag Screws and Bolts in Deck Ledgers**



**Figure 507.2.1 (2)
Placement of Lag Screws and Bolts in Band Joists**

Remove exterior wall covering at ledger board and flash/seal ledger connection to properly prevent water intrusion and ensure proper connection.

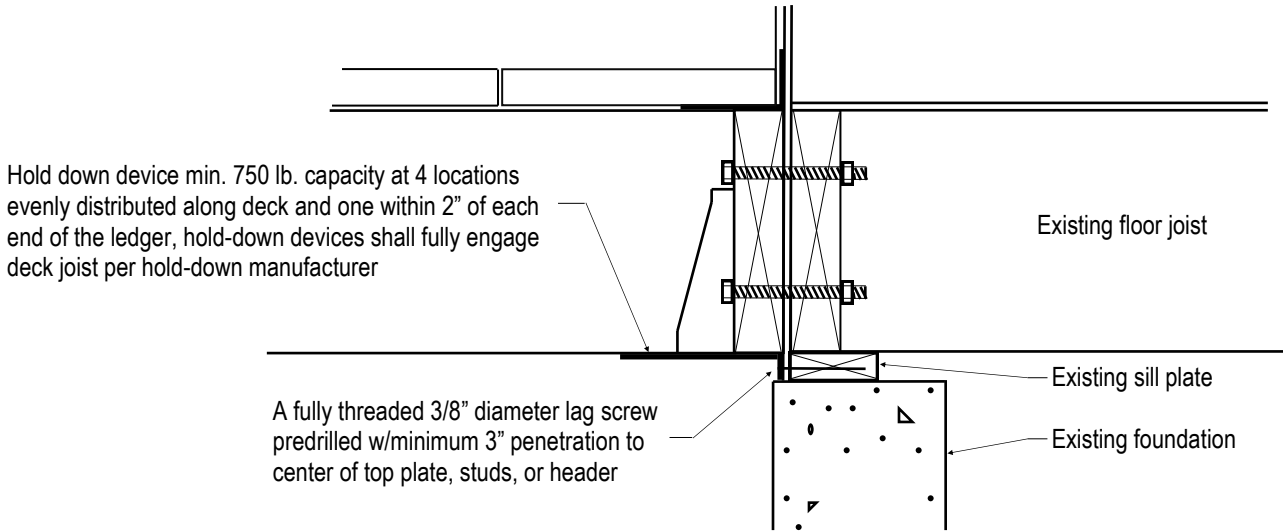


R507.3 Wood/plastic composites. Wood/plastic composites used in exterior deck boards, stair treads, handrails and guardrail systems shall bear a label indicating the required performance levels and demonstrating compliance with the provisions of ASTM D 7032

R507.3.1 Installation of wood/plastic composites. Wood/plastic composites shall be installed in accordance with the manufacturer's instructions.

**Figure 507.2.3 (2)
Deck Attachment for Lateral Loads**

Note: This detail is applicable where floor joists are parallel to deck joists

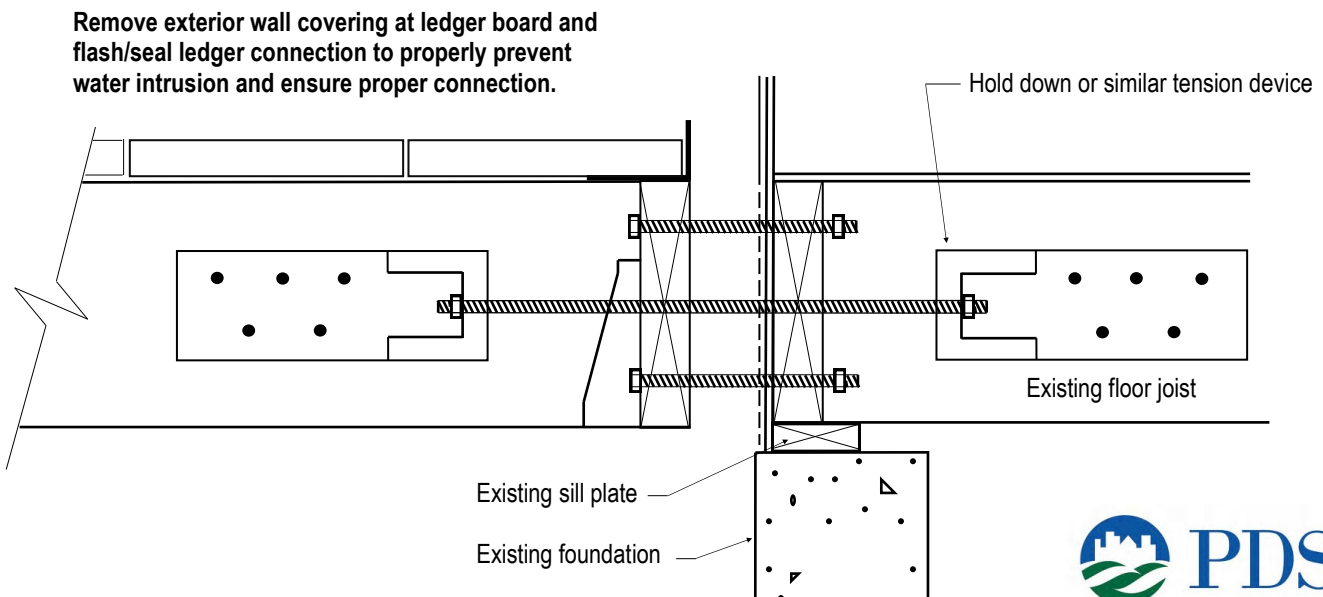


507.2.4 Deck lateral load connections. The lateral load connection required by Section R507.1 shall be permitted to be in accordance with Figure R507.2.3 (1) or R507.2.3 (2).

Where the lateral load connections are provided in accordance with Figure R507.2.3 (2), the hold-down tension devices shall be installed in not less than four locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds.

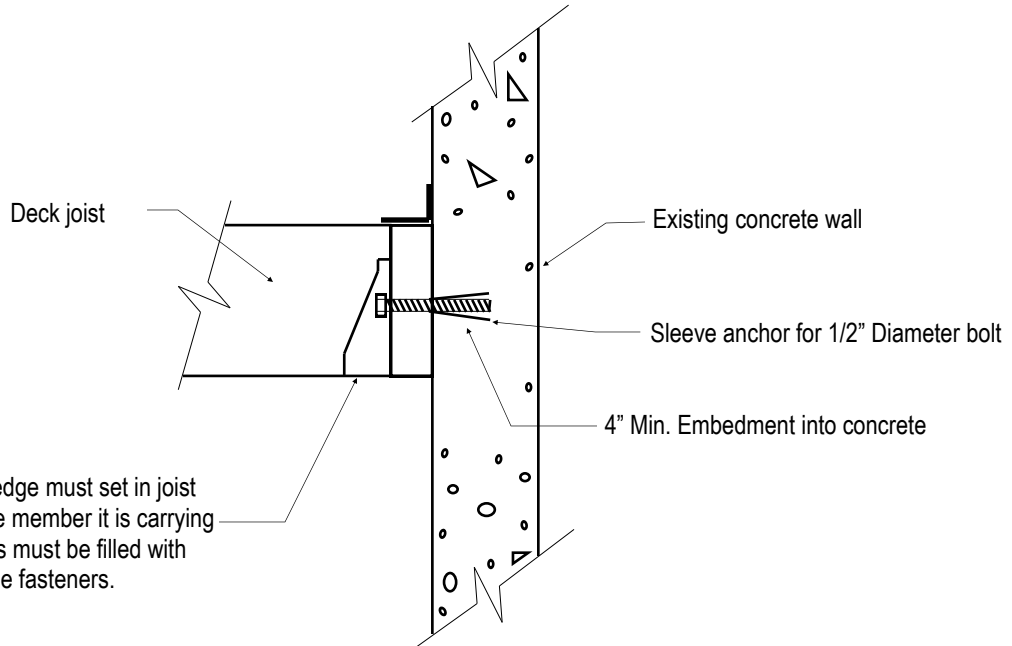
Where installed per Figure R507.2.3 (1), hold-down tension devices shall be installed in not less than two locations per deck, within 24 inches of each end of the deck. Each device shall have an allowable stress design capacity of not less than 1,500 pounds.

**Figure 507.2.3 (1)
Deck Attachment for Lateral Loads**



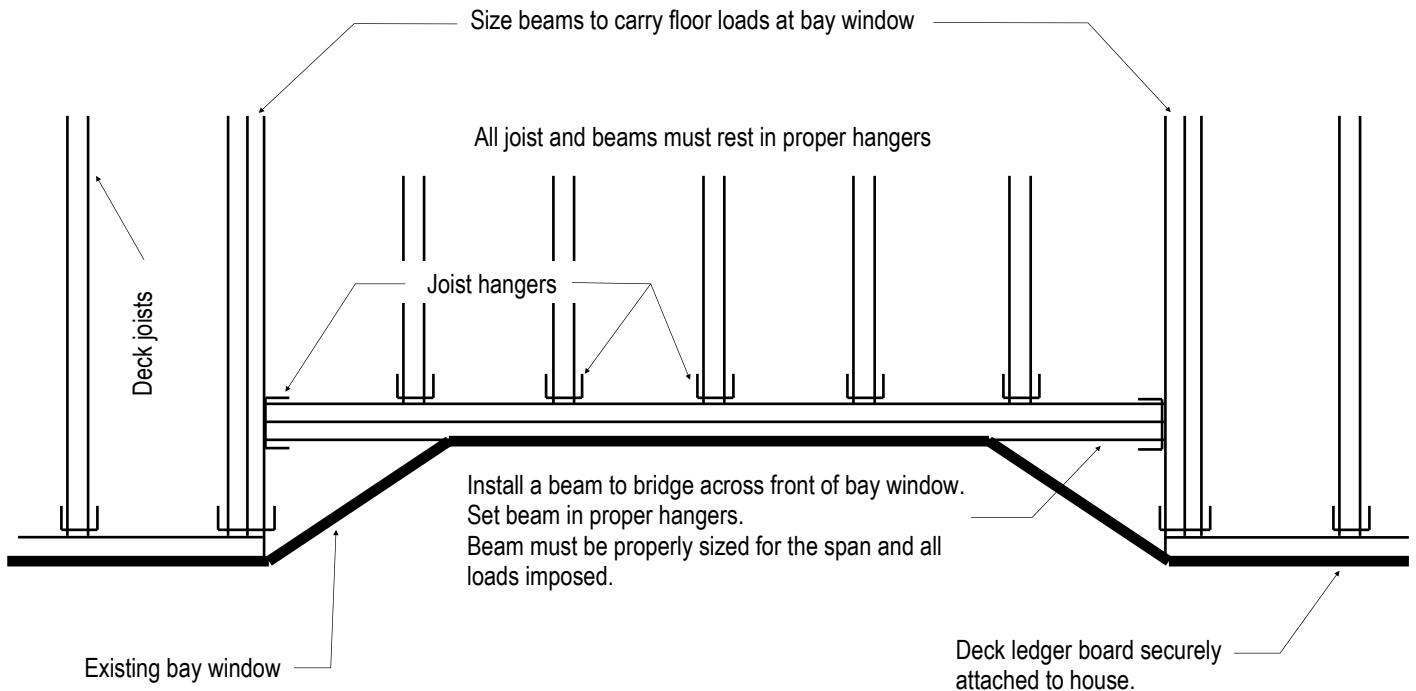
ATTACHING BAND BOARD TO CONCRETE OR SOLID MASONRY WALL

Instead of bolting through concrete walls you may attach deck ledger board by a sleeve anchor made for a 1/2" diameter bolt and set a minimum 4" into the concrete wall.



Joists that do not set on a ledge must set in joist hanger of proper size for the member it is carrying and all holes in joist hangers must be filled with the appropriate size and type fasteners.

ATTACHING DECK TO A BAY WINDOW



DECK STAIR DETAILS

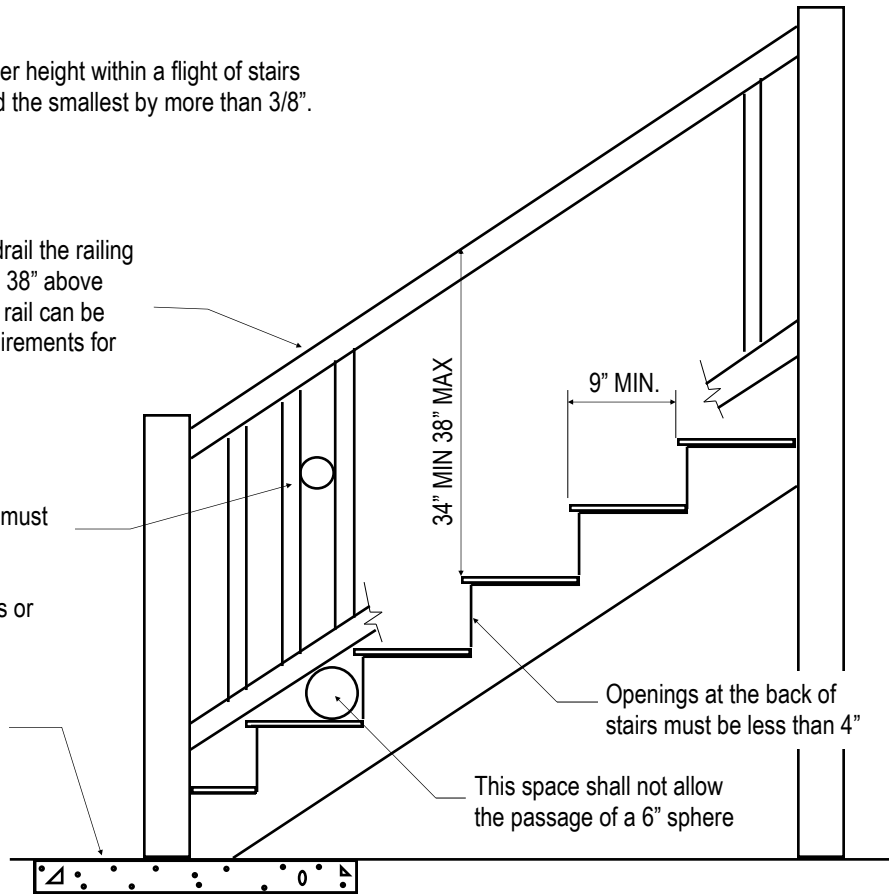
The greatest riser height within a flight of stairs shall not exceed the smallest by more than $\frac{3}{8}$ ".

If using the top of the guardrail for handrail the railing must be set a min. 34" and a maximum 38" above the leading edge of the stair tread. The rail can be no wider than 2-5/8" and meet the requirements for handrails.

All openings on stair guard rail must be less than 4-3/8".

Openings in guard rail on decks or platforms must be less than 4"

Bottom of stair riser must rest on solid material or post in footing



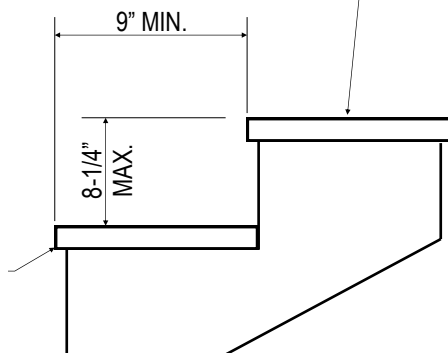
Openings at the back of stairs must be less than 4"

This space shall not allow the passage of a 6" sphere

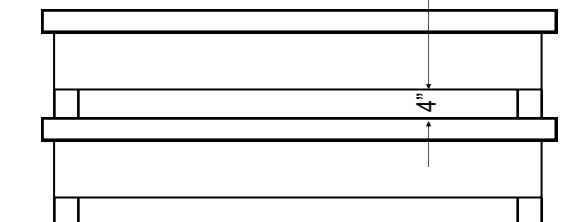
STAIR TREADS AND RISERS

The greatest tread depth within any flight of stairs shall not exceed the smallest by more than $\frac{3}{8}$ "

All stairs must overhang a MIN. 3/4" and a MAX. 1-1/4"



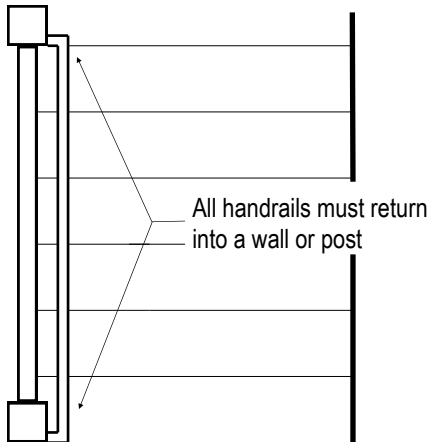
The openings at the back of the stairs must be less than 4"



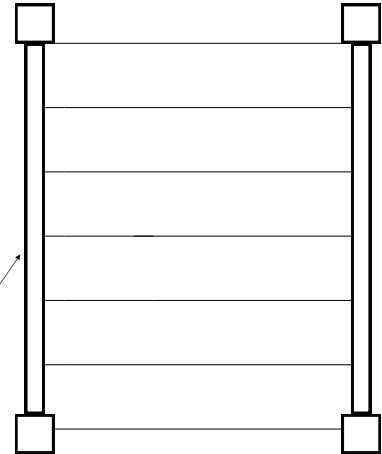
STAIR AND HANDRAIL DETAILS

Handrails are required on all stairs with 4 or more risers

Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight.

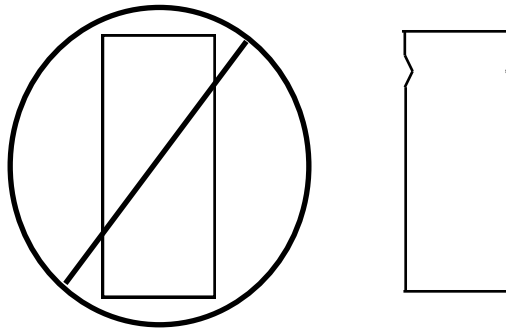


If using the top of the guardrail as the required handrail it must be no wider than 2-5/8" and graspable.



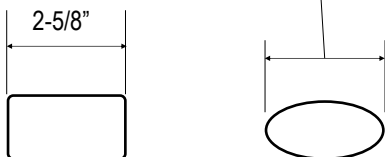
GRASPABLE HANDRAILS

A 2 x 4, 2 X 6 or 2 X 8 stood on edge can not be used as a handrail, unless it has been altered to be graspable



R311.7.8.3 Grip size. Handrails with a perimeter greater than 6 ¼ inches; such as a 2x4 or 2x6 placed on edge, shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of ¼ inch measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch with 7/8 inch below the widest portion of the profile. This required depth shall continue for at least 3/8 inch to a level that is not less than 1 ¼ inches below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1 ¼ inches to a maximum of 2 ¼ inches. Edges shall have a minimum radius of 0.01 inch.

Maximum handrail width for any type handrail is 2-5/8"



Corners of handrails must have a minimum 1/8" radius