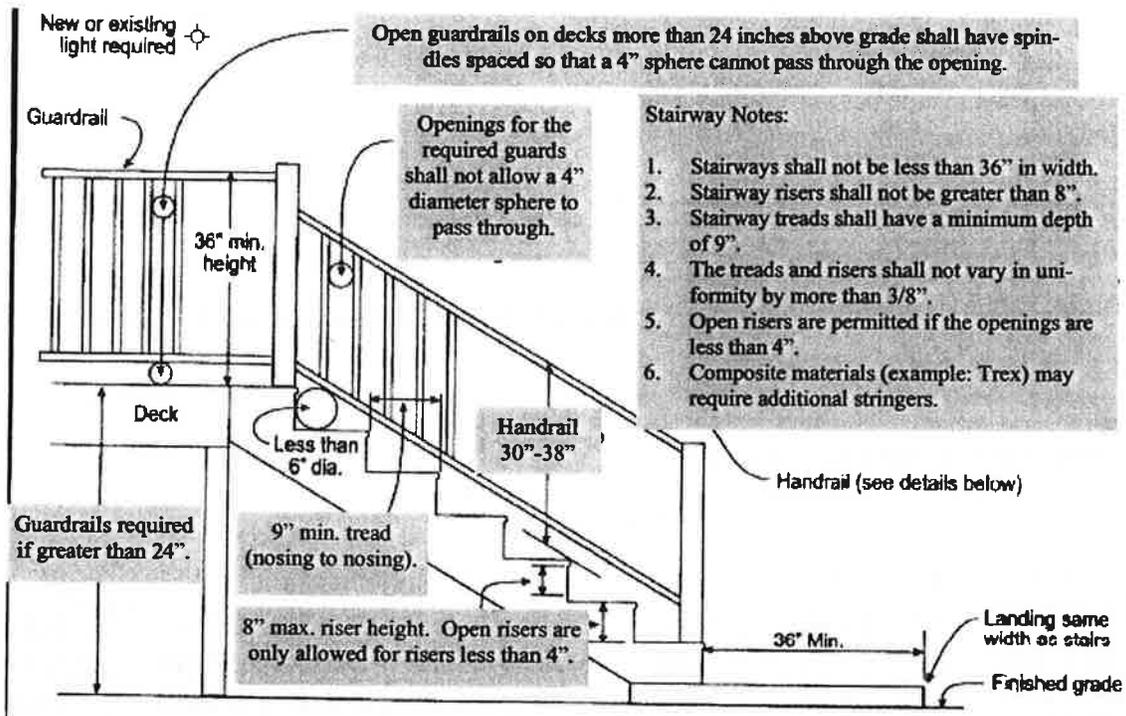


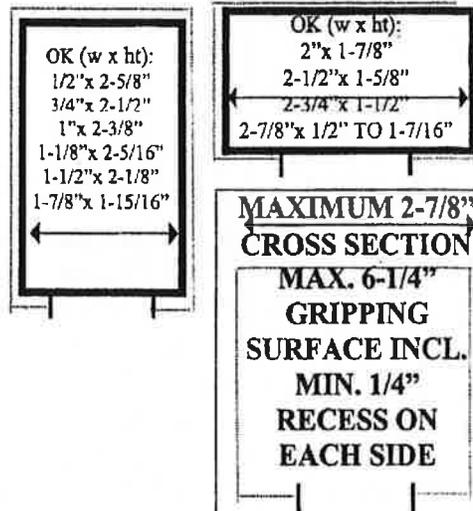
Building a Code Compliant Deck



Sample Handrail Shapes:

Make sure to what for the maximum allowable cross section and gripping surface measurements as shown below.

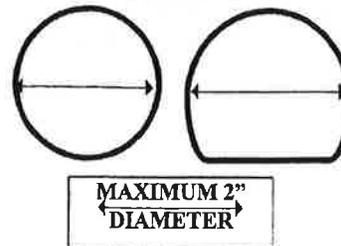
RECTANGULAR



OTHERS



ROUND



Joist Span

Based on No. 2 or better (Loads: 40# LL + 10# DL, Deflection=L/360)

	Ponderosa Pine			Southern Pine		
	12" OC	16" OC	24" OC	12" OC	16" OC	24" OC
2 x 6	9-2	8-4	7-0	10-9	9-9	8-6
2 x 8	12-1	10-10	8-10	14-2	12-10	11-0
2 x 10	15-4	13-3	10-10	18-0	16-1	13-5
2 x 12	17-9	15-5	12-7	21-9	19-0	15-4

In general, joists will not cantilever more than 2' beyond support without structural engineering.

Beam Sizing

#2 or better Southern Pine (SP) or Ponderosa Pine (PP)

Post Spacing

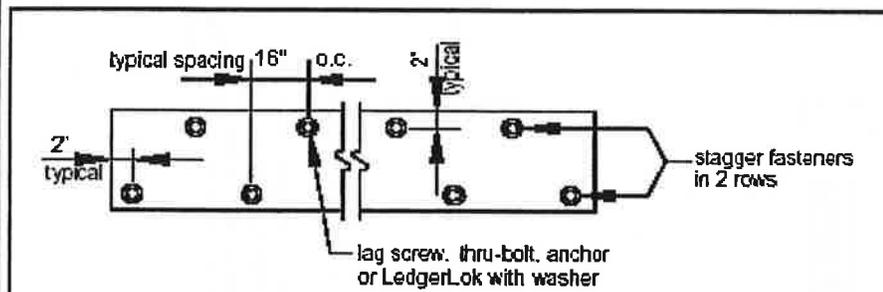
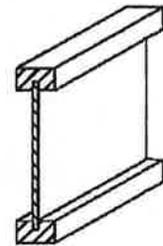
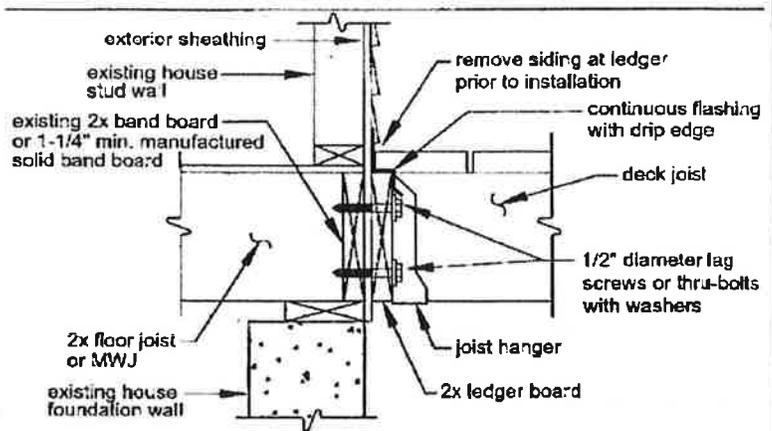
		4'	5'	6'	7'	8'	9'	10'	11'	12'
6'	SP	2x6	2x6	2x6	2-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10
	PP	2x6	2x6	2x8	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12
7'	SP	2x6	2x6	2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10
	PP	2x6	2x6	2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	2-2x12
8'	SP	2x6	2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x12
	PP	2x6	2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	3-2x10
9'	SP	2x6	2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12
	PP	2x6	2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	3-2x10	3-2x12
10'	SP	2x6	2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12
	PP	2x6	2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12
11'	SP	2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12
	PP	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x12	3-2x12
12'	SP	2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10
	PP	2-2x6	2-2x6	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x12	3-2x12
13'	SP	2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x12
	PP	2-2x6	2-2x6	2-2x8	2-2x10	2-2x12	2-2x12	2-2x12	3-2x12	Eng. Bm.
14'	SP	2x6	2-2x6	2-2x6	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12
	PP	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12	Eng. Bm.
15'	SP	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12
	PP	2-2x6	2-2x8	2-2x8	2-2x10	3-2x10	3-2x10	3-2x12	3-2x12	Eng. Bm.
16'	SP	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x12	3-2x12
	PP	2-2x6	2-2x8	2-2x10	2-2x10	3-2x10	3-2x10	3-2x12	Eng. Bm.	Eng. Bm.

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Ledger:

The exterior finish system (siding) is to be removed prior to the installation of the ledger. Flashing is required at any ledger board connection to a wall of wood framed construction. The ledger board shall be equal to or greater than the depth of the floor joist. When attachments are made to the existing house rim board, the rim board shall be capable of supporting the new deck. Many new homes have been constructed with Manufactured "I" Joists and some of these homes were constructed with a plywood rim board that cannot support a deck. In such cases a free-standing deck may be the easiest and only option.



Ledger Attachment: Minimum of 3/8" x 5 1/2" lag bolts or screws with washers @ 16" o/c in a staggered pattern. When using lag screws pilot holes must be drilled and the lag screw must be fully driven to be effective. Pilot holes shall be about 3/4 of the diameter of the screw for the threaded portion and full diameter for the unthreaded shank. Make sure that the lag screw is long enough so that at least half of its length penetrates the member to which it is attached.

Floor joists:

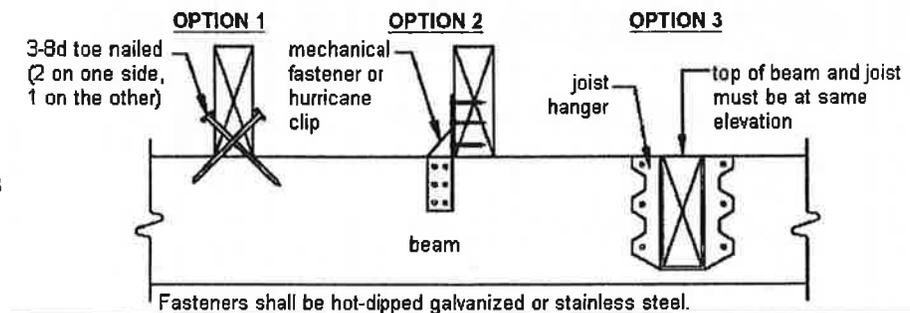
All deck floor joists shall be sized and spaced to meet minimum building code requirements. The allowable spans for deck floor joists can be obtained from the enclosed chart at the end of this packet.

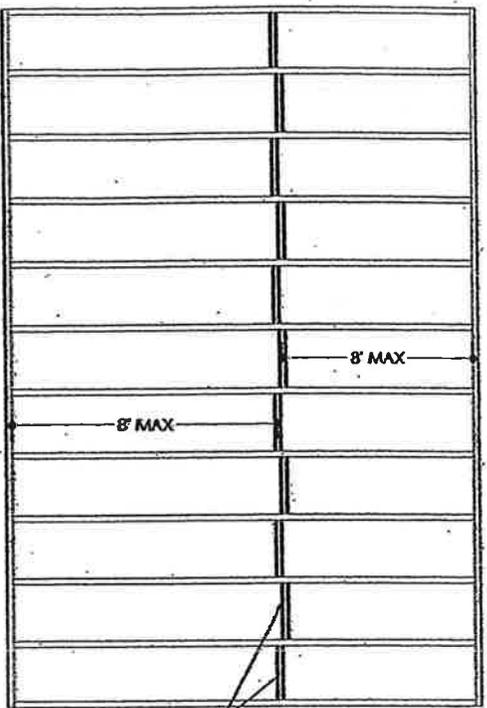
Minimum Bearing: 1 1/2 inches on the beam or ledger board

Blocking: Maximum 8 foot intervals

Maximum Cantilever: 2 feet

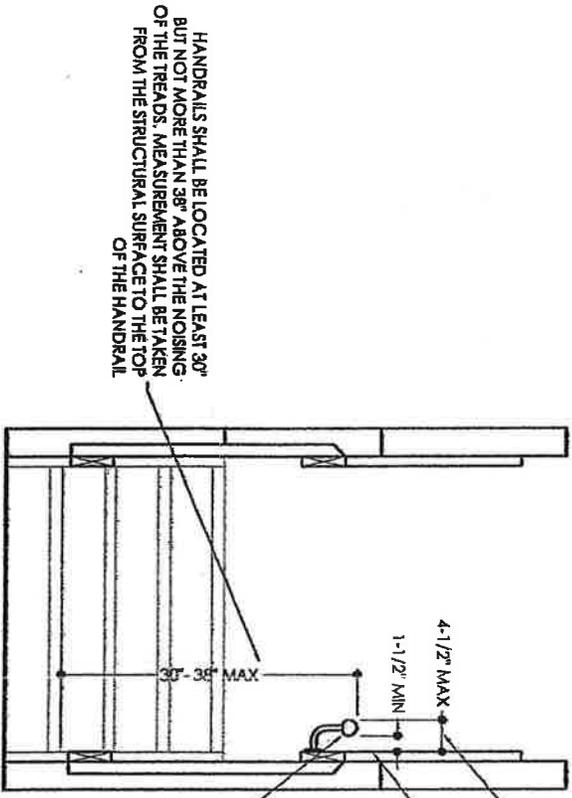
Joists shall be attached to the beam as shown in the following diagram. Joists may also be attached with joist hangers. Hangers, clips and mechanical fasteners shall be galvanized with 1.85 oz/sf of zinc (G-185 coating) or shall be stainless steel.





Bridging shall be provided at intervals not exceeding 8' where nominal depth to thickness ratio is greater than 4 to 1 (2x10 or 2x12 joists)

TYPICAL BRIDGING DETAIL



HANDRAILS SHALL BE LOCATED AT LEAST 30" BUT NOT MORE THAN 38" ABOVE THE NOSING OF THE TREADS. MEASUREMENT SHALL BE TAKEN FROM THE STRUCTURAL SURFACE TO THE TOP OF THE HANDRAIL

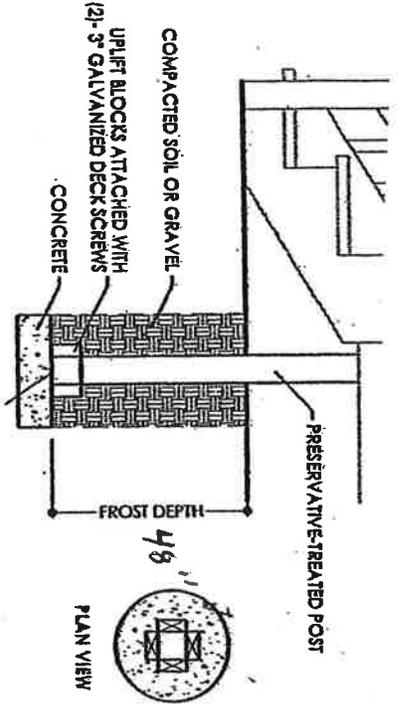
HANDRAILS MAY PROJECT INTO REQUIRED WIDTH OF STAIRS A MAXIMUM 4-1/2" ON EACH SIDE
 CLEARANCE BETWEEN A HANDRAIL AND THE WALL SURFACE SHALL BE AT LEAST 1-1/2"

ROUND GRIPPING SURFACE SHALL HAVE A MAX. CROSS SECTIONAL DIA. OF 2".
 RECTANGULAR GRIPPING SURFACE SHALL HAVE A MAX PERIMETER OF 6-1/4" & A MAX CROSS SECTIONAL DIMENSION OF 2-7/8"

TYPICAL HANDRAIL DETAIL

* STAIR FLIGHTS WITH MORE THAN 3 RISERS SHALL BE PROVIDED WITH AT LEAST ONE HANDRAIL FOR THE FULL LENGTH OF STAIR FLIGHT

Typical Footings



Footing Sizes¹

Beam Span,	Joist Span	Round Footing Diameter	Square Footing Dimension	Footing ² Thickness
6'	<10'	15"	13"	6"
	<14'	17"	15"	6"
8'	<18'	20"	18"	7"
	<10'	17"	15"	6"
10'	<14'	22"	20"	9"
	<18'	25"	23"	10"
12'	<10'	21"	19"	8"
	<14'	24"	22"	10"
14'	<18'	28"	26"	11"
	<10'	22"	20"	9"
16'	<14'	26"	24"	11"
	<18'	30"	28"	12"
18'	<10'	24"	22"	9"
	<14'	28"	26"	12"
18'	<10'	25"	23"	10"
	<14'	30"	28"	12"
		<18'	34"	14"

- Assumes 1,500 psf soil bearing capacity.
- Assumes 2,500 psi compressive strength of concrete. Coordinate footing thickness with post base and anchor requirements.

You may also use the UDC prescriptive column footing of 24"x24"x12"