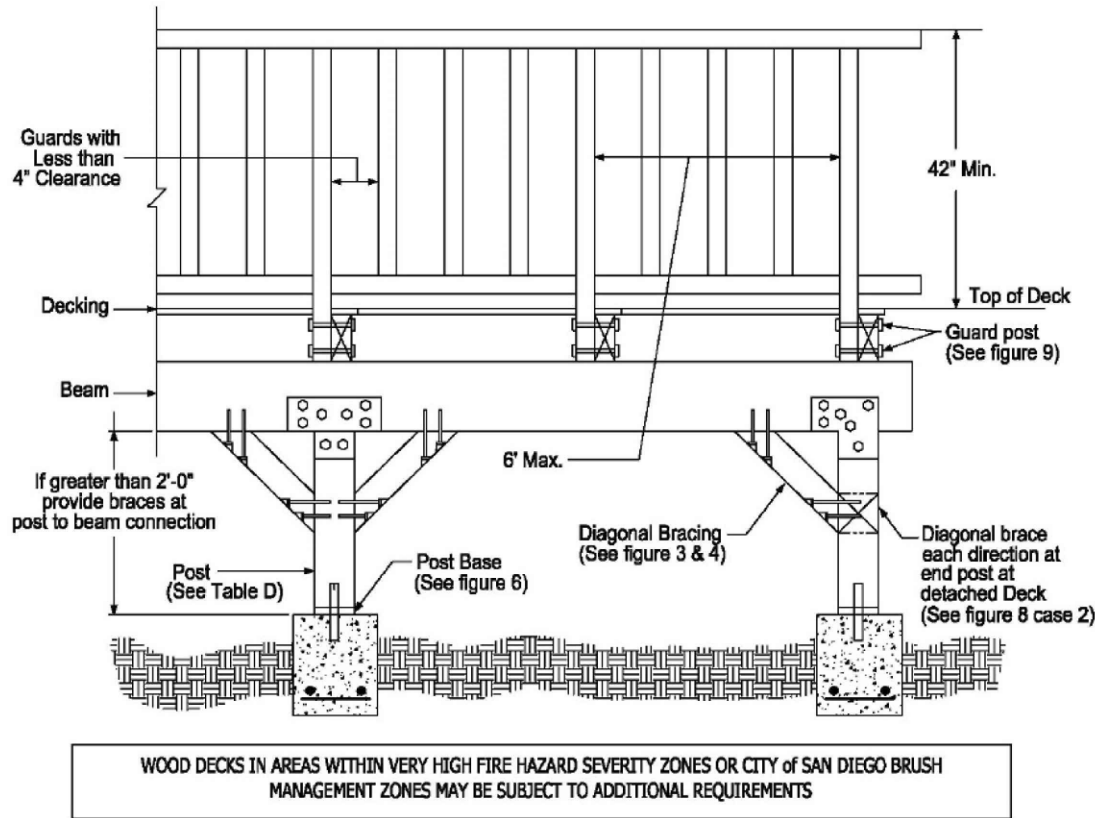
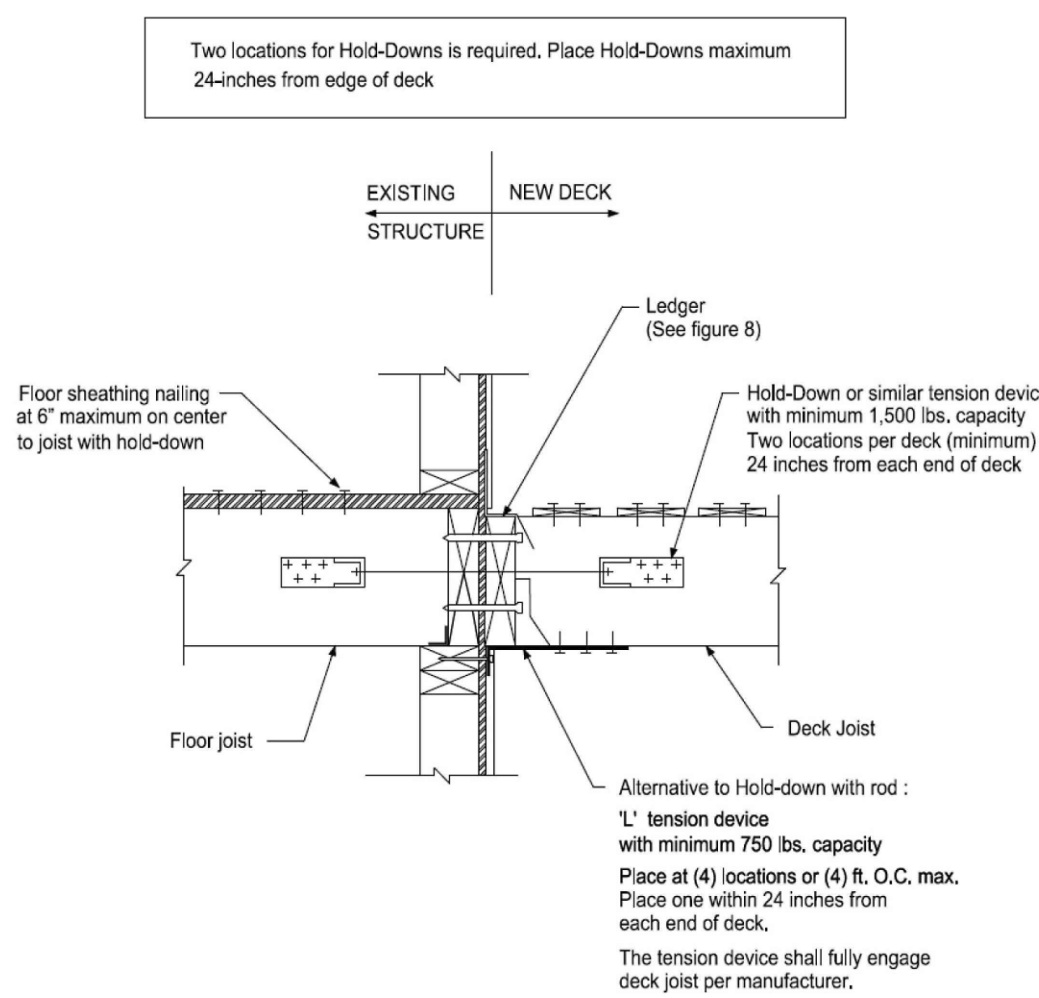


Figure 10 – Typical Deck Elevation



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Figure 11 – Deck Attachment for Lateral Loads



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Table A - Allowable Span for Deck Joists (ft. - in.)^{1, 2, 3}

Species	Size	Spacing of Joists (inches)		
		12	16	24
Douglas fir – larch #2 or Redwood #1	2 x 6	6-9	6-2	5-1
	2 x 8	8-10	7-10	6-6
	2 x 10	11-2	9-7	7-10
	2 x 12	12-9	11-2	9-1

1. Live load = 60 psf, Dead load = 10 psf, L/Δ = 360.
2. If joists within 8" inches of grade, use Pressure - Treated Douglas Fir - Larch or foundation - Grade Redwood.
3. Include incising factor (C= 0.8)

Table B – Cantilever Length for Deck Joists (ft. – in.)^{1, 2, 5}

Size	Spacing (inches) ^{1, 4}		
	12	16	24
2x6	1-0	0-10	0-9
2x8	1-7	1-6	1-5
2x10	2-5	2-2	2-0
2x12	3-2	2-10	2-3

1. Live load = 60 psf, Dead load = 10 psf, L/Δ = 240
2. The maximum cantilever length shall also be limited to one-fourth of the joist span.
3. Joist spacing for diagonal decking shall not exceed 16 inches.
4. Cantilever span includes 220 lbs. point load applied to end.
5. Solid blocking shall be provided between joists over the support.

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Table C – Deck Beams

Species	Size ⁵	Beam span lengths (ft.- in.) ^{1, 2, 3, 4, 6, 7}						
		Joist span less than or equal to: ⁸						
		6 ft.	8 ft.	10 ft.	12 ft.	14 ft.	16 ft.	18 ft.
Douglas Fir – Larch #2 Redwood #1	3 x 6 or 2 - 2 x 6	3-9	3-3	3-0	-	-	-	-
	3 x 8 or 2 - 2 x 8	4-9	4-3	3-9	3-5	3-2	-	-
	3 x 10 or 2 - 2 x 10	5-10	5-2	4-7	4-3	3-10	3-7	3-4
	3 x 12 or 2 - 2 x 12	6-10	5-11	5-3	4-10	4-6	4-3	4-0
	4 x 6	4-6	3-10	3-5	3-3	-	-	-
	4 x 8	5-11	5-2	4-7	4-3	3-10	3-9	3-5
	4 x 10	7-0	6-2	5-4	4-10	4-6	4-3	3-10
	4 x 12	8-2	7-1	6-4	5-8	5-3	4-10	4-7
	3 - 2 x 6	5-3	4-9	4-3	3-10	3-7	3-4	3-2
	3 - 2 x 8	6-9	6-0	5-3	5-0	4-7	4-3	4-0
	3 - 2 x 10	8-6	7-5	6-7	5-8	6-0	5-3	5-0
	3 - 2 x 12	9-10	8-6	7-8	7-0	6-5	6-0	5-8

1. Live load = 60 psf, Dead load = 10 psf, L/Δ = 360 at main span.
2. Beams supporting deck joists from one side only. See footnote (8) below for beams supporting cantilevered joists.
3. Beam depth shall be greater than or equal to depth of joists with a flush beam condition.
4. Beams within 8" of grade shall be Pressure-Treated Douglas Fir-Larch or Foundation – Grade Redwood.
5. Beams piles shall be fastened with two rows of 10d threaded nails or #10d nails at 16" on center along the edges.
6. Beams are permitted to cantilever not more than one-fourth of the span.
7. Include incising factor (C = 0.8)
8. Beams supporting cantilevered joists:
To select a joist span from Table, use span length equal to joist span length + 125% of cantilevered length.
(Example: joist with 12 ft. span & 3 ft. cantilevered length, calculated joist span = 12+125% X (3) = 15.75' therefore, beam allowable span shall be based on 16' joist span).

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Table D – Deck Posts^{1, 2}

Post Size	Maximum Height ³
4 x 4	4'-10" ⁴
4 x 6	7'-0"
6 x 6	10'-0"
8 x 8	14'-0"

1. Deck loads: Live load = 60 psf, Dead load = 10 psf
2. Species: Douglas Fir-Larch #1, or Redwood #1
3. Measured to the underside of the beam.
4. Maximum permitted height is 5'-8" when supporting one and two-ply beams.

Table E – Square Footing at Posts (Inches)¹

Footing Dimensions	Tributary Area (sq. ft.) ⁵							
	20	40	60	80	100	120	140	160
Width (in.)	12	18	21	25	28	30	33	35
Depth (in.)	8	8	10	10	12	12	14	16

1. Footings shall have #4 @ 12" each way at bottom.
2. Concrete strength minimum 2,500 PSI.
3. Footing sizes are based on 1,500 PSF allowable soil bearing pressure.
4. Footings shall be placed not less than 12 inches below the undisturbed ground surface.
5. Area of deck surface supported by a post and a footing.

Table F – Nailing Schedule for Decks^{1, 3}

Connection	Nails or Screws (Box or Common)
Joist to Girder	3-8d common nails
2 inches nominal thickness spaced decking boards approximately 1/8" apart ²	2-8d threaded nails or 2 #8 screws

1. Decking within 8 inches of grade shall be Pressure-Preservative treated lumber or foundation- Grade redwood.
2. Decking placement may range from an angle perpendicular to joists to an angle of 45 degrees to the joists. Each segment of decking must bear on minimum of 3 joists.
3. All fasteners and connectors shall be hot-dipped galvanized or stainless steel.

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