

What do the construction and elevation plans have to indicate?

The construction plans must show the overall size of the deck, the size, and spacing of the beams, posts, and deck joists, the species and grade of the wood material being used, (e.g. SPF #2; species – spruce, grade - #2) the type of foundation you have chosen to support the deck and the location of any stairs leading to or from the deck. See FIGURE 2.

The elevation plan must show the height of the deck floor above the finished ground level at its highest point and the height and type of guardrail being used around the perimeter of the deck. See FIGURE 3.

FIGURE 3 - Typical Deck Elevation Plan

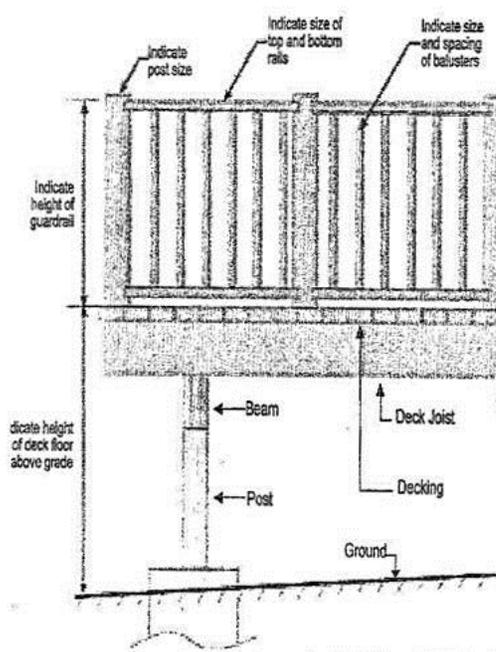
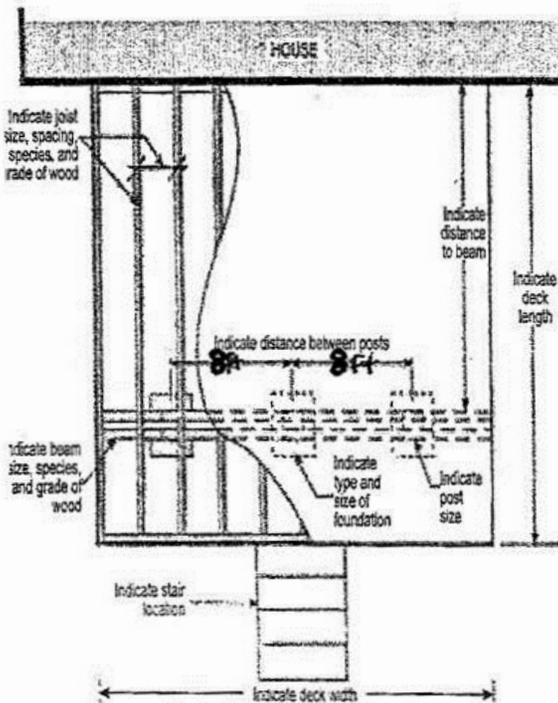


FIGURE 2 - Typical Construction Plan



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Construction Detail Deck

What size of beams do I need?

The beam table (TABLE 2) is intended for single beam decks and multiple beam decks that are supported at 2.44m (8 ft.) intervals along the beam. See also FIGURE 8.

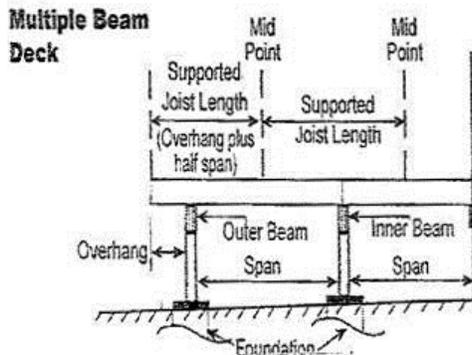
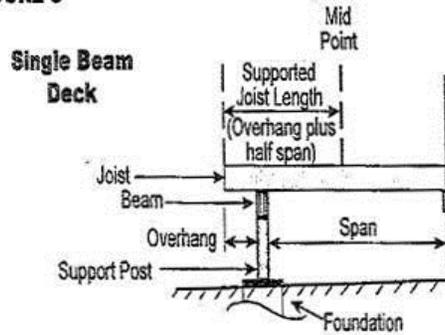
TABLE 2 - Deck Beam Sizes⁽¹⁾
- Design Floor Live Loads for 1.9 kPa (40 psf)

Max. Supported Joist Length ⁽²⁾	Beam Size ⁽³⁾
1.82 m (6 ft.)	2 - 38 x 140 mm (2 - 2 x 6)
2.44 m (8 ft.)	3 - 38 x 140 mm (3 - 2 x 6) or 2 - 38 x 184 mm (2 - 2 x 8)
3.05 m (10 ft.)	4 - 38 x 140 mm (4 - 2 x 6) or 3 - 38 x 184 mm (3 - 2 x 8)

Notes to TABLE 2:

- 1) This table requires beams to be supported every 2.44 m (8 ft.) or less.
- 2) Supported joist length means half the span of joists supported by the beam plus the length of the overhang beyond the beam. (See FIGURE 8.)
- 3) This table is for use with Spruce-Pine-Fir lumber grades 1 and 2.

FIGURE 8



What size of deck joists do I require?

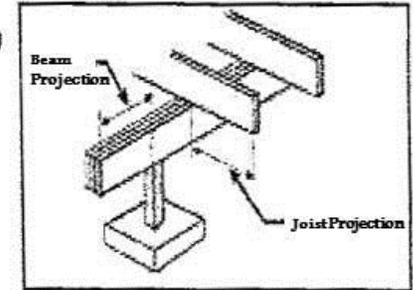
The size of the joists are governed by the distance they have to span and the spacing at which the joists are installed. TABLE 3 indicates some common species and sizes of wood and the acceptable span distances for wood decks. Joist spans are measured from face of support to face of support (in the case of a wood deck from face of beam to face of beam, or from face of beam to face of ledger).

Another item you should take into consideration when selecting the type, size, and spacing of your joists, is the type of material you intend to use as decking. Check with your lumber dealer to ensure that the decking you select will not sag significantly between the joists as a result of the joist spacing you have chosen.

How far can I project the beam beyond the end support?

The beam can project up to a maximum of 600 mm (2 ft.) beyond the end support. See FIGURE 10.

FIGURE 10



How far can the joists project beyond the face of the outside beam?

If you are planning to eventually enclose all or a portion of the deck with a roofed structure which could carry snow, the Building Code states that the joists can only project 400 mm (16 in.) where 2x8 joists are used, and 600 mm (2 ft.) where 2x10 or larger joists are used. The projection of 2x4 or 2x6 joists would require engineering analysis to determine if the floor assembly would be sufficient to carry the superimposed roof loads. See FIGURE 10.

Note that even if you are not planning to enclose the deck in the future any projections beyond those indicated above would require engineering analysis.

TABLE 3 - Deck Joist Spans
- Design Live Loads for 1.9 kPa (40psf)

Commercial Designation	Grade	Joist Size (in)	Maximum Span (ft.-in.)			Joist Size (mm)	Maximum Span (m)		
			Joist Spacing				Joist Spacing		
			12 in	16 in	24 in		300 mm	400 mm	600 mm
Douglas Fir - Larch	No. 1	2x4	7' 11"	7' 2"	6' 1"	38 x 89	2.41	2.19	1.86
	and	2x6	12' 4"	10' 8"	8' 9"	38 x 140	3.76	3.26	2.66
	No. 2	2x6	15' 1"	13' 0"	10' 8"	38 x 184	4.58	3.96	3.24
		2x10	18' 5"	15' 11"	13' 0"	38 x 235	5.6	4.85	3.96
Spruce - Pine - Fir	No. 1	2x4	7' 6"	6' 10"	5' 11"	38 x 89	2.29	2.08	1.82
	and	2x6	11' 10"	10' 8"	9' 4"	38 x 140	3.61	3.28	2.86
	No. 2	2x6	15' 7"	14' 2"	11' 7"	38 x 184	4.74	4.31	3.52
		2x10	19' 11"	17' 4"	14' 2"	38 x 235	6.06	5.27	4.3
Column 1	2	3	4	5	6	7	8	9	10