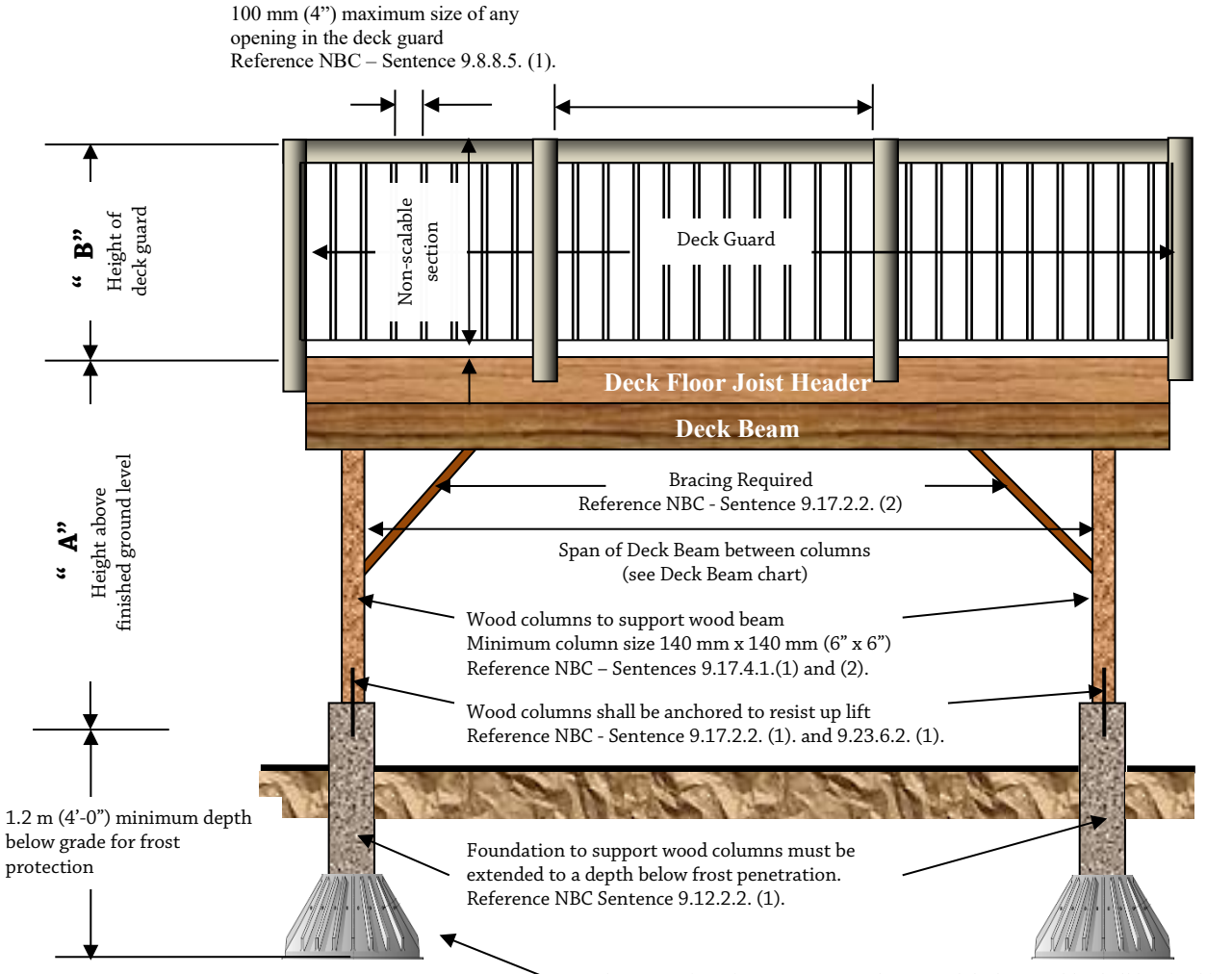
Typical Residential Deck Construction Details

Frequently Asked Questions

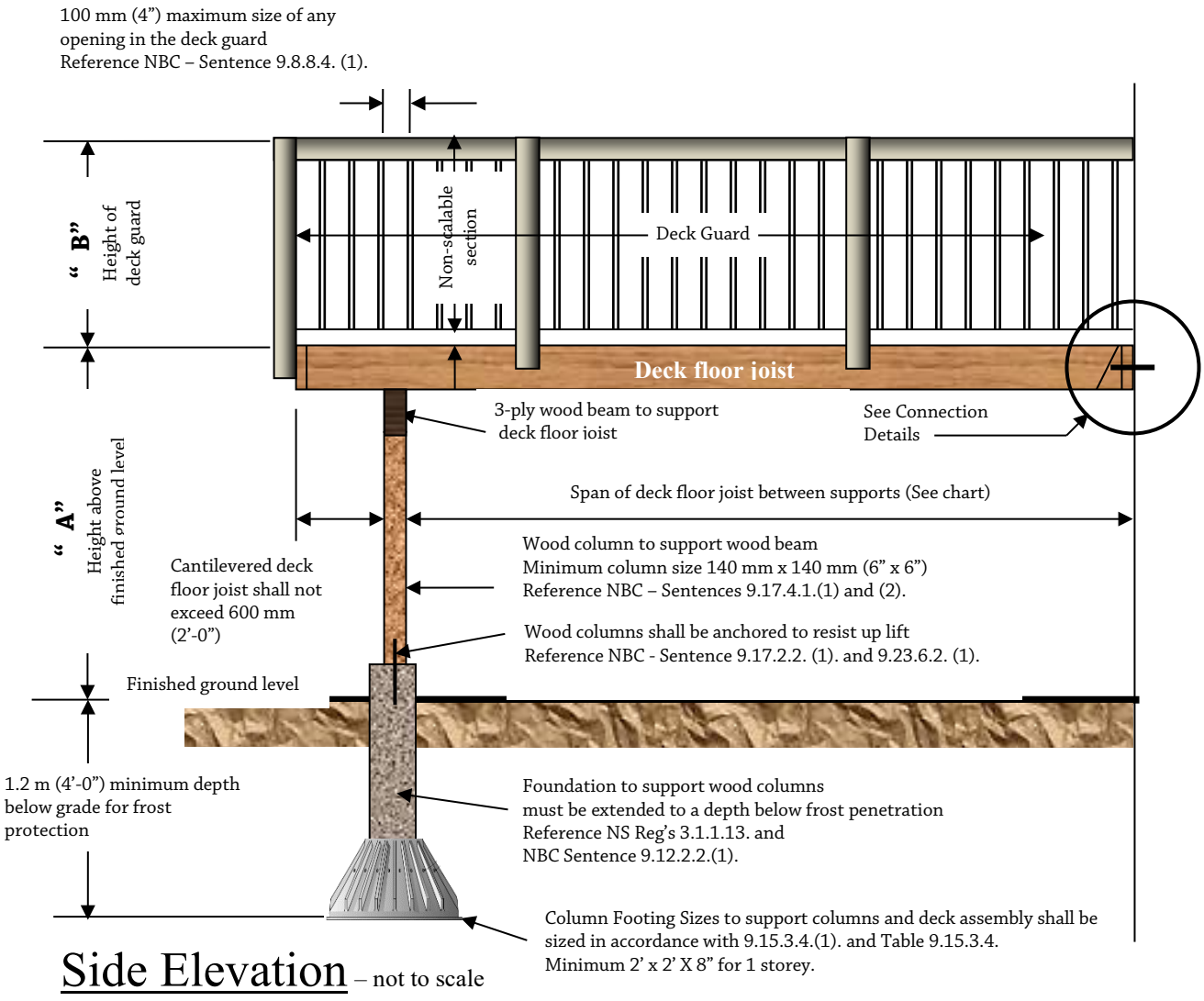
How high does the railing around my deck have to be?		Can my deck railing have any horizontal parts incorporated in the design?	Is a Foundation required?	Can a *"surface foundation"* be used to support the deck?	What is the required depth for the foundation?
"A" Height of deck surface above finished ground level	**"B"** Height of deck guard				
Greater than 1.8 m (6'-0") from deck surface	1070 mm (3'-6")	Not Permitted between 140 mm (5 1/2") and 900 mm (3'-0") above deck surface	Yes	No	1.2 m (4'-0") minimum below ground level
Less than 1.8 m (6'-0") from deck surface	900 mm (3'-0")	Not Permitted between 140 mm (5 1/2") and 900 mm (3'-0") above deck surface	Yes	No	1.2 m (4'-0") minimum below ground level
Less than 600 mm (2'-0") from deck surface	Not applicable	Not applicable	No (If less than 55m²)	Yes	Not Applicable



Front Elevation – not to scale

Typical Residential Deck Construction Details

Frequently Asked Questions

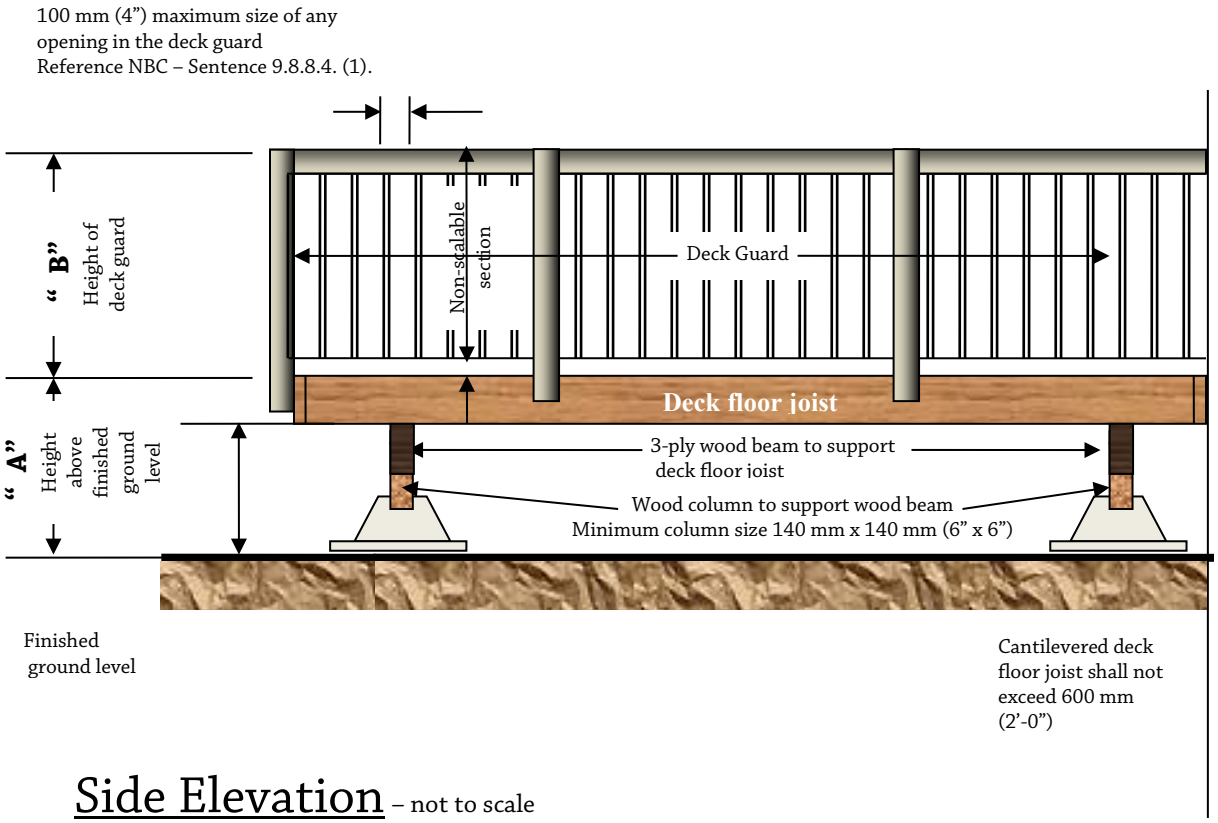


Side Elevation – not to scale

Typical Residential Deck Construction Details

Frequently Asked Questions

What Size "Deck Floor Joist" do I need to have ?



Side Elevation – not to scale

Lumber Size	Spacing of Joists (on Centre)	Maximum Span between supports	Spacing of Joists (on Centre)	Maximum Span between supports	Spacing of Joists (on Centre)	Maximum Span between supports
2" x 6" (38 x 140 mm)	12" (300 mm)	9'-5" (2.86 m)	16" (400 mm)	8'-6" (2.60 m)	24" (600 mm)	7'-5" (2.37 m)
2" x 8" (38 mm x 184 mm)	12" (300 mm)	12'-4" (3.76 m)	16" (400 mm)	11'-3" (3.42 m)	24" (600 mm)	9'-10" (2.99 m)
2" x 10" (38 mm x 235 mm)	12" (300 mm)	15'-10" (4.81 m)	16" (400 mm)	14'-4" (4.37 m)	24" (600 mm)	12'-6" (3.82 m)
2" x 12" (38 mm x 286 mm)	12" (300 mm)	19'-2" (5.85 m)	16" (400 mm)	17'-5" (5.31 m)	24" (600 mm)	15'-3" (4.64 m)

The information in this table is derived from the National Building Code 2010, Maximum Spans for Roof Joists - Table A-5, Lumber Type: S-P-F (Spruce-Pine-Fir), Lumber Grade : No. 2 with a Specified Snow Load of 2.5 kPa

The joist span shown in the tables are based on wood decking nailed to the top side of the joists, with a row of wood blocking at the mid point of the span of the wood joists and the lumber is pressure treated wood with a lumber grade stamp equivalent to No. 2.

Refer to Sentence 9.4.2.3. - Platforms Subject to Snow and Occupancy Loads, loading shall not be less than 1.9 kPa or the Ground Snow Load based on the Climatic Data for your area or region, whichever is greater.

Typical Residential Deck Construction Details

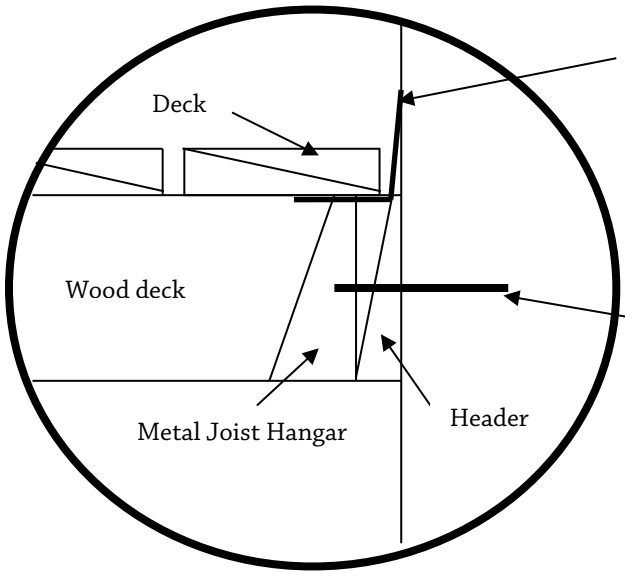
Frequently Asked Questions

What Size "Deck Beam" do I need to have?

Wood Beam Size	Supported Joist length of Wood Deck Joists "Supported Joist" length means ½ the sum of the joist spans on both side of the beam"				
	8'-0" (2.4 m)	10'-0" (3.0 m)	12'-0" (3.6 m)	14'-0" (4.2 m)	16'-0" (4.8 m)
	Maximum Span of Wood Beam between Columns				
3 – 2" x 8" (3 - 38 mm x 184 mm)	8'-3" (2.51 m)	7'-9" (2.36 m)	7'-3" (2.21 m)	6'-11" (2.11 m)	6'-7" (2.01 m)
4 – 2" x 8" (4 - 38 mm x 184 mm)	9'-6" (2.90 m)	8'-11" (2.73 m)	8'-4" (2.55 m)	8' (2.44 m)	7'-7" (2.32 m)
3 – 2" x 10" (3 - 38 mm x 235 mm)	10'-1" (3.08 m)	9'-6" (2.89 m)	8'-10" (2.71 m)	8'-6" (2.58 m)	8'-1" (2.46 m)
4 – 2" x 10" (4 - 38 mm x 235 mm)	11'-8" (3.55 m)	10'-10" (3.34 m)	10'-3" (3.12 m)	9'-9" (2.98 m)	9'-3" (2.85 m)
3 – 2" x 12" (3-38 mm x 286 mm)	11'-7" (3.56 m)	11' (3.35 m)	10'-3" (3.14 m)	9'-10" (2.99 m)	9'-4" (2.85 m)
4 – 2" x 12" (4-38 mm x 286 mm)	13'-6" (4.11 m)	12'-8" (3.87 m)	11'-10" (3.62 m)	11'-4" (3.45 m)	10'-10" (3.29 m)

The information in this table is derived from the National Building Code 2010, "Maximum Spans for Built Up Ridge Beams and Lintels Supporting a Roof and Ceiling Only – Table A-12" and Lumber Type: S-P-F (Spruce-Pine-Fir), Lumber Grade : No. 2

Example of a Connection to a Dwelling



Where exterior cladding consists of vinyl siding (or equivalent), measures must be taken to ensure flashing is installed to address rain penetration into the existing building at this connection, consult your local building official for permitted practices.

Recommended practice:
½"(12.7mm) diameter or larger "through bolt" with nuts and washers or "lag bolt" with washers spaced at not more than 18" (457mm)o.c., consult with your local building official prior to installing.