

Town of Walworth, New York

Building & Zoning Department
3600 Lorraine Drive, Walworth NY 14568
Phone: 315.986.1400 Fax: 315.986.1440
www.townofwalworthny.gov

RESIDENTIAL DECKS INFORMATION SHEET

Building Permits

Required for any deck attached to a structure or not attached including swimming pools.

Fees

Permit and escrow fees due as per fee schedule before permit is issued.

Frost Footings

Required for any deck attached to a dwelling, porch or garage that has frost footing. The minimum depth to the base of the footing is 42 inches.

Live Load

All decks shall be designed to support a live load of 40 pounds per square foot, except decks that will have a hot tub the live load shall be 100 pounds per square foot.

Guards/Guardrails

Required on all decks or stairs more than 30 inches above grade or a lower deck. See page 4 for illustration. Exception: On an open stringer stairway, the triangular opening formed by the riser, tread and bottom rail of a guard must be sized so that a six inch sphere cannot pass through.

Stairs

Minimum width shall be 36 inches. The maximum riser height shall be 8 1/4 inches and the minimum tread depth shall be 9 inches. The largest tread width or riser height shall not exceed the smallest by more than 3/8 of an inch. Maximum 4 inch opening at risers greater than 30 inches above grade. See *Residential Stairway/Guards* information sheet.

Cantilevers: Overhanging Joists & Beams

Joists should not overhang beams by more than 2 feet, nor should beams overhang posts by more than 1 foot unless a special design is approved.

Framing Details

Beams shall be carriage bolted to posts.

Ledgers shall be lag screwed or carriage bolted to dwelling rim joist or wall studs a minimum of one 1/2 inch fastener every 32 inches.

Beams and joists attached to ledgers or beams shall be supported by approved framing anchors such as hangers.

Hangers shall be fastened per manufacturer's instructions.

Flashing

All connections between deck and dwelling shall be weatherproof. Flashing shall be compatible with pressure treated wood products.

Nails, Screws and Fasteners

All fasteners less than 1/2 inch in diameter shall be hot dipped galvanized or stainless steel.

Any alternative fasteners shall be approved by the Building Department prior to installation.

Wood Required

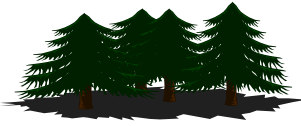
All exposed wood is required to be approved wood with natural resistance to decay (redwood, cedar, etc.) or approved pressure treated wood. This includes posts, beams, joists, ledgers, decking and railings.

Handrails

Handrails shall be provided on at least one side of each stairway with four or more risers. Handrail height, measured above stair nosings shall be not less than 34 inches and not more than 38 inches. All required handrails shall be continuous the full length of the stairs from a point directly above the top riser to a point directly above the lowest riser. Handrails shall be between 1 1/4 to 2 1/4 inches in cross-sectional dimension or the shape shall provide an equivalent gripping surface.

Inspections

Footings - prior to pouring concrete
Framing - prior to decking
Final - Certificate of Compliance



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Please supply the following deck construction information:

1. A plat plan or diagram showing the placement of the deck and the number of feet the deck will be to the property line.
2. Deck Plans showing the following
 - a. Footing depths and method of post attachment.
 - b. Method of attachment to house and method of preventing water entry at points of attachment.
 - c. Floor joist size and method of attachment.
 - d. Deck height above grad.
 - e. Style of railings and proposed space between spindles.
 - f. Overview showing overall measurement and location of attachment to house.
 - g. Beam and support sizes and locations (spacing between beams & posts).
 - h. Width of stairs.
3. Workers Compensation Insurance Certificate is required.
4. Required Inspections:
 - a. Footing Inspection (once hole is dug)
 - b. Framing Inspection
 - c. Final Inspection

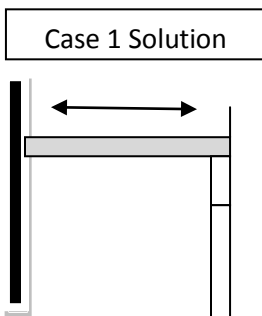
Joist Span Table

Based on No. 2 or better Southern Pine

(Design Load = 40#/square foot DL, Deflection = L/360)

	12" O.C.	16" O.C.	24" O.C.
2X6	10' - 9"	9' - 9"	8' - 6"
2X8	14' - 2"	12' - 10"	11' - 0"
2X10	18' - 0"	16' - 1"	13' - 5"
2X12	21' - 9"	19' - 0"	15' - 4"

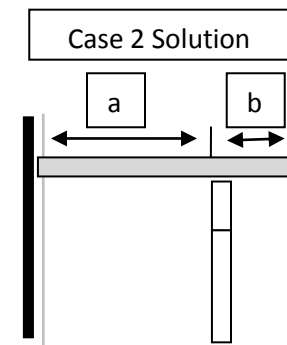
Sample Calculations for using joist span, beam size and footing size tables



Example: 2 = 12feet Post Spacing = 8 feet

Use the Joist Span Table to find the acceptable joist sizes for a 12foot span. The maximum joist span for a 2 x 8 at 16" O.C. is 12' - 10". Also notice that 2 x 10 joists can be used at 24" O.C. for a maximum span of 13' - 5".

Use the Beam and Footing Sizes table and find the 8foot spacing column. With the 12foot deck span (joist length), the minimum beam size must be 2ea. - 2x8. Depending on the type of soil, the footing diameter at the base must be a minimum of 12inches, 10inches or 9inches for the corner posts and 17inches, 14inches or 12inches for all intermediate posts.

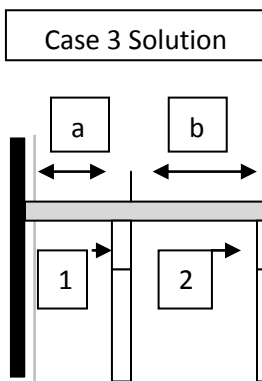


Use "a" to determine joist size and "a" + "2b" to determine beam and footing sizes. The length of "b" is restricted by both the length of "a" and the size of the joists. Joists should not overhang beams by more than 2feet, nor should beams overhang posts by more than 1foot unless engineering design calculations are provided.

Example: a = 10feet b = 2feet Post spacing = 10feet

Refer to the Joist Span Table. For a 10foot joist span, either 2x6 at 12" O.C. or 2x8 at 16" O.C. is acceptable.

For sizing the beam, use a joist length of 14feet (10feet + 4feet) and a post spacing of 10feet. The Beam and Footing Sizes table indicates that the beam must be a minimum of 2ea. - 2x12. Depending on the type of soil, the footing diameter at the base must be a minimum of 16inches, 13inches and 11inches for the corner posts and 22inches, 18inches and 16inches for all intermediate posts. Note that because of the 2foot cantilever all footing sizes were increased by 1inch as required by footnote 2 at the end of the table.



Use "a" or "b", whichever is greater to determine joist size. Use "a" + "b" to determine the size of Beam 1 and the post footing size for the posts supporting Beam 1. Use joist length "b" to determine both the size of Beam 2 and the post footing size for the posts supporting Beam 2.

Example: a = 6feet b = 7feet Post spacing = 9feet

Joist size is determined by using the longest span joist (7feet). The joist Span Table indicates that 2x6 at 24" O.C. would be adequate for this span.

For Beam 1 and footings, use a joist length of 13feet (6feet + 7feet) and a post spacing of 9'. The Beam and Footing Sizes table indicates that the beam must be a minimum of 2ea. - 2x10. Depending on the type of soil, the footing diameters for Beam 1 posts shall be 13inches, 11inches or 9inches for the corner (outside) posts and 19inches, 15inches or 13 inches for all intermediate posts. For Beam 2 and footings use a joist

length of 7feet and post spacing of 9feet. The beam must be a minimum of 2ea. -2x8. Depending on the type of soil, the footing diameters for Beam 2 shall be 10inches, 8inches or 7inches for the corner posts, and 14inches, 11inches or 10inches for all intermediate posts.

Beam and Footing Sizes

Based on No. 2 or better Southern Pine Treated for weather and/or ground exposure

		Post spacing											
		4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'	
Joist Length	6'	Southern Pine Beam	1-2x6	1-2x6	1-2x6	2-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10
	6'	Corner Footing	6 5 4	7 6 5	7 6 5	8 7 6	9 7 6	9 7 6	10 8 7	10 8 7	10 9 7	11 9 8	11 9 8
	6'	Intermediate Footing	9 8 7	10 8 7	10 9 7	11 9 8	12 10 9	13 10 9	14 11 10	14 12 10	15 12 10	15 13 11	16 13 11
	7'	Southern Pine Beam	1-2x6	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	2-2x12
	7'	Corner Footing	7 5 5	7 6 5	8 7 6	9 7 6	9 8 7	10 8 7	10 8 7	11 9 8	11 9 8	12 10 9	12 10 9
	7'	Intermediate Footing	9 8 7	10 8 7	11 9 8	12 10 9	13 11 9	14 11 10	15 12 10	15 13 11	16 13 11	17 14 12	17 14 12
	8'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12
	8'	Corner Footing	7 6 5	8 6 6	9 7 6	9 8 7	10 8 7	10 8 7	11 9 8	11 9 8	12 10 9	13 10 9	13 11 9
	8'	Intermediate Footing	10 8 7	11 9 8	12 10 9	13 11 9	14 11 10	15 12 10	16 13 11	16 13 12	17 14 12	18 15 13	18 15 13
	9'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10
	9'	Corner Footing	7 6 5	8 7 6	9 7 6	10 8 7	10 9 7	11 9 8	12 10 8	12 10 9	13 10 9	13 11 9	14 11 10
	9'	Intermediate Footing	10 9 7	12 10 8	13 10 9	14 11 10	15 12 10	16 13 11	17 14 12	17 14 12	18 15 13	19 15 13	20 16 14
	10'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x10
	10'	Corner Footing	8 6 6	9 7 6	10 8 7	10 8 7	11 9 8	12 10 8	12 10 9	13 11 9	14 11 10	14 12 10	15 12 10
	10'	Intermediate Footing	11 9 8	12 10 9	14 11 10	15 12 10	16 13 11	17 14 12	17 14 12	18 15 13	19 16 14	20 16 14	21 17 15
	11'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12
11'	Corner Footing	8 7 6	9 7 6	10 8 7	11 9 8	12 9 8	12 10 9	13 11 9	14 11 10	14 12 10	15 12 10	15 13 11	
11'	Intermediate Footing	12 9 8	13 11 9	14 12 10	15 12 10	16 13 11	17 14 12	17 14 12	18 15 13	19 16 14	20 16 14	21 17 15	
12'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x10	3-2x12	
12'	Corner Footing	9 7 6	10 8 7	10 9 7	11 9 8	12 10 9	13 10 9	14 11 10	14 12 10	15 12 10	15 13 11	16 13 11	
12'	Intermediate Footing	12 10 9	14 11 10	15 12 10	16 13 11	17 14 12	18 15 13	19 16 14	20 16 14	21 17 15	22 18 15	23 18 16	
13'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12	
13'	Corner Footing	9 7 6	10 8 7	11 9 8	12 10 8	13 10 9	13 11 9	14 12 10	15 12 10	15 13 11	16 13 11	17 14 12	
13'	Intermediate Footing	13 10 9	14 12 10	15 13 11	17 14 12	18 15 13	19 15 13	20 16 14	21 17 15	22 18 15	23 19 16	24 19 17	
14'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12	3-2x12	
14'	Corner Footing	9 8 7	10 8 7	11 9 8	12 10 9	13 11 9	14 11 10	15 12 10	15 13 11	16 13 11	17 14 12	17 14 12	
14'	Intermediate Footing	13 11 9	15 12 10	16 13 11	17 14 12	18 15 13	20 16 14	21 17 15	22 18 15	23 18 16	24 19 17	24 20 17	
15'	Southern Pine Beam	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12	Eng Bm	
15'	Corner Footing	10 8 7	11 9 8	12 10 8	13 10 9	14 11 10	14 12 10	15 12 11	16 13 11	17 14 12	17 14 12	18 15 13	
15'	Intermediate Footing	14 11 10	15 12 11	17 14 12	18 15 13	19 16 14	20 17 14	21 17 15	22 18 16	23 19 17	24 20 17	25 21 18	
16'	Southern Pine Beam	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12	Eng Bm	
16'	Corner Footing	10 8 7	11 9 8	12 10 9	13 11 9	14 11 10	15 12 10	16 13 11	16 13 12	17 14 12	18 15 13	18 15 13	
16'	Intermediate Footing	14 11 10	16 13 11	17 14 12	18 15 13	20 16 14	21 17 15	22 18 16	23 19 16	24 20 17	25 21 18	26 21 18	

Notes:

- Joist length is total length of joist, **including** any cantilevers.
- When joist extends (cantilevers) beyond support beam by 18 inches or more, add 1 inches to footing dimensions shown.
- Requirements for future 3-season porches or screen porches:
 - Increase corner footing size shown by 90%.
 - Increase center footing size shown by 55%.
 - Locate all footings at extremities of deck (no cantilevers).

d. Beam sizes indicated need not be altered.

4. All footing sizes above are base diameters (in inches) and are listed for THREE SOIL TYPES:

