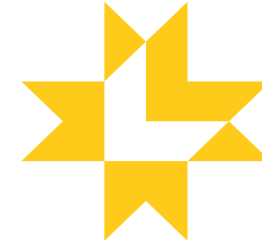


BUILDING A DECK FOR YOUR HOME CAN AND SHOULD BE A REWARDING EXPERIENCE.

This brochure will help ensure that building your deck is just that – a rewarding experience. All new and replacement decks require a building permit. There are two basic requirements from Planning and Development Services to obtain a permit. A site plan shows where you want to build your deck, complete with lot dimensions and setback distances from the proposed deck to the property lines. Planning and Development Services also needs to know how you are building your deck. This brochure will provide you with the minimum information necessary to obtain a deck permit.

Specific requirements for all decks:

- Decks exposed to the weather must be constructed of wood resistant to decay. This would include pressure treated wood, cedar or redwood in accordance with the Building Code.
- Decks more than 30" above the adjacent ground must have a guard railing at least 36" in height. Stair railing is also required on at least one side of the stairs when there are more than three risers. The stair railing must be no greater than 38" above the nose of the stair tread.
- A deck attached to a home must be supported by the existing home and/or frost-free footings at least 36" in depth.
- Decks must be designed to support their own weight (10 lbs/sq. ft.) and the weight of objects and people (40 lbs/sq. ft.). If a hot tub is placed on the deck, an additional 50 lbs/sq. ft. will be added to the load.
- Stair treads must be reasonably level, with consideration given to shed water, snow and ice.
- Posts supporting decks must rest on top of and be connected to the footing. Posts are not permitted to be buried in the ground or footing.
- The spacing of the railing balusters cannot allow the passage of a 5" sphere through any part of the railing, including the stair railing.
- Deck stair risers must be uniform and cannot exceed 7 3/4" in height. The riser height cannot vary more than 3/8" in a flight of stairs.
- The minimum tread depth is 10". The greatest tread depth within a flight of stairs cannot exceed the smallest by more than 3/8".
- The ledger board attached to the house must be bolted to solid wood framing members per code.
- The handgrip portion of a stair railing cannot be less than 1-1/4" or more than 2-5/8" in length. A 2x4 installed vertically is acceptable.
- Floor joists may not extend (cantilever) more than 24" over the beam. Beams or headers may not extend (cantilever) more than 16" from the post.



For buried cable locations
call diggers hotline at:

811

402-441-7521
555 S. 10th St. Ste. 203
Lincoln, NE 68508

(402) 441-7882
lincoln.ne.gov

Updated: 2/23/2026



How to design & build your deck



Lincoln-Lancaster County
**PLANNING AND
DEVELOPMENT**

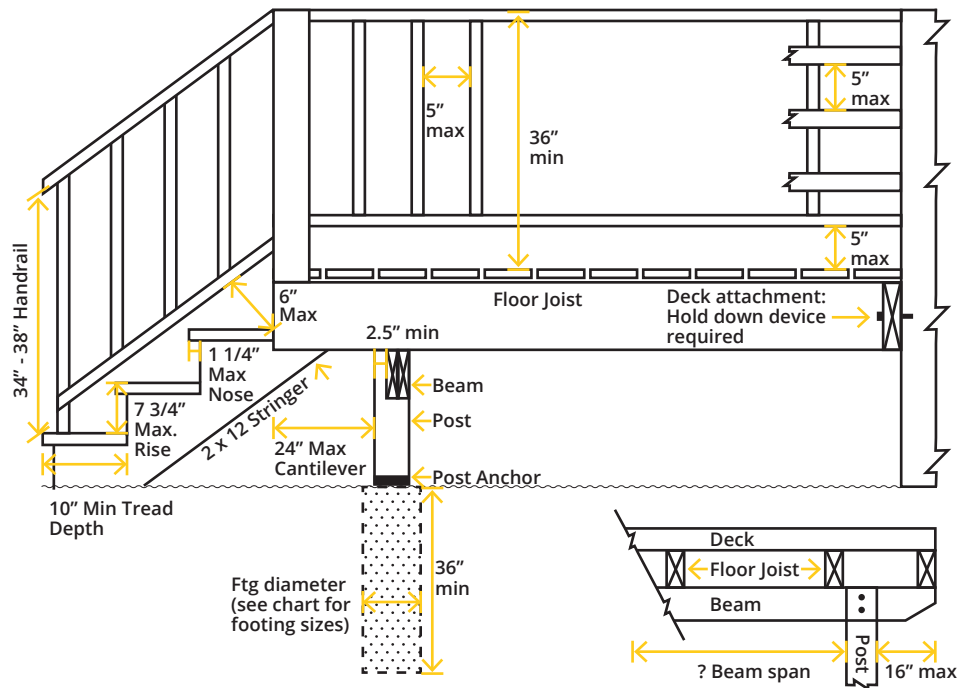
Deck beam span

#2 Treated syp - actual floor joist length with maximum 2' cantilever

Beam Span	20'	18'	16'	14'	12'	10'	8'
12'-0"	N/A	N/A	N/A	N/A	3-2 X 12	3-2 X 12	N/A
10'-0"	N/A	3-2 X 12	3-2 X 12	3-2 X 12	3-2 X 10	2-2 X 12	N/A
8'-0"	3-2 X 12	2-2 X 12	2-2 X 12	2-2 X 12	2-2 X 10	2-2 X 10	N/A
6'-0"	2-2 X 10	2-2 X 8	2-2 X 8	2-2 X 8	2-2 X 8	2-2 X 6	N/A

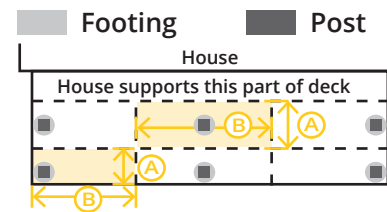
#2 Treated syp - actual floor joist length with no cantilever

Beam Span	20'	18'	16'	14'	12'	10'	8'
12'-0"	N/A	N/A	N/A	3-2 X 12	3-2 X 12	3-2 X 12	2-2 X 12
10'-0"	3-2 X 12	3-2 X 12	3-2 X 12	3-2 X 10	3-2 X 10	2-2 X 12	2-2 X 10
8'-0"	3-2 X 10	2-2 X 12	2-2 X 12	2-2 X 10	2-2 X 10	2-2 X 10	2-2 X 8
6'-0"	2-2 X 10	2-2 X 8	2-2 X 8	2-2 X 8	2-2 X 8	2-2 X 6	2-2 X 6



NOTE: Please inform the Planning and Development if your deck will be attached to a cantilevered section of your home.

Tributary area = A x B



Max. post heights

Load Area	4 x 4	4 x 6	6 x 6
36	13'-8"	14'-0"	14'-0"
48	11'-0"	13'-11"	14'-0"
60	11'-0"	13'-11"	14'-0"
72	9'-5"	12'-0"	14'-0"
84	8'-4"	10'-8"	14'-0"
96	8'-4"	10'-8"	14'-0"
108	7'-5"	9'-8"	14'-0"
120	7'-5"	9'-8"	14'-0"
132	6'-9"	8'-10"	14'-0"
144	6'-2"	8'-2"	14'-0"
156	6'-2"	8'-2"	14'-0"

Max. floor joist spans

Size	Spacing	SYP AC2
2 x 6	12" o.c.	9'-11"
	16" o.c.	9'-0"
	24" o.c.	7'-7"
2 x 8	12" o.c.	13'-1"
	16" o.c.	11'-10"
2 x 10	12" o.c.	16'-2"
	16" o.c.	14'-0"
2 x 12	12" o.c.	18'-0"
	16" o.c.	16'-6"
	24" o.c.	13'-6"

This chart for #2 grade lumber only.

Loads for calculating footing sizes

$$(x) \times (y) = \text{load area}$$

$$(\text{load area}) \times (\text{number of lbs. per sq. foot}) = \text{Load}$$

Floor only = 50lbs. per sq. foot

Add 40lbs. per sq. foot when adding roof.

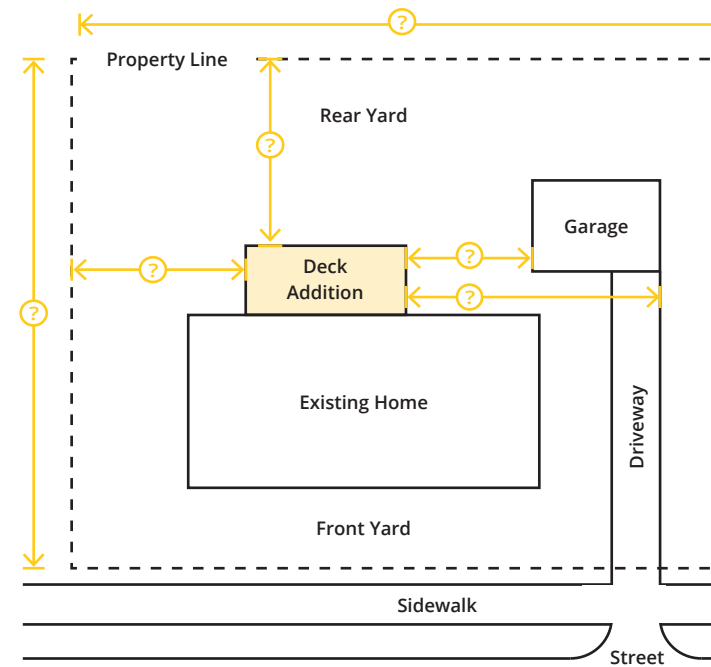
Add 55lbs. per sq. foot when adding roof and ceiling.

Add 50lbs. per sq. foot where a hot tub or spa will sit.

(Unless otherwise stated by the manufacturer.)

If your deck is more than 30 inches above grade, you will need a guardrail.

Sample site plan



Where this symbol appears, please indicate the measurements for your project. Specific minimums will depend upon zoning district and individual lot.

Footing sizes for decks

Load (lb.)	Hole Depth (in.)	Round Hole Diameter (in.)	Square Hole Length per Side (in.)
500	36	7	6
1000	36	10	8
1500	36	12	10
2000	36	14	12
2500	36	15	13
3000	36	17	15
3500	36	18	16
4000	36	19	17
4500	36	20	18
5000	36	21	19
5500	36	22	20
6000	36	23	21
6500	36	24	22
7000	36	25	22
7500	36	26	23
8000	36	27	24
8500	36	28	25
9000	36	29	25
9500	36	30	26
10000	36	30	27

How to determine loads

