

DECK PERMIT INFORMATION

PERMIT MAY TAKE UP TO 10 WORKING DAYS TO PROCESS

Permit Requirements

Building permits are required for construction of all decks. A site plan shall show the distances to property lines, buildings on the same property, septic systems, wetlands, rivers or lakes. All decks must meet the land use requirements of the zoning ordinance. If the property is located in the Shoreland District (i.e. within 1000 feet of a lake, 700 feet of the Rum River, or 300 feet of a creek, or stream), a certificate of compliance will be required on the existing sewage treatment system. If the existing system is found to be in noncompliance, you will be required to install a new conforming system (Isanti County Zoning Ordinance, Section 23, Subdivision 5).

Information necessary when applying for a building permit

1. Completed and signed permit application
2. 2 detailed deck plans, including cross section of construction with the footings, support posts, beam, joists, guardrails, and stairways
3. 1 site plan
4. copy of contractors license (if applicable)

Construction shall not begin until the permit has been issued. Remember that the purpose of the plan review is to inform you of potential life safety issues, so the more information shown, the more likely your project will run smoothly.

Required Inspections

1. **Footings:** to be made after the footing has been excavated, prior to the pouring other concrete
2. **Framing:** to be made after the posts, beams, floor joists, decking, and stairway is installed
3. **Final:** to be made after the deck has been completed, with handrails, guards, and lighting is in place

NOTE: 24-hour notice is required for all inspection.

CONSTRUCTION DETAIL

1. **Frost Footings:** required for all decks attached to a dwelling, porch, or garage that has frost footings. The minimum depth to the base of the footing is 42 inches.
2. **Live Load:** all decks shall be designed to support a live load of 40 pounds per square foot.
3. **Guards:** required on all decks more than 30 inches above grade. Rails must be 36 inches minimum in height with a 4" maximum opening. Stairways allow a 6" opening in triangle formed by riser, tread and guard. Guards on stairs may have a 4-3/8" max. opening and min. height 34". Open risers are permitted provided the openings between treads do not permit the passage of a 4-inch diameter sphere.
4. **Cantilevers, Overhanging Joists and Beams:** Joist 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.
5. **Flashing:** all connections between deck and dwelling shall be weatherproof by the use of flashings. Any openings in the exterior or cuts in the exterior shall be protected by flashing. NOTE: aluminum flashings can have reactions when in contact with ACQ treated lumber.
6. **Framing Details:** Header beams more than 6 feet long shall be supported by framing anchors or joist hangers unless bearing on a beam.
7. **Nails and Screws:** use only stainless steel or hot-dipped galvanized. If screws are used with joist hangers, than the screws shall be of an approved type.
8. **Required Wood:** all exposed wood used in the construction of decks are required to be of approved wood of natural resistance to decay (redwood, cedar, etc.) or approved treated wood. This includes posts, beams, joists, decking and railings
9. **Plastic Composite Decking:** shall be an approved type with an Evaluation Service Report.
10. **Stairs:** Minimum width is 36 inches. Maximum rise is 7 3/4 inches; minimum rise is 4 inches. Minimum run is 10 inches. Largest tread width or riser height shall not exceed the smallest by more than 3/8 inch.

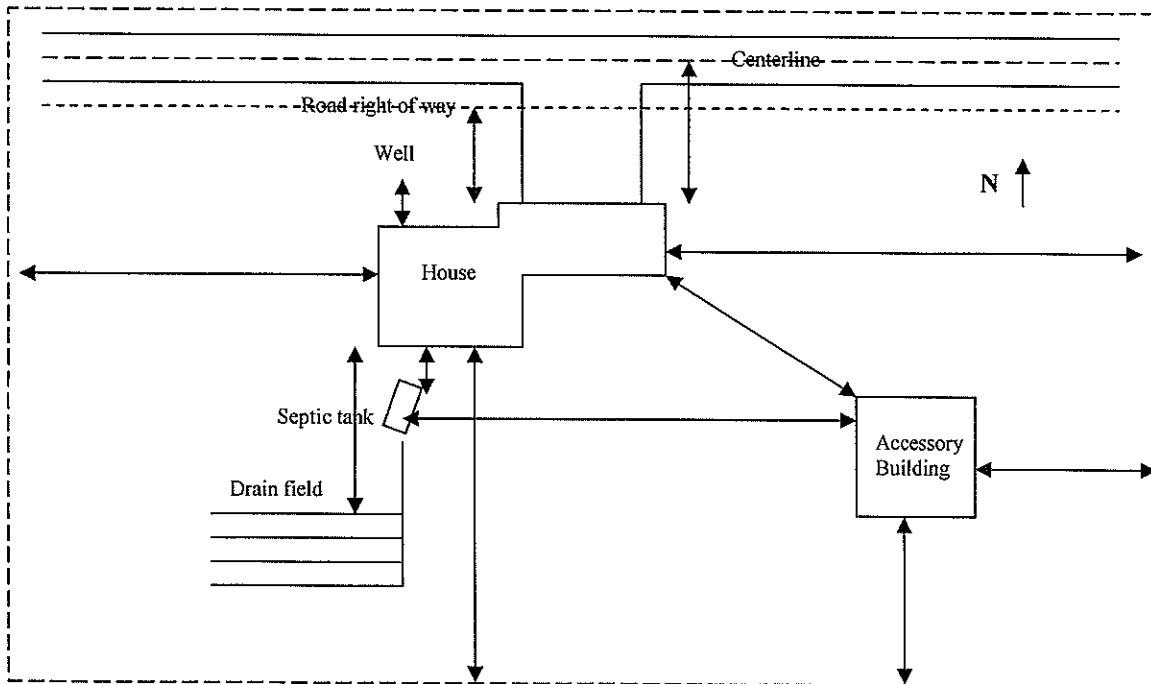
Minimum plan details necessary for a proper plan review:

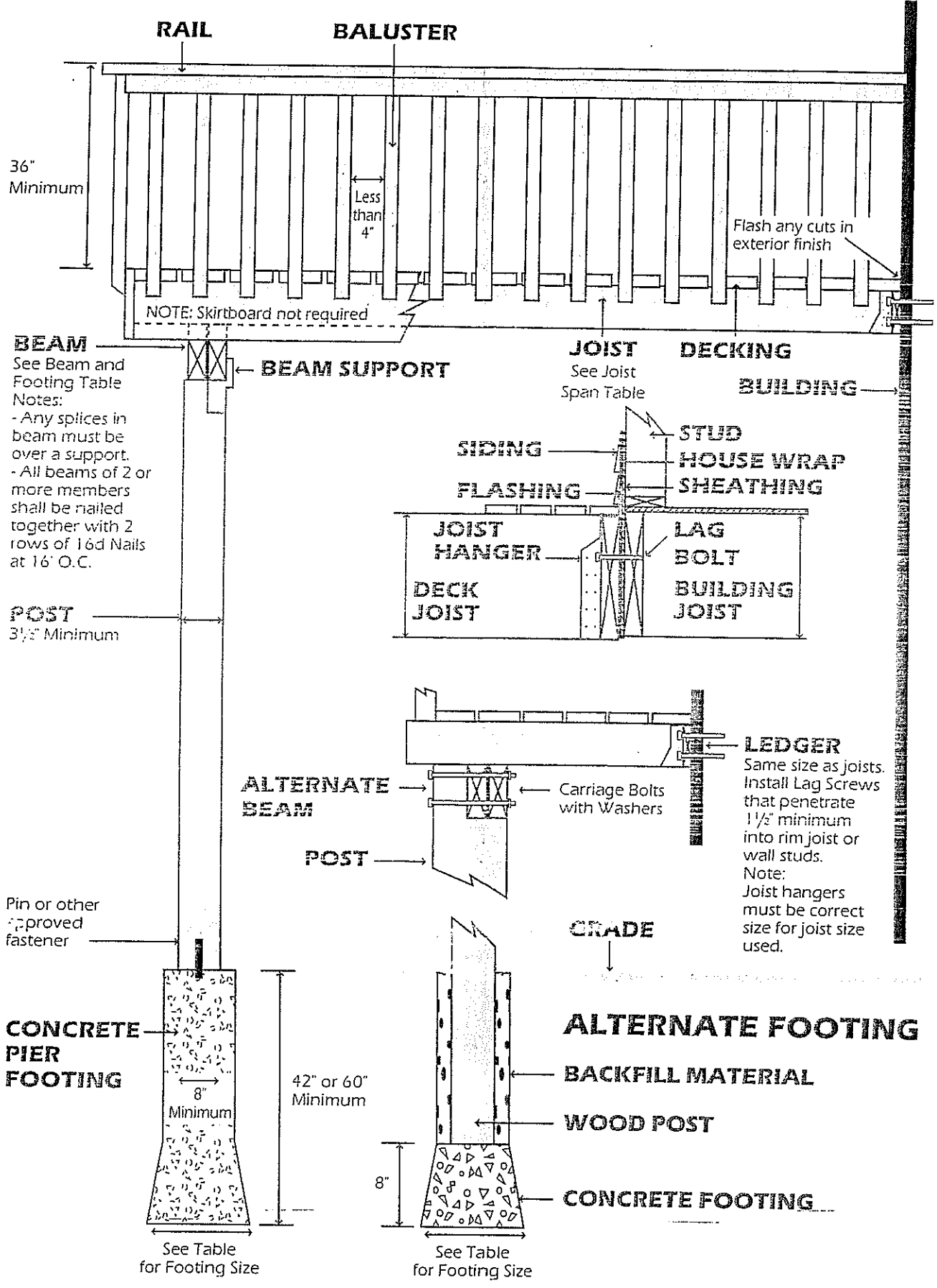
The following text and sample drawings show the minimum detail expected so the permit process can proceed smoothly. Plans do not need to be professionally drawn but should include all of the information requested. The application for permit can be filled out at the time you drop off your plans and other required information.

Certificate of Survey or Site Plan:

Submit a copy of the certificate of survey if one was conducted or site plan drawn to scale indicating the lot dimensions, the location and size of the existing structure (s), and the location and size of the proposed structure. Indicate the setbacks from property lines of the existing and proposed structures, septic tanks, drainfield, well, and any private easements on the property.

SAMPLE SITE PLAN "FOR ILLUSTRATIVE PURPOSES ONLY"





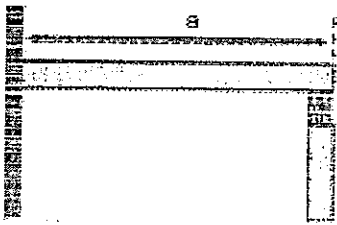
Joist Span

Based on No. 2 or better wood grades.
(Design Load = 40#LL + 10#DL, Deflection= L/360)

	Ponderosa Pine			Southern Pine			Western Cedar		
	12"OC	16"OC	24"OC	12"OC	16"OC	24"OC	12"OC	16"OC	24"OC
2x6	9-2	8-4	7-0	10-9	9-9	8-6	9-2	8-4	7-3
2x8	12-1	10-10	8-10	14-2	12-10	11-0	12-1	11-0	9-2
2x10	15-4	13-3	10-10	18-0	16-1	13-5	15-5	13-9	11-3
2x12	17-9	15-5	12-7	21-9	19-0	15-4	18-5	16-0	13-0

Sample Calculations for Using Joist Span, Beam Size and Footing Size Tables

CASE I SOLUTION:



Refer to tables for joist, beam and footing size requirements.

Example: a = 12'; Post Spacing = 8'

Use the **Joist Span** table to find the acceptable joist sizes for a 12' span, 2x8s at 12" O.C., 2x10s at 16" O.C. or 2x12s at 24" O.C.

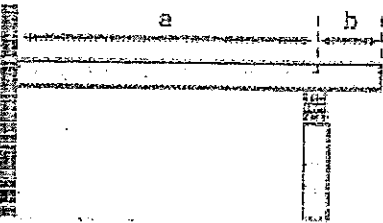
Use the **Beam and Footing Sizes** table and find the 8' post spacing column. With a 12' deck span, the beam may be either two 2x8s or two 2x10s, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 12", 10" or 9" for the corner post and 17", 14" or 12" 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.

Example: a = 8', b = 2', Post Spacing = 10'

Refer to the **Joist Span** table. For an 8' joist span, either 2x8s at 24" O.C. or 2x6s at 16" O.C are acceptable.

For sizing the beam, use a joist length of 12' (8' + 4') and a post spacing of 10'. The **Beam and Footing Sizes** table indicates that the beam may be either two 2x10s or two 2x12s, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 15", 12" or 11" for the corner post and 20", 17" or 15" for all intermediate posts. Note that because of the 2' cantilever all footing sizes were increased by 1" as required by footnote 2 at the end of the table.

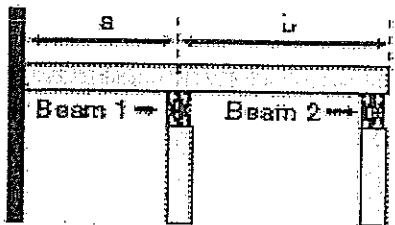


Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b" to determine the size of Beam 1 and the post footing size for the posts supporting Beam 1. Use joist length "b" to determine both the size of Beam 2 and the post footing size for the posts supporting Beam 2.

Example: a = 6', b = 7', Post Spacing = 9'

Joist size is determined by using the longest span joist (7'). The **Joist Span** table indicates that 2x6s at 24" O.C. would be adequate for this span.

For Beam 1 and footings, use a joist length of 13' (6' + 7') and a post spacing of 9'. The **Beam and Footing Sizes** table indicates that the beam may be two 2x10s or two 2x12s, depending on the wood used. Depending on the type of soil, the footing diameters for Beam 1 posts shall be 13", 11" or 9" for the corner (outside) post and 19", 15" or 13" for all intermediate posts. For Beam 2 and footings use a joist length of 7' and post spacing of 9'. The beam may be two 2x8s or two 2x10s, depending on wood used. Depending on the type of soil, the footing diameters for Beam 2 shall be 10", 8" or 7" for the corner posts, and 14", 11" or 10" for all intermediate posts. V-39



Beam and Footing Sizes

Based on No. 2 or better Ponderosa Pine and 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
		Ponderosa Pine Beam	1-2x6	1-2x6	1-2x8	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10
	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	11 9 8
	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	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
		Ponderosa Pine Beam	1-2x6	1-2x6	1-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	2-2x12	3-2x10	3-2x10
	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	12 10 9
	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	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
		Ponderosa Pine Beam	1-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	3-2x10	3-2x10	3-2x12
	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 10 9	13 11 9
	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 11	17 14 12	18 15 13	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	
	Ponderosa Pine Beam	1-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	3-2x10	3-2x10	3-2x12	3-2x12	
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 8	13 10 9	13 10 9	13 11 9	14 11 10	
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 16 14	19 15 13	20 16 14	
10'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10	
	Ponderosa Pine Beam	1-2x6	1-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12	Eng Bm	
Corner Footing	8 6 6	9 7 6	10 8 7	10 8 7	11 9 8	12 10 8	12 10 8	13 11 9	14 11 10	14 11 10	14 12 10	15 12 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	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	
	Ponderosa Pine Beam	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12	Eng Bm	
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 12 10	15 13 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	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	
	Ponderosa Pine Beam	2-2x6	2-2x6	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x12	3-2x12	Eng Bm	Eng Bm	
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	15 13 11	16 13 11	
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	22 18 15	23 18 15	
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	
	Ponderosa Pine Beam	2-2x6	2-2x6	2-2x8	2-2x10	2-2x12	2-2x12	2-2x12	3-2x12	3-2x12	Eng Bm	Eng Bm	
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	16 13 11	17 14 12	
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	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	
	Ponderosa Pine Beam	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12	Eng Bm	Eng Bm	Eng Bm	
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	17 14 12	
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 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	
	Ponderosa Pine Beam	2-2x6	2-2x8	2-2x8	2-2x10	3-2x10	3-2x10	3-2x12	3-2x12	Eng Bm	Eng Bm	Eng Bm	
Corner Footing	10 8 7	11 9 8	12 10 9	13 10 9	14 11 10	14 12 10	15 12 11	16 13 11	17 14 12	17 14 12	17 14 12	18 15 13	
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 15	23 19 17	24 20 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	
	Ponderosa Pine Beam	2-2x6	2-2x8	2-2x10	2-2x10	3-2x10	3-2x10	3-2x12	3-2x12	Eng Bm	Eng Bm	Eng Bm	
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	18 15 13	
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	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" or more, add 1" 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).
 - Beam sizes indicated need not be altered.

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

	CLAY	SAND	GRAVEL
Corner Footing	10 8 7		
Intermediate Footing	14 11 10		

DECK PLAN DETAILS

PLEASE FILL IN THE BLANKS WITH YOUR DECK DETAILS, FURNISH A SITE SURVEY AND COMPLETE A BUILDING APPLICATION.

WIDTH _____

JOIST SIZE _____
SPACING _____

LENGTH _____

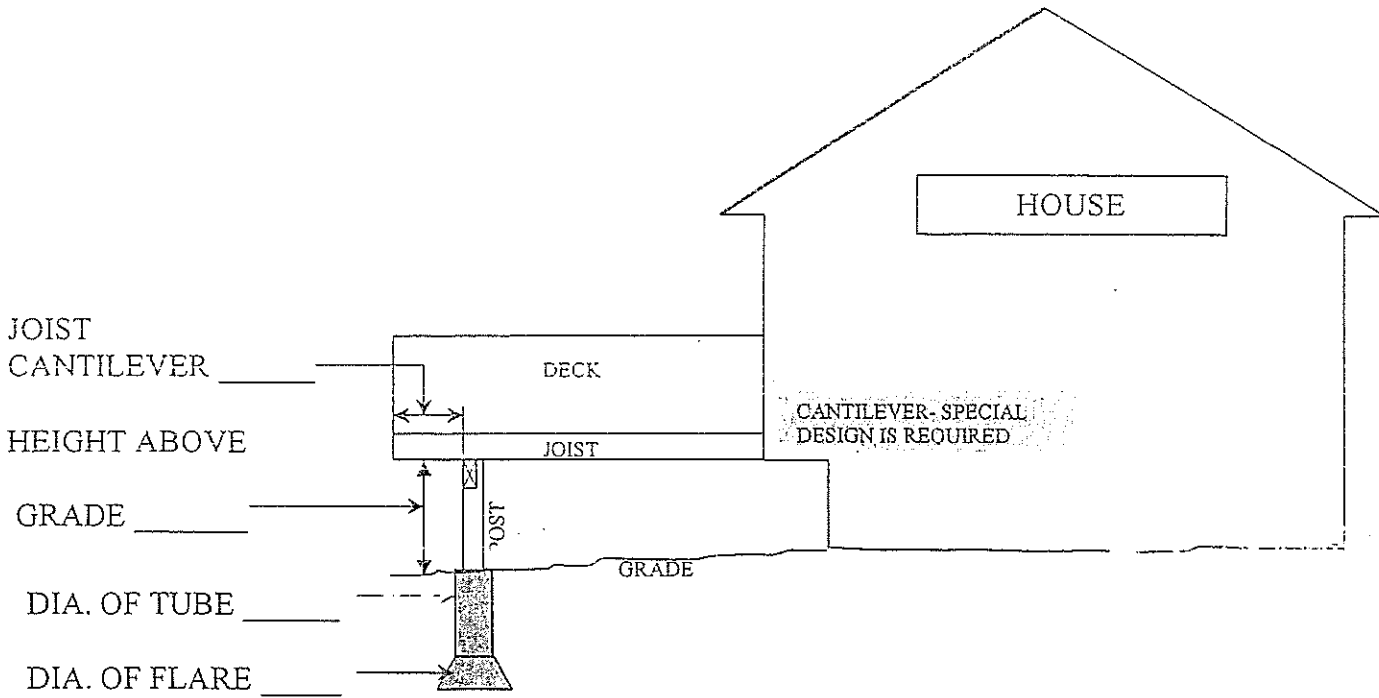
NUMBER OF POSTS _____ SIZE OF BEAM _____

POST SPACING _____ SIZE OF POSTS _____

(recommend 4 x 6 or larger for direct bearing)

LOCATE STAIRS ON SURVEY

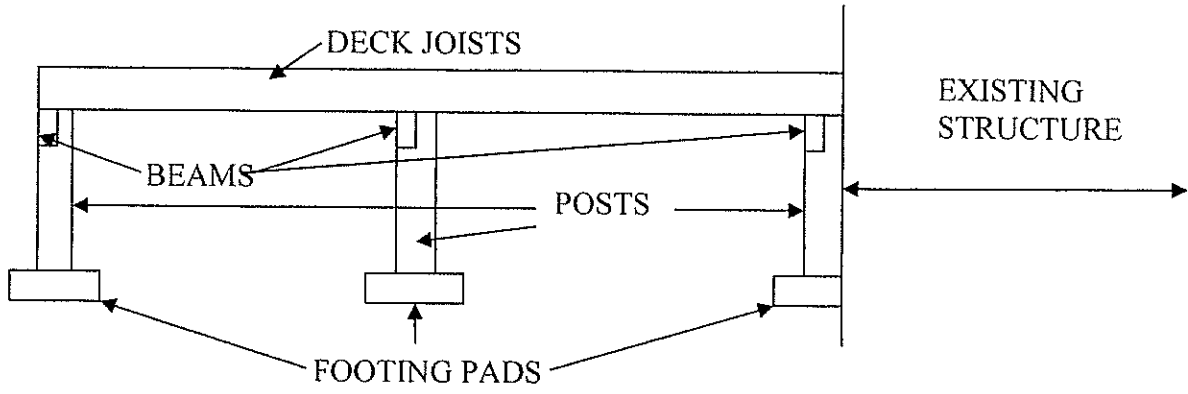
1' Max.



APPLICATION CHECKLIST Y or N

1. Is a future porch being considered? Y or N
2. Will there be a hot tub or spa on the deck? Y or N
3. Is the deck being attached to a house cantilever? Yes, provide a special design.
4. Is a guardrail required (over 30" above grade)? Y or N
5. Is a handrail required on the stairs (4 or more risers)? Y or N
6. Is the deck drawn on the site survey? Show the distance to relevant property lines, identify building and streets or alleys. Y or N
7. Type of decking material - treated/cedar/plastic composite

SIDE VIEW



TOP VIEW

