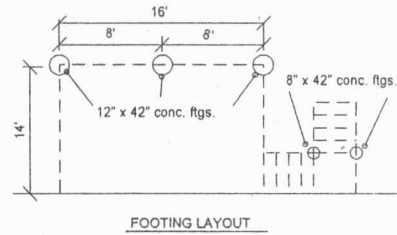
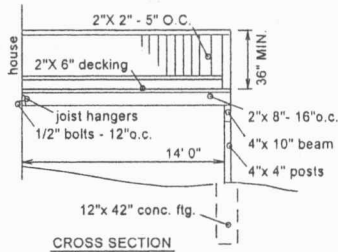
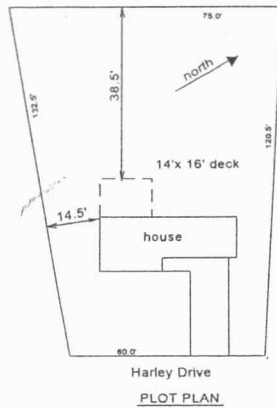


RESIDENTIAL DECK GUIDELINES

- Permits are required for *all* new decks and *all* deck replacements. Repairs on existing decks costing less than \$500.00 for labor and materials do not require a permit. Permit applications must include 2 copies each of a plot plan, a cross section drawing and a footing layout drawing.



- Footings for decks must extend 42" min. below grade to the bottom of the footing. The footing size will vary depending on the size of the deck however a 10" – 12" diameter hole will generally work.
- Posts must be anchored to the footing by an approved mechanical fastener. If treated lumber is used, the posts may be set in the concrete, however the posts should be left up at least 8" from the bottom of the hole.
- Extreme care should be taken to assure the rim joist is properly fastened to the house. Generally a 1/2" diameter bolt every 12" will be sufficient, however this may vary depending on the size of the deck. **BE SURE THAT YOU ARE BOLTING INTO SOLID, STRUCTURALLY SOUND MATERIAL!!**

Joist span	6'	8'	10'	12'	14'	16'
Bolt size	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"
Bolt spacing	24"	18"	16"	12"	12"	12"

- A 36" min. high guardrail is required around any deck more than 30" above grade. Also a 34" to 38" high handrail is required on any set of steps with 4 or more risers. No guardrail or handrail shall allow the passage of a 4" sphere through the rail.
- Your lumber salesperson can help you with lumber sizes and spans as well as beam sizes and post sizes. If you have any unanswered questions you may contact your local permits and inspections office.

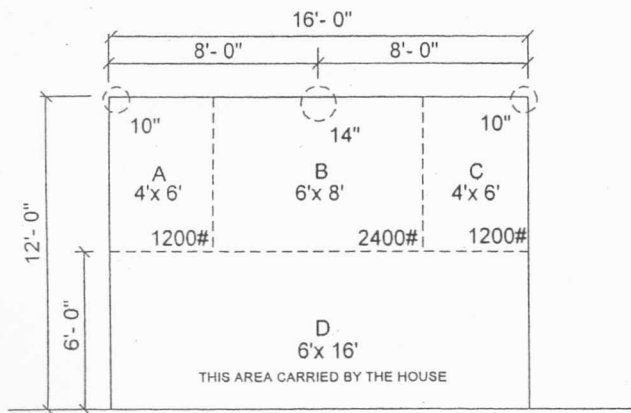
FLOOR JOIST SPANS

Joist Size	2"x 6"			2"x 8"			2"x 10"			2"x 12"		
	12"	16"	24"	12"	16"	24"	12"	16"	24"	12"	16"	24"
CCA treated	10'9"	9'9"	8'6"	14'2"	12'10"	11'0"	18'0"	16'1"	13'1"	21'9"	18'10"	15'5"
Cedar	9'2"	8'4"	7'3"	12'1"	11'0"	9'7"	15'5"	14'0"	12'3"	18'9"	17'0"	14'11"

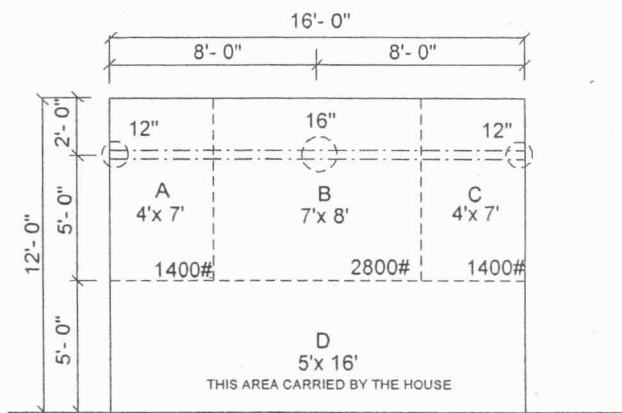
DECK FOOTINGS

Deck footings are figured by a simple calculation. First you must figure out how much of the deck each footing is carrying. (the *tributary area*) Each footing must carry $\frac{1}{2}$ the total area between footings and the house, and $\frac{1}{2}$ the area between the footings themselves.

In example A, half of the load (area D) is carried by the house. The other half of the deck (areas A,B,C) is then divided among the footings with half of the area going to each footing.



EXAMPLE A - STANDARD DECK



EXAMPLE B - CANTILEVERED DECK

Example B shows a cantilevered deck. The loads are figured the same except the cantilevered area is added to the normal half distance between house and beam. In this case the footings are carrying half the distance to the house, (5') *plus* the 2' cantilever for a total of 7' of tributary load. The remaining area is then divided between the footings.

Code requires that the deck be designed to support 50 lbs./sq.ft. (40 psf live load & 10 psf dead load). Once you have figured the area to be supported by each footing, multiply that number by 50. In example A, the center footing carries half the load between the house and the footings (6'), and half the load between the footings (4'+4' or 8'). If you take 6' x 8' x 50 psf you'll find that the center footing needs to support 2400 pounds.

The center footing in example B would carry half the load from the beam to the house (5'), *plus* the cantilever (2') and half the load between footings (8'). You would take 7' x 8' x 50 psf for a load of 2800 pounds on this footing.

The minimum depth required for deck footings is 42", however the deeper you go, the more weight the footing will carry. The chart below should help you figure out your footing needs.

Diameter	8"	10"	12"	14"	16"	18"	20"
Pounds supported							
@ 42" depth	941	1340	1805	2334	2930	3591	4316
@ 48" depth	1481	2071	2747	3509	4360	5298	6323