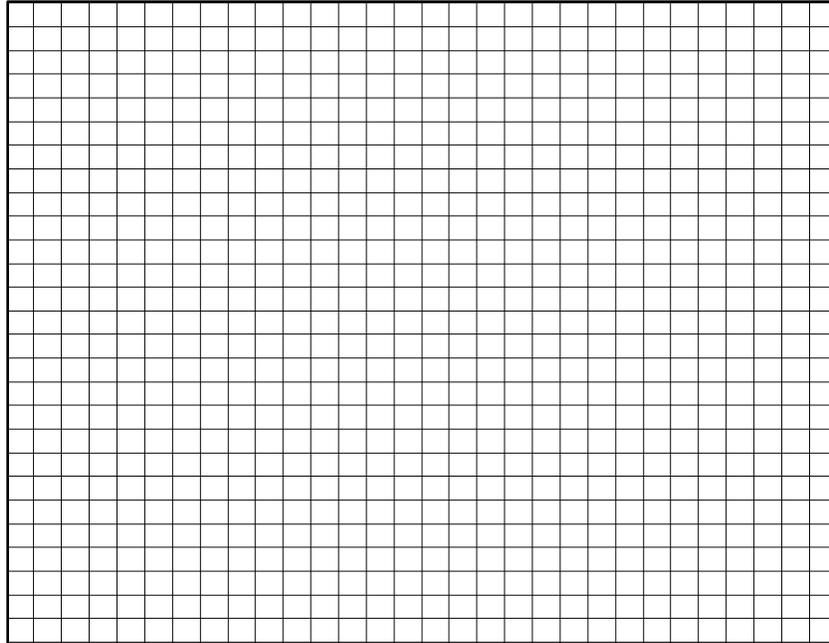


Footing Size

Deck Layout

Locate footings, beams, overhangs & dimension



Loading

Live load = 40 PSF
 Dead load = 10 PSF
 Other = _____ PSF
 Total load = _____ PSF

Soil Bearing = _____ PSF*

*soils greater than 2,000 PSF must be verified

PSF=pounds per square foot

Tributary Area

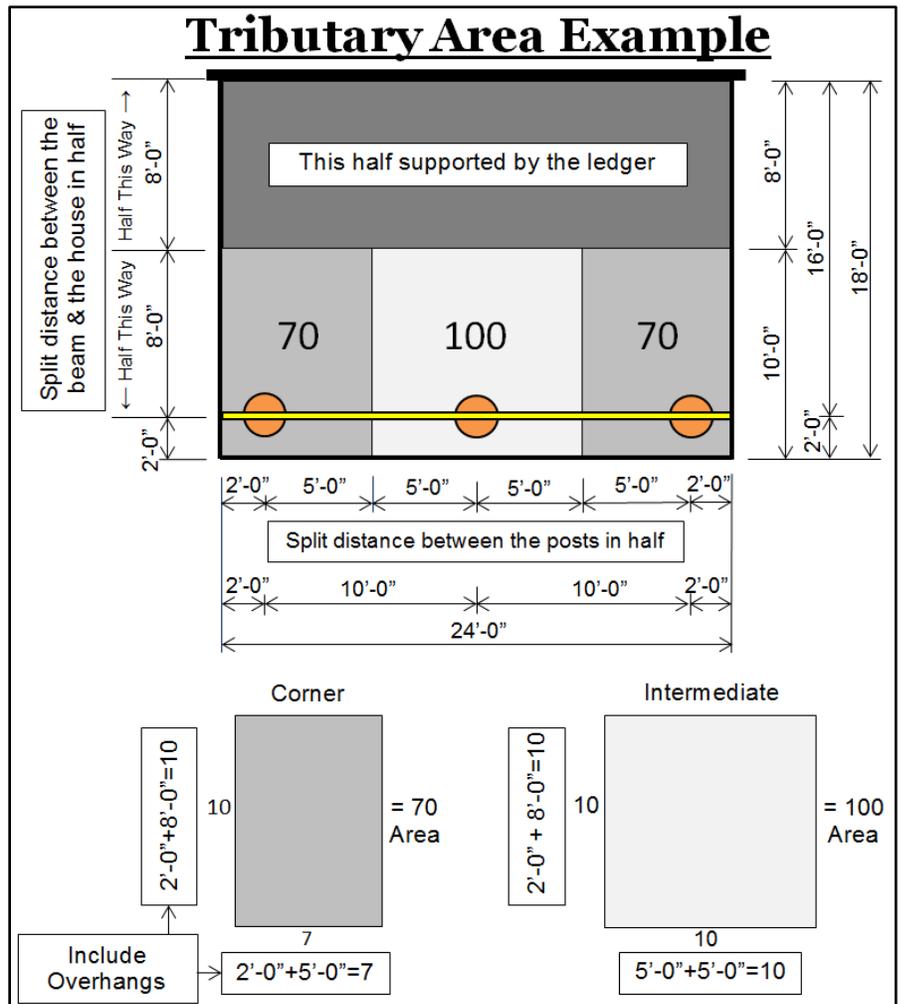
(See Example on Right)

Corner Footing

_____ X _____ = _____

Intermediate Footing

_____ X _____ = _____



Tributary load

Tributary area x total load= tributary load

Use this formula for tube forms, I.e. Sonotubes®

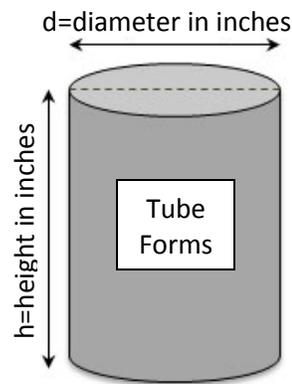
$$\text{Tributary area} \times \text{total load} + \left(150 \left(\frac{\pi d^2 h}{6912}\right)\right) = \text{tributary load}$$

Corner footing

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} + \left(150 \left(\frac{\pi \underline{\hspace{1cm}}^2 \underline{\hspace{1cm}}}{6912}\right)\right) = \underline{\hspace{2cm}}$$

Intermediate footing

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} + \left(150 \left(\frac{\pi \underline{\hspace{1cm}}^2 \underline{\hspace{1cm}}}{6912}\right)\right) = \underline{\hspace{2cm}}$$



Footing Area

In² =inches squared

Tributary load ÷ Soil bearing=Load PSF × 144(change to square inches) = Area in In²

Corner footing

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times 144 = \underline{\hspace{2cm}} \text{ Area in In}^2$$

Intermediate footing

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \times 144 = \underline{\hspace{2cm}} \text{ Area in In}^2$$

Round footings

π= 3.1416

$$2 \times \sqrt{\text{area} \div \pi} = \text{diameter of footing}$$

(round to nearest inch)

Corner

$$2 \times \sqrt{\underline{\hspace{1cm}} \div \pi} = \underline{\hspace{1cm}} \text{ inches}$$

Intermediate

$$2 \times \sqrt{\underline{\hspace{1cm}} \div \pi} = \underline{\hspace{1cm}} \text{ inches}$$

Square footings

$$\sqrt{\text{area}} = \text{length of each side}$$

(round to nearest inch)

Corner

$$\sqrt{\underline{\hspace{1cm}}} = \underline{\hspace{1cm}} \text{ inches}$$

Intermediate

$$\sqrt{\underline{\hspace{1cm}}} = \underline{\hspace{1cm}} \text{ inches}$$

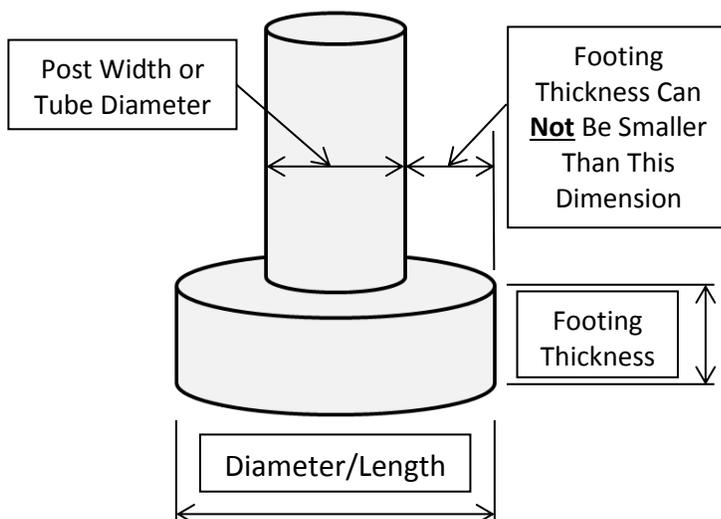
Footing thickness²

$$(\text{Diameter or length} - \text{post width}) \div 2 = \text{thickness}$$

(in inches)

$$(\underline{\hspace{1cm}} - \underline{\hspace{1cm}}) \div 2 = \underline{\hspace{1cm}} \text{ inches}$$

Note: Footings may not be less than 8" thick



²Footing thickness formula from American Wood Council. *Prescriptive Residential Wood Deck Construction Guide, 2015.*