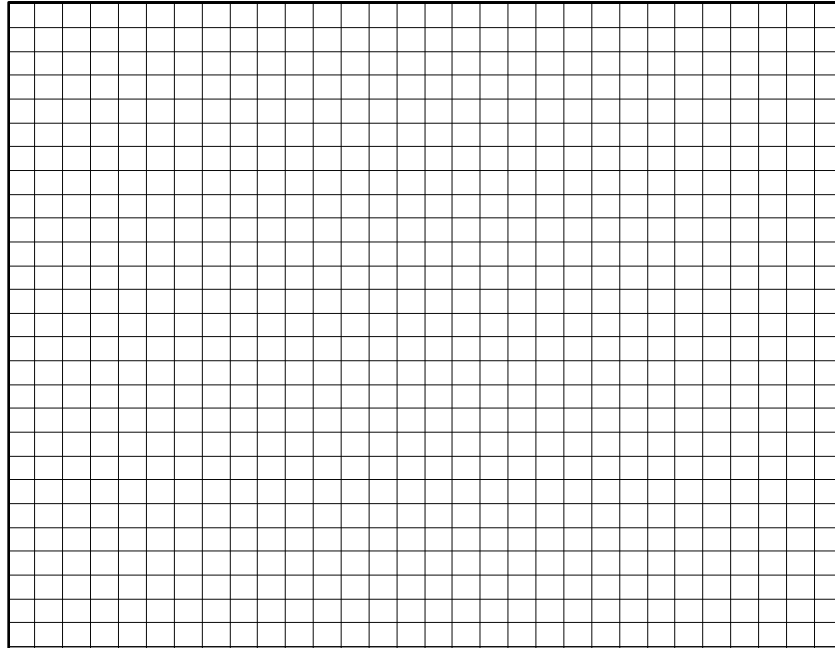


# Footing Size

## 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

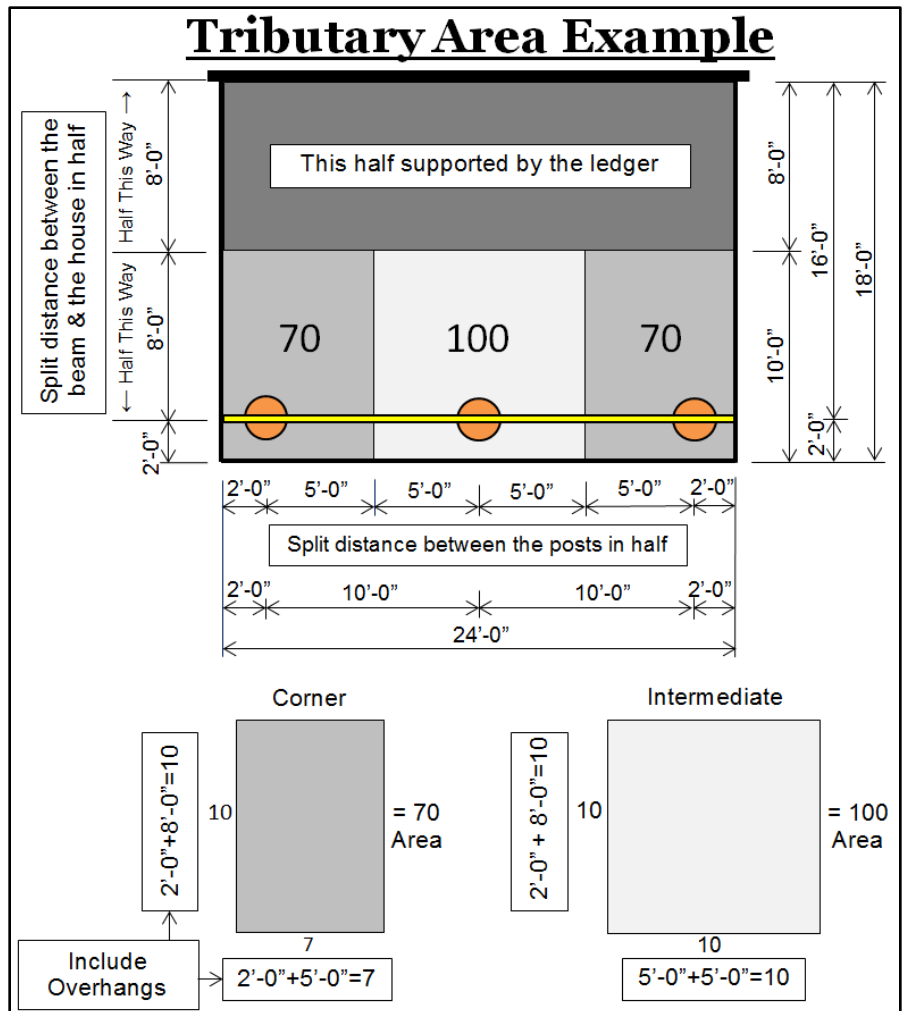
(See Example on Right)

Corner Footing

\_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_

Intermediate Footing

\_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_



**Tributary load**

Tributary area x total load= tributary load

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

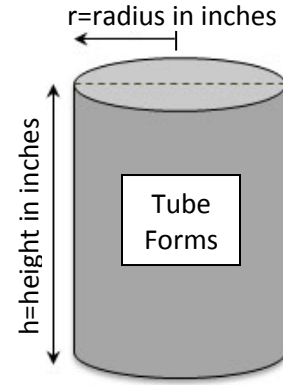
$$\text{Tributary area} \times \text{total load} + \left(150 \left(\frac{\pi r^2 h}{1728}\right)\right) = \text{tributary load}$$

Corner footing

$$\text{_____} \times \text{_____} + \left(150 \left(\frac{\pi \text{_____}^2 \text{_____}}{1728}\right)\right) = \text{_____}$$

Intermediate footing

$$\text{_____} \times \text{_____} + \left(150 \left(\frac{\pi \text{_____}^2 \text{_____}}{1728}\right)\right) = \text{_____}$$



**Footing Area**

In<sup>2</sup> =inches squared

Tributary load ÷ Soil bearing=Load PSF × 144(change to square inches) = Area in In<sup>2</sup>

Corner footing

$$\text{_____} \div \text{_____} = \text{_____} \times 144 = \text{_____} \text{Area in In}^2$$

Intermediate footing

$$\text{_____} \div \text{_____} = \text{_____} \times 144 = \text{_____} \text{Area in In}^2$$

**Round footings**

π= 3.1416

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

(round to nearest inch)

Corner

$$2 \times \sqrt{\text{_____} \div \pi} = \text{_____} \text{ inches}$$

Intermediate

$$2 \times \sqrt{\text{_____} \div \pi} = \text{_____} \text{ inches}$$

**Square footings**

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

(round to nearest inch)

Corner

$$\sqrt{\text{_____}} = \text{_____} \text{ inches}$$

Intermediate

$$\sqrt{\text{_____}} = \text{_____} \text{ inches}$$

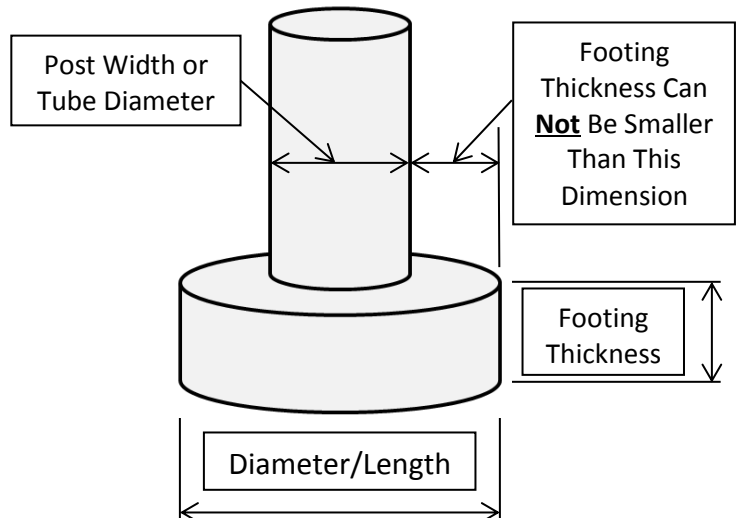
**Footing thickness<sup>2</sup>**

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

(in inches)

$$(\text{_____} - \text{_____}) \div 2 = \text{_____} \text{ inches}$$

Note: Footings may not be less than 8" thick



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