Formula for Determining Footing Spacing and Size

Example

Home weight per square foot (#)
30 p.s.f. roof live load + 40 p.s.f floor live load + 25 ps.f. total dead load materials = 95 p.s.f. = #

Soil Bearing Capacity (S)
Assume 2,000 p.s.f. (From local authority or testing)

Module Width (w)
28’ wide home: 2 sections at 14’ w = 14’ x .5 = 7’

Pier Spacing (P)
Installer wants to use 8’ o.c. for spacing

Footing Size Required (F) $F = \frac{P \times \# \times w}{S}$ $\frac{8' \times 95 \text{ p.s.f.} \times 7'}{2{,}000 \text{ p.s.f.}}$

$F = \frac{5{,}320 \text{ p.s.f.}}{2{,}000 \text{ p.s.f}}$ **F= 2.66 sq. ft. area required**

From the Minnesota square and round footing tables we can determine that the home would require a square footing of 20” x 20” x 10” deep and would require a round footing of 23” diameter x 12” deep.