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)  \[ F = \frac{P \times \# \times w}{S} \]
8’ x 95 p.s.f. x 7’
2,000 p.s.f.

F = 5,320 p.s.f.  F = 2.66 sq. ft. area required
2,000 p.s.f

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.

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