

RESIDENTIAL DECKS

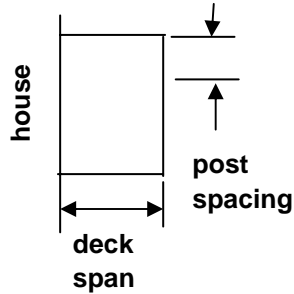
DECK POST SPACING FOR 10" DIAMETER FOOTING PADS

Design Loading

Live load = 40 lbs.per sq. ft.

Dead load = 5 lbs.per sq.ft.

Total = 45 lbs.per sq.ft.



| Deck Span | Soil Capacity | | | |
|-------------------|---------------|-------------|-------------|-------------|
| | 1500psf | 2000 psf | 2500 psf | 3000 psf |
| 6' | 6'- 1" | 8'- 0" | 9'- 8" | 12'- 0" |
| 8' | 4'- 6" | 6'- 0" | 7'- 7" | 9'- 0" |
| 10' | 3'- 8" | 4'- 10" | 6'- 1" | 7'- 3" |
| 12' | 3'- 0" | 4'- 0" | 5'- 0" | 6'- 0" |
| 14' | 2'- 7" | 3'- 5" | 4'- 4" | 5'- 2" |
| 16' | 2'- 3" | 3'- 0" | 3'- 9" | 4'- 6" |
| 18' | N/A | 2'- 8" | 3'- 4" | 4'- 0" |
| 20' | N/A | 2'- 5" | 3'- 0" | 3'- 7" |
| Total Load | 817 | 1090 | 1362 | 1635 |

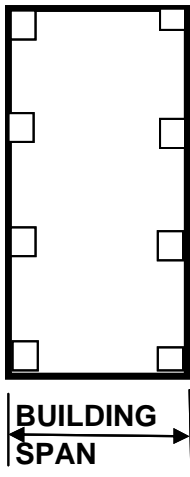
DECK POST SPACING FOR 16" DIAMETER FOOTING PADS

| Deck Span | Soil Capacity | | | |
|-------------------|---------------|-------------|-------------|-------------|
| | 1500psf | 2000 psf | 2500 psf | 3000 psf |
| 6' | 15'- 5" | 20'- 7" | 25'- 9" | 30'- 11" |
| 8' | 11'- 7" | 15'- 5" | 19'- 4" | 23'- 2" |
| 10' | 9'- 3" | 12'- 4" | 15'- 4" | 18'- 5" |
| 12' | 7'- 9" | 10'- 3" | 12'- 11" | 15'- 4" |
| 14' | 6'- 7" | 8'- 10" | 11'- 0" | 13'- 3" |
| 16' | 5'- 9" | 7'- 9" | 9'- 8" | 11'- 7" |
| 18' | 5'- 2" | 6'- 10" | 8'- 7" | 10'- 3" |
| 20' | 4'- 7" | 6'- 2" | 7'- 9" | 9'- 3" |
| Total Load | 2083 | 2778 | 3472 | 4167 |

POST FRAME BUILDING

Maximum Spans

FOR 16" DIAMETER FOOTING PAD



The tables below indicate the maximum building spans for various design loads, post spacing, and soil bearing capacities

| | Post Spacing | Soil Capacity | | | | |
|---------------------------|--------------|---------------|-------------|-------------|-------------|-------------|
| | | 1500 psf | 2000 psf | 2500 psf | 3000 psf | 4000 psf |
| Live Load = 20 psf | 4' | 41'- 9" | 55'- 8" | 69'- 6" | 83'- 6" | 111'- 3" |
| Dead Load = 5 psf | 8' | 20'- 10" | 27'- 10" | 34'- 9" | 41'- 9" | 55'- 8" |
| Total = 25 psf | 10' | 16'- 8" | 22'- 3" | 27'-10" | 33'- 4" | 44'- 6" |
| Live Load = 25 psf | 4' | 36'- 4" | 46'- 5" | 58'- 0" | 69'- 6" | 92'- 9" |
| Dead Load = 5 psf | 8' | 18'- 2" | 23'- 3" | 29'- 0" | 34'- 9" | 46'- 5" |
| Total = 30 psf | 10' | 14'- 6" | 18'- 6" | 23'- 2" | 27'- 10" | 37'- 1" |
| Live Load = 30 psf | 4' | 31'- 2" | 39'- 9" | 49'- 8" | 59'- 7" | 79'- 6" |
| Dead Load = 5 psf | 8' | 15'- 7" | 19'- 11" | 24'- 10" | 29'- 9" | 39'- 9" |
| Total = 35 psf | | | | | | |
| Live Load = 40 psf | 4' | 24'- 2" | 30'- 11" | 38'- 8" | 46'- 4" | 61'-10" |
| Dead Load = 5 psf | 8' | 12'- 2" | 15'- 6" | 19'- 4" | 23'- 2" | 30'- 11" |
| Total = 45 psf | | | | | | |
| Total Load | | 2083 | 2778 | 3472 | 4167 | 5556 |

POST FRAME BUILDING

Maximum Spans

FOR 16" DIAMETER FOOTING PAD

Using ASABE EP486 - Post and Pole Foundation Design

By the American Society of Agricultural and Biological Engineers

| Class of Soil Materials | Basic Vertical Pressure | Vertical Pressure At 4' footing depth | Maximum Building Span with Post at 8'-0" C/C TOTAL DESIGN LOAD | | | | |
|-----------------------------------------------------------------------------------------------|-------------------------|------------------------------------------|----------------------------------------------------------------------|---------|--------|---------|--------|
| | | | 25 psf | 30 psf | 35 psf | 40 psf | 45 psf |
| | | | | | | | |
| Class 3. Sandy Gravel and/or gravel | | | | | | | |
| Firm | 3000 PSF | 4980 PSF | 69'-3" | 57'-8" | 49'-5" | 43'-4" | 38'-5" |
| Loose | 2000 PSF | 3320 PSF | 46'-2" | 38'-5" | 33'-0" | 28'-10" | 25'-7" |
| Class 4. Sand, silty sand, clayey sand, silty gravel and clayey gravel | | | | | | | |
| Firm | 2000 PSF | 3320 PSF | 46'-2" | 38'-5" | 33'-0" | 28'-10" | 25'-7" |
| Loose | 1500 PSF | 2490 PSF | 34'-7" | 28'-10" | 24'-9" | 21'-7" | 19'-2" |
| Class 5. Clay, sandy clay, silty clay and clayey silt | | | | | | | |
| medium | 1500 PSF | 2490 PSF | 34'-7" | 28'-10" | 24'-9" | 21'-7" | 19'-2" |
| Soft | 1000 PSF | 1660 PSF | 23'-1" | 19'-3" | 16'-6" | 14'-5" | 12'-9" |