

TABLE II – BEARING CAPACITY/SOIL TYPE*

Bearing Capacity, psf	Bearing Capacity kg/m2	Soil Type
2000	9765	Loose sand clay soils or medium soft clay
3000	14647	Firm or stiff clay
4000	19530	Loose fine sand or compact inorganic silt soils
6000	29295	Compact sand clay soils
8000	39059	Loose coarse to medium compact fine sand

*Note: The above table may be used if the soil characteristics are known. If the soil type is unknown, the following resources may be consulted to determine the soil type/bearing capacity:

- (a) LAHJ;
- (b) Soil conservation district;
- (c) United States Geological Survey;
- (d) The Resource Conservation Agency of the U. S. Department of Agriculture;
- (e) Highway Department;
- (f) Qualified Professional Engineer; and/or
- (g) Other methods approved by the Commissioner.

In lieu of determining the soil bearing capacity by the use of the methods described above, an allowable bearing capacity of 2000 psf may be used unless the site-specific information requires the use of lower values based on soil classification and soil type.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.6: Required Piers and Anchorages

A. All used Factory-Built homes require diagonal ties to restrict the unit from being pushed from the main support piers. These diagonal ties also restrict overturning of the structure. Additional over the top tie downs or vertical side wall tie downs to restrict overturning are required by some Factory-Built home installations. When a used Factory-Built home is relocated (secondary siting) **all** of the original diagonal and vertical tie downs for the wind zone designation of the home must be reinstalled.

B. Piers or load-bearing supports or devices shall be designed and constructed to evenly distribute the loads. The maximum pier loads are listed in Table III and Table IV. Piers shall be securely attached to each I-beam of the Factory-Built home and shall extend at least six (6) inches from the centerline of each I-beam. Other types of load-bearing supports or devices shall be listed or approved for the use intended.

TABLE III – MAXIMUM PIER LOAD IN POUNDS

Number of Concrete Blocks	Soil Bearing Value	Maximum Allowable Load
1	1,000 lbs./square foot	4,800 lbs.
2	2,000 lbs./square foot & greater	9,600 lbs.

* ABS Pad types include the following:

13 ¼" x 26 ¼" Pad 2.395 square feet ID#4148 4 or
 20" x 20" Pad 2.777 square feet ID#1055 7

TABLE IV - MAXIMUM PIER LOAD

Type	Pad Configuration	Pad Area (in square inches)	Soil Bearing Capacity PSF (in pounds)					Remarks
			1000	1500	2000	2500	3000	
1	1-16 x 16 w/1 or w/2 CMUs	256	780	670	560	450	340	Max: 5340 #
2	1-18.5 x 18.5 w/1 CMU	342	375	563	750	598	598	Max: 5600 #
3	1-18.5 x 18.5 w/2 CMUs	342	375	563	750	938	125	Max: 7125 #
4	2-13.13 x 26.13 w/1 CMU	342	375	563	750	938	400	Max: 6400 #
5	1-18.5 x 18.5 w/1 CMU	342	375	563	750	938	125	Max: 7125 #
6	1-20 x 20 w/1 CMU	400	775	167	556	600	600	Max: 5600 #
7	1-20 x 20 w/2 CMUs	400	775	167	556	944	333	Max: 8333 #

All pad sizes shown are nominal dimensions and may vary up to 1/8 inch.

C. Pier foundations shall be installed directly under each I-beam of the Factory-Built home. If the Factory-Built home installation instructions are not available for a used home, piers for single section homes are to be placed under each longitudinal I-beam not to exceed 8 ft. on center spacing for homes that are 14 ft. wide or less and 6 ft. on center for homes that are over 14 ft. wide, in the

minimum soil bearing capacity of 2,000 psf. Piers shall be placed no more than two (2) feet and no less than one (1) foot from the end of each I-beam.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7: Pier Construction

Rule 5.06.7-1: Single Stacked Piers

Except for corner piers, support piers less than 36 inches high, shall be constructed of single stacked masonry units, placed with the open cells in the vertical position when placed upon the pier footing. The frame piers must be installed so that the long sides are at right angles to the supported I-beam. (See Figure 4). Perimeter piers shall be single tiered and placed parallel to the sidewall under the rim joist.

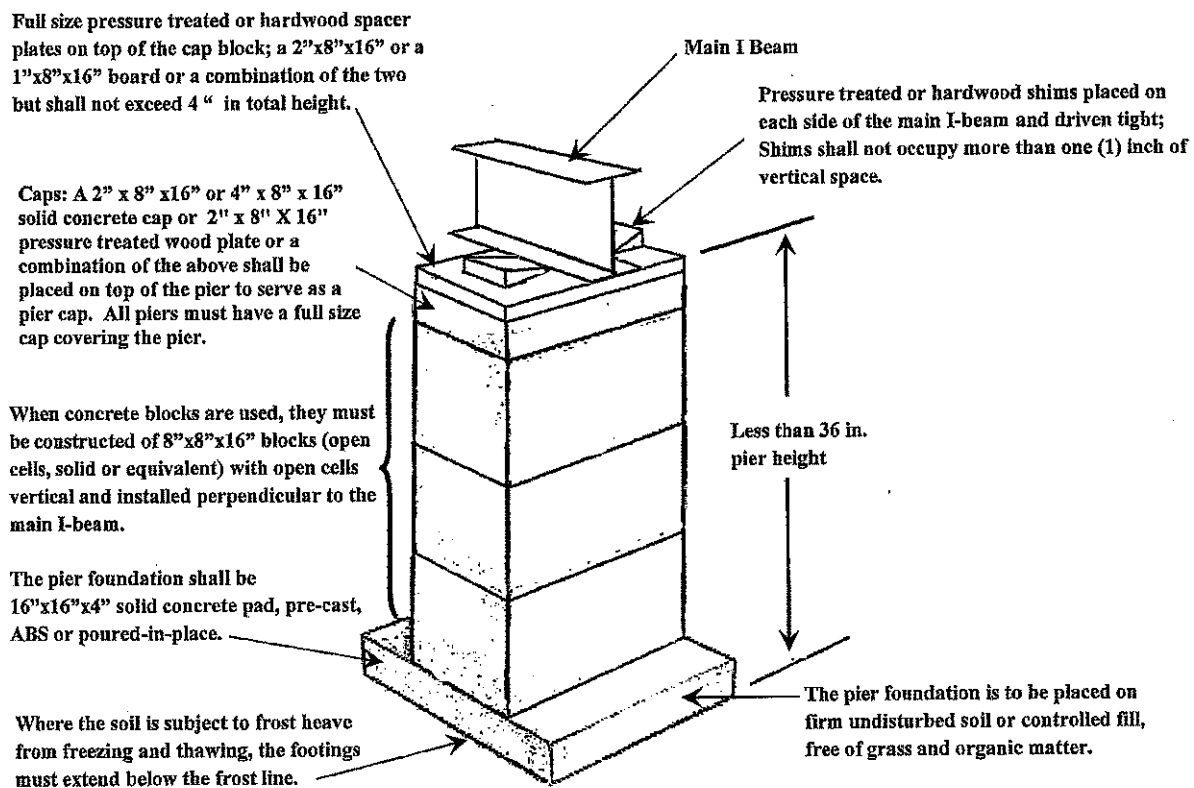


Figure 4. Single block pier construction.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-2: Pier Caps

All piers must have a full size cap covering the top of the pier. A solid concrete 2"x8"x16" or 4"x8"x16" block or a 2"x8"x16" pressure treated wood plate shall be placed on top of the pier to serve as a cap. All caps must be the same length and width as the piers on which they rest. When split caps are used on double stack piers, the caps must be installed with the long dimension across the joint in the blocks below. Additional full size pressure treated or hardwood plates not less than 1 x 8 x 16 inch may be used but the additional plates shall not exceed 4 inches in total height.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-3: Shims

A. The I-beam shall be cushioned with treated wood or hardwood or other approved shims (wedges). The shims (wedges) shall be used in pairs, installed in opposite directions and be fitted and driven tightly between the pressure-treated wood plate and the I-beam of the home.

B. One shim at least 4"x6" nominal shall be placed on each side of the main frame on single tiered piers.

C. Two shims shall be placed on each side of the I-beam on double tiered piers.

D. Shims shall not occupy more than 1 inch of vertical space between the top plate and the I-beam.

E. Shims shall be used in pairs and driven tight.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-4: Removal of Organic Material

All grass, grass sod, debris and other organic material shall be removed before footings or pier foundations are installed. The minimum I-beam support pier foundation shall be a 16 inch x 16 inch x 4 inch solid concrete pad, pre-cast, poured-in-place, or ABS pads.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-5: Protection From Frost Heave

Where the soil is subject to frost heave from freezing and thawing, the footings for support piers must extend below the frost line (no less than two (2) inches from the top of the ground).

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-6: Corner Piers

All corner piers shall be double tiered units at least 16" x 16" consisting of interlocking masonry units and shall be fully capped as shown in Figure 5. Two 8 x 16 x 4 inch concrete cap blocks or two 2x8x16 inch treated wood plates may be used on a double tiered pier provided that the joint between the blocks or plates is perpendicular to the joint between the open cell concrete blocks and is also perpendicular to the I-beam. The corner piers shall be placed not more than 2 ft. and not less than 1 ft. from the end of each I-beam.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-7: Double Tiered Pier Heights

A. Piers 36 inches to 67 inches high shall be double-tiered units at least 16x16 inches consisting of interlocking masonry units and shall be fully capped with a 2 inch or 4 inch thick solid masonry unit or a 2"x8"x16" pressure treated wood plate. (See Figure 5).

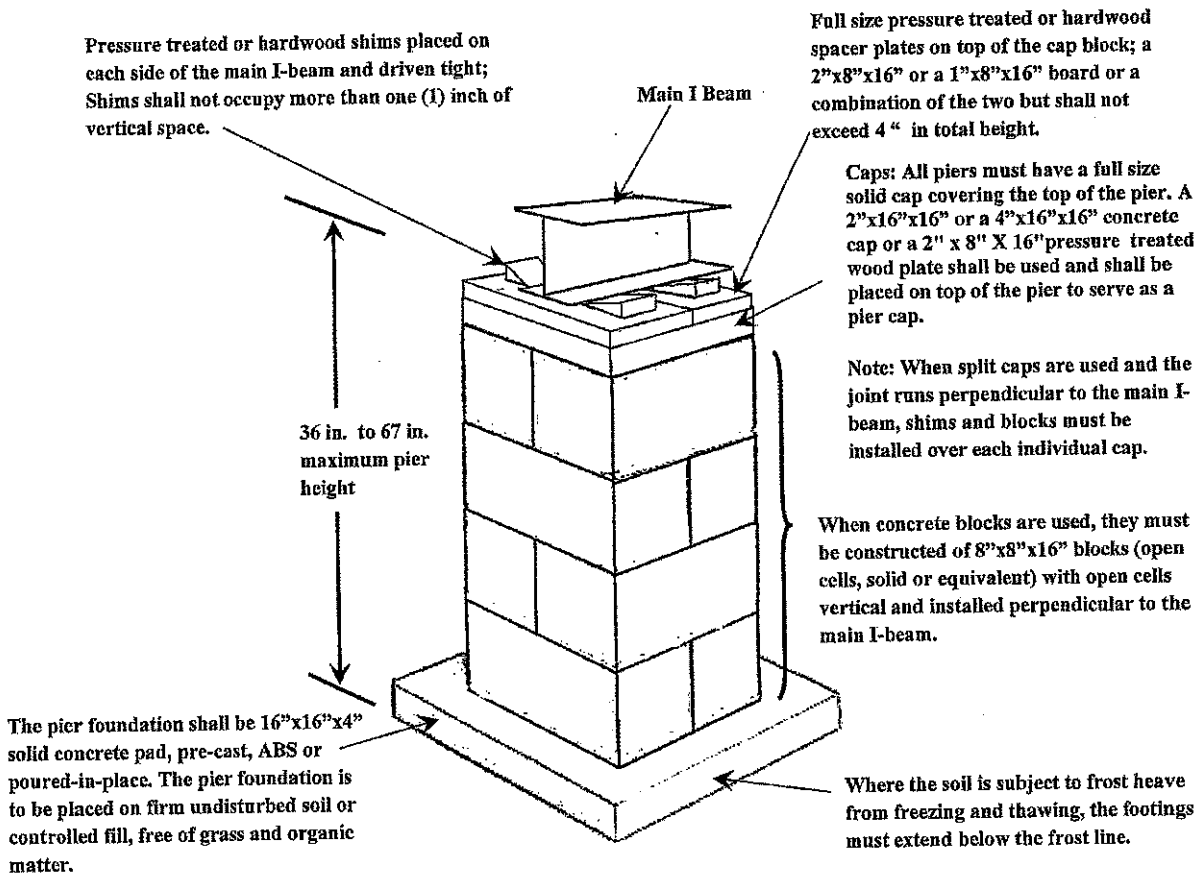


Figure 5. Double Block Pier Construction.

B. Piers between 68-80 inches high shall be constructed in accordance with the provisions of Rule 5.06.7-7(A), provided the piers shall be filled with grout and reinforced with four (4) continuous No. 5 bars. One bar shall be placed in each corner of the grouted space of the piers.

C. The maximum pier height shall be no more than 80 inches unless designed and approved by a registered engineer or a higher height/different design is required by the National Flood Insurance Program (NFIP) floodplain management criteria.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-8: Cast-In-Place Concrete Piers

Cast-in-place concrete piers meeting the same size and height limitations of Rule 5.06.7-1 through 5.06.7-7 above, may be substituted for piers constructed of masonry units.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-9: Pier Footings

A. Every pier shall be supported by a footing. All I-beam support piers and marriage line support piers shall be constructed on footings of solid concrete not less than 16 x 16 inches that consist of a 4 inch thick concrete pad, precast, ABS, or poured in place concrete slab, unless other footing types and sizes are allowed. All footings are to be placed on stable undisturbed soil or properly compacted fill material. The fill material must be compacted to 90 percent of maximum relative density to adequately provide the proper load bearing capacity for the support pier footings.

B. Perimeter pier footings are required to be a 4"x 8"x 16" concrete pads or equivalent.

C. Poured-in-place concrete pads, slabs, or runners used as footings for a Factory-Built home shall be a minimum 4 inches thick with a least a 28 day compressive strength of 3,000 pounds per square inch (psi) and shall be required to contain proper reinforcing steel.

D. If an existing concrete slab is to be used as the foundation of the home and the thickness and the existence of reinforcing steel cannot be readily determined, all I-beam support piers shall be required to be placed on a solid concrete footing 16 x 16 inches or ABS pads. In addition, the top elevation of the concrete slab shall be a minimum of 4 inches higher than the existing grade of the soil around the slab.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.7-10: Marriage Wall Piers

Marriage wall piers shall be constructed to the same requirements as all other main frame support pier requirements. Marriage line piers, less than 54 inches in height, shall be single tiered, on footings and placed perpendicular to the line of the mated sections of the home. All marriage wall openings are required to have support piers at each side of the opening. Typical marriage wall openings are cathedral openings and passageway openings which are 48 inches and larger. Marriage walls shall also have support piers at each ridge beam column and within 2 ft. of each end of the home.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.8: Pier Spacing and Placement

A. To assure proper pier spacing and placement for all Factory-Built homes, the piers shall be located in accordance with the Factory-Built home installation instructions. If the Factory-Built home installation instructions are not available for a used home, piers for single section homes are to be placed under each I-beam not to exceed 8 ft. on center spacing for homes that are 14 ft. wide or less and 6 ft. on center for homes that are over 14 ft. wide, in the minimum soil bearing capacity of 2,000 psf. End piers shall be no more than two (2) feet and no less than one (1) foot from the end of each I-beam.

B. The pier spacing under each longitudinal I-beam for all used Factory-Built homes (single wide or multi-section) having a Wind Zone II classifications shall be no greater than 6 ft. on center.

C. Piers for used multi-section homes are to be placed under each I-beam not to exceed 6 ft. on center spacing. For used multi-section homes, piers are to be placed under the center marriage line no less than one (1) foot from each end, under ridge beam support columns, and under both sides of openings at the marriage line greater than 12 ft. All marriage wall support piers shall be placed perpendicular to the mate line of the two sections of the home.

Source: *Miss. Code Ann.* §§ 75-49-1, et seq.; 75-49-11 (Supp. 2015).

Rule 5.06.8-1: Placement of Door and Window Support Piers

For all homes, all exterior entry doors shall have piers or a manufacturer's approved support device on each side of the opening. All doors and windows over 48 inches wide shall be properly blocked under each side of the opening (footings for these support piers may be 8"x 16" x 4" concrete pads or equivalent). In the event that an obstruction (electrical, mechanical, plumbing or other device) is directly under one side of the opening, the blocks on that side may be offset up