

DEPARTMENT OF COMMERCE  
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effect of scour of soil strata. Mat or raft foundations to support columns may not be used where soil under the mat or raft is subject to scour or other erosion from wave flow conditions.

### Subchapter XI — Installation of Manufactured Homes

**Comm 21.40 Installation standards.** (1) (a) The installation of a manufactured home produced on or after April 1, 2007 shall comply with procedures acceptable to the department.

(b) Acceptable installation procedures shall address all of the following:

1. Soil mechanics.
2. Site preparation.
3. Structural support, stabilization and anchorage.
4. Setting.
5. Ventilation of crawl spaces.
6. Connections, plumbing, electrical, HVAC.
7. Joining of home sections.

*Note:* Acceptable installation practices can be found through the Safety and Buildings Division's website at [www.commerce.state.wi.us/SB](http://www.commerce.state.wi.us/SB) or by contacting the Safety and Buildings Division at (608) 264-9596.

*Note:* The design and construction of basements and perimeter foundations to support manufactured homes is addressed under subchapter V.

(2) (a) Except as provided in par. (b), the installation of a manufactured home produced before April 1, 2007 shall be installed in conformance with the requirements in effect at the time the manufactured home was produced.

(b) The installation of a manufactured home produced before April 1, 2007 to be installed on piers shall conform to at least all of the following requirements:

1. No footing may be placed upon unprepared fill material, topsoil, alluvial soil or mud. All organic matter shall be removed from the area that will be beneath any footing.
2. The soil bearing capacity shall be determined through test by a pocket penetrometer or other means of analysis. If the soil bearing capacity under each intended pier location is less than 2000 pounds per square foot, piers shall be located in accordance with the manufacturer's instructions.
3. The home site shall be graded to permit water to drain from under the home and away from the home for a minimum of 5 feet from the home.
4. Every pier shall be supported by a footing. Each footing shall be no less than a nominal 16 inches by 16 inches.
5. Each footing shall consist of one of the following:
  - a. One nominal 4-inch by 16-inch by 16-inch solid concrete block or 2 nominal 4-inch by 8-inch by 16-inch solid concrete blocks. If a single block pier and 2 footing blocks are used, the 2 footing blocks shall be positioned with the joint parallel to the main frame. If a double block pier and 2 footing blocks are used, the 2 footing blocks shall be positioned with the joint either parallel or perpendicular to the main frame.
  - b. A 16-inch by 16-inch pad constructed of acrylonitrile-butadiene-styrene (ABS) having a rated load bearing capacity of not less than 6000 pounds.
  - c. An 18-inch diameter hole bored to below the frost line or to unfractured bedrock and filled with poured concrete.
  - d. Any other materials and systems approved in advance by the department.
6. Piers shall be constructed of concrete blocks, manufactured steel stands or manufactured concrete stands.

Manufactured stands shall be labeled for use as piers for manufactured homes.

7. Piers constructed of single stacked concrete blocks shall be limited to a height of 36 inches. Piers constructed of concrete blocks and exceeding 36 inches but less than 80 inches shall be constructed using double stacked blocks with each layer opposing the direction of the layer underneath it. Piers constructed of concrete blocks and exceeding 80 inches shall be constructed using double blocks laid in concrete mortar with each layer opposing the direction of the layer underneath it and with each core filled with concrete and a 1/2-inch steel reinforcing rod.

8. All concrete blocks shall be 2-core design, construction grade blocks having nominal dimensions of at least 8 inches by 8 inches by 16 inches. All concrete blocks shall be placed with the cores open vertically. The concrete block nearest the main frame of the manufactured home shall be perpendicular to the linear direction of the frame. No concrete block may contact the main frame of the home.

9. Alternative materials may be used for pier installations provided they are approved in advance by the department.

10. Piers shall be placed under the main frame of the chassis at intervals of not more than 7 feet on-center and no more than 3 feet from the exterior side of each end wall. The 7-foot spacing requirement may be varied as permitted by footing, spacing and soil capacity tables provided by the home manufacturer.

11. Piers shall be placed under the bearing points of clear-span openings of 4 feet or more in center mating walls.

12. Piers shall be plumb and centered under the contact area at the point of support.

13. a. Each pier shall be capped with a solid concrete block at least 4 inches thick or a solid wood block having a nominal thickness of at least 2 inches.

b. The cap shall be the same width and length as the top of the pier.

c. The cap shall consist of no more than 2 pieces.

d. Two-piece caps shall be positioned with the joint perpendicular to the main frame.

14. Where shims are utilized, wood shims shall be installed beneath the pier cap and the frame. Shims shall be driven from opposing sides and shall be no less than 4 inches by 8 inches.

15. Wood caps and shims shall be at least equal to No. 2 spruce pine fir having a minimum fiber bending stress rating of 1200 psi. All wood caps shall be the same species of wood, and all shims shall be the same species of wood.

16. The combination of a nominal 2-inch solid concrete block or a nominal 2-inch wood cap plus shims shall not exceed 3 1/2 inches.

17. A minimum clearance of 12 inches shall be maintained beneath the lowest point of the main frame in the area of any utility connection. A minimum clearance of 12 inches shall also be maintained under the home for at least 75% of the home. The remainder of the home may be less than 12 inches above the ground but may not touch the ground.