



## DEPARTMENT OF BUILDING INSPECTION

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# Manufactured Homes/Construction Trailer Installations

### 1. DPOR requirements

Contractors shall be licensed by DPOR in manufactured home contracting. Proof of licensure is required at the time of applying for permit application. "**Manufactured home contracting**" (Abbr: MHC) means that service that provides for the installation or removal of a manufactured home as defined in the Virginia Manufactured Home Safety Regulations (13 VAC 5-95). This classification does not cover foundation work; however, it does allow installation of piers covered under HUD regulations. It does allow a licensee to do internal tie-ins of plumbing, gas and electrical or HVAC equipment. It does not allow for installing additional plumbing, gas, electrical, or HVAC work such as installing the service meter, or installing the outside compressor for the HVAC system. No other specialty provides for this function.

### 2. VCC 429.2.1

Code requires compliance with manufacturer's installation instructions or 24 CFR Part 3285

- a. Refer to manufacturer's installation instructions.
- b. If no manufacturer's installation instructions refer to 24 CFR Part 3285 (one copy in your technical library. Another copy in Gary's library in his office)
- c. If 24 CFR Part 3285 does not address the particular installation requirements, the installer shall first attempt to obtain Design Approval Primary Inspection Agency (DAPIA) approved designs and instructions.
- d. If DAPIA drawings are not obtainable then approved RDP designs conforming to the requirements of Manufactured Housing Consensus Committee shall be used.

### 3. Site Preparation Inspection

- a. Approved drawings on-site
- b. Foundation on firm undisturbed soil compacted to a min. of 90%
- c. All organic debris was removed from footings.
- d. Graded for adequate drainage to prevent water accumulation under unit ( $\frac{1}{2}$ '/1' for first 10 feet)
- e. Minimum 6 mil polyethylene ground moisture control vapor retarder shall be provided under all units with skirting and lapped a minimum of 12-inches.

### 4. Foundations

- a. Piers shall be of concrete block, pressure-treated wood meeting AWPA U1-04 for use with ground contact or adjustable metal.
- b. CMU minimum 8"X8"X16" with cells aligned vertically at right angles to one another.
- c. Caps shall be a minimum of 4" solid concrete, 2" thick hardboard or corrosion resistant  $\frac{1}{2}$ " thick steel and shall be the same width and length as the pier.
- d. Double stacked block piers shall have installed with the long dimension across joint in the CMU blocks below.



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- e. Gaps not exceeding 1" between main chassis support and the foundation below shall be filled with a pair of 4"X6"X1" shims. Gaps greater than 1" shall be filled with 2" hardwood plates or 2" or 4" solid concrete block.
- f. Manufactured piers must be selected so that the adjustable risers do not extend more than 2" when finally positioned.
- g. A minimum of 12" shall be maintained between the unit frame and grade under all parts of the unit.
- h. Footing shall extend a minimum of 18" below grade.
- i. Pier height
  - 1. Piers < 36" in height - single CMU blocks dry stacked with long side at right angle to unit frame.
  - 2. Piers 36" to 67" – and all corner piers more than 3 blocks high shall be double interlocked CMU blocks dry stacked or engineer design.
  - 3. Piers >67" – shall be designed by a registered engineer.
- j. Pier location & spacing
  - 1. No more than 24" from both ends
  - 2. Spaced not more than 120" on center under than main frame rails.
  - 3. Perimeter piers shall be located under side wall exterior doors and other side wall openings of 48" or greater and under load-bearing porch posts, factory installed fireplaces and fireplace stoves
- k. Footings shall consist of:
  - 1. 1200psi, 4" pre-cast concrete pads or,
  - 2. 3000psi, 6" poured-in-place concrete.
  - 3. ABS footing pads.
  - 4. pressure treated lumber is acceptable but not recommended.
- l. footing size – assuming 2000psi soil and 5000lb footing capacity a minimum of 20"X20"X6" cast-in-place footing or a 20"X20"X4" pre-cast concrete pad is required.

### 5. Anchorage

- a. Unit properly blocked and level.
- b. Installation instructions on site
  - 1. Maximum spacing (see below)
  - 2. Minimum and maximum angles of diagonal ties (typically 45 degrees)
  - 3. Connection requirements for diagonal ties (wrapped completely around main frame rail)
  - 4. Method of strap attachment to ground anchors (minimum of three complete rotations)
  - 5. Strapping protected from sharp corners.
  - 6. Requirements for sizing and installation of stabilizer plates provided.
  - 7. Anchor heads shall be flush to the ground.
  - 8. Straps shall be properly tensioned, no sags.
  - 9. Anchors within 6" of side of unit
  - 10. Any damaged, rusted or altered parts.
- c. Anchors listed and protected against corrosion.
- d. Straps listed and conform to ASTM D3953
- e. Anchors approved for soil type.



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- f. Strap spacing: (wind zone I)
  1. 12'/24' unit:
    - a. Up to 25" AFG = 14'-2"
    - b. 26" to 33" AFG = 11'-9"
    - c. Up to 46" AFG = 9'-1"
    - d. Greater 46" needs engineer's design.
  2. 14'/28' unit:
    - a. Up to 25" AFG = 18'-2"
    - b. 26" to 33" AFG = 16'-1"
    - c. 34" to 46" AFG = 13'-3"
    - d. 47" to 67" AFG = 10'-0"
    - e. Greater than 67" needs engineer's design.
  3. 16'/32' unit:
    - a. Up to 33" AFG = 19'-0"
    - b. 34" to 46" AFG = 16'-5"
    - c. 47" to 67" AFG = 13'-1"
    - d. Greater than 67" needs engineer's design.

### 6. Skirting

- a. Weather resistant
- b. Durable, suitable for exterior exposures
- c. Secured to resist wind, frost heaves and vibration.
- d. One opening with a minimum 18" in any direction and a minimum of 3 sq. ft.
- e. Access panel shall not require special tool to open.
- f. On-site fabricated skirting shall meet manufacturer's specifications, the VCC and 24 CFR Part 3285
- g. Brick skirting pilasters at openings and every 6' o.c. (ACI 530).

### 7. For more information, reference this HUD link:

[http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/housing/rmra/mhs/smhi](http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/mhs/smhi)