Exhibit "C"

MANUFACTURED HOUSING RULES

Effective January 29, 2008

Texas Administrative Code

TITLE 10	COMMUNITY DEVELOPMENT
PART 1	TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS
CHAPTER 80	MANUFACTURED HOUSING
SUBCHAPTER A	CODES, STANDARDS, TERMS, FEES AND ADMINISTRATION
RULE §80.1	**Texas Manufactured Housing Standards Code**

The standards and requirements for the installation and construction of manufactured housing adopted by the board in accordance with §1201.251(a)(1) of the Texas Manufactured Housing Standards Act (Standards Act) are as follows:

(1) The construction standards set out in Chapter VI of the Housing and Community Development Act of 1974, as the same may be amended from time to time, or under any official rule, official interpretation, or adopted standard issued or adopted by the Department of Housing and Urban Development under such law;
(2) The installation standards set forth in this chapter; and
(3) Applicable standards for installation components established by
(A) Chapter 43 of the latest edition of the International Residential Code;
(B) The stabilizing component destruction test failure criteria of the FMHCSS, as implemented by 24 CFR, Part 3280 and the latest edition of the International Residential Code, Appendix E; and
(C) The American Wood Preserver's Association and referenced by the latest edition of the International Residential Code Preservation for treated (PT) wood components.
(4) Collectively, the foregoing, together with the Standards Act and these rules, are referred to as the Texas Manufactured Housing Standards Code ("the Code").

Source Note: The provisions of this §80.1 adopted to be effective December 30, 2007, 32 TexReg 8790

RULE §80.21	**Requirements for the Installation of Manufactured Homes**

(a) When they are installed, all manufactured homes shall be installed by a licensed installer to

resist overturning and lateral movement of the home, and the installation must be completed in accordance with instructions appropriate for the Wind Zone where the home is to be installed as per one of the following:

(1) the home manufacturer's DAPIA-approved installation instructions;

(2) the state's generic standards set forth in §§80.22, 80.23, 80.24, and 80.25 of this chapter;

(3) the instructions for a stabilization system registered with the Department in accordance with §80.26 of this chapter (relating to Registration of Stabilizing Components and Systems); or

(4) the instructions for a special stabilization system which:

(A) may or may not be a permanent foundation;

(B) is for a particular manufactured home or an identified class of manufactured homes to be installed at a particular area with similar soil properties according to county soil survey or other geotechnical reports; and

(C) is either:

(i) a pre-existing foundation for which a professional engineer or architect licensed in Texas has issued written approval for the installation of a particular home, and the written approval shall be submitted to the Department with the installation report; or

(ii) installed in accordance with a custom designed stabilization system drawing that is stamped by a Texas licensed professional engineer or architect. A copy of the stabilization system drawing must be forwarded to the Department along with the installation report.

(b) When a home is installed on a stabilization system registered with the Department or a special stabilization system, the installer must follow the home manufacturer's DAPIA-approved installation instructions for any aspect of the installation that is not covered by the system's installation instructions or drawings.

(c) The installer must use stabilizing components that have the required capacity and install them according to the anchor or stabilizing component manufacturer's current installation instructions. All stabilizing components must be resistant to all effects of weathering including that encountered along the Texas gulf coast. Anchors must be made resistant to corrosion. Nonconcrete stabilizing components and systems for use within 1500 feet of the coastline shall be specifically certified for this use. Preservative treated (PT) wood components shall conform to the applicable standards issued by the American Wood Preserver's Association and referenced by the latest edition of the International Residential Code. The use of re-conditioned equipment (i.e. anchor, strap, and clip) or any anchoring component by licensed installer on the new installations is not permitted. Homeowners are exempt from this requirement provided the integrity of the component is acceptable and approved by the state and the original product number, vendor name, and/or patent number must be legible on the product.

(d) Site Preparation Responsibilities and Requirements:

(1) A consumer acquiring a manufactured home to be installed, new or used, is responsible for the proper preparation of the site where the manufactured home will be installed except as set forth in §80.22 of this chapter (relating to Generic Standards for Moisture and Ground Vapor Controls).

(2) Whenever a licensed retailer intends to sell a manufactured home, regardless of where it is located or is to be located, the retailer is required to give the consumer the Site Preparation Notice, for signature by the consumer, in the form set forth in Subchapter I of this chapter (relating to Forms) PRIOR to the execution of any binding sales agreement.

(3) Whenever a licensed installer proposes to move a used manufactured home, the installer is required to give the consumer the Site Preparation Notice, for signature by the consumer, in the

form set forth in Subchapter I of this chapter PRIOR to entering into a binding agreement to move that home.
(e) If at the time of installation or within 90 days thereafter as stated on the contract, the retailer or installer provides the materials for skirting or contracts for the installation of skirting, the retailer or installer is responsible for installing any required moisture and ground vapor control measures in accordance with the home installation instructions, specifications of a registered stabilization system, or the generic standards and shall provide for the proper cross ventilation of the crawl space. If the consumer contracts with a person other than the retailer or installer for the skirting, the consumer is responsible for installing the moisture and ground vapor control measures and for providing for the proper cross ventilation of the crawl space.
(f) Clearance: If the manufactured home is installed according to the state's generic standards, a minimum clearance of 18 inches between the ground and the bottom of the floor joists must be maintained. In addition, the installer shall be responsible for installing the home with sufficient clearance between the I-Beams and the ground so that after the crossover duct prescribed by the manufacturer is properly installed it will not be in contact with the ground. Refer to §80.25 of this chapter (relating to Generic Standards for Multi-Section Connections Standards) for additional requirements for utility connections. The Installer must remove all debris, sod, tree stumps and other organic materials from all areas where footings are to be located.
(g) Drainage: The consumer is responsible for proper site drainage where the manufactured home (new or used) is to be installed unless the home is installed in a rental community. Drainage prevents water build-up under the home. Water build-up may cause shifting or settling of the foundation, dampness in the home, damage to siding and bottom board, buckling of walls and floors, delamination of floor decking and problems with the operation of windows and doors.

Source Note: The provisions of this §80.21 adopted to be effective January 29, 2008, 32 TexReg 8790

RULE §80.22 Generic Standards for Moisture and Ground Vapor Controls

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(a) If the manufactured home is installed according to the state's generic standards and the space under the home is to be enclosed with skirting and/or other materials provided by the retailer and/or installer, the enclosure must meet the following requirements:
(1) At least one access opening that does not require the use of tools to gain access shall not be less than 18 inches in any dimension and not less than three square feet in area shall be provided by the installer. The access opening shall be located so as to enable, to the extent reasonably possible, the visual inspection of water supply and sewer drain connections.
(2) If a clothes dryer exhaust duct, air conditioning condensation drain, or combustion air inlet is present, the installer must pass it through the skirting to the outside. All air conditioning condensation lines must be installed in such manner that prevents ponding within 5 feet of the foundation.
(3) Crawl space ventilation must be provided at the rate of minimum 1 square foot of net free area, for every 150 square feet of floor area.
(4) At least six openings shall be provided, one at each end of the home and two on each side of

the home. There must be a ventilation within 3 feet of each corner. The openings shall be screened or otherwise covered to prevent entrance of rodents (note: screening will reduce net free area). For example, a 16'x76' single section home has 1216 square feet of floor area. This 1216 square feet divided by 150 equals 8.1 square feet or 1166 square inches of net free area crawl space ventilation.
(b) The generic ground vapor control measure shall consist of a ground vapor retarder that is minimum 6 mil polyethylene sheeting or its equivalent, installed so that the area under the home is covered with sheeting and overlapped approximately 12 inches at all joints. Any tear larger than 18 inches long or wide must be taped using a material appropriate for the sheeting used. The laps should be weighted down to prevent movement. Any small tears and/or voids around construction (footings, anchor heads, etc.) are acceptable.

Source Note: The provisions of this §80.22 adopted to be effective January 29, 2008, 32 TexReg 8790

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RULE §80.23 Generic Standards for Footers and Piers

(a) Proper sizing of footings depends on the load carrying capacity of both the piers and the soil. To determine the load bearing capacity of the soil, the installer may use any of the following methods:
(1) Using a pocket penetrometer;
(2) Soil surveys from the U.S. Department of Agriculture;
(3) Values from tables of allowable or presumptive bearing capacities given in local building codes. Such tables are commonly available from the local authority having jurisdiction; or
(4) Any other test data from soil analysis reports.

Attached Graphic

(b) The footing must be placed on firm, undisturbed soil, or fill compacted to at least 90% of its maximum relative density is required and must be verified every 6" - 8" vertically on the build-up. Installation on loose, noncompacted fill may result in settlement/movement of the home and may invalidate the home's limited warranty.
(c) Footer Configurations.

Attached Graphic

(d) Footer sizing and capacities: The Footer Capacities table in subsection (a)(4) of this section represent maximum loads and spacings based on footer size and soil bearing capacity. Other footers may be used if equal or greater in bearing area than those footer sizes tabulated.
(e) Piers and pier spacings: Spacing and location of piers shall be in accordance with the tables listed in this chapter.
(1) Spacing shall be as even as practicable avoiding obstacles that are not in control of the installer along each main I-Beam. Pier spacing may exceed tabulated values up to 30% so long as the total pier count remains the same. End piers are to be located within 24 inches of the end

of the main frame.
(2) Piers shall extend at least 6 inches from the centerline of the I-Beam or be designed to prevent dislodgment due to horizontal movement of less than 4 inches.
(3) Load bearing supports or devices shall be registered with the Department in accordance with §80.26 of this chapter (relating to Registration of Stabilizing Components and Systems).
(4) Sidewall openings greater than 4 feet shall have perimeter piers located under each side of the opening, i.e. patio doors, recessed porches/entries, bay windows and porch posts. Perimeter piers for openings are not required for endwalls.
(f) Pier design: Piers shall be constructed per the details in the Pier Design.

Attached Graphic

(1) Shimming (if needed): Shims are commonly used as a means for leveling the home and filling any voids left between the bottom flange of the I-Beam and the top of the pier cap. Wedge shaped shims must be installed from both sides of the I-Beam to provide a level bearing surface. The allowable height must not exceed 1 inch. Shims shall be a minimum of 3" x 6" nominal. All adjustment shims (marriage and perimeter) must be installed in manner which prevents dislodgement.
(2) Table for pier spacing without perimeter piers.

Attached Graphic

(3) Table for pier spacing WITH perimeter supports and the Perimeter Pier Front and Side View.

Attached Graphic

(g) Typical Multi-Section Pier Layout.

Attached Graphic

(h) Typical Single Section Pier Layout.

Attached Graphic

(i) Multi-section units mating line column supports:
(1) On multi-section units, openings larger than 4 feet must have piers installed at each end of the opening. And within 6 inches of each end.

Attached Graphic

(2) Column loads for each section may be combined when the columns are opposite each other. The footer must be sized for the combined loading.
(3) Additional piers are required under marriage walls (see wall between column #3 and #4 in the Marriage Line Elevation figure in paragraph (1) of this subsection. The maximum spacing is the same as the spacing at the main I-Beams, without perimeter piers, and one half the spacing of

the perimeter piers, with perimeter piers installed.
(4) See the table for the mating line column loads.

Attached Graphic

(j) For temporary blocking at a retail location. If manufacturer has instructions for temporary blocking, home should be blocked according to the manufacturer specifications. In absence of any manufacturer instructions, the State Generic should be use. Manufactured dwellings supported on their wheels and at the draw bar (hitch) shall be adequately supported under the perimeter of each floor section at 10 feet on center and under the marriage line at each column support post locations. Marriage line support post locations will be clearly marked by the manufacturer. Piers shall not be located under any window or door opening, except under jambs for openings 4 feet or greater.
(1) Manufactured dwellings not supported on their wheels and at the draw bar shall be adequately supported under each main frame (I-beam) and under the marriage line at each column support post location. Mainframe support post shall start not more than 5 feet from the end of the home and shall not be located under any window or door opening, except under jambs for openings 4 feet or greater.
(2) Manufactured dwellings shall be sealed at the centerlines and at all other openings to prevent exposure to the elements.

Source Note: The provisions of this §80.23 adopted to be effective January 29, 2008, 32 TexReg 8790

RULE §80.24 Generic Standards for Anchoring Systems

(a) General Requirements: For units built on or after September 1, 1997, the installer must verify that the unit is designed for the Wind Zone in which it is to be installed and must follow all applicable installation instructions for that Wind Zone as set forth herein. Note: A Wind Zone I unit, built on or after September 1, 1997, may not be installed in a Wind Zone II area. However, a Wind Zone II unit may be installed in a Wind Zone I area. The counties are defined in the FMHCSS.
(b) Material Specifications:
(1) Strapping shall be Type 1, Finish B, Grade 1 steel strapping, 1.25 inches wide and 0.035 inches in thickness, certified by a licensed professional engineer or architect as conforming with the American Society for Testing and Materials (ASTM) Standard Specification D3953 91, Standard Specification for Strapping, Flat Steel, and Seals. Strapping shall be marked at least every five feet with the marking described by the certifying engineer or architect.
(2) Tie materials shall be capable of resisting an allowable working load of 3,150 pounds with no more than 2% elongation and shall withstand a 50% overload (4,725 pounds total). Ties shall have a resistance to weather deterioration at least equivalent to that provided by coating of zinc on steel of not less than 0.30 ounces per square foot on each side of the surface coated (0.0005 inches thick), as determined by ASTM Standards Methods of Test for Weight of Coating on Zinc-coated (galvanized) Iron or Steel Articles (ASTM A 90-81). Slit or cut edges of zinc-coated steel strapping are not required to be zinc coated. Ties shall be designed and installed to prevent

self disconnection when the ties are slack.
(3) Anchor spacing ONLY applies to units with roof pitch of 20 degrees or less. For anything over 20 degrees, it must be designed by a professional engineer or architect.
(c) Anchors shall be installed:
(1) in direction of load.

Attached Graphic

(2) against direction of load (vertical and/or angled), and a stabilizer plate must be installed. See the following Placement of Stabilizing Devices.

Attached Graphic

(d) WIND ZONE I Installation:
(1) Typical anchor layout, single and multi-section units (WIND ZONE I ONLY).

Attached Graphic

(2) Maximum spacing for Diagonal Ties for Wind Zone I.

Attached Graphic

(3) Minimum Number of Diagonal Ties for Wind Zone I. Table based on 2 feet inset of anchors at each end.

Attached Graphic

(4) When auger anchors cannot be inserted into a difficult soil after moistening, such as mixed soil and rock or caliche (heavily weathered limestone) that is not solid rock, cross drive rock anchors may be used in accordance with the values and notes for the table modified as follows:
(A) Since the ultimate anchor pull out in the difficult soil will be reduced, the maximum spacing for diagonal ties per side is one half the spacing allowed by the table in paragraph (2) of this subsection which will require adding one additional cross drive rock anchor for each anchor specified for the sides and ends;
(B) The rods of the cross drive rock anchors must be fully inserted, have at least 24 inches of the rod lengths embedded in the difficult soil, and be restrained from horizontal movement by a stabilizer device between the rods and the home; and
(C) Each cross drive rock anchor is connected to one diagonal tie and is not connected to a vertical tie.
(5) Where vertical tie locations are not easily discernable, the vertical ties may be connected to the main I-Beam rails and the anchor installed directly below that connection point. The diagonal tie must be connected to the opposite main I-Beam. In no case shall the distance between those ties exceed 5'-4" on-center.
(e) WIND ZONE II Installation:
(1) In place of the requirements as shown in subsection (d) of this section, units designed for Wind Zone I and built prior to September 1, 1997, and units designed for Wind Zone II and built

prior to July 13, 1994, require diagonal ties as set forth in this paragraph when these units are installed in Wind Zone II. See also §1201.256 of the Standards Act. Items not specifically addressed in this section are the same as for Wind Zone I installations.

Attached Graphic

(2) Units built to Wind Zone II on or after July 13, 1994.

(A) Units built to Wind Zone II on or after July 13, 1994, should have either built-in, or provisions for connecting, vertical ties along the sidewall(s) of each unit(s). A diagonal tie must be installed at each vertical tie location (except for designated shearwall tie). Built-in vertical ties shall be connected to anchors. If there are brackets or other provisions for connecting vertical ties, vertical ties shall be added at the brackets or provisions and connected to anchors.

(B) Only factory installed vertical ties may be closer than 4 feet from each other.

(C) Where tie locations are clearly marked as a shear wall strap, a perimeter pier must be installed at that location. Diagonal tie is not required.

(D) Where the vertical tie spacing exceeds 8'-0" on-center (see also note 6 in the table in this paragraph for exception), the anchoring system must be approved by the home manufacturer's installation manual, or designed by a professional engineer or architect licensed in the state of Texas.

(E) Where pier heights exceed 36 inches in height, the diagonal strap shall be connected to the opposite I-Beam.

(3) Multi-section centerline anchoring requirements (Wind Zone II only):

(A) Centerline anchor ties are required for ALL Wind Zone II installations, regardless of the date the unit was manufactured, when installation occurs on or after the effective date of these rules.

(B) Factory installed centerline vertical ties, brackets, buckles or any other connecting devices must be connected to a ground anchor. No additional anchors as described in subparagraph (D) of this paragraph are required.

(C) To avoid obstructions and/or piers and footers, the anchor may be offset up to 12 inches perpendicular to the centerline.

(D) Where factory preparations do not exist, install anchors and angle iron brackets at each side of mating line openings wider than 48 inches.

(i) Where equal spans exist opposite each other (i.e., each section), a double bracket assembly may be used. The maximum opening is per the table in subsection (f)(4) of this section. Total uplift load may not exceed the anchor and/or strap capacity (i.e., 3150 pounds).

(ii) The angle iron bracket is minimum 1 1/2" x 1 1/2" x 11 gauge. The holes for the lag screws are a maximum of 4 inches apart and 3/4" from the edge of the bracket.

(iii) Lag screws/bolts are minimum 3/8? diameter x 3 inches, full thread. Note: Pre drill pilot holes.

(4) For openings separated by a wall or post 16 inches or less in width, the opening span is the total of the spans on each side of the wall/post.

(f) Bracket Installation.

(1) See the table in paragraph (4) of this subsection concerning the maximum centerline wall opening for column uplift brackets.

(2) Use a single bracket for openings which exist on one section only. Use double bracket where openings are opposite each other on two sections of the home.

(3) When only one bracket assembly is required, it may be installed on either side of the column/opening stud(s), but no more than 12 inches from the column or opening stud(s).
(4) When two bracket assemblies are required, they must be installed on each side of the column/opening stud(s), but no more than 12 inches from the column/opening stud(s), and they must be angled away from each other a minimum of 12 inches.

Attached Graphic

(5) Example: A double section unit with each section being 14 feet wide;
(A) Span "A" is 18'-0", matching span both sections;
(B) Span "B" is 14'-8", matching span both sections;
(C) Span "C" is 6'-8", matching span both sections; and
(D) Span "D" is 13'-4", one side only.

Attached Graphic

(6) Longitudinal ties:
(A) Longitudinal ties are required for ALL wind zone installations, regardless of the date of manufacture, when installation occurs after the effective date of these rules.
(B) Longitudinal ties are designed to prevent lateral movement along the length of the home.
(C) When conventional anchors and straps are used; the required number of ties must be installed as appropriate. The strap(s) may be connected or wrapped around front or rear chassis header members, around existing cross members or spring hangers. A strap must be within 3 inches of where the cross member attaches to the main I-beam. Alternatively, brackets to receive the strap(s) may be attached to the bottom flange of the main I-beams. The location of the connection points along the length of the I-beams are not critical, as long as the number of longitudinal ties required for each end of each home section are installed with their pull in opposite directions. No two anchors shall be within 4 ft of each other. No two ties shall be attached to the same structural member of the home, other than a main longitudinal frame member or a front or rear chassis header member.
(D) Anchors require stabilizer plates when the anchor shaft is not in line with strap (plus or minus 10 degrees).

Source Note: The provisions of this §80.24 adopted to be effective January 29, 2008, 32 TexReg 8790

RULE §80.25 Generic Standards for Multi-Section Connections Standards

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(a) Air infiltration and water vapor migration at mating surfaces: Before positioning additional sections, the mating line surfaces along the floor, endwall and ceiling, require material or procedures to limit air infiltration and water vapor migration.
(1) Expanding Foam: Foam may be used along surfaces that are accessible after the units have been joined. Where mating line walls line up between sections, non-porous materials must be installed prior to joining the units.

(2) Caulking: Caulking may be used along surfaces that are accessible after the units have been joined. Where mating line walls line up between sections, non-porous materials must be installed prior to joining the units.

(3) Non-porous gasket installed along the perimeter of all mating lines.

(4) Insulation, carpet, carpet pad or other porous materials are not acceptable.

Attached Graphic

(b) Floor Connections:

(1) Gaps between floors up to 1-1/2 inches maximum which do not extend the full length of the floor may be filled with lumber, plywood or other suitable shimming materials. Fastener lengths in shimmed areas may need to be increased to provide minimum 1-1/4 inches penetration into opposite floor rim joist.

(2) Gaps less than 1/2 inch width need not be shimmed.

(3) The floor assemblies of multi-section units must be fastened together. Fastener options and maximum spacings are listed in the floor connections figure in paragraph (4) of this subsection.

(4) Any tears or damages to the bottom board due to fastener installation must be repaired.

Attached Graphic

(c) Endwall Connections:

(1) Endwalls must be fastened together at the mating line with minimum 8x4 inch wood screws or 16d nails at maximum 8 inches on-center or 12 inches on-center maximum for 5/16 lags; toed or driven straight; and

(2) Fastener length may need to be adjusted for gaps and/or toeing, to provide minimum 1-1/2 inch penetration into opposite endwall stud.

Attached Graphic

(d) Roof Connection: (Note: Fasteners must not be used to pull the sections together.)

(1) Roof shall be connected with the fasteners and spacings specified in the figure in paragraph (2) of this subsection.

(2) Gaps between the roof sections (at ridge beam and/or open beam ledgers) of up to 1-1/2 inches wide maximum which do not extend the full length of the roof must be filled with lumber and/or plywood shims. Gaps up to 1/2 inch need not be shimmed. The fastener length used in the shimmed area may need to be increased to provide a minimum 1-1/4 inch penetration into the adjacent roof structural member.

Attached Graphic

(e) Exterior Roof Close Up:

(1) Ensure that shingles are installed to edge of roof decking at peak. Follow nailing instructions on the shingle wrapper. Note: Wind Zone II (high wind) installations require additional fasteners.

(2) Before installing ridge cap shingles, a minimum 6 inch wide piece of 30 gauge galvanized flashing must be installed the length of the roof.

(3) When flashing is not continuous, lap individual pieces a minimum of 6 inches.
(4) Fasten flashing into roof sheathing with minimum 16 gauge staples with 1 inch crown or roofing nails of sufficient length to penetrate roof decking. Maximum fastener spacing is 6 inches on-center each roof section. Place fasteners a minimum of 3/4 inches along edge of flashing.
(5) Install ridge shingles directly on top of flashing.
(6) Check and repair as necessary the remainder of roof for any damaged or loose shingles, remove any shipping plastic or netting, wind deflectors, etc. Make sure to seal any fastener holes with roofing cement.

Attached Graphic

(f) Exterior Endwall Close Up: Cut closure material to the shape and size required and secure in place, starting from the bottom up, i.e.: bottom starter, vertical or horizontal siding, then roof overhang, soffit and fascia. All closure material should be fitted and sealed as required to protect the structure or interior from the elements.
(g) HVAC (heat/cooling) Duct Crossover:
(1) Crossover duct must be listed for EXTERIOR use.
(2) Duct R-value shall be a minimum of R-4.
(3) The duct must be supported 48 inches on-center (maximum) and must not be allowed to touch the ground. Either strapping (minimum 1 inch wide), to hang the duct from the floor, or non-continuous pads to support it off the ground are acceptable.
(4) The duct to the collar or plenum connections must be secured with bands or straps designed for such use. Keep duct as straight as possible to avoid kinks or bends that may restrict the airflow. Extra length must be cut off.
(5) The installer should refer to the manufacturer's instruction for assembling the overhead duct.

Attached Graphic

(h) Multi-Section Water Crossover:
(1) If there is water service to other sections, connect the water supply crossover lines as shown in the applicable detail.
(2) If the water crossover connection is not within the insulated floor envelopes, wrap the exposed water lines in insulation and secure with a good pressure sensitive tape or nonabrasive strap, or enclose the exposed portion with an insulated box.
(3) If water piping at the inlet is exposed, a heat tape should be installed to prevent freezing. A heat tape receptacle has been provided near the water inlet. When purchasing a heat tape, it must be listed for manufactured home use, and it must be installed per manufacturer's instructions.

Attached Graphic

(i) Drain, Waste and Vent System (DWV):
(1) Portions of the DWV system which are below the floor may not have been installed, to prevent damage to the piping during transport. Typically, the DWV layout is designed to terminate at a single connection point to connect to the on-site sewer system. For a new home where on-site DWV connections are not assembled per the manufacturer's instructions, the DWV

system must be assembled in accordance with Part 3280 of the FMHCSS.

Attached Graphic

(2) The following guidelines apply:

(A) All portions of the DWV system shall be installed to provide a minimum of 1/8 inch slope per foot for a 3 inch diameter pipe or larger, in the direction of the flow. For all other pipe, a minimum of 1/4 inch is required.

(B) Changes in direction from vertical to horizontal, and horizontal to horizontal, shall be made using long sweep elbows and/or tees.

(C) All drain piping shall be supported at intervals not to exceed 4 feet on-center. The support may be either blocking or strapping. When strapping is used, it should be nonabrasive.

(D) Piping must be assembled with the appropriate cleaners, primers and solvents (note: both ABS and PVC systems are common, but will require adhesives). Be sure to follow the instructions of the product used.

(E) A cleanout must be installed at the upper (most remote) end of the floor piping system.

(j) Electrical Connections: Depending on the model and/or manufacturer of the home, electrical crossovers may be located in either the front end and/or rear end of the home. Check along mating line for other labeled access panels.

(1) Crossover connections may be one of the following:

(A) snap or plug-in type;

(B) junction boxes inside floor cavity (note: crossover wiring routed outside the floor cavity must be enclosed in conduit). If the boxes and/or covers are metal, they must be grounded by the use of the ground wire; or

(C) pigtail between receptacles/switches between sections (one circuit only and enclosed in a j-box according to the National Electrical Code (NEC).

(2) Chassis Bonding: Each chassis shall be bonded to the adjacent chassis with a solid or stranded, green insulated or bare, number 8 copper conductor. The conductor is connected to the steel chassis with a solderless lug. Alternate bonding: A 4 inch wide by 30 gauge continuous metal strap may be used as an alternate, when attached to the chassis members with two 8 x 3/4 inch self tapping metal screws each end of the strap.

Attached Graphic

(3) Electrical Crossover.

Attached Graphic

(4) Shipped loose equipment:

(A) Electrical equipment such as ceiling fans, chandeliers, exterior lights, etc., which may have been shipped loose, must be installed in accordance with the adopted (NEC). Connect all corresponding color coded or otherwise marked conductors per the applicable sections of the NEC.

(B) Bonding strap removal: 240 volt appliances (range, dryer, etc.) shall have the bonding strap removed between the ground and the neutral conductors. Cords used to connect those appliances shall be four conductor, four prong.

(5) Electrical testing: At the time of installation, the following tests must be performed:
(A) All site installed or shipped loose fixtures shall be subjected to a polarity test to determine that the connections have been properly made.
(B) All grounding and bonding conductors installed or connected during the home installation shall be tested for continuity, and
(C) All electrical lights, equipment, ground fault circuit interrupters and appliances shall be subjected to an operational test to demonstrate that all equipment is connected and functioning properly.
(6) Main panel box feeder connection: The main panel box is wired with the grounding system separated from the neutral system (4-wire feeder). The grounding bus in the panel must be connected through a properly sized green colored insulated conductor to the service entrance equipment (meter base) located on or adjacent to the home. A licensed electrician is required to run the feeder from the pole to the main panel box in the home.

Attached Graphic

(k) Fuel Gas Piping Systems:
(1) Crossover Connections: All underfloor fuel gas pipe crossover connections shall be accessible and be made with the connectors supplied by the home manufacturer, or, if not available, with flexible connectors listed for exterior use and a listed quick disconnect (Method A), or a shut-off valve (Method B). When shut-off valve is used, it must be installed on the supply side of the gas piping system. The crossover connector must have a capacity rating (BTUH) of at least the total BTUH's of all appliances it serves.
(2) Testing: The fuel gas piping system shall be subjected to an air pressure test of no less than 6 ounces and no more than 8 ounces. While the gas piping system is pressurized with air, the appliance and crossover connections shall be tested for leakage with soapy water or bubble solution. This test is required of the person connecting the gas supply to the home, but may also be performed by the gas utility or supply company.

Attached Graphic

Source Note: The provisions of this §80.25 adopted to be effective January 29, 2008, 32 TexReg 8790

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RULE §80.26 Registration of Stabilizing Components and Systems

(a) Installers shall use only prefabricated or site built stabilizing components and systems which are:
(1) registered with the Department,
(2) specified by the home manufacturer's DAPIA approved installation instructions, or
(3) specified for one or more homes in a particular area by a Texas licensed engineer or architect.
(b) Before accepting a registration of any prefabricated stabilizing component or system that will be used for more than one home or granting renewal of such, the Department will require the

component or system to be certified by an engineer, architect, or independent testing laboratory. The engineer or architect may be licensed in any state. The independent testing laboratory must have at least one engineer or architect licensed in at least one state. The producer or vendor of the component or system must send a request letter to the Department with at least two copies of the certification report. The Department may accept certification reports in electronic formats. The certification report copies must have letter size (8.5 inch by 11 inch) or smaller pages. The producer or vendor must provide written permission to the Department to reproduce the certification report. If the Department accepts the registration of the certification report, the Department shall place a registration stamp on the copies, keep one copy, and return all other stamped copies to the producer or vendor. The registration stamp will include the following information:

(1) the title "Texas Department of Housing and Community Affairs" Manufactured Housing Division;

(2) the phrase "Registered stabilizing component or system"; and

(3) the date of registration.

(c) The Department will maintain a list of stabilizing components and systems that have been registered with the Department for use in Texas and will post a current copy of the list on the Department's website.

(d) A report that certifies a stabilizing component or system shall contain, at the minimum, the following:

(1) the name, address, phone number, facsimile number, and trademark of the agency issuing the certification report or the name, signature, license number, state where licensed, address, phone number, facsimile number, and seal of the engineer or architect;

(2) date of certification report;

(3) the name, address, phone number, and facsimile number of the vendor or producer of the component or system;

(4) drawing or photograph of component or system;

(5) a description of the vendor's or producer's method for identifying the component or system;

(6) at least a 2 inch by 4 inch blank space for the Department registration stamp on each page or the cover page of a bound document;

(7) a unique number or other identification for the certification report;

(8) the initial qualifying test report or information about how the report can be obtained;

(9) a description of the continuing validation system and the time period of the certification;

(10) detailed and specific installation instructions for the component or system, a copy of which that are shipped to each purchaser;

(11) a description of the working load capacity for the component or system. If the component is a ground anchor, the anchor shall be certified by a professional engineer, architect or nationally recognized testing laboratory as to its resistance, based on the maximum angle of diagonal tie and/or vertical tie loading and angle of anchor installation, and type of soil in which the anchor is to be installed;

(12) a description of all allowable conditions for use of the component or system such as (but not limited to) types of soil, weather exposure, atmospheric environment (rural, industrial, coastal), and characteristics of other associated components; and

(13) a statement that the certifying independent testing laboratory, certifying engineer, or certifying architect certifies the component or system to be in conformance with all applicable standards adopted by the Department. This statement shall be on each page or shall be on the

cover sheet of a bound document.
(e) The Department adopts the applicable standards and publications set forth in Chapter 43 of the International Code Council, latest edition of the International Residential Code for materials used to fabricate stabilizing components and systems. The Department adopts the stabilizing component destruction test failure criteria of the FMHCSS (24 CFR, Part 3280) or latest edition of the International Residential Code, Appendix E.
(f) Applicable reports of the following organizations are acceptable as certification reports: National Evaluation Service, Inc.; International Conference of Building Officials (ICBO) Evaluation Service, Inc.; Southern Building Code Congress International (SBCCI) Public Safety Testing and Evaluation Services, Inc.; Building Officials and Code Administrators International (BOCA) Evaluation Reports, Inc.; the International Code Council (ICC); or a successor of any of these organizations.
(g) The Department may deny registration if the certification information:
(1) is incomplete;
(2) does not conform to the rules of the Department;
(3) contradicts the qualifying tests; or
(4) has contradictory statements.
(h) Conditions that may cause the Board to issue an administrative order that withdraws registration from a stabilizing component or system may include but are not limited to:
(1) the engineer, architect, or independent testing laboratory withdraws the certification;
(2) the engineer, architect, or independent testing laboratory improperly certified the component or system;
(3) a significant characteristic of a device or system has been changed without a revision of the original certification;
(4) the producer distributes installation instructions that are substantively different from those in the certification or original qualifying tests;
(5) changes in the law, rules, or standards;
(6) the continuing validation system for a component has been changed without a revision of the original certification;
(7) information provided by the original certification is obsolete;
(8) the Department receives evidence that the component or system often fails to anchor or support the home; or
(9) the producer fails to provide test results after the Department directs the producer to test the component or system. The test will be performed by a recognized independent testing laboratory under the observation of a qualified representative or designee of the Department.
(i) Notice of withdrawal of registration of a component or system must be given to the producer and to all licensed installers, retailers, and manufacturers.
(j) The Department's registration of a stabilizing component or system is valid for a period of ten (10) years or for the time period of certification, whichever is less. The registration expires at the end of the shorter period.
(1) If the time period for certification exceeds the ten (10) year registration period, the producer of the stabilizing component or system may apply for a renewal of the registration. The renewal shall be valid for an additional period:
(A) of ten (10) years; or
(B) if the time period of certification expires prior to the end of the ten (10) year period, for a lesser period ending with the expiration of the time period of certification.

(2) All Department approval letters issued prior to November 3, 1998, remain valid for a period of ten (10) years following the original effective date of this section and expire on November 3, 2008, or upon any previously assigned expiration date if that date is earlier.

(k) A registration renewal request must be received from the vendor or producer of the component or system at least ninety (90) calendar days prior to the date the certification or registration expires. The request must supply the information necessary for the Department to issue a registration renewal.

(l) Registered components and systems sold to retailers or installers prior to the expiration of the applicable registration or renewal may be used and installed for a period of not more than ninety (90) calendar days following the date of expiration of their approval, registration, or renewal.

(m) Advertisements and instructions may not express or imply that the component or system has Department approval.

Source Note: The provisions of this §80.26 adopted to be effective January 29, 2008, 32 TexReg 8790