



Working to Create Michigan's Future Today

**Michigan Department of Energy, Labor & Economic Growth
Bureau of Construction Codes
P.O. Box 30254
Lansing, Michigan 48909
(517) 241-9302**

Bureau of Construction Codes Technical Bulletin

Publication Number 34

Updated: July 2006

Tie Downs for Manufactured Homes at Retail Centers

“Providing for Michigan’s Safety in the Built Environment”

Technical bulletins are issued to provide clarification on issues which arise regarding code administration and enforcement. The information provided in the bulletin is developed to promote uniform interpretation and enforcement of the state codes.

DELEG is an equal opportunity employer/program. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

TIE DOWNS FOR MANUFACTURED HOMES AT RETAIL CENTERS

Issue

Code requirements for anchoring manufactured homes, used as display models by retailers to provide consumers with information on the type, style, and construction of manufactured units, located at retail centers used for display purposes.

Discussion

An ad hoc committee, consisting of local code officials, retailers, and representatives from the Manufactured Housing Division, reviewed the code provisions and the practical application of the code provisions for placement of display units at retail centers. This technical bulletin is confined to discussion on units manufactured under the US HUD Manufactured Home Construction and Safety Standards Act.

Units placed at retail centers are typically in place for an average period of nine months. No utilities are connected to these units, except a simple cord connection to power lights within the unit. Heat and water are not provided to the units.

The placement of the unit is conducted in a manner to resemble placement in a manufactured home community or on a single site. This may include skirting or perimeter enclosure at the foundation line of the home, exterior steps/hand rails, and completion of the exterior and interior facades, including completion of the roofing, siding, and joining of the floor systems and interior finishes.

The question of anchorage or tie downs was discussed in great measure. The code currently requires all mobile units to be tied down. No provision is provided within the code for this temporary placement of a unit for display purposes. It is impractical to expect a unit would be anchored (tied down) in accordance with the full code provisions for the period of the display. This is based on the installation of an anchoring system in the retail location and removal of the system for each model displayed.

However, some reasonable measures must be taken to assure the unit will remain in place, resisting lateral movement and overturning. To accomplish this goal, a unit should be blocked (supported) at the points of support, as determined by the manufacturer, for final installation. This will prevent twisting and further damage to the unit while being used as a display and afford adequate support for the floor and roof systems.

Further, anchorage (tie downs) should be set in place to resist lateral movement and overturning. To accomplish this requirement, a home should be tied down at its corners. Alternatively, hurricane straps may be used to resist the overturning when attached to properly secured ground anchors.

One method described in the meeting included the use of ½ inch diameter eyelets anchored in concrete or another suitable supporting system. Ground augers may also be used to anchor the unit to resist overturning.

As an additional alternative, engineering calculations may be used to demonstrate how the overall weight of the unit would resist lateral movement and overturning based on the wind speed requirements set forth in the code.

Conclusion

Manufactured homes used for display purposes for periods of less than 12 months may be installed at retail centers without full compliance with the code for foundation support and anchoring. Homes installed for display would be required to be blocked (supported) at the points of support, as determined by the manufacturer, for final installation. The 12 month period begins at the time the unit receives approval from the local code official.

Homes installed for display are required to be anchored at the corners to resist lateral movement and overturning, by one of the following:

1. By use of hurricane straps when attached to properly secured ground anchors.
2. Use of ½ inch diameter eyelets anchored in concrete or another suitable supporting system.
3. Engineering calculations to demonstrate that the overall weight of the unit would resist lateral movement and overturning based on the wind speed requirements set forth in the code.

Permits for the installation of such units must be secured and inspections conducted to determine compliance with these provisions. A temporary approval for the placement of such units should be issued by the enforcing agency for a period not to exceed 12 months. If however, an extension is required, the enforcing agency may extend the time period based upon a review of the installation to assure the unit(s) remains secure from lateral movement and adequate foundation support is provided.

Units stored at retail centers and not used for display purposes are not subject to the provisions of this technical bulletin. These units do not have wheels removed and are not blocked for structural support.

Fees for placement of units at retail centers should be reasonable and reflect the cost of inspection and approval.

Questions regarding this technical bulletin may be directed to the Michigan Department of Energy, Labor & Economic Growth, Bureau of Construction Codes, Building Division, P.O. Box 30254, Lansing, MI 48909 or by calling (517) 241-9317.