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July 3, 2024

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**Subject:** Duraskirt™ manufactured home perimeter skirt wall system and HUD compliance

The subject Duraskirt™ manufactured home perimeter skirt wall system was review for compliance with the current HUD handbook “Permanent Foundation Guild for Manufactured Housing” publication HUD-7584. And for Lateral strength for back filled installations.

It was found that the Duraskirt system meets all of the requirements for foundation Type C. These are systems that structurally support and anchor the home at the chassis, per section 100-2. Since perimeter walls may or not be used to structurally support or anchor the home, the Duraskirt™ will meet HUD guidelines. Furthermore it is composed of rot resistant materials (concrete) and contains screened ventilation openings to meet the other requirements for Exterior perimeter foundations walls.

The design and strength of the Duraskirt™ system has generous safety factors for the applied loads of wind and seismic forces, plus the back fill loads against the skirting if installed per the manufacturer’s recommendations.

The 30” tall panel was tested for a full backfill height in a jig that simulated normal installation conditions. It was backfilled with compacted medium sand to the top of the 30” tall panel, with no significant deformation of the panel, nor any viable damage or signs of stress or an overloaded condition. The sand has measured dry weight at 110 PCF, and an internal angle of friction of 30 deg. This corresponds to an active lateral pressure coefficient of 0.33, or an equivalent fluid pressure of 36.3 PCF. These values were used to analyze the panel for lateral moment cap city. The panels are reinforced with a 1” x 1” grid of 16 gauge, 60K psi wire, placed off-center to the panel thickness with plastic standouts when the forms are filled with 4000 PSI concrete mix. Analysis indicates this configuration has a factored moment capacity of 8857 in-lbs. The installed loading requires a maximum lateral bending moment of 744 in-lbs. Therefore it has a calculated factor of safety of 11.9. This is about eight times the min required. These panels are very durable, and should not ever become overloaded when installed and used according to the manufacturer’s recommendations.

If you have any questions or are in need of further assistance, please feel free to call.



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