
SBRA ANNOUNCES AFFORDABLE, FROST RESISTANT FOUNDATION

July 1, 2010—The Systems Building Research Alliance today announced the release of the **Frost Free Foundation**® design, an affordable foundation solution when placing homes in areas subject to frost. The design is far less costly than either poured concrete footings that extend the foundation below the frost line or concrete (“floating”) slabs, the two alternatives recommended by HUD for complying with the Manufactured Home Installation Standards in areas subject to frost, which includes most of the nation.

The **Frost Free Foundation** is based on a simple concept: if a home is installed in a manner that assures that the ground under the home is dry and will remain dry, the soil will lack sufficient moisture to heave. For such homes, installing components intended to resist frost heave, such as concrete footings below the frost line, adds cost but provides little value. The concept follows from industry’s decades of experience installing millions of homes in the Frost Belt with few problems. As industry expert George Porter, an early and tireless advocate for the project explained, “The concept is simple; keep the ground dry, no frost heave. It’s not rocket science.” The design is a variation on the shallow, frost protected foundation systems increasingly popular with site builders.

The frost free design was developed with financial support from several state manufactured housing associations and companies involved in manufactured home product supply, community operators and retailers. Seven home manufacturing companies also provided funding. The work was guided by a technical committee chaired by Mark Ezzo (Vice President, Engineering, Clayton Homes). Ezzo noted “it is never a good time to increase housing costs, and in the current environment we are being particularly diligent about finding ways to lower the cost for the consumer.”

In developing the **Frost Free Foundation** solution, SBRA engaged the services of Paul Hayman, PE. Explaining the dynamics of frost heave, Hayman emphasized that ground heave can only occur if three conditions are met: the soil is frost susceptible, outdoor temperatures below freezing are sustained for long periods and the soil has sufficiently high moisture content.

Eliminate any of the three and the ground cannot heave. The **Frost Free Foundation** includes a combination of proven strategies that together control and avoid moisture in the ground under the home.

Interim drafts of the Hayman design, along with technical supporting documentation were reviewed by a project technical committee consisting of engineers with leading home manufacturing companies, suppliers and state associations. Draft designs were also shaped by feedback from the US Department of Housing and Urban Development, Office of Manufactured Housing Standards, state agencies that oversee home installation and Design Approval Plant Inspection Agencies (DAPIAs).

The **Frost Free Foundation** design is copyright protected by SBRA and intended for the sole use of home manufacturers building new homes, and communities, retailers and individuals re-installing existing homes. Additional information about the Frost Free Foundation design is available on the web at: www.research-alliance.org/pages/frostfreefoundation.htm

For information about licensing the **Frost Free Foundation** design, contact SBRA at:

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