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1871

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November 26, 2013

Stabil-Loc, Inc.
444 Old Wire Road, Suite G
Springdale, AR 72764

Dear Mr. Patton,

Dr. Ernest Heymsfield and Mr. Mark Kuss of the University of Arkansas (UA) Department of Civil Engineering performed structural load tests on pier components at the UA Engineering Research Center (ERC) under an Analytical Lab Services project during the 2013 summer. Compression load tests were conducted using a Forney Load Frame, Model LT-1000-D. The load frame has an 800 k (3,558 kN) capacity and was checked for calibration on September 18, 2013 to ensure reliable test results.

The Stabil-Loc Foundation Piering System includes a heave plate supported by a concentrically placed shim-block. The shim-block provides a mechanism to create an adjustable support length between the heave-plate and the head plate of the pier without inducing eccentric loads on the Stabil-Loc pier. Pier length varies and is a function of soil conditions at the project site. The pier structure provides foundation support through transferring the home foundation load as a concentric load to an adequate bearing strength material.

In evaluating the Stabil-Loc Foundation Piering System, two components were considered critical in the concentric load support system, the shim block and the pier tubing. Details for these structural components are available at the Stabil-Loc web page. Four compression load tests were conducted on 12-in (304.8 mm) pier sections with an outer and inner tube. The minimum compression yield load for the four tests was 145 k (645.0 kN). Three compression load tests were conducted on shim block components varying the extension of the 1-3/8 in (34.93 mm) stud. A maximum 2.5-in. (63.50 mm) stud extension above the captive nut is to be specified by Stabil-Loc, which is equivalent to a 0.75 in. (19.05 mm) exposed thread section between the captive nut and the stud nut. The shim block compression yield load with a maximum 2.5-in (63.50 mm) stud extension is 140 k (622.7 kN).

The minimum compression yield load strength for the critical components of the Stabil-Loc Piering system was 140 k (622.7 kN). This value is based solely on the structural piering system and therefore is independent of a site's specific soil conditions, which may limit the Stabil-Loc Piering carrying capacity at a location.

Sincerely yours,

Ernest Heymsfield, PhD, PE

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 10702
ERNEST HEYMSFIELD

Signs of Foundation Failure

Inside of the House
- Cracks in Drywall
- Doors and windows that stick
- Cracks in floors and tile
- Misaligned doors and windows

Outside of the House
- Gaps around doors and windows
- Cracks in foundation
- Stair step cracks in brick walls
- Chimneys tilting or pulling away

Garage
- Separating from door
- Walls rotating out
- Stair step cracks in brick wall

Causes of Foundation Failure

Evaporation: Hot and dry conditions cause soil to shrink.

Transpiration: Tree roots dehydrate soil, causing soil shrinkage and settlement of your home's footing/slab.

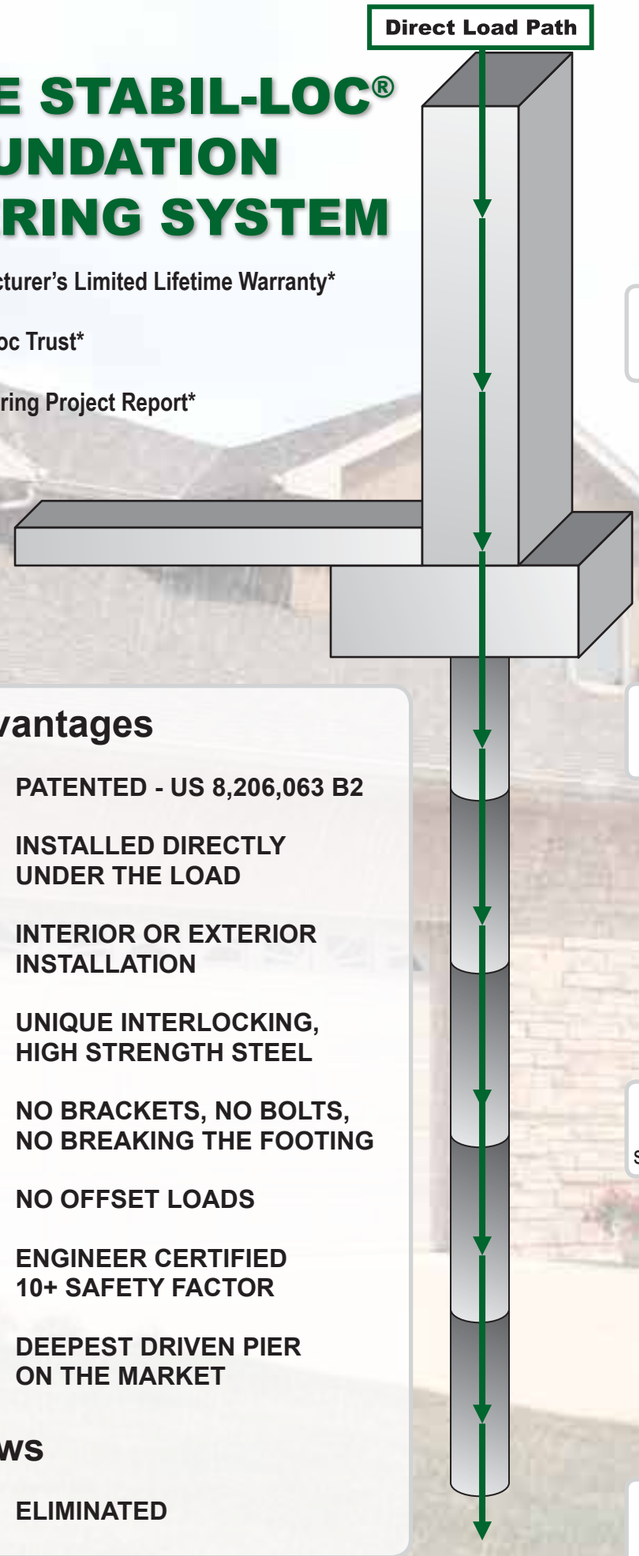
Drainage: Improper drainage causes increased hydraulic pressure on basement walls.

Poor Building Site Preparation: Improperly compacted fill soil causes settling problems later.

Poor Soil Conditions: Expansive clay soil and organic debris cause contraction and expansion of soil.

THE STABIL-LOC® FOUNDATION PIERING SYSTEM

- Manufacturer's Limited Lifetime Warranty*
- Stabil-Loc Trust*
- Engineering Project Report*



Advantages

- ✓ PATENTED - US 8,206,063 B2
- ✓ INSTALLED DIRECTLY UNDER THE LOAD
- ✓ INTERIOR OR EXTERIOR INSTALLATION
- ✓ UNIQUE INTERLOCKING, HIGH STRENGTH STEEL
- ✓ NO BRACKETS, NO BOLTS, NO BREAKING THE FOOTING
- ✓ NO OFFSET LOADS
- ✓ ENGINEER CERTIFIED 10+ SAFETY FACTOR
- ✓ DEEPEST DRIVEN PIER ON THE MARKET

Flaws

- ✓ ELIMINATED

*Ask Your Authorized Contractor or Visit www.stabil-loc.com

Figure 1
Pier is driven to bedrock under center of wall being lifted

Figure 2
Pier is ready for head assembly

Figure 3
Structure is now carefully lifted, or stabilized to eliminate further settlement

Figure 4
Immediate work area is filled in with new concrete