

# Concrete Lifting

## Magnum Piering Magnum Slab Piers Slab Jacking

### CASE HISTORY

#### Project

Royal Saint Georges  
Fords Colony Williamsburg, VA

#### Job Description

A residential custom home front porch slab overlaid brick paving system had settlement of up to 1 ½ “ due to the compression of sub-soils. Also, the interior crawl space and exterior porch foundation wall had settlement and distress.

#### Solution - Foundation Walls

The foundation was stabilized with Magnum 3” steel piers with heavy-duty Magnum angle brackets. Three total piers were required.

Average depth: 30’ deep

Ultimate capacity: 28 Kips

Working capacity: 14 Kips

#### Solution - Slab and masonry paving system

The installation of Magnum slab piers 5’ on center were utilized to transfer slab loads to proper subsoils.

Magnum Piers – 7 total      Average depth: 18’ deep

Ultimate capacity: 3.5 Kips

**Slab Jacking** - After the piers were in place, 81 cubic feet of cementitious grout was injected into the void. Grout was injected between the slab and sub soils to consolidate the soil, fill the voids and support the slab/paver system. A total of five working days were required to make repairs.

#### Results

The paving system settlement was corrected up to 1 ½” of lift, which returned the paving system to its original elevation. The above methods of repairs were less destructive and saved thousands of dollars over typical removal and replacement methods. Upon completion of this project, the owners contracted with Advanced Builders to complete masonry repairs and restoration.

