

PROJECT DESCRIPTION

PROJECT: Homewood Suites Hotel
LOCATION: Phoenix, Arizona
DESIGN TEAM: *Architect/Structural Engineer:* JMGR
Geotechnical Engineer: Western Technologies
CONTRACTOR: Walton Construction



DESCRIPTION:

- 4-Story hotel
- Bearing wall (continuous footing) loads of up to 12 kips per lineal foot

Moderately collapsible soils were identified as a concern by the geotechnical consultant, and confirmed by the borings and laboratory testing program. The soils were silty sands, sandy clays and clays with low to moderate consistencies. The Geopier® System were selected as a cost-effective value engineering alternative.

Two hundred seventy-five 30" Rammed Aggregate Pier® (RAP) elements were installed in 7 working days on site. The RAP elements varied from 6 to 8 feet in length (8.5' – 10.5' in effective length including bottom bulb), which made it possible to utilize shallow footings within a moderately collapsible soil. Continuous wall footings 3' wide were designed, with composite allowable bearing pressures of up to 4,000 psf. A full-scale modulus load test was performed on site to verify Geopier design criteria.

REFERENCES: Dr. John Rosner, P.E.
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