

## PROJECT DESCRIPTION

**PROJECT:** Home Depot Retail Store

**LOCATION:** Bellevue, Washington

**DESIGN TEAM:** *Architect:* Greenberg Farrow Architecture  
*Structural Engineer:* Barry Levin & Associates  
*Geotechnical Engineer:* GeoEngineers

**CONTRACTOR:** Ferguson Construction



### DESCRIPTION:

Site conditions consisted of peat and organic soils underlain by existing fills placed during previous site development. Without overexcavation, deep foundations or the Geopier® System, unacceptable footing and floor settlements were expected due to compression of the soft, organic layer.

Initial plans were to either overexcavate the compressible peat soils, (requiring about 8'-11' of overexcavation throughout the building area) or to preload the site. Site preloading would have required about 10' of fill, placed for at least one month. Because of a rapid project schedule and cost constraints, the owner's geotechnical consultant selected the Geopier system as a Value Engineering solution to eliminate overexcavation or preloading.

500 Rammed Aggregate Pier® (RAP) were installed at a production rate of about 75 RAP's per day to meet the rapid project schedule. They were installed in the east portion of the building where the soft, compressible peat soils were present. The RAP's were placed beneath the building foundations and on a 5' center-to-center triangular spacing beneath the heavily loaded floor slab. This close RAP spacing provided support of the on-grade floor slab.

The Geopier foundation system provided a sound, engineered solution to mitigate a difficult soils problem within cost and scheduling constraints.

### REFERENCE:

Mr. Mark Beers  
The Home Depot  
(206) 661-1304