

## PROJECT DESCRIPTION

**PROJECT:** Kuni BMW Showroom

**LOCATION:** Beaverton, Oregon

**DESIGN TEAM:** *Architect:* CSCB Architects, PC  
*Structural Engineer:* Kramer Gehlen Associates  
*Geotechnical Engineer:* GeoCon Northwest, Inc.

**CONTRACTOR:** Andersen Construction Co., Inc.



### DESCRIPTION:

- One-story glass front BMW showroom and service center
- Foundation loads 27 to 242 kips in show room.
- Undocumented fill between 5' and 18' thick, underlain by stiff Willamette Silt.

The project site consisted of undocumented fill ranging from 5 to 18 feet in depth in the southern portion of the site and transitioning to no fill in the northern portion. Underlying the fill is the stiff Willamette Silt Formation. Initial recommendations were to (a) over-excavate the undocumented fill and replace it with engineered fill, or (b) utilize the Geopier® System. With the Geopier system, the fill material could remain in place and spread footings could be designed for a 3500 psf bearing capacity.

The Geopier intermediate foundation system was selected as the cost effective alternative to the overexcavation and replacement filling.

Each Rammed Aggregate Pier® (RAP) element penetrated the fill and terminated in the underlying silt layer. A total of 238 RAP elements were installed in only 7 working days on-site.

**REFERENCES:** Ms. Erin Storlie                      Mr. Rick Jones, P.E.                      Dr. Wesley Spang, P.E.  
Andersen Construction Co.              Kramer Gehlen & Associates              GeoCon Northwest, Inc.