

## PROJECT DESCRIPTION

<b>PROJECT:</b>	Carpet Warehouse for Criterion Supply, Inc.	
<b>LOCATION:</b>	Milwaukie, Oregon	
<b>DESIGN TEAM:</b>	<i>Architect:</i>	The Wasserberger Benson Partnership
	<i>Structural Engineer:</i>	TM Rippey Consulting Engineers
	<i>Geotechnical Engineer:</i>	AGI Technologies
<b>CONTRACTOR:</b>	R & H Construction Co.	



### DESCRIPTION:

- 35,000 square foot warehouse featuring tilt-up walls and structural floor on grade beams
- Floor slab loading = 150 psf
- Perimeter wall loading = 6 kips/foot
- Interior column loads = 125 kips

Subsurface conditions at the site consist of 12'-15' of peat and highly organic silt overlying a dense gravel formation. Groundwater occurred at a depth of about 2' below site grade.

Foundation support options for the floor slab, columns and walls included 15'-20' long, high capacity steel piles, low capacity pin piles, and the Geopier® system. Aggregate piers terminating on the gravel formation were selected as the most cost effective option.

A total of 192 Geopier elements were installed. For support of the floor slab, 30" and 33" diameter piers were spaced at 25' intervals beneath grade beams that were up to 14' on-centers. Beneath the tilt-up walls, 30" diameter piers were spaced at 13' intervals. Interior columns footings were supported on individual 36" diameter Geopier elements.

The 192 Geopier elements were installed in only 6 working days on-site, which resulted in a significant timesavings for the General Contractor.

**REFERENCE:** John Graves, Sr. Project Manager  
R & H Construction Co.  
(503) 228-5508

Darron Hayden, P.E..  
TM Rippey Consulting Engineers  
(503) 244-0266