

PROJECT DESCRIPTION

PROJECT:	William W. Knight Law Center		
LOCATION:	15 & Agate Street, Eugene, Oregon		
DESIGN TEAM:	<i>Architect:</i>	Yost/Grube/Hall Architects	
	<i>Structural Engineer:</i>	KPF Consulting Engineers	
	<i>Geotechnical Engineer:</i>	Geotechnical Resources, Inc.	
	<i>Owner:</i>	University of Oregon Law School	
CONTRACTOR:	Hoffman Construction Company		



DESCRIPTION:

- 4-stories above grade with partial basement
- Steel frame (braced frame)
- Column loads up to 600 kips (compression), 340 kips (uplift)

The project geotechnical investigation revealed a 20'-60' thick layer of silt overlying a formation of variably weathered siltstone and sandstone. High column loads and unfavorable consolidation characteristics of the overburden silt soils precluded the use of conventional spread footings.

Foundation support options for competitive bidding included Geopier® System and 45' augercast piles. The Geopier System afforded a significant saving over piles. A design bearing pressure of 6000 psf was allowed for Geopier-supported footings, resulting in additional savings in structural concrete.

A total of 470 Rammed Aggregate Piers® (RAP) (including 200 tension piers) were installed to support the structure. Compression piers were 6' to 12' in length and carried loads ranging from about 60 to 85 kips each. RAP's installed to resist uplift loads were 12' in length and were designed to carry 50 kips in tension, each. Full-scale field load tests confirmed the design parameters.

REFERENCES:

Mr. Steve Fowler, Project Engineer
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