

**1993 NOVA AWARD WINNER**

**Geopier Intermediate Foundation System**

The Geopier Intermediate Foundation System is comprised of densely compacted aggregate piers made of well-graded stone. Each pier is constructed by first excavating a hole in the matrix soil using a soil auger. A high-energy tamper having conical sides is inserted into the hole, and the soil at the bottom of the hole is densely compacted. The tamper is then withdrawn, and a layer of well-graded stone aggregate approximately 18 inches thick is placed in the bottom of the hole. The tamper is reinserted and the aggregate layer compacted. This process further densifies the soil at the bottom and along the sides of the cavity. Again the tamper is removed, another layer of aggregate is placed into the hole, the tamper reinserted, and the layer of aggregate compacted. Additional layers of aggregate are added and compacted until the hole is completely filled. On top of the pier thus formed is cast a concrete cap to form a foundation for a structure. Geopiers fill an existing gap between shallow foundations and deep foundations. The system appears to be energy efficient with respect to installation as well as being cost effective.

Contact:                    Dr. Nathaniel S. Fox  
Organization:            Geopier Foundation Company, LC  
Address:                    11421 E. Aster Drive  
City:                         Scottsdale  
State/Province:         AZ  
Postal Code:              85259  
Country:                    USA  
Phone No:  
FAX:  
URL:                         <http://www.geopier.com>  
Email: