



## Addison Trails High School Addison, Illinois

### Project Team

**Owner:** DuPage High School District 88  
**Geotechnical Engineer:** ATC  
**Structural Engineer:** Larson Engineering of Illinois  
**General Contractor:** Bovis Lend Lease  
**GFC Installer:** Foundation Service Corporation  
**GFC Designer:** GFC-Chicago

### Project Notes

Construction at the existing high school: a new 39,000 square foot, one-level with a two-story height open space fieldhouse. Another addition was a 16,500 square foot, two-story courtyard area to be used for offices and classrooms. Column loads ranged from 40 to 200 kips and wall loads ranged from 10 to 30 kips per foot. Soil conditions consisted of zero to eight feet of clay fill, and eight to 20 feet soft to stiff native clays.

The Geopier® solution was recommended by Bovis Lend Lease as a result of past work experiences with the Geopier System, including another high school fieldhouse project. They knew the Geopier solution would save time and money in lieu of the removal and replacement option that was also being considered. A total of 483 Rammed Aggregate Pier® elements, 24 to 30 inches in diameter, with shaft lengths of eight to 20 feet were installed, despite the design challenge of limited access to the courtyard area. A 10 by 10 foot opening was made in the existing school walls.

## Sioux Falls Seminary Sioux Falls, South Dakota

### Project Team

**Owner:** Sioux Falls Seminary  
**Geotechnical Engineer:** Geotek Engineering & Testing  
**Structural Engineer:** KMS Engineering  
**General Contractor:** Jans Corporation  
**GFC Installer:** Peterson Contractors, Inc.  
**GFC Designer:** GFC-Midwest

### Project Notes

This project included the construction of a 45,000 square foot, two-story seminary building with a vestibule level. Subsurface conditions were soft clay loess over stiff clay glacial till. Overexcavation of the soft loess would have been difficult and expensive due to the constrained work area with adjacent streets and structures. As a result, the geotechnical engineer recommended the Geopier® System as the Intermediate Foundation® solution in lieu of overexcavation. Also the sustainability the Geopier System offers helped this project to obtain LEED Silver status.



## Reagan Parkway Elementary School Medina, Ohio

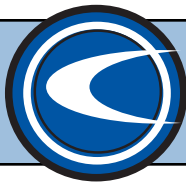
### Project Team

**Owner:** Medina City Schools  
**Geotechnical Engineer:** BBC&M Engineering, Inc.  
**Structural Engineer:** Fanning Howey Architects, Inc.  
**Site Contractor:** Fechko Excavating  
**GFC Installer:** Peterson Contractors, Inc.  
**GFC Designer:** GFC-Midwest

### Project Notes

Construction of a new 72,000 square foot, one-story elementary school on the west side of Medina, Ohio, to accommodate increased student enrollment.

Soil conditions consisted of up to 18 feet of very soft silt containing high-moisture contents encountered in the southern portion of the project site. A high groundwater level was also present. Several feet of new fill material was required to raise the southern portion of the site to the desired finish floor elevation. The additional weight of the new fill material would cause excessive settlement and require numerous months of construction delay. The project design team recommended the Geopier® System as a means to limit settlement and reduce anticipated construction delays. Allowable total and differential settlement is one inch total and one-half inch differential.



## ADM Soybean Oil Storage Tanks

### Quincy, Illinois

#### Project Team

**Owner:** Archer Daniels Midland Company  
**Geotechnical Engineer:** Geotechnics  
**Structural Engineer:** ADM Design Services  
**General Contractor:** ADM  
**GFC Installer:** Foundation Service Corporation  
**GFC Designer:** GFC-St. Louis

#### Project Notes

Project included the construction of four new soybean oil storage tanks built at grade on the Mississippi River flood plain. Each tank had a diameter of 95 feet by 40 feet tall and was spaced 20 feet apart. The foundation consisted of a concrete ringwall installed to support the exterior tank wall. Compacted granular material was placed within the interior of the ringwall to support the flexible tank bottom. Soil conditions consisted of approximately five feet of undocumented fill consisting of silty clay with sand and trace gravel. The fill was underlain by 10 to 25 feet of soft silty clay underlain by dense sand.

The Impact® System was recommended by the geotechnical engineer to limit total and differential settlements to an anticipated total settlement of five inches and a differential of one and one-half inches. Unreinforced settlements were in the 14 to 16 range. A total of 1,202 Rammed Aggregate Pier® elements, with a 20-inch diameter and a depth range of 14 to 32 feet below existing grade were installed to support the tanks.



## UW-Fox Valley Communication Arts Center

### Menasha, Wisconsin

#### Project Team

**Owner:** Wisconsin Department of State Facilities  
**Geotechnical Engineer:** Omni Associates  
**Structural Engineer:** KJWW Engineering Consultants  
**General Contractor:** Miron Construction Company, Inc  
**GFC Installer:** Foundation Service Corporation  
**GFC Designer:** GFC-Midwest

#### Project Notes

Geopier® System offered a sustainable foundation solution and assisted this project with a LEED Gold rating. The project involved the construction of a new 52,000 square foot, two-story, 362-seat fine arts performance center to replace the existing theatre.

Subsurface conditions consisted of soft to firm silty clay extending as deep as 62 feet below the existing ground surface, underlain by weathered bedrock. Rammed Aggregate Pier® elements, 30 inches in diameter, were installed 23 feet below the existing grade to provide support to the new center.



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