



Corn Silo & Grinding Facility

Albion, Nebraska

Geopier Rampact® elements were installed to support this silo, grinding structure in lieu of traditional support alternatives to save on costs and time

Description: The silo and grinding structure will be one connected structure and will be supported on ringwall footings with a design pressure of 7 ksf. The interior slab pressure is 2.4 ksf across both the silo and grinding portions. The silo will contain a grain tunnel that will bear 10 feet to 17 feet below grade.

Subsurface Conditions: Soil conditions consisted of very stiff to hard clay fill that extended to a depth of 10 feet, underlain by very soft clay and clayey silt to 22 feet. The cohesive soils were followed by medium dense to very dense sand to the maximum explored depth of 60 feet. Groundwater was encountered 5 feet below ground surface.

Geopier Solution: For ring wall foundation support at grade Rammed Aggregate Pier® (RAP) elements were installed with spacing 4 feet on-center allowing for a net allowable bearing pressure of 7 ksf. For support of mat slab pressures, RAP elements were installed at a spacing of 6.5 feet on-center for support of design pressures of 2.4 ksf.



PROJECT TEAM

Owner:

Patients First Healthcare

Geotechnical Engineer:

SCI Engineering

Structural Engineer:

KPFF

General Contractor:

Paric Corp

Geopier Installer:

Peterson Contractors, Inc.

Geopier Designer:

GFC-St. Louis