



## Petroleum Storage Tanks

Rochester, Minnesota

**Over 800 Rampact® elements were installed to support the two, 114 foot diameter petroleum storage tanks**

**Description:** Construction of two, 114-foot diameter, 40-foot tall steel petroleum storage tanks supported on ringwall foundations. The exerted contact pressure is 2,550 pounds per square foot.

**Subsurface Conditions:** According to the boring logs in the Geotechnical Investigation report, the site was generally underlain by loose to medium dense silty sands, sandy silts, and sandy/silty clays with varying thickness that was between 10 and 30 feet. The upper soils appeared to be localized fill. Ground water elevation varied and was expected between 10 feet and 25 feet below the ground surface.

**Geopier Solution:** Rammed Aggregate Pier® (RAP) elements were proposed for mitigating liquefaction potential on the southeast portion of the site. By improving the soil, it also increased the allowable bearing pressure and limited the amount of anticipated settlement. Long term post-construction total and differential settlements will be less than 1-inch and ½-inch.



### PROJECT TEAM

**Owner:**

Midwest Fuels

**Geotechnical Engineer:**

McGhie & Betts, Inc.

**General Contractor:**

Weis Builders, Inc.

**Geopier Installer:**

Peterson Contractors, Inc.

**Geopier Designer:**

GFC-Midwest