



## KIA Welding Shop

Lagrange, Georgia

**The Rammed Aggregate Pier® system was installed to support foundations for the \$1.2 billion KIA manufacturing plant and to provide engineered settlement control**

**Description:** The Geopier GP3® system was installed to support this single story 374,000 sq ft welding shop. This building is one of six buildings at this KIA manufacturing plant. The Rammed Aggregate Pier® (RAP) elements were installed to support the Stamping Building, Assembly Building, Paint Shop, Mobis Building and the Glovis Building.

**Subsurface Conditions:** Engineered fill was encountered, generally consisting of medium dense silty sand or sandy silt to depths ranging from two feet to approximately 30 feet. Below the fill and where fill was not present, medium dense residual sandy silt or silty sand was encountered. Partially weathered rock was encountered at depths ranging from 23 to 40 feet. Groundwater was typically encountered at depths of about 12 feet.

**Geopier Solution:** Over 645 RAP elements were constructed to support this manufacturing facility with maximum column loads of 1,020 kips. The 30 inch diameter RAP elements extended to depths of up to 15 feet below the bottom of footing elevation to



provide settlement control of one inch or less. Three construction crews worked simultaneously at this site to exceed the construction schedule demands.

### PROJECT TEAM

**Owner:**

KIA Motors Corporation

**Geotechnical Engineer:**

S & ME, Inc.

**Structural Engineer:**

CH2M Hill

**General Contractor:**

AMCO, Inc.

**Geopier Installer:**

Peterson Contractors, Inc

**Geopier Designer:**

GFC-Southeast