



Stennis Space Center (B-Stand Tarmac)

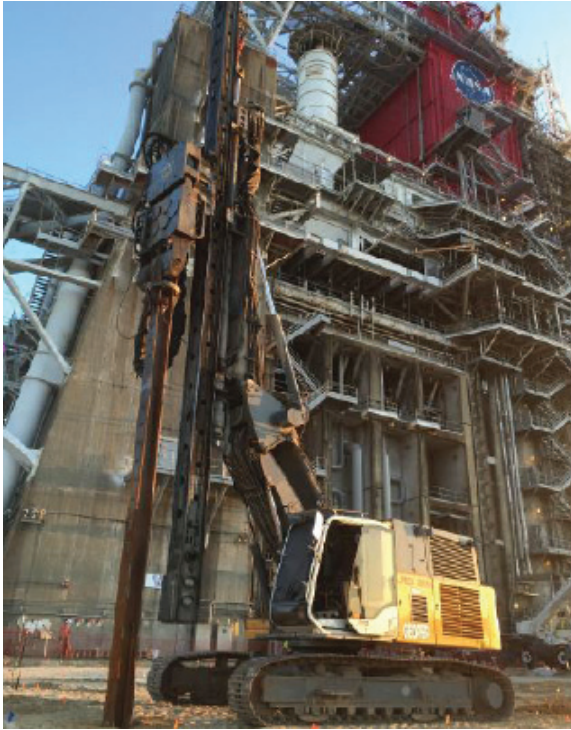
Picayune, Mississippi

National Aeronautics and Space Administration (NASA) turns to Geopier to support new tarmac staging area at their rocket engine test facility

Description: The project involved construction of NASA's new tarmac staging area at its rocket engine test facility. The new foundation included 20,000 square feet of new pavement that would consist of 12-inch reinforced concrete. The heavy loads associated with the rocket support pedestals resulted in an approximate 3,000 psf contact stress acting upon the pavement slab and underlying soils.

Subsurface Conditions: The soil conditions consisted of 10 to 25 feet of loose sands and silty sands, which are common in the Gulf Coast region of Mississippi. If left unimproved, the poor soil conditions would experience unacceptable settlements under the loads of the rocket pedestal.

Geopier Solution: To solve this complicated ground improvement problem, Geopier geotechnical engineers chose to use a Geopier system consisting of displacement X1® piers that would not only improve much of the underlying loose sands in place, but would also allow new sand to be placed within the cavity to create a very dense matrix of Rammed Compaction® points. The final design consisted of 400 Geopier displacement X1 piers, which were installed in 22 days.



PROJECT TEAM

Owner:

NASA

Geotechnical Engineer:

Southern Earth Sciences

Structural Engineer:

Jacobs Engineering

General Contractor:

Advon Corporation

Geopier Installer:

Peterson Contractors, Inc.

Geopier Designer:

Geopier Foundations Company

