# ROCKY MOUNTAIN STEEL PIERING INCORPORATED

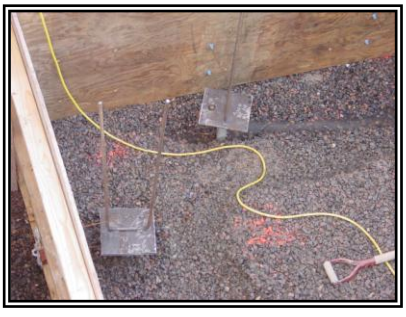
## CASE STUDY

**Project:** Lincoln Meadows Sewage Lifting Station, Parker, Colorado

**Underpinning Contractor:** Rocky Mountain Steel Piering, Inc.

**General Contractor:** Aslan Construction, Inc.

**Structural Engineer:** Martin/Martin, Inc.



**Project Description:**

The proposed construction for the Lincoln Meadows sewage lifting station consisted of reinforced concrete walls supported on a reinforced concrete structural slab. The structural slab was constructed over a helical steel pier foundation system.

The helical steel piers were installed by Rocky Mountain Steel Piering, Inc. utilizing a hydraulic torque head attached to a rubber tire backhoe in order to advance the piers into the ground from an elevated position. In order to install the piers at a lower elevation, the excavation was properly braced and dewatered. The helical steel piers at the base of the station consisted of 1-3/4-inch rounded corner square steel shafts with double configuration helix lead sections. These piers were advanced approximately 41 to 60 feet into the ground and torqued to approximately 8,000 to 10,000 ft-lbs to provide approximately 80,000 to 100,000 lbs of ultimate pier capacity. The helical steel piers supporting the upper portion of the lifting station extension consisted of 1-1/2-inch rounded corner square steel shafts with single helix configuration helix lead sections. These piers were advanced approximately 55 to 60 feet into the ground and torqued to approximately 2,500 ft-lbs to provide approximately 25,000 lbs of ultimate pier capacity. The tops of the piers were fastened to new construction brackets, which were embedded in the structural slab.