



Hydraulic installation of one of our moment foundations for high-mast lighting.



No corrosion or rust on the foundation top plate exposed to the elements since 1994 at Marietta College.



Sammis Power Plant conveyor and transfer tower supported by our foundations.

The Don Schaly Stadium ballpark lighting project at Marietta College, Marietta, Ohio, is located on Ohio River floodplain having poor, loosely compacted soils. Engineers determined that loading capacities of specified 115 ft. tall light towers would require unusually large poured concrete foundations in such soils. Concrete contractors were reluctant to provide hard price quotes for the project, predicting that excavated holes in these poor soils would expand with the wet concrete pour, potentially requiring much additional concrete. Citing the variables in concrete foundation cost, Marietta College cancelled the lighting project, but later renewed it upon learning of Structural Foundations' solution.

Structural Foundations designed, fabricated, and hydraulically installed eight steel foundations for each light tower. In the process of our **hydraulic installation method**, soils were **compacted and consolidated**, improving their capacity and ultimately, the capacity of each foundation to withstand high **moment loading**. Our installation process also provided hydraulic force readings that a registered professional engineer used to verify and certify the loading capacity of each foundation. That was in 1994... Today, the **light tower foundations haven't settled or crept**, and none has accumulated any rust or corrosion on the visible ground-level top plate.

Recent projects build upon our foundation innovations for poor soils. A lighting project at Moultrie Park in Charleston, South Carolina posed similarly poor soils but with scattered areas of rubble. The quote for Structural Foundations' hydraulically-installed foundation system was chosen for its lowest price. The holes for our foundations were successfully drilled into the rubble and the loading capacity of each foundation was verified through our installation process.

A larger project was a transfer tower and conveyor system at the FirstEnergy Samsis Power Plant near Steubenville, Ohio. Also located in the poor soils of Ohio River floodplain, Structural Foundations was selected for our lowest bid and **capability to install in wintertime**. We hydraulically installed 30 steel foundations into frozen ground in sub-freezing ambient temperatures, greatly accelerating the project schedule and total project completion.

In poor soils, Structural Foundations delivers the most economical, fast-installing, high-capacity foundation solution.

