

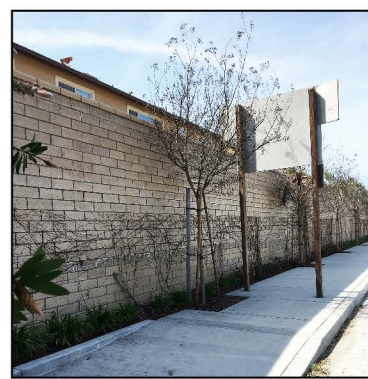


MacLean Civil Products Teams with Construction Services, Inc. to Install (250) Helical Piles for New Construction Project in Moorpark, California



MPS Civil Products

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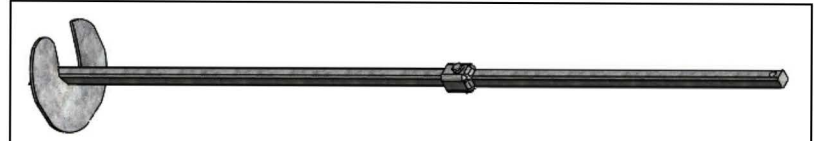
Project Name & Location:	Shea Homes - Moorpark, CA
Project Date:	January 2016
Project Type:	Grouted CMU Property Line Wall
Helical Pile Installation Contractor:	Construction Services, Inc. - http://anchorguys.com/
Geotechnical Engineer:	GEO Soils, Inc. - www.geosoils.com
Structural Engineer:	EJD Engineering, Inc. - www.esifme.com
Helical Pile Distributor:	Advanced Support Technology - http://www.earthscrow.com/
Helical Pile Specifications:	Model MCP D10 1.75" RCS Helical Piles with 12" Helix Bearing Plate, New Construction Pile Caps, 15 KIP Design Load, Galvanized
Soils & Embedment Depth:	Sandy Soils; Average Pile Embedment 15 ft.
Project Timeline:	(3) Weeks
Helical Pile Manufacturer:	MacLean Power Systems - Civil Products Group - Fort Mill, SC

Residential builder, Shea Homes of California, elected to commence development of a new subdivision of single family detached homes within the city of Moorpark, California. Shea Homes owned the property for many years and planned upon utilizing the existing CMU property line wall that encompassed the entire property because it would afford a substantial cost savings.

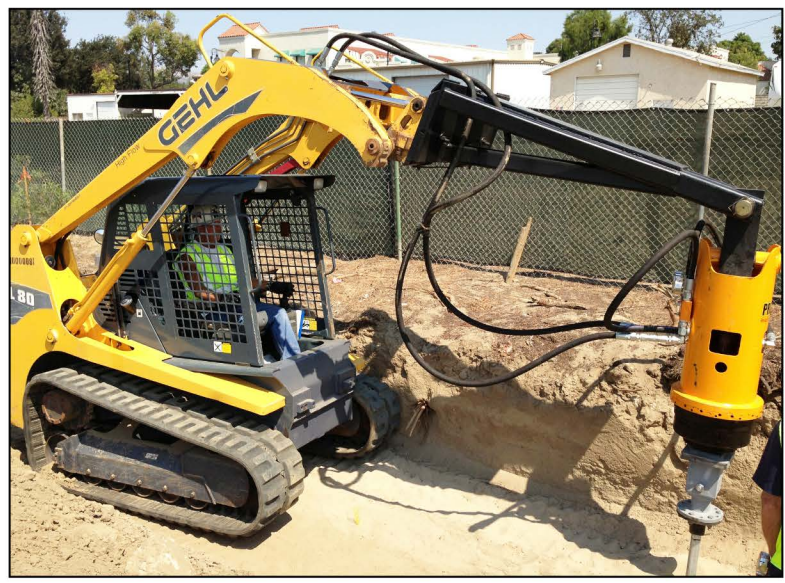
However, city plan checks determined that the existing wall had been constructed without building permits and was therefore deemed by the city to be non-compliant requiring complete removal. Under most circumstances, building a new wall would not have posed any issues. However, the over excavation and re-compaction of the fill blanket had already been completed on the entire property, and the forming of house foundations was well under way by the time the city delivered the bad news regarding the wall.



At this point, the geotechnical consulting firm of GeoSoils, Inc. was retained to provide criteria for construction of the new wall so that Shea Homes could request bids for the new wall to complete their overall budget. GeoSoils determined that a foundation had to be designed that would address the required pile penetration below the new fill blanket, compression loads and lateral loads for overturn. All of this was to be completed within a very small access area around the site. Furthermore, because the construction would involve a new construction application, the helical pile system of choice would also need to satisfy the requirements for Seismic Zone D.



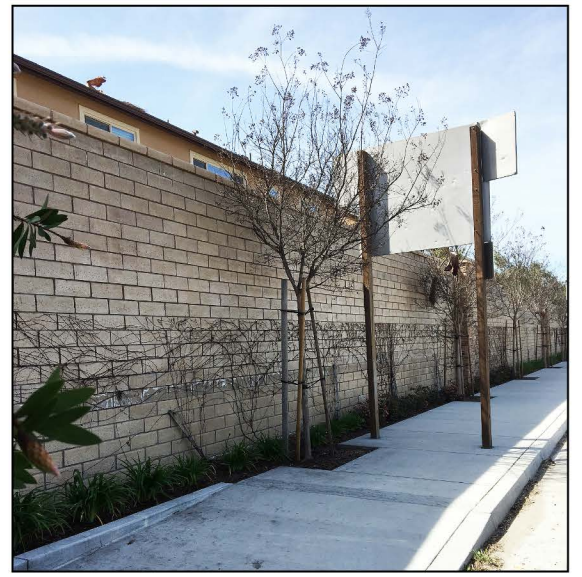
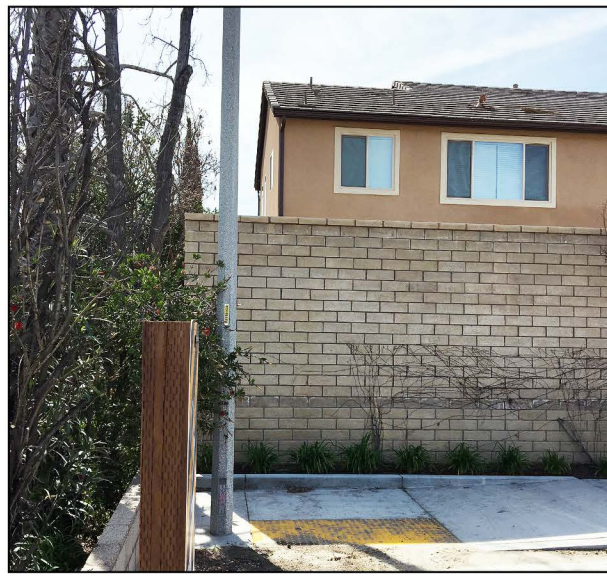
1.75" RCS MCP Model D10 Lead with 12" Helix Bearing Plate and Extension with Square on Square Coupler



GeoSoils engineers were very familiar with helical piles and they contacted Kenneth Drake of Advanced Support Technology, Inc. to inquire about the feasibility of using helical piles on this project. All parties met with Shea Homes to discuss the various options available to them regarding the use of helical piles. Initial discussions focused on the use of 8.00" O.D. helical piles filled with concrete. This design solution had proven to provide high compressive, tension and lateral capacities on numerous projects in California. After much discussion and cost analysis, it was determined that the MacLean Civil Products (MCP) Dixie, 1.75" RCS helical pile would be the pile of choice due to the necessity of smaller equipment and overall cost. The engineers finalized a design that included MCP D10 helical piles founded at a depth of fifteen feet (15') around the site would meet all requirements to support the new grouted 10 ft. above grade CMU wall. The helical piles were placed at alternating batters within the footings so that they could adequately provide compressive, uplift and lateral capacities in a simple design.

Construction Services was selected as the installation contractor, and crews installed (250) 1.75" x 15' deep MacLean Dixie RCS helical piles fitted with a single 12" x 1/2" helix bearing plate using a Gehl CTL 80 Skid Steer fitted with a ProDig 30K drive head. The entire installation and required load tests were successfully completed ahead of schedule.

The helical anchor installation was performed under continuous observation of both the Geotechnical firm as well as a Special Deputy Inspector, and the project was successfully complete in (3) weeks.



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