MacLean Civil Products Teams with McDowell NW Pile King to Install (22) Helical Piles for a Stormwater Outfall Replacement in Port Orchard, WA

Summer, 2014

MPS Civil Products

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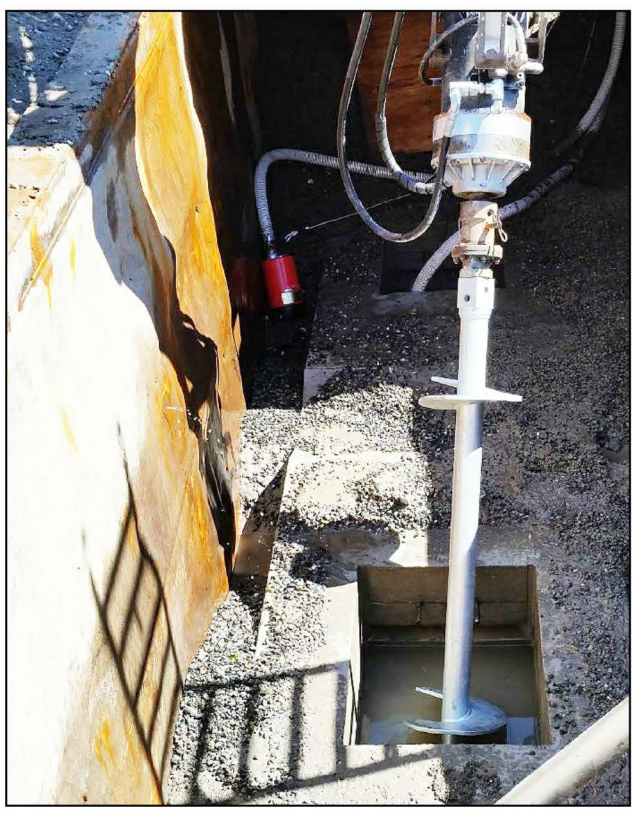
Project Name & Location:	Windjammer Park - Port Orchard, WA
Project Date:	Summer 2014
Project Type:	Storm Water Outfall Replacement in Tide Flats
Helical Pile Installation Contractor: **Engineer of Record:**	McDowell NW Pile King - www.pileking.com/ GeoEngineers - https://www.geoengineers.com/
Helical Pile Specifications:	3.50" Round Shaft with 10"-12"-14"-14"-14" Helix Bearing Plates; Galvanized; 16.4 kips Compression and 14 kips Tension Design Loads
Soils & Embedment Depth:	Gravel and Sand; Average Pile Embedment 28 ft.; 30 Degree Batter
Project Timeline:	(3) Days
Helical Pile Manufacturer:	MacLean Power Systems - Civil Products Group - Fort Mill, SC

Stormwater outfalls are the final leg of the system used to exit rain and runoff water to the bay.

The previous stormwater outfall was damaged beyond repair, so city officials decided to replace it with a new one.



Helical piles and anchors are used to hold the pipeline in place and resist tension, compression and lateral forces caused by tidal surges.

The 3.50" helical piles were installed at a 30 degree batter in order to enhance the lateral capacity. The design loads for compression was 16.4 kips and for tension was 14 kips. The lead sections were designed with 10"-12"-14" helix bearing plates, and the first extension included (2) additional 14" bearing plates. The (5) bearing plates were required to achieve the required torque at an average installation depth of 28 ft. All (22) piles were successfully installed in (3) days.

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