

STELCOR®



DRILLED-IN DISPLACEMENT PILES

CLEANER, FASTER, BETTER.





GREATER LOADS. LESSER DEPTHS. LESS TIME.

JFK DELTA TERMINAL 4 HEAD HOUSE EXPANSION | QUEENS, NY | SC1600
181 Piles | 50-ft Embedment Depth | 140 Kips Compression | 50 Kips Tension | 8 Kips Lateral

THE ESSENTIAL ELEMENTS OF A DDM

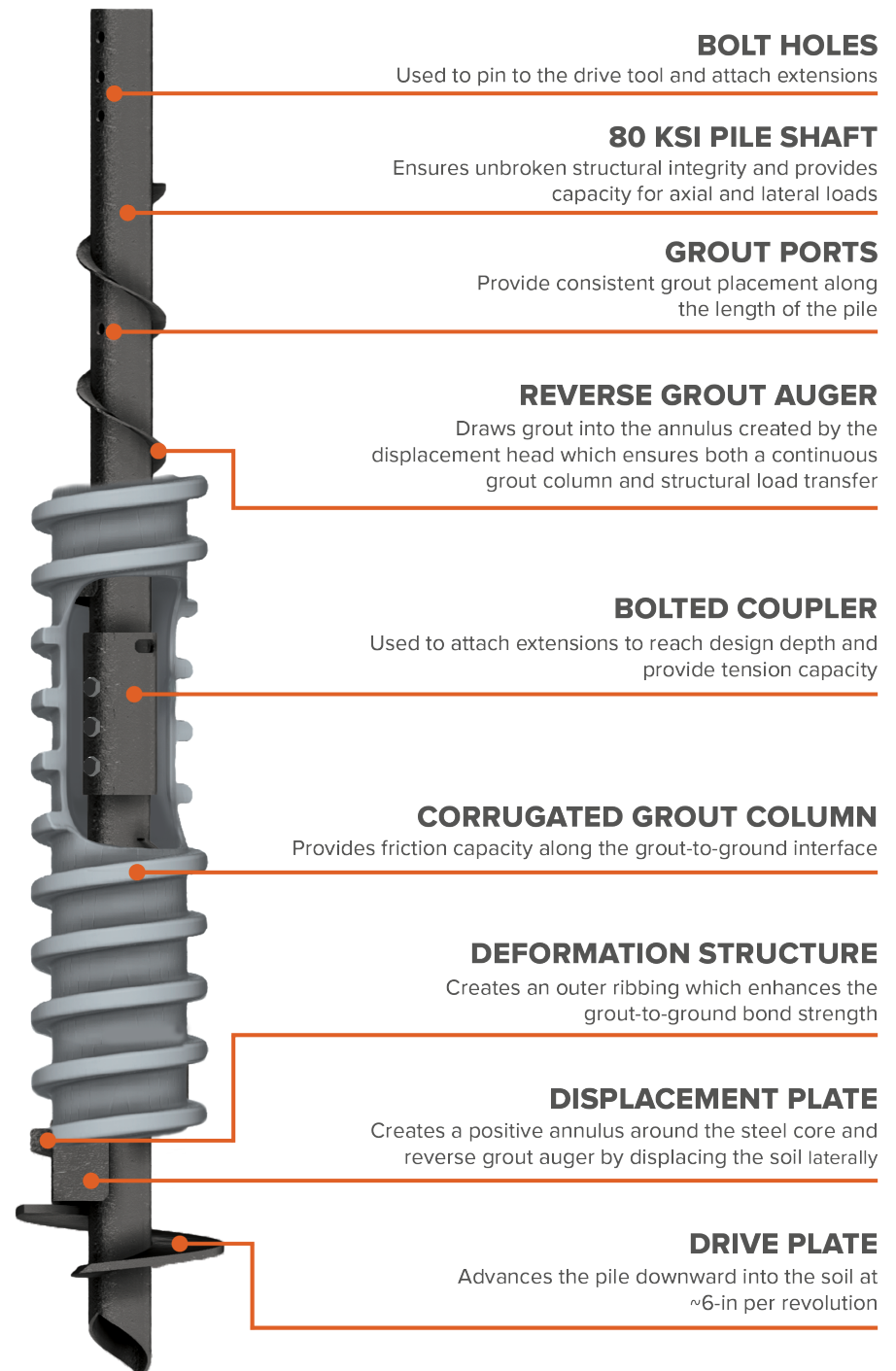
STELCOR DDM Overview

STELCOR DDM's are designed and installed as a Displacement Pile in accordance with the International Building Code (IBC) and local jurisdictions.

STELCOR Drilled-In Displacement Piles are rotated into the ground while crowd or downward pressure is exerted on the steel core, and a continuous flow of grout is provided to the top of the pile. The reverse grout flighting, welded to the steel core, draws grout into the annulus created by the displacement head located at the tip of the pile, which ensures both a continuous grout column and structural load transfer to the steel core.

The STELCOR displacement head includes a drive plate that advances the pile downward into the soil, a lateral displacement plate that creates a positive annulus around the steel core and reverse grout auger by displacing the soil laterally, and a secondary deformation structure that creates an outer ribbing which enhances the grout-to-ground bond strength.

A new, full-length 80 ksi steel core is installed and left in the ground, ensuring unbroken structural integrity, and providing a grout-filled steel core shaft for axial and lateral load capacities.



EXPEDITE TIMELINES AND REMOVE COMPLEXITY FROM YOUR PROJECTS

WHY CHOOSE STELCOR?



MINIMAL MOBILIZATION AND DEMOBILIZATION COSTS

The only equipment needed for installing STELCOR DDMs is an excavator or skid-steer, a hydraulic-powered rotary drive head, and a high shear colloidal grout mixer. With no specialty cumbersome installation equipment setup, on-site mobilization and demobilization is a cakewalk.



NO SPOIL REMOVAL OR DRILL TAILINGS

As the pile is installed, the lateral displacement head located at the tip of the pile displaces the soil laterally to form an annulus for the grout body. Not only does this eliminate the cost of removing spoils (even more costly when contaminated), it also enhances the grout-to-ground bond strength in the densified soil.



REDUCED INSTALLATION TIMELINES

The installation process and type of equipment used means STELCOR can be installed up to 5 times faster than alternate deep foundations, allowing you to shave weeks off your schedule.





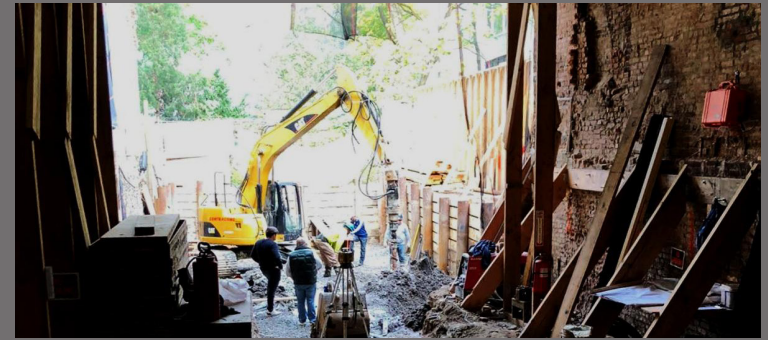
PREDICTABLE PILE RESULTS AND GROUT PLACEMENT

The grout body is formed by mechanically displacing the soil laterally, creating a repeatable annulus around the steel core. The 'screw pump' action of the reverse grout auger drives the grout down at 3 times the pile advancement rate. The grout auger also provides confinement of the grout structure and effectively transfers load from the pile shaft to the soil.



REDUCED RISK

Avoiding pressure grouting and soil removal mitigates the risk of undermining or destabilizing adjacent structures. By displacing soil instead of removing it, STELCOR also protects you from the additional cost of spoil management or contaminated soil removal.



AN EFFICIENT SOLUTION FOR SITES WITH LIMITED ACCESS

Installing deep foundations in environments with low overhead, limited access, or contaminated soils doesn't have to strain your budget and timeline. STELCOR DDM's can be installed on sites with these constraints without significantly impacting installation timeline or cost.



NO VIBRATIONS

Significantly reduces the disruption of surrounding structures and infrastructure in urban environments, while reducing noise pollution.



PROJECT PORTFOLIO



NEW BUILD MIXED-USE DEVELOPMENT

1212 Seagirt | Far Rockaway, NY
SC1600 | 88 Piles | 80-ft Embedment Depth
300 Kips Compression | 100 Kips Tension



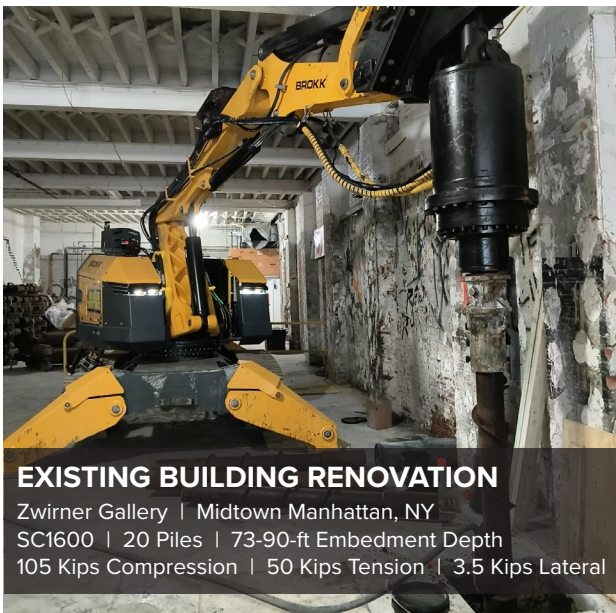
HORIZONTAL EXPANSION

John Dewey Middle School Annex | Brooklyn, NY
SC1400 | 335 Piles | 57-ft Embedment Depth
160 Kips Compression | 90 Kips Tension | 6 Kips Lateral



NEW BUILD MIXED-USE DEVELOPMENT

125 3rd Street | Brooklyn, NY
SC1600 | 252 Piles | 69-ft Embedment Depth
220 Kips Compression | 54 Kips Tension | 8 Kips Lateral



EXISTING BUILDING RENOVATION

Zwirner Gallery | Midtown Manhattan, NY
SC1600 | 20 Piles | 73-90-ft Embedment Depth
105 Kips Compression | 50 Kips Tension | 3.5 Kips Lateral



NEW BUILD RESIDENTIAL DEVELOPMENT

Lorimer House | Brooklyn, NY
SC1200 | 282 Piles | 54-62-ft Embedment Depth
120 Kips Compression | 20 Kips Tension | 10 Kips Lateral



EXISTING INFRASTRUCTURE EXPANSION

PVSC | Newark, NJ
SC1200-1600 | 1,109 Piles | 18-56-ft Embedment Depth
18-260K Compression | 4-90K Tension | 3-12K Lateral

INSTALLATION EQUIPMENT

STELCOR's installation approach keeps foundation costs in check without sacrificing efficiency or capacity. Unlike traditional systems that rely on bulky, expensive, purpose-built rigs, STELCOR piles are installed with commonly available equipment—often already on-site. Any specialized tools needed are affordable to purchase, maintain, and repair, typically paying for themselves after just a few projects.

The use of smaller equipment and crews also significantly reduces exposure to construction hazards. STELCOR's installation method simplifies mobilization and accelerates project timelines, especially on tight or difficult-to-access sites.

The following equipment is needed to install STELCOR DDM;

- **Excavator of Appropriate Size (Other equipment used for low overhead)**
- **Skid Steer or Material Handler**
- **High Shear Colloidal Mixer**
- **Planetary Drive Head (20,000-150,000 Ft-Lbs)**



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