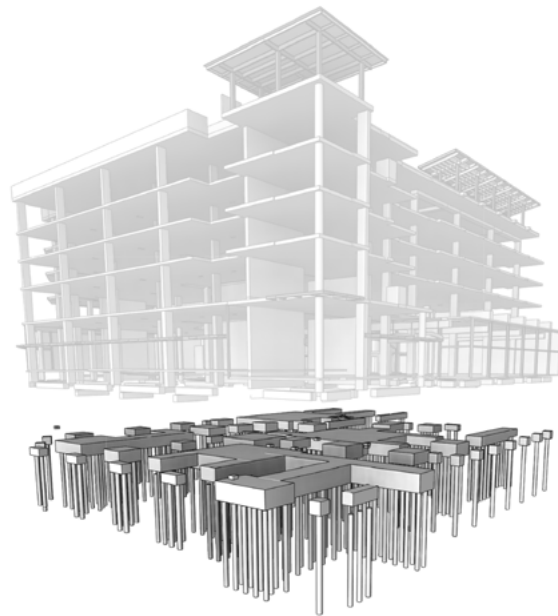


Go Vertical with Confidence®



Proven Foundation Solutions

Ground Improvement • Deep Foundation Piles • Peer Review & Design



FARRELL
DESIGN-BUILD

Farrell's Collaborative Process, Specialized Experience, and Proven Solutions Set Us Apart

At Farrell, we approach the project with a high awareness to the shared goals of our customers; be it the owner, the engineer, or the contractor. We collaborate with the project team to provide the best foundation solution that fits the owner's overall project goal.

We Collaborate. Our Process:



STEP 1
Site Assessment
& Application
Feasibility



STEP 2
Design,
Cost & Schedule
Estimating



STEP 3
Engineering &
Contract
Documents



STEP 4
Construction,
Safety &
Quality Control

Whether you're an engineer needing to address poor soil conditions, a contractor wanting to expedite the project schedule, or an owner looking to save money, our specialized experience will help you achieve your desired results.

Farrell delivers proven foundation solutions to discerning owners and their teams in a responsive, honest, and passionate way to assure your projects ***Go Vertical with Confidence!***

Your Success is Our Priority



FOR ENGINEERS

We collaborate. You succeed.

Farrell strives to build lasting relationships with engineers. Good partners listen first and we want to be your best partner.

Because you are a licensed geotechnical engineer, I can always count on your honest feedback and discussion regarding foundation solutions. With Farrell, we get a well-engineered solution that is reliable, appropriate, and will ultimately save our client time and money.

Frank L. Rollo
Principal Engineer
Langan Treadwell & Rollo



FOR CONTRACTORS

We deliver value. You succeed.

Farrell delivers value with prompt responses, timely solutions, high safety awareness, equipment that gets the job done, and schedule saving that you can count on.

Farrell Design-Build began working with the design professionals on our projects only months before final DSA submission and your firm was able to assemble a complete set of documents and get them approved for use without delay.

Brendan Mullholland
Project Manager
McCarthy Building
Companies Inc.



FOR OWNERS

We support your goals. You succeed.

Farrell understands what owners want and need: fulfillment of their goals, satisfaction, and solutions to tough sites with no hassles.

Farrell worked through the difficult site conditions after unusually heavy rains and brought value to the project because they could work on a less-than-perfect pad.

Duane Wray
Vice President
Regent Development



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DESIGN-BUILD

Foundation Systems and Services

Farrell recommends, designs and installs Ground Improvement and Deep Foundation solutions that are best suited for the given site, soil, groundwater, and proposed structure condition. Farrell also provides foundation peer review and specialty design services. Our proven foundation systems are shown below.

DDP Drill Displacement Pile	DDC Drill Displacement Column™	RAP Geopier®	IRAP Impact® Pier	RIC Rapid Impact Compaction	HMP Helical Mini-piles
Depth Limit					
85 ft (26 m)	80 ft (24 m)	25 ft (8 m)	40 ft (12 m)	20 ft (6 m)	100 ft (27 m)
Compatible Soils					
Sand (SP, SM, SC) Silt (ML, MH) Clay (CL, CH) Contaminated Soil Undocumented Fill	Contaminated Soil Sand (SP, SM, SP) Silt (ML, MH) Clay (CL, CH) Undocumented Fill	Silt (ML, MH) Clay (CL, CH) Clayey Sand (SC) Silty Sand (SM) Undocumented Fill	Silt (ML) Clayey Sand (SC) Silty Sand (SM) Poorly Graded Sand (SP)	Sand (SP, SM, SC) Silt (ML, MH) Undocumented Fill Contaminated Soil	Sand (SP, SM, SC) Silt (ML, MH) Clay (CL, CH) Contaminated Soil Undocumented Fill
Bearing Capacity Range (ASD)					
100 kips (445 kN) to 500 kips (2224 kN)	4,000 psf (192 kpa) to 10,000 psf (479 kpa)	5,000 psf (239 kpa) to 9,000 psf (431 kpa)	3,000 psf (144kpa) to 6,000 psf (287 kpa)	2,000 psf (96 kpa) to 8,000 psf (383 kpa)	20 kips (89 kN) to 200 kips (890 kN)
Key Advantages					
Deep pile with ground improvement No vibration Low spoil High capacity 16" 18" 24" diameters Steel reinforcement	Very high stiffness No vibration Low spoil High capacity Well defined concrete column Liquefaction mitigation Uplift-tension hold-down	Cost effective support Readily available material LEED opportunity High bearing capacity Uplift-tension hold-down	Liquefaction mitigation No casing Low spoils High stiffness Densification	Highly cost effective Liquefaction mitigation Fast improvement process No spoils Densification	Small equipment for tight access Ideal for repair/retrofit Minimal site impact No spoils No vibrations
Key Considerations					
Deep Pile Grout with low spoil Concrete cleanup Flat stable pad Pile connections	Impermeable Grout with low spoil Concrete cleanup Flat stable pad Gravel cushion	Vibration system & Low noise High spoil haul-off Casing at high ground water sand Moderate depth limit	Vibration system & Low noise Soft clay requires grout Not good for small site No work next to buildings	Pad grading required Vibrations within 30 ft Shallow depth limit High noise	High material cost Steel below water Weld splice for SPP
Comparable To					
Concrete piers Driven piles Stone columns Soil-cement columns Torque piers	Concrete piers Driven piles Stone columns Soil-cement columns Franki piers	Overex/replace Concrete piers Driven piles Stone columns Soil-cement columns	Overex/replace Concrete piers Driven piles Stone columns Soil-cement columns	Deep dynamic compaction Overex/replace Stone columns	Micro-piles Soil-nails Concrete piers Driven piles

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Geopier systems by Farrell in Northern California.
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