



# Earthcore

Specialty Drilling & Foundations

[earthcoreusa.com](http://earthcoreusa.com)

An American-owned and operated geotechnical  
drilling and foundation company



# Wanna know about Earthcore?

## Dig this...

For decades, engineers, contractors, and property owners alike have come to rely on Earthcore as **the** experienced go-to resource to resolve their toughest drilling and foundation construction challenges.

With a proven track record of documented safety, certifications, and successful execution, Earthcore brings highly-experienced operators and a large, diverse fleet of powerful rigs to mobilize to jobsites rapidly to get the job done right.

We have consistently met logistical challenges — including sites with extremely limited access and adverse environments. Our innovative drilling methods and custom-built rigs combined with a rock solid team of highly skilled employees, are what distinguishes Earthcore from any and all competitors.

Our reputation has been built by being reliably on time, possessing the right tools and equipment, and our willingness to put forth the extra effort required to achieve success for the many valued and highly-satisfied clients with whom we work.

We invite you to do a little digging of your own within the pages that follow to learn how Earthcore may be the perfect solution for your project. Be it test borings, soil stabilization, or assistance with specialty foundation construction, we've done it all. Successfully.



# What we do...

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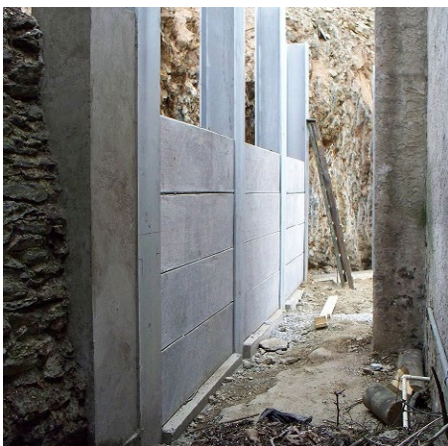
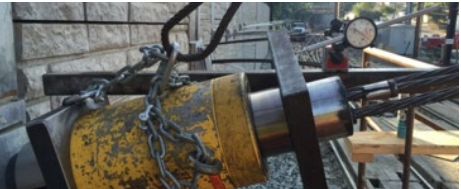
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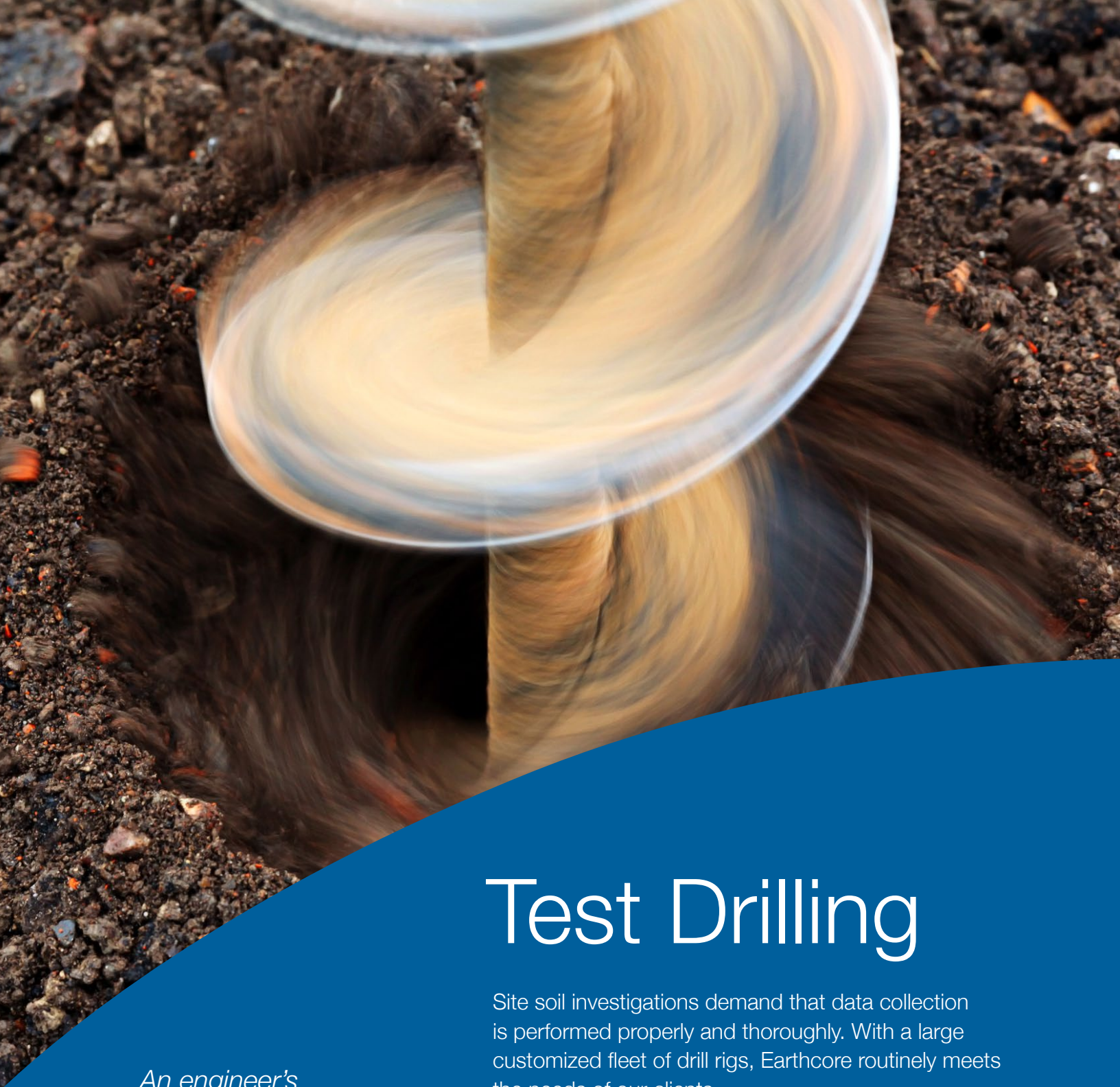


Project Profiles

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*An engineer's reputation is at stake when choosing a driller. Earthcore helps to ensure future project opportunities with one's client.*

# Test Drilling

Site soil investigations demand that data collection is performed properly and thoroughly. With a large customized fleet of drill rigs, Earthcore routinely meets the needs of our clients.

Our team will aggressively pursue the means and methods necessary to drill on extreme access sites, under adverse weather conditions, and in any subsurface soil and rock formations that we encounter.

Custom rigs and support equipment are often deployed to ensure all boring locations can be accessed to complete the investigation.

# Drilling Capabilities

	Truck Rigs	ATV Rigs	Limited Access Rigs	Extreme Access Rigs
<b>Typical Site Investigation Projects</b>	Firm ground, roadways, parking areas	Wet, swampy areas, heavy snow, shallow creeks, ponds, steep slopes, dams	Indoors, backyards/ side yards, basements, parking garages, rooftops, small barges	Over cliffs, down elevators, narrow dam crests, boardwalks
<b>Accessibility</b>	Standard heavy trucks and ATV rigs, compact ATV rigs		Very small footprint for narrow/low access	Custom units for all extreme access conditions
<b>Drilling Methods</b>	Auger, mud rotary, air rotary (DTH hammer), direct push, top hammer			
<b>Samplings &amp; Testing</b>	Test, borings, Standard Penetration Testing (SPT), rock coring, probes, shelby tubes, macros, grouting, monitoring/injection wells, and instrumentation			
<b>Special Applications</b>	2WD & 4WD, deep drilling, wireline systems, high torque drive motors, low headroom mast kits, barge capabilities	Wide rubber tracks – low ground pressure, stream crossings, marsh drilling on mats, vertical drilling on slopes, steep slope access, barge capabilities	Vertical, horizontal, & batter drilling; low decibel, zero exhaust fumes via electric power pack and hydraulic hose tethered units; small footprint barge units	Specialty/custom including: portable hand held, electric and hydraulic units, small footprints, long-reach sets, crane lifts, elevator and basement access, etc.

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# Geotechnical

- Test Borings & Rock Coring
- Undisturbed Sampling
- Depth-to-Rock Probes/Proof Drilling
- Instrumentation & Monitoring Wells

Test borings are performed by drilling, logging, and collecting samples using standardized testing procedures defined by the American Society for Testing and Materials (ASTM). The data and samples collected during these in-situ tests are analyzed to determine properties of the soil and rock, which are utilized by engineers to provide civil and structural designs.

Many different combinations of drilling methods, sampling procedures, and testing may be employed during the course of a site geotechnical investigation. Additional laboratory analysis may be performed to further measure and define the properties of the soil and rock.

As with any engineering discipline, accuracy and completeness of testing is critical to achieve satisfactory results. Earthcore has partnered with engineers to perform thousands of successful geotechnical investigations across multiple states, encountering extreme variations in site access and subsurface conditions. Custom rigs and support equipment are often modified or fabricated and deployed to ensure all boring locations can be accessed to complete the investigation.

Earthcore is the reliable resource to perform drilling on difficult-to-access sites and in pinnaced karst formations when prior attempts have failed. Engineers rely on our ability to achieve a high level of success in completing the entire scope of work on the extreme projects.





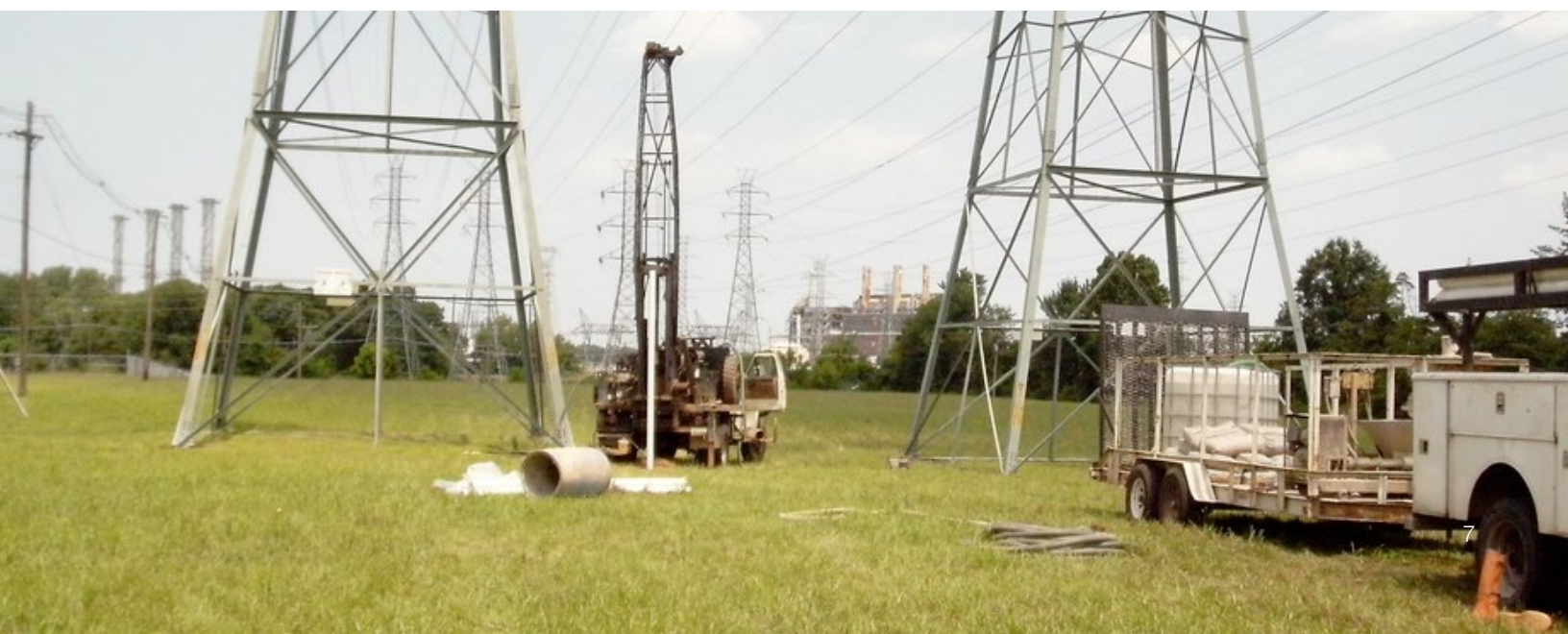
# Environmental

- Macro & Split-Spoon Lined Sampling
- Direct Push Sampling
- Monitoring Wells/Well Abandonment
- Packer Testing

Environmental drilling is performed to obtain samples and install monitoring wells which aid engineers in determining the contamination levels present in groundwater, soil, and rock formations. A wide range of test procedures, data collection methods, and well instrumentation are utilized to design remediation programs for potentially contaminated properties across many industries.

Proper site containment, decontamination procedures, personal protective equipment (PPE) and 40-hour HAZWOPER-trained employees are all critical to accurately define and prevent the spread of contaminated soils or water. Earthcore has extensive experience and a wide selection of drill rigs and support equipment to complete the many tasks assigned the drilling contractor on environmental projects.

Whether it is drilling over water to collect mud line sediment samples or probing below slab indoors at a manufacturing facility, Earthcore has the right team and equipment to perform all tasks assigned.





# Remediation

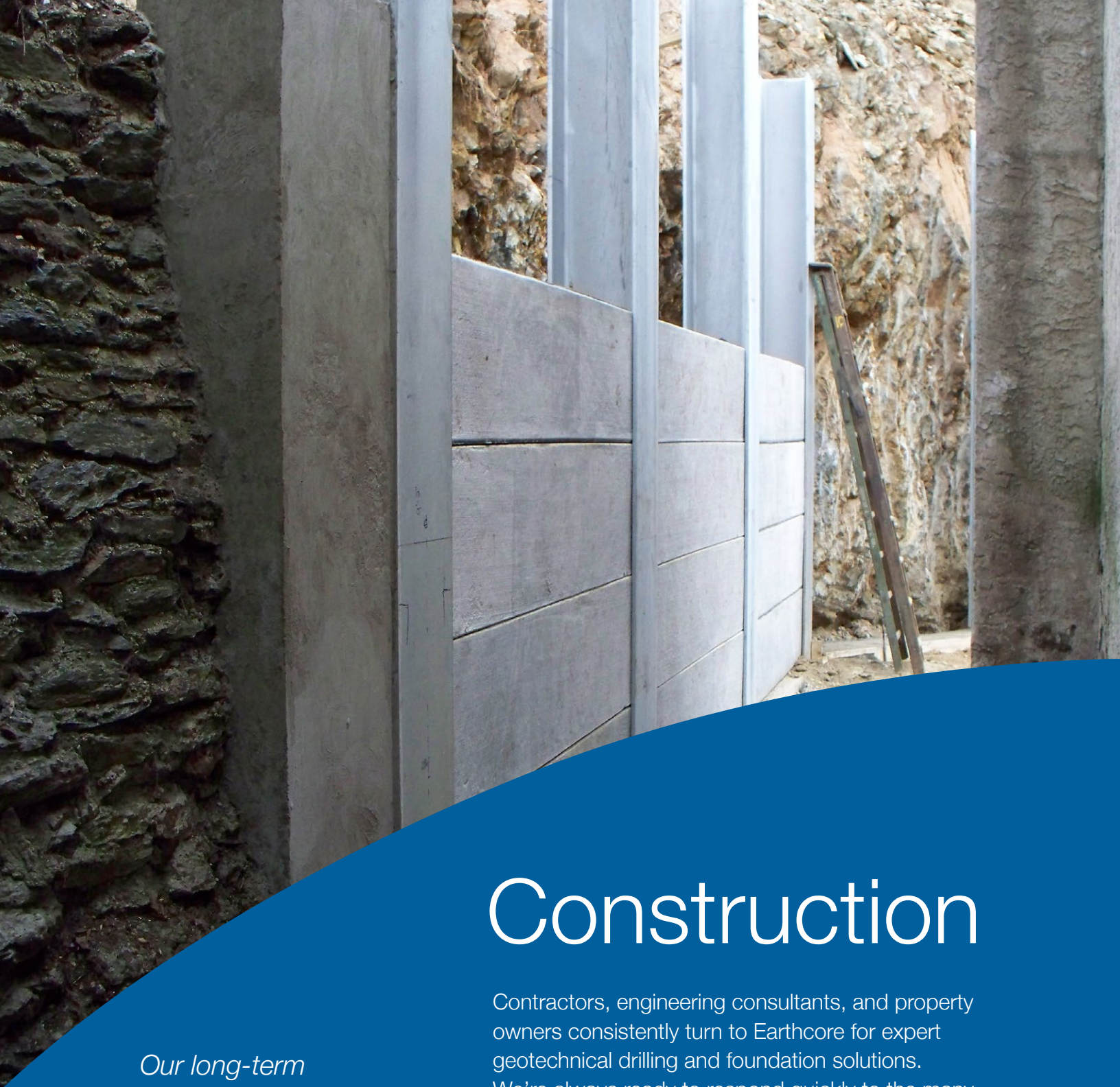
- Injections Wells
- Recovery and Extraction Wells
- Grout Curtains/Cut-off Walls
- Soil Mixing and Solidification

Environmental remediation measures consist of drilling, installation of monitoring/treatment wells, and constructing various in-situ injection systems to mitigate or eliminate the contamination of soil, rock, water, and sediments. Systems are installed to facilitate the remediation of shallow or deep contamination zones, whether confined to a small area or across an entire site and beyond its property lines.

Recent advancements in technology have given the engineers responsible for providing designs for these projects many options from which to choose. Earthcore has partnered with many clients to install components to support vapor extraction, soil mixing/solidification, grout curtain/slurry cut-off walls, bio-remediation, oxidation, thermal desorption, and pump/treat systems. Custom equipment is often fabricated to access indoor and limited access areas, wetlands, lagoons, and to reach out over berms at landfills and other sensitive sites.







*Our long-term relationships thrive due to our proven success of analyzing all practical means and methods to provide the best possible solution for every project, every time.*

# Construction

Contractors, engineering consultants, and property owners consistently turn to Earthcore for expert geotechnical drilling and foundation solutions. We're always ready to respond quickly to the many diverse geotechnical challenges we may encounter.

Unanticipated soil and subsurface-related concerns disrupt critical path objectives which affect schedules and budgets. Earthcore maintains a large fleet of highly-specialized drill rigs, equipment, and experienced employees who think creatively and collaboratively to find the right solution for each project.



# Construction Capabilities

Typical Projects	Heavy foundation drilling, caissons, large piles, injection wells, soldier beams	Micropiles, tiebacks and rock anchors, injection wells, soldier piles, soilnails	Rock sockets, soilnails, rock and tieback anchors, compaction grouting	Limited Access and Extreme Environment Drilling
Equipment	Foundation Rigs	Pile Rigs	Tieback/ Grouting Rigs	Custom/ Specialty Rigs
Accessibility	Heavy duty, high-power, and low headroom, limited/extreme access steel and rubber track equipment to gain entry and drill under any site conditions			
Drilling Methods	Auger, core barrel, mud rotary, air rotary (DTH hammer), cased drilling			
Capabilities	High-torque vertical, horizontal, batter drilling (small to large diameter and extreme depths)	Vertical, horizontal, overhead, batter drilling (small to large diameter and extreme depths)		Vertical, horizontal, overhead, batter drilling (small to large diameter and extreme depths)
Special Applications	Power transmission and catenary drilling, low headroom	Widely adaptable to many drilling methods/platforms for steep slope, barge, jack and bore, extreme access	Large inventory to mobilize multiple crews & access difficult sites; indoors, steep slopes, on-water, long-reach	Low decibel, zero exhaust fumes via electric power packs and hydraulic hose tethered units; small footprint barge units

**Specialty/custom equipment readily available:** Portable hand held electric and hydraulic units, small footprints, long-reach sets, crane lifts, elevator and basement access, etc.

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# Construction Challenges & Solutions

Applications	Sinkholes, subsidence, structure/foundation/slab settlement	Excavation support, retaining walls, soil/rock retention	Deep drilled foundations, structural stabilization, foundation drilling in difficult soils/karst
How Earthcore can help	Compaction grouting, intrusion grouting, slabjacking/mudjacking, gravity grouting/void filling	Temporary excavation support, shoring, sheeting, retaining walls, tieback anchors, rockfall prevention	Caissons, micropiles, augercast piles, underpinning
Earthcore Specialization	<ul style="list-style-type: none"> <li>• Decades of successful project work</li> <li>• Exceptional safety record – awarded by state of PA</li> <li>• Frequently recommended by engineers for most difficult problems</li> <li>• Can mobilize rapidly</li> <li>• Highly-experienced crews</li> <li>• Large fleet of expertly maintained equipment</li> <li>• Field-proven proprietary drilling and foundation methods</li> <li>• Design-build</li> </ul>		

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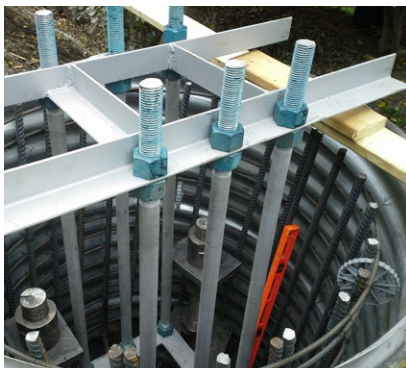
# Drilled Pile Foundations

- Small to Large Diameter Piles
- Extreme Depths
- Pile Load Testing

Micropiles are small diameter drilled foundation elements typically more economical to install than caissons. They are often constructible in extreme limited access conditions where a caisson rig could not gain access. Augercast piles are another economic alternative to caissons that utilize a continuous flight auger to drill and inject grout or concrete to form a column as the soil is displaced.

Micropiles often utilize a steel casing in upper soil zones to keep the hole open, can be designed as friction or end bearing piles, and can terminate in soil or rock. When designed as friction piles, micropiles are often load tested in tension, at large cost savings as compared to caissons. Augercast piles are limited to installation in soil or weathered rock only. Both micropiles and augercast piles typically utilize continuous steel reinforcing grouted within the section of the pile.

Earthcore has many years of experience installing micropiles as deep foundation building elements. These smaller diameter piles are well-suited to drill in difficult fill/rock formations, provide underpinning support, to increase the bearing capacity of existing foundations, and are routinely installed in extremely restricted and low overhead/indoor conditions. Small diameter micropiles are routinely designed to carry large loads as an economic alternative to other deep foundation elements.





# Sinkhole Remediation

- Pressure, Intrusion & Compaction Grouting
- Grout Curtains / Cut-off Walls
- Slurry Walls
- Jet Grouting

Utilizing a wide range of methods, grouting is performed for many reasons, but typically consists of pressure injecting a cement-based mixture below grade. The procedure is used to mitigate settlement of structural elements, increase soil bearing capacity, repair or prevent sinkhole problems, minimize or prevent permeation, and to lift (jack) slabs/foundations/roadways, etc.

The standard method is to drill and install steel casing to a predetermined depth to be used as a conduit to pressure inject the grout mixture below grade. Shallow depths are utilized for slabjacking and mudjacking, which is the process of pumping grout to buildup pressure below a targeted structure in order to lift the unit or stabilize in place. Deeper casings are installed for pressure and compaction grouting projects. These operations often rely on the design and grouting contractor successfully injecting precise quantities of grout in all slumps, from low to high pressure, depending on the requirements of the project.

The grouting process must be designed and executed properly to prevent serious damage to buildings or injury to personnel. Earthcore has extensive experience and a large fleet of extremely specialized drilling and pumping equipment to handle any grouting project regardless of design or specialty access requirements.





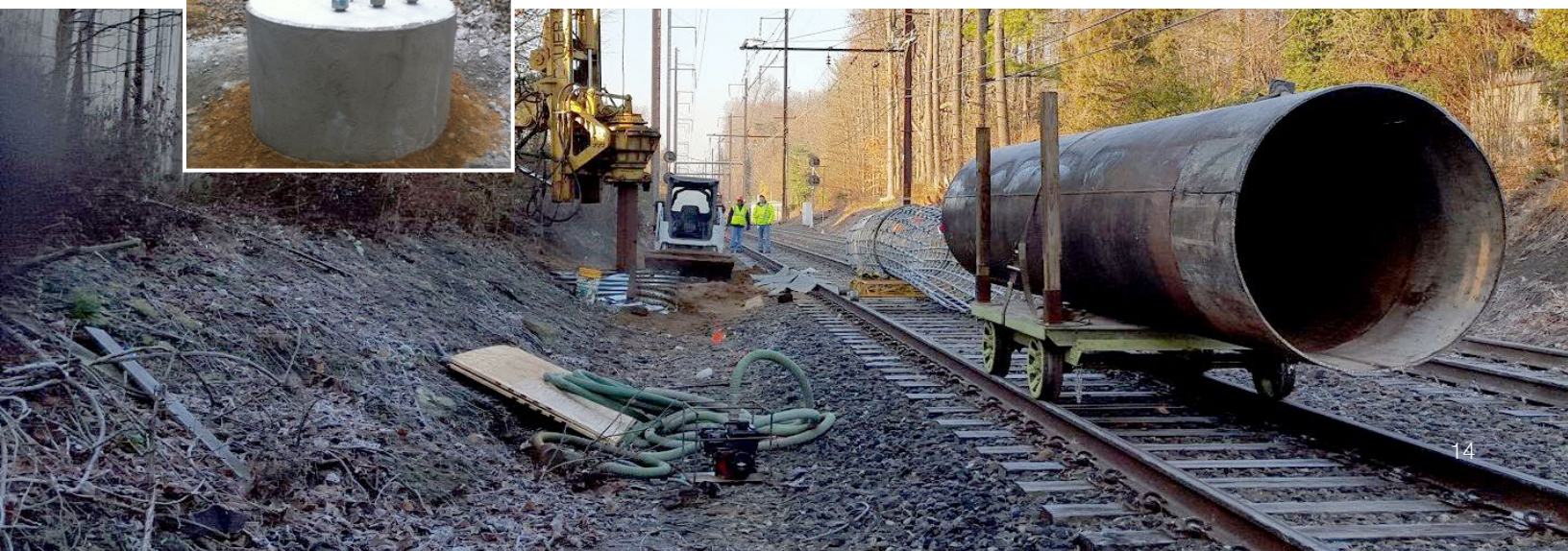
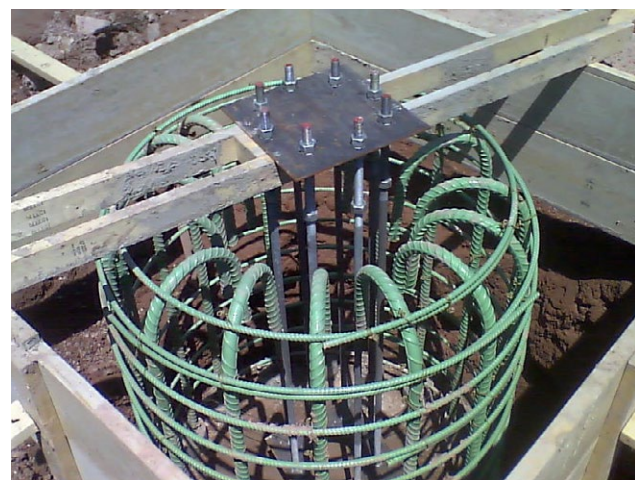
# Caisson Foundations

- Crawler and Truck-Mounted Foundation Rigs
- Up to 72" Diameter – Auger and Casing
- Low Headroom/Indoor Rigs
- Load Testing

Drilled shaft foundations, or caissons, are larger diameter (typically >24") reinforced concrete deep foundations used to transfer structural loads below grade to suitable soil and or rock formation elevations. These foundations can be designed as end bearing, friction, or a combination of both and typically are designed to support higher loads than micropiles.

Earthcore has the capability to drill and install caissons in a variety of subsurface conditions and in limited access/low headroom conditions. Often caissons are drilled with steel casing as the shaft is advanced to ensure the hole stays open for inspection and proper placement of reinforcing and concrete. Additional loading capacities can be designed by the use of drilling tie-downs/rock anchors below the elevation of the bottom of caisson. Earthcore has perfected the use of custom equipment to effect this option on any project designed.

Caissons are often not considered to be cost-effective building elements, but Earthcore has the capability to mobilize smaller equipment units in combination to economically construct projects of smaller magnitude or quantity. Our team has extensive experience in assisting the design engineer with determining the feasibility and constructibility of all foundation elements.





# Foundation Underpinning

- Hand-Dug Pits
- Bracketed Piles
- Jet Grouting

Underpinning is the process of stabilizing and supporting structures in support of excavation or in conditions whereby settlement has occurred. Earthcore has the equipment and experience to safely perform foundation underpinning utilizing many different methods such as hand dug shored pits, drilled micropiles with brackets, and jet grouting/soil mixing.

Foundation underpinning is often mistakenly performed “open cut,” resulting in structural settlement and failure. The basic process of installing standard hand dug underpinning pits is low tech, but the engineered design and sequencing must be followed precisely to avoid potential problems. The hand dug pit proves to be the most common method used and is able to be performed in tight locations without the need of large equipment.

Bracketed micropiles, tieback anchors, and wood lagging are often utilized to ensure the structural integrity of the building and to make the project economical to construct. Many factors affect the decision on which method suits a particular project, and the design of these systems is best left to the few professionals that have many years experience designing and installing underpinning systems.





# Soil and Rock Anchors

- Tiebacks
- Rock Anchors
- Soil Nails
- Anchor Load Testing

Drilled elements installed below grade that resist pull-out or uplift are categorized as tieback anchors, rock anchors, soil anchors, or soil nails. These geotechnical anchors work in combination with larger design systems to achieve the desired result. They can be designed to prevent shoring or retaining wall bending/ overturning, hold down large structural foundations, stabilize slopes, and as rockfall prevention.

The common method of installation is via cased hole drilling and the subsequent grouting of a steel bar within the section of the anchor. Upon completion of grouting, the casing is removed and the anchor is load tested after curing. Earthcore has installed thousands of anchors in many different applications and design loads. The steel bar can be specified as temporary or permanent, with many different combinations of bar strength and corrosion protection available.

Many projects require extensive testing to confirm design assumptions. The schedule is adversely affected when anchors fail load testing and must be re-grouted or reinstalled. Earthcore has perfected many different methods of installation and has an extremely high success rate in production and success rate on load testing of installed anchors.





# Temporary Excavation Support

- Sheet Piling
- Soldier Beam and Lagging
- Soilnail and Shotcrete Walls

Temporary excavation support systems are installed to prevent cave-ins and collapse of trenches and excavations. OSHA regulations mandate strict compliance with established safe methods and ignoring these standards can result in injury, death, and severe property damage.

Earthcore has the capability and experience to install all types of shoring including soldier beam/lagging, sheeting, and soilnail/shotcrete systems. The site subsurface conditions and structural requirements dictate which method is best suited for the project. The design must be performed by a competent geotechnical engineer with many years experience in designing and building shoring systems. Earthcore partners with these engineering firms to assist in determining the best shoring system for each project.

Many other individual geotechnical foundation procedures/elements are utilized in the construction of these excavation support systems including tiebacks, soilnails, and grouting. Earthcore has extensive experience and the specialty equipment required to perform all tasks for the safe and efficient installation of all shoring systems.





# Permanent Retaining Walls

- Soldier Beam and Reinforced Concrete Plank Walls
- Structural Soilnail and Shotcrete Walls

Recent advances in the geotechnical industry have enabled engineers to provide designs for special application retaining walls that are economical to construct. Permanent walls are built using methods such as soldier beam/concrete plank, soilnail/shotcrete, and variations of the two combined with cast-in-place concrete.

Site conditions often preclude conventional wall construction if the design requires excavation behind the wall for footing and geogrid installation. When a zero lot line setback prevents over excavation to construct these standard walls, Earthcore can build permanent retaining walls on the lot line. Top down construction with soldier beams and wood lagging for excavation support is followed by the installation of pre-cast concrete plank as a wall finish.

Soilnail walls can be designed when it is not practical to over-excavate for geogrid installation or if shallow rock prohibits the excavation for a geogrid wall. Soilnail walls are constructed top down in approximately 5' vertical lifts. The soilnails are drilled and grouted in place, followed by reinforcing and shotcrete placement. This process is repeated in stages until the design depth of excavation is reached. Then additional reinforcing and a permanent shotcrete or cast in place concrete finish is applied. These walls typically require less material and smaller equipment to construct than conventional walls.





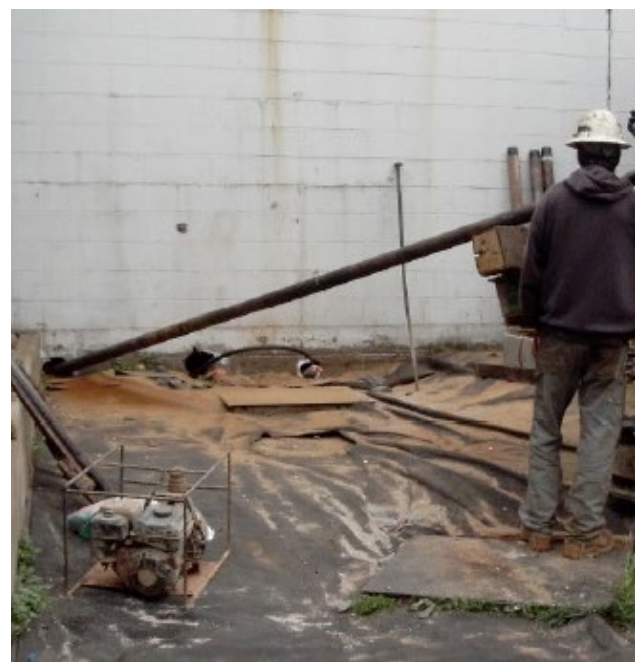
# Horizontal Boring

- Jack and Bore
- Receive and Approach Pits
- Steel and PVC Casing
- Annulus Grouting

Horizontal boring is the process of drilling or tunneling underground to install conduits or piping when trenching is not permitted or not economical. The boring is advanced from the jacking pit to the receiving pit by incrementally drilling and installing casing in short sections. Often pipes or conduits are pulled back through the casing.

Trenching is usually much more expensive than horizontal boring – especially if roadway traffic is interrupted during the process. Earthcore has the capability to mobilize the rigs and equipment necessary to perform horizontal boring for typical piping/conduit installations under roadways, driveways, and streams.

Often the jack and receive pits may require the installation of shoring and de-watering well points to support the drilling operations on the more complicated project sites. Earthcore has multiple sized specialty equipment and can provide all the work necessary to complete these projects efficiently and economically.







# Fleet & Capabilities

*Our Clients demand success when drilling in all formations, and our fleet is designed to succeed.*

Earthcore has become the sought after resource to complete challenging grouting, shoring, and deep foundation drilling projects. We maintain our large fleet of rigs in a high state of readiness and reliability, enabling us to mobilize rapidly and safely.

Whether your project requires drilling on land, water, swamps, underground, or hovering over a cliff, Earthcore has the experienced team, rigs, and tooling to perform the work safely and completely.

# Fleet

## Test Drilling Rigs

### Truck Rigs

- Geotechnical test borings
- Monitoring wells
- Instrumentation
- 2WD and 4WD, low headroom masts

### ATV Rigs

- Geotechnical test borings
- Instrumentation and monitoring wells
- Low ground pressure, low headroom masts
- Stream crossings, shallow water borings

### Limited/Extreme Access Rigs

- Geotechnical test borings and rock coring indoors
- Instrumentation and monitoring wells
- Diesel over hydraulic
- Electric over hydraulic
- Low headroom and zero exhaust fumes
- Long-reach, high-reach, and barge drilling

## Construction Drilling Rigs

### Pile Rigs

- Micropiles, tiebacks, rock anchors, soil nails, pressure grouting, small diameter caissons, soldier piles, soldier beams, underpinning

### Caisson Rigs

- Drilled shaft foundations, caissons, injection wells, soldier beams, grouted columns

### Horizontal Boring Rigs

- Jack and bore, groundhog units, cased utility sleeves, batter drilling and wells

### Grouting Rigs

- Pressure grouting, compaction grouting, depth-to-rock explorations, rock splitting, line drilling, pre-drilling, ground rod wells

### Limited Access Rigs

- All geotech construction drilling
- Diesel over hydraulic
- Electric over hydraulic
- Low headroom and zero exhaust fumes
- Long-reach, high-reach, and barge drilling
- Foundation underpinning



# Fleet

## Drill Methods

### Auger Drilling

- Geotechnical test borings
- Instrumentation and monitoring wells
- Augercast piles
- Caissons

### Diamond Core Drilling

- Geotechnical rock coring
- Slab coring
- Garbage, debris, pre-drilling
- Rock sockets, plunge drilling

### Rock Hammer Drilling

- Top hole, down the hole (DTH)
- Rock sockets, rock anchors
- Grouting, piles, horizontal
- Line drilling, rock splitting
- Depth-to-rock probes

### Rotary Wash, Mud Rotary Drilling

- Geotechnical test borings
- Instrumentation and monitoring wells
- Piles, anchors, soil nails

### Direct Push

- Macros, liners
- Instrumentation and monitoring wells

## Drill Capabilities

### Limited Access and Extreme Environment

- |                             |                                      |
|-----------------------------|--------------------------------------|
| • Low headroom              | 8' height and below                  |
| • Long-reach, high-reach    | Over cliffs, up walls 60' and above  |
| • Heavy and portable barges | Portable and heavy units             |
| • Zero exhaust fume         | Hydraulic and electric units         |
| • Railroad                  | Heavy and light rigs on rail cars    |
| • Portable component units  | Breakdown, carry in, and set-up rigs |
| • Soft dig, air knife       | Locate underground utilities         |
| • Handheld units            | Small electric and hydraulic drills  |

### Tooling and Support Specifications

- |                                 |   |
|---------------------------------|---|
| • Test borings, sampling, wells | 6" – 12" diameter x 150' depth drilling   |
| • Rock coring                   | 2" – 24" diameter cores                   |
| • Drilled shafts and caissons   | 18" – 96" diameter x 40' depth shafts     |
| • Micropiles                    | 4" – 24" diameter 150' depth cased piles  |
| • Augercast piles               | 6" – 24" diameter x 40' depth piles       |
| • Jack and bore                 | 2" – 24" diameter x 50' runs              |
| • Anchors, soil nails           | 1" – 3" diameter bar x 100' depth anchors |





# We've dug up some pretty cool stuff

## Sift through these...

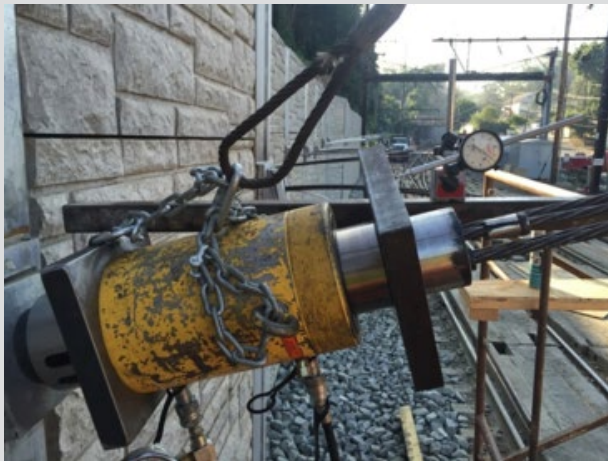
### Anchor Load Testing

#### Challenge

The Client required dozens of tieback anchors to be load tested and locked-off on an expedited schedule. Railway track closures, tight access conditions, and working height issues presented challenges to perform the work safely and to meet the schedule to allow for subsequent wall component construction.

#### Solution and Execution

Earthcore fabricated equipment to simplify and expedite the set-up of load testing equipment while maintaining a safe work environment. The crew and test engineer worked to follow the task sequence of an agreed upon assembly line type procedure that greatly improved the number of tests performed daily.



#### Result

All tieback anchors were successfully load tested and locked-off at the design engineered values. The team was commended and recognized by the client and railroad for the safe completion of this scope of work considering the safety and technical challenges presented. The rapid progress made allowed the client to expedite the final construction phase and meet the project schedule and budget.



## Drilled Shafts/Caissons

### Challenge

A Railroad Client required the replacement of aging infrastructure along and in close proximity to active rail lines. This project necessitated all work be performed on a tight schedule by drilling deep caissons with heavy rigs just off-rail in remote difficult access locations with high voltage catenary lines directly overhead. The standard client method was to take the rail out of active service, load drill rigs on railcars in a few select siding locations, track miles down the rail to the jobsites, and then start drilling. This would result in lost rail revenue and only 3 hours of actual drill time per day before the rail needed to be put active for evening traffic.

### Solution and Execution

Earthcore researched multiple locations and negotiated temporary easements with property owners adjacent to the rail. This allowed the crew to stage specialty heavy duty/low headroom drill rigs just off the rail safety zone to be utilized when called upon by the track supervisor. The goal was to perform at least as well as the prior on-track drill method. Earthcore was able to drill without any track outages for an average of 7 hours per day.



### Result

All caissons were drilled and constructed safely, with the project completed weeks ahead of schedule. The client's budget was met with no rails being taken out of service. Every property owner received courteous attention and their land/fences were restored to better than existing conditions. The client and their neighbors commented on the professionalism and high quality of service provided by the Earthcore crews.



## Grouting – Sinkhole Stabilization/Repair

### Challenge

A large retail complex experienced years of sinkhole activity resulting in major damage to underground stormwater pipes. Major areas of parking needed to be shut down, excavated, and pressure grouted to prevent future sinkholes. The awarded grouting subcontractor could not keep up with the schedule and Earthcore was hired to get the project back on track.

### Solution and Execution

Under extremely tight schedules, multiple drill rigs and crews were mobilized many times over the course of 30 months to complete all phases of work. Long shifts and high production rates were required to reopen parking lots and minimize the impact to small businesses in the shopping center. Difficult rock conditions and large voids were encountered throughout the project, requiring frequent field changes to operations and tooling to maintain productivity.



### Result

The crews were able to double production of the prior team and the project was completed safely, ahead of schedule, and under budget. Through teamwork and innovation, Earthcore exceeded former maximum drilling and grout pumping rates of production on this very difficult site. Our client was able to get back on schedule and extended many thanks to the entire team for the efforts extended to return the parking lots to service.



## Mineshaft Repair

### Challenge

An 80-year-old abandoned mine shaft partially collapsed at a manufacturing facility, resulting in parking lot and building structural settlement and damage. Earthcore was called in to drill deep into the mine shaft to determine the extent of the collapse, and to provide a design-build repair solution. The settlement was ongoing and an expedited schedule was required.

### Solution and Execution

Earthcore immediately mobilized test drilling and pile rigs to simultaneously investigate the subsurface conditions and determine the shaft voiding depth. The crew was directed to stay clear of the immediate location which required battered drilling offset back from the affected area. Multiple locations were drilled in excess of 200' deep to delineate the shaft location. A combination of compaction grouting and pile underpinning was performed to stabilize the shaft, parking lot, and structure.



### Result

The dangerous condition caused by the collapse of the mine shaft was rapidly investigated and stabilized. The Client and the mine agency commended Earthcore for its rapid response and specialized equipment that allowed this project to be completed safely and without further incident.





# Wanna get in touch?

## Dig us up here...

📍 PA • NJ • MD • DE • VA • NY • CT • MA

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[earthcoreusa.com](http://earthcoreusa.com)

Earthcore is ready to discuss how we can assist you in your next drilling application. Simply fill out the form below, along with a brief overview of the project, and we will reply in a timely manner.

Thank you for your interest in Earthcore.

Full Name

Company

Phone

Email

Request

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