



**THE LEADING  
GEOTECHNICAL  
SPECIALTY CONTRACTOR**

Design and build  
Deep foundations  
Environmental remediation  
Ground improvement  
Groundwater control  
Instrumentation and monitoring  
Liquefaction mitigation  
Releveling structures  
Slope stabilization  
Support of excavation  
Underpinning



[keller-na.com](http://keller-na.com)



# GLOBAL STRENGTH AND LOCAL FOCUS

Every day, people around the world live, work,  
and play on ground prepared by Keller.

Leveraging our full range of techniques, we provide solutions to geotechnical challenges across the entire construction spectrum.

We have the expertise, experience, and product range to respond quickly with the optimum solution, execute it safely, and see it through to a successful conclusion, no matter the size of the project.

The strongest local construction projects are built on a foundation of connected global experience. Our in-depth knowledge of local markets and ground conditions enables us to understand and respond to specific project challenges.

We harness the power of our global network and knowledge base to safely deliver the solution, no matter the size or location.



**5**  
continents



**40+**  
countries



**10k**  
people



**6k**  
projects/year

# OUR PURPOSE

**Building the foundations for a sustainable future.**

Every day we help create projects that range from prominent structures to routine roads, bridges, and buildings—everything society needs.

# OUR VISION

**To be the leading provider of specialty geotechnical solutions.**

We strive to lead in quality, product range, safety, and service. We are the world leader today, and to maintain our leadership, we always endeavor to improve—to get even better.

# OUR VALUES



## SAFETY

We do not compromise on health and safety.



## PEOPLE

We grow and value our people.



## EXCELLENCE

We consistently deliver high performance.



## INTEGRITY

We always do the right thing.



# EXPERTISE TO GET THE JOB DONE

**At Keller, we have the experience to get the job done and the track record to prove it.**

Whether large or small, complex or simple, we take the time to understand every subsurface problem and provide the optimal, tailor-made solution. The size of the project is irrelevant, what drives us is sharing in our client's satisfaction of a job well done.

If you want faster and more effective results, ask us to work on your specific problem—we've likely solved a similar one before.



## MAINE MEDICAL CENTER

**Ground improvement, support of excavation**

Maine Medical Center, northern New England's largest hospital, modernized its 150-year-old facilities, including the Malone Family Tower for cardiovascular care. Replacing the existing parking garage required deep excavation through challenging soils and careful coordination to avoid disrupting hospital utilities. Keller provided earth retention and ground improvement solutions, using tieback anchors, secant pile walls, and rigid inclusions to support the new structure while navigating tight site constraints and maintaining safety and precision.

**OWNER:** MaineHealth Services

**MAIN CONTRACTOR:** Turner Construction



## GILBERT ROAD BRIDGE

**Deep foundations**

Keller constructed some of Arizona's largest drilled shafts for the new four-lane Gilbert Road Bridge over the Salt River. The project faced significant challenges, including unstable ground, flooding events, and record-high temperatures. Despite delays and 115°F heat, Keller used innovative cooling methods and safety measures to complete the work ahead of schedule.

**OWNER:** Maricopa County Department of Transportation

**MAIN CONTRACTOR:** Archer Western



**65+**  
LOCAL OFFICES  
IN NORTH AMERICA



## ST. REGIS RESIDENCES

**Deep foundations, groundwater control, support of excavation**

Keller installed over 400 deep foundation piles—some reaching 200 ft—for St. Regis, a dual-tower high-rise over 60 stories tall. The site's soft coastal soil and deep basement design required reinforced walls and soil mixing to ensure safety and stability. Keller's early involvement and innovative techniques helped the project stay efficient, safe, and cost-effective.

Keller's track record with the client and their previous experience in the area ensured their collaboration through a design-assist build at an early stage.

**OWNER:** Fortune International Group and Château Group

**MAIN CONTRACTOR:** Coastal Construction



## TETON PASS

**Earth retention**

After a major landslide destroyed a section of Wyoming's Highway 22 on Teton Pass, Keller and Ames Construction were brought in to deliver a permanent fix, securing the commuter route between Jackson, Wyoming, and Victor, Idaho. Keller mobilized immediately to the site with crew and equipment to work 24/7. A 100 ft excavation was required to remove unstable soil. As the excavation progressed, Keller installed a temporary soil nail wall to stabilize the slope and micropiles at the base of the permanent embankment.

**OWNER:** Wyoming Department of Transportation (WYDOT)

**MAIN CONTRACTOR:** Ames Construction



## SMOKY FALLS GENERATING STATION

**Ground improvement**

To address dam safety concerns at the historic Smoky Falls Generating Station in Ontario, Keller installed 95 large-capacity anchors up to 163 ft long as part of a major rehabilitation project to stabilize aging sluiceways and spillways. Working in a remote location with limited access, Keller overcame logistical, weather, and supply chain challenges using innovative platforms, 24/7 shifts, and strict environmental controls, completing the project ahead of schedule.

**OWNER:** Ontario Power Generation (OPG)

**MAIN CONTRACTOR:** Kiewit



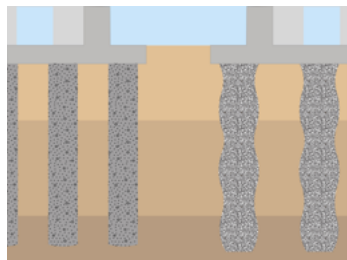
# SOLUTIONS

Keller provides the optimal solution, leveraging our experience and expertise with our suite of techniques to get the job done right the first time.



## Ground improvement

Ground improvement modifies soil properties or reinforces the soil to achieve a designed performance.

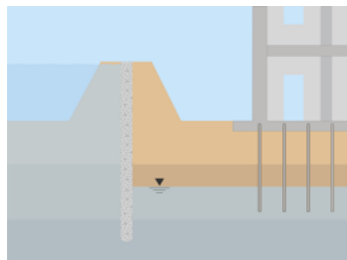


### Common uses

- Increase bearing capacity
- Reduce settlement
- Mitigate liquefaction
- Collapse/fill voids
- Stabilize mines/karst
- Compress soils before construction
- Treat expansive or collapsible soils
- Stabilize soft ground

## Groundwater control

Groundwater control involves the construction of barriers in soil and rock, sealing below-grade structures to restrict the movement of water, dewatering for excavations, or water treatment.

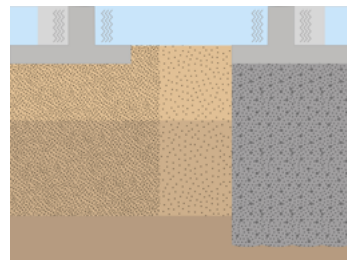


### Common uses

- Provide seepage cutoff below dams and levees
- Prevent migration of contaminants
- Seal concrete joints or cracks in below-grade structures
- Restrict groundwater flow into excavations
- Dewater for excavations
- Water treatment

## Liquefaction mitigation

Liquefaction mitigation is achieved by densifying loose granular soils or constructing subsurface reinforcements to resist seismic forces.

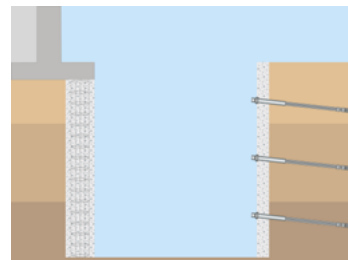


### Common uses

- Prevent liquefaction-induced bearing capacity failure
- Control seismic settlement
- Prevent lateral spreading
- Reduce scope of deep foundation elements

## Support of excavation

Support of excavation retains soil stability that is impacted by a man-made excavation or fill. Existing adjacent structures may also require support.

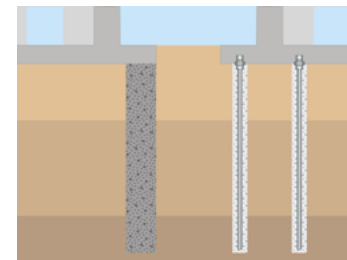


### Common uses

- Support excavations/excavation bracing
- Shore existing adjacent structures
- Laterally support placed fills
- Bulkhead/wharf support and remediation

## Underpinning

Underpinning provides additional support to existing foundations that are unable to safely support existing or additional planned loads or that experience reduced support.

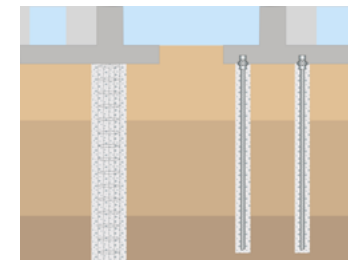


### Common uses

- Improve weak underlying soils
- Underpin with deep foundation elements

## Deep foundations

Deep foundations are structural elements that transfer loads through soils with insufficient strength and/or stiffness to underlying competent soils or rock.

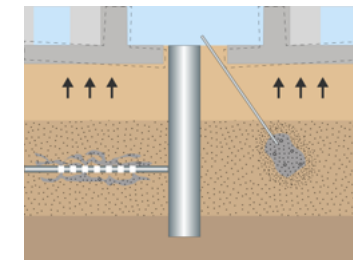


### Common uses

- Support new or existing structures
- Support static and seismic loads
- Support compressive, tensile, or lateral loads

## Releveling structures

Releveling structures is achieved by lifting through a direct connection to the structure or injecting grout at depth to raise the overlying soil and the structure it supports.

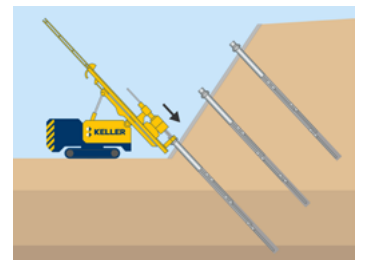


### Common uses

- Reverse settlement experienced by a structure

## Slope stabilization

Slope stabilization involves the strengthening, reinforcing, or supporting of soil slopes to produce a sufficient stability factor of safety.



### Common uses

- Stabilize man-made slopes
- Stabilize natural slopes adversely affected by natural or man-made influences



## DESIGN-BUILD

Our decades of research and development have supported design methods in line with fundamental geotechnical engineering theory. Our experience and knowledge lead to the optimal solution for each loading configuration, subsurface condition, and project objective.

# WHY CHOOSE KELLER?

You can be assured you have a strong partner with us.

## Excellence in performance

We have a strong reputation for leading safety culture and operational excellence. Keller is dedicated to fostering a healthy, safe work environment. The goal of our global Keller Think Safe program is zero incidents. Our commitment to this health and safety framework has rewarded us with many safety awards from our clients and industry organizations. Our industry-leading focus on training and development enables our employees to achieve their full potential and achieve operational excellence.

## Product leadership

Our global product teams comprise industry experts focused on advancing the safety, quality, and productivity of the work Keller performs. These teams are resources for each of our clients' projects.

## Value engineering

Keller employs about 1500 engineers worldwide, with over 200 focused purely on design. With our in-house design expertise, half of our jobs are design-build, enabling our engineers to reduce cost and schedule.

## Innovation

Keller has a culture of creativity and innovation. Our research and development programs are fueled by ideas submitted by our employees and product teams. Examples include our in-house developed DAQ or data acquisition and InSite® systems.

Our proprietary DAQ systems collect performance data from our equipment and provides real-time, actionable feedback to our field and office staff to monitor and control quality, efficiency, material usage, and productivity.

InSite is an app used by our field personnel on handheld and mobile devices as a single source for all of our site reporting, including production, safety, equipment and material use.



# SOLUTIONS MATRIX

The solution to any geotechnical challenge

Whether with one or a combination of techniques, Keller provides the optimal solution tailored to each project's specific circumstances and requirements.

CHALLENGES	SOLUTIONS	GROUTING							GROUND IMPROVEMENT										DEEP FOUNDATIONS										EARTH RETENTION										GROUNDWATER CONTROL											
		Compensation (fracture) grouting	High mobility (cement/slurry) grouting	Injection systems	Jet grouting	Low mobility (compaction) grouting	Permeation (chemical) grouting	Polyurethane grouting	Slab jacking	Cutter soil mixing	Dry soil mixing	Dynamic compaction	Earthquake drains	Rapid impact compaction	Rigid inclusions	Vibro compaction	Vibro concrete columns	Vibro Piers®	Vibro stone columns	Wet soil mixing	Wick drains	CFA (auger cast) piles	Displacement CFA piles	Drilled shafts	Driven piles	Franki piles (PIFs)	Helical (screw) piles	Jacked in piles	Load bearing elements (barrettes)	Macropiles*	Micropiles	Tangent bearing elements (TBEs)	Anchors	Anchor block slope stabilization	Diaphragm walls	Gabion systems	Interlocking pipe piles	Pit underpinning	Micropile slide stabilization system (MS3)	Sculpted shotcrete	Secant or tangent (contiguous) piles	Sheet piles	Soil nailing	Soldier piles and lagging	Dewatering	Ground freezing	Groundwater treatment	Slurry cutoff trenches	TRD - soil mix walls	
Bearing capacity/ settlement control		●	●	●	●	●	●			●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●																			
Environmental remediation/ containment				●	●				●	●									●																									●	●	●	●	●		
Groundwater cut-off			●		●		●		●										●																									●	●		●	●		
Heave control/ expansive soil treatment				●						●									●																															
Heavy foundations																					●	●	●	●	●	●		●	●	●	●				●															
Marine structures support				●							●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●																	
Mine stabilization/ void filling			●		●		●																																											
Railroad subgrade stabilization				●		●																																												
Releveling structures		●			●		●	●																			●	●			●																			
Seismic/ liquefaction mitigation				●	●	●			●	●	●	●	●		●		●	●	●																															
Sinkhole/ karst remediation			●		●						●				●			●																																
Slope stabilization				●					●	●							●	●	●	●			●											●	●	●	●	●		●		●	●	●	●	●	●			
Support of excavation				●		●			●										●														●		●	●	●		●		●	●	●	●				●		
Tunneling stabilization		●	●		●	●	●												●																											●	●			
Underpinning				●		●																					●	●			●						●									●				

This chart represents techniques that could apply to the listed geotechnical challenges. Consult with your local Keller representative to discuss specific site conditions and appropriate Keller geotechnical construction solutions. The actual applicability of a particular technique depends upon the soil character (soft, loose, stiff, dense, organic, collapsible, etc.) and its composition (clay, silt, sand, cobbles, boulders, etc.). Occasionally, multiple techniques used simultaneously could provide a more economical solution. Other considerations include accessibility, availability of materials, presence of utilities or other underground obstructions, and many other internal and external influences.



## GET IN TOUCH

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