University of Saskatchewan

Saskatchewan, Canada

Keller installed belled drilled shafts to support a new university development, overcoming variable soil conditions and winter construction.

The project

Construction at the University of Saskatchewan involved a new 24,000 SF campus development, including genomics and soil science buildings. Subsurface conditions consisted of clay and glacial till overlying dense sand with localized seepage, requiring a deep foundation solution.

Keller installed drilled shafts to support both structures. Shafts ranged from approximately 16.4 to 19.7 ft (5 to 6 m) in length with shaft diameters up to 1.7 ft (508 mm) and belled bases up to 4.6 ft (1,400 mm) in diameter. The stiff clay profile generally allowed for open-hole construction, while casing was used in select locations where sand layers introduced instability.

Construction was executed under constrained schedule conditions, with a delayed start and work extending into the winter months. Dense soils and cold temperatures impacted drilling productivity and equipment performance; however, Keller maintained progress through field adjustments and winterization measures. Quality assurance was supported through pile inspection and concrete testing, ensuring compliance with project requirements.

Project facts

Owner(s)
University of Saskatchewan

Keller business unit(s)
Keller

Main contractor(s)
VCM Construction

Engineer(s)
ISL Engineering

Solutions
Deep foundations

Markets
Institutional

Techniques
Drilled shafts

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