City Centre School

Saskatchewan, Canada

Keller installed drilled shafts to support the construction of a new public elementary facility in Saskatoon.

The project

To support their growing community, the City of Saskatoon constructed a new 60,709 SF school building that will accommodate up to 400 students from pre-kindergarten through eighth grade.

Subsurface conditions included topsoil and fill overlying sand, followed by dense glacial till. Interbedded sand and gravel layers, groundwater seepage, sloughing soils, cobblestones, and boulders were encountered across the site, resulting in localized voids and caving. A deep foundations solution was required to support the new structure.

Keller installed 194 drilled shafts ranging from 1.3 ft to 2 ft (.4 m to .6 m) in diameter to depths of 19.7 ft to 39.4 ft (6 m to 12 m). Multiple casing sizes were used, with select locations requiring double casing to stabilize boreholes through water-bearing and slough-prone soils. Where ground caving occurred, concrete was placed to fill voids before completing pile installation.

Keller successfully executed the work through careful sequencing and coordination.

Project facts

Owner(s)
City of Saskatoon

Keller business unit(s)
Keller

Main contractor(s)
Quorex Construction Services Ltd.

Engineer(s)
P. Machibroda & ISL Engineering

Solutions
Deep foundations

Markets
Institutional

Techniques
Drilled shafts

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