



SPCC Remand

Saskatoon, Saskatchewan, Canada

Keller installs over 800 drilled shafts for Saskatoon Correctional Center's new remand center.



The project

The Saskatoon Correctional Centre's new remand center is part of a \$7.5 billion, two-year capital plan. The new facility will securely hold up to 427 remand inmates while they await trial and is comprised of a three-story structure with a partial basement. Ground conditions included fill/topsoil overlying variable silt and clay deposits followed by glacial till extending to 49 ft (15 m) below the existing grade. Groundwater was encountered at 25.3 ft to 27.3 (7.7 m to 8.3 m) below grade. A deep foundations solution was required to support the structure.

The challenge

- Cobbles and rock obstructions
- Cold weather, windchill, and snow

The solution

Due to the rock obstructions and groundwater table, the geotechnical engineer recommended drilled shafts as the deep foundations solution. Keller was contracted to install the shafts and worked closely with the engineer and the general contractor to identify cost and schedule savings by reducing total concrete volume. In total, Keller installed 807 drilled shafts of various diameters, ranging from 16 ft to 36 ft (5m to 11m) deep. Pre-drilling was used to core through the rock obstructions, while temporary casing was used to reduce groundwater infiltration during shaft construction.

Project facts

Owner(s)

Government of Saskatchewan

Keller business unit(s)

Keller

Main contractor(s)

PCL Construction Management Inc.

Engineer(s)

BBK Structural Engineers, P. Machibroda Engineering Ltd.

Solutions

Deep foundations

Markets

Institutional

Techniques

Drilled shafts

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