

## **EXCAVATION SUPPORT | TIEBACKS | UNDERPINNING SOLDIER PILES & LAGGING**

## FIRST BANK - MINNEAPOLIS, MINNESOTA

Design-build earth retention systems allowed a 50 ft deep excavation to be constructed in downtown Minneapolis, Minnesota. This excavation required the installation of wall line sheeting consisting of 105 drilled-in soldier beams socketed into rock, 56,000 square feet of lagging, and 388 pressure-injected tiebacks.

In addition, the existing Minneapolis Athletic Club Buildings required extensive underpinning of the shallow footings down to top of rock. The underpinning consisted of roughly 1,050 feet of hand-dug concrete-filled piers and 30 post-tensioned concrete beam sections.

Owner: International Business Machines

General Contractor: OPUS

Design/Build Specialty Contractor:

Schnabel Geostructural Design & Construction



For more information on this project or any other of our projects please contact Schnabel at:

