

EXCAVATION SUPPORT | TIEBACKS | SOLDIER PILES & LAGGING VIKINGS STADIUM - MINNEAPOLIS, MINNESOTA

The winter of 2013-14 was the coldest winter in the Minneapolis area in thirty-five (35) years according to the Minnesota Department of Natural Resources. The average temperature was almost 10°F colder than normal. Despite the record-setting cold, Schnabel finished their work ahead of schedule. On April 17, 2014, the Minnesota Sports Facilities Authority and Mortenson Construction announced, "...that demolition of the Hubert H. Humphrey Metrodome has been completed one month ahead of schedule."

To expedite the overall schedule and to minimize traffic disruptions, most of the truck loading and hauling occurred from 6:00 pm to 6:00 am and multiple crews working day and night shifts, six (6) days a week were utilized.

On two sides of the stadium, Schnabel designed and constructed a wall-line, permanent earth retention system using drilled-in soldier beams, wood lagging and tiebacks. The soils on this project consisted of medium dense to very dense, glacially-deposited sands and gravels with cobbles and boulders, overlaying a weathered/hard limestone. The numerous cobbles and boulders encountered by Schnabel during soldier beam and tieback drilling operations created a challenge for Schnabel that required specialized equipment and tooling to complete the holes and remove the drill cuttings. The permanent tiebacks were installed and tested to laterally support the walls for excavation depths of up to 40 feet. After the permanent earth retention was completed to subgrade, the foundation wall concrete was placed using a single sided form. In addition to the earth retention work, Schnabel installed drilled piers for a tower crane foundation and permanent rock anchor tiedowns. Close coordination between the design and construction team(s) of Schnabel, Ames, Frattalone, the Construction Manager - Mortenson/Thor Construction and the Owner - Minnesota Sports Facilities Authority (MSFA) was essential to maintaining the overall project schedule during the critical excavation, demolition, foundation and earth retention system work and through the cold winter months on this challenging, but exciting project.

Owner: Minnesota Sports Facilities Authority
General Contractor: Ames Construction, Inc.
Design/Build Specialty Contractor:
Schnabel Geotechnical Design & Construction



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

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