



Key achievements

- Keller installed 8 pcs Ø219 steel core piles, 82 pcs Ø219 casings for a pile wall and stiffeners and struts for the pit with HEB280 beams
- Keller's in house developed drilling system with double rotary head and water driver hammer was used due to sensitive ground conditions

The project

HAB Construction have been contracted by Helse Sør-Øst to build the foundations for a new pedestrian bridge over the railway in the train station Brakerøya Stasjon in Drammen. The new bridge will make a connection between the railroad station, the surrounding areas and a new hospital being built nearby. The works are to be done during the summer shut down of the railroad in the area.

The challenge

The challenge in this project was mainly the short timeframe due to the shutdown of the railway and the sensitive ground conditions with strict limits on settlements on the railway tracks.

The solution

The solution was to use Keller's in house developed drilling system with double rotary head and water driver hammer to minimize the risk of settlements during the installation of the steel core piles and the pile wall. The steel core piles were drilled 1,5 m into solid bedrock in a depth about 20 meters. Some layers of moraine over the bedrock was discovered during drilling. The piles were drilled with the help of a powerful high-pressure pump which created the necessary water pressure to run the water driven hammer which crushes the bedrock. No movements on the railroad tracks were discovered. The pile-wall was stiffened by HEB280 beams before the pit were excavated and concrete casted. The diameter of the steel cores was Ø150 mm.

Application

Bridge foundation

Technique

Steel core piles

Market

Foundation, bridges

Client

Helse Sør-Øst

Main contractor

HAB Construction AS

Geotechnical Designer

Rambøll

Keller companies

Keller Geoteknikk
Keller Grundbau

Contraction project manager

Piotr Garbacik

Piotr@hab.no

Project start date:

June 2021

Project end date:

July 2021