

## Nittedal Station

Nittedal, Norway

Keller installed about 300 pcs Ø323 casings for a pile wall and two rows of 78 pcs of anchors.

All works were done during shutdown of the railway line or very close to the railway in operation.

About 3100m of pile wall was drilled.



### The project

NRC was contracted by Bane NOR to execute the construction works at Nittedal Station. The Station will be improved with a much longer 2 track line to be able to accommodate longer trains. In this regard it was necessary to construct a pile wall to be able to finish the remaining works. The pile wall consisted of Ø323 casings and will also have 2 rows of strand-anchors. Keller was contracted by NRC to execute the piling and anchoring works during the shutdown of railway.

## The challenge

The challenge in this project was mainly the short available time to execute the works during the shutdowns and the challenges with doing the pile wall and the anchors for the pile wall at the same time. There was also a big challenge to drill as close as 2m from the passing trains.

## The solution

The solution in the project was to mobilize our Comacchio MC40 drilling rig to be able to quickly establish enough of the pile wall to be able to do the anchors. The average length of the casings was 11m. All casings were drilled into solid bedrock with an air driven down the hole hammer. A total of about 300 casings were installed. 78 anchors of around 19 m each were then installed. After finished production, the works with the railway bridge and the foundation structure for the bridge started.

## Project facts

### Owner(s)

Bane NOR

### Keller business unit(s)

Keller Geoteknikk AS  
Keller Grundbau GesmbH

### Main contractor(s)

NRC Norge AS

### Engineer(s)

Project Manager - Kristoffer Berntson Aase  
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### Solutions

Excavation support

### Markets

Infrastructure

### Techniques

Secant pile walls  
Ground anchors

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