

Ringerike VGS

Hønefoss, Norway

The Buskerud commune is expanding its 19th century Ringerike school complex to keep up with the growing community of the city of Hønefoss. Keller was contracted to secure the foundation of the existing building during the construction works of the new school.



The project

The original school was built on single rock boulders without any connection in between the rocks. In order to make a deep excavation to a three-meter lower level next to the existing wall, jet grouting was applied to stabilize the school.

The challenge

In this project the biggest challenge was to support the historic building that had virtually no existing foundation. Due to lack of space at site, Keller had to minimise the volume of backflow by using the backflow treatment plant. Therefore continuous production was possible and the project was handed over to the main contractor on time. The use of the backflow treatment plan also reduced the environmental footprint of the project.

The solution

Keller established 30 pcs of 6m long Ø1,80 m columns. To support the stone foundation of the building, the characteristic compressive strength was set to 5,6 MPa. Each column was executed with a specific pattern to avoid settlements and to ensure the required quality. The continuous monitoring of settlements or uplifting was necessary during execution. The solution with the backflow treatment plant paid off, as the client was able to handle the treated backflow in the same way as the excavation material from the construction site.

Project facts

Owner(s)

Buskerud Fylkeskommune

Keller business unit(s)

Keller Grundläggning
Keller Grundbau

Main contractor(s)

Strøm Gundersen AS

Engineer(s)

Espen Folkedal

Solutions

Underpinning

Markets

Institutional / public

Techniques

Jet grouting

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