

Bjugn

Ørlandet Kommune

Keller installed around 1 500 pcs of Ø700 mm Lime Cement Columns as ground stabilization after a land slide with quick clay under construction of a new football field. The Lime Cement columns were installed and distributed over 21 ribs.



The project

Tveraas Maskin AS had started to establish a new football field in Bjugn in Ørland municipality. The working area was a part of a known area with unstable quick clay. During the work, a ground failure occurred at the working area, just above the projected football field. The situation was not dramatic and did not result in any injuries or damages. Regardless, it was concluded that the soil had to be stabilized before the work could continue.

The challenge

The ground failure stopped the production. Ramboll were the geotechnical consultant on the project and were contacted to make new analyses and a new geotechnical report. The suggested solution was to install Lime Cement columns for ground improvement. Keller was contacted and hired to conduct the ground treatment.

The solution

Keller established around 1 500 pcs Ø700 Lime Cement columns with lengths between 2 and 10 meters. The work platform was reinforced with a 0,6 metres thick layer of gravel. Gravel was also filled in the bottom end of the slide to support the ground and the load of the machines. The clay in the area were some places very wet. It was therefore used timber mats to improve the ground under the rig to secure the safety and stability. The columns were distributed over 21 ribs so the planned construction work could continue.

Project facts

Owner(s)

Ørlandet Kommune

Keller business unit(s)

Keller Grundläggning AB
Keller Geoteknikk AS

Main contractor(s)

Tveraas Maskin AS

Engineer(s)

Project Manager Frode Tverås

Solutions

Slope stabilisation

Markets

Institutional / public

Techniques

Dry soil mixing

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