



CONFERENCE

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San Francisco, CA



Friday, June 5, 2015 at 11:00am

FEATURED SPEAKER

Kjell Karlsrud | Norwegian Geotechnical Institute
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SOME NORWEGIAN EXPERIENCES RELATED TO USE OF DRY-MIXING METHODS TO IMPROVE STABILITY OF EXCAVATIONS AND NATURAL SLOPES IN SOFT CLAYS

Ground improvement by the deep dry mixing (DDM) method is used in Norway since the late 1970's. A brief review is given of the Norwegian guideline for ground improvement with DDM issued in 2012, but focus is on practical examples and experiences related to improving the stability of excavations and natural slopes in soft clays. Two examples deal with experiences from 10 to 18 m deep excavations in soft and partly highly sensitive clays, where DDM panels and block stabilization were used to both give sufficient stability against bottom heave and to limit lateral wall displacements. A third case deals with improving the stability of a natural slope in quick clay by installing DDM panels near the crest of the slope. To limit disturbance and excess pore pressures generated during the DDM works, vertical drains were installed in advance in between the DDM panels. This ensured that the excess pore pressures generated by the DDM works (up to 150 kPA) dissipated quickly, which was instrumental to avoid triggering a landslide during the stabilizing works.

For more information, contact Kjell Karlsrud by email at kk@ngi.no.

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