

Crag End Landslip

Crag End, Northumberland

Keller used two of their geotechnical solutions to stabilise a 300m stretch of road in challenging ground conditions.



The project

Northumberland County Council had over a number of years to periodically close the B6344 as a result of ongoing instability. Atkins designed a remedial scheme involving an anchored piled retaining wall addressing some 300m of the most unstable part of the road.

The challenge

To install piles on an unstable slope and then install under the working platform a series of ground anchors designed to restrain the piles through a connecting capping beam. The soils consisted of landslip detritus containing boulders, cobbles and glacial clays, materials notoriously difficult to drill.

The solution

Installing 436 No 508mm diameter piles with a 450mm 3m-long rock socket using a Bulroc hammer, which in turn was retained by 144 No up to 32m long SBMA ground anchors. The anchors had to be installed by drilling underneath the working platform using Keller's specially adapted Cat 315 anchor rig.

Project facts

Owner(s)

Northumberland County Council

Keller business unit(s)

Keller UK

Main contractor(s)

Volker Slevin

Engineer(s)

Atkins

Solutions

Slope stabilisation

Markets

Infrastructure

Techniques

Bored piles

SBMA

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