

SECURING OF A ROADSIDE SLOPE

B90 NEAR LOBENSTEIN

GERMANY



PROJECT REPORT





TITLE: Securing of a roadside slope, B 90 near Lobenstein, Germany

EMPLOYER: DEGES Berlin

DURATION: During July 1999

PROJECT: Due to the extension of the A9 motorway Nuremberg – Berlin, the connection to Lobenstein was completely re-built. In order to cope with the increasing amount of traffic, the major B90 road which crosses the motorway, had to be extended as well.

THE PROBLEM: The road leading eastwards from the motorway junction ascends and runs through a cut. Opposite a turn-off there is a cut slope of approx. 400 m length and up to 15 m height with a gradient of about 1 : 1.5.

The earth works and road building works took place in 1997 and 1998. After completion and after a long and severe winter 98/99 it soon became obvious that the cut slope exposed to the North would not last without protection.

The slate structure proved to be loose and prone to weathering. Furthermore the angle of the geological layers was very unfavourable.

The contractor had responsibility for safeguarding the traffic, therefore the slope had to be secured permanently.

THE SOLUTION: **HASTEC®** Woven Coir Fabric KGW 900, Maccaferri Hexagonal Steel Netting over the top and revegetation to give secure surface protection against erosion by weathering and movement of the loose rock.

PROCEDURE: After the removal of any loose debris, anchoring holes were drilled in a grid pattern of 2 m x 2 m intervals. Steel anchors of 3 m length were inserted and fixed with mortar. 2.500 m² of woven coir fabric were laid and fastened to the anchors by special anchor plates. The fabric is pressed down onto the rock by these plates which are held by bolts screwed to the anchor rods.

Maccaferri Hexagonal Steel Netting was spread over the area and tightened by longitudinal and transverse steel ropes. The steel ropes are held by loops which are welded to the anchor plates. The entire area was then revegetated by hydroseeding.



The above solution ensures that the newly cut slope is safely protected from erosion and at the same time fulfils the requirements regarding traffic safety.



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