Sewer Construction

New construction of rainwater collector.

The challenge

For the new construction of the alternative building NWF West of the University of Regensburg, the development of a rainwater collector was also necessary. In one section, the rainwater pipe had to be laid along the new building at a depth of approx. 6 m in the backfilled ground. The trench ran at a distance of approx. 2.5 m from the base of a slope which was approx. 6.5 m high and inclined at 45° and which had a berm of approx. 1 -1.5 m at about half height. The static calculations showed that due to the active earth pressure, the execution of the sewer construction in classical construction method could only be realised with considerable additional effort (e.g. removal of the berm).

Backfilling with RSS® Flüssigboden

The solution

The trench was backfilled with RSS® Flüssigboden up to the top edge of the trench in one go. Before it refixed completely, the shoring could be removed while the RSS® Flüssigboden was still flowable. This is made possible by the special rheology of this backfill material (high liquid limit).

Properties of RSS® Flüssigboden

- homogeneous and free of any tendency to segregation
- high liquid limit
- low viscosity
- Strength and elasticity in the form of load-bearing capacity or unconfined compressive strength according to technical planning.

Construction project

Regensburg
New construction of the alternative building NWF West of the University of Regensburg

Builder

State Building Authority Regensburg

Construction works

Scharnagl Hoch- und Tiefbau GmbH, Weiden

Construction period

June to July 2012

RSS® Flüssigboden provided by

TBG Rott Kehlheim

Technical planning

LOGIC Logistic Engineering GmbH

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