



REMODELLING OF THE HOHENEMS RAILWAY STATION

Client: ÖBB-Infrastruktur AG

Development Period: 2008 to 2016

THE PROJECT

In order to meet the requirements of an up to date traffic junction, the railway station of Hohenems (federal state of Vorarlberg) at the railway line Lindau - Bludenz has been modernised in the context of the so-called "Rhine Valley Concept".

The remodelling comprises, besides the alteration of the railway tracks, the reconstruction of the railway building and of a pedestrian underpass, the adaptation of the existing underpass, the heightening of the platform edges, a barrier-free access to the platforms by means of three elevators, a new roofing for the platforms and a park-and-ride system.

OUR FUNCTION

For this project, BGG Consult was entrusted with the geotechnical consulting service during all planning and building phases.

Based on the results of core drillings, dynamic probings and soil physical laboratory analyses, a geotechnical expert's report has been prepared for the permission procedure according to railway law.

Subsequently, an active part was taken during the tender planning.

During the building phase, the extensive special heavy construction works were managed and supervised.

Special Heavy Construction Works:

Along the Hohenems railway station, a cohesive, organic soil zone exists below shallow artificial deposits. This layer holds a very unfavourable deformation behaviour and a minor load-bearing capacity. Only at a depth of 15 m, well bearing gravel and sand sets in.

Therefore, deep foundations were necessary for the new structures by all means. For economical and practical reasons, grouted driven cast iron piles were used. The existing underpass with a shallow foundation has been underpinned by jet grouting bodies in order to establish the adjoining new ramps. For the new railway building, a shallow foundation was implemented by allowing several centimetres of settlement.



*View into the building pit
of the pedestrian underpass*