THE NEW VIENNA CENTRAL RAILWAY STATION

Client: ÖBB-Infrastruktur Bau AG (Austrian Railways Infrastructure Construction AG)
Development Period: 2006 to 2015

THE PROJECT

On the premises of the viennese southern and eastern railway station, the New Vienna Central Railway Station was built. The new station (through station) connects the tracks of the Southern and the Eastern Railway Lines. It is now an efficient transfer junction and constitutes a hub between three major european railway axes (TEN main axes 17, 22 and 23).
The infrastructure project covers an area of 50 ha. Furthermore, a new city district emerges with an area of 59 ha.
The project 'infrastructure' features 100 km tracks with 300 switches, 8 km noise protection walls, and bridges with a covered area of 30,000 m². The project 'real estate' totals 550,000 m² office space, 5,000 accomodation units and 8 ha green space.

OUR FUNCTION

BGG Consult was responsible for the geotechnics and hydrogeology of the whole project. An initial exploration campaign was already conducted in 1993 for a station project. In 2006, extensive subsoil investigations were carried out, based on the actual project. Subsequently, expert's reports for the Environmental Impact Assessment procedures of the individual projects (railway project, real estate project, and the stations of Südtiroler Platz and Matzleinsdorfer Platz) were compiled. In addition, expert's reports for the application of building permission were prepared. In 2008, further subsoil explorations for the tender phase and the detailed planning phase were planned and supervised.
BGG Consult also offered geotechnical consulting for the construction.

Building Pit Support System for the Loop Line:
For the construction of the southern part of the station complex, extensive building pit support systems were required. Since the double-tracked loop line had to be kept at the level of the original track, the secured height was up to 20 m, while the tracks in operation ran directly beside the slope crown. As the most economic variant for the support system, an anchored shotcrete wall has been dimensioned and realised. For this, up to 13 anchor levels (prestressed and self-drilling anchors) were required.

View into the building pit, southern station complex