

## KORALM, GRAZ - KLAGENFURT RAILWAY LINE, MITTLERN - ALTHOFEN SECTOR, CONTRACT SECTION 60.6 - BRIDGE ACROSS DRAU RIVER, KM 109.9

Client: Austrian Railways Infrastructure AG  
Development Period: 1996 to 2014

### THE PROJECT

The Koralm Railway Line will soon connect the cities Graz and Klagenfurt with a new, 124 km long high performance railway line.

Within the 19 km long section between Mittlern and Althofen, the bridge across the *Drau River* (Völkermarkt dam lake) is situated at km 109.9 .

The twelve bridge spans hold a total length of 660 m. The span widths vary between 45 m and 80 m. The concrete bridge was established by the incremental launching method.

### OUR FUNCTION

BGG Consult attended to this project section in the fields of geotechnics, hydrogeology and geology since the fundamental planning phase. At first, expert's reports were compiled for the route selection proceeding. For the environmental impact assessment, fundamental investigations were carried out and an expert's report with regard to ground water and geology was submitted. Subsequently, the documents for the permission procedure according to the railway legislation and for the construction tender were prepared. Furthermore, the construction was supervised in the fields of geology, geotechnics and hydrogeology.

#### *Foundation of Bridge:*

The abutments and the new column piers rest in various geological formations. At the orographic right side, Rosenbach Layers (silt-claystone) with inclusions of coal exist. In the river area and at the orographic left bank, the underground is built of up to 20 m thick quaternary gravel on phyllite. At the location of some of the piers, the phyllite is completely sheared and fractured. Due to the heterogeneous geological situation, the depths of the cast-in-place concrete bored piles ( $\varnothing$  120 cm) of the foundations vary strongly. The verification of the assumptions concerning the building ground, on which the design was based on, is therefore of great importance.

*Establishing of the  
Bridge across the Drau river by  
Incremental Launching Method*

