



A 26 LINZ MOTORWAY, JUNCTION A 7 TO JUNCTION DONAU NORD

Client: ASFINAG Bau Management GmbH

Development Period: since 7/2007

THE PROJECT

In the western part of Linz, a second south - north oriented motorway is to be built. This will relieve several access roads and improve the environmental situation. The relevant section consists of the 4.6 km stretch between the existing junction Linz / Hummelhof (A 7) and the exit Donau Nord on the northern banks of the *Danube* river. The road is planned mainly underground and will be built partly with the cut and cover method and partly with closed methods. In addition, in this section are also situated the 200 m long West Bridge across the Western Railway Line (cable stayed bridge), the 300 m long Danube Bridge and 5 exits. Further, the motorway crosses a densely populated area.

OUR FUNCTION

BGG Consult has been commissioned (in partnership with the laboratory ESW Consulting WRUSS ZT GmbH) with the workmanship of geology, soil mechanics, abandoned polluted areas and the investigation of means of war. BGG Consult was involved with the project during the phase of the environmental assessment procedure and the submission for building permit.

The necessary data was gathered from subsoil explorations (conducted during the preliminary design study), field mapping, and enquiries from the city authorities. Based on these results, expert's reports were compiled for the environmental assessment procedure and the application for building permission.

Danube Bridge:

The static system of the Danube Bridge is a genuine (i.e. ground anchored) suspension bridge. Due to the topographical and geological conditions, the bearer cables are anchored directly to the steep scarps of the river banks that exist on both sides of the *Danube*. In the field of geology and soil mechanics, extremely intensive investigations in the area of the anchoring points were carried out. This was necessary in order to guarantee the transfer of the high and concentrated loads into the underground.

For this purpose, prestressed stranded anchors with lengths of up to 55 m can be used. Each of these anchors is able to transfer a load of 2 MN.

Longitudinal profile and view of the Danube Bridge

