



DB Tower





SHORT DESCRIPTION

The DB Tower project in the Europaviertel in Frankfurt am Main consists of a 60 m high-rise building with an adjacent plinth on a continuous 3-storey basement.

THE PROJECT

The subsoil in the project area consists of quaternary layers, which are underlain by pliocene sands / silts. Below the Pliocene layers follow the layers of the low-permeability marl and the Frankfurt Formation. The groundwater is approx. 4 m below the ground.

As part of the planning of the excavation pit for the DB Tower, Züblin Spezialtiefbau GmbH together with the central technology of Ed. Züblin AG prepared a special proposal for the 13 m deep construction pit, taking into account the client's tight schedule with only one layer of BBV-multibond® multi-strand anchors. This proposal envisaged a water-impermeable diaphragm wall with a depth of up to 45 m, an integration into the low-permeability clays and a single-layer anchoring. Due to the high anchor forces inherent in the system, BBV multibond® multi-strand anchors were used. Extensive suitability tests were carried out in advance to determine resilient planning bases and to verify the load-bearing capacity of this innovative anchor system in the silty sands and gravels.

For the DB Tower project, optimization through the use of BBV-multibond® multi-strand anchors meant:

- Saving of 2 anchor positions, in partial areas of an anchor position (against pressing groundwater)
- (Almost) all anchors could be drilled above the construction water level, i.e. not against pressing groundwater.

- Saving of 2 intermediate excavation levels
- several weeks of construction time savings

SERVICES IN DETAIL

Procedure:

• 185 BBV-multibond® multi-strand anchors

FACTS

Location	Frankfurt a.M., Germany
Status	completed
Start of construction	January 2019
Completion	December 2020
Contracting entity	Züblin Spezialtiefbau GmbH
Planning	Zentralen Technik der Ed. Züblin AG und Prof. Quick und Kollegen



https://www.bbv-systems.com/en/projects/detail/ref/db-tower/

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