Gateway Gardens, Frankfurt
Detailed design and build of 2 km subway line to Frankfurt airport

A new district of Frankfurt am Main; Gateway Gardens will offer 700,000m² of offices, conference buildings, hotels, restaurants and retail.

The district will be connected to Frankfurt airport by a 2 km subway line known as Lot 2, which will pass under Frankfurter Kreuz - one of the major regional traffic junctions - using an open excavation method.

In order to minimize traffic disruption and prevent environmental impacts on a protected area close-by, a precise plan and an efficient and smooth delivery are critical.

To achieve this, the design and engineering is supported by 3D BIM, where repetitive elements like anchors and piles are created using parametric algorithms. In addition, detailed and interdisciplinary design reviews are performed using 3D-visualisations.

Client:
Deutsche Bahn

Contractor:
Wayss & Freytag Ingenieurbau AG

Design team:
w&f/TD, SPI, IBW

Completion: 2017

Key Features:
- Full 3D coordinated design
- Parametric generation of building elements/parts