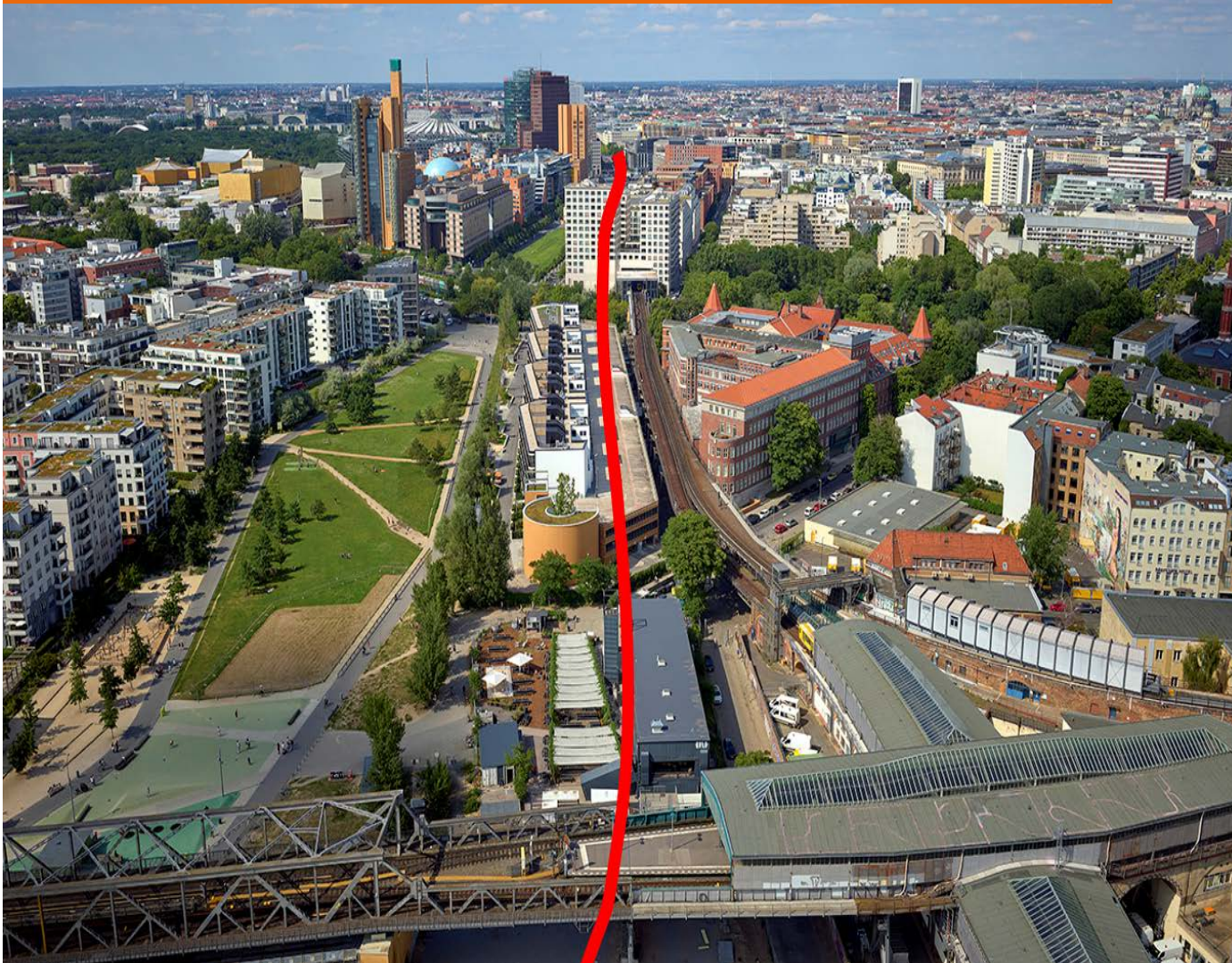


# S21-BERLIN



## S21-Berlin, Construction Lot 3a, Berlin, Germany

New construction of the S-Bahn line 21 between Potsdamer Platz and Yorckstraße, in underground and elevated sections

2.1 km long corridor in the centre of Berlin, connection to existing underground tunnels, transition to ramps and route in elevated position

### Project Scope

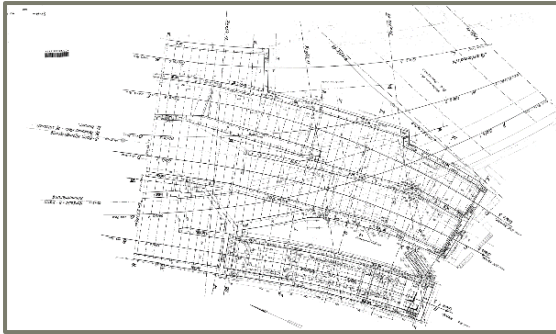
- 2 single-track urban railway tunnels
- Cut & Cover
- Sequential Excavation Method
- Mechanical Excavation with segmental lining
- Bridges
- Viaducts
- Overground and underground stations

### Herausforderungen

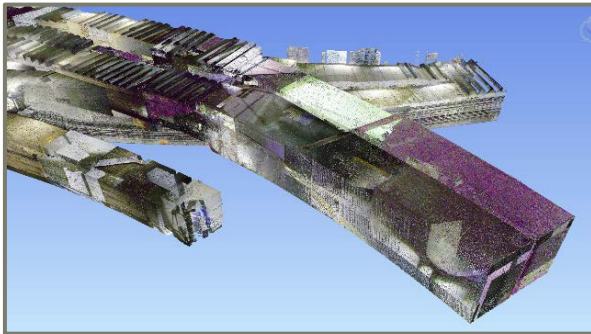
- Major inner-city project
- Densely built environment above and below ground
- Limited space availability
- Construction under operation
- Groundwater bearing soil (sands)
- Underpassing Landwehr canal
- Temporary Construction support measures (compressed air excavation, freezing)
- BIM-Planning

### Amberg Leistungen

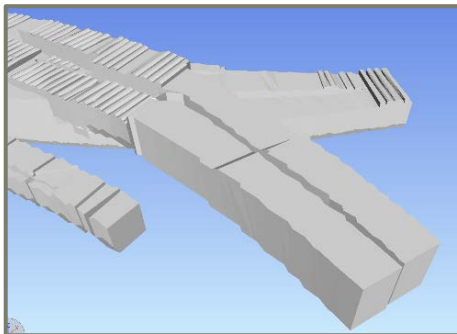
- Overall Project Management
- Deputy overall BIM-Coordination
- Planning & Design of underground structures
- Coordination of Sub-Contractors for Survey, ground investigations and Tunnel M&E



■ Existing Tunnel, Drawing extract from 1939



■ Existing Tunnel, Point cloud from scan



■ Existing Tunnel, referenced BIM-Modell

## AMBERG FACTS

### Contract Sum DJV

- Total DJV ca. 19 Mio. €

### Contract Sum Amberg

- Total 4,3 Mio. €

### Project Phases & Time Frame

- Development of Basis (Lph 1) 2020
- Feasibility Study (Lph 2) seit 2020
- Preliminary Design (Lph 3) pending
- Approval Design (Lph 4) pending
- Tender Design (Lph 6+7) pending

### Project Details

- Development Inner City alignment with connection to existing structures above and below ground
- Extension of 3 existing stops to interchange stations (above and below ground)

### Tunnel

- Tunnel excavation with support of special temporary support measures
- Mined and Cut & Cover construction

### Stations and Bridges

- Numerous Bridges/Viaducts
- Crossing and Overpass Structures
- Construction pits and Ground Engineering

### BIM-Planning

- 3D modelling (Capturing existing structures)
- Overall BIM coordination
- Common Data Environment (CDE)
- Release processes
- Quality assurance, Clash check
- Planning coordination
- Linking data model with dates (4D) and costs (5D)
- Visualizations

## CLIENT FACTS

### Total Project Cost

- Total ca. 360 Mio. €

### Overview Total Project

- Overall Planning Design Project
- 2,1 km length of route
- Project planning & Design of traffic facilities, engineering structures and buildings
- Structural design of engineering structures and buildings
- Technical equipment planning & design
- Ground Assessment
- Survey accompanying Planning and Design
- Environmental Planning
- Noise and Vibration

### Geology

- Groundwater bearing soils (Sands)
- High Groundwater table

### Reference Person

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