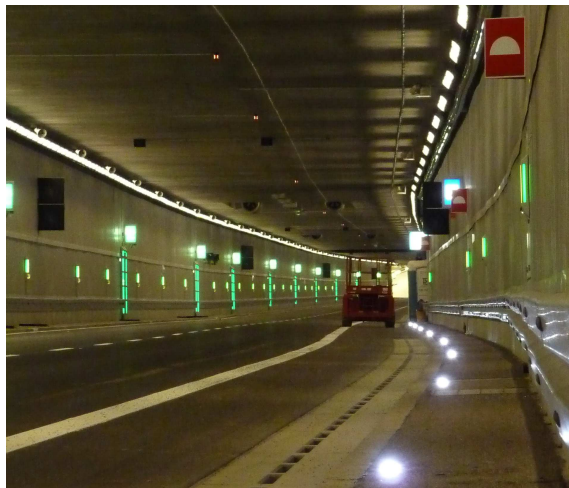




Entry portal Vogelweideplatz



Southbound tunnel



"Banana" jet fans at the exit to Vogelweideplatz

Description

Following the construction of the Petuel tunnel, the Richard-Strauss-Tunnel forms a further milestone of the Mittlerer Ring. The tunnel will carry a daily traffic load close to 100'000 vehicles. It consists of two parallel tubes with a length of 1500 m. An exit ramp allows the connection with the Autobahn BAB A94.

The M&E equipment ensures smooth and safe traffic flow in the tunnel. The City Council emphasises the importance of tunnel safety. Therefore, the safety installations considerably exceed the requirements of the German national standard RABT-2006.

The tunnel ventilation system is of longitudinal type with a capacity of 55 jet fans. The jet fans have a nominal diameter of 630 mm. As control parameters, the tunnel ventilation uses measurements of air quality and air flow velocity in each tunnel section. In order to ensure maximum reliability, additional sensors have been installed. Part of the control system continuously checks the air flow signals for plausibility. By this routine, faulty sensors would be detected automatically.

Services

HBI Haerter Consulting Engineers provided the following services:

- Feasibility studies: options for tunnel ventilation and pollution dispersion in the vicinity of the tunnel
- Tunnel ventilation concept design
- Air dispersion calculation as part of the project approval process
- Tunnel ventilation final design
- Definition of technical requirements for the ventilation equipment
- Participation in and approval of air flow measurements during commissioning
- Ventilation control system functional description
- Ventilation control system tests during commissioning