ingenhoven

Train Station Staatsgalerie Stuttgart

Location
Stuttgart

Built
Completion 2014-2020

Urban Light Rail StationInnovative Transport Architecture and Sustainable Urban Development in the Complex Urban Context of Stuttgart 21.

The "Staatsgalerie" urban light rail station was redesigned as part of the Stuttgart 21 project. Stuttgart 21 is one of the largest and most complex infrastructure projects in Germany, involving the transformation of Stuttgart's main train station and the construction of new tunnels and connections for both long-distance and local transport throughout the Stuttgart/Ulm region. The goal is to relieve the transportation hub of Stuttgart and improve its connection to the European high-speed rail network. For Stuttgart's public transport company (SSB), this means a complete redesign of existing tram stops and routes to create space for new rail tunnels, which will complement the future underground station beneath Stuttgart's main station.The "Staatsgalerie" station was built as a three-track tunnel with an open construction

method and a vaulted ceiling. The former underground facility was transformed into a light-filled, modern space that provides passengers with a comfortable and efficient transfer connection between Stuttgart's urban tram lines and the city's rail hub.A central aim was to design the station so that it aesthetically and functionally integrates into the new Stuttgart underground station. The choice of materials, geometry, and color scheme were carefully coordinated to ensure both structures are perceived as a unified design. Particular challenges arose from the need to raise the station by approximately three meters to allow for the crossing of the new rail tunnel. This added technical complexities, as the new structure partially spans over the long-distance rail tunnel and the construction work had to be carried out in the confined inner-city area under high traffic conditions.Precise planning was particularly challenging due to the complex foundation conditions and the geometry of the structure. To ensure the highest level of accuracy, the entire geometry of the station was planned using a 3D model. This model not only served as the basis for all planning decisions but was also used by all parties involved for coordination and alignment. The result is a modern, light-filled station that provides passengers with an enhanced transfer connection and complements the overall design of the Stuttgart underground station.This redesign creates an efficient pedestrian connection between various modes of transport, offering significant advantages to passengers. The close collaboration between the planning and construction teams, along with the innovative use of 3D modeling, was key to the successful realization of the project.At our office, ingenhoven associates, we carried out this ambitious inner-city project within the framework of Stuttgart 21, integrating our supergreen® philosophy. Through the use of advanced 3D modeling and a careful selection of materials and colors, we created a light-filled, functional station that seamlessly fits into the overall design of the underground station. Sustainability, user comfort, and harmonious urban integration were central to our approach—contributing to future-proof, efficient mobility in urban spaces.

Awards, Nominations

Team