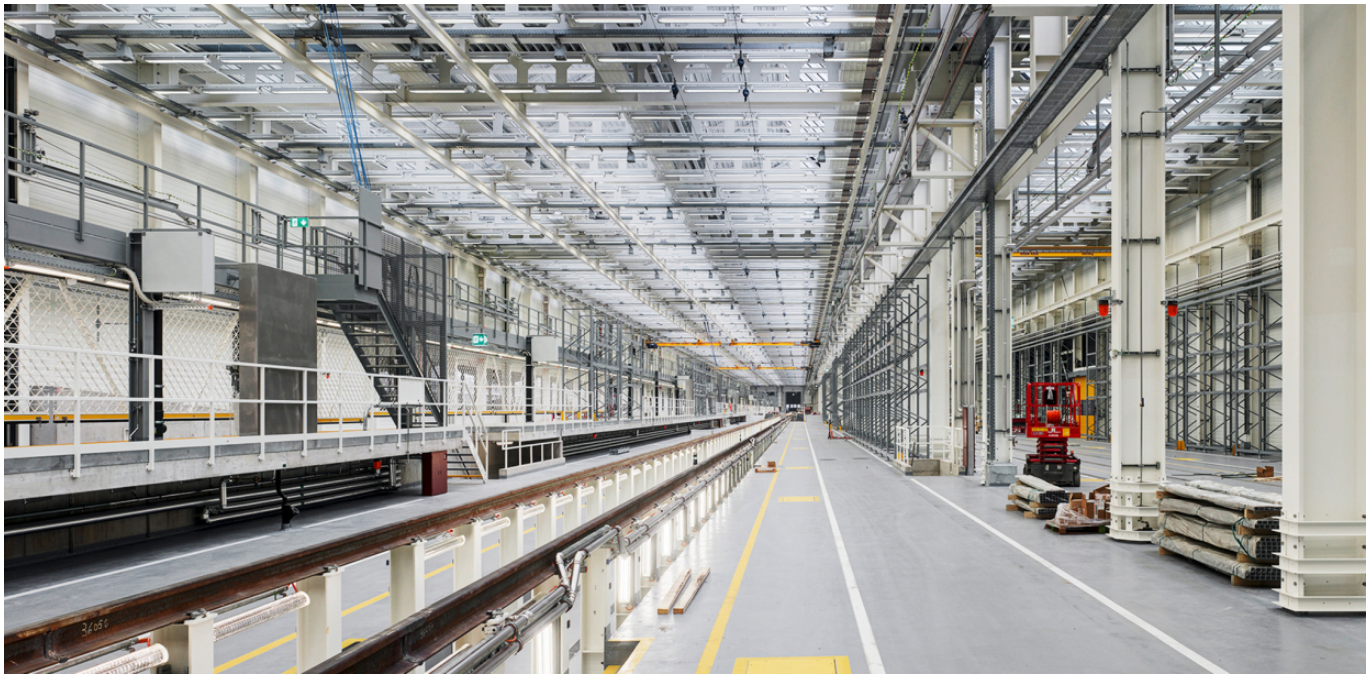
Herdern Train Maintenance Depot



Swiss Federal Railways builds a 400+ metre addition to its train maintenance facility in Zürich's Herdern district. EBP appointed along with EM2N Architekten to assume responsibility for general planning.

The Herdern Train Maintenance Depot in Zürich-Altstetten is used primarily for the maintenance of heavy-rail passenger trains. In order to enable the efficient maintenance of the latest generation of heavy-rail passenger trains, a 425 metre-long maintenance hall with a width of 23 m, and 37 m in its double-bay section, was added to the south side of the existing building. The addition to the existing facility encompasses servicing and repair stations along a total track length of around 1,000 metres.
The application of demanding sustainability criteria, especially in the area of energy-efficient lighting and urban integration, made the planning work for the maintenance station's expansion especially challenging.
The large-format, rear-ventilated and curved cladding panels covering the building's façade are made of fibreglass-reinforced concrete, and represent a special project solution conceived to meet the significant design and structural challenges.
Another structural challenge centred on the hall's large spans. It was necessary to narrowly limit the deflections of the primary beams because they were also to be used to support the crane runways. In addition to this, the numerous utility and HVAC installations made it necessary to provide extraordinarily large openings in the beams.
The skylight panels, which are variously arranged across the hall's entire length, form a single unit with the load-bearing structure. In close consultation with the lighting planner, the arrangement and tilt angle of the skylight panels was optimised

Client

Swiss Federal Railways

Facts

Period	2009 - 2014
Project Country	Switzerland

Contact persons

Claus Maier
claus.maier@ebp.ch

Marco Bachmann
marco.bachmann@ebp.ch

to ensure maximum use of natural light.
Working together as a project team, EM2N Architekten and EBP were responsible for planning the project in the capacity of a general planner from the design competition stage to the drafting of the tendering documents for prospective design-build contractors. The scope of this work included establishing the specifications for the various technical disciplines. Swiss Federal Railways then commissioned the project team to monitor the quality of the work performed by the design-build contractor throughout the project's execution phase.
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Exterior view Herdern Train Maintenance Depot

Interior view Herdern Train Maintenance Depot