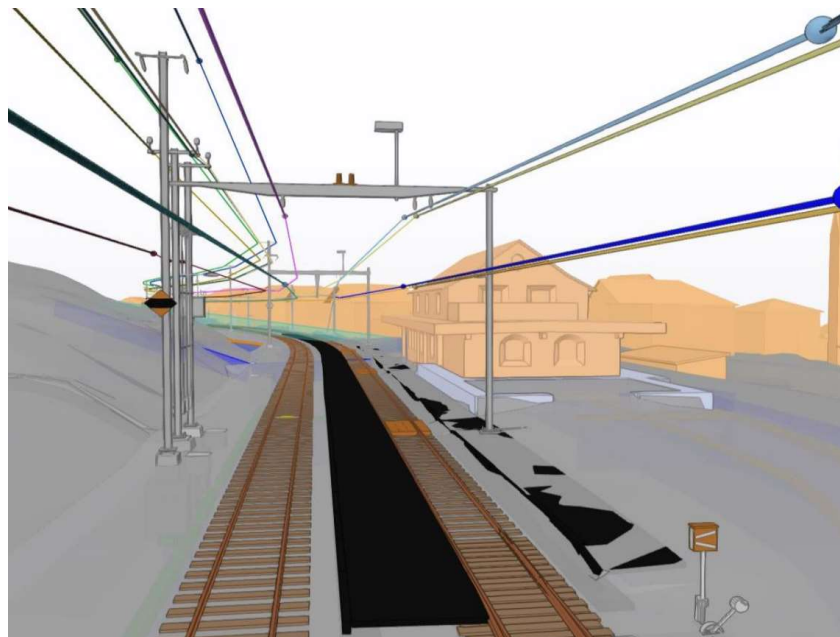


Project Reference for BIM Services

Project Name: BIM railway station S-chanf as-built modelling



Client

Rhätische Bahn RhB
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Contract Amount

CHF 60,000

Contract Period

January - June 2023

Key Personnel

Project Management:	David Holdener
Deputy Project Management:	Jan Sigrist
BIM Coordination:	Jan Sigrist
Modelling:	Florian Wörz

Project Description

The initial situation was that the Rhätische Bahn RhB's S-chanf railway station was to be completely rebuilt as part of the BehiG (Disability Discrimination Act) and supplemented with a pedestrian underpass. Due to the complex initial situation with significant terrain changes and above- and below-ground structures close to parcel boundaries of neighboring properties, RhB decided to create a BIM existing condition model as a basis for planning and to gain experience.

To make the existing condition model as effective as possible, the use cases of the BIM model were first defined. The necessary objects were then developed together with RhB. Each object was assigned a level of detail, attributes, and links to the existing asset management database. The result was a BIM existing condition model tailored for future use as a planning basis for the station reconstruction. Additionally, conceptual work such as mapping from the RhB GIS system to IFC was carried out.

Technical Data

Project perimeter of 1.2 km

Modelling of the track, rail access, traction current, signalling systems, cable protection, engineering structures, service lines and surrounding areas.

Special Features

- Use of external surveying bases (point clouds) from laser scanning
- Connection to the existing RhB GIS data
- Joint definition of the LoD (level of detail) individually adapted to the use cases for each object group
- Integration of the survey data into the as-built model to enable a virtual walk-through
- Provision of the model in IFC and on a project CDE platform

Our Solutions

- BIM as-built model of railway technology and surroundings
- Virtual walk-through

Partner Company

Rosenthaler + Partner AG

