



Selected Engineering structures on the reactivated Suburban railway track near Stuttgart

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Summary

In this contribution different types of engineering structures, including anchored and non-anchored retaining walls, bridge construction works, skewed framing buildings, special types of composite beams and steel composite girder of the railway bridge over a federal road will be addressed. These engineering structures are to be modified within the project “reactivation of the suburban railway track between Boeblingen and Renningen” due to the necessity of a second track.

Keywords: engineering structures, suburban railway, steel composite girder, concrete trough, tunnel construction.

1. Introduction

The line between Boeblingen and Renningen in the southwest of Stuttgart was originally opened in 1913 – and later electrified in 1972 as by-pass route for freight. At the same time passenger traffic was suspended. At the beginning of the 1990’s the reopening of the passenger traffic on this line was called resulting in the actual suburban project S 60. It represents the first suburban railway tangential in the Stuttgart system to be realized, see Fig. 1.

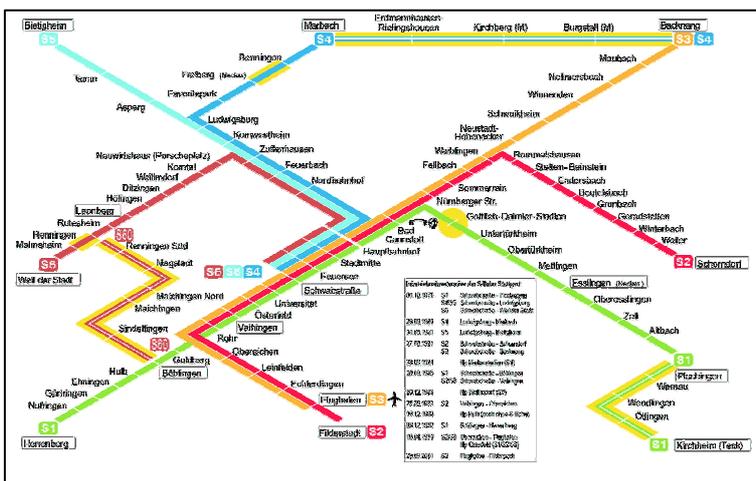


Fig. 1 Suburban railway Stuttgart – system development and projected measures

The Stuttgart system itself started in 1978 with three lines in the centre of Stuttgart. At least 45 years before already a kind of suburban traffic run in the periphery namely from Ludwigsburg to Esslingen. Due to the Second World War precise plans for a suburban system appeared in the year 1955.

Since 1978 the Stuttgart System grew fast and faster due to the increasing number of passengers moreover being higher than expected by forecasts. As can be seen from Fig. 1 the Stuttgart system is shaped as a star with the centre of the city and the main station in the middle. Therefore it could occur that Sindelfingen as a city of mobility, hosting one of the world’s most popular car manufacturers, was cut off from the

suburban railway system. With the project S60 this will be healed in a few years when the above mentioned first suburban railway tangential in the Stuttgart system is reality.