Arsta Brücke







SHORT DESCRIPTION

The “Citybanan” project in the heart of Stockholm includes several tunnel construction projects (including the Söderström tunnel, which was pre-tensioned by BBV), as well as bridge structures over busy train routes and motorways.

THE PROJECT

The “Citybanan” project is currently underway in the heart of Stockholm, with the aim of expanding the existing rail network, especially for long-distance trains.

This construction project poses technically and logistically very high demands for the executors.

Once the work has been completed, the capacity of the connections through the new route network is to be doubled.

In the area between Årsta and Älvsjö, the new 1.4 km long Arsta bridge was built using prestressed concrete and, when

completed, would become the seventh longest bridge in Sweden.

During the planning phase, an investigation by construction companies and planners in cooperation with BBV Systems showed that the BBV L27 system with subsequent connection is the most economical solution for prestressing in the Arsta Bridge project.

It was carried out in 38 concreting sections. In the bridge cross-section in the form of a bull's head there are 8 BBV L27 tendons, each running over two sections, four of the tendons each end at a concreting joint, where they were tensioned and coupled, the other four were tensioned and lengthened at the subsequent concreting joint. This created a continuous tensioning system over the entire length of the bridge.

FACTS

Location	Stockholm , Sweden
Status	completed
Start of construction	May 2011
Completion	October 2013
Building owner	Swedish Transport Administration
Contracting entity	Züblin Scandinavia AB
Planning	COWI A/S, Dänemark

SERVICES

Post-tensioning system

Bridge construction