Watermael-Schuman-Josaphat link in Brussels

TUC RAIL is actively involved in all phases of the Watermael-Schuman-Josaphat link project, specifically participating in two major phases: the complete renovation of the Brussels-Schuman station and the equipment of the Schuman-Josaphat tunnel. These works aimed to increase the capacity of the rail infrastructures between Watermael and Schuman and alleviate the congestion at the Nord-Midi connection.

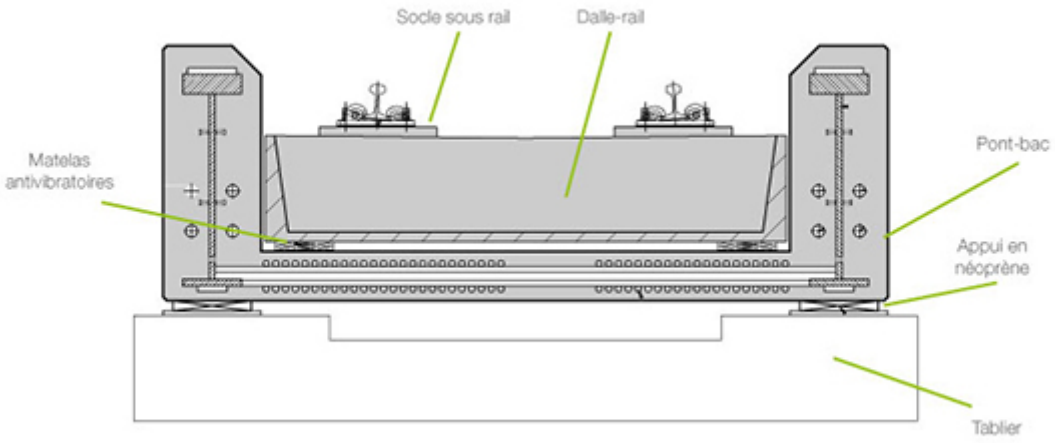
To build the future RER lines, it was necessary to extend Line 161 (Brussels – Namur) from two to four tracks. However, this could not be done between Schuman and Brussels North station due to lack of space. The choice of the route of the two new tracks north of Schuman – for which TUC RAIL kept expropriations to a minimum – was the subject of an impact assessment, which selected the best route on the basis of urban, environmental and economic criteria. This route required the construction of a new tunnel and the creation of a new section: Line 161A (in red on the illustration opposite).

This new line:

- interconnects the economic section of the European district with most of the country's large cities, without using the Nord-Midi junction (close to saturation);
- creates a direct link between Brussels-Schuman station and *Brussels Airport*, gaining 19 precious minutes for passengers .

In parallel with the works for the new tunnel, Brussels-Schuman station was completely renovated. The works aimed at housing the platforms for the new Line 161A, to enable passengers to join the existing SNCB station and the metro. A genuine multimodal interchange, the station improves accessibility and interconnection with the different methods of public transport. The works required the Rue de la Loi road tunnel to be closed in the summer of 2012, a closure which could be limited to three months. Metro and train services were kept in operation during the works.

The new Watermael-Schuman-Josaphat link meets the most stringent passenger safety standards, as well as soundproofing and vibration criteria. Within the planning application to build the tunnel, TUC RAIL has carried various noise measurements, which have highlighted the need to install facilities reducing sound and vibration nuisances. Sound-damping walls have therefore been placed to limit this noise pollution. The tracks are also laid on a foundation consisting of a slab and an anti-vibration mattress (see diagram below) which absorb vibrations and thus reduce the noise pollution which can be caused by rail traffic.



Bridge deck

TUC RAIL is responsible for:

- the project management of the entire link;
- the studies related to the project;
- the site management for most of the work in collaboration with Beliris.

More specifically, its tasks are to:

- quadruple Line 161 (Brussels – Namur) between Watermael and Schuman;
- create two new stops: Germoir and Arcades;
- equip the new Schuman-Josaphat tunnel;
- redevelop Schuman station with the new Line 161A and create a multimodal interchange in which the SNCB and STIB stations will be interconnected.

Various parties are and were involved in this project:

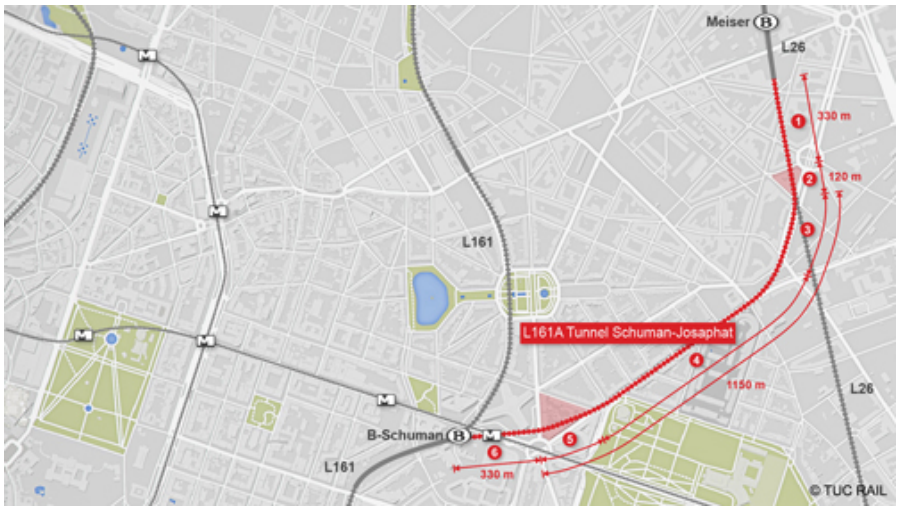
- the project is being managed by TUC RAIL on behalf of Infrabel, manager of the rail infrastructure in Belgium;
- the works for the Schuman-Josaphat station and tunnel were managed by Beliris;
- the designs for the station were produced by the Van Campenhout architectural consultancy, with the exception of the civil works part, which was designed by TUC RAIL.

- the design of the tunnel structure was split between a number of private design consultancies, such as SGI Consulting, Bagon Ingénieurs-Conseils, Maunsell and Grontmij.
- construction of the bridge decks, laying of the tracks and installation of track and tunnel equipment were works supervised by TUC RAIL.

The works began in 2008 and the link is operational since April 2016.

Infrabel has produced a report about the building of the Schuman-Josaphat tunnel. It is available in French and in Dutch.

Click here to view pictures of the Schuman-Josaphat tunnel.



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