

## **RAILWAY BRIDGES UNDER VYŠEHRAĐ**

### **Verbal evaluation of Concepts**

#### **CONCEPT NO. 8**

##### **TRANSPORT SOLUTION**

The design of platforms, platform edges and track layout of the Výtoň stop is without comments, with good and short transfer links and direct connection between the platform and the footbridge over the Vltava River. Bicycle transport is completely separated, with collision-free transfer of the transport on both sides, but with a longer connection to both embankments. There is a minor restriction of the navigable area under the bridge.

##### **ARCHITECTURAL AND URBAN DESIGN**

This is a conceptually controversial design that keeps the existing structure in its current position and continues to use it for railway transport in its current layout. The new bridge structure has a less suitable location from the viewpoint of the historical centre and is not entirely convincing in the overall context, either architecturally or structurally.

##### **FUTURE OPERATION**

The retention of a pair of tracks on the current bridge (replica) does not meet the required parameters for the passage profile. The only possible solution is to widen the replica of the bridge compared to the current state – the issue is the new dimension of the elements and the design of the connections, which would have to meet the current standards in the new structure. Fixing rails to bridge girders is not a suitable solution in terms of traffic and noise propagation.

##### **TECHNICAL PARAMETERS**

The new bridge structure represents a combination of reinforced concrete and steel structure with a not very suitable structural design, which appears to be more demanding in terms of construction and maintenance compared to other Concepts. The replica of the old bridge structure then assumes most of the current disadvantages of its structural design.

##### **RESTRICTIONS DURING CONSTRUCTION**

In terms of railway traffic restrictions during construction, the design considers only partial railway transport restrictions thanks to the construction of the new third track structure in advance. Nevertheless, the overall construction procedure is described in a very simplified way and does not fully demonstrate the time and technical feasibility of the proposed design, especially with regard to the different level of the tracks in the original and new condition. Restrictions on other modes of transport do not appear to be different from the other designs.