

RAILWAY BRIDGES UNDER VYŠEHRAD

Verbal evaluation of Concepts

CONCEPT NO. 7

TRANSPORT SOLUTION

The design of platforms, platform edges and track layout of the Výtoň stop does not locally respect the design of the GPK – the displacement of the bilateral island platform (additionally, in a curve) to Vyšehrad station significantly lengthens the transfer links. A disadvantage is the lack of a direct connection between the platform and the bridge. Collision-free transfer of bicycle transport over the old bridge – the footbridge on Výtoň side is advantageous for the direction of Nusle.

ARCHITECTURAL AND URBAN DESIGN

It uses the old bridge structure for both transport and residential functions. The overall expression of the bridges is elegant and proportionate, with a clear separation between old and new structures. The visual subtlety of the designed structure, through its shape and designed dimensions, makes the old bridge stand out. The proposed bridge forecourt structure on Výtoň side frees up the street profile.

FUTURE OPERATION

The contactless track design is not documented – a possible solution is division into several load-bearing structures. The maintenance of the main supporting structure appears to be problematic – a multi-chamber girder with the need for inspection and maintenance inside, traffic exclusion during the closure period. The new bridge is only for railway transport, and if the relocation and repair of the old bridge is not implemented, this solution is problematic.

TECHNICAL PARAMETERS

Not a very convincing design of the new bridge structure – the transverse reinforced girders can be complicated to manufacture, the detail of the coupled reinforced concrete slab at the pier appears to be complicated. Membranes design must be documented – this is the essence of the design solution, which is not sufficiently documented.

RESTRICTIONS DURING CONSTRUCTION

One structure in 3+0 track layout implies time restriction in the range of comparable designs of this layout.