

## **HIGHWAY E80, SECTION NIS (PROSEK) – DIMITROGRAD, SERBIA** **VALUE ENGINEERING, CONSTRUCTION CONSULTATION**

CONSTRUCTION: AKTOR S.A.  
STRUCTURAL DESIGN: KANON CONSULTING S.A. (2013)

The project consists in the reconstruction of the existing road network between Stanicenje and Pirot.

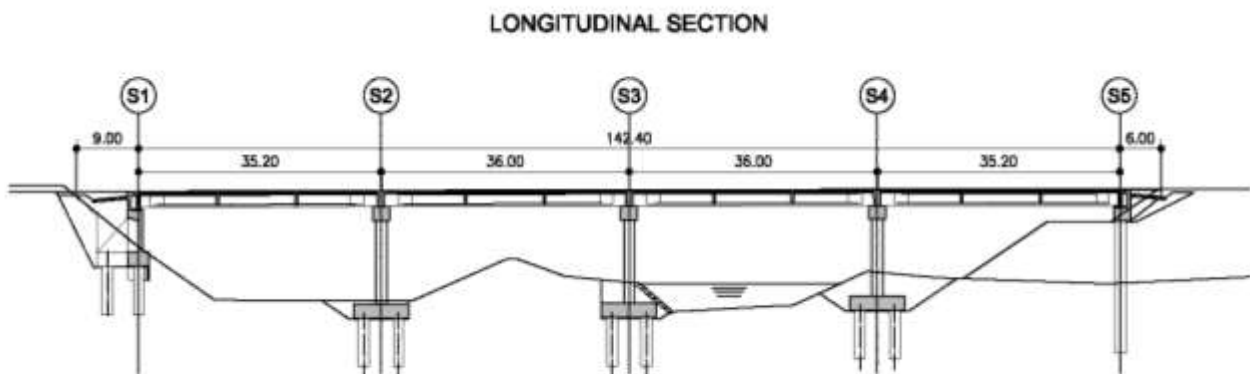
“Kanon Consulting” was part of the group of consulting firms that was assigned the optimization of the motorway alignment and geometry of the structures provided in the existing final design, exercising value engineering.

In this respect, the basic idea of the final design alignment to upgrade the existing road and use it as the right branch of the new motorway was abandoned and instead, an alternative proposal was adopted, that provided the use of the existing road as service road and a complete new design of the right branch of the motorway very close to the left branch.

The projects includes the adjustment of a substantial number of structures throughout the approximately 16 km, length of the road, the most important of which are located along the first 2.7km, where the motorway crosses three times the Nisava river slantwise.

The approved final design over this region provided the complete reconstruction of the existing bridges with an increase of their deck, through extensive strengthening measures in both piers, superstructure and foundation, in order for them to be fully functional and compliant with the new E80 motorway standards.

“Kanon Consulting”, as part of the design group of the Contractor, prepared proposals and solutions for all the above structures taking into account the proposed alternative motorway alignment and achieved a considerable optimization of the structural solution, by diminishing the constructional difficulties, through the avoidance of the retrofit measures, and by substantially decreasing the final project budget.



*Longitudinal section of a four span bridge*