# UVATERV

### **BRIDGE AND STRUCTURAL DESIGN**

# "SZT. LÁSZLÓ" MOTORWAY -BRIDGE OVER THE DANUBE

Hungary



### Client:

National Motorways Ltd, Hungarian Bridge Construction Consortium

### Technical data:

Total length of the bridge: 917 m (together with the river bridge designed by others) Spans of the flood plain bridge:  $3 \times 65,5 \text{ m}$  Width of the flood plain bridge 2,95 m + 10,0 m + 1,05 m.

### **Consultancy services provided:**

Elaboration of the tender invitation materials
Design for Approval
Execution designs
Technical supervision
As-built designs, Instructions for the Operator

**Bridge structure:** on both floodplains: steel box support bridge acting with rc plate, connected to the river bridge at both ends.

### Innovative features of the bridge:

- The innovative structure of the rc deck slab and its dimensioning allowed to omit completely the moving of the supports, time- and work consuming activity.
- The longitudinal U ribs of the web plates and the soffit slab are not connected to the transverse girders spaced 4m from each other (suitability verified by finite element calculation and tests in 1:1)
- For the in-site assembling procedure of the steel structure temporary supports were used, replaceable by crane in 1 piece and not needing separate foundation work.
   These yokes type REM 500 assembled with temporary supports produced in GDR were used also at the construction of other bridges.



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Temporary support made of REM 500 type structure