

## COMARNIC - BRASOV MOTORWAY, ROMANIA TENDER DESIGN

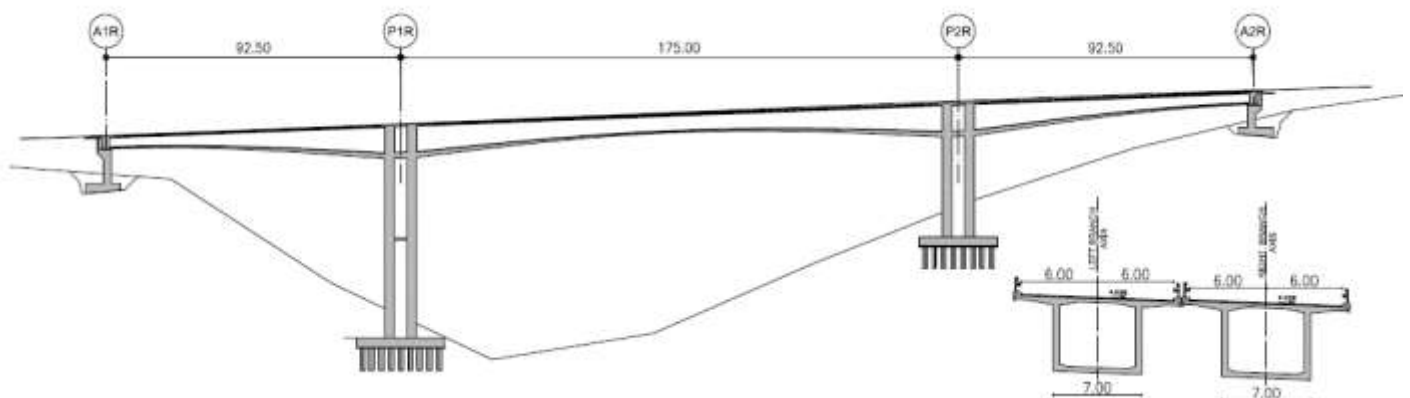
CONSTRUCTION: VINCI – AKTOR – STRABAG J/V  
PROJECT BUDGET: 2.000.000.000 EURO  
STRUCTURAL DESIGN: KANON CONSULTING - OMIKRON KAPPA - T.T. ASSOCIATES (2008, 2013)

This 58km long section of the Bucharest - Brasov motorway is part of a National Motorway program underway in Romania. It will be constructed as a concession project.

This section of the motorway runs mostly through mountainous terrain, and therefore requires the construction of a significant number of large scale technical works. The altitude of the terrain varies from +590m to +1060m. There are two lanes 3.75m wide plus two emergency lanes 2.50m wide in each direction.

In brief, this motorway section includes the following structures:

- 22 dual bridges (separate structure for each direction).  
Eight of these are going to be constructed with the balanced cantilever method. The bridges have various lengths up to 910m, and their piers are up to 90m high.  
One bridge, 450m long with height of piers approximately 27m, will be constructed with incremental launching.  
The other 13 bridges will be with precast beam construction.
- 6 tunnels and 1 cut & cover. The cut & cover length is 400m, while the tunnels vary in length from 600m up to 3700m.
- Over 50 smaller structures, underpasses, overpasses, culverts, etc.



***Tender design of dual bridge 350m long, with balanced cantilever construction***

"Kanon Consulting" was part of the group of consulting firms that prepared the tender design. The J/V AKTOR - VINCI was awarded the project in 2009, however, due to the world economic crisis, the required funding could not be secured and the construction J/V has abandoned the project.

The project was retendered in 2013 and our firm participated once again in the preparation of the tender design on behalf of the AKTOR – VINCI – STRABAG J/V that was awarded the project and the actual design process is expected to commence in 2015.