

## Railway Project

# Consulting services, technical review and checking of designs and Panagopoula Railway Tunnel associated detailed designs Athens - Patras High Speed Railway Line, Section Rododafni – Psathopirgos

Greece

### Project

- Consulting services, technical review and checking of the designs of the project: "Construction of the New Double High Speed Railway Line at the section Rododafni – Psathopirgos from CH. 91+500 until CH. 113+000 and Panagopoula Railway Tunnel design".
- Panagopoula railway tunnel detailed designs.

### Construction Cost

Total cost: approx. € 293 m.

### Project Schedule

Design – Construction: 2013 – 2016

### Project Description

Consulting services, technical review and checking for the following structures:

- Four (4) Roadway Bridges
- Thirty (30) Railway Bridges - Underpasses
- Fifty (50) Retaining Walls
- Panagopoula twin bore railway tunnel including entrance and exit structures with total length ~9.600m

### Panagopoula railway tunnel detailed designs:

- Panagopoula railway tunnel West adit  
Length: 68m, Cross section: 44m<sup>2</sup>, Overburden: 35m
- Panagopoula railway tunnel West adit portal (Length: 20m, Piles Ø 1.20)
- West cavern and cross gallery of Panagopoula railway tunnel  
Length: 66m, Cross section: 77m<sup>2</sup>, Overburden: 11m
- Intermediate cavern and cross gallery of Panagopoula railway tunnel  
Length: 68m, Cross section: 77m<sup>2</sup>, Overburden: 202m

### Geology

Quaternary deposits of clayey scree from the marls weathering encountered in the area and pliocene and pleistocene sediments characterized by marls (stiff clays) and conglomerates alternations, limestones, chertstones

### Our Services

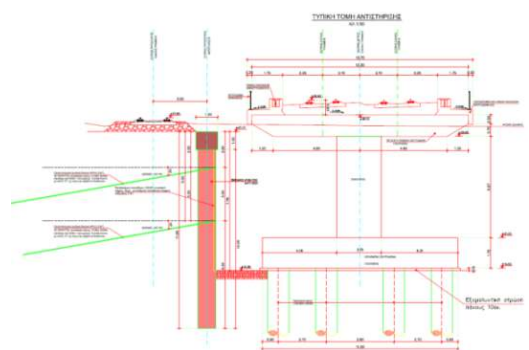
- Consulting services, review and checking of the designs of the project in order to identify adequacy and incompleteness of the available designs relevant to the projects' feasibility and constructability
- Detailed design of Panagopoula railway tunnel West adit and portal
- Detailed designs of the intermediate and west caverns and cross galleries of Panagopoula railway tunnel

### Clients

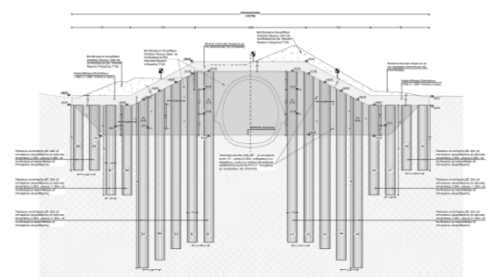
- AKTOR S.A. – J&P AVAX S.A. – INTRAKAT S.A. Joint Venture
- AKTOR S.A. – J&P AVAX S.A. Construction Joint Venture



Access tunnel of Panagopoula railway tunnel



Bridge's pilewall detail



Adit's portal pilewall