

## PROJECT TITLE

New Port of Igoumenitsa

## LOCATION

Epirus, Greece

## CLIENT

Ministry of the Environment, Planning &amp; Public Works

## DESCRIPTION

**Phase A** of the development works for the New Port of Igoumenitsa included the following:

- construction of a 760 m long caisson quaywall;
- construction of 12 ramps for stern berthing of ferries and/or Ro-Ro vessels;
- improvement of soil conditions using plastic drains, stone-columns and soil pre-loading;
- land reclamation of a 210,000 m<sup>2</sup> area. This area comprises road network, parking areas, water supply and sewage networks, lighting, green areas and buildings, such as passenger terminal (6,300 m<sup>2</sup>), port gates etc.

Terminal Building



General View of the New Port's Construction Site



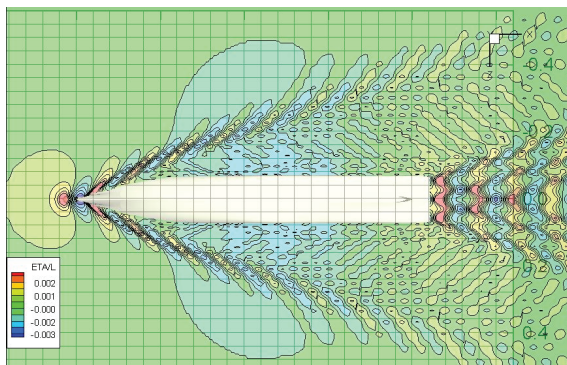
General View

Services provided by ADK Consulting Engineers S.A. comprised:

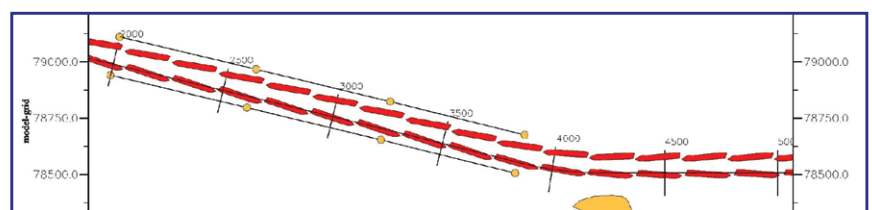
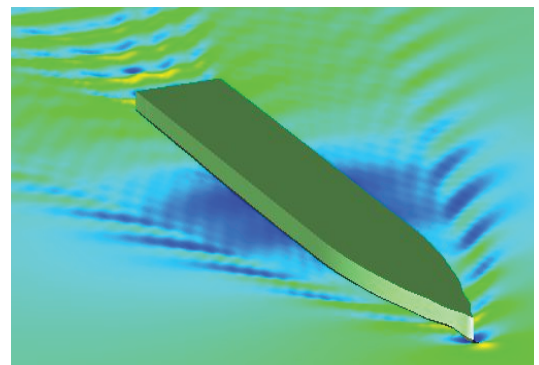
- Preparation of the Port Masterplan,
- Detailed Designs and Tender Documents,
- Project Management during implementation, including, among others, monitoring of the project progress with the use of advanced project management methods and software
- Recommendations for solutions to potential problems
- Technical assistance to the supervising authority in carrying out quality controls and the overall quality monitoring
- Checking of Contractors' invoices, variation orders, equipment adequacy and safety measures, etc.

For **Phase B** Port Development works, ADK carried out surveys and studies consisting of:

1. Geotechnical investigation (boreholes and CPT measurements),
2. Topographic and bathymetric surveys,
3. Preliminary and final design of the quaywall connecting the southern edge of the old port and the northern edge of the quaywall constructed during the 1st Phase of Integrated Port Development,
4. Preliminary and final design for the landscaping of the area,
5. Preliminary and final design of the 3 piers for side-berthing of ferries,
6. Final design of the additional building facilities (2 entrance gates, administration building, 2 passenger terminals 1870 m<sup>2</sup> each),
7. Preliminary and final design of internal and external road network and traffic system,
8. Preliminary and final design of storm drainage system,
9. Final design for the extension of electro-mechanical utilities,
10. Coastal Engineering design for the protection of Drepanon Cape sand spit against erosion from sea and ship generated waves and for the siltation of Igoumenitsa bay channel,
11. Vessels Piloting simulation modelling for the extension and dredging of the approach channel,
12. Environmental Impact Study,
13. Preparation of Health and Safety Plans,
14. Preparation of tender Documents,
15. Navigation study for the Igoumenitsa bay channel



*Ship waves modelling*



*Ship Manoeuvring Simulation in the access channel*



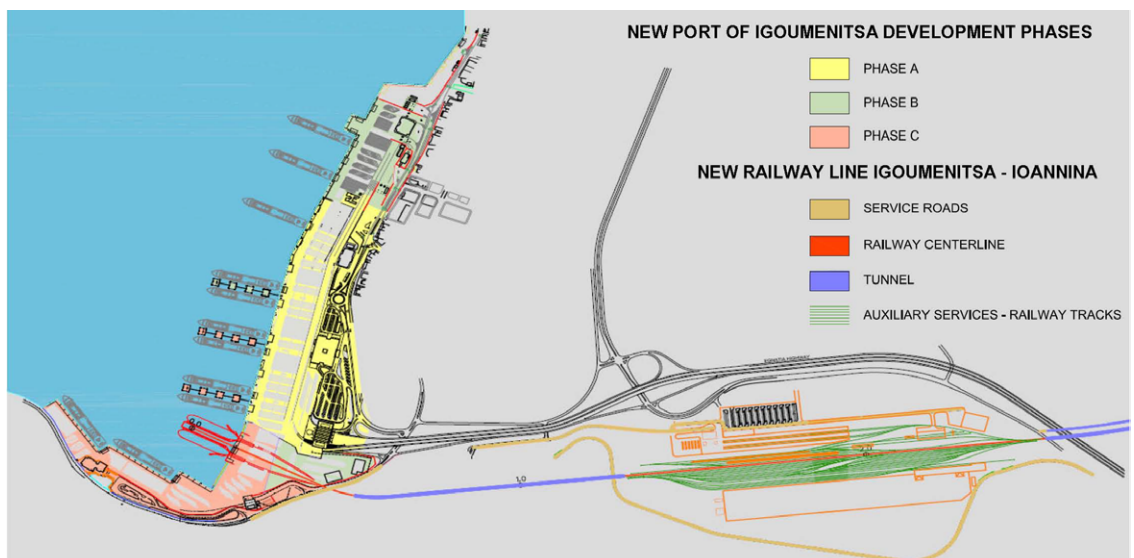
In July 2009, ADK completed the designs and studies for the Works of **Phase C** which included:

- a) two (-2-) finger piers for side-berthing of ferries;
- b) quaywall for future Ra-Ra use, (total length 90.0 m and depth -11.00 m);
- c) three (-3-) quaywalls for ferries, (total length 612.0 m and depth -11.00 m);

Building Installations comprise of:

- a) two-storey Passenger's Terminal, with total area of 2.000 m<sup>2</sup>;
- b) Southern Entrance building (total area 900 m<sup>2</sup>);
- c) 100 m<sup>2</sup> power substation building;
- d) 100 m<sup>2</sup> water storage tank building and
- e) Storage/Maintenance Building for the Port's Mechanical Equipment, (total area 1.350 m<sup>2</sup>).

Currently "J/V – ADK S.A. – TRITON Ltd" Consortium is providing Project Management Services for the realisation of the works of Phase B and C.



*Transportation facilities of the Port*

Further to the development of all phases of the Igoumenitsa port, ADK has also been involved in the realization of the adjacent road and railway facilities. ADK, cooperating with different clients per case and offering end-to-end integrated services, has contributed to the creation of a contemporary transportation node in western Greece, which is efficiently connecting the country with the rest of Western Europe.