

Technical Challenges and Solutions in the Management of the Designs in a Motorway Project

George KONSTANTINIDIS

Design Coordination Head Egnatia Odos A.E. Thessaloniki, Greece gkon@egnatia.gr

Ioanna PAPAZIOGA

Civil Engineer Egnatia Odos A.E. Thessaloniki, Greece ipapa@egnatia.gr

Ioannis RENTZEPERIS

General Manager Egnatia Odos A.E. Thessaloniki, Greece irentze@egnatia.gr

Efimia SARRIDOU-HAITIDOU

Design Manager Egnatia Odos A.E. Thessaloniki, Greece esari@egnatia.gr

Summary

The management of designs for a large-scale and technically demanding project such as the Egnatia Motorway constructed in Greece is not an easy task. Egnatia Odos A.E. was proactive in making strategic decisions and developing appropriate procedures with the aim to overcome any difficulties in this field and ensure high-quality designs within the time and cost restrictions set by the project. This paper presents the company choices and evaluates their effectiveness.

Keywords: motorway, design, bridge, tunnel, management, geotechnical, contracts, GIS

1. Introduction

Egnatia Motorway is a 670 long motorway extending from the Ionian port of Igoumenitsa in the west to Kipi by the Greek/Turkish border in the East. As a collector route, through its vertical axes, of three North-South European Corridors, IV (Vienna –Thessaloniki), IX (Helsinki – Alexandroupolis) and X (Berlin – Thessaloniki), it is of major geostrategic importance for the Balkans and the Southeastern Europe. At a national level, it will clearly and decisively affect the socio-economic and cultural development of Northern Greece.

The design, construction, operation, maintenance and exploitation of the motorway for 50 years are under the responsibility of Egnatia Odos A.E. (EOAE). The Company's full scale operation commenced in February 1997.

The total cost of the project is estimated at approximately 5 billion Euros (with VAT). The main funding sources have been the European Union, which selected the project in the Essen summit as one of the fourteen transport priority projects, the European Investment Bank, and the Greek State.

2. Difficulties and design management goals

The rational management of designs plays a decisive role in the successful and timely construction of any large-scale project. The management of designs for highway projects comprises all activities that aim at ensuring:

• A safe and technically artful project.