



Engineering Structures for Life



TRANSPORTS - BRIDGES & VIADUCTS

Viaducts and underpasses on the A29 Motorway

ABOUT

GEG was responsible for the conceptual design and detailed design of a set of overpasses and underpasses divided into two parcels on the current A29 motorway, in the sections IC1 – IP1 (Parcel 7) and IC1 / Miramar – ER1.18 (Parcel 8).

The Parcel 7 comprises five roadway underpasses, six roadway overpasses and a small viaduct.

The Parcel 8 comprises three roadway underpasses, two roadway overpasses, two footbridges and a small bridge over the Canelas river.

Structural solution

The [structural solutions](#) applied in this project are the most common in this type of works: prefabricated box-culvert and a concrete structural frame for the agricultural and roadway underpasses. For the roadway overpasses, the adopted solutions were decks with prefabricated I-type beams, box girders or decks with beams concreted in situ. These decks have 2 to 3 spans. For the [bridge and viaduct](#) were used decks with prefabricated I-type beams and pre-slabs. These decks have 3 spans, between 16 and 20 m.

The footbridges comprise a steel truss span over the A29 motorway, and the connection stairs and access ramps for limited mobility.

FACTS

Year: 1999-2004

Client: Lusoscut - Auto Estradas da Costa de Prata, S.A.

Services: Detailed design, Structural Engineering, Foundations design, Geological and geotechnical studies, Consulting and on-site technical support

TEAM

LOCATION

Porto, Portugal

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