

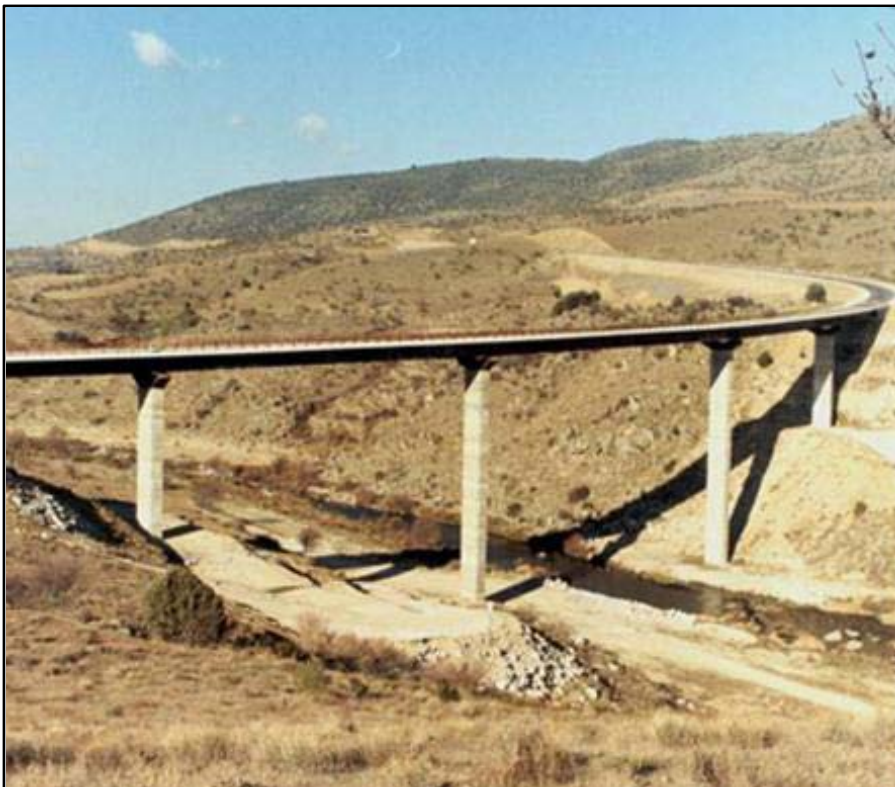
## Viaduct over the River Alberche

A viaduct with a composite two-beam deck with span lengths of 38.00m, 56.00m, 66.00m, 52.00m and 34.00m. Its reinforced very slender concrete piers are of variable height running from 22.00m to 45.00m.

Their exterior box section is 4.00m x 1.80m<sup>2</sup> and their walls are 0.30m thick. Each pier has a different composite cap owing to the shape of the deck.

In order to control longitudinal slenderness, the deck is fixed to the abutments by means of a special system that allows movements caused by temperature and shrinkage and, at the same time, fixes the deck in case of sudden movements due to violent braking.

Its piers were built with sliding framework. Its steel pier caps were placed with a crane and cast with a concrete pump. The beams of the steel structure were also placed with a crane. The concrete on the upper slab was cast over prefabricated slabs.



### Spain /1999 Project data

Structural type:  
Mixed double girder with five spans of  
38.00m, 56.00m, 66.00m, 52.00m and  
34.00m

Location:  
El Tiemblo. The Province of Ávila

Opening date:  
July 1999

Proprietor:  
Ministry of Public Works

Construction:  
UTE Construcciones Sobrino y Tapusa

Scope of Works:  
Construction Project and  
Technical Assistance