

# Banco Popular new headquarters building in Madrid

## *Nueva sede del Banco Popular en Madrid*

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### Abstract

The construction of the Banco Popular new headquarters has been developed in two phases. In the first phase, the new Data Processing Centre building was designed and built next to A-2 motorway in Madrid, and came into use in January 2013. The second phase of the building's structure is now finished and it is planned to be fully completed in June 2017. This second phase, with a constructed area of 125,000 m<sup>2</sup>, incorporates a great variety of structural solutions into a unique architectural project of great representative value. The article will focus mainly on this second phase.

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*Keywords:* Retaining walls; Concrete core; Pre-stressed concrete slab; Composite structures

### Resumen

La construcción de la nueva sede del Banco Popular en Madrid se ha desarrollado en dos fases. Una primera en la que se proyectó y construyó el nuevo edificio para el Centro de Proceso de Datos, junto a la autopista A-2 en Madrid, entrando en uso en enero de 2013. La segunda fase actualmente tiene ejecutada la totalidad de la estructura y está prevista su finalización completa en junio de 2017. Esta segunda fase, con una superficie construida de 125.000 m<sup>2</sup>, incorpora una gran variedad de soluciones estructurales a un proyecto arquitectónico singular y de gran valor representativo. El artículo se centra fundamentalmente en la descripción de esta segunda fase.

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*Palabras clave:* Pantallas perimetrales; Núcleo; Losa postesada; Estructuras mixtas

## 1. Background

During the month of October 2008, Banco Popular launched a call for tender for its new headquarters in Madrid to be developed on two separate plots, both located on either side of the A-2 motorway as it leaves Madrid. The first plot, located at calle Abelias, on the northern edge of the motorway, would house, in a single building, the new Data Processing Centre (CPD) of the bank and offices. The second stage would be developed on the plot resulting from joining the plot on which Banco Popular's old

CPD building was located, on the southern edge of the motorway, to the neighbouring plot, recently acquired by the bank, where the old printing press workshops of the ABC newspaper were located, at calle Luca de Tena (Fig. 1).

The Banco Popular's former CPD building (Fig. 2, 1981), project of the architect Eleuterio Población, (designer of, among others, the "Beatriz" building (1968), headquarters of Banco Popular since 1976, located at calle Ortega y Gasset in Madrid), was demolished prior to commencing the construction works, as were the printing press workshops of the neighbouring newspaper ABC.

Of the seven teams bidding for the tender, the winning team is managed by the Madrid studio Arquitectos Ayala, which MC2 Estudio de Ingeniería forms part of for the development of the

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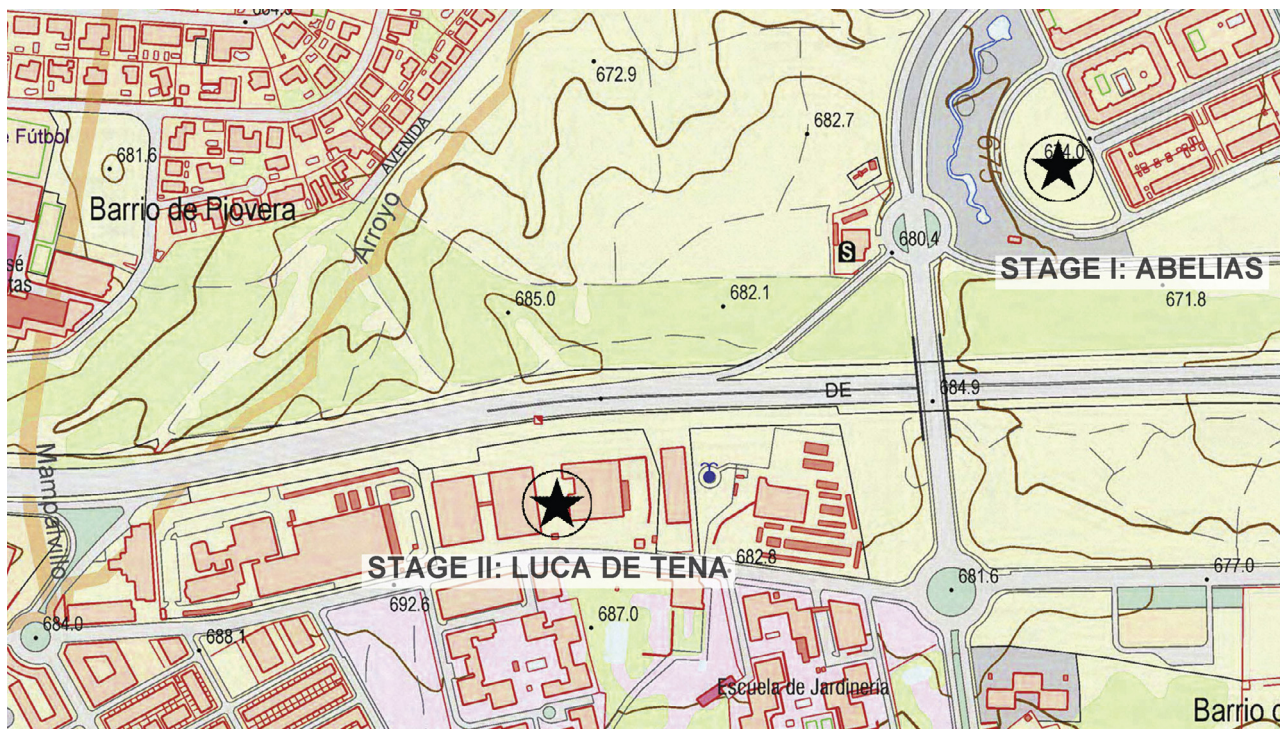


Figure 1. Location of the development of the new branch.



Figure 2. Old Data Processing Centre of Banco Popular, at calle Juan Ignacio Luca de Tena. E. Población (1981).

structures project and the subsequent technical structural assistance to the construction management.

The execution of the first stage (Fig. 3) took place between January 2010 and December 2012 [1] and continued simultaneously alongside the development of the second stage of the project. During the summer of 2013 the first retaining walls were built on the stage 2 plot, with the main elements of the structure being completed in September 2015. The completion of the works and commissioning of the building will take place in June 2017.

## 2. Architectural approach

An important characteristic of the development of the project, which determines the designs of the architectural and structural solutions, is the smooth teamwork between the architectural and structural teams from the beginning of the project right up until the finishing touches. On the basis of the architectural concept selected by the owners, the teams collaborate to

produce specific designs that integrate architectural, functional and structural requirements.

### 2.1. Architectural concept, basis for the design of the building

The plot is rectangular in shape with its longest side measuring around 315 m in length running parallel to the A-2 motorway. The perpendicular spread is around 96 m, which are staggered along the north-west border adjacent to the current building of the editorial department, and headquarters of the ABC newspaper, to the west of the plot (Fig. 4).

The layout of the headquarters is thus formed within a large rectangular of builds, which is divided into four units or blocks (A–D) that hold the main body of the space dedicated to offices. To the far west there is a building with an unusual layout where the various services for the development and public access services will be housed: shopping centre, branches, etc. (Fig. 5).

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