

## EbroSA Office Block

Its façade is composed of an external skin made up of a myriad of different types of glass which are held together on a metal framework, and rises over the M40 motorway offering a magnificent hallmark of its identity. The building is interconnected via a series of gangways set at different levels.

The building is composed of 5 storeys above grade, practically rectangular in shape, 76.0m x 17.5m, and covers a surface area of 1,530m<sup>2</sup>.

There are 4 levels below grade. The dimensions of these floors are approximately 95.0m x 51.0m covering a total surface area of 4,900m<sup>2</sup>.

The retaining walls employed in the excavation are 0.50m thick continuous diaphragm walls. During the excavation process two levels of provisional anchorage have been foreseen.

The vertical structure has been solved employing columns and walls situated in the lift wells, given that the latter are well situated for this function. The vertical loads are transmitted to the foundations through the columns and the horizontal loads through the aforementioned wells.

The columns are 0.90m x 0.50m in size with the shorter side running parallel to the façade. These columns between ground and first floor are joined two by two and are set back, so obtaining a 0.80m x 1.70m column down to the foundation unit.

To solve this setting back between ground and first floor, the columns are tapered and the edges are rounded off.

On floors basement -1, basement -2 and basement -3, apart from the columns which support the floors above grade, there are also round, square and rectangular columns.

The four walls situated in the vertical communication shafts are made of reinforced concrete and are a constant 0.30m thick. They are C-shaped on plan.

It has not been deemed necessary to employ expansion joints in the floors, given that the corresponding dimensions are relatively moderate so as to fear possible structural effects in the slabs or columns due to thermal or rheological effects.



Spain/2010  
Project data

Structural Type:  
Reinforced, post-tensioned grid slabs  
Location:  
Sanchinarro. Madrid  
Inauguration Date:  
2010  
Proprietor:  
EbroSA  
Constructor:  
Ferrovial  
Scope of Works:  
Construction Project and  
Technical Assistance