



Façade of the Bank of Spain.



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Complete Rehabilitation of the building of 'Bank Of Spain' former branch In Pamplona. Navarra, Spain.

CLIENT	Banco de España
DATE	2012 and 2015-2016
LOCATION	Pamplona
FIELD OF ACTION	Study of the Structure and Materials of the old building and Technical Assistance during construction

The Directorate General of Heritage (under the Ministry of Finance) promoted the rehabilitation of the building that until the early years of this century housed the Pamplona's branch of the Bank of Spain. The building, which had been built around 1925, in the future will be used to house offices of the Ministry of Labor. This has one basement, ground floor, 1st to 4th floors and gabled roof.

Such rehabilitation involved large architectural changes inside of that building, but kept the hallmarks of it, such as the external façade (towards Paseo de Sarasate and San Ignacio Av.) and cover material. These changes in the interior, combined with adapting to the current standards and greater live loads to be resisted, forced in most of floor slabs (executed at the time with metal profiles and infill ceramic) to add mullions beams (section IPE).



Old roof structure.

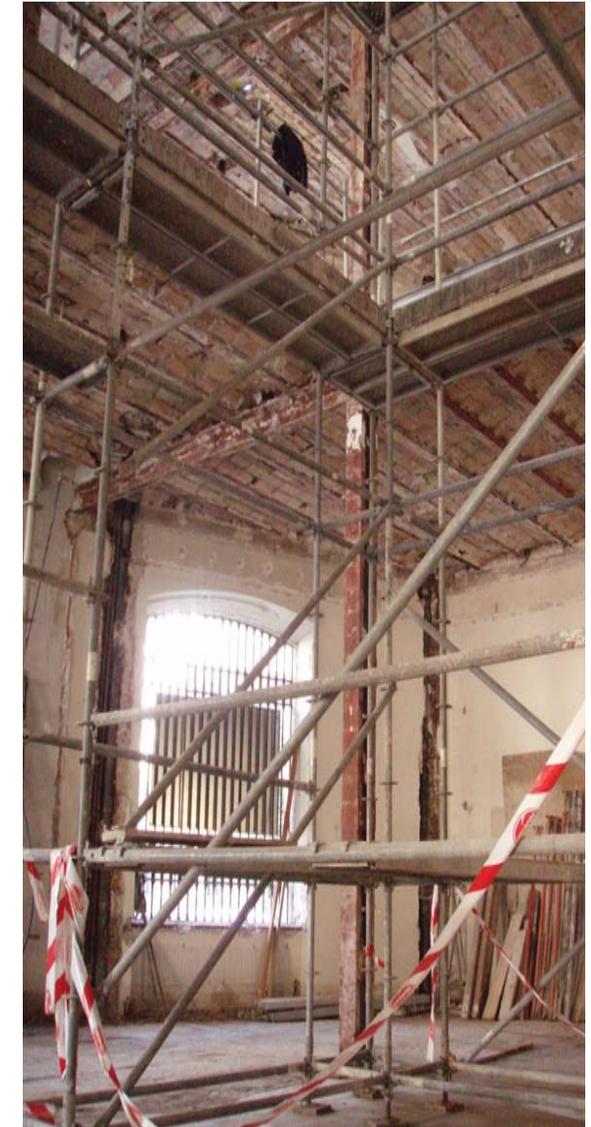
The new floors are composite, with 60-mm-height steel decking (plus 60 mm of compression layer) and are supported by the mullions and existing beams and girders, some of which also had to be reinforced. As a matter of gauge, on the 3rd floor ceiling, preexisting joists had to be removed.

Likewise and for the same reason

that the floors, almost all existing pillars (metal, double channels tied together) were reinforced by metal fasteners (UPN, plates, in some cases more clips, etc.) transforming them into closed sections.

The new architecture also forced to open some passing-holes in load-bearing walls. To do this, it was necessary to introduce cap beams

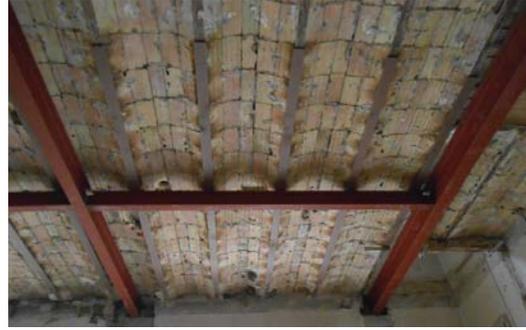
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Metal structure.



Roof metal structure.



Mullion beams.



Roof covering system.



Mixed concrete deck

(double IPEs). Also, there are new elevators, skylights, canopies, ramps, etc., each with its associated metal structure.

The roof structure had to be reformulated in its entirety, although this keeps the exact previous geometry and finish. The new structure has been executed with tubular profiles and UPNs, except for a special frame that had to be designed with especially light profiles (HEA sections).

The work of INES Ingenieros Consultores was to review thoroughly and complete the structural project for this rehabilitated building, adapting it to the reality of the existing structure, comprising many diffe-

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rent constructive and typological solutions, metal structure details (some of them with eccentricities), building details, etc., typical variety in an early-20th-century building. All this would not have been possible without an active presence in the works, which was frequently visited throughout the phase of development structures, mainly during 2015.



Fireproof protection on metal structure.



Metal structure on the second floor.



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Likewise, all the above tasks were supported in the 'Study of the structure and materials of the old building of the "Bank of Spain" in Pamplona' which had been made by UXAMA and INES Ingenieros in 2012. The purpose of that study was to issue a diagnosis on the status of the building structure, its materials and possible pathologies, i.e. to obtain baseline data that characterize each element of the existing structure in order to be able to draft the project of adaptation of the building for its new use. The aforementioned study included information gathering, technical inspection, in situ tests and structural calculations. Also in 2012, INES Ingenieros Consultores had issued a similar report, but for the characterization of the foundation of the building of the former Bank of Spain in Pamplona.



New interior façade.