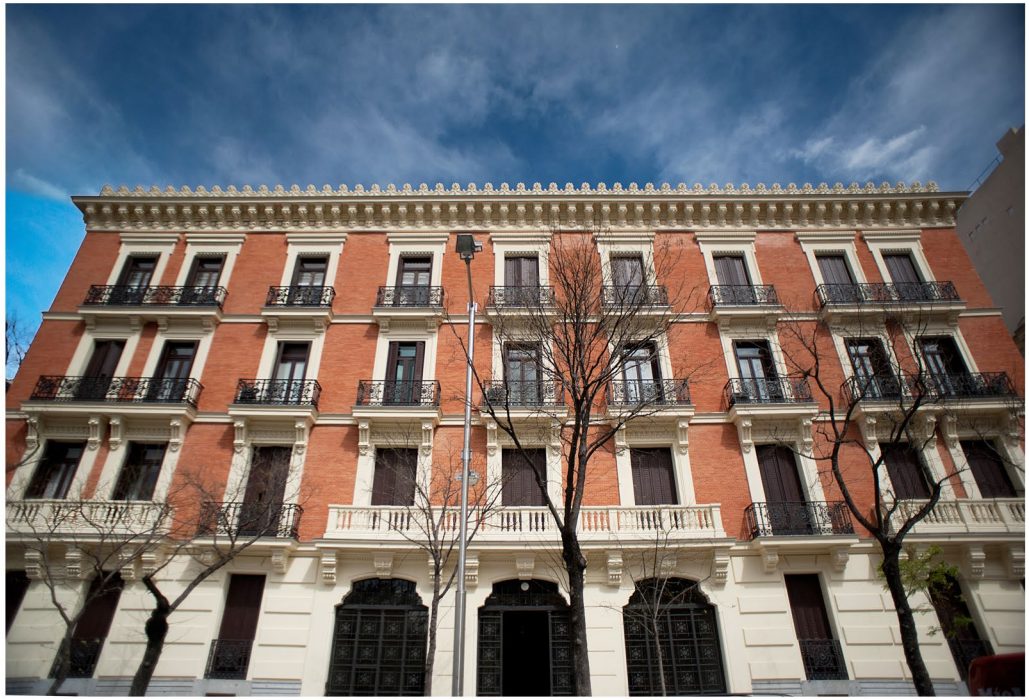
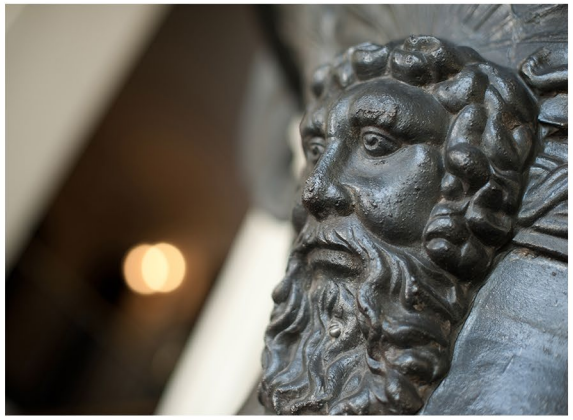
Felipe IV 7

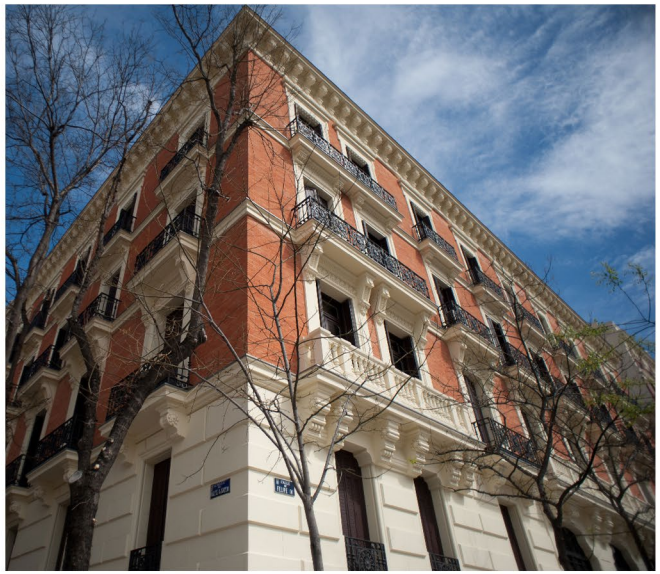
Refurbishment - Extension (below ground) intended for Parking Lot - Suppression of Architectural Barriers

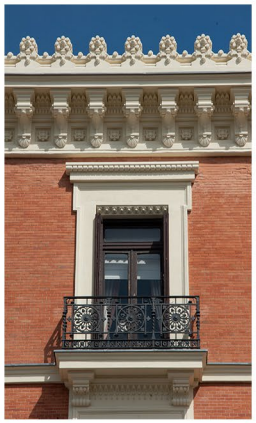
This intervention is an example of how innovative ideas can be applied to a building with integral protection, while respecting and enriching it at the same time. This requires a developer who believes in the potential of the property and its adaptability.

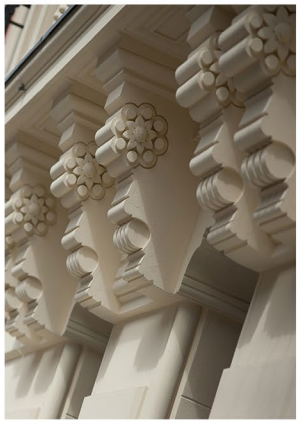
In this building, built in 1900 in the Jerónimos neighborhood as requested by Dña. Josefa Pelayo, Marquesa de Bellamar, an updating process is being carried out in order to bring it into the twenty-first century while avoiding altering its appearance and maintaining the existing configuration and structure of it. In addition to improving the building's energy efficiency by rehabilitating facades, patios and roof, and enhancing the performance of its facilities, two new levels are being built below ground that will be intended for parking lot, 67 in total.
The process is being carried out in various phases:











1.- PARTIAL REFURBISMENT & CONSOLIDATION OF THE EXISTING BUILDING

The initial work was to rehabilitate the facades (Felipe IV, Ruiz de Alarcon and Méndez Núñez) and patios, consolidate the lintels above the openings and the structure of balconies and reproduce the moldings that were affected. The flat and pitched roofs were replaced, in compliance with the parameters of the Building Technical Code with the aim of reducing the energy consumption of the building.

2.- SPECIAL PLAN FOR INTERNAL REFORM AND COMPREHENSIVE MANAGEMENT SERVICE

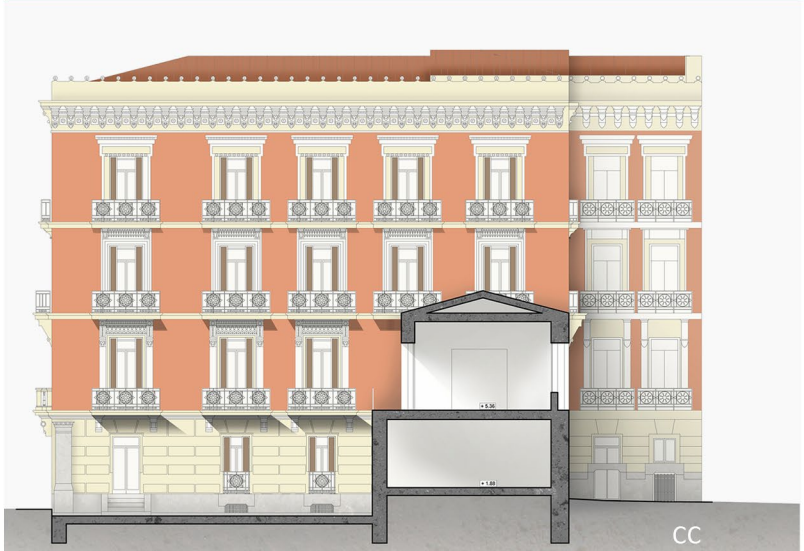
A planning framework is necessary in order to accomplish an extension below ground, bearing in mind that the building has integral protection.

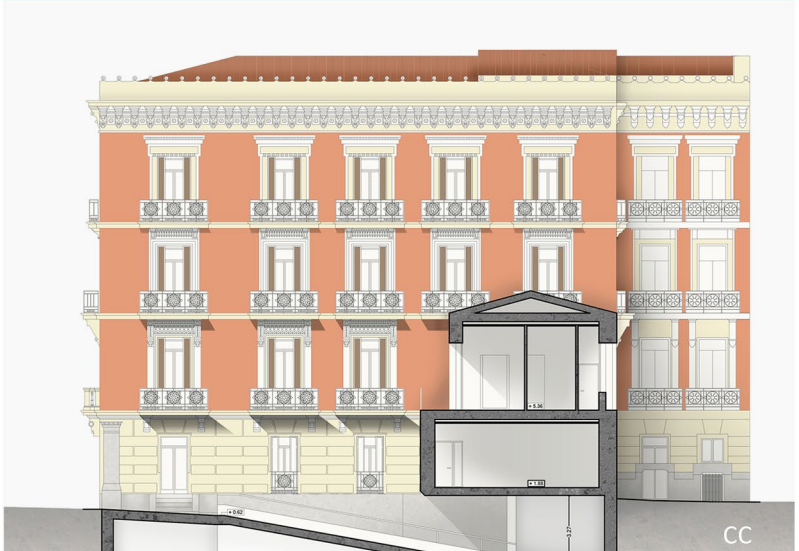
At the same time, a comprehensive management service has been carried out during the entire process.

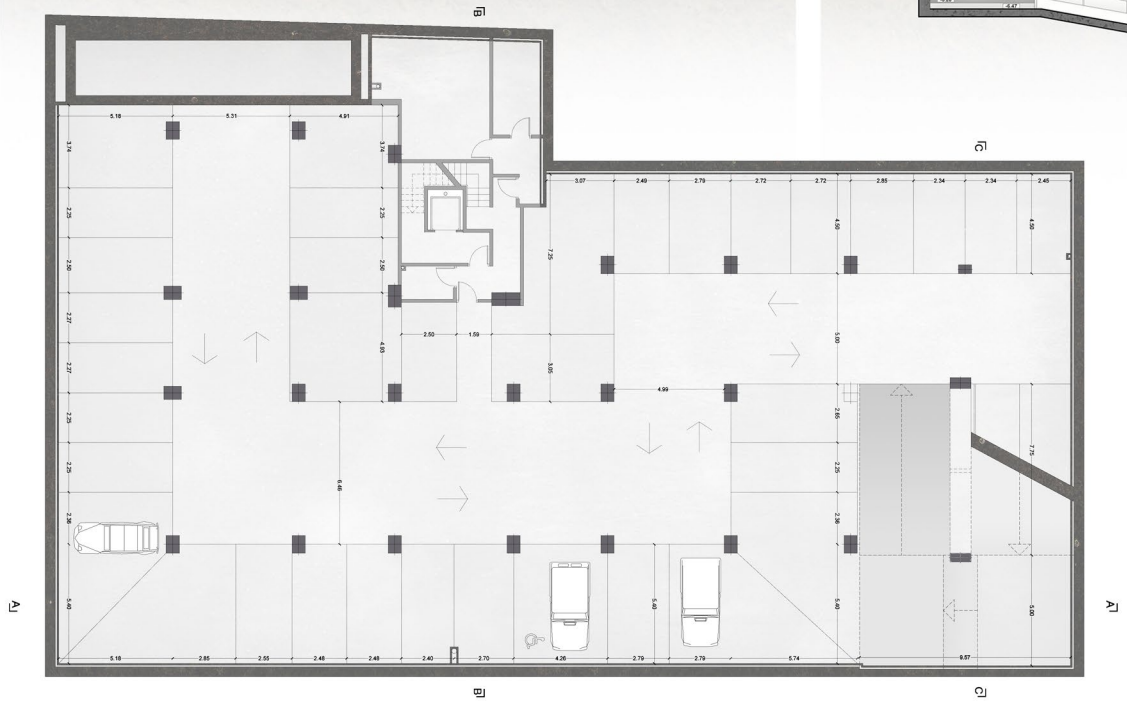
www.arcadiaarquitectura.com

Felipe IV 7

Refurbishment - Extension (below ground) intended for Parking Lot - Suppression of Architectural Barriers







3.- EXTENSION OF THE BUILDING BY TWO FLOORS BELOW GROUND INTENDED FOR PARKING LOT - SUPPRESSION OF ARCHITECTURAL BARRIERS

The building will be extended by 2,510 m2 and reach the new total surface of 8,020 m2. The structure of the existing building above ground is composed of load-bearing walls and one-way floor of metal joists.

The access to the two-storey underground garage is through the former carriage entrance and the ramp starts sloping down where the open yard in Felipe IV is and passes under the existing building. During the works, the residents don't need to evacuate the building.

The process of the implementation of the new structure begins with the construction of the perimeter wall out of trenches, placed under the facade's openings. For this reason, pits with the necessary depth are dug while the ground is supported by shores, the footingis formed and concreted, as well as the wall and the upper beam of that segment and eventually the pits can be refilled with the ground that was previously extracted. After that, the beams in between the trenches are made.

The next step is to build up turrets out of micropiles and beams that will support the weight of the interior bearing walls that will be demolished when the new columns will be eventually charged. Two parallel beams on both sides of the wall will transmit the loads to these turrets and enable the cutting off the existing wall to the required level.

The slabs are built from the top to the bottom, formed against the ground and in this case the metal columns initially work under tension. When all the slabs are ready and the columns can transmit loads to the new foundation, the micropiles turrets will be removed and the whole structure will be charged.

4.- CREATION AND DESIGN OF EIGHT APARTMENTS AND ONE OFFICE

Eight new apartments will be created and designed from scratch, six of them as duplexes on the lower levels and two on the first floor, and one venue intended for offices will be made on the ground floor. All in collaboration with Perinat Interiors.

www.arcadiaarquitectura.com