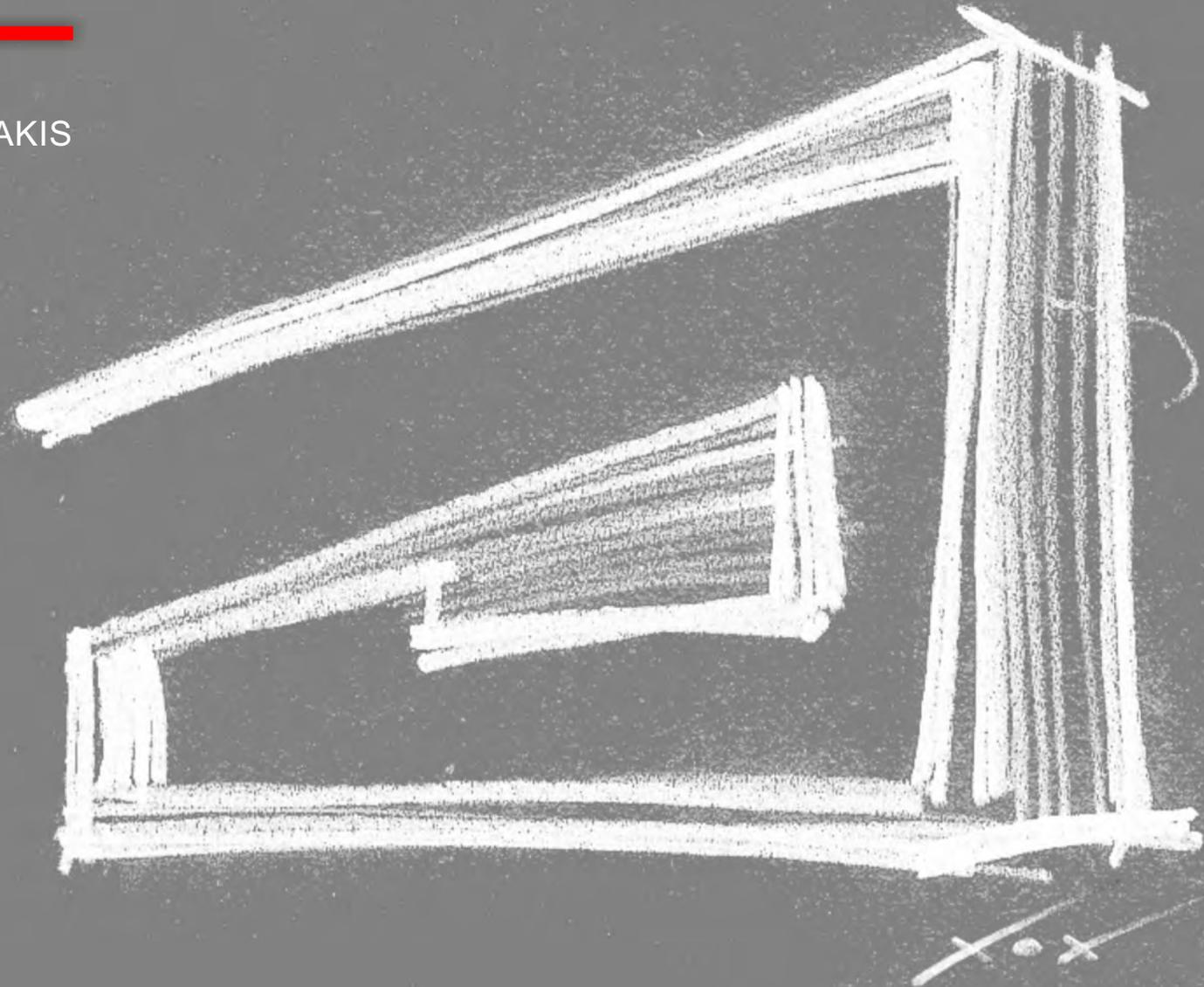


# ELLINICON<sup>2</sup>

CONSTRUCTION OF INNOVATIVE APARTMENTS

ARCHITECT: THANASIS HOHLIDAKIS





In the area of Kato Hellenikon, between the Hellenikon Metropolitan Park and the beach of Ag. Kosmas (1st Street, No. 23), is constructed "ELLINIKON 2" – Complex of houses of high energy class and quality construction.

They are an excellent proposal for a permanent resident since:

- It is an area only for residences, lush, with low building coefficient and buildings of high aesthetic value.
- It offers immediate access to the centre and the exits of the city.
- It is located near permanent and organized sports facilities.
- It is an innovative construction, strong evidence shown below.



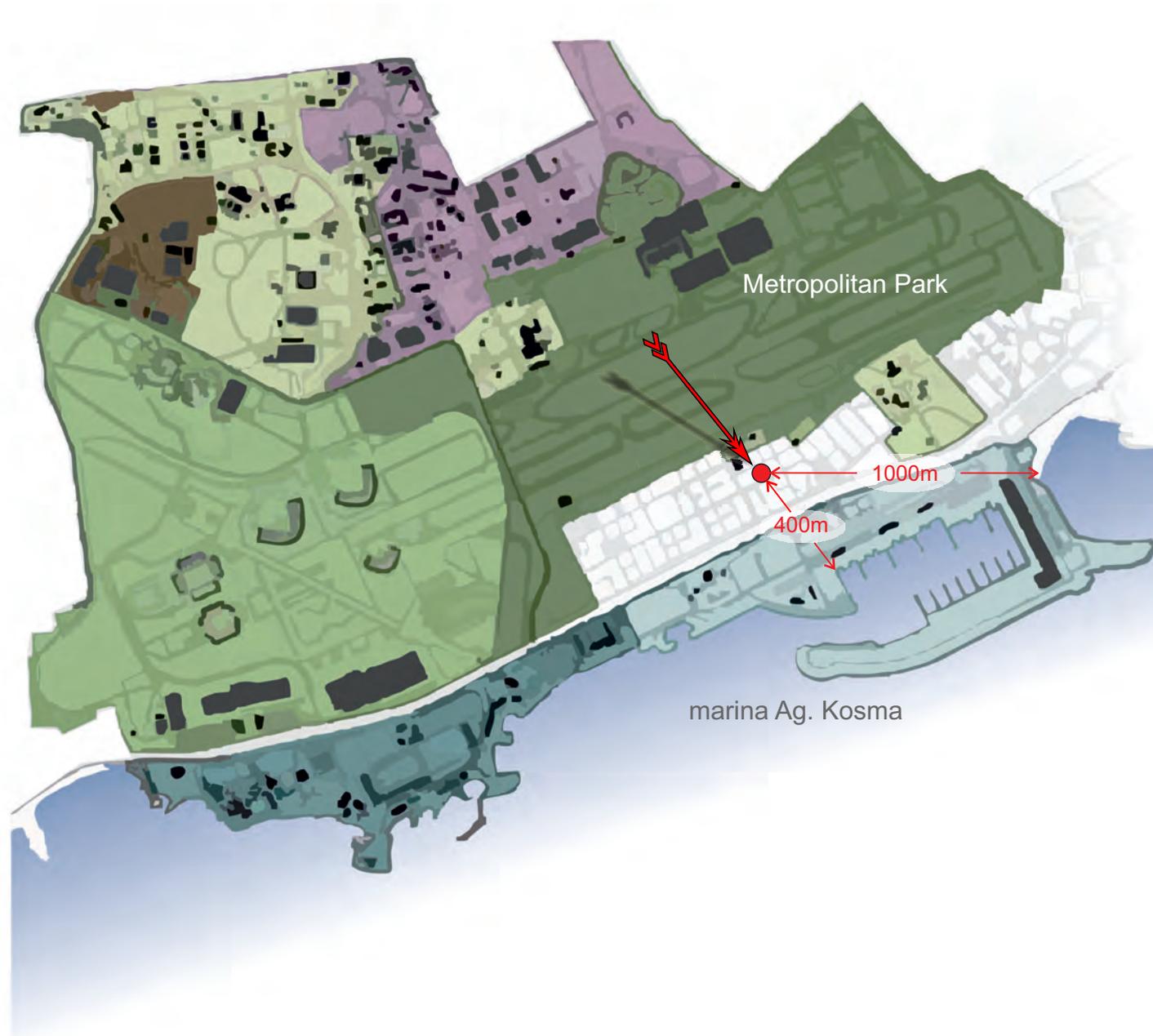
# ELLINICON

CONSTRUCTION OF INNOVATIVE APARTMENTS

# 2

# ELLINICON<sup>2</sup>

CONSTRUCTION OF INNOVATIVE APARTMENTS



The architecture of the building is minimal – Doric, with slight asymmetry and strategically placed openings based on aesthetics and functionality of the individual spaces, as well as of the whole building.

On the building façade there is a vertical garden offering shade and natural cooling, creating at the same time a gradual transition from the “soft” surfaces (green) to the “hard” ones (building).

Special attention has been paid to square roofed verandas – living-rooms of 25-30 m<sup>2</sup> (!!!) with immediate access to the indoor living-room and the kitchen and of course with views of the garden and the sea – Agios Kosmas' marina.

The living rooms and the kitchens of all apartments have a southwest view onto the large garden and the sea.

The bedrooms are facing east to the rear garden and Hellenikon Park.

All apartments have two parking spaces and a storeroom in a closed underground space with easy circulation.





## FLAT A1b

60.50 m<sup>2</sup>

This apartment has open plan living room – kitchen with W.C. and one big bedroom with ensuite bathroom. All spaces have big verandas with east views to Ymittos mountain. It also has a parking space and a storeroom.

This apartment offers the possibility to be united with flat B1 (as a duplex), meanwhile maintaining its independent entrance and function.

## FLAT A2

120.00 m<sup>2</sup>

This apartment has open plan living room, dining room with energy fireplace and an adjacent independent kitchen. The living room and the kitchen offer direct access to the main veranda on the garden.

The three bedrooms are on the east side with big verandas and view of the mountain. This apartment has two bathrooms (one adjacent to the master bedroom) and two parking spaces, as well as a spacious storeroom in the closed underground area.



### EXCELLENT EARTHQUAKE PROTECTION

- a) C30/37 concrete from INTERBETON Company; innovative in the field of ready-mixed concrete.
- b) B500c Steel (Certified Greek) and Antiseismic Armouring System of the Company BITROS Constructions S.A. Extreme resistance against earthquakes, as results show from the experiments of the NTUA.
- c) Results of controls of the strength of Concrete carried out by the Company ALFATEST at least 30% higher than the requirements of the study.

All the aforementioned deliberate and unique choices for a "Private Project" are extremely substantial, since they shield a building against earthquakes.



FLAT B1 121.00 m<sup>2</sup>

FLAT B2 120.00 m<sup>2</sup>

These apartments have open plan dining room and living room with a fireplace and an adjacent independent kitchen. The living room and the kitchen offer access onto the large southwest veranda facing the sea.

The sleep zone is divided by a corridor and it consists of one master bedroom with ensuite bathroom ( bathtub ) and two more bedrooms with bathroom ( shower unit).

All bedrooms have large verandas with an east view of Ymittos mountain.

The apartment has two parking spaces and a storeroom.

Flat B1 may be united with flat A1a on the first floor.



### ADVANCED HEATING & COOLING SYSTEM

Underfloor heating and cooling system is installed in every flat and operates with heat pump, thus providing the most modern and low-energy solution available in the market today.

The heat pump is for heating, cooling and domestic hot water on an independent and autonomous basis for each apartment. It is understood that the solar energy is a priority (Solar Collectors).

The underfloor heating and summer cooling system also provides exceptional aesthetic and functional advantages, as there are no heating and cooling units and an even healthier environment.

Furthermore, an energy fireplace can be installed if the owner wishes so, which through its air ducts provides hot air in the apartment, thus increasing energy conservation.



**FLAT C1** 121.00 m<sup>2</sup> (Terrace room + Verandahs 110.00 m<sup>2</sup>)

This apartment has an open plan dining room and living room with a fireplace, kitchen. Access from them to a big west verandah on the sea. The dining room – entrance is of double height unifying it with the private roof terrace, which is directly accessible via stairs, offering a large space of minimal architecture. The roof terrace has a bbq and a W.C., and offers ample space for a living and dining area to be placed under the pergola, offering unhindered view to the Saronic Gulf and Aigina Island. The sleep zone is divided by a corridor and it comprises a master bedroom with ensuite bathroom ( bathtub ) and two bedrooms with bathroom ( shower ). All bedrooms have large verandahs with east views onto Ymittos mountain.

Two parking spaces and a storeroom are included.





### HIGH ENERGY CLASS

According to the (new) Regulation on the Energy Performance of Buildings (REPB), energy consumption has to be very low. The level of energy behaviour of this building is high. We achieved this by:

- constructing exterior insulation with certified, environmentally and people friendly materials by the Company **STO** which "is the worldwide leader in this field".
- choosing for the exterior window frames, aluminium with high heat insulation (heat insulating frame) and high energy performance glass panes.
- applying bioclimatic elements and constructing a vertical garden in 3 levels on the facade.



The architecture of the surrounding area reuses the existing trees and plants, which are carefully maintained by our own underground well. Special slabs and surfaces with pebbles cover the space creating a Zen aesthetic.

## LOW OPERATING COST OF THE BUILDING

The low operating cost for the building and the houses results from:

- a) The construction of a rainwater tank (water collected from the roof terrace) and the use of the complex's well cover the needs of the building for the irrigation of the gardens.
- b) The lighting via LED lamps and the lighting of common areas with passage sensors which significantly reduce the cost of expenses for common areas.
- c) The energy armour of the building with the construction of a thermal facade and energy frames and glass panes.
- d) The placement of heat pumps for heating, cooling and production of domestic hot water.

The operating cost for heating, cooling and domestic hot water is evidently and responsibly reduced at least by 50% in comparison to any conventional constructions. In fact when the heat pump is programmed to operate mainly during the hours of concessionary tariff of the PPC, then the cost may be even lower.

All of the above are offered along with complete independence and autonomy for every apartment.



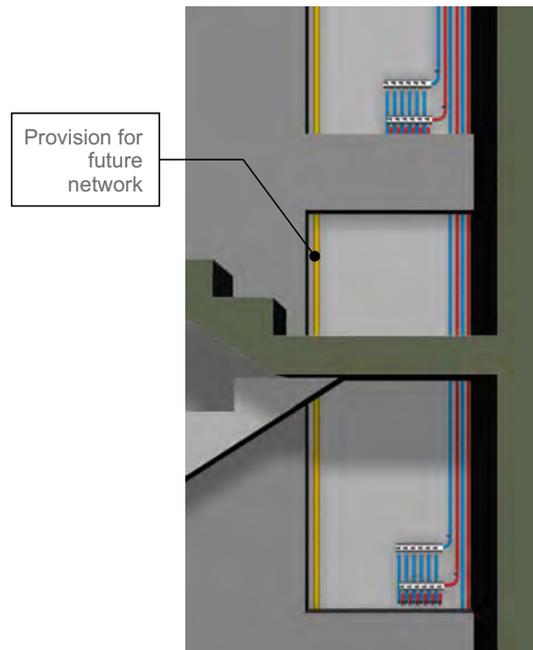


## SHAFTS

At the centre of the building (stairway) two shafts are constructed, extending the whole height of the building, through which pass safely all the systems (Electrical, Hydraulic, Heating, Natural Gas & Low voltage circuit). In this way we achieve :

- Constructional and operational security.
- Supervision and access to all the networks of the building at any time.
- Accessibility to the building and therefore to all the flats if any new network may be required in the future.
- Avoidance of interventions on the basic structure of the building i.e. the drilling of holes due to easy access to the networks.

The organised shafts constitute an exceptionally significant element for a building and are necessary for all the constructions in the developed countries of Europe and US.

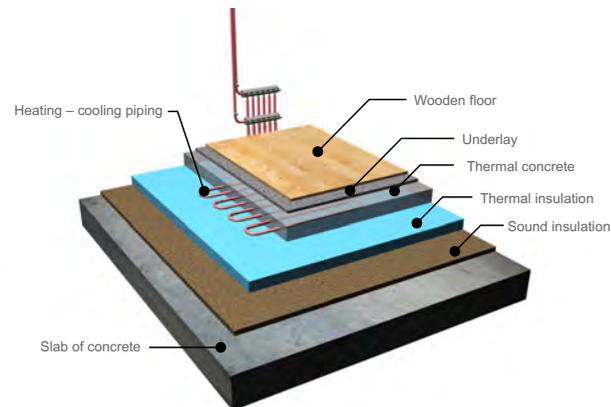


## SOUND INSULATION OF BEDROOMS FLOORS

Great effort has been given in creating conditions of special sound insulation in the bedrooms with the placement of the ecological membrane recyclepav plus of 4mm thickness by the Company Iselco of sound insulation value 27 dB (decibel).

Meanwhile, the heat insulating slab used for the underfloor heating also offers sound insulation for the floor.

Finally, all piping passing through the borders of the bedrooms are fully sound insulated.



## KLEEMANN ELEVATOR

German with:

- Double telescopic automatic doors.
- Programmable telephone in the cabin with 4 default automatic call numbers.
- Automatic freeing system in case of power cut.
- Cabin for 8 persons of the maximum dimensions as they are designated by the "Elevators Regulation".

## SECURITY AND FIRE DOORS

All the entrance doors of the apartments are Security Doors and Certified Fire Doors. Fire resistance (30 minutes for this building) is compulsory according to the New Buildings' Fire Protection Regulation.

## PROTECTION NETWORKS

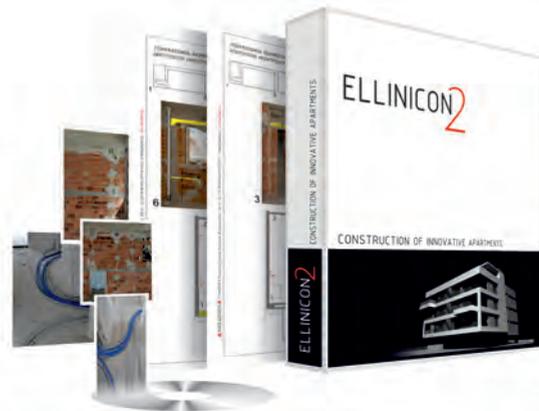
Foundation Grounding was placed at the building as fundamental protection and operation grounding for all currents and also pre-installation of vertical networks for Lightning Protection of the construction, according to the European Specifications.

## MANUFACTURING QUALITY FILE

This file that is individual for each apartment owner is a valuable file regarding the construction and the operation of every apartment, as well as of the whole building. We call it "Quality File" since it is a file with detailed recording and registration of all the stages of the construction and all the correspondence (licences, contracts, certifications, guarantees, materials, crews) in order to cover all the works of the project and to be certified in all details.

This file is a valuable tool for the administrator of the block of apartments. We compiled the "Quality File" out of respect for the owners and our collaboration.

It is the manual for the operation and maintenance of the building, probably unique in the field of private construction.



## THE COMPANY

All the aforementioned is the necessary condition. But to make it sufficient we rely upon the people who make up our team.

People who are scientifically qualified, with expertise in the construction of buildings of high standards, with new technologies and materials, those who study, build and give life to all the above.

People characterized by pride in their work and above all love for the constructions and respect towards the owner of every flat.

People who take care creating your dream.

## KYRATZIS CONSTRUCTIONS PARTNERSHIP INNOVATIVE HOUSES CONSTRUCTION

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ARCHITECT: **THANASIS HOHLIDAKIS**

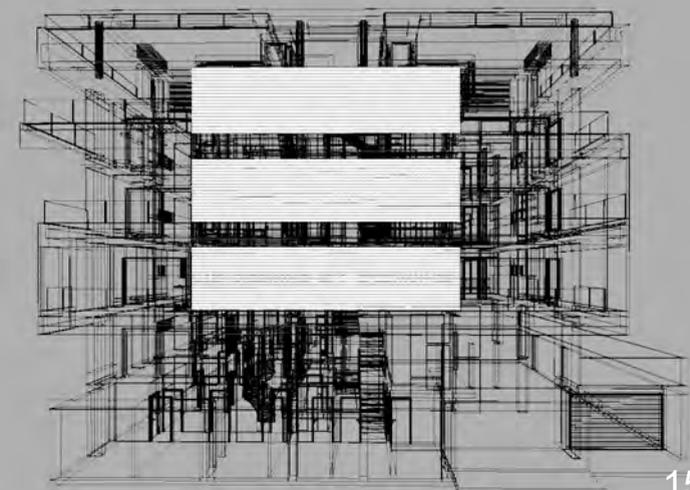
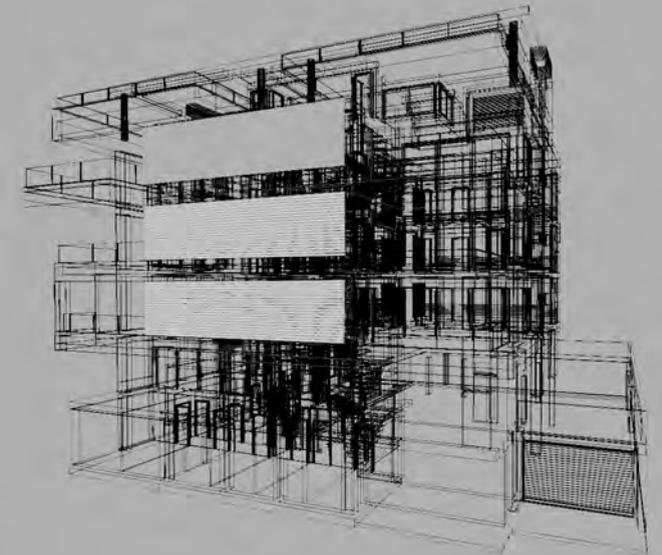
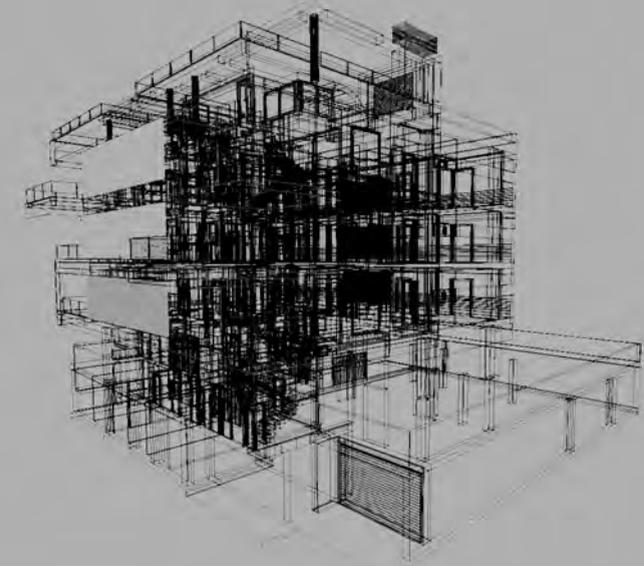
CIVIL ENGINEER: **THRASYVOULOS KOSTELENOS**

ENGINEERS: **PAN. & KON. MALAVAZOS**

GENERAL SUPERVISION: **GIORGOS KYRATZIS**, Civil Engineer

QUALITY CONSULTANT: **NIKOS MARSELLOS**, Civil Engineer  
Author of the Concrete Technology Regulation

[www.axiacon.gr](http://www.axiacon.gr)





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