

TECHNICAL DESCRIPTION OF THE IDEA

This individual residential building (house, with a basement and ground floor level) is located in Sarajevo, 31 Orahov brijeg Street, in the area dominated by private houses and well-connected with the city centre via the Sarajevo – Vogošća highway. A bus station is 100m from the parcel. The street is connected to the local energy supply network.

The total usable area of the house is 264.08 m², designed on a parcel of 1782m², on a west-oriented slope that allows large amounts of insolation. The parcel is 33m wide on the east (access to the parcel), so it was possible to design the entire structure 5,6m and 3,1m respectively from the neighboring parcels and 7,15m from the street. Such positioning enabled inflow of solar energy from the south and east. The east-side part of the basement floor is built into the hillside, and open towards the west.

The design also includes automatic protection from over-insolation in order to reduce the dependency to local energy sources as much as possible. In addition, high-quality thermal insulation reduces the energy needs to minimum, which are required for heating, cooling and ventilation, while simultaneously providing high-quality interior comfort (air temperature, relative humidity, light...).

The layout of the house is organized in two overlapping rectangles, with the top being rotated by 13 degrees in relation to the lower rectangle, which is a private zone with 4 bedrooms, four bathrooms, laundry room and service room. Bedrooms open to a terrace, surrounded by greenery at the elevation of approximately 75 cm.

The ground floor, levelled with the street, houses the public zone: living room, dining room, kitchen, pantry, toilet and wardrobe. The living room is oriented towards the west, enabling unobstructed views through large glazed surfaces. The same room also opens to the south and a large terrace, which is actually a green roof of the lower floor. The dining room is open towards the west and north. The garage for two cars is also at the same level and it is accessed directly from the Orahov brijeg street. The main entrance to the house is at this level. Dimensions of the ground floor are 9.05x13.30m, and of the basement floor 8.10x20.40m.

The house is materialized with contemporary materials and cutting-edge technical systems for energy efficient heating, cooling and ventilation, reducing the already low energy needs even more and almost classifying the house into the passive house category.

The house is very functional, modern and unique in its design, and adjusted to the sloped terrain. Every room has a perfect and unobstructed view, and the entire volume blends unobtrusively with its surroundings.

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