

1. CONCEPT

Many factors influence the shape and situation of the Karin Dom building. The analysis of the terrain and the surrounding construction, the available vegetation, the budget constraints and the functional program determine the shape of the building.

2. Urban planning restrictions

The building is located in the property in the outline of the boundary lines. After analysis of the height of the surrounding construction, the building is defined to 2 floors. It is within the limits of the requirements, with a maximum building elevation of 12.50m.

3. BUDGETARY REQUIREMENTS

The ground building area is 1800m² and the underground building area is 600m², with an estimated construction value of € 1,400,000 (one million four hundred thousand euros) excluding VAT.

4. TRANSPORT AND WALKING ACCESS

Road access to the underground parking is provided along Prilep Street via a 15% slope ramp that reaches the underground section of a single-storey parking lot with 24 parking spaces, of which 2 parking spaces are for vehicles of disabled people. Eight parking spaces are envisaged to be installed with two-level parking systems for two cars. The headroom height of the underground garage is 3.60m.

There is a possibility for short-term stopping of cars at the main entrance of the building without the possibility for parking.

Pedestrian access is provided with a sidewalk - 2.50m wide, along Prilep Street.

5. LANDSCAPING

The building is situated in the property so as to optimally preserve the existing vegetation as a landscaping solution, covering about 50% of the area or 1184 m². Most of the existing tall tree vegetation in the property is preserved, with areas for replanting some of the removed trees on the usable roof. To protect existing trees near the building, the foundation of the reinforced concrete structure will be made with piles in the part where there is no underground level.

The yard contains all the elements according to the assignment:

- it is safe, without vehicle access, with direct access from the building;
- there is space for specialized swings for children with special needs - 1 pc .;
- there is an integrated playground for children 1-8 years - 1 pc .;
- there are sensory paths - 2pcs. , benches, arbors - 2 pcs .;
- there is a raised garden bed

6. FUNCTIONAL PROGRAM

6.1. The underground level has a built-up area of 600 m². at elevation - 3.91 / -4.00 = 54.59 / 54.50 and contains the following main units:

- U1 / Parking for 24 cars;
- U2 / Warehouses and premises for heating and ventilation;
- Vertical communication with the lobby.

6.2. The ground floor has a total area of 875 m². at elevation ± 0.00 = 58.50 and contains the following main units:

- A / Reception;
- B / Play room;
- C / Physiotherapy;
- D / Montessori Center;
- E / Hydrotherapy unit;
- I / Medical center;
- Vertical communication - 2pcs.

6.3. The first floor has a total area of 875m². at elevation + 4.42 = 62.92 and contains the following main units:

- F / Diagnostic and Therapy Center;
- G / Center for Early Intervention;
- H / Family Mediation Intervention Center;
- J / Training center;
- K / Administration;
- L / Places for rest;
- N / Server room;
- Vertical communication - 2pcs.

6.4. The roof has a built-up area of 50m². at elevation + 9.18 = 67.68 and contains the following main units:

- M / Flat roof with access to the roof space, as a recreation area (rest);
- Vertical communication;
- Installations.

7. ECONOMY AND EFFICIENCY OF THE PROJECT

The following sustainable, energy-efficient, cost-effective building solutions are implemented according to the Sustainable Design Assessment Systems (DGNB, LEED, BREEAM):

- energy efficiency / photovoltaic panels are used for energy production, as well as heat pumps for air-conditioning of the building, and the thermal insulation is increased. It is envisaged that the building will be heated by natural gas ;
- water efficiency / use of rainwater gathered from the flat roof collected in an underground tank for irrigation of available vegetation, for supplying toilet flushing cisterns and for reducing the temperature of the building;
- materials and resources / most inputs are from the region and are partially recycled (concrete, HPL ventilated facade panels, paints and plasters, flooring, wood paneling, wooden panel furniture, etc.);
- operation of the building / rational use of natural light in the premises of the building through the provided overhead lighting - roof windows on the flat roof, through which the lower rooms are illuminated and ventilated. The large structural axis - 9.00 / 9.00m determines that the reinforced concrete structure should be cassette-like. These characteristic structural

elements are used in the interior and exterior of the building. They serve as overhead lighting and in addition to that in the areas above the level of the usable roof flooring they are shaped as recreational elements with places for seating and vegetation (planting of medium height trees and flowers).

8. AVAILABLE ENVIRONMENT

There is free, easy and unobstructed access for wheelchairs and accessory equipment to all points of the building. The building has a simple layout and it is easy for a person to find his way. Railings are provided on the walls in all corridors, lobbies and steps. Each area is distinguished by the characteristic color of the walls, for better visibility and orientation. The colors used are pastel. Flexibility and adaptability of the environment to meet the future needs of children is achieved by using lightweight partition walls in the rooms, so that in the future the spaces in the building can change their function and over time allow for future adaptations.