

Explanatory note

Karin Dom's new building is a significant social project.

It must meet the needs of the Karin Dom Foundation, namely a place where children, parents and professionals can create and play, learn, build friendships and develop their potential, as well as for the inclusion of children with special needs.

I. Placement & Situation.

The object of this project is the Karin Dom's New Building.

The building is situated in a plot located in the extended central part of Varna.

The terrain provided has specific characteristics:

- The property subject to this project has a limited area of 2450 sq. m. and oblong shape. It is surrounded on all sides by other properties and has a very small face-side;
- In the neighbouring land plots there are (already existing) high and medium-sized buildings that will overshadow the newly designed building and the surrounding yard;
- Road and pedestrian access are only from the northwest corner; hence it is not possible to separate the traffic flows;
- The plot has an existing displacement of about 2 meters from northwest to southeast;
- Existing high tree vegetation.

The situational solution we offer is tailored to the specifics of the property, the geographical factors, the applicable laws and regulations in Bulgaria and the requirements set by the client.

The building is freestanding in the area of development.

Its volume is located in the central part of the property in order to minimize the shadowing effect caused by existing multi-storey buildings.

At distances from the boundaries of the property, greater than or equal to the normative ones: at a distance $\geq 3,00$ m. from the northwest property border (street regulation); at a distance $\geq 6,10$ m. from the northeast property boundary; at $\geq 9,45$ m. from the south-eastern property boundary; at a distance $\geq 10,75$ m. from the southwestern property boundary.

The free yard area is developed in the most geographically appropriate parts of the property - south, southwest and southeast. It is safe without vehicle access, with direct access from the building. There are separate areas for outdoor performances,

recreation areas, play areas with shock absorbing and grass flooring with spaces for specialized swings and a high-rise garden for gardening.

The access to the plot and the underground floor parking is from the northwest.

Pedestrian access is via accessible lanes in a park setting, along existing trees.

The main entrances to the building are from the southwest. Separate entrances are dedicated to: Reception Lounge, Medical Centre and Montessori Centre.

There are evacuation entrances / exits to both the southeast and the northeast.

The terrain displacement was utilized to reach a more budget-friendly solution and to provide direct, easy access from the Montessori Centre to the playgrounds.

The project optimally preserves the existing vegetation.

The following plants will need to be removed because they are included in the nursery ban list: *Thuja occidentalis* (Eastern White Cedar, or Eastern Arborvitae) and Cupressus. New restoration landscaping is also planned.

Project plants:

- The project offers maximum conservation of the existing large tree vegetation in the yard.
- Two of the existing conifers are built into the building itself.
- Two existing highly decorative weeping forms of white mulberry tree are being moved from the construction area to the sites indicated in the project.
- The Maritime pines (*Pinus pinaster*) are too old to move, so some of them are recovered by planting standard trees of the same species at the locations indicated.
- Colourful accents and seasonal alternation of flowering in the project vegetation:
 - *Magnolia stellata* (star magnolia) and *Cercis siliquastrum* – (Judas-tree) – bloom early in the spring before sprouting leaves.
 - *Lagerstroemia indica* – (crepeflower) – blooms in the end of summer
 - *Albizia julibrissin* 'Summer Chocolate' – (pink silk tree) spectacular with the chocolate hue of its foliage
 - *Thuja occidentalis* 'Smaragd' – (eastern white cedar) – to create a green wall, a barrier at the car ramp.
 - Evergreen hedges of Japanese spindle – *Euonymus japonicus* 'Green Rocket' – for the green "railing" of the trolley ramps for disadvantaged children.

RELATED REGULATIONS:

- SPATIAL DEVELOPMENT ACT
- REGULATION 7
- REGULATION No. 4 OF 1 JULY 2009 ON THE DESIGN, IMPLEMENTATION AND MAINTENANCE OF THE BUILDINGS IN ACCORDANCE WITH THE REQUIREMENTS FOR ACCESSIBLE ENVIRONMENT FOR THE POPULATION, INCLUDING PEOPLE WITH DISABILITIES
- REGULATION NO.: RD-02-20-3 OF 21 DECEMBER 2015 ON THE DESIGN, IMPLEMENTATION AND MAINTENANCE OF PUBLIC SERVICES BUILDINGS IN THE FIELD OF EDUCATION AND SCIENCE, HEALTHCARE AND CULTURE AND ARTS
- REGULATION No. 1 of January 12, 2009, on the terms and conditions for the construction and safety of playgrounds
- REGULATION NO.: RD-02-20-2 OF 20 DECEMBER 2017 ON THE PLANNING AND DESIGN OF THE COMMUNICATION-TRANSPORT SYSTEM OF THE URBAN TERRITORIES
- REGULATION No. I3-1971 OF OCTOBER 29, 2009 ON BUILDING AND TECHNICAL RULES AND REGULATIONS FOR FIRE SAFETY ACCOMPLISHMENT

URBAN INDICATORS:

Property area = 2 450 m²

UNDERGROUND LEVEL = 620 m²

Built-up area = 800 m² = 33%

All-out Built-up Area = 1892 m², Building Intensity Factor used = 0,77

Total Area = 2512 m²

Landscaping = 860 m² = 35%

P=20

IMPLEMENTATION COSTS
/ BUDGET /

№	Types of expenses	Value in EUR
A	Costs related to site documentation:	
1	Design (technical phase and work design phase) specialties	100 000,00
2	Other Activities (Conformity Assessment Report, EIA Report, Construction Supervision, State Coordination and Commissioning Fees)	25 000,00
B	Costs for construction of the project:	
1	Temporary construction - temporary supply of electricity and water	1 500,00
2	Crude construction	
	Earthworks	70 000,00
	Insulation of foundations	30 000,00
	Formwork works	105 000,00
	Concrete works	130 000,00
	Reinforcement steel works	140 000,00
3	Finishing works	
	Masonry	75 000,00
	Dry construction works	18 000,00
	Paste cement, flooring, cladding	90 000,00
	Plasters, putties, painting	83 000,00
	Facades	110 000,00
	Joinery	70 000,00
	Roofing	50 000,00
4	Installations	
	Water and Plumbing installation	30 000,00
	Electrical installation	25 000,00
	HVAC installation	50 000,00
	Gas installation	10 000,00
B	Costs for equipment and furnishing of the project site:	
1	Furniture and equipment	70 000,00
2	Elevator system	18 000,00
3	Fire safety - fire extinguishers, emergency schemes	1 500,00
Г	Costs for the improvement and developing of the surrounding area:	
1	Vertical planning (Landscaping)	25 000,00
2	Exterior flooring	20 000,00
3	Landscaping (greenery works)	8 000,00
4	Park furniture	8 000,00
	Total value in EUR (excluding VAT):	1 363 000,00

II. Tenor.

UNDERGROUND LEVEL = 620 m²

U-1 PARKING = 520 m²

U-2 WAREHOUSES AND HEATING/VENTILATION ROOM = 80 m²

Vehicle access to the underground level is via a two-way ramp with a slope of 10%. 19 parking spaces are provided, including 2 parking spaces accessible for disabled people and 5 bicycles. The necessary warehouses and technical facilities are provided. The clearance of the underground floor is 2.60 m. Through the envisaged vertical communications (elevator and staircase) the floor is functionally connected to the reception areas on all floors of the building. Accessible route and an accessible environment are provided.

FIRST FLOOR = 800 m²

At elevation +1.20 are located:

- Spacious reception lounge with separate necessary areas in it.
- Play-library (Toy Library) to the reception area.
- The Physiotherapy and the Hydrotherapy units are also located on this ground floor and are functionally connected to the reception room and to each other.
- The Medical Centre has a separate entrance and access from the reception room.

In the design solution, the Montessori Centre is located at an elevation +/-0,00 - in the most appropriate southern part of the property. It is accessible through a separate entrance and through the reception room. It has a direct connection to the playgrounds in the yard. The premises for study rooms and bedrooms are more than 15 m away from the street line and the adjacent plots, in accordance with REGULATION № PД-02-20-3 of 21 DECEMBER 2015 ON DESIGN, IMPLEMENTATION AND MAINTENANCE OF COMMUNITY BUILDINGS IN THE SPHERE OF EDUCATION AND SCIENCE, HEALTH, CULTURE AND ARTS.

A RECEPTION = 120 m²

A-1 RECEPTION

A-2 PLAY AREA FOR CHILDREN

A-3 A WAITING AREA

A-4 CONVERSATION NOOK FOR PARENTS AND THERAPISTS

A-5 COAT HANGER FOR VISITORS

B TOY LIBRARY = 30 m²

C PHYSIOTHERAPY = 135 m²

C-1 MAIN PHYSIOTHERAPY ROOM = 75 m²

C-2 REBOUND THERAPY ROOM = 20 m²

C-3 OCCUPATIONAL THERAPY ROOM = 20 m²

C-4 PHYSIOTHERAPY WAREHOUSE = 20 m²

D MONTESSORI CENTRE = 187 m²

D-1 DRESSING VESTIBULE = 17 m²

D-2 ROOM FOR GROUP ACTIVITIES = 64 m²

D-3 ROOM FOR GROUP ACTIVITIES WITH SPECIAL NEEDS = 35 m²

D-4 BEDROOM FOR CHILDREN TO REST = 45 m²

D-5 SEPARATE TOILET FOR CHILDREN = 16 m²

D-6 KITCHENETTE = 10 m²

E HYDROTHERAPY UNIT = 138 m²

E-1 SWIMMING POOL FOR INDIVIDUAL AND GROUP THERAPY = 103 m²

E-2 CHANGING ROOMS = 20 m²

E-3 BABY GYM/TODDLER ROOM = 15 m²

I MEDICAL CENTRE = 54 m²

I-1 DOCTOR'S OFFICE = 14 m²

I-2 WAITING ROOM = 10 m²

I-3 HAZARDOUS WASTE PREMISES = 3 m²

I-4 MANIPULATION ROOM = 9 m²

I-5 ELECTROTHERAPY FACILITIES = 18 m²

SECOND FLOOR = 557 m²

On this floor, at elevation +4,20 are situated:

- CENTRE FOR FAMILY-MEDIATED INTERVENTION is dedicated to children from 2 to 7 years old and their parents. The Centre is close to the demo-kitchen and the bathrooms.
- CENTRE FOR DIAGNOSTICS AND THERAPY is dedicated to children with special needs of ages from 3 to 8 years and their families. Includes various offices for coordination, therapy and training. The multi-sensor room is dimmed. The demo kitchen is close to the group work rooms SMALL+ ROOM & ROOM OF RAINBOW GROUP. The music therapy room is surrounded by isolation corridors, For the lighting, we envisage light tunnels. The art therapy room is located on two facades to give good illumination.
- EARLY INTERVENTION CENTRE to support infants and young children up to 3 years of age through counselling with their families.

H CENTRE FOR FAMILY-MEDIATED INTERVENTION = 100 m²

H-1 VESTIBULE = 10 m²

H-2 SMALL+ ROOM = 45 m²

H-3 ROOM OF RAINBOW GROUP = 35 m²

H-4 AUXILIARY ROOM = 10 m²

F CENTRE FOR DIAGNOSTICS AND THERAPY = 224 m²

F-1 MULTISENSORY ROOM = 25 m²

F-2 ROOMS FOR INDIVIDUAL WORK = 4 x 15 m²

F-3 DIAGNOSTIC ROOM = 25 m²

F-4 AUXILIARY ROOM = 7 m²

- F-5 MUSIC THERAPY ROOM = 14 m²
- F-6 ART THERAPY ROOM = 16 m²
- F-7 TEAM ROOM = 20 m²
- F-8 ROOM FOR INDIVIDUAL WORK WITH PARENTS = 10 m²
- F-9 SENSORY TRAINING AND LEARNING ROOM = 30 m²
- F-10 DEMONSTRATION KITCHEN = 17 m²
- G EARLY INTERVENTION CENTRE = 48 m²**
- G-1 EARLY INTERVENTION TEAM ROOM = 32 m²
- G-2 FAMILY COUNSELLING ROOM = 16 m²

THIRD FLOOR = 535 m²

On this floor at elevation +7,60 are situated:

- TRAINING CENTRE for educationists, students and other professionals working with children with special needs. The halls in the centre are designed in a way enabling splitting and refurbishment. The necessary sanitary facilities are provided, including accessible and rest areas.
- ADMINISTRATION
- Part of the flat roof at this level is accessible and used as a recreation area. The area of the roof next to it is landscaped - a roof garden.

J TRAINING CENTRE = 234 m²

- J-1 SEMINAR HALL = 122 m²
- J-2 TOILETS TO THE VISITOR HALLS = 19 m²
- J-3 KITCHENETTE FOR PREPARING COFFEE BREAKS = 10 m²
- J-4 COFFEE BREAK AREA = 48 m²
- J-5 WAREHOUSE FOR THE TRAINING CENTRE = 10 m²
- J-6 OFFICE FOR TRAINING TEAM = 25 m²

K ADMINISTRATION = 115 m²

- K-1 ACCOUNTANCY = 15 m²
- K-2 DEVELOPMENT TEAM OFFICE = 25 m²
- K-3 MEETING ROOM AND GROUP ACTIVITIES WITH PARENTS/VOLUNTEERS = 25 m²
- K-4 DIRECTOR'S OFFICE = 25 m²
- K-5 MANAGEMENT OFFICE = 25 m²

L STAFF REST AREAS = 50 m²

- L-1 STAFF LUNCHROOM = 25 m²
- L-2 DRESSING ROOM = 25 m²

M ROOF = 34 m²

- N SERVERS ROOM = 8 m²**

Vertical communications are made through an accessible elevator and an accessible staircase.

The staircase unit is separated according to fire safety requirements. The necessary sanitary facilities are provided for each floor, including for disadvantaged people.

Navigating throughout the building is easy, there are accessible routes and an accessible environment. The design solution allows the installation of a ceiling lift.

Room lighting is natural, through facade windows, roof windows and light tunnels.

III. Execution / Accomplishment.

The building has a reinforced concrete structure: reinforced concrete foundations, walls, columns, shear walls and beam-less slabs. The facade walls are masonry. The partition walls will be made of plasterboard with mineral wool filling.

The joinery is PVC with double glazing. The roofs are flat reinforced concrete.

The necessary thermal and waterproofing is envisaged.

For the use of energy, to limit the negative impact on the environment and economically, we offer solar panels on the roof and gas heating.

Recommended materials for facade treatment are: HPL Fundermax Skyline and Moonwalk facade panels, graphite and yellow facade plaster.

The materials in the interior are easy to maintain, in neutral, pastel colours.

All furnishings are tailored to the specific needs of children and can be re-arranged as needed.

Sensory impact, providing a relaxed environment with reduced levels of colour stimuli and glare-free lighting.