



# BELUGA BAY

## TECHNICAL DESCRIPTION – PENTHOUSE APARTMENTS

### GENERAL DESCRIPTION

The project site is in Budapest, District XIII, in the area bordered by Népfürdő utca Bodor utca Jakab József utca Dagály sétány (topographical no.: 25872/3), physically located at 1138 Budapest, Bodor utca 7. The immediate surroundings of the property are characterized by a metropolitan character, with ground floor + 3-6-8 levels, mixed-use, free-standing or terraced, closed-courtyard installations, with mostly newly developed properties in Jakab József utca. The planned building will have a flat roof design, fitting into its environment in both appearance and use of materials.

### LOCATION, BUILDING DESCRIPTION, ACCESS TO THE BUILDING

The planned building includes 5 shops with their own entrances on the ground floor, separated from the residential function, and their associated parking spaces, with apartments on the upper floors, with P2, P1 basement + ground floor + 3, 6, and 8 levels. An underground garage will be developed on one half of the ground floor and on the two basement levels, accessible via an internal car ramp. Traffic around the building by car is possible from Népfürdő utca and Bodor utca. The entrance to the ground floor parking opens from Népfürdő utca. The parking spaces on the ground floor, open to the public, serve the shops, while the parking spaces and storage units belonging to the apartments are located on the two basement levels. The building is accessible on foot from both Dagály sétány and Bodor utca; on the Dagály sétány side, only pedestrian and bicycle traffic is permitted. The stairwells are interconnected within the building.

### DESCRIPTION OF THE BUILDING AND ITS PURPOSE

The building consists of 3 stairwells and 2+2+1 elevators, divided into building sections A, B, and C. Section A is located next to Népfürdő utca, with P2, P1, ground floor + 8 levels; section B is towards Jakab József utca, with P2, P1, ground floor + 6 levels; section C is located between building blocks A and B, oriented towards Bodor utca, with P2, P1, ground floor + 3 levels. The main entrance to sections A and B is accessed on foot from Dagály sétány, while section C is accessible from Bodor utca. On the upper levels (floors 1-8), 57, 61, 61, 47, 44, 39, 7, and 8 apartments will be developed, totalling 314 apartments. The upper-floor apartments have balconies or terraces, oriented partly towards the streets and partly towards the courtyard. Penthouse levels will be built on the two top floors of stairwell A. As an exceptional feature in the vicinity, a SPA and wellness area will be developed on the 1st floor facing the inner courtyard, serving exclusively the comfort of the building's residents.



## DESCRIPTION OF PARKING AND STORAGE

In the building, a total of 318 parking spaces are located on two levels (P2-P1) for residents (160 and 158), available in three sizes (reduced, normal, premium). We provide the possibility of installing electric car charging for the parking spaces, which can be requested based on personal consultation for a fee above the purchase price. Public parking spaces are located on the ground floor; these are not sold to residents. The headroom at the parking spaces in the corridors and parking spots is generally min. 220 cm or higher. The headroom at the following lower spaces differs: Min. 200 cm headroom: P2-045, P2-044, P2-051, P2-050, P2-118, P2-117, P2-124, P2-123 Min. 210 cm headroom: P1-122, P1-121, P1-116, P1-115, P1-051, P1-050, P1-043, P1-042 In addition, we provide storage possibilities in the form of 156 units in total on levels P2-6th floor (68, 61, 3, 4, 4, 4, 4, 4, 4), in various sizes to satisfy all needs. The storage rooms will have cold flooring. The headroom of the storage rooms varies; in some cases, mechanical or ventilation pipes, etc., may pass through them.

## WASTE STORAGE

The collection of communal and selective household waste generated in the planned apartments will take place in the waste storage rooms located next to stairwells "A" and "B" on the P1 basement level. The shops on the ground floor have their own daily waste storage rooms, from which the waste is transported to the waste storage room next to the freight elevator. The flooring of the common waste storage rooms on the basement and ground floor levels is washable, with non-slip flooring on the ground. A wall fountain and floor drain are planned in the rooms to provide water access and cleaning possibilities. The necessary ventilation is solved mechanically, led above the roof. Natural ventilation in the ground floor waste storage is provided through an openable window on the southern facade.



## **BUILDING STRUCTURES, DESCRIPTION OF MATERIALS**

### **FOUNDATIONS**

A watertight mat foundation will be constructed under the building, from which the rising frame structure will be reinforced. The wall structures and columns are located on the watertight mat foundation. A diaphragm wall made of reinforced concrete will be built around the basement block for proper waterproofing. The crusted, wet surface of the diaphragm wall will be separated from the parking and storage spaces by a lining wall everywhere.

### **LOAD-BEARING STRUCTURES**

The load-bearing elements of the rising structures are 25-30 cm thick monolithic reinforced concrete walls, and from the 3rd floor upwards, 20 cm thick prefabricated reinforced concrete walls, or a monolithic reinforced concrete column frame. A prefabricated packet wall serves as the external enclosure of the building; the same appears as the enclosure structure between apartments-corridors and separating apartments, meeting increased sound insulation requirements in the appropriate places. On the 7th-8th floors, the infill walls consist of 25 cm thick Xella Silka HM 250 wall structures or technically equivalent masonry. Reinforced concrete wall structures placed per level serve to brace the building, according to the structural plans. The slabs are 25 cm thick monolithic reinforced concrete or prefabricated reinforced concrete shell panel structures, with monolithic reinforced concrete beams, according to the structural plans. Above the external doors and windows, a roller shutter box with a plasterable front will be built into the masonry; lintels will be installed above the openings in the internal masonry wall structures. The balconies are built with prefabricated reinforced concrete structures with all-around thermal insulation of the balcony slabs to ensure the proper thermal design of the apartments. The building's roof slab, similar to the intermediate slabs, is a prefabricated reinforced concrete shell panel, designed as extensive and intensive green roofs. The flat roof is covered with a PVC waterproofing membrane, its load provided by the green roof layers. Intensive green roofs are implemented up to the roof slab of the 6th floor. Precipitation drainage from the green roofs is via internal drainage.

### **VERTICAL CIRCULATION**

Three stairwells will be built in the building; all three planned stairs are made of prefabricated reinforced concrete according to the structural plans, with the creation of appropriate acoustic dilatations. Barrier-free circulation is ensured by elevators in all three stairwells. In building sections A and B, 2-2 elevators will be installed, while stairwell C is served by 1 elevator. Each elevator travels between the lowest and highest levels of the given building section.

### **INFILL AND PARTITION WALLS**

Internal partition walls are made of 10 cm thick aerated concrete masonry. For areas with elevated acoustic requirements, walls made of 25 or 10 cm thick SILKA soundproof bricks or technically equivalent materials will be used.



## THERMAL INSULATION

The facade walls of the building will receive 15 cm thick facade thermal insulation. On the plinth part (but at least up to a height of 30 cm from the graded terrain), AUSTROTHERM XPS TOP P GK or technically equivalent thermal insulation will be placed. In the slabs between levels, 5 cm thick ÖKOCELL CSEND lightweight concrete sound insulation is used as a floating layer against impact noise. On the roof slab, 14-32 cm Bacht PIR thermal insulation is made cut to a wedge. Rock wool thermal insulation is used in the necessary places to comply with fire protection regulations. Under the thermal insulation, vapor barriers are solved with 1 layer of bituminous sheet. Thermal insulation may be replaced in any case with materials technically equivalent to the listed product(s).

## DOORS AND WINDOWS

In the apartments located on the penthouse levels (A stairwell, 7th-8th floors), 3-layer glazed, warm-edge, center-sealed aluminium doors and windows will be installed in RAL 7039 Quarzgrau colour both inside and out. In the apartments, all windows and doors are floor-to-ceiling, without a parapet; lift-and-slide doors will be designed in the living rooms and certain bedrooms of all apartments according to the architectural plans.

Built-in roller shutter boxes will be installed above the facade openings of the apartments. The apartments include a uniform system of aluminium roller shutters in RAL 7039 colour, matching the external colour of the doors and windows, as well as pleated mosquito nets.

The apartment entrance doors opening from the internal corridors are MABISZ-certified security doors providing high-level protection, with multi-point locking and metal cladding, with a fire resistance value as specified in the fire protection plans, but at least EI30.

Internal doors of the apartments are uniformly 75/235 cm, 90/235 cm, and 100/235 cm on the 7th floor, and 75/240 cm, 90/240 cm, and 100/240 cm on the 8th floor, based on the floor plans. The door leaves are built with solid core filling, with a white CPL or selectable PP foil external surface.

## RAILINGS

On the building facade, a modern-looking, linear, bottom-rail glass railing is made of two-layer laminated safety glass, taking the relevant standards into account. In the stairwell, a filigree steel protective railing will be installed with an aesthetic surface treatment.

## WATERPROOFING

Protection against precipitation is provided by PVC covering on the slab structures, and PVC sheet covering on the roof structure and ledges, along with their substrate structures.



Precipitation protection on the slab above the P1 basement level is provided by bituminous waterproofing.

Protection against groundwater is provided by the mat foundation made of watertight concrete. A waterproofing membrane is placed under the stairwell and elevator blocks before the placement of the foundation slab reinforcement. The waterproofing of the superstructure against soil moisture is formed with 1 layer of bituminous insulation.

The floor slabs of the upper-floor balconies, flat roofs, roof terraces, and the closing slab receive 1 layer of 2 mm thick PVC insulation.

The floor structure of wet rooms is formed with liquid waterproofing under the flooring, led up to the height required by the standards.

## FINISHES

The facade of the building typically receives noble plaster, in addition to which perforated steel plate cladding appears on the ground floor part of the facade. Glued cladding will be developed as decorative cladding on certain parts of the building. A linear-fixed glass railing runs along the outer side of the balcony slabs.

The lower and side surfaces of the balcony slabs are generally finished with a dryvit surface; the walking surface is provided with WPC flooring, with a uniform design across the house based on the architectural plans.

Structures at least 2.20 m high will be installed to separate the balconies, which prevent both viewing and passage.

Internal walls and ceilings are painted with dispersion paint after filling. In the wet rooms, ceramic tile cladding is made up to the ceiling. Common area finishes are made based on interior design plans, developed uniformly throughout the entire house.

## SHADING STRUCTURES

The purchase price of the apartments includes the built-in motorized roller shutters, the control of which is integrated into the smart home system, so remote control via the display in the living room and through a mobile phone application is possible with internet access.



## **MECHANICAL BUILDING SERVICES**

The building is mixed-use, with 314 apartments and 5 shops planned, with a garage on one half of the ground floor and two basement levels. The mechanical room serving the building is located on the P2 basement level; the heat pumps providing the building's energy supply are placed on the 7th-floor roof. Noise reduction of the machines is solved with a soundproof wall consisting of aluminium frames and aluminium slats (e.g., Syba Acoustic 150S or technically equivalent). The outdoor and indoor units are connected through a central mechanical shaft independent of the apartments via a vertical pipe network, containing all necessary fittings for drainage, maintenance, and trouble-free operation. A two-pipe mechanical system is implemented in the house, whereby the house operates in either heating or cooling mode. Domestic hot water production is continuously ensured. The prepared domestic hot water is accumulated in thermally insulated storage tanks. The volume of hot water produced is sufficient to meet the needs of the entire house even during persistently cold weather. The domestic hot water network is built with a circulation network operated by a circulation pump placed in the machine room.

### **COOLING-HEATING SYSTEM**

During the design of the building, great attention was paid to environmental protection and the efficient utilization of renewable energy sources, which is why we are installing heat pumps to meet the heating and domestic hot water needs of the residential building.

Ceiling cooling-heating with an active concrete system is installed on the residential levels of the building. Floor heating is developed in the living room and wet rooms; the heating of the bathroom is supplemented with an electric towel warmer radiator. During the heating period, floor heating is the primary heat-emitting system. During the cooling period, the automatic control excludes the floor heating system, so the loops built into the floor exclusively perform a heating function.

From the user side, the system can be regulated with the controller belonging to the smart home system. We provide the possibility of room-by-room regulation for every apartment. The thermostats are pre-programmable, and their control is accessible remotely via internet access. The thermostats are equipped with factory-installed dew point sensors, thanks to which the thermostats can disable room cooling depending on humidity and internal temperature to prevent condensation on the ceiling.

A mixed cooling circuit is designed in the cooling system of the apartments. The system first warms the cold water arriving from the machine room to the appropriate temperature using a mixing valve before it enters the cooling-heating pipes. This design allows for the optimization of the system's operation under more extreme conditions (e.g., heatwave, high humidity, etc.), taking the specific characteristics of the given apartment into account. The regulation and optimization of cooling are thus ensured separately for each apartment.



An additional fan-coil is designed in the living room and every room, with the help of which user needs can be tracked within a shorter time or under more extreme external temperatures. In case of fan-coil system operation, the automatic control excludes the ceiling cooling-heating system and the floor heating; upon switching off the fan-coil system, the surface cooling-heating automatically switches back on. Fan-coil system operation is controlled within the smart home system.

Due to the ceiling cooling-heating system, pipes run in the entire ceiling of the apartment except for the wet rooms, therefore, in case of drilling or fixing into the ceiling, the rules in the user manual must be followed, and the use of a thermal camera is required!

To ensure accurate accounting per apartment, we install dedicated cold/hot water and heat meters for every apartment. The meters are placed in separate cabinets in the internal corridors. The meters can be read and summarized digitally, ensuring simple and fast reading.

#### ***THE PLANNED HEAT-EMITTING EQUIPMENT:***

Heated floors are developed in the living room and wet rooms according to the Customer Coordination plans of the apartments.

Heated and cooled ceilings are constructed in the rooms and living room, which are separately adjustable per room. The ceiling cooling-heating panels are placed directly on the formwork under the lower steel mesh, thus ensuring rapid heat transfer.

Towel warmer radiators equipped with electric heating elements are built into the bathrooms as additional supplementary heating.

Additional split-air conditioning units are placed in the living room and rooms.

## **VENTILATION**

### ***INTERNAL ROOMS***

Bathrooms and toilet rooms with no openable windows receive local exhausts (individual wall exhaust fan) operated from switches common with the lights, combined with overrun. The exhaust fans placed in the wet rooms also have humidity sensors, so they switch on automatically if necessary to ensure proper air exchange in the apartment. The built-in wall or ceiling fans have built-in non-return valves.

In other rooms without openable windows – such as walk-in closets or utility rooms – a ceiling exhaust fan is also installed. The built-in wall or ceiling fans have built-in non-return valves.

In the toilet, besides the ceiling exhaust, we also provide exhaust through the toilet bowl.

### ***KITCHEN HOOD***

Preparation for a cooker hood is made above the kitchen stoves, the used air of which is discharged above the roof through a collection duct. The hoods must have a built-in fan. A non-return valve is installed at the connection point to the riser in the kitchen exhaust line.



When setting up the kitchen, attention must be paid to the power of the cooker hood depending on the distance of the connection point. Only kitchen hoods equipped with a rubber-gasket non-return valve may be installed! A maximum air volume of 200 m<sup>3</sup>/h may be exhausted by one kitchen hood.

To replace the exhausted air, a separate heat recovery residential ventilation unit is developed in every apartment. Exhaustion takes place in bathrooms, toilets, walk-in closets, and secondary rooms, while air supply is located in living rooms and bedrooms.

#### ***HEAT RECOVERY VENTILATION DESIGN***

With modern ventilation systems, a healthy, pleasant indoor climate is created efficiently: air flowing into internal rooms is automatically warmed through heat recovery and saves heating costs in the cooler months.

Heat recovery ventilation systems are installed in the Penthouse apartments.

The type of ventilation machines in some apartments is Systemair SAVE VTR (or technically equivalent), with top-connected design, equipped with filters, rotary heat recovery, supply and exhaust fan sections, as well as a central controller with automatic regulation. The ventilation machine is located on the side wall in the utility room or a secondary room.

The type of ventilation machines in some apartments is Helios KWL EC (or technically equivalent), with side-connected design, equipped with filters, crossflow heat recovery, supply and exhaust fan sections, as well as a central controller with automatic regulation. The ventilation machine is in the false ceiling.

Air distribution takes place via plastic or galvanized steel plate air ducts installed in the slab.

Fresh air intake and used air discharge take place above the roof plane on the side wall of the roof structure. Sound attenuators are installed in the supply and exhaust branches.



## **ELECTRICITY**

The main distribution board is located in the electrical room. Apartments, offices, common areas, storage units, the machine room, and fire protection machinery will be equipped with separate consumption meters. The heat pumps operate from a network equipped with a separate H-tariff meter for energy efficiency.

Lighting in the stairwell and level corridors consists of modern, energy-efficient LED luminaires switched by motion sensors.

Electrical outlets are developed based on the Customer Coordination plans adapted from the electrical plans.

## **LIGHTING, OUTLETS**

### ***APARTMENTS***

In the apartments, central lights designed in the prefabricated slabs are placed according to the electrical plans, in a quantity appropriate for the size of the room.

As supplementary lighting, in the living room and rooms, at least 1 closet lighting outlet is made in every case, led out from the ceiling at the base of the partition wall, which can also be used as decorative lighting.

False ceilings are made in the hallways and bathrooms, so lighting outlets can be flexibly arranged. In the bathrooms, besides the ceiling outlet, a wall light is installed above the washbasins. In the wet rooms, an exhaust fan operated by a time-program switch is implemented, which is also equipped with a humidity sensor. Outlets are also prepared for washing machines and dryers in the apartments.

In the kitchens, flexible outlets will be formed for the dishwasher, oven, microwave, and refrigerator for more flexible furnishing, with + 1 extra outlet. The electric stove can be connected directly by an electrician. Power outlets are made for small kitchen appliances, which can be flexibly adjusted by the residents after handover according to the individual kitchen layout; no fixed above-counter sockets are developed. Task lighting preparation is made in the kitchen.

A video intercom is installed in the apartments, which, in addition to two-way conversation, provides the possibility of operating the stairwell electric door lock from the apartment.

For television, 1 connection point per room is developed in the apartments.

Preparation for alarm system protective piping is made in the apartments, which includes empty protective piping for the opening sensor placed at the entrance door, as well as for the alarm center and 1 motion sensor that can be placed in the hallway. We recommend the installation of further security equipment for the apartment without cabling.

In the hallways, we provide an outlet for the service provider's modem. TV and internet outlets in the rooms and living room are cabled from here.



Depending on the size, 1 or more outdoor lights switchable from the inside and at least 1 external socket are made on the balconies. Without specific height data, the general height of sockets is 40 cm, and the axis height of switches is 120 cm from the floor level.

### ***ENERGY CLASSIFICATION***

Energy classification of the building according to the energy certificate: Based on aggregated energy characteristics, the building meets the requirements for nearly zero-energy buildings, with an A+ rating.

### ***BALCONIES***

On the balconies, we prepare electrical outlets and at least 1 frost-free external tap for a jacuzzi, sauna, and outdoor kitchen, taking the characteristics of the apartment (balcony) into account, so these can be developed during construction and later.

Consultation is required per apartment regarding the exact technical content; due to the size of the balcony, differences occur between the designs of certain apartments.

Jacuzzis may only be placed in the designated, dedicated area on the balconies. If a jacuzzi is placed in a different area, it may result in damage to the terrace layering and structural damage; we cannot take responsibility for resulting leaks or other problems!



## SMART HOME SYSTEM

A SmartPierre smart home system is implemented in the apartments, which allows for the regulation of the ceiling cooling-heating and floor heating belonging to the apartments in every apartment from the Pierre Room Control display or via remote access through a mobile application, with room-by-room control.

The control of multi-split air conditioners and the heat recovery system is not integrated into the Pierre system.

The system includes data from the meters belonging to the apartment, based on which daily consumption can be monitored, and apartment consumption can be viewed going back 1 year.

Intercom integration is included with the displays, which controls the opening of common stairwell entrance doors in case of intercom calls, magnetic card and/or code door opening, and remote entry via mobile phone.

One Berlin 10" display is placed in the living room of every apartment, and a RIO 4" display is placed in the rooms. Upon individual request, it is possible to exchange the displays or choose larger displays.

The apartments include the built-in motorized roller shutters, which can be controlled via the central Pierre Room Control display and phone application.

### ***EXPANSION POSSIBILITIES***

According to the original design, one Berlin 10" display is placed in the living room of every apartment, and a RIO 4" display is developed in the rooms. Upon individual request, it is possible to exchange the displays in the rooms or choose larger displays. The design of the smart home system allows for the realization of individual customer needs, including lighting control, the creation of individual RGB LED modules, the integration of a later-installed intrusion detection system (for certain systems), and the integration of smart devices alike.



## IN-APARTMENT FIT-OUT

### FINISHES

Hallway, living room-dining room-kitchen: In the case of the hallway and the living room-dining room-kitchen area, aquastop, class 33 wear-resistant laminated flooring is made with matching color skirting.

Rooms: Class 32 wear-resistant laminated flooring is installed in the rooms with matching color skirting.

Wet rooms: High-quality wall tiles and floor flooring are made in the bathrooms and toilet rooms.

The layout of finishes is made in all cases according to the customer coordination regulations..

### SANITARY WAVE

1. Built-in tank, cantilevered, rimless WC, with exhaust formed through the WC bowl
2. Built-in tank, cantilevered, rimless wall-mounted bidet depending on the floor plan; due to bathroom sizes, equipment may differ for certain apartments.
3. Ceramic washbasin, hand washbasin – according to architectural plans
4. Surface-mounted stainless-steel washbasin (and occasionally hand washbasin) faucet – according to architectural plans
5. Ergonomic bathtub in 170x70 cm size – according to architectural plans
6. Surface-mounted stainless steel bathtub filler faucet – according to architectural plans
7. Built-in shower tray with shower glass – according to architectural plans
8. Recessed ibox thermostatic shower faucet with rain shower, pipes led in the wall – according to architectural plans

### MAINTENANCE

The owner is obliged to allow and tolerate that the representative of the community enters their privately owned property at a suitable time for the purpose of necessary inspections related to building parts and equipment in common ownership, troubleshooting necessary within the privately owned property in the event of an extraordinary damage event or emergency, as well as for the performance of maintenance work, without unnecessary disturbance to the owner or resident.



## GUARANTEE

Regarding the property, in accordance with Government Decree 181/2003 (XI.5.) on mandatory warranties related to residential construction (hereinafter: Government Decree), the general contractor performing the construction and installation work, iDOM Házépítő Kft. (Cg.01-09-202048, 1037 Budapest, Bóbita utca 2. II. em., hereinafter: Contractor), is liable for a warranty of three, five, or ten years from the date of completion of the technical handover-acceptance procedure, depending on what is recorded in the annexes of the Government Decree, for the building structures of the Apartment and the Residential House defined in the Government Decree, the installation or building-in of apartment and building equipment, and the rooms serving the apartments. Please note that any construction or modification work carried out in the apartment after handover occurring within the Owner's sphere of interest – especially modification of finishes, sanitary ware, mechanical or electrical outlets – does not fall within the scope of the warranty and entails the automatic termination of the guarantee regarding the affected building structures and built-in materials. The repair of damages related to the construction and modification work detailed above is the responsibility of the Owner. This extends particularly to the following structures and systems:

- water and sewage pipes, mechanical outlets, and connections,
- floor structure, waterproofing, and finishes,
- partition walls and surfaces connected to them,
- built-in sanitary ware and their fittings,
- as well as the basic electrical installation if it is affected by demolition or re-installation.

In case of modification or opening of any of these structures, the contractor does not take responsibility for later-appearing leaks, cracks, operational errors, or other damages. In case of re-tiling the bathroom, repairing the waterproofing is also necessary in all cases. In the event of potential later problems, the contractor will specifically examine whether the error originates from the original construction or the later modification. iDOM Házépítő Kft. reserves the right to deviate from this Technical Description during implementation and to install or use other materials or products of the same quality instead of the built-in, used materials or products featured in the description. In the construction of the Condominium, we use exclusively first-class materials and only accept first-class work from the contractor.

## CONTACT DURING CONSTRUCTION

Central sales: +36 30 082 0187

This technical description is effective from 06.03.2026. We reserve the right to change the technical content.