STRUCTURAL SYSTEMS, CENTRAL MECHANICAL ENGINEERING, ELECTRICAL INSTALLATIONS

Foundations

The foundation consists of pad footings and a 25 cm thick reinforced concrete slab.

Load-Bearing Frame Structure

The buildings are constructed using conventional construction methods, with a cast-in-place reinforced concrete frame structure. The floor slabs are monolithic reinforced concrete, statically dimensioned. The infill walls are made of ceramic blocks and aerated concrete units.

Walls

The basement walls, stairwells, elevator shafts, and necessary shear walls are made of reinforced concrete. The external enclosure walls are built using Porotherm® structural clay blocks and Silka® aerated concrete infill masonry. Both the brick and reinforced concrete walls are fitted with Austrotherm® or Knauf Insulation® thermal insulation systems, sized according to thermal performance requirements. Apartment-separating walls inside the buildings are constructed with high-strength structural clay blocks, dimensioned to meet acoustic performance standards, and are supplemented with reinforced concrete columns and shear walls where needed. Partition walls within apartments are built from masonry blocks, and Rigips® gypsum board suspended ceilings are installed to accommodate apartment distribution systems.

Floorslabs

In the apartment areas, flat cast-in-place reinforced concrete slabs are constructed both above and below, featuring concealed beams and perimeter beams along the façade line. To ensure impact and airborne sound insulation, floating screed is installed over acoustically rated insulation, which also serves as the substrate for the final floor finishes.

Roofing

The buildings are covered with anthracite-coloured Prefa® standing seam metal roofing systems.

External Windows and Doors

The high-quality triple-pane windows, sliding doors, and balcony doors are made of uPVC profiles with external anthracite-coloured aluminum cladding and white interior finish. They feature triple-glazed thermal insulation glass, good airtightness, and an overall thermal transmittance value of Uw = 1.0 W/m²K or better, meeting modern energy efficiency and acoustic performance standards. For safe and convenient ventilation, at least one window per apartment is equipped with a ventilation slot element. The plastic façade openings are installed with Schlotterer® roller shutter boxes (without the shutter curtain), prepared for motorized operation, including electrical connections (motor and remote control not included).

Balconies and Terraces

The balconies are finished with anti-slip, frost-resistant ceramic or Gres tiles, while the terraces are also covered with anti-slip, frost-resistant ceramic or Gres tiles. Balustrades are made of stainless-steel metalwork with safety glass infill panels.

Facades

The facades feature a 15 cm thick external thermal insulation system. The surface finish is a Mapei® system scraped-texture decorative plaster, white in colour, with anthracite-coloured parapet panels around the window openings.

Suspended Ceilings

In certain rooms within the apartments (e.g., entrance halls, WC, bathrooms), and in common corridor areas, Rigips® suspended ceilings may be installed for technical reasons, to conceal electrical and mechanical installations and equipment.

Elevators and Circulation Areas

Each building will be equipped with one Kleemann-type passenger elevator, with a capacity of 8 persons (630 kg).

The elevator lobbies and interior circulation areas, located within the thermally insulated building envelope, will be finished with anti-slip Gres or ceramic tiles.

Garage

A continuous underground garage will be constructed beneath and between the buildings. The garage will feature unfinished reinforced concrete walls and ceilings, with surface-hardened concrete flooring for pedestrian and vehicle traffic.

Mechanical Systems (Building Services)

The buildings comply with the energy performance requirements for near-zero energy buildings, as defined in Hungarian Decree 7/2006 (TNM). Domestic hot water supply is provided individually per apartment by a 100-liter Ariston Velis Pro 100 EU designer electric water heater, aesthetically integrated into the bathroom.

Mechanical piping systems are concealed in vertical shafts, suspended ceilings, or embedded in reinforced concrete slabs. The piping includes: carbon steel pipes with press-fit joints, multilayer plastic pipes for water and heating, sound-insulated PVC and PE waste pipes, steel sheet and PE ventilation ducts. Air exchange in bathrooms and WCs is ensured by local exhaust fans, except where natural ventilation is provided through operable windows. In the kitchen, a D125 mm ventilation duct is installed up to the wall surface, allowing connection to a range hood. This duct is routed above the flat roof.

The circulation zones and garage areas on the ground floor are not equipped with mechanical ventilation. Ventilation for storage rooms and mechanical rooms is provided through gravity ventilation via openings in the storage room doors.

The buildings' water demand is supplied through an independent connection to the external utility network. Within the building, separate drainage systems are used for wastewater and stormwater management.

Heating and cooling in the continuously occupied rooms of the apartments are provided via underfloor heating and fan coil cooling systems. The required thermal energy is generated by two air-to-water Daikin heat pumps, operating in cascade mode, and located in two central mechanical rooms.
These rooms also house auxiliary equipment, including buffer tanks, circulation pumps, and other necessary fittings.

Electrical System

The above-ground electrical wiring (including apartment wiring) is installed in protective conduits embedded in the slab structure, walls, vertical shafts, suspended ceilings, and floor screeds. The entire building is wired with copper cables and conductors. At the garage level, electrical wiring is routed through cable trays suspended from the ceiling, while in basement storage rooms and technical spaces, it is installed in surface-mounted protective conduits on the walls.

In common areas (garages, corridors, storage rooms), dust- and moisture-protected luminaires will be installed, all equipped with LED light sources. No fire alarm system is installed in the building.

Access through the main entrance door of the stairwell, which is equipped with an electric strike, is managed via an audio intercom system with call and push-button functionality. Door release can be performed from within each apartment with a single button press. Doorbells will be installed at each apartment's entrance on the respective floors.

A protective conduit system is provided from the service provider connection point to the low-voltage cabinet of each apartment. The cabling for this section will be installed by the telecom provider in cooperation with the developer.

From the low-voltage cabinet to the end devices, Cat-5e or coaxial cabling is installed in accordance with the service provider's requirements in the apartments. Each room will be equipped with two TV/Internet outlets. All outlets and switches are Schneider SEDNA type in white, matching the power fittings.

Each apartment has an electrical capacity of 1×32 A. The individual apartment electricity meters are located under the stairs near the garage entrance ramp.

Modern and aesthetically designed electrical fittings are installed throughout the apartments. Minimum power outlet distribution: min. 4 outlets in each room, min. 8 outlets (including 1 outlet for the electric stove) in the kitchen, 1 outlet in the dininig area, 2 general-purpose outlets + 1 for washing machine in the bathroom, 1 outlet in the entrance hall and corridors, 1 outdoor 230 V socket in the balcony (if applicable). Each room will have one ceiling light point, with additional wiring for mirror lighting in bathrooms and under-cabinet lighting in kitchens. Light fixtures are not included in the standard apartment equipment; only the wiring is provided. Balcony lighting fixtures and other façade-mounted lights will be installed to ensure a uniform exterior appearance. Each habitable room will be provided with star-configured TV and phone/internet sockets, using Cat6 cabling.

Protective conduit (without cabling) will be installed for a potential alarm system, including door contact sensor at the apartment entrance and motion sensor at rooms with balconies.

The apartment electrical installation supports a basic smart home-ready configuration, enabling the future implementation of additional control features (not included in the base setup), such as: roller shutter control, lighting control, HVAC shut-off based on window status.

APARTMENTS

The interior design of the apartments — such as flooring, bathtubs, showers, sanitary ware, faucets, electrical fittings, interior doors — have been selected from coordinated material groups and colour schemes chosen by interior designers.

Apartment Entrance Doors
Westag® doors equipped with peepholes and multipoint security locks, acoustically rated, and certified by MABISZ (Association of Hungarian Insurance Companies) will be installed at the apartment entrances.

Interior doors

Jeld-Wen® brand doors, nominal height 75x210 cm (bathroom) and 90x210 cm (room), with CPL surface, paper honeycomb core, solid door leaf, and retrofit frame design.

Flooring

In bathrooms and toilets, Class I wall tiles will be installed up to the height specified in the finalized interior design plan. All positive corners will be finished with anodized aluminium or plastic edge protectors.

Bathrooms, toilets, and certain corridors will have Class I ceramic floor tiles, installed using Mapei® auxiliary materials. Balconies will be covered with Class I non-slip frost-resistant ceramic, Gres, or porcelain stoneware tiles. Entrance halls, kitchens, living rooms, bedrooms, and certain internal corridors will be covered with Class I laminate parquet flooring.

Surface finishes
In the apartments, plastering (for masonry structures), smoothing (for reinforced concrete structures and plaster), and white dispersion paint will be applied using Baumit® materials.

Kitchen

Apartments will be delivered without kitchen cabinets or appliances. Kitchen mechanical and electrical connections will be designed according to the standard layout shown on the combined customer plan provided during consultation.

Water fixtures and sanitary ware

Each apartment's bathroom will have water and wastewater connections for a washing machine, and kitchens will have connections for a dishwasher via a combined faucet valve at the sink. Toilets are wall-mounted with concealed cisterns and dual flush plates. Floor drains will not be installed in apartment bathrooms.

Heating and cooling

Uponor underfloor heating systems will be installed in living rooms, dining areas, kitchens, bathrooms, and bedrooms. Temperature control is via one room thermostat located in the living room.

Winter design internal temperatures for the heating system are: +22°C for living rooms and kitchens, +24°C for bathrooms, and +20°C for entrance halls and corridors.
High-wall fan coil cooling systems will be installed in living rooms and bedrooms.

The summer design internal temperature for the cooling system is based on an external temperature of -8°C to 26°C for cooled rooms.
Cooling system capacity is determined assuming simultaneous use of external shading.
Effective and economical cooling in rooms exposed to direct sunlight is only guaranteed with external shading.
Only one mode — either heating or cooling — can be used or controlled at the same time in the building and apartments.
Switching between heating and cooling modes is done centrally in the mechanical room.

Ventilation

Individual exhaust fans will be installed in interior bathrooms. Operation is controlled by the lighting switch with delayed shutoff.
For kitchen range hoods, connection points are provided on built-in ventilation ducts flush with the shaft wall. The kitchen ventilation fan will be installed and connected by the buyer.

Consumption measurement

Drinking water and heating-cooling energy consumption are individually metered per apartment. Submeters are located above the suspended ceiling in the entrance hall behind a door. The meters support remote reading and data is collected centrally outside the apartments.

Fire protection

"The ground-floor garage area of Building C forms a separate fire section from the rest of the building. Walls bordering apartments and staircases have EI 30 fire resistance, fire-retardant construction; apartment entrance doors are not fire-rated. Residential storage rooms have 30-minute fire-rated doors. The facade insulation system meets a 45-minute facade fire spread resistance requirement. Ventilation ducts have 60-minute fire dampers. Fire water is supplied from public fire hydrants. Staircases and corridors are equipped with emergency lighting and escape route indicator systems."

The Seller reserves the right to change the materials, dimensions, and placement of the apartment interior walls (especially walls housing mechanical and electrical shafts), and to substitute materials, structures, equipment, or technologies specified in the technical description with others of at least equivalent technical standard, due to regulatory requirements, procurement difficulties, or other technically justified reasons.