



Knokke-Heist

New construction of a hotel (ENSO hotel), retail spaces, apartments and underground and above-ground parking.



Status

2021 - 2024



Services:

Building Services,
Civil Engineering



Sectors:

Residential: Residential buildings



Client:

NV GHELAMCO | NV GHELAMCO
INVEST



Architect:

ARCAS Architect BVBA



In the heart of Knokke-Heist, Ghelamco is building Lake District. The Tower, with its 49-meter height, will undoubtedly catch the eye, as will the playful lines of the spacious terraces and canopies surrounding it and the green finishing. Well-thought-out techniques ensure optimal living comfort and high-performance fire safety.

The design of Lake District is by Arcas Architecture & Urbanism. The site at the beginning of Natiënlaan will be entirely provided with 2 basement levels for utility rooms and parking. On top of the basement, 3 buildings will be erected. In The Tower – 13 floors – the ground floor will house a real estate office, a bank office, and the lobby of hotel Enso District, which will have rooms on +1 and +2. Above that, 83 apartments will be built with a panoramic view over Knokke-Heist and the region.



Building 11 Lake Garden consists of 2 smaller towers (5 and 6 levels) with a total of 65 apartments. The ground floor is designated for the new branch of Aldi + Renmans, replacing the old branch at the same location. 8 Lake Garden is the lowest building – 3 above-ground floors – which will contain 18 apartments, with 3 spaces for retail or offices on the ground floor.

Green roofs on 11 and 8 Lake Garden and planters on various terraces provide a green finishing to the buildings. Between the towers, an esplanade with benches, walking paths, and greenery will be created, designed by Wirtz International Landscape Architects. Car traffic is not permitted, except for the loading and unloading zone for hotel guests. Our civil engineering department was responsible for the site development design of drainage and rainwater buffering.

Central energy network

The technical ingenuity is hidden beneath the surface. An air/water heat pump on the roof of The Tower drives a central energy network that supplies The Tower and 11 Lake Garden. From that energy network, the autonomous heat pumps per apartment are operated. This way, each resident can adjust heating and cooling (via underfloor heating) as desired. The central distribution network makes it possible to exchange energy at times when both heat (and domestic hot water) and cooling are demanded in the apartments. This – together with the fact that cooling is provided as standard here – brings the comfort of residents to a higher level. 8 Lake Garden operates independently from the central energy loop. Individual gas boilers provide the heating there.

High fire safety

The Tower falls under high-rise building regulations in terms of fire safety. Therefore, both a firefighter elevator and an overpressure system for the stairwell must be provided. For both installations, an emergency generator is in place to guarantee continued operation even during power outages. Although not strictly necessary, a firefighter elevator was also provided in 11 Lake Garden at the request of the fire department. The site will also feature quite a few elevators, including a heavy retail and goods elevator and a bicycle elevator providing access to the underground parking garage.

That parking garage is connected to the underground parking of the adjacent Albert Heijn branch. Among other reasons, this is why an extensive smoke and heat exhaust ventilation (SHEV) system is provided, with scenarios for various situations. Depending on where a fire would start, the system will respond differently. There will also be many electric charging stations. In the public parking, 16 are provided, but many future residents and/or owners also want a charging station for their private parking. Therefore, a high-performance sprinkler system is also needed in the parking garage.

Construction partners:

- Ghelamco (Ghent) – developer



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- Arcas Architecture & Urbanism (Knokke-Heist) – architect
- CIT Blaton (Brussels) – structural works contractor
- EDA General Electricity (Aalter) – electrical installations contractor
- Quartier (Kuurne) – HVAC and plumbing contractor
- Kingspan (Sint-Niklaas) – SHEV system contractor
- Schindler (Brussels) – elevators
- BM Engineering (Kortrijk) – special techniques + civil engineering (site development)