

## **Objektbericht** *Project Report*

### **Hotel BOAT&CO, Amsterdam, The Netherlands**

#### **A traditional solution for the 21st century**

Craftsmanship down to the most minute detail: the BOAT&CO hotel in Houthaven

*The location on the water is excellent for a grand entrance. The name of the hotel itself sparks curiosity: BOAT&CO. But first let's take a look at the surroundings and take a detour into the last century. Houthaven, the name of the secluded harbour area on the western outskirts of Amsterdam, has become a new residential quarter and destination for tourists and residents since last year.*

Houthaven, which is Dutch for "timber port" was Amsterdam's first port to be put into operation; from 1876 to 1945 it lived up to its name and served as a tried and tested transshipment and storage site. As transport increasingly turned to the roads, parts of the harbour area, which consists of a total of four harbour basins, were eventually closed and filled in. Not until many decades later, when the harbour served no function, was the decision made to revitalise the area that had been neglected.

The significance of historic districts plays an increasingly important role in the development of many cities. Versatile new urban quarters can be created for the future, depending on their use and location. Houthaven has preserved an essential feature: a subtle flair of the past. Even today, the jetties on the River IJ are eye-catching and tell tales of times long past. Meanwhile, new artificial islands for flats, shops, restaurants, hotels and offices today form an urban quarter that combines people, architecture, history, progress and quality of life.

#### **Classic design**

The new 4-star BOAT&CO hotel serves as an impressive symbol of both the new Houthaven's reawakening and the preservation of a long-standing tradition. In 2016, to coincide with the 100th anniversary of the Amsterdam School architectural style, the architectural firm Kollhoff & Pols architecten from The Hague presented their design – the timing cleverly chosen and the location perfect.

The red brick building with bay windows and gables, the detailed design of the surfaces and the finish of the shiny elegant roof all reflect the special influence of the Amsterdam School and integrate the striking building with its warm charisma into the surrounding harbour setting. With its pointed dormers as well as the steeply pitched and slightly arched roof, the hotel is reminiscent of boat structure, a speciality with which the Dutch were able to establish their historically far-reaching trade relations. It therefore comes as no surprise that the hotel is named after a timber company that used to be based in the Houthaven and went by the name of "Boot & Co".

Translating a traditional era into 21st century architecture is a true challenge. With an eye on proportion, materiality, spaces and people, the architects have succeeded in creating a building that, with its brick façade, refers to the expressive architecture of the early 20th

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century and at the same time combines this regional-historical construction method with the requirements of contemporary living, lifestyle and ecological concepts.

The H-shaped building with an area of around 7,000 m<sup>2</sup> extends over five storeys; while a large glazed atrium welcomes guests on the land side, a raised, sheltered terrace opens up towards the river with wide views of the water and the harbour area. The idea of making the entire ground floor accessible to the public and offering dining facilities, a bar and a wellness area is the reason why the new hotel is perceived as a lively destination. The 82 hotel flats on the upper floors, all equipped with a kitchen and thus suitable for longer stays, offer wide views of the water; on the sides of the building, additional bay windows stand out in front of each room, underlining the individual character of the building and further providing charming views for the hotel guests.

### **Combining tradition and modernity**

As with any building of this size, materiality and form played an essential role in BOAT&CO. The façade corresponds to the classical division of the building into three parts: base, middle and top. At the same time, with its multitude of projections and recesses, bay windows, cornices and pillars, the façade displays the strict structure that was common to buildings of the Amsterdam School. At the same time, the conglomerate of horizontal and vertical components supports the human-scale façade.

Following the Dutch architectural style, the base storey was clad in anthracite-coloured natural stone, while the upper storeys were traditionally clad in reddish brick. The finishing touch is the curved RHEINZINK titanium zinc roof. The smooth, light-coloured surface with its unadorned textures gives the hotel its prominent appearance and at the same time holds the vast volume of the hotel together in a clear and perfectly designed manner. The special features of titanium zinc, such as resistance to corrosion, durability, low maintenance and exclusivity, fit in perfectly in the harbour area.

They decided on the RHEINZINK-CLASSIC bright-rolled version. The slender, elongated surfaces in the angled standing seam system, which correspond perfectly to the storey height, proved to be the ideal solution for the complex roof form, an arrangement of mansard roof with pointed arches. The angled standing seam roofing system enables the respective shape of the arch, such as at the ridge and the cheeks of the pointed dormers, to be finished with precision and geometric clarity. Manufactured in the spirit of traditional craftsmanship, the angled standing seam contributes to a sophisticated rhythmic appearance of the roof due to its constant section widths. Another striking feature is the regularly spaced large pointed dormers and the small trailing dormers, which are systematically integrated into the large roof form with unobtrusive connection details. The connection between the pointed dormer and the main roof, for example, was made with highest expertise by means of folded flashings.

As far as the colour is concerned, the originally natural surface initially appears in a metallic shiny look. Over time, the titanium zinc develops a velvety, blue-grey patina. Gradually, the

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colour of the titanium zinc roof will match that of the natural stone base, which will also become more natural over the years and emphasise its unity with the roof.

### **Precision craftsmanship**

During the construction of the roof, the building contractor Vink Bouw, the executing companies W. Verweij (steel construction), Veenstra & Stroeve (prefabricated roof elements and dormers) and Ridder Skins for Buildings (RHEINZINK titanium zinc) worked closely together. Together, they greatly focused on carefully executing their craft down to the smallest detail, in addition to the prefabrication of individual elements, with the aim of creating concise architectural features that would impressively highlight the building volume. What was particularly challenging was to accurately measure the elements with their different curves for the roof and dormer before production and to align them precisely over the entire surface later at the construction site.

The steel construction of the entire roof is made up of straight and curved H-beams. The top floor slab itself is a cavity slab, filled with rigid foam insulation boards, characterised by high compressive strength and temperature resistance.

The next step was to first place the curved prefabricated roof elements as well as the small rectangular dormers between the beams; this was followed by the use of the large, pointed dormers. These elements were already manufactured in the factory as a modular system with a traditionally rear-ventilated construction. The layered structure is composed as follows: Glass wool insulation, water-repellent foils on the outside and separating layers as a vapour barrier against inflowing moisture on the inside, ventilation space of 45 mm, softwood timber boarding with dimensions of 22 x100 mm, which serves as a substructure for the non-self-supporting titanium zinc panels. Preparations for the work were completed in just a few months, and the installation itself took ten weeks.

### **Sustainability, naturalness and flexibility**

In addition to the constructive characteristics, what made the hotel so impressive were the ideal properties of the materials as well as the focus on real values such as sustainability and naturalness. The new building was certified according to the internationally recognised BREEAM rating system and given the high status of "excellent". The complete building services systems in the building can be operated virtually energy-neutrally. For example, an innovative climate control system ensures heat and cold storage all year round; controlled ventilation inside is guaranteed by around 400 photovoltaic panels on the roof; taps, shower heads and toilets were designed to save water. In addition to the technical building equipment, another focus was on the interior fittings and the floor plan layout. The façade and ceilings alone take on the load-bearing function, thus avoiding additional supports in the interior.

The effect is both highly valuable and essential: the spaciousness that is gained allows for a freely selectable floor plan, later rescheduling as well as flexible subsequent use without incurring significant costs. And that's not all. BOAT&CO was designed for the future down to

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the smallest detail and built according to the cradle-to-cradle principle. The name reflects the goal of respecting the origin of building materials and thus choosing materials that are 100% recyclable. The result is impressive: The differentiated façade with its natural materials forms an unmistakable appearance in the new, vibrant city quarter and at the same time restores a piece of identity to the historic Houthaven.

### **Construction panel:**

#### **Project**

Hotel BOAT&CO, Amsterdam, The Netherlands

#### **Completion**

2019

#### **Client**

IQNN Development, The Hague, Netherlands

#### **Architect**

Kollhoff & Pols Architecten, The Hague, Netherlands

#### **Execution of the RHEINZINK-work**

Ridder Skins For Buildings, Zwaag, The Netherlands

#### **Technical data**

Roof: 900 m<sup>2</sup>, 10 t, angled standing seam system

RHEINZINK-CLASSIC bright rolled

### **Captions**



A new departure and tradition at the same time: the Hotel Boat&Co in the historic district of Houthaven.

Photo: RHEINZINK

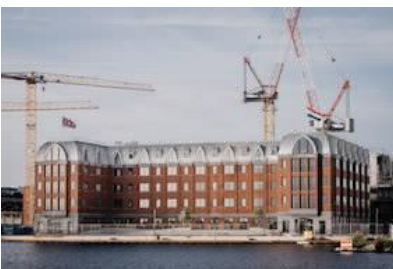
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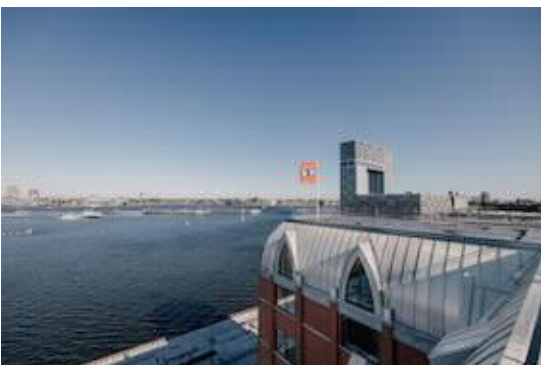
Classic design with an eye on proportion, materiality, spaces and people.  
Photo: RHEINZINK



The pointed dormers and the slight arch of the roof are reminiscent of boat structure, an important area of expertise for the Dutch. Photo: RHEINZINK



Almost finished: the red brick building reflects the regional-historical building style of the Amsterdam School even from a distance. Photo: BOAT&CO



A roof finish with a charming view of the river IJ. Photo: BOAT&CO

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Durable, resistant and weatherproof: The building materials brick and titanium zinc blend in ideally in the former harbour area. Photo: BOAT&CO

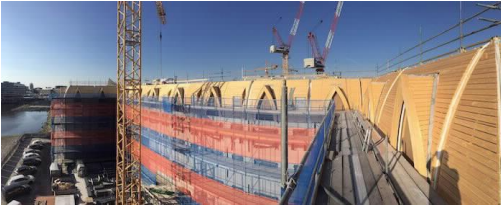


Strict and regular: the articulation of the pointed roofs, dormers and bay windows is indicative of the architectural style of the Amsterdam School. Photo: BOAT&CO



Hotel flat on the top floor with charming views of the former harbour area. Photo: BOAT&CO

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The prefabricated timber boarding serves as a substructure for the non-self-supporting titanium-zinc panels. Photo: Ridder Skins for Buildings



Precise execution: The curved RHEINZINK-titanium zinc roof - perfectly shaped with a metallic look. Photo: Ridder Skins for Buildings



The window and roof connections were adapted in fine detail and precisely executed. Photo: Ridder Skins for Buildings

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Up to five skilled workers spent around a year assembling the custom-made titanium zinc panels into a precise handcrafted unit. Photo: Ridder Skins for Buildings