

Wientalterrassen residential quarter

The 30,000 m² flagship residential quarter Wientalterrassen in Käthe-Dorsch-Gasse in Vienna's 14th district was recently completed by the Austrian-Finnish architectural firm Berger + Parkkinen in a joint venture with architect Christoph Lechner & Partner, and was awarded klimaaktiv Gold. The innovative and highly efficient energy concept enables a sustainable heating/cooling supply for the entire residential complex that is independent of fossil fuels. It thus represents a prime example of sustainability in practice during construction and operation. This type of heat or energy supply represents a milestone in the direction of cost-effective living, since not only the rents but also the running costs for heating and hot water can be minimized.

Berger+Parkkinen, who were awarded the Austrian State Prize for Architecture and Sustainability 2021, provide with this project another example of their expertise in future-oriented, ecologically-conscious architecture.

The design of the Wientalterrassen residential complex emerged in 2018 as one of the two winning projects for the Käthe-Dorsch-Gasse location from a developer competition organised by ÖBB Immobilienmanagement GmbH and Wohnfonds _Wien.

After three years of construction, a 30,000 m² residential complex was created, offering a variety of housing options oriented towards different lifestyles. The project comprises a total of 295 flats - 196 subsidised rental flats, 99 smaller SMART flats as well as two shared flats for children and young people and two assisted units for people with special needs. In addition, the complex includes a day centre run by the administration of the Wiener Pensionist:innenheime (Vienna Retirement Homes), which connects generations, as well as another day centre for external wheelchair users and office space.

The ensemble consists of a sequence of five houses across the Vienna River and connecting buildings along the valley. The north side facing the railway appears as a long, rhythmic "back" with individual glazed openings into the inner courtyards. The partially open and partially closed courtyards are the heart of the complex and are ideally suited for outdoor communication and interaction.

In order to make the special location in the Wiental an experience for all residents, generous terrace areas are planned above the lower, south-facing components. In their staggered arrangement, also in terms of height, the three "Wientalterrassen" offer a special open space for the people living there.

The difference in height to the railway site in the north is characteristic of the project. In accordance with the dedication, the building structures descend from

the higher railway level towards the south and the existing residential buildings. As a result, all flats are oriented exclusively to the south, west and east.

The planting of the inner courtyards, roofs, façades and the three communal terraces creates a diverse flora that is intended to help combat the urban heat islands that arise in summer.

The floor plans can be modulated in a variety of ways and are designed to be flexible. Only lightweight walls were used in the flats; in some areas there are also "switch rooms" that can be closed or separated without too much effort. By removing partition walls between the living and sleeping areas, loft-like, open-plan room structures can also be offered.

Both the division into smaller units and the connection to even larger units are thus provided for in the residential complex. Arbitrary adaptations for surgeries and offices of different uses are also possible without any problems. The resulting flexibility is also an essential quality of the design in terms of sustainability.

The Wientalterrassen residential complex is characterised by a number of innovative sustainability features that set it apart from other construction projects in Vienna.

One of the special features of the project is the extensive use of green roofs and solar panels, which not only improves the design of the buildings but also offers important environmental benefits.

The Wientalterrassen also feature a state-of-the-art solar panel system that helps to significantly reduce the project's carbon footprint and energy consumption. The solar panels are integrated into the design of the buildings, creating a seamless and visually appealing aesthetic.

Heat is supplied by a geothermal system consisting of two deep probe fields and a solar absorber system, as well as three heat pumps.

In addition to these elements, Wientalterrassen also integrates energy-efficient systems throughout the building, including high-performance windows and insulation, and water-saving fixtures in all bathrooms. The development also includes an on-site recycling system that promotes a sustainable lifestyle for its residents and visitors.

One of the most striking aspects of the residential development is the rooftop garden and terrace, which offer panoramic views of the city. The terrace is designed as a public space for the community and encourages outdoor activities and social interactions. The roof garden also serves as an "environmental buffer" that helps reduce the urban heat island effect and provides an urban oasis for city dwellers.

Conclusion

Overall, the Wientalterrassen residential quarter sets a new standard for sustainable architecture in Vienna and should act as a model for future projects in

the city and around the world. The building is a successful example of collaboration between architects and developers to create a more sustainable future for the city and its residents.

Projectdata:

Object: Residential quarter Wientalterrassen
Käthe-Dorsch-Gasse 17, 1140 Vienna
Client: WBV-GPA Wohnbauvereinigung für Privatangestellte Ges.m.b.H.
Architecture: ARGE KDG / Architekt Christoph Lechner & Partner ZT GmbH & Berger+Parkkinen Architects ZT Ltd.
Project Team Berger+Parkkinen Architects
Project Manager: Lucas Schuh
Team: Adam Ambrus, Fanni Aliz Florian, Jure Kozin, Joanna Magiera, Lucie Najvarova,
Project Team Architect Christoph Lechner & Partner
Project Manager: Reto Schindler, Zornista Strahilova
Team: Barbara Hubatsch, Georg Wizany, Ursula Köfler-Lechner, Anna Podany
Specialist planners:
Landscape architecture: Atelier für Landschaft Lindle Bukor OG, Vienna Structural engineering: Gmeiner Haferl ZT GmbH, Vienna

Building services planning HTB-Plan-Haustechnik Planungs GmbH, Vienna
Building physics: Schöberl & Pöll GmbH, Vienna
Fire protection: Ing. Robert Brugger / Prüfstelle für Brandschutztechnik, Vienna
Building competition: 2018
Start of construction: September 2020
Completion: November 2022
Awards: klimaaktiv Gold 2022

Building data:
Residential units: 295
Flat sizes: 40 to 106 m²
Useable living space: 20,686 m²
Commercial space: 1,380 m²
Other. Rooms: 4.582 m²
Garage, cellar: 8.001 m²
Gross floor area above ground: 29.955 m²
Gross floor area underground: 10,651 m²
Bicycle parking spaces: 664
Underground garage: Car parking spaces: 210
Executing company:
General contractor: STRABAG AG, Vienna

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