

I Live in an Attractive and Modern Neighbourhood

Select Housing Projects of Housing Fund of
the Republic of Slovenia, Public Fund

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Introduction

Address



mag. Črtomir Remec, Director

Housing has been and will continue to be an issue in all societies, but there are differences in approaches and ways of tackling it. While housing was a universal social right under the former socialist system, under today's capitalism, state support for affordable housing is limited to the most vulnerable groups. In this context, the Housing Fund of the Republic of Slovenia (SSRS) has also, in its more than 30 years of operation, gone from being a housing bank, to a housing brokerage, to building its own housing, and finally to a provider of public rental housing. In the period of the last National Housing Programme, i.e. since 2015, we stopped selling housing and instead started to acquire it intensively by building it ourselves, purchasing it and co-financing it with local authorities. Through all our activities, we have managed to provide 5,000 additional public rental apartments and currently have over 1,800 additional housing units under construction and in preparation.

The evolution of the SSRS's activities can best be seen in Ljubljana, especially in the comprehensive design and construction of the new Brdo housing estate – from Zeleni gaj to Novo Brdo. For this reason, we have decided to present it in this publication. In addition to Brdo, the publication features the smaller Dolgi most neighbourhood and the Gerbičeva Youth Community. Together, they form the so-called “Vič Trilogy” with almost 1,500 housing units. Considering that our Fund is present across the country, we have also included in the presentation the second largest neighbourhood with 400 apartments in Maribor, called Pod Pekrsko gorco, where we have applied all the previous good practices and modern approaches to project design, construction and management, including BIM technology. Of course, SSRS projects are also present in all other statistical regions and are equally important for the overall fund, which will soon reach the ambitious target of 10,000 public rental apartments.

With more than 1,300 apartments, the Brdo housing estate in Ljubljana is the first major comprehensive housing development in independent Slovenia. It consists of various typologies of housing – from conventional mid-rise apartment towers, villa blocks, two-storey and atrium apartments to terraced houses. All the buildings are thoughtfully situated in a natural environment with ponds, green areas and playgrounds. On the initiative of Prof. Janez Koželj, an experimental block was built with four different concepts by renowned professors of architecture in order to test possible systemic, technological and material solutions, which also had a significant impact on the educational process and the planning of new projects.

Through excellent cooperation with designers, contractors and supervisors, we have put all our knowledge and experience into the modern, intergenerational Pod Pekrsko gorco neighbourhood, which includes sheltered housing and a kindergarten, as well as community living spaces for people with special needs. By simplifying, typifying and creating repetitive construction elements, we have been able to significantly reduce the investment costs compared to previous constructions, thus making rents more affordable. Despite the initial challenges of coexistence between the elderly, young people and families with several children, we believe in gradual adaptation and greater tolerance between the different residents.

The results presented here would not be as impressive without the outstanding staff and numerous external contractors and I would like to take this opportunity to express my sincere gratitude to all those involved and to each and every one of them for their contribution to the overall success or, one might even say, remarkable achievement, especially in view of the disorderly systemic financing of public housing, where we relied mainly on our own resources, loans from the Council of Europe Development Bank and grants from the Recovery and Resilience Plan.

Special thanks are also due to Maja Ivanič and Špela Kuhar, the authors of the publication, who bravely took on this daunting challenge and, with an original approach and careful implementation, prepared material that will be useful for experts and interesting for more general readers.

Instead of a conclusion, I would like to express my sincere wish that all the promises of systemic financing and construction of affordable public rental housing for all generations will finally be fulfilled in Slovenia.

About the Publication



Maja Ivanič
Špela Kuhar

*The Housing Fund of the Republic of Slovenia has 5,192 rental apartments in 126 municipalities, including 1,124 in Ljubljana, and more than 1,800 housing units under construction and in preparation for construction.

The construction of new residential neighbourhoods in Slovenia is defined by the interesting fact that the largest and highest quality ones are in fact rental housing neighbourhoods built by the Housing Fund of the Republic of Slovenia, the Public Fund (SSRS), the contractor of the National Housing Programme and, in Ljubljana, also by the City of Ljubljana's Public Housing Fund (PHF). One of the reasons for the quality and comprehensive design of the neighbourhoods is undoubtedly the fact that both funds have launched public architectural competitions for major projects, with the participation of remarkable Slovenian architectural firms, and that both are committed to housing comfort within the limits of their financial possibilities and to the provision of public rental housing for vulnerable target groups.

This publication presents in more detail three residential neighbourhoods with public rental housing built by the SSRS in the last decade, namely: Novo Brdo in Ljubljana, Dolgi most in Ljubljana and Pod Pekrsko gorco in Maribor. They are presented with large floor plans, cross-sections and photographs to allow more detailed study of the designs, and are accompanied by files containing basic project information for comparative analysis.

For a comprehensive overview and better understanding, a part of the new Brdo housing estate, called Zeleni gaj na Brdu or Brdo 1, and a smaller northern part of Novo Brdo, built by the PHF, are also presented with photographs and files, but without plans. All the neighbourhoods are characterised by their high architectural quality and visibility.

The publication also highlights the SSRS pilot project called the Gerbičeva Youth Community on Gerbičeva Street in Ljubljana, which through an interesting concept and affordable rent solves the housing problem of young people who are becoming independent for the first time.

We were also interested in the usability of the neighbourhoods and apartments, so we invited residents to take part in short interviews to find out about their living experiences – how they feel in their rental apartments, what they like and what they would change, what is unnecessary and what is missing. While their insightful opinions are useful for investors and planners, they are also a testament to the title of this publication.

The Housing Fund of the Republic of Slovenia has developed its own internal guidelines or terms of reference for designers, based on the experience it has gained from the construction of several residential neighbourhoods.* The guidelines address both the content and the technical-economic aspects, guiding designers towards functionality and towards the financial and technical optimisation of the design, construction and use of buildings over their entire life cycle. As the SSRS is using public funds to build, investment limiting and control are essential. The design part of the guidelines is less standardised, as it should allow new neighbourhoods – and designers, of course – to provide meaningful and high-quality solutions according to the space and the changing needs or living habits of the residents.

High-quality urban and architectural design is in fact the foundation and the most important part of the sustainability paradigm: a smart and well-designed neighbourhood, including the buildings, uses the least energy and requires the least maintenance over its entire life cycle. Last but not least, quality architecture instils and enhances a general culture of living that affects each individual, their physical and mental health, as well as their motivation and creativity, which reflect the healthy spirit of society as a whole.

How then can we reconcile as far as possible the commitments of a public contracting authority, which is required by law to ensure the financial sustainability of the investment, the priorities of architects, who aim for quality and modern architecture, and the needs of residents, who want useful and comfortable apartments with the lowest possible rent and low maintenance costs?

During the development of the publication, several “in situ” visits to the neighbourhoods presented and discussions with the contracting authority, architects and residents have led to some useful insights, which are summarised at the end of the publication and can help align the different priorities of stakeholders in the design of future residential neighbourhoods.

So what makes a good residential neighbourhood? What does it mean to build for the market and what does it mean to build public rental housing? What do residents who rent apartments really need? Why are common spaces and areas important and how can they be made meaningful and organised? How can we create a sense of responsibility for the area and a sense of belonging to the community and neighbourhood in tenants who are not owners?

The lessons learned are an opportunity to upgrade the guidelines, design and construction with the important factor of “venustas”, i.e. beauty and comfort, which are necessary for life satisfaction. Of course, “venustas” should not be understood as the beauty of form alone, but as a balanced combination of function, appearance, structure, technology and economy. This combination is the foundation of quality architecture, which must also be meaningfully placed in its spatial and cultural context.

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**The Zeleni gaj na Brdu
and Novo Brdo
Neighbourhoods,
Ljubljana**

The New Brdo Housing Estate – A Veritable City in Itself



Janez Koželj

A large area of the abandoned Ljubljana clay pit and tailings dump was freed up in the 1990s with the closure of the Vrhovci brick factory.

When this relatively large and rounded piece of land gradually came into public ownership and became developable, it raised considerable expectations about what to do with it and how to redevelop it in a comprehensive and gradual way. From the very beginning, the central excavation area was conceived as Ljubljana's Silicon Valley – a technological development centre with housing and associated activities. Also in terms of urban planning, the development area was intended to be an incubator for new ideas and a laboratory for testing them. The unique location of the clay pit in green surroundings and the building plot of more than 20 hectares offered a unique opportunity to create something larger, a small city of short distances, where several different forms of housing, work and recreation would be intertwined, following the model of a residential neighbourhood with added value. This is similar to the golden age of the socially-oriented construction of large residential neighbourhoods, when planners had available a relatively large empty plot of land on the edge of the city where the entire housing estate could be designed down to the smallest detail of each building and open space, and built gradually without disturbing the surrounding area.

From a wider perspective, the Brdo area stretches from the zoo at the edge of Rožnik Hill and Šiška Hill, the western bypass, sandwiched between Grba and Vrhovci Hill, to the Primorska railway line and the southern bypass. The main focus of development is the central degraded land, where clay excavation has created a gently sloping ridge between the plains of the Glinščica and Gradaščica streams and the excavated edges of the remaining forest. In terms of availability, accessibility, ventilation and landscape diversity, the area had exceptional conditions for development, especially after the construction of the central connecting road, which divided it into four quadrants, today made up of a housing estate, a technology park, a commercial and business centre and a university campus with two institutes.

Almost 20 years have passed since the initial ideas, when the first building plan for the development of the central area of the clay pit was drawn up, originally envisaging housing on one side and the technology park on the other side of the central road. This was followed by spatial planning documents for the development of the technology park area on a second, separate site and the associated extension of the central residential area, followed by detailed spatial plans for the business and technology part and the relocation of the faculties to the biotechnical centre.

The most ingenious building development and architectural solutions were selected in several competitions. After the different approaches to the planning of the building development, we can now check in the field how the planners managed to reconcile the proportions and which process produced the best result.

A public competition for architectural solutions for the buildings was launched for part of the Zeleni gaj na Brdu housing estate, based on a pre-developed urban-development concept. The second part, Novo Brdo, was also the subject of a public competition, this time for the comprehensive urban and architectural design of the buildings. For the faculties area, a public competition was first launched for the building development and then for the architecture.

The central housing estate of Brdo is designed as parallel strips of unconnected buildings on either side of the road and a series of open spaces and green areas along the edge of the forest. Here we can test the benefits of open building development in parallel strips, situated along the central road and both landscape edges. The western part features a varied typology of open building development and groups of residential houses, with long and short blocks and a series of terraced houses arranged in a fan shape, which follows the area's distinct edges running along the north-south axis with views towards the Kamnik-Savinja Alps and Mount Krim. In the eastern part, there is a similar elongated space of free-standing building development between the roadside and the clusters of mid-rise apartment towers along the strip of recreational green space. Despite the sprawling form of the housing estate, the building development forms open spaces connected into a network of sequences running in longitudinal and transverse directions. The experimental character of the building development is also marked by the F3 model block, designed to test innovative housing types and modern sustainable building technologies. The greatest contribution is certainly the variety in the design of the groups of buildings and the spaces between them, which solves the common problem of uniformity and the repetition of serial elements in the construction of housing estates.

The construction of the Brdo housing estate is the biggest urban planning, architectural and construction achievement, which has already succeeded in every respect through careful guidance, planning and design of the building development. According to the plans, the area can be further developed in a meaningful way after completing the projects of the European



Primary School and the neighbourhood society centre with a library, the expansion of the technology park and the construction of housing for researchers and visiting professors, as well as the future energy centre and media centre, and the Faculty of Mechanical Engineering and the Faculty of Pharmacy. The development of the area is also supported by the extension of the hotel along the motorway to host professional meetings, a railway station at the nearby transport terminal at Dolgi most, and the conversion of Brdnikova Road into a flood water retention basin for the Glinščica stream, which has already been carried out. The area is also linked to the surrounding and entire urban landscape by the green ring of the Trail of Remembrance, which runs through and around the edge of the housing estate.

Contrary to the criticism, the development and construction of the entire new Brdo housing estate is the result of a consistent urban planning policy of urban densification within the motorway ring road through the increase of the population and an intermingling of different activities, forms of building development and landscape, changing the former character of the suburb. The construction and infilling of the area demonstrates how urbanity is created by the density and interconnectedness of buildings, people, activities and events, as well as their accessibility and diversity, which are the prerequisites for integration and interaction between them.

The experience gained from the area's transformation so far and the possibilities for its further development represent an objectively good example of a well-thought-out but flexible approach to guiding the construction of a city, which takes into account several principles of modern urbanism, including those that anticipate the adaptation to climate change and the need for decarbonisation. The development of the area to date is the result of a combination of public and private initiatives, but it also proves how public sector projects, in fruitful cooperation between the municipality and the state, are crucial for the development of a city.

From a Brick Factory to a New Housing Estate with More than 1300 Apartments



Sanja Burnazović
Alenka Kern
Barbara Brinovčar

The Vrhovci Brick Factory

In 1909, the F. P. Vidic & Comp. company built one of the largest and most modern brick factories in the country at Vrhovci. Its best-known products were the so-called Marzola drawn roof tile, an invention of the brick factory manager Josef Marzola, and the classic building brick. The clay pit was located directly behind the factory and extended as far as Brdo, where another brick factory was built. The two brick factories were merged to form the company Združene ljubljanske opekarne, d.o.o., later called Opekarna Vič or Opekarna Vrhovci (Vrhovci Brick Factory). The brick factory had its own industrial railway track, which was connected to the Ljubljana–Trst railway near the Vič cemetery. It continued to operate successfully until 1938, when it suddenly burnt down on 22 June. It was rebuilt and continued to operate until 1970 when it was finally closed. For many years, the abandoned buildings were used as convenient warehouses for construction companies, and they also housed a building materials shop for some time.

In the 1980s, the Institute for the Protection of Cultural Heritage proposed that the brick factory be protected as a technical monument. However, there were insufficient funds for its maintenance and renovation. After 2000, the building was in such a state of disrepair that it could no longer be renovated and had to be demolished.

The new housing estate, Brdo, was built on the degraded site of the clay pit and factory, revitalising the area. The Brdo housing estate consists of two neighbourhoods – Zeleni gaj na Brdu and Novo Brdo, within which many Slovenian architects have designed individual functional units with residential buildings.

The Zeleni gaj na Brdu Neighbourhood

In 2003, the Housing Fund of the Republic of Slovenia purchased land at Brdo and Vrhovci in Ljubljana for the construction of housing envisaged in the National Housing Programme, which has been in force since 2000. Due to the extensive plot of land of approximately 6.2 ha, the proximity to Ljubljana's city centre and the relatively good connection to the road network, the plots represented both an opportunity and a challenge for the development and investment in the construction of a new residential neighbourhood. The building plan for the VS 3/5 Brdo planning area, part of the VP 3/2 Brdo planning area and part of the VS 3/3 Brdo Vrhovci planning area, where the Zeleni gaj na Brdu neighbourhood is built, was adopted in 2005.

With the aim of finding the best conceptual architectural solutions that would ensure a high level of culture of living in the apartments and a quality living environment, and in anticipation of rational and innovative solutions, the arrangement of the common open spaces and the connection of all the external open spaces to the peripheral areas with the existing natural features, the Housing Fund of the Republic of Slovenia launched a public open design competition in 2005 for the VS 3/5 Brdo planning area for the functional units F2, F4, F5, F6 and F10. The urban development concept prepared by LUZ, d.d. for the purposes of the tender was also submitted as part of the competition material.

The best evaluated and first-prize-winning architectural solutions according to the competition jury were:

- _ Brdo F4: Dekleva Gregorič arhitekti
- _ Complete external layout in F2, F3, F4, F5, F6 and F10: Dekleva Gregorič arhitekti
- _ Brdo F5 (F5.1 and F5.2): Multiplan arhitekti
- _ Brdo F2 and F6: Bevk Perovič arhitekti

In 2004, the Housing Fund of the Republic of Slovenia and the Faculty of Architecture in Ljubljana organised a research project for the “Live Lab” multi-dwelling model house, which was the basis for the design and construction of the F3 building. Four invited professors from the Faculty of Architecture developed different housing designs and typologies in the building divided into four separate units, testing different materials, installation systems and the use of available technology.

The construction of the Zeleni gaj na Brdu housing estate took place between 2010 and 2016. Alongside the construction of the first buildings, a new connecting road, Pot Rdečega križa, located between the roads Cesta na Vrhovce and Cesta na Brdo, with associated traffic and public utility infrastructure, was under construction from 2011 to 2014.

In Zeleni gaj na Brdu, there are 589 apartments in total in all functional units, and 641 apartments together with the F3 model house.

The Novo Brdo Neighbourhood

The 7.2-hectare Novo Brdo site (also called Brdo 2), which was earmarked for the construction of rental apartments, is located opposite the Zeleni gaj na Brdu neighbourhood,



to the east of the new connecting road, Pot Rdečega križa, and is bounded on its eastern side by a green slope. The most professionally appropriate urban, landscape and architectural solutions for the construction of the Novo Brdo neighbourhood were selected through an international public design competition, which was launched in 2016 and carried out by two investors – the Housing Fund of the Republic of Slovenia and the City of Ljubljana's Public Housing Fund (PHF). In line with the new housing policy guidelines in 2015, all the apartments in Brdo 2 were built for rent, which required special care by the contracting authorities in the design of the investment and by the designers in the design of the buildings and other developments. Two solutions were chosen: the northern smaller part (E1), built by the PHF and co-financed by the SSRS with a favourable loan, with 174 public non-profit rental apartments, was designed by Nava arhitekti.

The larger southern part (E2 and E3), where the SSRS has built 498 public rental apartments, was designed by Dekleva Gregorič arhitekti.

“The competition jury unanimously decided that the urban typology of the villa block is the one that best builds on the characteristics and values of the Brdo area, ensuring an optimal culture of living ...” In 2017, LUZ d.d., the SSRS and the PHF completed the procedures for the preparation and elaboration of the detailed municipal spatial plan OPPN 252 – Residential Neighbourhood Brdo (Novo Brdo). The City of Ljubljana adopted the OPPN 252 at the end of 2017. The application for a building permit was submitted on 16 February 2018. Construction of the buildings started in the summer of 2018 and was completed in 2021. Residents moved in in May 2022.

Statistics

The Zeleni gaj na Brdu Neighbourhood

The Zeleni gaj neighbourhood has a total of 589 apartments in the functional units F2, F4, F5 and F6, and 52 apartments in the F3 model house. This means that the SSRS has built a total of 641 apartments in the Zeleni gaj na Brdu neighbourhood.

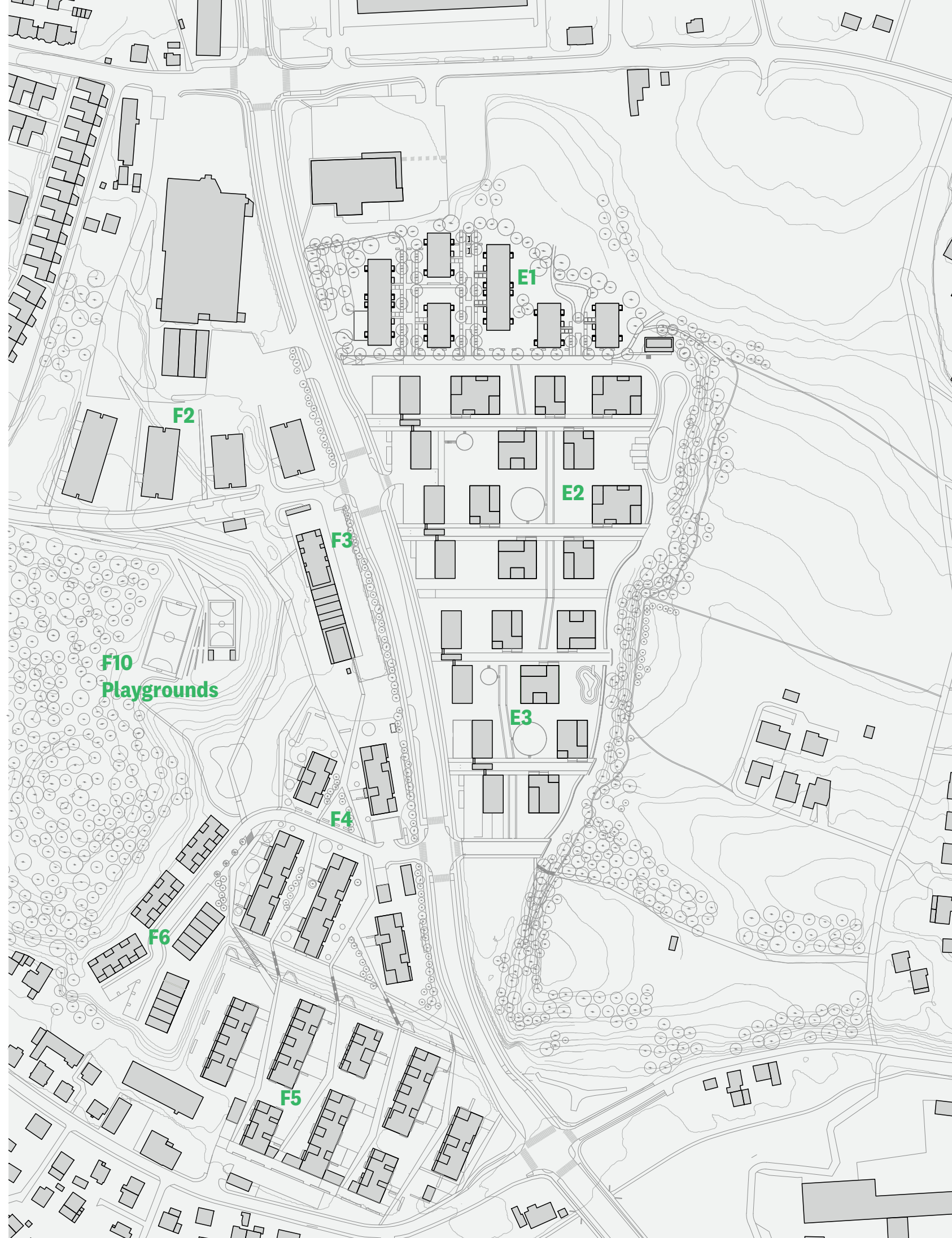
The Novo Brdo Neighbourhood

The Novo Brdo neighbourhood offers a total of 498 rental apartments in all functional units built by the SSRS, or 672 apartments together with the 174 non-profit rental apartments of the PHF.

The Entire New Brdo Housing Estate

The SSRS has built a total of 1,139 apartments in the new Brdo housing estate, which consists of the neighbourhoods Zeleni gaj na Brdu and Novo Brdo. Together with the 174 non-profit rental apartments of the PHF, the new Brdo housing estate comprises 1,313 apartments.

The New Brdo Housing Estate 2010-2021



The Zeleni gaj na Brdu Neighbourhood

F2

with Green
Curtains



Bevk Perović





Authors

Matija Bevk, Vasa J. Perovič,
Davorin Počivašek, Mitja Zorc

Design company

Bevk Perovič arhitekti

Investor and project management

Housing Fund of the Republic of Slovenia
Borut Hafner
Sanja Burnazović
Branka Trebušak

Built

2015–2017

Number of buildings

4

Number of apartments

102 rental apartments

Photos

Miran Kambič

The architects built four linear buildings of different lengths and heights on the sloping terrain along the local road leading to the highest point of Brdo, with the best views of the surrounding area as far as the Kamnik-Savinja Alps: the lower one has a ground floor and two floors, while the other three have a ground floor and three floors. The buildings have a bright central corridor ending with a large window on each side façade, with the apartments on both sides of the corridor facing in the same direction – either east or west. All the apartments offer views of the green areas between the buildings..

The apartments are designed with a “free” floor plan, within which it is possible to organise studio, one- and multi-room apartments. The number of rooms depends on the surface area and is flexible according to the specific needs of the residents. Each apartment is divided into a living area with a living room, kitchen, dining room and balcony, and a night area with bedrooms. The underground floors contain storage and parking spaces, bike storage rooms and various service rooms. The balcony, which runs the length of the apartment and therefore the length of the entire building, is an extension of the living areas, which open onto it through French windows. The balcony can be a garden, a storage room, a wooden terrace, etc. Green curtains are a distinctive feature of the neighbourhood, helping the residents to regulate the privacy, lighting and temperature in their apartments. The two full side façades of each building are separated in the centre by a vertical offset band with windows that provide light to the central communal corridors.

All buildings have reinforced concrete load-bearing structures. They are connected by a common basement floor, which contains storage, parking, bike storage rooms and various service rooms. The roofs of the buildings are flat. The front and side façade walls are made of exposed concrete. The thermal insulation is innovatively implemented in the interior of the building. The longitudinal façade walls (balcony zone and apartment windows) are built using a drywall system. The façade envelope is made of solid larch planks and wooden joinery, giving the building a sustainable and ecological character.

Response of a Resident

We are a family of four living in a three-room, 64 m² apartment.

We are very happy with the layout of the rooms, the orientation of the apartment and the fact that we have a balcony. At first, the green curtains on the balconies startled us, but we quickly got used to them. They work great – we use them in the summer to shade our windows from the morning sun.

We really like that the common corridor is lit by daylight. As our apartment is in the middle of the block, we almost always have the radiators turned off, so we only pay the basic rate, which is very noticeable on the bill, which is not too high. The proximity to the road is a bit annoying, but we’ve got used to it. They should install sleeping policemen on the road, as there are some drivers who do not obey the speed limit.

There are playgrounds in the surroundings, but the children mostly play in front of the block.

My only complaint is about the separated waste collection points: there are not enough containers considering the number of residents.

R. M., 49 years old





The Zeleni gaj na Brdu Neighbourhood

F3

The Professor Block

Aleš Vodopivec
Tadej Glažar
Janez Koželj
Jurij Kobe





Authors

Aleš Vodopivec (Unit A)

Tadej Glažar (Unit B)

Janez Koželj (Unit C)

Jurij Kobe (Unit D)

Design company

Uniarh, Inštitut za projektiranje, d.o.o.
Ljubljana

External layout

Dekleva Gregorič arhitekti

Investor and project management

Housing Fund of the Republic of Slovenia
Damjana Varšek
Branka Trebušak

Built

2016

Number of buildings

1

Number of apartments

52

(A-13, B-13, C-11, D-15)

Photos

Miran Kambič

The F3 model house, also named the Professor Block, completes the northern part of the Zeleni gaj na Brdu housing estate. The project, conceived by four invited professors from the Faculty of Architecture in Ljubljana, aimed to test new, flexible forms of housing that are otherwise limited by the current housing standardisation. The model house uses the typology of a long narrow building. It consists of four different units (A, B, C and D), which differ in their functional, structural, technological and design conception. Each unit has a different staircase layout – transversal, longitudinal, outside, inside, central and lateral – which has led to different structural solutions and allowed for a variety of floor plans – from one-room to larger circular and two-storey apartments.

The image of the conceptually different units with a mutually coordinated design gives the building the appearance of well-ordered, dynamic residential architecture, and the residents a sense of individuality. On top of that, it is also a landmark within the larger neighbourhood. It is made up of individual units with different extensions of the apartments. The architects paid special attention to apartments for people with reduced mobility, which have direct access from the outside.

In the spirit of sustainable construction and the testing of usability and maintenance, the authors used different combinations of natural materials and finishes. The design of the ventilated façade is well thought out, with gutters and vents running along the façade.

The building stands parallel to the main road, Pot Rdečega križa, which separates the neighbourhoods of Zeleni gaj na Brdu and Novo Brdo. Its outline, with five floors above ground (GF+3+T), screens the sports and recreational areas behind it from traffic. The entrances to each unit are from an external open corridor that is raised by half a floor, in front of which are wooden bike sheds acting as noise buffers, which also visually separate the corridor from the external parking area.

There is a visitor car park (42 parking spaces) in front of the building and a residents' garage (68 parking spaces) underneath, with access from the north. The basement car park is partially open to the road with linear light shafts, so the garage is naturally lit and ventilated. The basement also has ancillary technical rooms and storage rooms. For the needs of the residents' community, there is a shared office space (15 m²) and a small kindergarten (207 m²) with an outdoor fenced playground on the ground floor.

The structure of the building is reinforced concrete up to the third floor (B+GF+2), while the upper two floors (3+T) feature a timber construction. The building is low-energy, with Unit A and the upper floors (3+T) of Units B, C and D in passive standard, and the lower floors (GF+2) of Units B, C and D in low-energy standard. Some apartments have mechanical ventilation with heat recovery and some have humidity-sensitive ventilation. Units B, C and D are heated by a biomass stove and Unit A by a heat pump with biomass stove support.

The prototype building was designed to test the living comfort, which, in addition to architectural and material aspects, is also co-created by the technical solutions of different energy-efficient designs and different ways of heating and ventilating the apartments, by way of monitoring the measurements and the responses of the residents.

Responses of Residents

Our family of five moved into the so-called model house in the Zeleni gaj na Brdu neighbourhood in 2020. We live in Unit A in a 100 m² duplex located on the upper floors of the building. We are very happy with the apartment, we like the layout, we have a lot of light and a large terrace.

The living room offers a very nice view of the sports field and the small forest with a pond, from where you can hear the pleasant croaking of frogs. The neighbours on the lower floors complain about mosquitoes, but they stay away from our apartment. However, the apartment gets very hot in the summer and it is a pity that there is no canopy over the windows. While the air conditioning on the top floor cools the whole apartment well, it increases electricity consumption.

The living areas on the lower floor are very spacious and comfortable. The stairs in the middle of the apartment by the kitchen equipment are less practical, as dust flies off them onto the counter and since we have nowhere to put any upper cabinets, we don't have enough storage space in the kitchen.

Entrances to all the apartments are from a common external corridor, onto which the kitchen windows open. We covered ours with blinds to keep passers-by from looking into our apartment.

There are three bedrooms and two bathrooms upstairs, but we are still missing a room for one child. We had a flood when we moved in because the washing machine had no drain, but they fixed it within two days. The parquet is very delicate and gets damaged quickly by impacts or contact with water. We had to put a carpet over the wooden floor of the terrace because of the splinters. The upper part of the fence is also a splinter hazard, as it has started peeling due to exposure to the weather.

We have a major problem with cleaning the inaccessible exterior windows on the upper floor. We had to buy a special telescopic pole, but cleaning is still difficult, as well as dangerous because we have to lean out of the adjacent window.

Traffic noise from the nearby road, caused by aggressive drivers speeding, is also a nuisance. As there are many children crossing the road, more serious traffic calming measures should be considered.

N. M., 48 years old

My son and I moved into a 55 m² apartment on the second floor of the model house (Unit B) in 2018. The model house was very well presented in the media and I thought it was an interesting idea, something new, so I decided to buy it. However, when I moved into the apartment, I realised over time that nice plans do not mean useful solutions.

The apartment is well enough designed, but I am bothered by the bathroom being in the middle of the floor plan, next to the kitchen, which means that if the door is not closed, the toilet bowl can be seen when preparing food.

The external staircase is less useful as it gets wet up to the front door in rain or snow. You also enter your apartment wet. Security is also illogical: while the lift is code-protected, access via the external staircase is not restricted or guarded, so anyone can access it. As a result, my bike was stolen even though it was chained to a railing outside my apartment door.

The floor in the apartment is rubber, which I like, but I would have been happier with parquet, which looks nicer and gives a feeling of warmth and homeliness. I am very pleased though that the joinery is wooden. The façade surfaces on the balcony are also wooden. Unfortunately, the Siberian larch used was of poorer quality and has many knots.

The balcony is an important part of the apartment, but it is useless most of the year when the afternoon sun hits the façade. The inside of the apartment is also unbearable on summer afternoons, so like most of the other residents, I had to have an air conditioner installed. The outdoor unit of the air conditioner may only be installed in the outdoor wooden storage box on the balcony, which has proven unsuitable, as the air conditioner overheats when the storage box door is closed and condensation leakage is also a problem. So we always need to remember to keep the door of the storage box open when the air conditioner is running.

I also miss being informed about the operation of the rooftop solar power plant – how much energy it has generated, what the calculations are, etc. There are many items on our monthly bills that we pay for. It would therefore be really good to know how much the solar power plant, which has been so positively advertised, contributes. Is it really worth installing? I would also like to know why we have to pay for the maintenance of the installations from the start, as they probably do not need to be maintained in a new building? I have to commend the manager, who takes care of the furnace, the boiler room, buys the pellets and takes care of everything for the whole house.

The area around the block belongs to us, the owners, but because there is no fence, it is used by many of the surrounding residents. Kids from all over the neighbourhood skateboard in our car park. Unfortunately, some of them are unruly. A kindergarten on the ground floor is a good idea; the only thing that bothers me is that parents block our car park in the morning when they drop their kids off and in the afternoon when they pick them up.

S. E. K.

My apartment is on the ground floor of the model house in Unit C and measures 54.5 m².

I moved in in 2018. The block is idyllically situated next to a meadow and a hill with a pond. The views from the apartments are wonderful, I like the look of the façades, but I miss the emphasis on the comfort of living. It's true that this is an experimental project, but I would have liked it to be less of a sociological experiment. I understand that for the authors, a reference in a journal is important, but we, the users, have a different hierarchy. It is a pity that we do not have the opportunity to share it with the students who are often brought here by the authors.

I like that the apartment does not have an unnecessary internal corridor, that the relatively small space is well utilised and that the apartment feels spacious.

But because it's right next to the entrance to the block, and the walls and front door are not well insulated, I can hear every sound – from doors closing to conversations.

On the downside, the apartment has a ground floor and a large 17 m² enclosed terrace, which is not covered, so it is only usable for three to four months of the year. Its problems include rain, hail and snow in the winter and the fact that it is too hot in the summer. The terrace is only pleasant for part of the spring and autumn.

The Housing Fund does not allow more robust blinds on the ground floor, only shades, which are damaged every time a somewhat stronger wind blows in the spring or autumn. The situation is no better on the higher floors.

The originally installed canopies are made of toughened glass, which lets heat in and heats up the balcony, while the glass roof prevents the hot thermal air from quickly escaping. As a result, the balconies get too hot. The glass roofs also need to be cleaned, which is not easy; you have to call a cleaning service, which is also expensive.

For us, a slatted awning would be a suitable solution, but it is not allowed and very expensive. When I contacted the first manager and asked the architects to solve the problem, I did not get a reply at all. Loggias, which some apartments have, are much more useful.

Overheating is also a problem in the apartment. All the windows are very large, floor-to-ceiling, and there is no possibility of cross-ventilation as the apartment is oriented only to the west. For the first two years, I went away for two months in the summer, but then I gave in and had air conditioning installed, which runs all the time during the hot months. I have also installed internal Venetian blinds, but it feels claustrophobic to be “blinded” for the whole of the summer and the first half of September.

There were quite a few problems with my apartment even before I moved in. I had the furniture made to measure, but the crooked ceiling and walls surprised me and the fitters when they were installing it. Over a length of 2 m, the difference in height is sometimes as much as over a centimetre. The large wooden balcony doors are also problematic, as they began to warp from the start. Every year, the situation worsens as a result of the failure to repair it. The poorly sanded and oiled parquet flooring was also a problem. The professionals sanded and oiled it again, but because it was winter and the apartment was cold, the surface became rough. The contractors admitted their mistake and sanded and oiled it again, but then dents appeared in a few places because the parquet was already so thin. To remedy this, around 220 small holes were drilled in the parquet and PU foam was injected through them to harden it.

The balcony’s drainage issue was causing puddles under the wooden planks, which attracted mosquitoes. This was rehabilitated with a pipe, which now carries the water.

The yellow corrugated pipe was not sufficiently buried in the ground, so about 2 m of it is now visible. The lawn in front of the block is beautiful, but unfortunately I find that the fruit trees chosen are not the most suitable.

On the hot west side, we would need tall deciduous trees to shade the façade and protect us from the strong spring and autumn winds.

These create a veritable wind corridor that apple, pear and plum trees cannot prevent.

The ground-floor apartments have a specific problem. There is an alarm at the entrance to my apartment that goes off if there is a problem in the boiler room or in the car park. For the first five years after moving in, this loud alarm went off every 14 days on average. We worked with the manager to find a solution and looked at moving the alarm to another location, but this was not possible according to the plan. For six months, the siren and beeper were switched off, which of course was not safe.

The garage is functional and highly aesthetic, the entire basement floor is made of polished concrete. Unfortunately, there has been water pooling on some of the parking spaces from the start when it rains. Water pooling is also a serious problem in front of the covered entrance to Ježkova 3. On the other hand, we have very good relations with our neighbours, which is very important to me.

T. K., 46 years old

My wife and I live in the ground-floor apartment of the model house in Unit D. The apartment measures 62 m². We like the position of the apartment on the ground floor, as there are no stairs to climb. The garage is also easily accessible. The apartment is functionally well-designed, but we made some changes when we moved in. We had the thin wooden partition at the entrance removed, as it visually reduced the space. We extended the kitchen counter, which was only 2.5 metres long. In the bathroom, we replaced the red linoleum on the floor and the washable paint on the walls with ceramic tiles. Fortunately, the other rooms had parquet flooring, but it is very delicate – even the smallest of objects

can cause a scratch if they fall on the floor. The bedroom is too small, as the door to the balcony cannot be fully opened, although we only put in a wardrobe and a double bed, which is just 160 cm wide.

The ceiling-high doors in the living room provide plenty of light, but they are too heavy and sag.

The apartment also has a problem with the uncovered terrace, which is unusable most of the time, with temperatures reaching 45 degrees Celsius in the summer. The Housing Fund does not allow it to be covered, which is logical in terms of appearance, but the architects should have thought of this problem at the time of design.

As the balcony is not covered, the apartment overheats in the summer when exposed to the western sun. Heat recovery ventilation captures air from under the façade panels, which is good in terms of aesthetics, but the air quality is questionable due to mould. That’s why we use air conditioning for cooling.

The high heat has warped the façade panels on the west façade. They have been replaced by panels of a different colour, as they no longer produce the original colour.

Recently, I have been bothered by the situation on our lawn, which is right next to our apartment. When we moved in, there weren’t many residents in this part of Brdo. Later, the Novo Brdo neighbourhood was built across the road and many residents walk their pets on our lawn. Unfortunately, there are many owners who do not pick up after their pets, which causes a smell. There is also a walking path along the lawn. In the evening, we have to lower the roller blinds to protect ourselves from prying eyes, but having the blinds down prevents ventilation.

The concrete stairs and corridors are also problematic; they are dangerous when wet because they become very slippery. When salt is spread on the outside surfaces in winter, it leaches from the shoes of residents all over the block and into the ground-floor interiors. Another problem is the water pooling in the garage, causing rust on the mounting brackets of the installations and limescale stains on some of the cars. Water is also leaking from above the entrance to our part of the building. The upper floors have uncovered balconies, which are drained through a pipe.

A while ago, when the pipe got blocked, water started to pool on the ground. This freezes in the winter, leaving dangerously slippery patches of ice in front of the entrance.

I would also like to mention the outdoor bike sheds; we do not use them because the bikes there were constantly getting stolen. Another problem is the greenery in the troughs in front of the block, which separate the car park from the walkway. As there is no water trap, water and soil leach out of the troughs onto the asphalt during heavy rains. In the winter, the water freezes and walking there becomes dangerous.

P. Č.



The block is idyllically situated next to a meadow and a hill with a pond. The views from the apartments are wonderful, I like the look of the façades, but I miss the emphasis on the comfort of living.

T. K., 46 years old





I am very pleased though that the joinery is wooden. The façade surfaces on the balcony are also wooden.

S. E. K.





The Zeleni gaj na Brdu Neighbourhood

F4

Brick with Black
Railings

Dekleva Gregorič



**Authors**

Aljoša Dekleva, Tina Gregorič, Lea Kovič, Martina Marčan, Andi Koder, Tea Smrke, Daniel Schwartz, Simon Vrščaj

Design company

Dekleva Gregorič arhitekti

Investor and project management

Housing Fund of the Republic of Slovenia
Damjana Varšek

Built

2016

Number of buildings

5

Number of apartments

185

Photos

Miran Kambič

The brick exterior of Unit F4 is reminiscent of the former brick factory that stood in the Brdo area. The guiding principle for the design was how to establish the identity of the neighbourhood and how to make the residents feel connected to the environment they live in. The distinctive feature of the specific architectural design is the concept of the subtraction of volumes resulting in the varied façades, alternating between a sand-coloured brick outer envelope and cut-outs with balconies and terraces in contrasting dark plaster and graphite grey metal railings. The choice of brick – a natural material – also demonstrates a commitment to sustainability.

Different lifestyles have dictated the consideration of different sizes and types of apartments. The architects have developed 17 types. All service areas (bathrooms, kitchens and halls) are located along the central corridor, while living and sleeping areas extend along the façade towards the interior of the apartments.

The common corridors with staircases are bright and encourage socialising, and there are common spaces on the floor above each entrance that can be used for a variety of purposes – socialising, workshops, celebrations, etc. The glass walls of the common areas are inscribed with poems by Slovenian poets, which also helps the residents identify with their living environment.







The Zeleni gaj na Brdu Neighbourhood

F5

Brown with
White Balconies



Multiplan



**Authors**

Aleš Žnidaršič, Katja Žlajpah,
Vesna Vraničar, Petra Marinšek

Design company

Multiplan arhitekti

Investor and project management

Housing Fund of the Republic of Slovenia
Damjana Varšek
Barbara Brinovčar
Borut Hafner

Built

2010–2016

Number of buildings

8

Number of apartments

F5.1:

5 buildings

157 apartments

30 sheltered housing apartments

F5.2:

3 buildings

85 apartments

Photos

Miran Kambič

Rhythmically arranged covered loggias and prominent white balconies are a defining feature of this residential neighbourhood.

The apartments in the three buildings have a double-sided orientation and open-plan living areas, where the living rooms are joined with the kitchen. In the floor plan, the two halves, day and night, are connected by a centrally positioned sanitary hub with a bathroom.

With a rational approach and simple and affordable architectural elements, the architects have achieved a sense of high standard. The number of apartments per entrance is small, and the aim of the design was to provide as much privacy as possible for the residents. Particular attention has been paid to the views of the surrounding countryside and every effort has been made to avoid views of nearby buildings.

As the apartments feature double-sided orientation and they can be naturally ventilated. A variety of sizes have been planned – from the smallest, medium-sized to two-storey apartments on top of the buildings, giving residents the feeling of living in a house. The larger apartments at the top open onto various forms of external extensions such as balconies, terraces or loggias. The façades have a dual appearance – the eastern façades, where the sleeping areas are located, are introverted, while the western façades, where the living areas are located, are more extroverted. The façades are made of two elements – plaster and fibre cement boards. The cladding on the loggias and balconies is made of aluminium composite panels.







The Zeleni gaj na Brdu Neighbourhood

F6

Grey

Terraced
Houses



Bevk Perović



**Authors**

Matija Bevk, Vasa J. Perovič,
Davorin Počivašek, Maja Valič

Design company

Bevk Perovič arhitekti

Investor and project management

Housing Fund of the Republic of Slovenia
Damjana Varšek
Borut Hafner

Built

2015–2017

Number of buildings

5

Number of apartments

30

Photos

David Schreyer

The terraced houses on the edge of Zeleni gaj na Brdu are slightly elevated above the rest of the neighbourhood and form an urban edge along the nearby forest. The five units, each with six apartments, have a uniform appearance. The architects have developed two types of houses: the “House on the House” is a typology with two units, the first on the ground floor and basement levels. The unit’s wide façade (10 m) allows for views and a flexible floor plan. The second unit is located on level +1 and has the characteristics of an atrium house: it opens onto a large terrace/garden. The second type, the “House Next to the House”, is a typology of a minimal house, with the ground floor dug into the ground. There is a car park and entrance.

The living areas are on the first floor, while the bedrooms and terrace are on the second level. The upper terrace floor is offset from axis to axis in the transverse direction, giving it a dynamic effect. Both typologies are developed around a shared road, which is a green and quiet internal access.

A simple structural system of reinforced concrete walls and slabs with a span of 5.75 m was used, which rationalises the construction costs. Different typologies of apartment appear in this repeating structural model. The terraced houses have a unified appearance due to the choice of the same materials – on top, there is silver-grey patinated timber cladding made of pre-treated wood, the ground floors are clad with brushed stainless steel panels concealing the garage door, and the front door has a glass element in light wood.





The Novo Brdo Neighbourhood

2021



The Novo Brdo Neighbourhood E2, E3 Mottled Red and Grey

Dekleva Gregorič



Authors

Competition team

Aljoša Dekleva, Tina Gregorič, Lea Kovič, Martina Marčan, Naia Sinde, Vid Zabel, Martin Kruh, Ana Riesco

Project team

Aljoša Dekleva, Tina Gregorič, Lea Kovič, Andi Koder, Martin Kruh, Martina Marčan, Naia Sinde, Tina Špat, Vid Zabel, Anamarija Fink

Design company

Dekleva Gregorič arhitekti

External layout and landscaping

Dekleva Gregorič arhitekti

Planting

Andrej Strgar, Pro Horto

Building structures

Bruno Dujjič, CBD

Electrical installations

Aleš Matuš, MAT-EL

Mechanical installations

Jože Velnar, VELING DEOL

Investor and project management

Housing Fund of the Republic of Slovenia
Borut Hafner
Damjana Varšek
Barbara Brinovčar
Branka Trebušak

Source

Public competition

Planning

2016–2021

Built

2022

Building plot size

47,643 m²

Number of buildings

18

Number of apartments

498 rental apartments

Structure of apartments*

- 52 one-room apartments
- 186 two-room apartments
- 165 three-room apartments
- 95 four- and multi-room apartments

* The structure of the apartments in terms of the number of rooms follows the definition presented by the SSRS in its commercial materials. The SSRS counts the living room towards the number of rooms in an apartment, so in this case, the type "studio apartment" does not exist and a "three-room apartment" means a living room and two bedrooms.

Floor area ratio

1.09

Awards

2022 Plečnik Medal
2024 EUmies Award Nomination

Photos

Miran Kambič, Matevž Lavrinc,
Flavio Coddou, Robert Potokar

The urban development concept of the Novo Brdo neighbourhood is based on the scale of the Zeleni gaj na Brdu neighbourhood and the typology of individual buildings that prevail in the wider context of the area. The architects have created a varied, safe open space, permeated with new green areas linked to the existing ones on the eastern and northern edges.

The architectural-urban solution is designed in a systemic way, with the transverse strips organised according to the division of the functional units: the strips of the built environment and the strips of the circulation paths alternate and complement each other. The whole is designed as a free-standing building development, separated from the main road by longitudinal buildings with smaller apartments arranged along the external open connecting corridors. Every pair of buildings is connected by circulation towers, which are an identifying connecting element in the area.

Individual residential buildings of the free-standing type (S, M and L mid-rise towers) feature compact dimensions so that illuminated internal staircases are reduced to a minimum. The blocks have a limited number of apartments – from a minimum of 24 to a maximum of 38 housing units per entrance, which, according to sociological studies, ensures the successful creation and functioning of a community of people who live in, use and identify with a particular building. Vertical circulation paths are provided in the central atriums of larger or smaller dimensions. This has not only created individual homes but also functioning residential communities.

The external colour scheme also contributes to the sense of belonging: the façade, clad in different coloured ceramics, creates a strong identifying element. The longitudinal grey plastered buildings along the road that borders the neighbourhood feature a more restrained colour scale, but they link nicely with the more colourful mid-rise towers in the interior.

Experience shows that the sense of identity and belonging of the residents to a particular residential building contributes significantly to the quality and responsible use of these buildings and spaces. This is of paramount importance for the "self-regulation" of the community in a rental housing scheme and for maintenance issues. In the long term, this results in lower maintenance costs for the neighbourhood. The architects designed 18 common places on the ground floor of the buildings. They are not yet fully used in their intended sense, so more efforts will be needed in the future to inform residents and organise their coexistence.

Following the same "scattered" principle as the buildings, the open green spaces are structured into smaller entities belonging to specific communities of interest of the individual residential buildings.

The materials chosen make them easy to use and maintain. The floor plans of the apartments are repeated on the floors – to avoid unnecessary complications in structural design and installations and to rationalise construction, as the contractors can reuse the formwork for prefabricated elements of the load-bearing structures, balconies, stairs, service shafts and bathrooms. Some of the apartments can also be converted if the individuals in them need adaptations because of a disability.

The landscaping is adapted to the existing natural features and follows the band organisation scheme prescribed by the urban development concept. Between the buildings, there are open areas of various sizes and characters: large, medium and small, as well as special edge open spaces oriented towards the slope and the Pot Rdečega križa road. They are formed by clusters of trees and shrubs that further define the external layout system, guide users along paths, separate or highlight. The neighbourhood open space is a collective, intergenerational space for meeting, socialising and outdoor activities.

Responses of Residents

My seven-year-old son and I live in a two-room apartment in the building closest to the green space. I am a single mother and I am very happy with the long-term rental option, as it gives me a sense of security and stability in the landlord-tenant relationship. It is almost impossible to get an apartment through the PHF's tenders; it is easier through the SSRS's tenders.

As my son and I are on our own, I could only rent an apartment with one separate room. It's called a two-room, but the second room is a living room. This may be an acceptable solution for a couple, but a mother and child each need their own room.

Families with several children have priority for renting. My son is growing up, so I will have to think about a bigger apartment in the near future. However, I would like to be on a long-term lease with the SSRS in the future as well.

Since the state is behind the project, there is a social motive: even though everything is getting more expensive, the rents remain the same.

I work from home a lot, so the balcony means a lot to me because I can step outside and get some fresh air while I work. The large windows make the apartment bright and airy. The neighbourhood is very pleasant to live in; it is clear that the apartments have been designed by professionals and that the price of the investment has not taken precedence over the quality.

The neighbourhood is also well-planned – from the paving, street furniture and playgrounds to the green spaces. People, especially children, spend a lot of their free time outside. The location of the neighbourhood is excellent as it is close to nature, the Rožnik Hill, Koseze Pond and the city.

I am, however, bothered by the extremely heavy fire door to the garage. Our block also has an extra-large interior space with a staircase, but it doesn't really have a purpose. I don't use the stairs myself because they are too far from the lift.

The housing estate has a community pavilion but I am surprised that so few people use it. I have organised an event there myself twice. As I write stories for children, I have prepared a reading of stories from my book for Christmas. But organising it is quite a challenge. First, you have to fill in a form at the District Community Office, then go back on the day of the event to pick up your key. You also need to be aware of their short opening hours, as they are not available all the time. At the very least, the forms and keys could be kept in the neighbourhood manager's office for easier organisation and access. There is an empty space in every housing unit, and many of these could be brought to life if people knew they could use them, and if there was more than just the option of renting or buying at market rates. They should charge an affordable rental fee for use and set a price per hour. I am sure that out of the 500 apartments in the neighbourhood, there would be quite a few people interested in using the space. In Vienna, where I used to live, this worked very well and the spaces were always in use. Perhaps a rental app could be created to reduce administration and increase accessibility. I would be willing to prepare another event for children or mothers if someone could help me organise it and help with publicity so that the residents actually know about it. There are many young mothers in the neighbourhood. I'm sure they would love to attend a workshop, a lecture or just socialise with each other. Perhaps even just one person in the neighbourhood could make a big difference, looking after such programmes, organising events and connecting and informing people. We pay for all sorts of things on our bills every month, and perhaps each apartment could contribute just a euro or two for such a person and a lot could be done.

I'm not yet sure I like the look of the exterior of the neighbourhood with the colourful tiles on the façade. I miss wood. I appreciate the creativity; it is noticeable that each block is a little different, that the architects have put a lot of thought into the design, and that the landscaping is also very well thought out. It is also clear that they have thought about how to combine the grey blocks along the road with the coloured ones.

The quality of the external layout is also the reason why there are so many people spending time outside. Because the lights are on at night, I'm not afraid to walk my dog in the evening. As a woman, feeling safe is especially important to me. I also like multiculturalism; I am happy when my son plays with children of different nationalities and religions because it helps to break down boundaries and fears.

Requiring the previous tenant to completely vacate the apartment and the new tenant to buy everything again even though the previous tenant's kitchen might have come in handy is contrary to sustainable development.

M. M., 35 years old

I live with my 10-year-old son and we moved into the neighbourhood in 2022. Long-term renting means a lot to us because it gives us a sense of security, in contrast with renting a privately owned apartment, where you can end up on the street overnight, even though you have a child.

The neighbourhood is very nice because it has a lot of greenery and sunshine, lots of children's playgrounds, it is closed to traffic, and it is very clean. In the afternoon, there are lots of people out and about in the neighbourhood – walking their dogs and visiting the nearby nature.

For slightly older children, there is a great bike course where they can get their exercise. However, there are no facilities for teenagers and young people that some of the older neighbourhoods have, e.g. table tennis, volleyball or badminton nets, conventional playgrounds, etc. In one of the common areas, we could set up a mini-gym for residents, a social space, a soundproof music practice room or something similar.

Young families were given priority in terms of renting. However, as children grow up, these facilities would be desirable so that teenagers and young people can spend quality leisure time in the neighbourhood and not get bored, which can lead to tomfoolery.

I like that the apartment is airy and bright, south-facing, that we have a balcony and that my son has his own room.

The other apartments I have had the opportunity to see in the neighbourhood have also been designed by the architects so that the children have their own space, even in the smaller apartments, which I like very much. I sleep in the living room, but I don't mind. However, there is no space for drying laundry. Drying it on the balconies is not allowed and there is no drying room in the block.

I feel there is a lack of privacy: I don't like curtains, but when the lights are on, you can see into the apartment even through the roller blinds. You can also see through the mesh on the balcony railings, which is why many residents install different materials, spoiling the aesthetic appearance of the neighbourhood.

I noticed that there is always a slight breeze blowing through the window frames, which is a bit unpleasant in the winter. I'm experiencing underfloor heating for the first time and I find that there is not much difference in the warmth of the apartment whether you have it

set to 20 or 30 degrees Celsius. However, I estimate that the type of apartment my son and I live in also has high temperature losses due to the large glass surfaces. Large windows are essential for a pleasant stay, but the south-facing orientation of the apartment makes it very hot in summer, so I decided to install air conditioning. The roof terraces are also problematic, as fixed blinds are not allowed there. Last summer's storms caused parasols and various shading devices and other objects to fall off the roofs, which could have hurt someone or damaged buildings and cars.

What I don't like about the neighbourhood's appearance is the combination of the nearby green blocks and our mottled ones, personally I prefer more restrained colours. I realise that it is difficult to meet all the requirements of the residents, that they vary and that there is no such thing as a perfect property.

M. P., 35 years old

I am delighted that I was eligible for an apartment in this neighbourhood.

Although I have a mobility impairment, I live on the second floor because there is a lift in the building.

The apartment offers beautiful views of the greenery and the wider area. The bathroom was remodelled by the bathroom fitters for my needs in five days. The problem I have is opening the fire-resistant door, which is extremely heavy. It makes me think twice before going into the garage or basement.

The neighbourhood is ethnically very diverse. I don't have much contact with my neighbours, but we have a Facebook group where we share information. I like that the neighbourhood is very lively and has a lot of children, but there is a very busy road in the immediate vicinity and a lot of drivers speed. Traffic should be regulated with another traffic light or with sleeping policemen. I have noticed that people are very bad at separating waste and do not flatten cardboard boxes, so the containers fill up very quickly. I really like the look of the neighbourhood, especially the colourful façades. What bothers me are the blinds, which are transparent and do not ensure privacy, as well as the poor quality of the parquet flooring and the very slow repairs when something breaks.

M. K., 55 years old

As I am retired, I applied for a ground-floor apartment in a block with sheltered housing. I am extremely happy with the apartment, the surroundings and the neighbourhood in general. I like being able to see the greenery from my apartment and listen to the birds all day long. I like seeing people walk their puppies past my apartment, which is how I often pass time as I used to have a dog myself. There are also a lot of children in the neighbourhood and I like their liveliness very much.

I also joined a health group. Every morning at 8:30, 8 to 10 residents out of the about 31 people in our block get together and exercise. If the weather is nice, we exercise in front of the building, otherwise in the common area on the ground floor, where we also have a kitchen, a table and a sofa, as well as two exercise bicycles. Sometimes we also sit and talk here after we've finished exercising.

Posters have been put up around the neighbourhood inviting others to join us, but so far there has been no interest. It would be very nice to have a shared roof terrace where we could set up a lounge area, place potted plants, etc.

I miss flowers in the estate, as they are not allowed on the windows and balcony railings, and the green areas are only planted with green plants.

The apartment is very nice and at 64 m², it is even too big for me as I am alone. It's nice that the apartment has a lot of windows, so it's very bright. In the evening, I lower the roller blinds and feel safe. I like the large bathroom, and even though drilling into the walls is not allowed, there are other ways to renovate. It is right to stick to the prescribed rules, so the neighbourhood and common areas remain uniform in appearance.

J. M., 79 years old

As soon as I heard that the Novo Brdo neighbourhood was going to be built, I decided to apply for the SSRS tender. This part of Ljubljana is the most beautiful for me, next to Prule, because it is very green and peaceful.

I'm still a student, but I work a lot while studying so I can afford to live independently. When I was out of work for a few months, the Fund kindly advised me to contact the Social Work Centre about the possibility of subsidising my rent, for which I am very grateful.

They are also very understanding about the occasional late payment. In addition, they do not perform apartment inspections, which is often the case in privately owned housing. It would be difficult for me to afford market rent on my own anyway. My block is full of young people; we greet each other in the corridor but we don't socialise. We live in an age where individuality is at the forefront. I live alone in an apartment with 32 m² of living space. The initial investment was €20,000, as I had the furnishings custom-made. I wanted the apartment to be functional and beautiful despite its small size. The kitchen fits perfectly into the niche between the two walls; I have a wall bed so that there's more space in the apartment during the day and the wardrobes are built-in. Communication with the Fund before moving in was very good and we were always able to have the fitters come to the apartment for measurements and installation.

The apartment is very well soundproofed; I never hear noise from neighbouring apartments or from the road. The air-conditioning units are on the roof, so you can't hear them humming, and they're not visible either. The roller blinds also operate quietly. The neighbourhood is very quiet at night.

Recuperation is also important to me: I do a lot of laundry because I play sports, but thanks to the good ventilation, I don't have humidity problems in my apartment. However, I have a problem with the hood in the kitchen, which is not connected to the façade, so the filter has to be changed twice a year and this is not cheap. It also bothers me that my apartment does not have parquet flooring, but plastic. The architects have designed the façade very nicely: the doors are white on the inside and black on the outside to match the other elements on the façade. However, it seems to me that the dark colour that dominates the façade accumulates more heat, which makes the apartments warmer.

Having a parking space in the garage is a big deal for me, as it keeps the car cool in the summer and warm in the winter, so I don't have to defrost the windows.

I like that people follow the instructions for a uniform and tidy appearance of the neighbourhood: no drilling in the walls in the apartment or on the balcony, no hanging laundry outside, no bicycles, shoes, full bags of rubbish and other items in the common corridors.

These regulations have to do with fire safety and general order. Some residents put cupboards in the open corridors but had to remove them later. The manager is good at keeping things tidy, but it would be nice to have someone available 24 hours a day for the whole neighbourhood, because sometimes unpredictable things happen and you need help right away.

There has been a lot of talk lately about the smart green transition. I would like to see energy renovation or a switch to renewable energy sources, such as installing a solar power plant and/or a heat pump, as a long-term goal for our neighbourhood.

B. B., 28 years old









The neighbourhood is very pleasant to live in. It is clear that the apartments have been designed by professionals and that the price of the investment has not taken precedence over the quality.

M. M., 35 years old







I'm still a student, but I work a lot while studying so I can afford to live independently. When I was out of work for a few months, the Fund kindly advised me to contact the Social Work Centre about the possibility of subsidising my rent, for which I am very grateful.

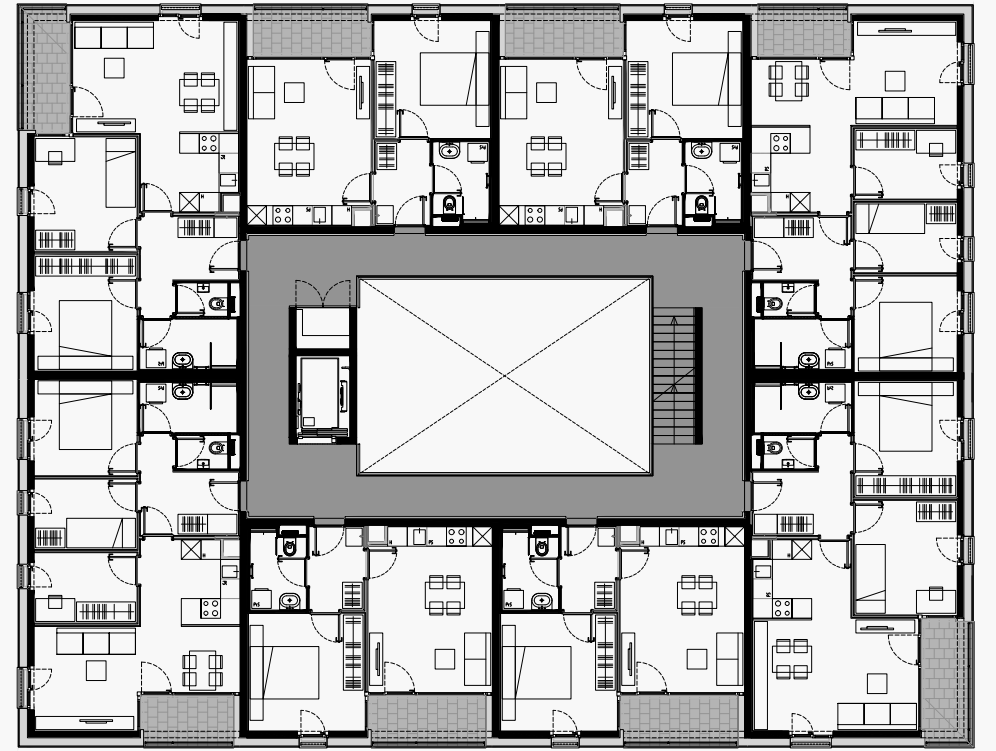
B. B., 28 years old







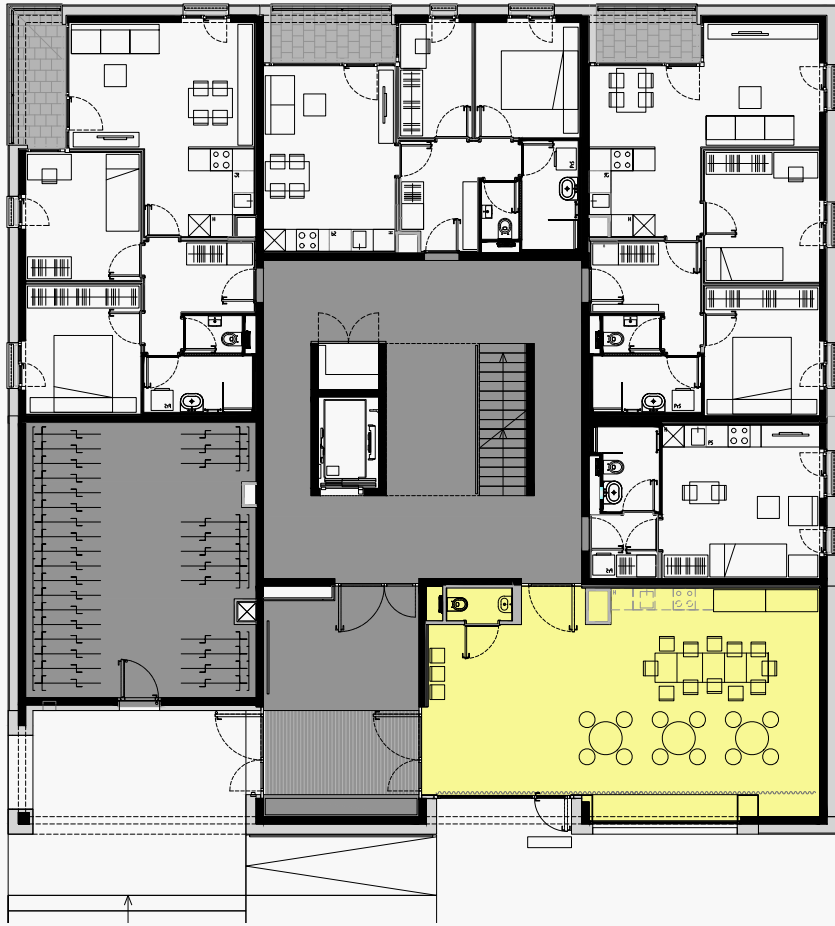
Mid-rise tower L - Ground floor



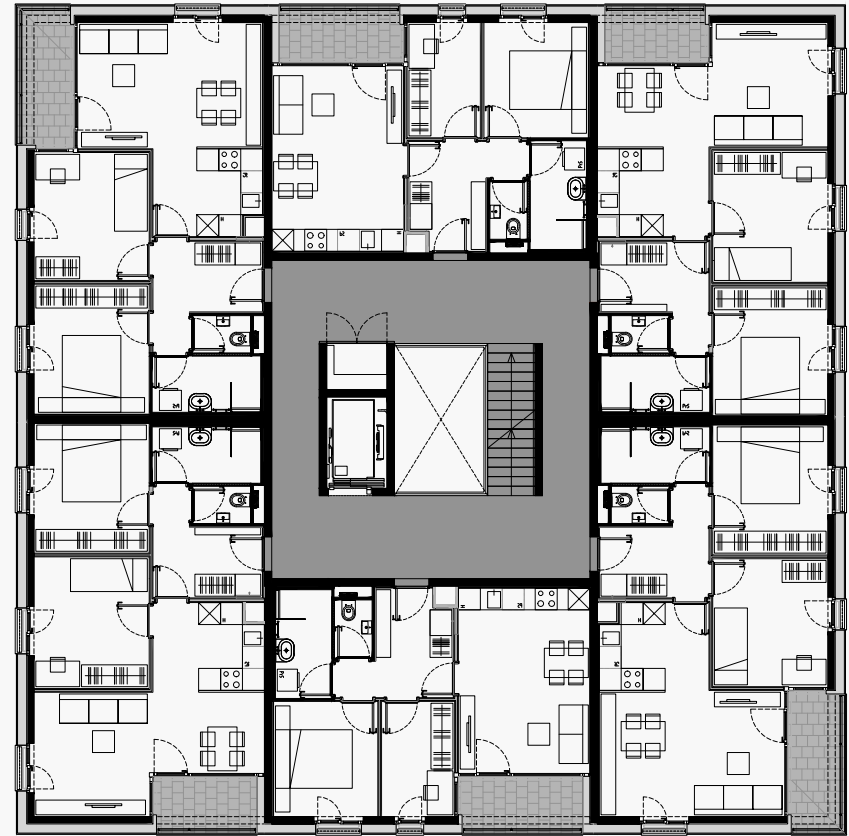
Mid-rise tower L - Typical floor



Mid-rise tower L - Terrace



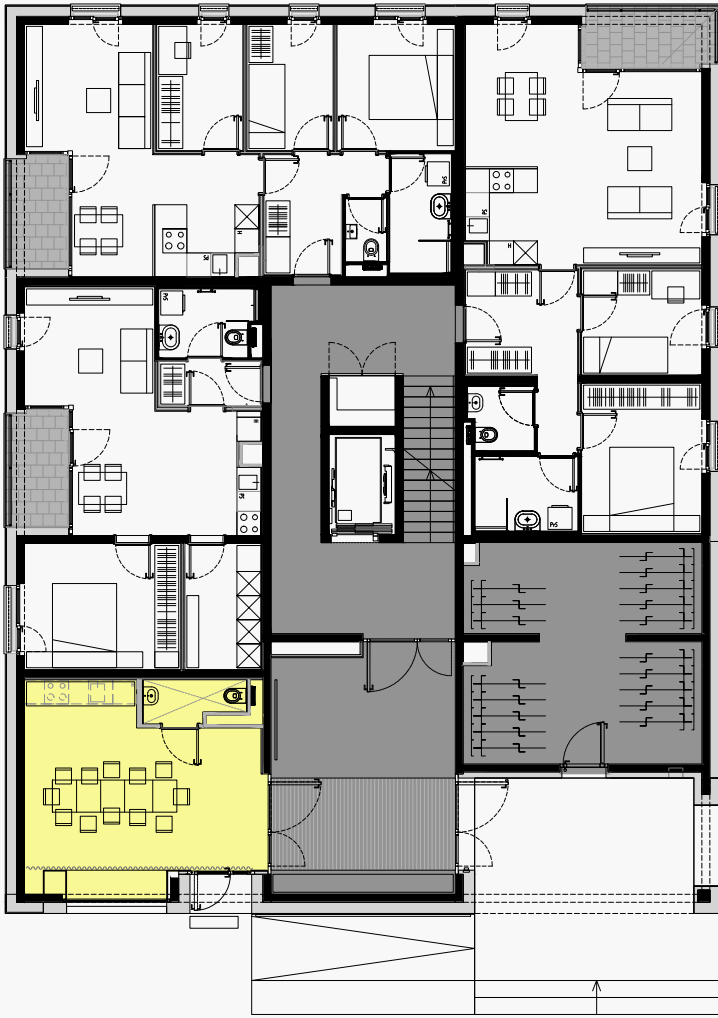
Mid-rise tower M - Ground floor



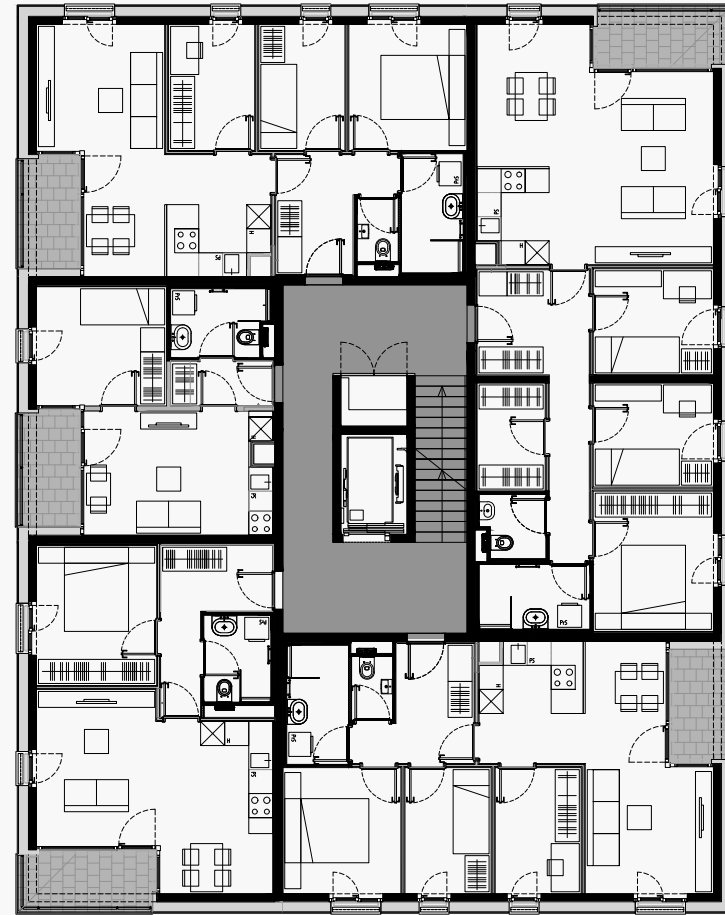
Mid-rise tower M - Typical floor



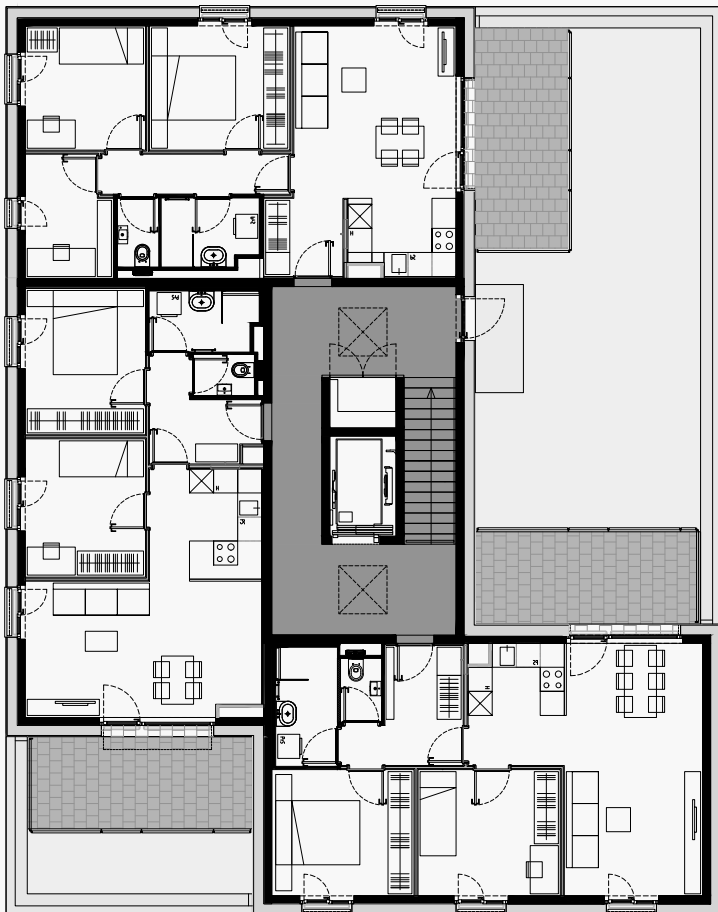
Mid-rise tower M - Terrace



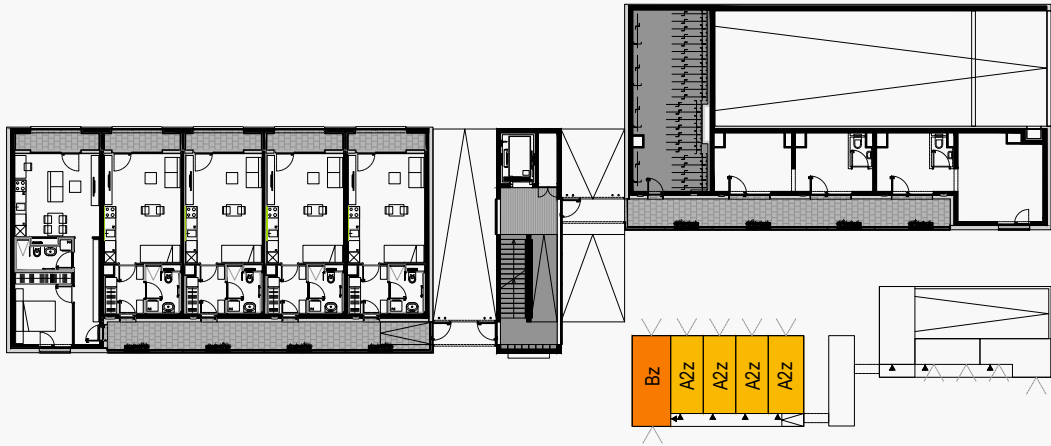
Mid-rise tower S -
Ground floor



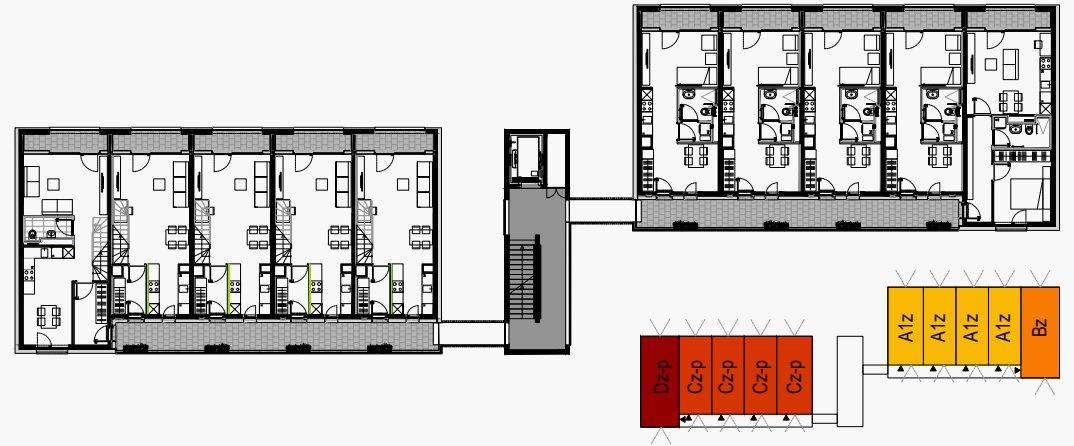
Mid-rise tower S - Typical floor



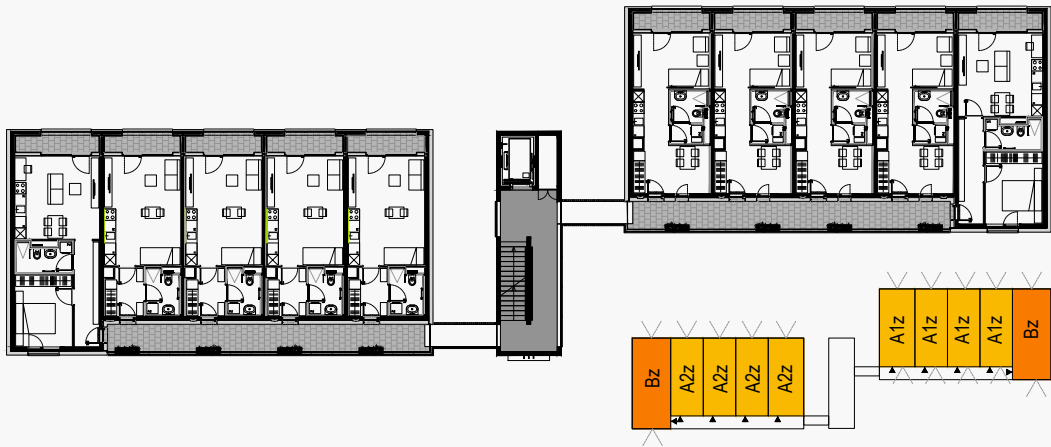
Mid-rise tower S -
Terrace



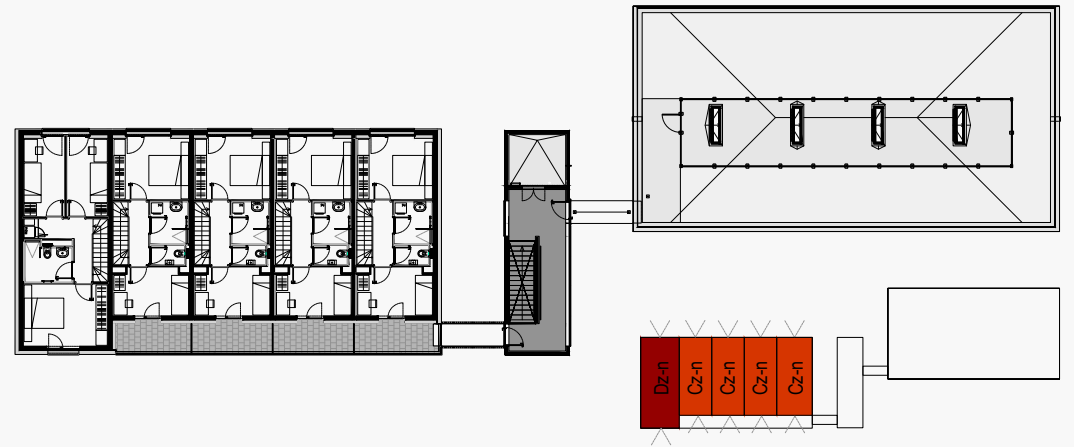
Building Z - Ground floor



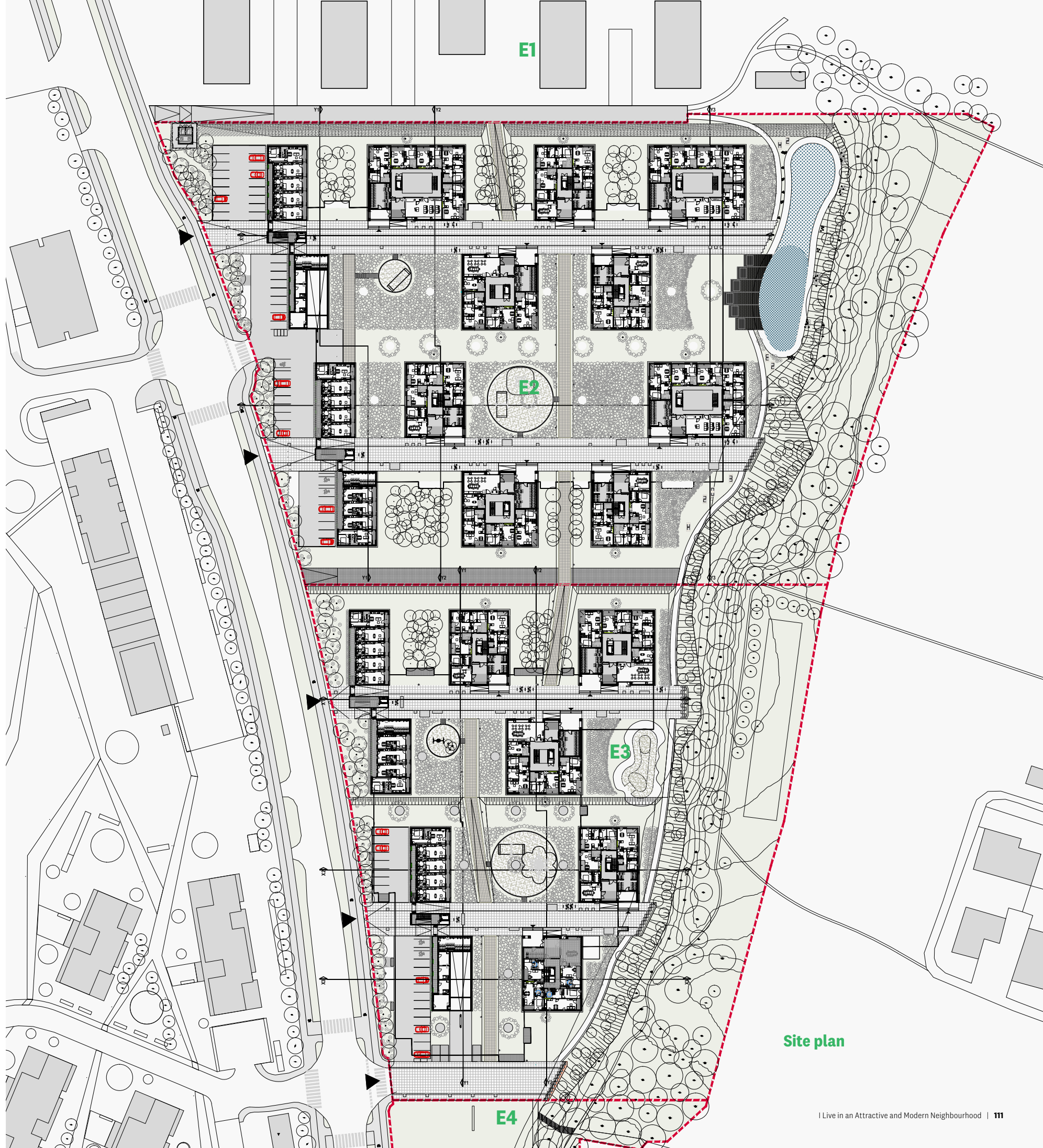
Building Z - 2nd floor



Building Z - 1st floor



Building Z - Terrace



E1

E2

E3

E4

Site plan

The Novo Brdo Neighbourhood

E1

Green with White Frames



Nava



**Authors**

Monika Fink Serša, Aleksander Lužnik, Ana Ocvirk Šafar, Miklavž Tacol, Boris Vranić, Zala Privšek, Liza Privšek

Design company

Nava arhitekti

Investor

City of Ljubljana's Public Housing Fund (PHF)
The investment was partly financed by a loan from the Housing Fund of the Republic of Slovenia.

Planning

2016

Built

2021

Source

Public competition

Number of buildings

6

Number of apartments

174 urban rental apartments

Photos

Miran Kambič, Boris Vranić

The Novo Brdo neighbourhood consists of two parts, designed by two architectural firms for two investors, after winning a public competition. Nevertheless, the two parts are harmonised and linked. The urban architectural design of the southern part was designed by Dekleva Gregorič for the Housing Fund of the Republic of Slovenia, while the northern part, which is presented here in more detail, was designed by Nava arhitekti for the City of Ljubljana's Public Housing Fund.

The six residential buildings with the floors B+GF+3+T are oriented east-west with their longer sides. The central part of the neighbourhood is dedicated to socialising and playing in the greenery, cycling and walking, and emergency access. The blocks are two sizes; the longer ones have two circulation cores and a total of 45 housing units, while the four smaller ones have 21 housing units with one circulation core. Of these, 18 are adapted for people with various disabilities. The apartments range in size from those suitable for one person to those for a family of five. The floor plan is flexible; the apartments can be adapted to have an extra room. Each apartment has a large covered balcony that extends the interior into the outdoor space.

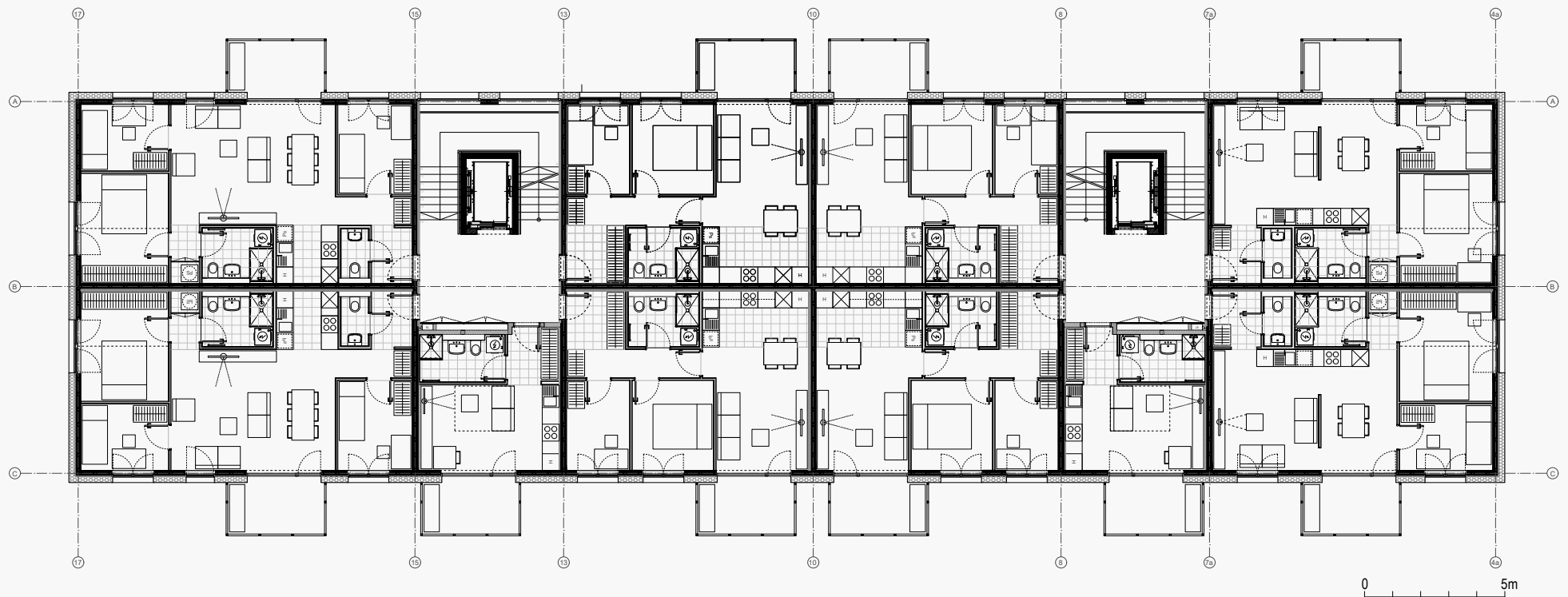
The basement floor has a garage, storage rooms, service areas and bike storage rooms.

The architects have designed a common area for various activities of the community of residents, visitors and neighbours in a low glazed pavilion at the top of the hill on the eastern edge, with beautiful views of Rožnik Hill, Ljubljana Castle and the Kamnik-Savinja Alps.

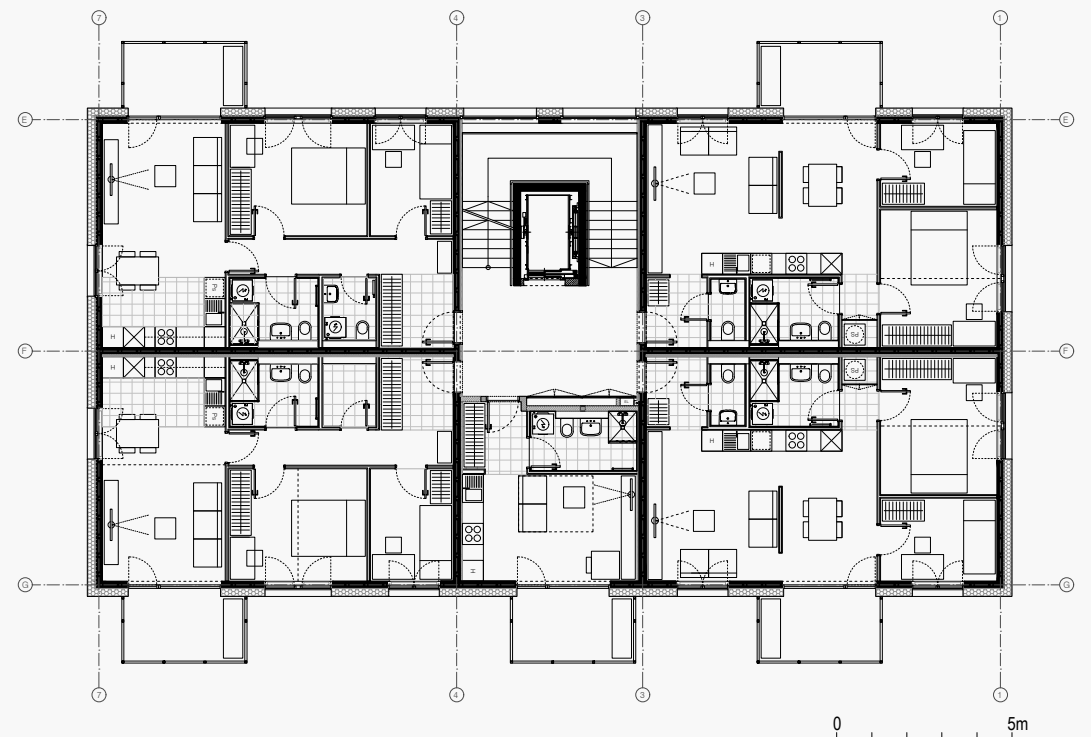




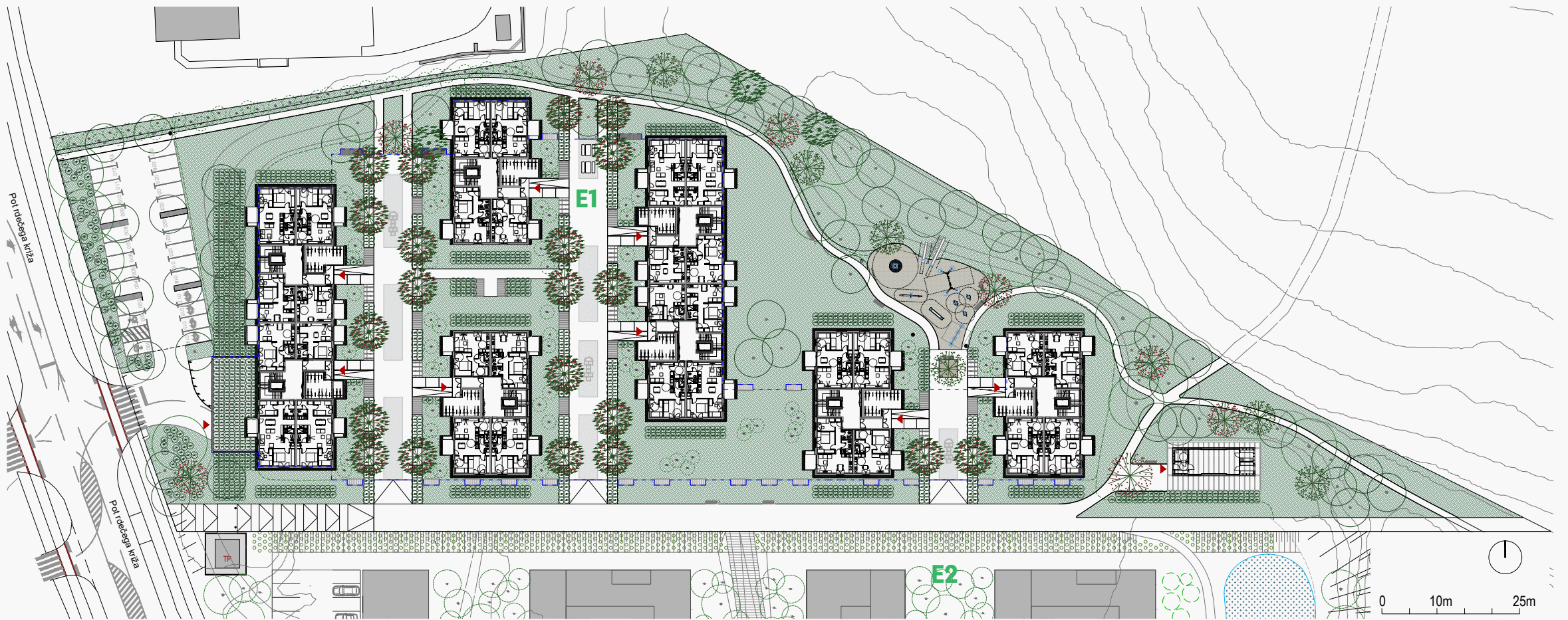




Long building - Typical floor



Short building - Typical floor



Site plan

3

**The Dolgi most
Neighbourhood,
Ljubljana**

Planning and Construction of the Dolgi most 2 Neighbourhood



Barbara Brinovčar

The origins of the SSRS's investment in the Dolgi most buildings date back to 2019 when, after a business analysis and a review of the conceptual design plans, it became clear that the Dolgi most site was a favourable location for the SSRS to build public rental housing.

The degraded land, on which two SSRS buildings stand today, was located within an estate of individual houses and next to the non-profit housing of the City of Ljubljana's Public Housing Fund. Nevertheless, as the land already had utility infrastructure and valid spatial planning documents, which allowed the construction of two multi-dwelling buildings, the location on the outskirts of Ljubljana and the Ljubljana Marshes indicated good potential, obtaining a building permit quickly and starting construction immediately, which is very important for the Fund's investments.

Following the purchase of the land from the bankrupt company's estate, the investment continued with a public procurement procedure for the selection of project designers. The architects drew up the design documents for the building permit in 2019–2020 and obtained the building permit in the same year. The Housing Fund of the Republic of Slovenia prepared the public procurement together with the technical documentation for the construction according to the design-build system, which means that the selected building contractor also prepared the detailed design documents (PZI), according to which it built the facilities.

The contractor and the architects prepared the (BIM) detailed design documents and then worked with subcontractors to carry out the construction, finishing and installation works. At the end of construction, the architects also produced the (BIM) as-built design documents, carried out the technical inspection and obtained the operating permit, the energy performance certificate and ensured that the buildings were registered in the official registers.

Most of the construction and finishing work was carried out during the COVID-19 epidemic, which affected the construction schedule, followed by the war in Ukraine, which impacted the progress of the construction and the supply of materials. Both of these unforeseen events resulted in a sharp price increase in the construction sector, pushing up the prices for construction, finishing and installation works by 30% between the signing of the contract and the completion of the works.

Construction was completed in 2022. This was followed by the final activities of the contractor, the training of the manager and the handover of the buildings and apartments to the investor.

Dolgi most 2

2023



The Dolgi most 2 Neighbourhood Green Metal Envelope

Bevk Perovič
Počivašek Petranovič



Authors

Matija Bevk, Vasa J. Perović,
Davorin Počivašek, Urban Petranovič,
Urša Gantar

Design companies

Bevk Perović arhitekti,
Arhitekti Počivašek Petranovič

Building structures

Mitja Kovačec, IBK

Electrical installations

Damjan Mršič, Elektro-Projektiva

Mechanical installations

Jože Oblak, ISP

Investor and project management

Housing Fund of the Republic of Slovenia
Barbara Brinovčar
Gaj Rak

Source

Public procurement

Planning

2019–2021

Built

2021–2023

Building plot size

4,603 m²

Number of buildings

2

Number of apartments

40

Structure of apartments

- 4 one-room apartments
- 20 two-room apartments
- 12 three-room apartments
- 4 four-room apartments

Floor area ratio

1.35

Photos

Urban Petranovič

Award

OHS AWARD 2024 in the category
Housing Projects

This neighbourhood is located in a suburban housing estate of single-family houses. It is designed with smaller volumes to connect to the surrounding individual building development. The two buildings, which together comprise 40 rental apartments, continue, in terms of design, and physically complete the development of the area, in which the PHF built the Dolgi most 1 block a few years ago.

Each of the buildings consist of two two-storey residential parts connected by a common ground floor containing the entrance, garage, service and technical areas. The garage is on the ground floor due to the swampy ground of the Marshes with a high groundwater level.

The open staircase leads to the common covered external corridors and a raised central green garden between the two building parts. The shared garden, which is connected on one side by common corridors and on the other by the loggias of the apartments, is a place where the residents of the new block can meet, socialise and network. The garden is green, with low shrubs and trees in front of the loggias and a path winding through it, past a platform with a table and benches.

The apartments are accessed from an open common corridor. There are four basic types of apartments: one-, two-, three- and four-room. They are designed according to the same principle of division into “night” and “day” parts. The living areas are oriented to both sides, so the apartments feel open, airy and spacious despite their modest square footage. The living room and the loggia open south towards the greenery and have a more private character. The kitchen/dining room opens onto the opposite side – onto the common corridor, which allows and encourages socialising between residents. The bedrooms face the quieter and more private garden to the south. The service areas are located at the entrance.

The buildings’ distinctive feature is the green envelope formed by their metal railings, through which the reinforced concrete façade, which is also the structure of the building, is visible. The non-load-bearing walls act as fillers withdrawn from the plane of the reinforced concrete façade. They are rendered with a very rough façade. On the south side, the façade has depth as it triangularly covers the storage rooms in the loggias, thus also separating the long horizontal lines of the reinforced concrete balconies.

The powder-coated metal railings in olive green protect the residents from views from the street and give the buildings a uniform appearance. The choice of metal bars as the finishing layer of the external appearance of the buildings is based on the design of the existing construction of the buildings with non-profit housing of the PHF and unites the buildings into a complete whole.

The neighbourhood uses durable materials that are easily accessible and energy efficient. The materials used in the buildings have been chosen to make them easy to use and maintain. They are proven, technologically simple and durable. The floor plans of the apartments are repeated on the floors to avoid unnecessary complications in the structural design and during construction, as the contractors can reuse the formwork, prefabricated elements of the load-bearing structures, balconies, stairs, service shafts and bathrooms. Some of the apartments can also be converted if the individuals in them need adaptations due to a mobility impairment.

The northern part of the plot has a children’s playground with recreational equipment, urban equipment and greenery. In this way, socialising is relocated from the internal atriums to the outdoor common area, comprehensively enhancing the surroundings and completing the neighbourhood.

Response of a Resident

We recently moved into the new building in the Dolgi most neighbourhood and I can say that we are happy. The apartments have good energy, are bright, functional and have a good layout. It’s great to have windows on two sides of the façade, as the apartment can be thoroughly ventilated. Canopies keep the sun from shining directly in during the summer, so the rooms don’t get too hot. It was a bit strange to enter the apartment from the external corridor at first, but we got used to it very quickly and now we like it. It is also very good that the garage and storage rooms are on the ground floor, as it is bright, which is not the case in the basement of most residential buildings.

There isn’t much traffic on the road next to the neighbourhood, so children can play outside without worry. The green atrium between the two ends of the apartments has also become popular with children. We have already met some of the neighbours from our block and some from the one next door, which is owned by the City of Ljubljana, and I have to say that they are very nice people. The children immediately connected too. Some of the inconveniences from when we were still getting to know the apartment and the building, such as the lights in the corridors staying on all night and the underfloor heating not working at first, have been successfully resolved with the manager. I would also like to point out that it’s really great that this is a low-energy building as the first bill from the manager was much lower than the bills in our rentals to date.

S. U. Š., 44 years old







It's great to have windows on two sides of the façade, as the apartment can be thoroughly ventilated. Canopies keep the sun from shining directly in during the summer, so the rooms don't get too hot.

S. U. Š., 44 years old







Type 1 - 1-room



Type 2 - 2-room



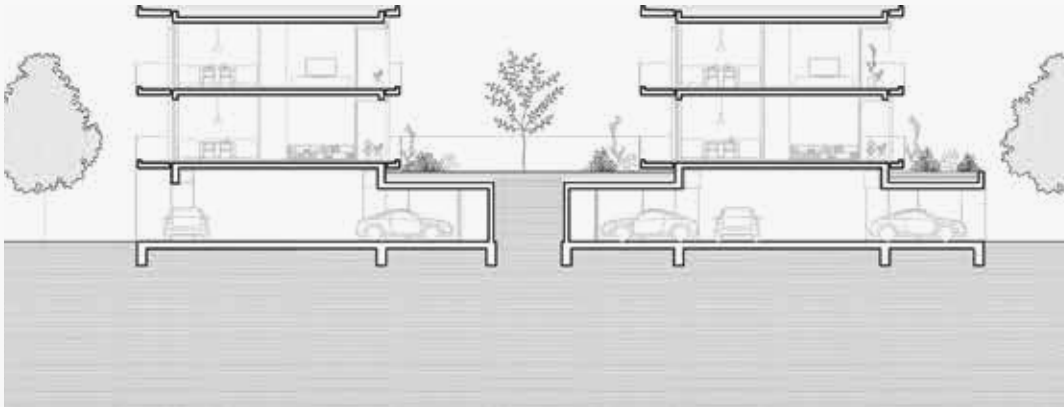
Type 3 - 3-room



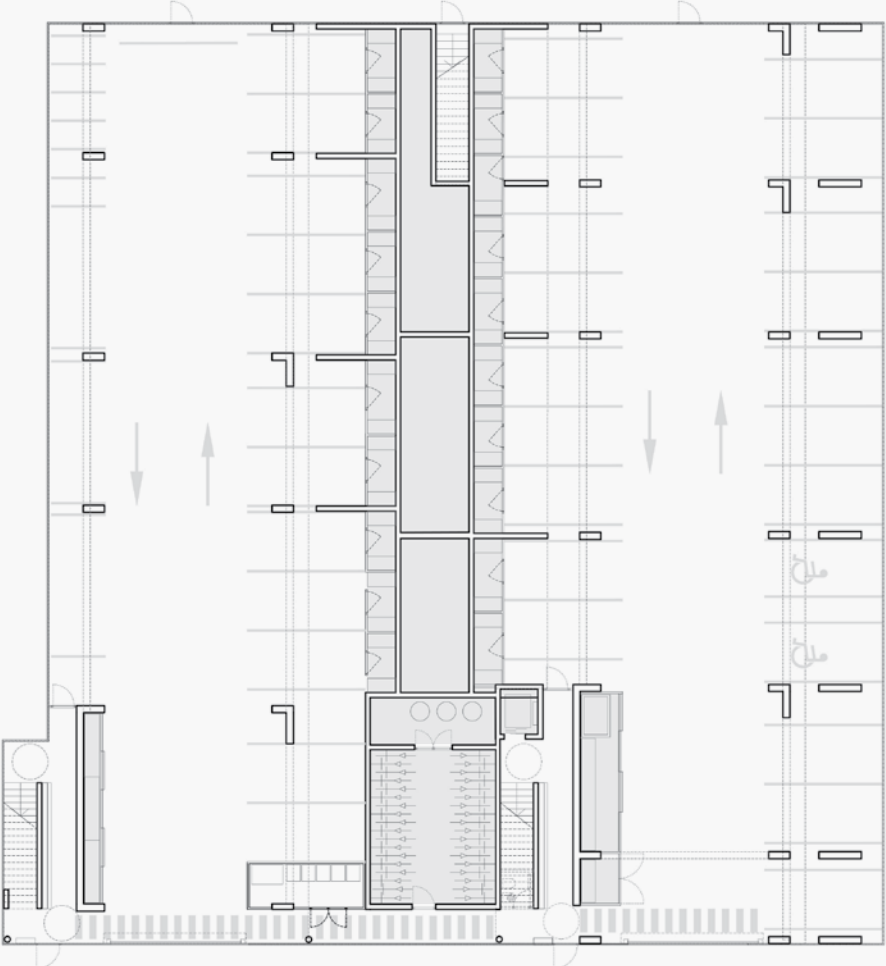
Type 4 - 4-room



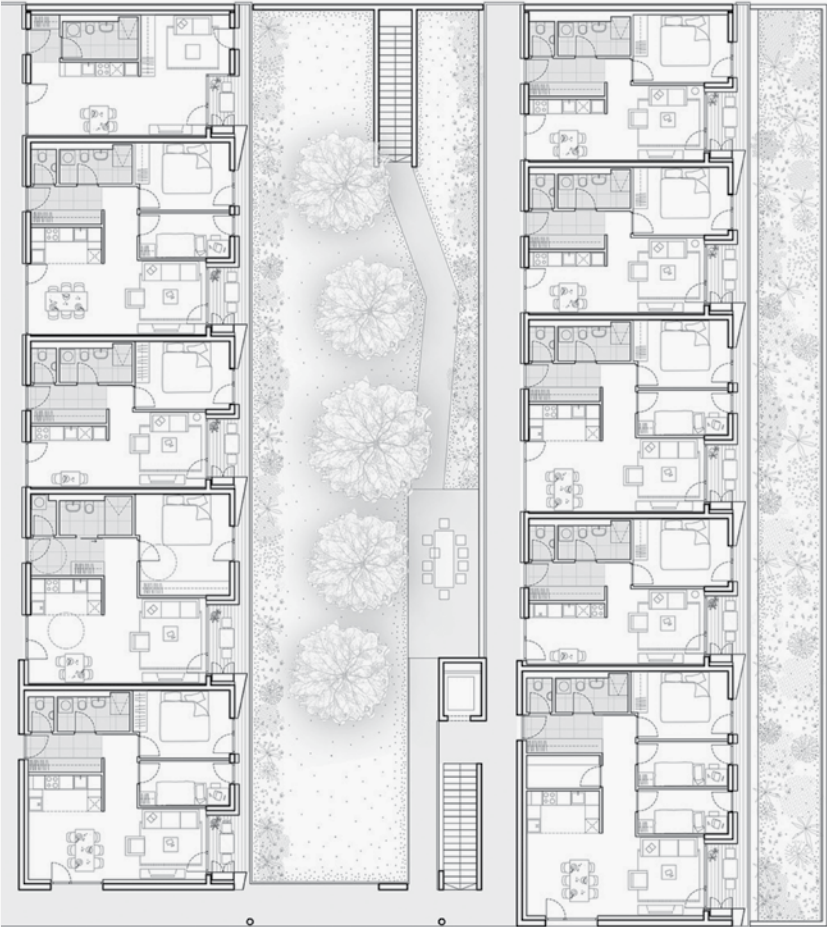
Site plan



Cross-section



Ground floor plan



Floor plan of the floor

4

**The Pod Pekrsko gorco
Neighbourhood,
Maribor**

Efficient Planning of the Pod Pekrsko gorco Neighbourhood

The Pod Pekrsko gorco rental housing neighbourhood is part of Maribor's Studenci District. The site was originally planned as a residential neighbourhood of luxury apartments, but the project failed. The Housing Fund of the Republic of Slovenia acquired the land through the bad bank and then launched a tender for the design documents. The urban development concept was predefined, i.e. based on the urban planning for a luxury neighbourhood. The architects have sensibly adapted it to the new situation of building rental apartments. In 2019, the detailed design documents (PZI) and the tender documents for the selection of a contractor were prepared. Construction started in 2020. Despite the measures related to the COVID-19 epidemic, construction proceeded fairly smoothly. The rising prices for services and shortages of certain materials were a problem. The consequences of the war in Ukraine further aggravated matters. The original deadline for completion was delayed by one year. The operating permit was obtained on 3 March 2023 and the handover of the facilities took place in May 2023. At the end of 2022, the Fund also launched a tender for the supply of equipment for sheltered housing. They were furnished by May 2023 and handed over to users in the summer of 2023.

In designing the neighbourhood, considerable attention was paid to optimising the construction costs, which would in turn provide sustainable rents for tenants. The carefully planned typology of all the apartments – from one-room to four-room – the well-thought-out proportions in each building, and the use of prefabricated elements such as bathrooms, balconies, vertical shafts, stairs and elements of the external layout, have rationalised the investment. The prefabricated elements used have reduced the construction time and improved quality, as the factory production allows for greater precision and constant monitoring. The simple, economical and logical structural design has made a major contribution to optimisation. To avoid unnecessary complications in the structural design, the floor plans of the apartments are repeated on the floors, which also facilitates construction as the contractors can reuse the formwork, prefabricated elements of the load-bearing structures, balconies, stairs, service shafts and bathrooms. The concrete installation elements also simplified the routing of the necessary conduits through the buildings.

The neighbourhood was designed to be energy-efficient and sustainable. The buildings have effective heat insulation and local or central ventilation. In the future, it will be possible to install photovoltaic power plants and central ventilation with heat recovery on its flat roofs. The parking spaces in the neighbourhood are fitted with installations for electric vehicle charging stations. Carbon-neutral mobility is promoted by the large bike storage rooms in each building, located at the entrance.

“The Pod Pekrsko gorco neighbourhood is an example of good practice in introducing different approaches to the planning, construction and management of housing. It is critical that this knowledge is applied to future rental housing investments. Regular investment cycles based on the extensive experience of the Housing Fund of the Republic of Slovenia, would realise expectations for stable growth in the number of rental apartments in Slovenia.”

Blaž Češka, Project Manager, Housing Fund of the Republic of Slovenia

Extracted from the publication *Soseska pod Pekrsko gorco*
(The Pod Pekrsko gorco Neighbourhood), SSRS, March, 2023

Pod Pekrsko gorco

2023



The Pod Pekrsko gorco Neighbourhood White Meanders

**Jereb in Budja
Dobrin
Kostak GIP**



Authors

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Kostak GIP

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Primož Poje, Avelis

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Peter Blažek, NOM biro

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Boštjan Ramovš, Pro-ini

Site infrastructure development

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Komunala projekt

Investor and project management

Housing Fund of the Republic of Slovenia
Damjana Varšek
Blaž Češka
Gaj Rak

Source

Public procurement

Planning

2018

Built

Phase 1: 2020–2022
Phase 2: 2023

Building plot size

45,873 m²

Number of buildings

9

Number of apartments

400, of which 60 are sheltered housing

Number of apartments

48 one-room apartments (12%)
164 two-room apartments (41%)
128 three-room apartments (32%)
60 four-room apartments (15%)

Floor area ratio

0.9

External layout

150 trunk trees
3000 shrubs
70 benches
2 km of walking trails

Award

BIG SEE 2024

Photos

Blaž Budja, Miran Kambič

The new Pod Pekrsko gorco neighbourhood was built on the southwestern outskirts of Maribor in the Studenci District. It is situated between one-dwelling buildings on the edge of a field, with views of the Pohorje Mountains and the hills Pekrska gorca on one side and Kalvarija on the other. It consists of 9 buildings in a meandering geometry, including four semi-public, interconnected atriums with varied greenery, children's playgrounds, sports and other leisure activities. The central square has a public programme with a day centre and a kindergarten. Unfortunately, the planned shops and service activities have not yet been developed. The neighbourhood has the potential to become a small social centre of this part of the city through its programmes.

Economy has been at the forefront of the architectural design from the outset, but not at the expense of the quality of the buildings or apartments, the common areas and the landscaping. In its guidance to designers, the SSRS required that the neighbourhood incorporates durable, easily accessible and energy-efficient materials and tried and tested details. The low-rise buildings have only a ground floor and two floors, giving the neighbourhood a friendly character. Its distinctive feature is the white pergolas that separate the public and semi-public space. The white façades are made up of horizontal bands. The accentuated vertical lines in the façade plaster use shadows to create depth in the façade surface.

Both the architectural and landscape design have put the needs and comfort of the residents at the forefront. Walkways wind through the neighbourhood away from balconies and loggias so as not to interfere with the privacy of the apartments, and the spaces in between are planted with shrubs. In front of the entrances to the buildings, there is a dedicated space with a larger bench and bike racks for outdoor gatherings. The landscaping is visually attractive. Through the thoughtful placement of the buildings, the architects have created a space for intergenerational gatherings, socialising and diverse activities, as well as a retreat for those who want it. All outdoor areas are usable at all times of the year for the blind, partially sighted and persons with reduced mobility. Traffic within the neighbourhood is limited so it is safe for children to play around the blocks.

The average size of a housing unit is 66.7 m², which is larger than the established Slovenian average. Each apartment has a large covered balcony, which exceeds the balconies in other rental neighbourhoods in terms of square footage. In all the apartments – from studio to four-room – the bedroom is separated from the living areas. All the apartments can be adapted to the new situation of the resident in case of disability, so they do not have to move to a new social environment.

The entrance vestibules are airy and bright, and the view extends into the atrium. There are storage rooms at the entrances to the apartments on each floor. There are two garages with a total of 550 parking spaces in the basement below the buildings.

The materials chosen for the buildings are durable, long-lasting and easy to maintain. The walls in the entrance vestibules and bike storage rooms are made of exposed concrete. The ceiling in the corridors is also in exposed concrete, and the walls are in white plaster. There are ceramic tiles on the floor. The use of colour in the buildings facilitates navigation and adds playfulness. The doors to the common areas are in contrasting colours, while the doors to the apartments have contrasting frames. The whole is complemented by pictograms identifying the common areas.

Response of a Resident

I have lived in this block with sheltered apartments since 2023. Each block has its own representative who negotiates with the manager, and in ours it's me. This means that the residents contact me with problems or suggestions, and I also look after the information on the notice board.

I am extremely happy with the apartment and the neighbourhood; I like the low two-storey blocks, the white façades with a vertical pattern with lines where water runs down in heavy rain, and the abundance of greenery. The latter needs a little more time to grow and for the trees to make a canopy for shade. When I sit on the balcony in the evening, I feel as though I am at the seaside, on holiday. Although some residents were initially bothered by the concrete walls in the entrance and the common areas and staircases, I myself like modern architecture.

Each block also has a larger common area on the ground floor and a smaller common area on each floor. The larger one has a small kitchen with a stove and fridge, a table, a sofa and a TV. This is where we meet once a month for tea, and where women meet almost every evening, some of them with their partners. We watch series, a quiz or a game together.

The other two rooms on the upper floors do not yet have a TV cabinet and are therefore less frequented.

My apartment is street-facing, but I don't mind the car noise. It is quiet at night and during the day there are many other stimuli that drown out the noise. Residents mostly park in the garage. Children and teenagers are louder.

The neighbourhood is full of children playing in the well-kept playgrounds and teenagers hanging out in front of the blocks. But youth should be joyful and lively.

I miss parking spaces for disabled people in the neighbourhood; they are only in front of the blocks with sheltered apartments. However, the residential unit for people with special needs, with whom we like to socialise, does not have an access ramp, so transporting them to the van that takes them to the work unit – “to work”, as they call it – is impractical.

The neighbourhood has a day activity centre, where we take part in various foreign language classes, art workshops, exercise, etc., as well as two kindergarten classes. But we are missing some shops, cafés and service establishments. The first shop is a 20-minute walk away, which means larger purchases are difficult and have to be made by car. Young families would also benefit if there was a small shop. When the neighbourhood was being built, it was rumoured that a small shopping centre would be built on the adjacent meadow, but this did not happen.

I am very happy with the apartment. The balcony is big enough for chairs and a table. I would have liked the bathroom shower to have glass walls. It also bothers me that you can't drill into the walls, because we older people have a lot of memories and souvenirs that we would like to display. I will ask a professional to find an acceptable way for me to hang them. When we move out, we will have to patch up any holes and whitewash the walls to make the apartment look like it did when we moved in.

V. K., 67 years old

Response from the Architects

Architecture comes first as an idea. Once the first sketches are made, the broader concept slowly takes shape. Through planning, the intangible becomes comprehensible. But it is only through building that architects can see their idea. We need a client in order to build, and the client has its own needs. And so the circle can be completed, starting again with the idea.

Working for a client like the Housing Fund of the Republic of Slovenia is quite a special full-circle experience. The Housing Fund of the Republic of Slovenia is probably one of the largest and, in fact, most active clients in the field of building design, with whom we have worked and continue to work. As such, the client has a way of working that, through its rules, avoids the pitfalls of reckless approaches. At the same time, it partly prevents us from creating architecture that could offer more, which is one of our guiding principles as architects and one of the main motivations for our design.

That's why collaborating with the experts who are part of the SSRS team is always a challenge, as we all work together to deliver as much as we can within the given constraints, so that the needs and ideas at the end of the circle become a home.

It was in the Pod Pekrsko gorco project in Maribor that we were given the opportunity to design an entire neighbourhood within a limited financial framework, with already outlined urban planning and considering the highly uncoordinated Slovenian regulations, together with the entire team of architects, engineers and employees of the Fund.

We believe that, through a lot of quite heated debate and search for compromise that would have been both incomprehensible in many other industries, we have succeeded in something that only time will tell – creating a home, a home that is within reach.

Rok Jereb, Blaž Budja, architects



We believe that, through a lot of quite heated debate and search for compromise that would have been both incomprehensible in many other industries, we have succeeded in something that only time will tell - creating a home, a home that is within reach.

Rok Jereb, Blaž Budja, architects



**When I sit on the balcony
in the evening, I feel
as though I am at the
seaside, on holiday.**

V. K., 67 years old





Site plan



Cross-section



Block S1 - Ground floor plan



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**The Gerbičeva Youth
Community, Ljubljana**

The Gerbičeva Youth Community

2021



The Gerbičeva Youth Community Pilot Project


Protim Ržišnik Perc





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Source

Public procurement

Planning

2019

Built

2021

Building plot size

3,872 m²

Number of buildings

1

Number of residential units

109

Structure of the residential units

from 16.5 m² to 34.5 m² for
accommodation for one, two or up to
three persons

Floor area ratio

1.15

Photos

Miran Kambič, Tadej Tomažič

The Gerbičeva Youth Community is a pilot project of the Housing Fund of the Republic of Slovenia that enables young people between 18 and 29 years of age to live independently in a specific type of accommodation. Young people often find themselves in need of housing after finishing school. A community like this gives them a space where they can be independent and autonomous, while at the same time the intergenerational activities connect them to each other and promote socialising.

The building is U-shaped, with an external atrium in the centre. Above the common connecting ground floor, there are two parallel building wings with two or three floors containing residential units. On the ground floor, which forms the base for the building wings, there are common areas shared by all residents. The north-eastern part of the ground floor is partly separated from the rest of the ground floor areas and is used for an intergenerational centre, while the southern part of the ground floor contains technical and social spaces.

The residential units can accommodate one, two or up to three people and are rented furnished. They may be small, but they are bright and functional. Each has a small kitchen and bathroom, in addition to sleeping and working spaces.

Residents can socialise in a large communal kitchen and living room on the ground floor, and there is also a multi-purpose room, a meeting room, common areas for quiet work and a shared laundry room. Inside each residential unit, the north-south orientation of the two building wings ensures good-quality shading and a sufficient degree of privacy.

The atrium has grassy areas planted with trees and shrubs. A footpath runs along the northern edge of the area with access to the buildings, covered bike sheds and atrium. In addition to parking spaces for motor vehicles and motorbikes, there are car-sharing parking spaces. The area on the east, south and west side of the building is largely devoted to access, handling and parking areas separated by splitter islands with planted trees.



Responses from the Manager and Residents

I have been the manager of the Gerbičeva Youth Community since the start of its operation in August 2021. There have been many tenants since then. They come from various backgrounds and life circumstances.

The tenants' stay in the community is limited in age and time, from 18 to 30 years old, for a maximum of three years. The aim is to enable young people to live independently for a transitional period until they find more suitable housing.

The Community does not currently allow couples (boy-girl), which is one of the reasons for moving. A number of initiatives have already been put forward by residents to remove this restriction. For the first five years, we cannot change the tendering system we introduced at the start, but we are carefully considering all the initiatives and working to best meet tenants' needs, considering the options available. The high level of interest in renting in our Community confirms that the concept is well-conceived and meets the needs of young people.

The building has single-, twin- and triple-bed residential units. Most interest is in the single-bed rooms. There are a total of 109 residential units and 171 beds.

It would be easy to fill another such community in Ljubljana, but only single-bed residential units should be considered.

I am in charge of all the many and varied tasks in the Community. They relate to leases and the maintenance and operation of the building. The residents are mostly considerate. There are incidents here and there, but I try to deal with the situation in an understanding way. We have an agreement with the residents to contact me immediately by phone or email in case of urgent problems. Less urgent problems are dealt with the next day or otherwise, depending on the urgency of the matter. There is a night duty service if they forget their access card or key – both are provided when moving in. But this costs the forgetful quite a lot of money, so interventions are very rare, maybe once a month. A notice board at the entrance gives instructions on how to deal with such an eventuality.

Another part of my responsibilities is to take care of the maintenance and operation of the building and to carry out technical and professional tasks in the Community. I'm also in charge of minor housekeeping tasks, so I do a lot of the repairs myself. This often prevents or at least limits the damage that would have been caused if repairs had not been carried out in time, until more complex repairs are carried out by professionally qualified external subcontractors.

I think that the building is well designed, although some deficiencies have emerged since its opening. The cooker hoods in the communal kitchen, which are closed systems, are a major problem. Even though we keep replacing the filters, the air is not sufficiently cleaned. We hope to be able to run ventilation pipes to the façade in the future, which is of course quite a major project and expense. It is also inconvenient that the hoods are not integrated into the kitchenettes in the residential units. A lot of the residents cook in their rooms and steam trapped on the underside of the cupboards above the induction hob is ruining the furniture. There are no other problems in the residential units. The beds in the twin-bed rooms were originally intended to be bunk beds, but this did not work out well.

It bothers me that the windows in the meeting room, the common work area and my office are fixed and cannot be opened. Access control also makes it impossible to enter the atrium from the building, which is particularly frustrating for the residents.

I understand that everything has been designed professionally and in accordance with the design guidelines, but it would be good to be able to open windows and doors in these rooms. For people with reduced mobility, the high thresholds for access to the shared balconies are a problem. Subsequently, we had the thresholds near their rooms lowered to ensure unhindered access and use.

A shared laundry and drying room are very useful for residents. They get free tokens from me, allowing us to control their use. In the summer, central cooling comes in very handy and really adds value to the building. In the winter, there is central heating, and ventilation in all common areas is provided by an air handling unit on the roof. In addition, we have a fire alarm system, access control and video surveillance.

Given the responsibility and the extremely high volume of work and commitments, the additional help of a caretaker would be welcome, as it would help us to manage the Community more efficiently, with higher quality and more professionalism, to address the housing issue of young people. The project has proven to be a good investment and is an excellent reference for the owner, the SSRS.

Daniel Bartolovič, dipl. inž. str., Manager

My stay in the Gerbičeva Youth Community started three years ago and is coming to an end. For me, it was a really good option because I could save some money. I will be paying twice the rent for the studio apartment I am moving into. Fortunately, I am now in full-time employment.

In the Community, I live in a twin-bed room. My roommate and I get on well and share things like toiletries or cooking spices. But we each have our own fridge; my roommate bought a small one for himself, and I use the one that was built into the kitchen. We do not have enough storage space. I cook food in the room. I used to cook and bake more in the communal kitchen, as the rooms do not have an oven. However, I was very bothered by the dirtiness, as some people didn't clean up after themselves in the communal kitchen. It is now clean again because the owner has put in place a monitoring system that records who is using it.

I like that the shower and toilet are separate, so my roommate and I can take care of our personal hygiene at the same time.

I miss that there is no curtain in the shower to prevent splashing. Sound insulation between though rooms is good, though you can hear noise from the corridor.

Unfortunately, it is almost impossible to ventilate the common corridors outside the rooms. The windows at the end of the corridor have a security lock, and if you press the button on the lock, they can no longer be opened.

In such cases, we need to go to the manager to get the key that unblocks it. This is really complicated, impractical and unnecessary. The windows could be kept tilted open for a constant flow of air through the upper slit. Technology cannot replace nature.

A. L., 27 years old

I found out about the Gerbičeva Youth Community as soon as it was built. I would have applied for the tender with my girlfriend, but unfortunately couples are not allowed to stay there. When my girlfriend and I broke up, I applied to the Community alone and I have been living here for half a year now.

I chose to stay here because it is affordable and I hoped to make new friends more easily, as I am not from Ljubljana. The tender prioritises those with problems at home and to older people with the same income as younger people. It is good to take into account the income of the resident and not the income of their parents. I share a room because it saves me €100 a month. My roommate and I get on well. He's away at the weekend, so I have the whole room for myself.

I cook for myself, but always in the communal kitchen on the ground floor. In my room, I just heat up food. I never order food delivery. I have noticed that residents from the upper floors do not often cook in the communal kitchen. One of the reasons is probably odours, as the hood is not ducted to the façade, but runs through a filter. However, this system does not work. I work mostly in my room, but sometimes I go to the shared workroom, which is used by many residents.

The common areas on the ground floor are not used much. The furnishings are very modest. We don't even have a sofa, the acoustics are poor and it is very reverberant. The shared dining room with the kitchen offers no intimacy, it looks like the pass-through lobby of a bus station.

It is true that it faces the garden, but the garden is to the north, so the light in the room is not pleasant. And the door to the garden is always locked. If you want to open them, you have to go to the manager. I am surprised that the laundry room, the meeting room and the manager's office are south-facing.

I am generally bothered that the interior of the building has a very cold appearance. There are no colours anywhere, just grey and white. It seems that the architects did not think much about the wellbeing of the residents in this building. Many rooms cannot be naturally ventilated, and forced ventilation does not work well enough so the air in the building is poor.

The common room on each floor is also very awkwardly placed and dark. With a little more thought, the architects could have placed it at the end of the building to connect with the loggia on the side façade, where it would have additional windows. If the space was more welcoming, it would certainly be used by more residents. Now it's where we dry our laundry and keep our clutter.

The Community's accommodation concept is based on individual self-contained rooms with a bathroom and a kitchenette. The common areas are poorly designed and, thanks to the well-equipped rooms, are not used much. Perhaps a better alternative would be an "apartment-type" accommodation, where several rooms share a larger kitchen and bathroom. This would help people meet and get to know each other more.

It would be better for the common areas to be well designed by the architects and equipped with only the bare essentials. Part of the budget would be set aside for later, when the residents, after a short period of use, would determine what they want and what they really need, and use the participatory budget to furnish the rooms in their own way.

Some kind of encouragement would also be useful at the beginning, because communities like Gerbičeva are artificially created and therefore have difficulties coming alive. Encouragement through participation would involve residents in the Community and create a sense of belonging.

The sound insulation in the room is good, but the door does not seal well enough and noise can be heard from the corridor. I'm quite happy with the room, but I miss shelves and a bit more colour in general. If you install shelves yourself, you will have to remove them when you leave, patch the holes and whitewash the walls, so few people do this. Shelves on the ground floor, where I live and where the rooms are higher, would correct the ceiling-to-wall ratio, which is strange at present.

The architects chose vinyl for the flooring, but this is very difficult to clean, as many residents have noticed.

I believe that social housing construction has a profound impact on society and the individual. In general and in the Youth Community, the aim is to provide as much housing as possible.

But a temporary home should not only be an opportunity for individuals to become financially independent, it should also be designed to promote social integration and community inclusion. In this way, the state would encourage people to be more active in their local and wider communities. The result would be a healthier, more productive, satisfied and socially engaged citizen.

T. B., 25 years old

I came to the Gerbičeva Youth Community three years ago and my stay is now coming to an end. In the beginning, we knew each other and socialised a lot. In the last year, when almost all the first residents have moved out, there is hardly any socialising anymore. Younger people are more individualistic, apparently. I am satisfied with my stay in the Gerbičeva Community, although some things were not optimally planned, coordinated and implemented. The acoustics between rooms are poor.

I have a mobility impairment and opening the door is very complicated for me, because it opens on one side and the card slot to turn on the electricity when you get into the room is behind the door.

The air conditioning also leaked for two summers. I cook in my room and don't use the communal kitchen.

I don't go into the garden because it's located between the two building wings with rooms, where everyone can see you.

I am also bothered by the lack of distance between the wings, as we can see into each other's rooms.

M. Č., 27 years old

I came to the Gerbičeva Youth Community three years ago and I will have to move out soon. I am very happy with my stay here, the location is excellent and the city is close by. As I work while I study, I spend very little time here. I had enough space in my room to study, so I didn't use the common work area. We socialised in the common area and watched games in the meeting room.

The shared laundry room is great and works well. I didn't use the communal kitchen as I prepared my food in my room. I like that the kitchens in the rooms are equipped with an induction hob, which is very fast.

I only used the garden a few times when a friend came to visit and we sat there. It's not the most attractive and there's no privacy. It does get livelier in the evenings however, when there is a concert taking place in the nearby Mestni log. I noticed that the building heats up very quickly, probably because the façade is dark. Indoors, the temperature warmed up very quickly and the air conditioning was only switched on a while later, so it was sometimes extremely hot already in April.

R. Š., 22 years old



The aim of the Gerbičeva Community pilot project is to enable young people aged between 18 and 30 to live independently for a 3-year transitional period until they find more suitable housing.

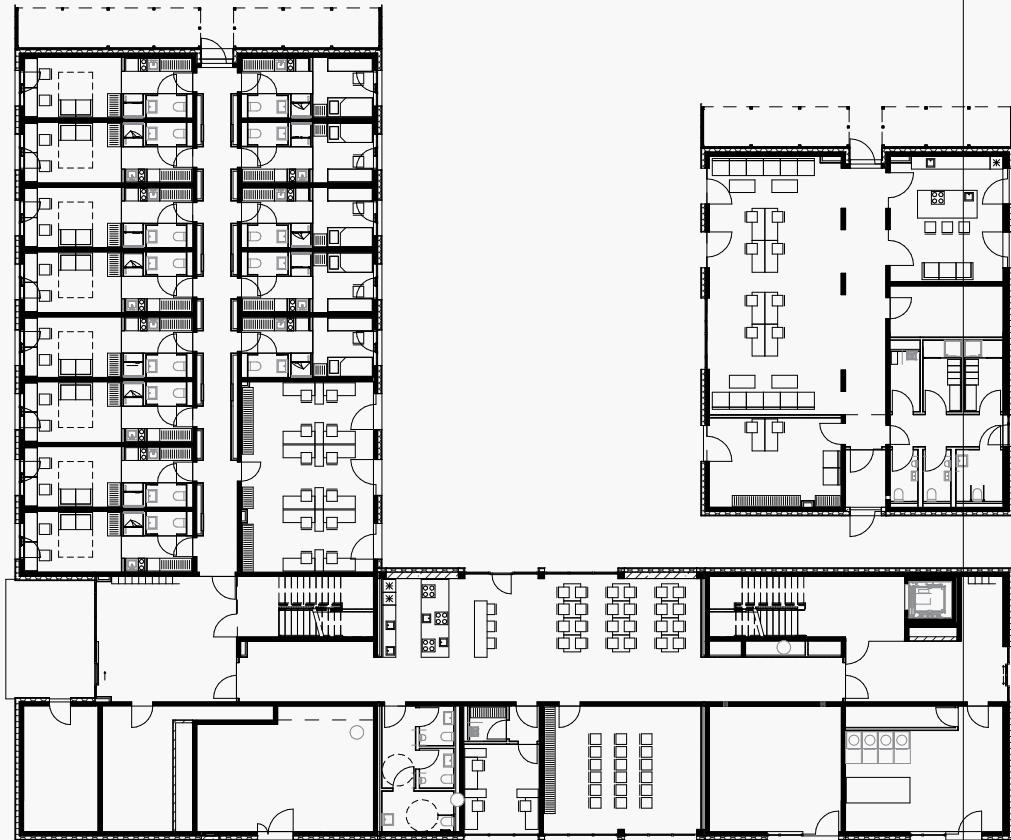
Daniel Bartolovič, dipl. inž. str., Manager



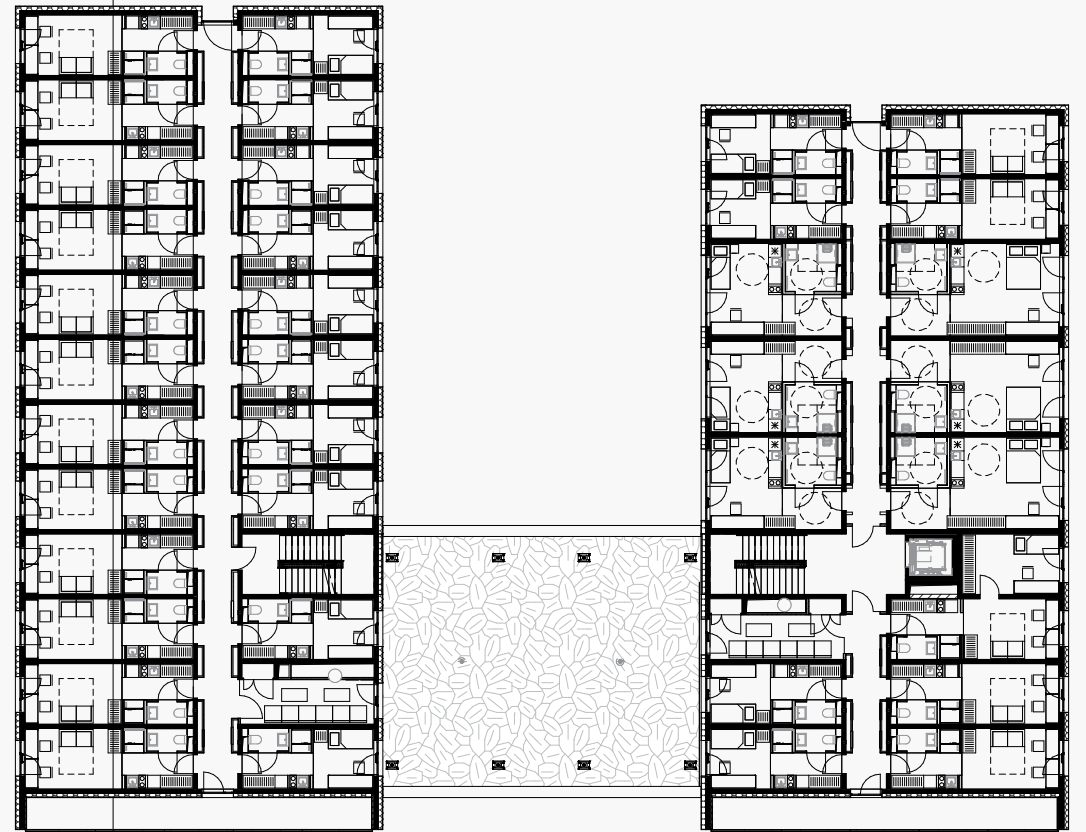




In the process of creating this publication, conversations with young residents of the Gerbičeva Youth Community sparked an initiative led by Tilen Bradeško, a student at the Faculty of Architecture in Ljubljana. He gathered his housemates to talk about life in the Community and the shortcomings of the building that has become their home for three years. What they most wanted was a functional and welcoming space for socialising on the ground floor. With the manager's help, part of the space next to the dining room was converted into a community living room. They ingeniously searched for the best options and got a free sofa and armchair, a club table and potted plants. The first social event in the new living room was a movie night, followed by others. This initiative has helped to re-establish a social atmosphere, which, as the residents mentioned, had been diminishing with each passing year.



Ground floor



1st floor

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Summary

Some Useful Lessons Learned

The conclusion summarises in three sets some of the useful lessons learned that emerged from the discussions with residents, architects and the contracting authority during the development of this publication. The first set deals with neighbourhood planning, the second with (rental) apartment planning and the third with rationalising the construction of public rental housing.

Compact Construction Over Individual

The current architectural policy of the European Union, in the spirit of the sustainability paradigm, promotes the construction of residential neighbourhoods but restricts the individual construction of single-family houses, which are the biggest energy consumers – both in construction and in use.

For most Slovenians, the (ideal) home is a house – detached or terraced, in the countryside or in the city, preferably large enough for two generations of one family to live together. This socio-cultural characteristic, reflected in the (subconscious) emotional attachment to the extended and immediate family, neighbourhood, space, garden and contact with the land, needs to be taken into account in the formulation of national housing policy and also in neighbourhood design.

WHAT MATTERS IN THE DESIGN OF A MODERN RESIDENTIAL NEIGHBOURHOOD

Quality Design

Neighbourhoods need to be carefully planned, both spatially and socially. They must provide housing comfort for both the individual and the community. Designers need to be aware of their responsibilities towards users and the (public) investor. Their solutions impact the housing comfort of a large number of people and also the value of the investment or buildings over their entire lifetime. That is why usability must be at the forefront of design. Responsible design also involves the weatherproofing and maintenance of buildings.

The interviews with residents published in this publication are useful for designers and investors: residents of different ages, educational backgrounds and economic status speak frankly about the good and the bad design solutions and implementation. Photos in magazines can embellish and hide a lot, but the actual quality and usability of a neighbourhood and its apartments is revealed when living in them every day in all seasons and situations.

A Diverse Social Structure

Analyses of living habits show that residential neighbourhoods with a diverse generational and social structure are more “prosperous” and stable, as they prevent the formation of socio-economic or cultural “ghettos” and social exclusion, and make it easier for residents to overcome any cultural and economic differences and integrate into wider society. The diversity of experiences of different generations and cultural practices encourages mutual assistance. Mixed communities are more cohesive and self-organised, which is also reflected in the shared responsibility for neighbourhood maintenance. The diverse socio-economic structure of the residents is also financially advantageous for the investor, as it can sell a certain number of apartments on the market and cover part of the investment through the sale. Home ownership also creates greater responsibility for the maintenance of common outdoor and indoor areas.

Community

How can we create a sense of belonging to the community and neighbourhood in tenants who are not homeowners? How can we make people feel that the rented apartment is their home, which they have to take care of and maintain? The urban planning and architectural design play an important role in this. Well-designed and usable spaces that meet people’s living needs give them a sense of satisfaction and calm, and awaken a sense of belonging to a community and a natural need to maintain the indoor and outdoor spaces of the neighbourhood and the wider area. The fact is that people, even if they are not experts, are very quick to recognise good solutions in all areas, including architecture.

Context

The urban planning and architectural design of the neighbourhood must be comprehensive and take into account the wider context. The boundaries of the development are not the plot boundaries, but the surroundings in which it is located. Planners need to understand and respect the cultural and physical context of the area, taking into account natural features and the existing built environment. The orientation and layout of the buildings must allow for the airiness and ventilation of the external spaces between them and for the shading or solar exposure of the buildings and outdoor areas within the neighbourhood and on adjacent plots.

Neighbours

The overall dimensions of the buildings should be reasonably adapted to the structure of the adjacent existing building development. The new neighbourhood should not worsen the living conditions of the surrounding plots and neighbourhoods, but should improve the urban planning, design and traffic management of the wider area and ensure housing comfort for all. This is the only way to ensure that the new neighbourhood and its neighbours are welcomed positively by the existing residents.



Maja Ivanič
Špela Kuhar

Diversity, Orientation and Identity

Orientation within the neighbourhood and a sense of belonging to the neighbourhood and the building in which they live are important factors for residents and visitors, so a variety of building outlines and their design within the neighbourhood is desirable, but of course the neighbourhood still needs to have a cohesive design. Various studies have found that a sense of belonging develops in smaller neighbourhoods and smaller buildings, where there are no more than 20 to 30 apartments per common entrance or staircase, or no more than four to five apartments per staircase on each floor.

Revitalisation Before New Construction

The construction of new neighbourhoods on undeveloped land or in nature reduces self-sufficiency, so it makes sense to put in place measures to promote the comprehensive renovation and reconstruction of existing housing stock and abandoned commercial and industrial complexes in rural and urban areas. To achieve greater housing comfort, and also in the spirit of sustainability or lower energy consumption, it makes sense to renovate entire neighbourhoods, not just individual buildings.

In Slovenia, the stagnating population growth raises also the question of the sufficiency of the existing housing stock, which is dominated by single-family houses, to meet Slovenia's housing needs. Of course, it would need to be systemically renewed and modernised. Through a properly coordinated legislative policy on intergenerational social protection, spatial planning and nature protection, taxes on unused and dilapidated real estate, and the protection of private property, we should create a model of solidarity and intergenerational living that addresses both the housing problem of young individuals and families and the problem of older people who need care, protection and companionship as they grow older.

Diverse Programmes

A neighbourhood should not be a bedroom community, but should provide a variety of amenities such as a kindergarten, shop, pharmacy, post office, library, proximity to schools, etc. At a time when working from home is on the rise, this makes even more sense, as residents can do most of their daily errands on foot, close to home, and not waste time on transport. All of this reduces the carbon footprint.

Outdoor Areas

Thoughtfully and comprehensively landscaped neighbourhood outdoor areas strengthen the community and the individual's responsible attitude towards these areas. The neighbourhood should provide and make accessible a variety of spaces for residents of different generations (families with young children, teenagers and elderly people) and for people with reduced mobility – for meeting and socialising, play, recreation, retreat, etc. Neighbourhoods that are better maintained have less vandalism, and neighbourly relations are established more quickly and are more positive. The ratio of green to paved areas should be in favour of green areas, which naturally cool the neighbourhood. Some wild nature should be preserved, for example uncut areas that provide biodiversity even close to neighbourhoods.

Greening and Community Gardens

Sustainable neighbourhood planning also includes good greenery. The greenery should be varied and as indigenous as possible to be able to withstand the local climatic conditions. Trees make an enormous contribution to living and air quality. They create a favourable climate naturally and without energy consumption, so trees should be tall and their canopy should be large. It makes sense to plant deciduous trees along the south and west sides of buildings to protect the façades and external paved areas from overheating in the summer and to let daylight into apartments in the winter when they shed their leaves.

Many residents want their own garden and to be self-sufficient to reduce their food costs, which is why it is important to have fenced community gardens in the neighbourhood.

Reduction of Parking Spaces

Car ownership will be replaced by renting in the near future, as it makes more sense in the spirit of sustainability to keep cars in use all the time rather than parked. Therefore, in new neighbourhoods, it makes sense to plan and provide (temporary) parking spaces in outdoor areas and fewer parking spaces in underground garages, which is also welcome from the point of view of rationalising the construction investment.

An Accessible Public Transport System

Neighbourhoods should be well connected to an accessible public transport system and have adequate parking in outdoor areas. Proximity to public transport, bus stops, bicycle and scooter rental stations, cycle tracks and pavements actively reduces car use and thus the carbon footprint.

Traffic Areas

Traffic areas within the neighbourhood must be subordinate to the safety of the residents, especially children. If possible, it makes sense to place car traffic on a different level to pedestrian walkways and play areas. Traffic areas should be laid out in such a way that they prevent high speeds, and designed to give a clear visual advantage to the pedestrian.

Underground Garages

Neighbourhoods should have as much unsealed land as possible in which tall trees can be planted, so underground garages should be planned under buildings and under above-ground parking areas. It makes sense to have them naturally ventilated, as this reduces the investment in forced ventilation.

Noise and Air Quality

Noise levels and air quality are important determinants of housing comfort in a neighbourhood. When designing the neighbourhood, sleeping areas should be oriented away from roads and parking areas, even if the joinery prevents noise from entering the apartment. Tree canopies only reduce noise to a minor extent, but they are an excellent air filter and a good visual barrier. The acoustics of common interior spaces, such as corridors and stairwells, must also be taken into account.

Common Areas

Common areas are an important part of a neighbourhood, as coming together for activities and events creates a sense of belonging, which in turn creates a sense of care and maintenance. Common areas also act as an extension of the apartments, allowing residents to use them for remote working. The sharing of these areas must be explained to residents and the system of use must be organised fairly. It makes sense for investors to hire motivators to show tenants the benefits and opportunities of using common areas when they move into a neighbourhood.

WHAT MATTERS IN THE DESIGN OF MODERN HOUSING

Universal Planning

Planning neighbourhoods and (rental) housing is a complex task, as they are designed for an unknown user. This is why there are many factors to consider in the design. Different living arrangements must be considered and the possibility of modifying the floor plan according to different needs and for different life stages of the residents should be provided for. Apartments must be designed to be as versatile and flexible as possible, with rooms connected in reasonable ways and materials that age well and are easy to maintain. Storage rooms must be as close as possible to the apartments, and apartments designed for people with reduced mobility should have a storage room on the same floor.

It is also necessary to take into account modern living habits, which are different from those of 50 years ago, when the first housing codes were drawn up. The way we work is completely different; most people use a computer to do their work, so desks can be shorter and narrower. Today, people are more active in their leisure time, taking up more hobbies and sports, travelling more and actively following fast fashion. This means they need more storage space for sports equipment, suitcases, clothes and shoes.

The problem of having too many items in apartments was highlighted by the Prostoroz cultural society in 2014. It organised the Library of Things in the Sava Housing Estate (Savsko naselje) – a non-profit lending library for all kinds of leisure items, which functioned according to the classic library lending system. “Too often, we buy things that just end up in a drawer after a few uses. If we had borrowed the item instead of buying it, we would have saved money and space, as we tend to always have too little storage space. As well as saving money and time, the benefit of sharing items is that fewer of them need to be produced, which means the reduced consumption of raw materials and less strain on the environment.” The Library of Things has also been organised in other locations around Ljubljana and in various parts of Slovenia. Perhaps a similar concept of exchanging items could be considered when planning new neighbourhoods.

After the COVID-19 pandemic, many people's eating habits have changed; working from home is being introduced, many people are ordering prepared food, so kitchen countertops may be shorter and there needs to be more space for different kitchen appliances. As a result, waste must be properly managed.

The pandemic has highlighted the importance of having an outdoor space such as a balcony or loggia, as it provides contact with the outside world and social cohesion.

Floor Plan Design

A well-designed apartment will have large and well-organised living areas that allow residents to socialise, as well as to retreat to privacy. To allow natural cross-ventilation and natural light, it must open to the air on two different sides. Apartments should have stimulating views of the surroundings, greenery and tree canopy, not of the neighbour's apartment, a blank wall or a paved parking area. It is a good idea to have the doors and windows of each room in the same line so as to reduce the number of passages through the room. Each room must have a properly sized and positioned area for furniture: wardrobes must not block windows or doors to the room, so there must be 60 cm of

space for wardrobes behind the door. Contact with the outdoors is an important part of housing, especially in smaller apartments. Loggias, terraces and balconies must be properly designed and dimensioned to be truly useful. Open Views and Diagonals

Rental apartments are usually smaller in size. They are visually enlarged by open lines that allow an unobstructed view through several rooms and through windows to the outside. Particular attention should be paid to the entrance to the apartment: the view should be towards the living areas, not towards a blank wall or even the toilet door.

Circular Floor Plan

The circular floor plan is flexible, allowing for different transitions through the rooms and making the apartment feel larger and airier.

Area Ratio

A major drawback of most modern housing designs is the area ratio: the proportion of living areas must be greater than, or at least equal to, the proportion of sleeping areas. Corridors within apartments are non-living areas and should therefore be multifunctional; ideally they should be used for (built-in) wardrobes.

Natural Ventilation and Lighting

Where possible, apartments should be designed so that all the rooms, including kitchens and bathrooms, have natural lighting and ventilation. It is essential that apartments are oriented to two sides to allow cross-ventilation, which reduces energy consumption in the hot summer months.

Canopies and External Blinds

Apartment overheating can be significantly reduced by canopies and external blinds in front of the façade glazing of apartments and common areas. Canopies also protect part of the façade surfaces. They are particularly useful in the case of exterior timber cladding.

Loggia

In residential neighbourhoods, it is important that each apartment has an “outdoor extension” or connection to the outdoors. Loggias are more useful than balconies because a balcony immediately exposes the resident to the views of passers-by and neighbours, while a loggia provides privacy. A loggia’s canopy and walls also shade and protect the balcony area and the façade glazing from overheating and rain. Optimally, the loggia should extend into a partly open balcony.

In the case of classic balconies, it is essential that they are covered on each floor. Roof terraces must also be covered, otherwise they are useless for most of the year – exposed to sun, rain and snow.

Glass canopies are not suitable as they do not provide shading, trap heat that penetrates into the apartment and cause additional costs for maintenance and cleaning.

Balcony Railings and Balcony Storage

Thoughtfully designed railings will prevent any subsequent uncoordinated solutions implemented according to the residents’ ideas. A railing is more useful if part of its surface is transparent and part is closed, so that the apartments are not exposed to views from the outside. The enclosed surfaces of railings conceal the various items that residents store on the balconies. It is a good idea to provide flower troughs or at least through brackets on the railing in advance.

An enclosed storage alcove is a necessary part of the loggia and the balcony. It makes sense to plan it as part of the architectural design or as part of the railing.

Façade Surfaces

Façade surfaces in light colours reduce overheating in apartments in the hot summer months. The texture must be safe for use; rough textures can cause injury on contact.

Materials

The choice of materials is important for the wellbeing and satisfaction of residents. Cheap materials give the impression of a lower standard, which in turn leads to individuals having a worse attitude towards the maintenance of the apartment and common areas. The materials must be safe to use, non-slip, with suitable textures, not too rough, and the wood must be treated in such a way as to minimise the possibility of getting splinters.

Sustainability tends to favour locally sourced natural materials as they are degradable, most resistant to local climatic conditions and do not generate transport emissions. In Slovenia, the amount of forests means that the use of wood should be further promoted. Preconceptions about its high maintenance requirements are not justified in the light of modern protection technologies. Even our ancestors knew exactly when to cut the timber so that the beams would be perfectly load-bearing and the boards would not warp. However, it is sensible to design buildings so that external wooden surfaces and wooden joinery are protected from the weather by canopies and raised off the ground.

In other countries, concrete is already being replaced in construction by natural materials such as wood, stone, compressed bales and clay. In Slovenia, the decision on the material of construction has to take into account the high seismic risk, which is lower in northern Europe where more construction can be done with bricks.

BUILDING PUBLIC RENTAL HOUSING

As mentioned in the introduction, in Slovenia the construction of rental housing neighbourhoods by the SSRS and the PHF is of high architectural quality, which is why most residents do not think about moving. In addition to affordable rents, one of the reasons is certainly the comprehensive design and management of neighbourhoods with accessible public spaces. Private investments have less of these areas as they are profit- and investment-oriented.

It is important for designers to be aware of the differences when designing apartments for sale on the market and apartments for public rental housing, built with money from the public fund. While the investment when building for the market may be higher and therefore the design unique and the materials high-end, the construction of neighbourhoods with public rental housing must be economically viable and restrained, i.e. as standardised as possible, with repetitive structural components, durable details of simple, reliable and proven design, and with (natural) materials that are hard-wearing and easy to maintain. Even though the design and layout must be rational and restrained, they must still provide housing comfort.

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Colophon



I Live in an Attractive and Modern Neighbourhood

Select Housing Projects of the Housing Fund of the Republic of Slovenia

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