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# Spatial Incentives for the Integration of Elderly People in Subsidized Housing in Vienna

A Design Proposal for an Integrative Housing Quarter in Meidling

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维也纳养老补助住宅整合中的空间激励研究

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## KURZFASSUNG

Demographische Studien zeigen, dass sich die Zahl der älteren Menschen in Wien in den kommenden Jahrzehnten verdoppeln wird. Die Integration dieser gesellschaftlichen Gruppe gewinnt daher an Stellenwert. Gemeinschaftliches Wohnen bietet eine Möglichkeit, ein Wohnumfeld mit nachbarschaftlichem Halt aufzubauen, in dem Menschen lange selbstbestimmt leben können. Räumliche Anstöße, die soziale Interaktion zulassen, sowie gemeinschaftliche Einrichtungen sind entscheidende Faktoren für die Schaffung eines sozial nachhaltigen Wohnumfeldes. Die Studie zu drei ausgewählten sozialen Wohnbauprojekten in Wien beschäftigt sich mit der Frage, ob und wie Architektur soziale Interaktion auslösen kann. Weiters wird untersucht, ob Gemeinschaftsräume angemessen auf die Bedürfnisse und Wünsche der älteren Generation eingehen. Interviews mit Bewohnern dieser Projekte zeigen, welche architektonischen Elemente in Bezug auf die Schaffung nachhaltiger so-

zialer Strukturen die effektivsten sind. Resultate der Studie zeigen einige räumliche Elemente auf, die für die Bewohner von Bedeutung sind: Die Anordnung der Wohnungen in Bezug zu gemeinschaftlich genutzten Flächen, Sichtbeziehungen zwischen privaten und semi-privaten Bereichen, die Vermeidung von Maisonetten und somit der Exklusion bestimmter Nutzergruppen, und die Platzierung gemeinschaftlicher Einrichtungen im Erdgeschoß auf Grund besserer Orientierung. Diese konkreten Ergebnisse werden anschließend in einem Entwurf eines integrativen Wohnquartiers in Wien umgesetzt.



## ABSTRACT

Demographic forecasts show that the population of elderly people in Vienna will double in the coming decades. The integration of this social demographic is starting to become crucial to urban planning. Community-living can be one approach, creating an environment with neighborly support, where elderly residents can live a self-determined life for as long as possible. Spatial incentives leading to social interaction as well as community facilities are vital factors for a sustainable social environment. Three case studies from subsidized housing in Vienna are analyzed to show how architecture can cause social interaction. The question is posed whether common rooms respond adequately to the older generation's needs and desires. From interviews with residents architectural elements that are most effective in creating sustainable social structures can be deduced. Results of the study show spatial elements that are of utmost importance to residents: arrangement of apart-

ments in relation to common space, view axes between private and semi-private areas, avoidance of duplex-apartments excluding particular user groups, and arrangement of community facilities on the ground floor for better orientation. A design proposal for an integrative housing quarter in Vienna implements these concrete outcomes.



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# INTRODUCTION



# 1. INTRODUCTION

*‘Housing has strongly contributed to making Vienna the city with the highest quality of life, according to global rankings. As the city grows fast, a strong emphasis is being placed on issues such as integration and identity in urban areas[...].’ (Förster/Menking 2016)*

Vienna is growing in population very fast – by 2030 it is going to be a city with two million people. It is one demographic margin that is growing the fastest. By 2045 the group of 15-29 year old people will grow by 49 %, but the number of people 75 years and older will double. Hence the integration of the elderly becomes more and more important and special attention needs to be paid to their interests and needs. (*Unterberger 2016*)

However, quite sophisticated examples for inclusive housing do exist in Vienna. Community-living with its spatial qualities can

play an active role on how residents interact with each other and further on the creation of an active neighborhood for living a self-determined life for as long as possible. Since the elderly are more or less the one group of residents that stay at the same residential building the longest (due to the fact that family structures do not change anymore), they play a major role in community.

The book “The Vienna Model – Housing for the twenty-first-century city” by Wolfgang Förster and William Menking published in 2016 provides clear and summarized information on the highlights in housing in Vienna over the last 100 years. It further explains why Vienna can be seen as a role model in housing; tradition and continuity lead to 62% of all households being subsidized apartments today.

The Viennese housing research program by MA 50 provides numerous interesting

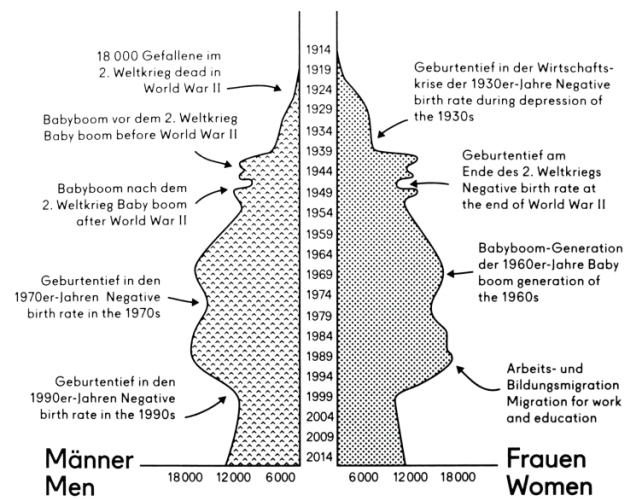


Figure 1: Population Breakdown of Vienna by gender and age

reviews that are available online. Research fields are (amongst others) affordable housing and living in community. “Due to the increasing social diversity, housing policy is facing new challenges and answers are yet to be found for issues like population growth, demographic changes or new housing needs” states Dr. Michael Ludwig, Executive City Councilor for Housing, Housing Construction and Urban Renewal. (*Ludwig*)

One of the articles mentioned above is “Models of Communal Living in Vienna – Survey of Demand and Perspectives”. In this study, a survey of demand was conducted in cooperation with an opinion research institute. Objectives of the study included gauging general interest in community-living, identifying the target group and determining the motivation for living in communal housing. On the basis of the results,

recommendations for actions are elaborated which are relevant for promotion of community-living projects.

The research in this thesis showcases existing problems and challenges, as well as highlights ideas benefitting the older generation in the field of communal living in subsidized housing in Vienna. Selected case studies from Vienna which are all outstanding and exemplary in the field are examined in this thesis. These examples are analyzed according to selected criteria and especially innovative ideas and solutions are highlighted.

As the size of the elderly population and the life expectancy are projected to increase, and the elderly stay healthy and active into higher and higher age, the topic of new approaches to housing for the elderly is a current issue.

The vast majority of seniors need help only to a small extent. Many technical aids and services which are available nowadays spare formerly required medical services. Amongst living comfort and safety, for the elderly residents' satisfaction it is also crucial to promote neighborhood and social contacts which convey a feeling of security and avoid growing lonely. To know they can rely on their neighbors in case of any emergency, something that can definitely happen more often with the deterioration of the body, is an important parameter for many residents. In case of today's older society, the option of living in a nursing home oversupplies the elderly often. It can lead to reduction of existing skills and self-determination. Modern-day 'young' seniors, who are looking for a home to grow old in, can find it difficult to find a place suiting their needs. For this reason new living options for the older generation are required, which should offer new approaches in addition to the traditional apartment with social boundaries on the one hand, and care institutions on the other. The aim should be to integrate new offers into conventional subsidized housing, in order to postpone the point in time where professional help is required. *(Schönfeld/ Lukas 2008)*

Community-living can be a solution for lack

of space and identity. The development of communal approaches in Vienna started in the early 1920s and still keeps quality high, amongst others thanks to the developer competitions with its competitive instruments. From these in the last few years numerous outstanding ideas evolved.

Studies with qualitative interviews are still lacking. Views from elderly people's perspectives with their different needs and requirements will give planners a better idea of how to design for a diverse community.

To enable elderly people to stay in their familiar neighborhood for as long as possible, a spatial basis to enable the development of an active neighborhood needs to be created in future housing projects. To understand the importance of specific spatial incentives for social interaction and the integration of elderly people in housing communities, this thesis gives insight in residents' views and personal experience.

In a new field like this, where experience is still lacking, providing a review of the status quo and innovative ideas as well as gaining insight into elderly people's perspective is key for the future. Conducting interviews at existing projects is one effective way to be able to answer the question if and how architecture promotes social interaction bet-

ween residents. Further interest is aimed at the common rooms of subsidized housing and whether they respond adequately to the older generation's needs and desires. With that unique knowledge gained through personal interaction it is possible to show pathways to improvements in future projects.

The first section of this thesis introduces definitions, which provide clear understanding of the basic principles. It is further important to explain the issue of the demographic development in Vienna and how it affects housing. In the main part of the thesis chosen case studies will be examined, observations presented and conversations with residents will show if spatial aspects play an active role in social interaction and influence daily life. Projects of the past three to eight years have been selected, which all have a community-oriented character. In the final chapter of the thesis, a design proposal implements precise study outcomes in order to create an integrative housing quarter.



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STATUS QUO



## 2. STATUS QUO

Before considering the selected case studies the following chapter gives definitions in order to provide a clear message and to avoid misinterpretation. The information about demographic development in Austria and in particular in Vienna shows its impacts on society and its consequences for future housing. An insight into the status of community-living in Vienna proves that this city plays a pioneering role in inclusive housing with numerous new approaches.

### 2.1 Definitions

Community-living, spatial incentives, elderly people, inclusive design, and subsidized housing are all definitions relevant for understanding the particular situation in Vienna. Explanations of important terms give an introduction to the essentials in housing in Vienna.

#### 2.1.1 Community-living

‘This study defines communal living as

a dwelling form that provides rooms for communal usage in addition to private flats. This aspect allows neighborly relationships of varying intensity, thus providing direct ways of mutual support. Joint actions within such a group may as well have positive effects on the surroundings and the neighborhood. Under certain conditions this concept may react better to demographic changes than „individual“ housing.’ (*Brandl/ Gruber 2014*) This definition of ‘community-living’ was coined by Kirsten Mensch and first mentioned in the German magazine ‘Wohnbund’. According to the mentioned article communal living or community-living means a form of housing, where, in addition to their apartments, residents use certain rooms in common. Tenants mutually and neighborly support each other and share certain facilities and equipment such as vehicles. For example there are projects with communal living rooms, dining rooms, children’s rooms or additional work spaces. The residents live in their own apartments independently and autonomously, but have the ability to get in touch with each other

through meetings and activities in the common spaces. The result is a different way of cohabitation. (*Brandl/ Gruber 2014*)

A survey regarding this topic was conducted in 2013 by an Austrian market and opinion research institute together with the writers of a study about communal living in Vienna. The results show that living in a communal form is most likely conceivable for people in retirement (33%), after the death of a partner (25%), as well as in the time of starting a family (24%). If people imagine living in such a way, many people's request is a mix of residents of different ages (50%). Furthermore, people prefer co-housing with people who are like-minded or share similar interests (47%). There is a tendency that, through communal living, senior residents expect mutual help, and young people expect saving costs. In summary one can say that elderly people do think of living in community as a good alternative to conventional and impersonal housing, and further appreciate an aggregation of interest. (*Brandl/ Gruber 2014*)

### 2.1.2 Spatial Incentives

Spatial incentives can influence the behavior of people in certain surroundings and encourage social interaction between residents. They may consist of many influenc-

ing factors such as the sequence of spaces, view axes, and appropriate as well as inclusive design. In contrast there is the social framework for interaction of residents like organized meetings or festivities, which can be referred to as the 'software' of a building. The 'hardware' on the other hand creates space, and as a consequence different elements of which some have more impact on social interaction of residents and some less.

### 2.1.3 Elderly people

A definition of old age by the United Nations is the first international attempt of describing the subject in numbers: "Globally, the number of older persons (aged 60 years or over) is expected to more than double, from 841 million people in 2013 to more than 2 billion in 2050."

Old age means much more than numbers, however, like the later part in life, including beginning physical deterioration, retirement, or a change of the daily routine. (*United Nations 2013*) (*Wikipedia 2017*)

A study by the University of Vienna about 'living in old age' sees the change of structure in aging as the more important issue than the demographic aging. There is a considerable difference between age and aging

in new forms of life, or in new demands on age. The ever-increasing longevity increases the tendency for long-term care to occur in later parts of life, in particular in the case of high age. Age can be structured in four age phases: the active and over 50 years old, the healthy age of the elderly, the age of intensified deterioration and a (high age) phase of long-term care and the end of life. *(Reinprecht/Rosbacher 2014)* It is important to note that these phases do not have to be chronological, but rather representative of possible stages of social participation depending on mental and physical function. The claims to active participation more and more often remain determinant until late phases of life.

One of different aging concepts is 'productive' aging, which focuses on participation in work and non-paid activities, including family responsibilities and voluntary work. The term 'successful aging', on the other hand, refers to the ability to adapt to developments and changes in later life. *(Reinprecht/Rosbacher 2014)* In the mentioned thesis the term 'elderly people' describes healthy and active seniors, particularly in their first years of retirement, where a change in daily routine becomes noticeable. It is assumed that older people do not have any different basic needs concerning living situation than younger people, since they

rather vary depending on social position. However, they also depend on the degree of autonomy of the resident. The more restricted the operating radius due to functional impairments is, the more important is the own apartment and the immediate living environment for wellbeing and quality of life.

Increased vulnerability of fragile and high-aged persons also results in the high importance of social space-related resources in order to provide and secure autonomy. *(Reinprecht/Rosbacher 2014)*

#### 2.1.4 Inclusive design in Vienna

Barriers in public spaces not only impede the lives of people with disabilities. Inclusive design means to enable the safe use of buildings and public space. The aim is an equal position of people with and without disabilities in society; no public space should be exclusive. The basics are noted in the Austrian standards B1600 (barrier-free construction, planning principles) and B1601 (special buildings for handicapped and elderly people, planning principles). Moreover, the Vienna Building Code focuses deliberately on barrier-free construction since 1991. Inclusive design is the key to diversity and opportunities in everyday life. *(MA 25)*



Figure 2: Karl-Marx-Hof



Figure 3: Metzleinstalerhof

Within an apartment inclusive design becomes noticeable for example through larger corridors, adaptable and flexible walls, a bathroom equipped with grips, a shower that is even with the ground and wheelchair-accessible lavatories.

#### 2.1.5 State subsidized housing in Vienna

Historically, Vienna has provided housing policy for a variety of changing conditions, ideas and concepts. State subsidized housing projects like the Karl-Marx-Hof (1353 apartments, completion in 1930) attracted interest beyond Austria's borders. Since the 1920s social housing has given many people living in poor housing conditions a chance to improve their situation. Furthermore, social housing prevented Vienna from creating slums (300 000 Viennese people did not have an apartment

in 1900), which unfortunately characterize some areas of major European cities. (*Wiener Wohnen*) (Eigner/ Matis/ Resch 1999)

In 1925 the first social housing project, the Metzleinstalerhof (252 apartments), was completed, already providing social facilities like a public pool, laundry, library, kindergarten and a workshop for trainees. The main achievements of the new buildings back then were low population density as well as generous community facilities. In 1945, after the Second World War, 20 percent of all apartments in Vienna, about 87 000, were destroyed and 35 000 people were homeless. (*Wiener Wohnen*)

After repairing the damages to buildings after 1945, the municipality buildings continued to be built, but the style of architecture changed over the coming decades. High rises and the arrangement of blocks



Figure 4: High rise and blocks arranged in lines at Theodor-Körner-Hof

in lines were common because of a shortage of building ground. It was imperative to construct as much living space as possible in a short time; therefore prefabricated high rises were built in the 1960s, followed by mega structures like terraced housing complexes in the 1970s. This was also a period of urban development on former non-housing areas, as it was the case again after 2000. Seestadt Aspern, the Nordbahnhofgelände and Sonnwendviertel on the site of the former freight train station Vienna South all started construction in the early 2000s.

In the late 1980s the fall of the Iron Curtain led to a wave of immigration and an increase of the city's population. In order to provide high-quality housing without raising building costs, the city introduced 'developer competitions'. (Förster/Menking 2016)

Since then every large housing project in Vienna has resulted from such a competition judged by an interdisciplinary jury and evaluated via a four pillar model: social sustainability, architecture, ecology and cost. The criteria for social sustainability are suitability for day-to-day use, cost reduction through planning, living together in communities, and housing for special needs. The part of living together in communities includes indoor and outdoor spaces for social interaction as well as community-building processes. (wohnfonds\_wien 2015) (wien.at)

In 1984 the Wohnfonds\_wien was founded, a city-owned housing fund, which acquires and develops land for new housing projects. Most of the new apartments are built by limited-profit developers and let as subsidized apartments. Principal points are the promotion of residents' participation in the planning process and the securing of unli-



limited rental contracts as well as stabilized rents. (*Förster/Menking 2016*) ‘As a service oriented non-profit organization, wohnfonds\_wien supervises property developers as well as building owners and supports their communication and cooperation with the municipal departments as well as service centers of the municipality of Vienna.’ (*wohnfonds\_wien 2015*)

The following points are major strengths of state subsidized housing in Vienna: Wheelchair accessibility, the SMART housing construction program, a focus on community facilities, and the variety of apartment-styles in one building resulting in a diverse community of residents.

*‘In the year 2012 the smart housing construction program was introduced [...] Compact, well-planned floor plans enable affordable housing for young families, couples, lone mothers and fathers as well as singles.’* (*wohnfonds\_wien 2015*) In order to reduce rent and at the same time offer generous communal facilities, apartment sizes get reduced by about 10 percent without reducing the number of rooms and trying to not minimize spatial quality. Over one third of all newly constructed subsidized apartments are executed as SMART apartments nowadays. The annual budget for subsidized housing in Vienna is about

600 million Euros. Today, over 60 percent of the population in Vienna lives in subsidized apartments. (*Förster/Menking 2016*)

The city of Vienna owns about 220 000 municipal apartments in 2 300 public housing projects which provide homes for about 500 000 residents. Another 200 000 apartments are built and managed by limited-profit developers. (*Wikipedia 2017b*)



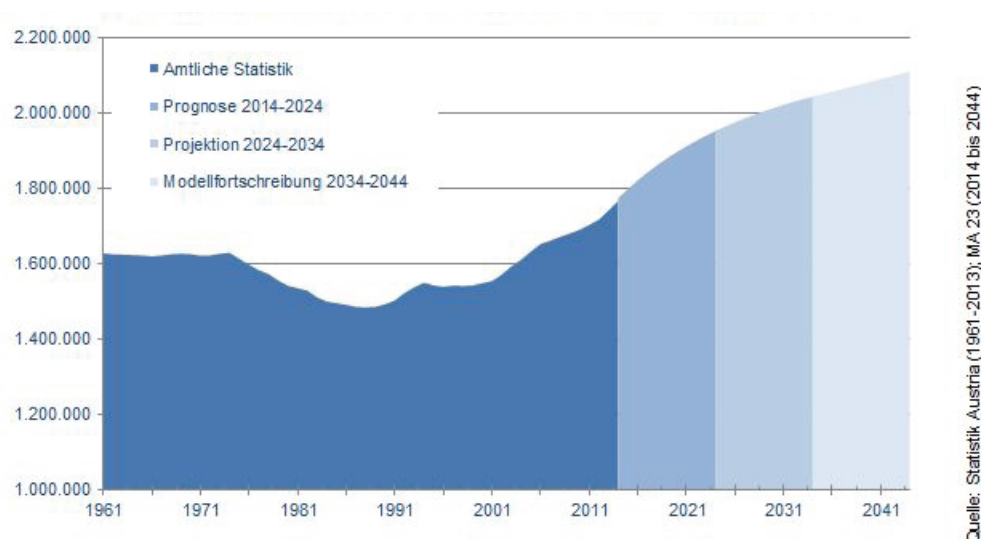


Figure 5: Demographic development 1961-2014 and demographic forecast until 2044

## 2.2 Demographic Development

In 2014, 18.3 percent of the total population in Austria were aged 65 and above, which makes over 1.5 million people. In Vienna there were more than 304 000 people over 65 years old in 2015. (MA 23)

Most people between 60 and 69 years old live in a single-generation household. The percentage of people living in institutional households increases with age; the bigger part of people living in institutions is women. 'With increasing age gender-specific differences continue to increase. While most men live in partnerships up until the oldest age groups, the picture for older women is quite different: They often spend their old age living alone, particularly in the 80+ age group (women: 57.7%; men: 23.3%).'

'Life expectancy in Austria rose again after the turn of the century. According to the 2010/2012 life table, which was calculated on the basis of the 2011 register-based census and the number of deaths between 2010 and 2012, the life expectancy of men is now 78.0 years, and that of women, 83.3 years. Compared with the period 2000/2002 the life expectancy of men increased by 2.4 years, that of women by 1.8 years. As a result the lead in life expectancy that women enjoyed in the 1990s has diminished from 6.0 to 5.3 years. The life expectancy of the total population (men plus women) amounts to 80.3 years.' (statistik austria)

By 2030 about two million people will be living in Vienna, which represents an increase of about 12 percent or about 14 000 people per year in this period (Statistics Austria, 2013). This corresponds to a demand of an estimated 10 000 apartments per year, while

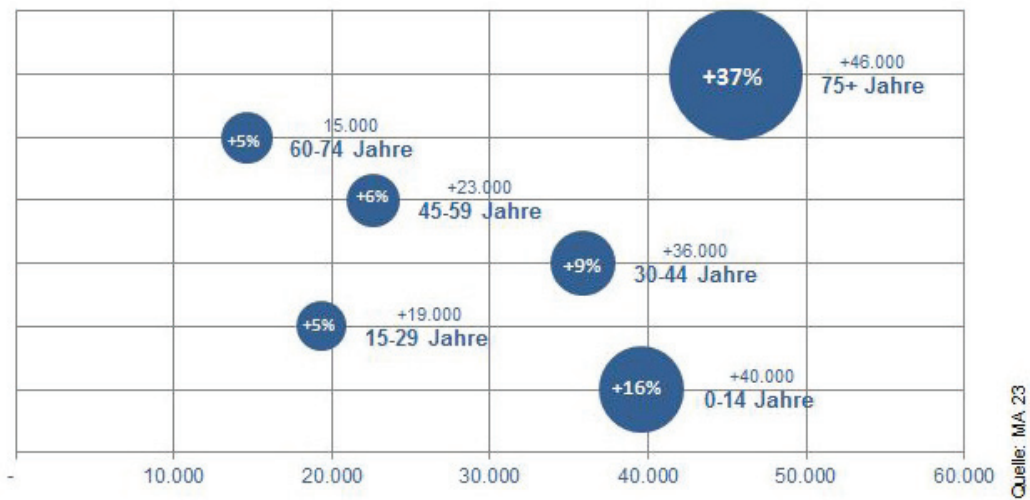


Figure 6: Demographic development regarding age from 2014 to 2024

for instance in 2013 only approximately 6000 subsidized apartments were approved. For this reason it will be ever more important to guarantee affordable housing as well as ensure quality and long-term use in the upcoming years.

The progressive individualization of society and family structure leads to an increase in the number of single-person households. Currently 46.1 percent of all households in Vienna are occupied by only one person. This high proportion of one-person households is also a result of the growth of the elderly population. With 51 percent of the singles, the elderly people are the largest group; but one needs to distinguish between voluntary and involuntary singles. The risk of belonging to the group of involuntary singles increases in higher age, sometimes accompanied by social impoverishment. (Moser/ Bständig 2009)

## 2.3 Community-living in Vienna

At a time in which the social individualization is booming, but also greater social inequality in cities grows, housing faces new social challenges. Social sustainability became the fourth pillar (in addition to architecture, ecology and economy) for the judging of developer's competitions in subsidized housing in Vienna in 2009. The criteria for social sustainability are practicality, cost reduction through planning, housing for changing needs, and living in community. Being responsive to the diverse needs of future residents and users during planning is required. It is about ensuring spaces suitable for daily use for different target groups, especially for disadvantaged groups, about inclusive design and gender-sensitive planning as well as the inclusion of specific experience from experts and users. To promote community living and neighborhood, open spaces and common areas need to be provided in order to enable joint activities outside the own apartment and stimulate neighborly communication. On the other hand there should be room for the many 'unpredictable' future desires, ideas and visions of residents. They should be able to participate in creating their own apartment and complex. For planning, this means not purporting everything, but instead leaving

space for participation of the residents - both in the planning and usage phases. At the same time the variability and flexibility of the built structures - through flexible floor plans - is essential to enable not only the current users' participation, but to be adaptable for changing user groups and their needs. Neighborhood not only stems from the coexistence of people, but from many interactions. A professional accompaniment of social processes in a new residential district can help support these processes such as residents getting to know each other. The goal is to make social resources and potentials of the residents visible, and develop them, promote joint initiatives and self-organization of residents, and encourage general participation in the neighborhood. Different interests can be discussed in the moderating accompaniment, common rules and agreements can be negotiated. (*Hubauer/Kirsch-Soriano/Ritter 2014*)

### 2.3.1 Overview and previous developments

A few outstanding projects from the past, which are rather important for the history of community living in Vienna, are described below. This is less an objective list than an accumulation of projects with certain interesting and seminal aspects. Further it is about pointing out essential approaches

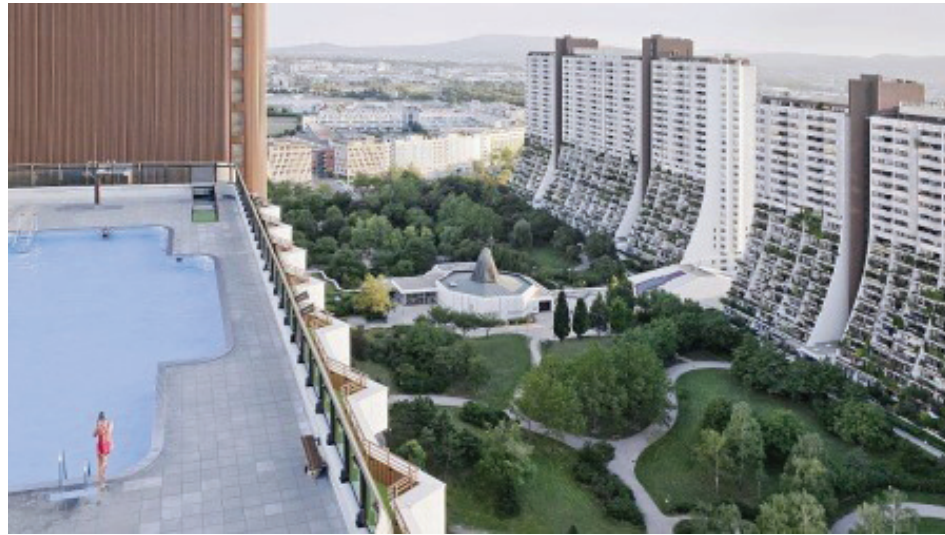


Figure 7: Alt-Erlaa

to promote community in specific projects in Vienna.

#### Alt-Erlaa

This housing estate in the south of Vienna is one of the largest housing projects in Austria and creates a city within the city with its own infrastructure. Planned by Harry Glück and completed in 1985, it follows the device of 'luxury for all'. Up to 94 meters high and housing about 7000 people today, the six blocks offer generous facilities for community, like the famous rooftop pools with a view over the entire city. Other examples are saunas, indoor pools and sports facilities, preschools, schools and a medical center. A dedicated subway station, a large shopping center, a church and the 123 000 m<sup>2</sup> big 'Harry Glück-Park' complete the project. (*Wikipedia 2017c*) (*Förster/Menking 2016*) Even today the buildings can be seen as rather luxurious and modern, as

exemplified by the rooftop pools and large and leafy balconies, an innovation in communal living that has not been reproduced since.

#### In der Wiesen Nord

The first large-scale project in Vienna connecting different generations is 'In der Wiesen Nord' by Arch. DI Franziska Ullmann. The multifunctional living compound, which offers facilities for older people and focuses on spatial elements designed for the elderly is appreciated by the youth as well. Completed in 2001, it houses apartments for temporary living for relatives of residents who are in need of care, as well as doctor's offices in the building. (*Schittich 2007*)

'We take our parents with us'. That is the slogan of the multigenerational housing in southern Vienna. Among other functions it



Figure 8: In der Wiesen Nord

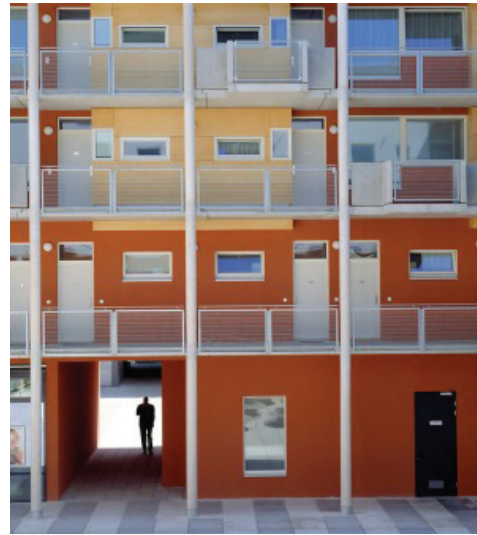


Figure 9: Access balconies of In der Wiesen Nord

houses public facilities, 30 apartments for assisted living and 12 mini lofts for temporary living. With a dense fabric of shops, offices and various types of housing for all generations, the building serves as a district center.

The five to seven-block building is located between the housing estate Alt-Erlaa in the north and a public park in the south. An office building shields the residential area from the busy road in the north. The five-story housing complex is set back from the road to create a public square, which marks the entrance to the compound. Adjacent shops are arranged in walking distance to allow the residents to satisfy their basic daily needs. A café complements the meeting points and enlivens the place during summer. The block creates a semiprivate courtyard. Outside staircases in the corners of the building form a cut, create perspectives

and contribute to the aeration. Apartments oriented to two sides each, duplexes, assisted living for the elderly, and minilofts for temporary living are reached via access balconies oriented to the yard.

In the western wing the first floor houses doctors' offices. The increased requirements of installation lead to a floor height of about three meters. This additional ceiling height also benefits the small apartments on the opposite side, the temporary housing for students or family caregivers of residents. This approach to flexibility seems more up-to-date than ever. The spare floor space is exploited optimally by specially designed built-in furniture. The kitchenette is located on a 72 cm high platform, the side barriers serve as a shelf, and during daytime the bed together with the bedspread disappears under this construction. From this podium the inhabitants have a good view





Figure 10: Autofreie Mustersiedlung

to the park, thanks to large windows. In the upper floors, the flats are arranged in pairs. The access balconies zone bays, where the kitchens are housed. In the private niches in between are the front doors. The floor plans of the apartments themselves are open to allow even the bedridden residents to participate in daily apartment life as directly as possible. In addition, residents have access to medical support services with the Austrian Red Cross.

#### Autofreie Mustersiedlung

This so-called car-free housing project arose from a developer competition in 1996, the 244 rental apartments were planned by the architects Cornelia Schindler and Rudolf Szedenik. A condition in the rental agreement obliges the tenants not to own a car, but car sharing allows the residents to use a car if necessary. For the hundreds of bicycles there are outdoor parking lots,

lockable boxes and space in the basement available.

In addition to the environmentally friendly concept of supporting bicycles, 450 square meters of solar collectors generate the majority of the hot water. There is also a wastewater heat recovery unit for hot water treatment. The money saved with the parking space reduction was spent for community facilities and a generous green space design with a reed pond. The future tenants were able to co-decide about the complex before moving there. The building provides space for numerous community spaces, like a bicycle workshop, a laundry, rooftop flower beds, a common living room, a sauna and a youth and children's room.

A lively community has developed from the beginning. Here, a great number of events and leisure activities are organized in a voluntary manner, such as organic mar-



Figure 11: Miss Sargfabrik

kets, flea markets, musical activities such as choirs or drums, hymns and handicrafts. An important point in social life of the housing complex is a festival, which has taken place every year in the early summer since 2000. *(KOKOS)* 'The 'village community' in the city brings many advantages, but can also deter potential renters, as a tenant reported. It has been said that people who are looking for more anonymity have moved away again.' *(Schilly 2011)*

#### Miss Sargfabrik

The apartments of this communal housing project from 2000 were planned by BKK-3 and are all oriented to a shared balcony zone. The space inside the building is characterized by kinked walls, so that two different room configurations are created, one with an extended space, another extroverted with a larger opening to the facade and balcony zone. In the individual apart-

ments there are different room heights, the larger apartments feature galleries and two residential floors; no apartment is like the other. Kinked window belts reveal the inner life of the building; aslope ceilings are visible from the outside. There is a variety of community facilities in the various floors, such as a 'club room' – mainly for teens, a library, reading and media rooms, a communal kitchen with dining area and the laundry room. The possibility of connecting living and working exists; there are five residential units on the ground floor with a studio character usable as home offices, which are situated directly adjacent to the communal library and media area. *(Architekturzentrum Wien 2001)*

#### GenerationenWohnen am Mühlgrund

There are many different instruments that can be used to bring different generations together. ARTEC Architekten designed a



Figure 12: GenerationenWohnen am Mühlgrund



Figure 13: Corridor at GenerationenWohnen am Mühlgrund

kind of bar that protects the smaller residential buildings in the south from the noise of the subway in the north, with a unique staircase that promotes communication between residents. Furthermore the large windows between the apartments and the characteristic green staircase reinforce the visual contacts.

Completed in 2011, the building was designed as a longitudinal bar oriented to the south, closed to the northern side, where the metro line 2 passes in 12 m height, very close to the building. For the south adjoining residential area (WHA Mühlgrundweg / Krischanitz, Czech u. Neuwirth, 2011), the building forms a shield against the subway noise. The building has very different looks from each cardinal direction: the north side, oriented to the metro line, with its industrial-looking corrugated iron facade looks more like a commercial construction

than a residential building. Here the building is a protective boundary towards the subway.

Inside the building there is an access hall, natural light-flooded and completely painted in green. The lack of outdoor open spaces is compensated for both inside the building in the form of a vertically trained green space, forming a layer of vegetation along the access galleries, as well as on the roof in the form of a common terrace for all residents. The interior, individual character of the access hall is amplified by a vertical five-story conservatory. On each floor four 5 m long plant troughs are positioned with different plantings in each floor. South-spread yellow curtains are mounted in the plane of the loggias and provide shade and a fun atmosphere. The apartments are completely oriented to the south; the loggias each extend over the entire flat width.





Figure 14: So.vie.so at Sonnwendviertel



Figure 15: Courtyard of SMART-Wohnen at Sonnwendviertel

The south orientation of the apartments as well as the spatially constructed air buffer in the form of an access hall provides appropriate conditions for a solar active passive

house. Each apartment has a window opening in the kitchen or around the dining corner to the day-lit green hall. The entrances of the apartments are constructed generously and allow neighborly communication in front of the apartment door. The architects' response to the urban spatial challenge is remarkable; they created the best possible conditions through unconventional housing. (*ARTEC Architekten*) (*newroom 2015*)

#### So.vie.so

The project by s&s Architekten evolved from a developer competition in 2009 and was completed in 2013. Sovieso at Sonnwendviertel, the new neighborhood south

of the main train station, is one good example of how well a residents participation process can work and shows that it can lead to a dedicated self-management, which in this case was supported by an initial facilitation process in order to help residents live together. (*Förster/Menking 2016*) The common rooms are appointed and the free spaces planted, which probably increases the use. The common facilities are two common rooms, a media center, a bike and handicraft workshop, youth and children play rooms, common kitchen with patio and a roof garden. Wohnfonds\_wien claims that if such groundbreaking projects also offer more correspondence of the ground floor area with the urban neighborhood in the future, they cannot be surpassed. In 2015 it received the Wiener Wohnbaupreis (Vienna Housing Award). (*wohnfonds\_wien 2015b*)

SMART-Wohnen - Wohnbebauung



Figure 16: Rendering of the housing project at Hirschstettner Straße



Figure 17: Community atrium at Hirschstettner Straße

### Hauptbahnhof/Sonnwendviertel II

This project by Geiswinkler&Geiswinkler was the outcome of the first developer competition within the SMART housing program and was completed in 2016. In this 'housing rack' the apartments are oriented in two directions for optimal light. The access balconies are oriented to the courtyard and offer accumulated community and utility rooms (laundry room, playroom, storage room for strollers and bicycles) on each floor. Reaching the apartment and the immediate living environment requires passing through common areas, which forms the basis of a good coexistence and positive neighborhood. The access balconies provide private open space as well as transform the threshold in front of the apartments into a lively communication space.

### 2.3.2 Trend and foresight

Highlights of developer competitions of the last few years are described in the following section. Future projects which are under construction now or being built in the next few years will show whether outstanding ideas will actually bear fruit in day to day use.

### Hirschstettner Straße –site A

Many developer's competitions in Vienna have been held with the topic 'living with generations' over the last few years. One of them was the competition Generationen-Wohnen in Donaustadt with the winning project planned by Dietrich | Untertrefaller Architekten. The project contains about 120 subsidized apartments, whereof 40 are built according to SMART guidelines.

The project is characterized by spatial quality in the form of a spacious atrium in each of two buildings, with natural illuminati-



Figure 18: Housing project Ich Du Wir Plus



Figure 19: Floor plan of shared apartment at Ich Du Wir Plus

on, and multiple floors high. Each atrium includes the staircase, stairs to sit on, and access balconies, creating an informal meeting point and inevitable visual and spatial connection to the apartment entrances. The Atrium evolves into a hall with open space in the form of cross-tensioned bridges, and provides opportunities to linger and meet other residents. The light-filled atriums with shed roofs offer comfortable community space enriched by bridges and plants. (*Dietrich / Untertrifaller*) (*wohnfonds\_wien 2015*)

#### Ich Du Wir plus – Viehtriftgasse

Winning the developer competition with the topic of 'living in community' in 2013, this housing project will be completed in 2017 and is the first of its kind in Vienna. The characteristic feature of the 34 apartments, which set their focus on residents of the so-called 'plus generation' (55 years

or older), is the shared living room for two compact residential units. Within these types of housing, there are different sizes and floor plans. Thus it can be adapted to the different demands and needs. The standard apartment sizes vary between approximately 34 sqm and 68 sqm. There will be two residential communities for the 'plus generation' and three residential communities for single parents. (*Viehtriftgasse*) (*wohnfonds\_wien 2015*)



3

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## CASE STUDIES



### 3. CASE STUDIES - OBSERVATIONS AND INTERVIEWS

The three selected case studies in this chapter all include building facts and descriptions with a focus on communal spaces, subjective observations by the author, and interviews with current residents. The projects described were selected because of their rich variety of community facilities.

The projects considered in this study are the 'Wohn\_zimmer' at Sonnwendviertel, completed in 2013, the 'Oase 22' at Neu Stadlau, also completed in 2013, and the 'Bike City' at Nordbahnhof, completed in 2008. The selected cases share a range of similarities: they are all quite new, the position in a new urban developing area, good infrastructure (walkability), and the relatively large size of the complexes. The styles of the projects, on the other hand, are vastly different. The first difference is the arrangement of the blocks within the neighborhood. The urban planning followed a different concept for each project. At Wohn\_zimmer a common perimeter block development was created, reinterpreted with openings to the semi-private yard and with smaller blocks in the

center. There is a sort of perimeter block development at Oase 22 too, but with a meandered structure creating more private yards oriented to the outside of the site and dividing the large common yard in the middle into open spaces with pleasant sizes. At Bike City the zoning is more open and creates a loose formation of buildings and open space; mixed structures and a larger scale dominate the urban planning there.

Each project is aimed at a different user group and therefore follows a slightly different concept, but none of the projects are exclusive for any one type of residents. Every new housing estate evolving from a developer competition in Vienna tries to invite as many different groups of residents as possible. At Wohn\_zimmer many common areas were designed for young families. At Oase 22 in contrast the planners tried to provide a large amount of common facilities and outdoor spaces for different generations. Another approach was chosen at the Bike City; this project responds to just one specific group – cyclists.

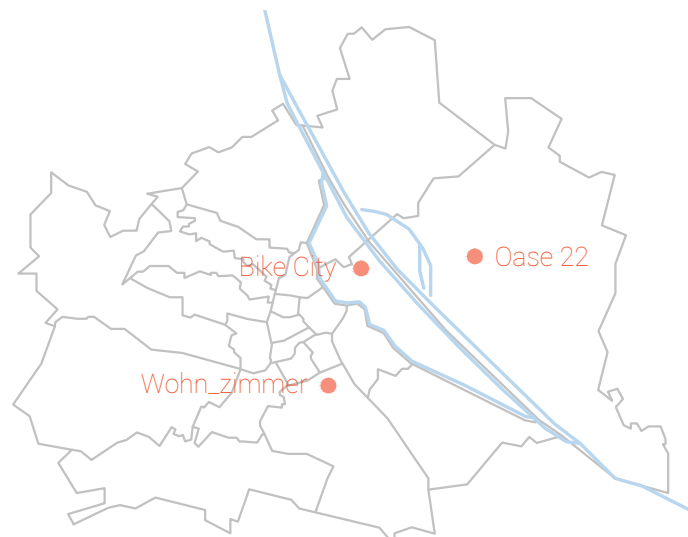


Figure 20: Location of the case studies in Vienna

Another architectural element can have influence on community building: the arrangement of community facilities within one building. Here, the chosen projects are quite diverse once again. Common areas can be placed one after another on the ground floor, stacked and rather structured, or playfully spread across several building parts and floors.

Observations at the chosen housing developments show how architectural decisions like the one mentioned above influence community interaction and thereby the use of the common rooms. Extensive conversations with elderly residents deliver close insight into what makes a building project work for them specifically.





Figure 21: Aerial photograph of Wohn\_zimmer and surrounding



Figure 22: Aerial photograph of Wohn\_zimmer

### 3.1 Wohnzimmer Sonnwendviertel

ARCHITECTS: Studio Vlay with Karoline Streeruwitz, Riepl Kaufmann Bammer Architektur, Klaus Kada  
 DEVELOPER: win4wien (Neues Leben, Neue Heimat, EBG and Mischek)  
 COMPLETION: 2013  
 NUMBER OF APARTMENTS: 427  
 GROSS FLOOR AREA: 50909 m<sup>2</sup>  
 TOTAL SITE AREA: 13724 m<sup>2</sup>

#### Overview:

The project 'Wohn\_zimmer' (german for living room) is situated in the newly developed district called Sonnwendviertel south of the main train station in Vienna. Amongst some other excellent examples for subsidized housing in this neighborhood, 'Wohn\_zimmer' is well known for its outstanding architecture including innumerable common rooms and colorful connecting bridges. The housing complex

was built by Win4Wien, a group of four developers: Neues Leben, Mischek, EBG and Neue Heimat. The planning was carried out by three teams of architects, representing three different architectural generations: studiovlay, Riepl Kaufmann Bammer and Architekt Prof. Klaus Kada. (*Hierner 2015*)

The large site connects through opening the block towards the surrounding urban neighborhood. The two buildings in the north act as a border, contrary to the three red sculptural buildings, which open the block to the south. These eight-story blocks are more spacious and brighter from the inside than the other two rather efficient buildings. Instead of the usual site division, involved planners concentrated on the whole area, which basically consists of three sites. Important elements representing this process are the bridges, which are a symbol for connection and community.



Figure 23: Rather closed building structure in the north-west of Wohn\_zimmer at the crossing Alfred-Adler-Straße/Sonnenwendgasse



Figure 24: Courtyard of Wohn\_zimmer with the three different architectural styles and a bridge

These bridges together with a continuous circulation connect all the common facilities of the whole compound as a circuit and build a three-dimensional road system. The architects see parallels to a living room, because it serves as a central area in an apartment which connects all rooms, like the bridges and the common rooms do. However, the high rooms, where the bridges meet the buildings, are more than just staircases; they create space for exhibitions, conservatories or the so called 'Girl's Room'. (*Hierner 2015*)

In 3000 of approximately 50 000 square meters of gross floor area various common rooms are playfully spread across several building parts, which are accessible via the five bridges for all residents. (*Hierner 2015*) The project uses a strategy of outsourcing functions that match the conventional understanding of a private living room to the

common areas. In favor of the communal facilities, the apartment sizes have been reduced by an average of about 10 percent. The common rooms represent about seven percent of the whole area. They act as a conscious compensation of today's considerably smaller and affordable homes - and as social facilities for the community of the entire district. (*Czaj 2015*) Besides the classical common spaces such as stroller storage room, small children's playroom or laundry, there are a pool and spa center including a sauna, relaxation room and adjoining rooms with about 1000 square meters, a communal kitchen, a library, a home theater, a youth room, a music rehearsal room, a bike workshop, a children's room with adventure slide, another room with a climbing wall as well as a theater room. All common rooms are only to be used by the residents of the facility; only the pool is accessible to the public for a small fee. The public pool



Figure 25: Climbing wall at Wohn\_zimmer



Figure 26: Public pool at Wohn\_zimmer

with sauna is the biggest facility and evokes the impression of luxury. Natural illumination from above complements this feeling. Every Monday a women's day takes place in the facility, where especially Muslim residents from the neighborhood use the offer actively. (Czaj 2015) There are also generous lawn and patio areas, barbecue places, and a market which is open every Saturday from 8 am until 3 pm selling organic products mostly from Austria.

The author of a report in a national newspaper claims that Wohn\_zimmer is an innovative residential complex, which -with its main focus on community living- almost acts like the prototype for a new municipality building of the future. (Hierner 2015) Further compliments for the project highlight that if it is true that the housing satisfaction increases with the range of community facilities, the inhabitants of Wohn\_zimmer have

to be the happiest of the new district Sonnwendviertel. (Hierner 2015)

According to an Austrian architecture database it should be noted that the building density is used to full capacity and individual apartments in souterrain or corner locations are less attractive. Nevertheless the jury considered the approaches for contemporary urban residential areas as exemplary concerning urban design and social spaces. (newroom 2015) Assumptions on community building processes are illustrated in a report about community living in Vienna from 2014, during the early stage of development of the Wohn\_zimmer project. According to the report, the grade of community involvement will greatly depend on the commitment of professional attendance during the initial stage. The size of the Wohn\_zimmer compound and the expected heterogeneous residents ranging





Figure 27: Barbecue place at Wohn\_zimmer



Figure 28: Community-table in the courtyard of Wohn\_zimmer



Figure 29+30: Common kitchen at Wohn\_zimmer

from homeless shelter to privately financed apartments led to divergent interests, which resulted in different and broad facility options. The typology of the continuous path with the connecting bridges was also expected to result in informal meetings between the peak hours of each common room. (Brandl/ Gruber 2014)

#### First Impressions:

Access to the online booking system shows which common rooms are well frequented, and that others are not as accepted. Some weeks ahead, the cinema is booked for the maximum time of four hours about two times a day mostly in the afternoon and the evening. The common kitchen is also rather popular in the afternoon and evening; it is booked almost every day and two or three times on weekends, one to two months in advance there are almost only reservations on weekends. For the music-rehearsal room

there are bookings a few times a week in the evenings for around two to three hours each. It seems that there is almost no interest for the Girl's Room though; only one booking could be found within two months. (*sonnwendviertel*)

#### Interviews:

The high quality of living environment was one of the main reasons why Roman L. (65) and his wife moved to Wohn\_zimmer right after the completion of the project in autumn of 2014. The lack of an elevator in their former apartment was another reason for their move. Not happy to leave their spacious home at first, they now appreciate not having to carry their heavy bags and their groceries upstairs anymore, although Roman is very fit and plays sport several times a week. Overall Roman, who has been retired for several months, is satisfied with the common rooms of the



Figure 31: Music rehearsal room in the basement of Wohn\_zimmer



Figure 32: Common room with theater, currently used as playroom



Figure 33: Bike storage in the basement

compound; although the strong focus on children is a point of criticism for him. One of the facilities he would like to see designed for a more adult audience is the indoor climbing wall. It is only about three meters tall, although the room would allow for a much higher climbing wall. One year after the compound opened its doors, a festival took place in the courtyard. Several residents came out to party and Roman met some people he still has a good neighborly relationship with. Roman thinks it is a pity, that this was the only party that ever took place at the complex. He now thinks of organizing a party for family and friends at the common kitchen presenting the culture of Kyrgyzstan, the home country of his wife. He also wants to welcome everyone who lives in the building. He thinks the kitchen is the best place for this undertaking, because it does not only provide enough space to cook for many guests, but there is

also a large dining room and the opportunity to extend and use the courtyard with its large wooden table for about 50 people. For the announcement of the party he first thought of using the online Wohn\_zimmer forum, but it seems that not many people are using it anymore. According to the interviewee one barrier for the community building process could be the online registration system for reservation of common rooms, which does not lead to spontaneous social interactions of residents. Roman has intended to use the cinema a few times already, but because it is one of the most popular rooms it is hard to make a reservation on short notice. One can also only book it three months in advance at the earliest. Another problem for him is that the cinema is mostly used by families, so the popular genre is children movies. A facility that is targeted more at the elderly is the area with a pool and sauna in the basement. It has a



Figure 34-36: Bright and open spaces at Wohn\_zimmer

very relaxing atmosphere, it is not crowded and the residents do not need to leave the building to get there. It is a little more expensive than other public pools in Vienna even though residents get a discount of 70 cents. Roman and his wife use it about two times a month. When bringing up the token gesture of the bridges, Roman recounts that it was quite exciting to cross them at first, but for him the benefit is questionable, as it can lose fascination quickly.

Marilena S., who is 64 years old and has been living in the compound for one and a half years, provides another perspective into the Wohn\_zimmer project. Together with her 85-year-old mother she rents an apartment in building B. After spending 30 years in a different Austrian city, she came to Vienna for her family, which includes three children and a few grandchildren. One of the activities that fill her day is to

take the dog out for a walk in the surrounding parks. Living in this house, she says, gives her everything to make her happy. One of the common rooms she uses every once in a while is the laundry. Her motivation to do the laundry outside of her apartment two to three times a month is to save some money doing the hot wash. During the winter months she appreciates that the laundry is equipped with a dryer. She barely meets other residents in this facility, but she has a very good relationship to four residents who live close to her on the same floor. One of the advantages is that they help each other out with grocery shopping. Almost all spontaneous conversations happen on the corridor. Therefore she really appreciates their width as well as their natural illumination, which is indeed unusual in subsidized housing. For bringing people together and to maintain a good neighborhood, she finds online social networks helpful. She thinks



Figure 37: So-called Girl's room



Figure 38: Laundry with view to Helmut-Zilk-Park



Figure 39: Unused open space with seating stairs

of it as the best way to communicate easily in order to get important information fast and directly, she mentions the information transfer about a recent burglary and her ability to take extra precautions because of it. The public pool is another facility she uses a few times a year. She enjoys the time there, because it is never overcrowded and the atmosphere is very harmonic. One improvement she would wish for is to have space to overwinter plants, which seems to be impractical for her now, because the common conservatory is too far away to carry heavy plants there.

For her, two small problems exist at the compound. First, according to strict fire protection rules, it is not allowed to keep her mother's walking frame on the corridor; they neither have enough space inside the apartment and to store it on the balcony is too troublesome. Second, she feels that the-

re is a security issue with her balcony being situated next to the common balcony as she is afraid of theft.

#### Observations:

These talks with elderly residents indicate some definitive instruments that can have positive impact on community, as well as highlight potential problem areas. Generous common spaces, which do not have a primary function, seem unused so far. One reason for these rooms to be empty can simply be starting difficulties, though they can be described as architectural highlights in subsidized housing. There is no community or association that promotes social interaction between residents. Another reason might be that common rooms simply do not work without a primary function that would also include furniture in most instances. Then again, furniture might become a problem for rooms that are open and directly con-



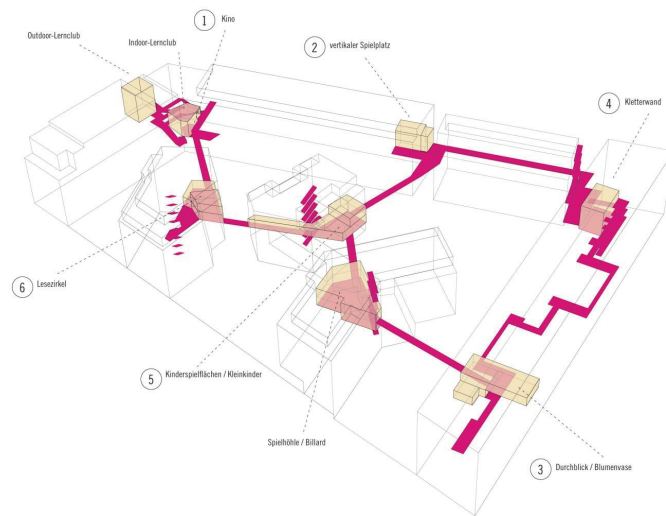


Figure 40: Axonometry of Wohnzimmer with its common rooms connected through a circular path

nected to the staircase, because of strict fire protection rules in Vienna. Another rather unused common room is the so called Girl's Room, which is appointed with curtains all around and provides soft chairs.

With its focus on common areas, the site represents a city in the city. One can easily believe that this concept addresses a lot of different groups of residents, also with respect to age. According to an article by 'wohnenplus', young families, couples and singles live here; only seniors cannot be found in the building. (*Wohnenplus* 2015) One and a half years after opening, there is a total number of 10 to 20 apartments out of 427 rented to elderly people, which constitutes an extremely low percentage. There is a lack of common rooms for older people in this building complex in general. The focus was clearly set on the group of young families. This becomes clear in the first mo-

ments after entering the building. There are a lot of great facilities for children though which are well accepted. Considering the fact that the involved planners represent three different architectural generations raises the question why the elderly seem to have been neglected in the planning process of the communal spaces.

To summarize talks with residents, two things appear to be very important for the elderly in this housing complex: security and sports facilities. Many residents also seem to have a better overview about the variety of common rooms if they are clearly arranged. This brings up the issue of ease of orientation within a building, which especially needs to be considered if planning for the elderly.

Concluding one can assume that a project with similar scope regarding to community





Figure 41: Site plan of Wohnzimmer

institutions is unlikely to be repeated under the present tight financial conditions. The aim of this project was not necessarily to score with the lowest total cost of construction, but rather to offer an extremely high quality living environment. (*sonnwendviertel*)

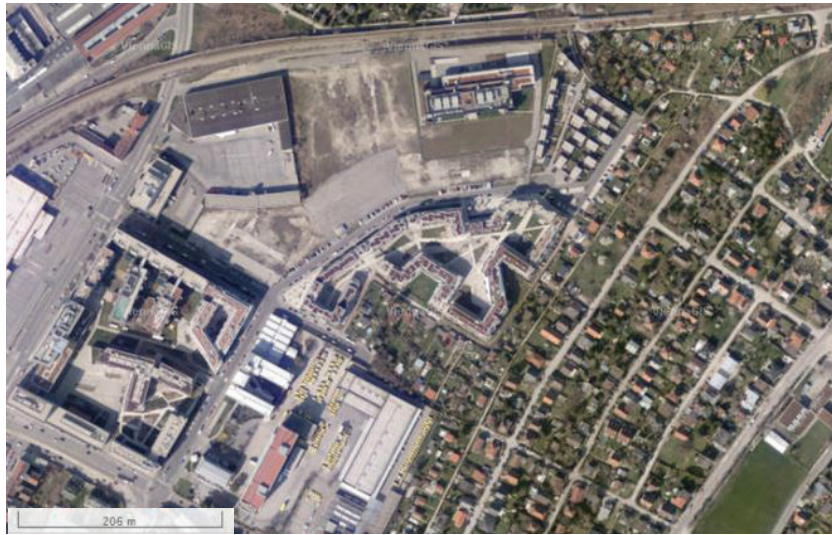


Figure 42: Aerial photograph of Oase 22 with surrounding

### 3.2. Oase 22

ARCHITECTS: studio uek, Köb & Pollak Architektur/ Schmoeger, g.o.y.a. Ziviltechniker Ges.m.b.H  
DEVELOPER: GESIBA, BUWOG, ÖSW COMPLETION: 2013 NUMBER OF APARTMENTS: 346  
GROSS FLOOR AREA: 35600 m<sup>2</sup> TOTAL SITE AREA: 25986 m<sup>2</sup>

#### Overview:

‘Oase 22’ is a residential area housing different generations in around 350 residential units. It is part of the newly developed quarter Neu Stadlau on the former site of Waagner-Biro, an Austrian steel company, and was completed in 2013. The architectural concept for Oase 22 by studio uek emerged from ‘Europas 9’, a pan-European young architect’s competition. Under the motto ‘Future Generation’ a total of 2000 teams participated in 78 projects, whose

designs were judged by an international jury with expert groups from 16 countries. (*wienholding 2008*) In addition to a building structure that provides space for community living, the project focuses on offering high quality open spaces. The theme of the ninth competition of this kind was ‘Sustainable city and new public spaces’. (*Stadtentwicklung Wien*)

The site was divided into three parts, for two of which a developer competition was held. The housing project won a recognition award for its site-comprehensive quarter development at the Viennese housing awards in 2015. The jury emphasized the common usability of each project’s common rooms, which will become the future in housing, writes *wohnfonds\_wien* in its booklet about the Viennese housing award 2015. One of the outstanding aspects is that boundaries between the three sites do



Figure 43: aerial photograph of Oase 22

not play a role. The implementation of the housing project was distributed between three developers - BUWOG, GESIBA and ÖSW - and three architecture teams: studio ueck, Köb&Pollak Architektur with Schmoeger and g.o.y.a. Ziviltechniker Ges.m.b.H. In a heterogeneous area on a former industrial site a for the most part closed building emerged in the form of an island that opens up to the surrounding neighborhood with generous cuts. The entrance areas or gaps enable vistas and path connections for residents and passersby. (*Hubauer/Kirsch-Soriano/Ritter 2014*) Perimeter block development is set into new light here. The meandered structure creates rather private yards oriented to the outside in the south and east. In the north the third kink creates a public space leading to a break in the building structure marking one of the entrances to the site. The other entrance in the southwest is a large two-story breakthrough

that works as the main access and is appointed with a forecourt. Another function of the meandered structure is that it divides the defined yard into several open spaces of pleasant size. Though the courtyard has an overarching design, it still appears quite diverse.

30 apartments with on-call care services and a senior day center inter alia represent one of the main criteria in a developer competition - social sustainability. It can be concluded that this project meets the competition's focus of age-appropriate housing and integration very well. In total there are about 320 apartments and a rich supply of common facilities.

The three building parts each built and designed by a different developer have different topics for the common rooms. The building part with the subject 'sports and movement'



Figure 44: Access to Oase 22 from the south



Figure 45: Courtyard of Oase 22

houses a fitness room, a lounge, a children's playroom, a running and fitness pathway on the roof, and a climbing wall. In one of the other buildings one can find a bike workshop and playroom on the ground floor, as well as a barbecue patio on the roof-deck. Rooms for open use, partly two story common rooms, playrooms, a summer kitchen, flower beds on the roof-deck, a laundry room and a book box for sharing books, are found in the third building. (*wohnfonds\_wien 2015b*)

An indisputable highlight is the symbolism of a connection through a roof-level skywalk. Accessible to all residents it connects all building parts and boundaries between buildings disappear even more. It works as an open space in addition to the defined common courtyard and the smaller yards outside. With its niches, level differences, and different materials diversity arises on

the roof. (*Hubauer/Kirsch-Soriano/Ritter 2014*)

An accompanying mentoring and district management program by the Caritas and its 'Neighborhood curators' was provided for the first one and a half years from the date of settlement for residents of all three components. The program allows participation of residents and furthermore supports diverse forms of appropriation and neighborhood development. The project commissioned for one and a half years is a pilot project in terms of social sustainability. (*Hubauer/Kirsch-Soriano/Ritter 2014*)

An online report about social sustainability and the district management at Oase 22 states a typical problem – temporal dimension of attendance. To build remaining social structures in just one and a half years is a difficult task. Depending on the environ-





Figure 46: View from the skywalk to the courtyard of Oase 22



Figure 47: Apartment entrances oriented to the common yard

ment and participation experience, it may be easier or harder to involve residents; especially disadvantaged groups can tend to be less involved with tight time perspectives. A slightly longer accompaniment might potentially work better in ensuring social sustainability. It is easier for the district management to actually be on site, when first conflicts arise or when the self-organization does not work. The accompaniment of social processes always remains an experiment that brings something new every day. (*Hubauer/Kirsch-Soriano/Ritter 2014*)

For the City Councilor for Housing, Michael Ludwig, the area Neu-Stadlau further proves that ghettoization is not an issue in Vienna. The new living and working quarters at the northern edge are considered an outstanding example according to social mix and peaceful coexistence of different generations. Other buildings in the neigh-

borhood complement the social mix and infrastructure: Star 22 houses offices and shops, Base 22 offers student housing, and Unit 22 is an industrial park. (*Stemmer 2009*)

#### First Impressions:

Walkability is an important factor for domestic architecture and must be provided in every urban dwelling area. While this aspect is still developing in other newly built neighborhoods, it is already advanced at this site. A good public transport connection is provided even though the complex is rather far from the city center. One can either take the tram or the bus, both followed by a two-minute walk to the main entrance in the southwest. The existing infrastructure contains a medical center, sports facilities, and stores for daily needs, which are all in walking distance. Coming to the site from the bus stop in the south, the building is not



Figure 48: Access to the skywalk



Figure 49: Skywalk

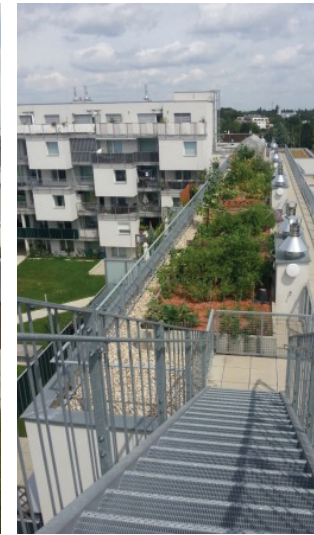


Figure 50: Common garden beds at the roof level

visible because the adjacent street bends at the prior crossing. Entering the block gives the visitor a whole new idea of the area. Not only does the structure appear very pleasant because of the size of the yard, but the discreet design also needs to be noted. The courtyard is a quiet open space. The author visited the area three times, of which one was a Monday at around noon, one was Monday morning and the last time was a Saturday in the late afternoon. At all these times the open space was empty, although a few residents sat on their balconies. Nevertheless, the visitor can feel that the living together seems to work very well. The house is well kept and many plants sprout and bloom in the garden. Bulletins on the doors reveal that community activities are regularly taking place at the site.

#### Interviews:

An extensive conversation with three el-

derly residents demonstrates the daily life at Oase 22. Heinz G. (73), Richard B. (63), and Eveline D. (62) shared their experiences. The Interviews were held in one of the participants' apartment on the ground floor, which is accessible directly via the common courtyard. On the opposing side the apartment is appointed with a terrace and a small garden. With the kitchen window next to the apartment entrance one can overlook the yard from the kitchen. In a spacious living room the participants felt free to talk about community on site.

The planners' intent was to create a building site without boundaries, illustrated with the connecting skywalk on the roofs, the site-encompassing courtyard, as well as the support from the Caritas Neighborhood curators for the first two years. All three residents, however, only referred to the common rooms in their building not the



Figure 51: View from skywalk to common yard with shared garden beds and fruit trees at Oase 22



Figure 52: Shared garden beds

ones on the whole site during the interview. Although they mention a strong neighborly feeling spanning the entire area, they are not interested in using facilities in the other building parts. One of the common rooms in their building part is a fitness room, rented by an external club. Many people frequent the room three to four times per week for taking part in two to three fitness classes. The interviewees participate in a fitness class about one to two times per week and one of them is a trainer herself. Another element of the 'sports and movement' concept is a three-story climbing wall placed on the outside of the building. Apparently this generous facility never got opened and might be removed someday. Unfortunately no operator could be found to organize and take on responsibility. There is also a huge indoor climbing facility only about 700 meters away in the district.

The building defines smaller yards on the

outside of the main common courtyard. The lawn includes vegetable beds and different kinds of fruit trees. Oriented to the allotments (therefor very quiet) and being home to numerous plants, it is a very pleasant and quiet place, which the interviewees enjoy regularly.

The additional open space on the roof - the skywalk - offers another place to meet neighbors and chat. Richard has taken a walk up there several times; he appreciates the different levels and floor covers, for instance the soft sports flooring on the building's roof. One of the best parts about the roof is the view in his opinion. On bright days one can see the mountains, that is why he is concerned that there is a new project planned in the north about nine floors high. Many young parents visit the rooftop with their children during summer, and it is the perfect spot on New Year's Eve to celebrate





Figure 53: Common kitchen, accessible via the rooftop



Figure 54: Children's playroom



Figure 55: Empty common room in the ground floor

and overlook the fireworks.

The three interviewees agree that the architecture is the most important incentive for social interaction and creating a neighborhood in their case; they are not certain the neighborhood curators have had any positive impact. For Richard it is of great importance that his apartment is accessible via the courtyard directly, so he can meet and see a lot of people when coming home or leaving. He thinks that this is one of the best incentives for starting a conversation. Besides, the patio and the small garden are oriented to one of the smaller yards the meandered building forms on the outside. Every once in a while the view axes to the close neighbors as well as to the yard with vegetable beds and fruit trees lead to a friendly conversation. The interviewees also note that the residents of apartments with a continuous belt of balconies can have con-

versations easily from balcony to balcony.

The reason to move to Oase 22 was not its great approach to communal living for the three interviewees, but the apartment and the general neighborhood at first. However, the rural communal character now fascinates them. Other residents seem to care about their neighbors, people talk to each other, and foreigners seem to integrate seamlessly.

In summary all the three interviewed residents appreciate their home. Heinz mentions that his quality of life was enhanced considerably by moving to Oase 22.

#### Observations:

A new approach in urban design in Vienna is the modern perimeter block development with its meandered structure and reverse free spaces. An approach one cannot simply transfer to any area; it needs to integrate



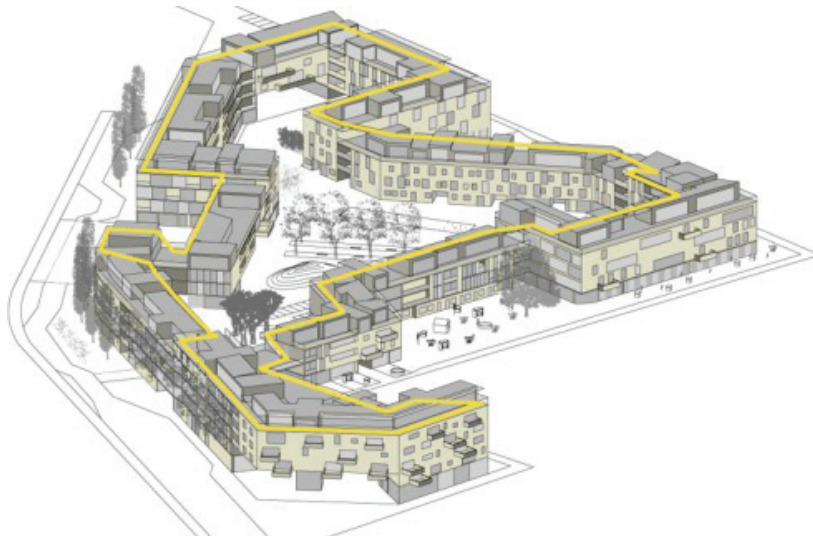


Figure 56: Axonometry of Oase 22 with its skywalk

perfectly into the available building space, which the Oase 22 project demonstrates beautifully. As seen in the previous case study already, common rooms seem to need a specific function or people who organize events to function. The outdoor climbing wall is an example for a situation where this has not worked; there was no organization found so it will be removed soon. It seems to be a reasonable compromise that there are mutual parts of the garden, like the fruit trees, but also parts like the vegetable beds, where residents can garden concurrently but everyone is responsible for his or her own part. It can be summarized that sports facilities and green spaces are the most well received common facilities for the elderly at Oase 22. Unique spatial elements like the yellow bridges at the Wohn\_zimmer in the first case study and the skywalk at Oase 22 add a special identity to a place. Residents can refer to these prominent elements when

they talk about their home. Residents who care for the building and its tenants are the key factor for sustainable community. It is exceptional at Oase 22 that a group of people volunteers to take responsibility and represents all the building's residents. It becomes clear from conversations with residents, that only if people start to feel responsible for their surroundings a neighborly feeling can develop.

### 3. CASE STUDIES - OBSERVATIONS AND INTERVIEWS



Figure 57: Ground floor plan with common rooms of Oase 22

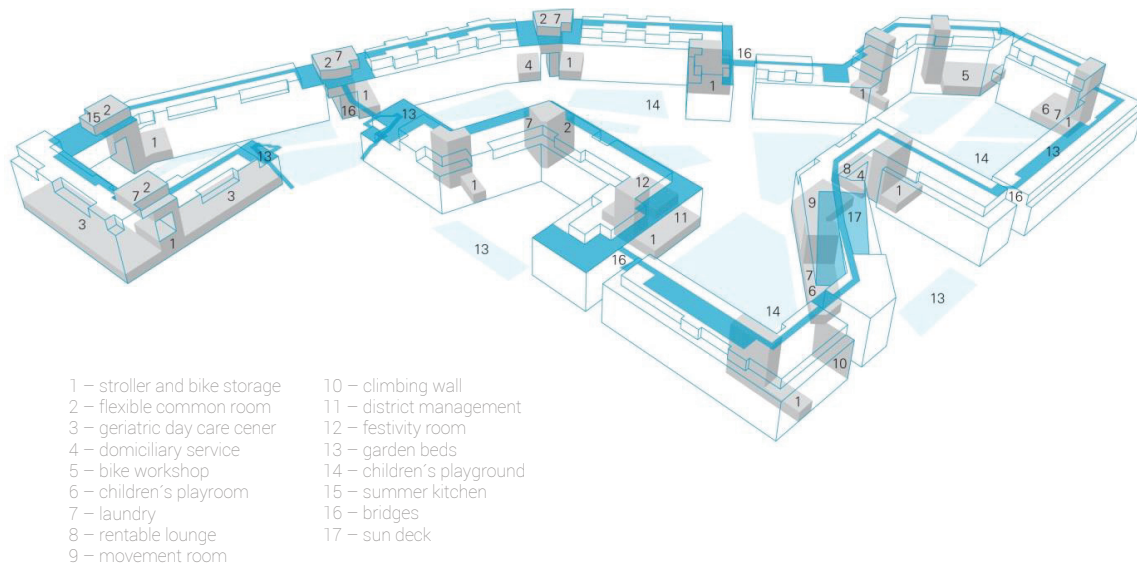


Figure 58: Axonometry with skywalk (blue), staircases and special use spaces (grey) and common rooms of Oase 22



Figure 59: Aerial photograph of Bike City with surrounding



Figure 60: Aerial photograph of Bike City

### 3.3 Bike City

ARCHITECTS: Königlarch Architekten DEVELOPER: GESIBA COMPLETION: 2008 NUMBER OF APARTMENTS: 99 GROSS FLOOR AREA: 14500 m<sup>2</sup> TOTAL SITE AREA: 2787 m<sup>2</sup>

#### Overview:

Though it is a considerably smaller project than the two previously described case studies, the 'Bike City' is not any less interesting. This housing complex is part of the large urban development area at the former northern railway station in Vienna rather close to the city center. The building was completed in 2008 by Gesiba after winning a developer competition in 2005, and houses 99 subsidized apartments and 330 bike parking spaces. Talks with residents of the Bike City show whether housing a community with one specific interest is a good ba-

sis for developing a lasting community.

After the 'Autofreie Mustersiedlung' by Cornelia Schindler und Rudolf Szedenik from 1999, the project is another best practice example for bicycle-focused housing. The concept of the housing project combines bicycles and wellness. The aim is to make the decision for the bicycle as a main means of transport easier and provide the necessary space for it. As a result there are glass boxes in almost every floor, niches in the indoor access balconies, parking frames in front of most of the apartments, and lockable parking spaces in the garage. The elevators are bigger than usual; they provide space for three bicycles and their owners. Allegedly around 70 percent of the bicycles are parked in the upper floors. (*Schilly 2011*)

A project with a similar concept was realized four years later, the 'bike&swim' plan-





Figure 61: Courtyard of Bike City



Figure 62: Naturally illuminated corridor with niches and frames for bikes

ned by Lautner + Kirsits Architekten and also developed by Gesiba.

The ground floor of the Bike City is completely dedicated to bicycle and wellness, and houses no apartments. The wellness area consists of a fitness room, a sauna with a Kneipp area, a solarium, and a relaxation room, accessible via changing rooms. Further there are three community rooms oriented to the courtyard, all separated through glass walls, but connected through doors; the choice of glass allows an open feel. Coming from the staircase one enters the youth room first, then there is a playroom for children, and the last room is a common kitchen. The kitchen is the biggest of the common rooms and judging from the cozy furniture and the kitchen utensils it is well frequented. Large bicycle rooms, free-use workplaces with compressed air and water-connections are also part of the

concept, as well as a point of contact for car sharing. Garage parking spaces are also part of the Bike City, but the parking space limitation to 50 percent freed a large portion of building funds, which benefited the concept and flowed into the high-quality exterior design. (*Architekturzentrum Wien 2008*)

#### First Impressions:

The block in the southeast is divided into two sites, one with the Bike City and the other one with a housing project called 'time2live'. The first one is the bigger part of an L-shaped building; the second one is a very small part of the L-shaped building together with another longish one. While the first one is dedicated to subsidized apartments, the other block consists of condominiums. Together they surround a courtyard that is fenced in at two places, where the block opens to the newly developed area in the west and to the north. As



Figure 63: Glass box for bike parking



Figure 64: Common balcony in the corner of Bike City

mentioned above, the ground level is free of apartments; the space oriented to the courtyard is filled with common rooms, while the space in the south, oriented to the street, provides space for a pharmacy and a small hair salon.

The architectural appearance from the outside is characterized by its façade to the courtyard: flexible wooden shutters, which add individuality and a slight rural impression. On the inside the naturally illuminated staircases and access balconies provide a pleasant and friendly atmosphere. The glass boxes for bicycles and strollers in each floor enable view axes and illumination while providing room, like the common balconies in the corners of the building. Another significant feature of the housing complex is the overlay with duplex apartments that reduces the space needed for common staircases and hallways, while still providing

apartments extending from the front to the back, of the building, which is a rare occurrence nowadays.

#### Interviews:

A married couple aged 66 and 70 years, Gabriele and Raimund F., have been living at Bike City since its completion in 2008. Back then it was the first building completed in the newly developed area of the former northern train station in Vienna. When moving in, they recount, they had certain expectations concerning community. In the beginning they were not disappointed, because meetings for tenants were organized regularly. Although these meetings were attended only by a small group of about 20 people, they had an important impact on the community in the building. First, the group elected a representative for the tenants, who was very committed to the community. The group also decided how



Figure 65: Lounge at the common kitchen of Bike City



Figure 66: Common kitchen at Bike City

to use the common rooms on the ground floor. There was a certain amount of money available for common areas, which in the end was spent on additional lockable bike boxes and on bike racks in front of the apartments. Since the elected representative moved away, a liable organizer in the building is missing, much to Gabriele and Raimund's dismay. Their expectations of community are not fulfilled today; there are no meetings anymore and the couple feels like there are no other older people or people with similar interests living in the building. The main group of residents is now young families with children; some of them connected, likely because it seems to be easier for people with children to meet. Many of the tenants, who moved in in 2008, have already left the Bike City, so that the couple sees new faces every now and then. To begin a chat with other residents is not easy to them; sometimes it happens in the elevator

or they only greet each other.

In the first few years after completion the common rooms were used for several activities, like a dancing class, and young residents met and played some music. Now they are only used for children's birthday parties or visitors. A common bookshelf for exchanging books was initiated, but in comparison to other housing projects it did not work as expected. Since there is a new and extensive gym close to the housing complex, Gabriele and Raimund feel that it is not as bad that the budget for common facilities didn't last for gym equipment.

The couple claims that one of the reasons why social interaction did not work as well for them as expected is the location of their apartment within the building. They live in an apartment with the entrance between stairs and elevator, which is a rather expo-



Figure 67: Playroom at Bike City



Figure 68: Fitness room at Bike City

sed location. Because of the access via balcony the apartments are all kind of strung together, making it harder to have view axes to neighbors and to get to know them.

The focus on bikes was an additional benefit for them, but not the reason why the couple decided on taking the apartment. Only Raimund rides a bike every once in a while, but Gabriele does not even own one. One of the main reasons for the couple to move in besides the location and the style of the apartment was the adjacent park. Not because the park is elderly-friendly in particular, but because of the view. Instead of using the -for a newly developed area-comparatively large park, the couple likes to go to the neighboring rose park with its old tree population. The couple misses the pleasant climate generated by trees in the open Bike City courtyard. While young people and children may find the space attractive

because of the size and the access via the common rooms, it is not designed for the elderly. This is one of the few issues the resident have to bewail. The outside furniture is also exclusively for younger people because it is shaped like a sun lounger, and therefore not easily accessible to older people like Gabriele. She also misses a pergola or some other shady space. The sauna and spa area they describe as perfect, but unfortunately the couple does use it anymore on health grounds. Overall the couple thinks the common rooms of the Bike City are well designed and provide an adequate range of different facilities.

#### Observations:

While the concept of physical activity seems to interest potential elderly tenants in the previously mentioned Oase 22, the Bike City does not seem to resonate with the 'generation plus'. Elderly residents occupy



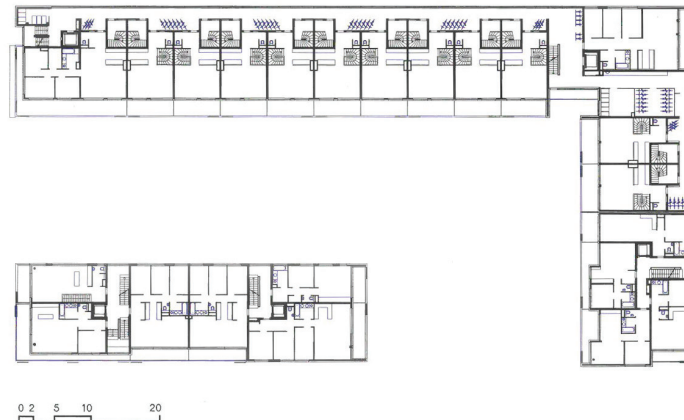


Figure 69: Level 2 floor plan of Bike City

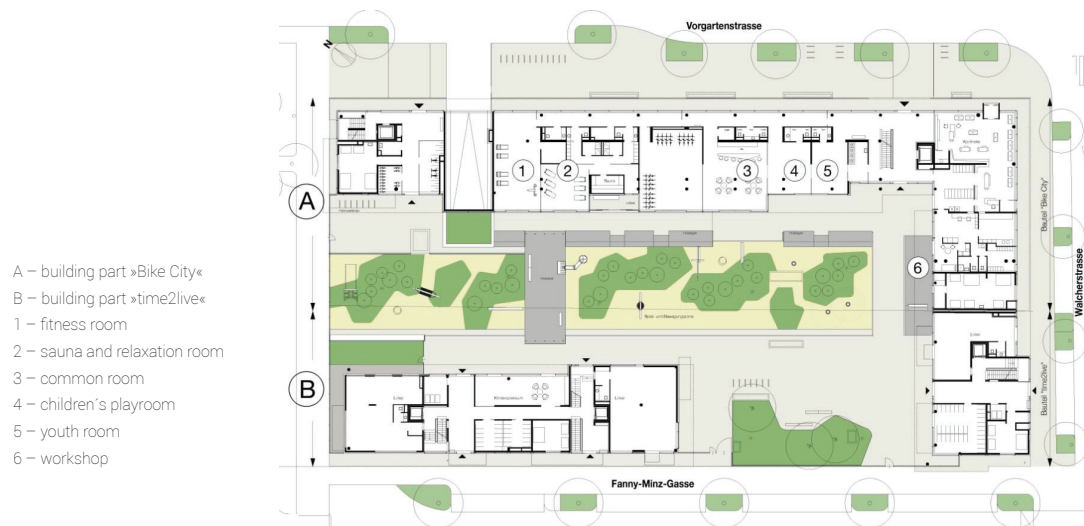


Figure 70: Ground floor plan of Bike City

very few apartments at the Bike City, according to the interviewed tenants. One of the reasons why so few older people are living in the building seems to be the spatial solution of duplex apartments in every other floor. These are not the kind of apartments where elderly people can imagine growing old in. Even more because those so called 'fake maisonettes' provide only a small win-

dowless room with corkscrew stairs in the lower floor while the actual apartment is on the upper floor.



### 3.4 Discussion of Results

The chosen case studies, although comparable in certain criteria, seem to be very different in their effect. The main difference between the three projects, besides of course urban and spatial design, is the inner process of community in each housing complex. Through detailed interviews with elderly residents the present study has shown that there are specific spatial incentives leading to more social interaction than others.

From the talks with residents it can be concluded that the following spatial elements have considerable impact on the social interaction of residents: The architectural element of apartment entrances oriented to a central courtyard can be considered to be a main factor in promoting social interaction, comparable to access to the building entrance via a common yard. Though view axes from the entrance to other ones or even balconies, one gets to know other residents by sight and further it might be easier to get into a conversation with someone. Naturally illuminated corridors also stand out; they provide a pleasant space for chance encounters.

Not only the illumination, but also the width of a corridor play an important role for residents to subconsciously stay and chat for a

longer time. Another often-underestimated element that needs to be considered is elevators; they effortlessly provide space for a quick chat with other residents.

Further factors that need detailed attention in planning have been identified. The fact that interviewed residents only know about four to five other households at maximum could potentially change planning for community-building efforts. Neighborhood initiatives might want to shift their focus away from trying to encompass the whole building community at once. It gets even more difficult when residents change a lot within a building, as it was the case at Bike City in the last years.

Talks with residents further show the importance of sports facilities, all of the interviewed tenants have great interest in sports and do it several times a week. The fact that most of the interviewees talk about the group of people they do sports with as friends show that it might be an easier way to get to know each other.

Regarding the outdoor spaces tenants mentioned that noisy zones like children's playgrounds are unfortunately often inevitably located in the courtyard. Further they miss open space that provides seating and shade.

A solution to the often-raised issue of lacking individual responsibility for common areas can be a shared facility with private sections, like the well-received garden beds at Oase 22.

The study further shows that spatial qualities that are proverbial symbols for connection do not always work as expected. All three chosen case studies use one of these elements as a special feature to set them apart from other projects. Symbolic elements in the dwellings are bridges (Wohn\_zimmer), a skywalk (Oase 22) and in a broader sense a theme of residents' shared interest (Bike City). Residents express loosing interest in those architectural features after living with them for a while. Nevertheless they can foster community if they provide other interesting and more long-lasting features like a common greenhouse and pleasant space to enjoy the view, as it is the case at Oase 22.

The question whether community living provides a better living environment for older people is not trivial to answer. Concluding it has to be said that it depends on the person and the environment, both the built as well as the social structure.

Because of its large size 'Wohn\_zimmer' offers many common facilities and many options in common areas of the housing, like

for example festivities. This wide range provides a pleasant environment and a community with social diversity. Wohn\_zimmer's courtyard is a pleasant space for all people; another advantage of the complex' size was the budget available for open space.

The common rooms and the architecture in general answer in different ways to the older generation's needs and desires in the investigated housing projects. At Wohn\_zimmer there is a wide range of facilities for children; one might say that some of the space could be used more for the elderly's needs instead to improve living quality for elderly residents. There is also an online booking system for reservations for the most frequented rooms, where one has to decide to use a room several months in advance, which can be somewhat deterring. Only a small fraction of apartments at Wohn\_zimmer are occupied by residents aged 65 plus.

Oase 22 houses a larger number of older people and can be seen as the most successful project for the older generation. It needs to be noted that the developer competition set a focus on the topic 'future generation'. The fact that the project offers the possibility of assisted living in the same block probably makes it even more attractive to the elderly. An external club that organizes gym classes is a great step towards a susta-

inable community. A group of volunteers who feel responsible for the neighborhood and the community, and who bring other people together is an example for outstanding development of social life in housing. Since the elderly are on average the group of residents that stay at the same residential building the longest (due to the fact that family structures will not change much anymore), they play a major role in community. Therefore Oase 22 is a great example for a long lasting community, because the representatives of the tenants are elderly people themselves.

The Bike City with its topic of 'Bike and Wellness' focuses on two facilities interesting to elderly people: sports and spa. However, this is contrary to its range of apartment layouts with plenty of maisonettes, which might be the reason why only a small number of elderly residents actually decided to live there. Further the courtyard is not responding ideally to the older generation's needs with outdoor furniture in form of sun loungers, not many shady spaces and places mostly oriented to children. According to the interviewed residents social solidarity in the housing has decreased since the opening, at least for other groups than young families with small children.

One issue for the presented study was the

comparably small number of older people living in innovative housing concepts at newly developed urban areas. This leads to the question why this is the case in two of the three selected case studies, considering once again that the elderly are the fastest growing group in our society. There were definitely some elements in the case studies that could be interpreted as quite exclusively focusing on young families and therefore being out of the question for elderly. This study would be more comprehensive if more elderly people were to live in the kind of community-based housing projects in the future. Further research should be done in the form of a quantitative study comparing how the concept of certain community facilities influences the frequentation and level of interaction of residents.



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## CONCLUSIONS



## 4. CONCLUSIONS

To integrate elderly people's needs in subsidized housing is the key to create a diverse community and fulfilled life of residents. In order to provide a safe and pleasant home in an active neighborhood, it is important to design inclusively. Spatial qualities can play an active role on how residents interact with each other. The aim should be to enable better planning processes through insights of residents' views and experiences. Because of elderly people's status in housing special regard to planning for the elderly needs to be given. The generation 65 plus chooses their home more selectively and carefully in order to stay for a longer period of time than younger people, where family structures still change. The elderly might be the most important part in a community as they stay the longest and have potential to be the most active tenants because of retirement.

Three different projects were investigated in order to provide information about how architecture can improve social life in housing. An overview about the particular project found in literature and online gives

a first impression. It's the extensive talks with elderly residents and on-site observations that give answers and insight to the social life at the housing project. The interviews showed that the arrangement of apartments in relation to common space can influence social interaction between tenants. The importance of the design of an apartment itself gets clear when it comes to an exclusion of user groups through its architecture, like it is the case with duplex apartments. The position of view axes from the apartment to common areas is another element counted as effective according to interviewed residents. In as large compounds as the case studies, community facilities are probably best arranged in the ground floor. The interviews showed that it is hard for residents to get an overview of the whole choice of common rooms if they are scattered. Further it became clear that community spaces need a person or association in charge.

There are important parameters to be considered for future planning processes. The

aim in future projects should be to integrate as many different user groups as possible, not only concerning the age of the residents. However, since the number of elderly will double in the next thirty years, and because they are the fastest growing group in society, special attention needs to be given to the older age groups and new approaches need to be found. Specific interests need to be promoted instead of stereotypes, which can happen when planning for the elderly. Also one-sided perceptions like the risk of social isolation of the elderly need critical views. Then again it must be considered that social interaction may never become a form of constraint. Sensitive and also flexible solutions are required; it is of great importance to be able to respond to changing needs. At least as important is the urban integration of the project to allow for factors such as walkability that are even more important to the older generation.



5

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DESIGN PROPOSAL



## 5. DESIGN PROPOSAL

The design is based on the knowledge gained in the course of a comprehensive study and outlined in the previous chapters. The draft describes a scenario in Vienna that particularly takes into account the integration of the older population, community living, and the inclusion of the neighborhood.



Figure 71: Vienna

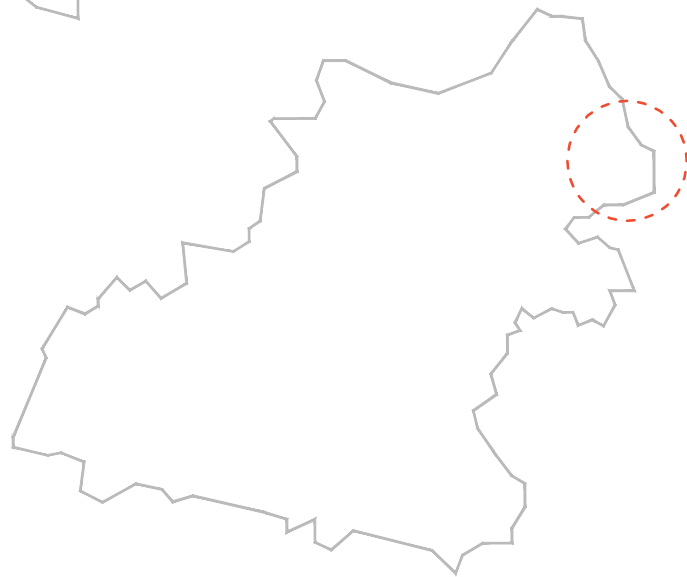


Figure 72: Meidling, 12th district of Vienna

## 5.1 The Site

The site for the design-part of the thesis is located in the north-eastern part of Meidling, the 12th district of Vienna. The total site area amounts to 35 000 m<sup>2</sup>. It is a special location for many reasons: On the one hand, the area is very urban with a high density in the north, east and west. On the other hand, the lot is affected by strict boundaries. There is an aggregation of rails in the south, as well as busy roads in the east and south. A site of this size is usually

more likely to be found in the outlying districts or within a new developing area. This rare position is the reason why special attention needs to be paid to a sensitive and inclusive design in order to avoid a shielded community. The design needs to create an open district center for the residents as well as the neighborhood. Another reason for choosing this site for the design proposal is the ongoing planning process at this area by the City of Vienna.

The existing site is surrounded by few infrastructures; perimeter block development



Figure 73: Location of site

is predominant and the ground floors have almost no public functions. The following chapter gives an overview of certain factors that must have impact on the design.

Meidling is the district with the most municipal buildings in Vienna. In close vicinity of the site, in the neighboring 5th district, we find some of the first and also most famous municipal buildings in Vienna: Reumannhof, Metzleinstalerhof, Matteottihof and Herweghhof. In the 1950s, the Theodor-Körner-Hof was built and continued the series of municipal buildings along the

Margaretengürtel. The aim of creating a more open city as well as cost reduction and building efficiency led to 14 blocks arranged in rows, open to the large traffic axis. In the center stands Vienna's first municipal residential tower. However, in 2007 the yards had to be closed in the south by glass noise barriers, hinting at some of the difficulties an open design has to face in this area. The proposed design aims to honor the tradition of these famous buildings as well as offer solutions to the issues of the open concept.

## 5. Design Proposal

Figure 74: Aerial photograph of the site







Figure 75: Puplic spaces around the site







Figure 76: Playground at Steinbauerpark

## Public Space

Surrounding the site the amount of public space in the form of parks is above average. What looks like green stripes between the main streets Gaudenzdorfer Gürtel and Margareten Gürtel are parks with fenced public areas for dogs as well as sports cages for playing basketball or street soccer. The Steinbauerpark, Wilhelmsdorfer Park, and Haydnpark offer diverse open space for recreation.



Figure 77: Wilhelmsdorfer Park



Figure 78: Haydnpark





Figure 79: Margareten Gürtel and Gaudenzdorfer Gürtel in the south and Eichenstraße in the south are major sources of traffic noise.







Figure 80: Intersection of Margareten Gürtel and Eichenstraße



Figure 81: Eichenstraße



Figure 82: Aerial photograph of the intersection

## Traffic

Margareten Gürtel and Gaudenzdorfer Gürtel are a section of one of the most important routes through Vienna- the Gürtel Straße. The part that passes the project site has three lanes in each direction and intersects the Eichenstraße, which has two lanes in each direction. A considerable amount of traffic noise is emitted from the streets, made worse by the intersection. This major effect on the site shows that special attention needs to be paid to insulate the area from the noise, while at the same time creating an open and inclusive housing area.

Figure 83: A well designed public transportation system (red) and a dense network of cycle tracks (green) provide short connections to the city.







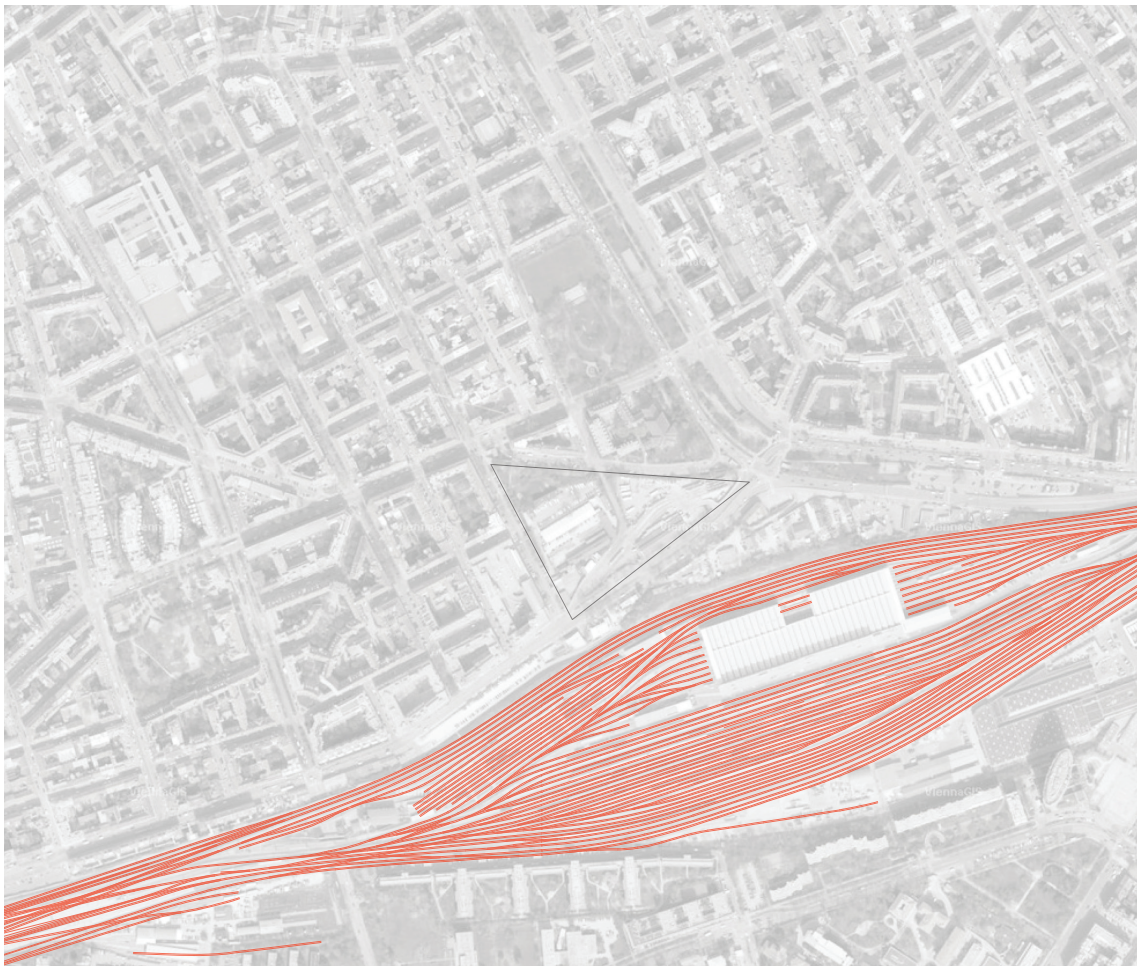
Figure 84: Marked cycle track on Flurschützstraße

## Public Transportation, Cycle Tracks and Stations

Vienna's Public Transportation System is densely constructed and provides short distances and wait times. Although it is a walking distance of 1,2 km to each one of the two metro stations Meidling and Margareten Gürtel now, there will be a new station at Matzleinsdorfer Platz, only 700 meters away, under construction starting next year. Additionally, there is a dense network of railways and busses surrounding the site.

Cycle tracks are abundant in this area; however, the public bicycle rental system does not provide a station closer than 500 meters.

Figure 85: The train maintenance and repair facility creates a barrier for the neighborhood.



## Rails

Another effect on the site and its neighborhood is created by the large amount of rails in the south, constructing a major barrier. Not only is the connection to the southern city part poor, but the barrier creates a lack of infrastructure since occupants are being cut off of half of the surrounding area.



Figure 86: Each topographical line shows a change in elevation of one meter .





Figure 87: Access to site via Siebertgasse

## Topography

One of the main characteristics of this site is the rise in elevation of eight meters to the south. This results in a challenge as well as an opportunity for the design. The terrain rises evenly at the Wolfganggasse, but there is a distinct step structure to the current site: it includes a large terrace, while the existing park in the north is almost flat.



Figure 88: Existing park in the north





Figure 89: Aerial photography with positions and directions of pictures taken





Figure 90: Urbanistic opening in the north



Figure 91: Park



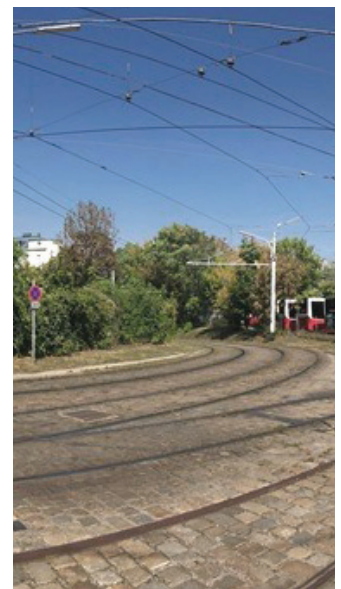


Figure 92: Tree population at the Eichenstrasse



Figure 93: View from northern side of the Remise





Figure 94: The Remise



Figure 95: Position of the Remise on the site





## The Remise

In 1907 the Remise building in Meidling was put into operation. It will provide room for the maintenance of tramways until 2018, when it will be relocated to the new complex in Inzersdorf, a few kilometers to the south. The remise will then be available for new usage concepts. In order to find the best possible solution for reusing the remise building, which is not declared as a historic monument, the Wohnfonds Wien is organizing a competition. Possible topics for a concept are culture, museum, gastronomy, office space, trade and sports or recreational facilities.



Figure 96: Elevation of the Remise from Eichenstraße



Figure 97: East elevation of the Remise





Figure 98: West elevation of the Remise



The 23 meters x 66 meters building with a brick facade has multiple windows to the south and gates over the whole width in the east and west for the trams to access. Natural illumination in the seven to ten meters high building is also provided by the windows in the roof. The northern facade is almost fully covered with smaller extension buildings which will be removed in the process of remodelling.



Figure 99: Inside of the Remise from the west side

## 5. Design Proposal

## 5.2 Design Objectives

This chapter gives an overview of the objectives set before the start of the planning process. Parameters result from the analysis of the site as well as from the in-depth theoretical study described in the first part of the thesis. It further shows the outcome of the cooperative planning procedure that was organized by the City of Vienna.

### 5.2.1 Implications of study outcomes

The following architectural elements can be considered to be main factors in promoting social interaction, as the study in this thesis shows: Apartment entrances oriented to a central courtyard, access to the building entrance via a common yard, view axes from the entrance to other entrances

or balconies, naturally illuminated and wide corridors, and elevators opening to inviting open spaces. The fact that interviewed residents only know about four to five other households at maximum also needs to be considered, creating more intimate, smaller social structures through architecture. Furthermore, the importance of sports facilities as well as an appropriate outdoor space design has become clear through the study. It further has shown that the often-raised issue of lacking individual responsibility for common areas can be solved by a shared facility with private sections.



Figure 100: Initial position for the planning process

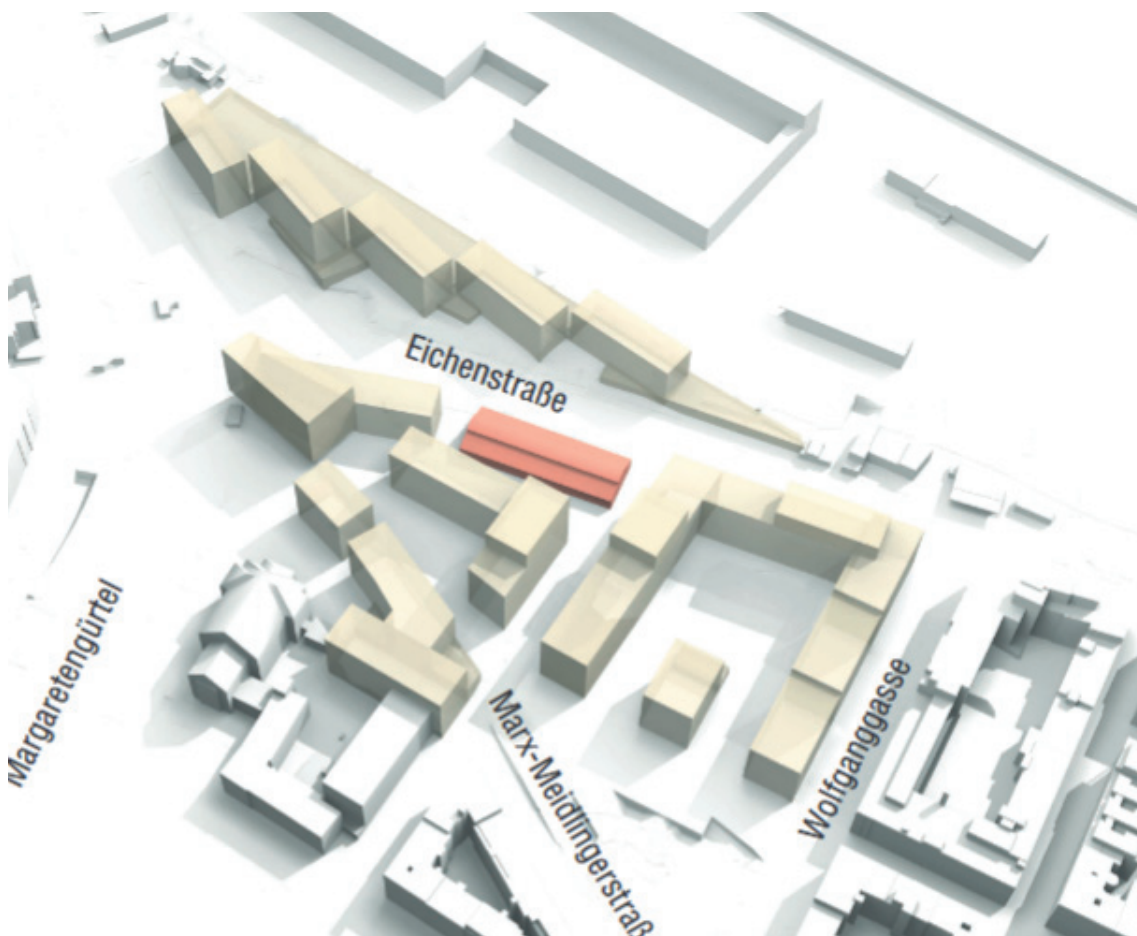


Figure 101: Diagram of the outcome of the cooperative planning process





Figure 102: Site Plan of the outcome of the cooperative planning process

### 5.2.2 Concept developed by the City of Vienna

The ongoing cooperative planning process by the City of Vienna is based on the suggestions and wishes of the citizens from the information event in April 2016, as well as on the framework conditions laid down by the urban planning department of Vienna. Planners, the district planning and land use department, the property owners, and representatives of the 5th and 12th districts were involved. The results of this planning process were presented in November 2016 during an information event.



## 5.3 Planning

The following chapter summarizes the urban design concept, relevant planning decisions, communal aspects, open space design as well as housing.

### 5.3.1 Urban design concept

The urban planning concept that results from the parameters set by the city of Vienna, the study outcomes, as well as the analysis of the site consists of the following important points: The creation of many possible routes for pedestrians through the site as well as one main pathway connects common spaces. For the public spaces it is of great importance to avoid barriers. Therefore, the area to the north, where now

the park is located, will adopt the height of the southern part of the site. Not only for the reason of inclusive design but also for efficiency this base zone in the north functions as a parking lot and a supermarket. Open spaces different in function and size are a main part of the concept. Paths are designed to minimize the pace and lead to the public spaces with diverse public functions. Green spaces in the area are now smaller parts and spread across the site, contrary to the former park. The more private outdoor spaces are slightly lifted and create a courtyard with three to four buildings arranged around it. Flexibility and the promotion of communication are important topics affecting the design proposal.



## PATHS

Directions of existing structures are continued into the site, where they lead the pedestrians or cyclists to public squares. The net of paths creates a dense structure with many directions to access and stroll through the housing quarter. By not creating a straight path through the site but using winding alleys, the pace is minimized and the experience quality for pedestrians maximized.

## SQUARES

Two main public squares provide a large choice of public facilities. The smaller one is dedicated to less noisy activities, like art and culture, while the larger one close to the Remise is the active one for workshops and the market. All public facilities are accessible via these squares, even the parking garage.



Figure 103: Paths through the site



Figure 104: The two main squares housing different public facilities



Figure 105: Different elevations with the lower park in the north, as exist now

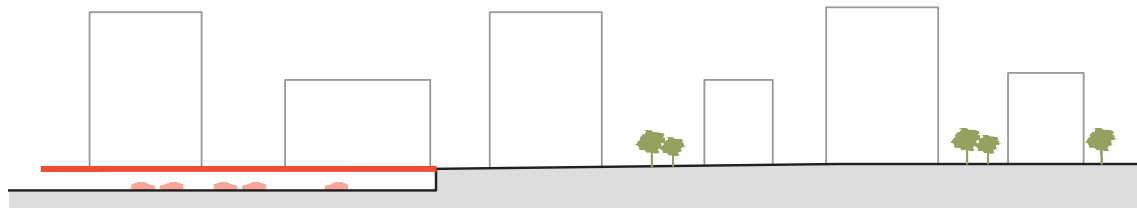


Figure 106: The planned lifted level in the north

## GREEN SPACE

Because there are enough parks in the neighborhood and the existing park in the north is heavily shaded, the new design dissolves the green space into smaller parts spread accross the site. These new spaces are diverse in size and function and therefore fit the different needs of residents better. The low level in the north is lifted and provides not only an inclusive space through using the same elevation on the whole site but also creates space beneath. This space accommodates a naturally illuminated parking area and a large supermarket.

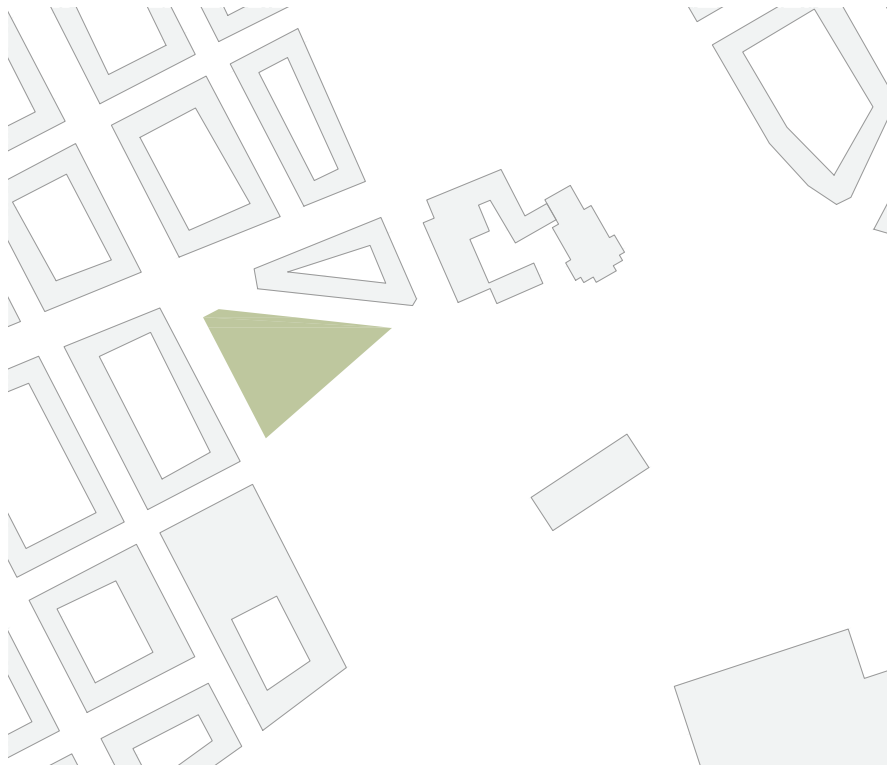


Figure 107: Former park area



Figure 108: Fragmented diverse green spaces



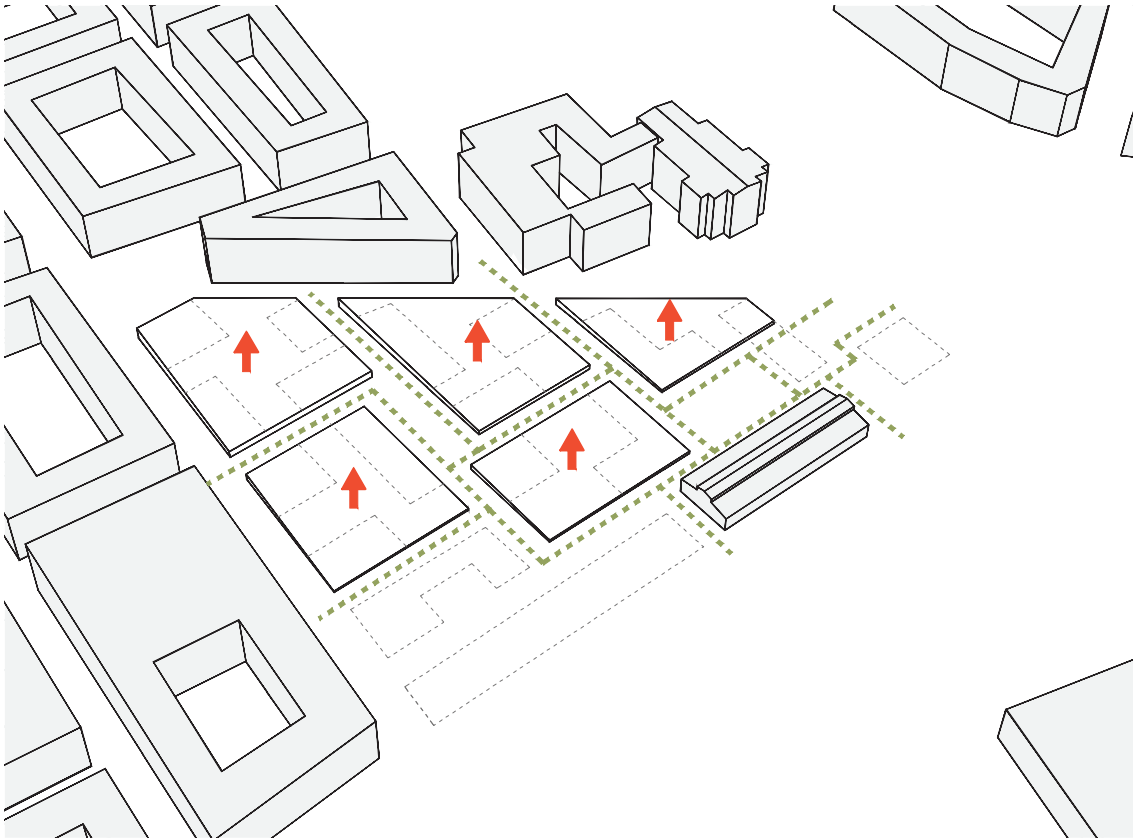


Figure 109: Lifted clusters for semi-private courtyards

## BUILDING STRUCTURES

The remaining spaces between the created pathways through the site are raised somewhat higher than the ground level in order to create a more private area and to strengthen the connection between the buildings in each cluster. Three to four buildings are arranged around a courtyard. The mixture of three different building heights creates an interesting urban pattern and allows ideal illumination.

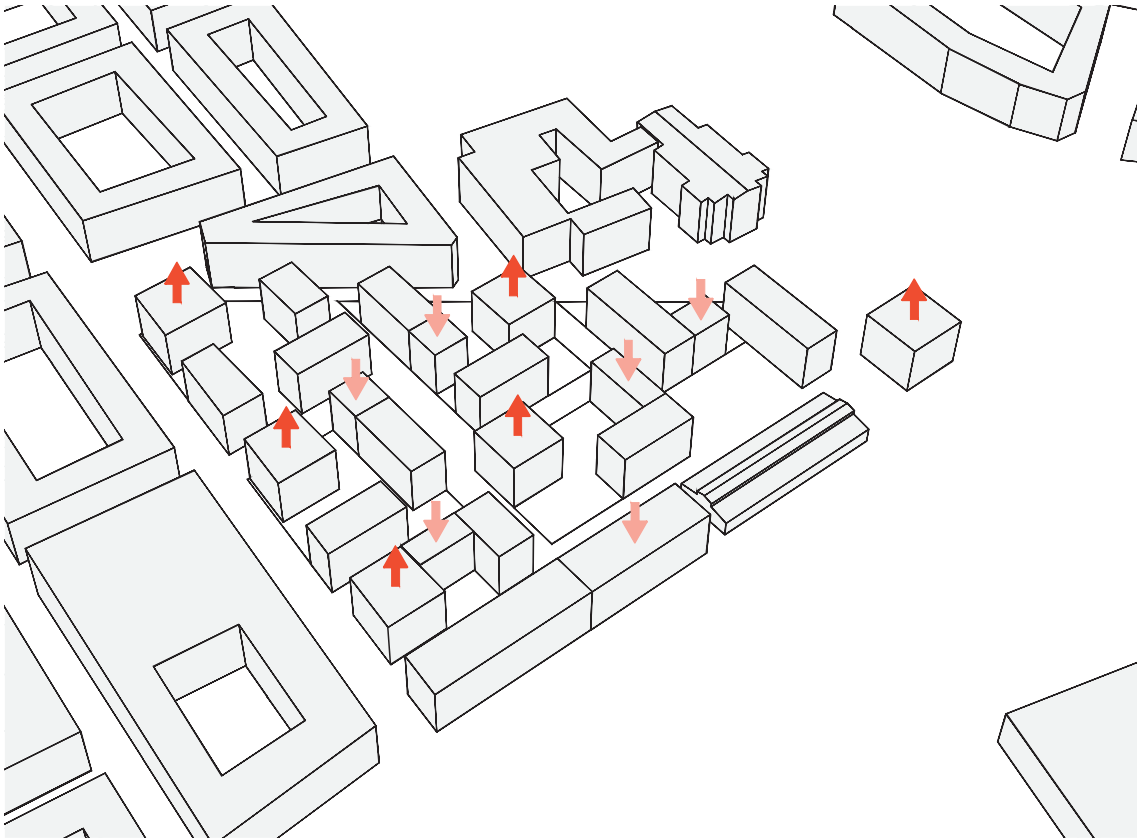


Figure 110: Modification of building heights

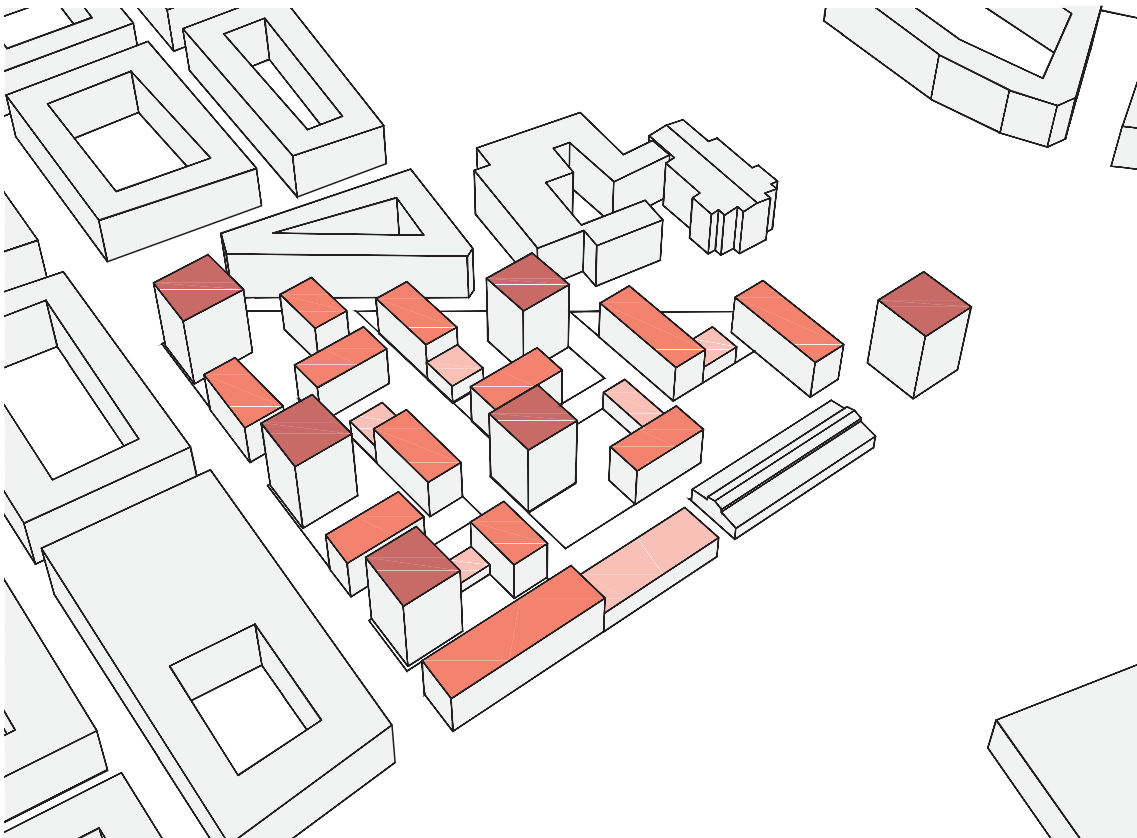


Figure 111: Mixture of building heights

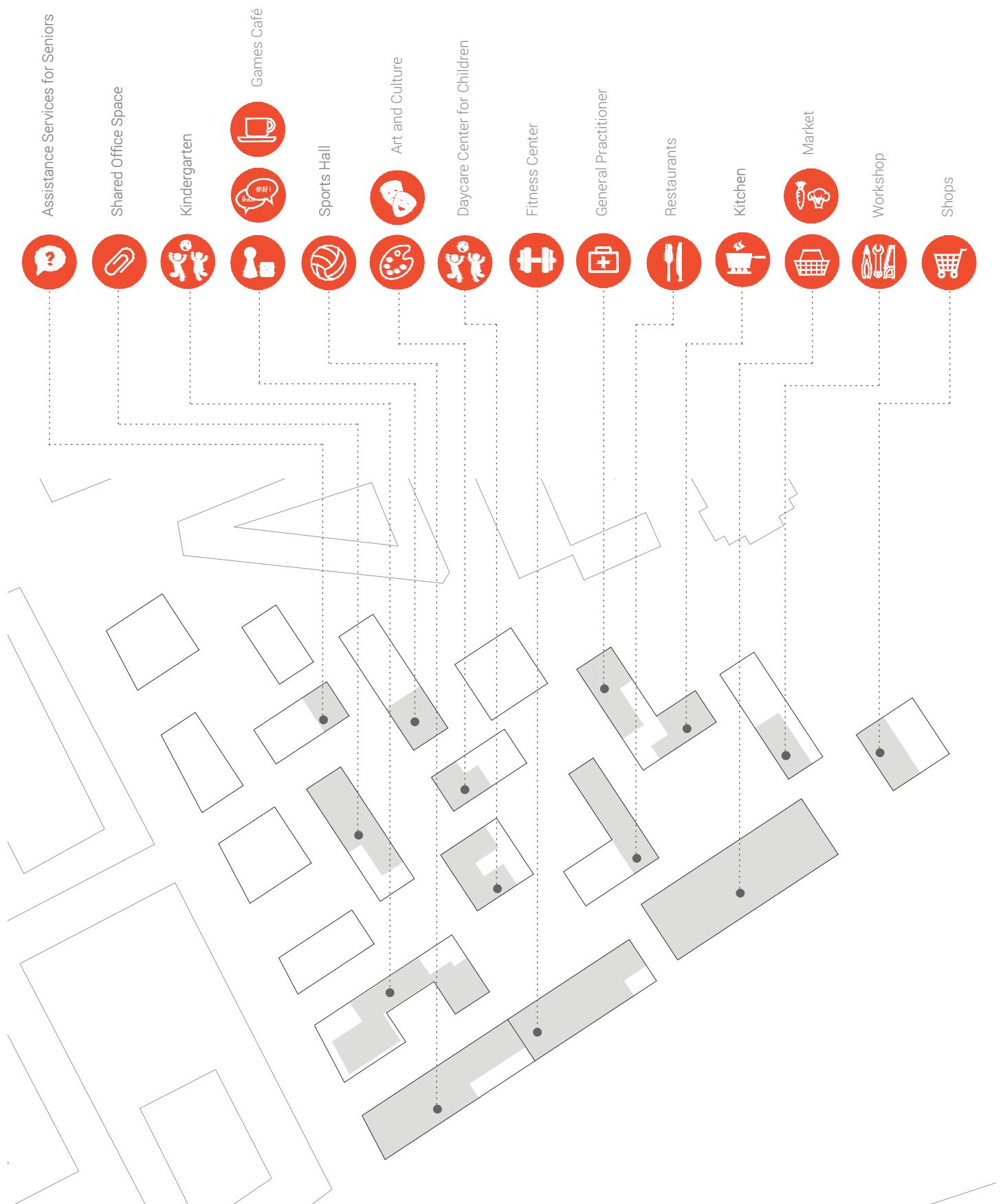


Figure 112: Public facilities indoors



Figure 113: Public facilities outdoors



## ACCESSIBILITY OF GROUND FLOOR LEVEL

There is a high amount of public facilities positioned in the ground floor level. The semi-private areas are dedicated to the residents of each cluster and provide storage and community rooms.



Figure 114: Accessibility of ground floor level

- publicly accessible
- semi-private
- private

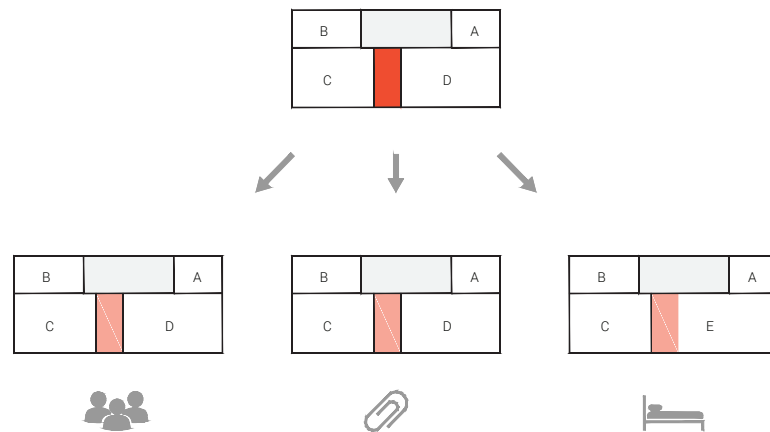


Figure 115: Different possible usage of the additional room in each floor: community, office or bedroom

## FLEXIBILITY

A spare room in each floor of building type B provides long-term flexibility through different usage possibilities. It can either be used as a community space for the tenants, as an office space, or it can be attached to an apartment. The possibility of changing the size of an apartment offers residents to stay in their apartment longer and therefore a more stable community can evolve.

## PROMOTING COMMUNICATION

The staircases of most buildings are arranged to be oriented to the inner courtyard of each cluster in order to provide view connections. Additional vertical connections between the different levels of the staircase are created through different cut outs in the floors, getting to know other residents and communication are promoted.

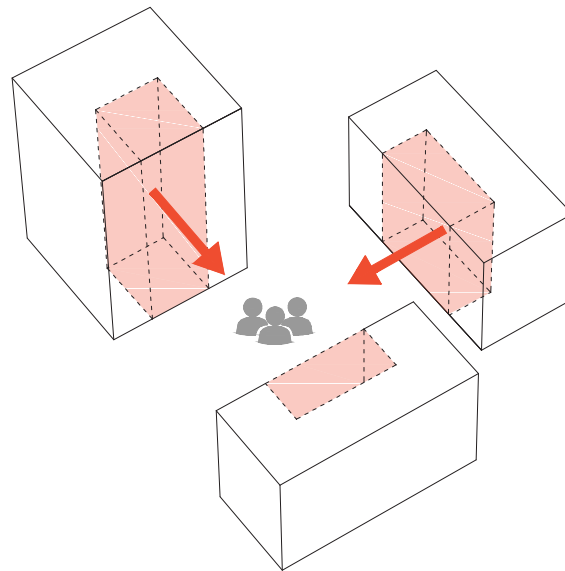


Figure 116: Staircases oriented to the courtyard

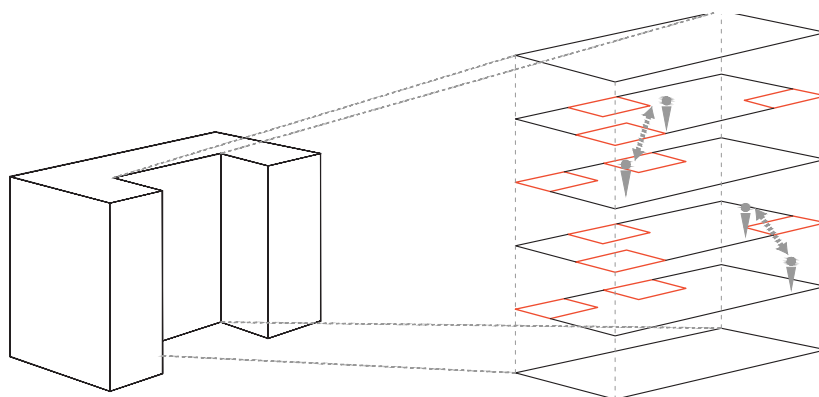


Figure 117: Vertical connections in the staircase



### 5.3.2 Plans

After an insight into the conceptual ideas of the design proposal this following chapter is dedicated to the final planning. A figure-ground diagram gives a first impression of the novel building structures, designed distinctly different from the surrounding buildings. Subsequently I show more detailed plans of the various building types designed for the site.





Figure 118: Figure-ground diagram | 1:5000





Figure 119: Site plan | 1:2000





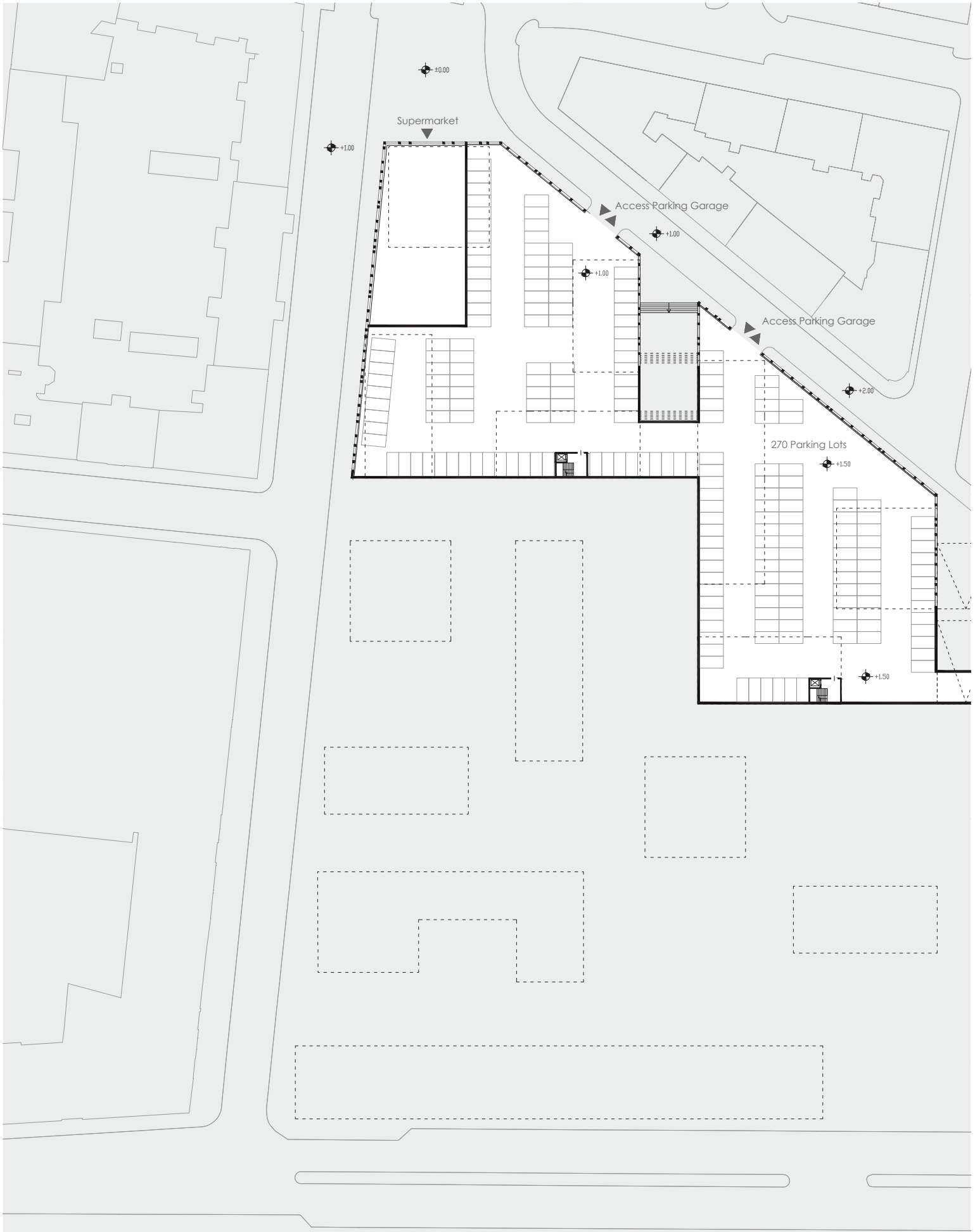
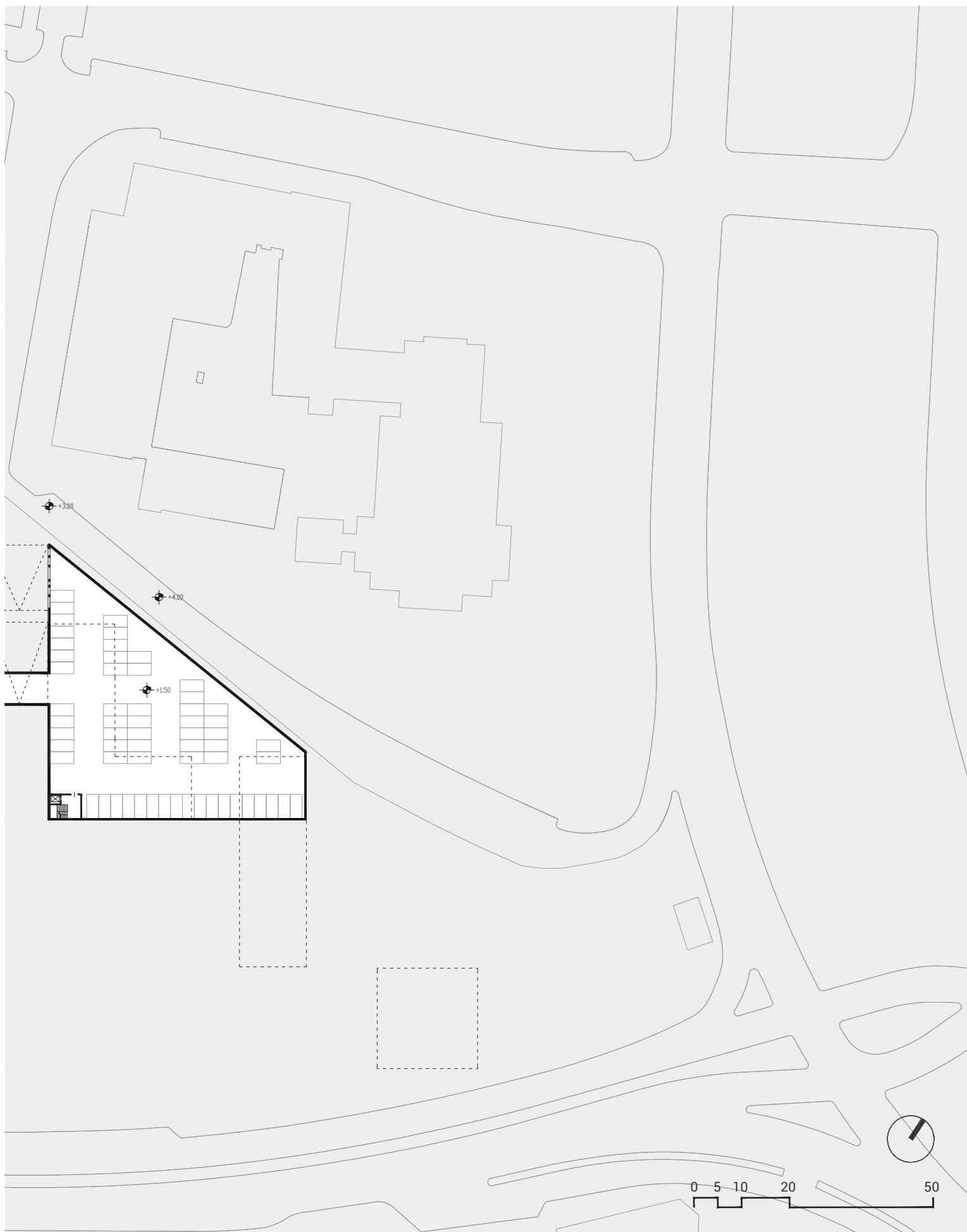


Figure 120: Basement floor plan | 1:1000





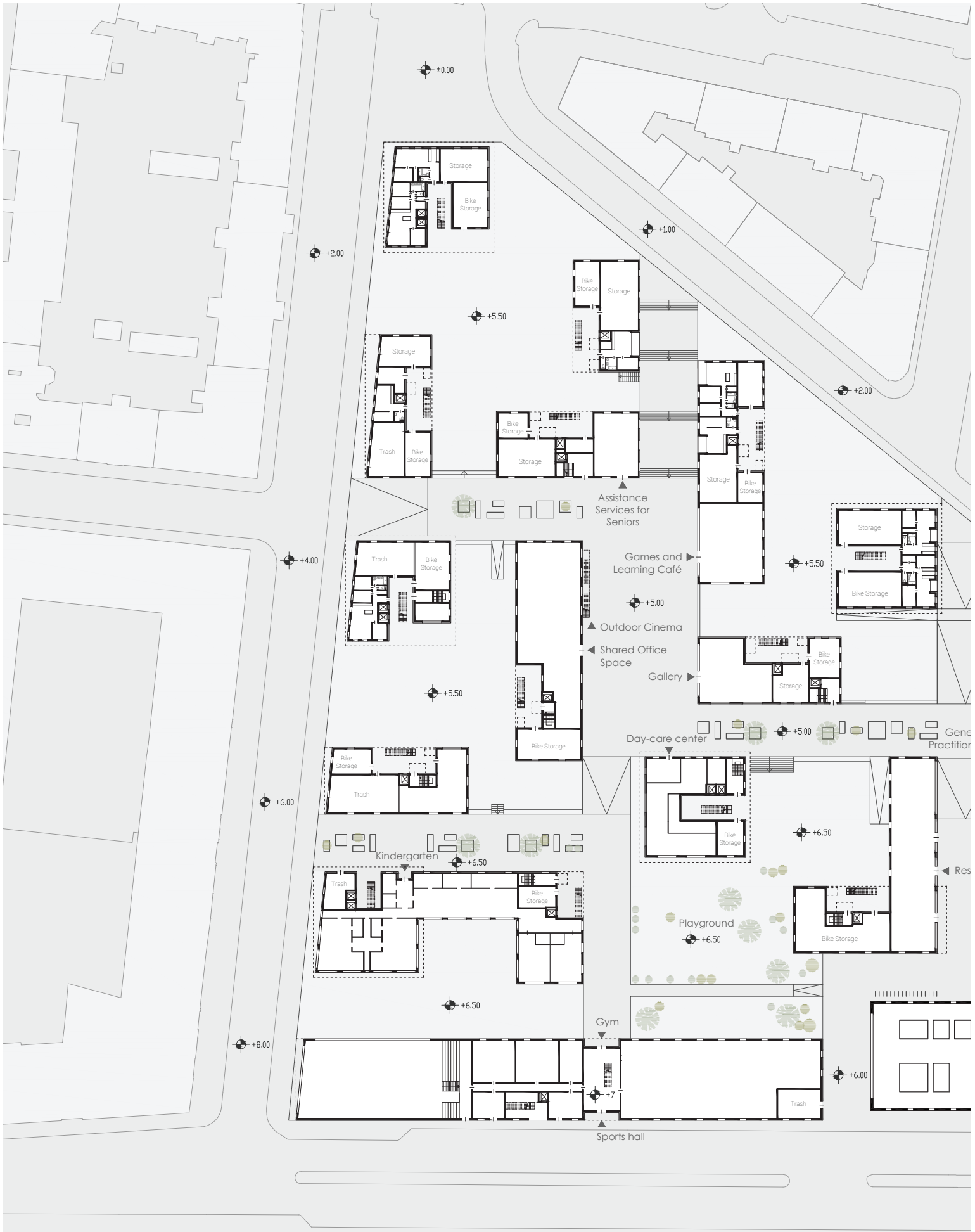


Figure 121: Ground floor plan | 1:1000

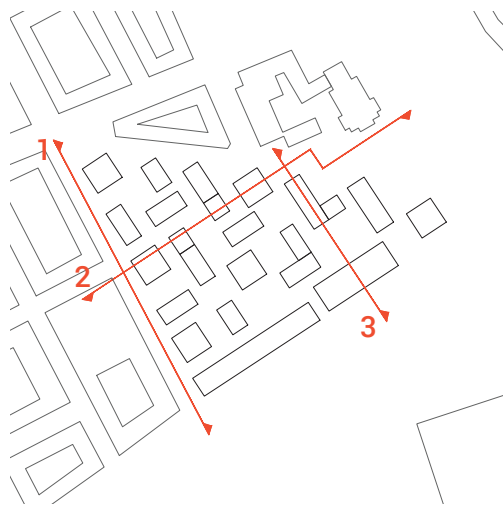
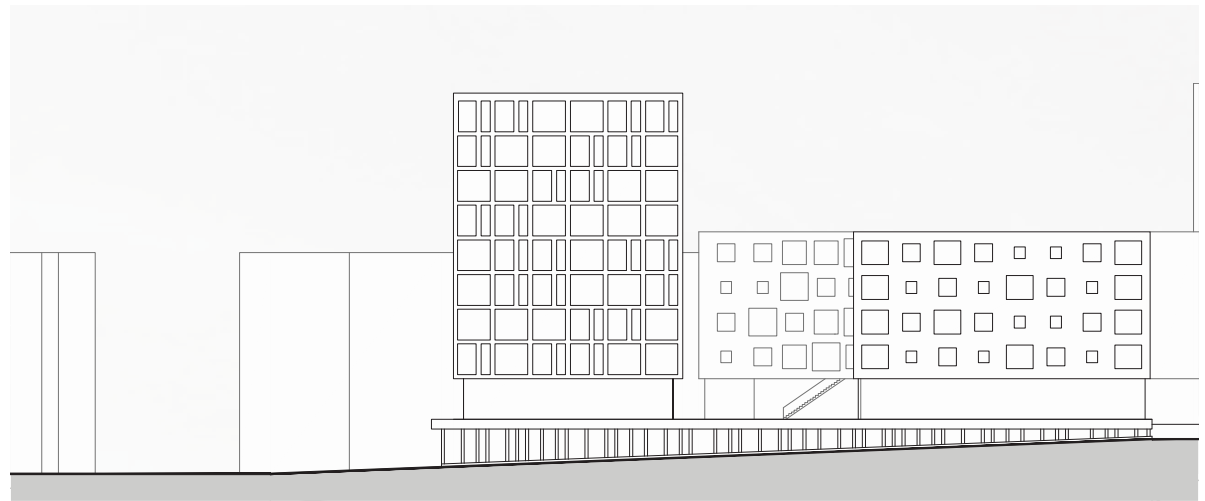




Figure 122: Second floor plan | 1:1000







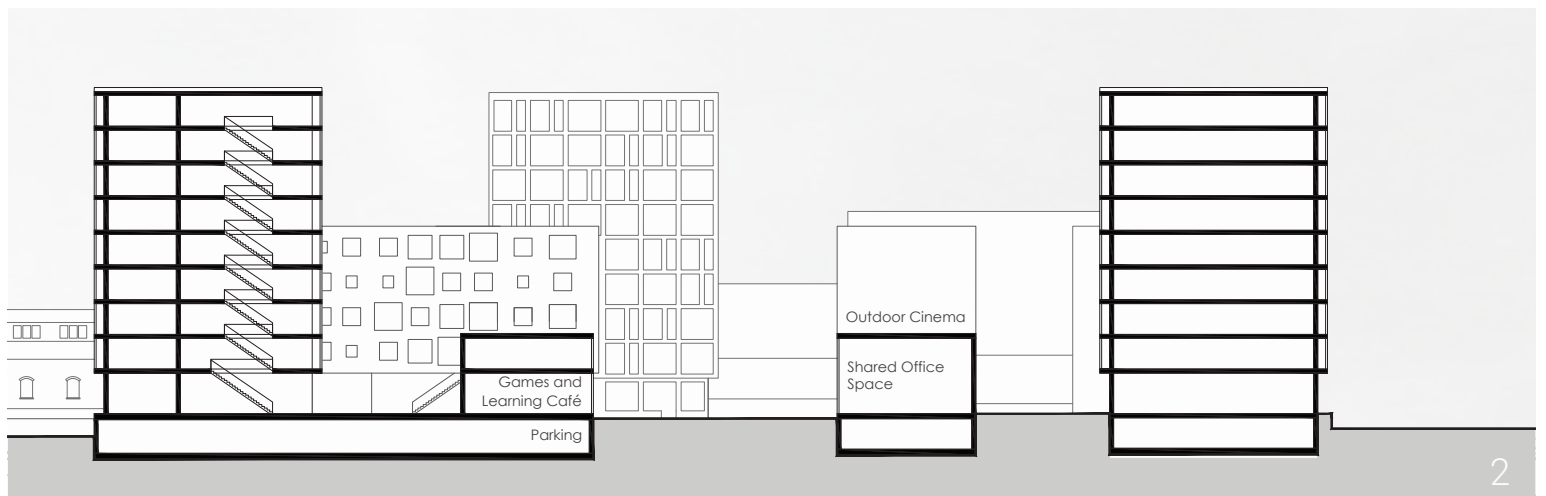
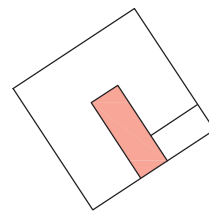


Figure 123: Sections and elevations | 1:750

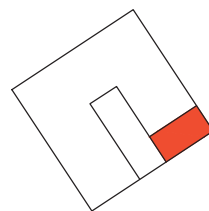
0 5 10 20 50

## BUILDING TYPE A

This building type with its square base of 21 meters and a height of 35 meters is the highest of the project and occurs once in each cluster. Characteristic features are the naturally illuminated staircase oriented to the courtyard and balconies attached like ribbons around the building.



The staircases, situated surrounded by the apartments, provide generous space for chance encounters and interaction between residents.



A community room attached to the staircase and also oriented to the courtyard offers space for garden beds, a kitchen with a large dining room for guests and other functions.





Figure 124: Floor plan of building type A with apartments and a community space | 1:200





Some of the floors in these buildings are used for shared apartments. It can be one shared apartment with seven different sized rooms with individual bathrooms, or two apartments with three rooms each. The rooms vary in size and are designed to suit as many different groups of residents as possible.





Figure 125: Floor plan of building type A with one shared apartment | 1:200

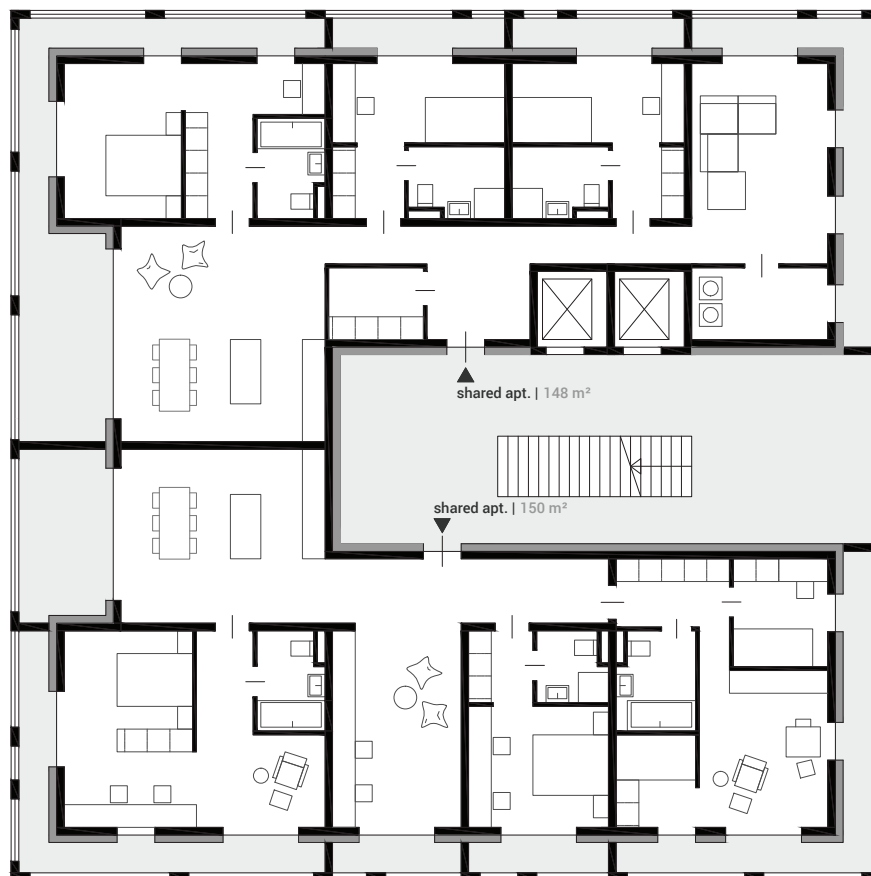
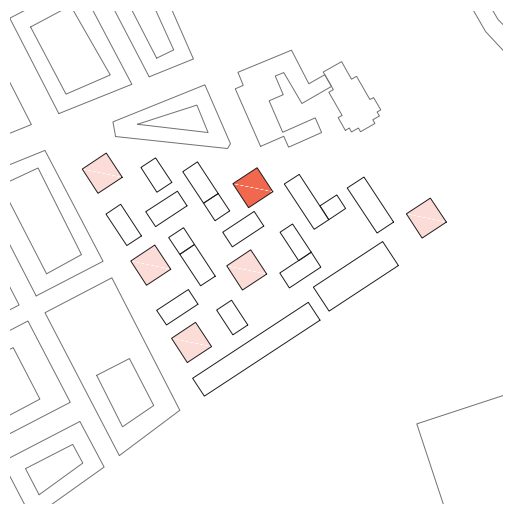


Figure 126: Floor plan of building type A with two shared apartments | 1:200



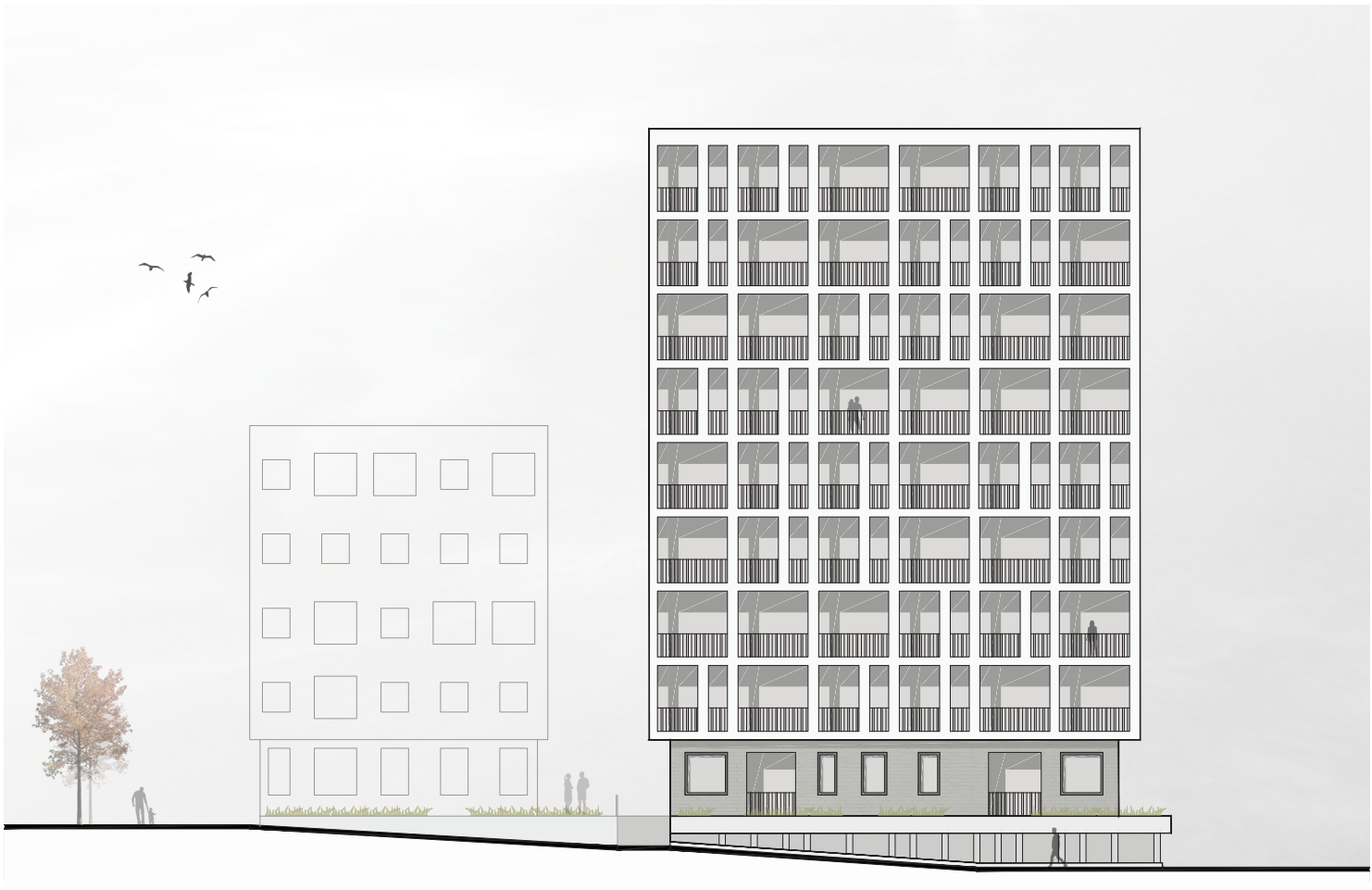
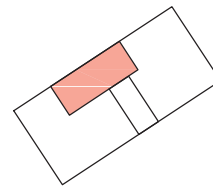


Figure 127: East Elevation | 1:333

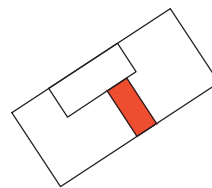
0 5 10

## BUILDING TYPE B

This main building type measures 14 meters by 30 meters and is 19 meters high. It uses the concept of an access balcony situated in the center like a courtyard. The buildings are five-stories high and accommodate four apartments and a spare room on each floor.



The access balcony establishes a pleasant space for social interaction, complemented by the cut outs in the floors for vertical connections.



An additional room on each floor will guarantee flexibility if family structures change, and provides space for an office or a community facility.







Figure 128: Type I floor plan of building type B | 1:200



Figure 129: Type II floor plan of building type B | 1:200

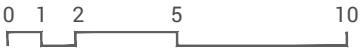






Figure 130: West Elevation | 1:333

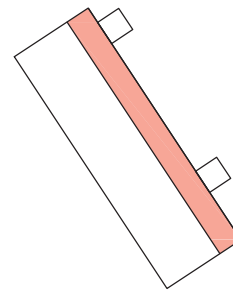


Figure 131: East Elevation | 1:333

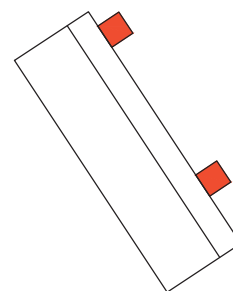
0 5 10

## BUILDING TYPE C

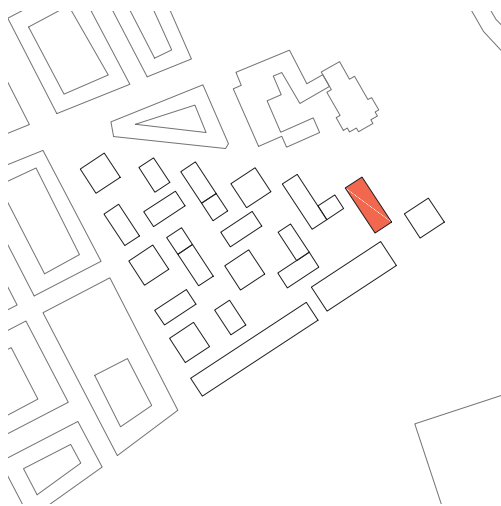
In order to block traffic noise, this building is longer and built close to the Remise. To create pleasant living space, the apartments are oriented to the quiet area in the west with large private outdoor spaces.



The access balconies are designed in a generous way and with their wide bridges to the apartment entrances they provide additional outdoor space for residents.



Attached box-shaped structures on the access balcony provide additional space for a guest room, a home office, or can simply be used as a community room.



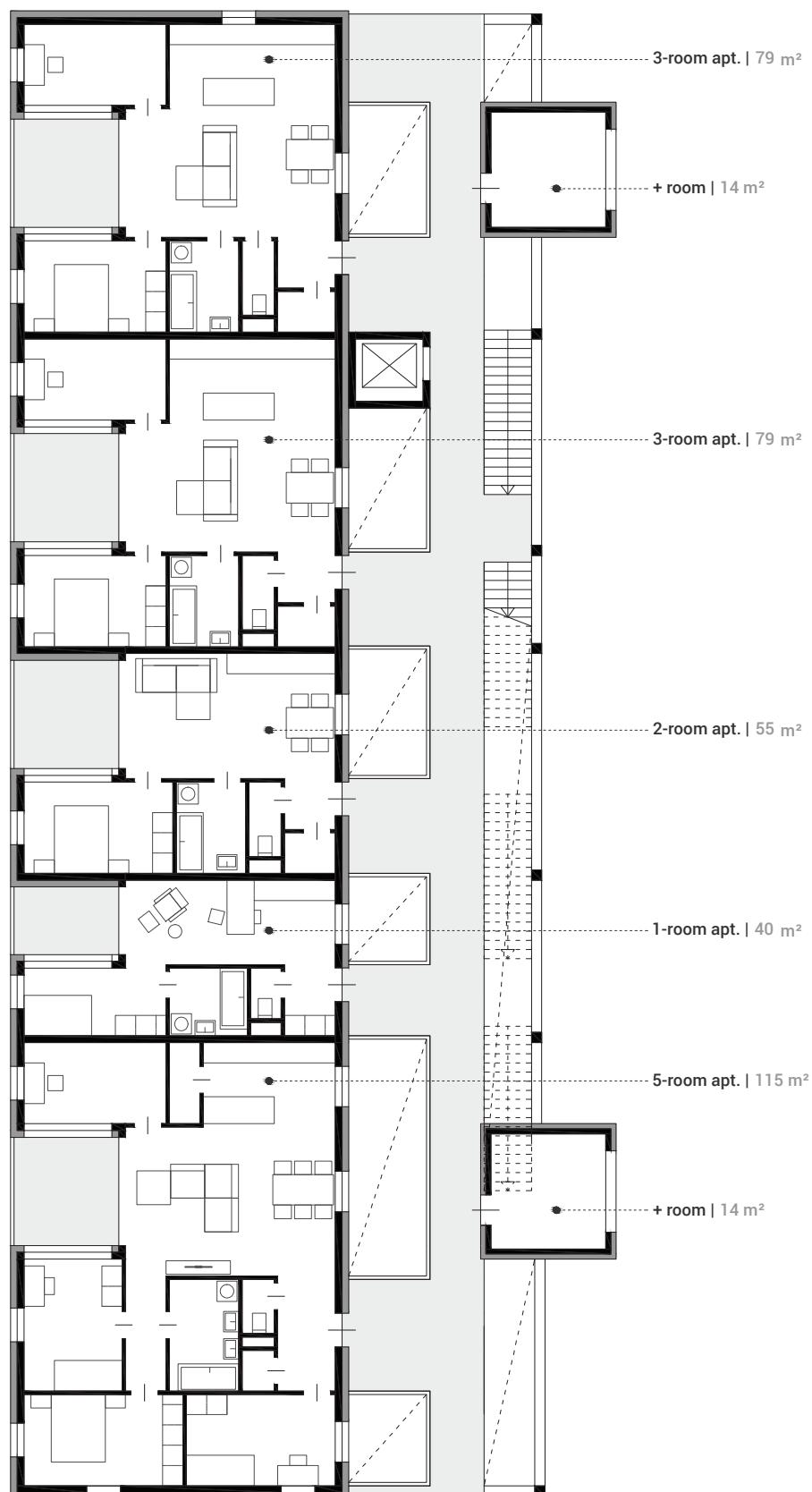
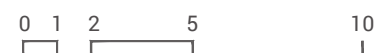


Figure 132: Typical floor plan of building C | 1:200





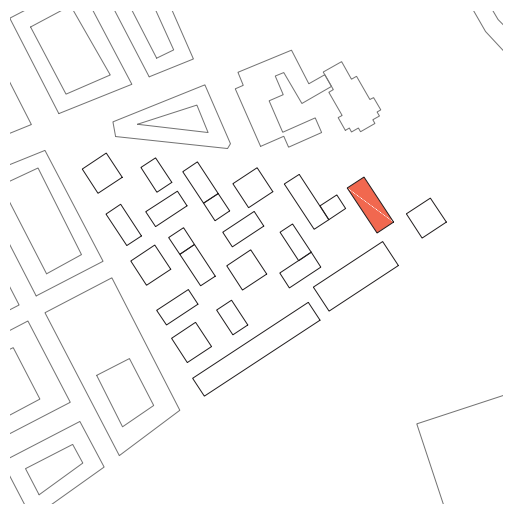




Figure 133: East Elevation | 1:333

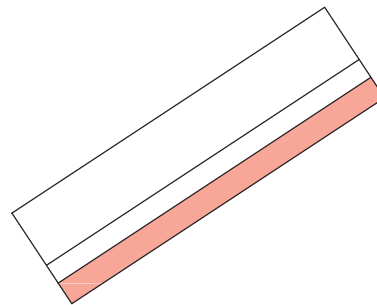


Figure 134: West Elevation | 1:333

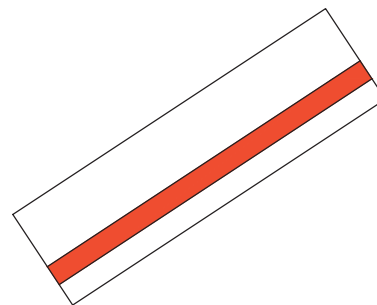
0 5 10

## BUILDING TYPE D

Like with building c the aim of the design is to block traffic noise, therefore the access area is also similar.



Like in building type c the apartments share a generous access balcony.



There is an additional area between the private living space and the access balcony. It provides room for offices or workshops, with freelancers and parents who work from home in mind.



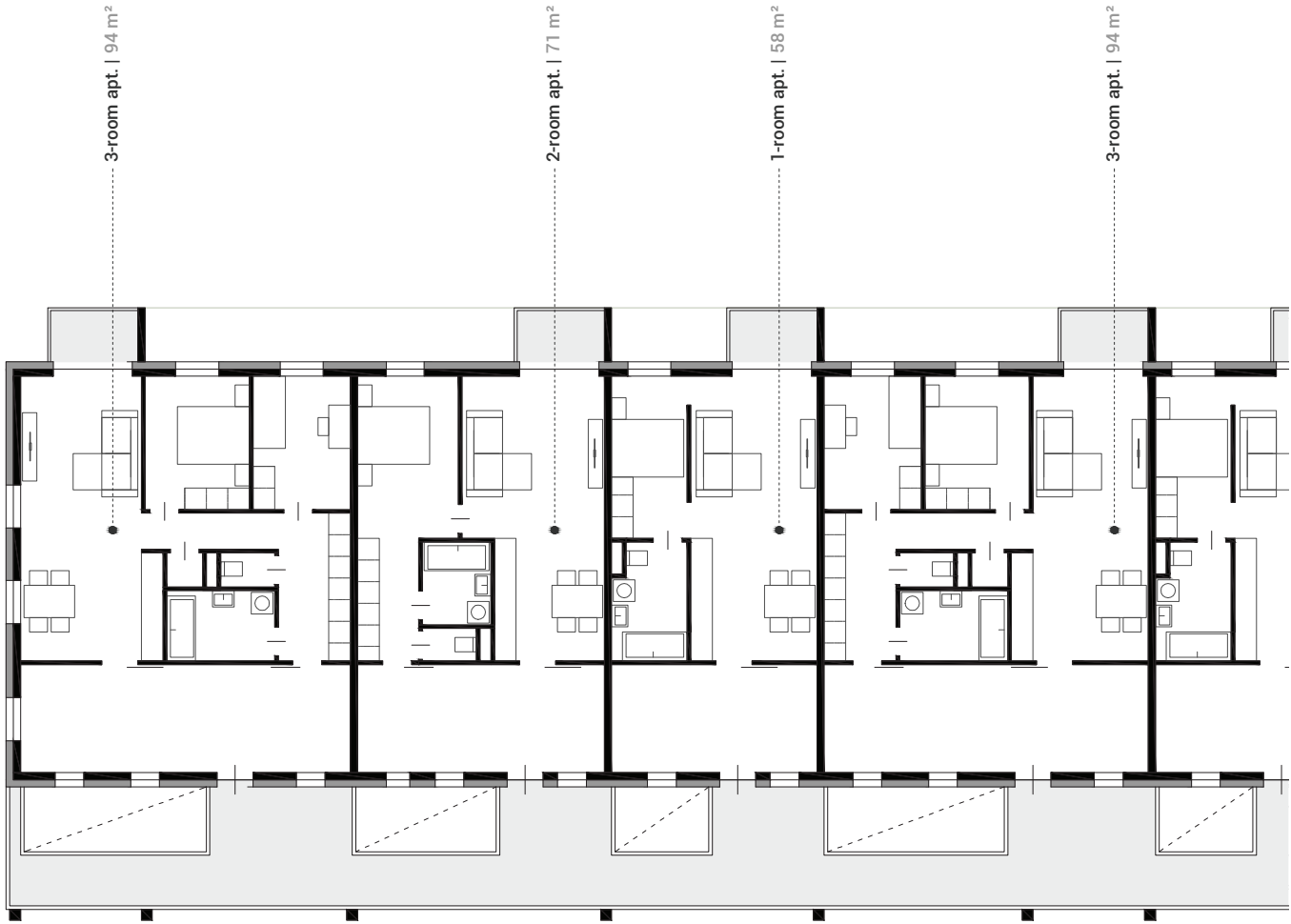
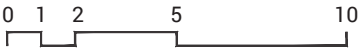


Figure 135: Typical floor plan of building D | 1:200



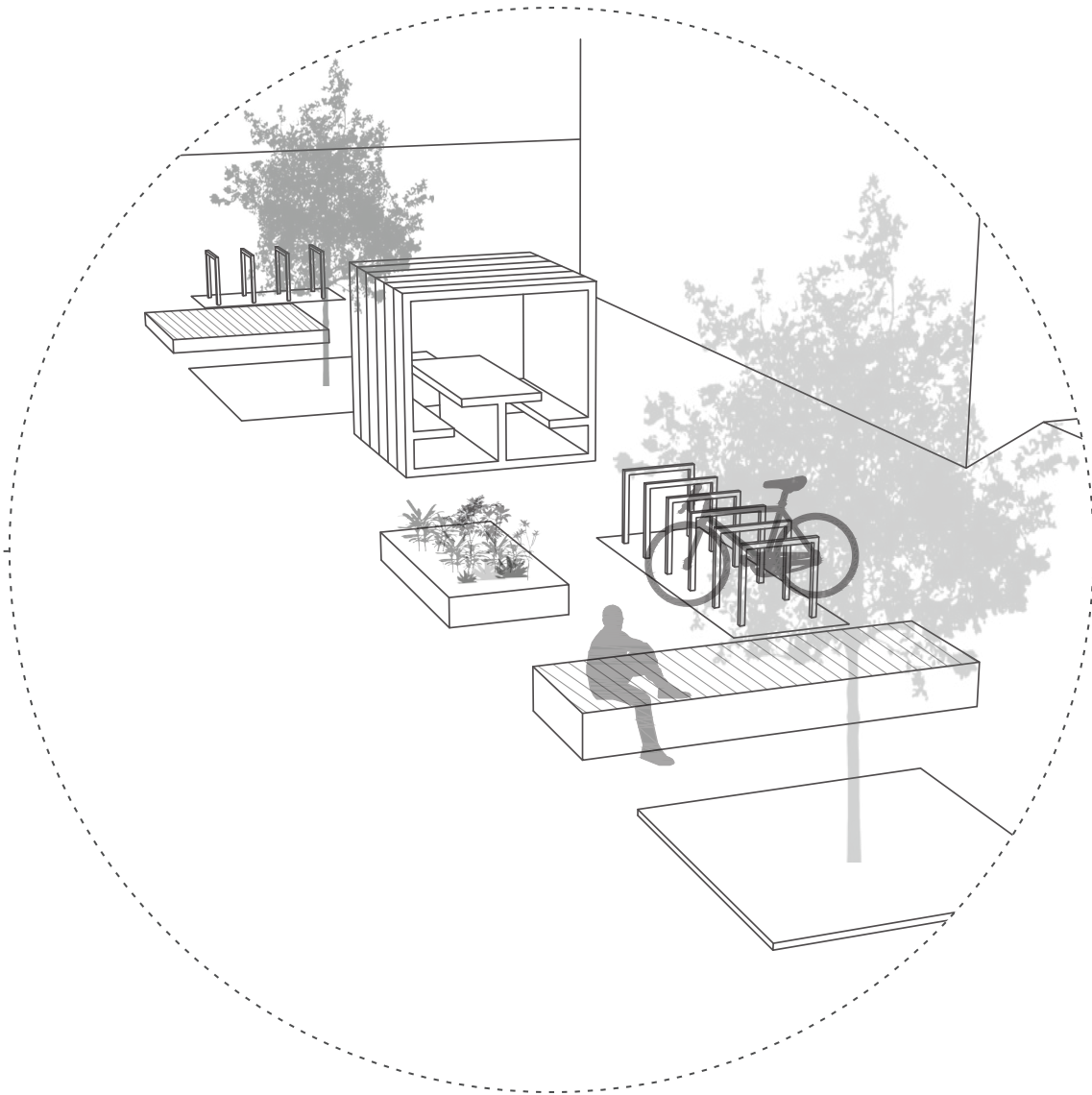
## Pathways and alleys

The alleys are about twelve meters wide. To reach a human scale and deceleration, outdoor furniture is placed in the center of the pathway. It provides shady sitting areas, bicycle parking, and plantation spaces.



Figure 136: Path furniture



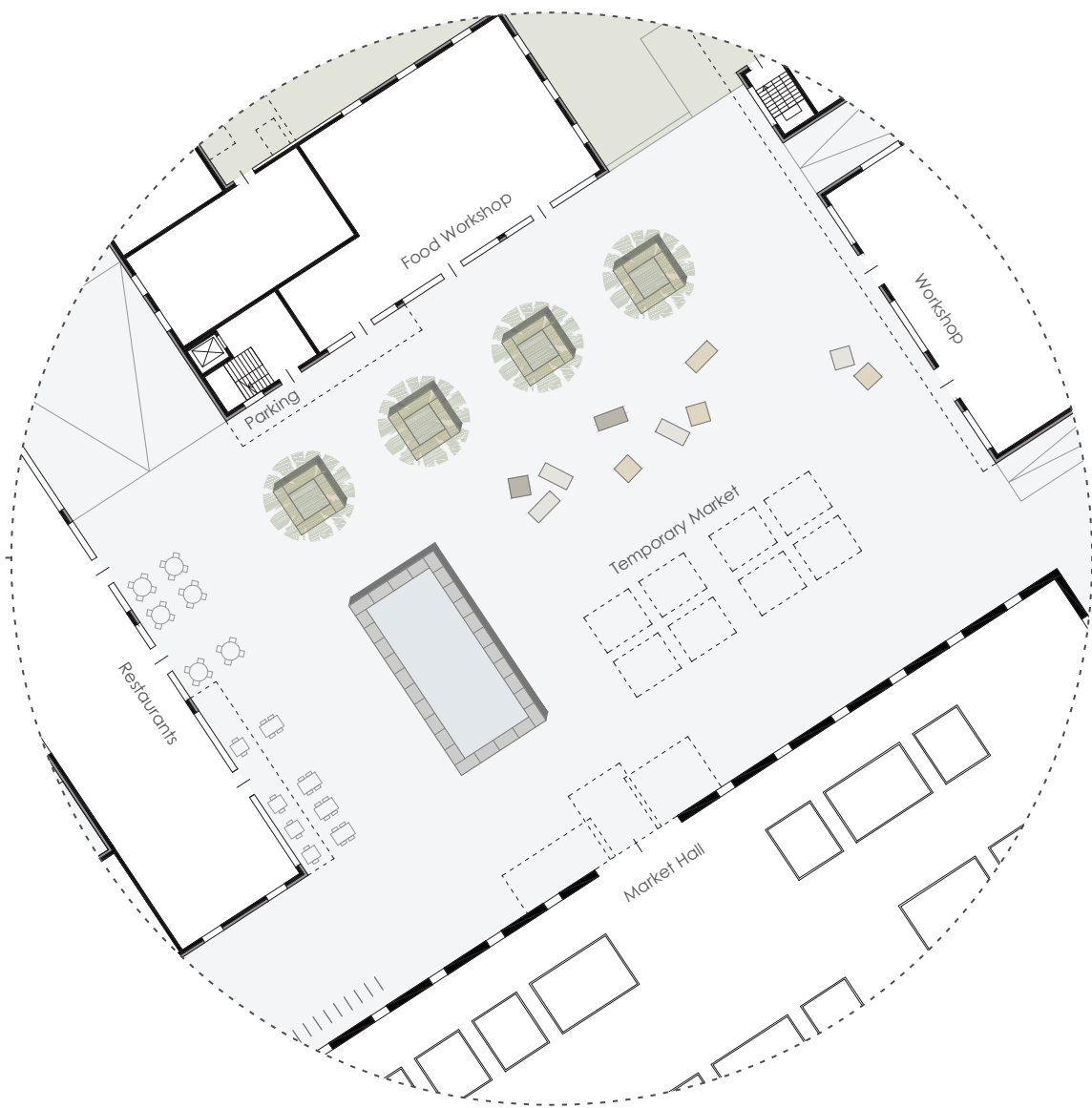


## Square

The square close to the market hall is the most bustling space on the site. The workshop, restaurants and cafès, and the market can all expand to the square. Wooden furniture and trees complement the space for activities and recreation.



Figure 137: Top view of the square



## Playground

The playground is situated next to the kindergarten and children day care center and provides large space for children to play outdoors, additional to the smaller semi-private playgrounds on each cluster.



Figure 138: Top view of the playground







Figure 139: Collage of the lifted level in the north





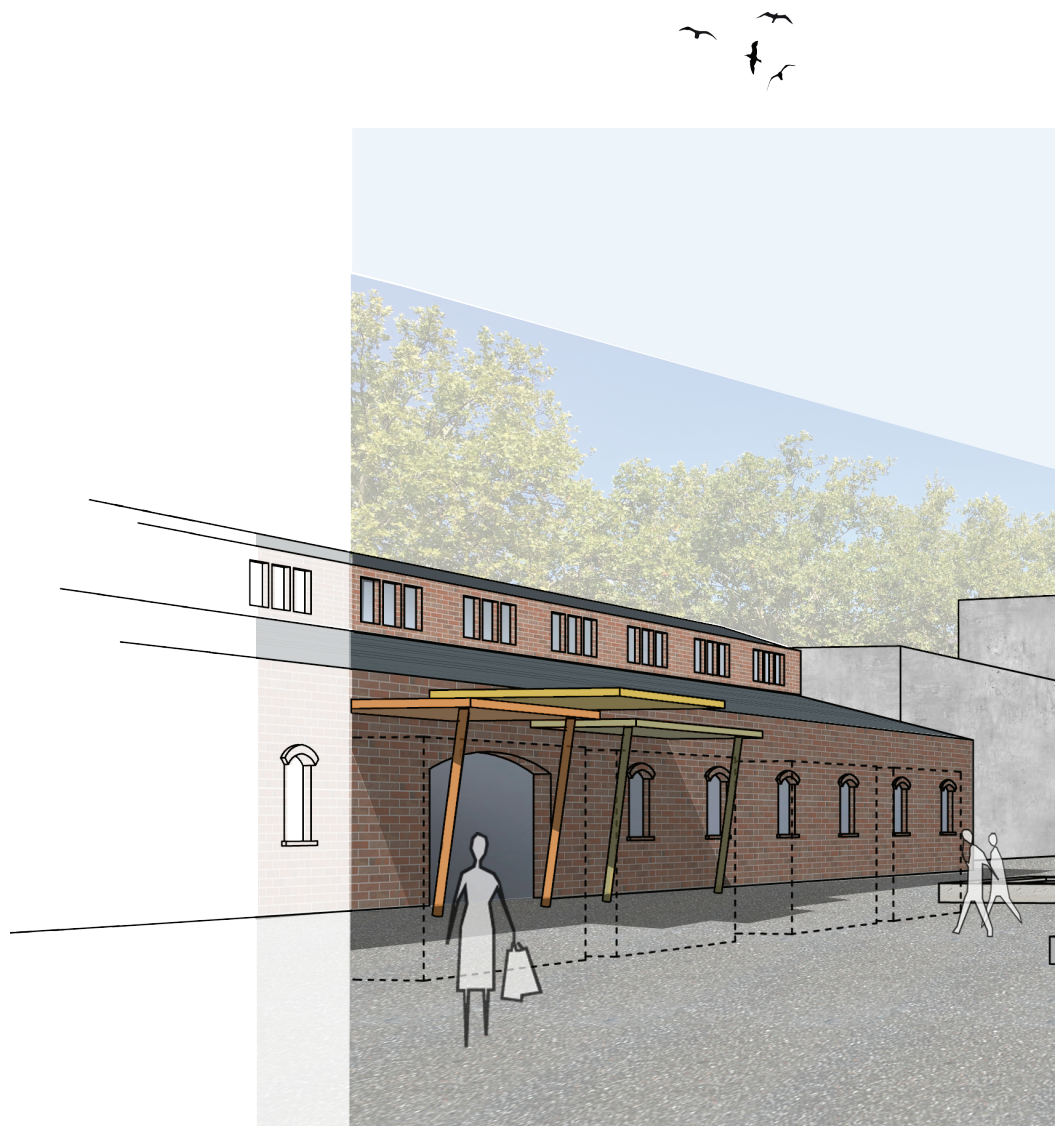






Figure 140: Collage of the square with the Remise







## The design in numbers

35000 m<sup>2</sup>

SITE AREA

55000 m<sup>2</sup>

GROSS FLOOR AREA

41300 m<sup>2</sup>

FLOOR AREA HOUSING

12700 m<sup>2</sup>

BUILT-UP AREA

1.6

FLOOR SPACE INDEX

352

NUMBER OF APARTMENTS

110

NUMBER OF SHARED APT.-ROOMS



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