



WARSAW MOSAIC

"Mosaic often reflects a variety of cultures"

VYSOKÉ UČENÍ TECHNICKÉ

Faculty of Architecture
Department of Design

BRNO 2024

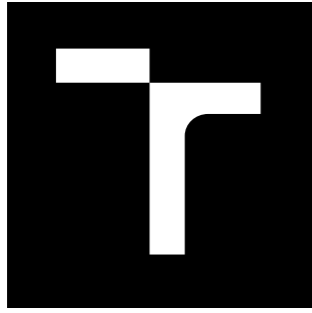
Inclusive Housing

Coexistence of Vietnamese and Polish communities in Warsaw

DIPLOMA THESIS

Author of diploma thesis:
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Supervisor of diploma thesis:
Kacper Kepinski
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BRNO UNIVERSITY OF TECHNOLOGY

VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ

FACULTY OF ARCHITECTURE

FAKULTA ARCHITEKTURY

DEPARTMENT OF DESIGN

ÚSTAV NAVRHOVÁNÍ

INCLUSIVE HOUSING: COEXISTENCE OF VIETNAMESE AND POLISH COMMUNITIES

INKLUZIVNÍ BYDLENÍ: KOEXISTENCE VIETNAMSKÉ A POLSKÉ KOMUNITY

MASTER'S THESIS

DIPLOMOVÁ PRÁCE

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MArch Kacper Ignacy Kepiński

BRNO 2024



Assignment Master's Thesis

Project no.: FA-DIP0035/2023
Department: Department of Design
Student: **Bc. Katarína Mičundová**
Study programme: Architecture and Urban Design
Field of study: no specialisation (till 2022)
Supervisor: **MArch Kacper Ignacy Kepiński**
Academic year: 2023/24

Title of Master's Thesis:

Inclusive Housing: Coexistence of Vietnamese and Polish communities

Master's Thesis:

Aim of the project: architectural study

Marketplaces play a crucial role in the spatial development of Polish cities. Their presence often encourages mixed-use development, where commercial, residential and cultural spaces coexist. Socially, they create community gathering spaces, promoting cultural exchange and supporting local businesses. They are often associated with foreign minorities who have started a new life in Poland by selling their goods in such markets. In 2019, Warsaw, the capital city, was home for more than 40 000 foreign-born residents. It is believed that the actual number may be even 3 times higher now. One of the community driven markets is the Bakalarska Market. Together with Flower Market they are located in Włochy district in Warsaw. Bakalarska Market is the studied marketplace which has become the hub of the neighbourhood, proudly called Asia Town by the merchants. Its location and inclusiveness create a place to meet for more than 25 nationalities, most of which are vendors representing the Vietnamese community. The market went through a renovation with an unusual involvement of the architect, Aleksandra Wasilkowska, who had a deal in the participatory design process with the cultural differences, the specific community demands and the ever-changing nature of the marketplace.

The migration of the Vietnamese community to Poland is a multifaceted phenomenon influenced by historical ties, economic opportunities and changing political situations. During the Cold War, Poland and Vietnam maintained diplomatic relations. As Poland experienced economic growth after the fall of communism, it became an attractive destination for Vietnamese migrants seeking employment in various sectors, mostly services. Over time, the connection between these two communities has developed in a way that it is easier for new migrants to integrate, Vietnamese students study in Poland due to scholarship programs and people bring their families over through family reunification programs. It is an example how a combination of historical, economic and social factors can shape migration patterns.

The diploma project will focus on the design proposal of the inclusive and affordable housing for two distinct communities of different national backgrounds: Vietnamese and Polish. The challenge is to find common language and create a haven for the newly emerging community of people. The project is a continuation of my pre-diploma project focused on analysing marketplaces in Poland and studied area, creating masterplan of the site and designing flat units based on Vietnamese housing typologies.

Graphics scope :

The aim of the project is to interpret the elements of the Vietnamese models of living in the Central European urban fabric and cultural context, to ensure housing for mixed-nationality community with strong focus on the Vietnamese vendors from the Bakalarska market. Asia Town in Włochy district became a main place of employment and communal activities hub for the Vietnamese community in Warsaw, introducing a new urbanization model and architectural character. With this project, housing will become a coherent part of the new Polish-Vietnamese district with a focus on the principle of coexistence in one community and sharing space with one another.

I. Introductory data, analysis

- Theoretical analysis of the problem
- Analysis of the site, architecture, surroundings
- Description of the project
- Architectural concept of the proposal
- Site and context description

II. Documentation of the designed area

- Analysis of the condition of the urban and architectural spaces
- Architecture and urban diagrams and schemes

- Site plan, zoning and traffic specifications
- Analysis of the chosen area
- Master plan and floor plans describing the function of space
- Important sections and views schemes
- Visualizations and model showing the representing design parts
- Text description of the purpose of the project and the aim of the strategies

III. Physical models

- Urban model
- Model of the proposal

The documentation of the project will be assembled in the printed booklet and presentation poster(s). The documentation will also be available in digital form. Scales are given as assumed values, they can be changed as needed.

List of literature:

- Ahn J., Tusinski O., Treger Ch. (2018, october). Living Closer – The many faces of co-housing. A Studio Weave publication.

https://issuu.com/studioweave/docs/living_closer_for_online_sharing_re

- Nguyen, Phan Anh; Bokel, Regina M.J.; Dobbelseen, A.A.J.F. van de. (2016). Towards a sustainable plan for new tube houses in Vietnam. <https://doi.org/10.7480/iphs.2016.2.1237>

- Nguyen M.N. (2022). Decision-making factors in the housing market for vietnamese immigrants in Poland.

<https://doi.org/10.19181/demis.2022.2.1.12>

- Hong Na L.T., Hien N.V. (2022, 17. march). Adapting Vietnam's urban street house to high-rise apartments. FuturArch Journal. <https://www.futurarc.com/commentary/adapting-vietnams-urban-street-house-to-high-rise-apartments/>

- Case studies of housing project around the world

- Tichý D. (2013). Koncept komunitního bydlení. https://www.dataplan.info/img_upload/f96fc5d7def29509aeffc6784e61f65b/wsh_komun_bydleni_exter.pdf

- Carrera J. (2022, 15. November). Bakalarska Market. Public Space. <https://www.publicspace.org/works/-/project/m355-aleksandra-wasilkowska-studio>

- Rasmus-Zgorzelska A. (2021 29. july) The centre is on the periphery – a conversation with Aleksandra Wasilkowska. Architektura i biznes. <https://www.architekturaibiznes.pl/en/alexandra-wasilkowska-talk,19945-strona2.html>

Date of project specification Master's Thesis: 12.2.2024

the deadline for submission for the Master's Thesis: 6.5.2024

Master's Thesis is submitted in the scope determined by the project supervisor; in addition, one B1 exhibition panel and Master's Thesis in electronic form are submitted.



Bc. Katarína Mičundová
student

MArch Kacper Ignacy Kepiński
project supervisor

Ing. arch. Vítězslav Nový
head of the institute

In Brno dated 12.2.2024

Ing. arch. Radek Suchánek,
Ph.D.
Dean

I declare,
that I wrote my diploma thesis "Inclusive Housing: Coexistence
of Vietnamese and Polish Communities" independently.

Brno, 6.5.2024.

Bc. Katarína Mičundová

ACKNOWLEDGMENT

I would like to thank Kacper Kepinski and Zuzanna Mielczarek for supervising my thesis, for all the stimulating advice and observations that pushed me forward and, above all, for the time they gave me and their very human approach. I would also like to thank them for organising an interesting trip to Warsaw, which helped me in the process of my work.

SK

Cieľom projektu je interpretovať prvky vietnamských modelov bývania v stredoeurópskom urbánnom a kultúrnom kontexte s cieľom poskytnúť bývanie pre zmiešanú národnostnú komunitu so silným zameraním na vietnamských obchodníkov z tržnice Bakalarska. Asia Town, ktorá sa nachádza v okrese Włochy, sa stala hlavným centrom zamestnanosti a komunitných aktivít pre vietnamskú komunitu vo Varšave, pričom zaviedla nový urbanizačný model a architektonický charakter. Vďaka tomuto projektu sa bývanie stane koherentnou súčasťou novej poľsko-vietnamskej štvrte so zameraním na princíp spoločného života v jednej komunite a zdieľania priestoru.

Diplomový projekt sa zameria na návrh dizajnu inkluzívneho a dostupného bývania pre dve odlišné komunity rôznych národností. Výzvou je nájsť spoločnú reč a vytvoriť útočisko pre novovznikajúcu komunitu ľudí.

EN

The aim of the project is to interpret the elements of Vietnamese models of living in the Central European urban fabric and cultural context in order to provide housing for a mixed nationality community with a strong focus on Vietnamese traders from the Bakalarska market. Asia Town, located in the Włochy district, has become a major centre of employment and community activities for the Vietnamese community in Warsaw, introducing a new urbanisation model and architectural character. With this project, housing will become a coherent part of the new Polish-Vietnamese neighbourhood, focusing on the principle of living together in one community and sharing space.

The diploma project will focus on the design proposal of the inclusive and affordable housing for two distinct communities of different national backgrounds. The challenge is to find common language and create a haven for the newly emerging community of people.

REPORT

The accompanying report is the textual part of the dissertation. The diploma thesis is also a continuation of the pre-diploma project from the winter semester 2023/24 called Vietnamese Typologies in Poland.

The thesis is a continuation of my pre-diploma project that focused on analysing marketplaces in Poland and studied area, creating masterplan of the site and designing flat units based on Vietnamese housing typologies.

BASIC INFORMATION

Building name: Residential gallery buildings and Tube houses

Total land area: 32 589 m²

Total built-up area: 16 070 m²

Rough floor area: 41 448 m²

URBANISTIC DESIGN

The urban design proposal addresses an unused area in the Wlochy district of Warsaw. The area is close to the Bakalarska Market and the Flower Market, which is directly adjacent. This part of the city is also characterised by residential development, so the design communicates directly with the character of the surroundings. The proposal follows on from last semester's proposed master plan, in which we treated the flower market area and the surrounding infrastructure as a group. The area of interest is therefore divided by the road into 3 parts. The design takes this division into account, with the gallery buildings located in the corners defining the boundaries of the site and completing the street character, which at the same time is connected to the public space through the use of tunnels that open up the courtyards from different sides. The central part of the site has a different height and conceptual character. The auxiliary grid creates a principle that defines the creation of a modular system of typical Vietnamese houses, called "Tube Houses". Public space mixes with semi-public or semi-private space and naturally connects neighbourhood life or mixes commerce with the function of living. This small town within the city is inspired by Vietnamese principles, which are built on the principles of narrow and tall houses or on the reconciliation of public and private.

ARCHITECTURAL DESIGN

The architectural solution of the design is a composition comprising two distinct parts, each of which has a different conceptual solution. However, they are unified by the gallery structure, which serves as a unifying element. The individual parts exhibit varying expressions and substances, yet they complement each other. The character of gallery building continues the high-rise development of apartment buildings in the area and creates courtyards that are connected to the surrounding using passages. The apartment building's external communication is the basic dominant element, which has added value in the form of a space for residents to meet and build community spirit. The ground floor is mainly made up of commercial spaces with a focus on selling products or offering services. This function connects the public street life with the building itself. The housing units are based on a modular principle, inspired by Vietnamese typologies. The eight apartment units represent eight different layouts, which are designed for an individual, a family or a three-generation family. The second architectural concept is the tube house, which brings the Vietnamese way of living in cities to Warsaw. Narrow and long houses create a cluster of buildings with different height characteristics and material cladding as a response to the diversity of colours and materials in Bakałarska Market. The pair of houses is connected by an external communication, which creates a central entrance to the individual floors. The layout solution is once again based on the proposed housing units. The group of tube houses even represents a two-storey layout of a department store, in which the residential function on the second floor is extended by the commercial function on the ground floor.

CONSTRUCTION DESIGN

The Gallery building comprises five floors and an underground parking lot. The geological layers beneath the object exhibit no fundamental changes throughout the area. The object is founded on a 500 mm thick base plate. The garages are surrounded by a wall system, and reinforced concrete columns are incorporated into the floor plan, distributed according to the number of parking spaces and designed to transmit the vertical load from the superstructure to the base plate. The floors above ground level are designed as a reinforced concrete wall system. In addition to the ground floor, this system is complemented by reinforced concrete columns on the inner edge of the floor plan in the direction from the atrium. The ceiling slabs are also made of reinforced concrete. This is due to the interruption of the thermal bridge, which separates parts of the slabs in the apartments from the apartments themselves. The facade of the tenement house from the street side is sheathed. The exterior will be green. The greenery will climb the facade network, which is made of stainless steel cables. The facing part of the inner facade will be made of brick cladding strips. The roof is flat with extensive green.

The supporting structure of the Tube house comprises a combination of brick walls and reinforced concrete ceilings. The foundations are constructed using foundation belts. The facade design is stucco plaster of various colours. The staircase is separated from the exterior by plexiglass.

EVALUATION OF ACHIEVED GOALS

The project incorporates elements of Vietnamese traditional architecture into the Polish countryside, while also establishing a dialogue with the existing Bakalarska market. It can be argued that two atypical principles have been created, although they are different in nature, they complement each other. Although the scale of the project would benefit from a reworking of the details, I think I managed to achieve that the primary source of inspiration, Vietnamese architecture, has been successfully connected with the requirements and environment of the Polish context. The design thus created combines the characteristic elements of both cultures in a manner that results in a unique and harmonious whole.

0 1 AN INTERVIEW WITH VIETNAMESE COMMUNITY MEMBERS

0 2 MATERIAL ANALYSIS

0 3 MATERIAL CATALOG

0 4 URBAN ANALYSIS
URBAN CONCEPT
URBAN PROPOSAL

0 5 8 UNIT
Flat typologies

0 6 ARCHITECTURAL PROPOSAL
Gallery building

0 7 ARCHITECTURAL PROPOSAL
Tube house

0 8 COOPERATIVES



01

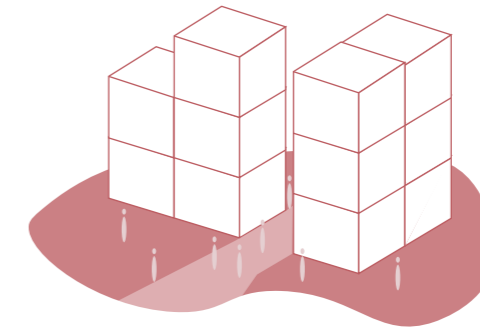
AN INTERVIEW WITH VIETNAMESE COMMUNITY MEMBERS

During my visit to Warsaw, I met two members of the Vietnamese community, Ngo Van Tuong and Do Huy Khanh, who work in or live near Bakalarska Market. The purpose of this meeting was to gather information and answers to questions that will help me with my final year project. We discussed topics such as the difference between housing in Vietnam and Warsaw, what their housing needs are, how the Vietnamese community interacts with each other, or what their opinion is on shared housing. Getting information directly from people within the community helped me gain a realistic insight into their way of life and needs. Some assumptions were confirmed, while others were supplemented with interesting information that I found very useful in my further design process.

What is the common housing typology in Vietnam?

We prefer single family house rather than big housing block estate, because the scale is better known for us. Even in the Vietnamese city centre the traditional houses are single family houses called Tube houses. **For Vietnamese people it is important to own a piece of narrow land, sharing corridors in between with neighbors.** However, with the increasing cost of land, it has become difficult to own land or house, which is why living in blocks of flats has become common nowadays.

Ngo Van Tuong

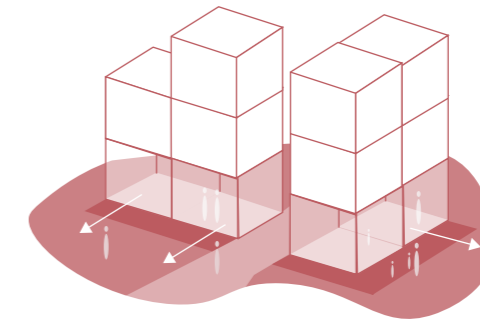


Tube house principle

What is special about the typology of Tube house in Vietnam?

Vietnamese houses are open and friendly, especially on the ground floor where large windows allow for easy socializing. This creates a smooth flow between private and public life, making interactions with neighbors and passersby effortless. We were surprised by the contrast in Poland, where ground floors are often closed off and not welcoming, even when there are shops present, we noticed a lack of openness or stalls in front of shops.

Ngo Van Tuong



Welcoming ground floor

What facilities are in Vietnamese housing areas to encourage community interaction?

Even though developers in Vietnam construct housing estates at a rapid pace, **the offering of shared spaces is also important** for them, as for example swimming pool, sport facilities, playgrounds, greenery or local gardens.

Ngo Van Tuong

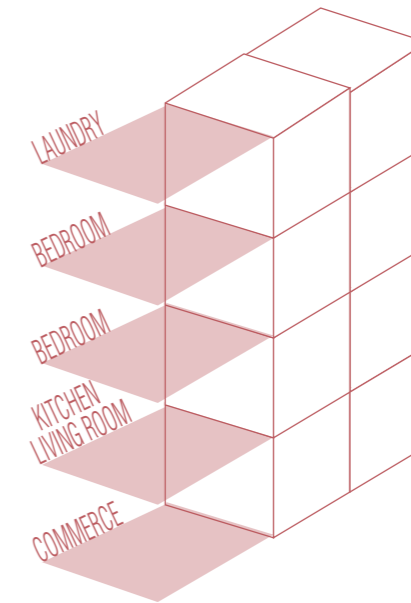


Public space

How are row houses typically organized in Vietnam?

The spatial division of space of Tube house is mainly functional. My house in Hanoi is really traditional one, 35 m² big per one floor. First floor is always commerce area. On the second floor there is living room and kitchen, while on the third and fourth floor is situated bedrooms with toilet. The rooftop is not used for spending time but works as laundry. **People spend lot of time outside in the street or coffee shop. Entrance to the building is from the main street through the narrow alley from the back.**

Do Huy Khanh



Tube house principle

What preferences do Vietnamese people have when selecting the location of their housing?

Vietnamese people often prefer residential areas like “Za Zelazna Brama”, where there are numerous flats for rent in the city centre. This area is well-connected to the Stadium and offers different transportation options. Another Vietnamese hub is town Wolka Kosowska, but overall, **we prefer to live near our work.**

Ngo Van Tuong

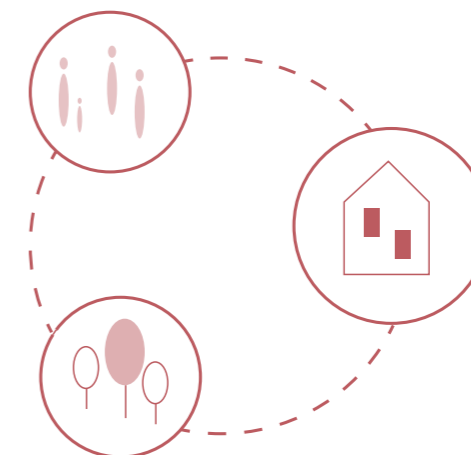


Tube house principle

Would Vietnamese find shared ownership model like housing cooperatives appealing?

Even though it is something new we might be interested, because it is at least some kind of ownership, better than rental. **We are used to share space with others.**

Ngo Van Tuong



Tube house principle

Is there anything missing in the area near Bakalarska Market?

I like to live there because I have everything I like there, but sometimes I feel overwhelmed with the noisy atmosphere and people, that is why I prefer to live with Polish community. **In the urban space, green element is what is missing there, because the space is mostly for business.**

Do Huy Khanh



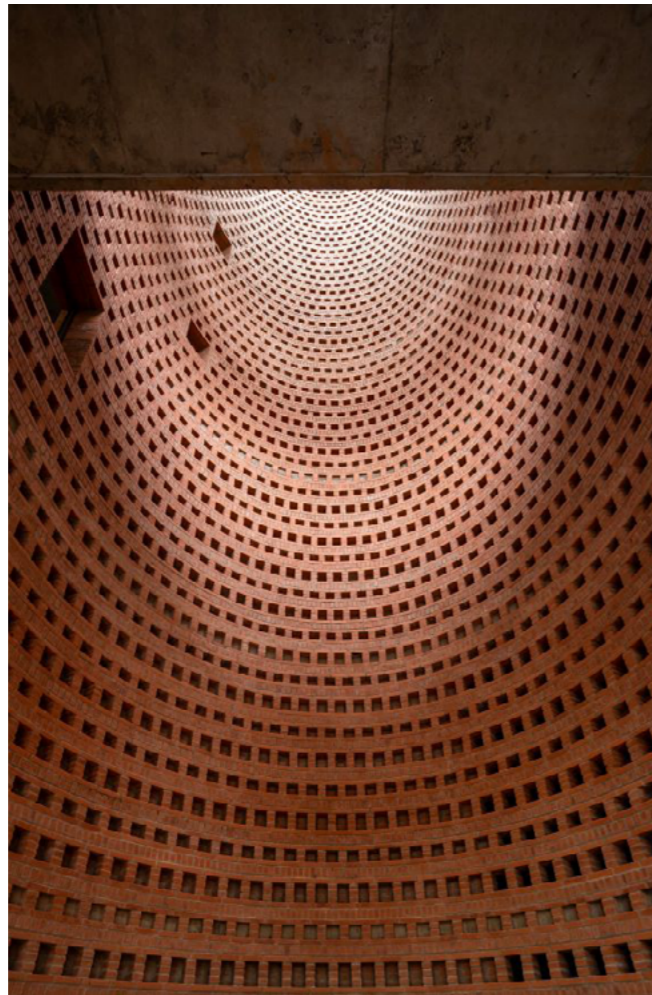


Figure 1: Premiere Office

0 2

MATERIAL ANALYSIS

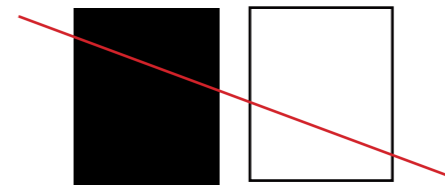
Ceramic bricks and concrete are widely used in both countries because of their durability. In Poland, the use of concrete may be more influenced by modernist and brutalist architectural styles, while in Vietnam we see more emphasis on futuristic and innovative designs. Wood is a prominent feature in both countries, offering warmth and versatility, although specific types and applications may differ. Glass, steel and plaster are also commonly used, reflecting the different architectural preferences and material availability in each country. In Vietnam, terrazzo and bamboo add elegance and eco-friendliness respectively, shaping the architectural landscape with a fusion of heritage and innovation.



VIETNAMESE MATERIALS



VIETNAMESE COLORS



In Vietnam, black and white colors are less common in architecture due to cultural symbolism, climate factors, and traditional design preferences. Vibrant colors are favored for their auspicious meanings and to suit the tropical climate. Architects often choose colorful designs that blend modernity with cultural heritage.



Figure 2: LT House



Figure 3: Premiere Office

..... BRICK PATTERN VARIATION



Figure 4: NDC House

..... CONCRETE CONTRAST



Figure 5: A House in Quang Nam

..... TERRACOTA STUCCO



Figure 6: House in Chau Doc

..... MOVABLE WINDOWS



Figure 7: Nhà Bè House

..... STEEL STAIR CONSTRUCTION

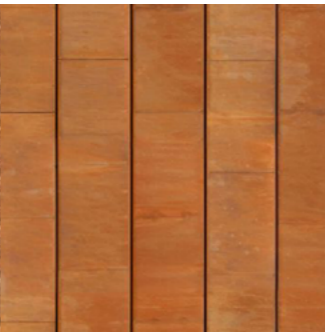
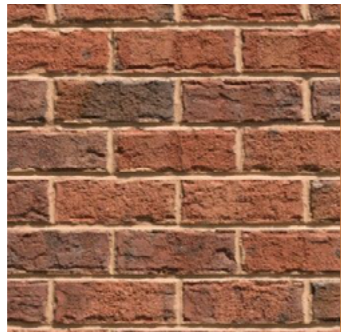


Figure 8: Dai An Apartment

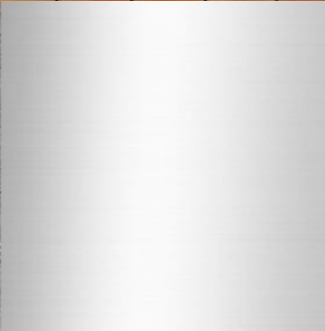
..... IRREGULARITY, COLOFRUL

WARSAW MATERIALS

CERAMIC BRICK



CONCRETE



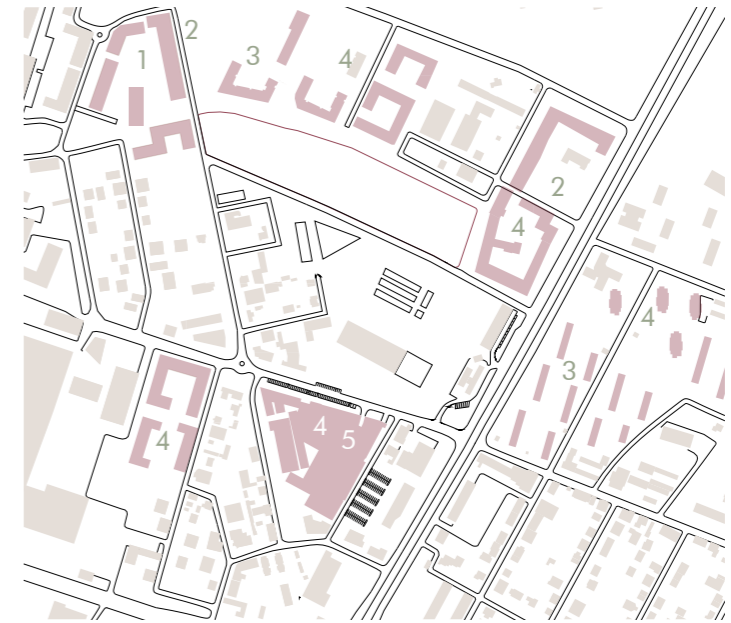
WOOD



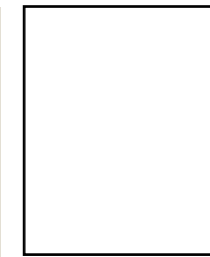
SHEET METAL

GLASS

PLASTER



COLORS AROUND BAKALARSKA



1

2

3

4

5



Figure 9: Bakalarska Market

..... NEON SIGNS, METAL SHEETS
- VISUAL IDENTITY



Figure 10: Witoszowskie Housing Estate

..... REPETITIVE PATTERN



Figure 11: Block of flats in Włochy District

..... COLORS ON THE FACADE



Figure 12: Aparmenty Bakalarska

..... HORIZONTALITY

REFERENCIAL COLLAGE MOSAIC

Collage mosaic serves as a referential example, showing combination of material from both countries and possible visual identity of my project. Simple building structure is supplemented with different materials and colors.






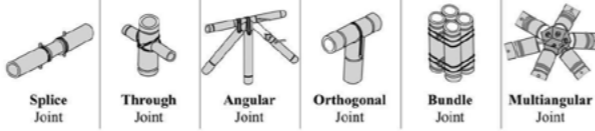


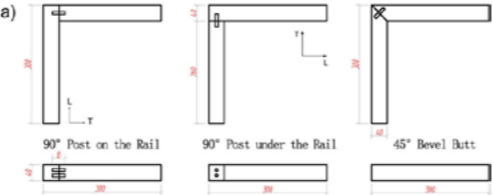


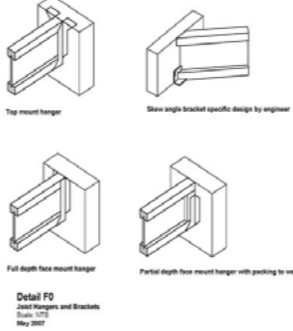

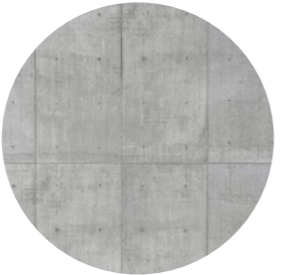
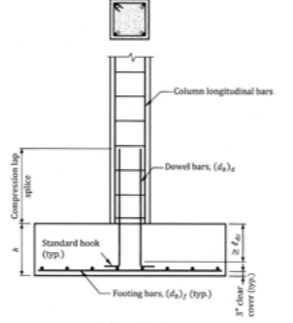


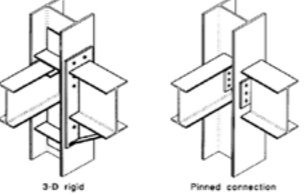

Figure 13: Glass

03

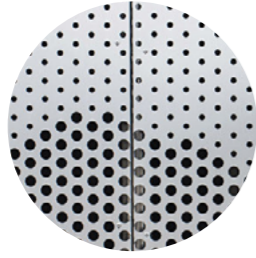
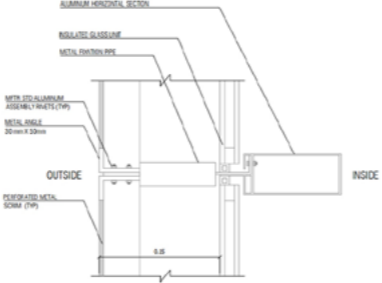


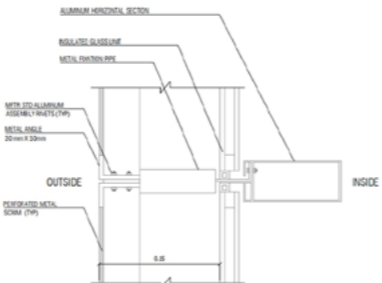


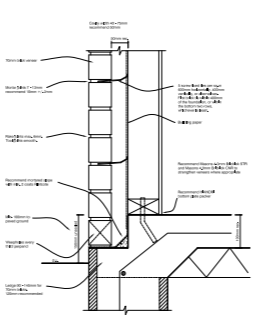

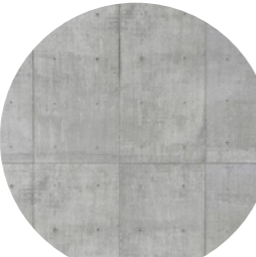


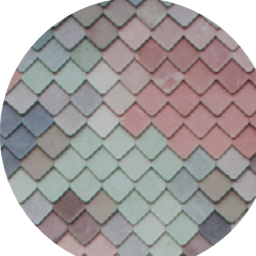
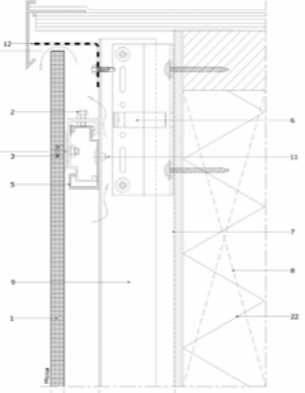

MATERIAL CATALOG

As part of my thesis project, I've curated a materials catalogue as part of an analysis. This catalogue compares different building and façade materials based on their unique properties such as weight, tensile strength, flexibility, durability, versatility, environmental benefits and colour palette.


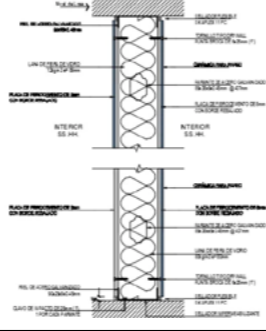


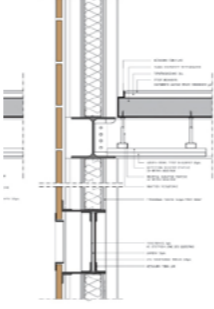
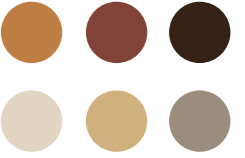
CONSTRUCTION MATERIALS

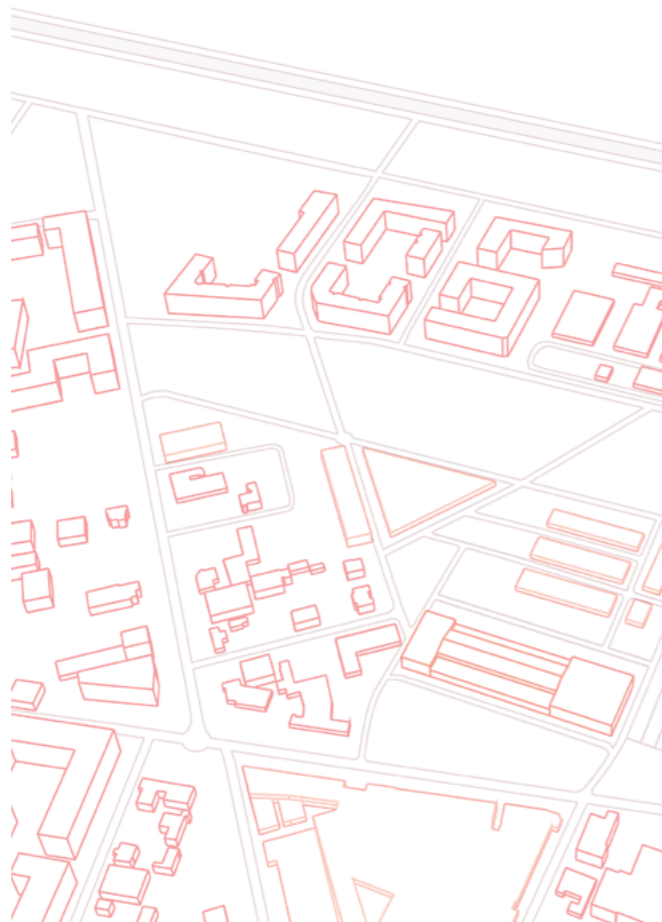
		TECHNICAL DRAWING	WEIGHT	TENSILE STRENGTH	FLEXIBILITY	DURABILITY	VERSATILITY	ENVIROMENTAL BENEFITS	COLOR PALETTE
BAMBOO			300 - 400 kg/m ³	100 - 250 MPa for structural support	natural flexibility	long-lasting material for outdoor applications	a wide range of applications in construction	an environmentally friendly material	
BAMBOO ALTERNATIVES									
POPLAR TIMBER			510 kg/m ³	40 - 60 MPa	no	with proper treatment or protective finishes	a wide range of applications in construction	fast-growing	
LAMINATED VENEER LUMBER (LVL)			600 - 800 kg/m ³	50 - 70 MPa	can be designed to flex slightly under load	highly durable	a wide range of applications in construction	made from smaller, fast-growing trees or wood residues that might otherwise go unused	
REINFORCED CONCRETE			2402 kg/m ³	2-5 MPa	limited flexibility	for long lasting structures	a wide range of applications in construction	recyclable	
STEEL			7850 kg/m ³	400 - 550 MPa	not bend easily under normal conditions	highly durable	a wide range of applications in construction	recyclable	

FACADE MATERIALS

		TECHNICAL DRAWING	DIMENSION	DURABILITY	WEATHER RESISTANCE	INSULATION	ACUSTIC PERFORMANCE	MAINTENANCE	COLOR PALETTE
PERFORATED METAL PANELS			width x length (mm) 1,000 x 2,000 1,220 x 2,440 1,250 x 2,500	highly durable and long-lasting	resistente in outdoor environments	depend on material thickness, perforation pattern, and insulation material behind the panels	provide acoustic benefits by absorbing, diffusing, or reflecting sound waves	minimal maintenance, protect against corrosion	
METAL SHEETS			width x length (mm) 1,000 x 2,000 1,220 x 2,440 1,250 x 2,500	highly durable and long-lasting	resistente in outdoor environments	regulates indoor temperatures, not provide as high thermal insulation as some modern insulating materials	limited acoustic performance	easier to clean and maintain than perforated panels	
BRICK			(mm) 290x162x90	often lasting for decades	highly resistant	highly durable	providing soundproofing properties	minimal maintenance	
CONCRETE			up to 10 metres long and 3.6 metres wide, typical thicknesses 100mm. 150mm.	durable and long-lasting	highly resistant	provide moderate thermal insulation due to their density and mass	good acoustic insulation	minimal maintenance	
CERAMIC TILES			different sizes	durable, but may be susceptible to cracking in seismic or high-wind areas	highly resistant	limited thermal insulation on their own due to their thin profile and low thermal mass	minimal inherent acoustic insulation	low-maintenance and easy to clean	

FACADE MATERIALS

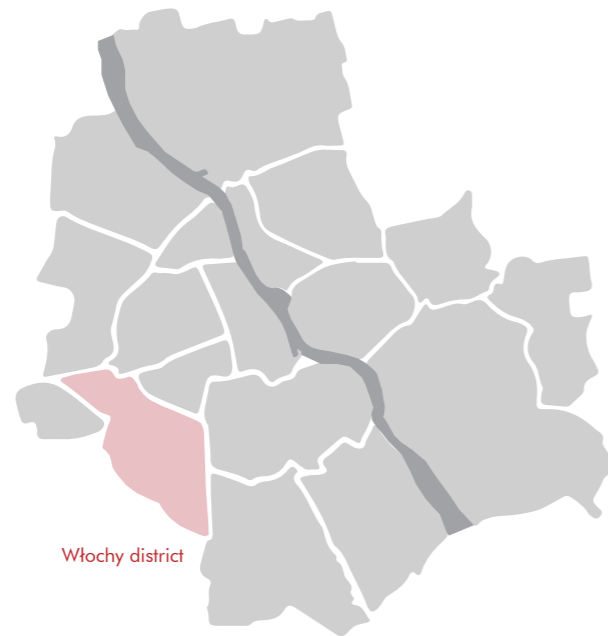
		TECHNICAL DRAWING	DIMENSION	DURABILITY	WEATHER RESISTANCE	INSULATION	ACUSTIC PERFORMANCE	MAINTENANCE	COLOR PALETTE
NATURAL PLASTER			-	<p> durable, but may be susceptible to cracking in seismic or high-wind areas</p>	<p> can be weather-resistant</p>	<p> not as insulating as some modern materials</p>	<p> good acoustic properties</p>	<p> regular maintenance</p>	
WOODEN PANELS			<p> width x length (mm)</p> <p> 2,000 x 5,000</p> <p> 2,000 x 6,000</p> <p> in thicknesses of 12 to 100</p>	<p> durable, but may be damaged from moisture, insects, maintenance is essential</p>	<p> yes, properly treated, cedar or redwood are used for exterior applications</p>	<p> natural insulating properties, but additional insulation may be required in colder climates</p>	<p> good acoustic properties</p>	<p> regular maintenance, periodic inspections required</p>	



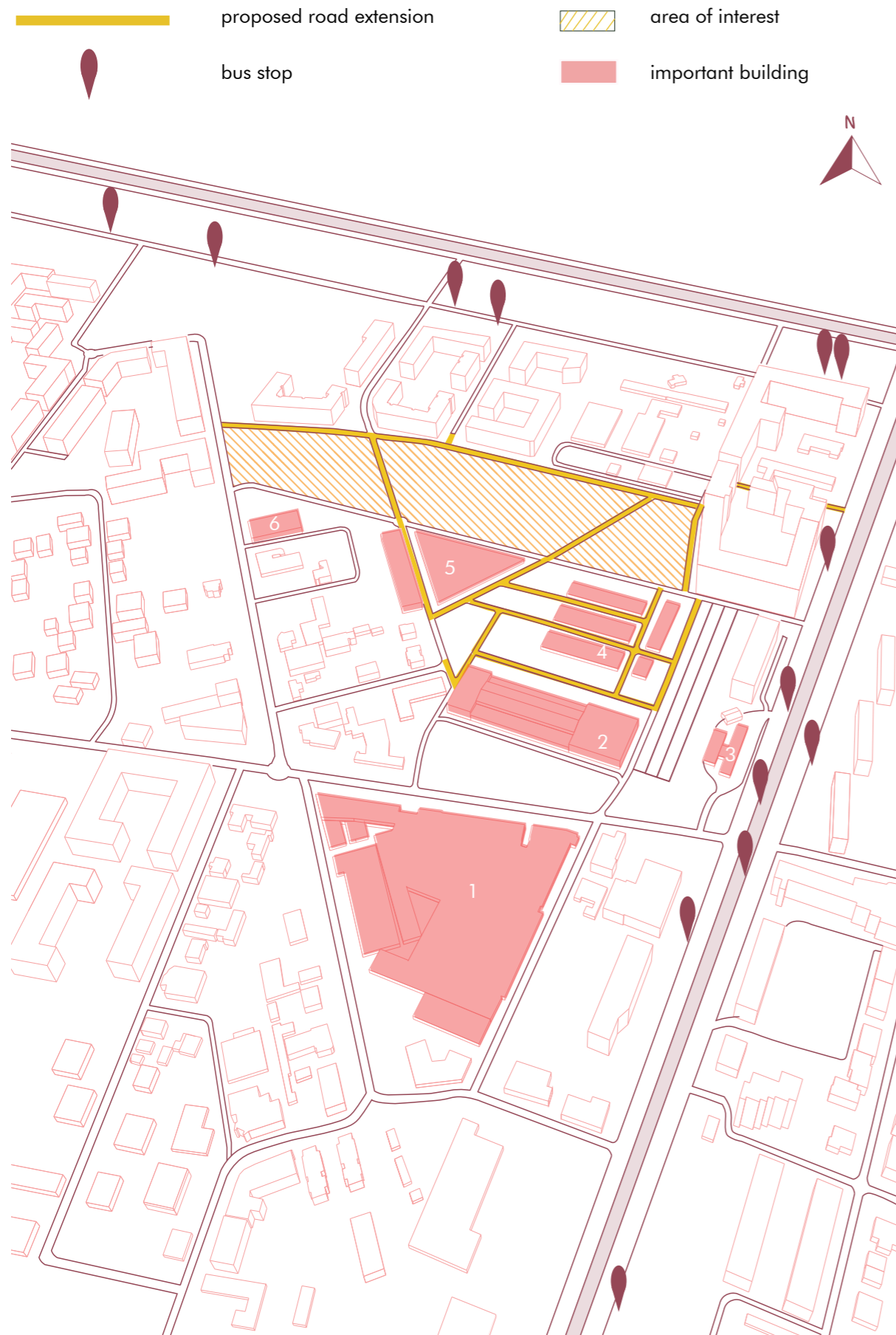
04

URBAN ANALYSIS URBAN CONCEPT URBAN PROPOSAL

The urban design proposal addresses an underutilised area in the Wlochy district of Warsaw. The area is adjacent to a flower market and the Asian market Bakalarska. Both markets shape the character of the area and are key factors in the design process. The proposal builds on the flower market masterplan from the previous semester and responds to the surrounding buildings. The proposed masterplan creates space for two conceptual architectural solutions that define the area and establish a unique character for the site.

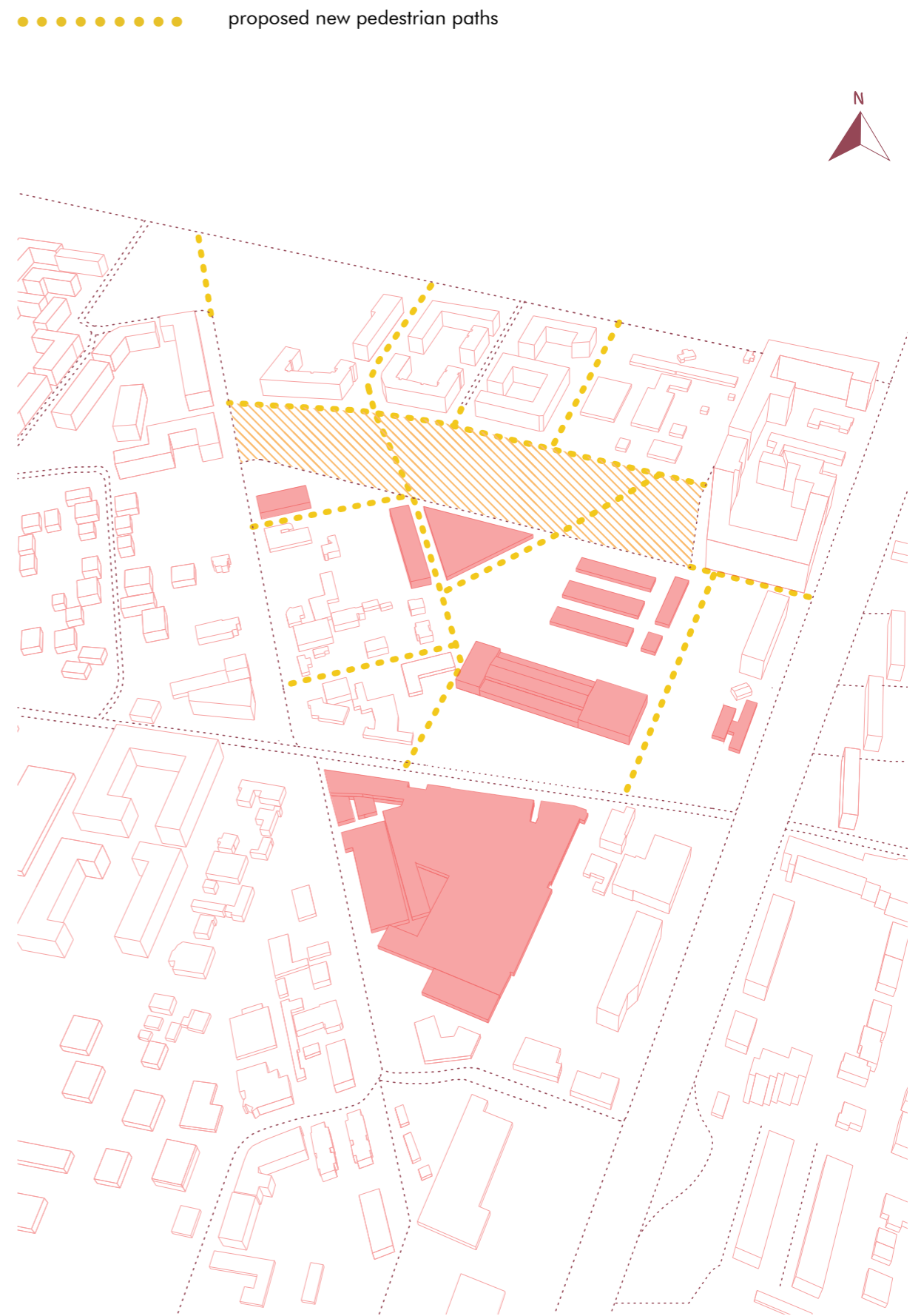


location



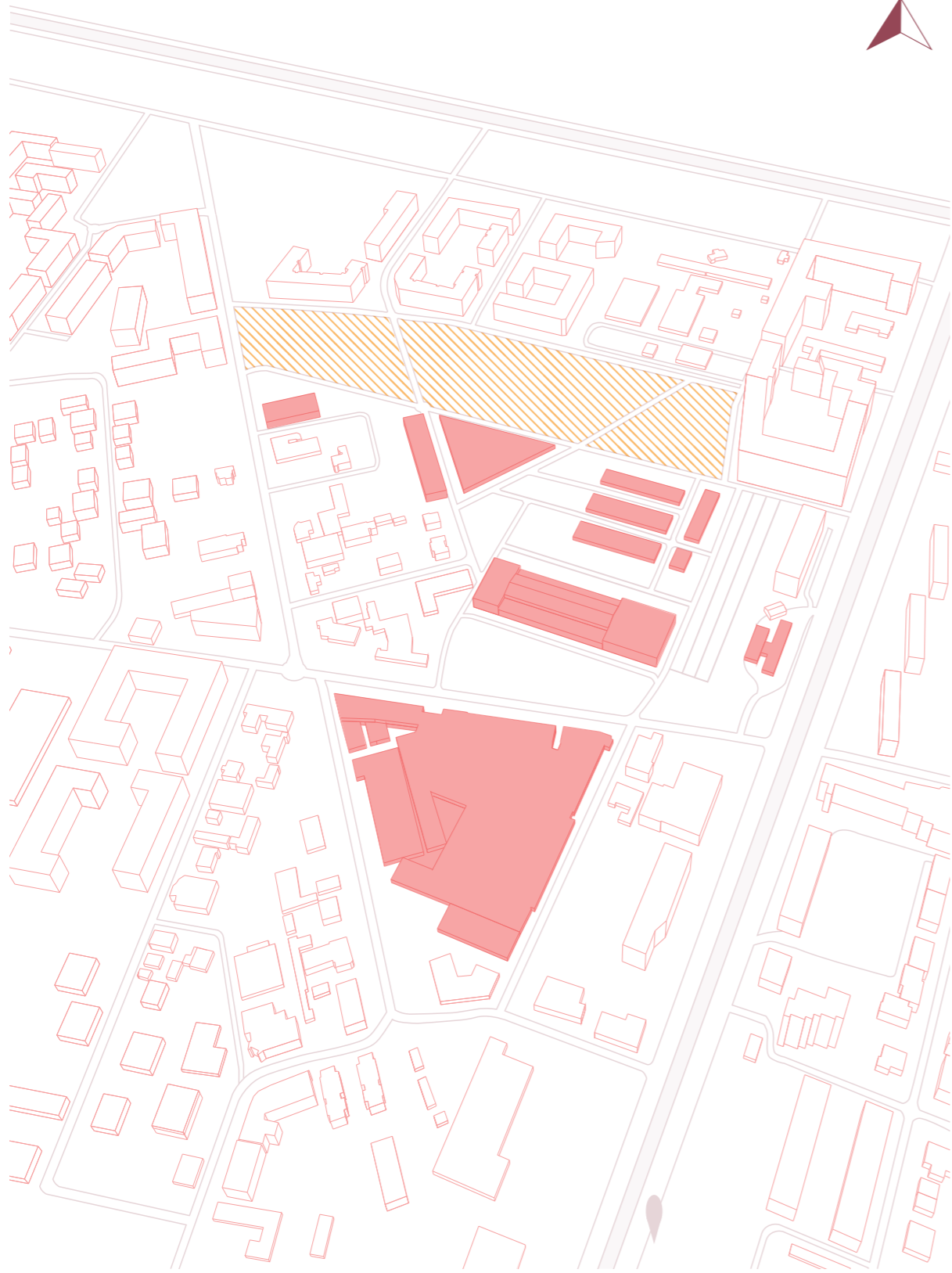
- 1 Bakalarska Market
- 2 Flower Market - reconstruction of Market hall
- 3 Gas station - new placement
- 4 Exterior market stalls
- 5 Youth centre - new design
- 6 Kindergarden - new design

roads, public transport, bus stops

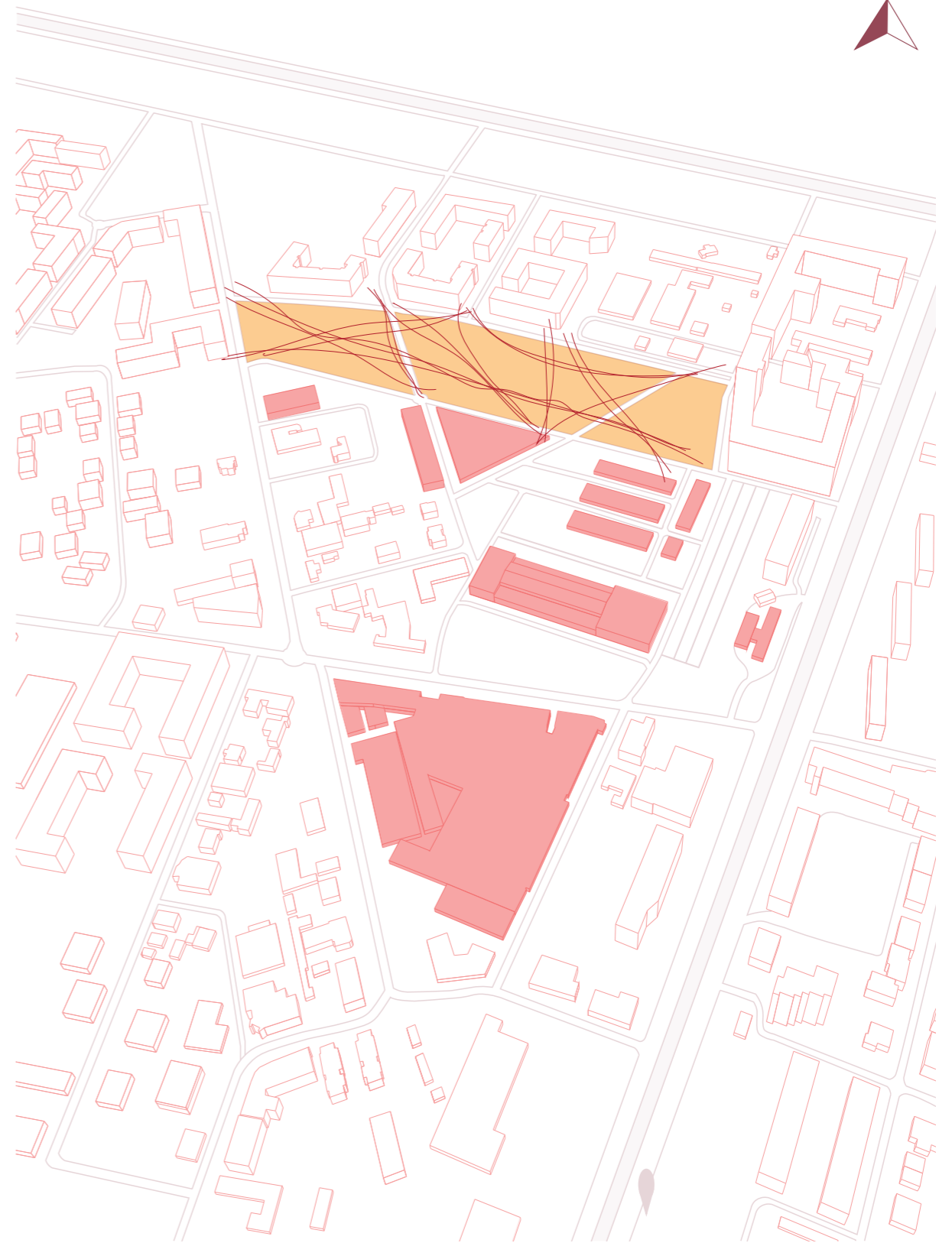


pedestrian paths

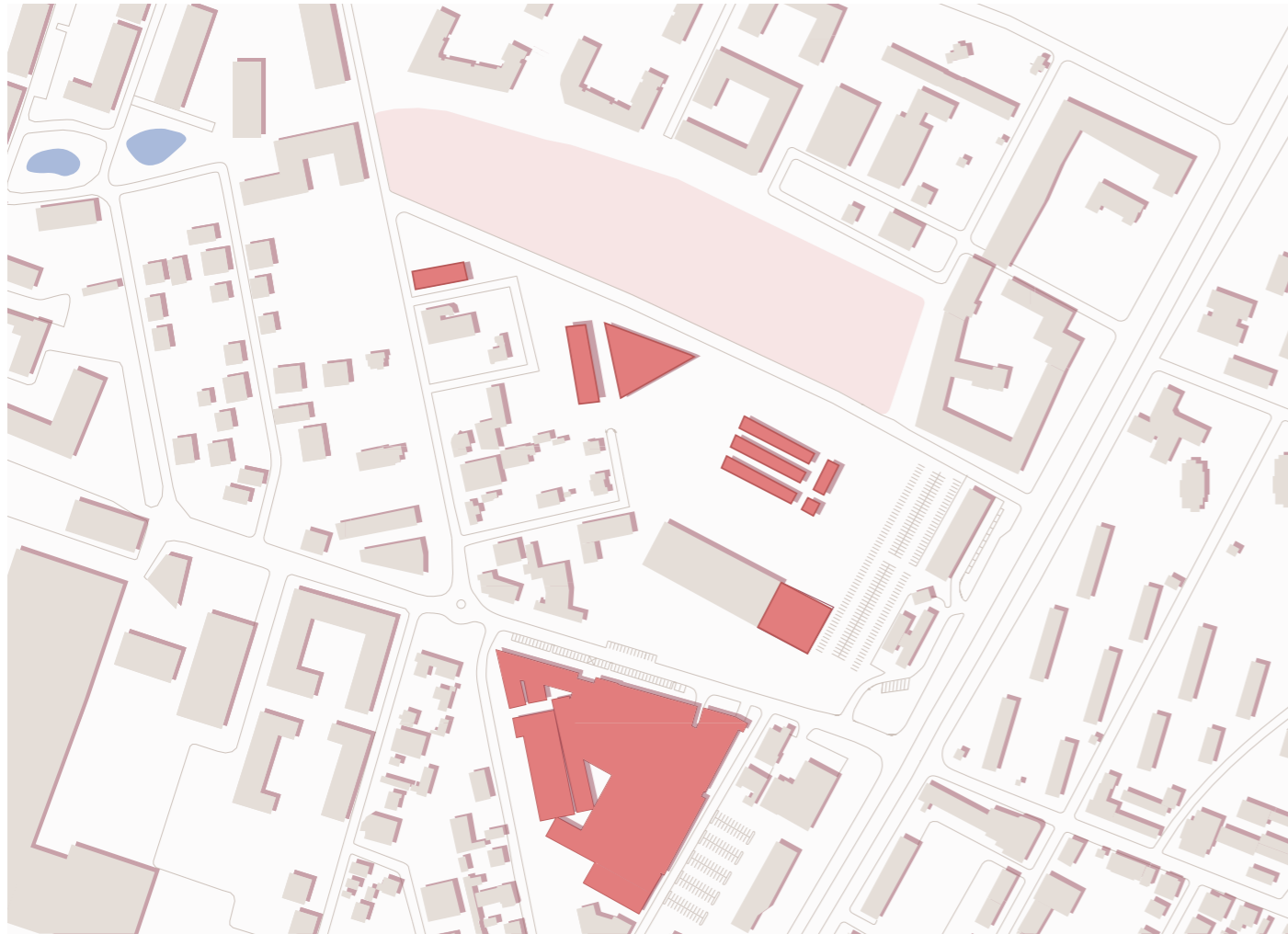
- area of interest
- important building



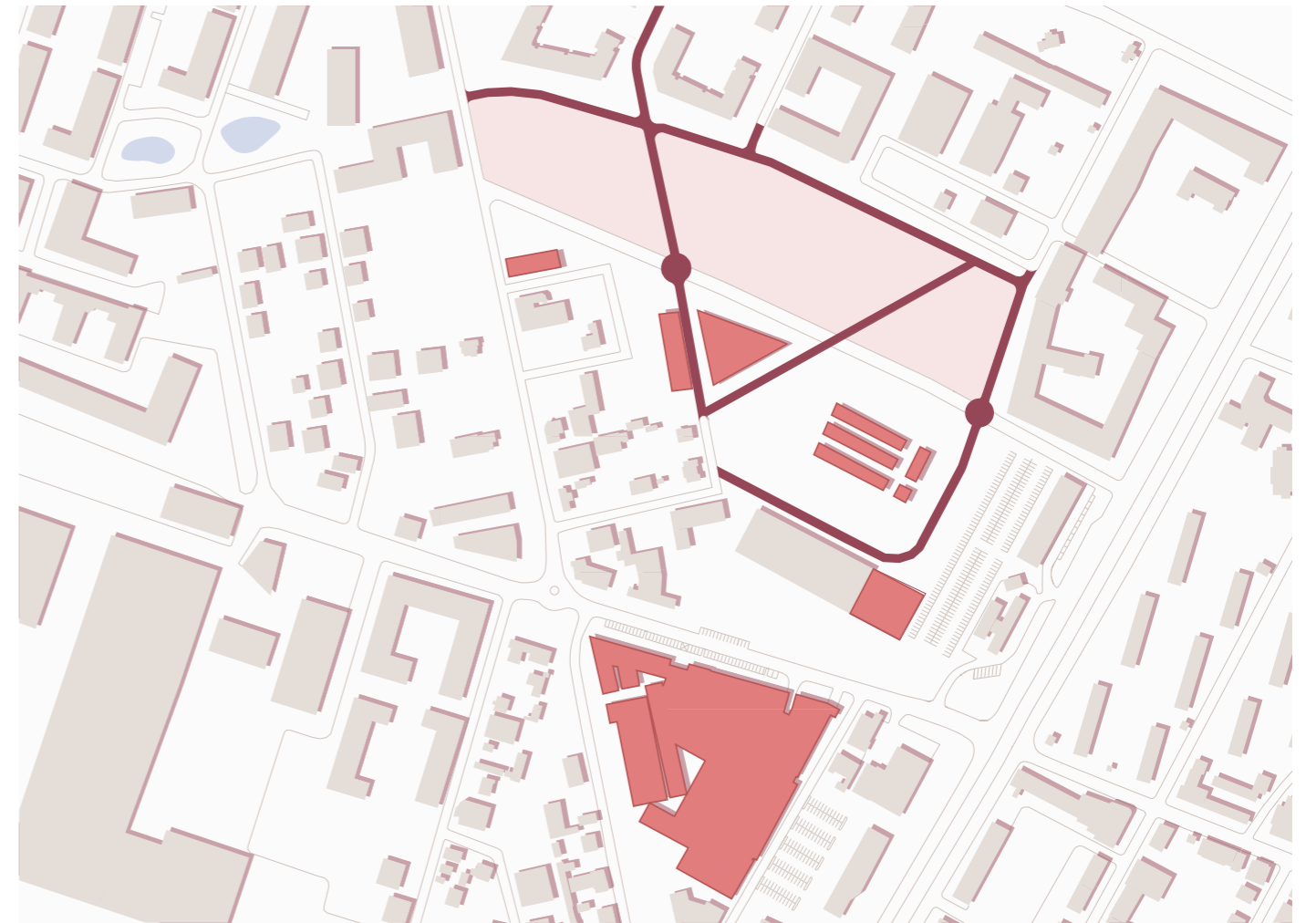
new paths and roads situation



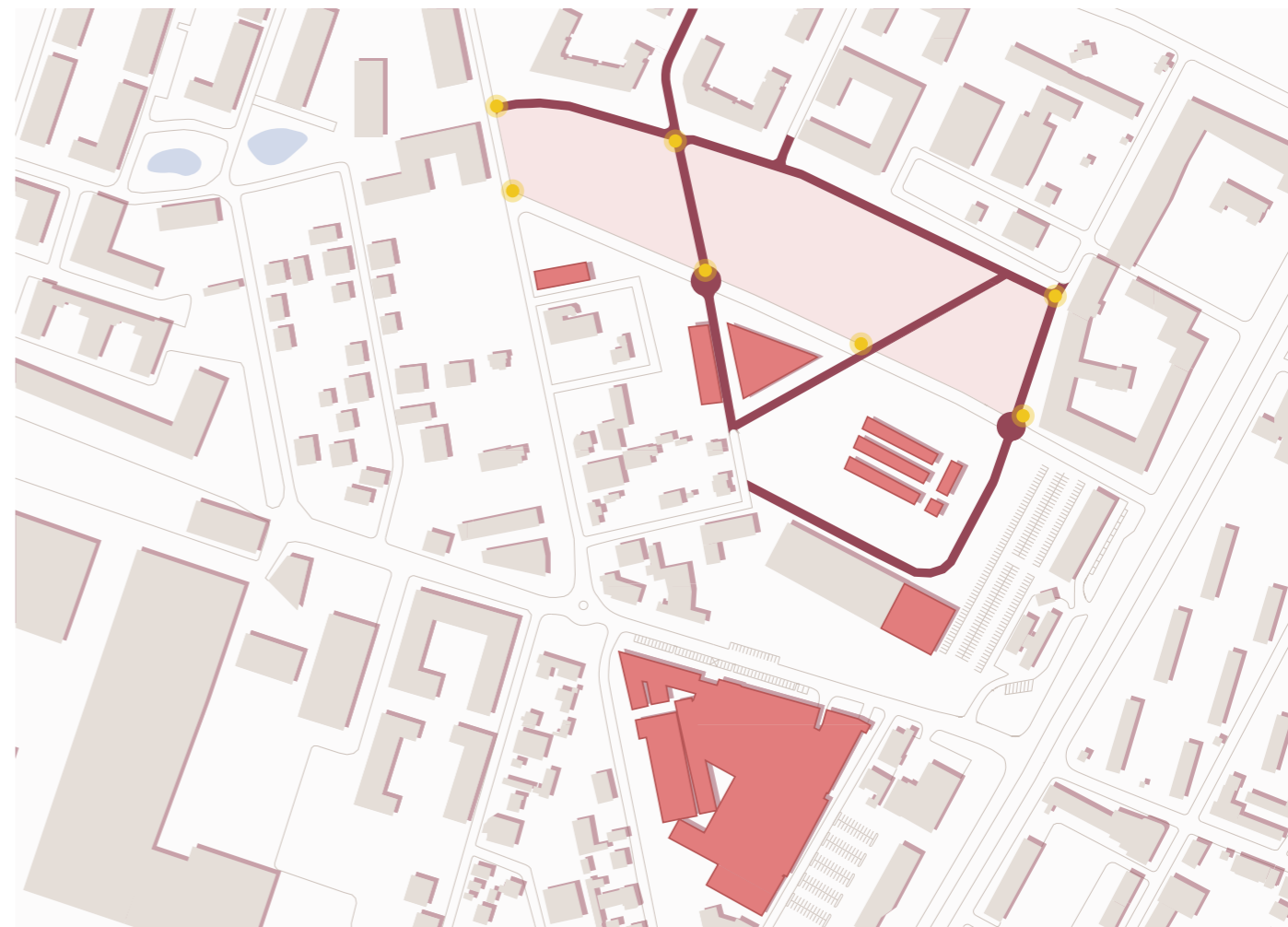
possible movement of people
in the plot



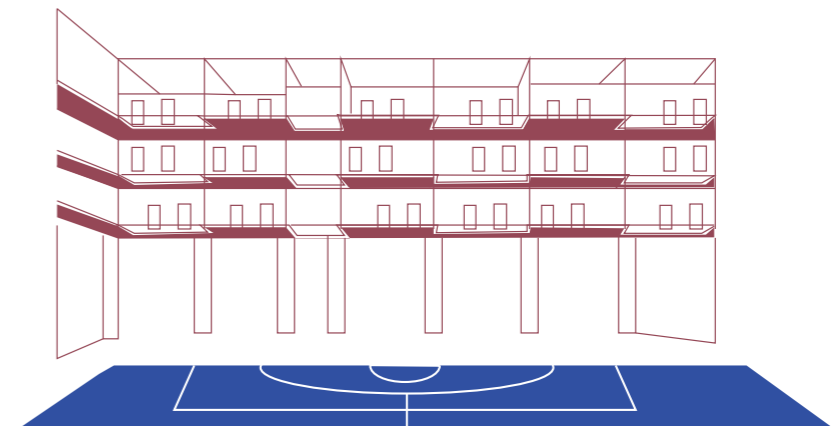
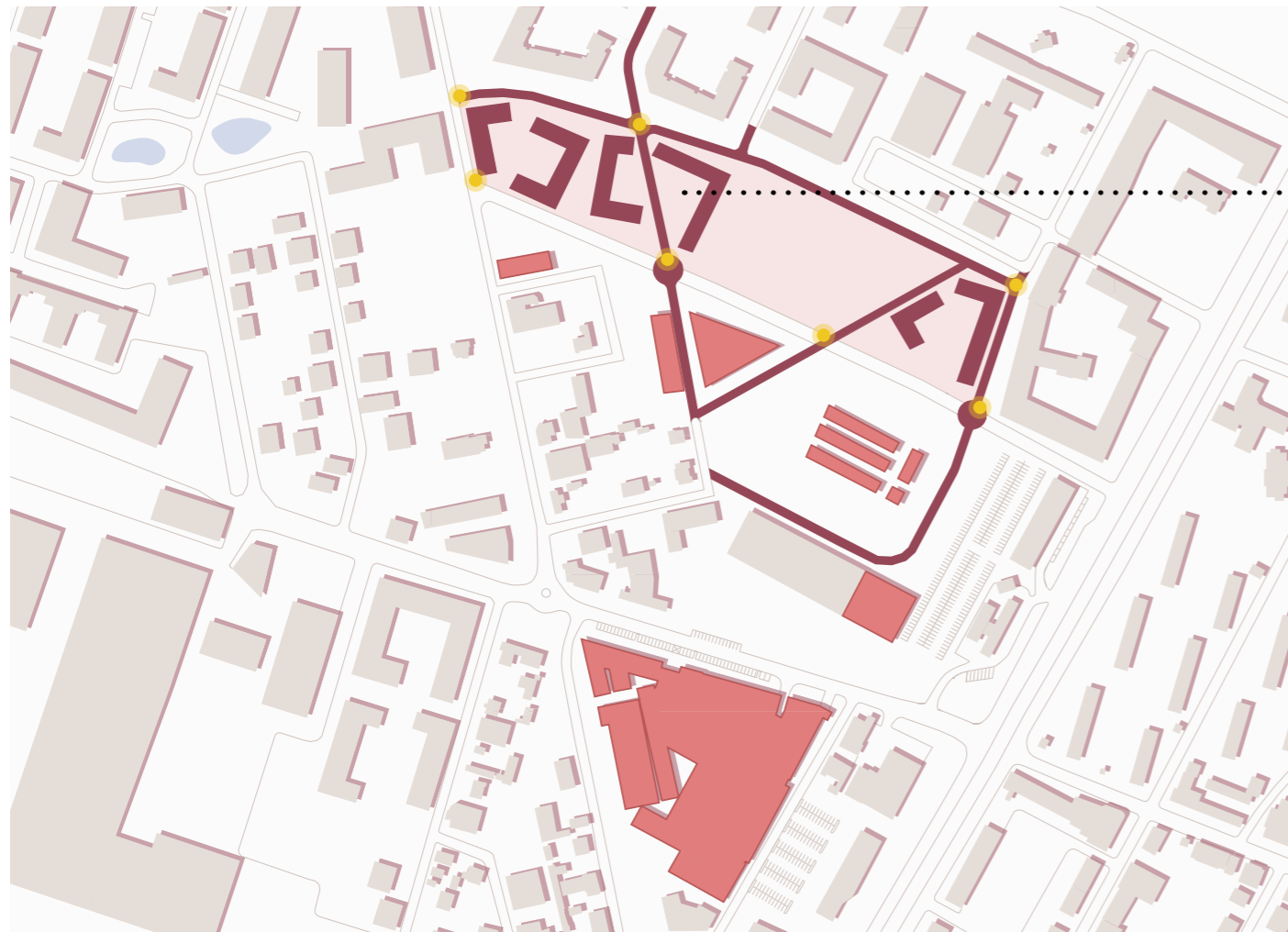
Showing the area of interest and important surroundings with new proposed buildings



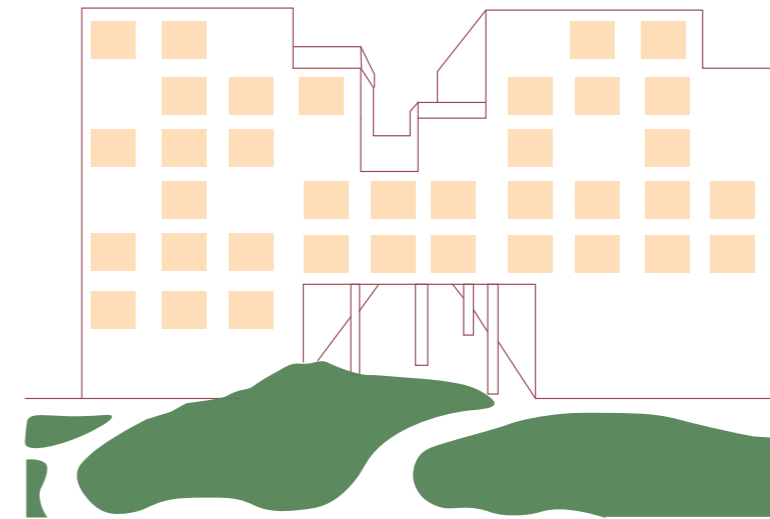
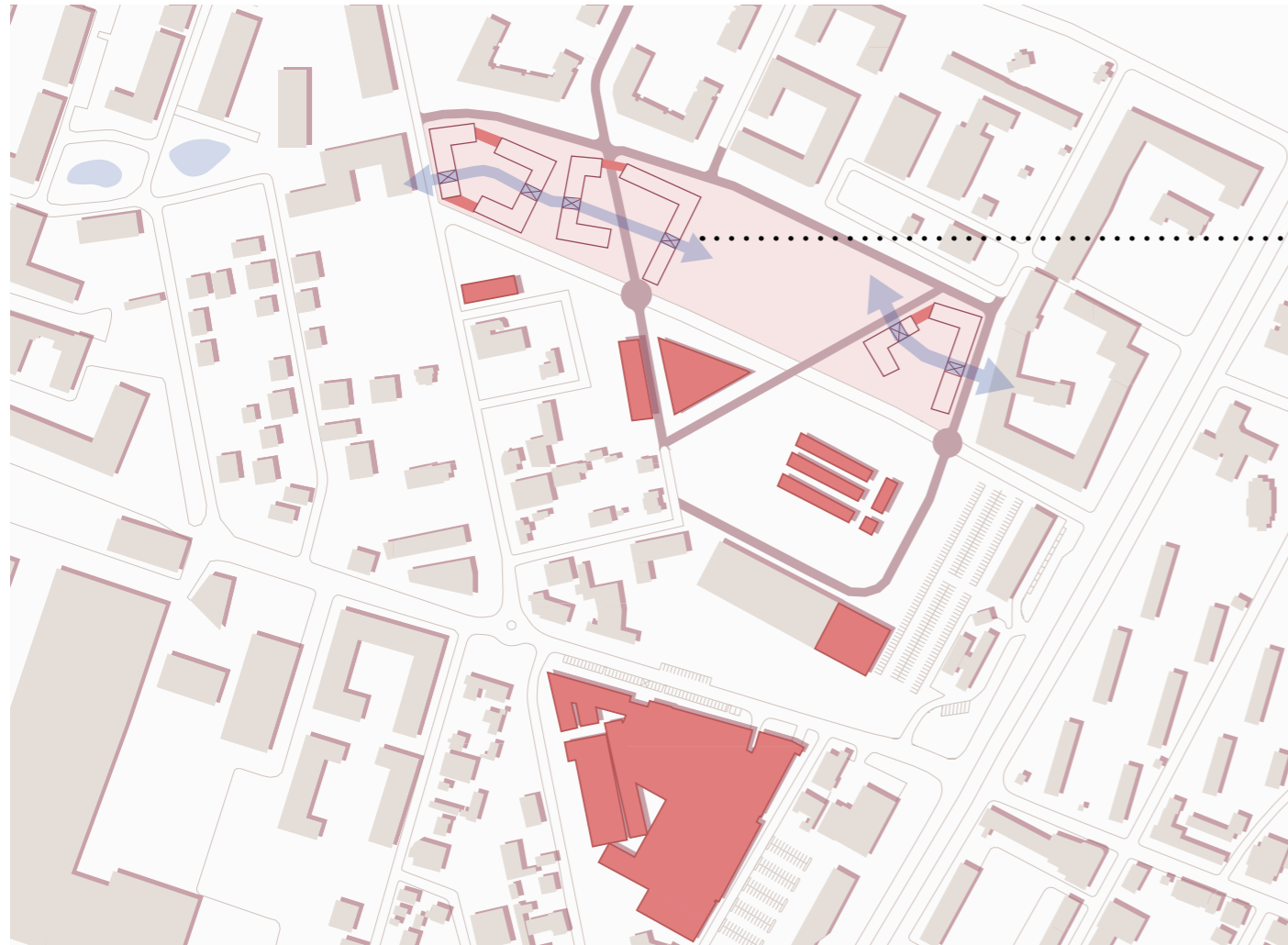
Division of the plot by new proposed roads



Showing important corners in the area



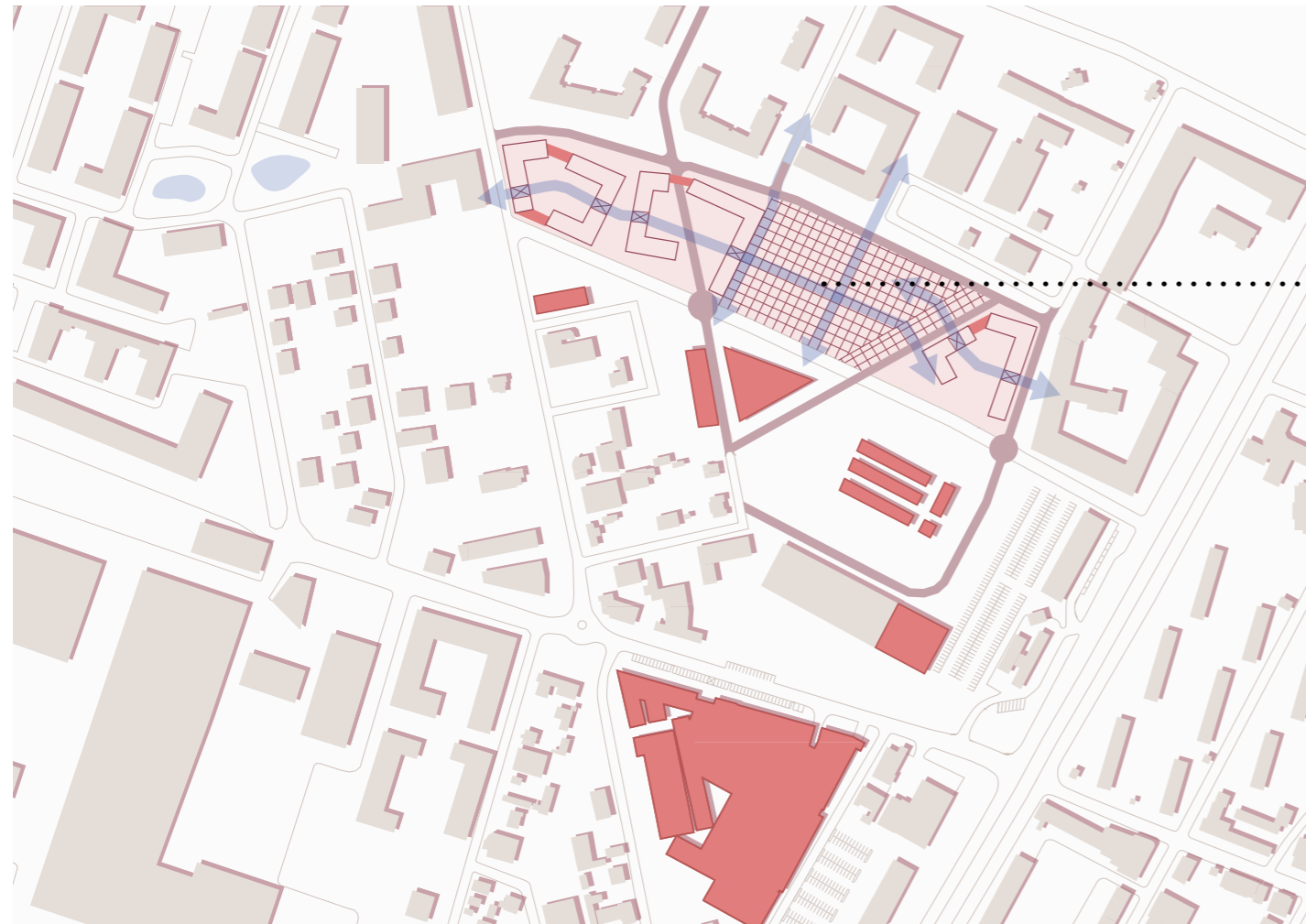
Proposed gallery buildings which border the boundary lines of the land and create inner courtyards



Exterior staircases reconnect gallery building

Urban flow solved with passage within the building

- exterior staircases
- passages within building

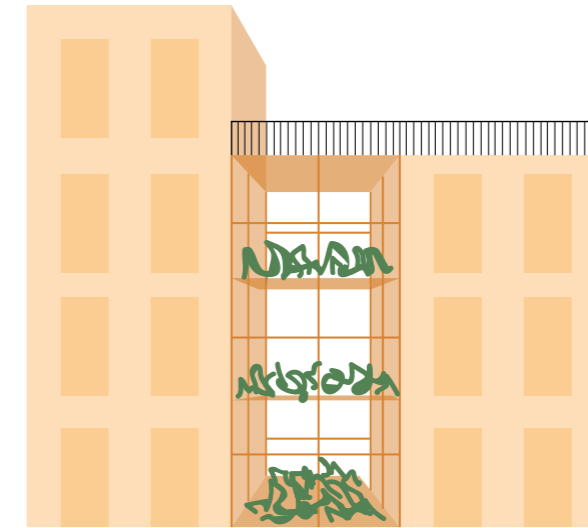
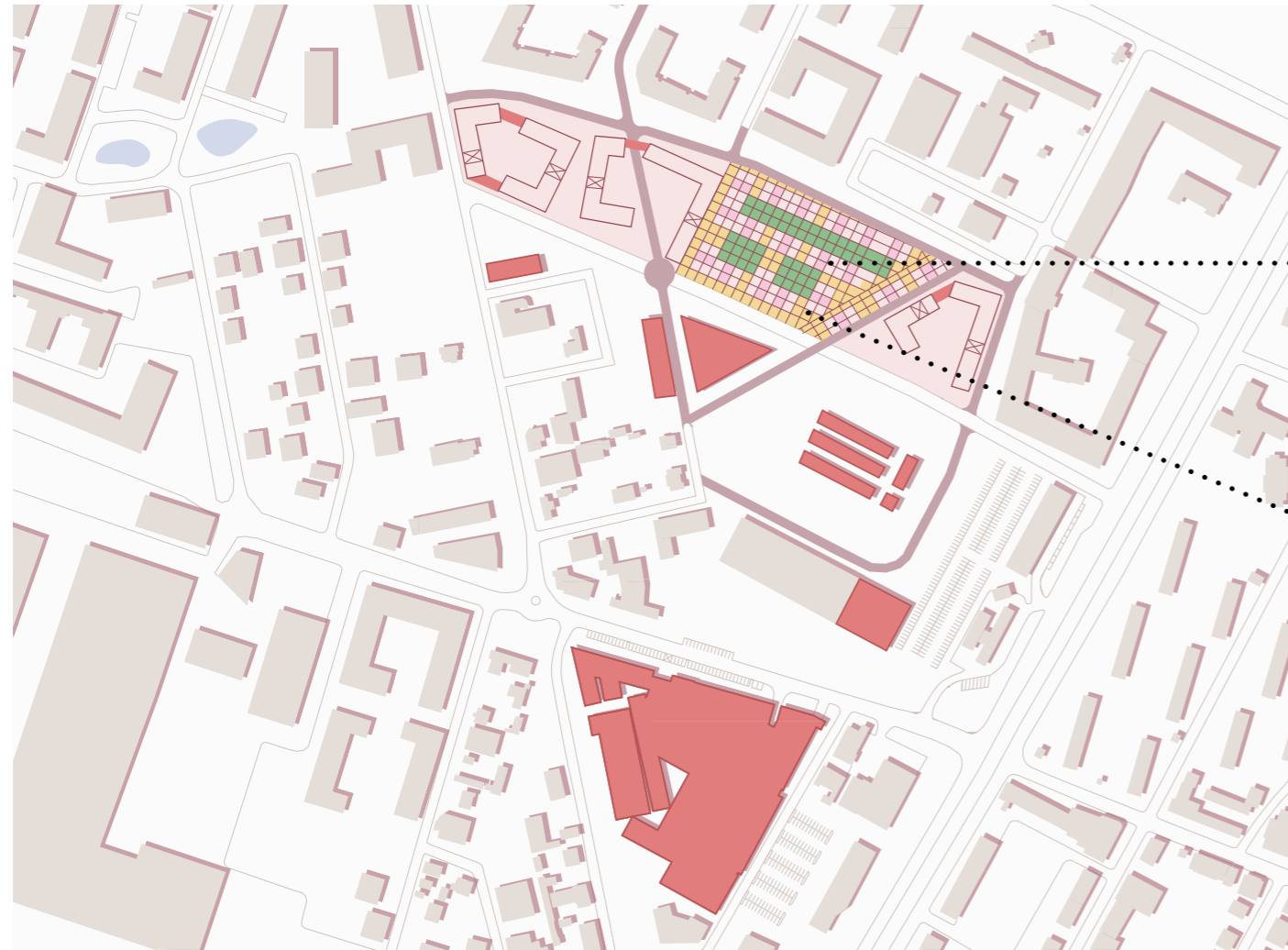


Defined directions of main pathways

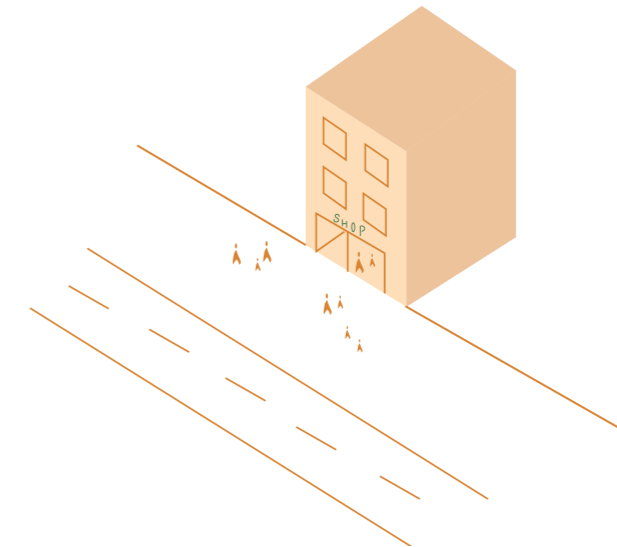
Grid in the central part of the plot creates modules and makes it easy to divide into co-operative plots.

Modular housing unit

- vertical entrance
- pathway
- courtyard
- Tube house



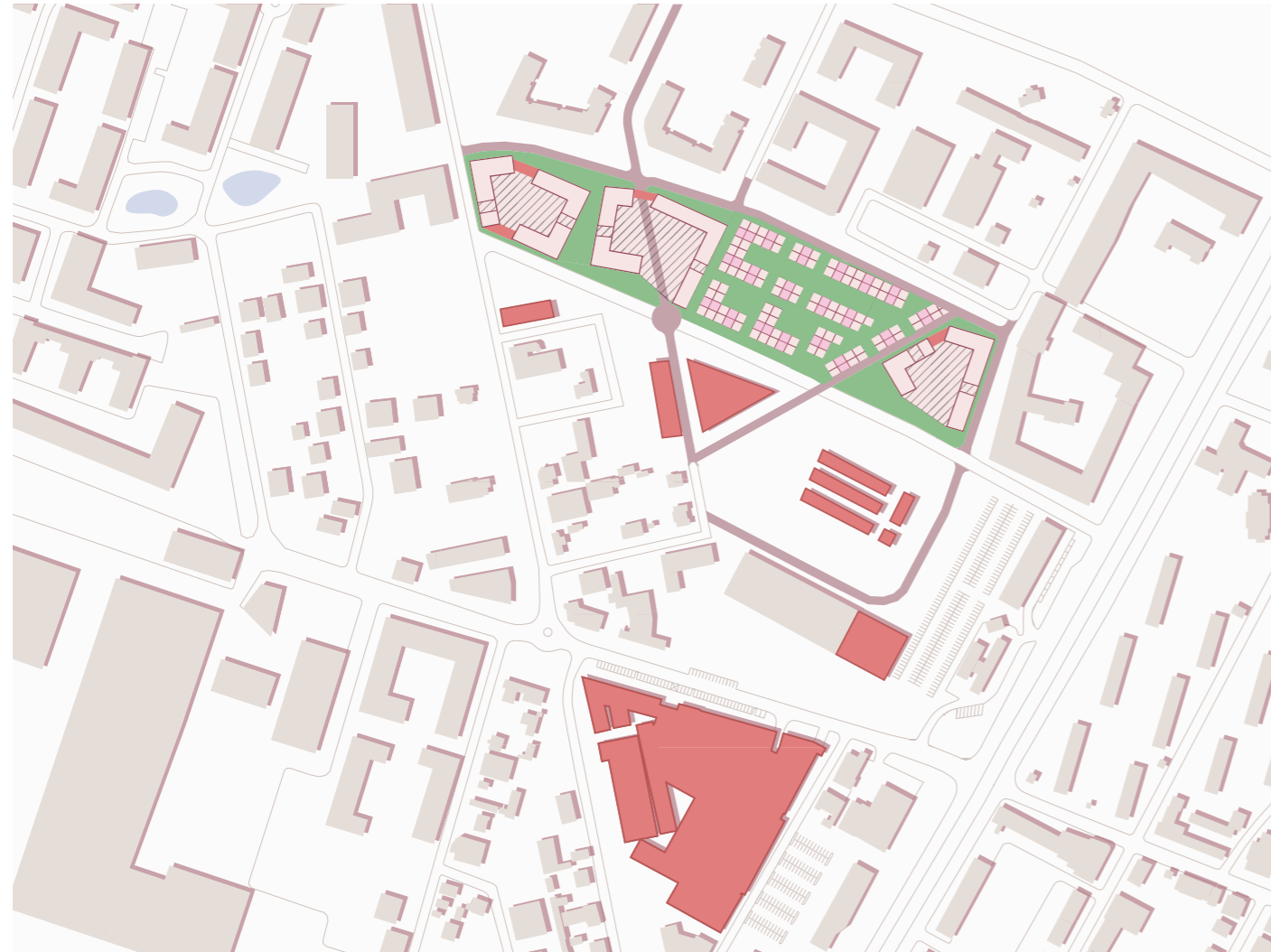
Tube houses with vertical entrance



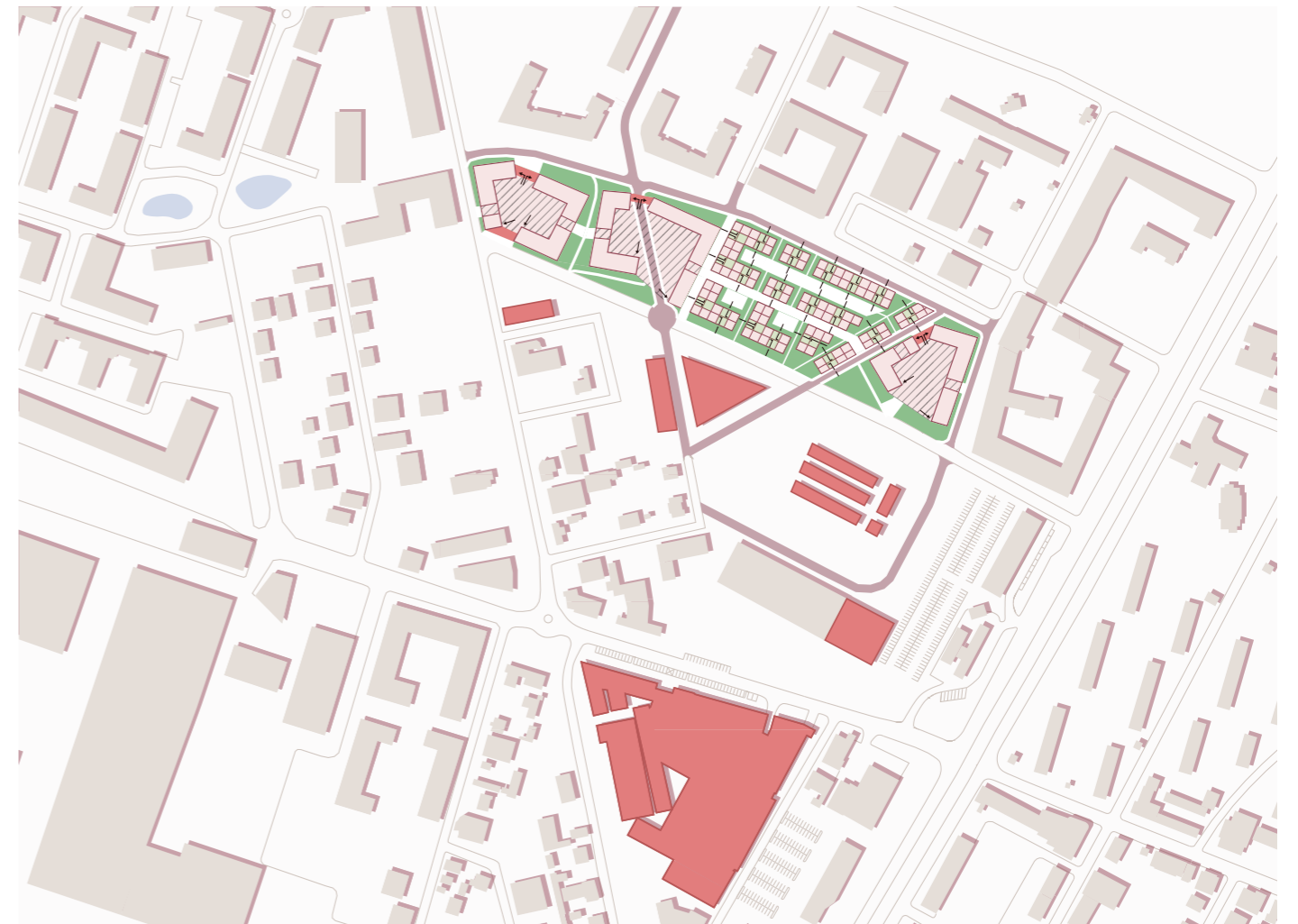
Shophouse

Simple layout of Tube houses which form urban interiors in between Buildings can be built in different phases of construction as needed by the community

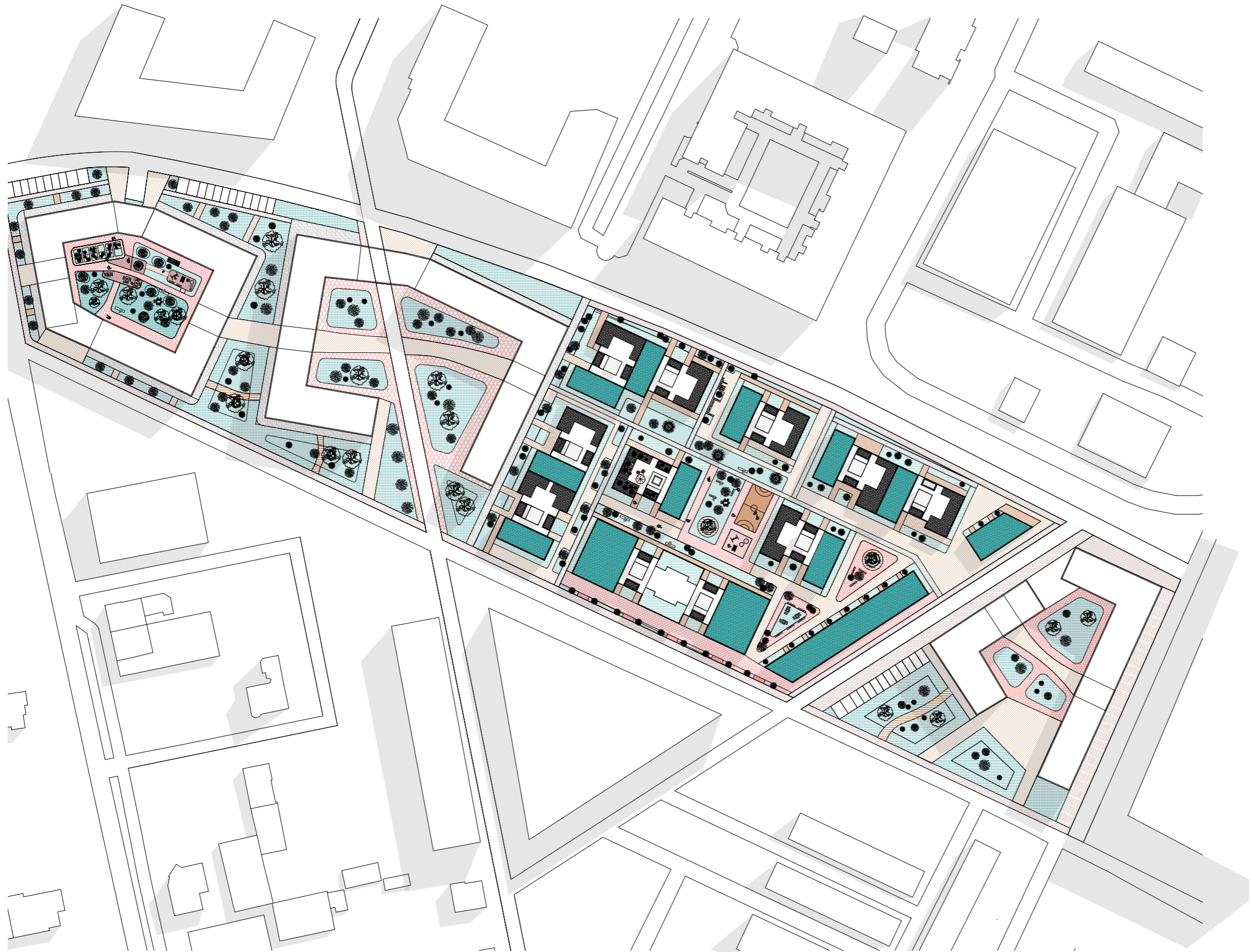
- public space
- semi-private space
- semi-public space
- private space



Public and private space division

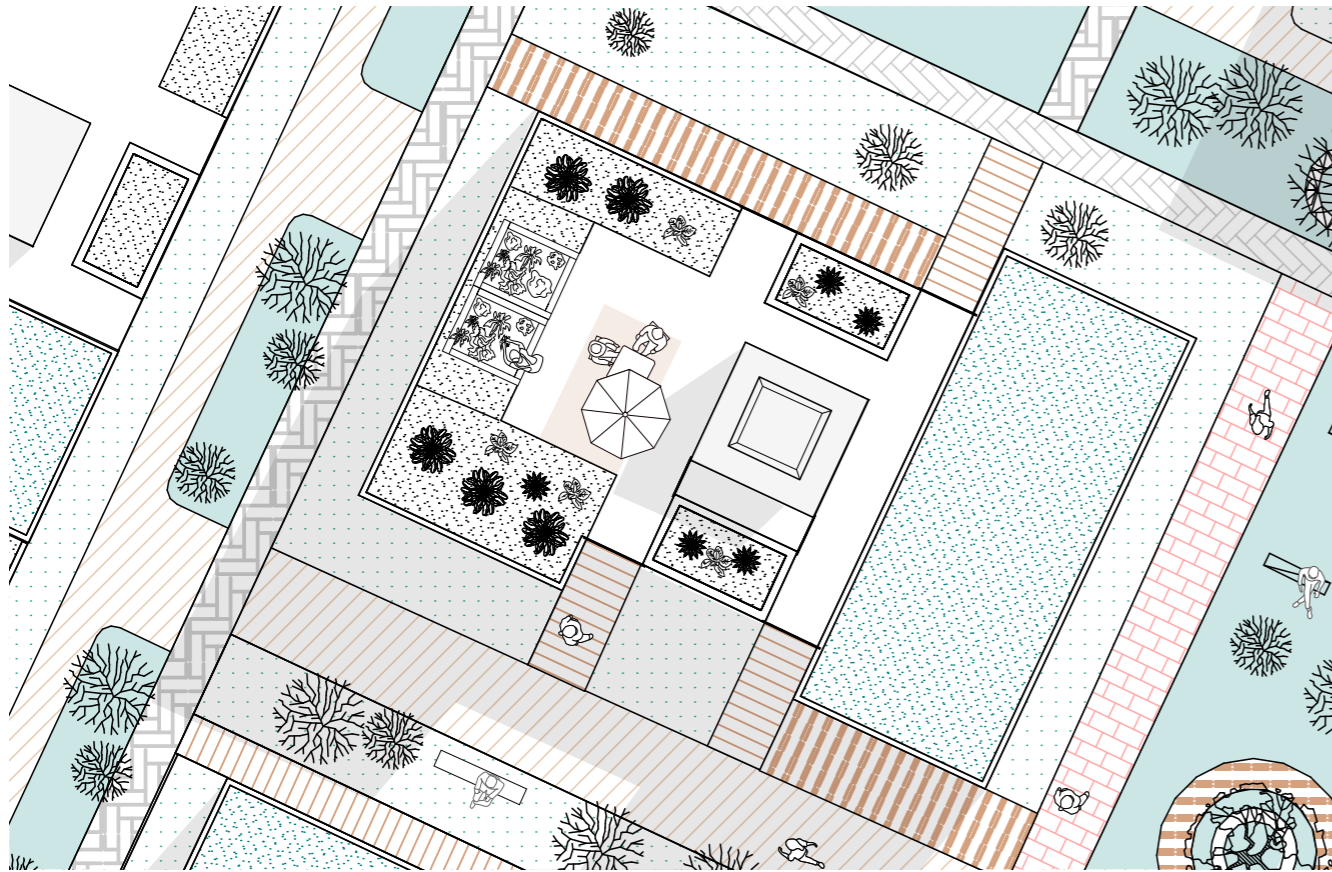


Entrances to the buildings

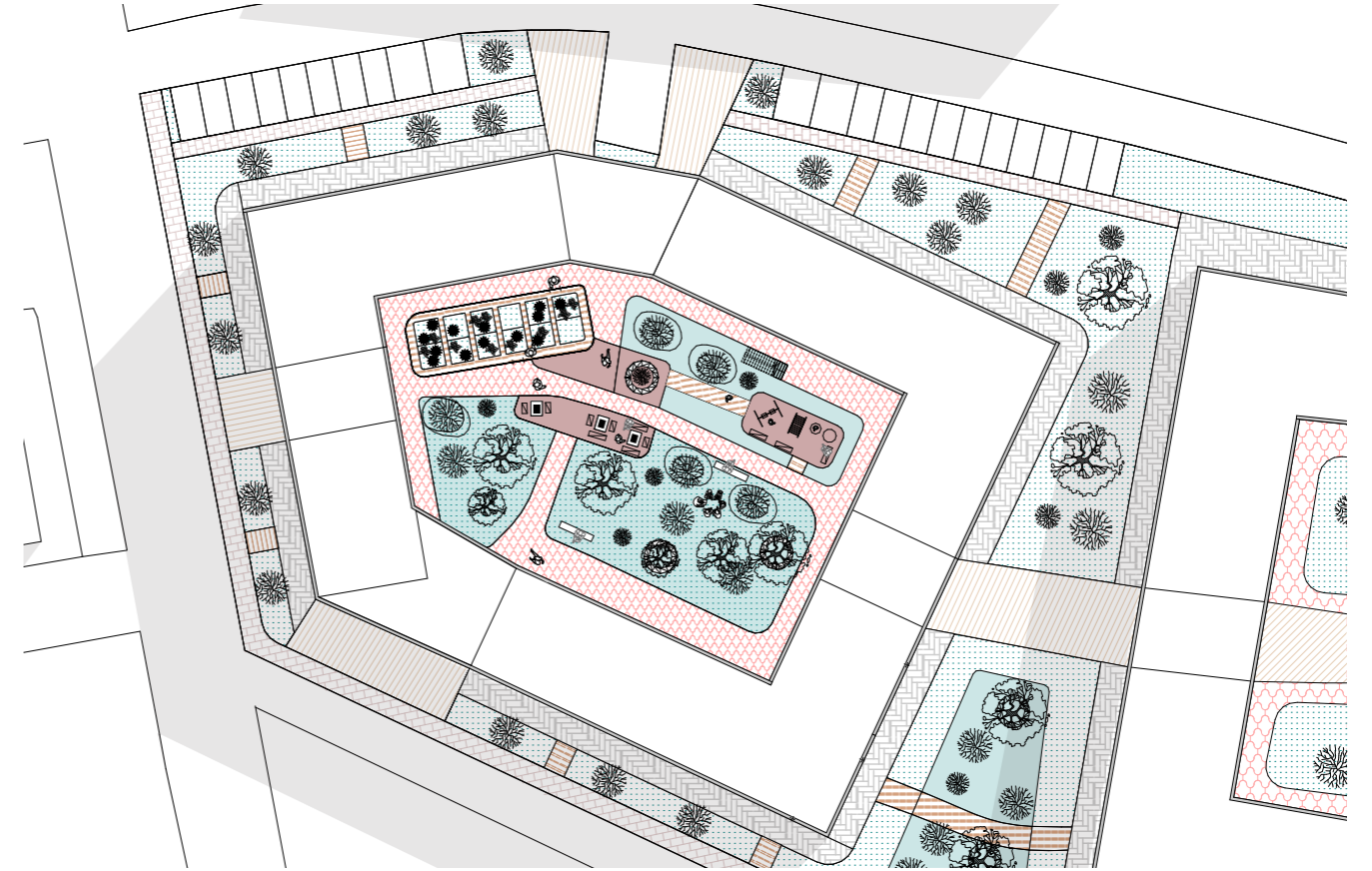


Masterplan division of space creates multiple courtyards, different public spaces and green plots using variety of paving materials and greenery.

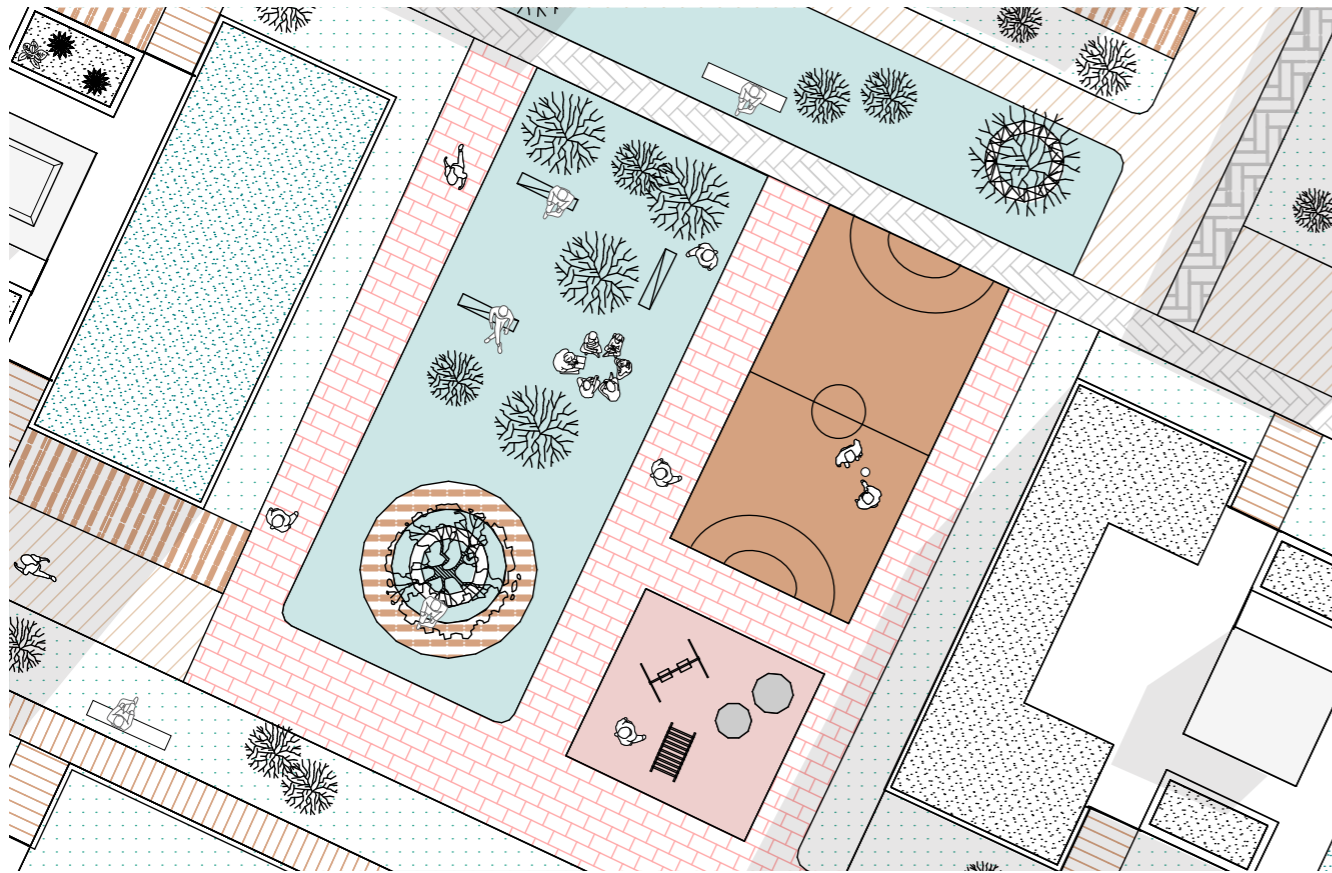
Masterplan



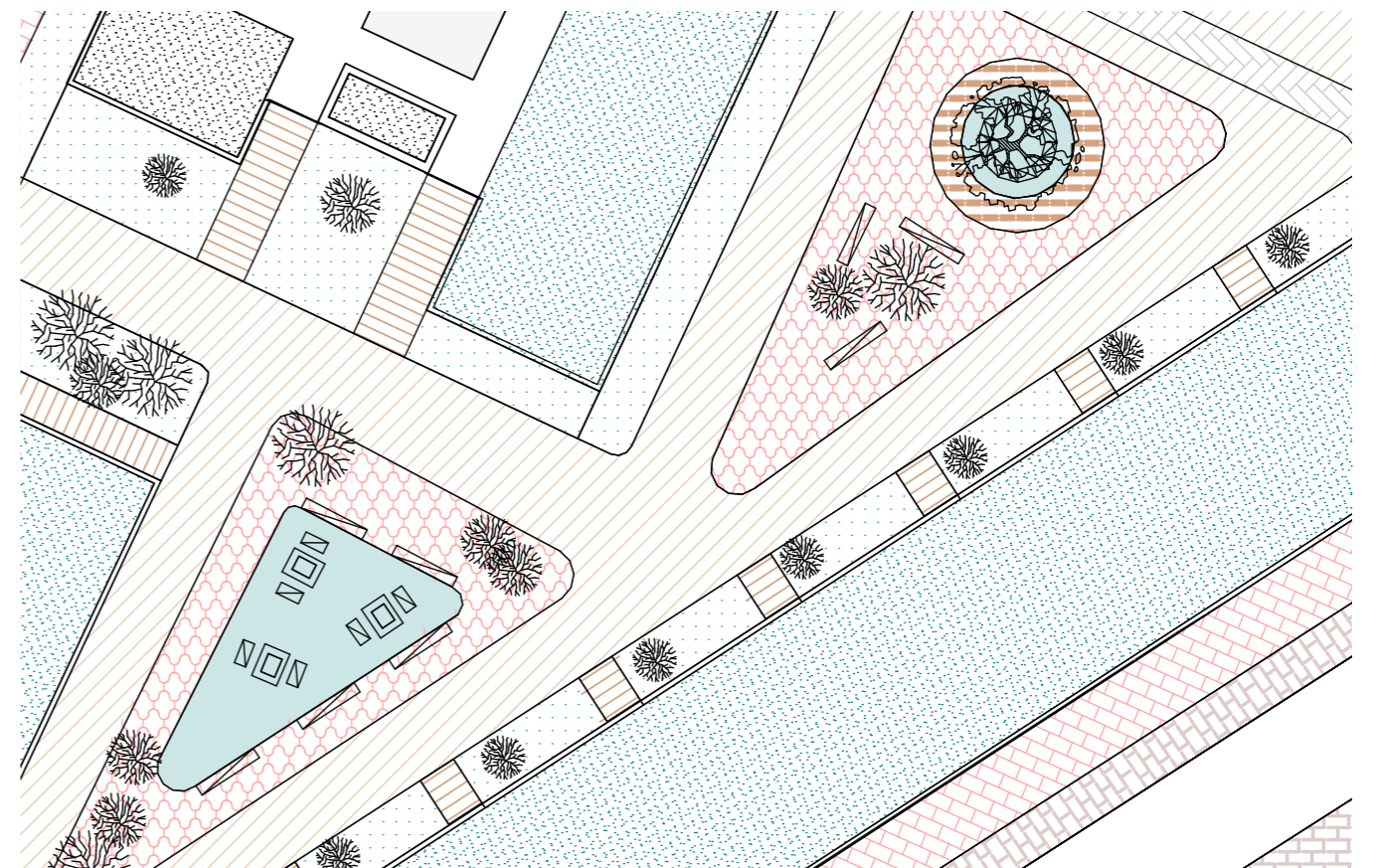
Mini gardens on the rooftop of Tube house



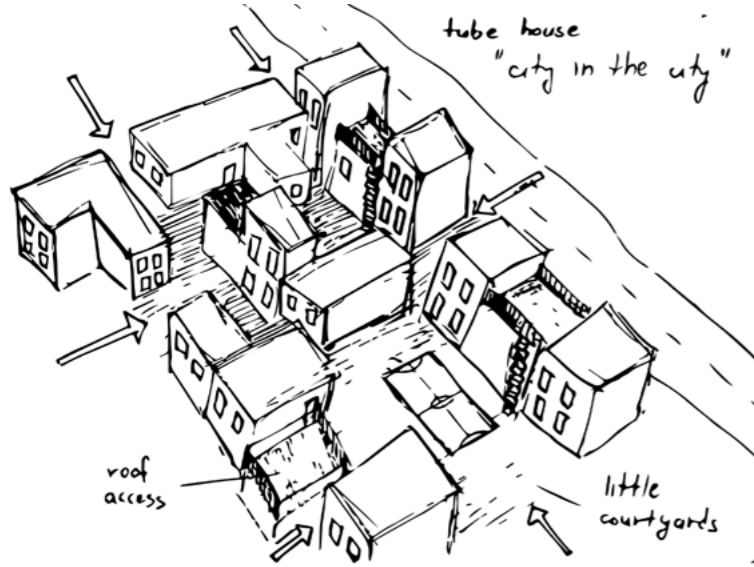
Inner courtyard of Gallery building with garden or playground



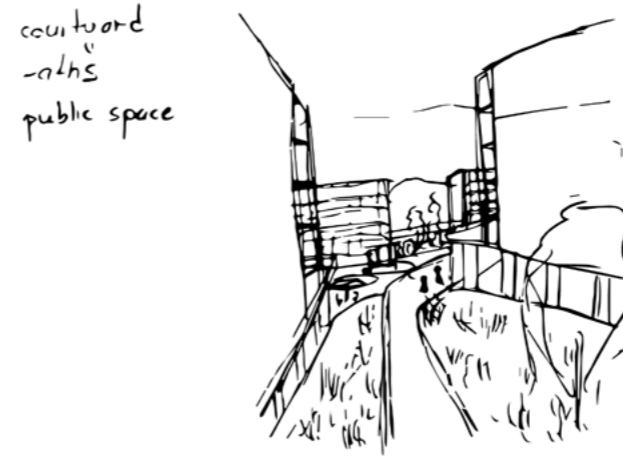
Public space



Variation of paving materials



Cluster of Tube houses creating
"Town in the city"



Gallery building courtyards with
greenery and playgrounds..

character of the small streets
between tube houses



Formation of different paths
and small courtyards between
the Tube houses



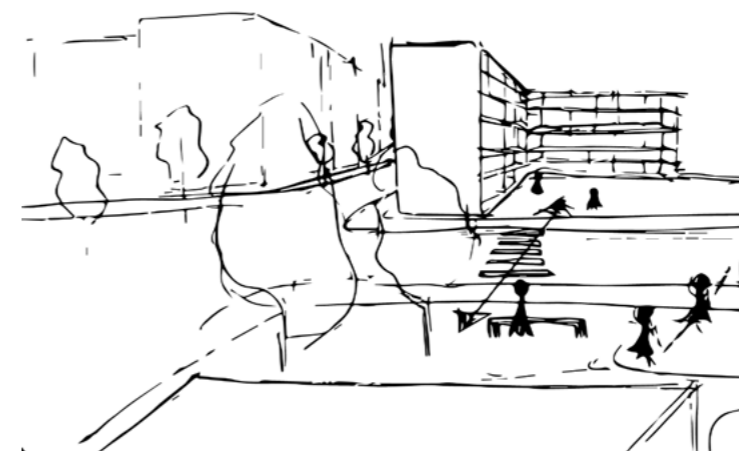
First floor for commerce

Shophouse passage
(in a row)

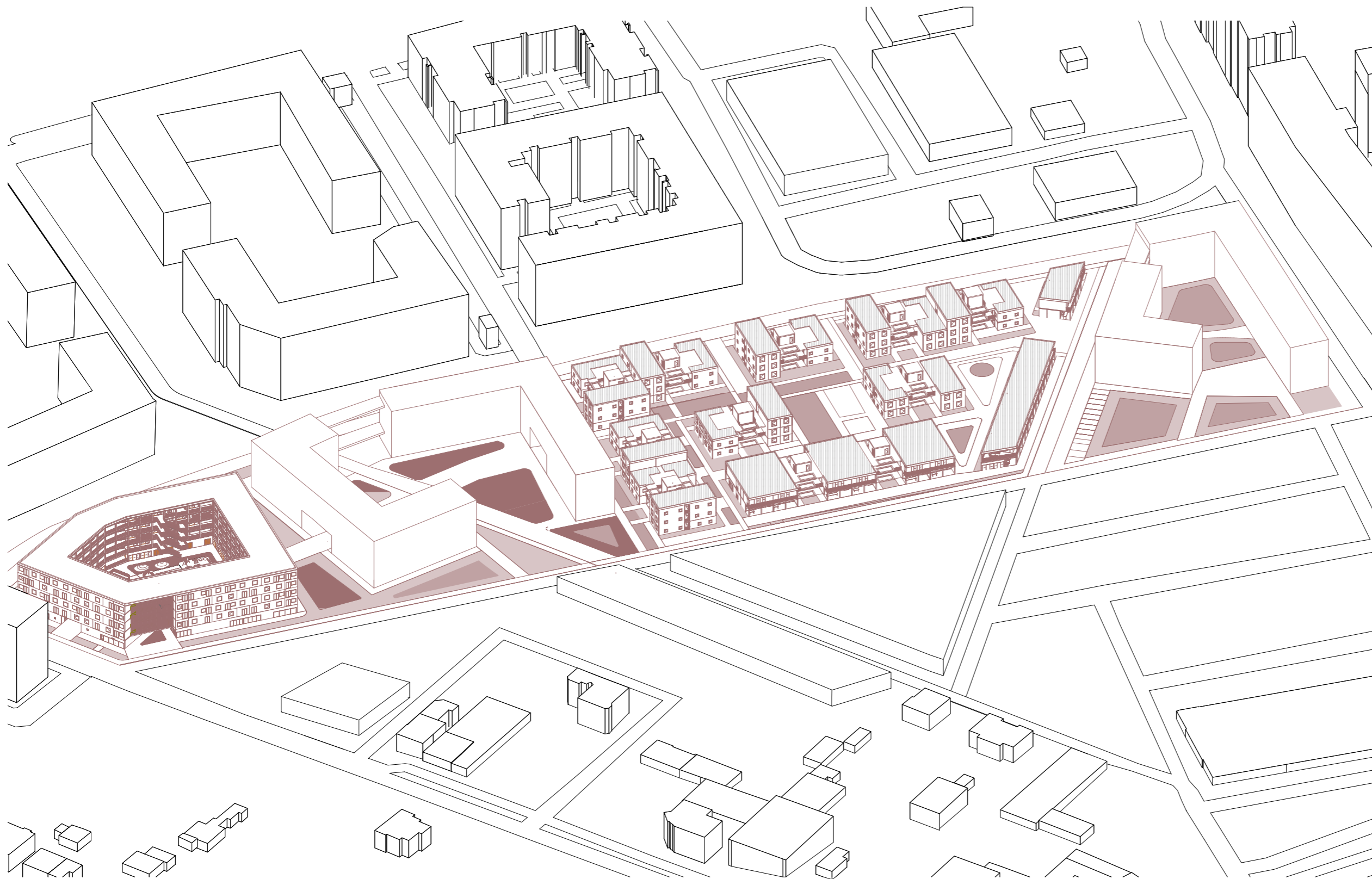


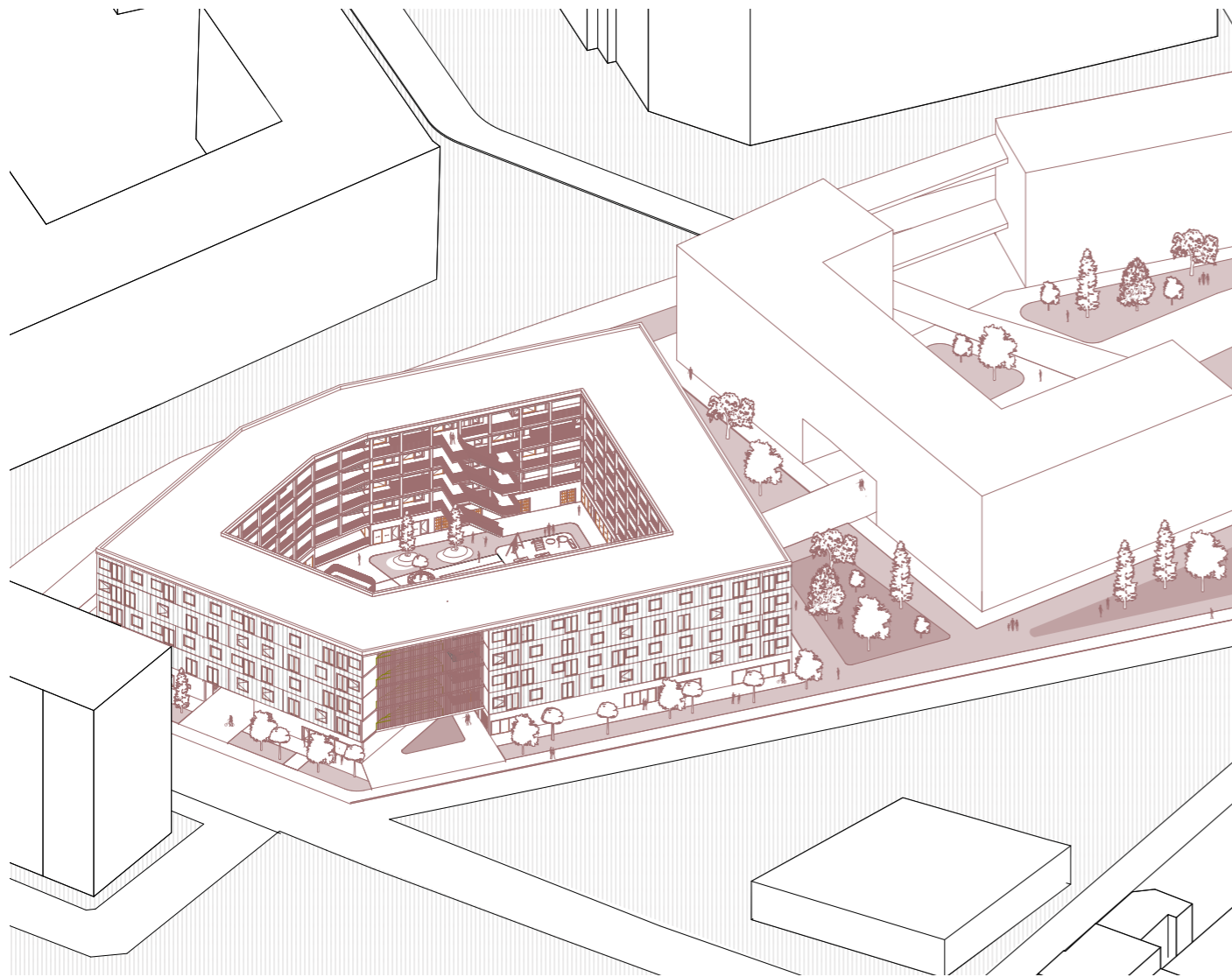
Group of shophouses with com-
merce function on the first floor
creating flow between public
and private

II.
corner buildin

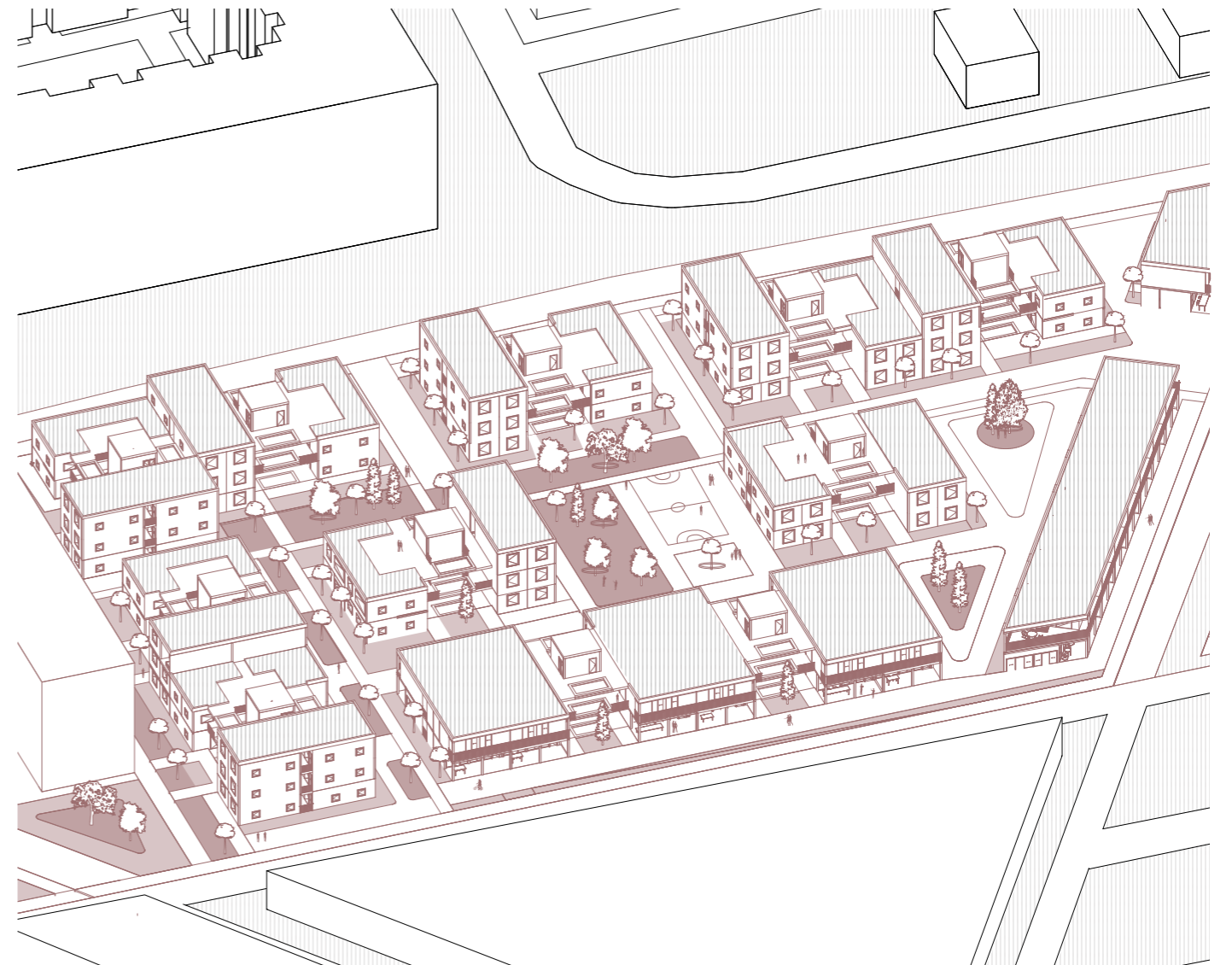


Corner building and connection
between courtyard and kinder-
garden

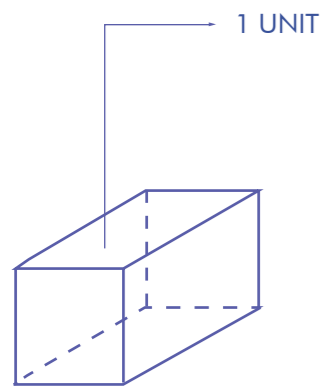




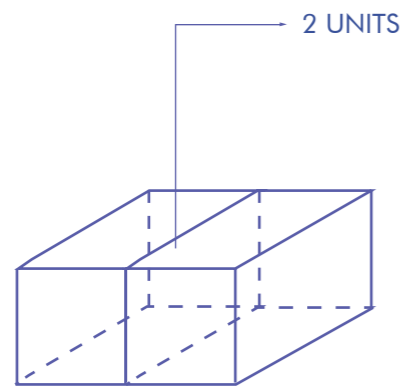
Connection of Gallery building with the surroundings using passages



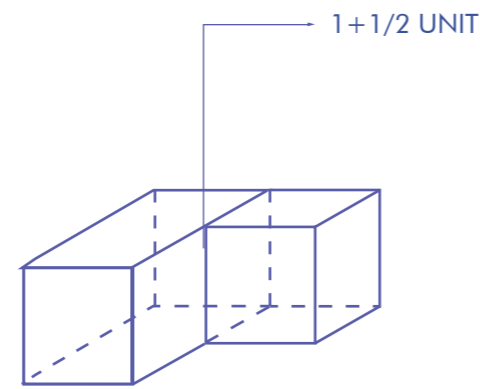
"Town in the city"



FLAT A



FLAT B



FLAT C

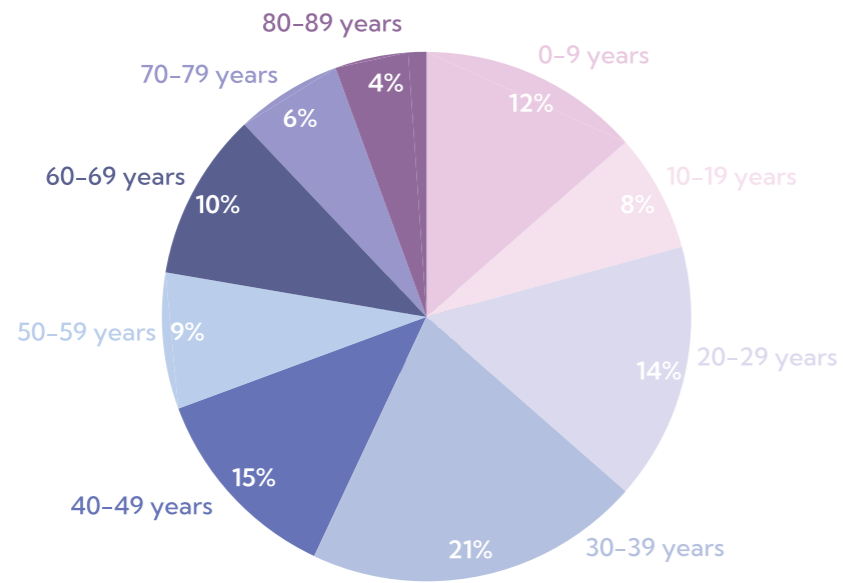
05

8 UNIT flat typologies

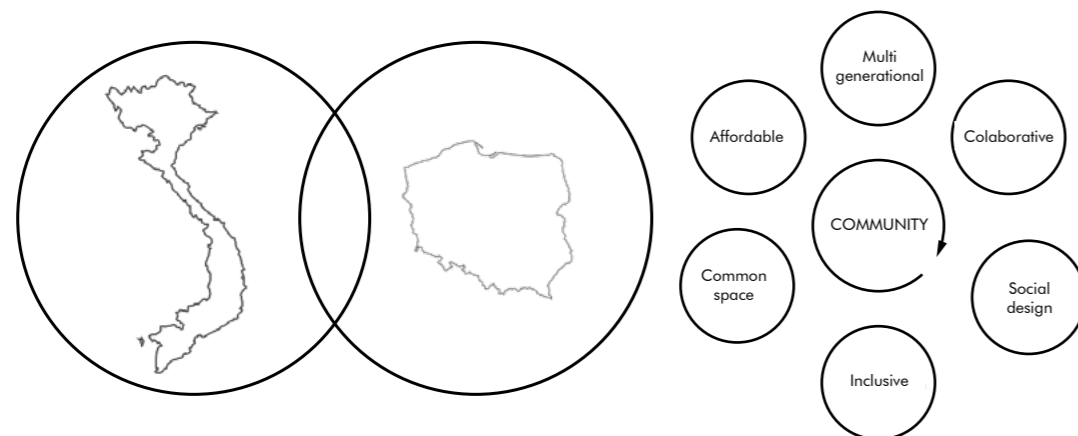
The proposal of eight different flat units from my pre-diploma work demonstrates the variety of living space that can be provided for individuals, families, or three-generation families. The form is based on the idea of the modular principle, whereby the living space itself increases gradually as more mass is added. The design is based on the typical principles of tube houses in Vietnam, whose floor plan is narrow and long. The diverse shapes and sizes of the residential units contribute to the playful character of the facade, while simultaneously providing additional storage space for the household or serving as a vertical communication hub. The individual flats are connected by an external pavilion, which serves as a semi-private space where neighbours can meet.

SOCIAL AGENDA

Who is the resident of the district?



How will they live together?
Building up a sense of a community



Who is the target?

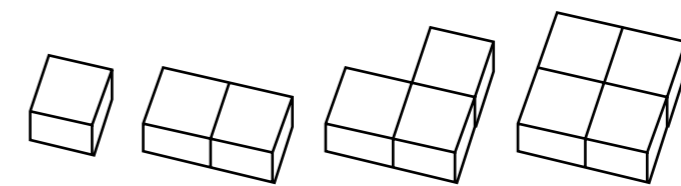
For both communities is really important to establish a family, that's why they are often hard-workers. Diligence is one of the characteristics which Polish people appreciate the most about Vietnamese. They also have in common outdoor sales culture. In Poland, Vietnamese community is one of the largest from Europe, they are already an inseparable part of Poland.



Elderly people Young people Family



3-generation principle

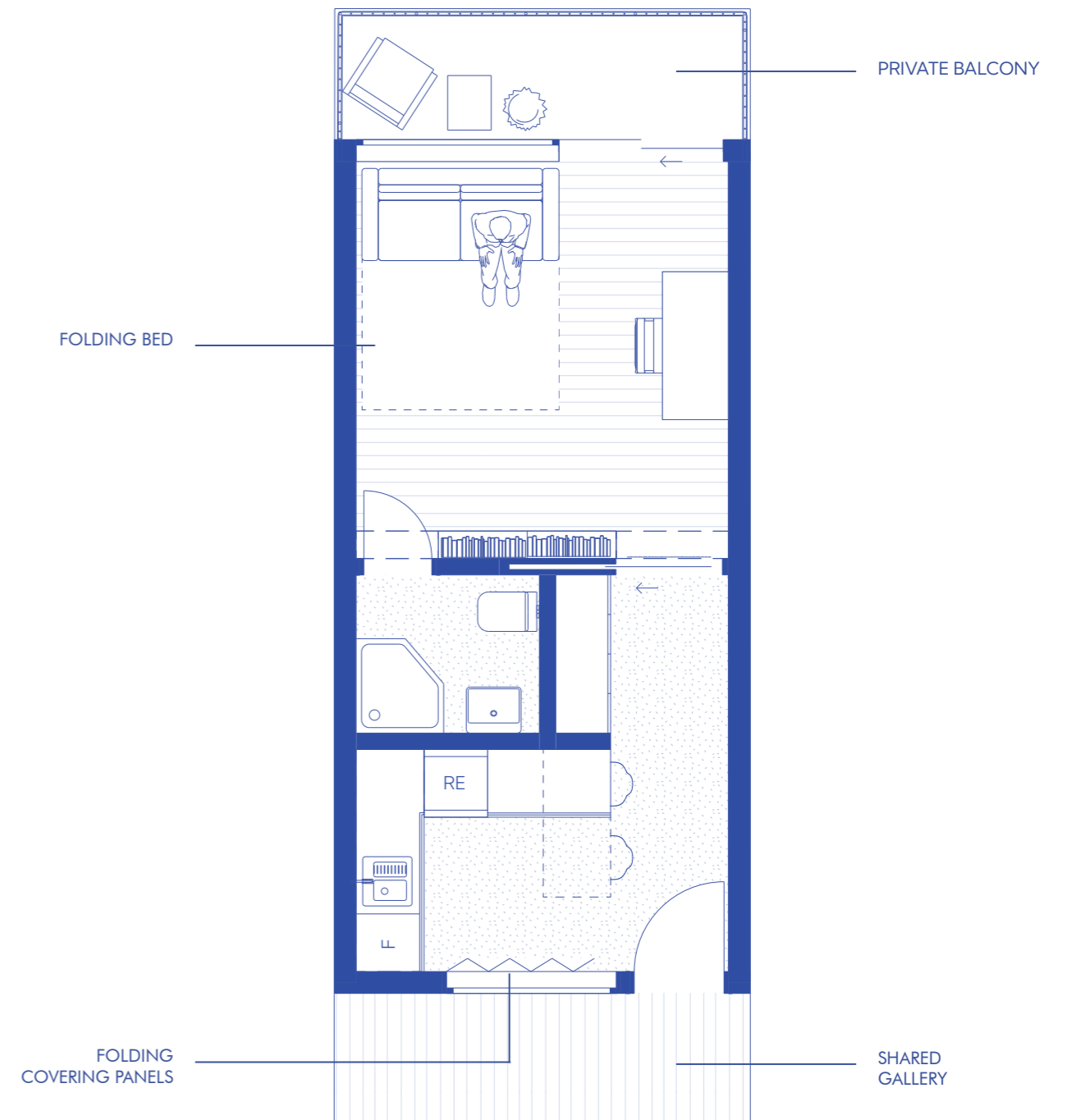


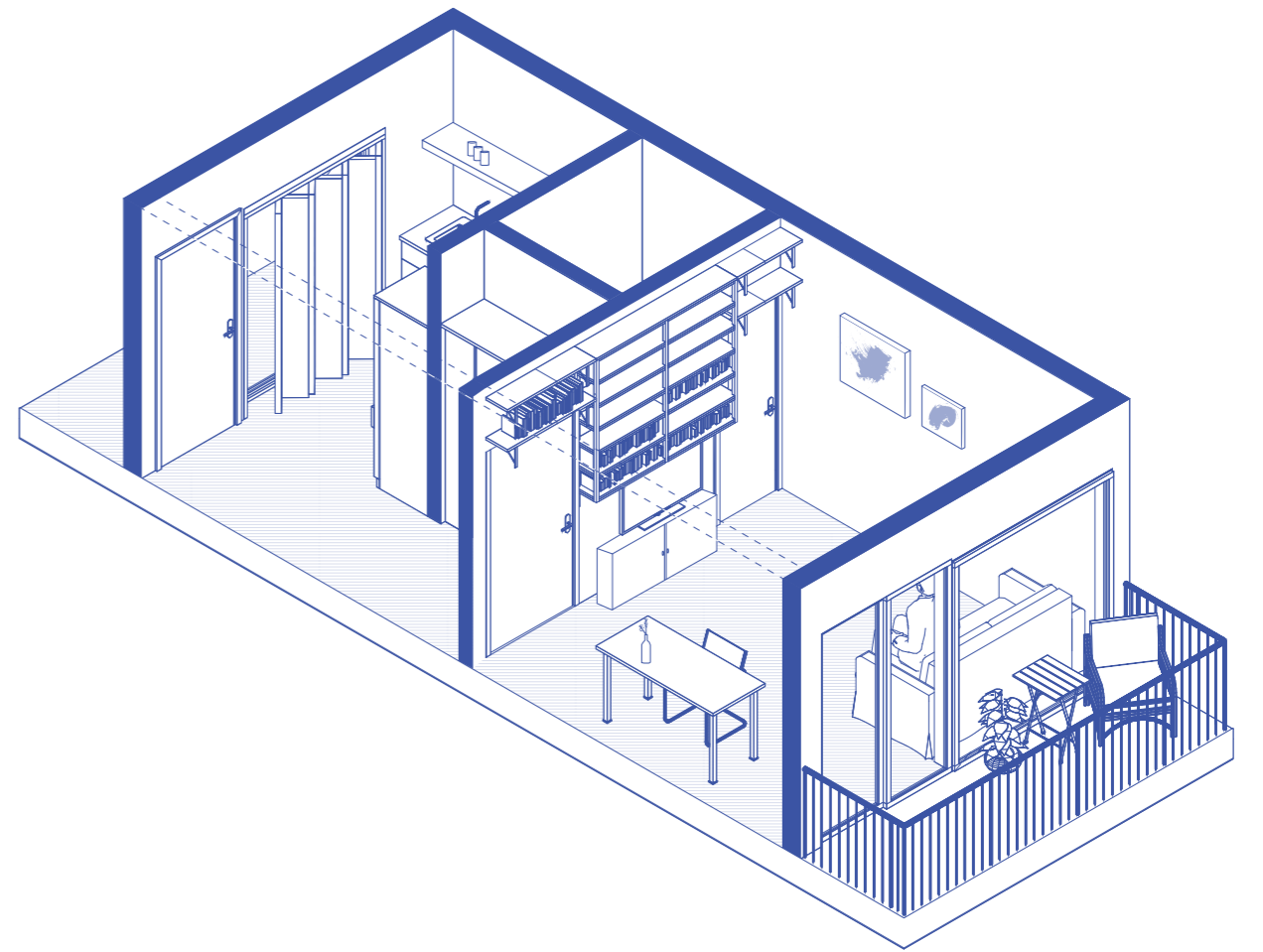
Variability of living units

MICRO LIVING

single person / couple
25 m²

Micro living is the smallest but flexible unit for one person or a couple. The entrance to the flat unit is accessible by using shared gallery corridor. The gallery is directly connected with social space - kitchen, what creates a possibility of opening to a shared corridor using folding panel on the window. The folding bed enables flexible use of space during the day. Every unit has also its own balcony.





MICRO FAMILY UNIT

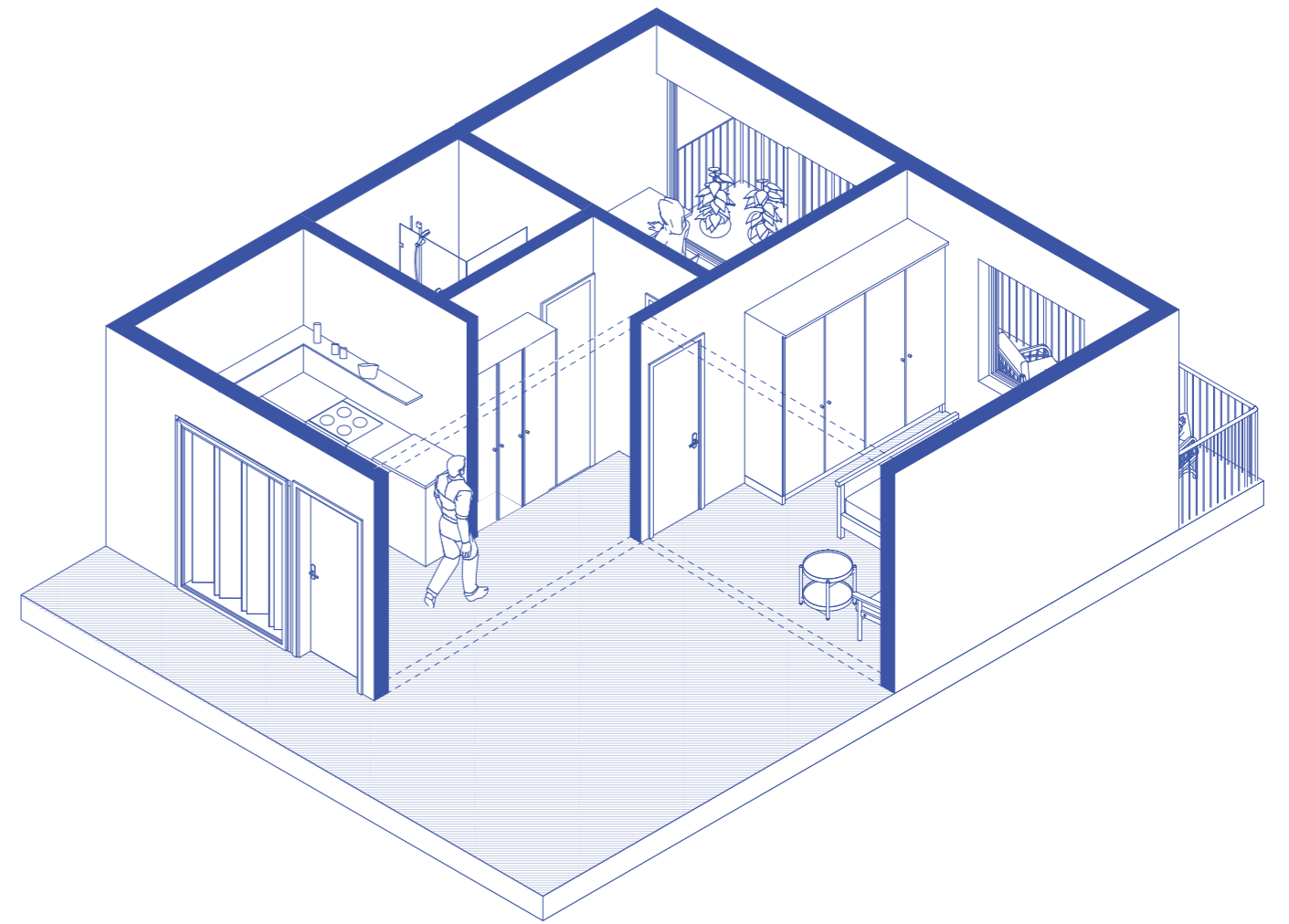
young family

37,2 m²

This unit is ideal for a young family with one child. The shape creates bigger space for outdoor meetings with neighbors in the corridor-gallery, from which the community can benefit.



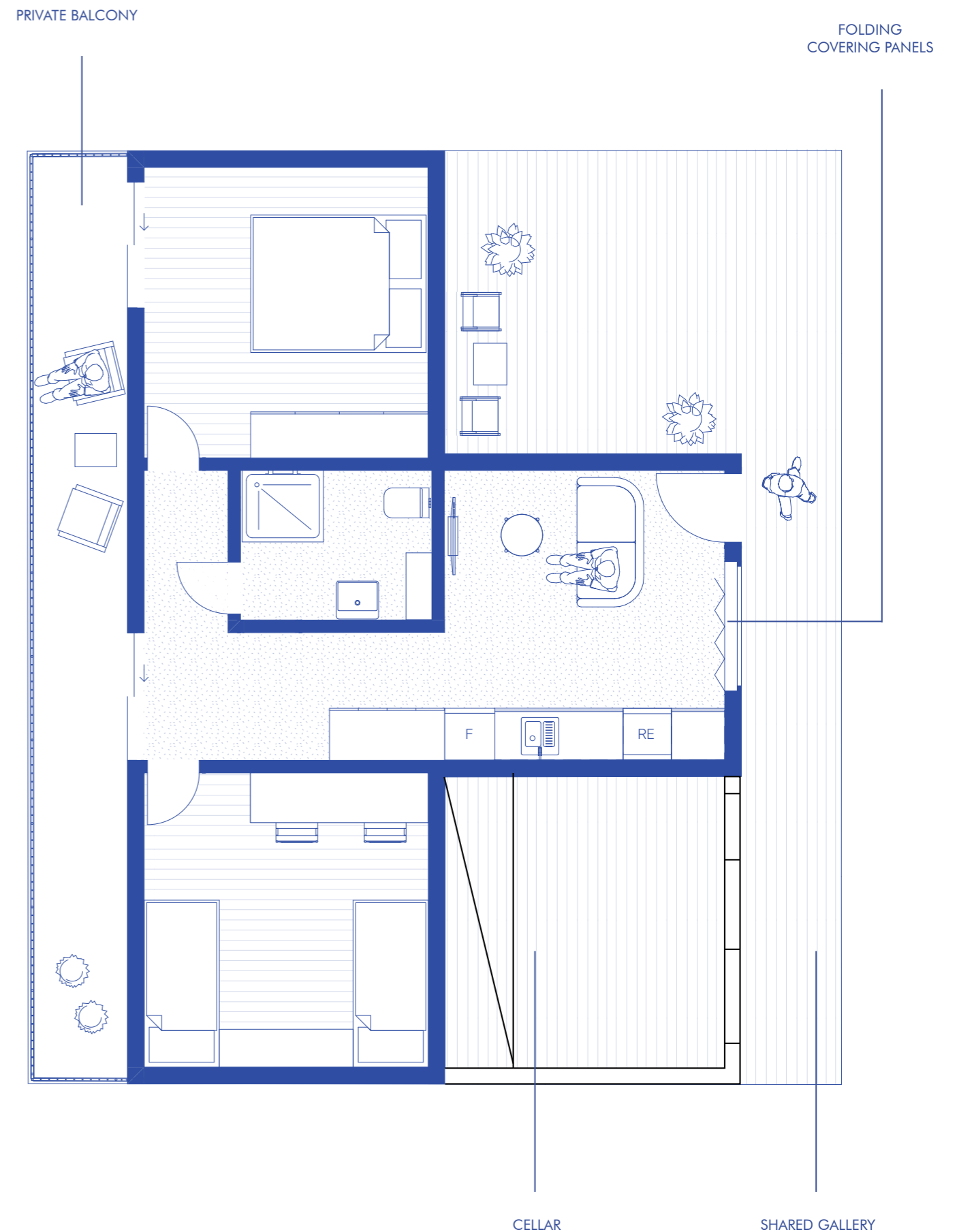
2m 1m 0,5m

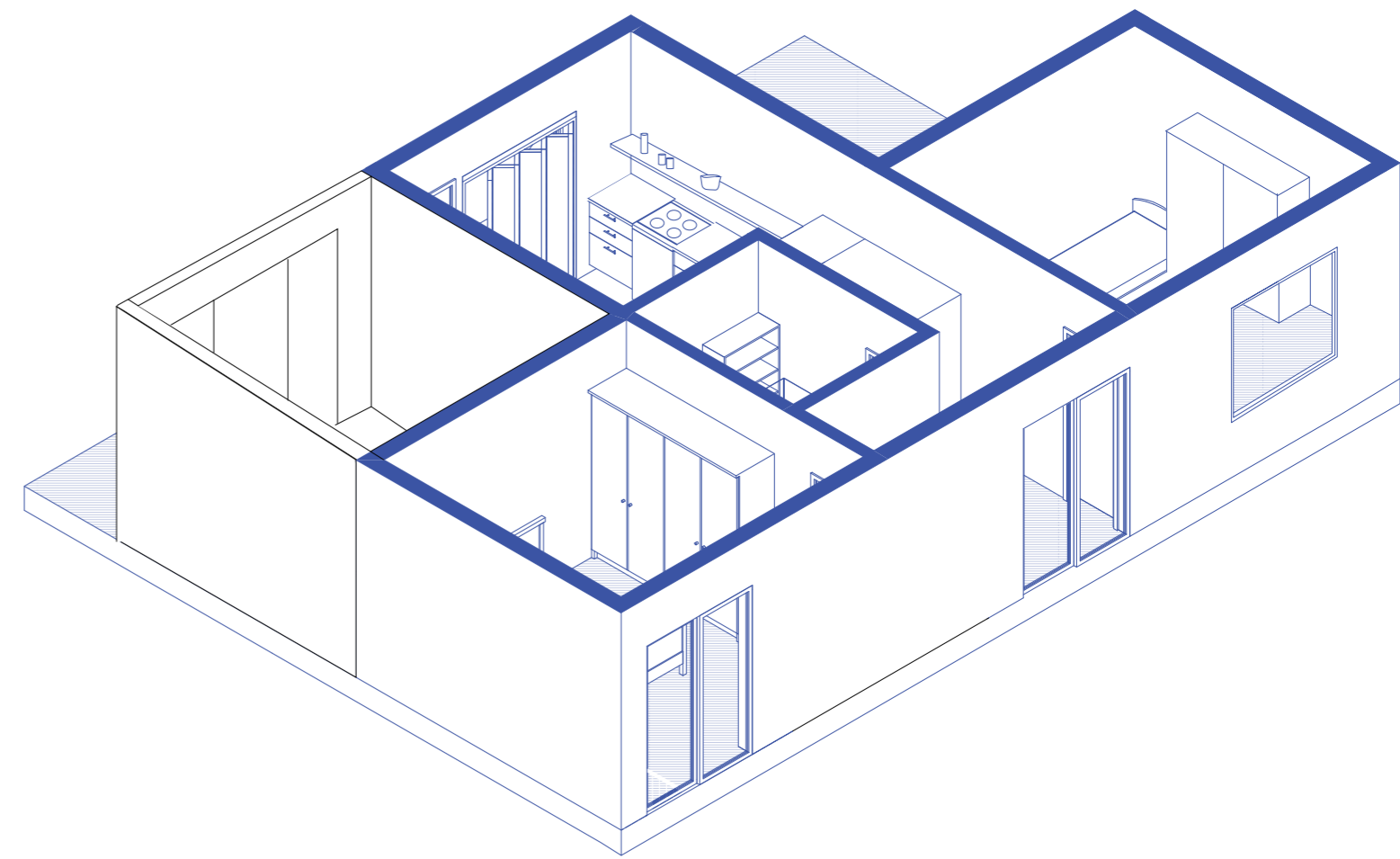


STANDARD UNIT I

family with 2 children
50 m²

The middle space represents social rooms as kitchen, dining room and living room which are connected with gallery-corridor.



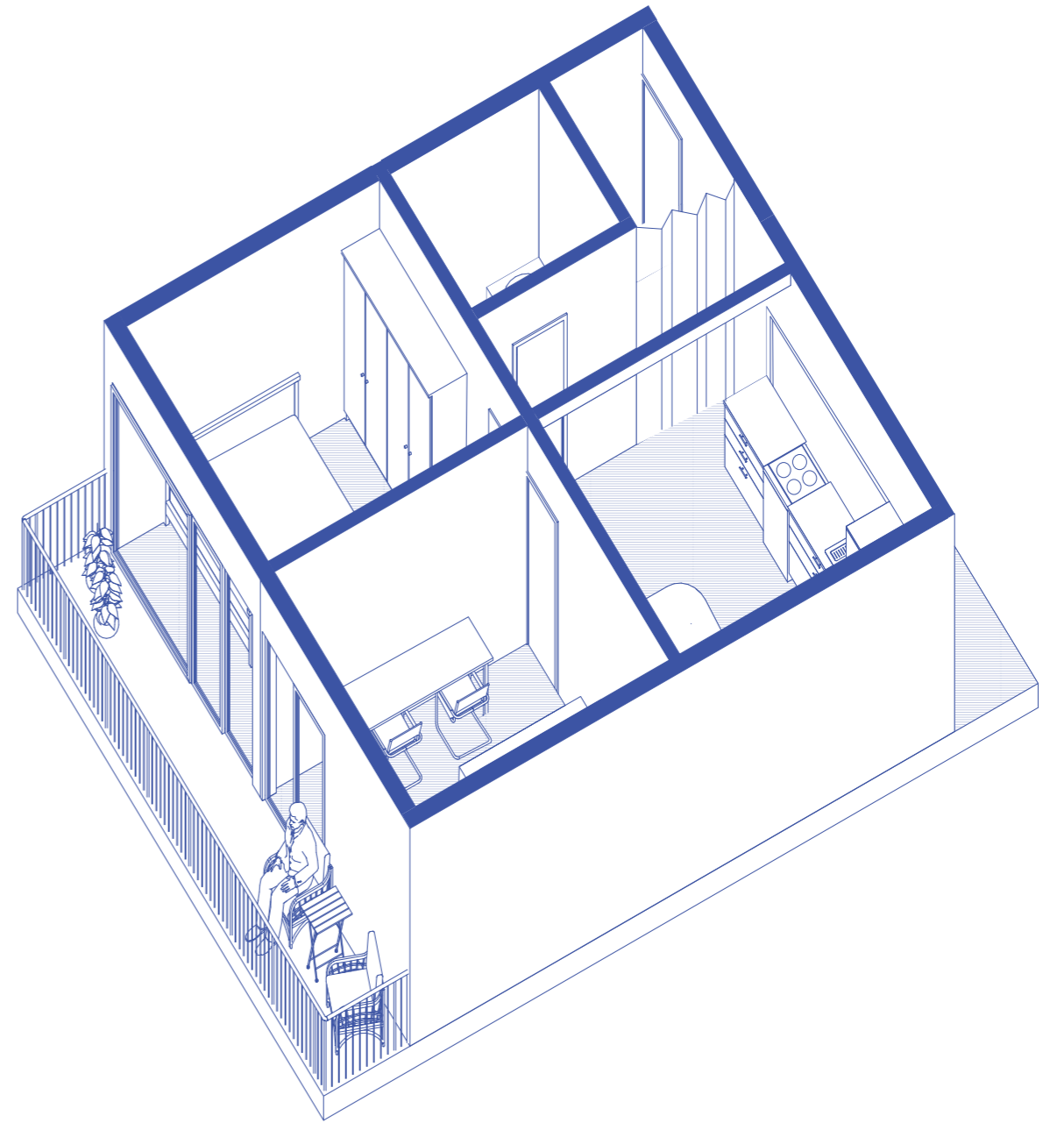


STANDARD UNIT II

family with 2 children
50 m²

Half of the space represents social rooms as kitchen, dining room and living room which are connected with gallery-corridor.

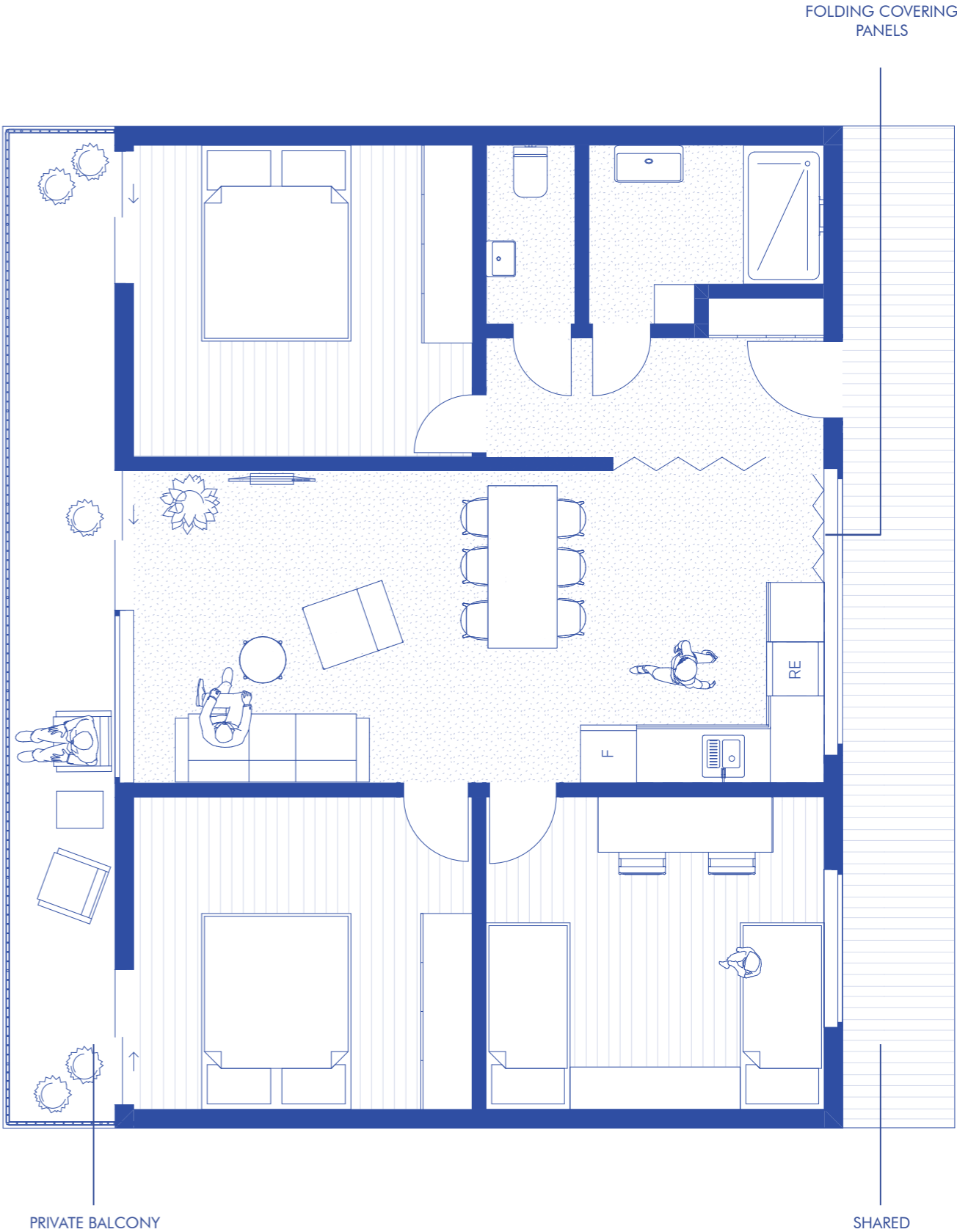


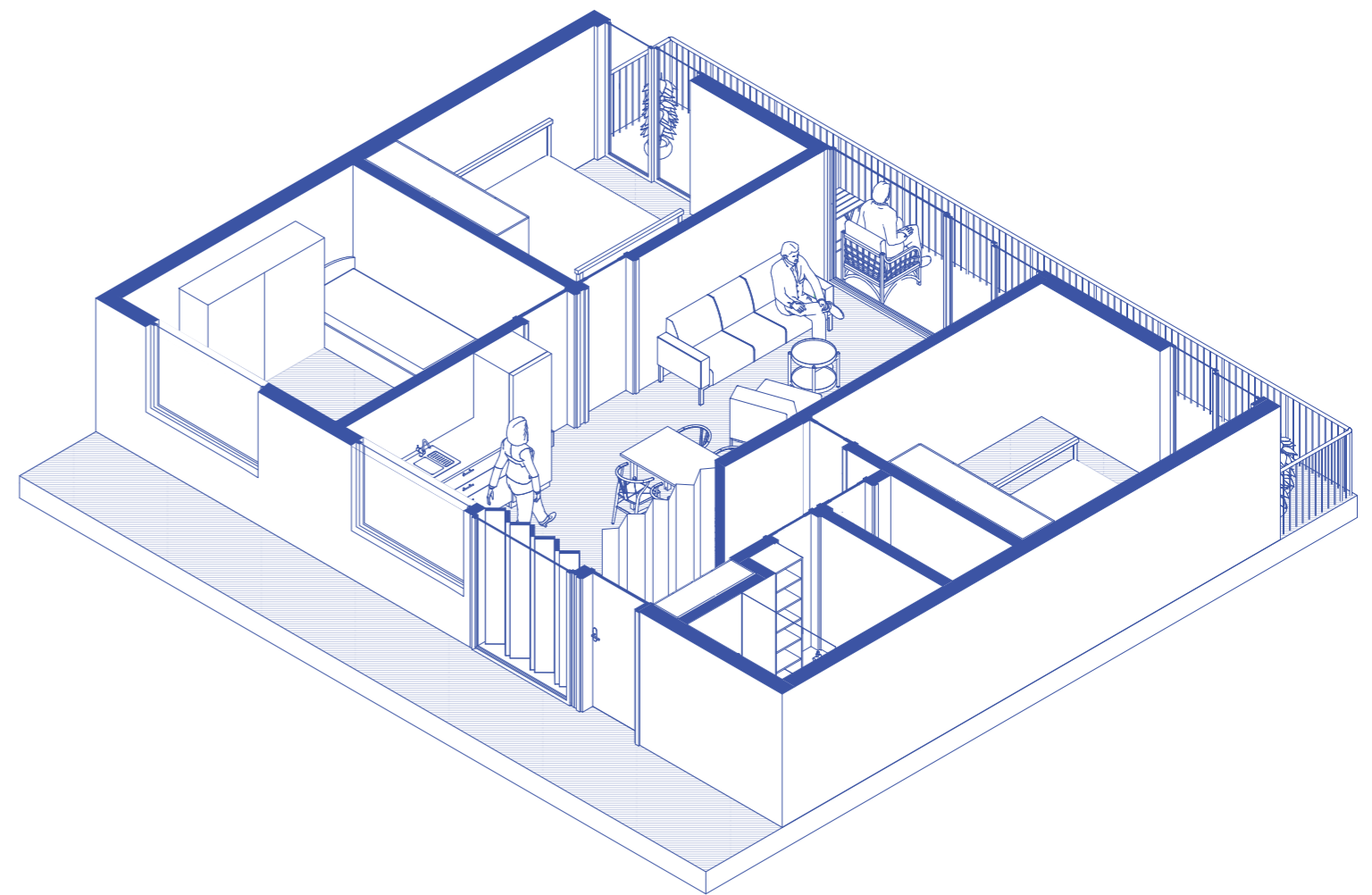


EXTENDED FAMILY UNIT I

three-generation family
75 m²

Three-generation family unit creates the space for each age group. This unit forms both private and shared rooms within the family members.



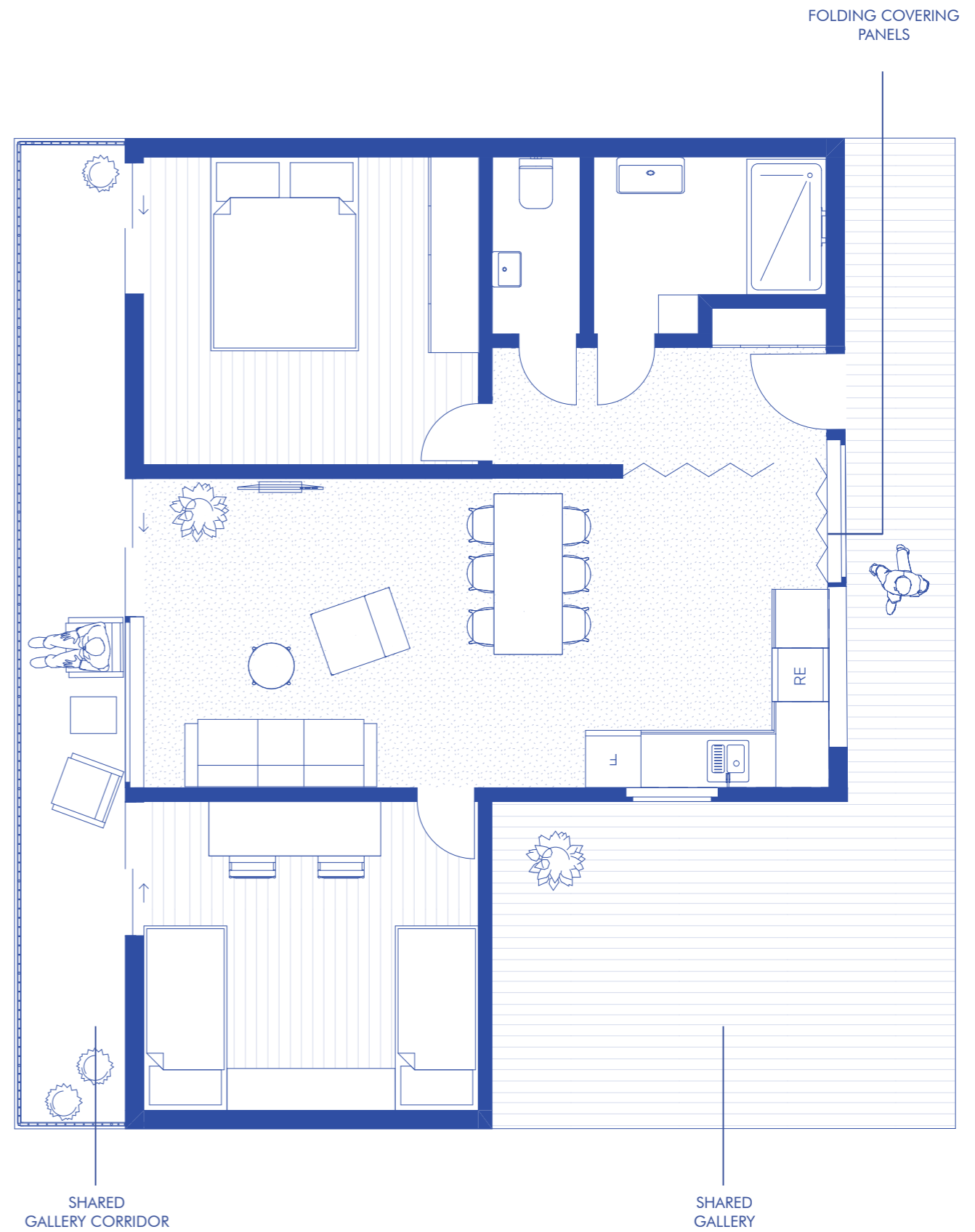


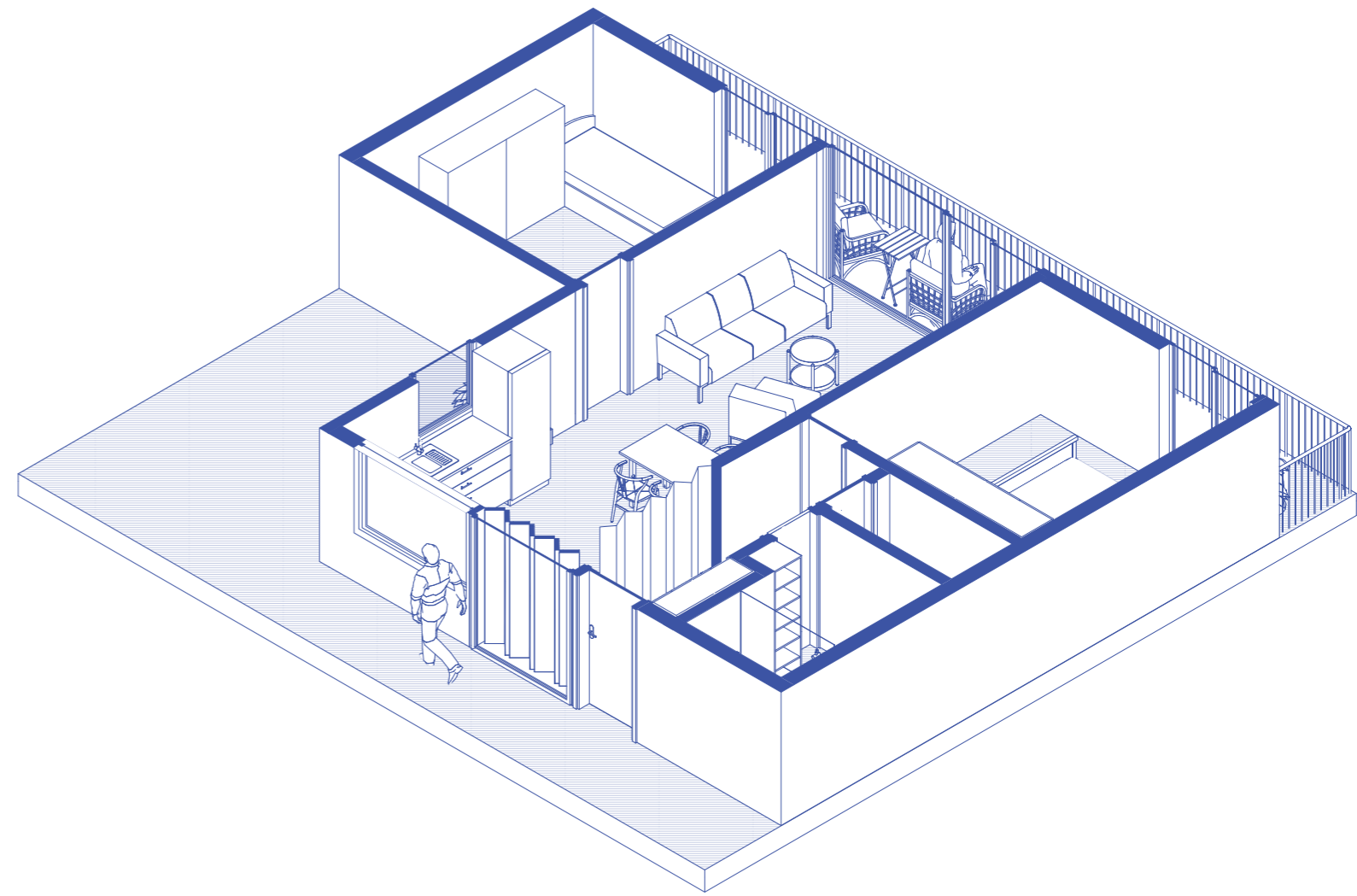
EXTENDED FAMILY UNIT II

bigger family

63 m²

Typology for bigger family with an emphasis on social rooms for members to meet and spend time together or invite neighbors for a coffee.





VIETNAMESE MAISONETTE

typical vietnamese three-generation family
with two floors
100 m²

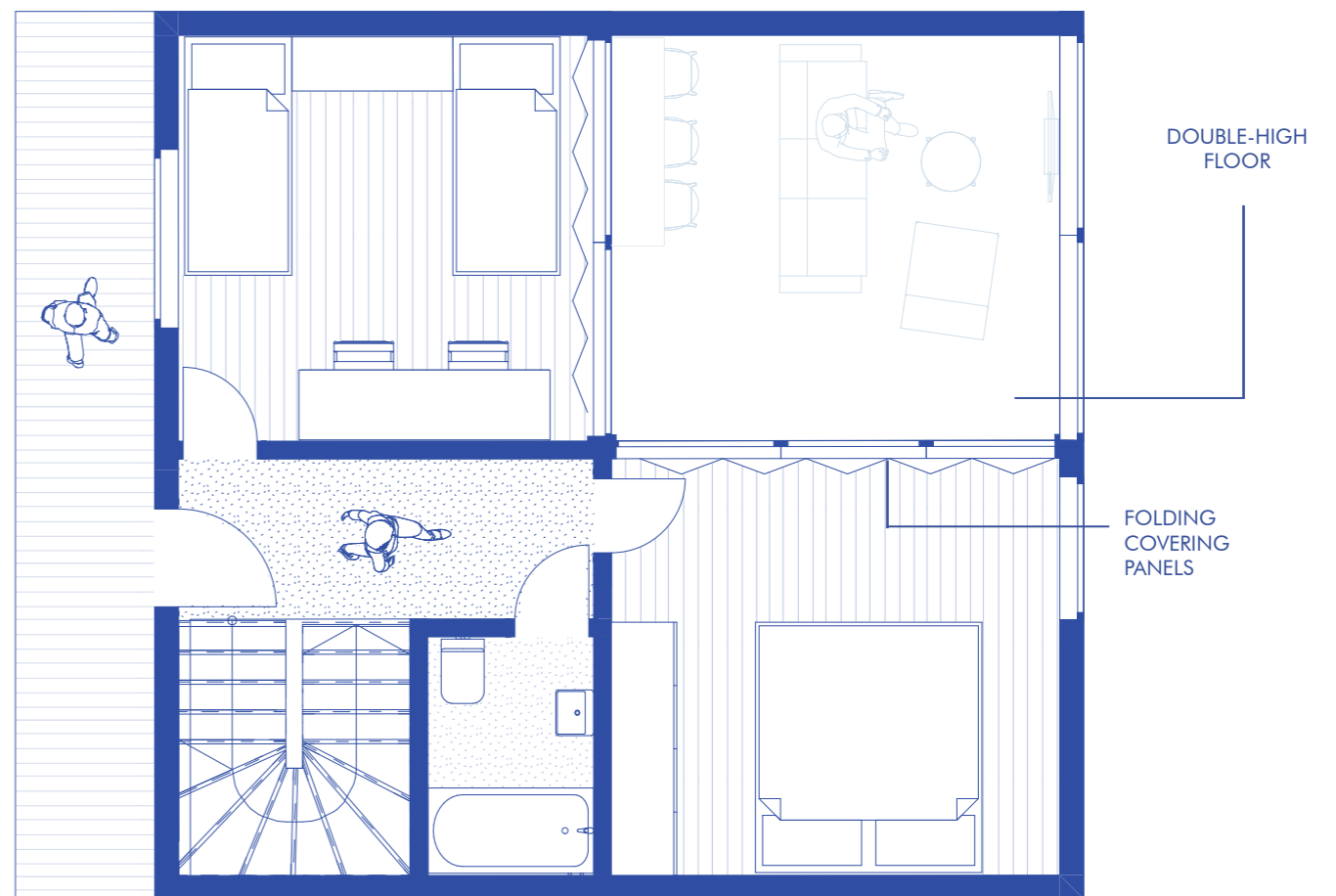
Two-story flat unit with double high floor. On the first floor there are mostly social rooms as kitchen, dining room, living room and the second floor is more quite space with 2 bedrooms. This unit is for three generations who can live together. Both floors are accessible from the gallery corridor.

SHARED GALLERY

DOUBLE-HIGH FLOOR



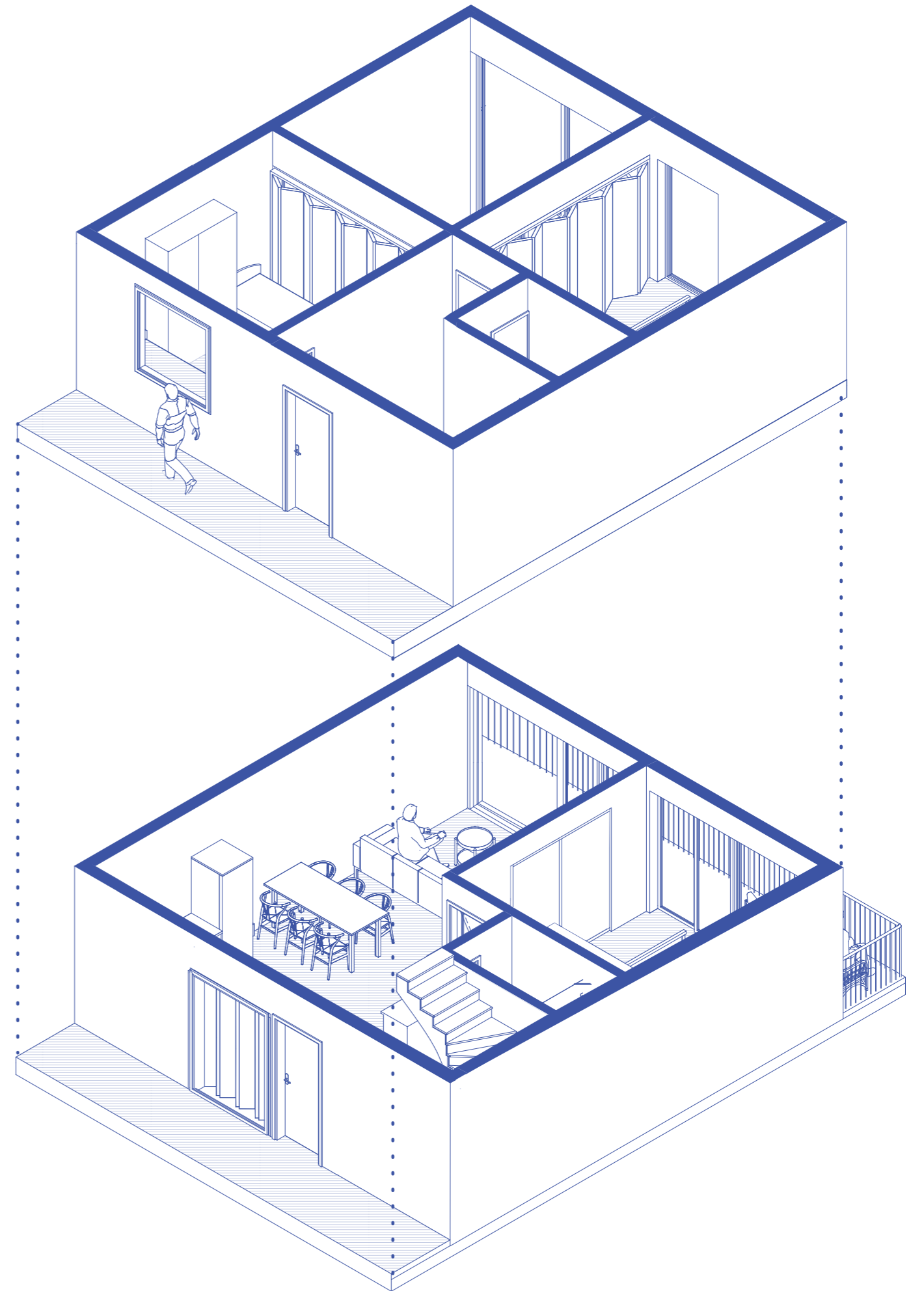
STAIRCASE



DOUBLE-HIGH FLOOR

FOLDING COVERING PANELS

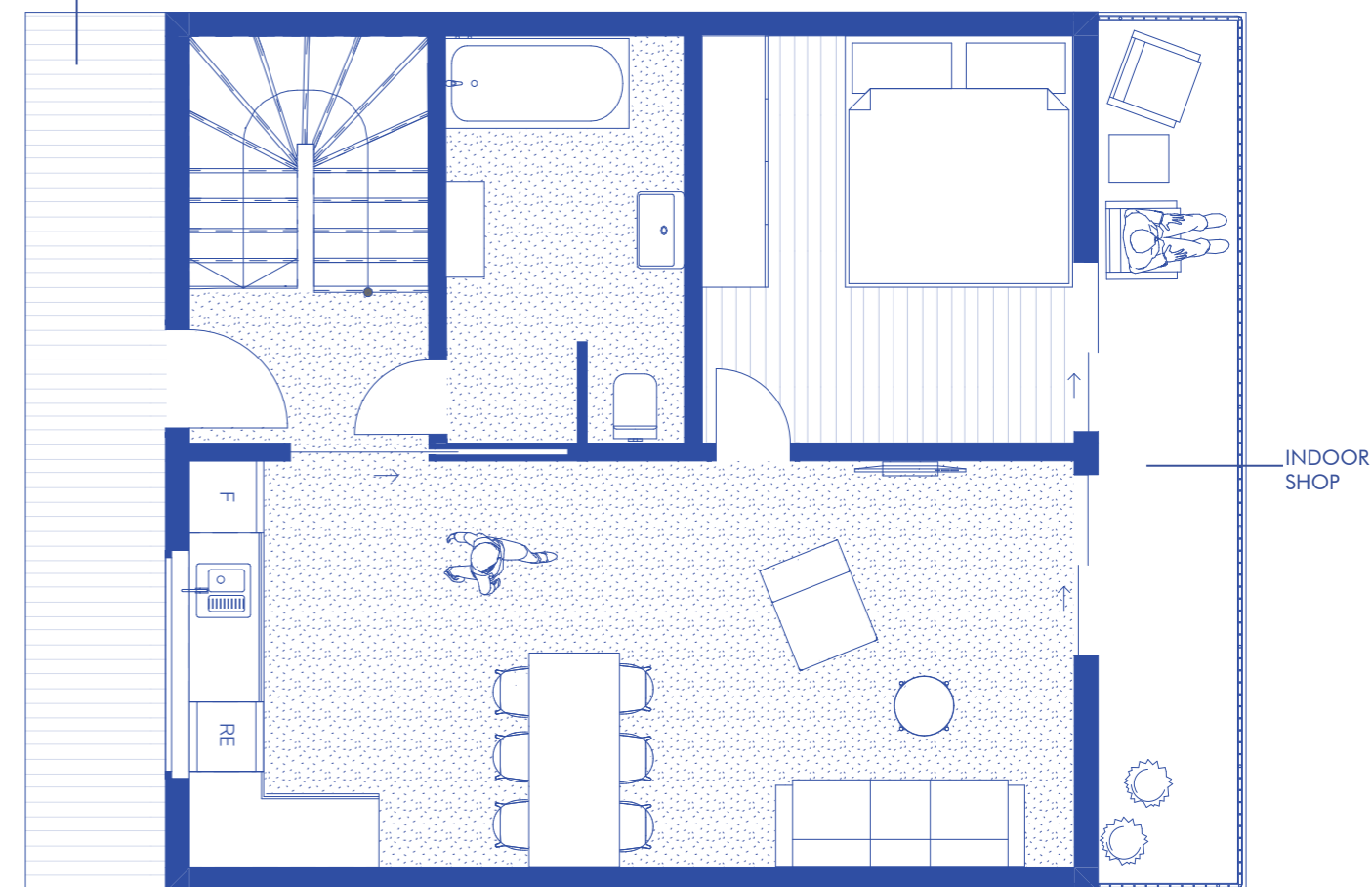
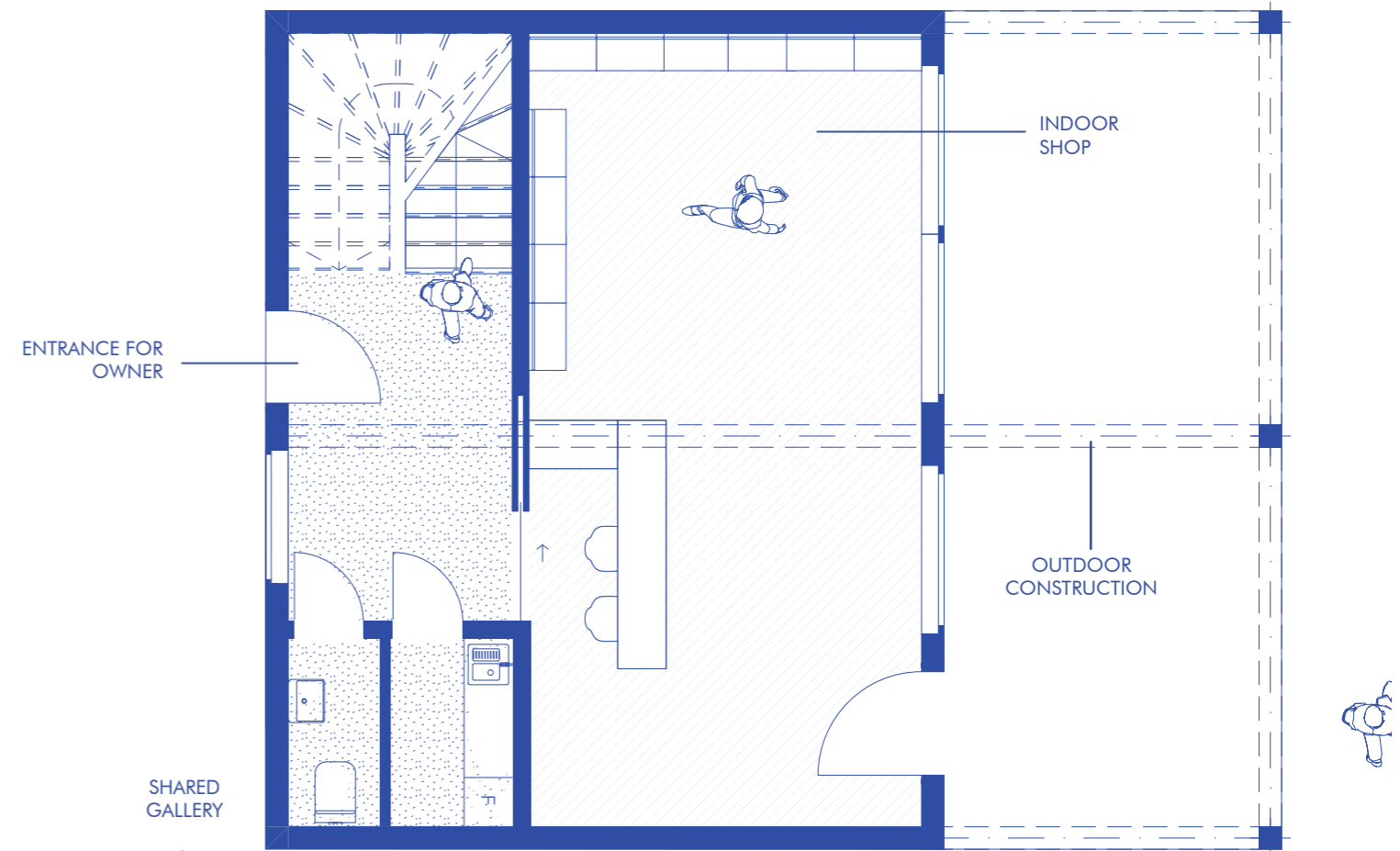


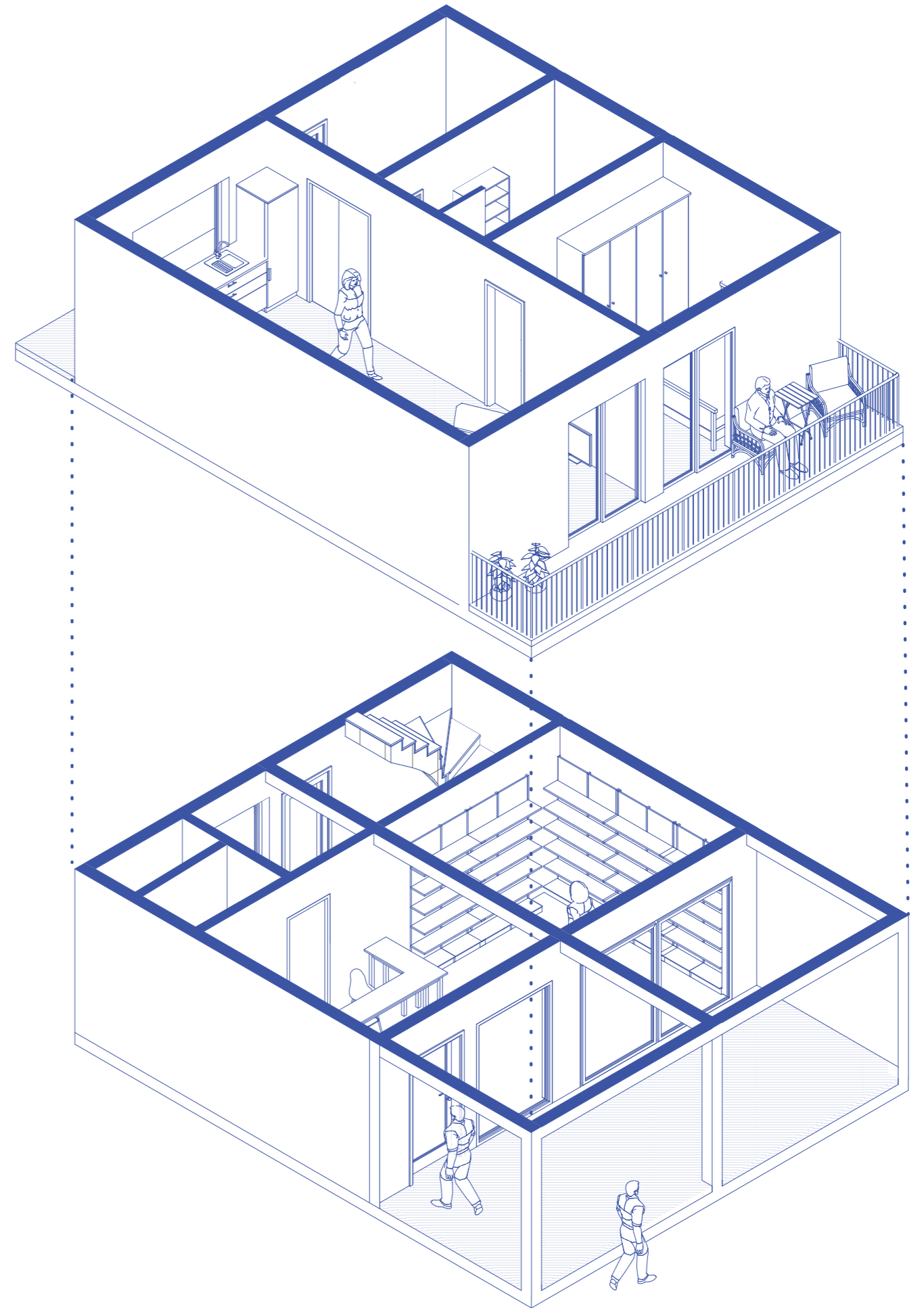


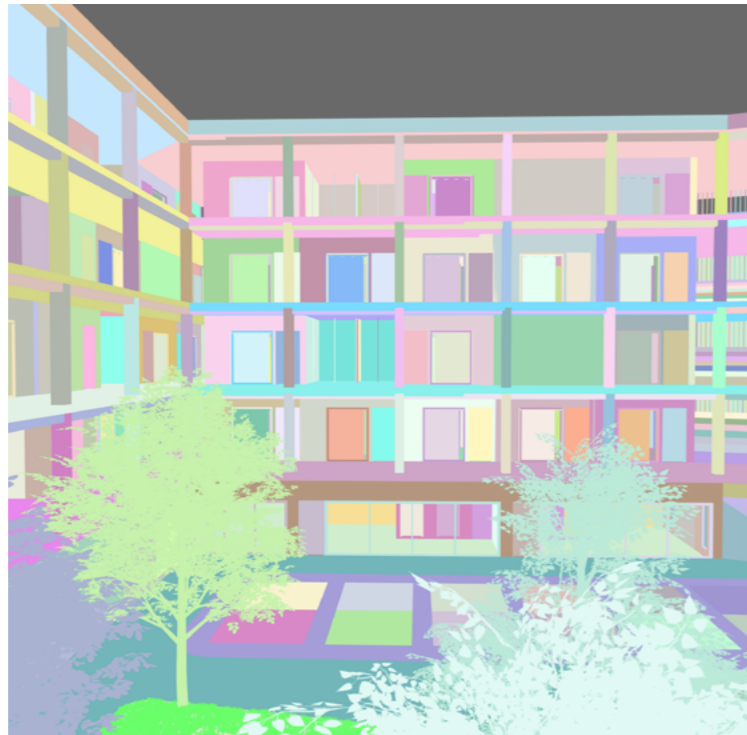
SHOPHOUSE

young family with shop on the first floor
50 m² + commercial function

Special unit with commercial part on the first floor and living area on the second floor. The resident is also the owner of the shop who has the entrance from the back of the housing and also from the corridor gallery. The shop has flexible space which can be arranged according to the type of sale.





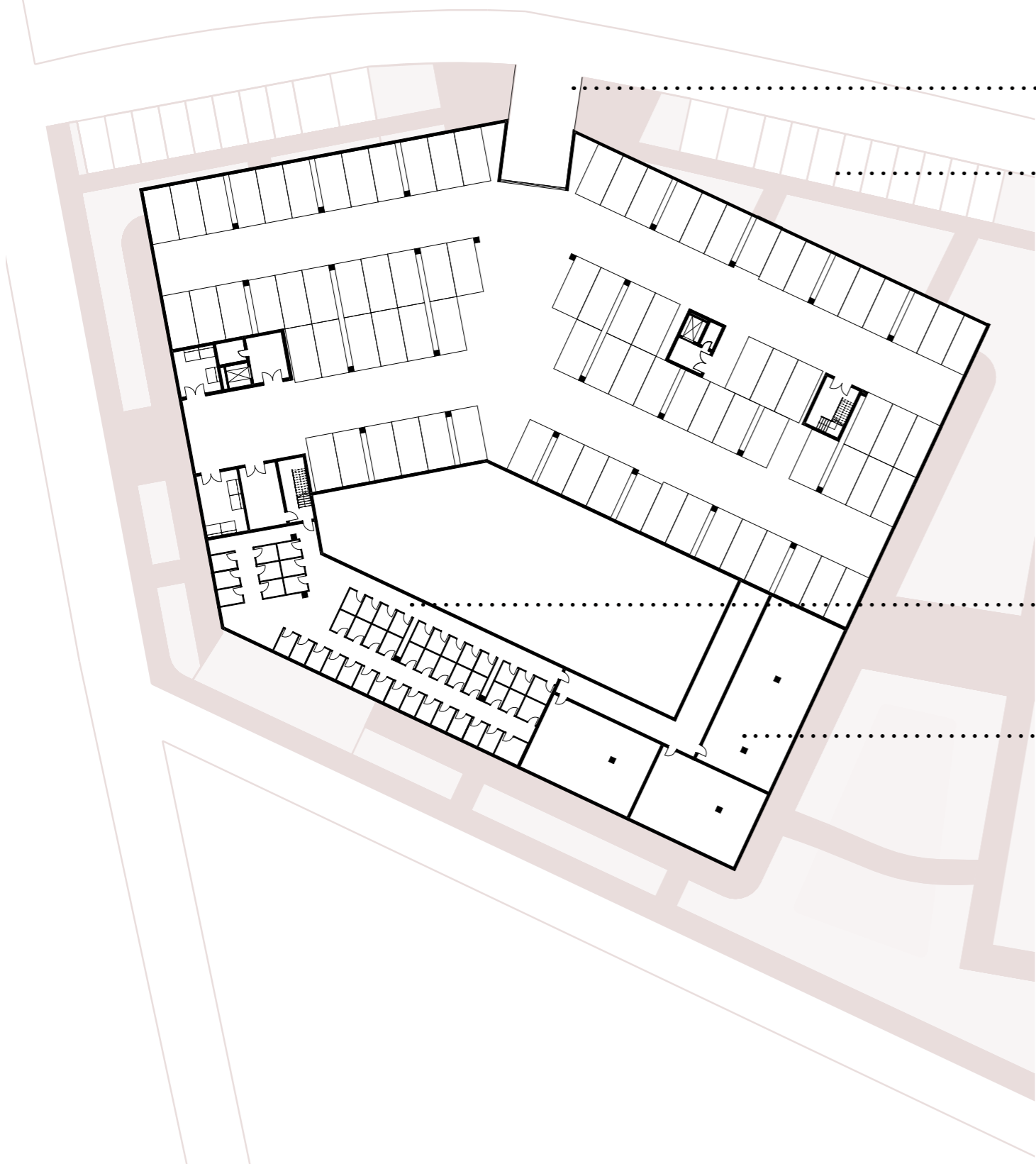


06

ARCHITECTURAL PROPOSAL

Gallery building

The character of gallery building continues the high-rise development of apartment buildings in the area and creates courtyards that are connected to the surrounding using passages. The apartment building's external communication is the basic dominant element, which has added value in the form of a space for residents to meet and build community spirit. The ground floor is mainly made up of commercial spaces with a focus on selling products or offering services. This function connects the public street life with the building itself. The housing units are based on a modular principle, inspired by Vietnamese typologies. The eight apartment units represent eight different layouts, which are designed for an individual, a family or a three-generation family.



driveway ramp

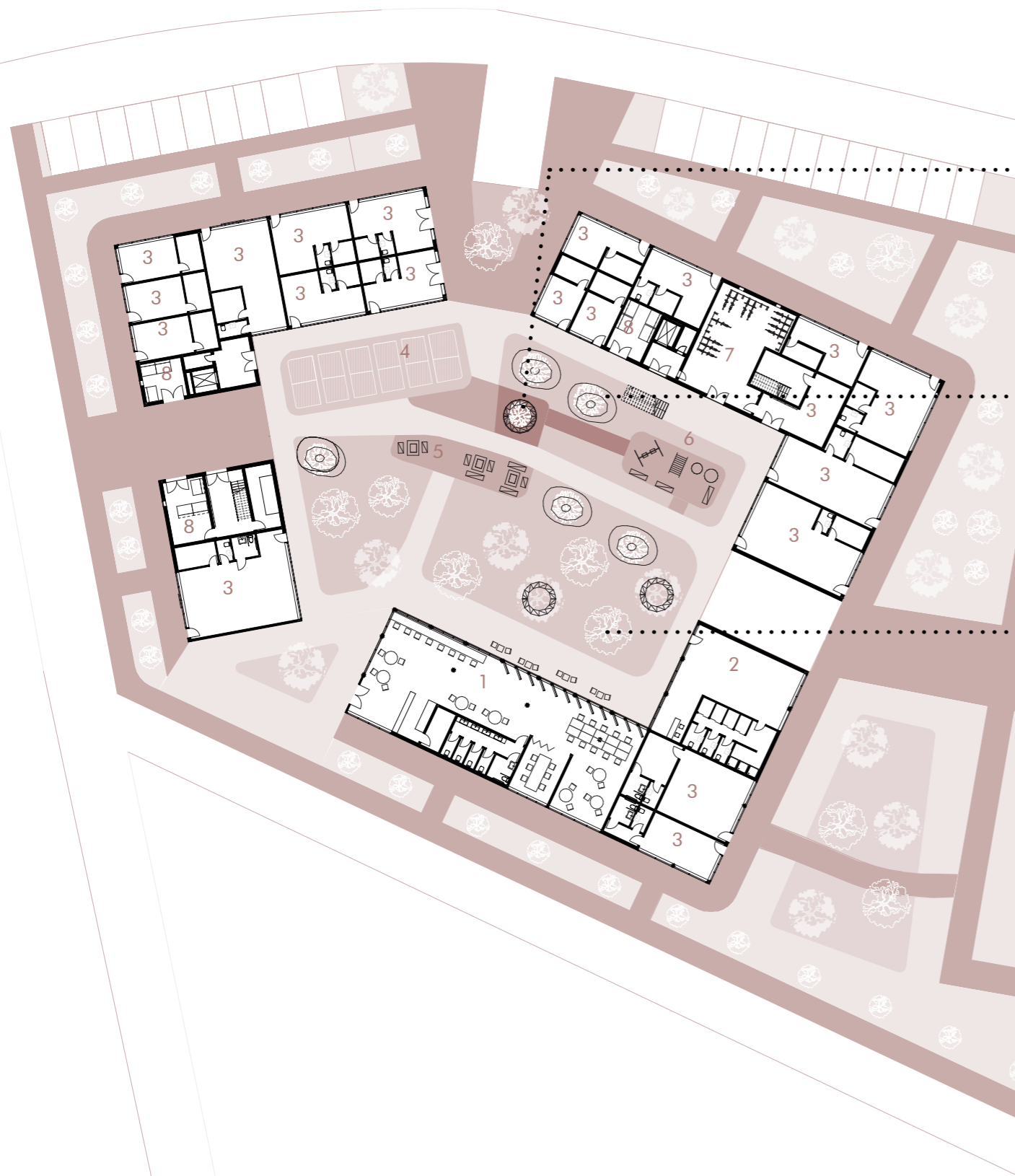
parking space for visitors

cellars for each flat unit are partly underground

technical facilities of the building

Underground parking

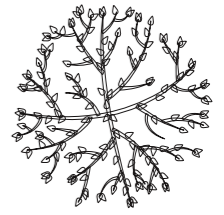




ground floor

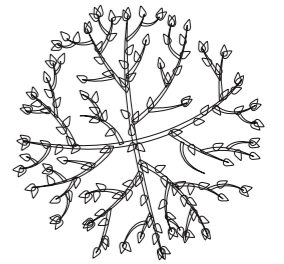


Cherry Blossom (*Prunus serrulata*)

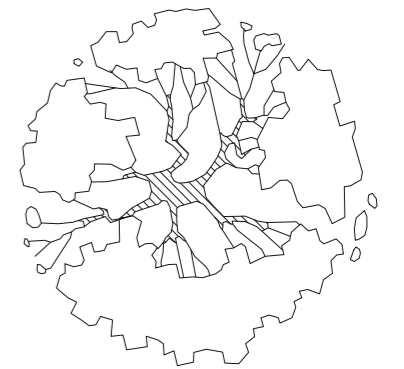


European Beech (*Fagus sylvatica*)

In the area beneath the subterranean parking lot, a tree has been planted in a small earthen mound.



Javor (*Acer*)



- 1 cafeteria
- 2 yoga space
- 3 commercial spaces suitable for a variety of uses
- 4 small garden
- 5 exterior grill spot
- 6 playground
- 7 bike storage
- 8 space for garbage



staircase between galleries

elevator

fire staircase

external staircase

cellars fill the gap between the apartments and are used for storing tools or bicycles

first floor

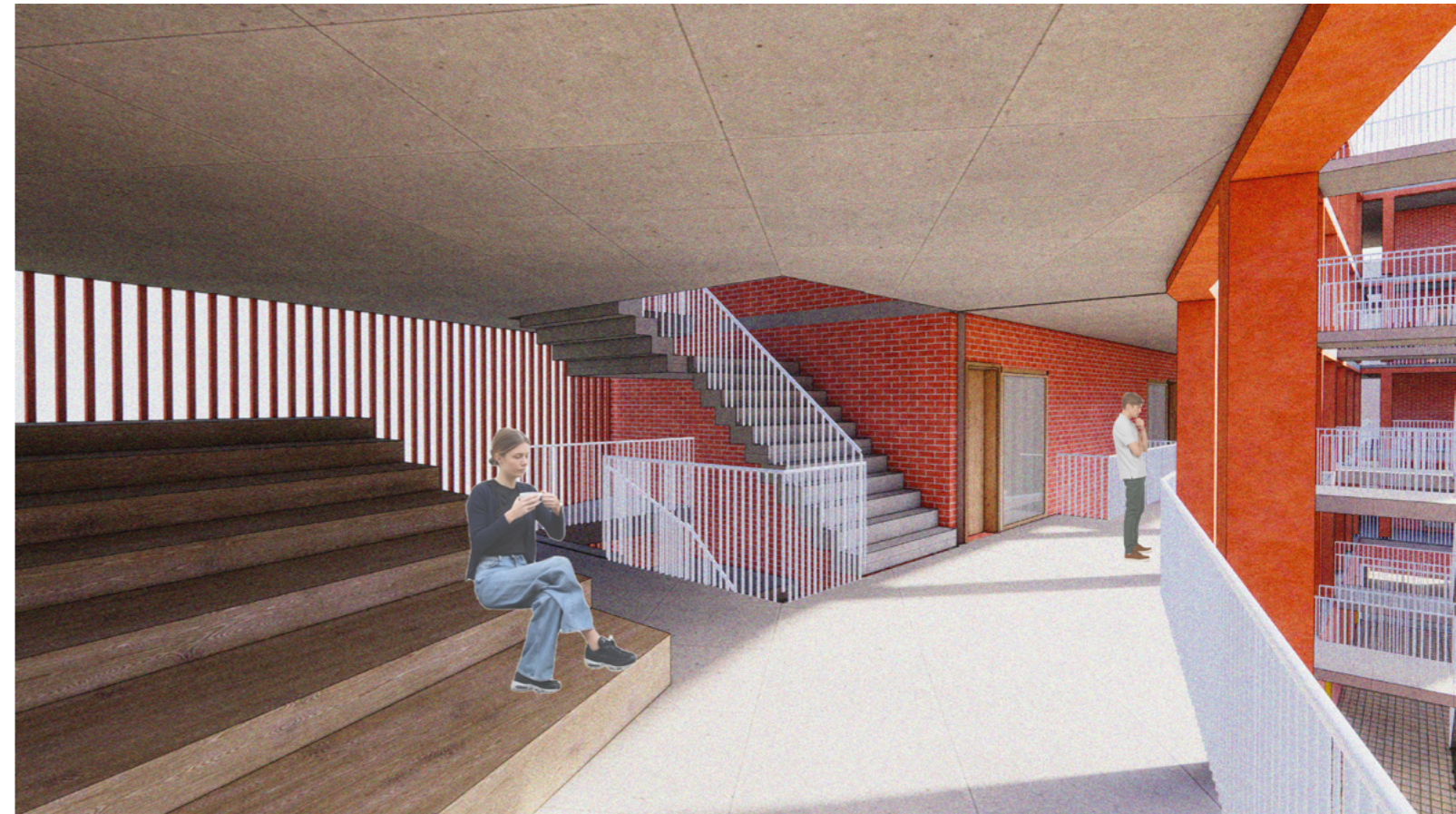


TYPES OF MODULAR UNITS IN THE PLAN

- Micro Living Unit
- Micro Family Unit
- Standard Unit I
- Standard Unit II
- Extended Family Unit



second floor

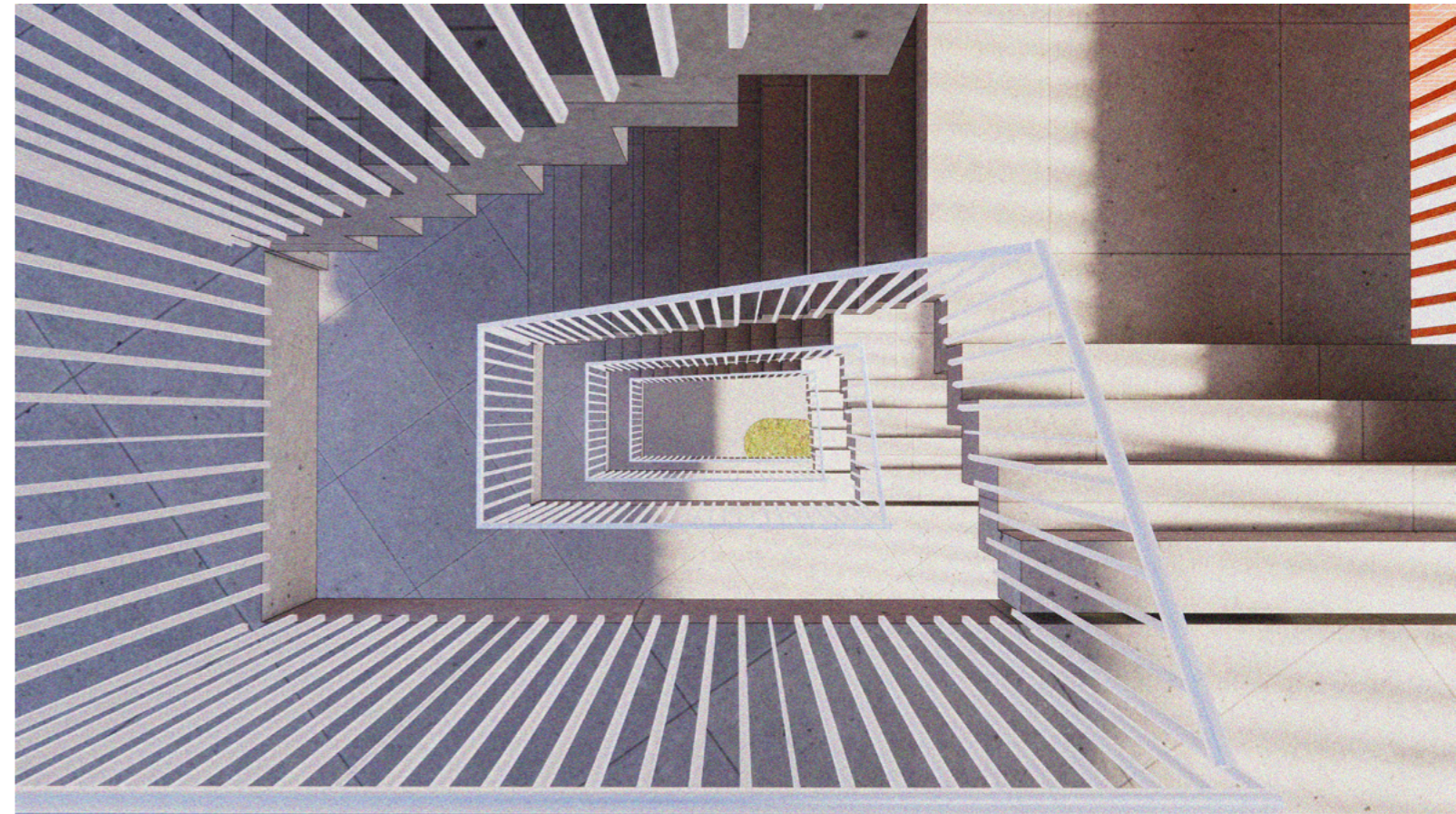


TYPES OF MODULAR UNITS IN THE PLAN

- Micro Living Unit
- Micro Family Unit
- Standard Unit I
- Standard Unit II
- Extended Family Unit



third floor



TYPES OF MODULAR UNITS IN THE PLAN

- Micro Living Unit
- Micro Family Unit
- Standard Unit I
- Standard Unit II
- Extended Family Unit



fourth floor



TYPES OF MODULAR UNITS IN THE PLAN

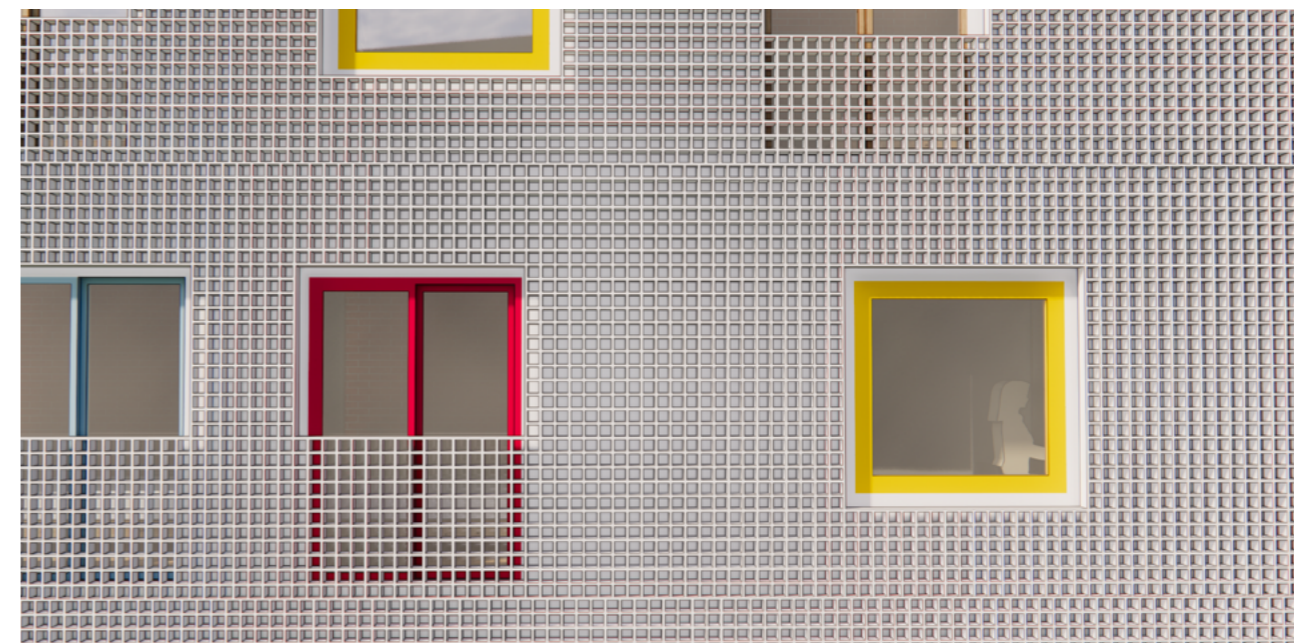
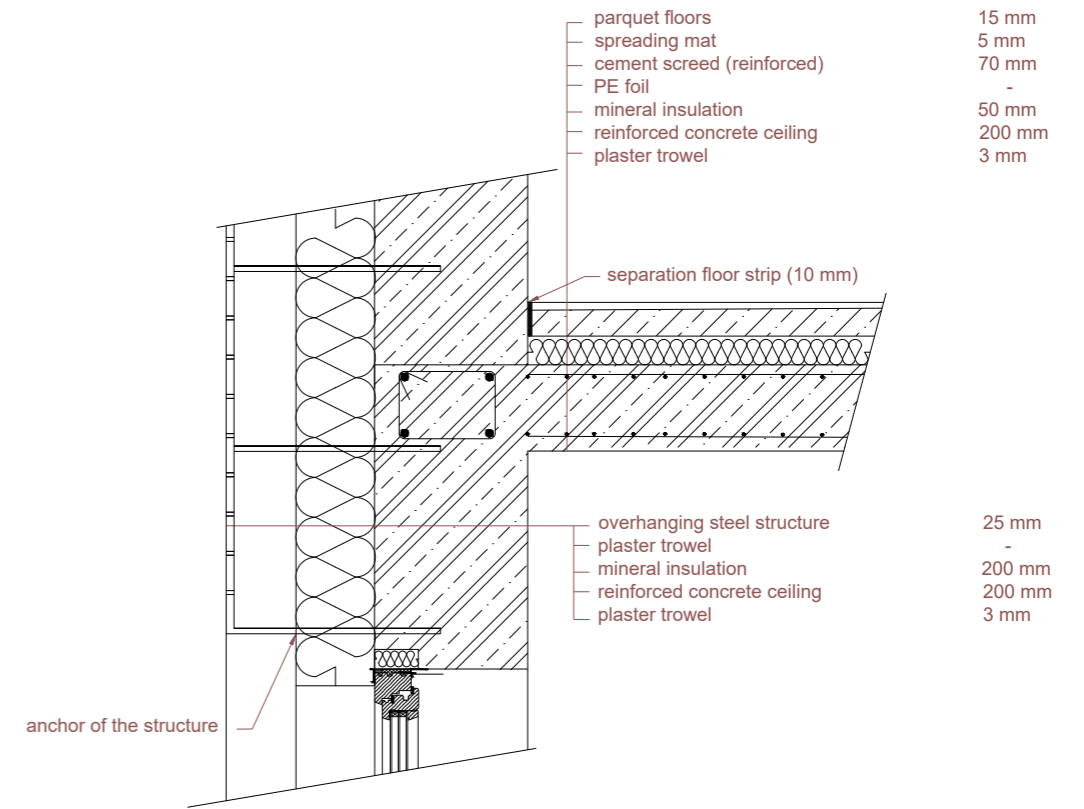
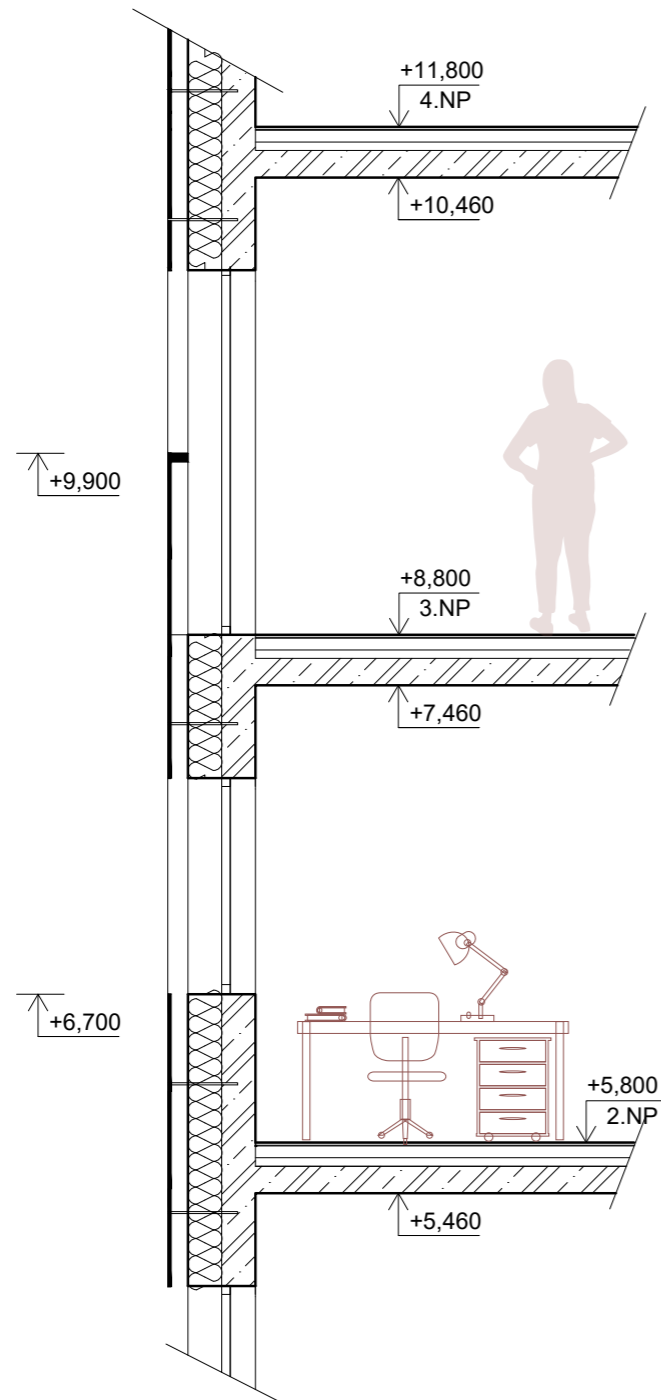
- Micro Living Unit
- Micro Family Unit
- Standard Unit I
- Standard Unit II
- Extended Family Unit

A

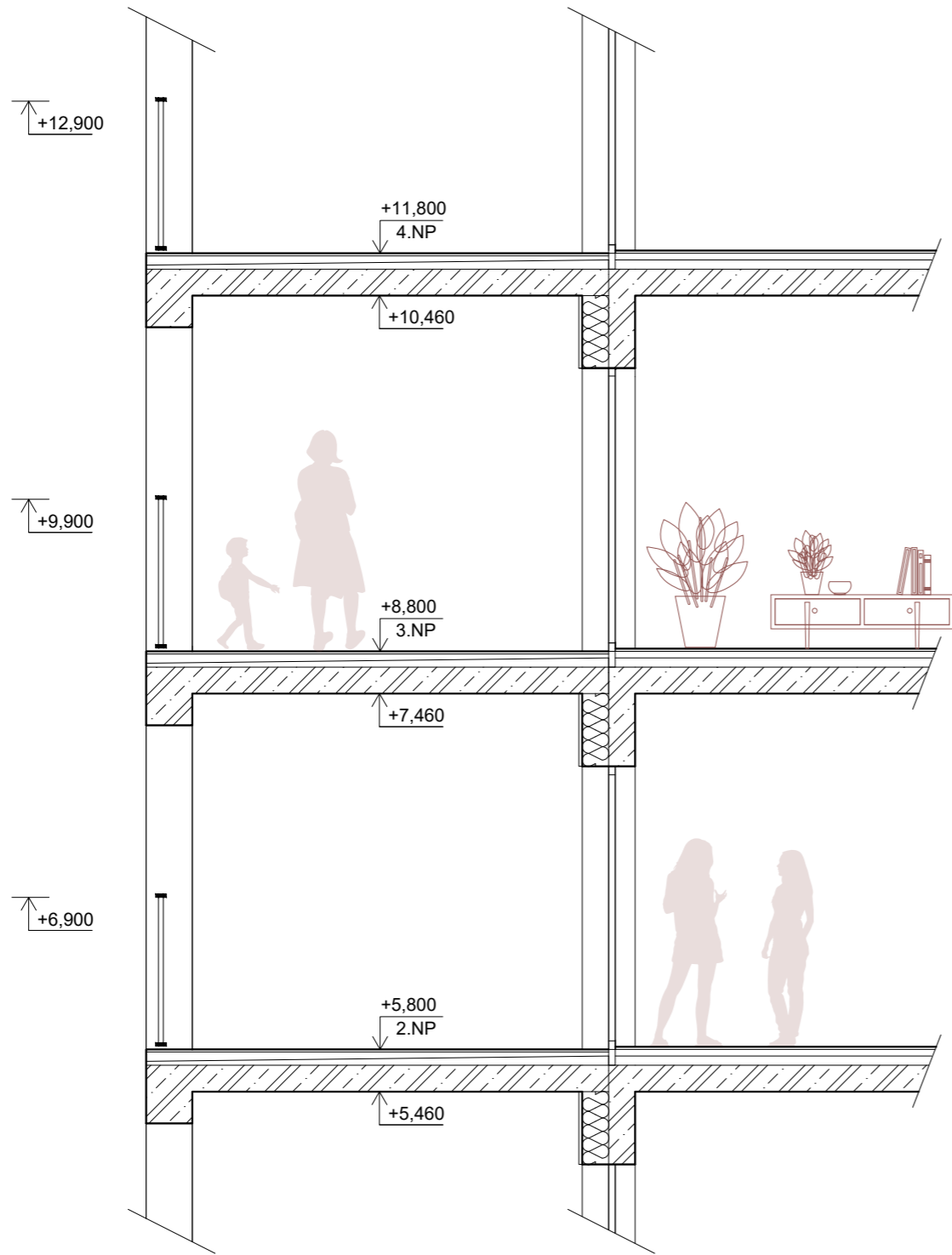


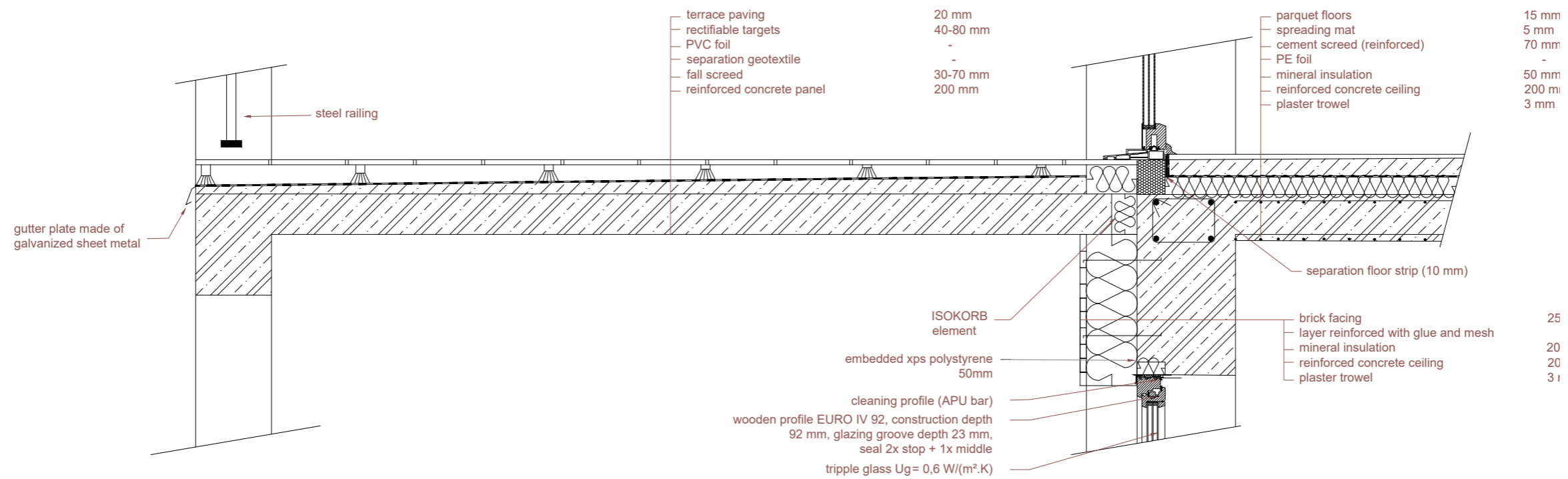
B





Structural detail of facade with overhanging steel structure





Structural detail of gallery



Inner facade of Gallery building



Gallery



Small gardens for growing vegetables



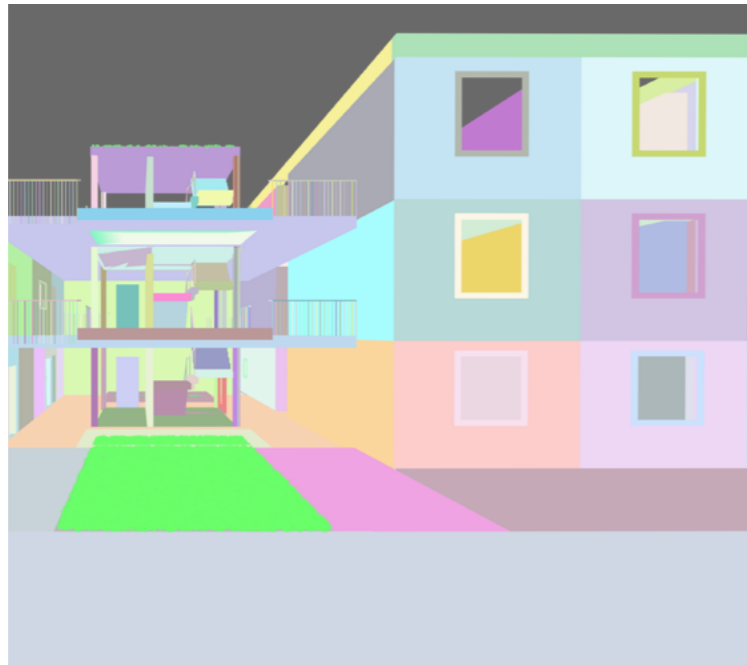
Openable welcoming windows in cafeteria



Grill spot



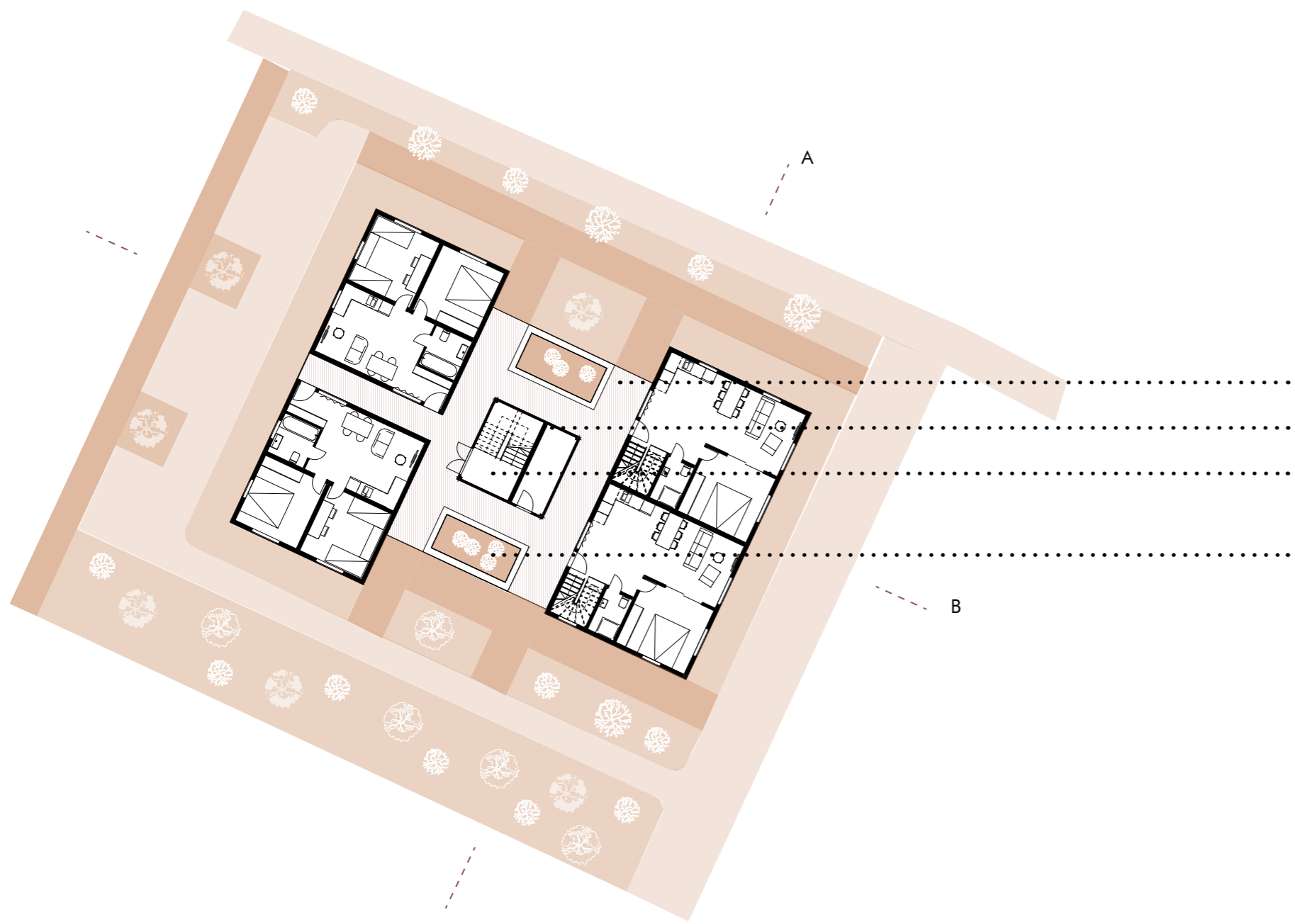
Courtyard



0 7

ARCHITECTURAL PROPOSAL Tube house

The second architectural concept is the tube house, which brings the Vietnamese way of living in cities to Warsaw. Narrow and long houses create a cluster of buildings with different height characteristics and material cladding as a response to the diversity of colours and materials in Bakalarska Market. The pair of houses is connected by an external communication, which creates a central entrance to the individual floors. The layout solution is once again based on the proposed housing units. The group of tube houses even represents a two-storey layout of a department store, in which the residential function on the second floor is extended by the commercial function on the ground floor.



- gallery connects floors
- technical room
- exterior inclosed staircase
- green spots

ground floor

TYPES OF MODULAR UNITS IN THE PLAN

- Standard Unit II
- Vietnamese Maisonette - double floor





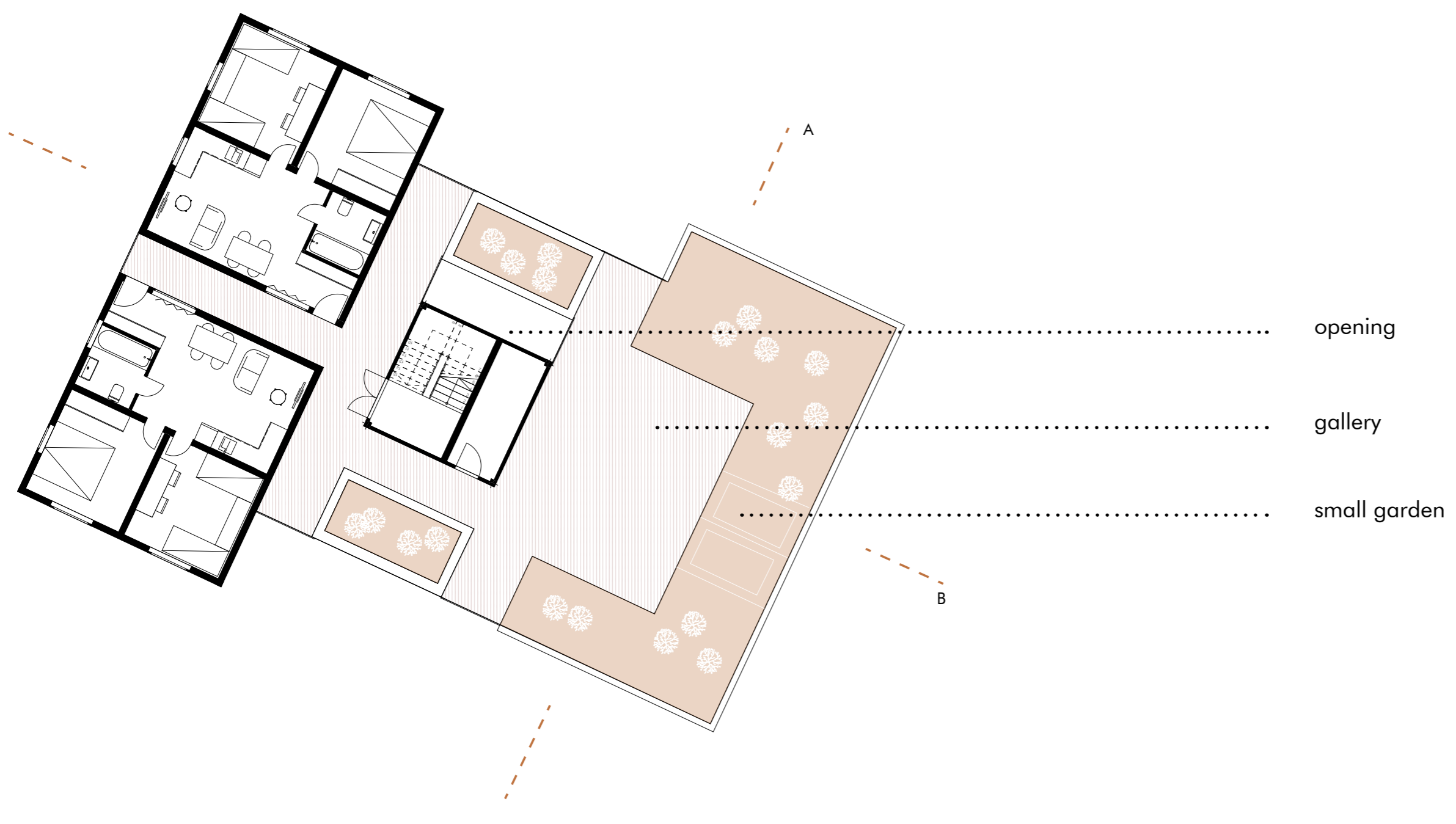
first floor



the material design combines colour and variety from Bakalarska Market

TYPES OF MODULAR UNITS IN THE PLAN

Standard Unit II
Vietnamese Maisonette - double floor



second floor



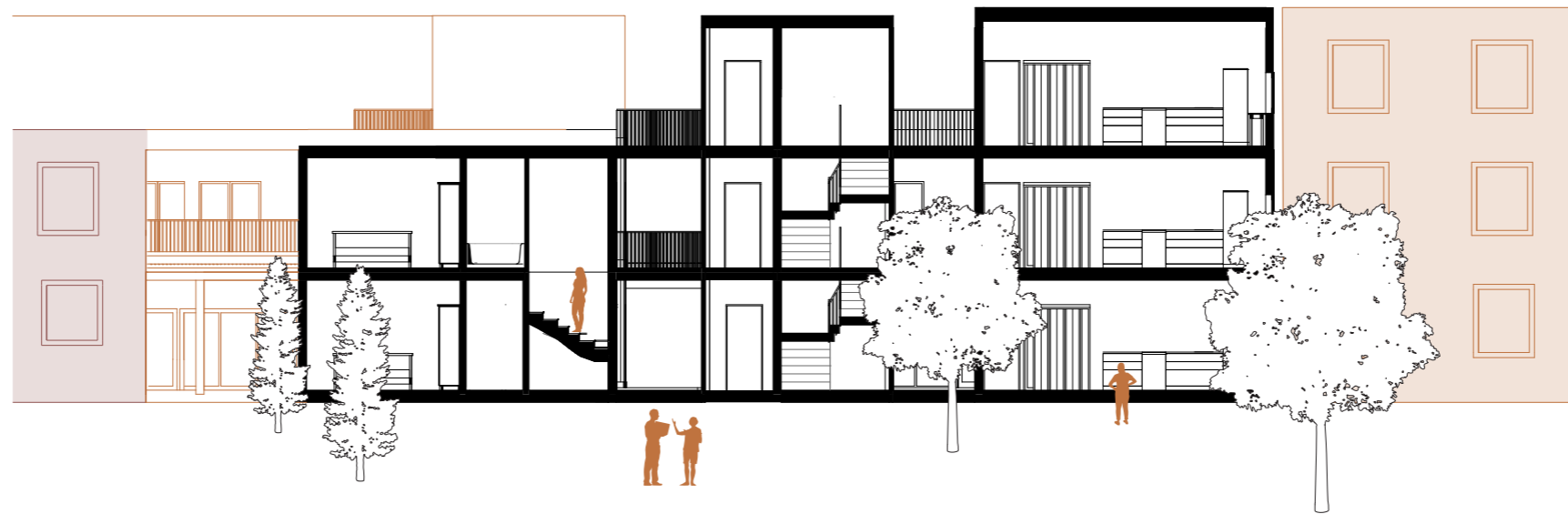
TYPES OF MODULAR UNITS IN THE PLAN

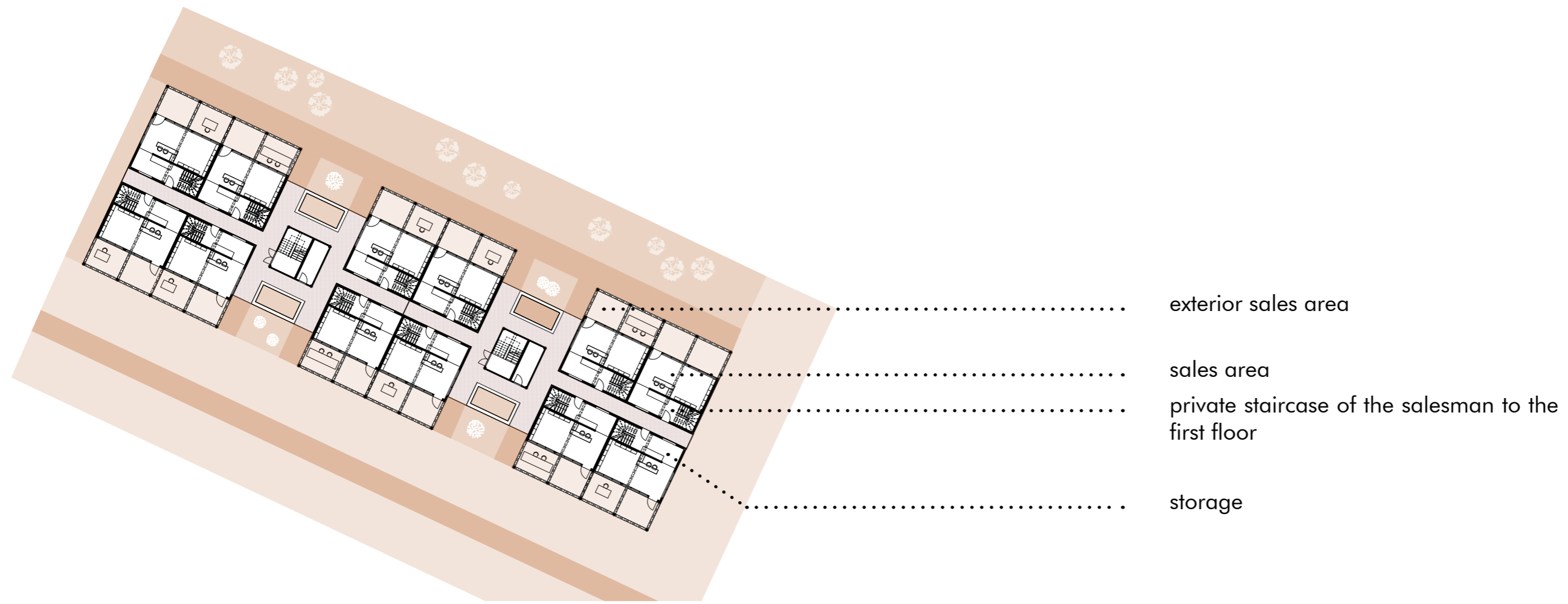
Standard Unit II
Vietnamese Maisonette - double floor

A



B



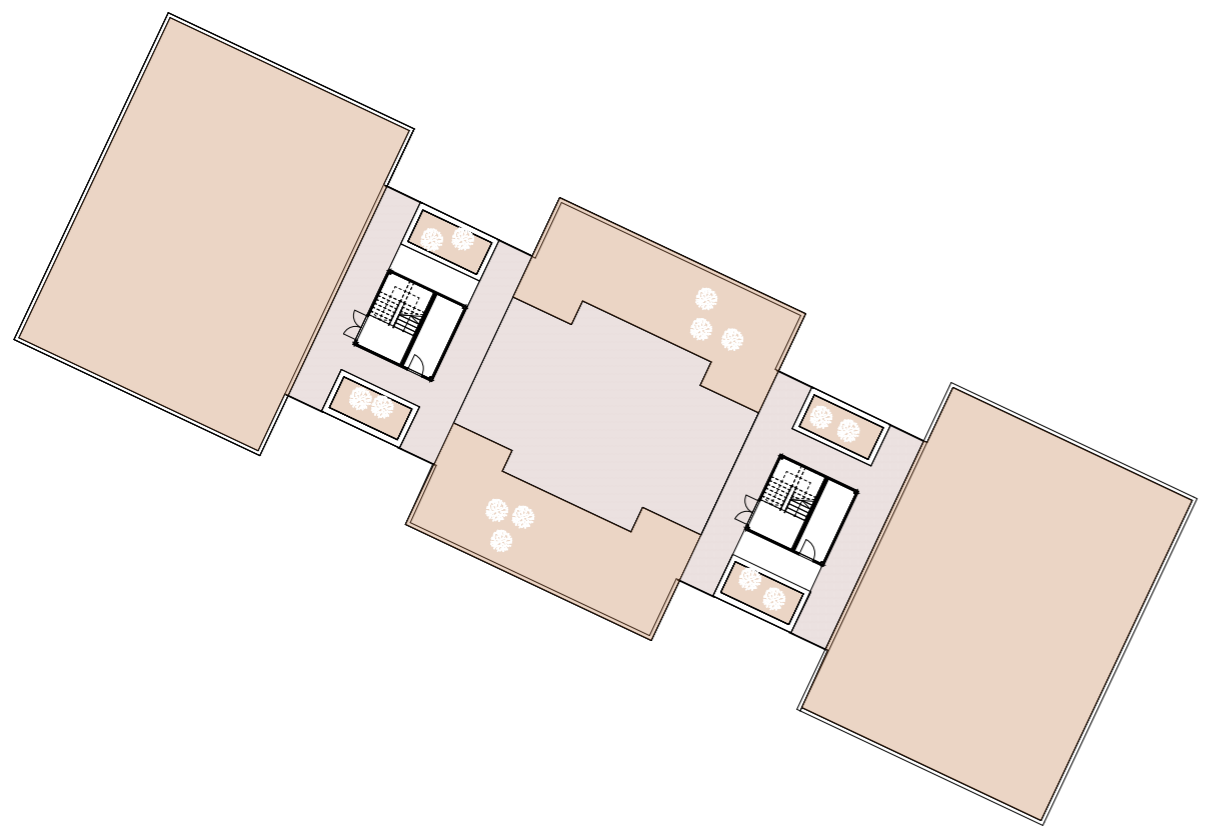


ground floor

TYPES OF MODULAR UNITS IN THE PLAN

Shophouse - double floor





first floor



second floor



TYPES OF MODULAR UNITS IN THE PLAN

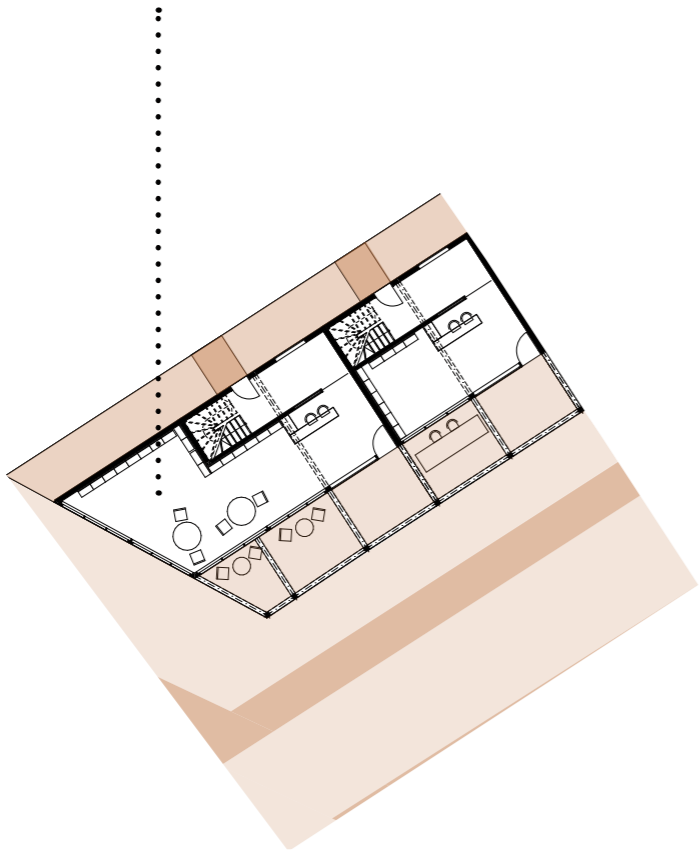
Shophouse - double floor



elevation of shop houses



corner sales area



ground floor

corner terrace on the first floor



first floor



TYPES OF MODULAR UNITS IN THE PLAN

Atypical corner Shophouse - double floor



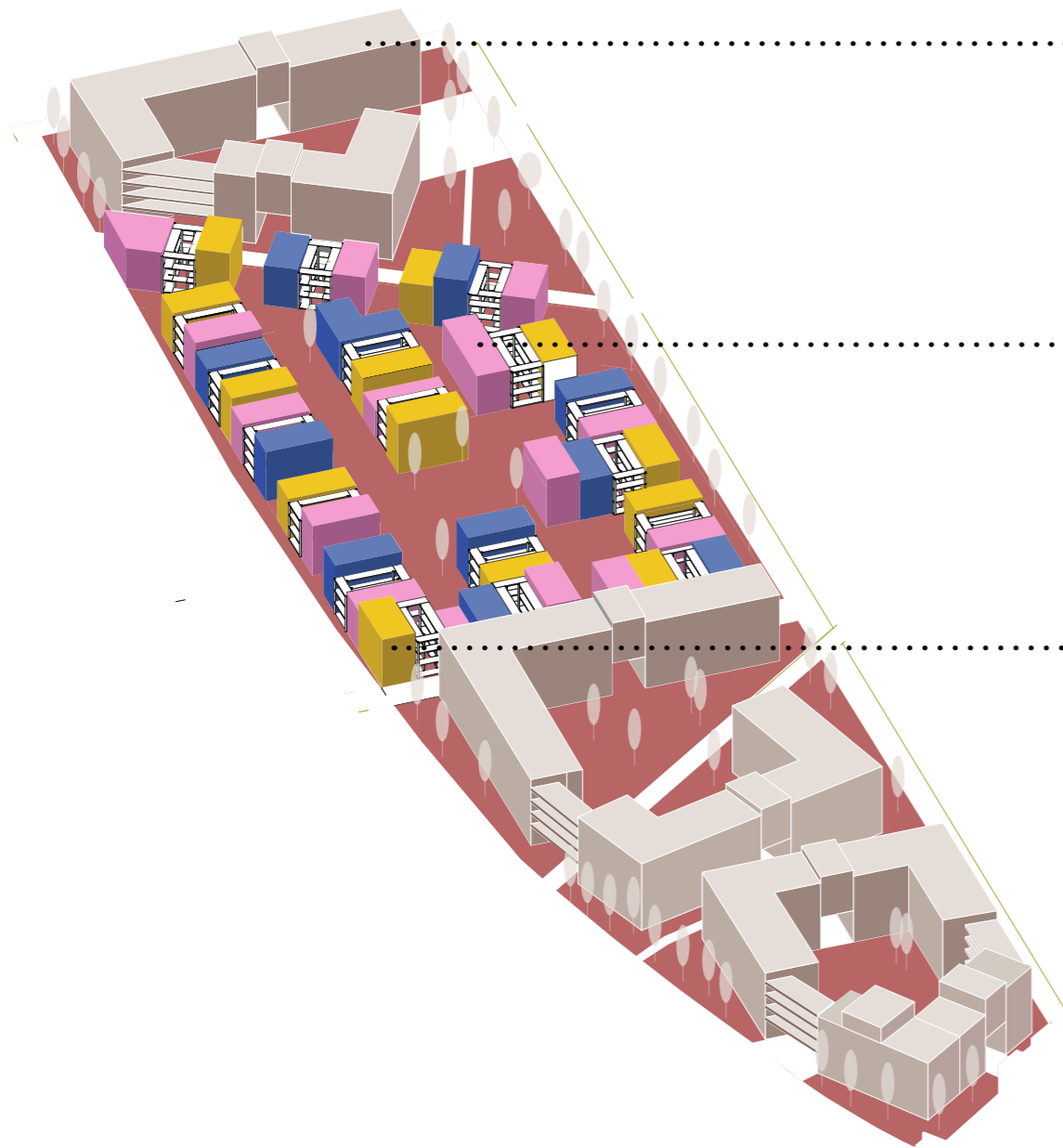
Passage alongside the shophouses

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08

SHARED OWNERSHIP

Shared ownership provides financial relief by sharing costs between owners. It fosters a sense of community, shared responsibility and democratic decision-making. With diverse perspectives, it encourages innovation and provides stability, resilience and affordable home ownership options. The project creates 2 options of sharing.



Rental with option Rent to buy
for some apartments

Ownership of the building by bigger
cooperatives, who decides on the op-
eration of the buildin

Ownership of the building by bigger
cooperatives, who decides on the
operation of the building

Axonometric view explaining ownership of each building

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