

ARCHITECTURE AND THE CITY

AAR 4721 Arkitektur og by – Prosjektemne Vår

AAR4725 Arkitektur og by – Kunnskapsemne Vår

Course leader – **Stuart Dickson** stuart.m.s.dickson@ntnu.no

Student capacity – **50 students**

Teachers –

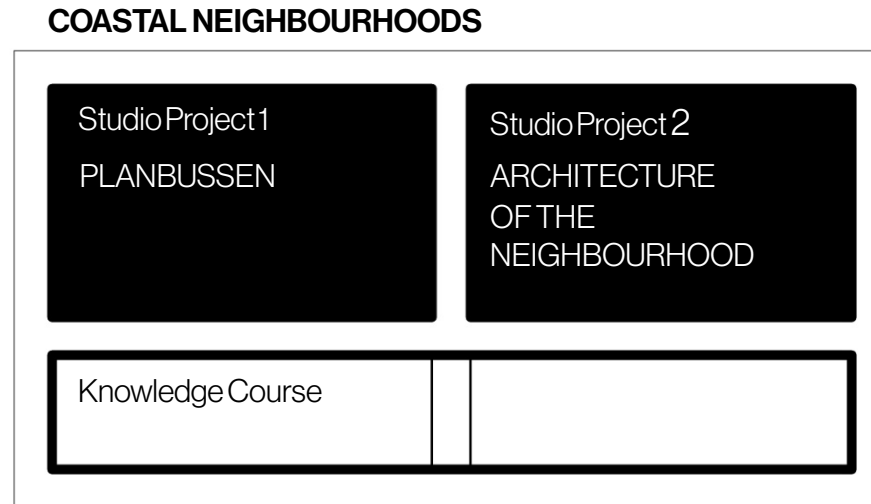
Markus Schwai	markus.schwai@ntnu.no
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ARCHITECTURE AND THE CITY

The Architecture and the City course option is:

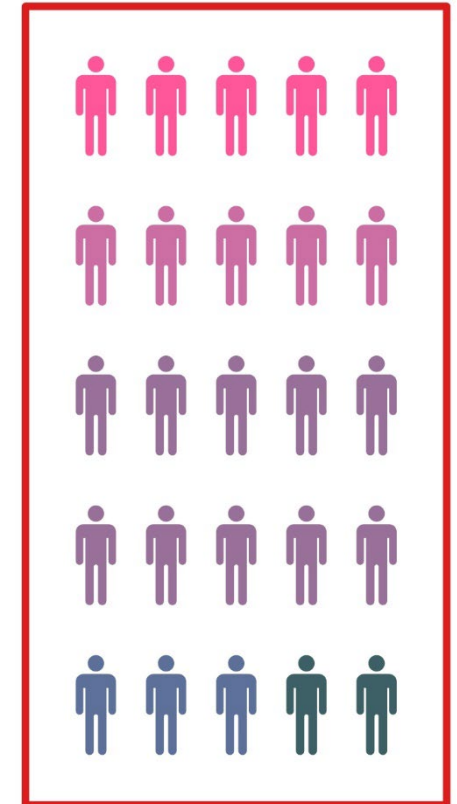
- A 15 credit **design studio** course and a 7.5 credit **knowledge course**.
- A **collaborative studio** addressing **urban** and **architectural** topics across a **range of scales**.
- Focused on *concrete* urban design and architectural projects related to contemporary issues and discourse.
- In the **Spring** semester we work on **urban design** and **housing projects**.

Spring 2024 Theme – **Coastal Neighbourhoods**



- Spring Theme: **Coastal Neighbourhoods**
- Students can select from **two project options:**
 - 1. Planbussen**
Project Leader - Markus Schwai
 - 2. Architecture of the Neighbourhood**
Project leader - Stuart Dickson

Shared Studio



- We work simultaneously on different knowledge and design task in an **open studio** to create a larger **shared knowledge and understanding** and allow you to **be inspired** by one another's work.

Co-ordinated timetabling

Commencement



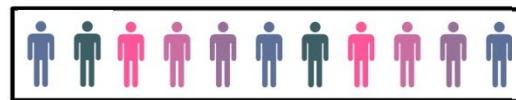
The two projects work side-by-side in the same studio.

Intermediate weeks -
formal or informal
collaboration + study trip



Broad understanding of the theme is achieved through common lectures, seminars, trips, events and reviews.

Mid-term Critiques

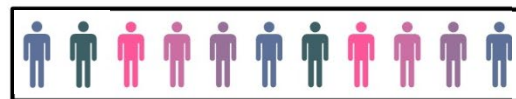


Deep knowledge is gained by focused work on individual topic choices.

Intermediate weeks -
formal or informal
collaboration + study trips



Final Review + Assessment



Theme: Coastal Neighbourhoods

Design Project Options

Project Option 1 **Planbussen**

Project Leader - Markus Schwai



Planbussen

...is a hands-on course and approach to practical rural planning and development at the intersection between planning, architecture and 'stedsutvikling' (place development).

This spring we will be working with two settlements within the «place-to-town» scale, each situated in a coastal municipality in Trøndelag.

Planbussen 2024

Rural planning, design and development in practice

Planbussen 2024

Rural planning, design and development in practice

A part of the collaboration courses

AAR4721 Architecture and the city – project course

AAR4725 Architecture and the city – knowledge course

Planbussen is

A hands-on course and approach to practical rural planning and development, at the intersection between planning, architecture and 'stedsutvikling' (place development). The course deals with contemporary questions and challenges in different sized towns, and works directly and in close collaboration with selected municipalities, based on their unique situation, possibilities and opportunities. Through intensive field-work, and an active involvement of the local communities, we create projects that aims to merge the physical and the social development of 'place'.

Planbussen does

- Area planning and strategies
- Connectivity and connections
- Architecture and interventions
- Nature and landscape
- Place and space development
- User involvement and participation
- Critical sustainability assessment
- And more...

Planbussen, why?

- 912 out of 1057 Norwegian settlements have less than 5000 inhabitants
- 1 out of 2 municipalities are in need of more planning competence
- Smaller towns and settlements lack clear planning and development strategies, compared to the cities
- Cities handle possibilities
Towns must create them

Studio Planbussen 2024

- AAR4721 Architecture and the city – project course (15sp)
- AAR4725 Architecture and the city – knowledge course (7.5sp)
- Open for approx. 8-16 students*
- Runs from February to June 2024
- 2 projects, 2 sites, 2 municipalities
- Design projects will be done in groups of 2-4 students
- Knowledge course as a collective or joint assignment
- Studio in Trondheim,
possibly funded excursion and workshop abroad
- Supervisors are Prof.dr. Markus Schwai and Phd.cand. Erik Hofsbro
- See www.planbussen.no for more information and previous works

**Planbussen requires a high level of critical thinking and independent work*



FILLAN



TRONDHEIM

VERDAL



An aerial photograph of a coastal town, likely Fillan, situated on a peninsula. The town is densely packed with buildings and roads, surrounded by rugged, mountainous terrain. The sea is visible to the right of the town. The overall scene is in black and white, emphasizing the textures of the land and the layout of the settlement.

Location: Fillan
Inhabitants: 1233
Assignment: All of it
Municipality: Hitra
Inhabitants: 5156
Travel time: 2:00-2:30

Location: Verdalsøra
Inhabitants: 8535
Assignment: Ørmelen (housing area)
Municipality: Verdal
Inhabitants: 14955
Travel time: 1:30-2:00



WEEK	TOPIC	CONTENT
6	START	Introduction and first assignments
7	FIELDWORK	Short fieldwork (#1)(1-3 days)
8	INTERMESSO	Project development (#1) and preparation for next field work (#2)
9	FIELDWORK	Long fieldwork with project development and presentation (#2)
10	WORK	Daytrip presentation (#1) and project development (#2)
11	WORK	Work Work...
12	WORK	Possible pin-up or review
13	EASTER	Holiday
14	WORK	Possible pin-up or review
15	WORK	Work...
16	WORK	...
17	WORK	Possible pin-up or review
18	ABROAD	Excursion and workshop abroad
19	WORK	...
20	WORK	...
21	HAND-IN	Final design project delivery
22	CRITICS	Design critics
23	PRESENTATION	Project presentations at the municipalities and theory work
24	HAND-IN	Theory work delivery
25	STOP	END OF SEMESTER



Prof.dr.

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Phd.cand.

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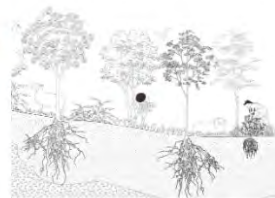
PROSJEKTER

2023



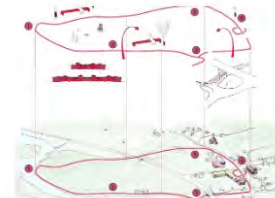
Valorizing the heritage

Dovre (Dovre)



Agroforestry Vineyards

Dovre (Dovre)



Connections

Dovre (Dovre)



Cultural Hotspot

Dovre (Dovre)



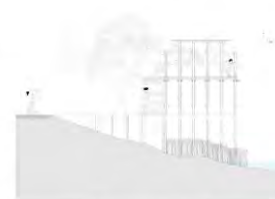
Activating Bismo

Bismo (Skjåk)



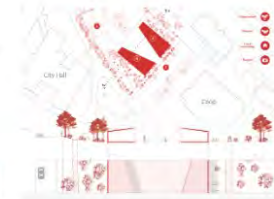
Refueling

Bismo (Skjåk)



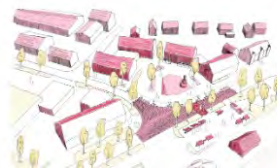
Reconnecting

Bismo (Skjåk)



Renew

Bismo (Skjåk)



THEORY BOOK
2023

Planning example - Vågå (2006)



Ryggraden, som går gjennom hele Vågåmo, knytter til seg alt som finnes der av tilbud i dag. Alt nytt som legges til vil også knyttes til denne. For å styrke ryggraden er det viktig at busstasjonen beholdes der den er i dag og at det opparbeides en ny turistinformasjon nærmere kirken.

Langs elven Finna opparbeides et grøntdrag som strekker seg fra elvemunningen og opp til kirken. Hit legges fritidsaktiviteter som trekker mye folk.

Kirken, det viktigste punktet i bygda, ligger der disse to linjene møtes.

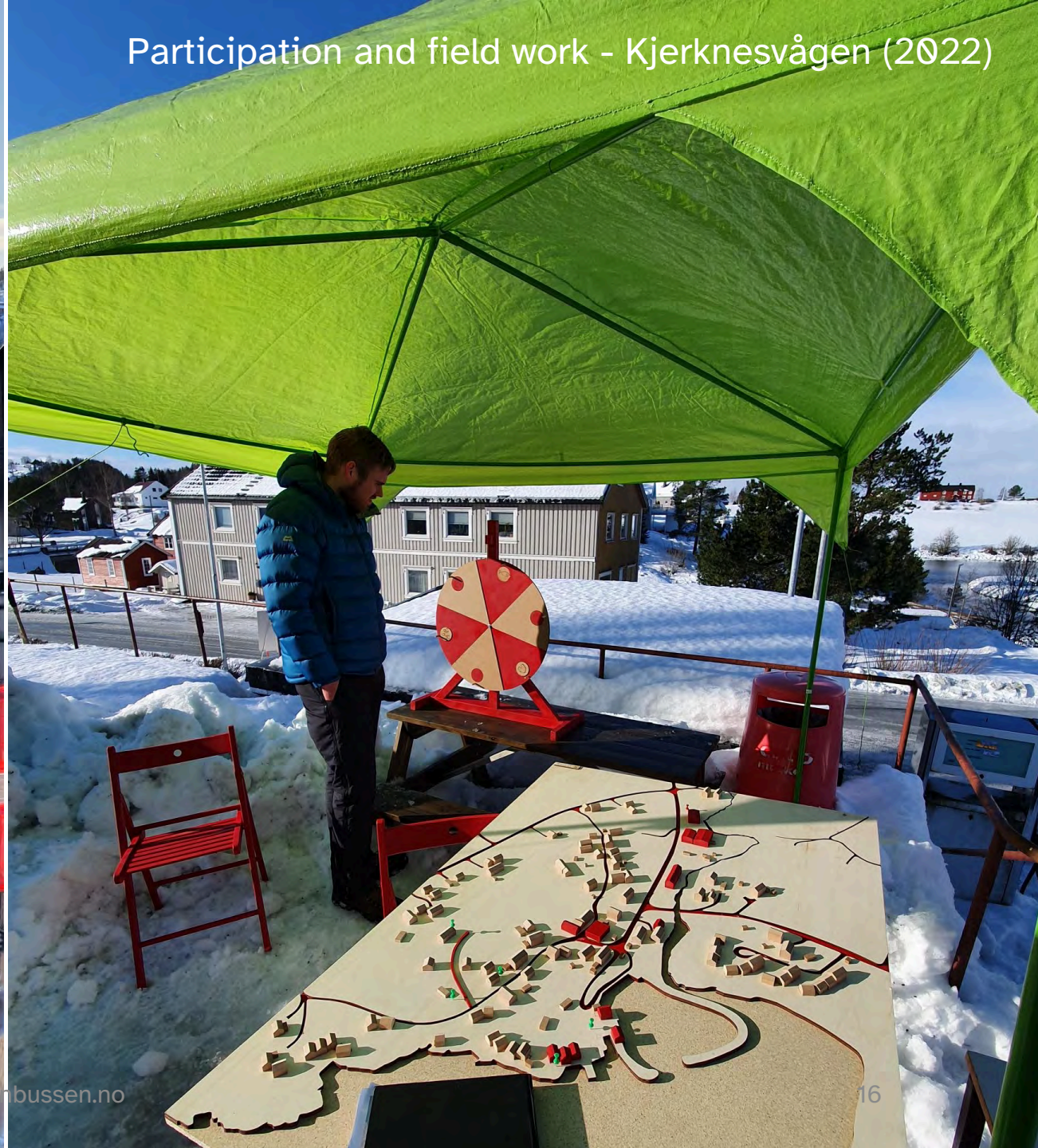


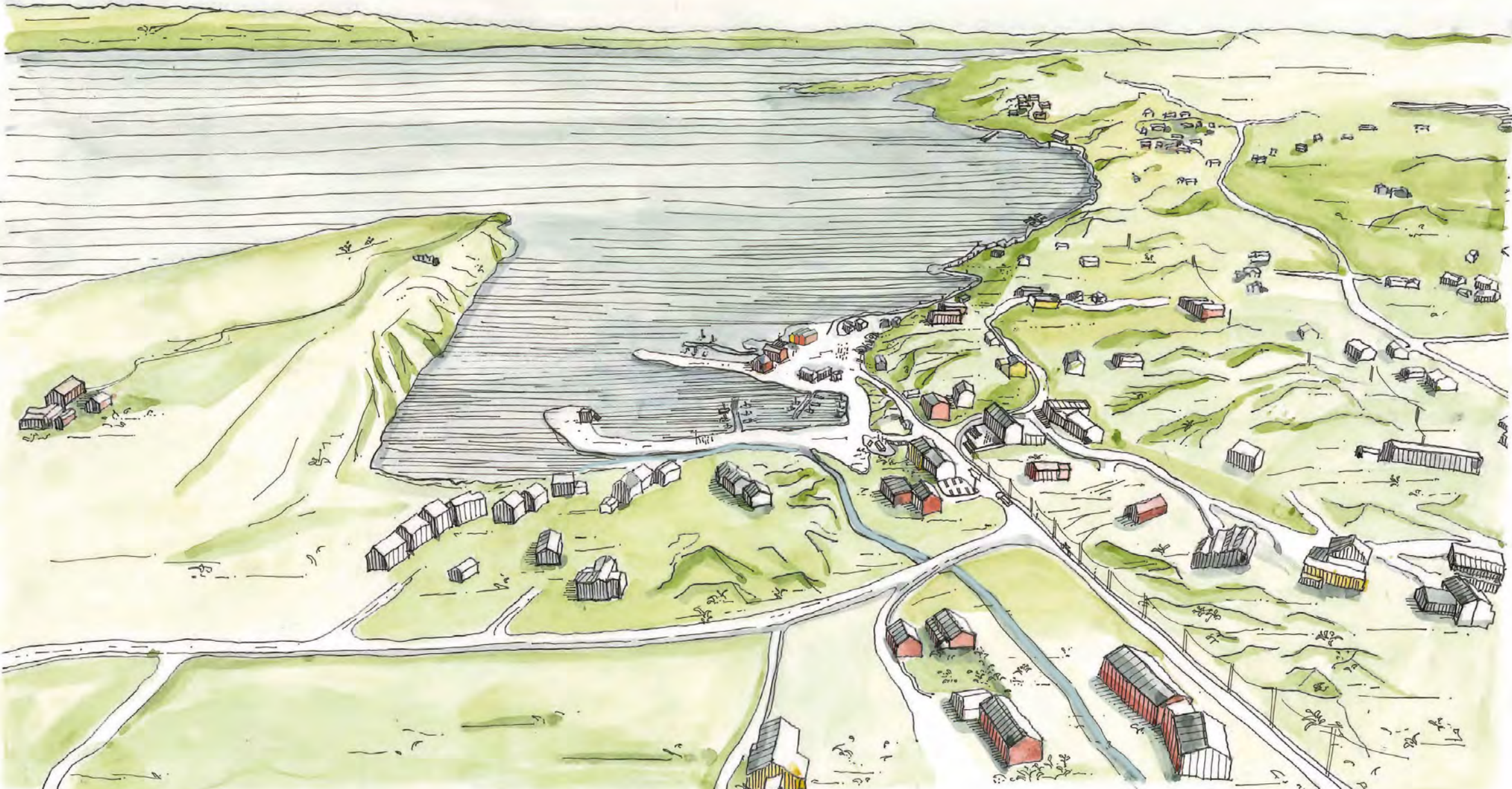
1:5 000
Course presentation





Participation and field work - Kjerknesvågen (2022)





KJÆRKNESVÅGEN WHAT WE SEE

HARBOUR

- Campervans have their own designated areas
- Tourists and residents come together in the public spaces.
- A restaurant with a focus on locally produced food is an attraction throughout the year.

HOUSING AND CABINS

- New developments happen in accordance with the new path along the coast.
- Cabin and home owners commit to actively participate in community functions.

PATH

- The new coastal path brings people together, connecting the harbour and the center to the cabins and housing.
- With time, kids area, sports activities and barbecue places add up to public bathing and furniture.

TRAILS

- The existing tracks are expanded. In winter, a fjord cross-country skiing tracks is prepared and in summer, pump trail elements will complement the offer.

CAFÉ

- A café provides a casual space for meetings, work or relaxation.

HIDDEN TREASURES

- The milk station, bakery, wood workshop and Brannstation, among others, are highlighted as they are proud witnesses of the identity and history of Kjærknesvågen.

PLAYGROUND

- A family-friendly playground in a safe and secure environment with a direct connection to nature.

TRAFFIC

- Traffic is slowed down for a safer and calmer center.
- The public transport, carpool and bike infrastructures offer is expanded for sustainable commutes.

SCHOOL

- The old school center is converted into a venue for events and sports facilities.

CENTER

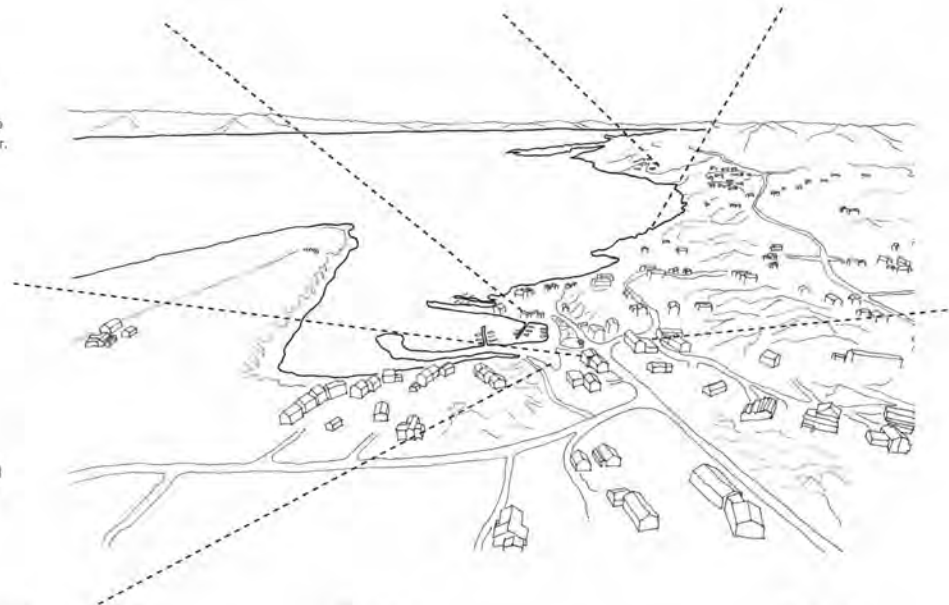
- The center becomes the welcoming entrance of Kjærknesvågen. It is an all-year-long meeting place.
- A public terrace in front of the store overlooks the traffic of the harbour and spatially defines the new center.

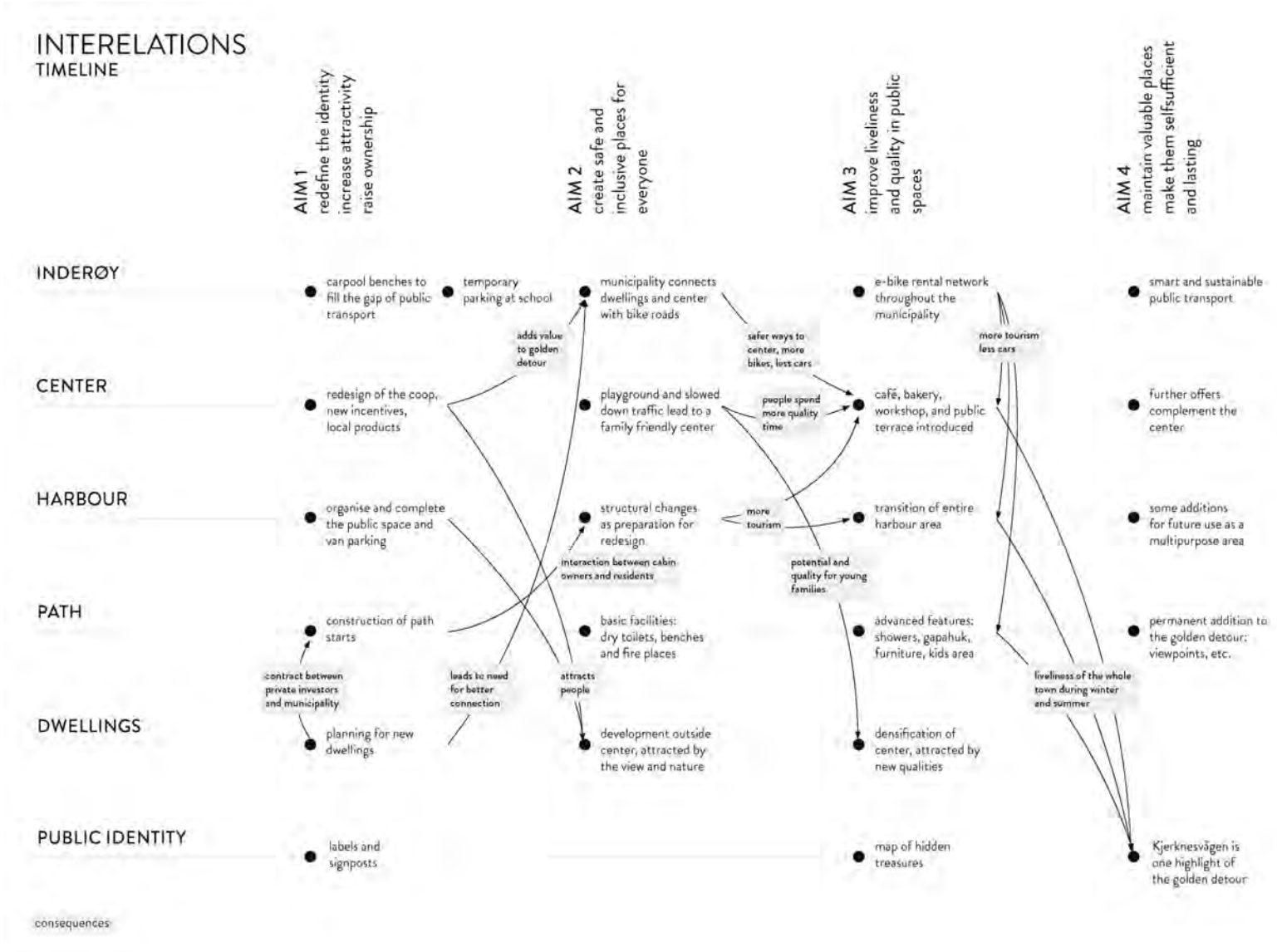
COOP

- The redesign of the coop values what it is: the oldest shopping cooperative of Norway.
- Barrier-free and separate entrances makes Coop and bus accessible to everyone

SIGNAGE

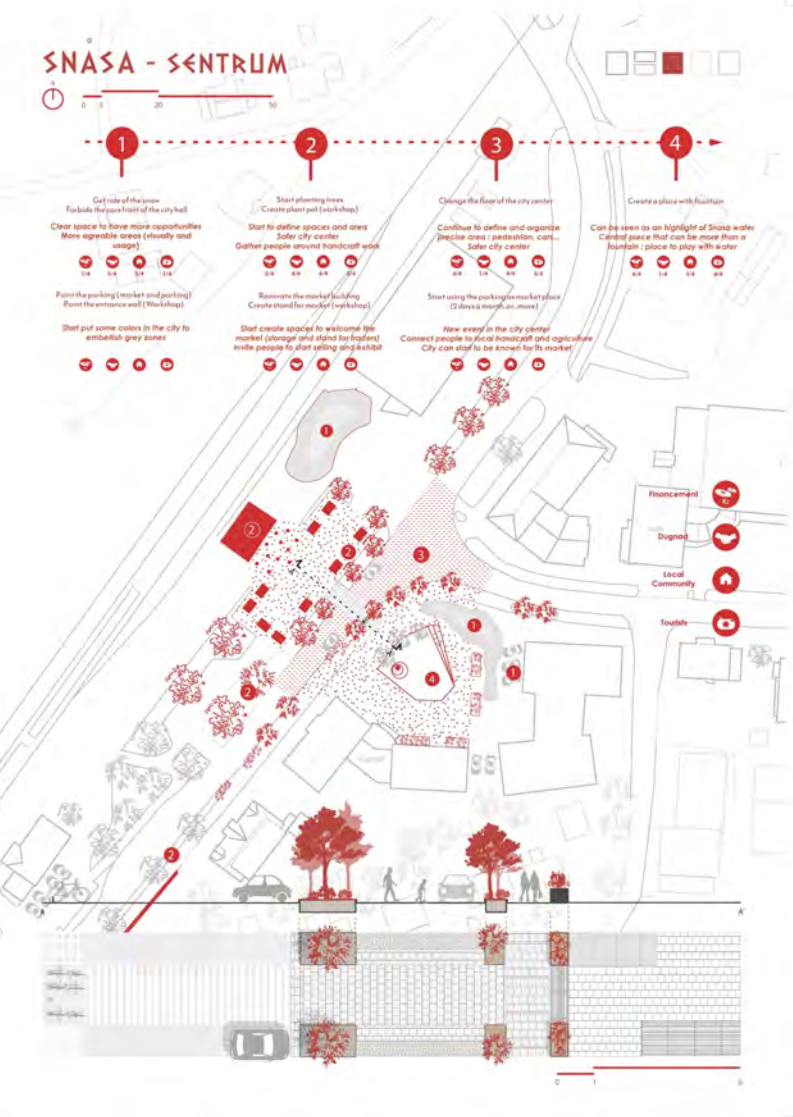
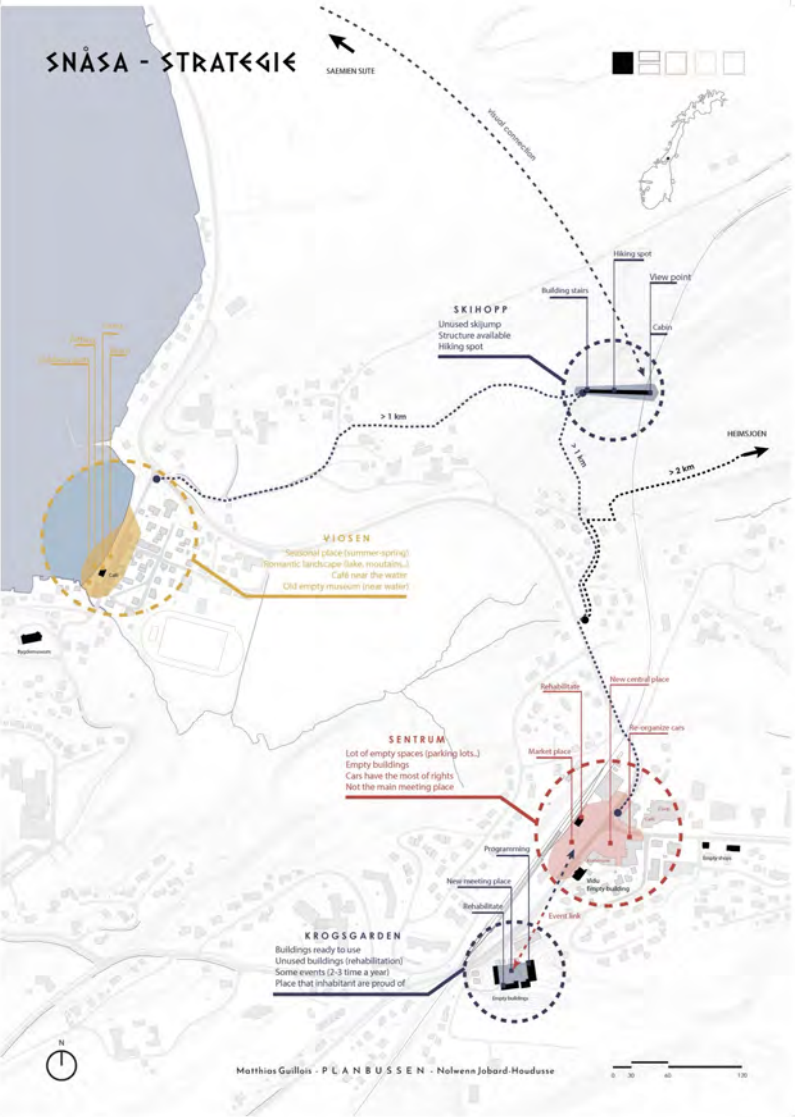
- Dungenad-made signposts promote the identity of Kjærknesvågen and provide information about hidden treasures.



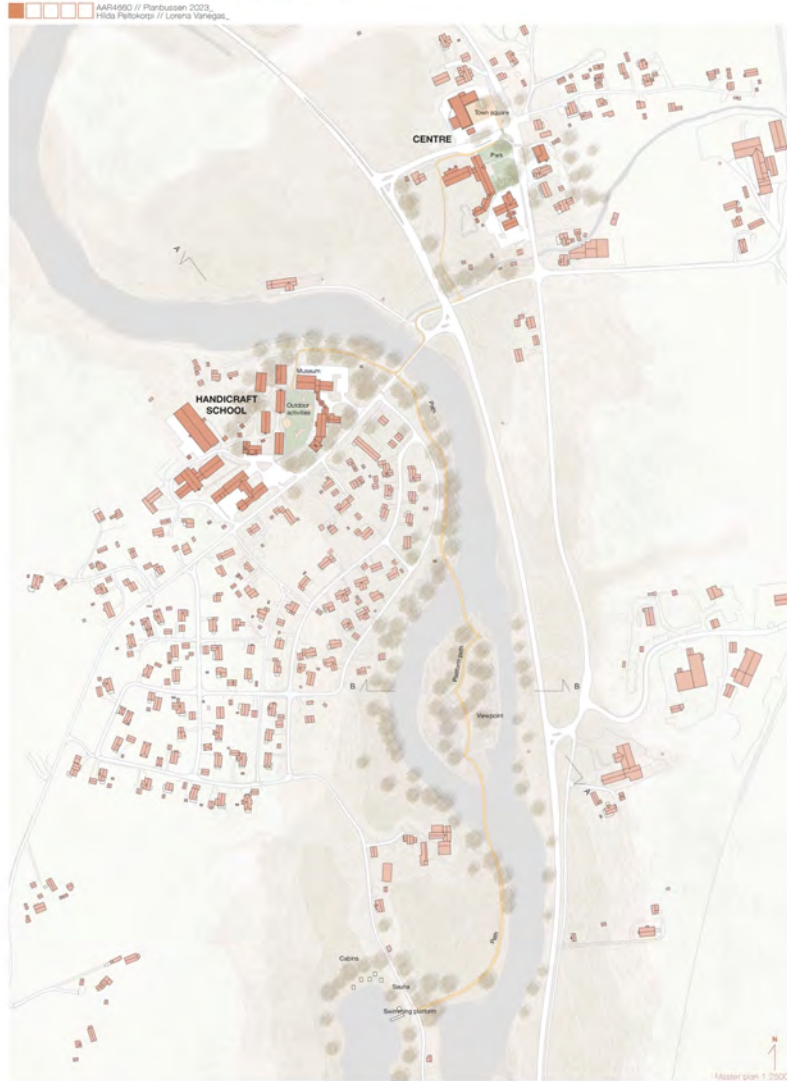


CENTER
PERSPECTIVE





DOVRE VALORIZING THE HERITAGE



HANDICRAFT HERITAGE

AA44960 // Planbussen 2023, Hilda Pettersen // Linnéa Vaneborg

1. ISLAND
 challenge - unisex
 roads - good views
 potential - seen from IS - meeting point - connection to river

2. CROSSING PATH
 challenge - no sidewalks - narrow streets
 potential - subtractive views

3. DOVRE SKOLE
 challenge - abandoned
 potential - green space - housing - close to centre - attract people

4. BUILDINGS BESIDE
 challenge - various
 potential - local identity - tourism - near to centre - meeting point

5. HJERLEID HÅNDVERKSSKOLE
 challenge - disconnected from the centre - unusable for tourists - empty buildings
 potential - local identity - tourist attraction

CONCEPT
 Through the site visit, something noticeable was the pride of the community about the handicraft school and the legacy it has inside the town. **Dovre's handicraft school is an important part of the identity of Dovre.** This area holds a lot of students learning how to be professionals in wooden handicrafts. The speciality of this school is to offer knowledge of traditional techniques like wood carving and blacksmithing. Related to the school there is a community of people studying or working in the area which also features some factories of **design studios and furniture manufacturers.** However the impression was that there was a disconnection between what was said against what was perceived: the reality is that the handicraft heritage is excluded in their side of the river and forgotten there when it has a lot of potential to become a huge **attractor for tourism and inhabitants** into the town.

Dovre is located in a central place for tourists to experience the mountainous nature of inland of Norway. There is, however, bigger towns like Dombås nearby Dovre, which has more infrastructure and services for tourists, making Dovre more a place for passing by, instead of stopping with increasing the same services. The proposal aims to **find the hidden potentials of Dovre** making it a special destination that brings something new to the area. The goal for this project is to work on the key factors: **handicraft school and centre, and connect them to the surrounding nature** to make them adequate places for people to appreciate as well as activating them by giving them the right qualities that help to develop them.

The approach is mostly focused on the **development of the handicraft school**; the intention is to share and expand the knowledge further away. Inside the school the intention is to better the conditions by having **designated areas for outdoors activities** for students as well as visitors, on the centre the aim is to add outdoor furniture that can help **create spontaneous meeting areas** for the community, there is also the intention to **create paths, bridges and viewpoints** also done by the handicraft school, on the island to build an **impressive space** made a **tourist area**, this development would help **bring interest and tourism into Dovre's heritage**, therefore, in the future, the school would have more students, workshops would be developed, housing would be needed and the population of the site would start to increase.

VALORIZE THE HANDICRAFT HERITAGE

BRING THE SURROUNDING NATURE CLOSER

ISLAND: Accessible short walk, Meeting places, Viewpoint, Connection to water.

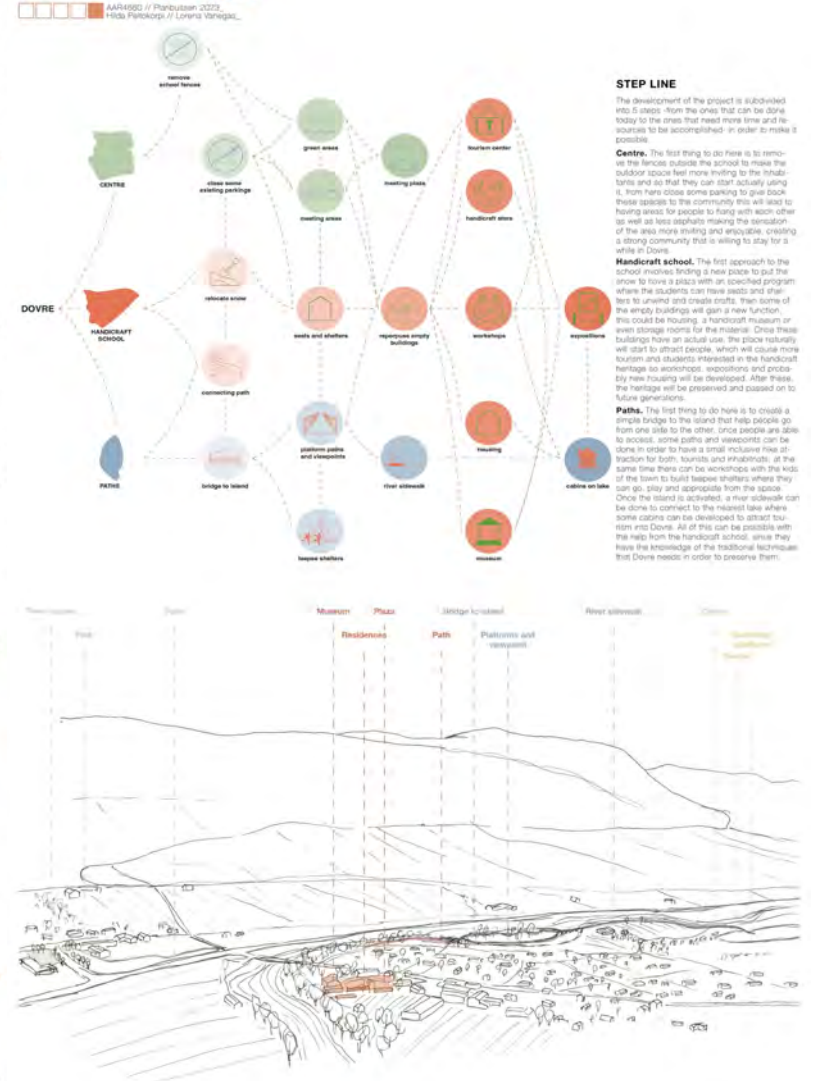
PATH: Connects the areas, Activates the river and local nature.

ISLAND: Ending of the path, Residence cabins for tourists, Sauna, Swimming platform.

LEGEND: Handicraft school, Viewpoints, Handicraft workshop, Spontaneous meeting areas, Gastronomy, Paths and shelters, Connecting paths, Preserve handicraft heritage.

SECTION a-a' 1:2500

PLAN OF ACTION









www.planbussen.no

Project Option 2

The Architecture of the Neighbourhood - Stjørdal

Project Leader - Stuart Dickson



- Explore an alternative development strategy for the town of Stjørdal.
- Provide solutions for a diversified housing mix – different typologies and tenures – e.g. housing for students to elderly / rental and market sectors.
- Work at the different scales – the city, the neighbourhood, the building and the dwelling.
- Working with Stjørdal Kommune and its partners:
 - developers, land-owners, airport, university etc.
- Travel stipend, exhibition, website, book with ISBN.

Project

1 **Urban Plan for Neighbourhood** (groups)

Comprehensive description of the following:

- Organisation of the neighbourhood within the existing urban context
- Urban spaces and infrastructure
- Programmatic mix and housing typologies

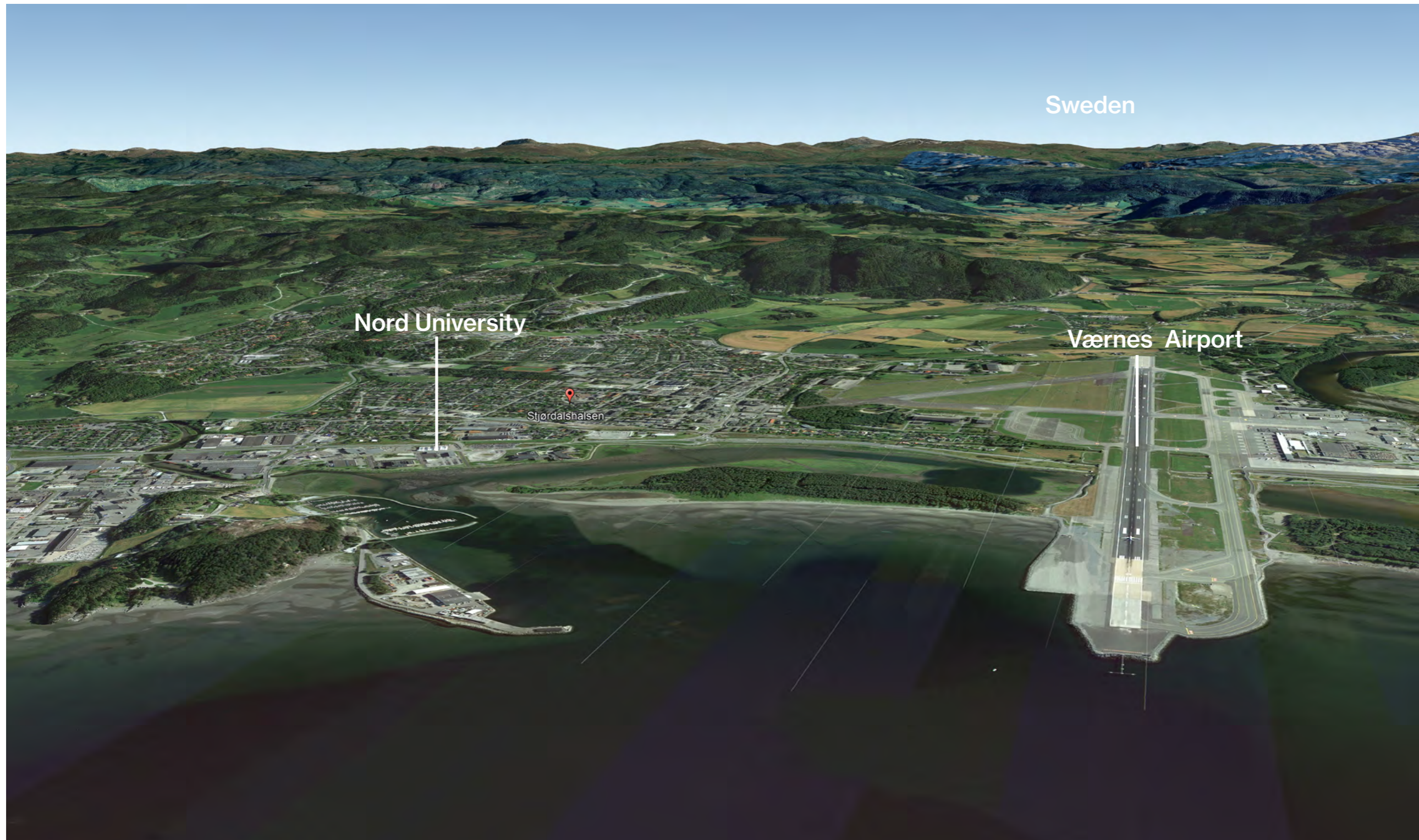
2 **Proposal for a Urban Housing Block within the Urban Plan** (groups or individuals)

Comprehensive description of the following:

- Organisation of the urban block and dwellings
- Street facade
- Interior facade of the urban block
- Communal and circulation spaces
- External spaces
- Typical dwelling interiors







Sweden

Nord University

Stjordalsnåsen

Værnes Airport

Brief

The Architecture of the Neighbourhood Spring 2024 explores an alternative development strategy for Stjørdal.

The topic has several aspects: We integrate a strategic perspective on area development with project examples that help to trigger a desired development for the municipality. The assignment involves developing a framework for co-operation between the key players in urban development in Stjørdal. The potential for local collaboration must be visualised and substantiated through specific examples.

For example, through a comprehensive urban floor concept and alternative housing typologies that explore Stjørdal's potential (as a hub) for a more diversified housing mix. We explore temporary, rental, lifecycle and community solutions. The project examples will ultimately be summarised and compiled into a strategic action plan.

This plan describes how Stjørdal can be developed in phases that more clearly reflect the inter-action between infrastructure, nature and the human resources that characterise the place historically, today and into the future.

Timeline:

-January – June 2024

Theme

- Working title: An alternative urban development strategy for Stjørdal
- Overall theme: Architecture and city
- Subject perspectives: Project development, urban design, housing, urban trigger

Relevant topics:

- local value chains in a national, regional and local logistics hub
- to integrate/centre the value of Stjørdal as a meeting place
- a differentiated housing offer (ownership, rental, hotel, student housing, villa etc.)
- city floor and centre attractiveness
- railway, university and cultural centre
- hubs between rail, road, sea and air transport
- coordination of actors in a city strategy
- ownership models for project development

Activities

- Start-up meeting in Stjørdal: Key actors present their activities/visions/projects to the students
- Seminar on urban development in Stjørdal?
- Fieldwork in Stjørdal: Data collection, interviews, guided tours etc.
- Midterm presentations at Stjørdal
- Grading (at NTNU)
- Final conference: Students present their work + launch of website / printed matter

Final product

- The students' digital presentations
- Exhibition in Kimen cultural centre) - open to the public
- Website - digital exhibition - open to the public
- Printed report/book with ISBN

Costs/funding:

- Travels
- Accommodation
- Printing of Books
- Production of Website
- Extra capacity for tutors
- Material costs for modelmaking etc.



Examples of student work

Architecture of the Neighbourhood – Spring 2023

- Students worked with existing neighbourhoods across Oslo.
- Created urban plans and housing projects that :
 - improved connections to Oslos blue-green spaces
 - provided much needed city centre housing.
 - make compact, live-able city neighbourhoods.





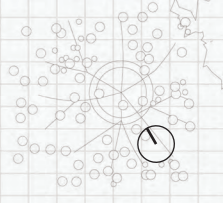
Blue-Green Strategy



Long Section 1:1000

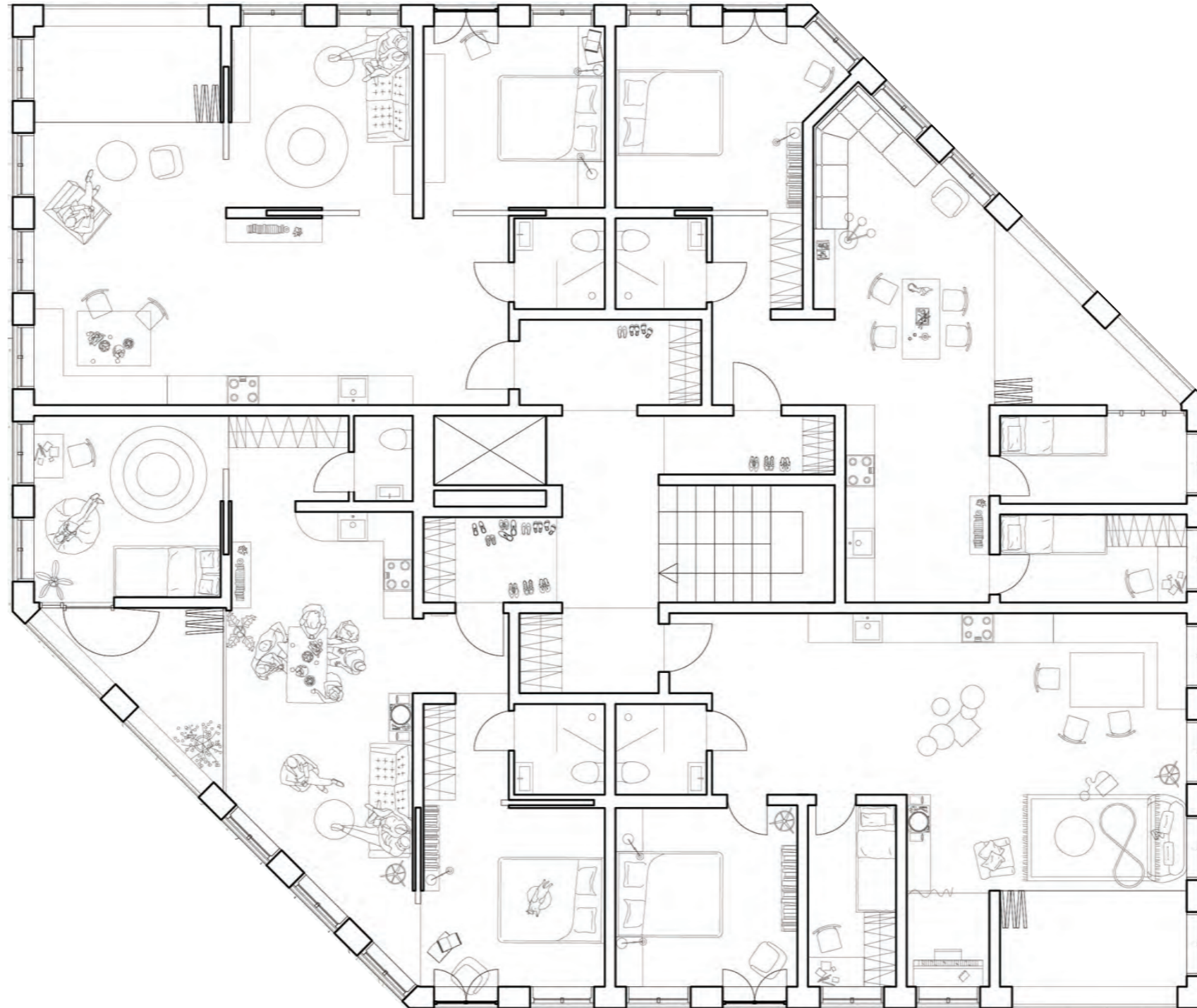


Typology Plan 1:200

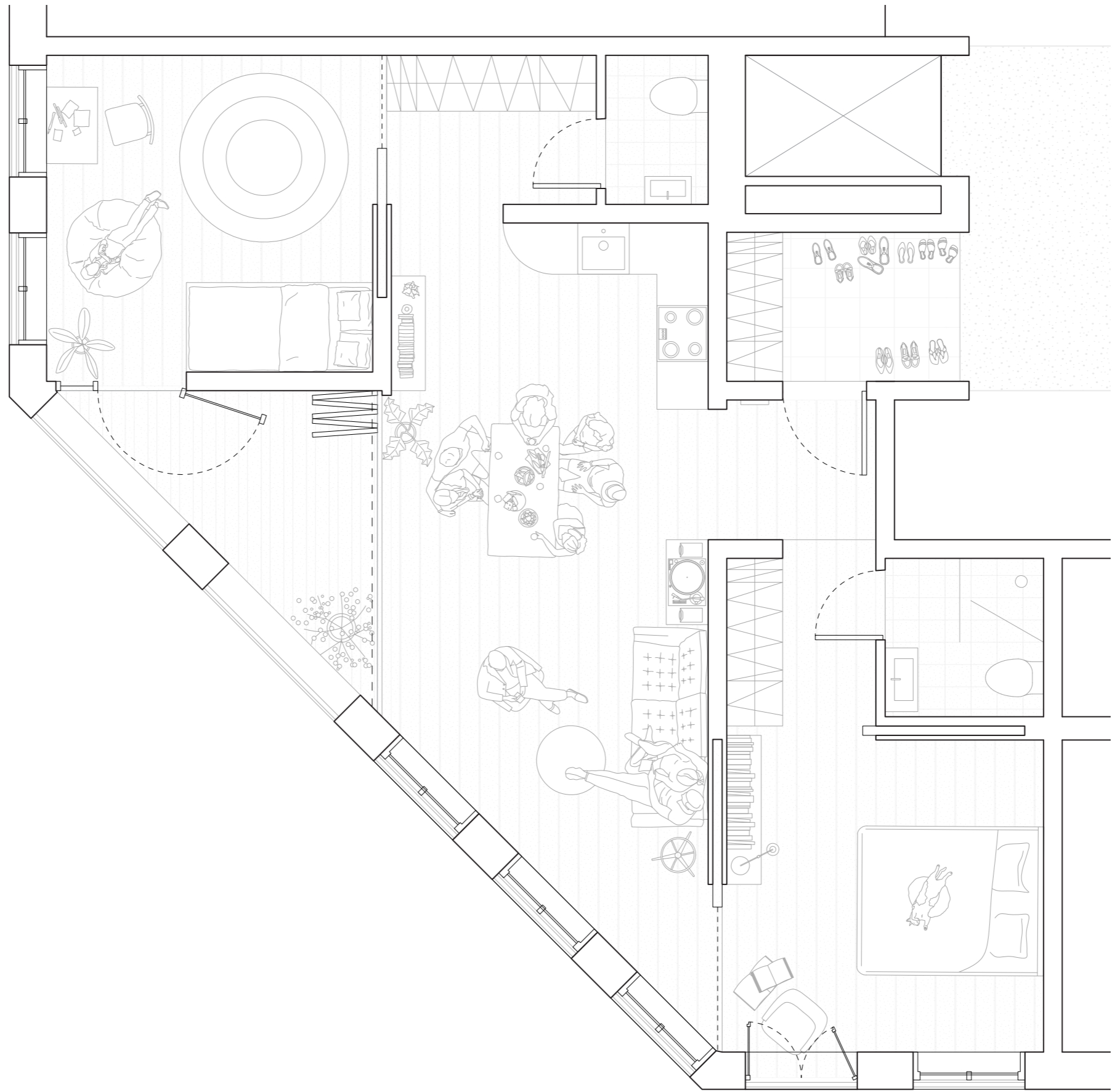




View of A Courtyard



General Plan Pompel 1:100 - Urban Villa Apartments



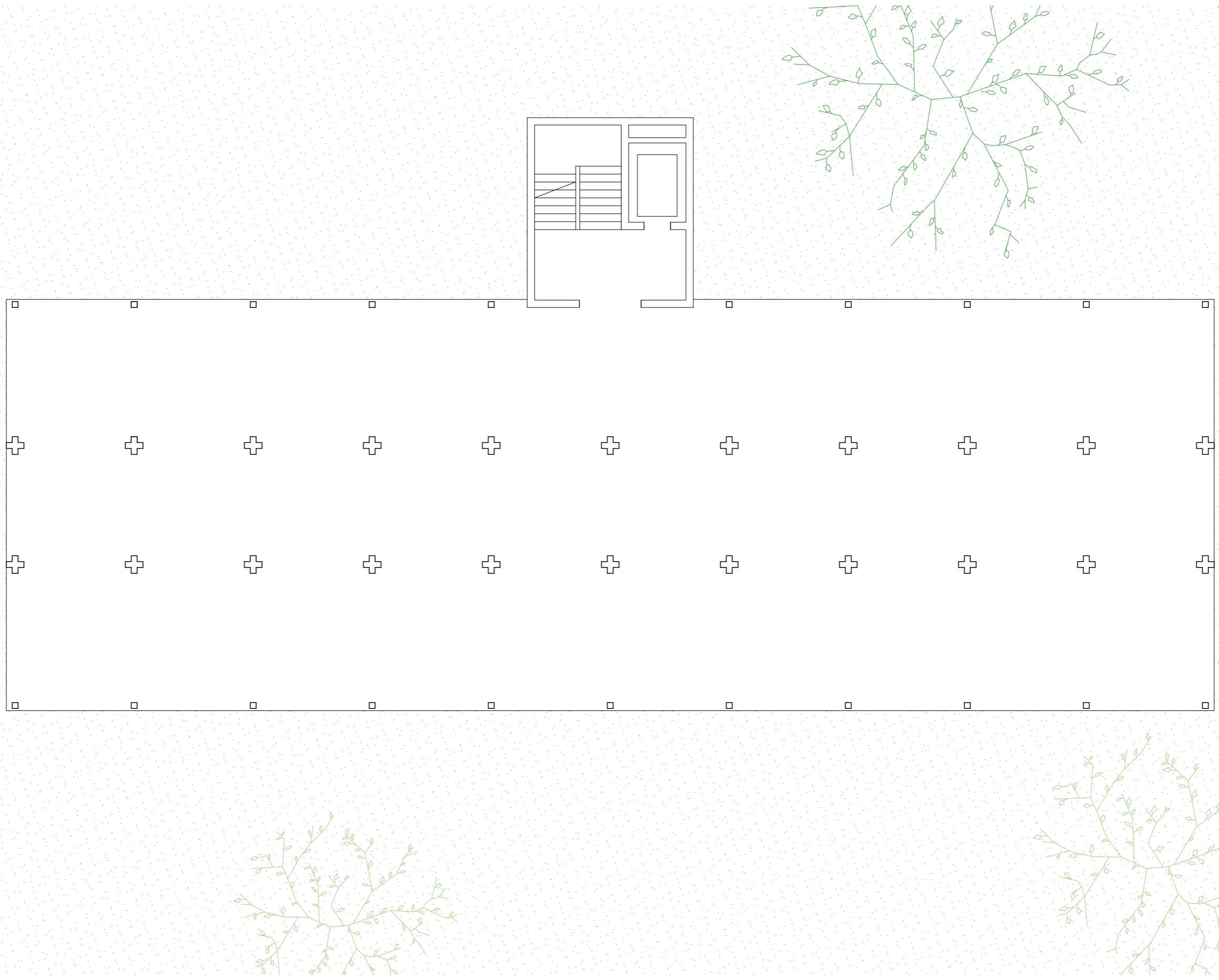
Plan Dwelling Pompel 1:50



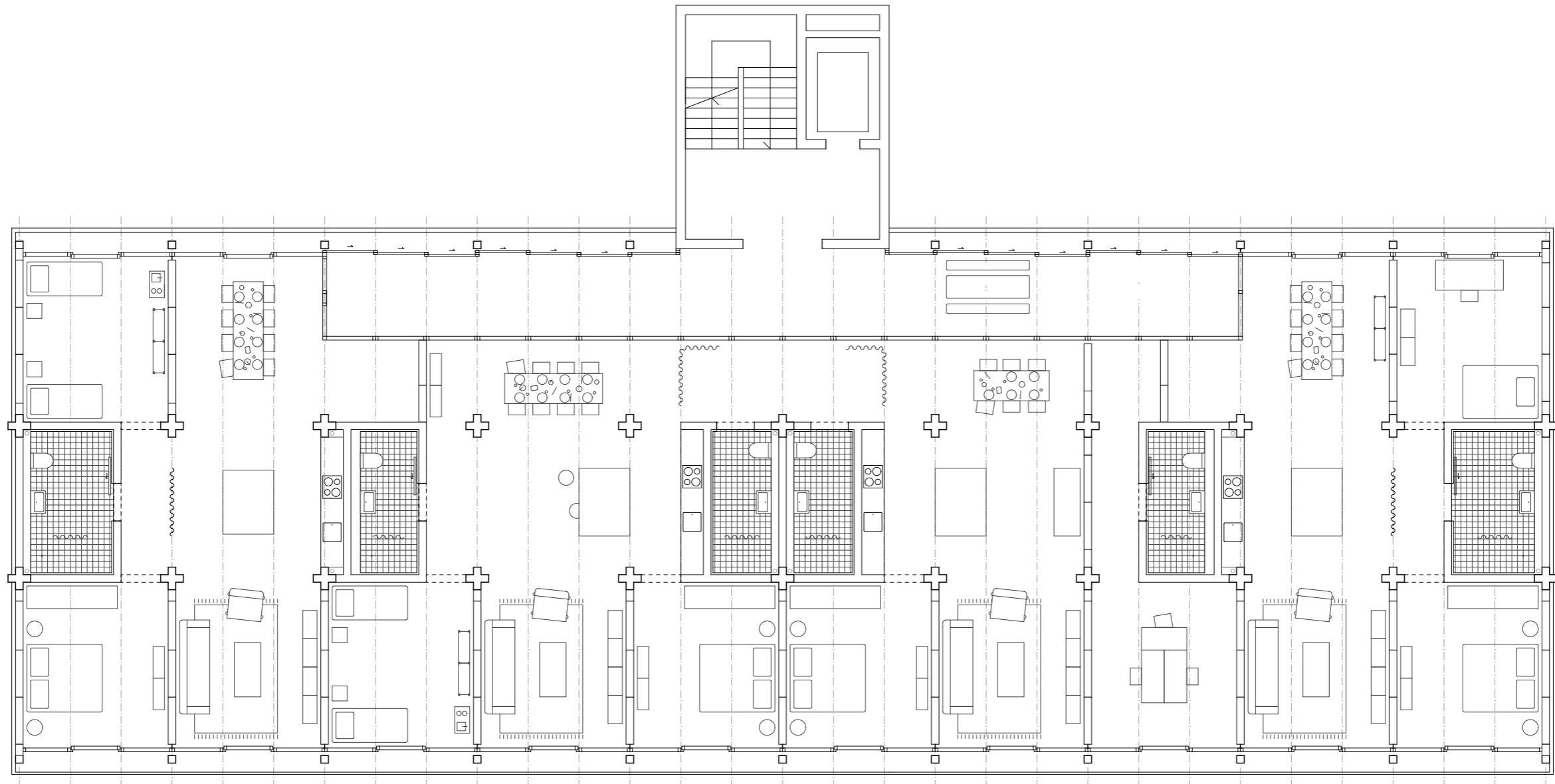
Dwelling Interior



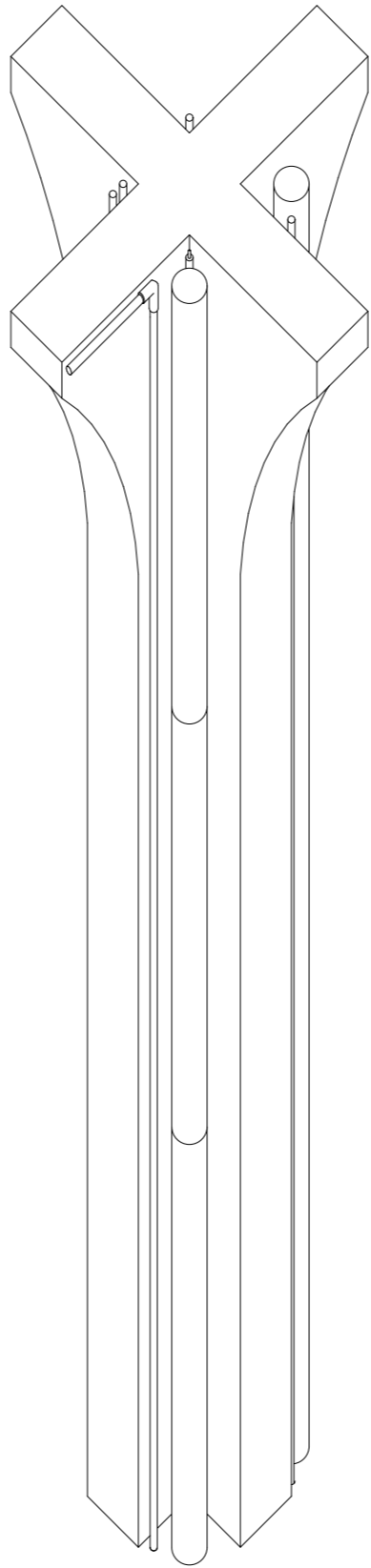
Dwelling Exterior



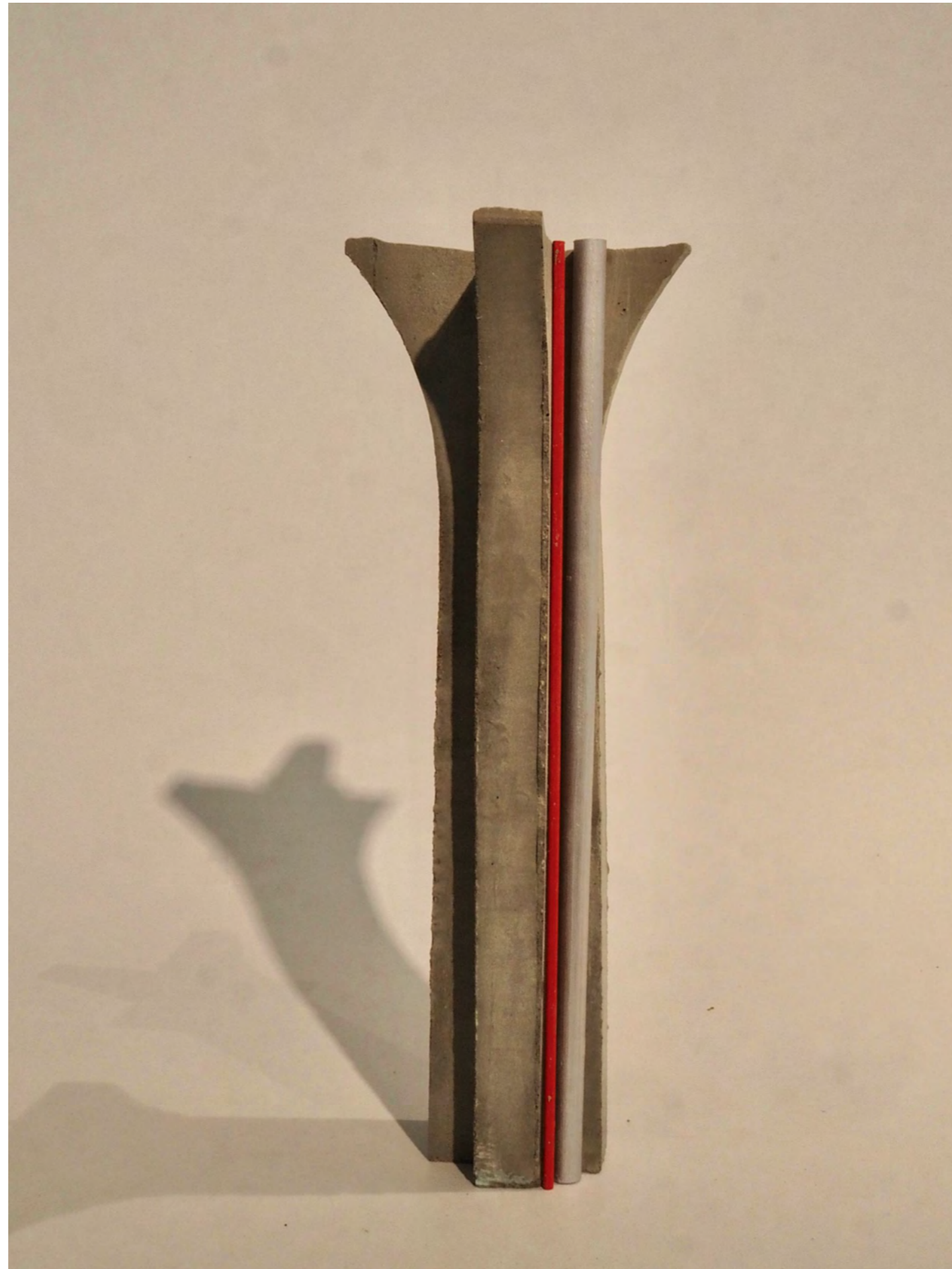
Scenarios



Prototype



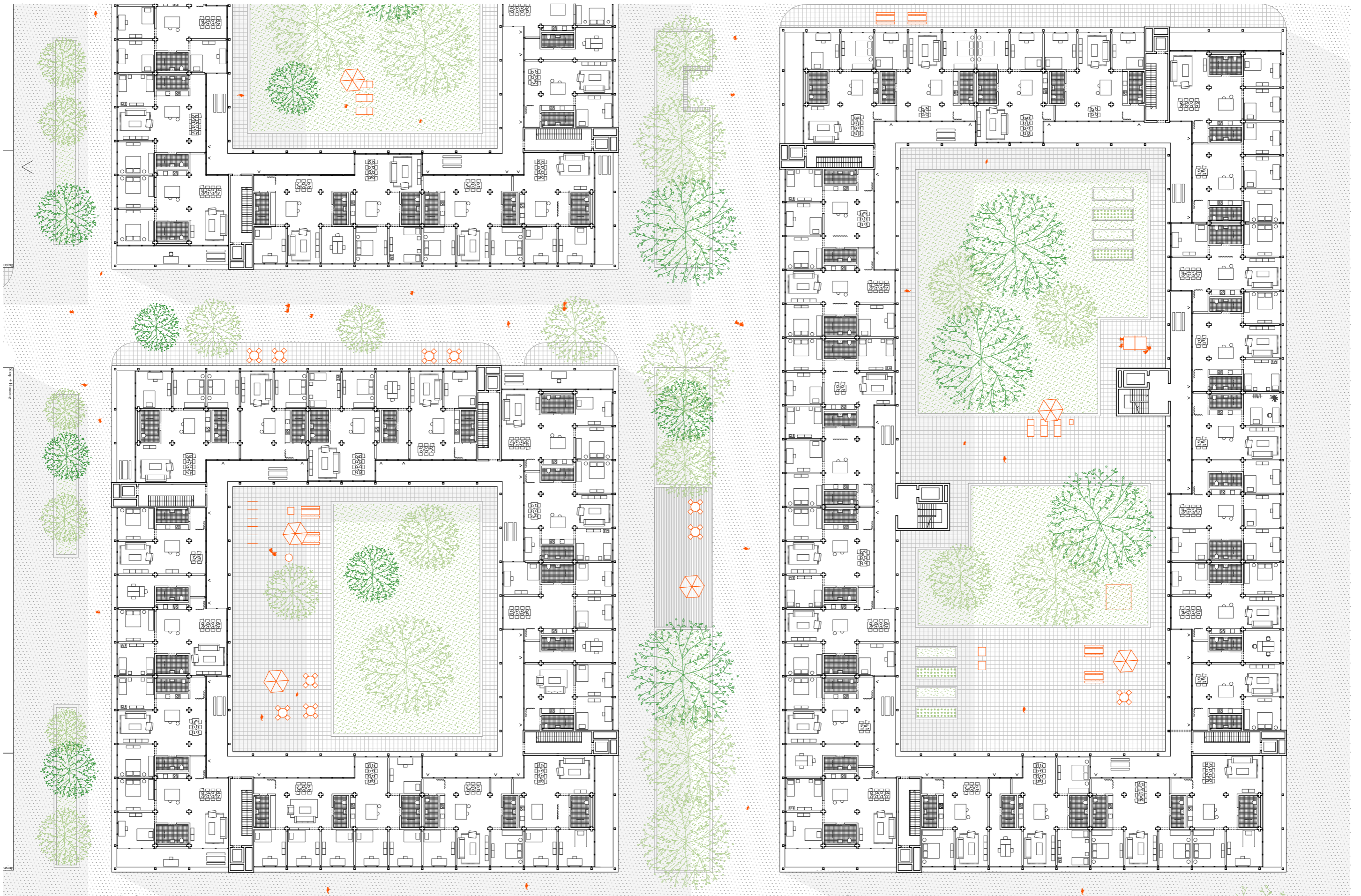
Functional Column



Functional Column



Urban Figure in Neighbourhood Plan



Typology



Roof structure
terrace structure
250 mm insulation
300 mm concrete slab

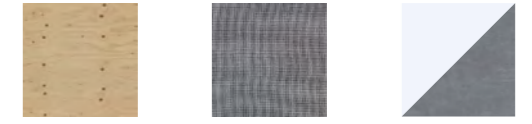
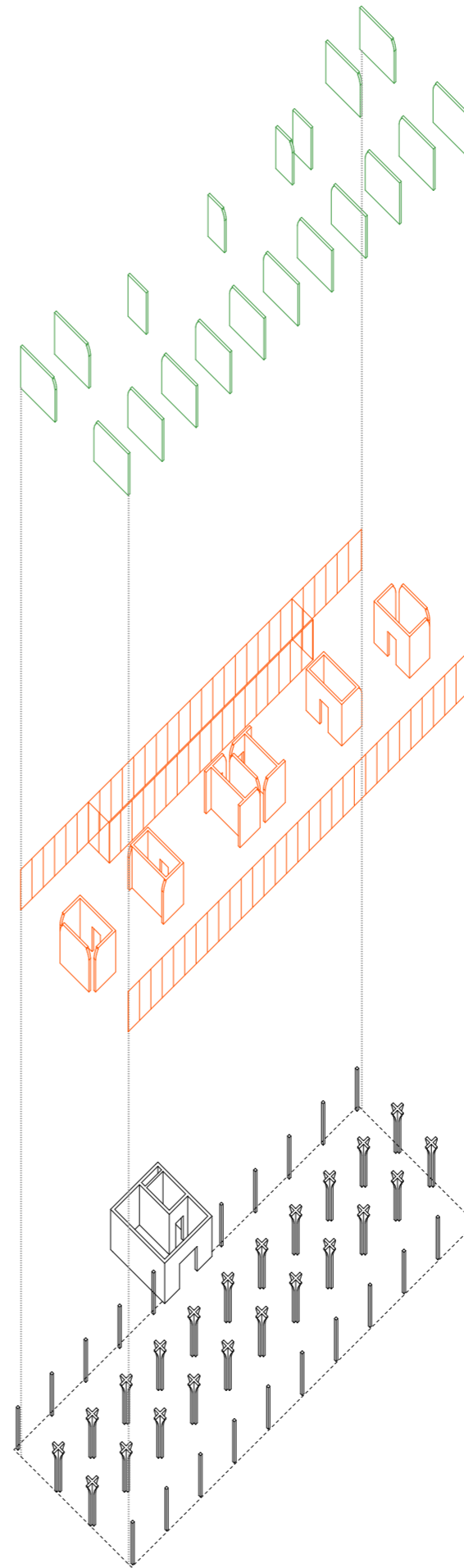
Floor structure
finishing concrete
80 mm screed layer
100 mm insulation
200 mm concrete slab

Floor structure
finishing concrete
100 mm screed layer
100 mm insulation
300 mm concrete slab
300 mm insulation
foundation

Facade Section



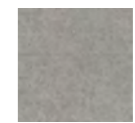
Dwelling kitchen



Housing Deviation
Wood/ Fabric/ Self Chosen

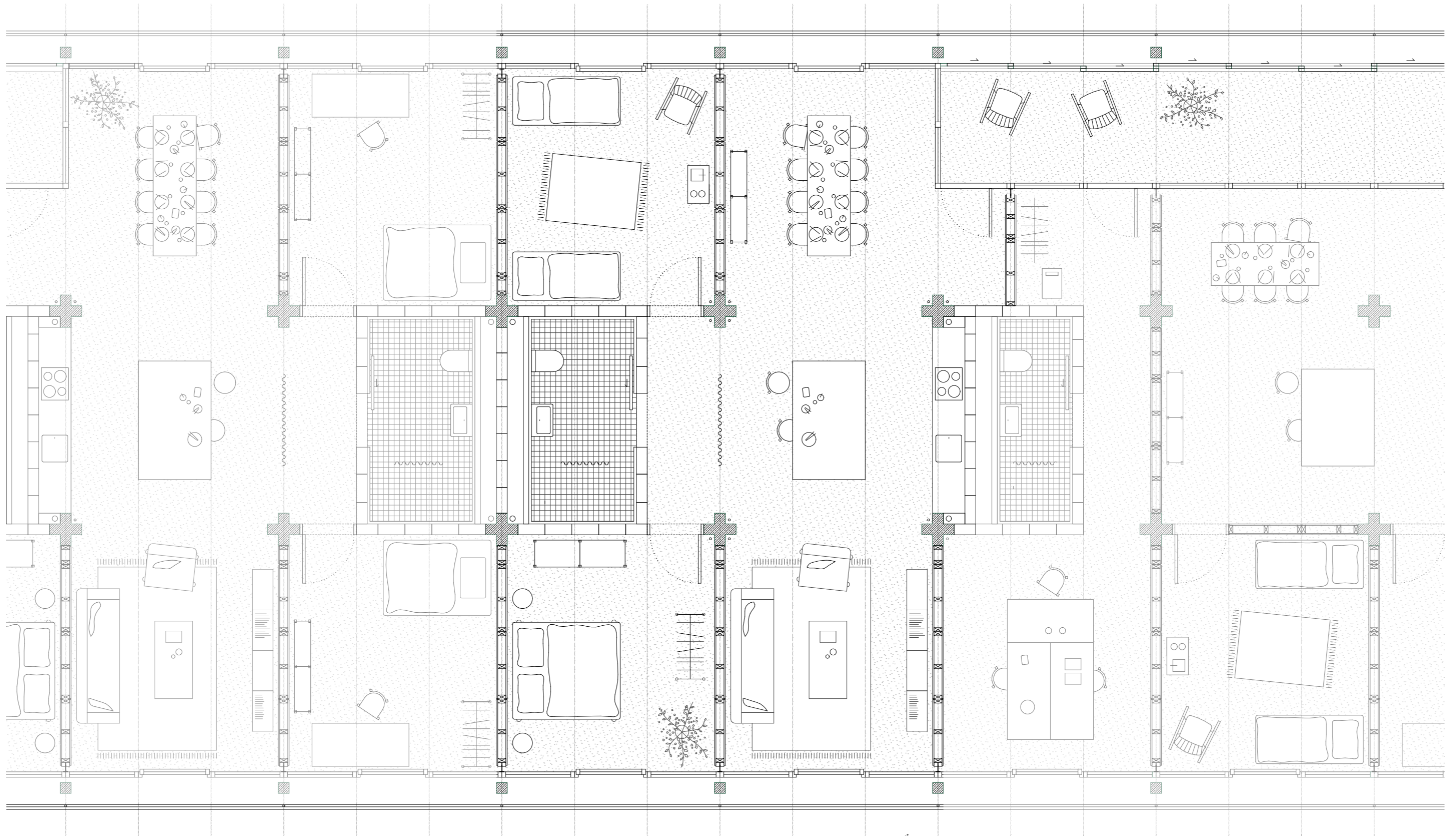


Housing Core/ Facade
Profiled Brick/ Steel/ Glass



Forever
Concrete

Dwelling kitchen material

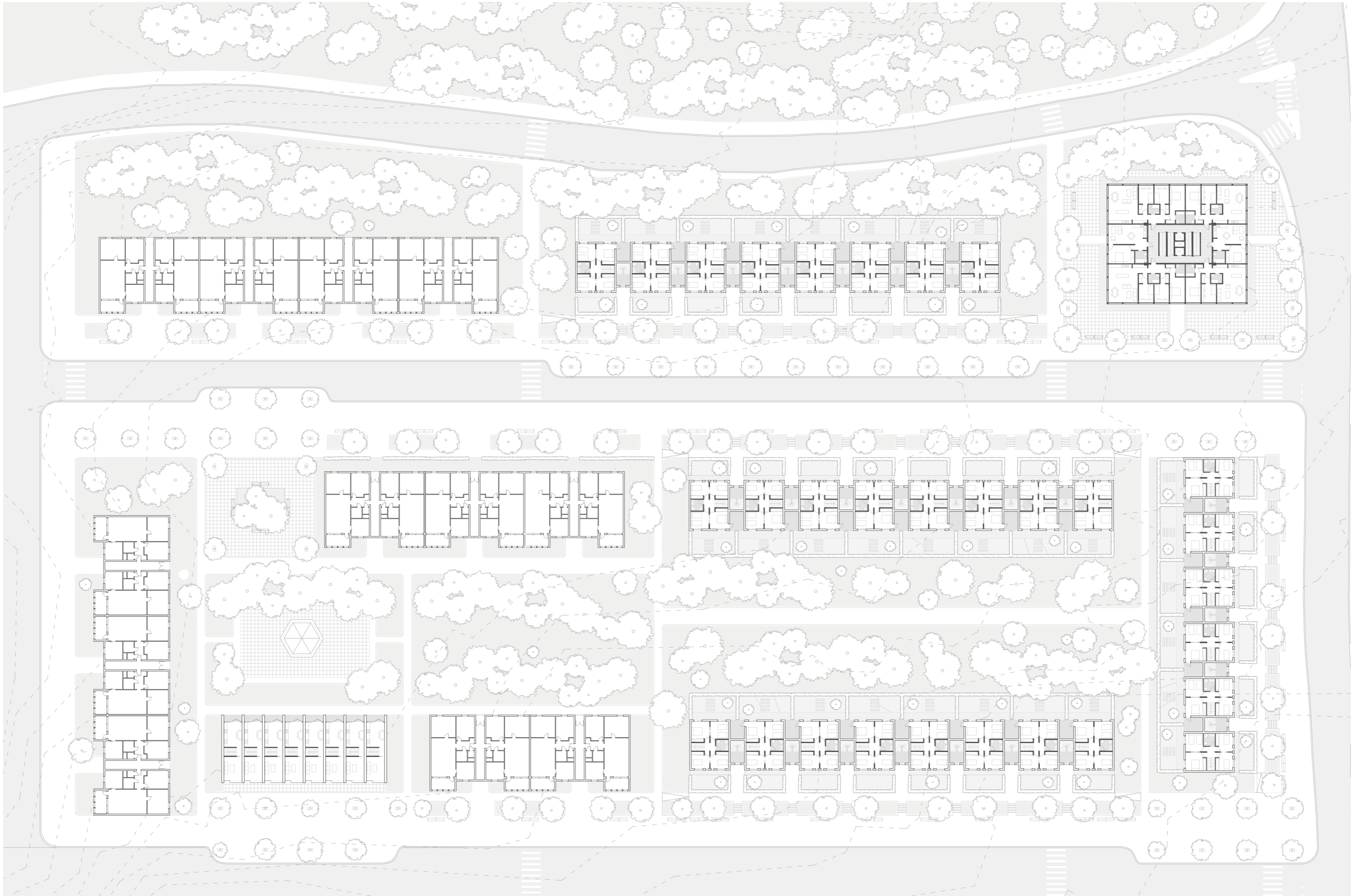


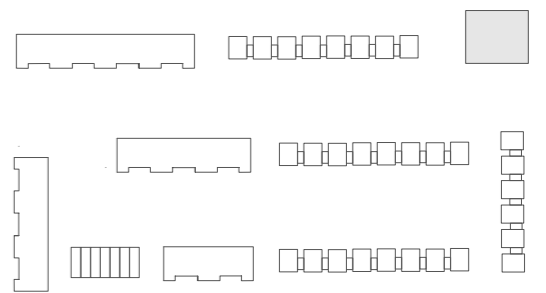
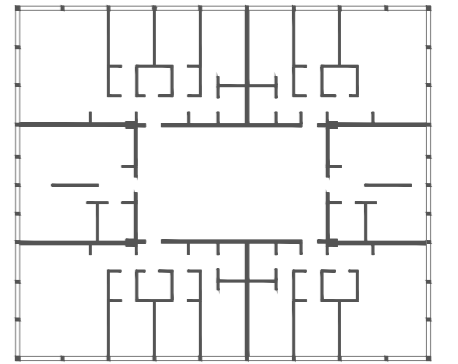
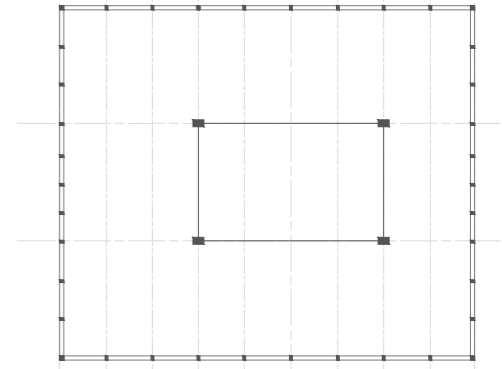
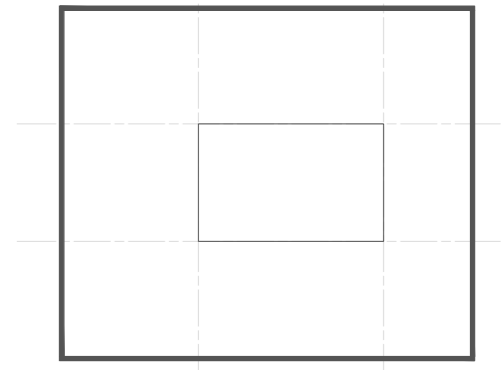
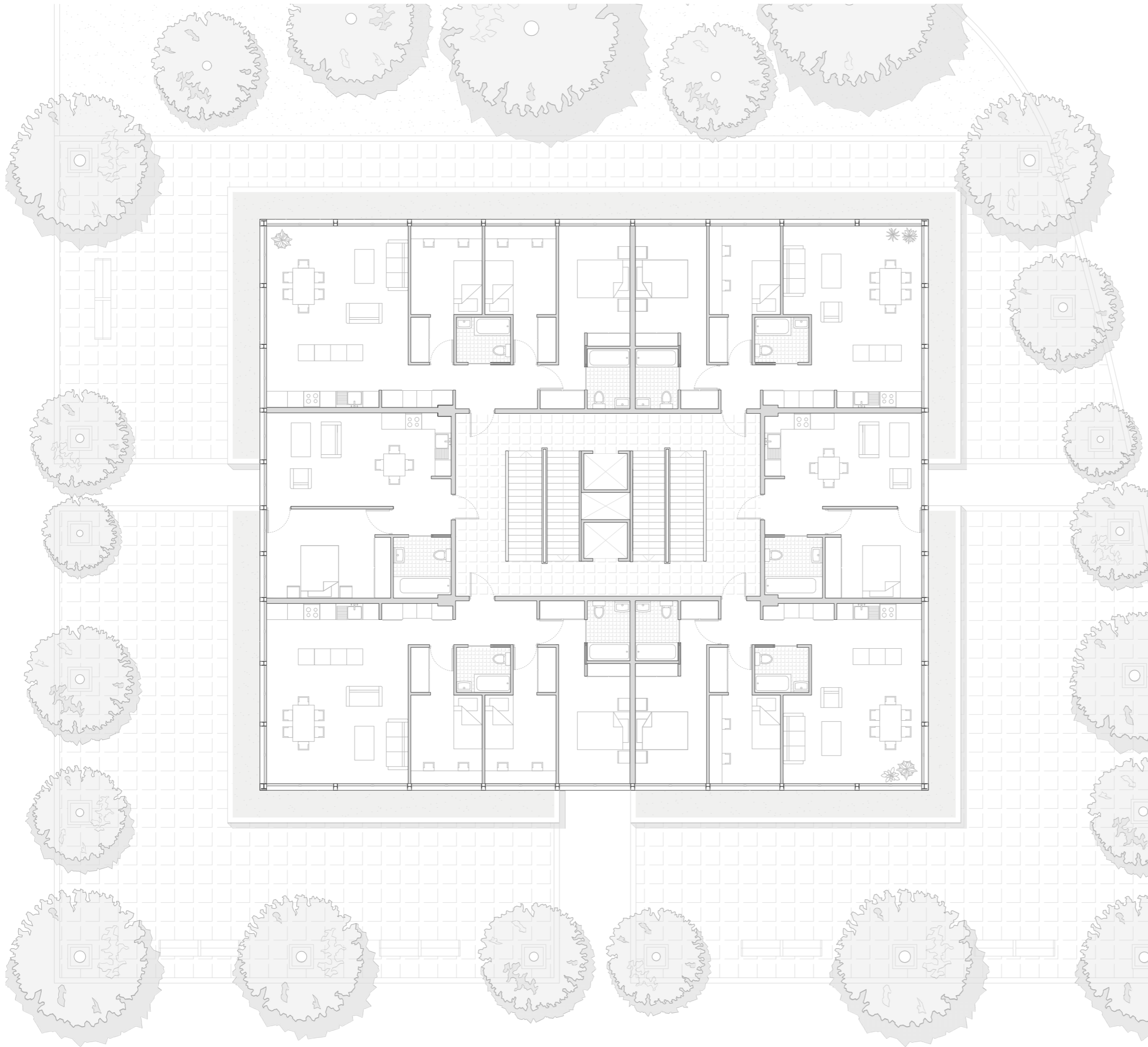
Dwelling



Inclusiv space













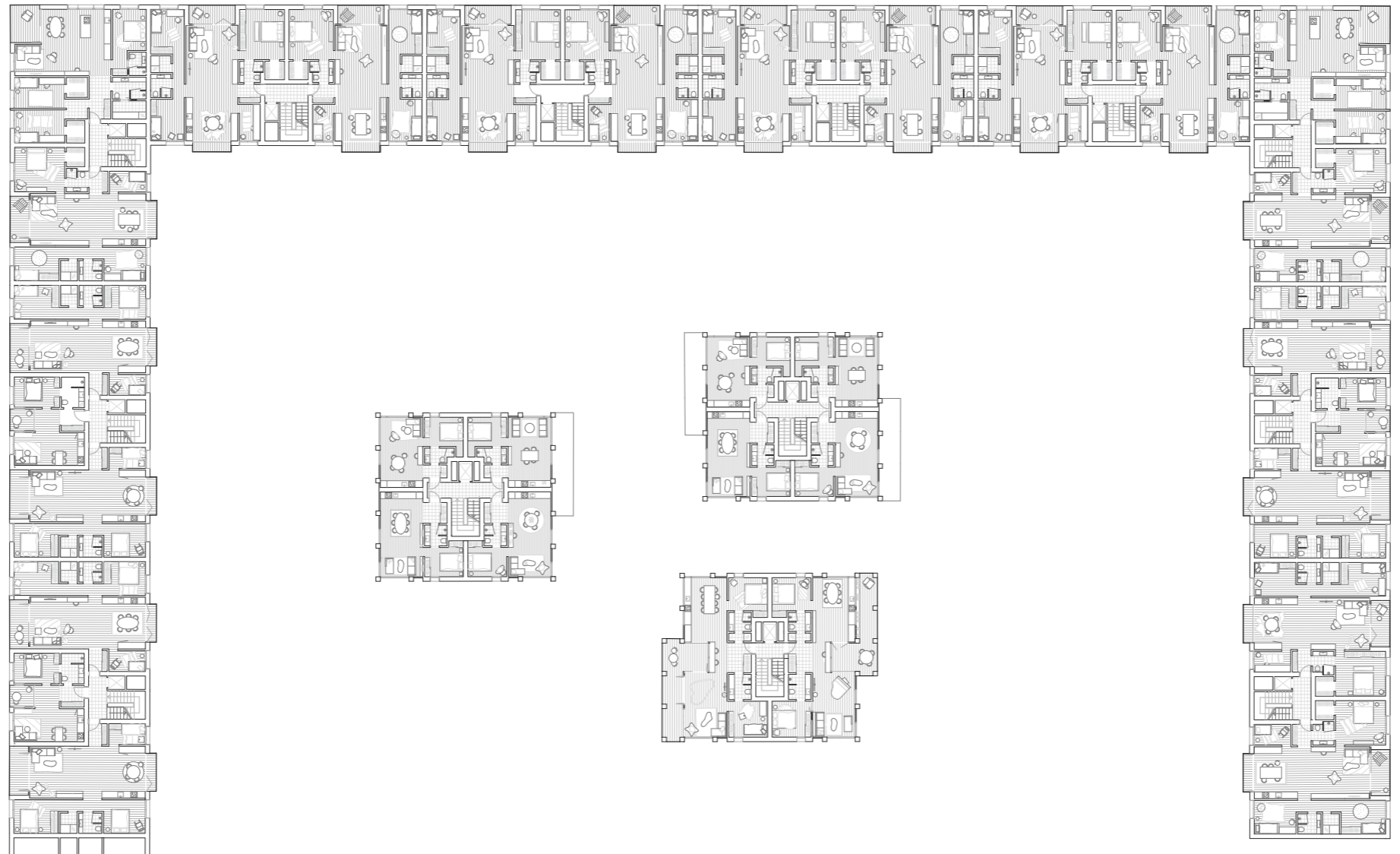
Site Plan | 1:1 500

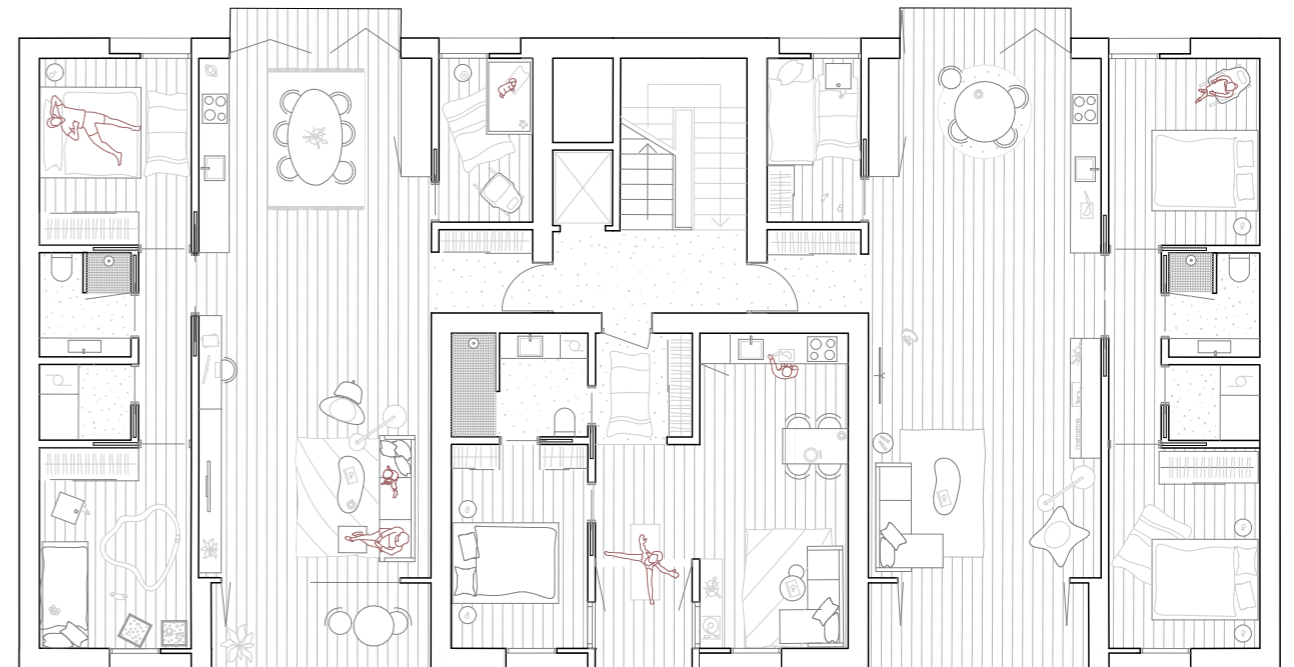
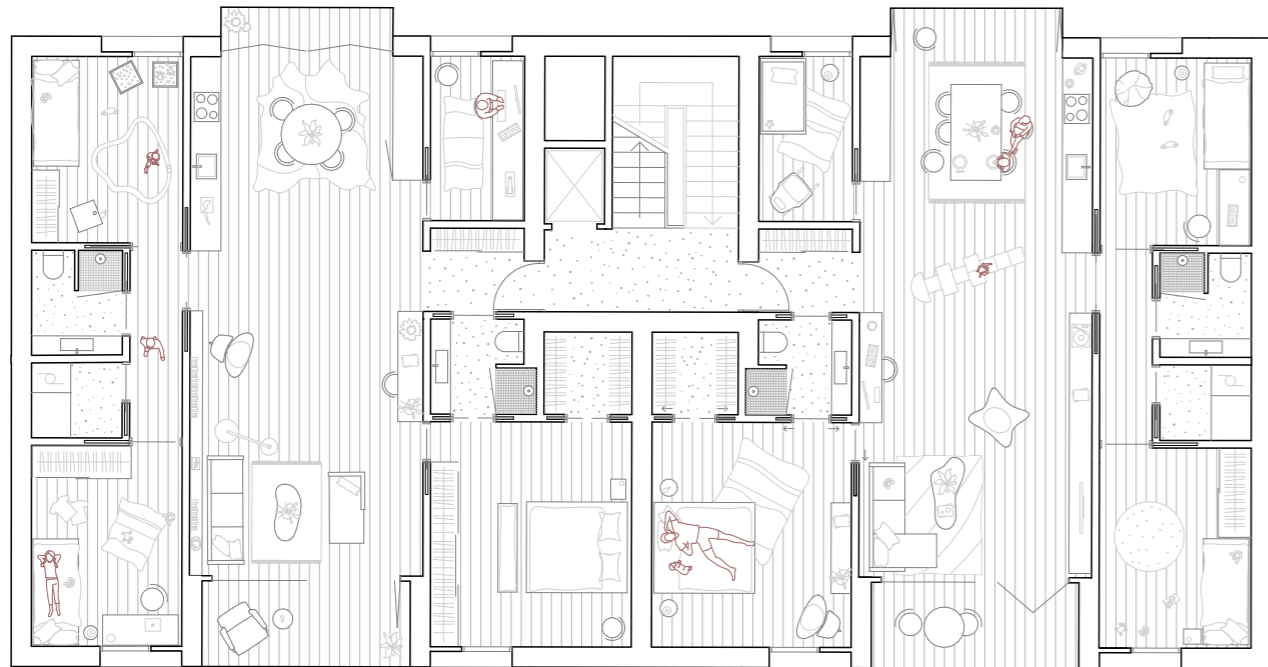




Typology Plan | Ground Floor | 1:300







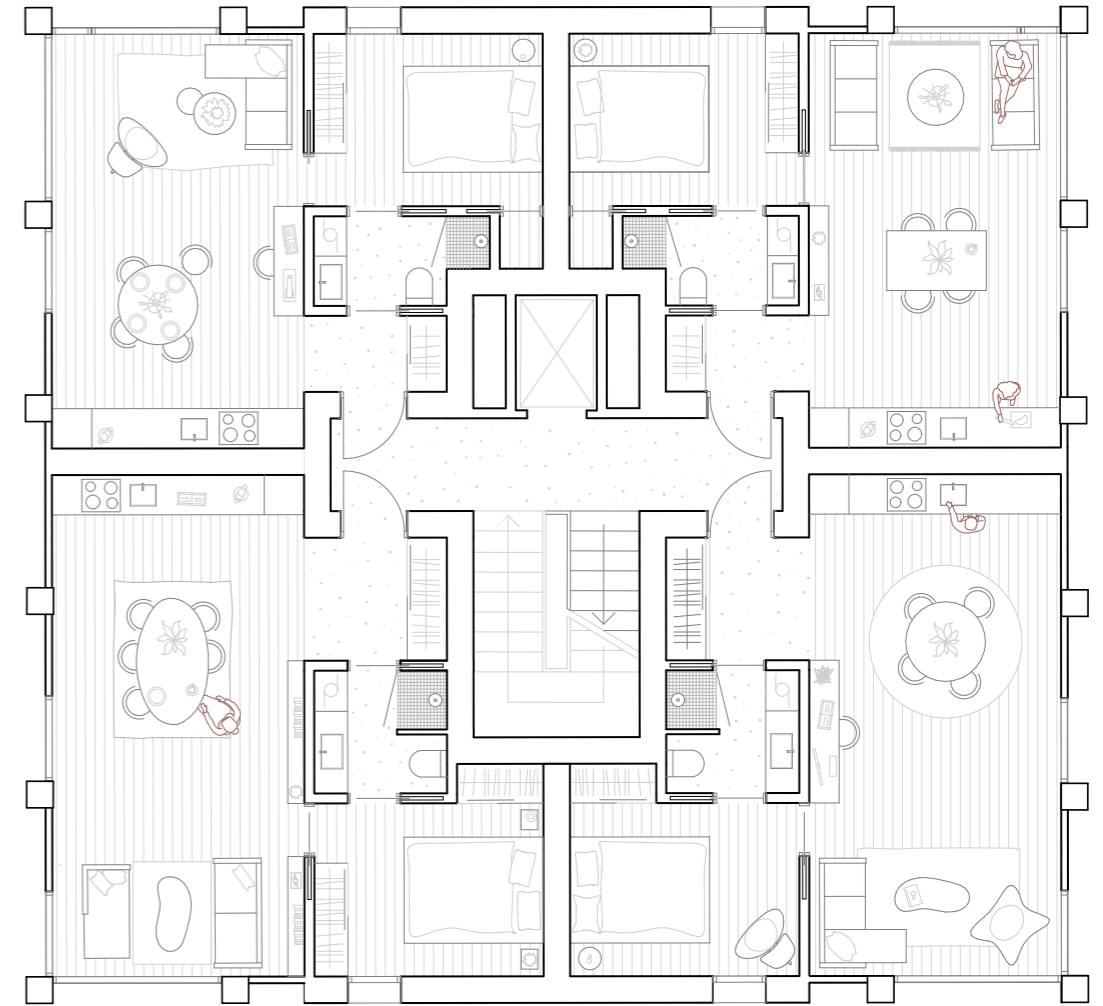


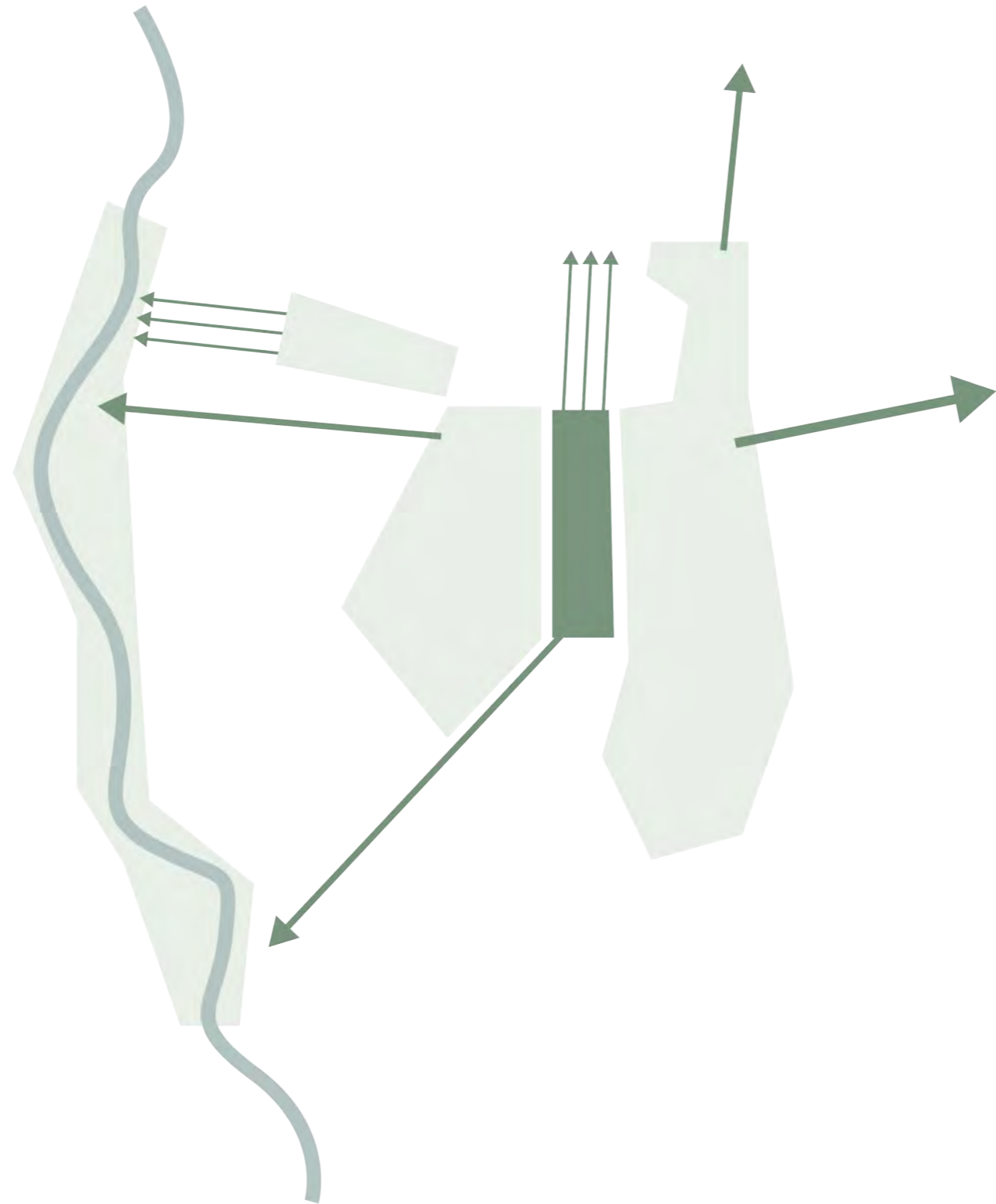


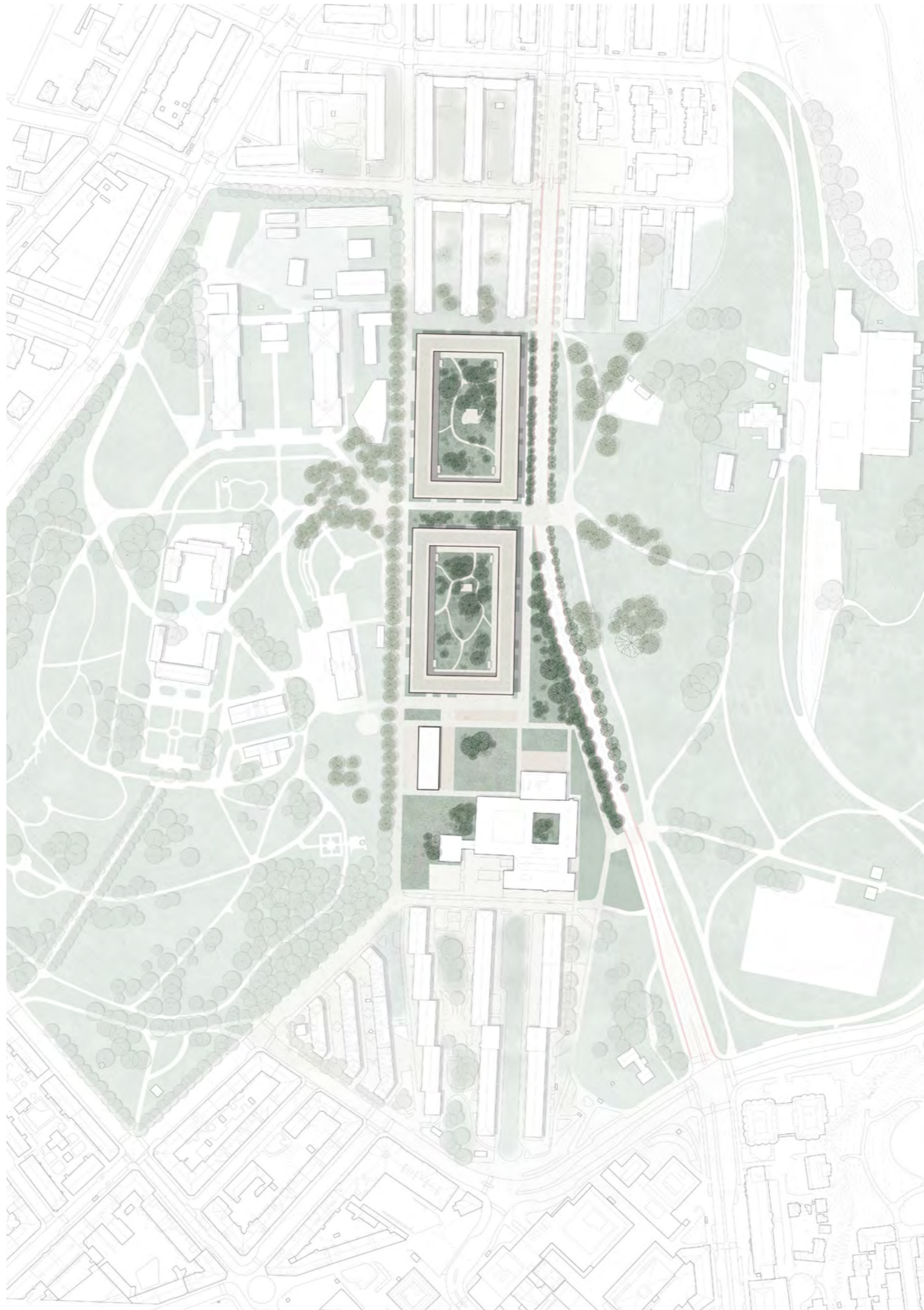
Illustration | Interior

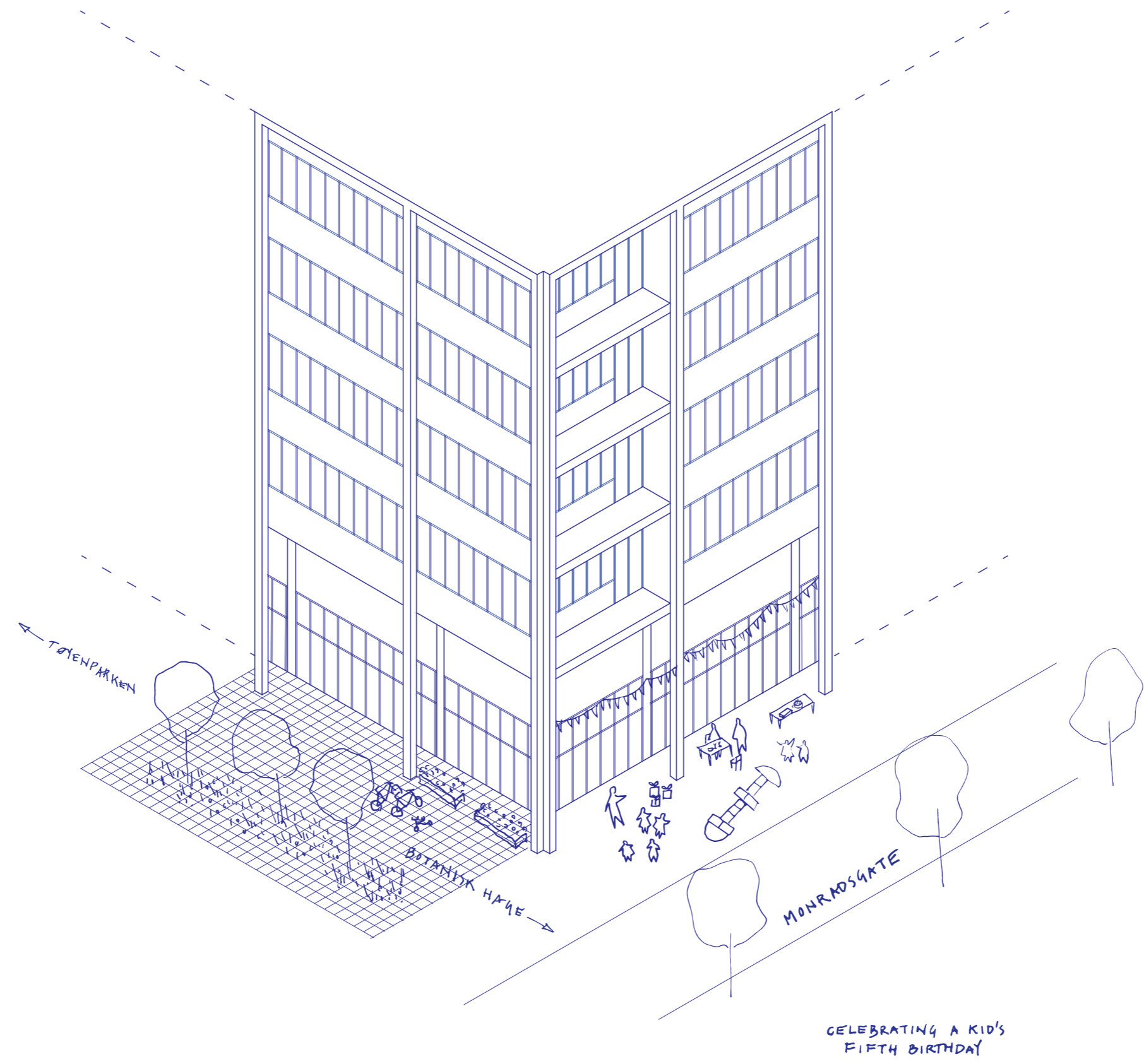


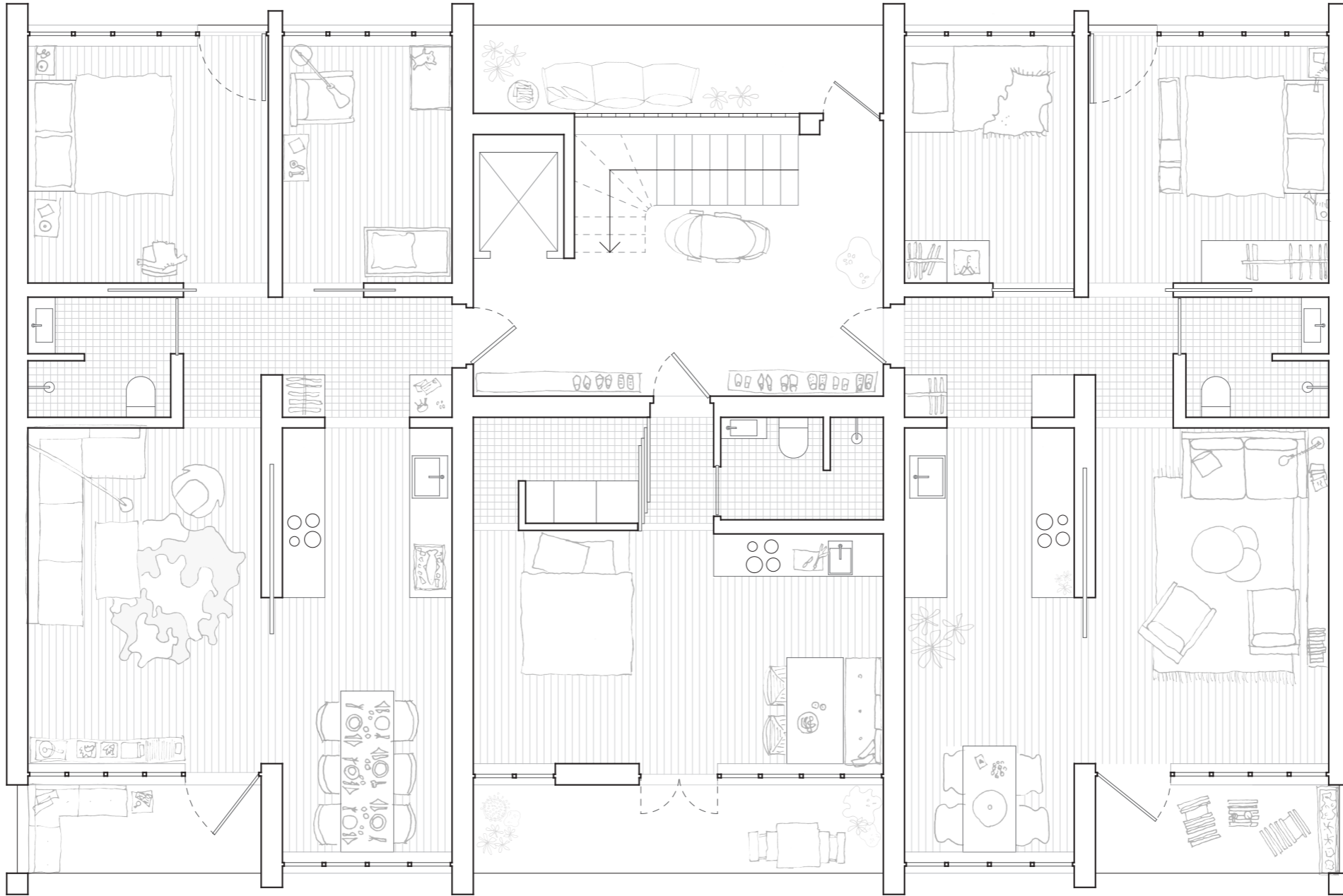
Illustration | Social space



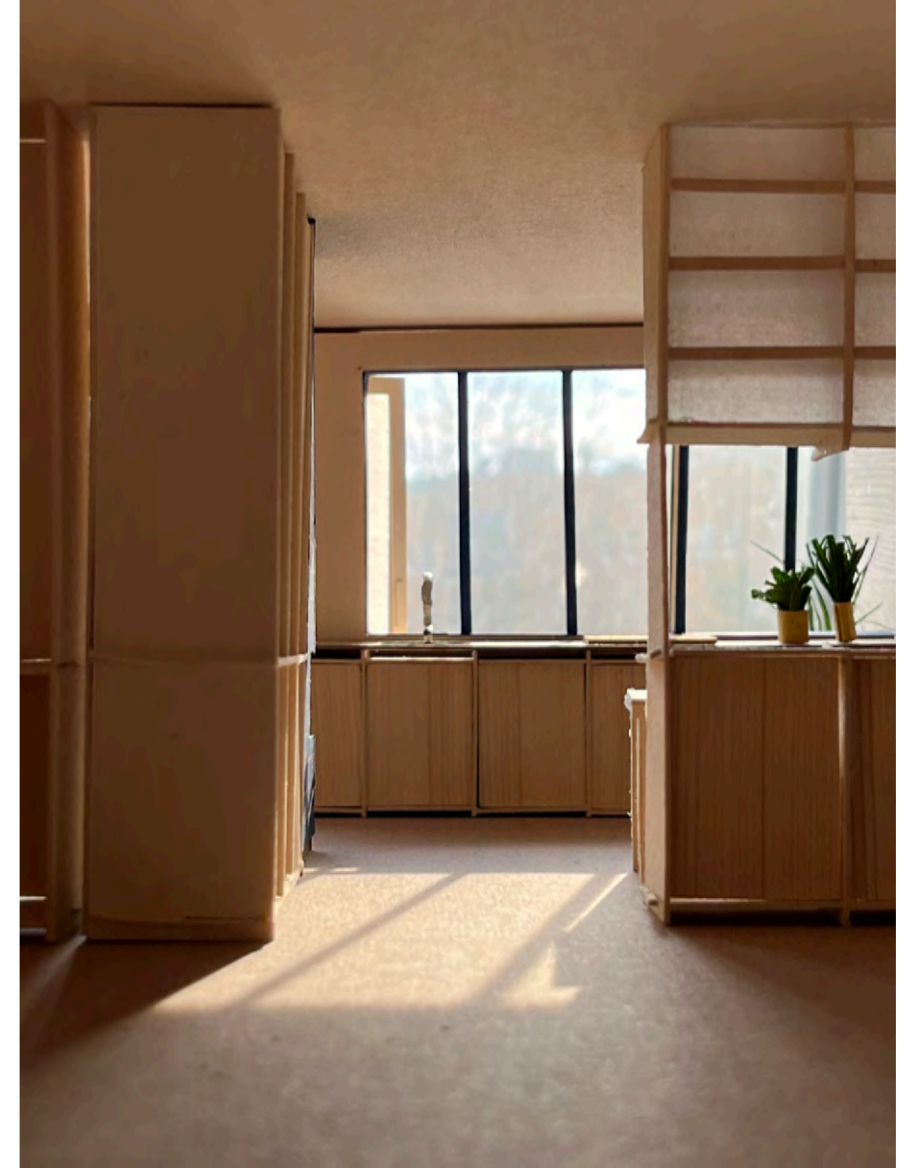






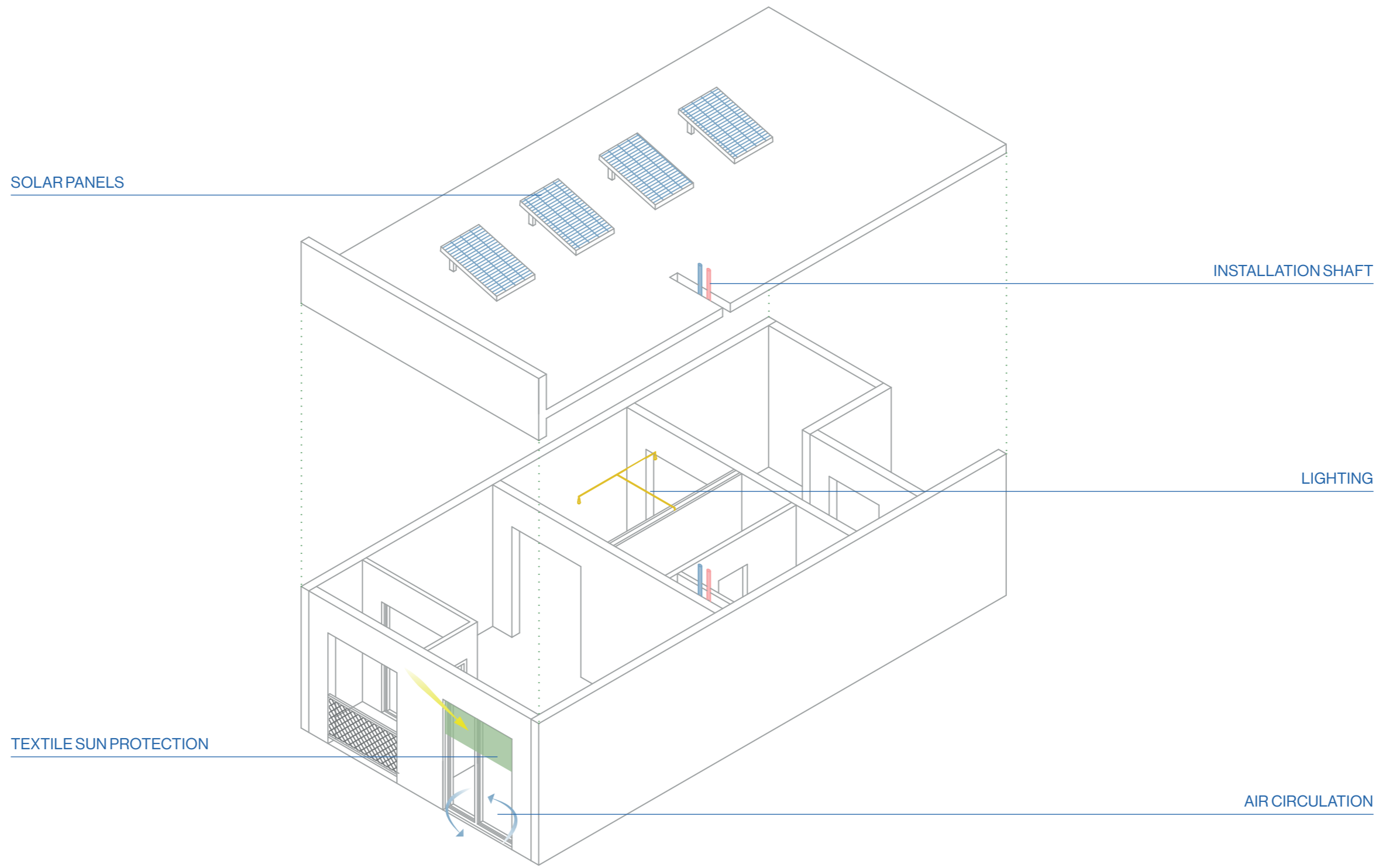












SOLARPANELS

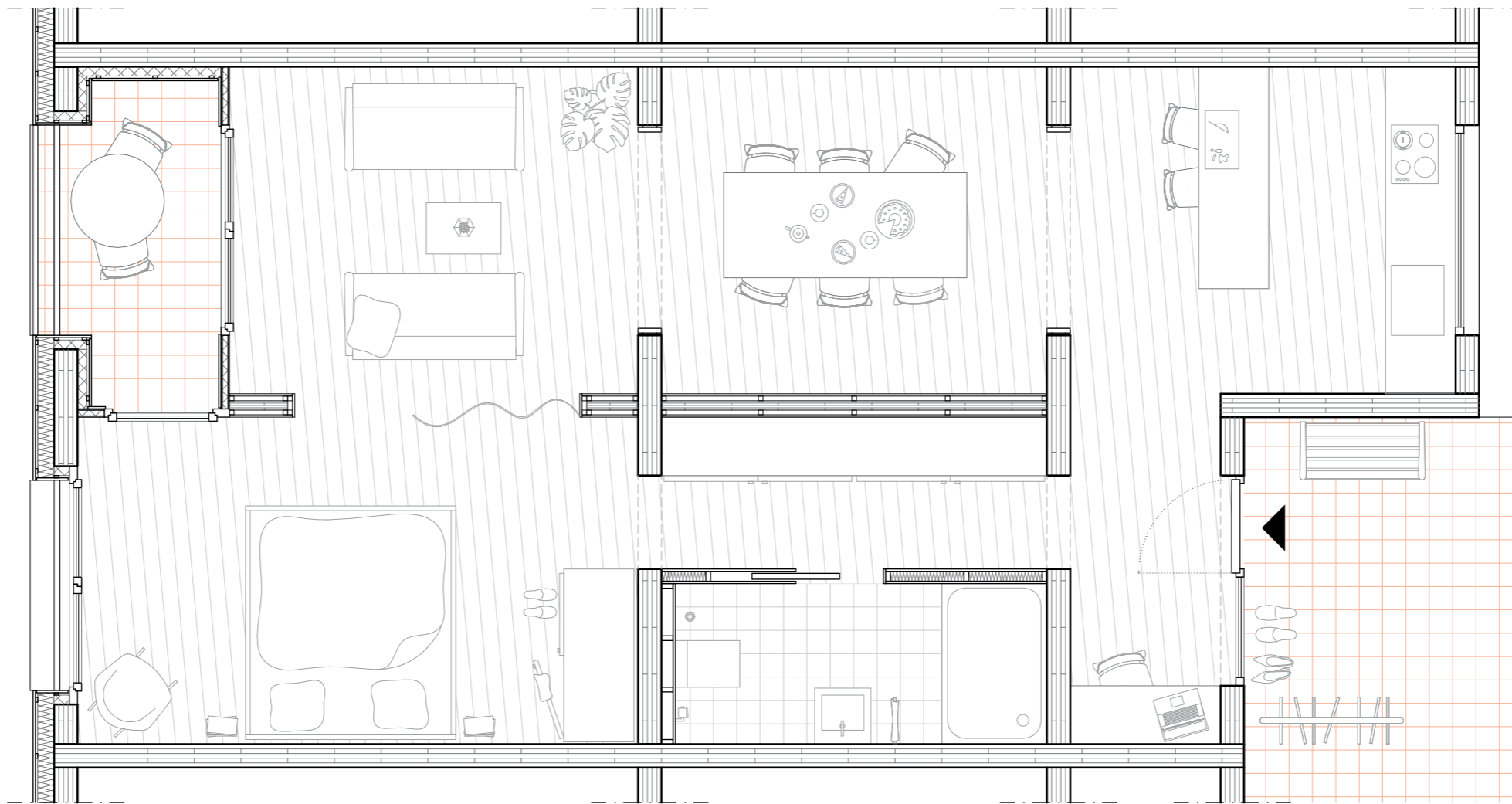
INSTALLATION SHAFT

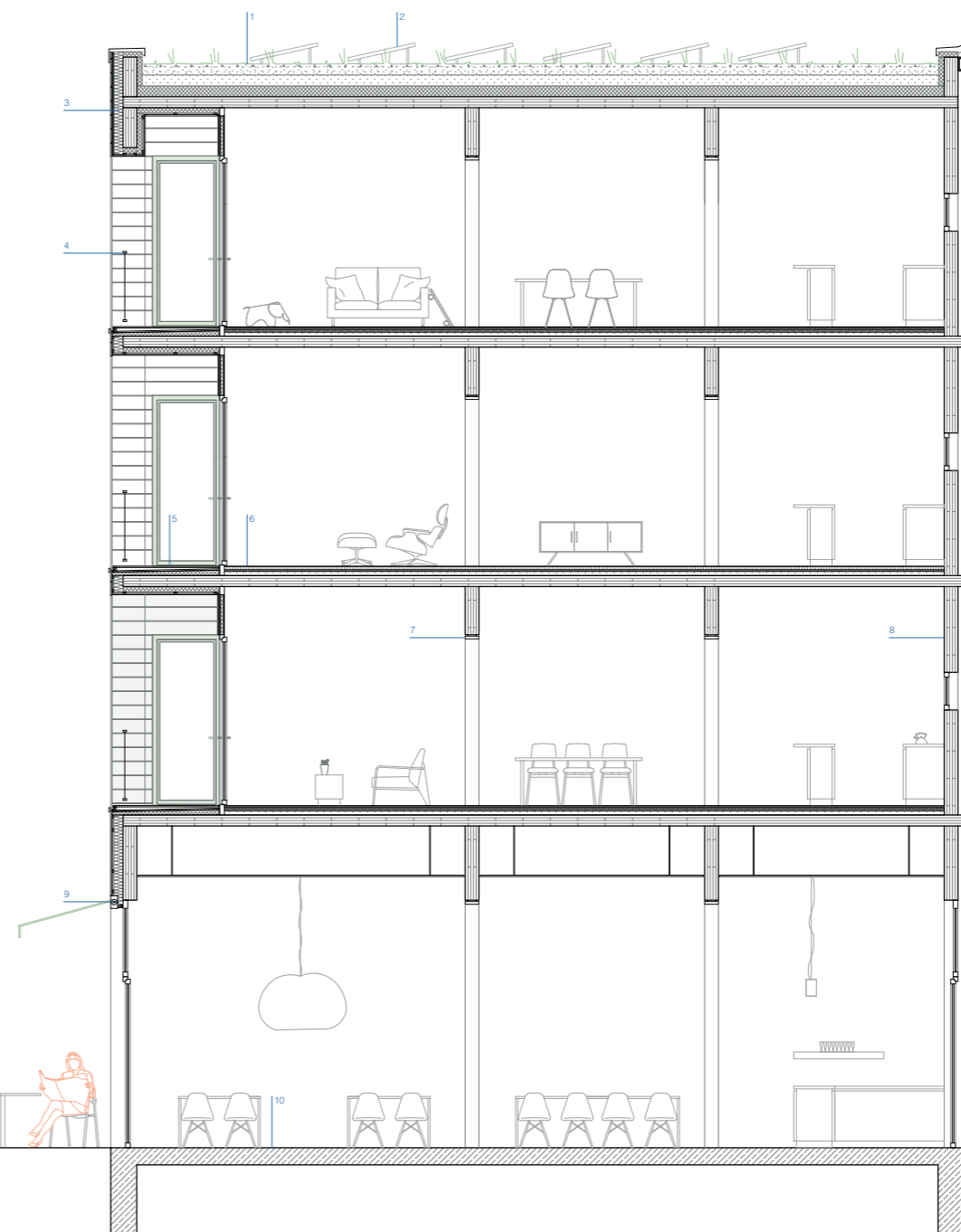
LIGHTING

TEXTILE SUN PROTECTION

AIR CIRCULATION







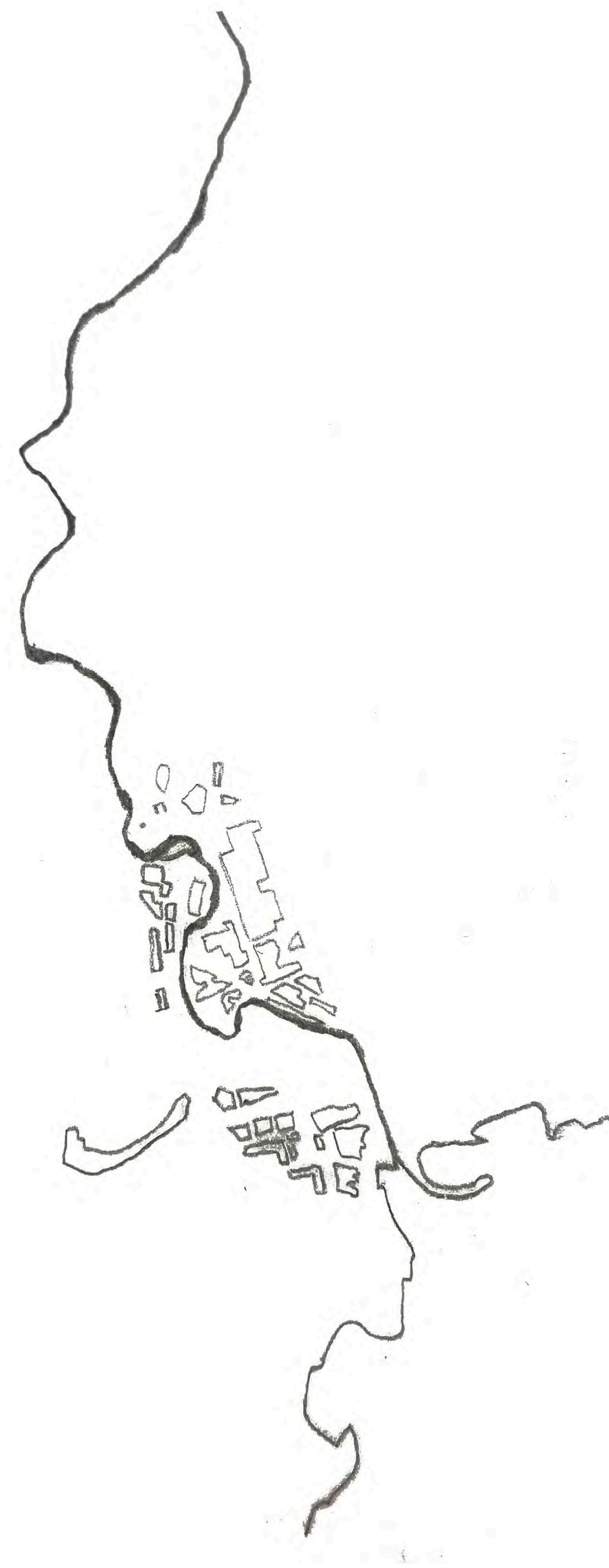
- 1 green roof, waterproofing, isolation, board plywood ceiling
- 2 solar Panels
- 3 wood paneling, air layer, isolation, board plywood wall
- 4 railing
- 5 wood, gradient insulation, underconstruction, waterproof layer
- 6 rammed earth, floorheating, board plywood ceiling
- 7 enfiladen frame
- 8 board plywood wall
- 9 textile sun protection
- 10 visible screed, concrete



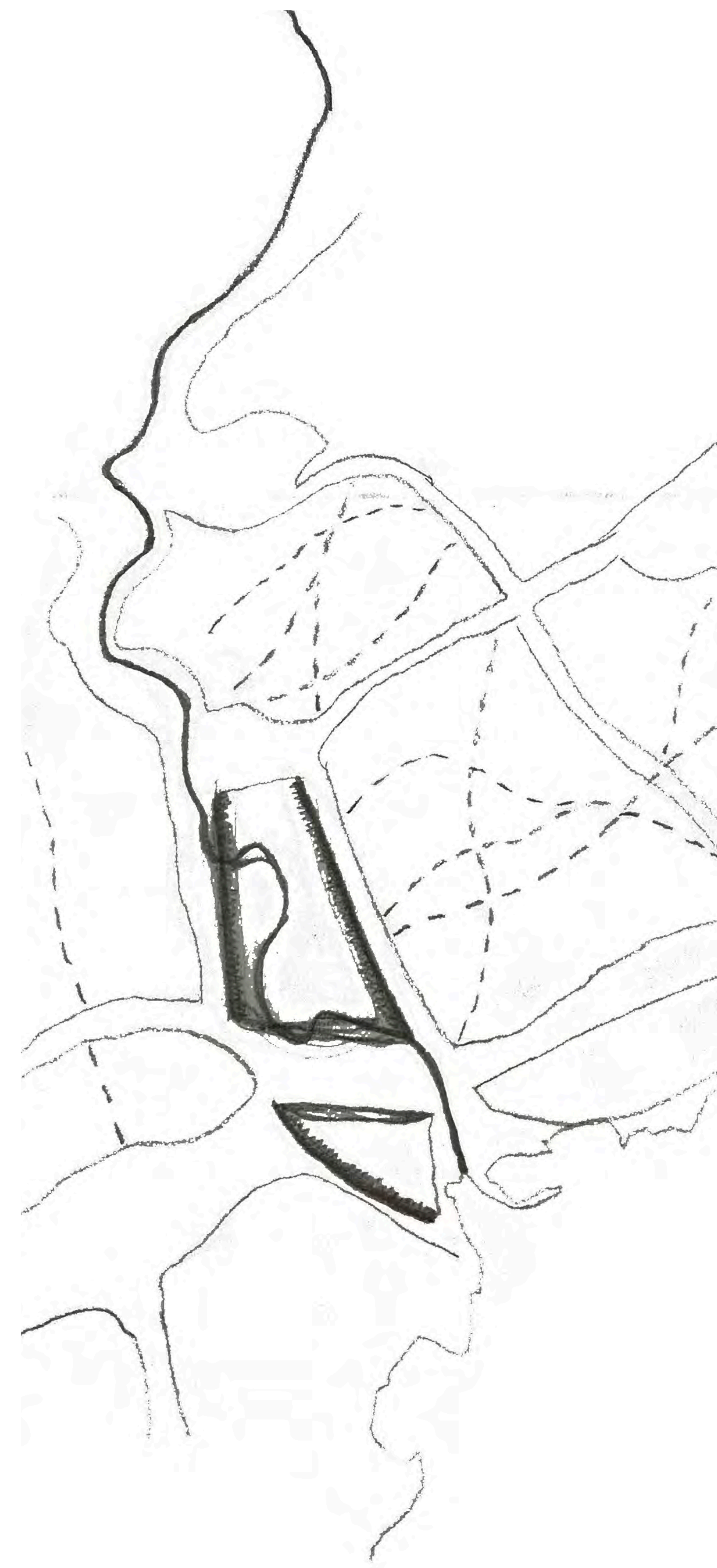




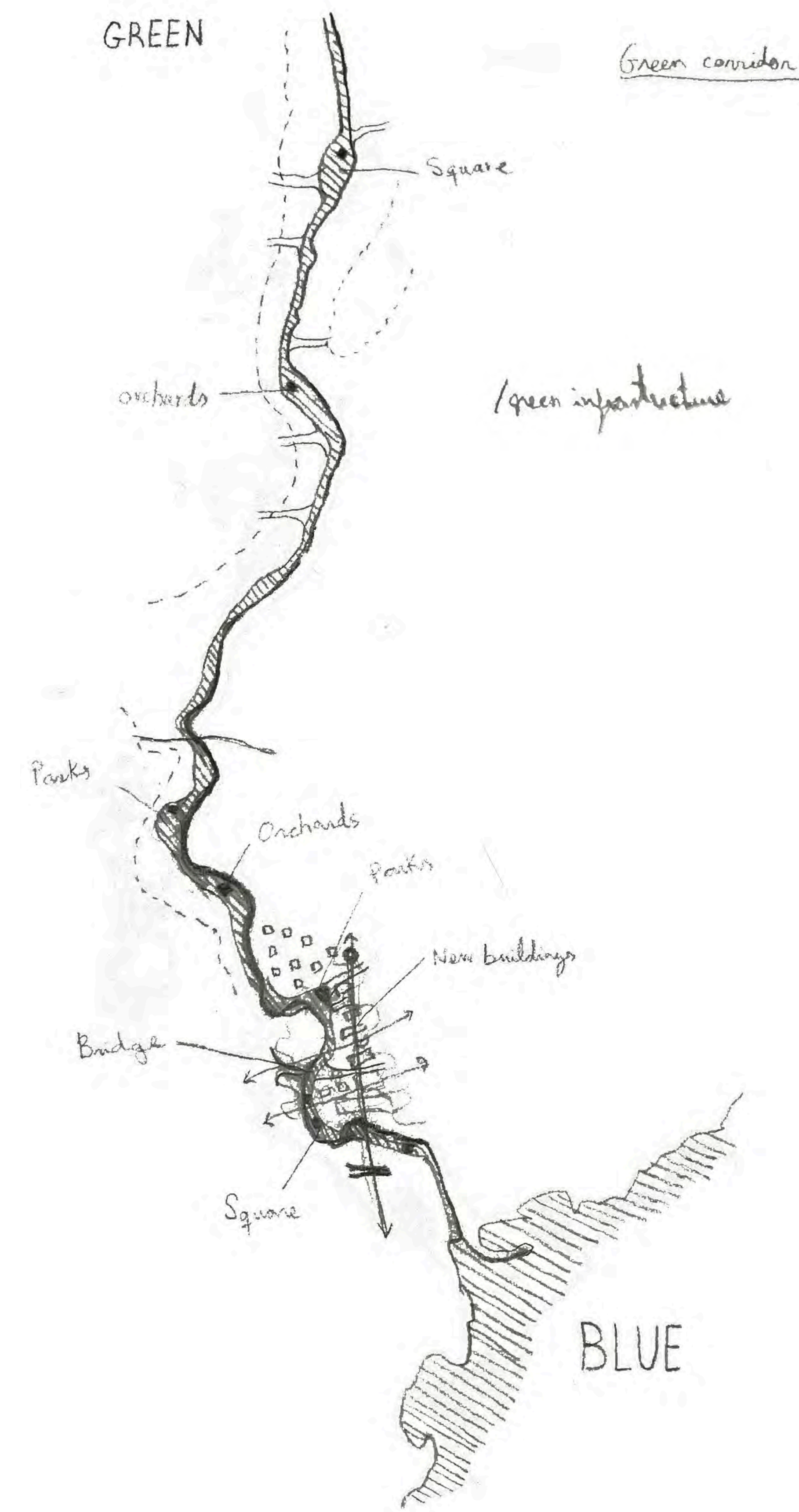




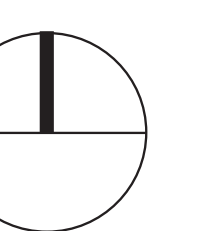
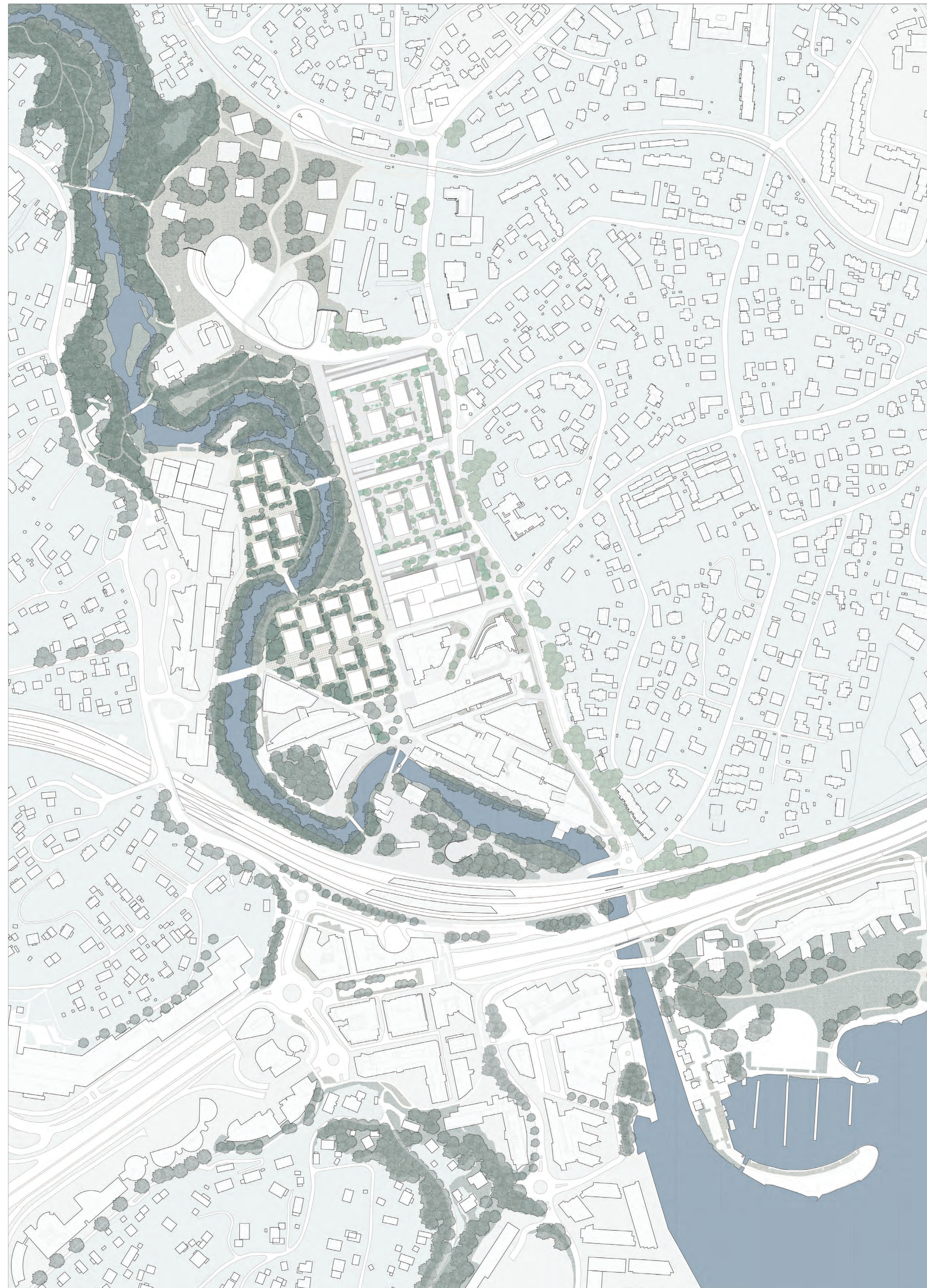
Large footprints along the river



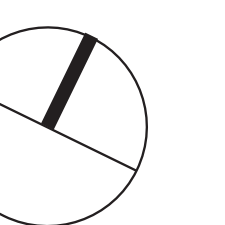
Axis and barriers

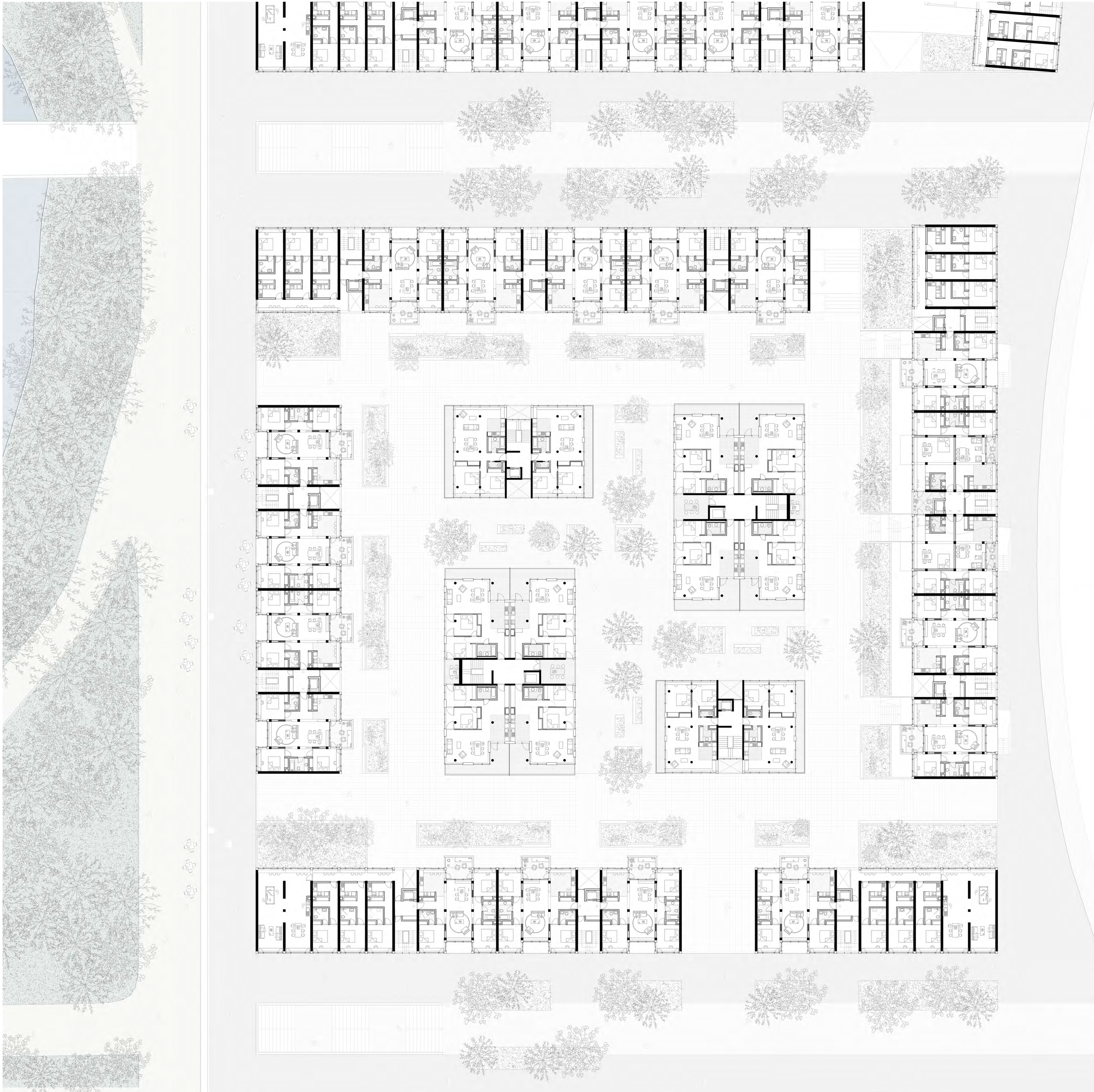


Fixing the gap and connecting the station



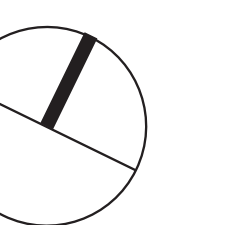


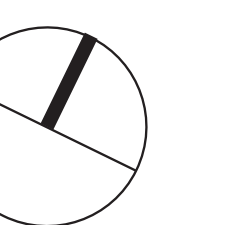
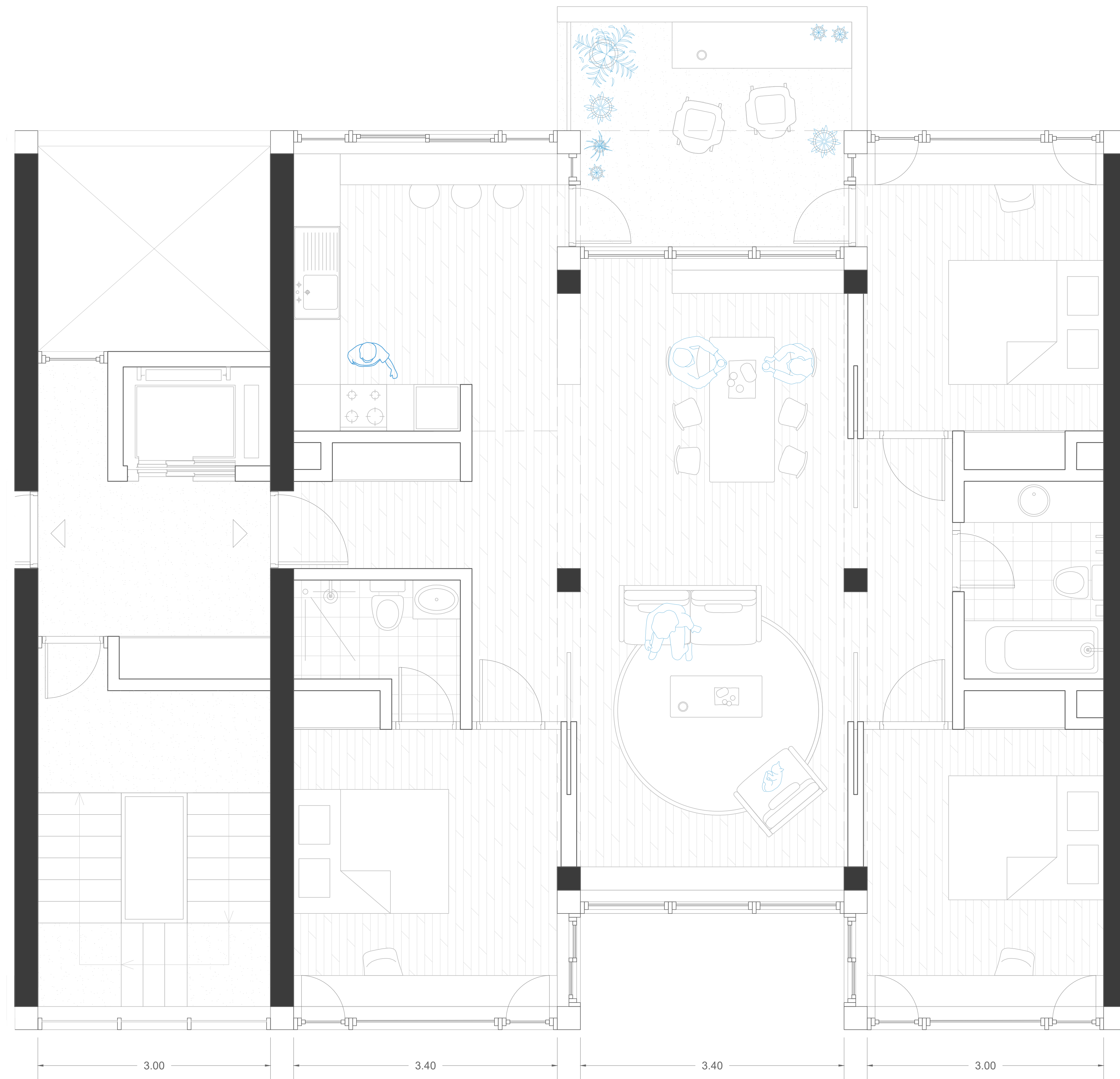




Perimeter block - Housing plan

1:200





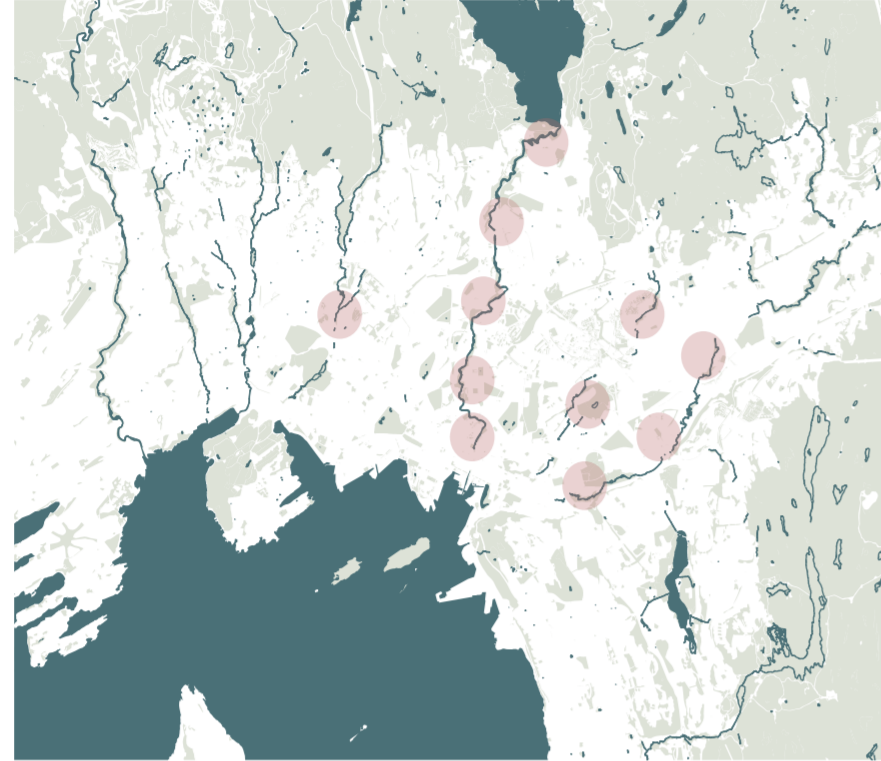




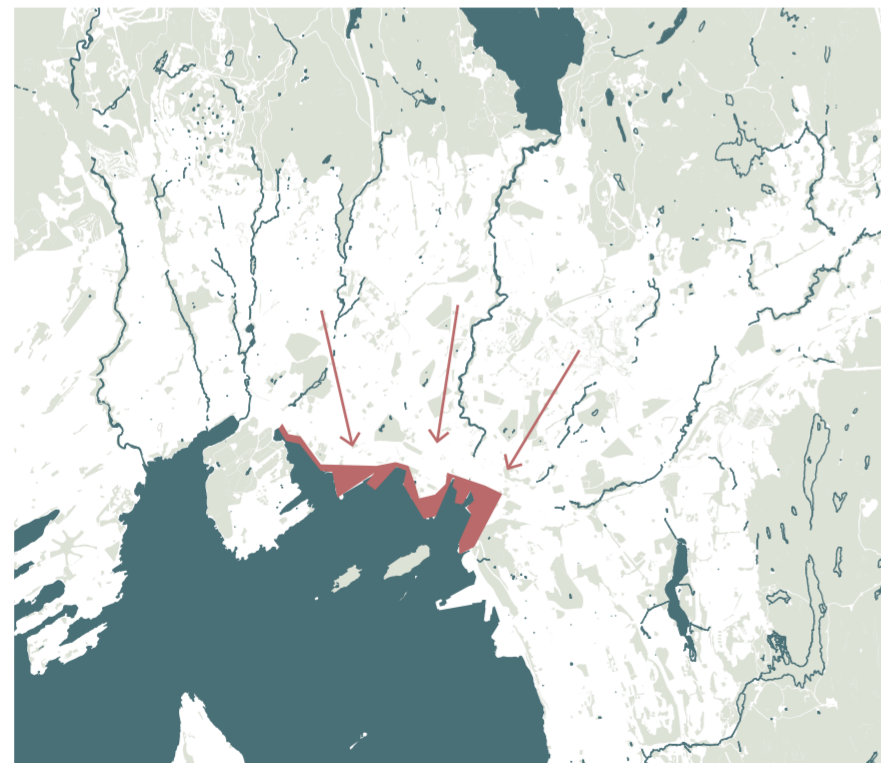


TRANSFORMATION FROM OFFICE BLOCK TO HYBRID BUILDING

HISTORIC DEVELOPMENT



During the Industrial Revolution, industries were strategically located along the rivers to harness their power supply. This led to the formation of vibrant neighborhoods and urban centers, where housing and recreational spaces were developed to create lively communities for the workers.



Since year 2000, Oslo has planned for "Fjordbyen". This vision focuses on the development of new cultural and recreational centers oriented towards the fjord. Consequently, the industrial areas that were once dominant have undergone a transformation, with a significant shift towards accommodating office-based businesses. This has had an unintended consequence of reducing the vibrancy of the areas along the rivers.

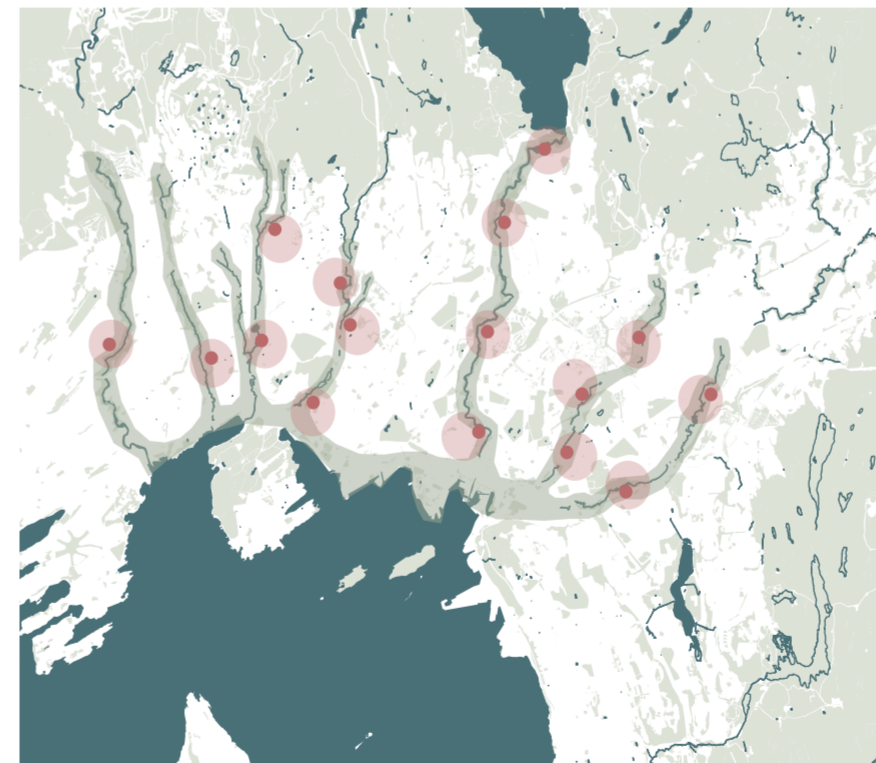
STRATEGIES



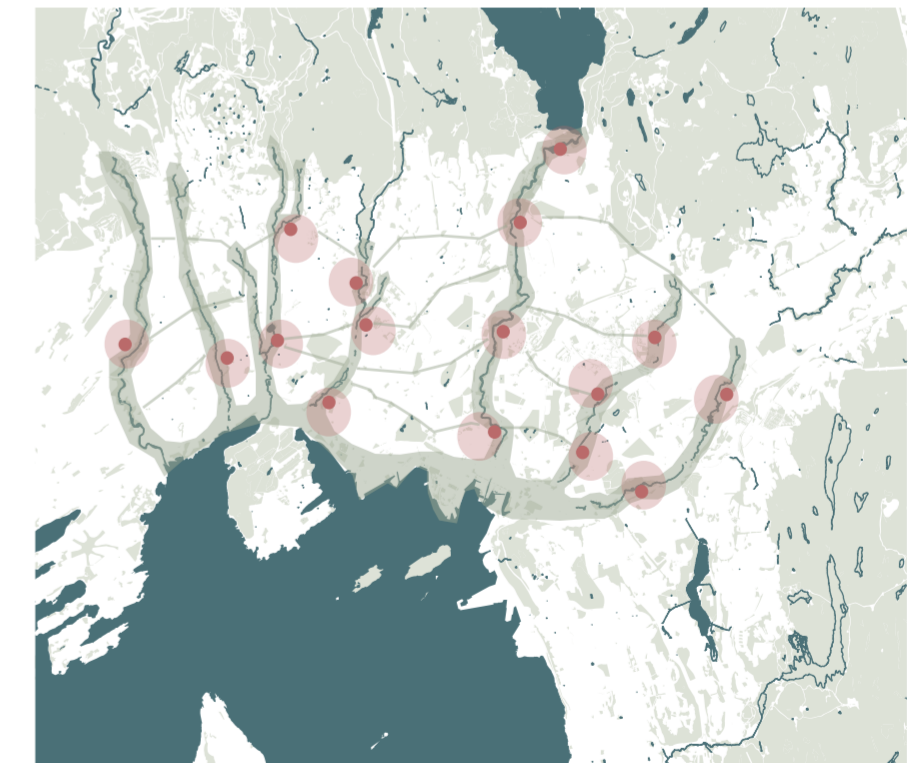
1. Enhancing Green and Blue Spaces along the river valleys: Bringing the blue back up as an integral part of the city. Implement a "fingerplan" approach, strategically integrating parks, waterfront promenades, and recreational areas to create a connection between nature and urban environments.



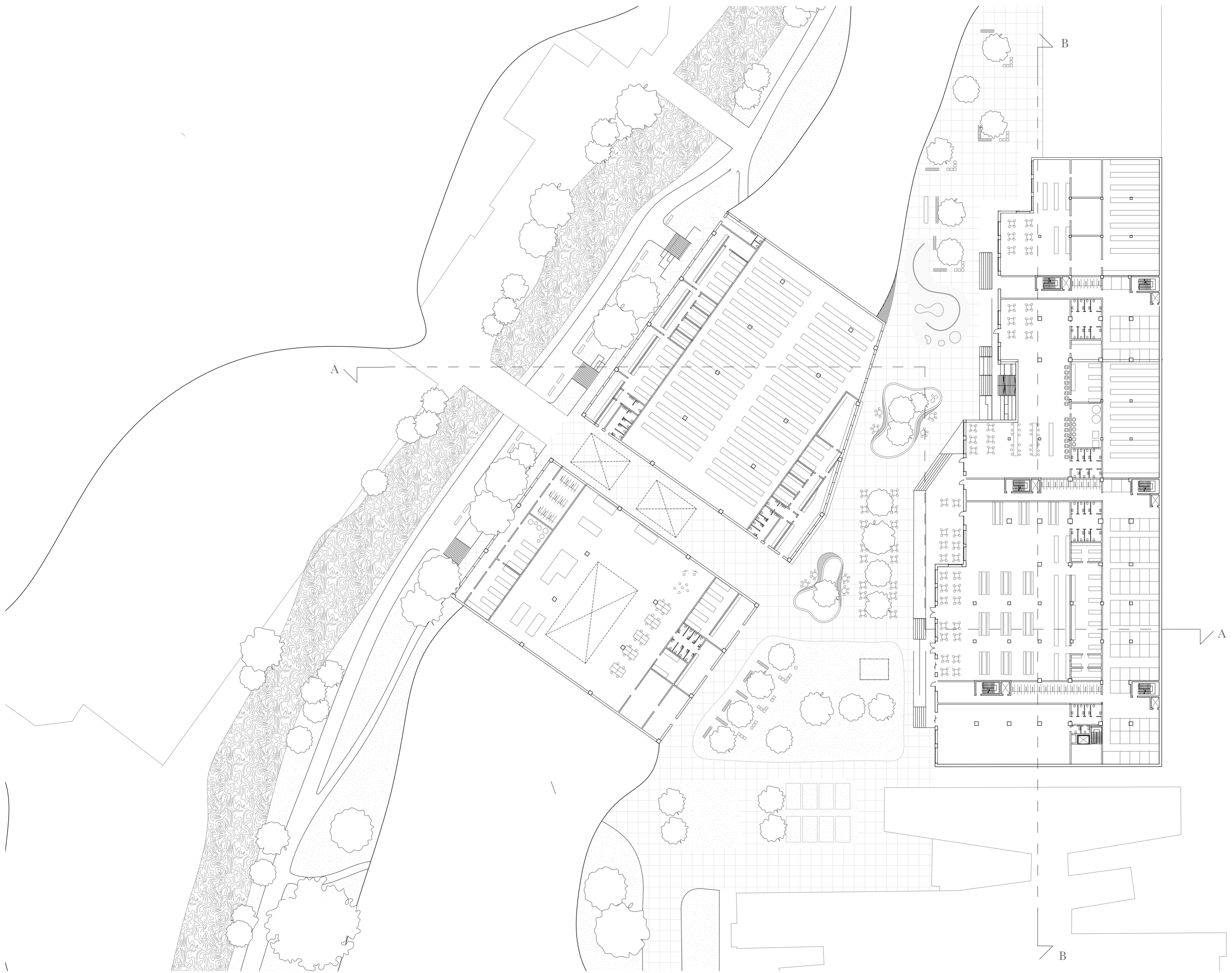
2. Adaptive Reuse of Industrial Warehouses: Utilize large industrial warehouse buildings as a canvas for retrofitting the city with diverse urban programs along the river valleys. These adaptable structures offer the flexibility to accommodate big-scale hybrid programs that can revitalize the areas.



3. From Hybrid Social Programs into Urban Centers: These spaces can become hubs of social activity, hosting a variety of cultural, recreational, and community-oriented programs that attract residents, workers, and visitors.



4. Vertical Connectivity of River Valleys: Enhance the pedestrian experience by establishing interconnected pathways, parks, and gardens that allow residents and visitors to move between the river valleys and urban centralities.



PLAN U1

0 5 10 15 20m



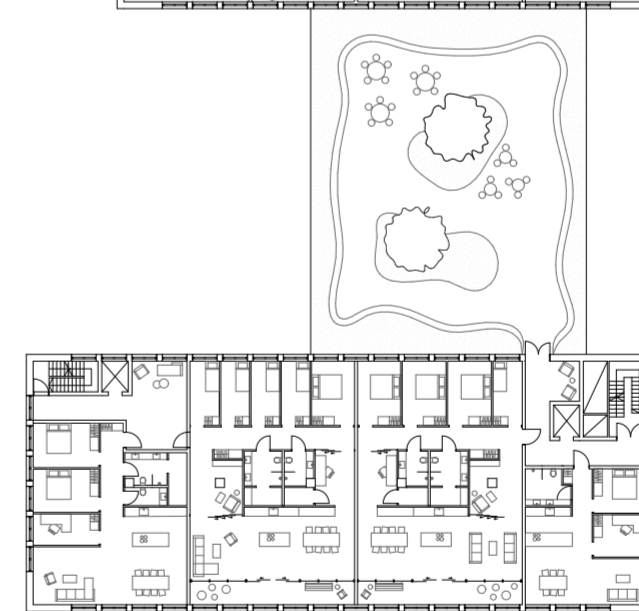
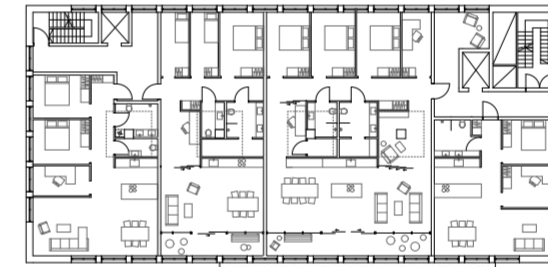
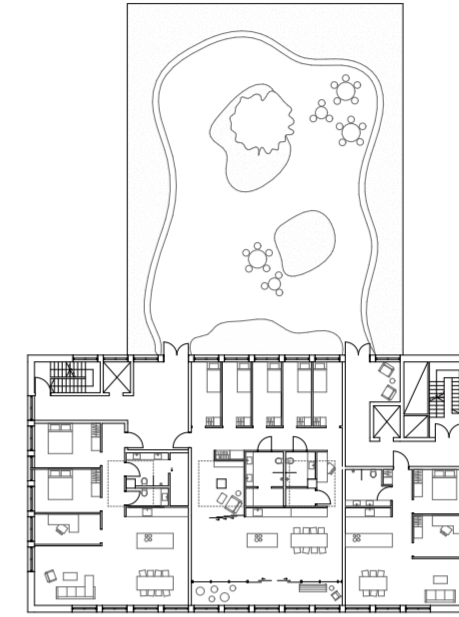


PLAN 1ST FLOOR



0 5 10 15 20m





PLAN 3RD FLOOR

0 5 10 15 20m





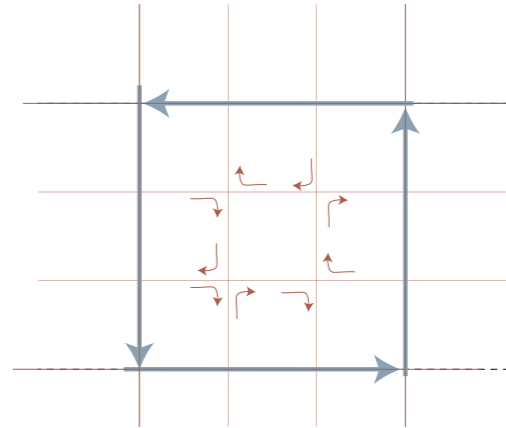
FACADE MODEL PHOTO



INTERIOR MODEL PHOTO



INTERIOR MODEL PHOTO





”Utsikt fra Korpehaugen”–Joachim Frich 1841
Overlooking the rivervalley created by Bislttbekken

02
Resurfacing the rivers of Oslo

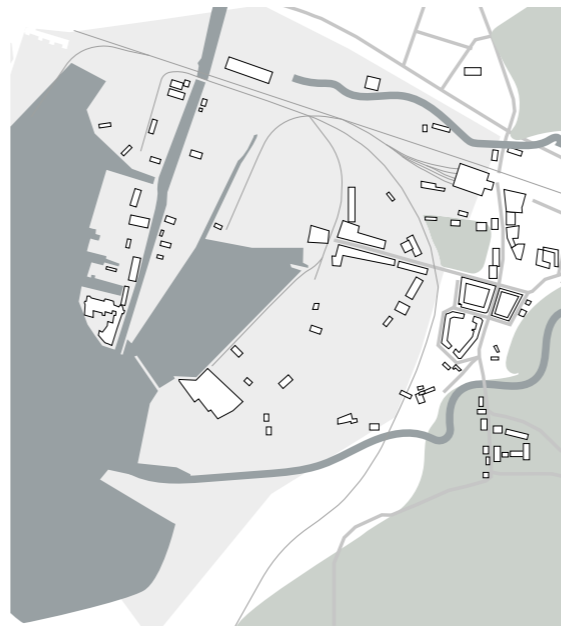
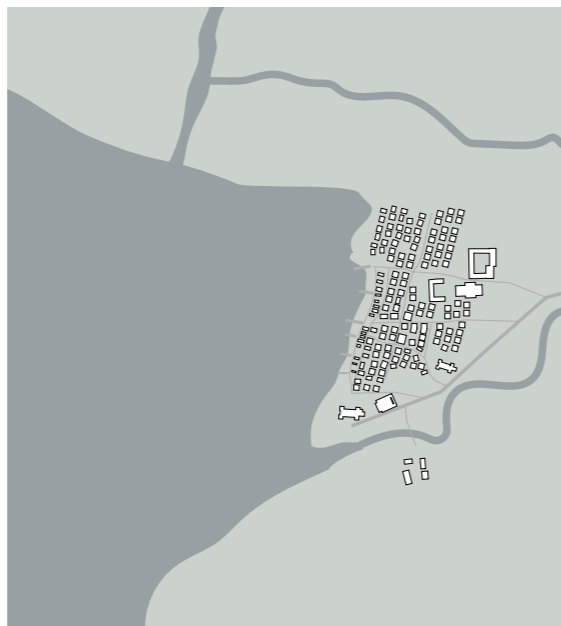


Bislettbekken
Ullevål-Aker Brygge









1
Bispevika, 1200's

2
Bispevika, 1881

3
Bispevika, 1907

4
Bispevika, 1973

5
Bispevika, 1997

6
Bispevika, 2009

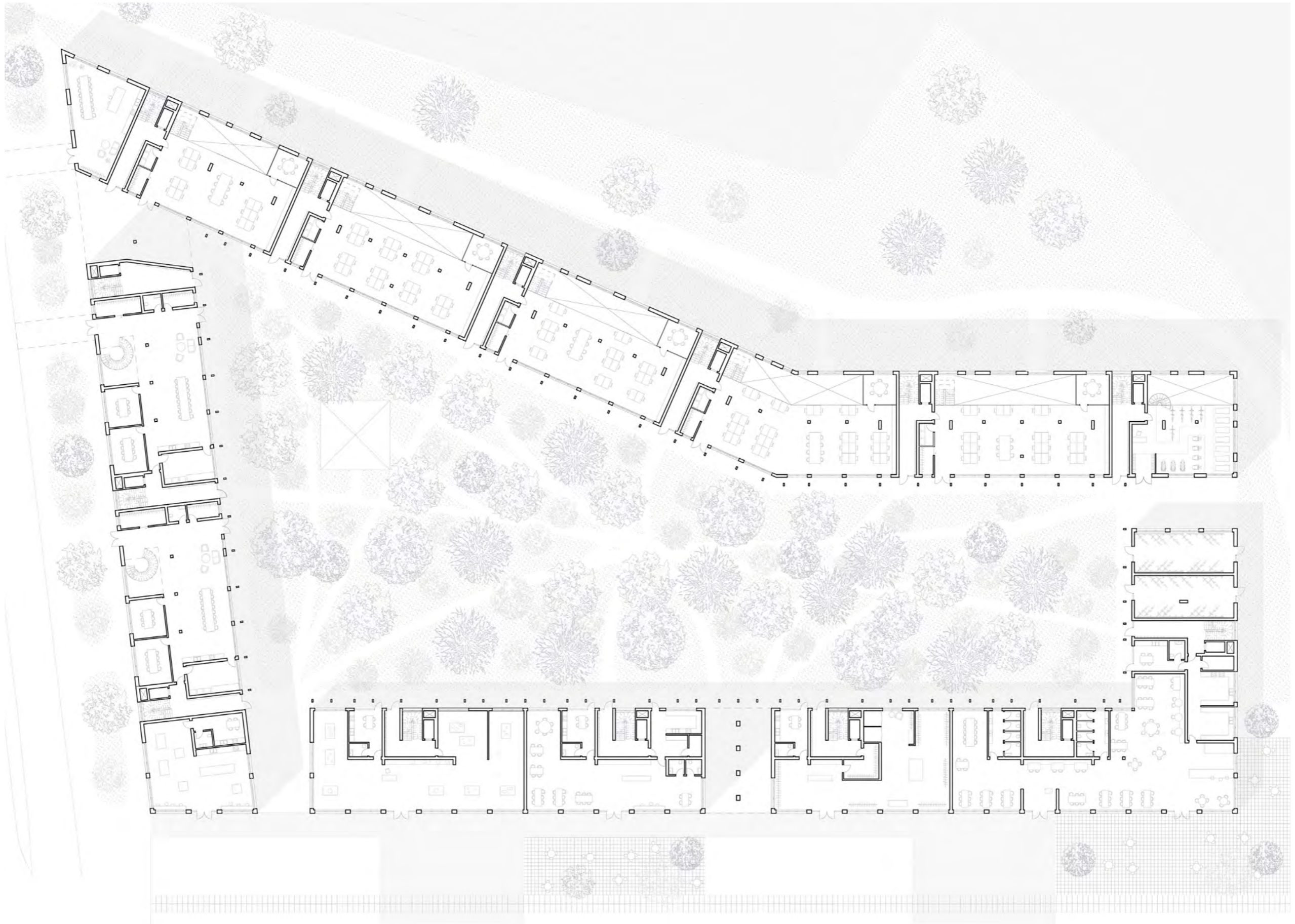
7
Bispevika, 2023





Neighbourhood plan

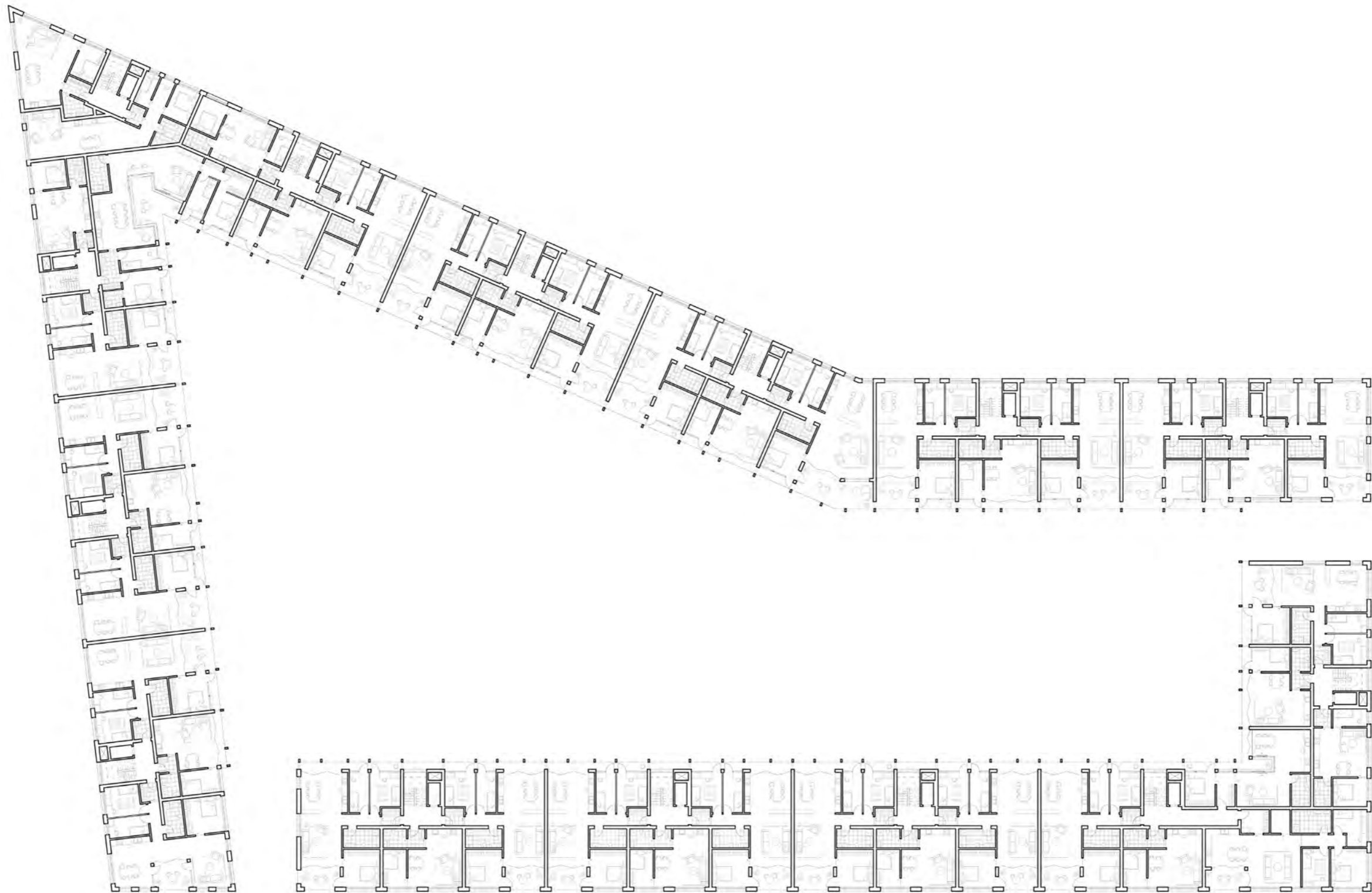
Original scale: 1:1000 

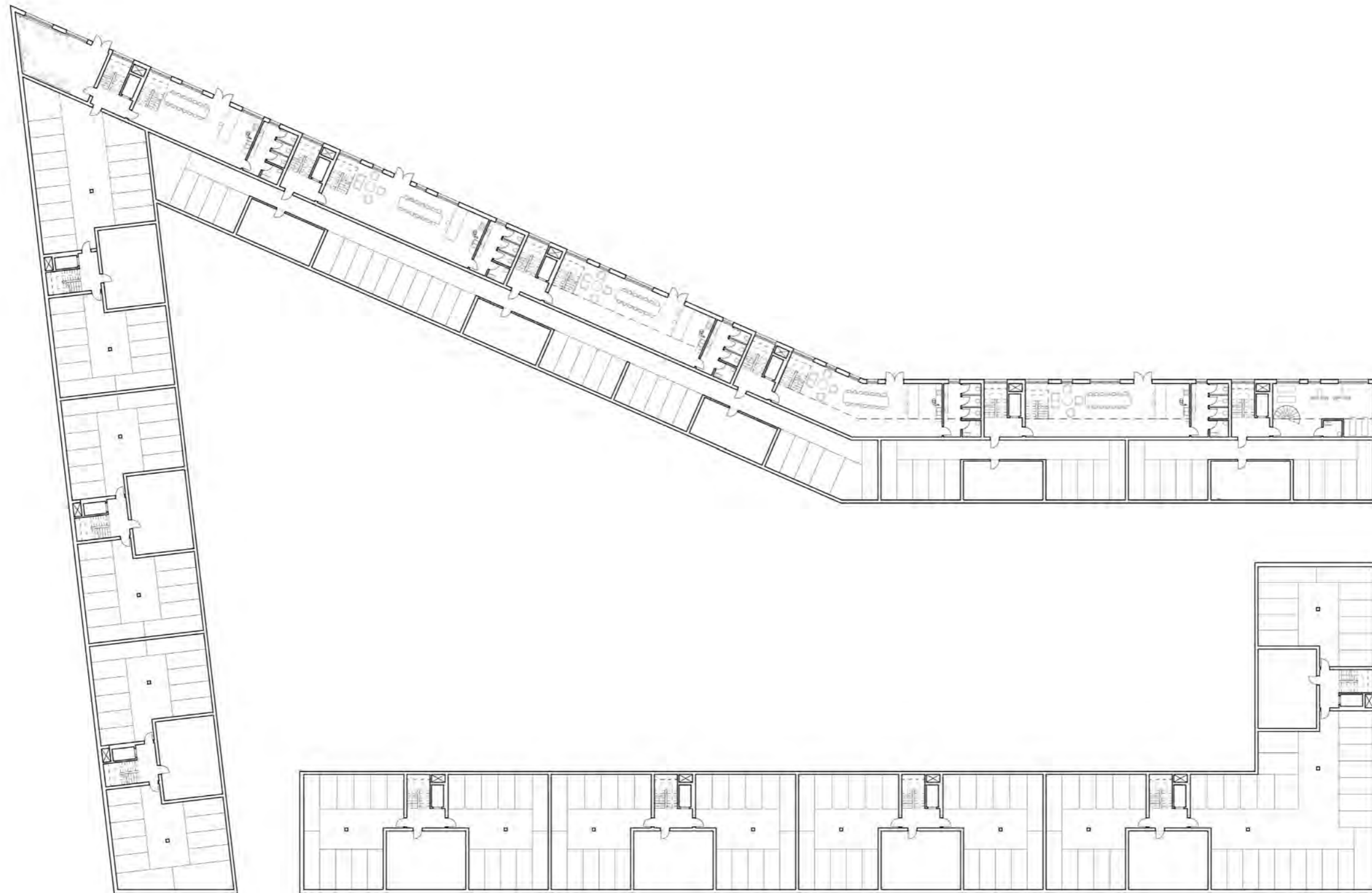


Ground floor

Original scale: 1:250







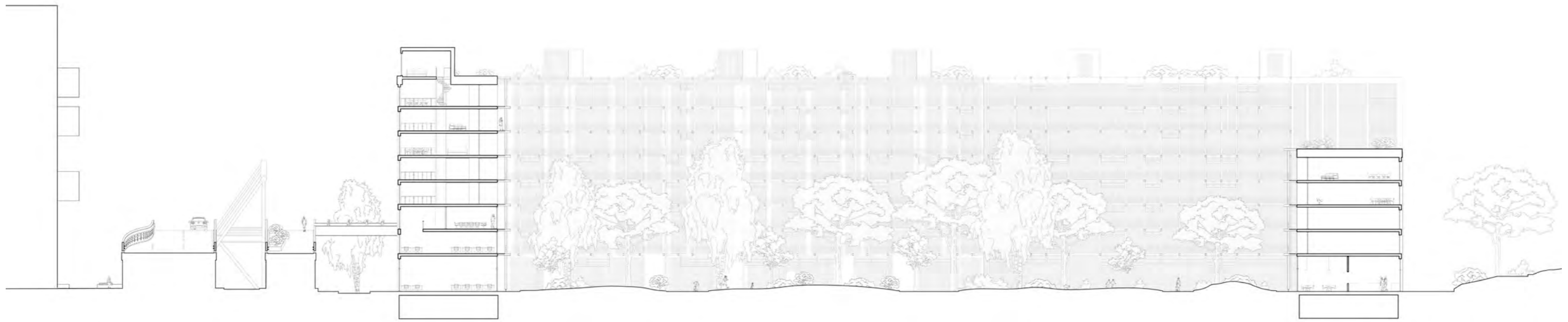
Under the mezzanine

Sheds for the dwellings and the public services

Basement

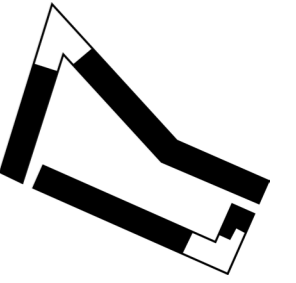
Original scale: 1:250





Longitudinal section

Original scale: 1:250



Typical 3 spanner

Original scale:1-100



Render

From the living room





+0,70

