

Feeling at home

Find the similarities,
cherish the differences

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@Home | Advanced Housing Design

Feeling at home

This A3 booklet is a compilation of drawings for a design in Merwehaven, Rotterdam, which is part of the graduation track Advanced Housing Design. The project is based around the modern household group single-person households combined with the research theme: 'feeling at home'. The booklet is suppose to give an answer to the following questions:

- What is the relation of the building to its surroundings, how does it sit within its public urban environment?
- How is the building organized, spatially and structurally?
 - How do people live here? What is the quality of life?
 - What are the spatial qualities?
- How is the movement through the building, from street to dwelling, organized?
- What are your intensions as the architect of this building?

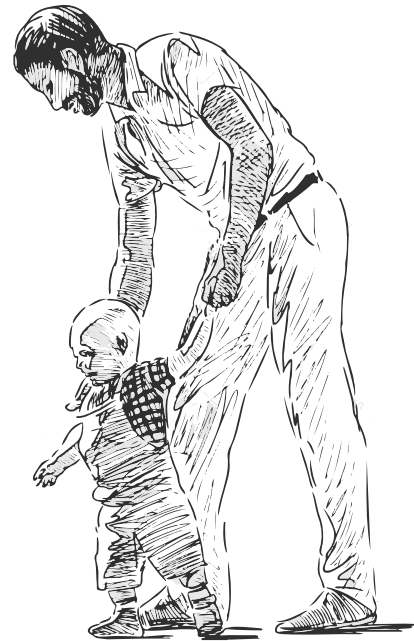




Young professionals
(up to 35 years old)

New household: single people who were not yet a reference person and not a partner in other households

Happy single: single people who never form a couple and never get children



Middle group
(from the ages 35 till 65)

Empty nester: single people who were single-parent households, where the (last) child left the household

Divorced: single people who were previously part of a couple and whose ex-partner has not died

Happy single: single people who never form a couple and never get children

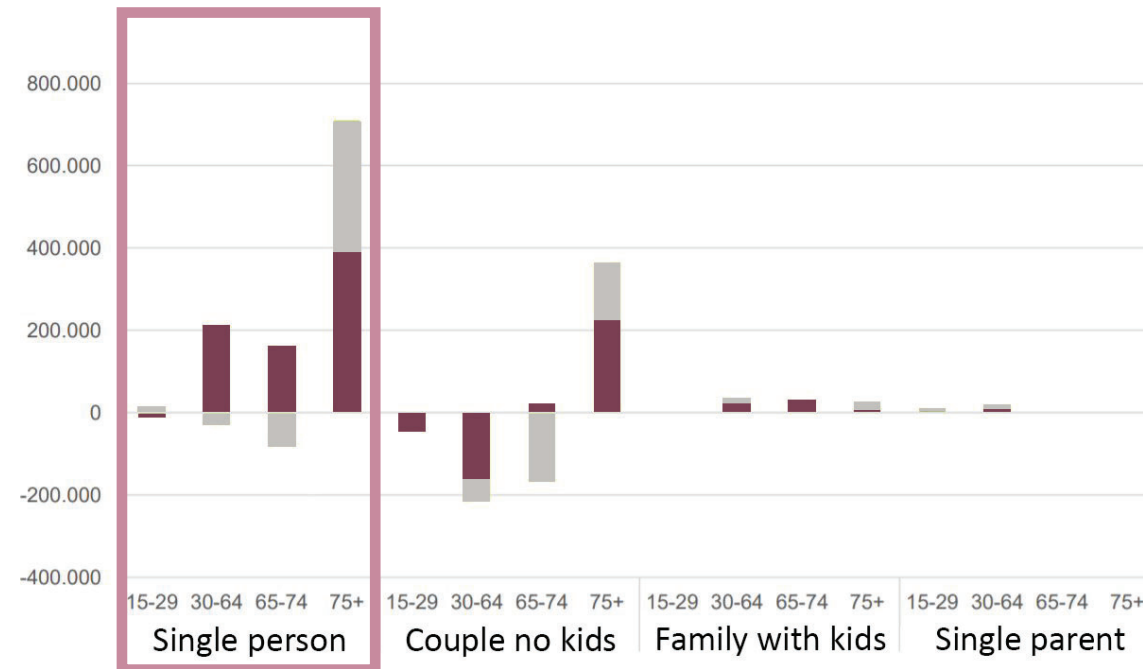


Elderly
(65 years old and over)

Widowed: single people who were previously part of a couple and whose partner has died

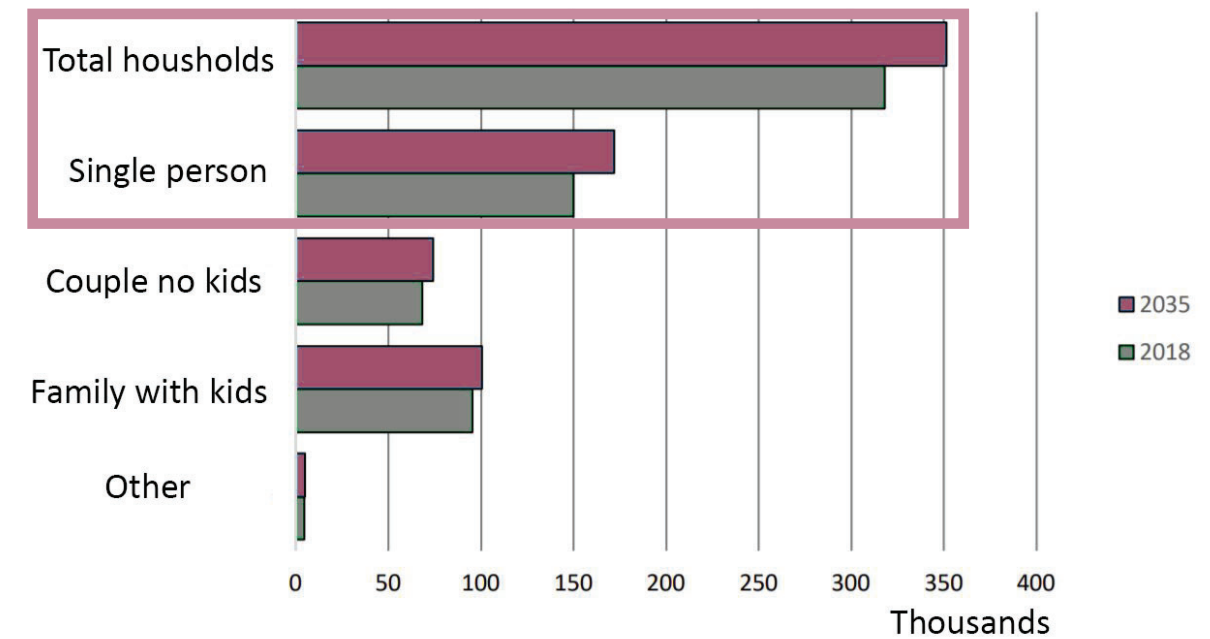
Happy single: single people who never form a couple and never get children

Expected percentage of national household growth



Source: CBS, 2019

Expected percentage of household growth in Rotterdam



Source: Hoppesteyn, Permentier & Van der Zanden, 2018

In 1971, a household consisted of 3.2 persons on average; at the beginning of 2018 this had dropped to 2.2 (van Duin, te Riele & Stoeldraijer, 2018)

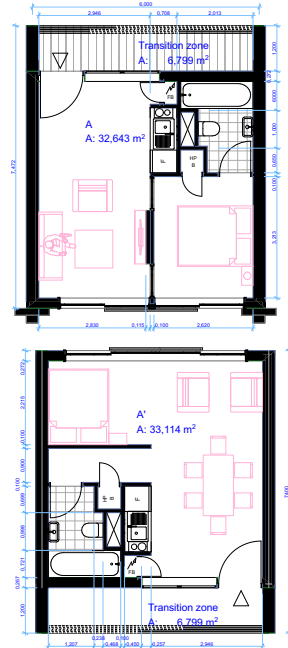
At the beginning of 2018, single households made up 38 percent of all households; from 2045 this is expected to be 43 percent (Luyten, Emmery, Pasteels & Geldof, 2015)

All singles have one thing in common: they are all small households. However, it is also a heterogeneous group, with different wishes, ages, income and lifestyles (Buijs, 2018)

Housing concept 1 For singles who are interested in a co-living concept with a shared living room and roof terrace

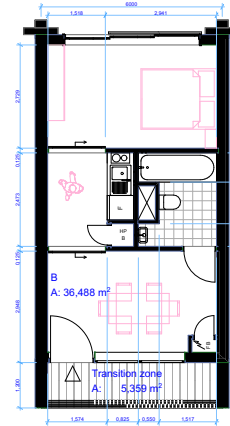
Dwelling type A

This type is for singles who would like to live smart, small and ecological. Type A is a compact apartment, in the form of a studio and two room apartment.



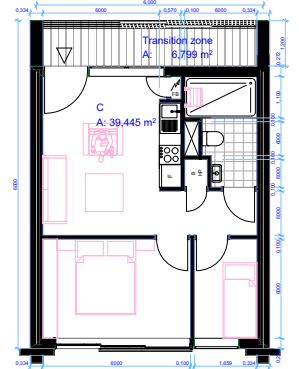
Dwelling type B

This type is for singles who like to have the initiative to choose where they want to sleep. Due to the flexibility of the apartment, the residents have the choice between having the living room or bedroom next to the gallery (social control & privacy).



Dwelling type C

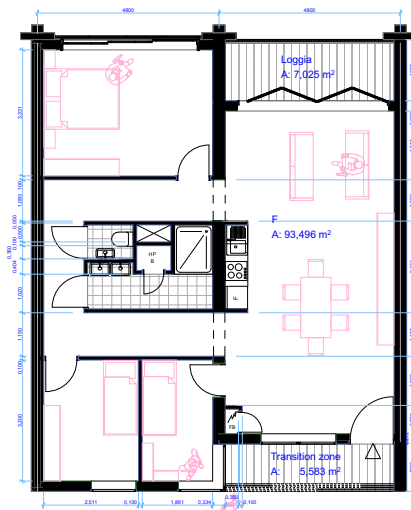
This type is for singles who need an extra room for (grand)children, belongings (memories) or the possibility for a family if the household composition changes.



Housing concept 2 Co-living on a dwelling scale

Dwelling type F

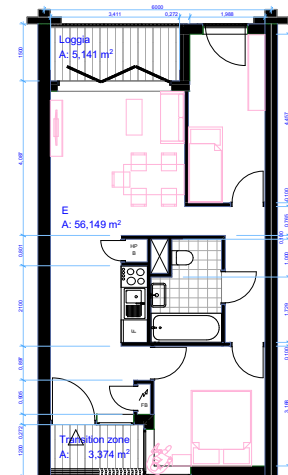
This type is for singles who would like to live together in the same dwelling. A 'wet' core and circulation space divide the living area and bedrooms creating a spacious living room with a folding door to bring the outdoors in your home.



Housing concept 3 Independent owner occupied homes

Dwelling type E

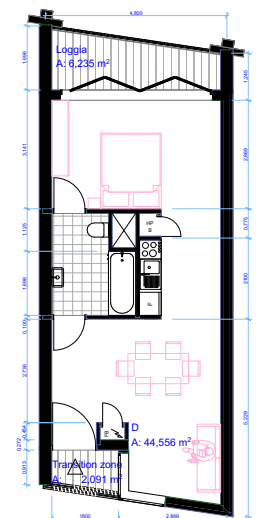
This type is for singles who are looking for owner-occupied dwellings with an extra room and private outdoor space, while still meeting your neighbours on the gallery and in your transition zone.



Housing concept 4 Temporary stay

Dwelling type D

This type is for singles who need temporary housing, due to for example a divorce. A place for divorced singles who want to stay in Rotterdam and have the possibility to move to another apartment in the building in the future. Due to the flexibility of the dwelling, the resident can decide their preferred privacy or social control/interaction, which the resident always can change depending on the state he/she is in.





CORONA TREFT SENIOREN DUBBELHARD

Tekst Luuk Obbink Beeld Marjin van der Waa

Senioren wordt aangeraden zo veel mogelijk thuis te blijven en contacten uit de weg te gaan, om zo het risico op een besmetting met het coronavirus te minimaliseren. Dat zet echter wel de deur open voor een ander virus, dat ook graag ouderen opzoekt: eenzaamheid.

Wil jij mijn buddy zijn?

Let jij op mij, dan let ik op jou.



A place where you can feel at home

A place where you're not limited to your apartment

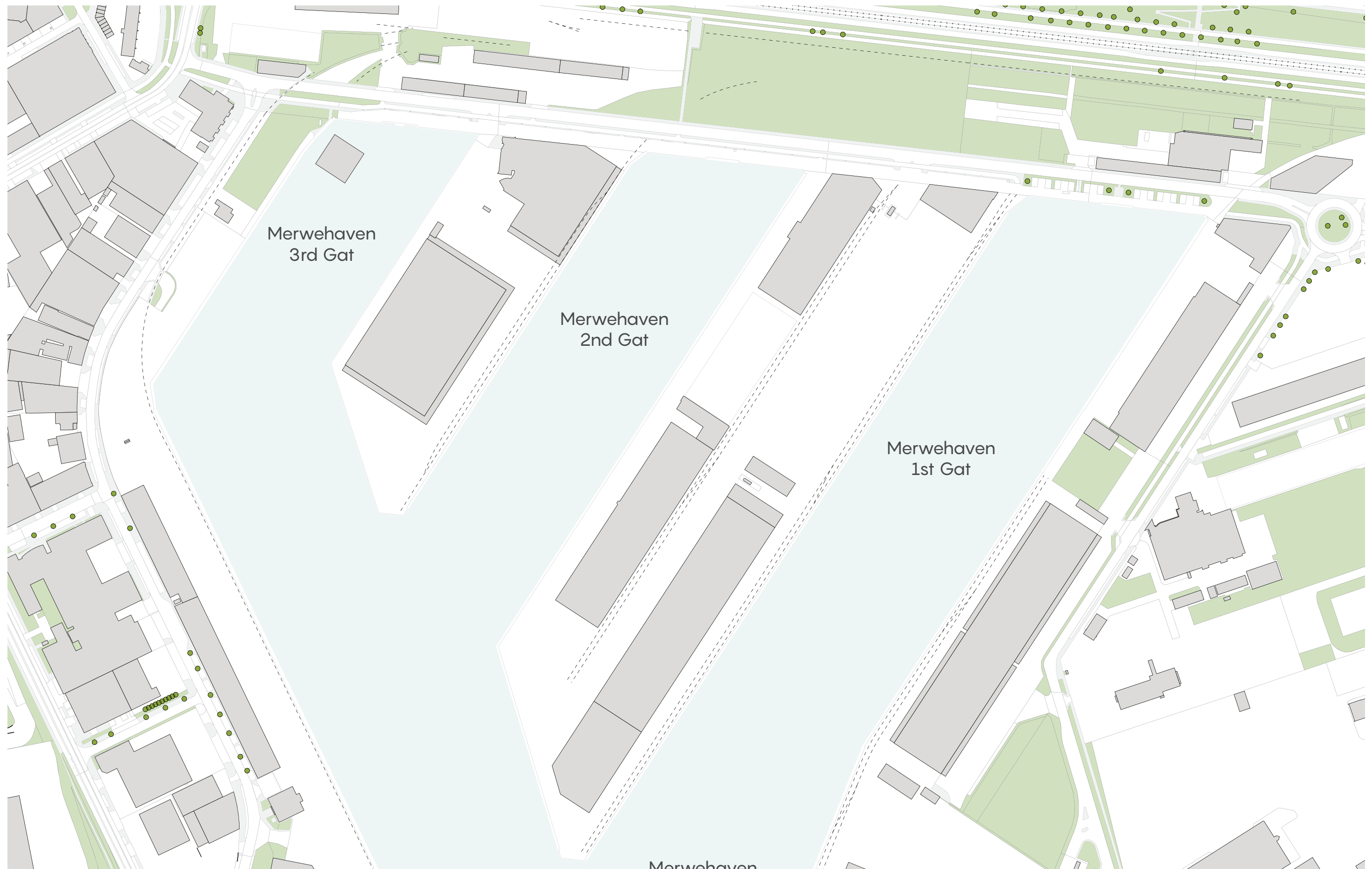


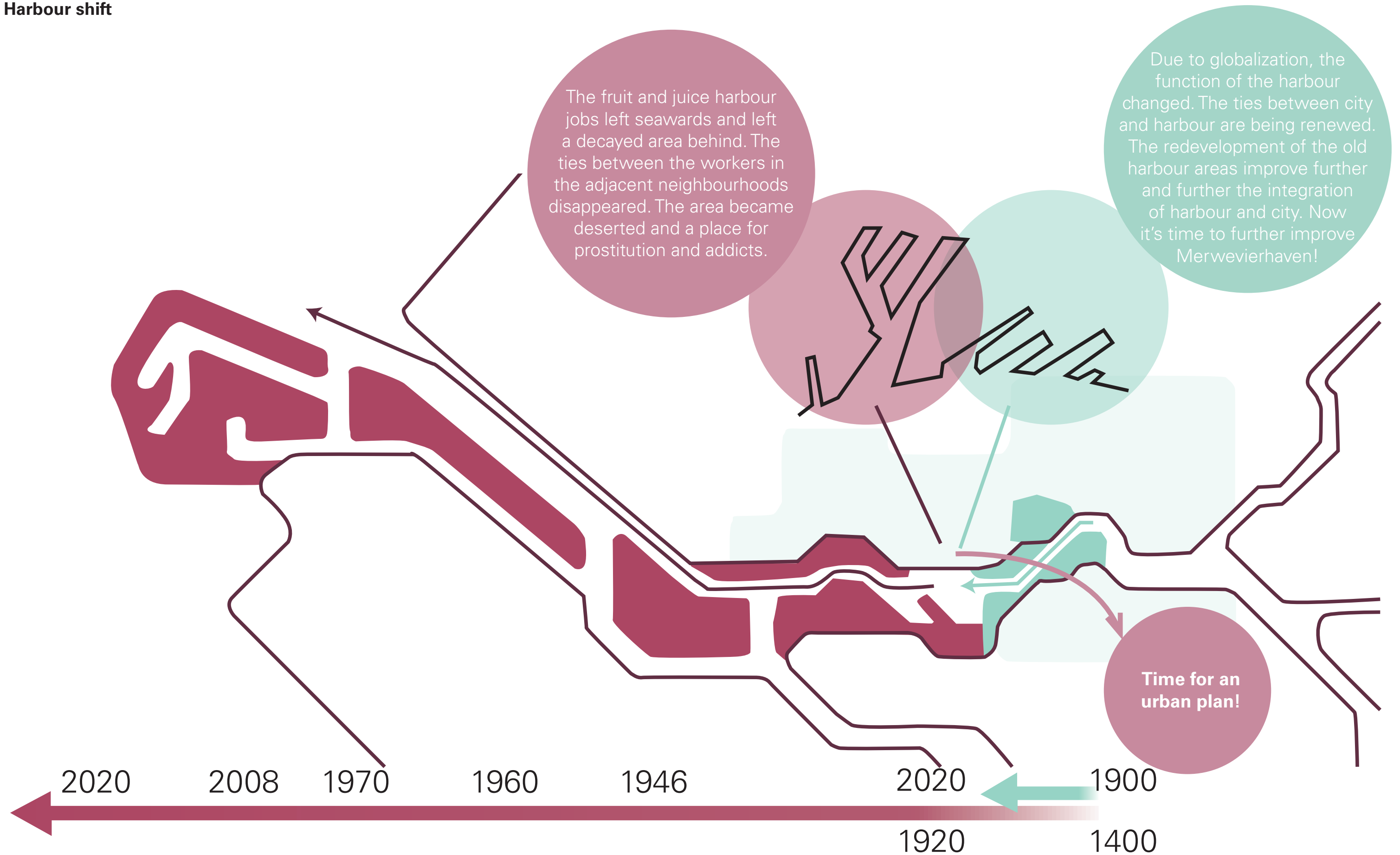
A place where you know and see your neighbours

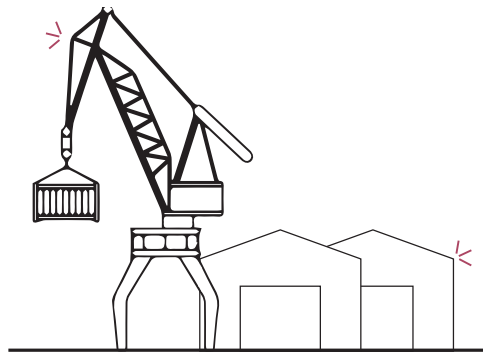


A place where you can help your neighbour





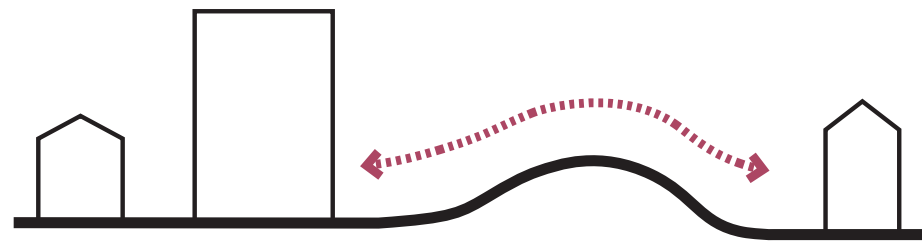




1. Preservation of the harbour identity

Respect the industrial character and preserve the characteristic elements.

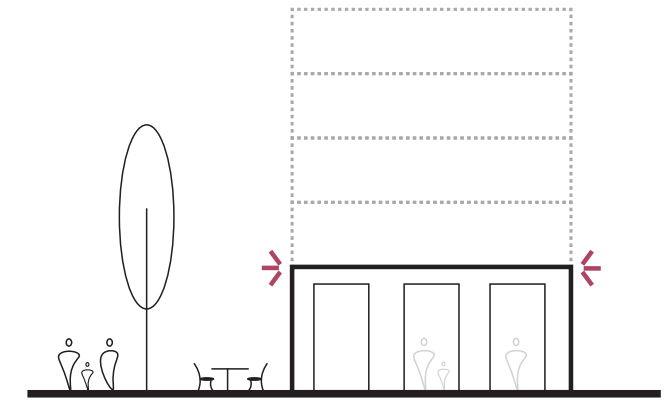
- Preserve the **rich variety of buildings, quays, tracks, and constructions** in Merwehaven. These image-defining objects form the basis of the identity of the area and contribute to value development.
- A **green heritage route** is proposed that follows three key points in the masterplan where the monuments are preserved.



2. Implementing a strong spatial structure

Restore the spatial connection with the surrounding area.

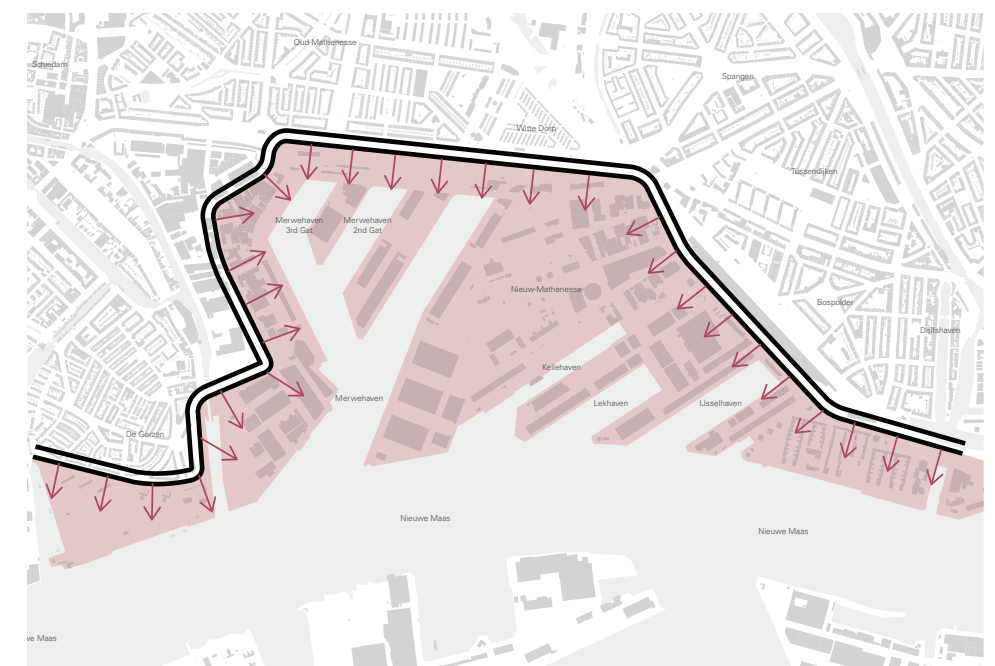
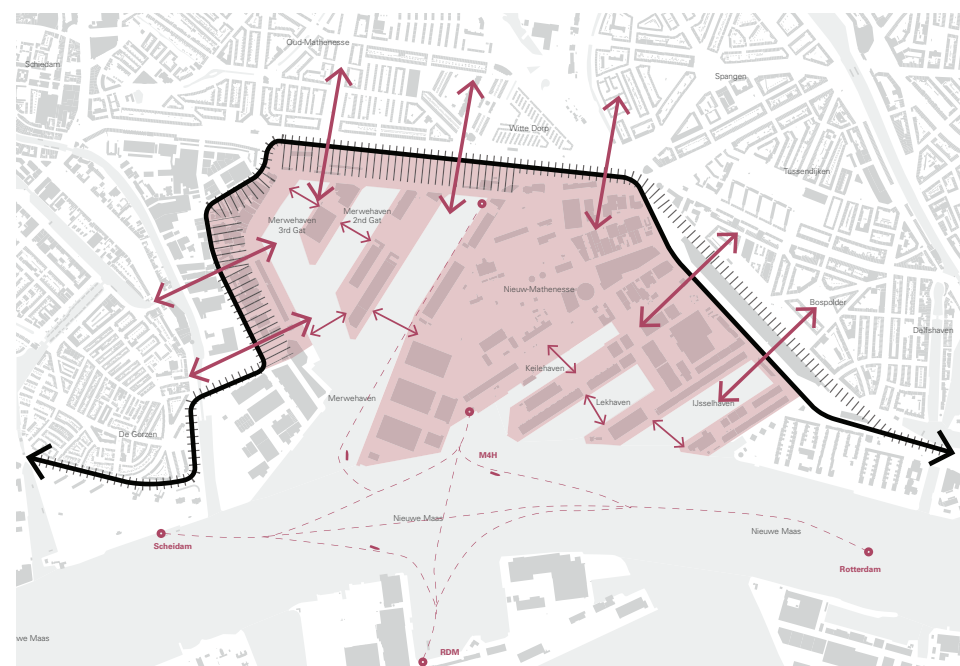
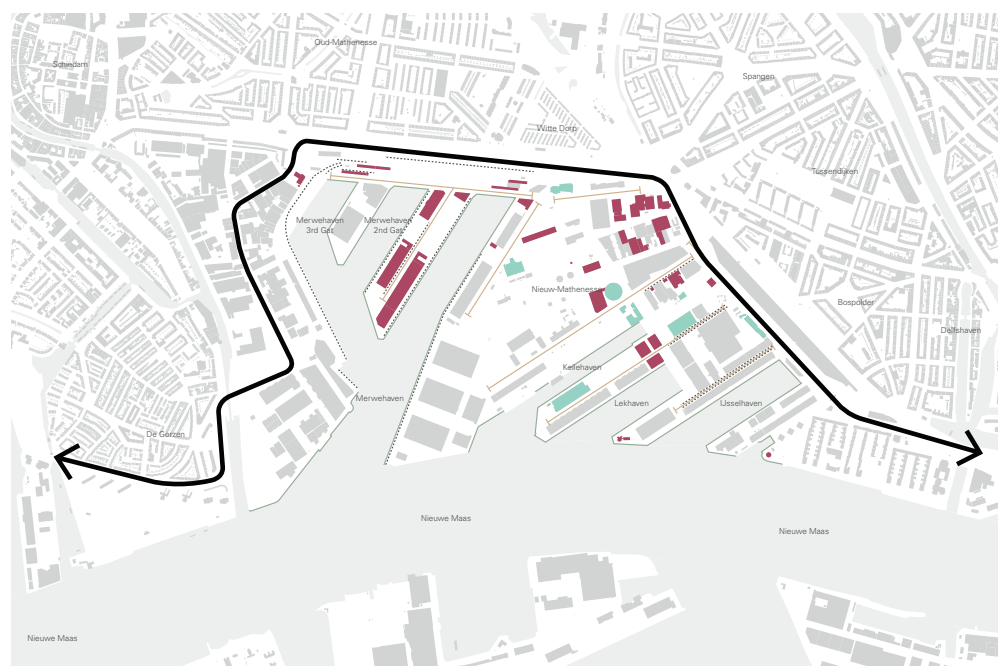
- Creating **good and safe connections** over water and land, at all levels and for all modes of transport.
- Connection to the **harbour**
- In order to connect the harbour with the city, **strong physical and functional connections** will be made to the adjacent neighbourhoods.

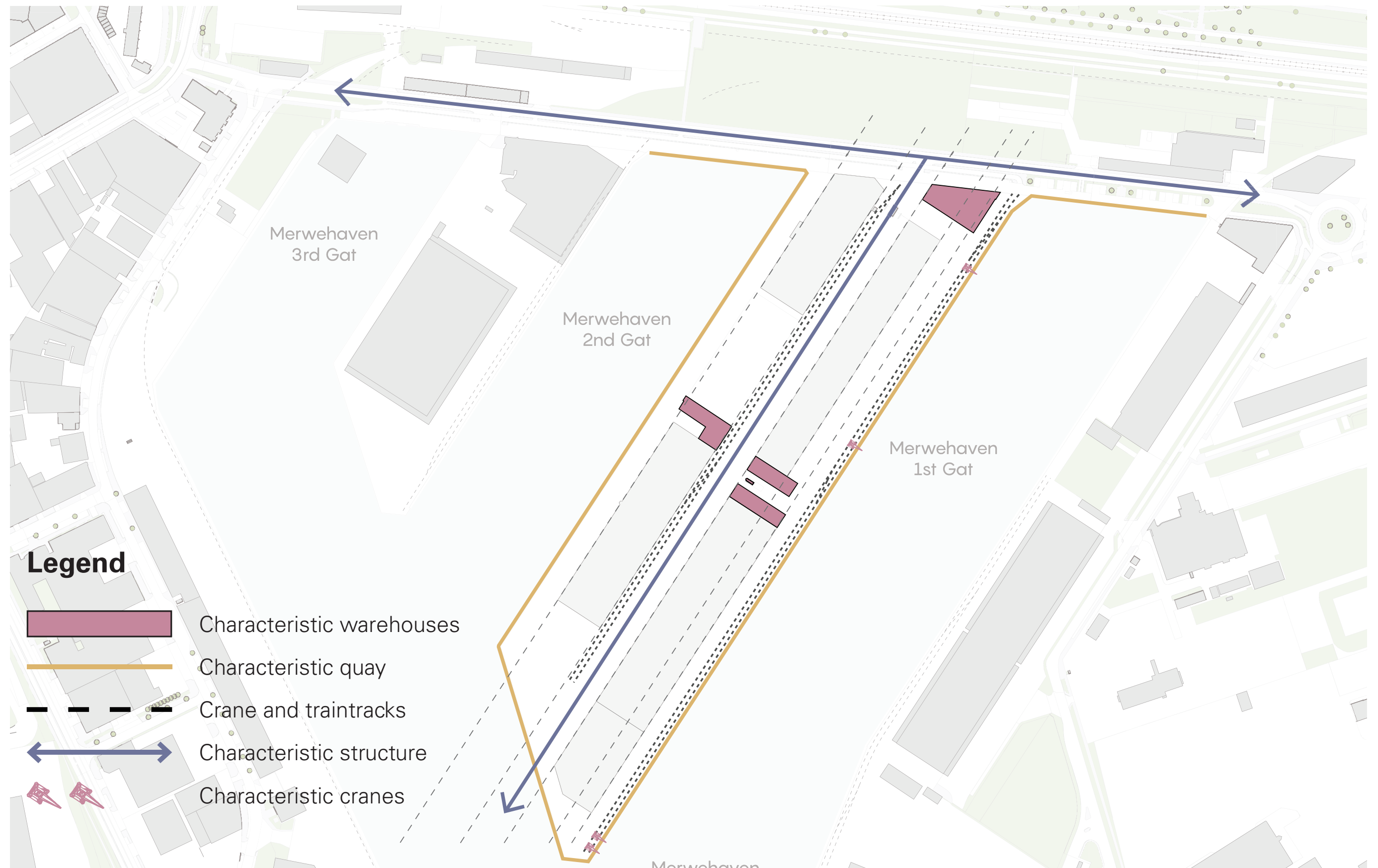


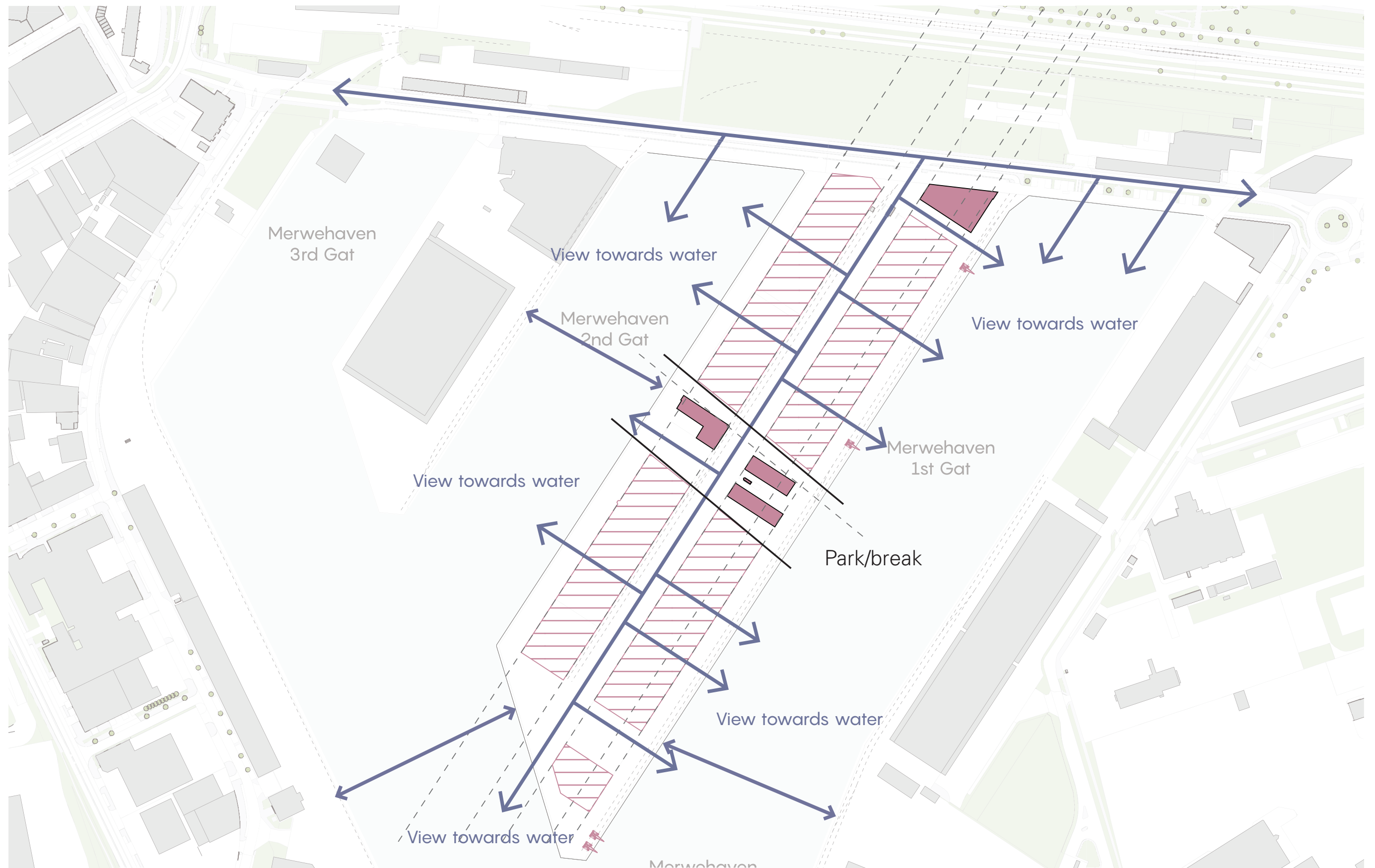
3. Create a strong programmatic structure with surrounding areas

Restore the programmatic connection with the surrounding area.

- Creating **high plinths** that define the image of the street with a **mix of commercial, cultural, and social facilities**.
- Realizing an **open innovation environment** with a varied mix of companies in different growth phases.
- In addition to the green heritage route, building block setbacks along the quay provide **space for greenery and leisure activities**.





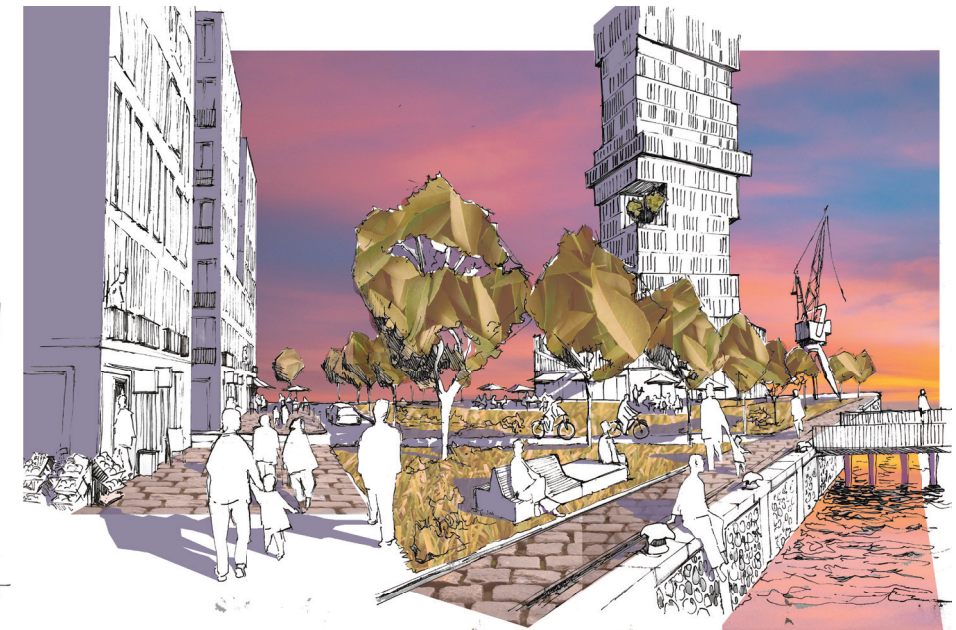
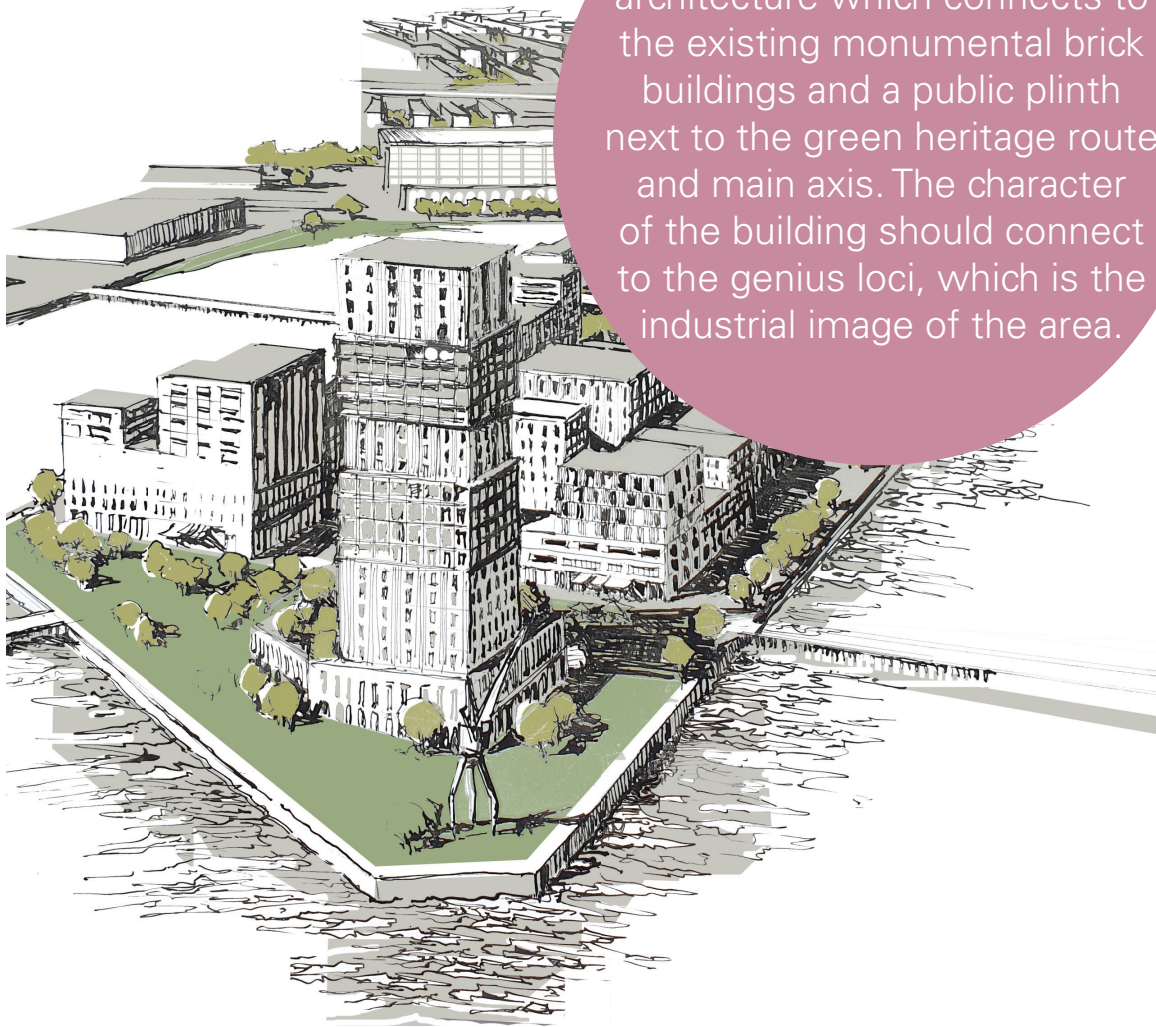








The surroundings asks for architecture which connects to the existing monumental brick buildings and a public plinth next to the green heritage route and main axis. The character of the building should connect to the genius loci, which is the industrial image of the area.

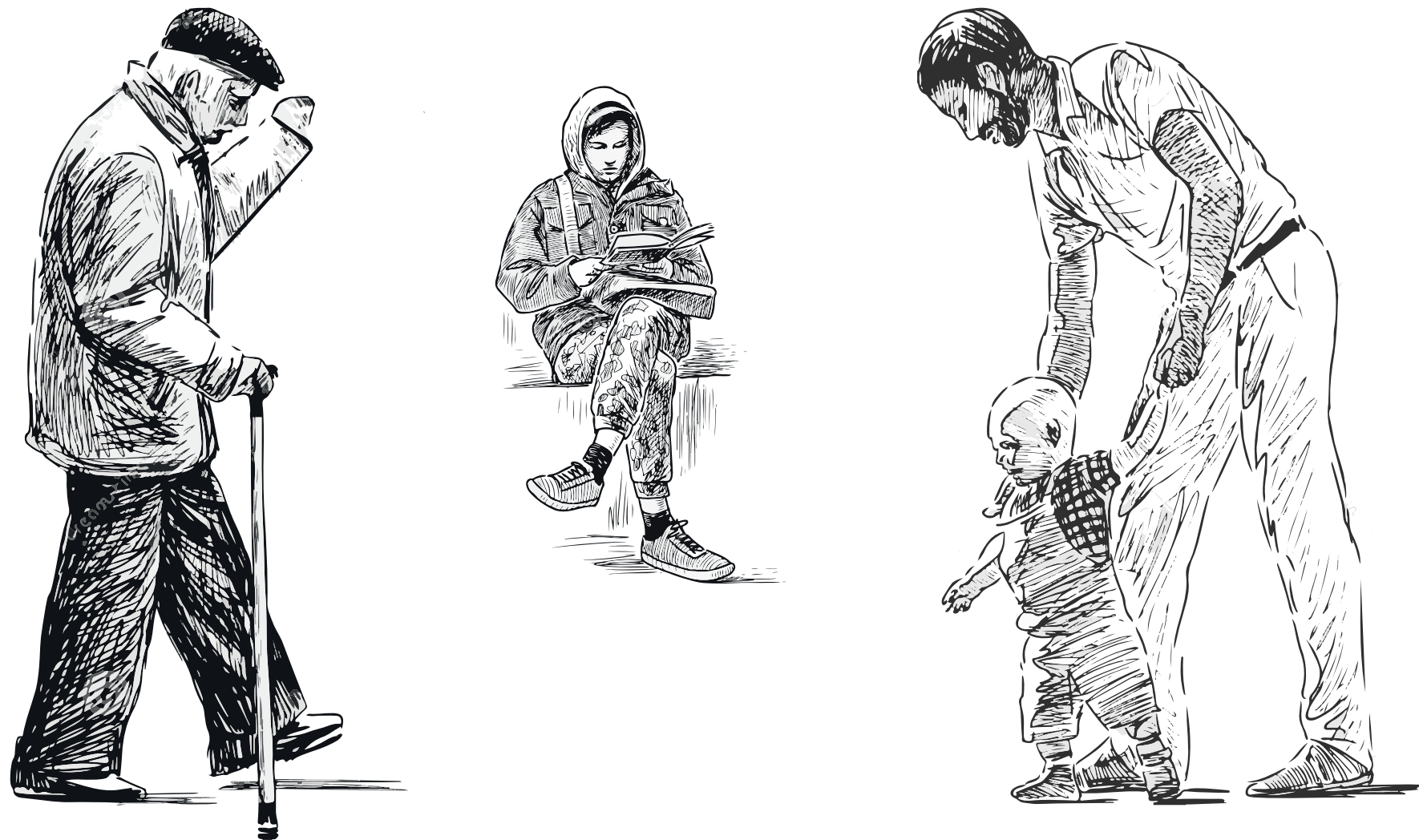




“How to design a future-proof residential complex where single people of all ages and backgrounds will feel at home?”

In order to provide structure, I divide this overarching question into the following sub-questions:

1. What is meant by a single-person household and which subgroups can be distinguished?
2. Single is increasingly becoming the norm, why is that and how do those singles live?
3. Why does the housing market not respond to the growing needs of solo dwellers?
4. What entails a feeling at home for different single-person households?
5. How will building with inclusive purpose help single-person households with different incomes and ages to feel at home?
6. How can the “feeling at home” be translated into design?



Comfort



Basic needs & User-friendliness

Feeling of safety



Protection & Freedom

Social interaction

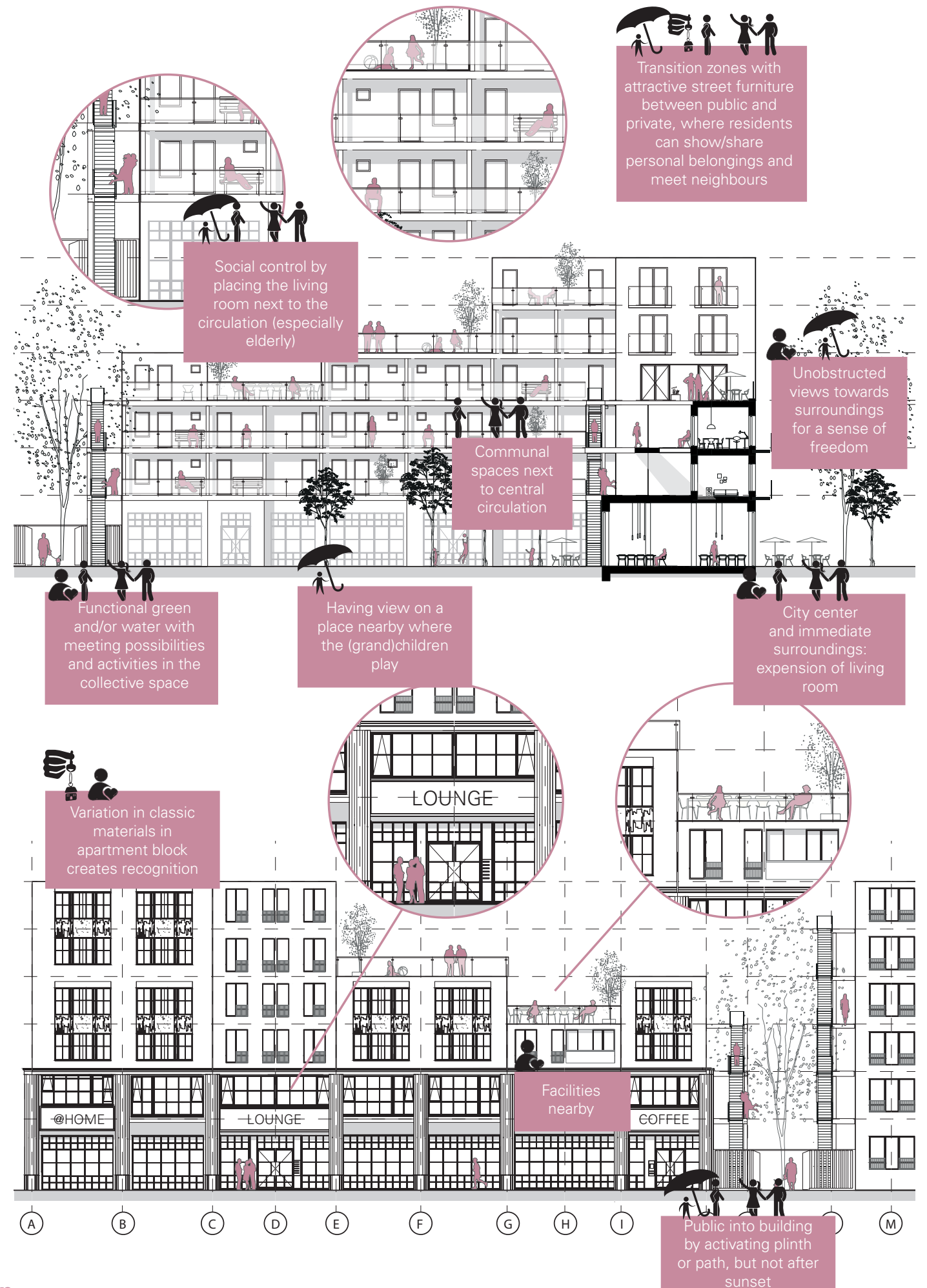
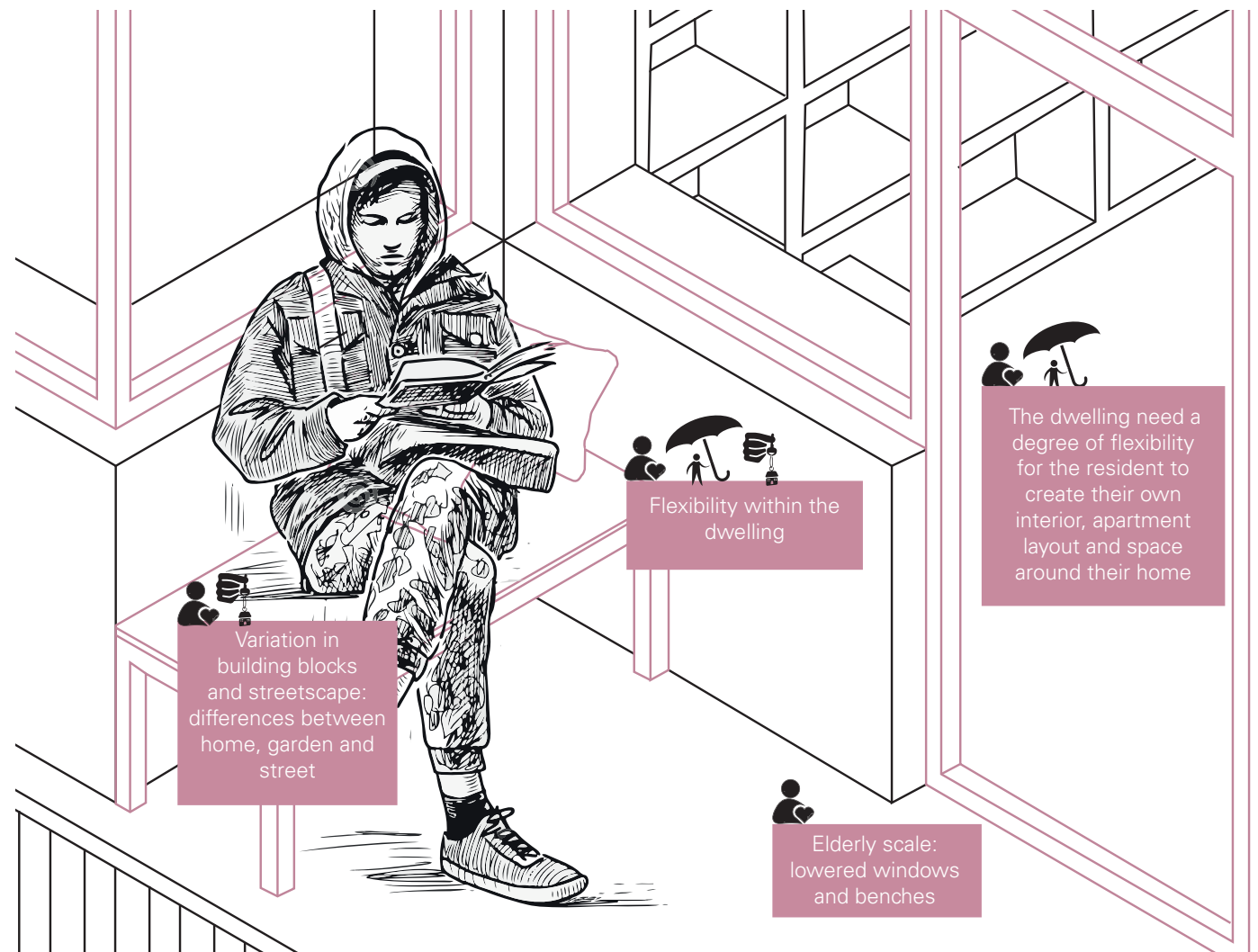


Encounters & Hospitality

Identity

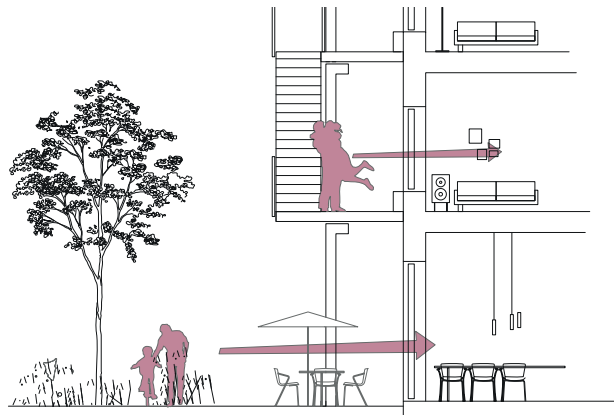


Recognition & Ownership



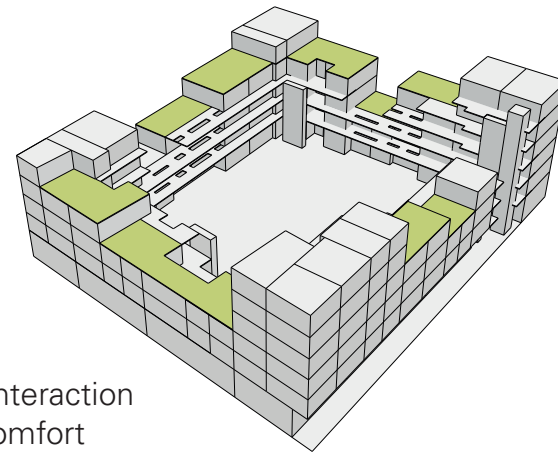


Transition zones:
In front of homes on
all levels



Security, social
interaction & identity

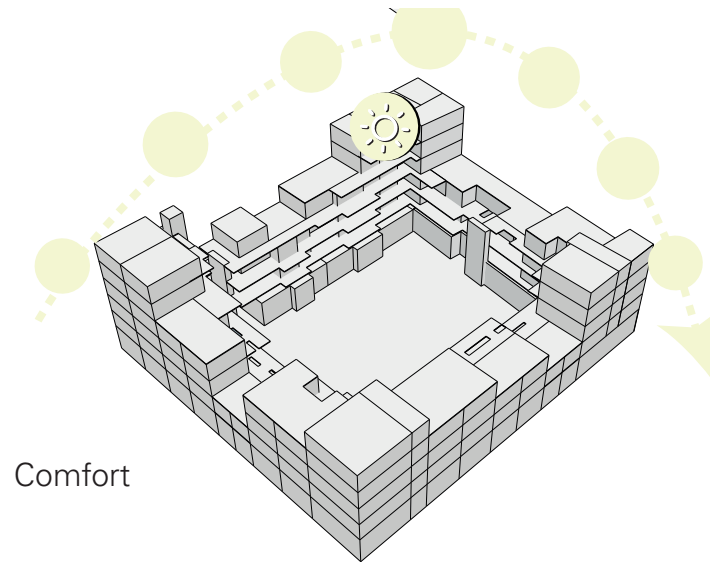
Roof:
meeting places



Social interaction
& comfort

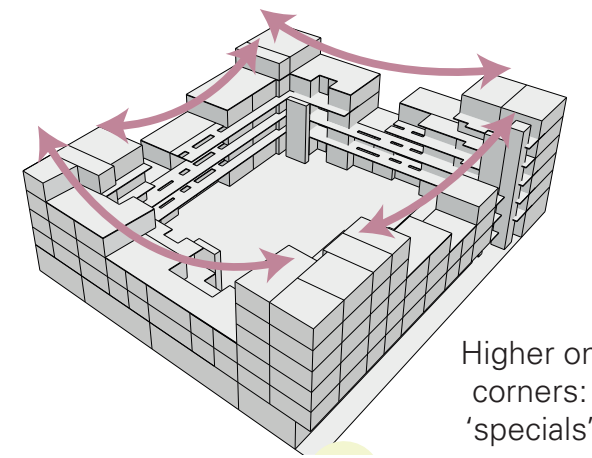
Air, light
& space

Shape:
Fitting the surroundings



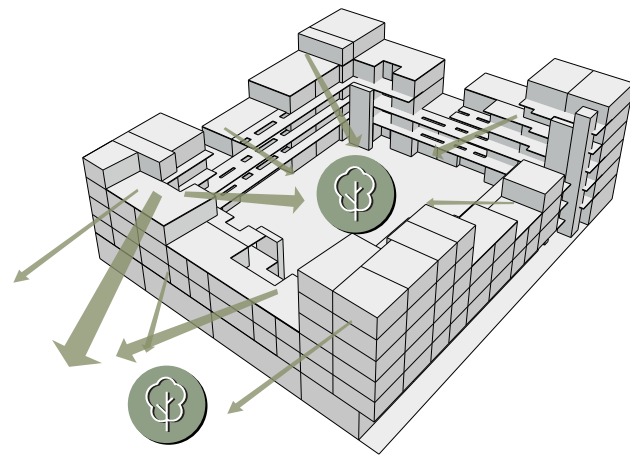
Comfort

Fitting in
the urban
plan

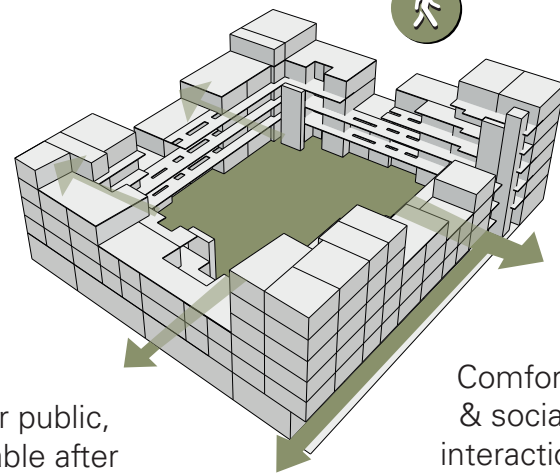


Higher on
corners:
'specials'

Views:
Towards water and green



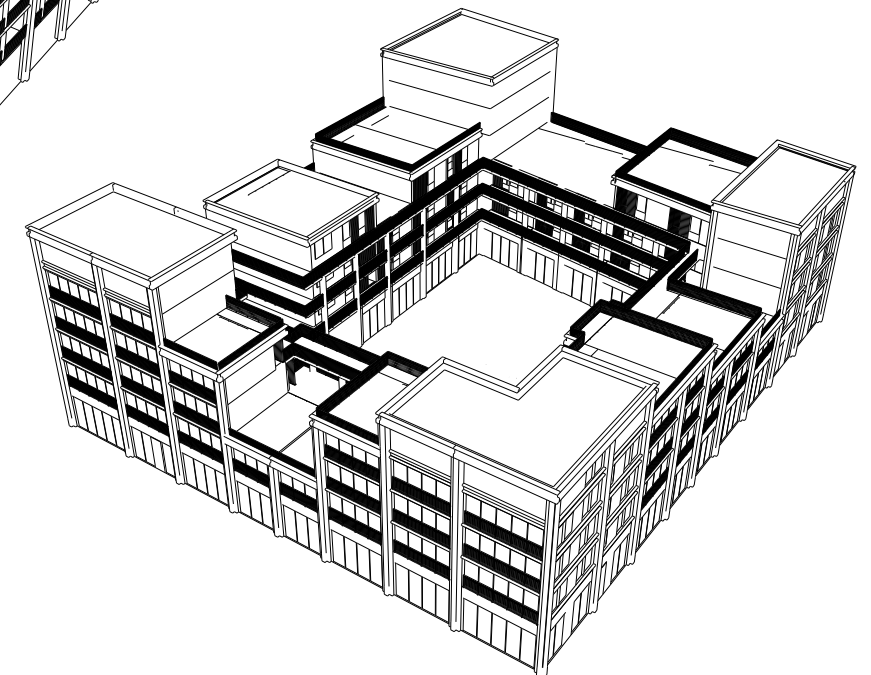
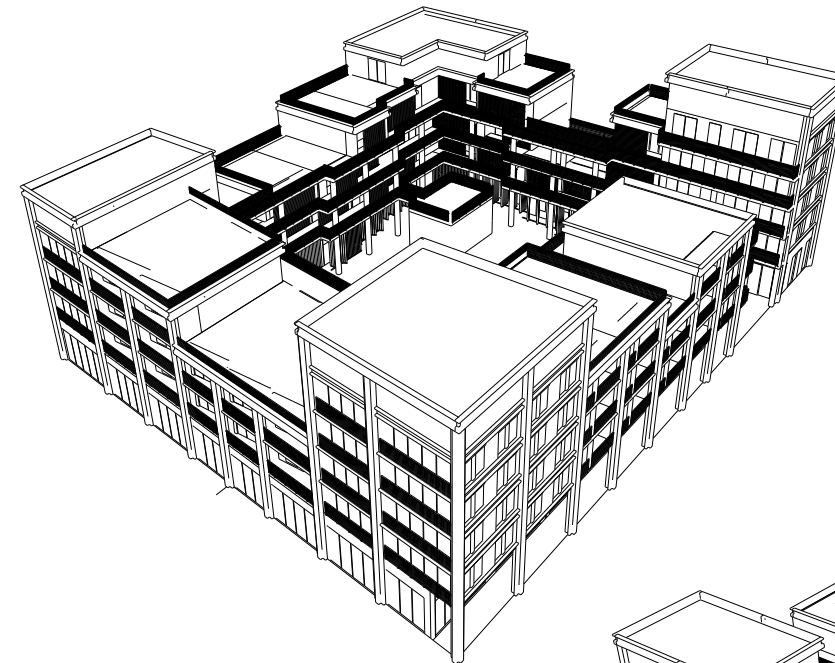
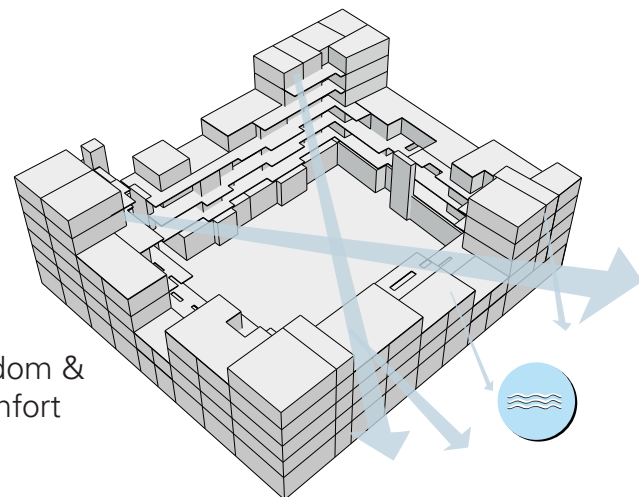
Public:
Partly open for public



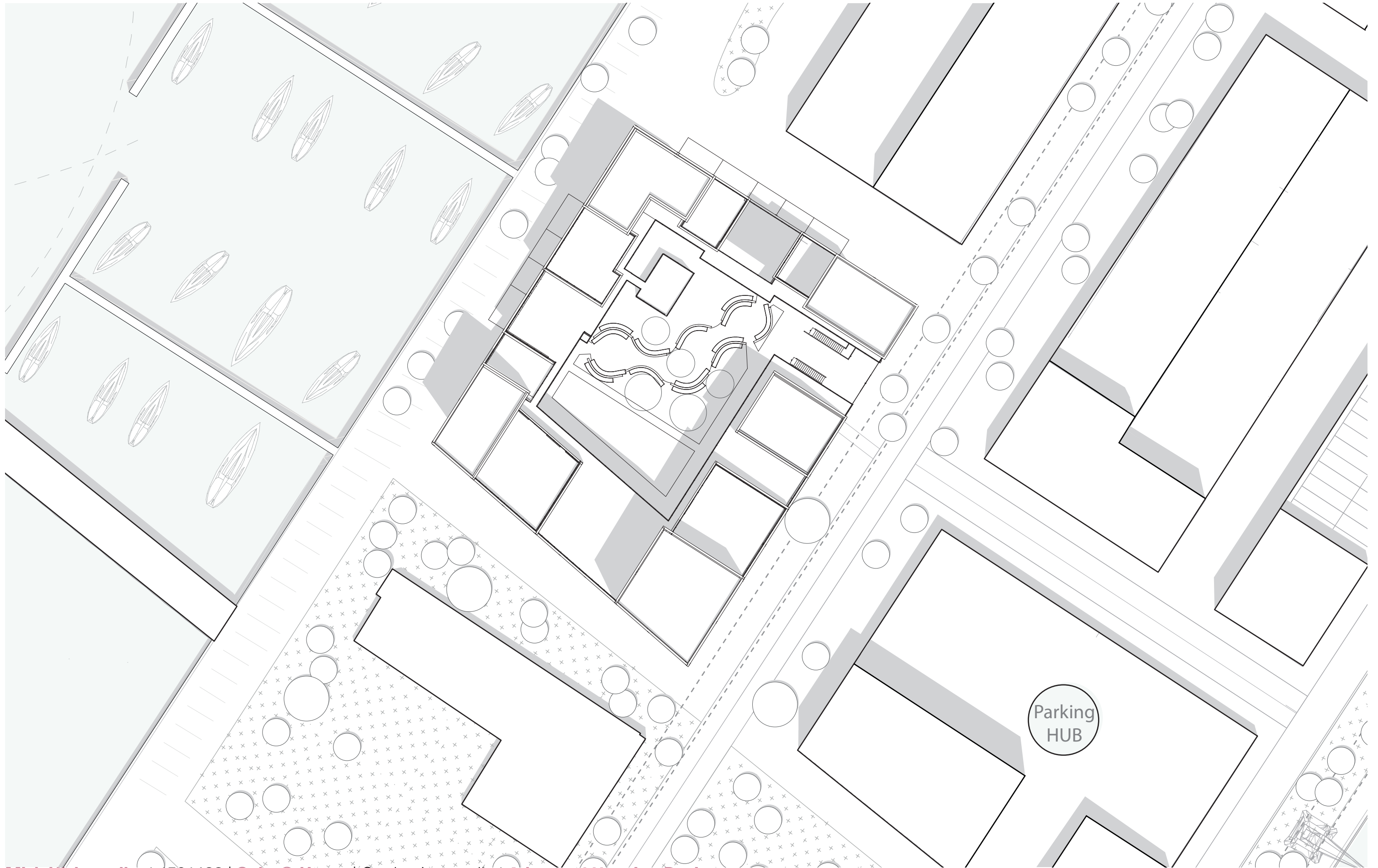
Open for public,
but closable after
certain hour

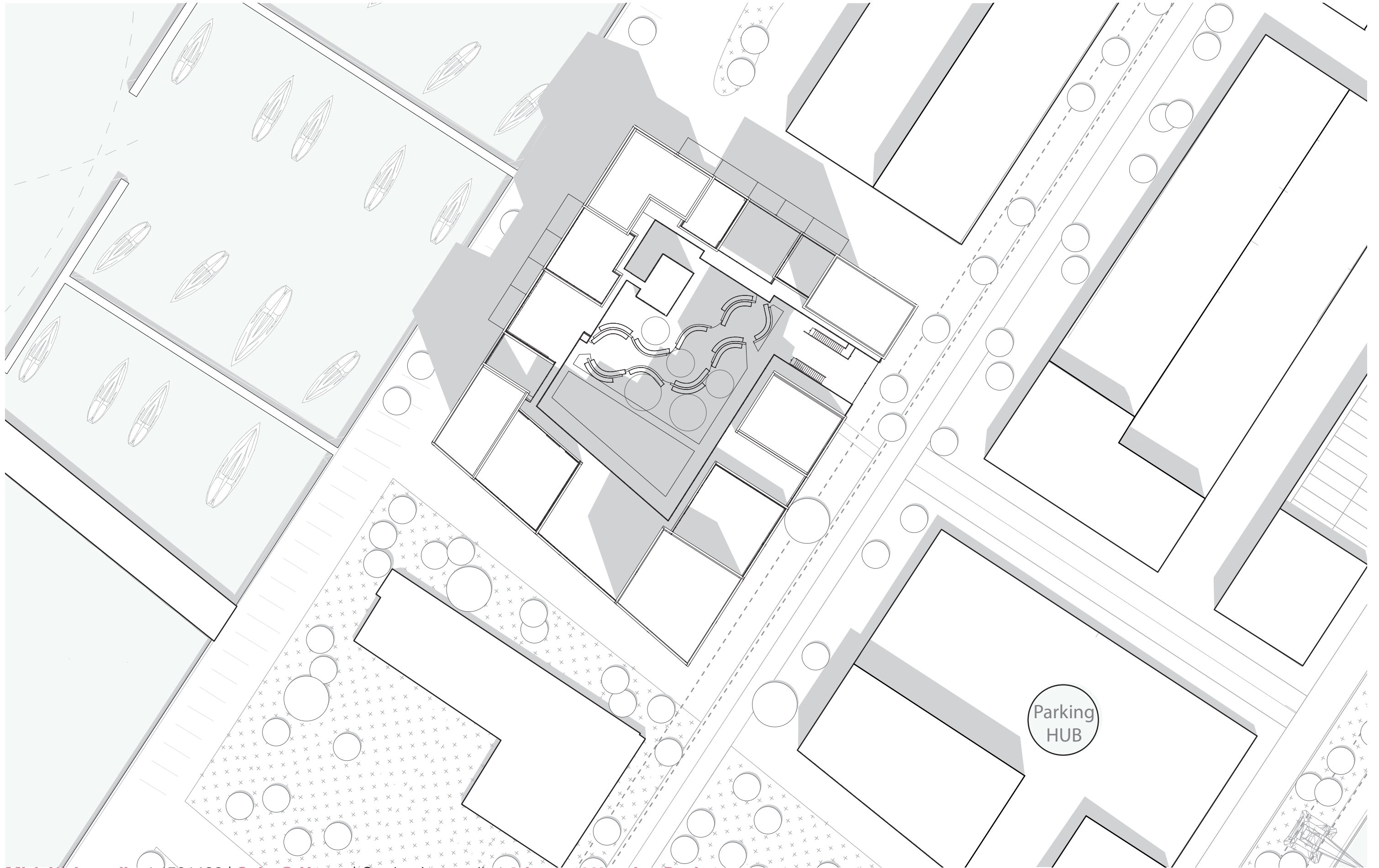
Comfort
& social
interaction

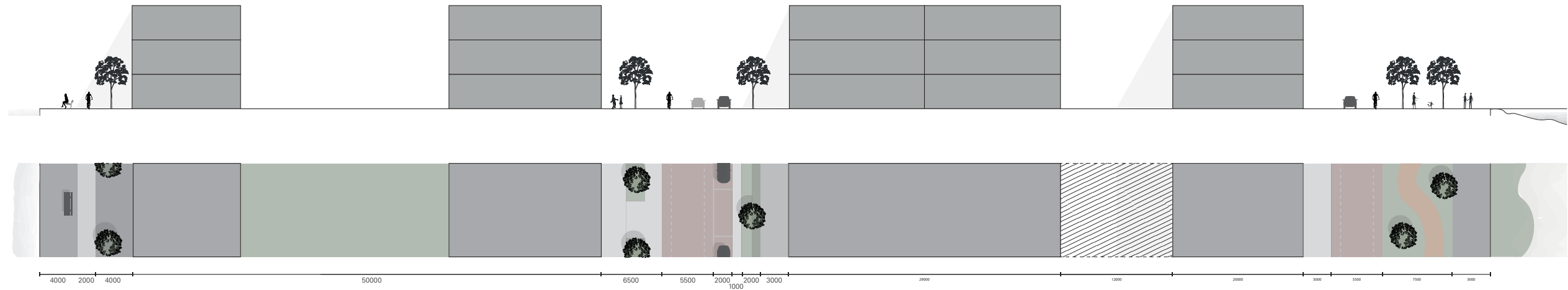
Freedom &
comfort

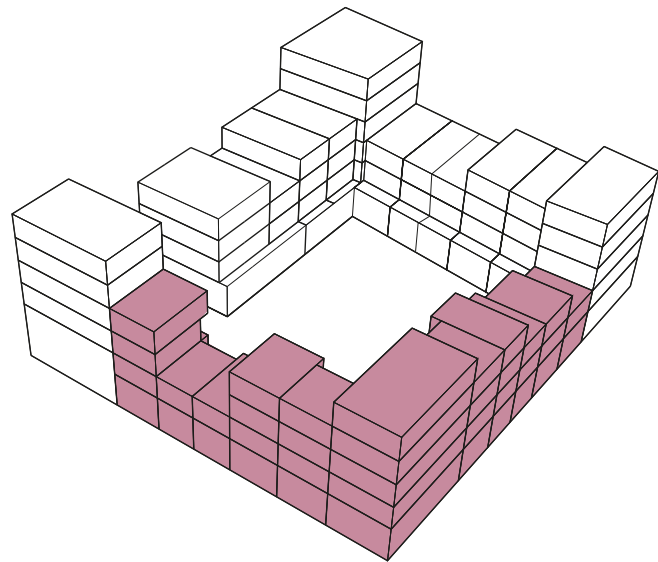




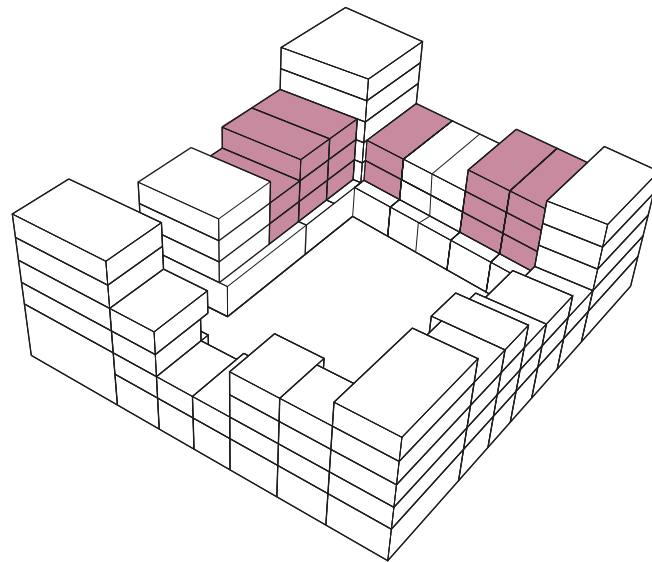




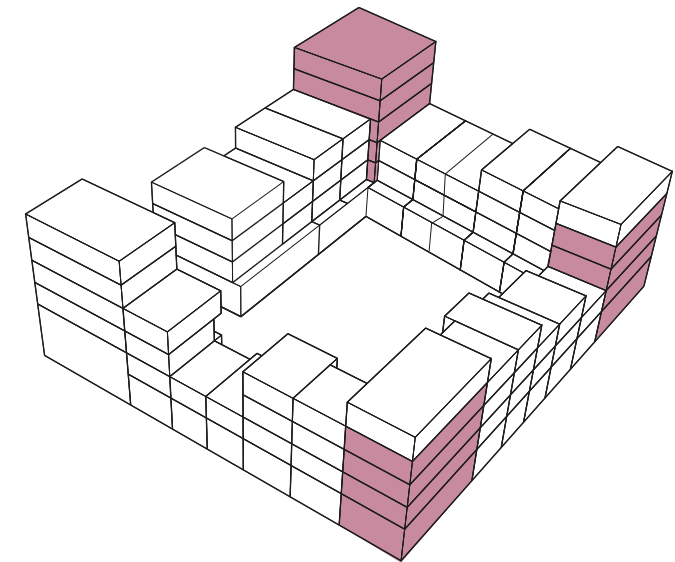




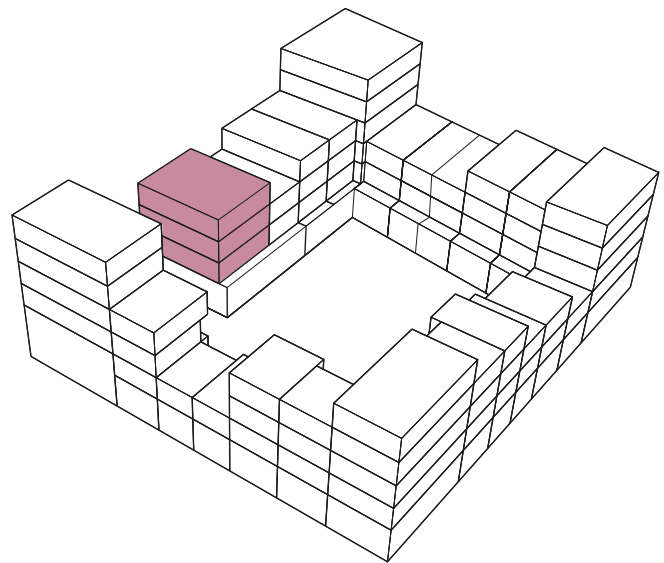
Co-living housing concept 1



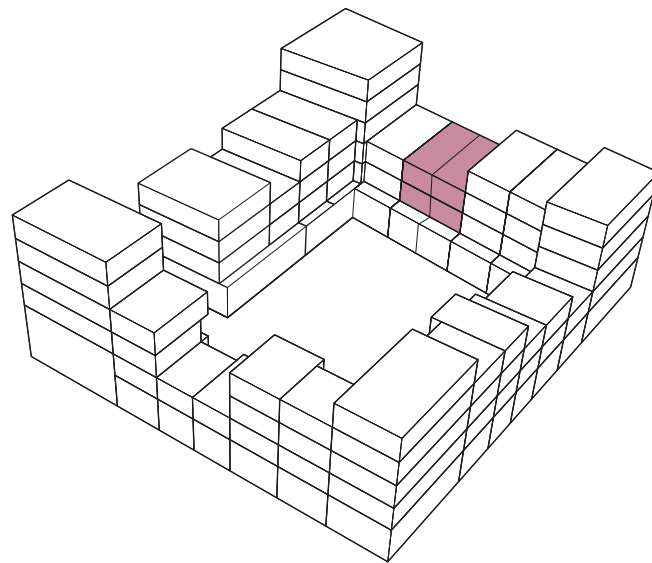
Housing concept 3



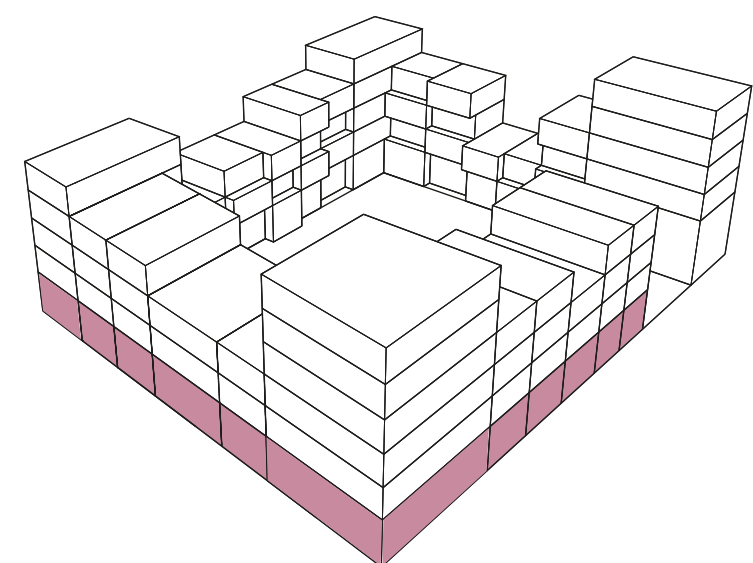
Shared living rooms



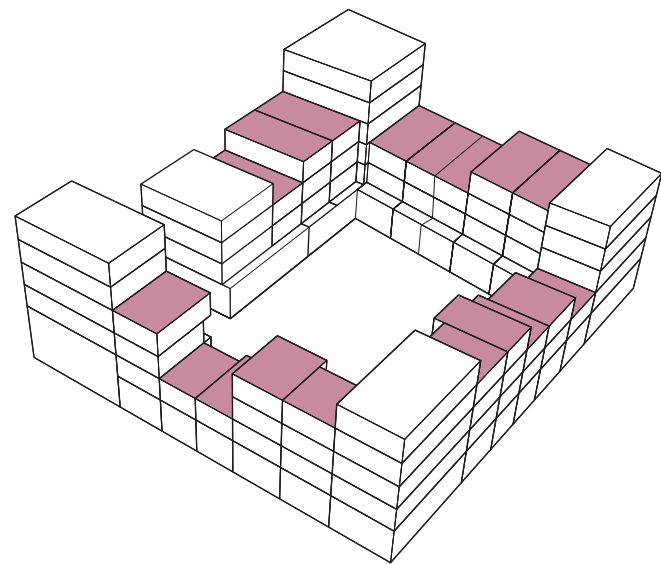
Co-living housing concept 2



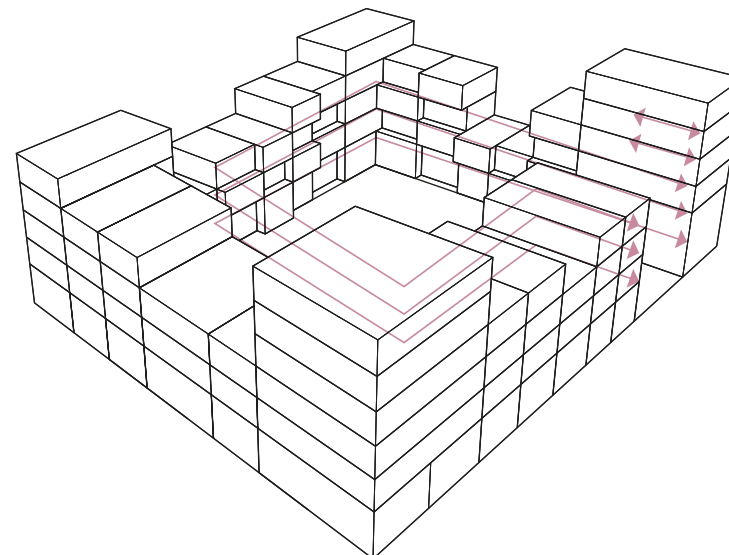
Housing concept 4



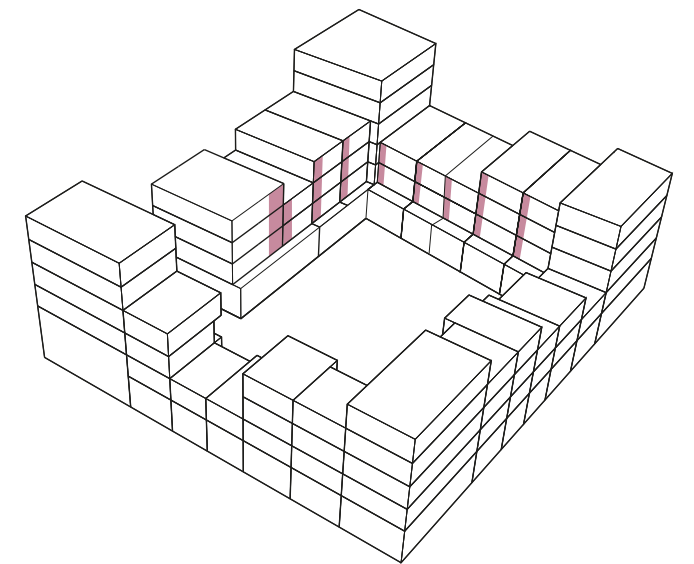
Public plinth



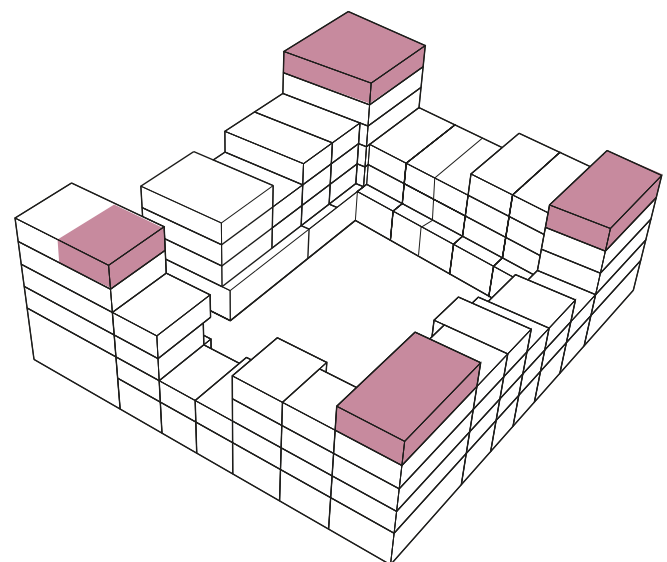
Shared roof terraces



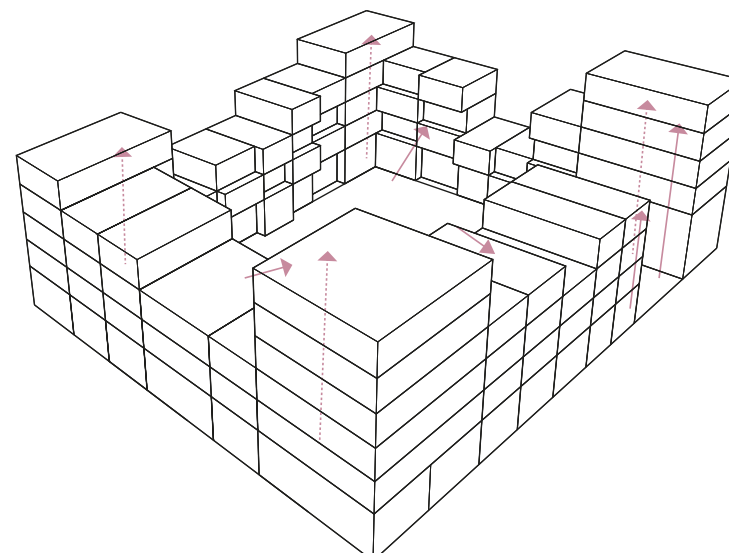
Horizontal circulation



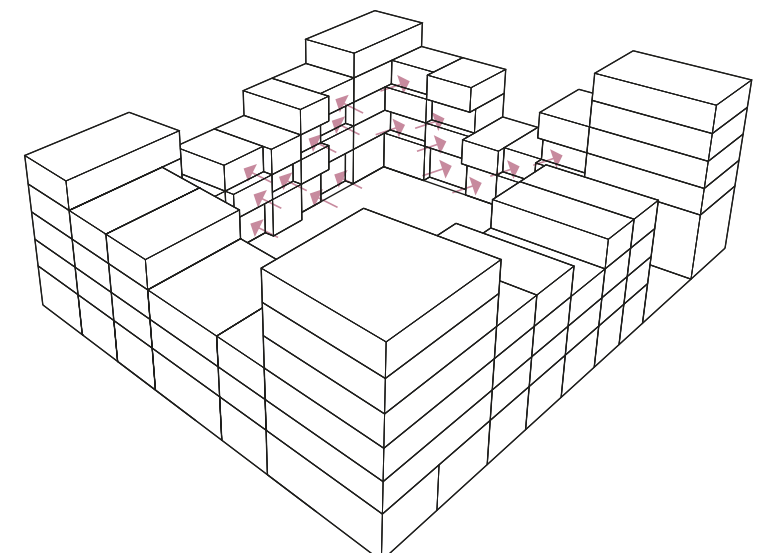
Pockets in north inner facade



Storage



Vertical circulation



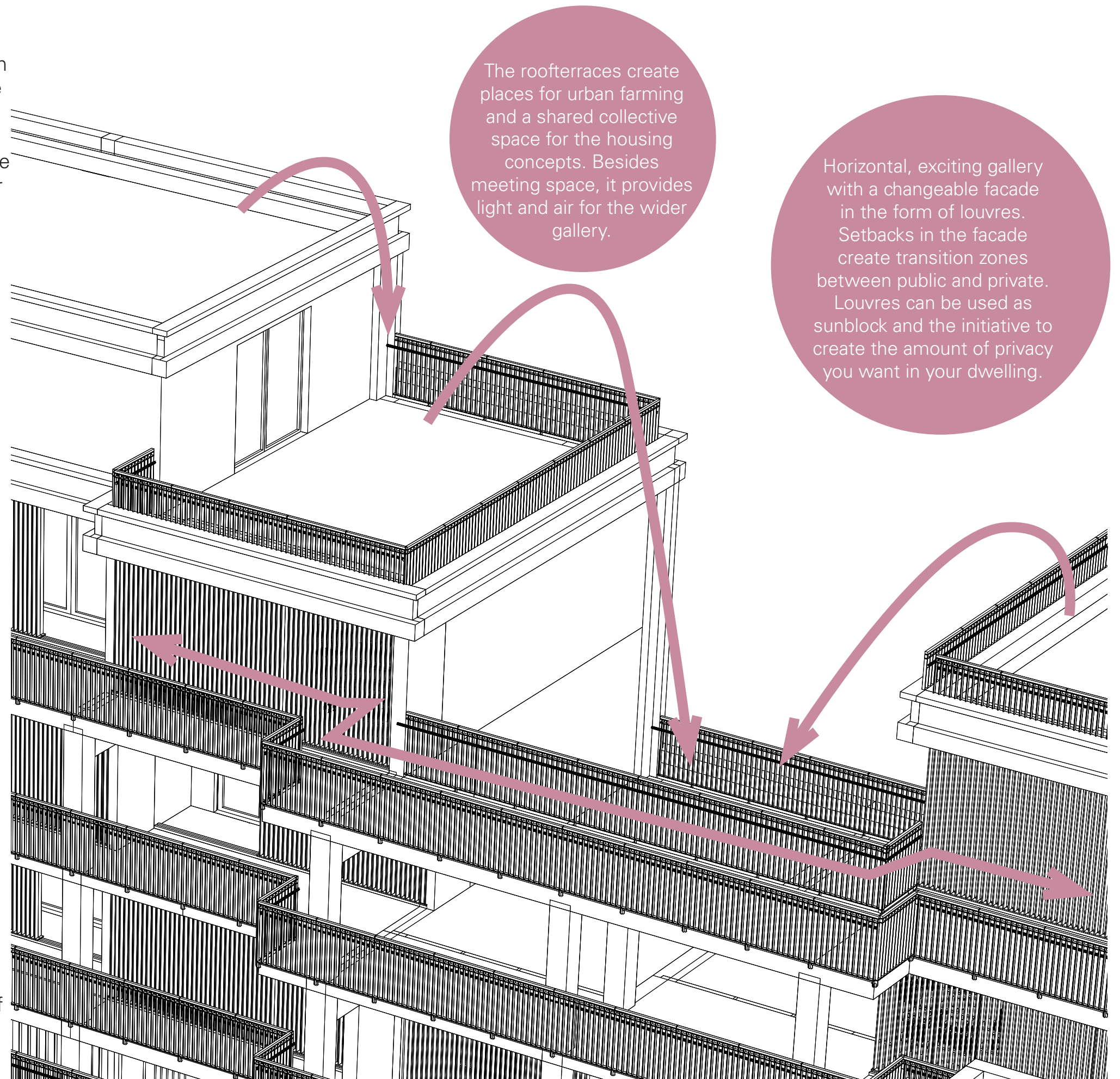
Setbacks in south inner facade

A building with varying baywidths, different apartment types, from small to extra large are organized next to each other forming a gradient that can accommodate multiple lifestyles. Multiple lifestyles mean different wishes and requirements. There is a thin line between feeling safe (privacy) and social interaction. Hence my design gives the resident initiative to change the amount of privacy of their dwelling.

The gallery, besides being efficient and relatively affordable, has great potential as social space, as collective balcony promoting an outdoor space for encounters. Especially for elderly a wider and more exciting gallery is preferable. When elderly become less mobile, their immediate surroundings become more important and need places to accommodate social interactions/activities.

Setbacks and pockets create transition zones between dwelling and communal space. These transition zones are spaces that can be used for many things, for placing plants, parking a stroller, a bench to enjoy your morning coffee, meet your neighbour or place your shopping bag to look for your keys. It can even act as a place where you can exchange books, cool stories and memories. The design give the resident the initiative to fill in these spaces themselves.

Since the gallery is meant to be used often, a sunscreen is introduced. The sunscreen is split in panels of 1,2 m wide on a rails in the gallery. You can decide your own privacy and openness towards the gallery at certain times. The 1,2 m panels are split into smaller panels of 200 mm x 20 mm. These smaller panels are also movable inside of the 1,2m panels.



The roofterraces create places for urban farming and a shared collective space for the housing concepts. Besides meeting space, it provides light and air for the wider gallery.

Horizontal, exciting gallery with a changeable facade in the form of louvers. Setbacks in the facade create transition zones between public and private. Louvres can be used as sunblock and the initiative to create the amount of privacy you want in your dwelling.





Outer facade: 11-19 Jane Street Apartments, David Chipperfield Architects



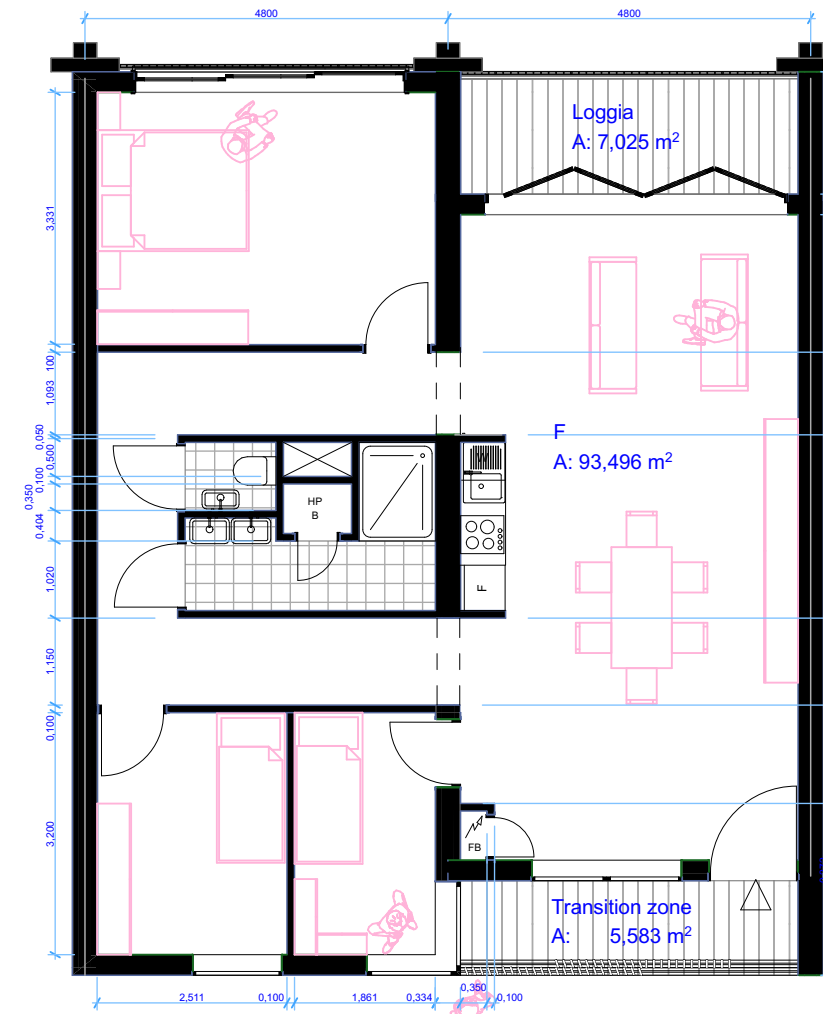
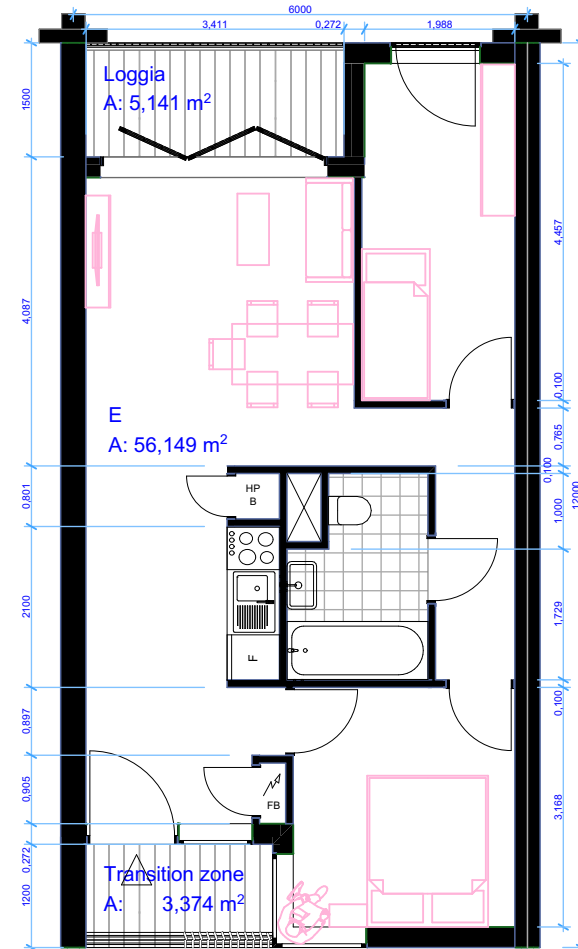
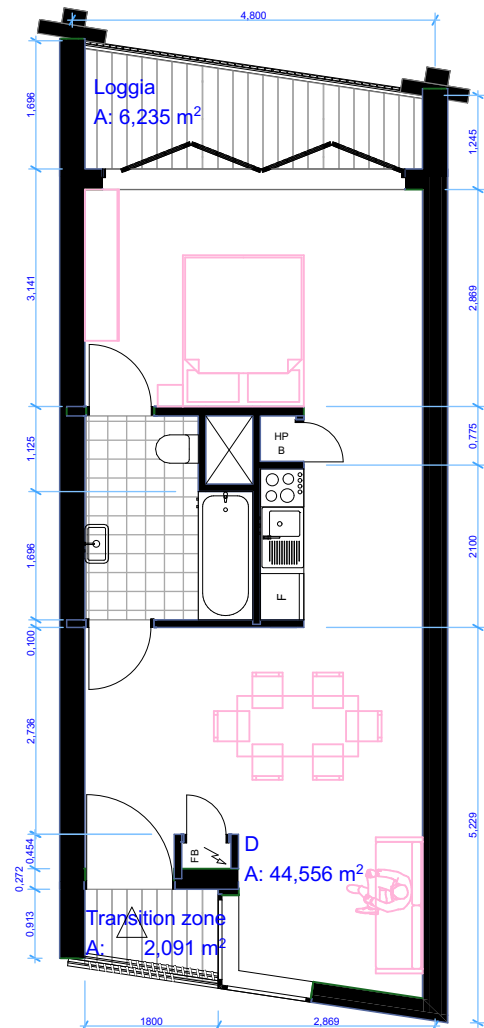
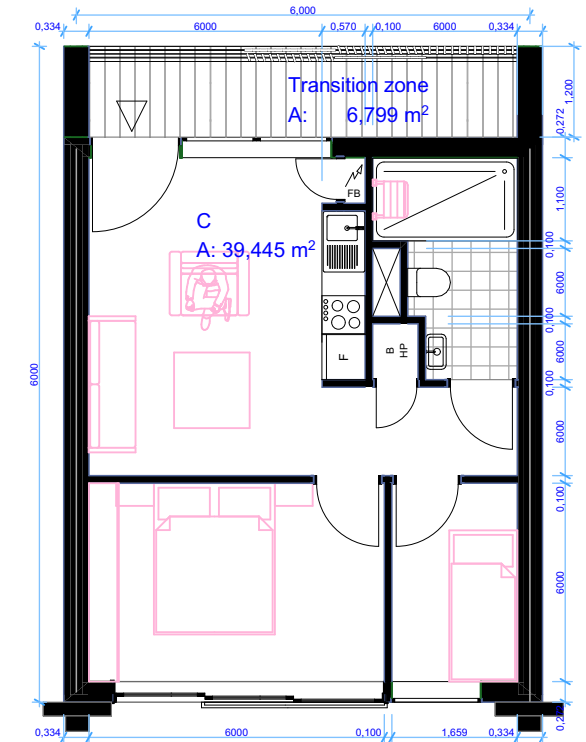
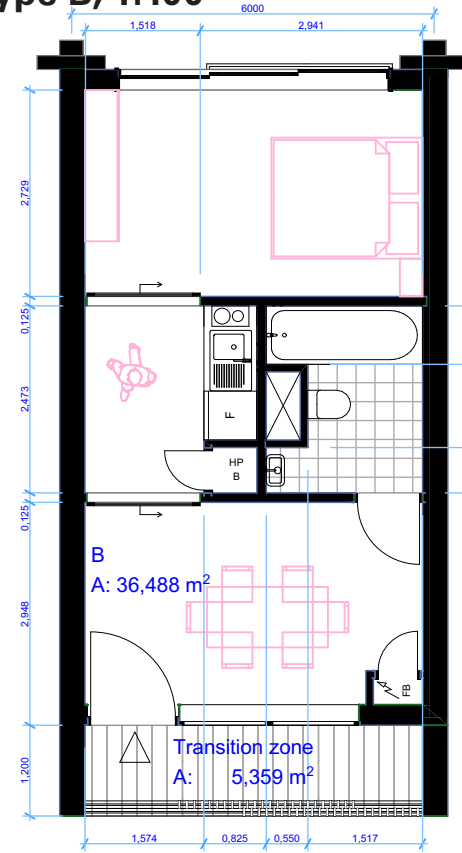
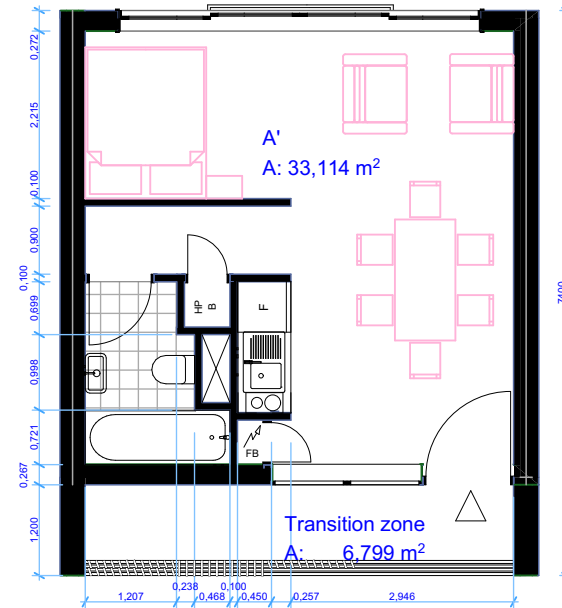
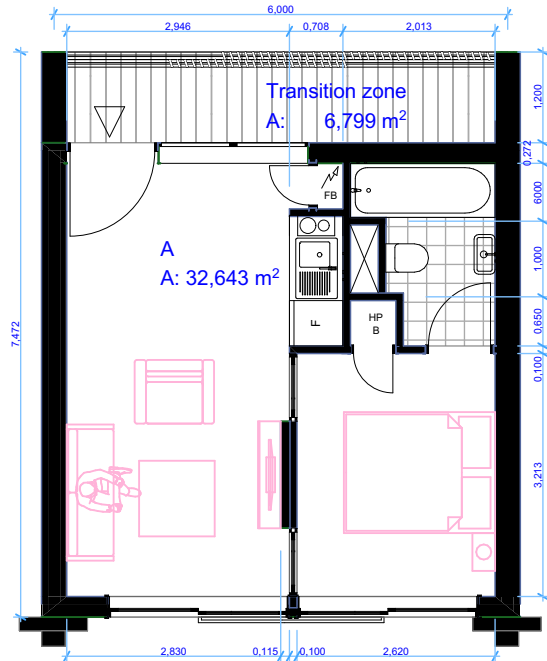
Inner facade north-east: Terrace housing, NL architects



Inner facade south-west: Grand Parc, Lacaton & Vassal architectes

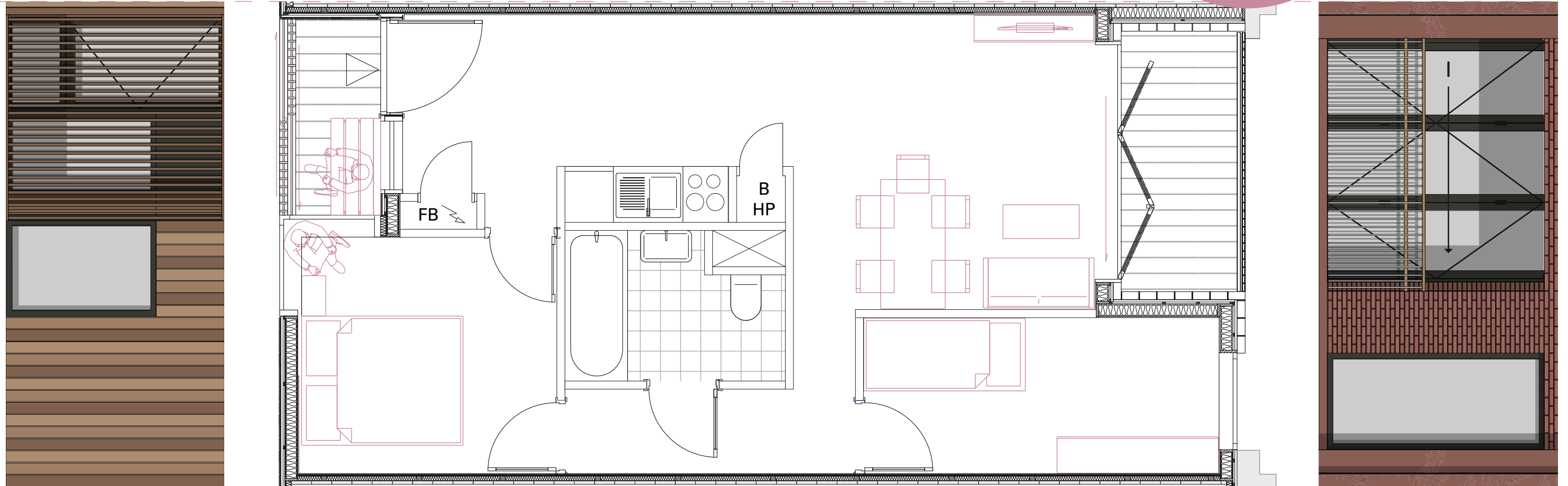


Urban farming and roofterraces: Harbour houses, ADEPT



All dwelling have a 'wet core' as a basis, surrounding the core is a flexible dwelling plan which gives the resident the initiative to fill in themselves.

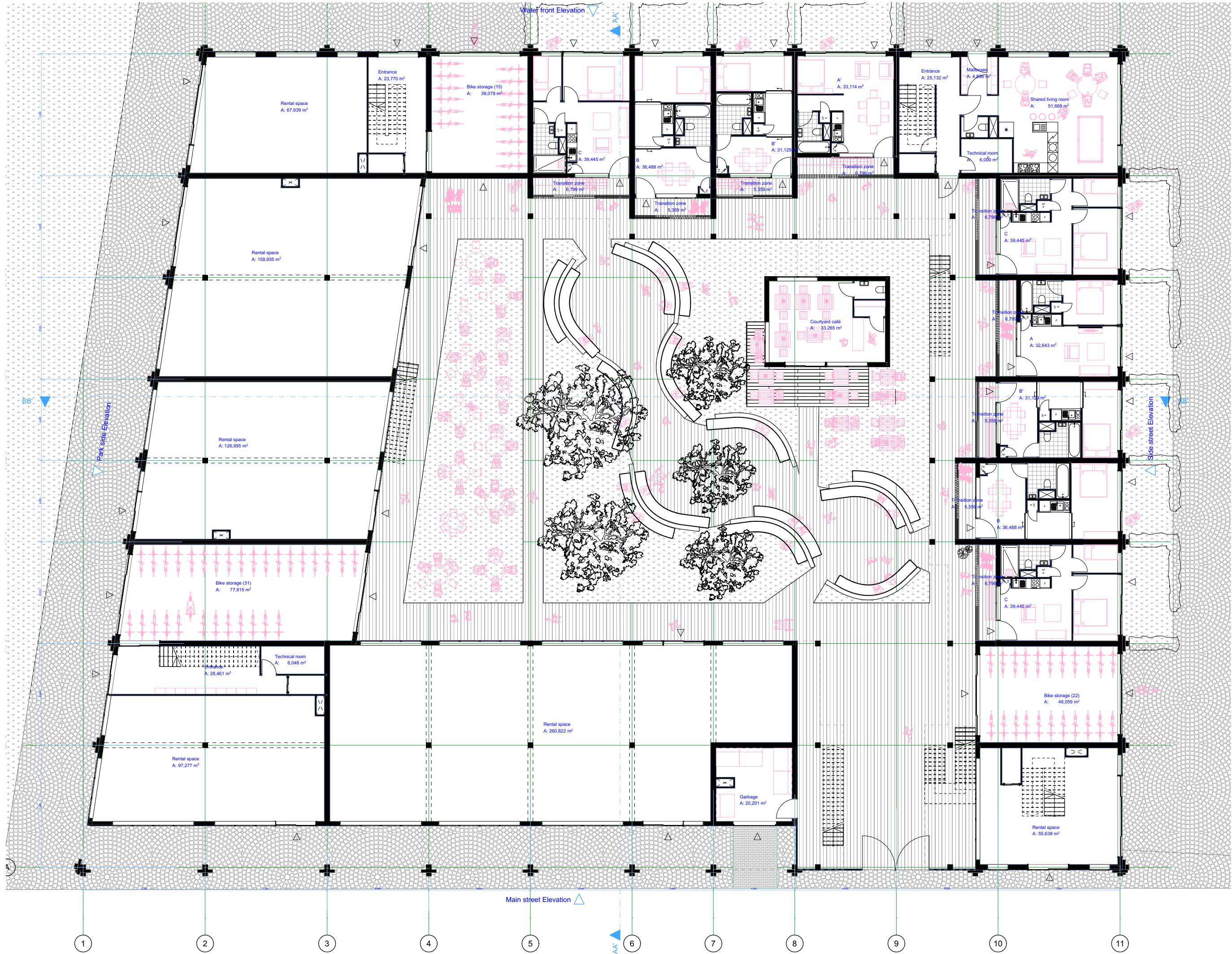
The folding doors reduce the relation between outside and inside. It can be used as an extension of the living room, just like the communal spaces and transition zones.

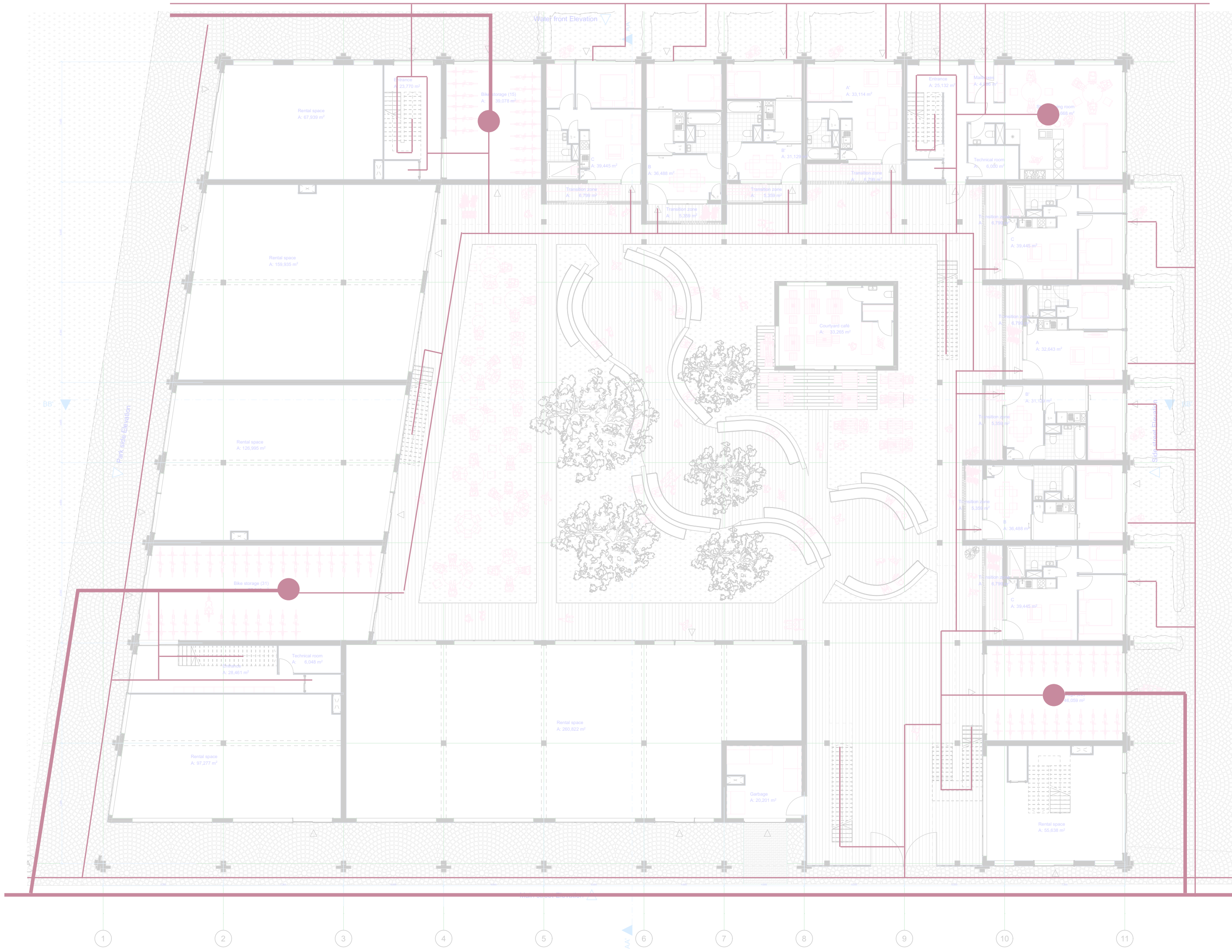


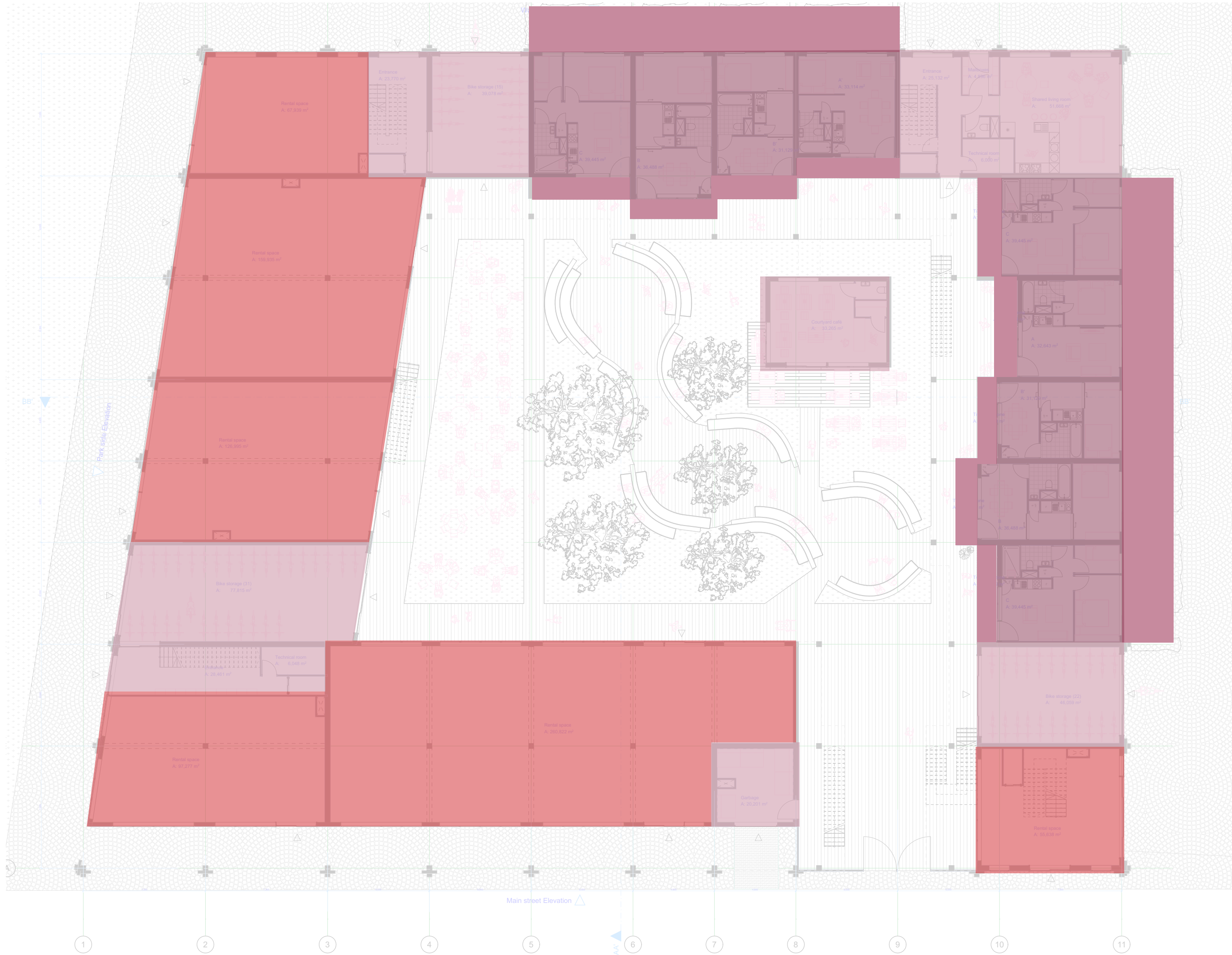
The louvres give the resident the initiative to determine the amount of privacy in relation to the gallery. The louvres throughout the building make a ever moving facade. It's always different depending on the resident, the month of the year or even the weather. It creates an exciting living area.

For elderly it's important to have an one floor apartment. Since my project is about feeling at home, I do not want to oblige the residents to ever leave their home. To ensure that the dwellings are lifetime proof, I decided to only introduce one floor apartments.

The transition zones between collective and private give the resident a place that can be used for many things, for placing plants, parking a stroller, a bench to enjoy your morning coffee, meet your neighbour or place your shopping bag to look for your keys. It can even act as a place where you can exchange books, cool stories and memories. The design give the resident the initiative to fill in these spaces themselves.







1:200



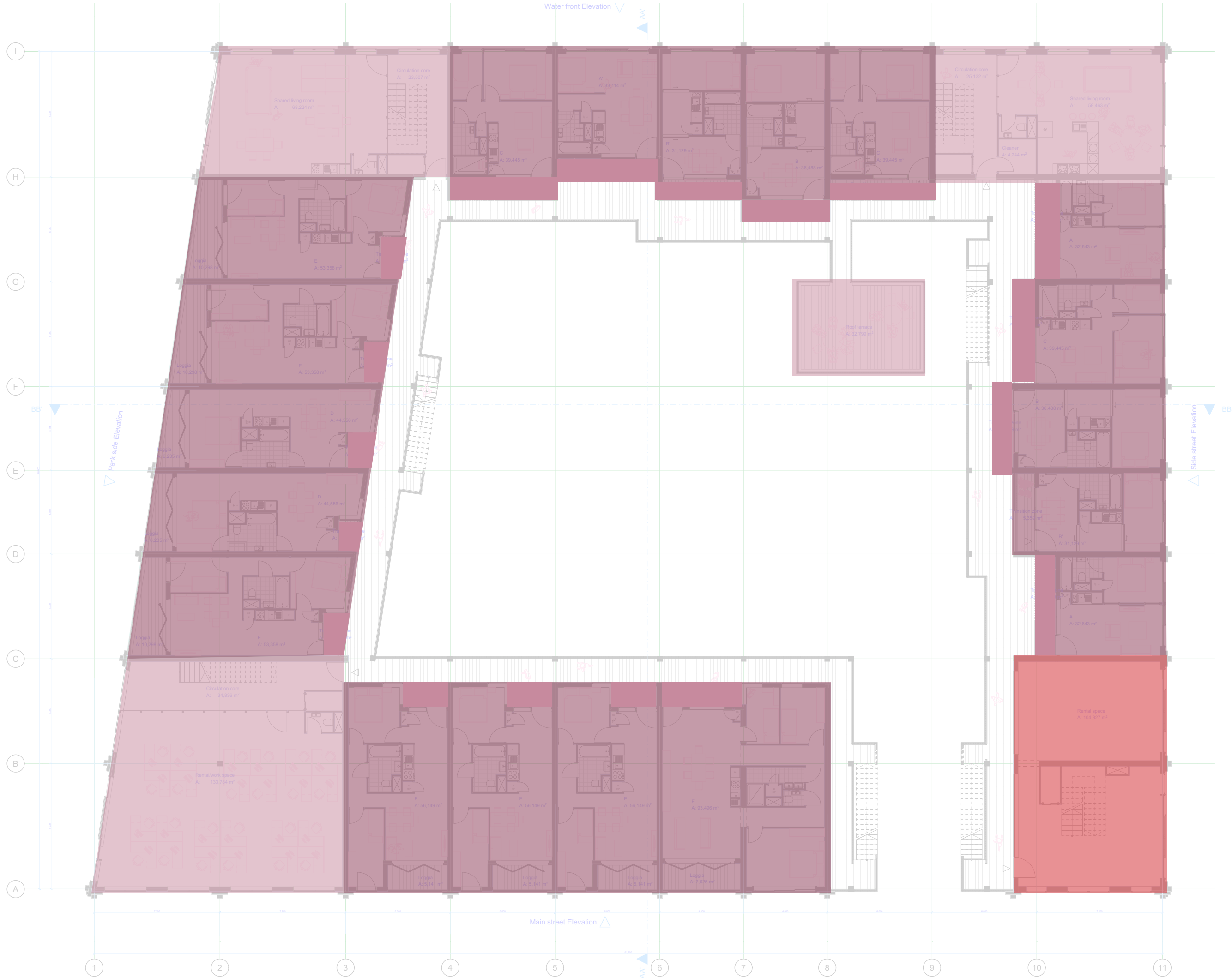










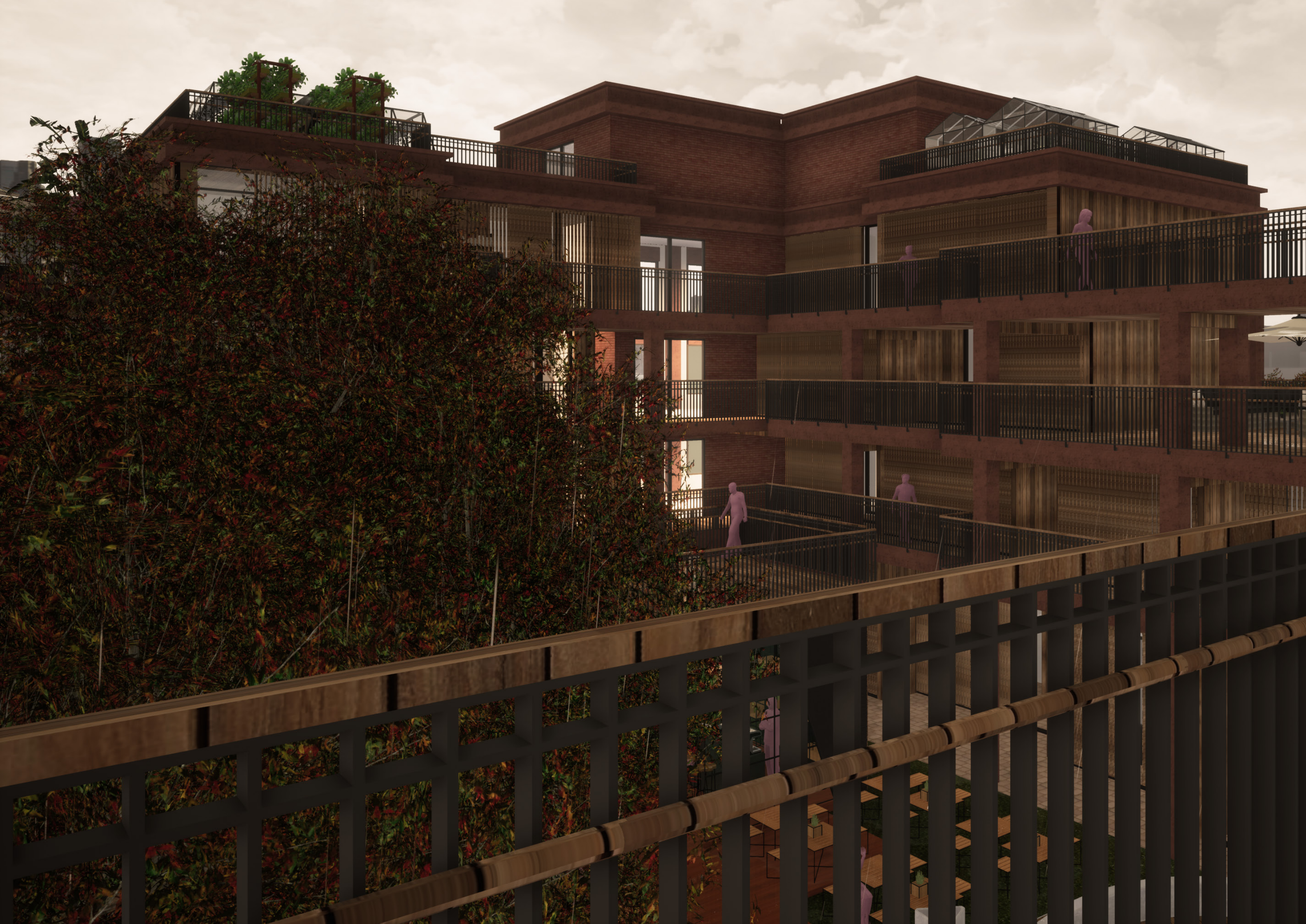




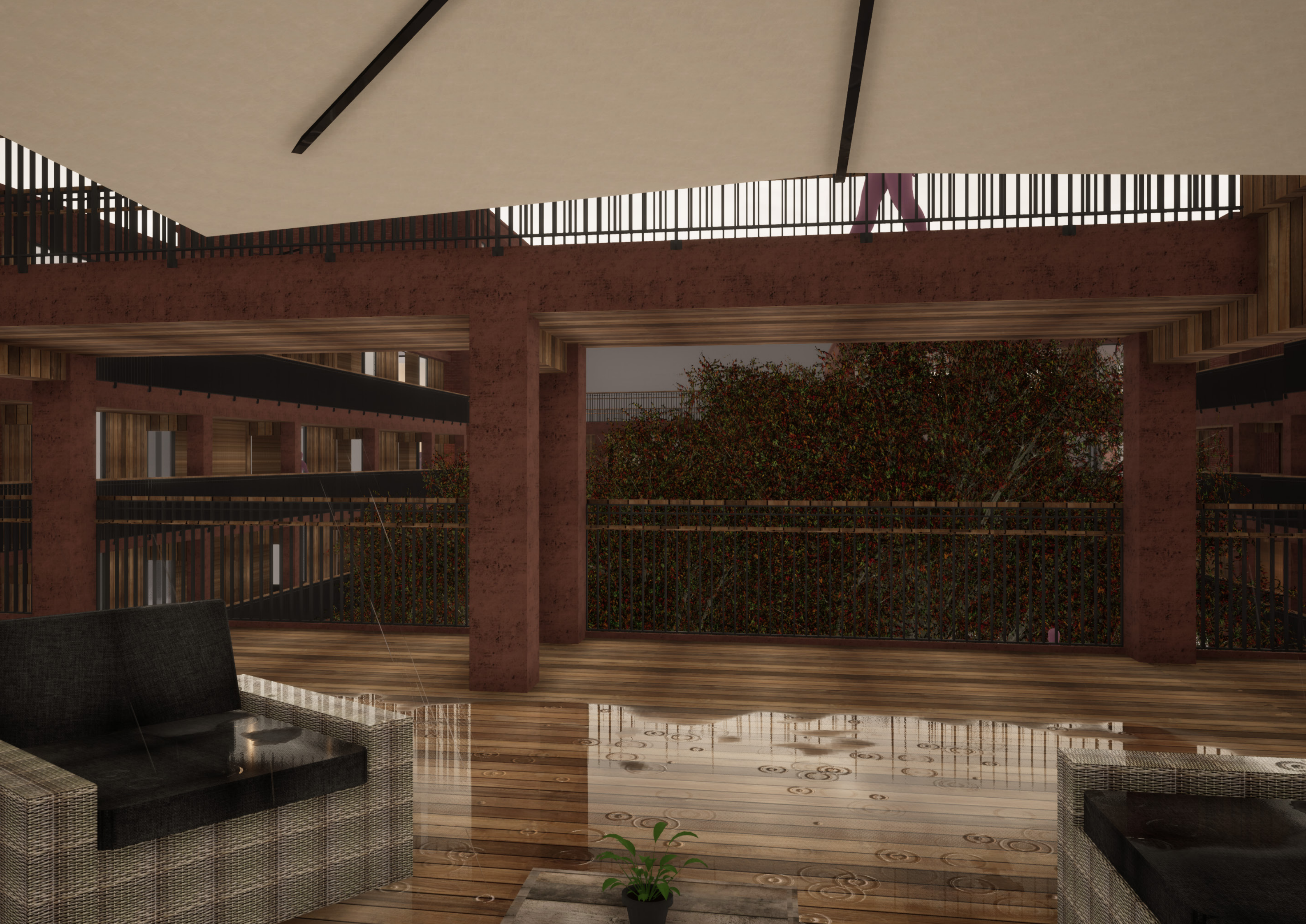


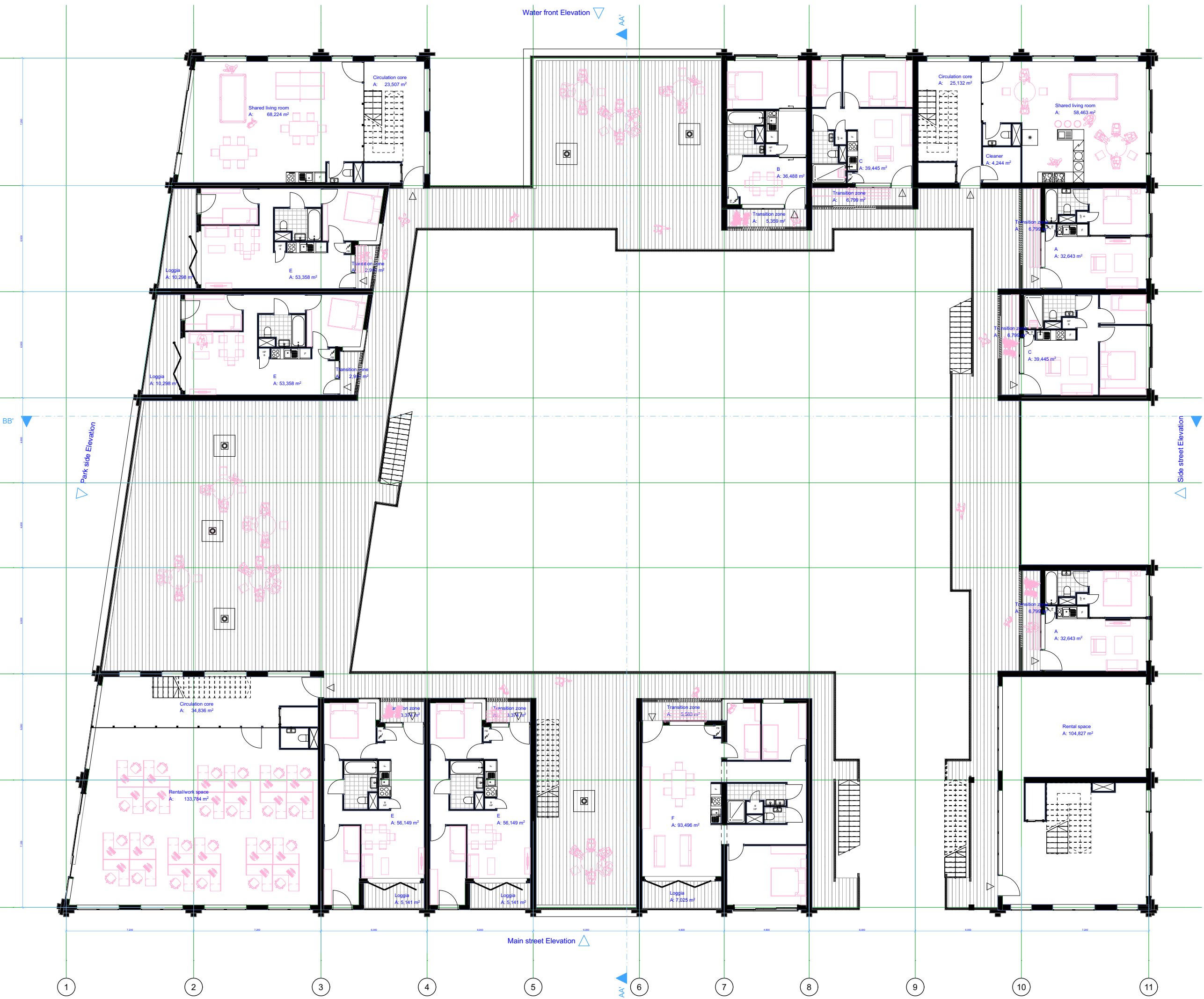










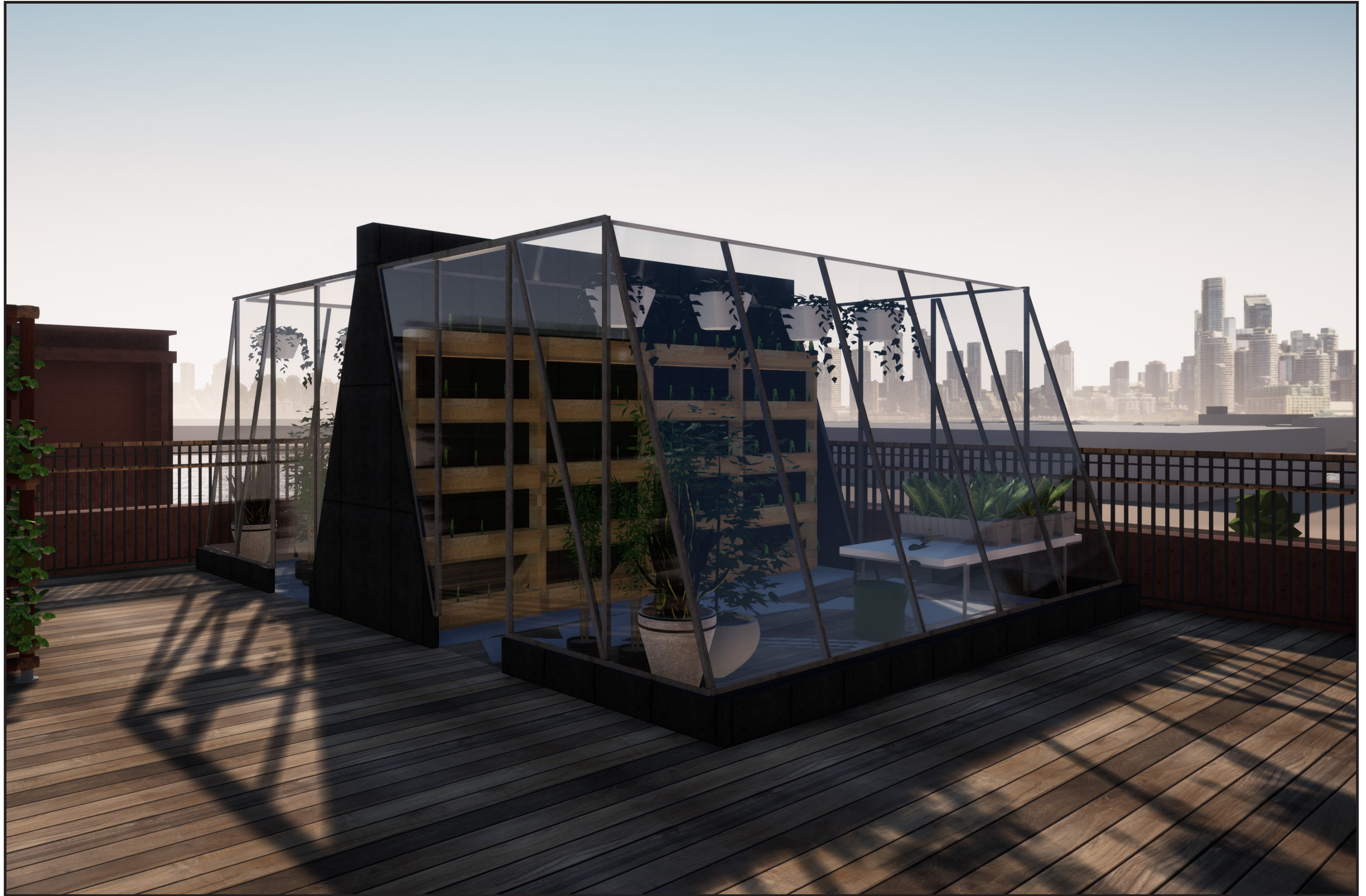






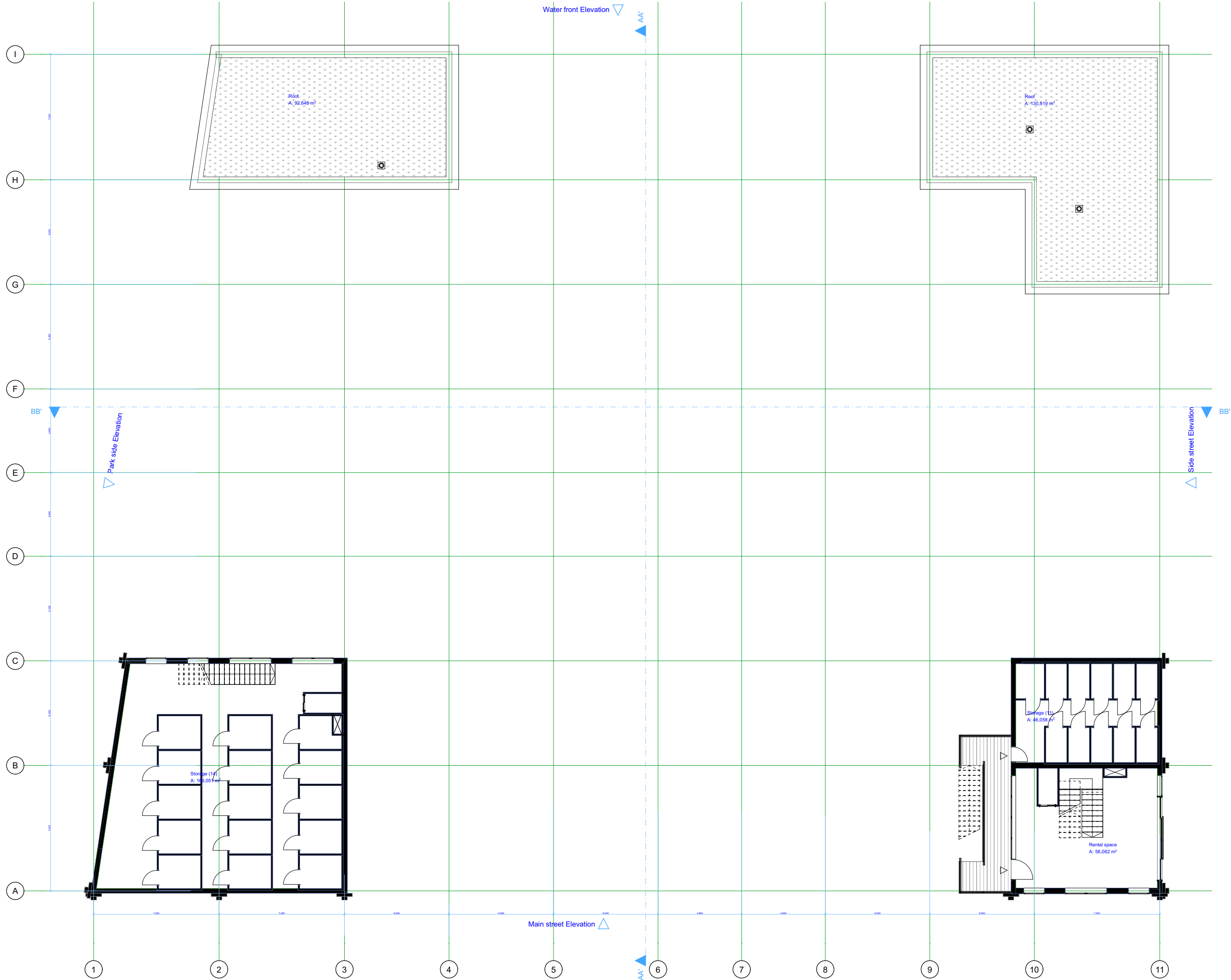




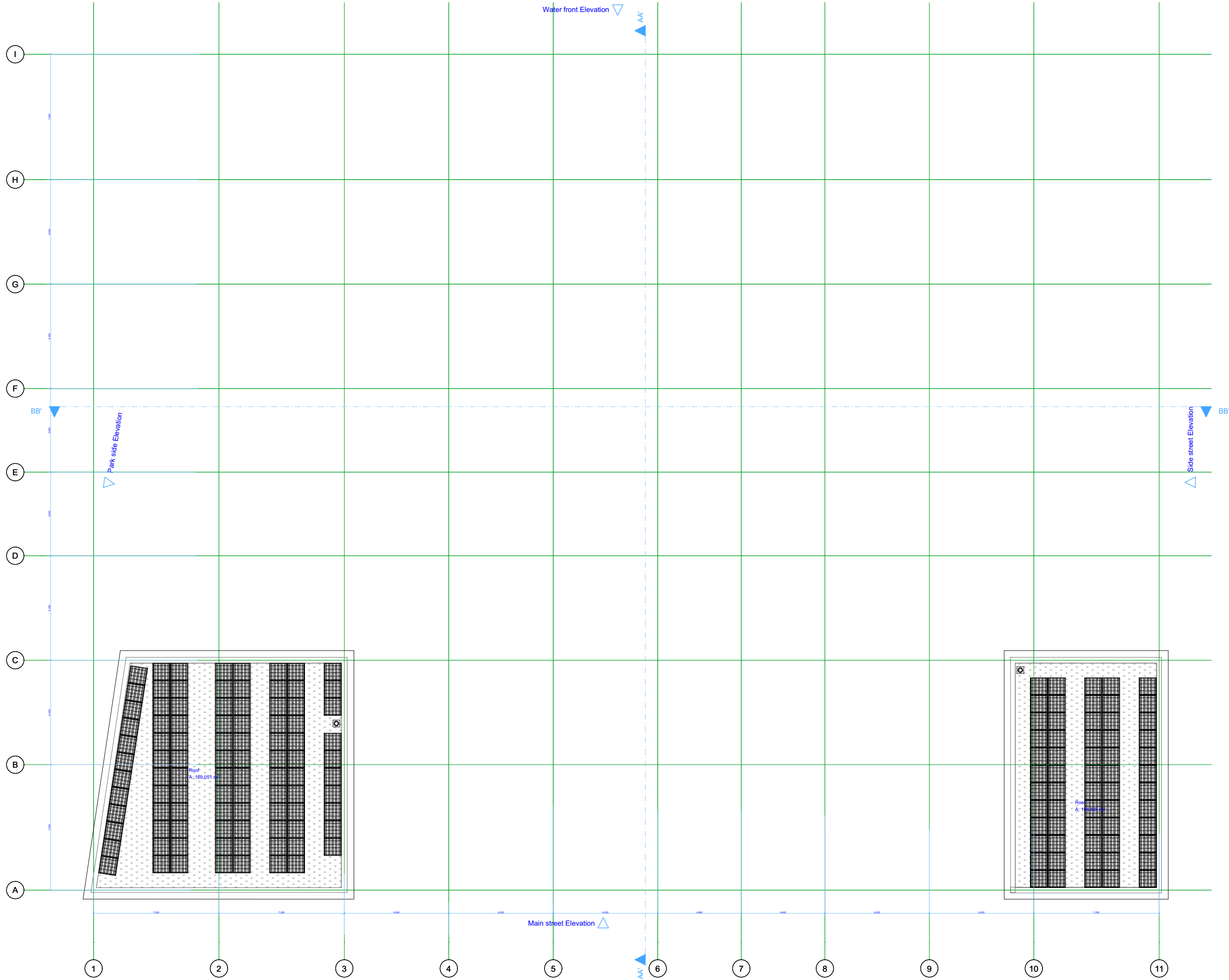




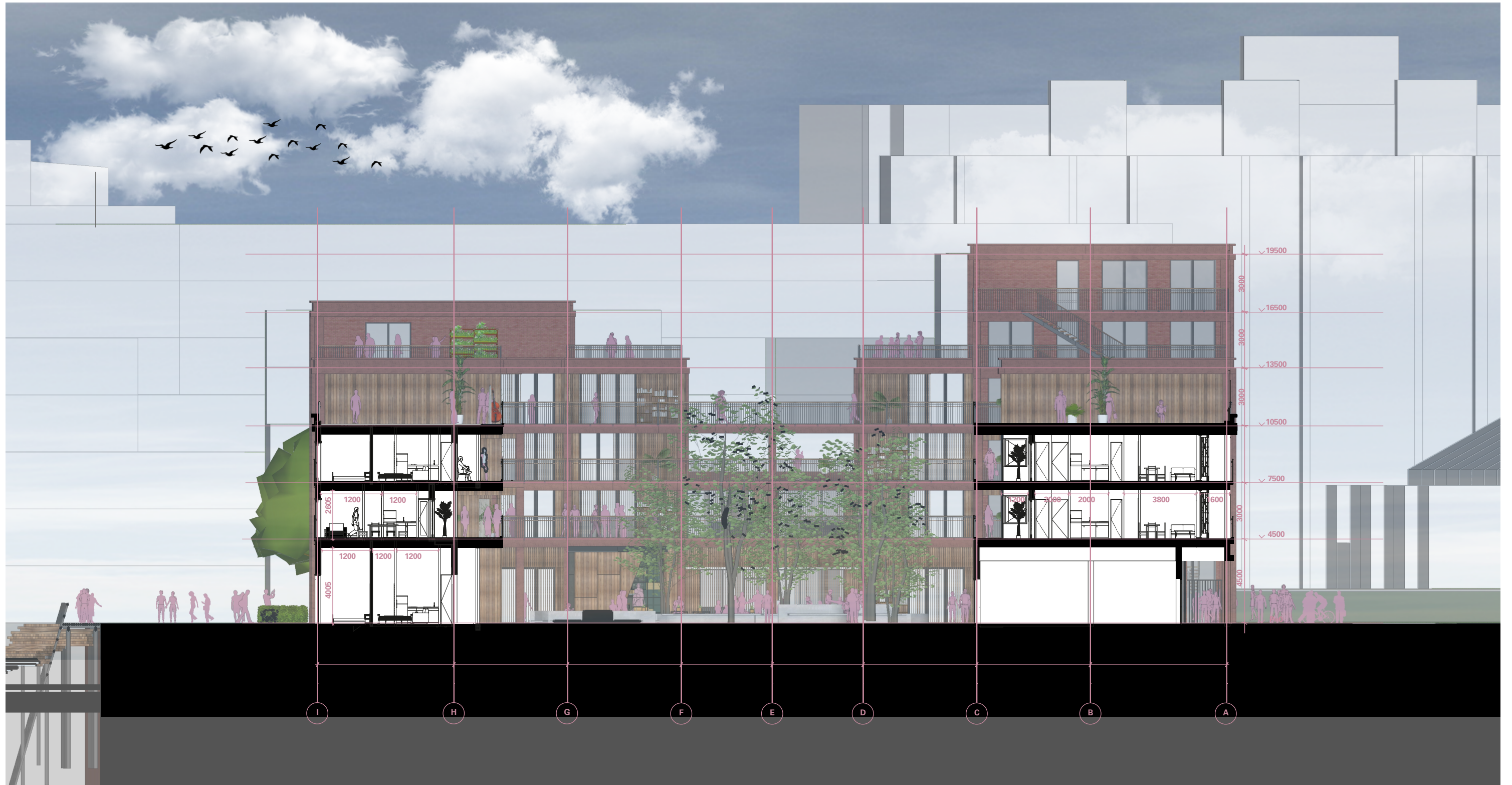






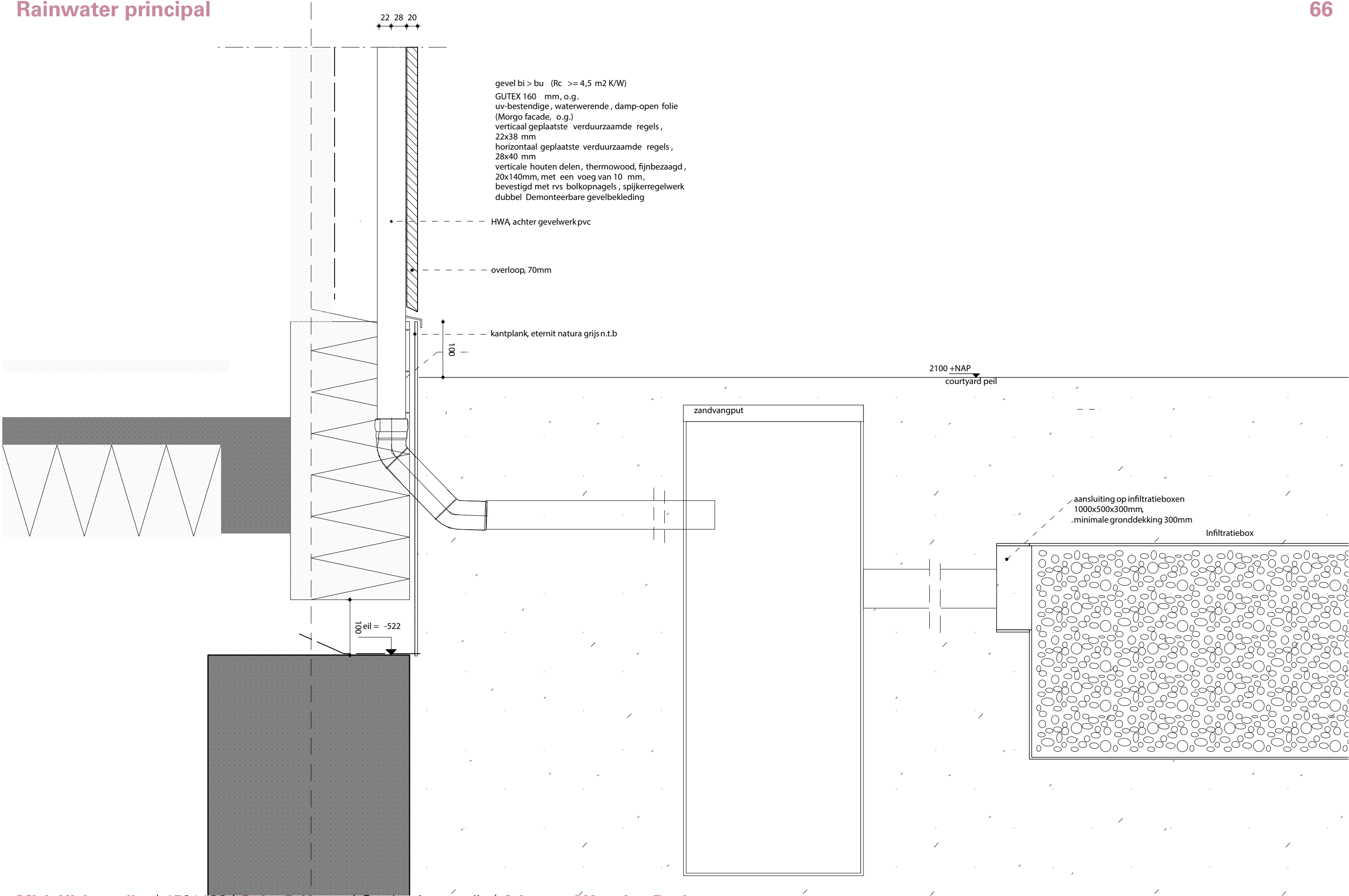






















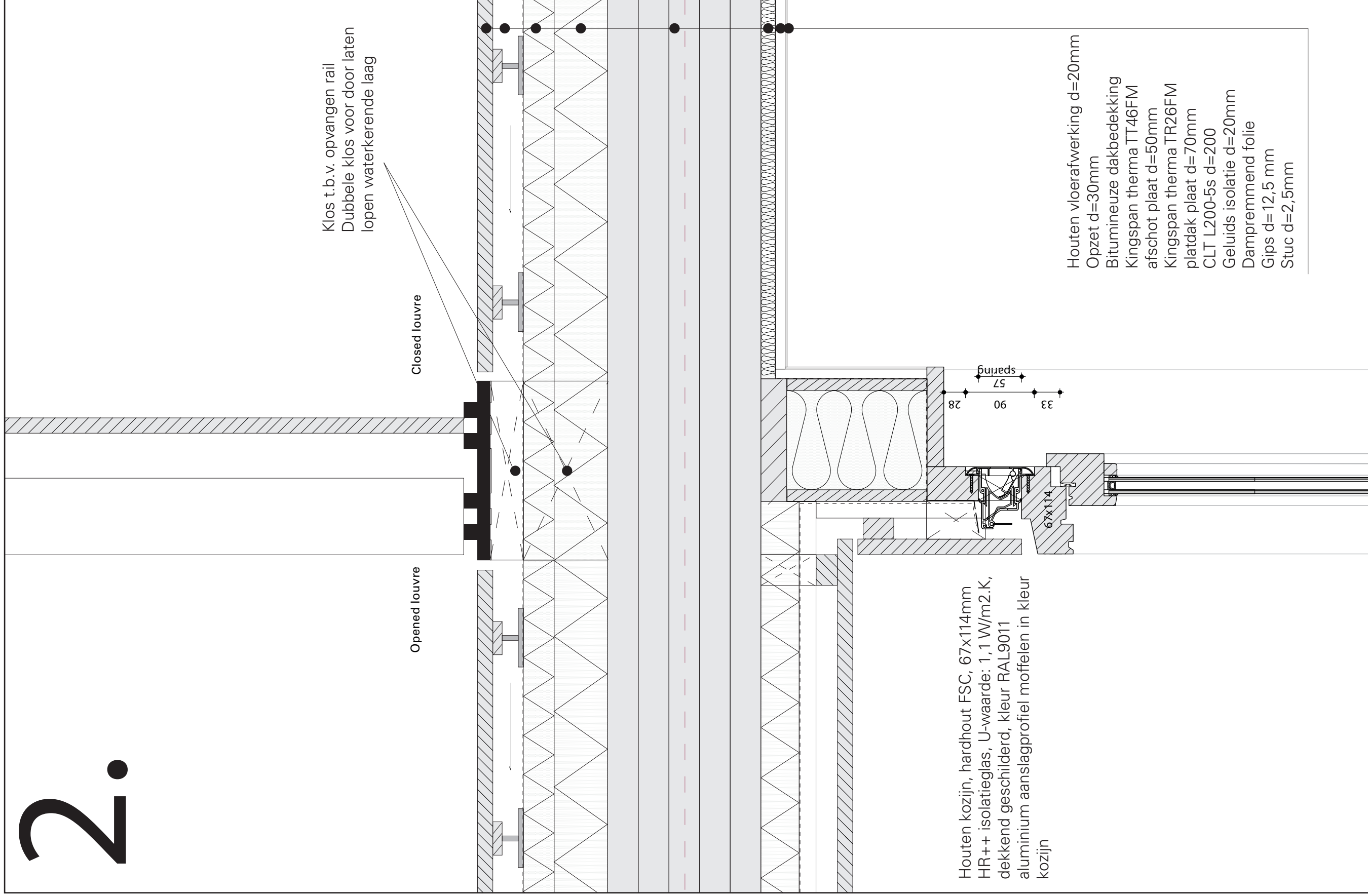


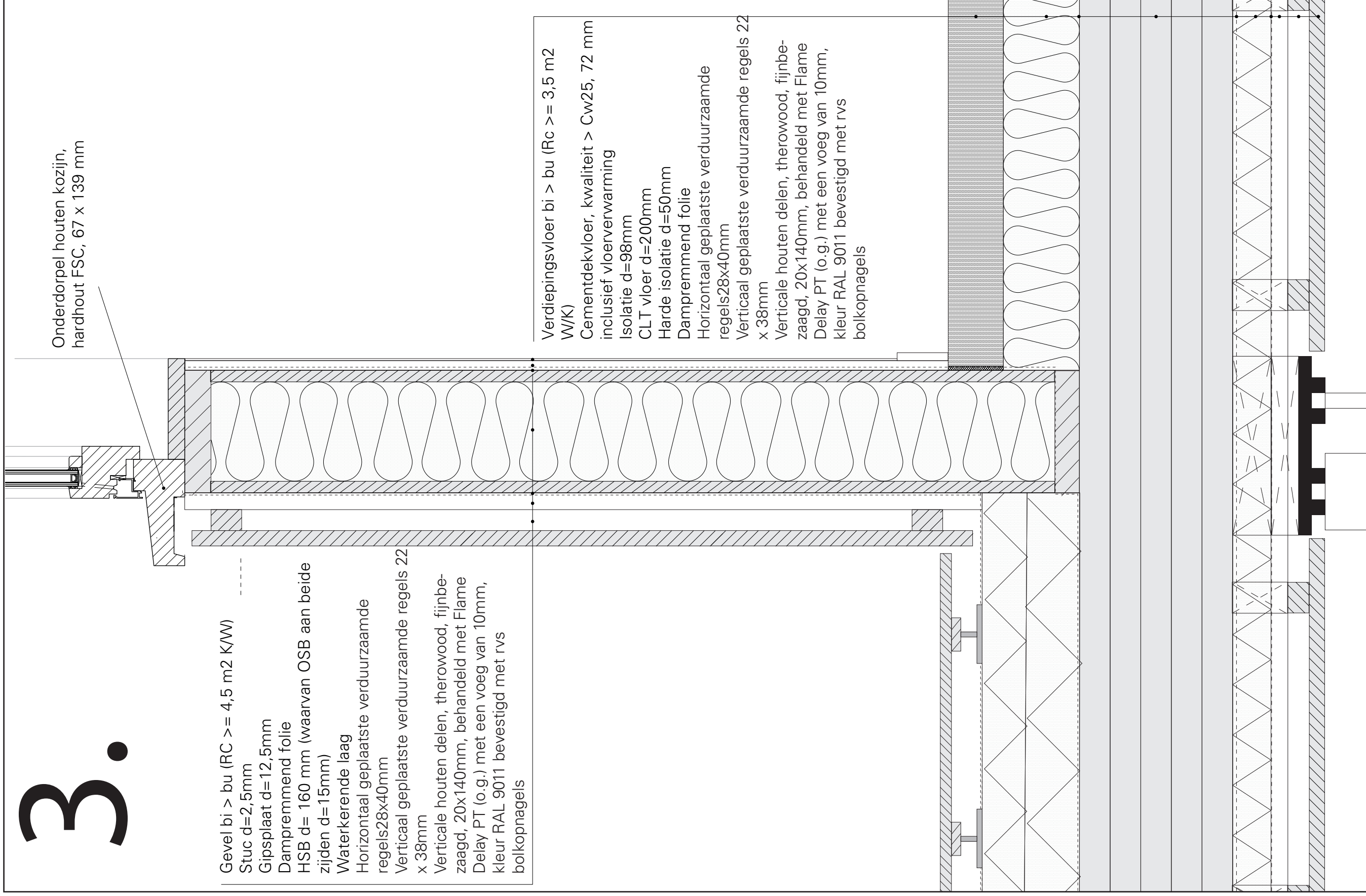












4.

Houten kozijn, hardhout FSC,
67x114 mm
HR++ isolatieglas, U-waarde:
1,1W/m²., kleur RAL 9011 alumi-
um aanslagprofiel moffelen in kleur
kozijn

Buitendorpel, Holonite 114 x 67 met
neuten kleur natura zwart

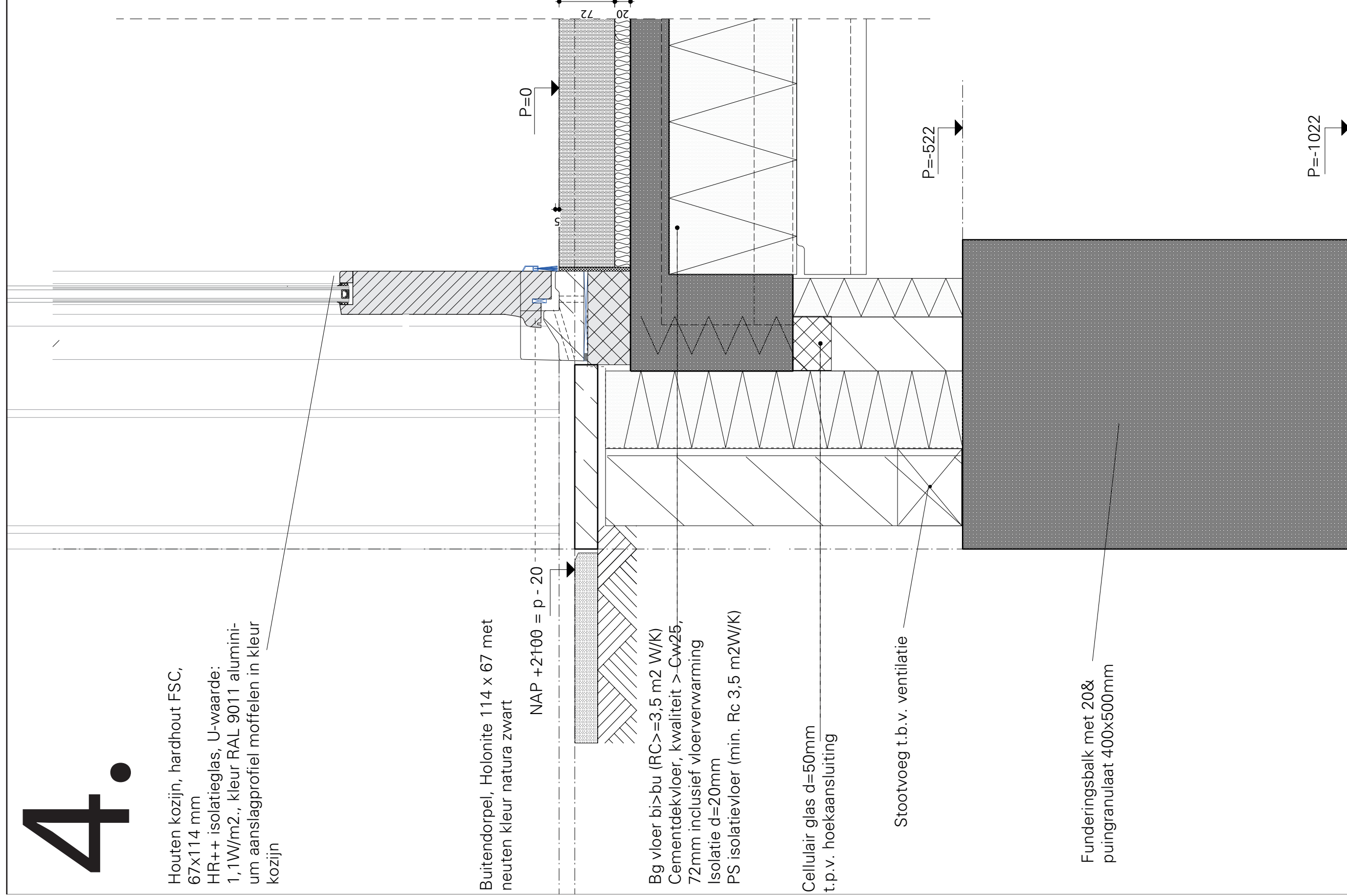
NAP +2100 = p - 20

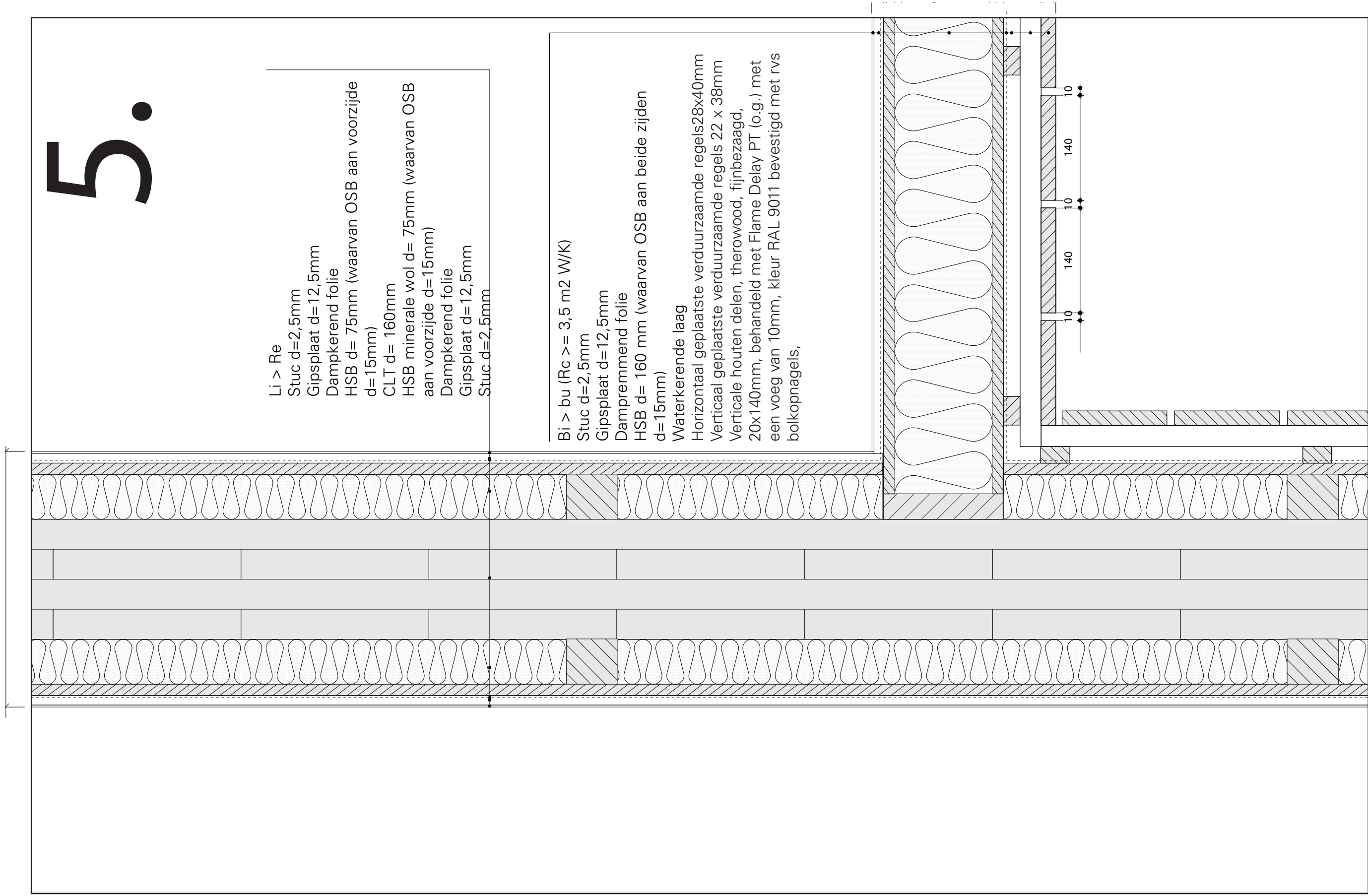
Bg vloer bi>bu (RC>=3,5 m² W/K)
Cementdekvloer, kwaliteit > Gw25,
72mm inclusief vloerverwarming
Isolatie d=20mm
PS isolatievloer (min. Rc 3,5 m²W/K)

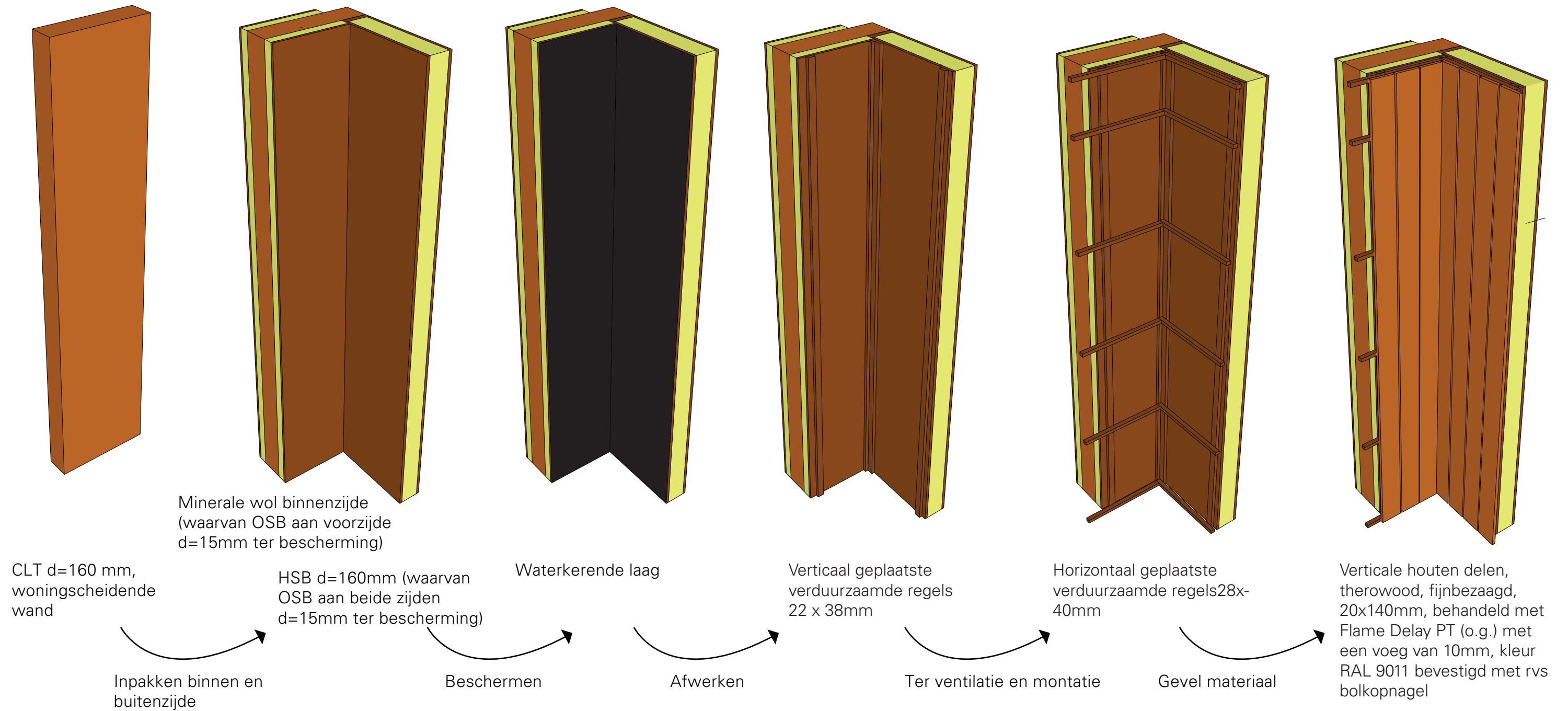
Cellulair glas d=50mm
t.p.v. hoekaansluiting

Stootvoeg t.b.v. ventilatie

Funderingsbalk met 20&
puingranulaat 400x500mm







6.

Bi > bu (Rc >= 3,5 m2 W/K)

Stuc d=2,5mm

Gipsplaat d=12,5mm

Dampremmend folie

HSB d= 75mm (waarvan OSB aan voorzijde d=15mm)

CLT d= 160mm

HSB minerale wol d= 75mm (waarvan OSB aan voorzijde d=15mm)

Waterkerende laag

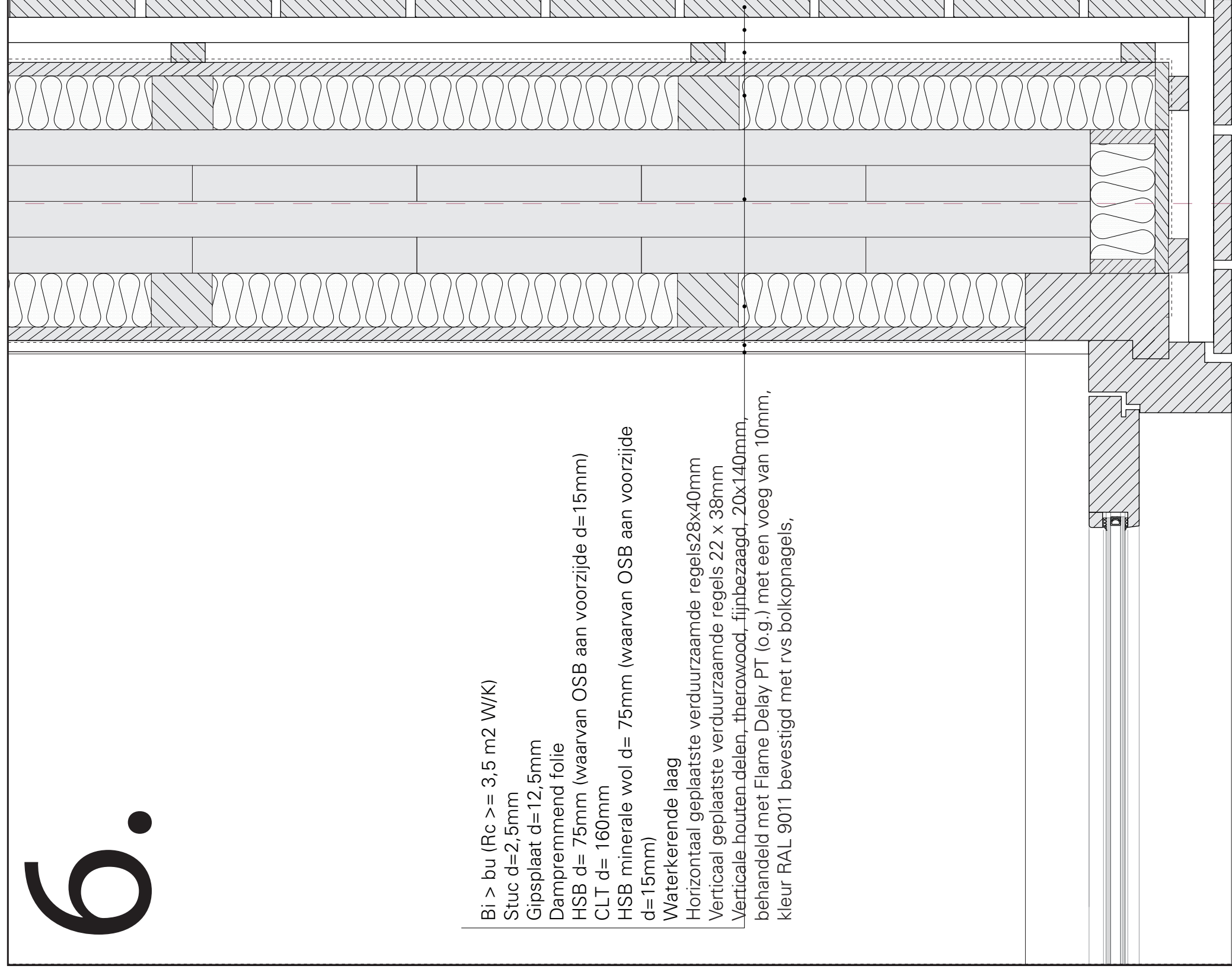
Horizontaal geplaatste verduurzaamde regels 28x40mm

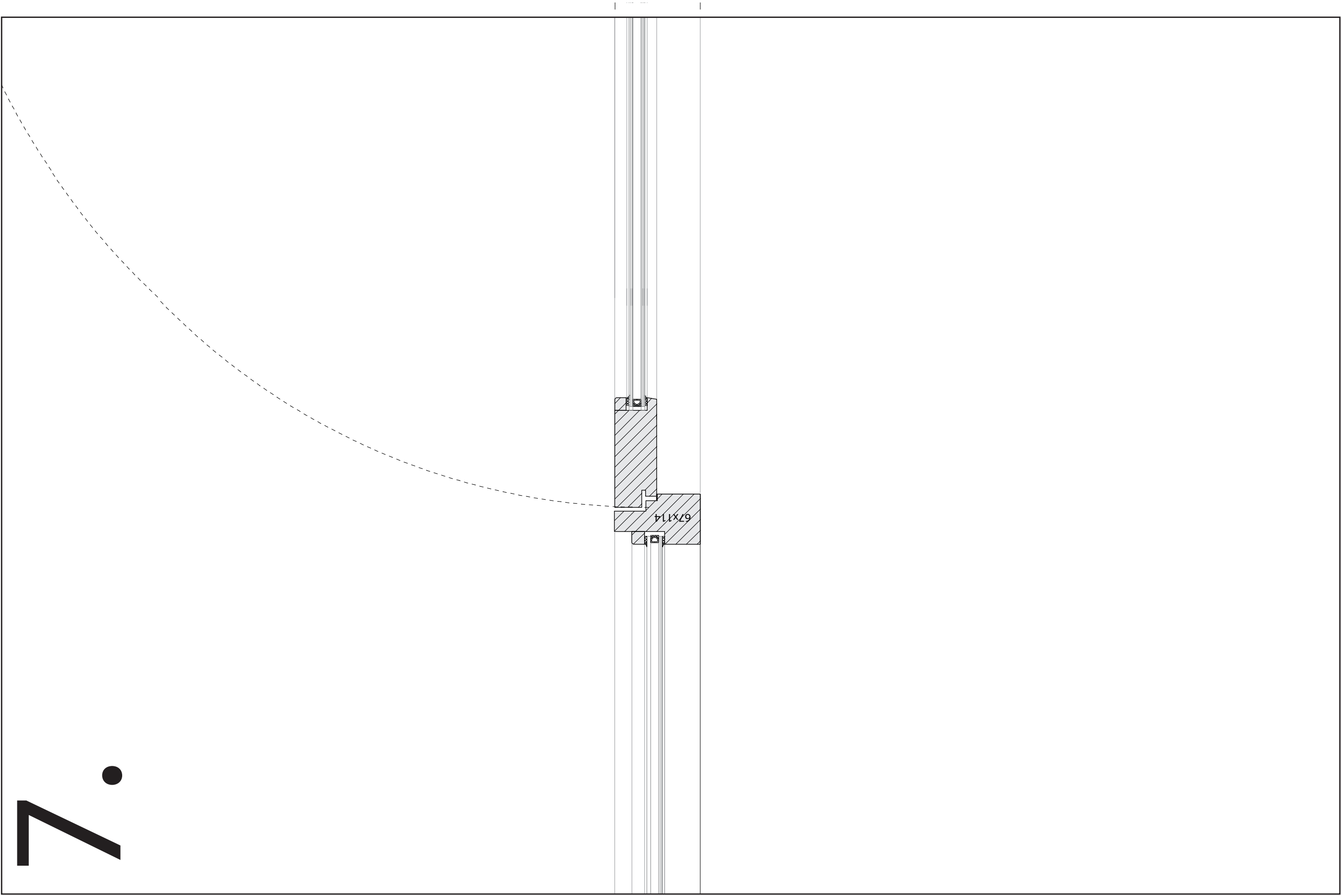
Verticaal geplaatste verduurzaamde regels 22 x 38mm

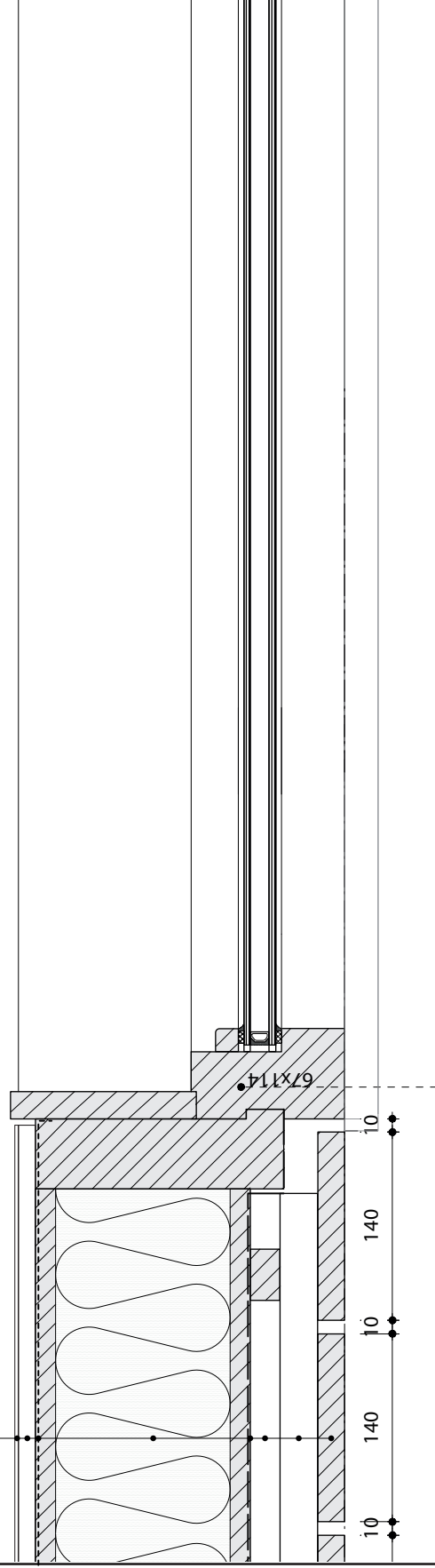
Verticale houten delen, therowood, fijnbezaagd, 20x140mm,

behandeld met Flame Delay PT (o.g.) met een voeg van 10mm,

kleur RAL 9011 bevestigd met rvs bolkopnagels,

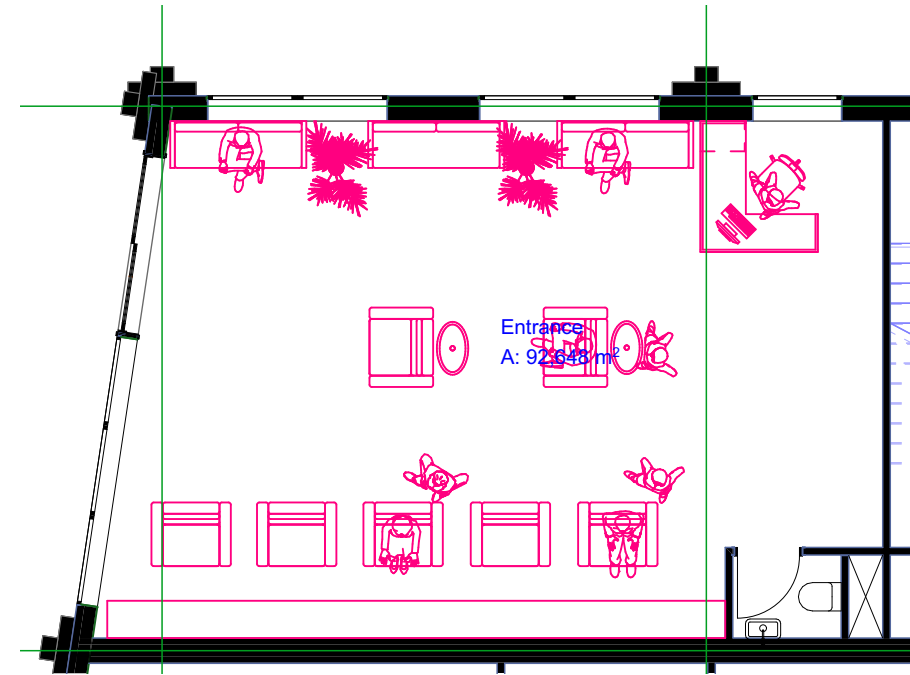




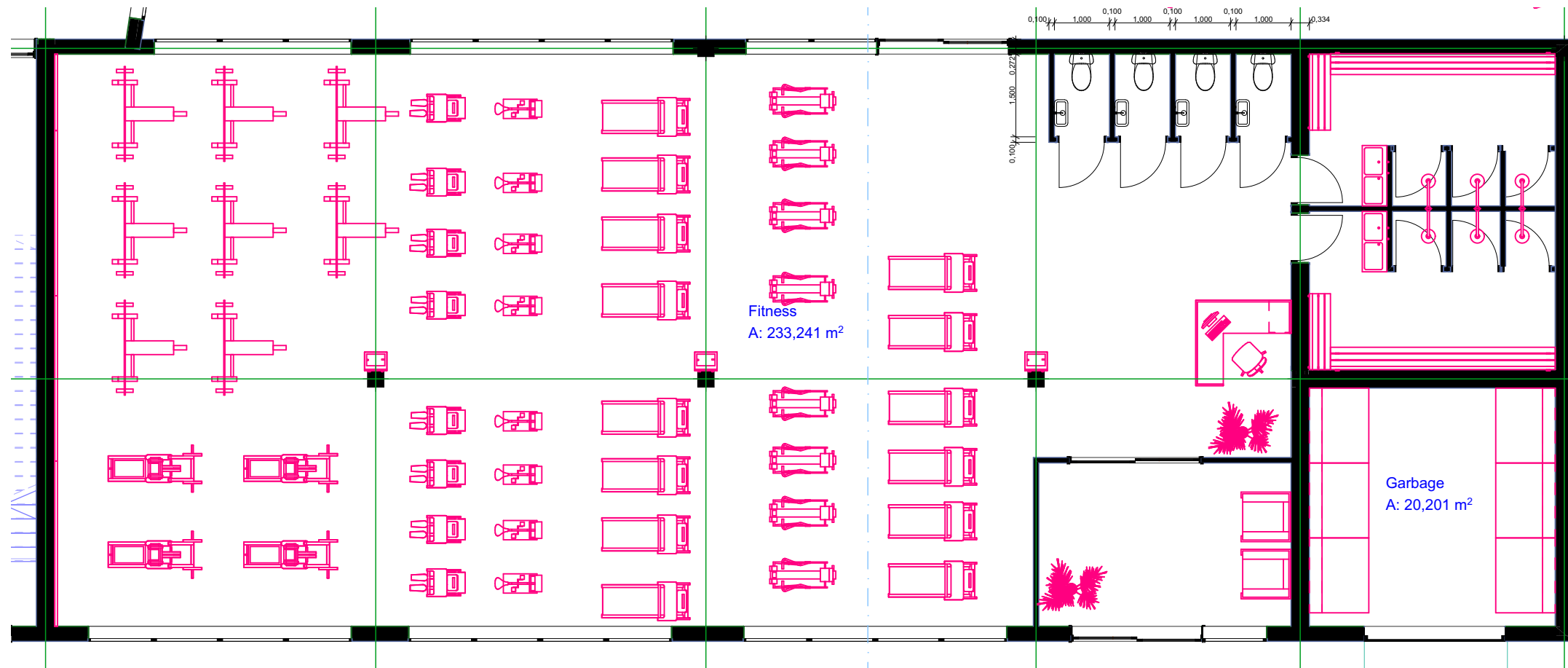


Example fill in rental space

1:100



Hairdresser



Fitness area

Feeling @ home

Single in Merwehaven

Student:

Mick Hiskemuller
4591488

Tutors:

Anne Kockelkorn
Theo Kupers
Ferry Adema
Pierijn van der Putt

Year:

2021-2022

Hand in date:

08-12-2021

Advanced Housing Design