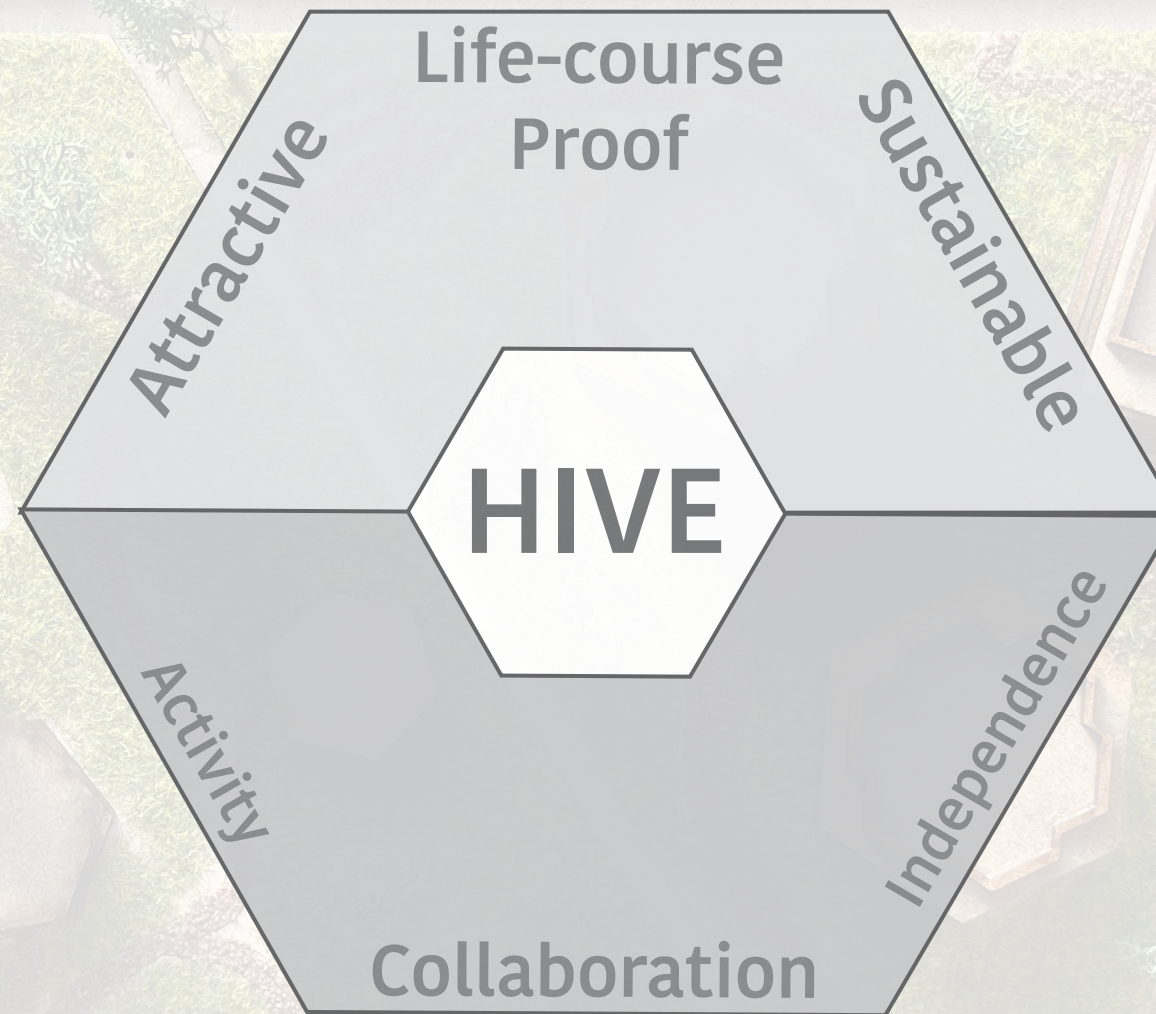




Clustered Housing as a means to alleviate the senior housing crisis

P5 Final Presentation
AR3AD110 Dwelling Graduation Studio :
Designing for Care in an inclusive Environment
Supervisors : Maria Meizoso Aguiar,
Kobe Macco, Leo Oorschot

Jan Philipp Maria Dormann
4882849

Overview

Intro

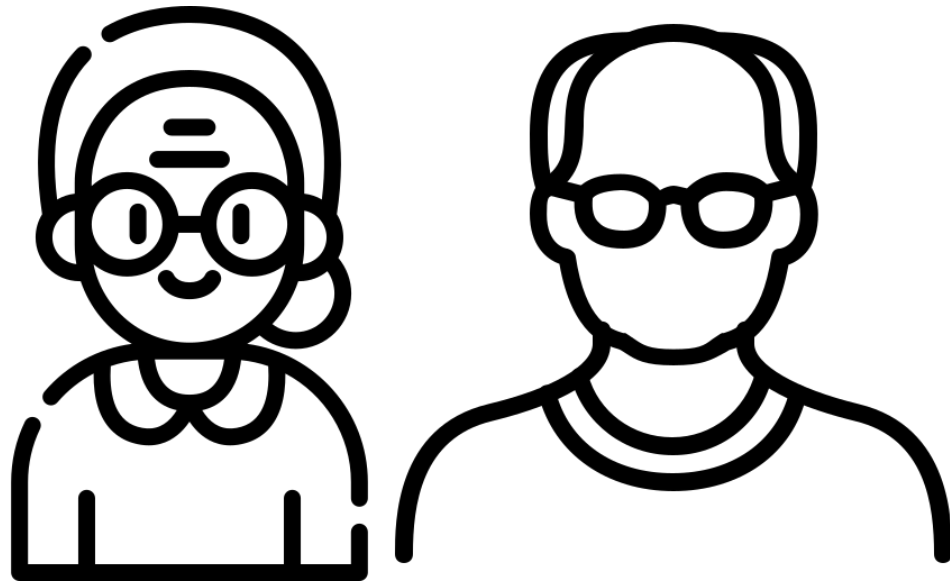
Research

Site

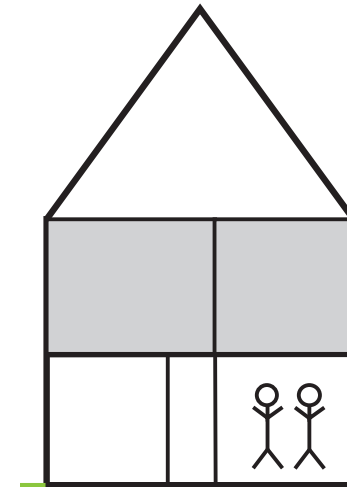
Architecture

Technical building Design

Who - is the target group



Senior above 60 years

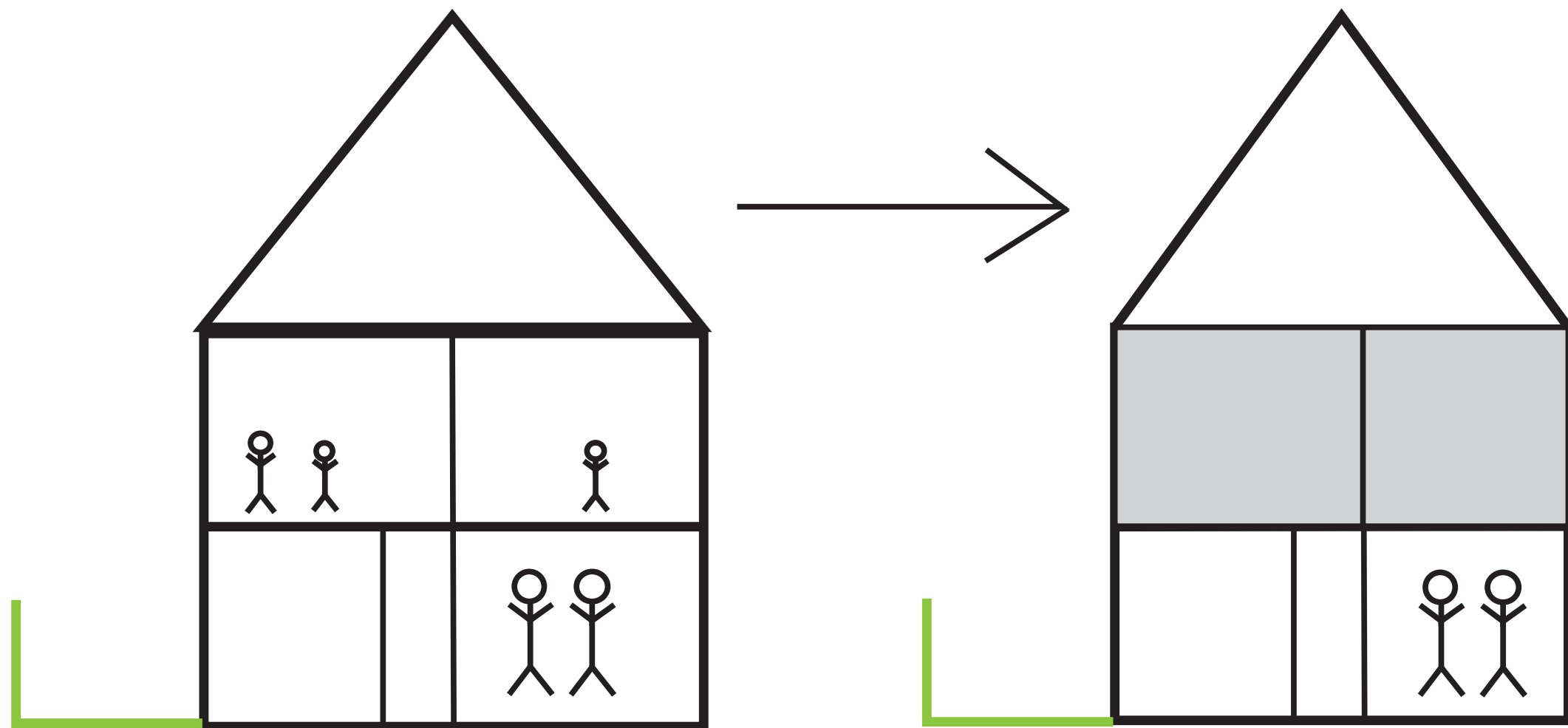


Living Independently



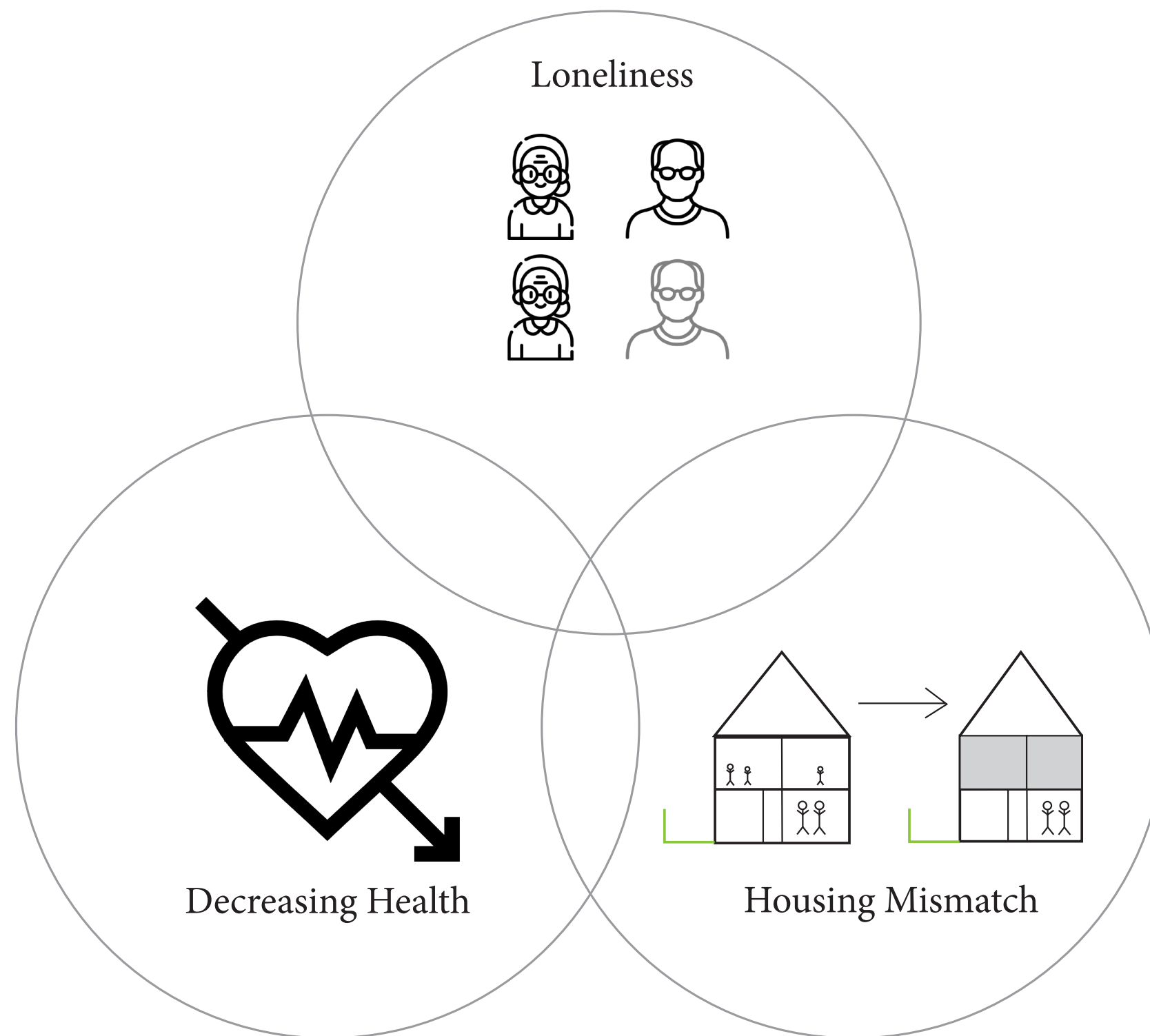
Searching for
Life-course proof housing

Where- Do they currently Live



Many Singles and Empty nesters
High per head living area
Lack of options to move
(WoOn, 2021)

What - issues are they facing?



How - can Architecture contribute?

“Architecture can’t force people to connect, it can only plan the crossing points, remove barriers, and make the meeting places useful and attractive.”

Denise scott Brown, 2009

<https://www.archdaily.com/130389/interview-robert-venturi-denise-scott-brown-by-andrea-tamas>

Research Question

Which spatial and architectural characteristics can allow clustered housing forms to alleviate the housing mismatch for dutch seniors and prepare them for aging in place?

User Wishes - Guidelines

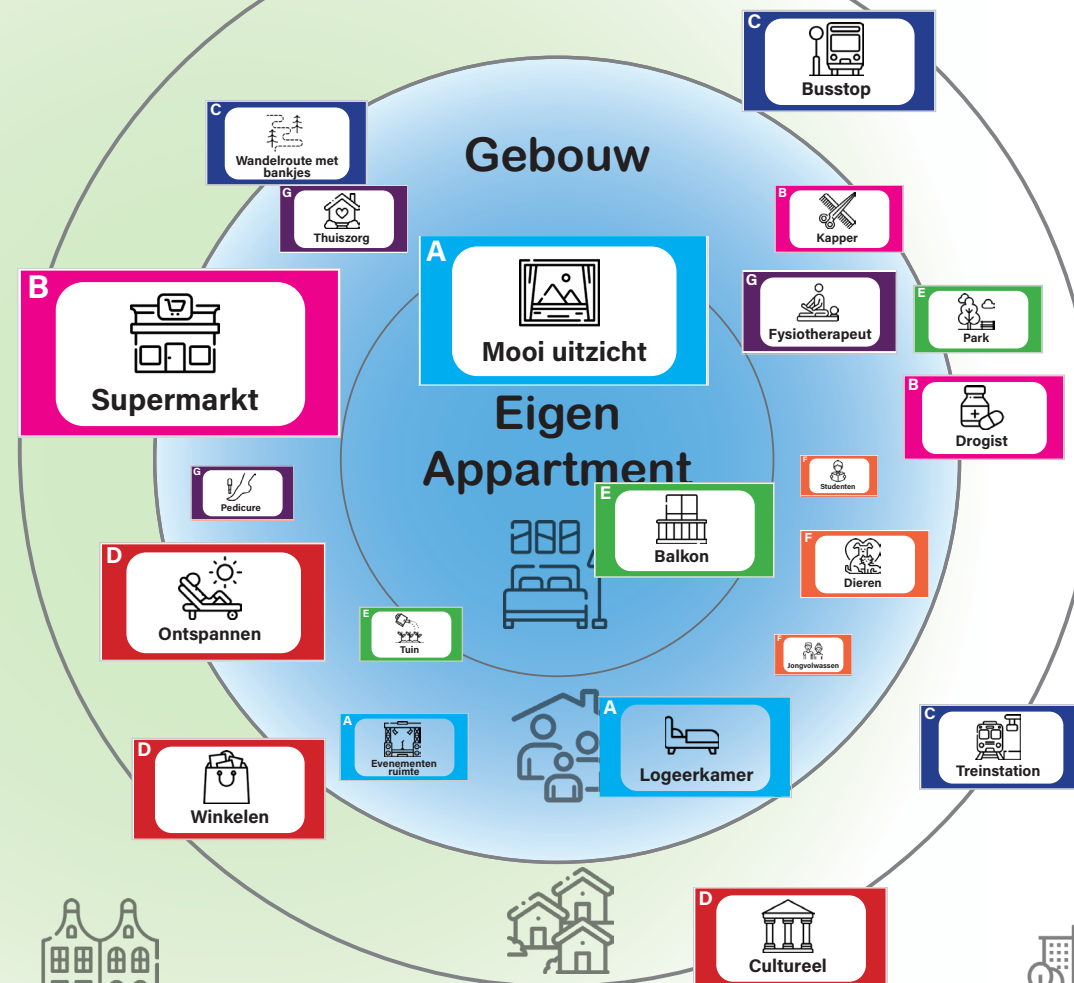
Mijn Ideale Leefomgeving

In de Buurt

Wandelafstand

Gebouw

Eigen Appartement



In de Buurt

Creëer uw ideale leefomgeving:

1. Kies van iedere categorie uw drie favoriete stickers (maximaal drie!)

- A = Ruimtes
- B = Voorzieningen
- C = Mobiliteit
- D = Activiteiten
- E = Buitenruimte
- F = Mensen om mij heen
- G = Zorg en ondersteunende hulp

2. Plak de stickers ergens in uw leefomgeving.

Waar ziet u ze het liefste?

In uw appartement - privé voor u alleen

In het gebouw - Delen met uw medebewoners

Op wandelafstand - In de buurt op maximaal vijf minuten lopen

Ergens in de wijk - Mag iets verder zijn

3. Gebruik de joker voor als wij iets zijn vergeten binnen een bepaalde categorie en plak deze ook in de leefomgeving

De ideeën zone: wat zou u graag willen zien in uw ideale leefomgeving, droom groot!

De rode zone: wat wilt u absoluut niet in uw leefomgeving?

4. Vul hieronder uw geslacht en geboortjaar in

☐ M	☐ V				
Geslacht		Geboortjaar			

IDEE ZONE

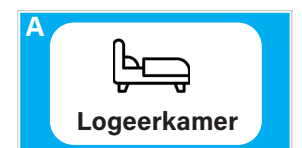
Ik Mis Nog...

ROOD ZONE

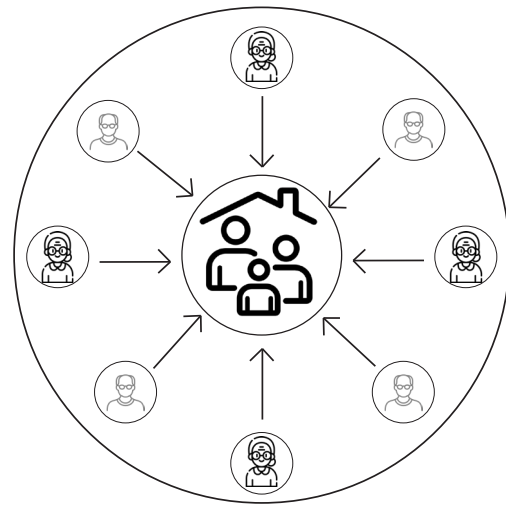
Ik Wil Niet!



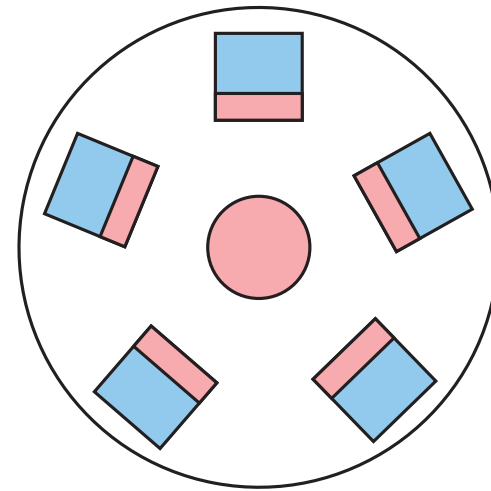
Private
Public



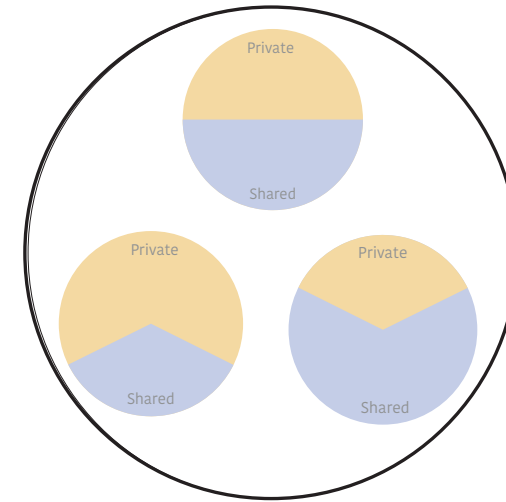
Guidelines - Organization



Clustering
Households



Sub-Clusters



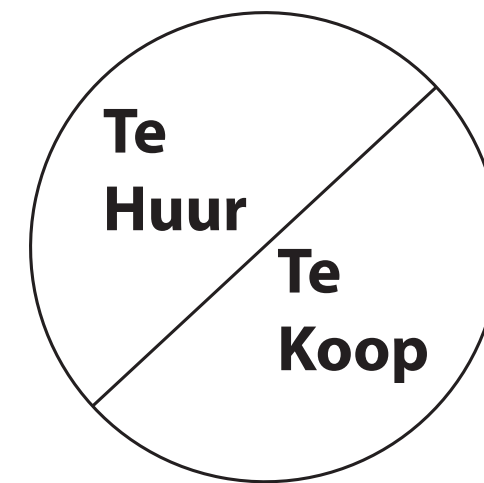
Offering different
degrees of sharing



Residential Manage-
ment

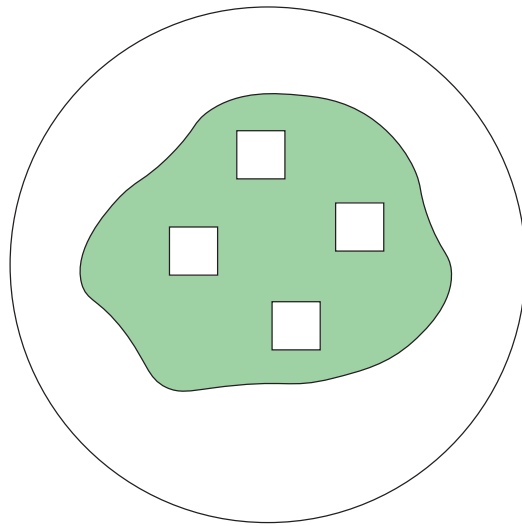


Integration of
health facilities

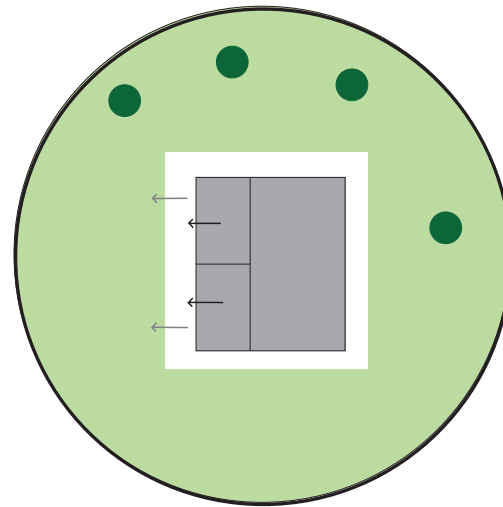


Different Categories
/ Ownership Struc-
tures

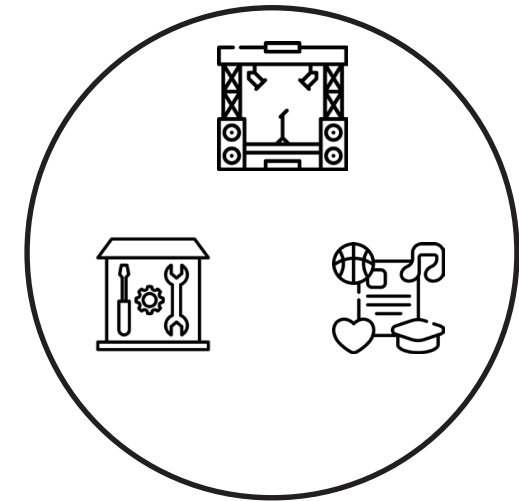
Guidelines - Spatial



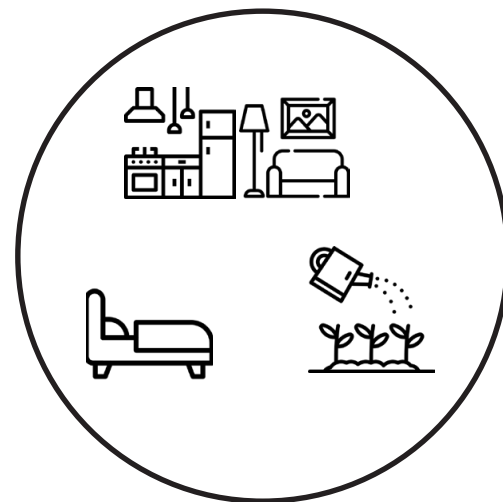
Integrate housing in
park setting



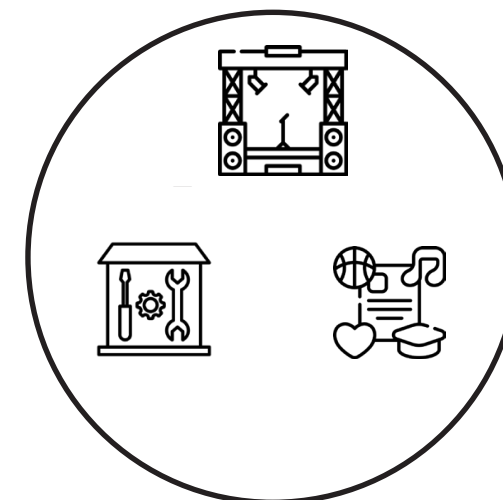
Reducing boundaries
to outside



Open public
functions

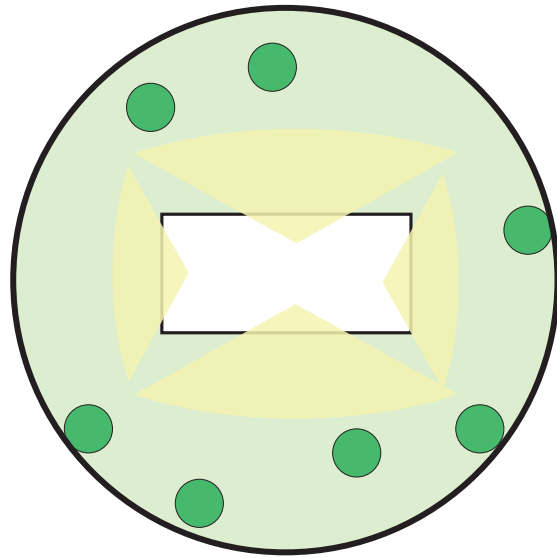


Share infrequently
used functions

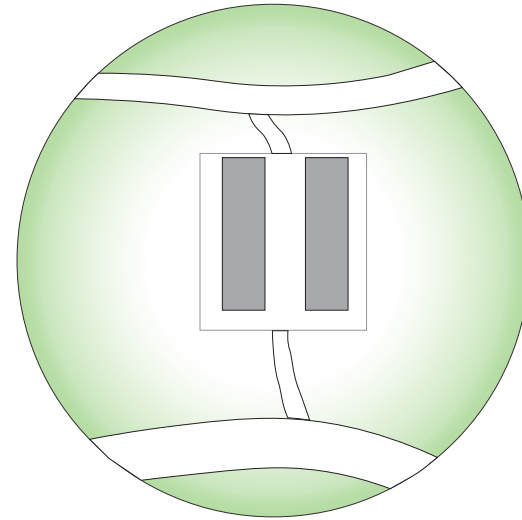


provide extra
Spaces

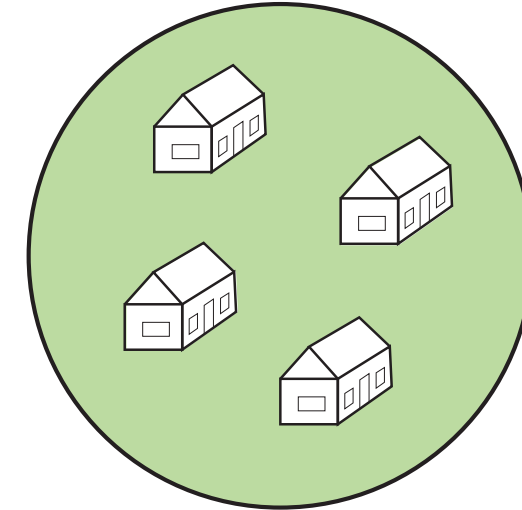
Guidelines - Architecture



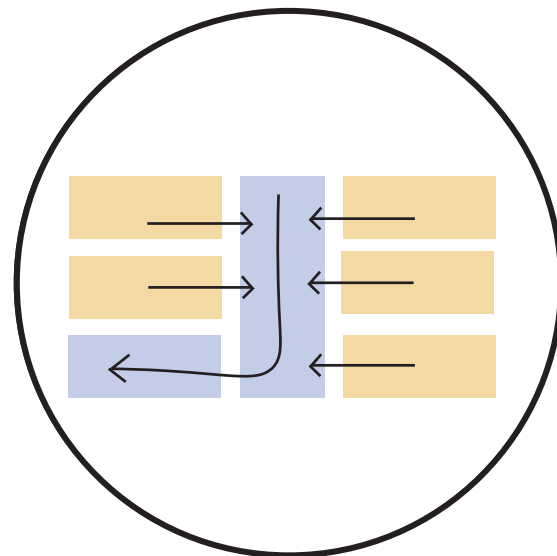
Visual relation to
Greenery



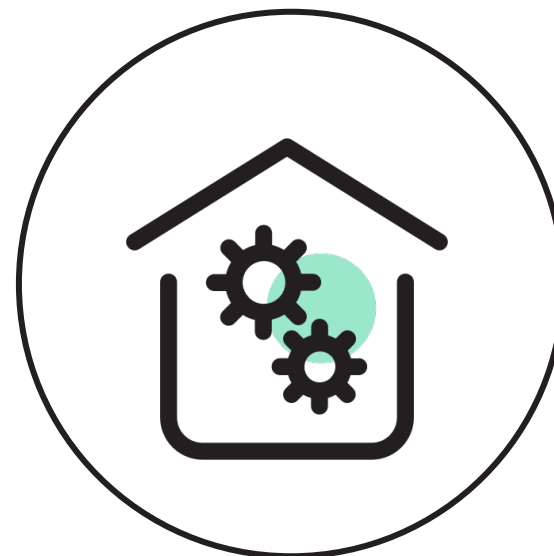
Gradient buffer
zones



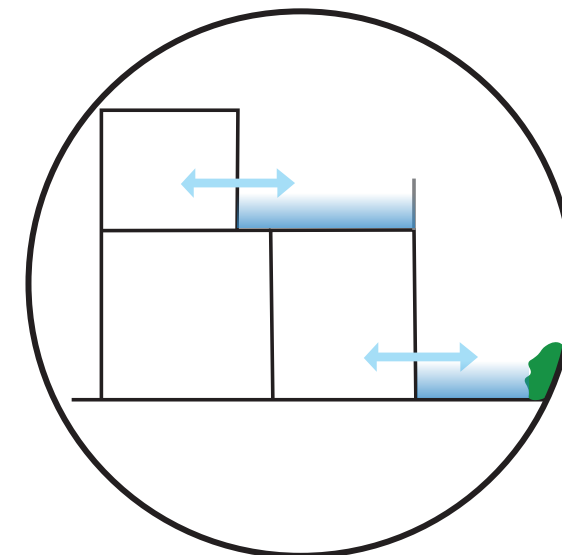
Residential
Scale



Distrivution via
shared spaces

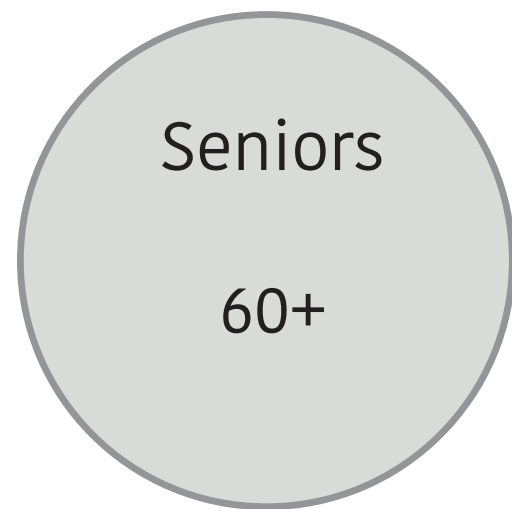


Personaliza-
tion

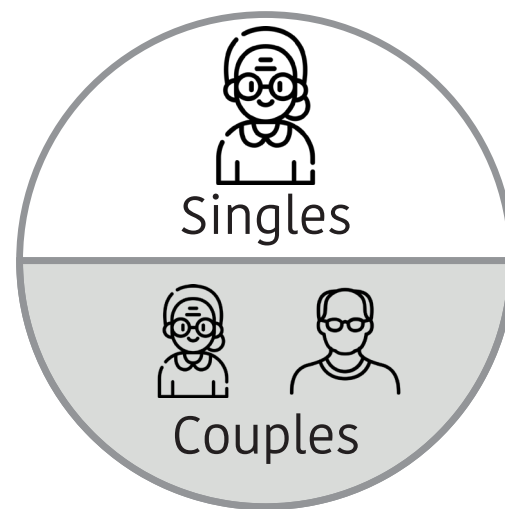


Private out-
side space

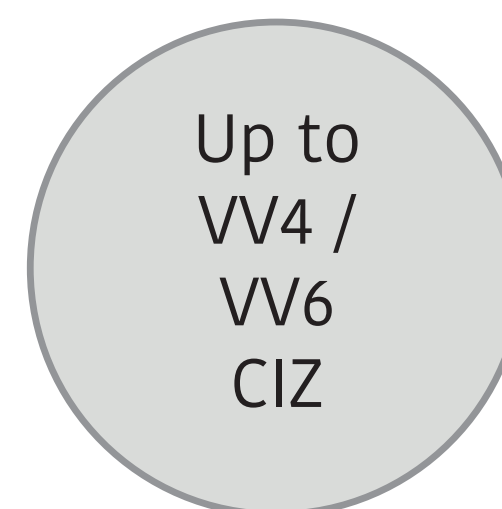
Positioning in housing Career



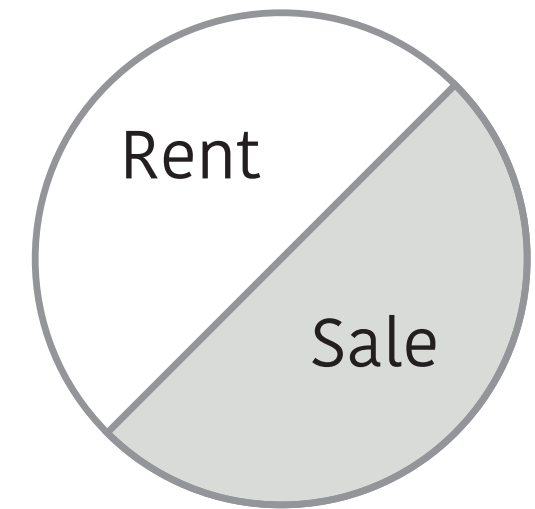
Age Group



Household

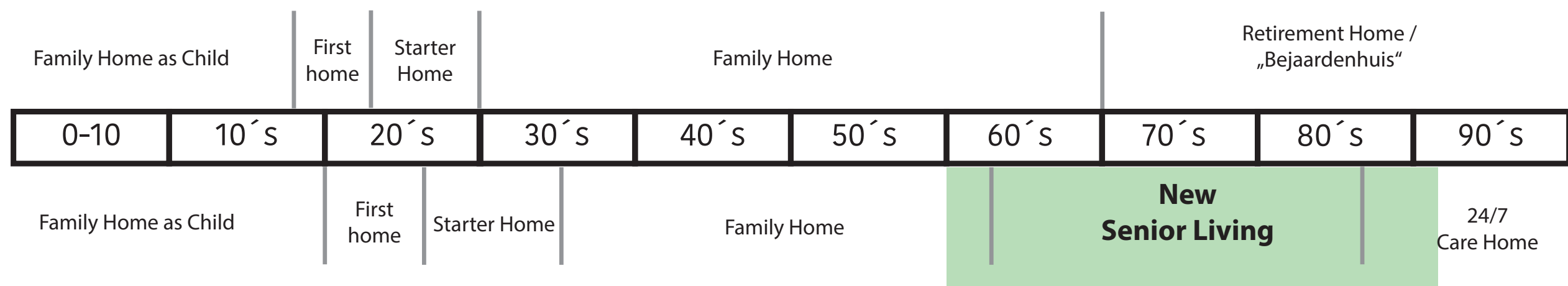


Care Indication



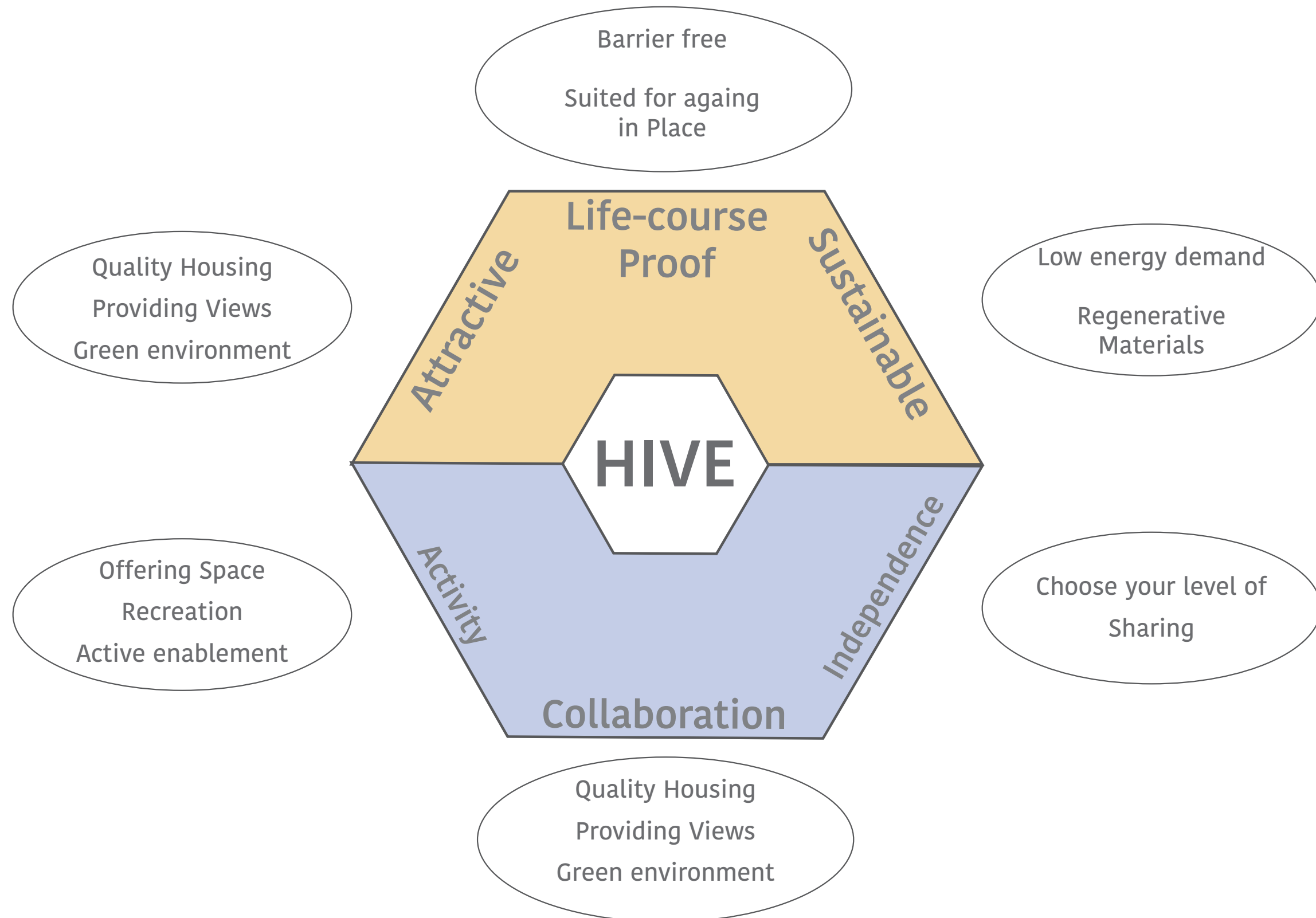
Ownership

Timeline Housing career



Jan Dormann 4882849

The Concept

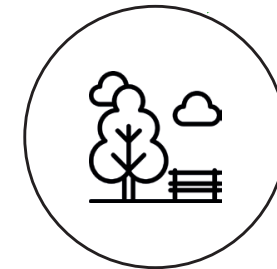


The Site



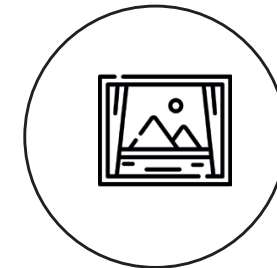
North of the Nieuwe Plantage
Adjacent to Villa Vrijenbaan

Greenery



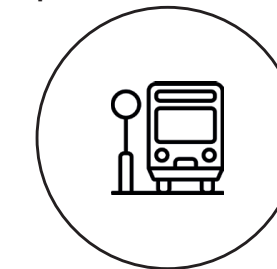
+++

Quality Views



++

Public Trans-
port Access



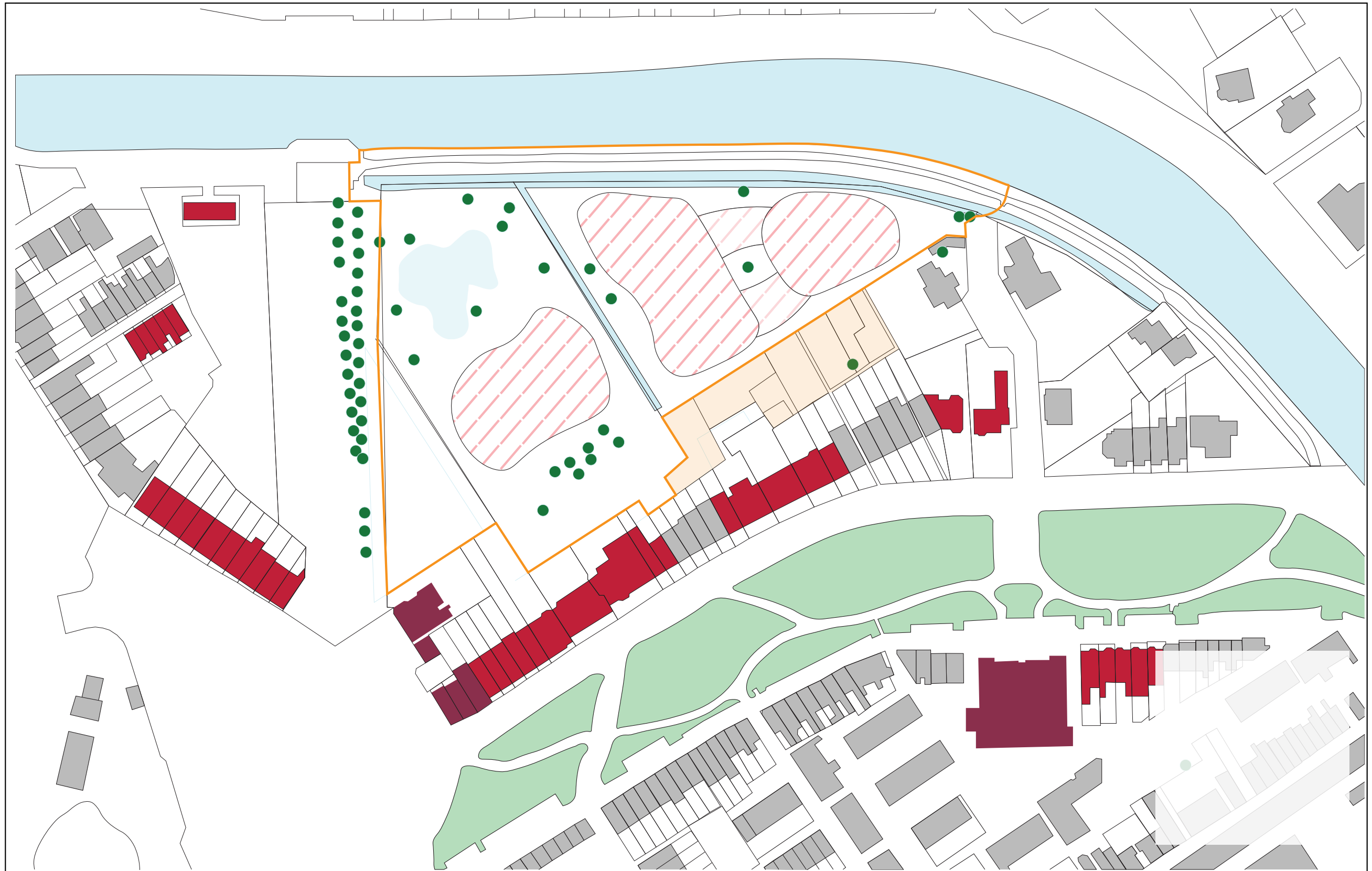
+++

Connection
city



++

The Site



Park Side

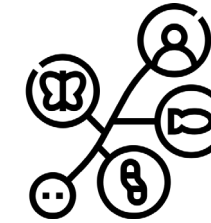
Design Brief



Public Park



Make 50 percent accessible
as public Park

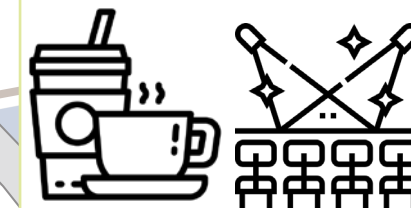


Maintain Biodiversity



Recreation Space for Delftenaars

Public Pavillion Vrijenbaan



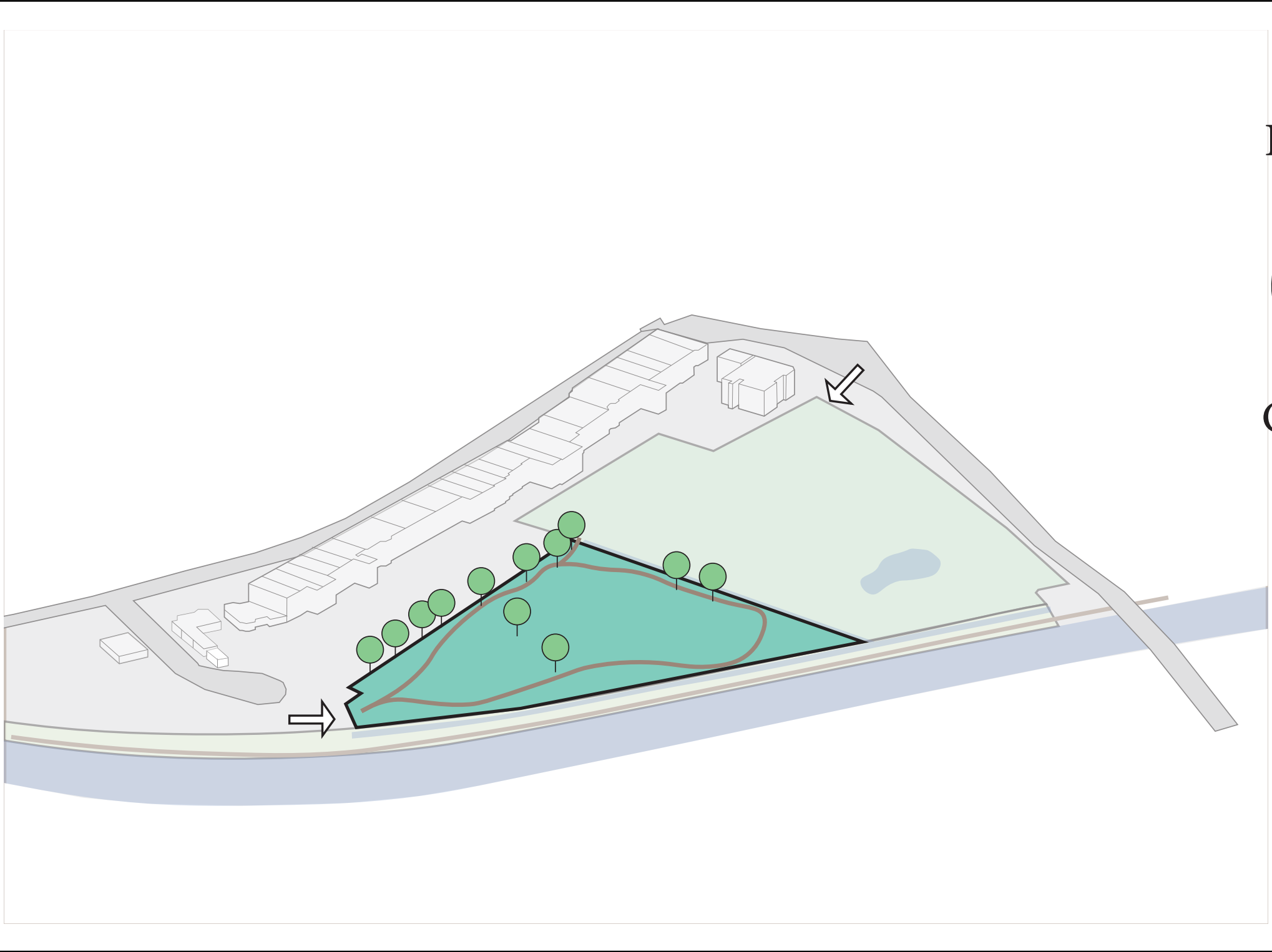
Cafe 200 m2

Event Spaces 200 m2



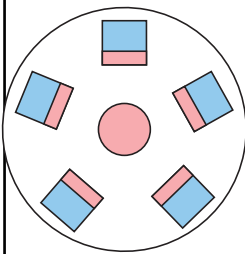
Fostering interaction
User - Public

Site Concept



Private Zone

Housing Clusters



4 Clusters of ca. 12 Units
Approx. 50 m² per dwelling

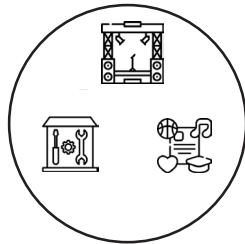
Common Centre



Management office 35 m²



Healthcare Functions
100 m²

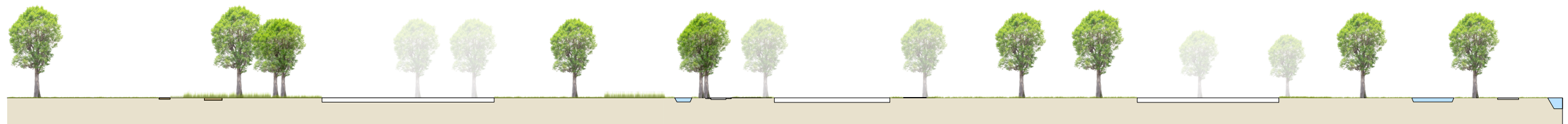


Washing Bar 35m²

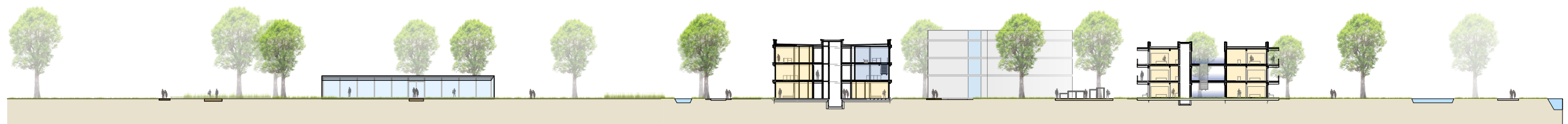
Integration existing site profile



Assess current site and tree situation

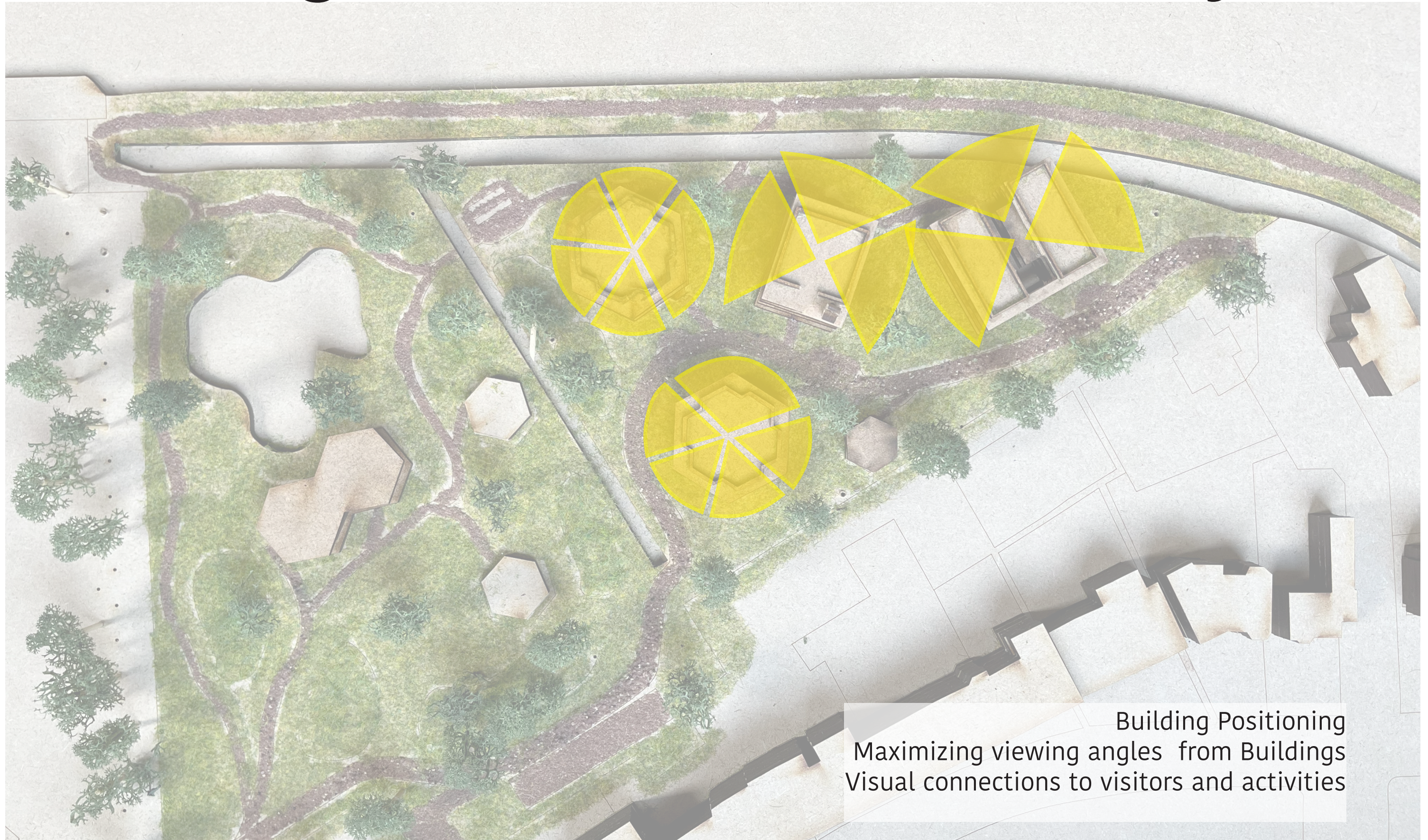


Locate and preserve Protected trees
Prepare Building Sites



Integration in existing Foliage

Building Positions / Urban Layout



Building Positioning
Maximizing viewing angles from Buildings
Visual connections to visitors and activities

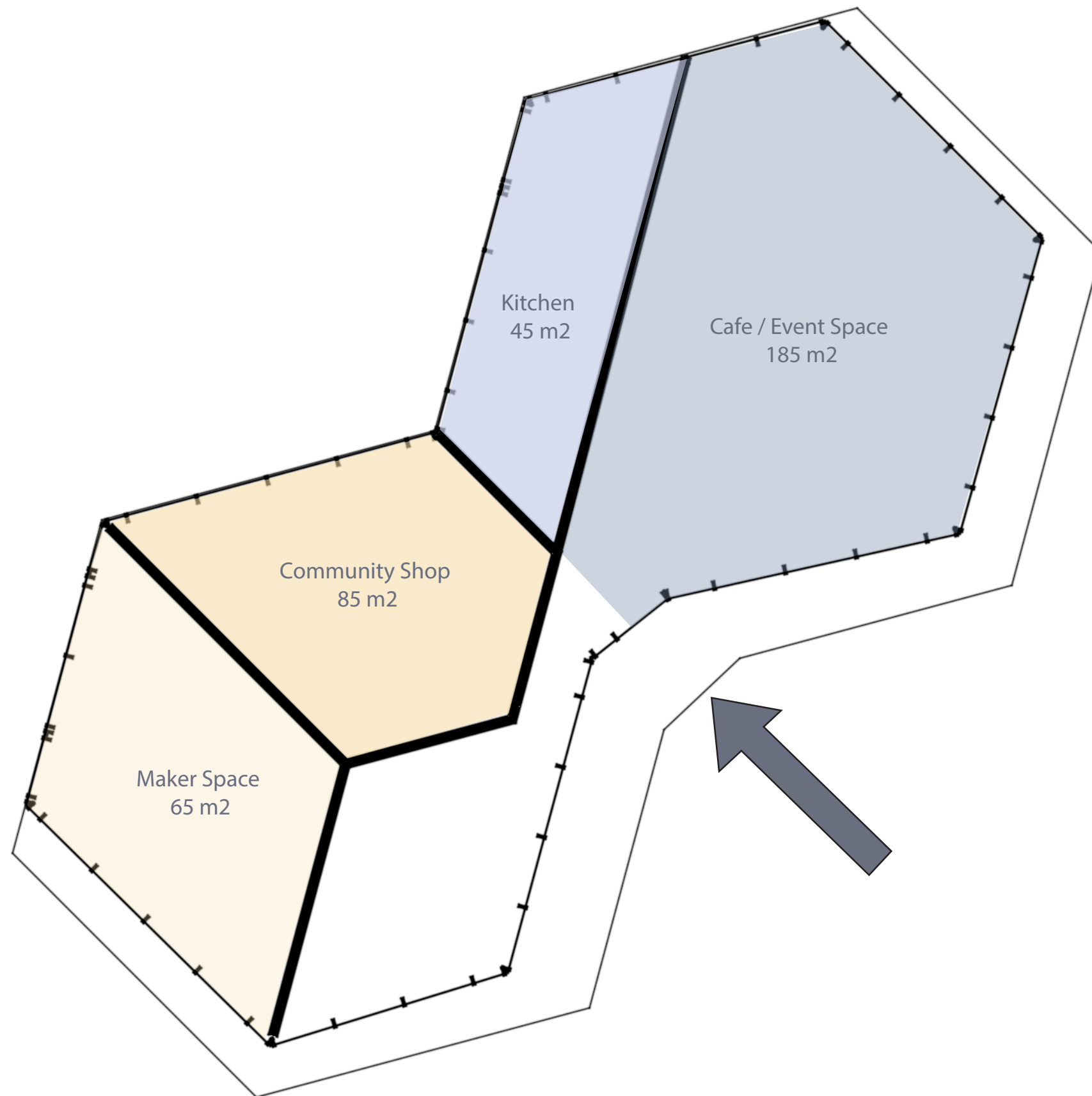
Building Positions / Shading



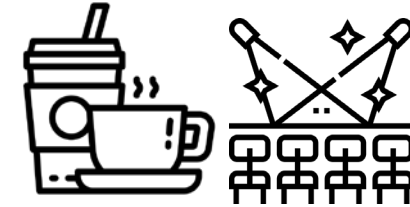
C and Meeting Points



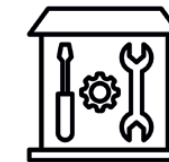
Pavillon



Functions



Cafe / Event Space
230 m2



Makers Space
65 m2



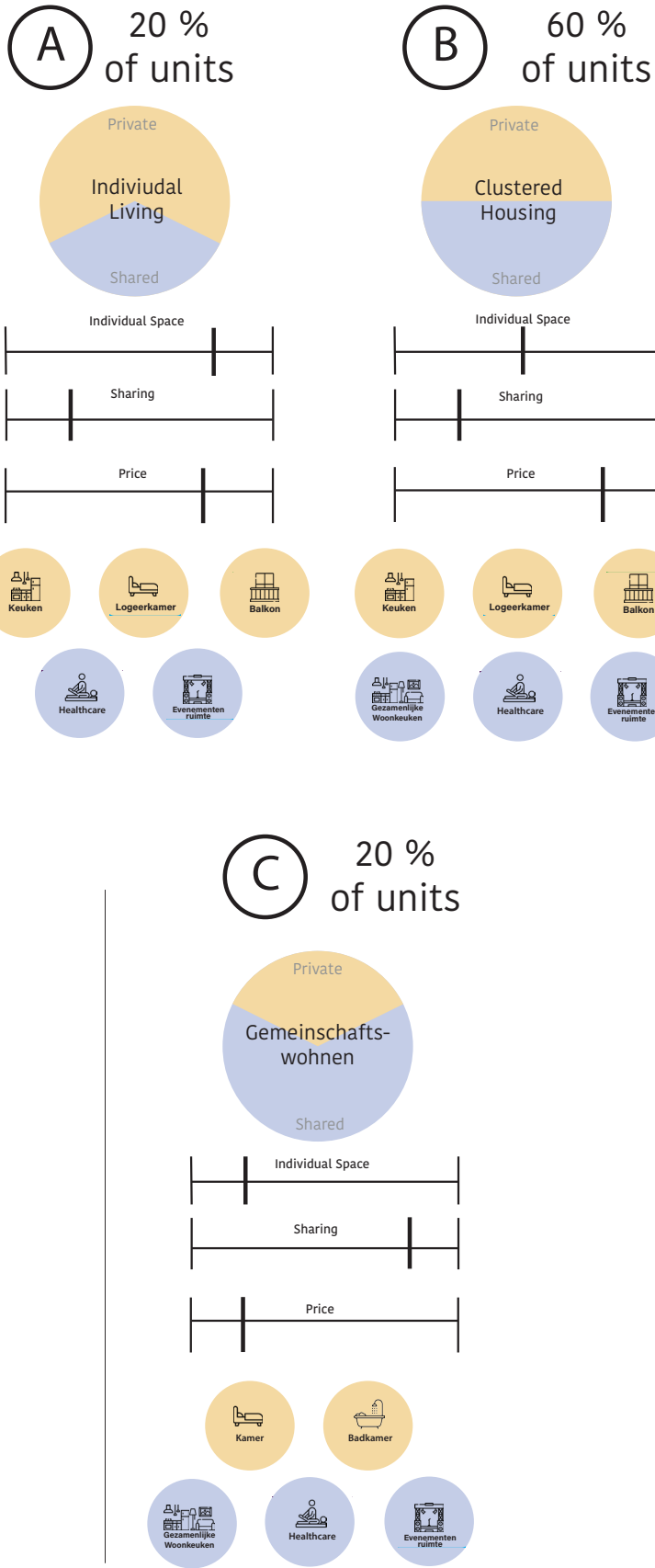
Community shop
85 m2



Dwelling Side

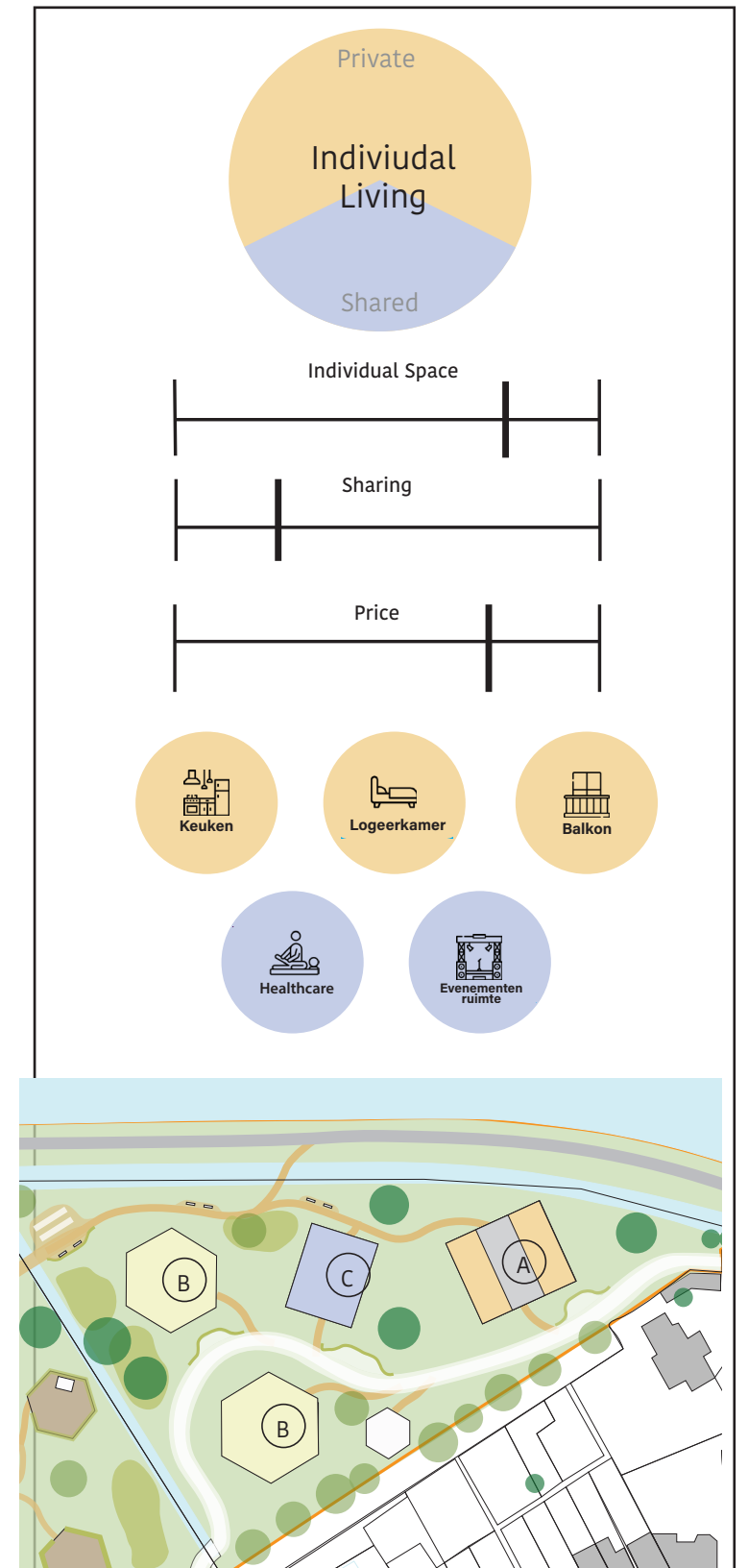


Site Plan Dwelling Side - Offering activity zones - open transitions

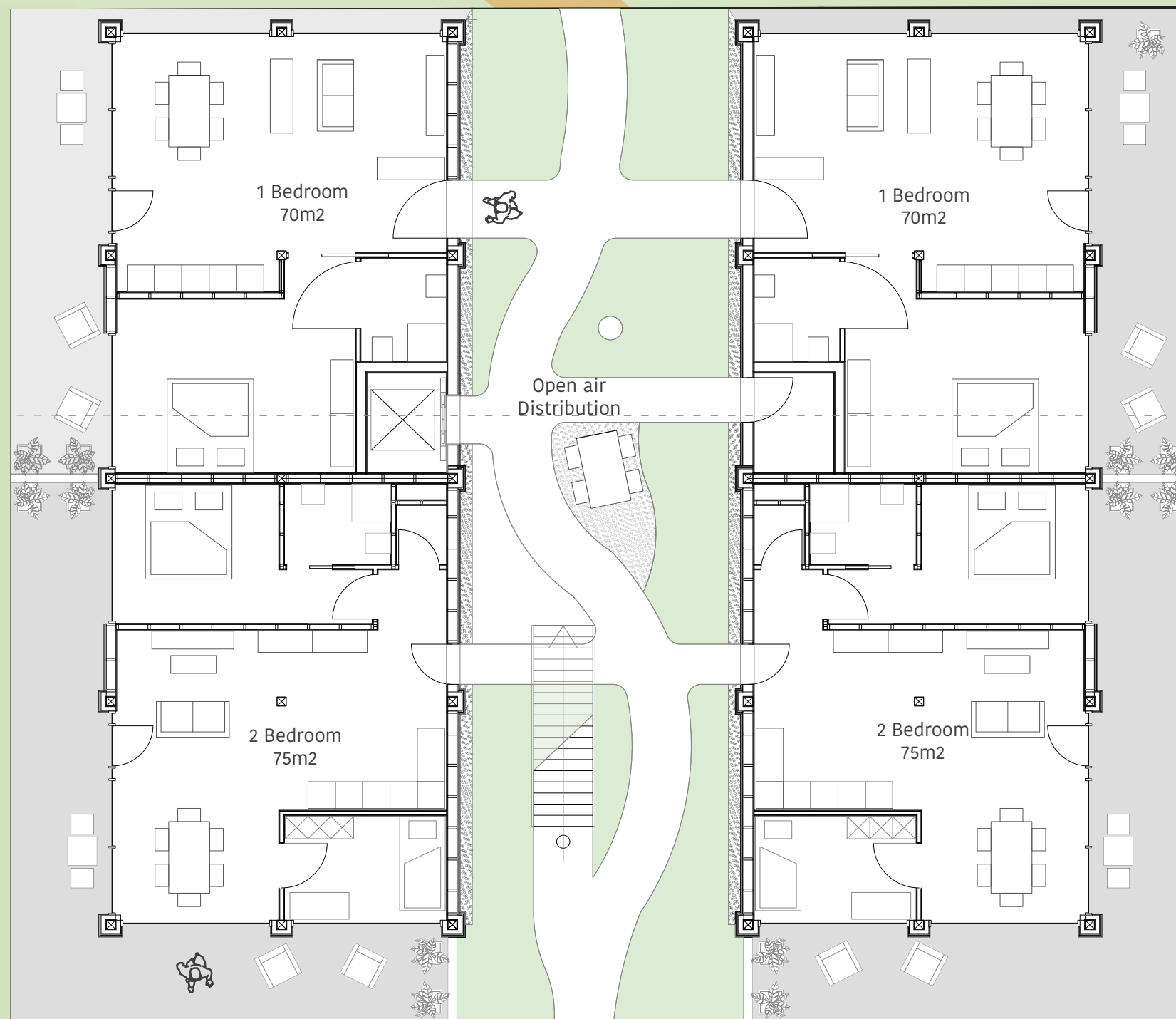


Offering different Housing Types
Accomodating different personalites

Individual living - A



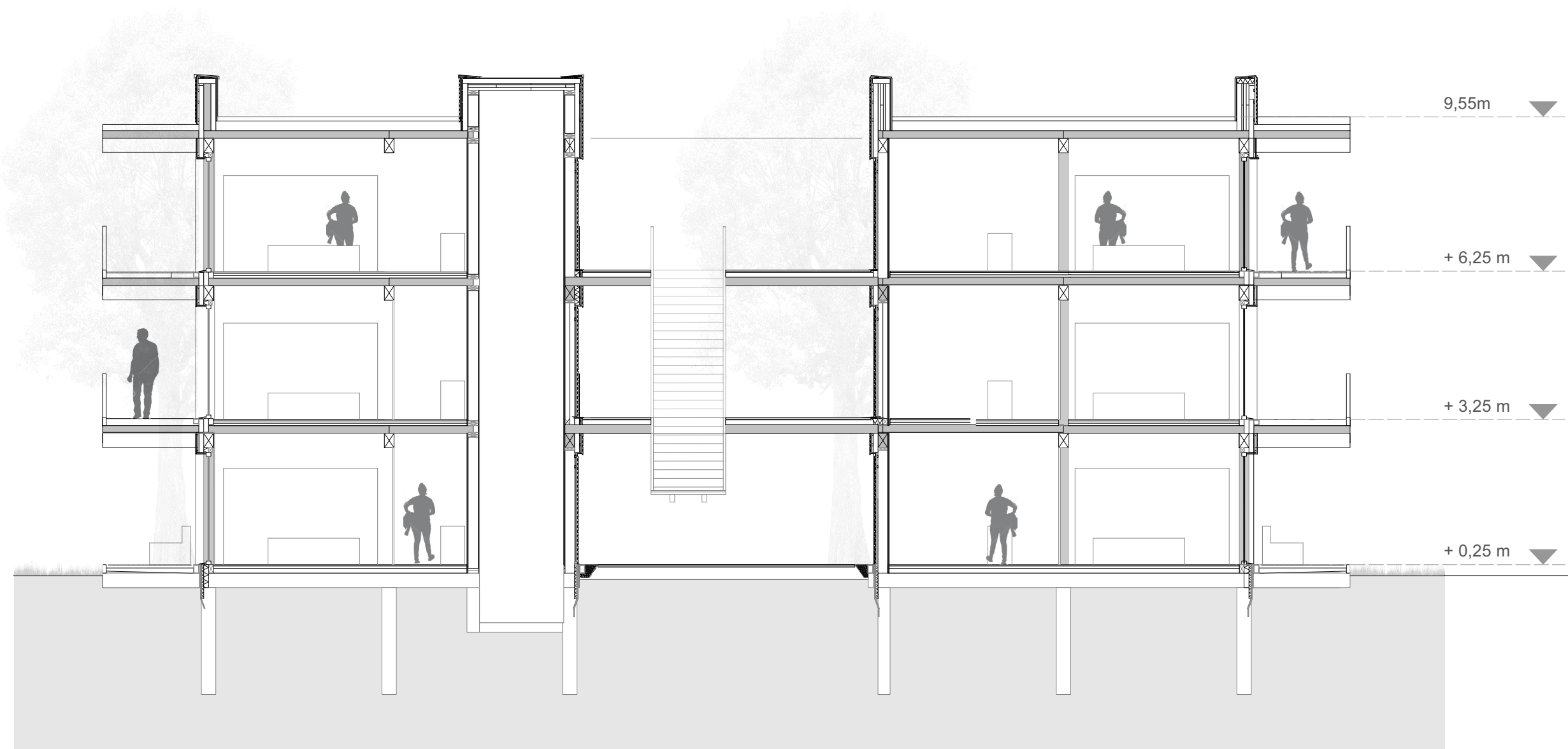
Individual living



Ground floor
Scale 1_100



Individual living - Section



Section
Scale 1_100

Individual living - Elevations

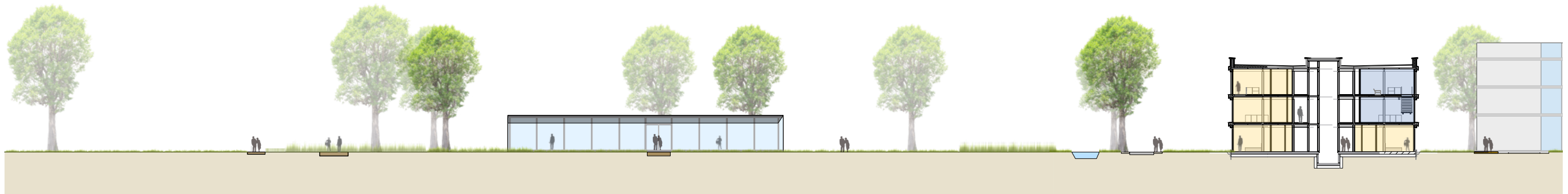


Elevation
Scale 1_100

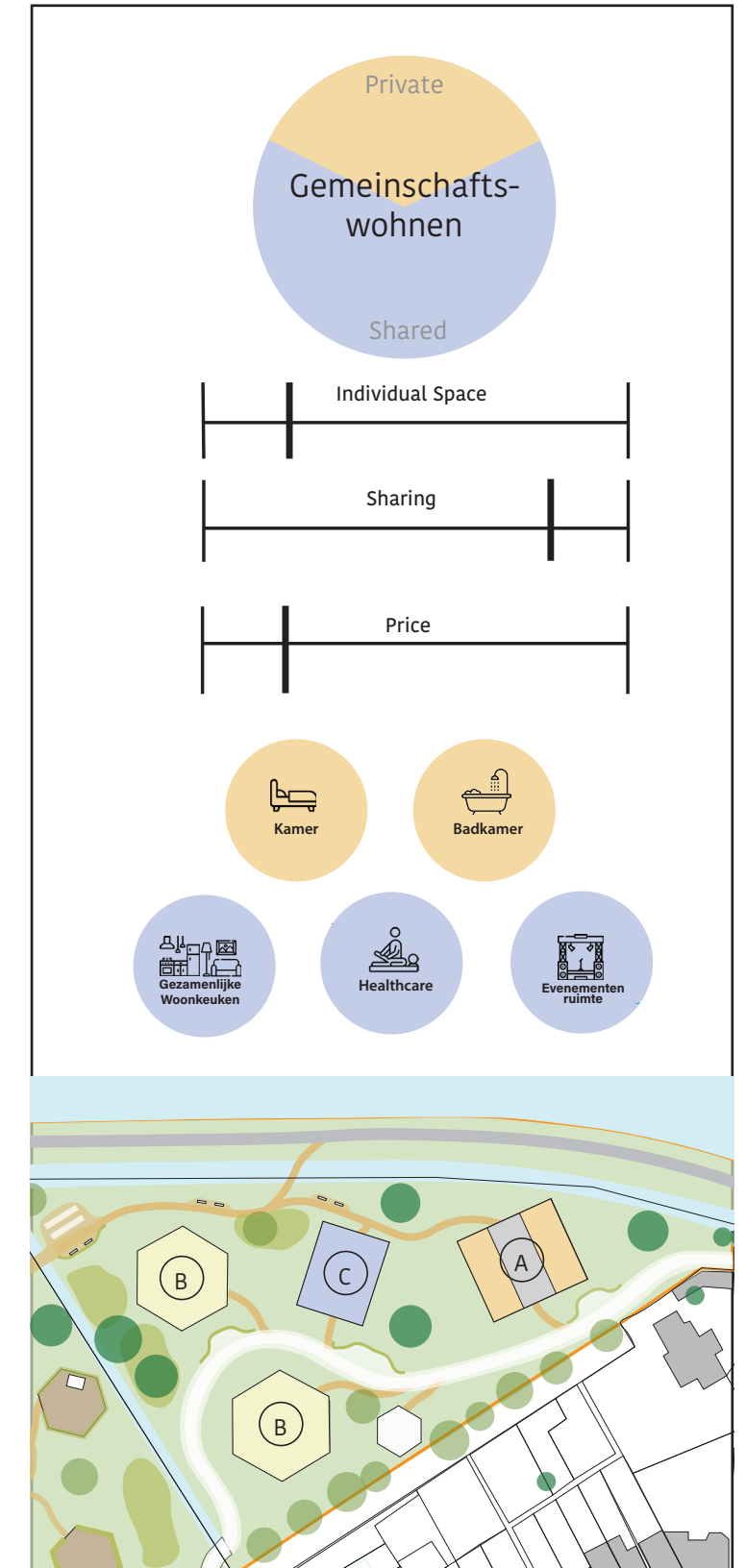
Crossing Point Passage



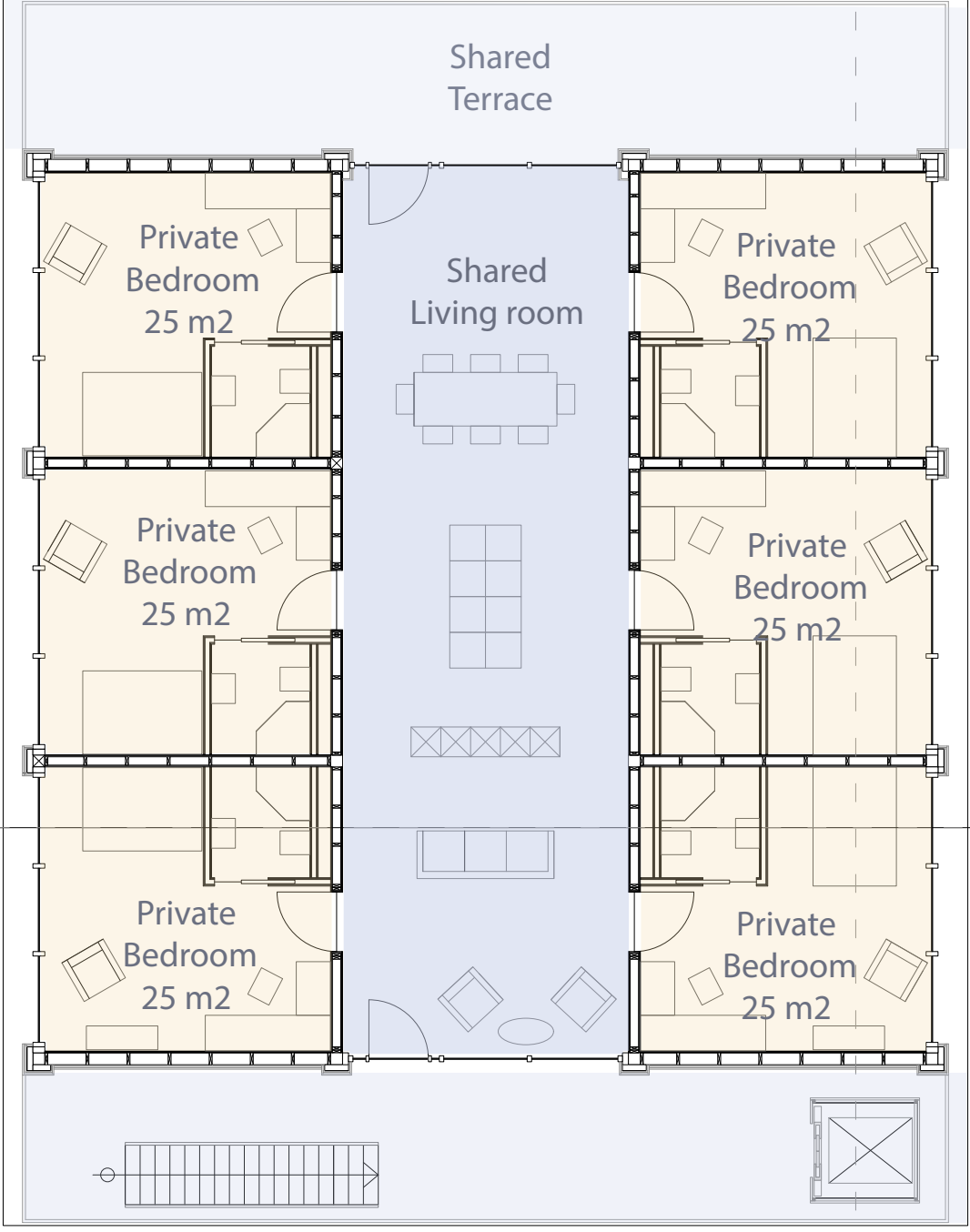
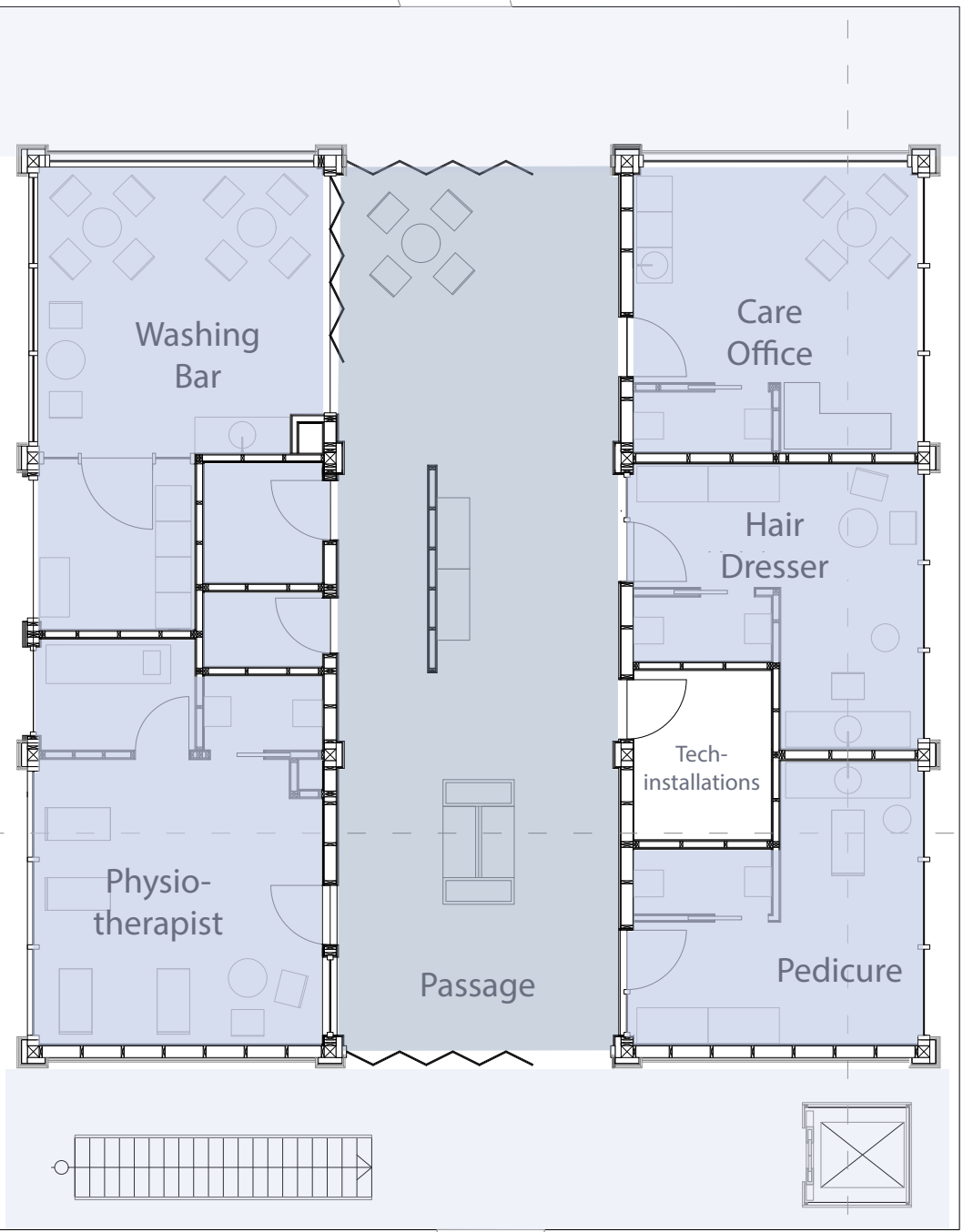
Visual Connections



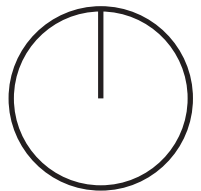
Shared Living - C



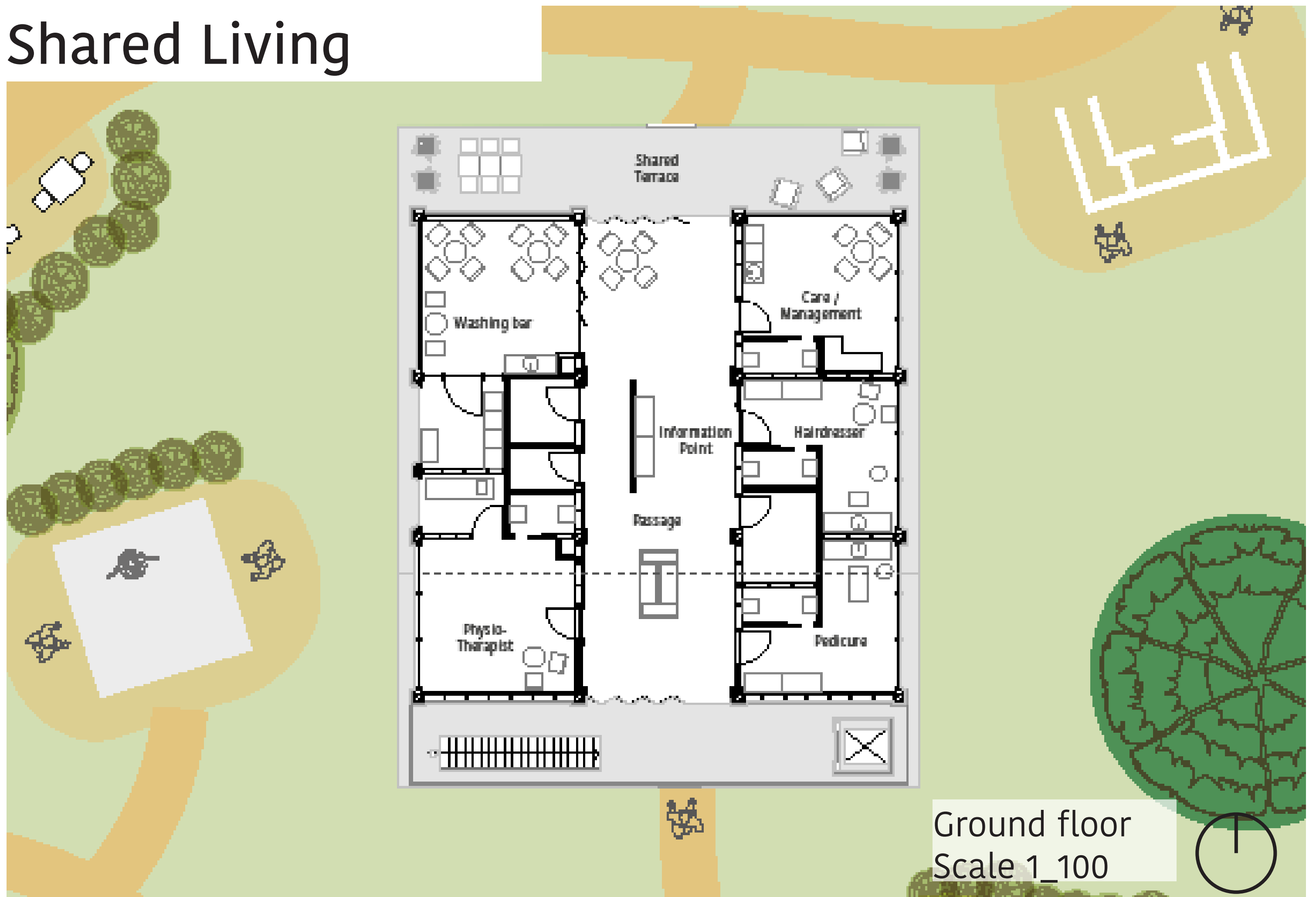
Shared Living



Private / Public Spaces



Shared Living

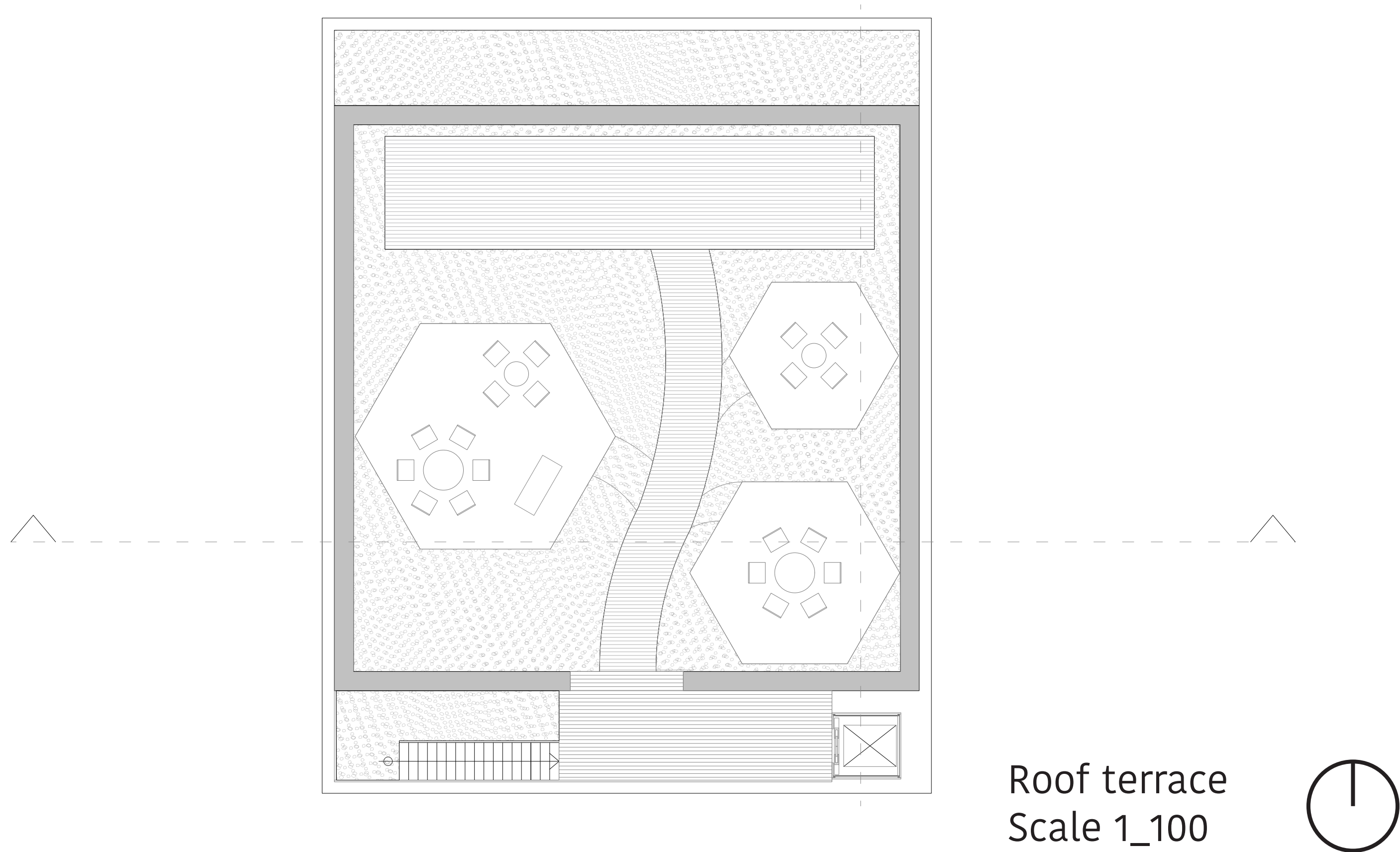


Shared Living Area

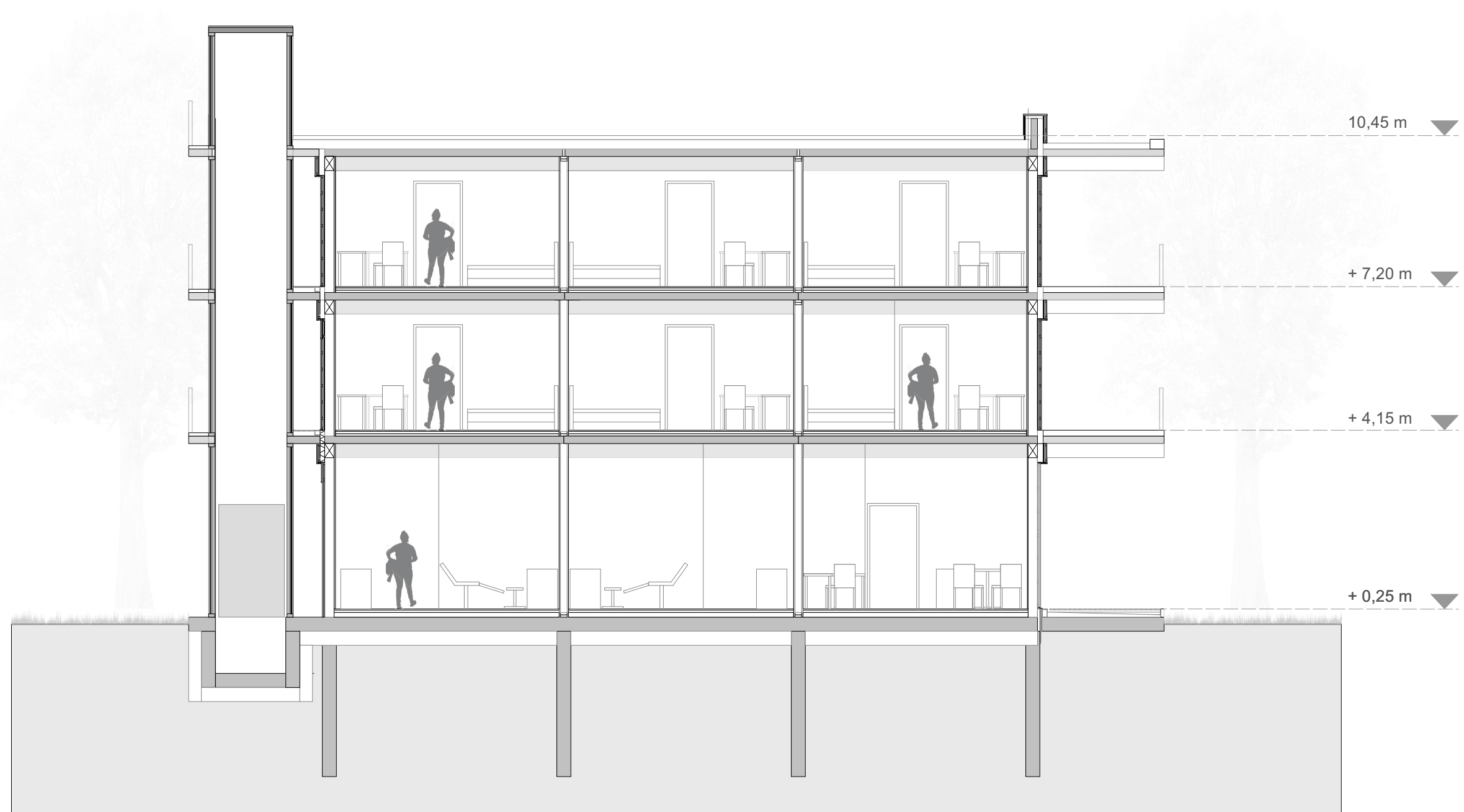


Shared Living

Canal View



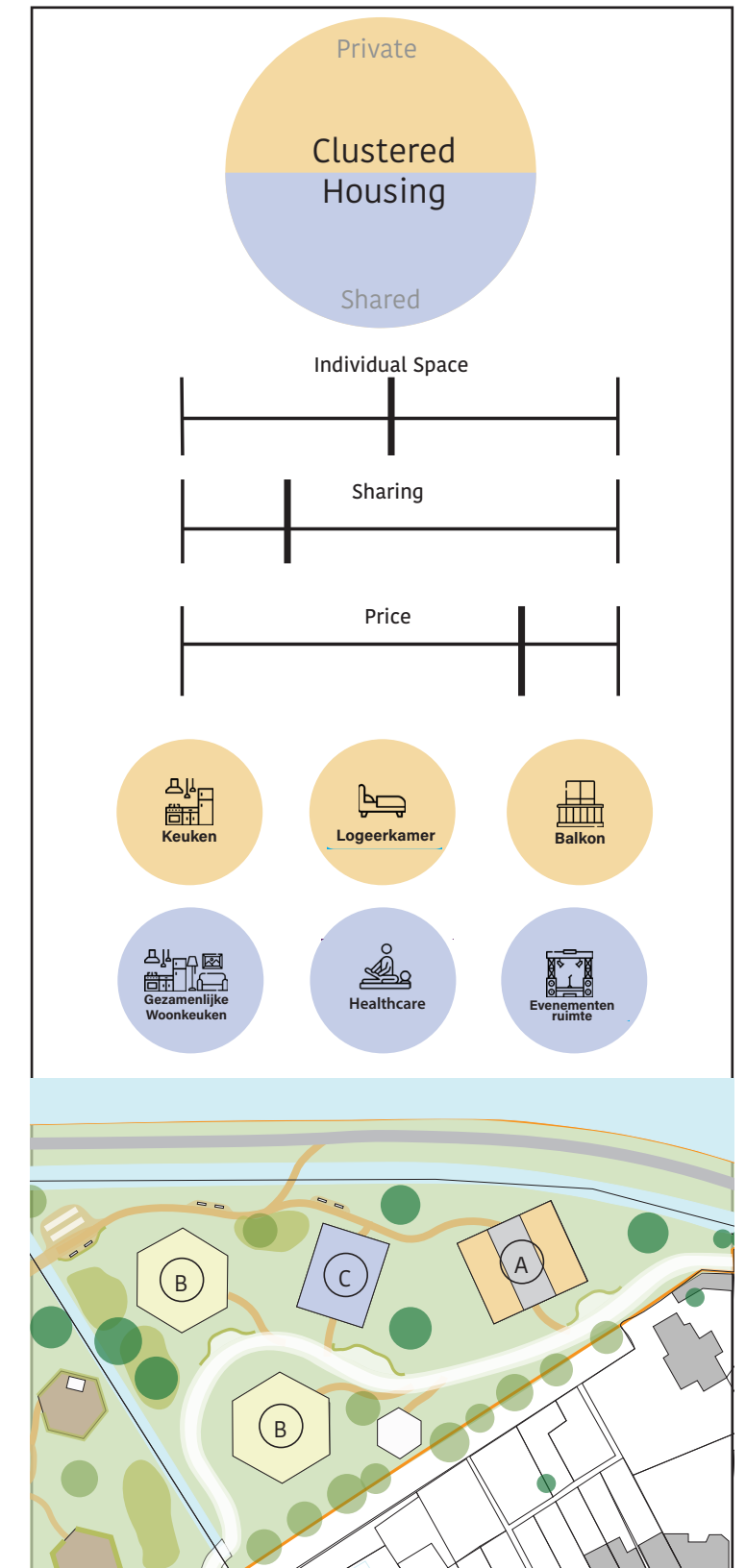
Shared Living



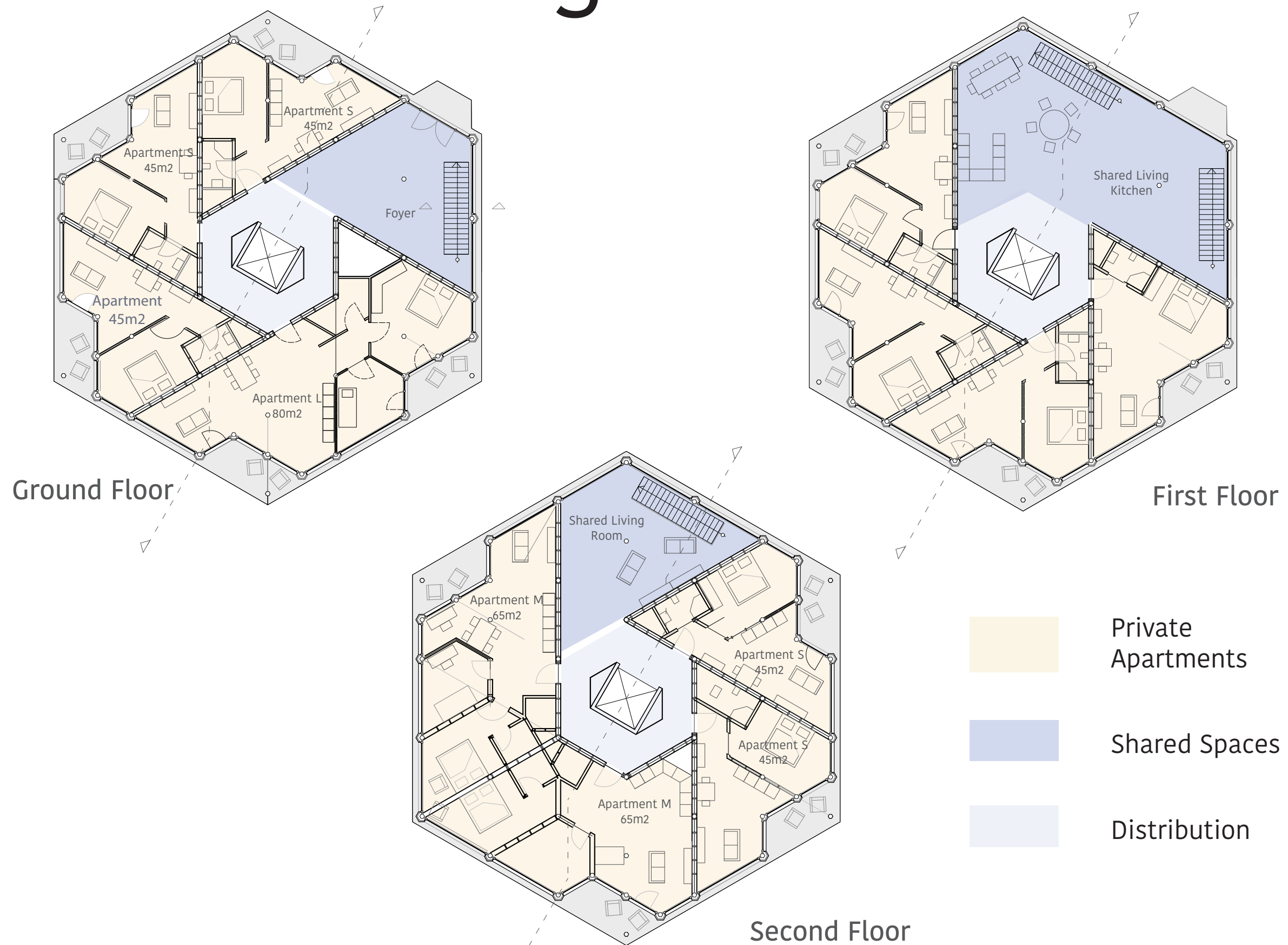
Activity Zones



Clustered Living



Clustered Living



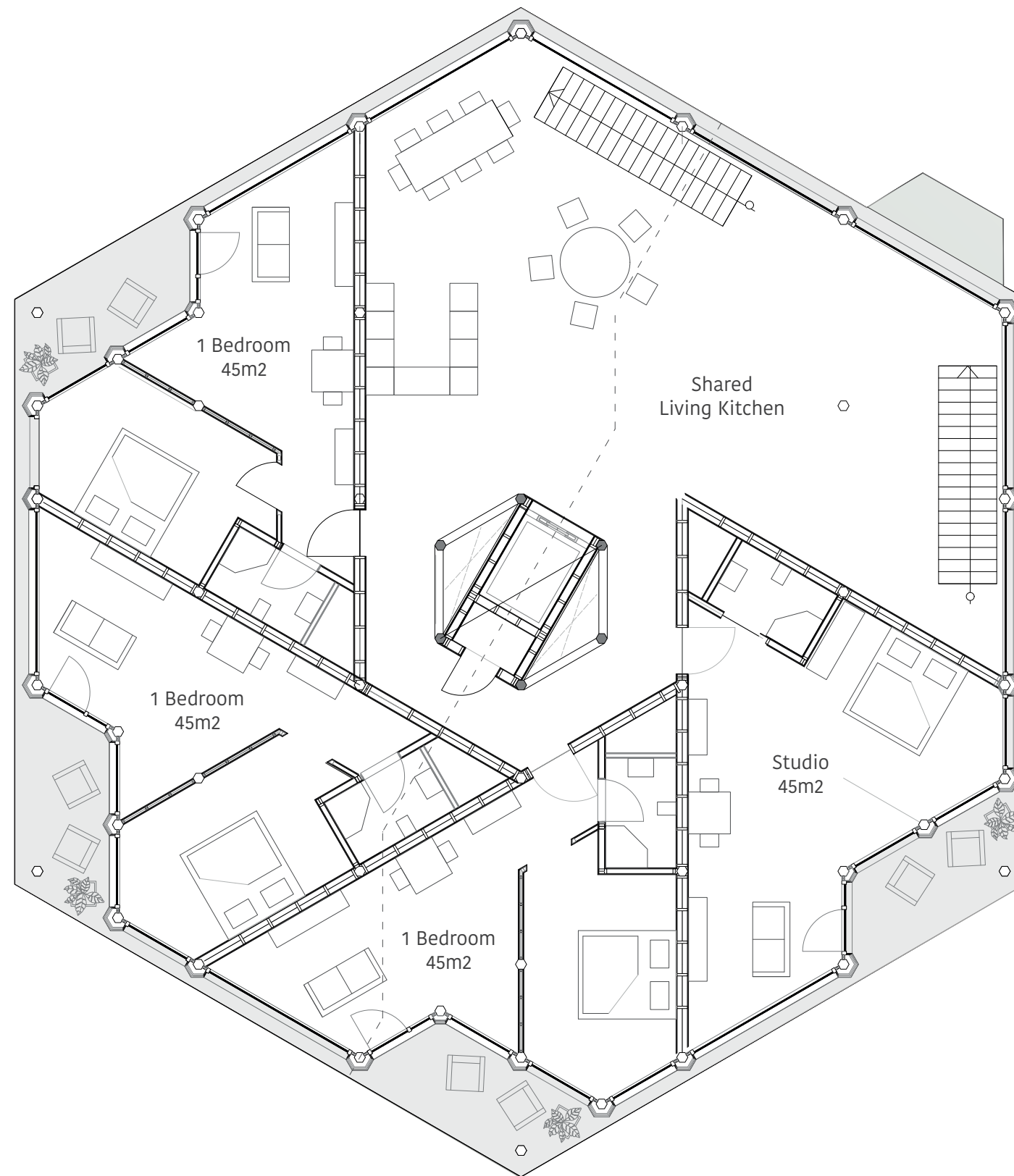
Clustered Living



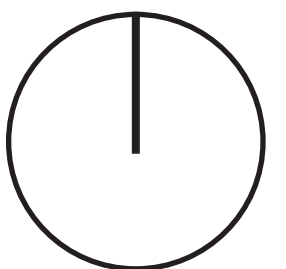
Ground Floor
Scale 1_100



Clustered Living



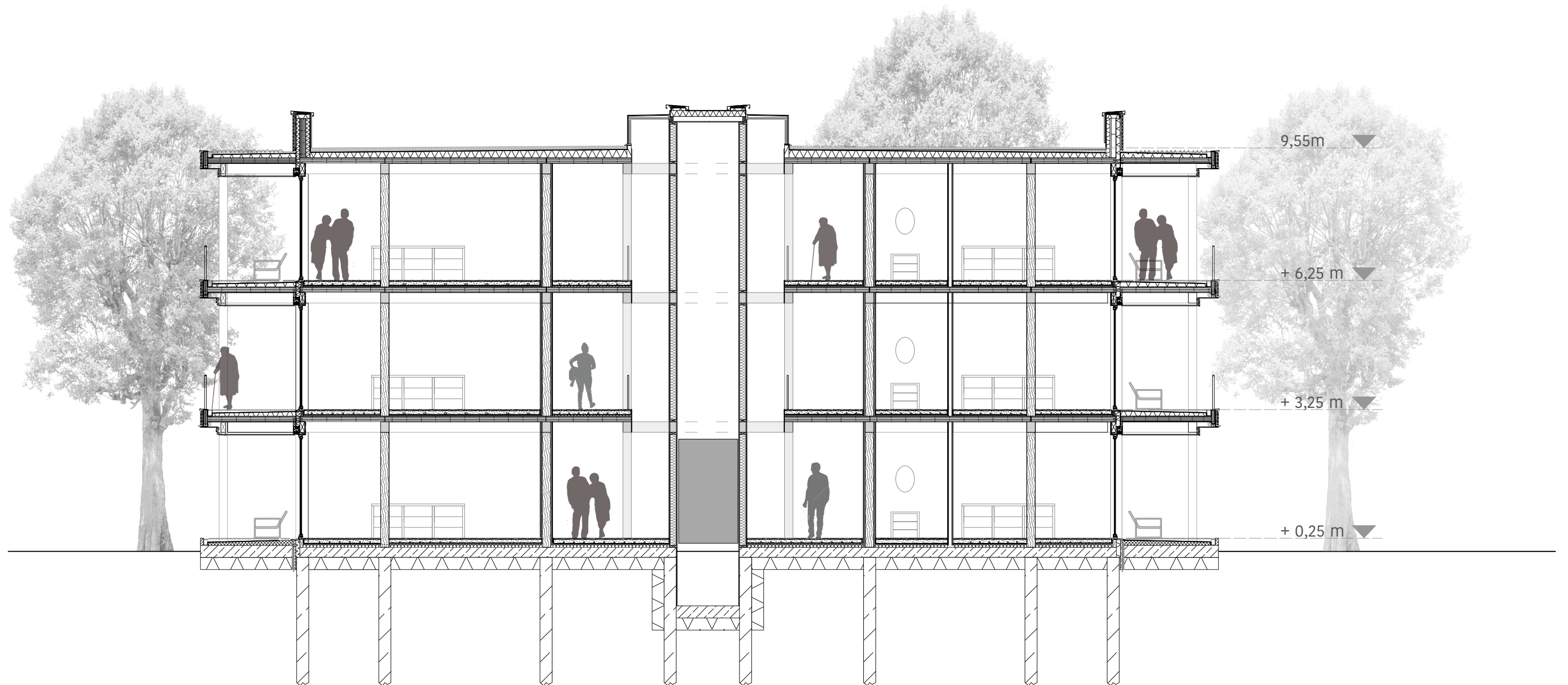
First Floor
Scale 1_100



Meeting Space Living Room

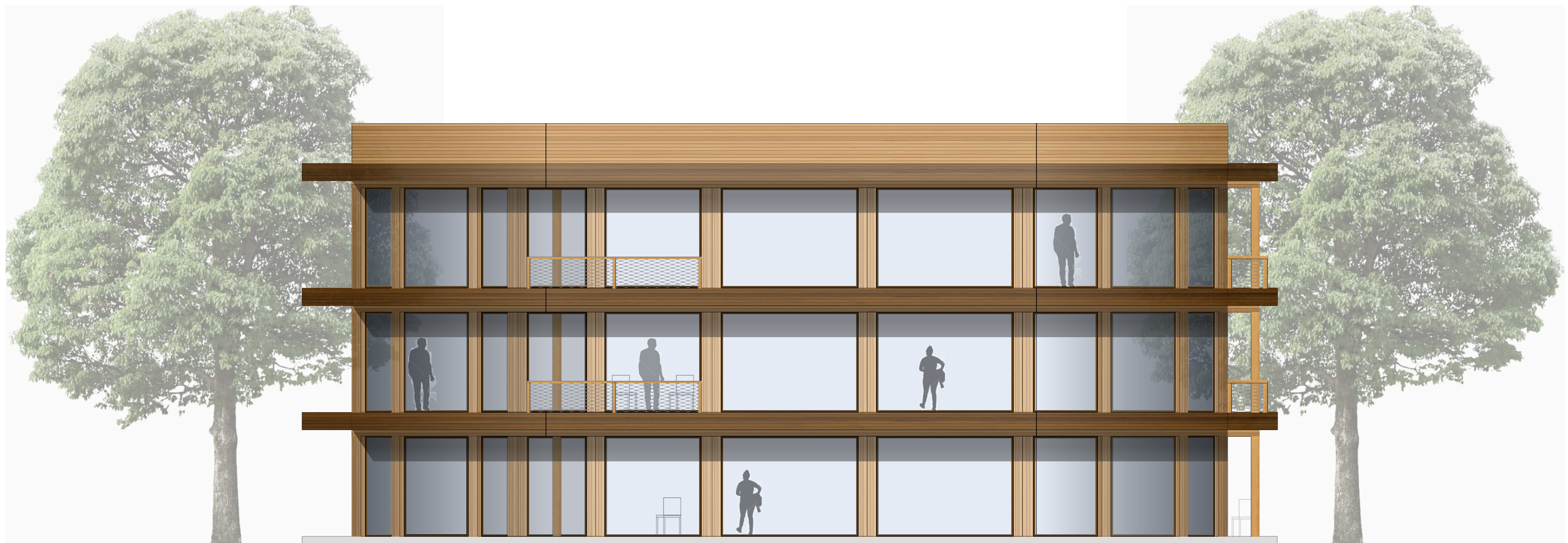


Clustered Living



Section
Scale 1_100

Clustered Living



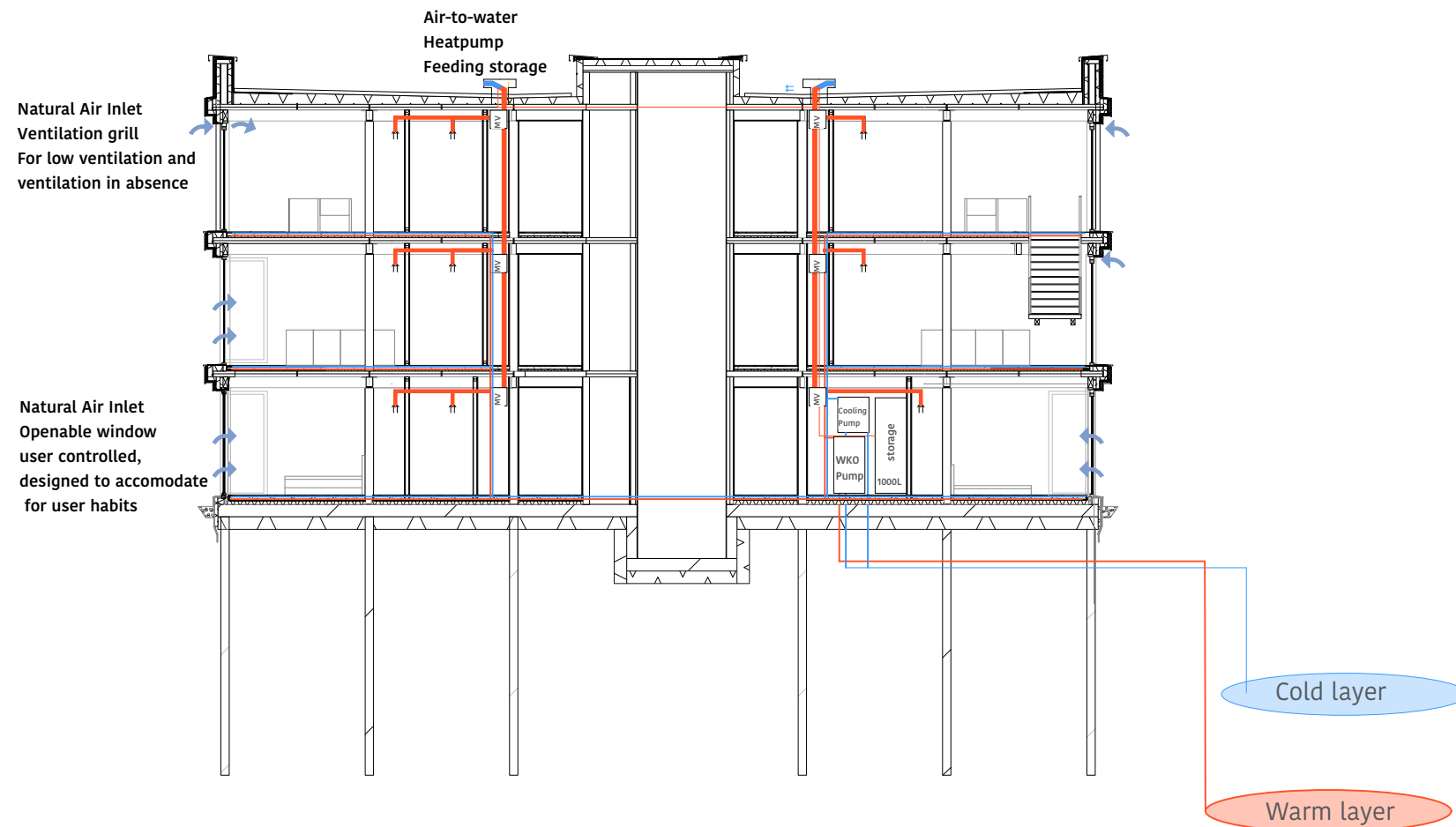
Elevation
Scale 1_100

Clustered Living

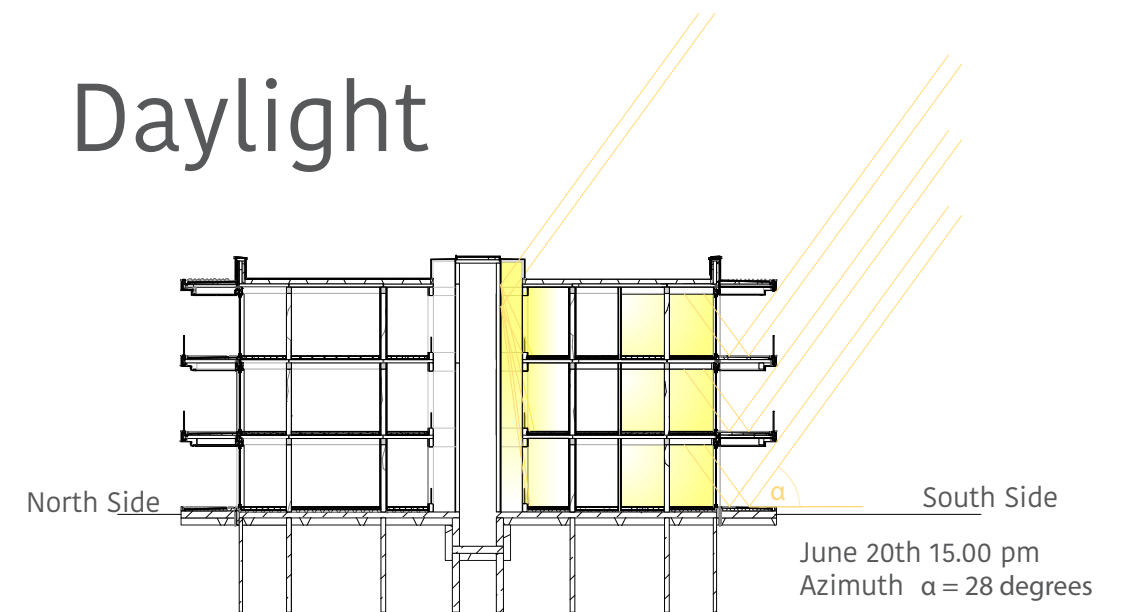


Technical building Design

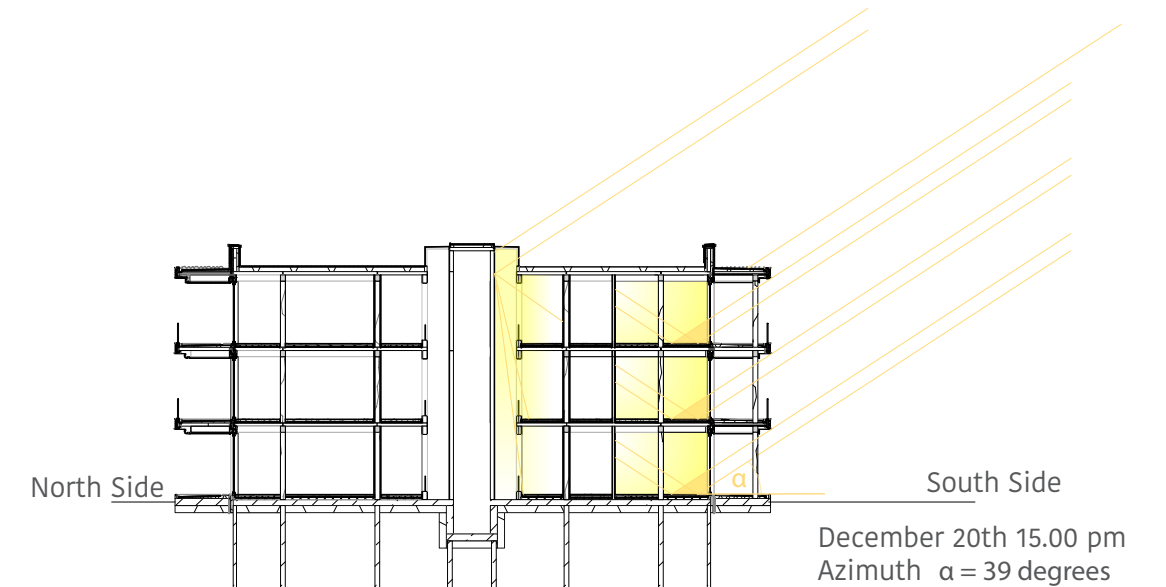
Climate Design



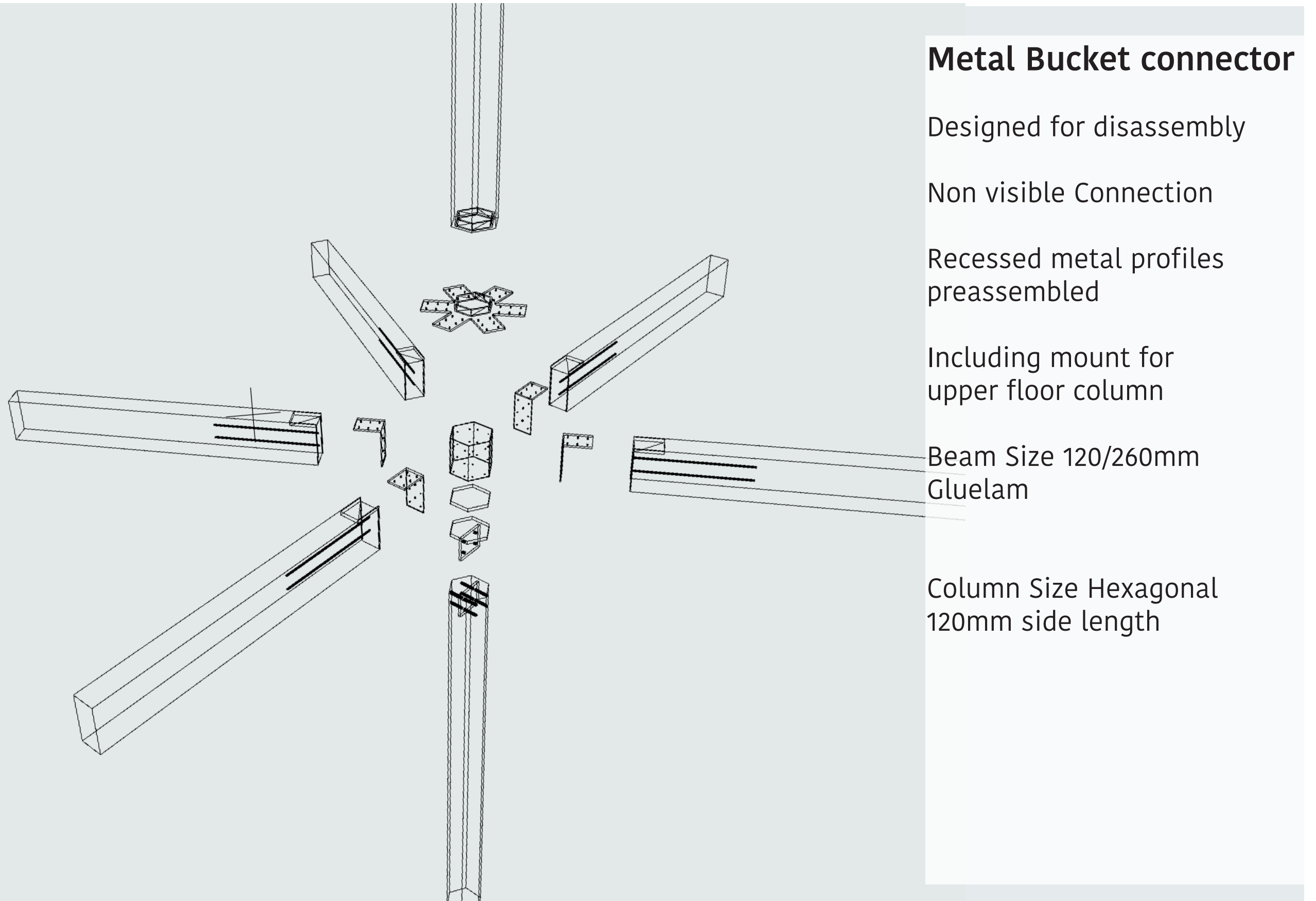
Daylight



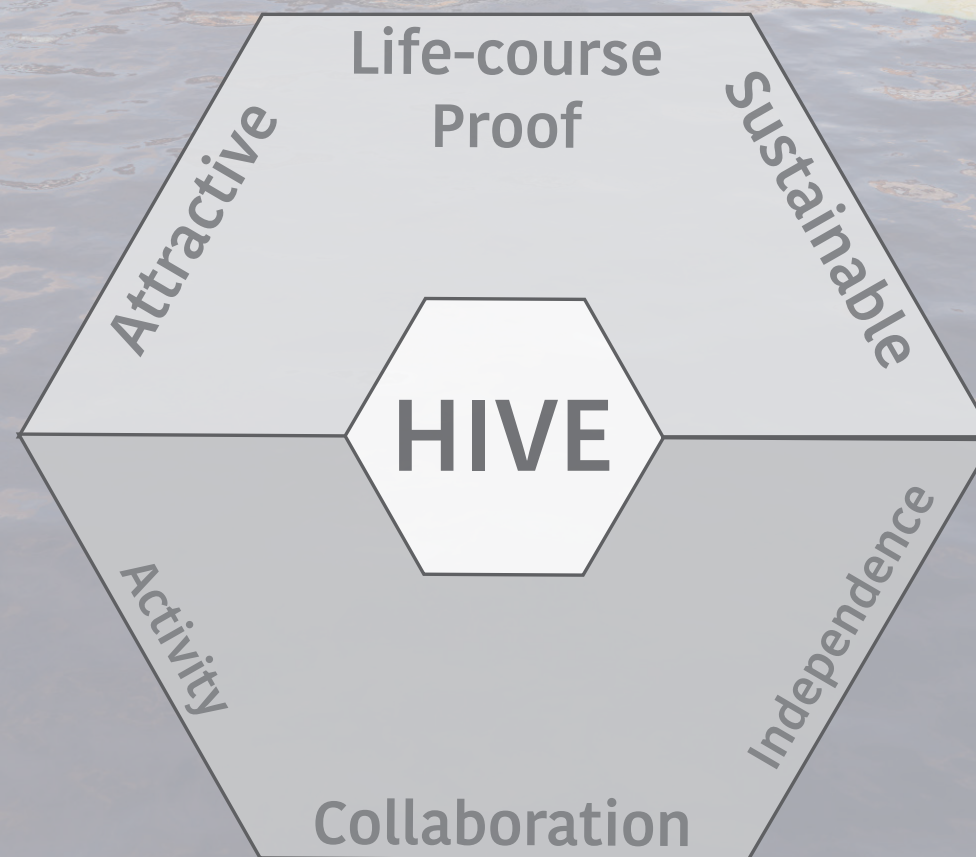
Summer Situation



Structure - Connector



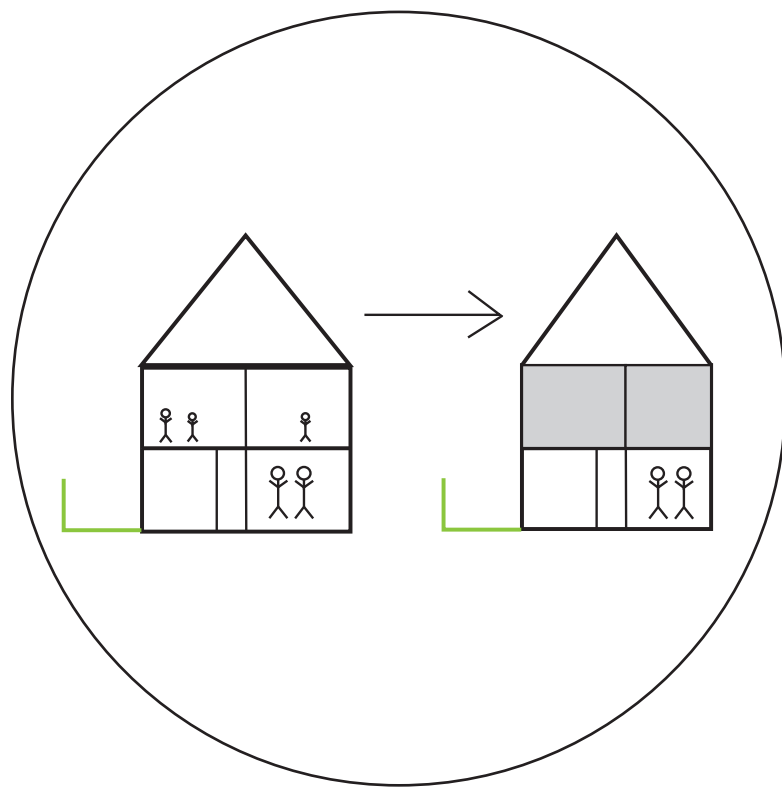
In closing, why should your new home be a HIVE ?



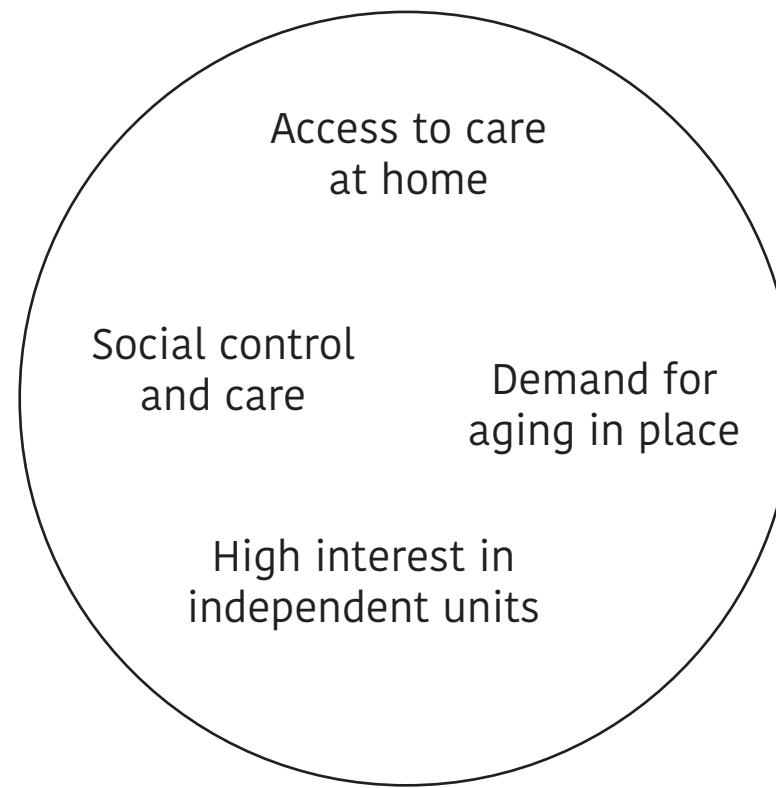
A modern interior space with a wooden ceiling and floor, large windows, and people sitting on a sofa. The text "Thanks for your attention, Im looking forward to your Feedback" is overlaid in the center.

Thanks for your attention,
Im looking forward to your Feedback

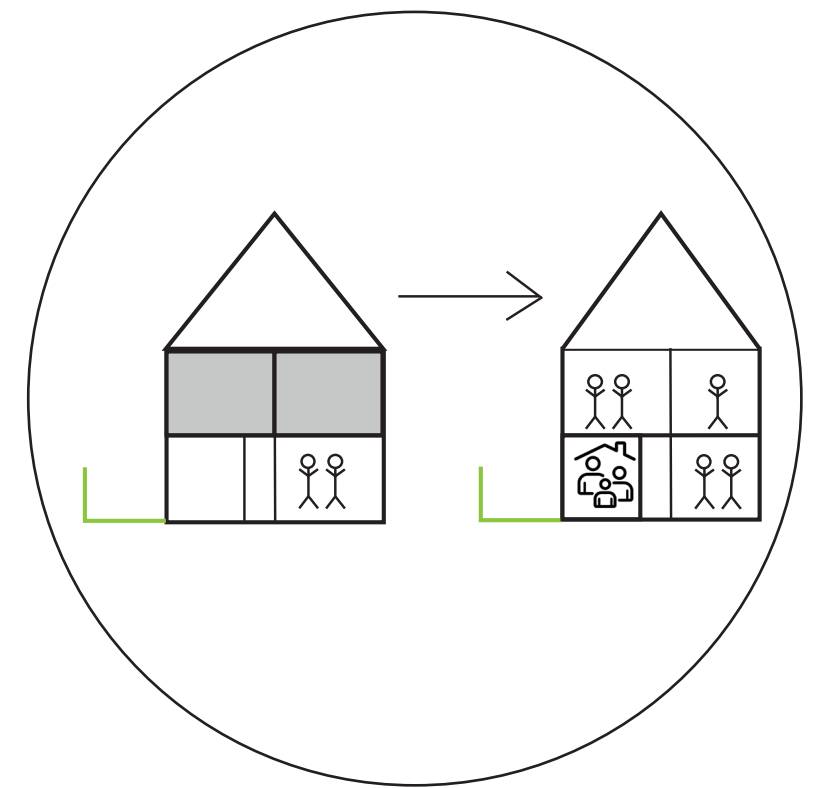
Issue 1 + guidelines



Housing mismatch in senior population



Life course proof option
Reduced space demand due to shared facilities



Clustered housing offering new homes for target group freeing family homes for new families

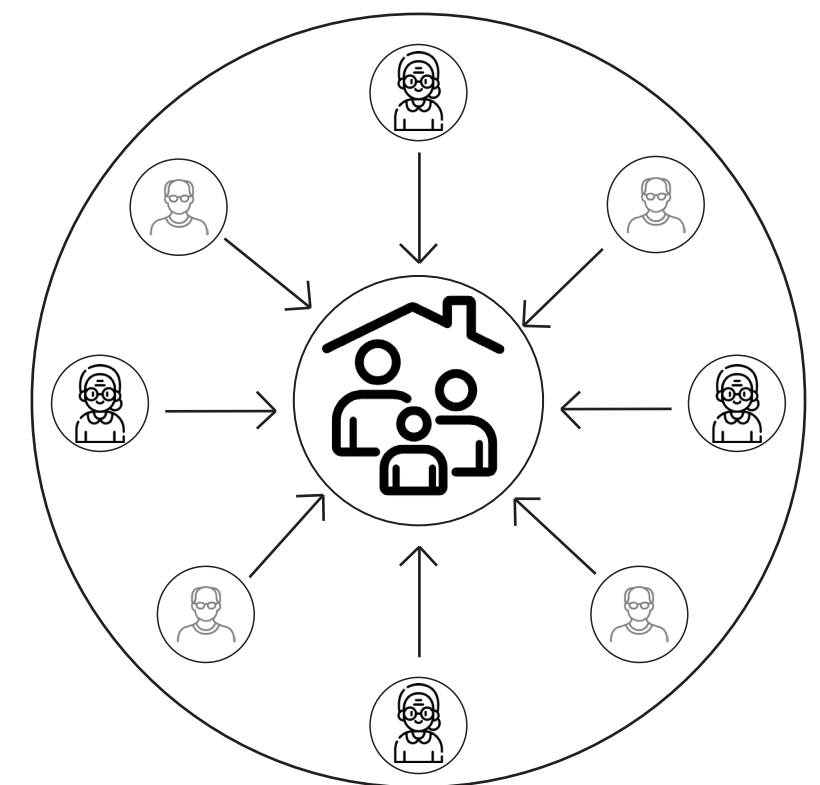
Issue 2 + Guideliens



**Loneliness rising
in senior Population**



**CLustered housing
offering increased opportunity
for social interaction and cohesion**



**Clustering senior around shared
spaces, providing space for so-
cialization and activity**

Issue 3 + Guidelines

Challenge



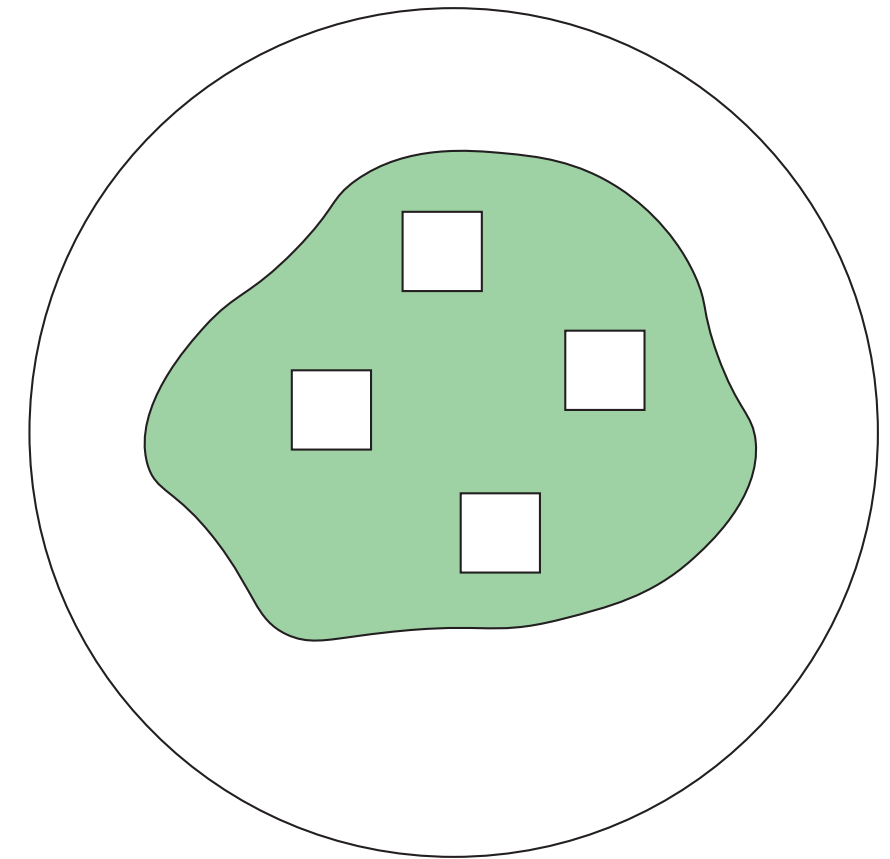
**Age declining health
limits aging in Place**

Finding



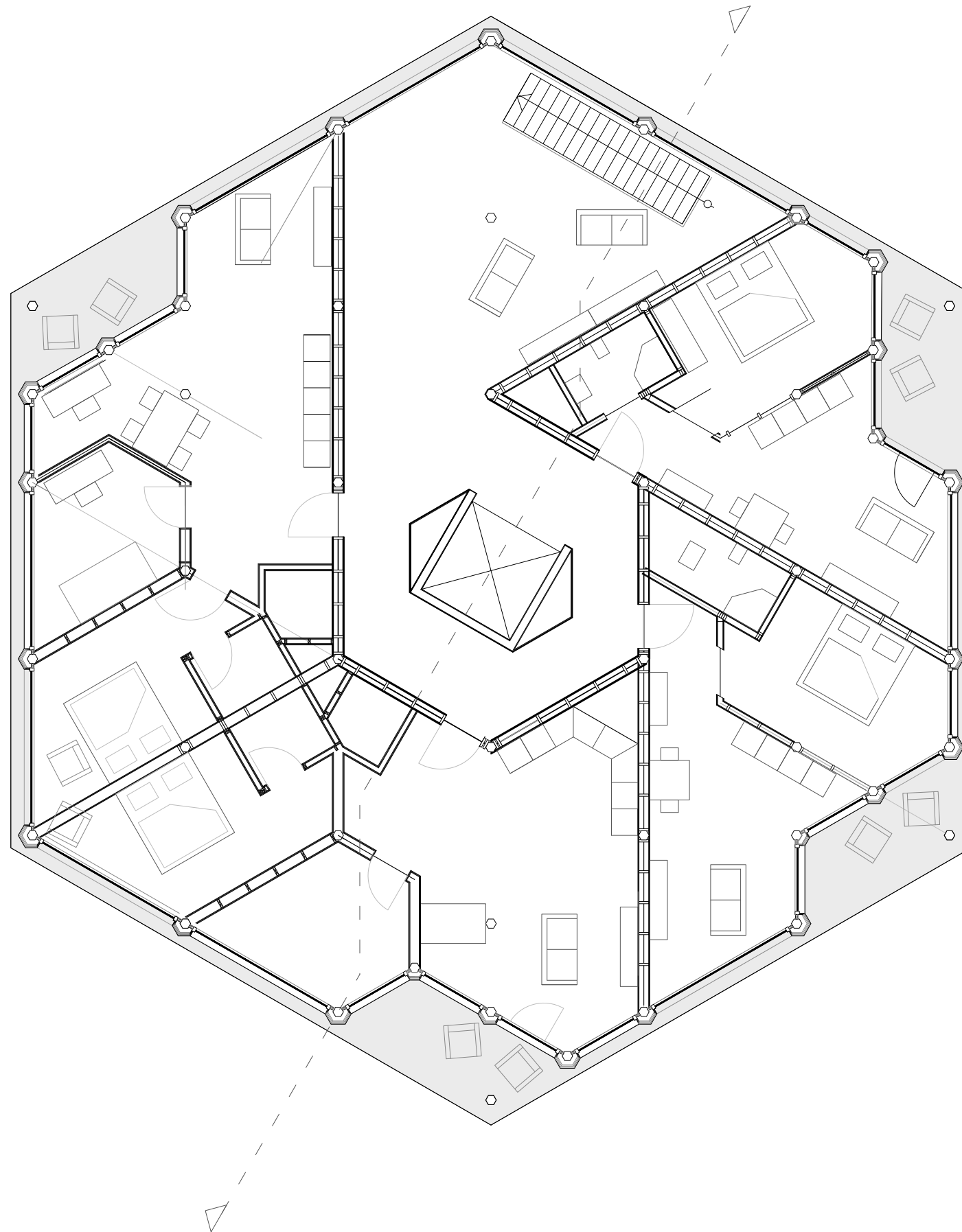
**View + direct access of greenery
=
Positive Health effects**

Guideline

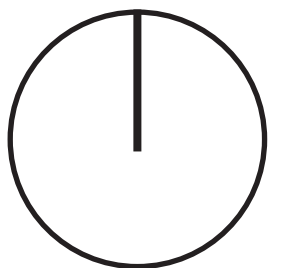


**Integration into Greenery
Allows view of nature
Lowest boundaries to Use**

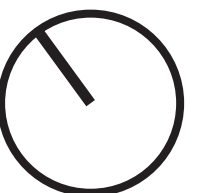
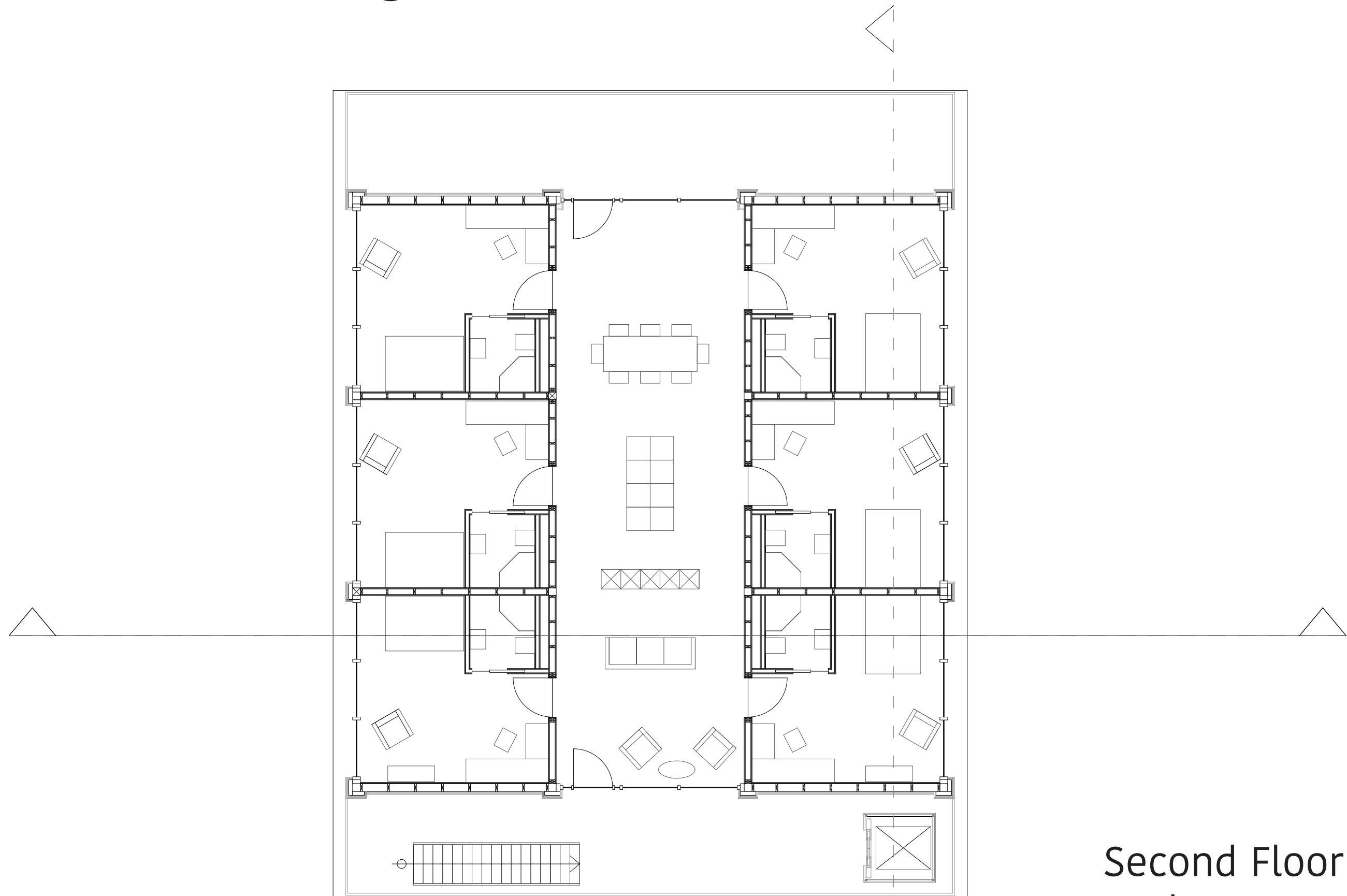
Clustered Living



First Floor
Scale 1_100



Shared Living

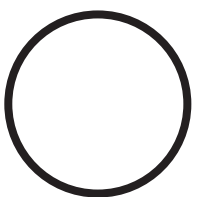


Individual living

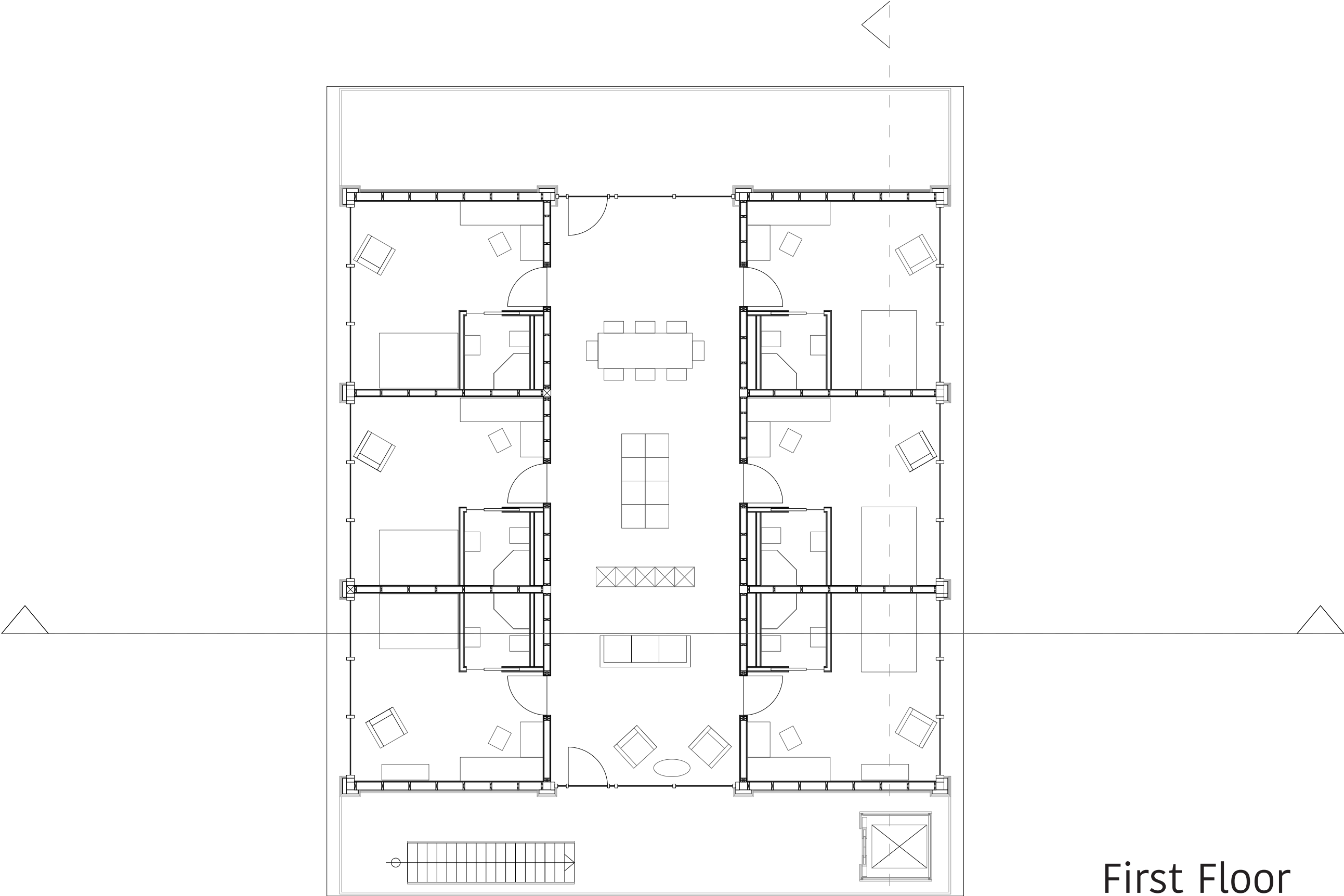


First Floor
Scale 1:100

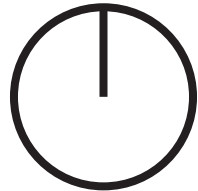
First Floor
Scale 1_100



Shared Living



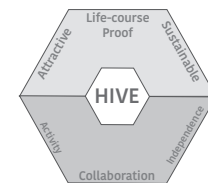
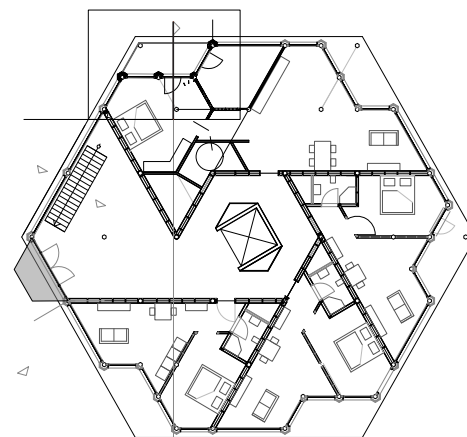
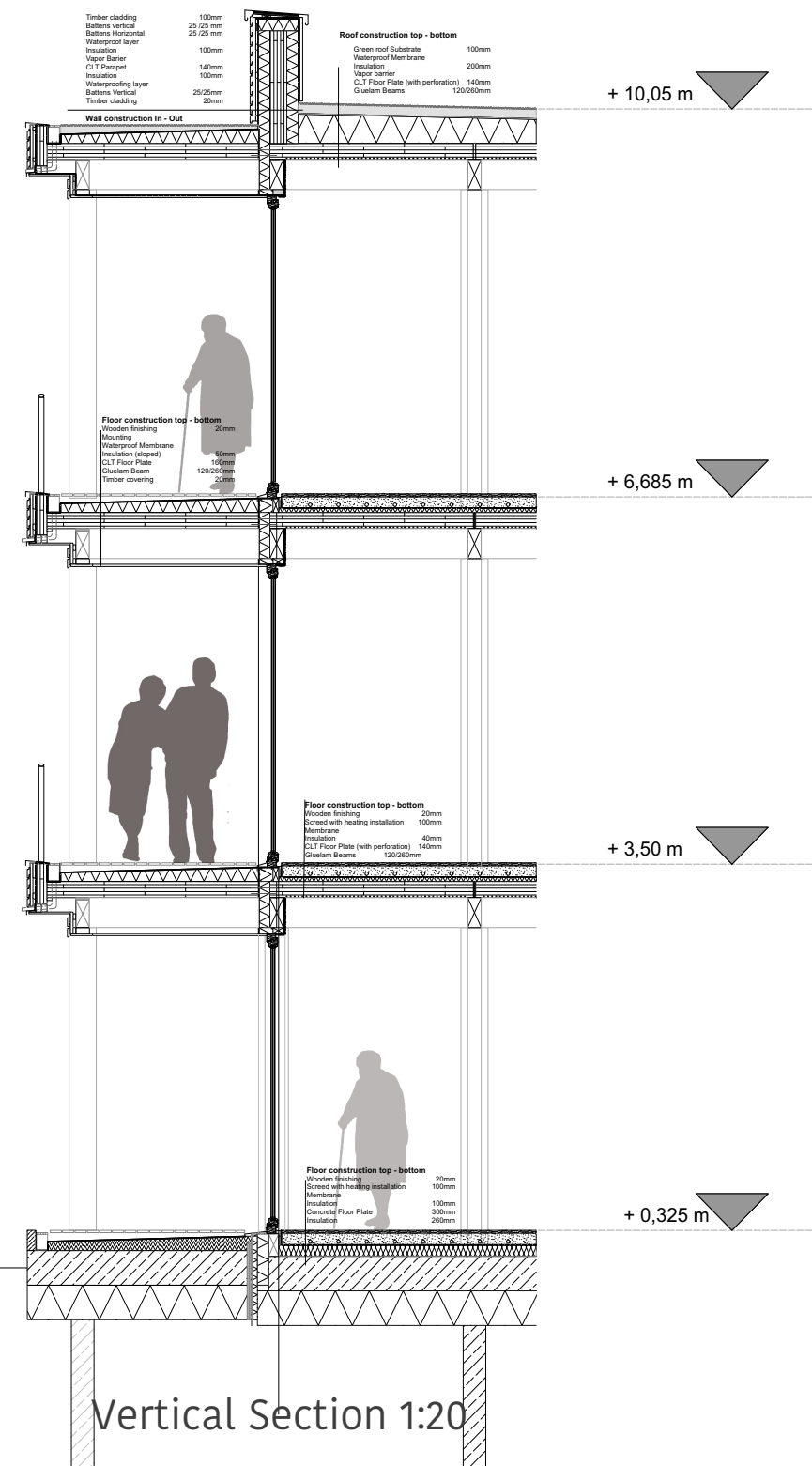
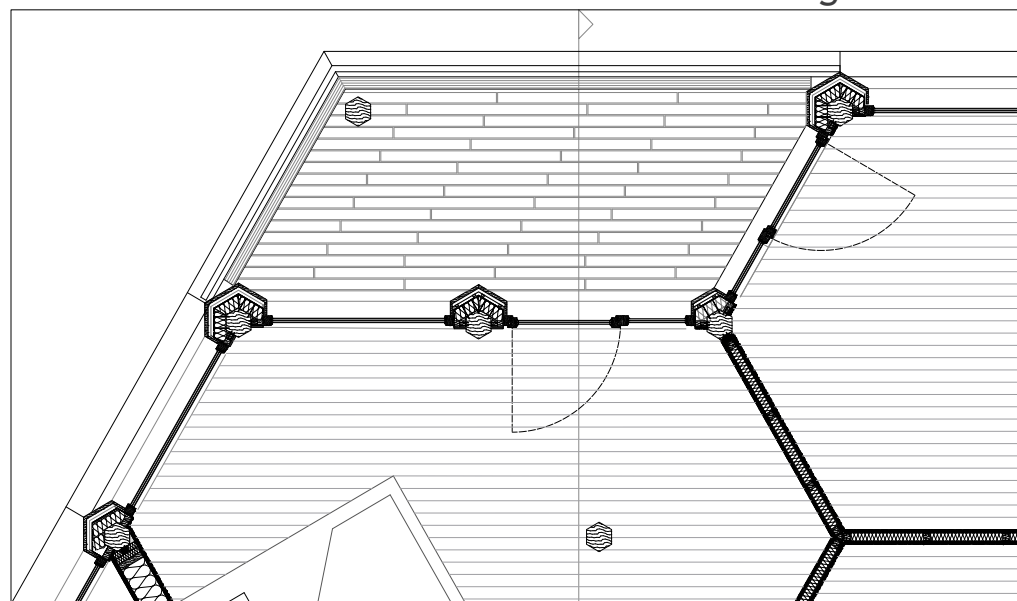
First Floor
Scale 1_100



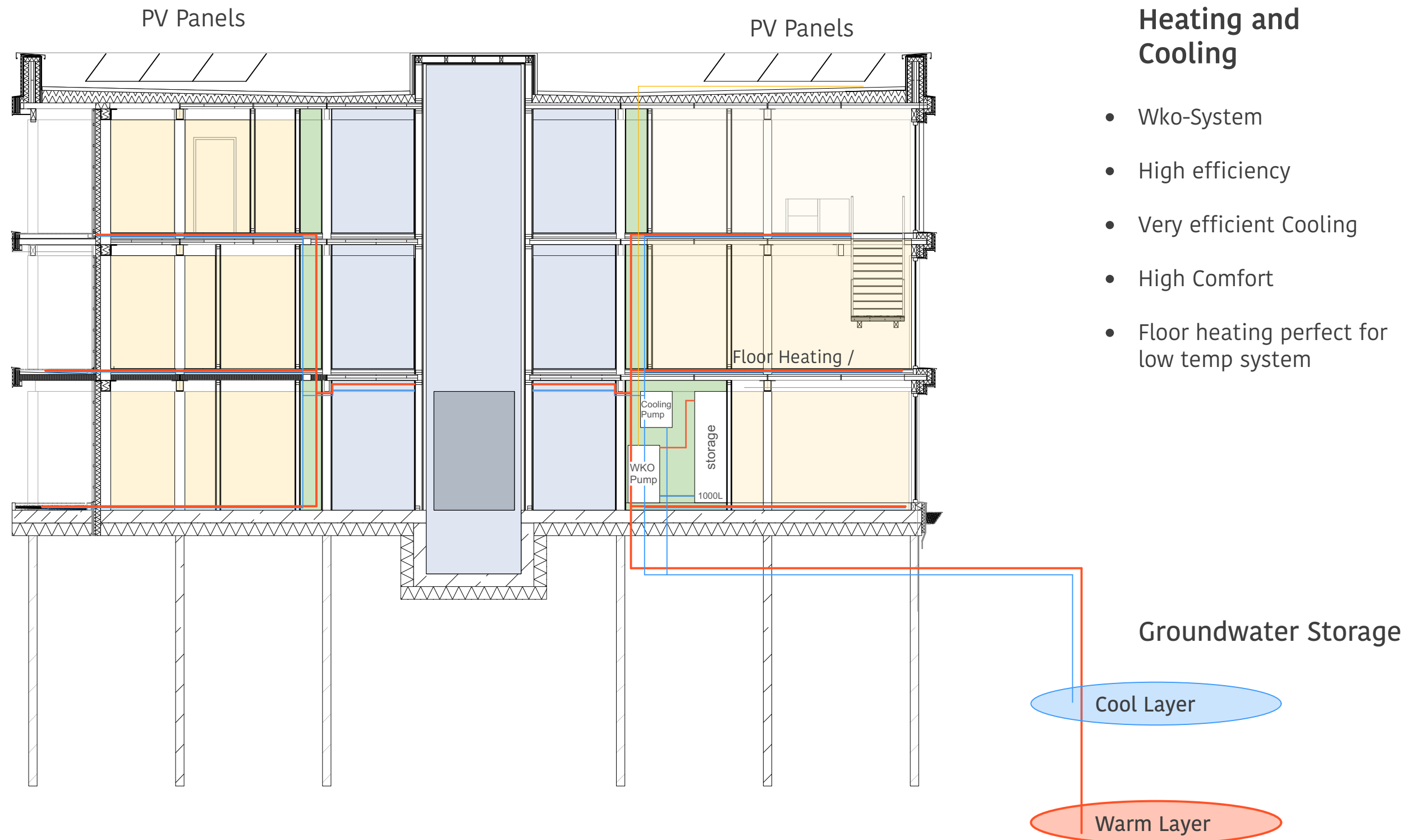


Elevation 1:20

Plan Fragment 1:20



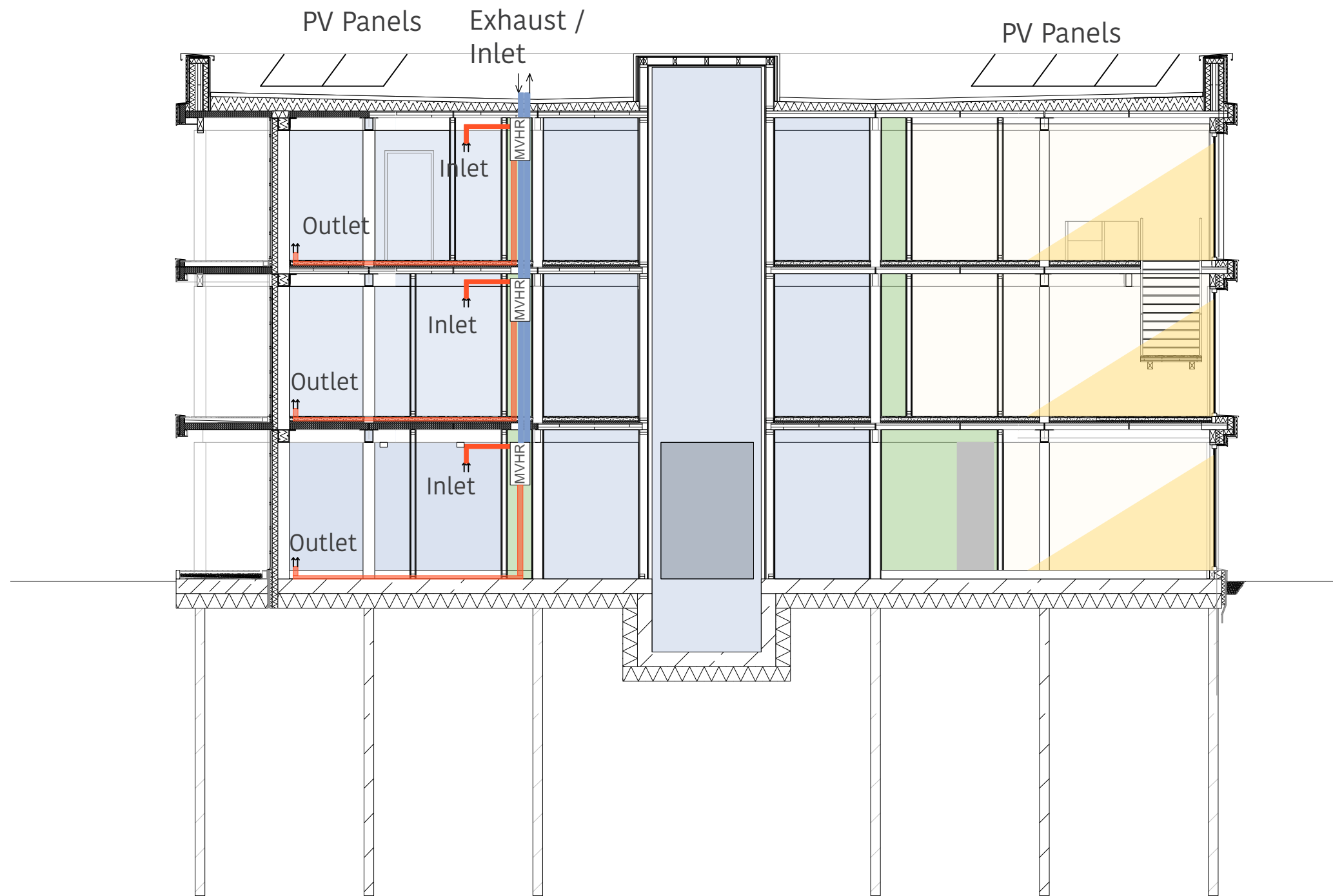
Climate Design



Heating and Cooling

- Wko-System
- High efficiency
- Very efficient Cooling
- High Comfort
- Floor heating perfect for low temp system

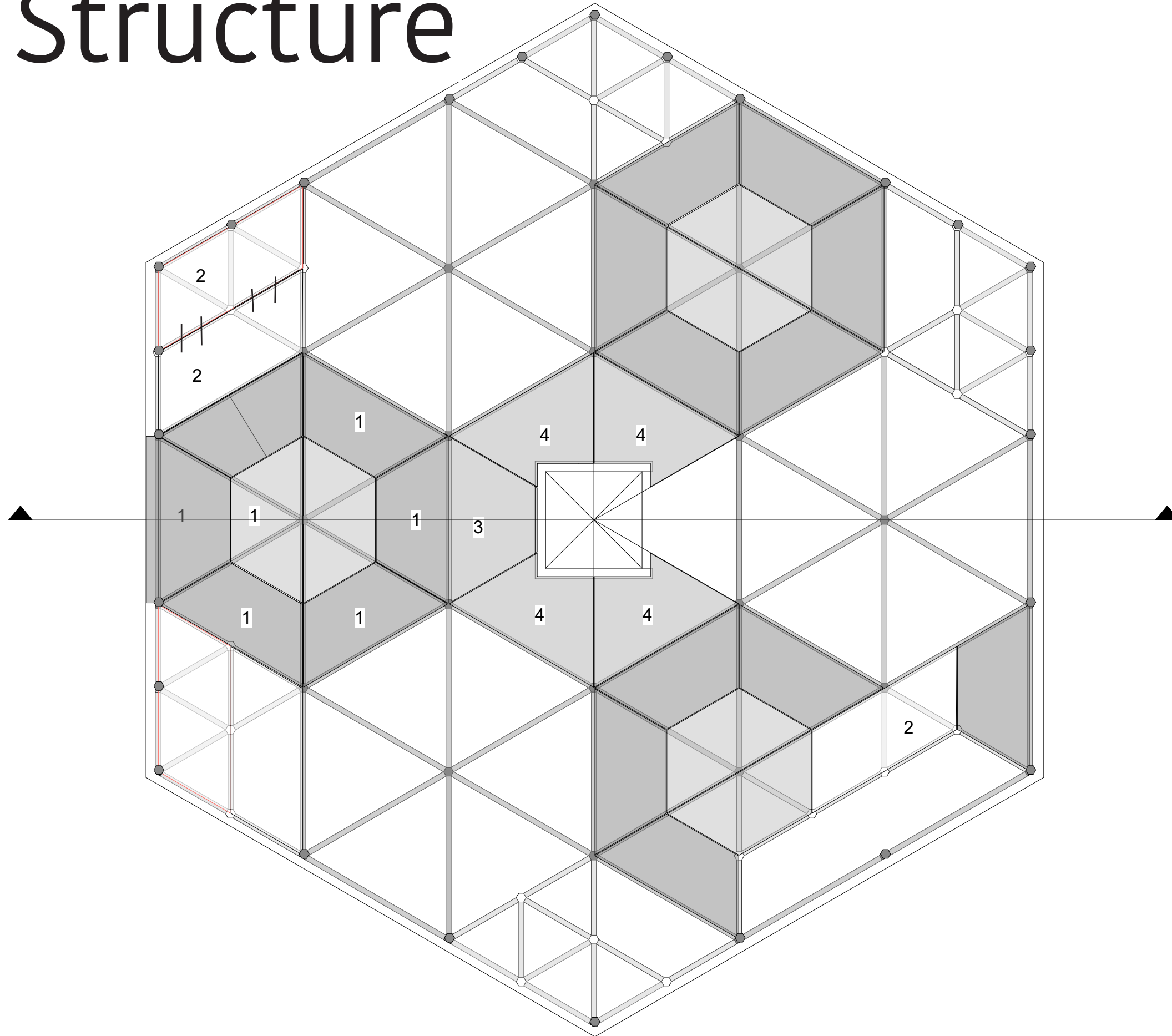
Climate Design



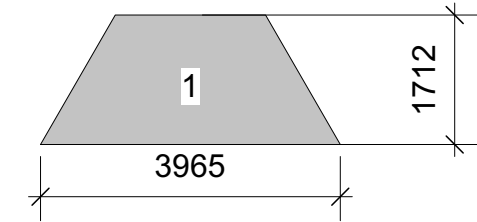
Ventilation

- Mechanical Ventilation
- Heat recovery for each unit
- Recovers 90% transmission losses
- High Comfort
- Preventing cool draft

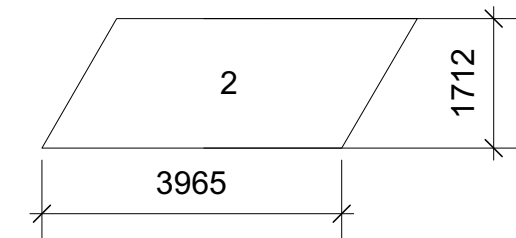
Structure



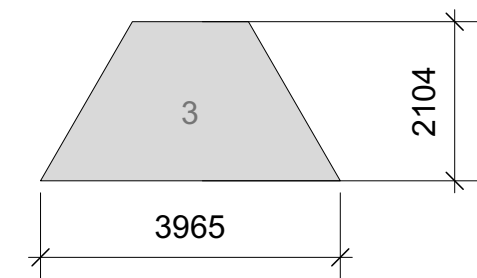
140mm Thickness



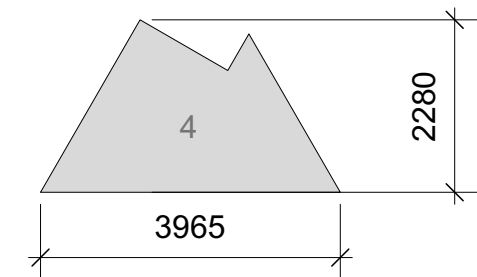
CLT Floor Elements



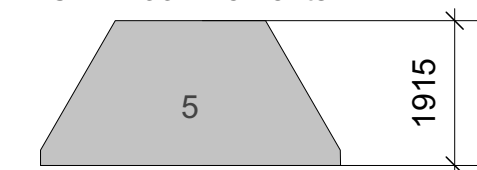
CLT Floor Elements



CLT Floor Elements



CLT Floor Elements



CLT Floor Elements

CLT Ceiling plates
Scale 1:100

Jan Philipp Dormann 4882849

