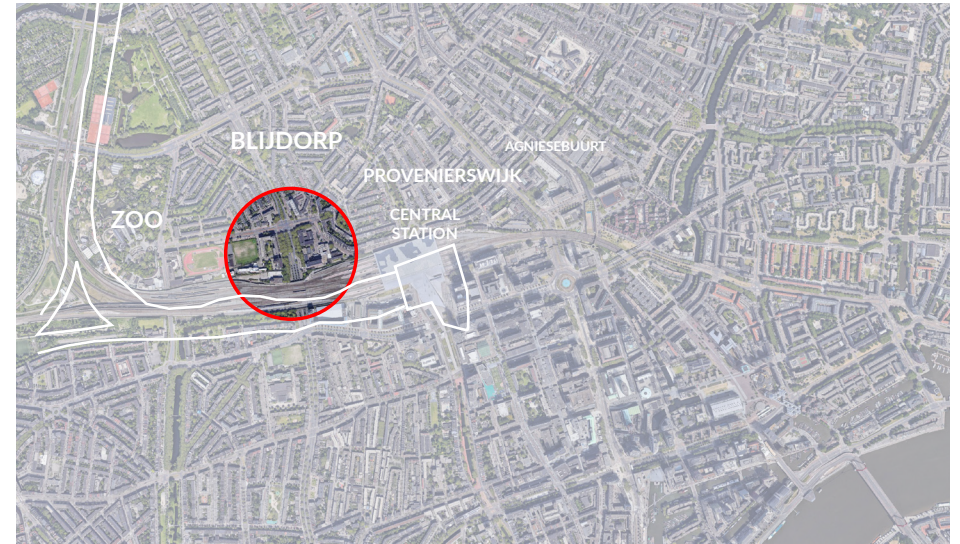


D



**Site**

Location Rotterdam



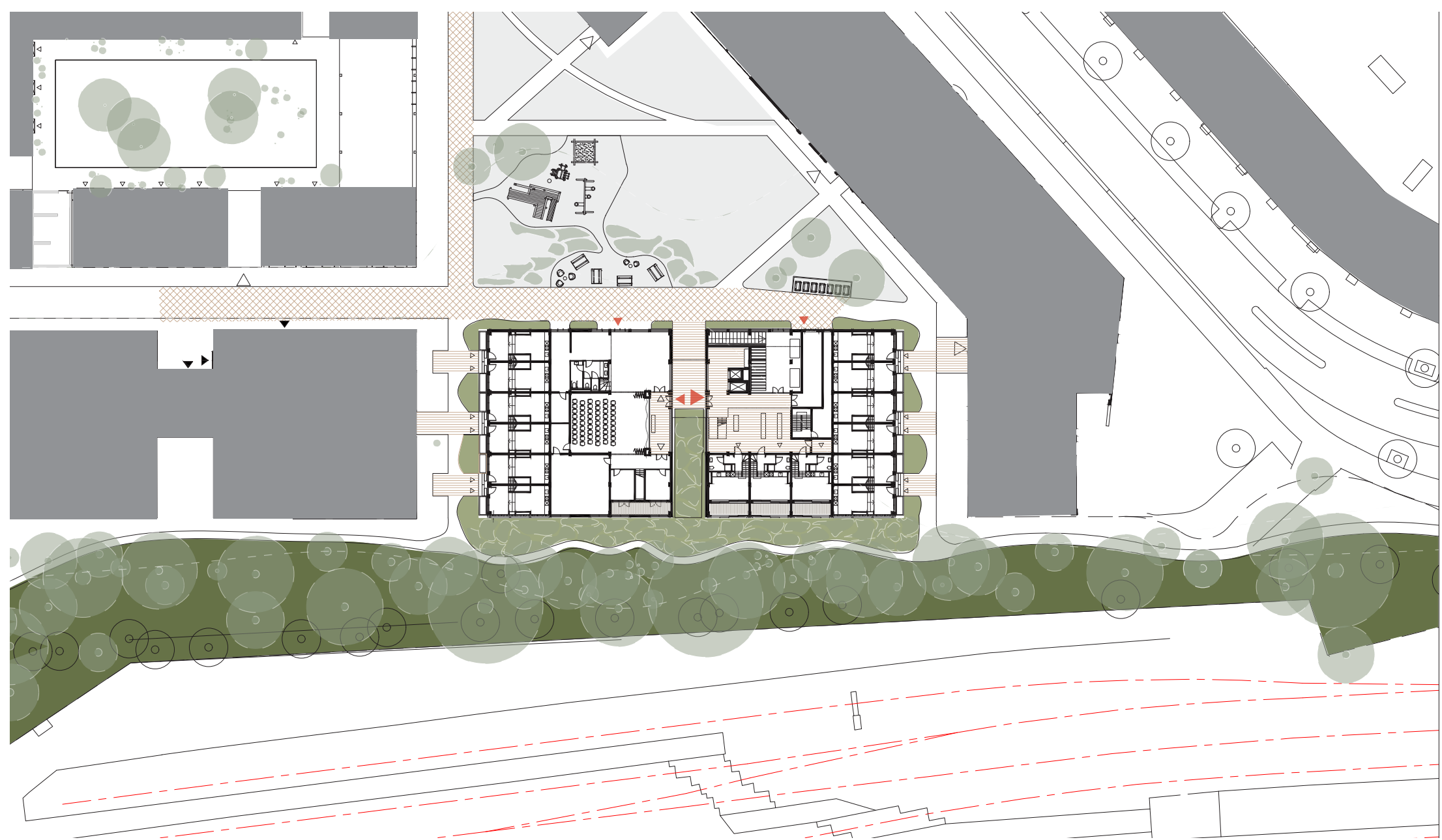


### Masterplan

Position building plot



0 5 10 20m

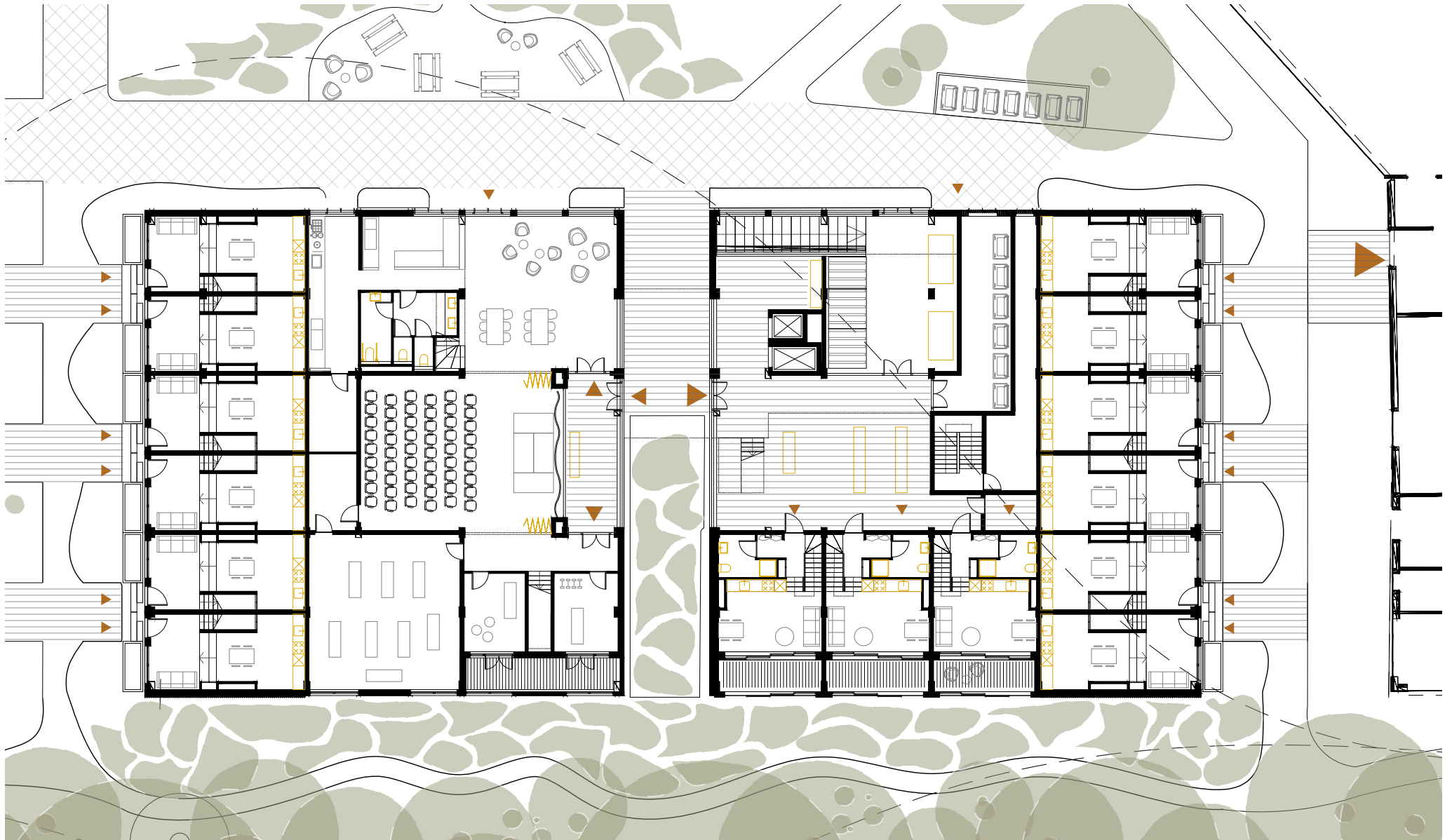


**Masterplan**

Context building



0 5 10 20m



**Floor Plan (0)**  
in context



0 1 2 5m



**Elevation**

South - by sunset

0 1 2 5m



Elevation  
West

0 1 2 5m



Elevation  
East

0 1 2 5m

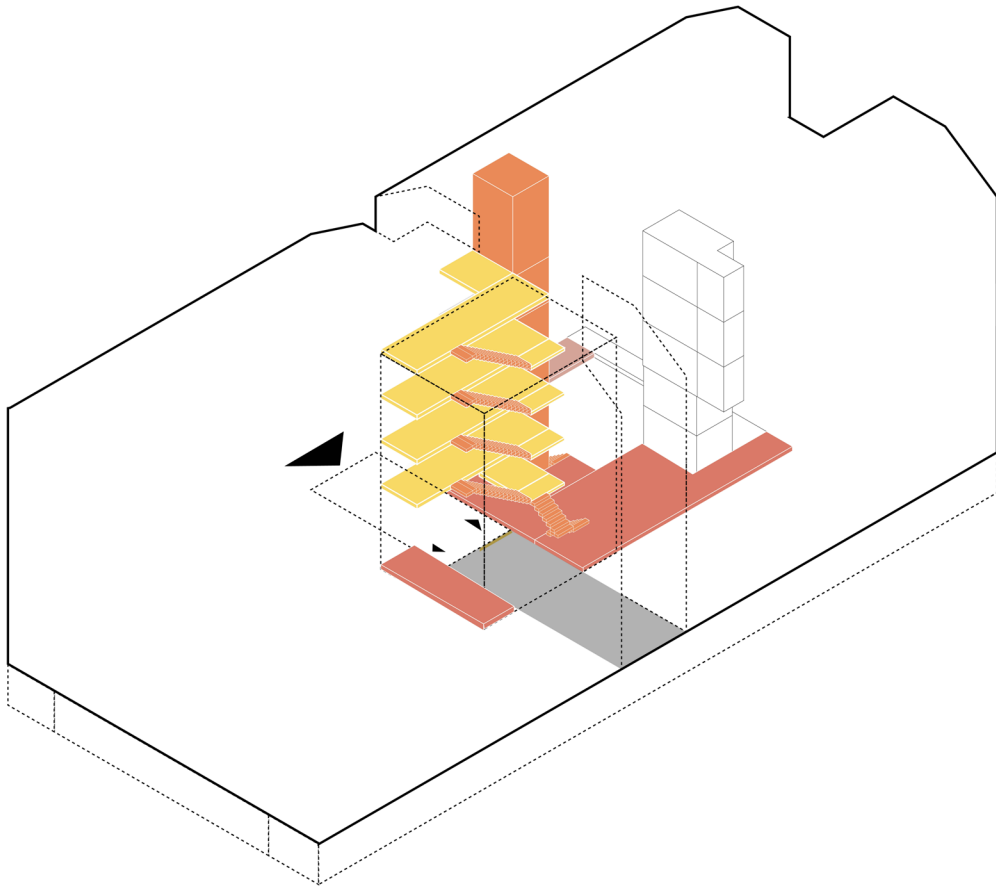


**Elevation**

North - by day

0 1 2 5m

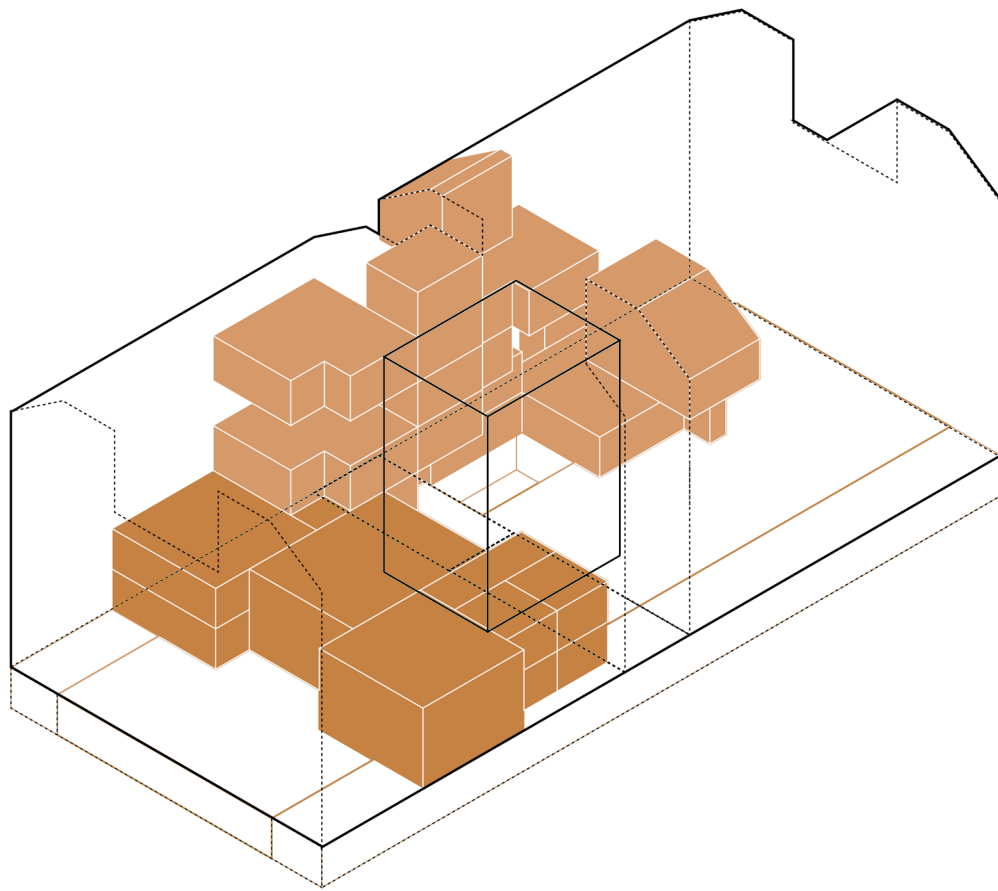




**Circulation**  
Central core

- |  |  |
|--|--|
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #c8513d; margin-right: 5px;"></span> Entrance Lobby             | <span style="display: inline-block; width: 15px; height: 15px; background-color: #f1c232; margin-right: 5px;"></span> Horizontal Gallery in core |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #e67e22; margin-right: 5px;"></span> Vertical Elevator + Stairs | <span style="display: inline-block; border: 1px dashed black; width: 15px; height: 15px; margin-right: 5px;"></span> Escape Fire staircase       |





**Program**

Public and Collective

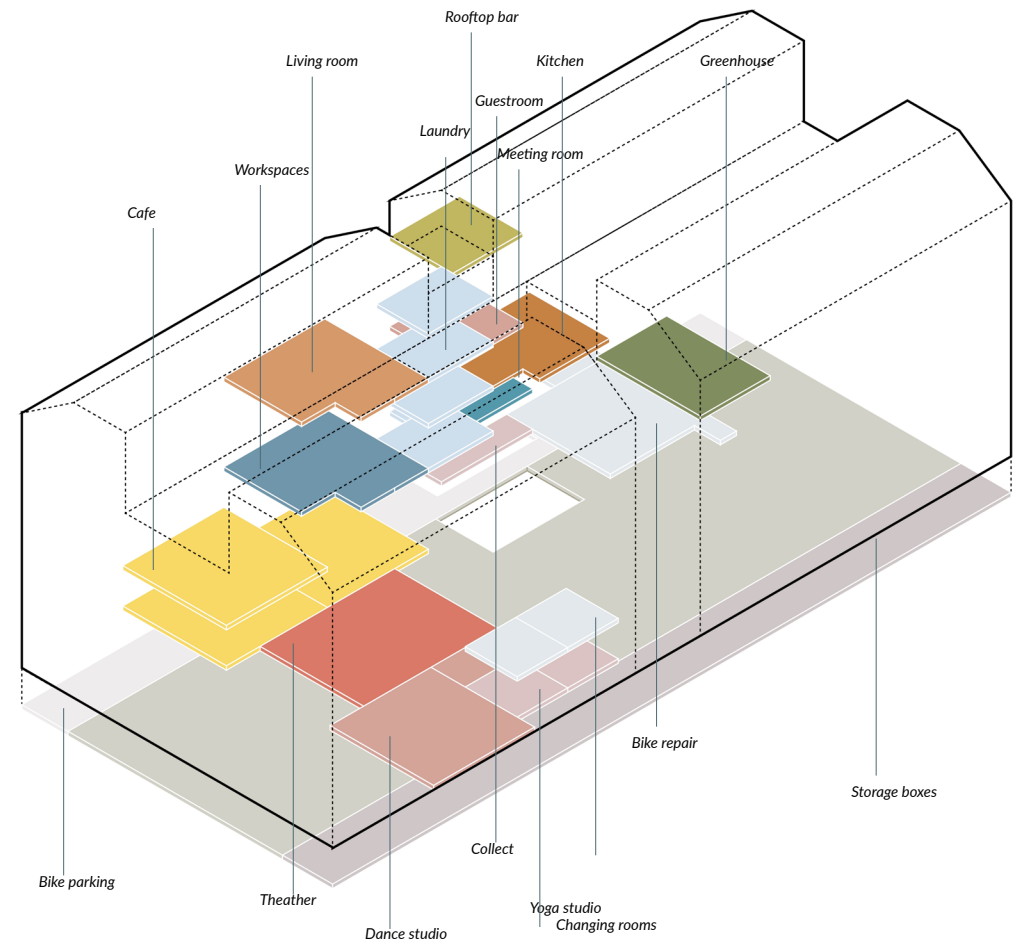
Position



Public



Collective

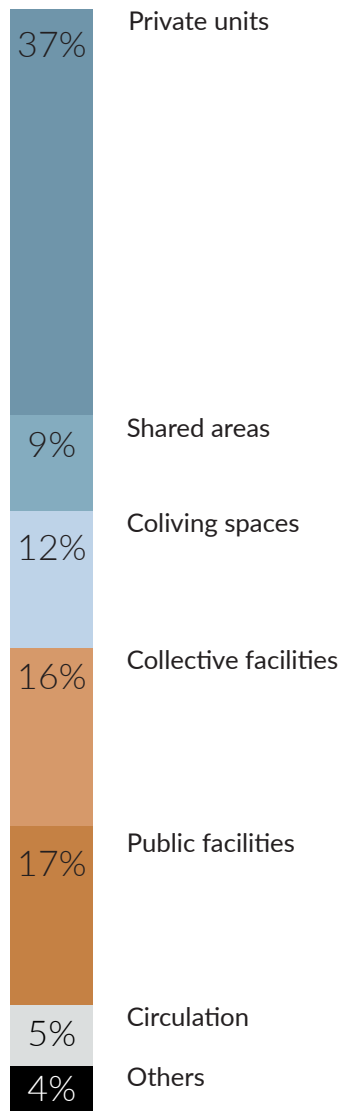
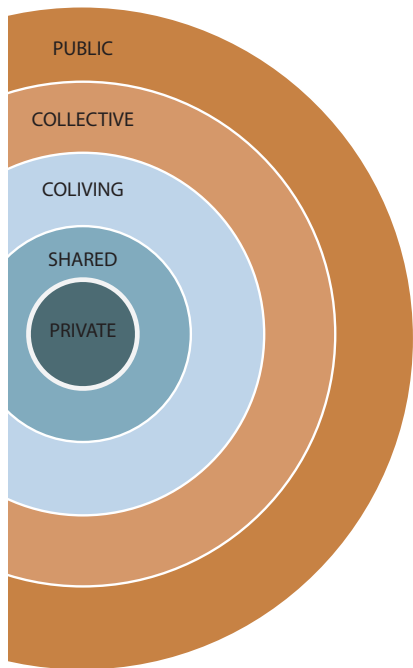


**Program**

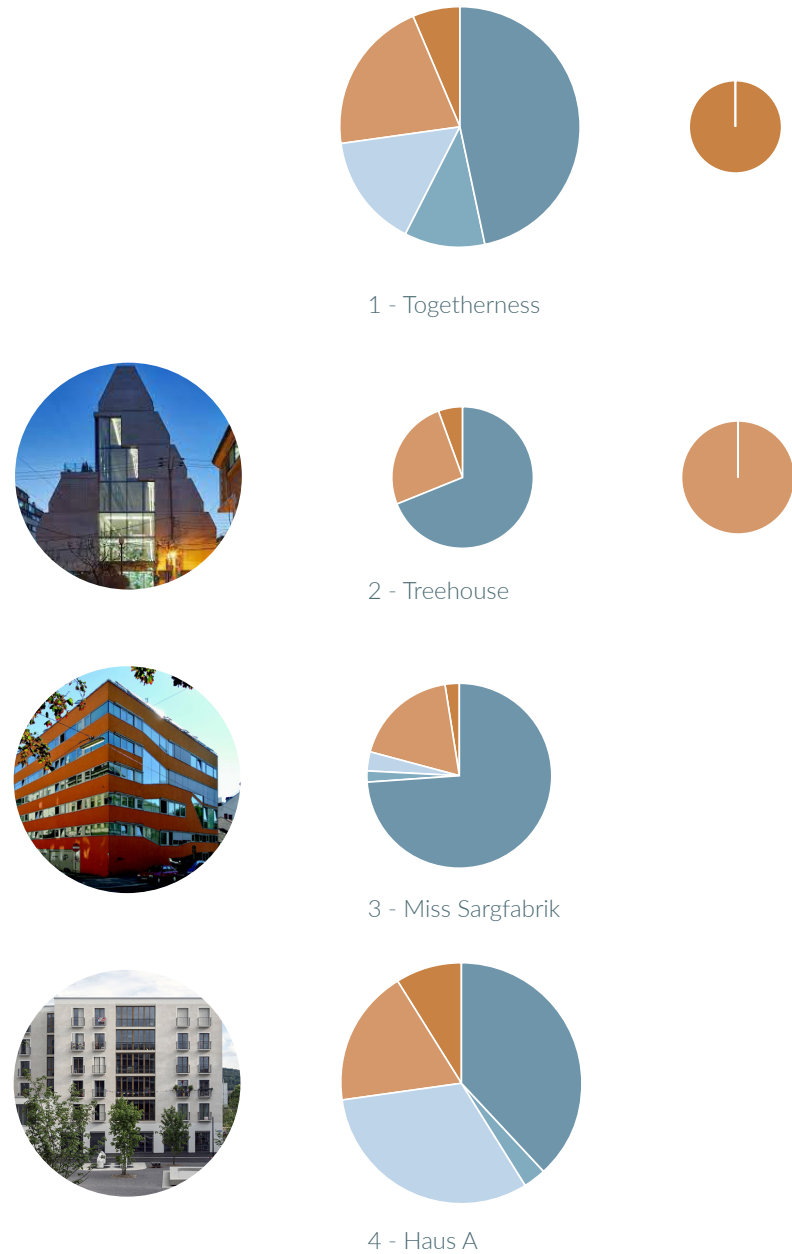
Public and Collective

Functions

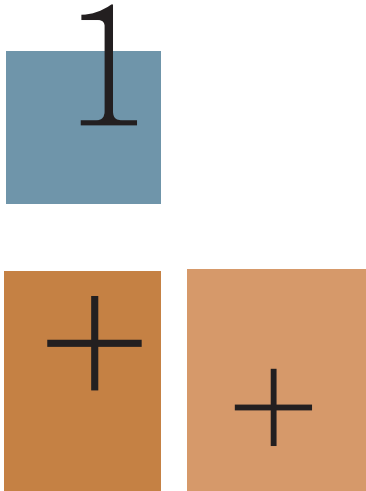
**Legend**



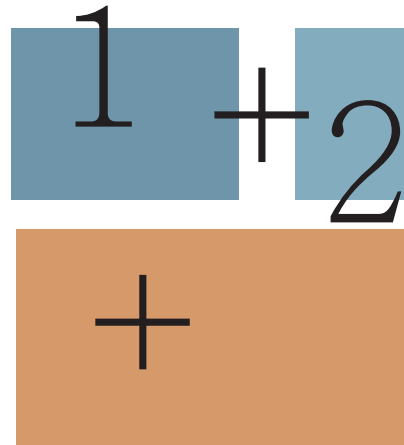
**Program bar**  
Total project



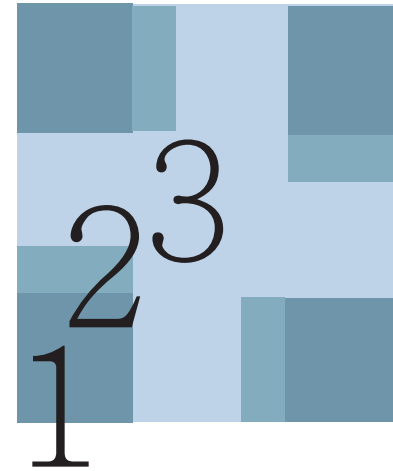
**Program bar**  
Comparison  
Case studies



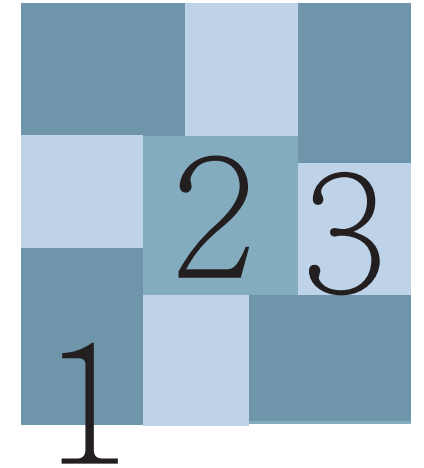
1. Private studio  
+ + Extra options to explore



1. Family home  
2. Flexible space  
+ Places to play



1. Private unit  
2. Shared amenities  
3. Co-living space



1. Private unit  
2. Shared collections  
3. Co-living space

**Principle**

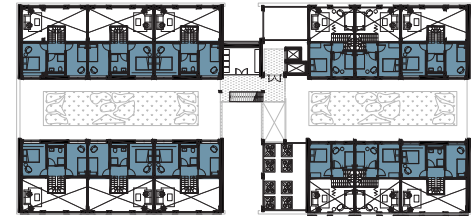
Sharing needs for each solo-dweller

**Legend**

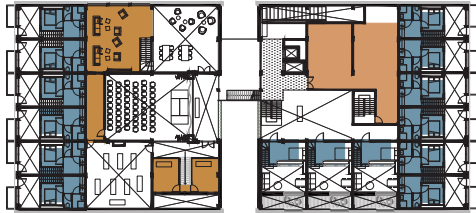




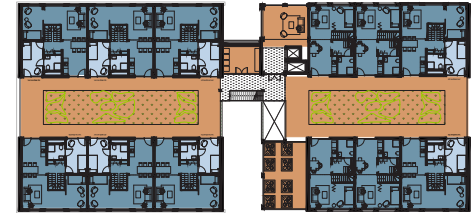
Level 1 - Clusterfloor



Level 4.5



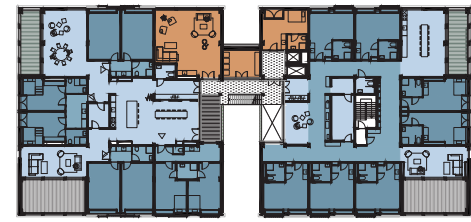
Level 0.5



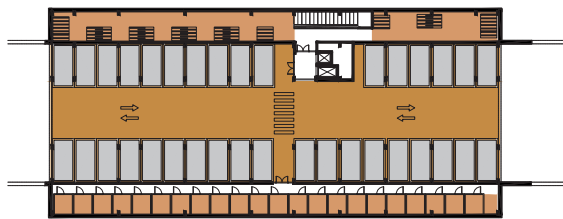
Level 4 - Street floor



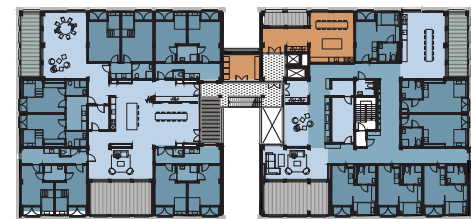
Level 0 - Ground floor



Level 3



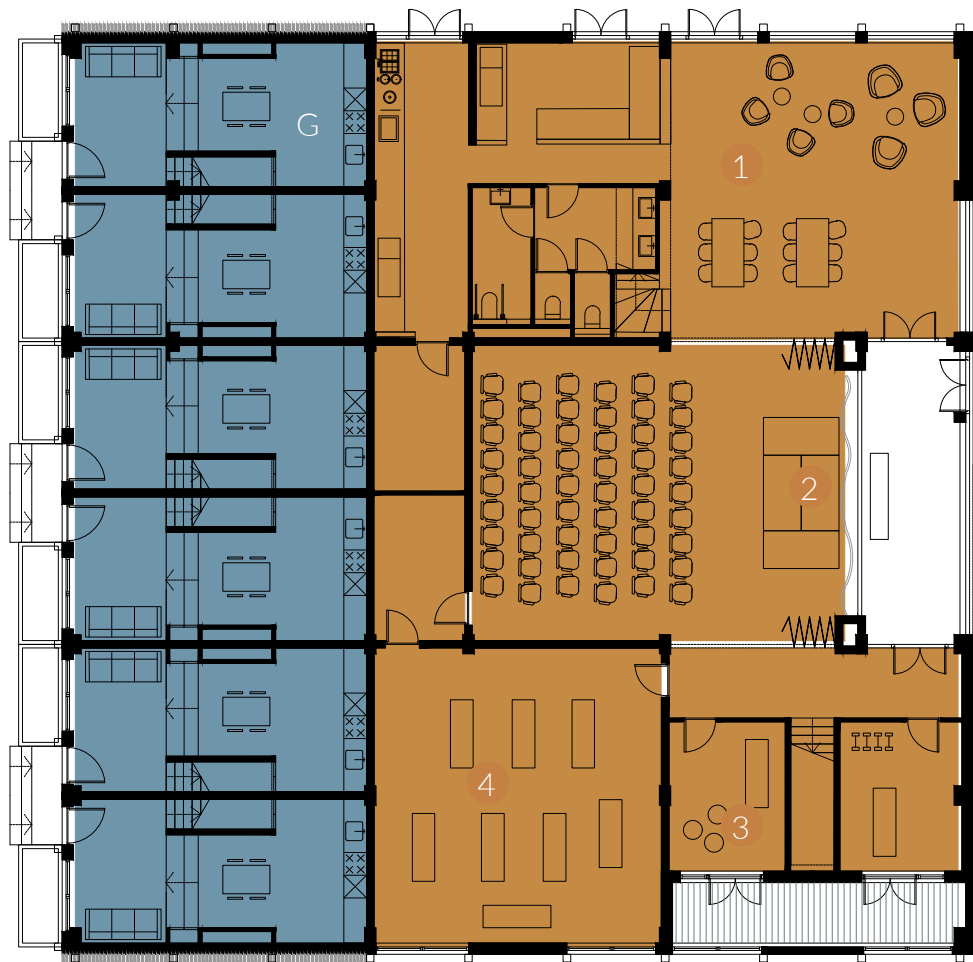
Level -1



Level 2

Program bar  
Per Floor





**Floor Plan (0)**



0 1 2 5m

**Public**

- 1 Cafe
- 2 Theater
- 3 Exercise studio
- 4 Yoga studio

**Collective:**

- 5 Lobby
- 6 Post collection
- 7 Bike repair
- 8 Waste collection



**Coliving:**

-

**Sharing:**

-

**Private:**

- G Garden type
- F Forest type



**Floor Plan (1)**

Public

Collective:

Coliving:

Sharing:

Private:



0 1 2 5m

- 1 Laundry room
- 2 Workspaces
- 3 Meeting room

- 4 Kitchen
- 5 Living room
- 6 Play room
- 7 Wintergarden

- 8 Kitchenette + Bathroom
- 9 Small room + Bathroom
- 10 Kitchenette
- 11 Library
- 12 Games

- Unit A: Square
- Unit B: L-shape
- Unit C: Bathroom
- Unit D: Open space
- Unit E: Separation





3 - Coliving kitchen - Cluster A



4 - Shared facilities in hallway - Cluster B



### Floor Plan (2)



01 2 5m

#### Collective:

- 1 Laundry room
- 2 Living room
- 3 Guest room

#### Coliving:

- 4 Kitchen
- 5 Living room
- 6 Play room
- 7 Wintergarden



### Floor Plan (3)



01 2 5m

#### Sharing:

- 8 Kitchenette + Bathroom
- 9 Small room + Bathroom
- 10 Kitchenette
- 11 Library
- 12 Games

#### Private:

- Unit A: Square
- Unit B: L-shape
- Unit C: Bathroom
- Unit D: Open space
- Unit E: Separation



**Floor Plan (4)**



0 1 2 5m

Public



Collective:

- 1 Laundry room
- 2 Living room
- 3 Garden plots
- 4 Street + vegetation

Coliving:



Sharing:

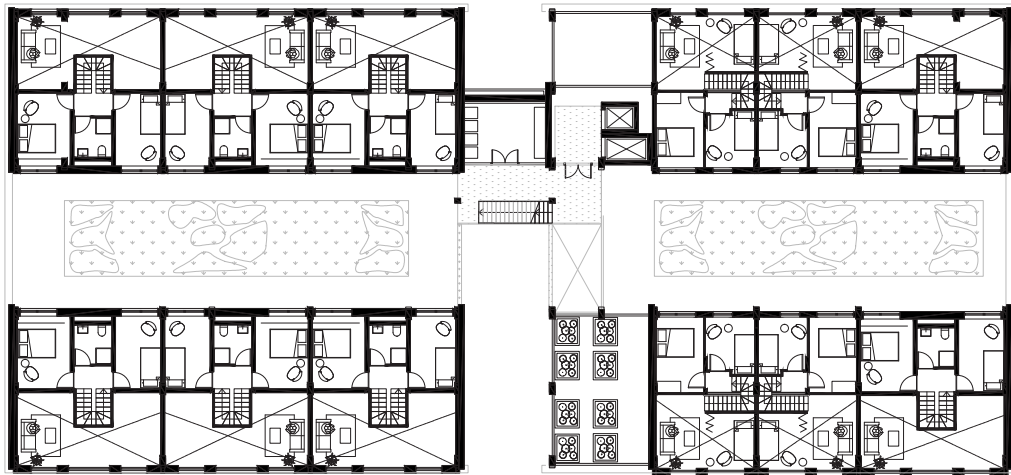


- 8 Streetrooms

Private:



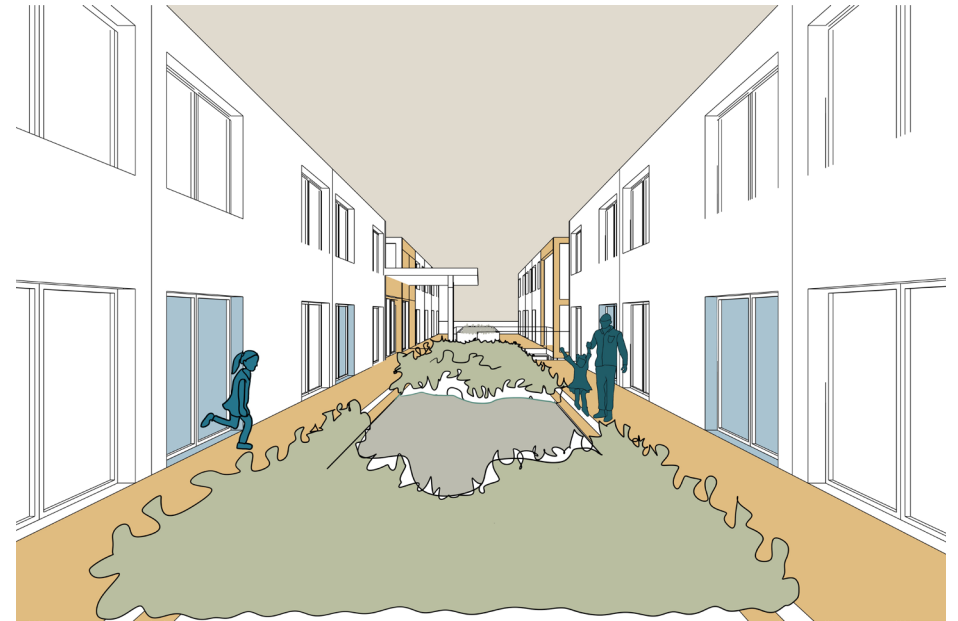
- Top Small
- Top Medium



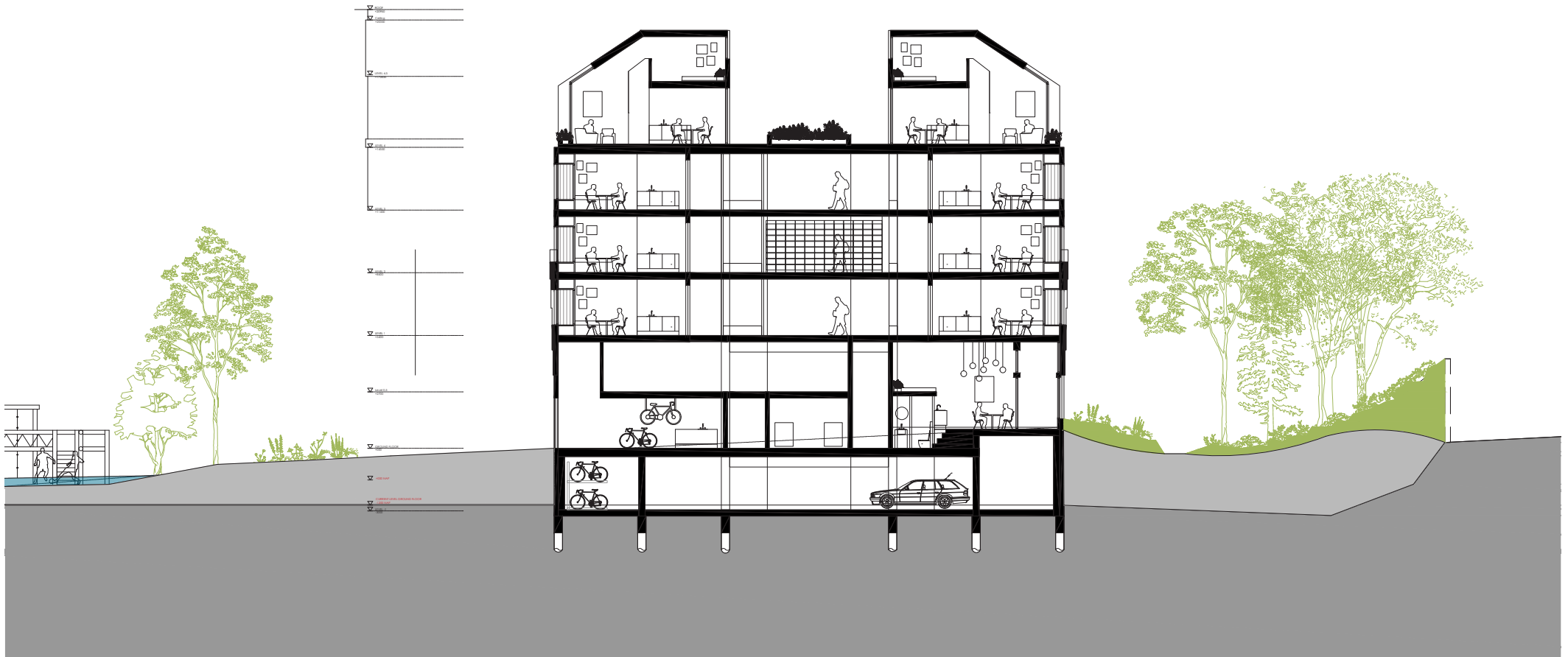
Floor Plan (5)



01 2 5m



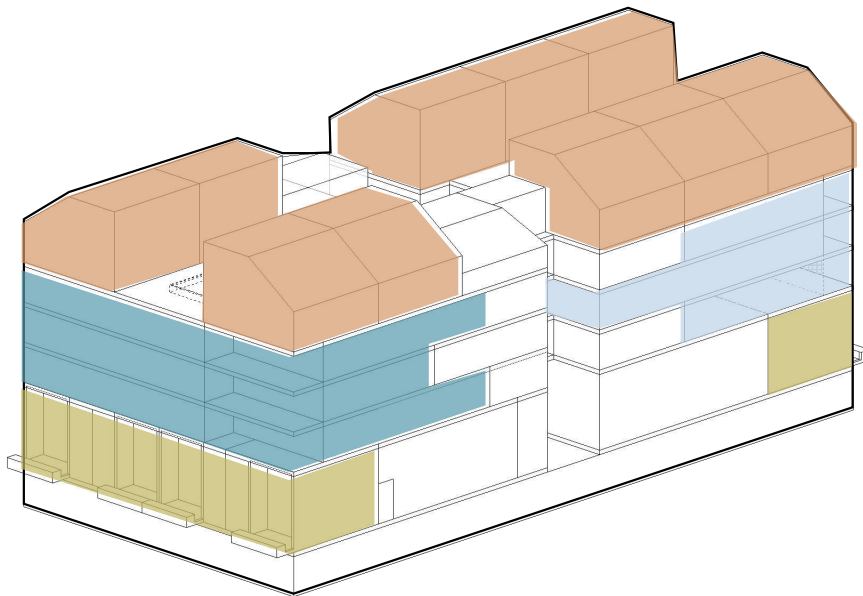
2 - Shared on collective street



**Section (A)**

North - South

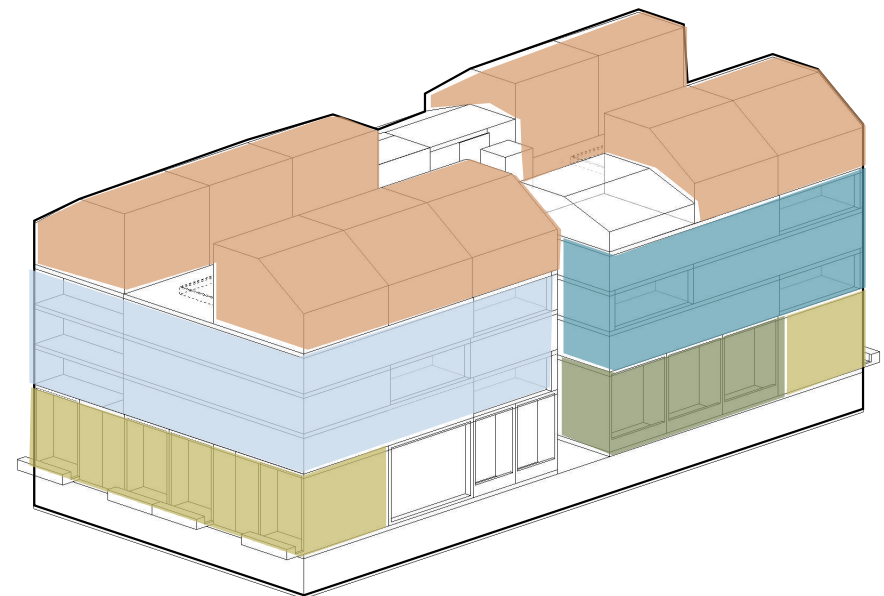
0 1 2 5m



1 - North

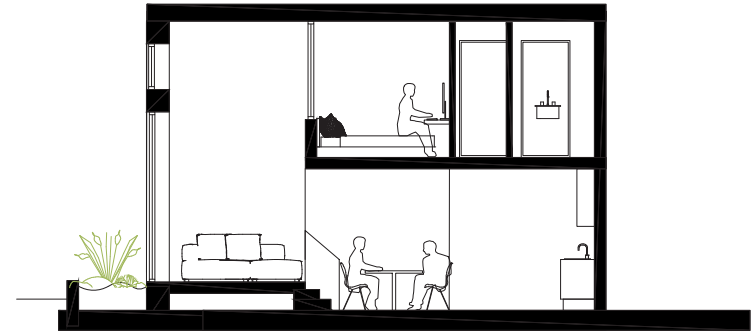
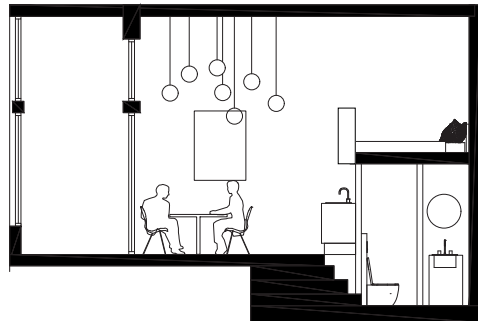
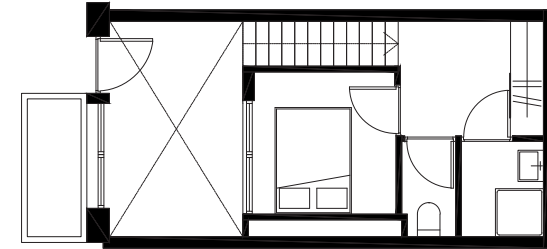
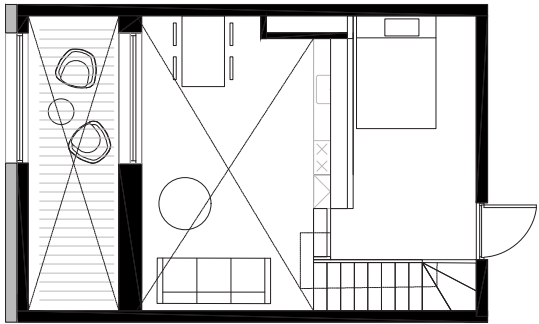
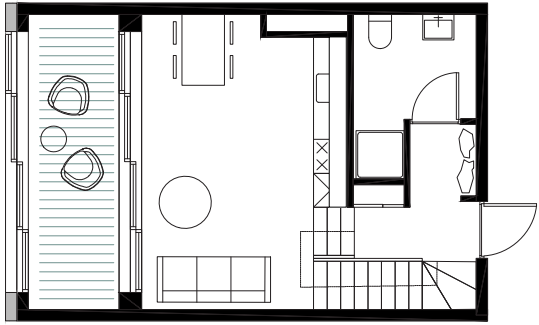
**Program**

Dwelling typologies



2 - South

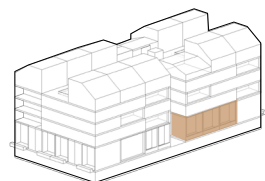
Types	Number	Area (m2)
Garden	12	47
Forest	3	44.2
CA Unit S1	10	20.5
CA Unit S2	6	23.2
CA Unit S3	10	17.1
CB Unit P1	14	29.1
CB Unit P2	6	28.7
Top S	4	61.4
Top M	8	70.8
<b>Total</b>	<b>73</b>	



**Forest Type**

Target: Starter

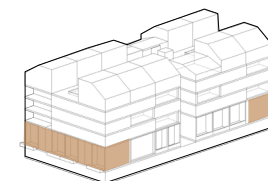
0 1 2 4m



**Garden Type**

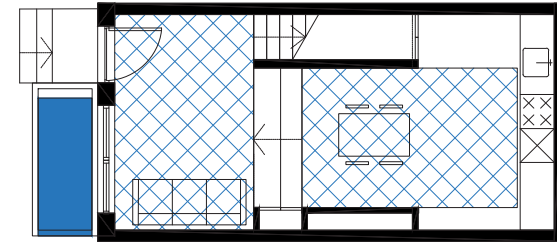
Target: Starter

0 1 2 4m



Garden as extension of the living space

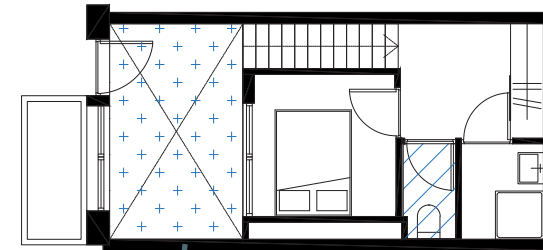
(0)



Similar room sizes

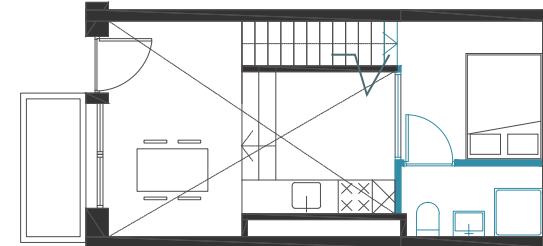
M3 vs M2

(1)



Separate toilet

Loft to be determined



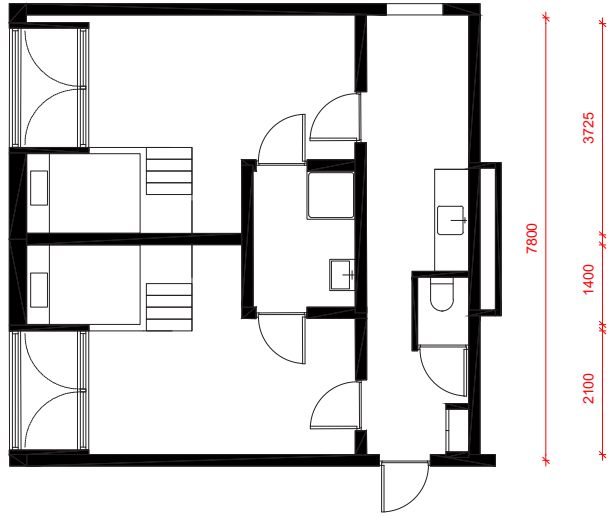
### Garden Type

Spatial concept

0 1 2 4m



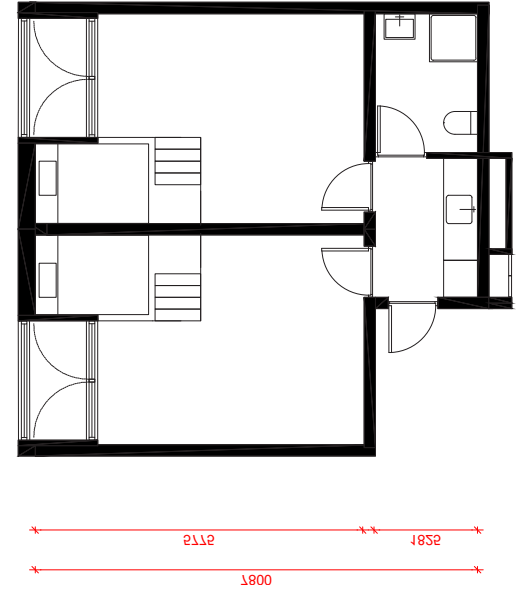
(A)



(B)



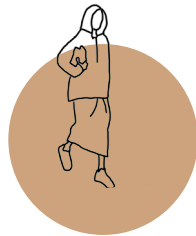
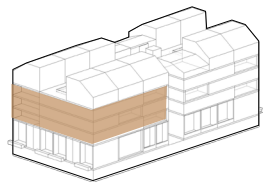
(C)

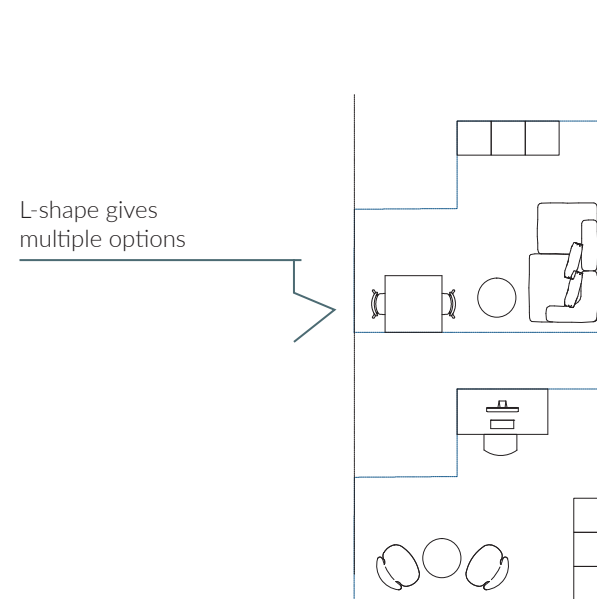
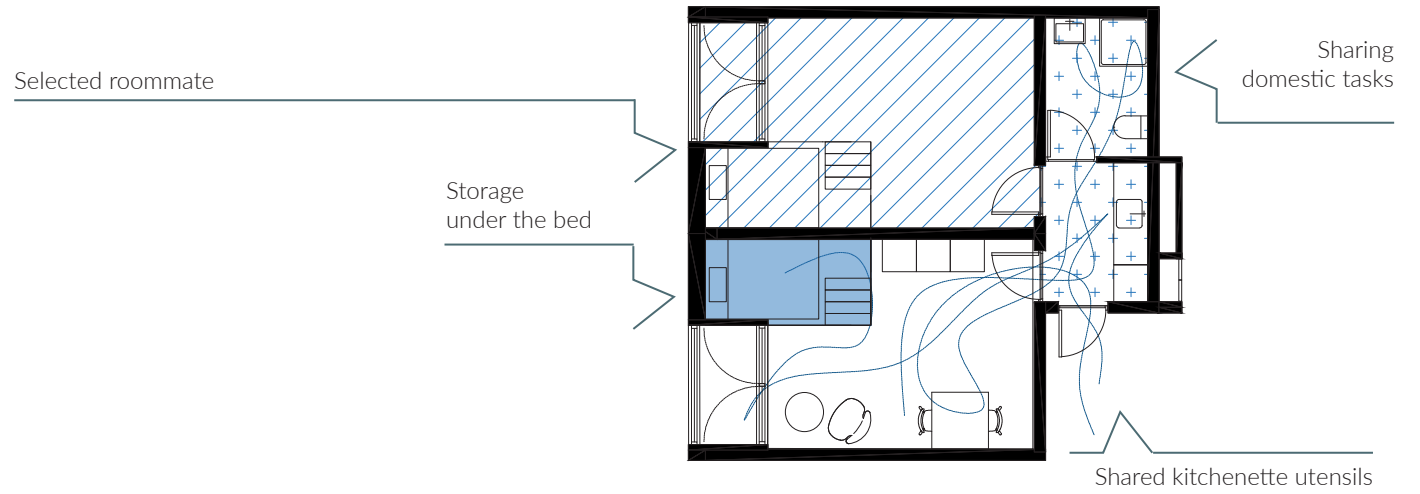


### Cluster A - Shared

Target: Middle aged adults

0 1 2 4m



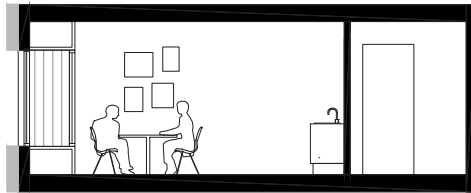
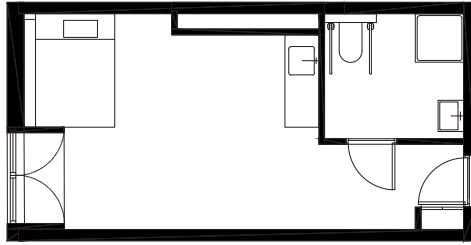


### Cluster A

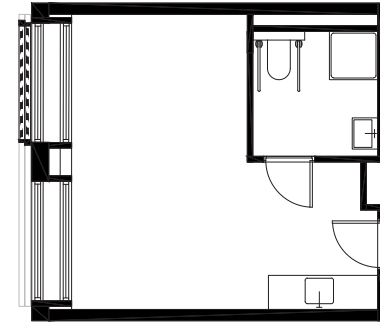
Spatial concept



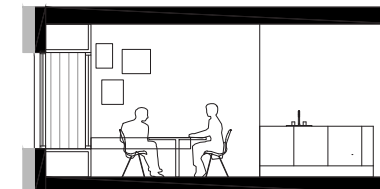
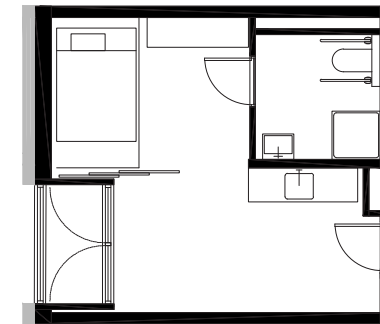
(A)



(B)



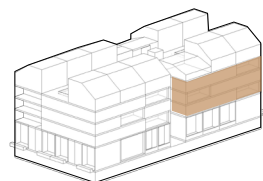
(C)

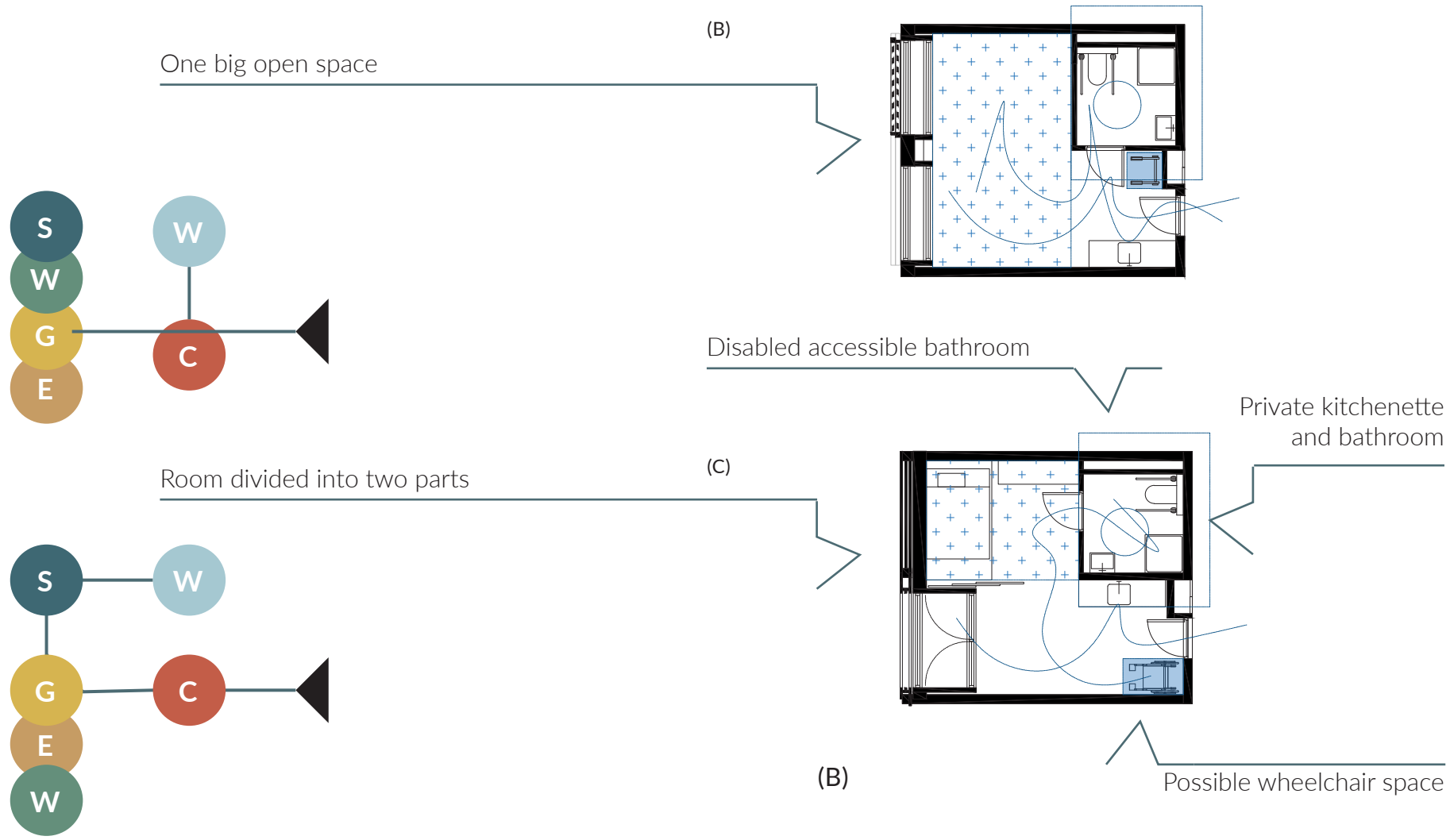


**Cluster B - Individual**

Target: Elderly

|   |   |   |  
 0   1   2   4m



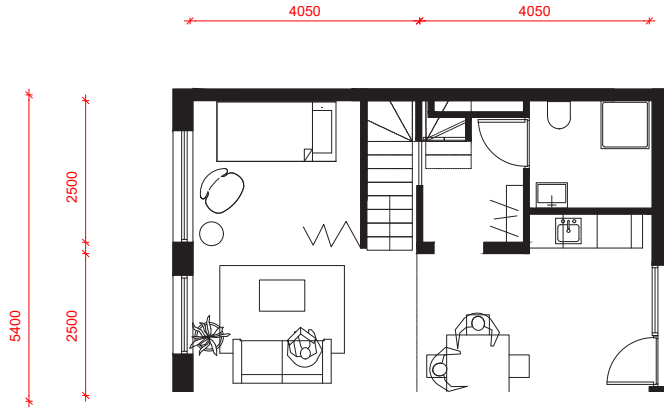


**Cluster B - Individual**

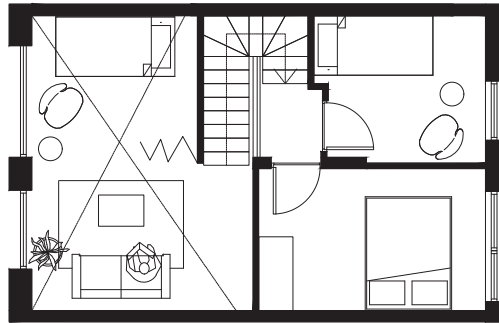
Spatial concept



(0)

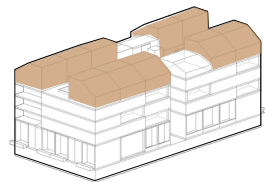


(1)

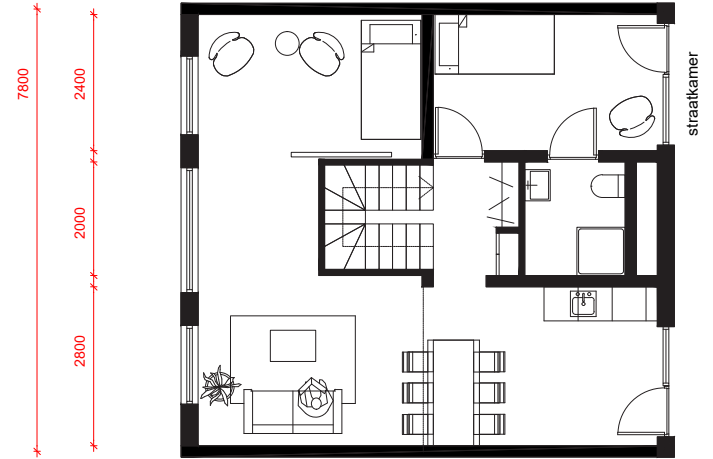


**Topper (small)**

Target: Single parent



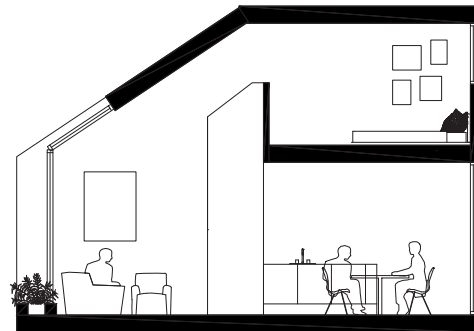
(0)

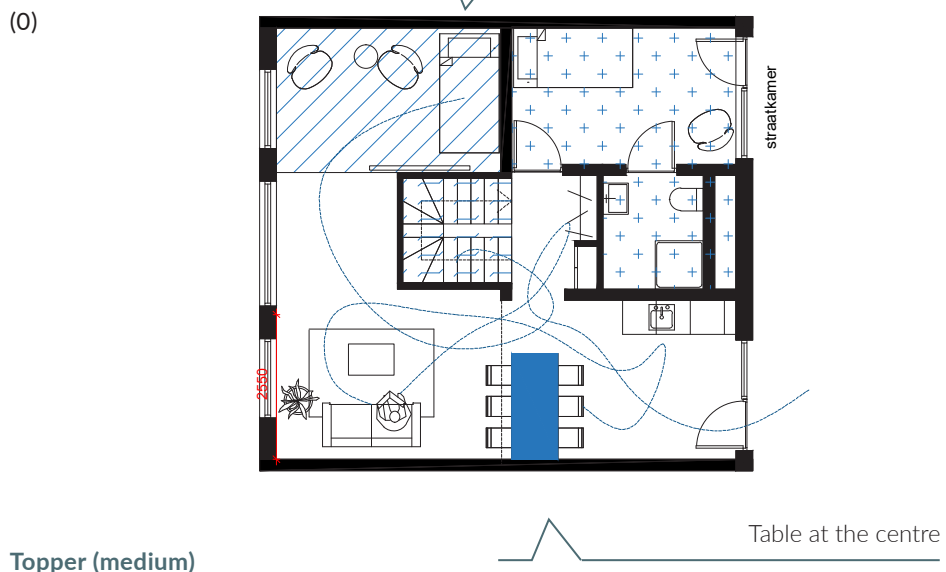
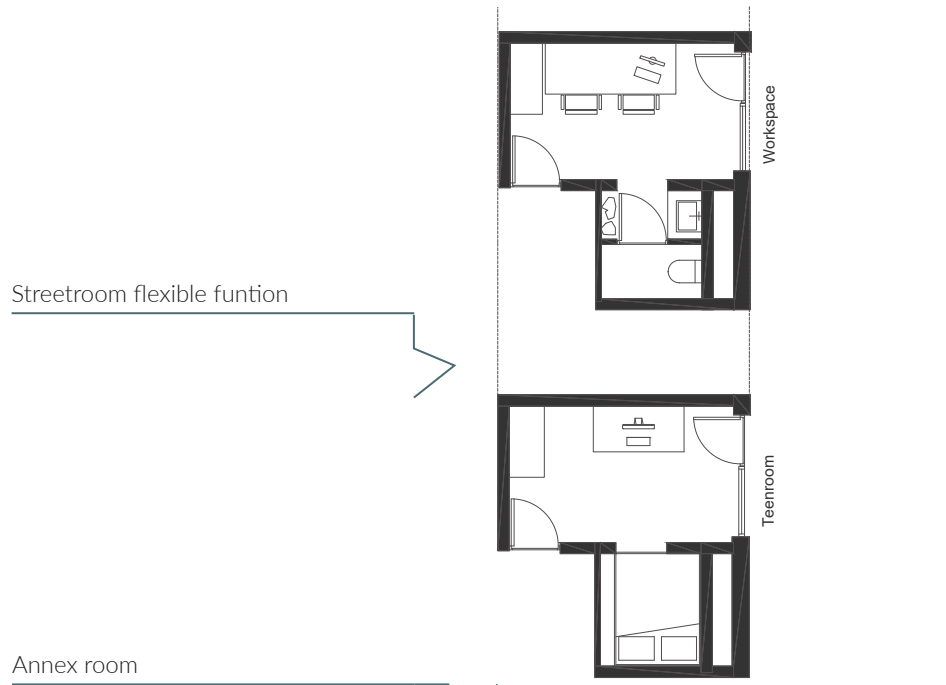


(1)

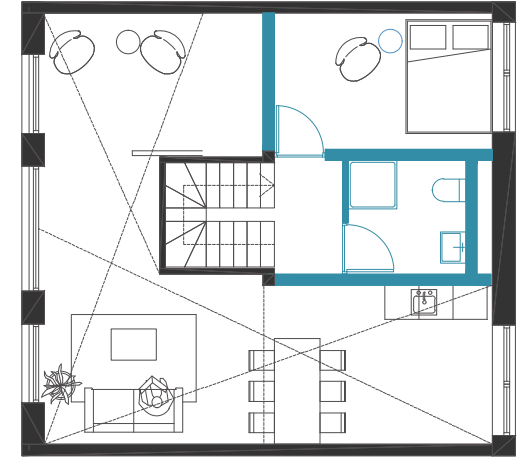


**Topper (medium)**



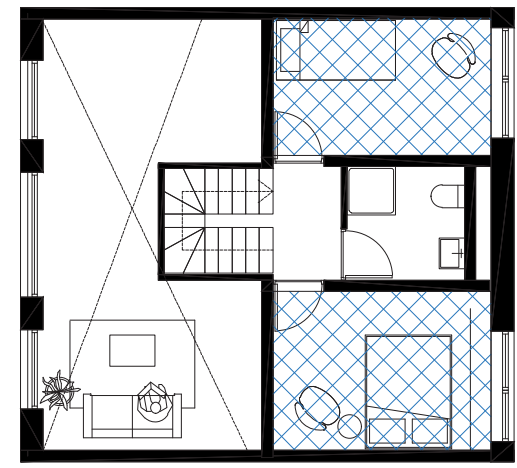


**Topper (medium)**  
Spatial concepts

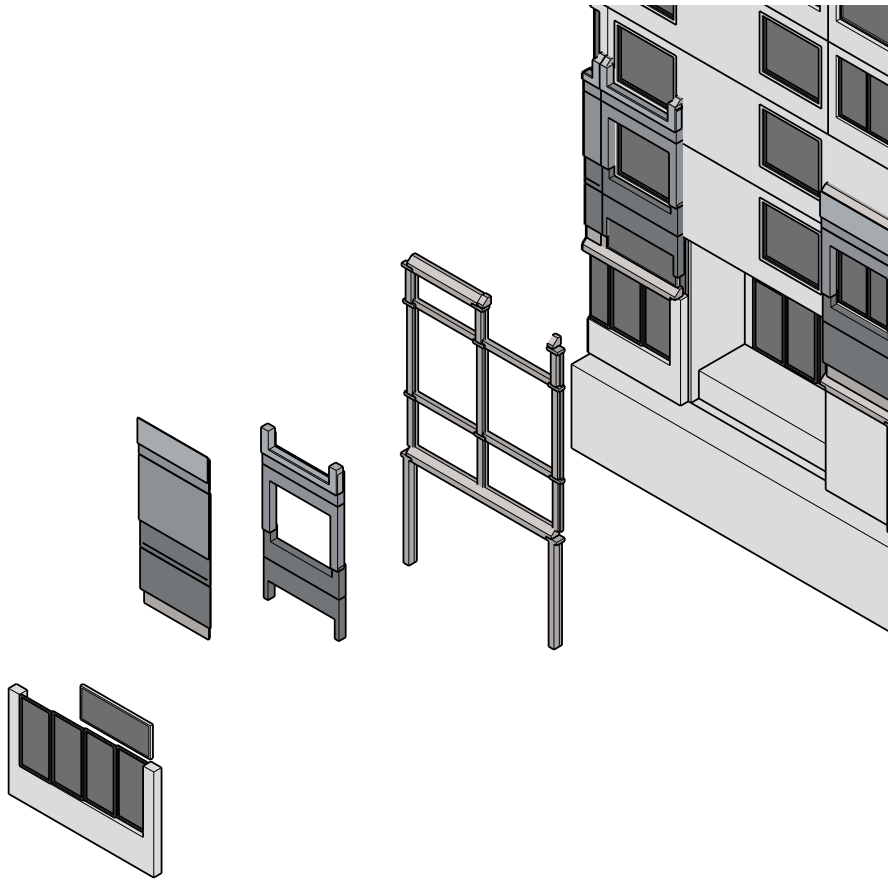


Casco to be determined

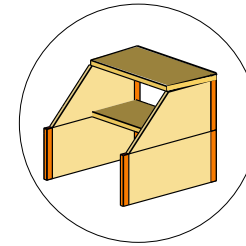
(1)



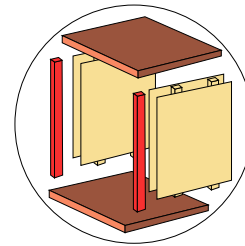
Similar bedroom sizes



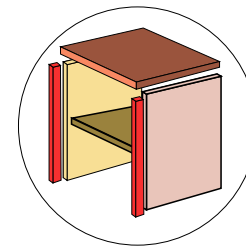
**Facade construction**  
Axonometric



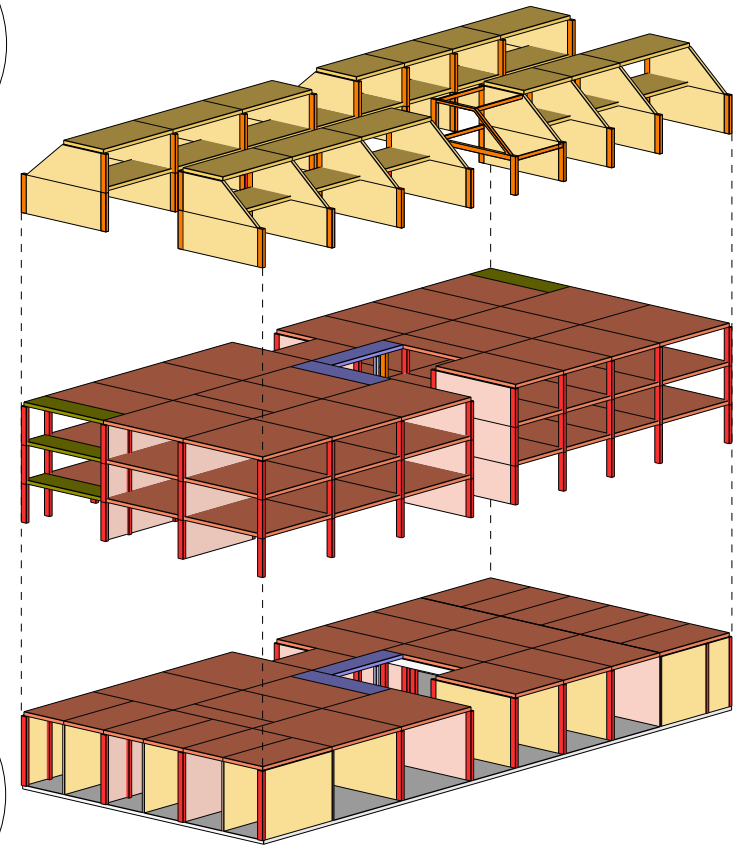
CLT  
self-contained top  
construction



Concrete  
Flexible column  
structure with panels



Concrete  
Table top ground floor  
with CLT Loft boxes



**Structure**  
Axonometric

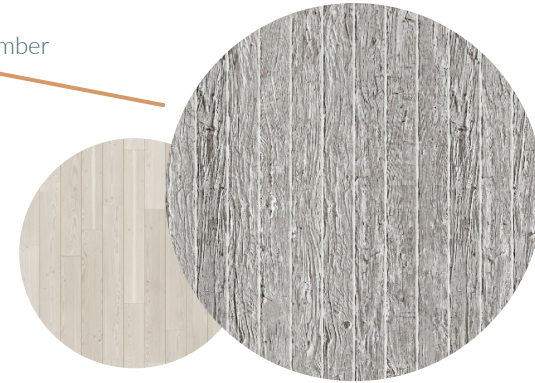


Materialization

0 0.5 1 2m

**Wood**

Weathered Timber Stack



Reclaimed wood reduces the devastating effects of deforestation. In addition, it has a sustainable impact, it ensures that valuable resources are not depleted and reuses untreated wood that was deemed unworthy.

**Wood-Concrete**

Panels made out mix of 75% wood fibers and cement

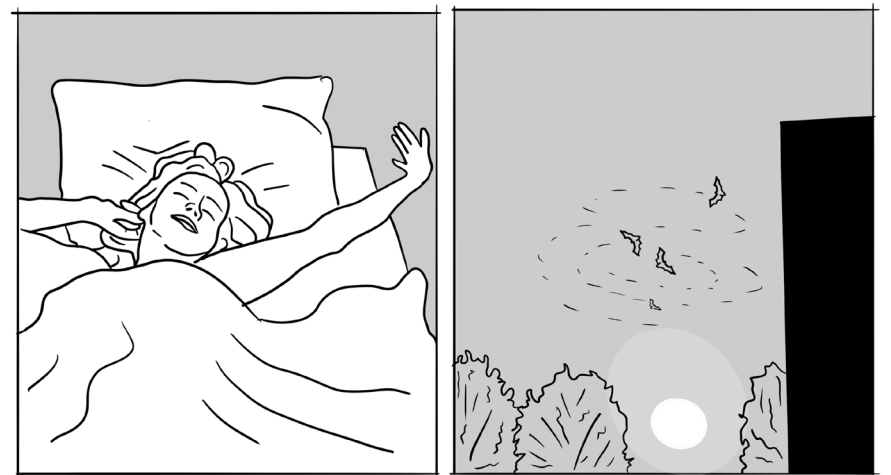
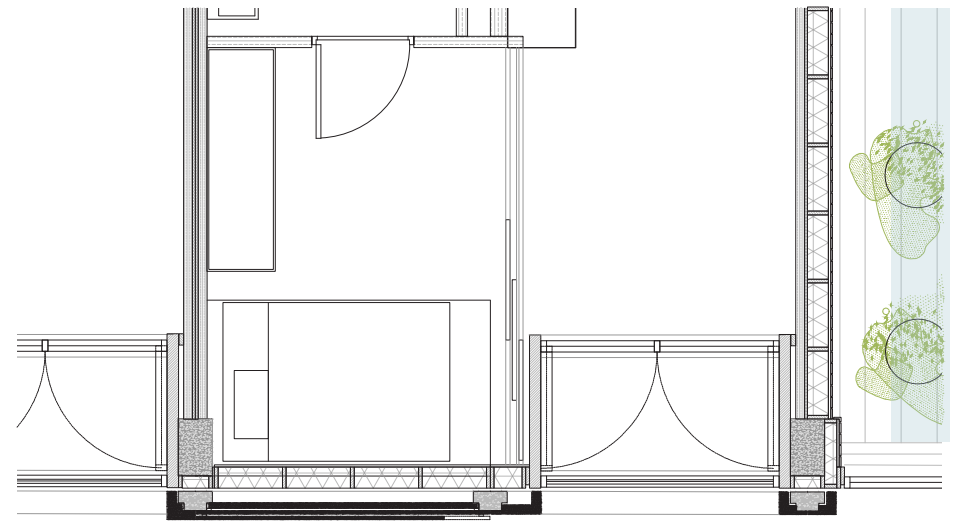


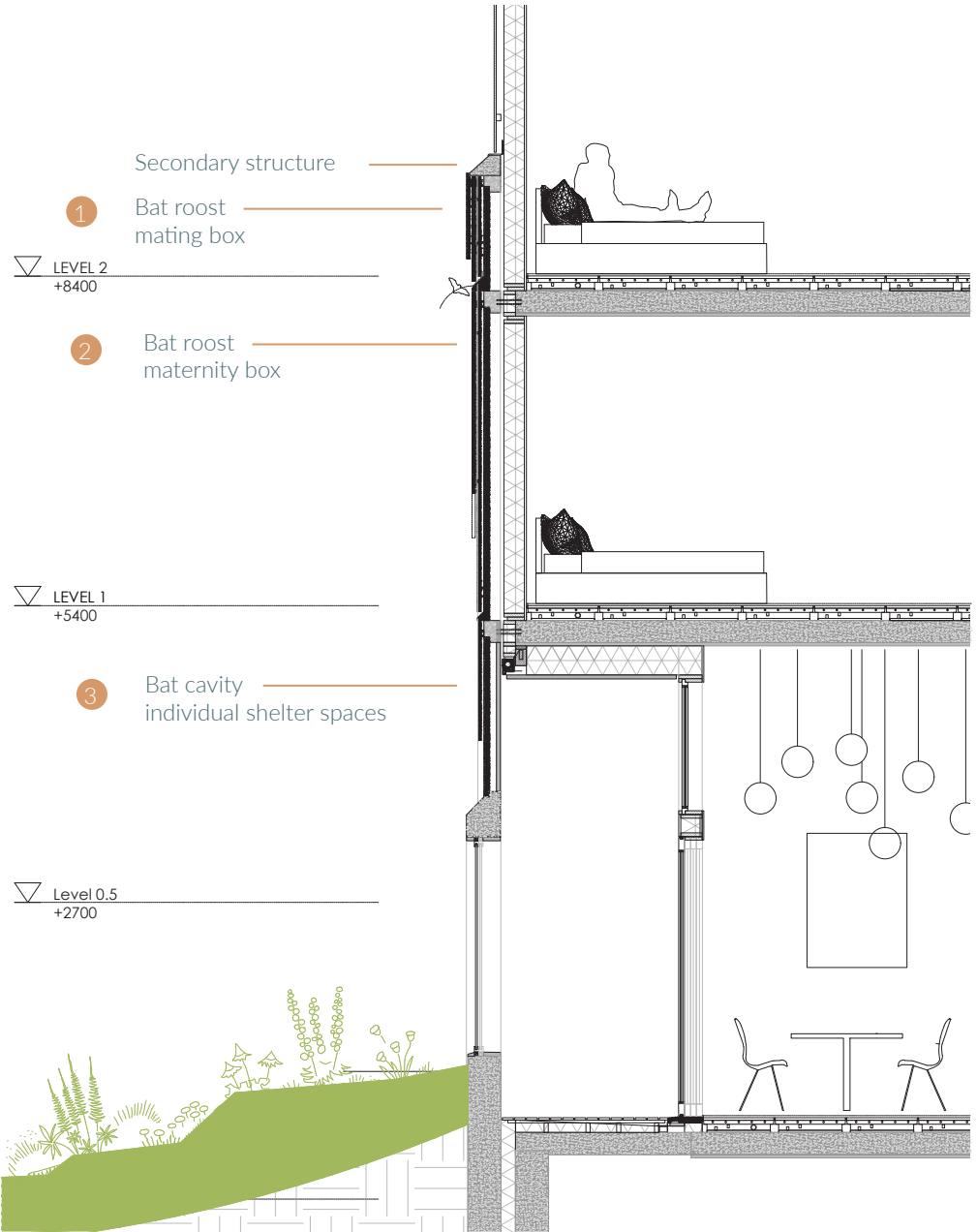
Bats need thermal protection and a rough material to maintain grip. By mixing wood fibers in the concrete, the material becomes rougher. Making separate panels ensures that the facade can be maintained and reused more sustainably.





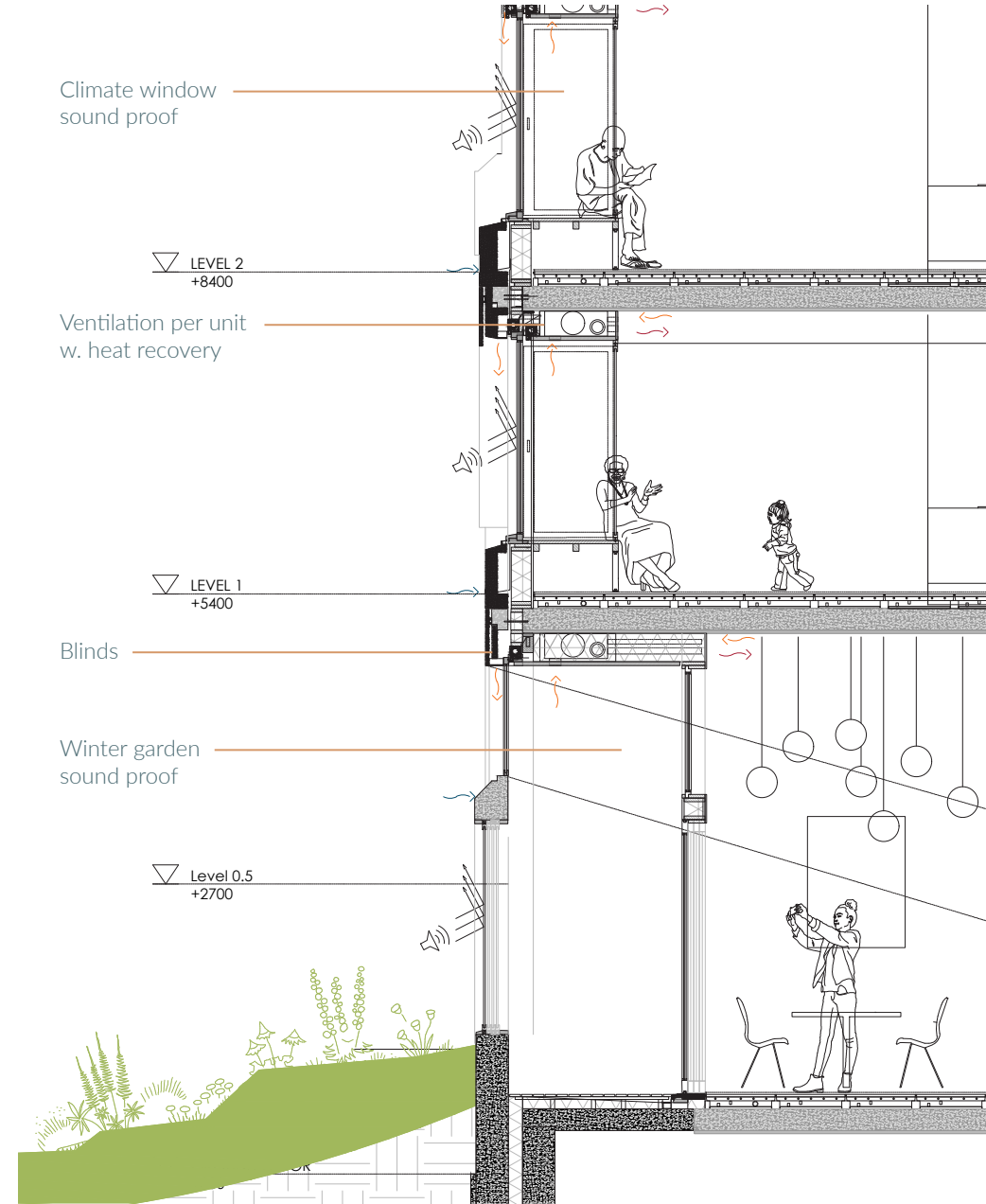
0 0.5 1 2m





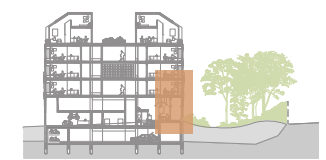
**Fragment A**

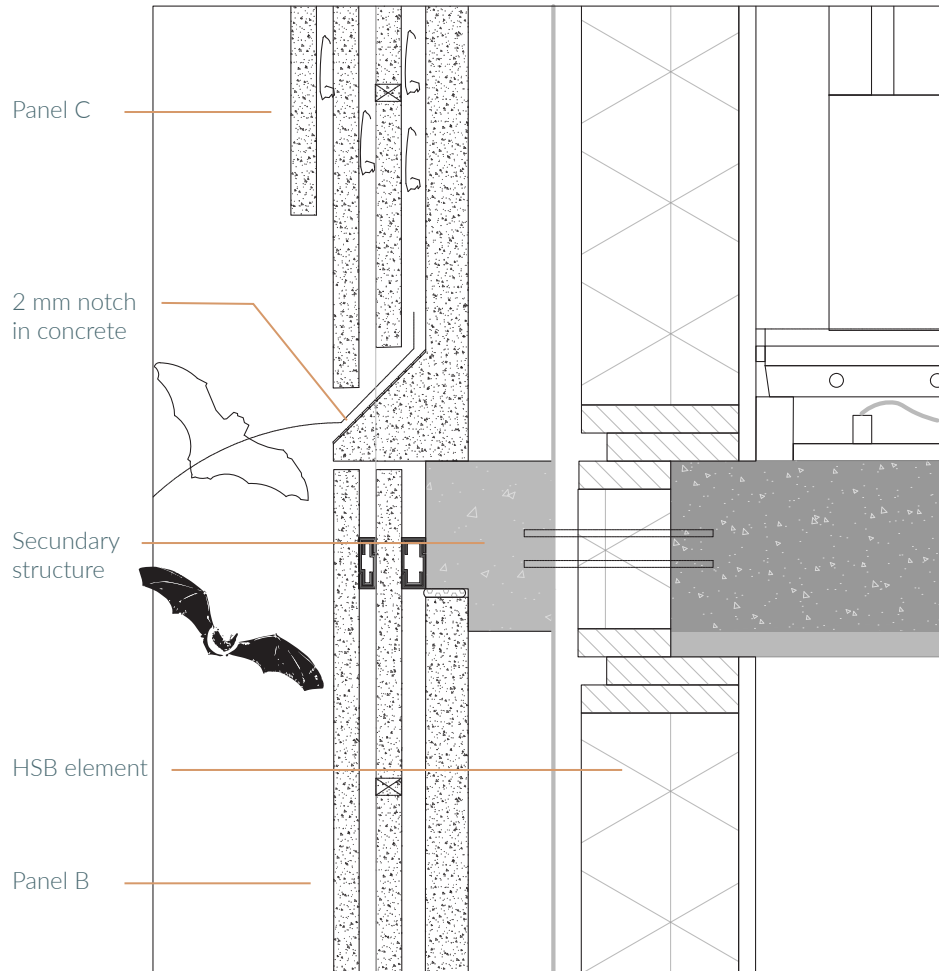
Closed facade



**Fragment B**

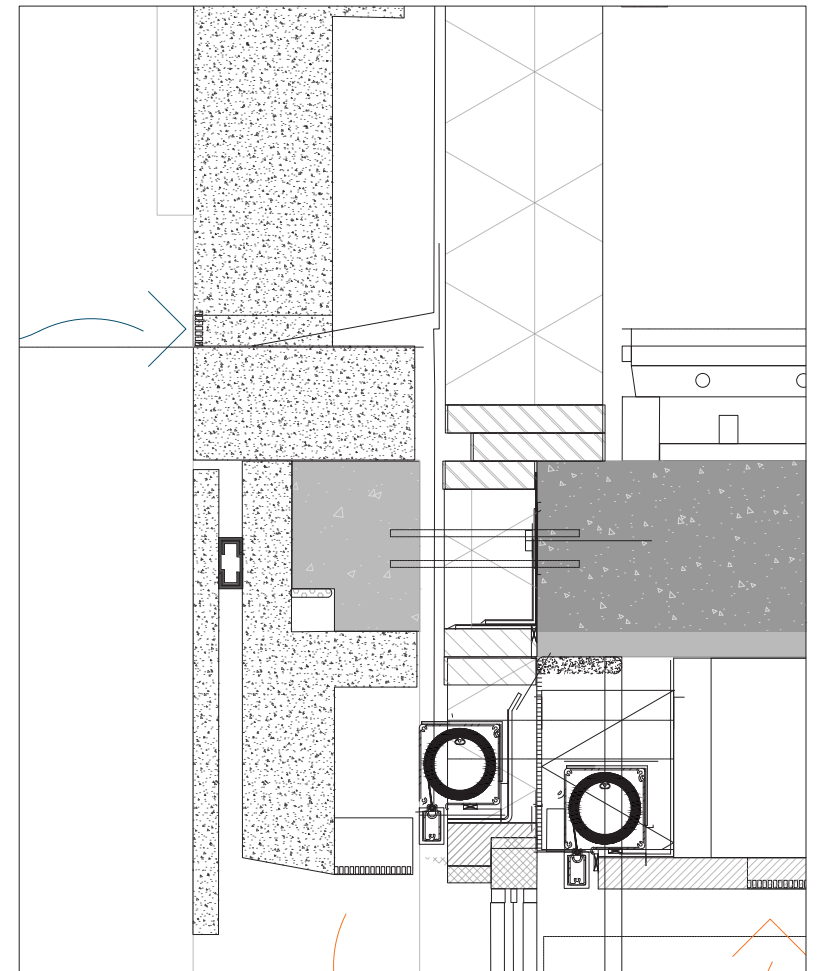
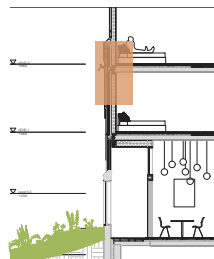
Open Facade





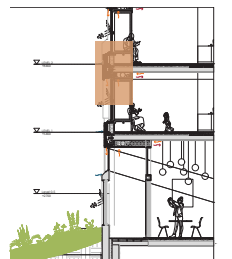
**Facade Detail**  
Bat roost entrance

0 50 100 200mm



**Facade Detail**  
Interior blind and sunblind

0 50 100 200mm





9AM



12AM

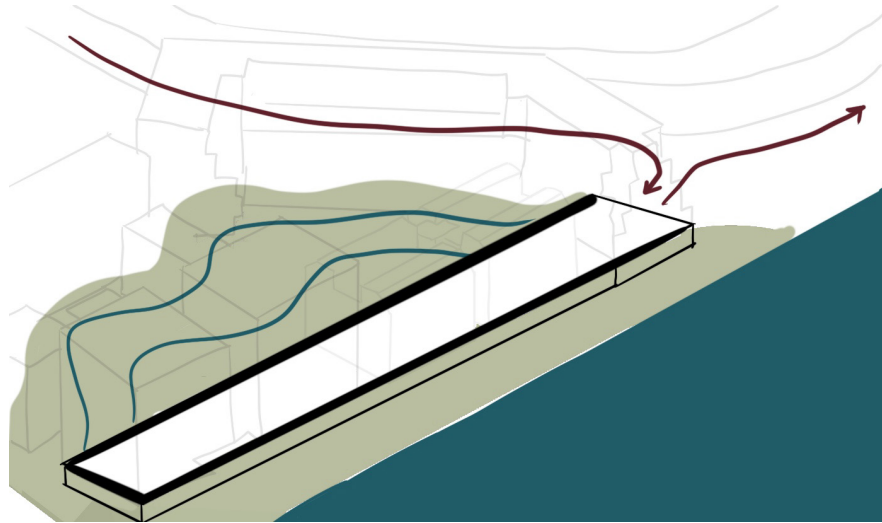


6PM

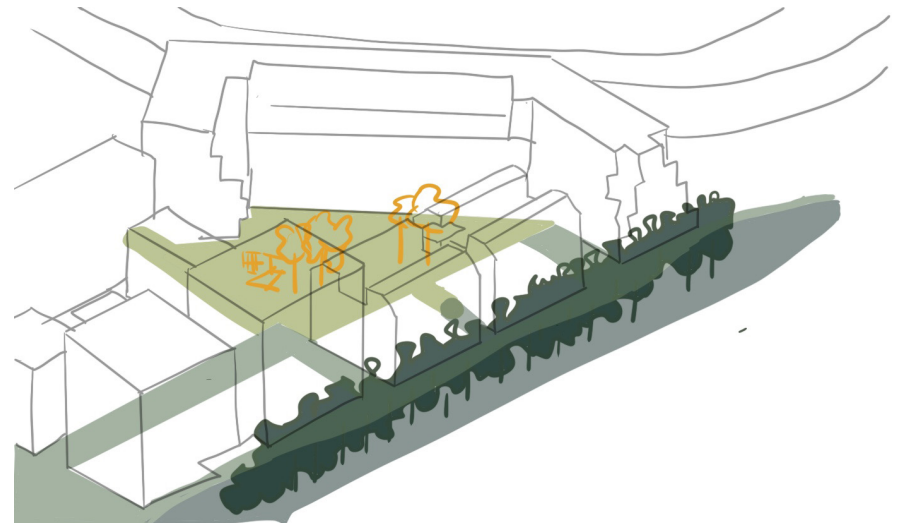
- JANUARY
- JUNE
- SEPTEMBER

**Climate design**  
Sunstudy

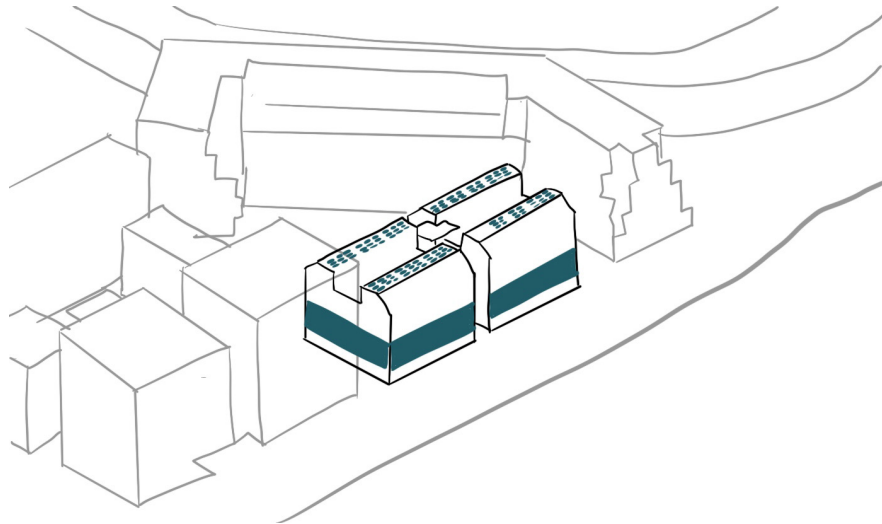




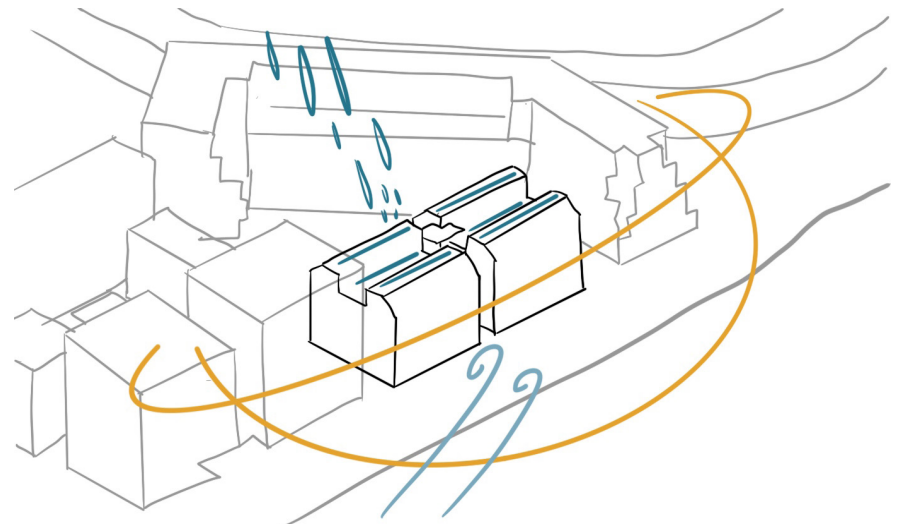
1 - A-biotic



2 - Biotic



3 - Technical



4 - Atmospherical

1 ENERGY

Solar panels on collective spaces to charge shared cars

Solar panels on top dwellings to make them selfsufficient.

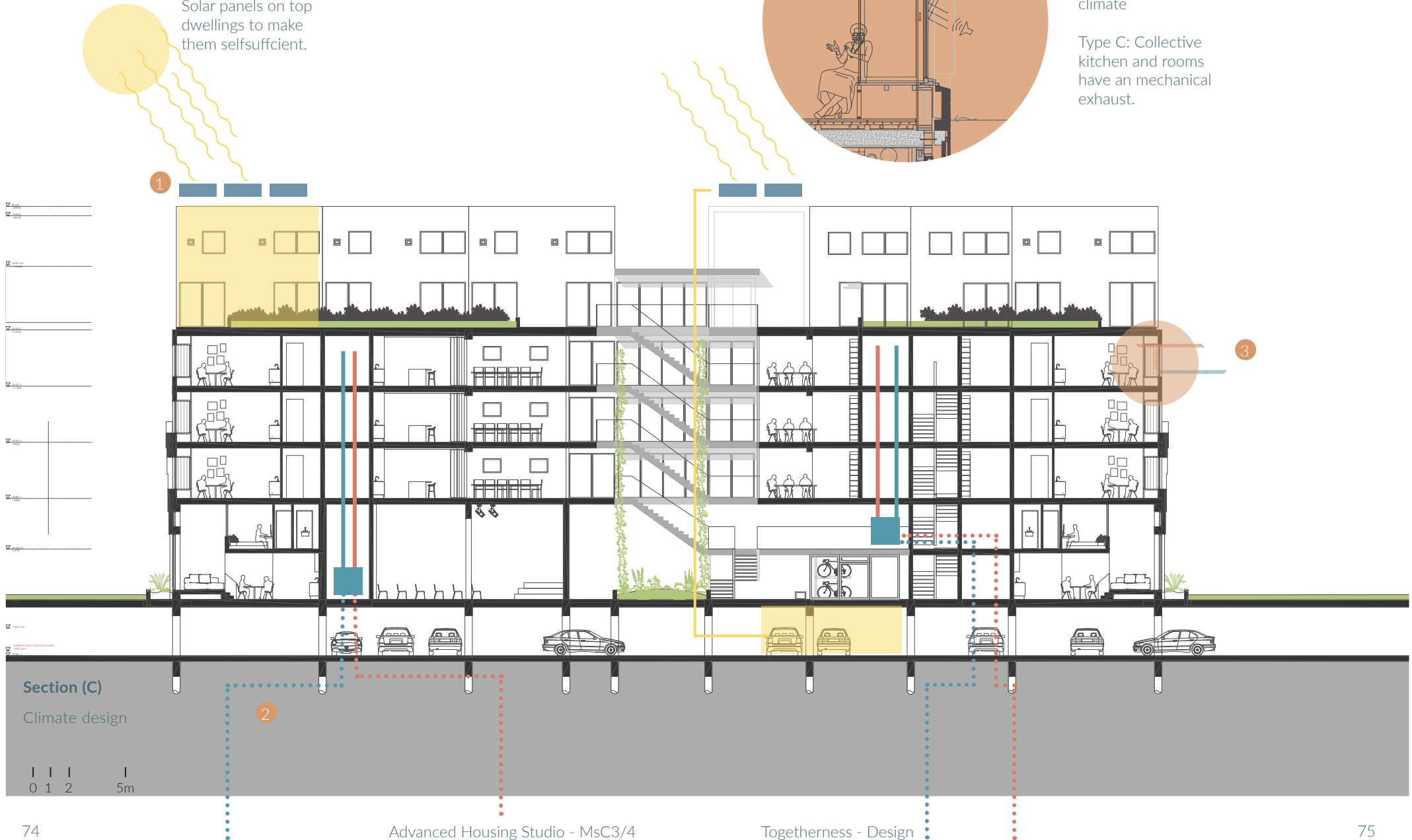
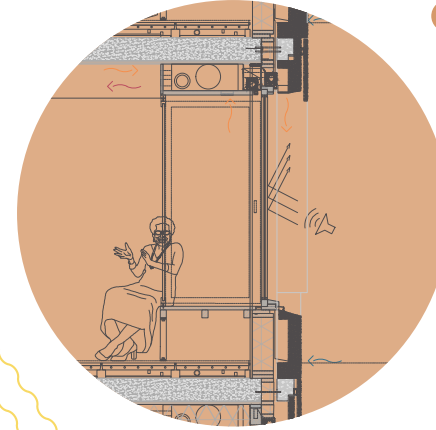
2 HEAT

Heat pump systems distributed by block

3 VENTILATION

Type D: Each personal unit has their own ventilation system to regulate the indoor climate

Type C: Collective kitchen and rooms have an mechanical exhaust.



Section (C)  
Climate design

0 1 2 5m

