




THE CITY - PLACE FOR ALL

Exploring the possibilities to attract families back in the city through the case of the Expat families

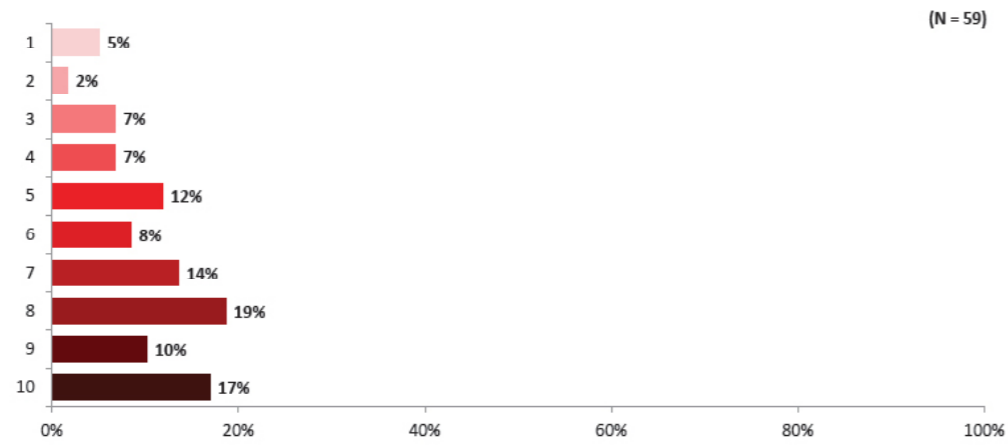
Mihaela Tomova
Student ID: 5091985



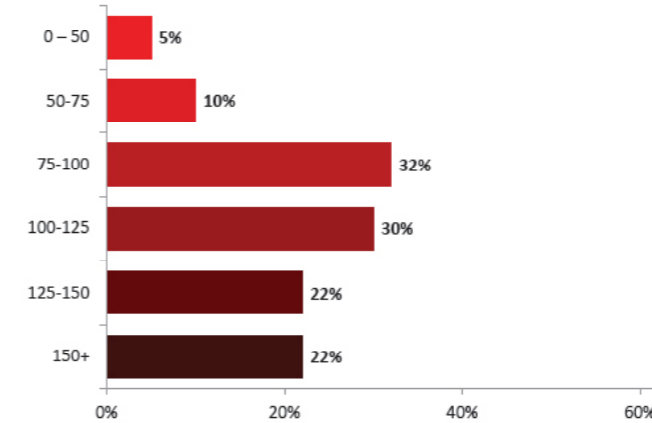
TARGET GROUP

		
<p>Household type: married/unmarried couple without children</p>	<p>Household type: married/unmarried couple with 1 or more children (family)</p>	<p>Household type: single parent with 1 or more children</p>
<p>Dwelling type: one level - compact Dwelling size: 50 - 80 m² Bedrooms: 1- 2</p>	<p>Dwelling type: one or two - levels (loft) Dwelling size: 85 - 160 m² Bedrooms: 2 or more</p>	<p>Dwelling type: one level - compact Dwelling size: 50-80 m² Bedrooms: 2 or more</p>
<p>Shared spaces: kitchen, event space, shared working space, exercise room Facilities: shops, cafe</p>	<p>Shared spaces: playgrounds, play rooms, multifunctional zones, exercise room Facilities: children daycare, shops</p>	<p>Shared spaces: playgrounds, play rooms, multifunctional zones, exercise room Facilities: children daycare, shops</p>

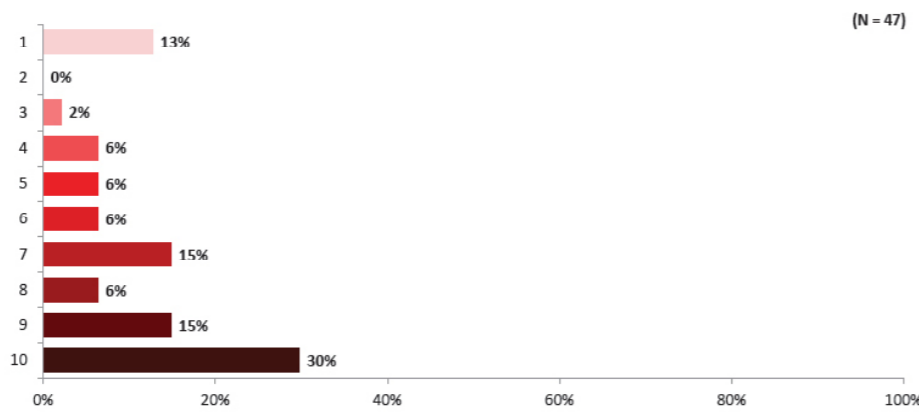
TARGET GROUP - QUESTIONNAIRE



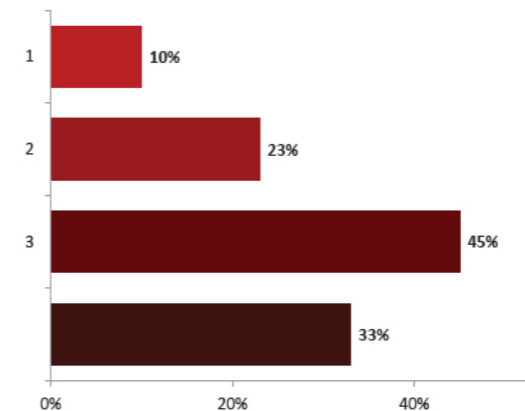
Results from rating (1 - 10) the importance of having a shared outdoor space



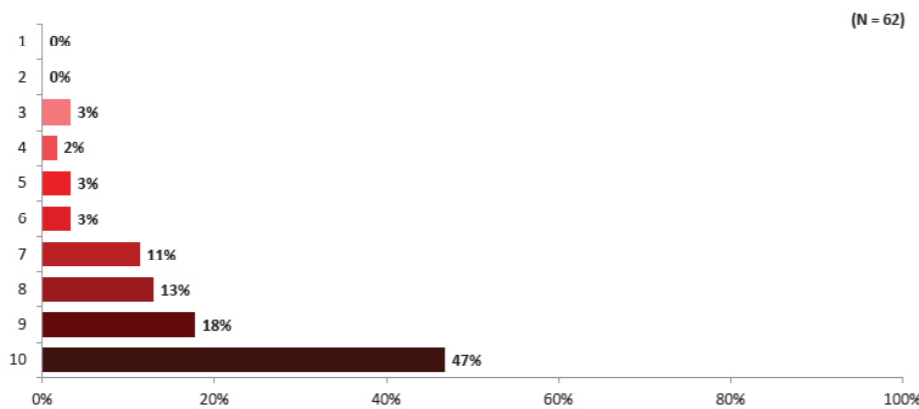
Responses to the question "How many square meters do you need?"



Results from rating (1 - 10) the importance of having playgrounds as shared facility



Responses to the question "How many bedrooms do you need?"

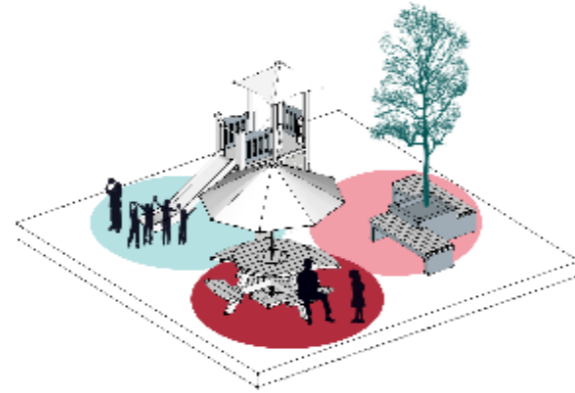


Results from rating (1 - 10) the importance of having a private outdoor space

DESIGN STRATEGY BASED ON RESEARCH

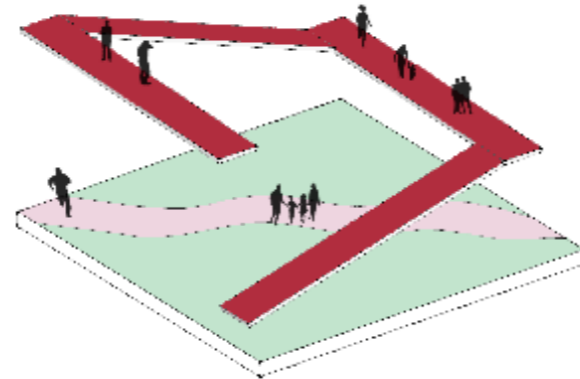
MULTIFUNCTIONAL ZONE

The multifunctional zones allow interactions between parents and in between children. The literature research shows that parents would like to have something to do while watching their children play on the playground. Therefore, the multifunctional zone can give them the freedom to work, interact with other parents, do sports or relax.



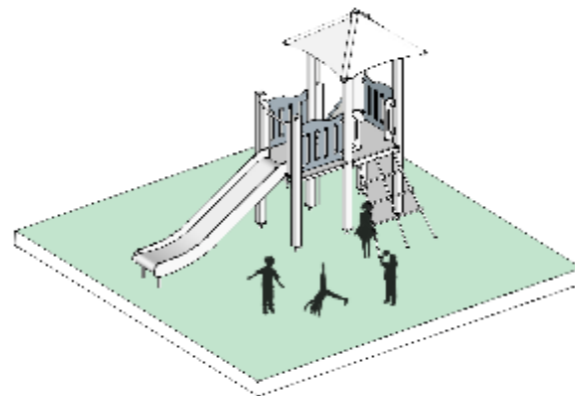
PATHS

The paths are interesting way to stimulate the interaction between the residents. The design for M4H allows for both horizontal and vertical paths. In the research by Marcus, residents say that the corridors allow for informal social interactions which makes them closer to their neighbours. On the other hand, the children's ideal neighbourhood also includes a lot of paths, which they see as opportunity of exploration.



PLAYGROUNDS

The playgrounds are zones purely designed for children. However, they should be part of multifunctional zones where parents can do something else as well. The playgrounds can hold children in different age groups but in general only children up to 12 years old are interested in the play grounds.



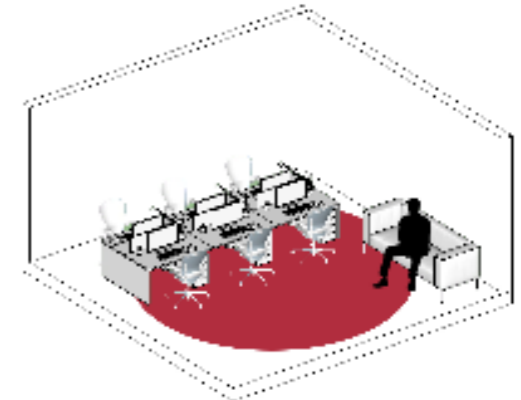
WILD ZONES

The wild zones will also be designed for children and specifically their curiosity and desire to explore. The idea of the wild zone is to provide a green space where children can connect to nature. There are a lot of positive aspects which green brings to development of the children - better concentration, friendliness, healthy environment.



STUDY/OFFICE SPACE

The study and office space will be designed for parents and older children which can study together and invite friends. From the interviews it can be concluded that most of the mothers work from home, not only during the pandemics. Therefore, a working space which is visually connected with the play room can allow better working environment for the parents who work from home.



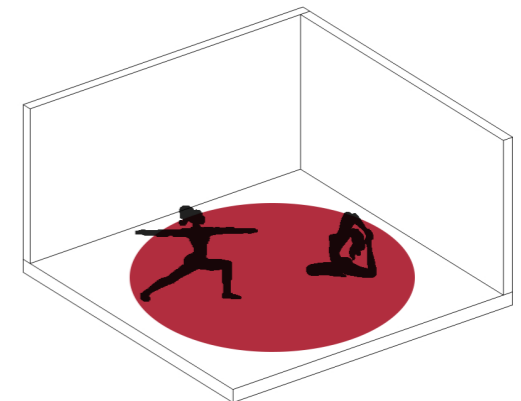
MULTI-FUNCTIONAL ZONE

The inside multifunctional zone has the same principles as the outside multifunctional zone. It should allow parents and children to gather together. The space can be designed as flexible, therefore it can also be used as an event room for the community. For example it can be used as a National day celebration of the different cultures, International food event etc.



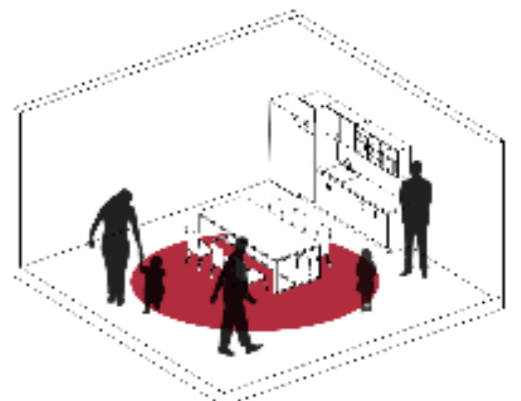
EXERCISE ROOM/GYM

The exercise room will be a flexible space dedicated to sport and sport classes. It is mainly for the parents but can be designed as such to have a visual connection to the play zone. This way parents can have an activity while their children are playing.

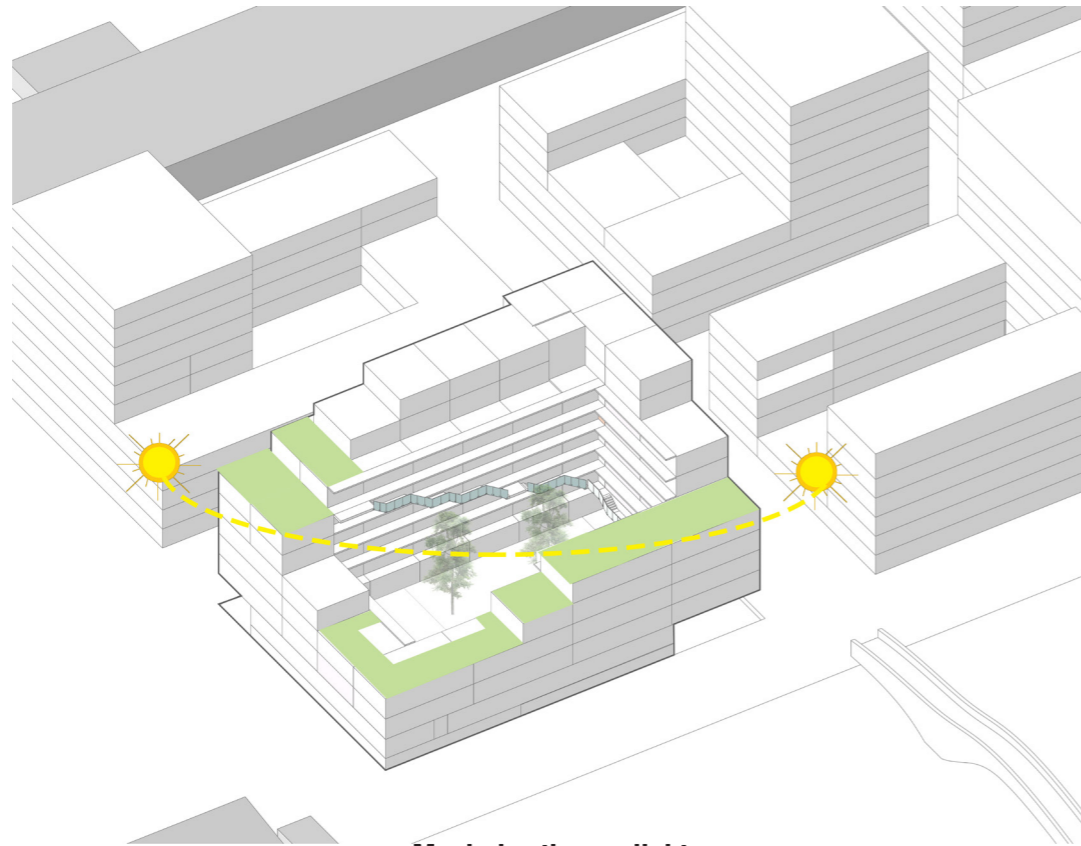


KITCHEN/EVENT PLACE

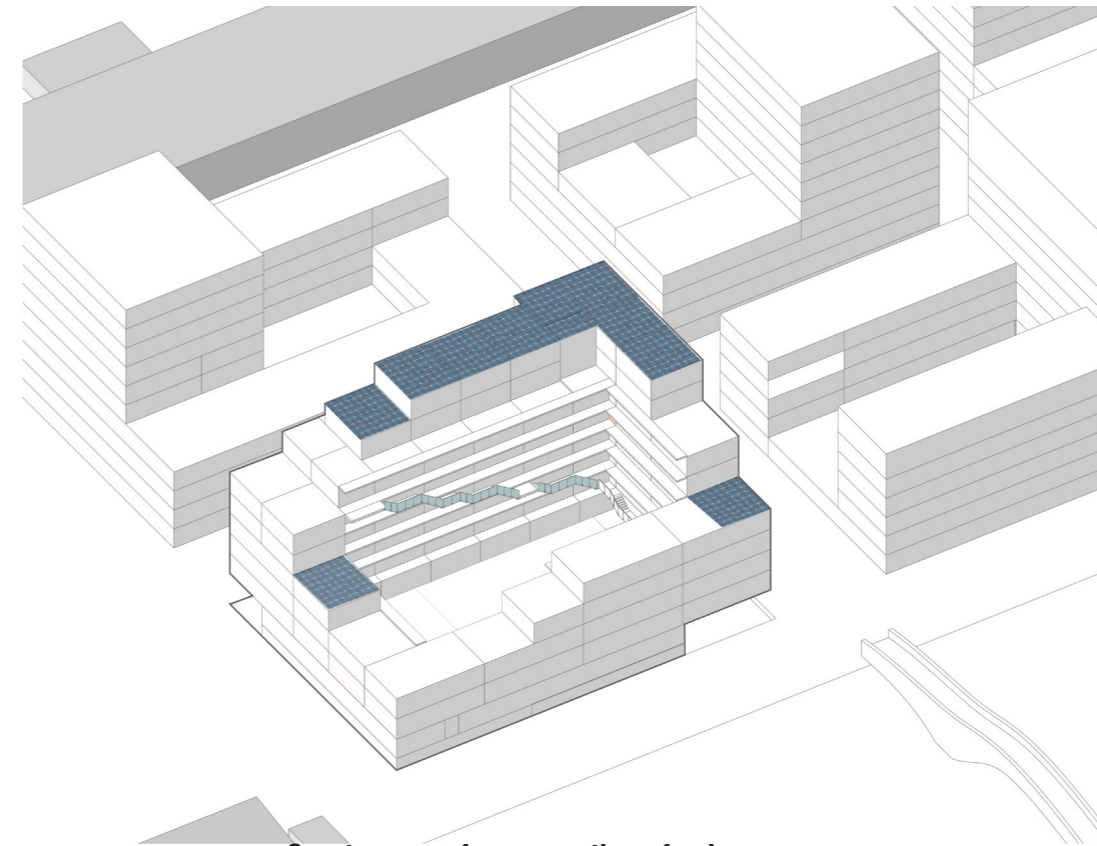
The kitchen will be the place for families to gather together. The kitchen can serve the cluster and can be also used as an event space. In most cohousing projects the cluster kitchen is used for informal gatherings and communication, while when there is an event for the whole community, then the multi-functional zone will be used.



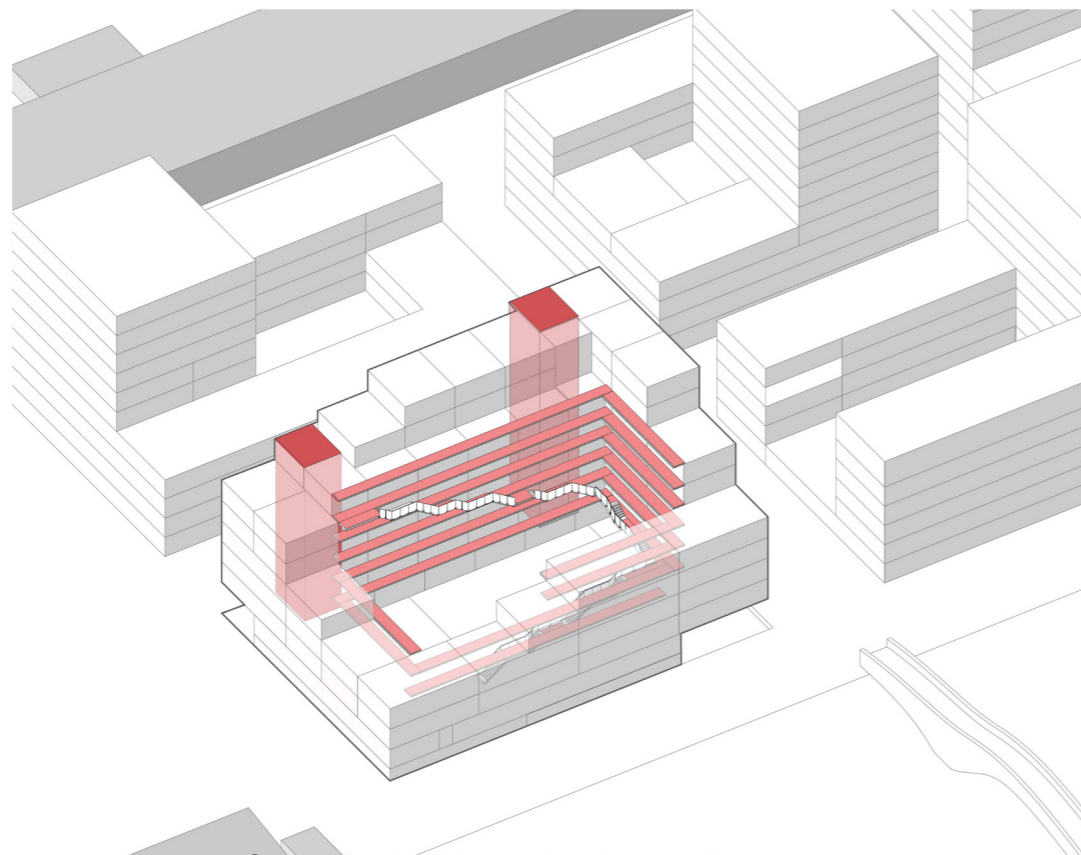
DESIGN STRATEGY



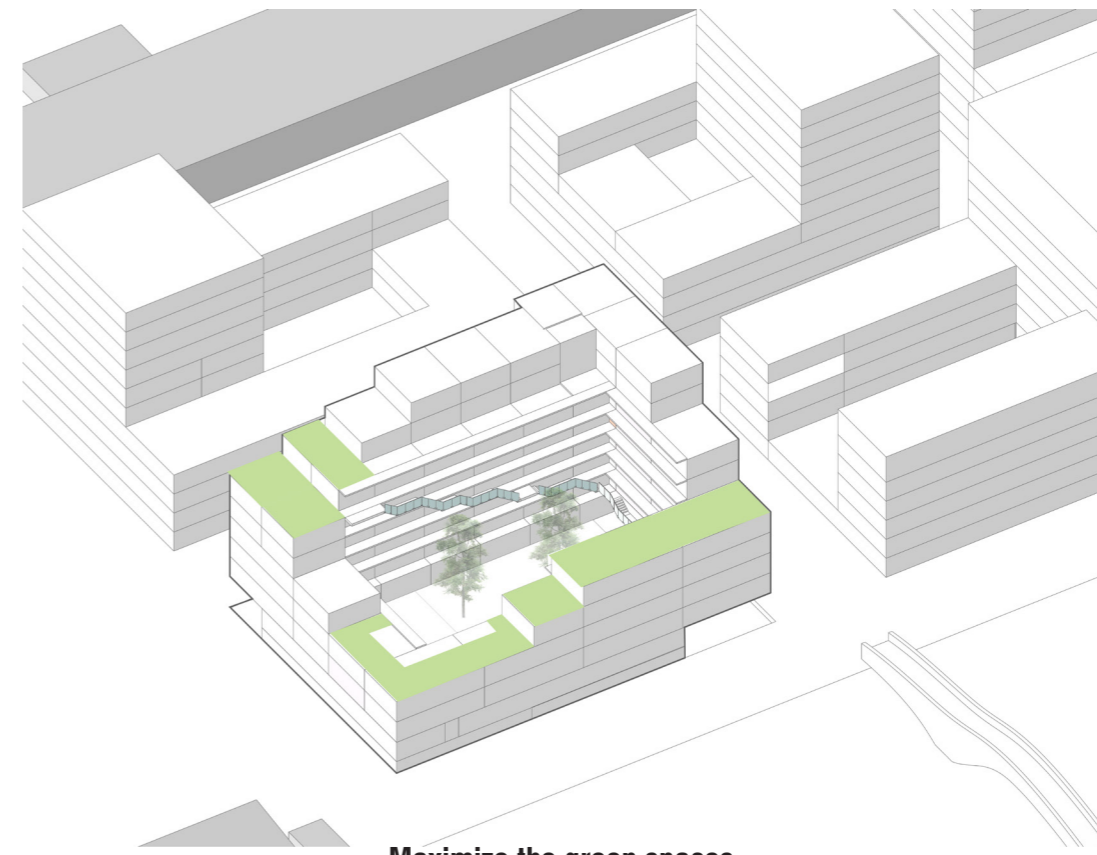
Maximize the sunlight



Create space for generation of solar energy



Circulation both internal and external



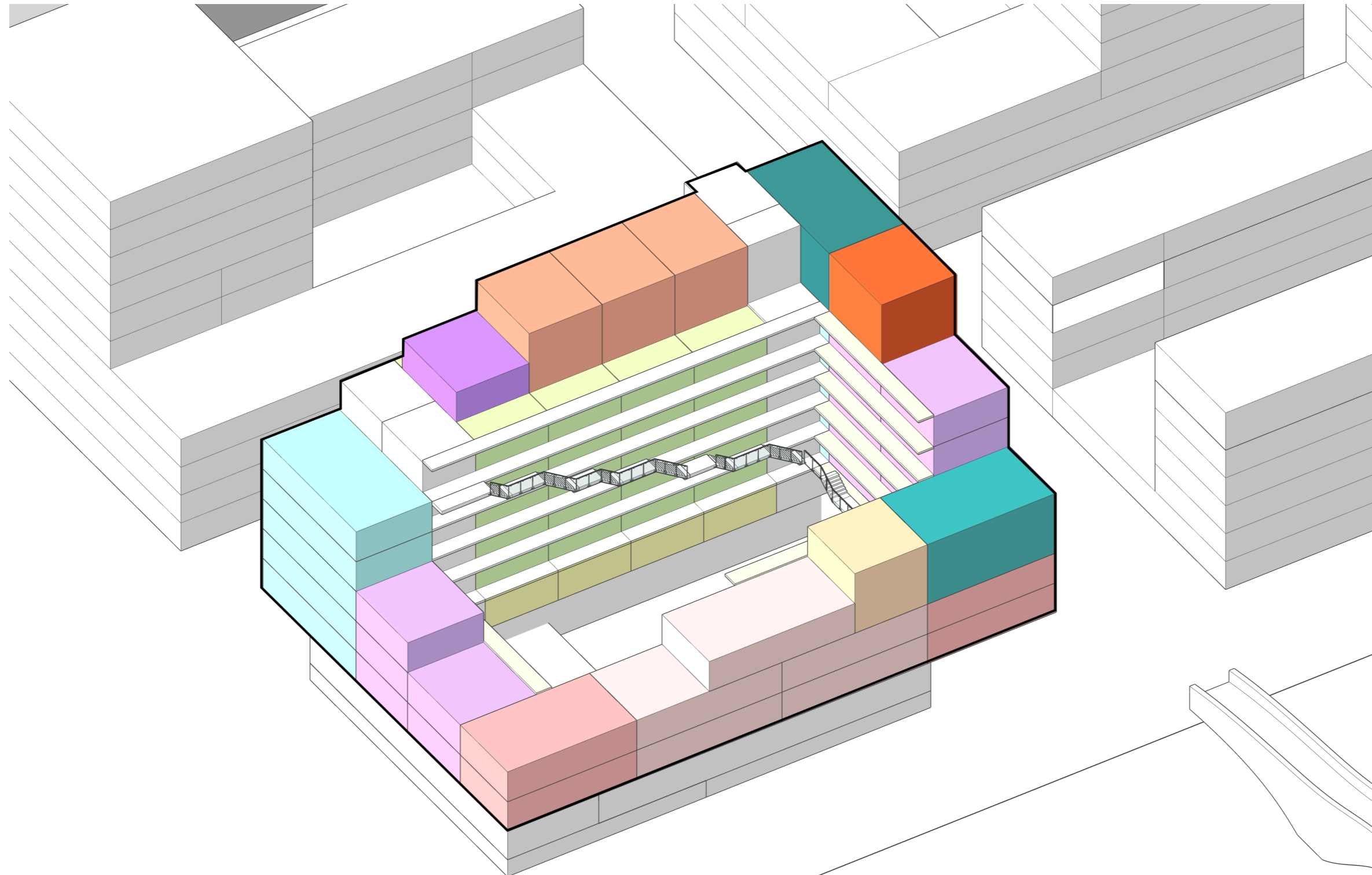
Maximize the green spaces

DWELLING TYPES

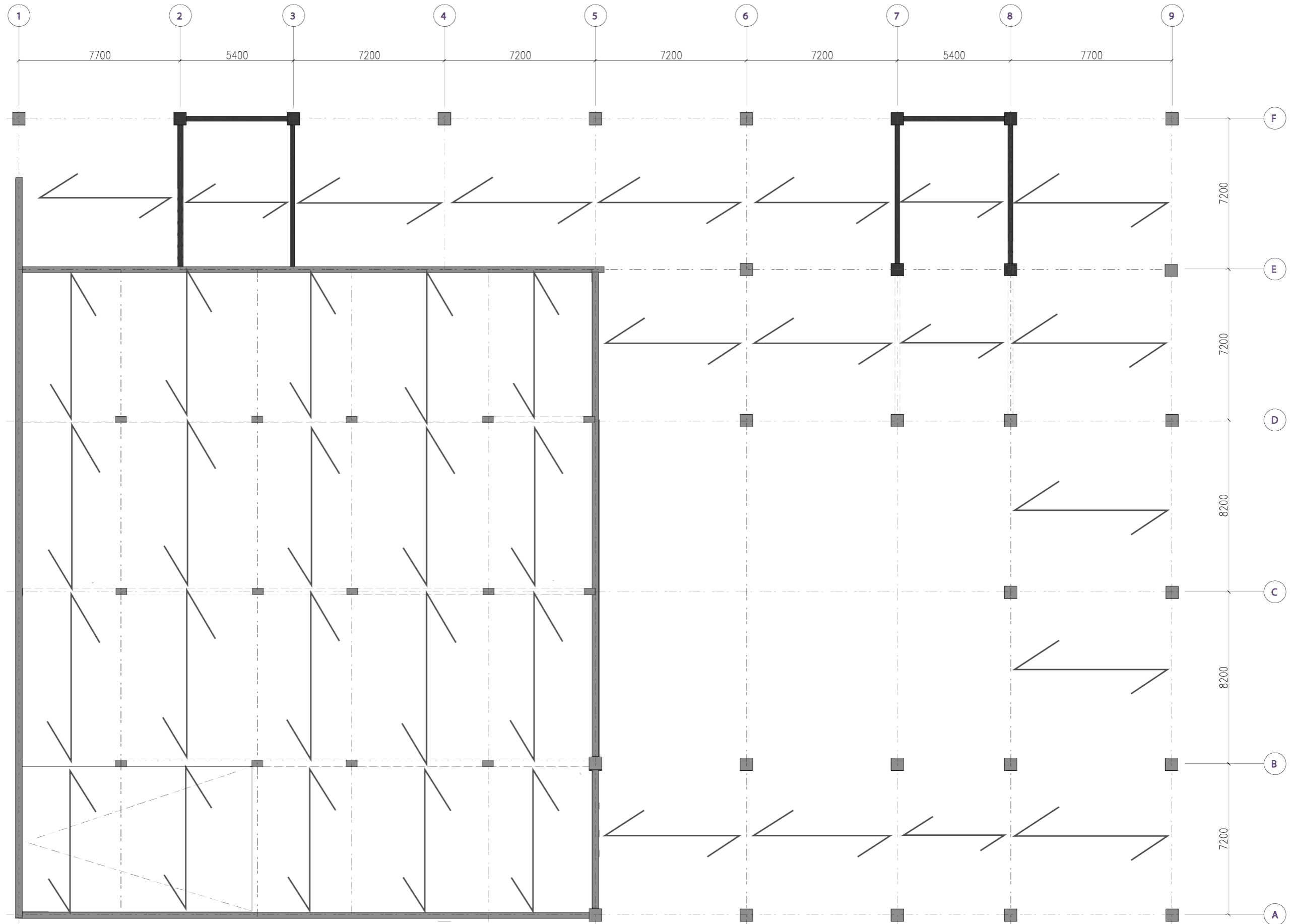
Number of dwellings: 69

Range: 63,8 - 177,8 m²

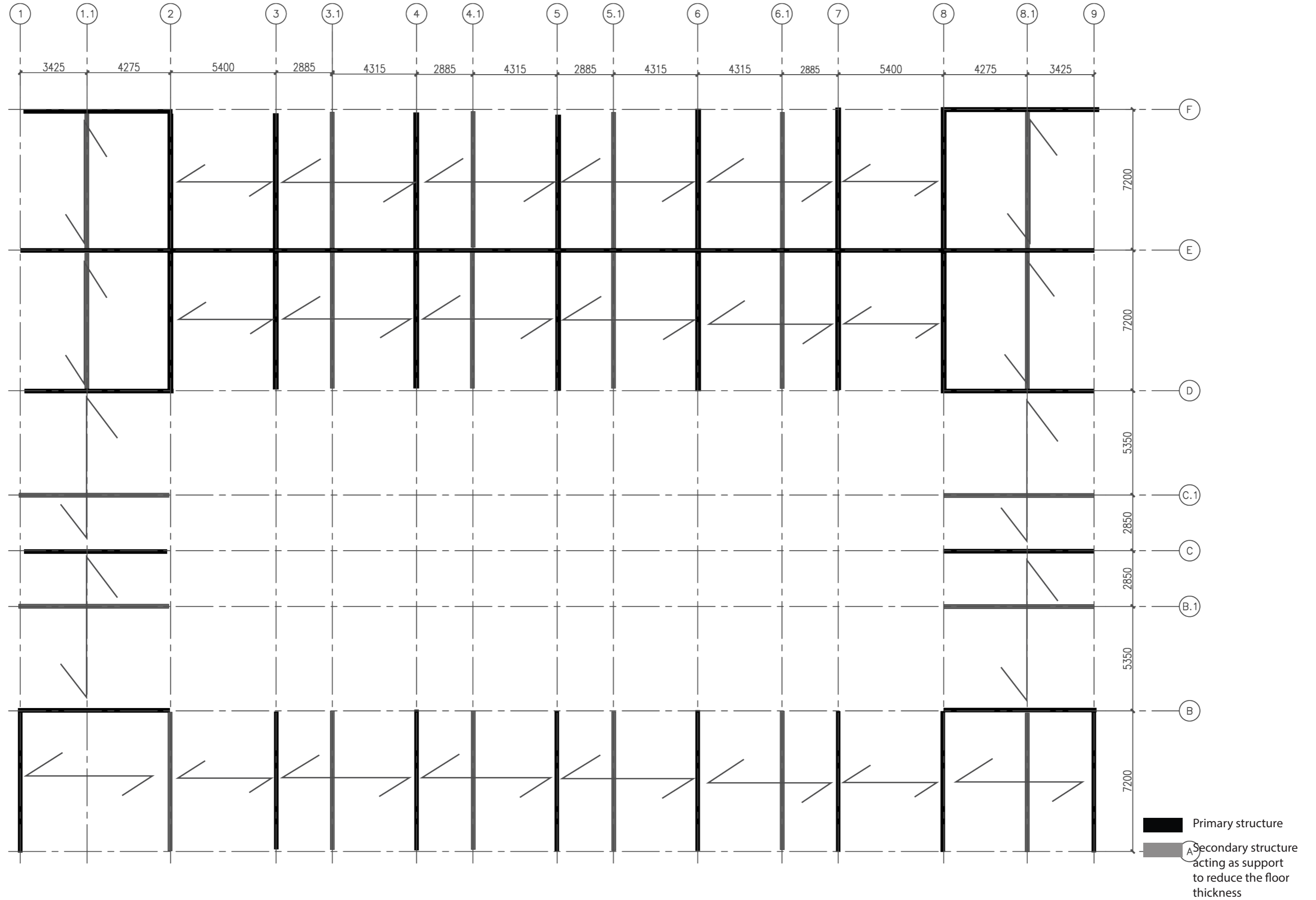
Types: 12



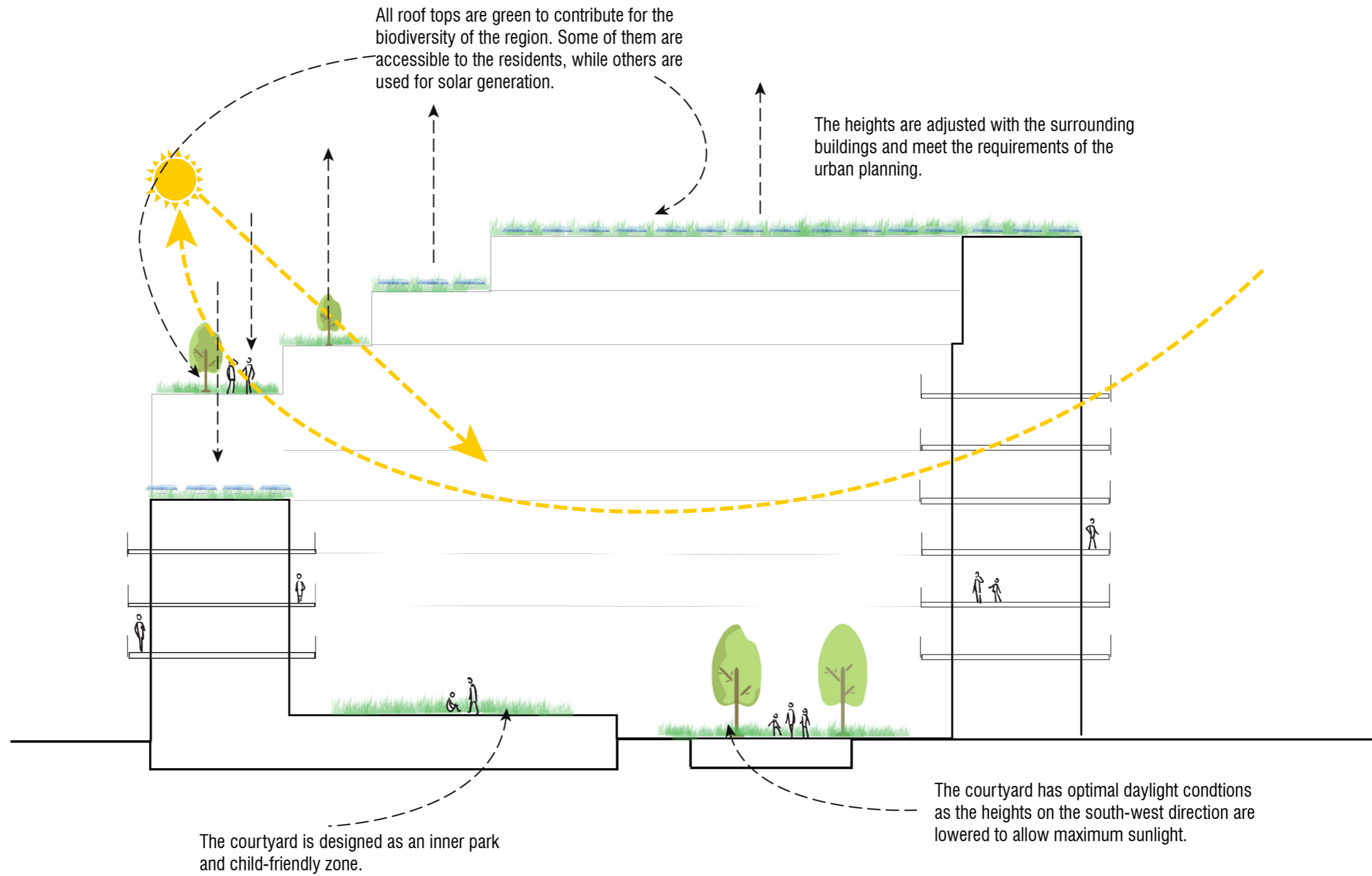
CONCRETE LOAD BEARING STRUCTURE



LOAD BEARING STRUCTURE



CONCEPT PRINCIPLE

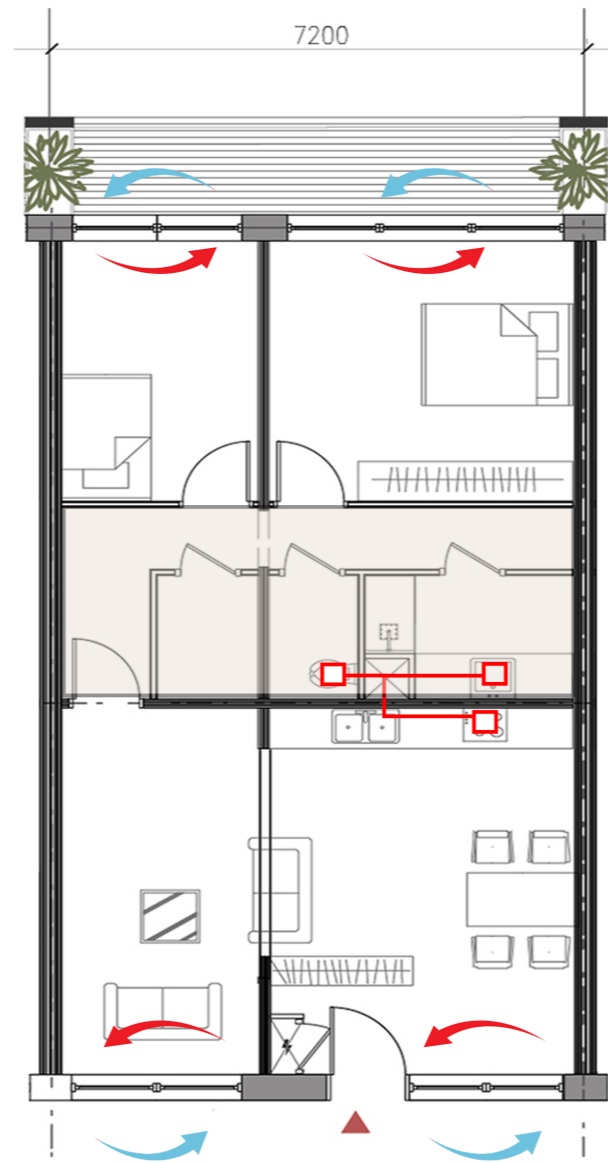


VENTILATION AND WATER COLLECTION



Collection of the rainwater from the balconies and the rooftops would allow reusing the water for watering the plants.

VENTILATION ON DWELLING LEVEL



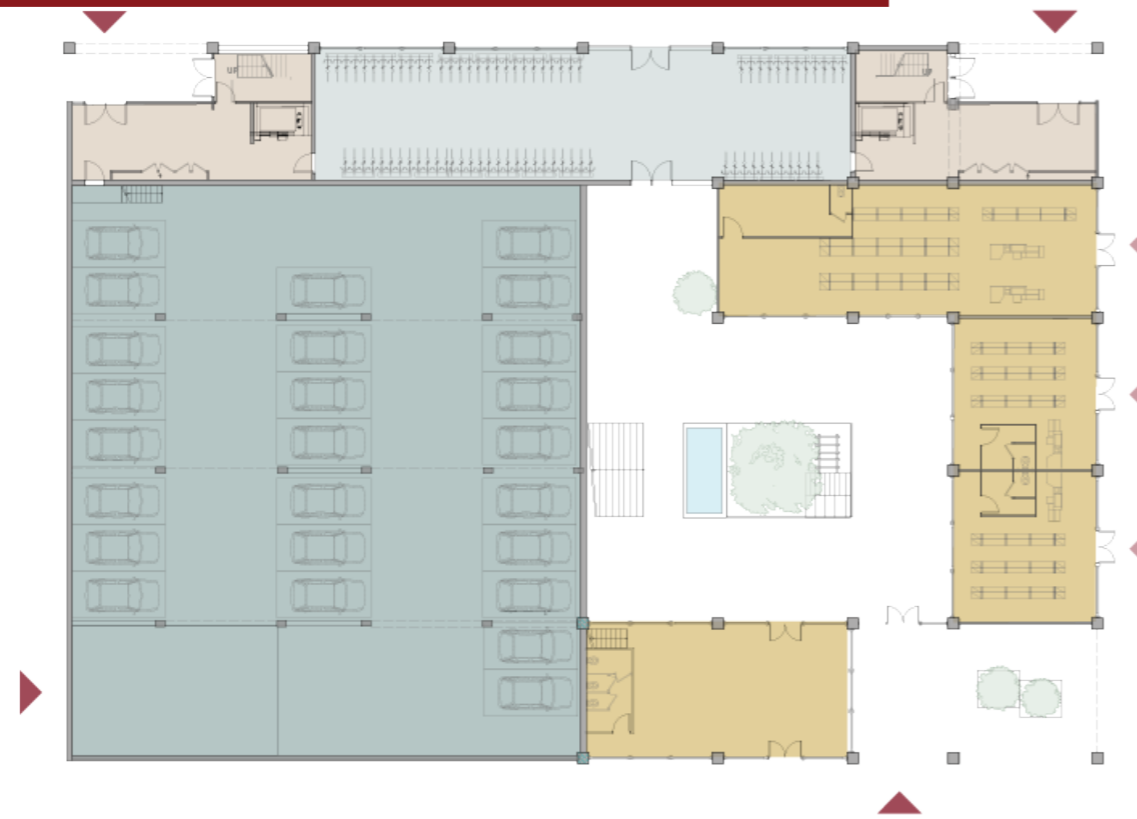
Schuco frames for ventilation and preheating the air
The supplied fresh air is already preheated by the used exhaust air.

Suspended ceiling

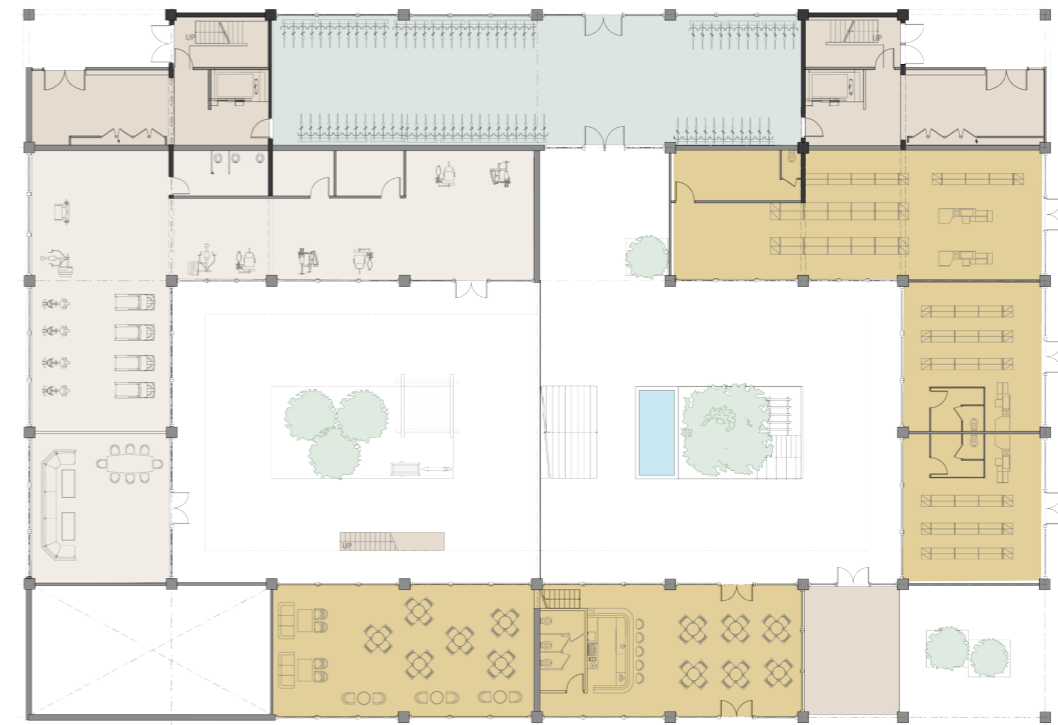
Air outlets for exhaust air from kitchen, bathroom and toilet.

Schuco frames for ventilation and preheating the air
The supplied fresh air is already preheated by the used exhaust air.

CIRCULATION, PARKING, PUBLIC



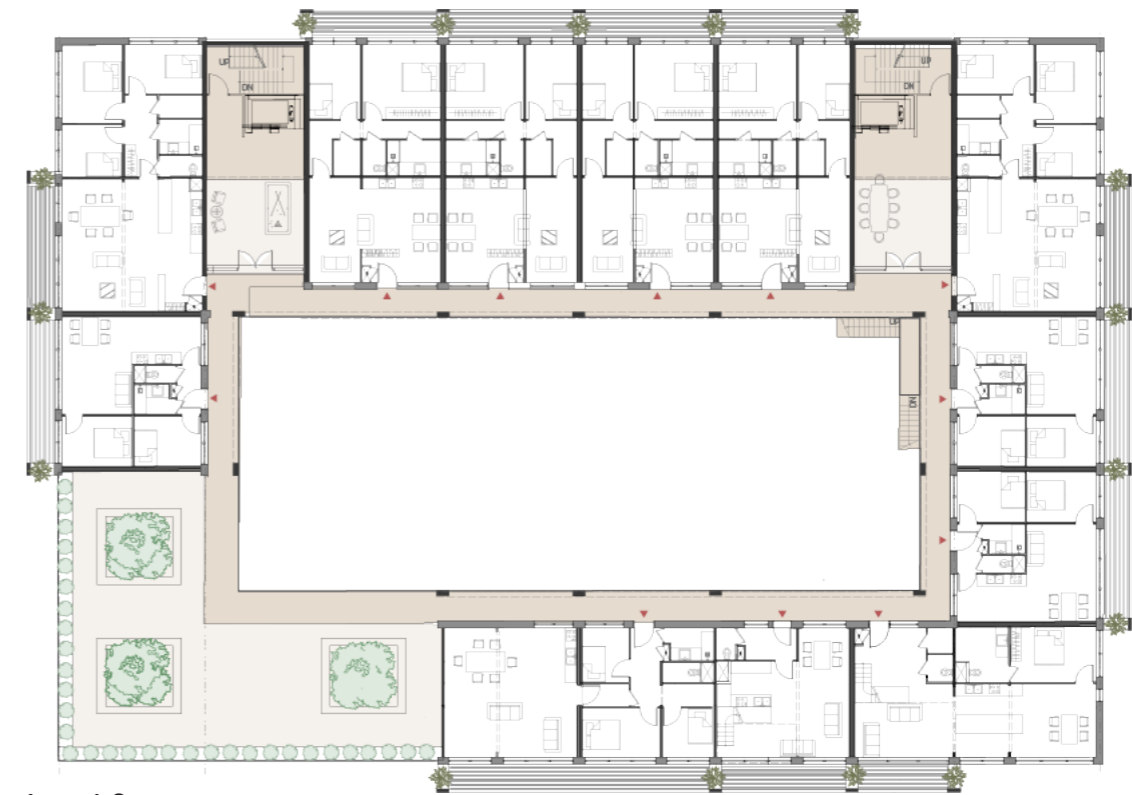
Level 0




Level 0+




Level 1 and 2 - same principle



Level 3

 Car sharing facility/parking

 Bicycle parking

 Circulation

 Collective space

 Commercial function

CIRCULATION, COLLECTIVE



Level 4



Level 5

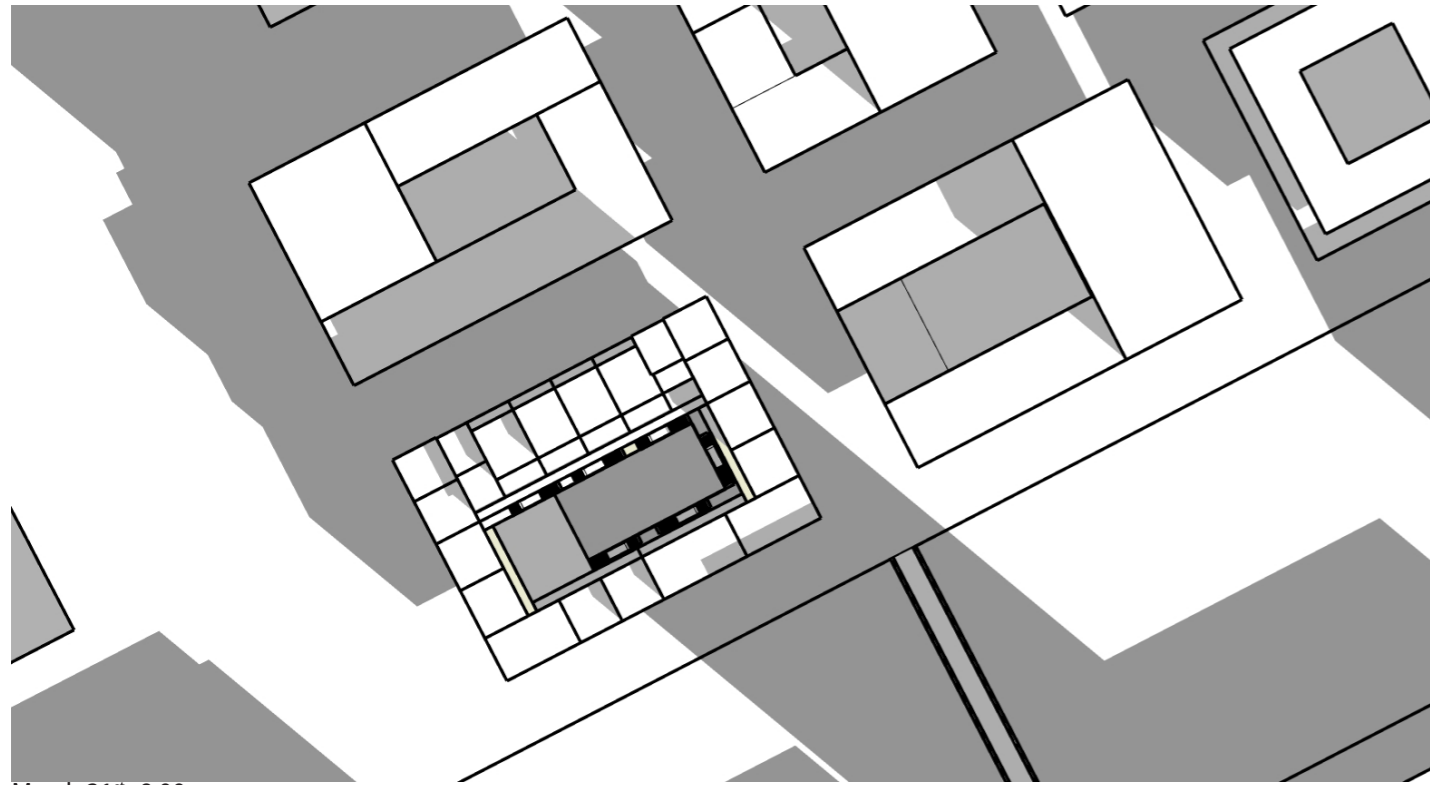


Level 6

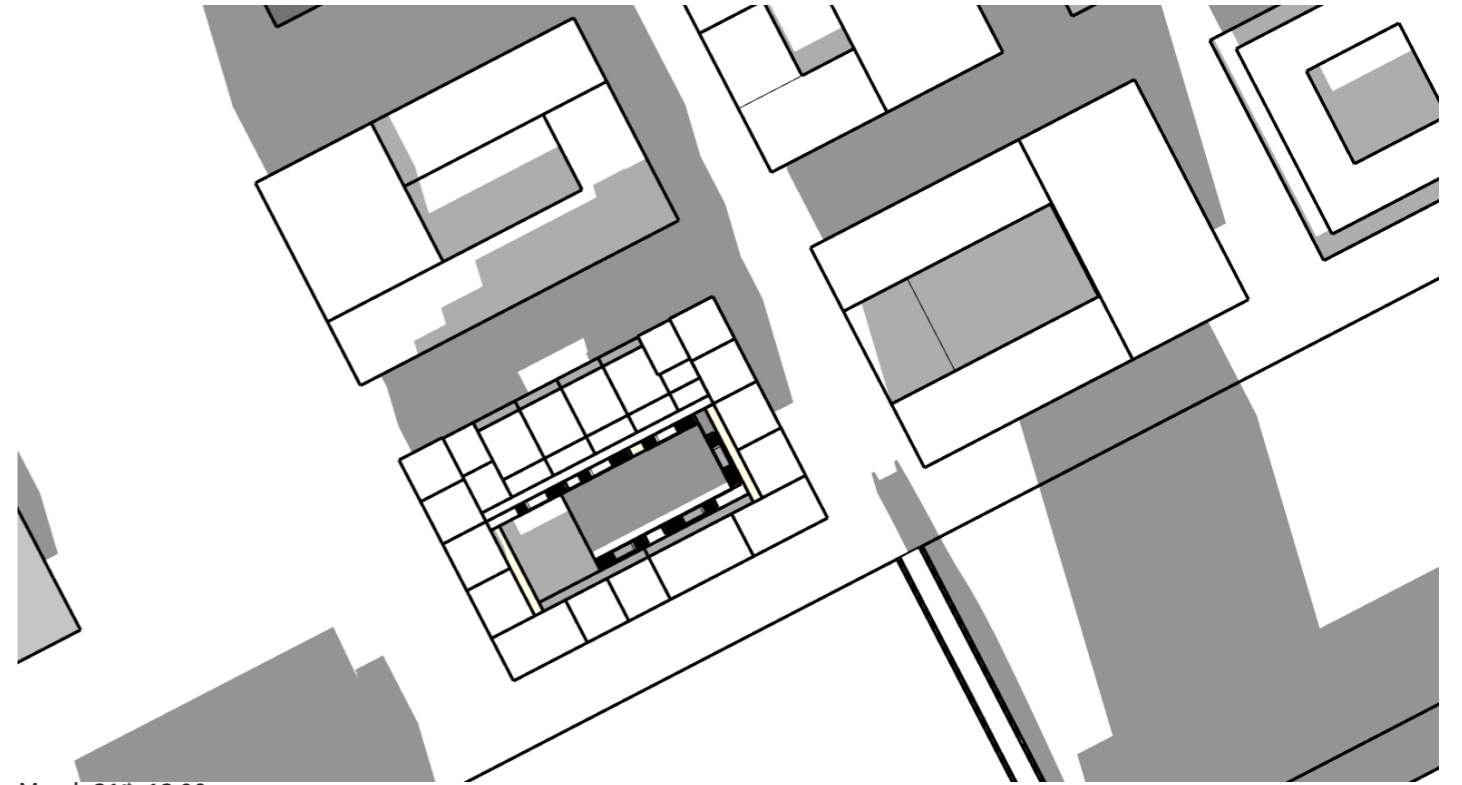


Level 7

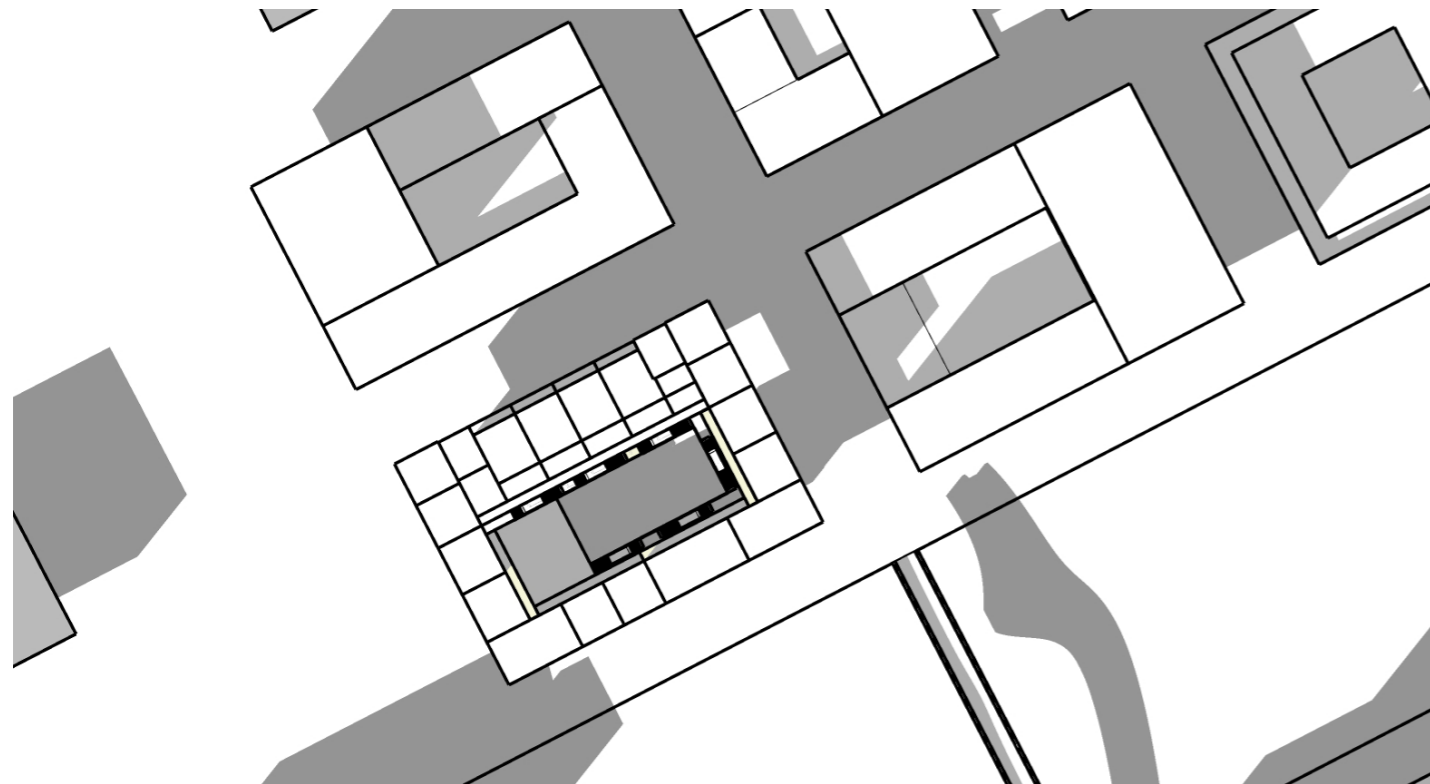
SUN ANALYSIS



March 21st, 9:00



March 21st, 12:00



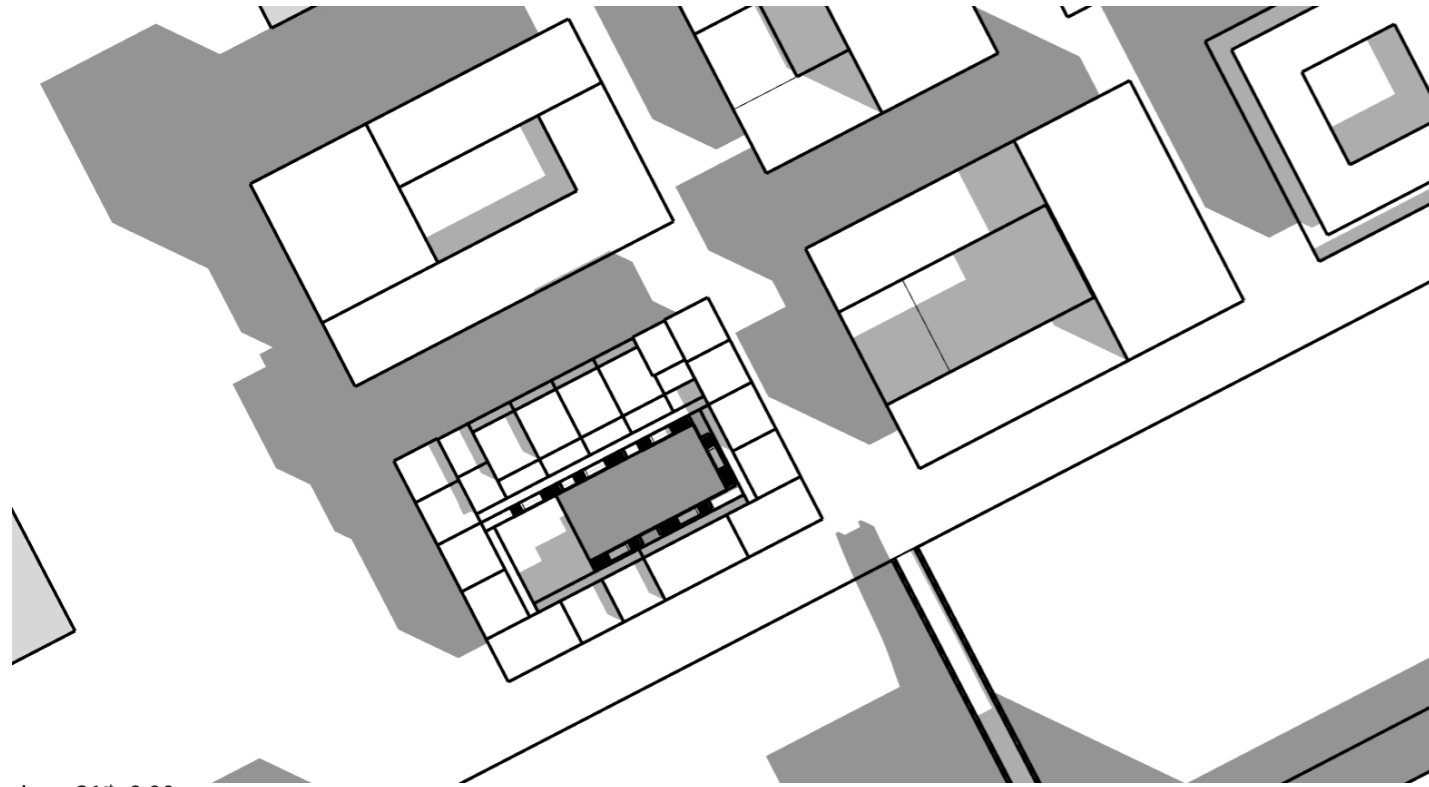
March 21st, 15:00



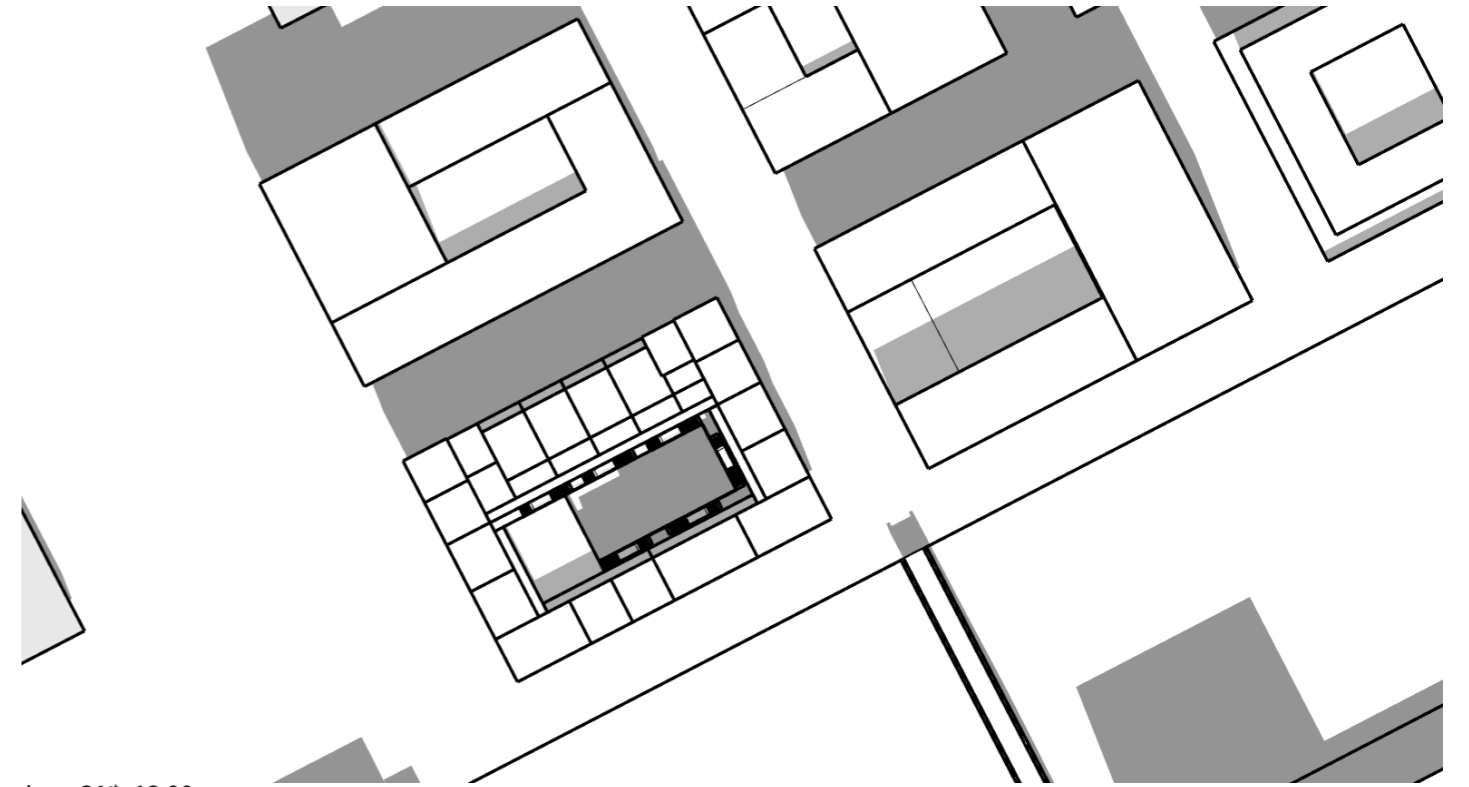
March 21st, 17:00



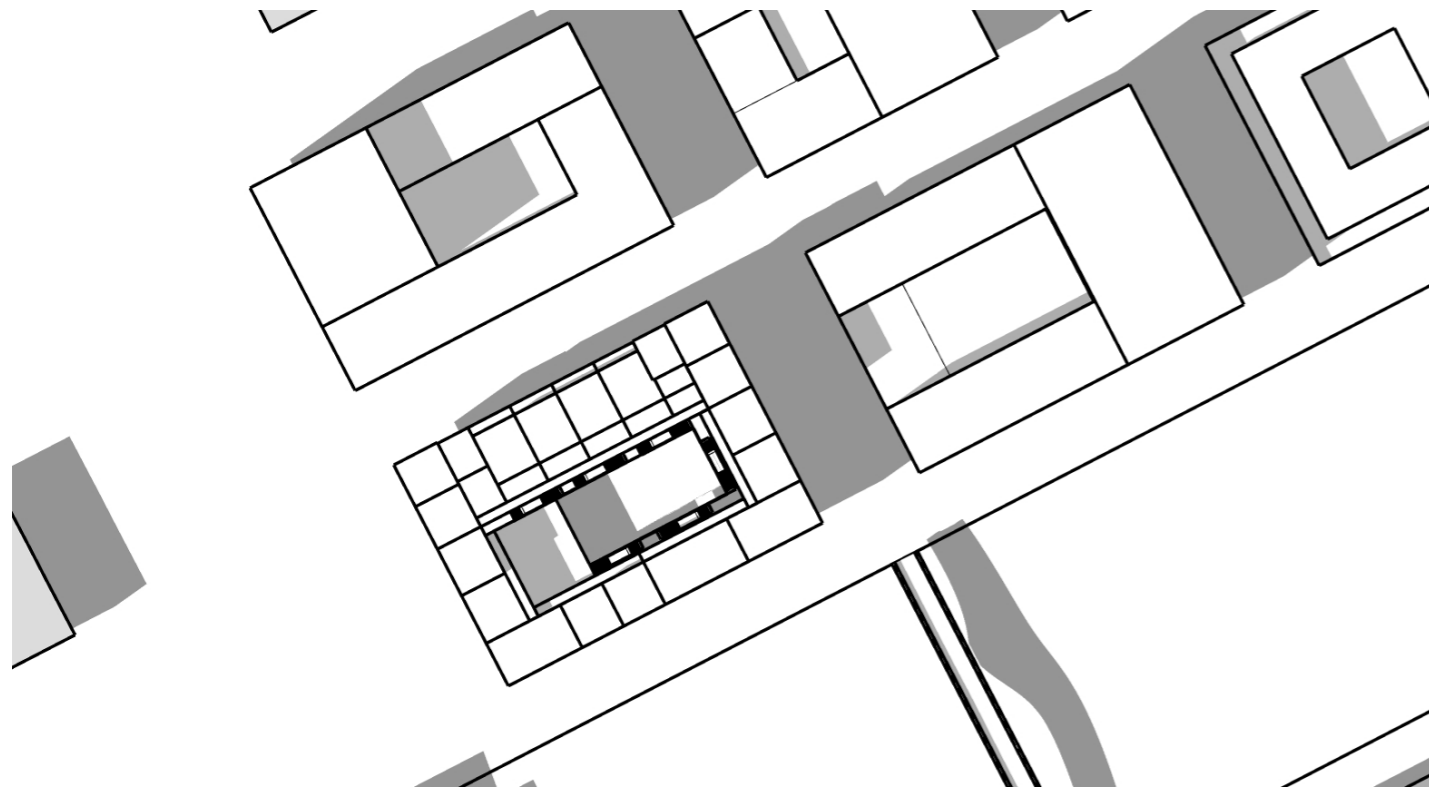
SUN ANALYSIS



June 21st, 9:00



June 21st, 12:00



June 21st, 15:00



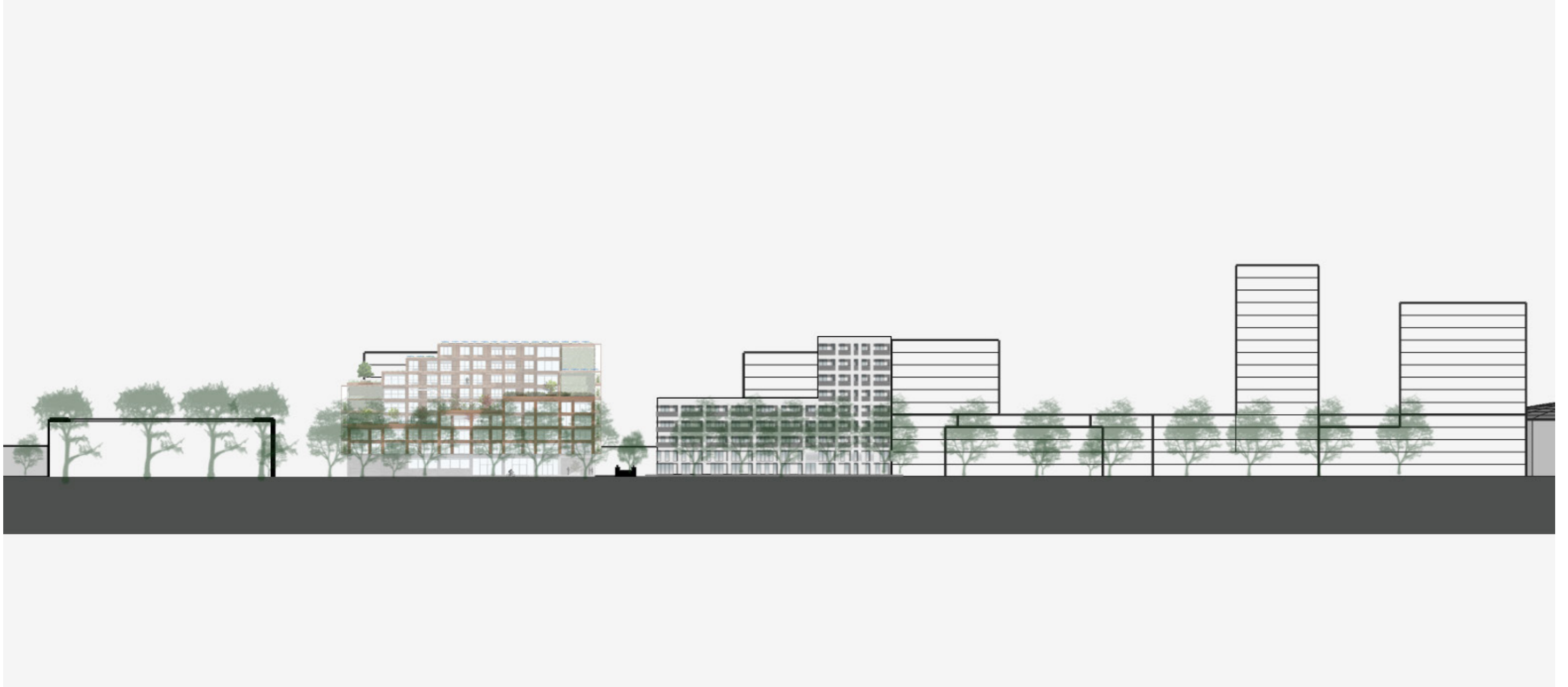
June 21st, 17:00



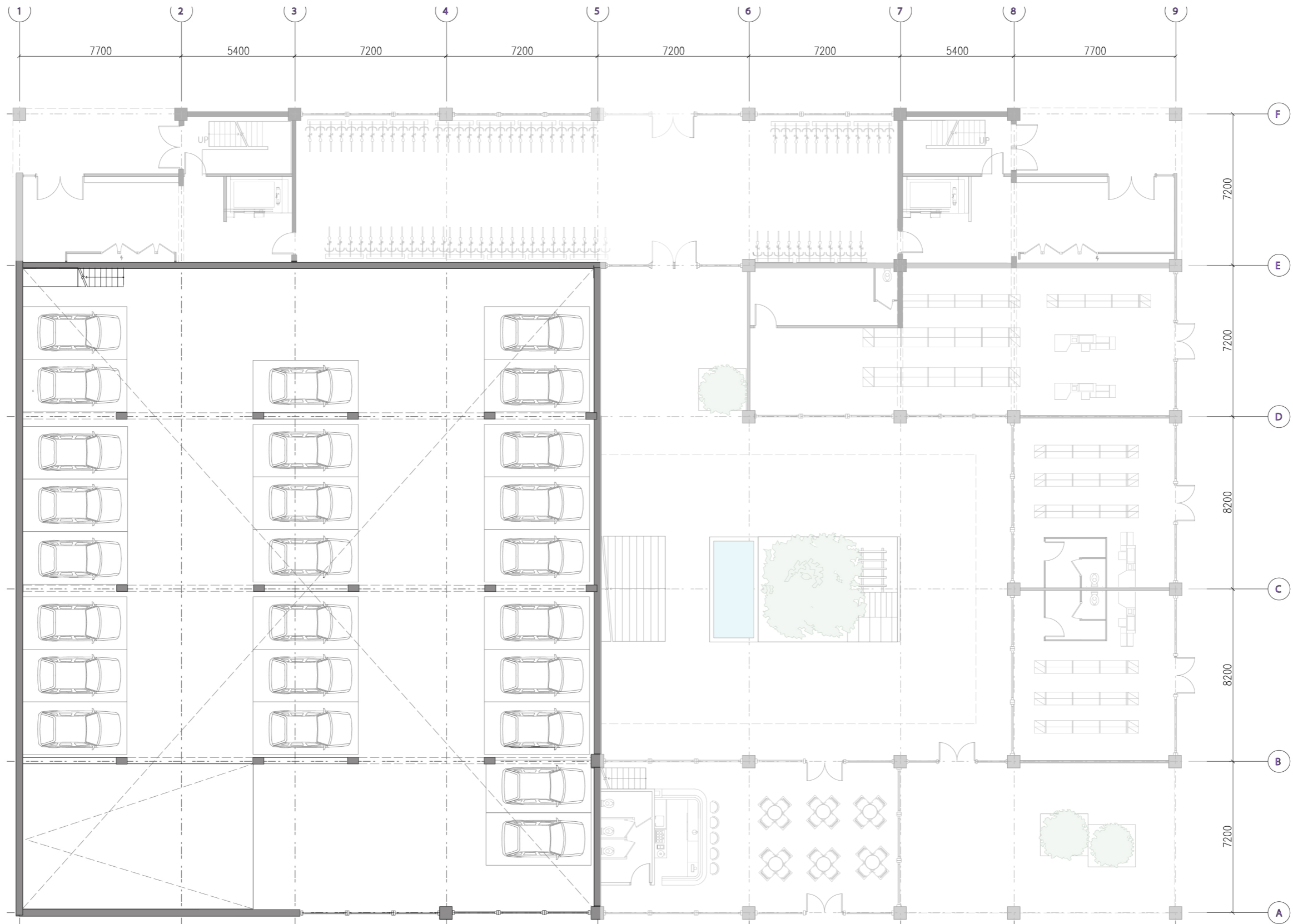
MASTERPLAN



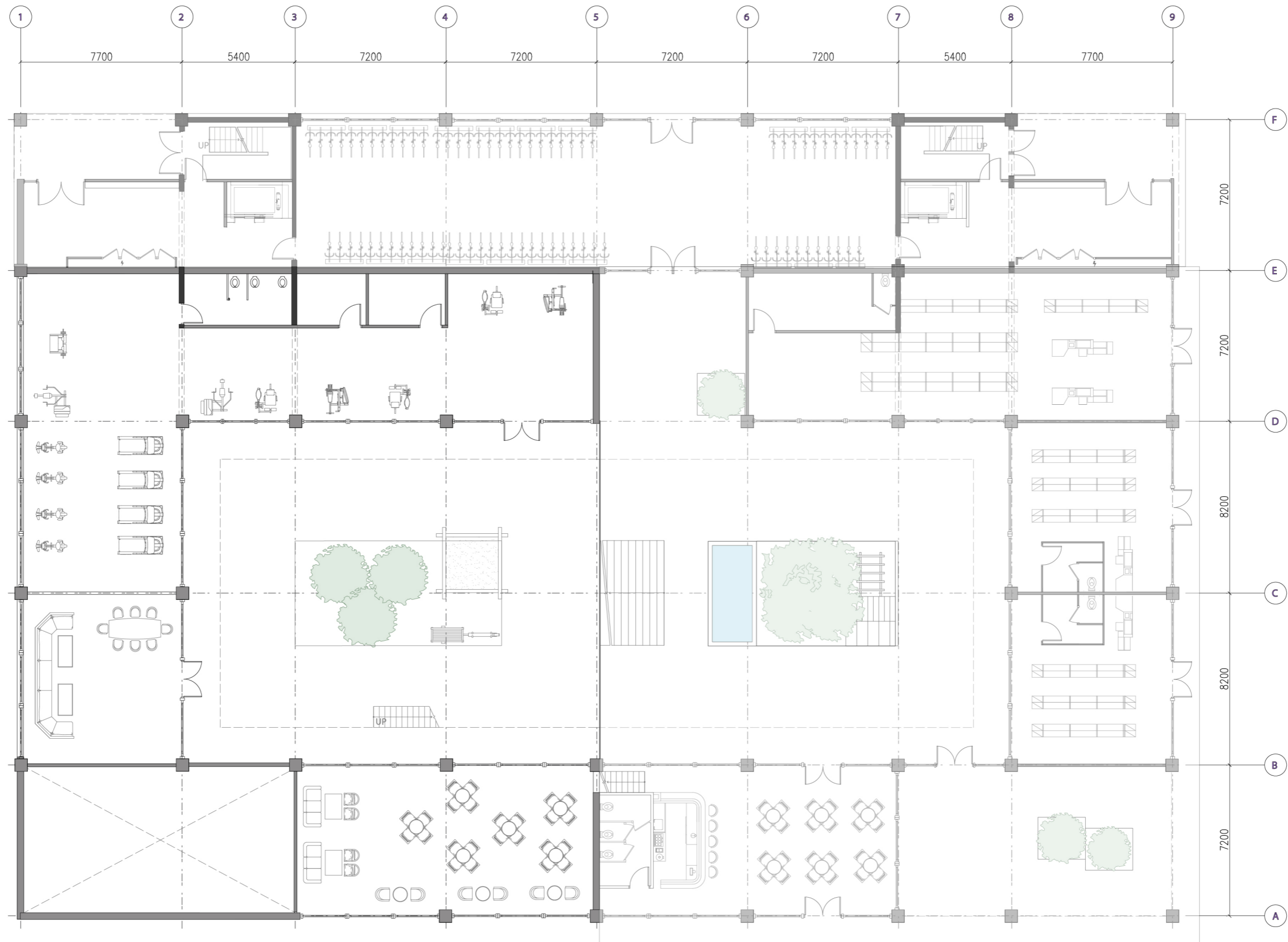
URBAN SECTION



PARKING GARAGE LEVEL 0-



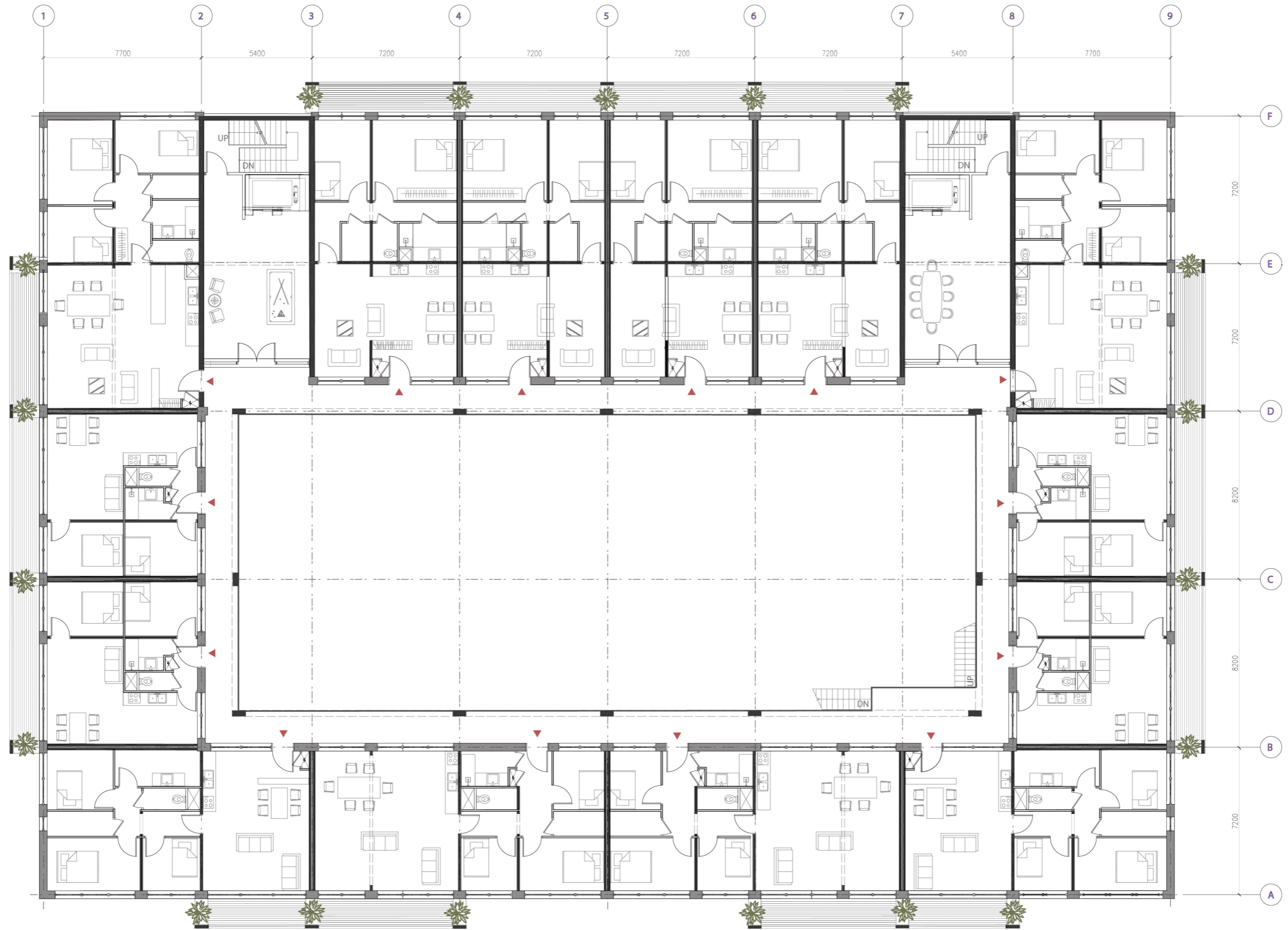
LEVEL 0 AND 0+



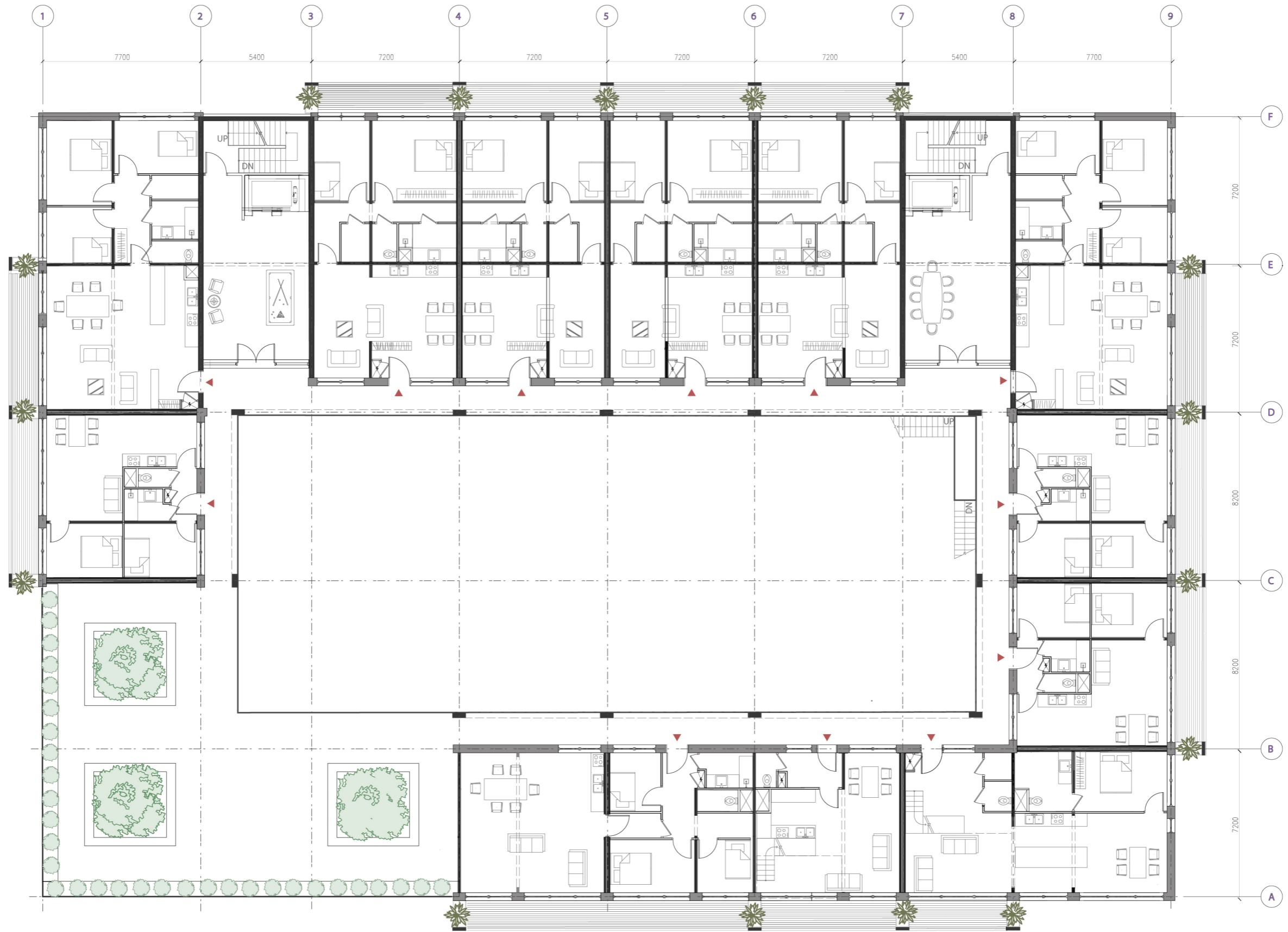
LEVEL 1



LEVEL 2



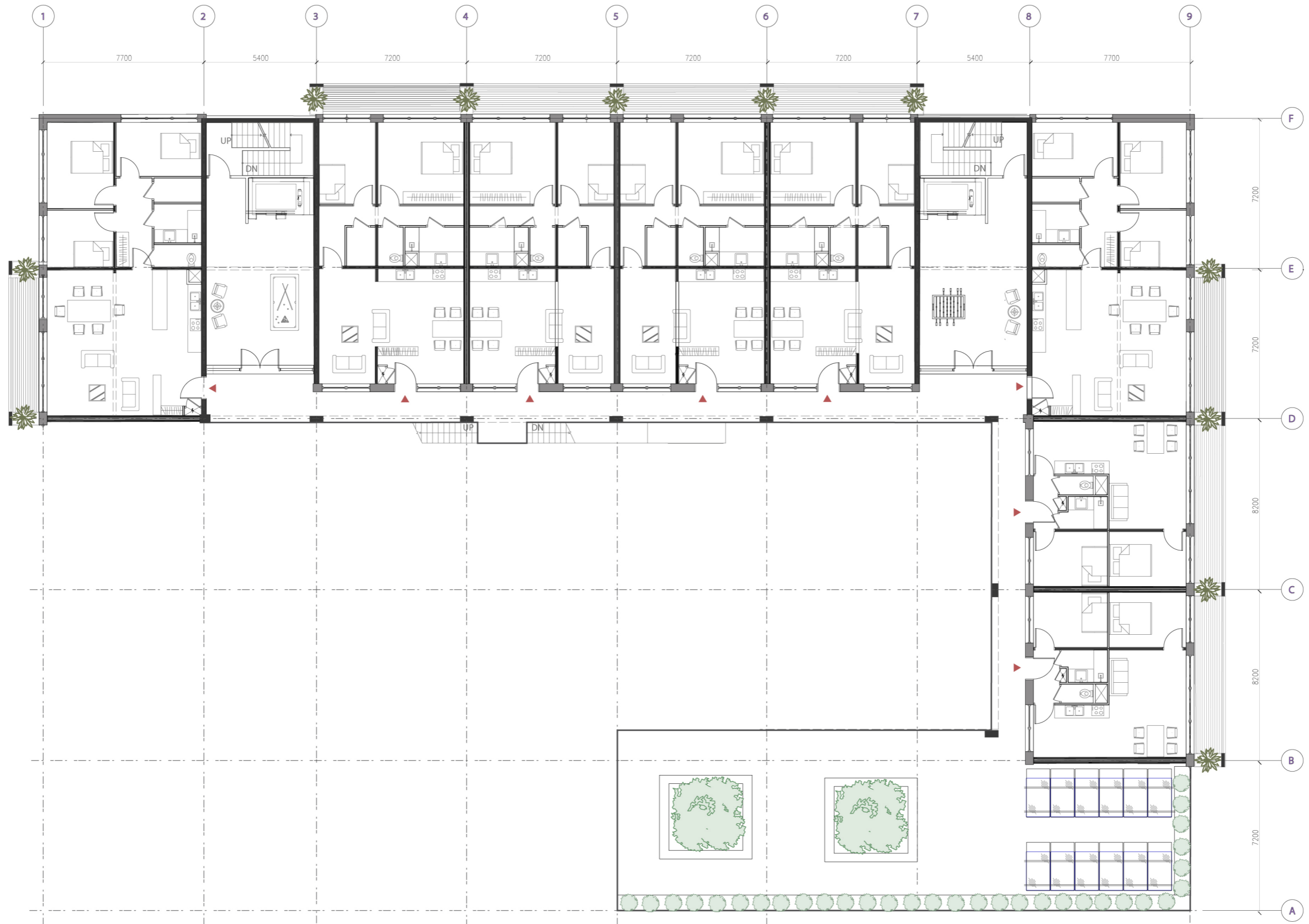
LEVEL 3



LEVEL 4



LEVEL 5



LEVEL 6



LEVEL 7



LEVEL 7+



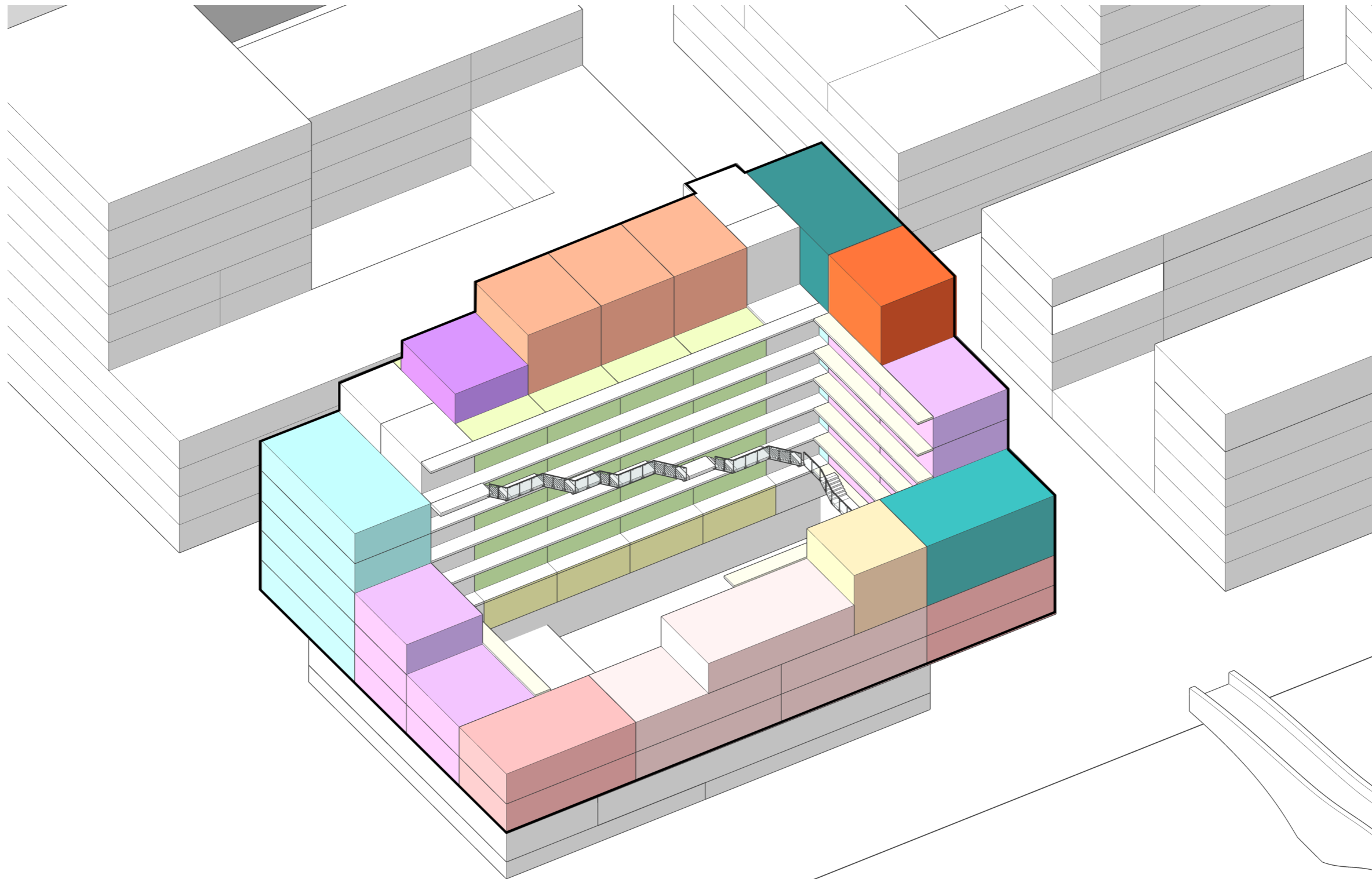
Scale 1:200

DWELLING TYPES

Number of dwellings: 69

Range: 63,8 - 177,8 m²

Types: 12



DWELLING 1

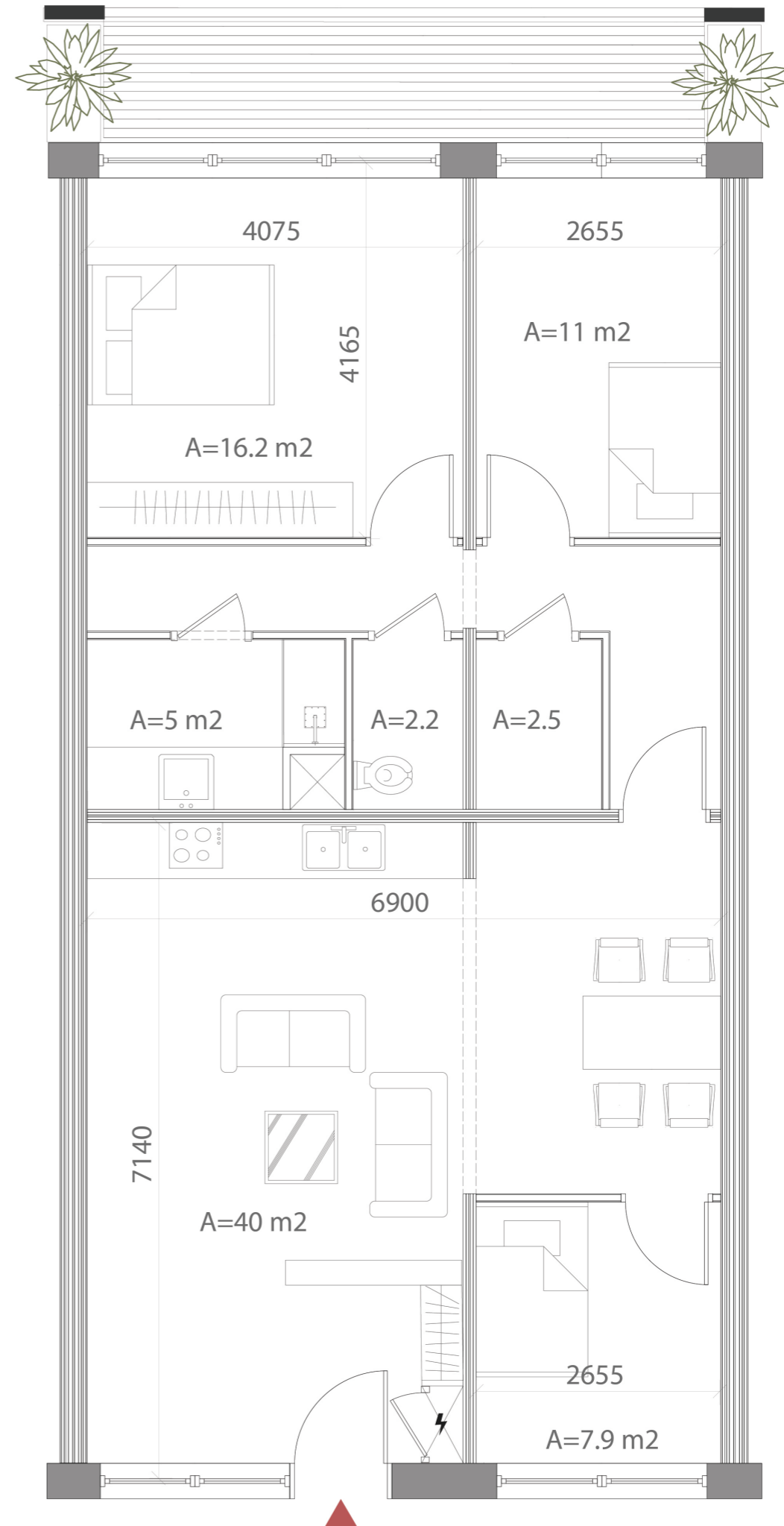
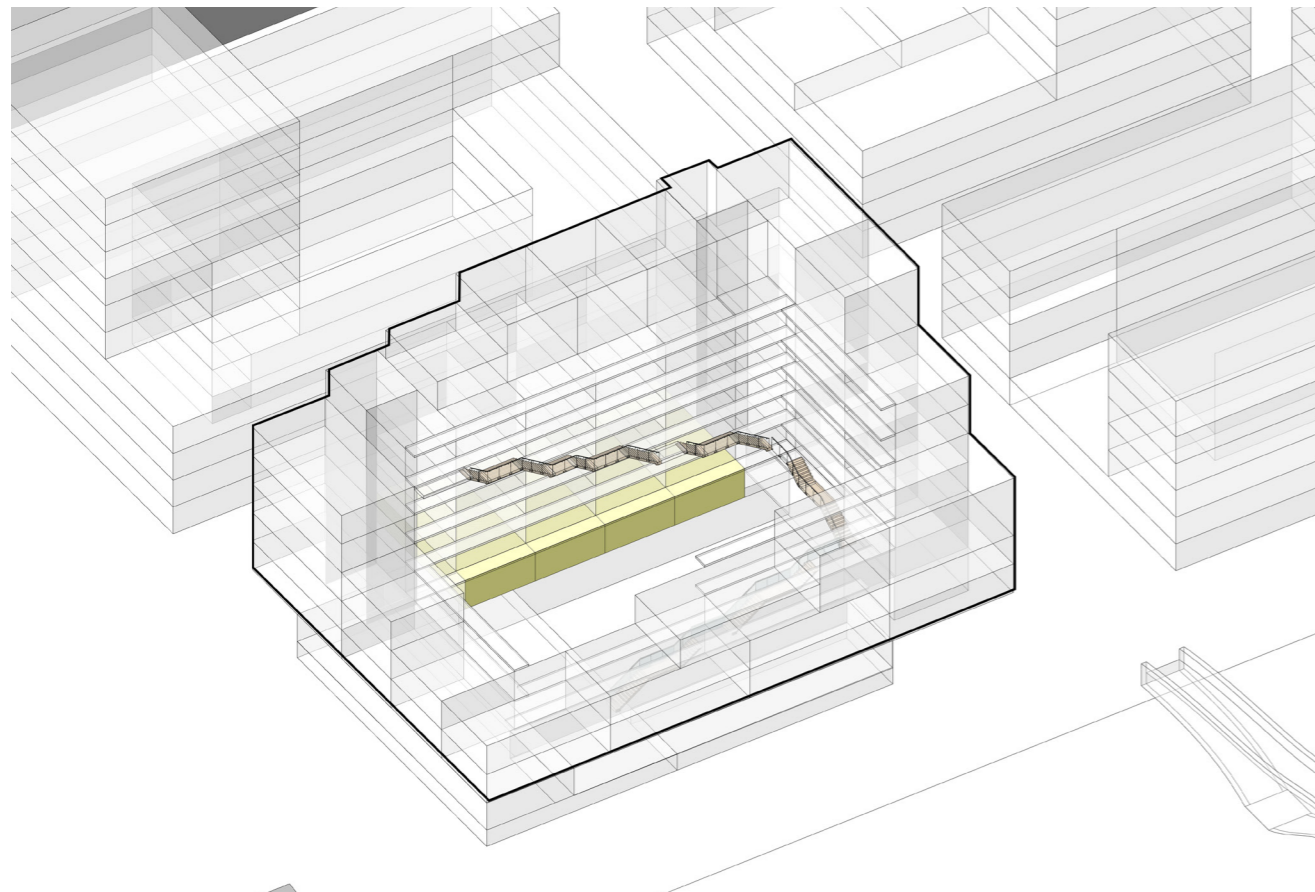
Dwelling size: 107,5 m²

Outside space: 10,5 m²

Number of bedrooms: 3

Suitable household: Family

Number of dwellings: 4 on Level 1



DWELLING 2

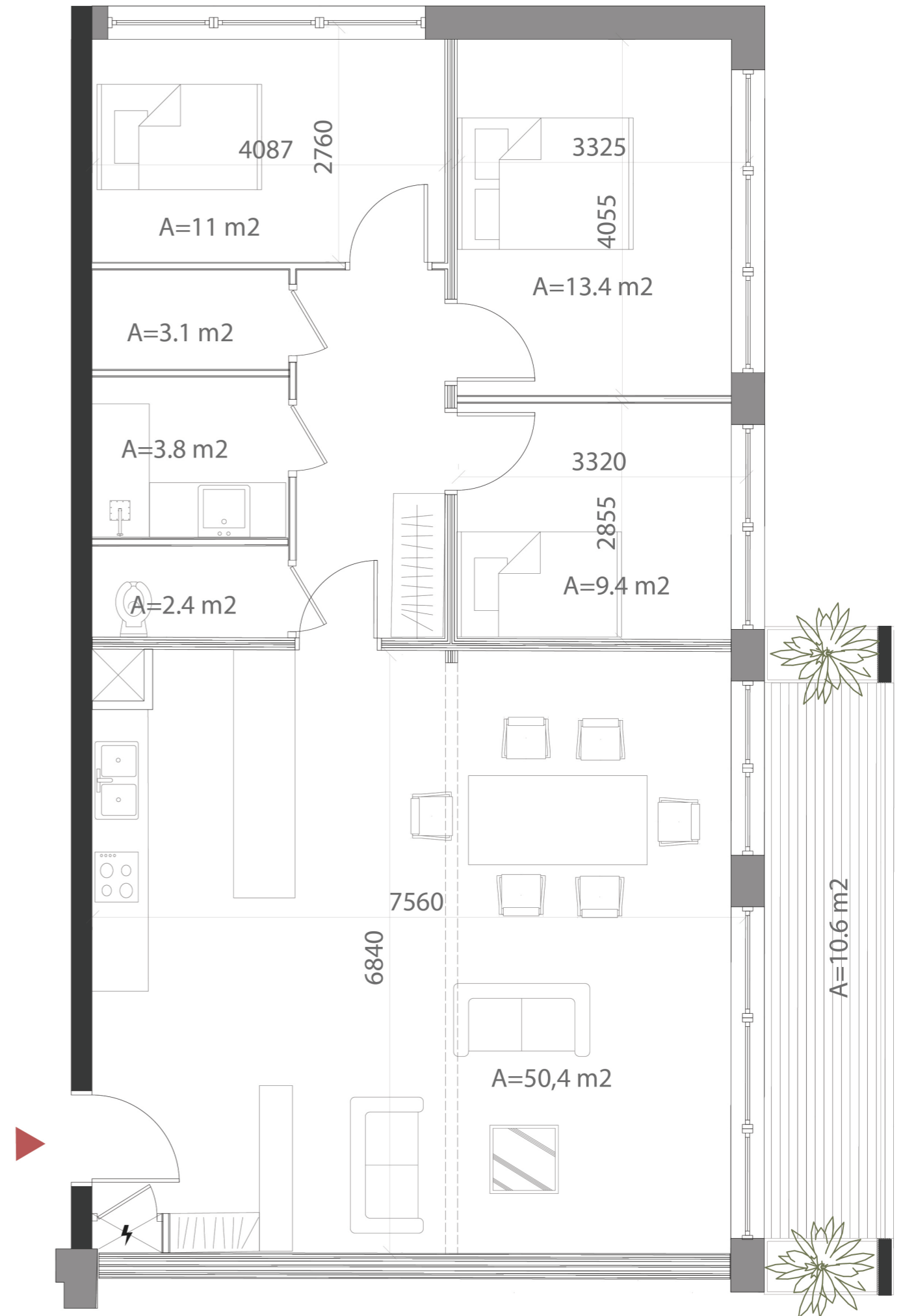
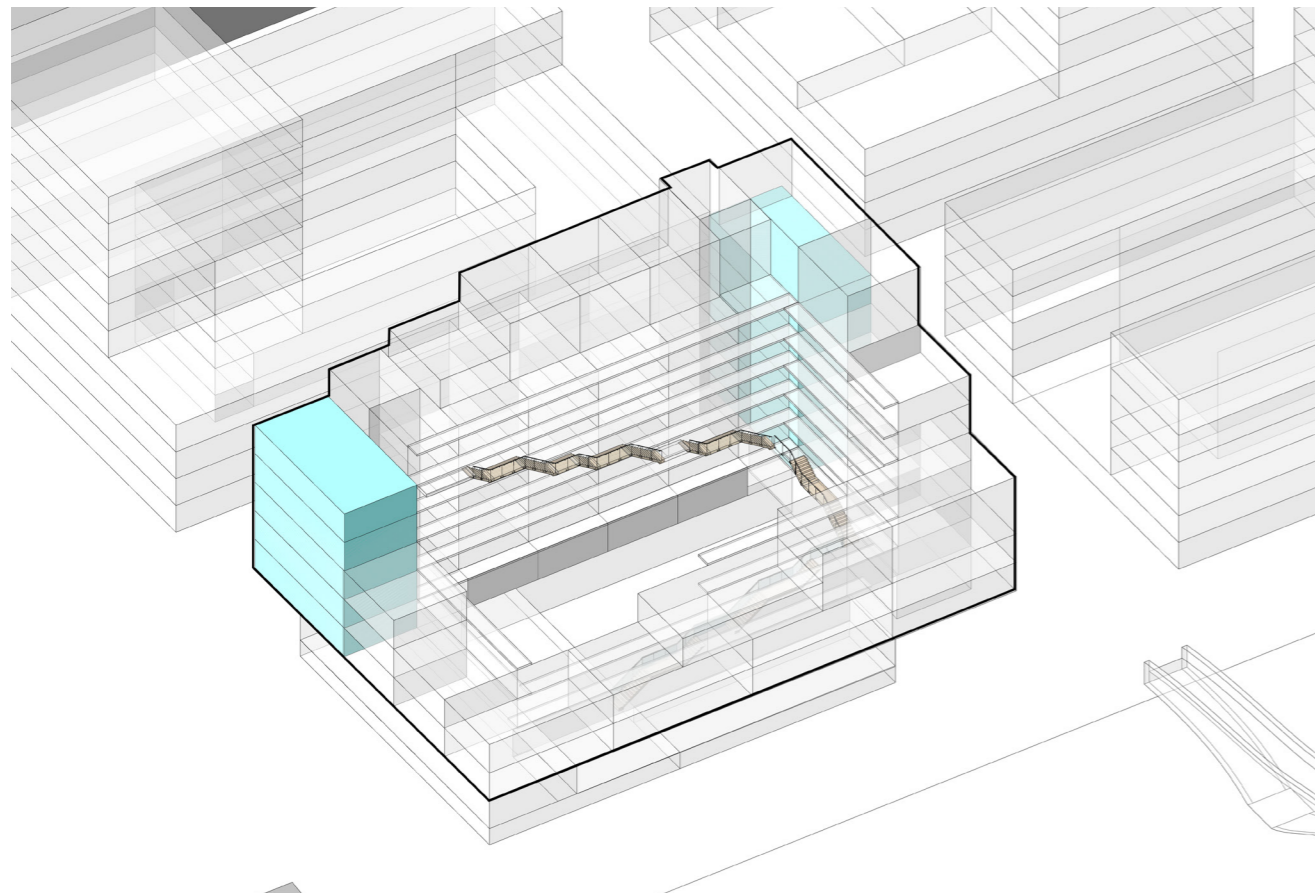
Dwelling size: 109,5 m²

Outside space: 10,6 m²

Number of bedrooms: 3

Suitable household: Family

Number of dwellings: 11 on Levels 1, 2,3,4,5,6



DWELLING 3

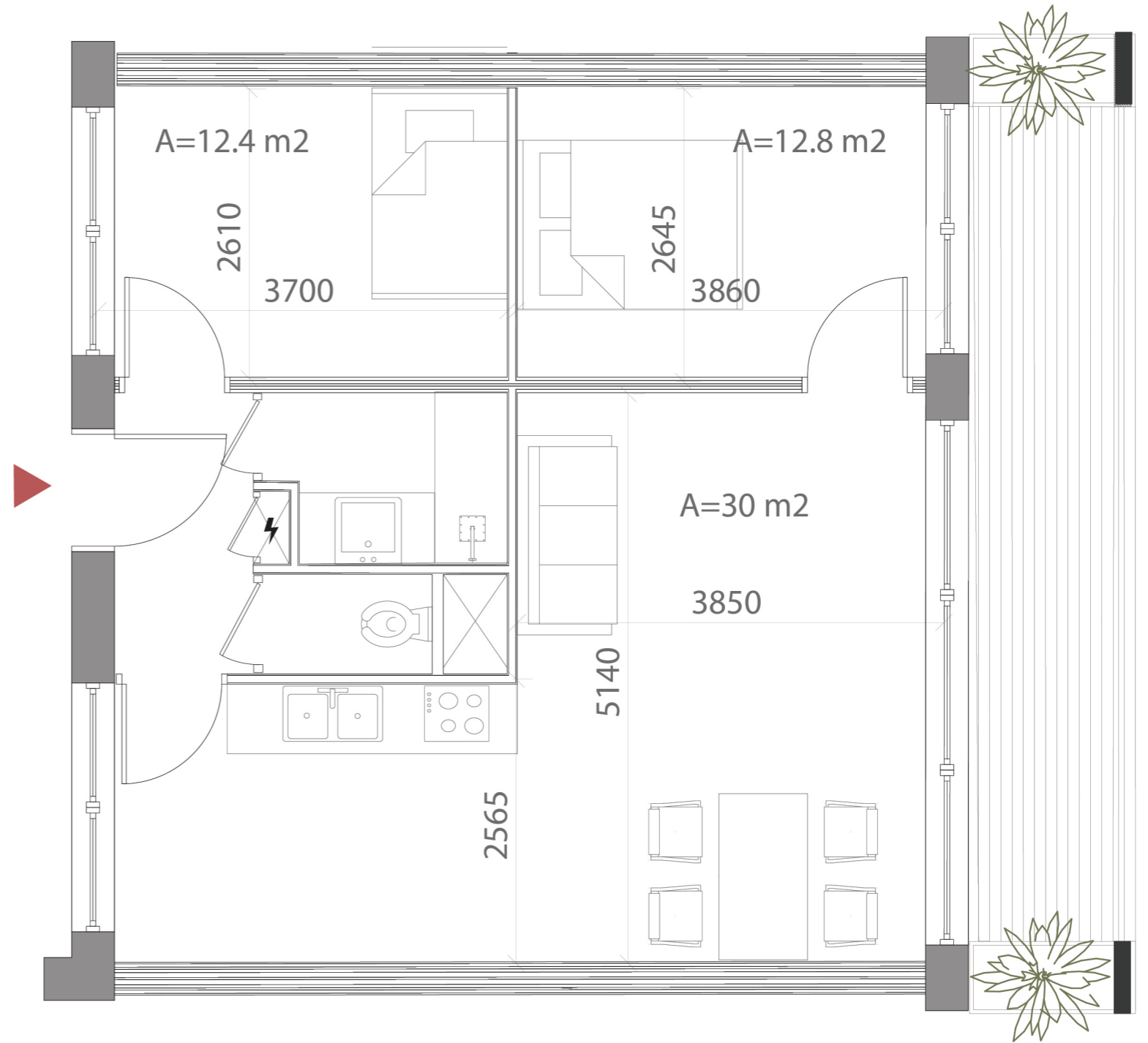
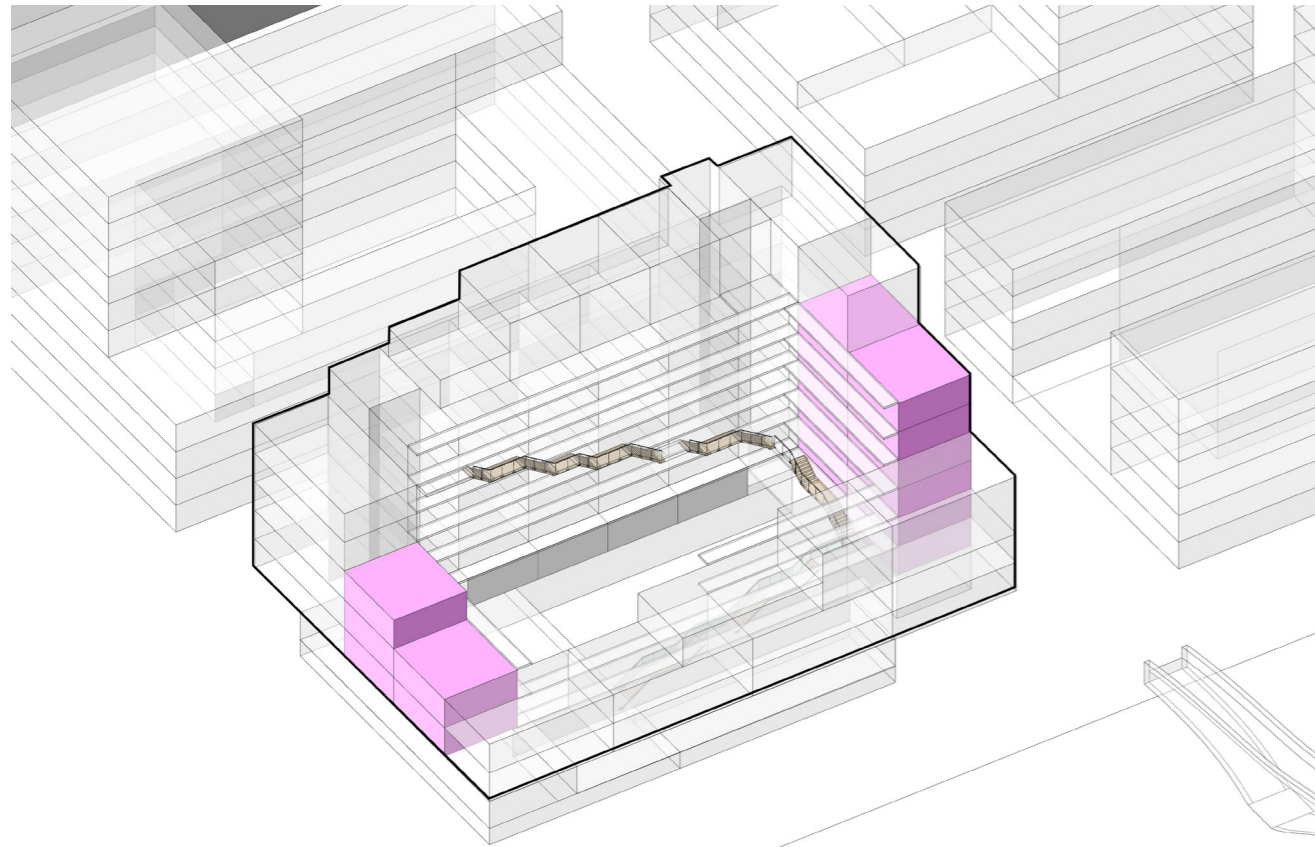
Dwelling size: 63,8 m²

Outside space: 10, 6 m²

Number of bedrooms: 2

Suitable household: Family/ Couple

Number of dwellings: 17 on Levels 1,2,3,4,5,6



DWELLING 4

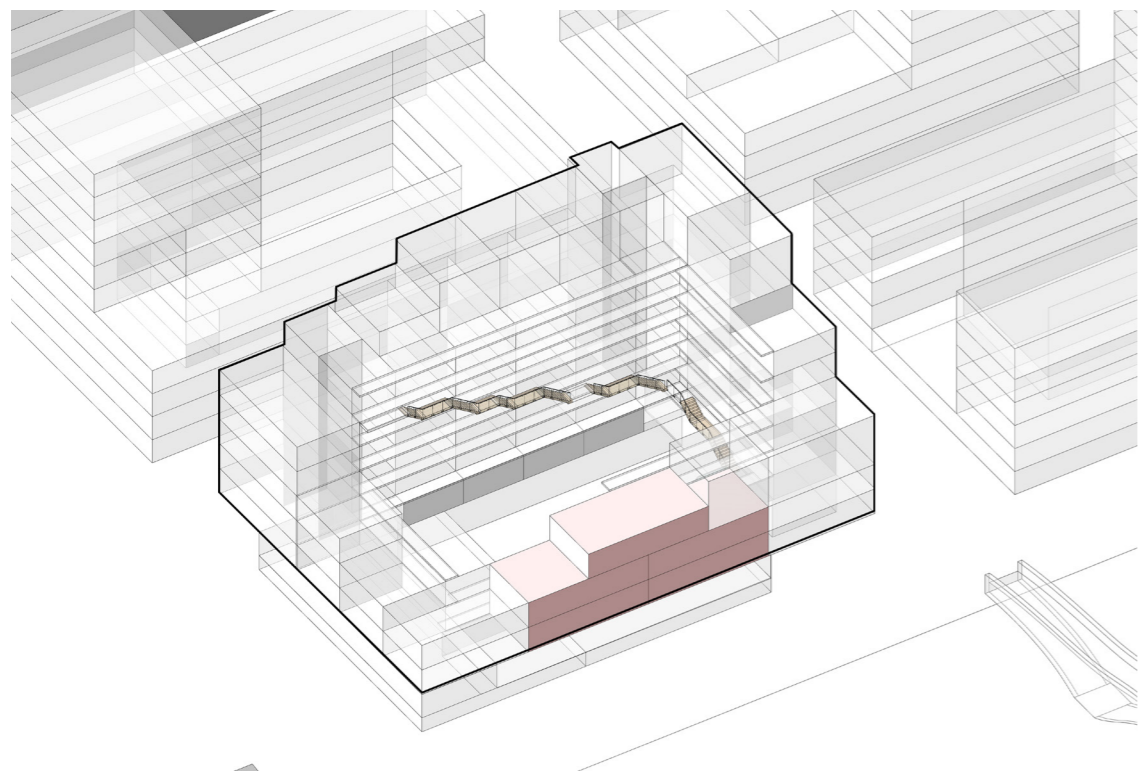
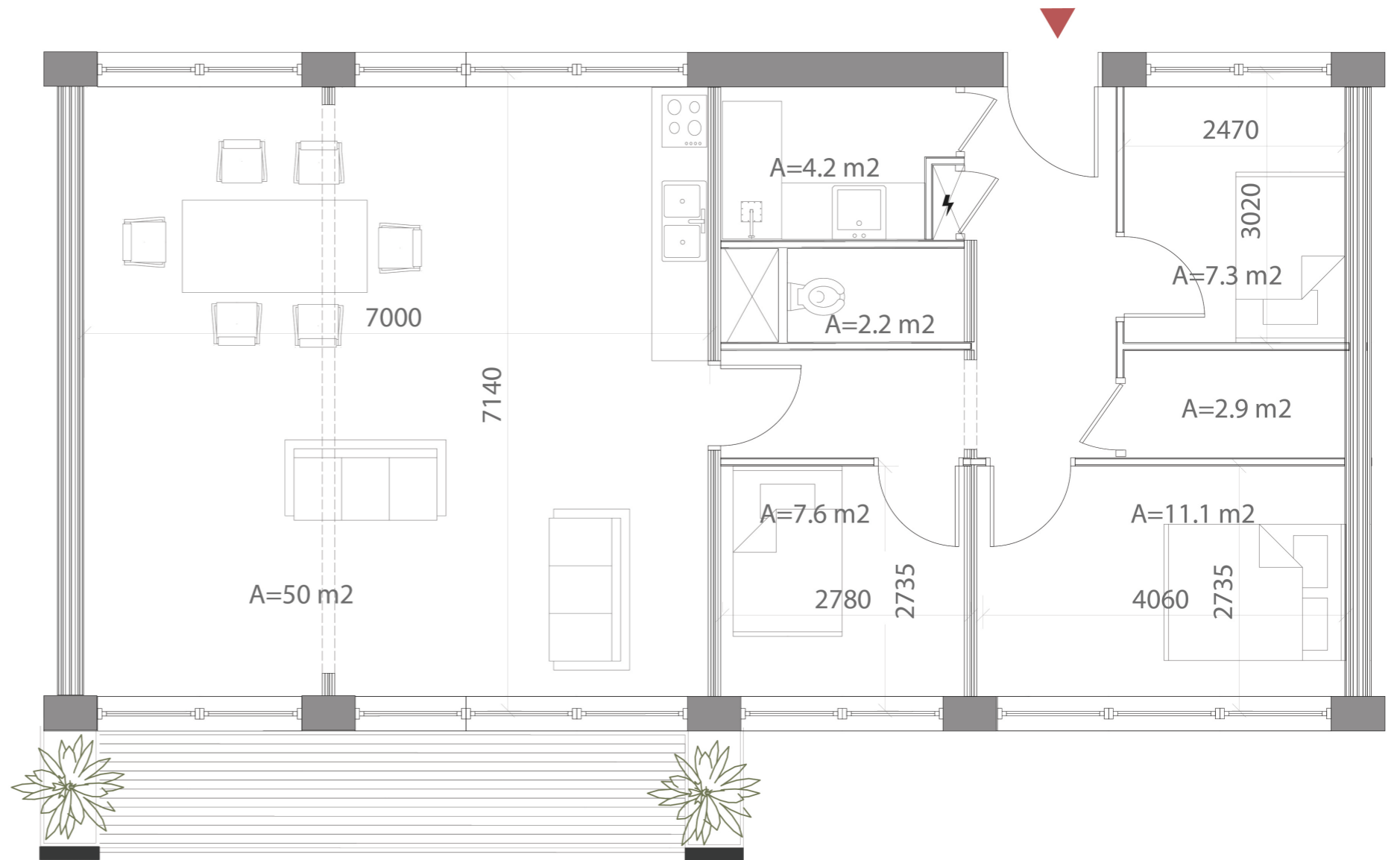
Dwelling size: 101,8 m²

Outside space: 10,5 m²

Number of bedrooms: 3

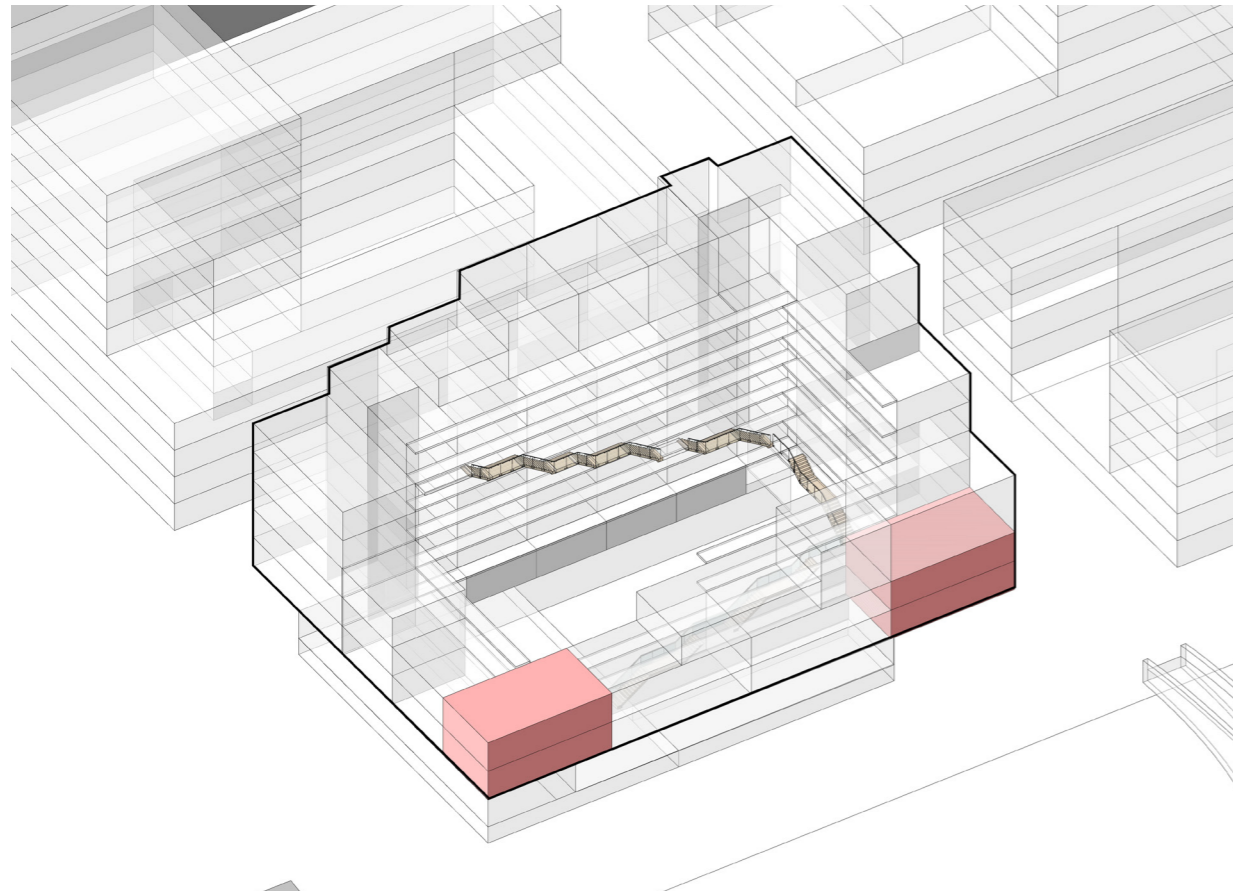
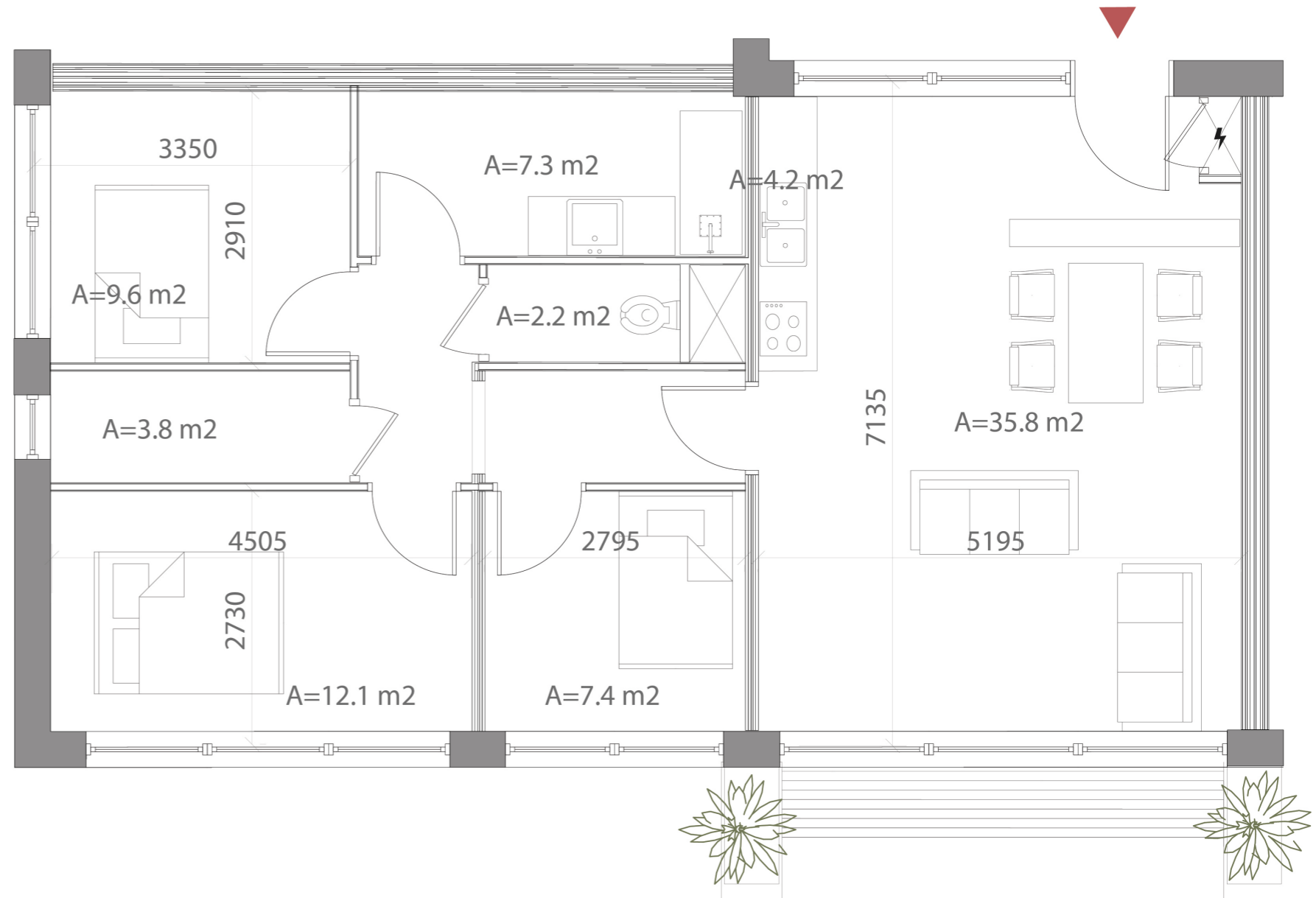
Suitable household: Family

Number of dwellings: 5 on Levels 1,2,3



DWELLING 5

Dwelling size: 92 m²
Outside space: 7,6 m²
Number of bedrooms: 3
Suitable household: Family
Number of dwellings: 4 on Levels 1 and 2



DWELLING 6

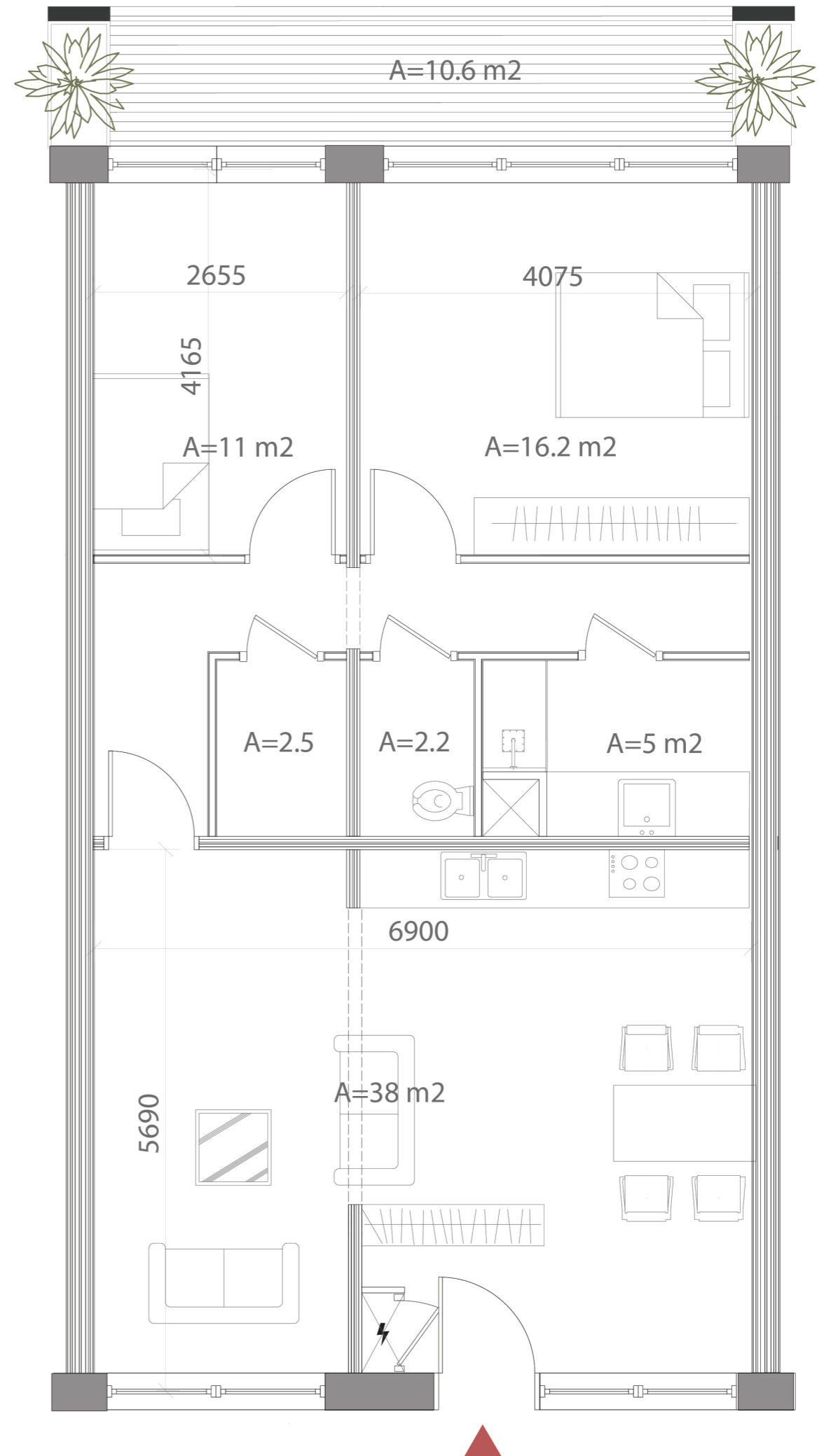
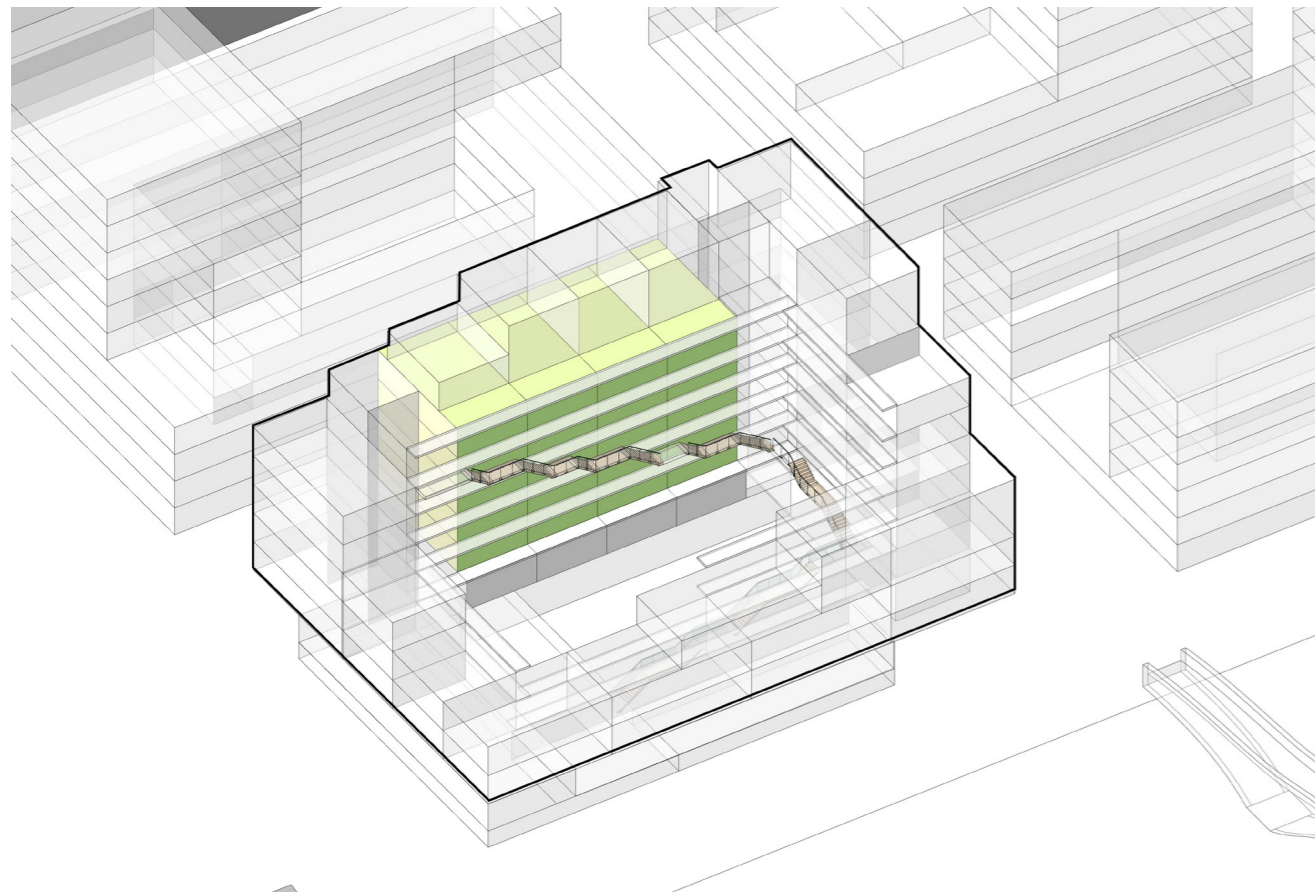
Dwelling size: 94 m²

Outside space: 10,6 m²

Number of bedrooms: 2

Suitable household: Family

Number of dwellings: 20 on Levels 1,2,3 and 4



DWELLING 7

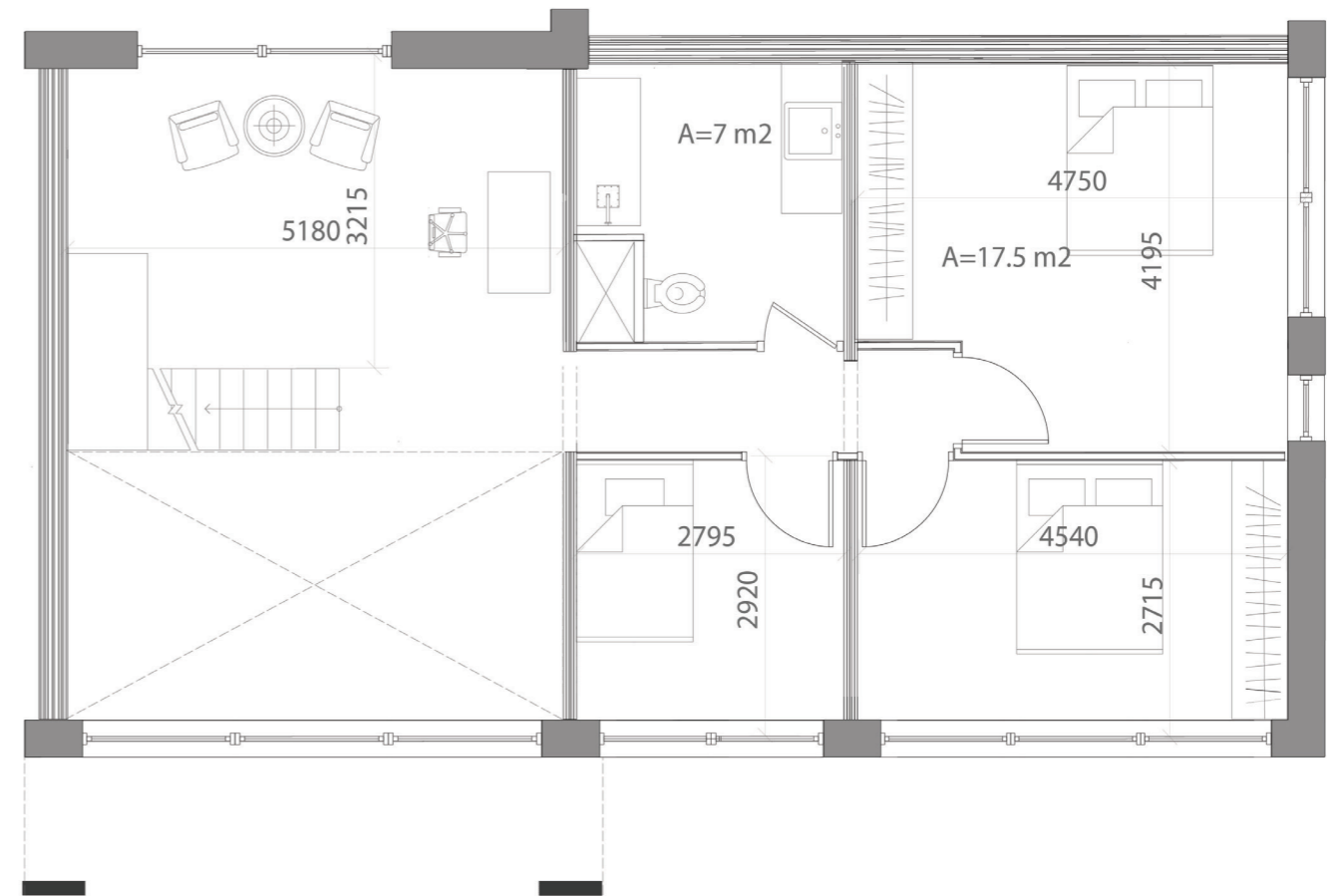
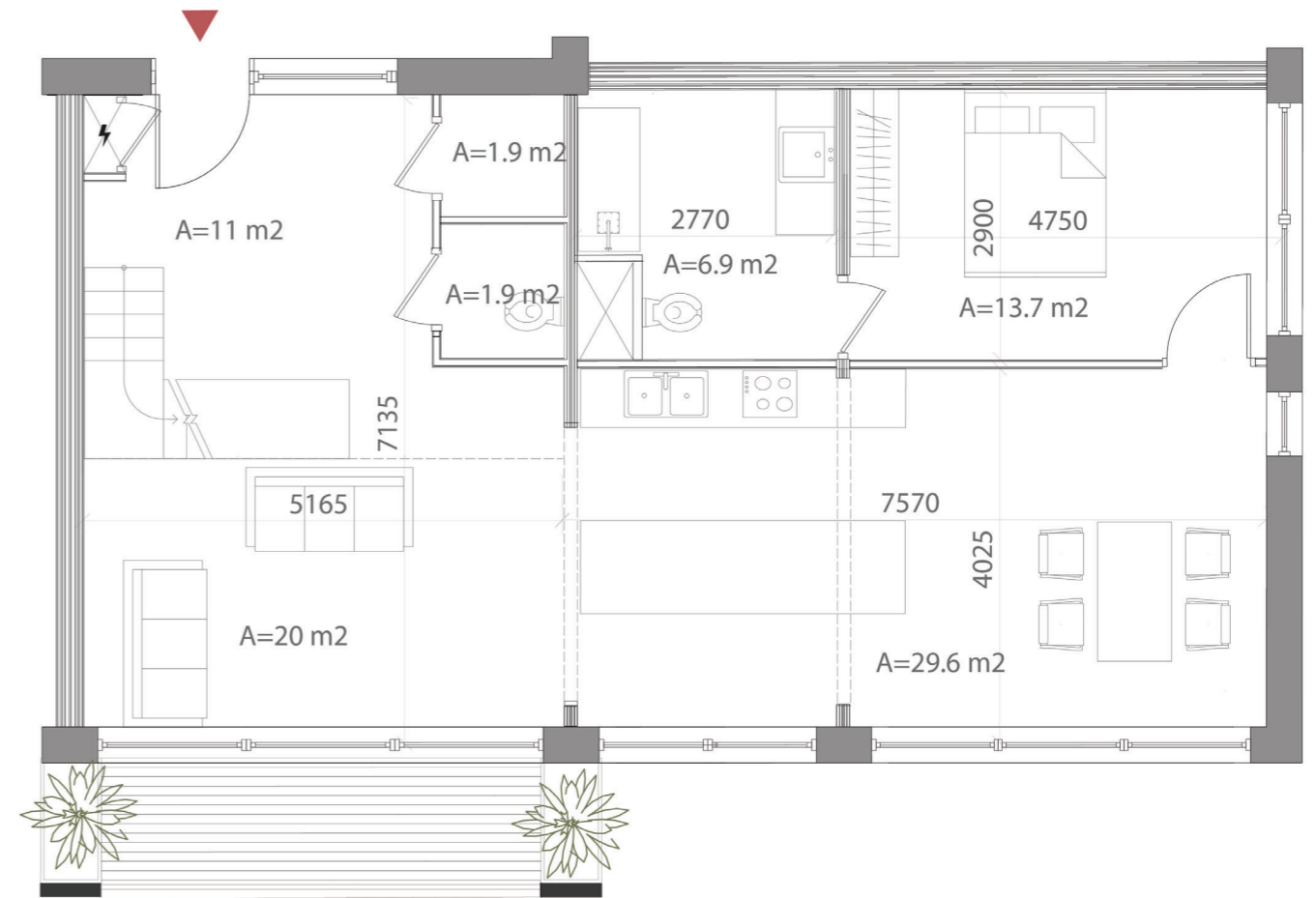
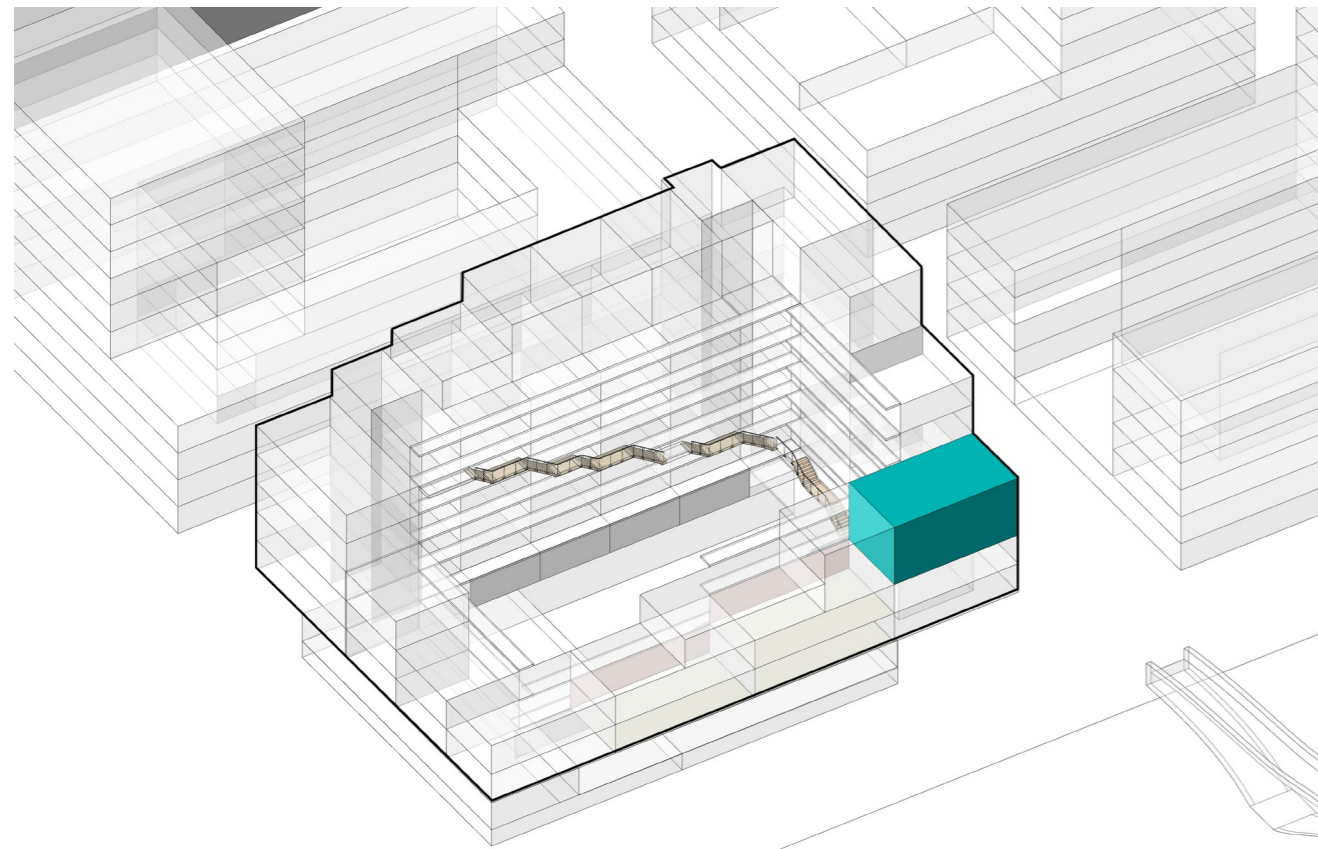
Dwelling size: 161,3 m²

Outside space: 10,5 m²

Number of bedrooms: 4 + 1

Suitable household: Family

Number of dwellings: 1 on Level 3-4



DWELLING 8

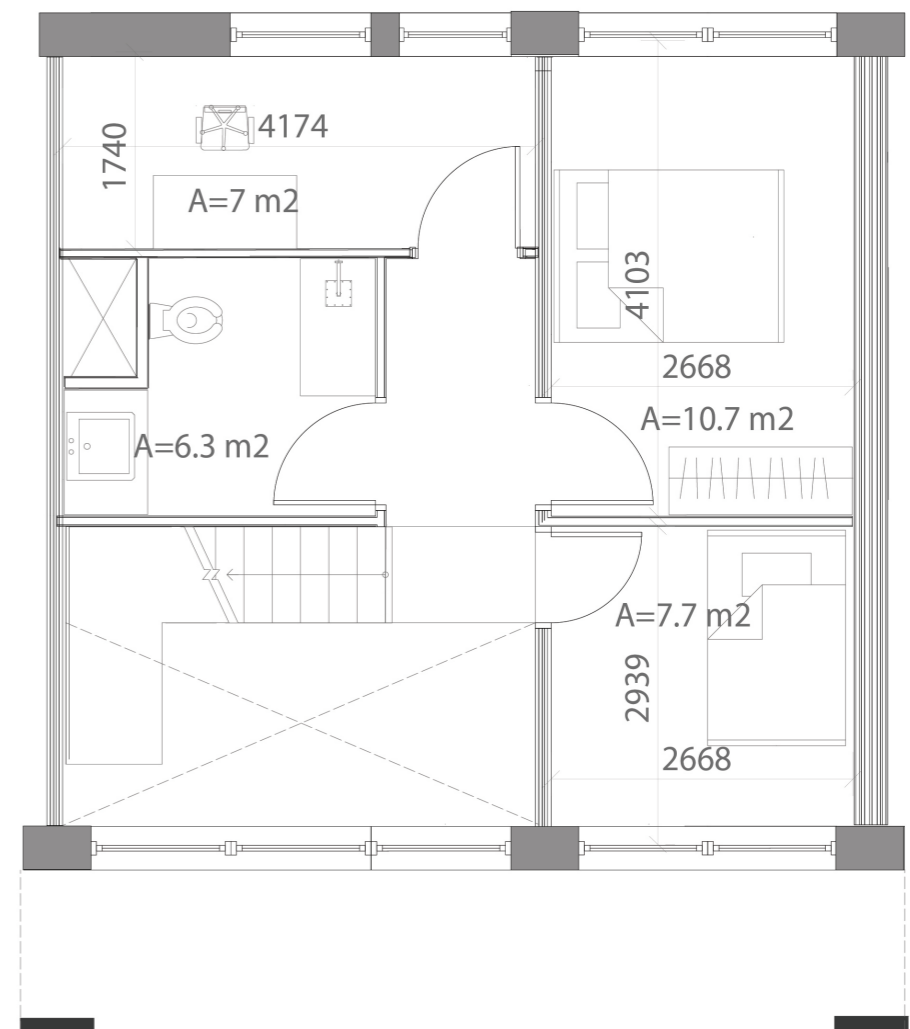
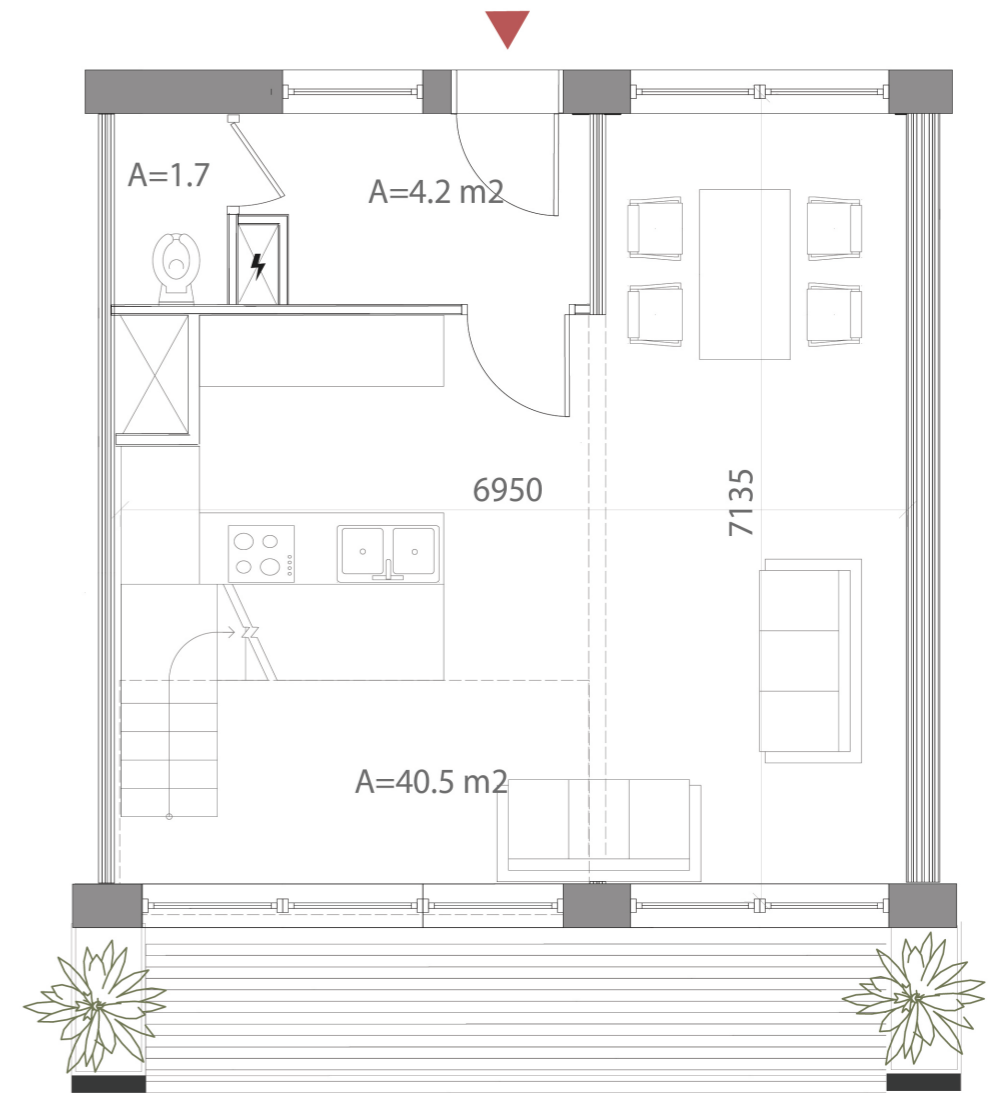
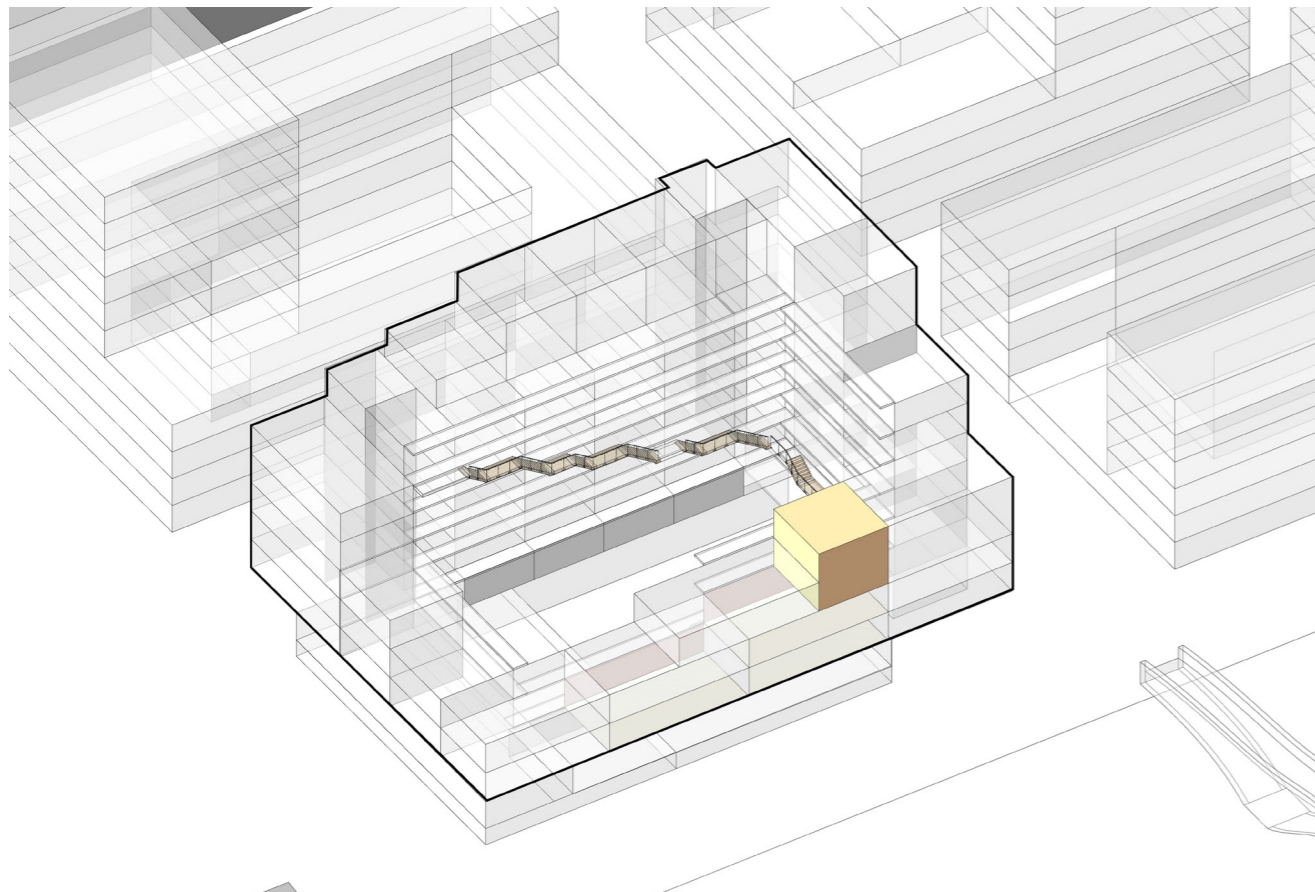
Dwelling size: 89,6 m²

Outside space: 10,5 m²

Number of bedrooms: 2+1

Suitable household: Family/Couple

Number of dwellings: 1 on Level 3-4



DWELLING 9

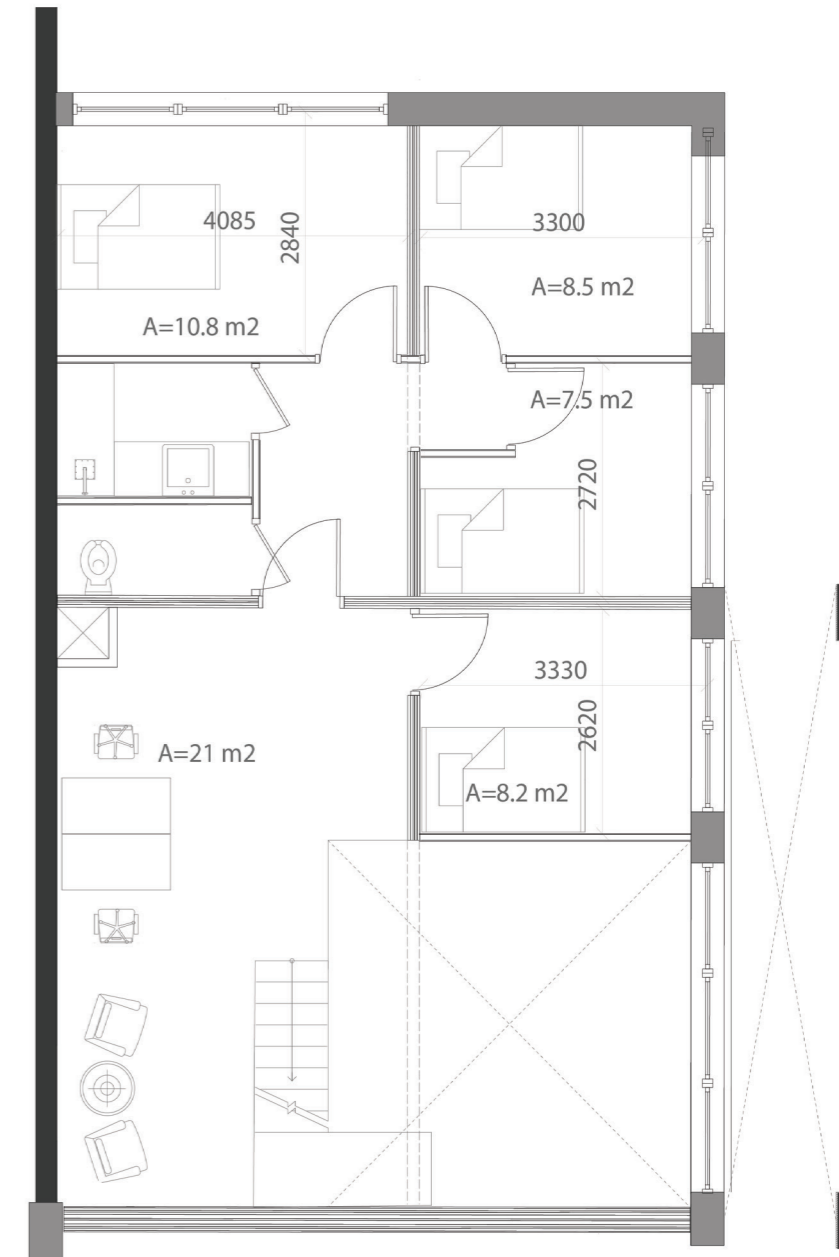
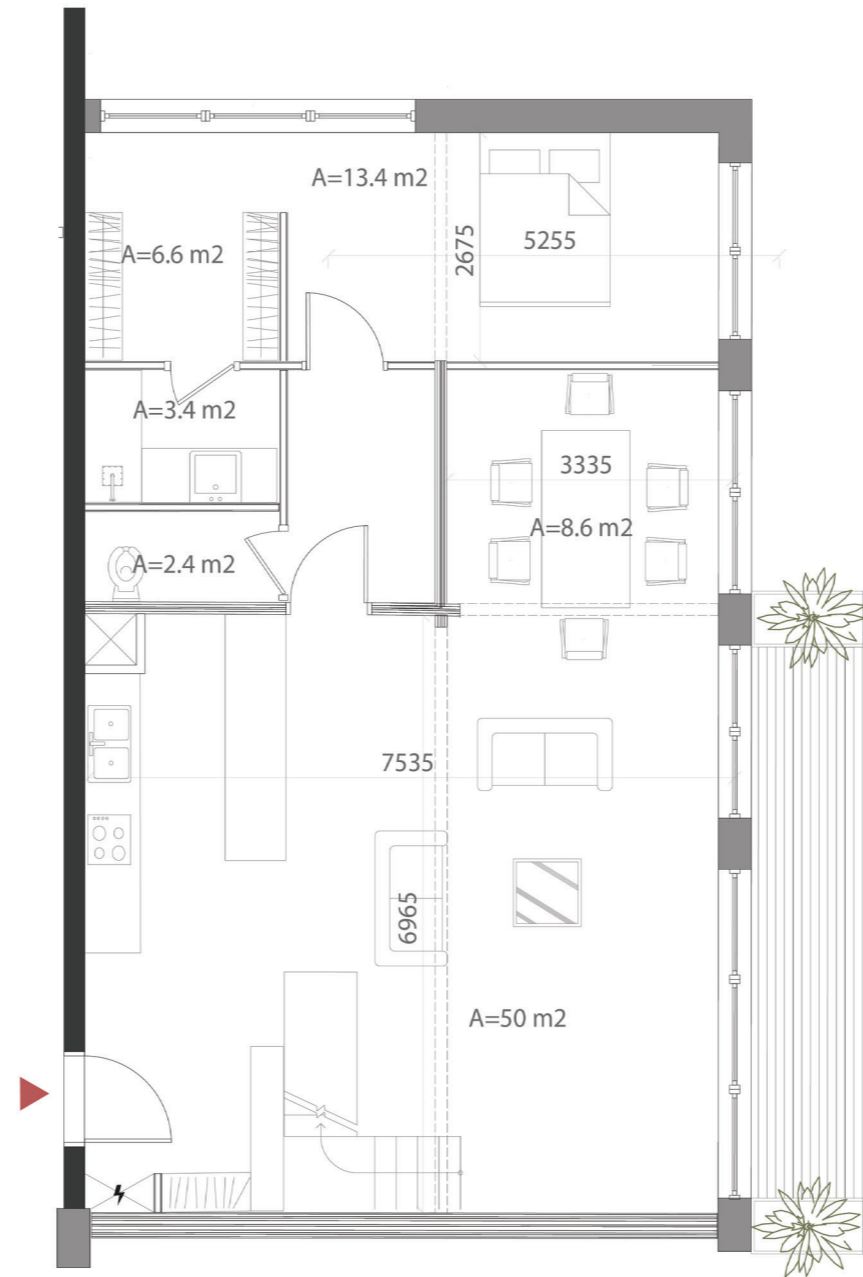
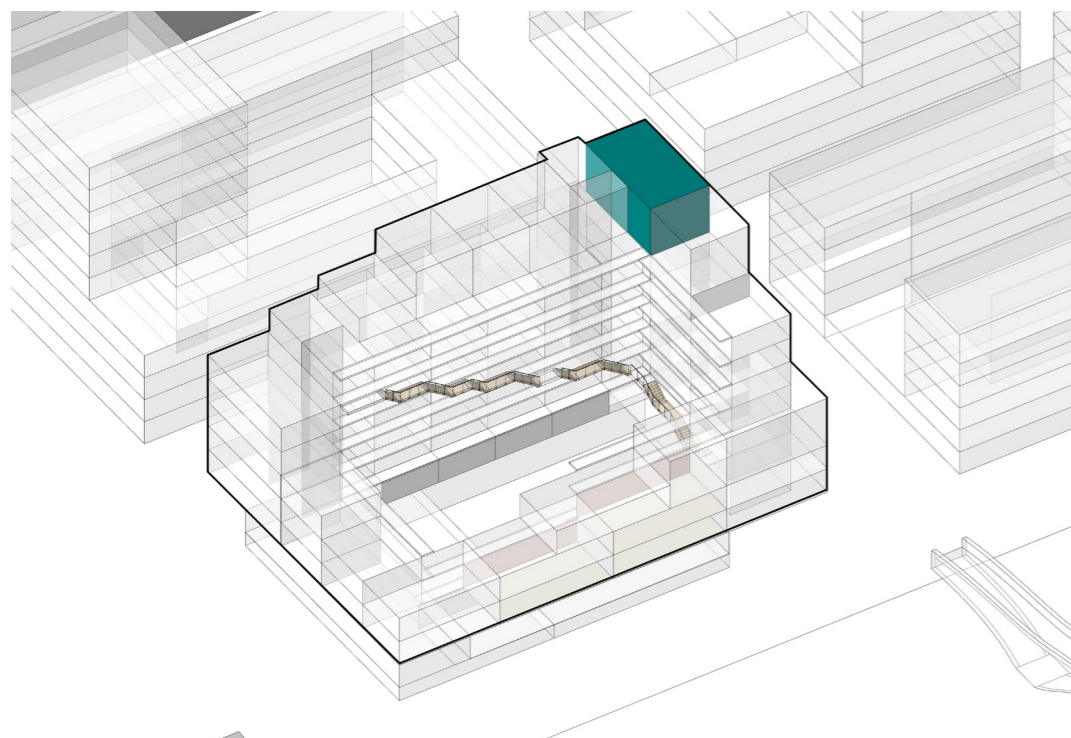
Dwelling size: 177,8 m²

Outside space: 10,6 m²

Number of bedrooms: 5

Suitable household: Family

Number of dwellings: 1 on Levels 7 and 7+



DWELLING 10

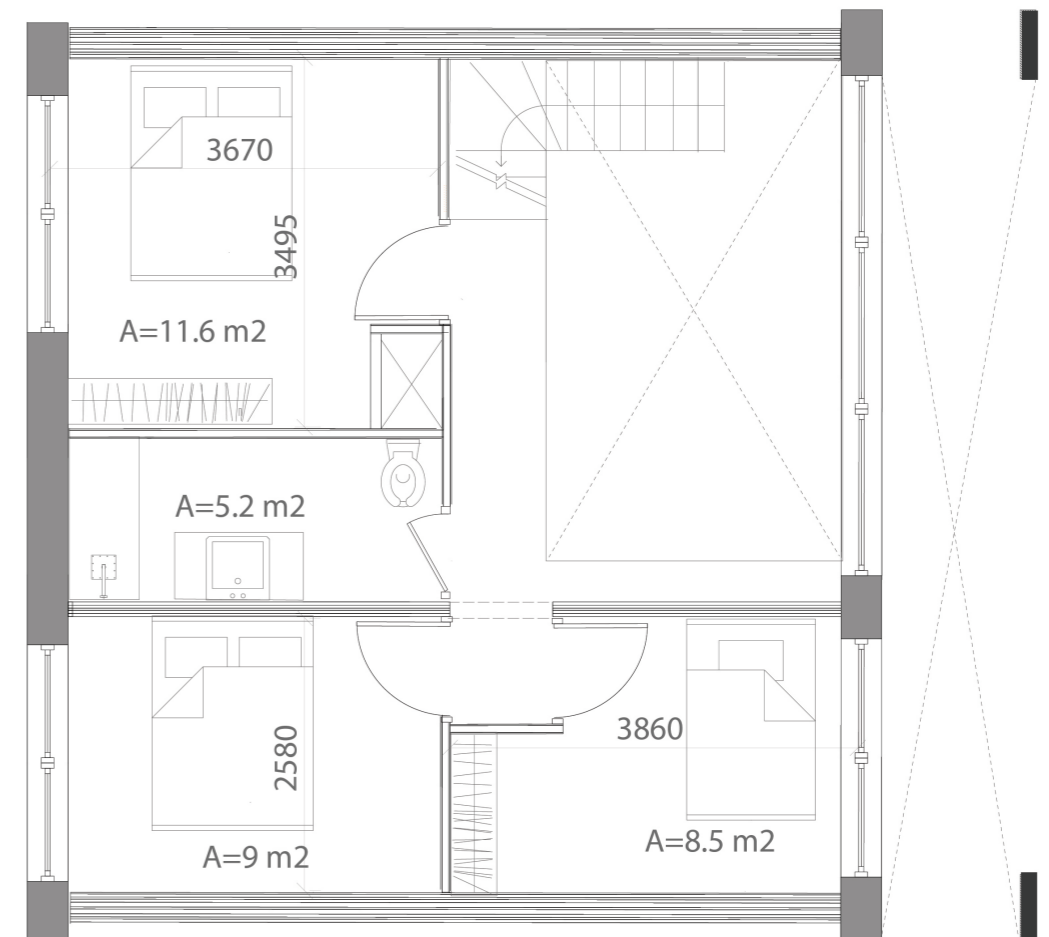
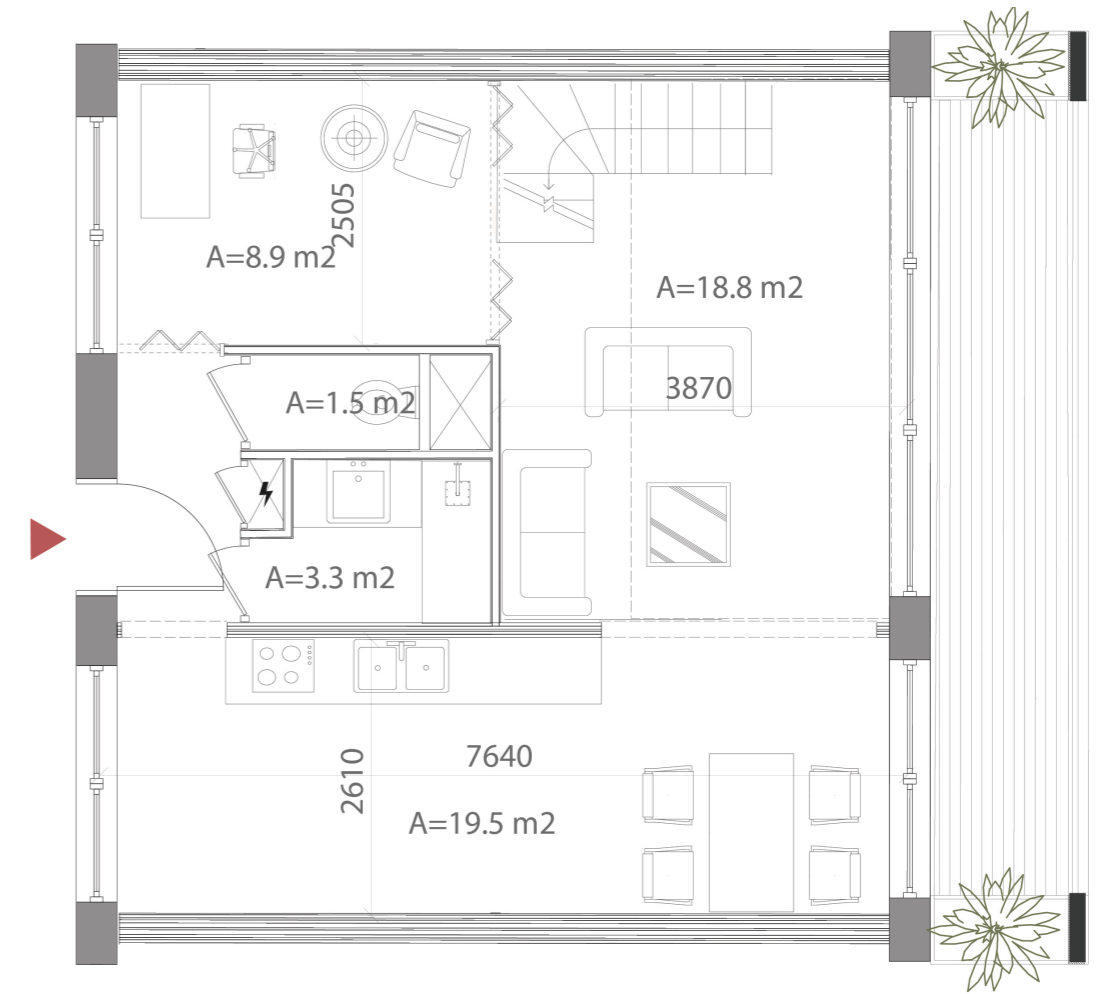
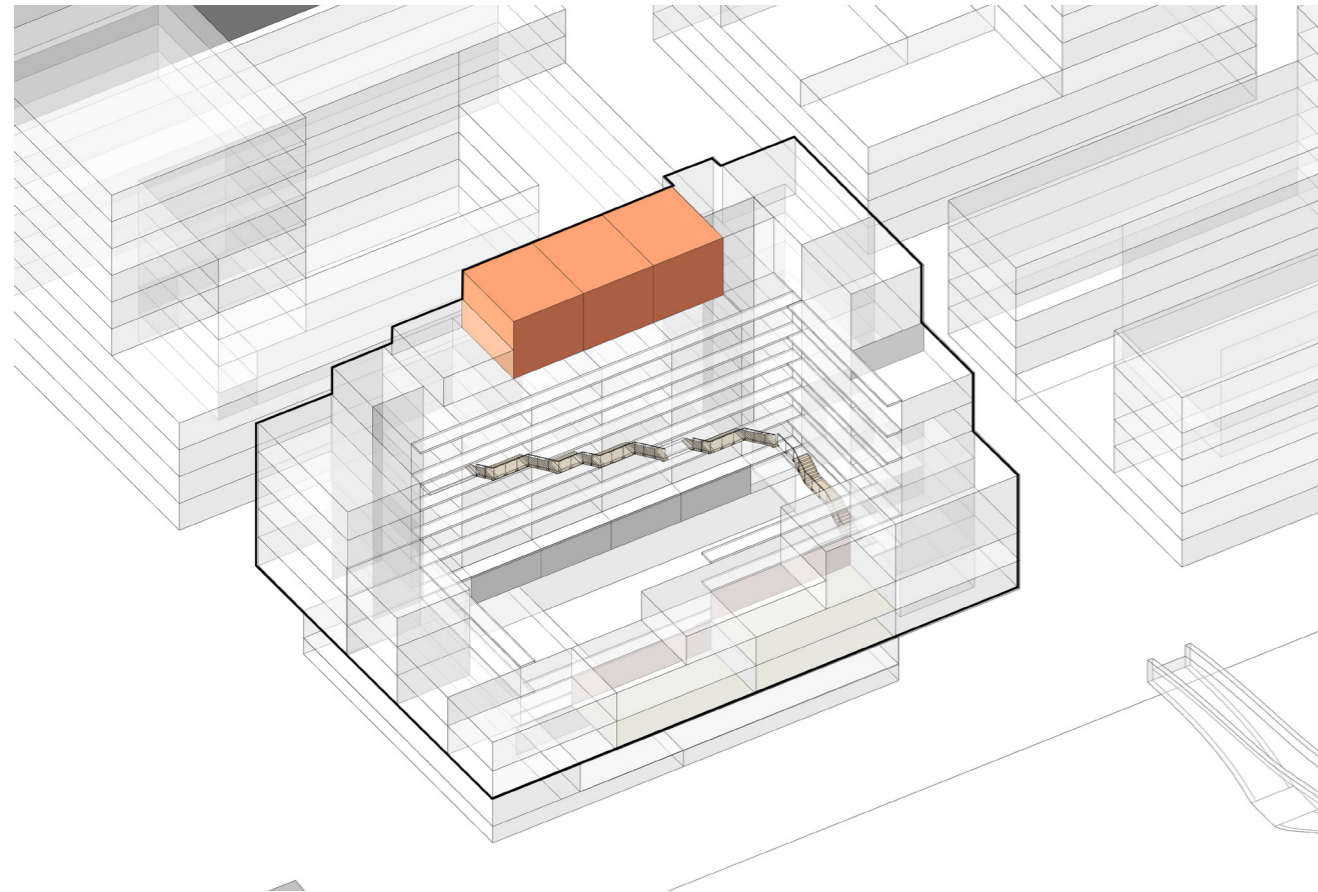
Dwelling size: 114 m²

Outside space: 10,5 m²

Number of bedrooms: 3 +1

Suitable household: Family

Number of dwellings: 1 on Levels 7, 7+



DWELLING 11

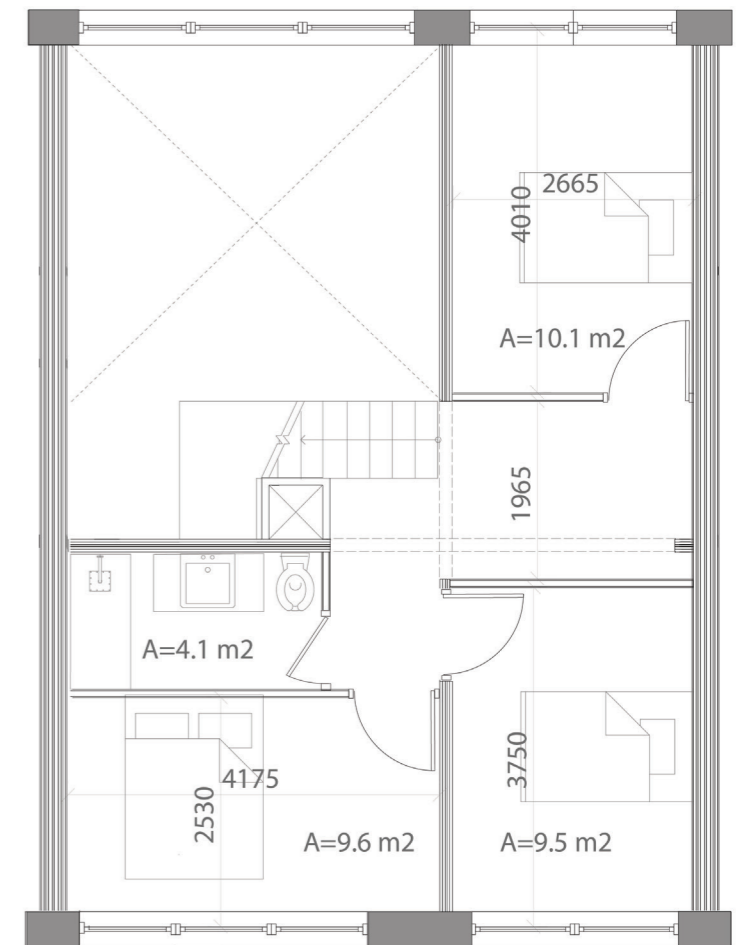
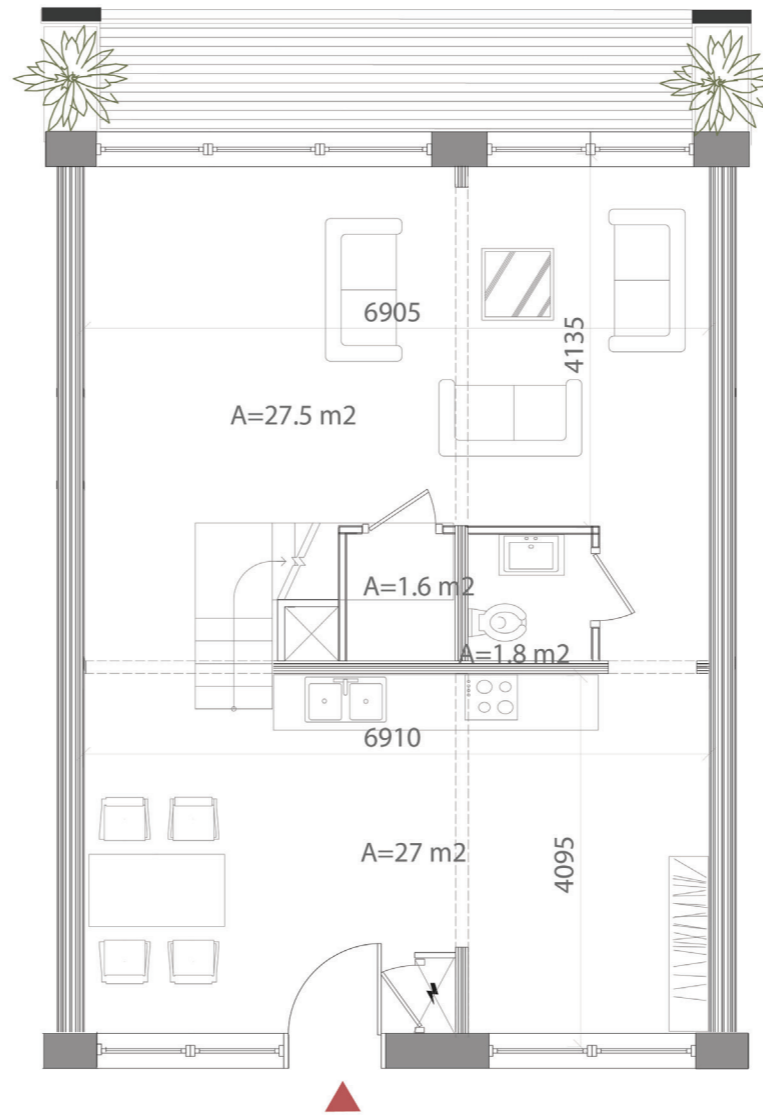
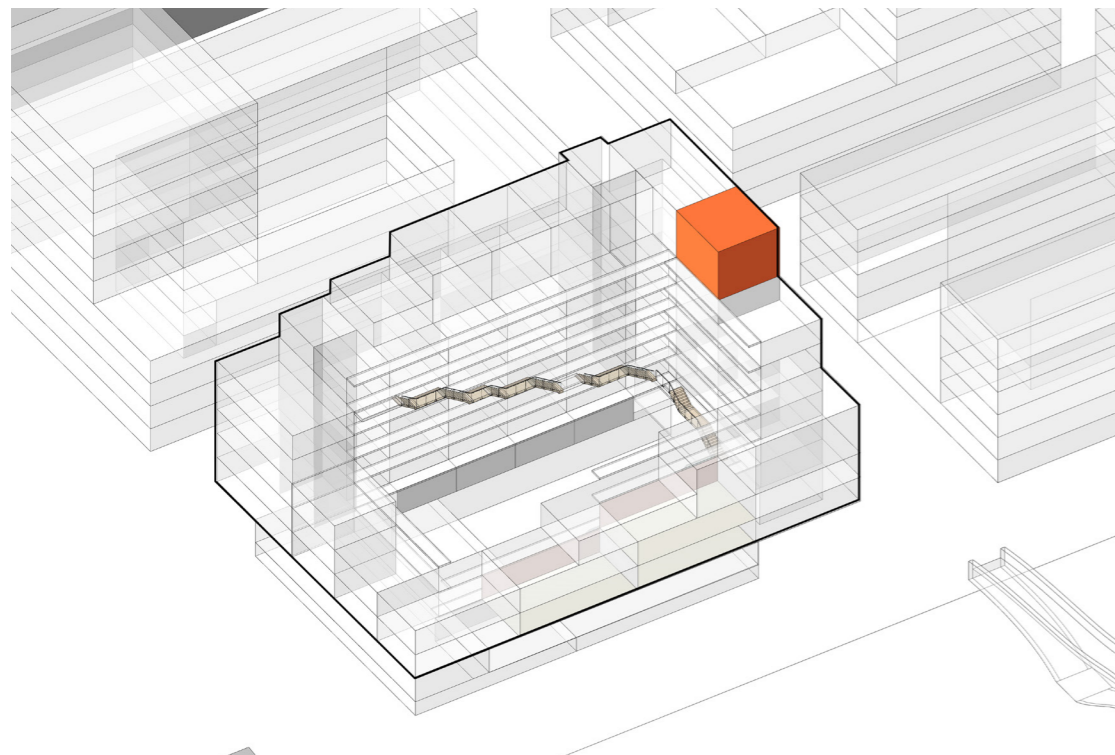
Dwelling size: 120 m²

Outside space: 10,5 m²

Number of bedrooms: 3

Suitable household: Family

Number of dwellings: 3 on Levels 7, 7+



DWELLING 12

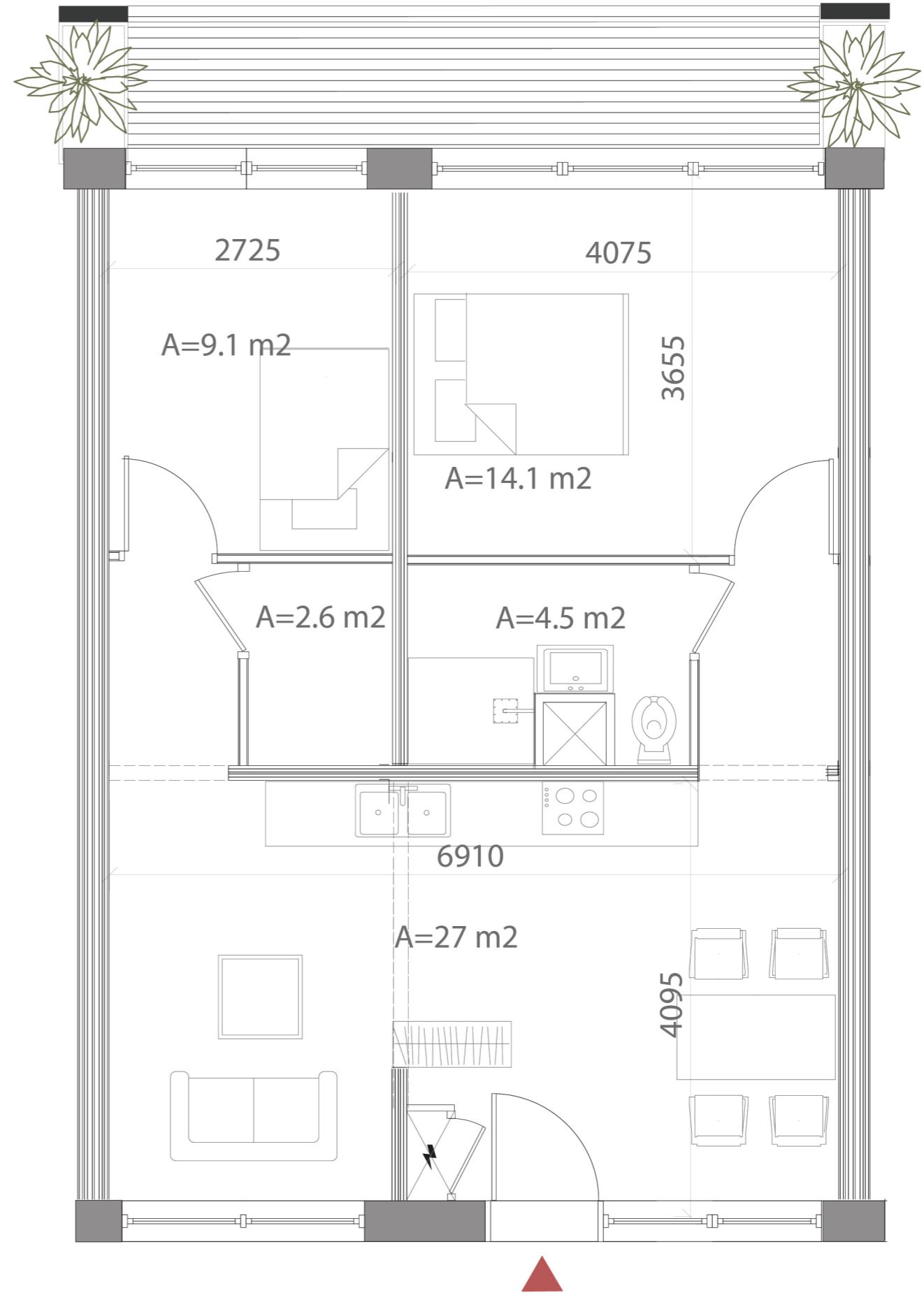
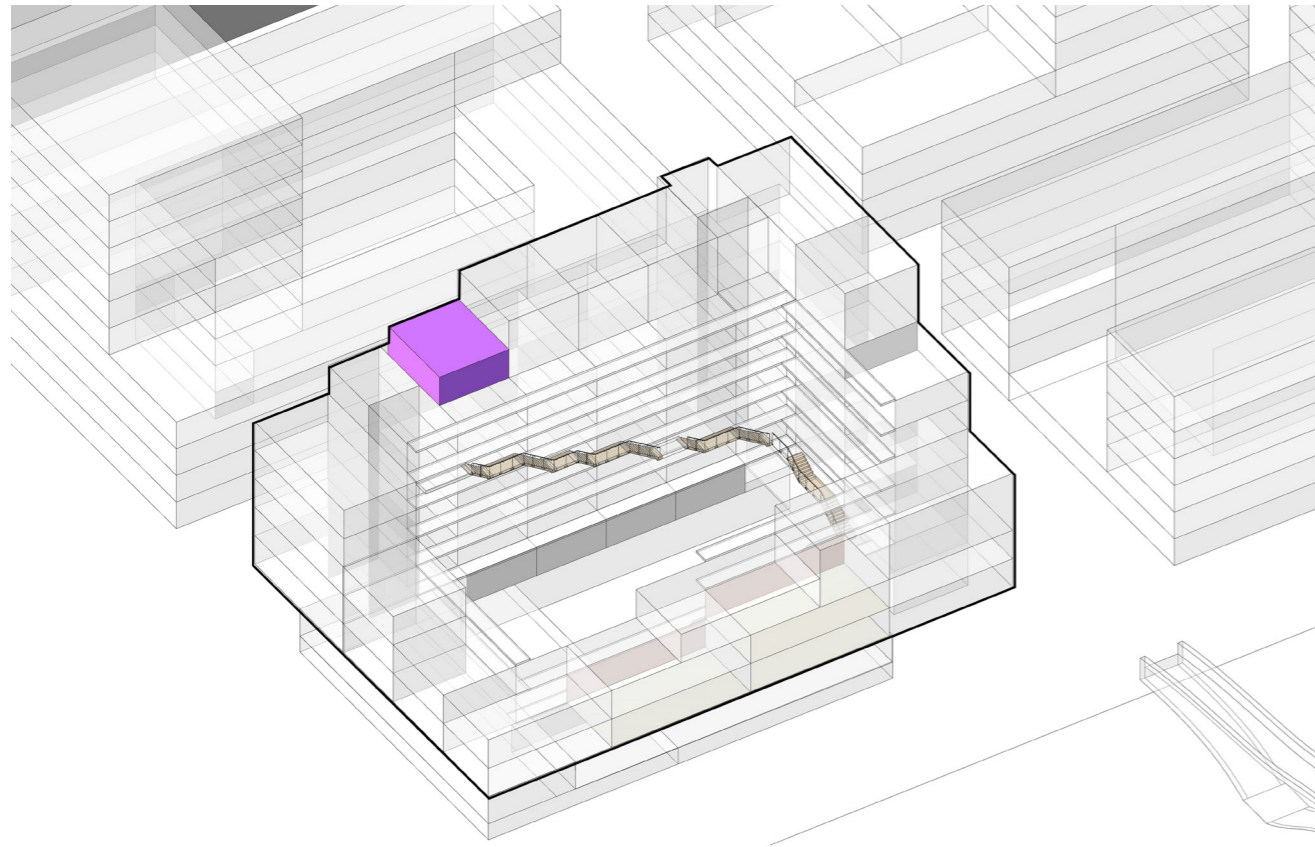
Dwelling size: 70.8 m²

Outside space: 10,5 m²

Number of bedrooms: 2

Suitable household: Family

Number of dwellings: 1 on Level 7



EAST ELEVATION



SOUTH ELEVATION



3700
3100
3100
3100
3100
3100
3100
5100

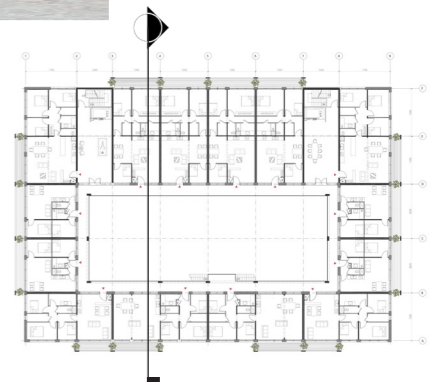
WEST ELEVATION



NORTH ELEVATION



SECTION

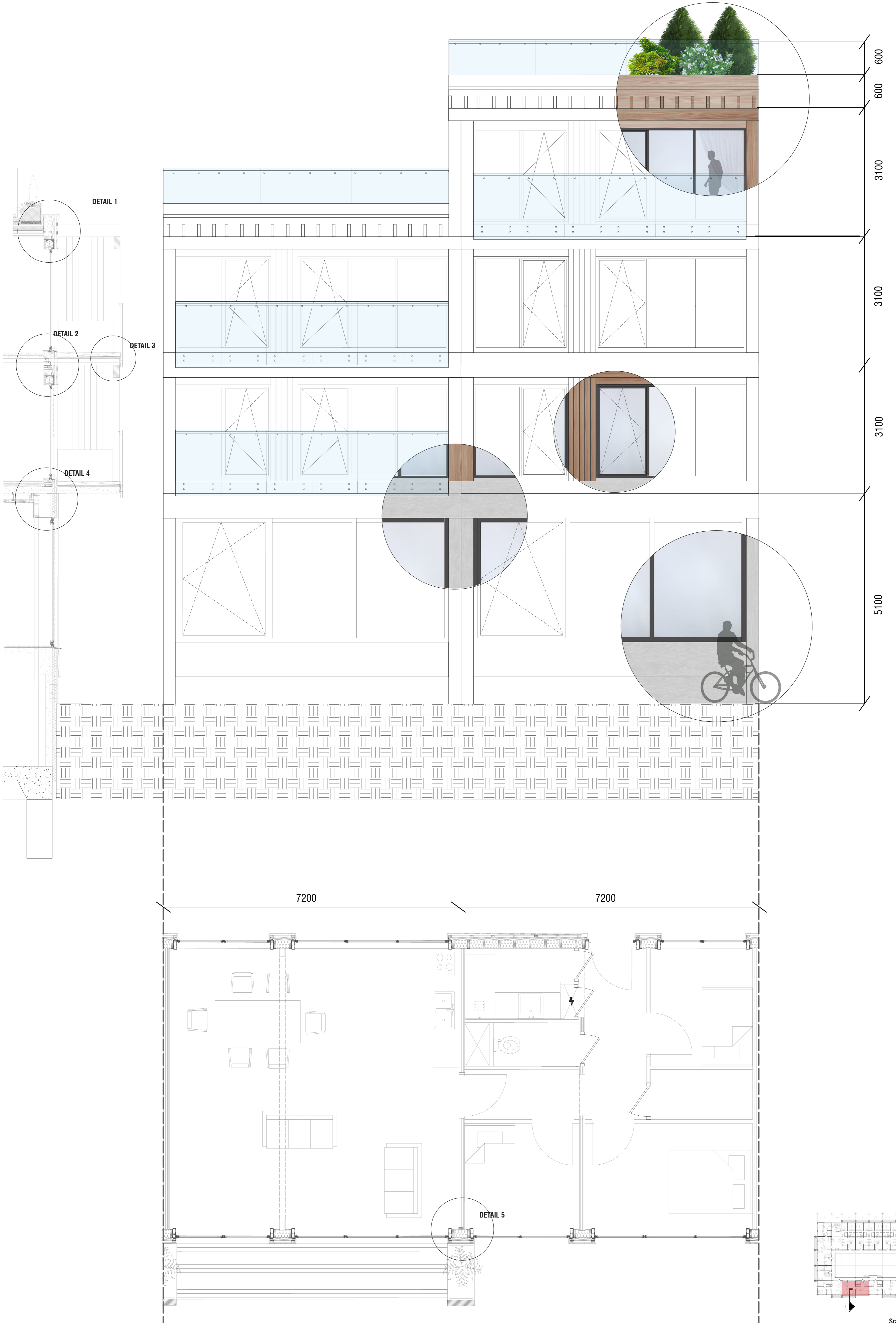


Scale 1:200

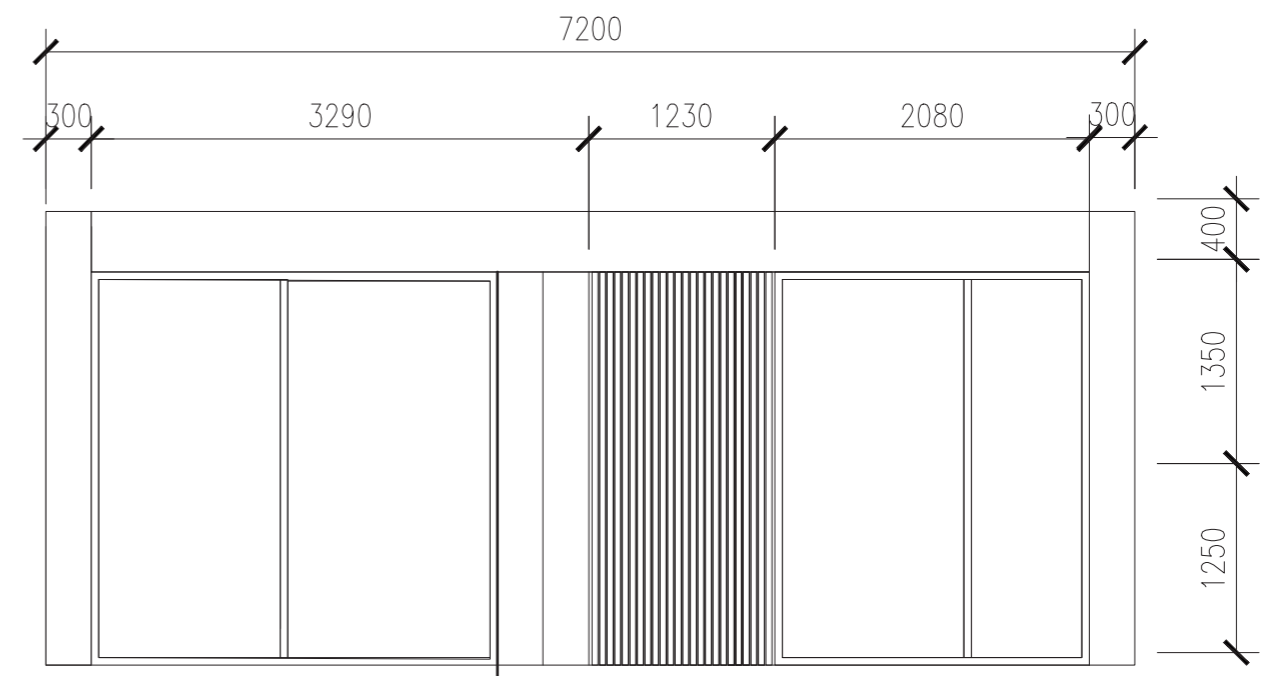
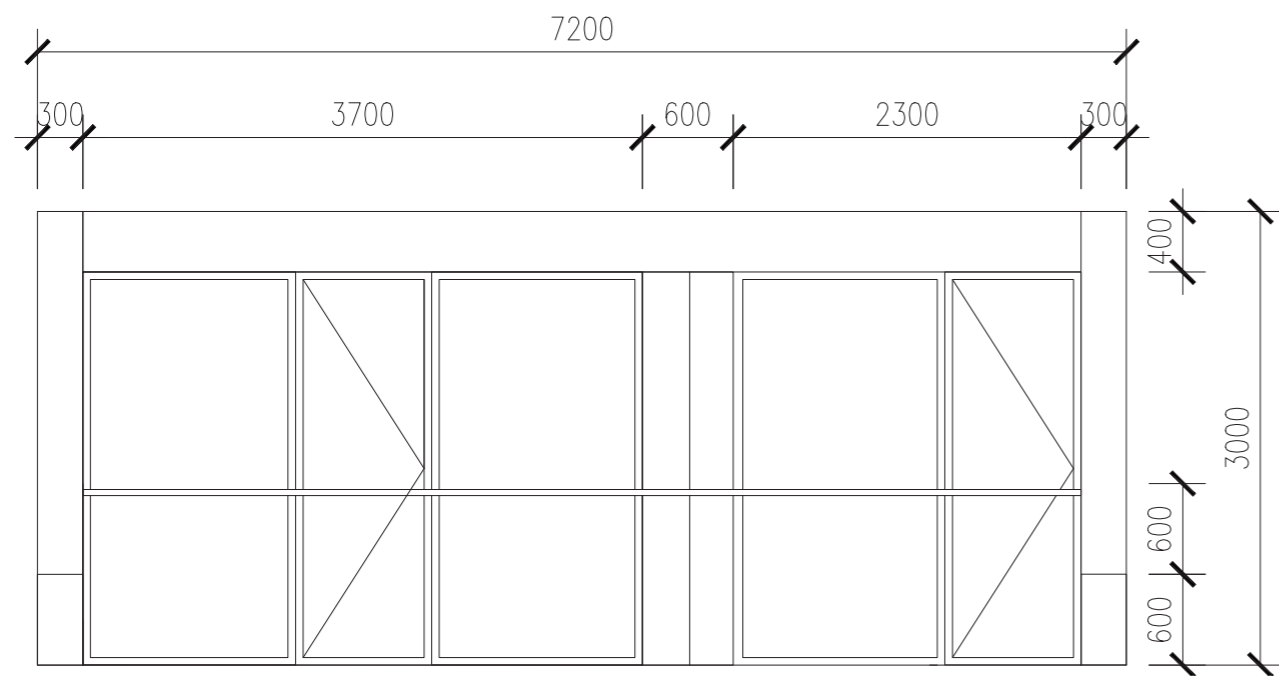
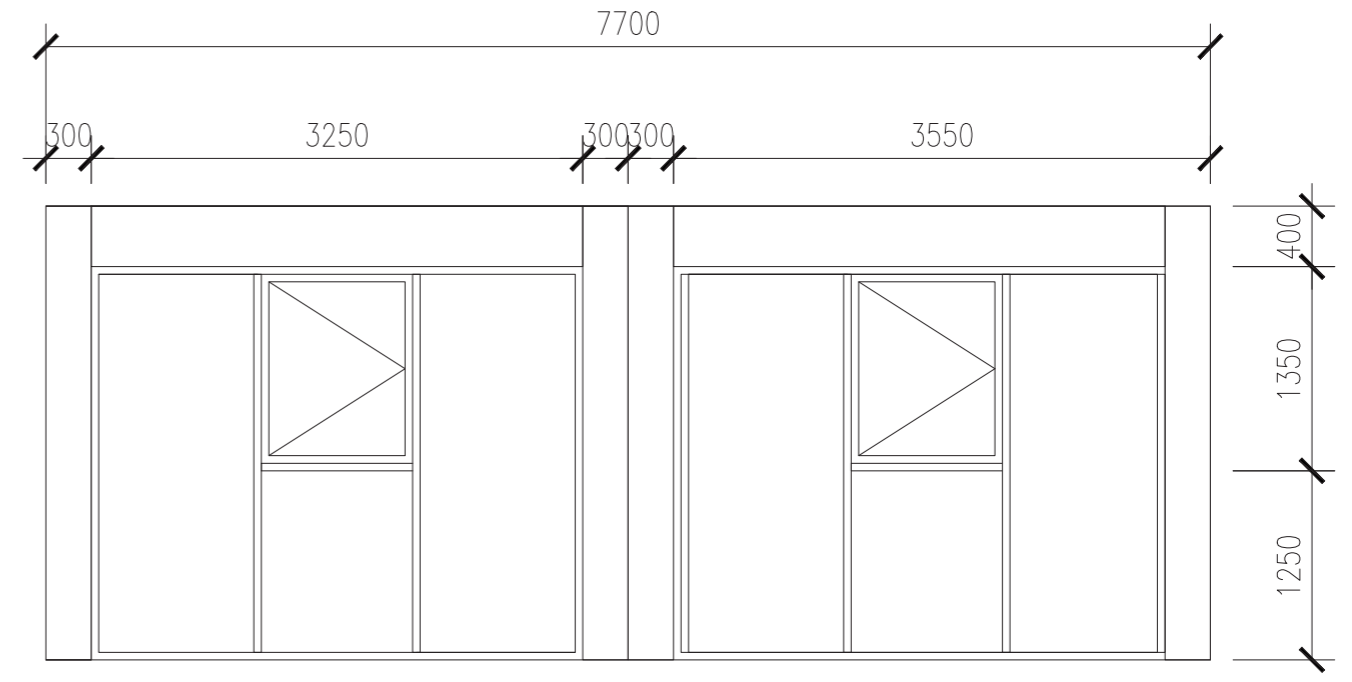
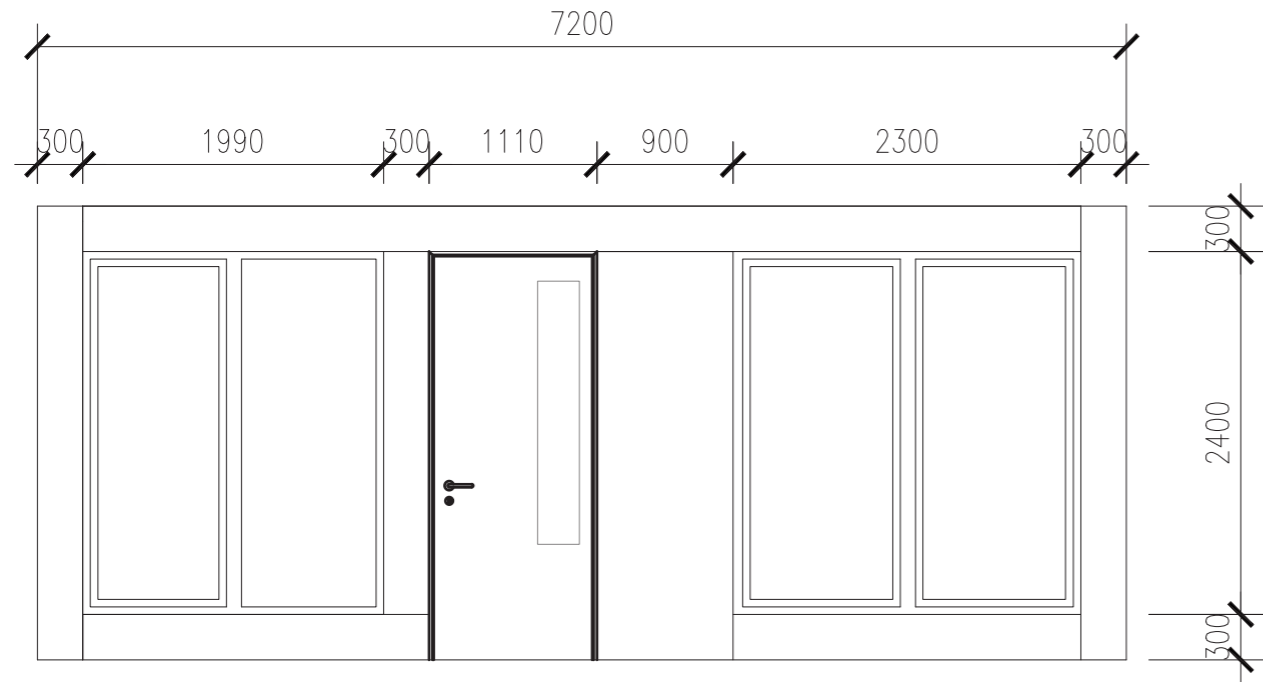
SECTION



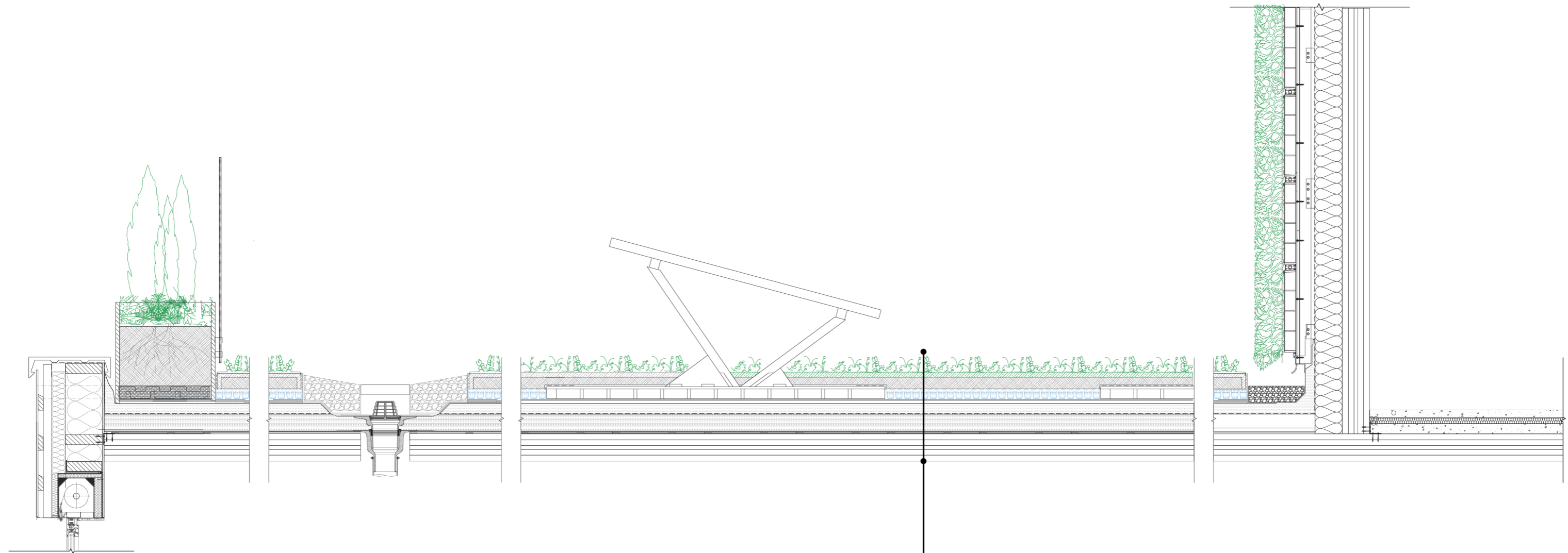
SECTION, ELEVATION AND FLOORPLAN



FACADE TYPES



ROOF SECTION



① Roof edge with pot for higher vegetation

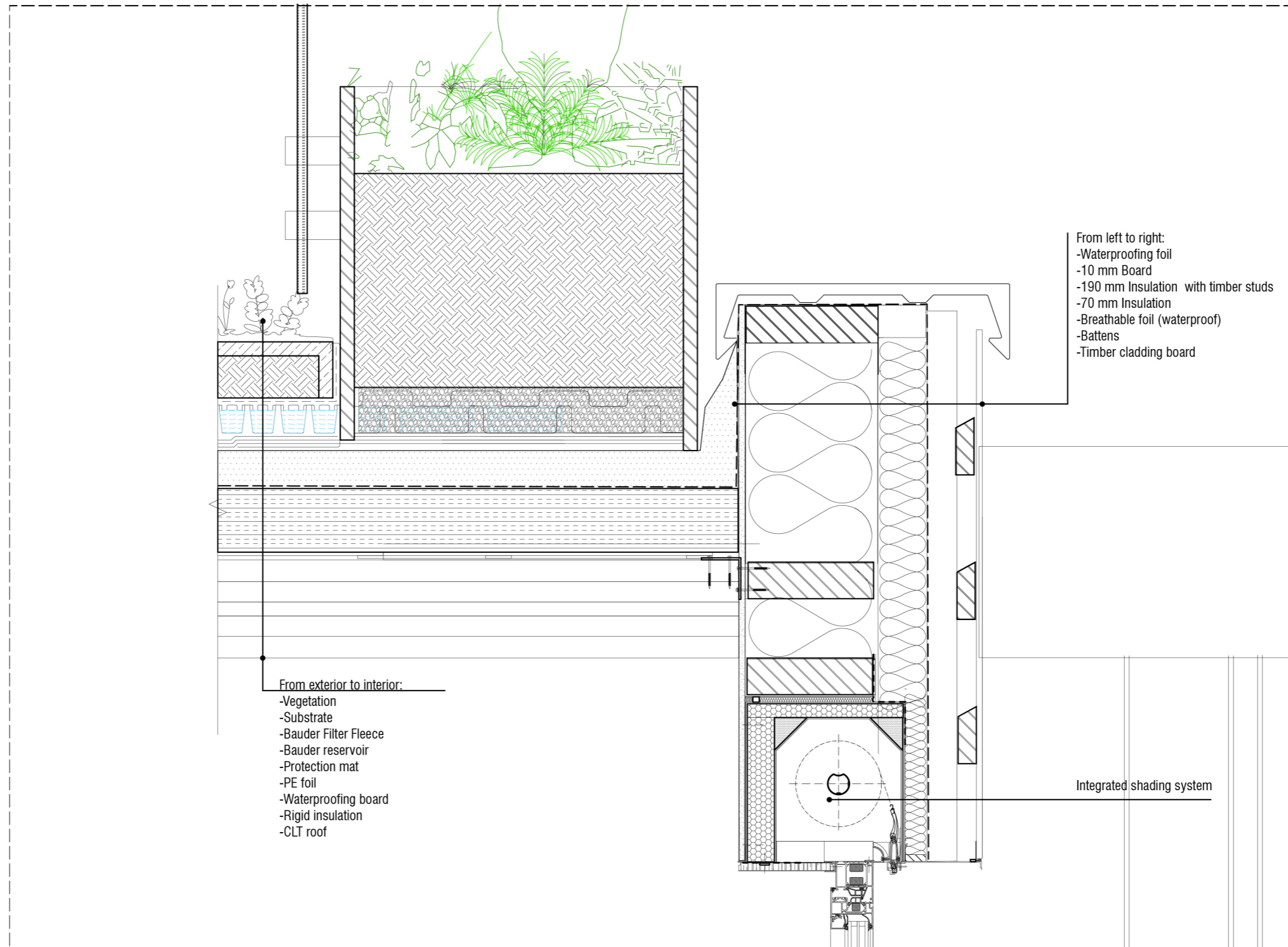
② Blue roof with vegetation

③ Blue roof with vegetation and PV Panels

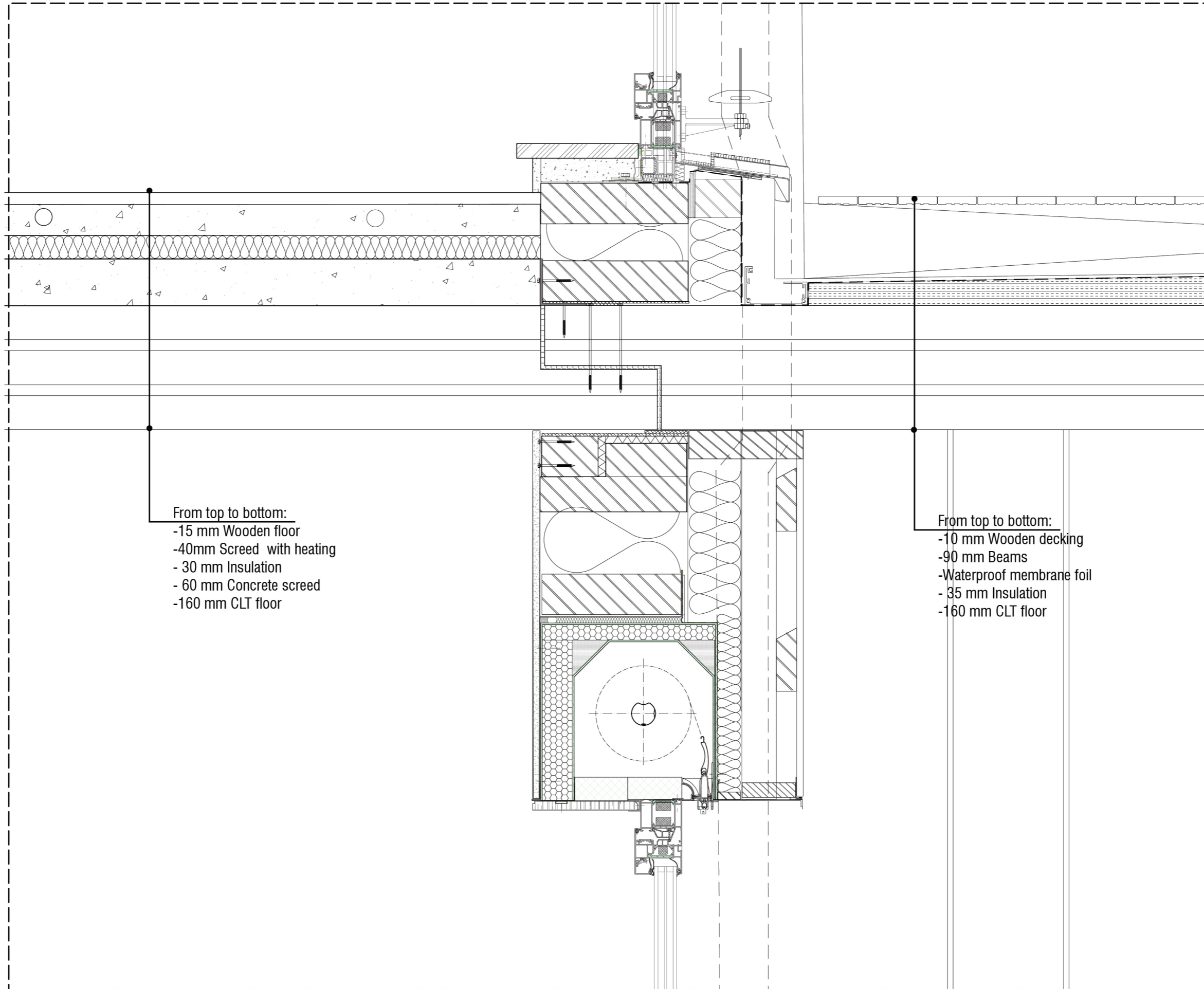
④ Blue roof with green wall

- From exterior to interior:
- Vegetation
 - Substrate
 - Bauder Filter Fleece
 - Bauder reservoir
 - Protection mat
 - PE foil
 - Waterproofing board
 - Rigid insulation
 - CLT roof

DETAIL 1 ROOF-FACADE CONNECTION



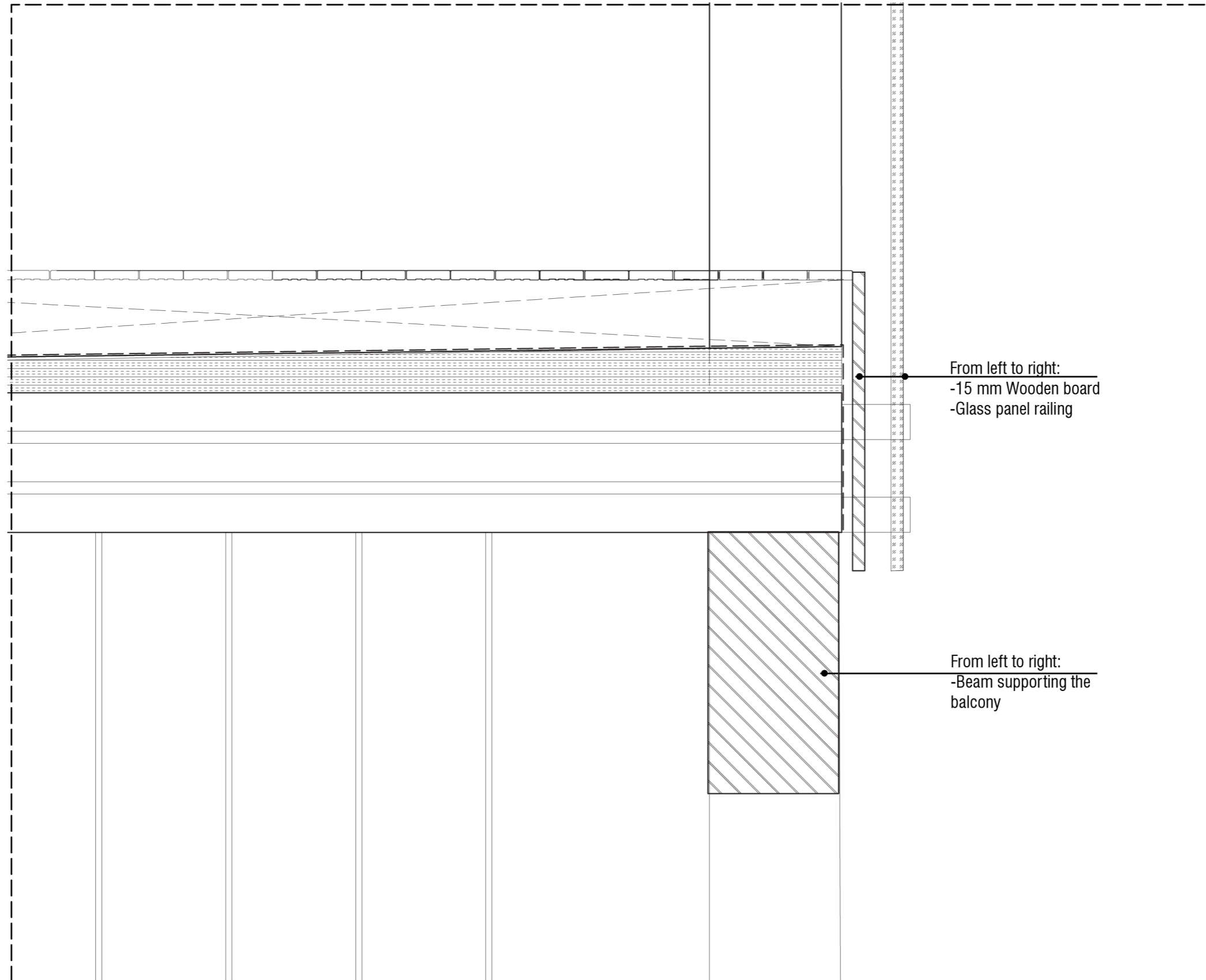
DETAIL 2 FACADE AND WALL



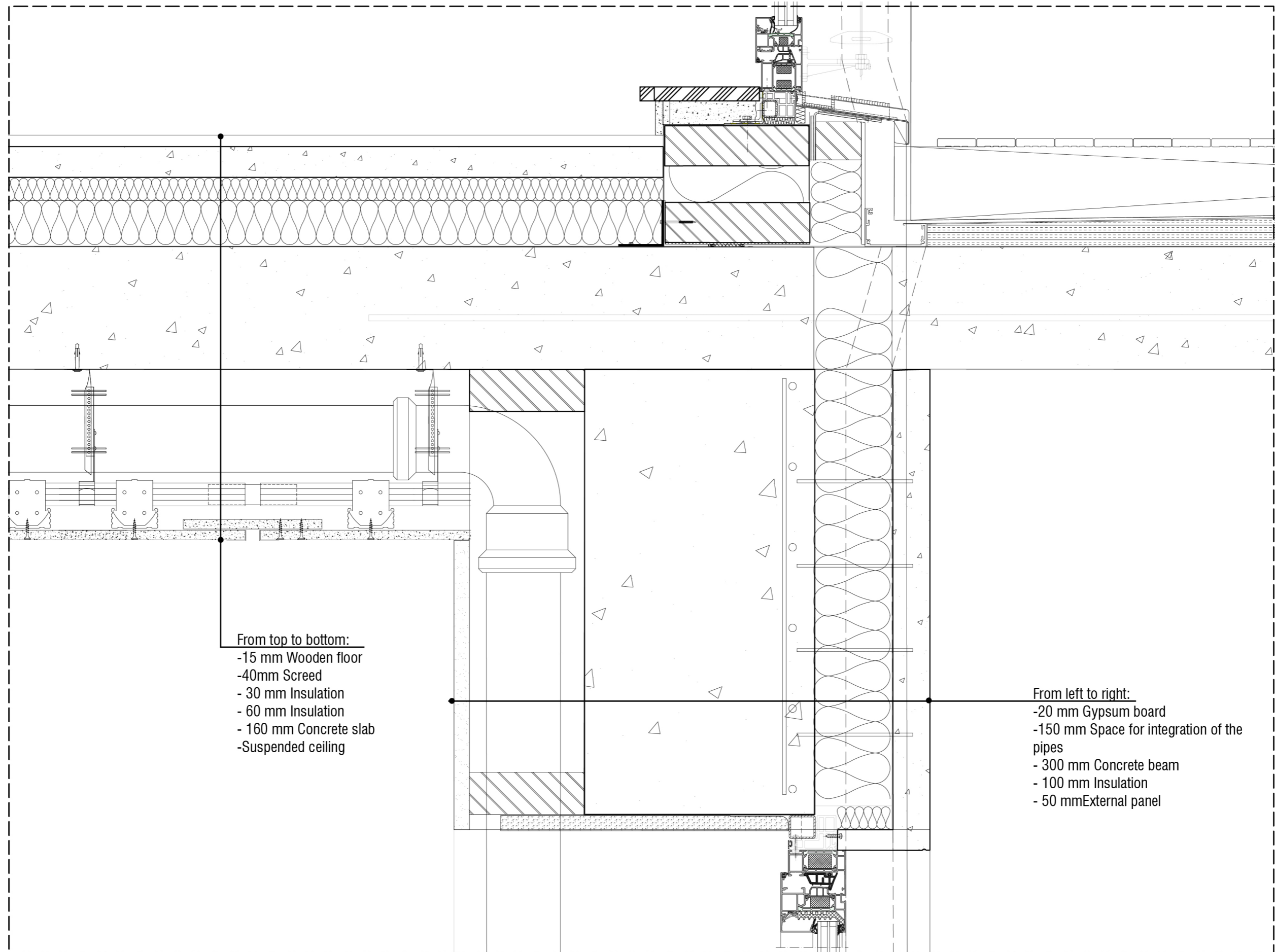
From top to bottom:
-15 mm Wooden floor
-40mm Screed with heating
- 30 mm Insulation
- 60 mm Concrete screed
-160 mm CLT floor

From top to bottom:
-10 mm Wooden decking
-90 mm Beams
-Waterproof membrane foil
- 35 mm Insulation
-160 mm CLT floor

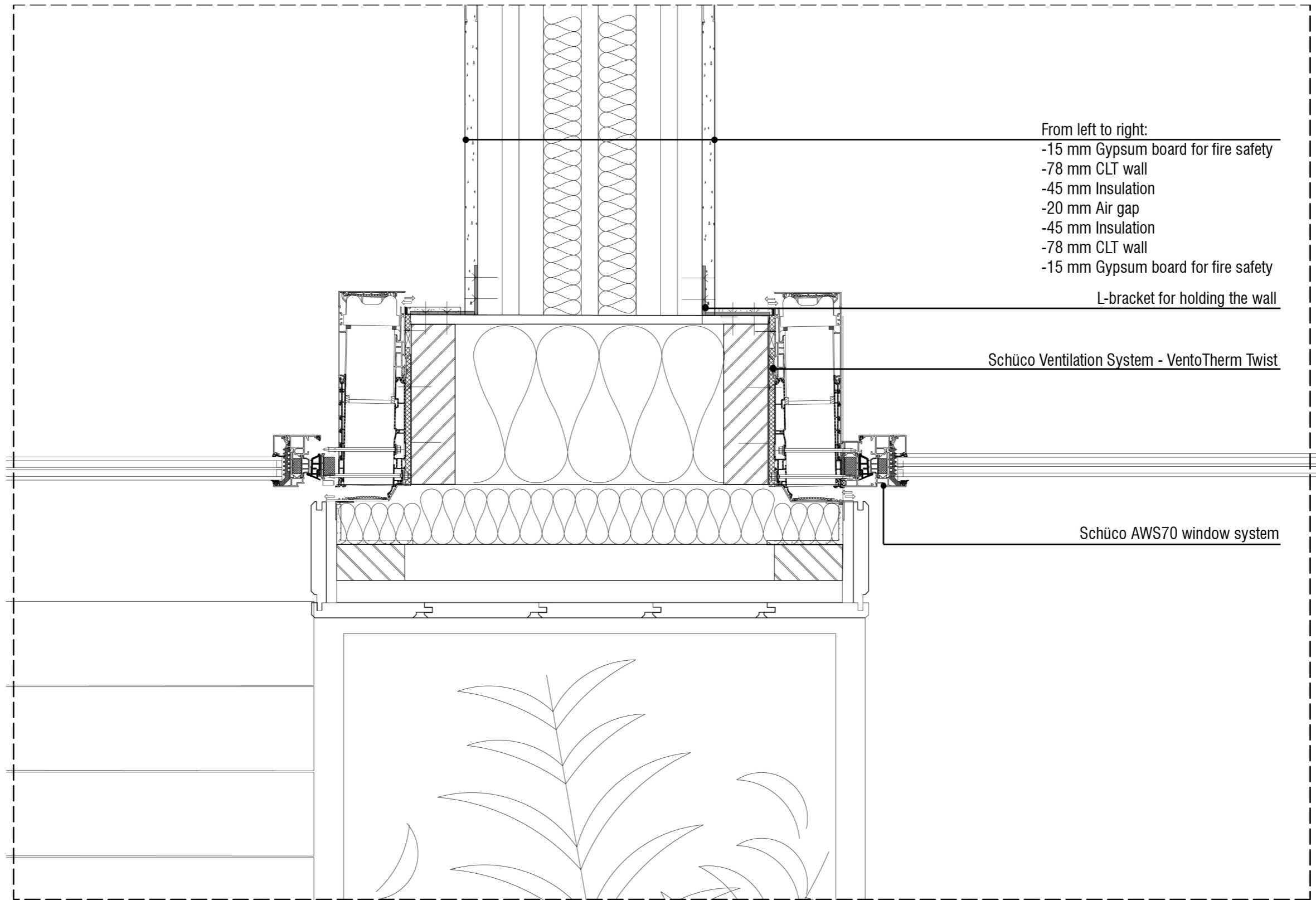
DETAIL 3 BALCONY AND RAILING CONNECTION



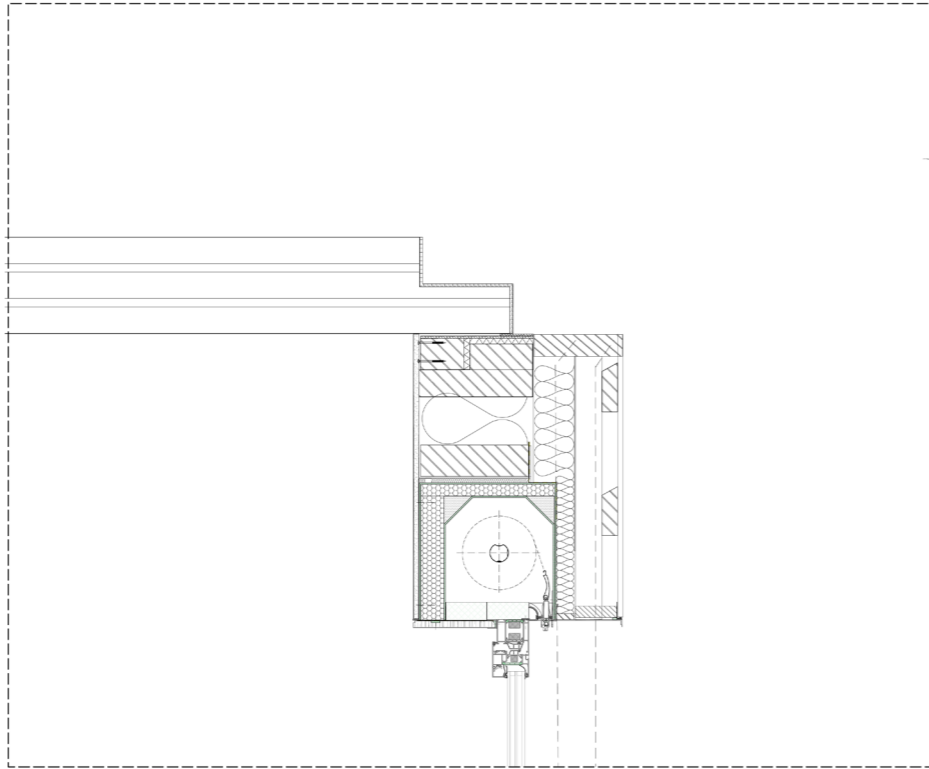
DETAIL 4 FACADE TO FLOOR (CONCRETE)



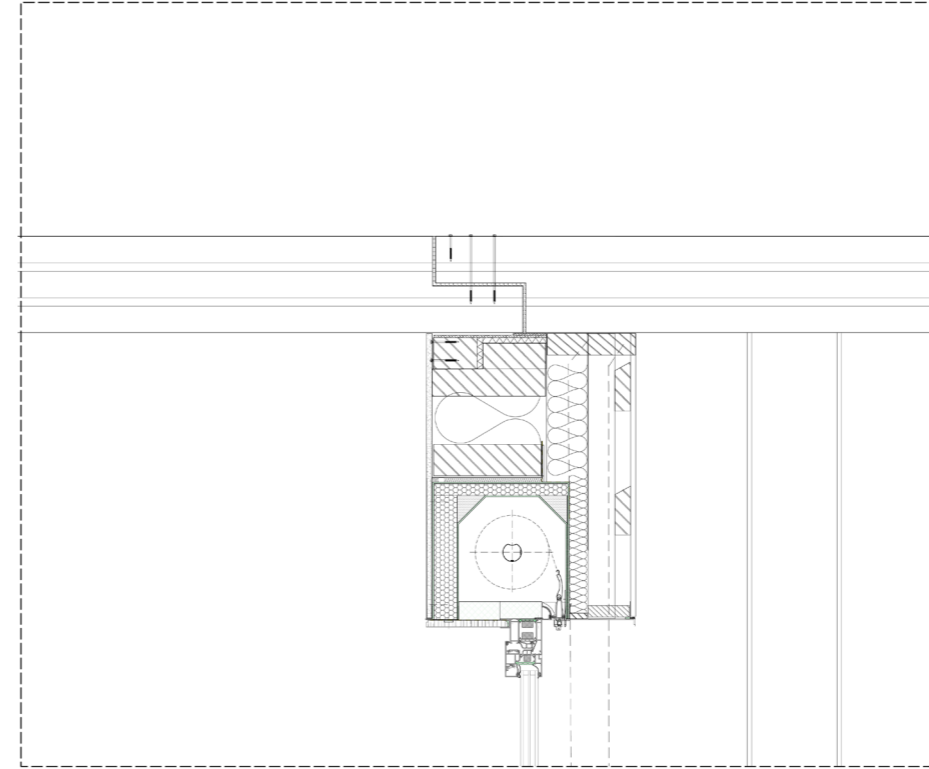
DETAIL 5 - HORIZONTAL DETAIL



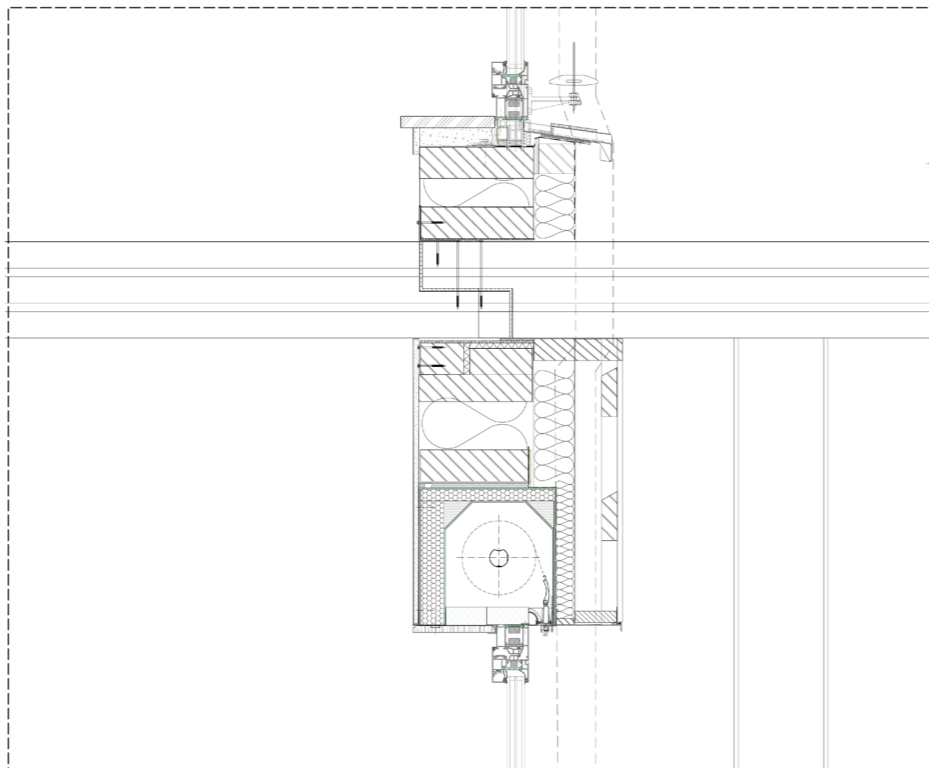
DETAIL 4 SEQUENCE OF ASSEMBLY



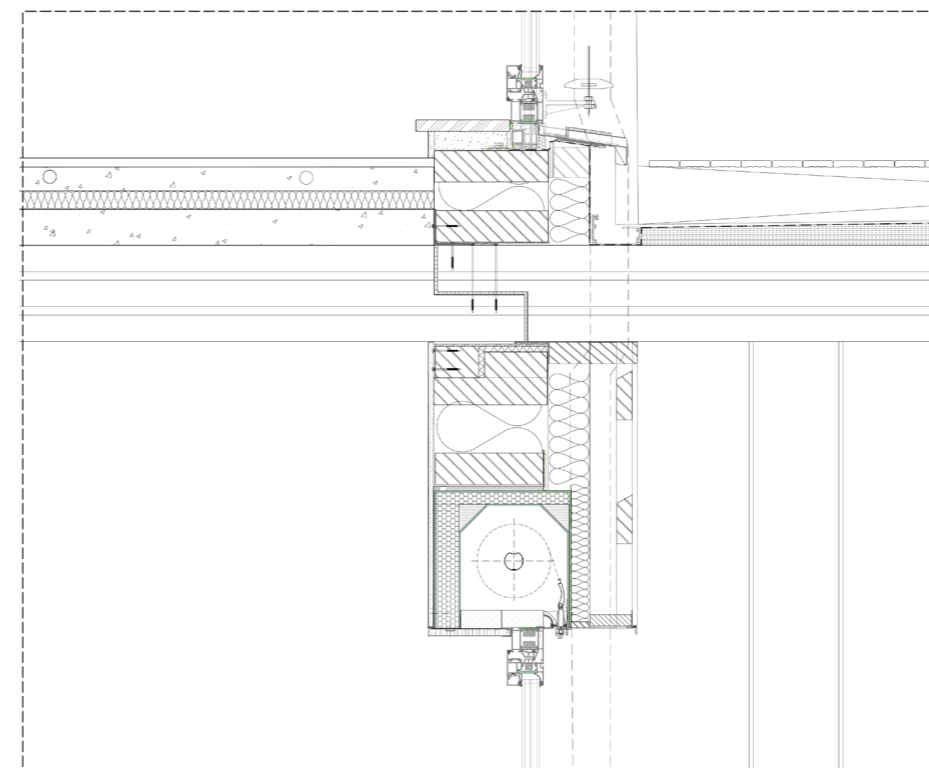
1. Start point (load-bearing structure and facade on lower floor is on place)



2. Connecting the structure of the balcony with the structure of the floor



3. Mounting the facade element (prefabricated)

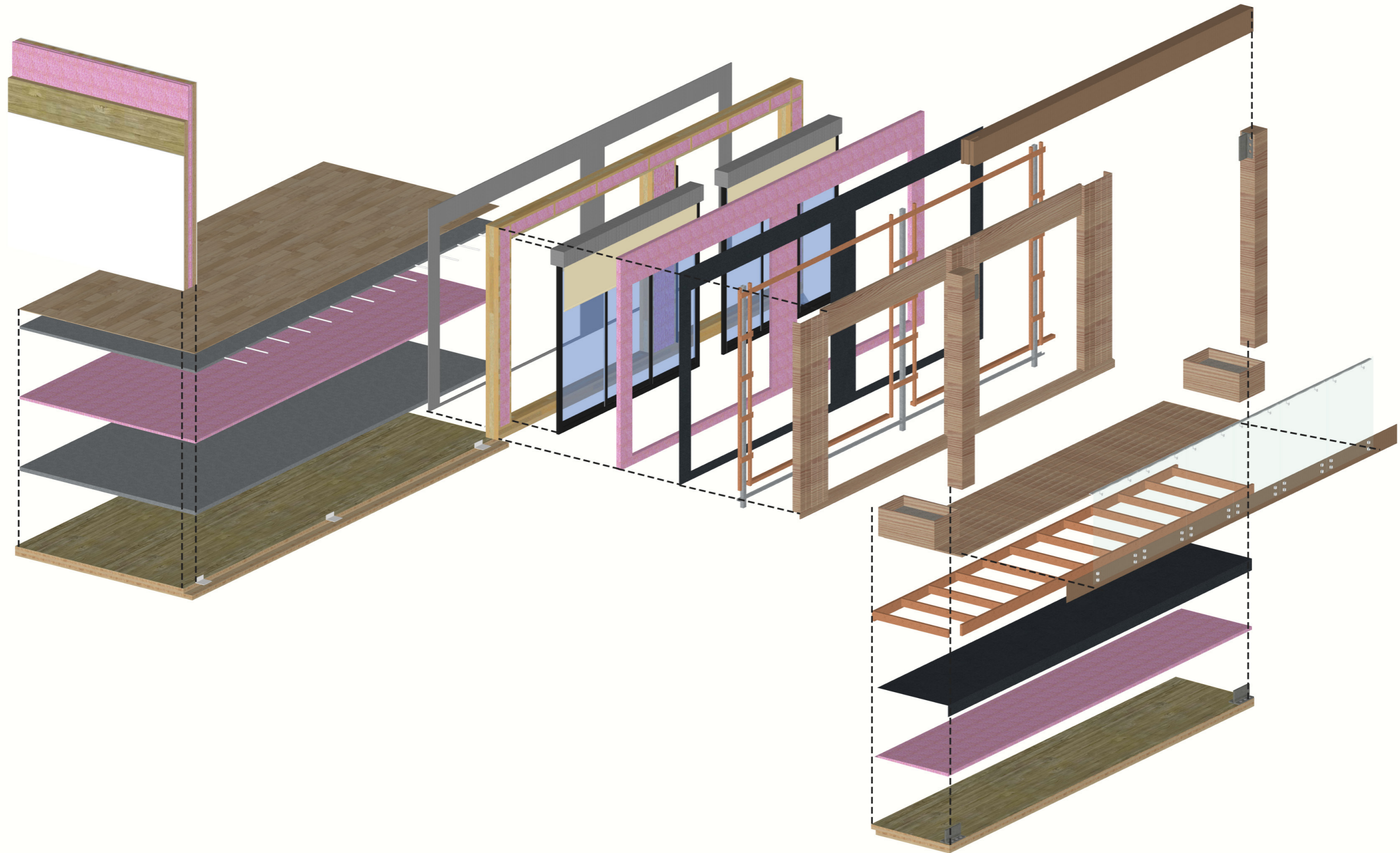


4. Adding the top layers of the floor and balcony on site

FACADE FRAGMENT



EXPLODED VIEW OF FACADE FRAGMENT



EXPLODED VIEW OF THE BUILDING

