

ARCHITECTURE STUDENT CONTEST

17th INTERNATIONAL EDITION, WARSAW 2022

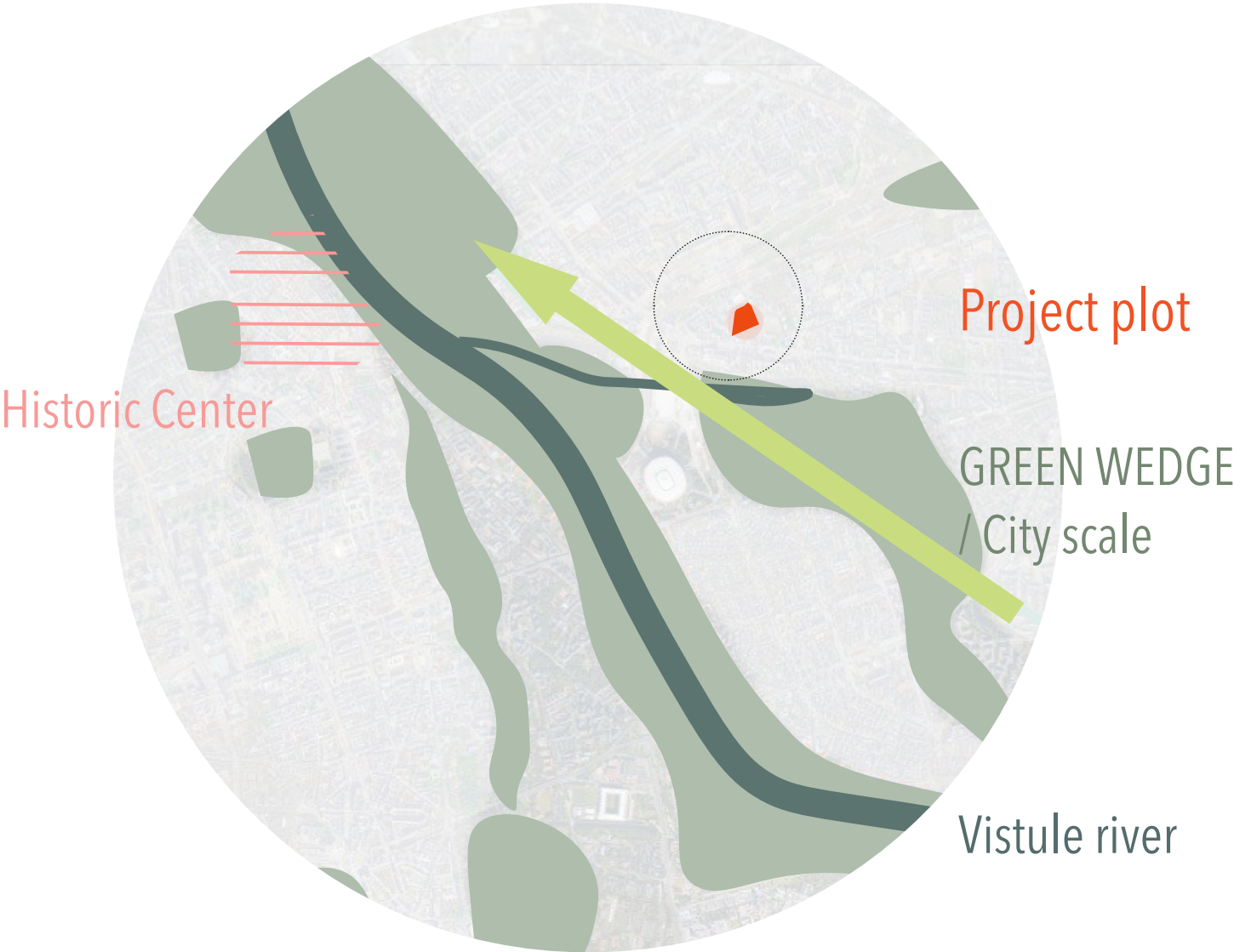
HOSTING LIFE

LIVING IN THE PARK

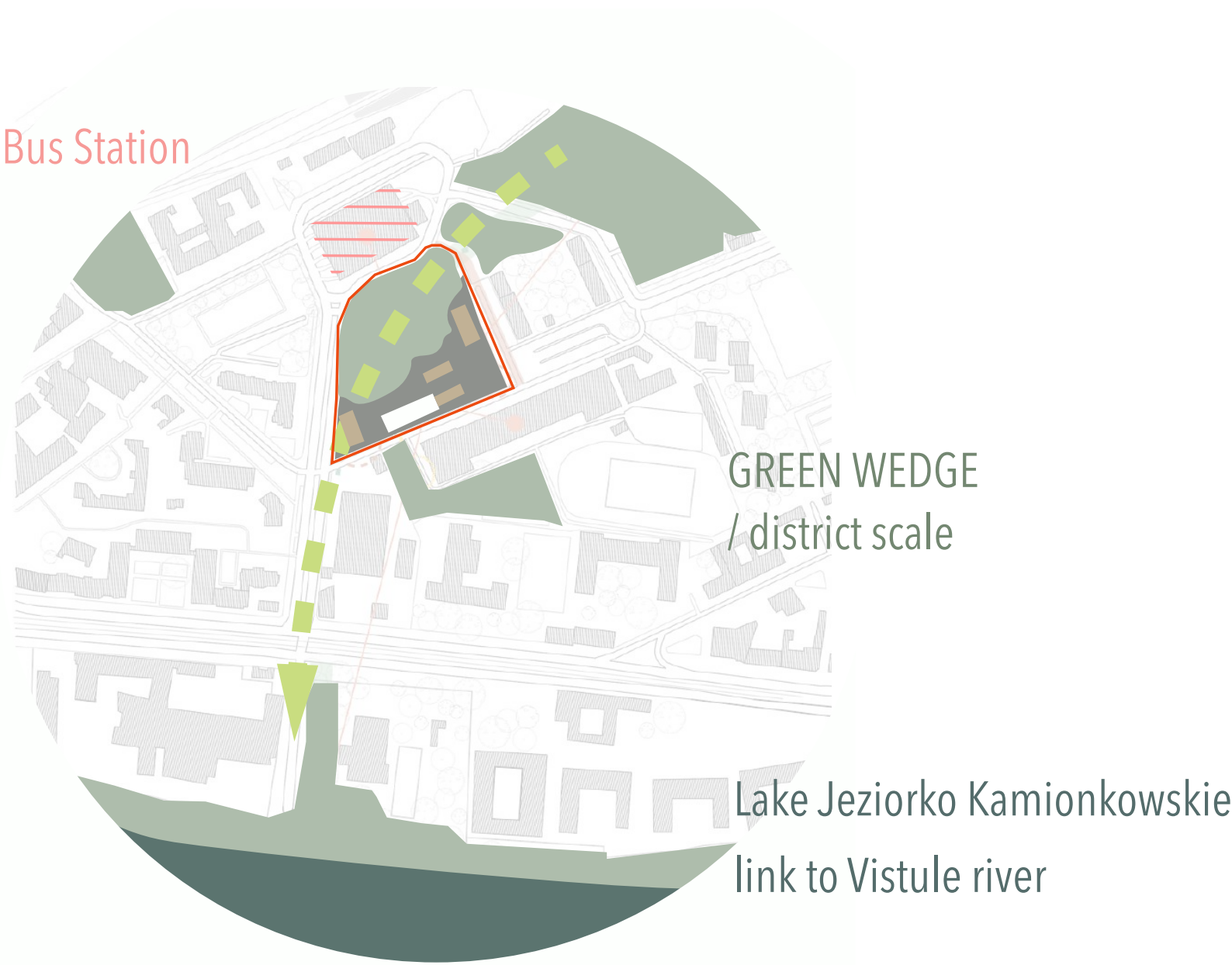
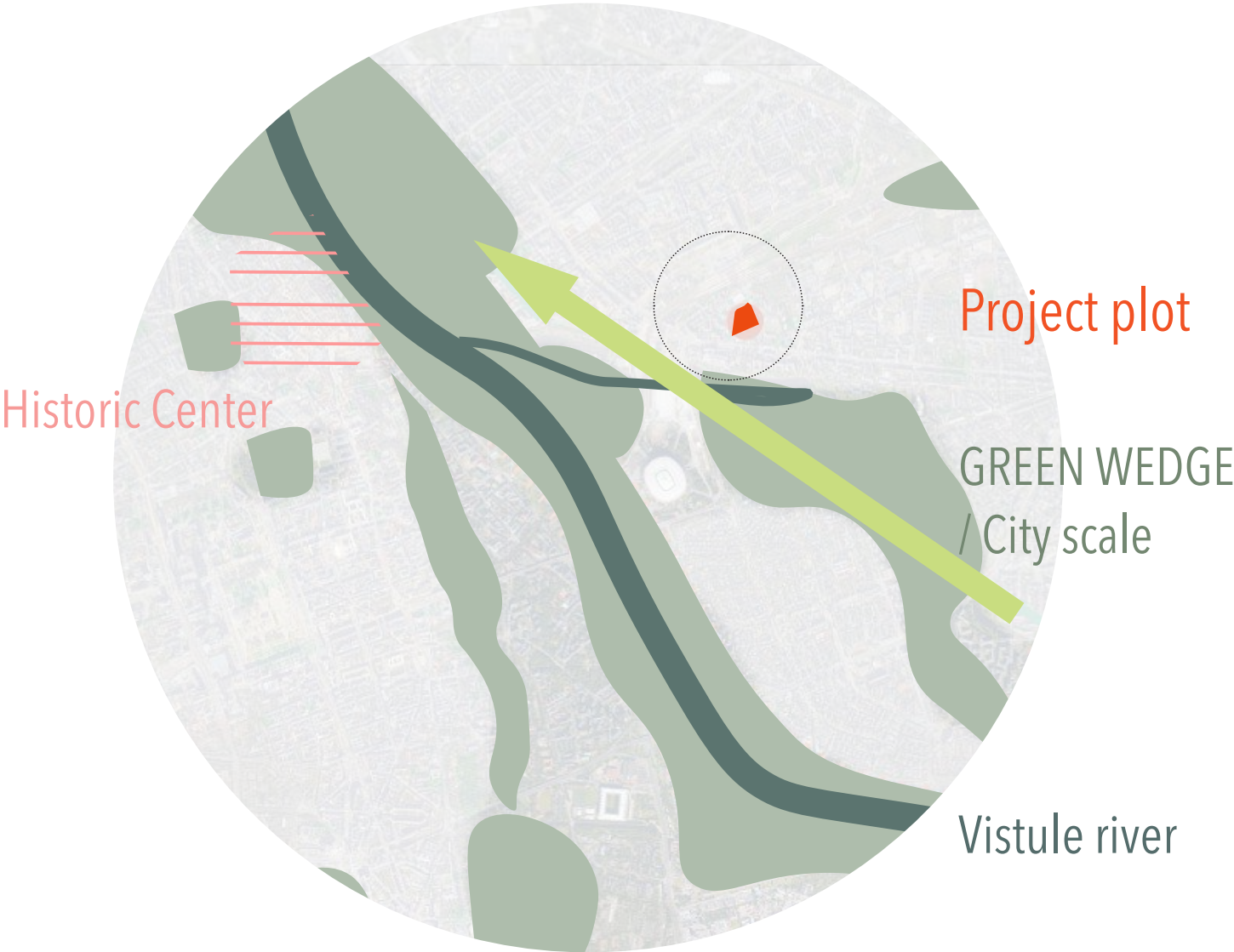
École Nationale Supérieure d'Architecture et de Paysage de Bordeaux, France | FOURNOL Faustine, SIEURAC Lucie, TRAN Léa



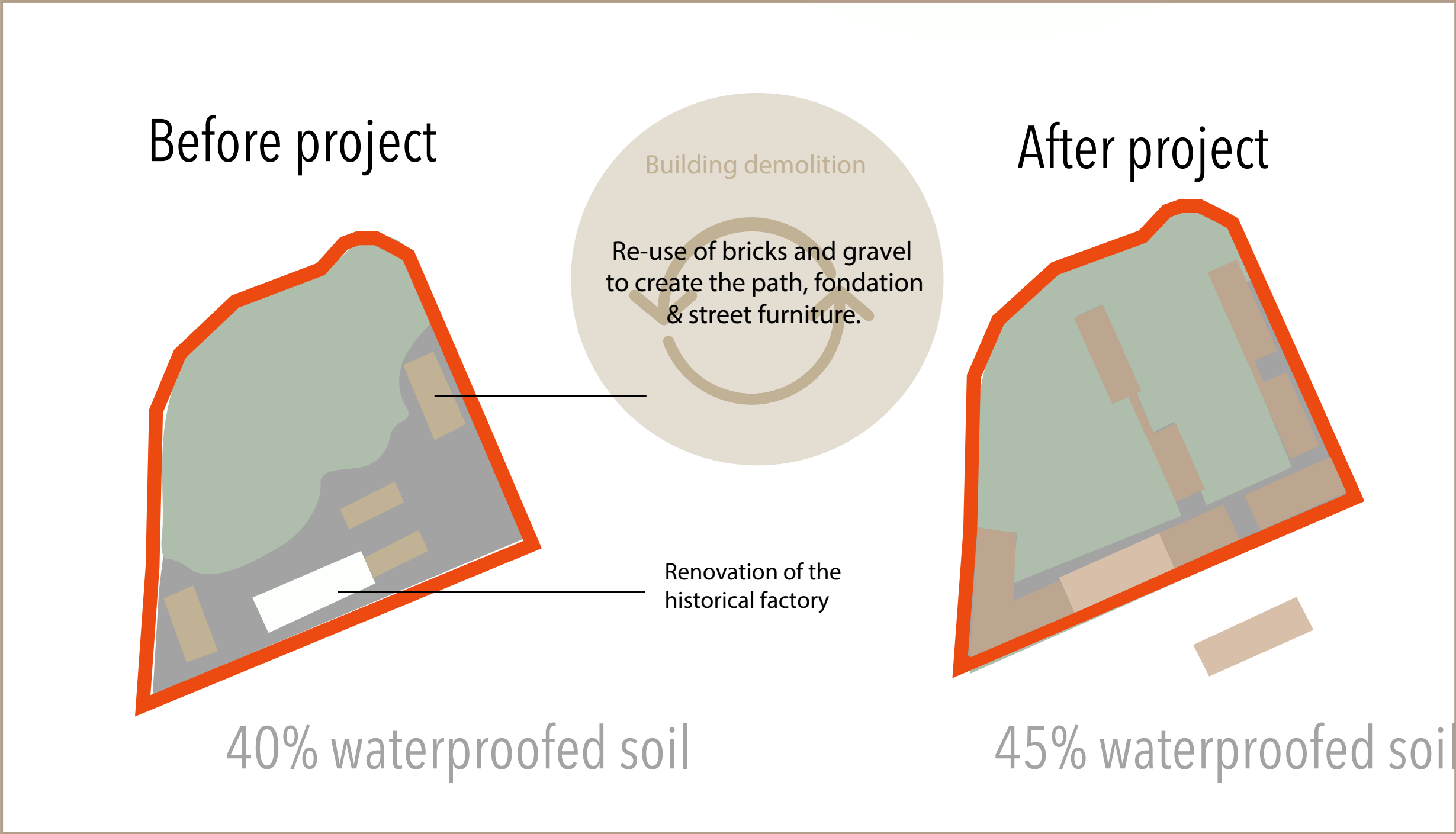
SITE CHALLENGES



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STUDENT LIFE REFLEXION

REFLECTION AXIS

Various profiles



There is not just one student profile but several profiles and different lifestyles



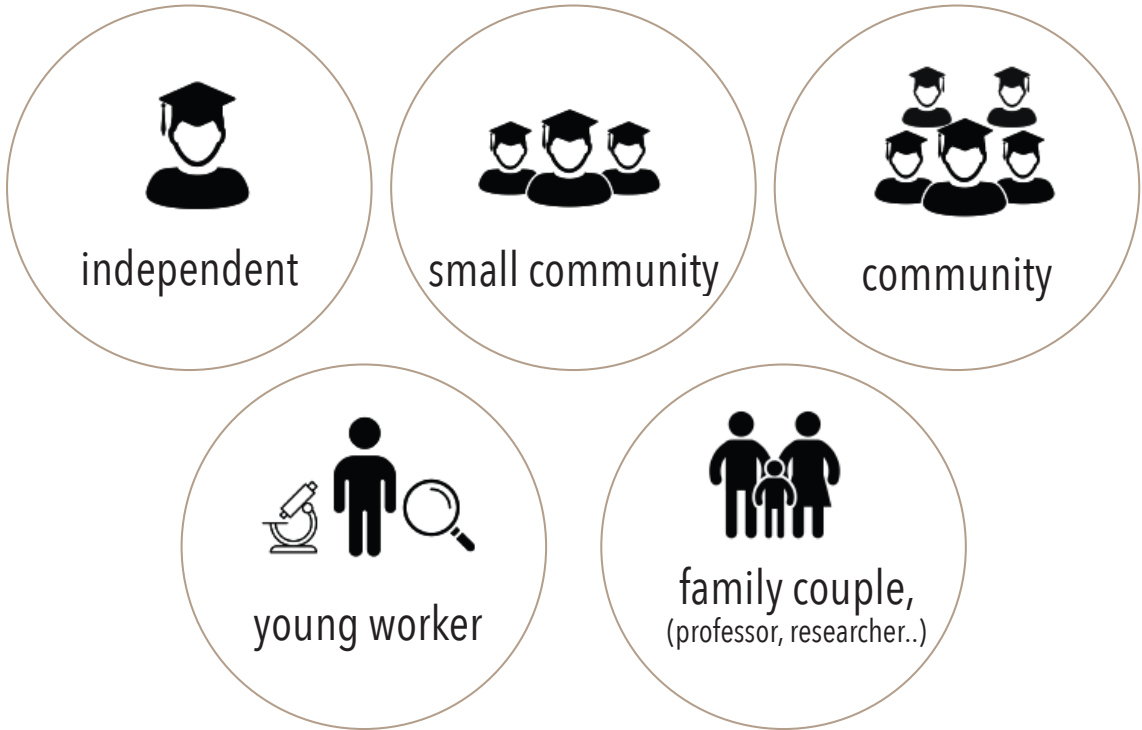
PROGRAM ELEMENTS

Several types of housing

STUDENT LIFE REFLEXION

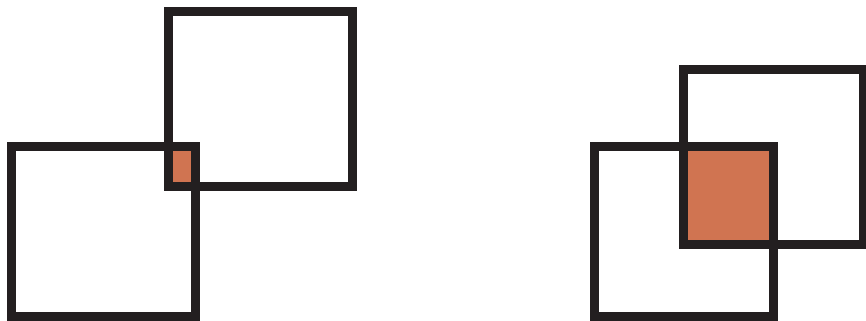
REFLECTION AXIS

Various profiles



There is not just one student profile but several profiles and different lifestyles

Common spaces



To create meeting spaces, minimising private space to create more generous common spaces

PROGRAM ELEMENTS

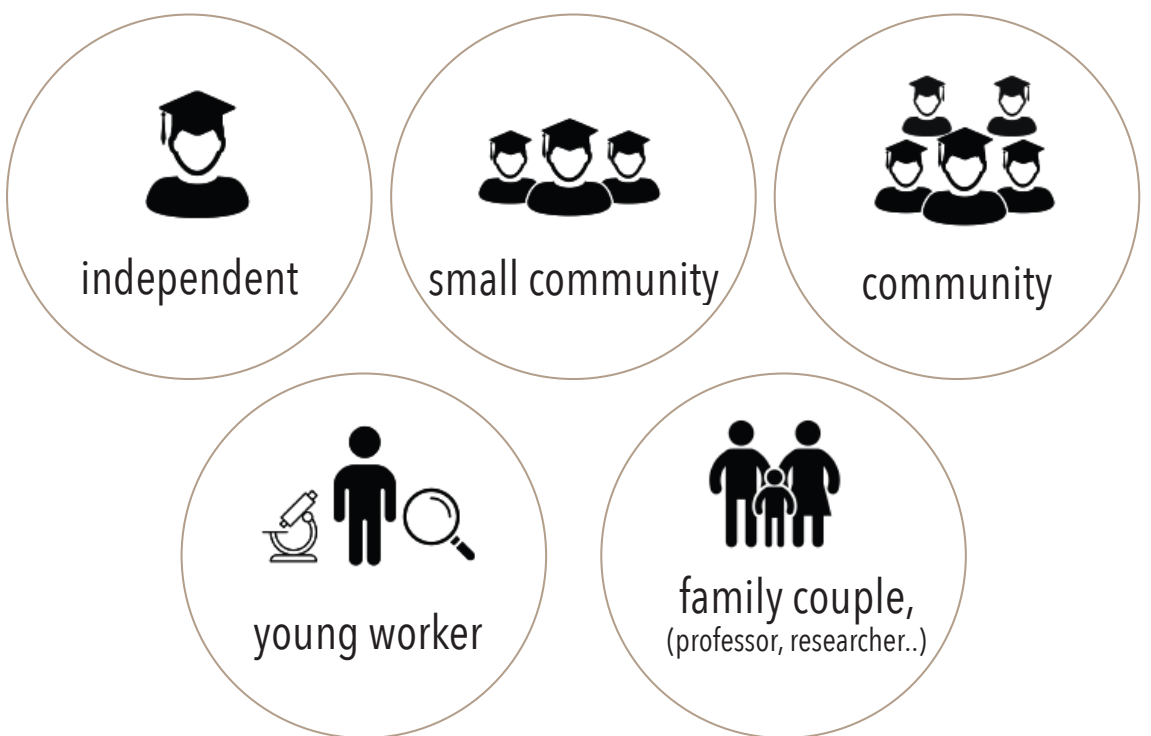
Several types of housing

Common areas on the ground floor
Sharing equipments

STUDENT LIFE REFLEXION

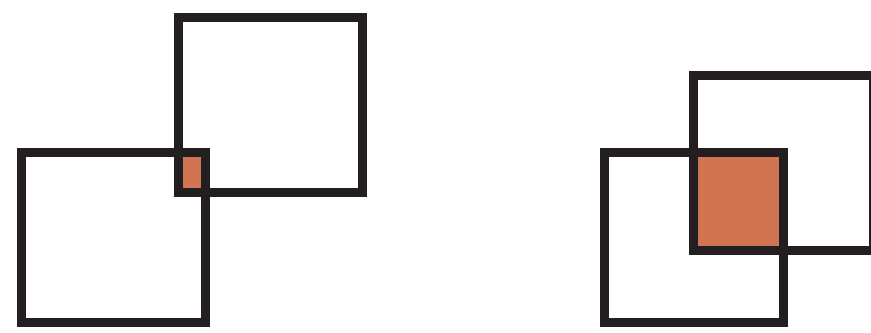
REFLECTION AXIS

Various profiles



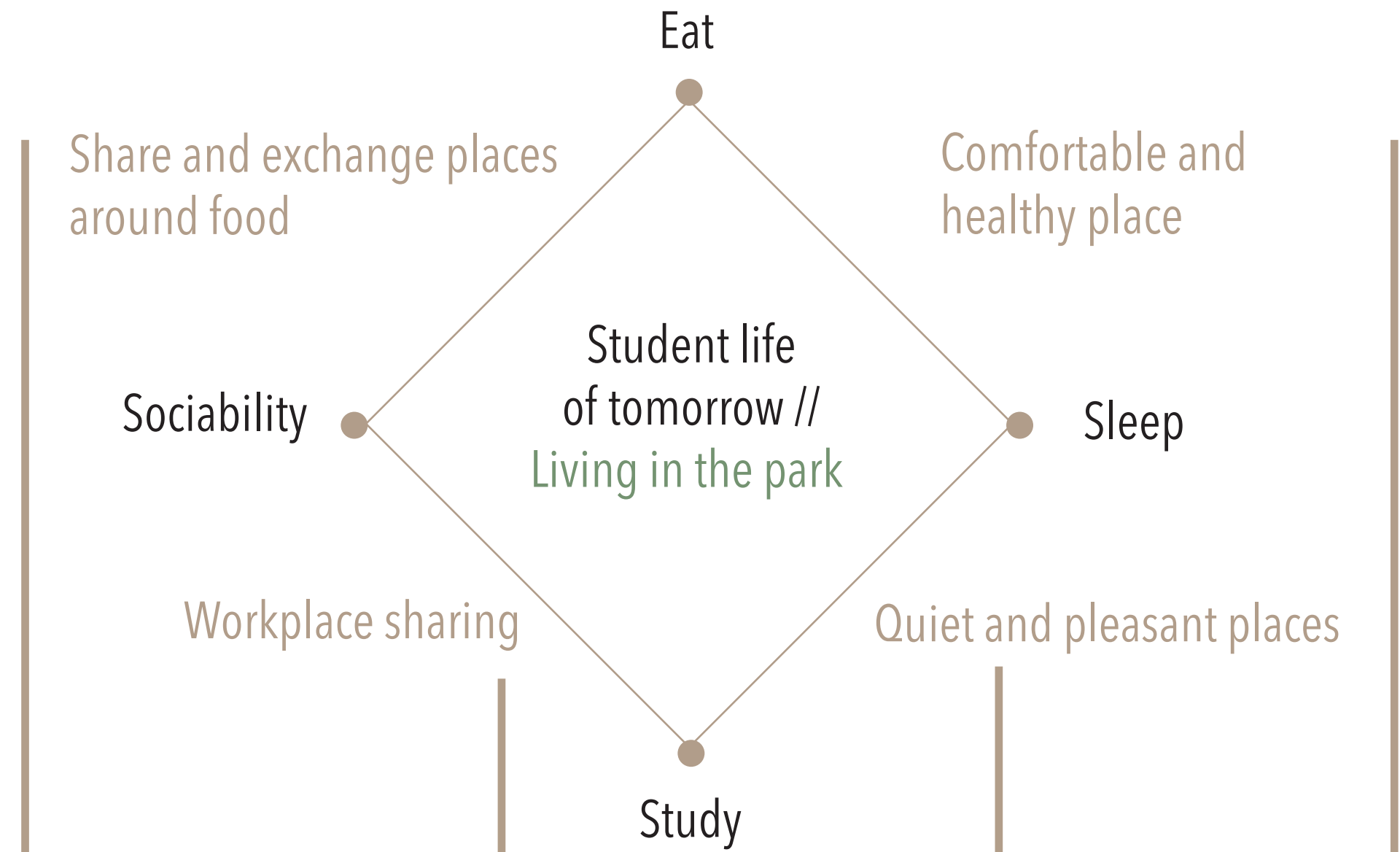
There is not just one student profile but several profiles and different lifestyles

Common spaces



To create meeting spaces, minimising private space to create more generous common spaces

Living in the park



PROGRAM ELEMENTS

Several types of housing

Common areas on the ground floor
Sharing equipments

Shared garden and greenhouses
Communal dining room
Market place shared with the neighbourhood
Fruits and vegetables production on the plot

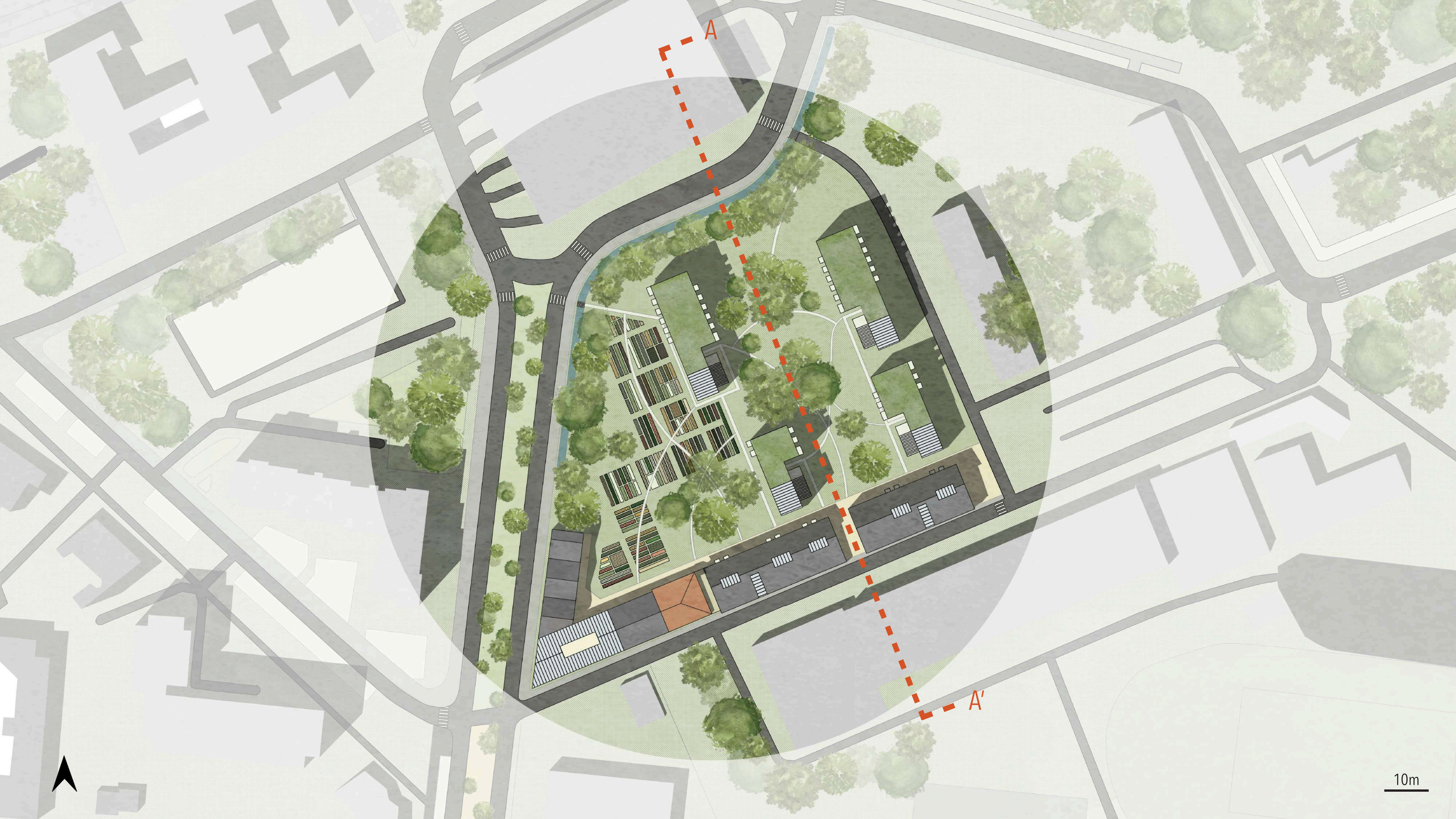
Meeting room
Study room

Park view
Bright housing
Privacy places

Balanced nutrition with local production
Link with nature
Quiet location and good soundproofing



10m

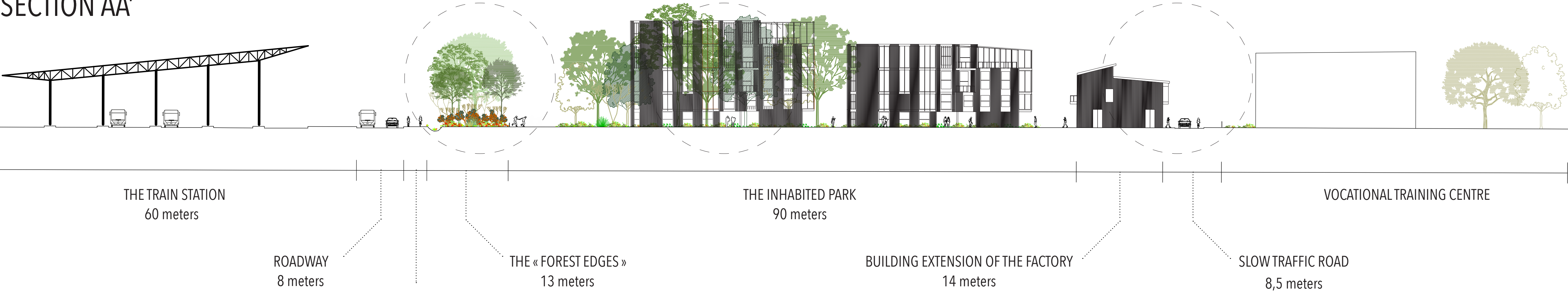


A

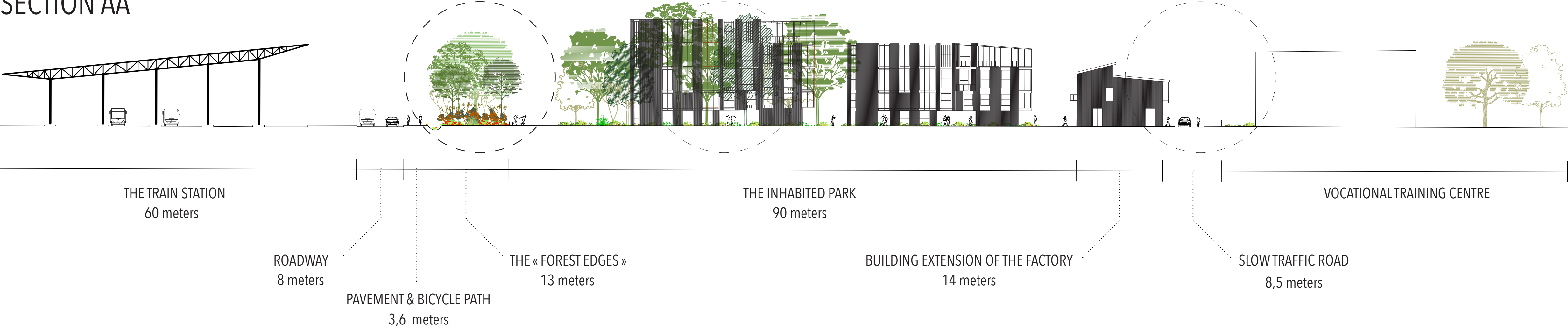
A'

10m

SECTION AA'



SECTION AA'

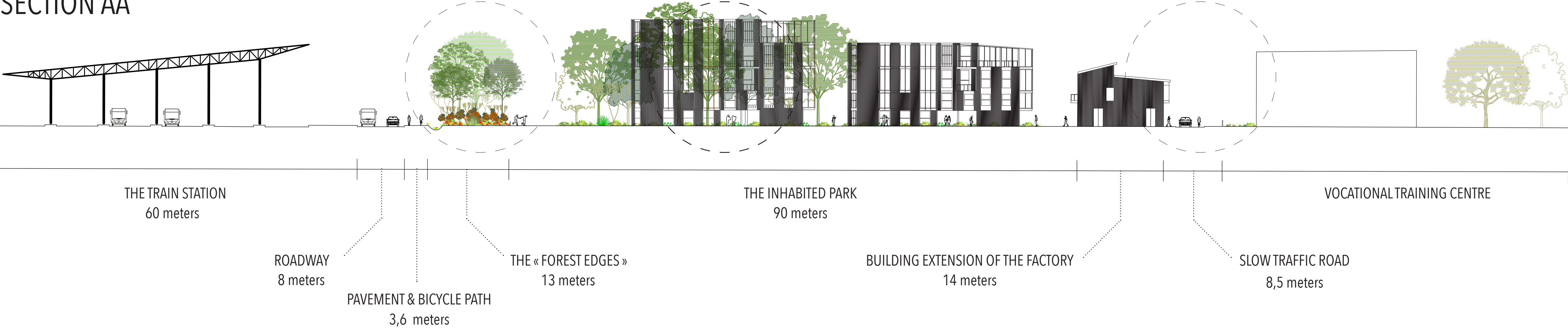


WELCOMING BIODIVERSITY

Recreate a forest edge with different planted layers to let the development of biodiversity.
This area is almost entirely inaccessible. There are defined entrances to cross this planted area and avoid trampling.



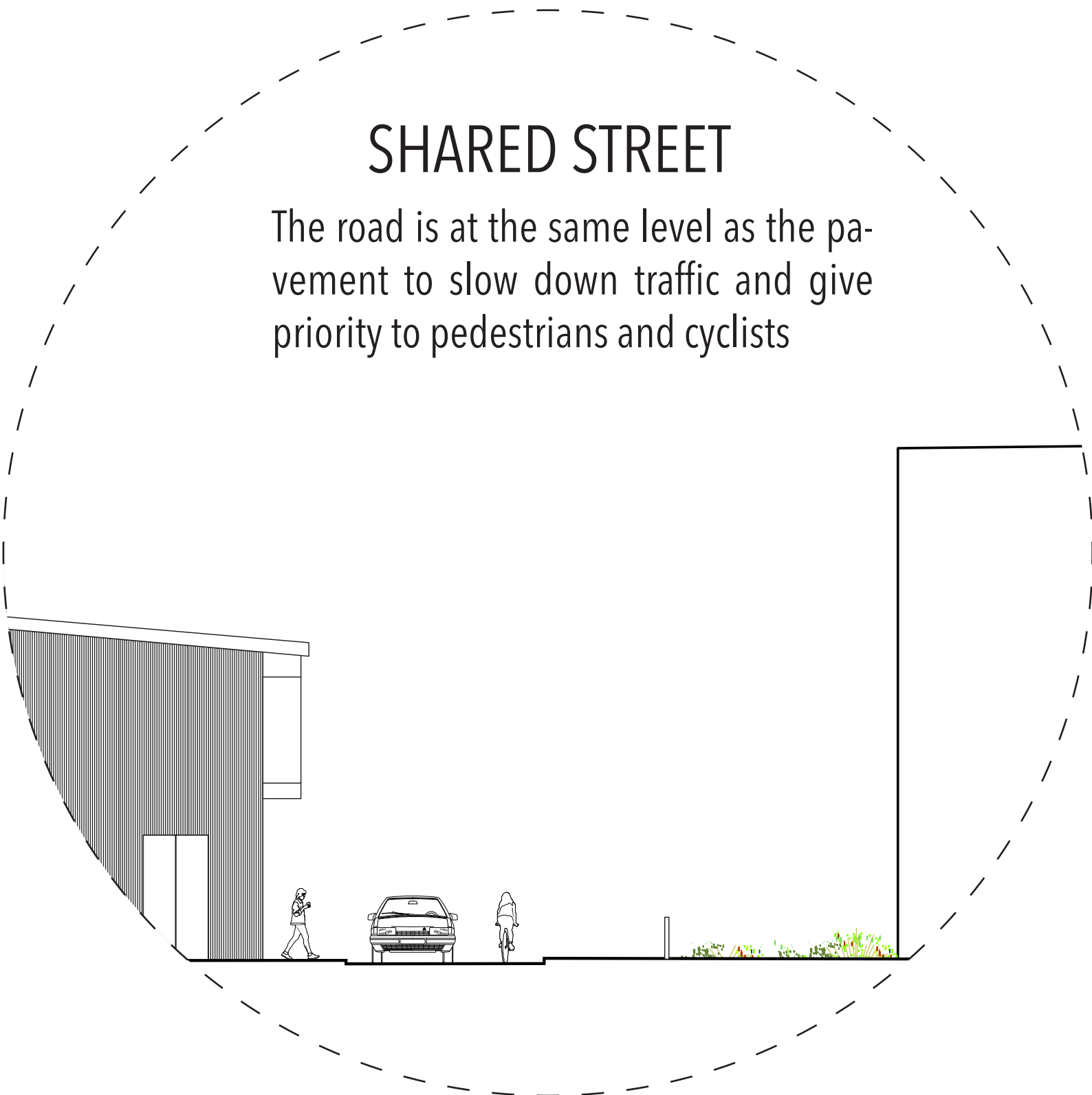
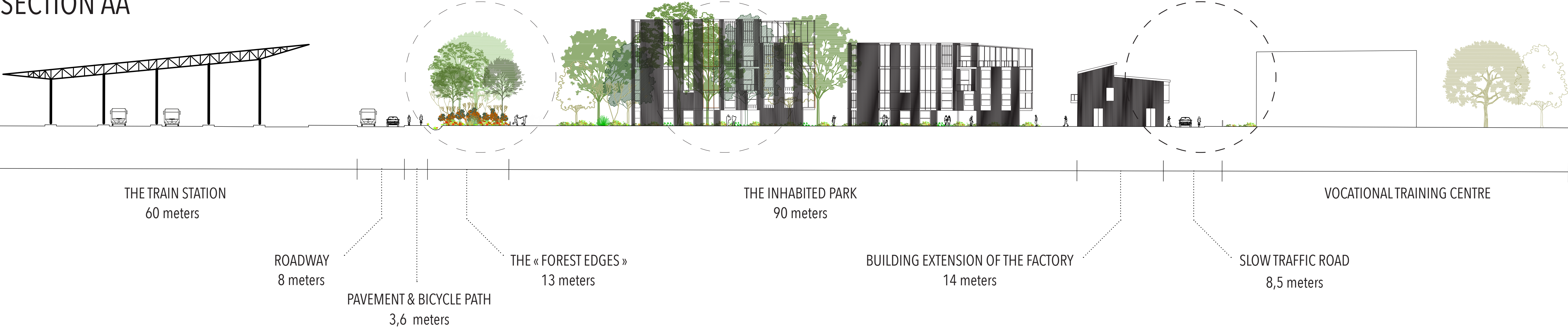
SECTION AA'



LIVING IN THE PARK

Students accomodation are located between the existing trees of the park.

SECTION AA'





PROJECT AXONOMETRY



Bus Station



Pedestrian access to the lake



Conservation of existing trees



PROJECT AXONOMETRY



Bus Station



Pedestrian access to the lake

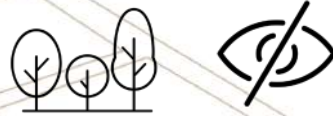


Conservation of existing trees



Forest Edges

for visual protection and biodiversity



Green roof,

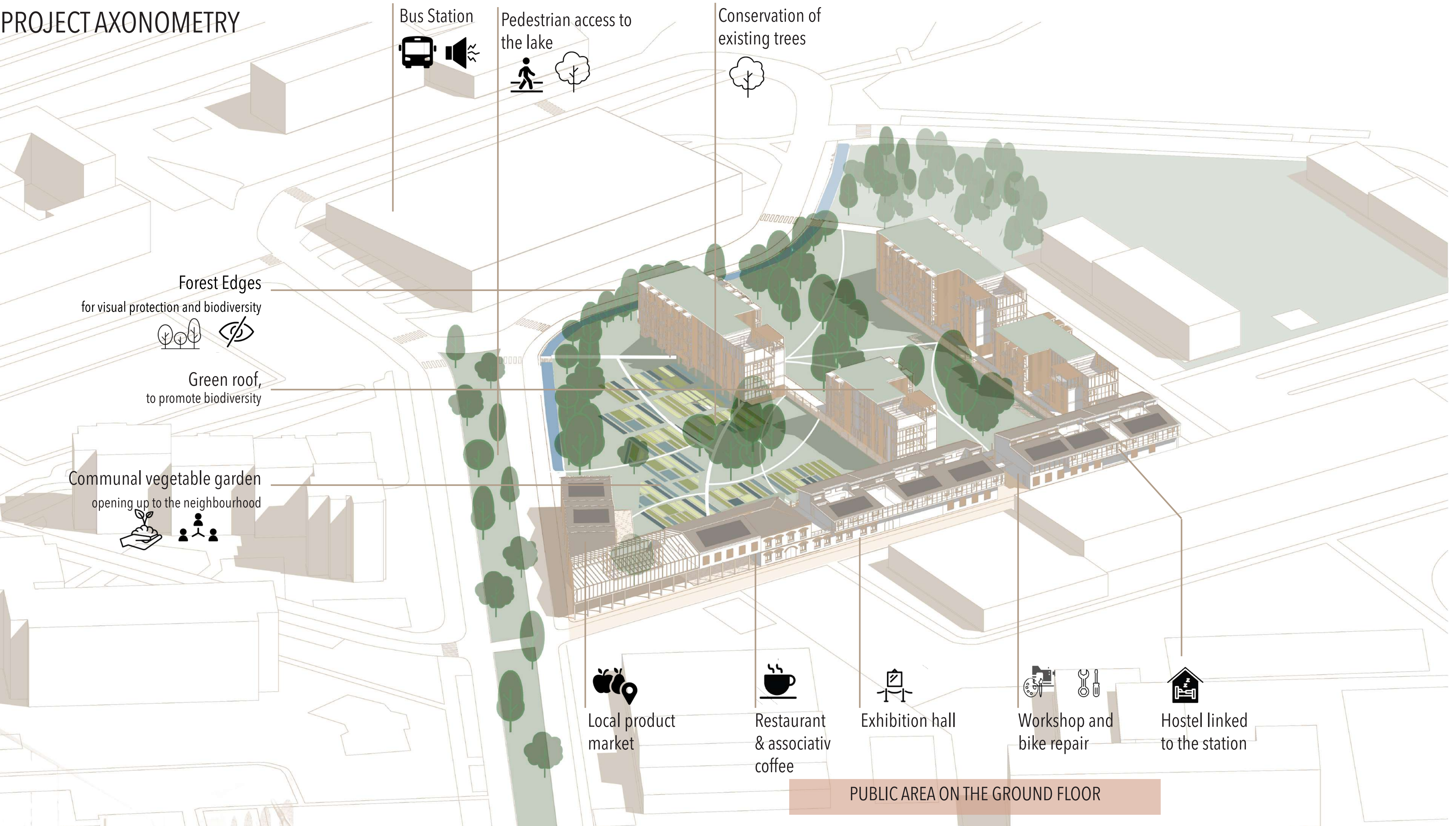
to promote biodiversity

Communal vegetable garden

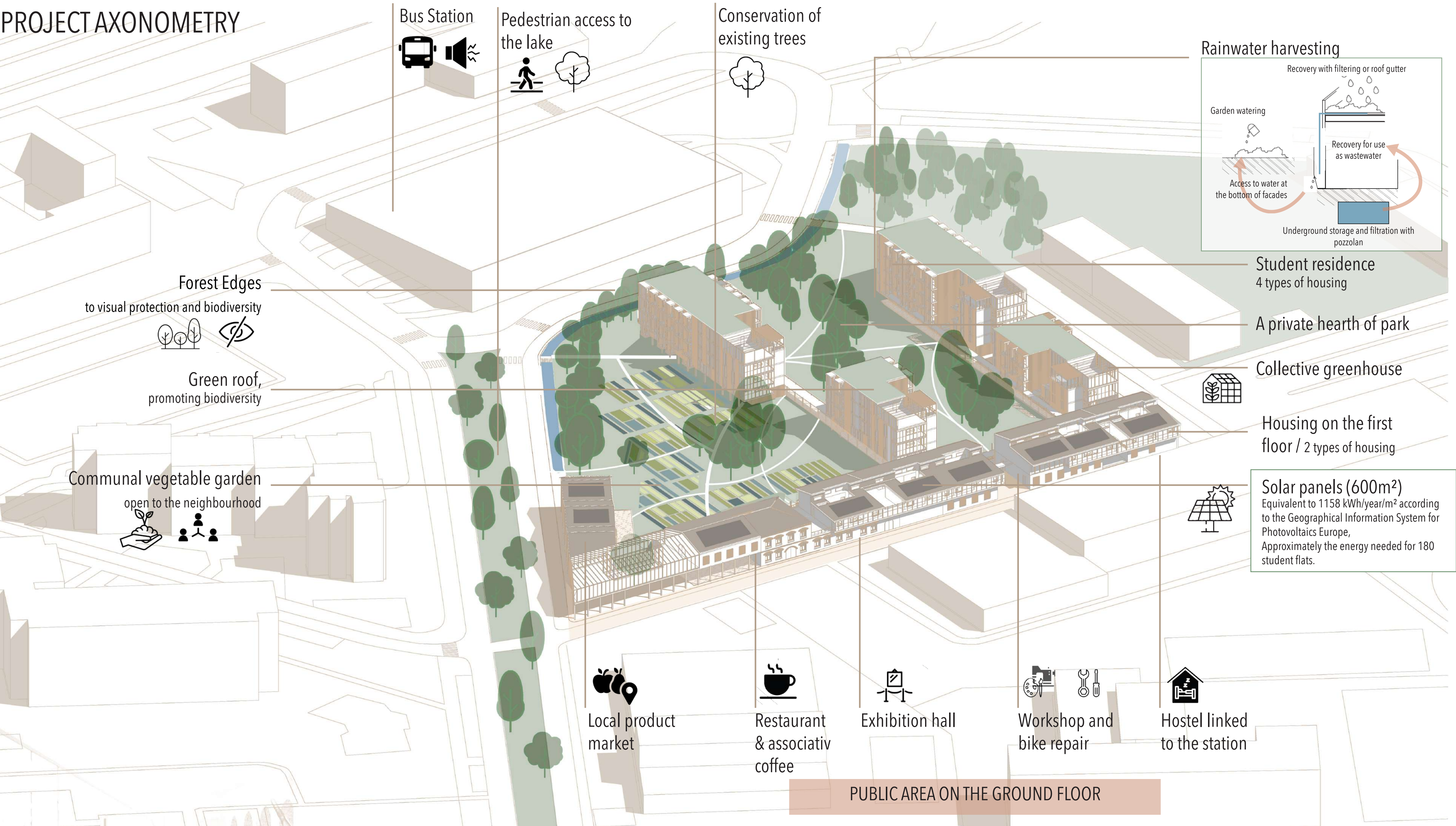
opening up to the neighbourhood



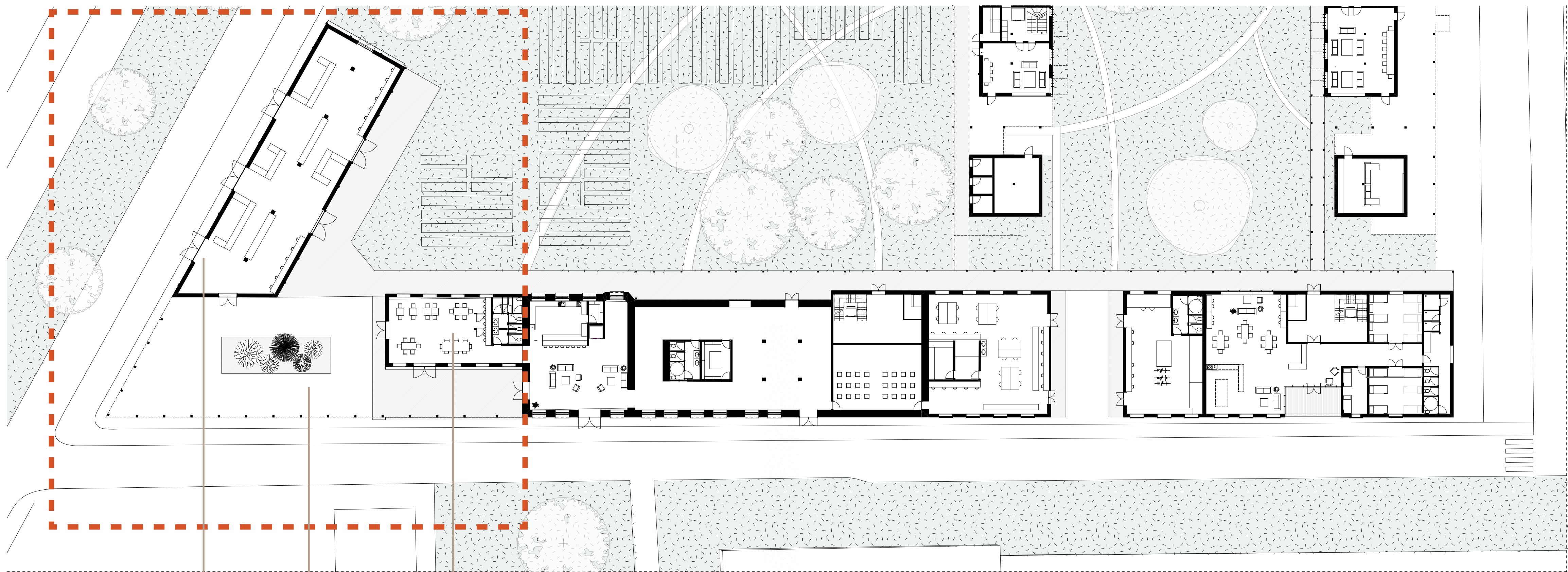
PROJECT AXONOMETRY



PROJECT AXONOMETRY



MAIN ENTRANCE



Local product
market



Bike parking



Canteen

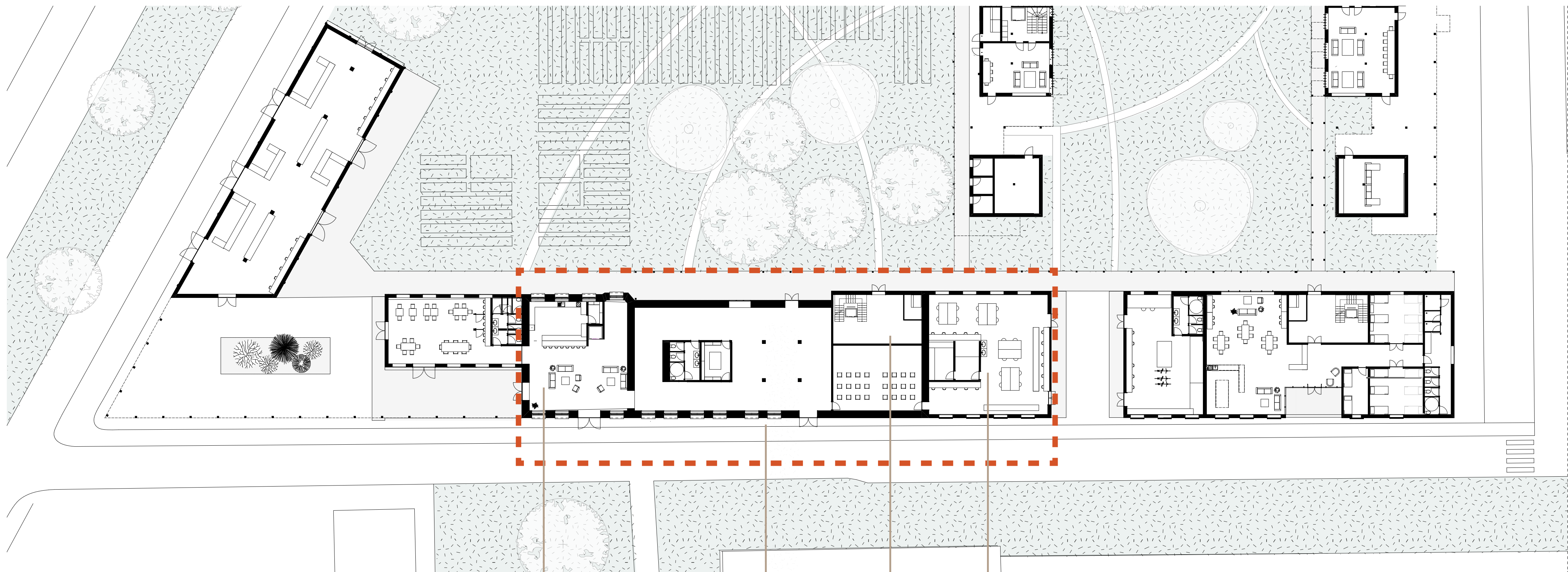


10m





REHABILITATION FACTORY



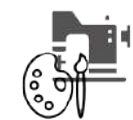
Restaurant
& associative
coffee



Exhibition
hall



Housing
aces



Workshop



10m

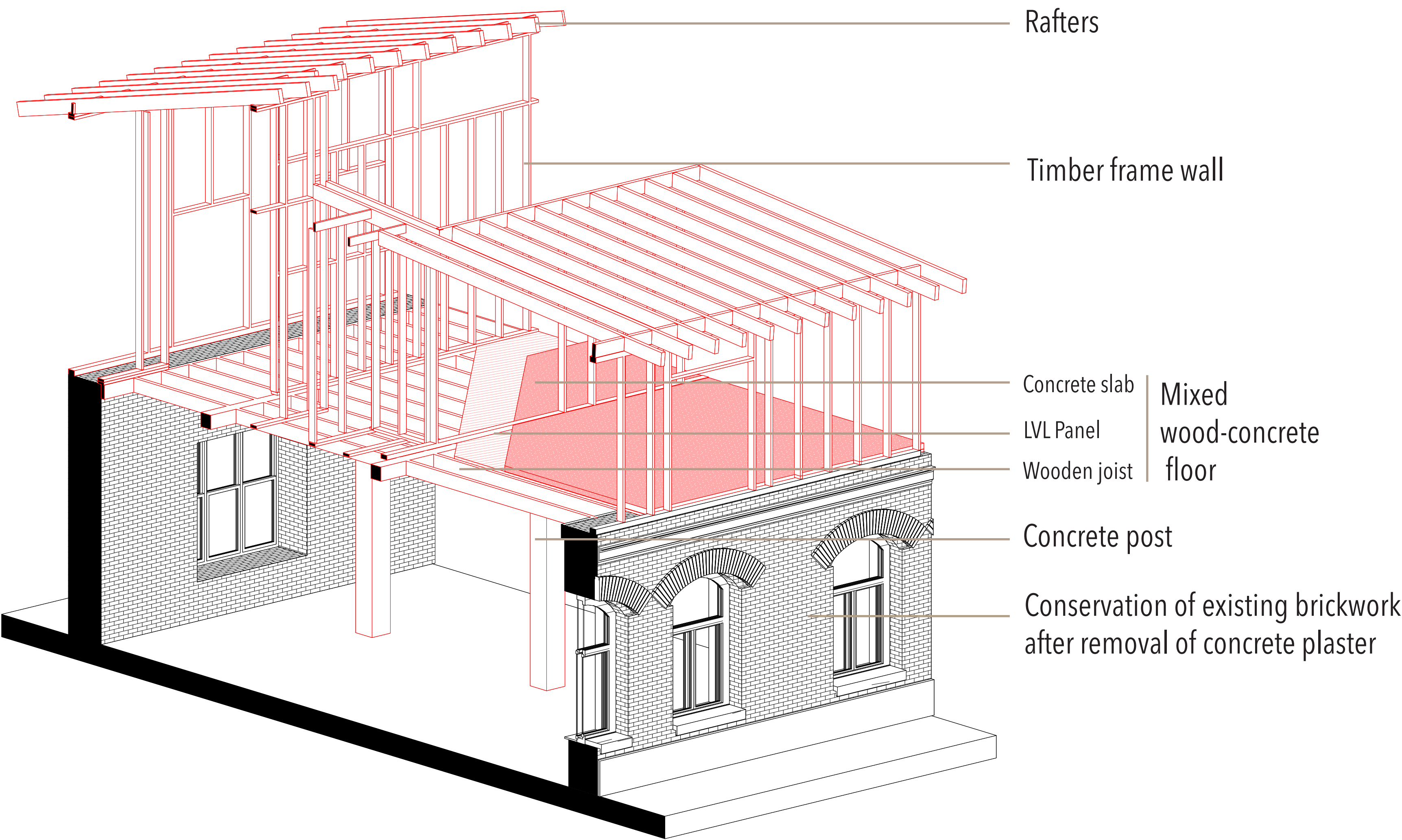
REHABILITATION OF THE FACTORY

- Conservation of the existing wall / economy of material and conservation of the history of the place
- Raising the ground floor to increase density without waterproofing the floors
- Contribution of light quality (light cannons, skylight and south window).
- Contribution of a thermal quality of housing (Breathability wall)



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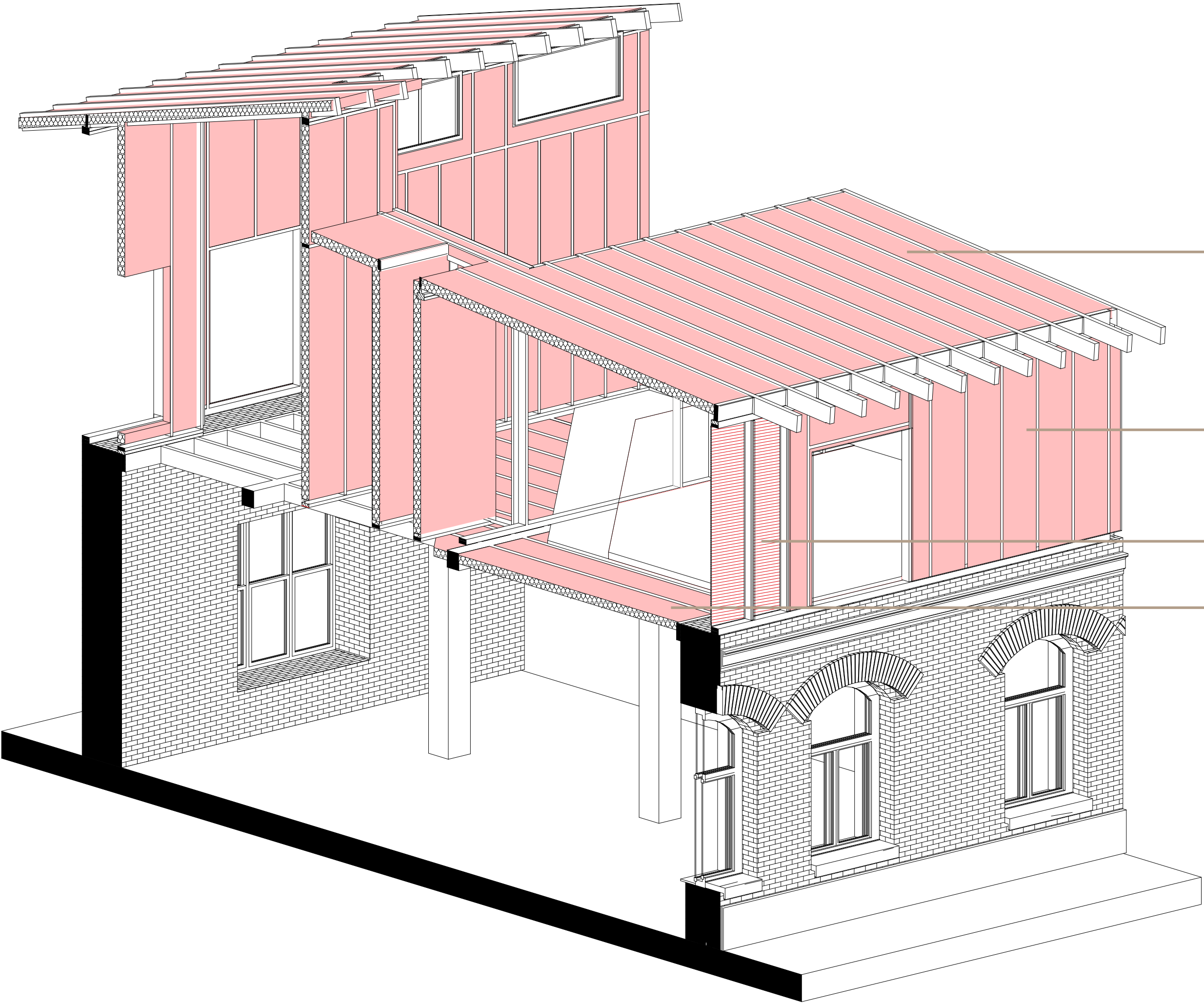


FIRST FLOOR/ PRIVATE

GROUND FLOOR/ PUBLIC

REHABILITATION OF THE FACTORY

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Cellulose waddind insulation (145mm)

Insulation 145x45mm ISOMOB 32R®
ISOVER
SAINT-GOBAIN

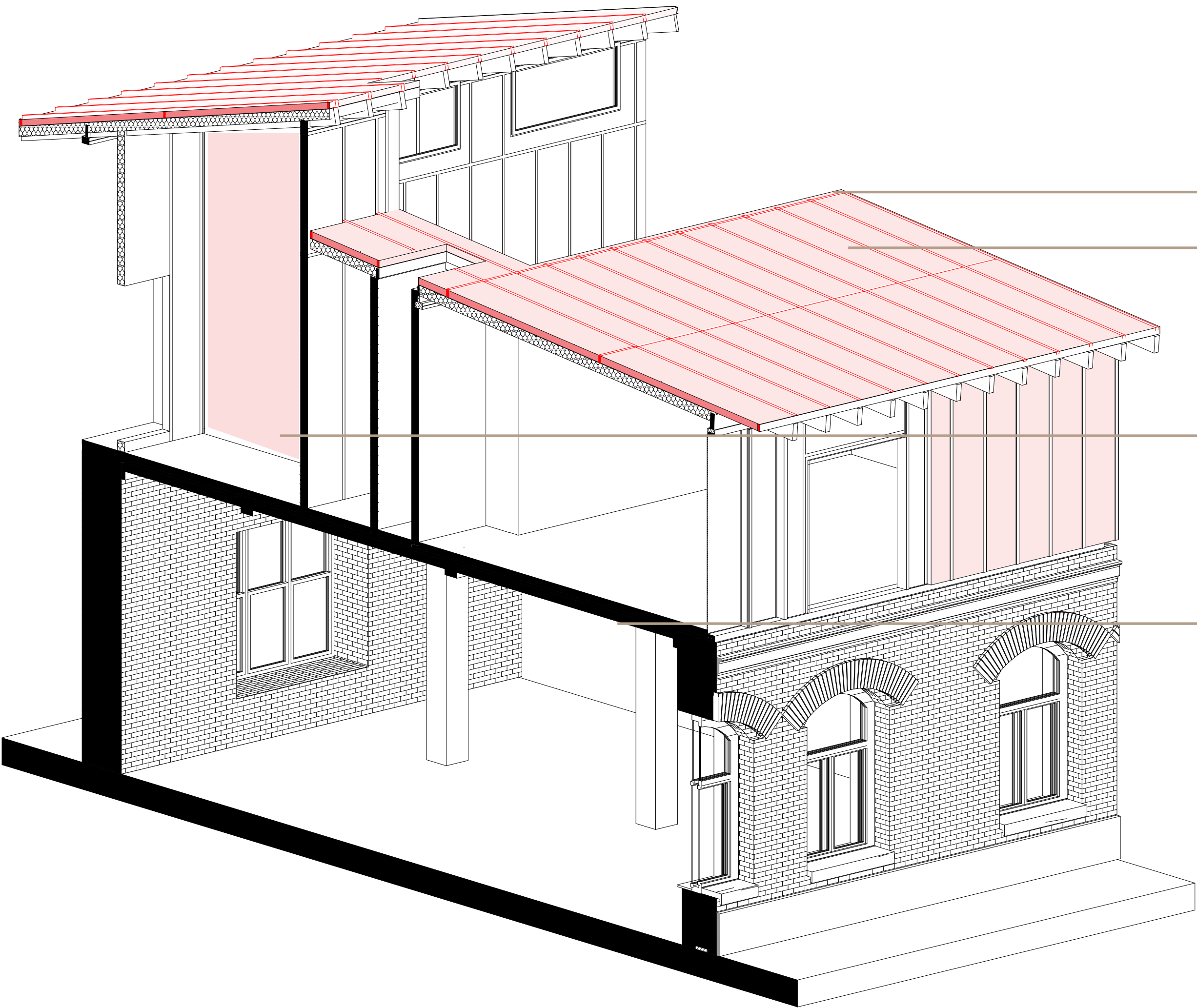
Agepan Natural Insulation Panel

Cellulose waddind insulation (145mm)

Breathability
wood-frame
wall

REHABILITATION OF THE FACTORY

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Chevrons 100x100mm

Isonat fibberwood
Multisol 140® insulation
(100mm)



Isover SAD 220® parti-
tion between two hou-
sing

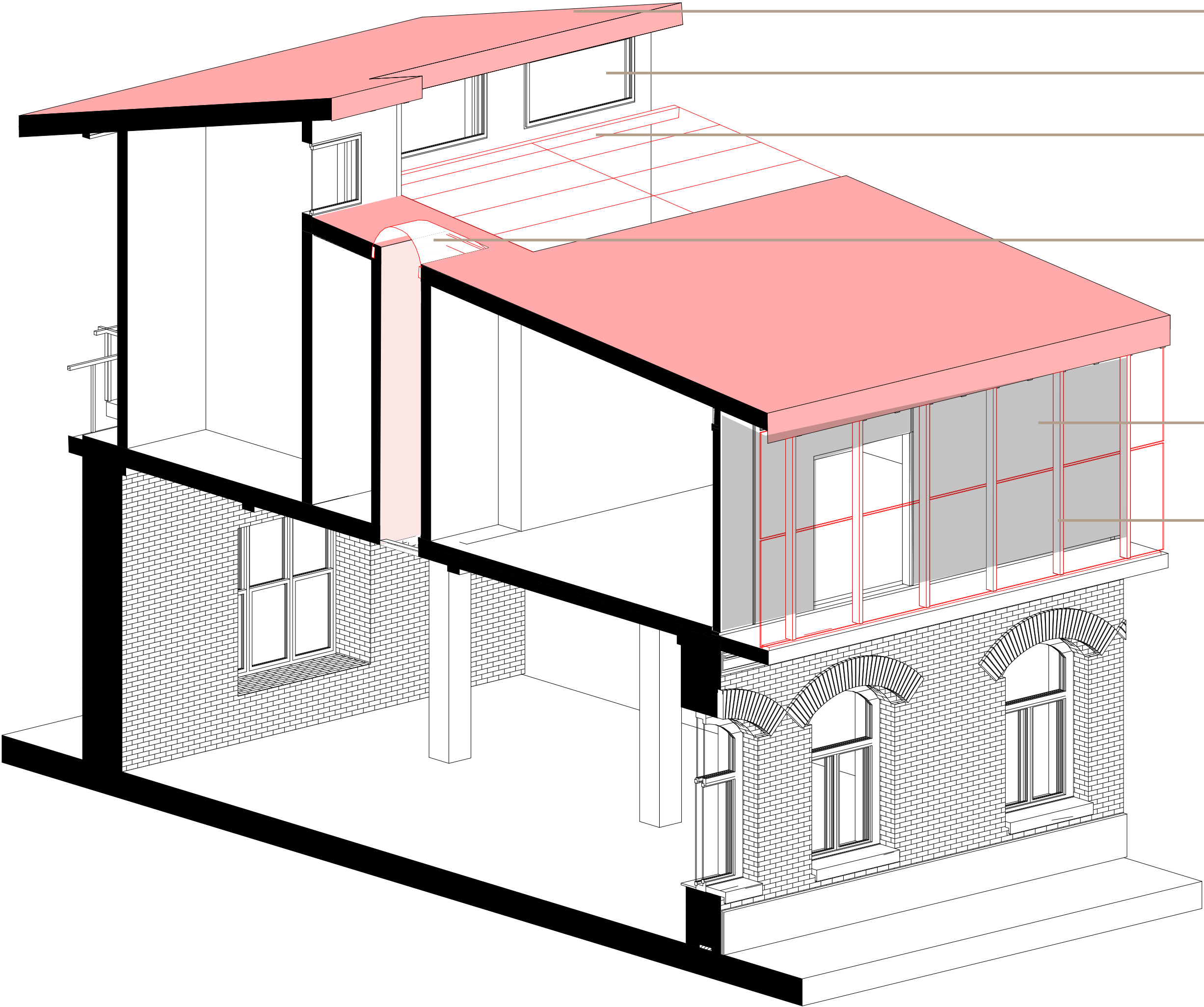


Panel Ecophon Sombra^T
for acoustic comfort



REHABILITATION OF THE FACTORY

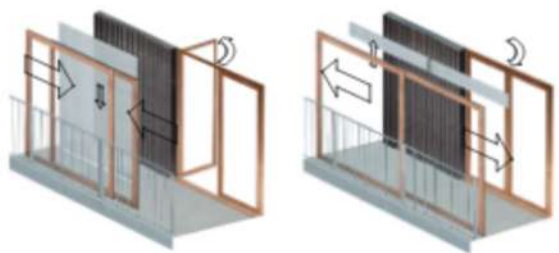
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- Contribution of light quality (light cannons, skylight and south window.)
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- Zinc roofing
- South opening window
- Solar controlled glazing - PLANISTAR® SUN
- Sun Tunnel TCF®
- Fibro-cement solar cell panel - Black
- Double skin with opening window



DOUBLE-SKIN FACADE



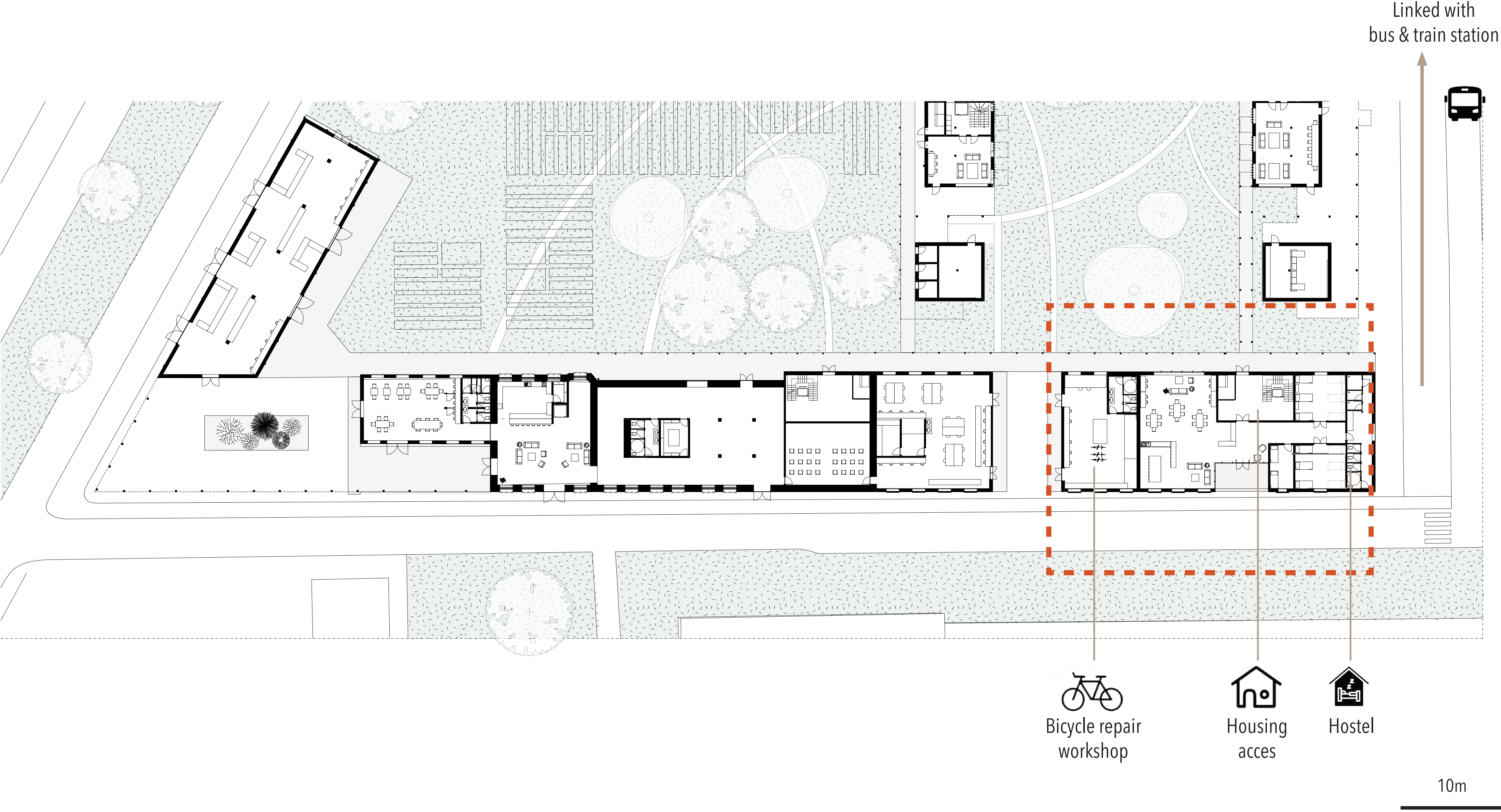
In cold weather : Close windows and open blinds

In winter, the air preheated by the fibre cement collector wall is diffused through the double skin into the living areas

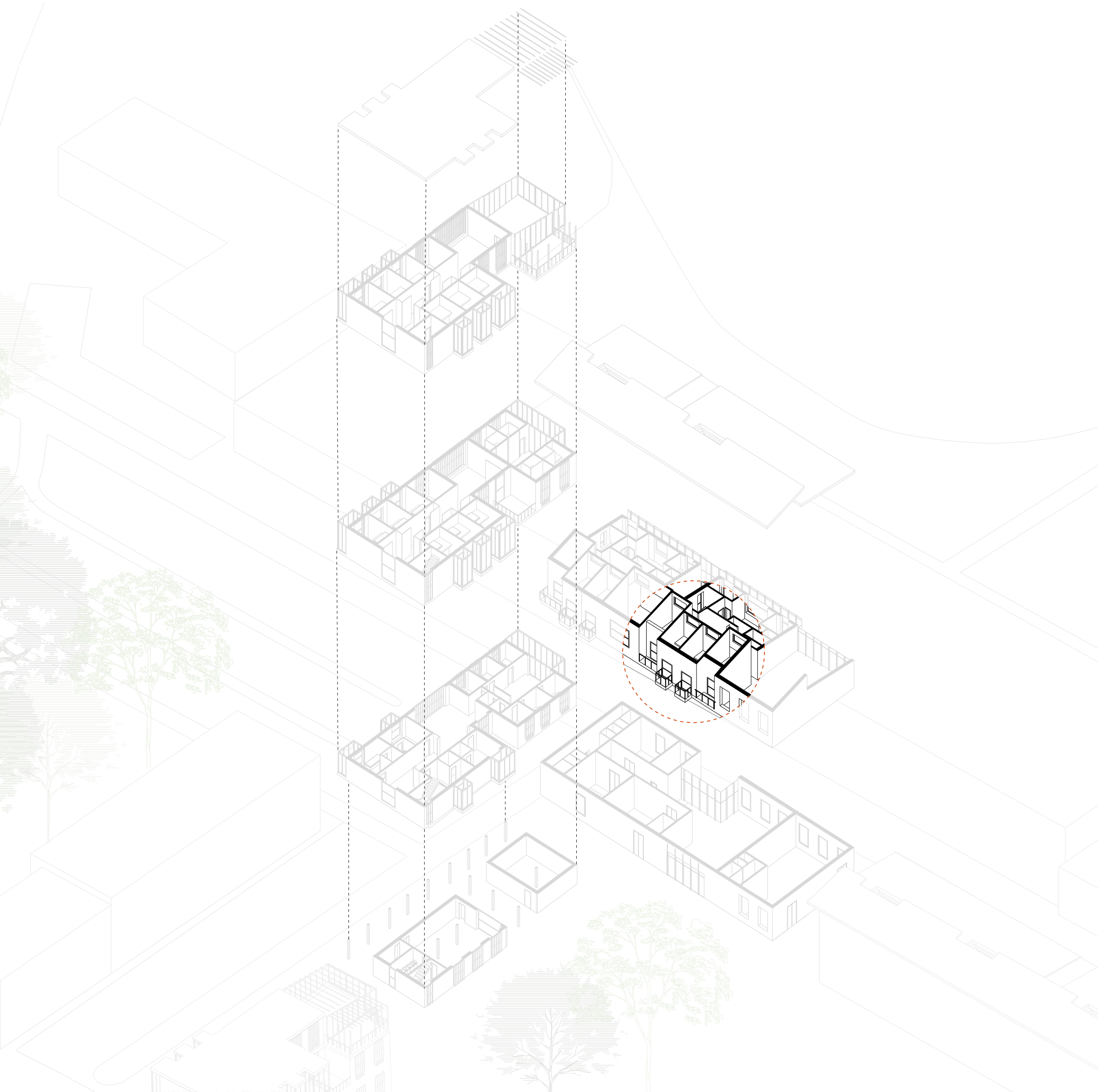
In hot weather: Open the windows and lower the blinds

In summer, the blinds act as a switch in front of the walls.

HOSTEL



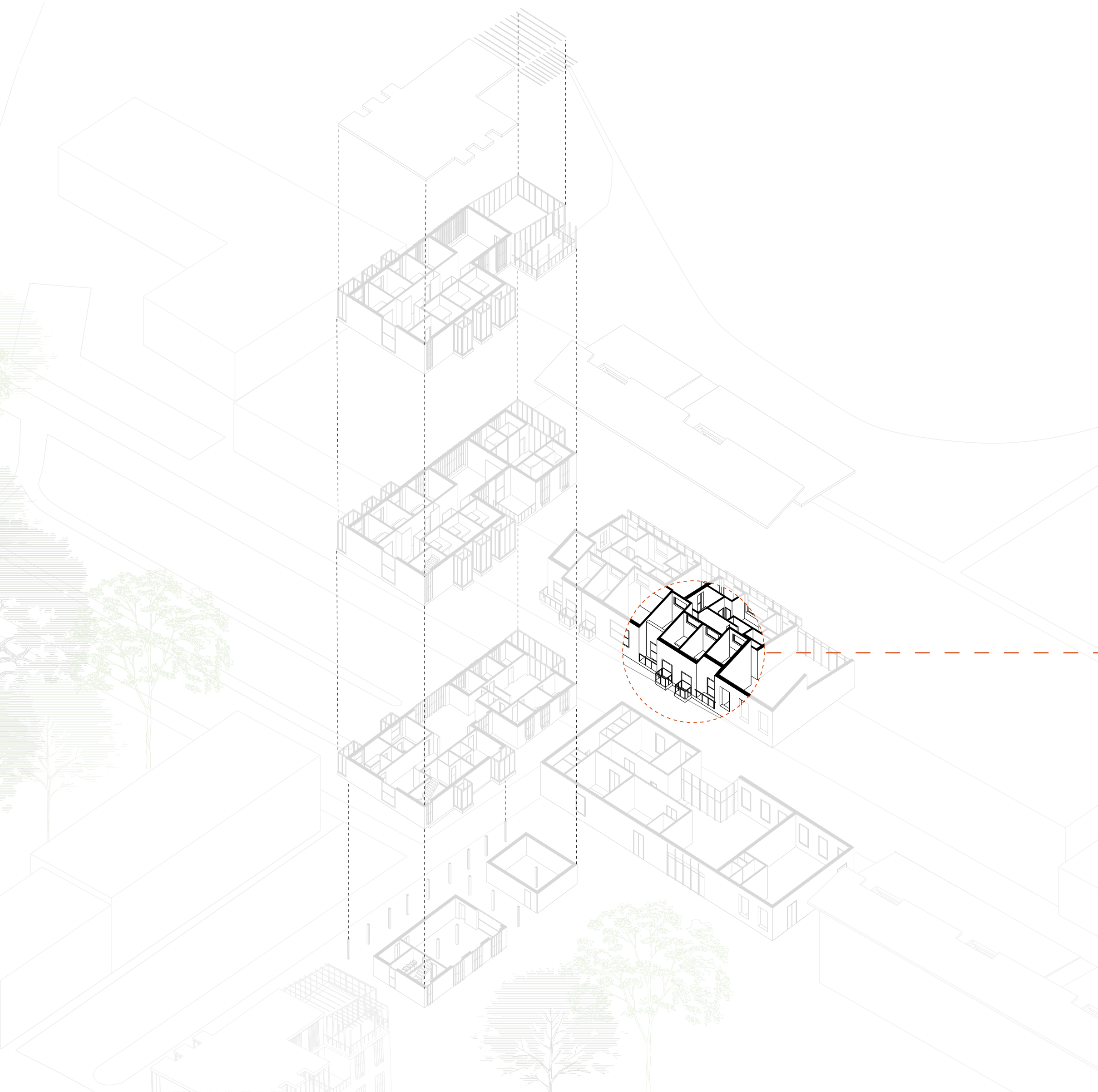
AXONOMETRY OF THE STUDENT RESIDENCE AND THE HOSTEL



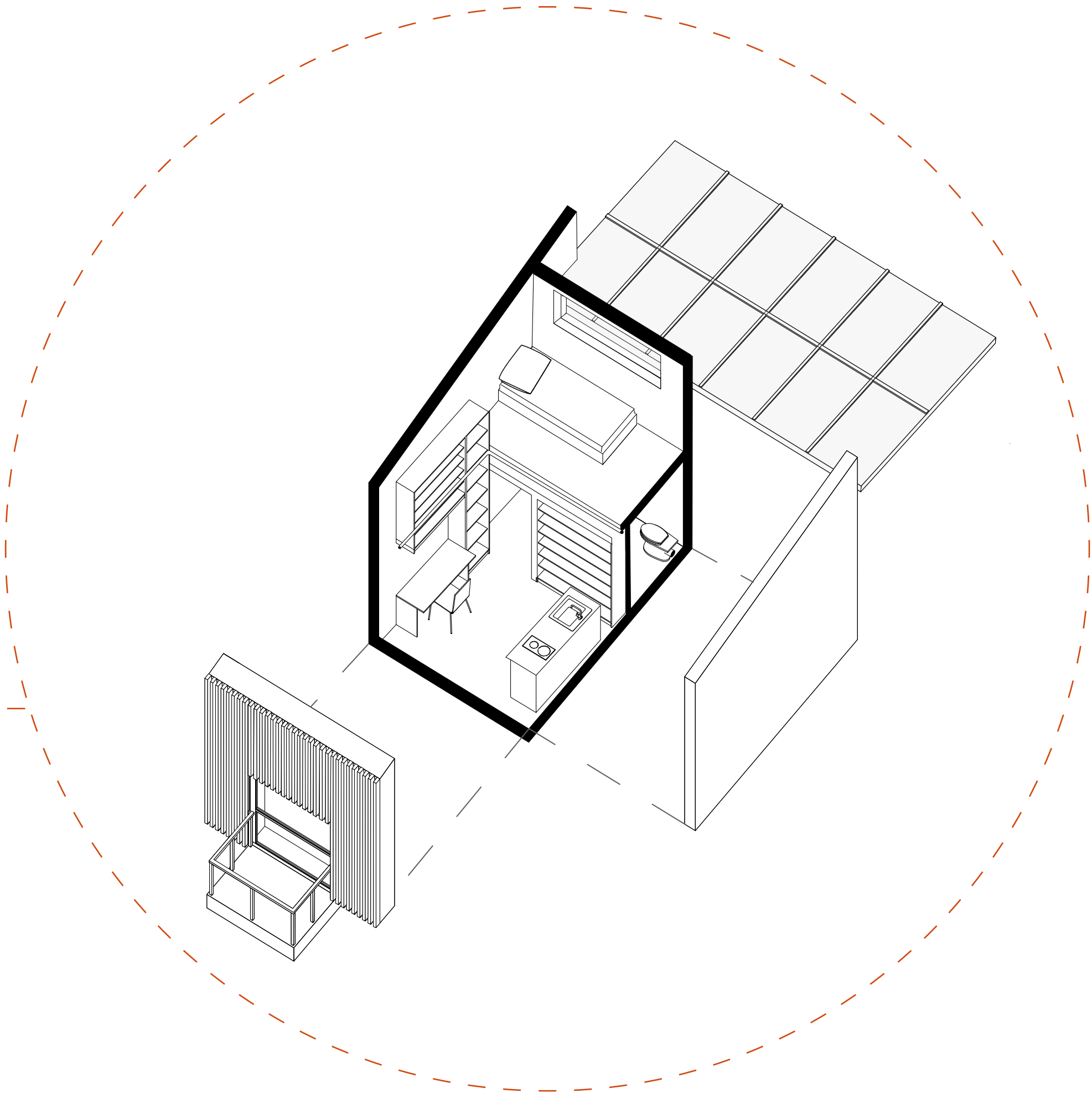
GROUND FLOOR / PUBLIC

FIRST FLOOR / PRIVATE

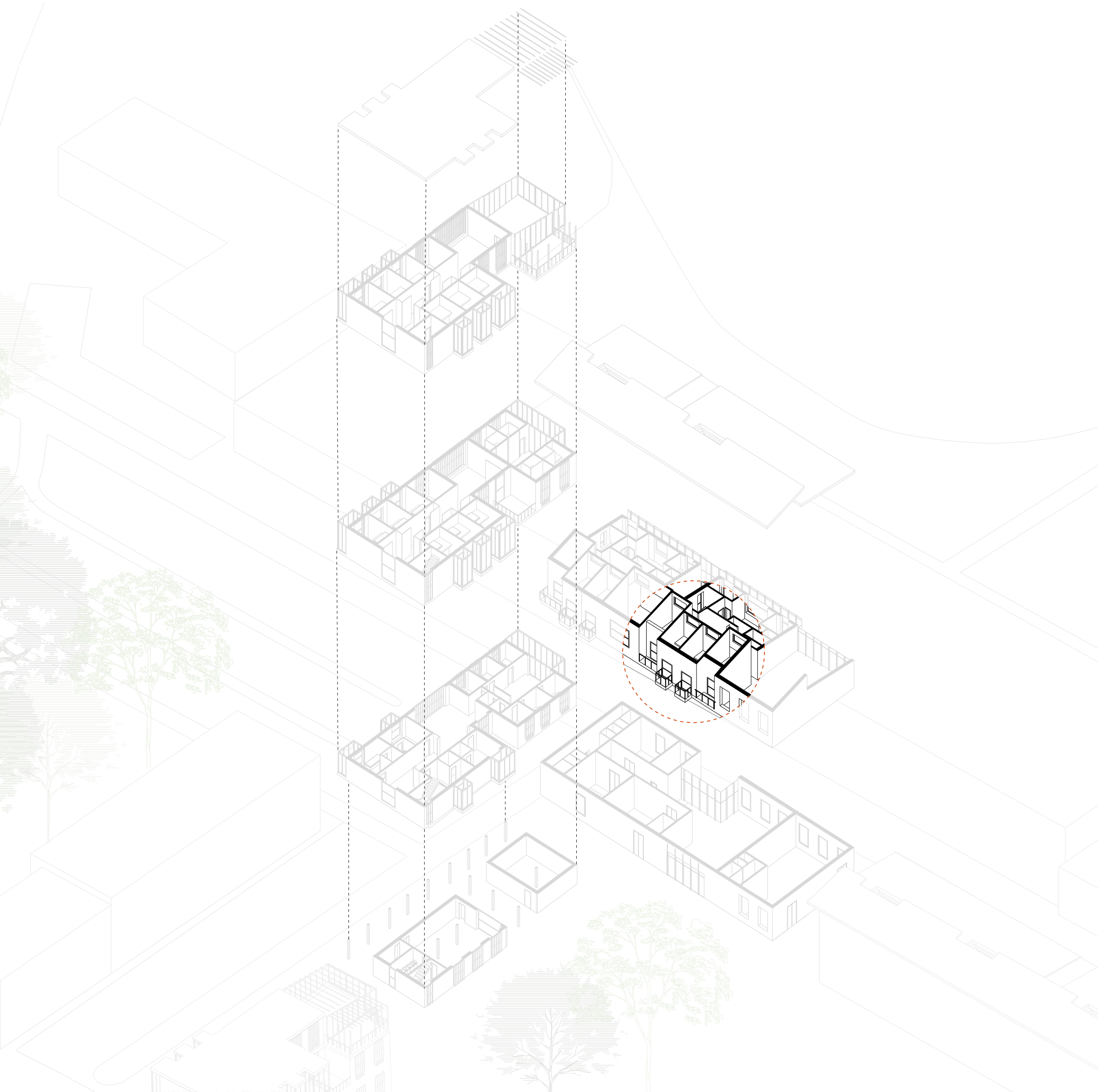
HOUSING



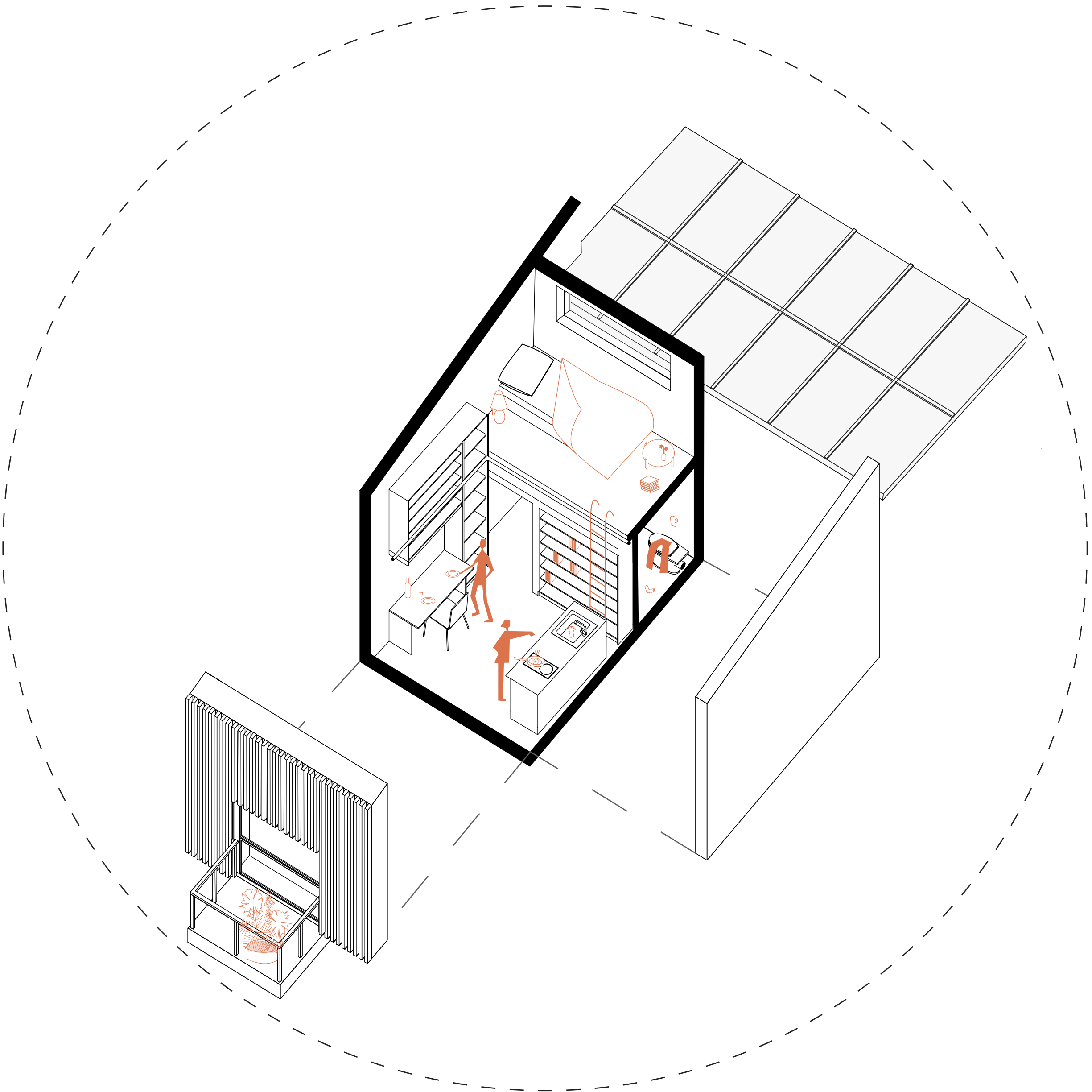
THE STUDIO



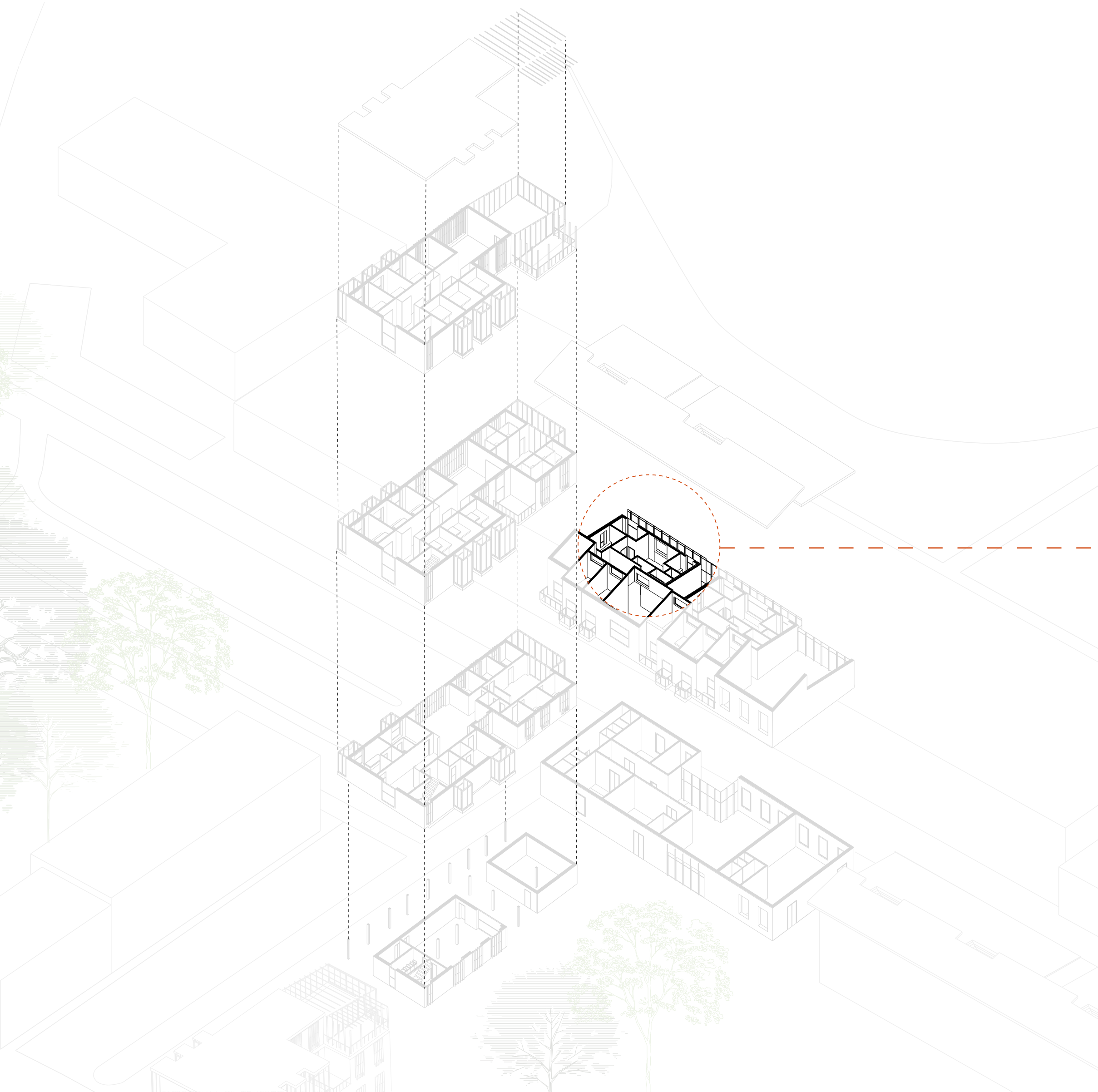
HOUSING



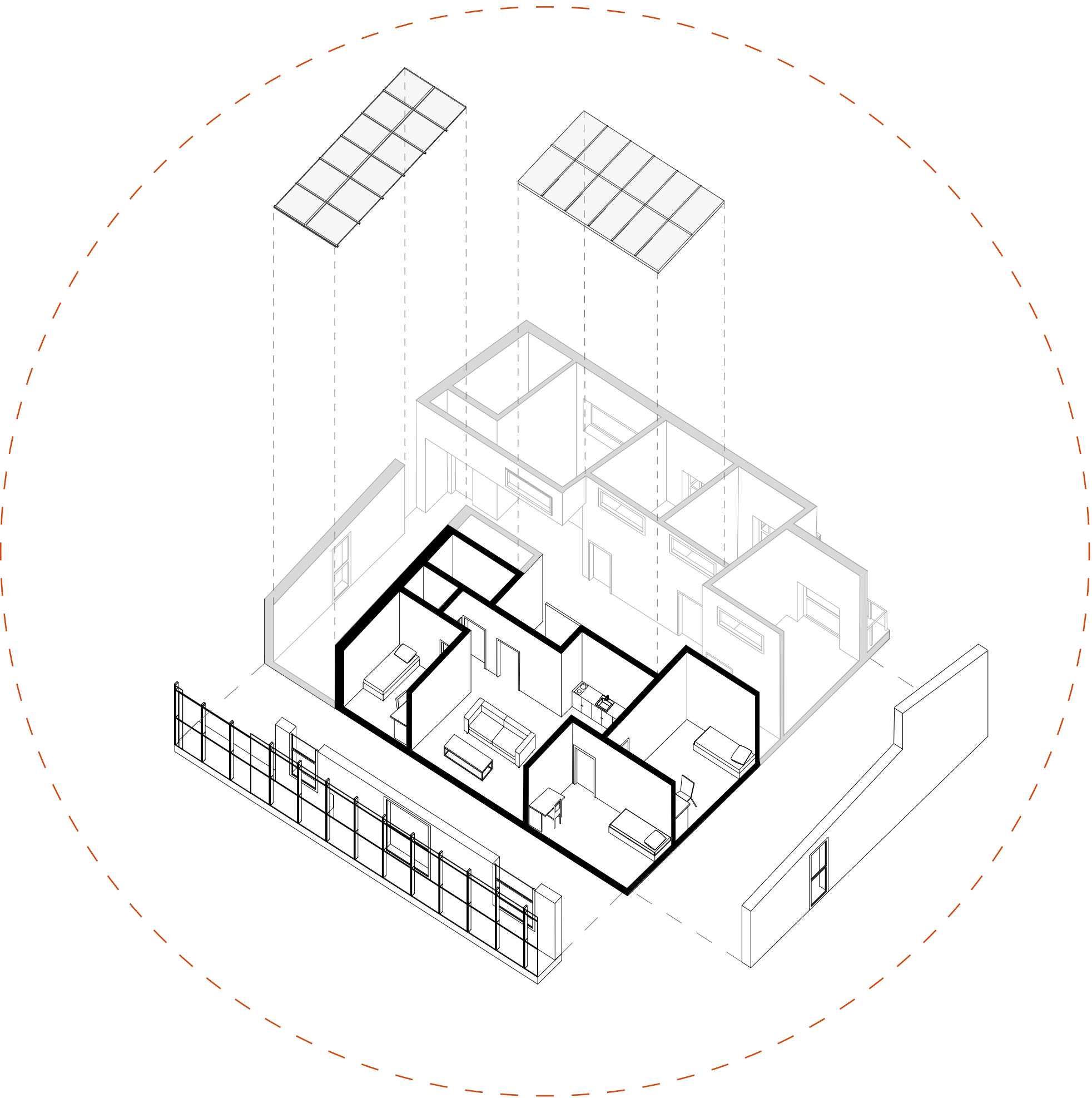
THE STUDIO



HOUSING



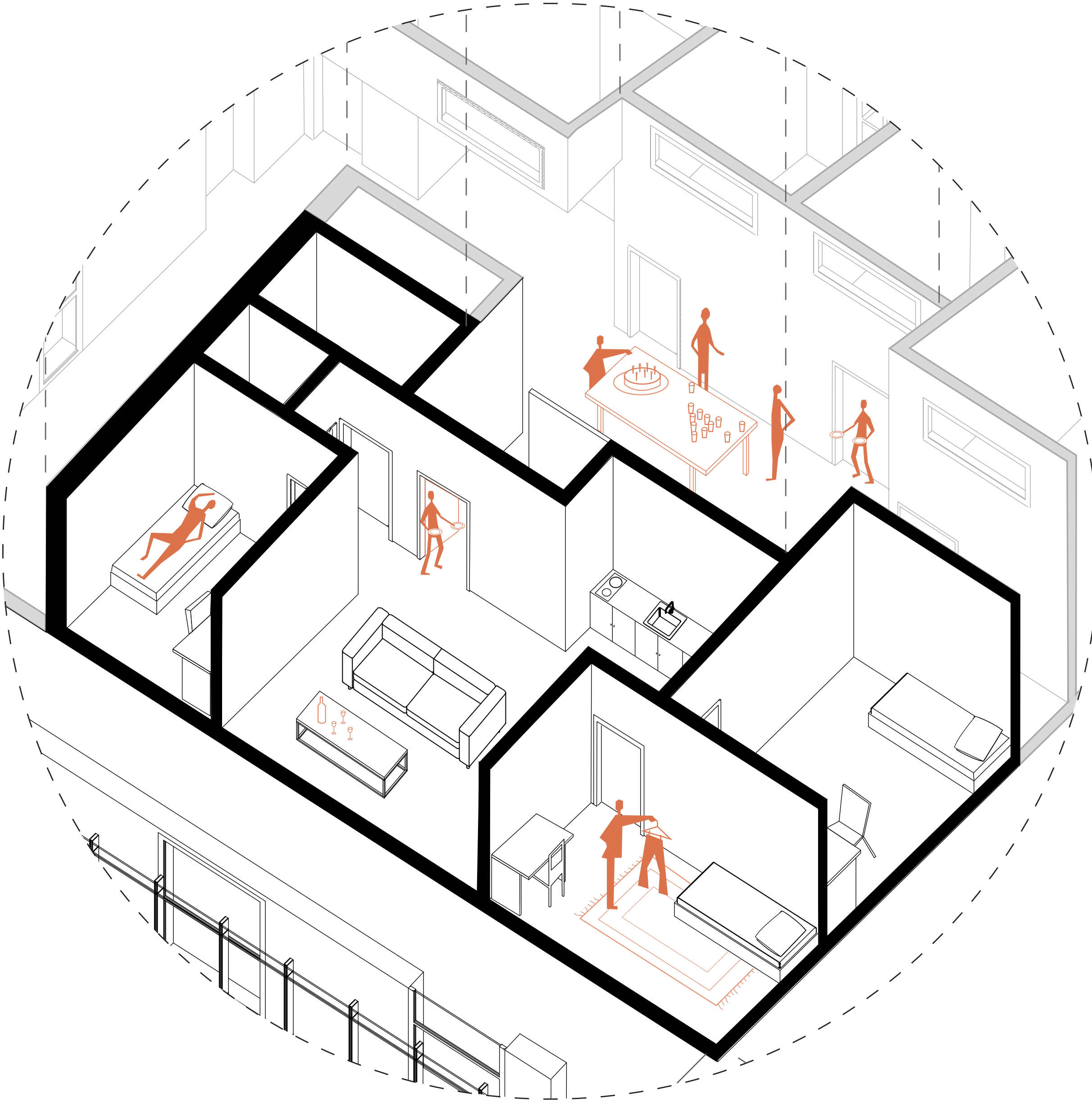
THE FLAT SHARE



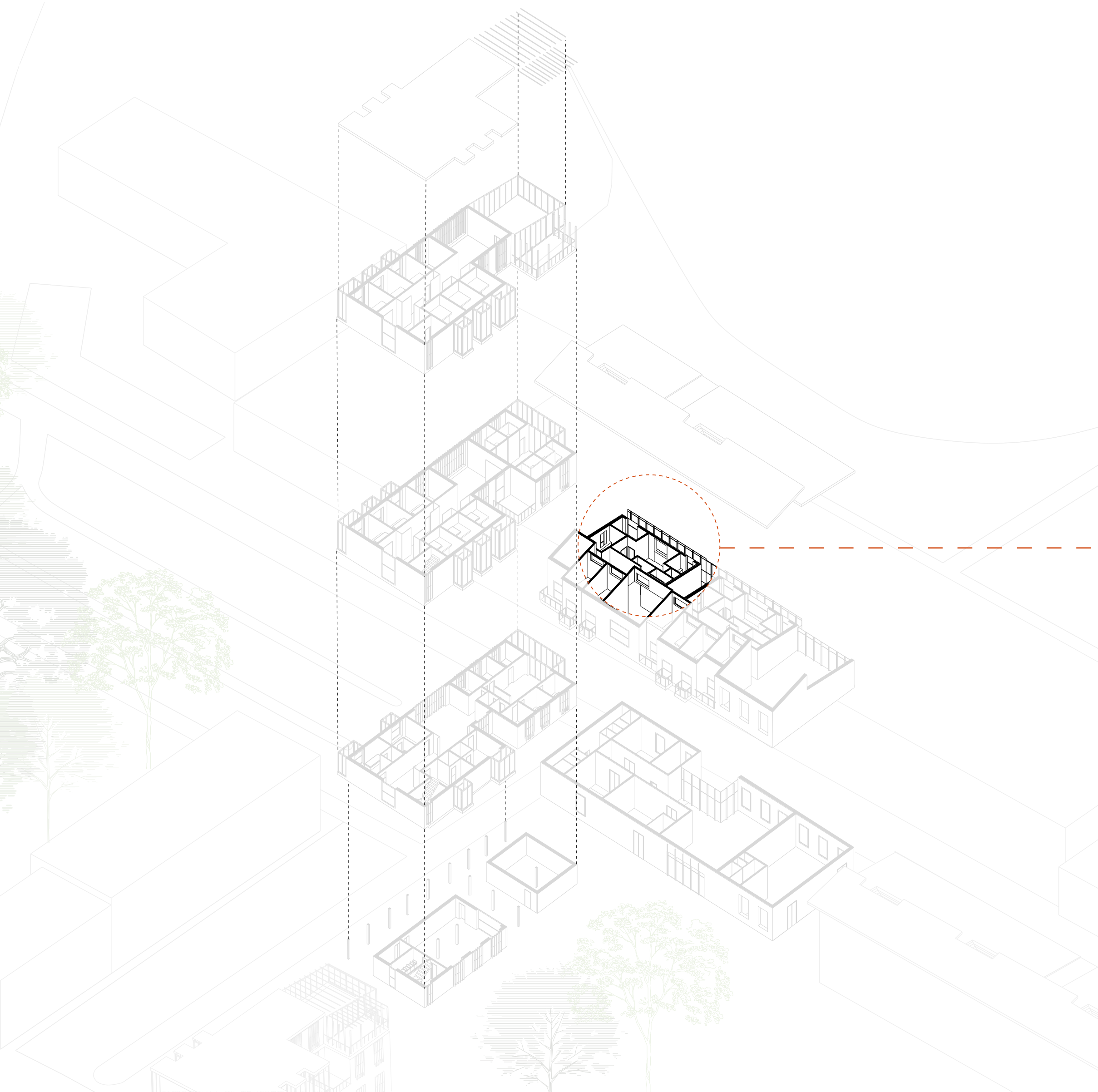
HOUSING



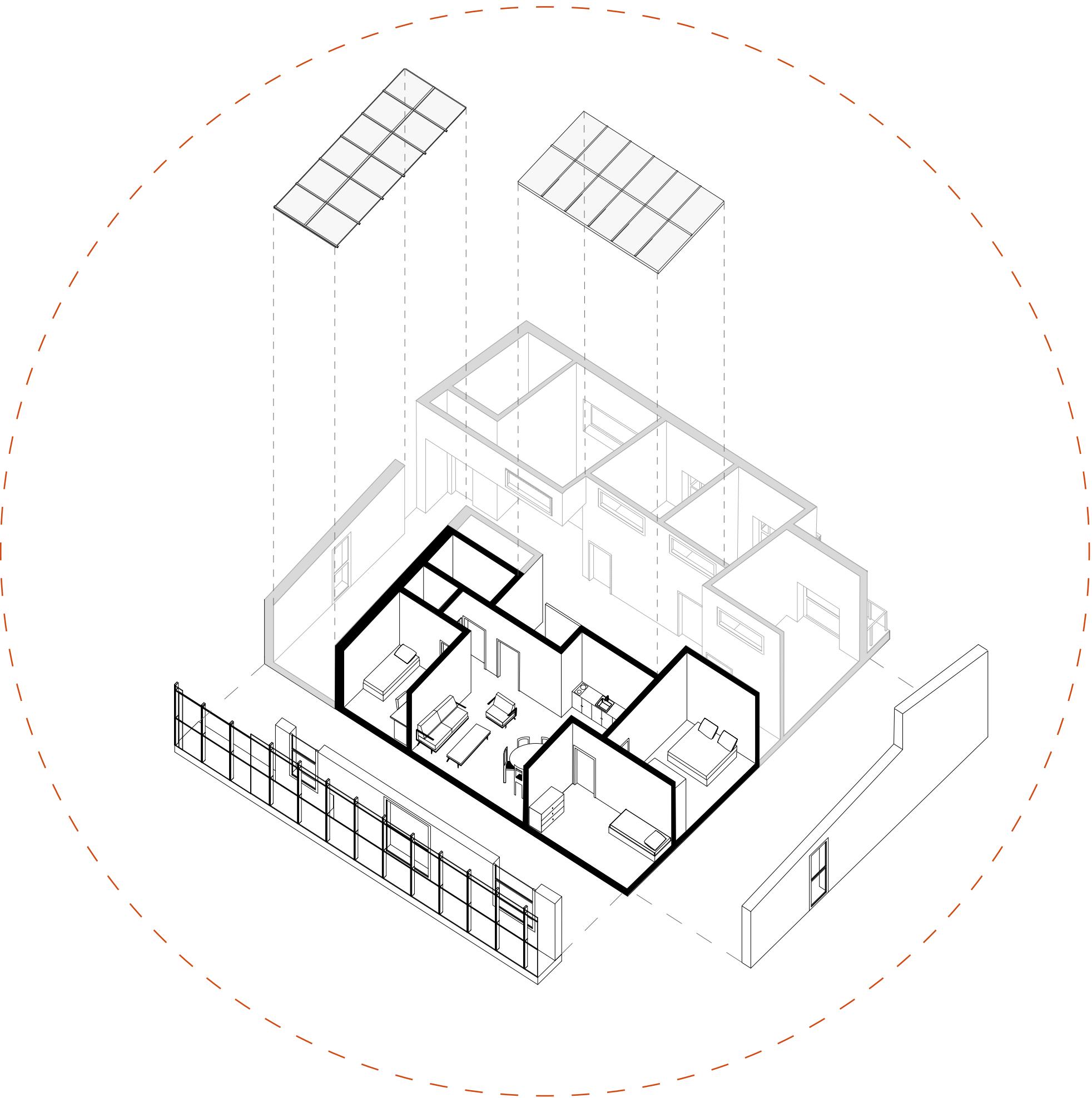
THE FLAT SHARE



HOUSING



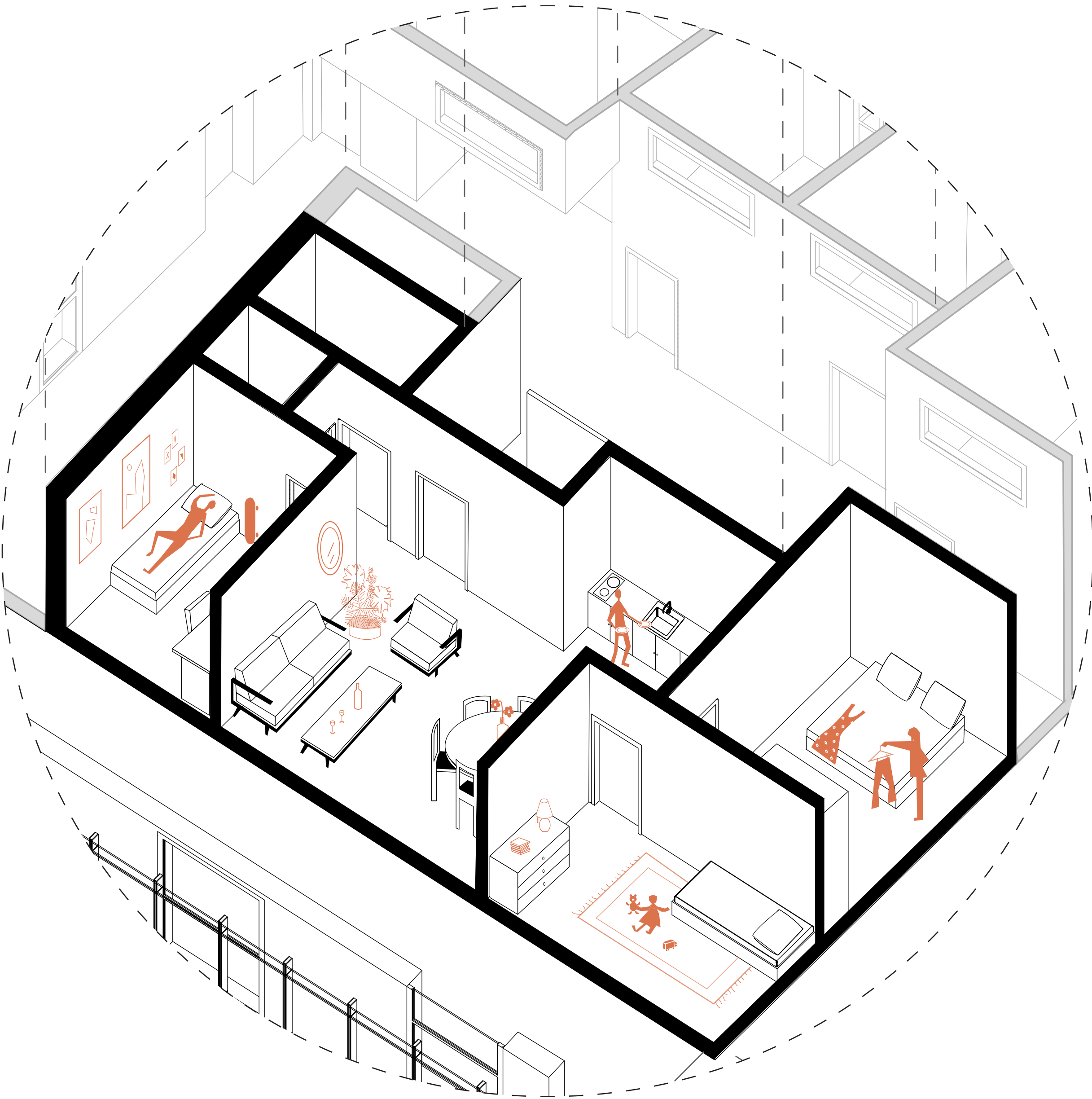
THE FAMILY HOUSING



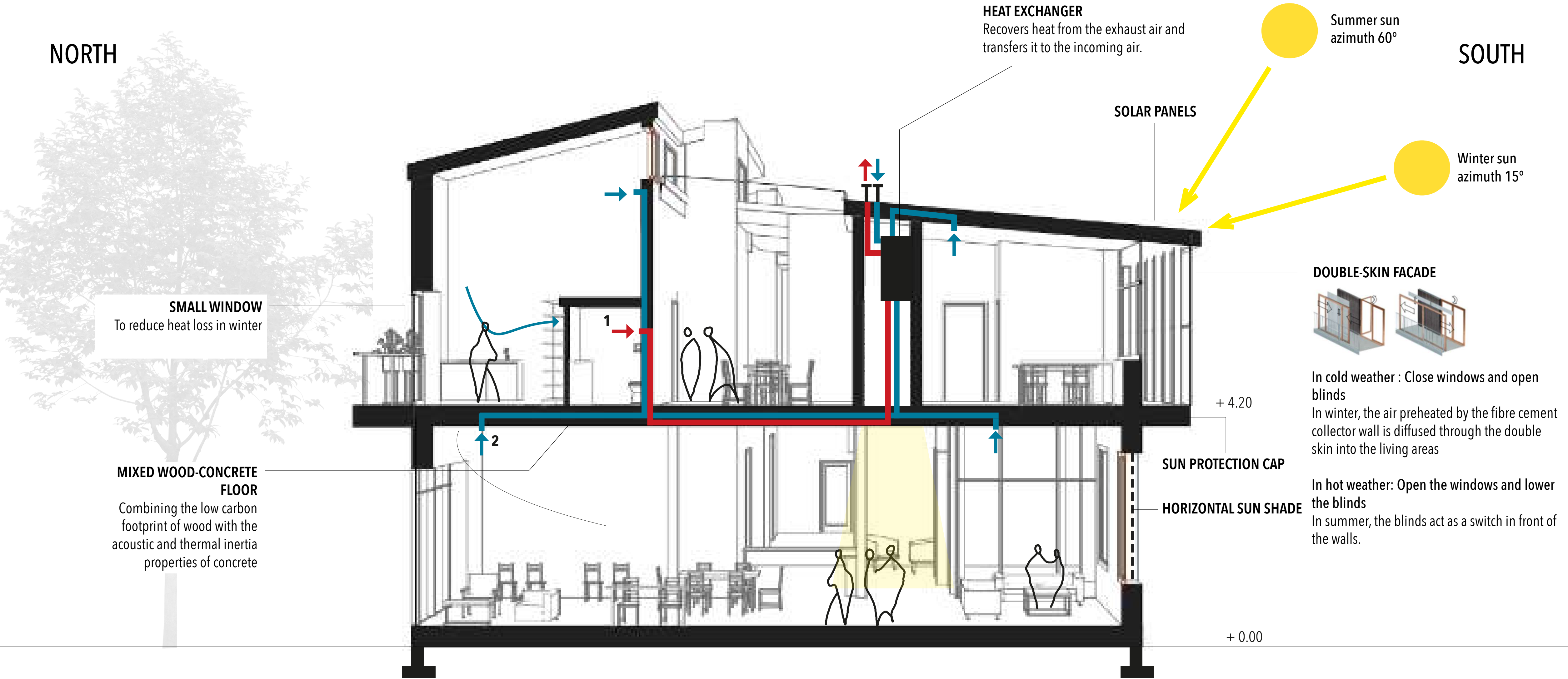
HOUSING



THE FAMILY HOUSING



BIOCLIMATIC SECTION

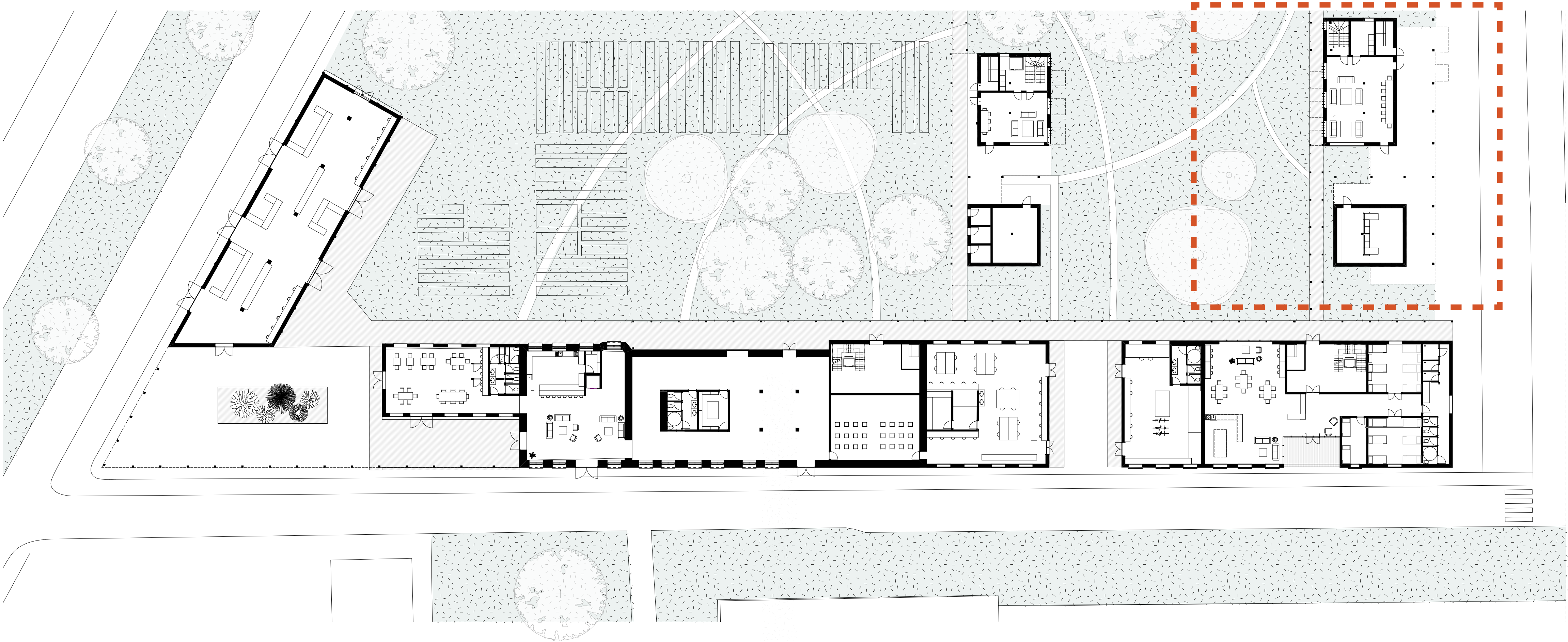


INSTALLATION OF A HEAT RECOVERY VENTILATION (HRV)

1 - Exhaust air vents in service rooms

2 - Fresh air supply in living rooms

STUDENT RESIDENCE



10m







First Floor



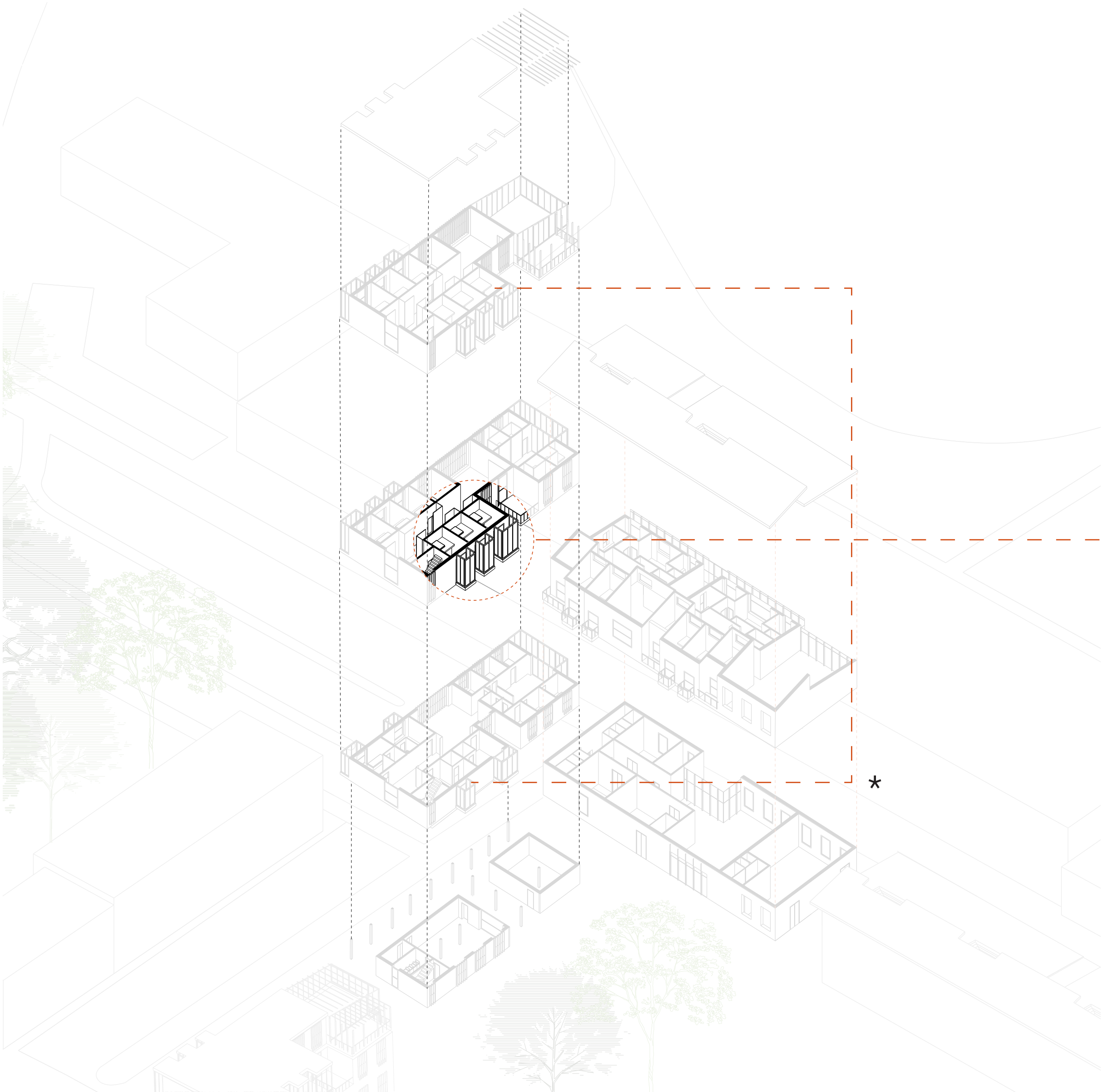
⌚ Second and third floors



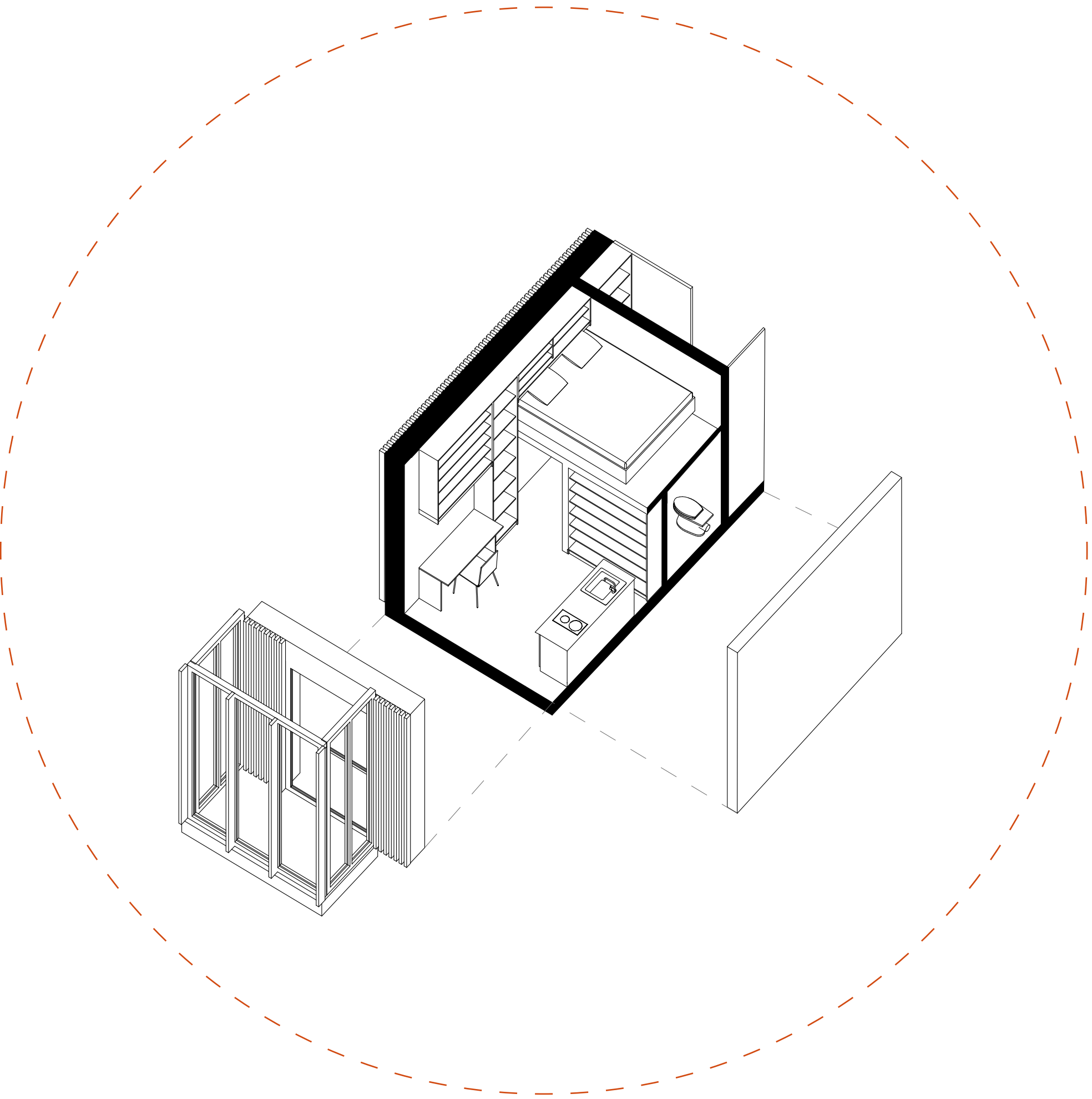
⌚ Fourth floor



THE STUDENT RESIDENCE



THE STUDIO TYPOLOGY

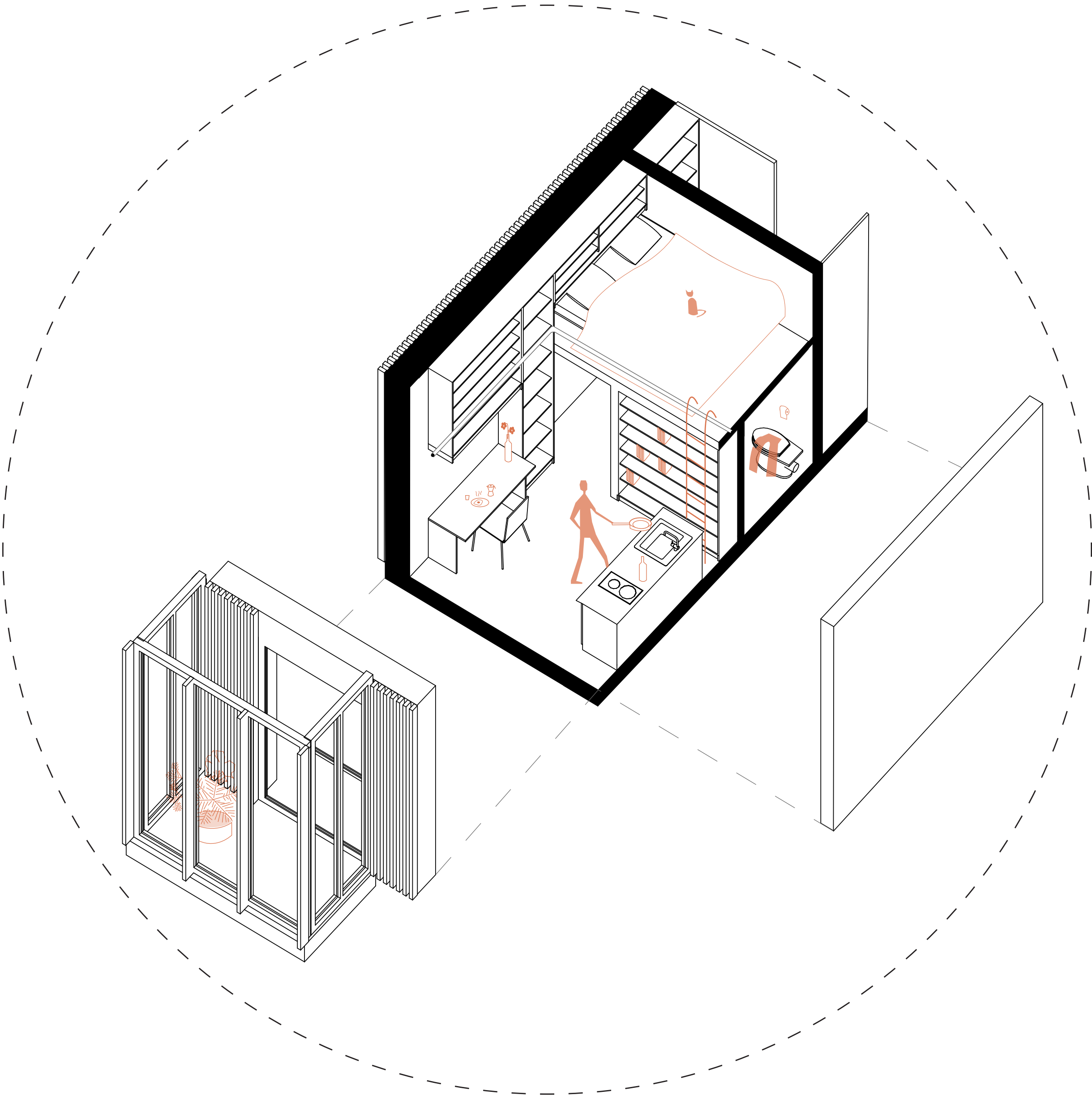


* Adapted typology for disabled person on the first floor

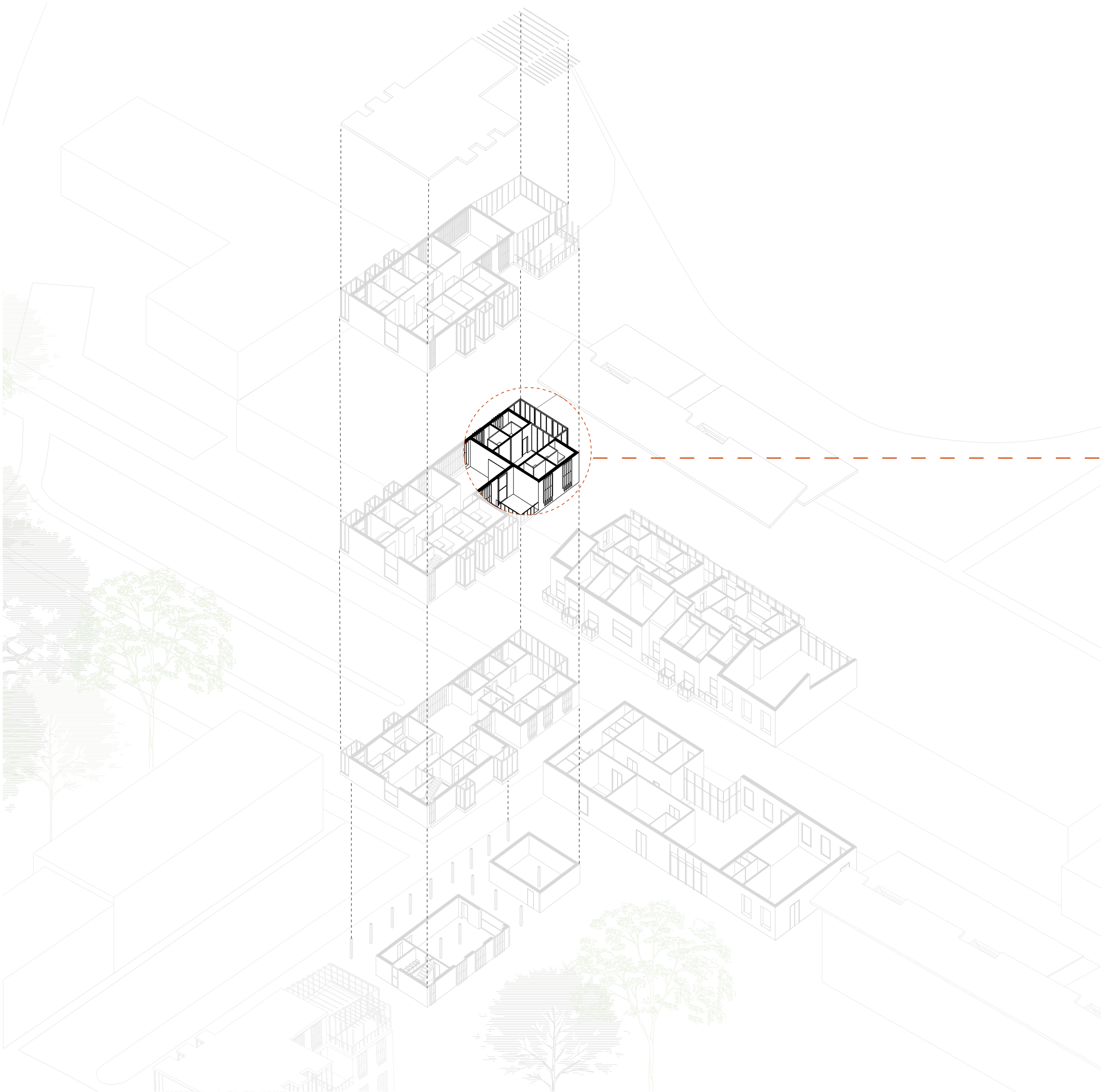
THE STUDENT RESIDENCE



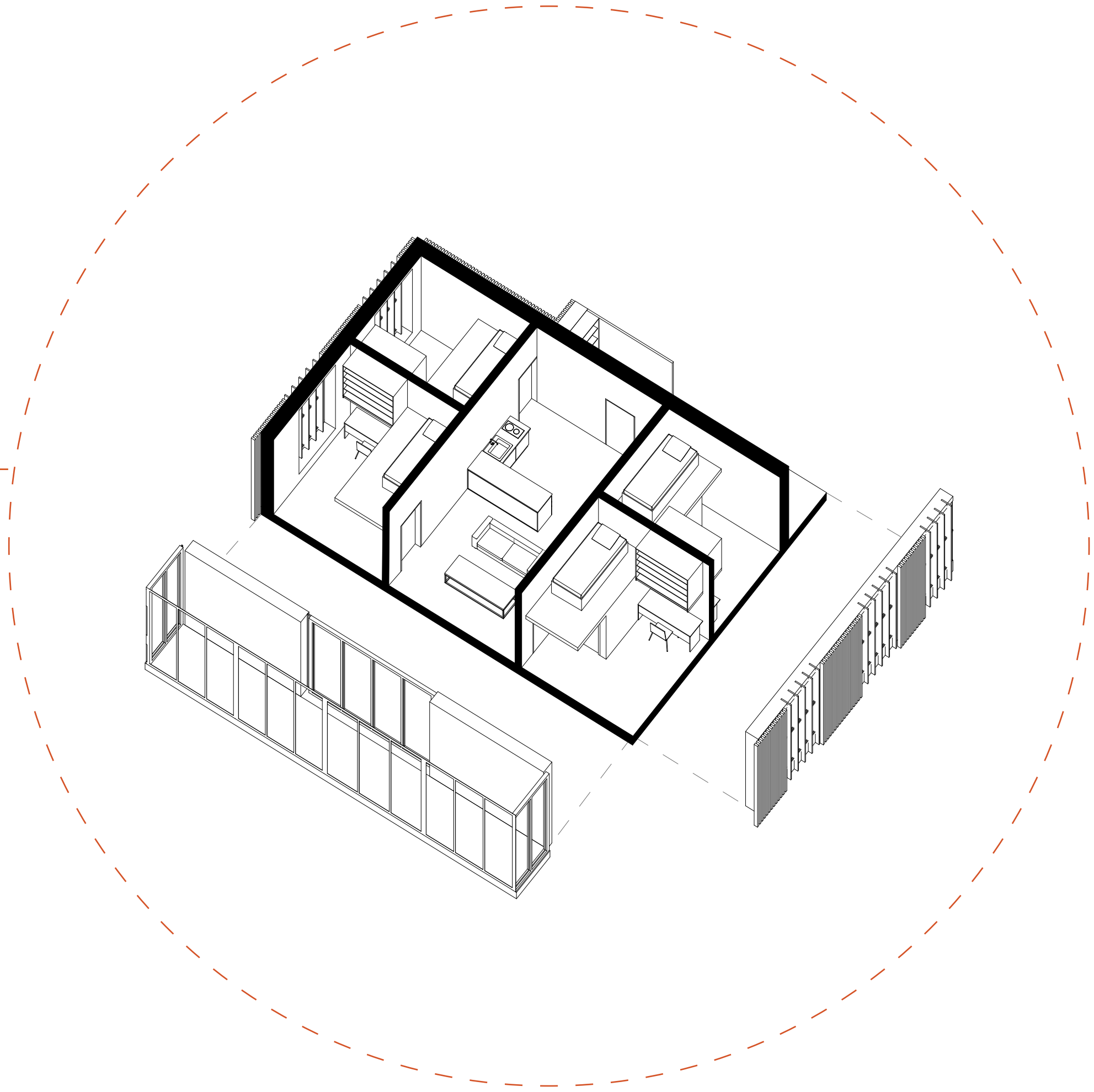
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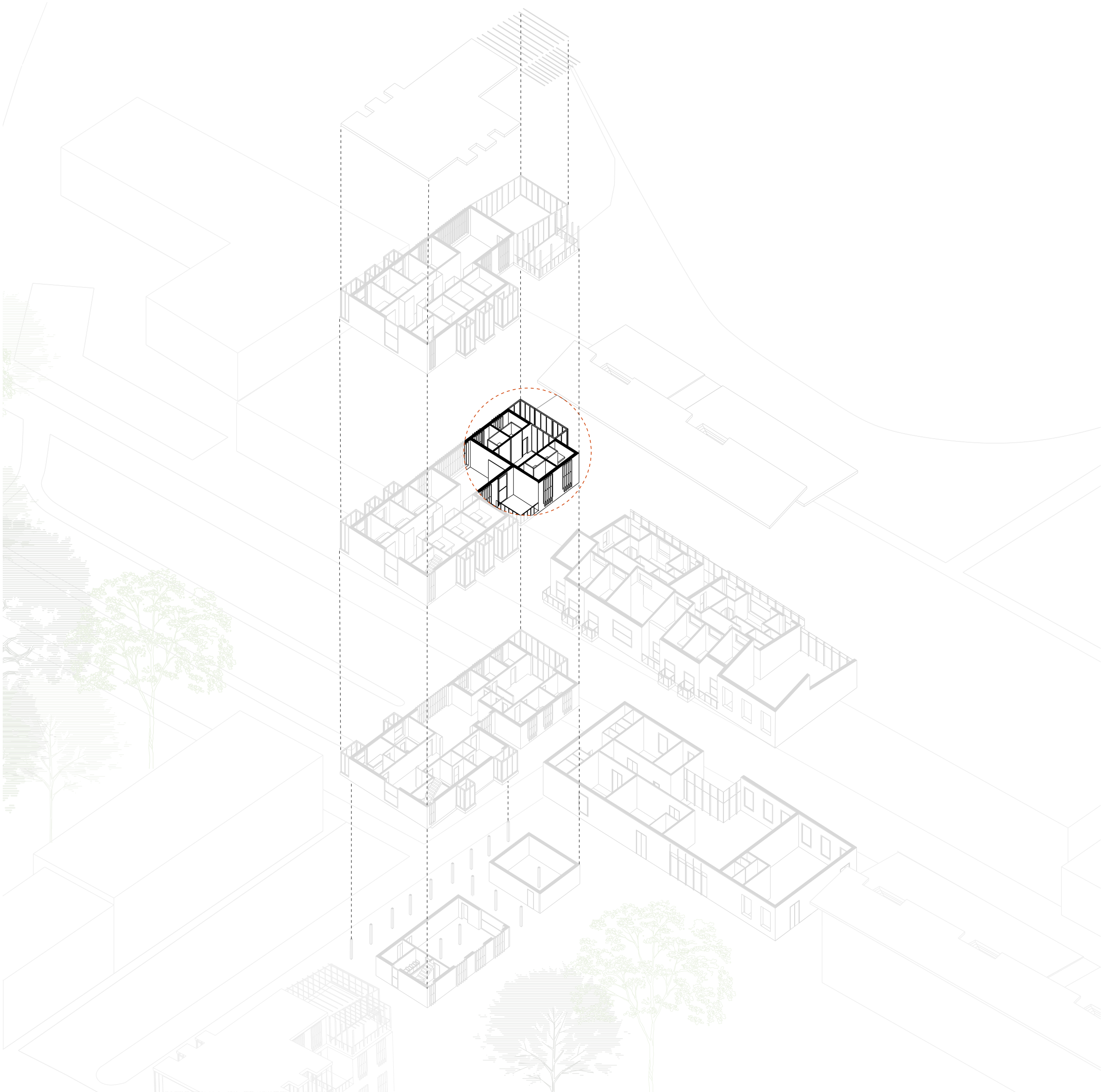
THE STUDENT RESIDENCE



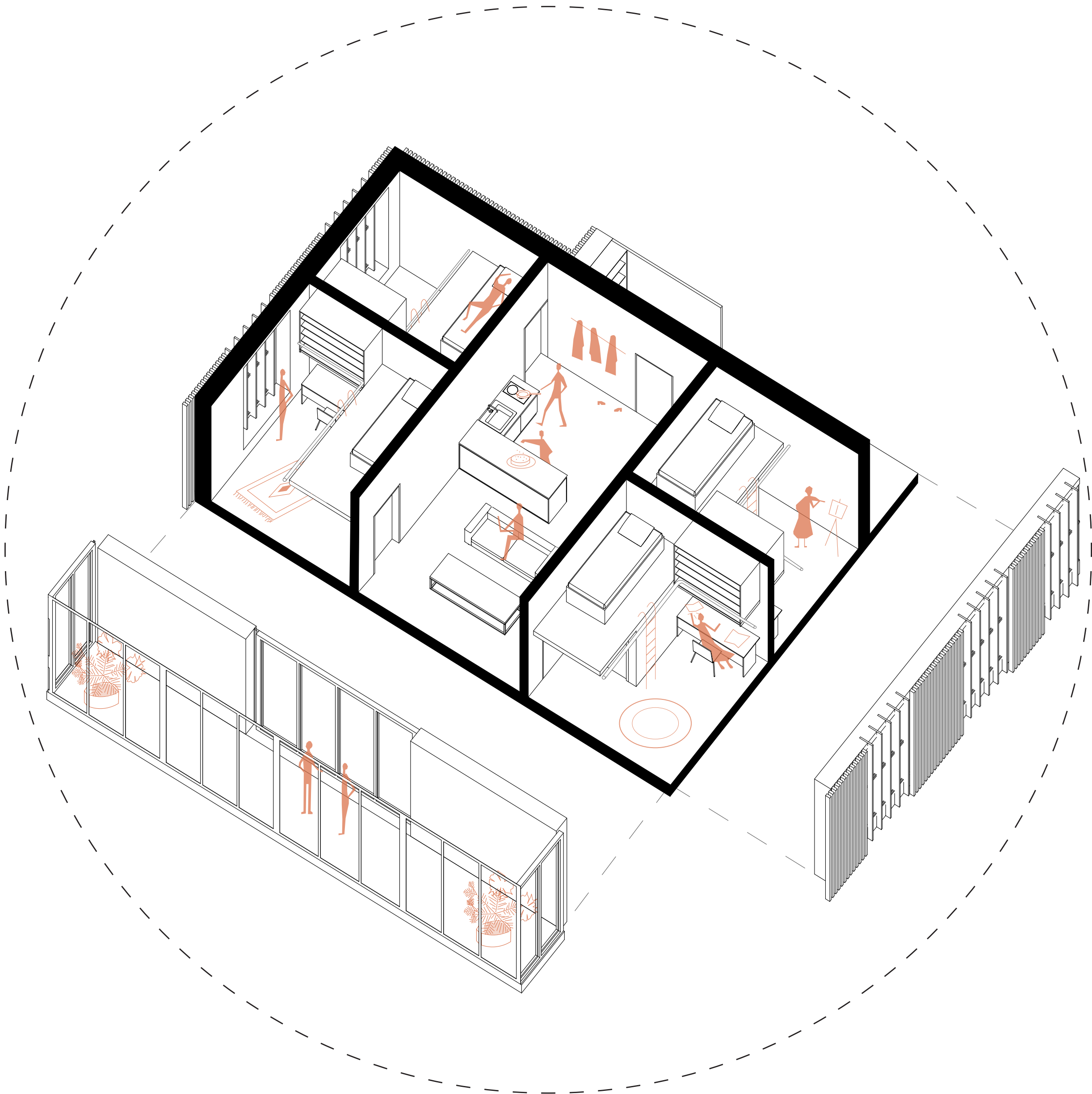
THE SMALL FLAT SHARE



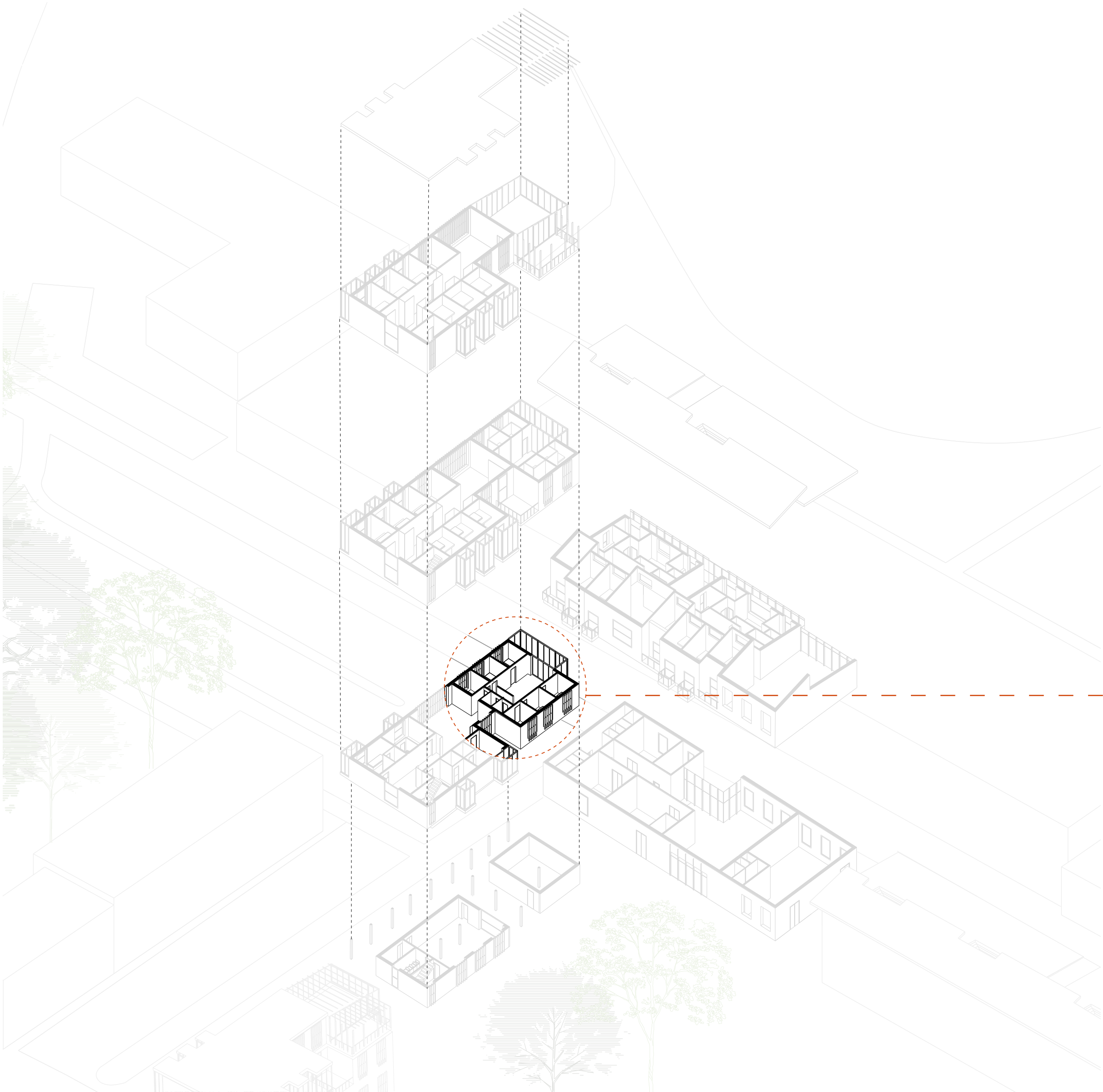
THE STUDENT RESIDENCE



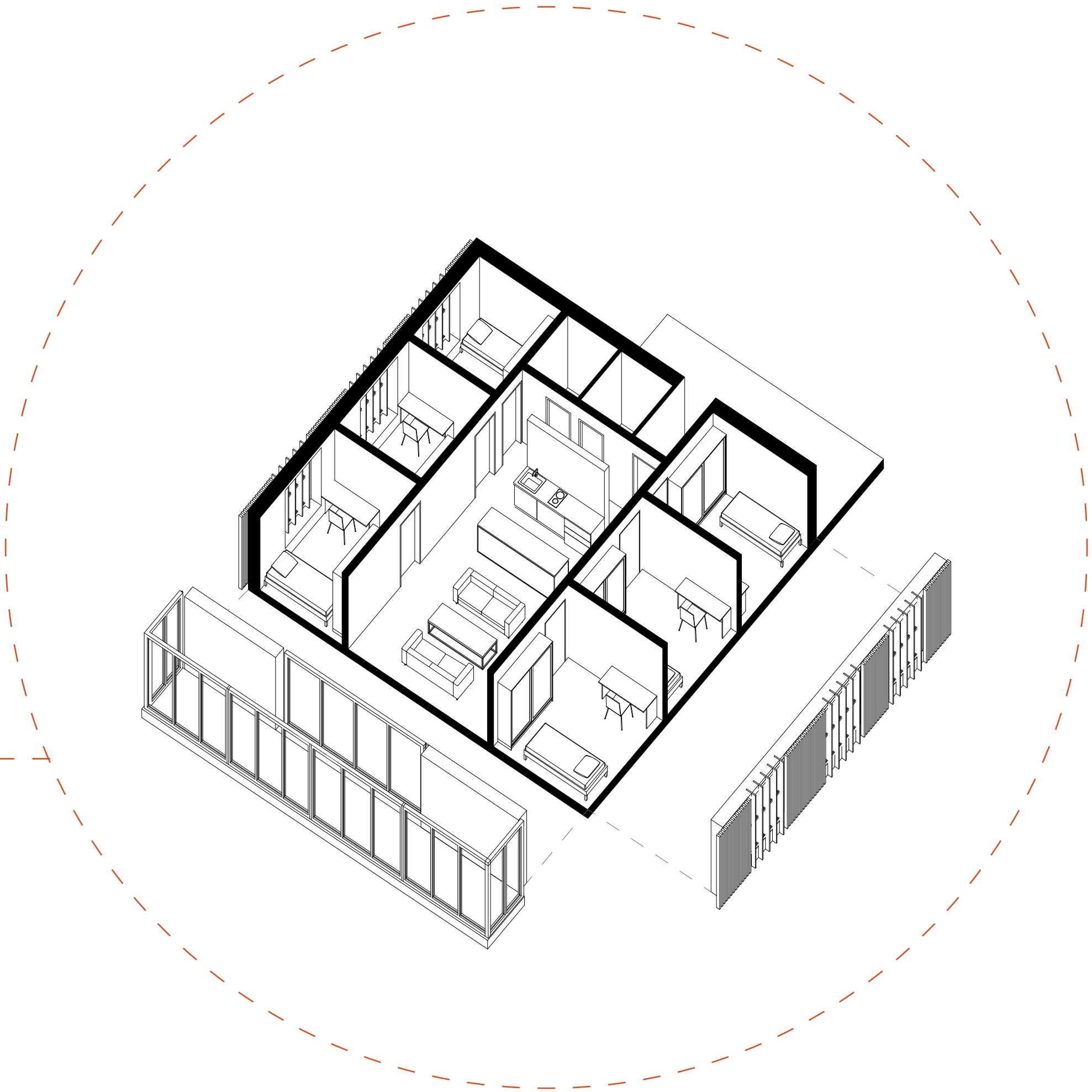
THE SMALL FLAT SHARE



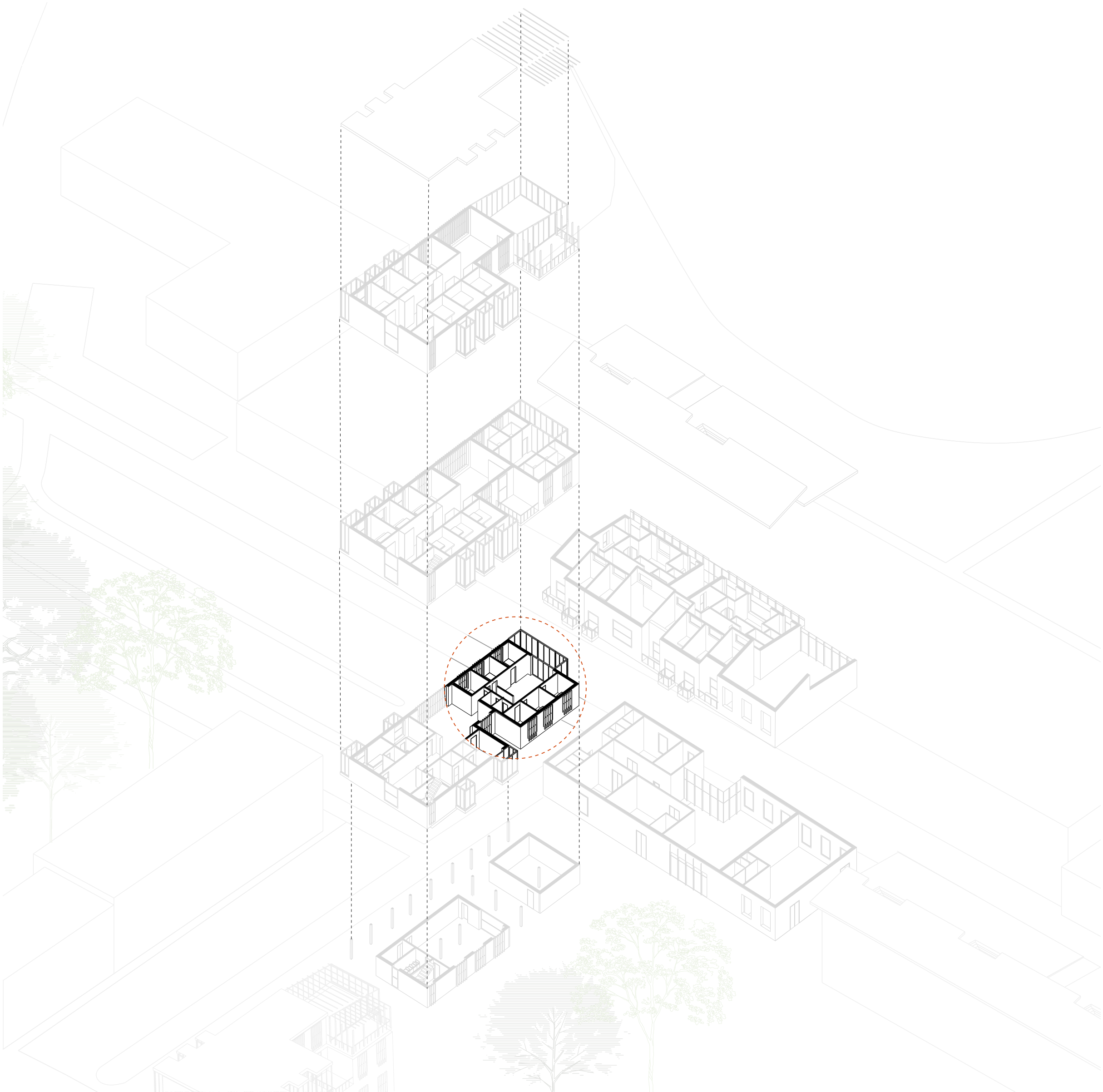
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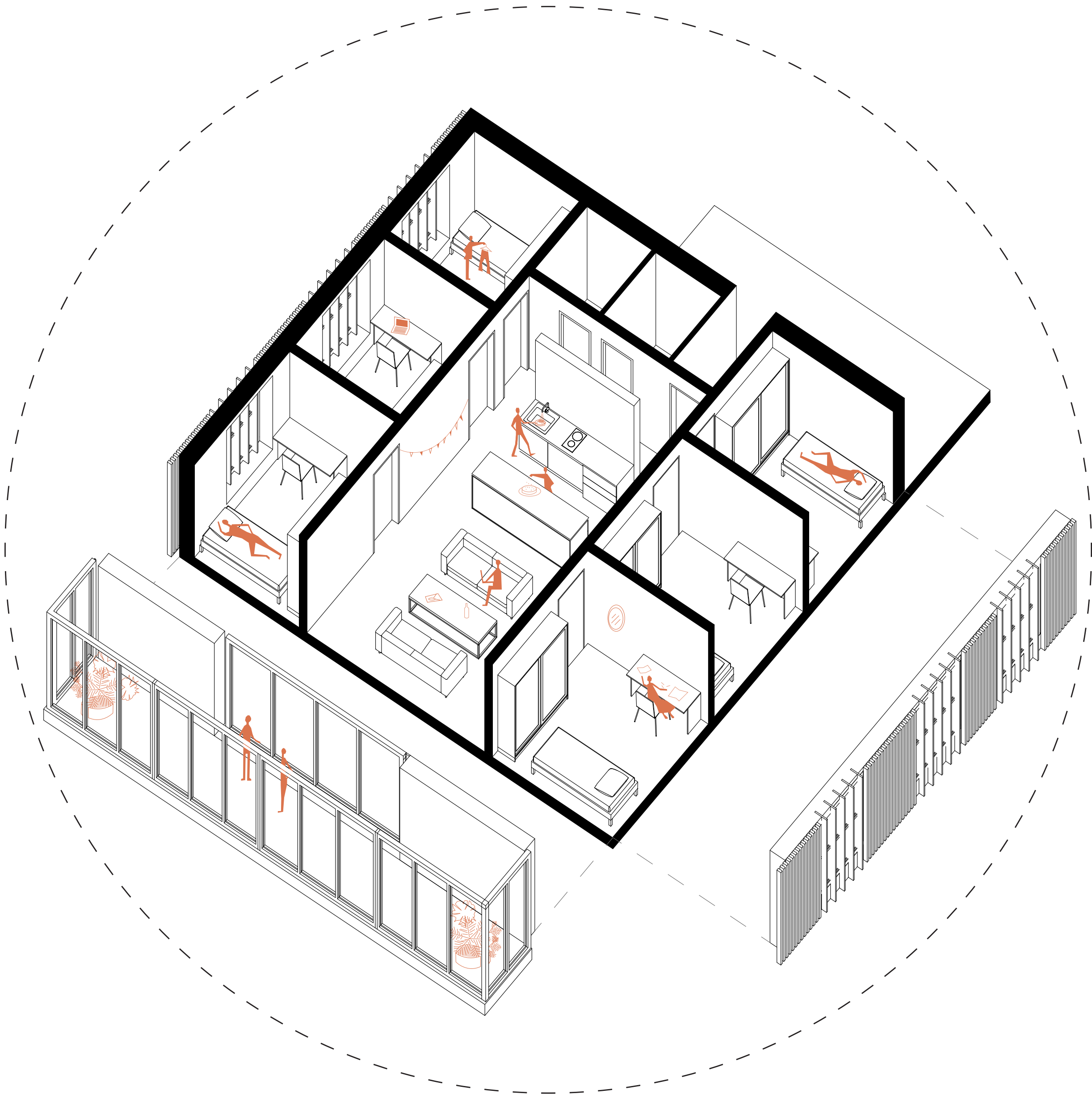
THE BIG FLAT SHARE



THE STUDENT RESIDENCE



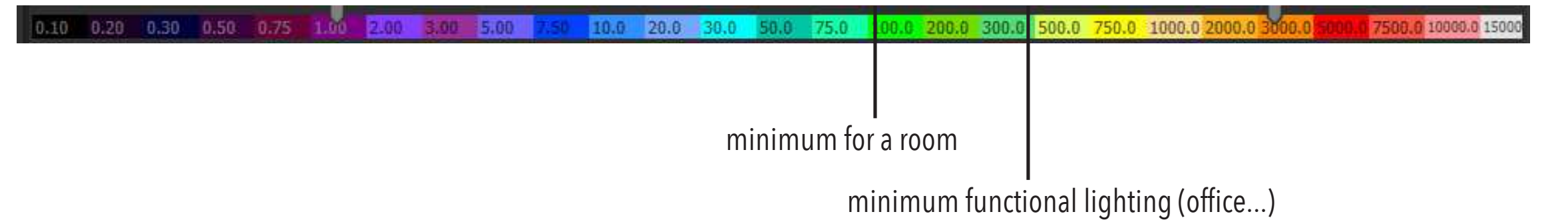
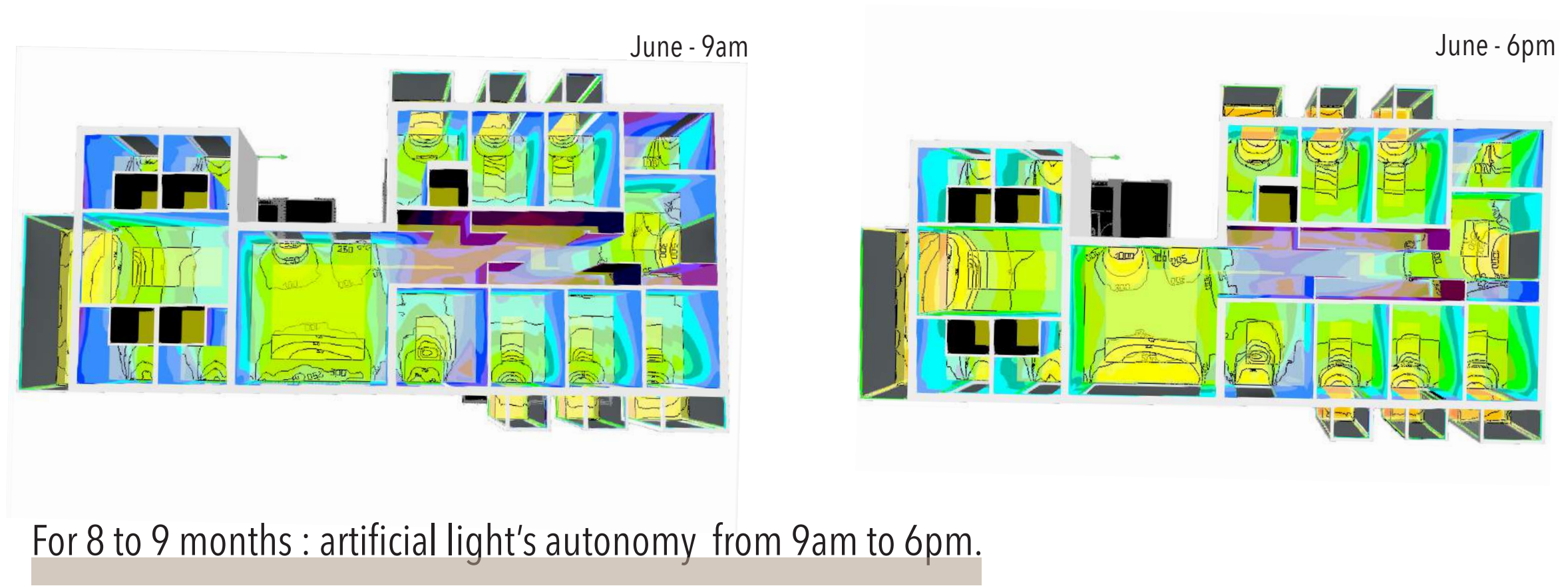
THE BIG FLAT SHARE



THE STUDENT RESIDENCE / LIGHT COMFORT



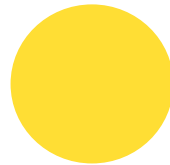
SIMULATION OF DAYLIGHT INPUT, WARSAW, OVERCAST



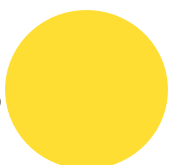
BIOCLIMATIC SECTION

SOUTH

Summer sun
azimuth 60°



Winter sun
azimuth 15°



GREEN HOUSE

- Heating greenhouse on the roof of the building: Recovering the heat produced to heat domestic hot water
- Living closer to nature
- Offering a meeting place in the residence

GREEN ROOF

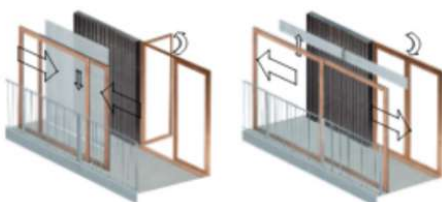
NORTH

OPAQUE WALL
Limiting openings to the north to minimise heat loss

MIXED WOOD-CONCRETE FLOOR
Combining the low carbon footprint of wood with the acoustic and thermal inertia properties of concrete

BUFFER SPACES (Staircase, lift, garbage room)
-Insulating intermediates between the interior and exterior
-Reduction of the impact of cold
-energy saving
-comfort of the occupants

DOUBLE-SKIN FACADE

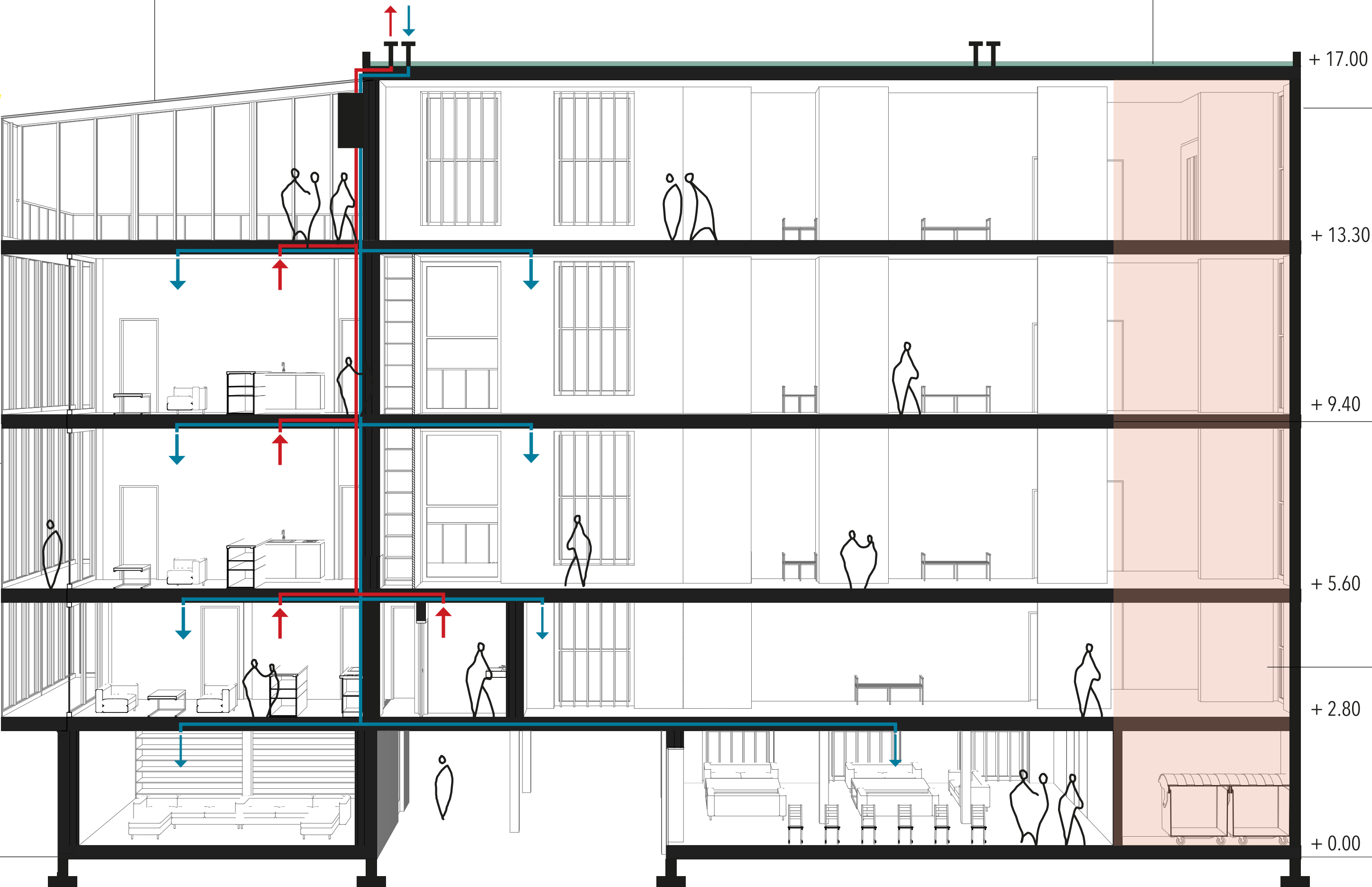


In cold weather : Close windows and open blinds
In winter, the air preheated by the fibre cement collector wall is diffused through the double skin into the living areas

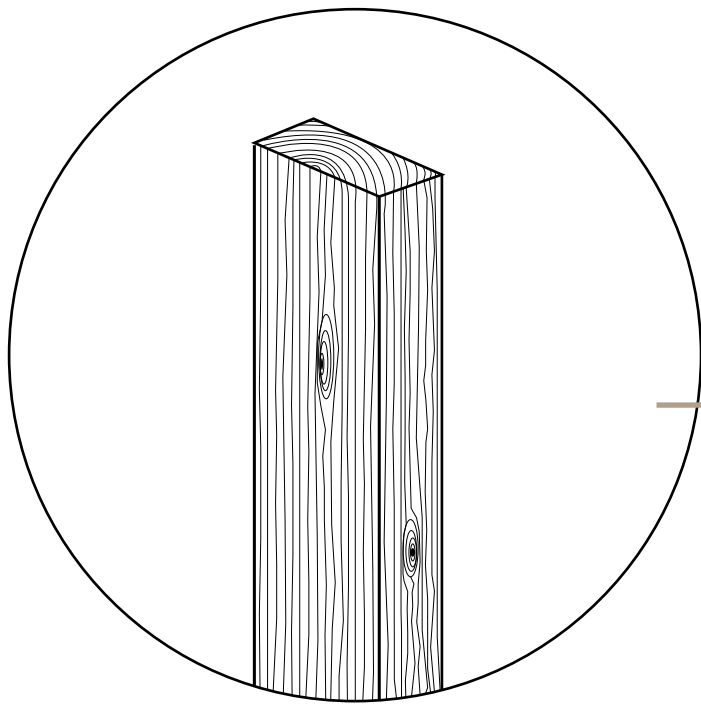
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INSTALLATION OF A HEAT RECOVERY VENTILATION (HRV)

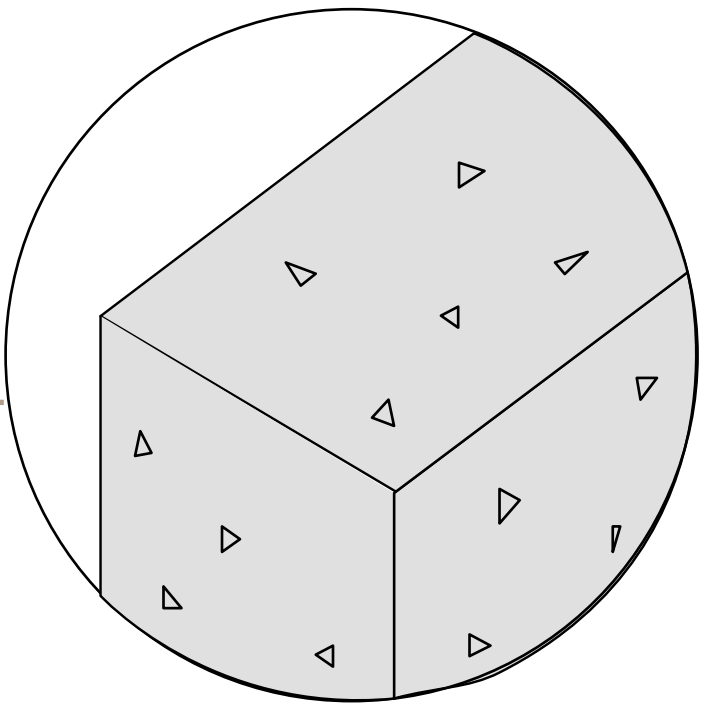
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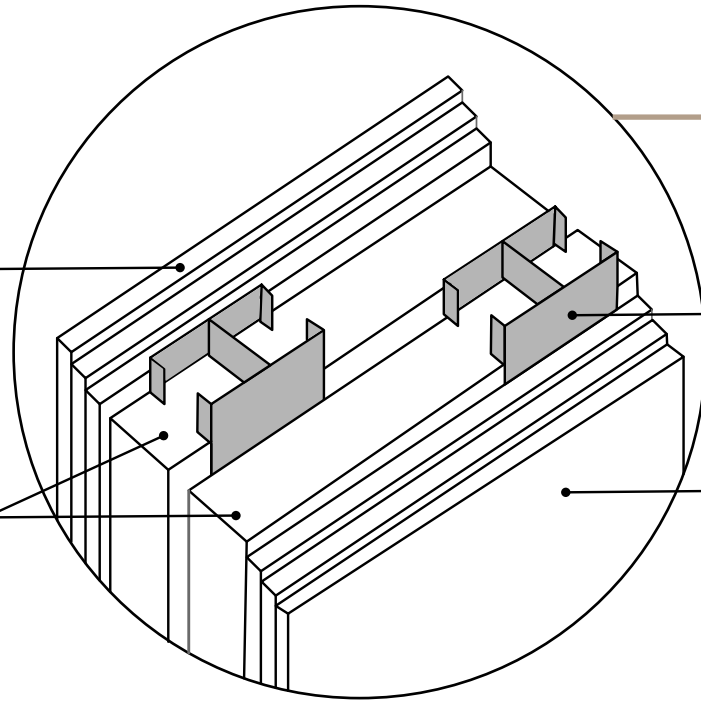
STRUCTURE AXONOMETRY



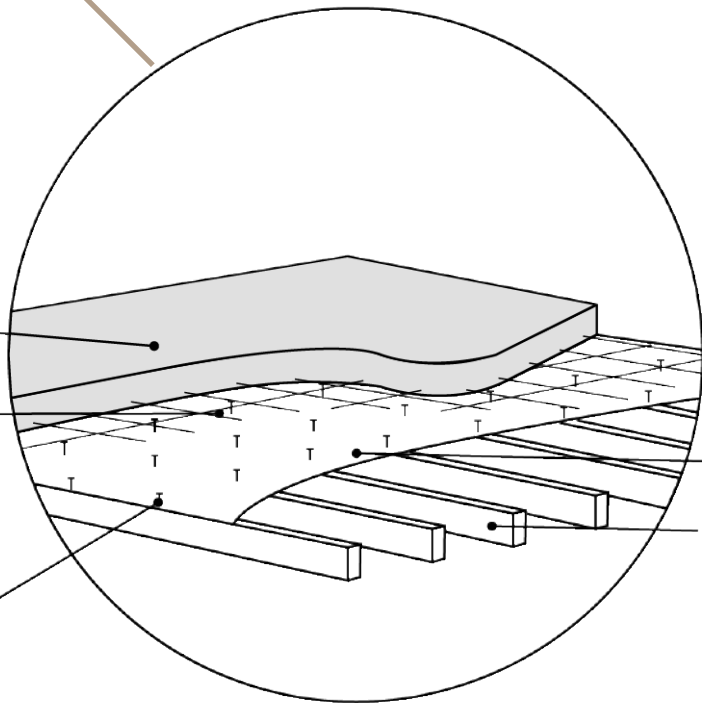
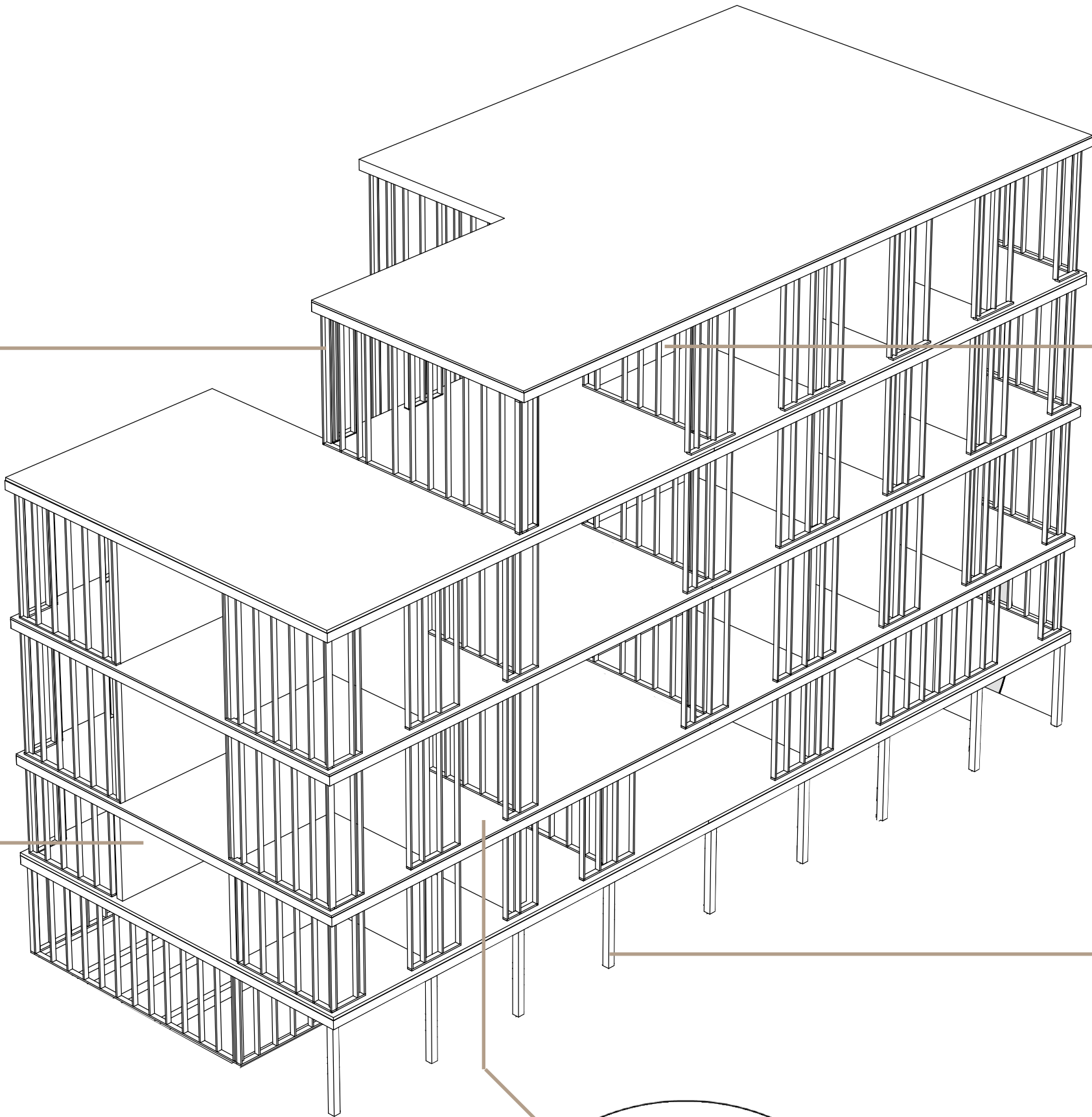
TIMBER FRAME WALL
Larch wood
Locally produced in Poland



DIVIDING WALL
LOW-CARBON CONCRETE
Ultibat Green®, Point.P

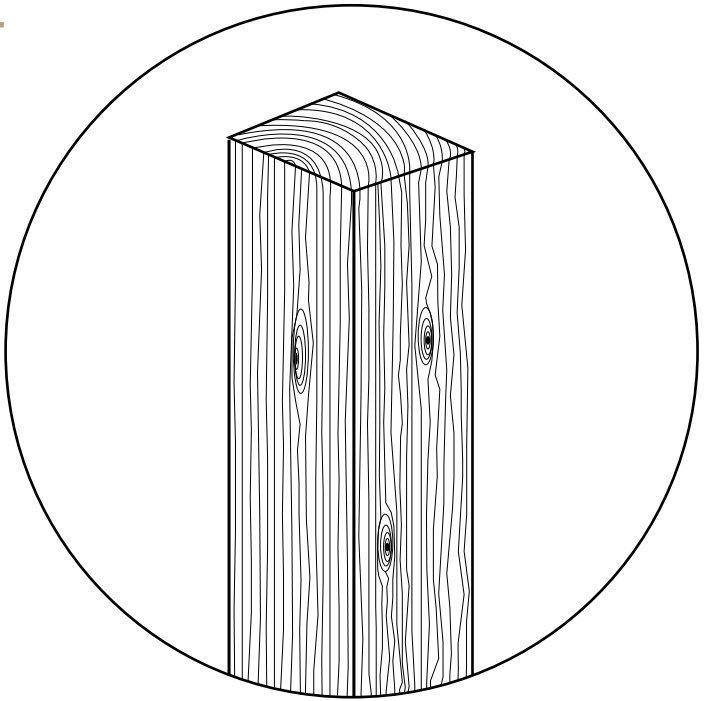


3 LAYERS OF Placoplatre® BA13
MINERAL WOOL
METAL RAIL STRUCTURE Stil®
3 LAYERS OF Placoplatre® BA13
PARTITION WALL BETWEEN HOMES
Placostil® SAD 220



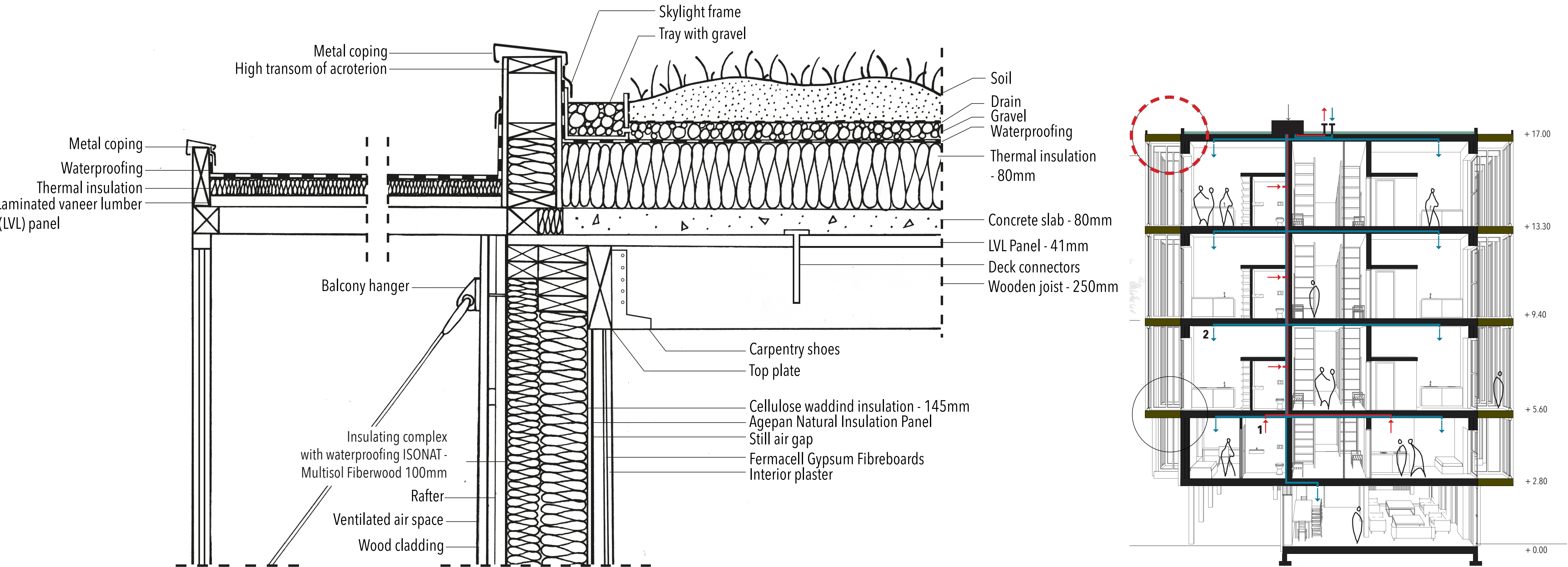
Concrete Slab
Iron framework
Connector
LVL Panel
Larch wood joist

Mixed wood-concrete floor



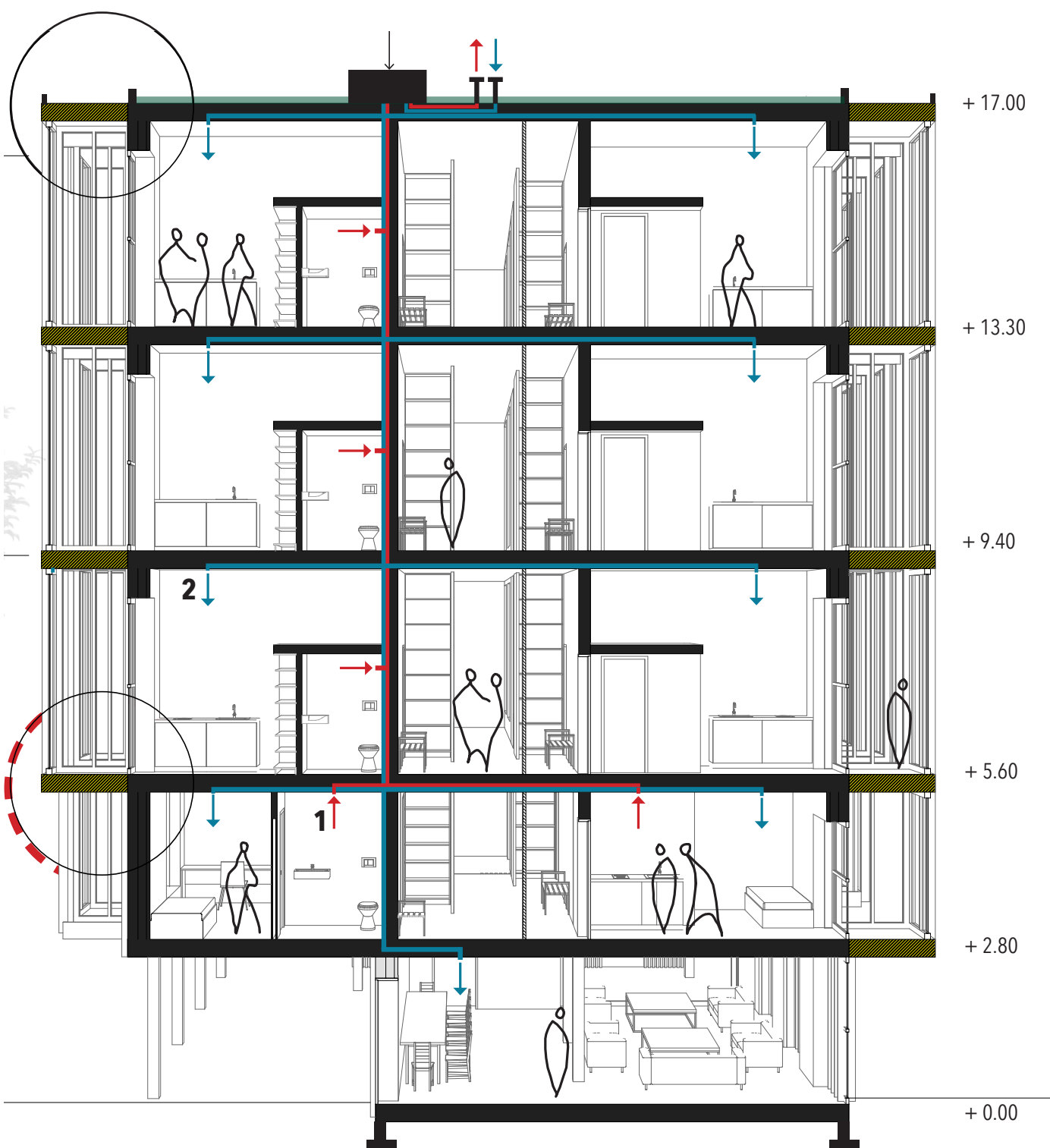
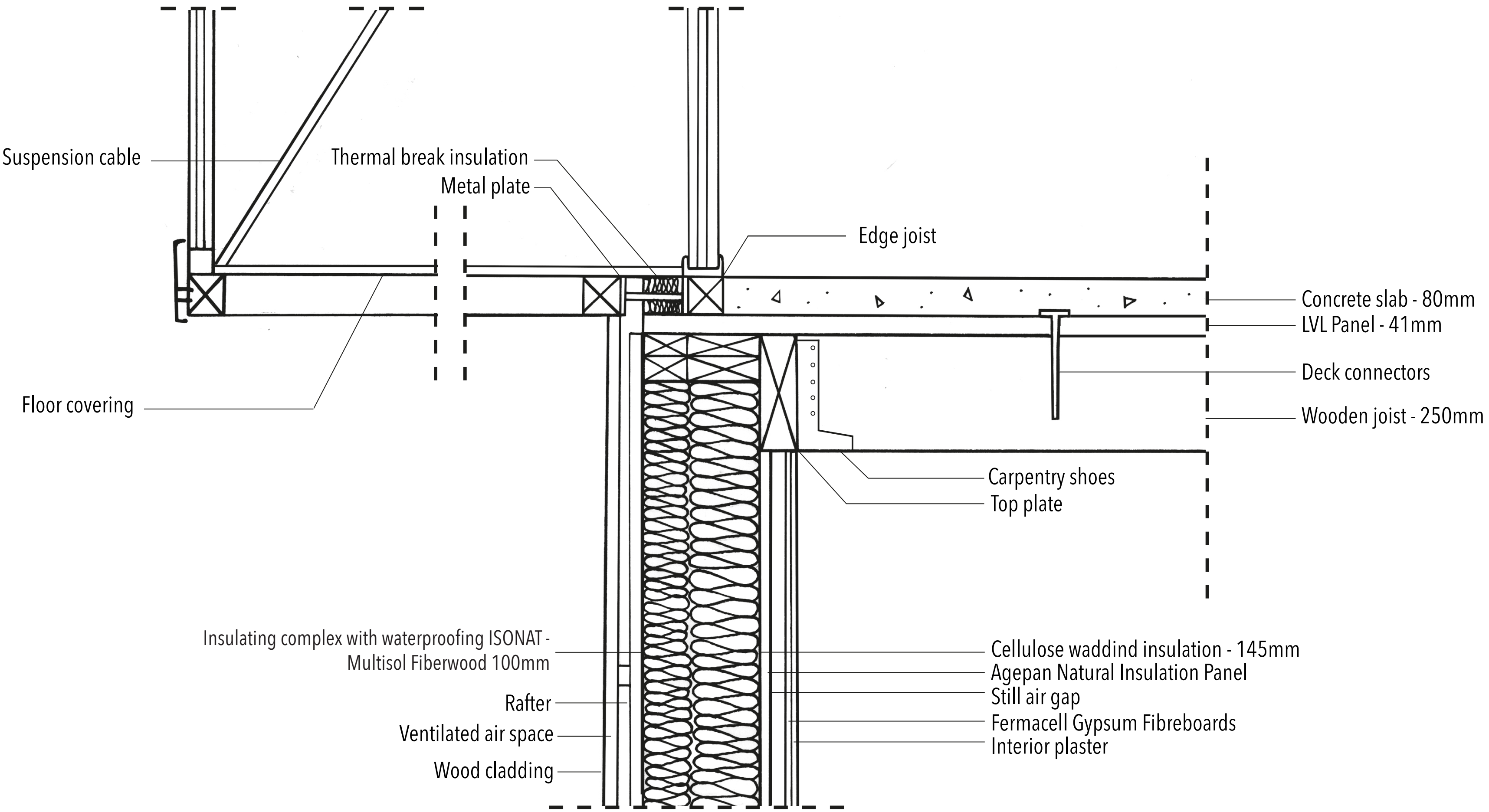
WOODEN POSTS
Larch wood
Locally produced in Poland

TECHNICAL DETAIL



Indicators of French Envrionnemental Reglementation 2020	Maximum	Project
CEP : total primary energy consumption (kWhhEp/m².an)	93,2	71
Bbio, climate need (points)	63	54
DH, level of discomfort (°C.h)	1250	296
IC energy, climate change impact associated with primary energy consumption (kg eq. CO2/m²)	614	88

TECHNICAL DETAIL



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Validation new french
reglementation (improving energy
performance, minimum impact on
the climate and adaptation to future
climate).





