

FUNCTIONALISM
RENDERING

CONTENTS

FASCINATION

CASE STUDY AND RESEARCH

MASTERPLAN AND SITE CONDITIONS

DESIGN

REFLECTION

CONTENTS

PAST

PRESENT

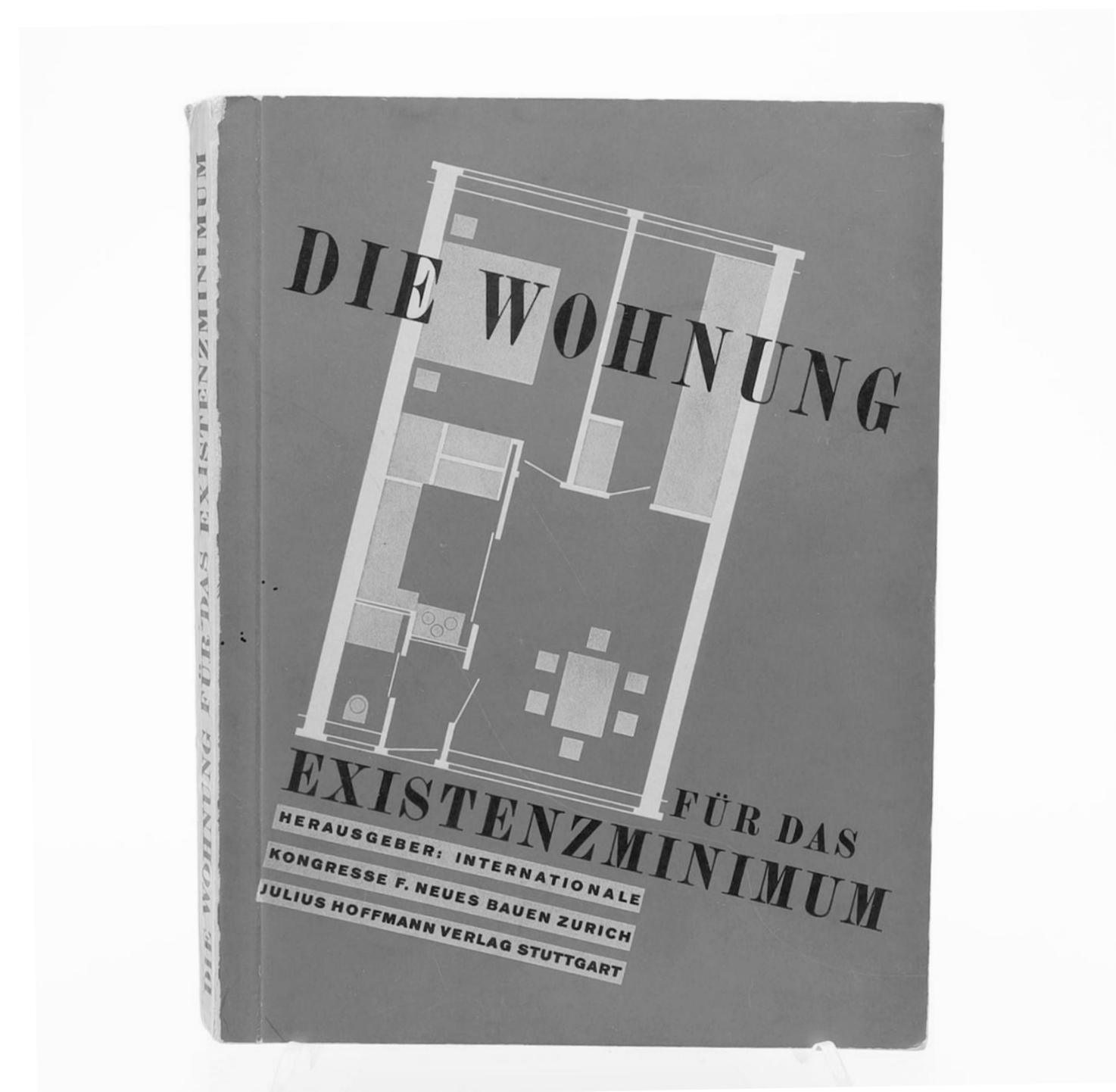
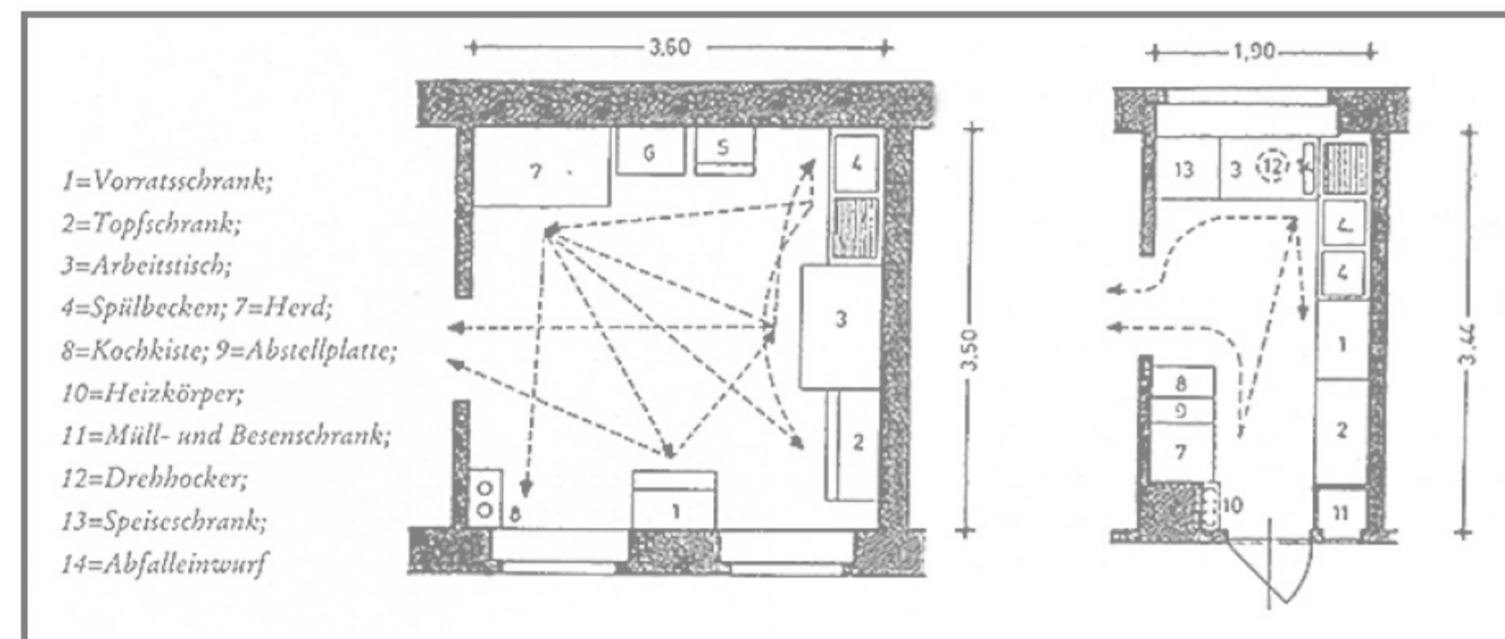
FUTURE?



context



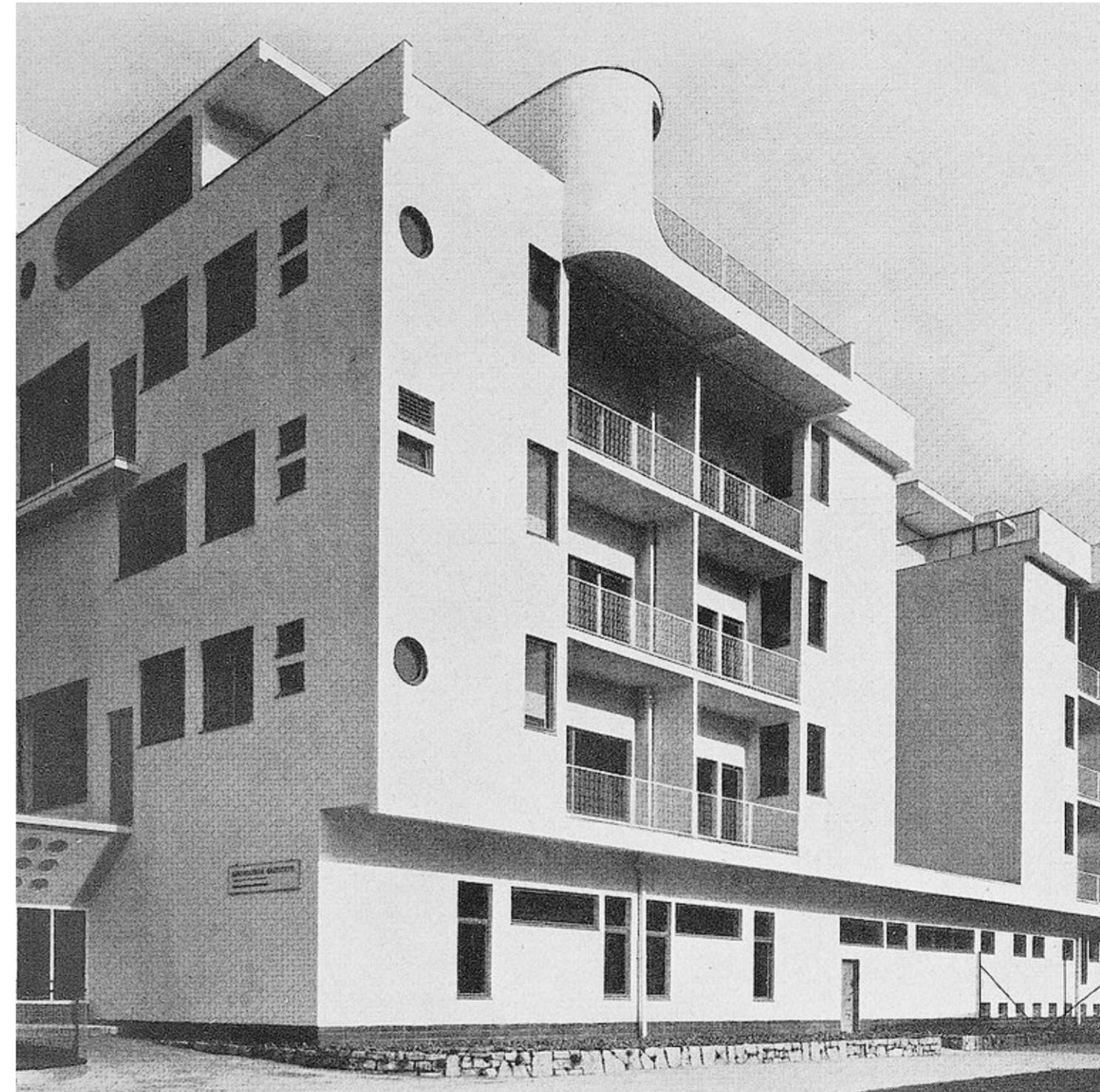
context



context



fascination



WUWA

Wohnungs- und Werkraumausstellung

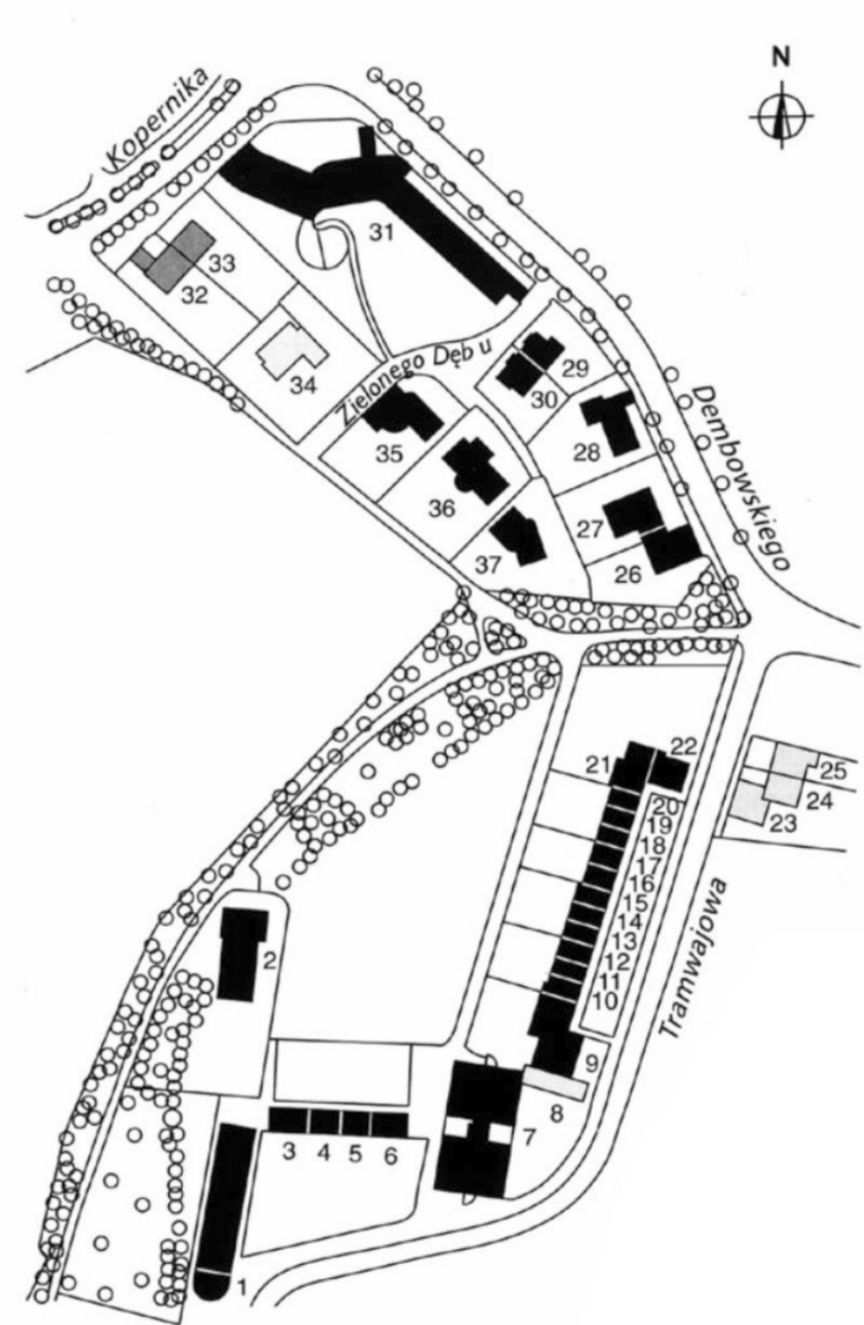
43

Plan of the WuWA model housing estate,
1929. Fig. Dr. Jadwiga Urbanik

- Existing houses
- Demolished houses
- Never erected houses

Designers:

- 1, 2 Heim, Kempter
- 3-6 Wolf
- 7, 8 Rading
- 9 Lange
- 10-12 Moshamer
- 13-15 Lauterbach
- 16, 17 Hadda
- 18-20 Häusler
- 21-27 Effenberger
- 28 Lange
- 29, 30 Häusler
- 31 Scharoun
- 32, 33 Wolf
- 34, 35 Lauterbach
- 36 Hadda
- 37 Moshamer



WUWA

Wohnungs- und Werkraumausstellung

BĘDZIE
będzie
będzie
będzie
będzie
jest
było
było
było
było
było

will be

will be

will be

will be

will be

is

was

was

was

was

was

The paradigmatic shift of the society seems to influence the needs of users.
This relates to the necessary change of contemporary functions of buildings and our change of their use.

research problem



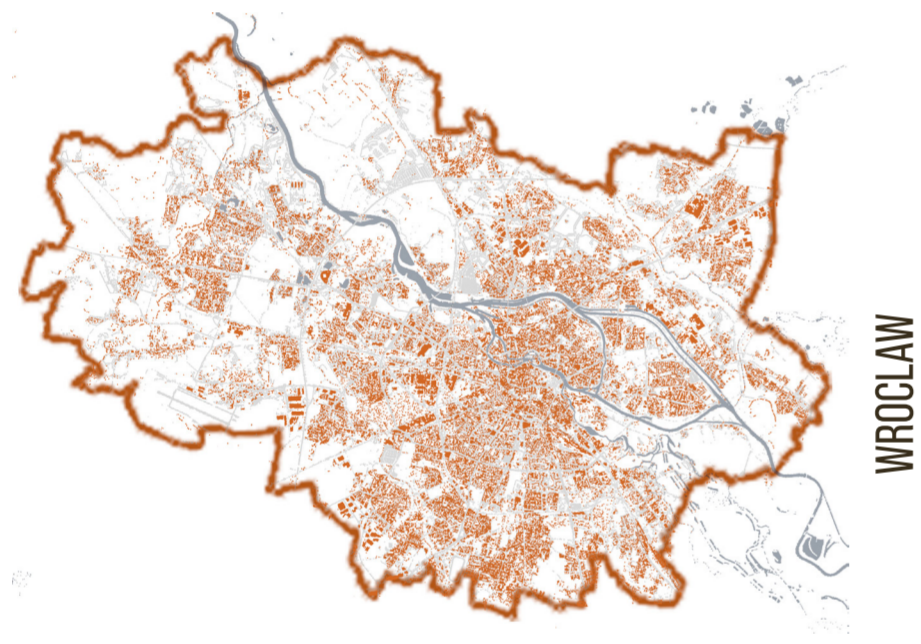
BRESLAU
1920



BRESLAU
1928



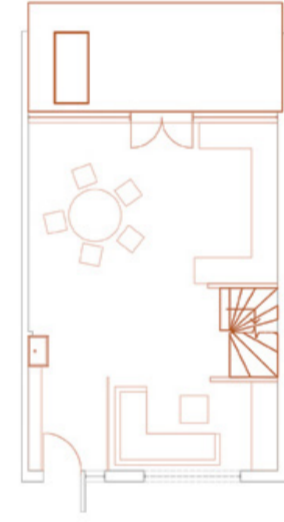
CASE STUDY



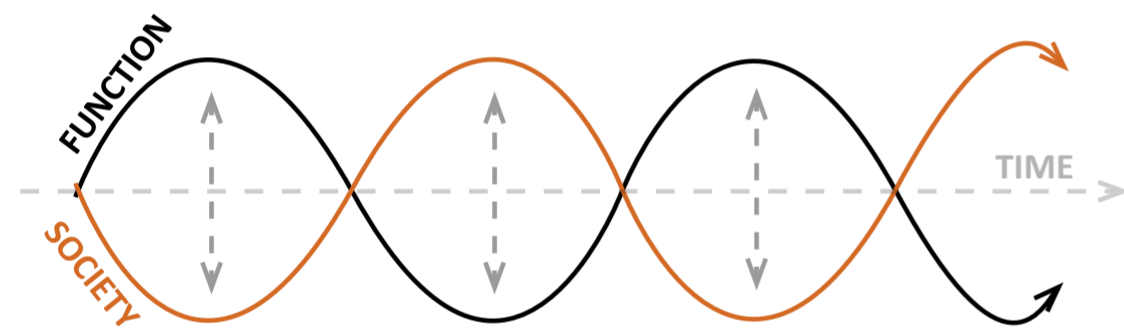
WROCLAW



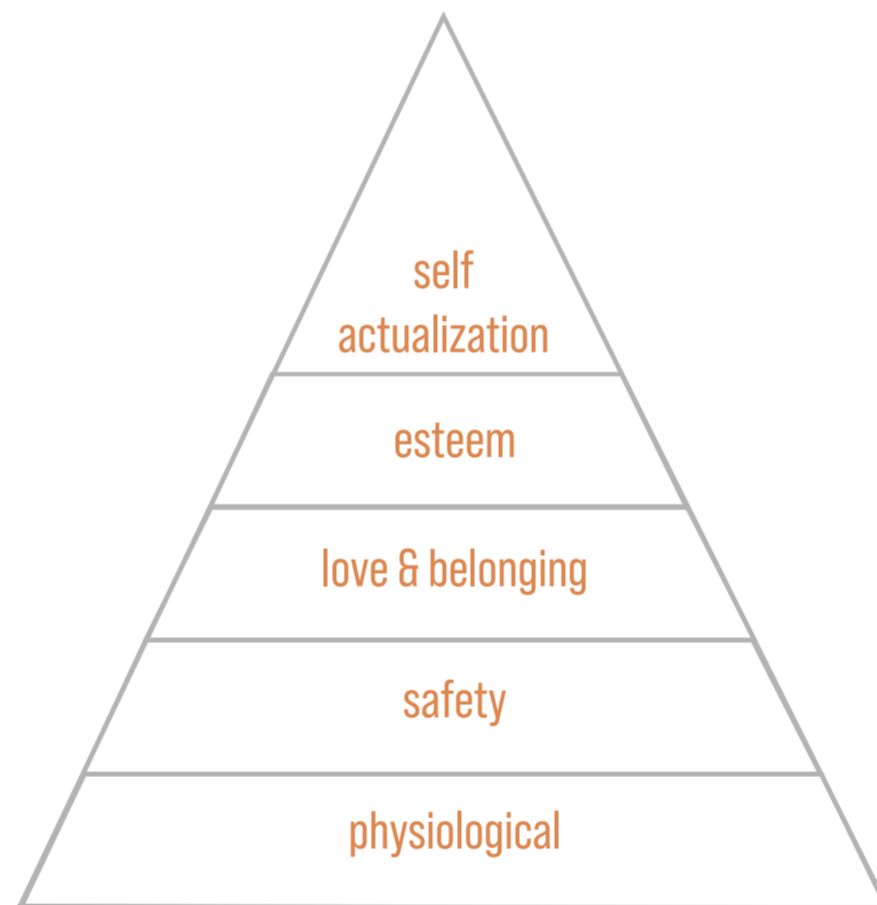
WUWA



HOUSE 13

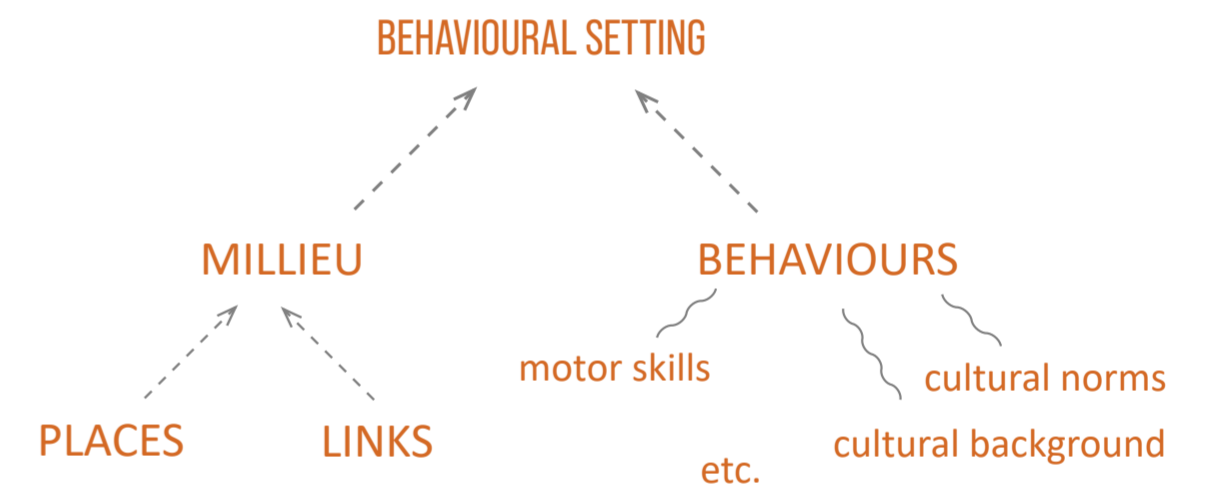


TEMPORALITY



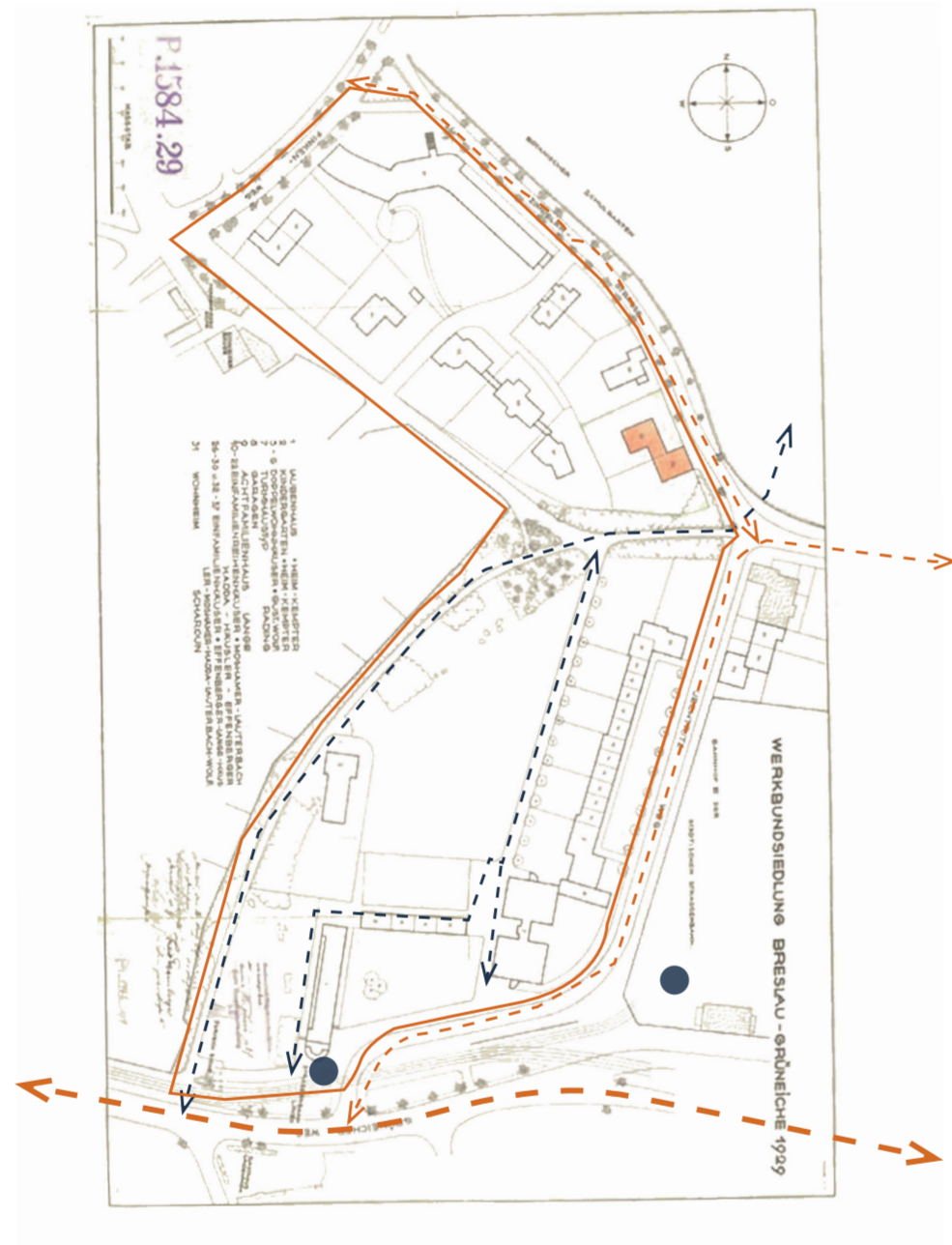
HIERARCHY OF NEEDS

theoretical framework



BEHAVIOURAL SETTING

PAST



PRESENT



PEDESTRIAN VS. CAR

big scale

PAST



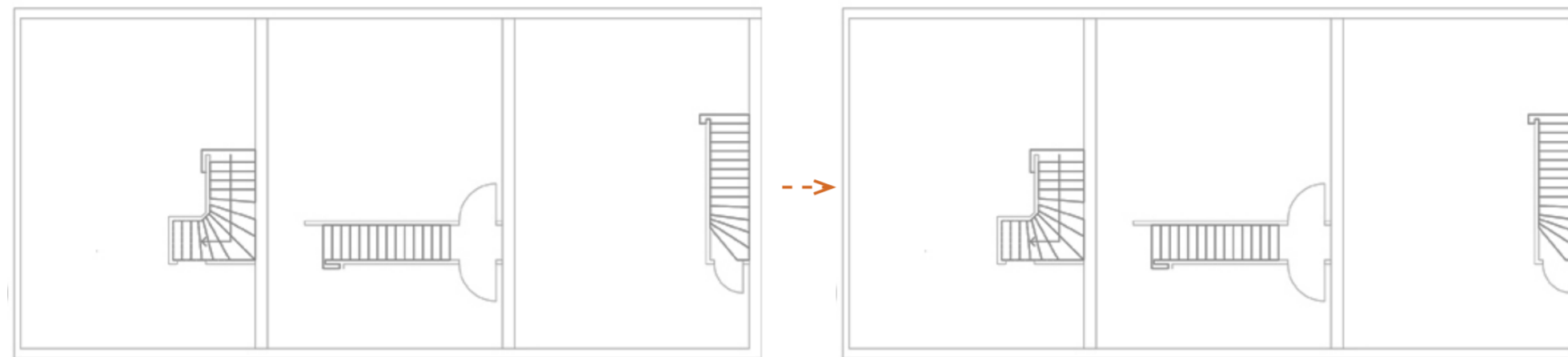
PRESENT



MULTIPLICATION OF FUNCTIONS

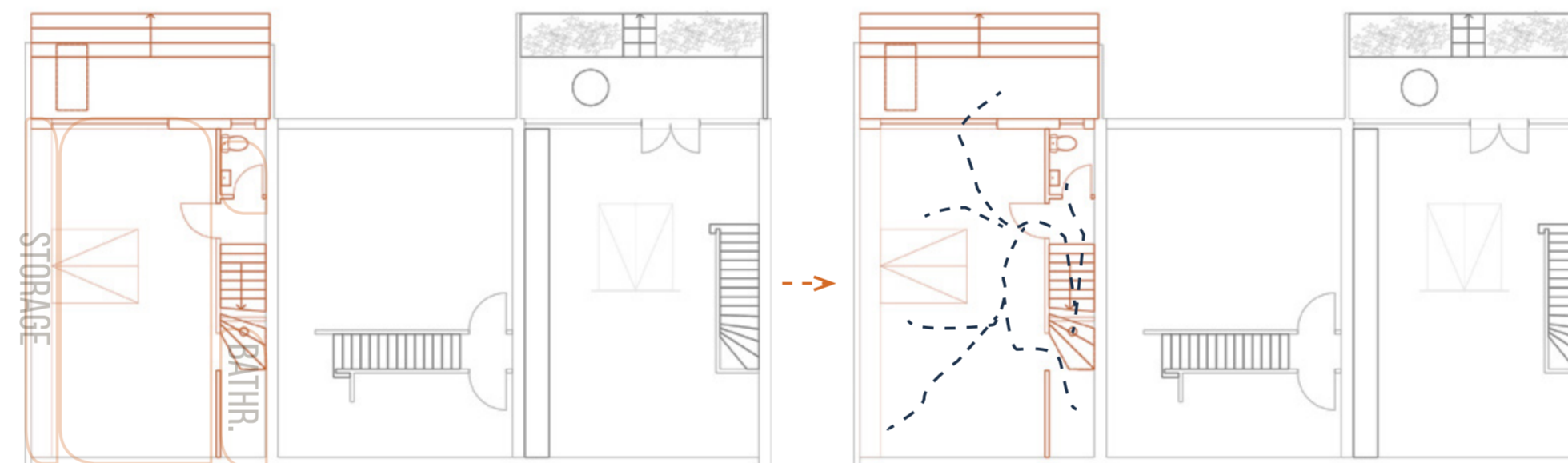
big scale

PAST



Basement - floorplan in 1929

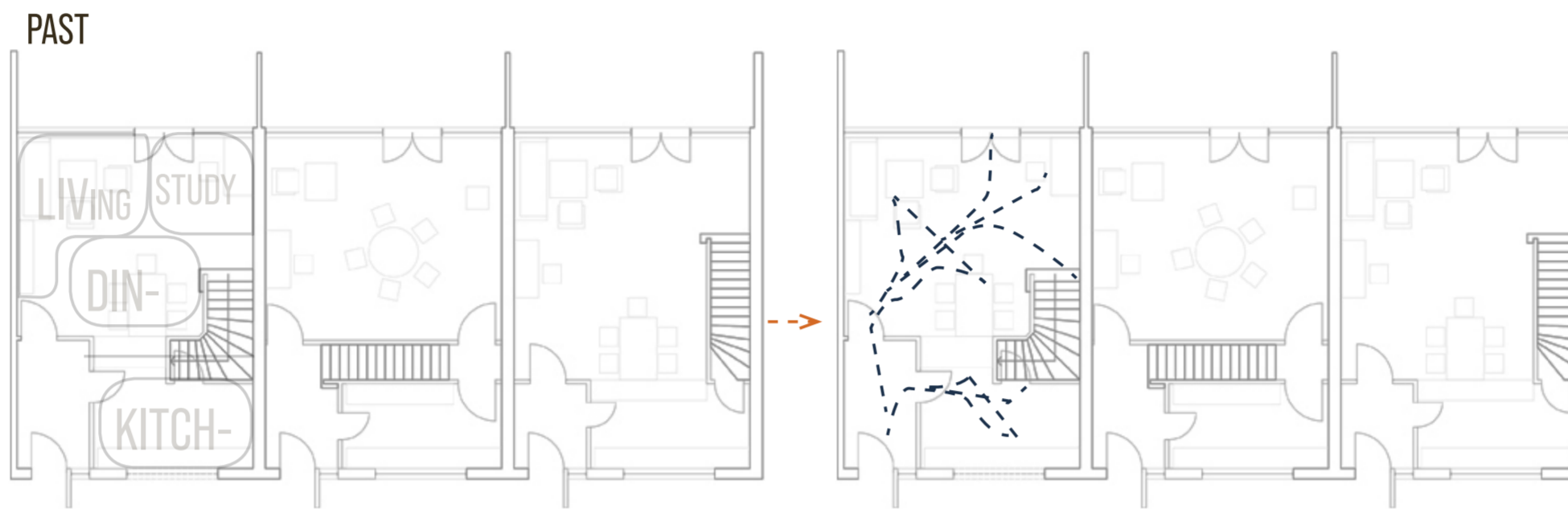
PRESENT



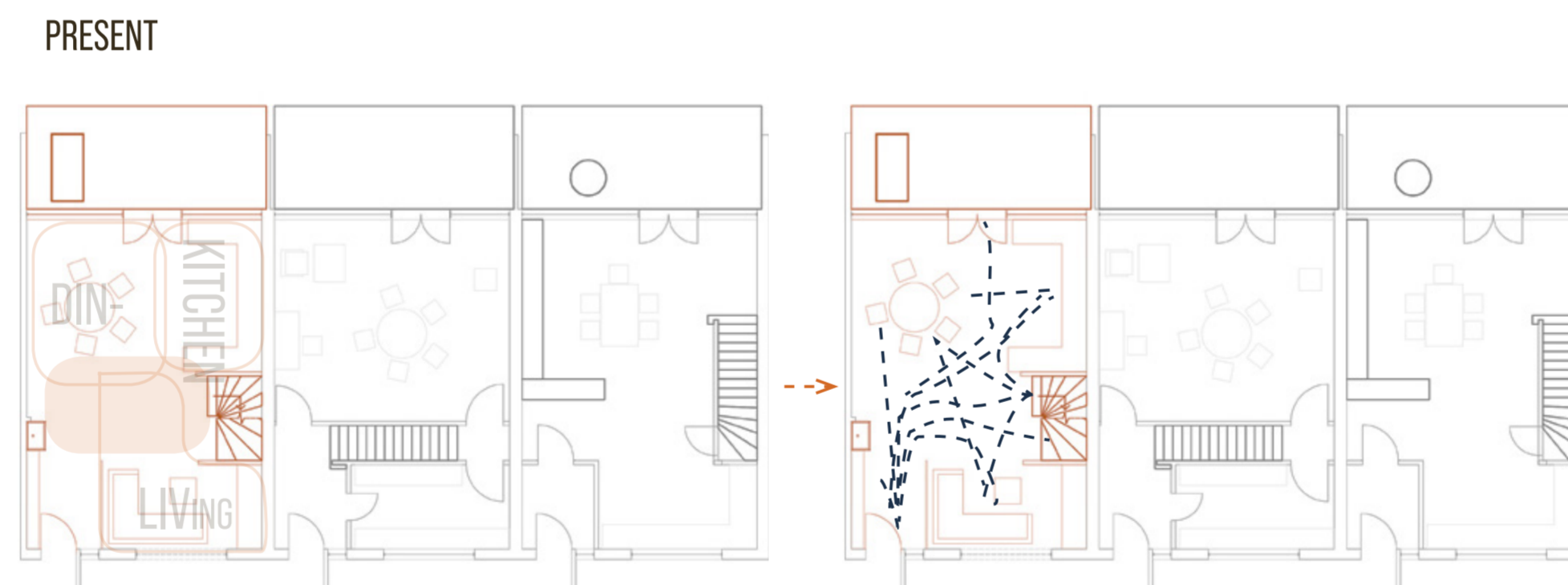
Basement - floorplan in 2024 with diagram of movement around the space

MULTIPLICATION OF USES

unit scale



Groundfloor- floorplan in 1929 with diagram of movement around

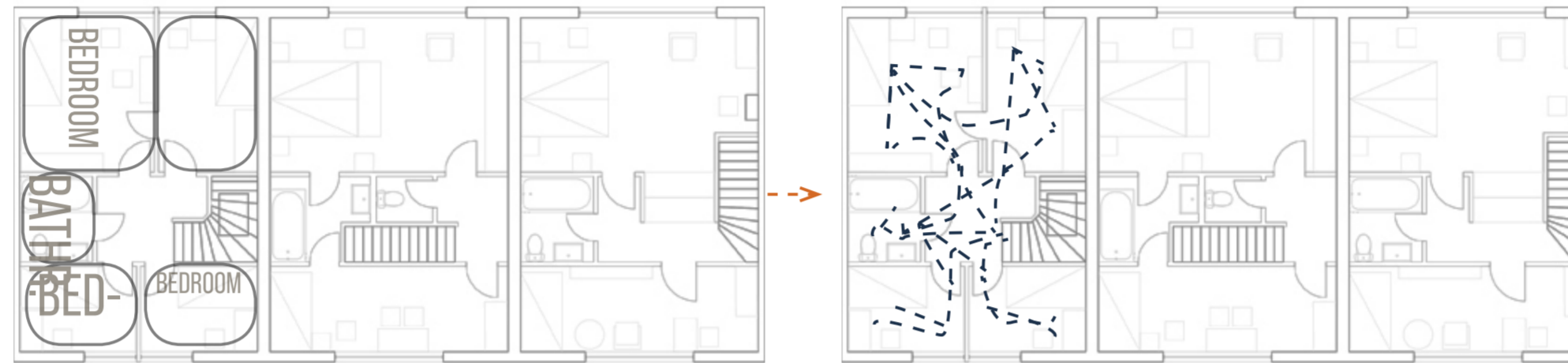


Ground floor- floorplan in 2024 with diagram of movement around

FLEXIBILITY

unit scale

PAST



First floor- floorplan in 1929

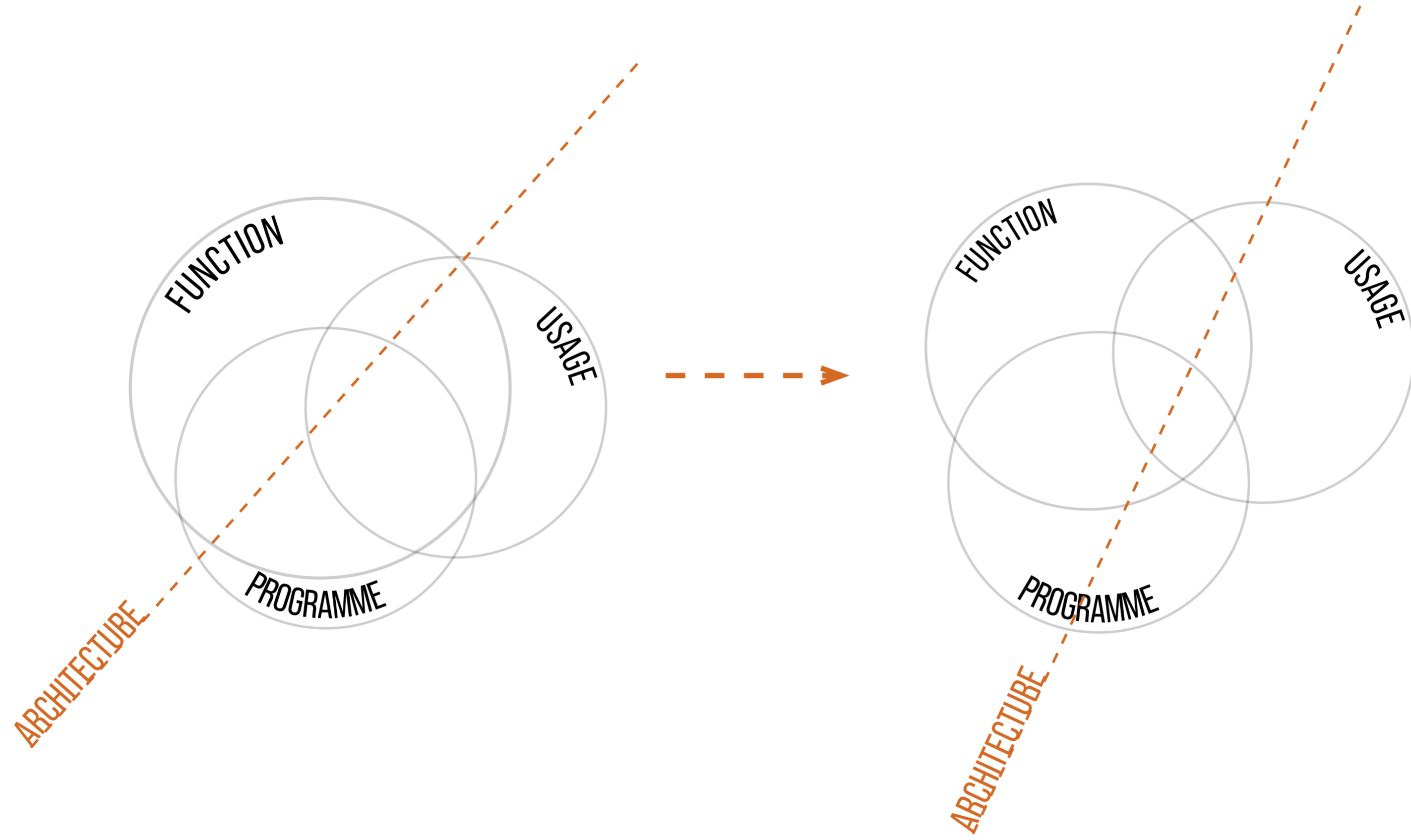
PRESENT

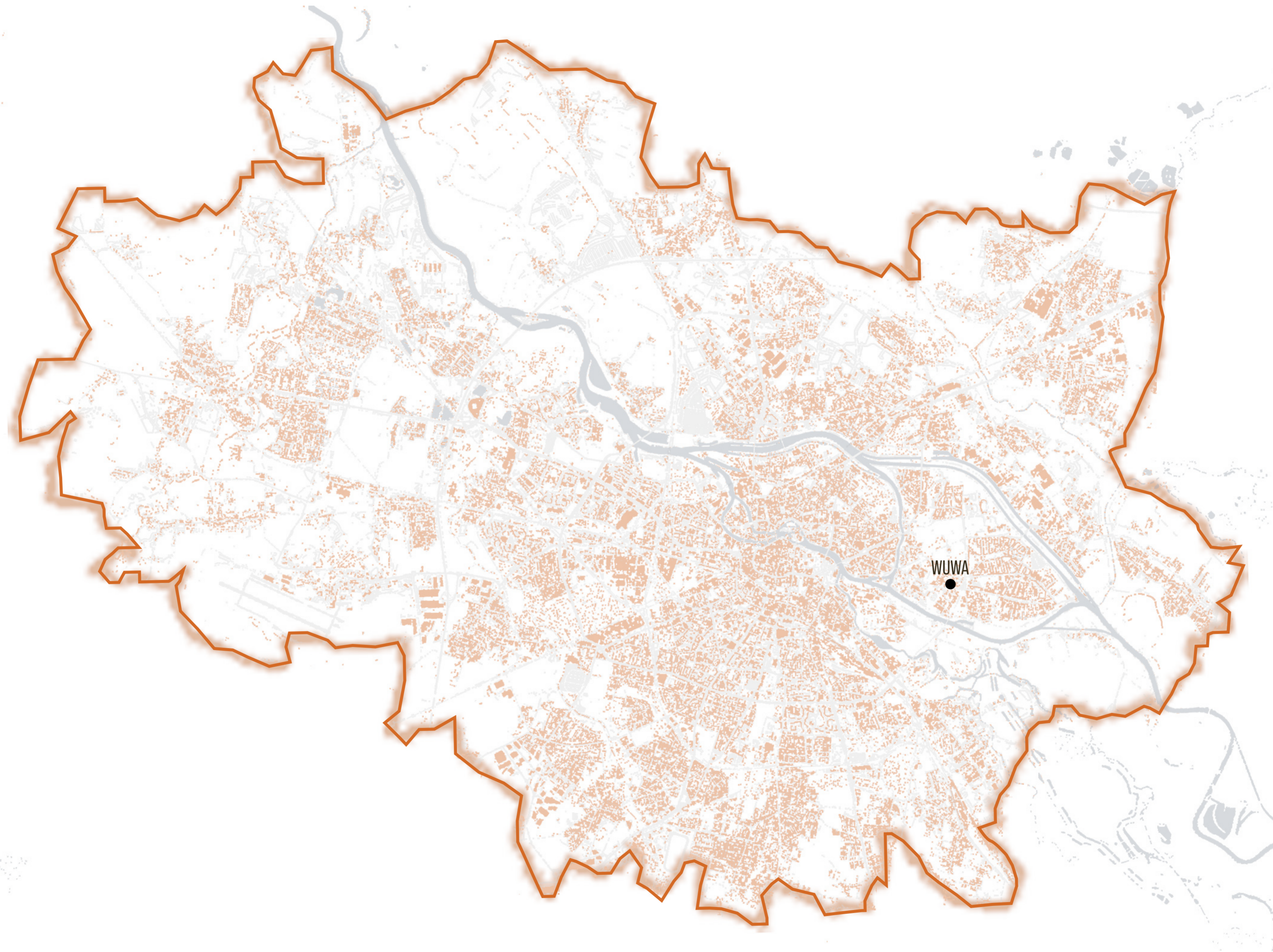


First floor- floorplan in 2024 with diagram of movement around the space

CHANGE OF SCALE

unit scale







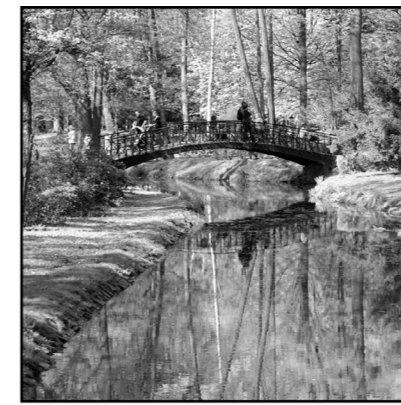
ZOO



Centennial Hall



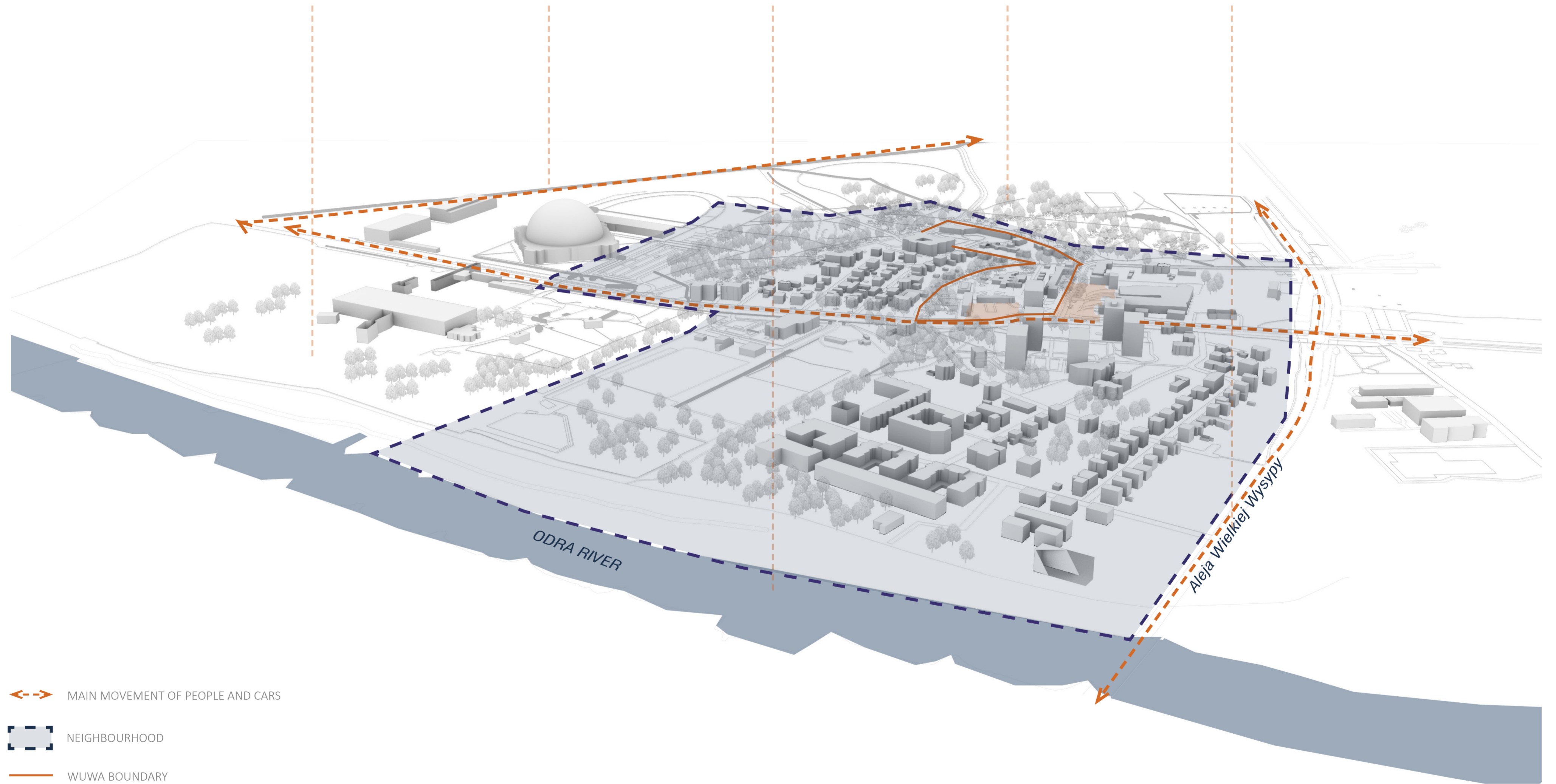
Odra River



Szczytnicki Park



Aleja Wielkiej Wyspy



WUWA in neighbourhood

SITE CURRENT CONDITIONS



SITE PROPOSAL

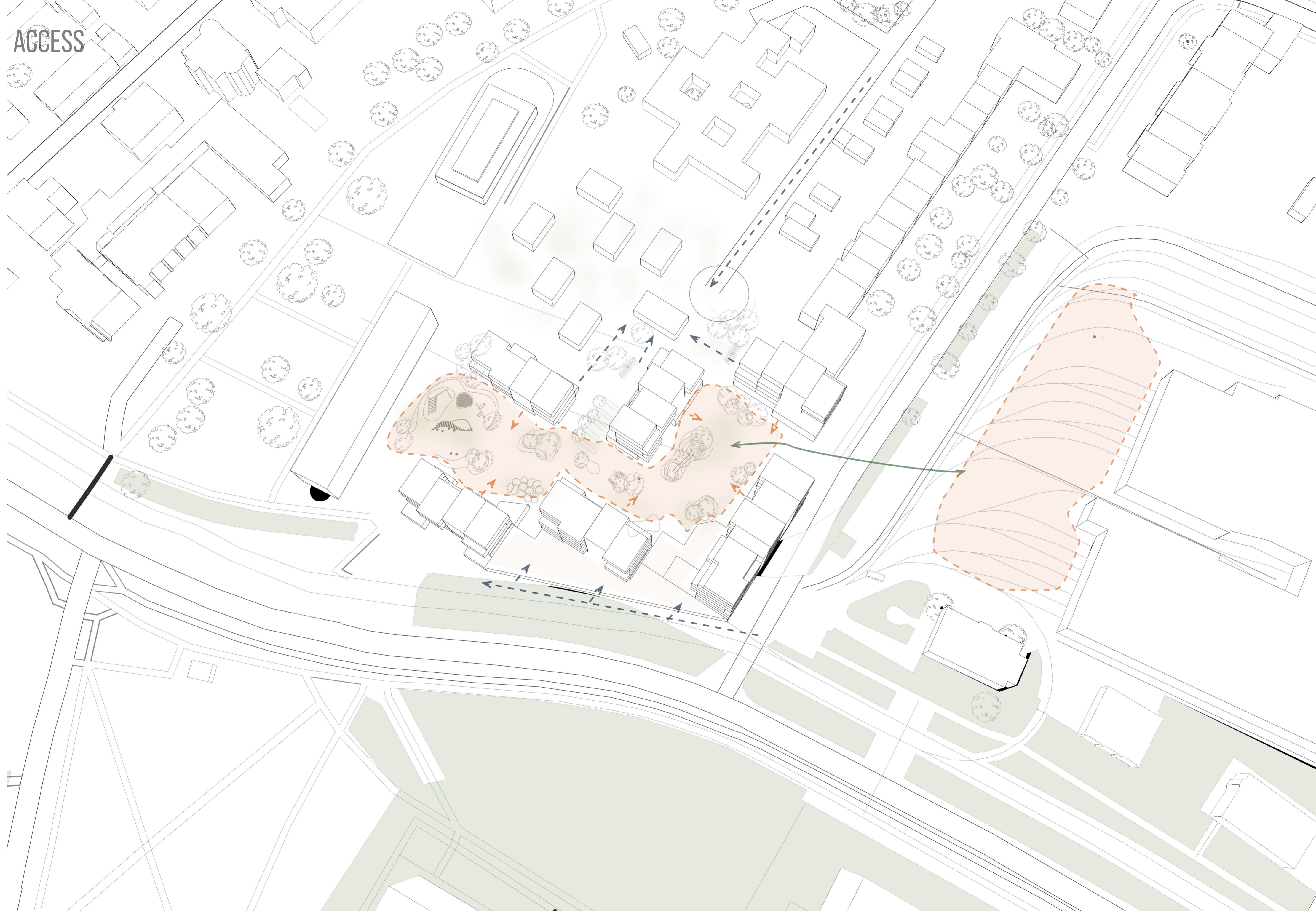


MASTERPLAN PROCESS

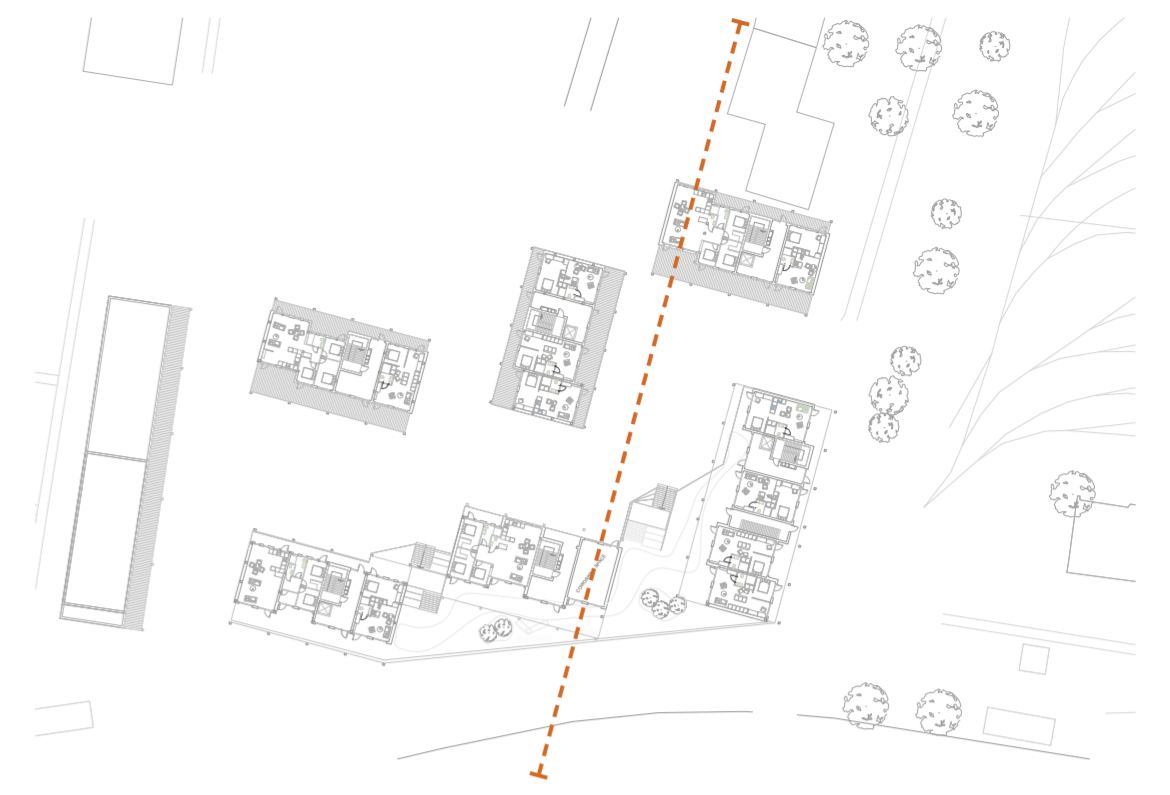




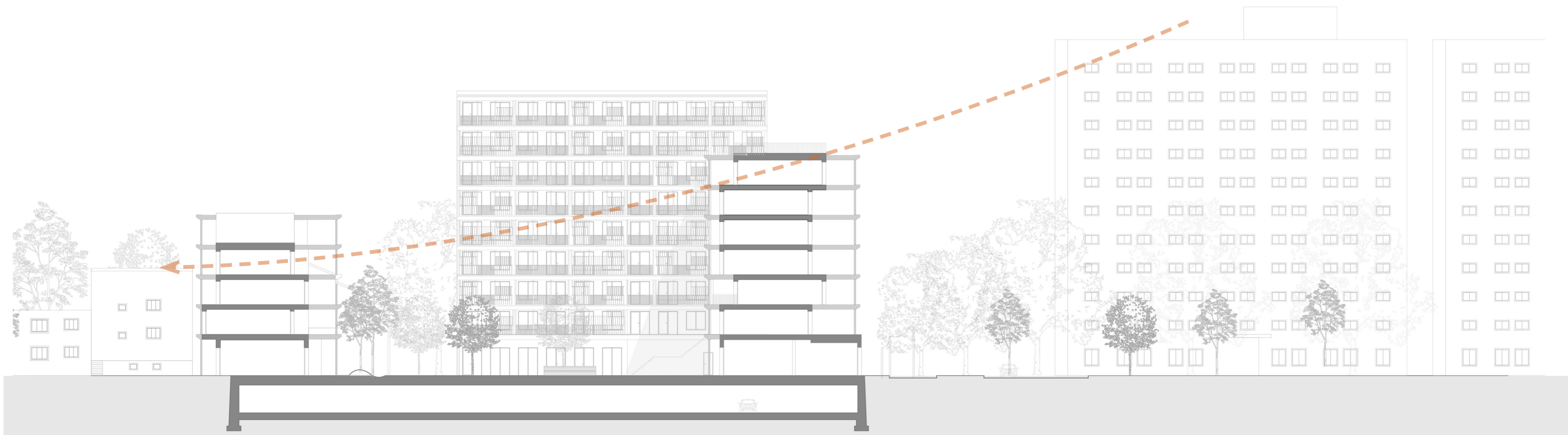
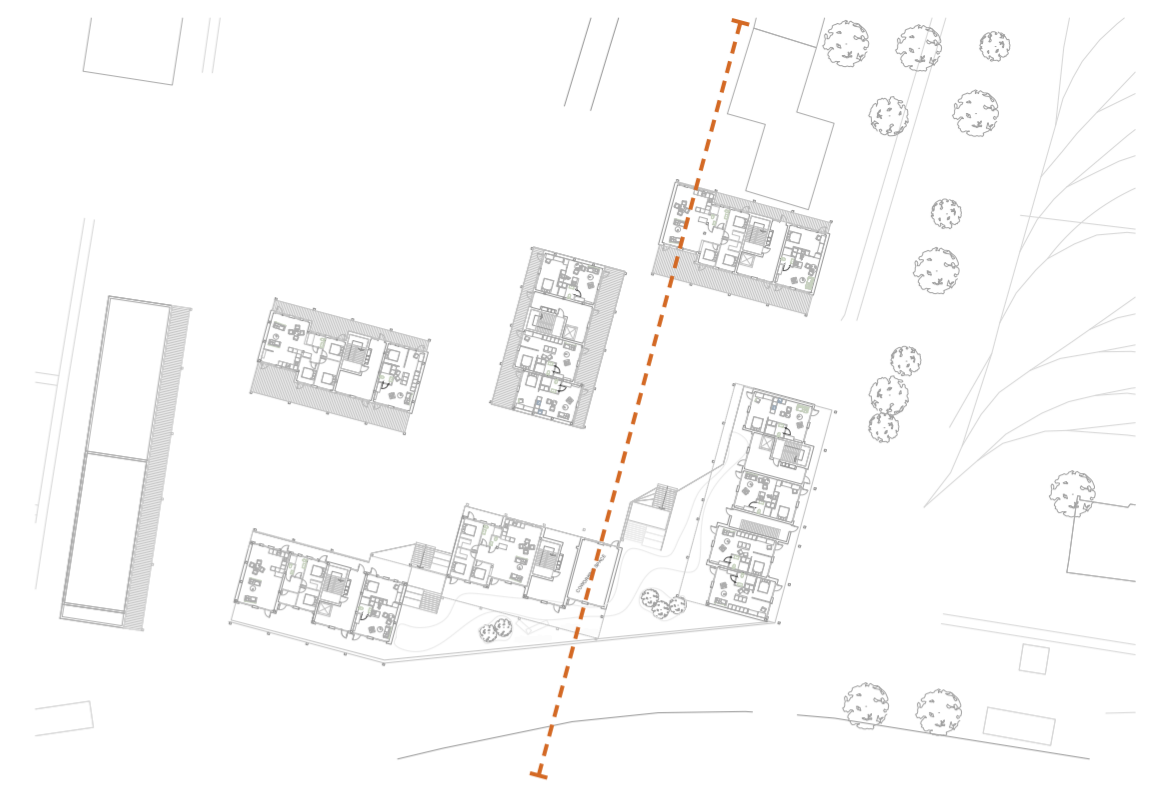
ACCESS



SECTION WITH BIGGER CONTEXT



SECTION WITH BIGGER CONTEXT

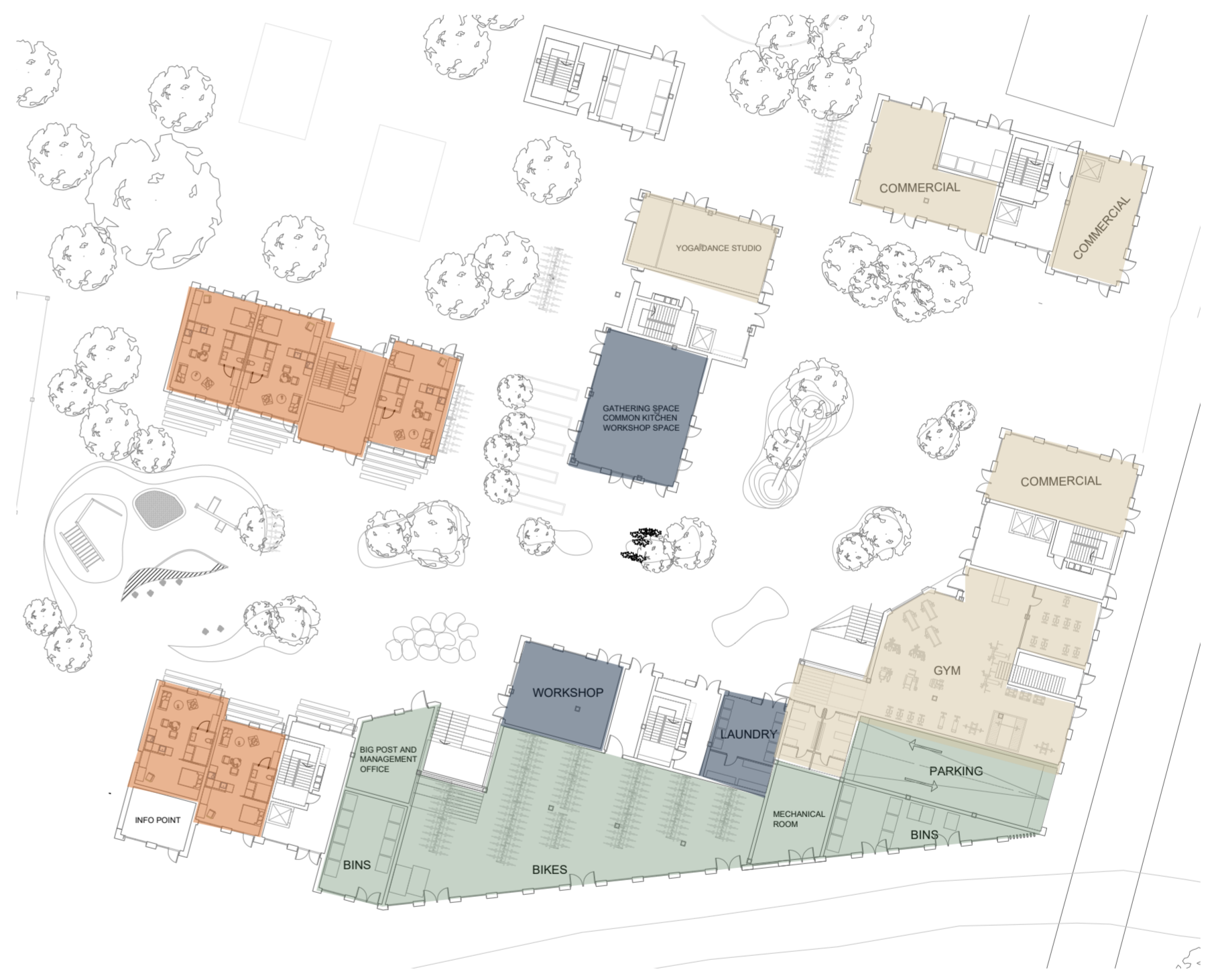
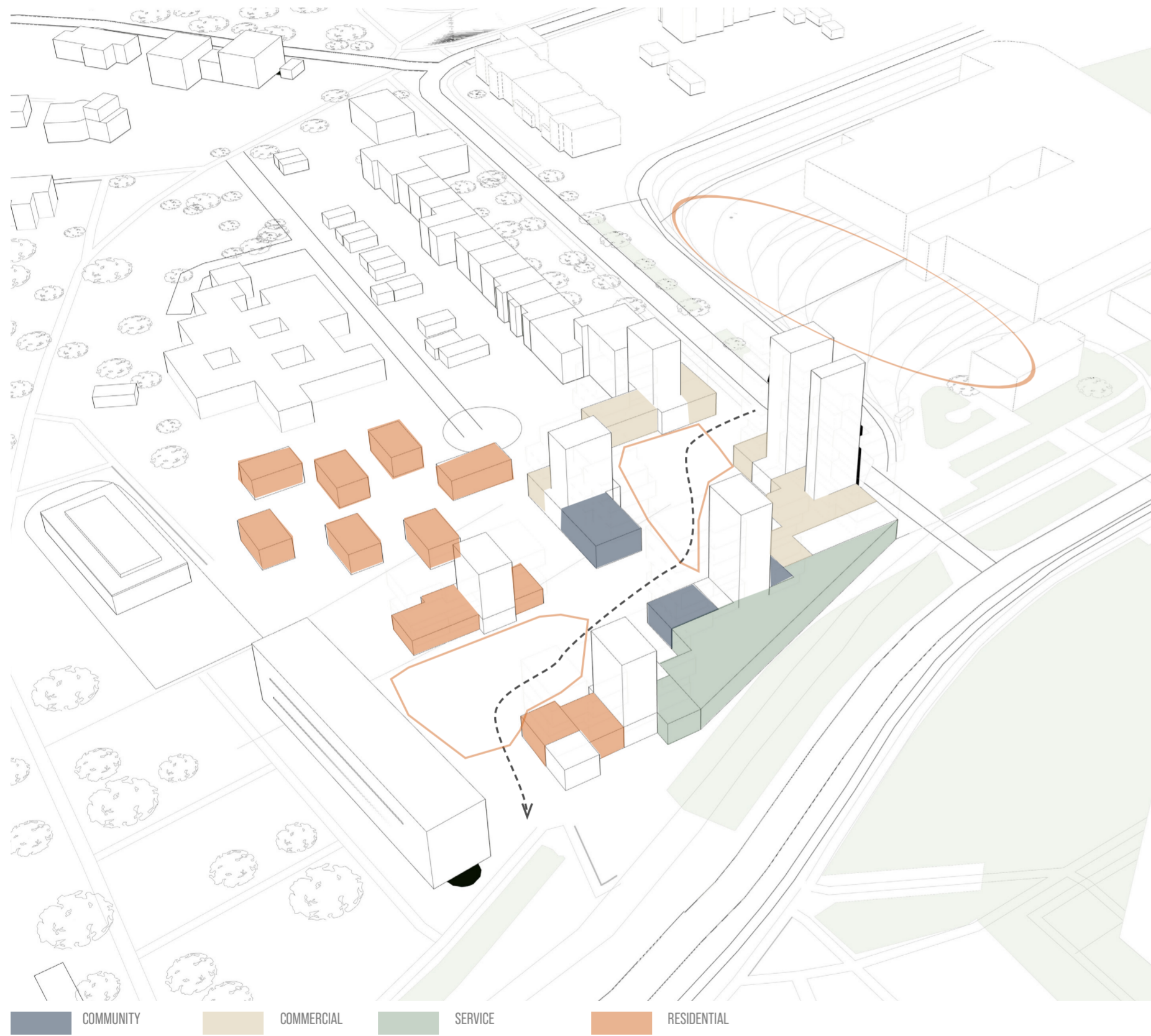


BASEMENT





ground floor



use of ground floor





SECTION AA'



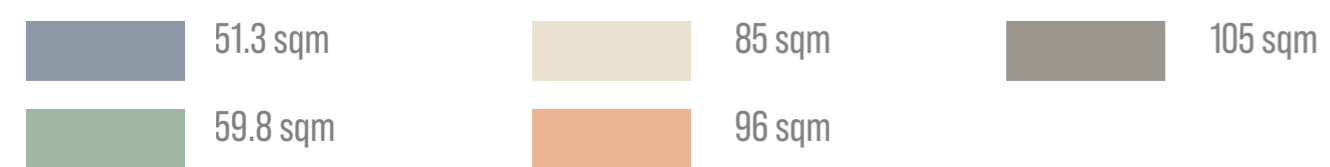
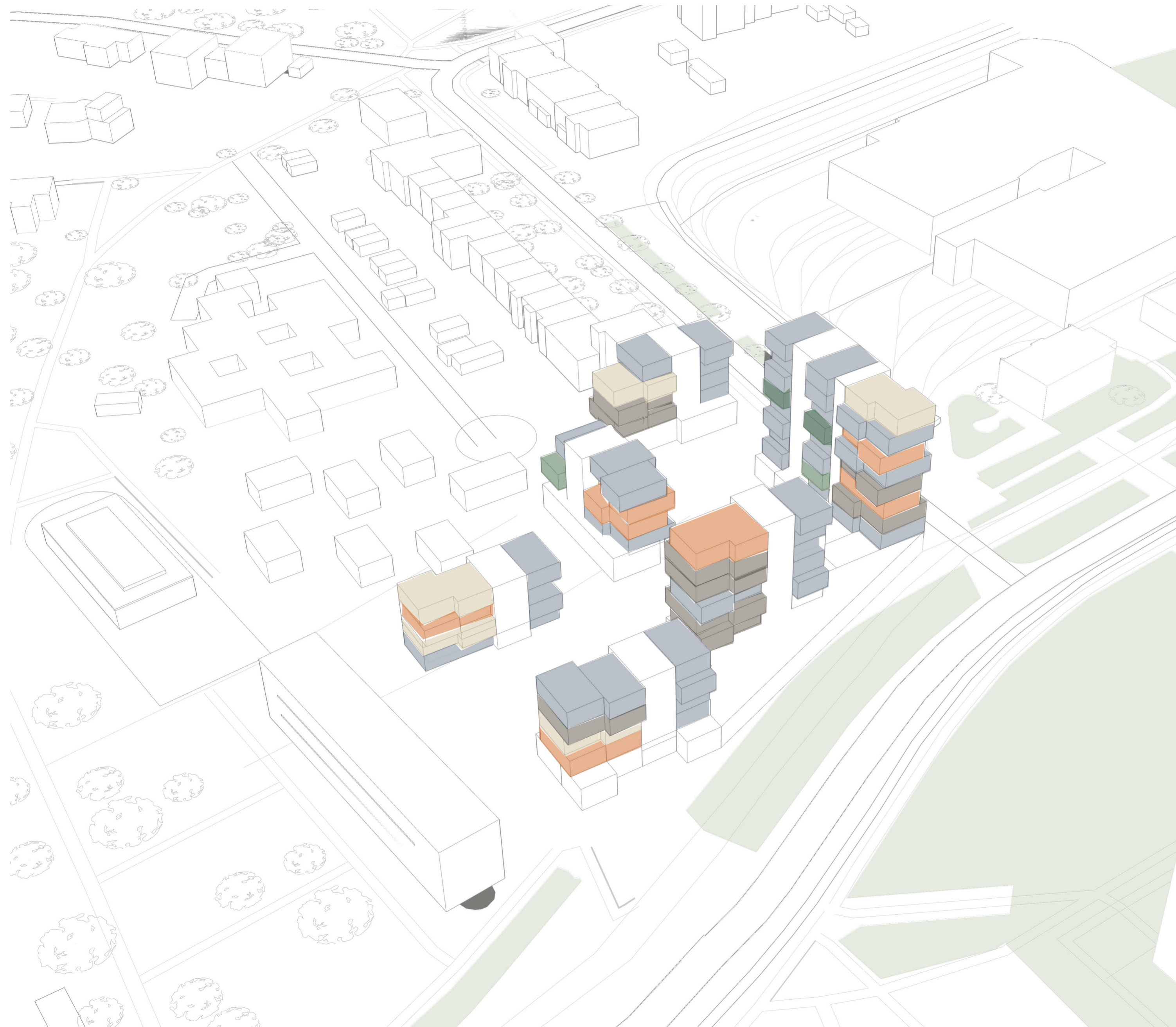


first floor



typical floor (3rd floor)

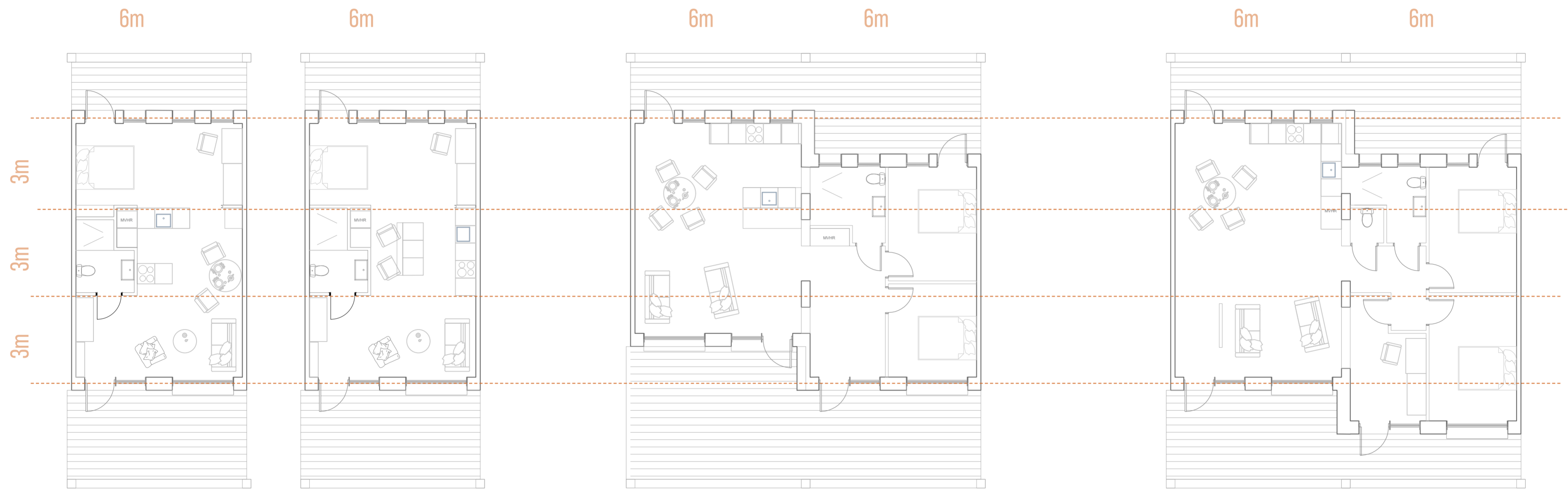
SPREAD OF UNITS



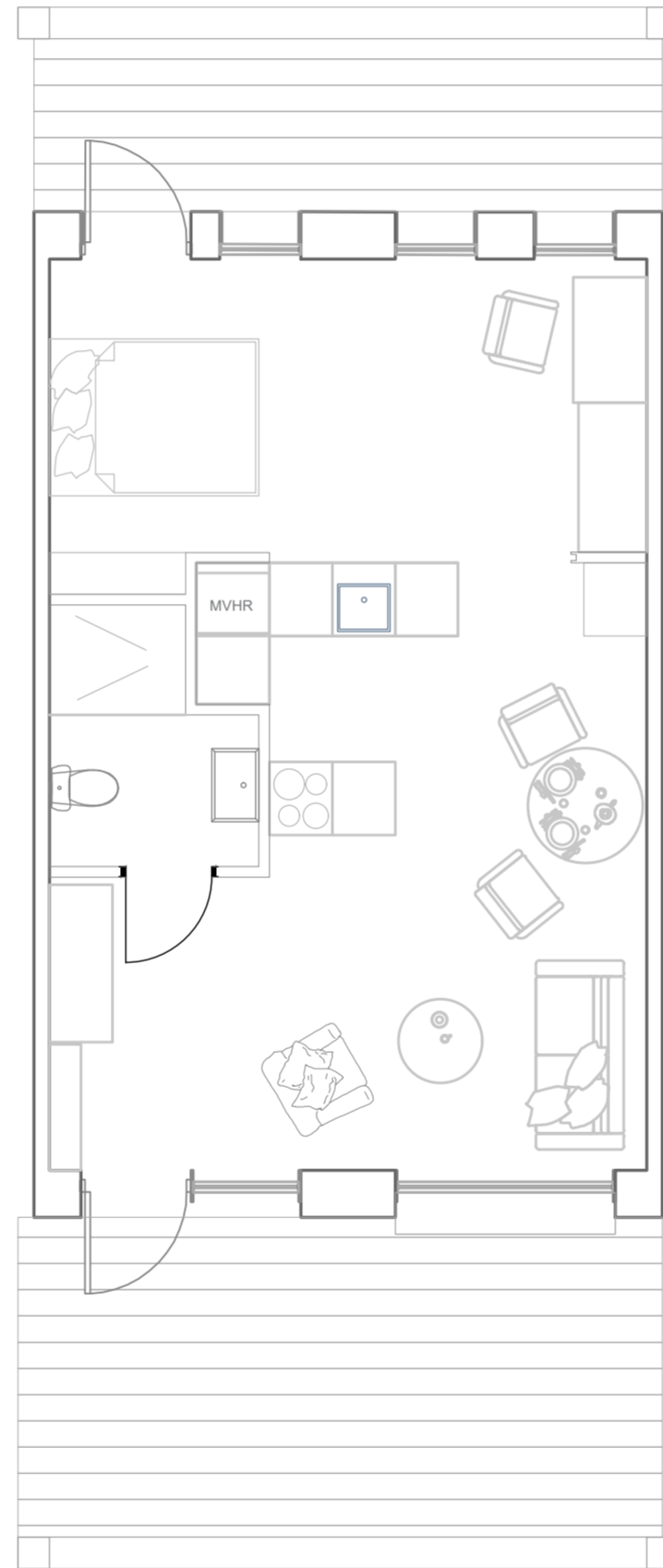
CURRENT MIX: 73 UNITS +6



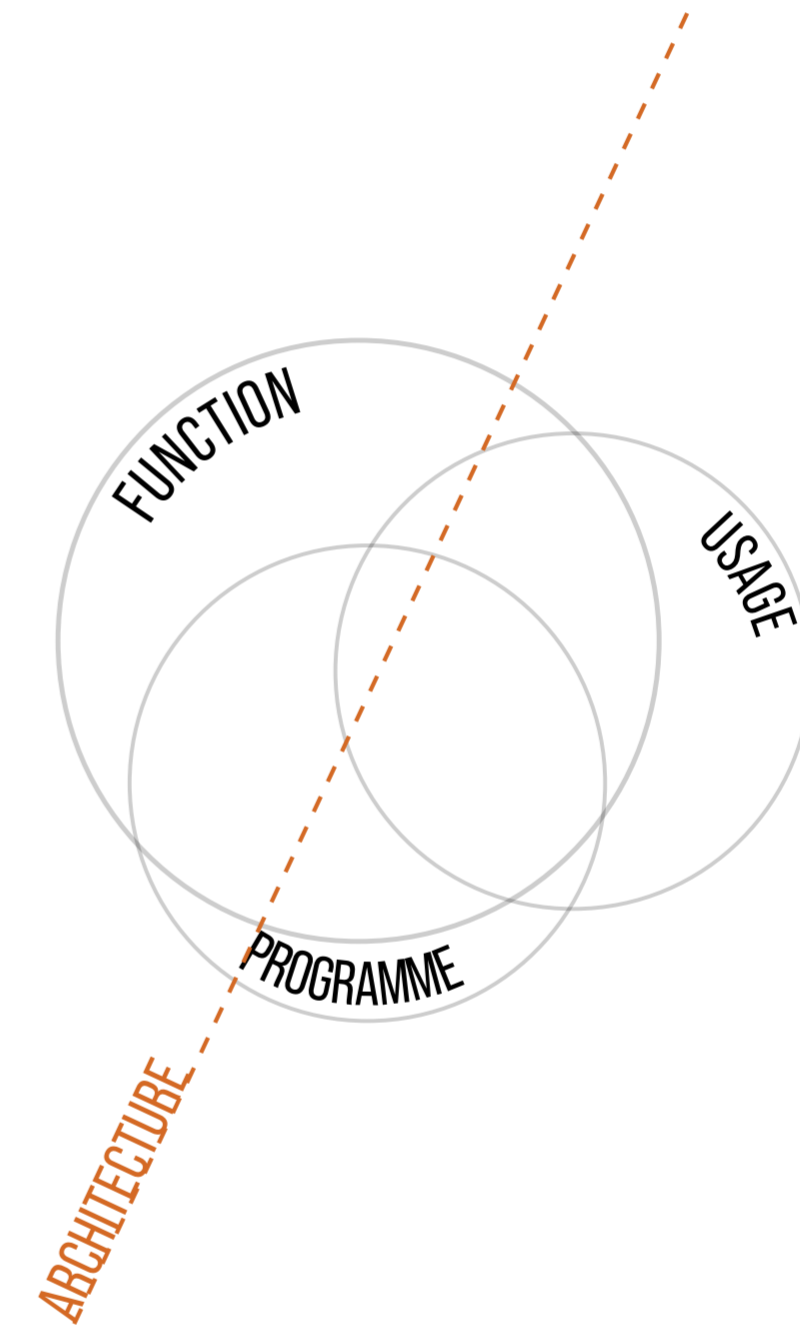
BLOCK	51 (sqm)	59 (sqm)	85 (sqm)	96 (sqm)	105 (sqm)	TOTAL
A1	19	3	-	3	3	28
A2	7	-	-	1	4	12
A3	6	-	1	1	1	9
B1	5	-	-	1	2	8
B2	5	1	1	1	-	8
B3	6	-	2	-	1	9
TOTAL	47	4	4	7	11	73

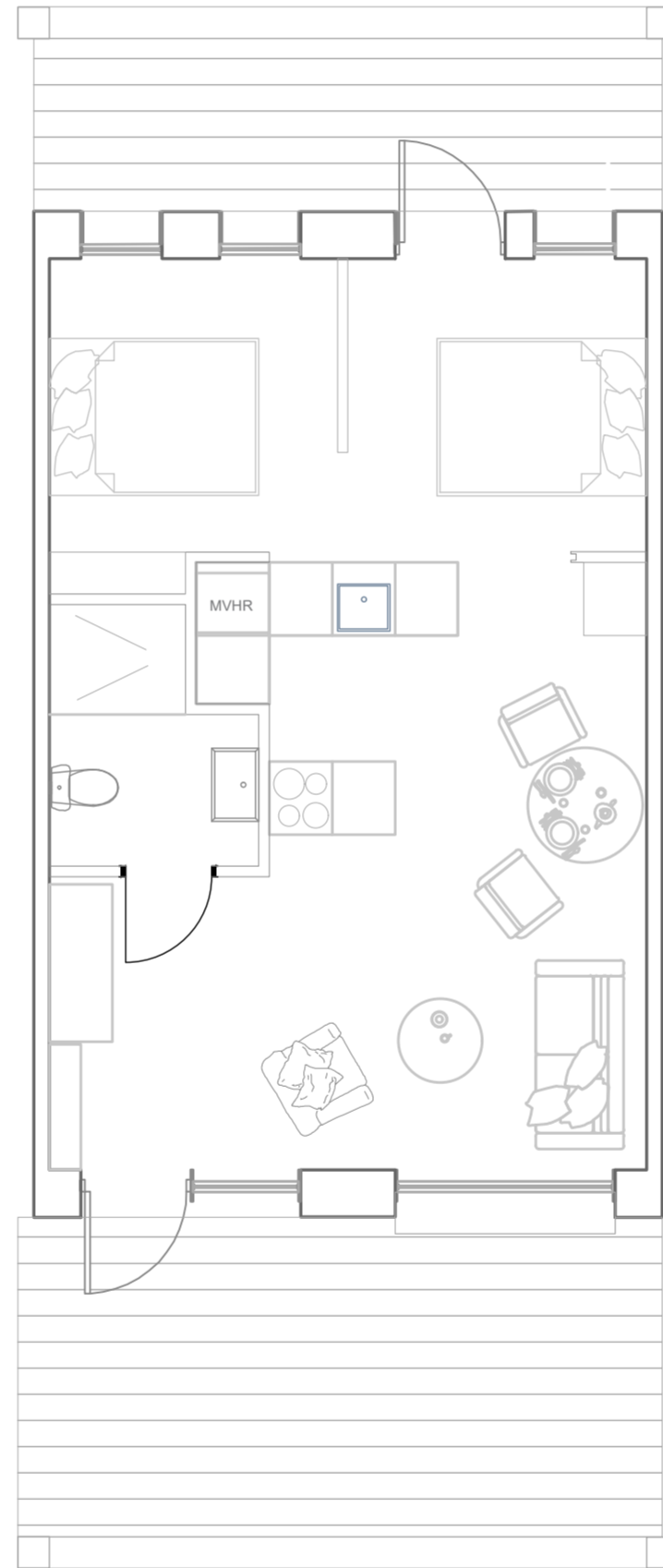


typical units

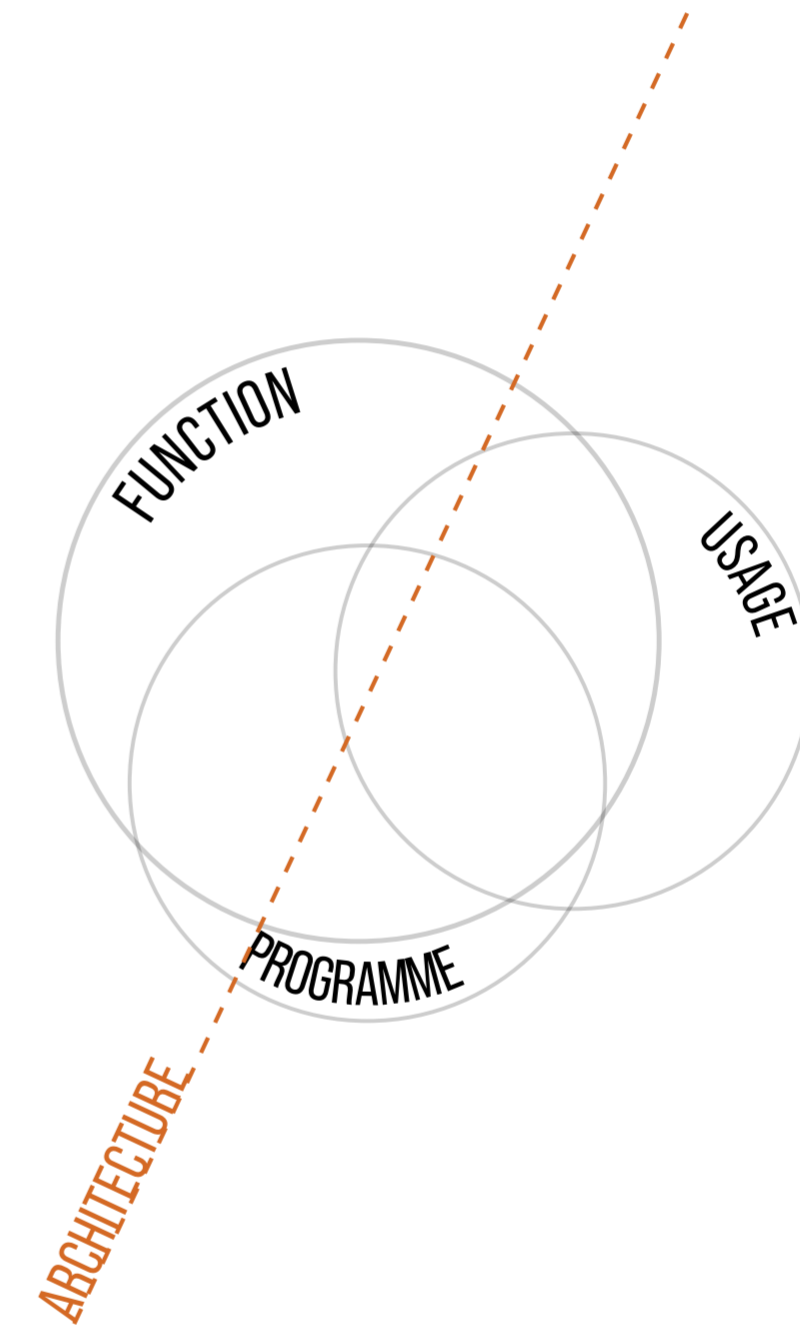


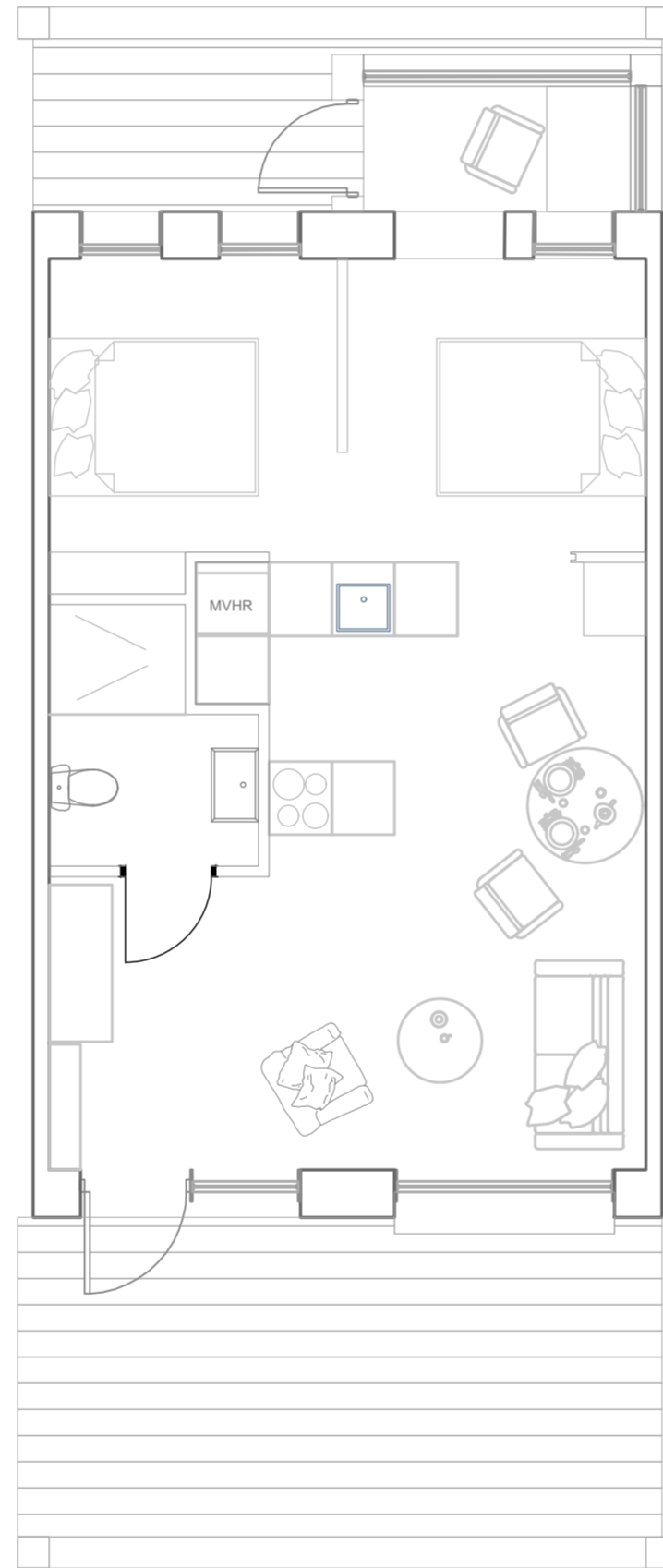
'one bedroom' apartment



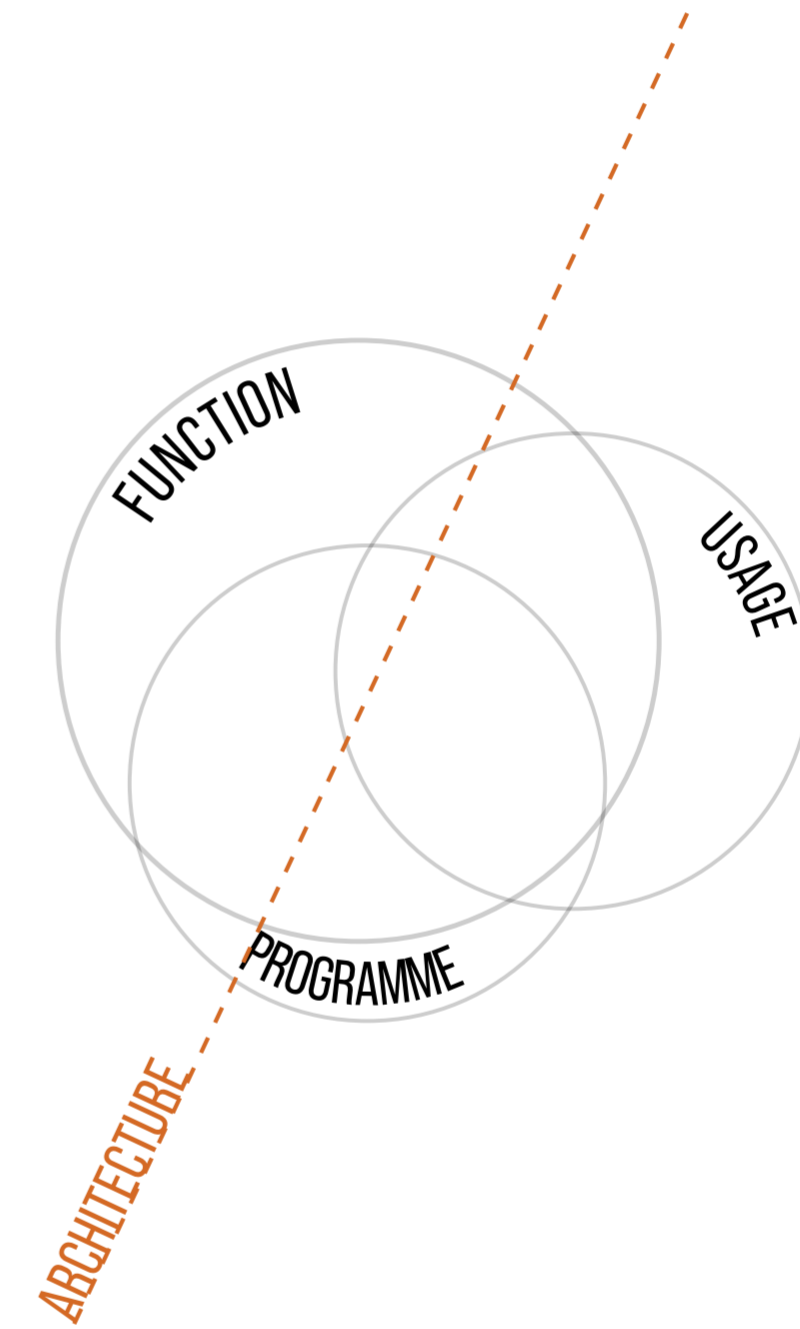


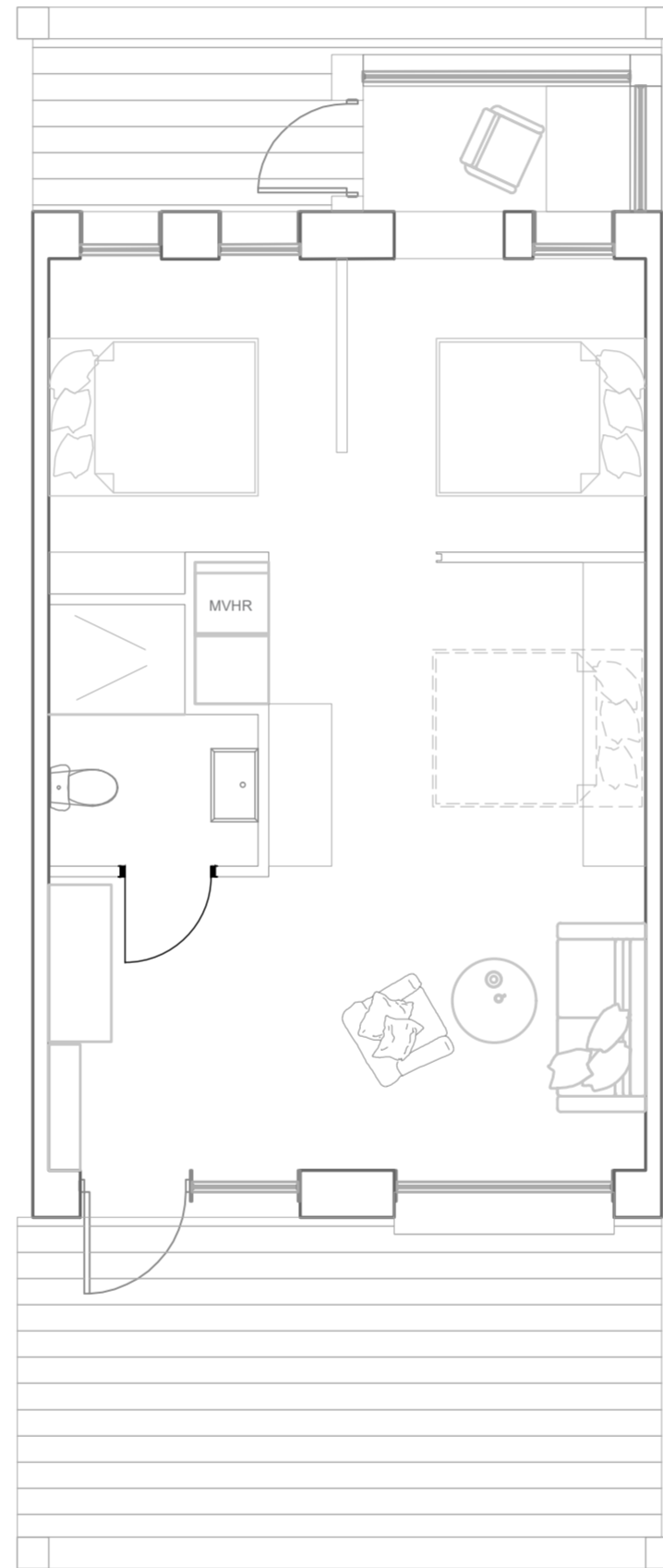
'two bedroom' apartment



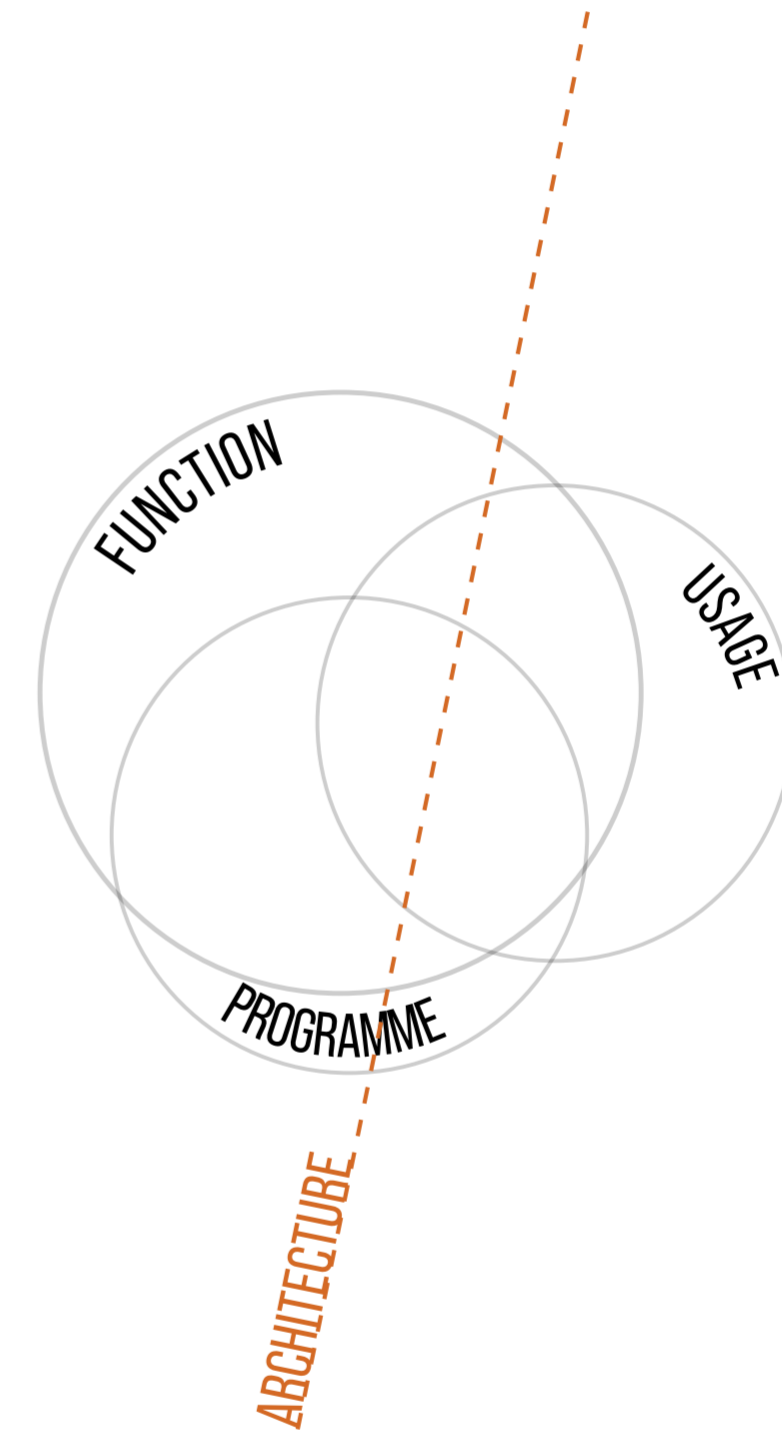


'two bedroom' apartment



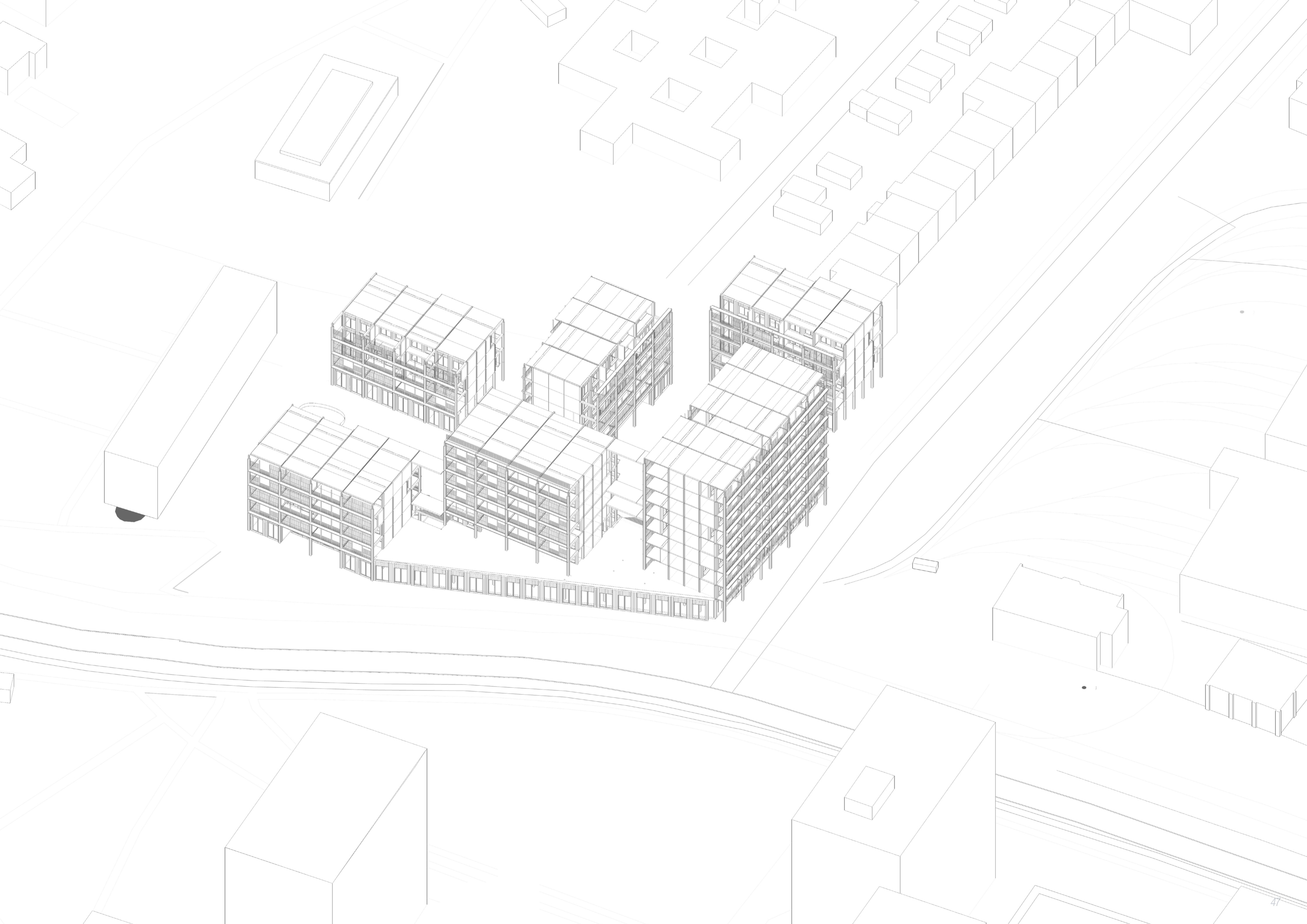


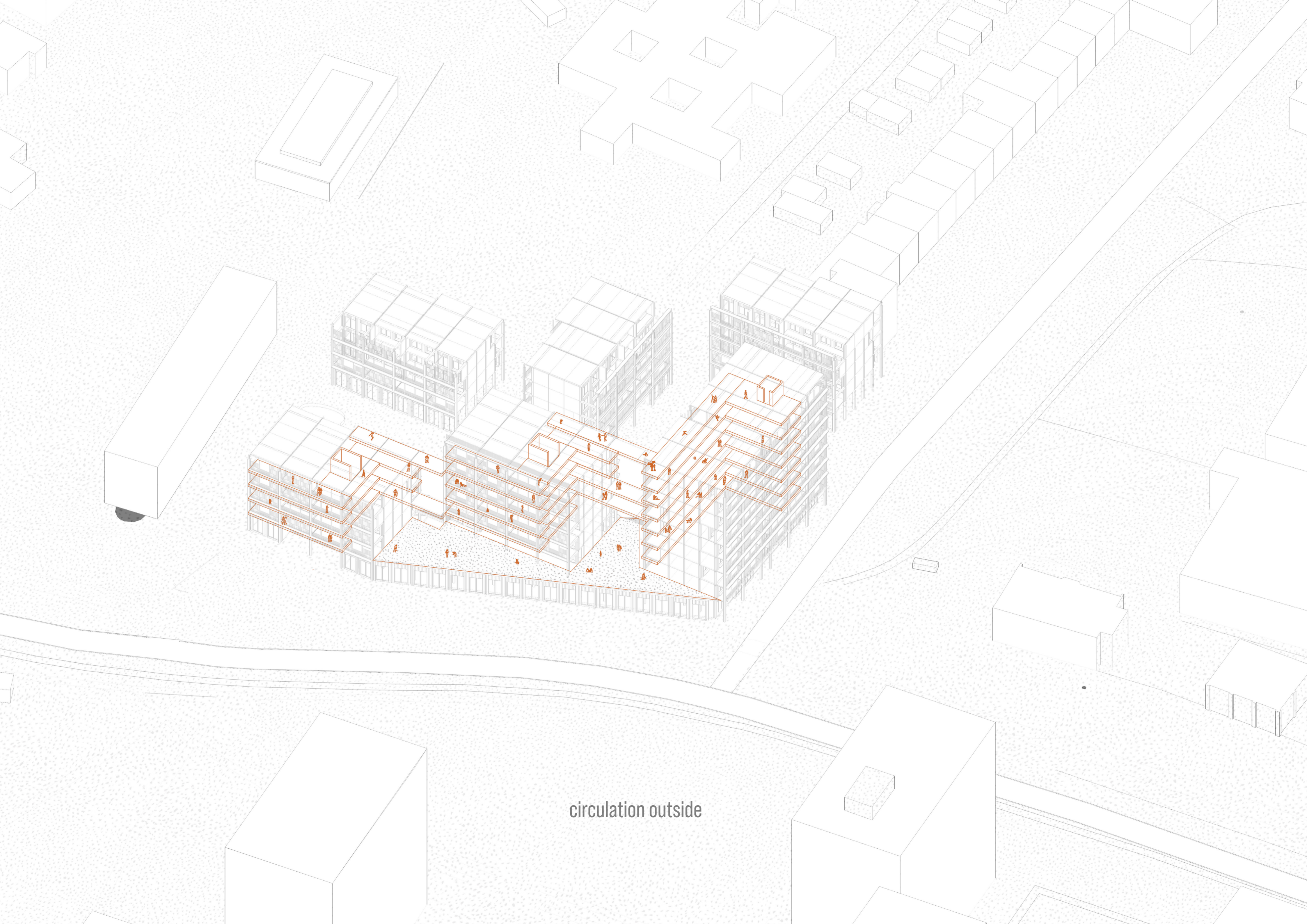
'three bedroom' apartment



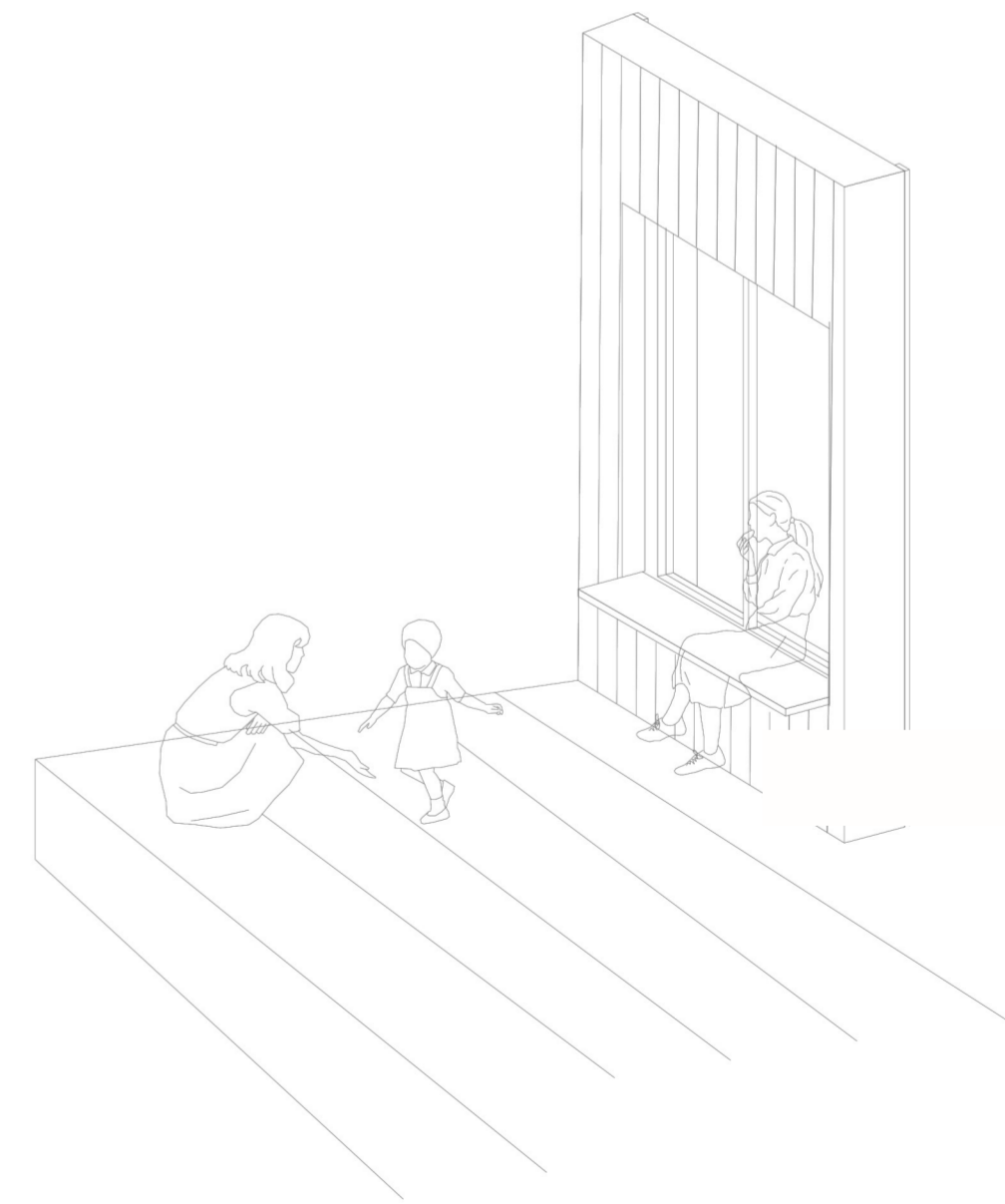
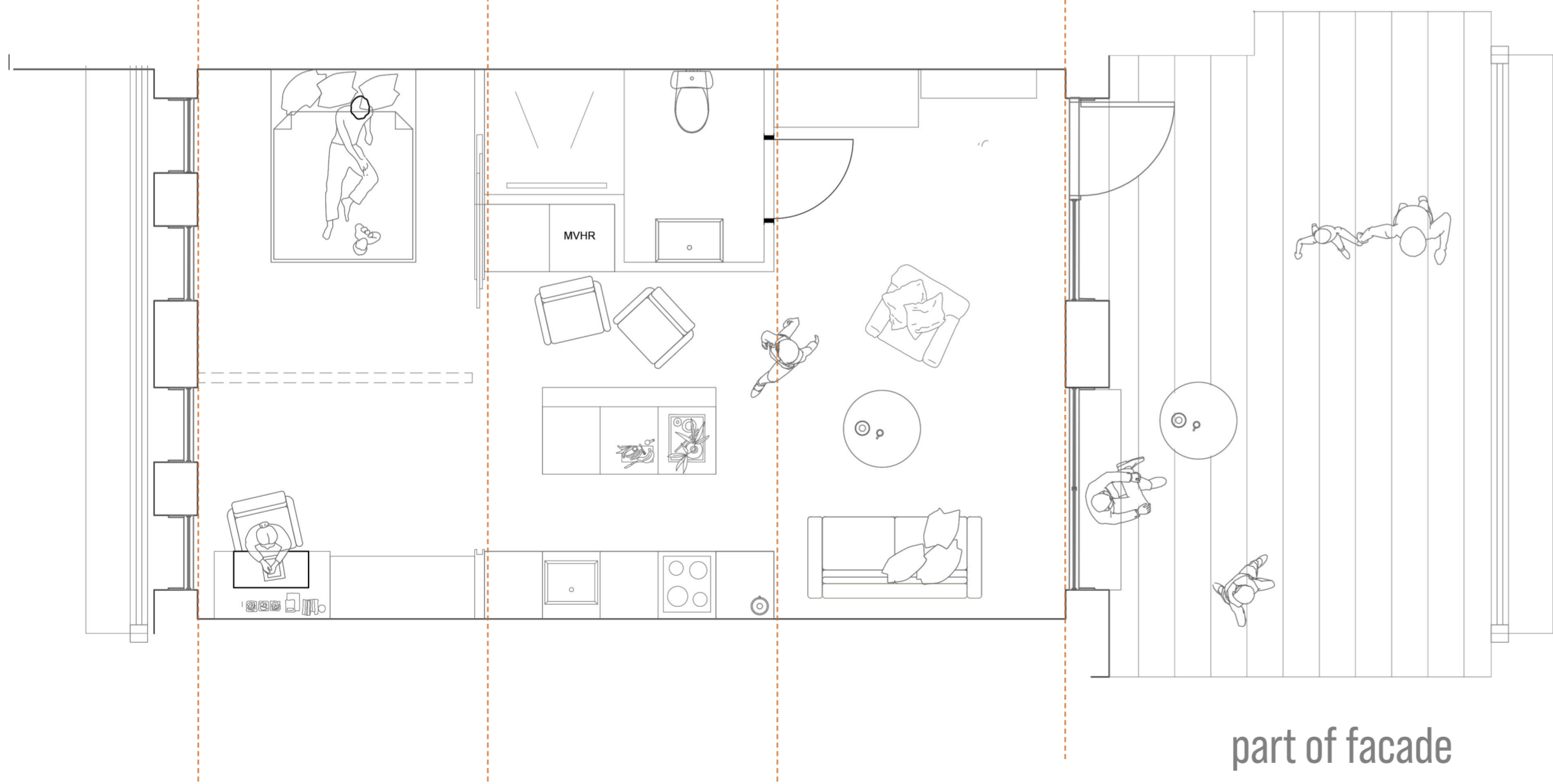
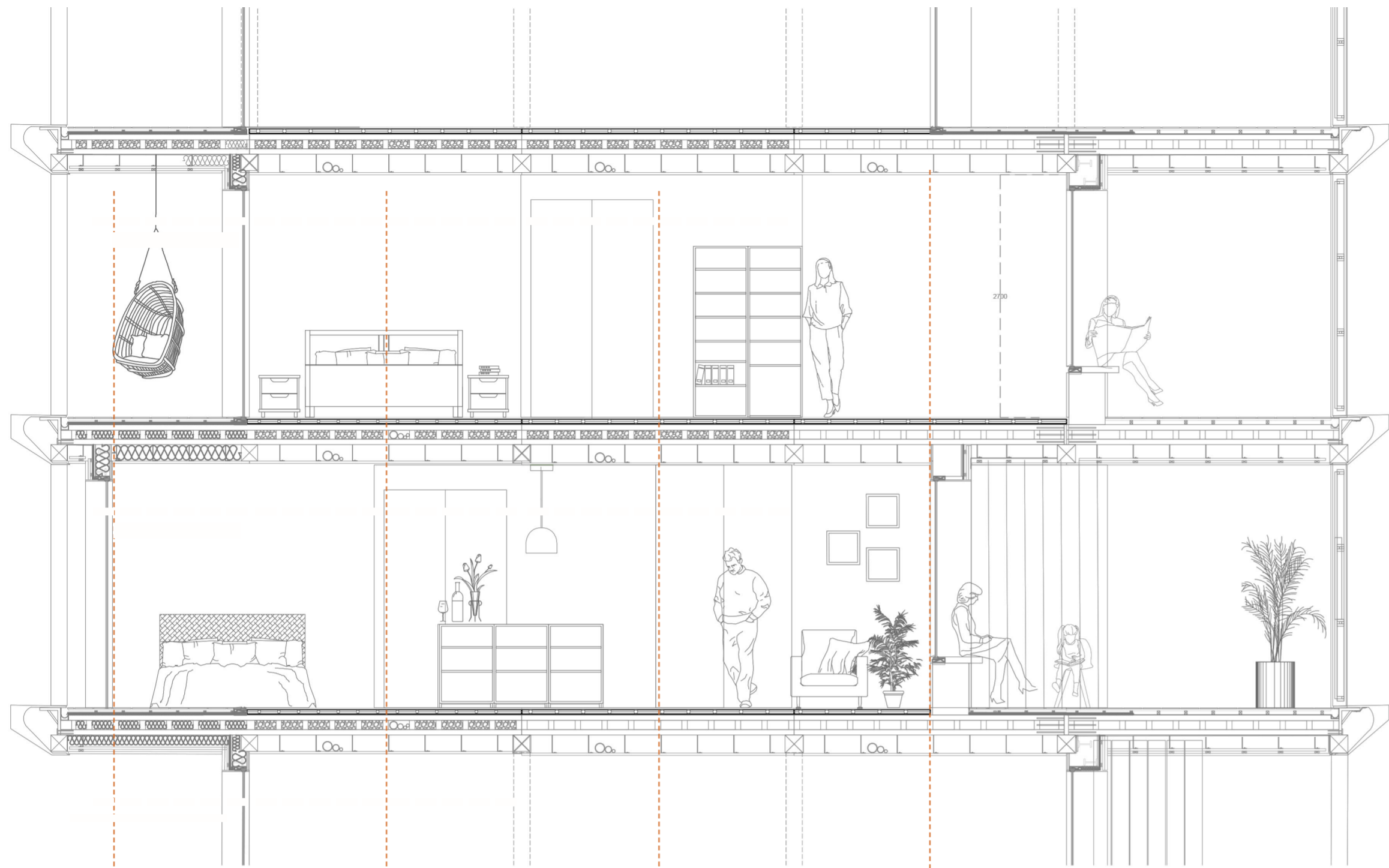


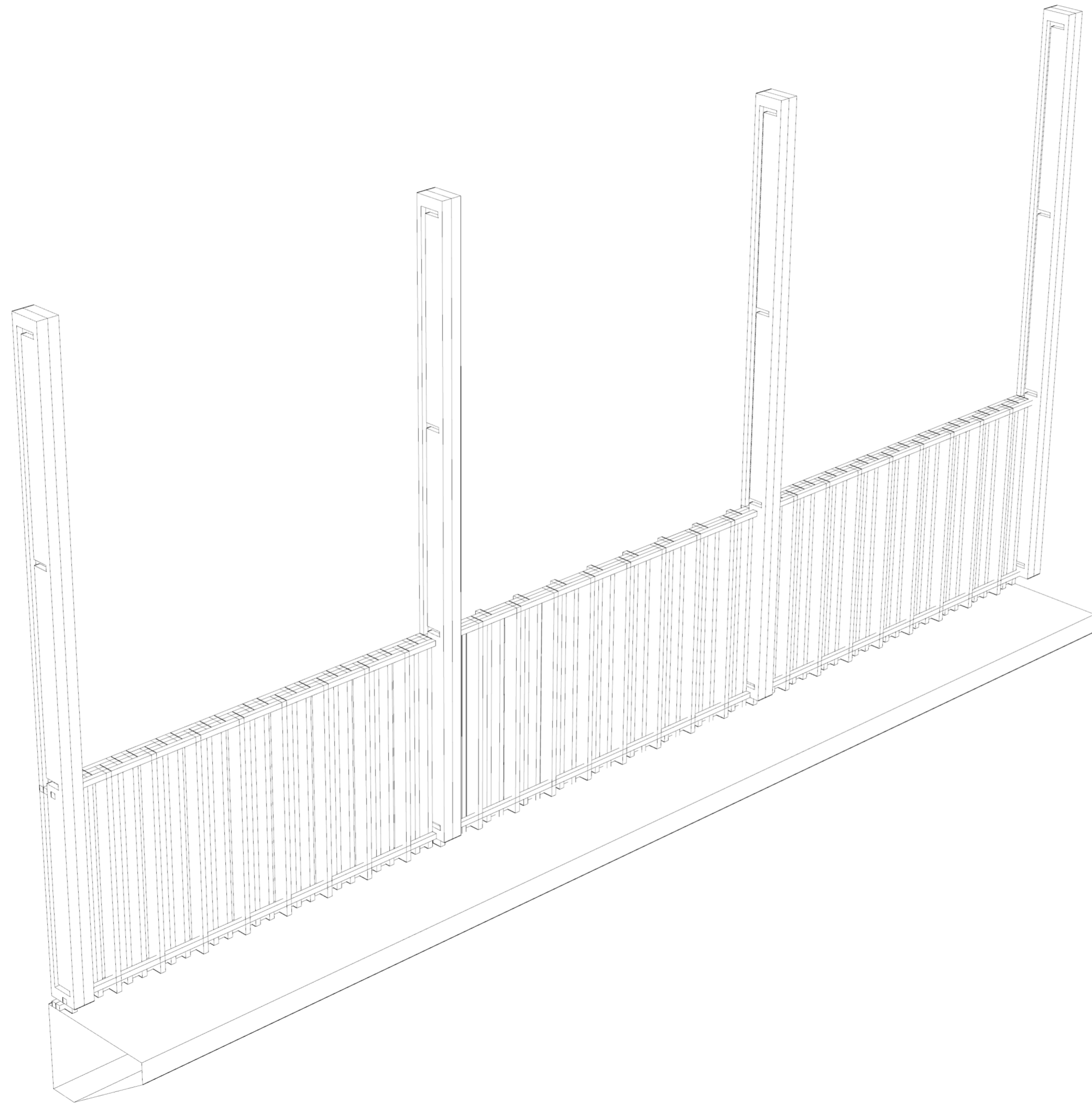
south elevation



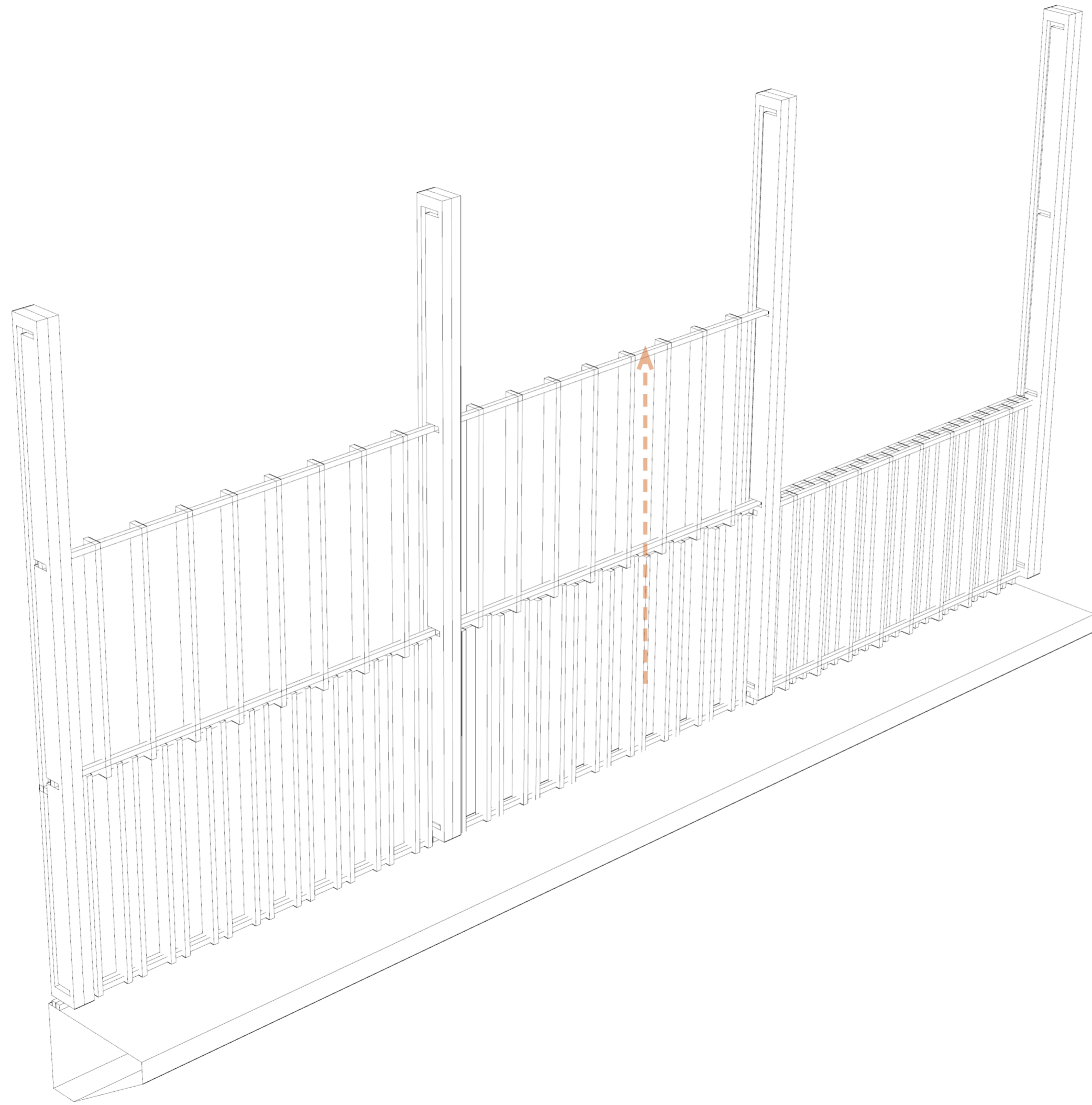


circulation outside

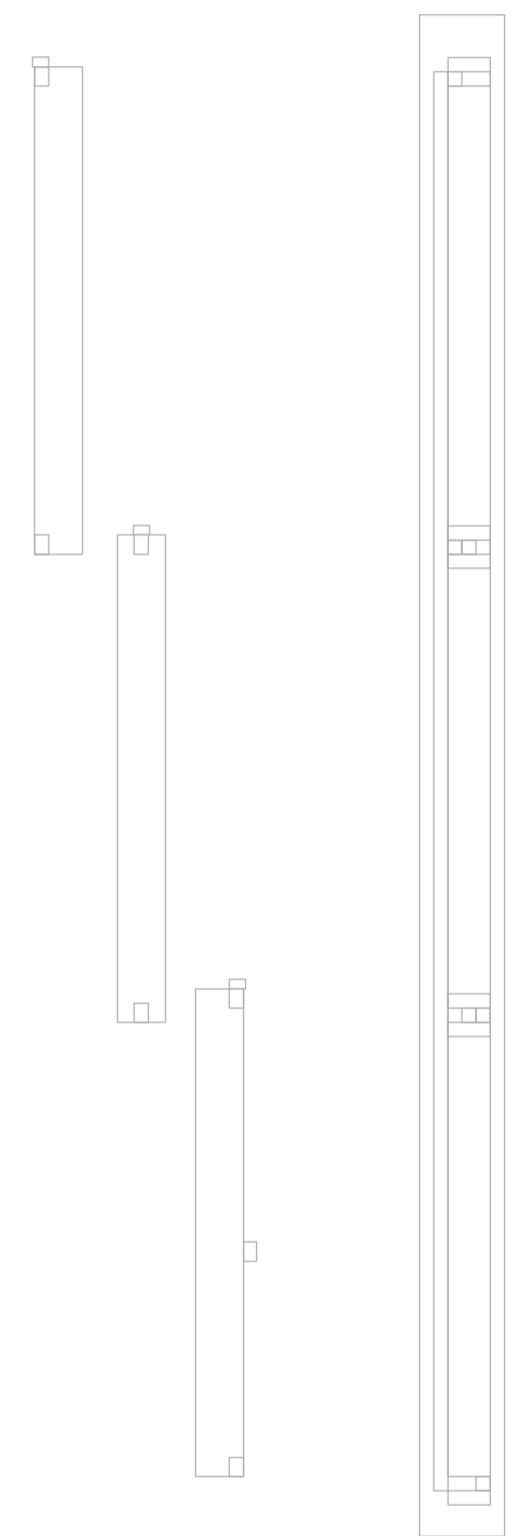
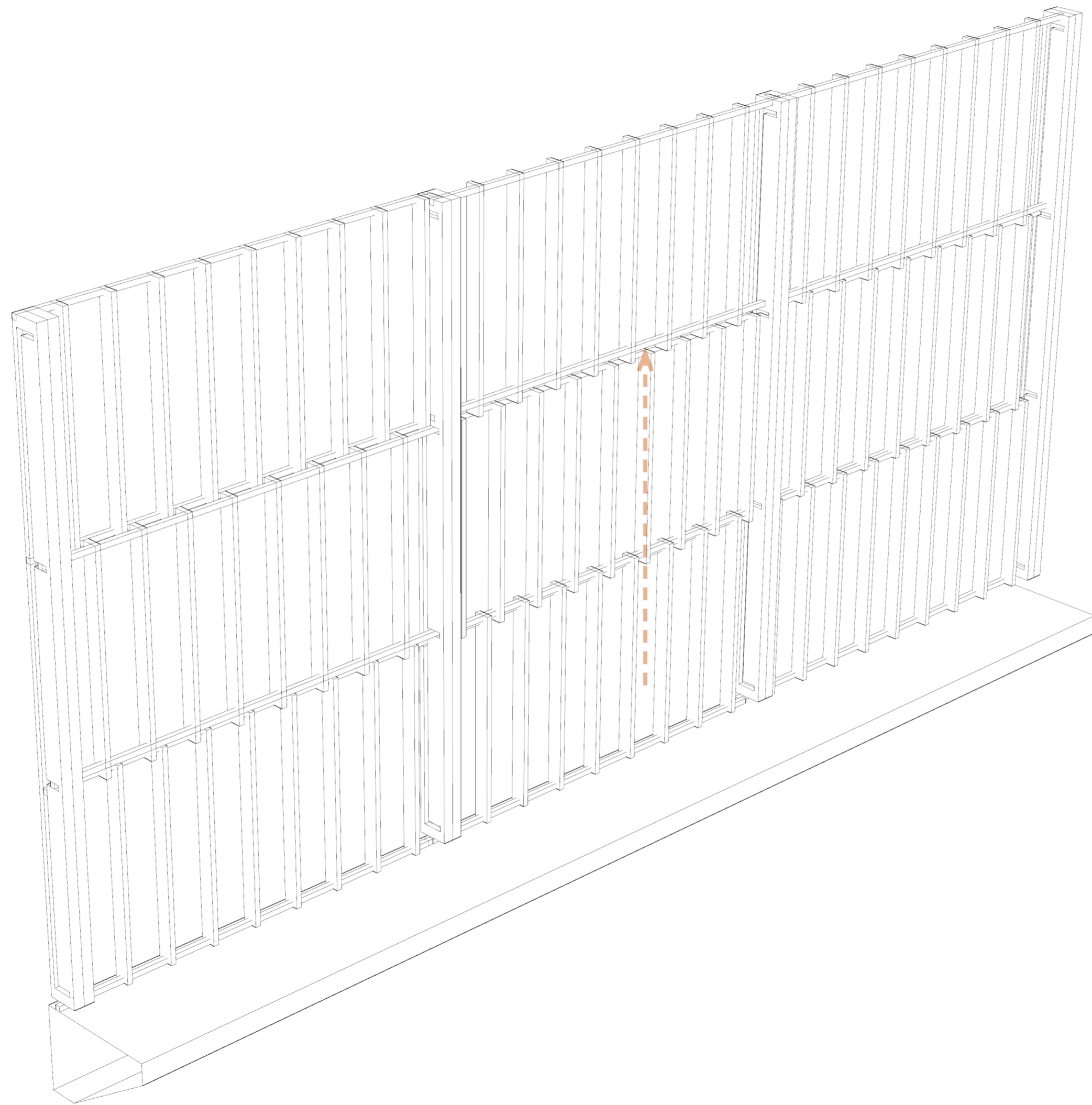




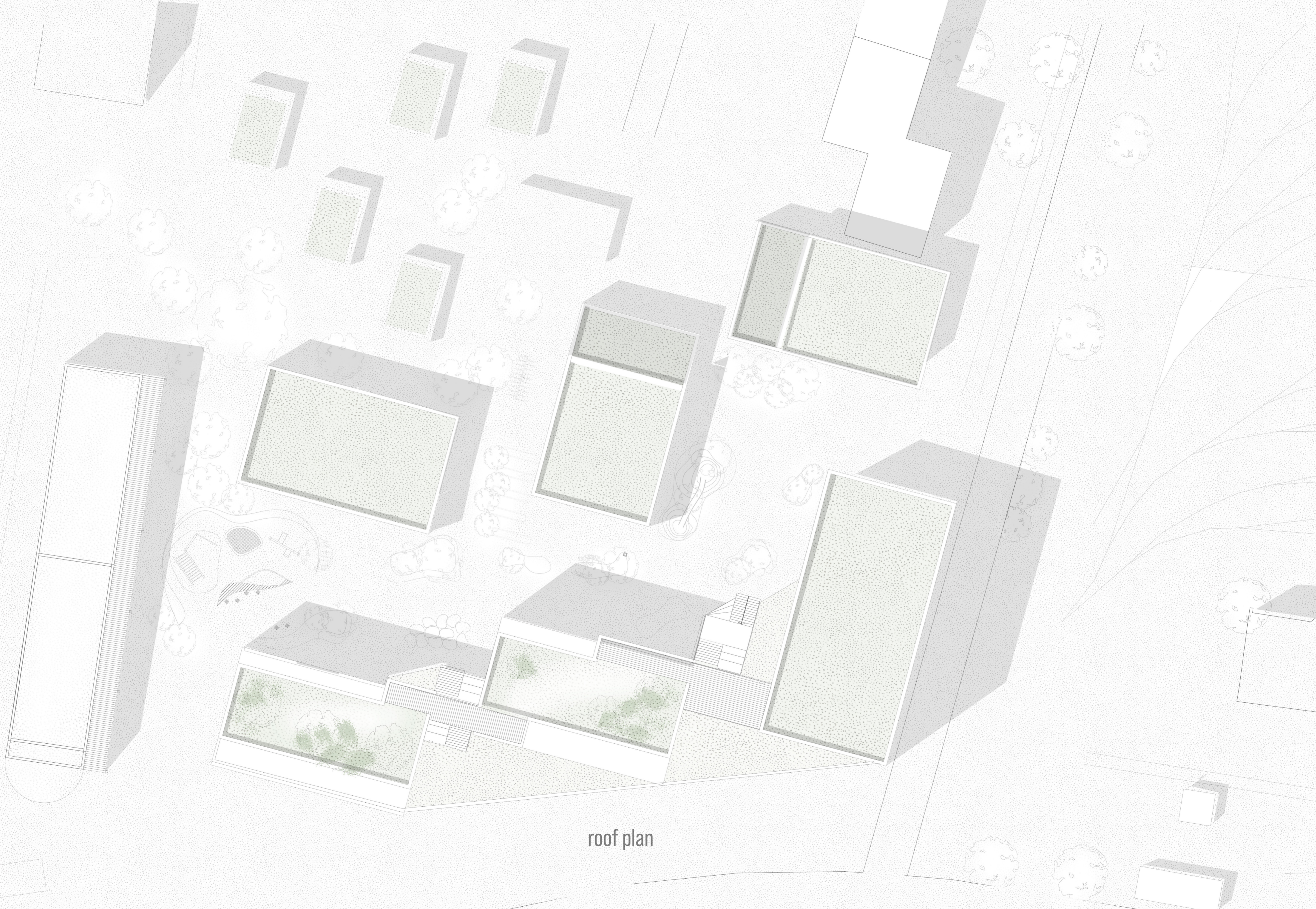
movable facade



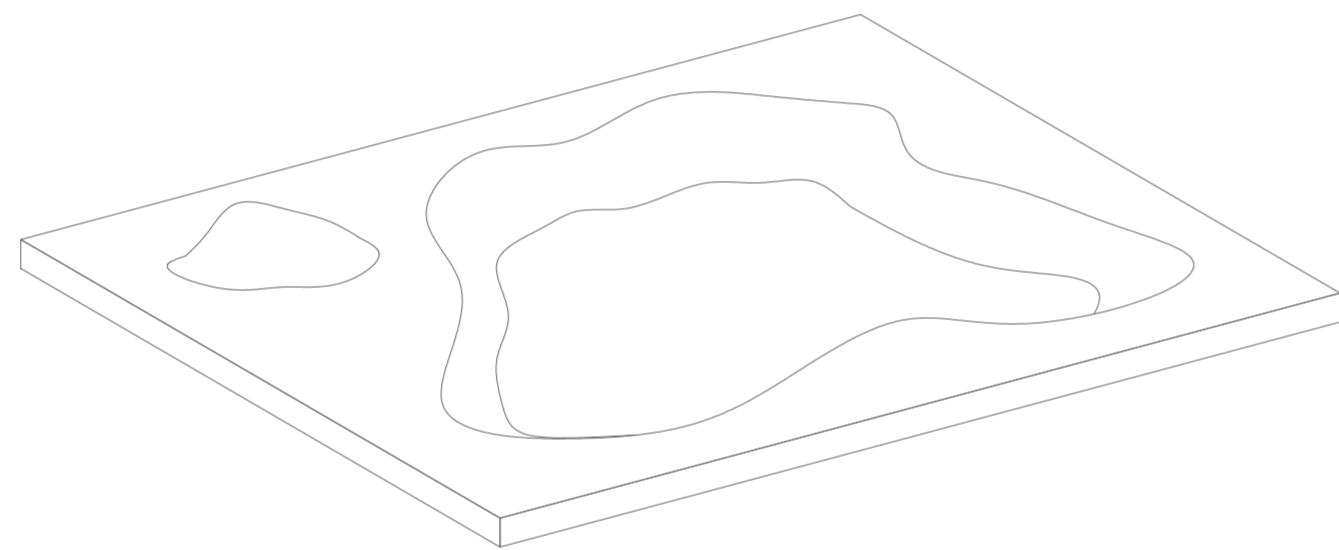
movable facade



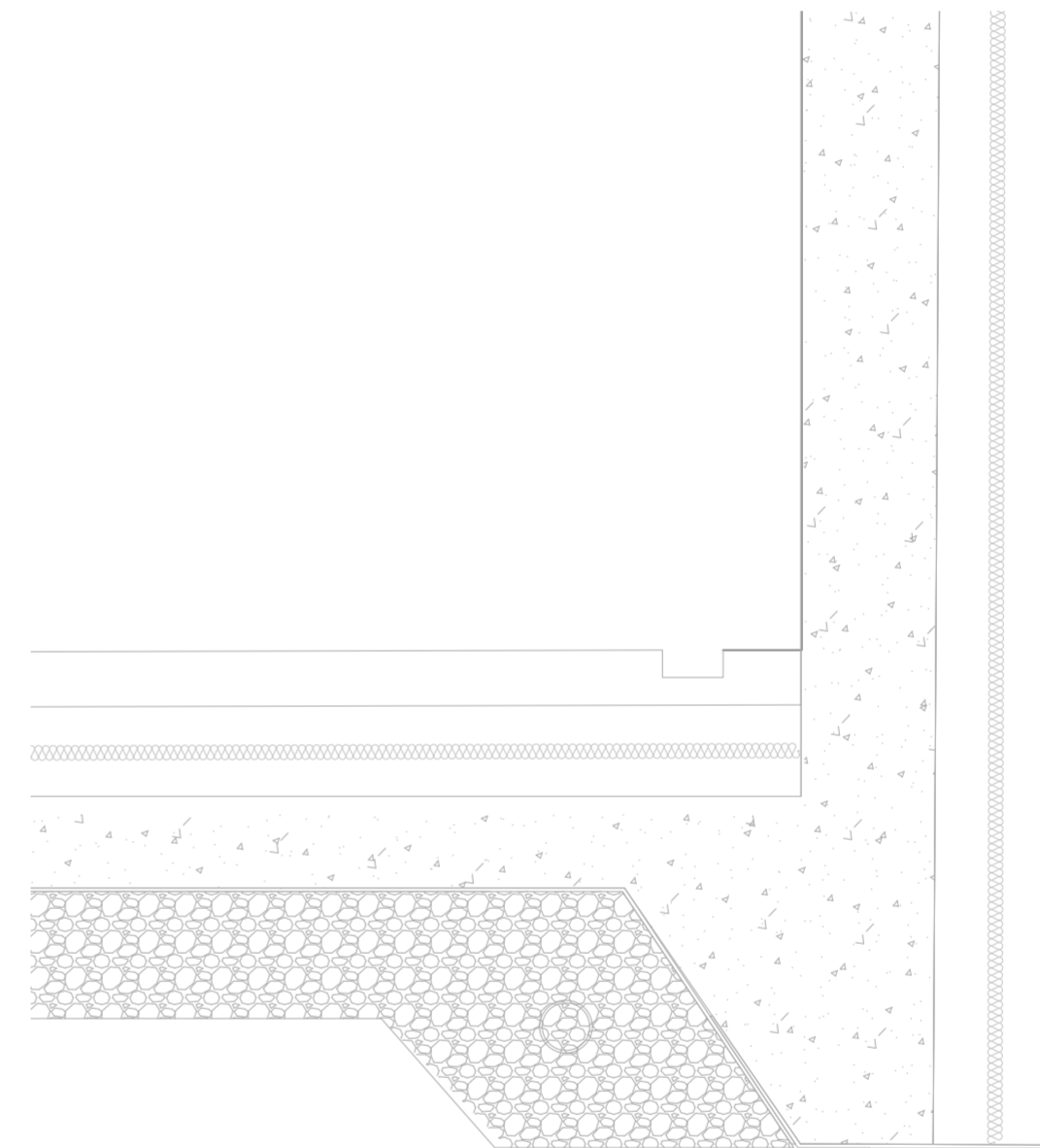
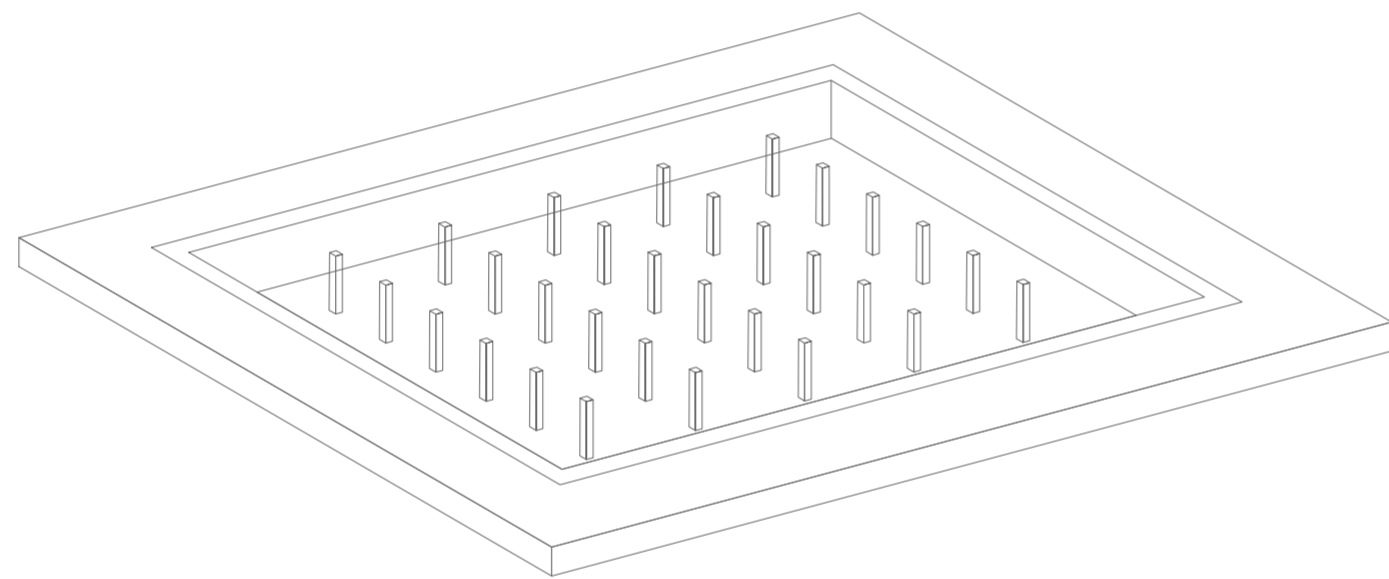
movable facade



roof plan



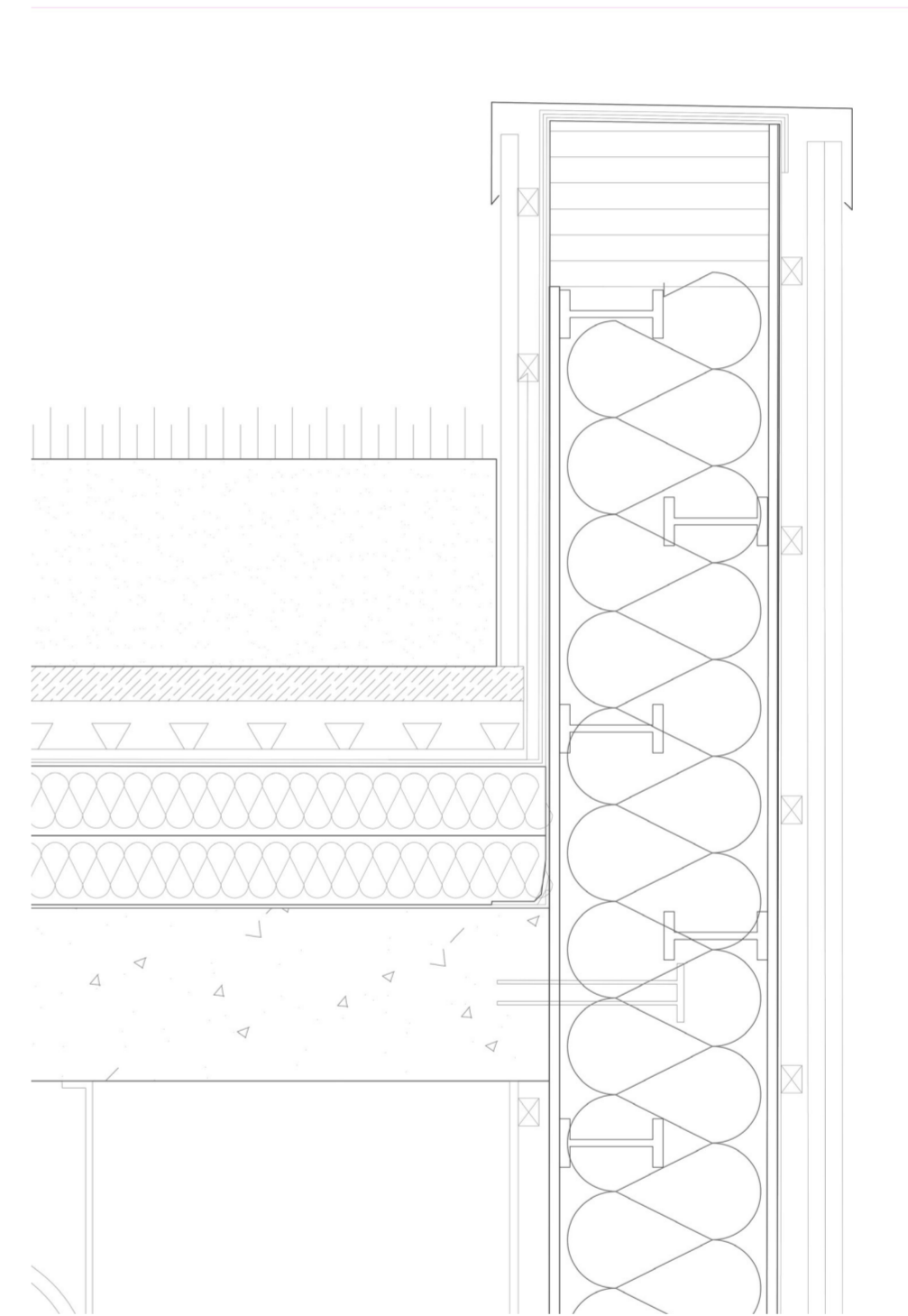
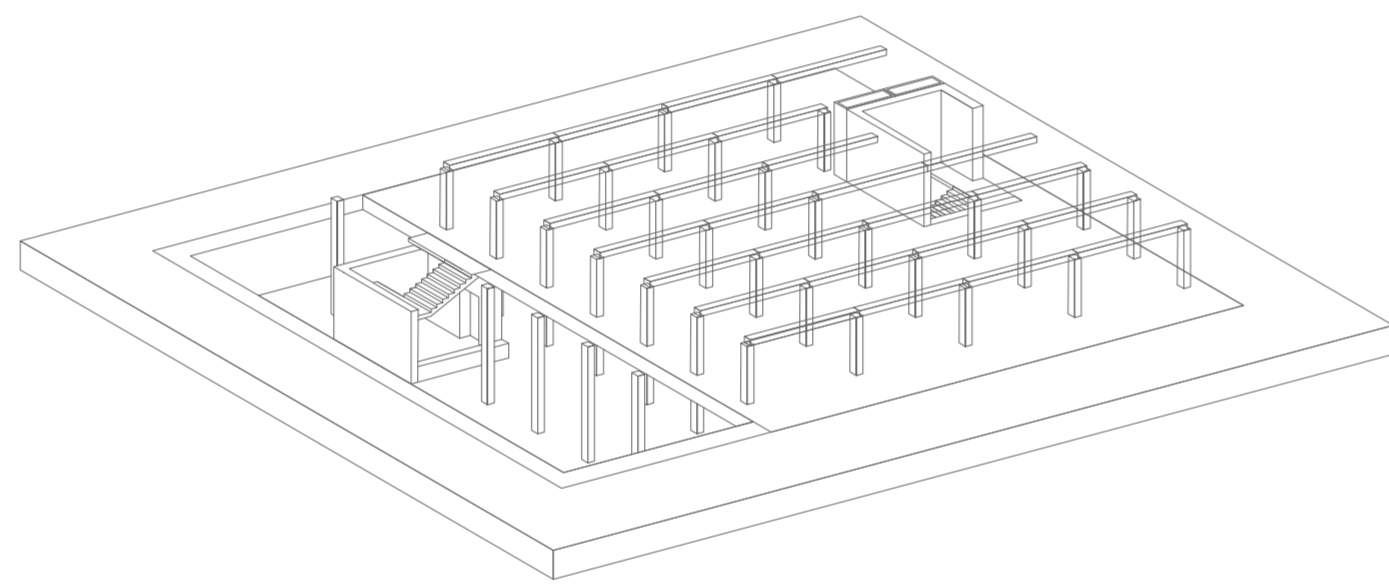
preparation of site - excavation for basement and foundations



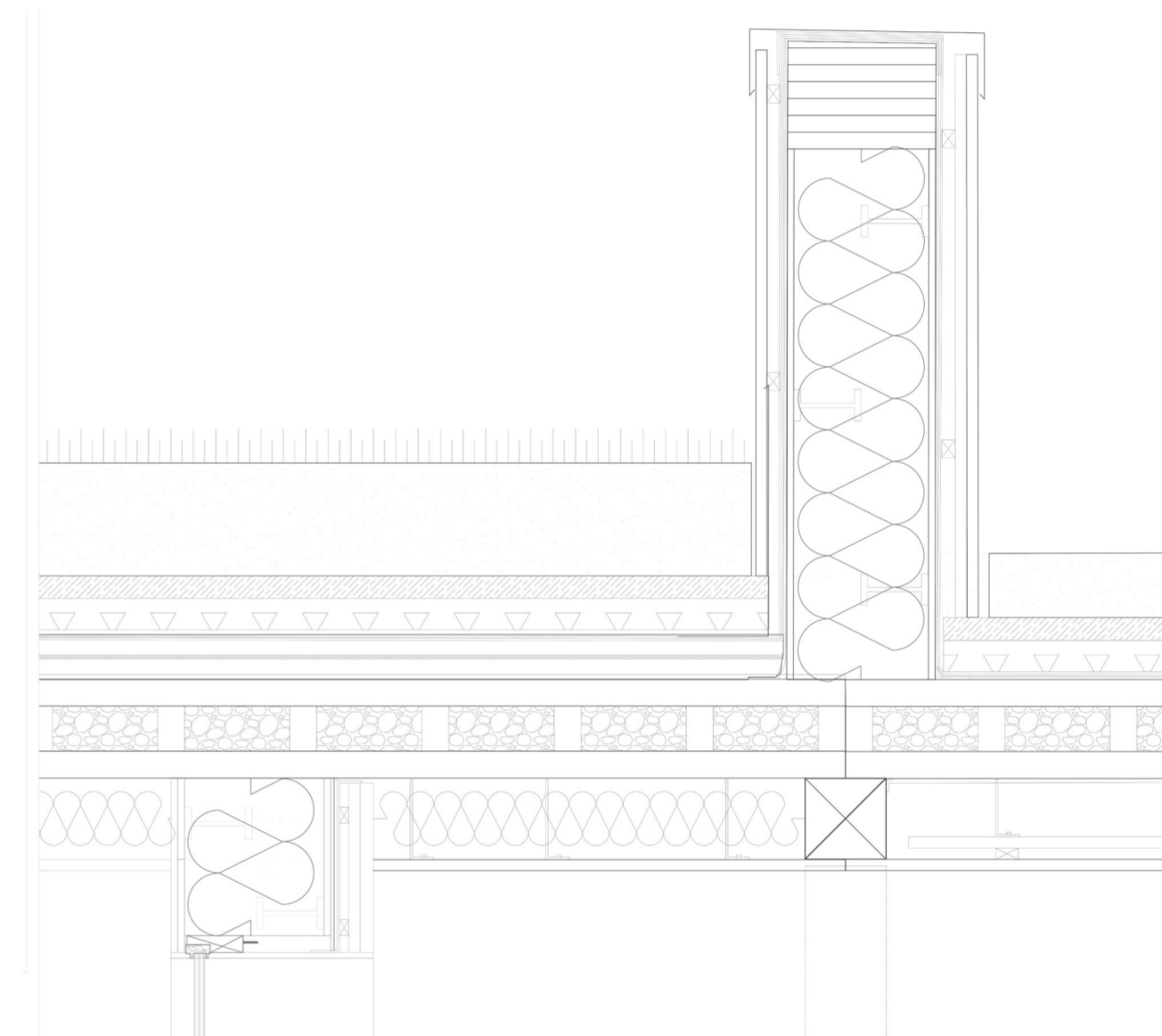
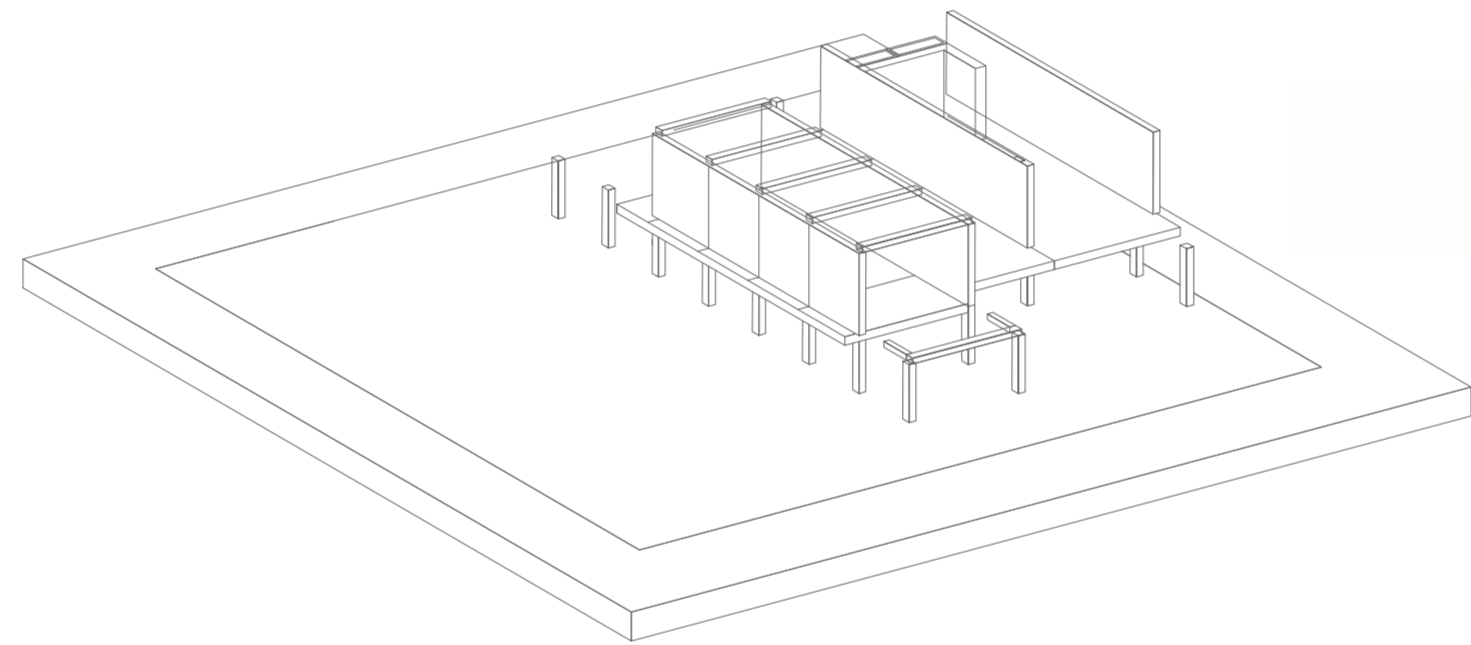
FOUNDATION - BASEMENT

- waterproof layer with concrete footing
- gravel layer with drainage
- 5mm waterproof membrane
- 250mm concrete
- 250mm insulation
- 200 mm concrete screed with drainage

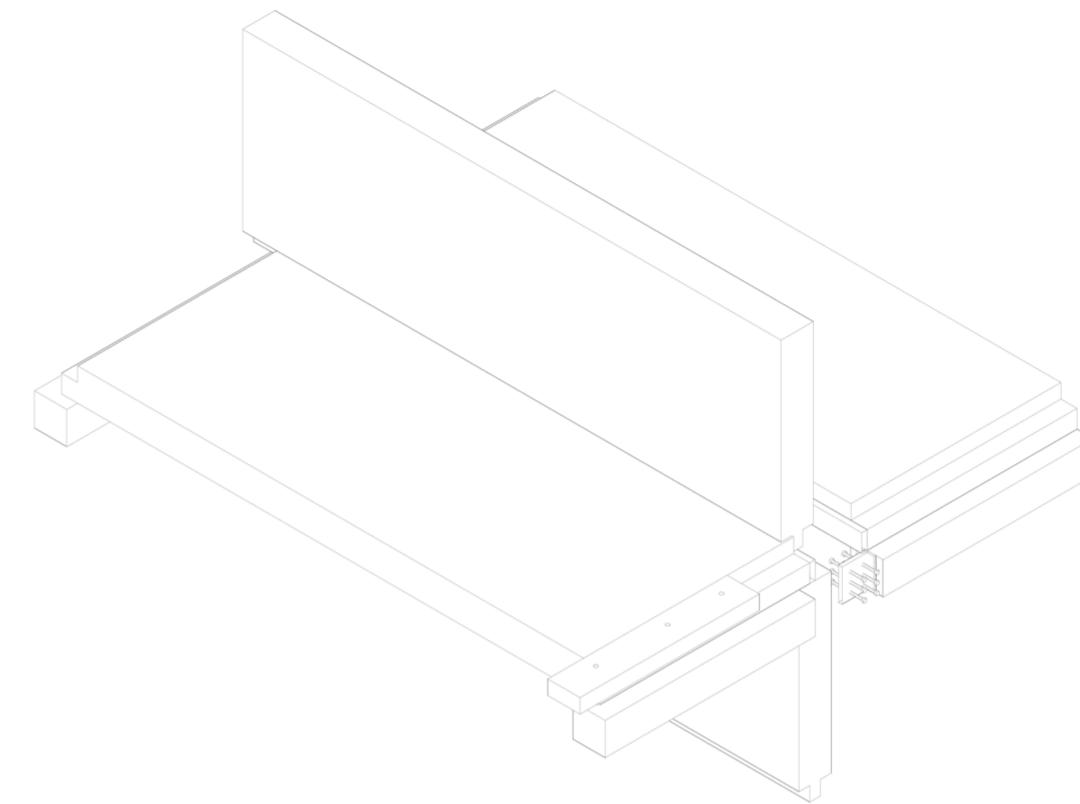
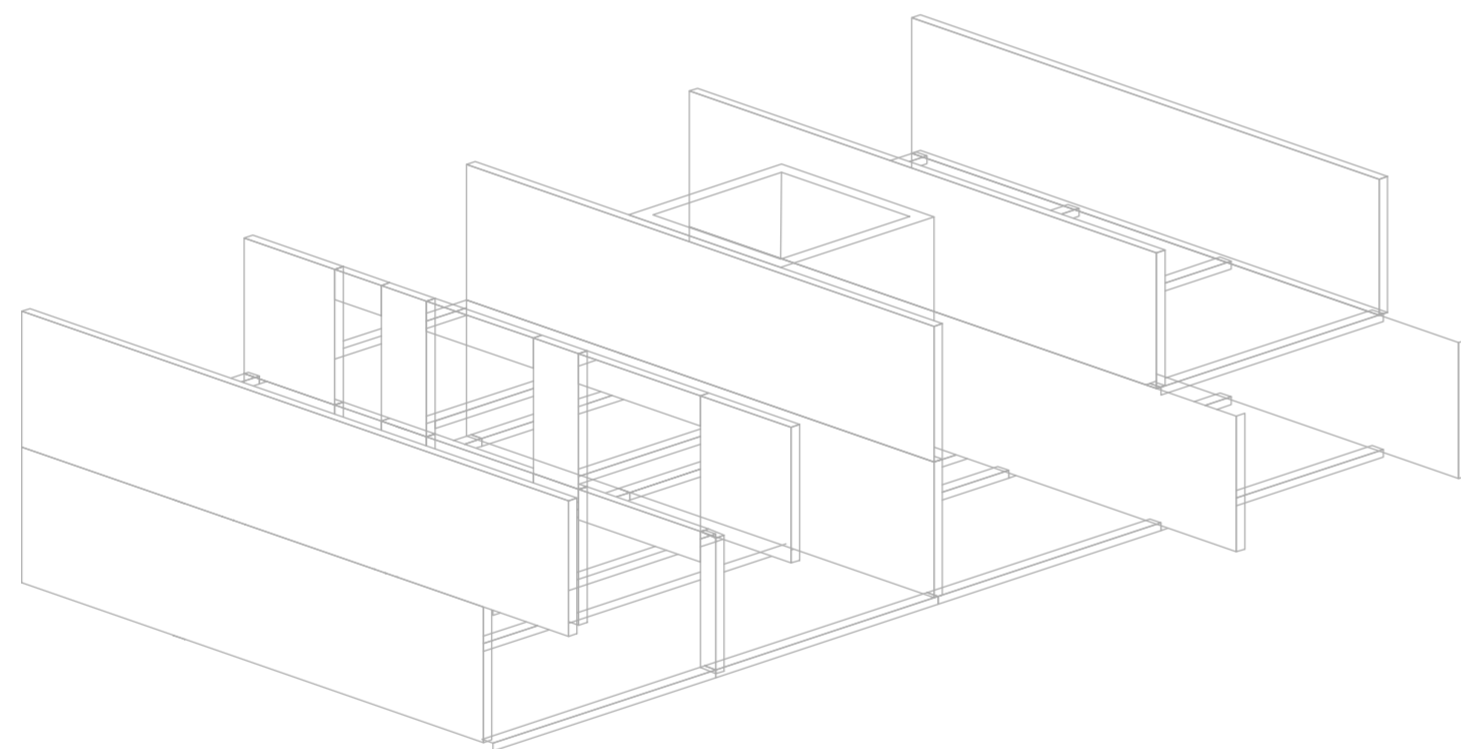
creation of basement



ground floor and plinth - concrete (waterproofing)

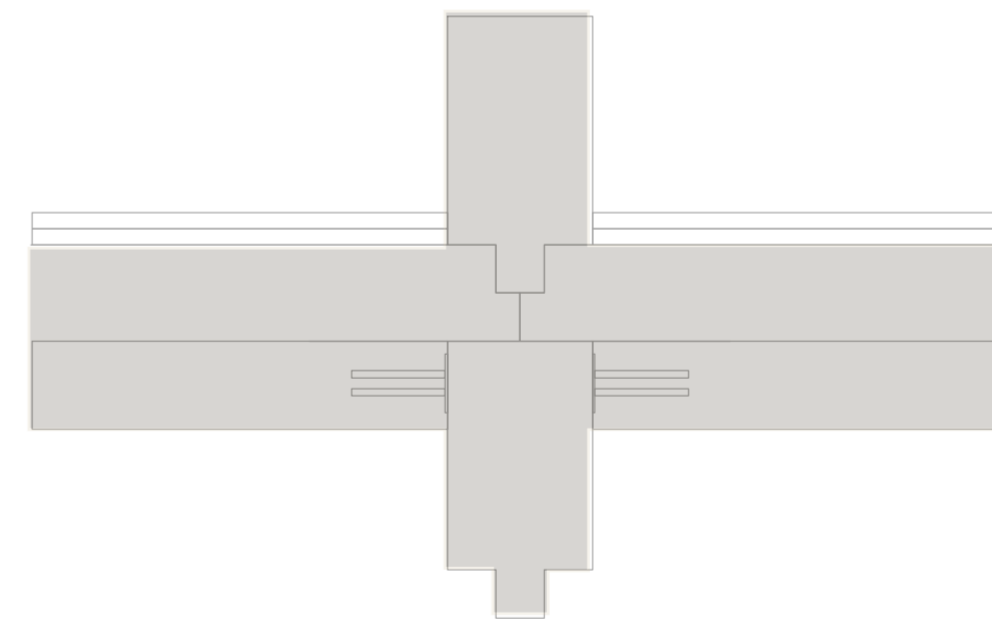


construction of CLT structure (inside) and outside structure + installations

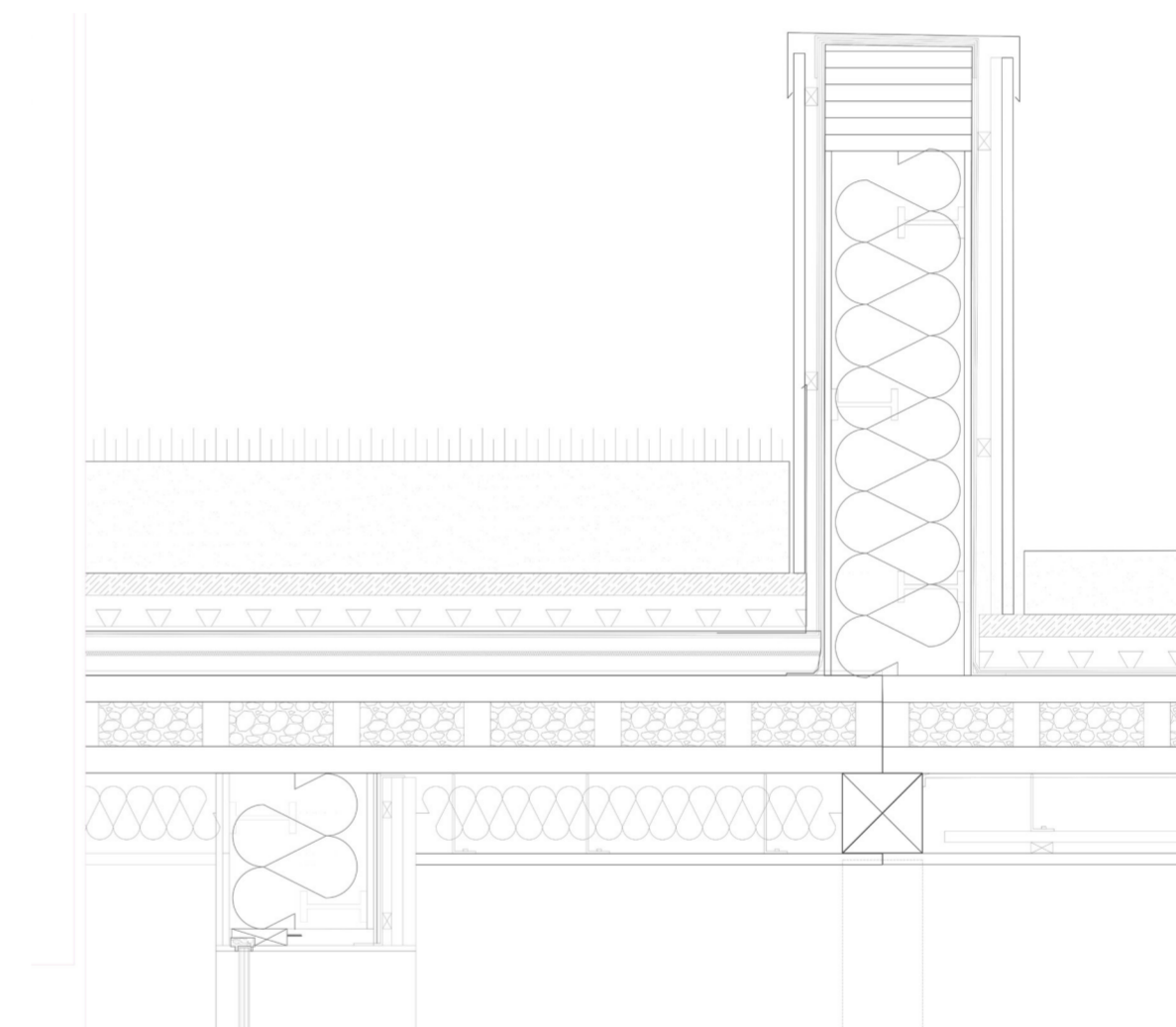
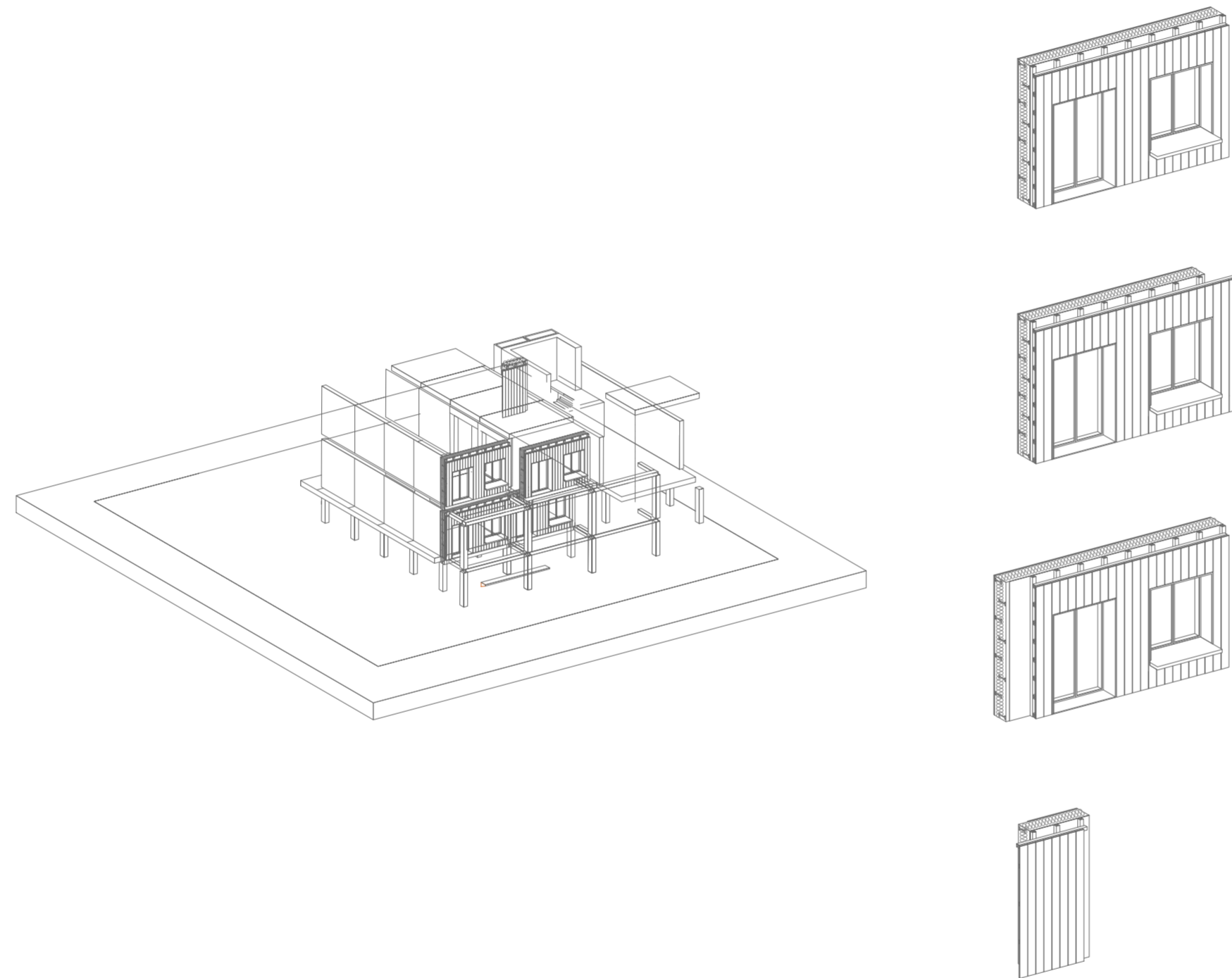


CLT WALLS & BEAMS

180mm CLT wall + sound insulation and plasterboard
220mm hollow box CLT panels filled with extra mineral insulation for sound proofing



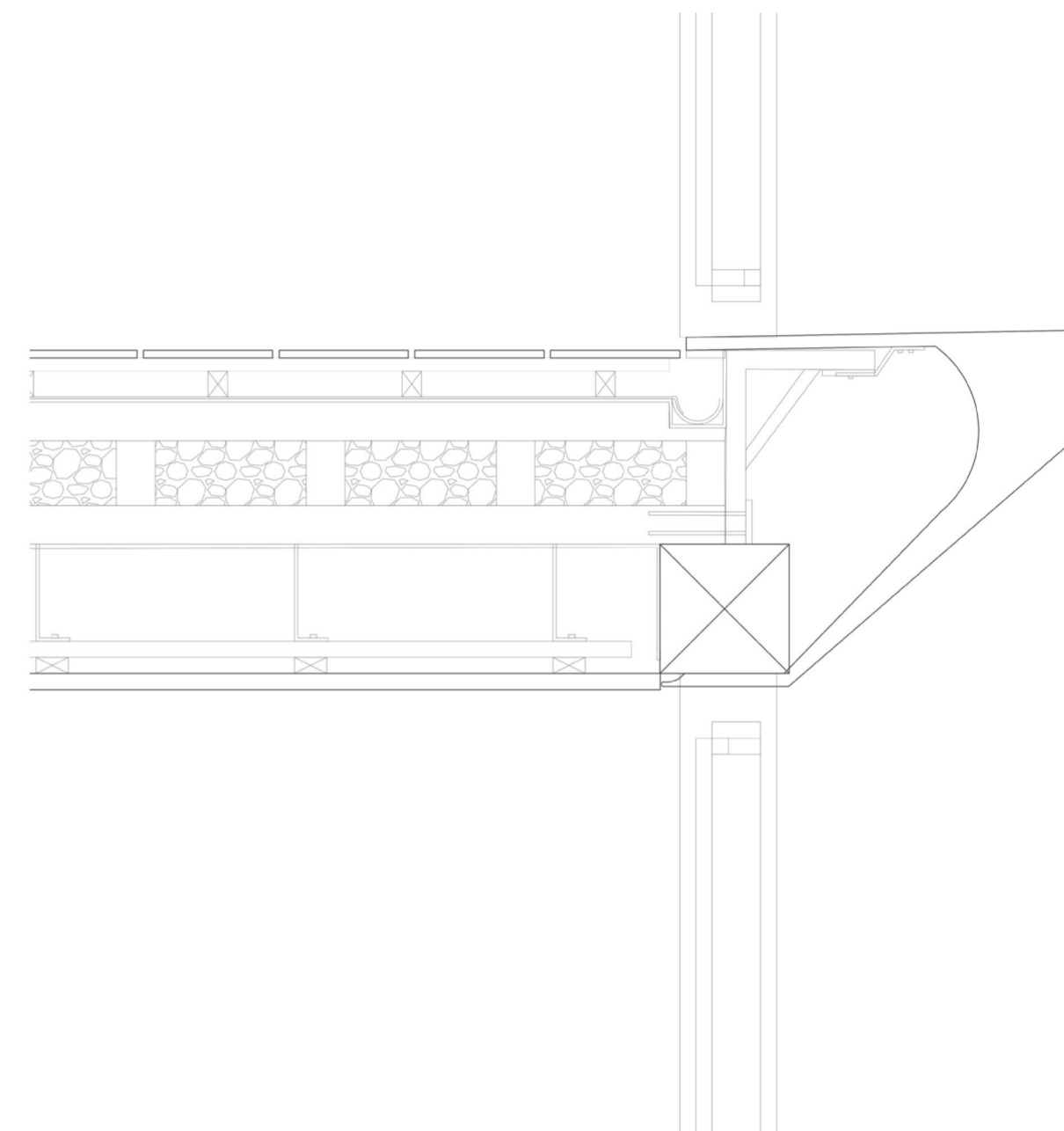
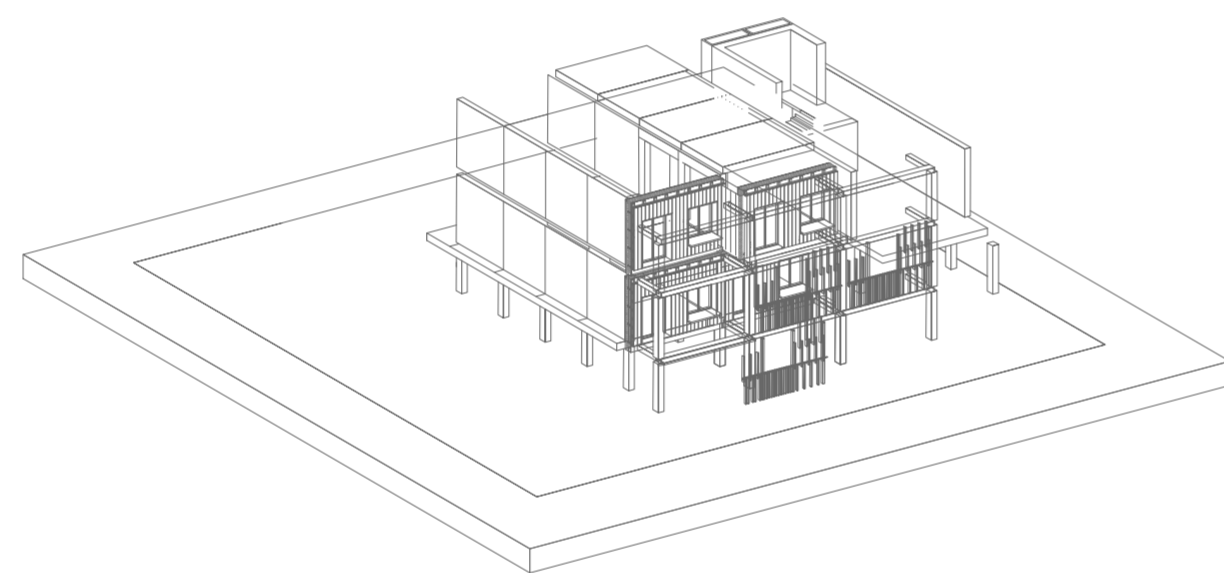
appropriate configuration of openings in CLT walls and connection to walls



ROOF - FACADE - TERRACES

- capping on the terrace column + paving tiles
- vegetation
- 300mm soil
- 50mm filter layer
- 70mm drainage
- 2x5mm waterproof layer
- 2x100mm mineral insulation
- 5mm protection layer
- 220mm hollow clt slab
- suspended ceiling + 12.5mm plasterboard

prefabricated facade installation + ensuring airtightness

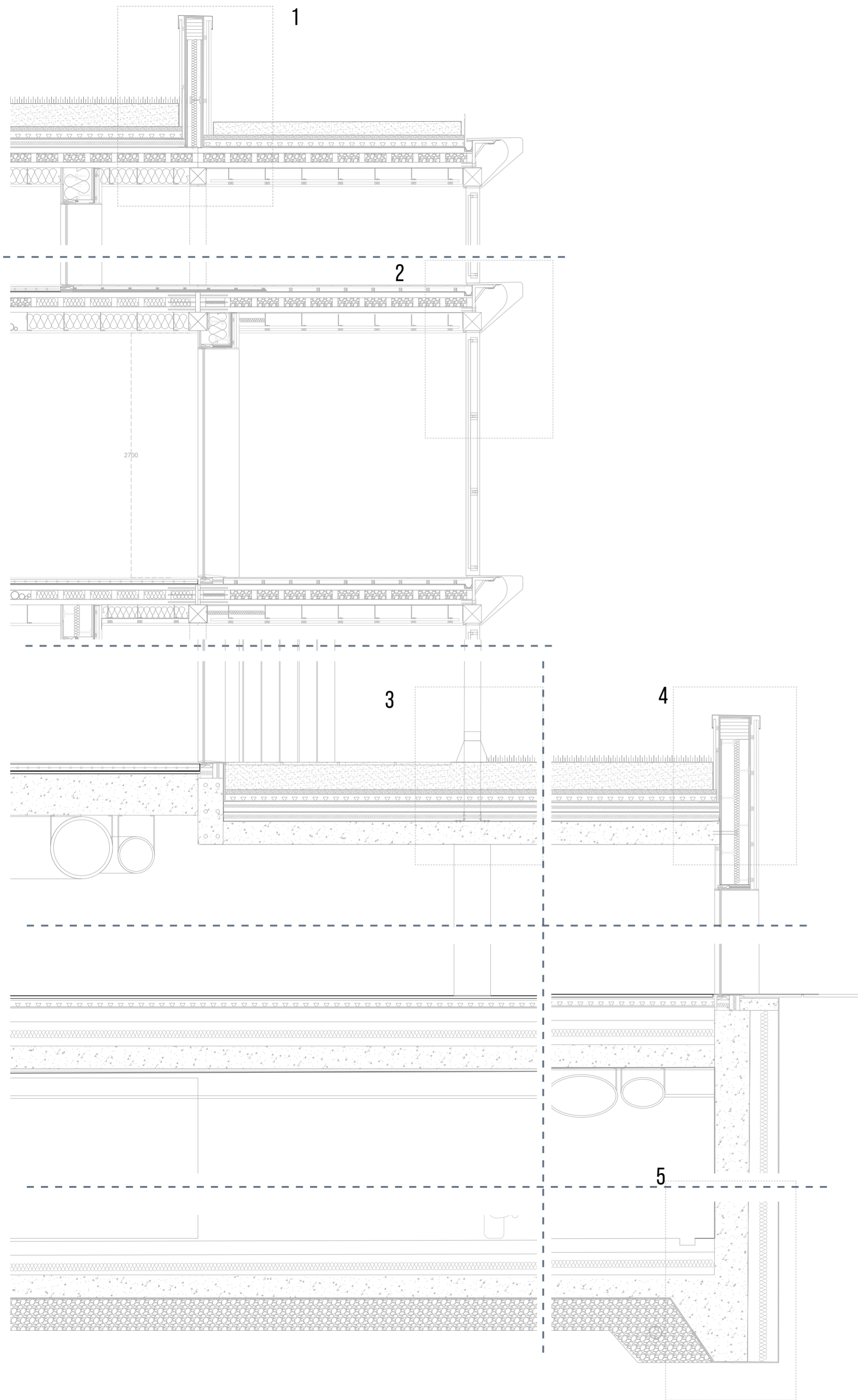


TERRACES EDGE

- 25mm timber slats
- timber battens
- timber couterbattens
- 2x 5mm waterproof membrane
- (mineral insulation)
- 220mm CLT hollow panels with gravel or insulation
- waterproof membrane
- (mineral insulation)
- suspended timber battens
- timber couterbattens
- 25mm timber slats

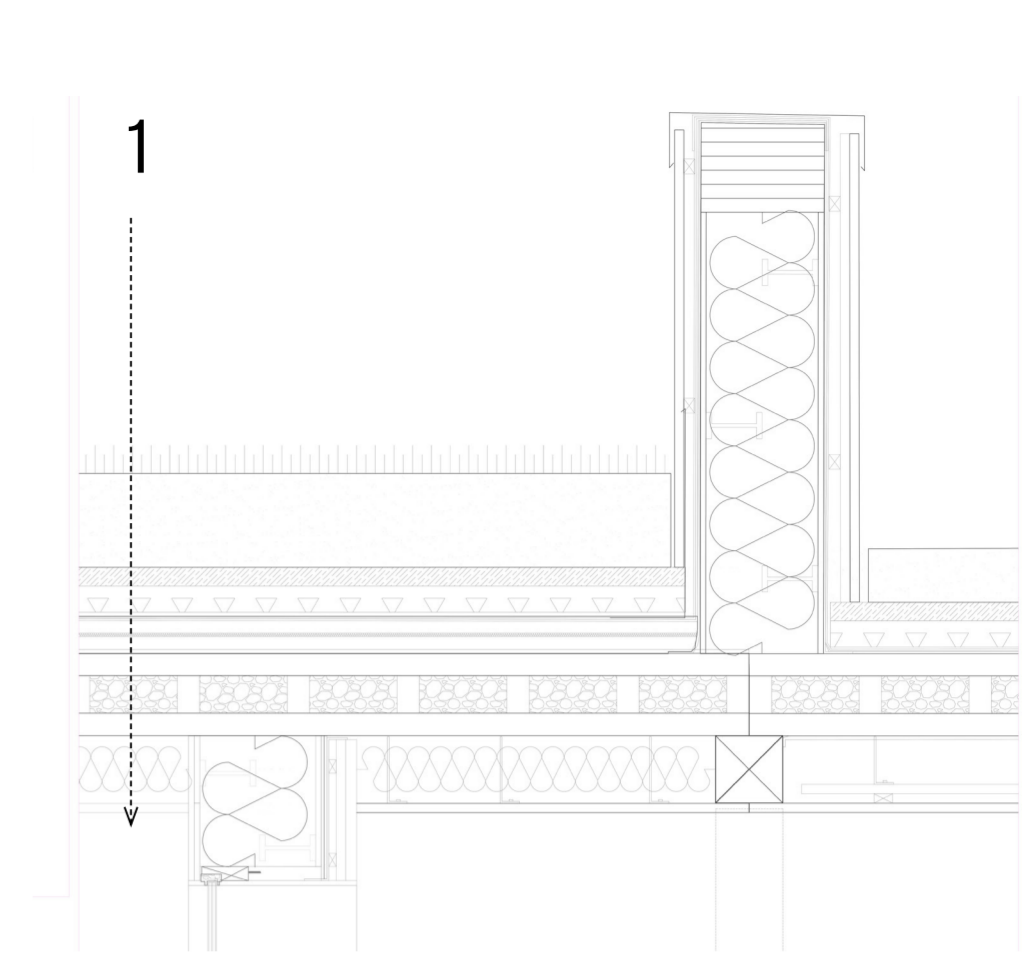
- fibre concrete profile

installation of movable facade in the south + internal finishes



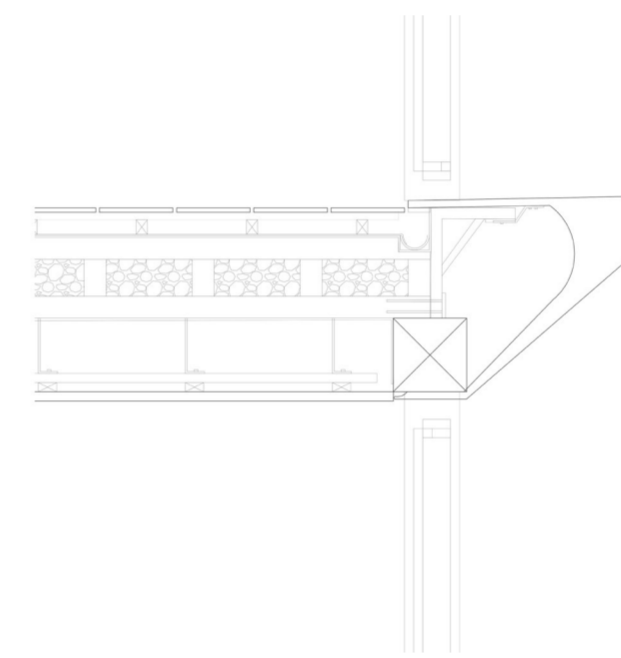
1 ROOF- FACADE- TERRACES

- capping on the terrace column + paving tiles
- vegetation
- 300mm soil
- 50mm filter layer
- 70mm drainage
- 2x5mm waterproof layer
- 2x100mm mineral insulation
- 5mm protection layer
- 220mm hollow clt slab
- suspended ceiling + 12.5mm plasterboard



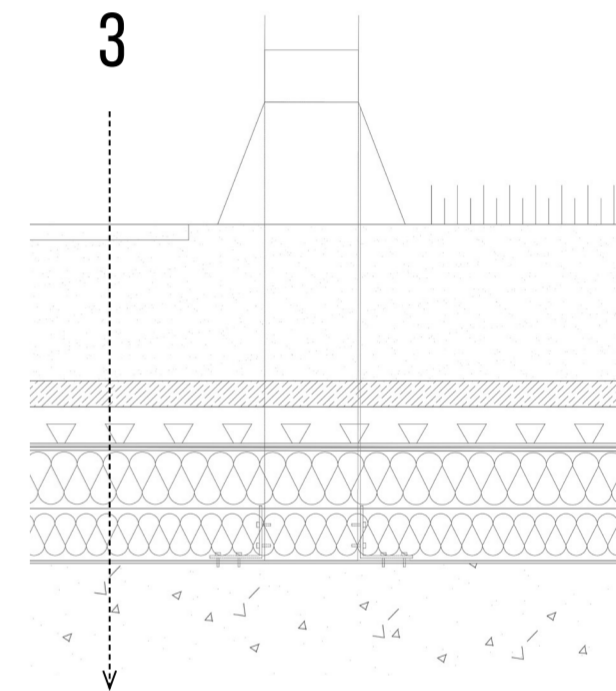
2 TERRACES EDGE

- 25mm timber slots
- timber battens
- timber couterbattens
- 2x 5mm waterproof membrane
- (mineral insulation)
- 220mm CLT hollow panels with gravel or insulation
- waterproof membrane
- (mineral insulation)
- suspended timber battens
- timber couterbattens
- 25mm timber slots
- fibre concrete profile



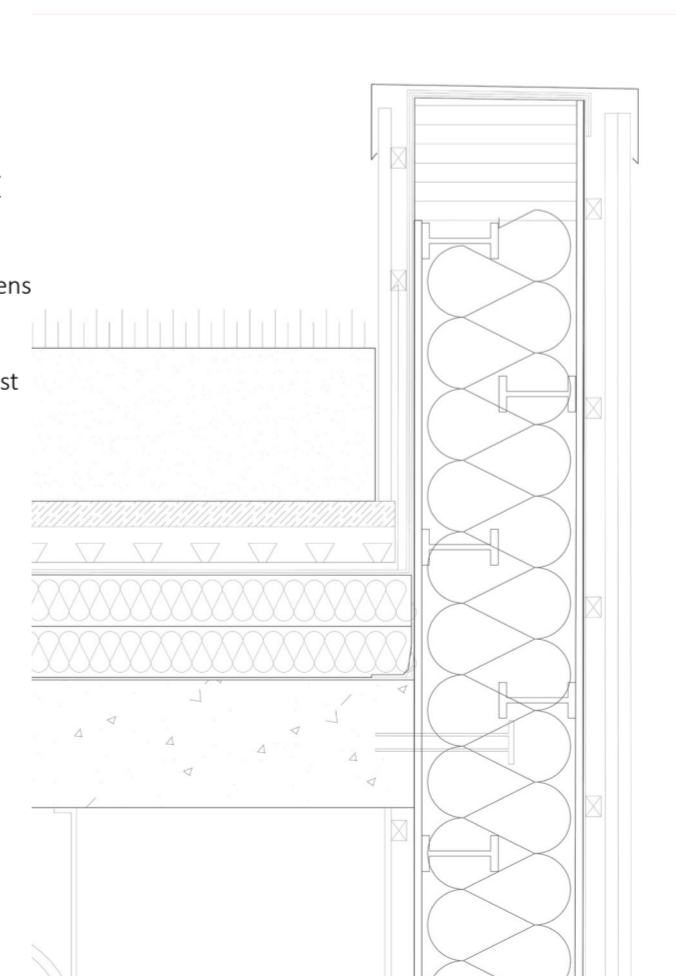
3 TERRACES-PLINTH

- capping on the terrace column + paving tiles
- vegetation
- 300mm soil
- 50mm filter layer
- 70mm drainage
- 2x5mm waterproof layer
- 2x100mm mineral insulation
- 5mm protection layer
- 250mm reinforced concrete



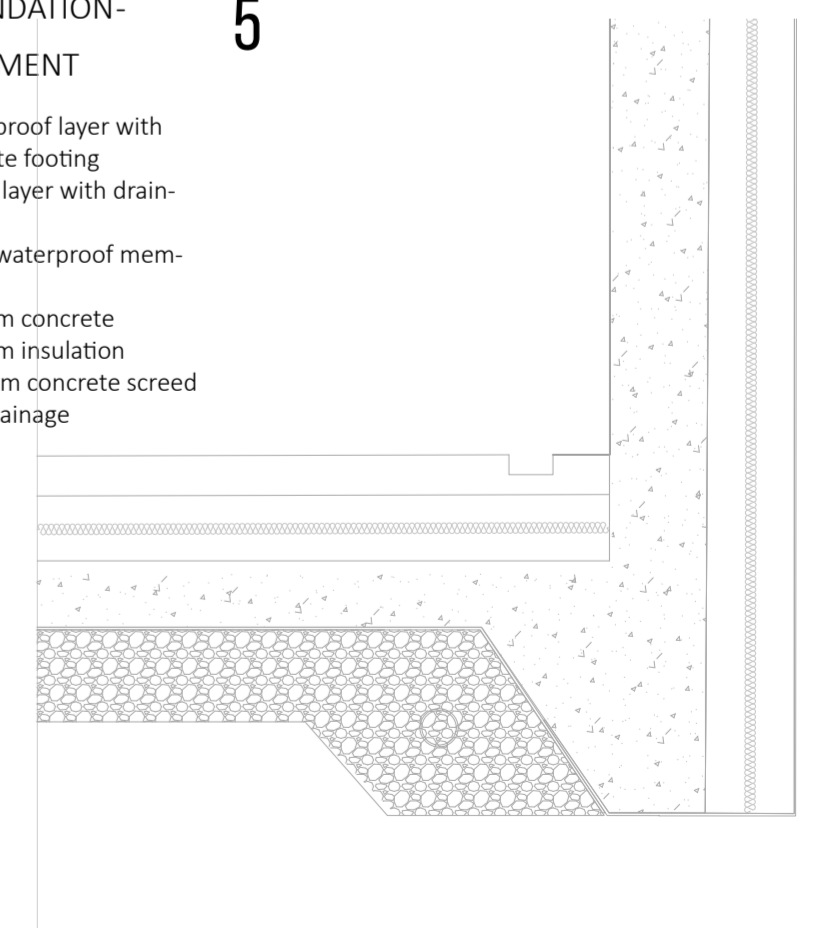
4 PLINTH- FACADE

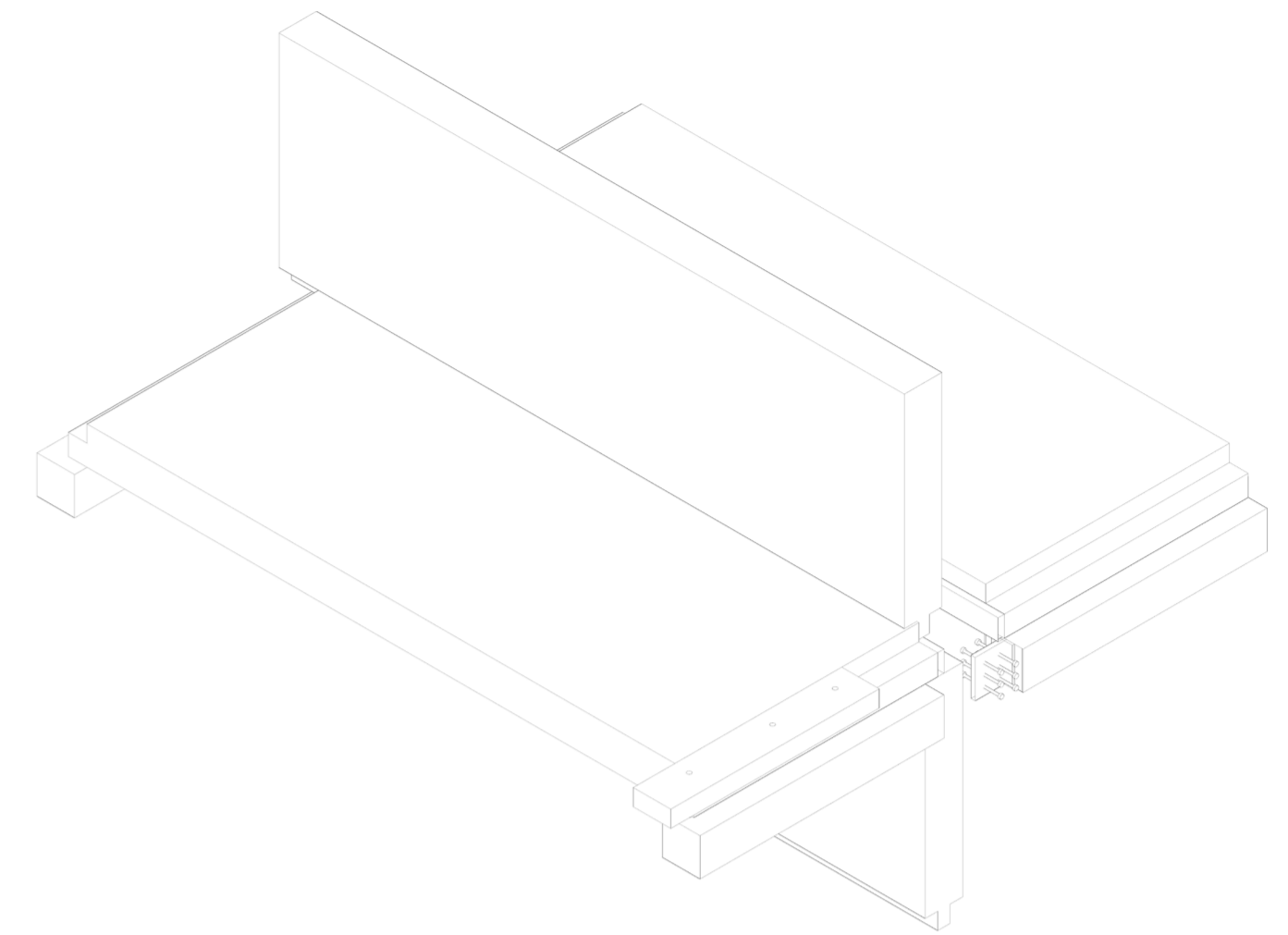
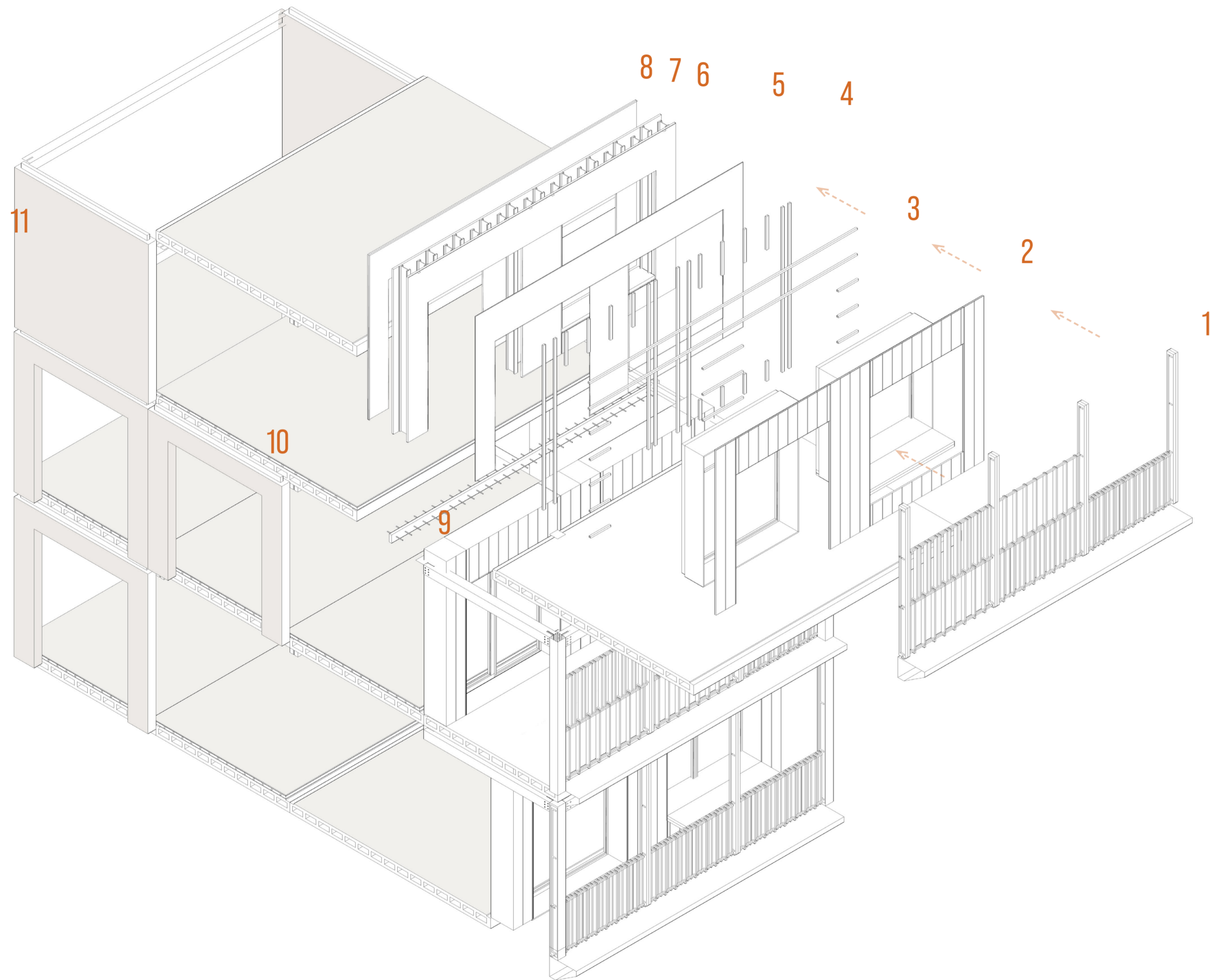
- 25mm timber cladding
- 25mm timer battens
- 25mm timber couterbattens
- 5mm waterproof membrane
- boards (20mm) with I-joist and mineral insulation
- 25mm timber battens
- 12.5 mm plasterboard



FOUNDATION-BASEMENT

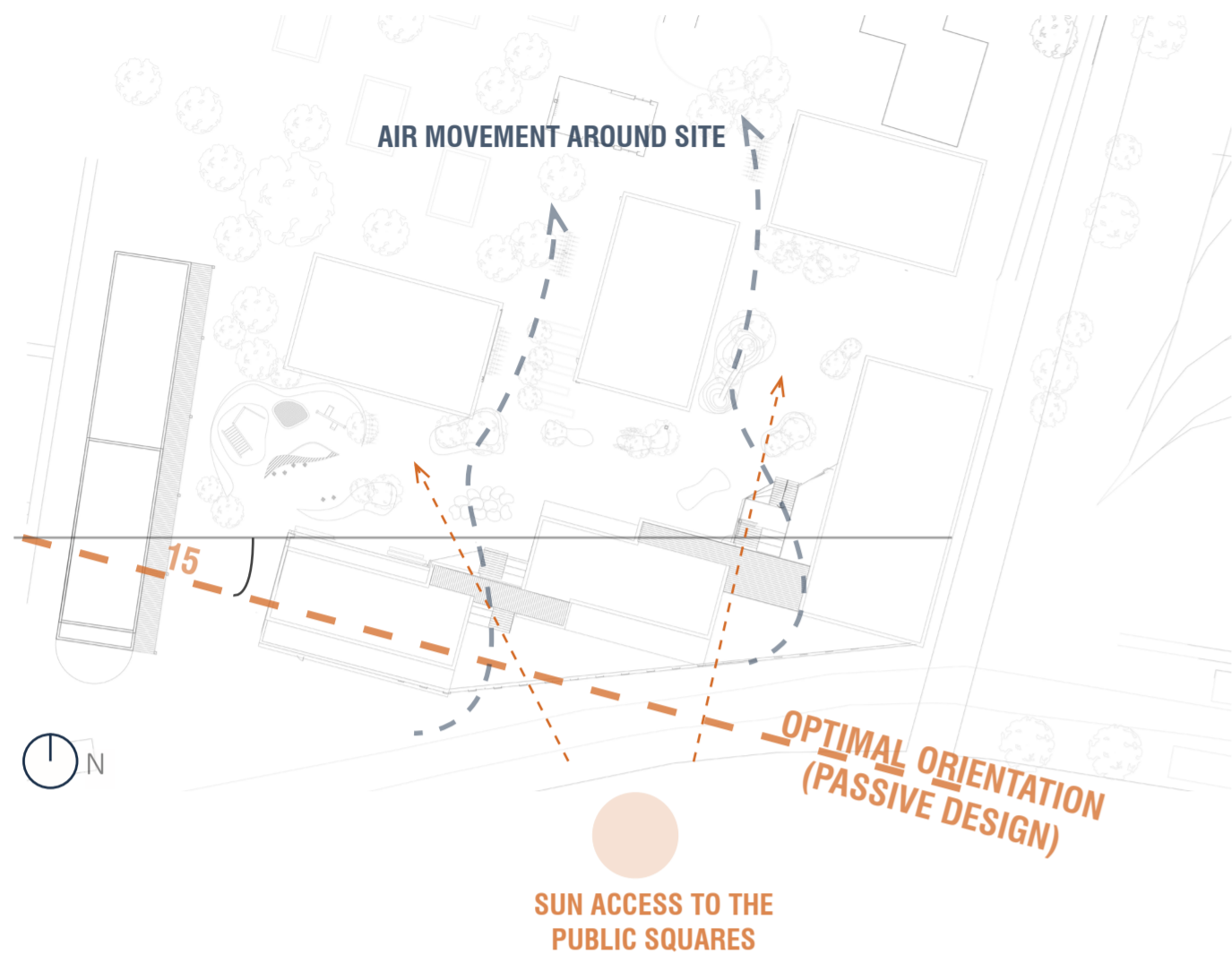
- waterproof layer with concrete footing
- gravel layer with drainage
- 5mm waterproof membrane
- 250mm concrete
- 250mm insulation
- 100 mm concrete screed with drainage





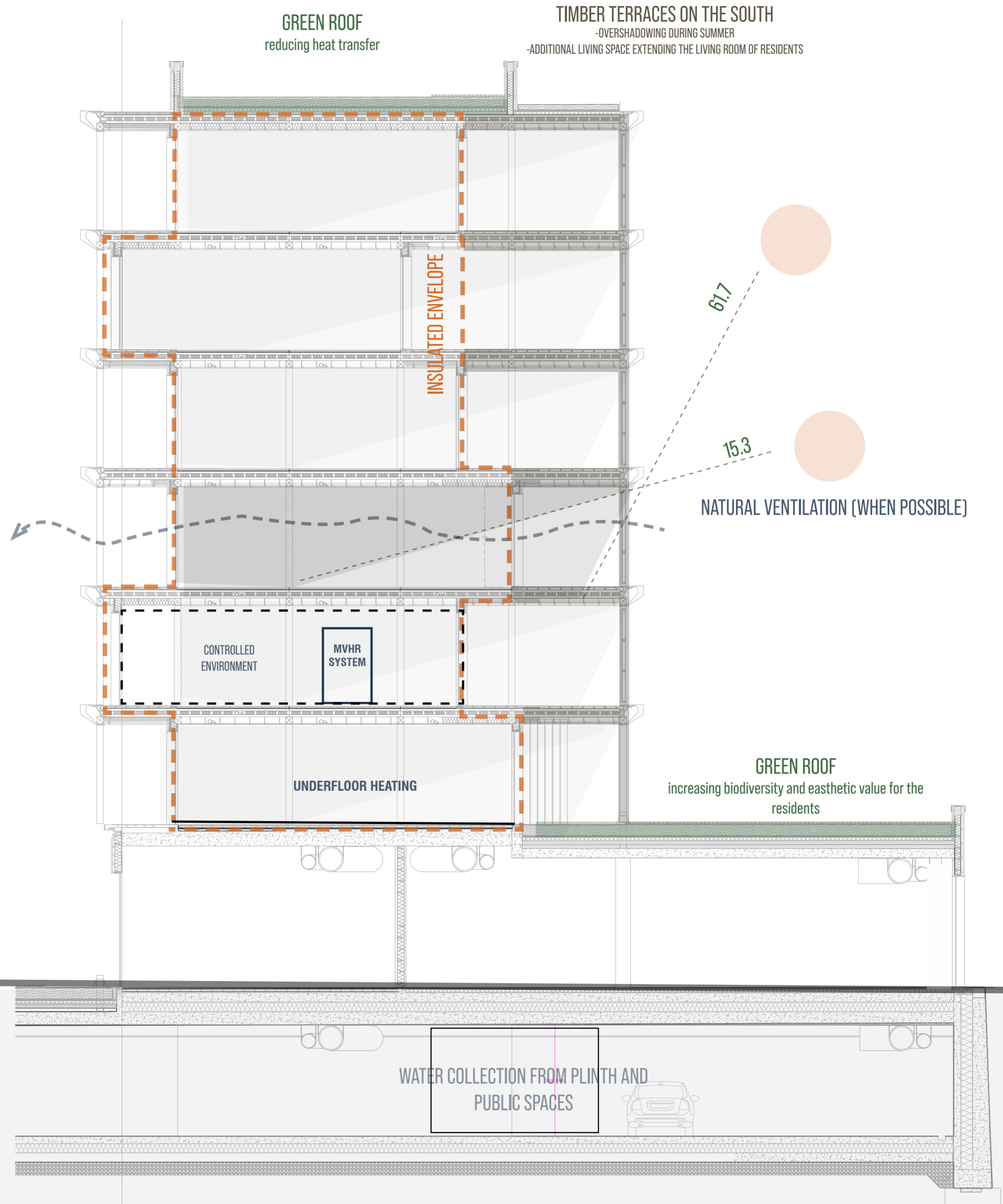
- 1** ADJUSTABLE FACADE WITH OVERSHADOWING ELEMENTS
- 2** 25mm TIMBER CLADDING
- 3** 25mm TIMBER BATTENS
- 4** 25mm TIMBER COUNTERBATTENS
- 5** 5mm WATERPROOF MEMBRANE
- 6** 330mm- BOARDS (20mm) WITH I-JOIST AND MINERAL INSULATION
- 7** 25mm TIMBER BATTENS
- 8** 12.5 mm PLASTERBOARD
- 9** THERMAL CONNECTOR BETWEEN CLT PANELS PREVENTING THE COLD BRIDGE
- 10** HOLLOW CLT PANELS WITH MINERAL SOUND INSULATION BUFFER (GRAVEL OR MINERAL INSULATION WHEN MEETING WITH OUTSIDE) + APPROPRIATE FLOOR FINISH (INSIDE VS. OUTSIDE)
- 11** CLT WALL PANELS
- 12** CLT BEAMS WITH STEEL ELEMENTS

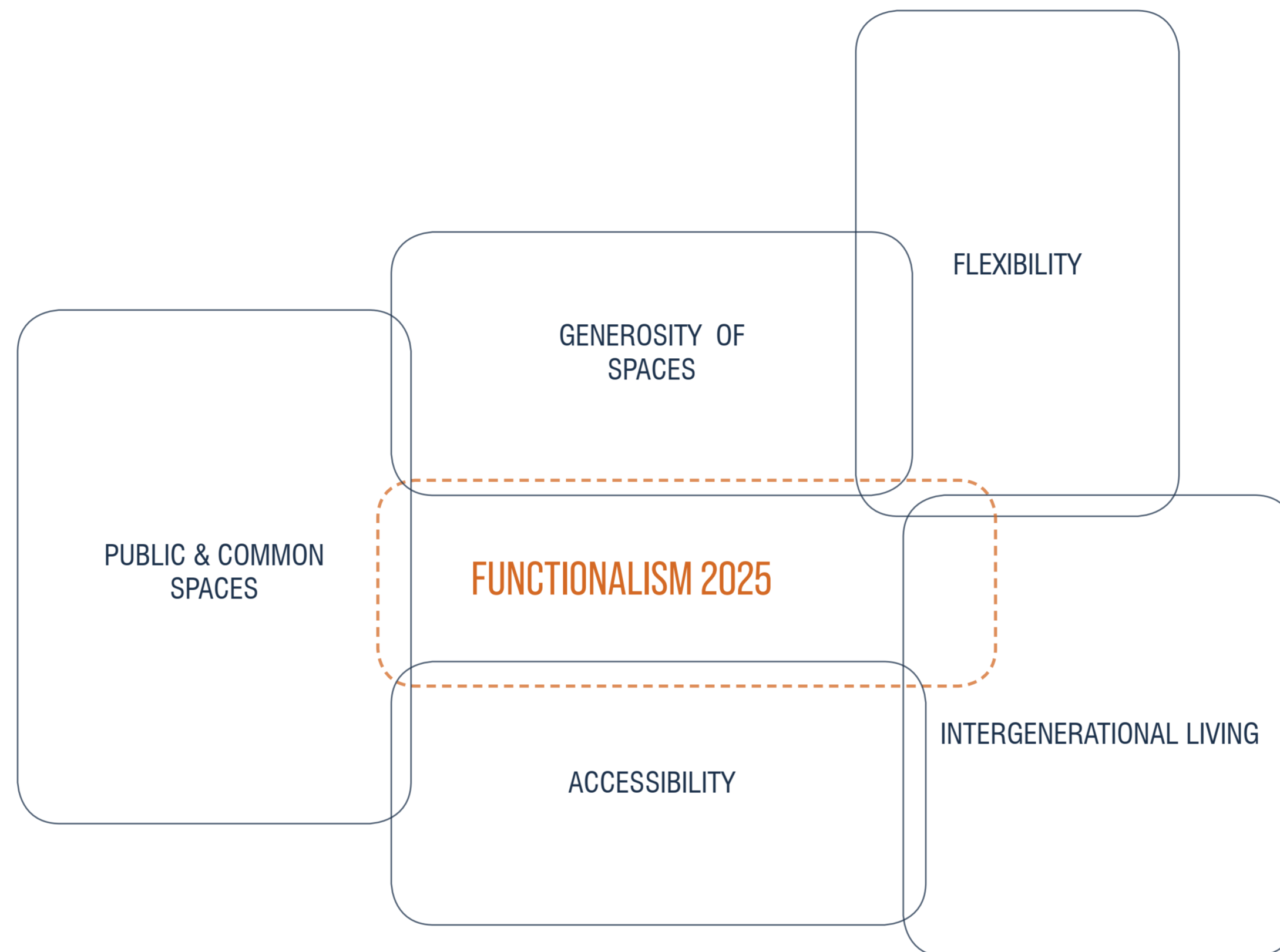
CLIMATE



LANDSCAPE WITH RETENTION ZONES

NOISE PROTECTED PUBLIC SPACE







The definition of functionalism is subjective and constantly evolving
Designs should reflect the diversity of the society and should be able to accommodate those varieties .