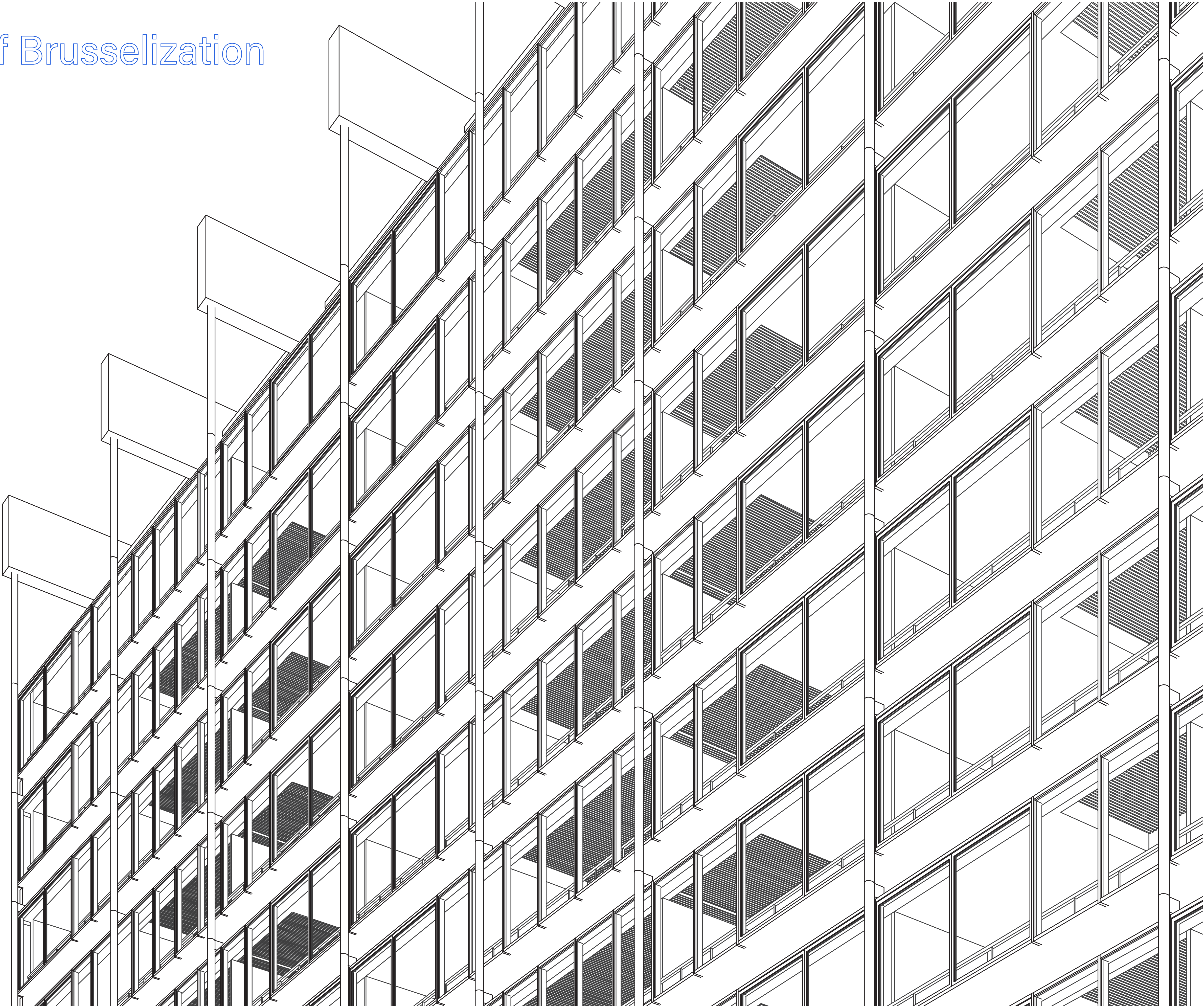


On the frontline of Brusselization

P5



SPOLIA

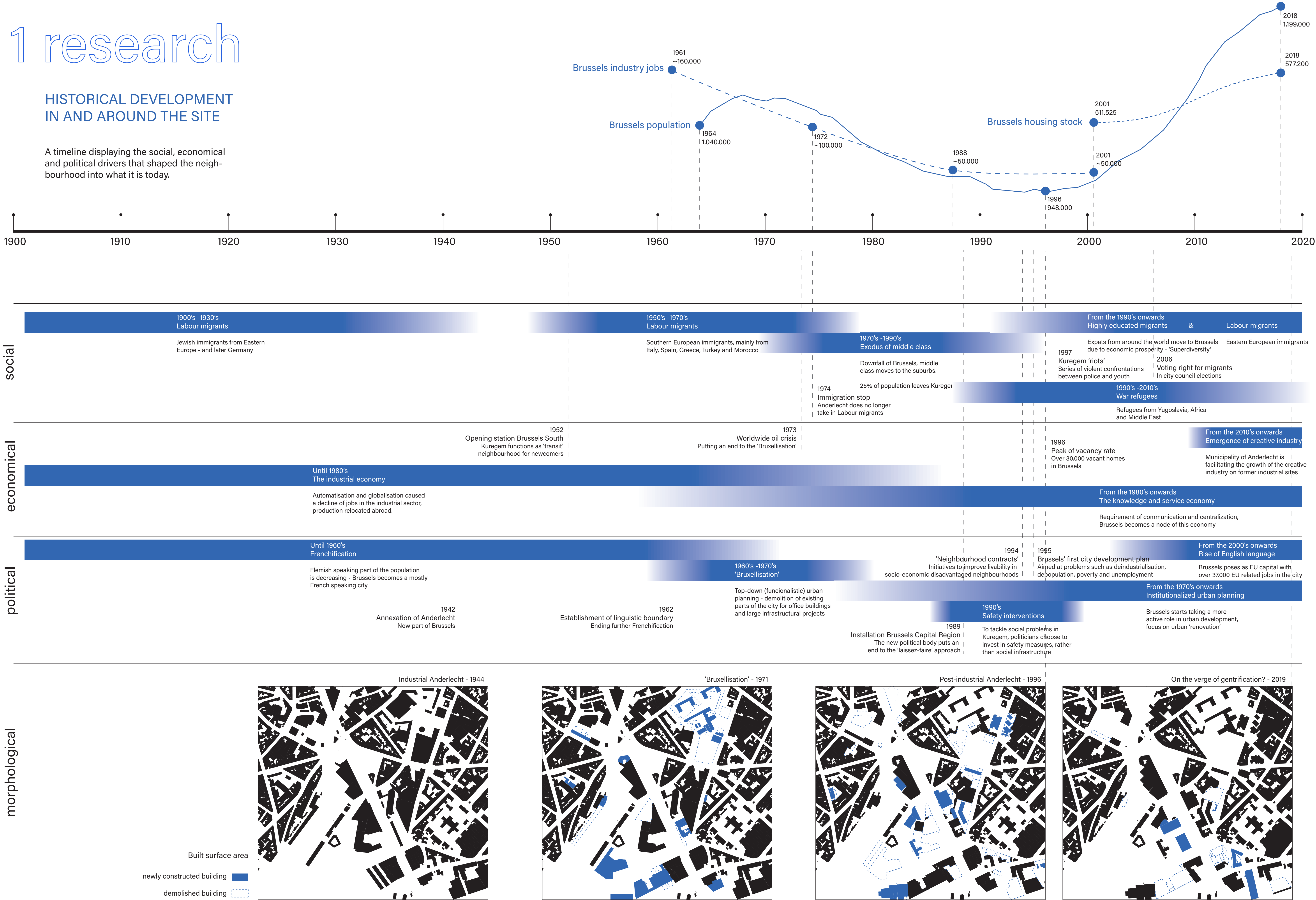
SITE & PROJECT AREA: LES GOUJONS, ANDERLECHT, BRUSSELS



1 research

HISTORICAL DEVELOPMENT
IN AND AROUND THE SITE

A timeline displaying the social, economical
and political drivers that shaped the neigh-
bourhood into what it is today.



CONFLICTING CONSTRUCTS - FREMDKÖRPER OR NOT?



Noordwijk / Quartier Nord



Residence Pacific



Leopoldwijk / EU Quarter



De Brouckèreplein



La Dalle



European Parliament

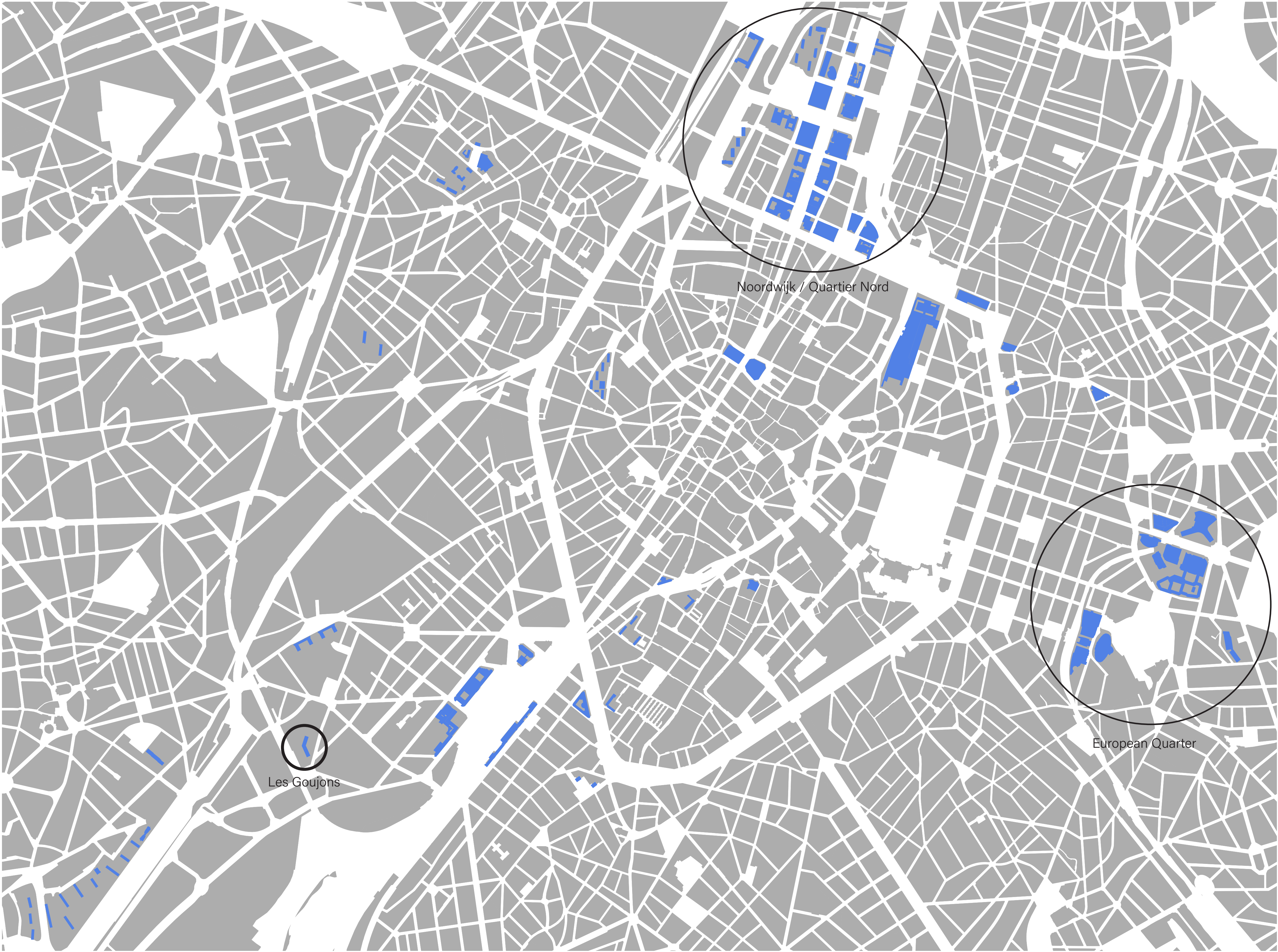


Zuidertoren / Tour du Midi

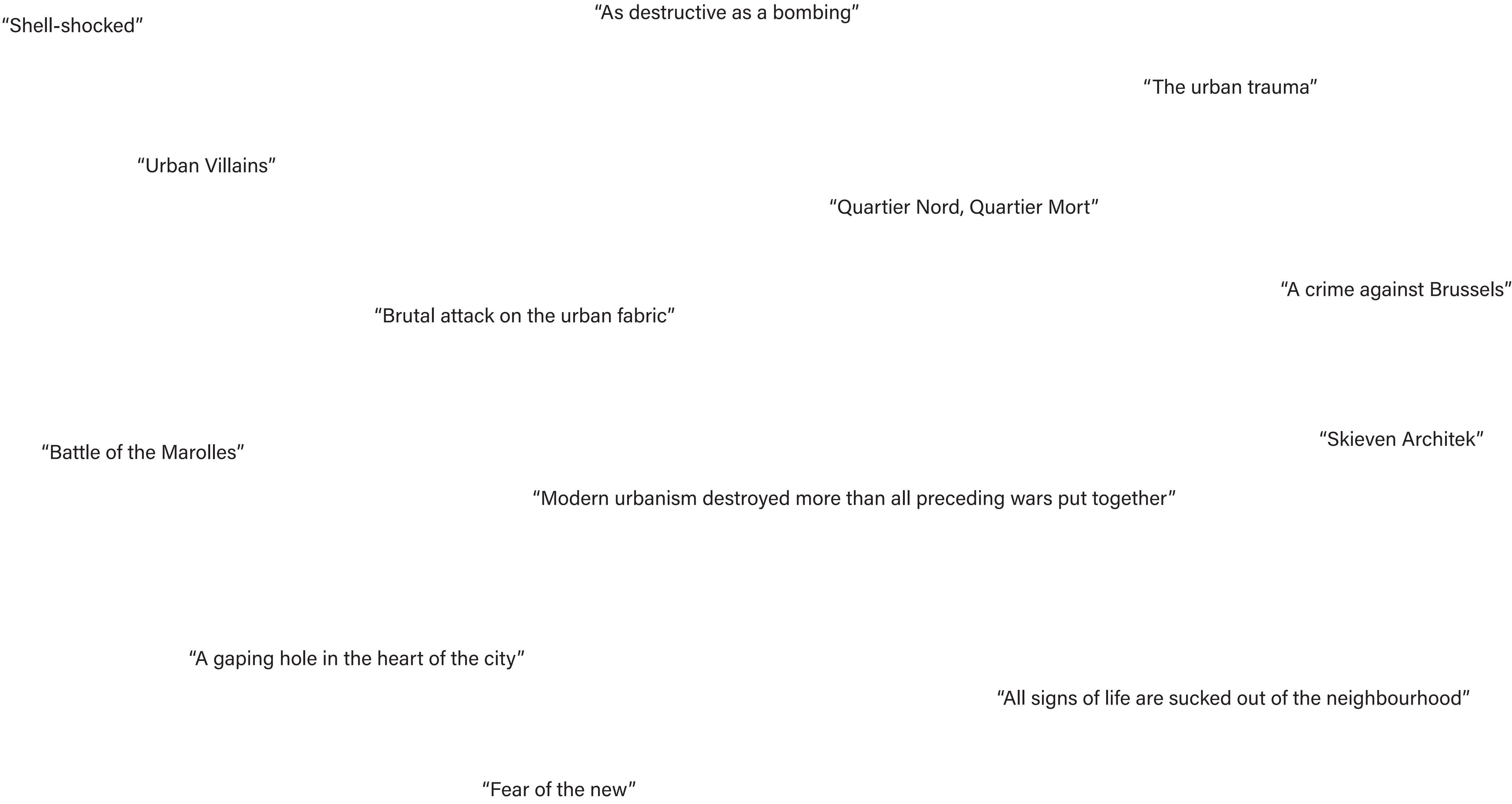


Les Goujons

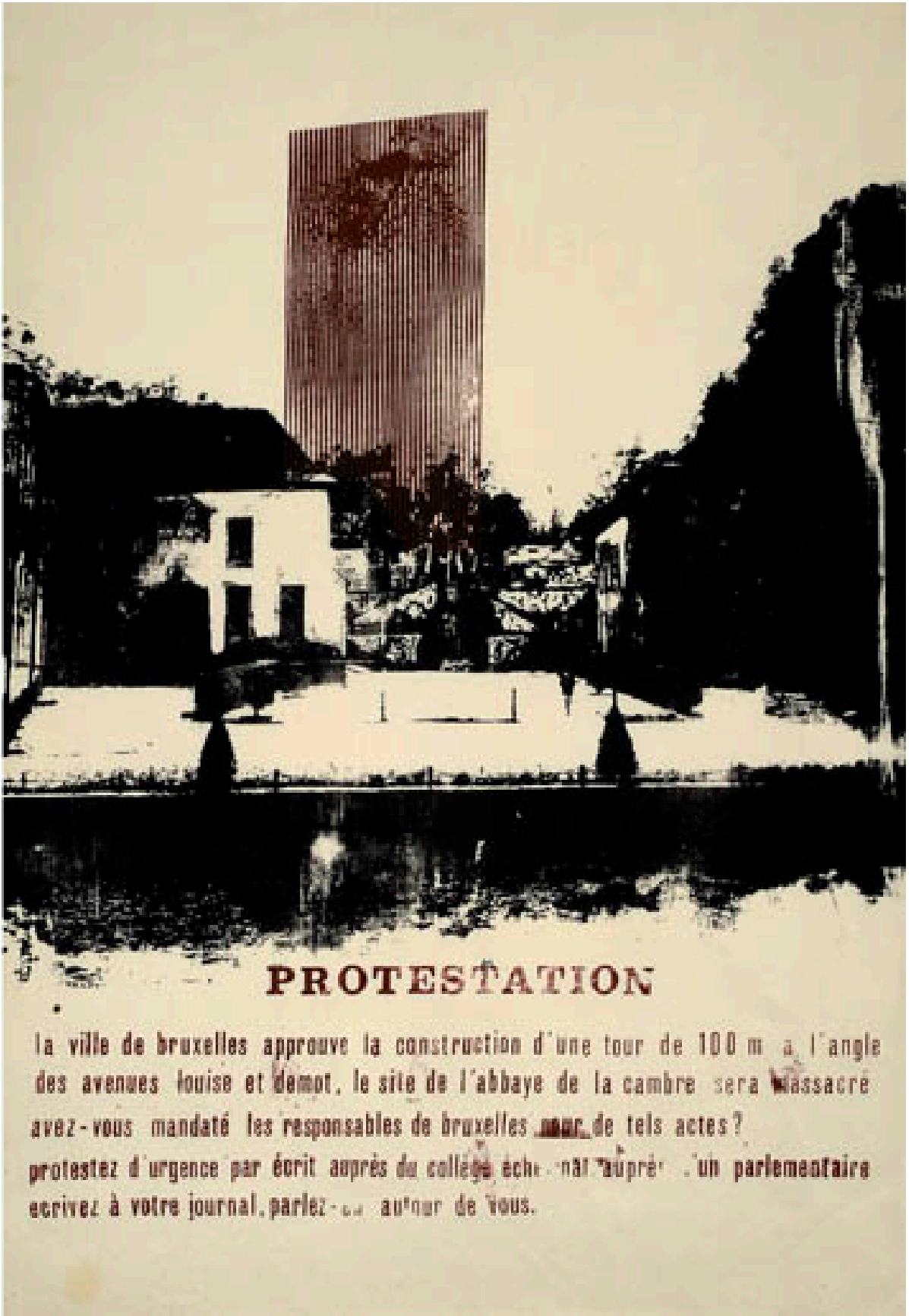
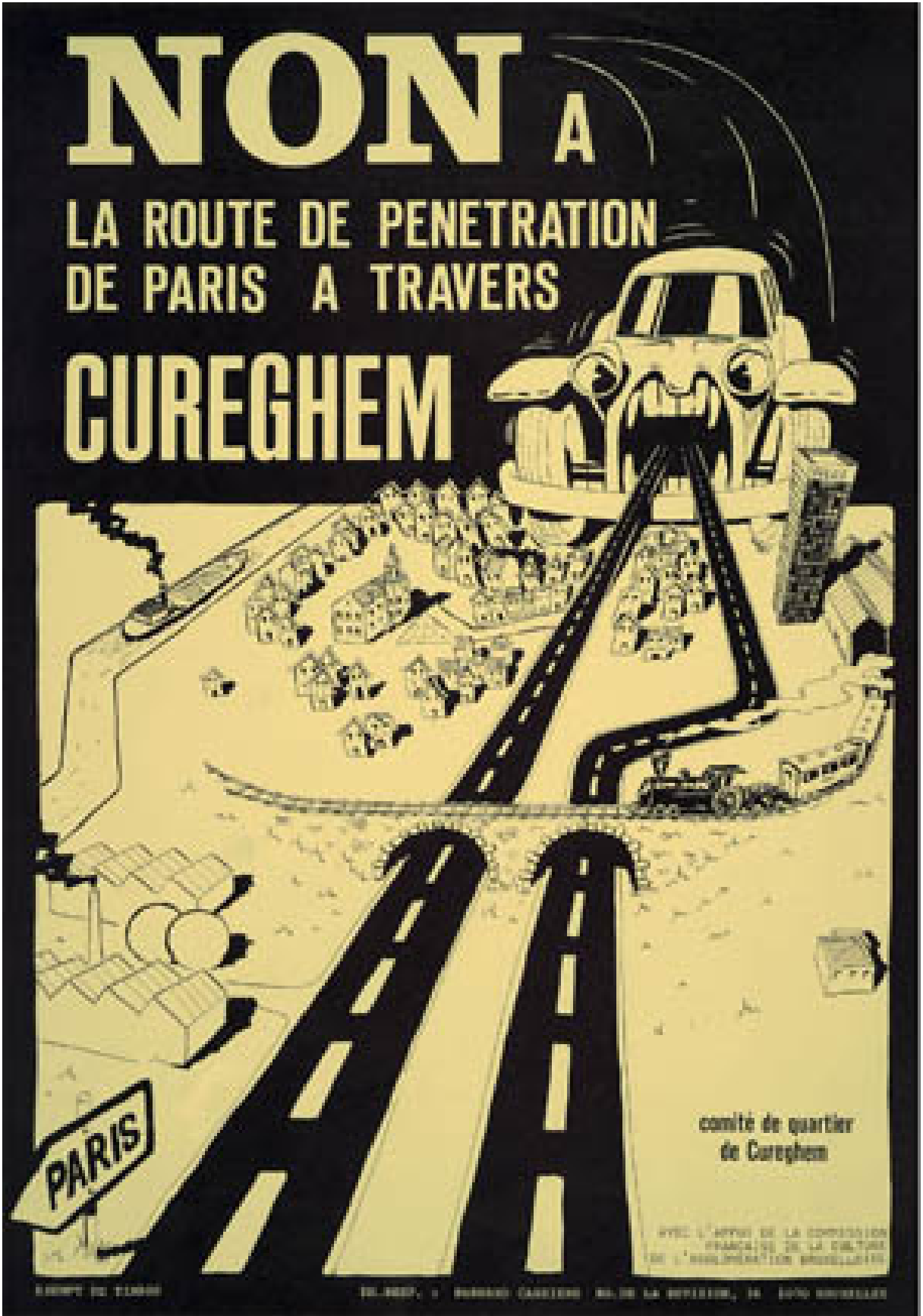
CONFLICTING CONSTRUCTS - FREMDKÖRPER OR NOT?



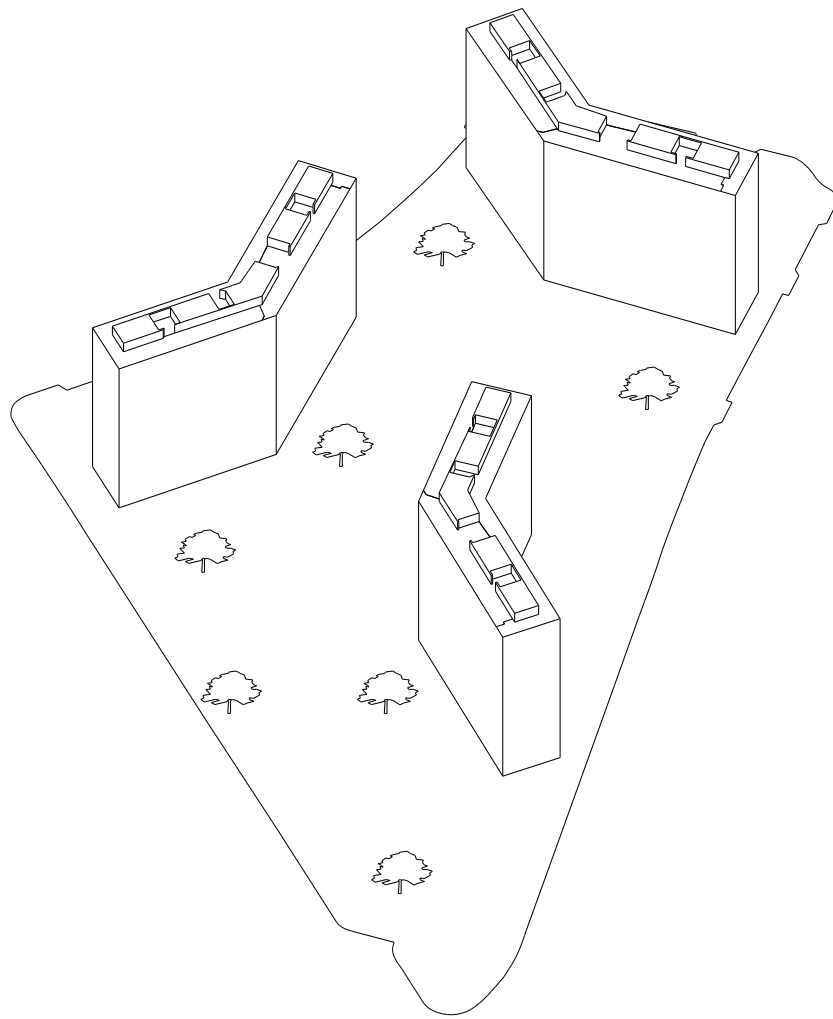
MAKING A CITY WITH WORDS - WAR & CRIME ANALOGIES



MAKING A CITY WITH WORDS - WAR & CRIME ANALOGIES

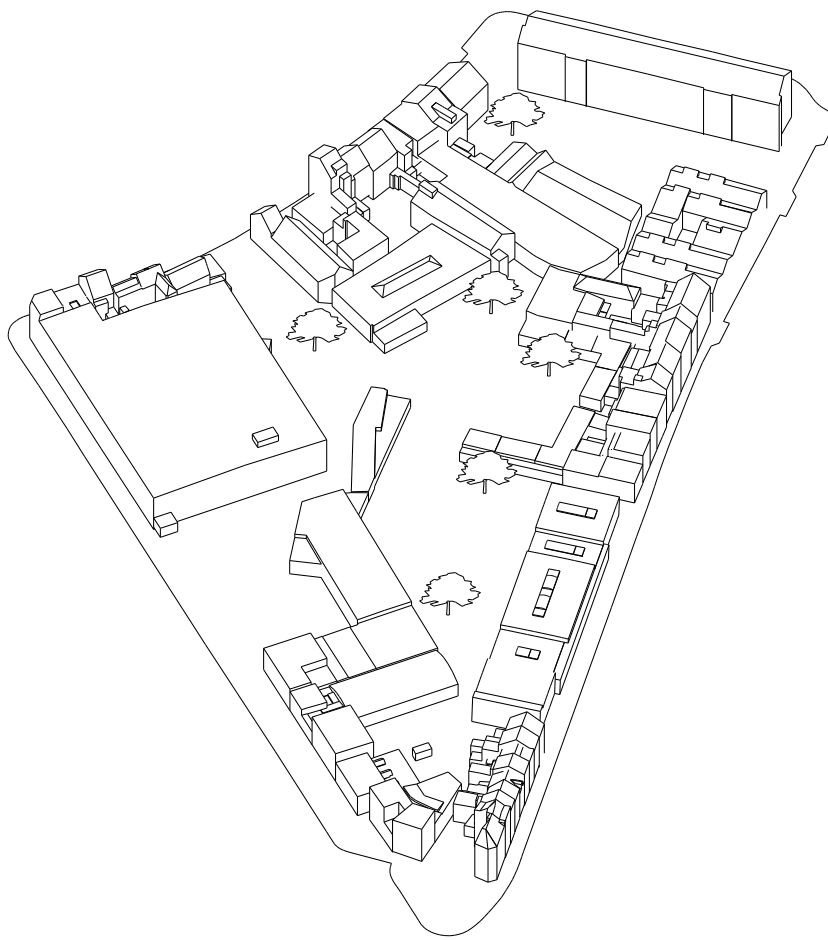


WHAT IT COULD HAVE BEEN



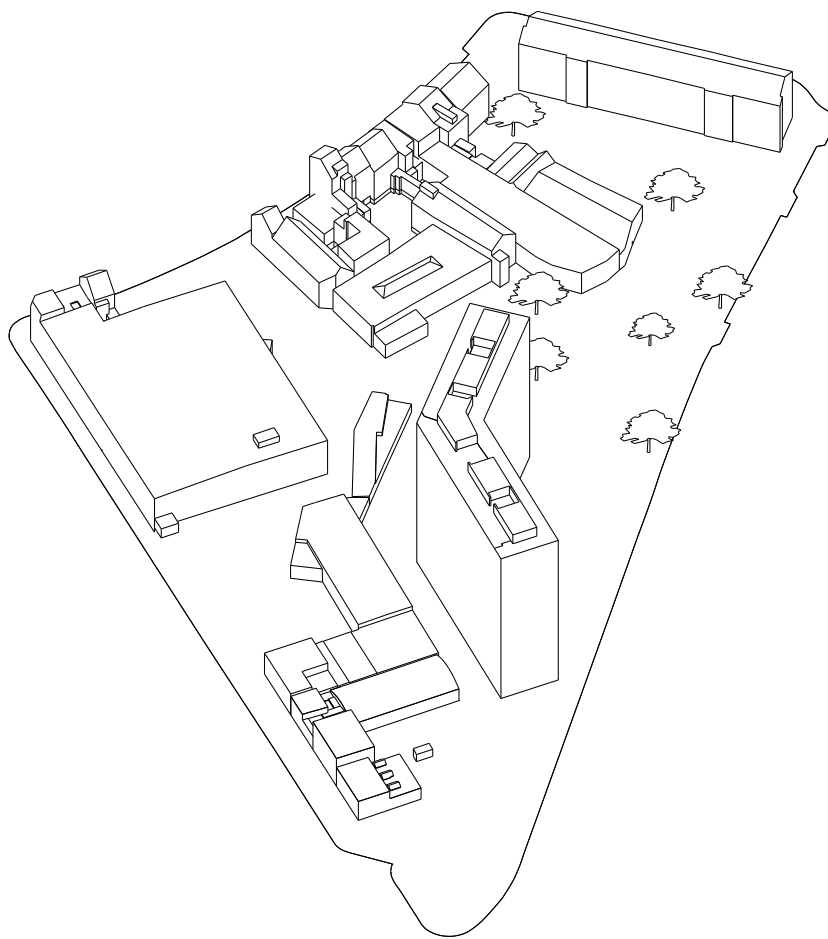
modernist ensemble - triplicate

WHAT IT IS 'SUPPOSED' TO BE

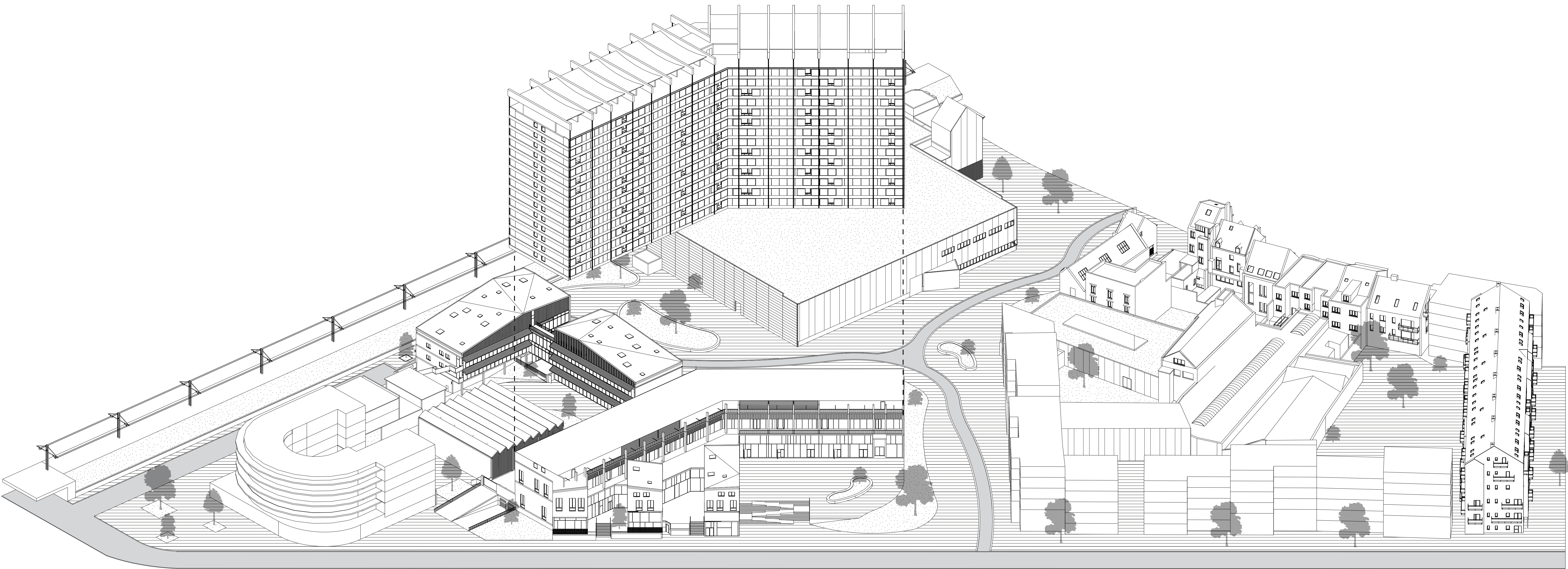


'debruxellisation'

WHAT IT BECAME



existing site



2 urban design

P5 UA

Bjarne van der Drift

KEY POINTS ATELIER ZENNEVALLEI

Cherish the generosity of existing buildings and structures.

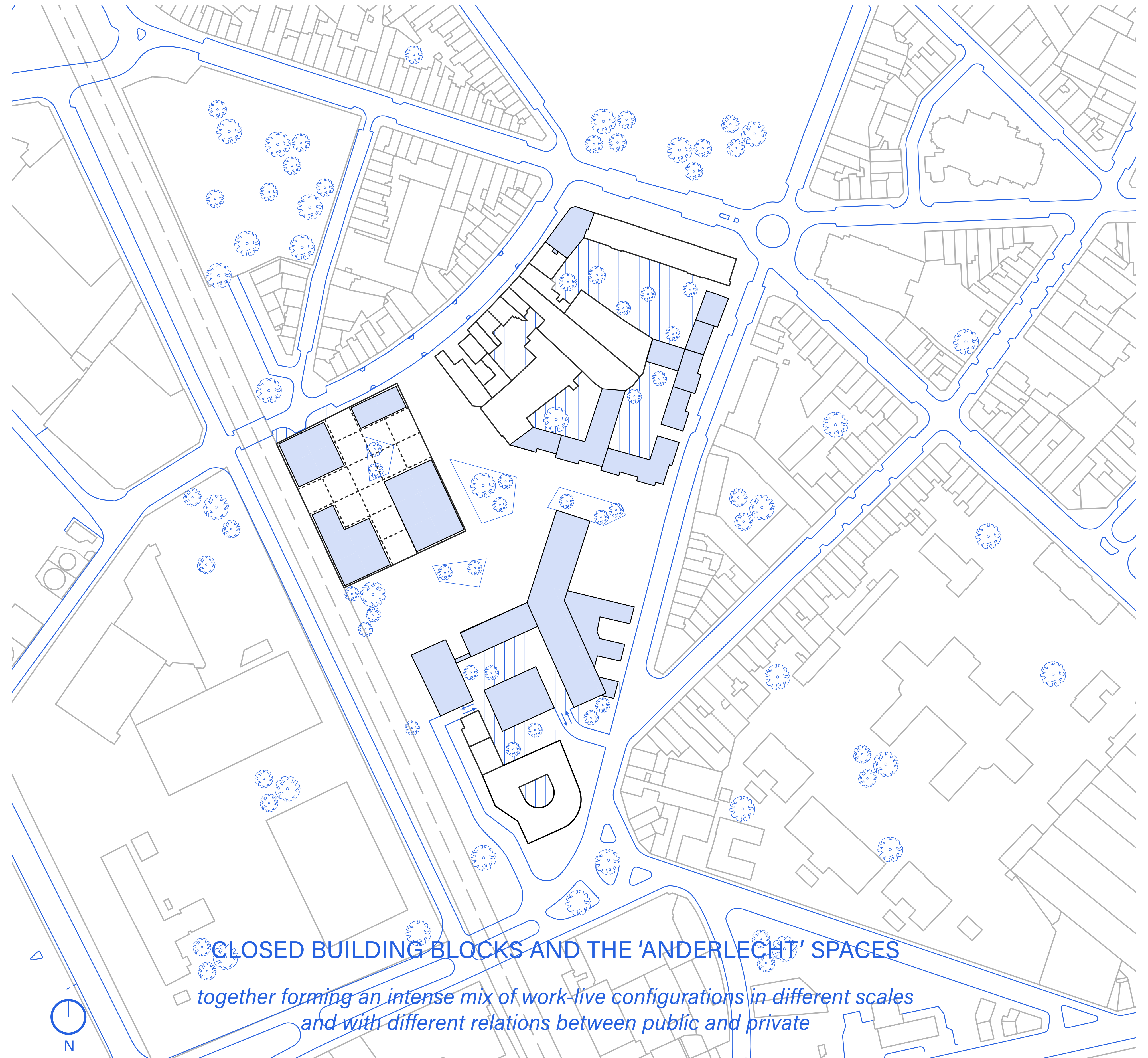
Small initiatives will make the next urban economy.

Combining housing with industry asks for new architectural compositions.

Make industrial activity visible in the public space.

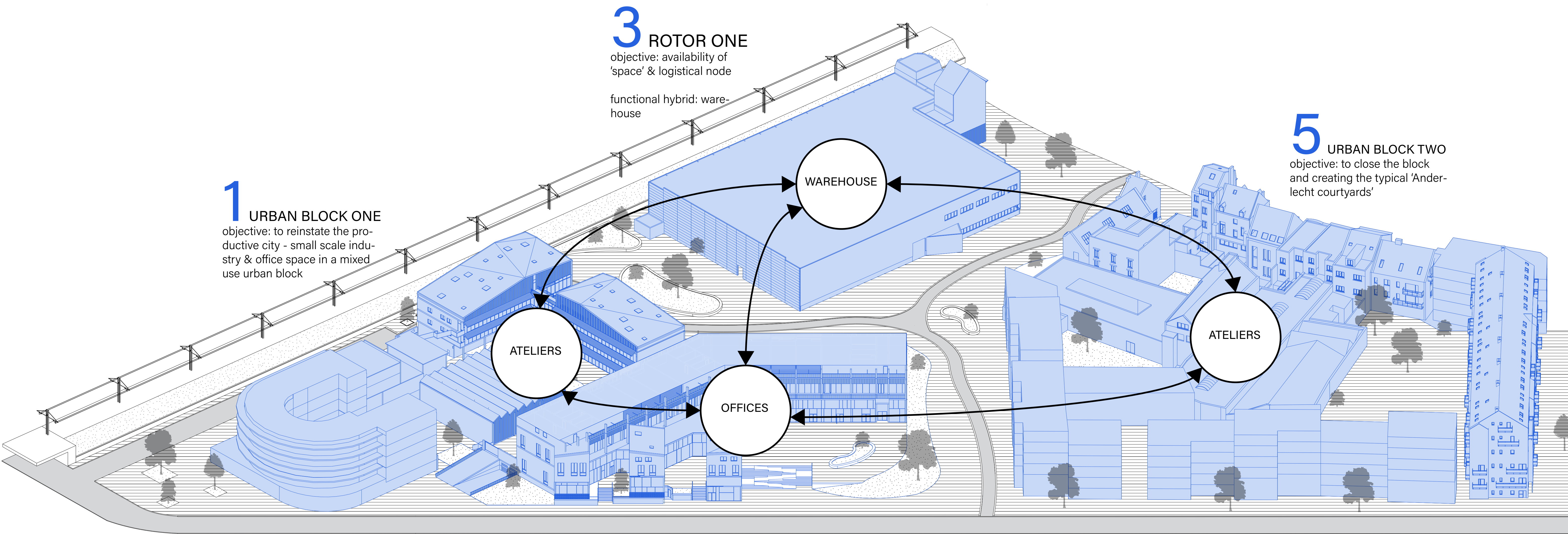
Sharing infrastructure and facilities liberates extra space for the public.

Organize manufacturing and logistics into shorter chains and closed cycles, so the value will remain in the metropolitan system.



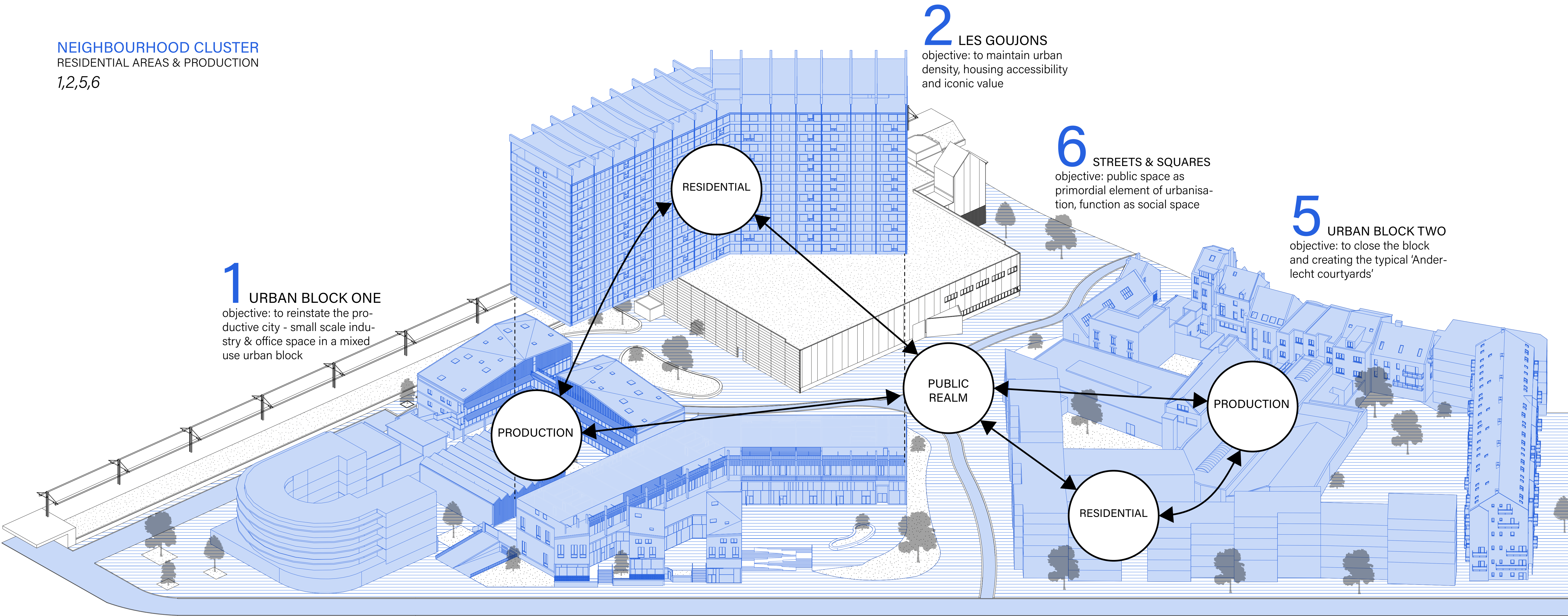
POTENTIAL PROGRAM FOR CLUSTERS IN THE PRODUCTIVE CITY

CHAIN CLUSTER
OFFICES, ATELIERS AND WAREHOUSES
1,3,5



POTENTIAL PROGRAM FOR CLUSTERS IN THE PRODUCTIVE CITY

NEIGHBOURHOOD CLUSTER
RESIDENTIAL AREAS & PRODUCTION
1,2,5,6



POTENTIAL PROGRAM FOR CLUSTERS IN THE PRODUCTIVE CITY

COMMERCIAL CLUSTER
PRODUCTION, WAREHOUSE AND SHOP
1,3,4

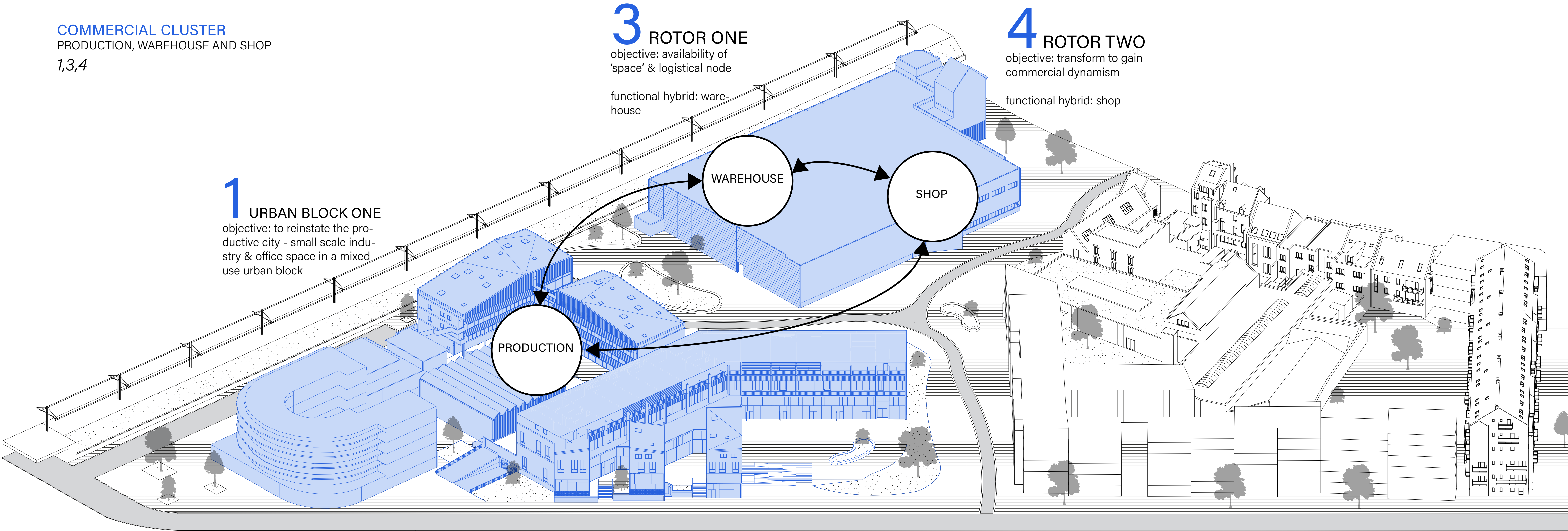
1 URBAN BLOCK ONE
objective: to reinstate the productive city - small scale industry & office space in a mixed use urban block

3 ROTOR ONE
objective: availability of 'space' & logistical node

functional hybrid: warehouse

4 ROTOR TWO
objective: transform to gain commercial dynamism

functional hybrid: shop

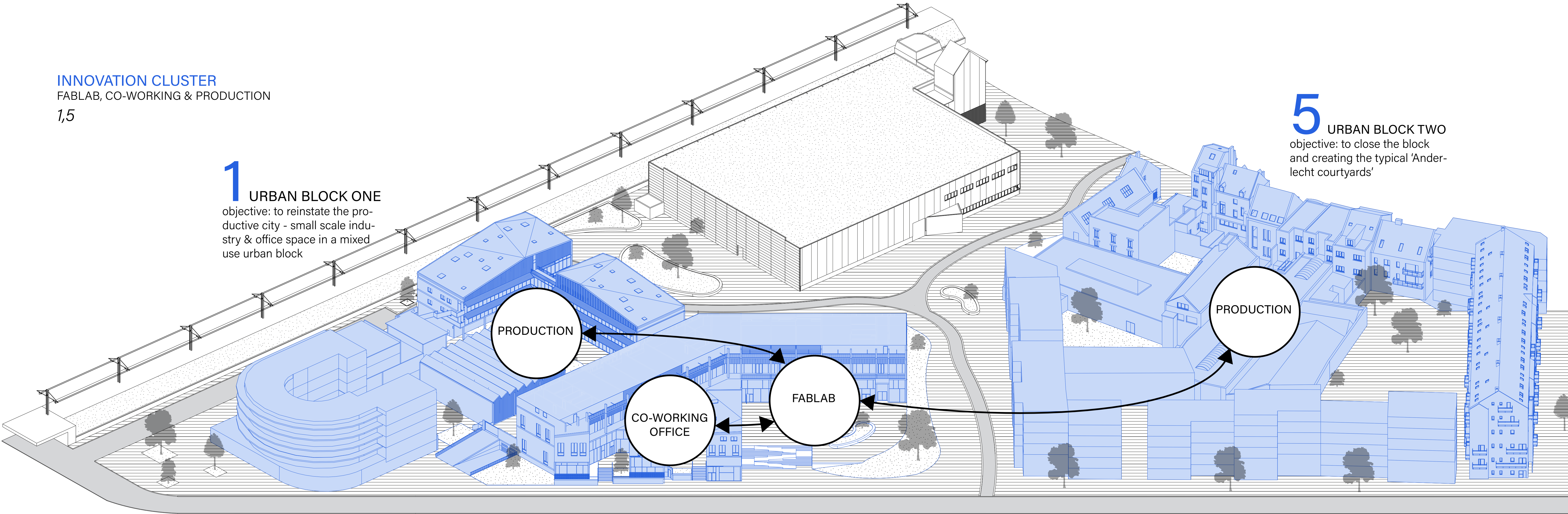


POTENTIAL PROGRAM FOR CLUSTERS IN THE PRODUCTIVE CITY

INNOVATION CLUSTER
FABLAB, CO-WORKING & PRODUCTION
1,5

1 URBAN BLOCK ONE
objective: to reinstate the productive city - small scale industry & office space in a mixed use urban block

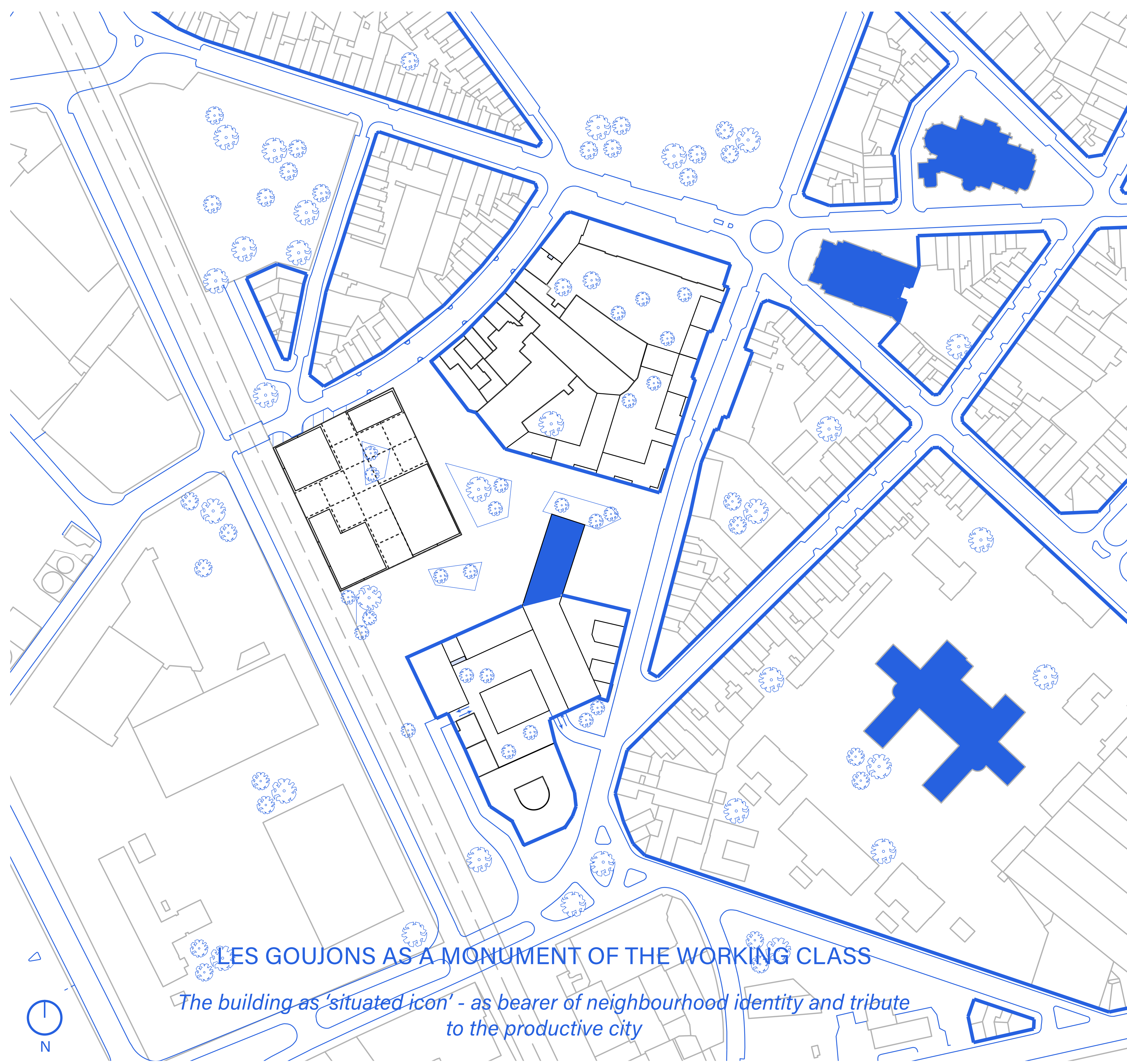
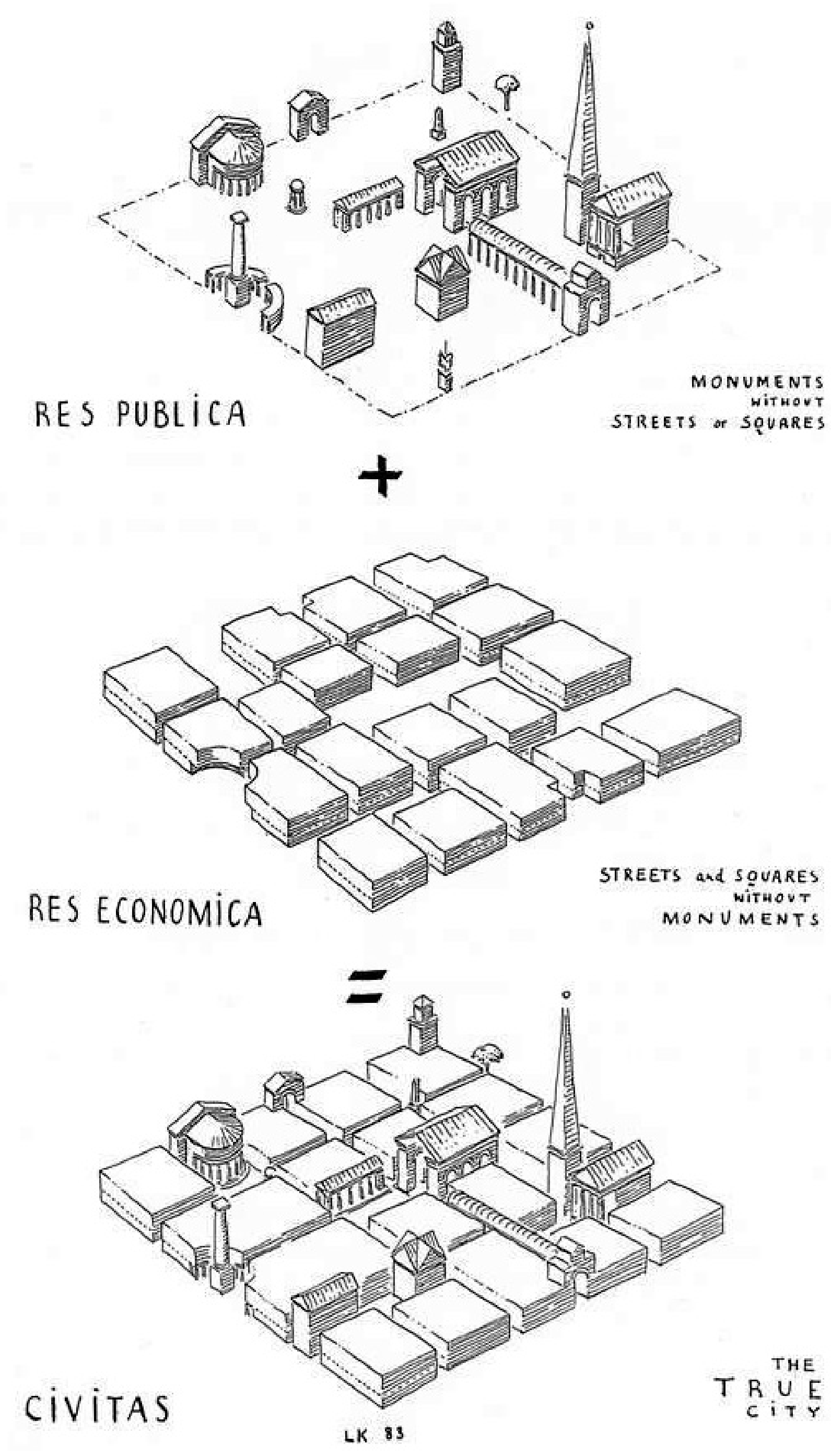
5 URBAN BLOCK TWO
objective: to close the block and creating the typical 'Anderlecht courtyards'



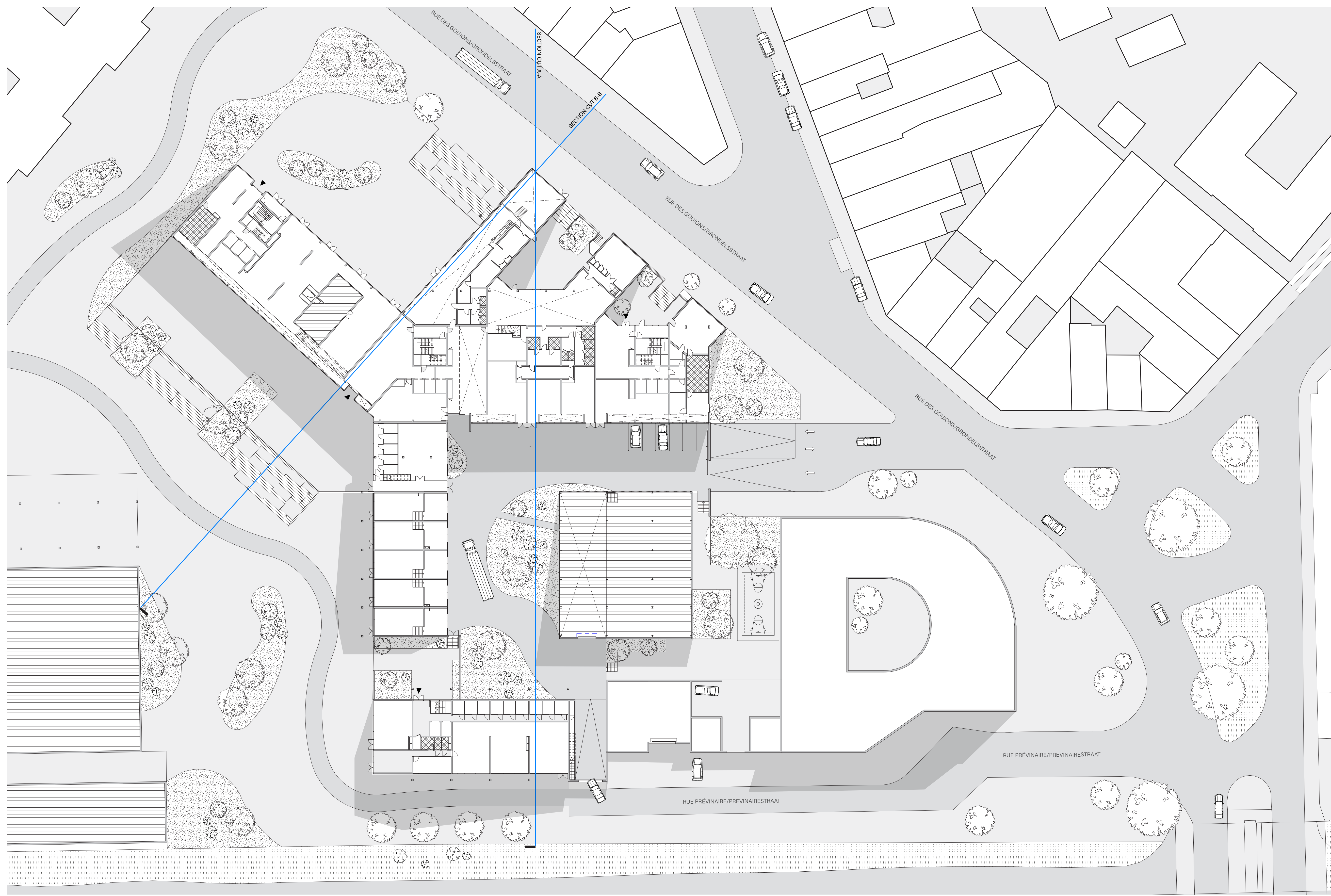
2 urban design

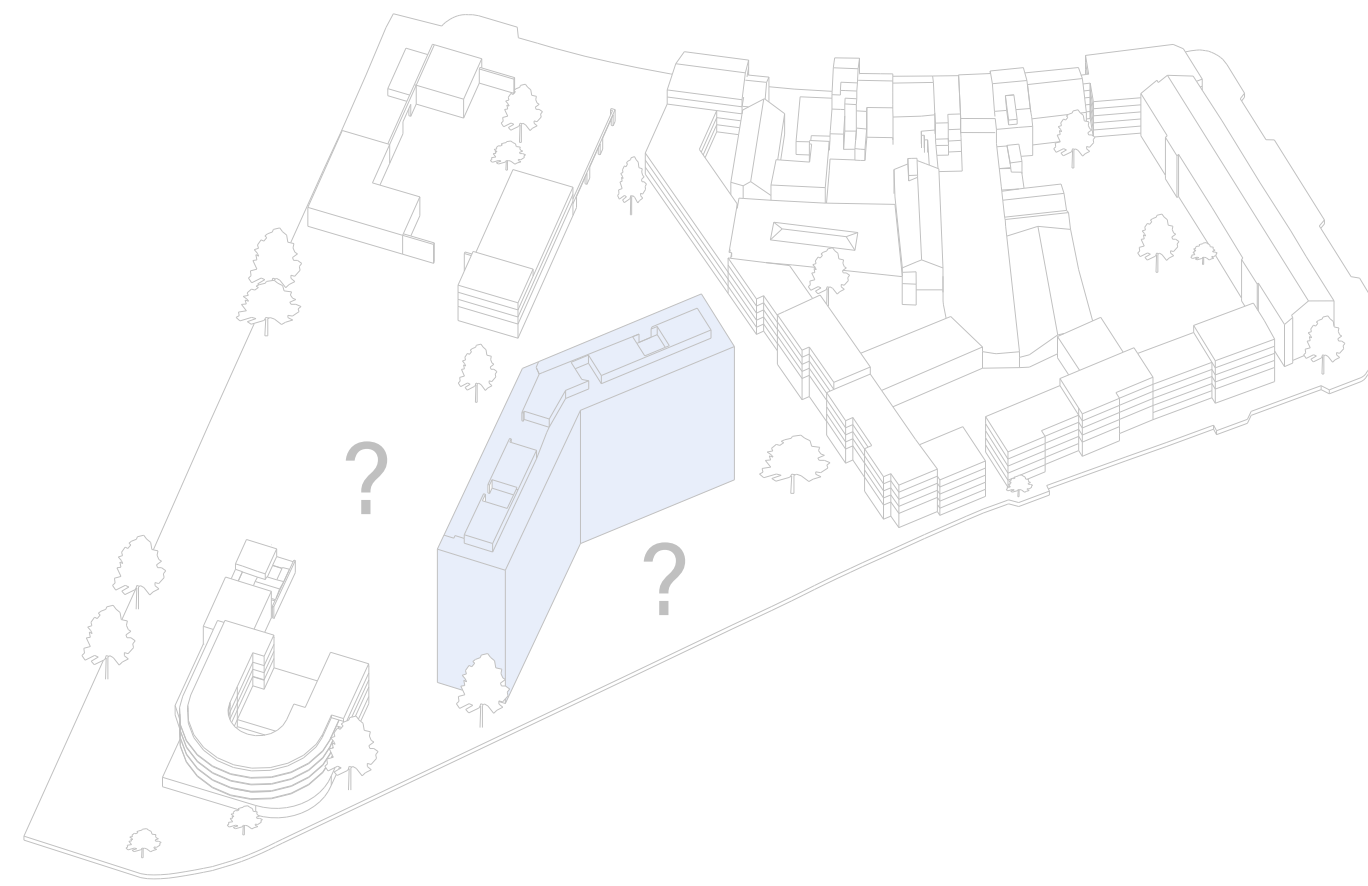
VALUES OF THE TRADITIONAL CITY

LÉON KRIER

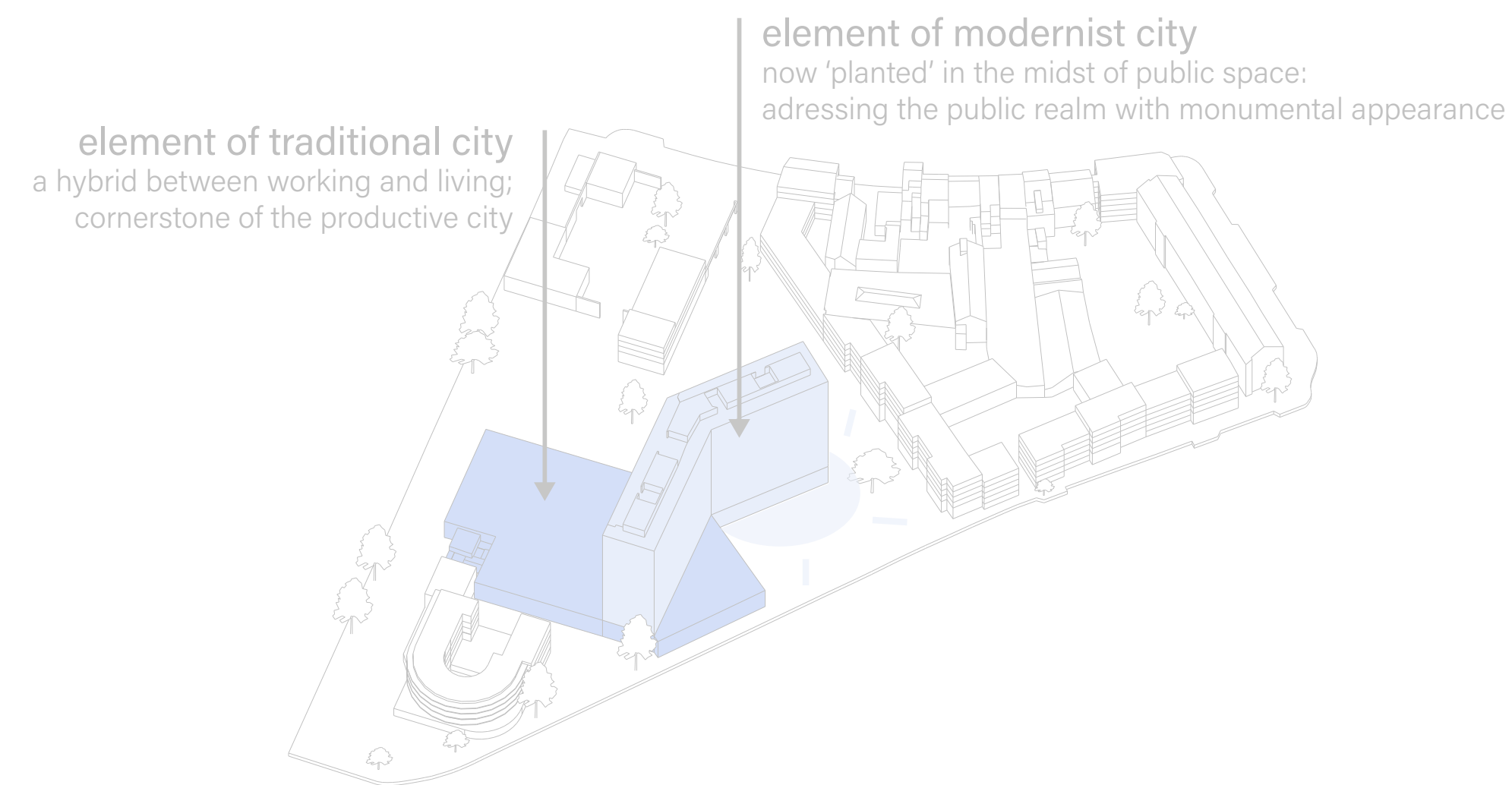


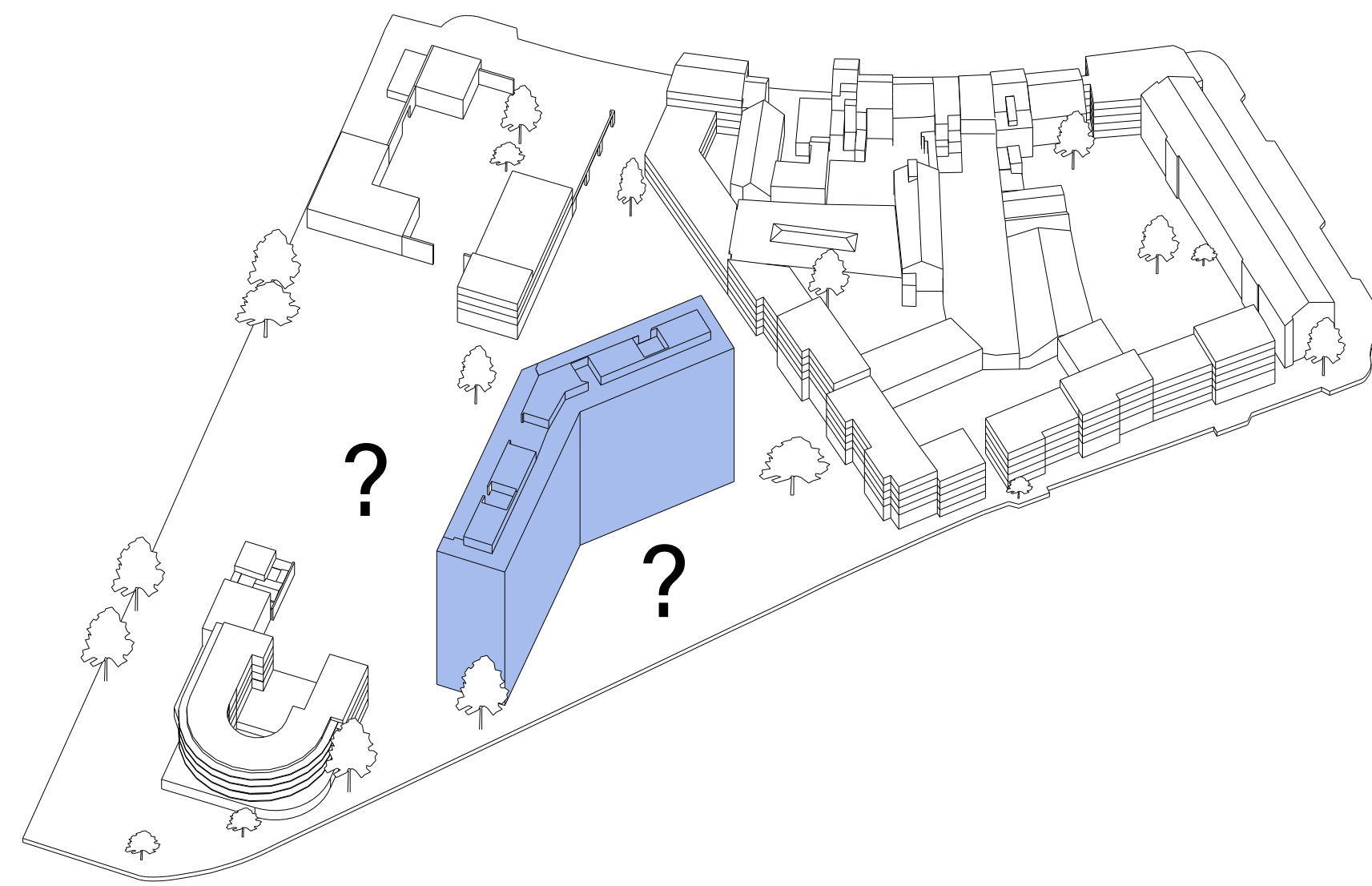
LES GOUJONS AS A MONUMENT OF THE WORKING CLASS
The building as 'situated icon' - as bearer of neighbourhood identity and tribute to the productive city





TOWARDS A STATE OF COEXISTENCE

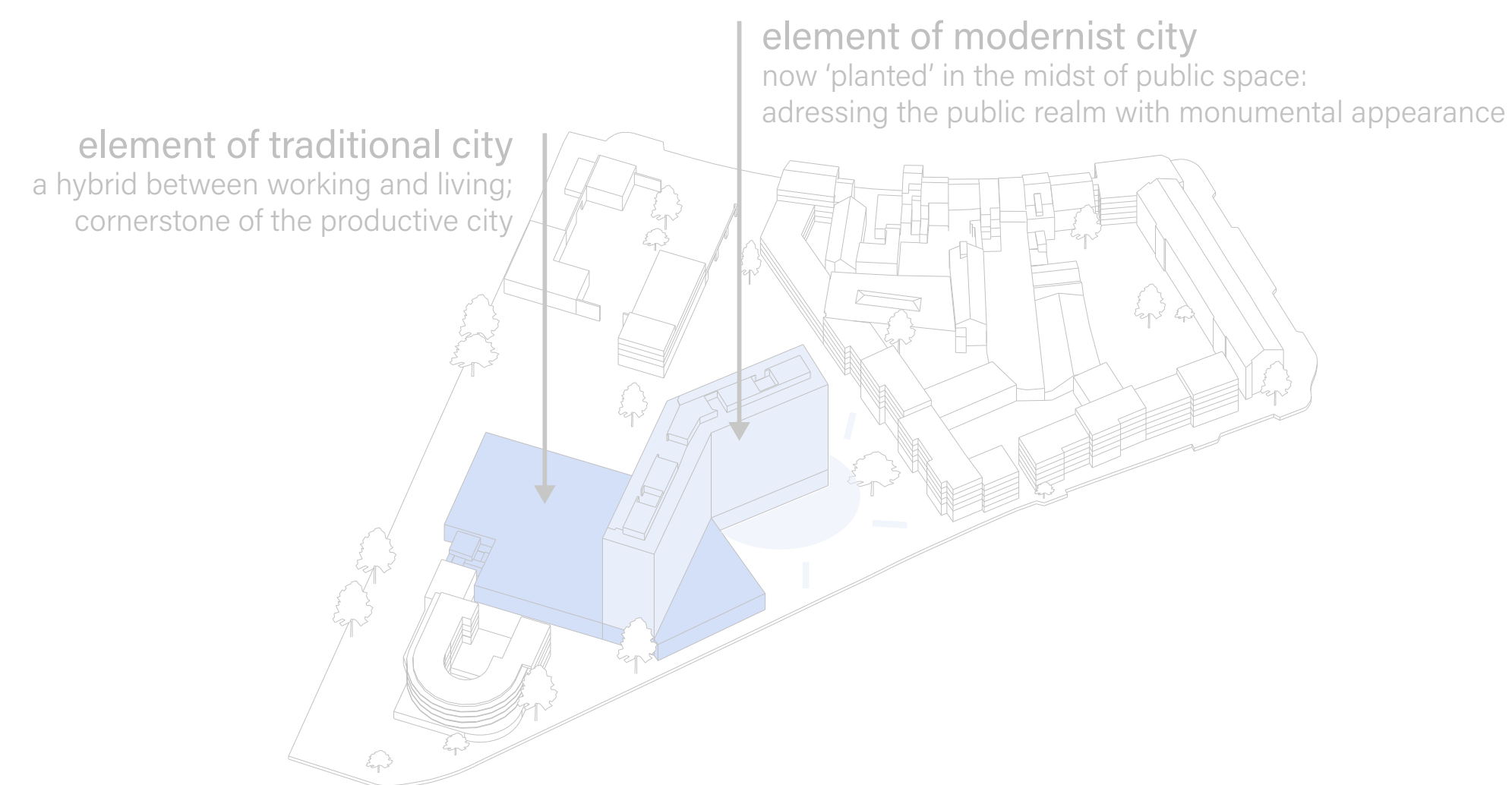


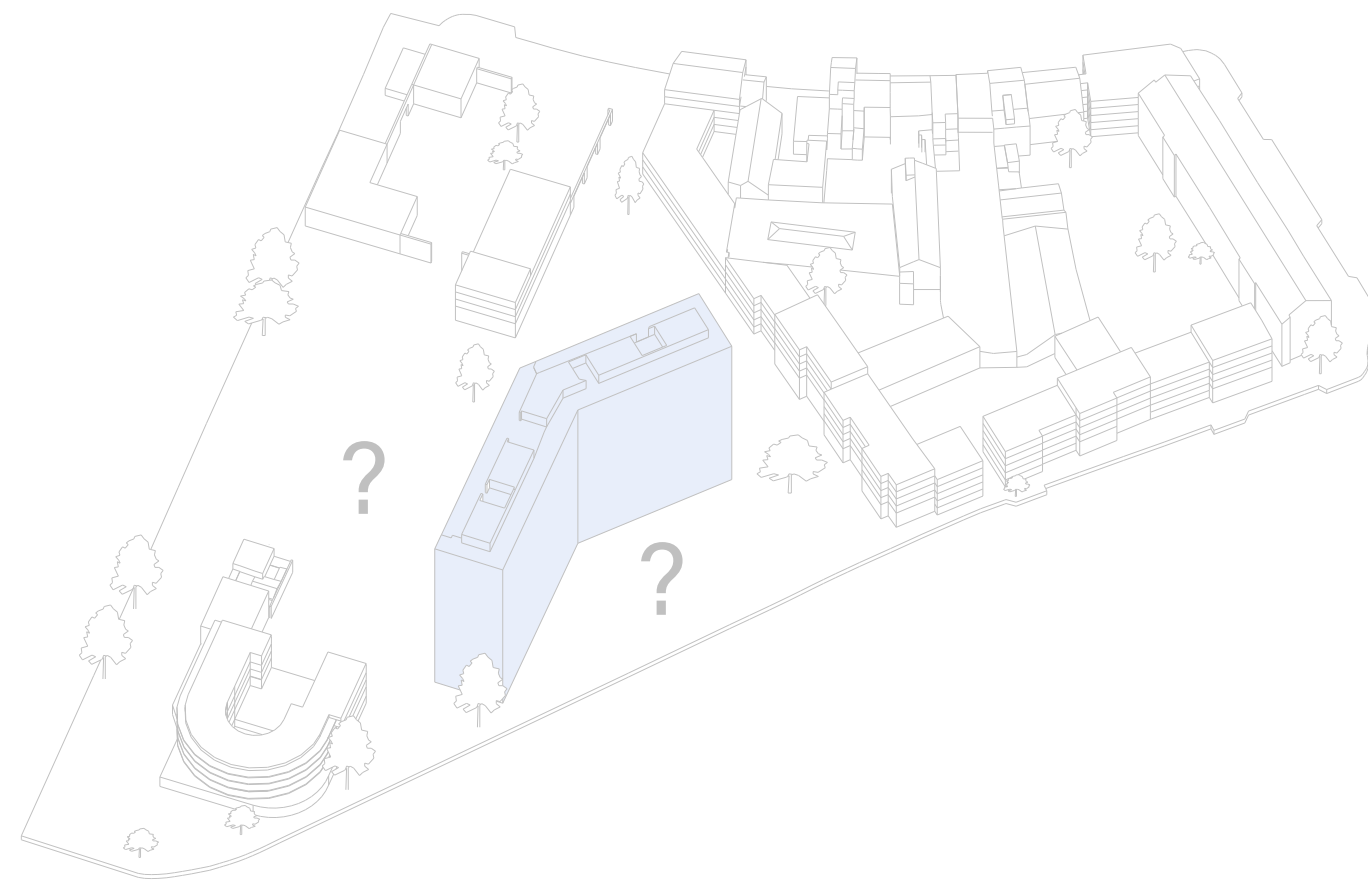


1

site of choice

Les Goujons as a spolia of *brusselization*;
failed modernism undermining the values of the traditional city





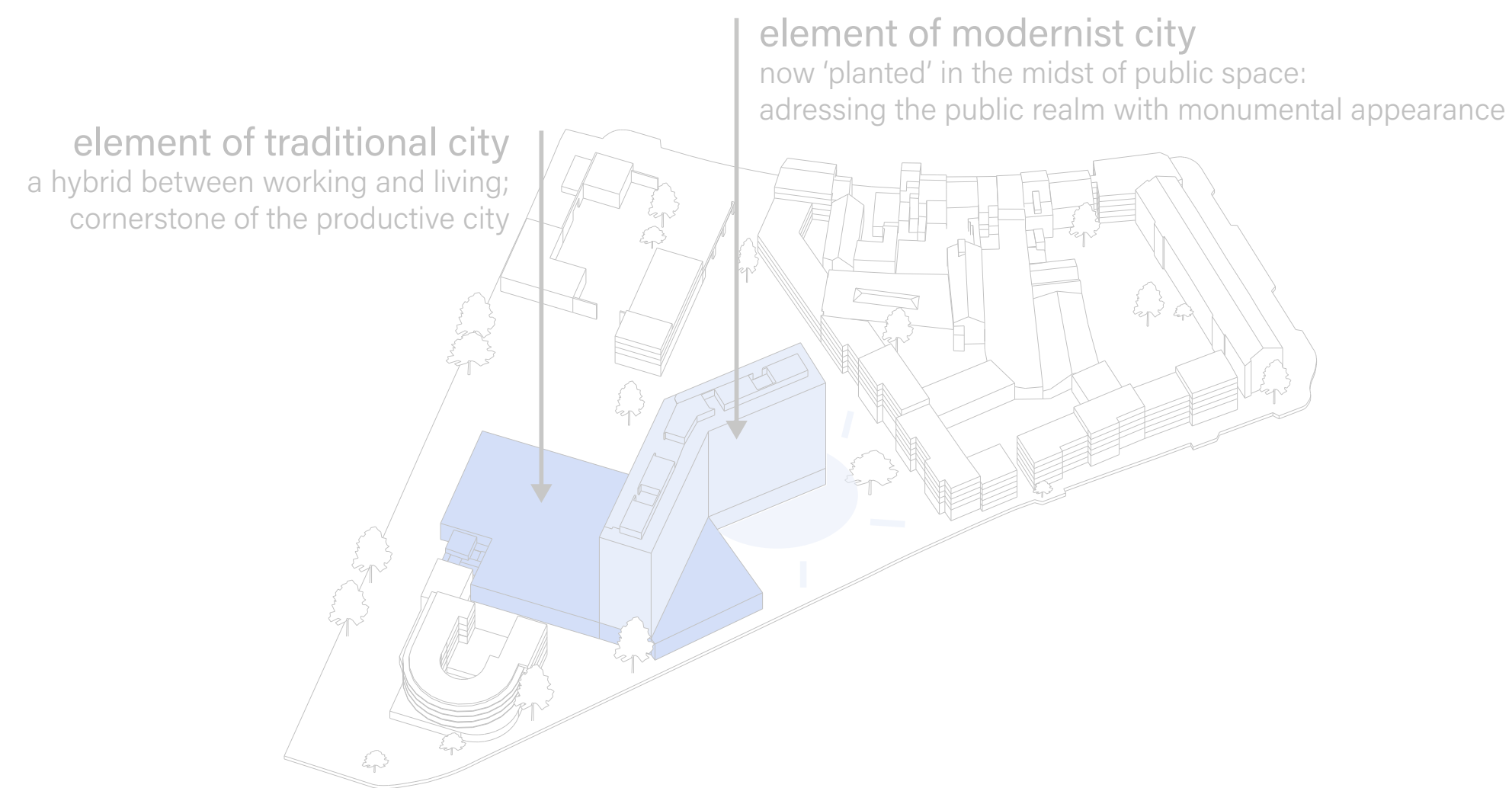
site of choice

Les Goujons as a spolia of *brusselization*;
failed modernism undermining the values of the traditional city

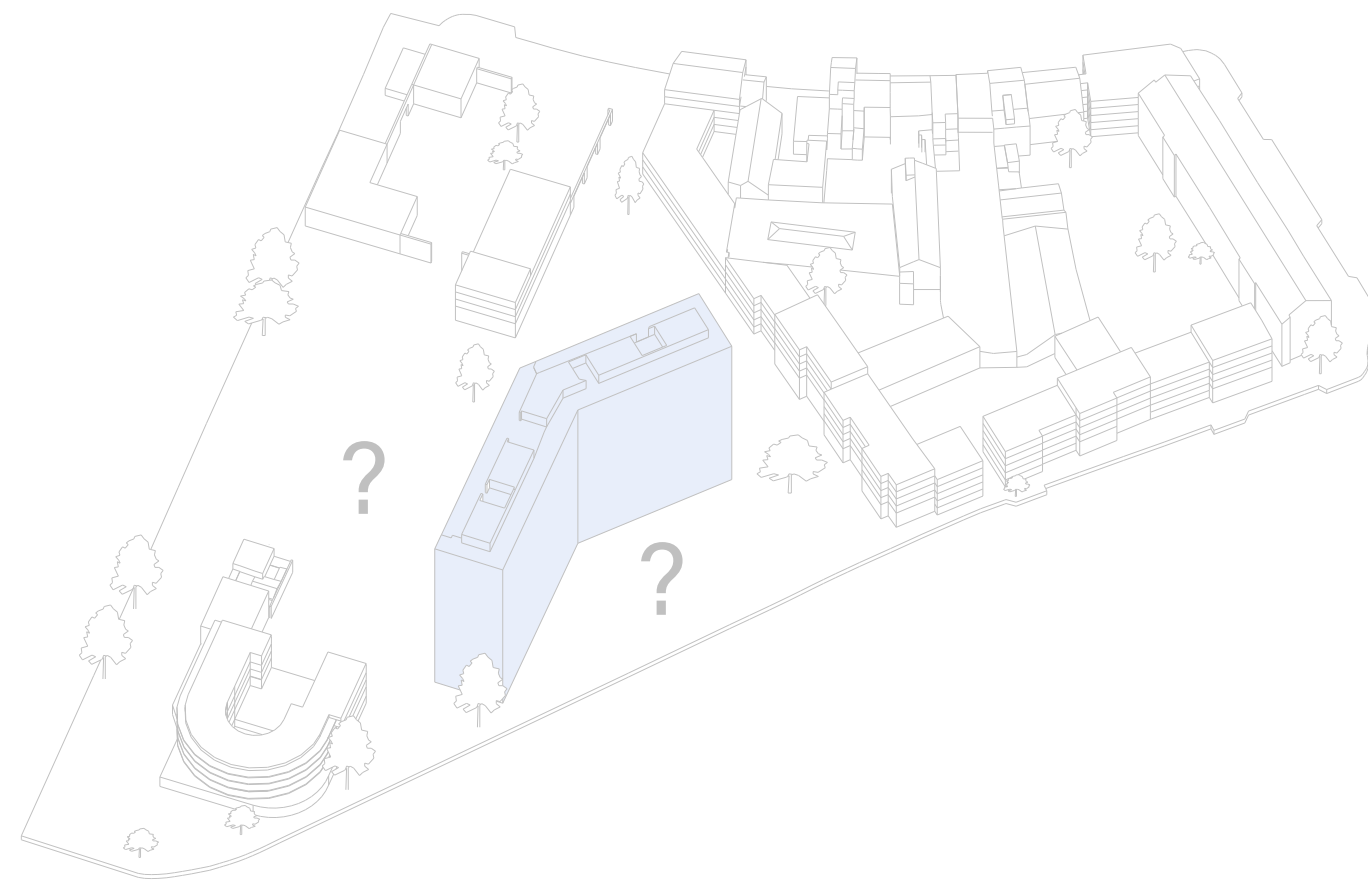
2

re-establishing the traditional city

new volumes close the urban block accordingly
to the typical Anderlecht 'model'



3 concept



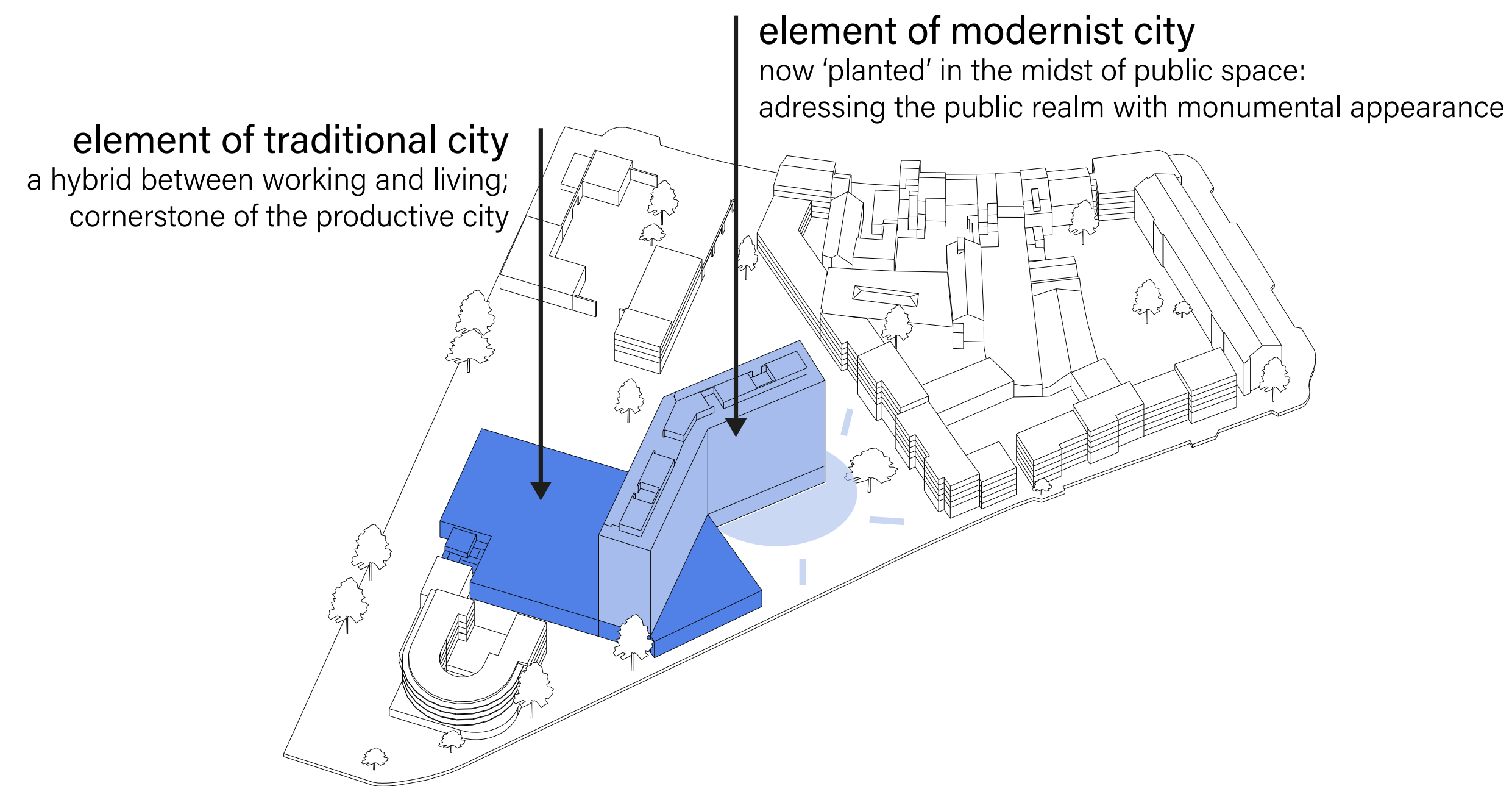
site of choice

Les Goujons as a spolia of *brusselization*;
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re-establishing the traditional city

new volumes close the urban block accordingly
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3

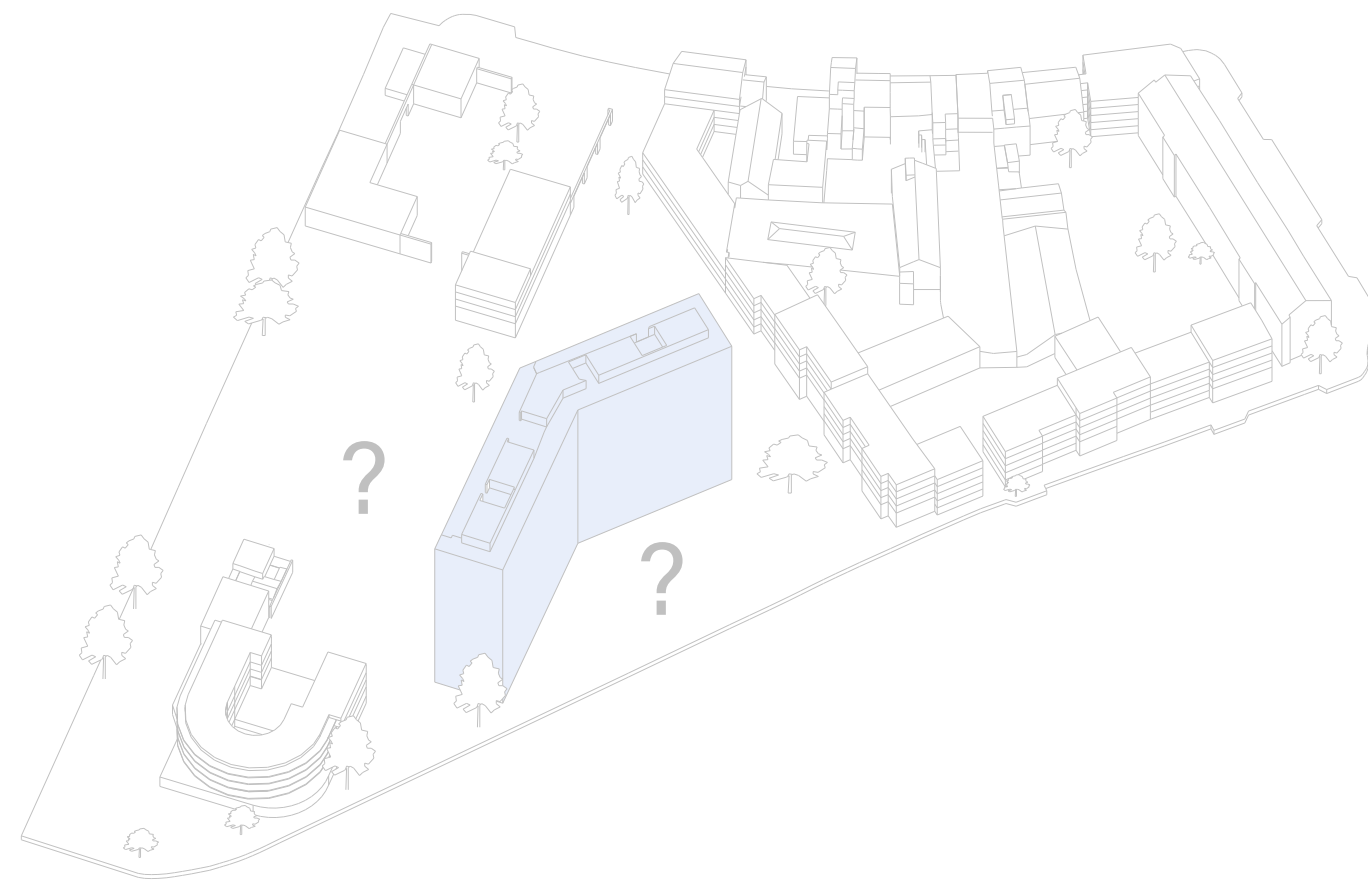
aligning ideologies

assessment of *brusselization*:
negotiating between two opposites

3 concept

P5 UA

Bjarne van der Drift



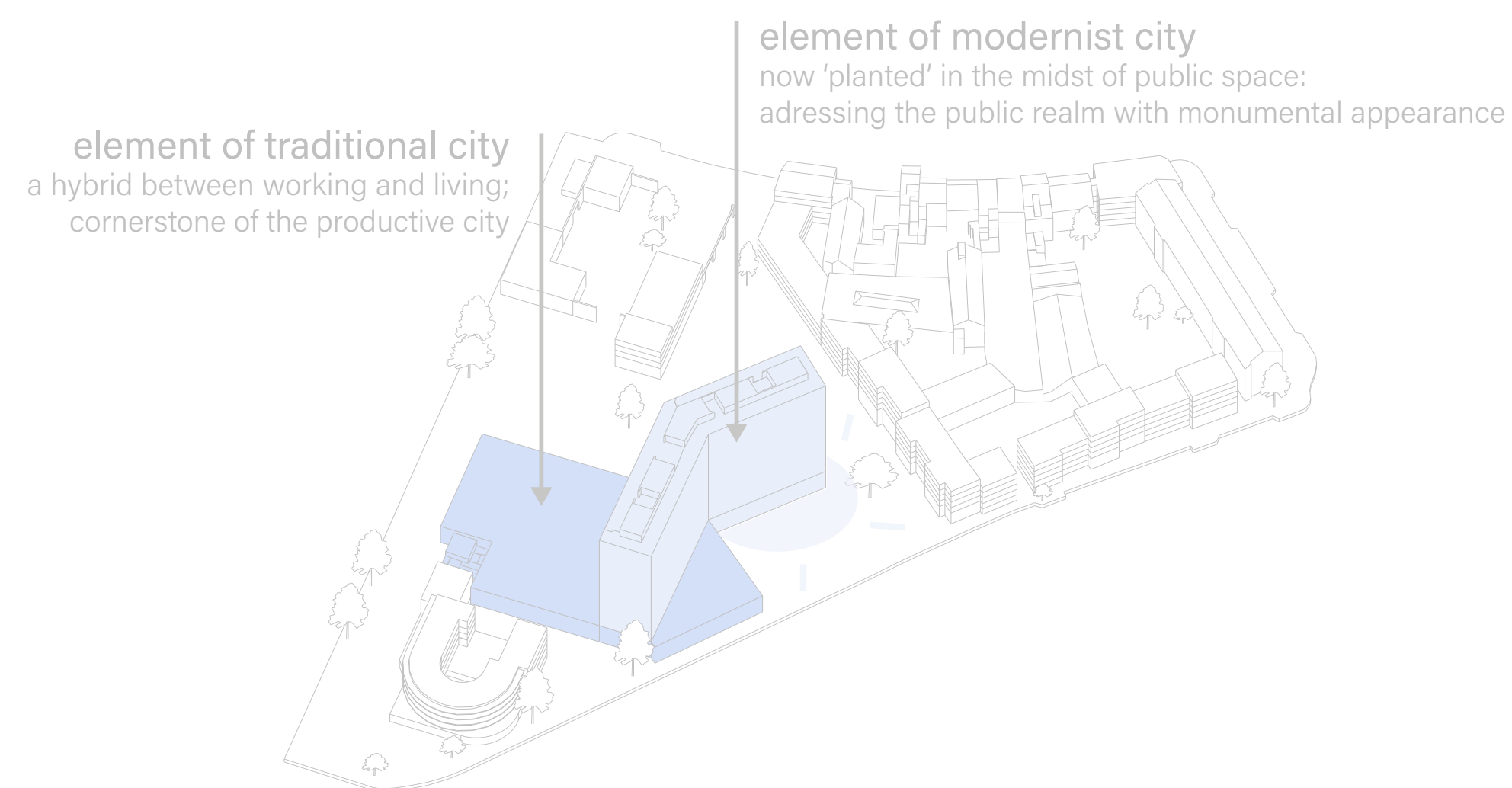
site of choice

Les Goujons as a spolia of *brusselization*;
failed modernism undermining the values of the traditional city



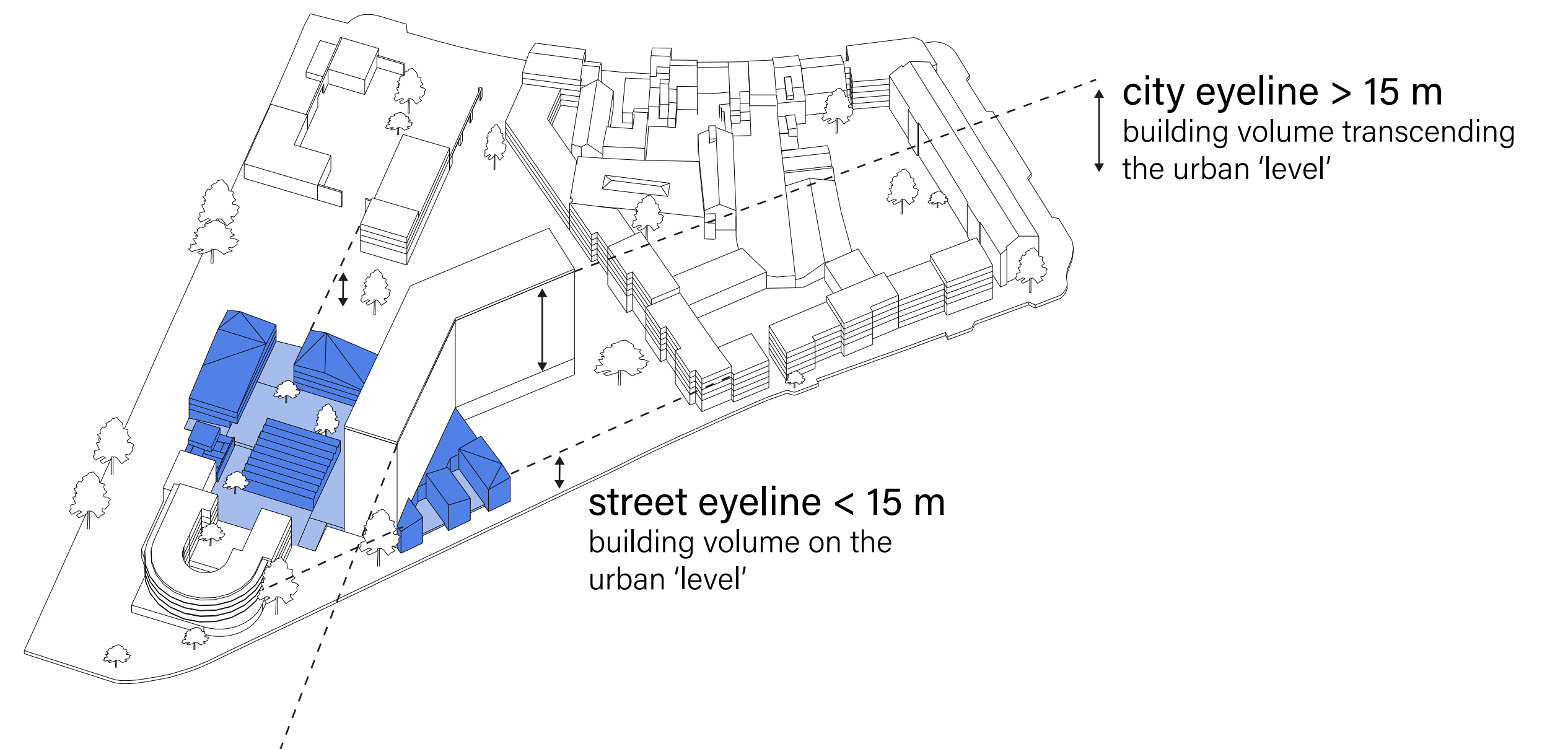
re-establishing the traditional city

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aligning ideologies

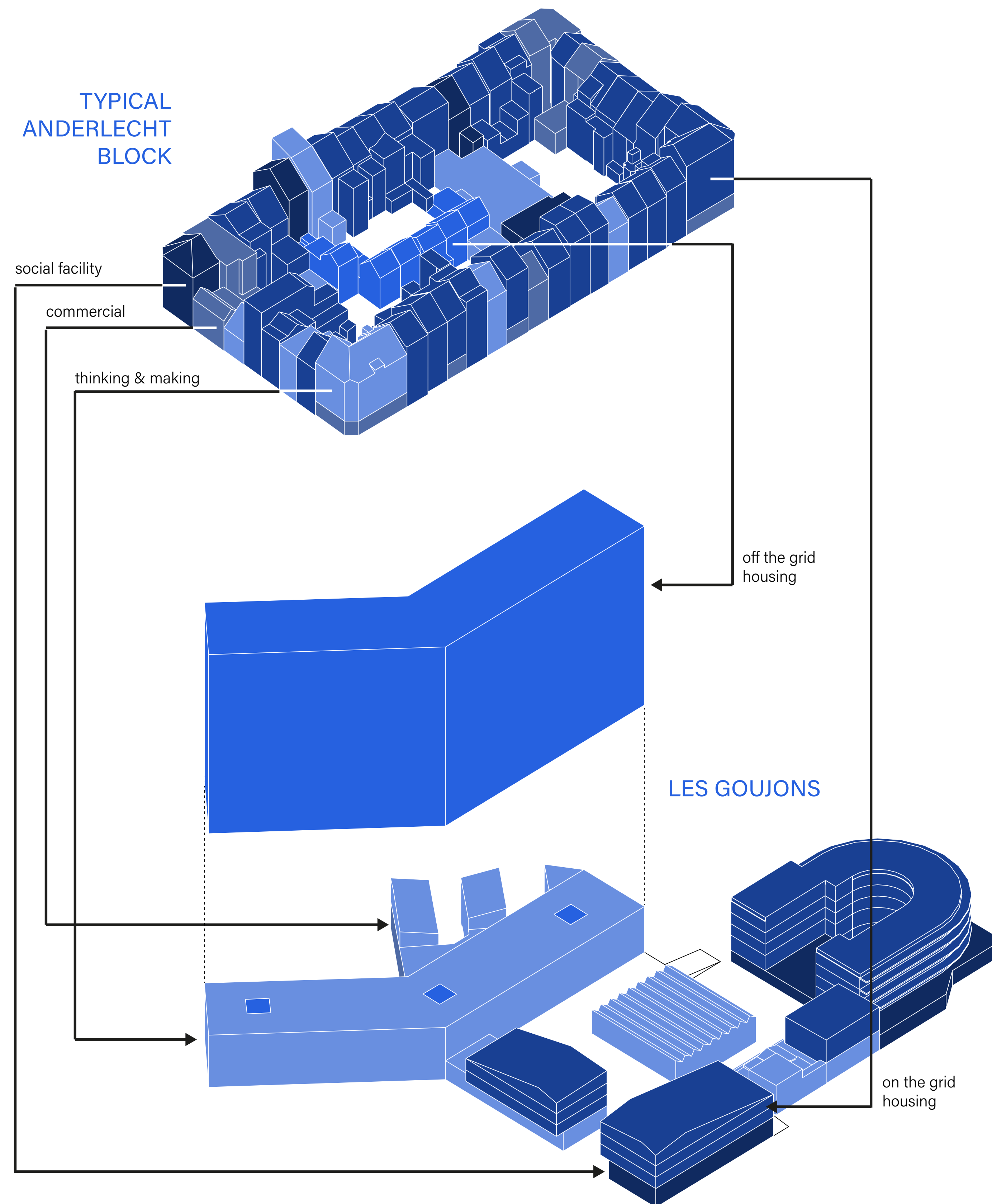
assessment of *brusselization*:
negotiating between two opposites



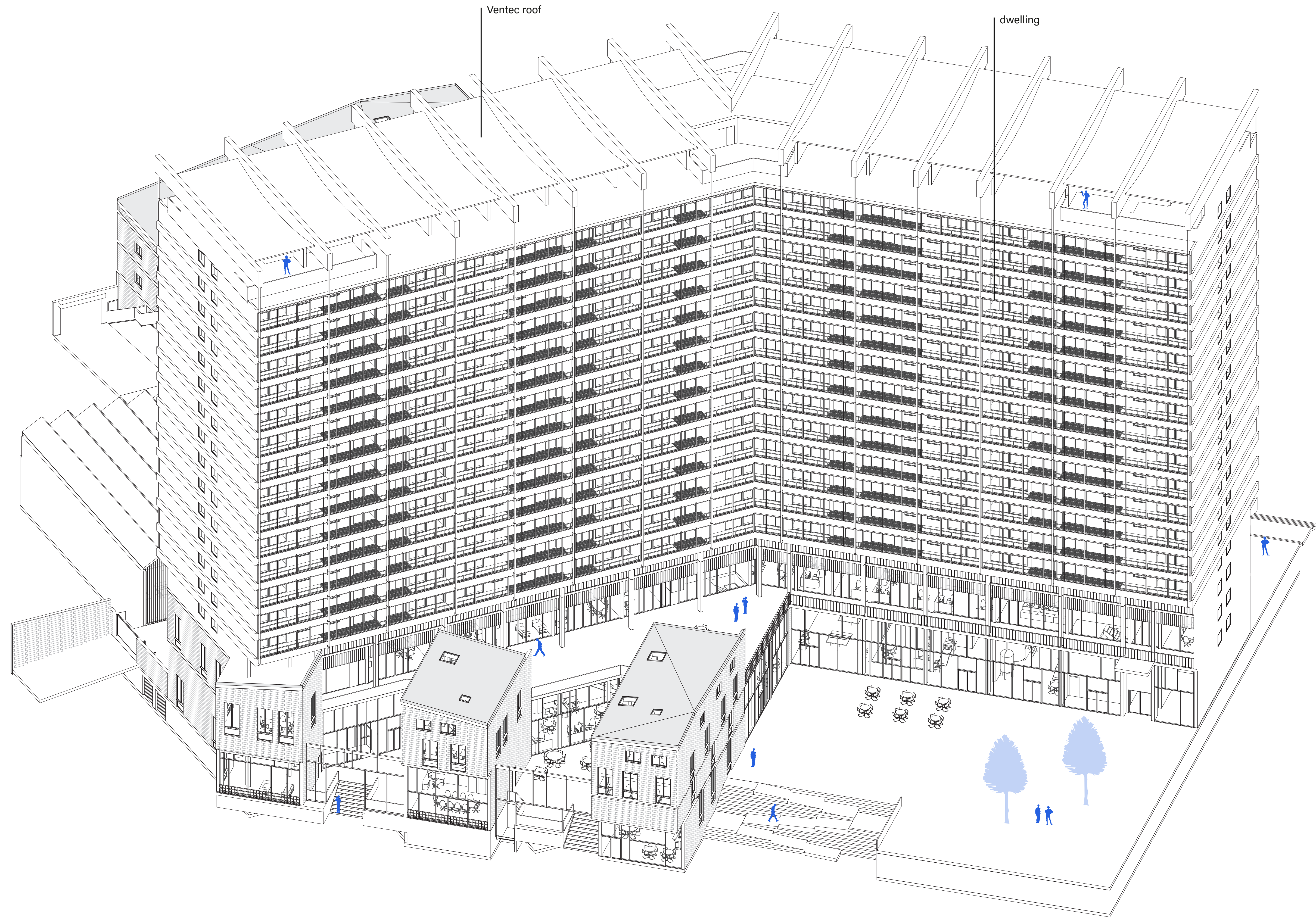
defining building outlines

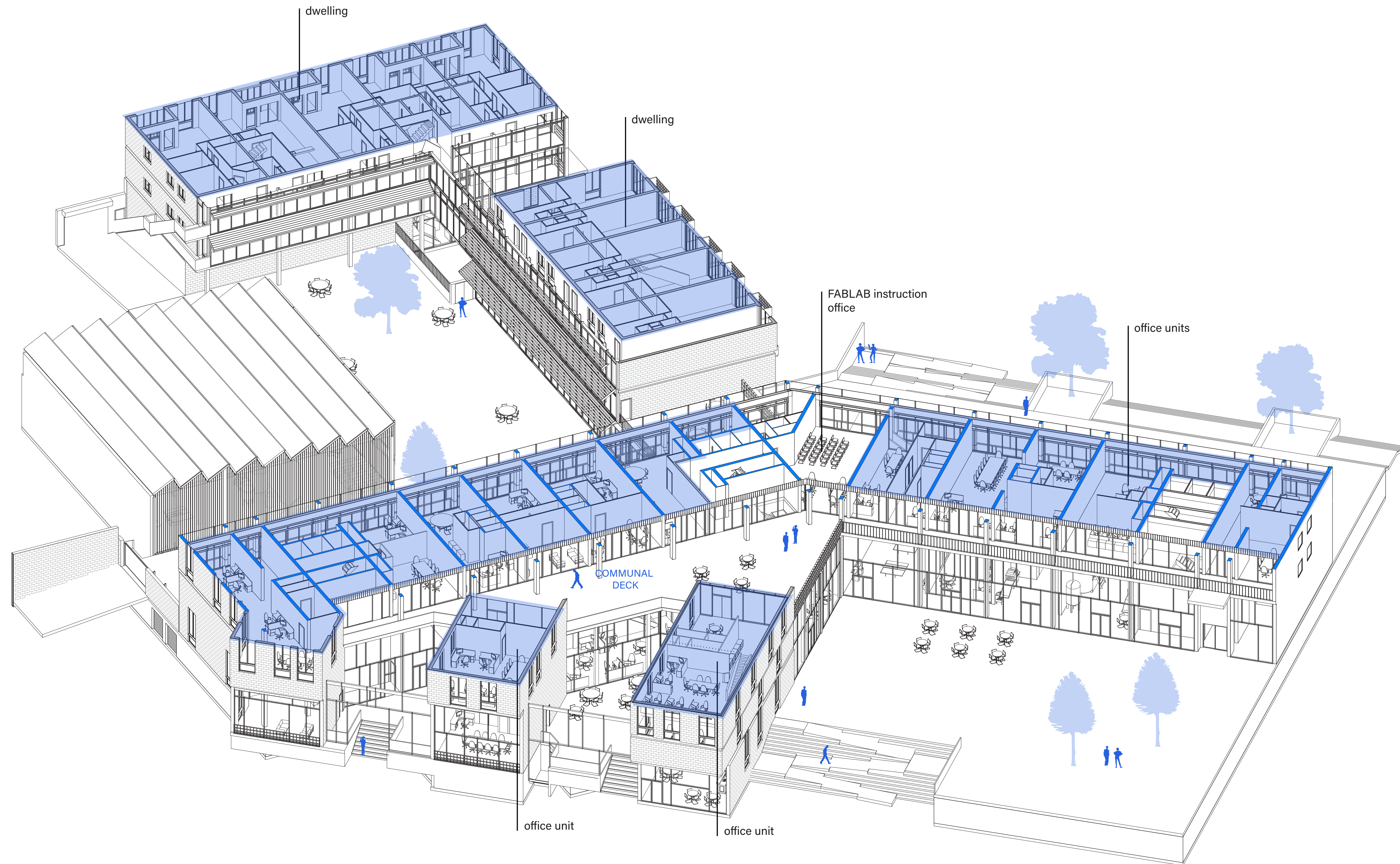
creating intermediate zones & courtyard
- strategical access and circulation

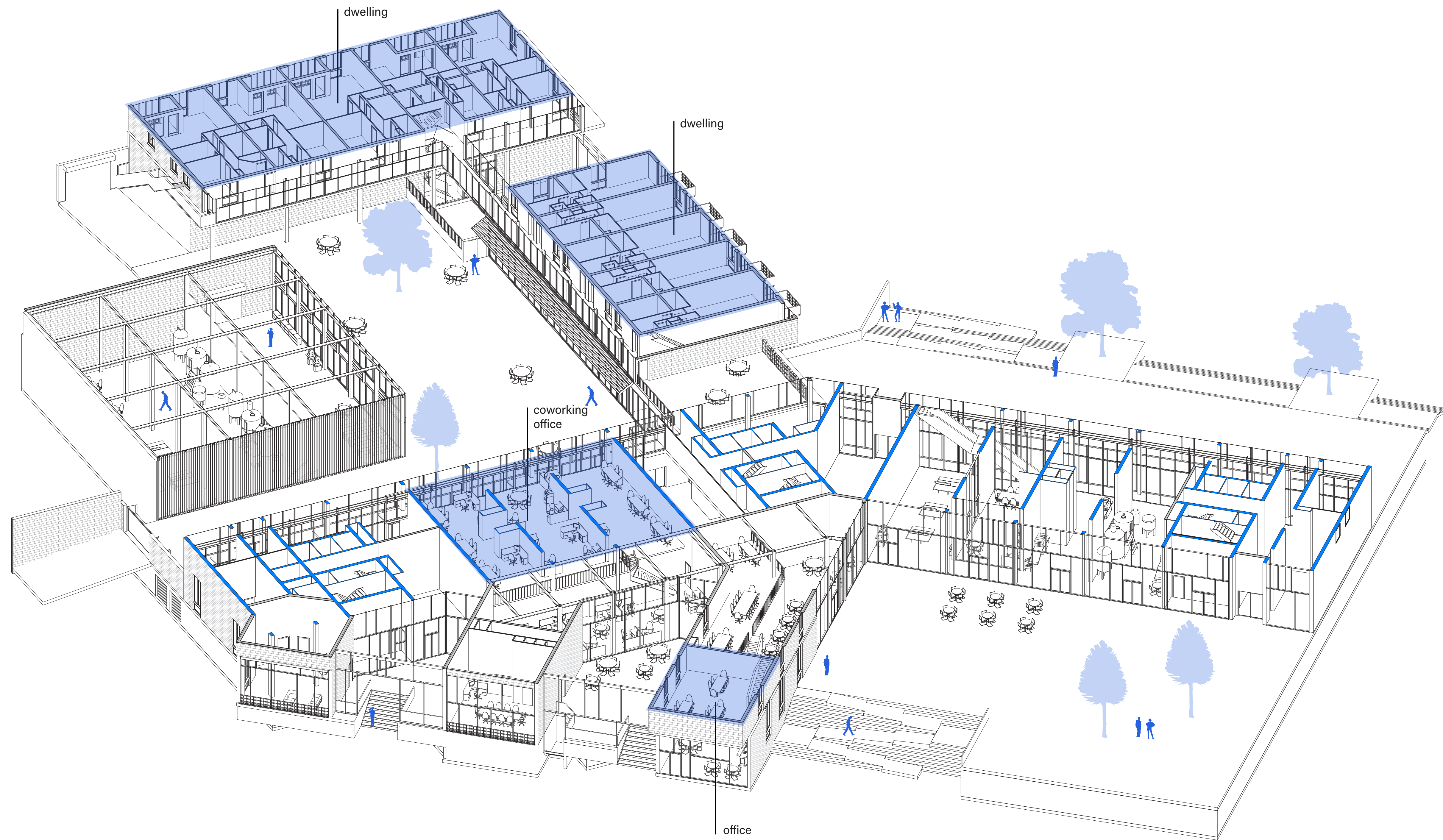
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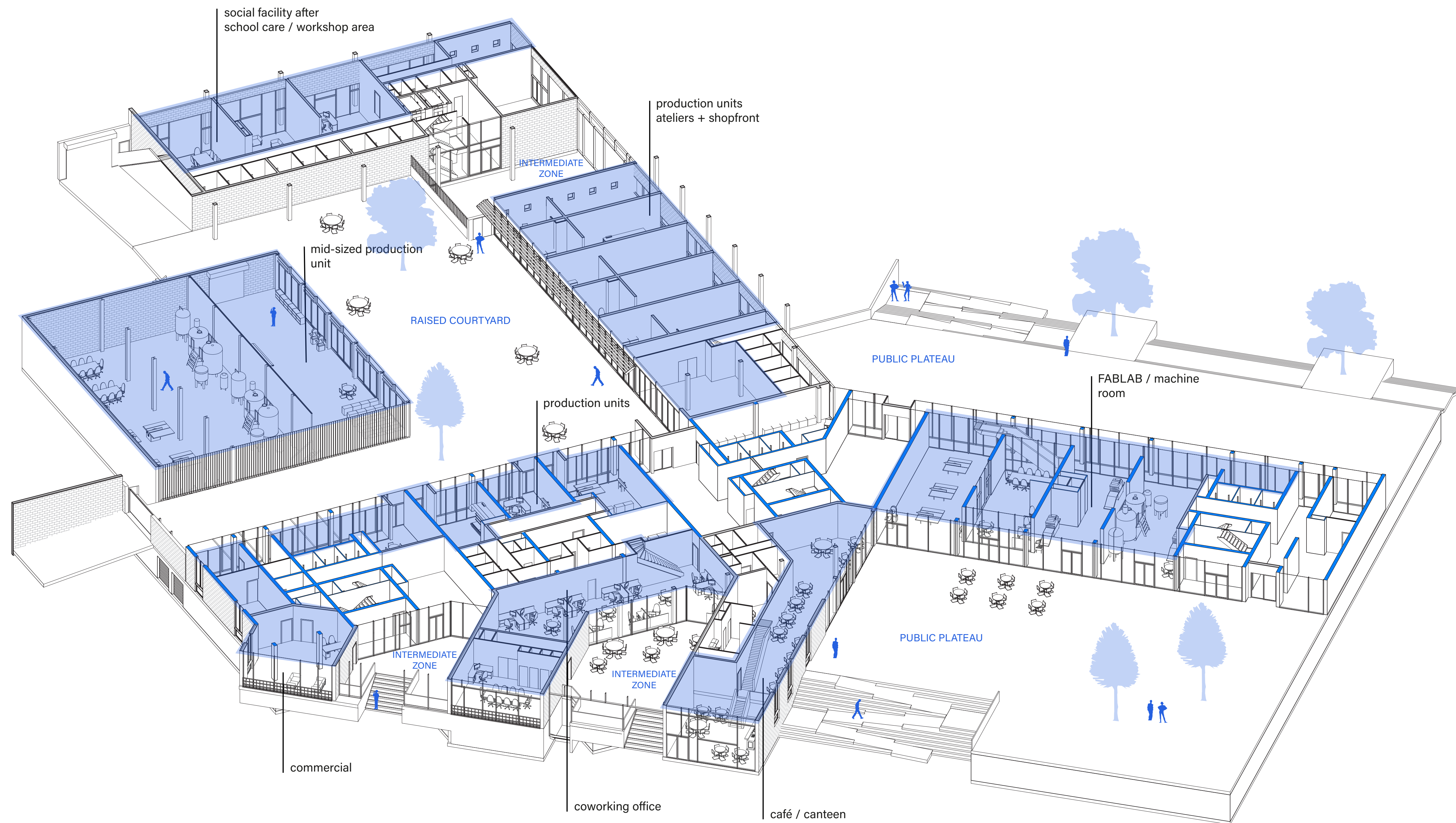


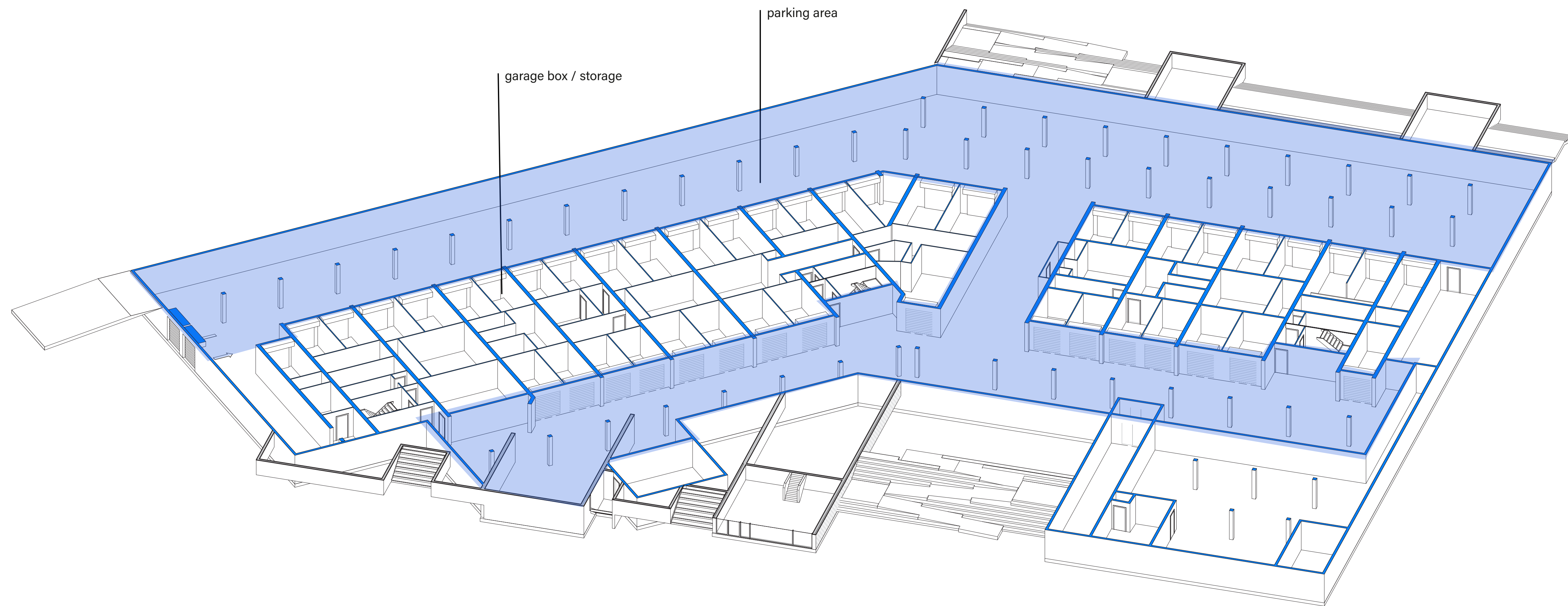
Living and working in close proximity



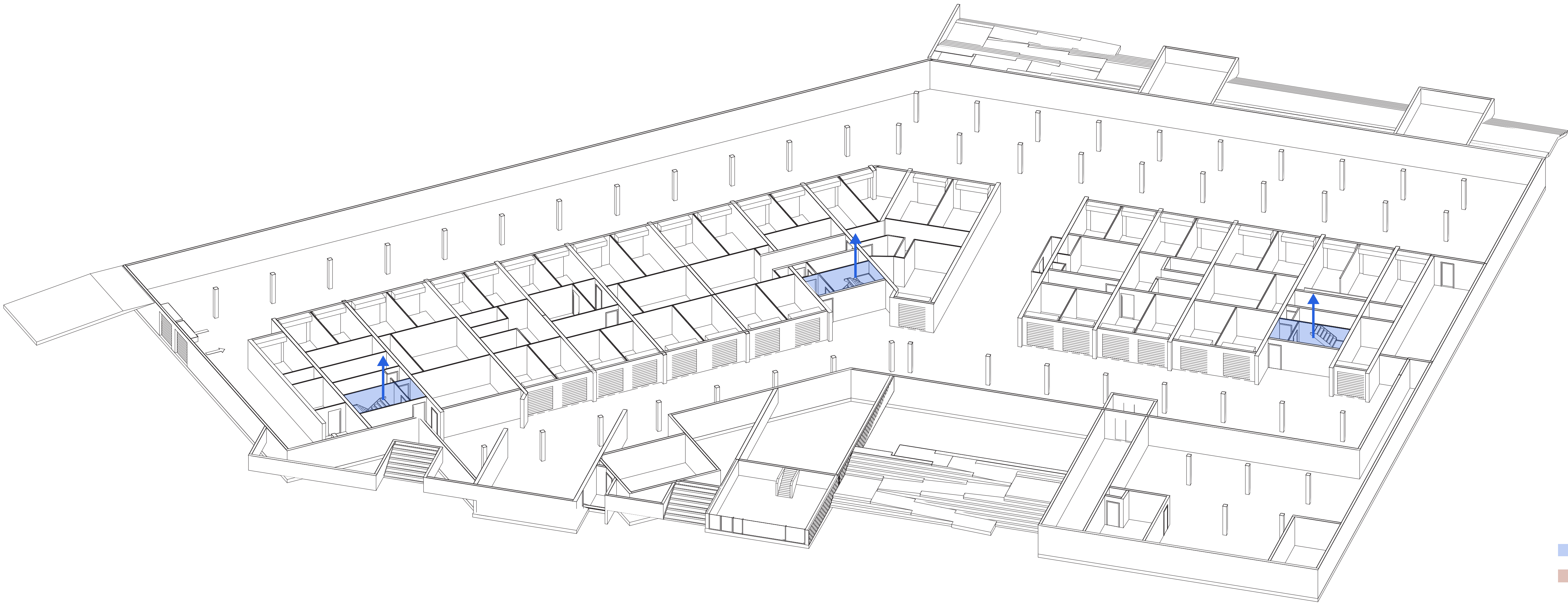






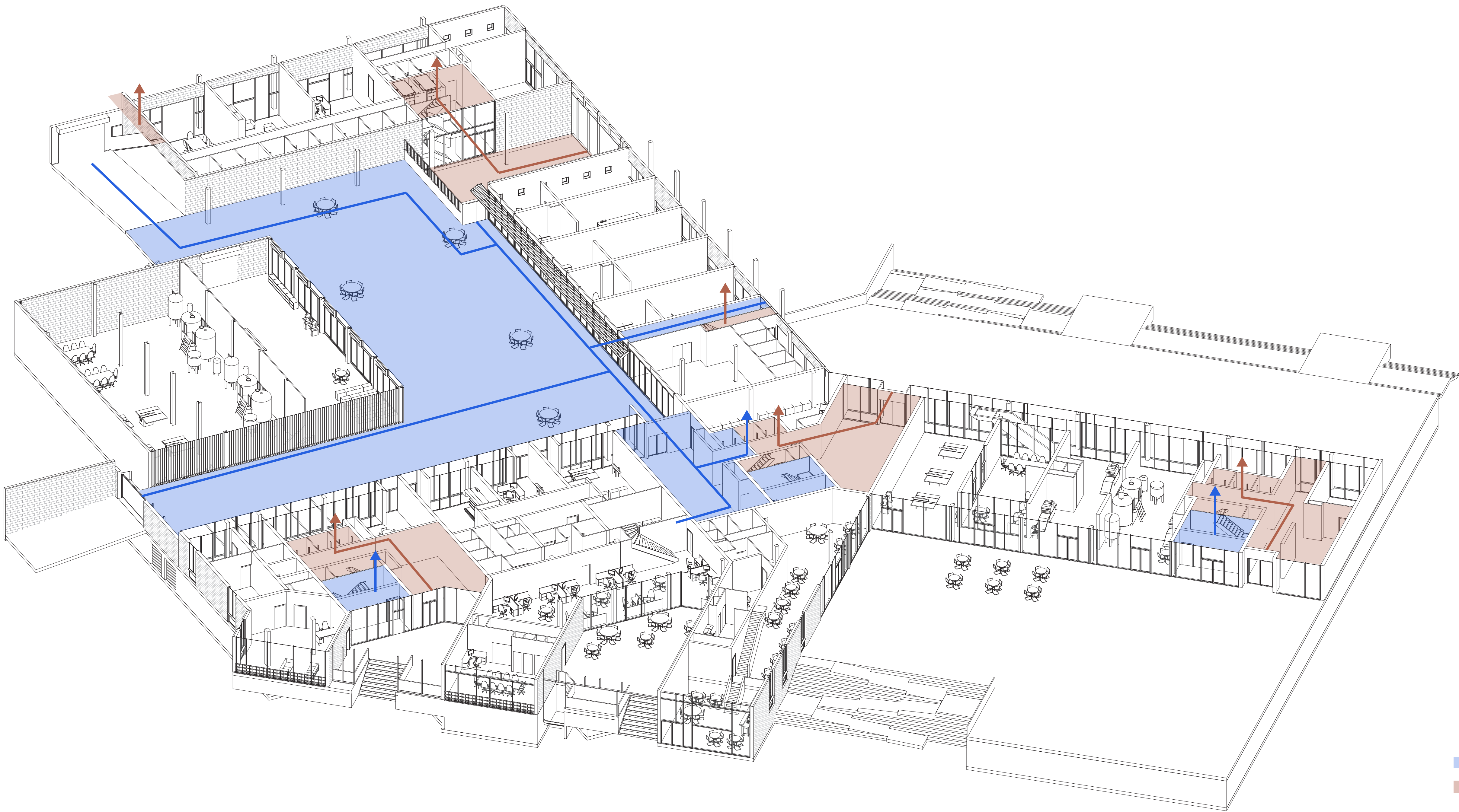


5 circulation & organisation

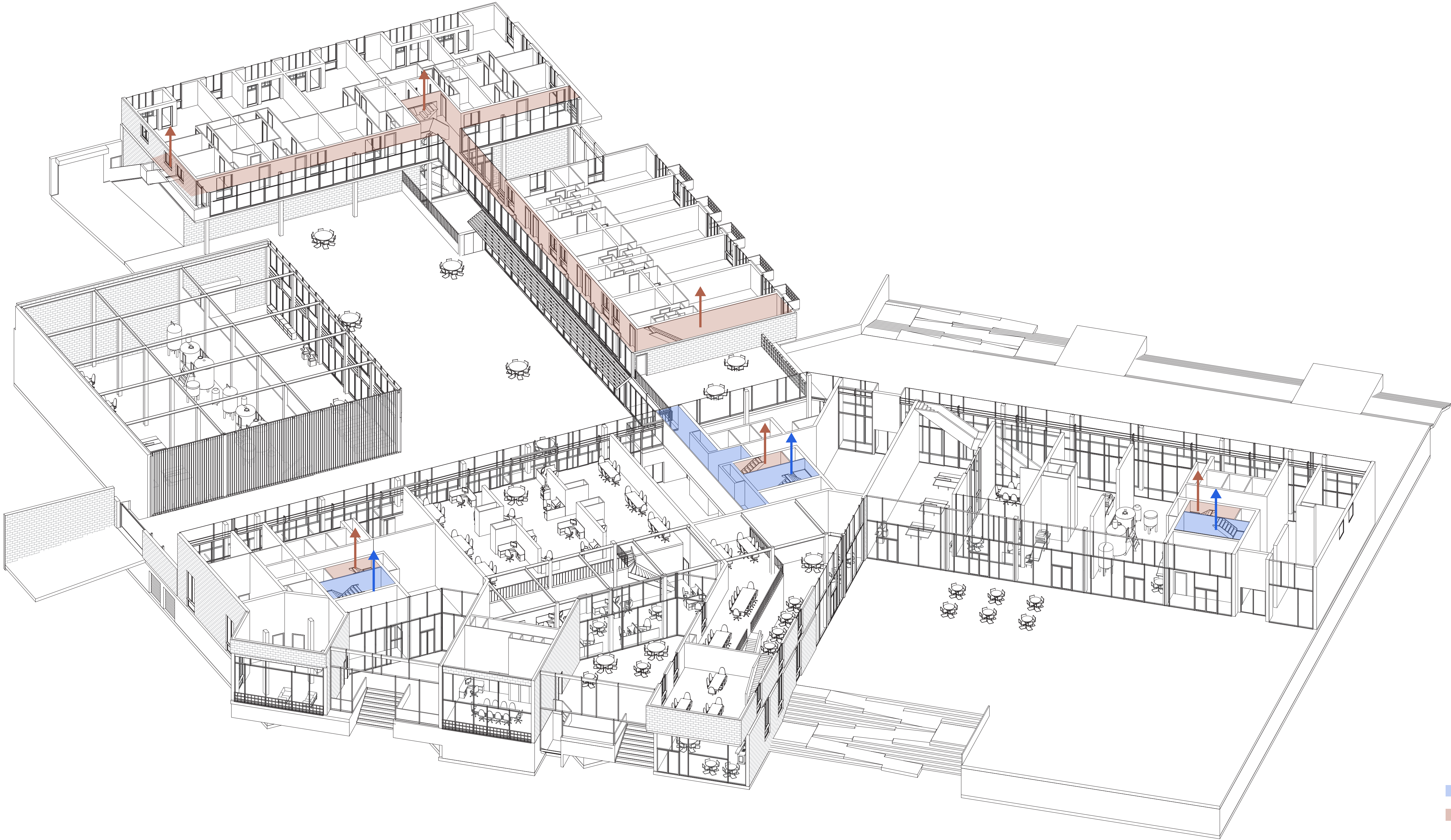


circulation workspaces
circulation residential spaces

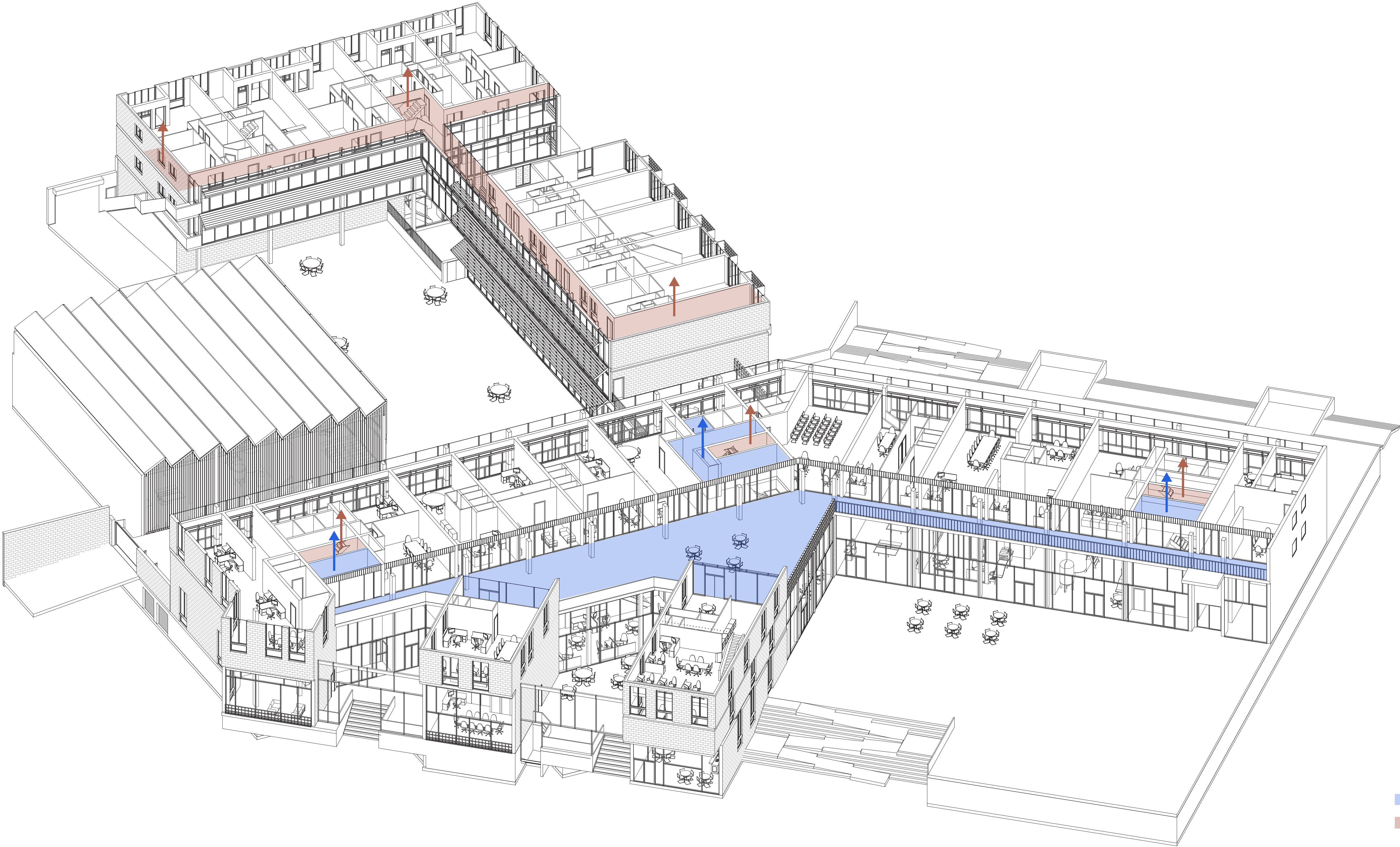
5 circulation & organisation



5 circulation & organisation



5 circulation & organisation



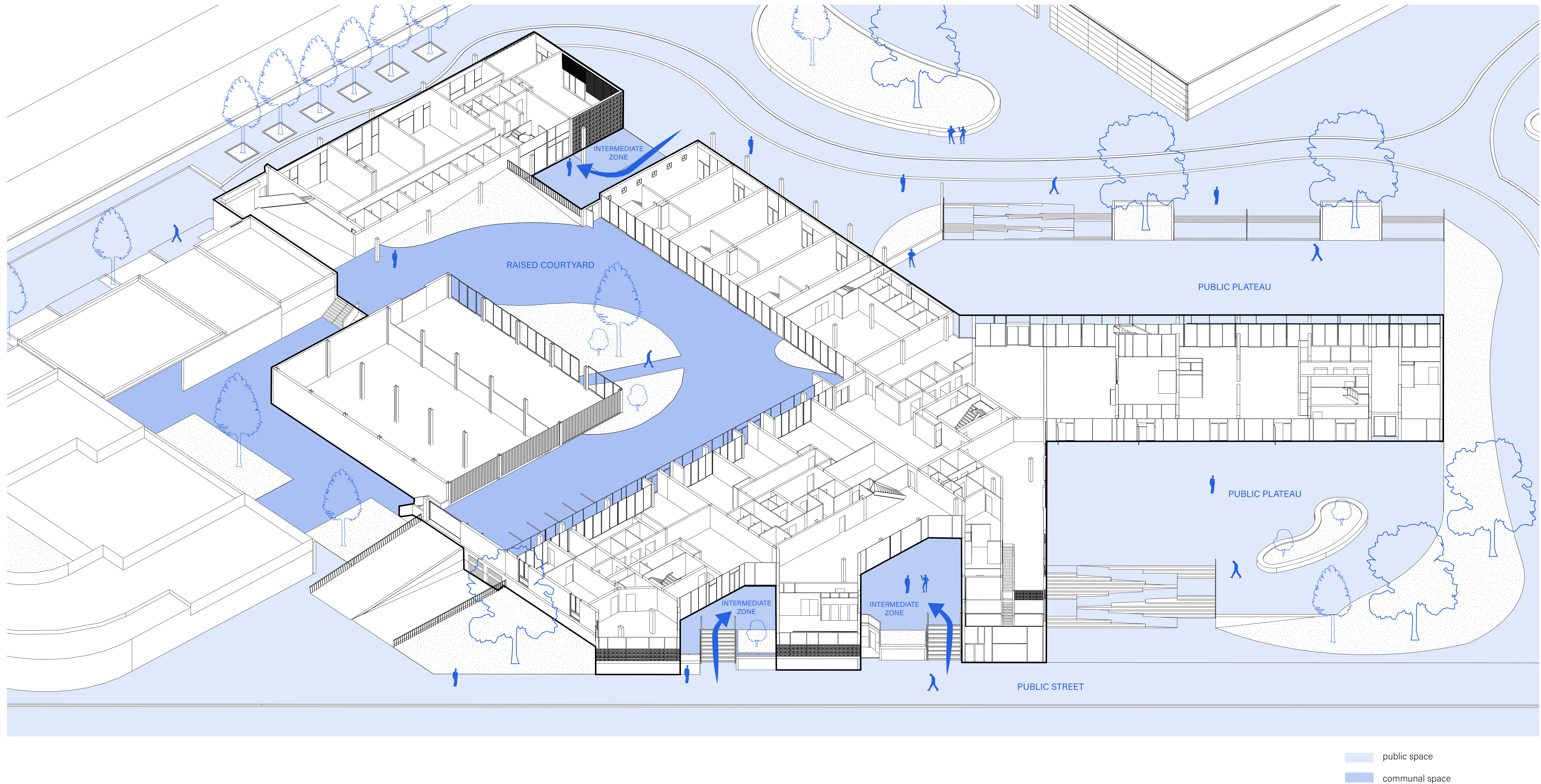
circulation workspaces
circulation residential spaces

5 circulation & organisation

P5 UA

THE 'ANDERLECHT SPACE'

Bjarne van der Drift

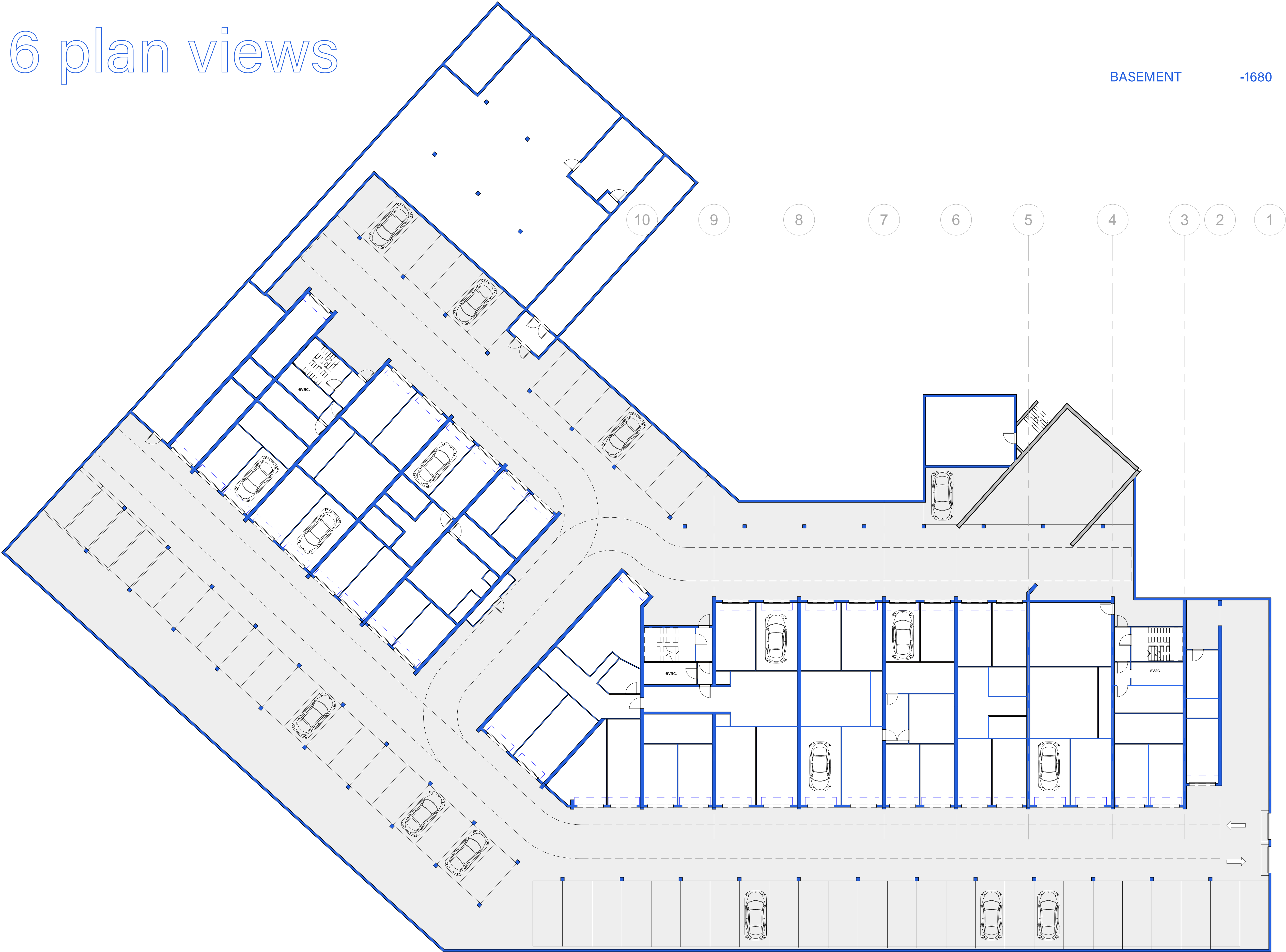


6 plan views

BASEMENT -1680



P5 UA
Bjarne van der Drift



Parking garage is existing

Section cuts highlighted in blue indicate existing walls

Section cuts highlighted in grey indicate new walls

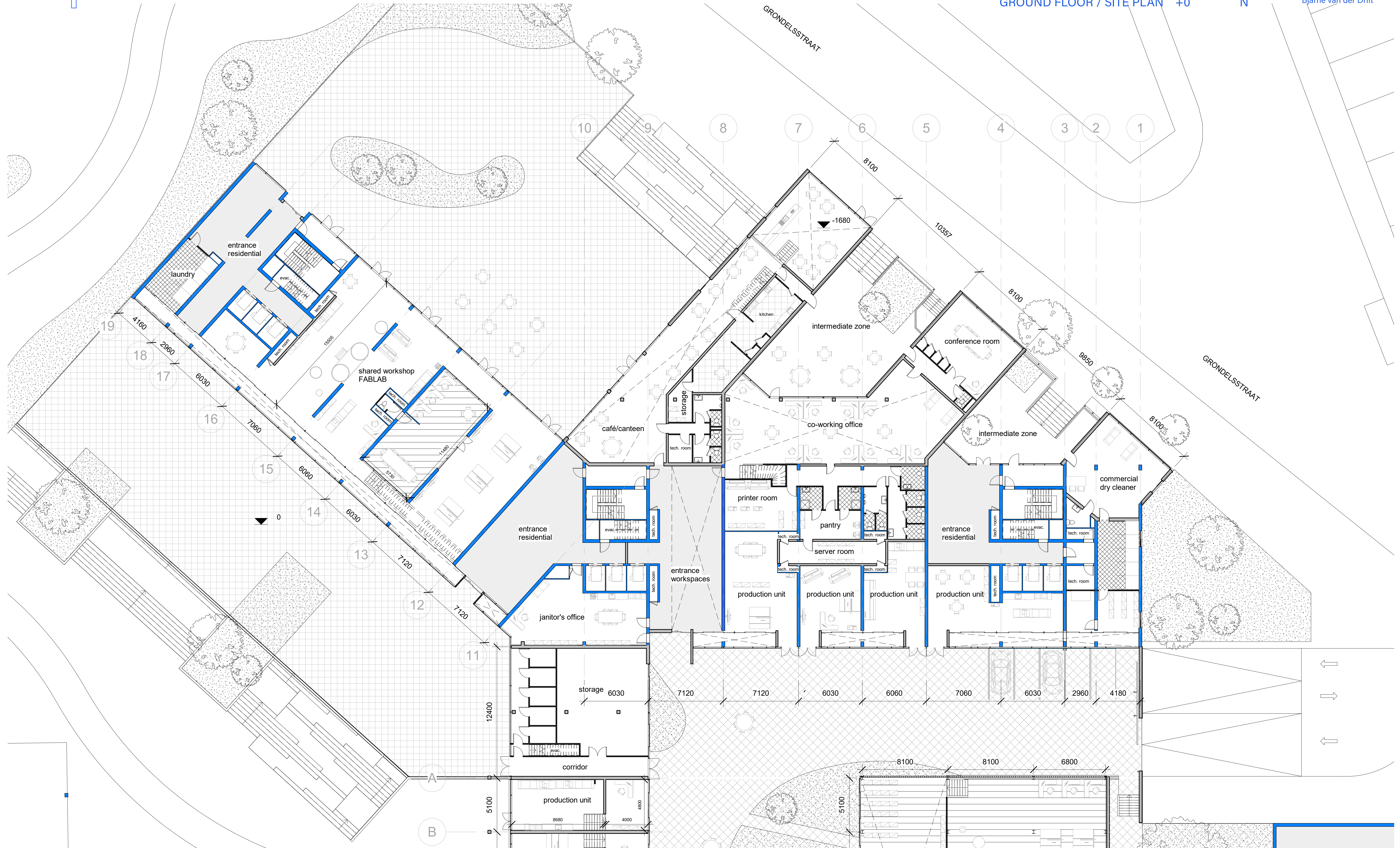
6 plan views

GROUND FLOOR / SITE PLAN +0

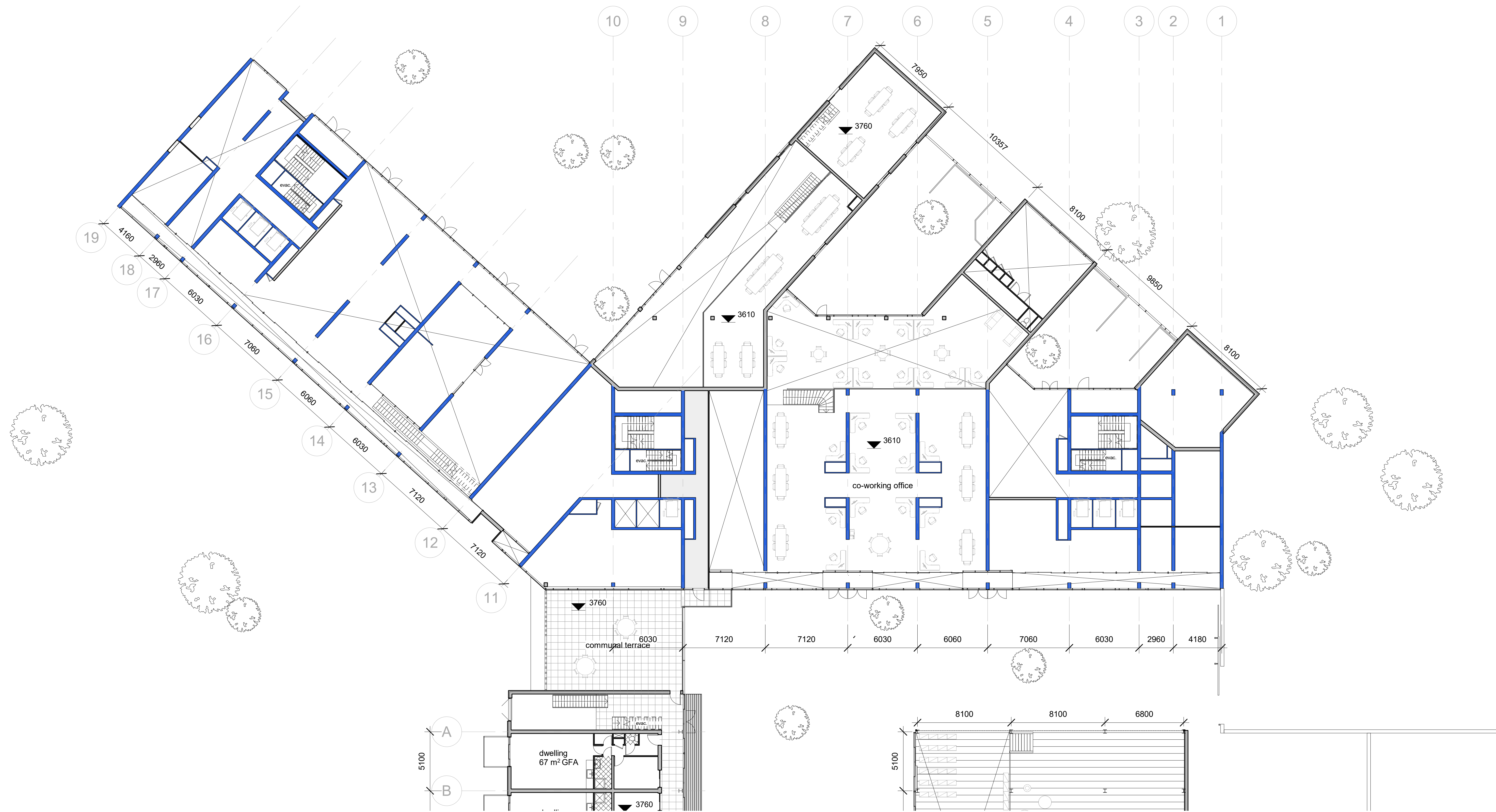


P5 UA

Bjarne van der Drift



6 plan views



6 plan views

FIRST FLOOR LES GOUJONS

+6530



P5 UA
Bjarne van der Drift

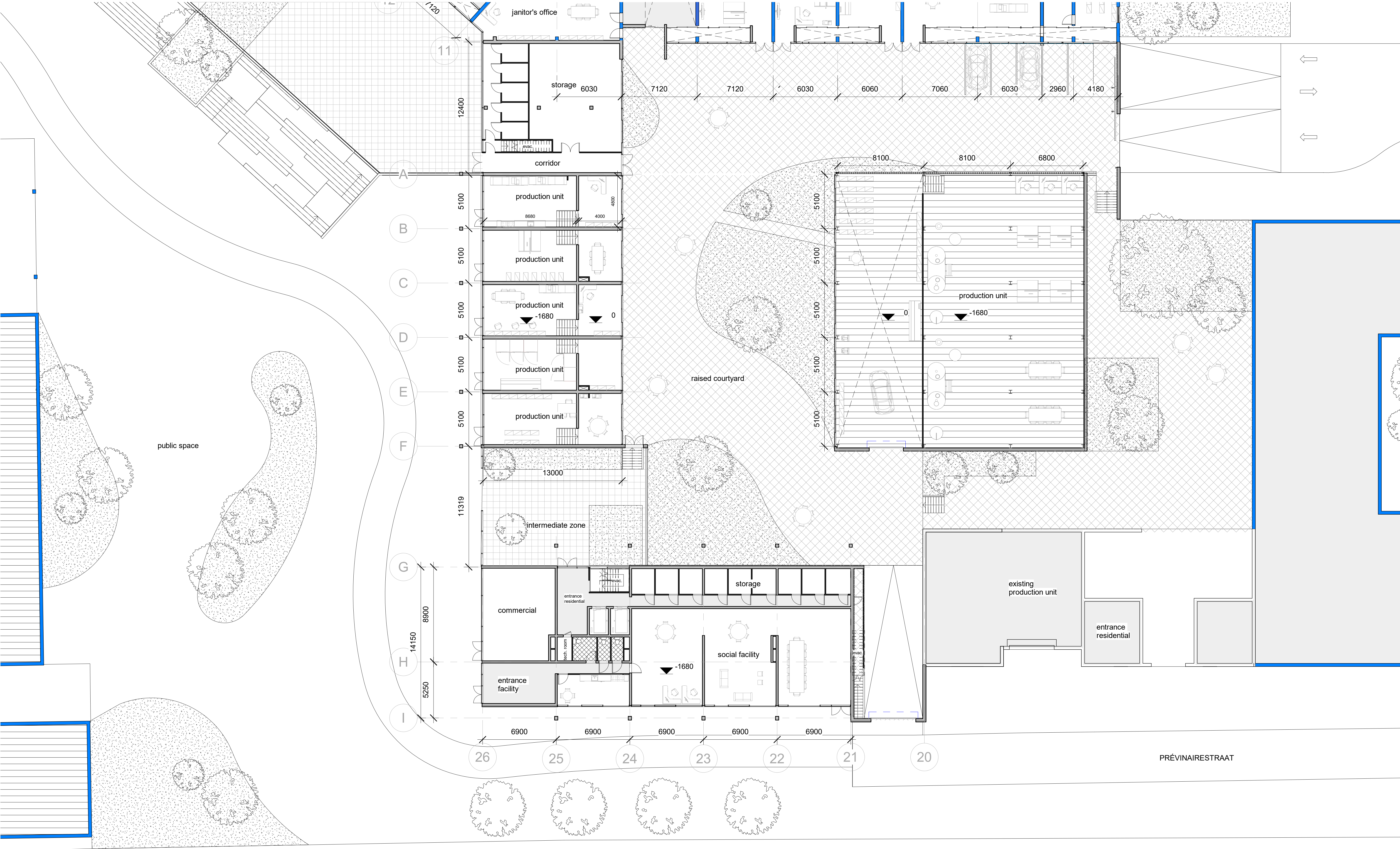


6 plan views

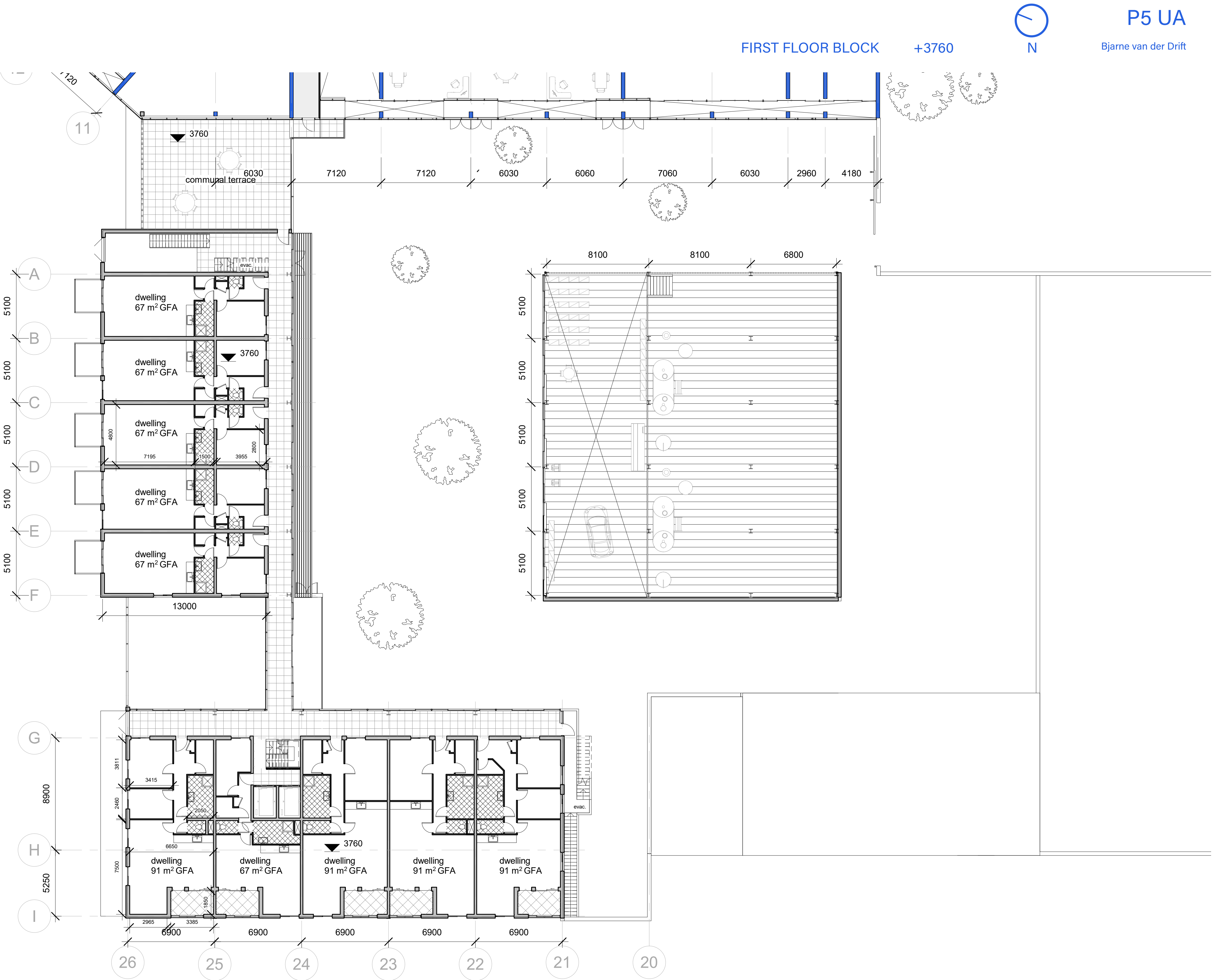
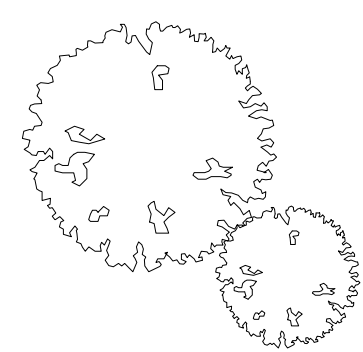
GROUND FLOOR / SITE PLAN +0



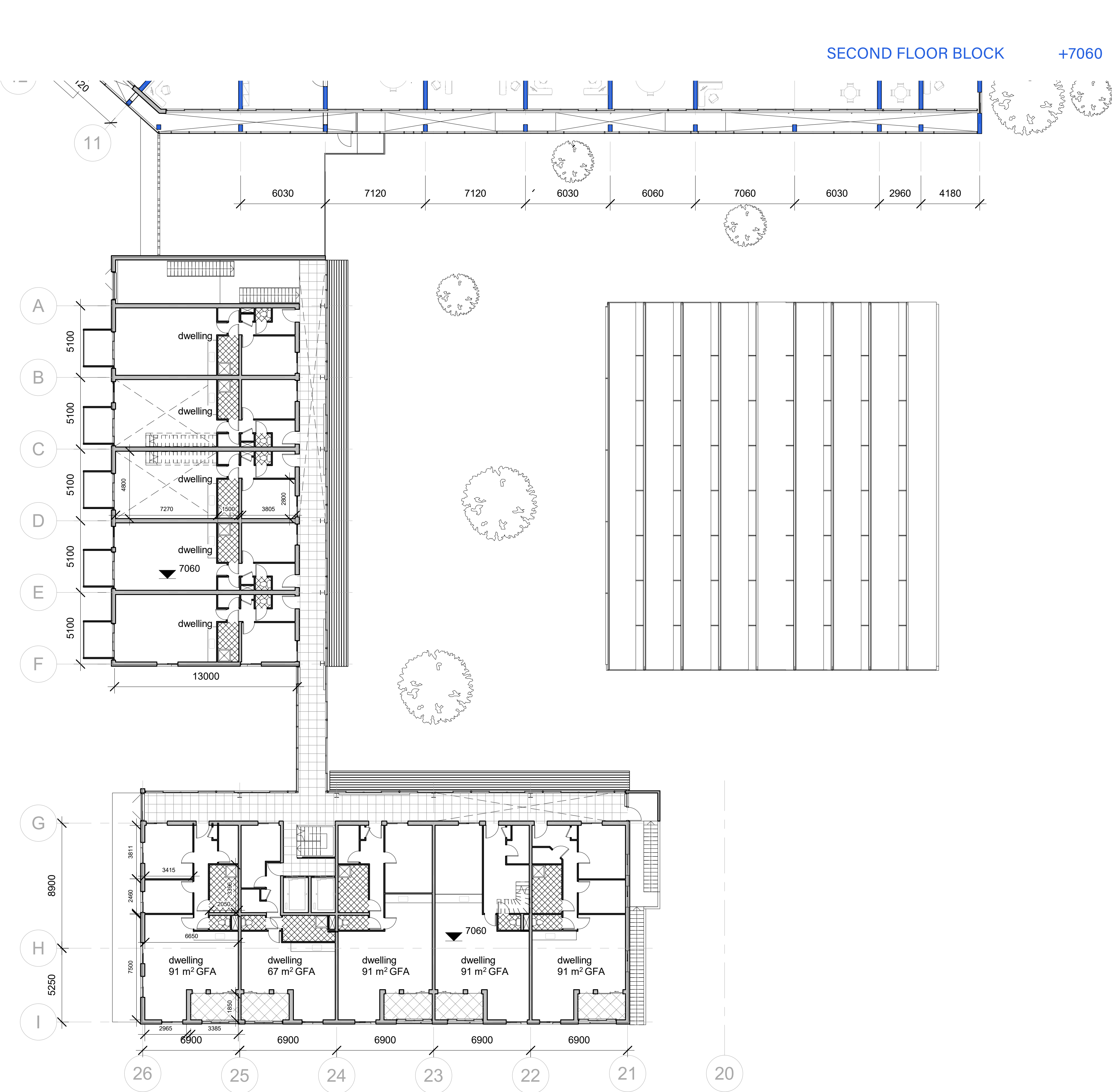
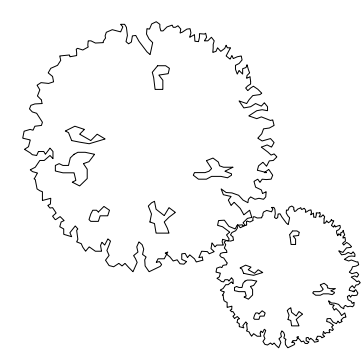
P5 UA
Bjarne van der Drift



6 plan views



6 plan views



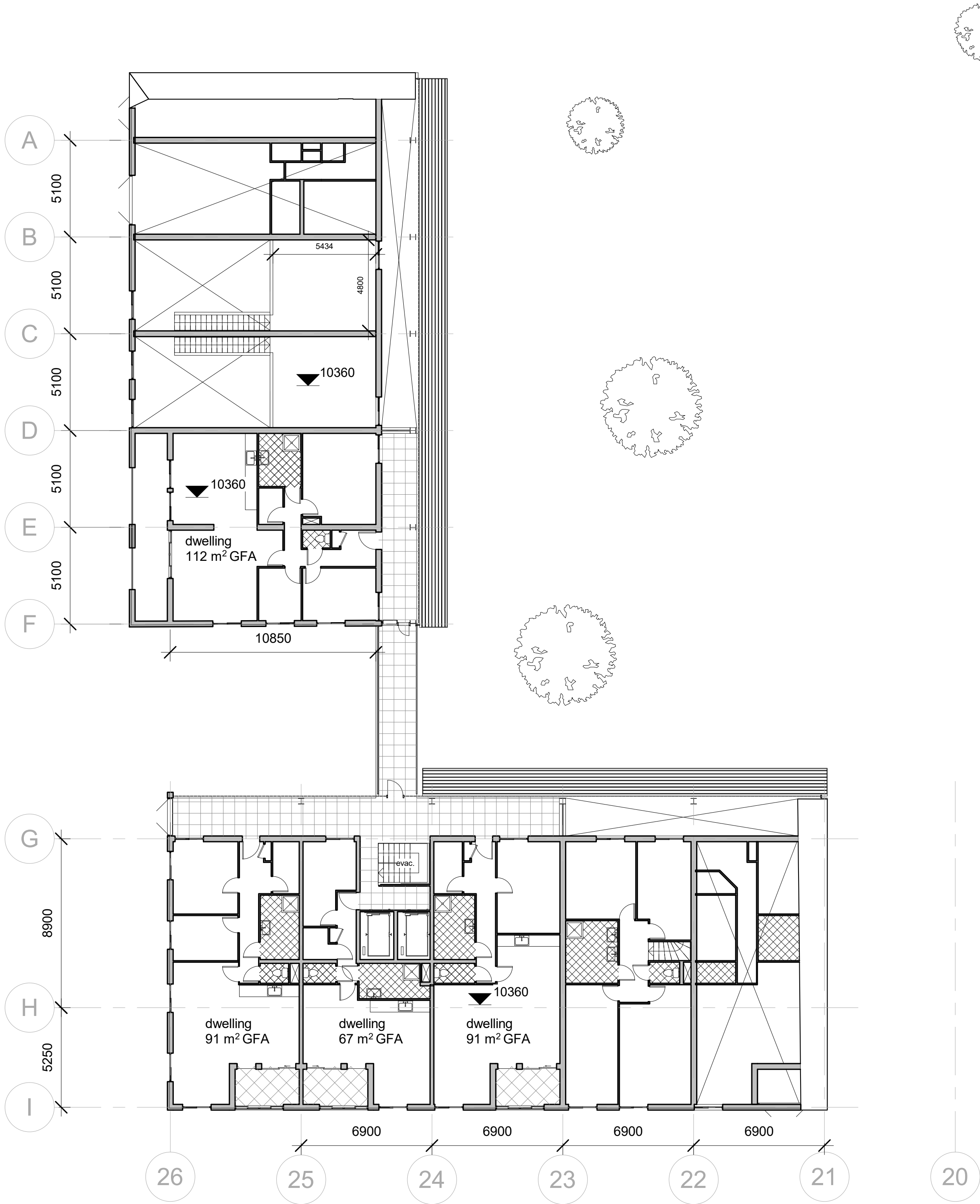
6 plan views

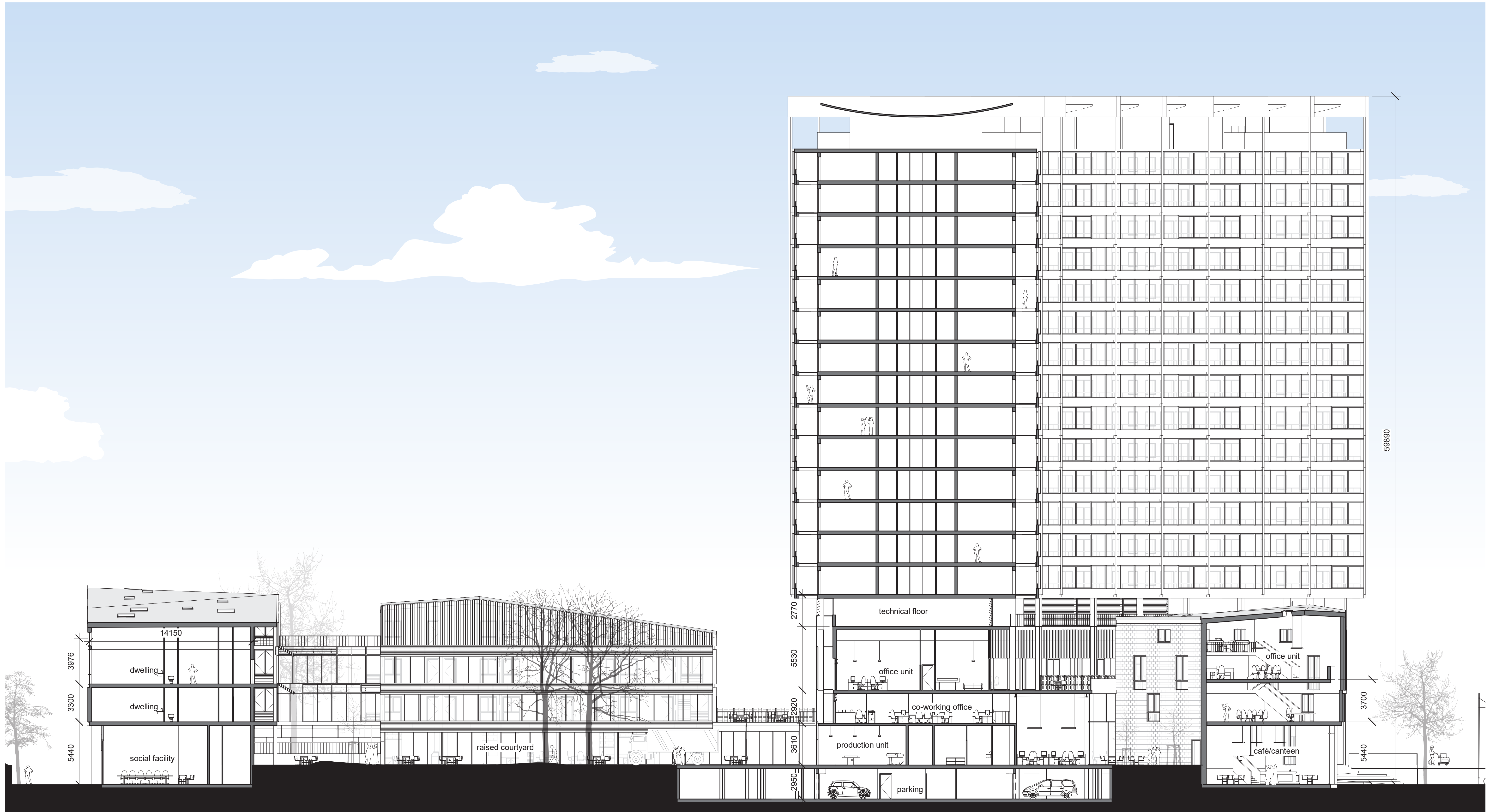
THIRD FLOOR BLOCK

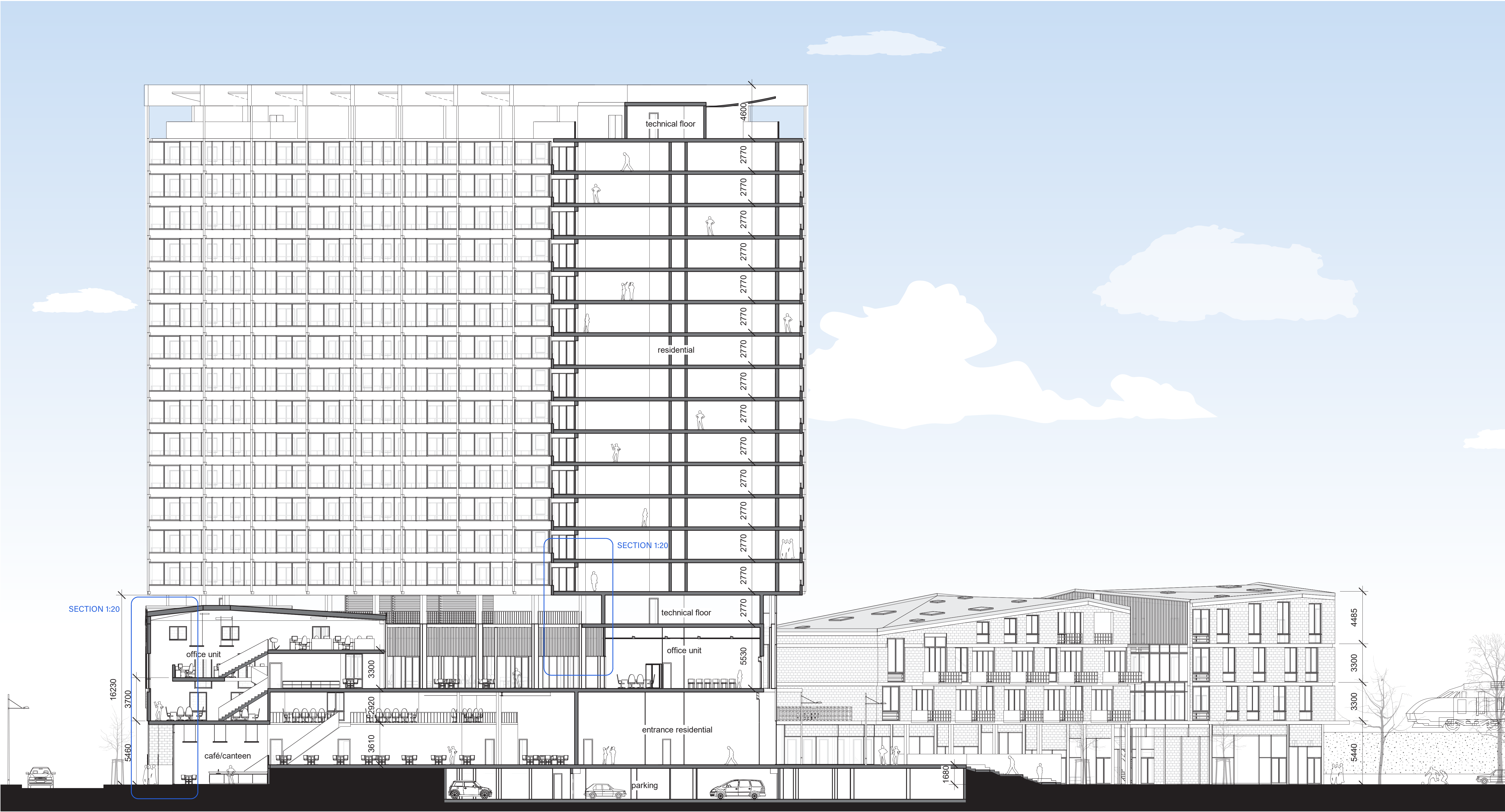
+7060



P5 UA
Bjarne van der Drift

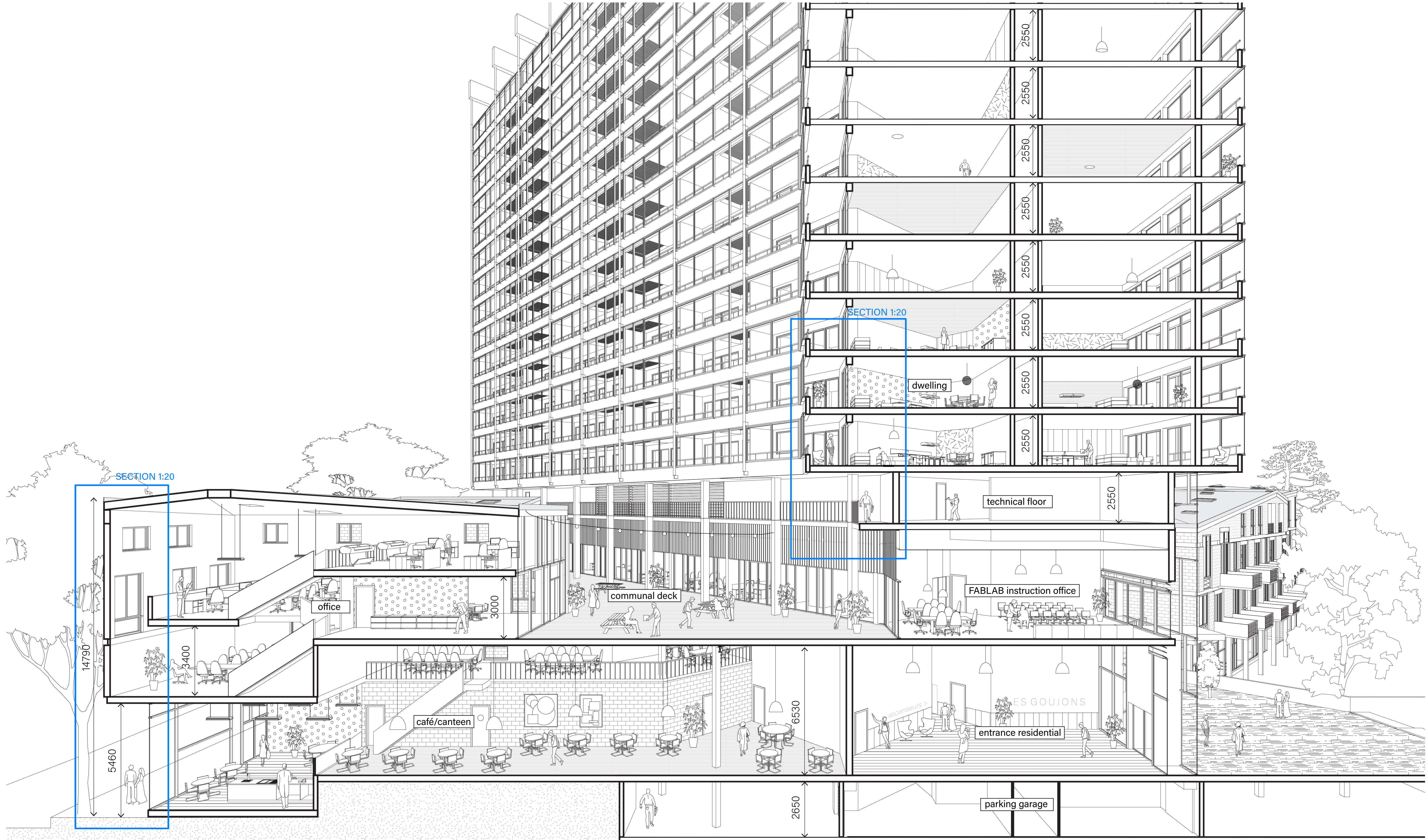






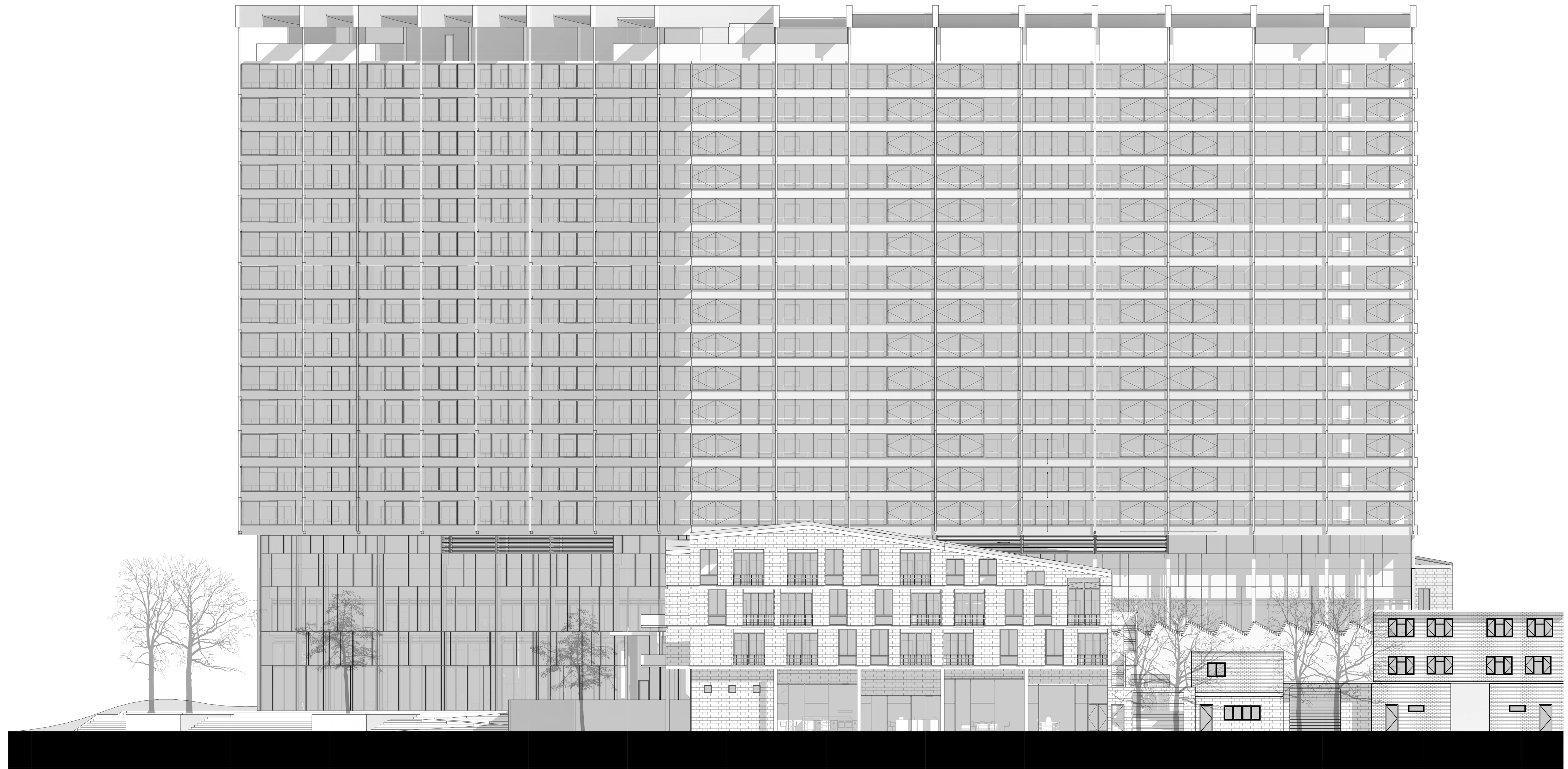
7 section

PERSPECTIVE SECTION









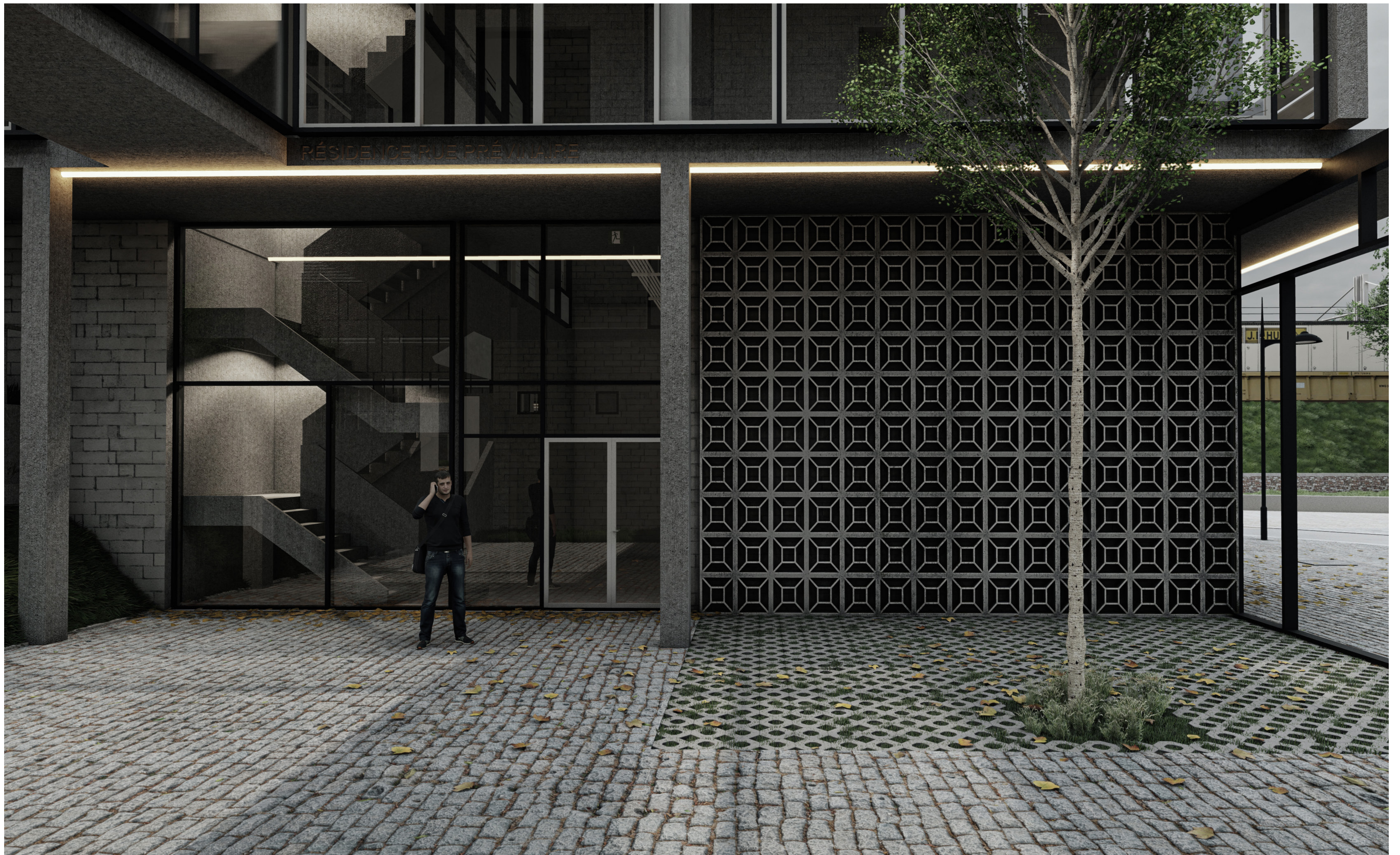














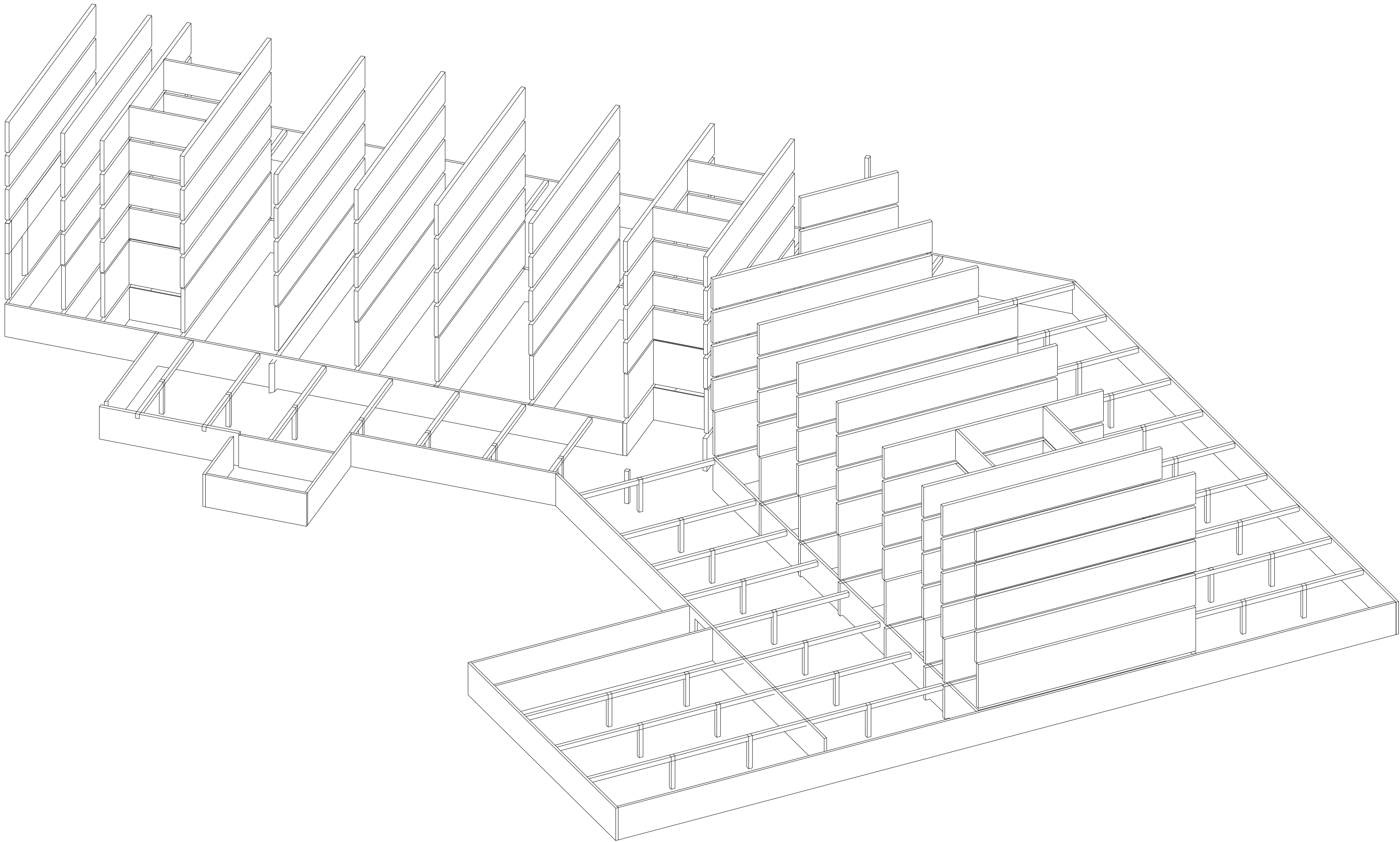


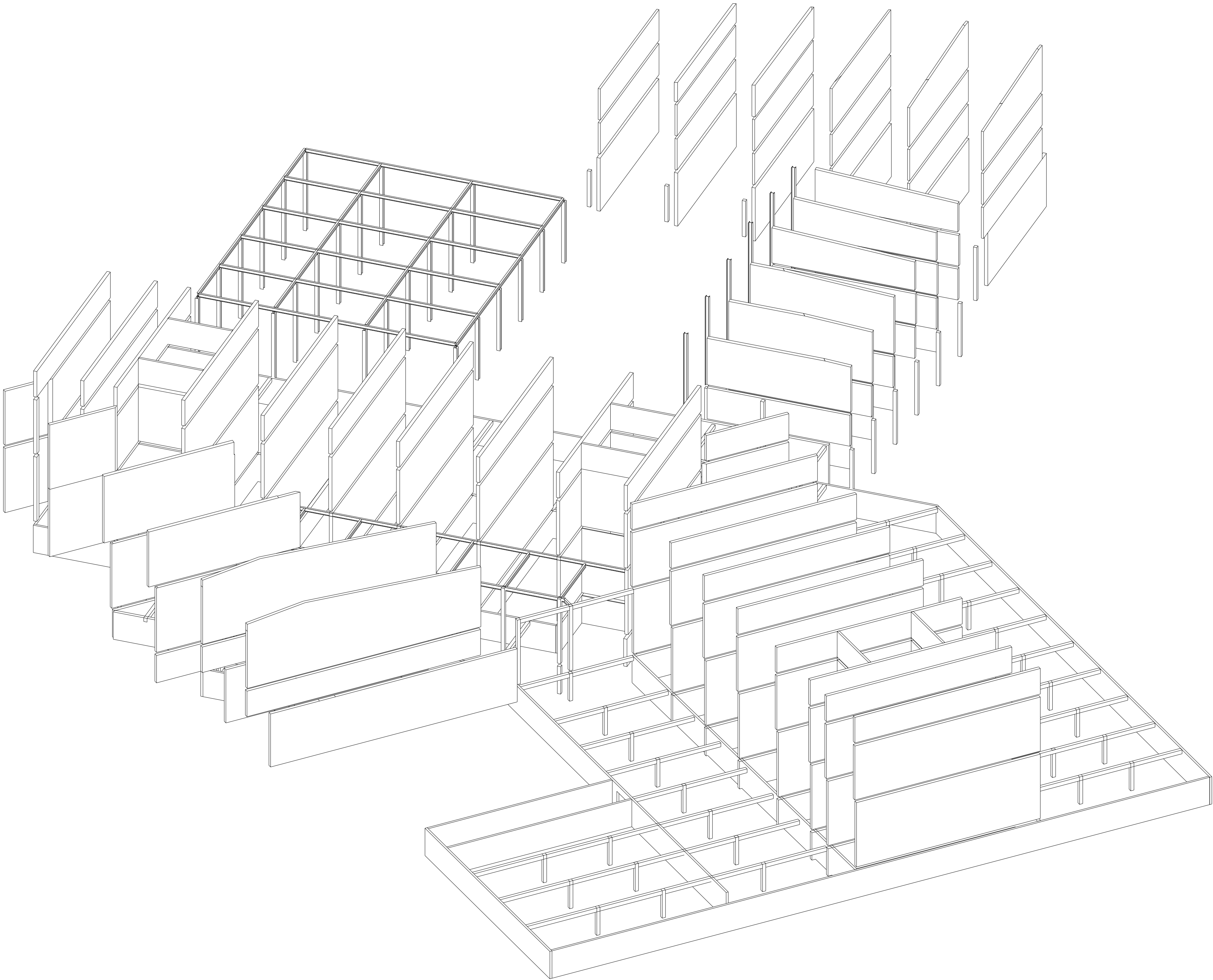


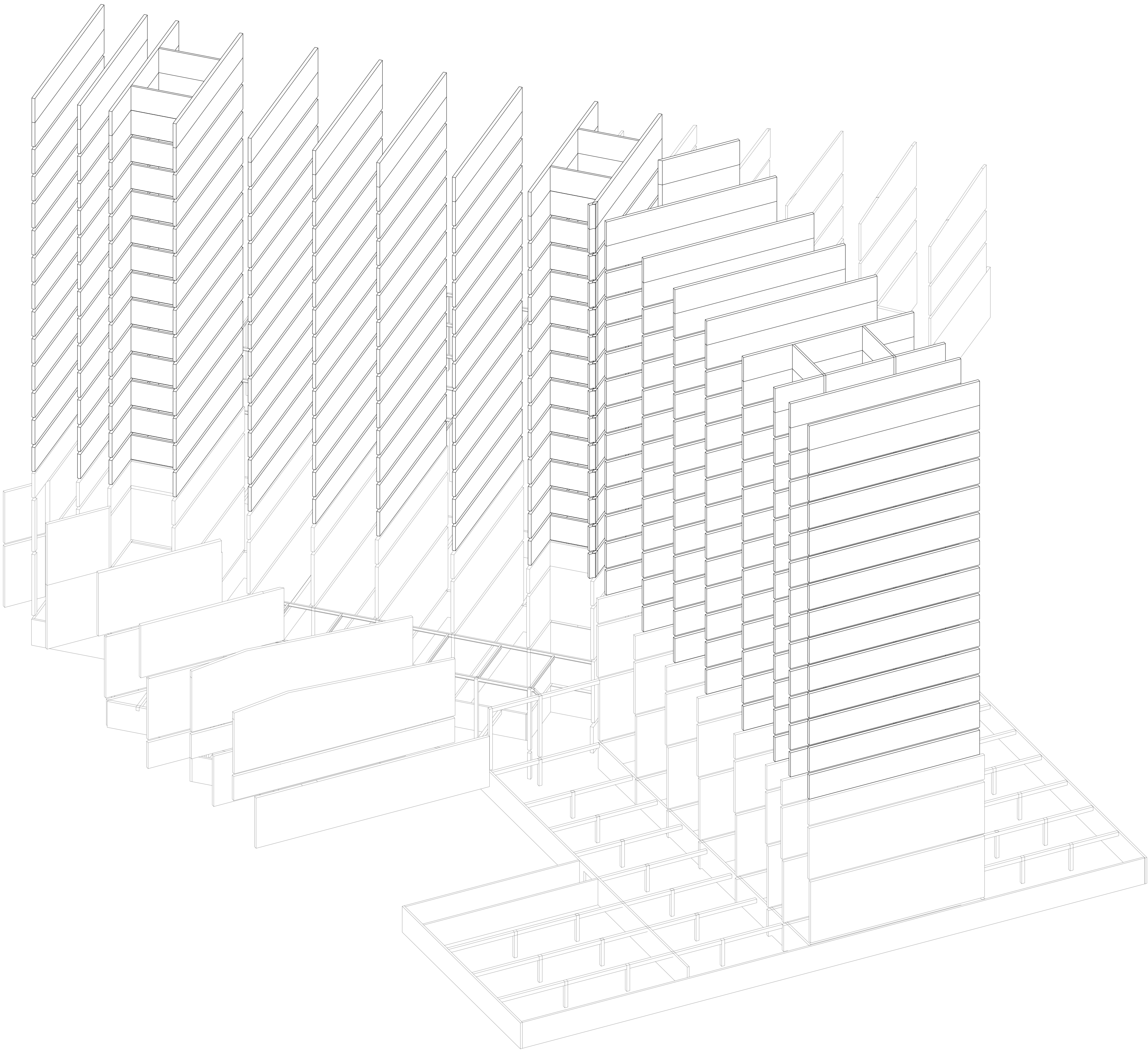


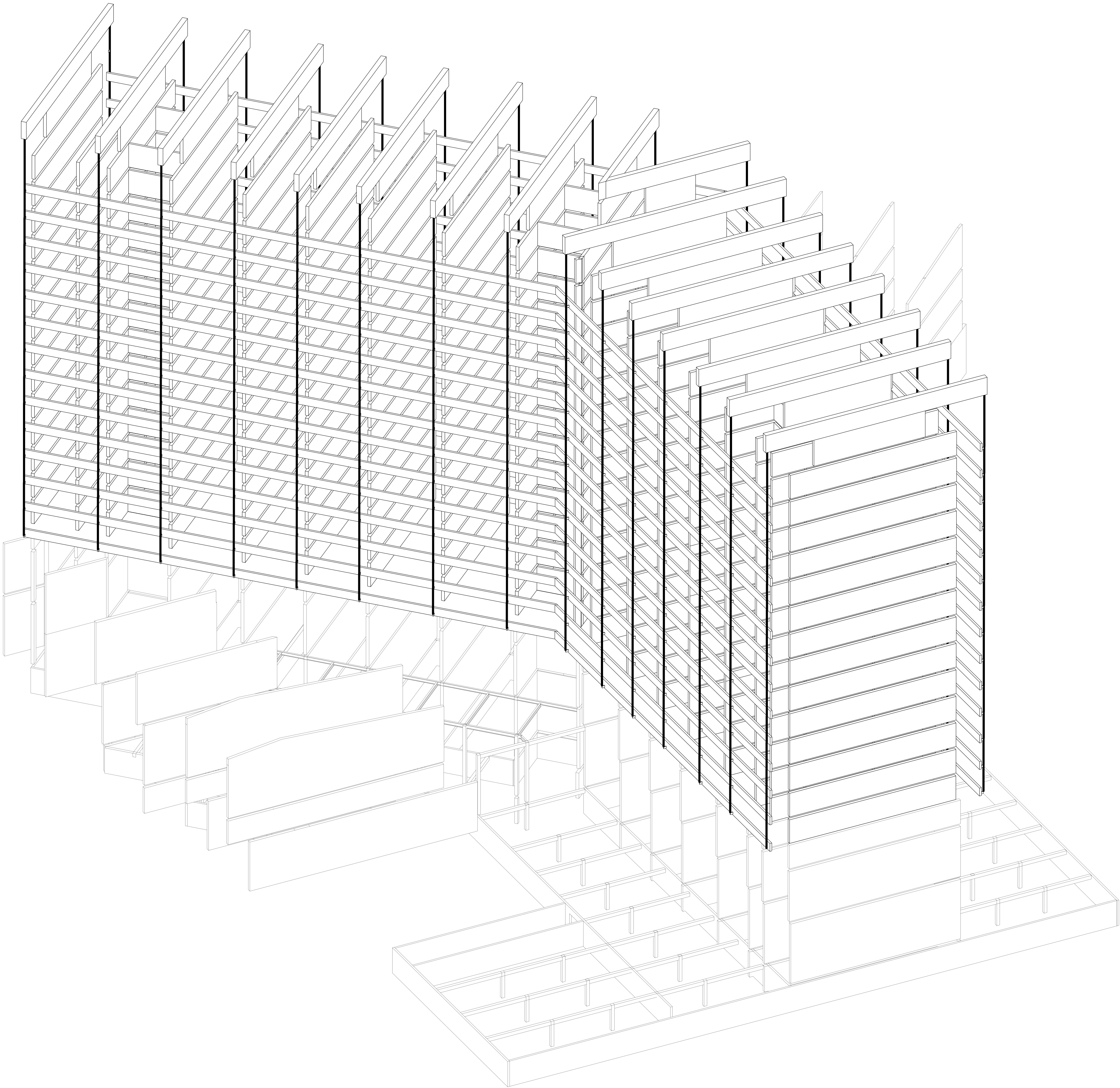






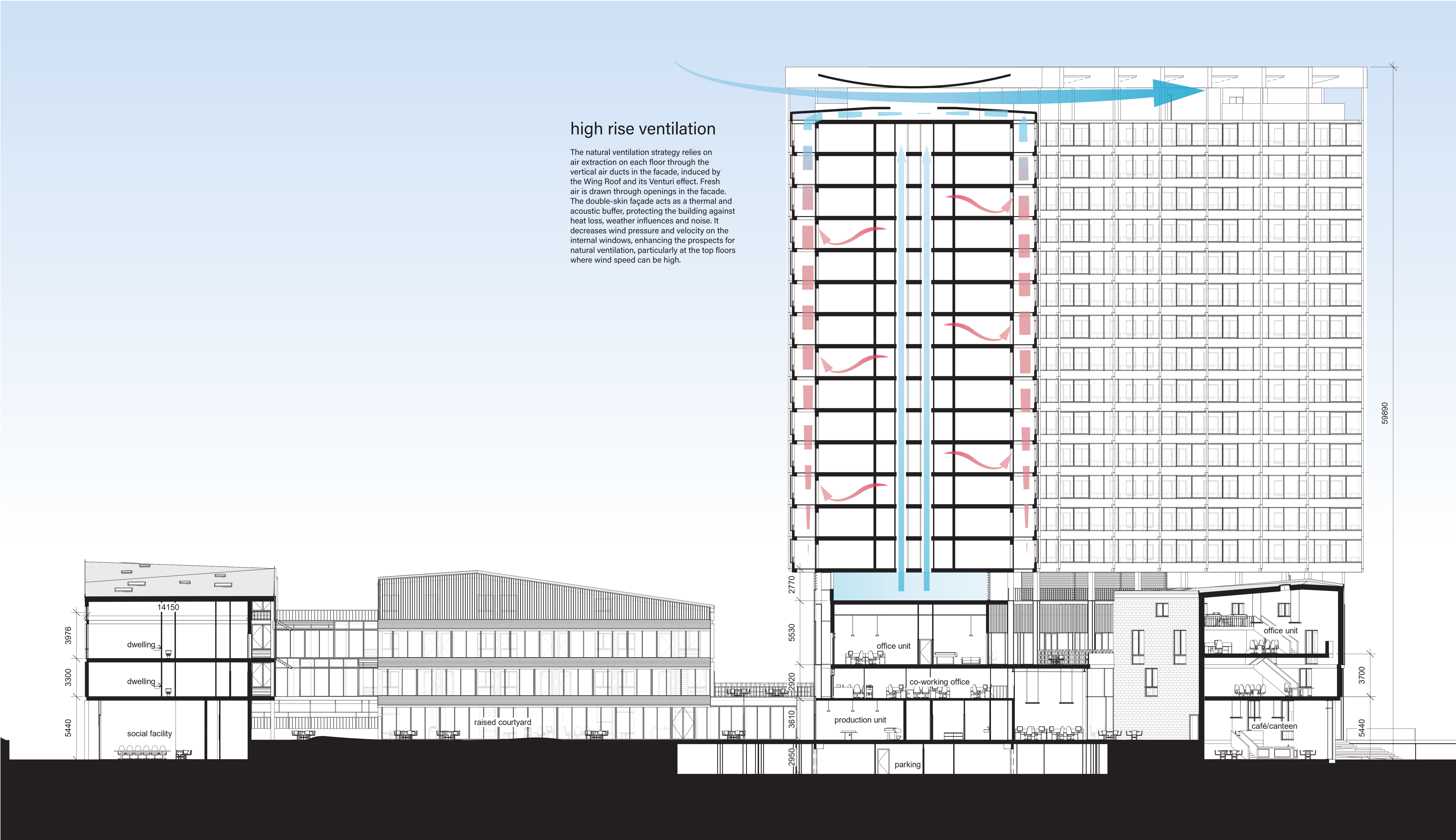


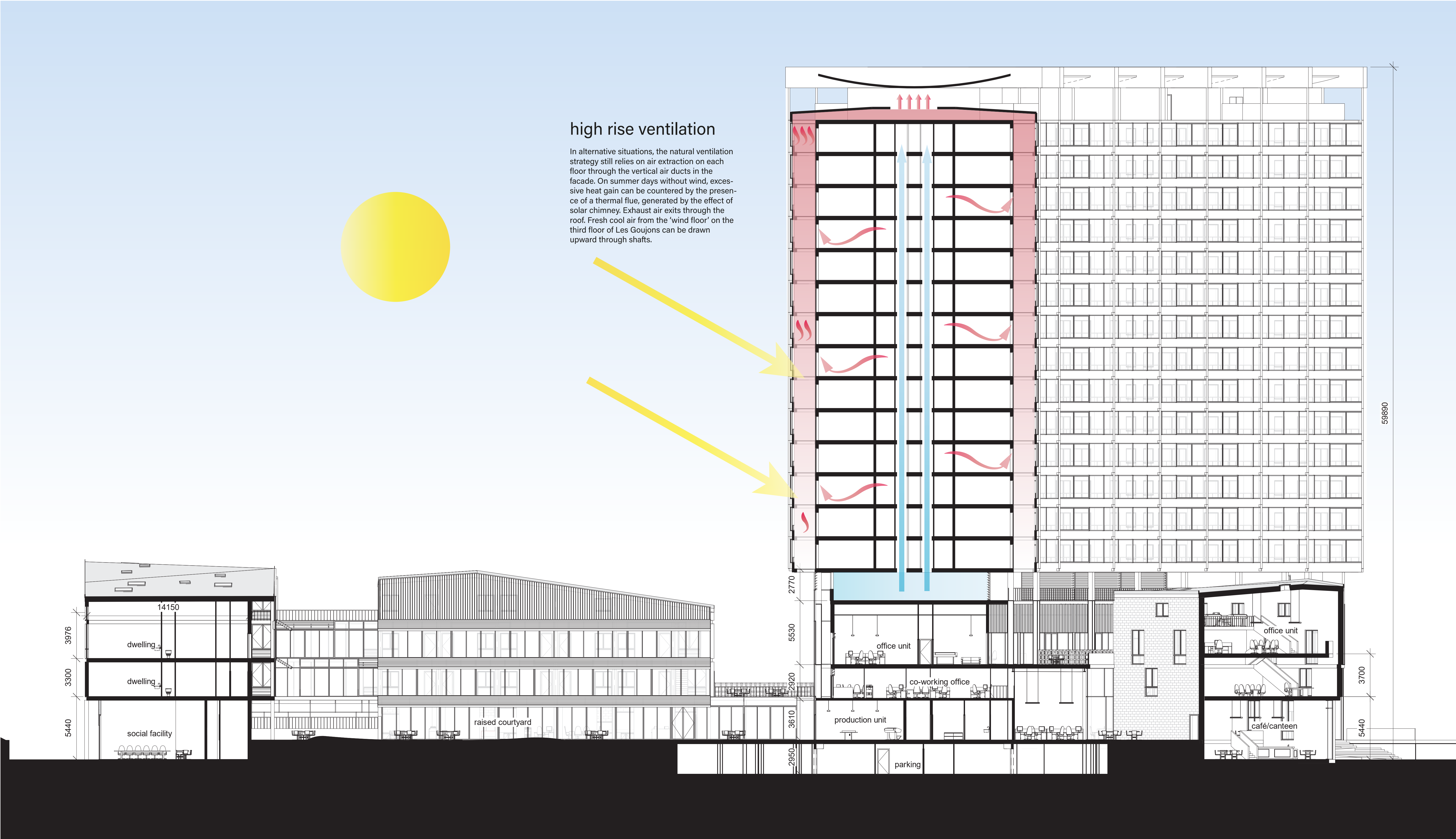


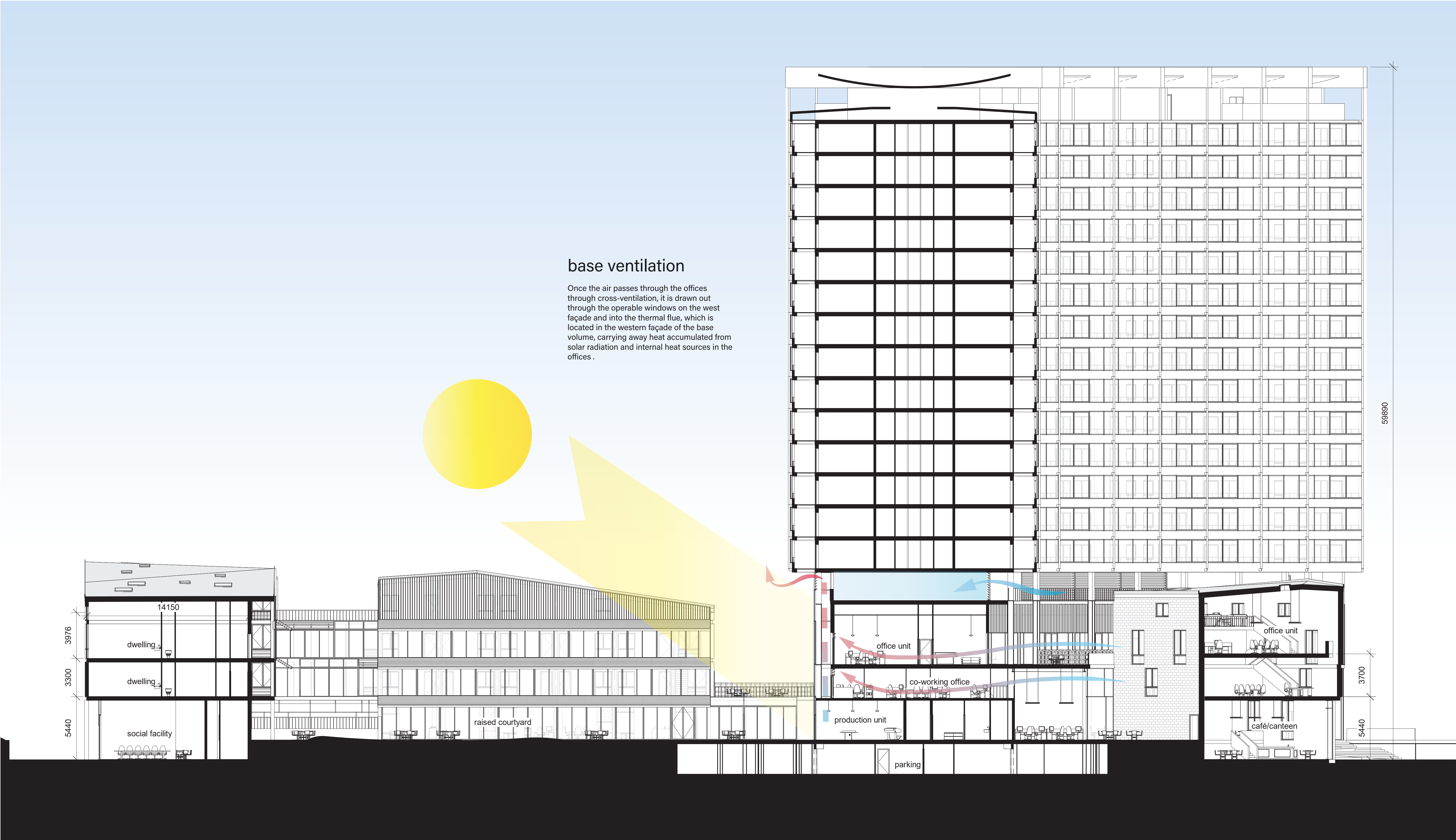


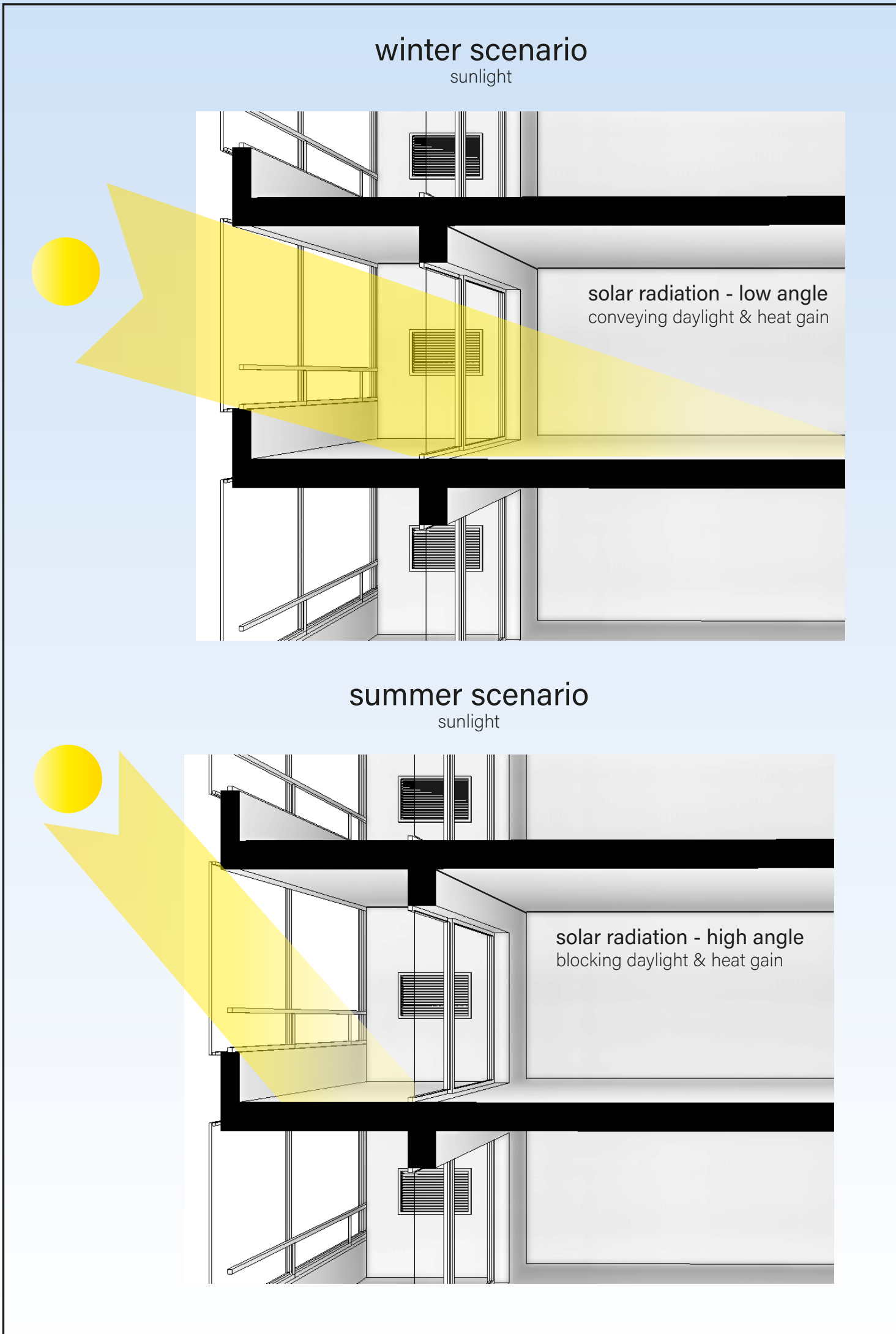
high rise ventilation

The natural ventilation strategy relies on air extraction on each floor through the vertical air ducts in the facade, induced by the Wing Roof and its Venturi effect. Fresh air is drawn through openings in the facade. The double-skin façade acts as a thermal and acoustic buffer, protecting the building against heat loss, weather influences and noise. It decreases wind pressure and velocity on the internal windows, enhancing the prospects for natural ventilation, particularly at the top floors where wind speed can be high.



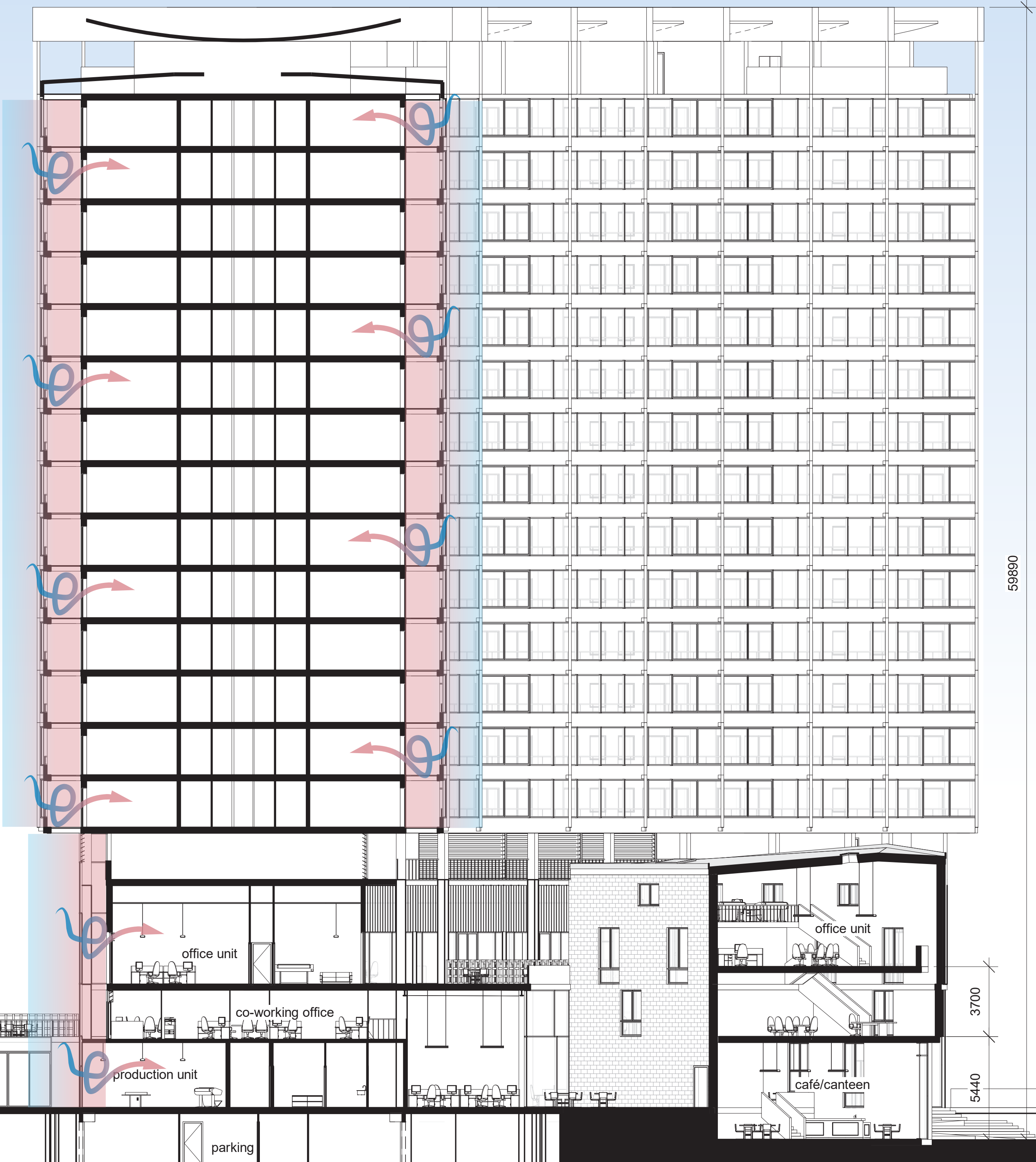






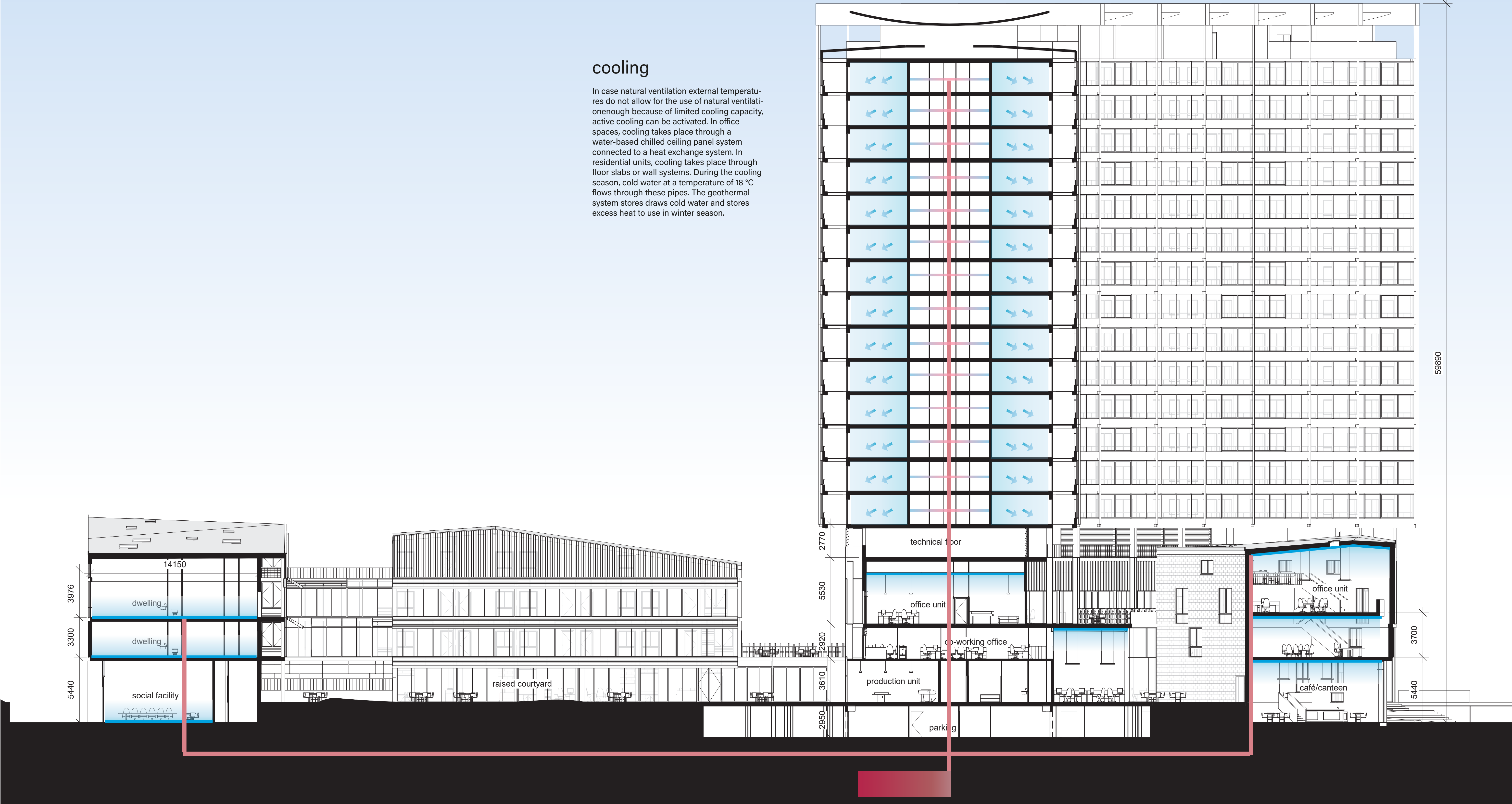
solar heat gain

When there is a demand for heating, the double facade enables fresh air to be pre-heated in the cavity to reduce energy consumption by solar heat gain in the cavity. When heat gain is undesirable, canopies provide shading for (high angle) sunlight to reduce excessive heat gain in summer season.



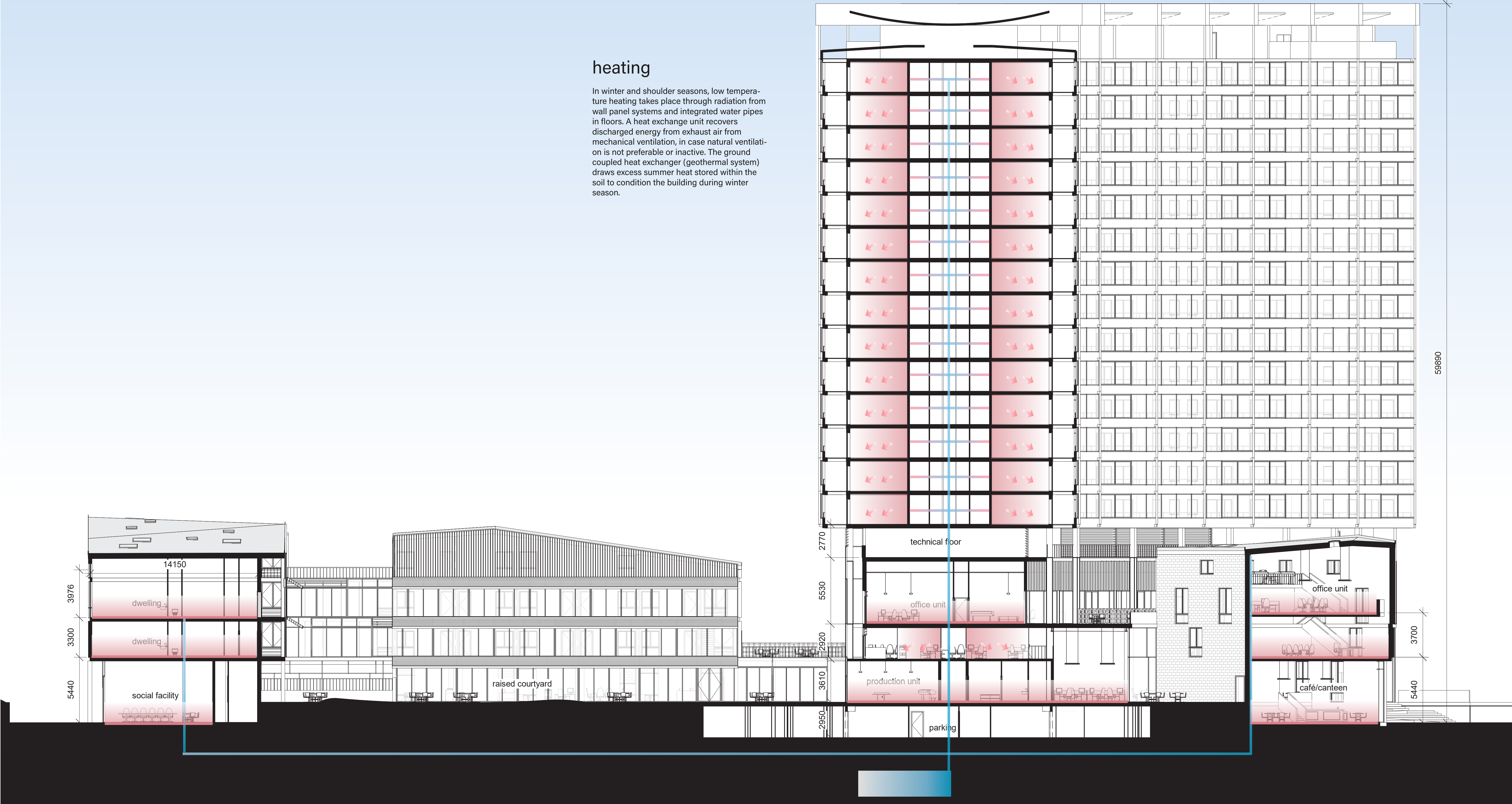
cooling

In case natural ventilation external temperatures do not allow for the use of natural ventilation enough because of limited cooling capacity, active cooling can be activated. In office spaces, cooling takes place through a water-based chilled ceiling panel system connected to a heat exchange system. In residential units, cooling takes place through floor slabs or wall systems. During the cooling season, cold water at a temperature of 18 °C flows through these pipes. The geothermal system stores draws cold water and stores excess heat to use in winter season.

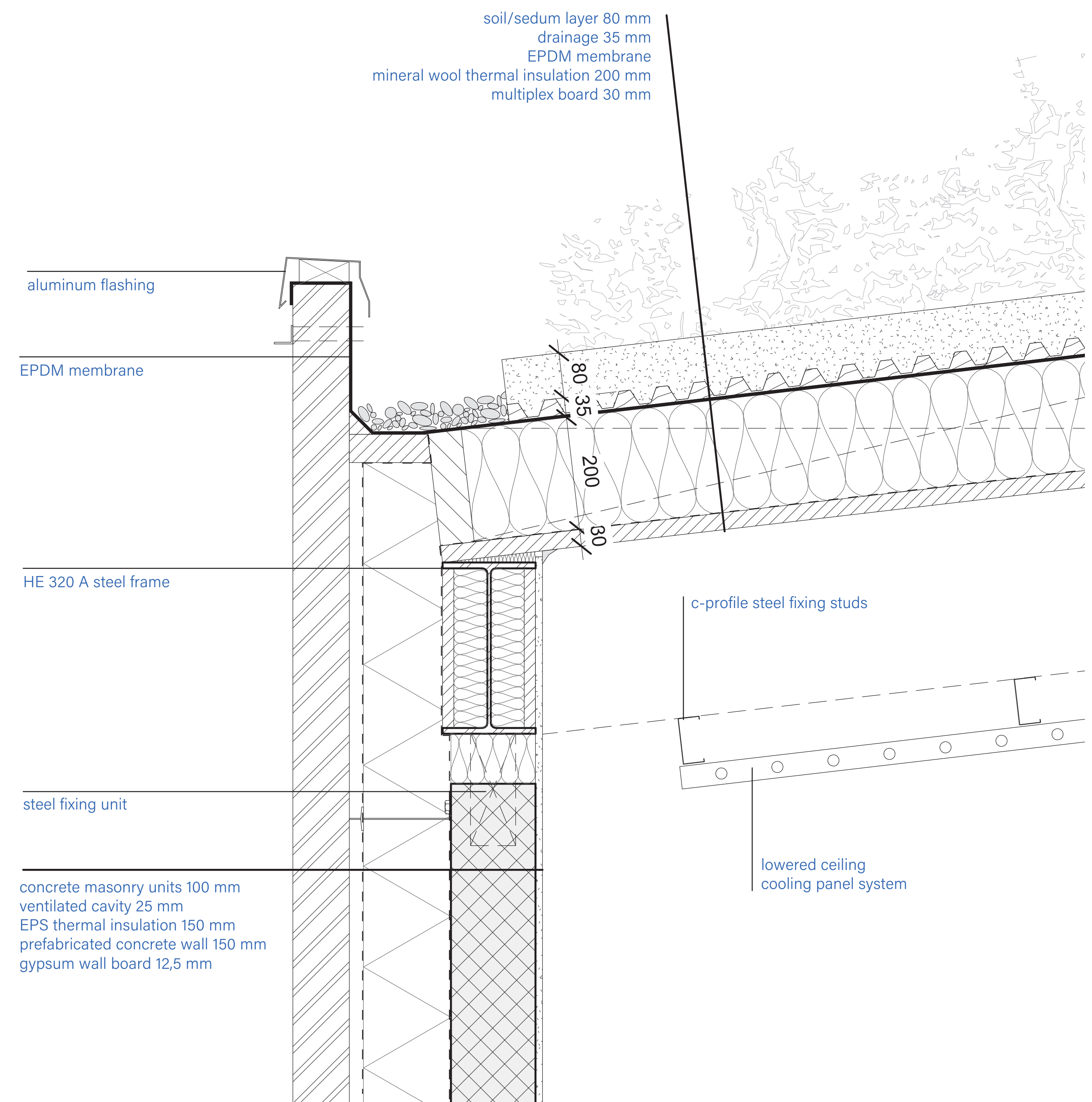


heating

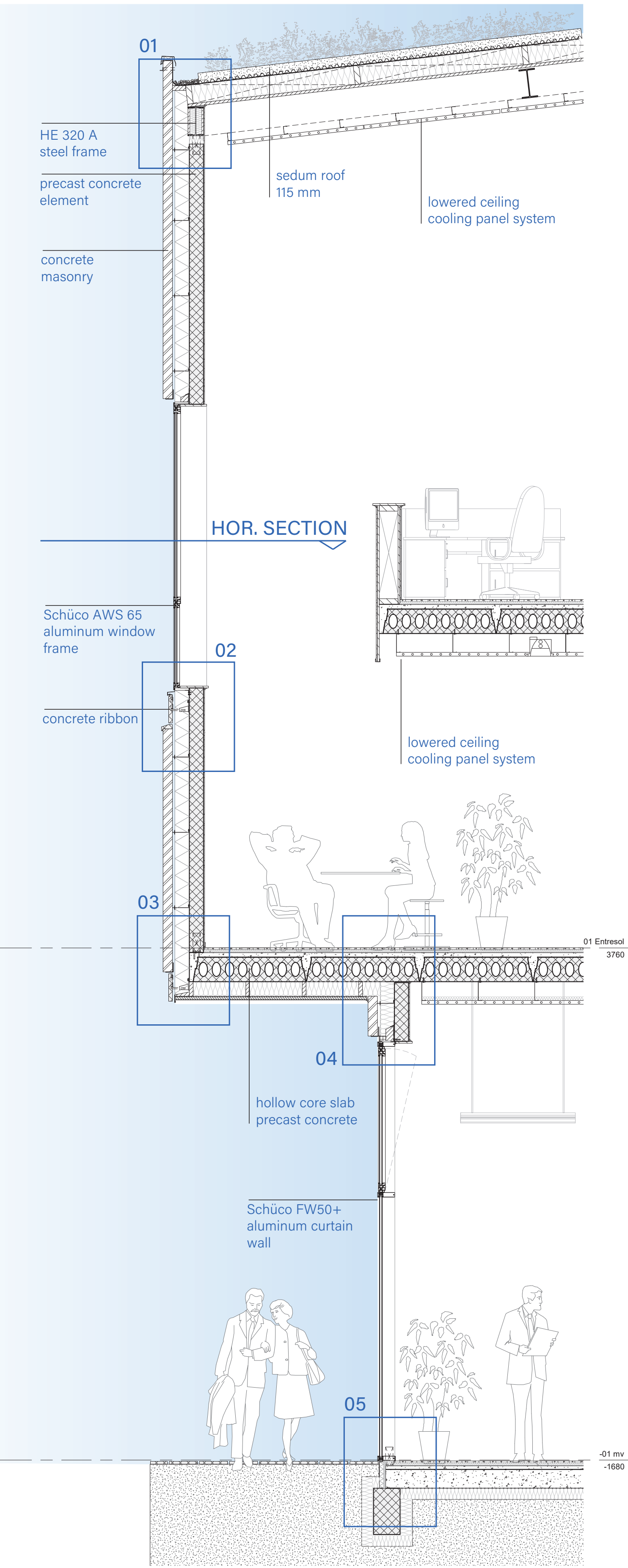
In winter and shoulder seasons, low temperature heating takes place through radiation from wall panel systems and integrated water pipes in floors. A heat exchange unit recovers discharged energy from exhaust air from mechanical ventilation, in case natural ventilation is not preferable or inactive. The ground coupled heat exchanger (geothermal system) draws excess summer heat stored within the soil to condition the building during winter season.



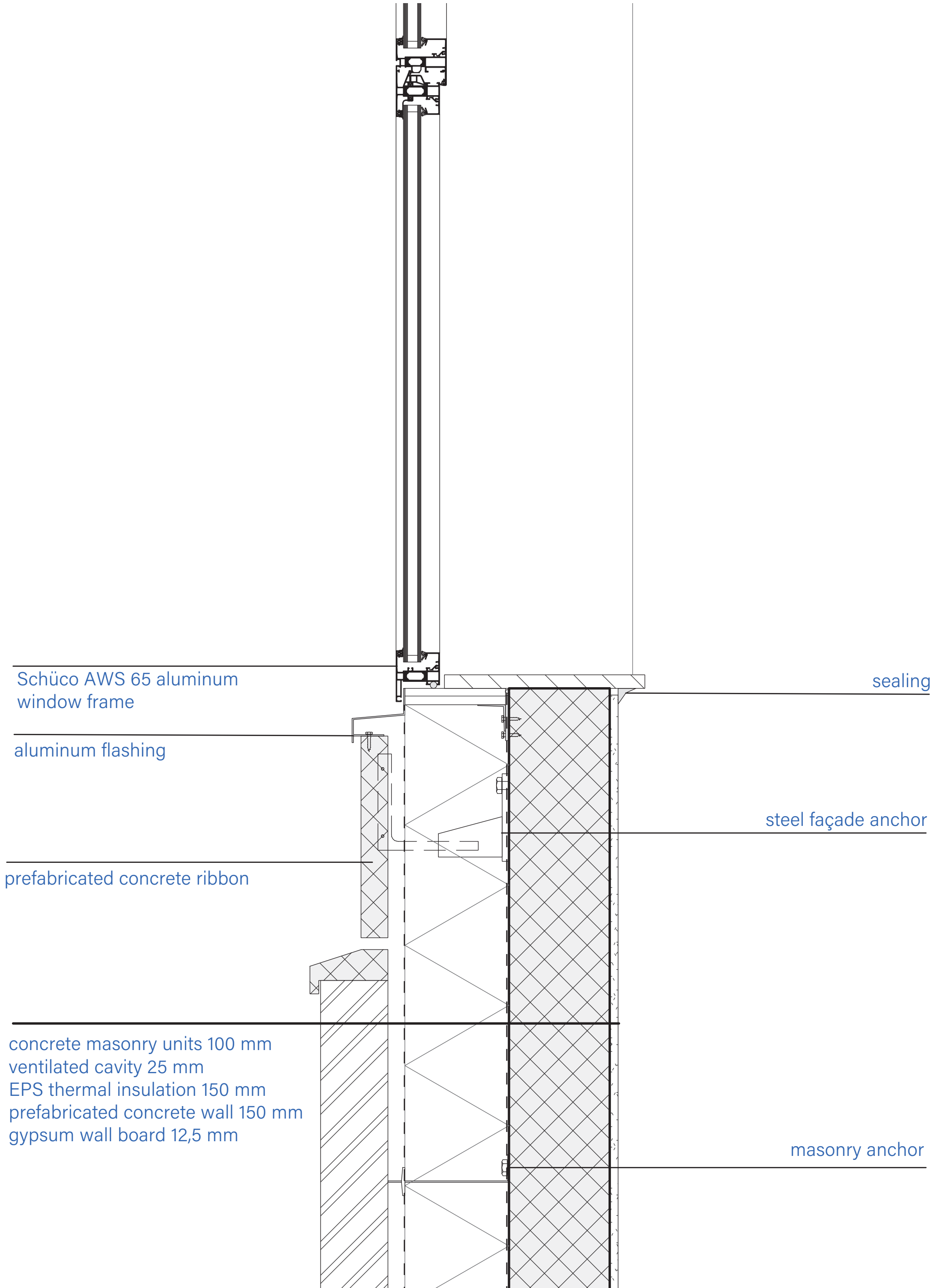
DETAIL SECTIONS



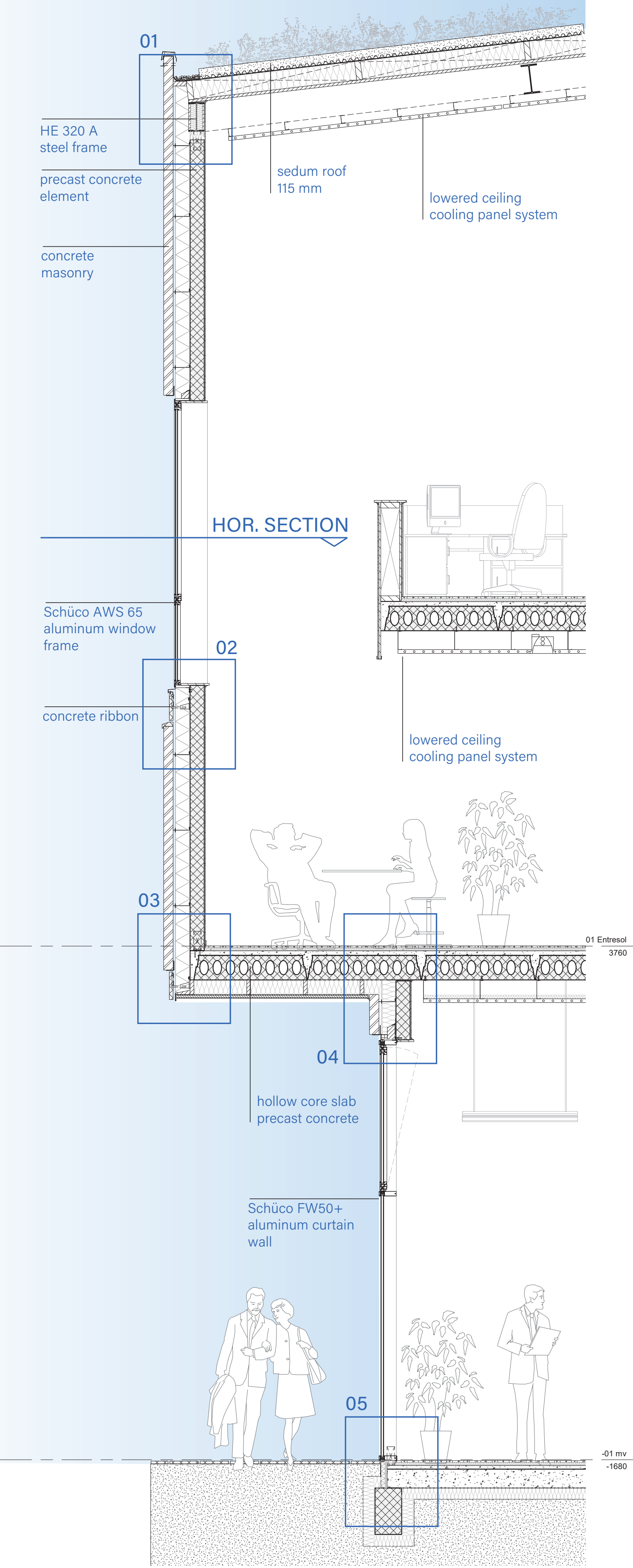
DETAIL 01



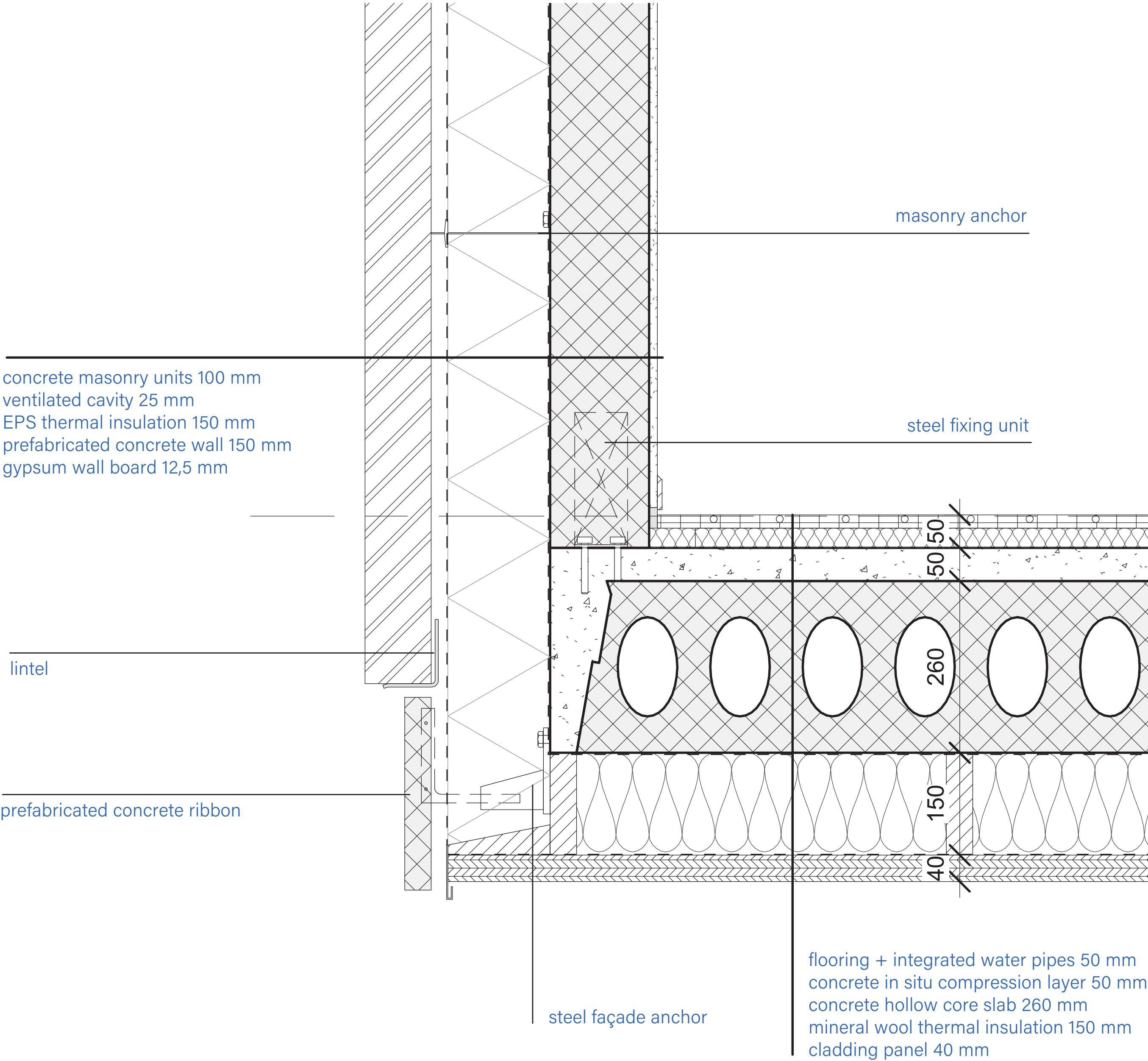
DETAIL SECTIONS



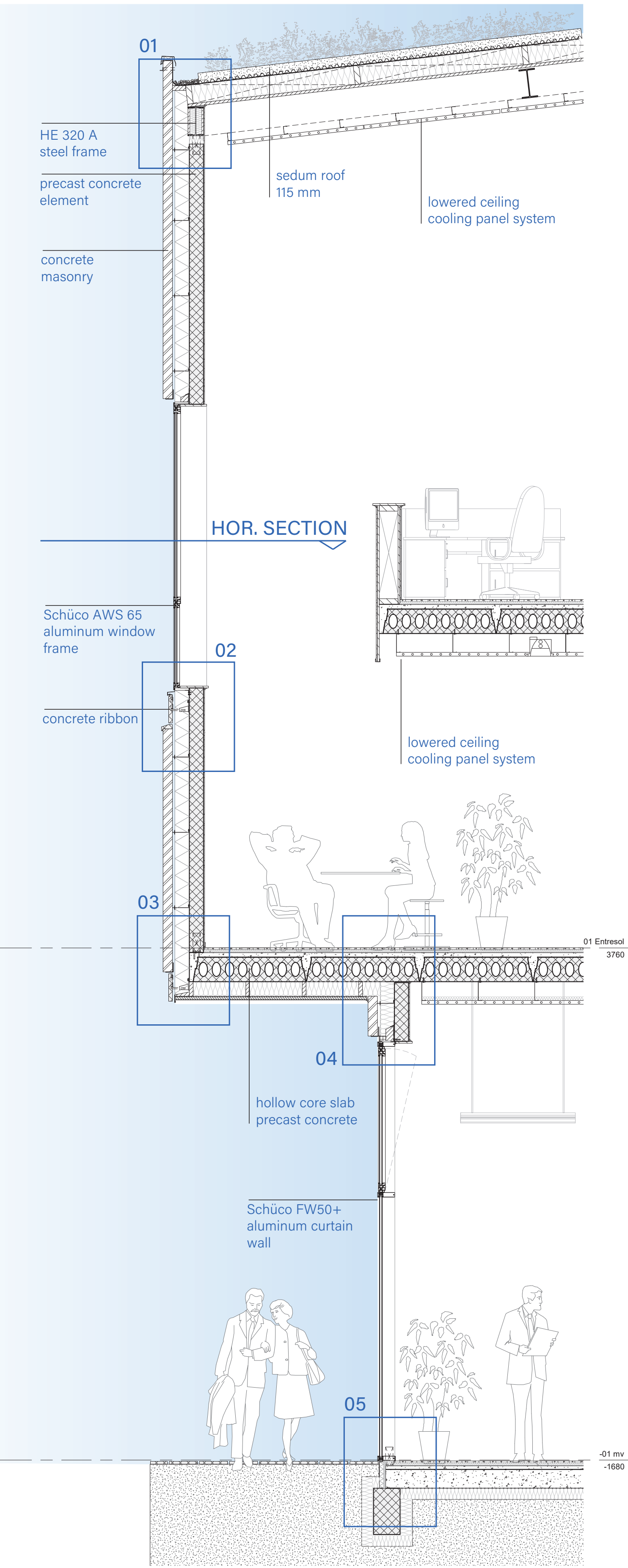
DETAIL 02



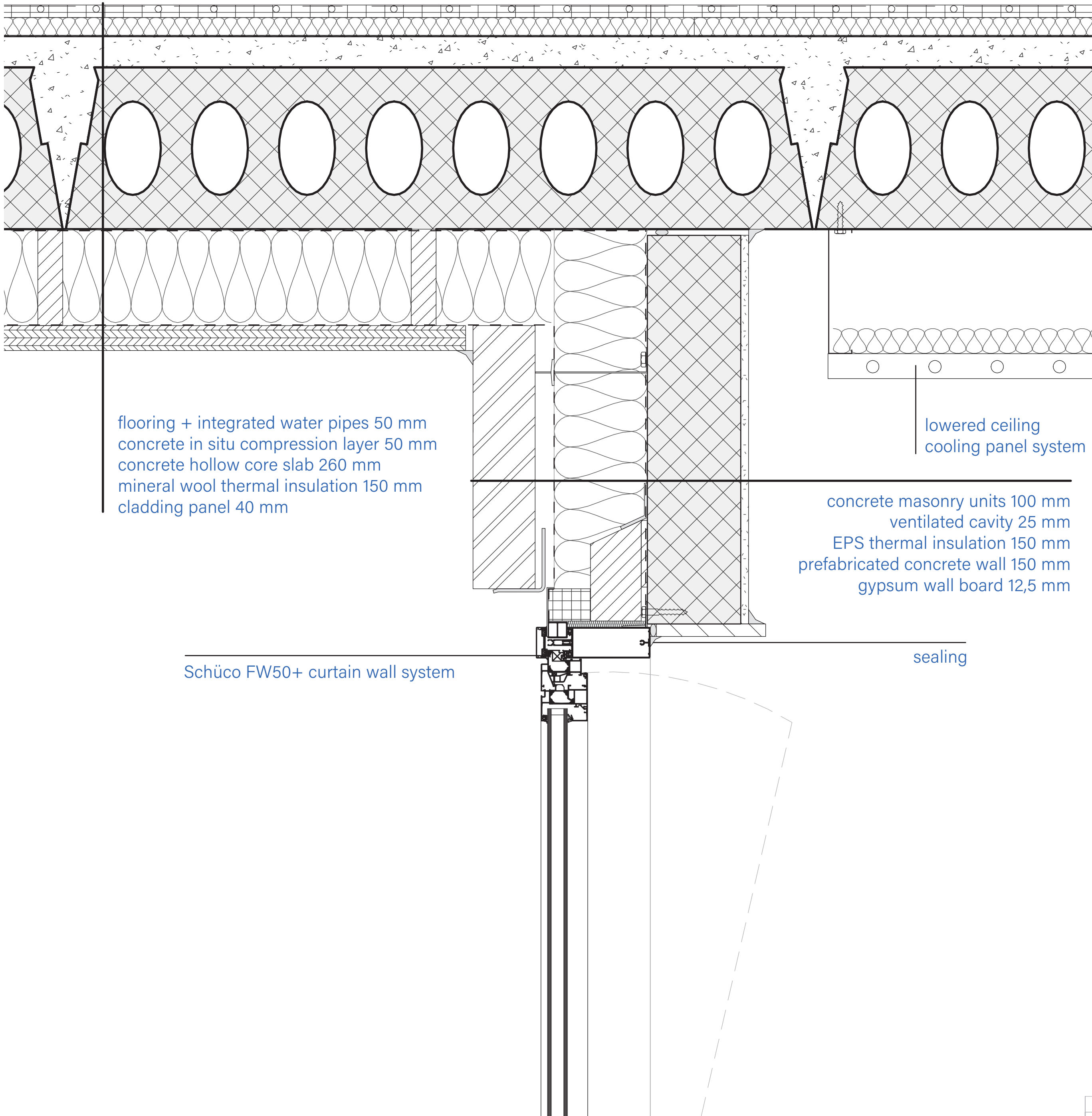
DETAIL SECTIONS



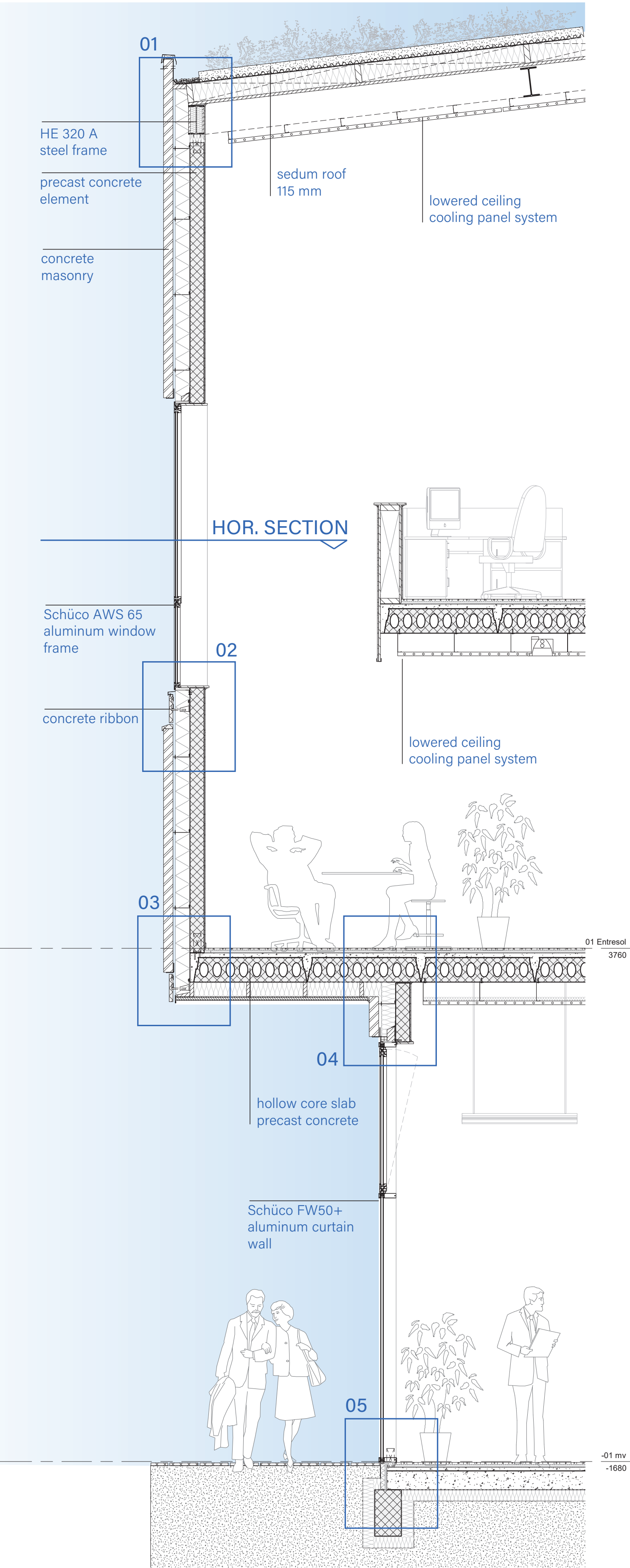
DETAIL 03



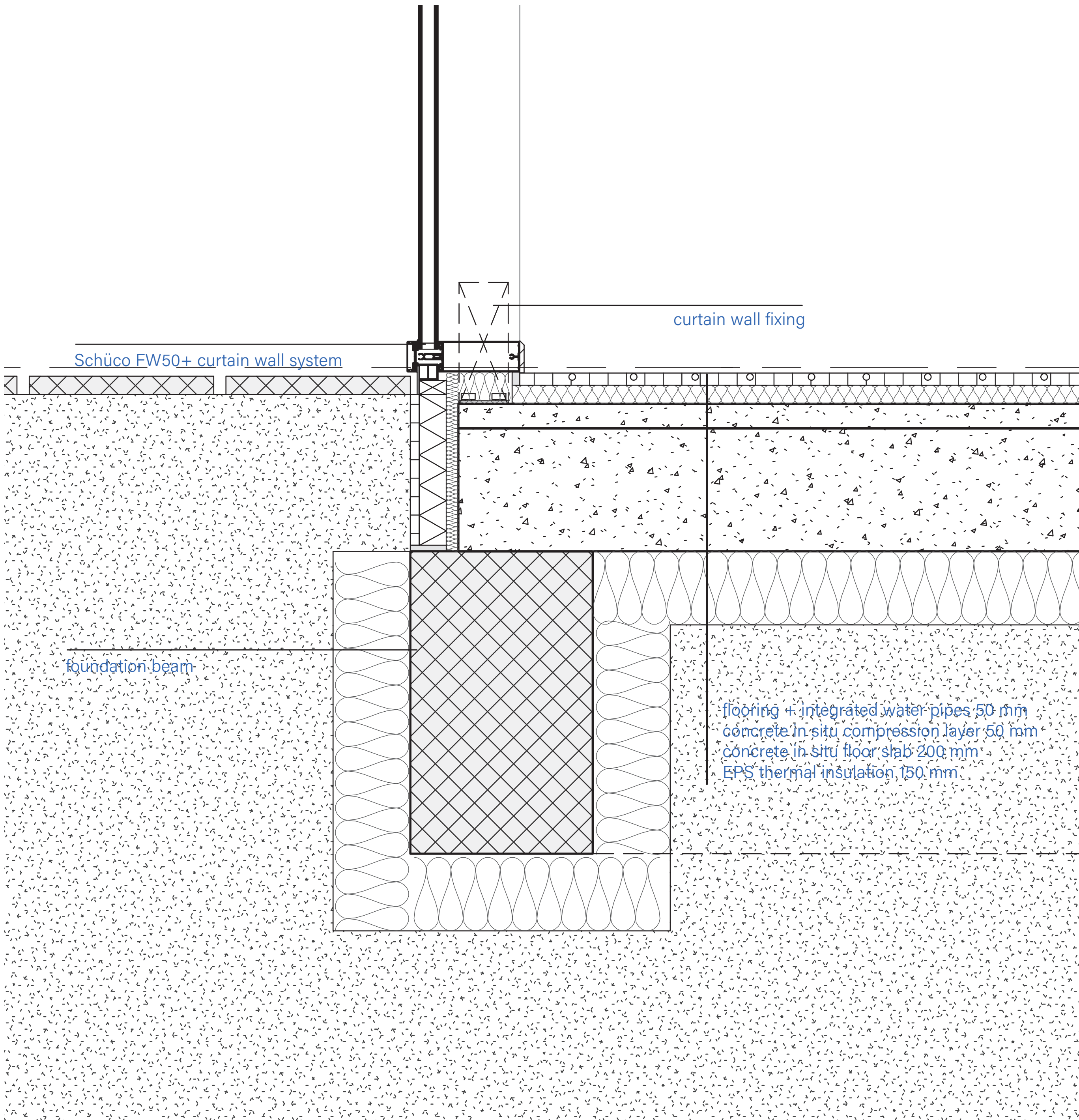
DETAIL SECTIONS



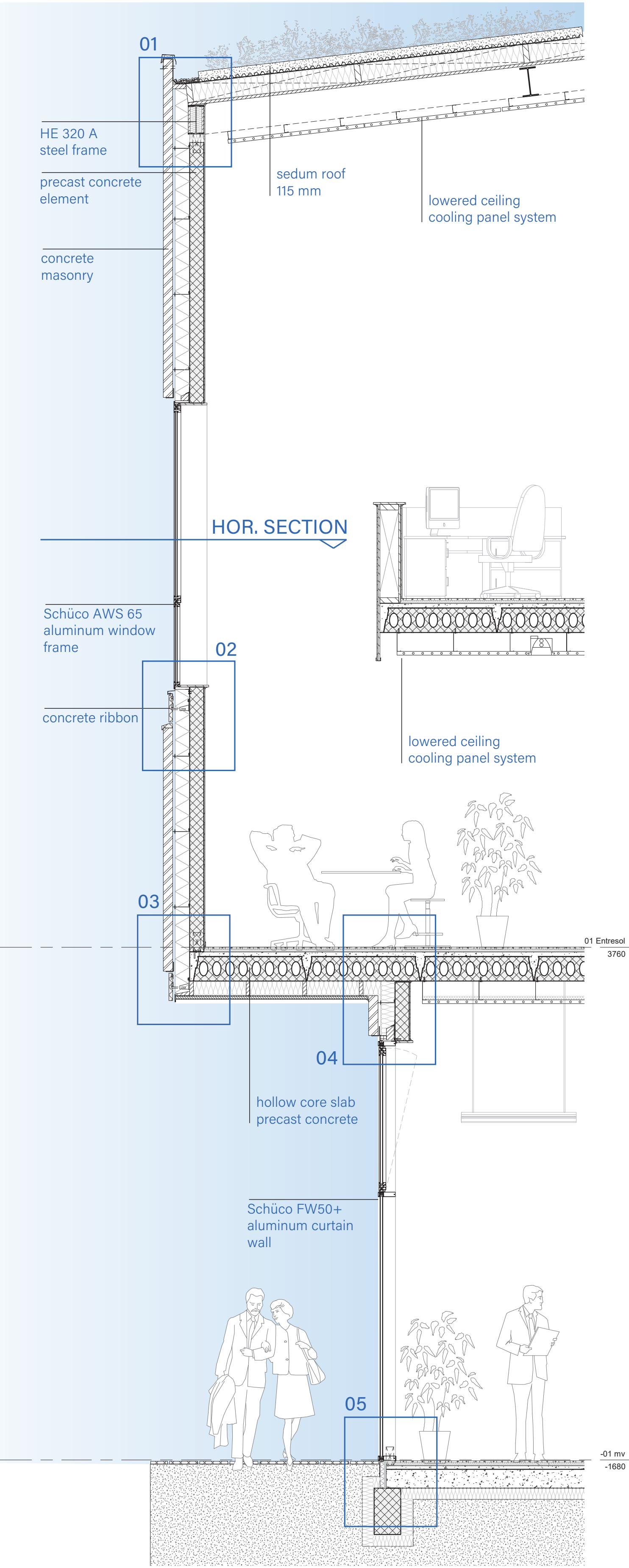
DETAIL 04

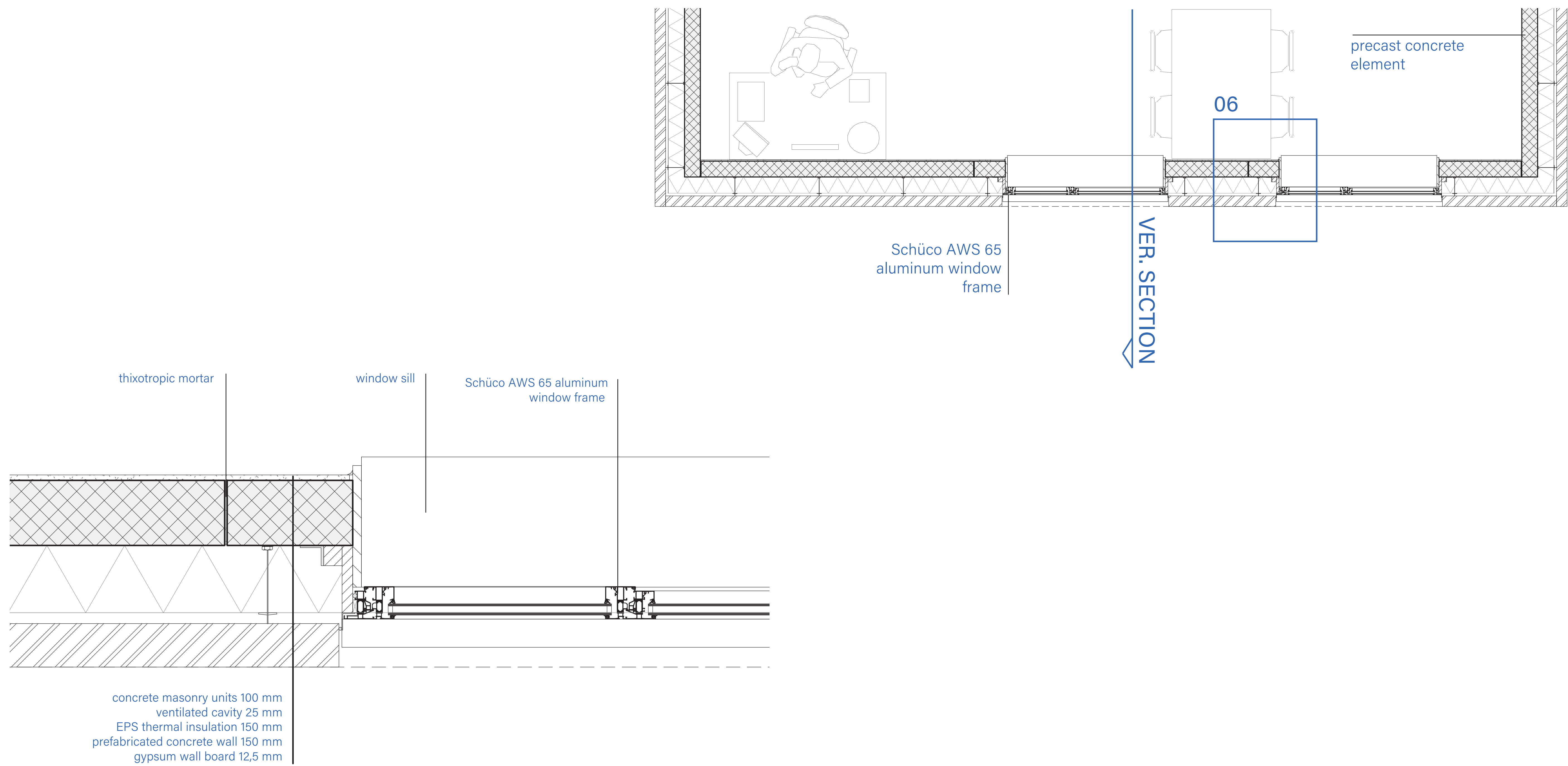


DETAIL SECTIONS



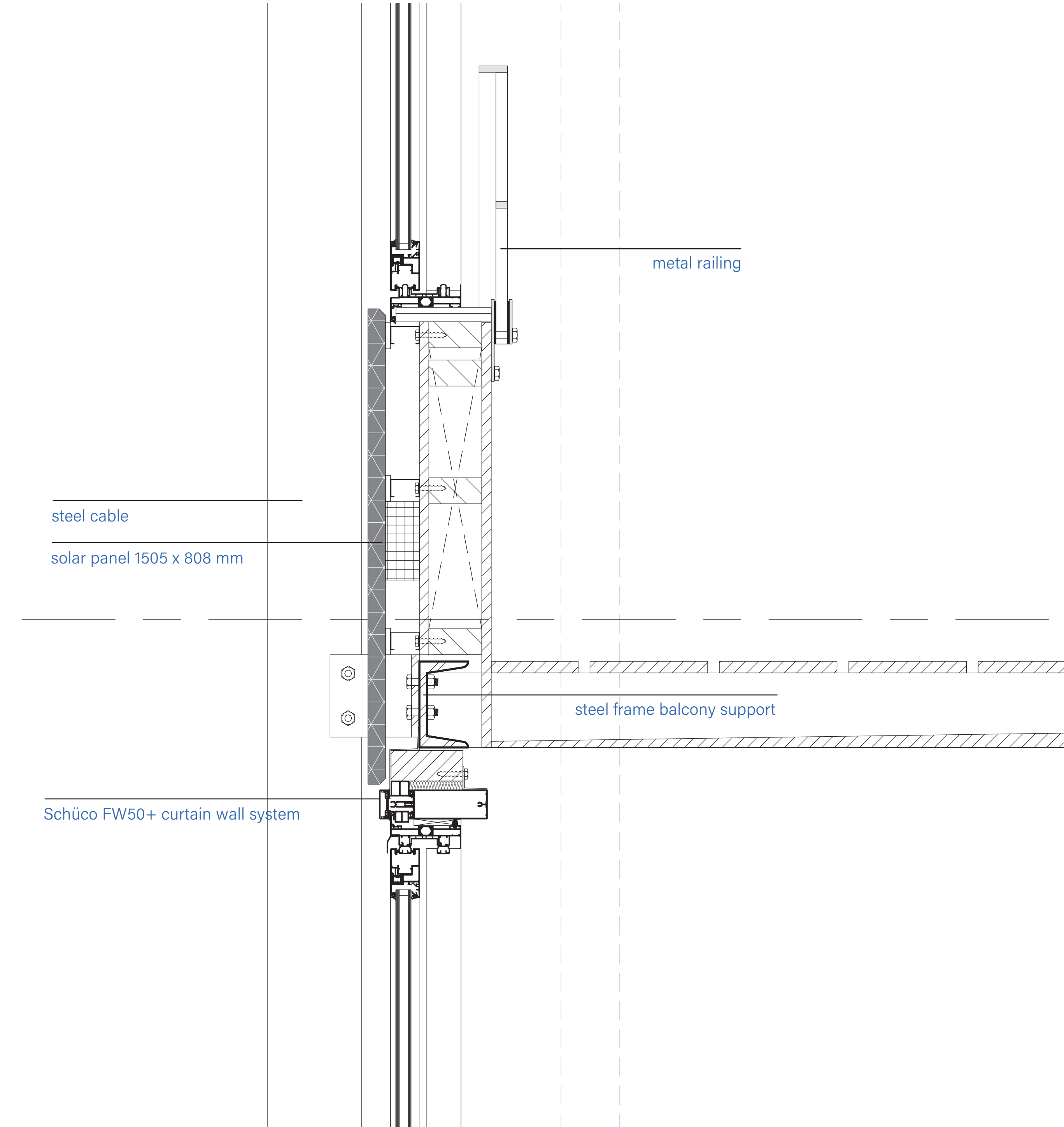
DETAIL 05



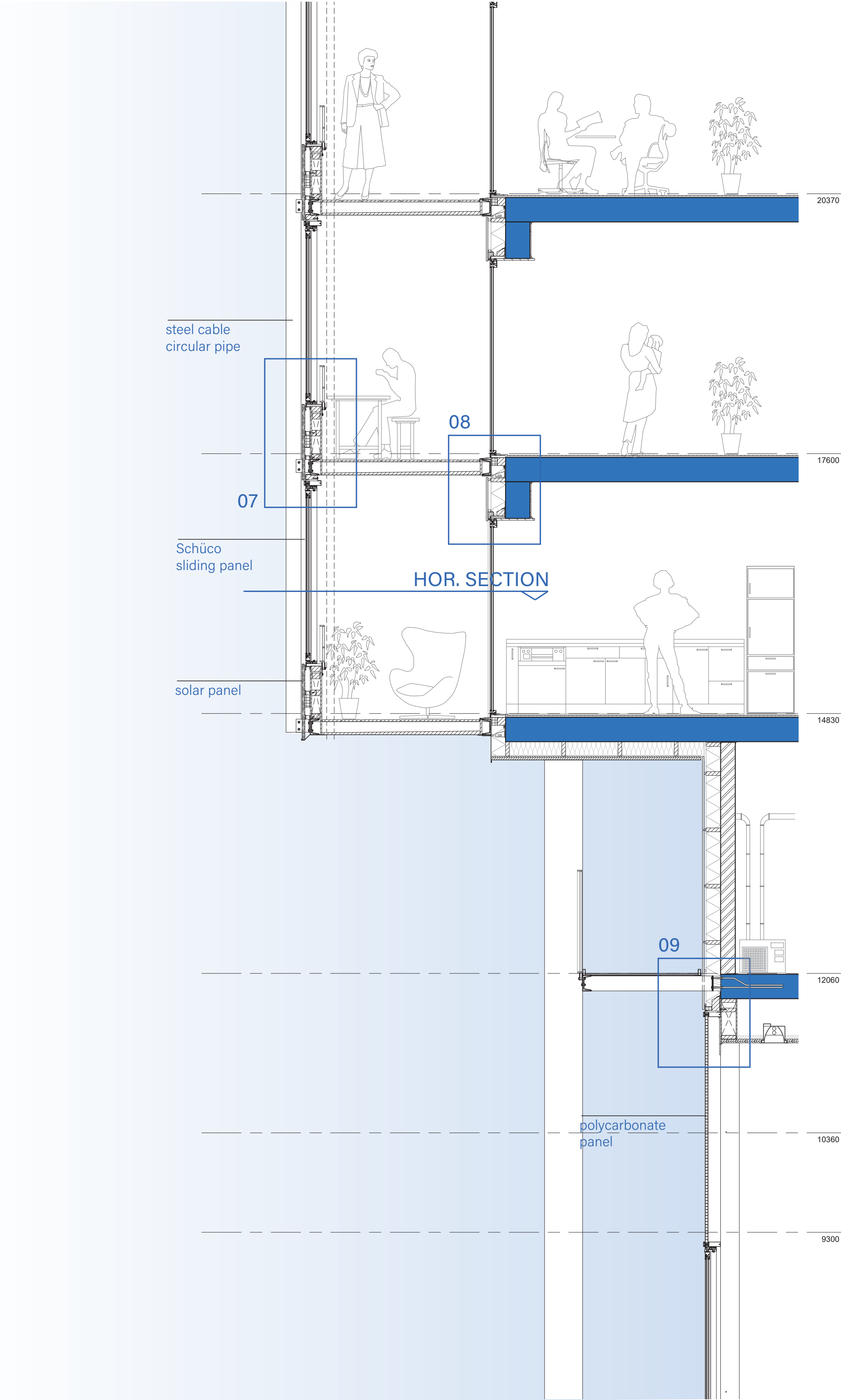


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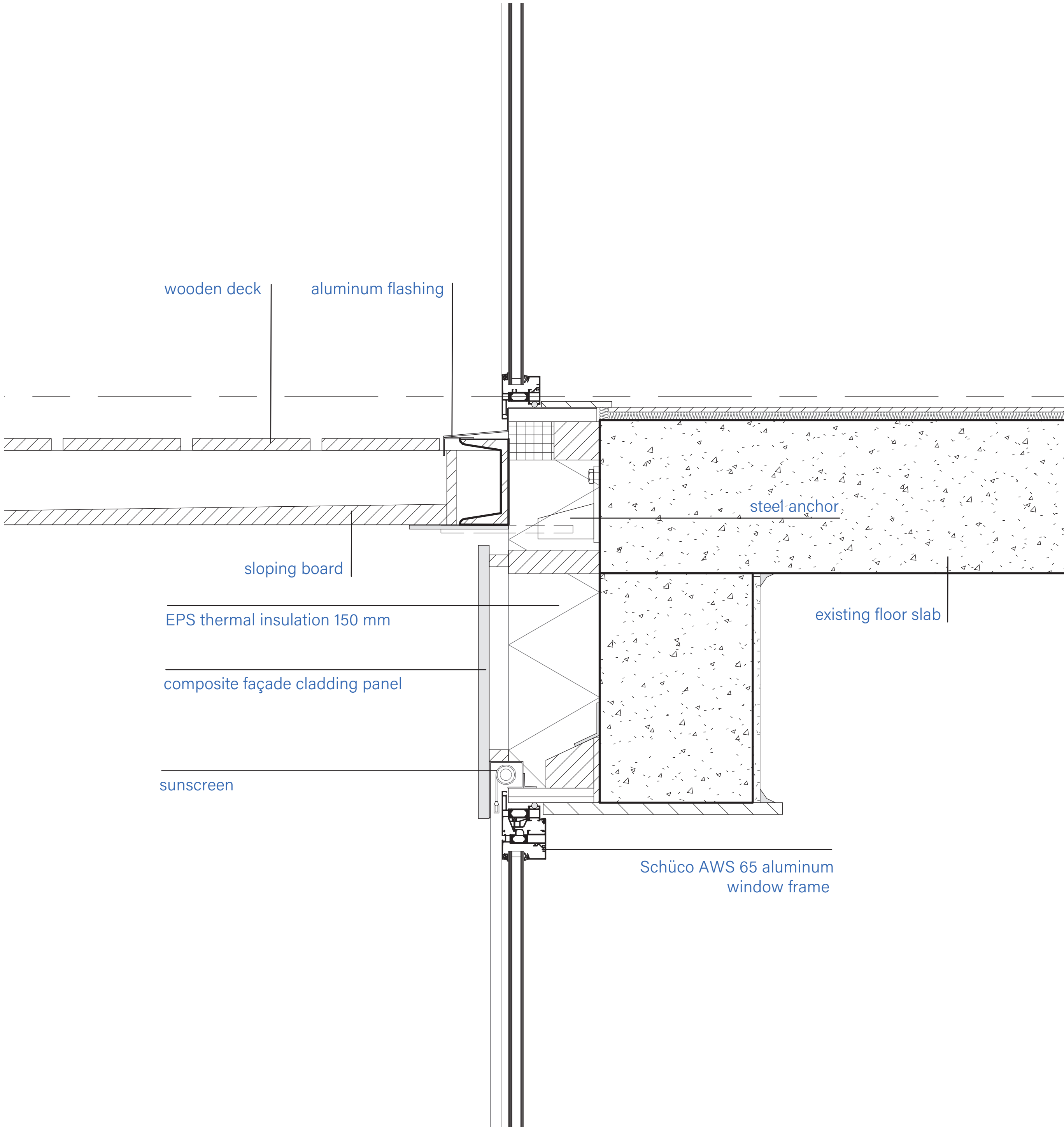
DETAIL SECTIONS



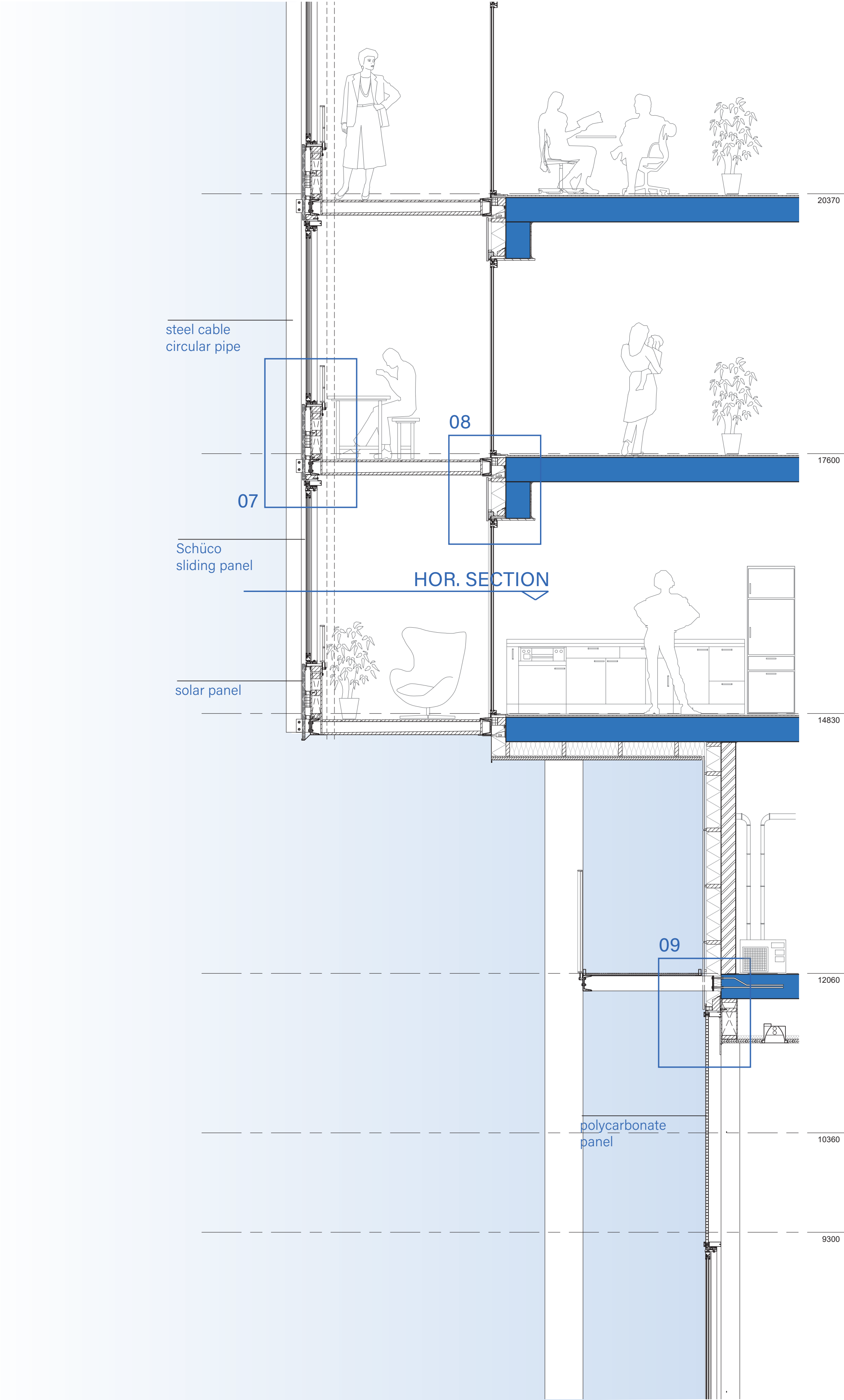
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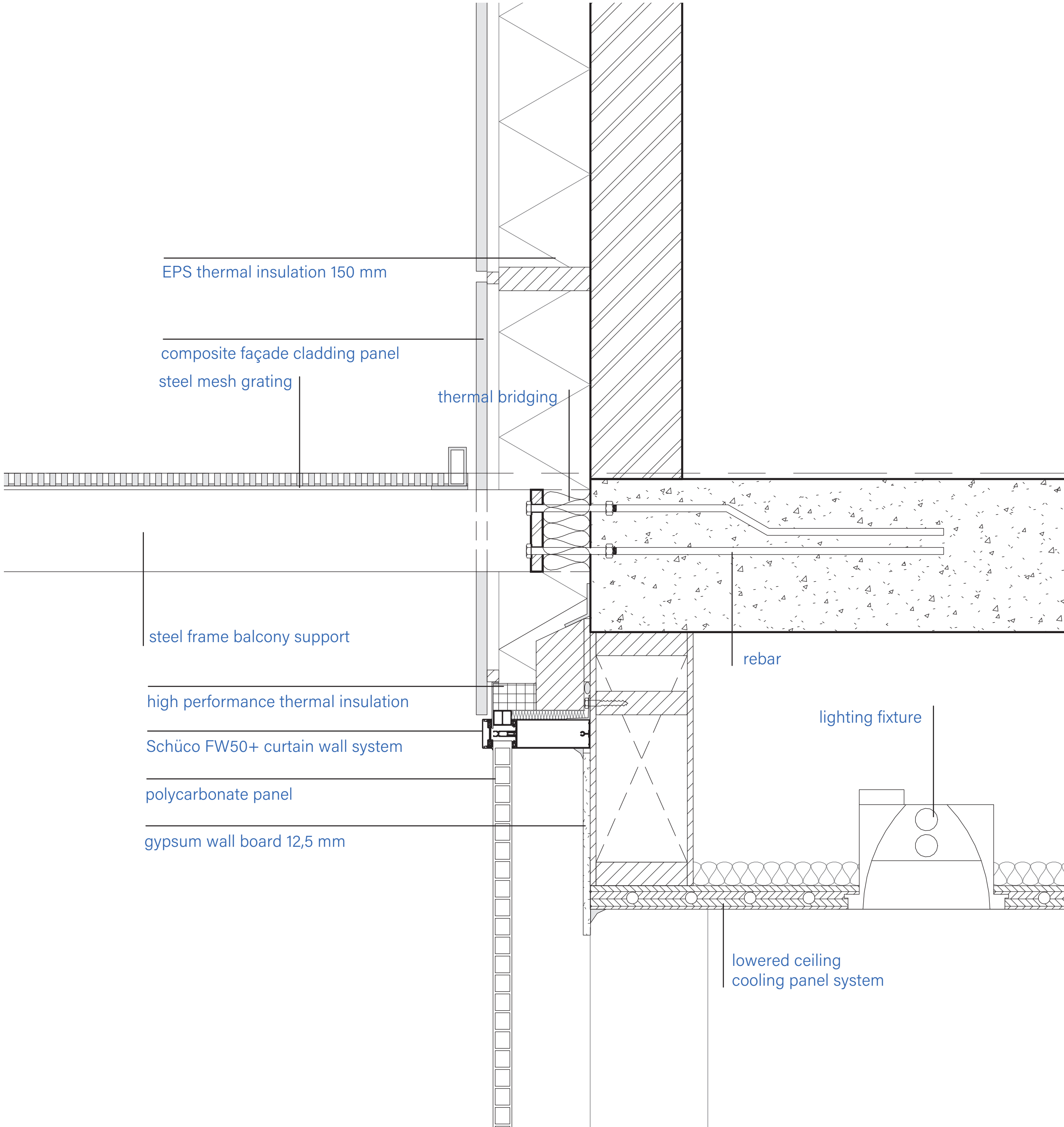


DETAIL SECTIONS

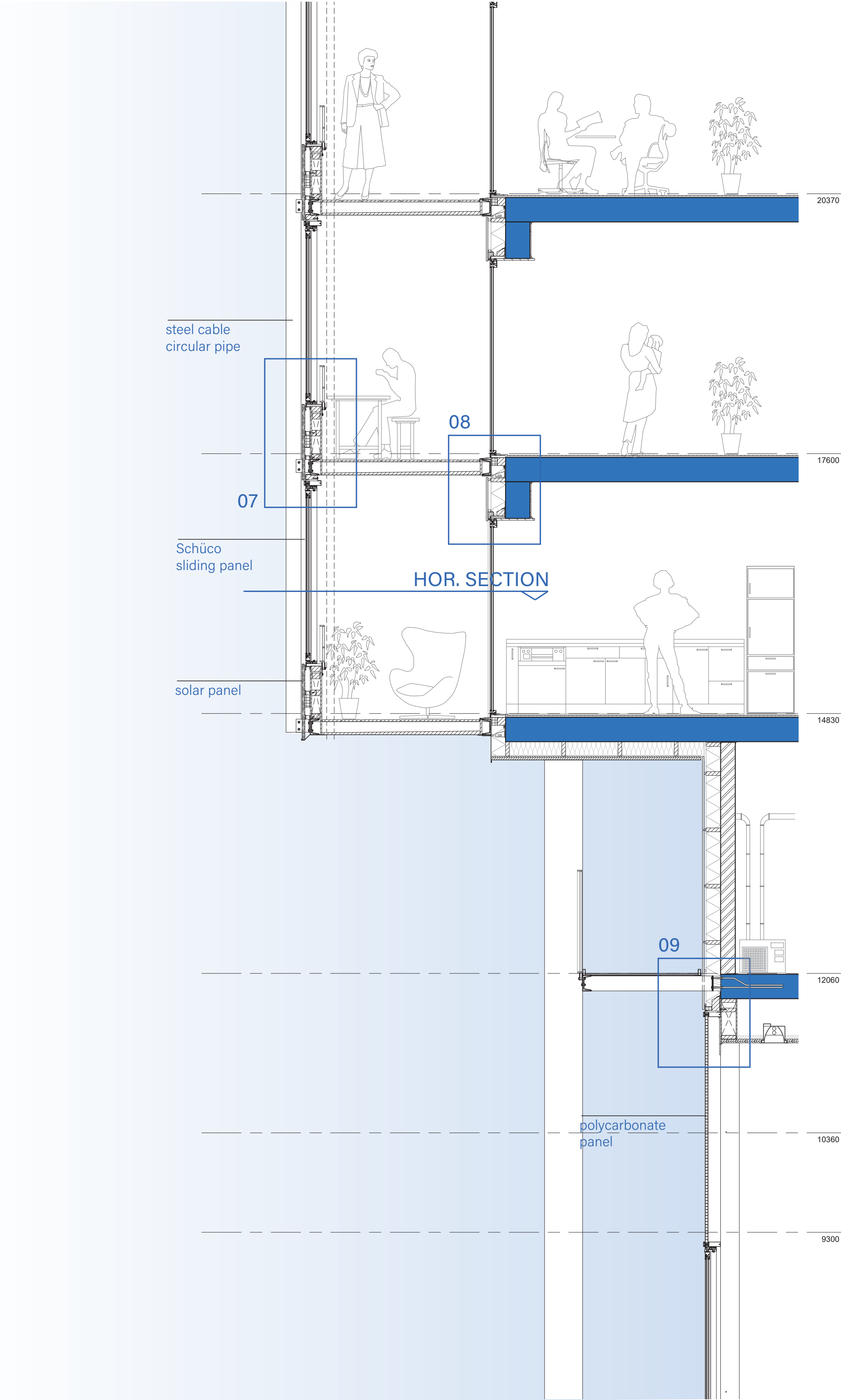


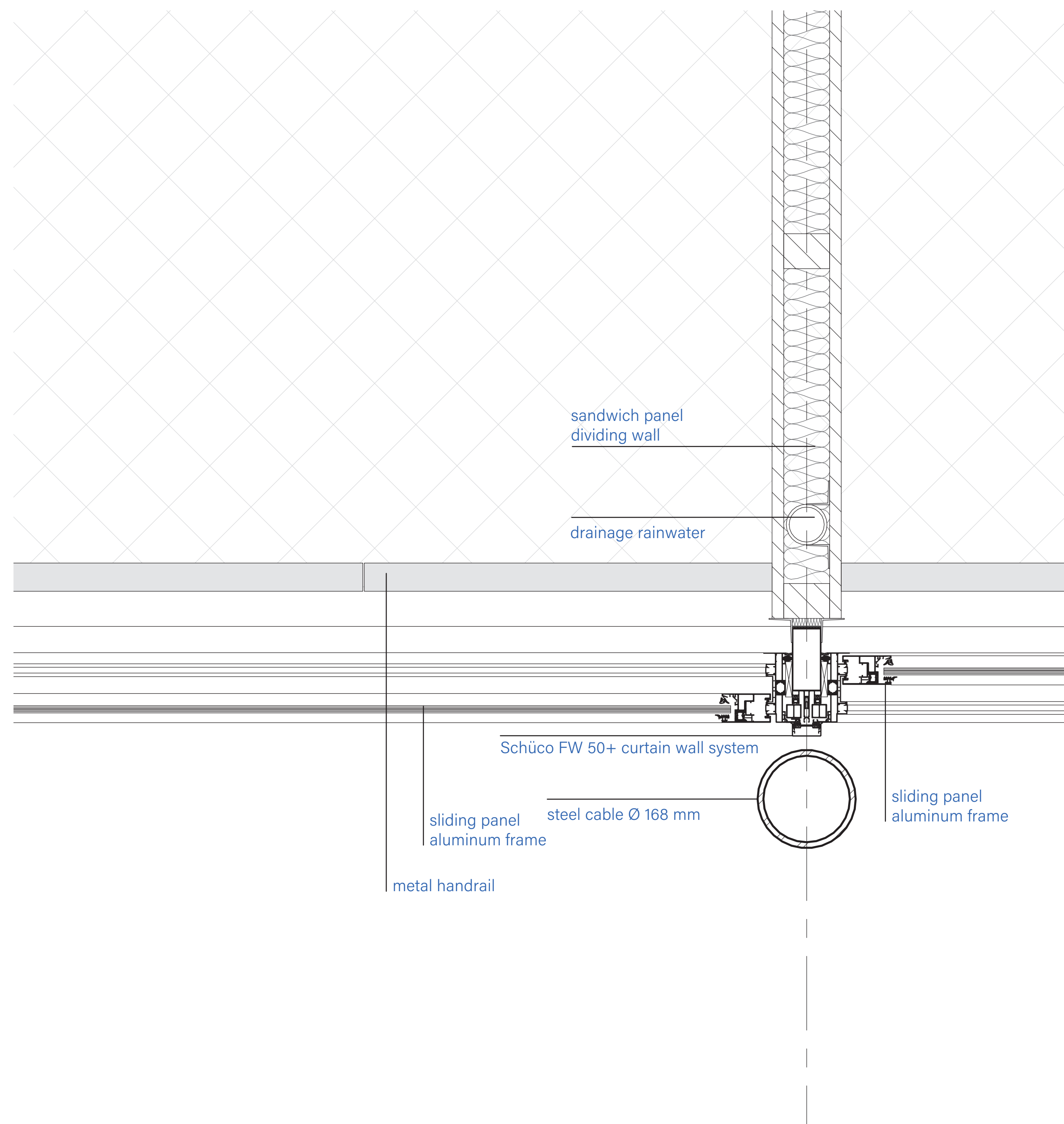
DETAIL 08



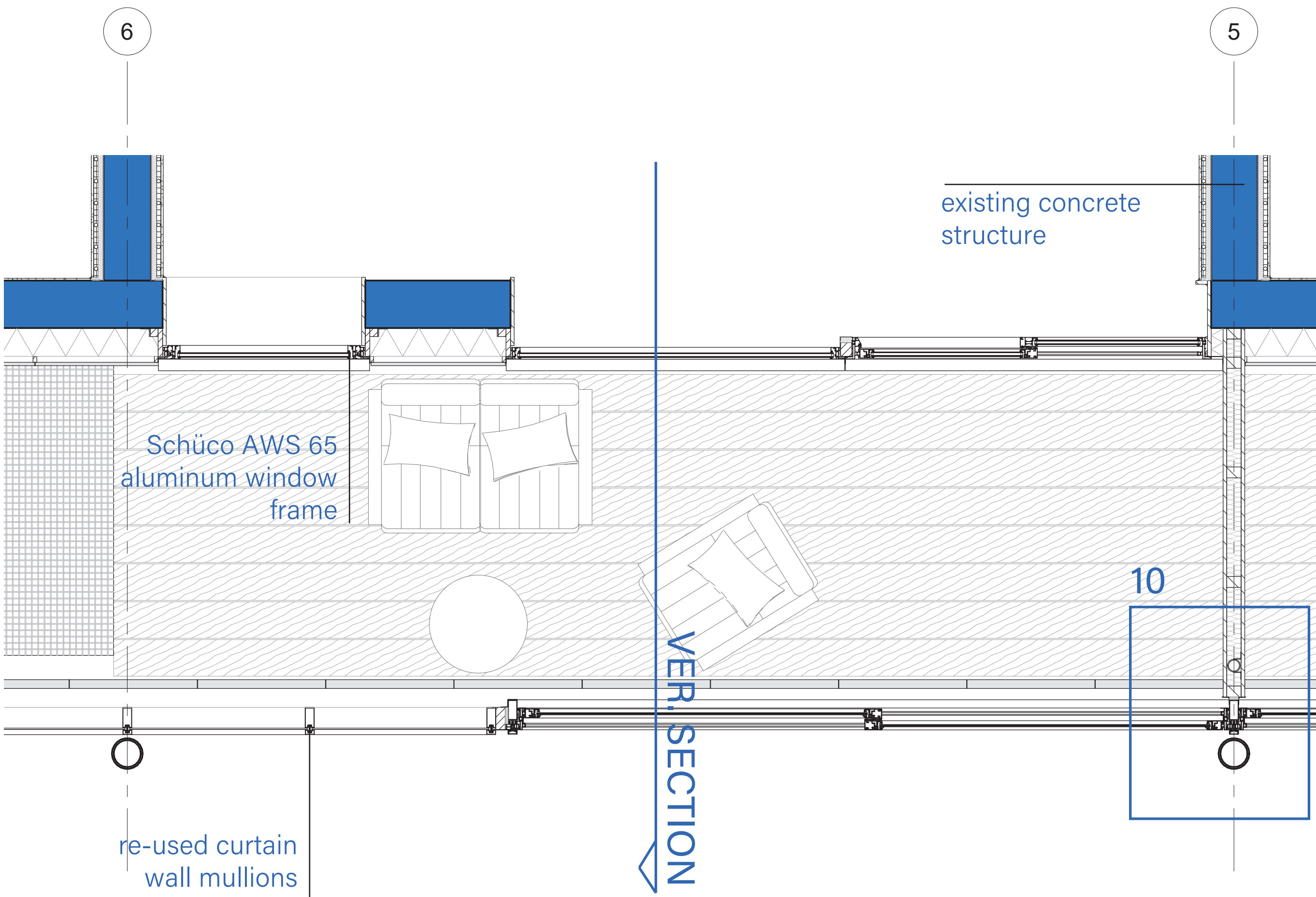


DETAIL 09





DETAIL 10



BUILDING SHELL

01 The façade of the existing building volume will be stripped, existing balconies are not safe for use and climate comfort/HVAC inside dwellings is problematic.



FAÇADE APERTURES

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02 New windows/doors and support frames will be installed, meeting the requirements for current thermal insulation and quality standards. Sliding doors provide access to the new balcony.



ANCHORS

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03 Steel façade anchors are placed to anchor the new load-bearing structure to the existing structure



INSULATION

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SUSPENDED STRUCTURE

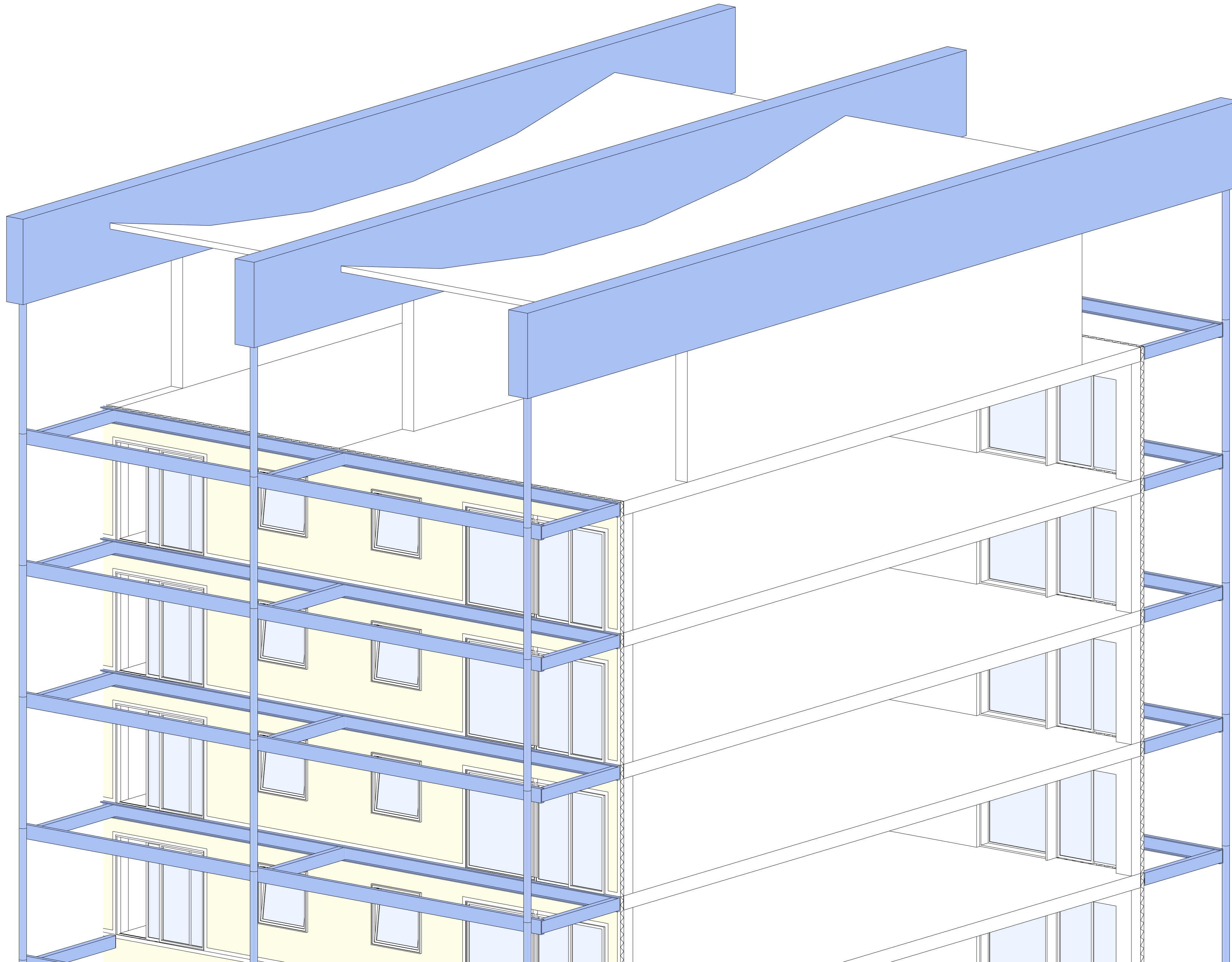
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05 A suspended structure will support the balconies, the Ventec-roof and the second skin. Steel cables hanging from the roof beams will bear the vertical loads and divert them to the existing load bearing walls.



FLOORING ELEMENT

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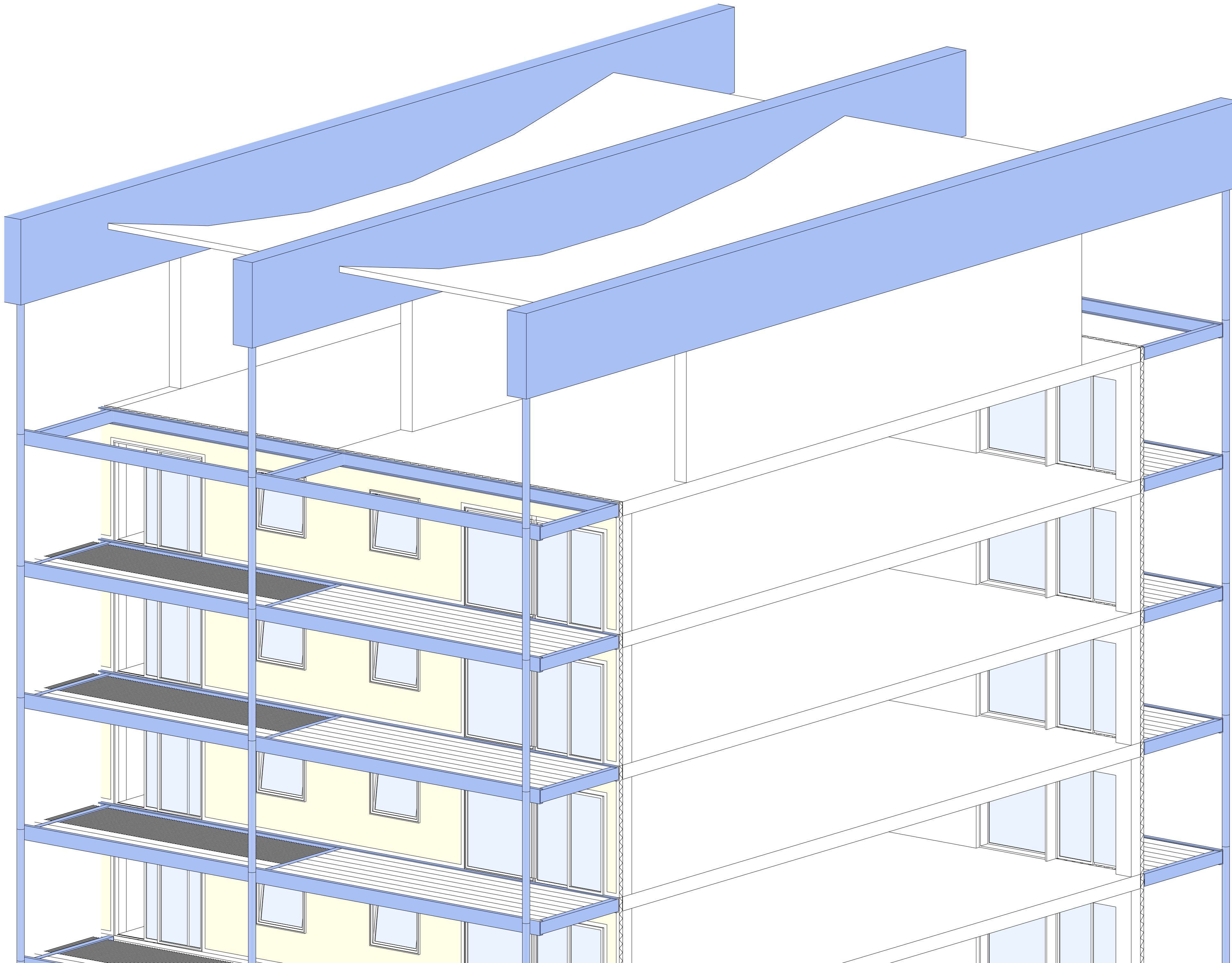
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05 A suspended structure will support the balconies and the second skin. Steel cables hanging from the roof beams will bear the vertical loads and divert them to the existing load bearing walls.

06 The balconies will be lightweight and partially open to allow upward airflows induced by the Venturi-effect. Metal grating will still ensure accessibility of the open parts.



CLADDING

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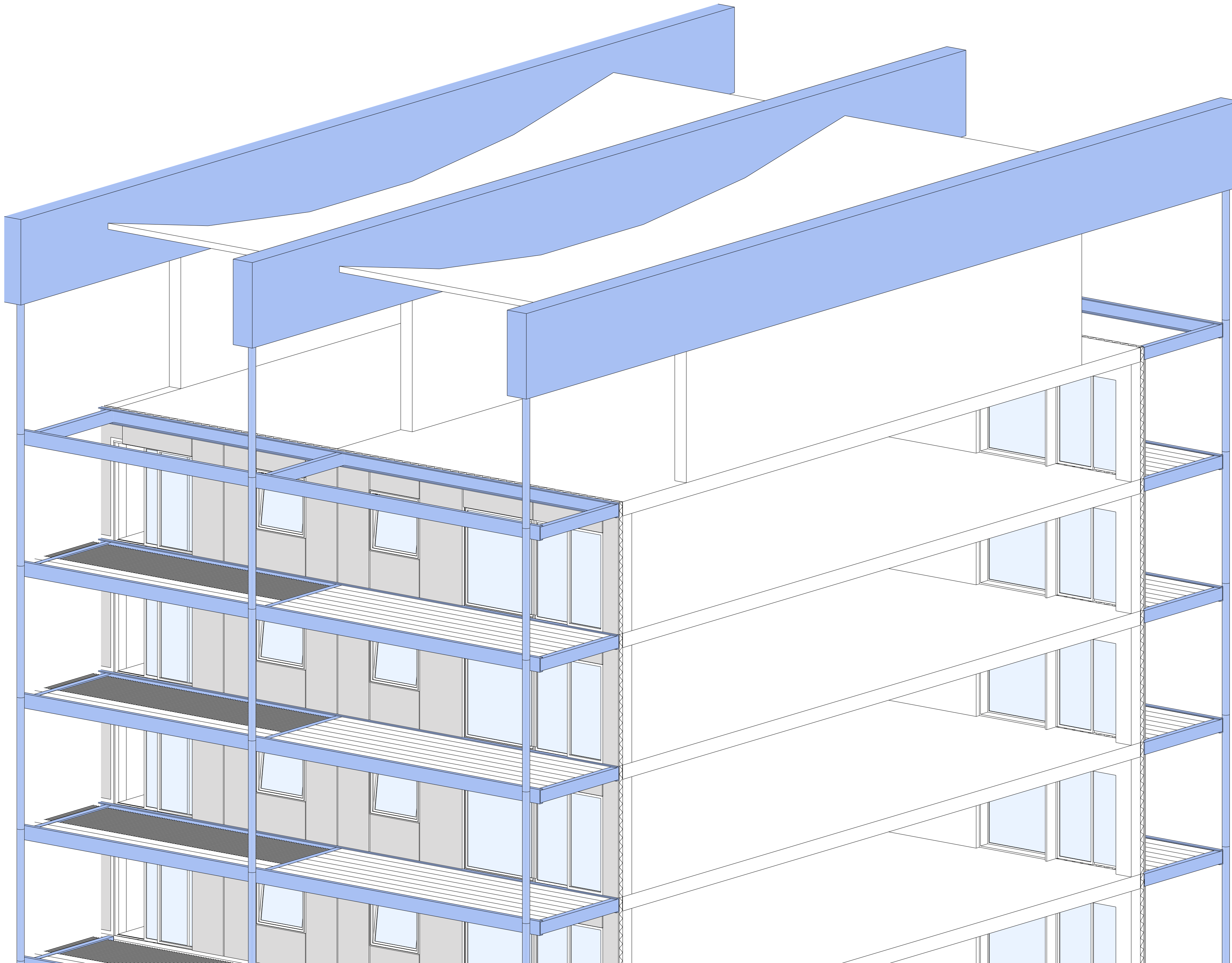
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07 Cladding will be fixed onto timber framework



BALUSTRADE

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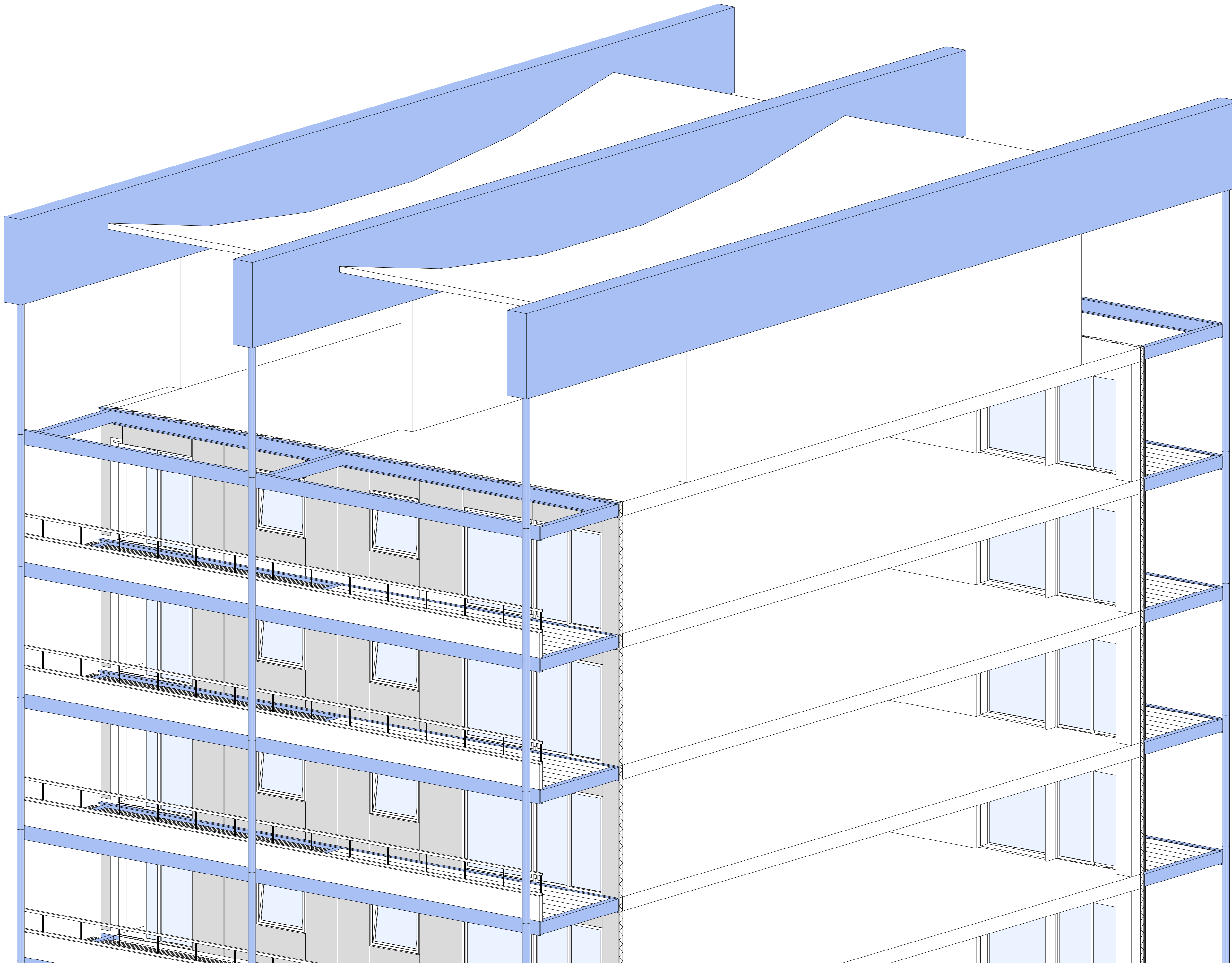
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08 The parapet will be supporting the aluminum frame of the re-used WTC curtain wall system. The metal railing will extend the height of the balustrade for safety purposes.



SECOND SKIN

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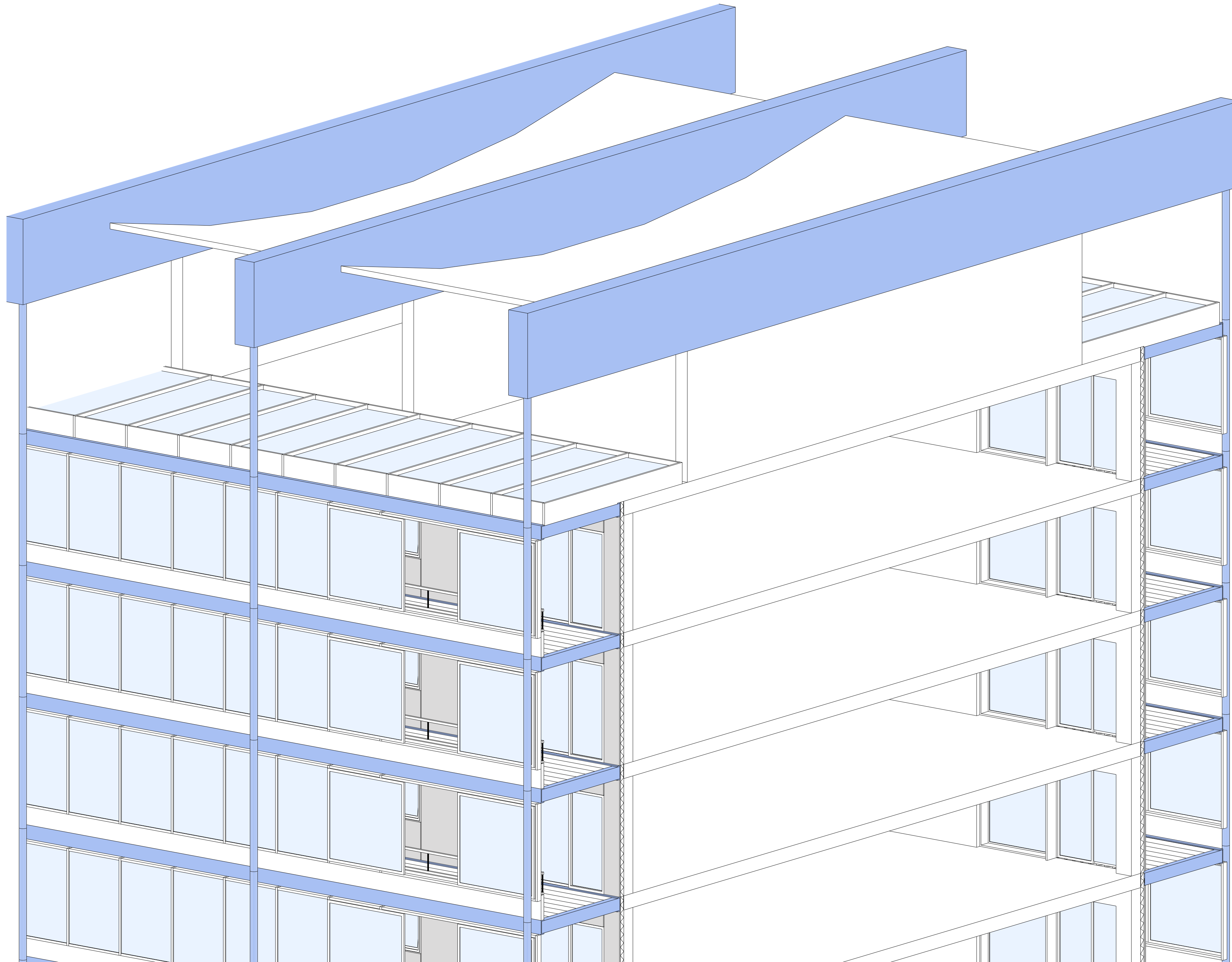
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07 Cladding will be fixed onto timber framework

08 The parapet will be supporting the aluminum frame of the re-used WTC curtain wall system. The metal railing will extend the height of the balustrade for safety purposes.

09 Re-used mullions and panels of the WTC in Brussels will be installed. The sliding panels are new. This layer will be the first barrier to weather influences.



ENERGY PRODUCTION

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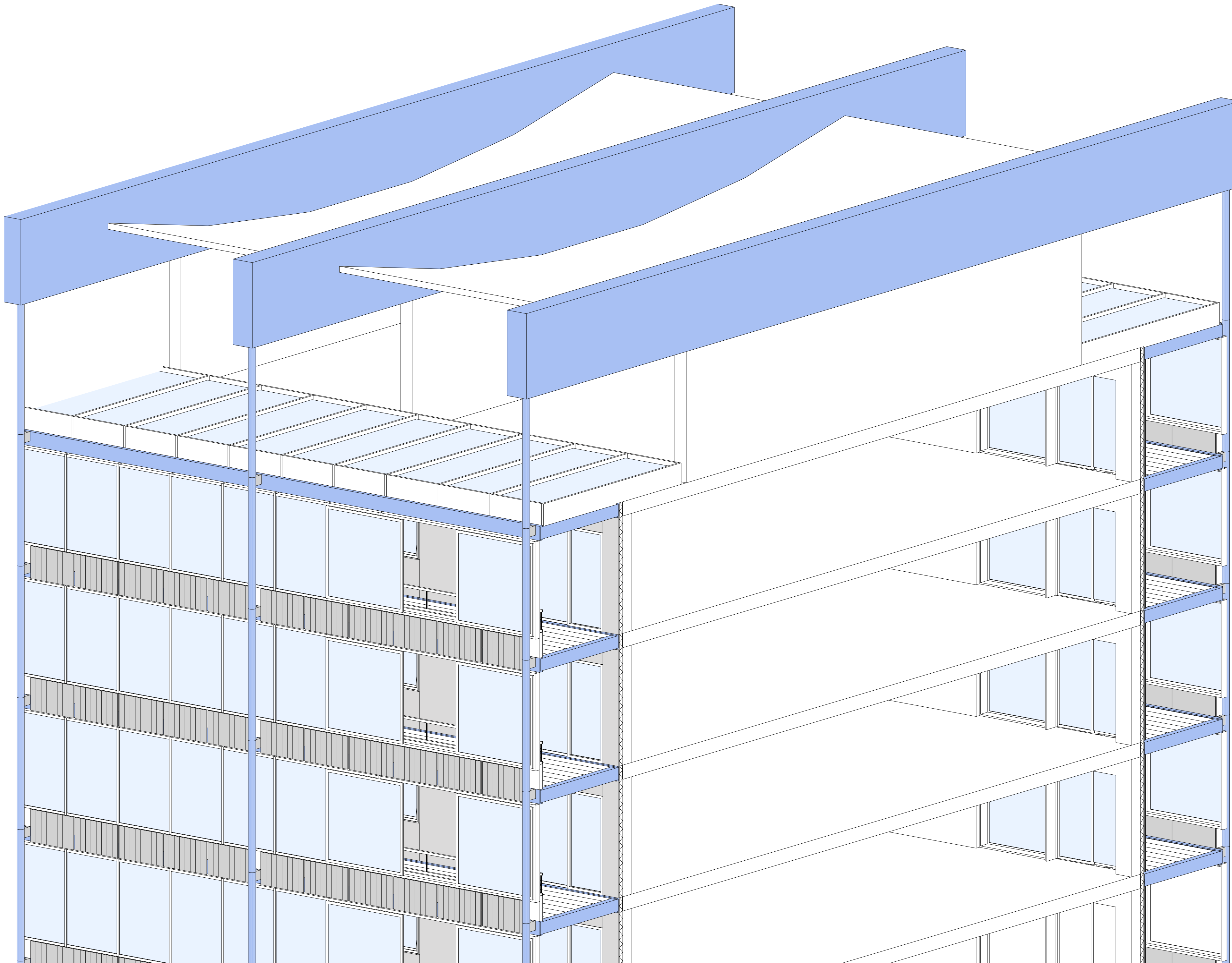
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10 The gaps will be cladded with dark panels, solar panels could be placed to increase self-sufficiency



13 spolia & reflection

SPOLIA SOURCE

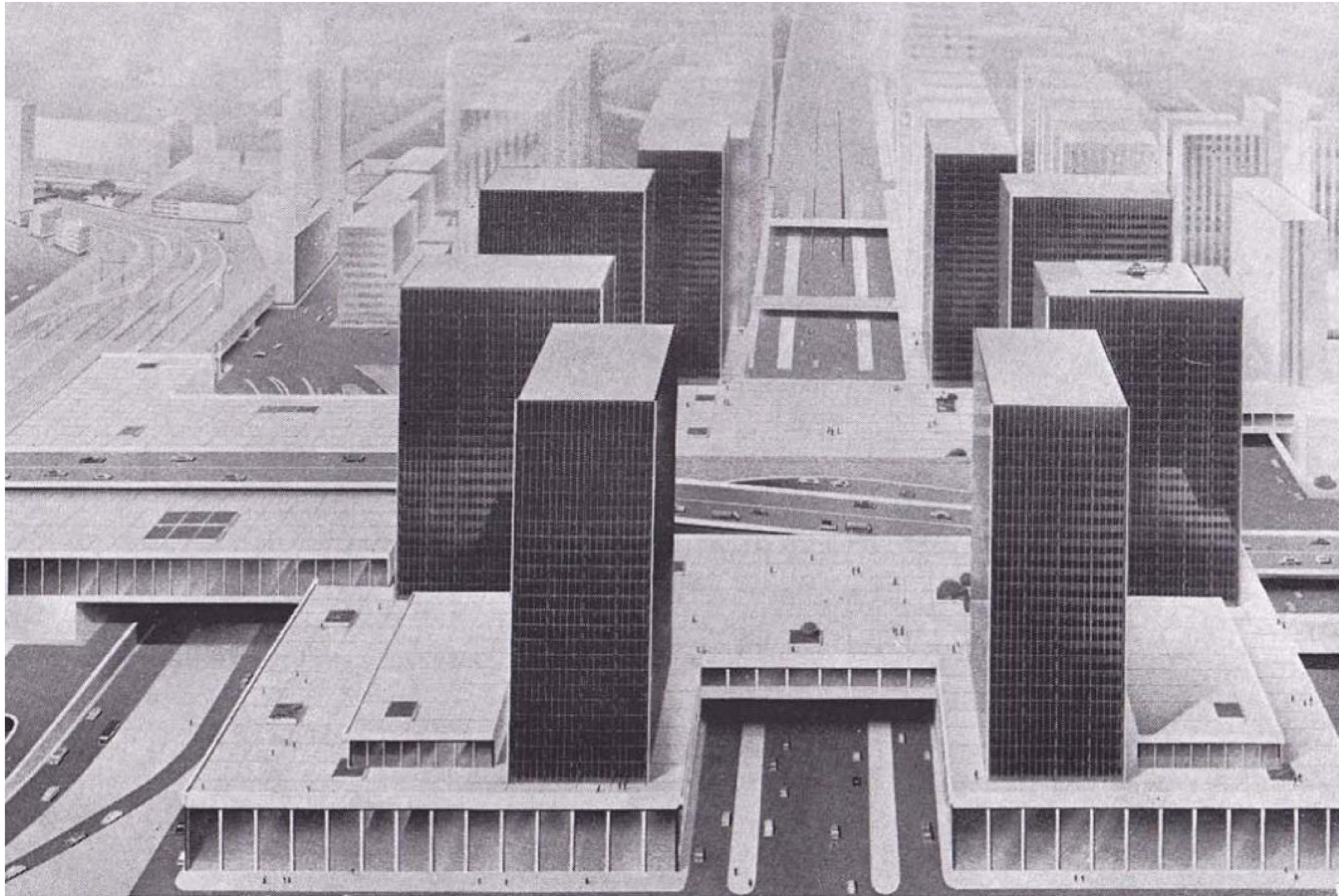
P5 UA

Bjarne van der Drift



WTC Brussels - Noordwijk/Quartier Nord

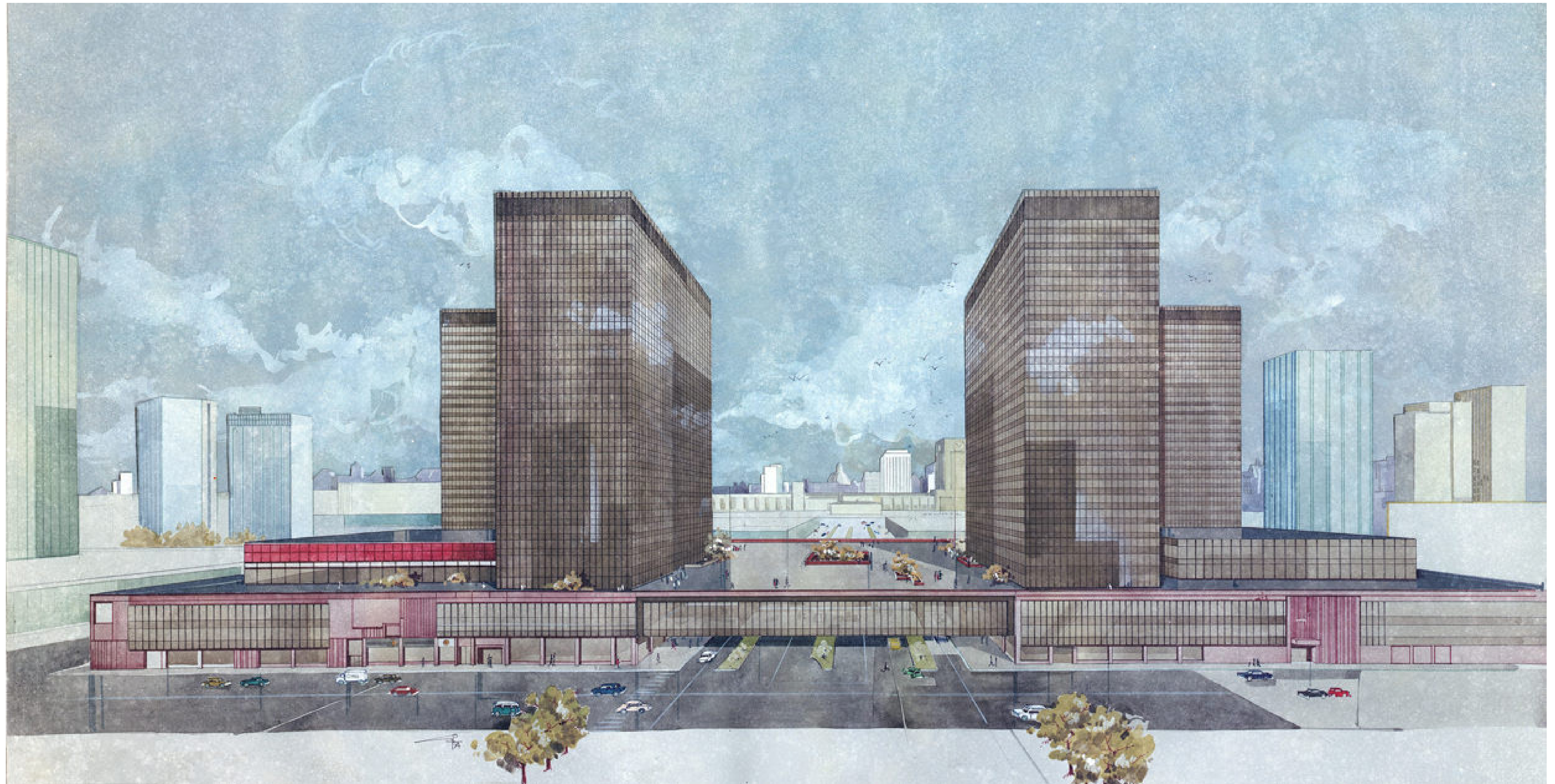
"in the metal curtain walls of Brussels glitters the mirage of the American city" (CERAA, 1989, p.14)



Source: ORG. <http://architecture.orgpermod.com/projects/world-trade-center/>

Manhattanism in Brussels

A dream to never come true / The zenith of Brusselization



Source: RE&US. http://re-us.be/?page_id=8

Manhattanism in Brussels

A dream to never come true / The zenith of Brusselization

13 spolia & reflection

