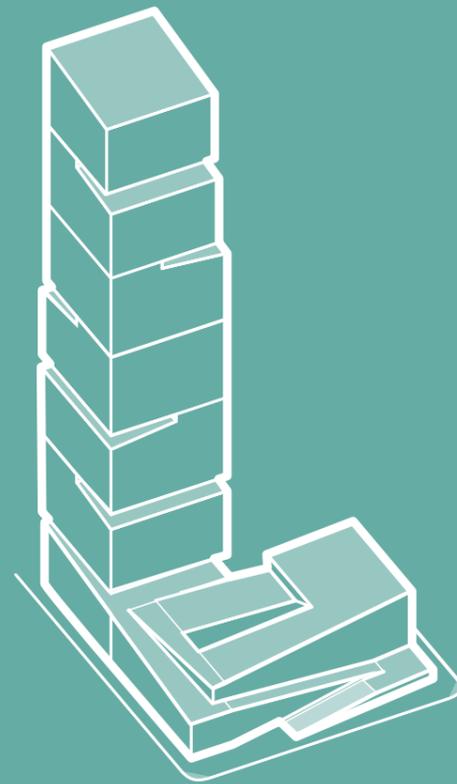


SUSTAINABLE CONSUMERISM

NE MARKET



4784170 Sibing Emily Yang
Complex Project Graduation Studio
Group 2

Fifth Avenue, NYC

SHOPPING IS EVERYWHERE

SHOPPING IS INVADING PUBLIC LIFE





I shop

therefore I am

SELFRIDGES & CO

A hand with a brown skin tone reaches upwards from a chaotic pile of white household appliances. The appliances include a stove with four burners, a microwave, a refrigerator, a washing machine, and a dryer. The background is a solid yellow color. The word 'CONSUMERISM' is written in large, bold, black capital letters across the middle of the image, partially overlapping the hand and the appliances.

CONSUMERISM

is encouraging the acquisition of goods and services in ever-increasing amounts.

RECREATIONAL SHOPPING



NECESSARY SHOPPING















It takes over **30,000** litres to create
1 kg of cotton.

1 cotton shirt uses approximately

2,700 litres of water.

Up to **600** litres of water can be re-
quired to dye 1 kg of fabric.

SHOPPING = CONSUMING





A collage of various shopping bags from brands like Mango, Oasis, Zara, and Primark, illustrating consumerism. The bags are in various colors and materials, including paper and fabric. Some bags have logos and text, while others are plain. The background is a mix of colors and patterns, including a white patterned fabric with the word 'TOPS' visible.

**In the material society,
consumerism is of the cost of
excessive resource consumption.**

RESEARCH QUESTION

How to make consumerism socially, economically and environmentally sustainable?



**Midtown Northeast
Valley of Giants**



FIFTH AVENUE

THE INTERNATIONALLY FAMOUS SHOPPING STREET

Valley of Shops

LUXURY BRANDS

LOUIS VUITTON



FLAGSHIP STORES



INTERNATIONAL CHAIN STORES



kate spade ♠ NEW YORK

A CONSUMERISM PARADISE



Grocery stores



Whole Foods Market
3000m²



LifeThyme Natural Market
550m²



Mortan Willians supermarket
840m²



Dagostino 27
1200m²



Mortan Willians supermarket
1100m²



Amish Market
1200m²

Total grocery retail area: 7790 m²

Grocery stores to population ratio



Whole Foods Market
3000m²



LifeThyme Natural Market
550m²



Mortan Willians supermarket
840m²



Dagostino 27
1200m²



Mortan Willians supermarket
1100m²



Amish Market
1200m²

Total grocery retail area: 7790 m²

Total residents: 53,000

1470 m² per 10000 ppl

City Planning Standard Ratio: (30,000 ft²) 2790 m² per 10000 ppl

RECREATIONAL SHOPPING



NECESSARY SHOPPING



A collage of various shopping bags from brands like Mango, Oasis, Zara, and Primark, illustrating material consumption. The bags are in various colors and designs, some with logos and some with text. A central black box contains white text.

In the material society, recreational shopping is of the cost of extra resource consumption.

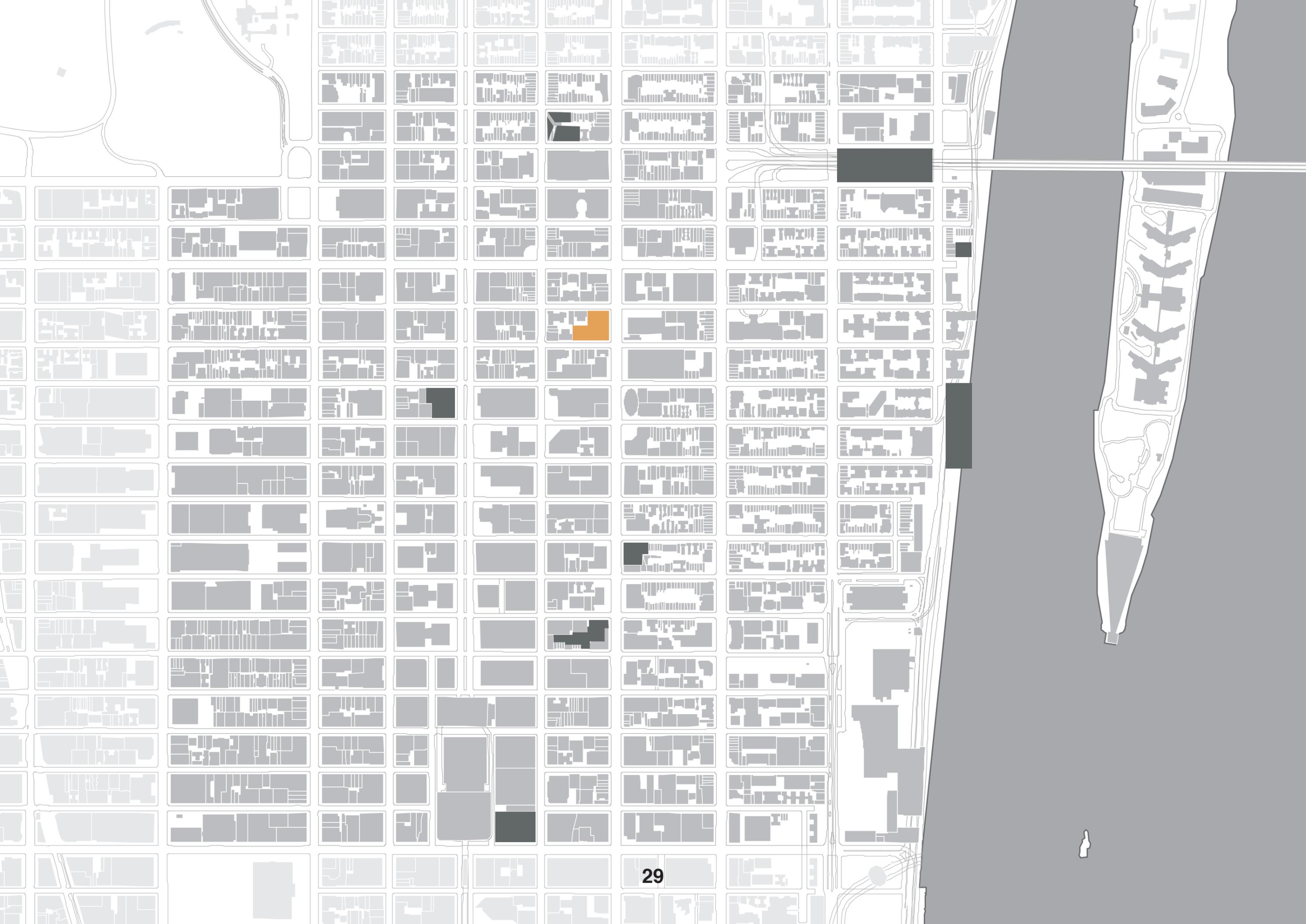
RESEARCH QUESTION

How to make consumerism socially, economically and environmentally sustainable?

Can necessary shopping replace recreational shopping as an enjoyable experience?







People

Who is shopping what here?

NEW YORKER



New Yorker's Profile

- High income, high purchase power
- Ethnically diverse
- Lack of grocery stores for buying fresh food
- Lack of gathering space which is crucial to build sense of community



TOURIST

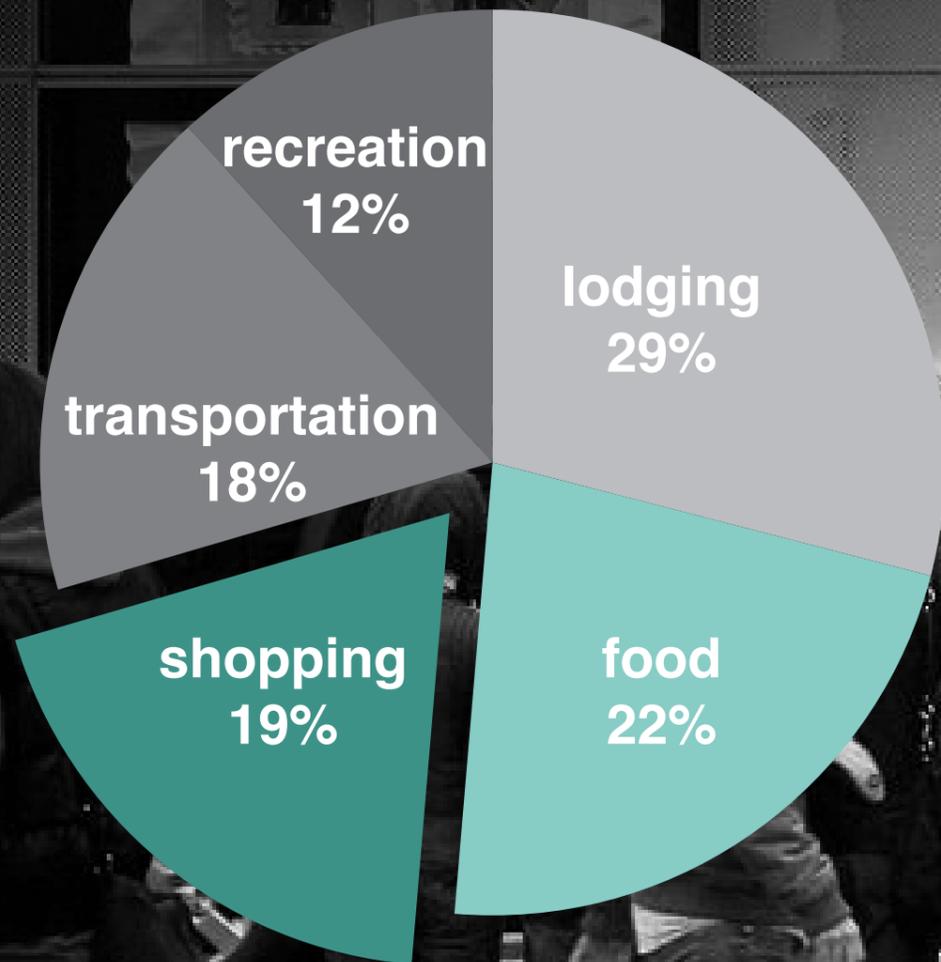


Tourism as one of the leading sector in NYC



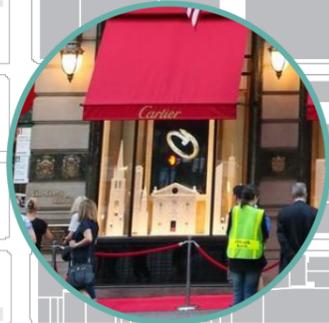


Shopping is one of the **needs** of tourists traveling to New York.

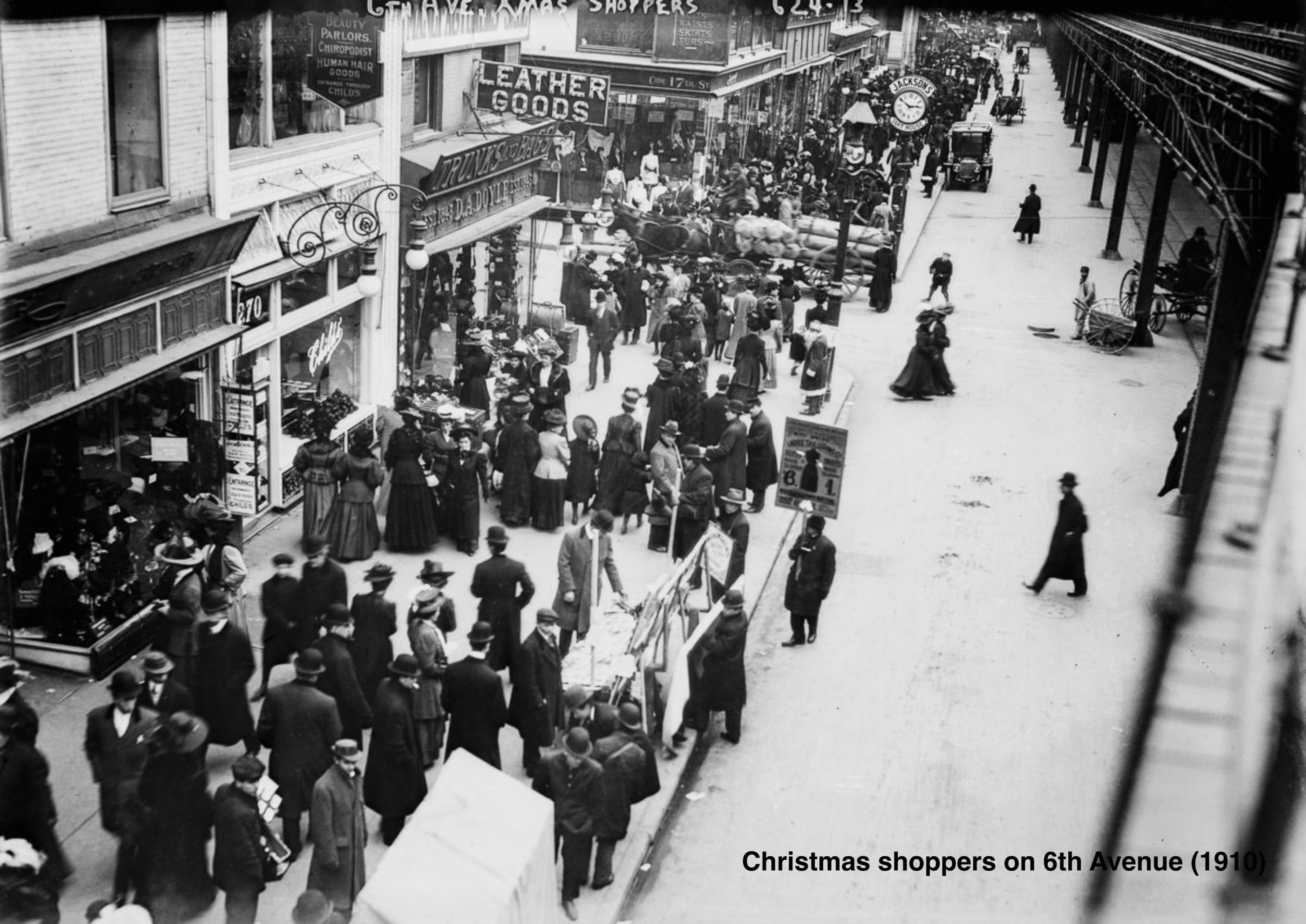


NYC Direct Visitor Spending 2019

Retails on Fifth Avenue



**ALL ARE
INTERNATIONAL
BRANDS AND
CHAIN STORES**



Christmas shoppers on 6th Avenue (1910)

XMAS TOY SELLER

624-14



Vendor selling Christmas toys on 6th Avenue (1910)

NYC Tourists Profile



- High population, high purchase power
- Shopping as a need
- Lack of featured shopping experience that is authentically 'New York'
- Unsustainable consumption from excessive unnecessary shopping



Tourists



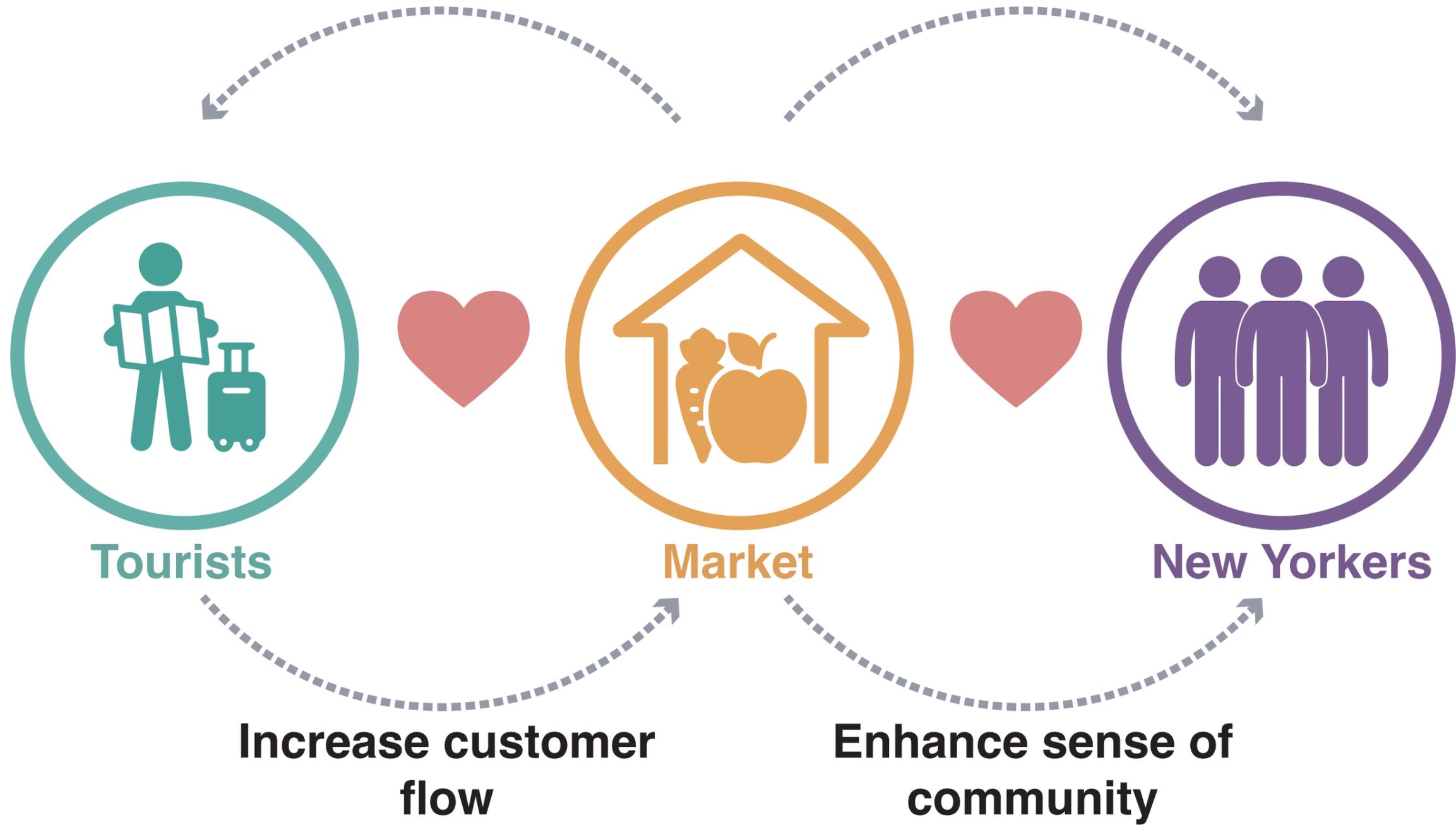
Market



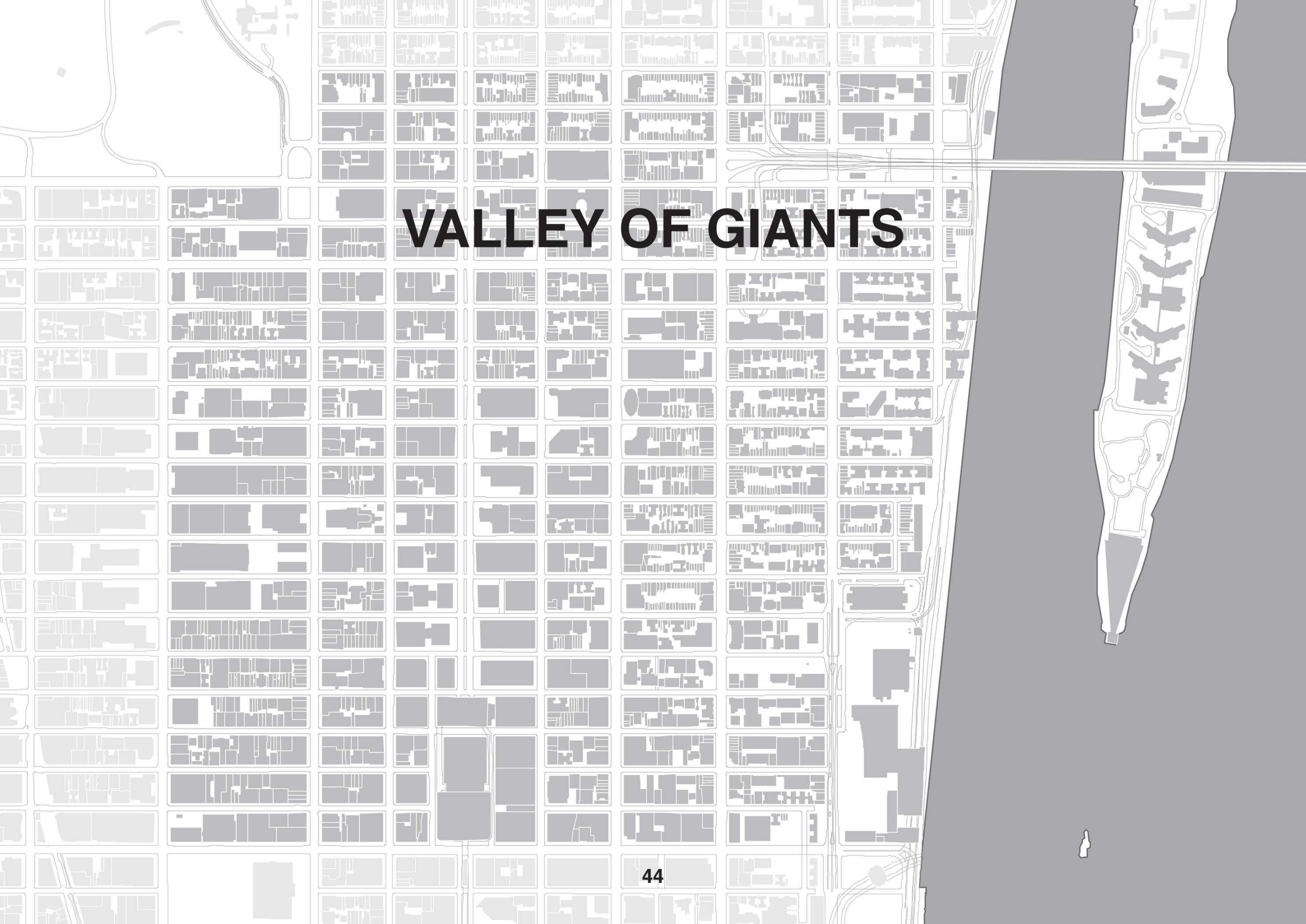
New Yorkers

Provide featured shopping experience authentically “New York”

Provide fresh food for daily supply

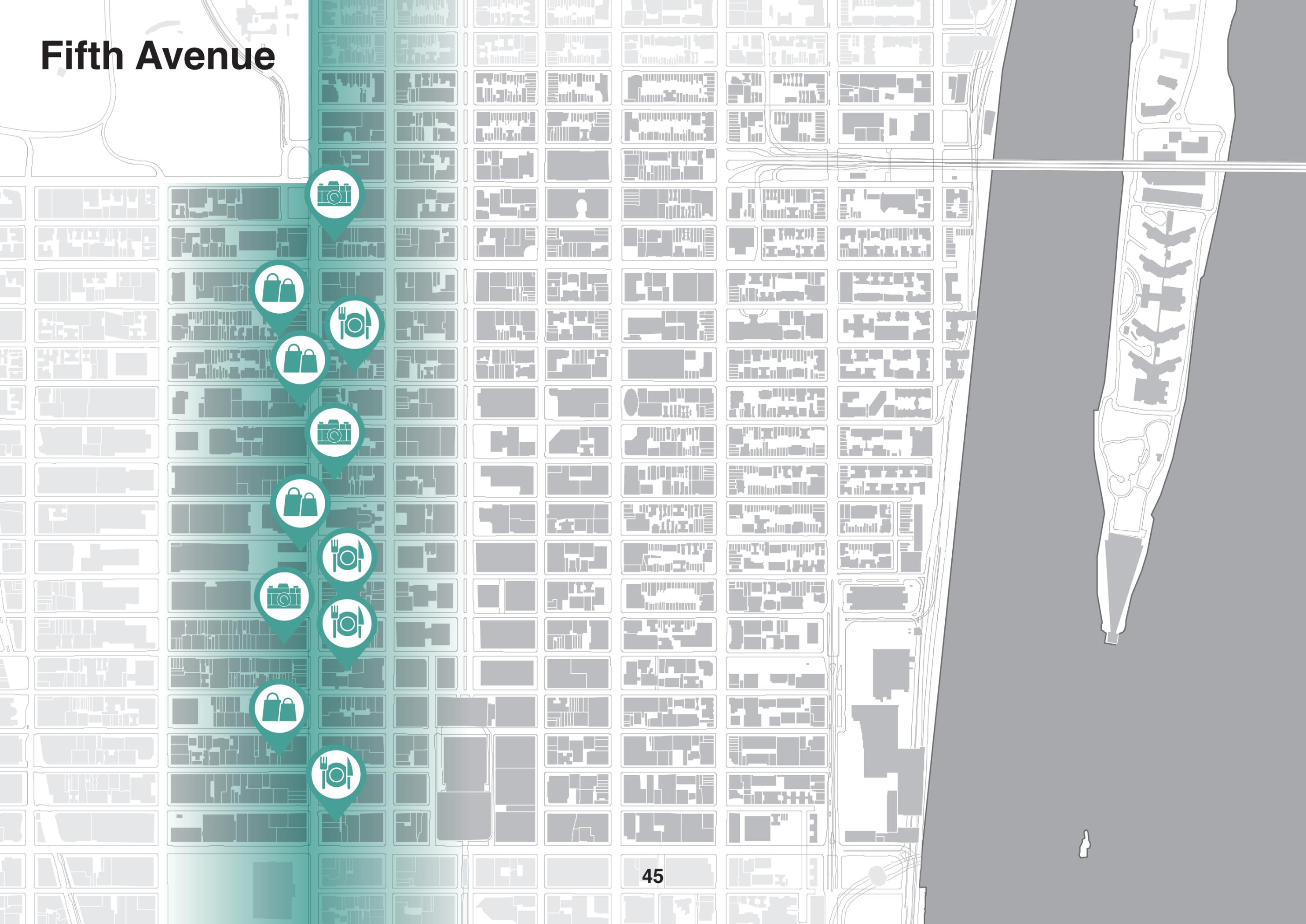


Site

The image is a detailed architectural site plan of a city grid. The grid is composed of numerous rectangular blocks, each containing smaller, irregular shapes representing buildings and internal structures. A prominent feature is a river or canal that flows from the top left towards the bottom right, crossing the grid. To the right of the main grid, there is a long, narrow peninsula or island with a distinct layout of buildings and structures. The entire plan is rendered in a light gray color on a white background. The title 'VALLEY OF GIANTS' is centered over the grid in a large, bold, black font. The page number '44' is located at the bottom center of the grid.

VALLEY OF GIANTS

Fifth Avenue

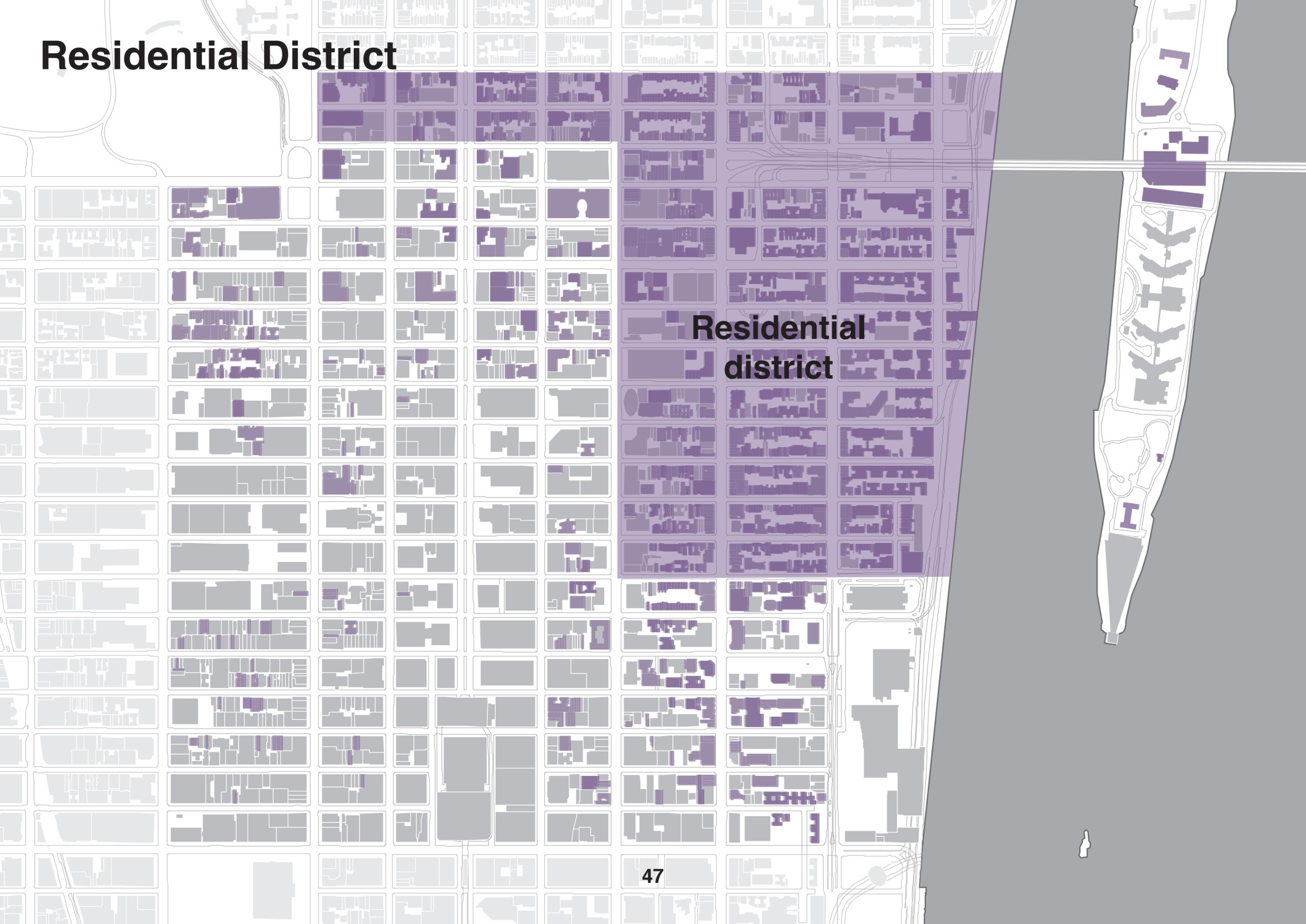


Fifth Avenue - now



“The most expensive and elegant street in the world.”
-Forbes magazine, 2018

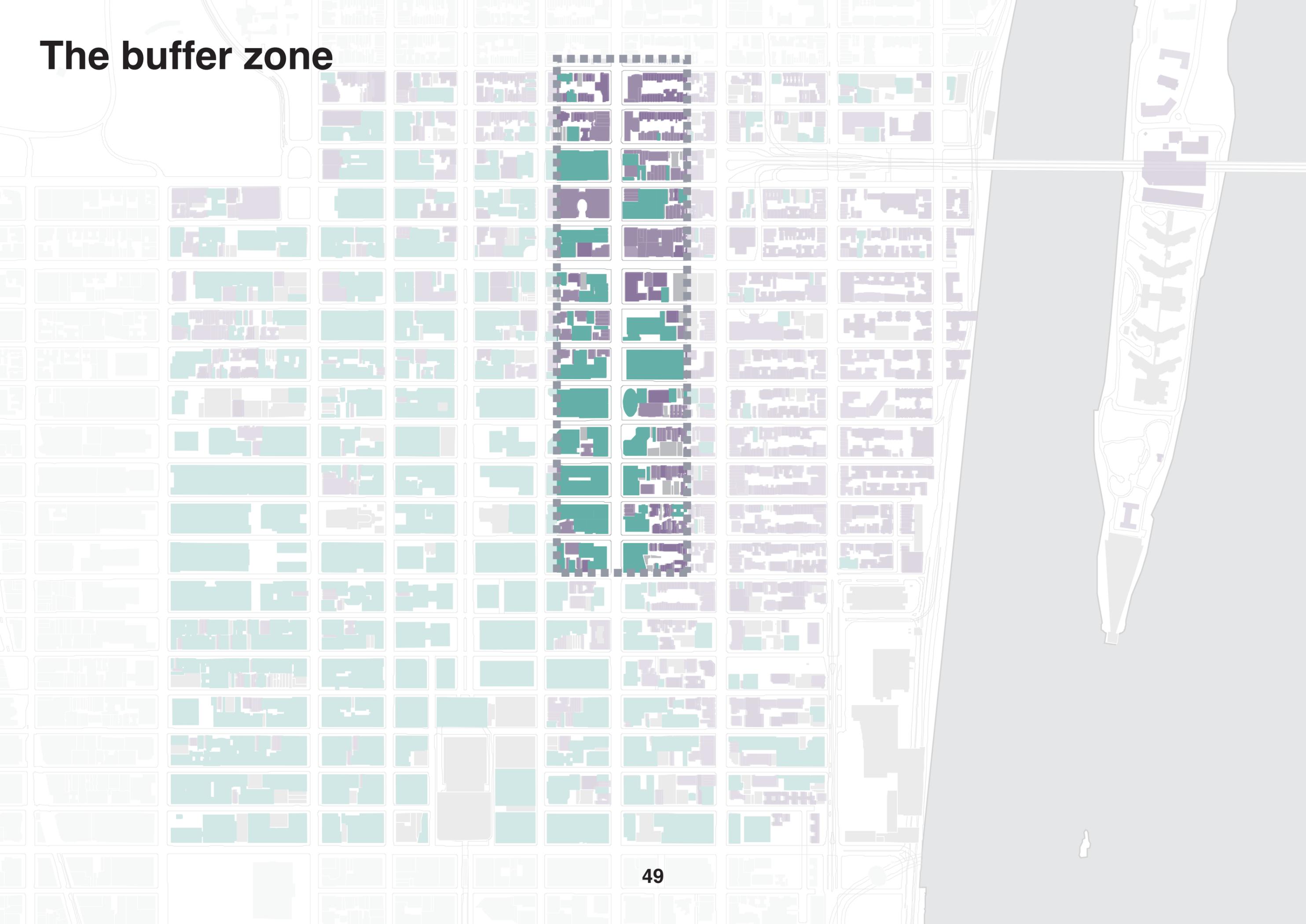
Residential District



Residential district



The buffer zone



MIDTOWN



Handwritten graffiti on a wooden board:
MEXICO
CELOWE
4Y"
↑



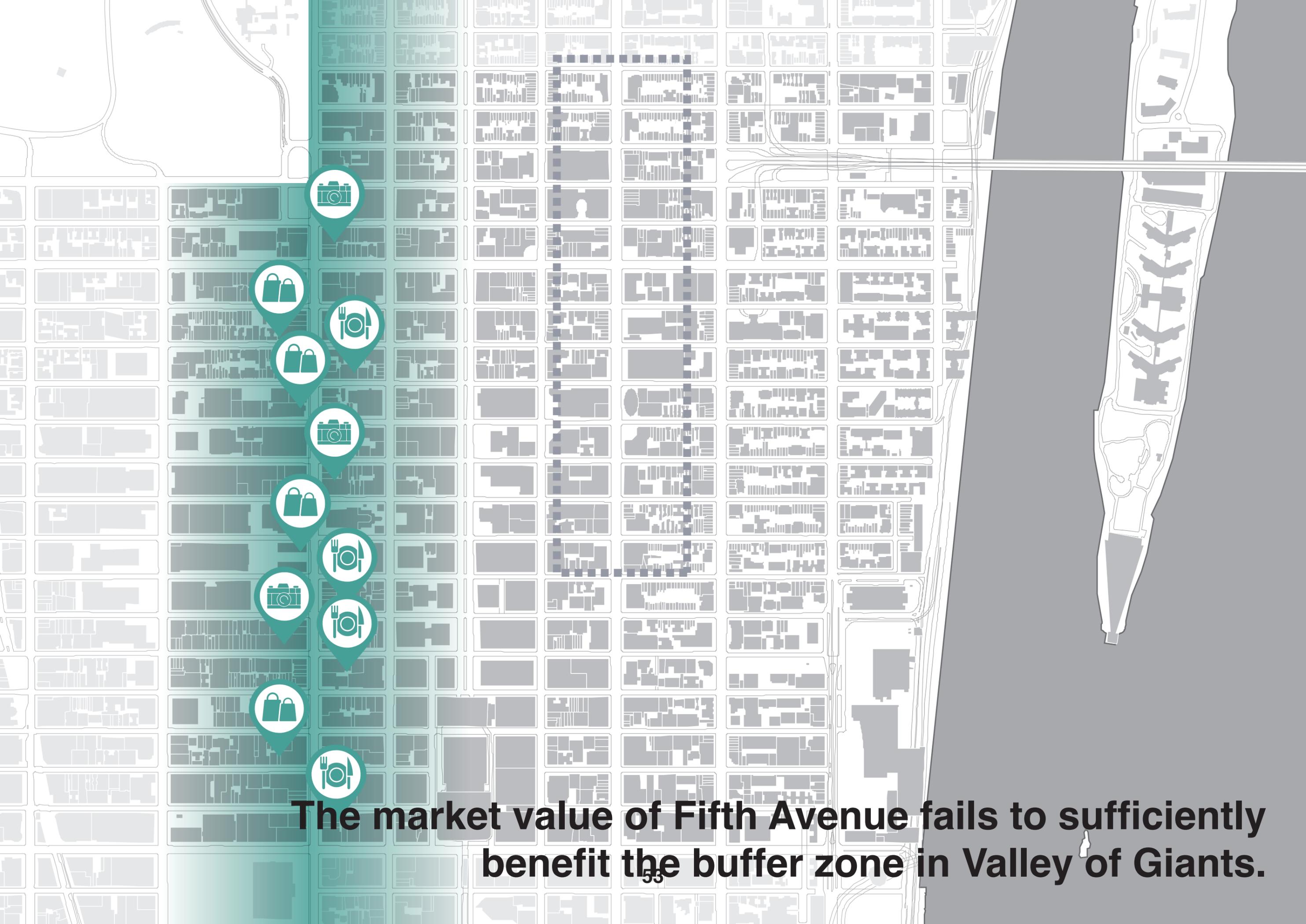
51



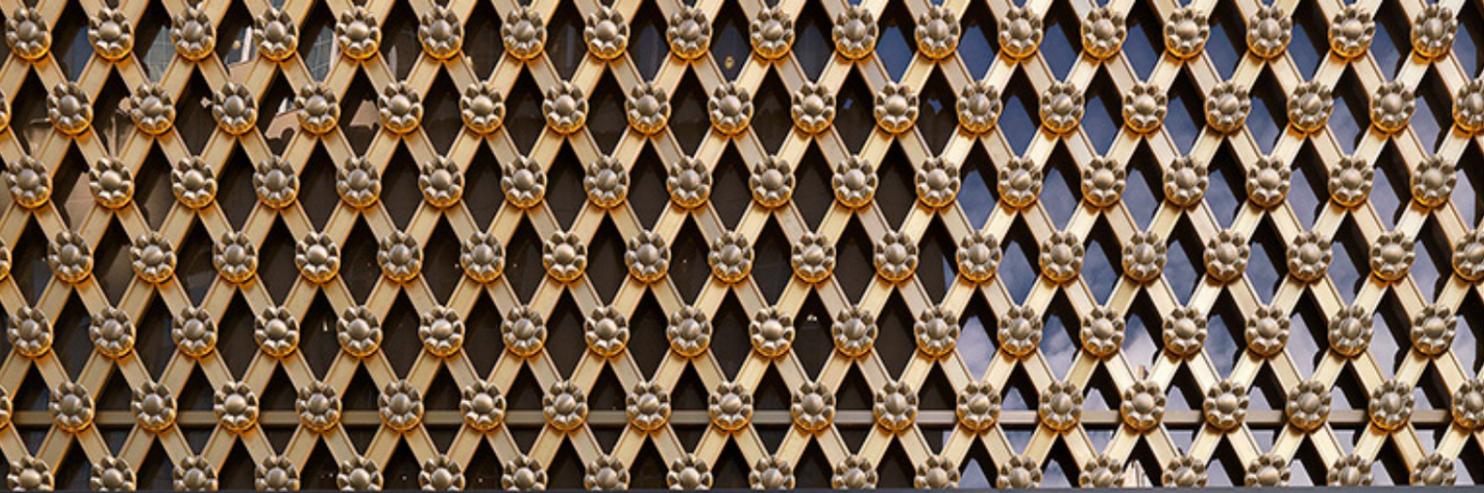
WARNING!
EAT POISON







The market value of Fifth Avenue fails to sufficiently benefit the buffer zone in Valley of Giants.



BVLGARI



TINA'S ARTISTIC
HAIR SALON

STORE
For
RENT
212-753-6666

NO STAN
Anytime
←
NO STA
7am - 10a
3pm - 8p
Except S
3
COMM
VEHIC
10am -
8pm -
Except
Zone#
103

PROBLEM



Lack of
pedestrians



Shops cannot
profit and survive



Empty shopfronts
on the street



Degraded street
image and
reduced liveability



SOLUTION

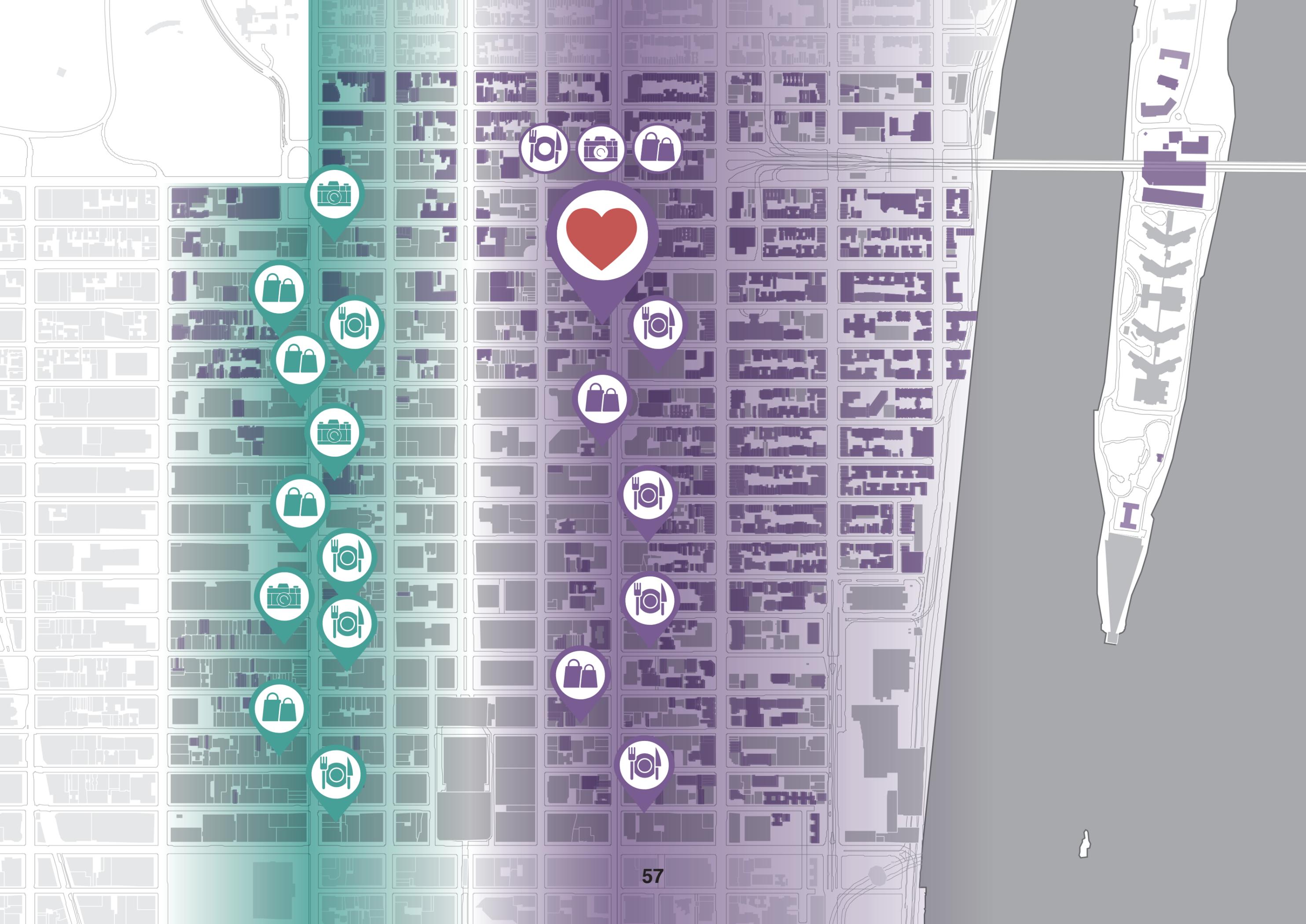


**More
pedestrian flow**

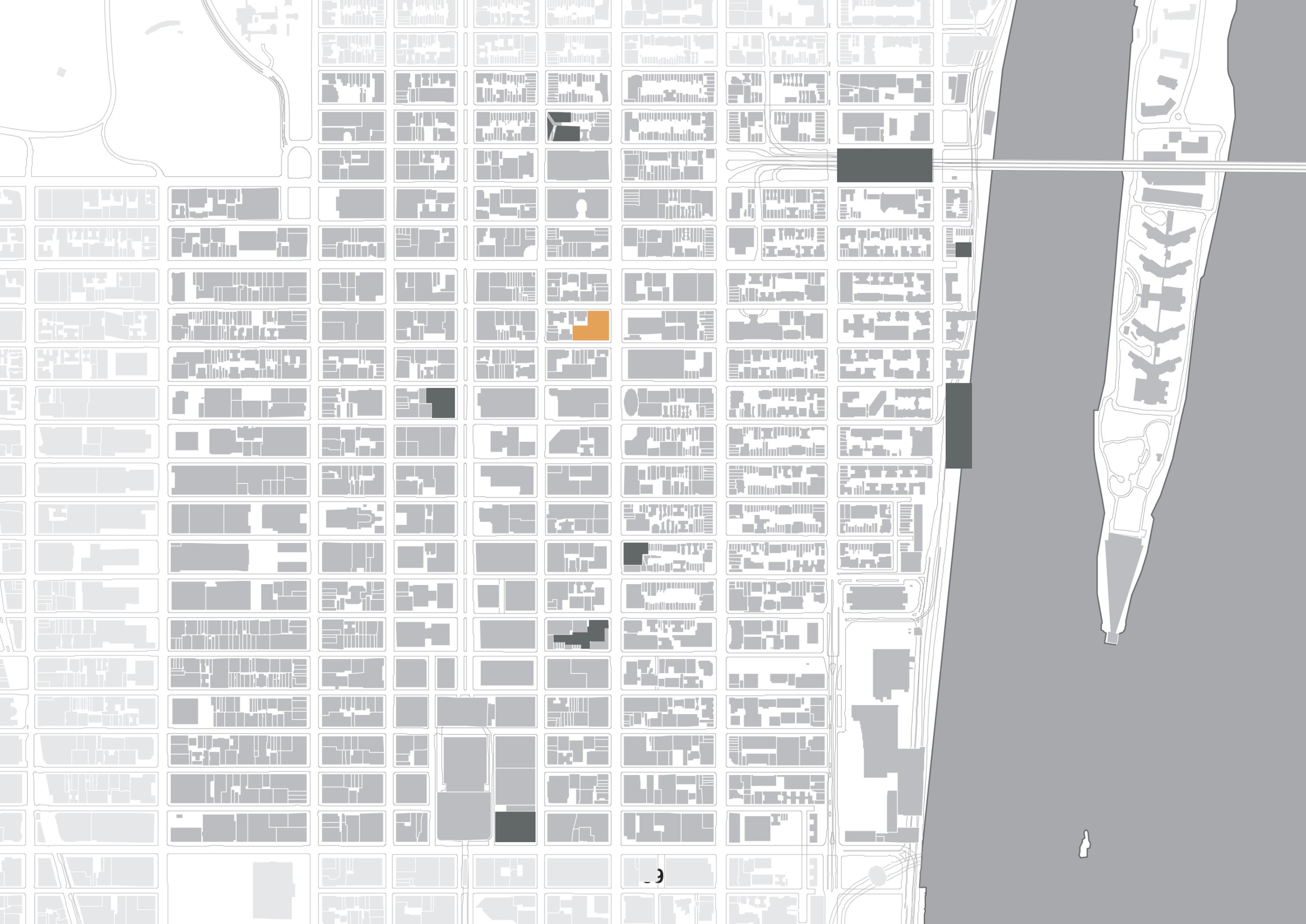
**Shops become
more profitable**

**More retails move
into the vacancies**

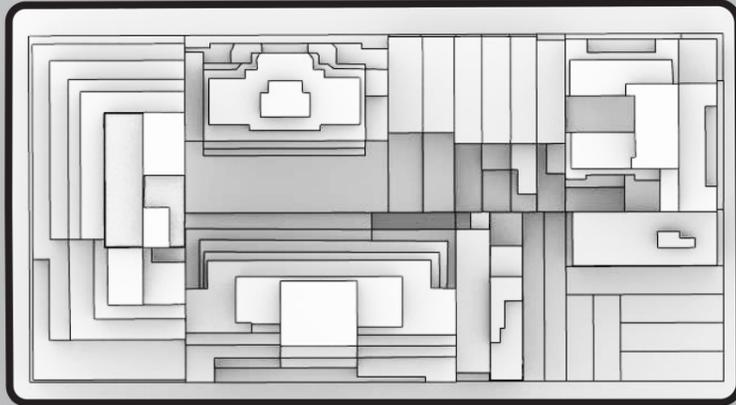
**Higher liveability
of the city**



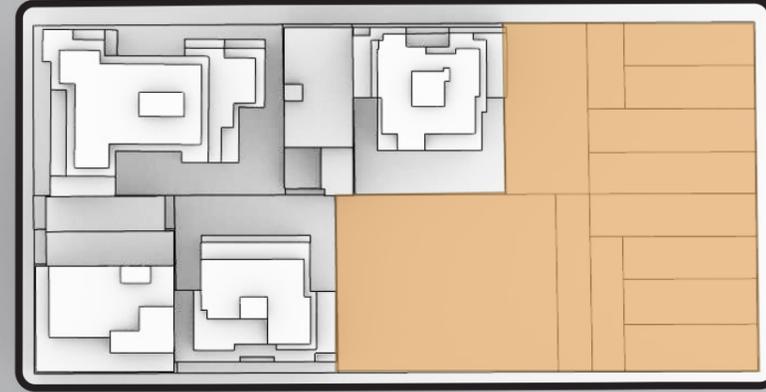
Brief



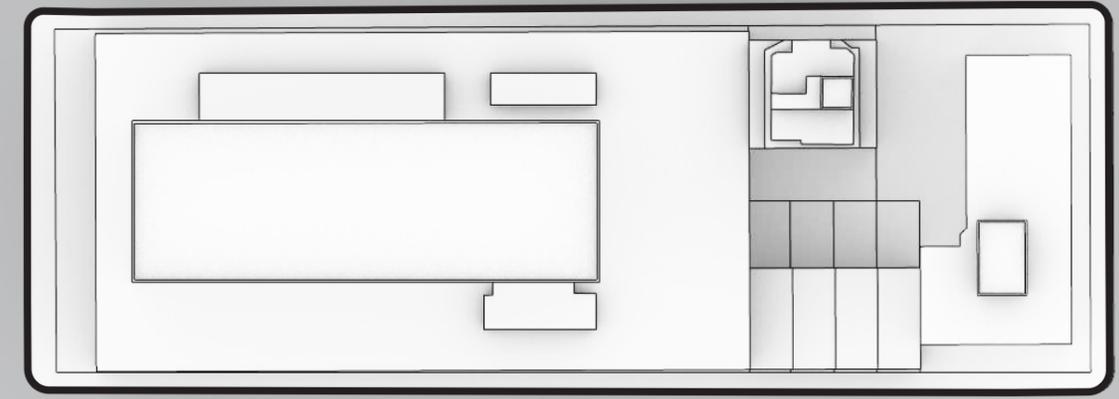
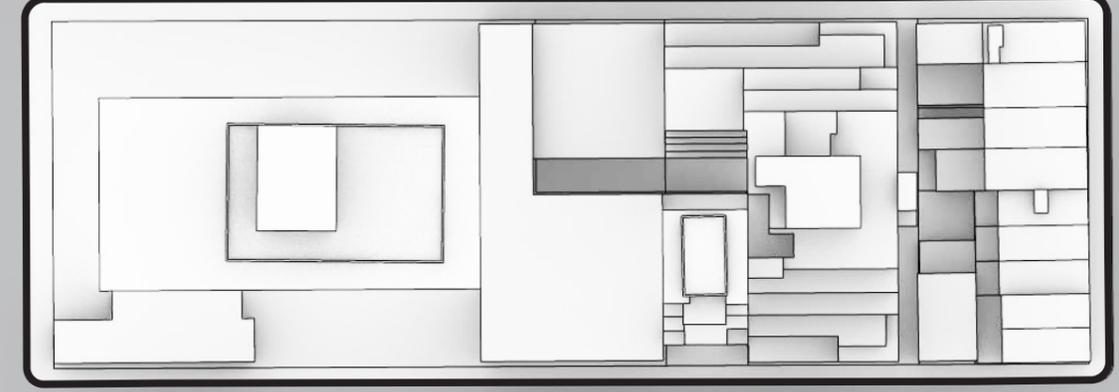
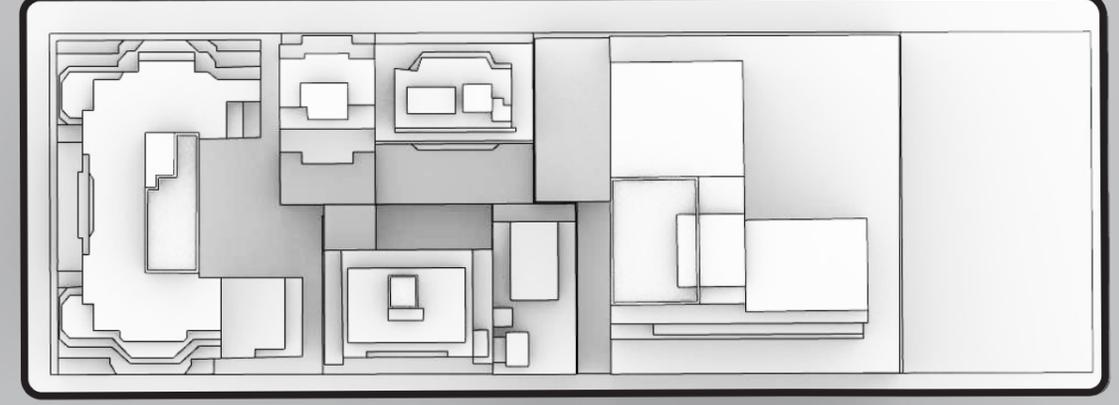
Location



E 56th STREET



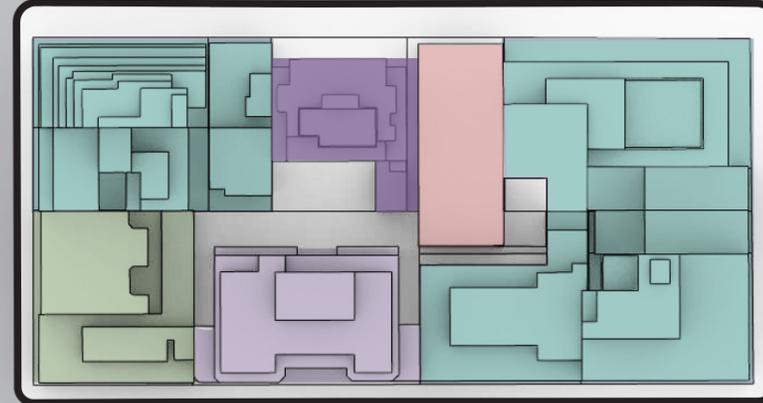
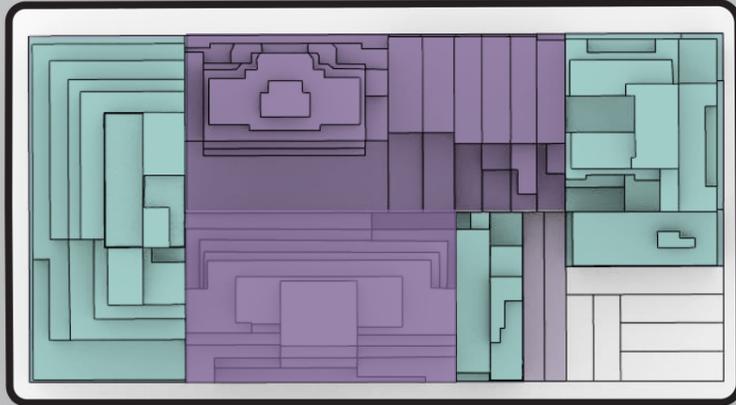
E 55th STREET



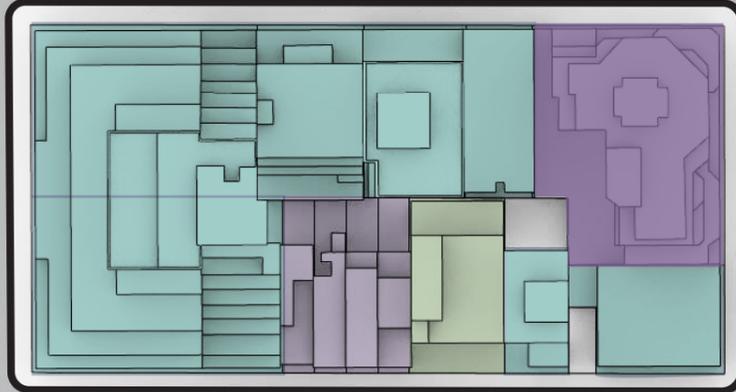
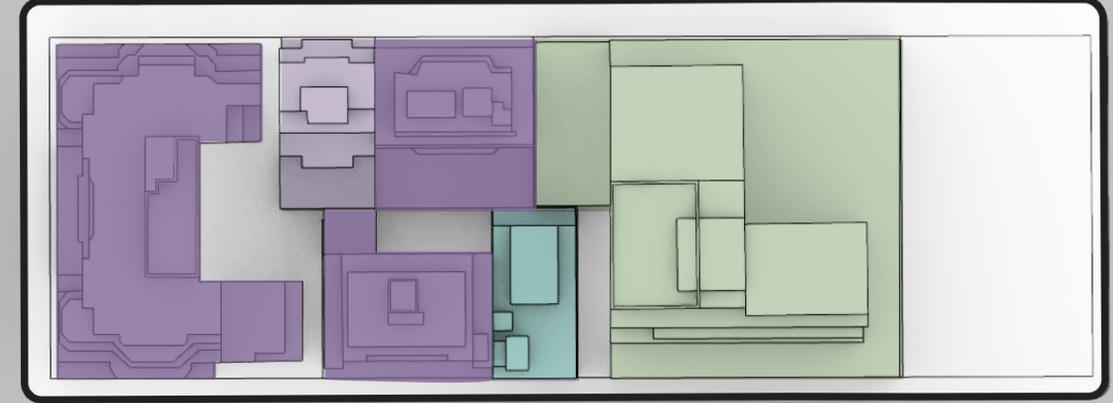
LEXINGTON AVENUE

3rd AVENUE

Functions



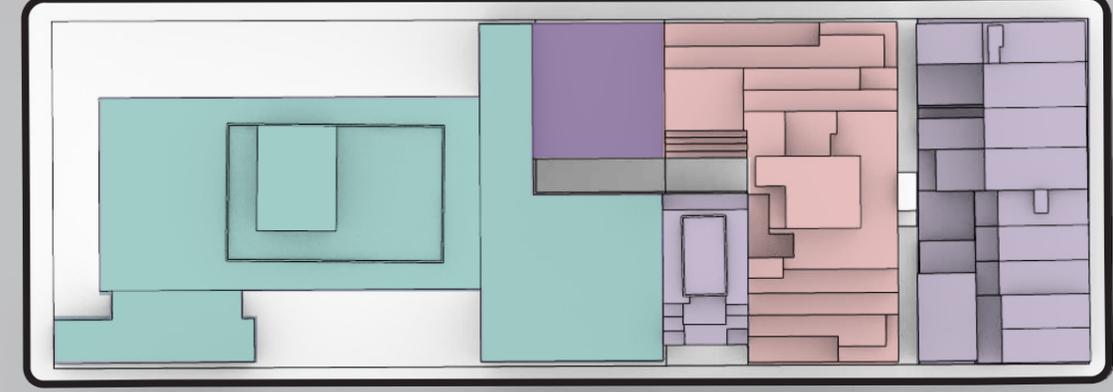
E 56th STREET



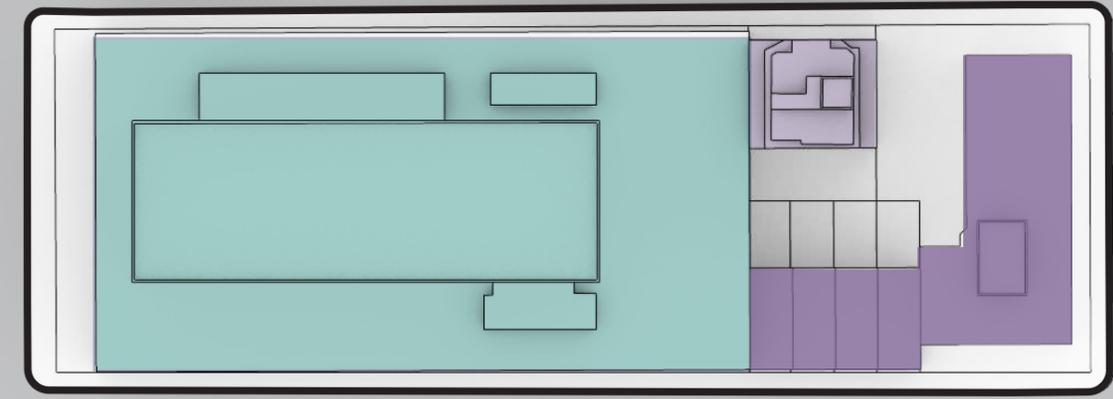
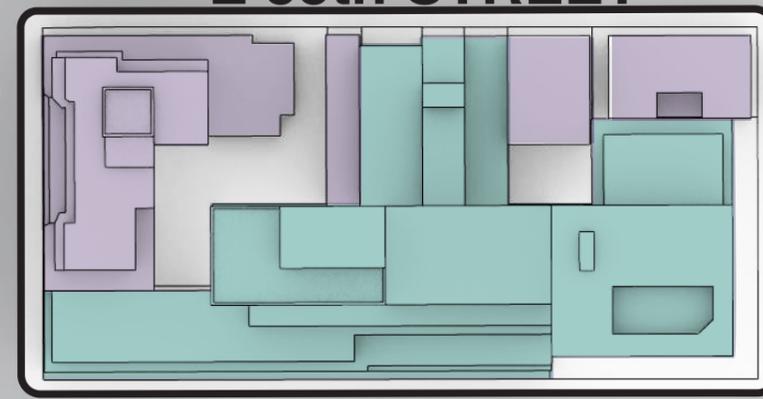
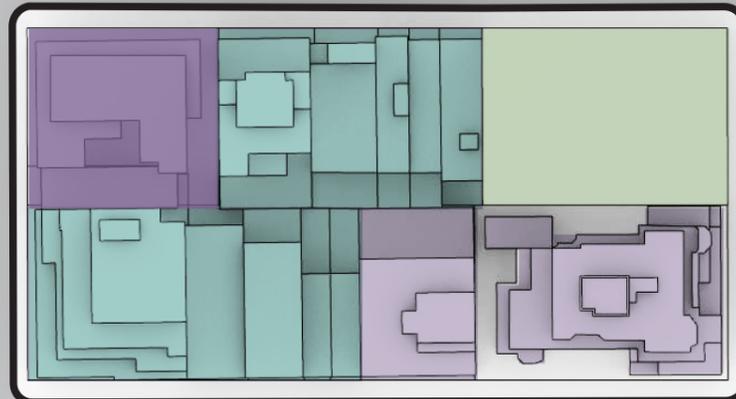
LEXINGTON AVENUE



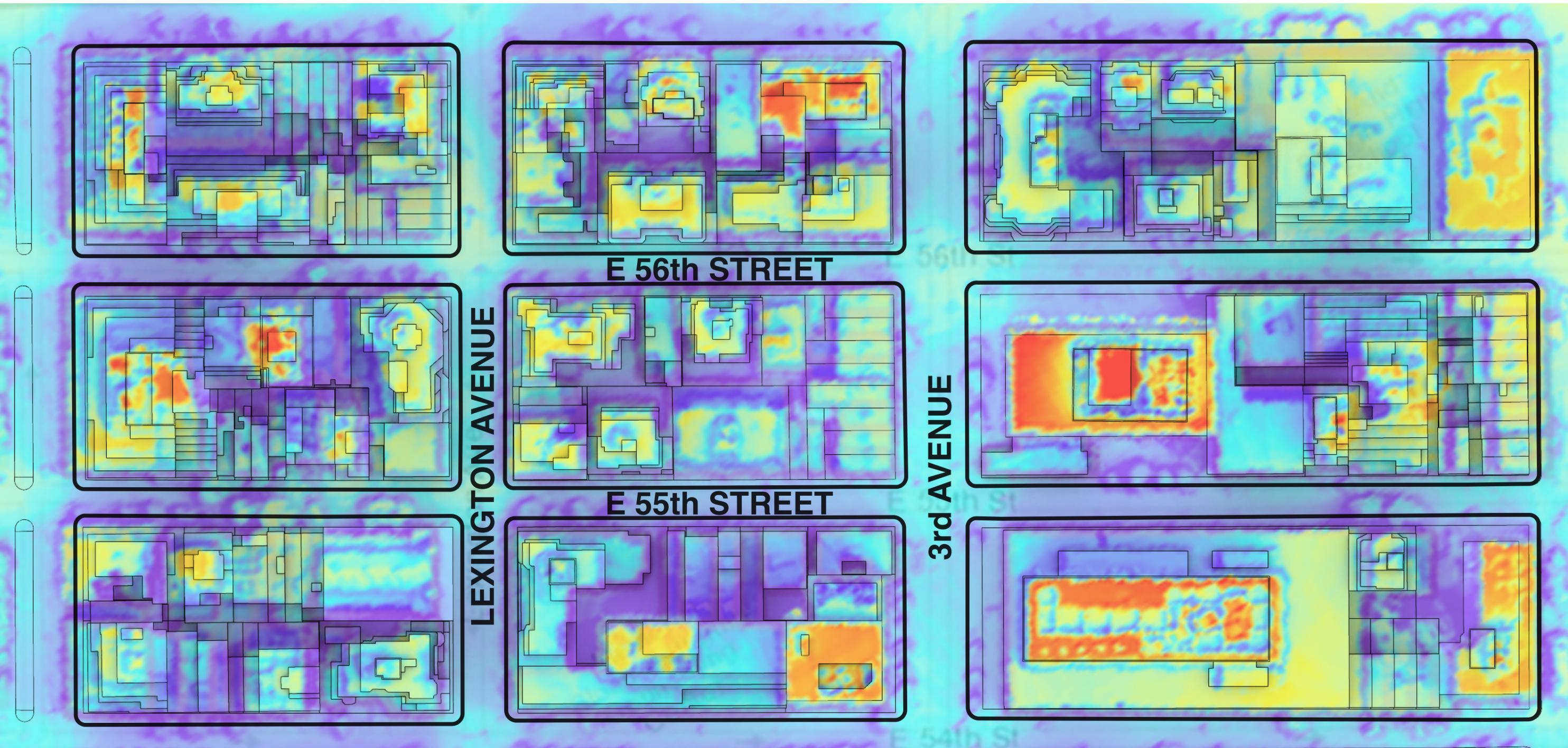
E 55th STREET



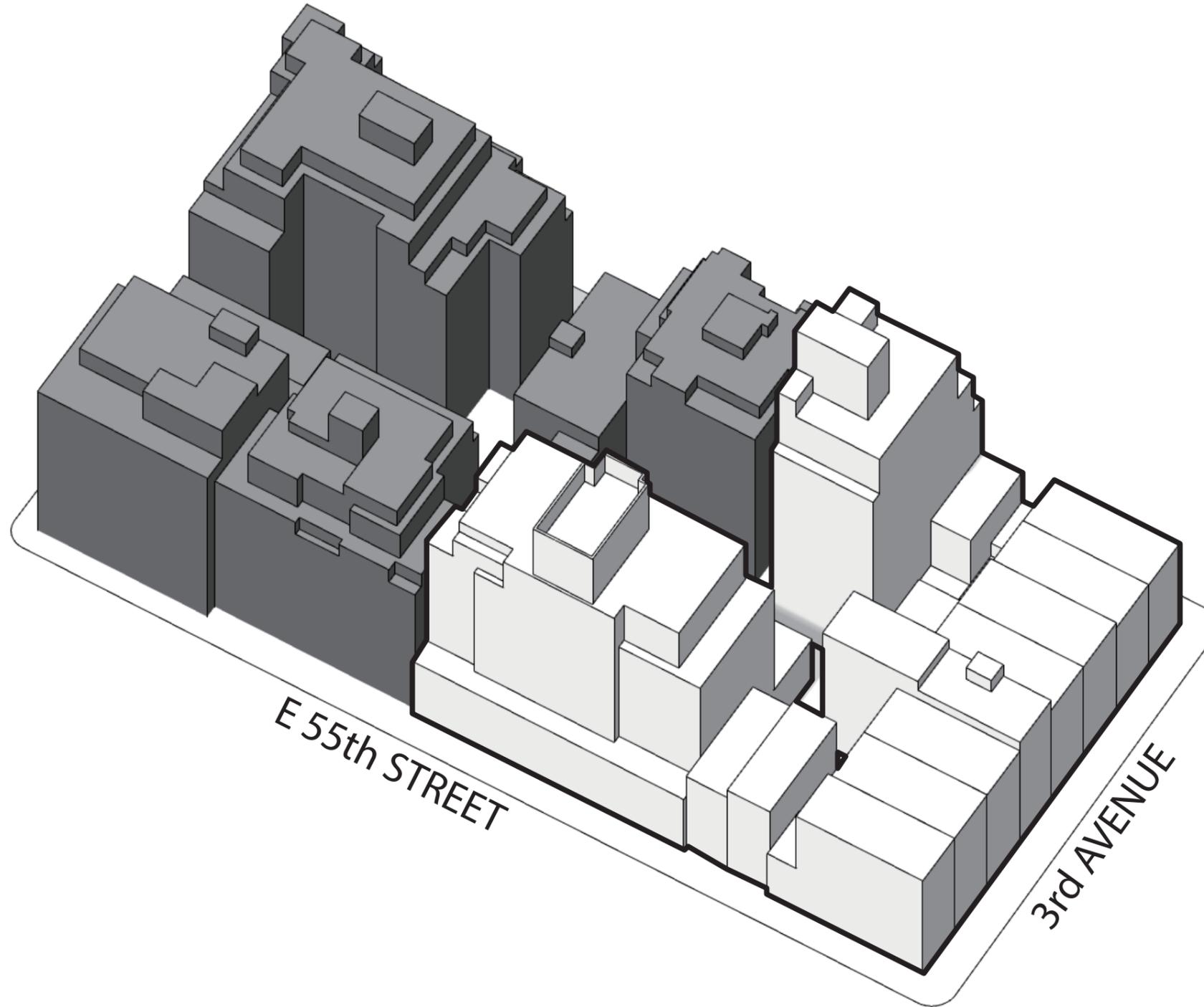
3rd AVENUE



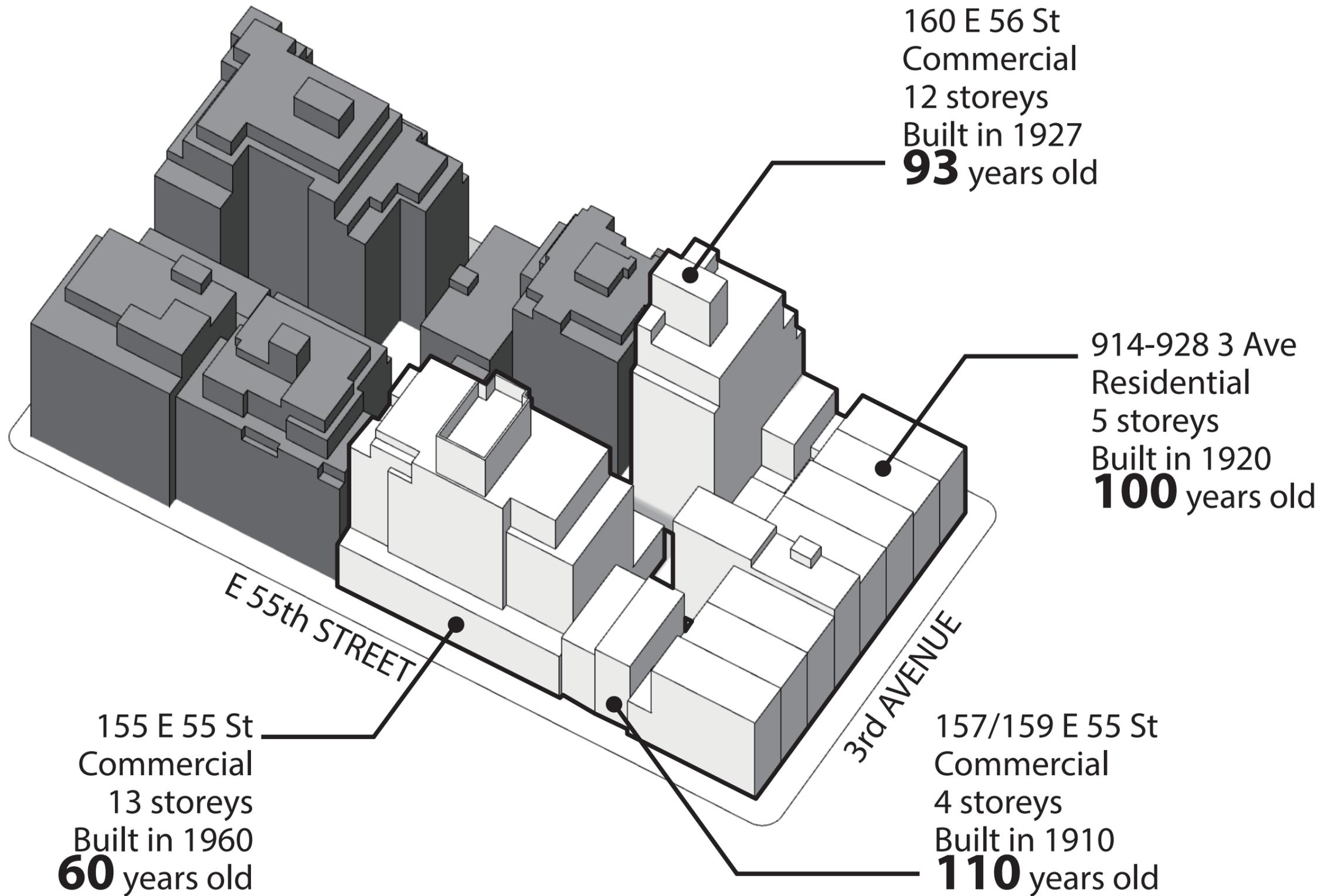
Solar Radiation



Current Situation



Current Situation



Building Lot

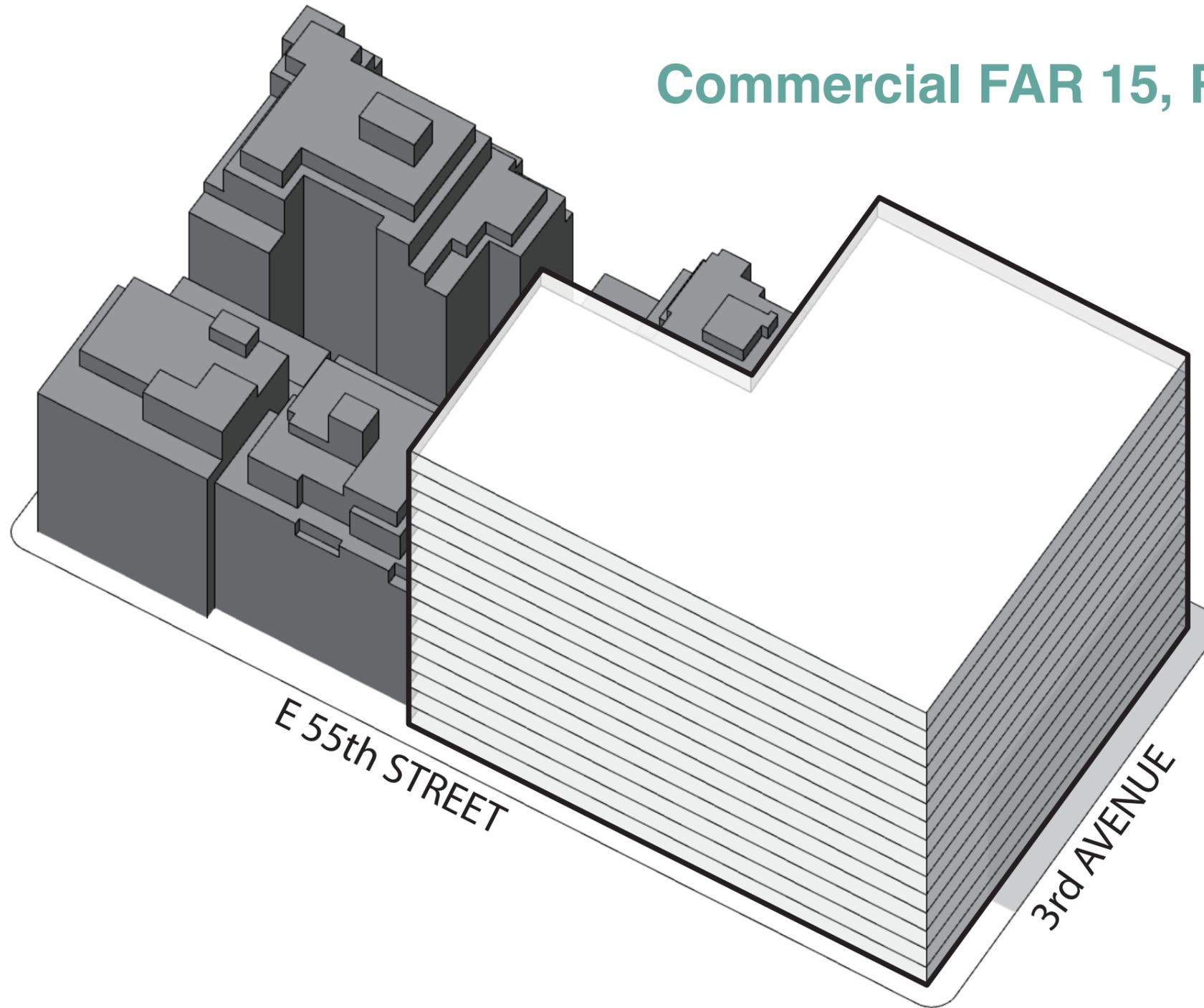


Lot: 3,800 m²

Maximum Volume

C6-6 Corporate headquarters, large hotels, department stores and entertainment facilities in high-rise **mixed buildings** are permitted

Commercial FAR 15, Residential FAR 10

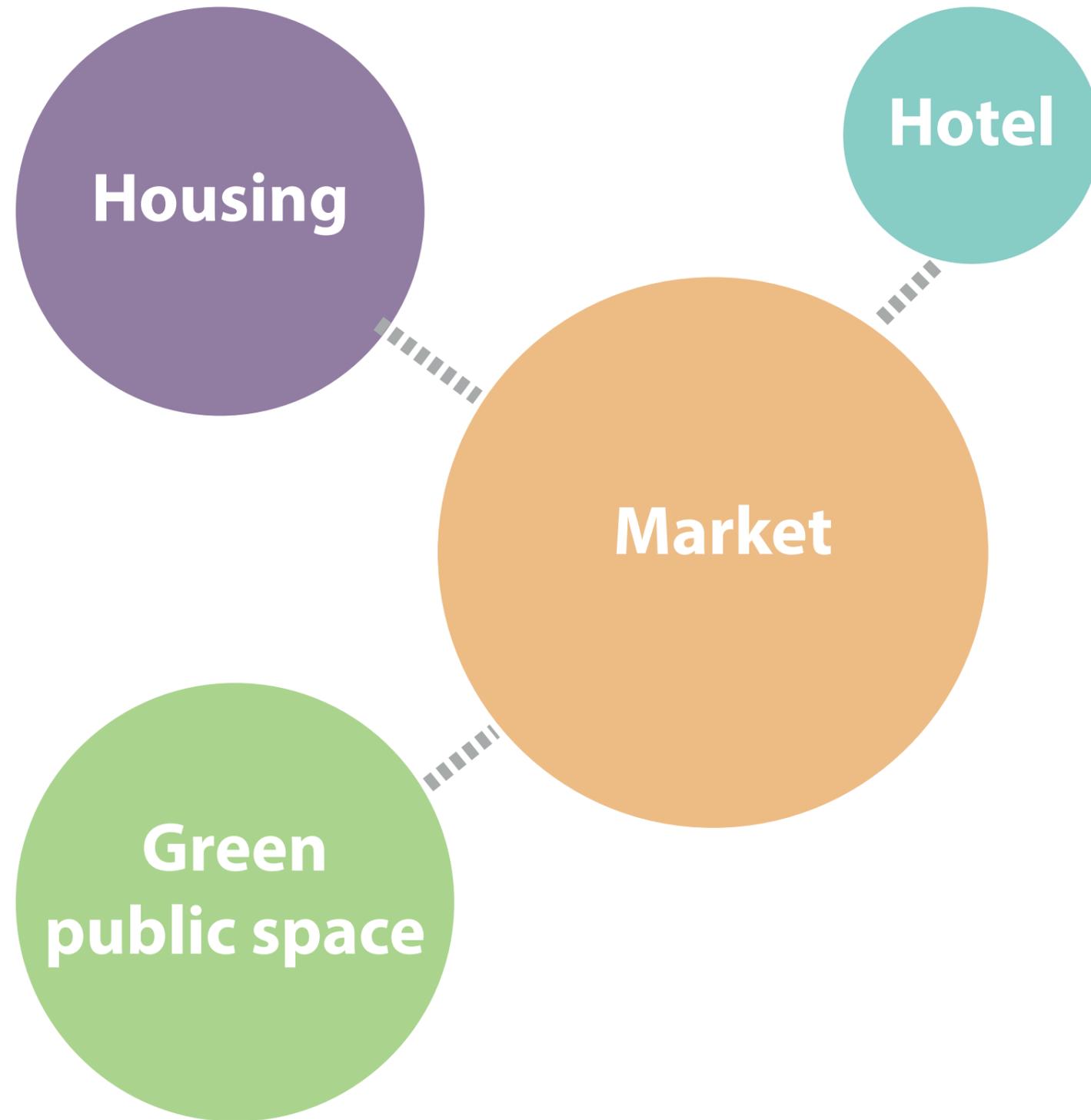


Lot: 3,800 m²
Height: 60 m
GFA: 57,000 m²
FAR: 15

Main Programmes

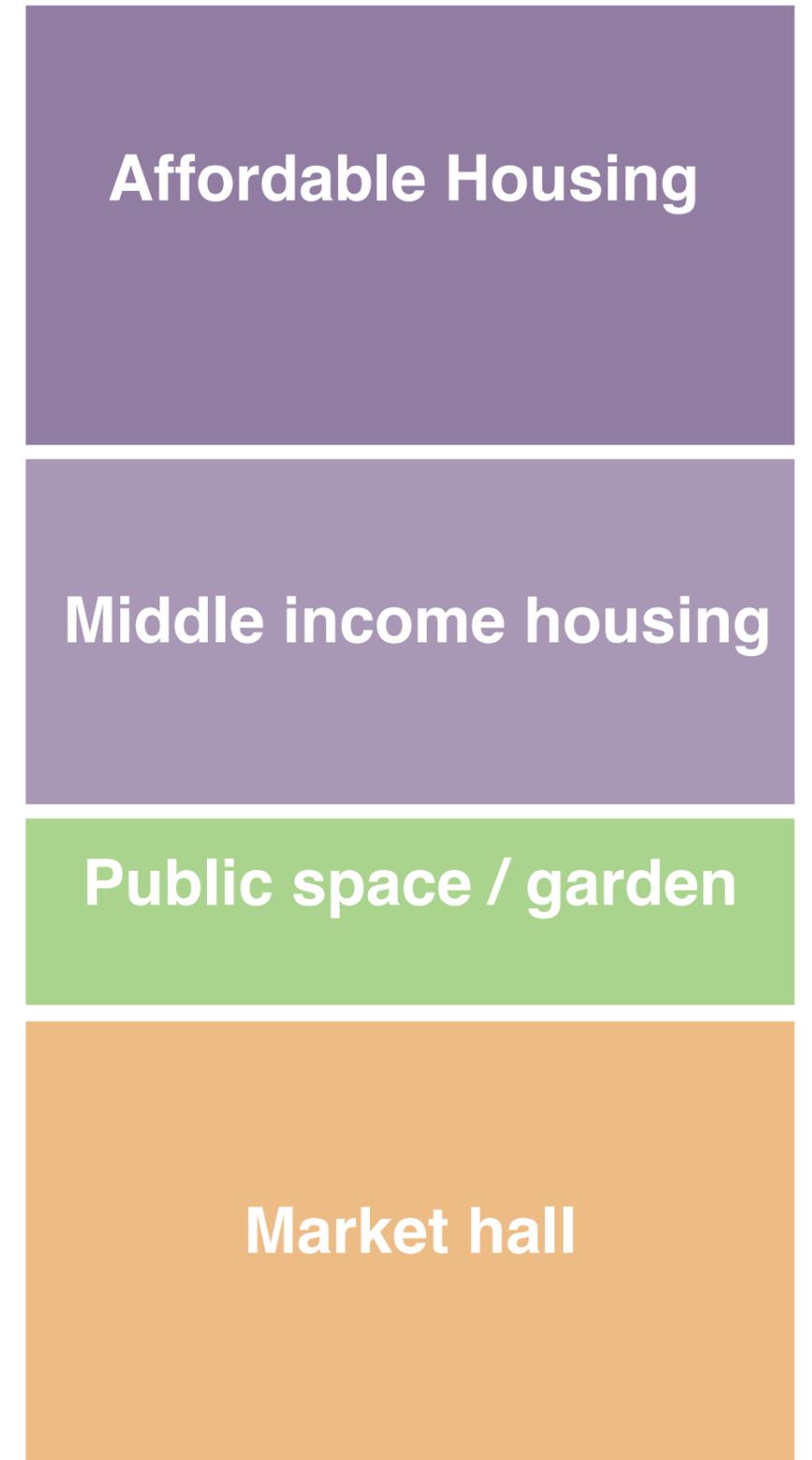
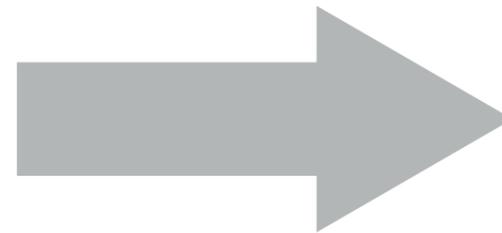
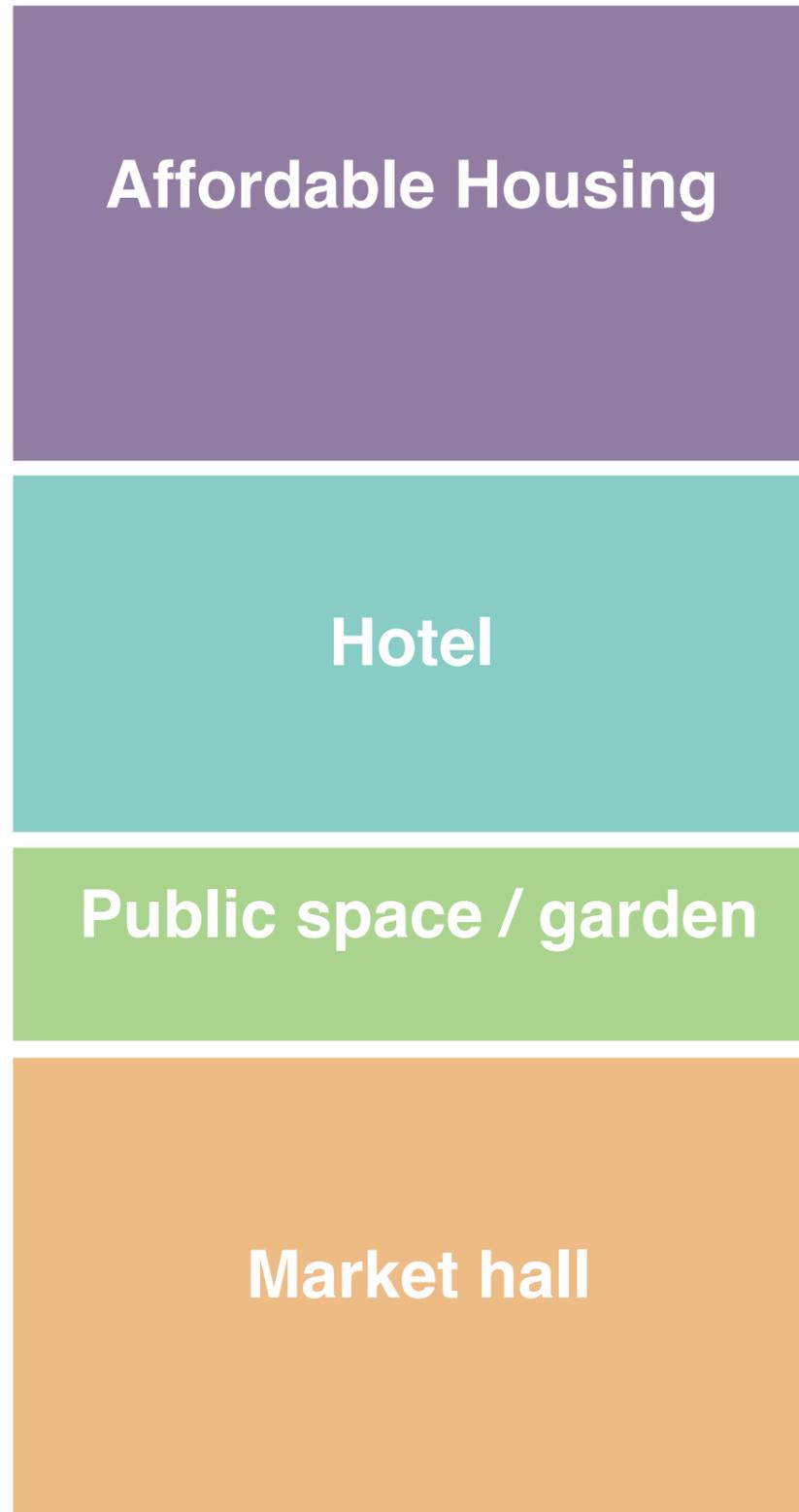


Main Programmes

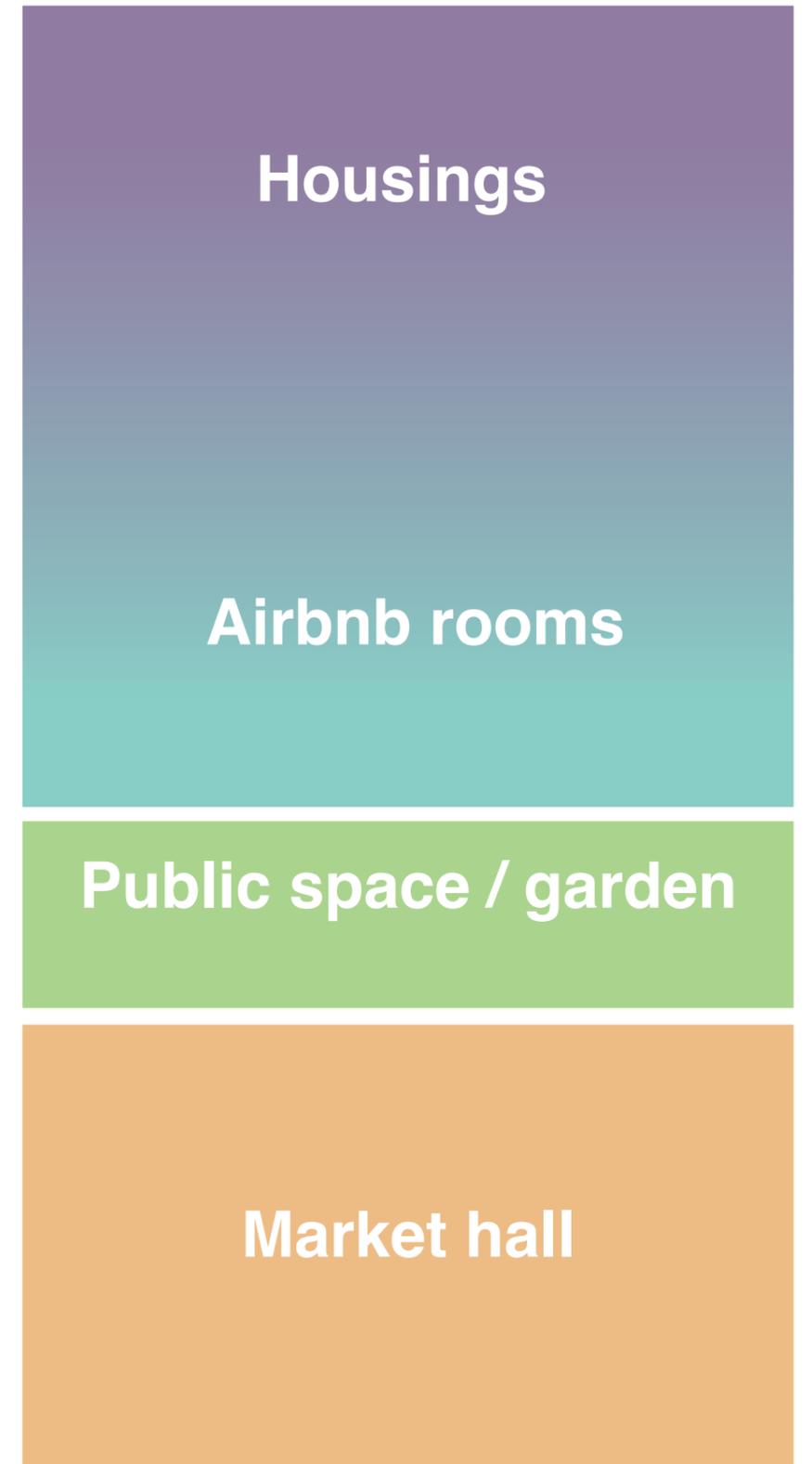
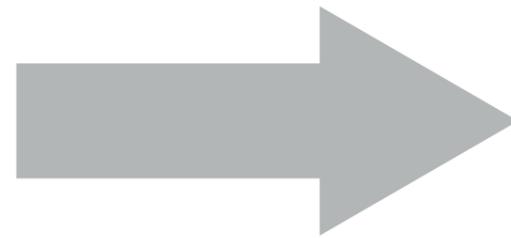
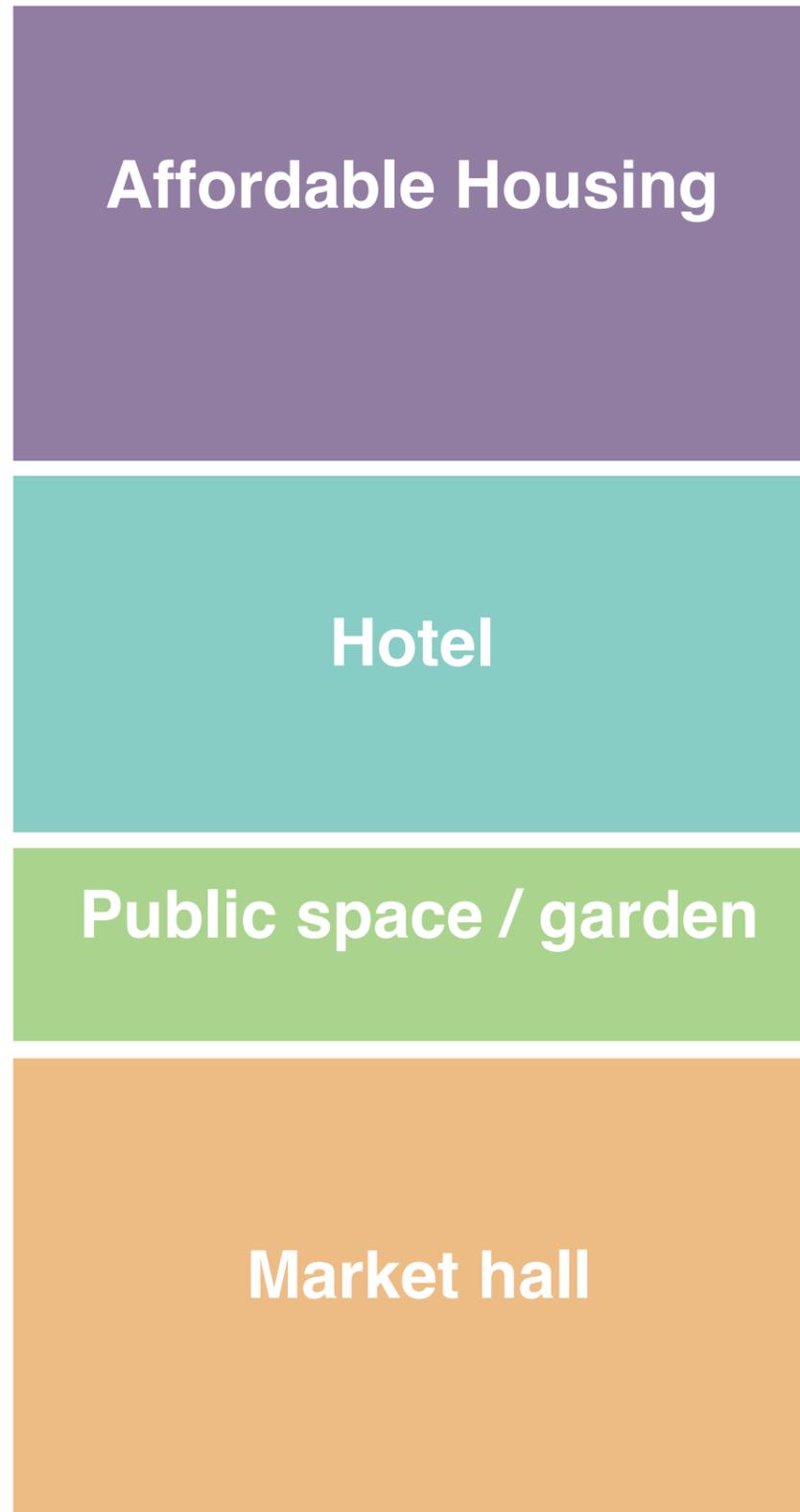




Main Programmes

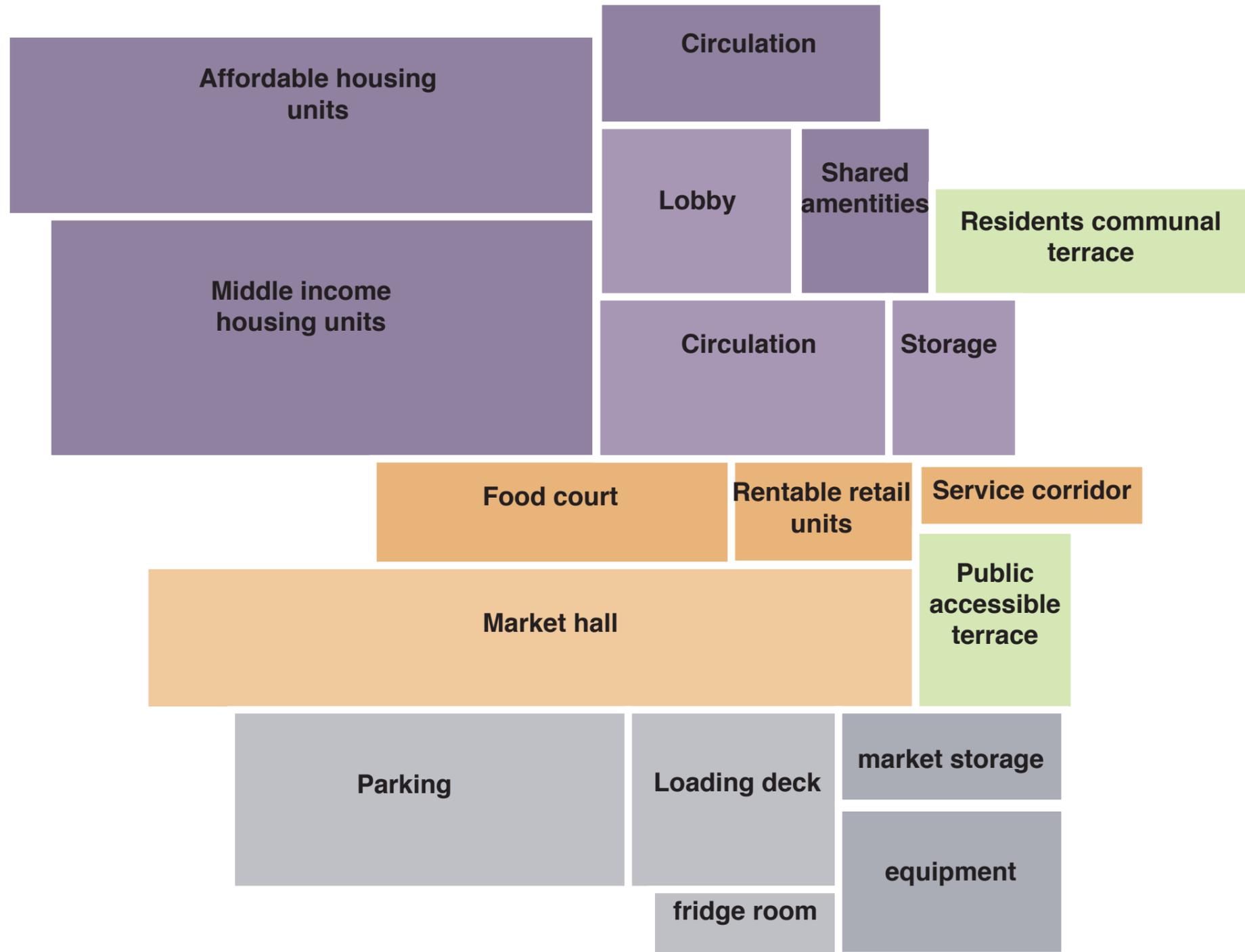


Main Programmes





Programme ratio



Ambitions

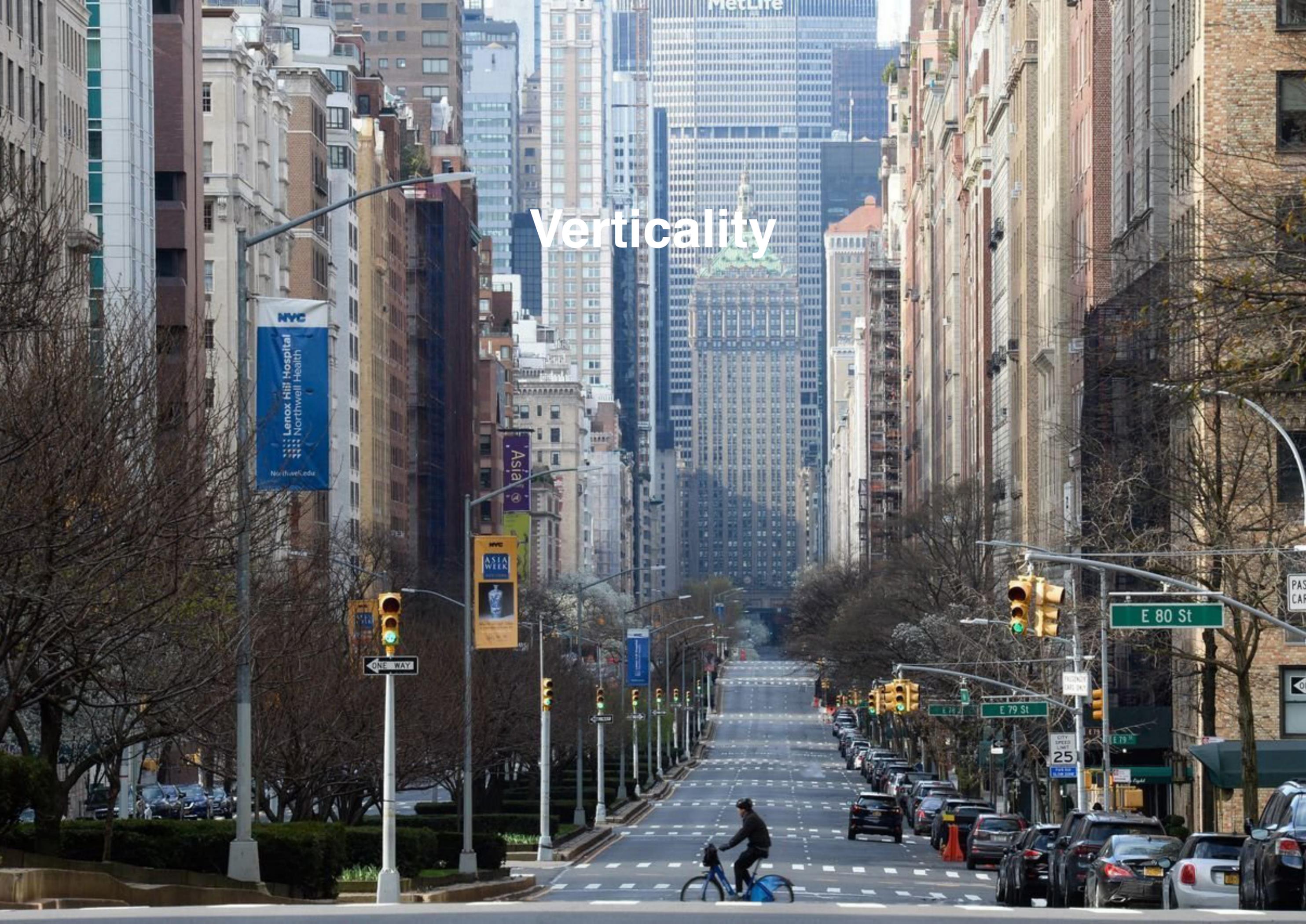
A FOOD MARKET aims to promote an alternative **LIFESTYLE** against ever-expanding unsustainable consumerism in our society by making grocery shopping **AN ATTRACTIVE AND ENJOYABLE EXPERIENCE** that can partially replace recreational shopping.

Design Concept

Publicity



Verticality



Recreational



Accessibility



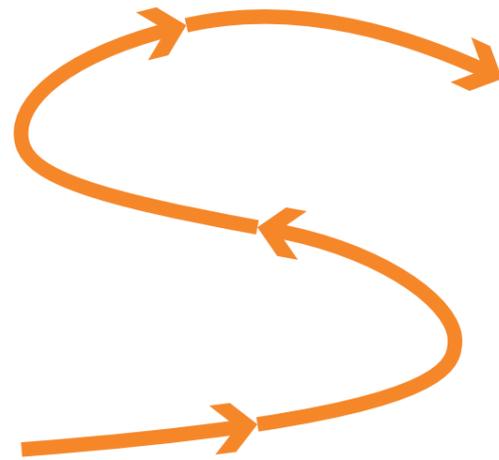
Spatial concepts

Publicity



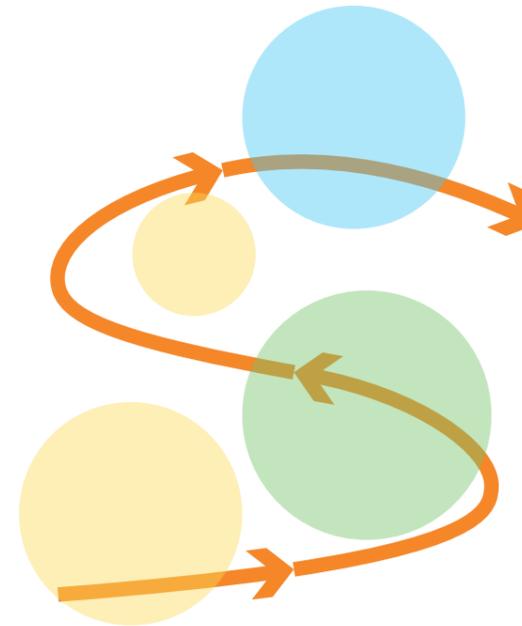
**Blurred boundary
between the
market and
urban street**

Verticality



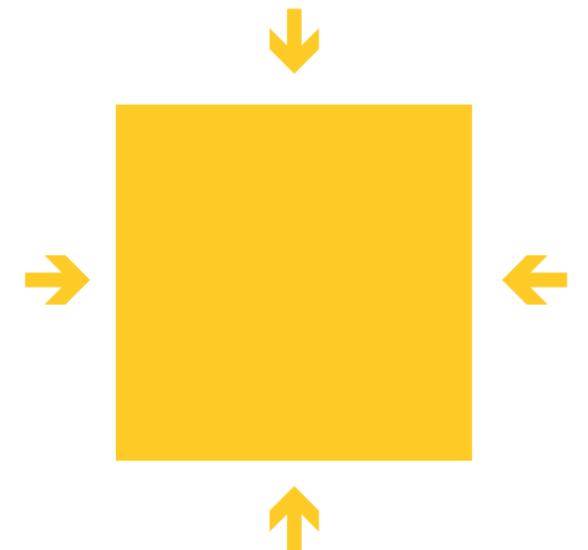
**A continuous
walk to take...**

Recreation

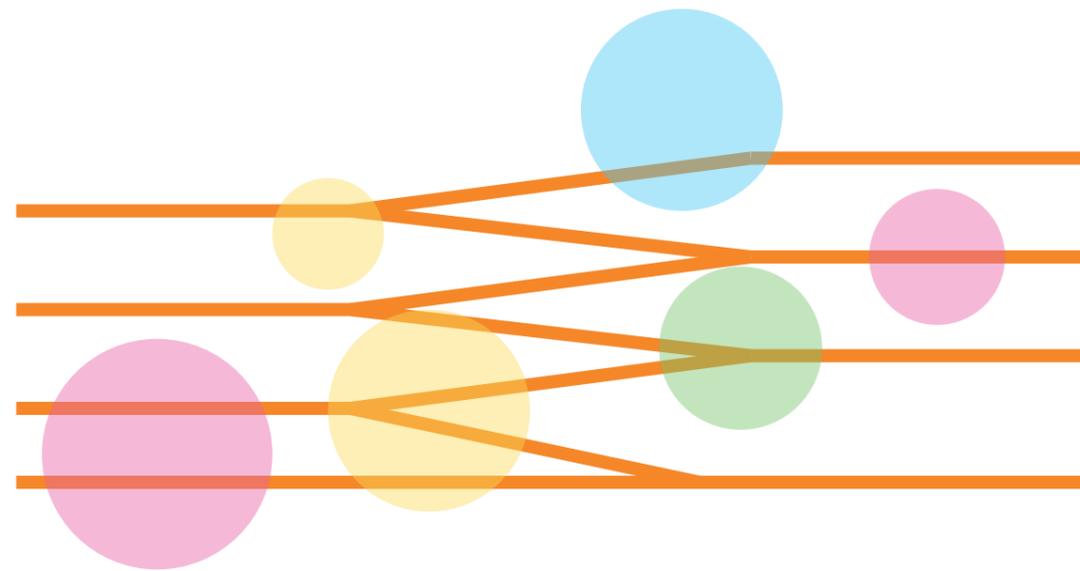
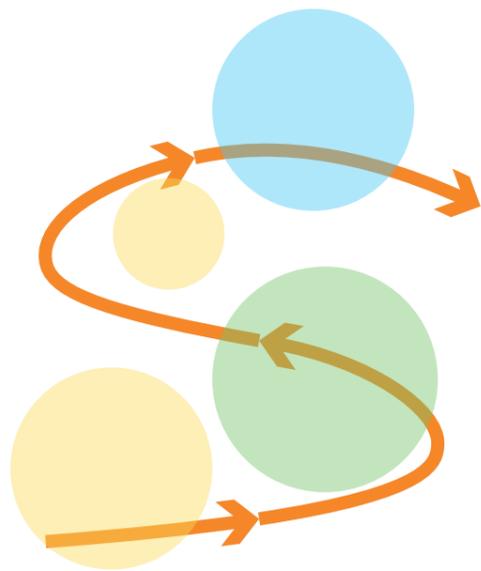


**...alongside
with diverse
and enjoyable
shopping
experience**

Accessibility

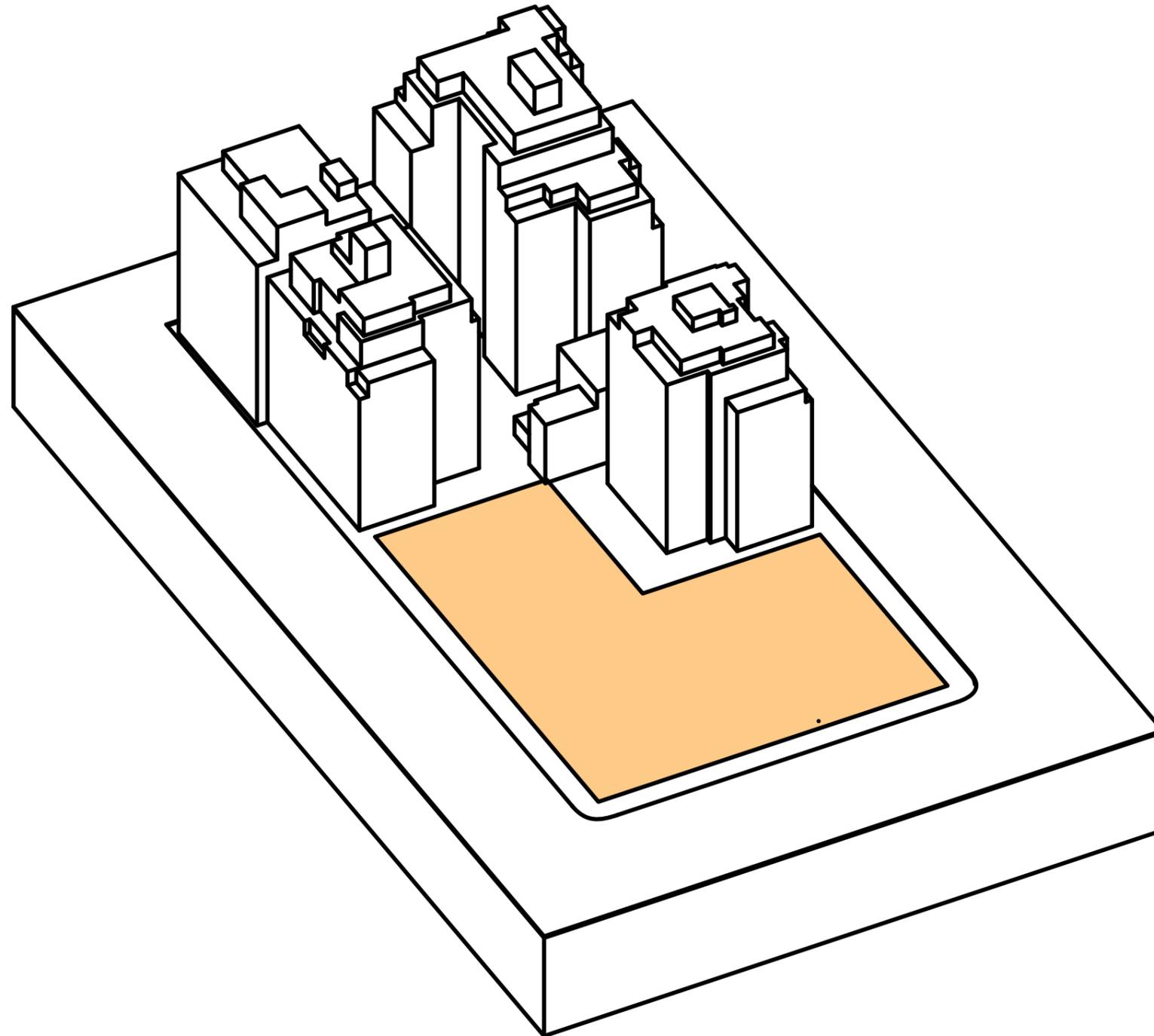


**Market as big
public space with
easy access**

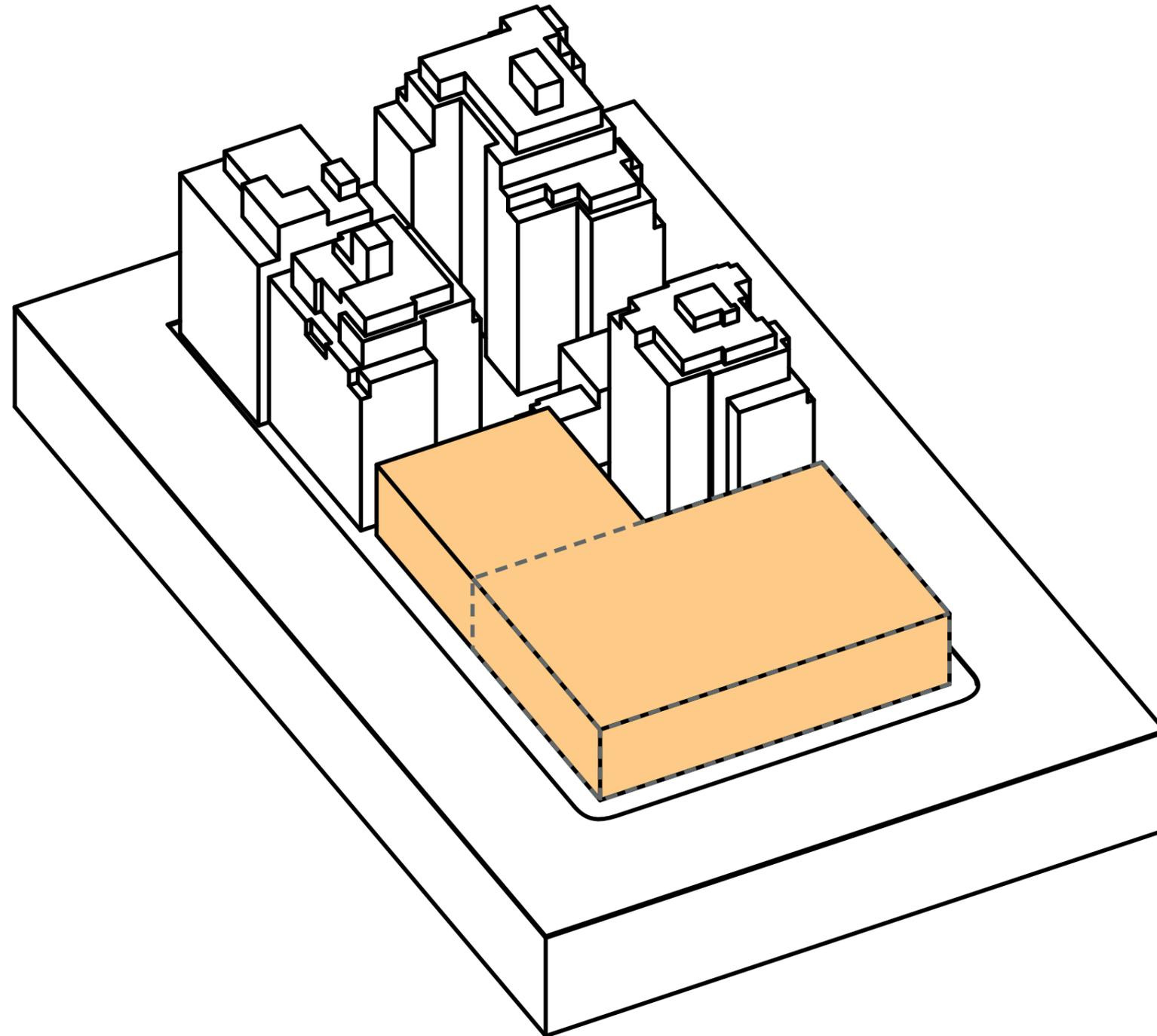


**Staggered floors
connected by
ramps**

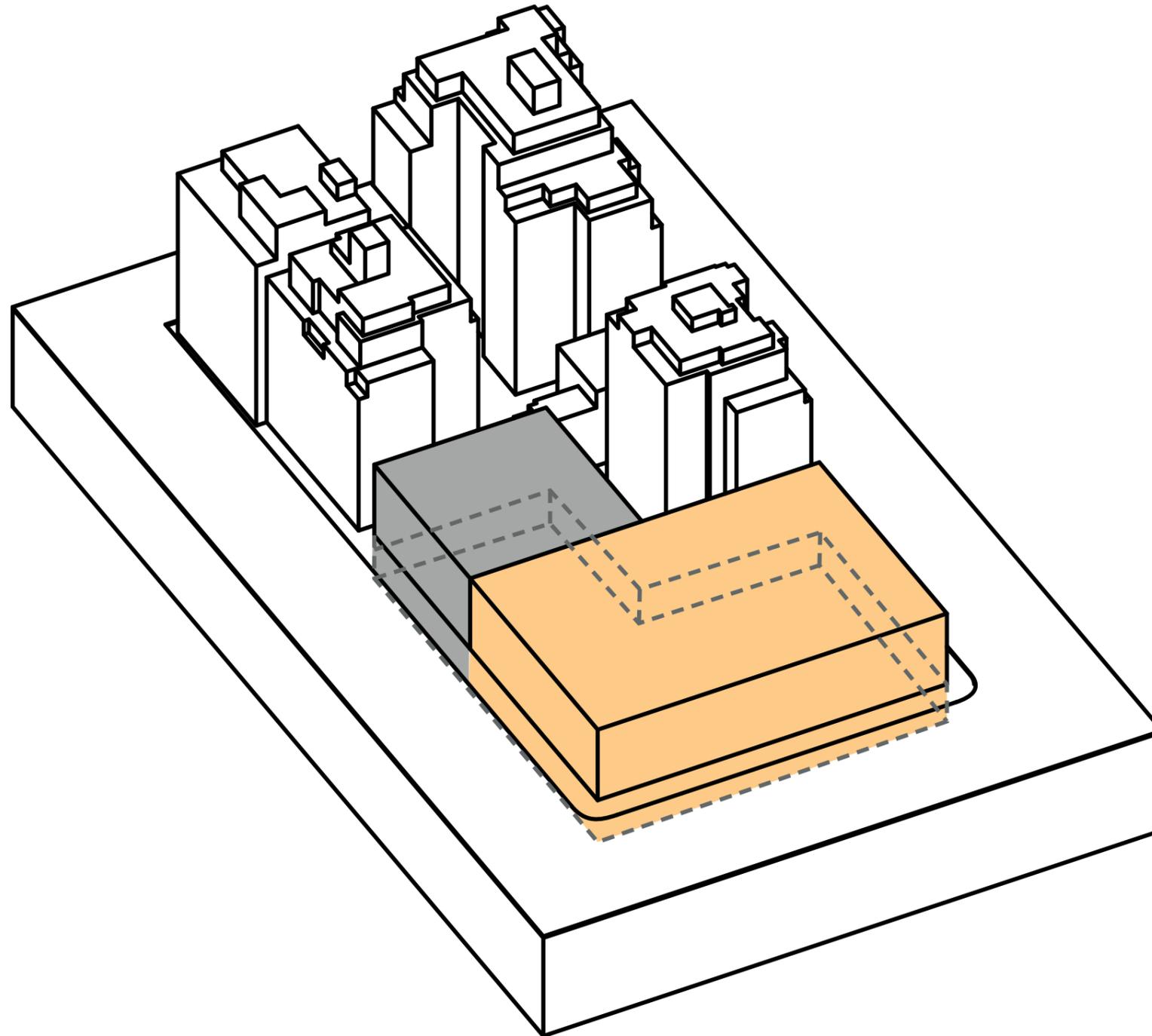
Plot



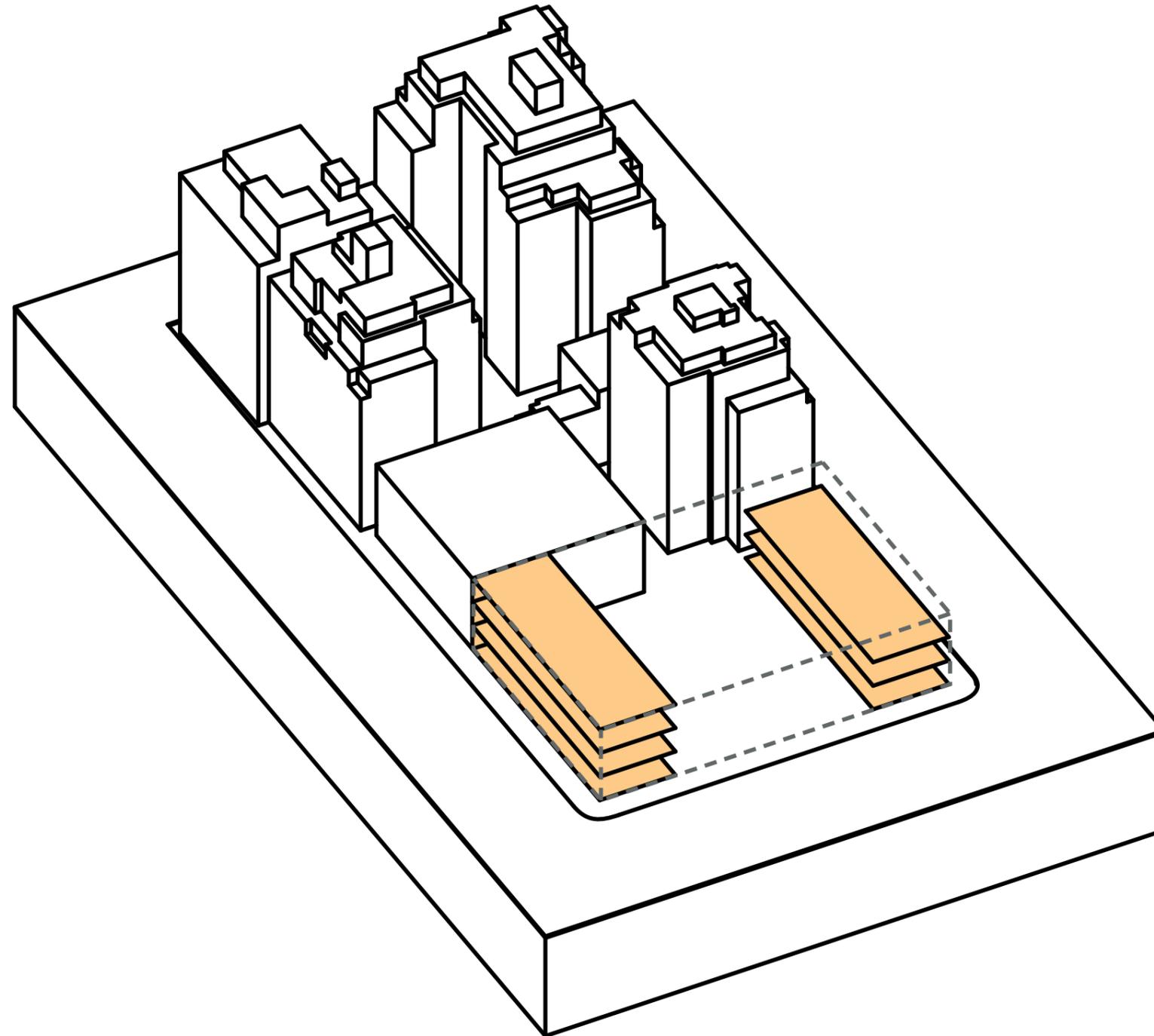
Podium Volume



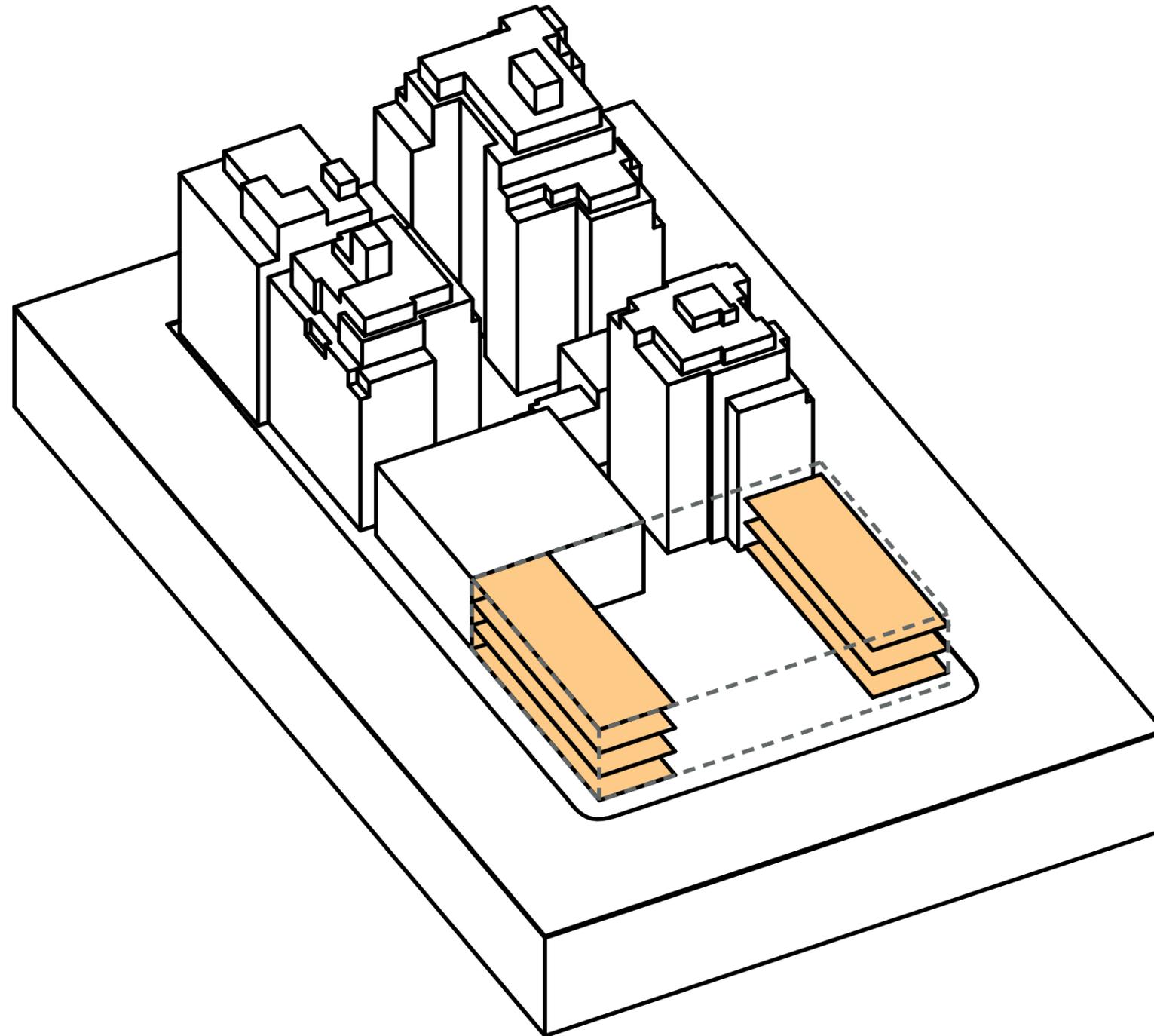
Market hall & Service space



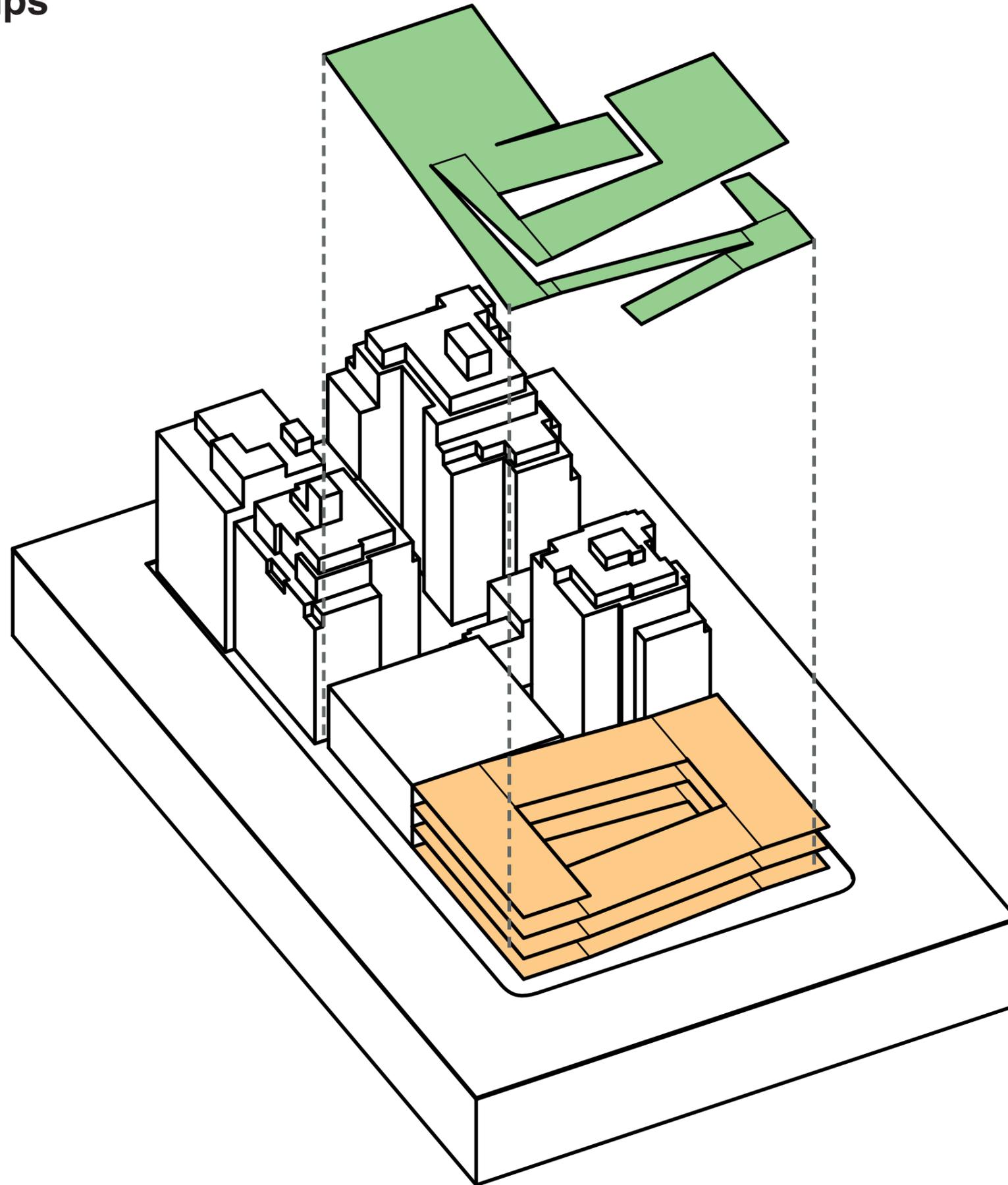
Staggered floor



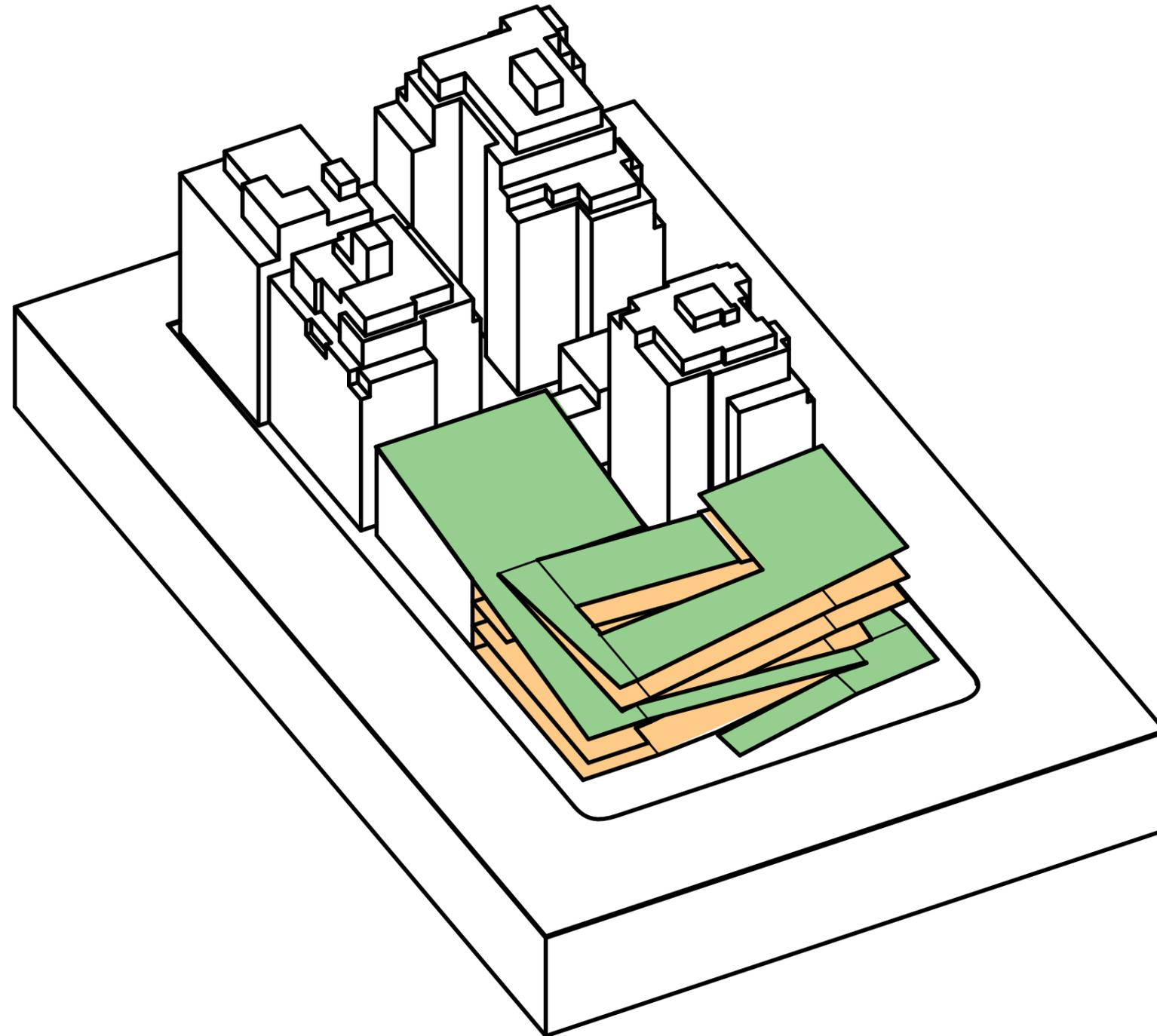
Staggered floor



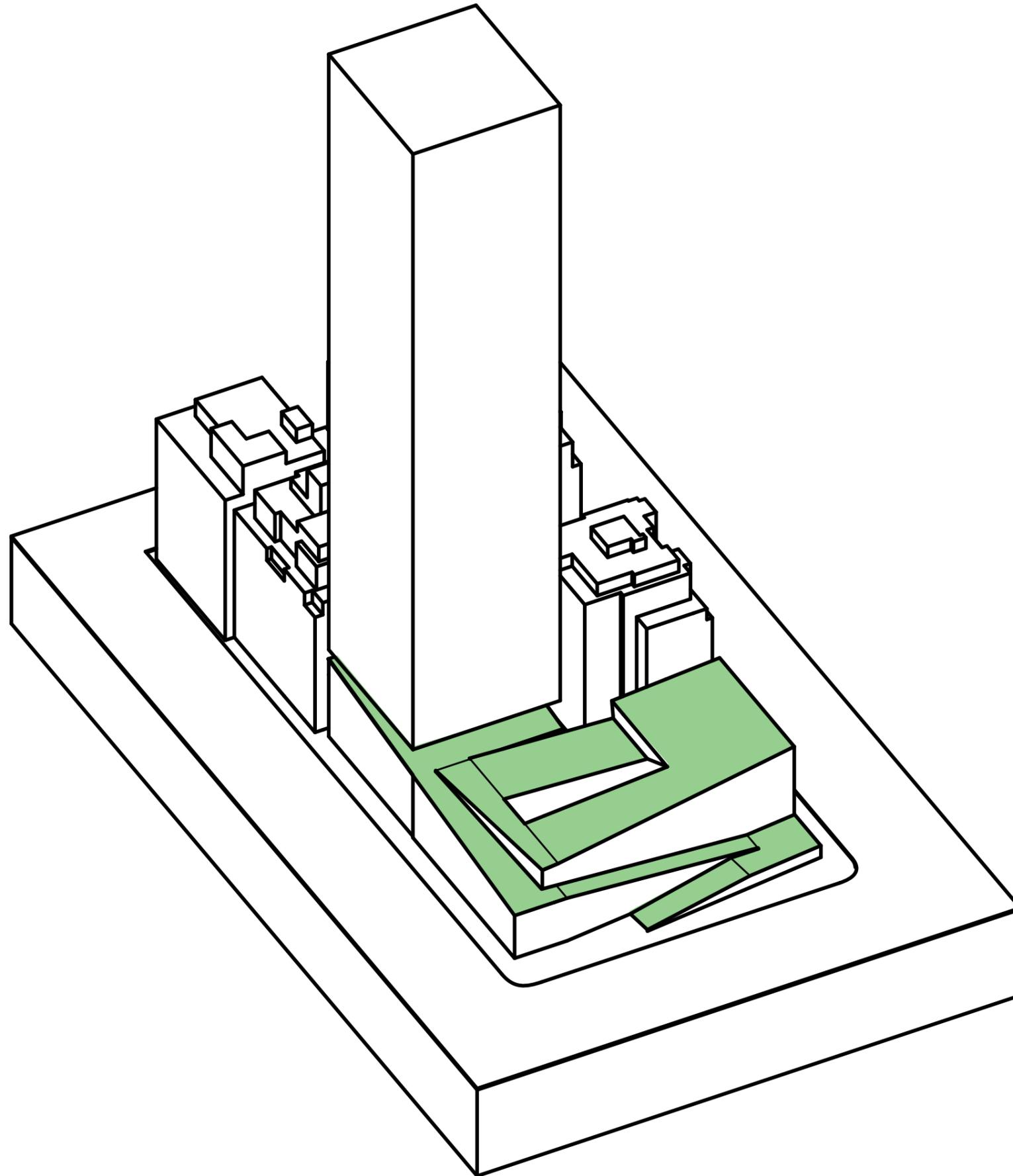
Interior & external ramps



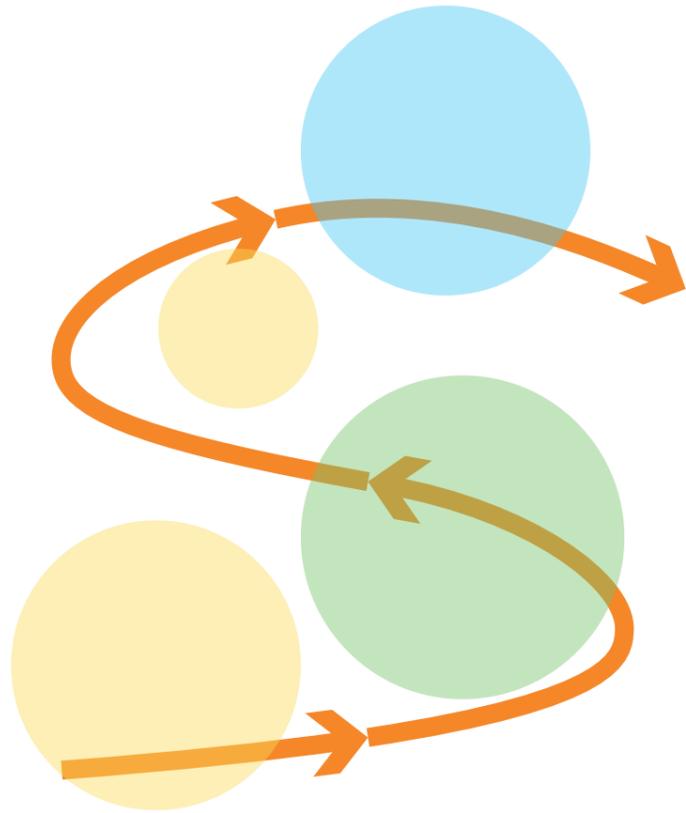
Interior & external ramps

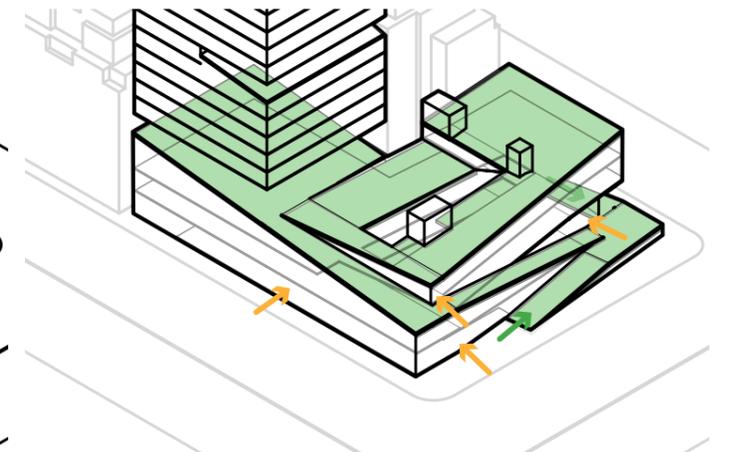
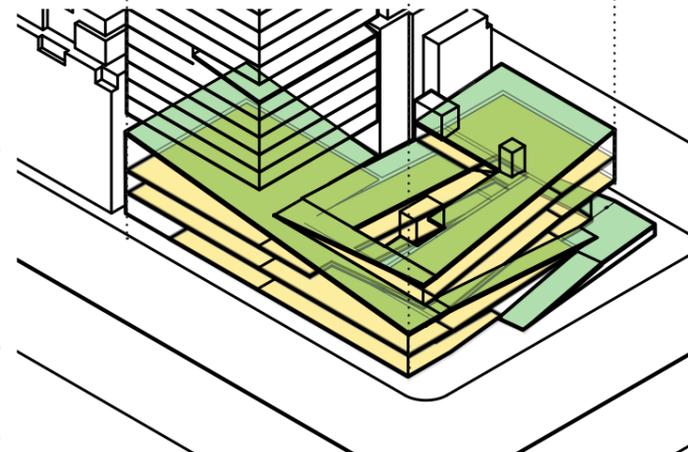
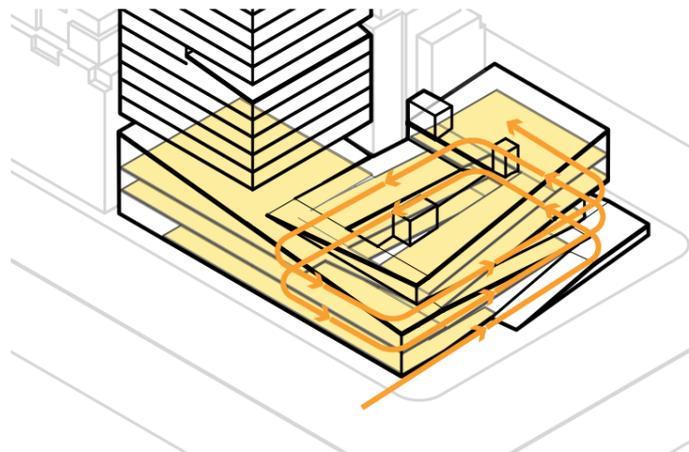
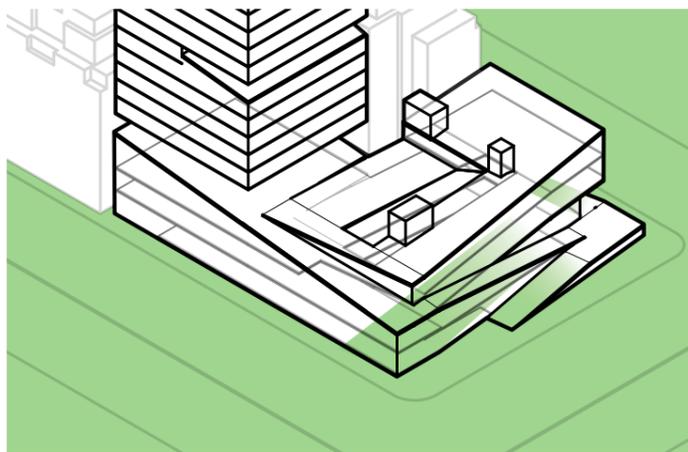
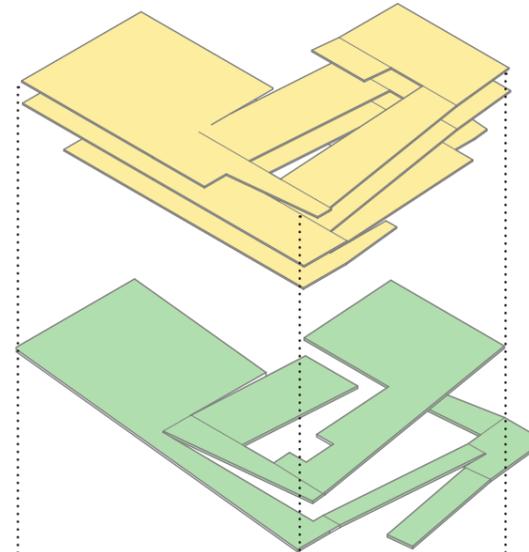
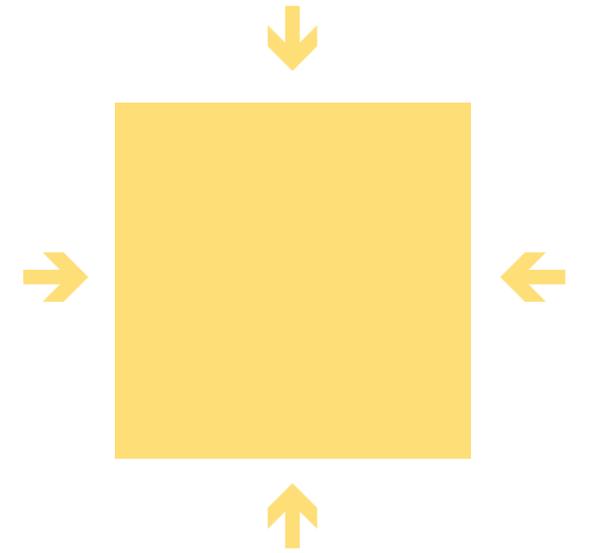
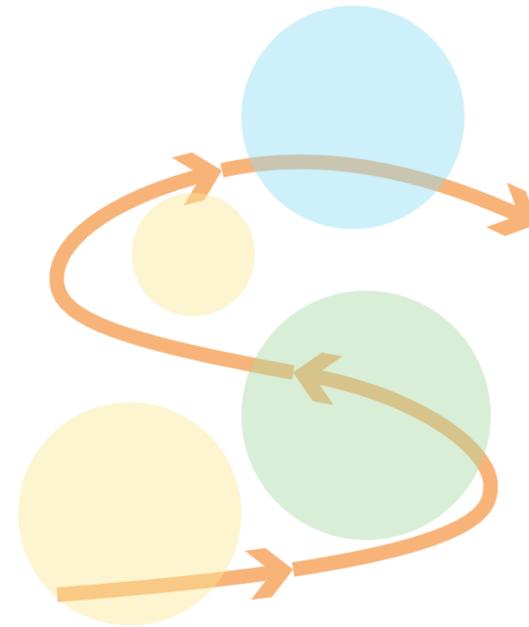
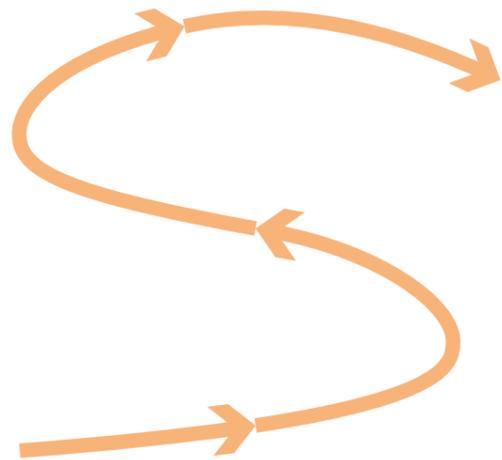
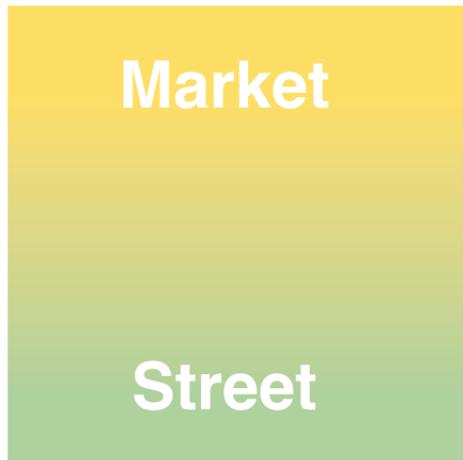


Residential tower



A recreational experience





Publicity

Verticality

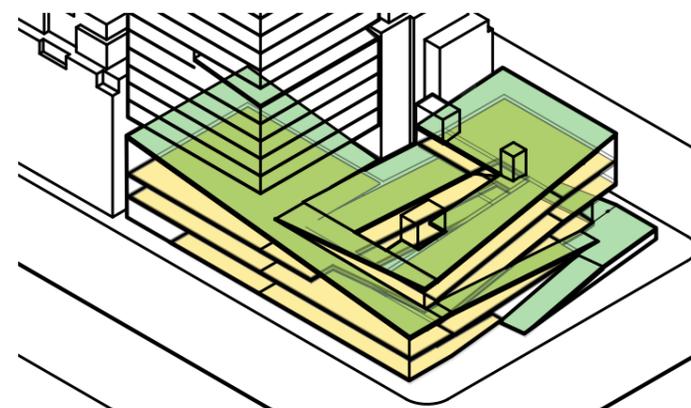
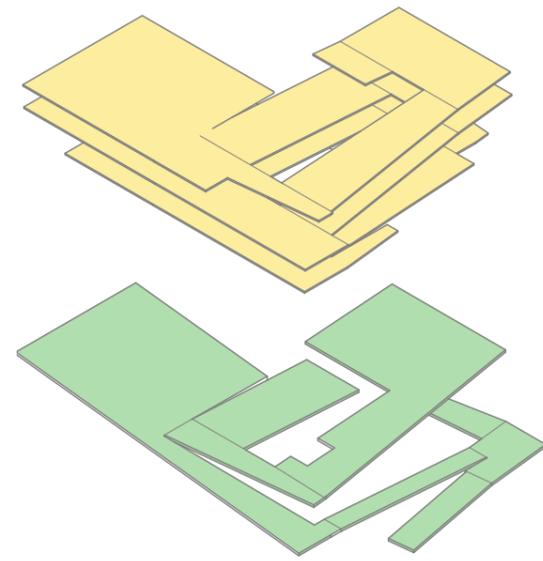
Recreation

Accessibility

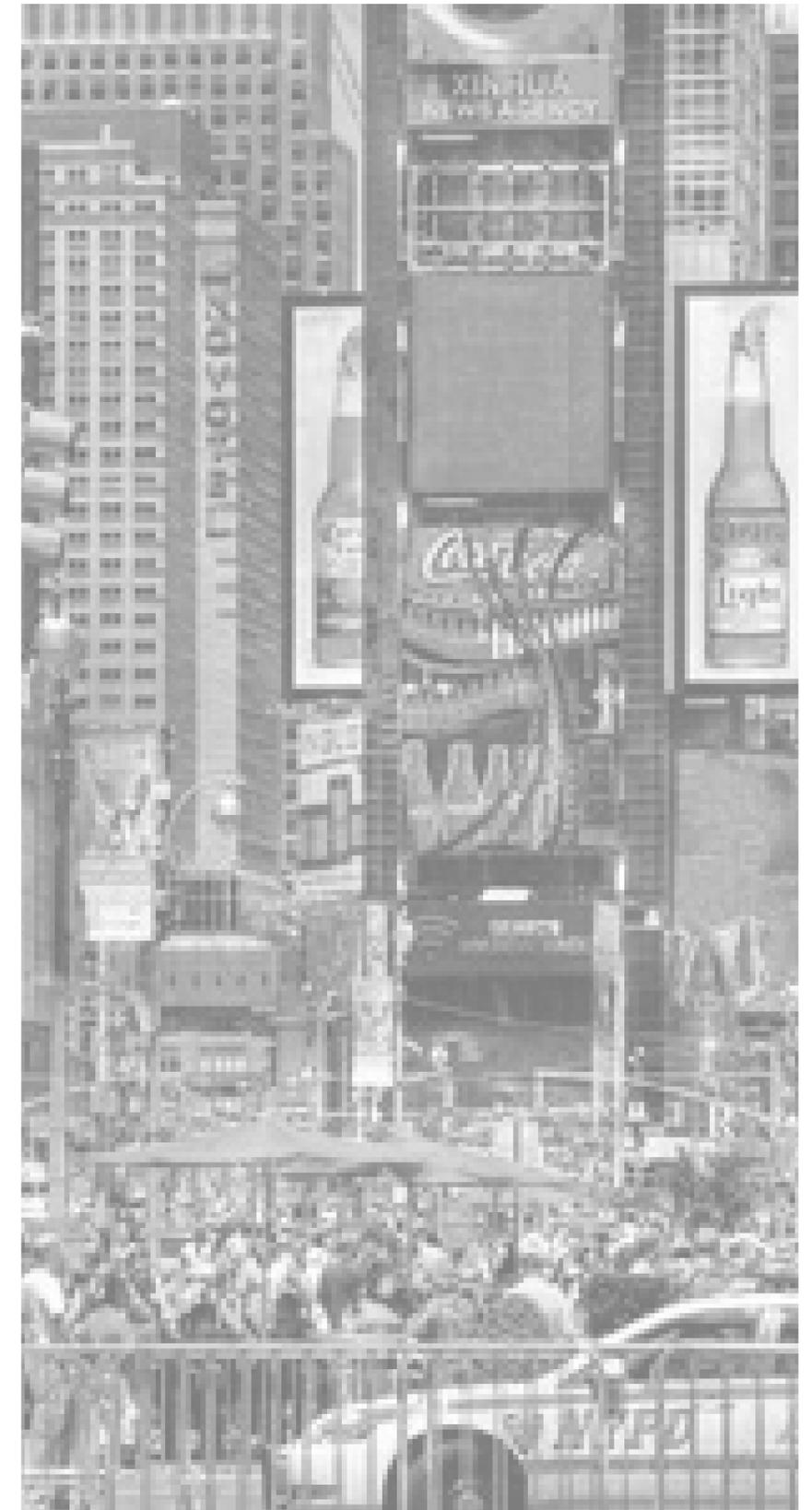
Authentic New York Shopping Experience

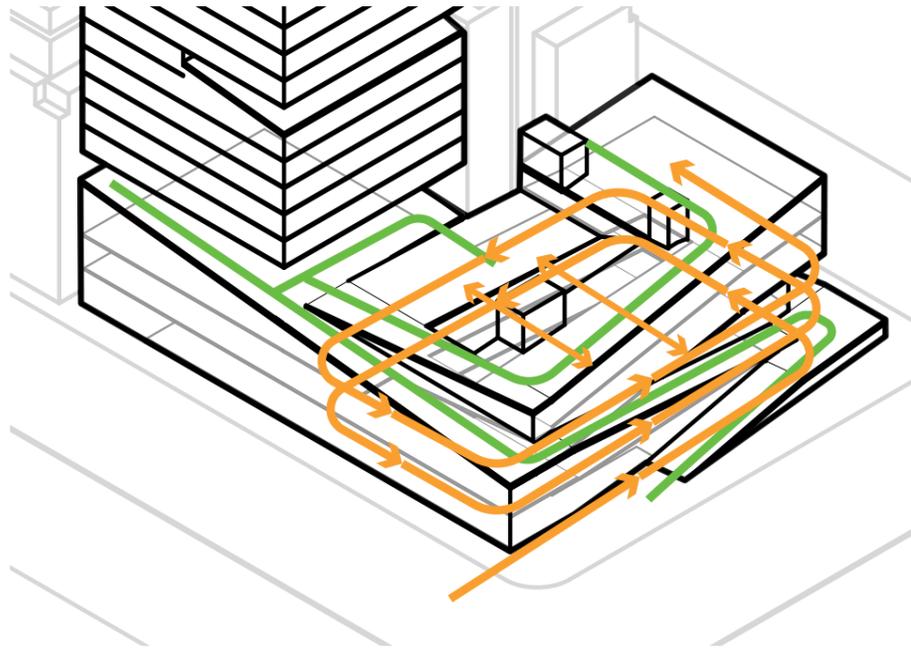


Verticality **Busy** **Diversity**

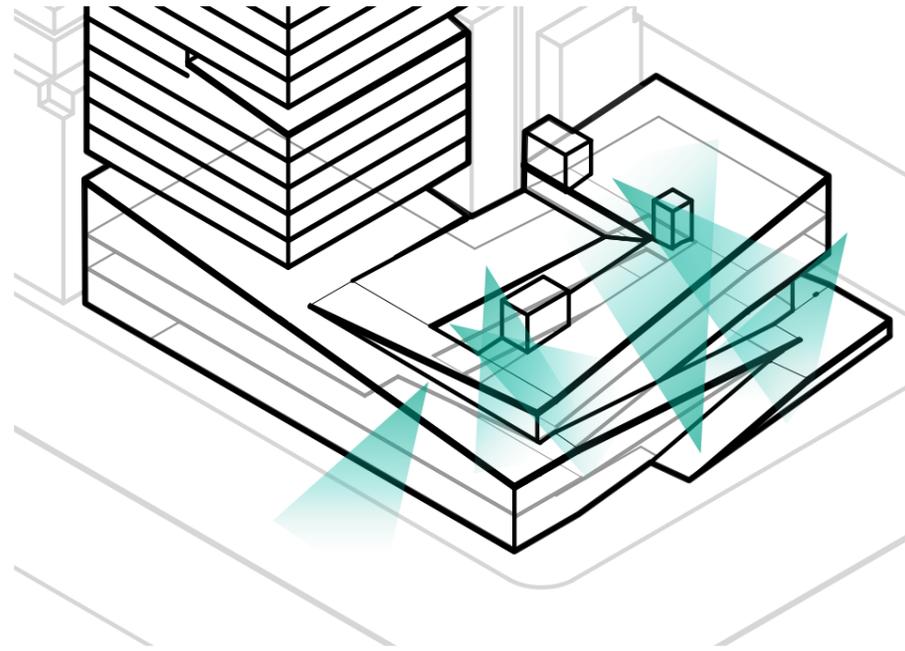


Multi-layering

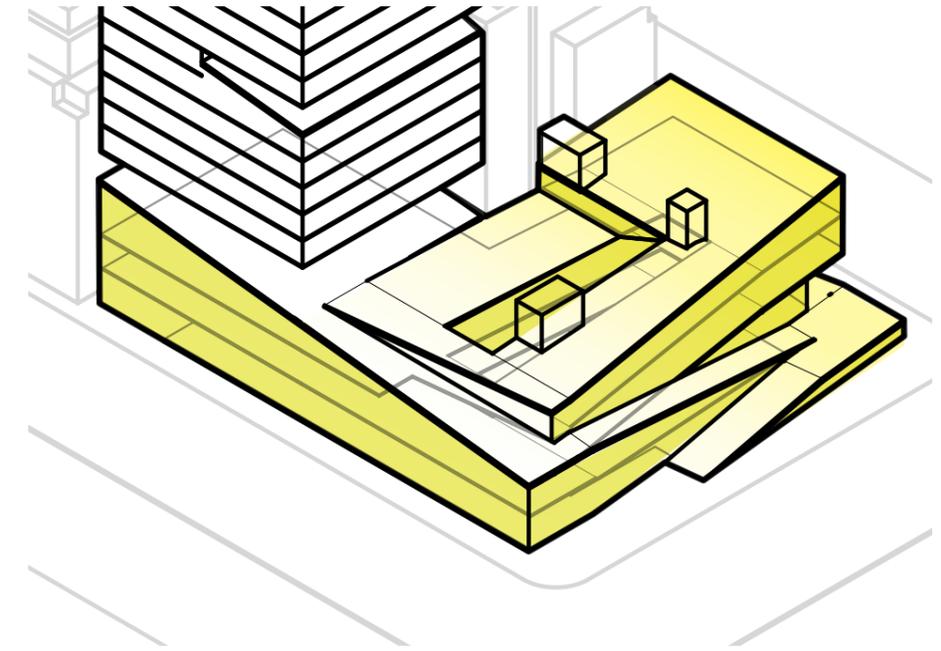




layers of circulation



layers of views



layers of natural lights

Authentic New York Shopping Experience

Fresh local groceries sold by local farmers

**Local people come here to shop groceries and
meet with each other**

No big brands/international chain stores

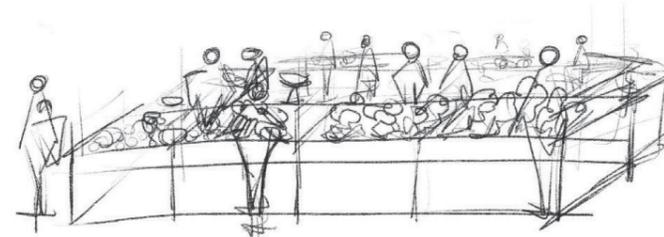
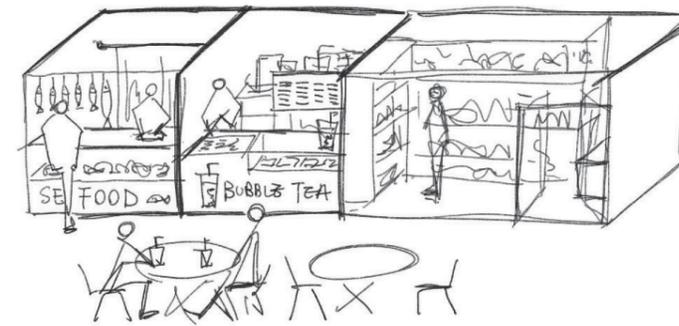
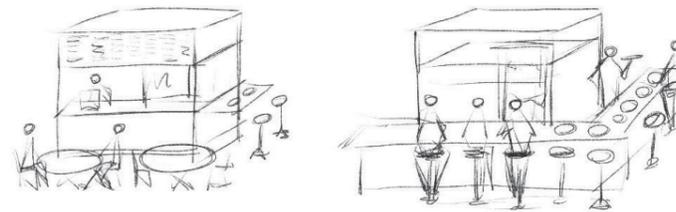
Casual, temporary, flexible, spontaneous

...

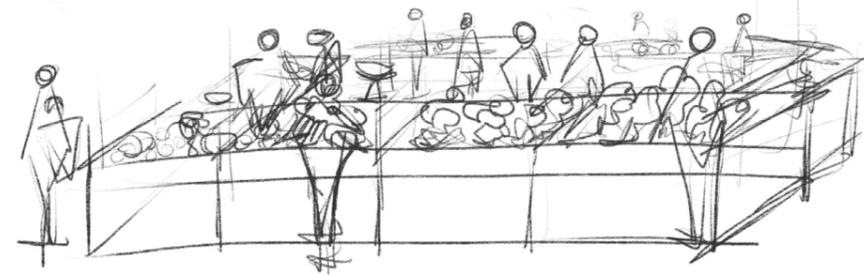
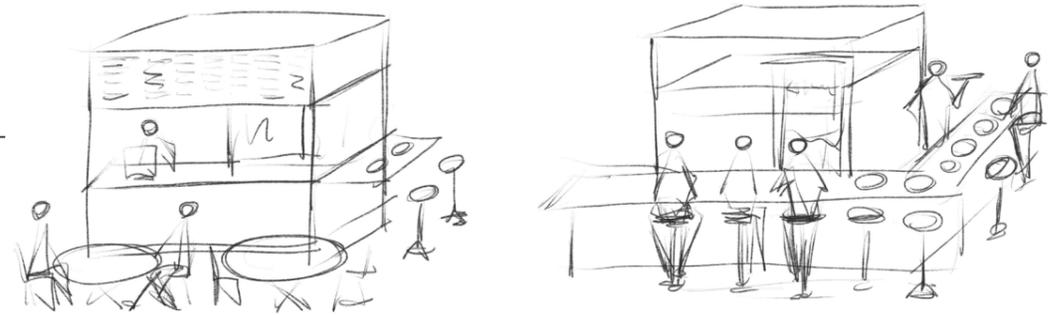
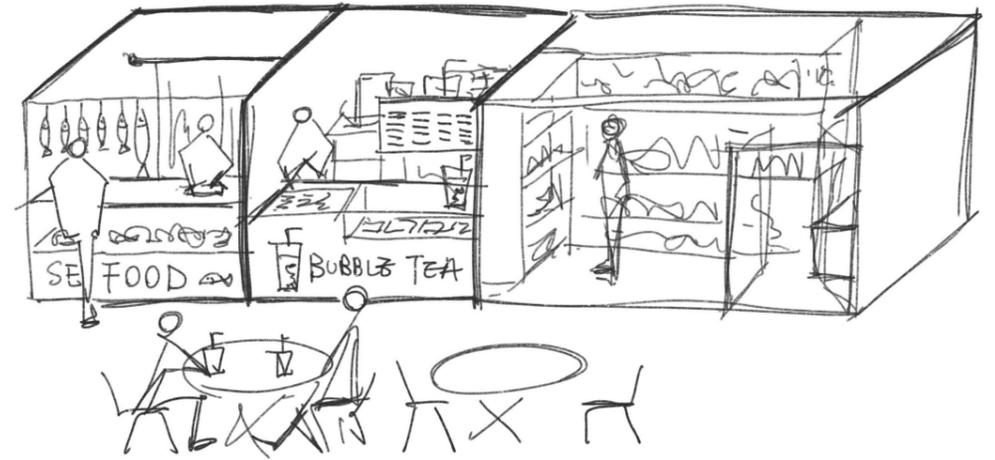
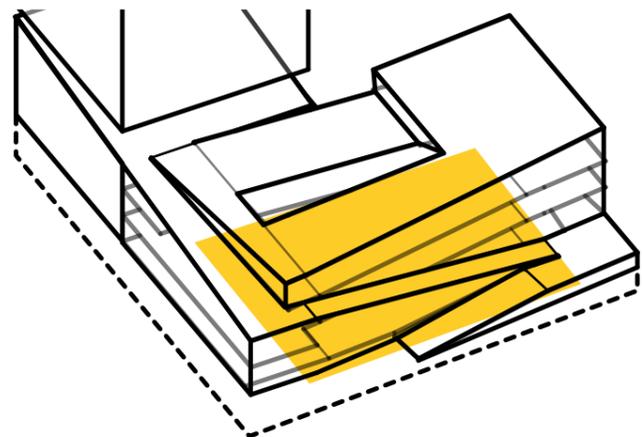
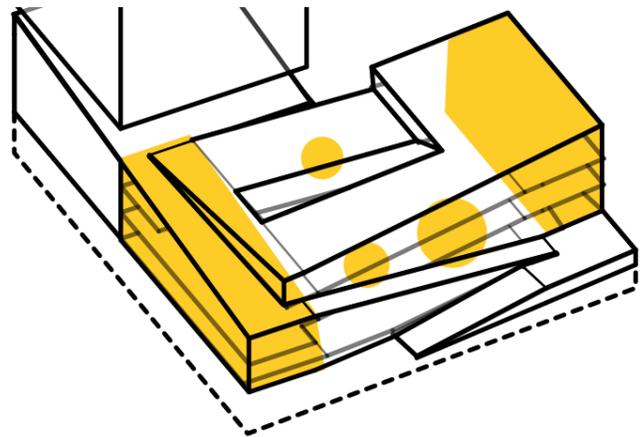
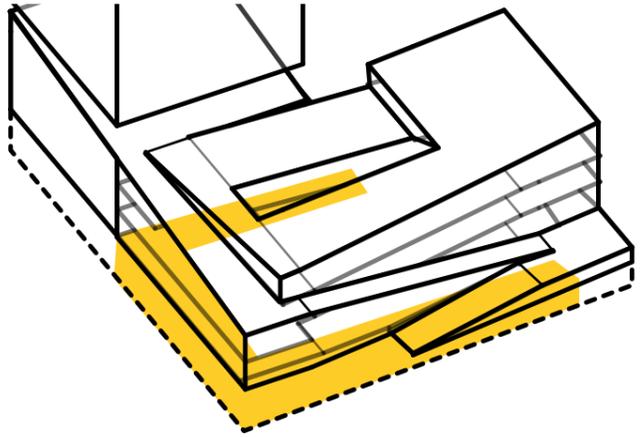
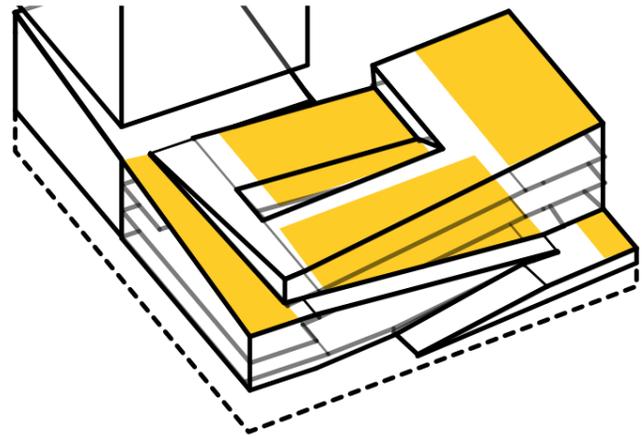




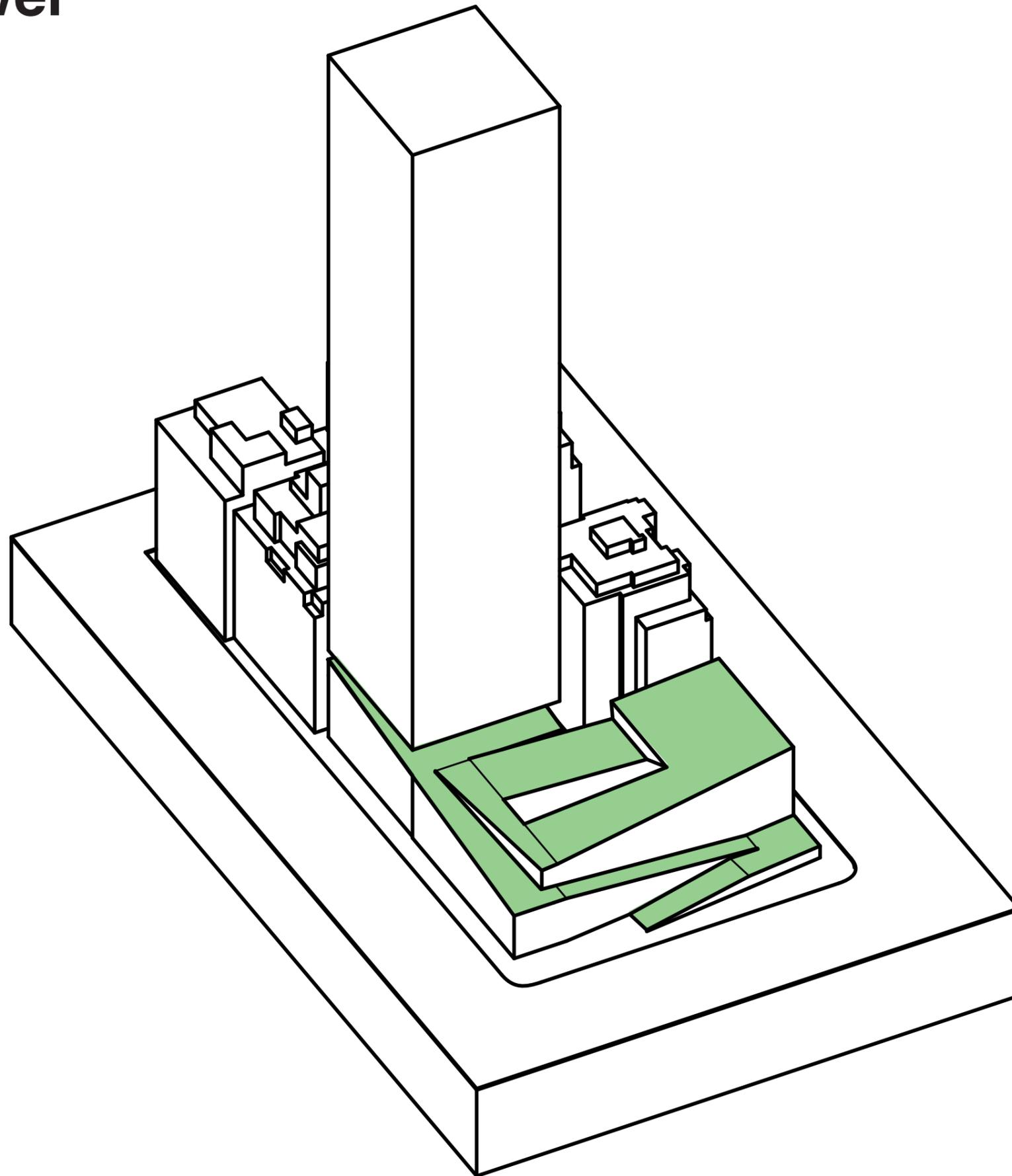
SMALL STALLS



LARGE STALLS

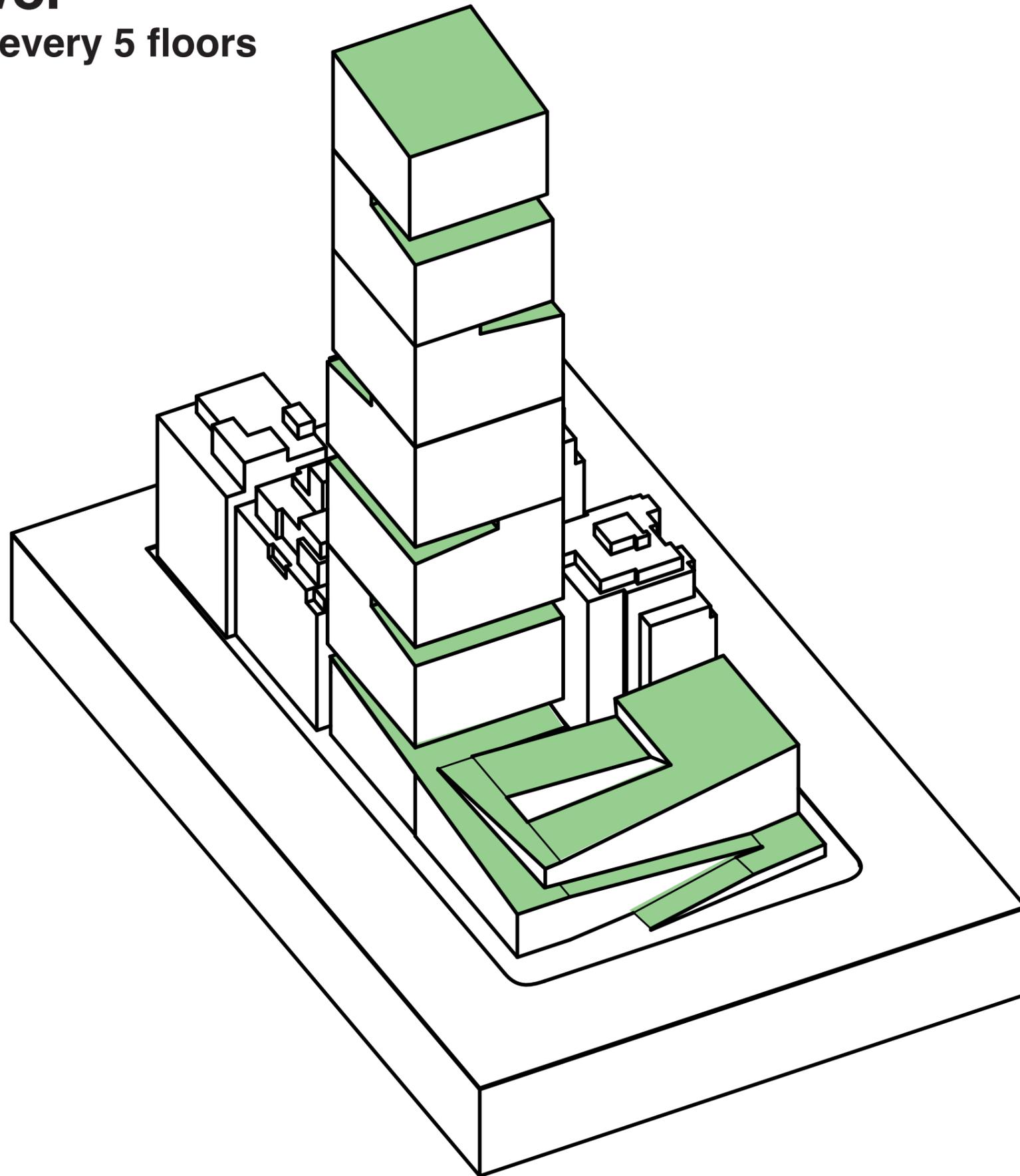


Residential tower

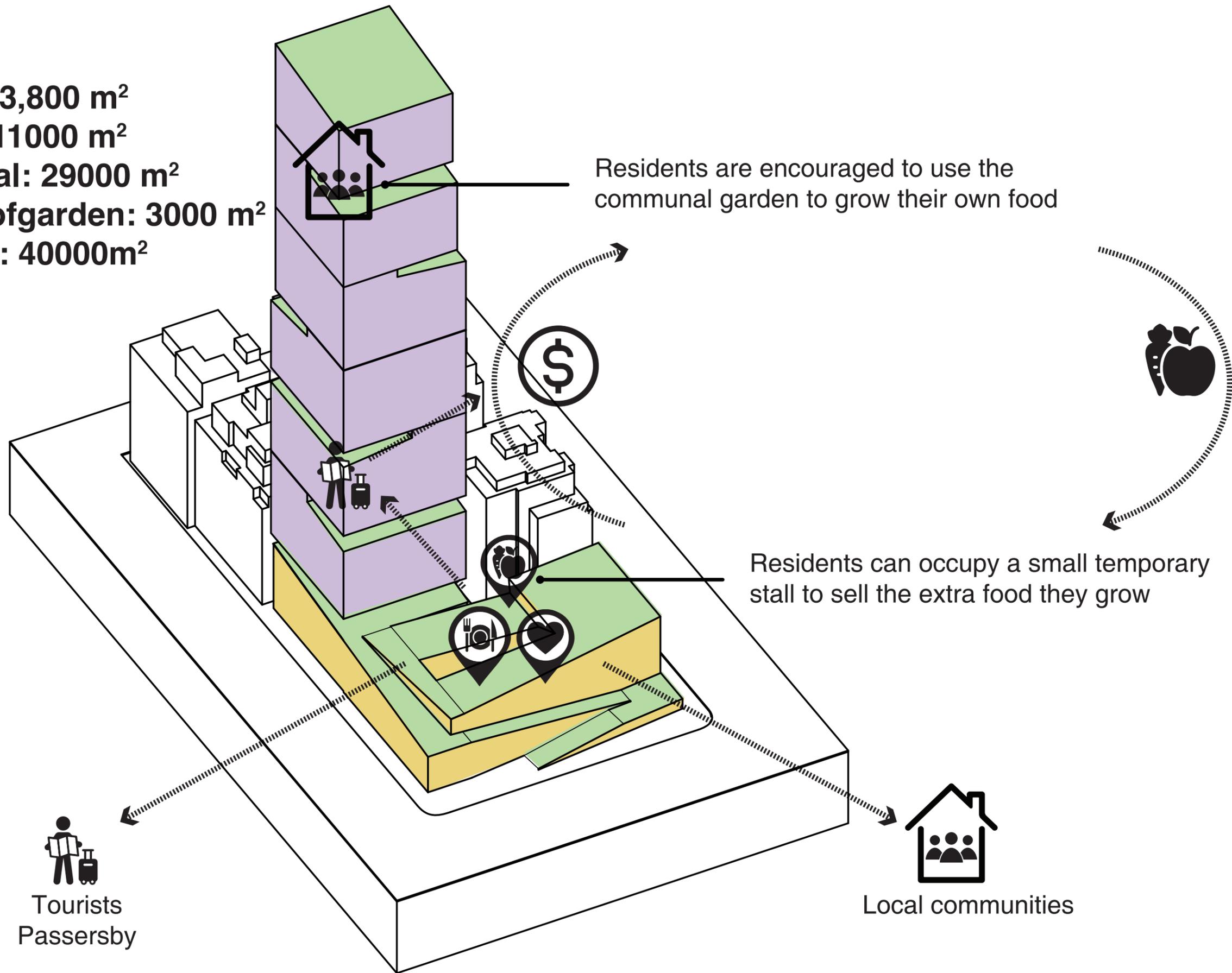


Residential tower

Communal garden for every 5 floors

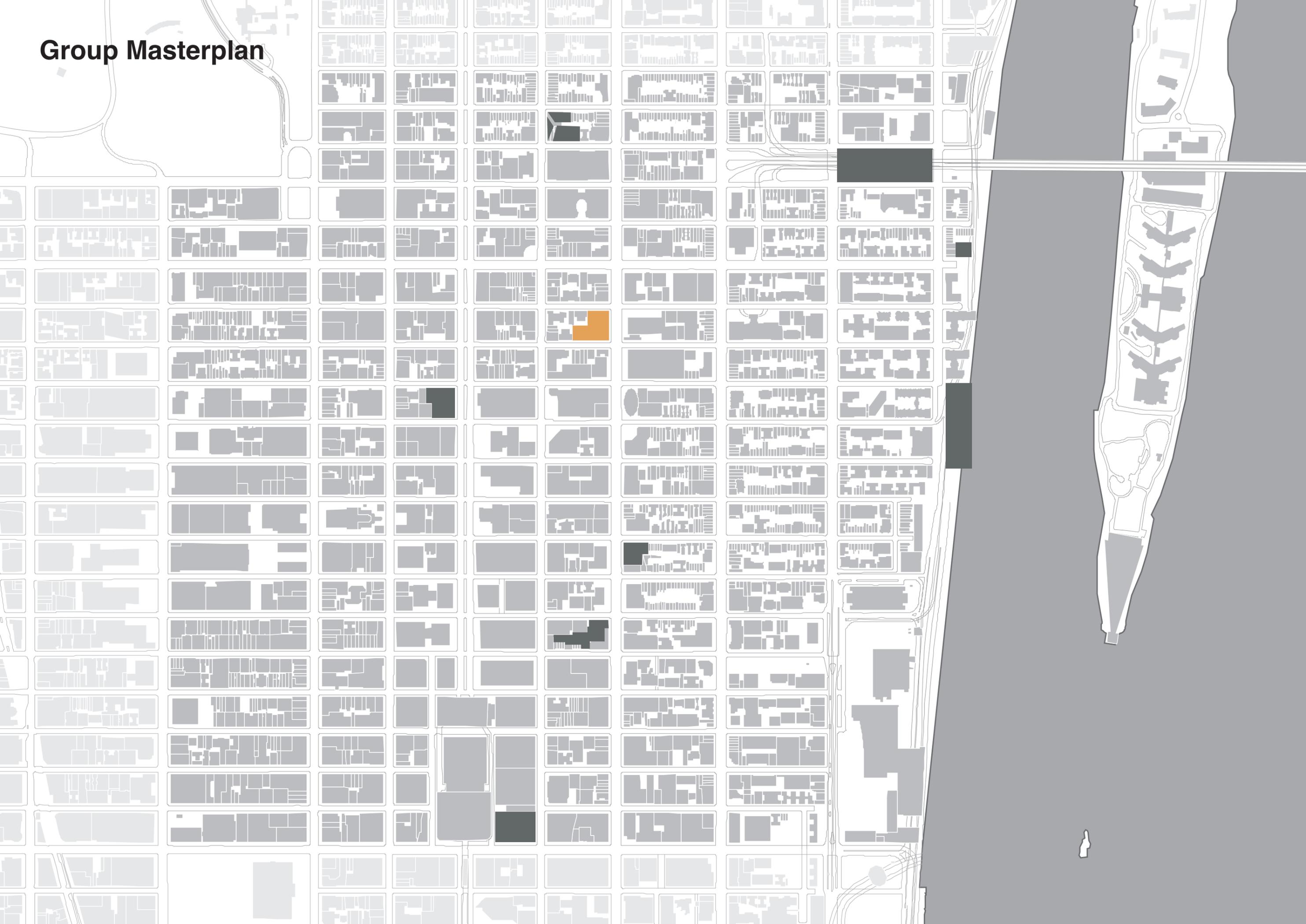


Plot size: 3,800 m²
Mareket: 11000 m²
Residential: 29000 m²
Public roofgarden: 3000 m²
Total GFA: 40000m²
FAR: 10.5

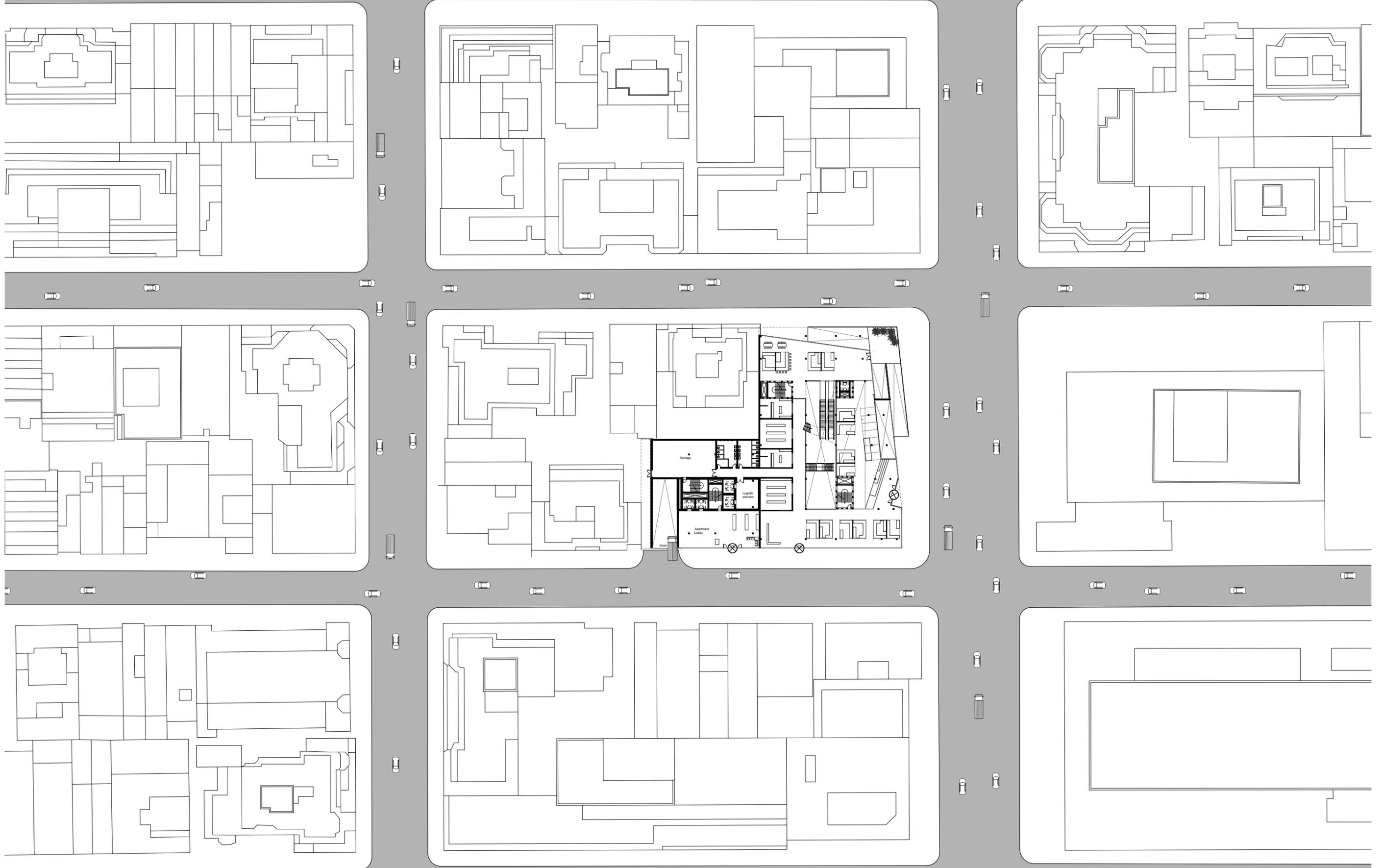


Design Implementation

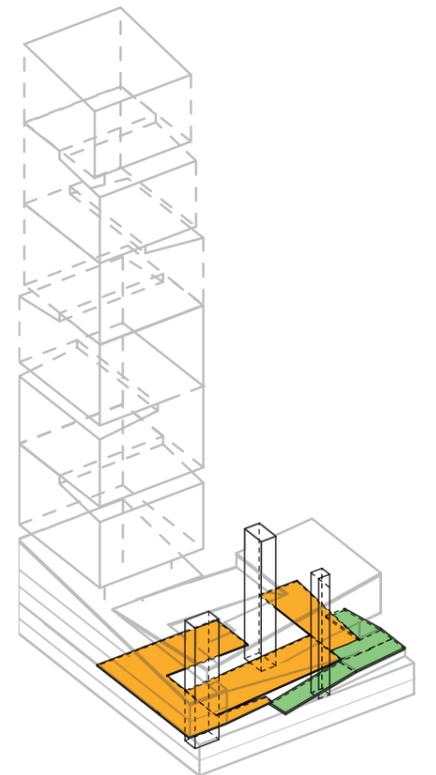
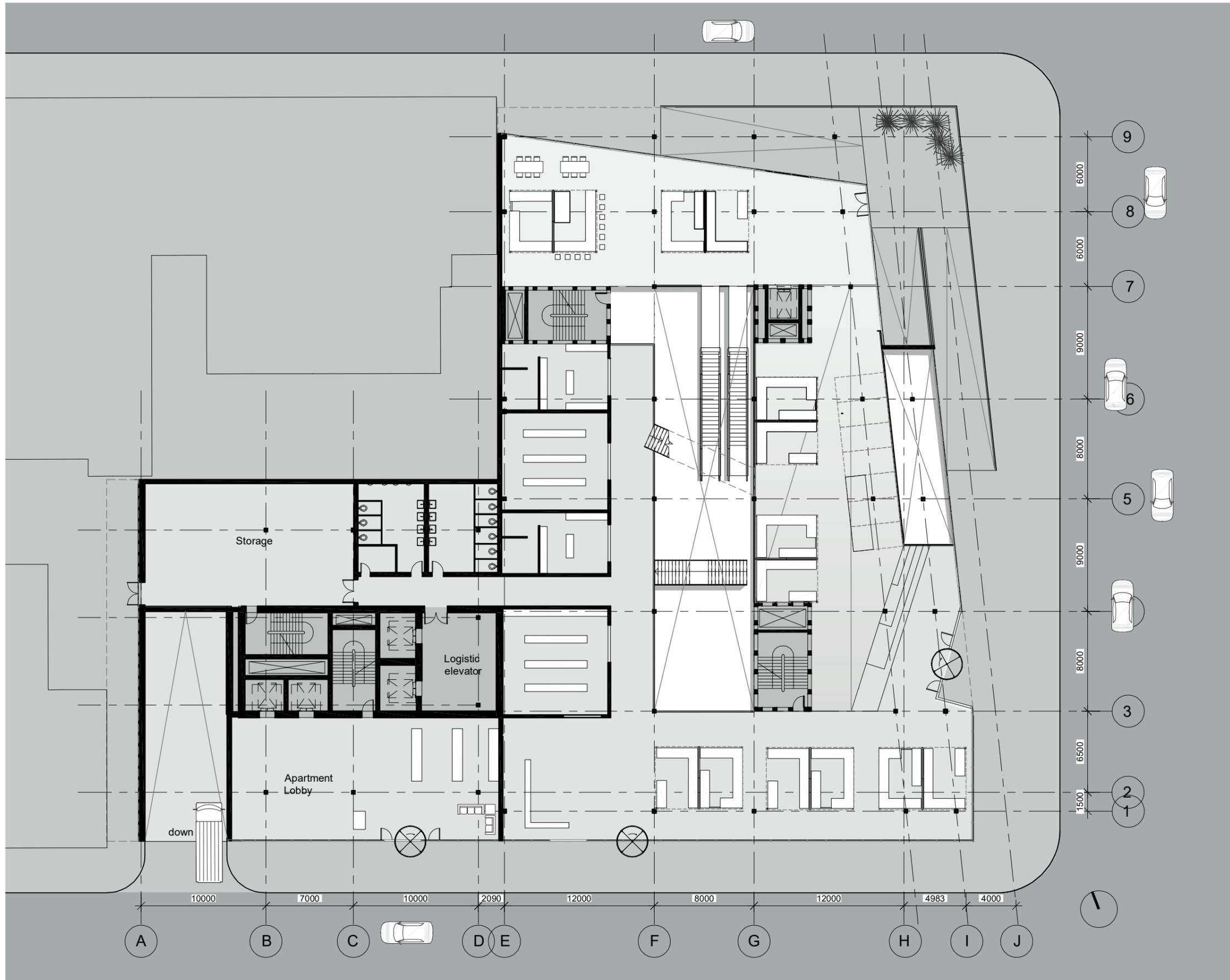
Group Masterplan

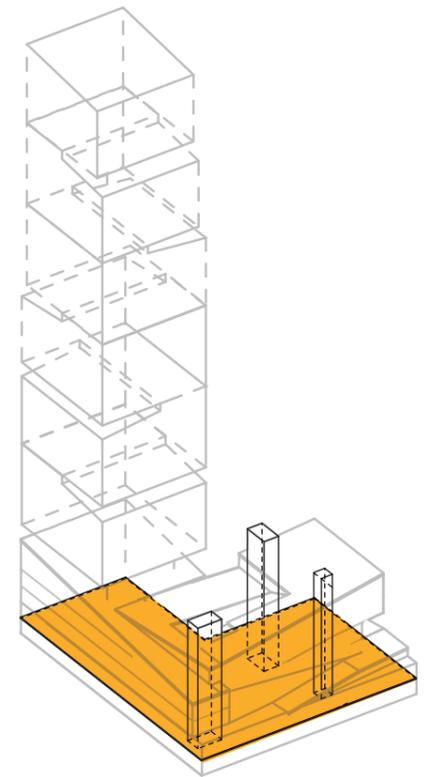
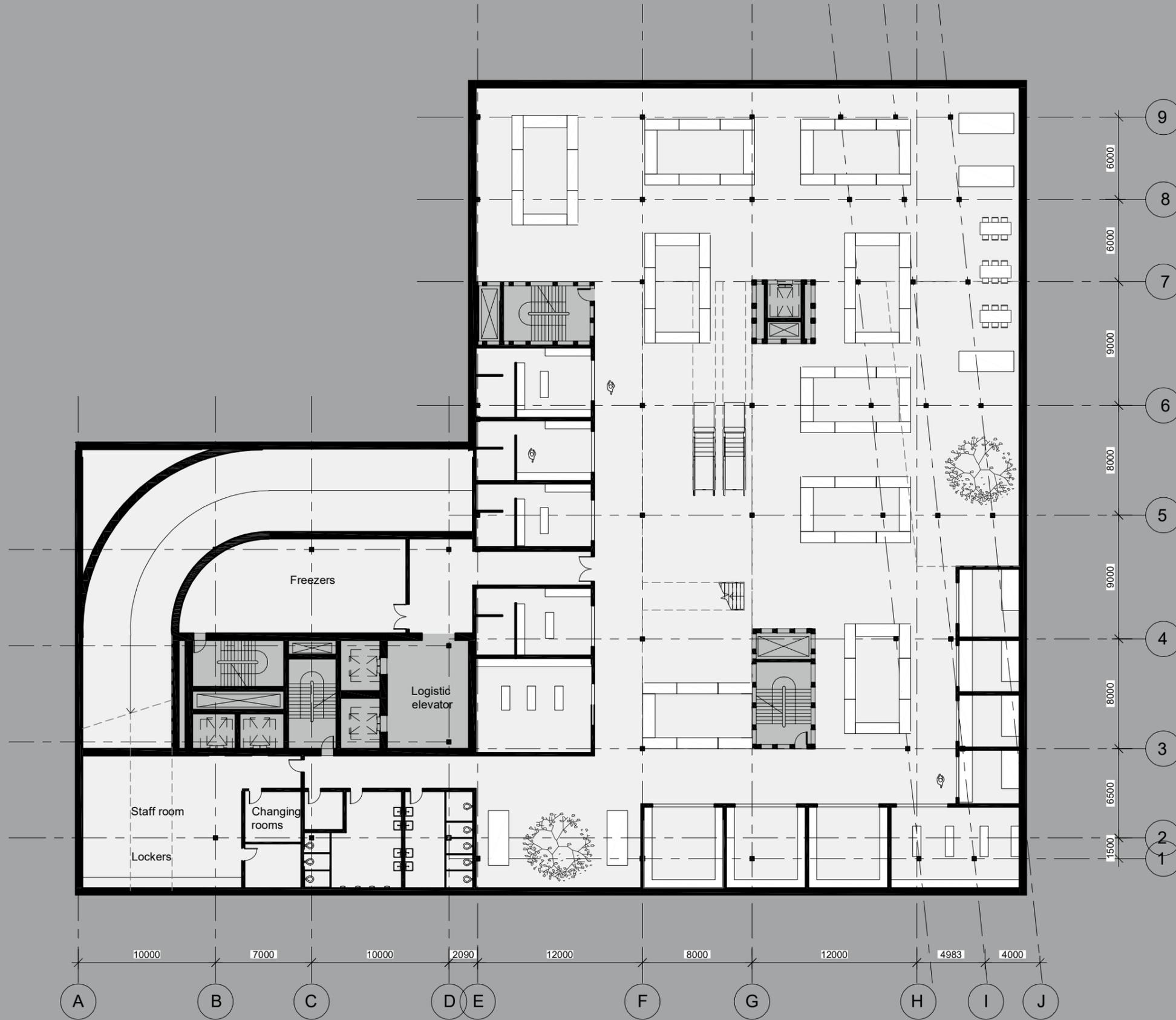


Urban implementation

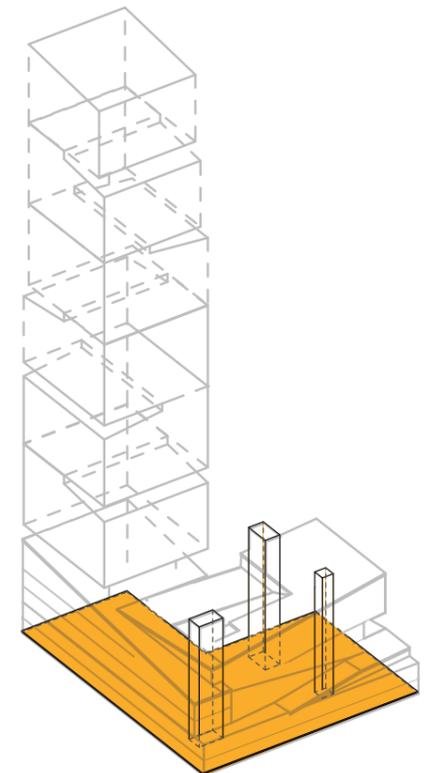
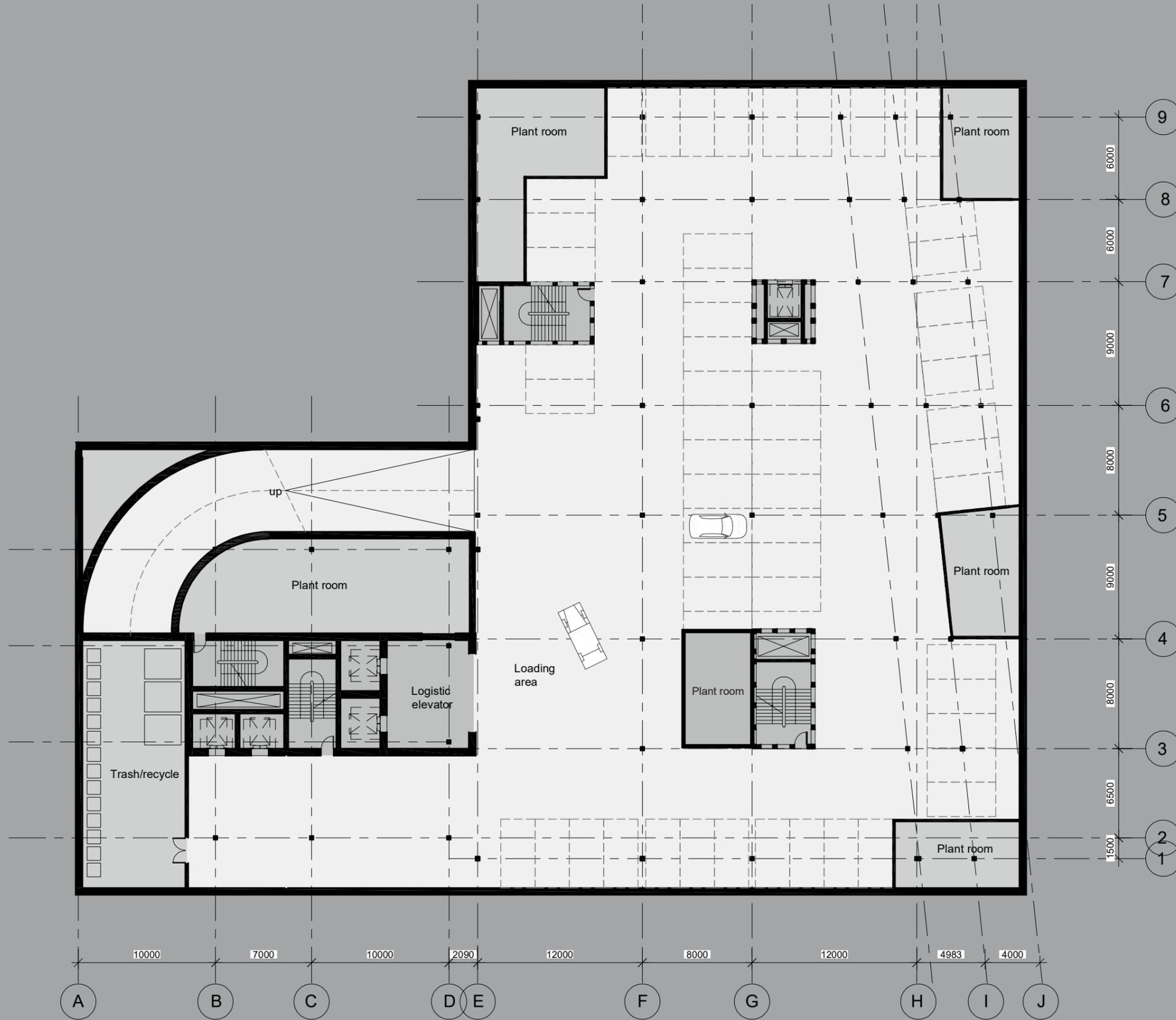


Ground Floor

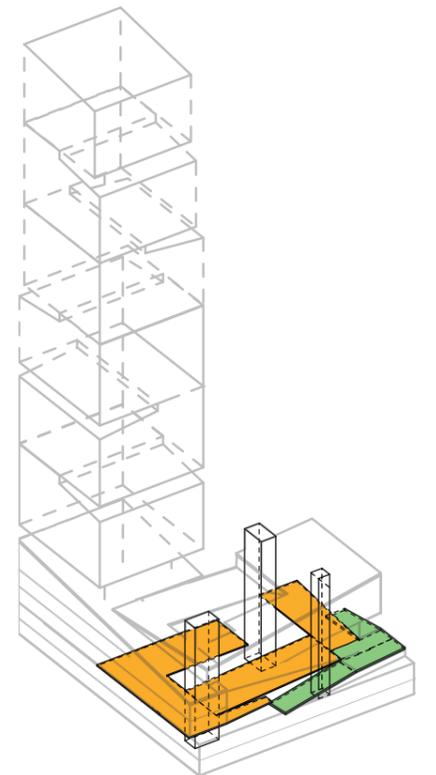
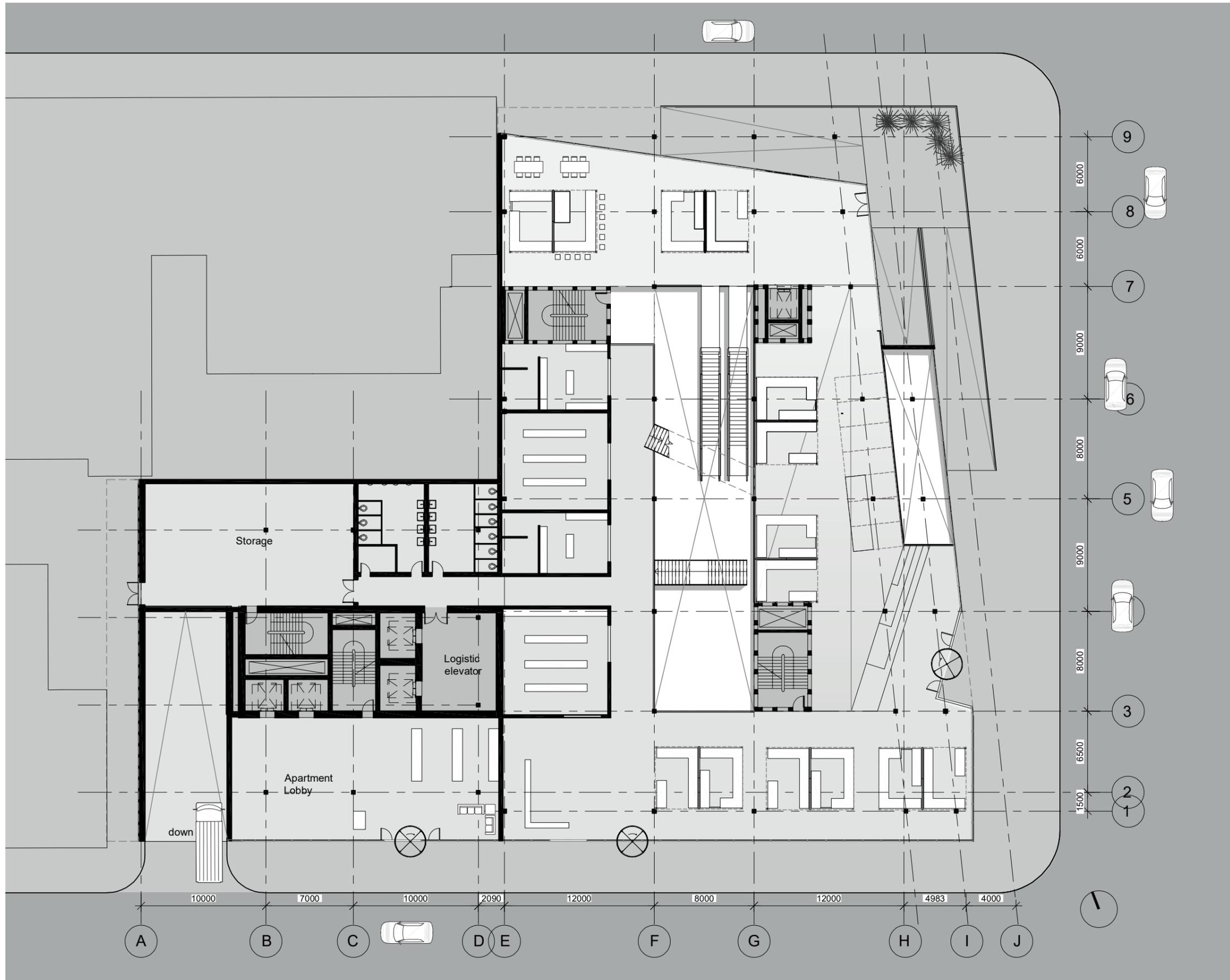




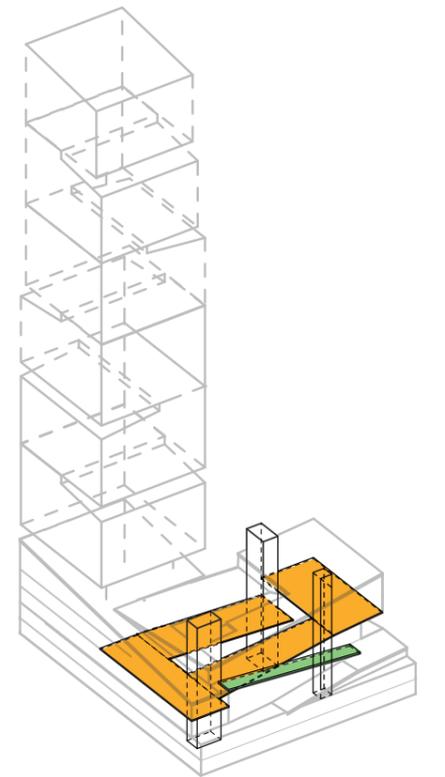
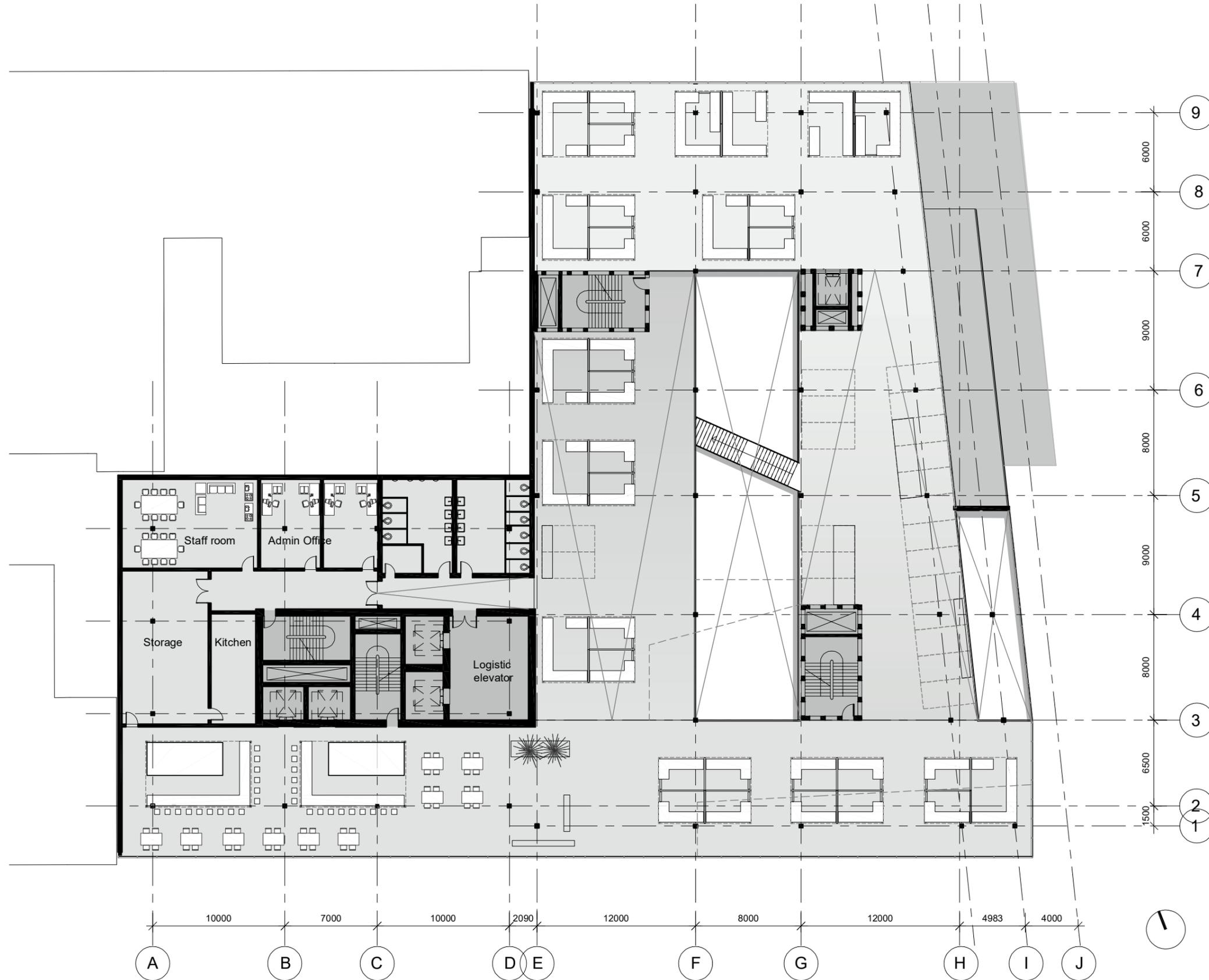




Ground Floor

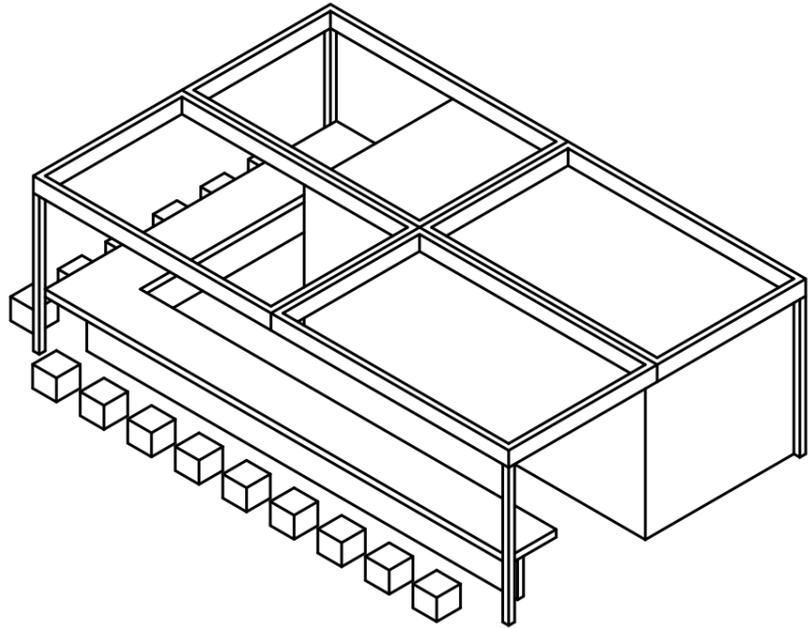
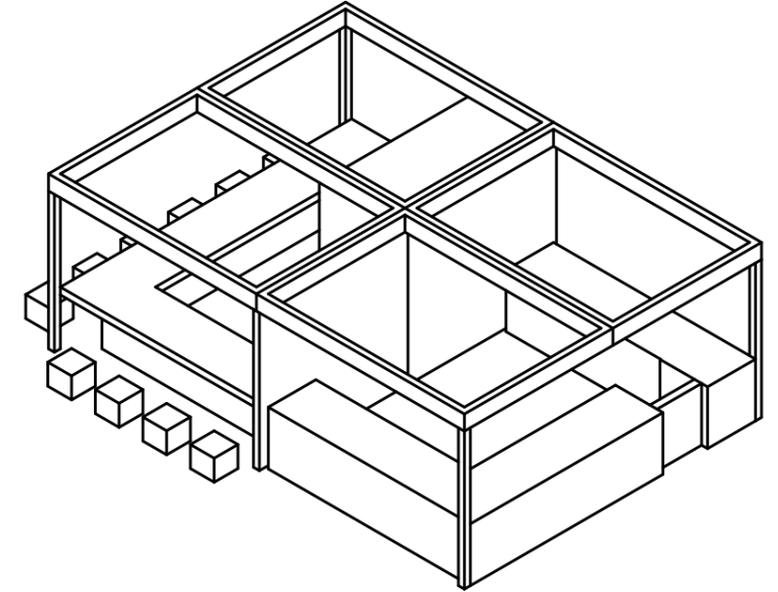
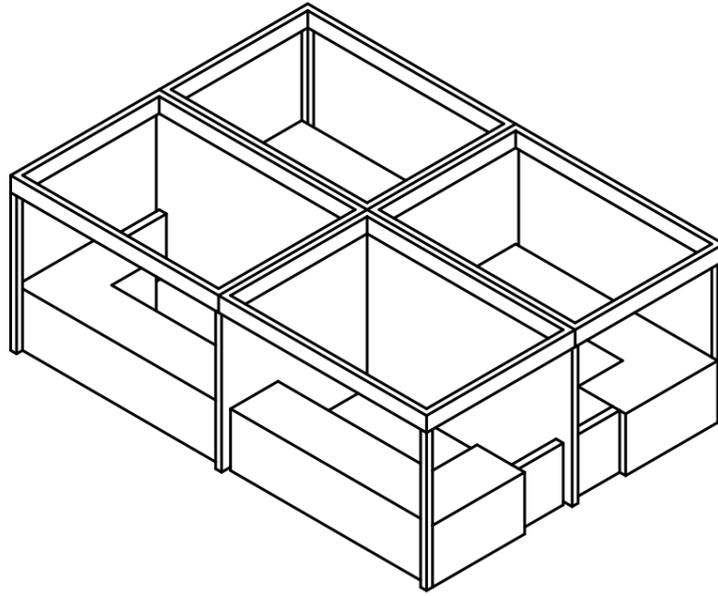
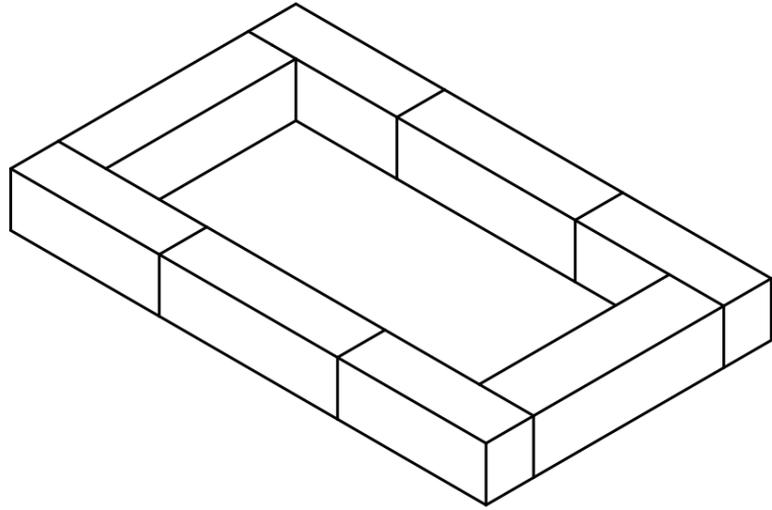


1st Floor

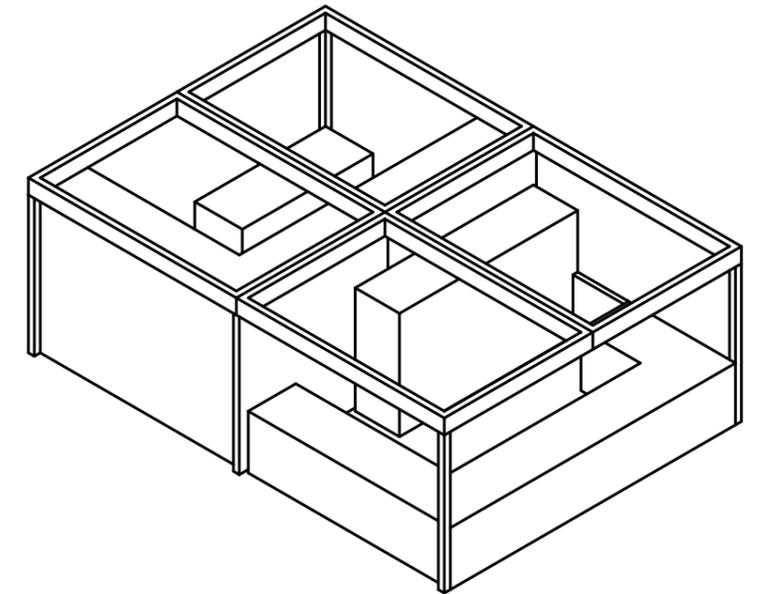
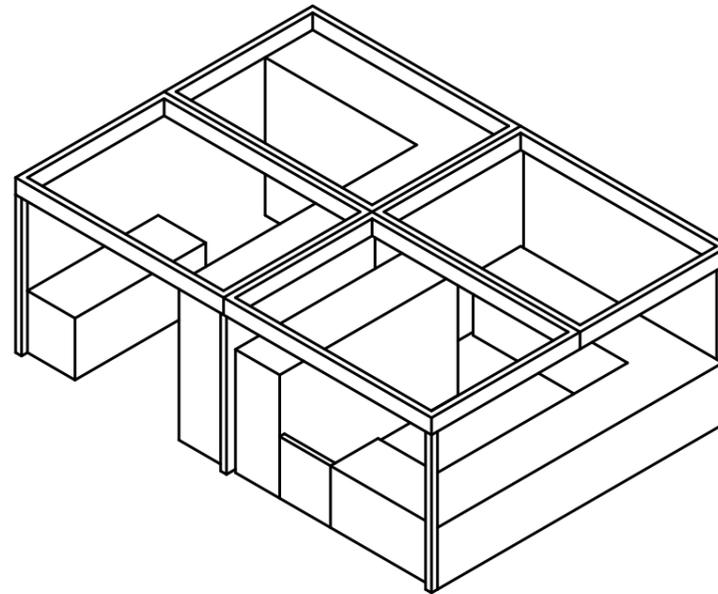




Flexible stall system

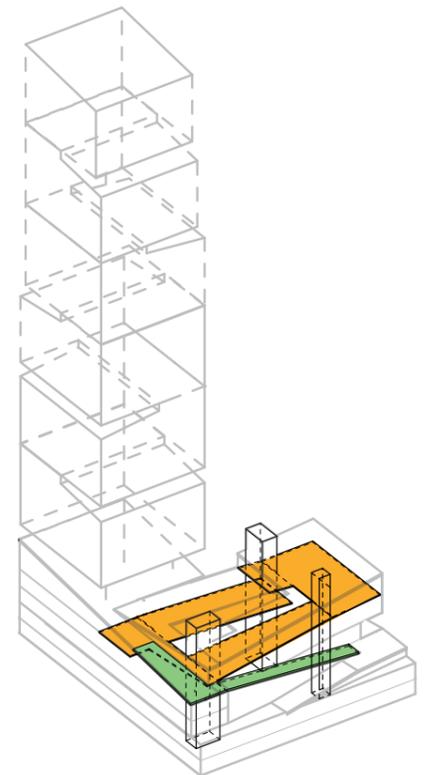
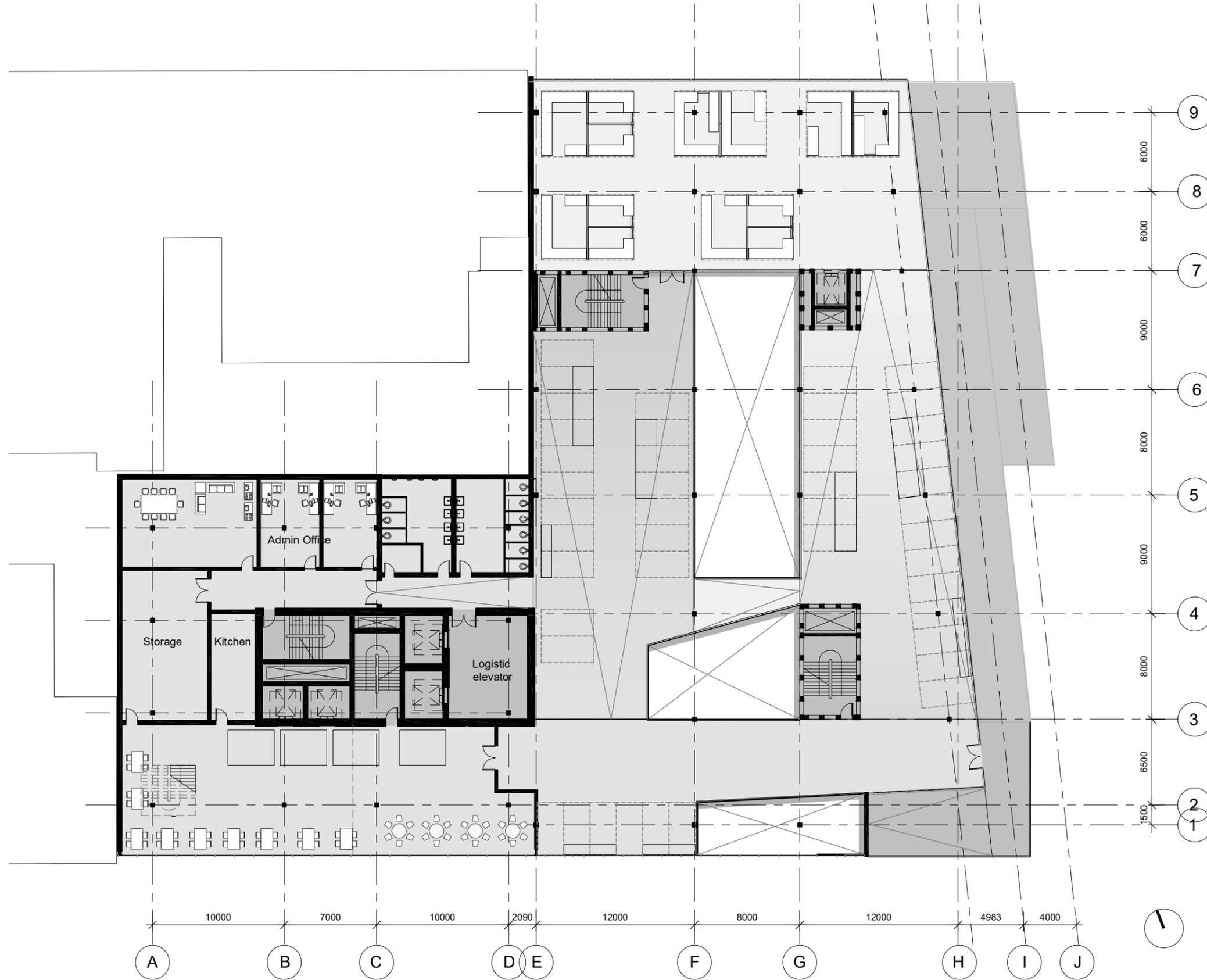


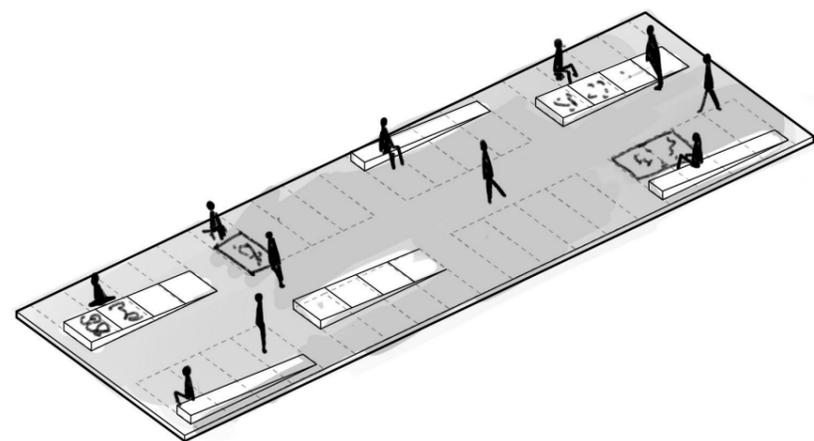
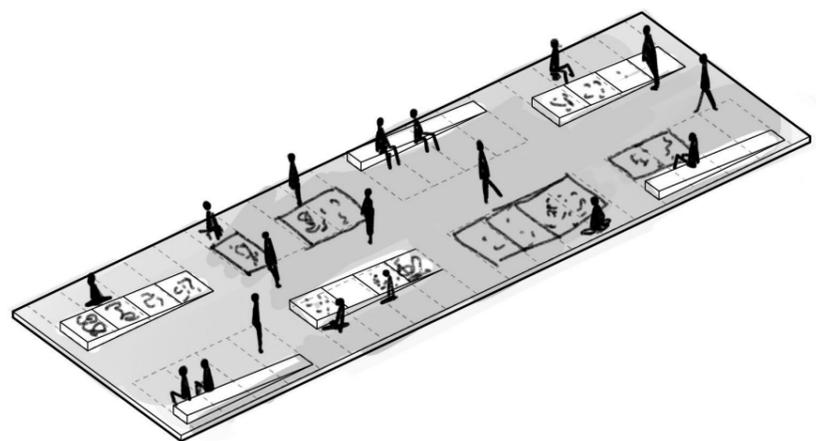
4800*8000



5000*7000

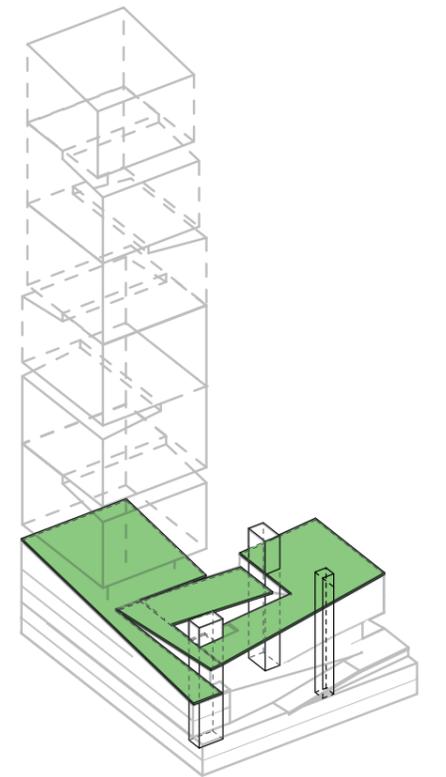
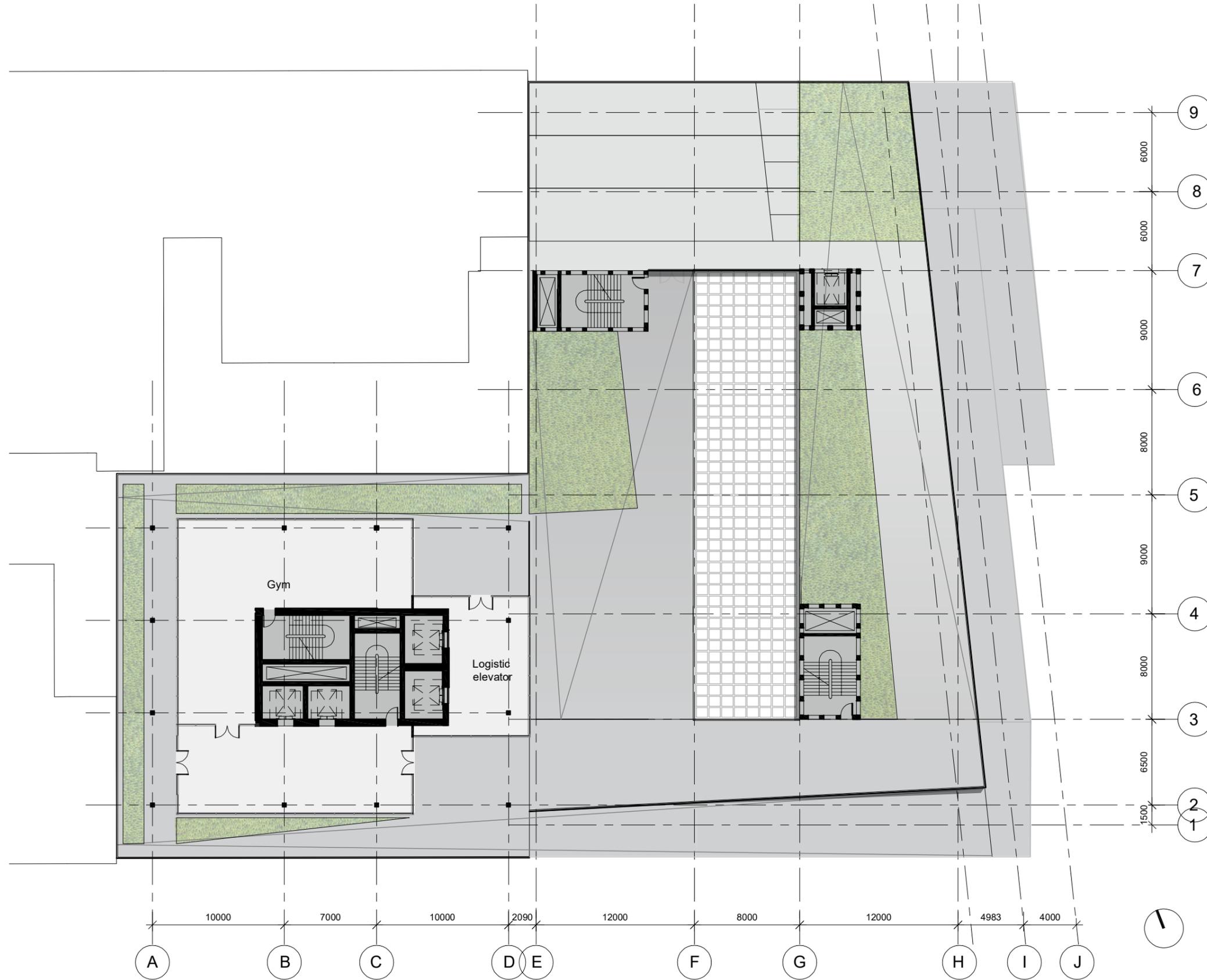
2nd Floor





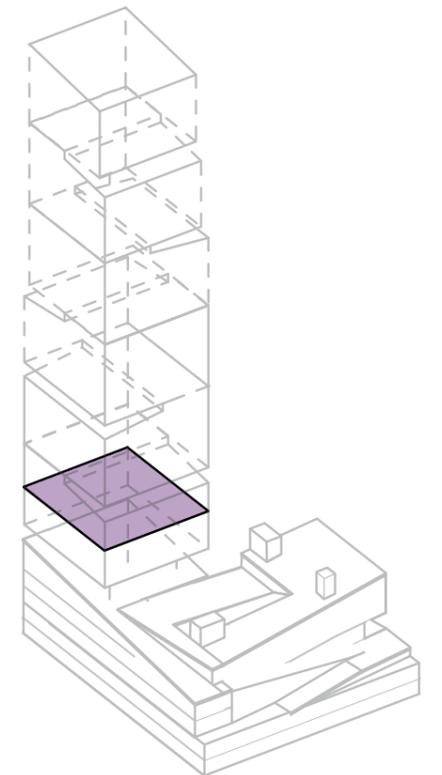


Podium Rooftop

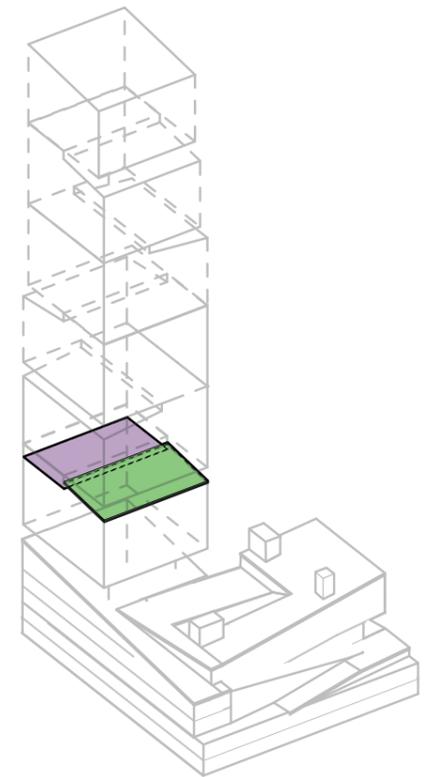




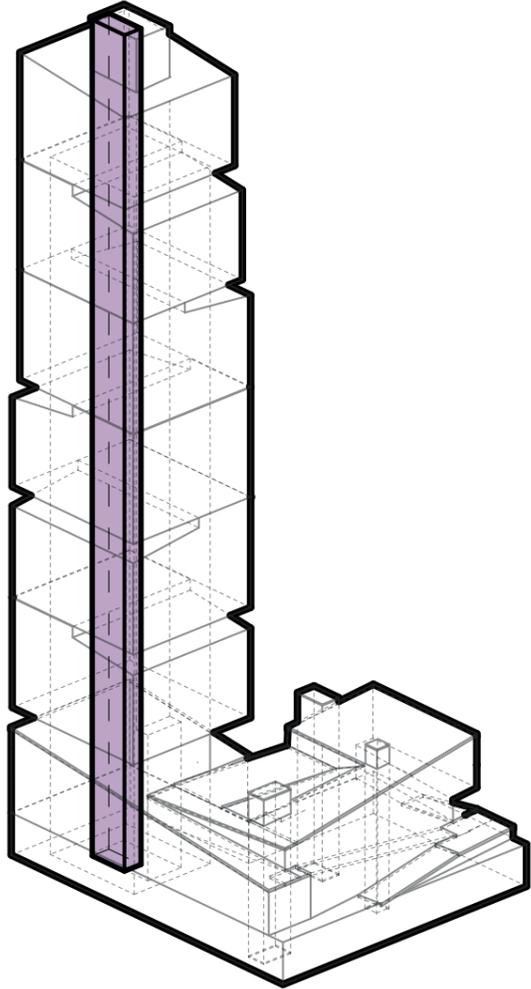
Typical tower floor plan



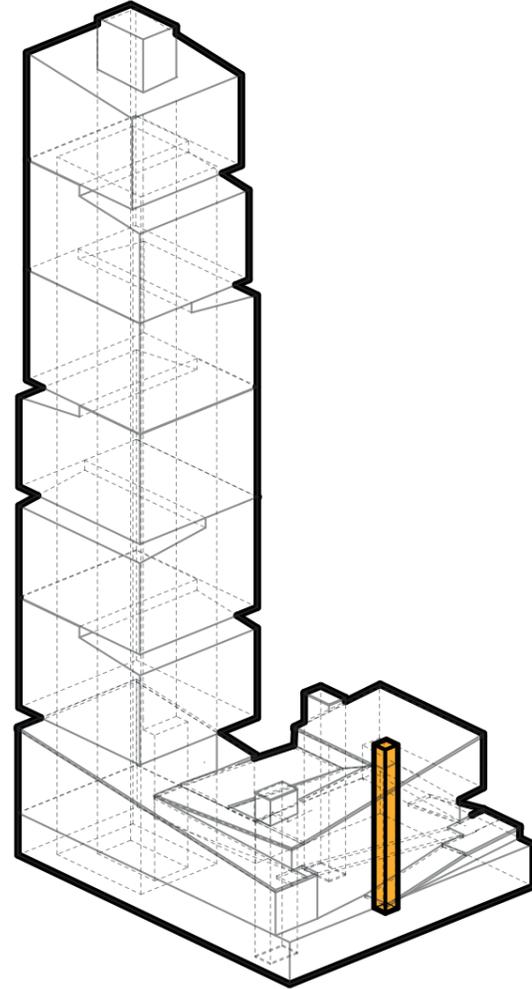
Typical tower communal garden



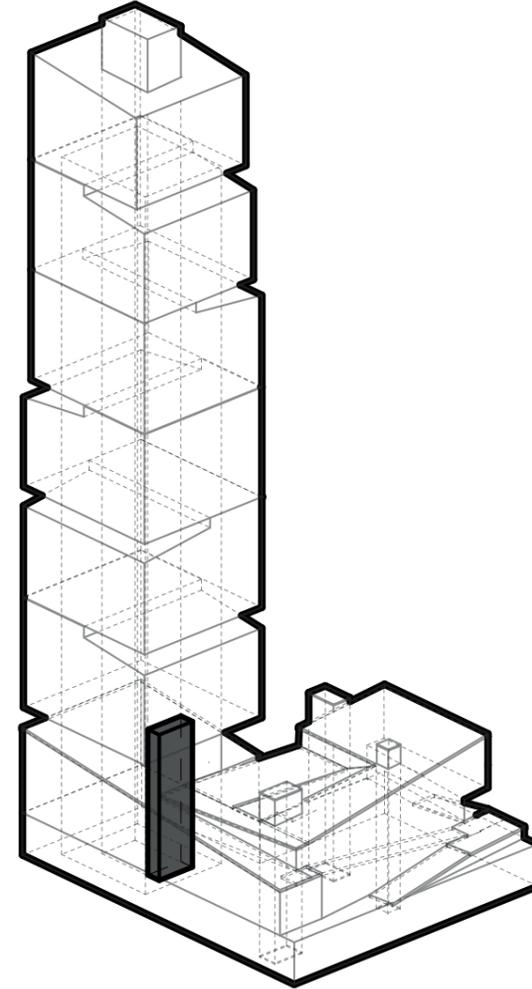
Vertical Transportation



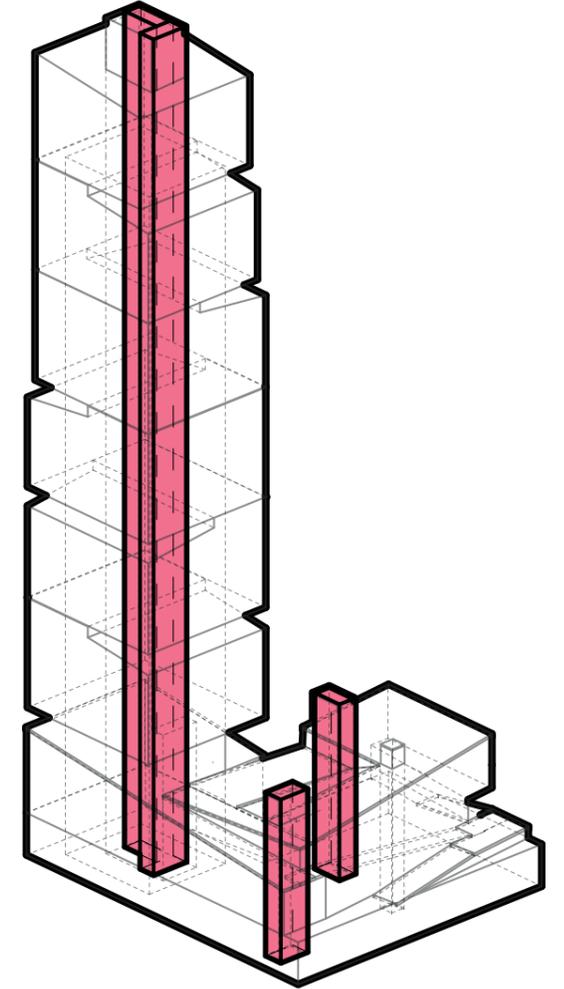
**elevators for
residents**



**elevators for
market customer**



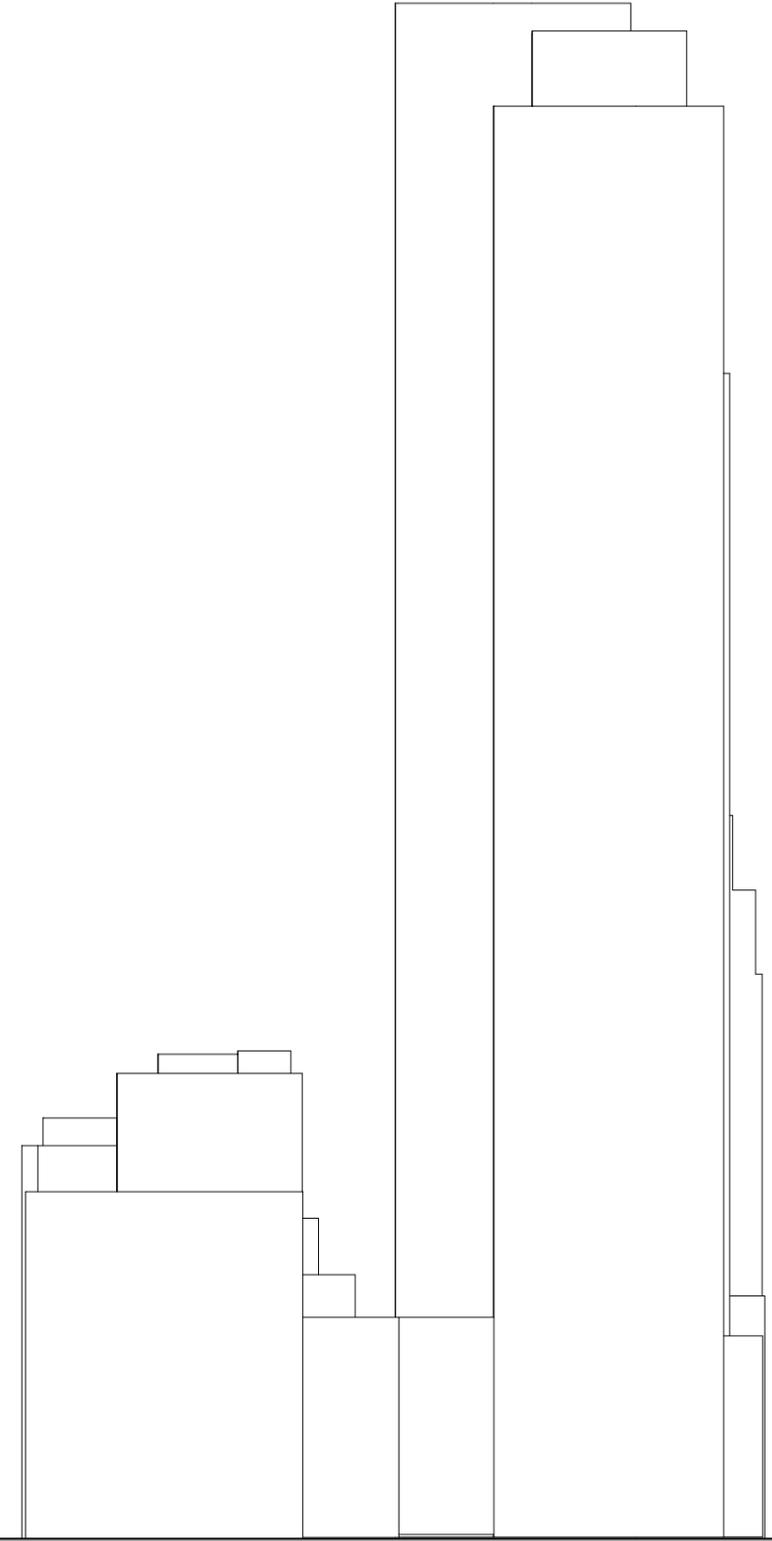
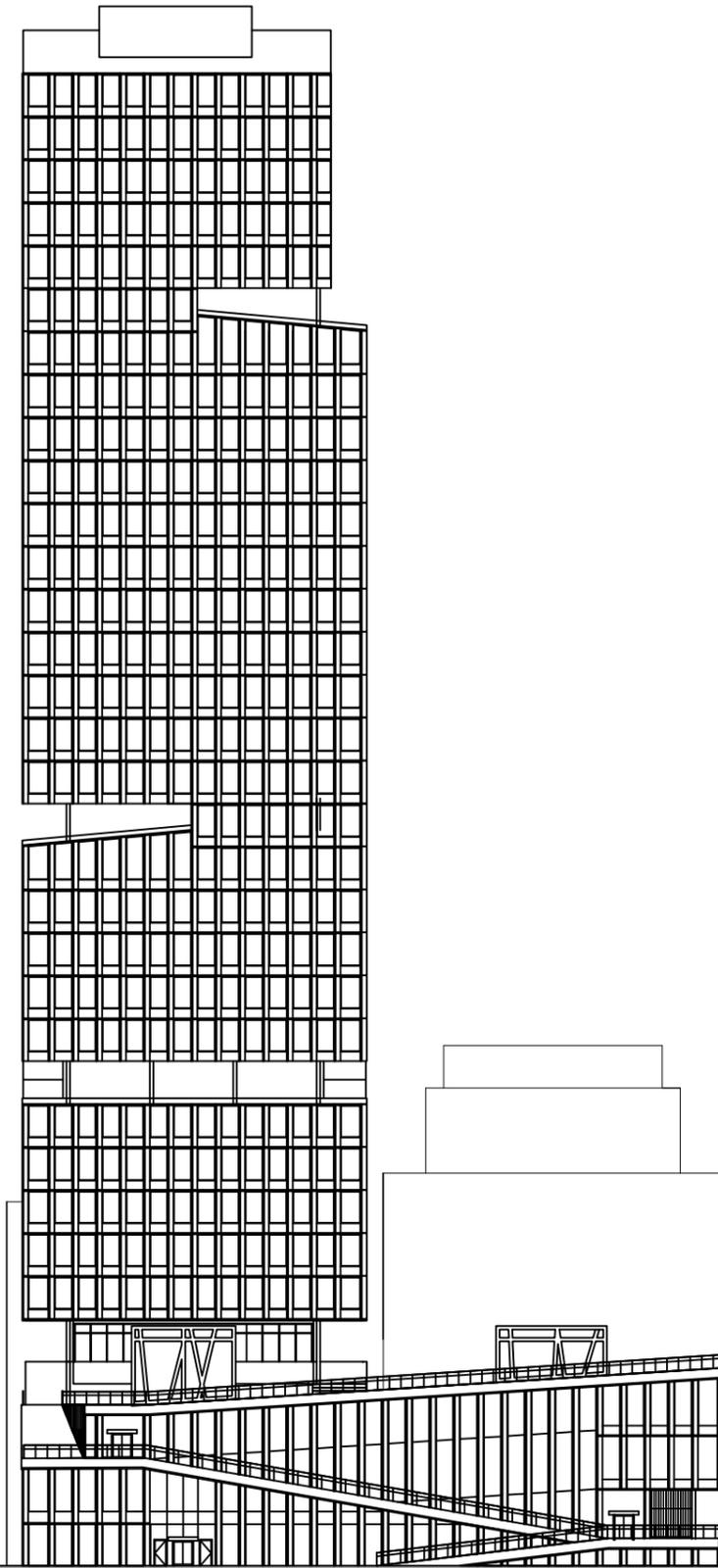
**freight elevators
and storage**



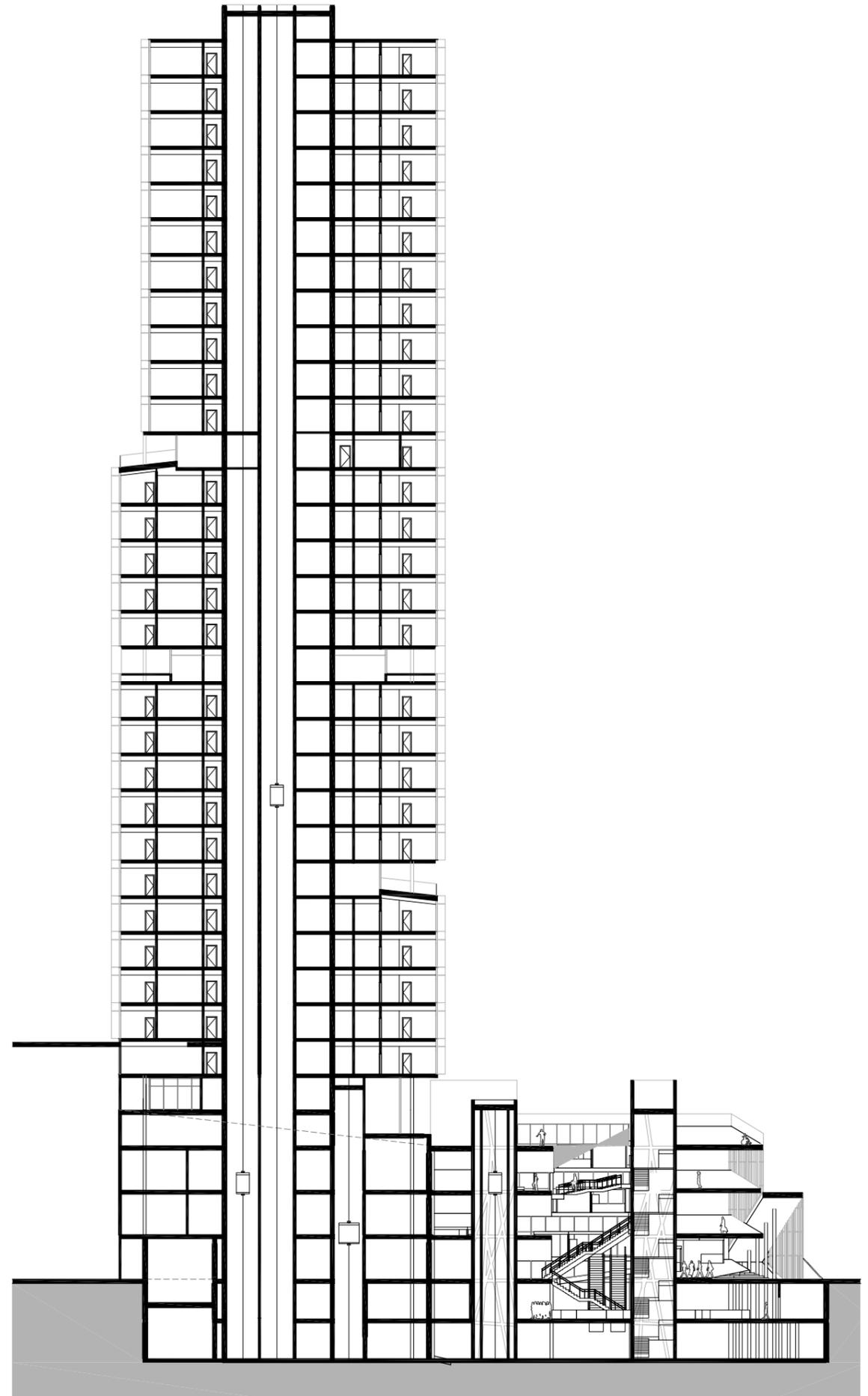
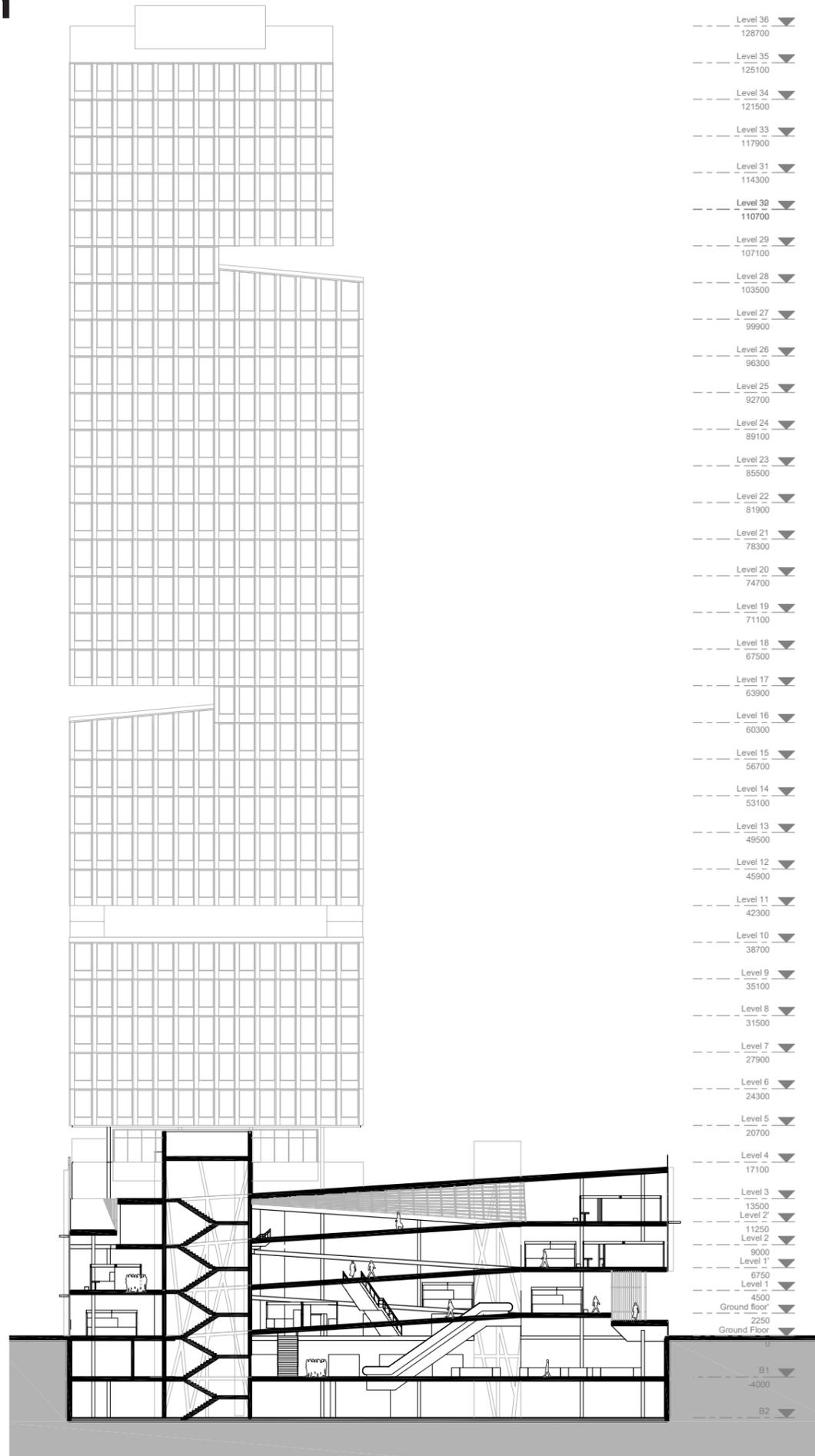
**fire escape
stairs**

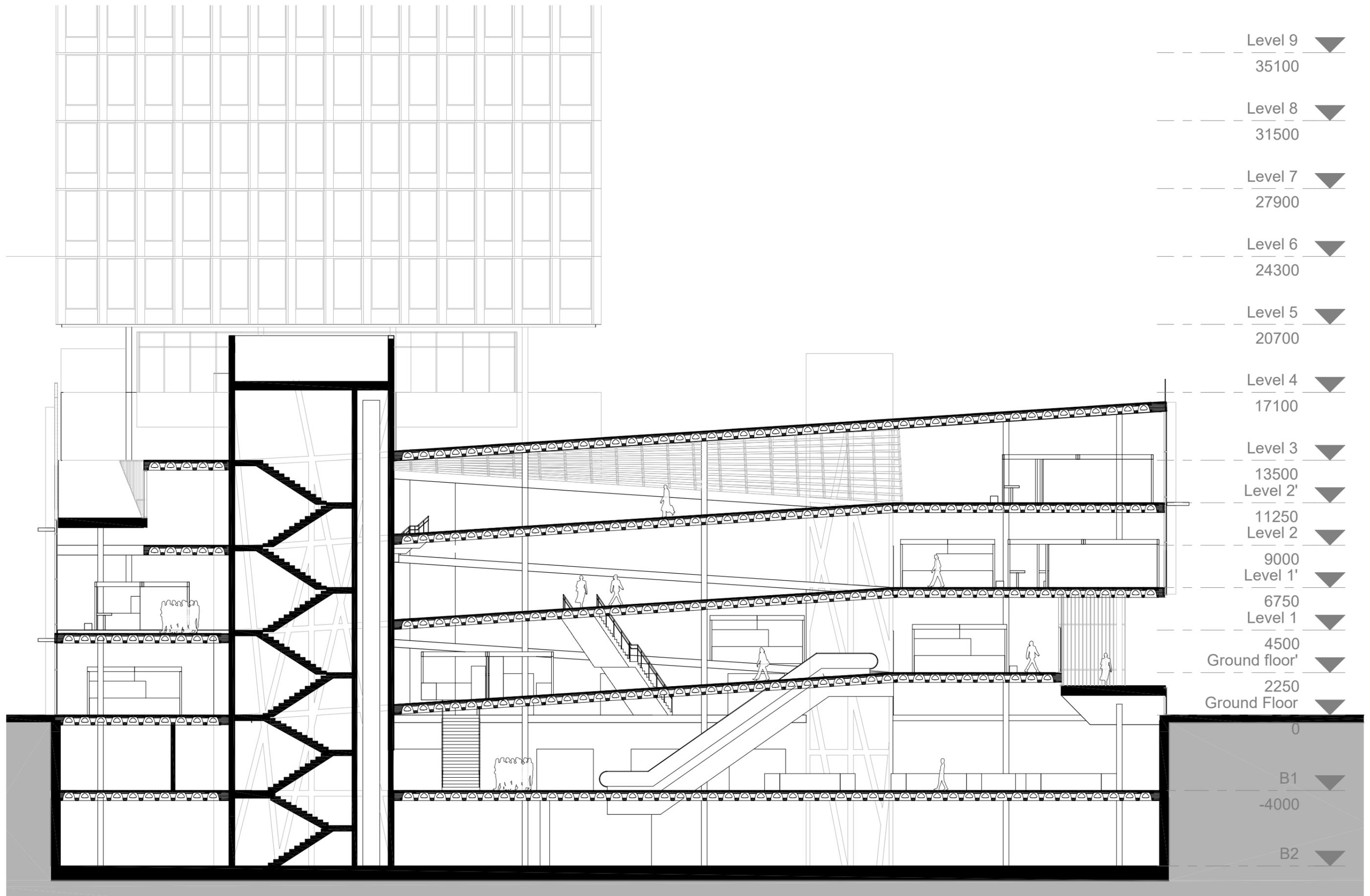
East Elevation

- Level 36
128700
- Level 35
125100
- Level 34
121500
- Level 33
117900
- Level 31
114300
- Level 30
110700
- Level 29
107100
- Level 28
103500
- Level 27
99900
- Level 26
96300
- Level 25
92700
- Level 24
89100
- Level 23
85500
- Level 22
81900
- Level 21
78300
- Level 20
74700
- Level 19
71100
- Level 18
67500
- Level 17
63900
- Level 16
60300
- Level 15
56700
- Level 14
53100
- Level 13
49500
- Level 12
45900
- Level 11
42300
- Level 10
38700
- Level 9
35100
- Level 8
31500
- Level 7
27900
- Level 6
24300
- Level 5
20700
- Level 4
17100
- Level 3
13500
- Level 2'
11250
- Level 2
9000
- Level 1'
6750
- Level 1
4500
- Ground floor
2250
- Ground Floor
0
- B1
-4000
- B2

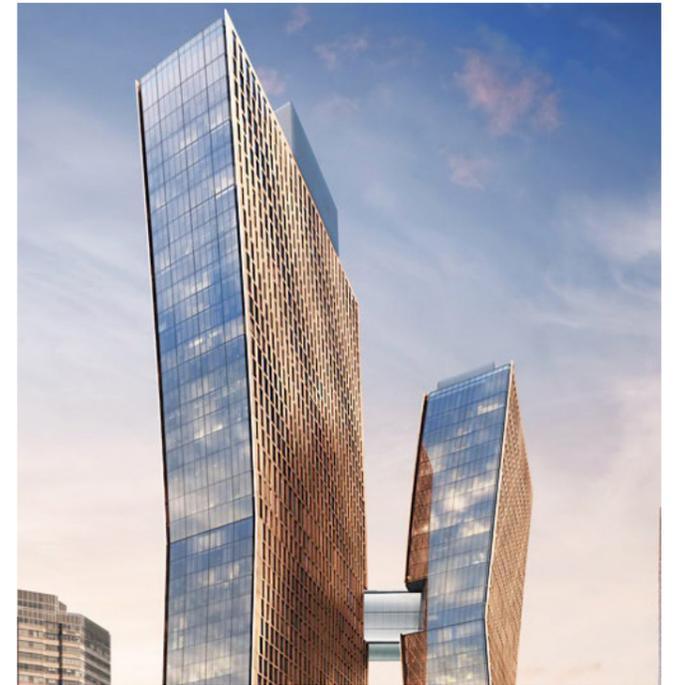
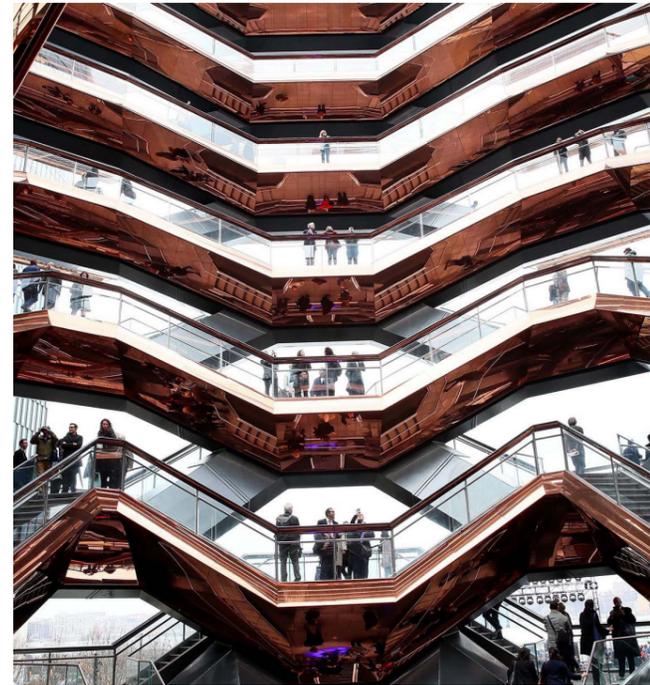


Section





Materialization Copper



Materialization Copper



Highly recycled content

long life span

corrosion resistant

low maintenance cost

Materialization Copper

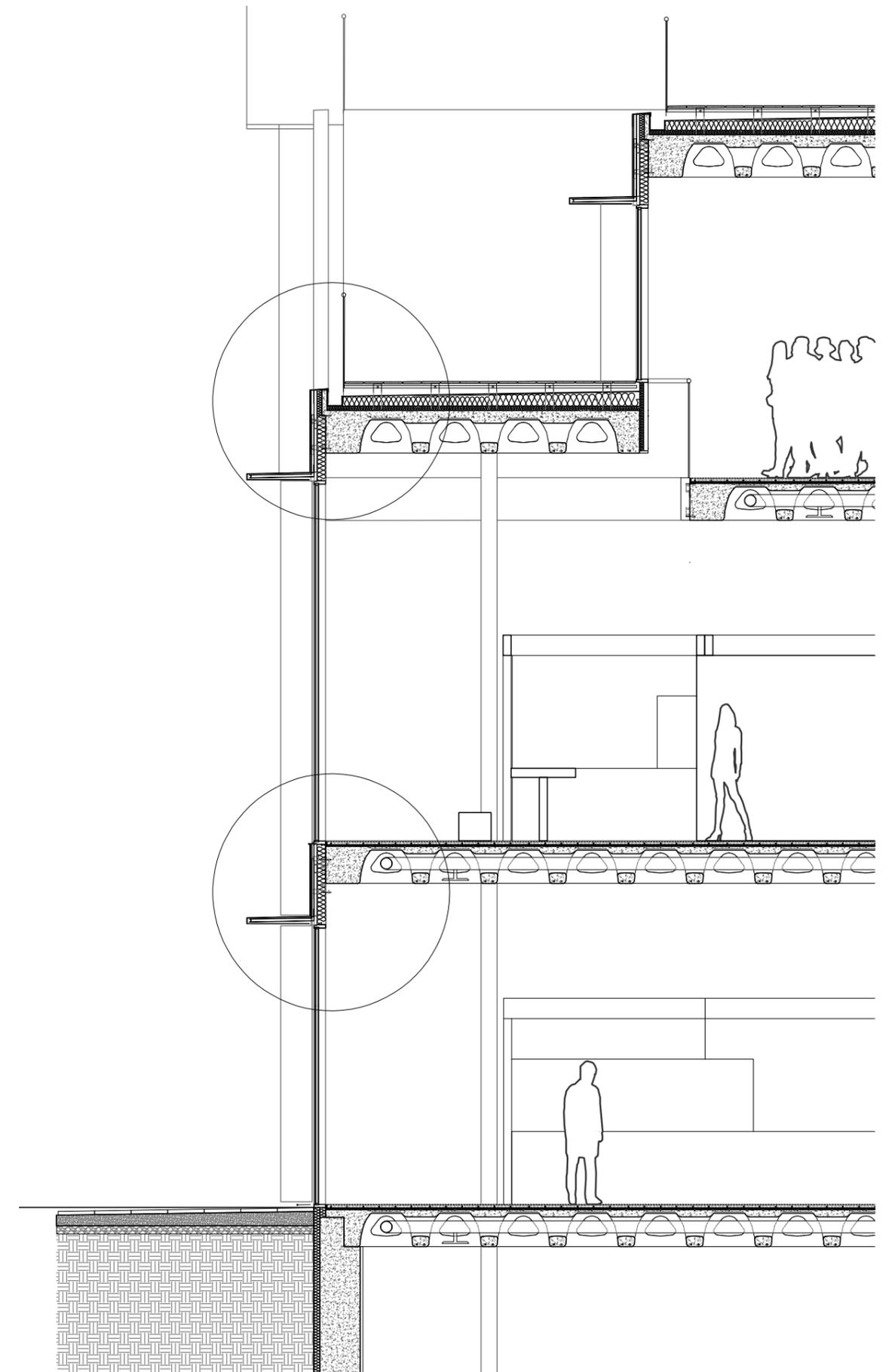
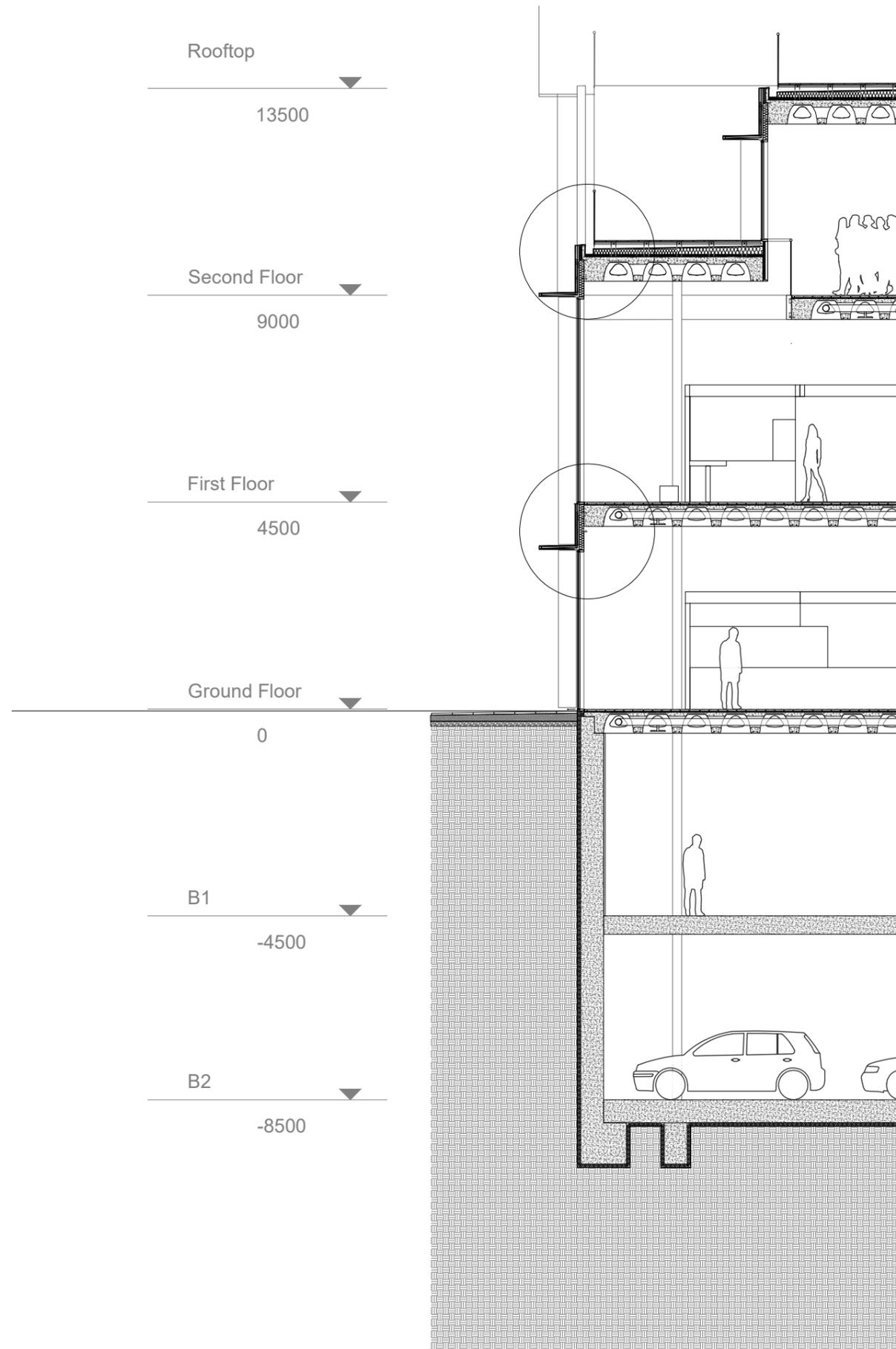


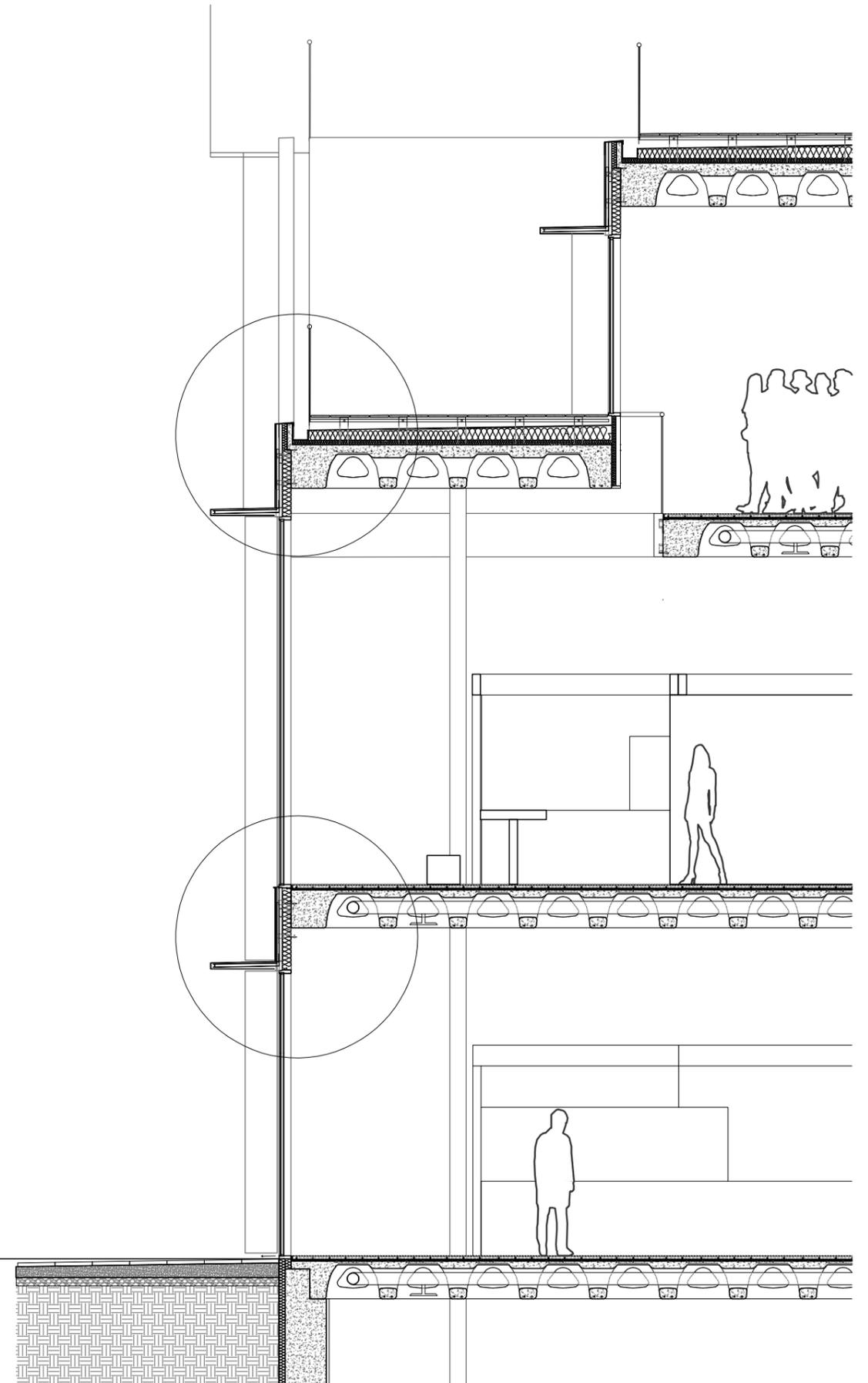
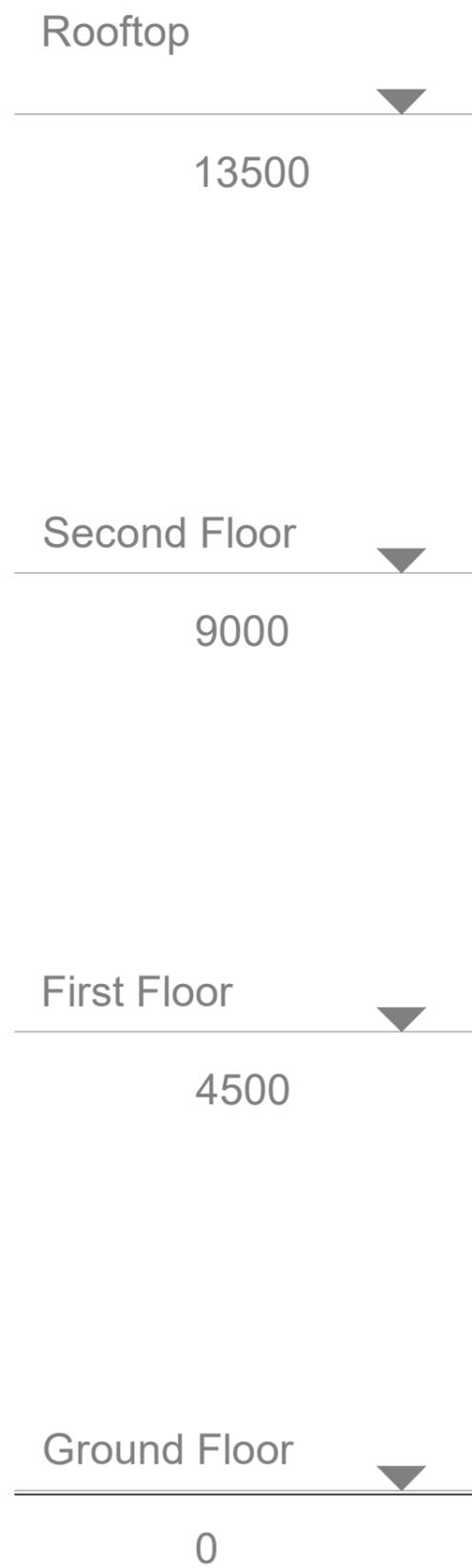
Materialization

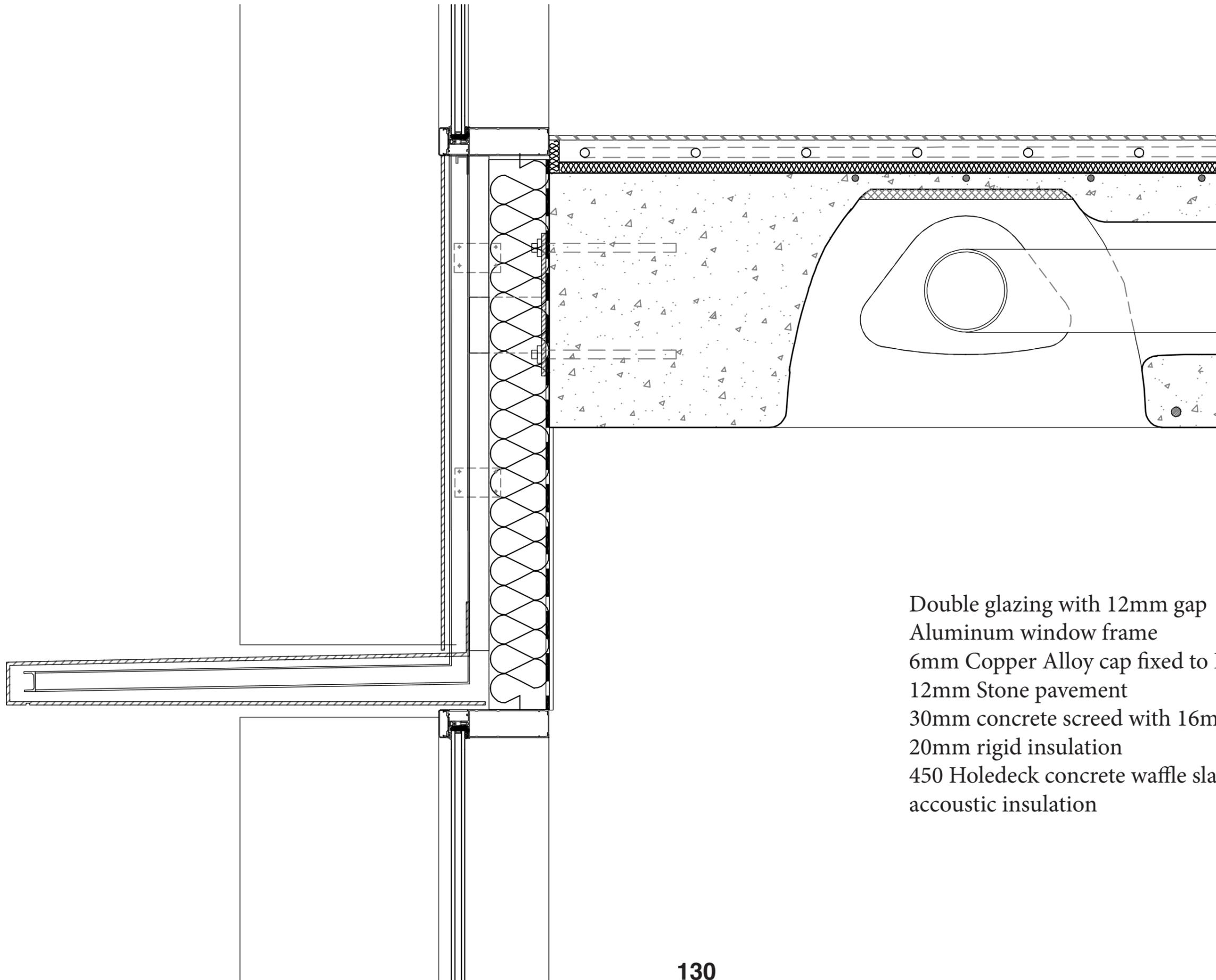




Podium Section

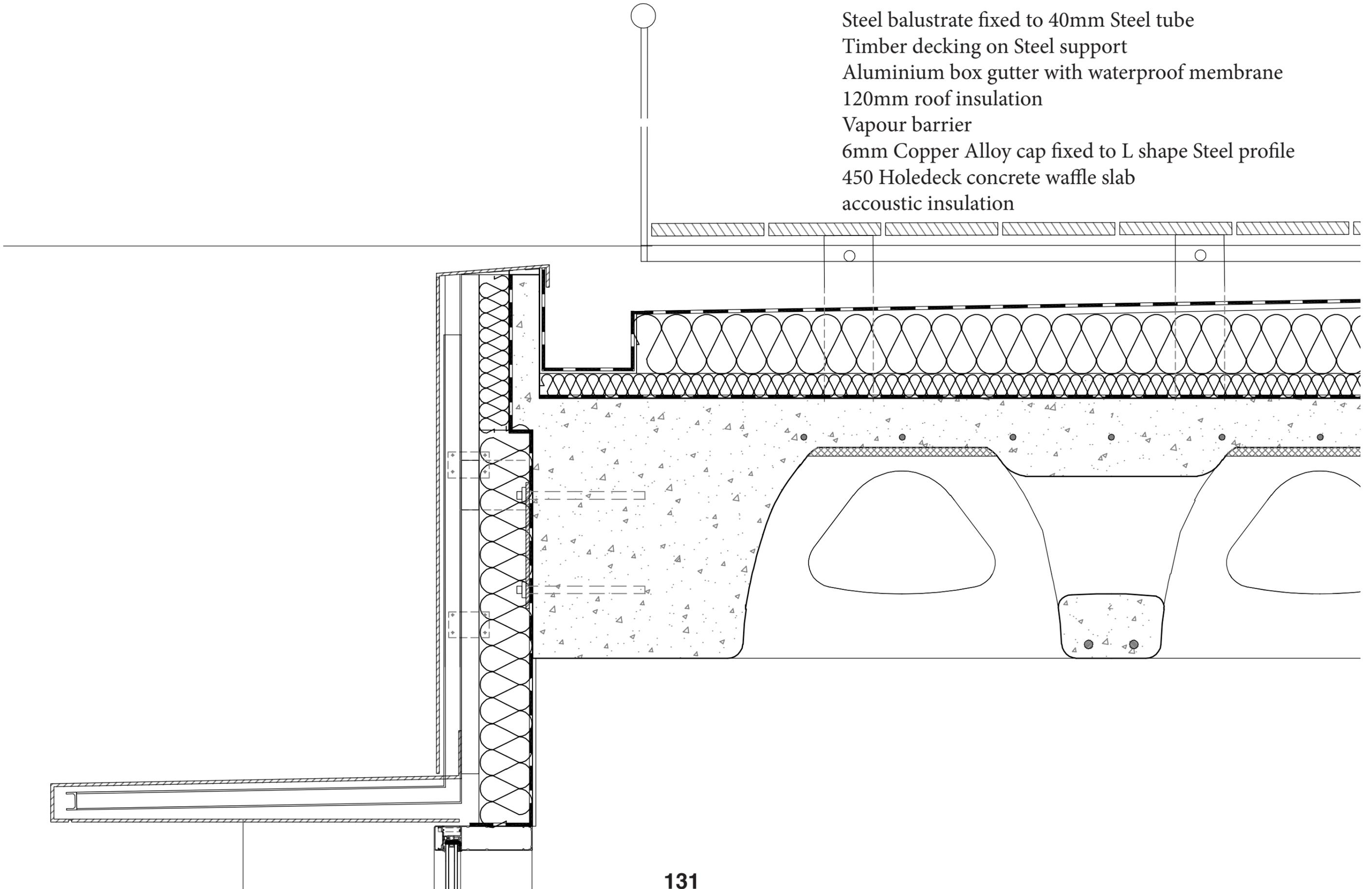






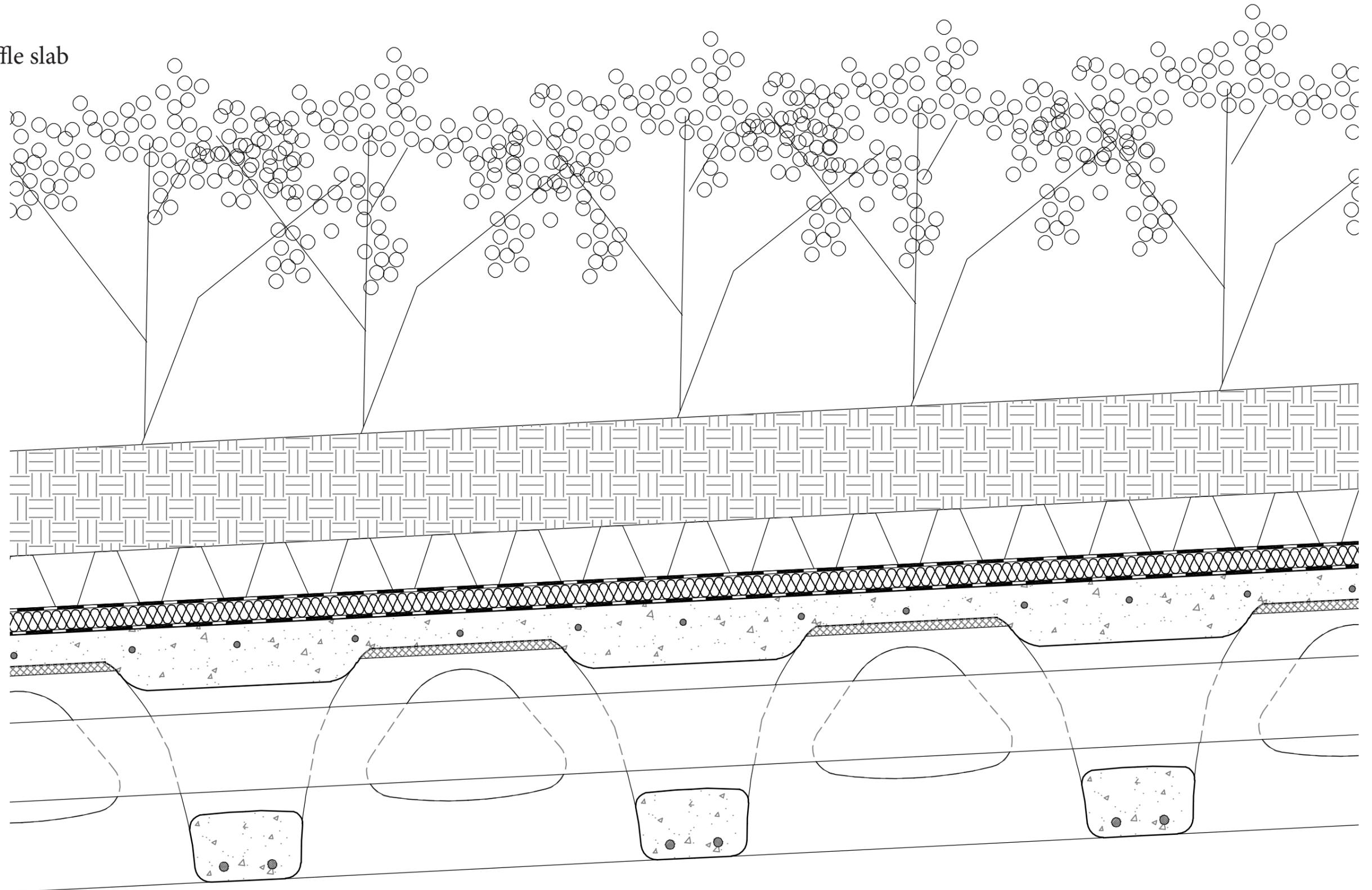
Double glazing with 12mm gap
Aluminum window frame
6mm Copper Alloy cap fixed to L shape Steel profile
12mm Stone pavement
30mm concrete screed with 16mm floor heating pipes
20mm rigid insulation
450 Holedeck concrete waffle slab
acoustic insulation

Steel balustrate fixed to 40mm Steel tube
Timber decking on Steel support
Aluminium box gutter with waterproof membrane
120mm roof insulation
Vapour barrier
6mm Copper Alloy cap fixed to L shape Steel profile
450 Holedeck concrete waffle slab
acoustic insulation

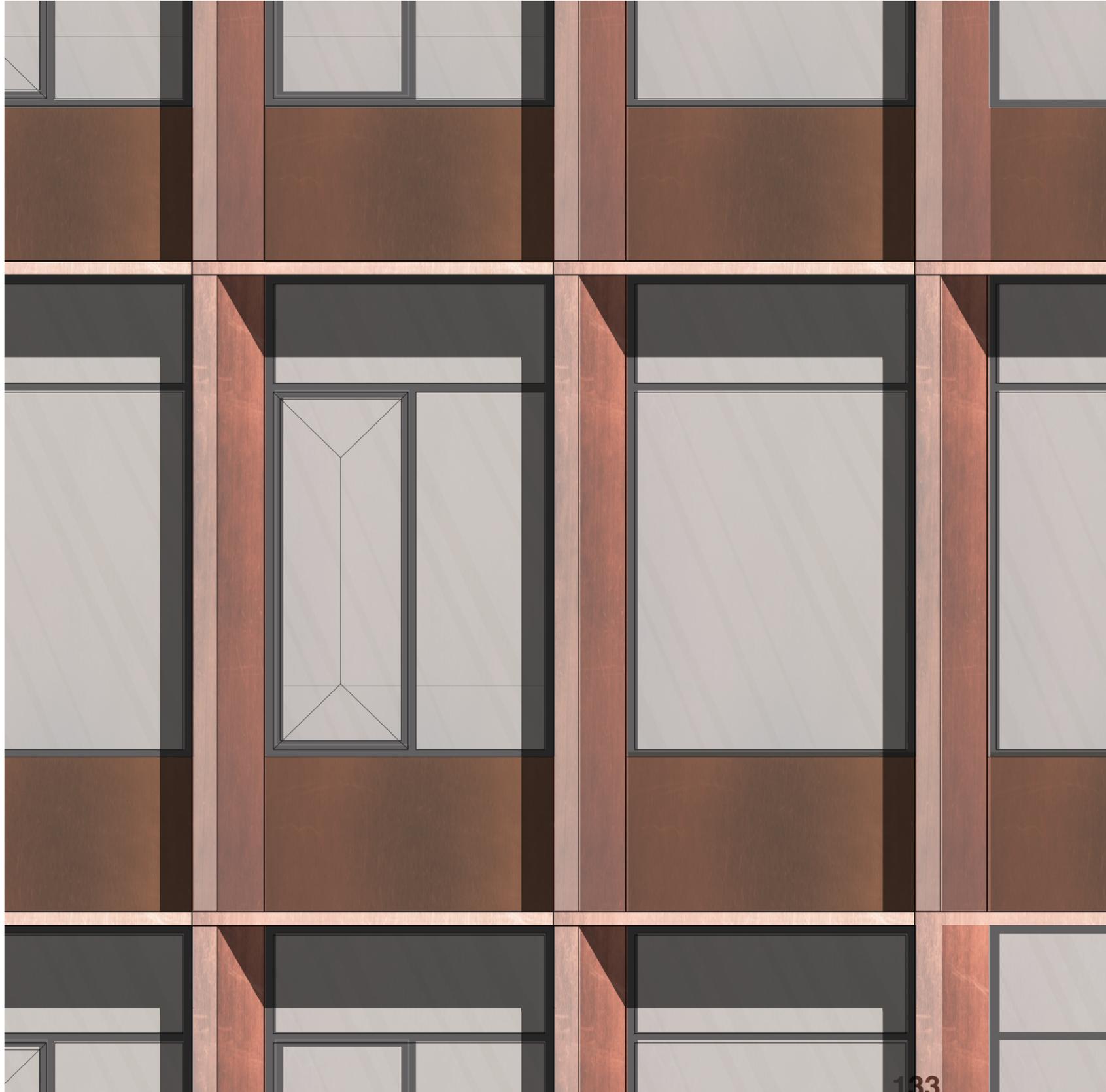


Vegetation
150mm growing medium
Root repelent
Drainage Layer
Waterproof membrane
Insulation Layer
Vapour barrier
450mm concrete waffle slab
accoustic insulation
air ducts

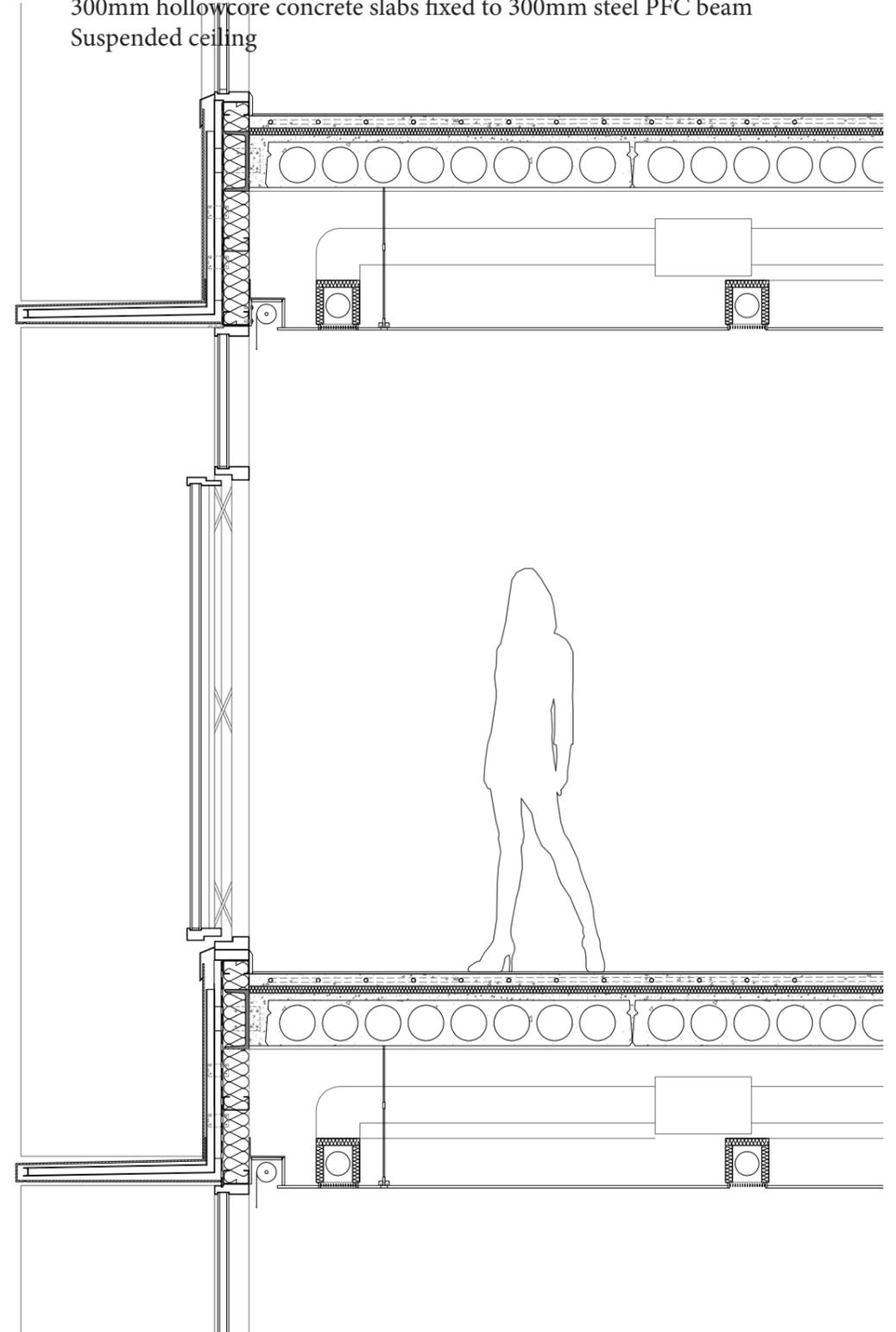
3.7°



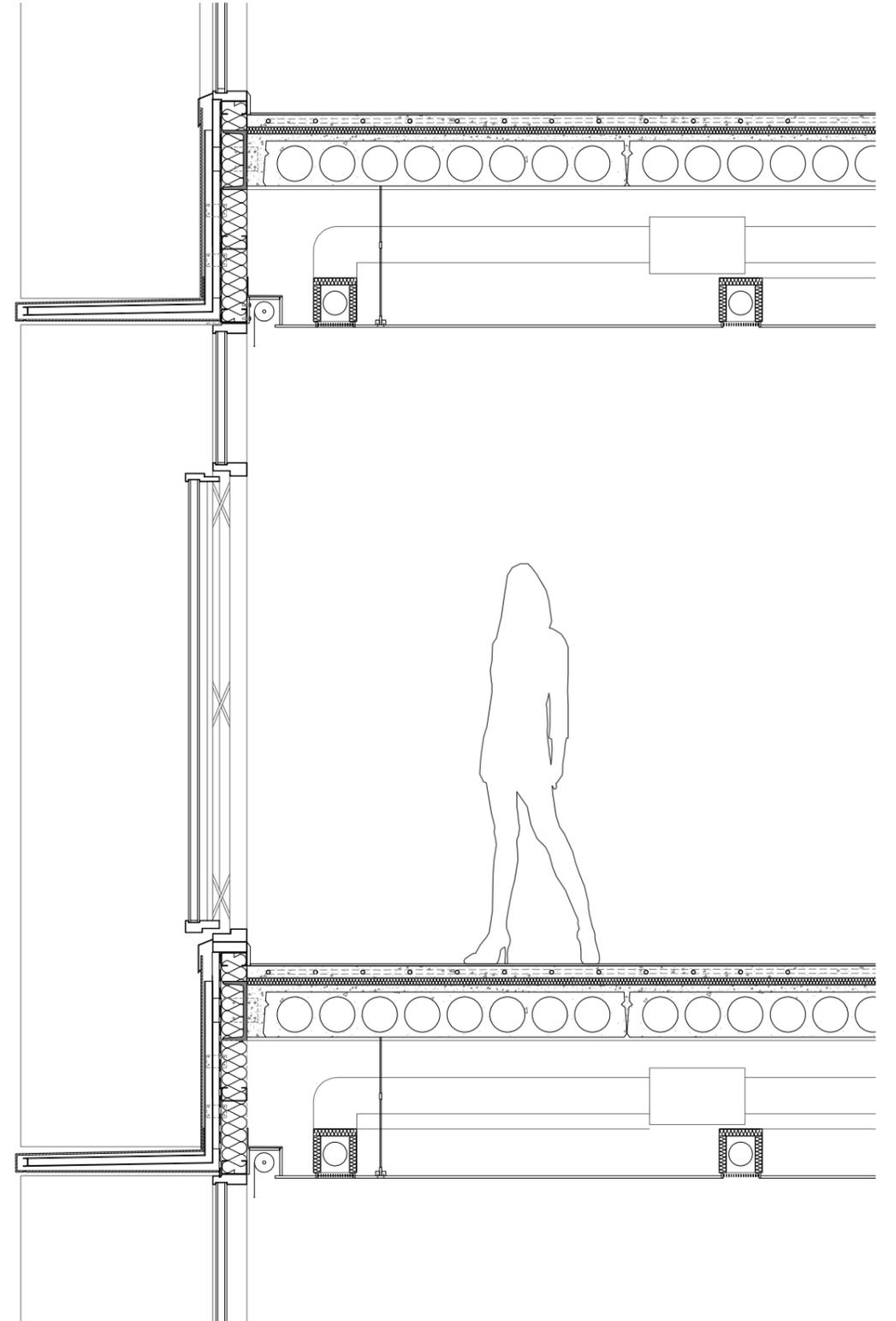
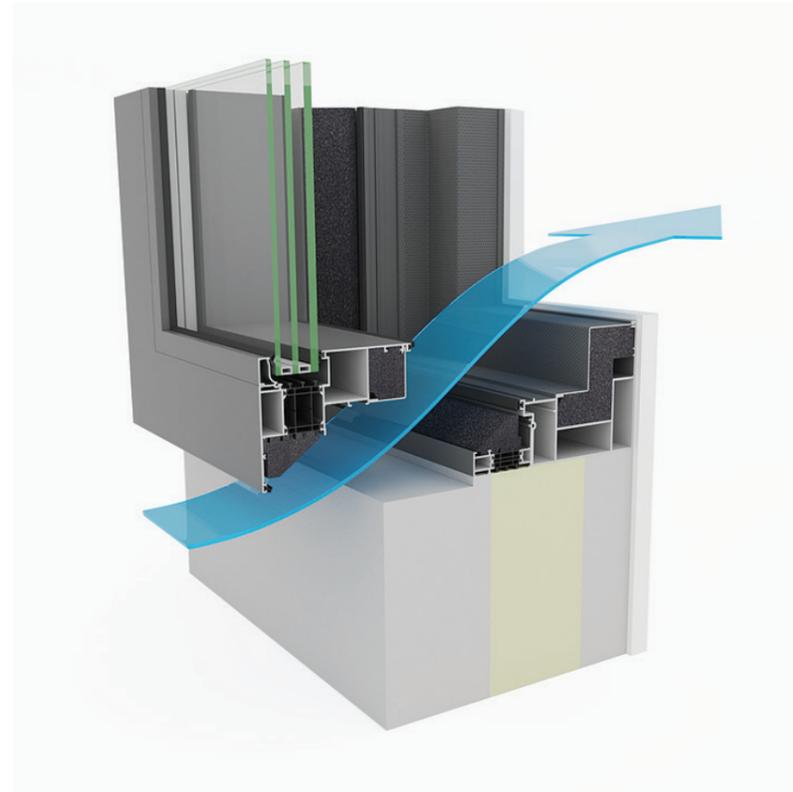
Section drawing Residential tower



- 6mm Copper Alloy cap fixed to L shape Steel profile
- Copper cladding panel
- 120mm wall insulation
- 12mm phase changing gypsum board
- interior carpet
- 30mm concrete screed with floor heating pipes
- 20mm rigid insulation
- 30mm in situ concrete screed
- 300mm hollowcore concrete slabs fixed to 300mm steel PFC beam
- Suspended ceiling

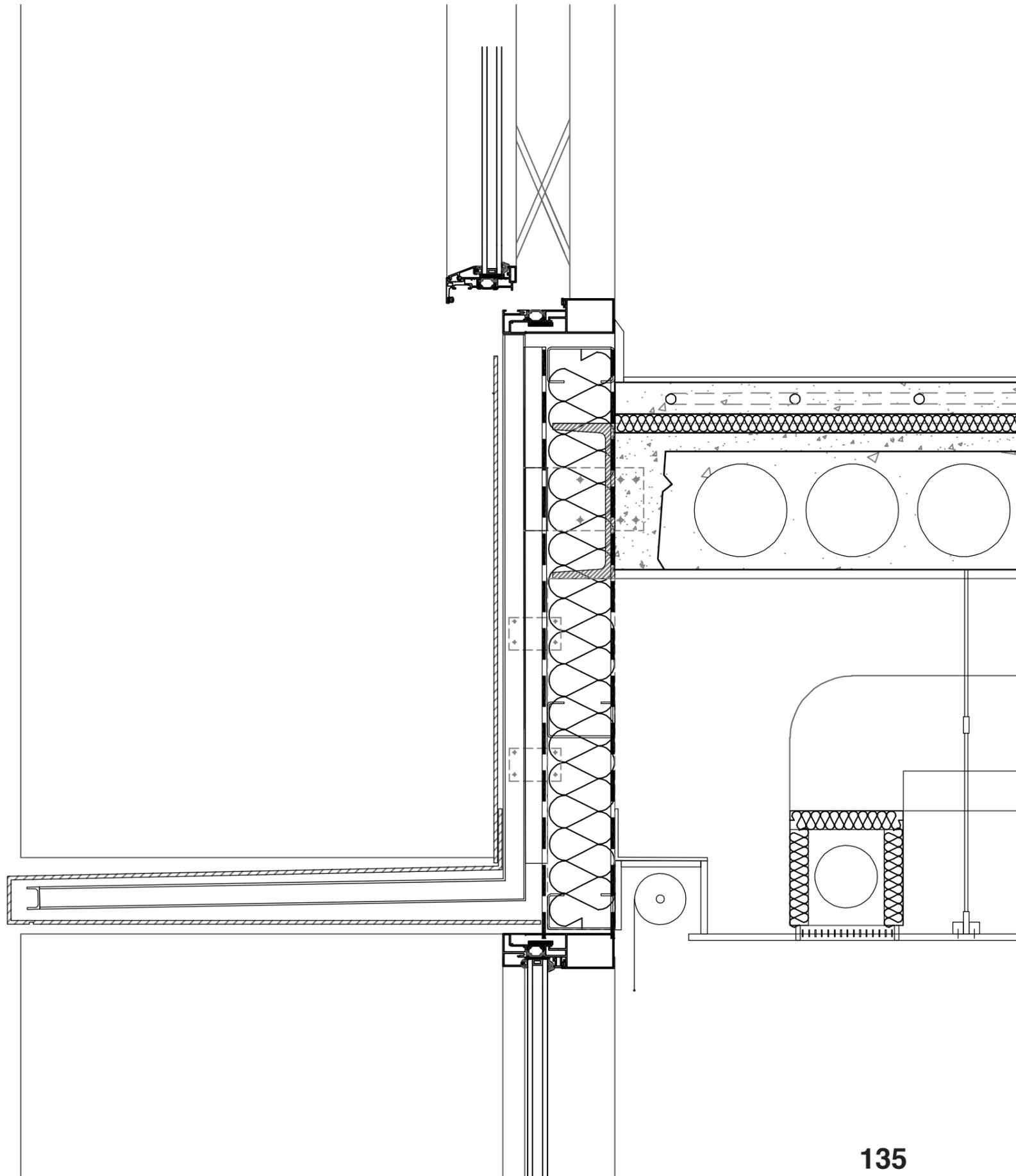


Section drawing Residential tower

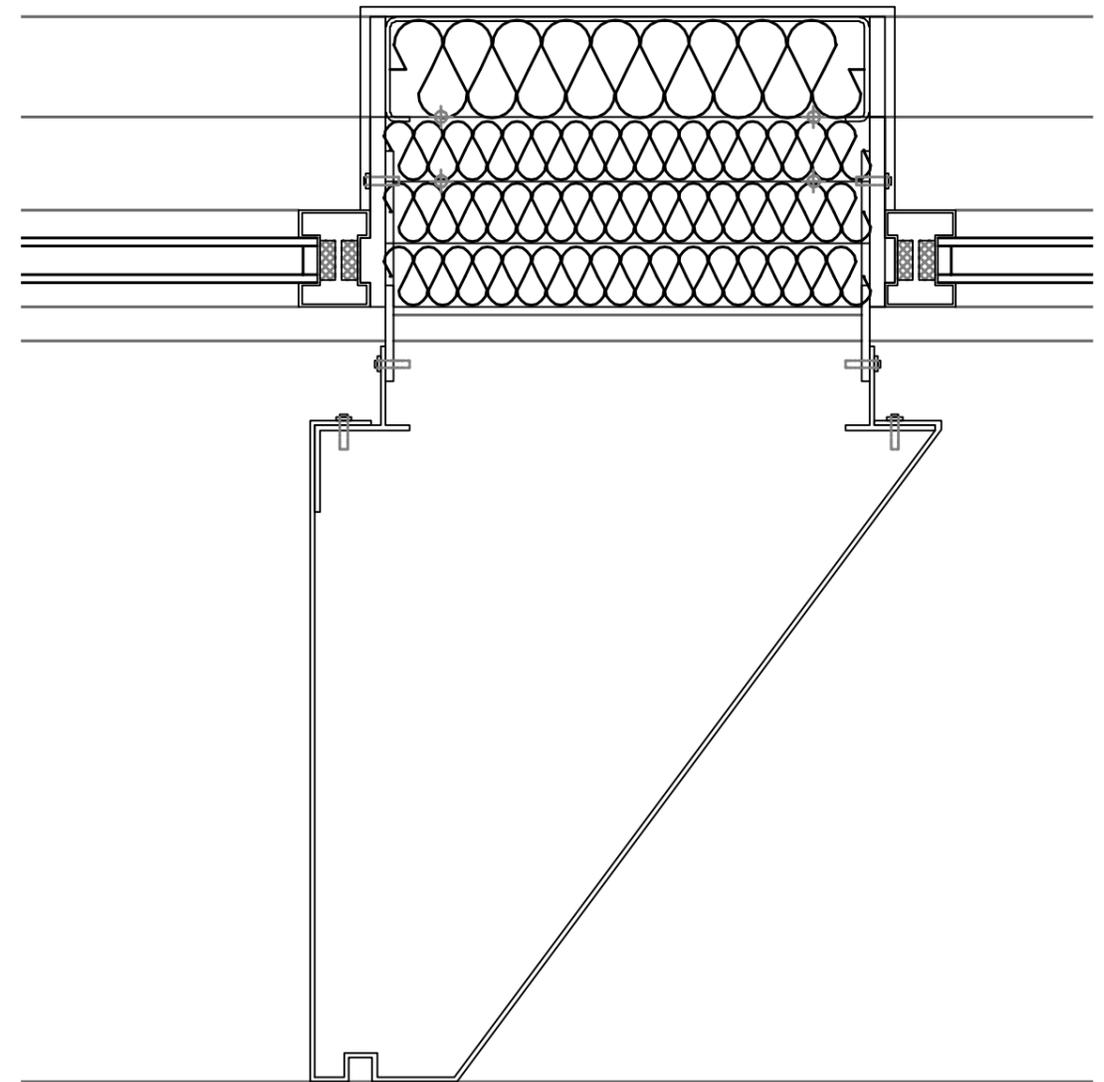


Parallel opening window

- small opening movement with better air circulation
- good acoustic performance
- reducing draughts

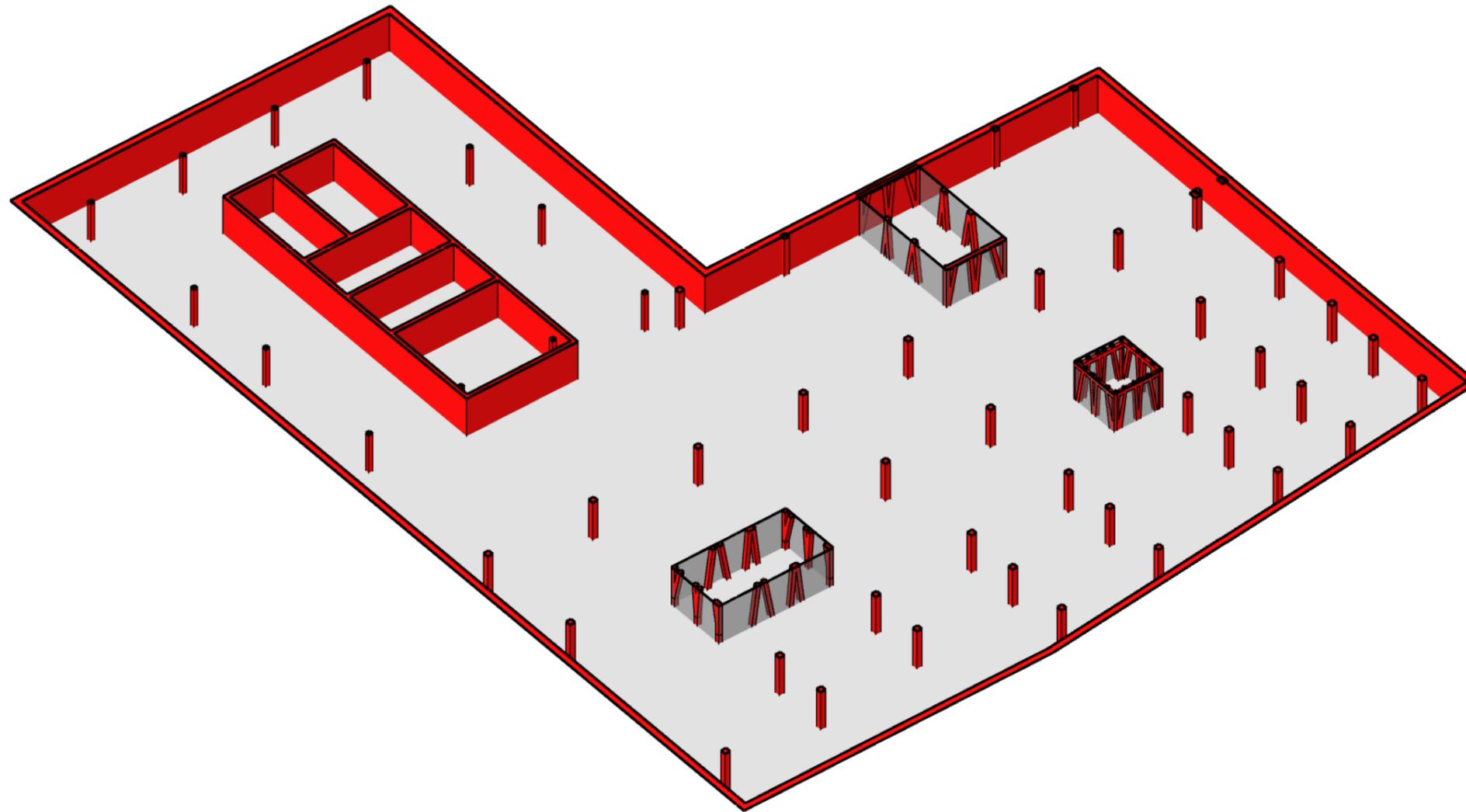


- 6mm Copper Alloy cap fixed to L shape Steel profile
- Copper cladding panel
- 120mm wall insulation
- 12mm phase changing gypsum board
- interior carpet
- 30mm concrete screed with floor heating pipes
- 20mm rigid insulation
- 30mm in situ concrete screed
- 300mm hollowcore concrete slabs fixed to 300mm steel PFC beam
- Suspended ceiling



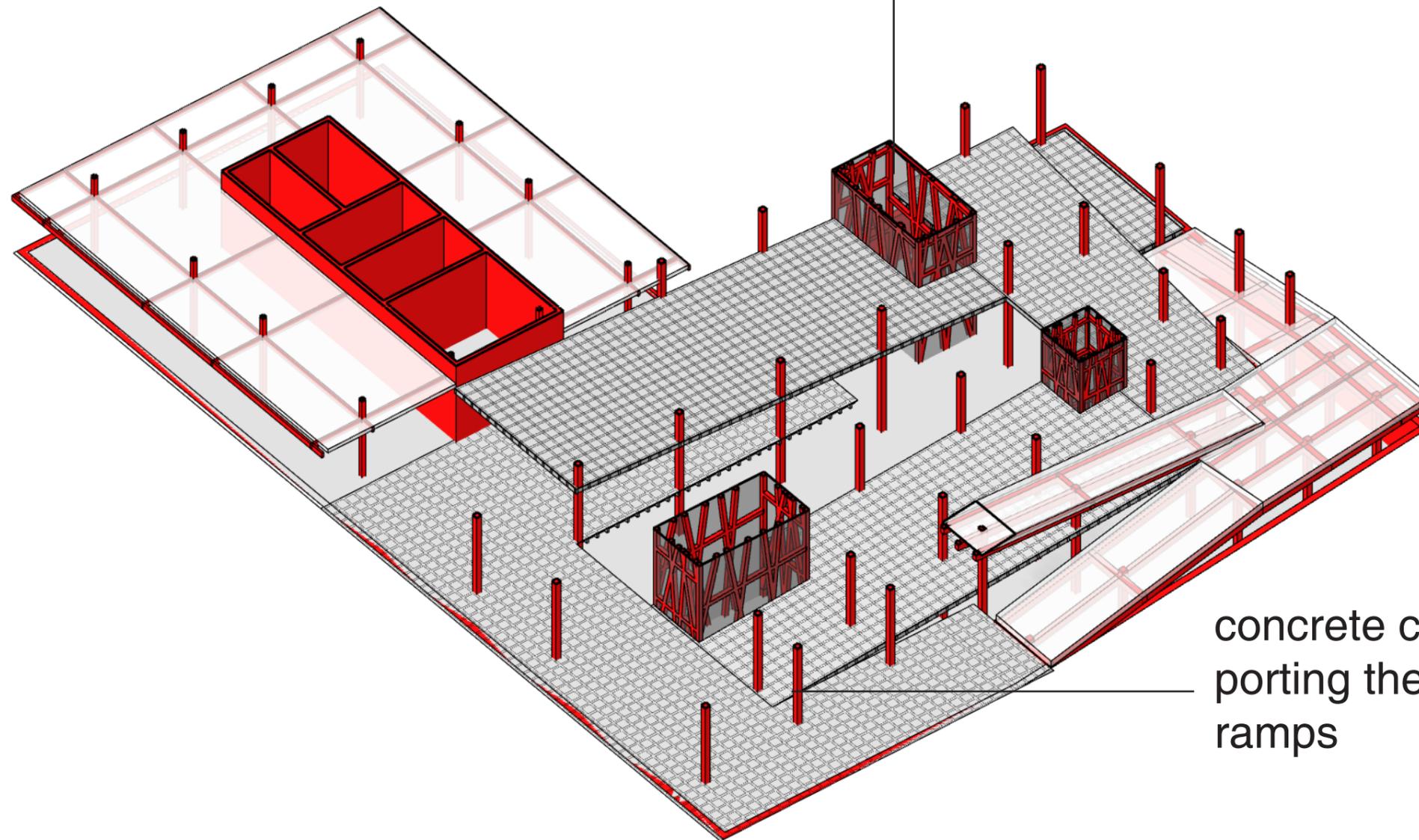
Structural Concept

Structural Scheme Podium



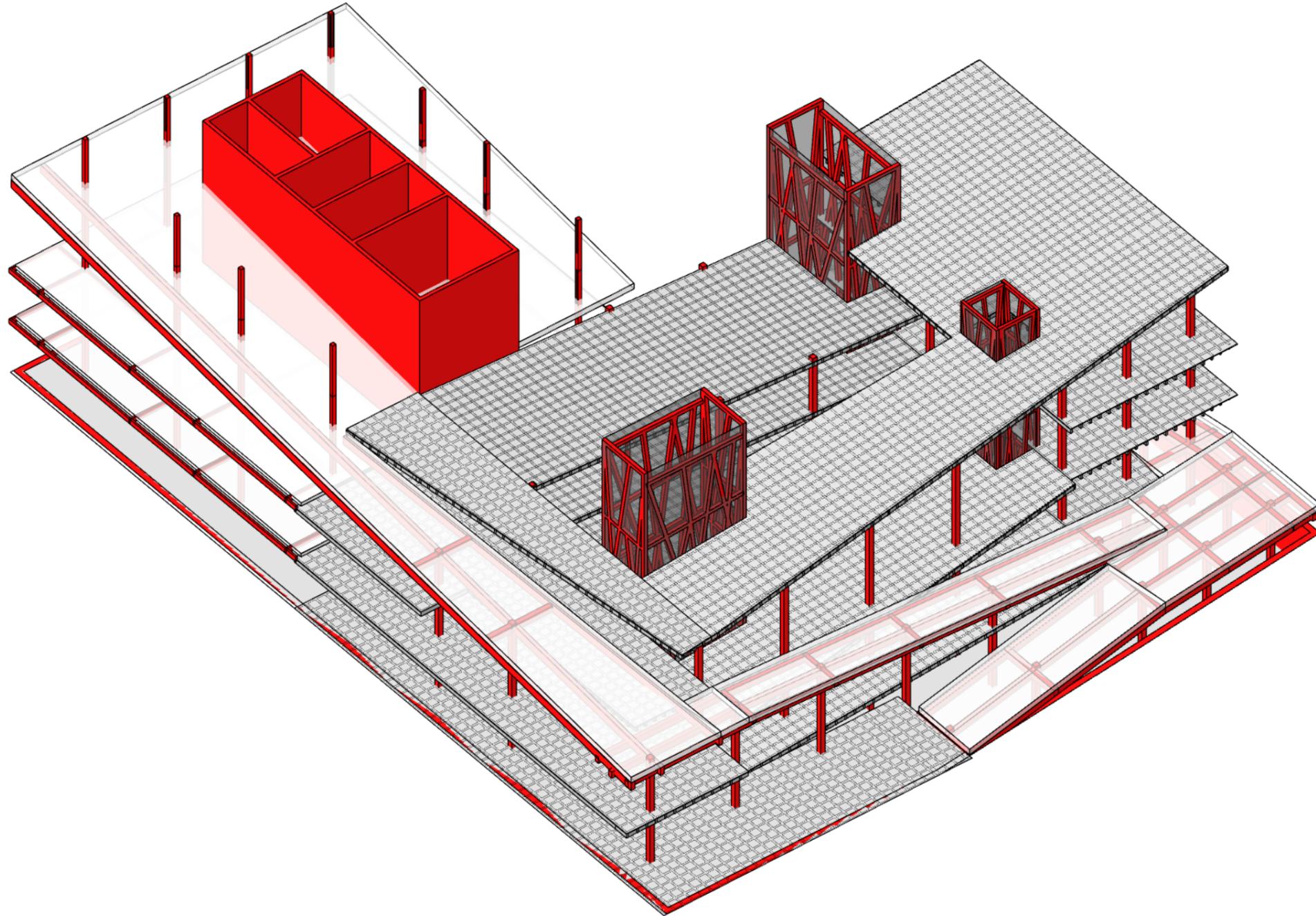
Structural Scheme Podium

steel vertical cores supporting the interior
slabs and ramps and provide stability

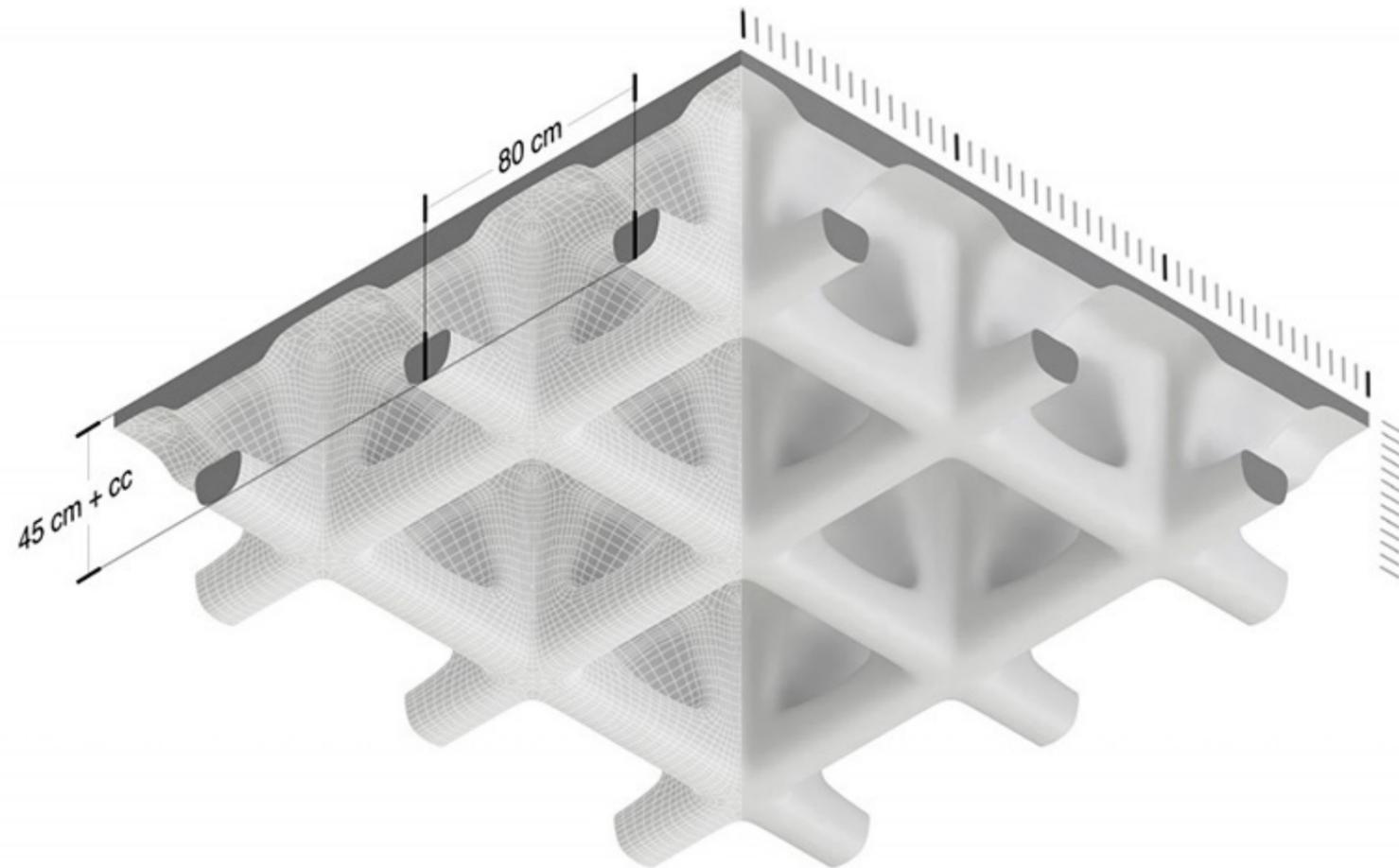


concrete columns sup-
porting the external
ramps

Structural Scheme Podium



Structural Scheme Holedeck Waffle Slab



Lightweight

Span between 8m to 13m

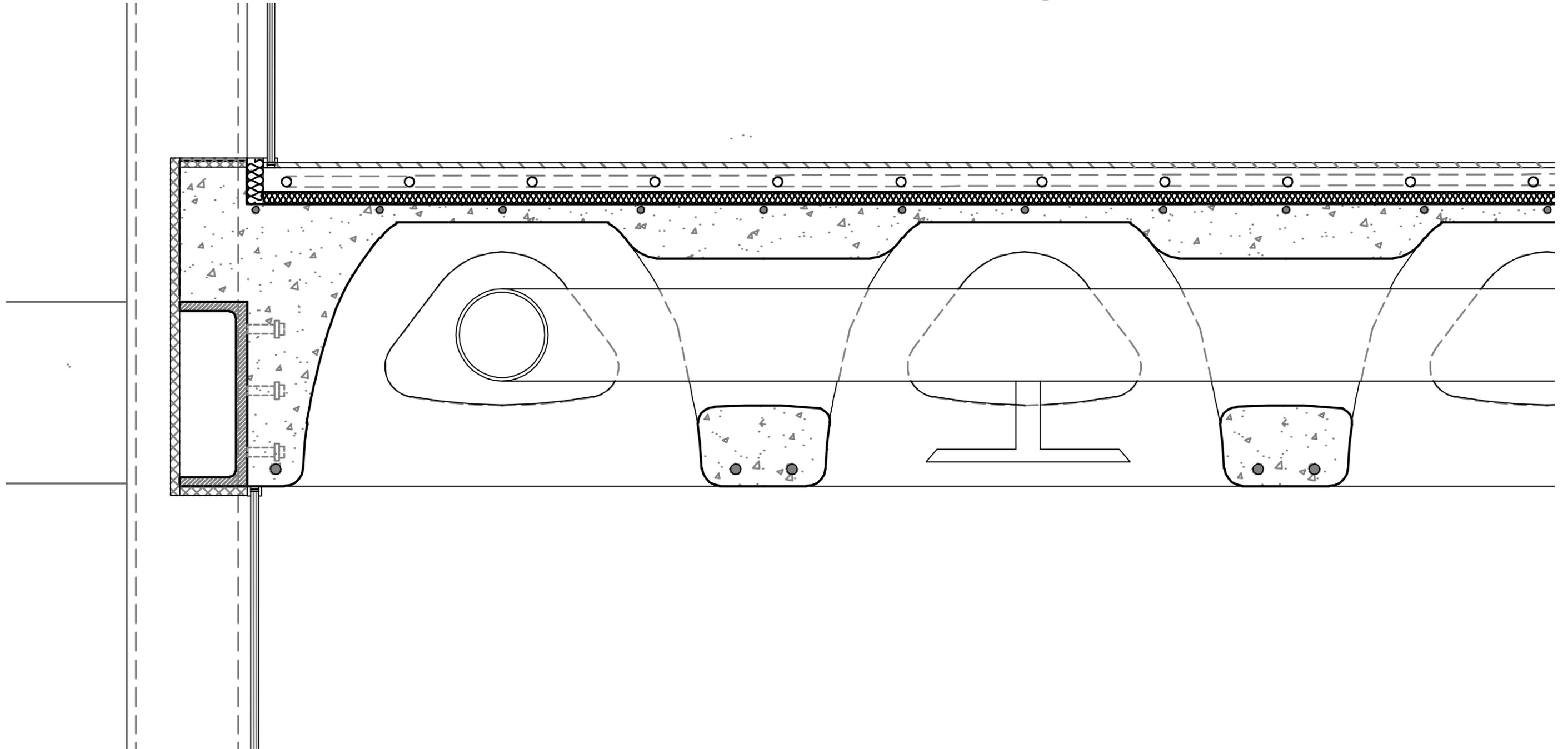
Spatial Efficiency

Easy maintenance

Low embodied energy

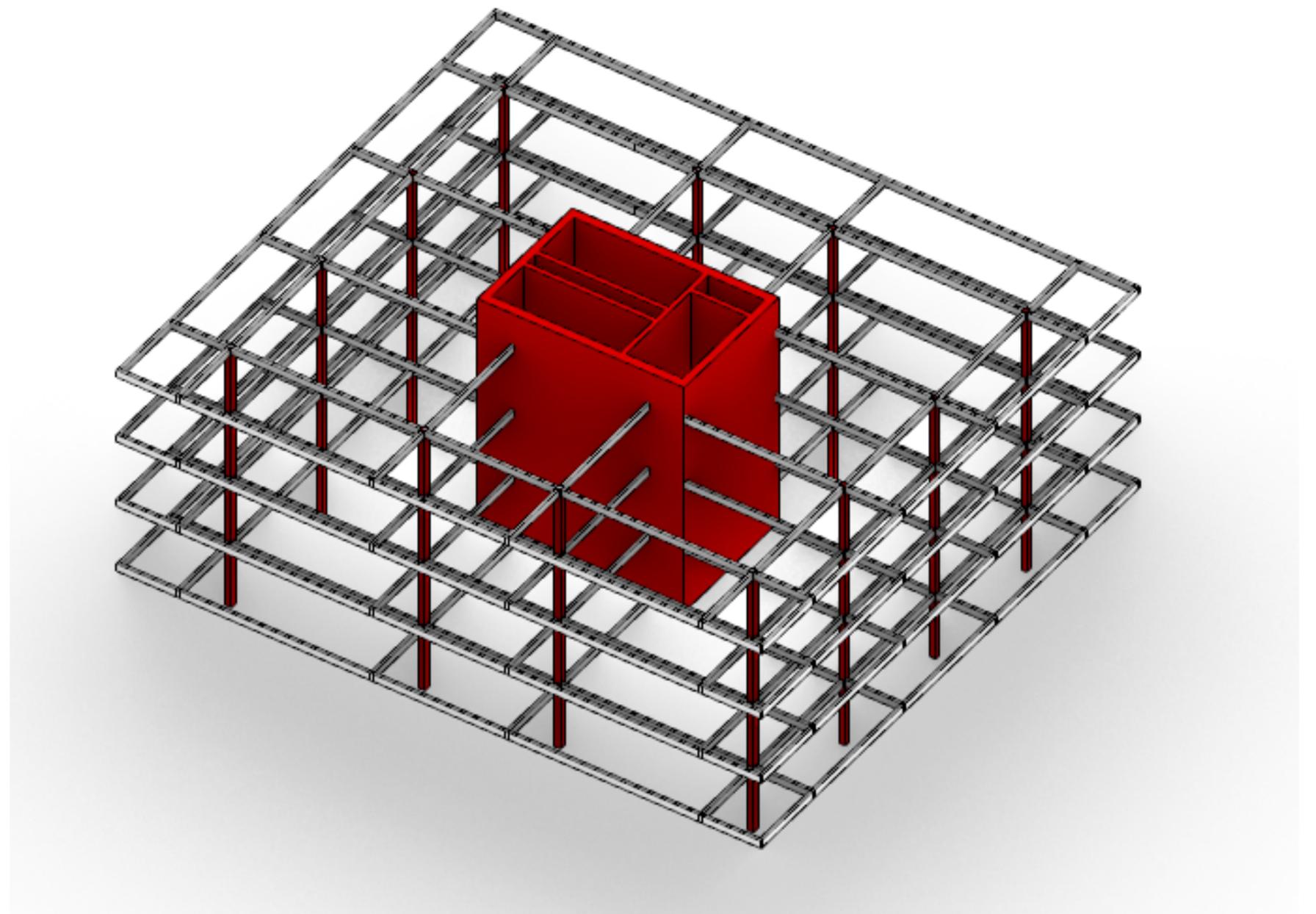
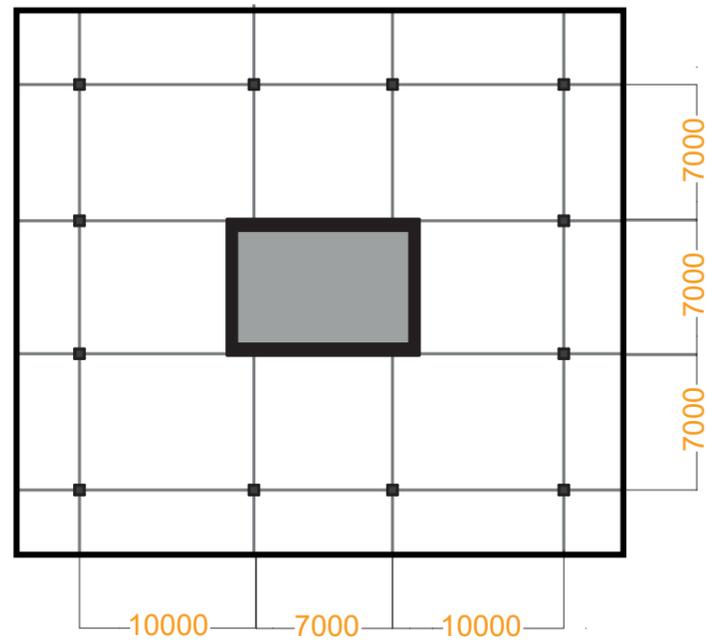
Structural Scheme
Podium
Steel section to floor detail

8mm fireproofing laminated Wglass
stone pavement
30mm concrete screed with 16mm heating/cooling
pipes
20mm rigid insulation
300mm PFC beam fixed to 450mm steel waffle slab
20mm fire protection board



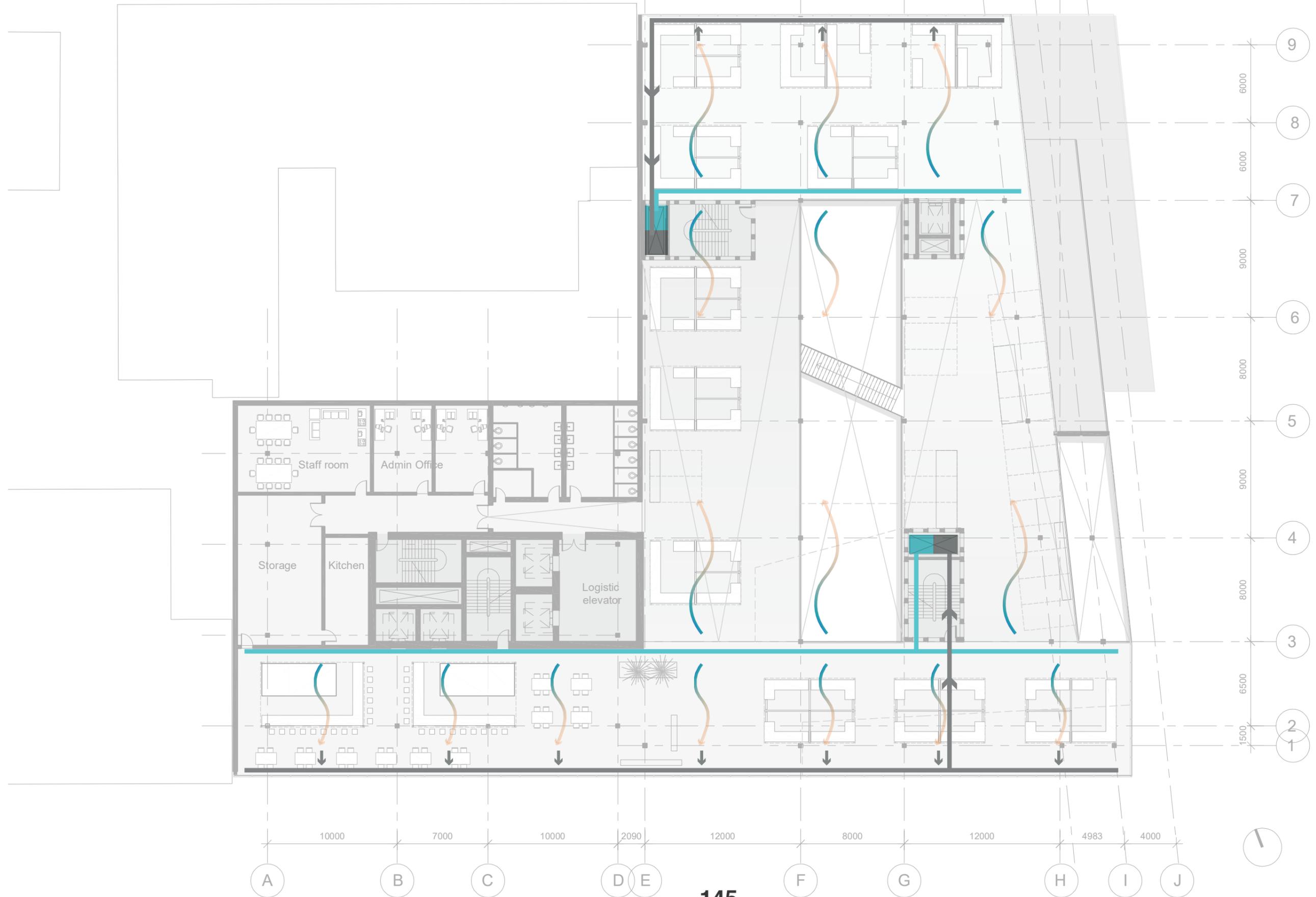


Structural Scheme Tower



Climatization Concept

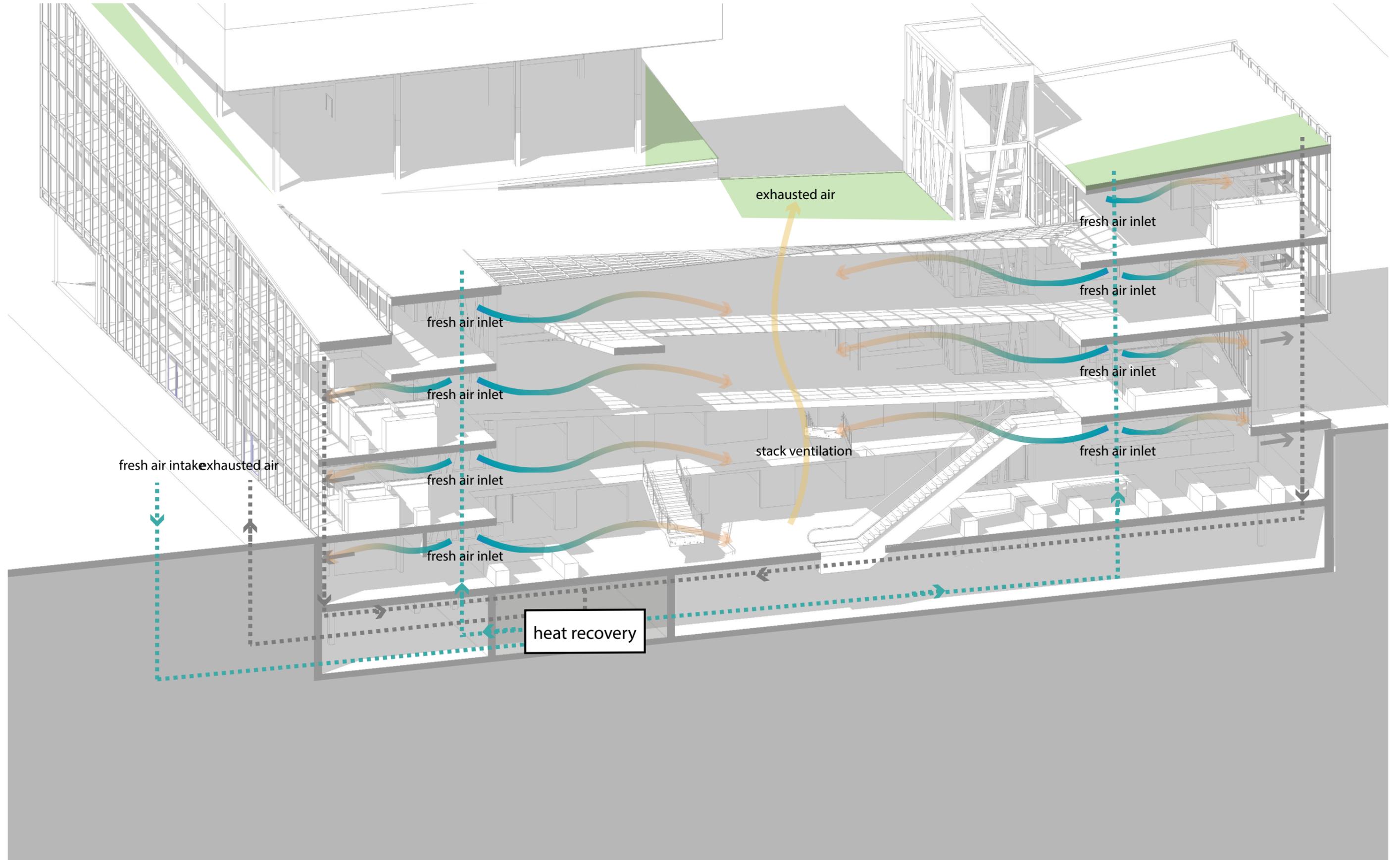
Climate Scheme Podium

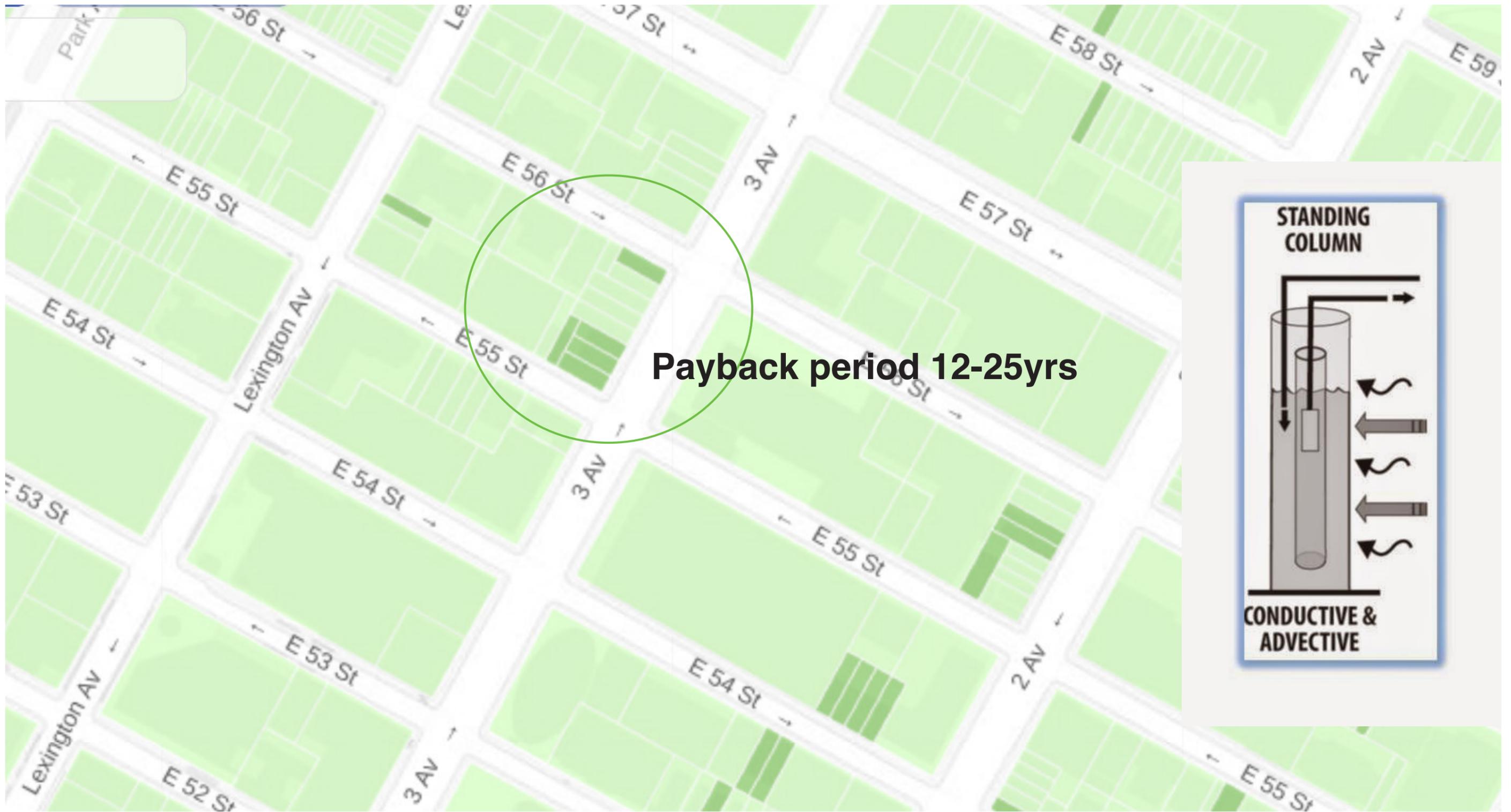


Climate Scheme Podium



Climate Scheme Podium

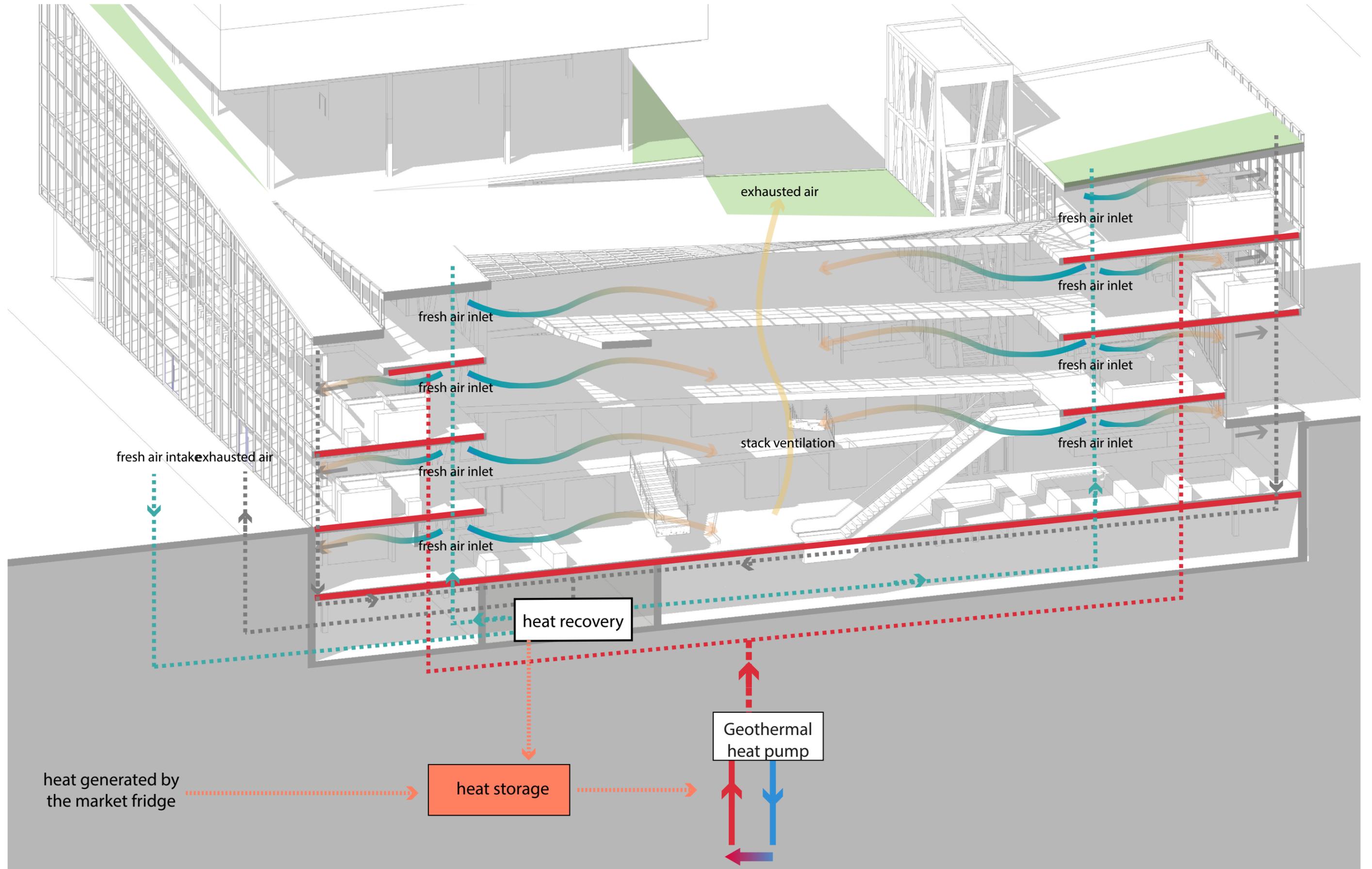




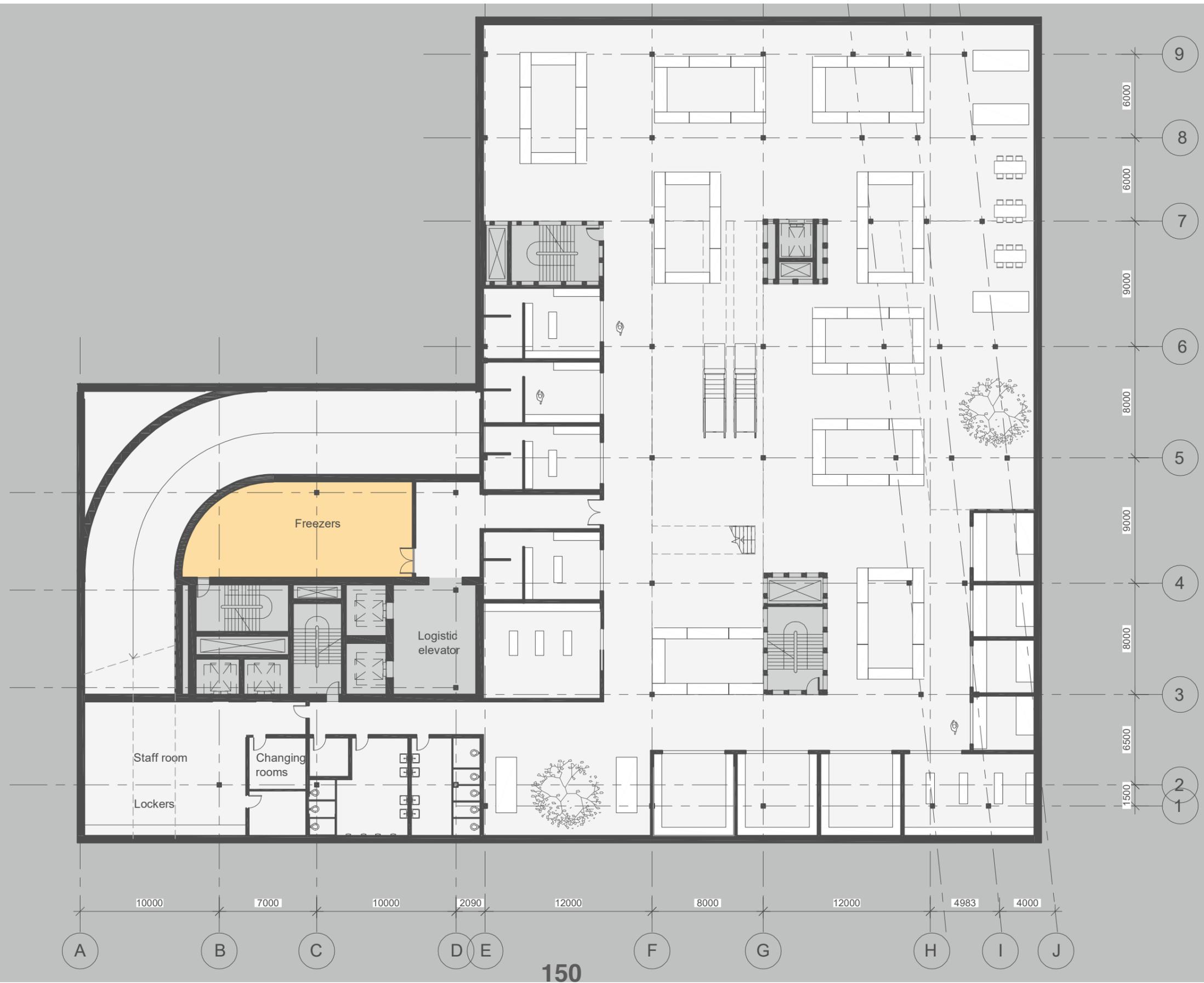
Standing column well system

Type of geothermal heat pump system that also uses ground water, but relies on smaller amounts inside a very deep well to exchange heat with the surrounding bedrock.

Climate Scheme Podium



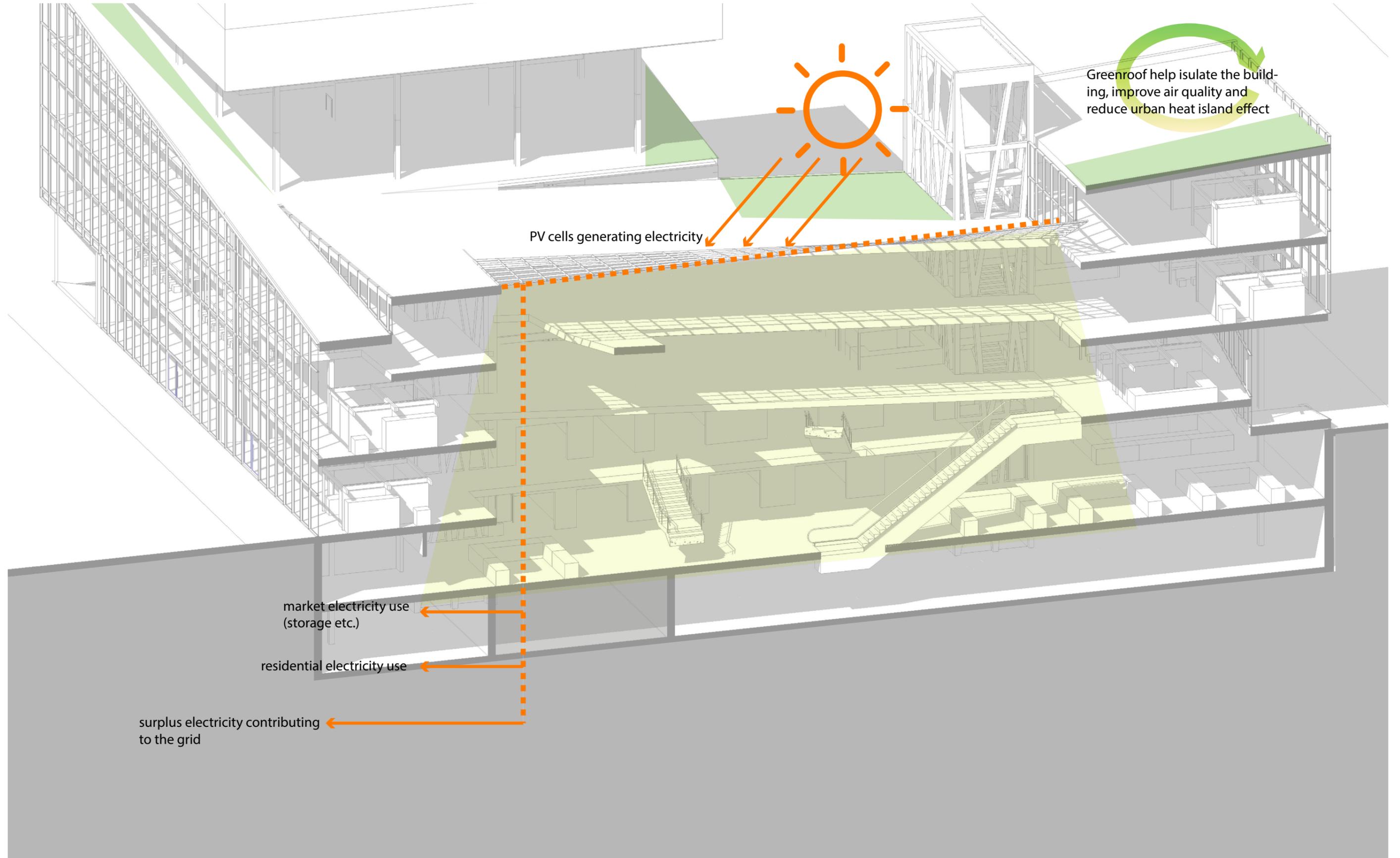
Climate Scheme Podium



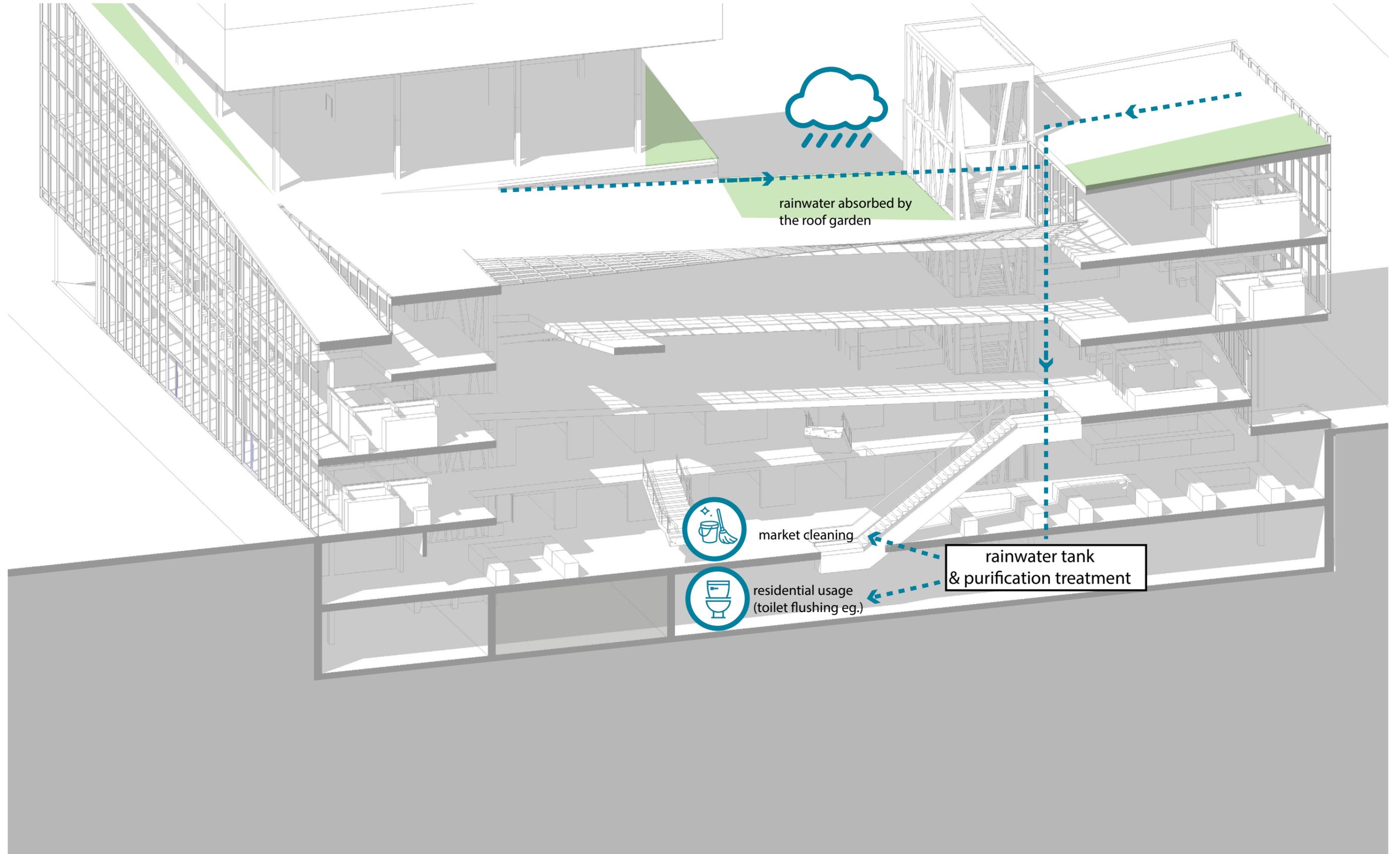
Climate Scheme Podium



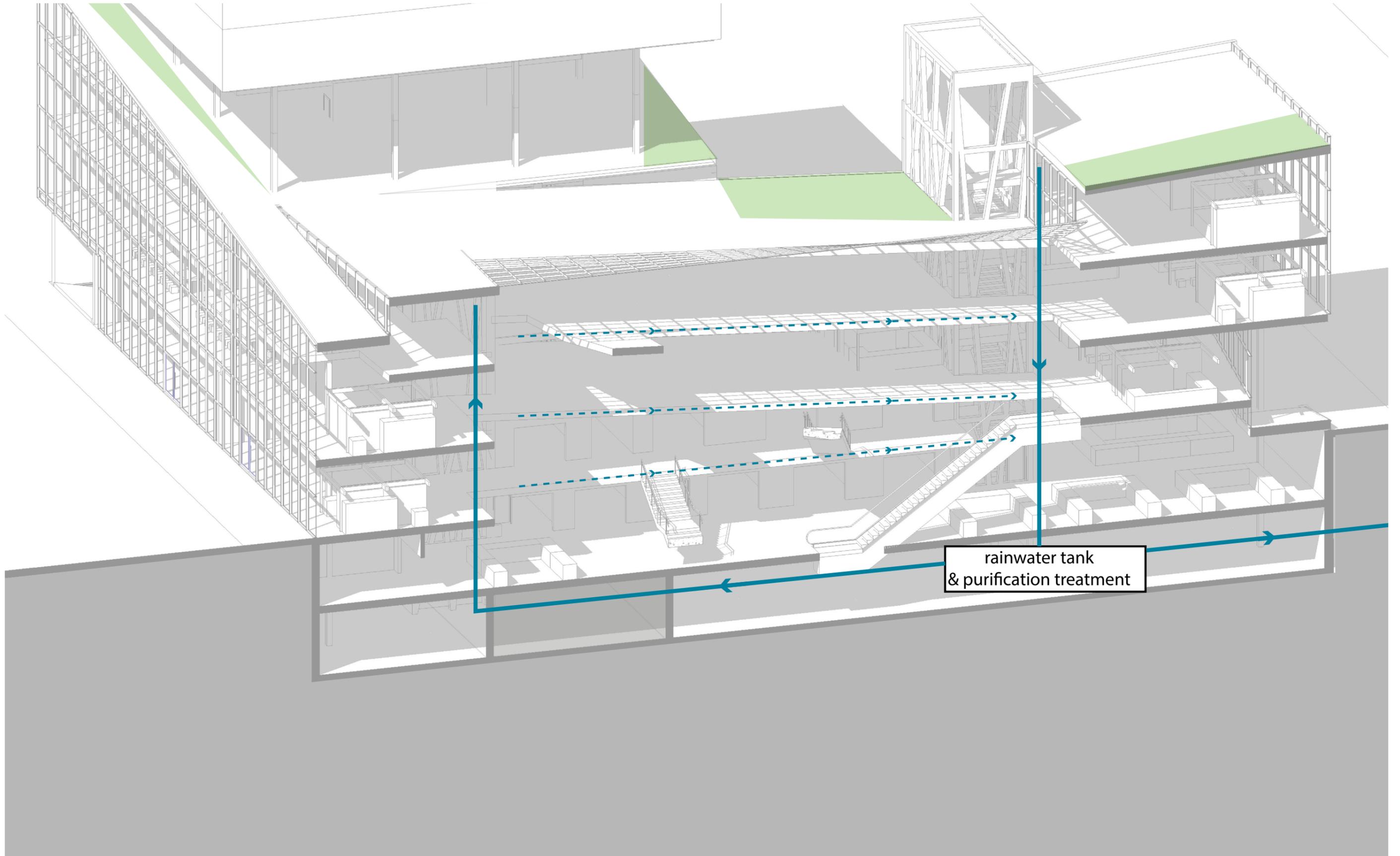
Climate Scheme Podium



Climate Scheme Podium

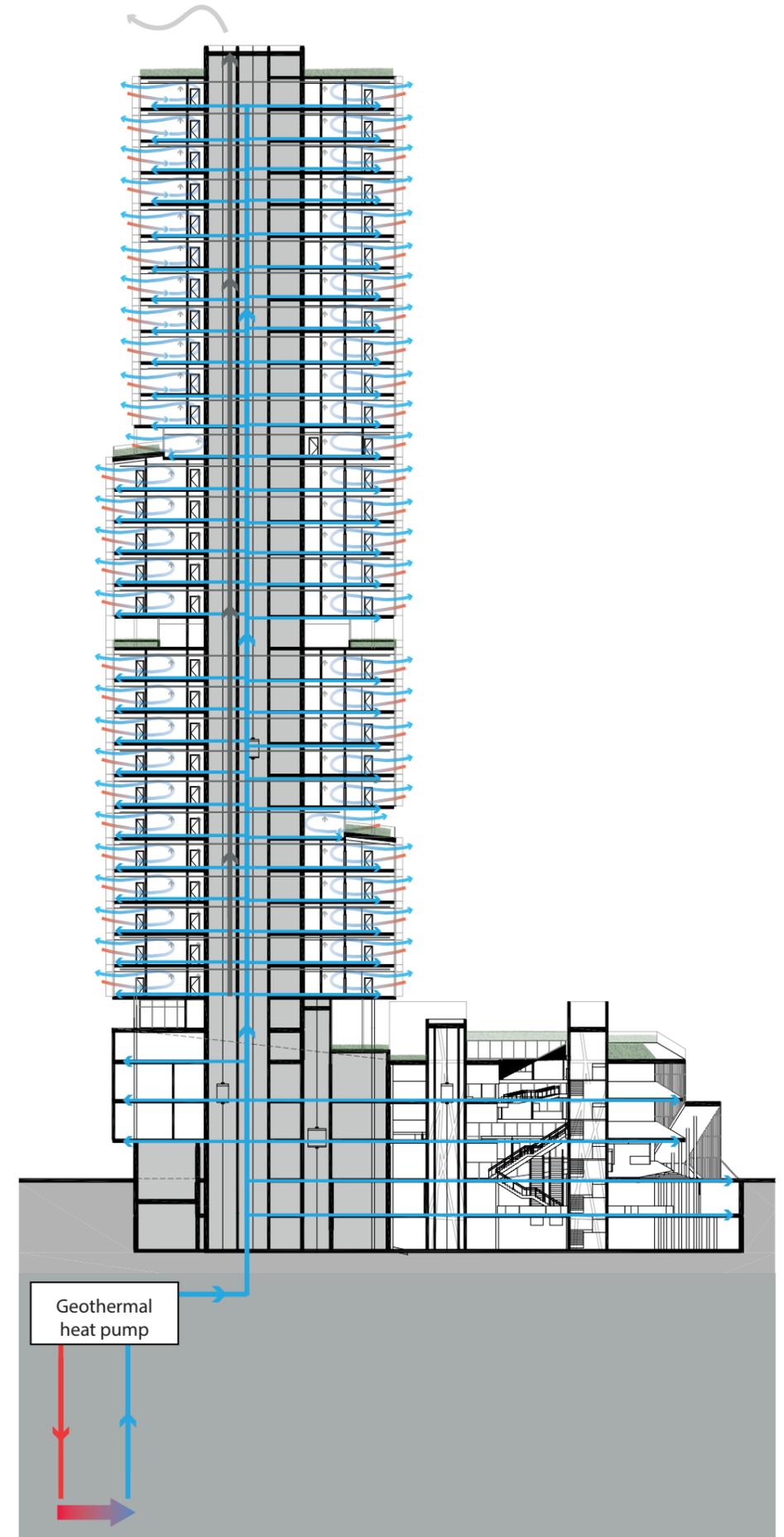
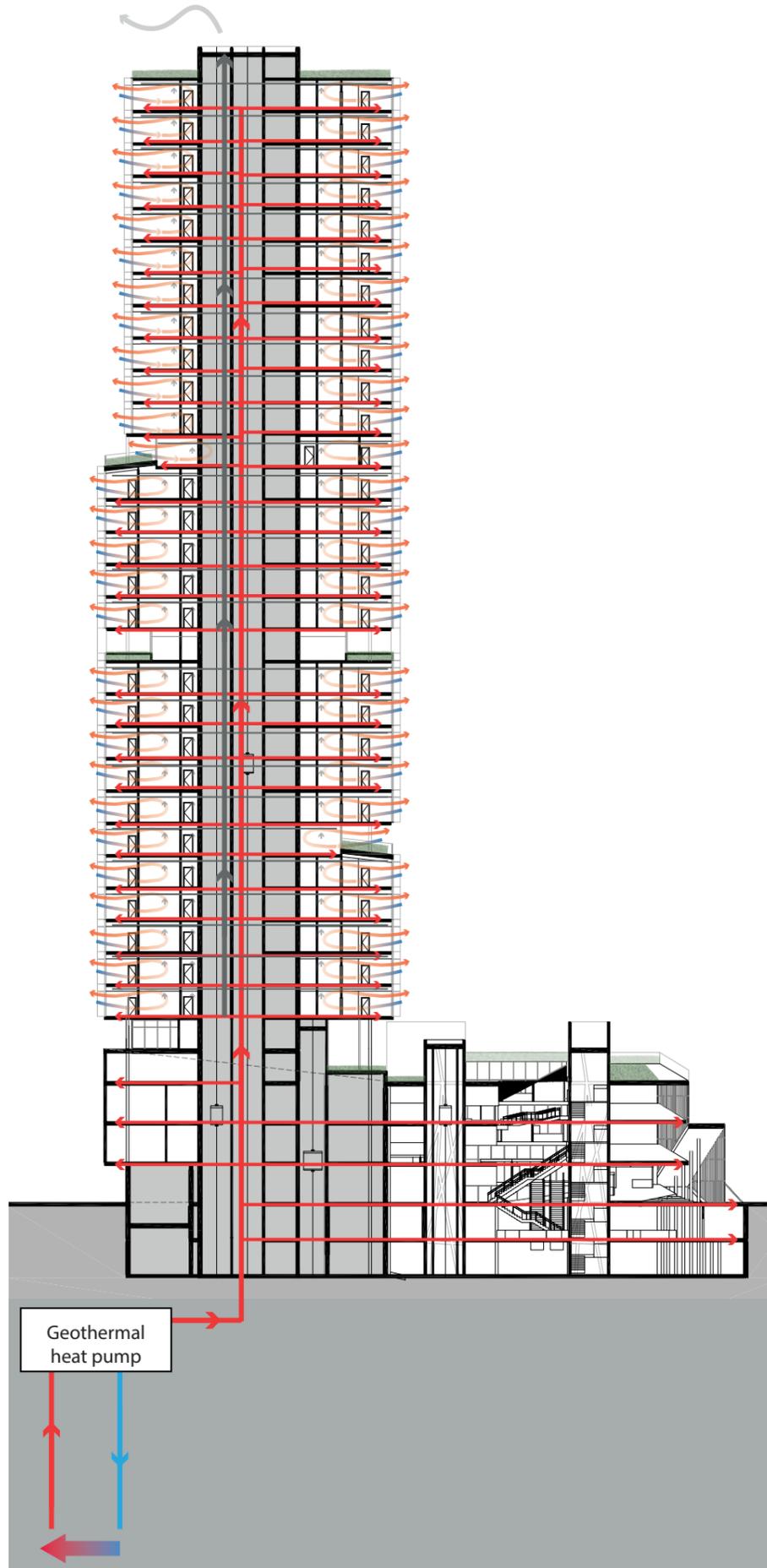


Climate Scheme Podium



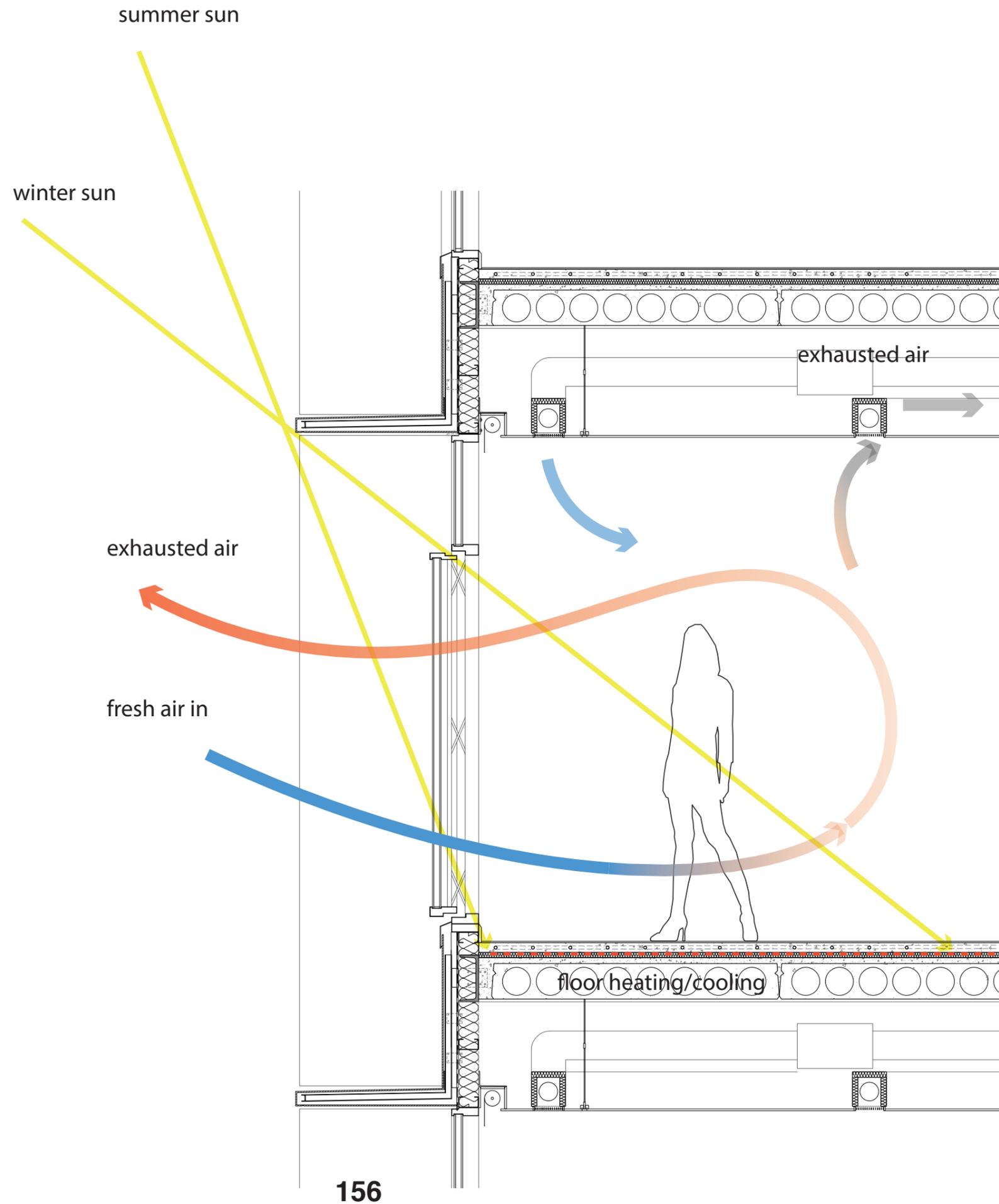
Climate Scheme Tower

natural ventilation
+mechanical ventilation



Climate Scheme Tower

natural ventilation
+mechanical ventilation



Conclusion

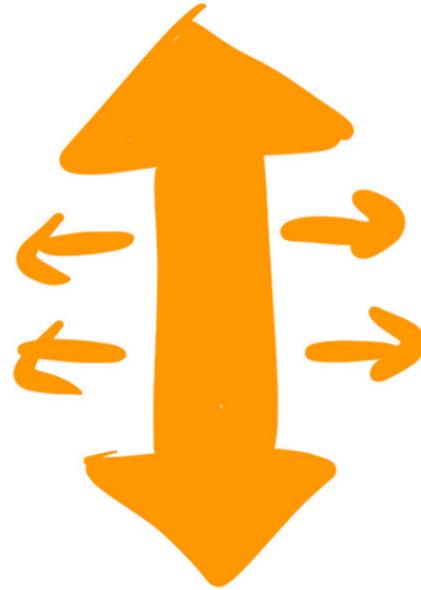
Ambitions



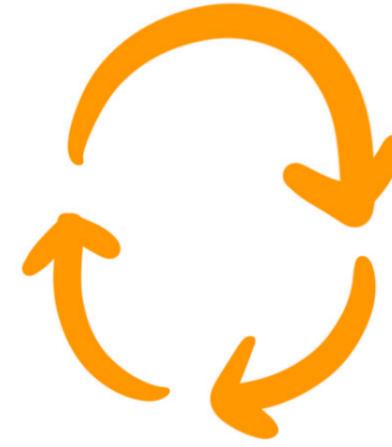
A food market provide the local community with fresh groceries



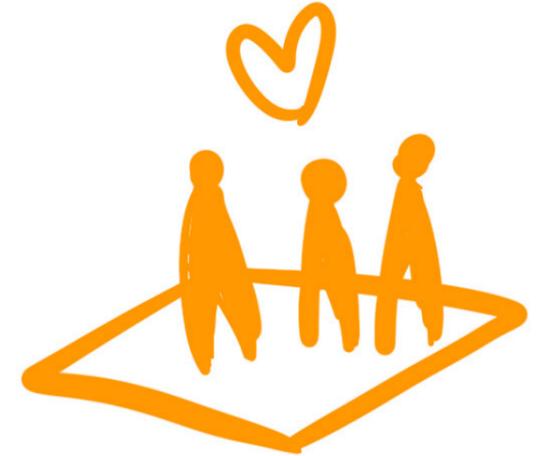
An iconic market provide tourists with unique shopping experience that is authentically 'New York'



A market that is easily accessible



A market promote a more sustainable lifestyle



A market that is also a public space that is accessible for everyone



Thank you!

