

ONE MINERVAHAVEN
METROPOLITAN HIGH-RISE LIVING IN AMSTERDAM

P5 PRESENTATION

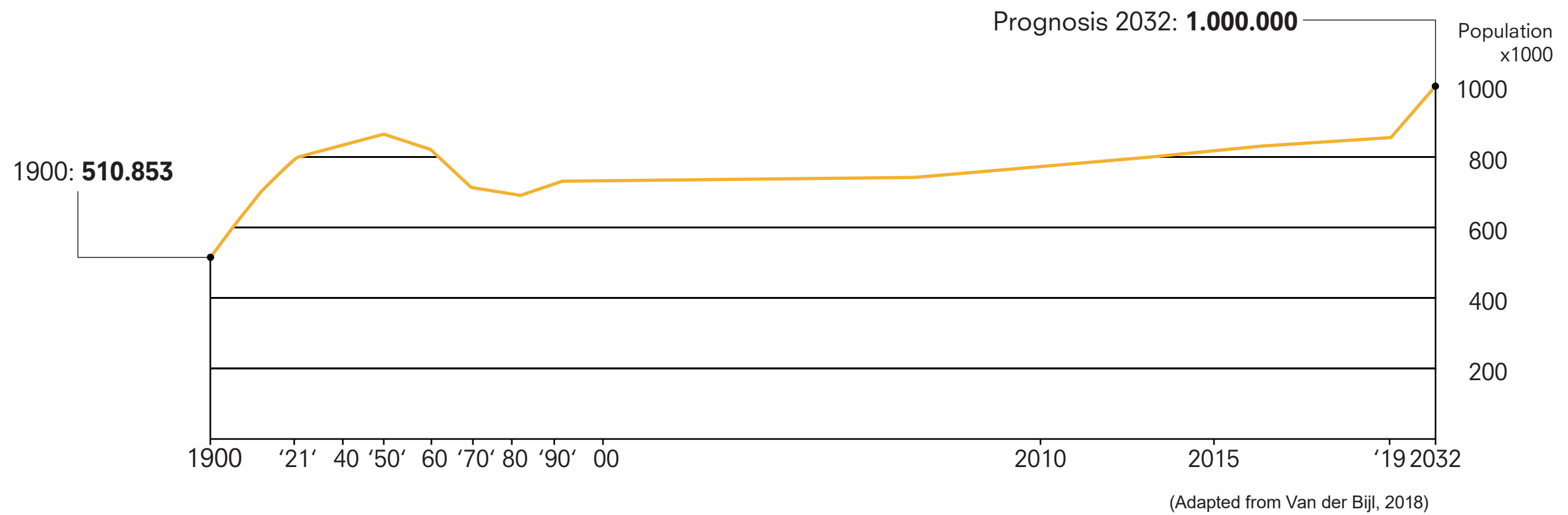


Dutch Housing Graduation Studio Between Standard and Ideals: The future of housing in the Netherlands.

How do we want to live and what kind of buildings
do we need to allow for that?



LOCATION



POPULATION GROWTH



**Amsterdammers kunnen
het tempo niet bijbenen**

(Couzy, 2019a)

**Moet Amsterdam pas op
de plaats maken, of
doorgroeien?**

(Couzy, 2018a)

**Amsterdam te druk? Wat een
grote onzin**

(Veenhoven, 2018)

**'Wil Nederland ertoe
doen, dan moeten steden
als Amsterdam flink
groeien'**

(Hemel, 2018)

MIXED SENTIMENTS



'WERELDDORP



OR

METROPOLIS

Metropolis: “a very large and busy city.” Oxford Dictionaries (2019)

Metropolitan: “of, noting, or characteristic of a metropolis or its inhabitants, especially in culture, sophistication, or in accepting and combining a wide variety of people, ideas, etc” (Dictionary.com, 2019).

“Amsterdam has reached its third Golden Age”

The argument for a the metropolis:

“big cities are better, the biggest even the best this world has to offer to its people. Metropolises are more wealthy, complex, varied, innovative and sustainable than small cities, they offer each person the best opportunities for development, progress, career, meaning, happiness, also when you’re poor.”



(Hemel, 2016)

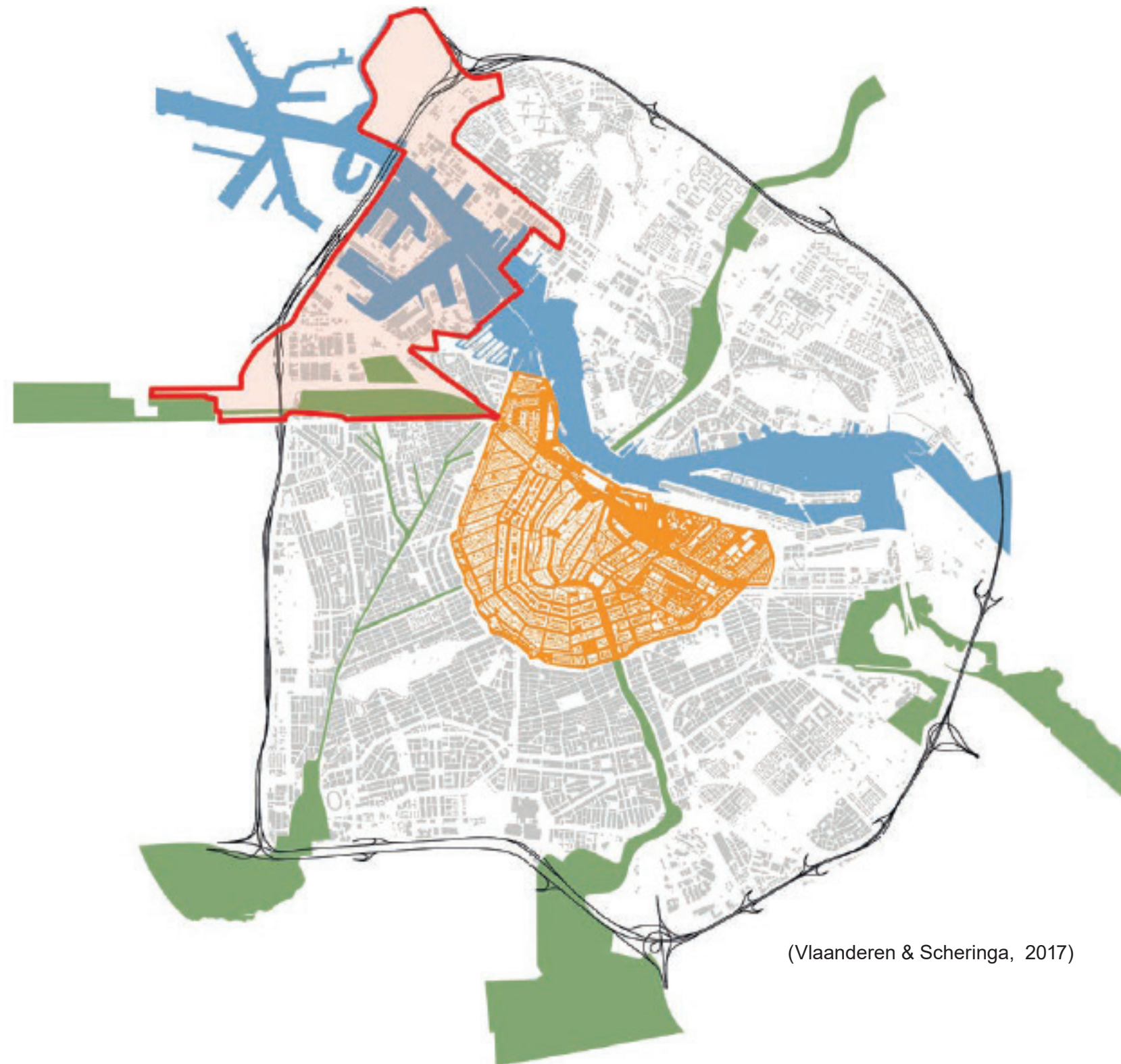
AMSTERDAM METROPOLIS

'Dooop Randstad om tot Nieuw Amsterdam'



© ANP

AMSTERDAM METROPOLIS



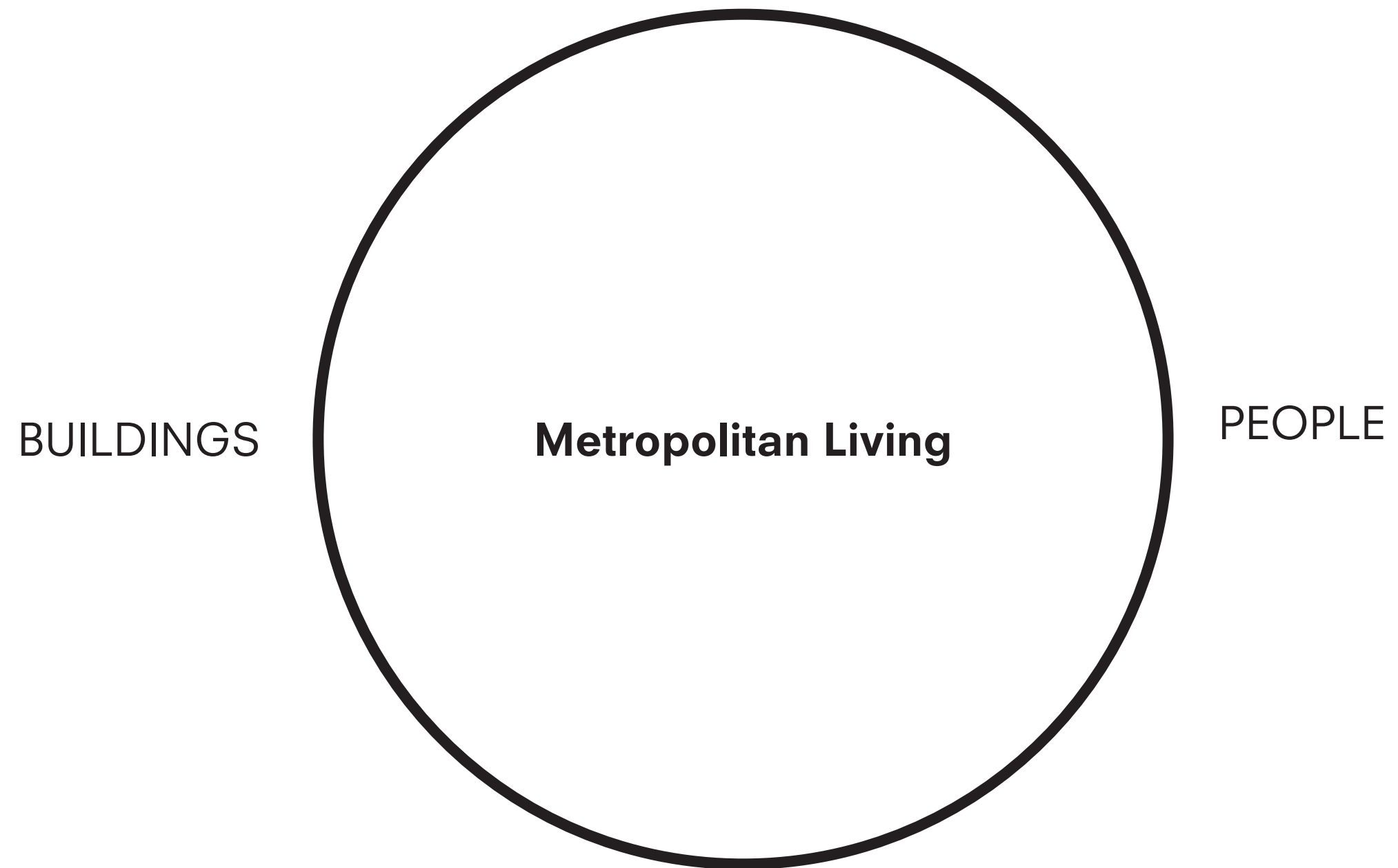
(Vlaanderen & Scheringa, 2017)

In Haven-Stad wonen
en werken straks
150.000 mensen

(Vlaanderen & Scheringa, 2017, p. 11)



“What constitutes a contemporary metropolitan living and dwelling environment?”



BUILDINGS

Metropolitan Living

PEOPLE

Amsterdam wil met hoge torens 'Vancouver aan het IJ' worden

17 De Volkskrant: With tall towers on its waterfront, Amsterdam wants to become like Vancouver (Gualthérie Van Weezel, 2016).

Gemeente Amsterdam gelooft nog steeds in skyline van de Sluisbuurt

18 NRC: Despite resistance, the municipality still support the plan for the Sluisbuurt high-rise neighborhood (Van den Bergh, 2017).

In je eentje huren in de woontoren, dat is de toekomst

19 NRC: Residential towers are projected to become a more prevalent form of housing in future Amsterdam (De Voogt, 2018).

WHY HIGH-RISE?

Icon of metropolis

Municipality's desire

Projected future demand

When clustered together, they can create a critical mass for a more intense urban life with more amenities, services and public activity.

Rem Koolhaas

DELIRIOUS NEW YORK



“Bastions of the antinatural, **Skyscrapers** announce the imminent segregation of mankind into two tribes: one of **Metropolitanites** -- literally self-made -- who used the full potential of the **apparatus of modernity** to reach unique levels of perfection, the second simply the remainder of the traditional human race ”

Rem Koolhaas in Delirious New York



(Koolhaas, 1994)

Waldorf Astoria

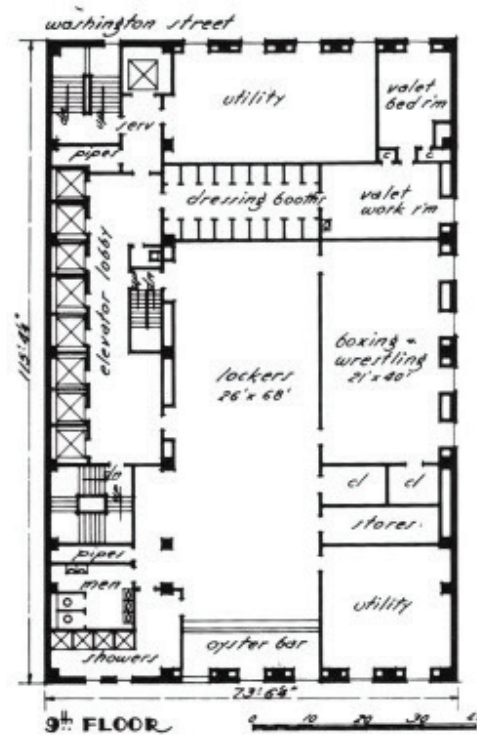
Residential Hotel

Combines short-stay hotel with long-stay apartments

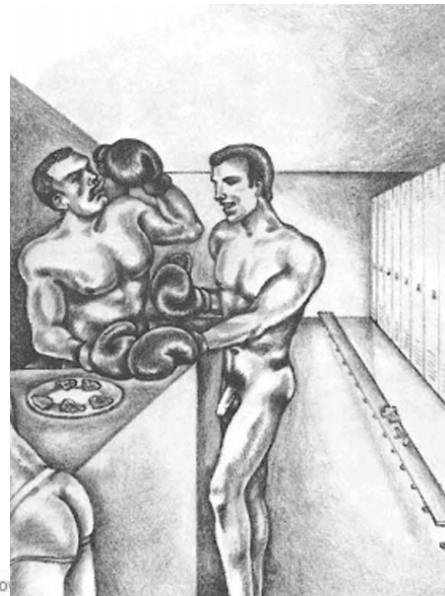
Wealth of entertainment options and services in a 40-story building

“method of modern living”: luxury of a hotel, supplementing own living quarters for more sophisticated activities such as banquets and balls.

RESIDENTIAL SKYSCRAPERS



9th FLOOR
Downtown Athletic Club, plan of ninth floor:
"eating oysters with boxing gloves, naked, on
the nth floor ..."



Downto



Downtown Athletic Club in New York

(Koolhaas, 1994)

DOWNTOWN ATHLETIC CLUB

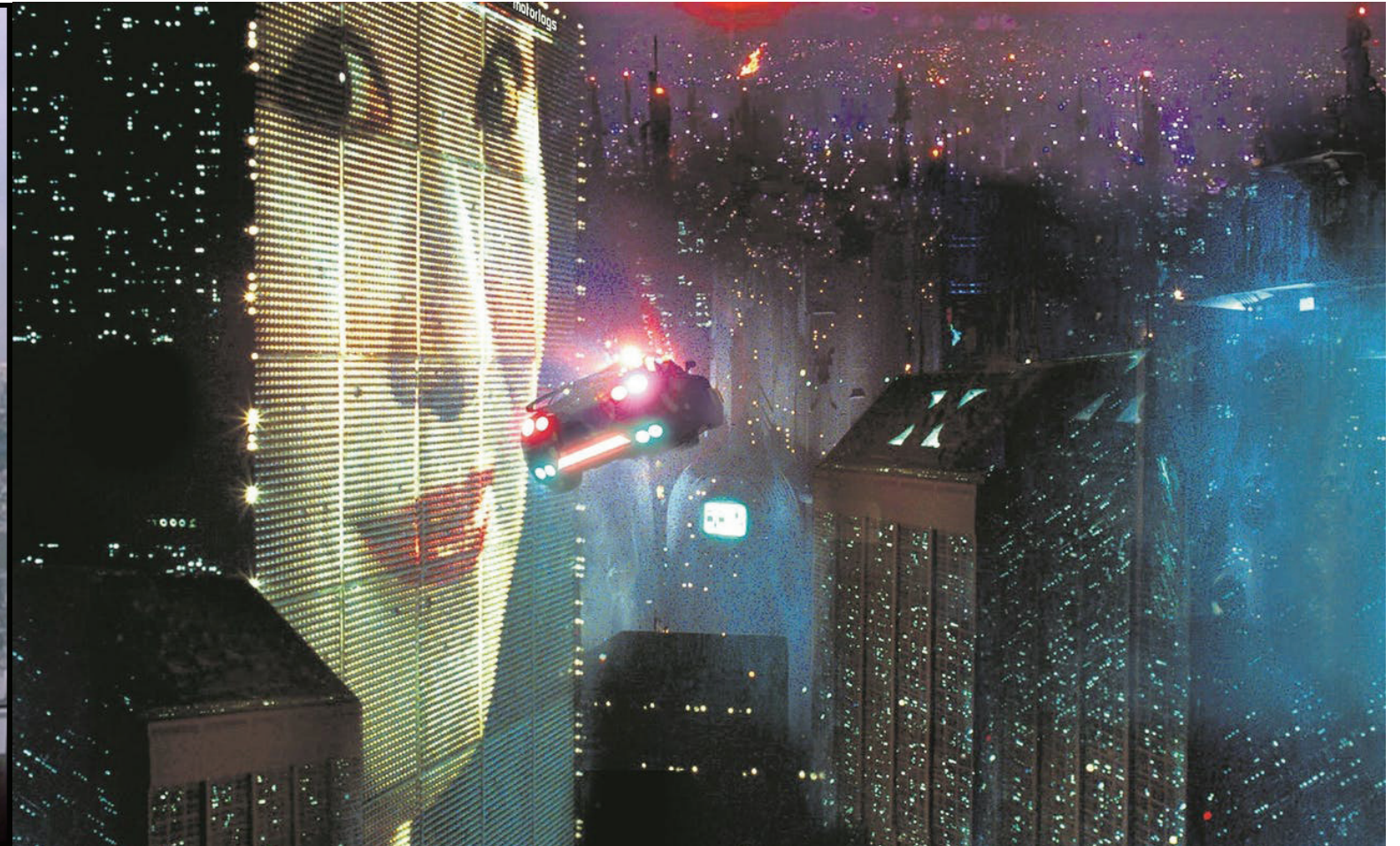


(Lang, 1929)

Metropolis - Fritz Lang

Separation into
“tower people” and
“underground people”

IN POPULAR CULTURE



IN POPULAR CULTURE



(Edwards, 1961)



BACHELOR(ETTE) PAD AS A CULTURAL ICON

BUILDINGS

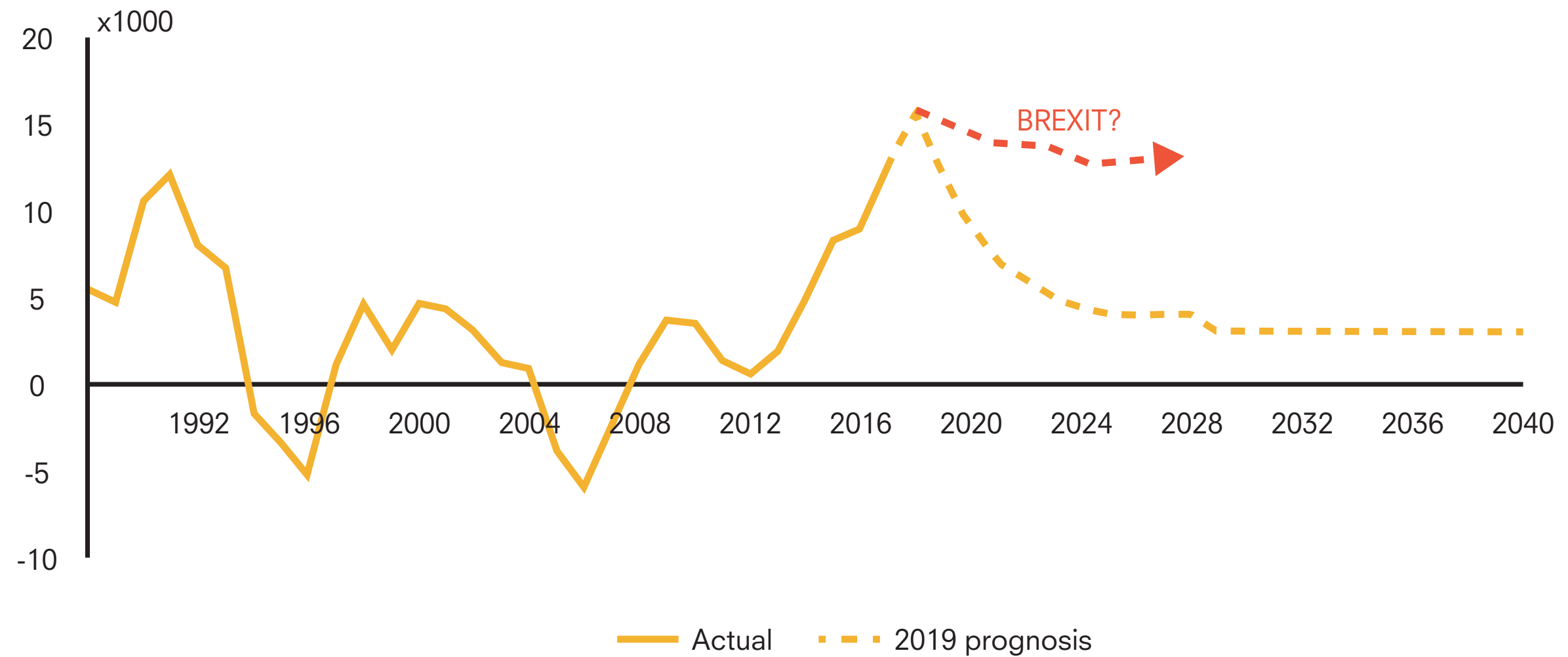
Metropolitan Living

PEOPLE

**Amsterdam groeit vooral
door komst van expats**

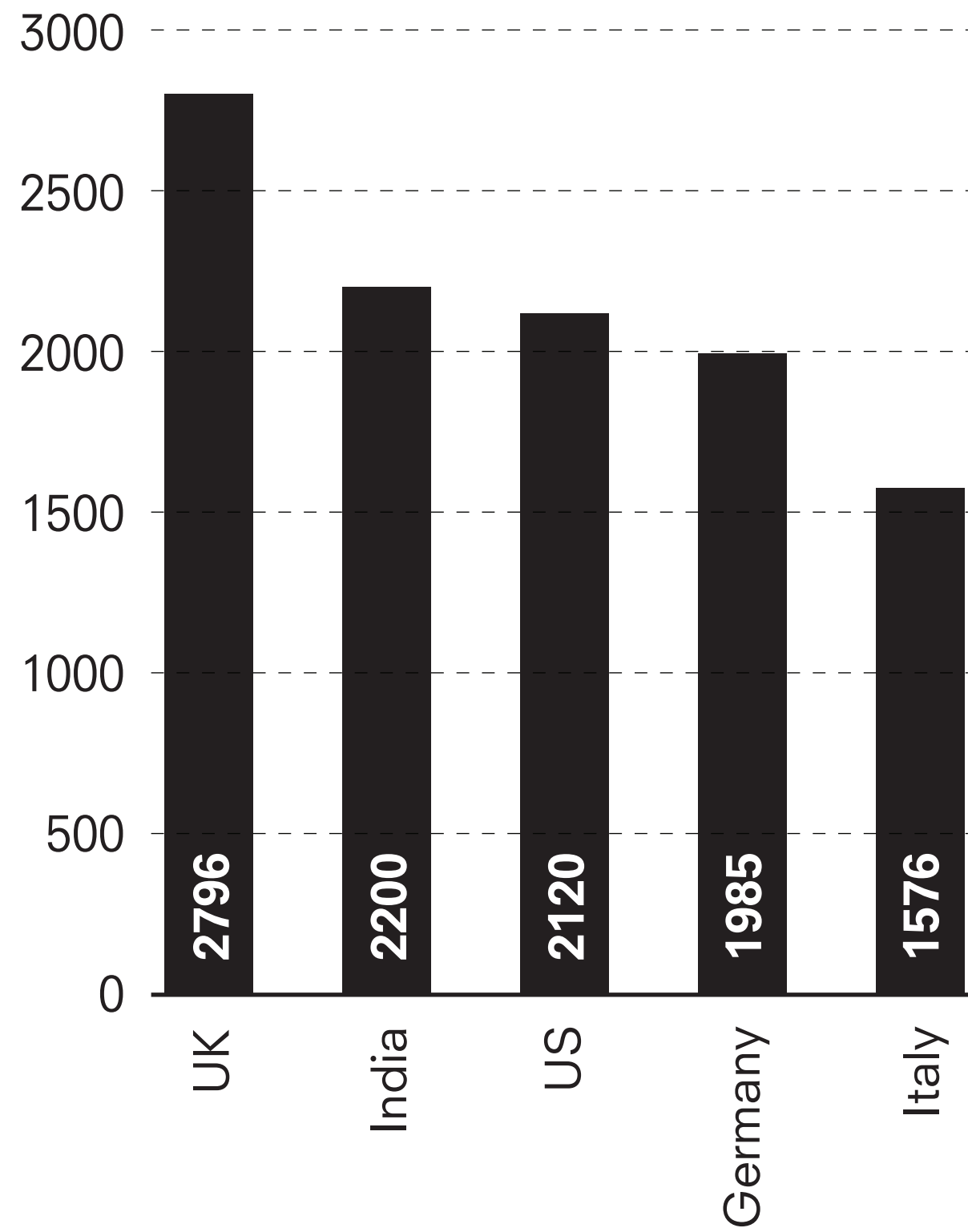
**Voor millennials is
Amsterdam de beste stad
om te wonen**

**Amsterdam moet
flexibele millennial
omarmen**



(Adapted from OIS, 2019)

NET MIGRATION

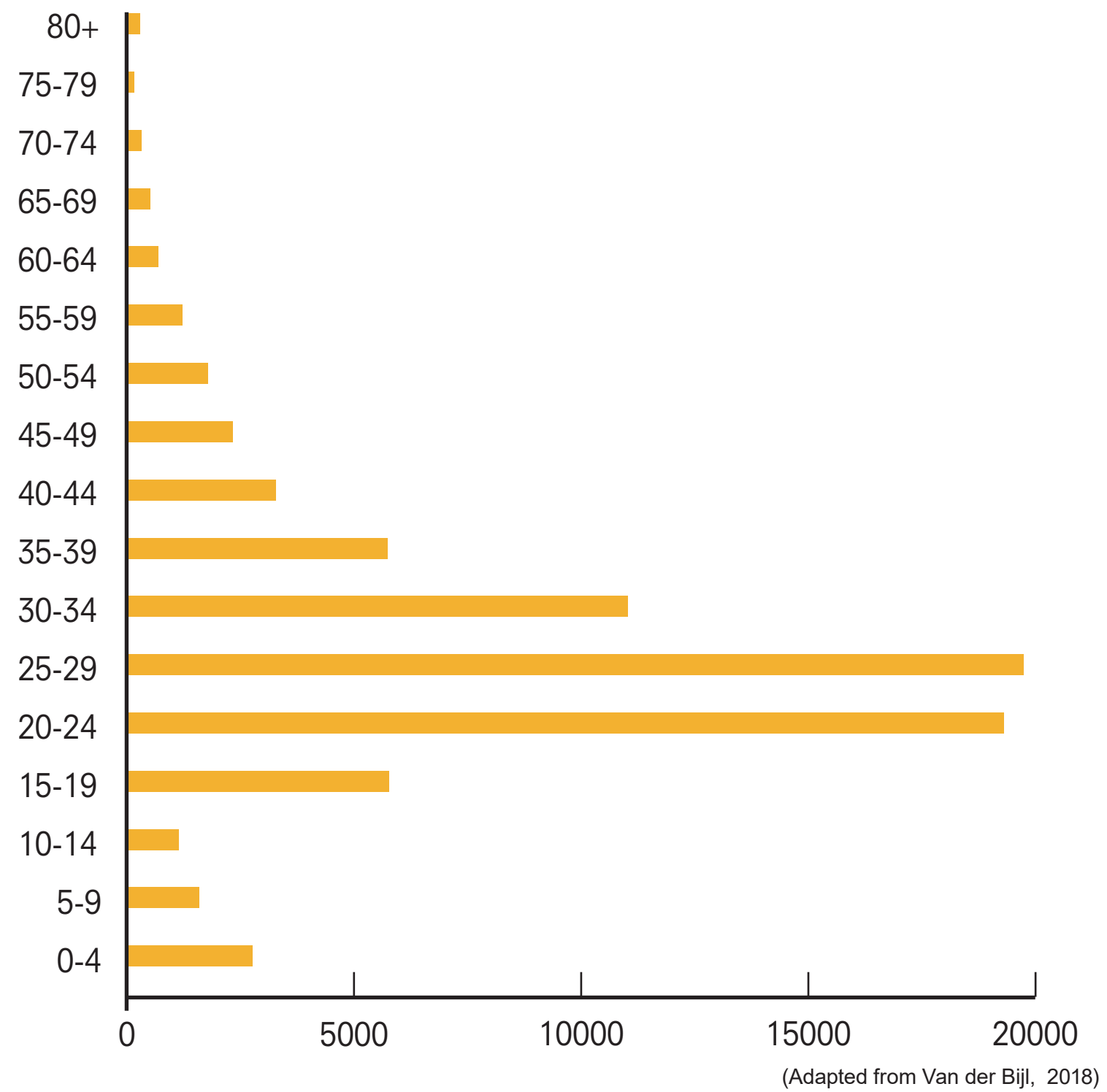


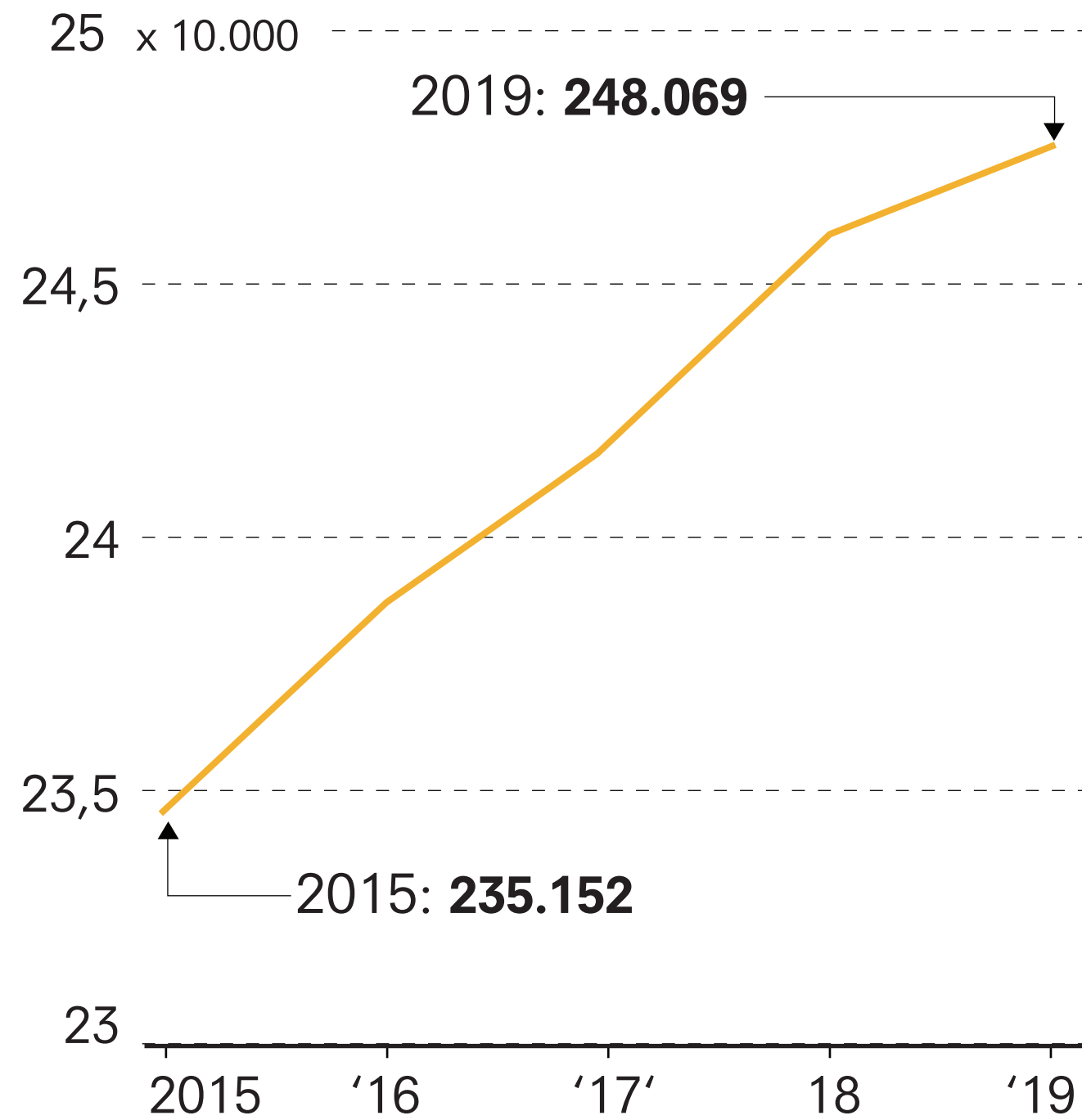
(adapted from van der Bijl, 2018)

Highly-educated and well-paid foreigners deemed beneficial to the knowledge-based economy in the Netherlands.

EXPATS

- Willing to spend more
- Top %10 'highly skilled migrants', earn more than four times the average Dutch income (140.000)
- First 90% makes 1.5 times the mean (48.000).
- lively and central neighborhood with amenities
- More likely to rent than to buy
- Majority one and two-person households
- typical dwelling is a one-bedroom apartment.





(Adapted from Van der Bijl, 2018)

MORE SINGLE HOUSEHOLDS

MILLENNIAL YOUNG PROFESSIONALS

1. RENT SMALL APARTMENTS (MORE MOBILE, MARKET IS TOO EXPENSIVE FOR BUYING)
2. EMPHASIS ON COMFORT AND AMENITIES (BUSY WORK/SOCIAL LIFE)
3. FLEXIBLE WORK, LIKES TO WORK FROM HOME, CAFE, NEIGHBORHOOD,
4. SOCIAL SPACES AND ACTIVITIES (RESIDENT'S LOUNGE, ACTIVITIES MANAGER)



**Larger
More populous
More dense
More high-rise
More amenities**



**International
Younger
More educated
More single
More wealthy
Lifestyle-oriented**

How can a high-rise building be designed to accommodate a contemporary metropolitan lifestyle?

Target Group

Expats (knowledge migrants)
Millennials (young professionals)
High-middle to high income 45.000-100.000+

Building mass

Two identical towers on podium

Building height

18 m podium
Up to 150 m tower (following master plan)

Dwellings

±100x Studio - 30 m²
±200x One-bedroom apartment - 45 to 60 m²
±80x Two-bedroom apartment - 80 to 110 m²
±30x Three-bedroom apartment - 110 m²
4x Penthouse

Podium

Lobby with concierge
Mail and package room
Co-working space
Bike storage
Commercial space
Café
Storage
Service entry
Parking

Access type

Elevator core with 3 elevators + corridor
Fire Stairs in core and at end of corridor

Parking

Automated parking in central part of podium
parking ratio of 0.1 + Shared cars

Structure

Structural core + columns
Standard bay width: 7200 mm

Facade

Formal facade with industrial look

Other Amenities

Roof garden on top of podium
Sky deck on 24th floor of both towers
Resident lounge
Health club with pool
Storage

Historic analysis of metropolitan apartment living shows that it is characterized by a certain degree of luxury and sophistication.

Exterior appearance:

The exterior of the building emanates luxury through its formal expression and its materials. Stone, polished metal and glass are often used.

Entrance, plinth and lobby:

Entrance and lobby are spacious, tall, well materialized and detailed, furnished with design furniture and art. It gives off an aura of status to those who enter or pass by. Depending on the level of luxury, the lobby has a doorman, for part of the day or for 24 hours.

Dwelling

Layout should be spacious and flexible. The materials are of high quality. The finishing and outfitting of the kitchen and bathroom are also important. One bathroom for each bedroom is common.

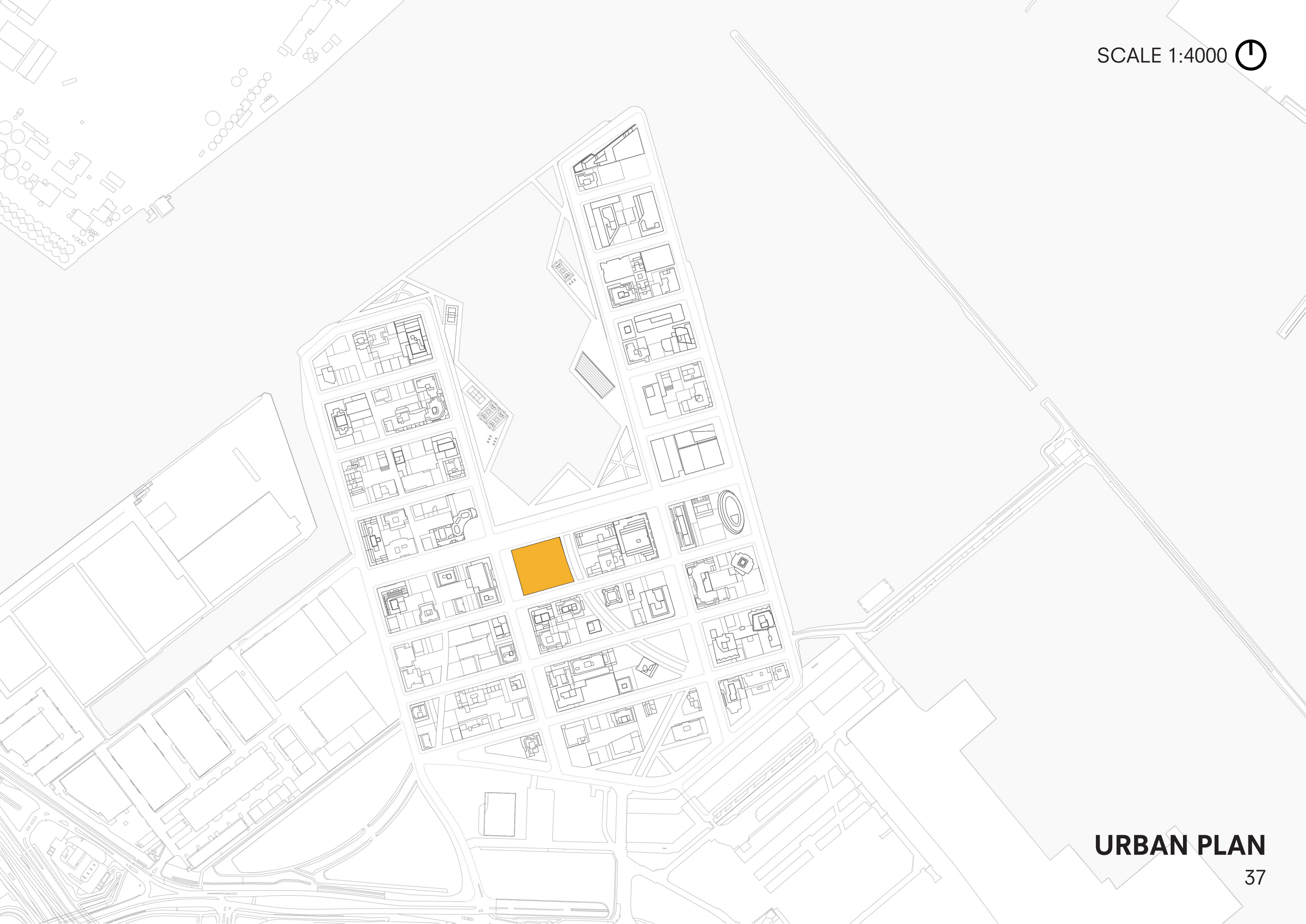
Amenities and services

- Communal gardens, roof terraces, grill areas, health club with gym, pool, sauna and other sports and care facilities like yoga
- Entertainment in screening rooms, activities rooms
- Caretakers, laundry service
- Separate guest rooms
- Home and building automatics
- Serviced apartments

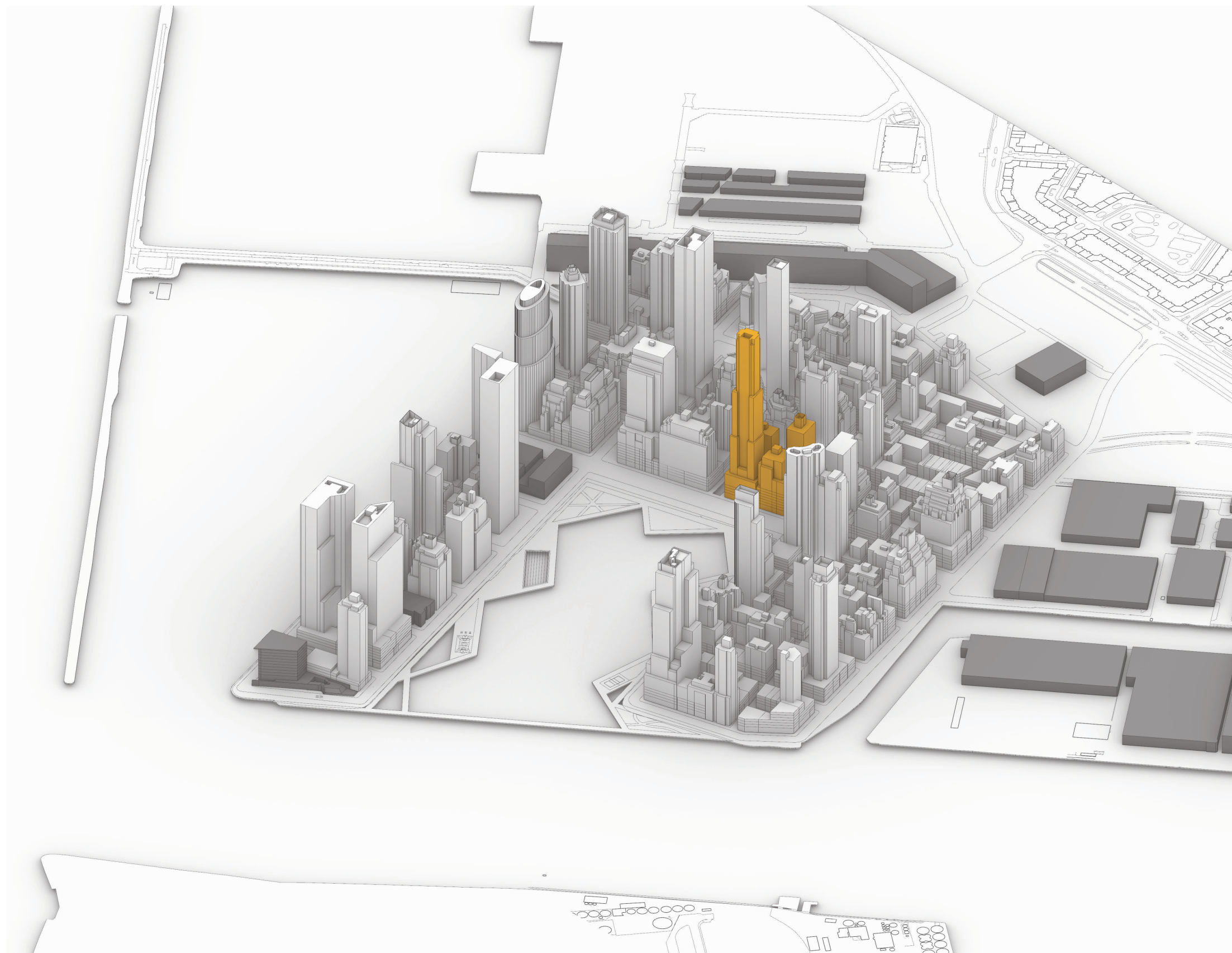




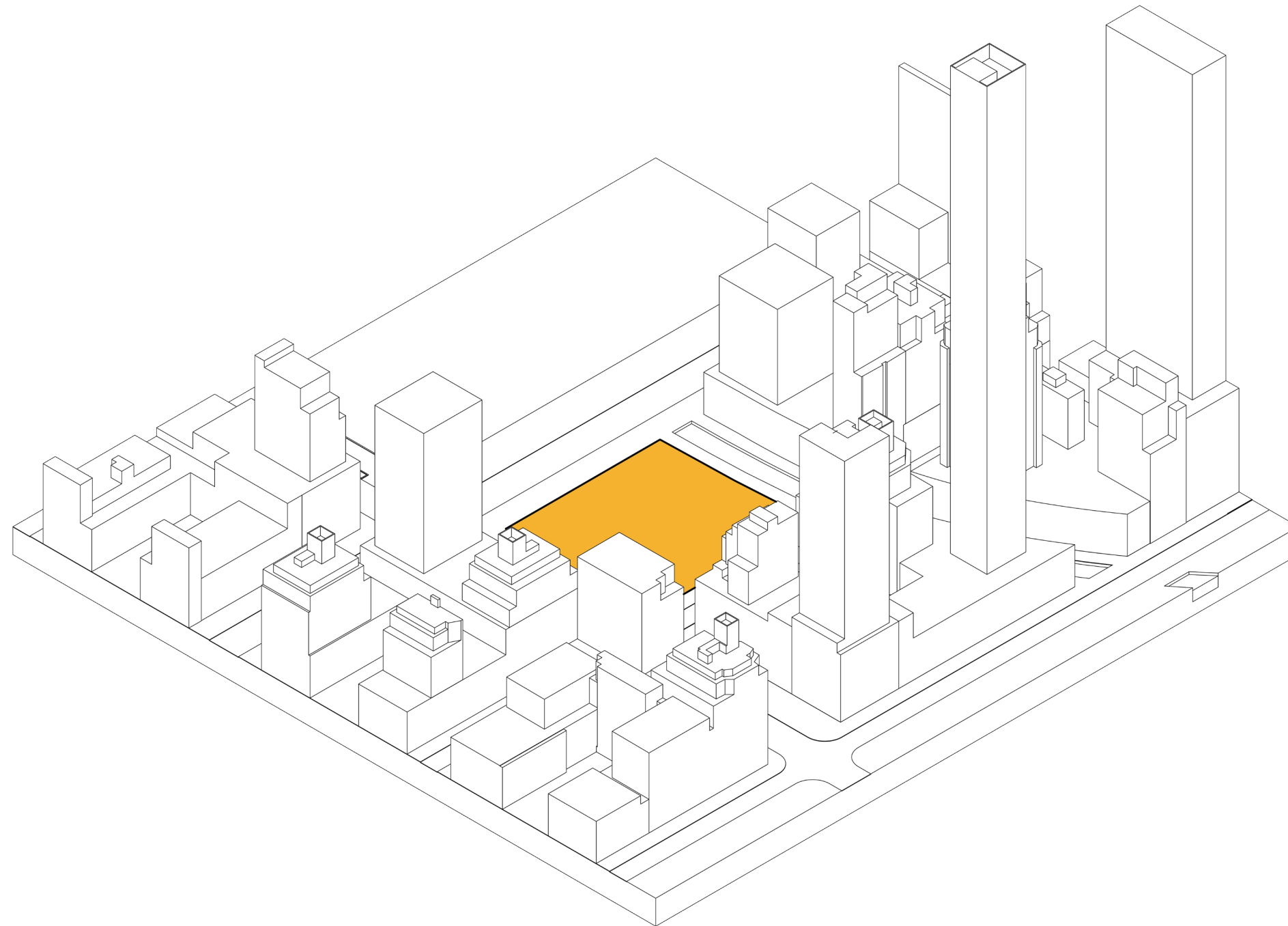
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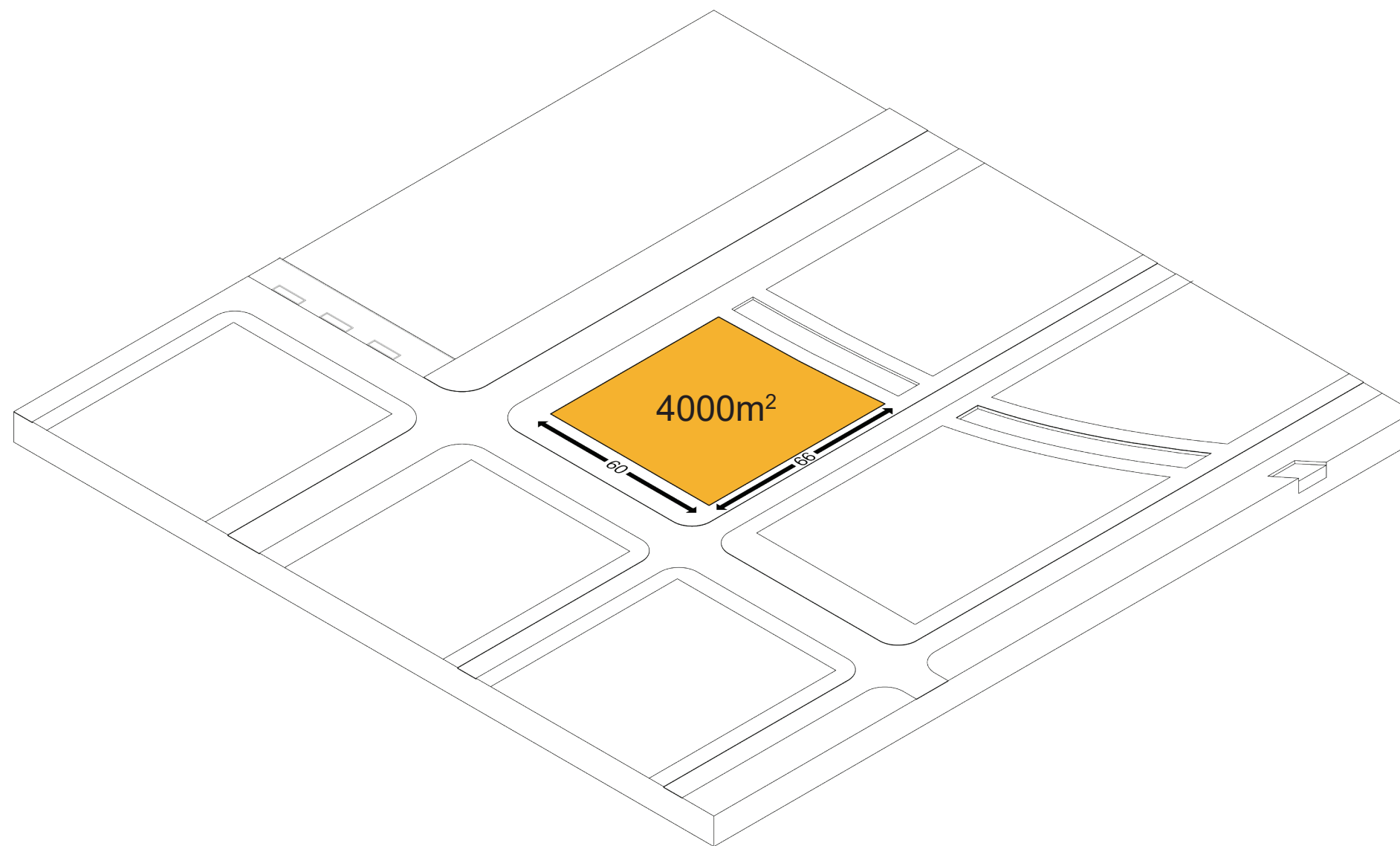
URBAN PLAN



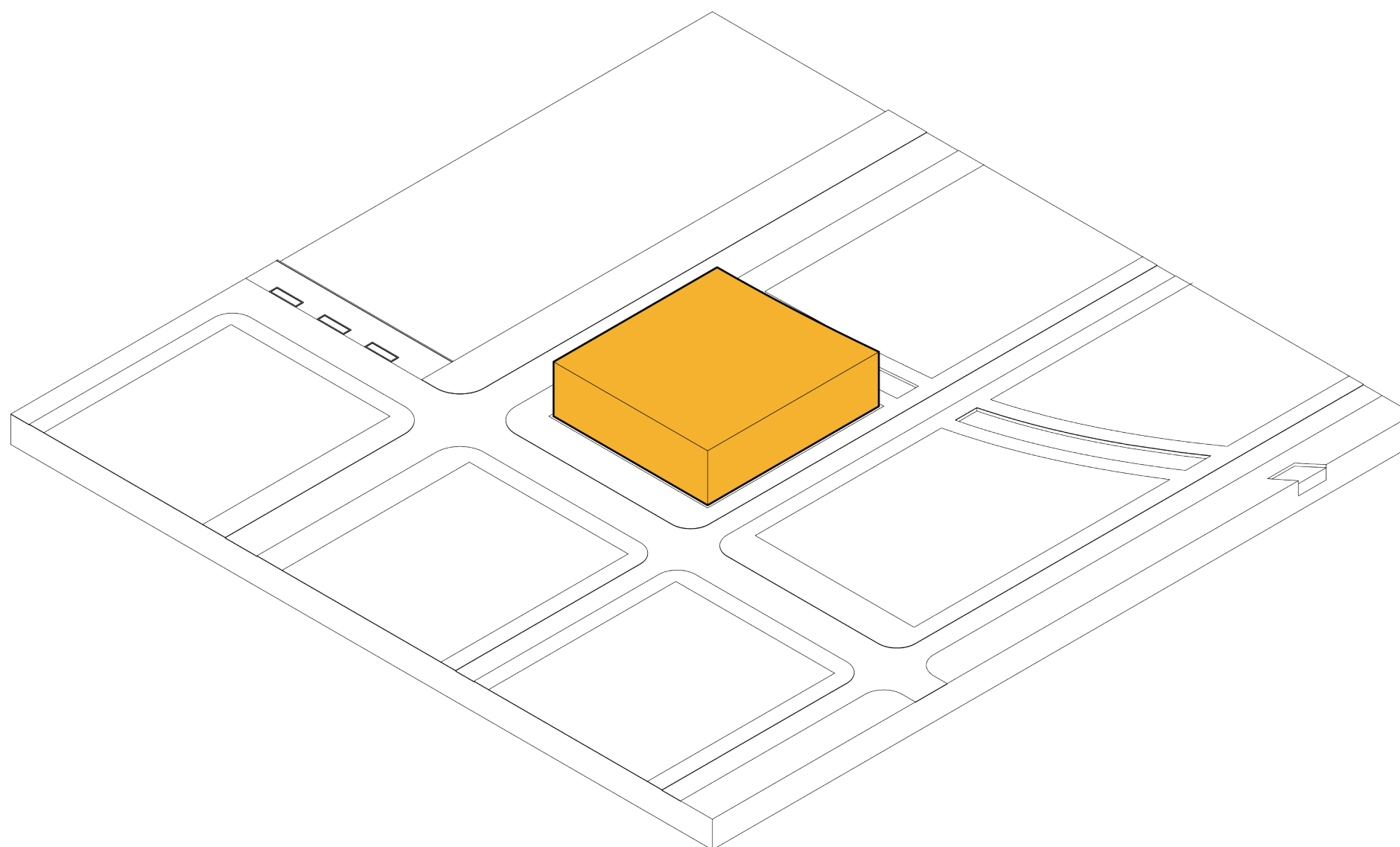
Manhattan aan het IJ



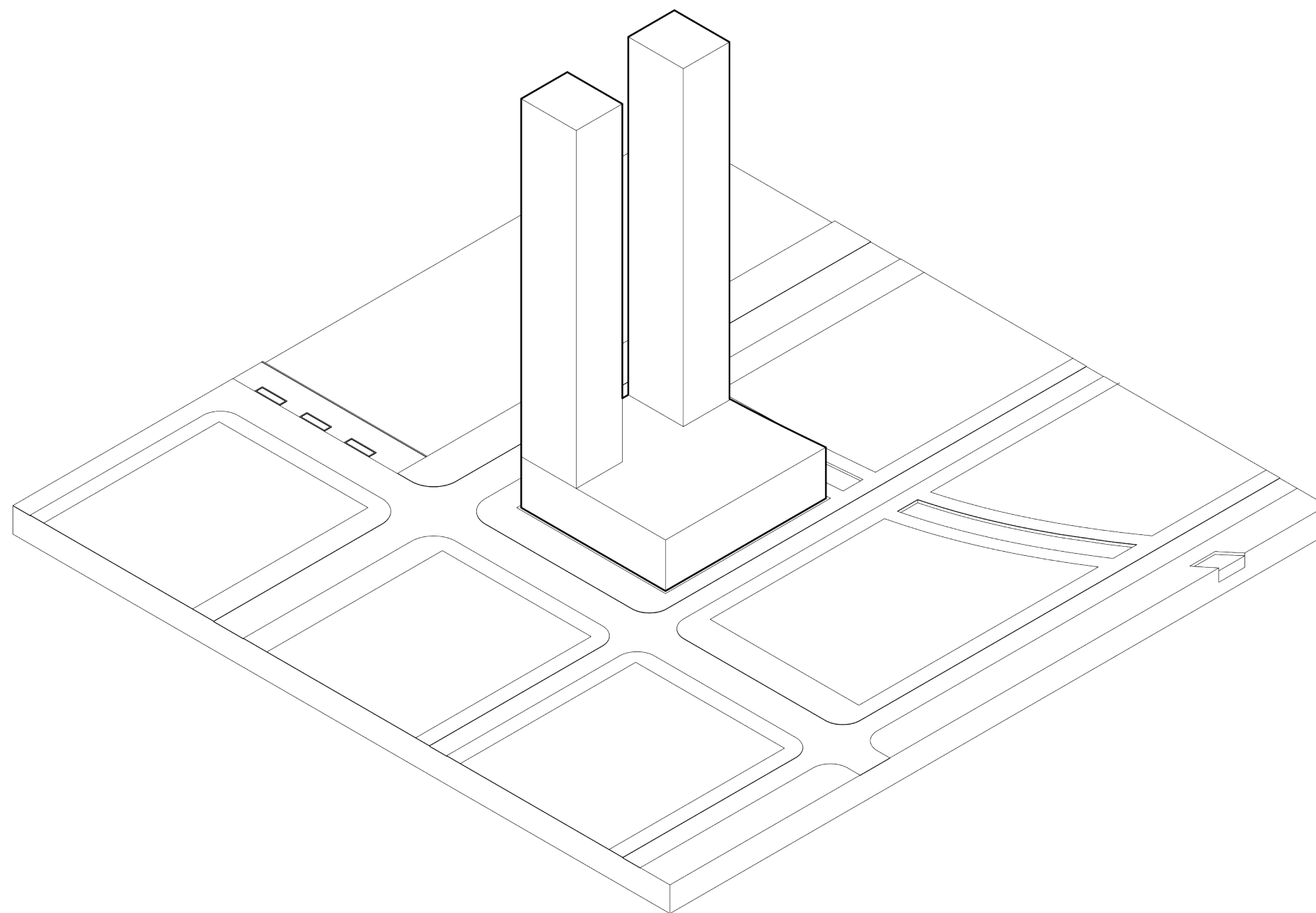
CONCEPT



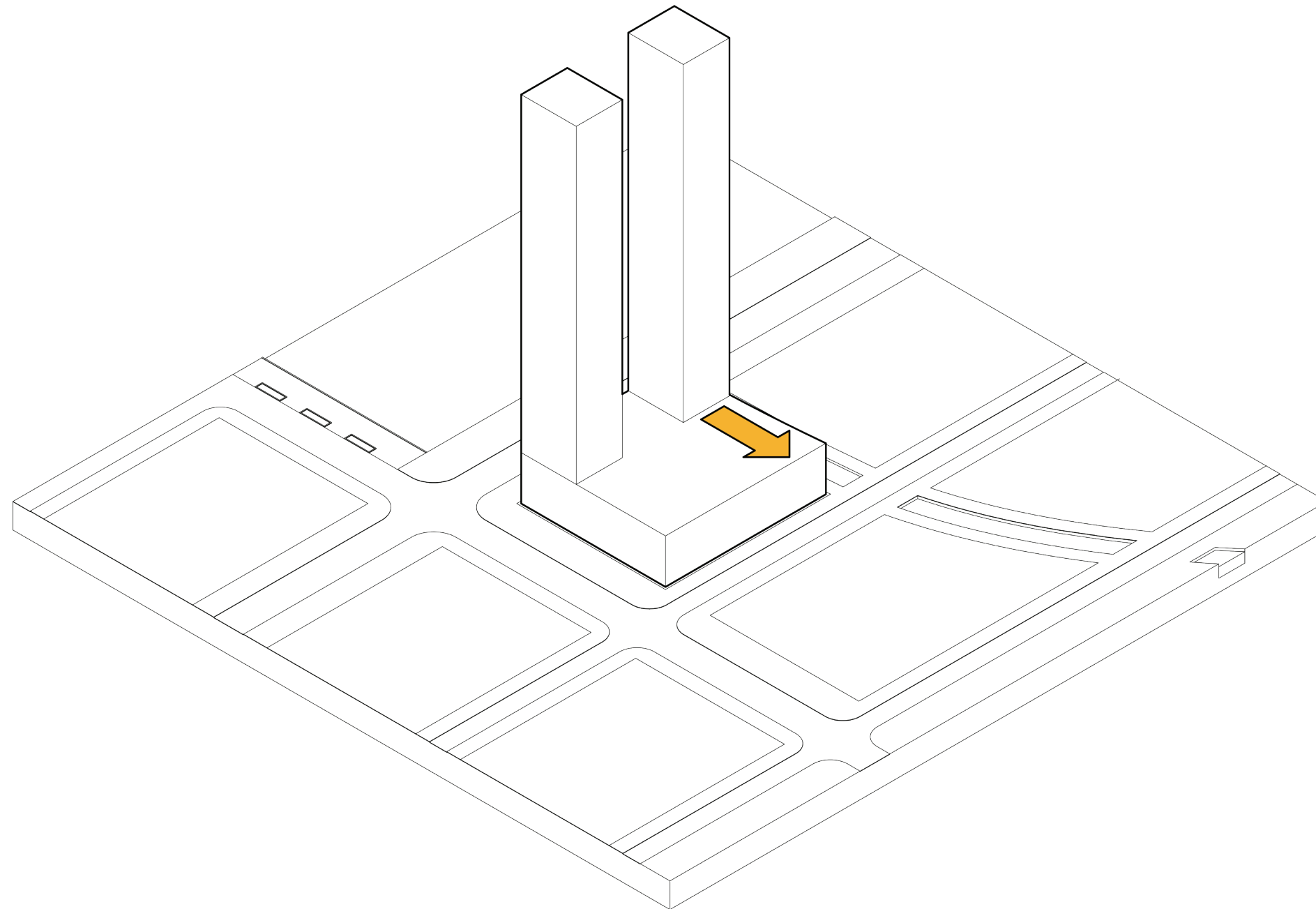
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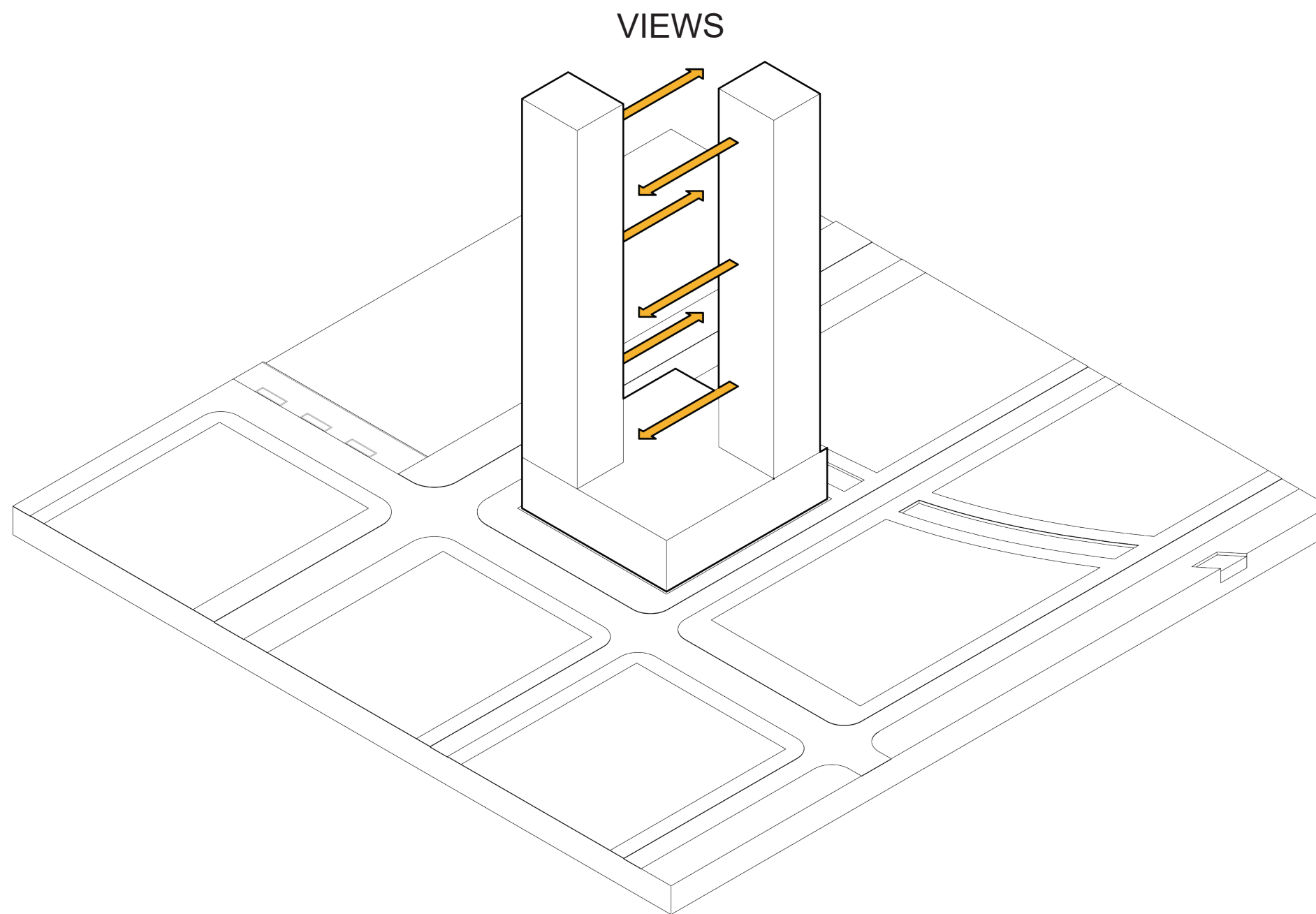
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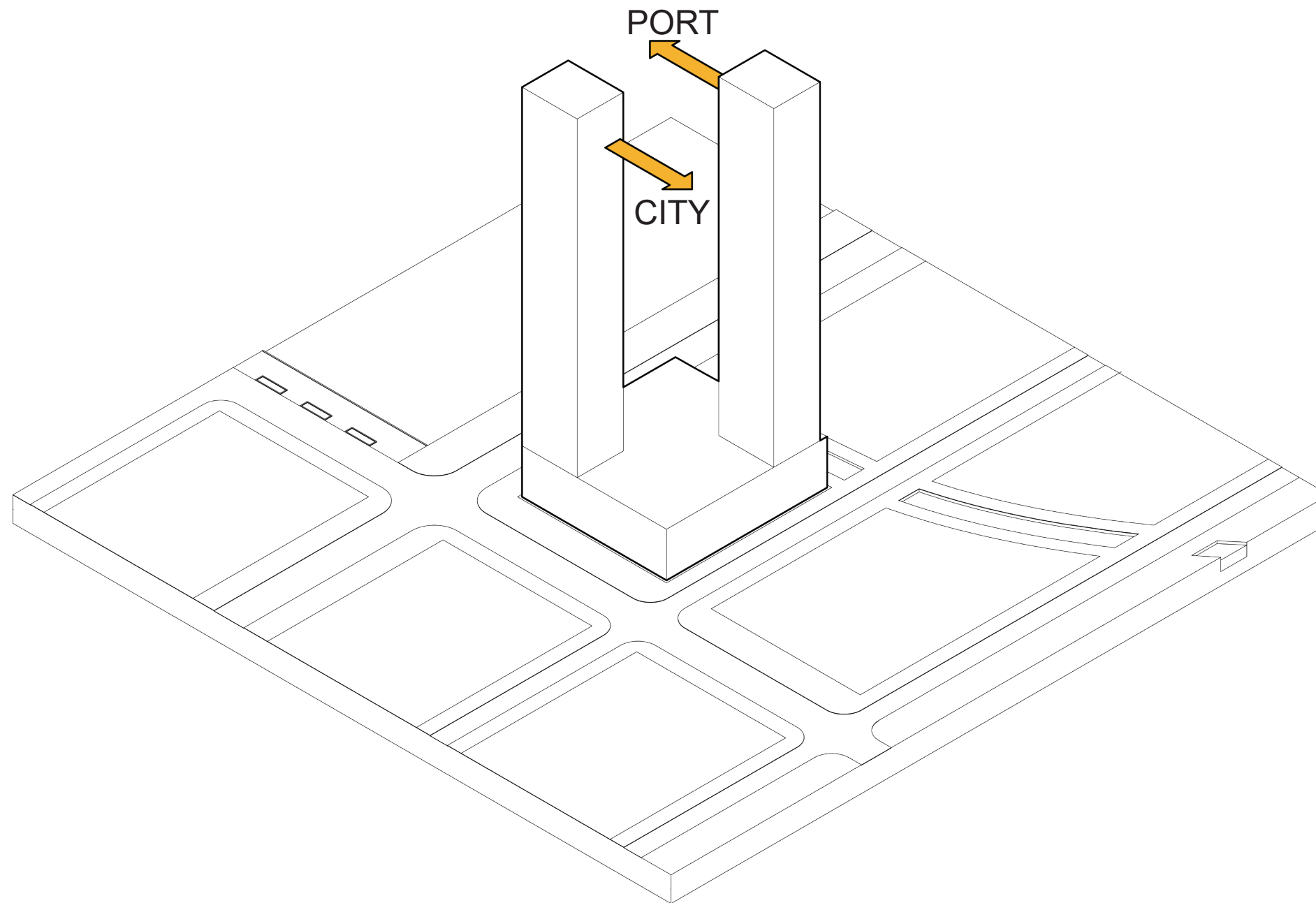
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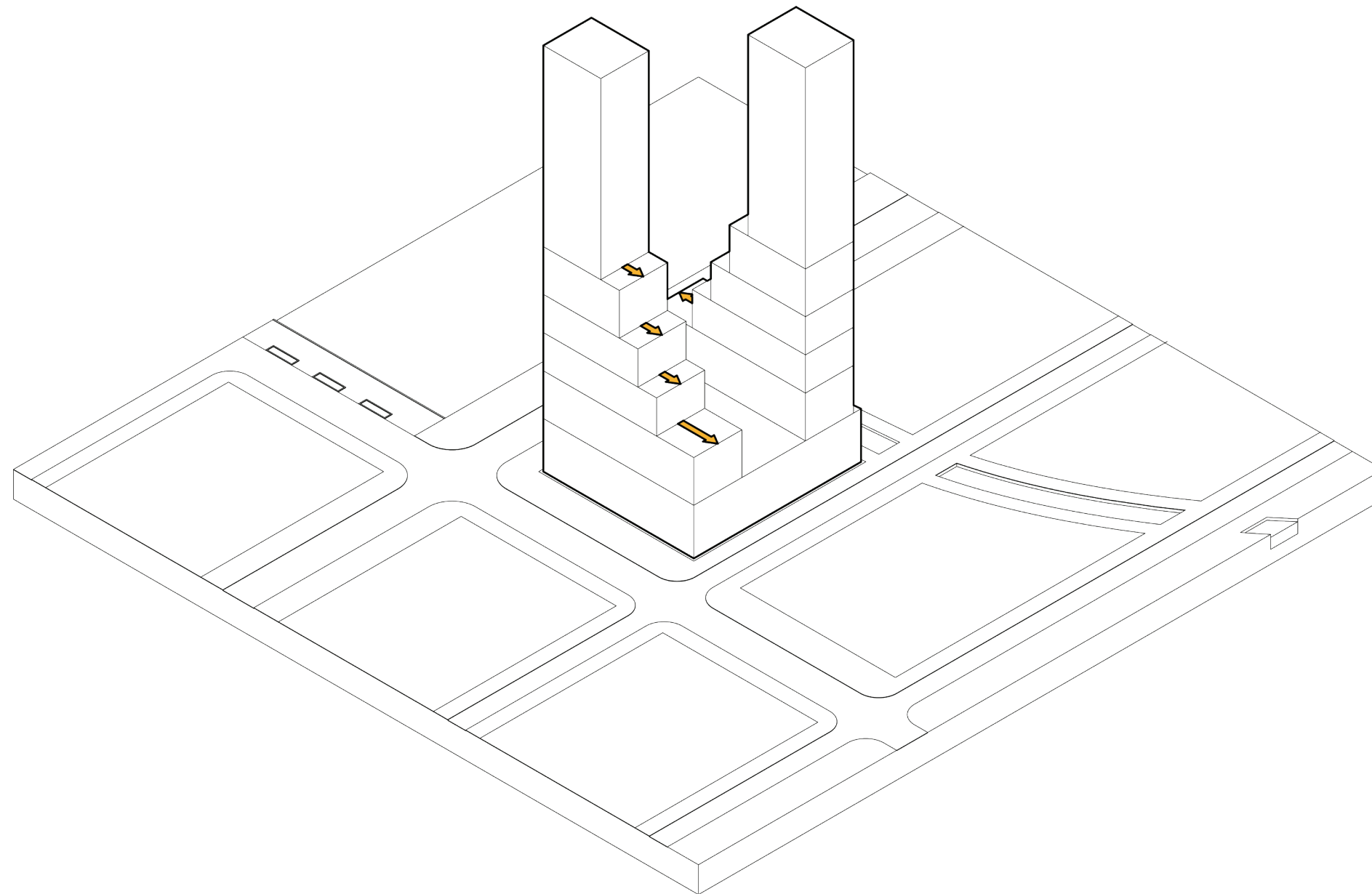
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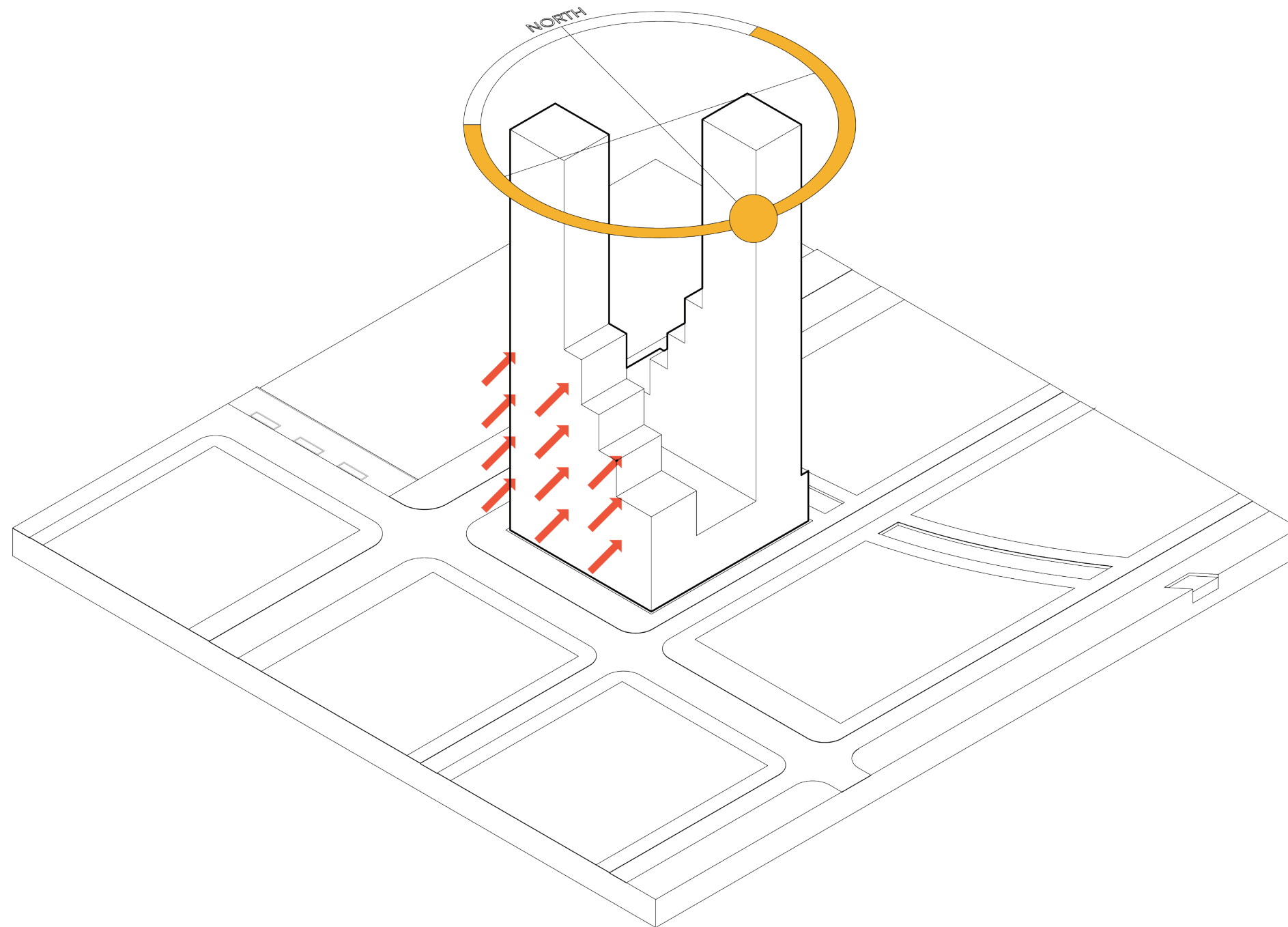
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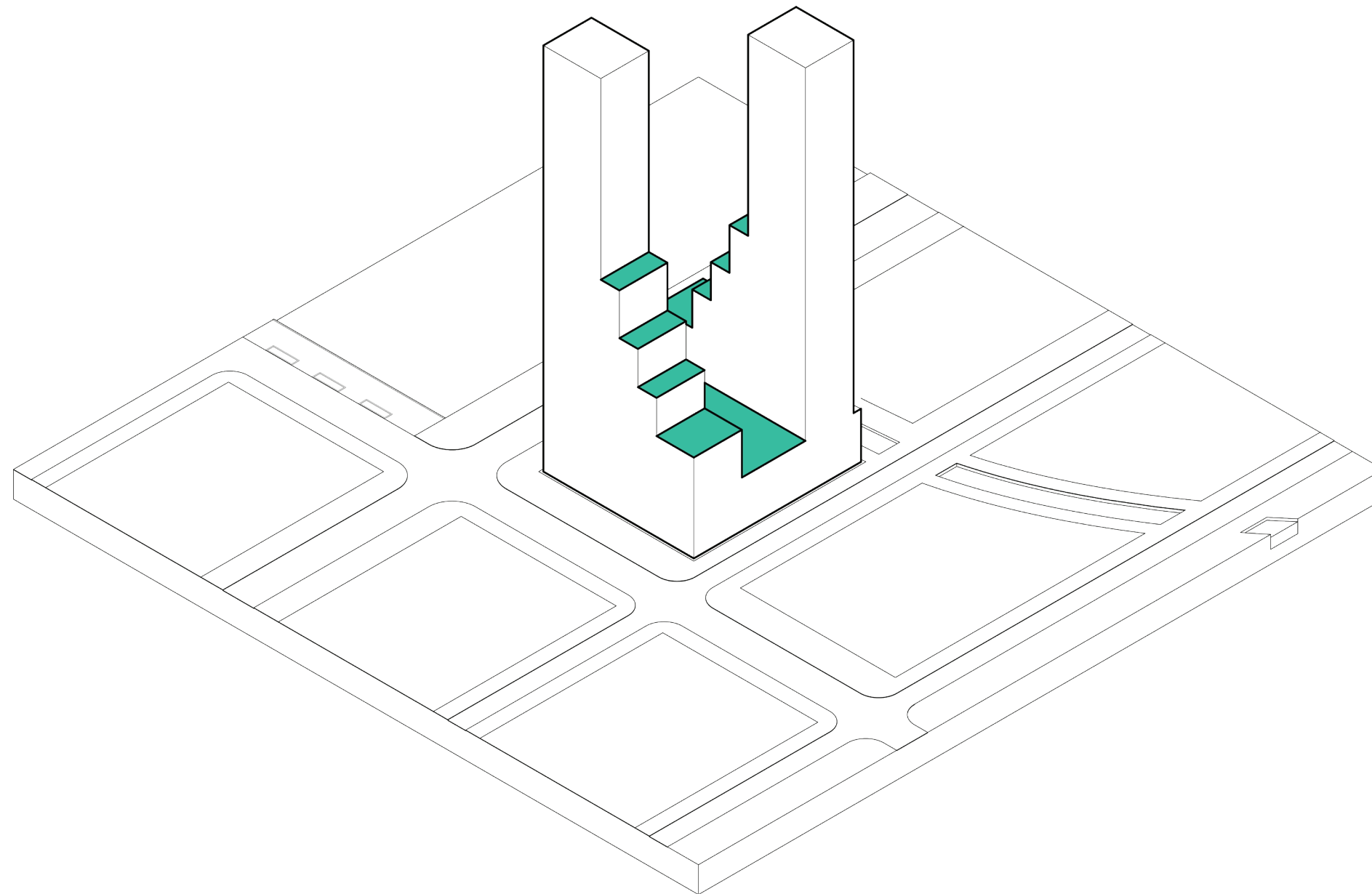
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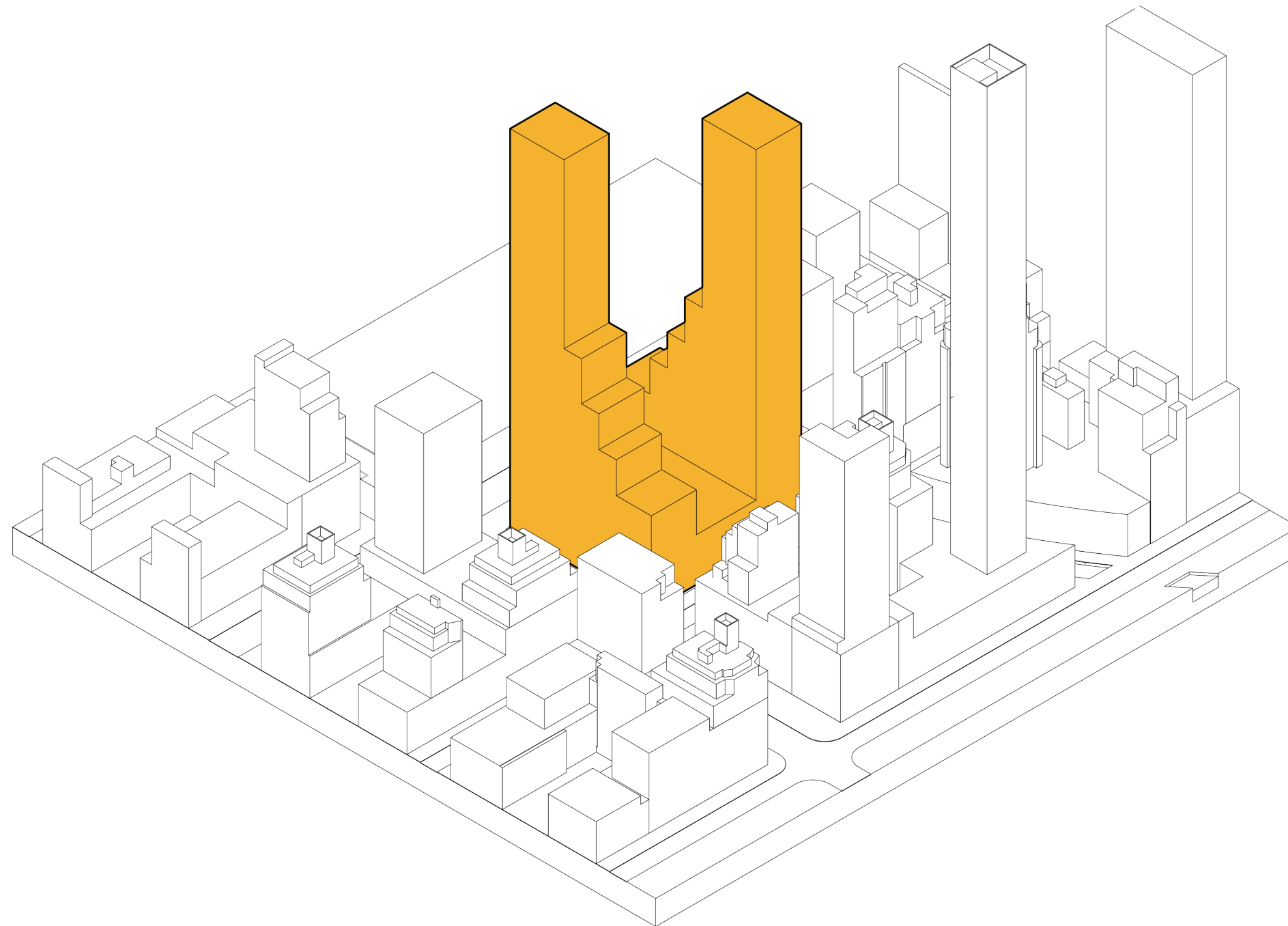
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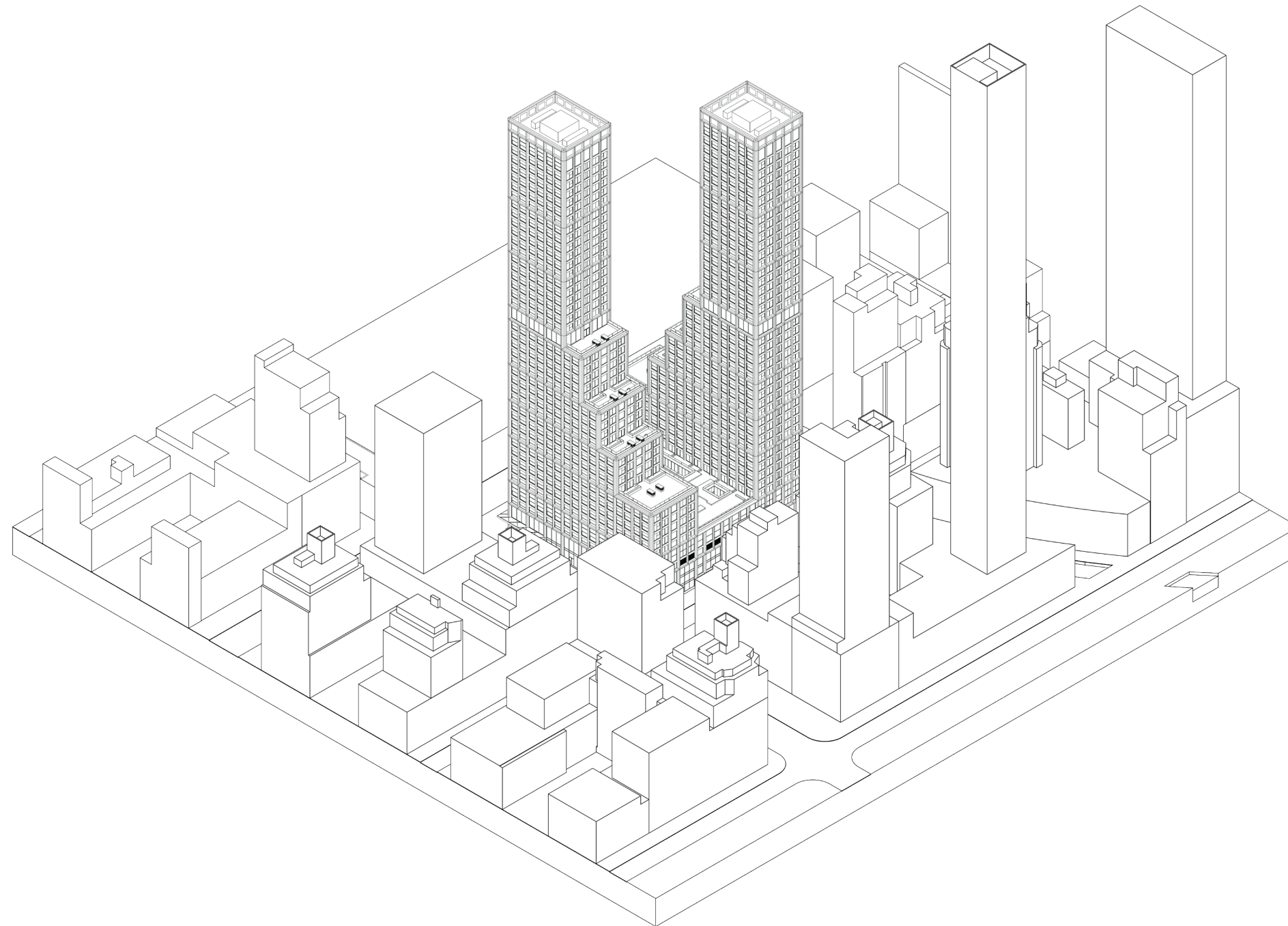
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CONCEPT



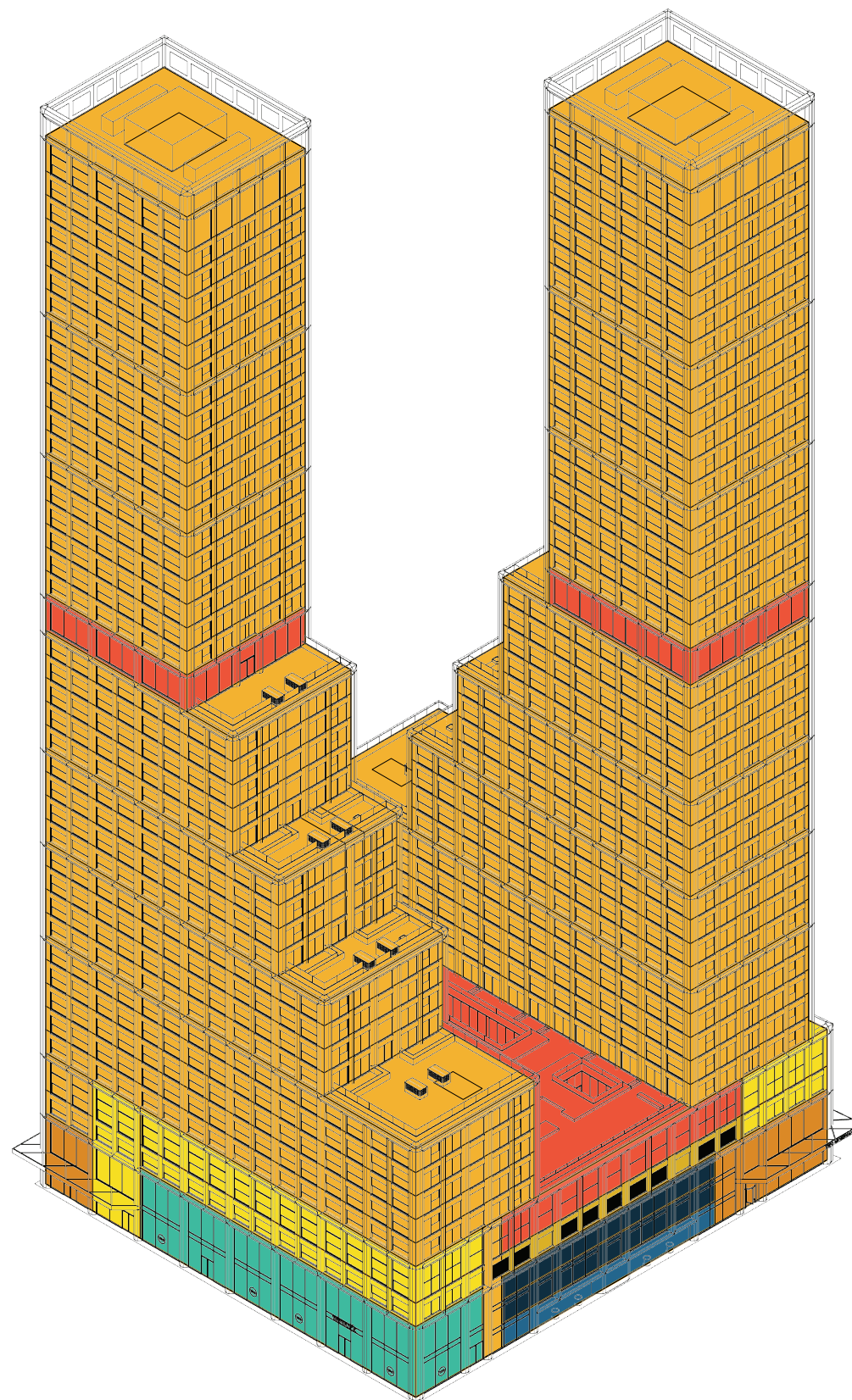
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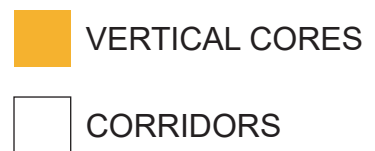
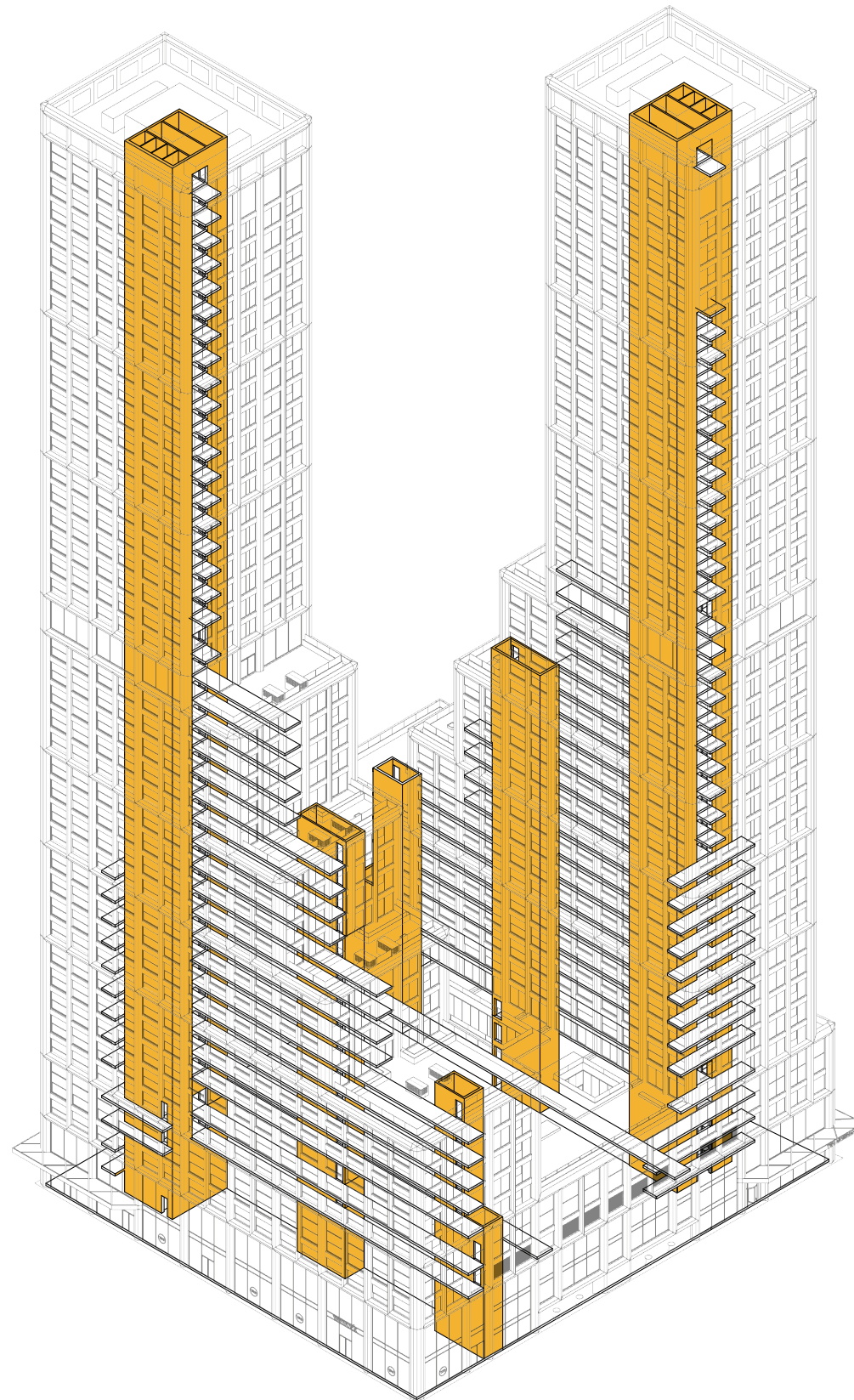
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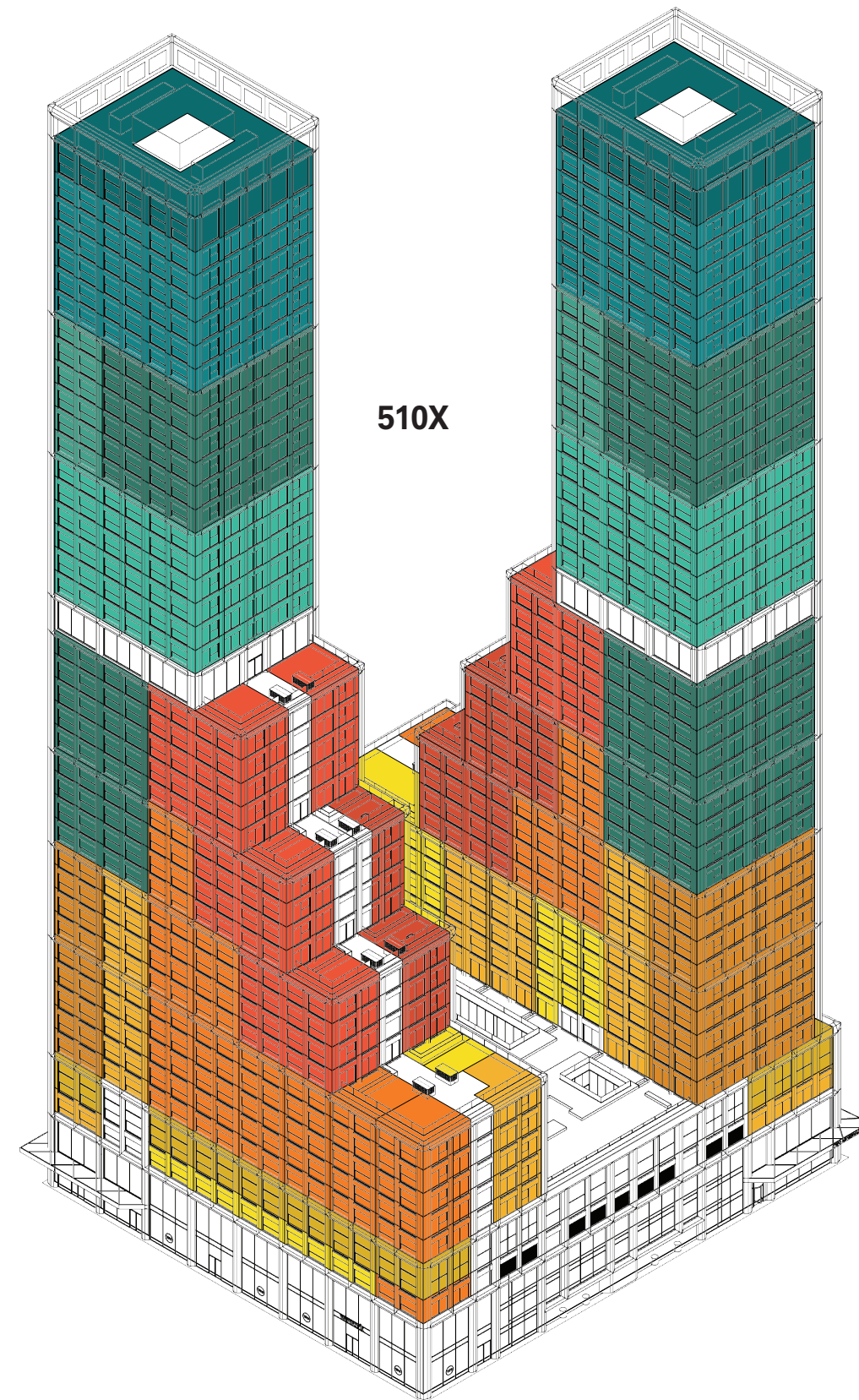
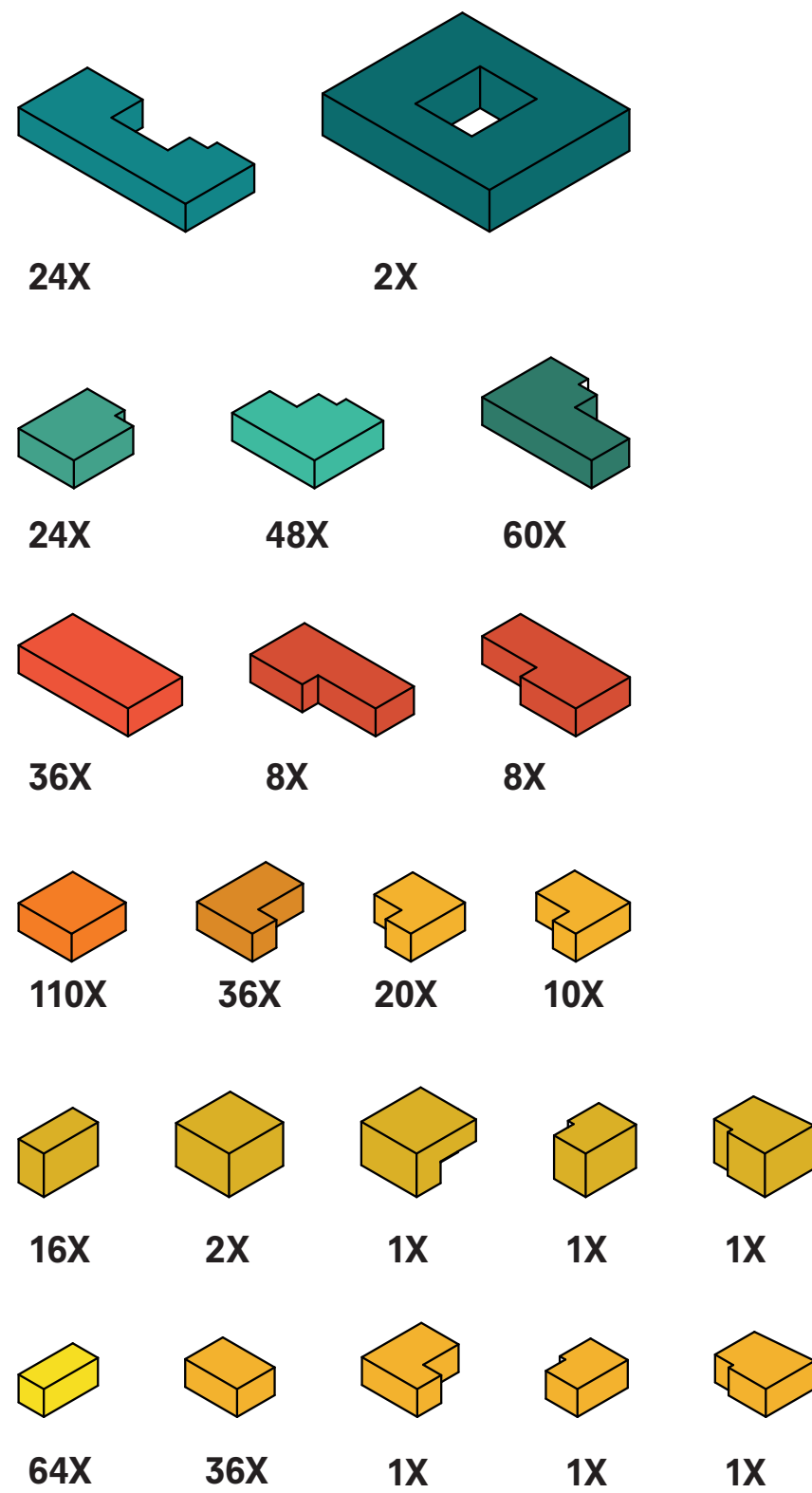
- RESIDENTIAL
- SHORT-STAY
- AMENITIES
- COMMERCIAL
- CAR PARKING
- BICYCLE PARKING



PROGRAM

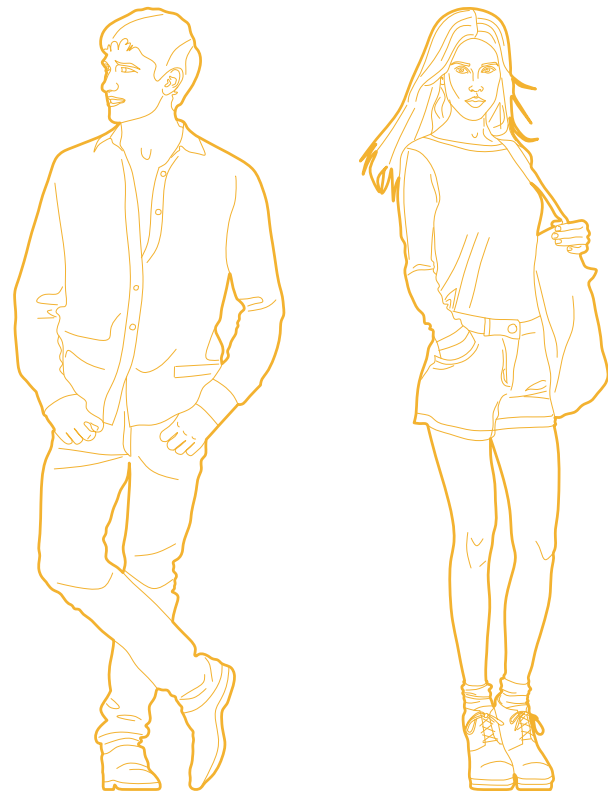


ACCESS

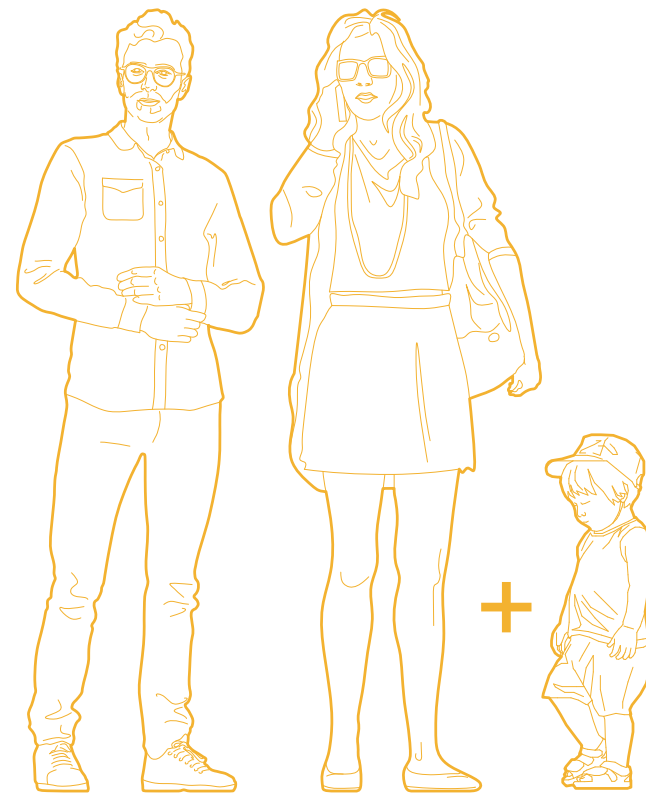


DWELLING TYPES

HOW DO THEY USE THE BUILDING?



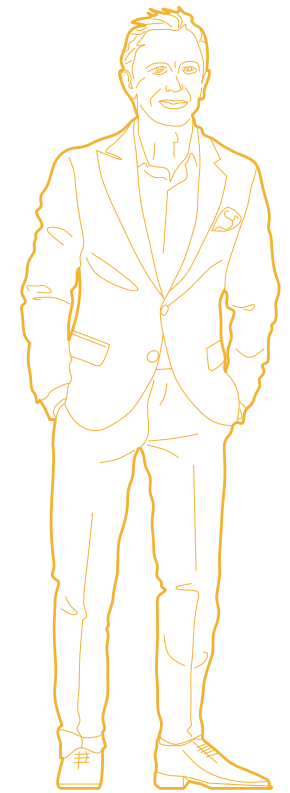
YOUNG BACHELORS



COUPLE (WITH CHILD)

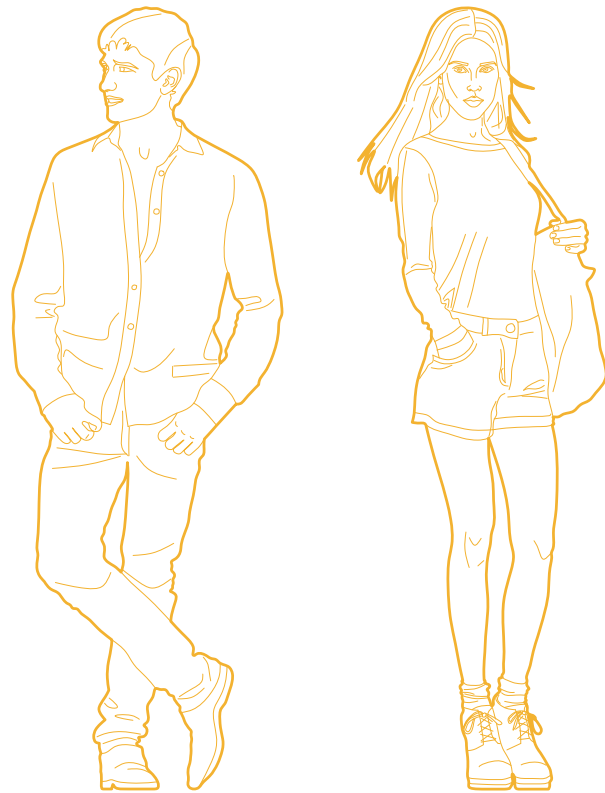


BUSINESSMAN



EXECUTIVE/
CELEBRITY

YOUNG BACHELORS

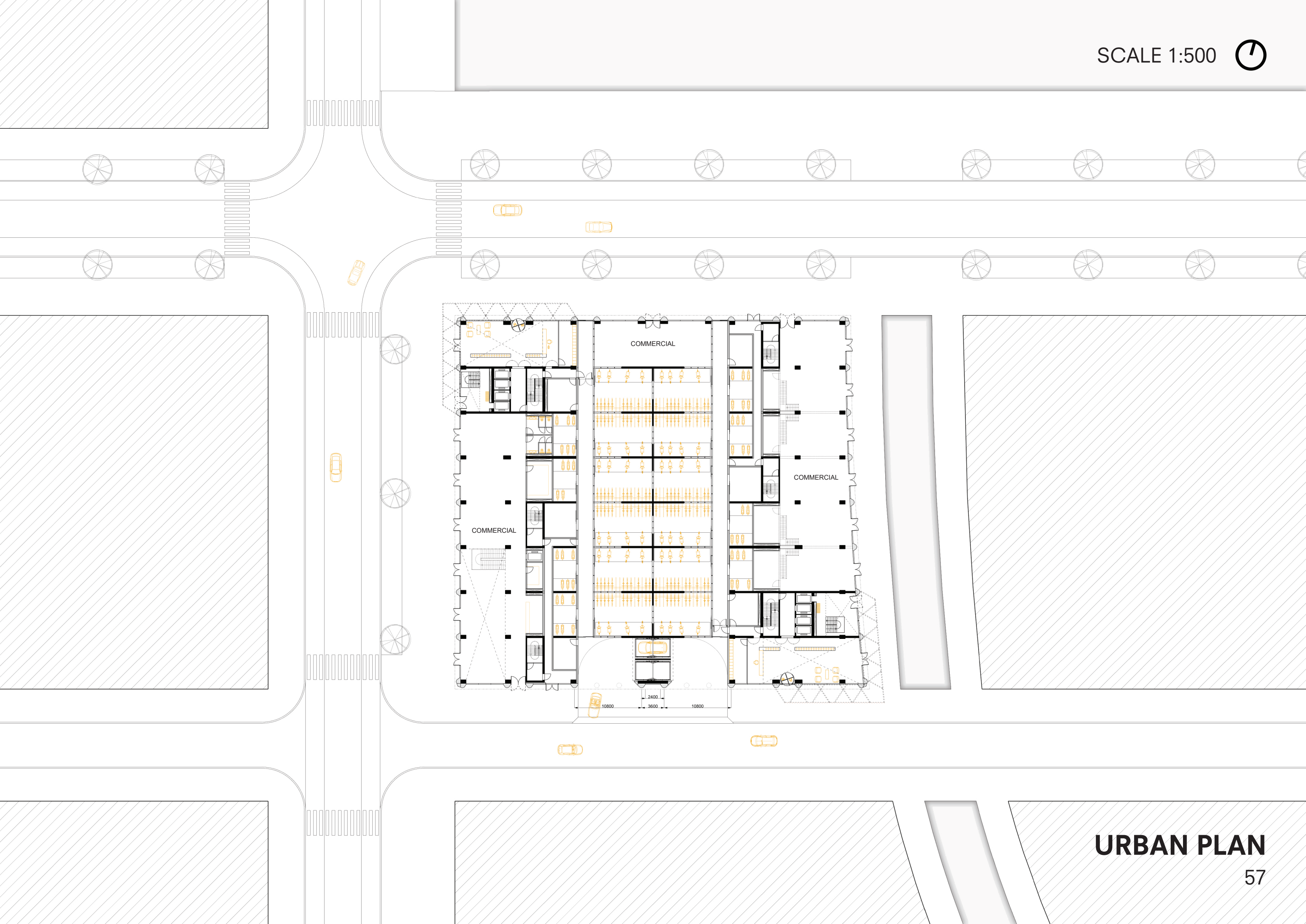


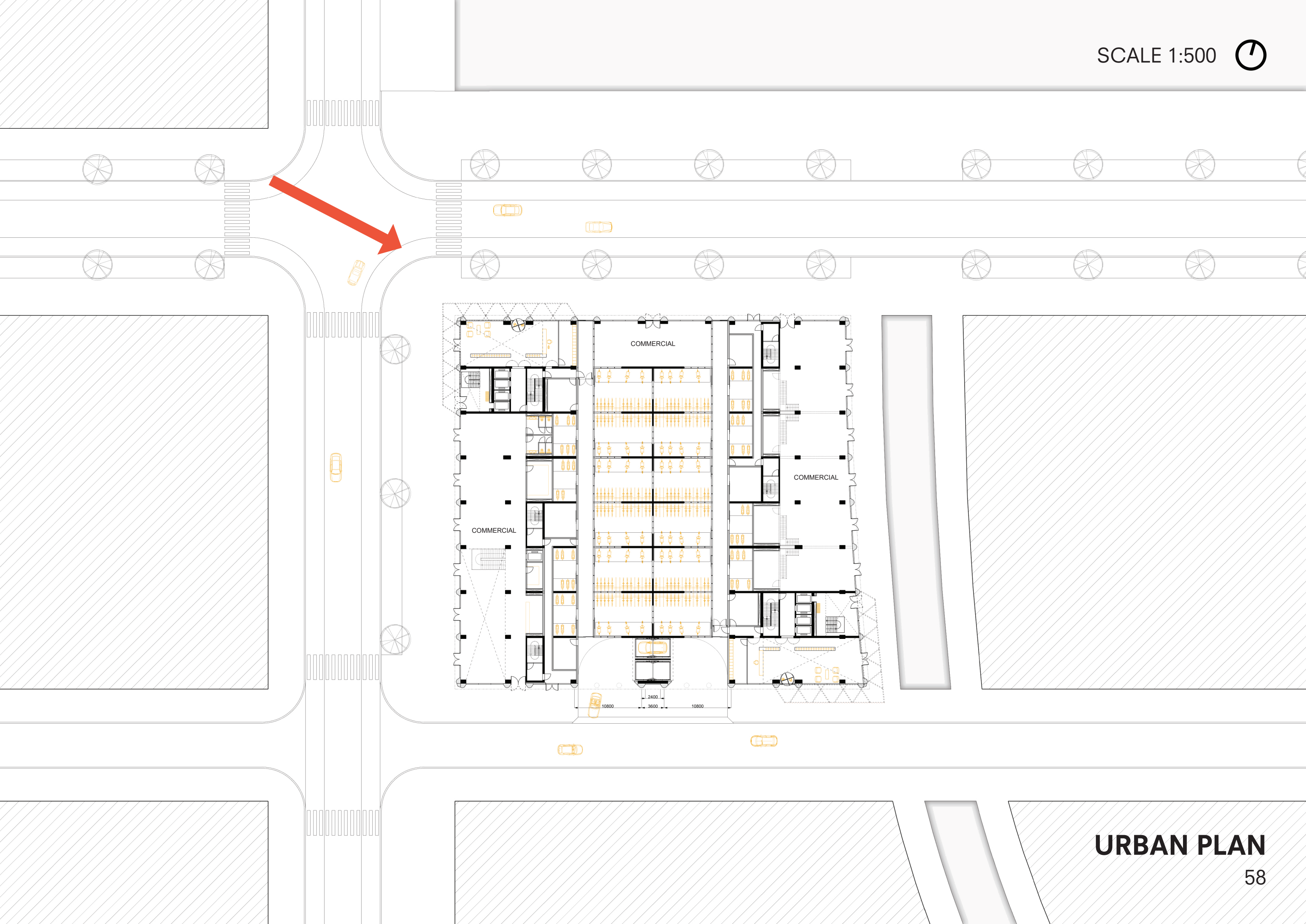
Work: tech & creative industry

Mode of transport: bike, public transport

Dwelling types: studio or compact 1-bedroom

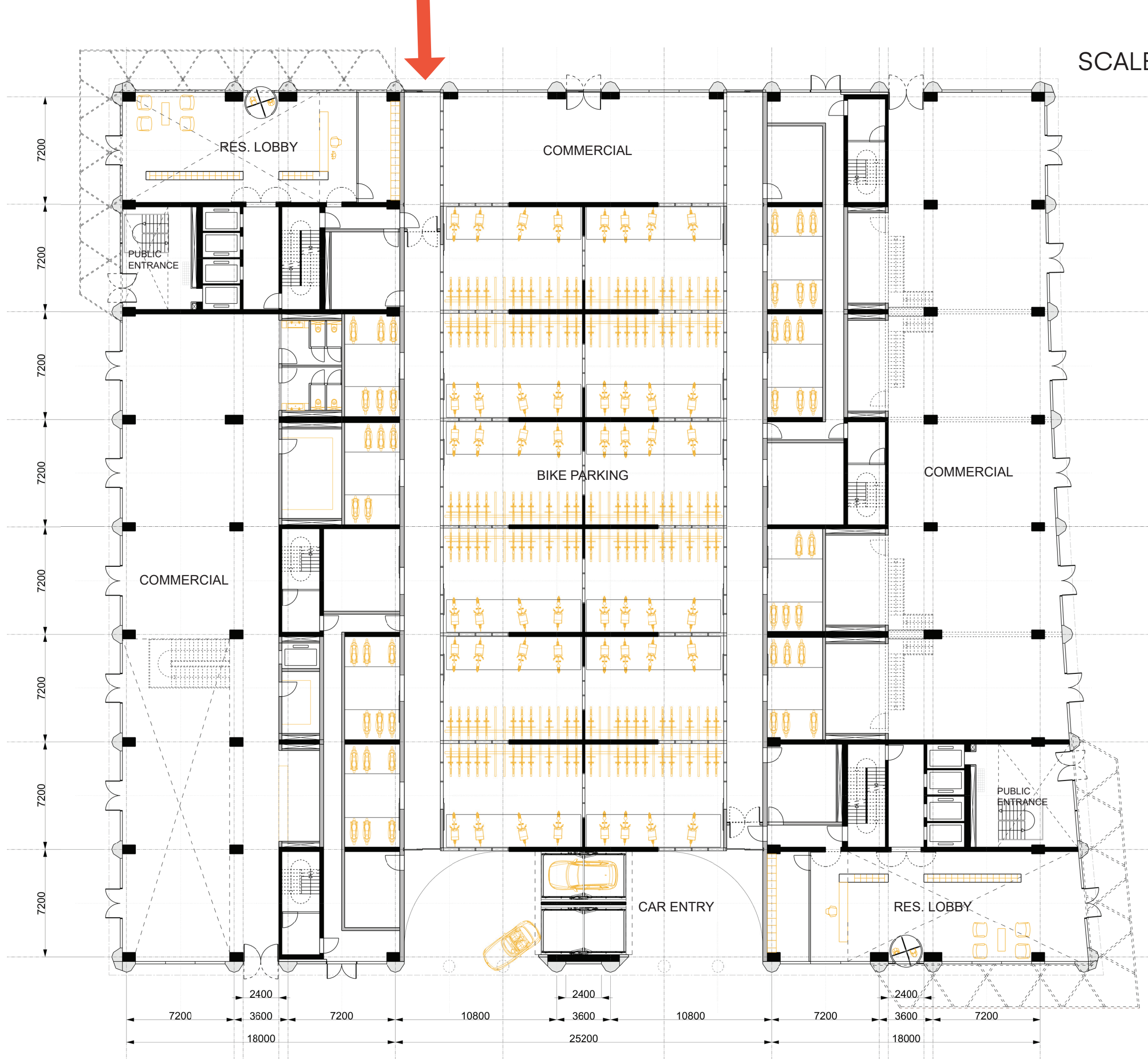
Characteristics: social, shared amenities



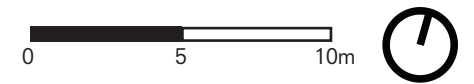








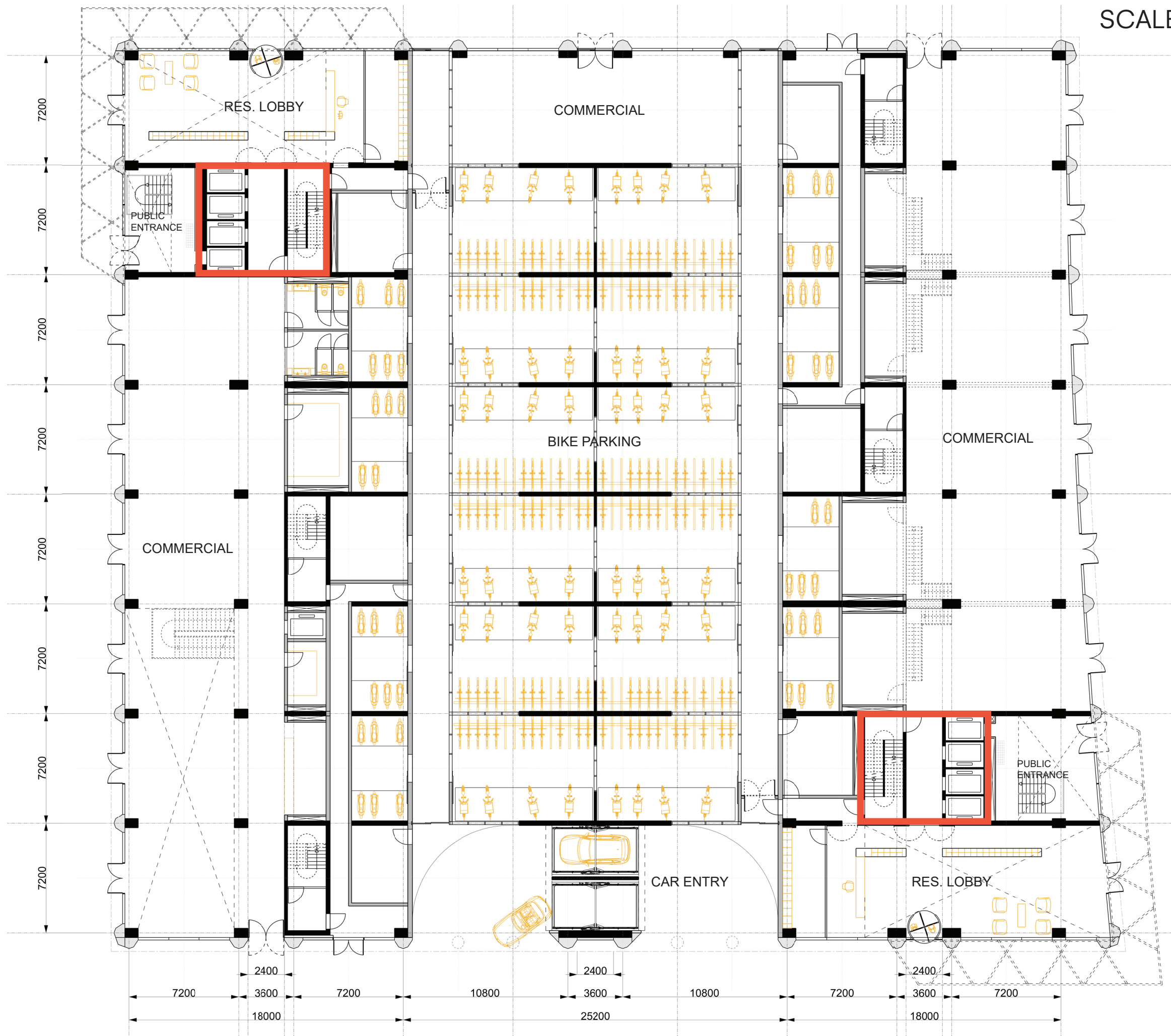
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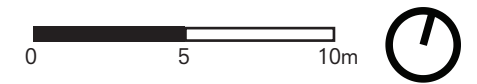




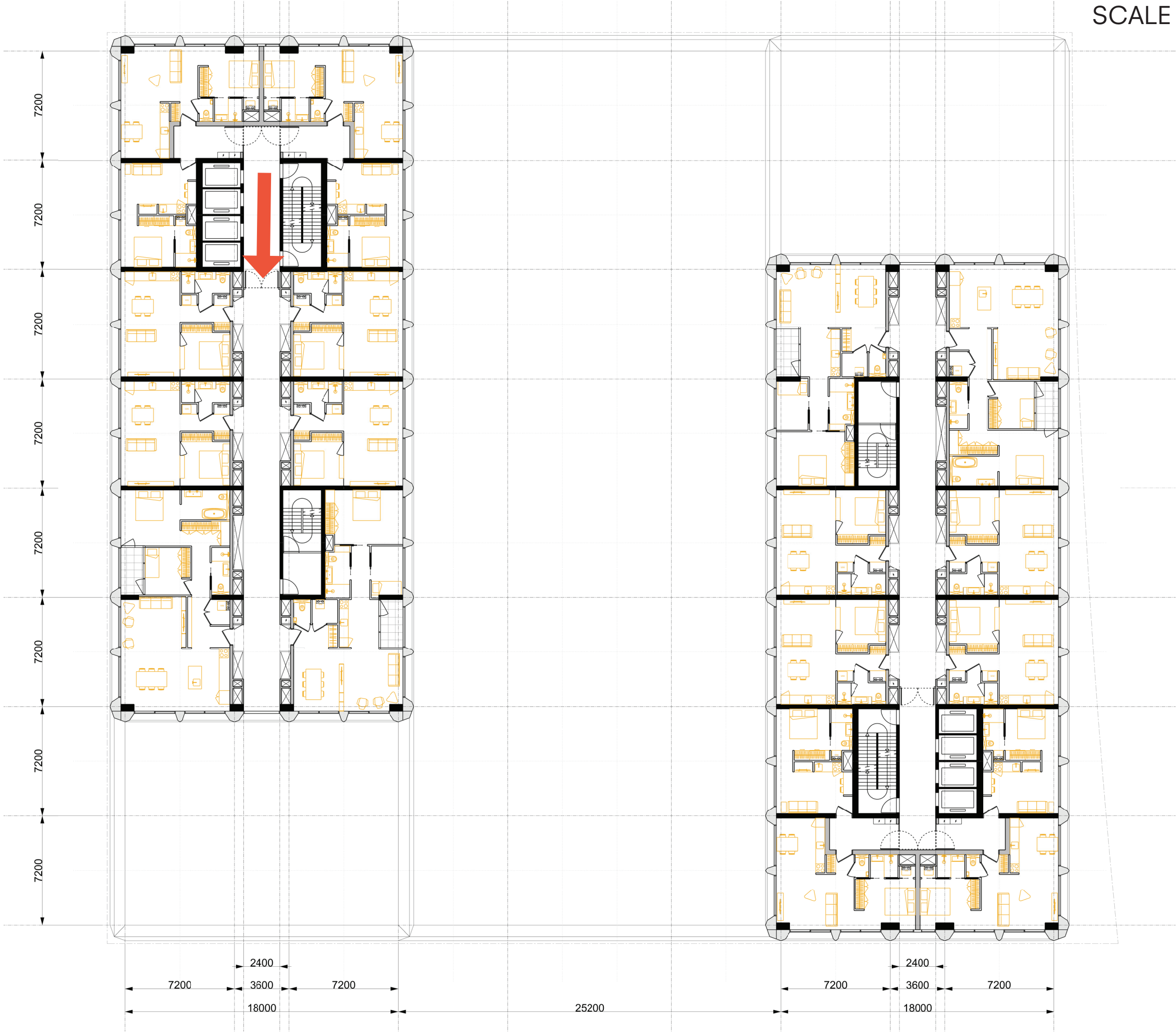
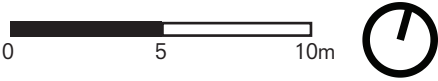
BIKE PÅRKING



SCALE 1:250



SCALE 1:250

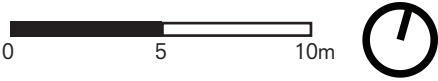


FLOORPLAN
37000 -43400

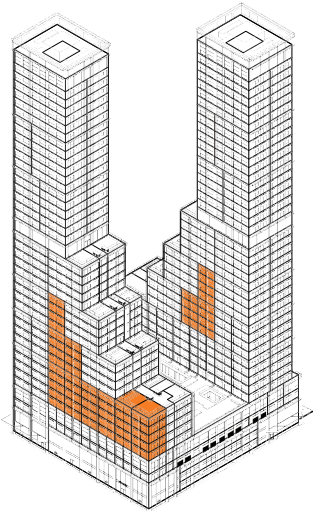
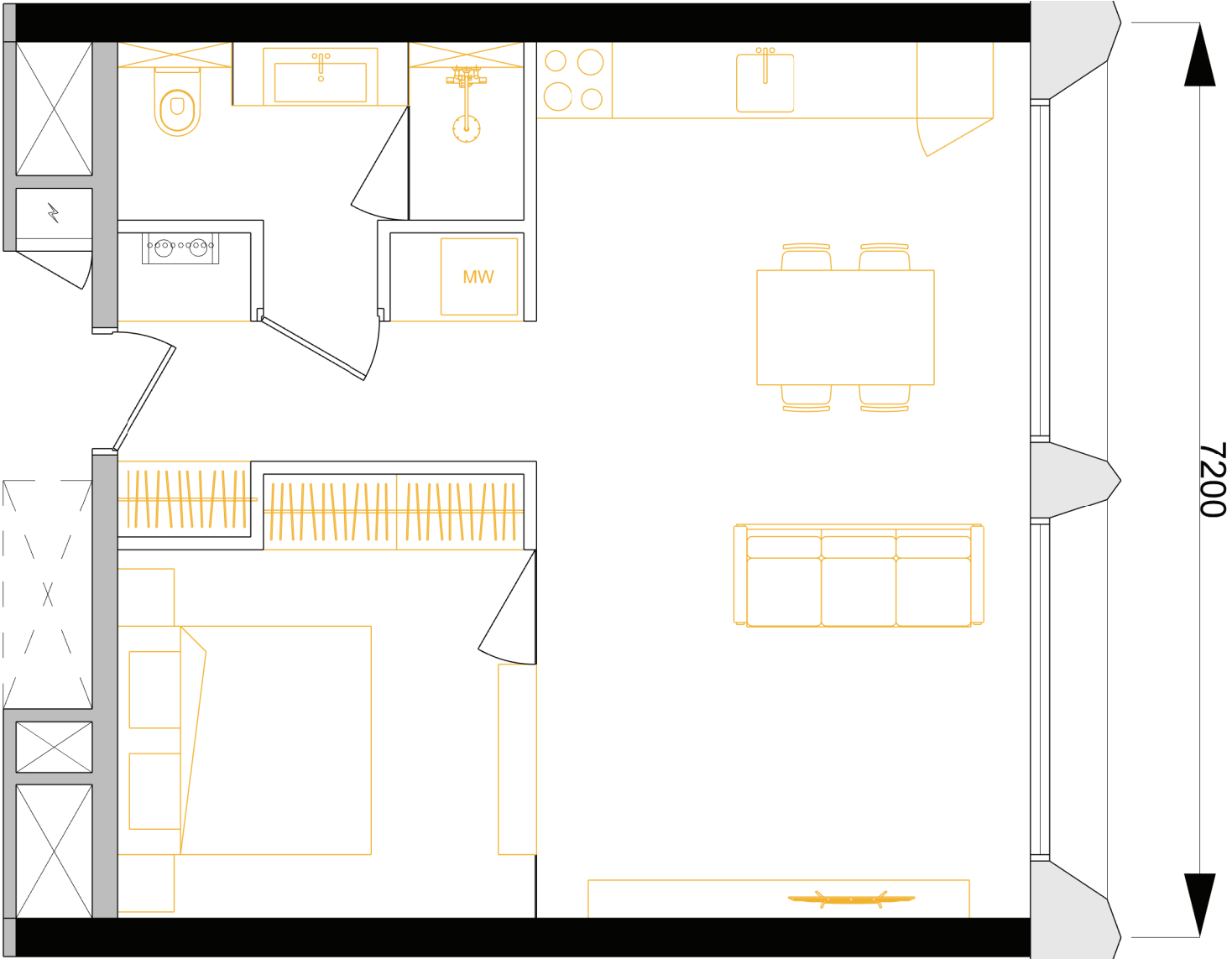




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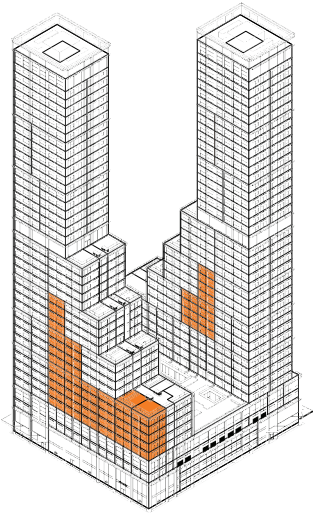
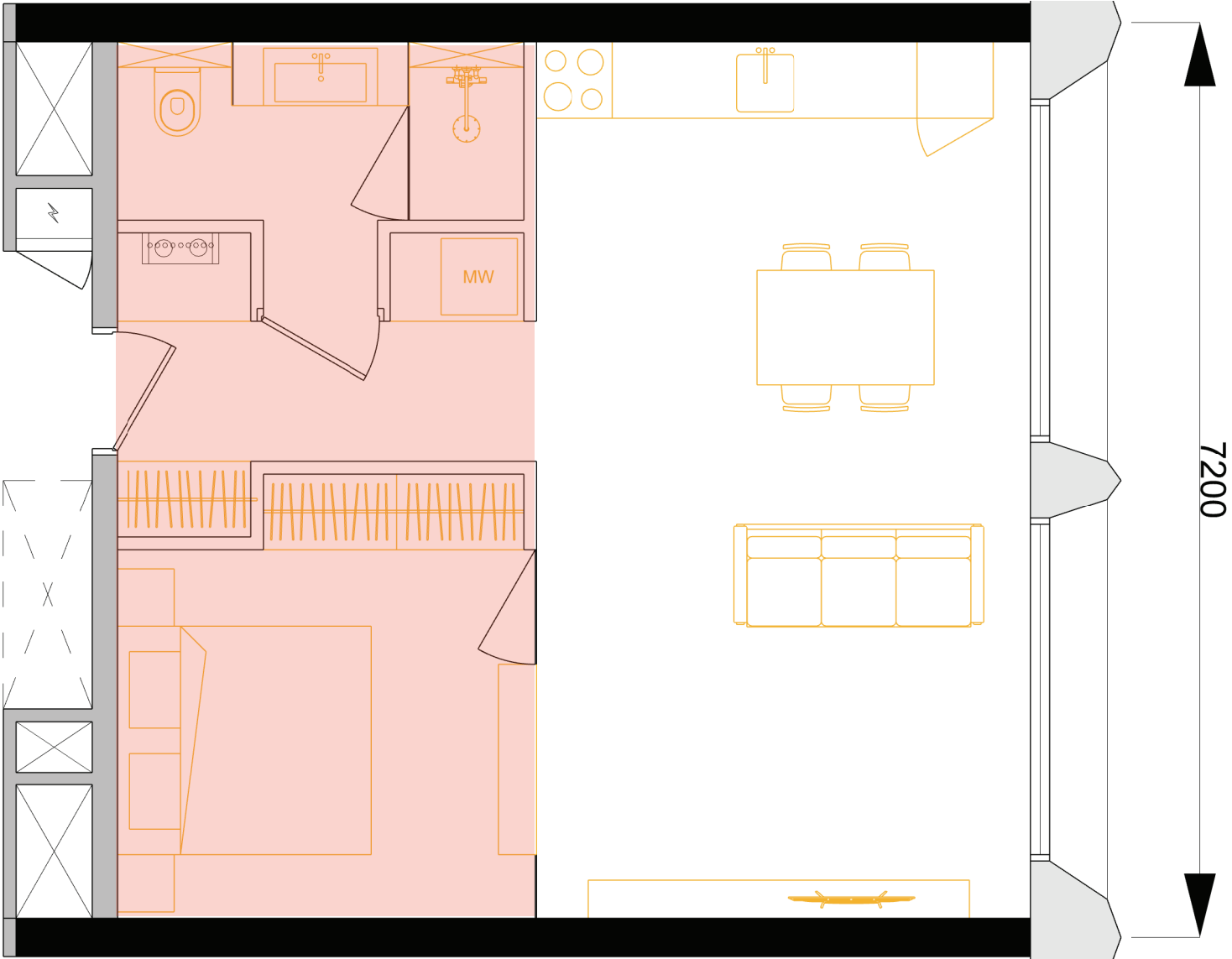


FLOORPLAN
37000 -43400



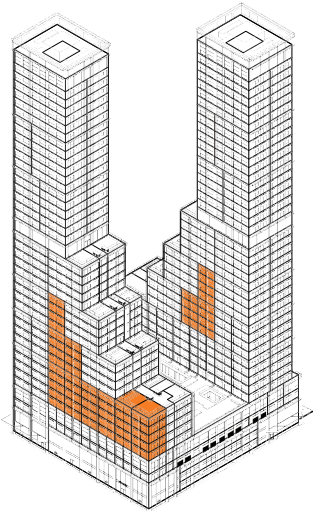
110X

1 Bedroom 49m²



110X

PRIVATE ZONE



110X

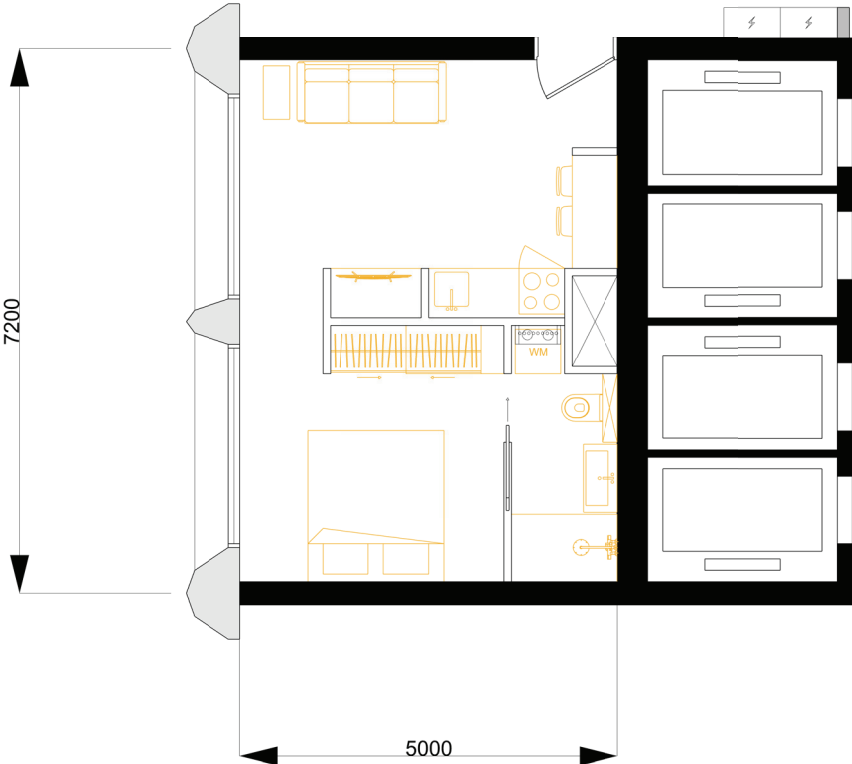
PUBLIC ZONE



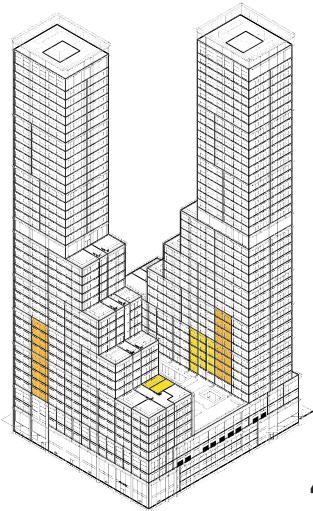




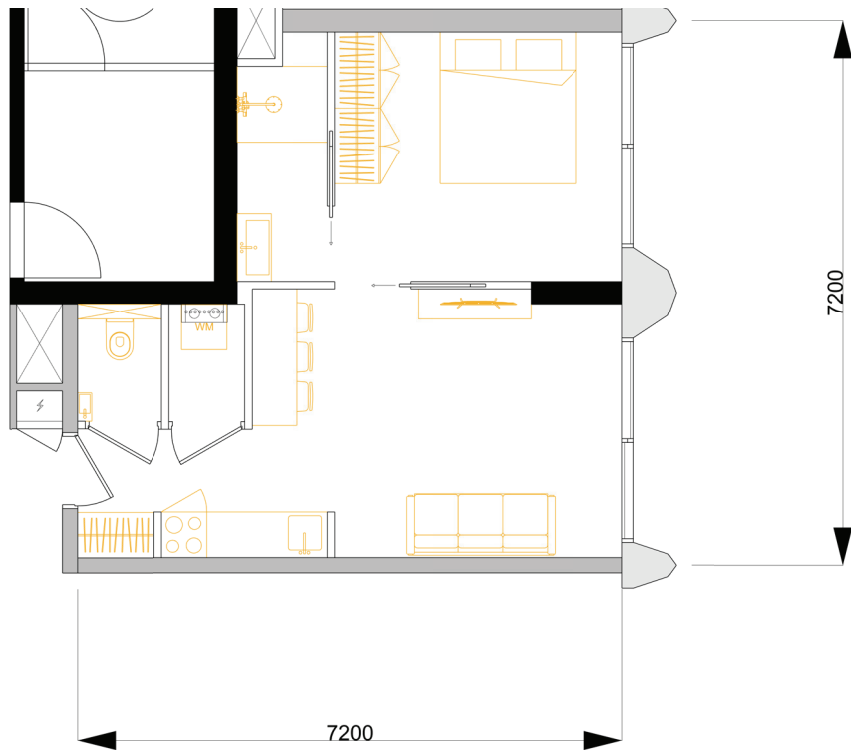
Studio 24m²



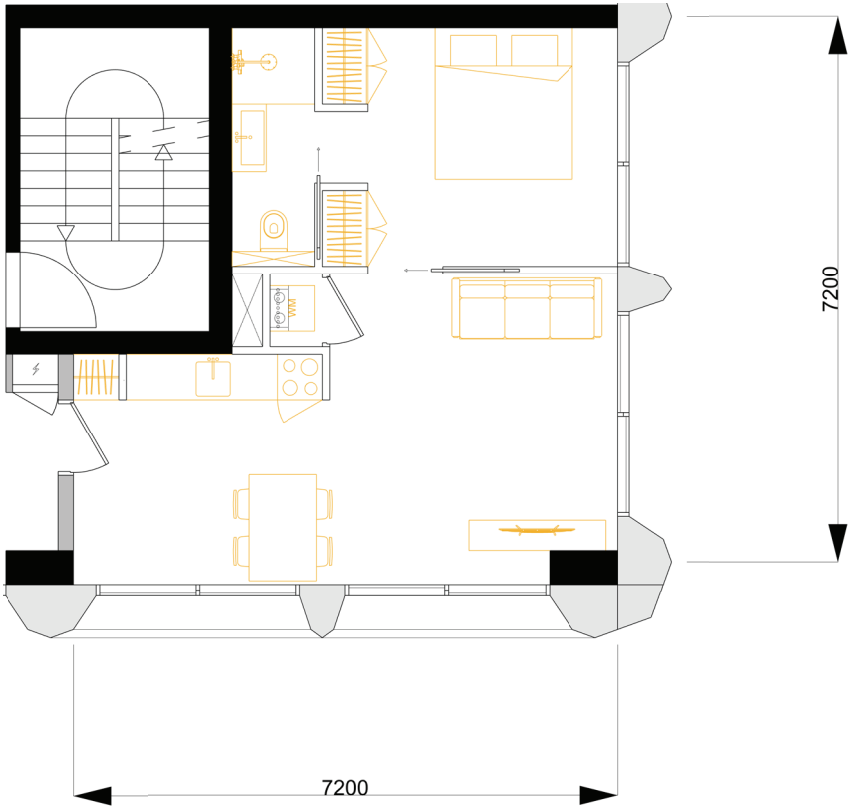
Studio 33m²



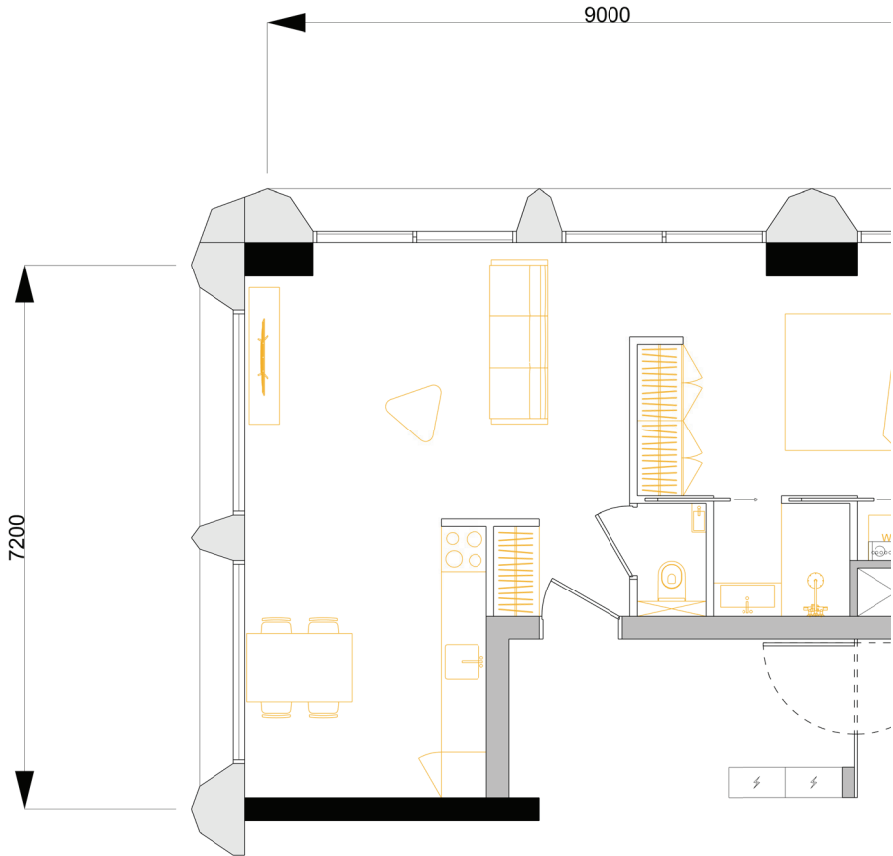
46+36X



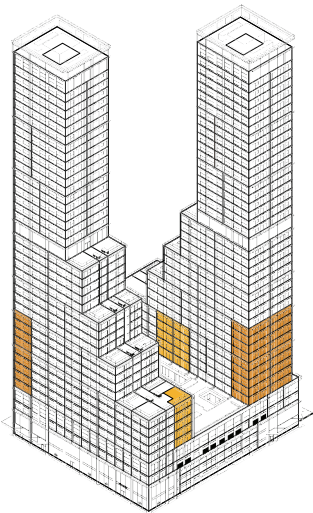
1BR 40 m²



1BR 41 m²

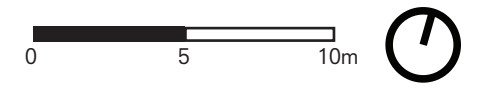


1BR 49 m²



66X

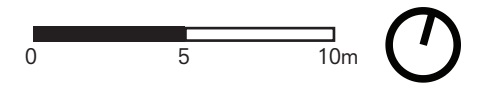
DWELLING TYPES
1BR APARTMENTS



COLLECTIVE GARDEN
+17800
76



COLLECTIVE GARDEN

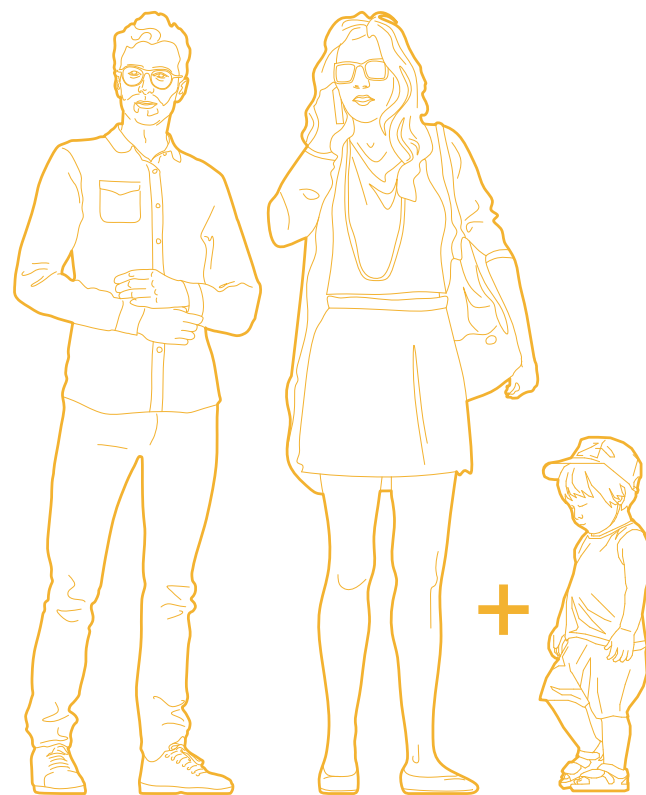


COLLECTIVE TERRACE
+33800
78



COLLECTIVE TERRACE

COUPLE (WITH CHILD)



Work: tech & creative industry

Mode of transport: Car

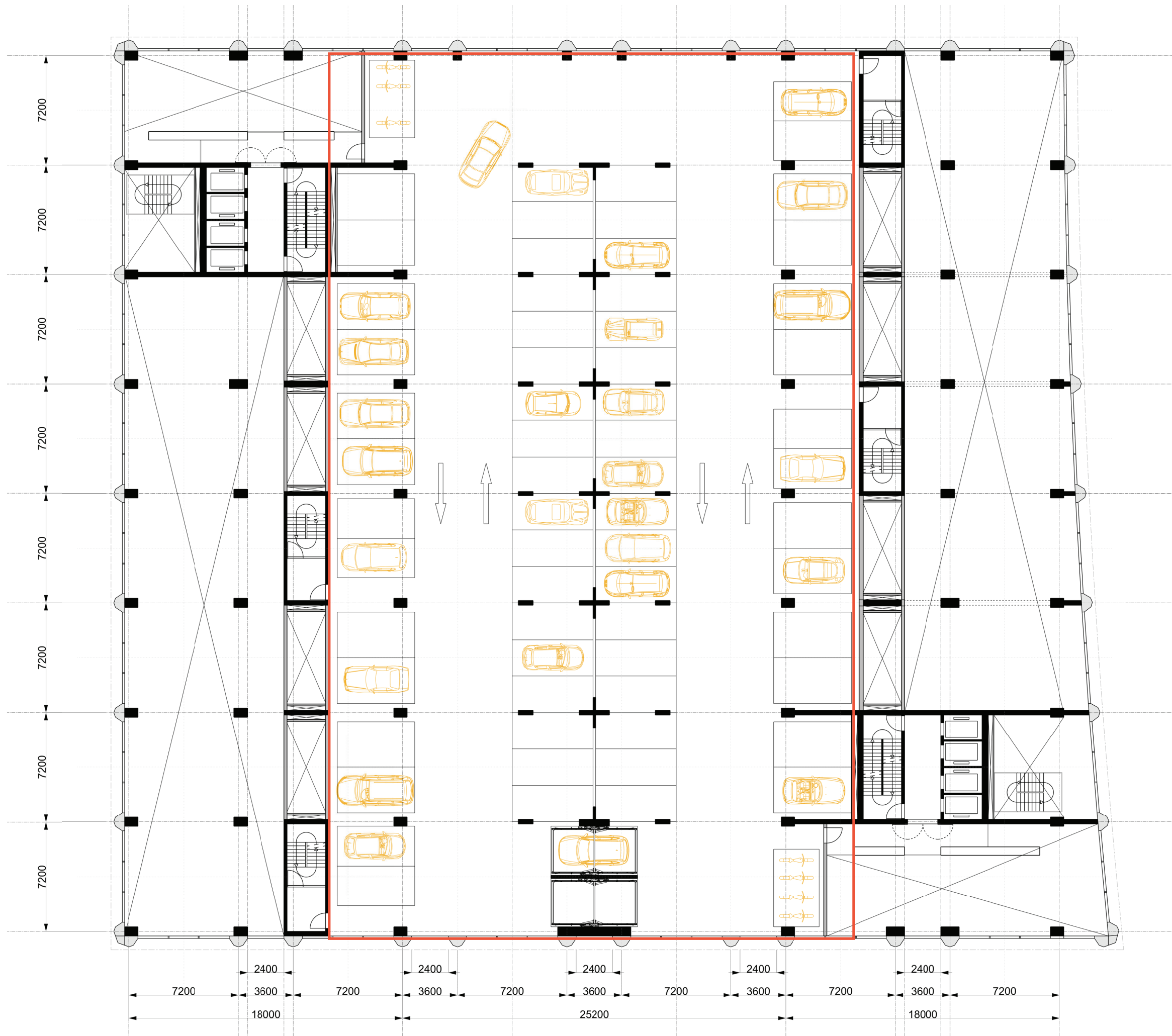
Dwelling types: 2-bedroom apartment

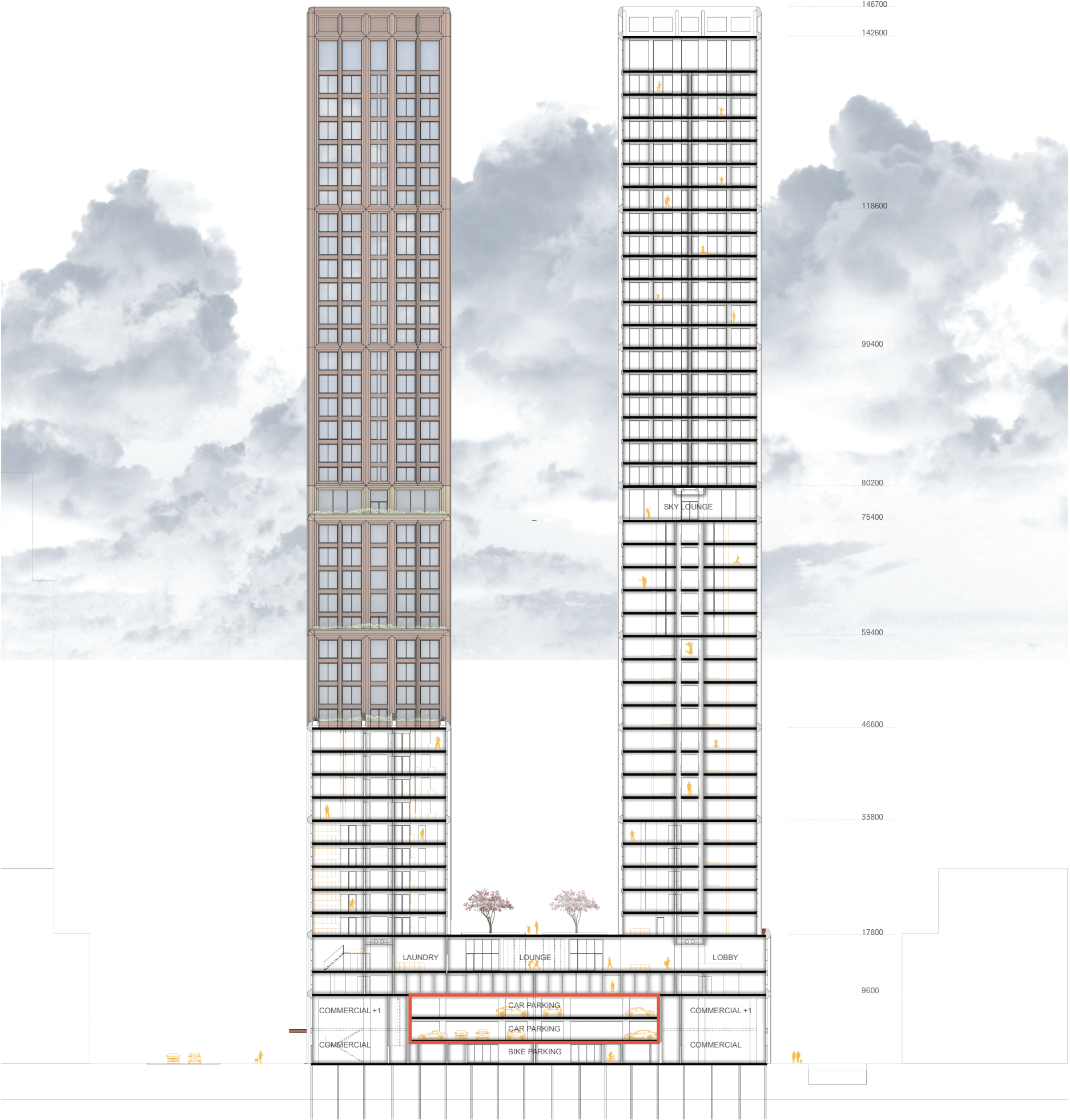
Characteristics: more space, more spending room



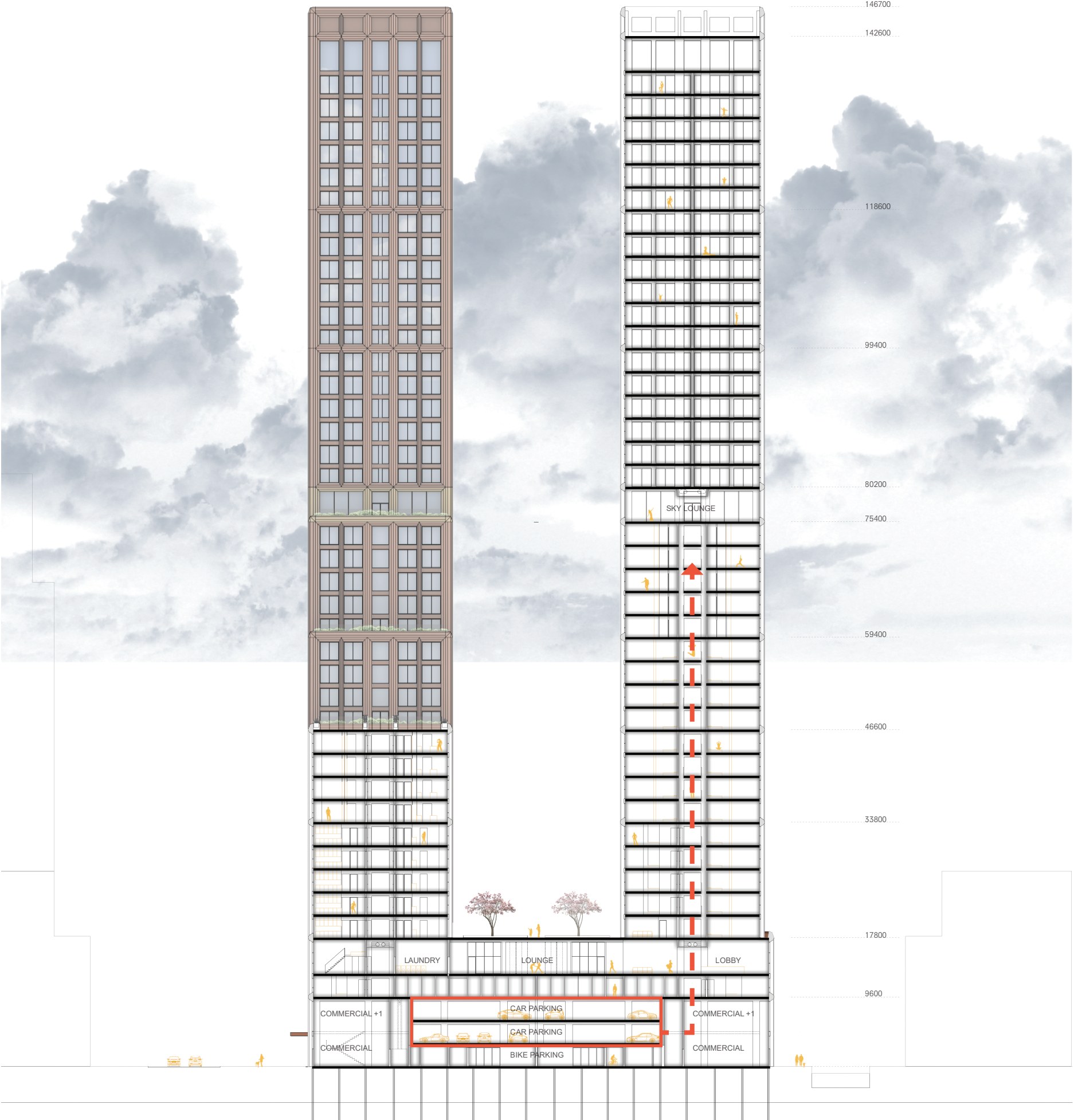








SECTION



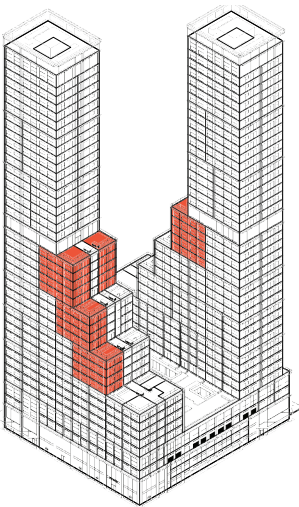
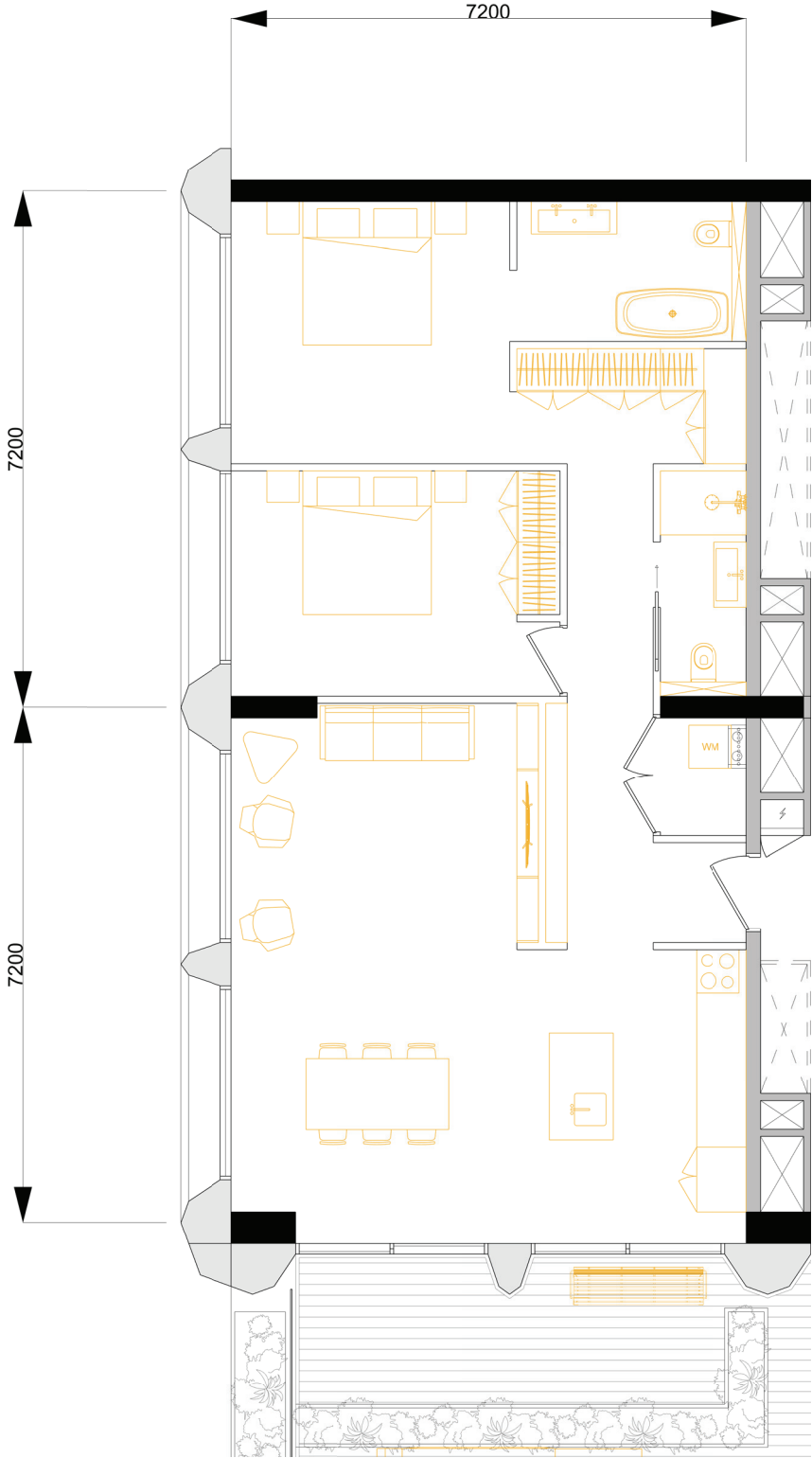
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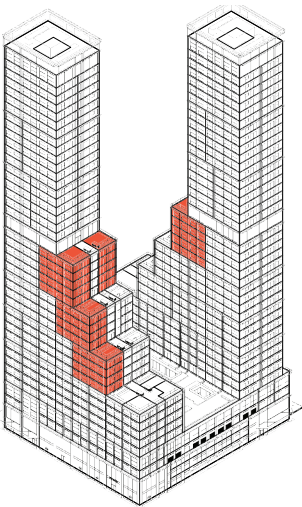
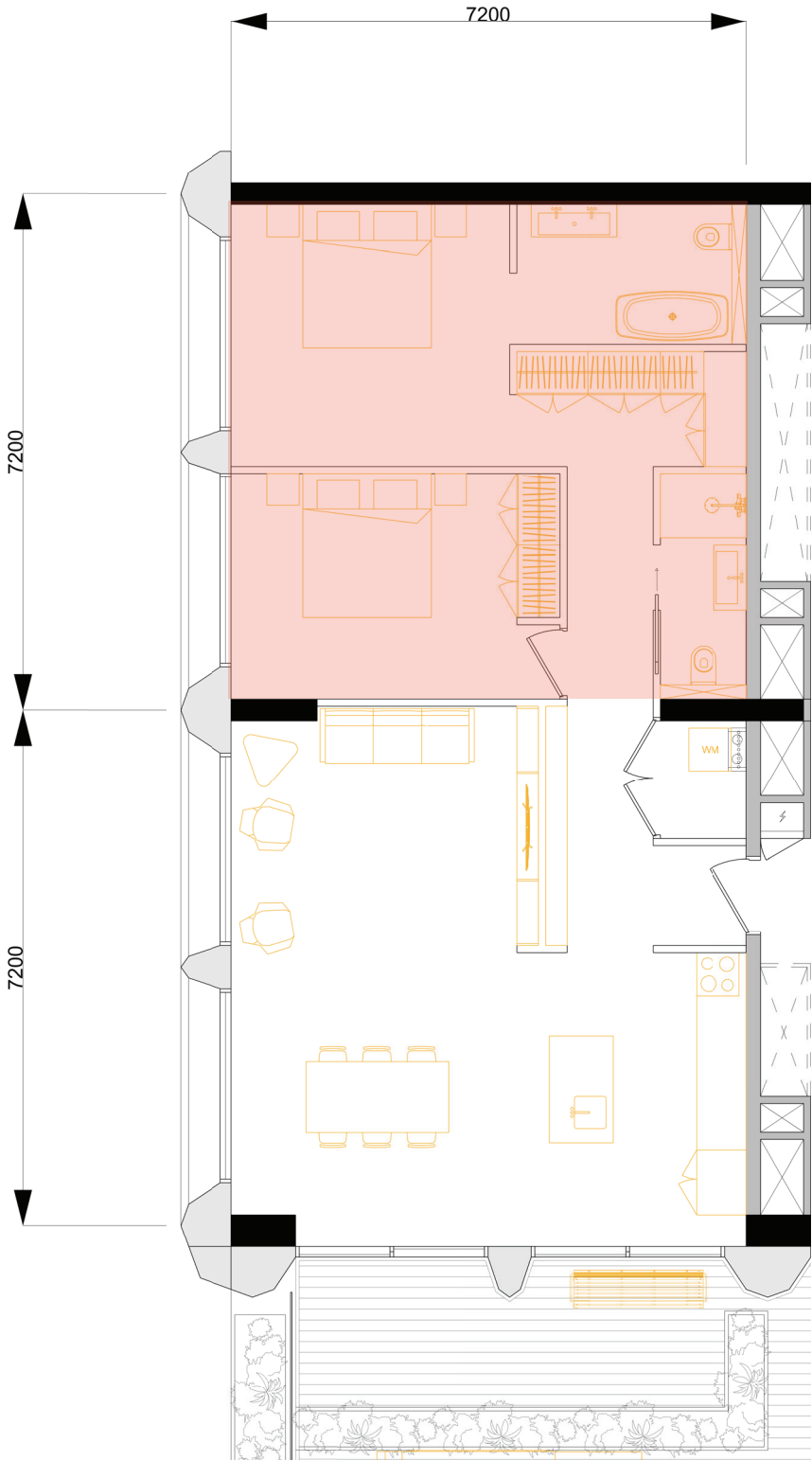
FLOORPLAN
59400

SCALE 1:100



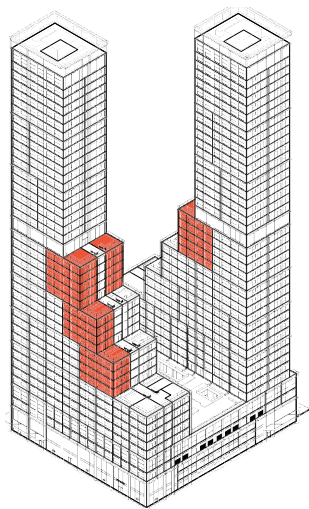
36X

2 Bedroom apartment 100m²

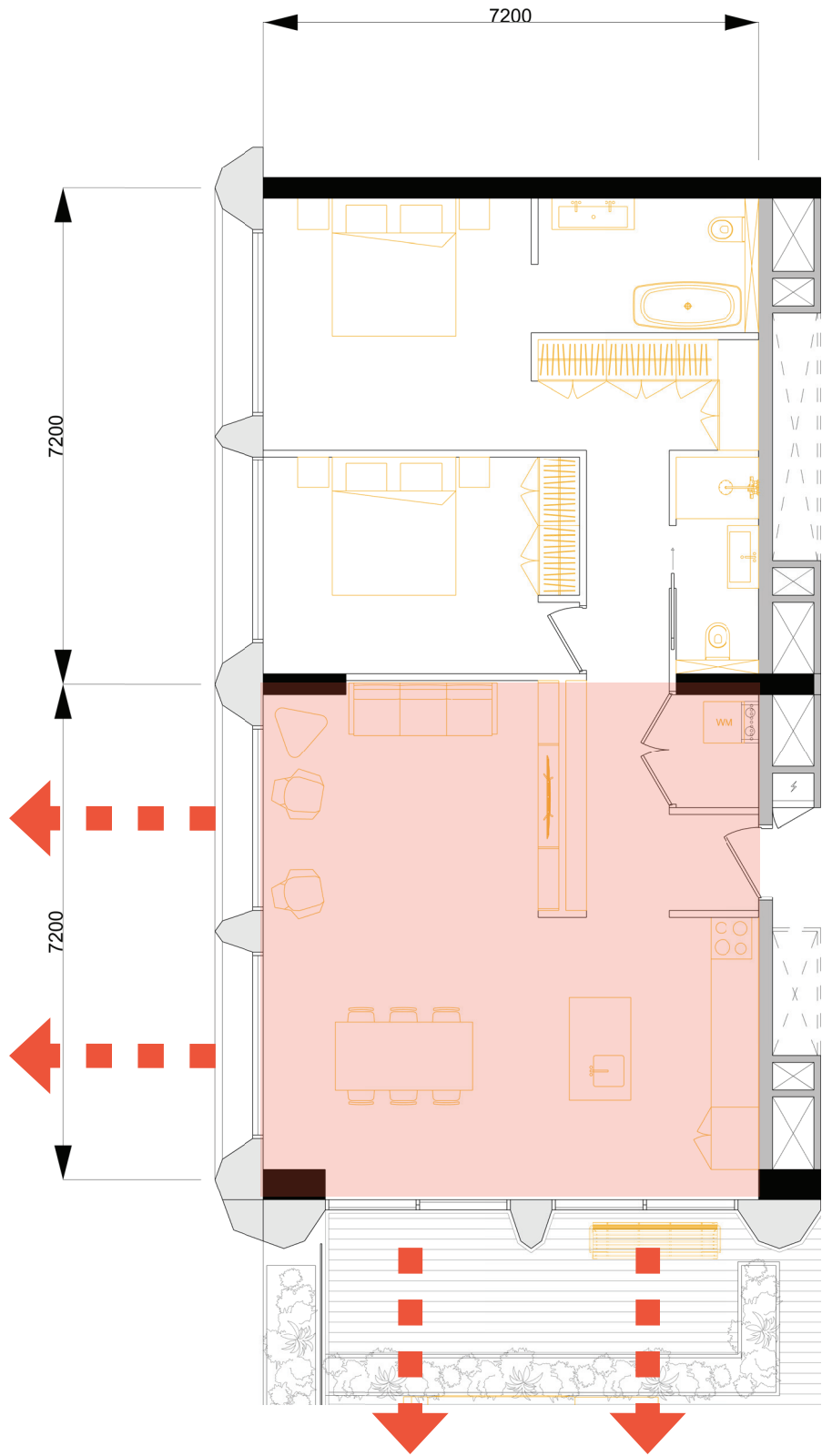


36X

Private zone



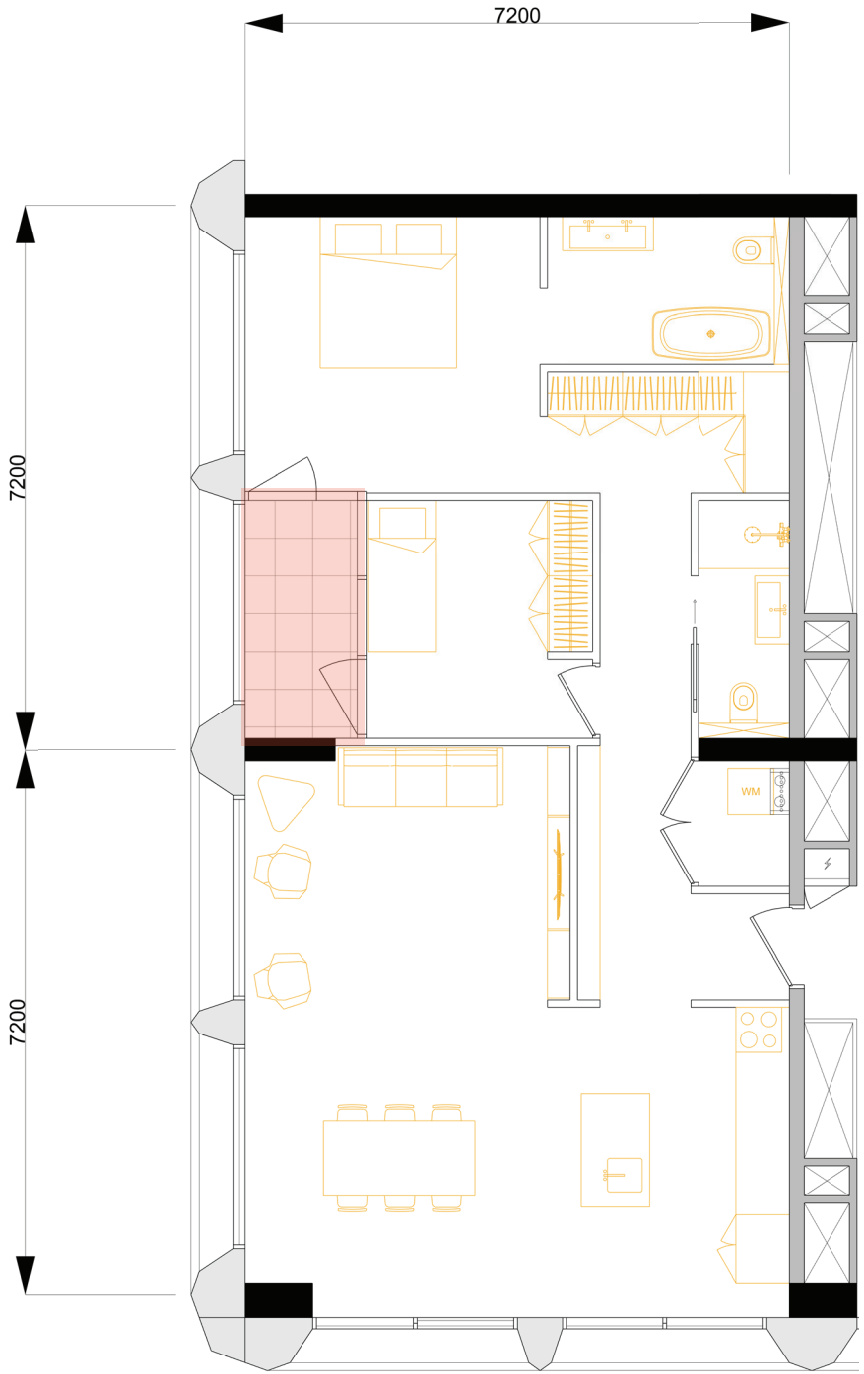
36X



Public zone



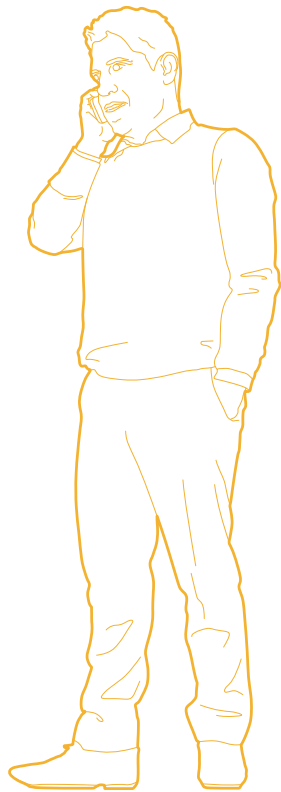
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2 Bedroom variation



BUSINESSMAN

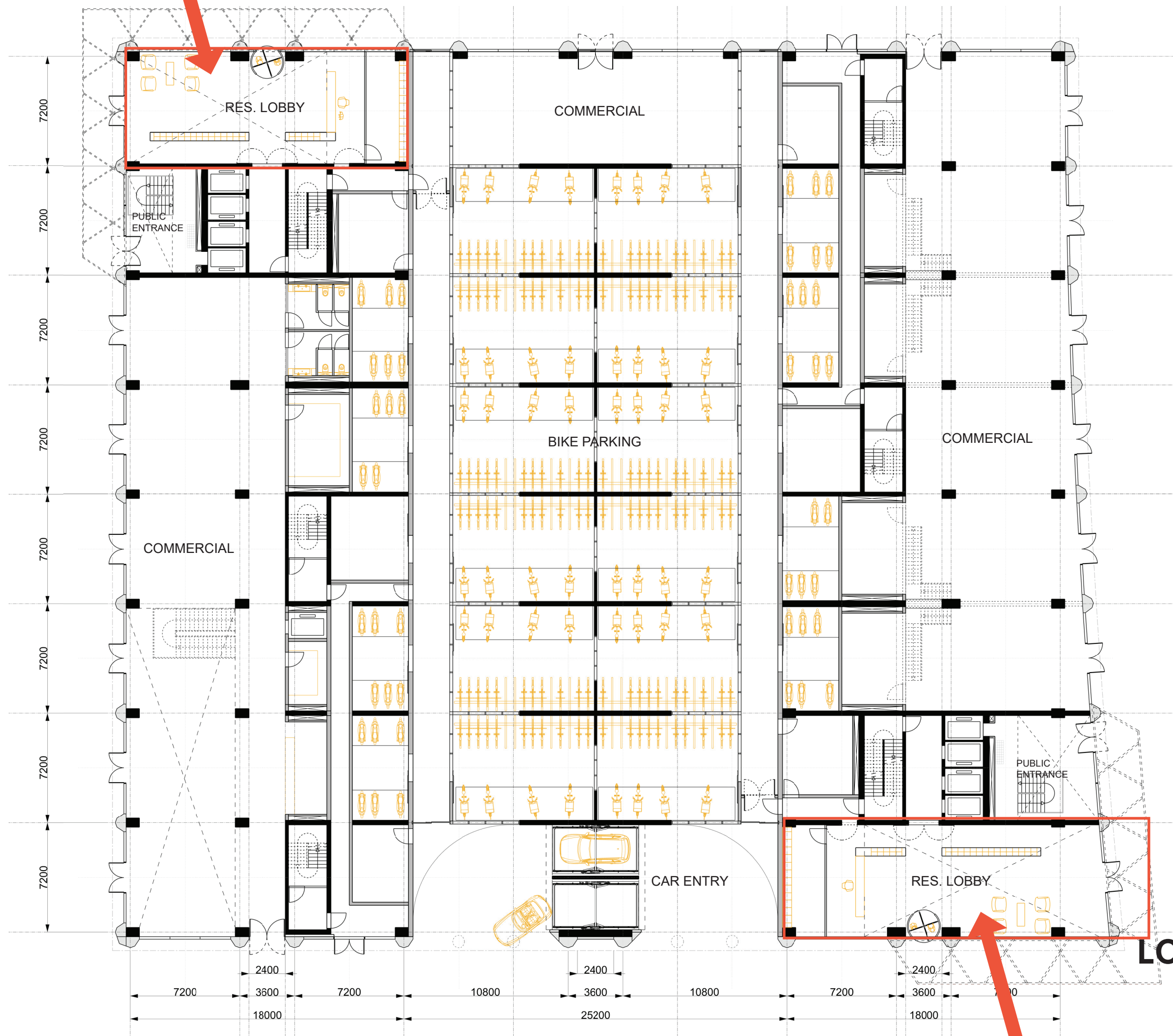


Work: tech, finance

Mode of transport: taxi, public transport

Dwelling types: Short stay studio/loft, tower apartment

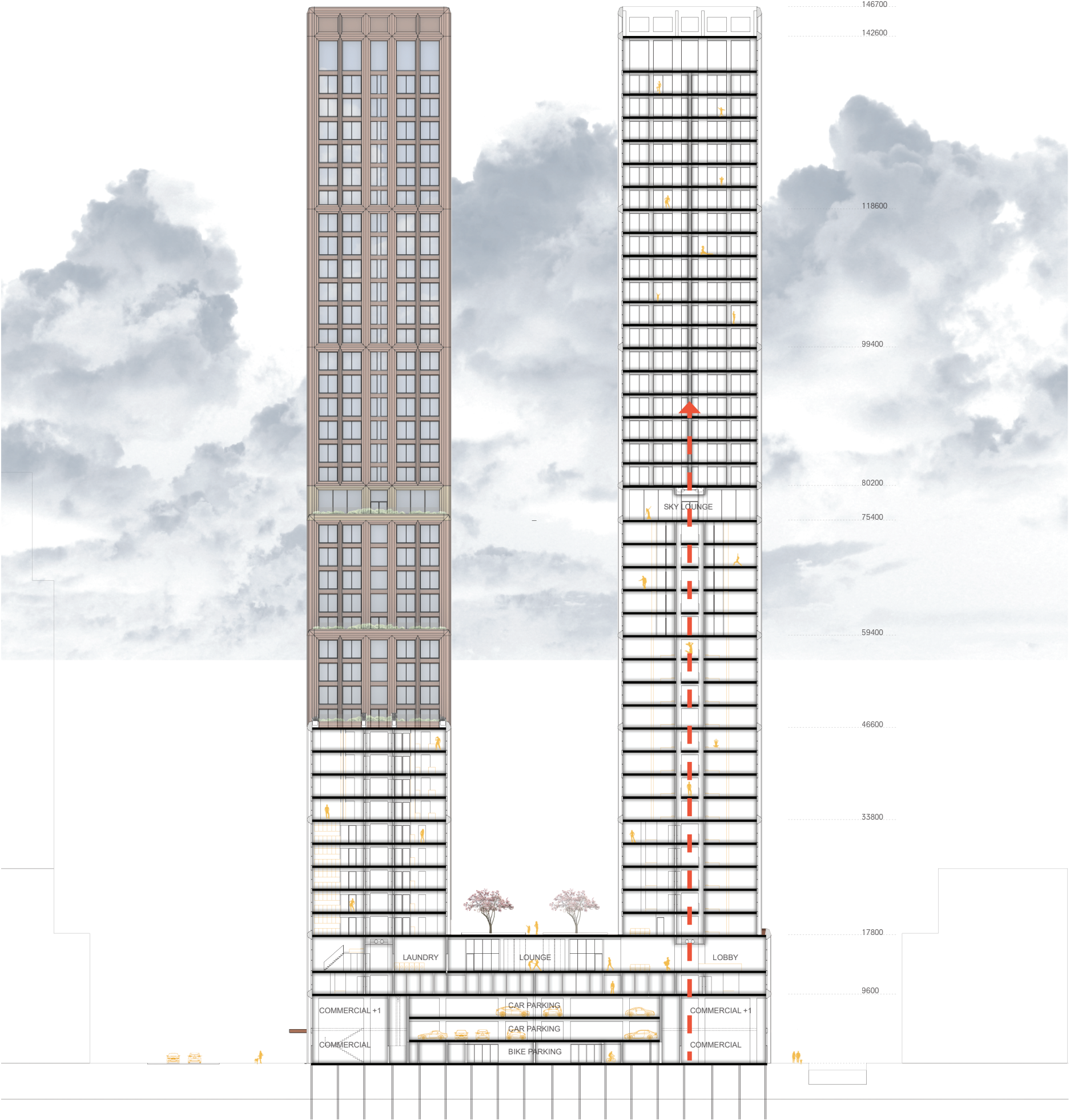
Characteristics: high-end, long-term stay



LONG TERM RESIDENT
00
95

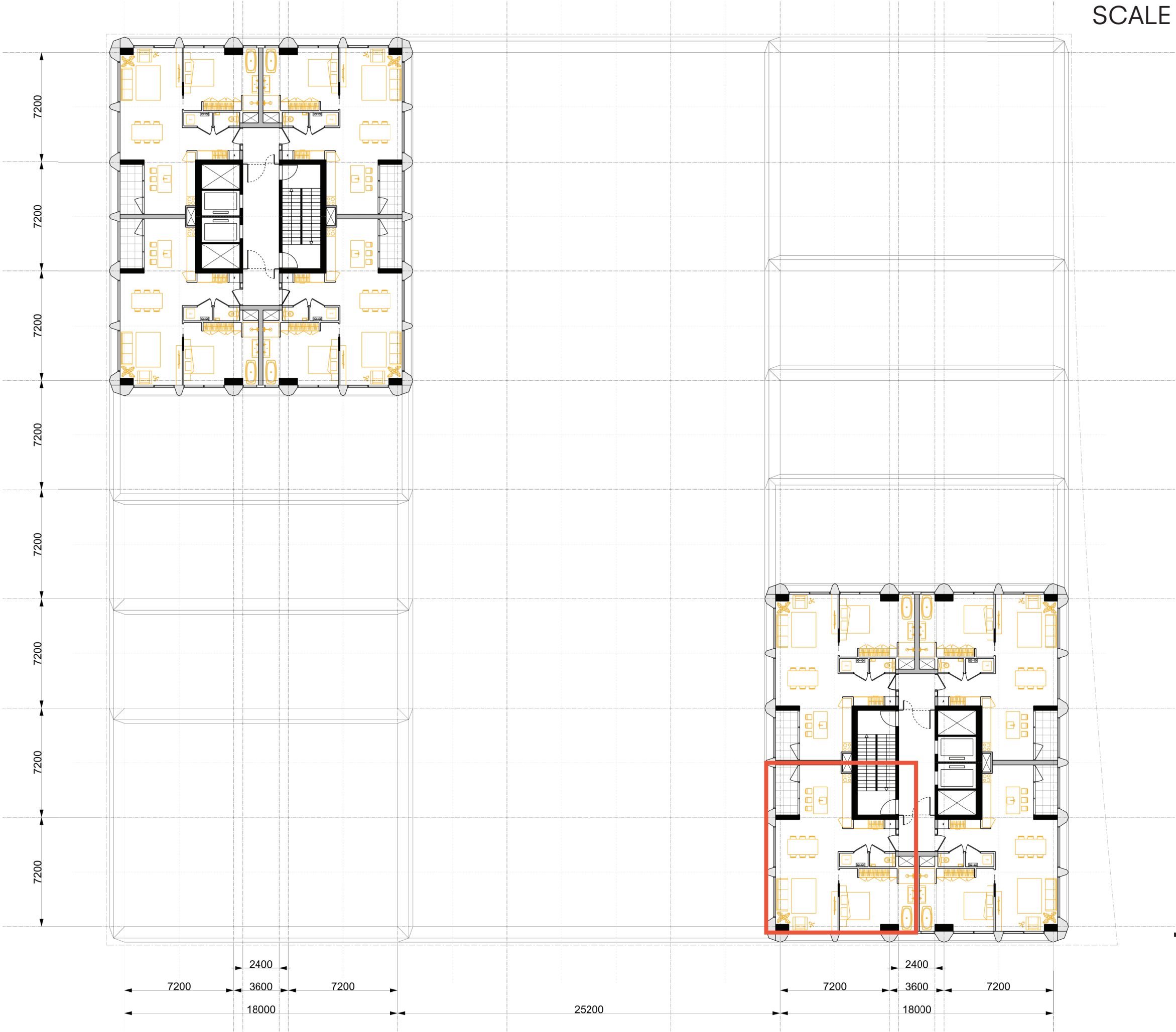
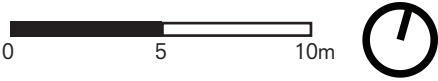


LOBBY



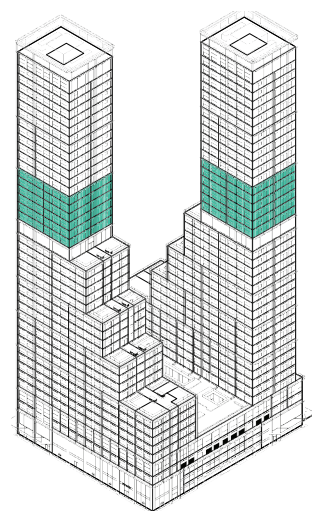
SECTION

SCALE 1:250

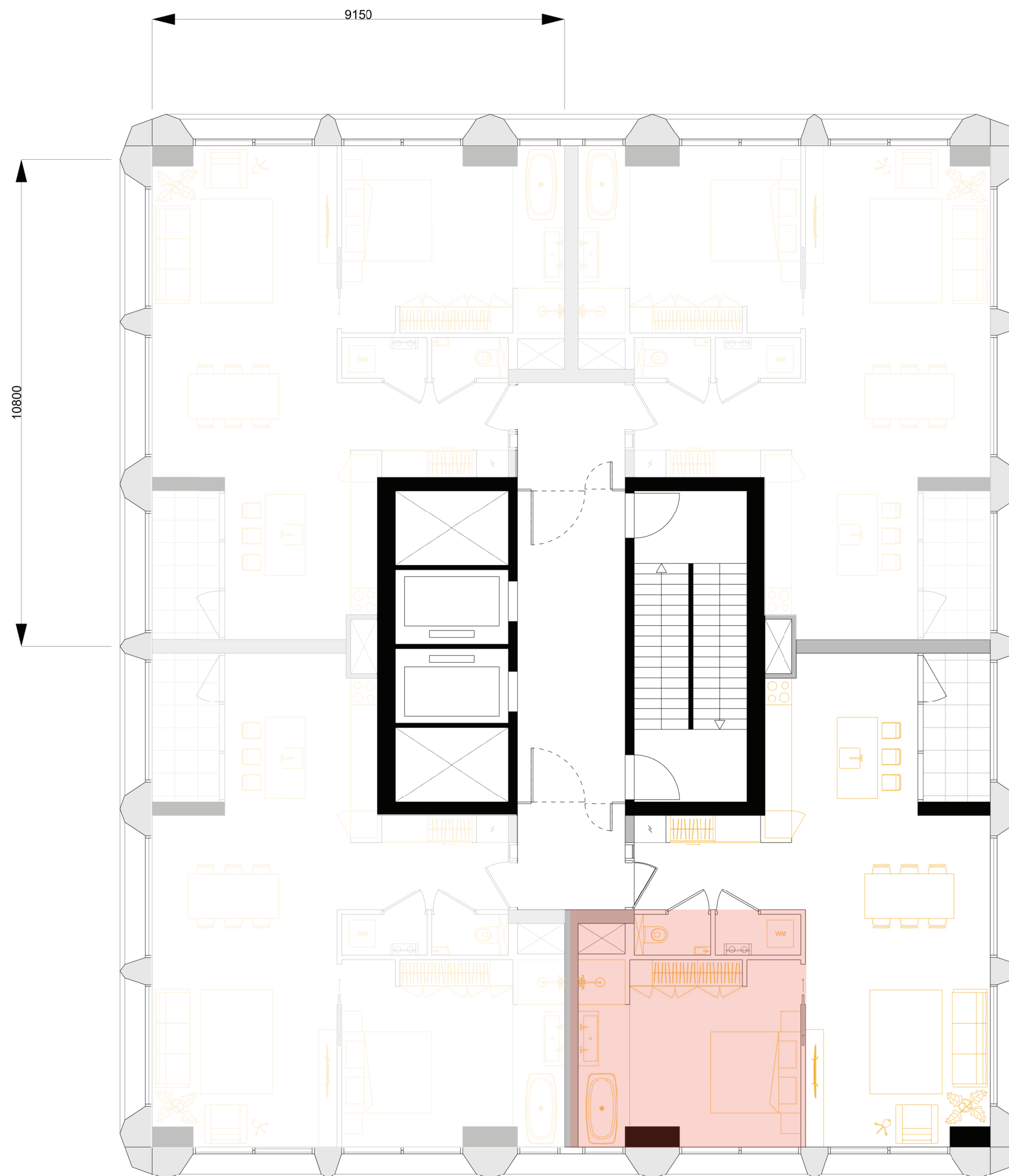


TOWER FLOORPLAN

80200 -96200



48X

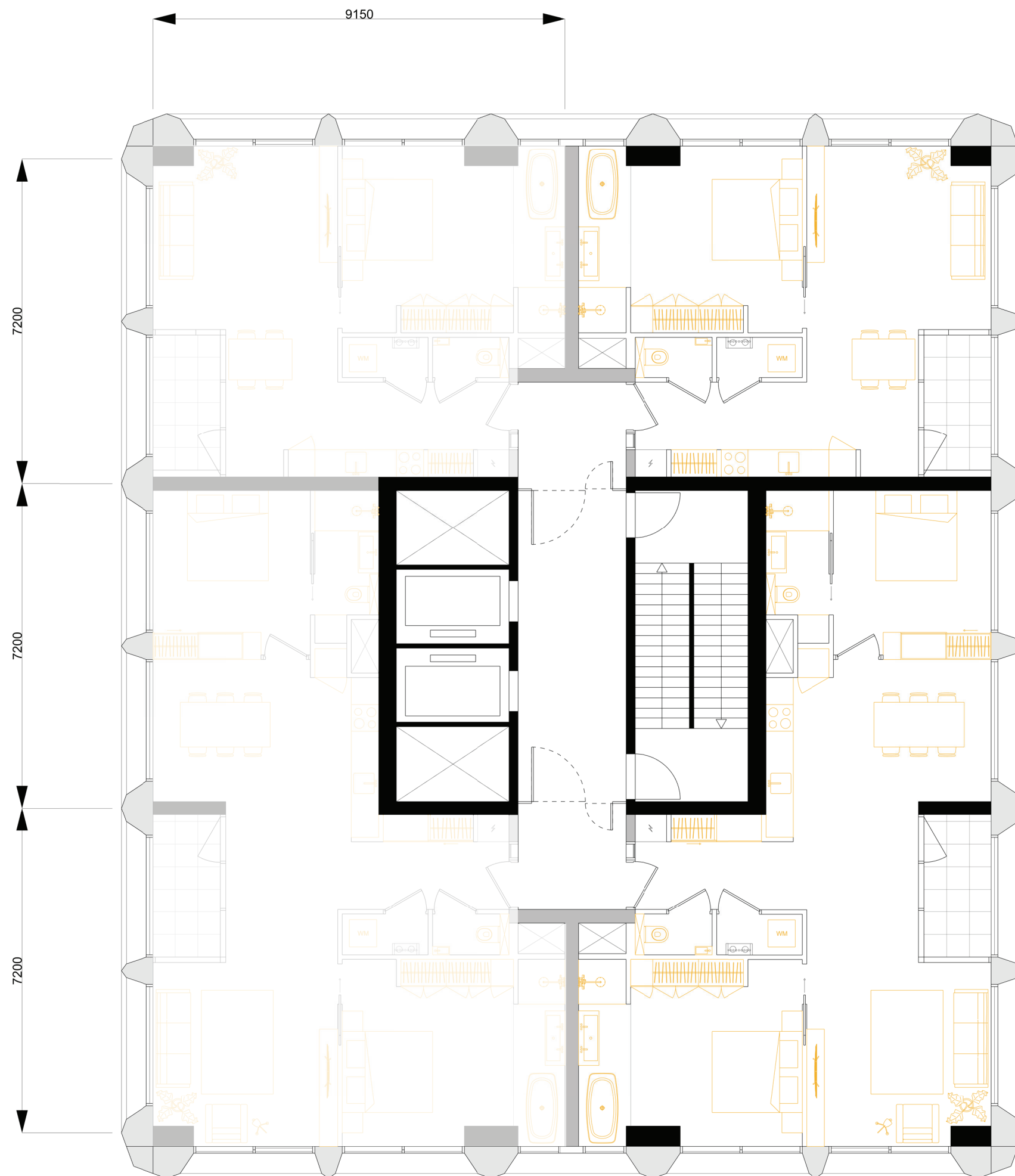


SCALE 1:100



DWELLING TYPES
TOWER 1 BR 75m2



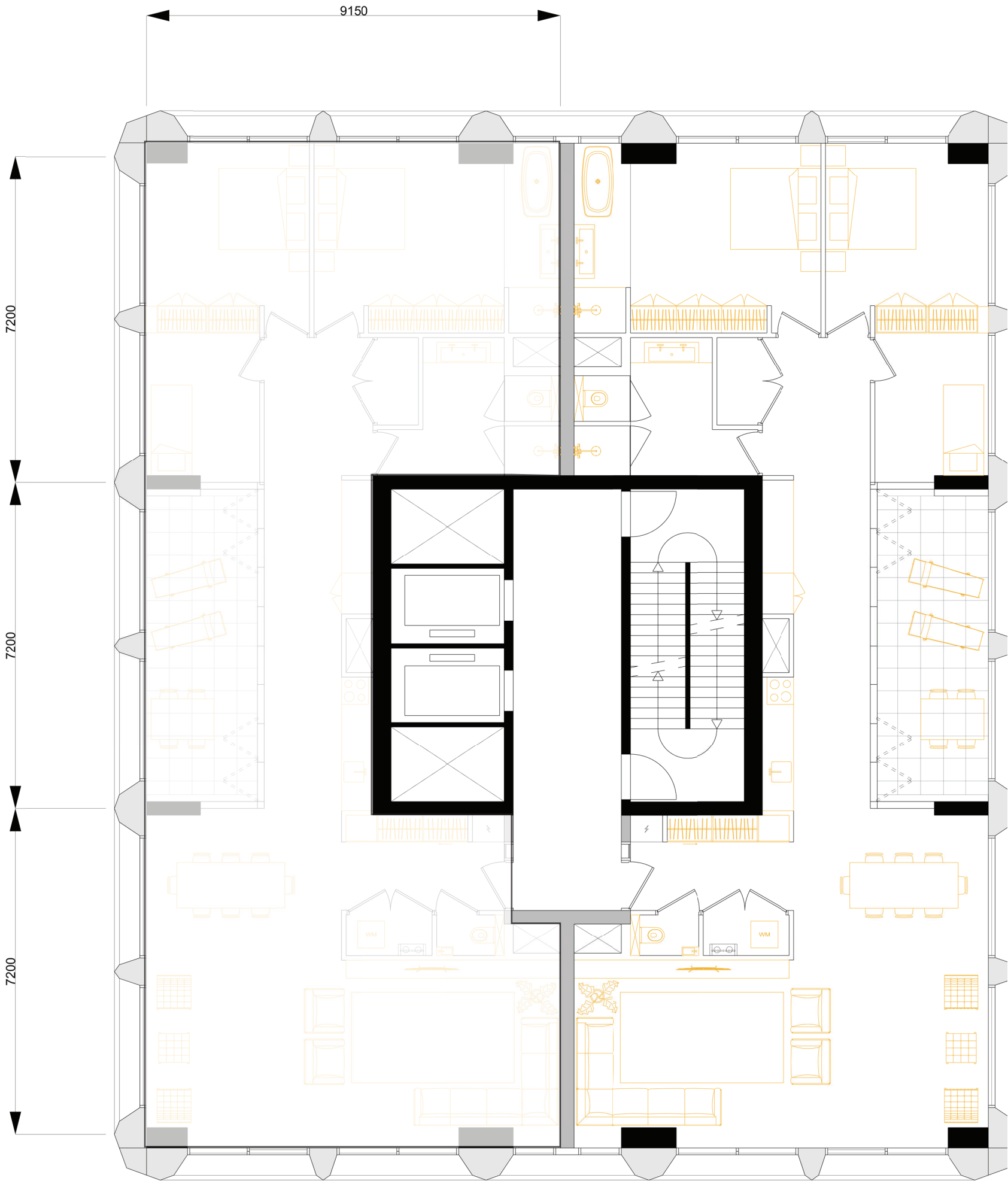
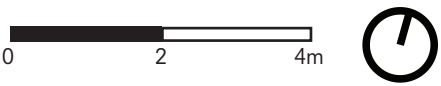


SCALE 1:100



DWELLING TYPES
TOWER 1 BR + 2BR

SCALE 1:100



DWELLING TYPES
TOWER 3 BR 150m²

BUSINESSMAN

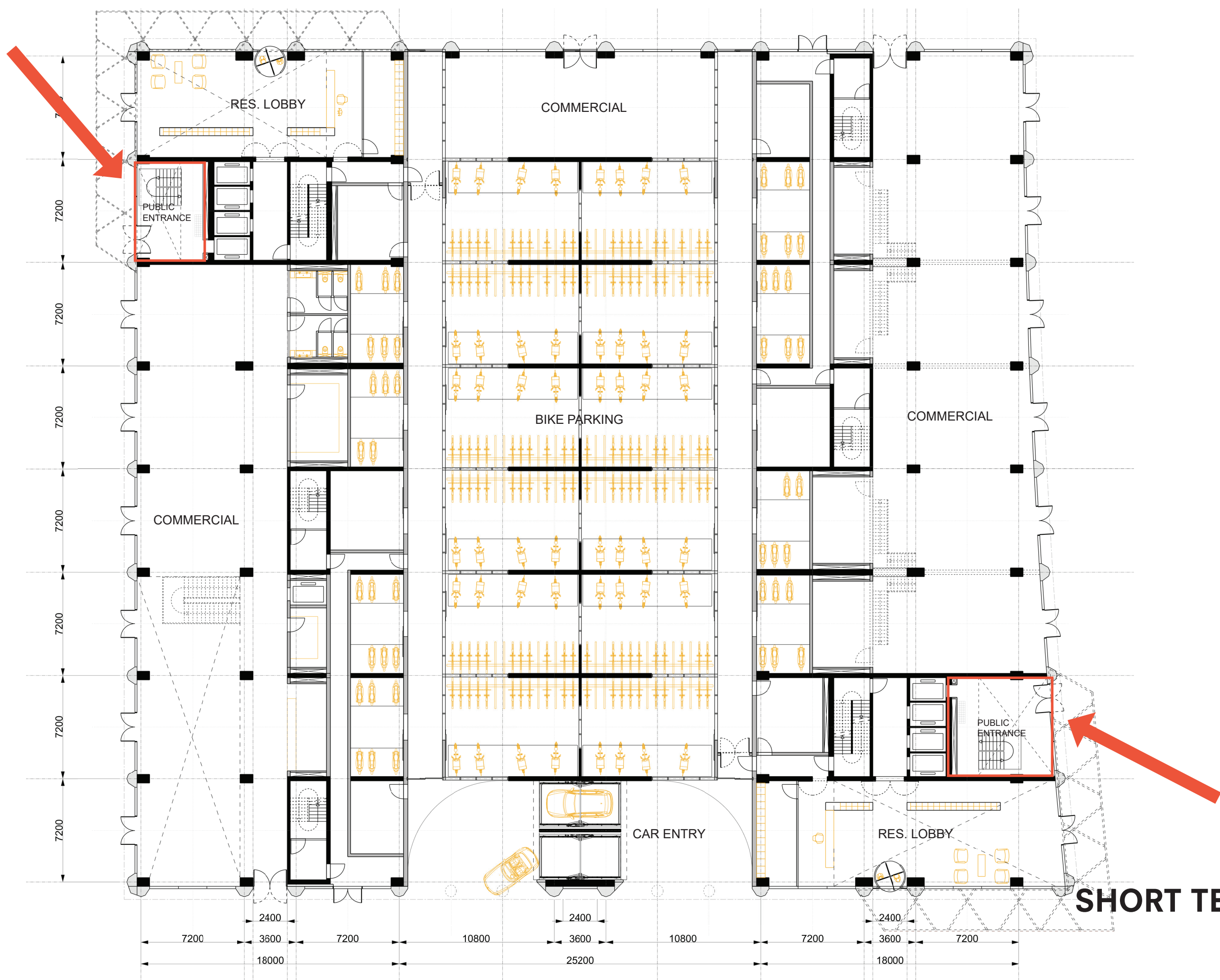
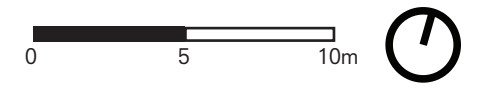


Work: tech, finance

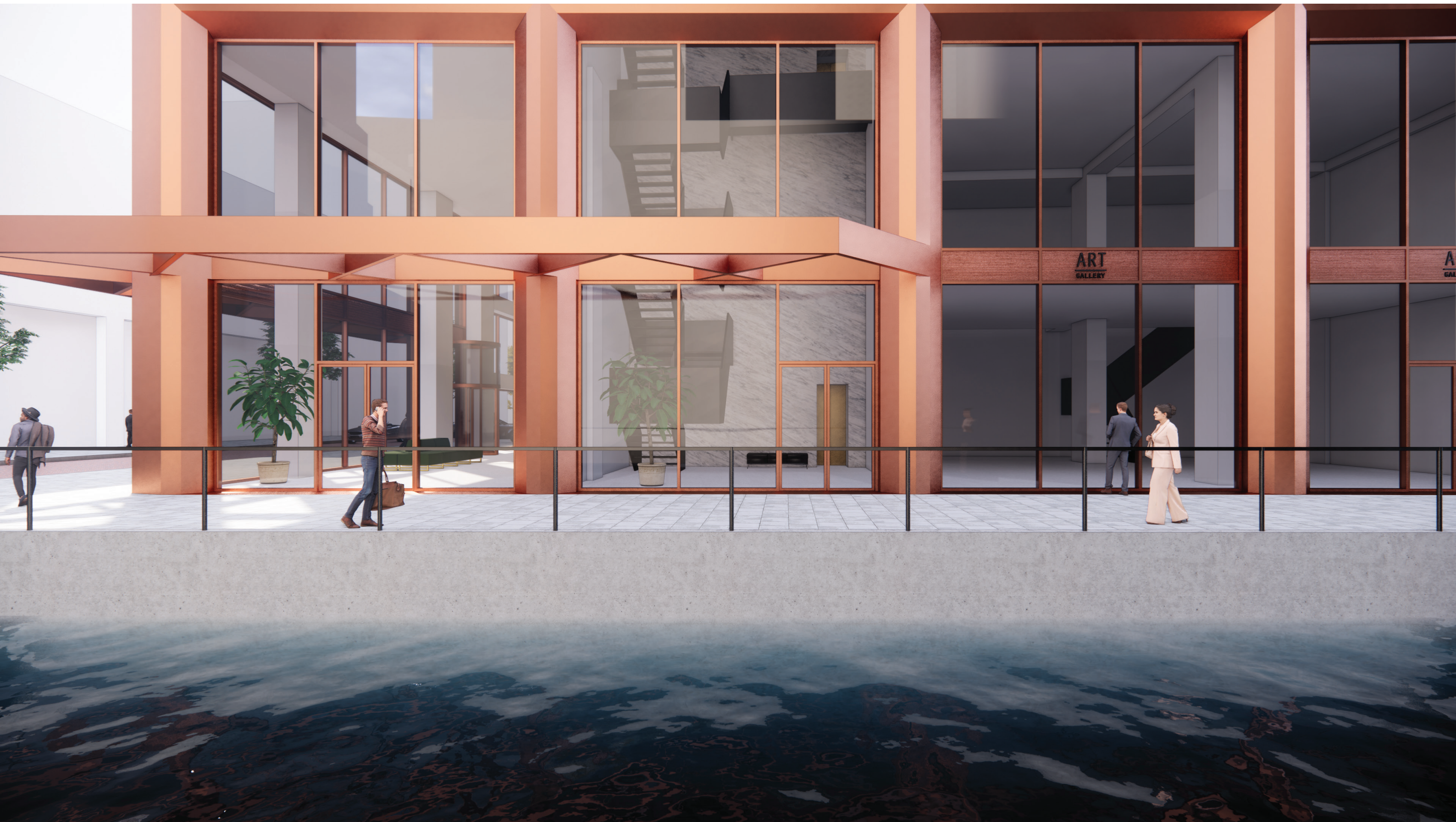
Mode of transport: taxi, public transport

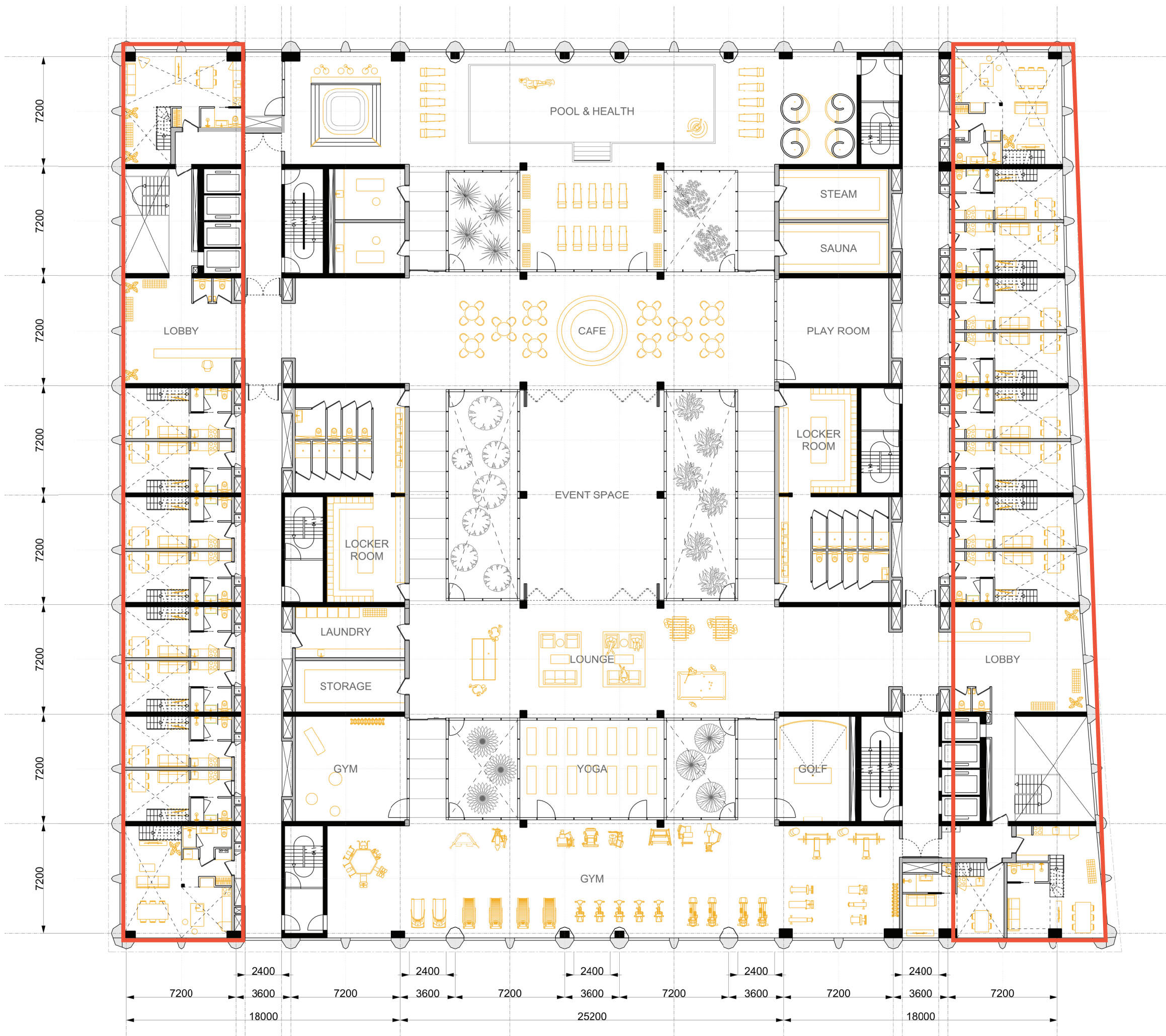
Dwelling types: Short stay studio/loft, tower apartment

Characteristics: high-end, **short-term stay**



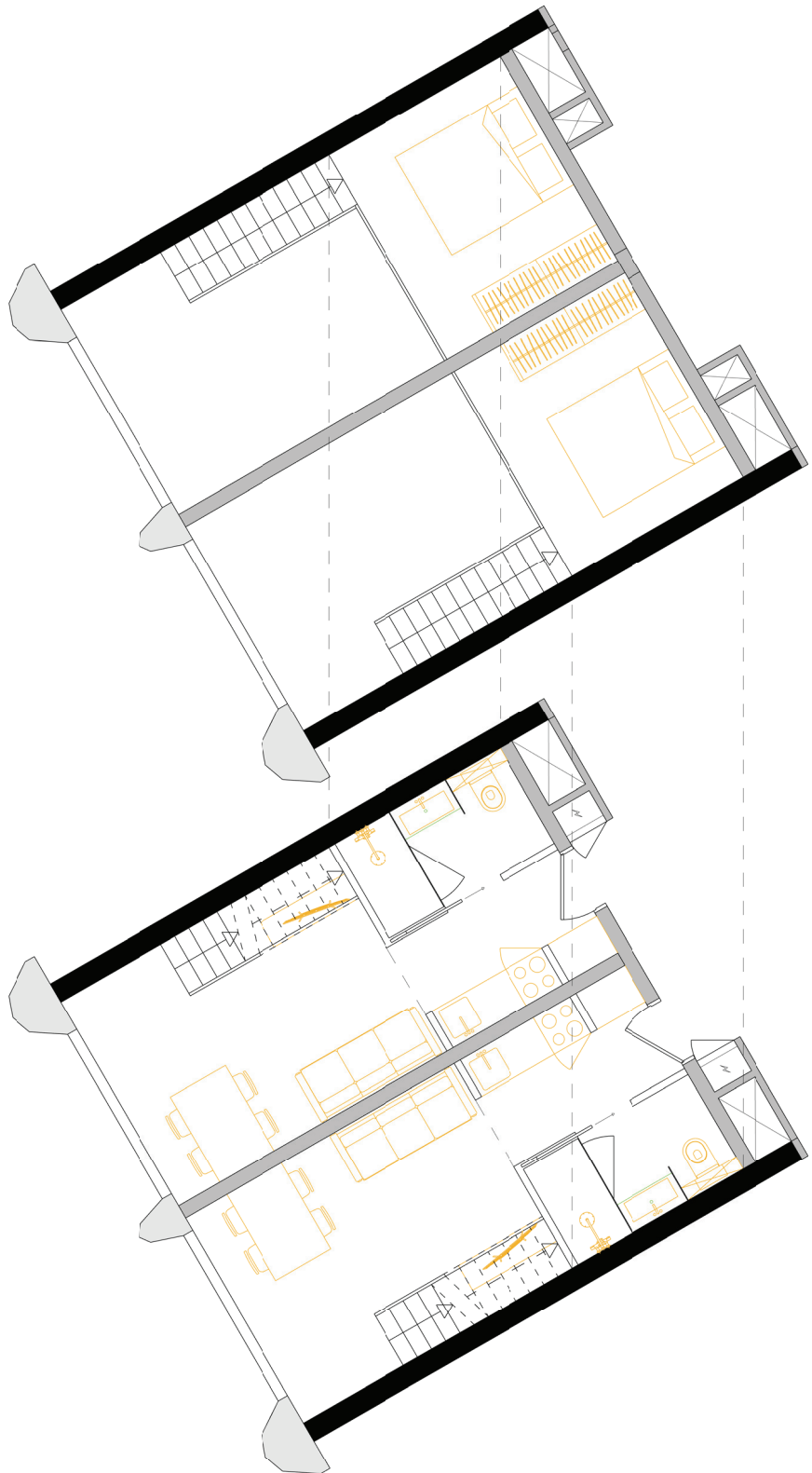
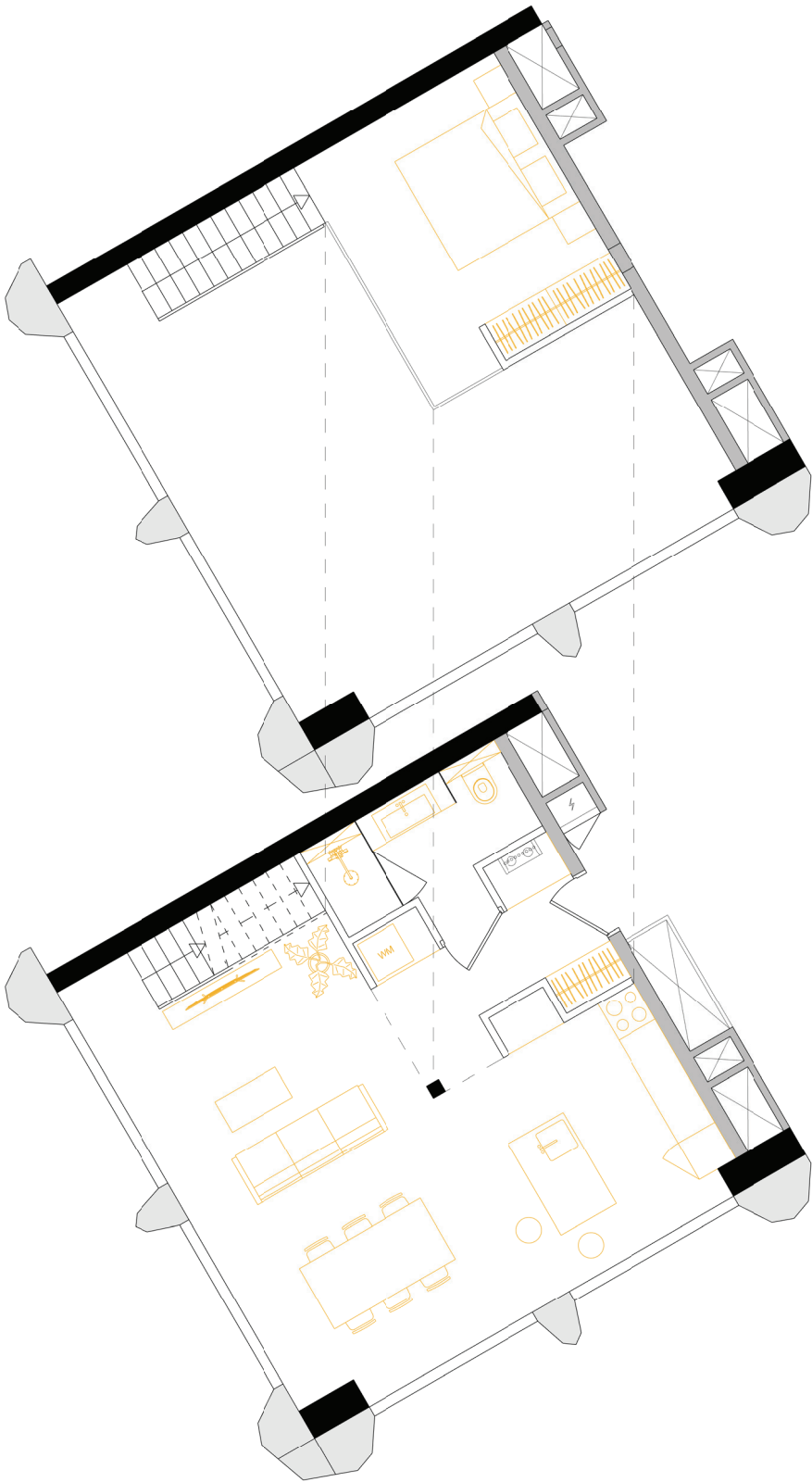
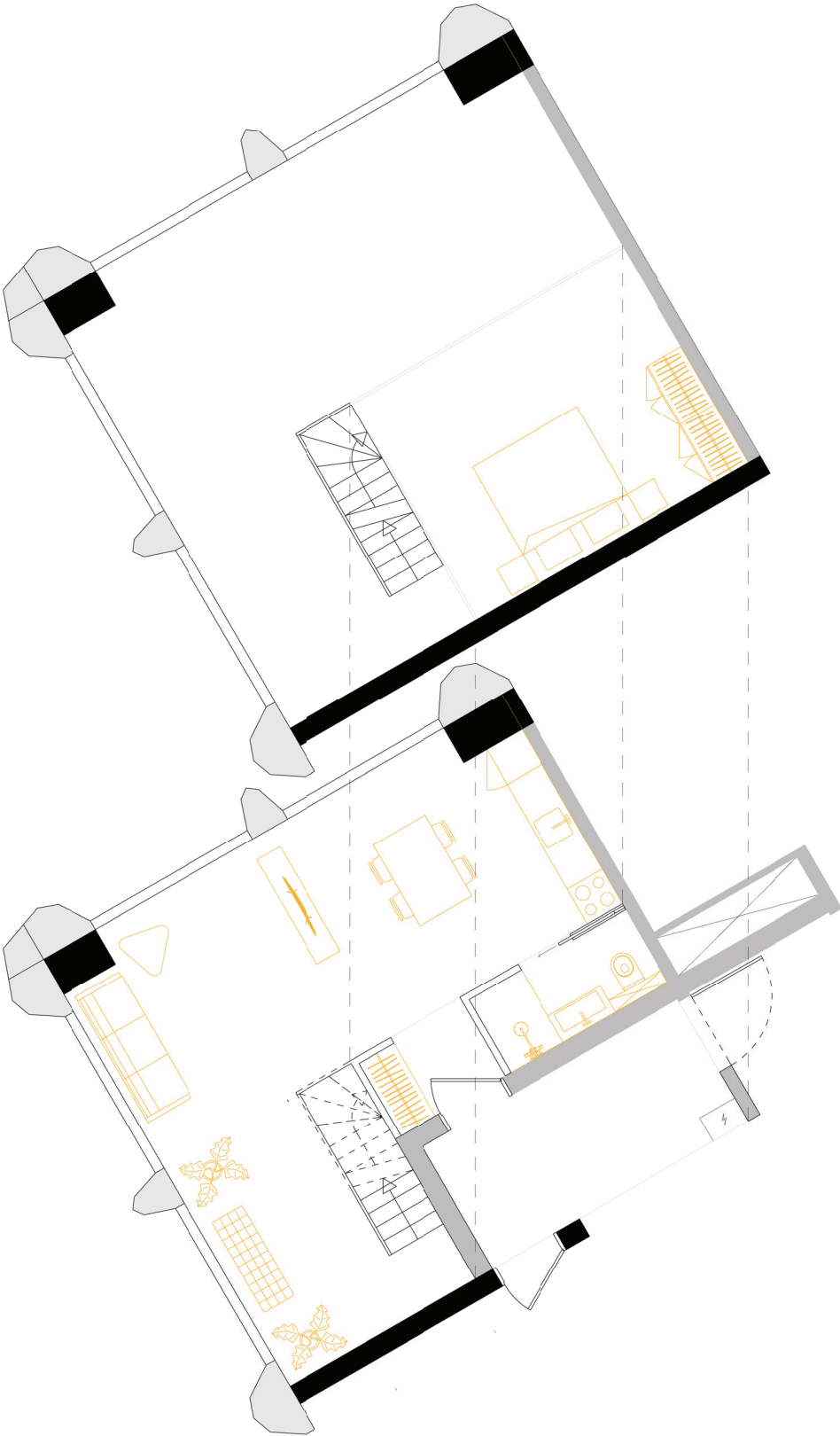
SHORT TERM RESIDENT
00
104



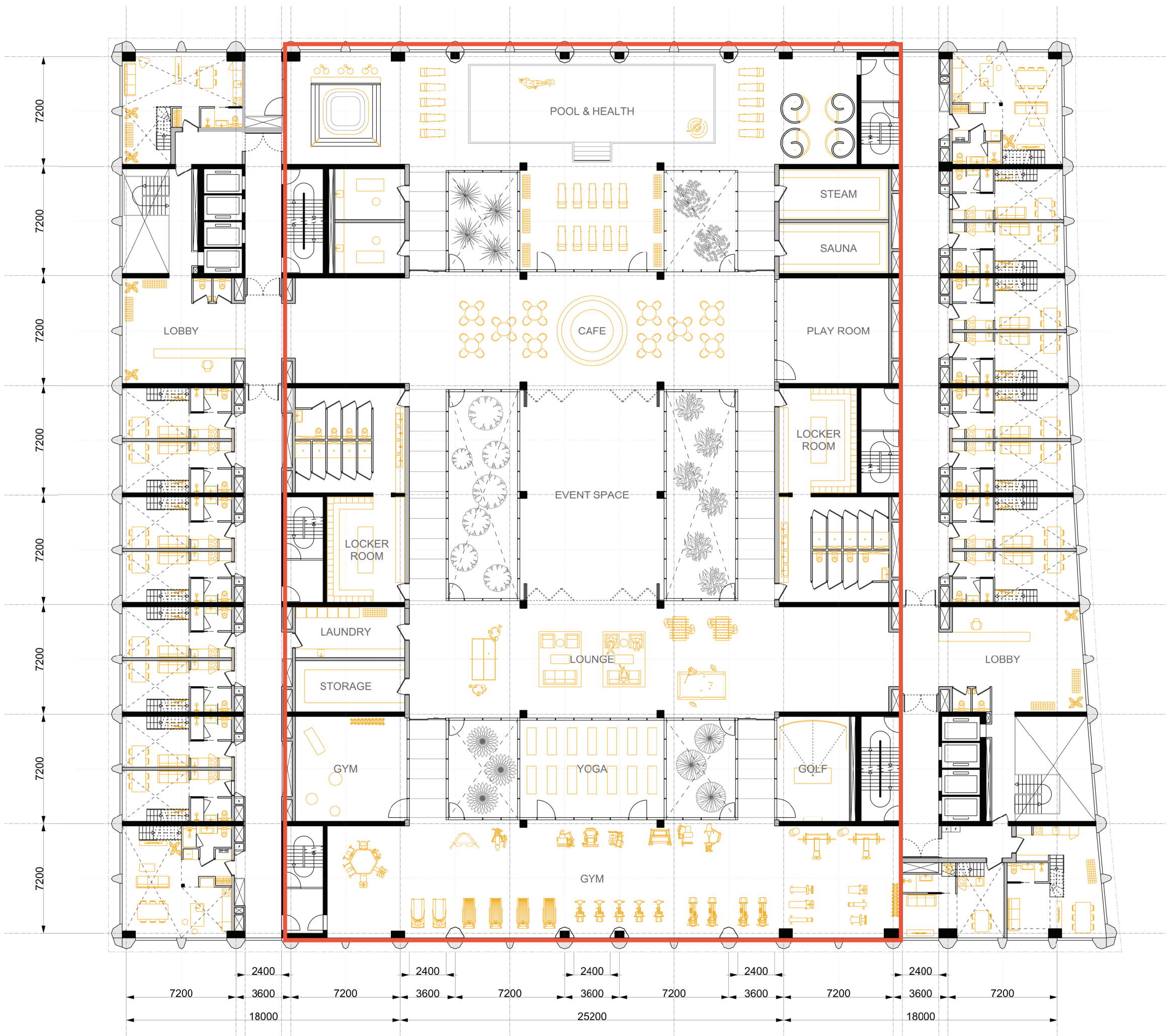


106

SCALE 1:100



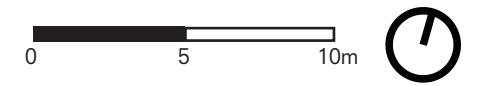
DWELLING TYPES
SHORT STAY LOFT



108

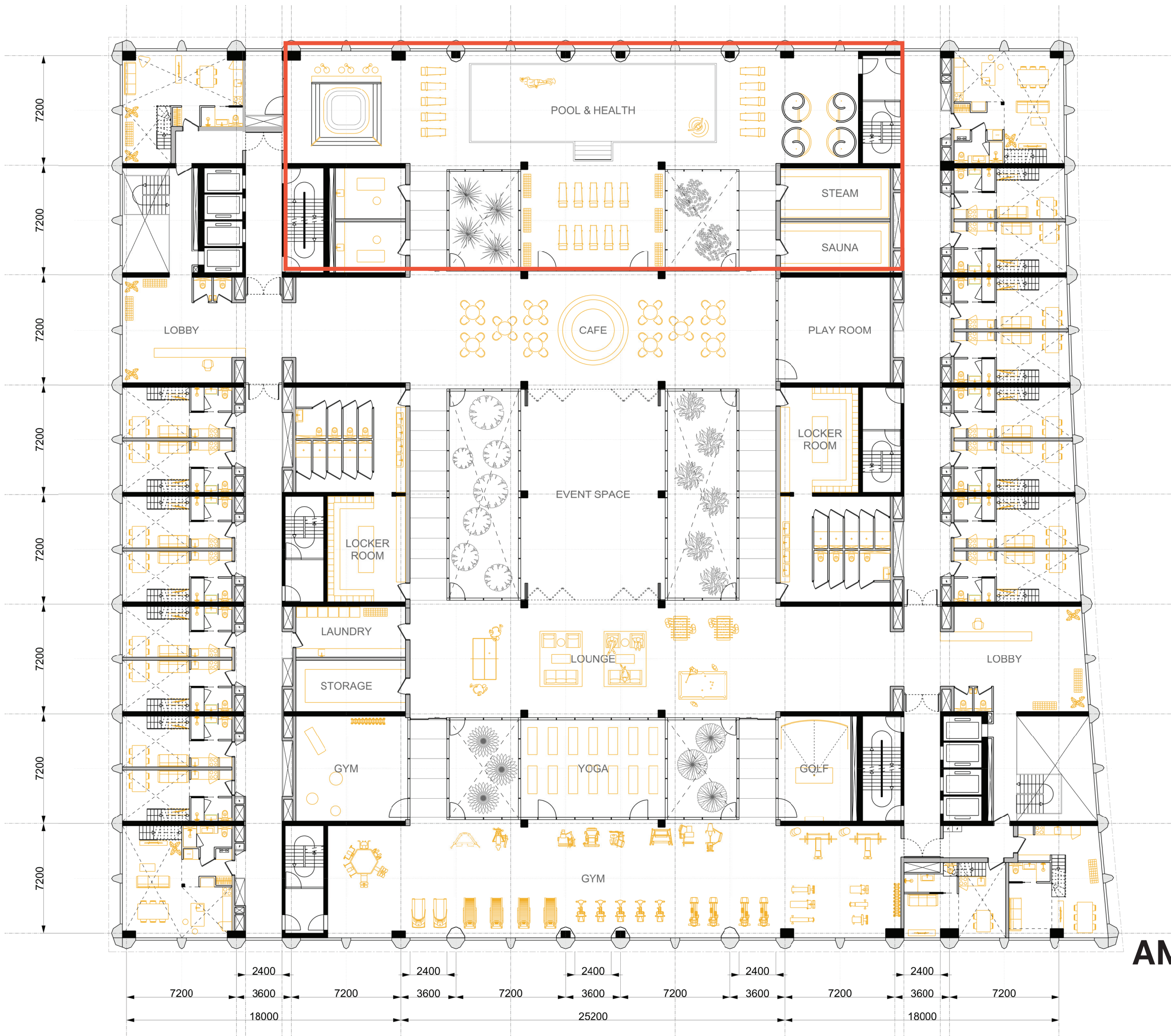
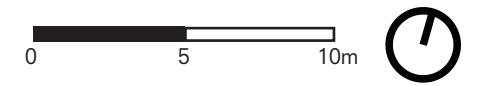






DAYLIGHT
+12800
111

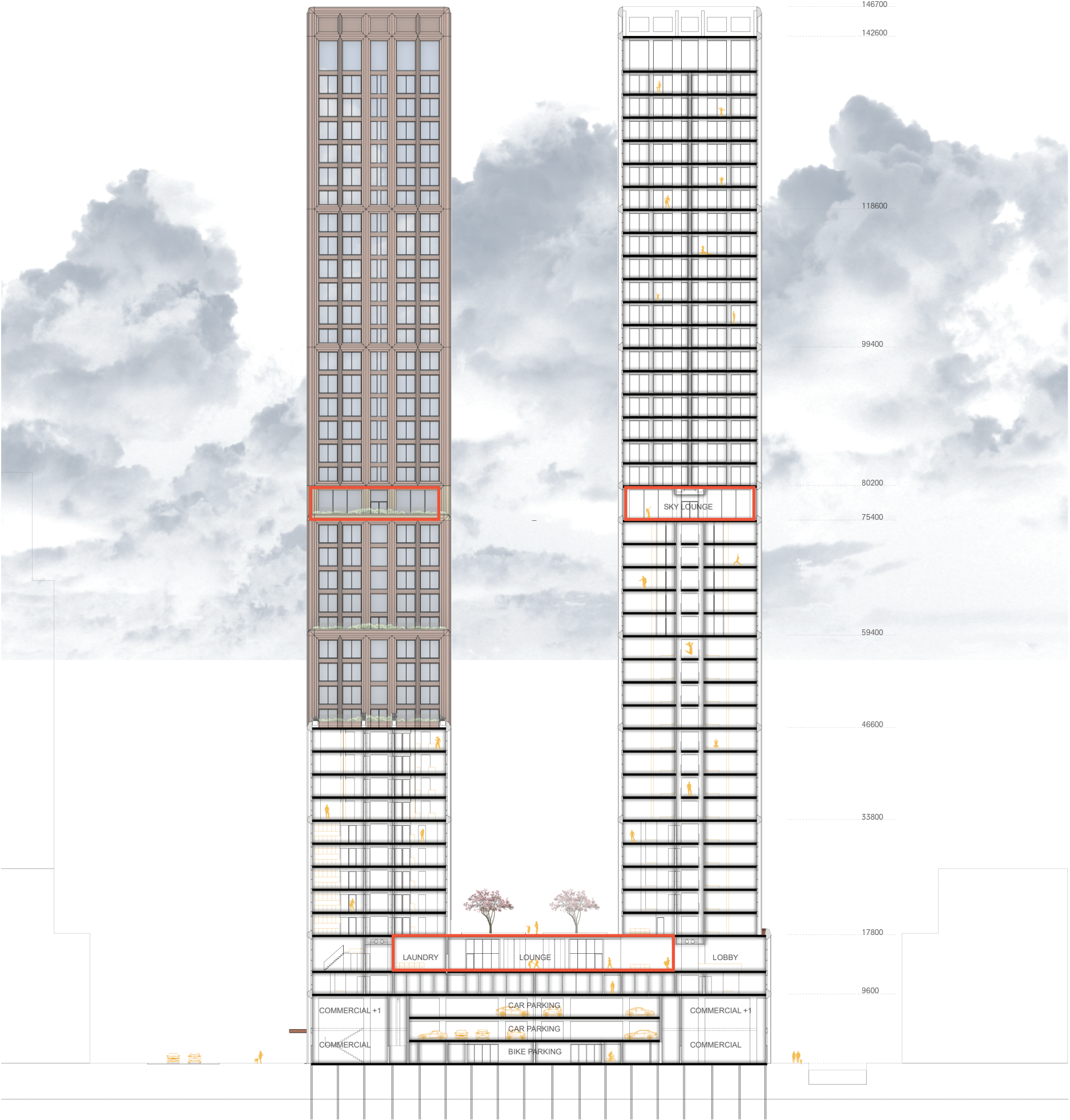




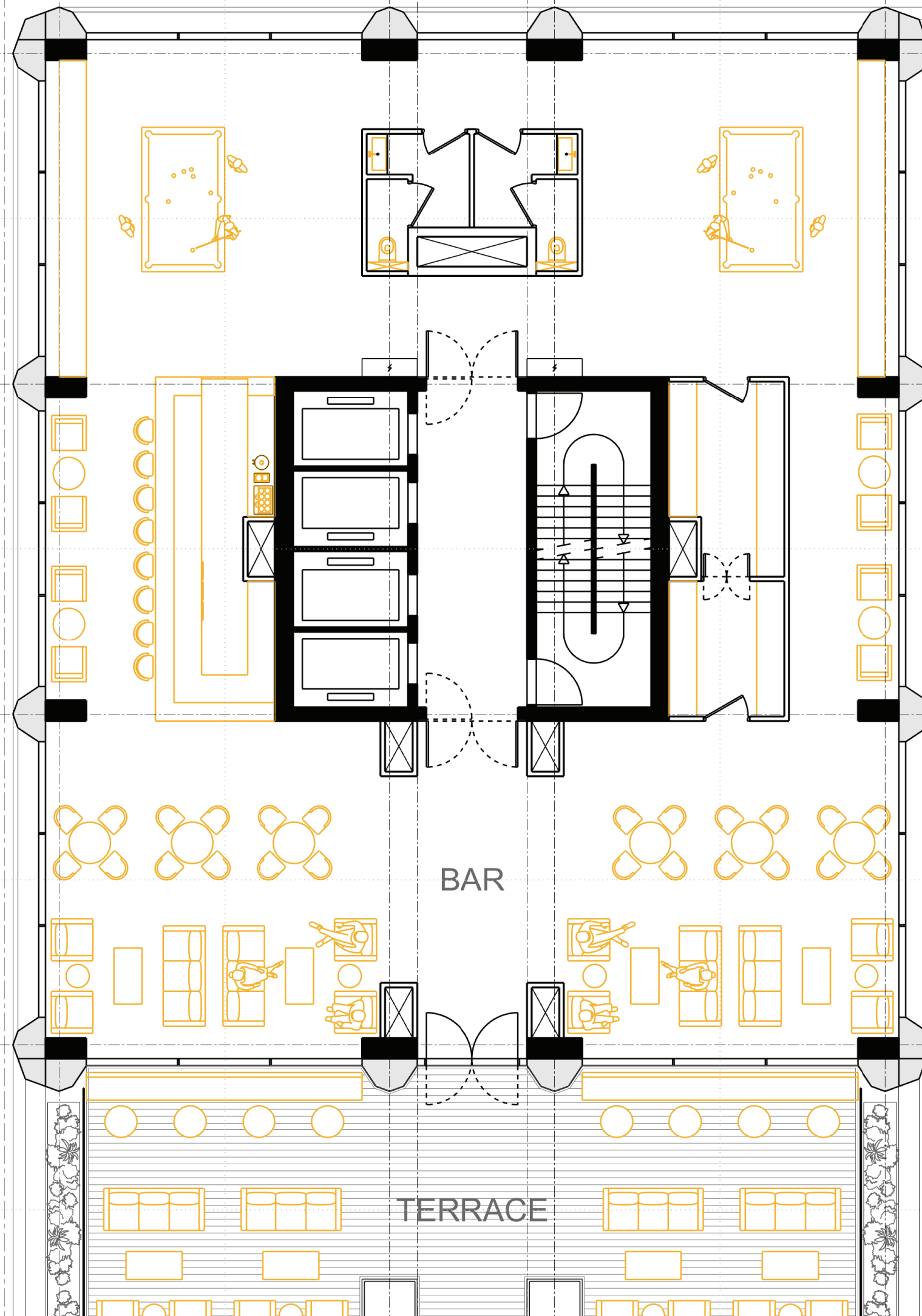
AMENITIES CLUB - SPA
+12800
113







SECTION
116

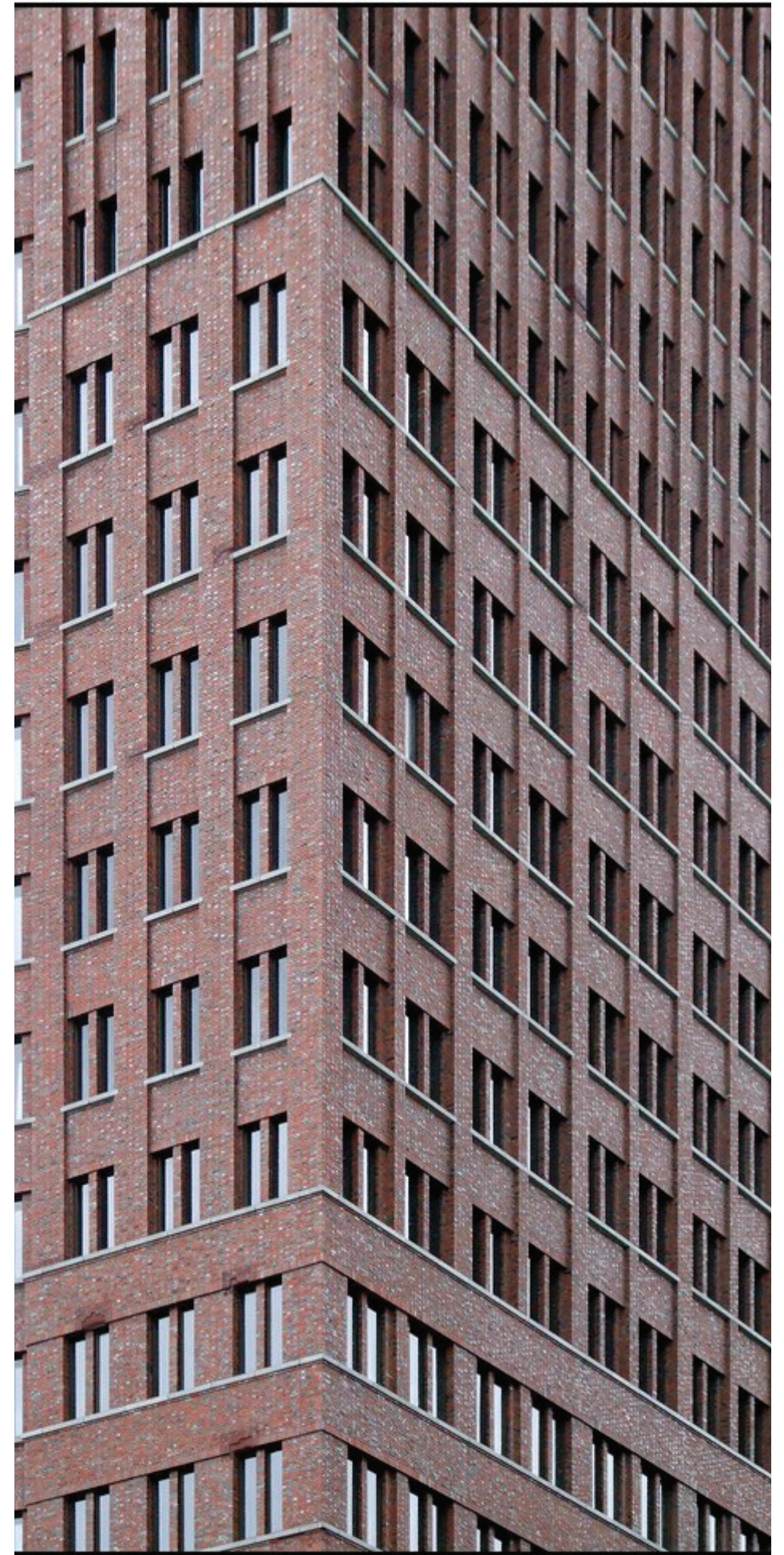


SKY BAR
75400
117



EXTERIOR EXPRESSION







ANODIZED ALUMINIUM



NORTH ELEVATION

1:600



SOUTH ELEVATION

1:600



EAST ELEVATION

1:600



WEST ELEVATION

1:600

+65800

+62600

+59400

+56200



1:50 Elevation

0 1 2m

+65800

+62600

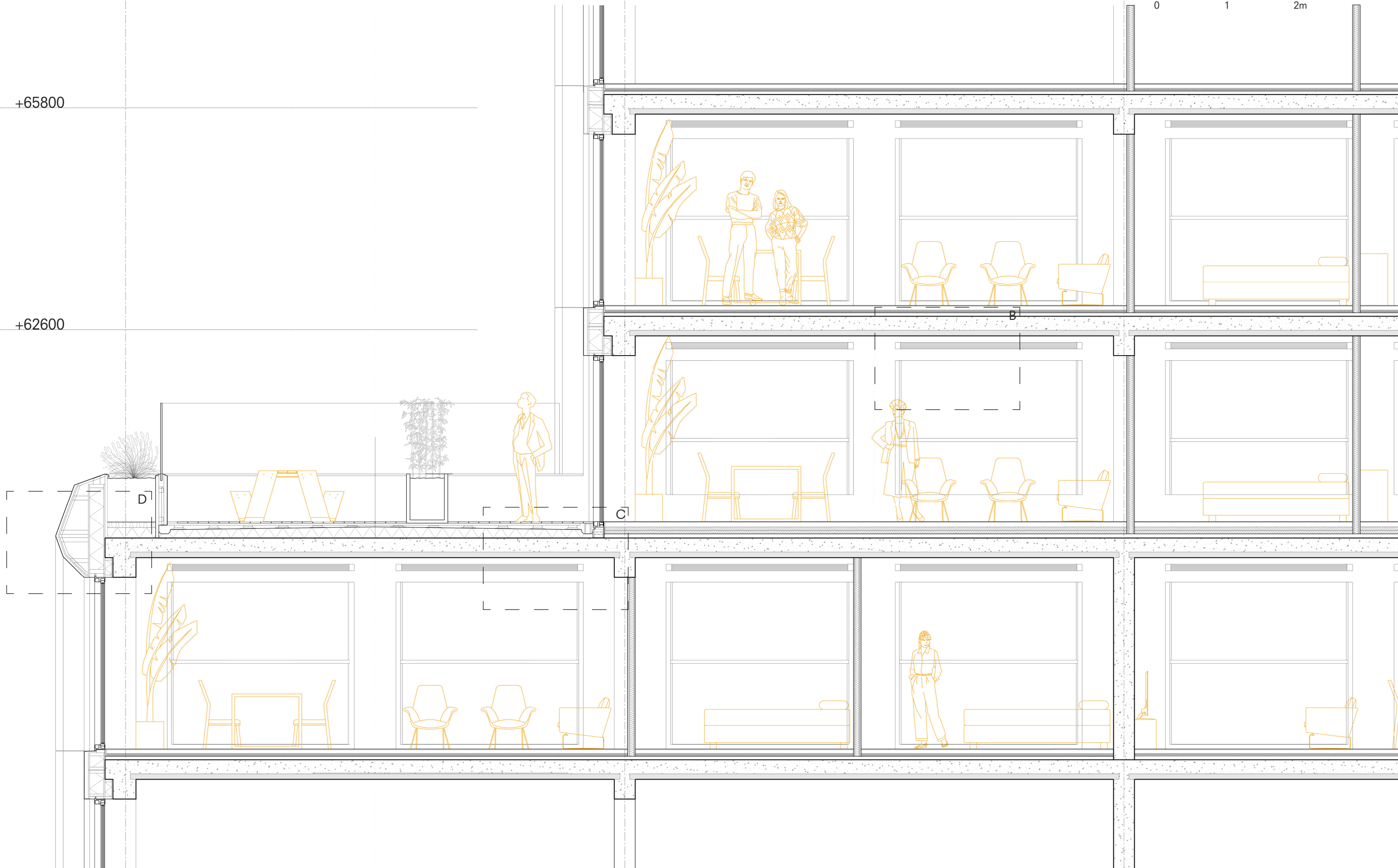
D

C

B

1:50 Section

128

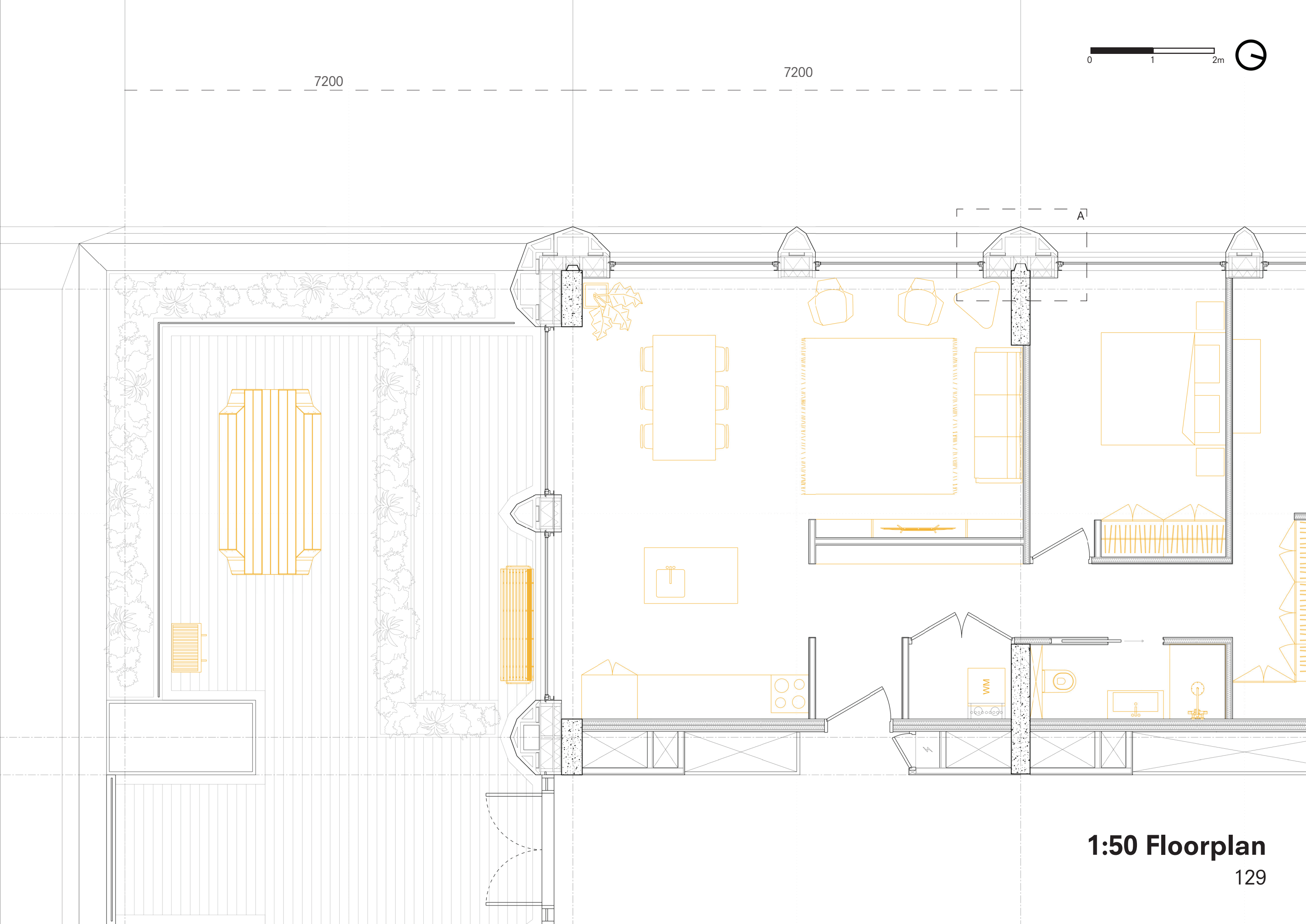


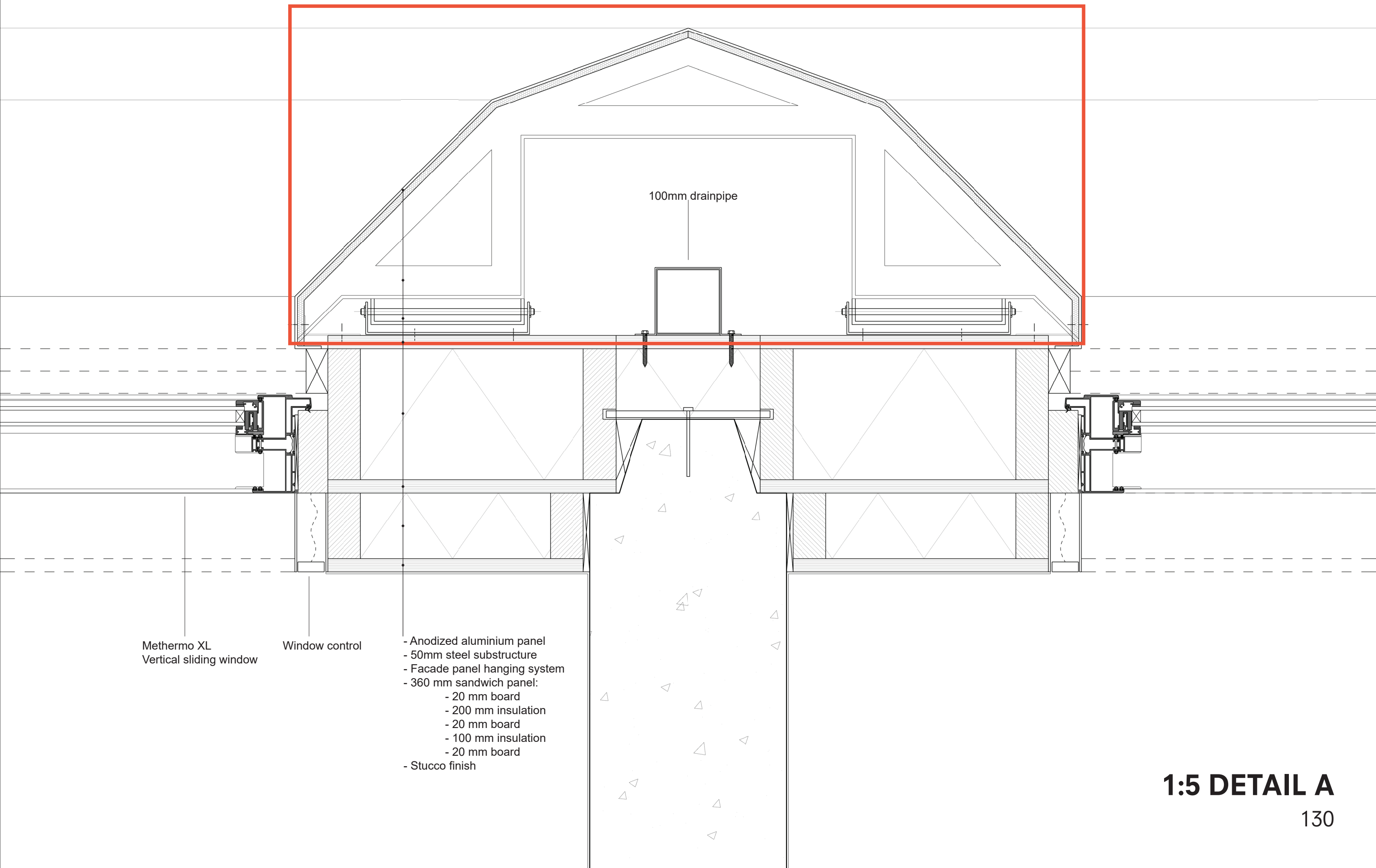
7200

7200

A

1:50 Floorplan





100mm drainpipe

Methermo XL
Vertical sliding window

Window control

- Anodized aluminium panel
- 50mm steel substructure
- Facade panel hanging system
- 360 mm sandwich panel:
 - 20 mm board
 - 200 mm insulation
 - 20 mm board
 - 100 mm insulation
 - 20 mm board
- Stucco finish

1:5 DETAIL A

130

0 100 200mm

- Anodized aluminium panel
- 60 mm substructure
- Water barrier
- 20 mm wood board
- Duco Twintronic ZR AK ventilation + sunscreen
- Custom grille

- Hardwood floor finish
- 60mm heating screed
- 20mm rigid impact sound insulation
- 20mm thermal insulation
- 50 mm leveling screed
- 280 mm reinforced concrete
- Ceiling finish

Window mechanism

1:5 DETAIL B

131

0 100 200mm

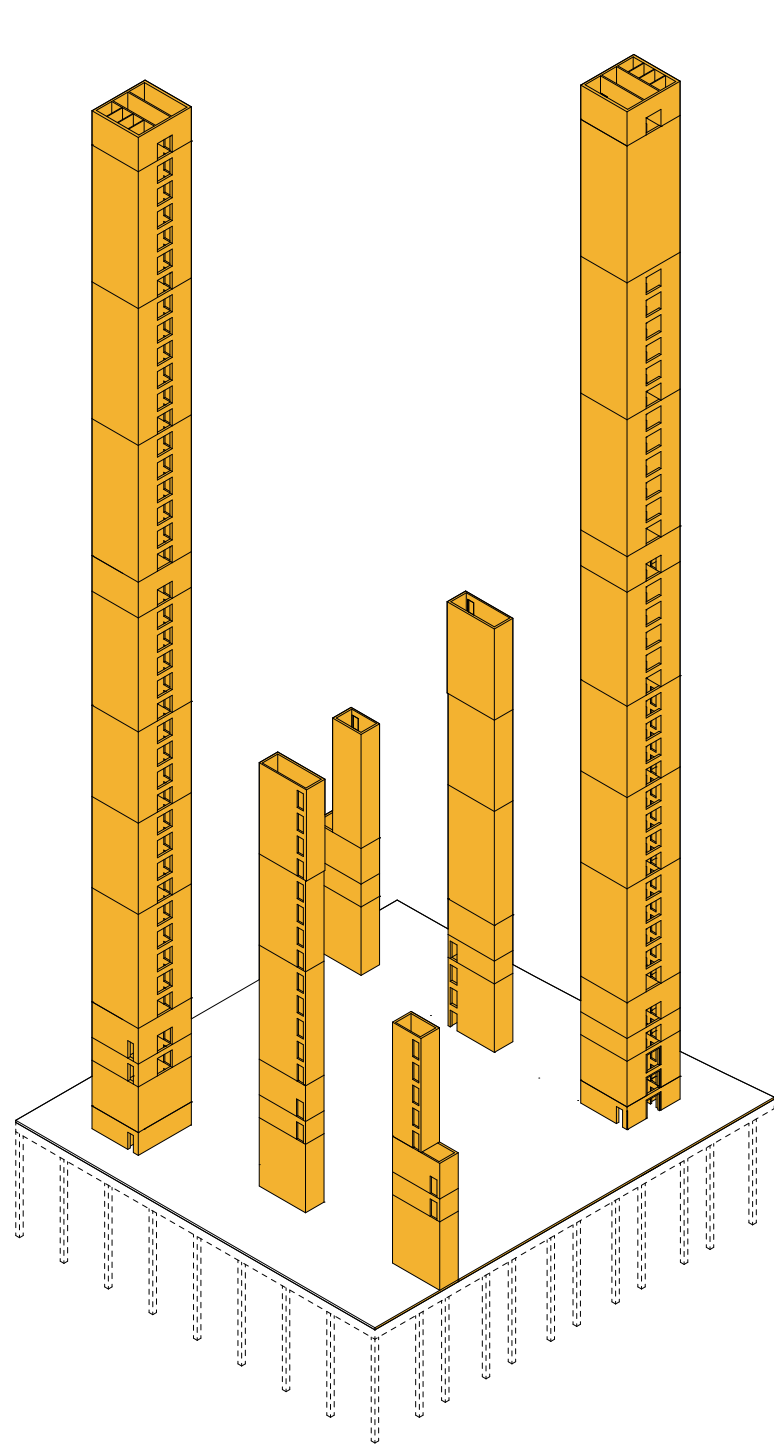
Safety glass

- Anodized aluminium panel
- Steel substructure
- Waterproof layer
- 240mm sandwich panel
- Steel T-profile with cempanel in between
- Waterproof layer
- Dirt with irrigation system
- Waterproof layer
- Steel T-profile with cempanel in between
- Steel substructure
- Anodized aluminium panel

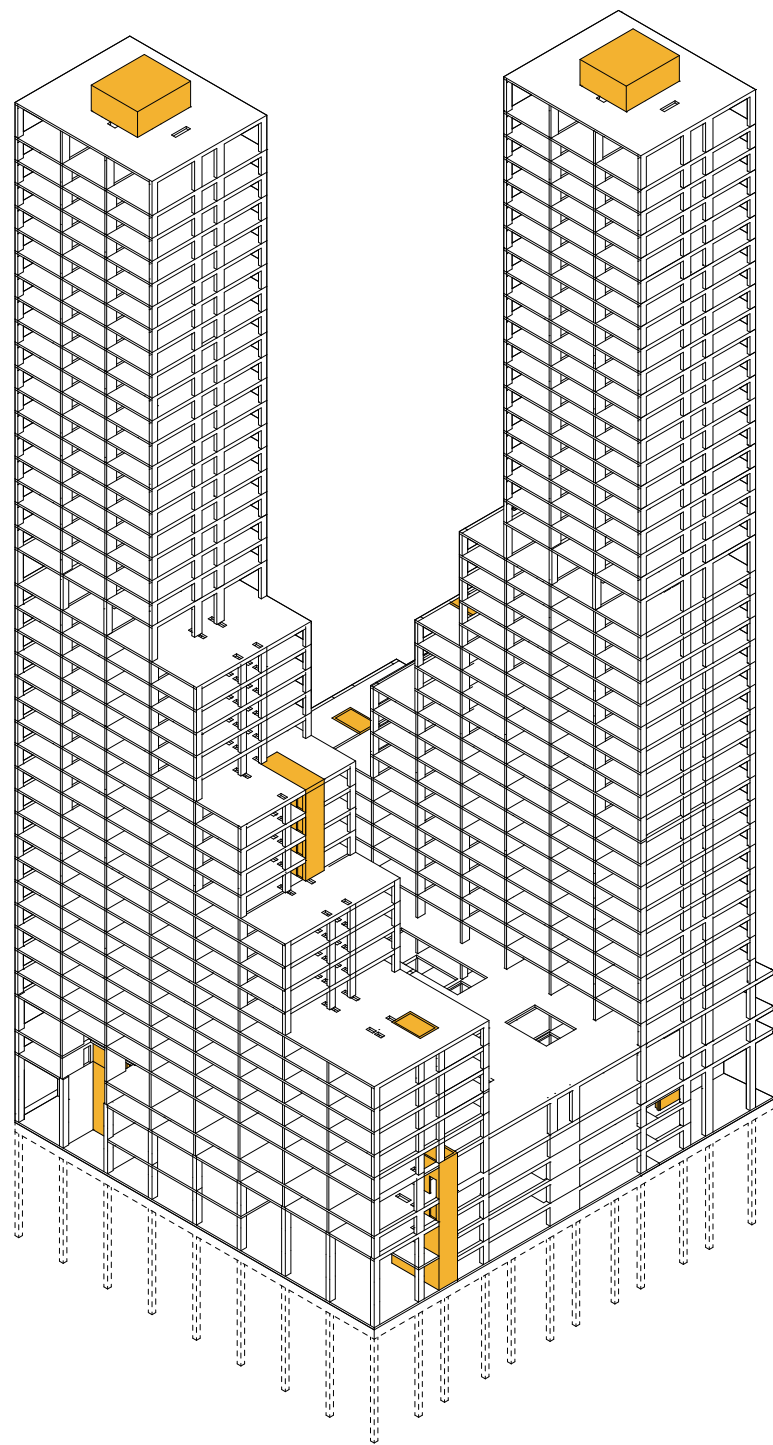
- 21x145 mm hardwood boards
- 30mm steel substructure
- Buzon pedestals
- Waterproof layer
- >120 mm PIR incline insulation
- 280 mm reinforced concrete
- Ceiling finish

1:5 DETAIL D

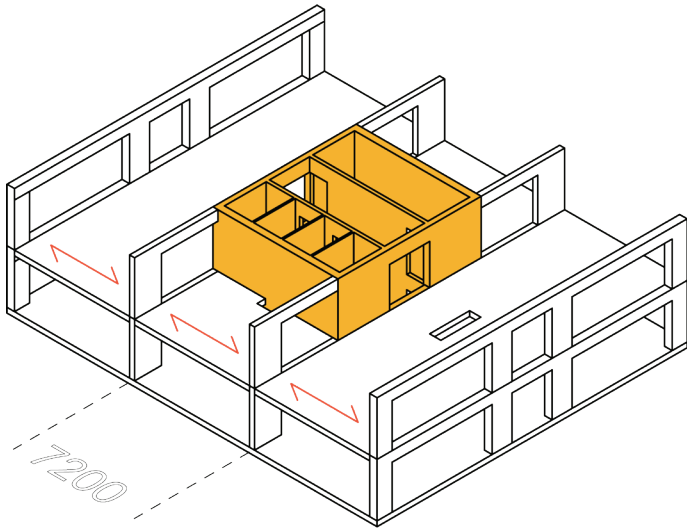
132



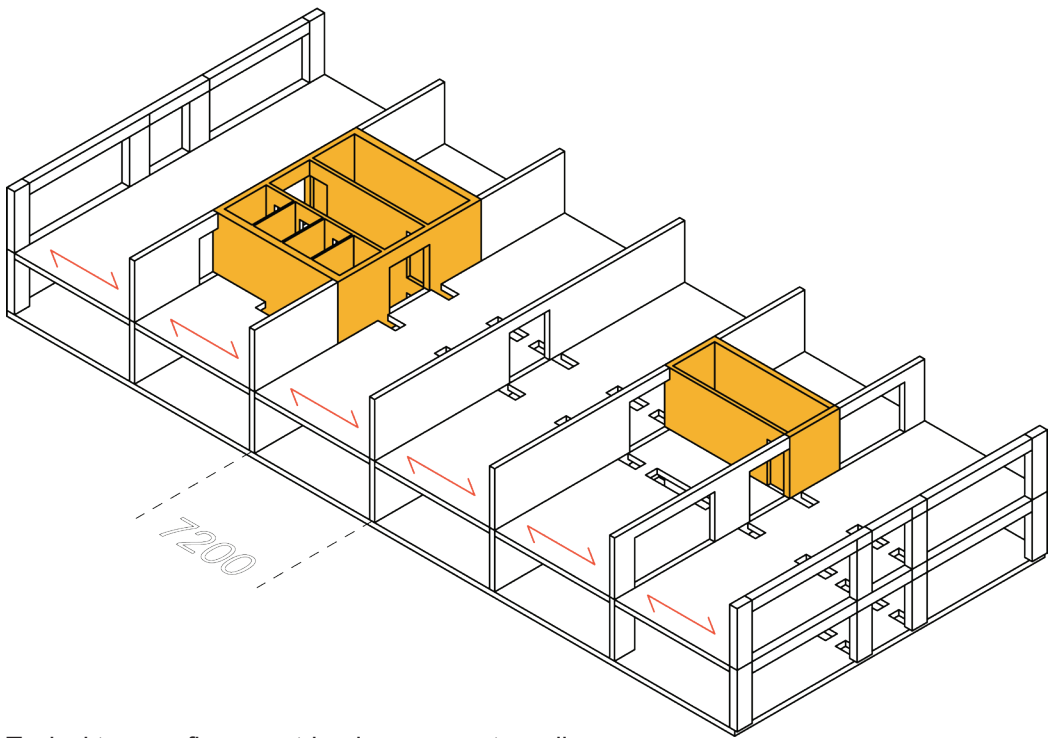
Concrete cores for stability



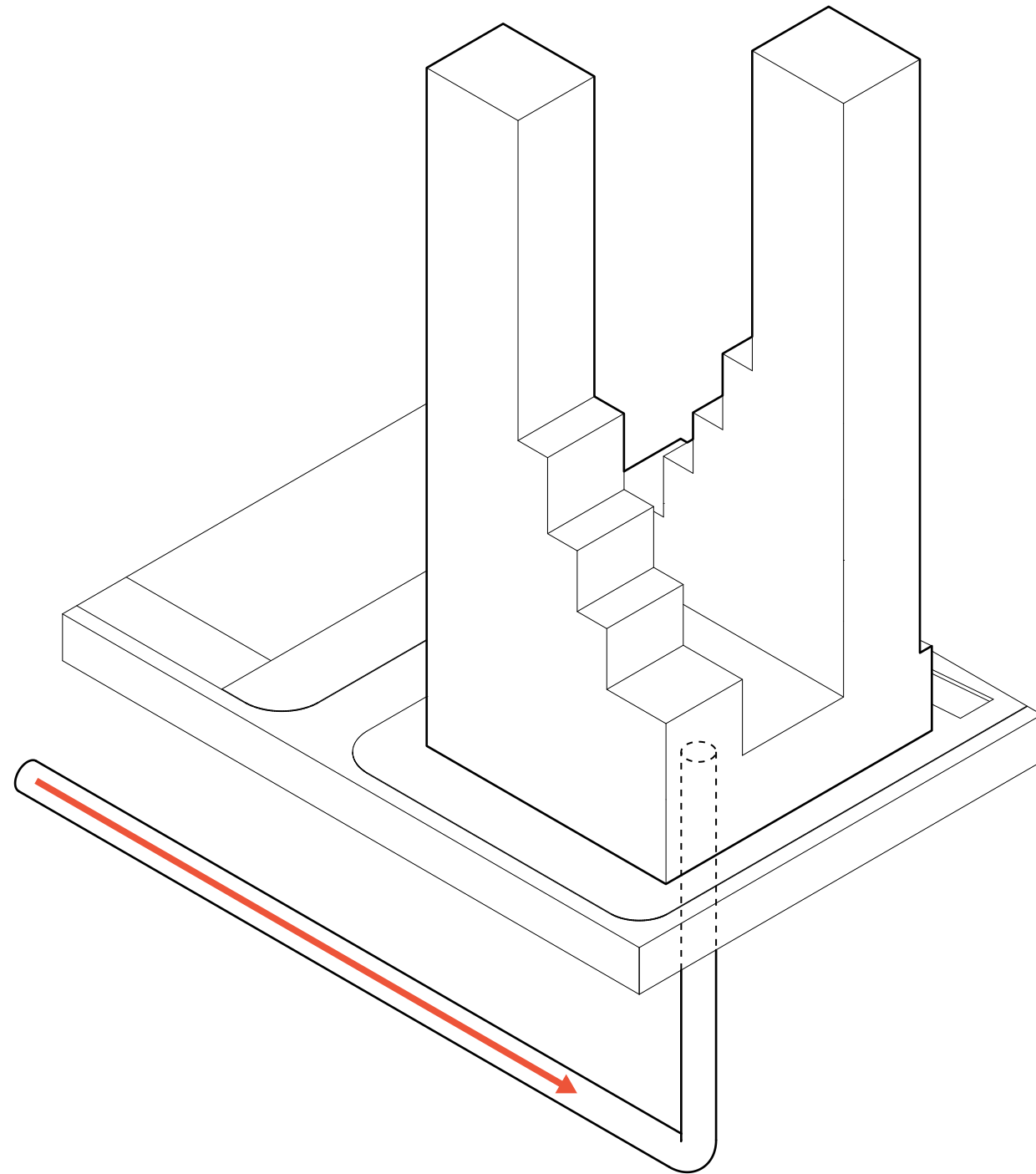
Full concrete structure



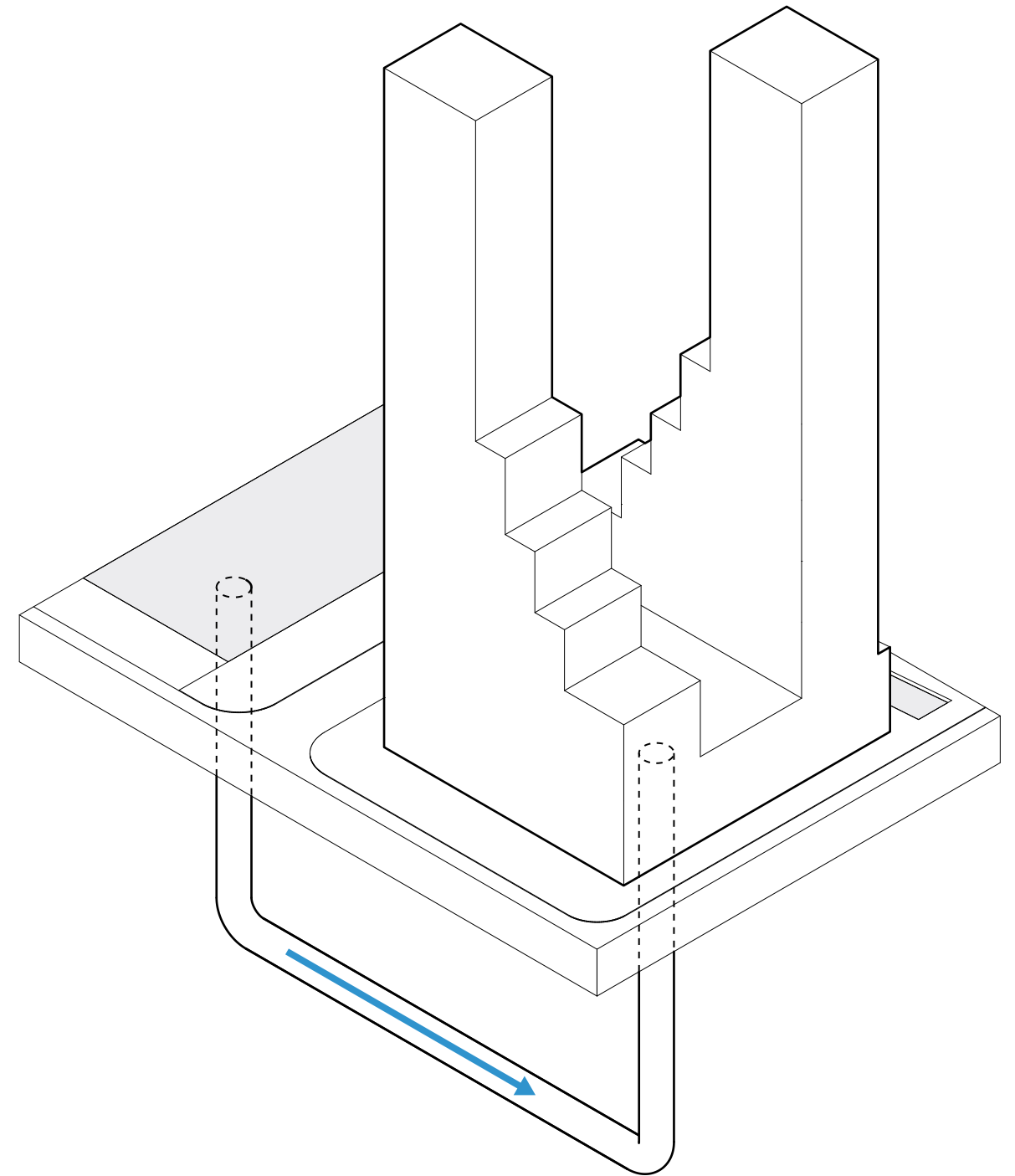
Typical tower floor: cast-in-place concrete portals



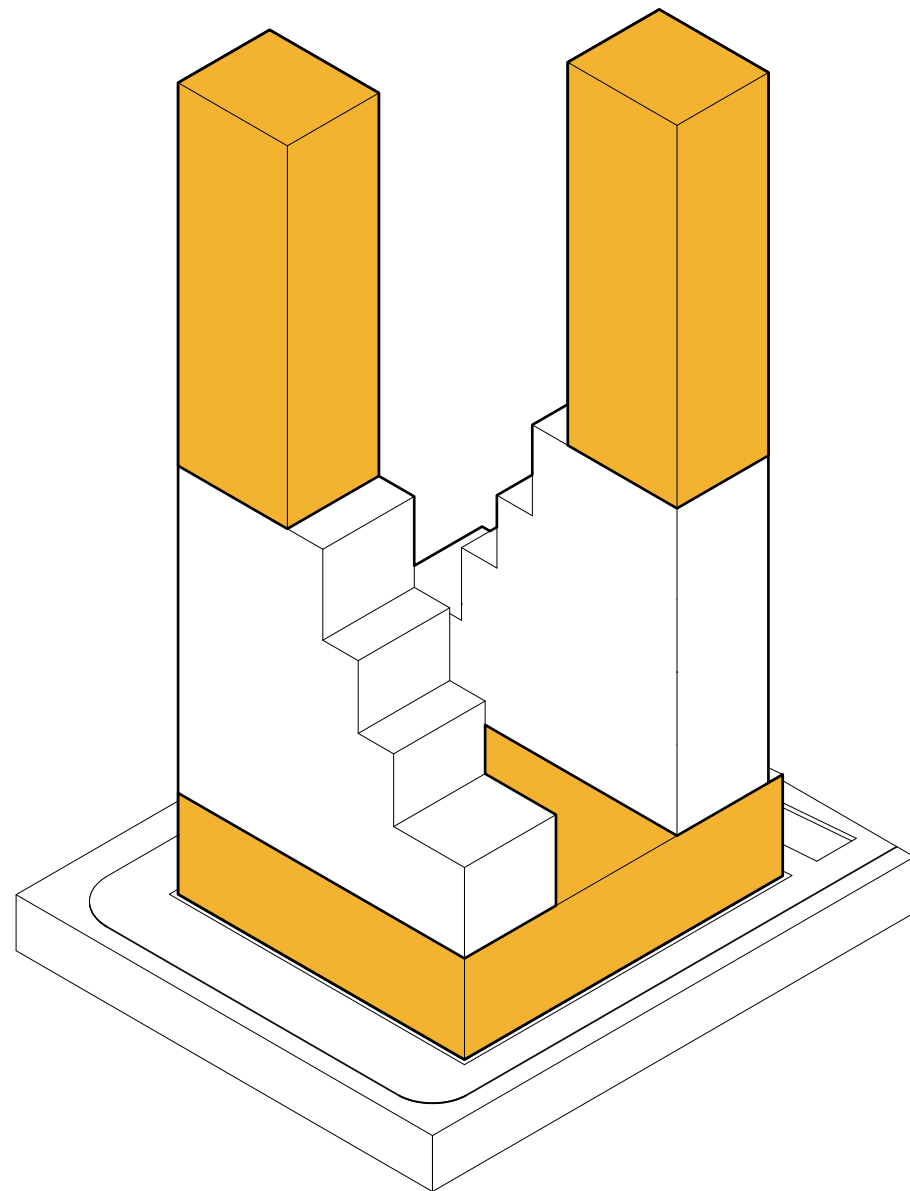
Typical terrace floor: cast-in-place concrete walls



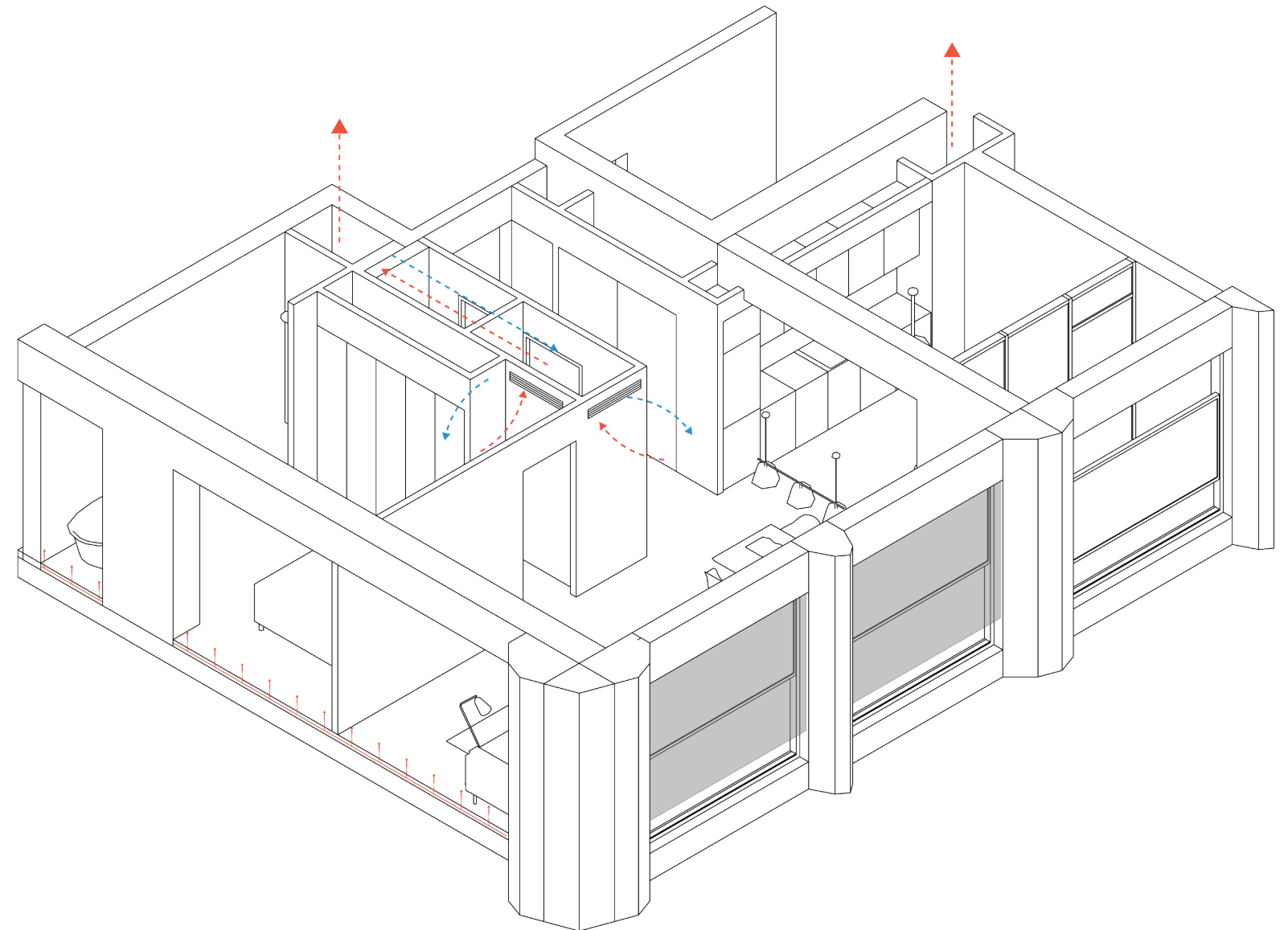
Low temperature heating using industrial waste heat



High temperature cooling using water from IJ

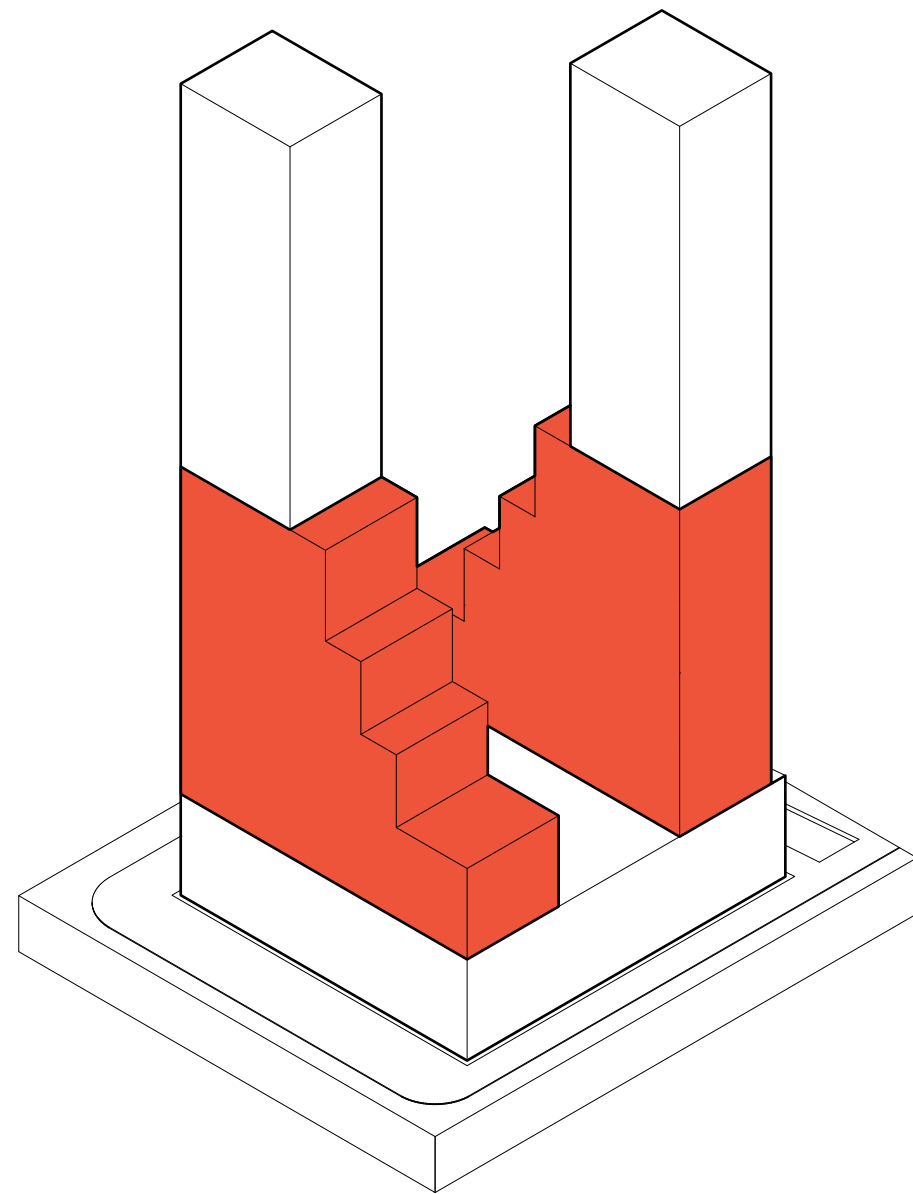


Mechanical ventilation

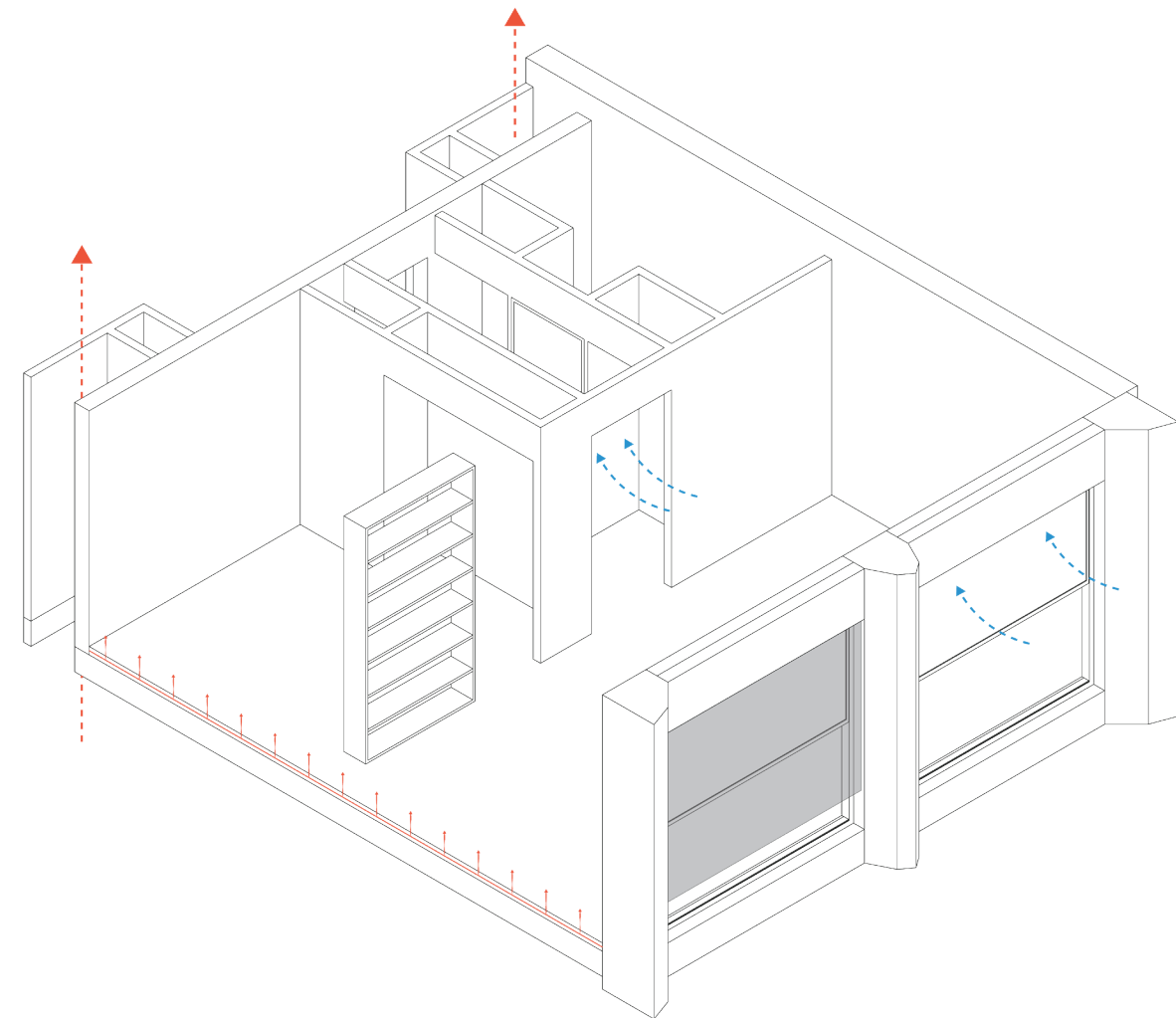


Mechanical ventilation, low temperature floor heating and integrated
sunscreen

VENTILATION & HEATING



Hybrid ventilation



Hybrid ventilation, low temperature floor heating and integrated sunscreen

