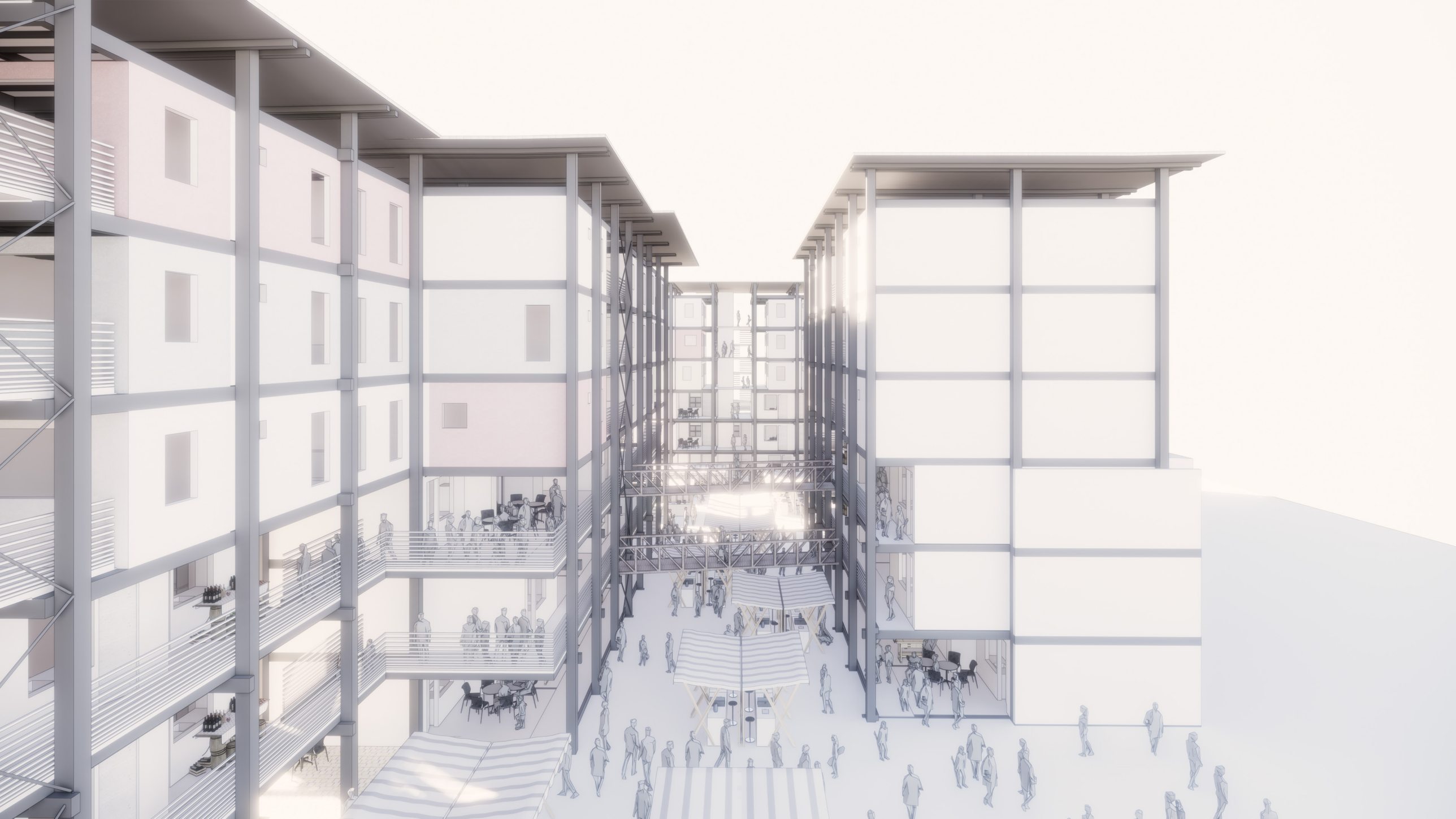
EMBRACING URBAN TEMPORALITY



WHAT IS INFORMALITY?

WHAT IS INFORMALITY?

It's a lack of ...

inadequate access to safe water

inadequate access to sanitation and other infrastructure

poor structural quality of housing

overcrowding

WHAT IS INFORMALITY?

there are different lenses

economic - labour flows & income generation

legal - occupation, tranfers, interaction, negotiation

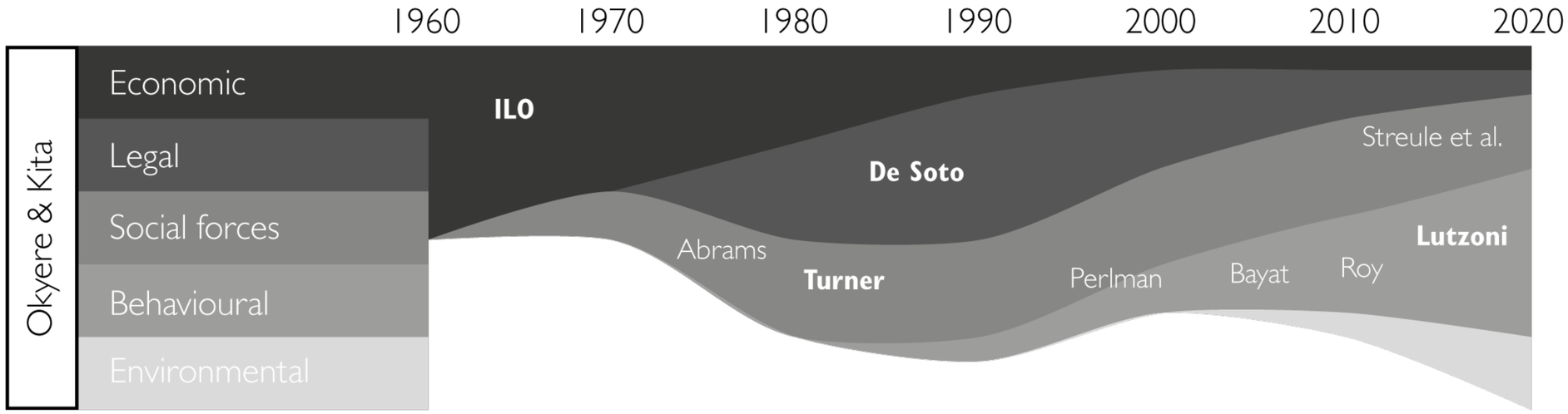
social - social activities and actions

behavioural - mobility, moving between the formal and informal

sustainable - ability to deal with climate change + resilience

WHAT IS INFORMALITY?

there are different lenses



WHAT IS INFORMALITY?

there are different lenses

dualists versus relationalists

WHAT IS INFORMALITY?

there are different lenses

"an intermediate space between two conditions in which

different forms of creativity may become manifest"

Lutzoni, 2016

WHAT IS INFORMALITY?

there are different lenses

"an intermediate space between two conditions in which

different forms of creativity may become manifest"

Lutzoni, 2016

temporal

TEMPORALITY

TEMPORALITY

"looking at people and objects, dwellings, neighbourhoods, not as a finished and completed output, but as a process, realizing something that is better than it previously was"

Lombard, 2013

TEMPORALITY

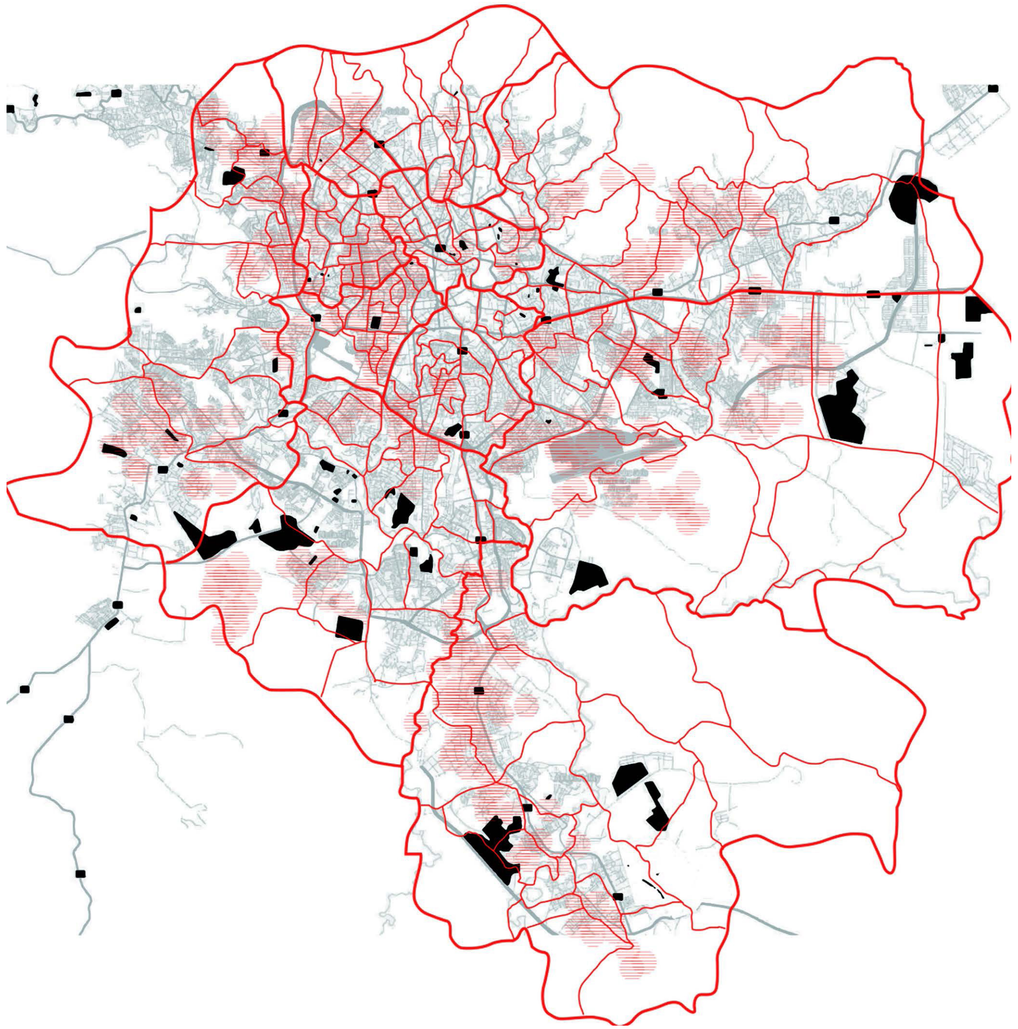
designing a space by designing its relations, rather than directly

designing the physical output

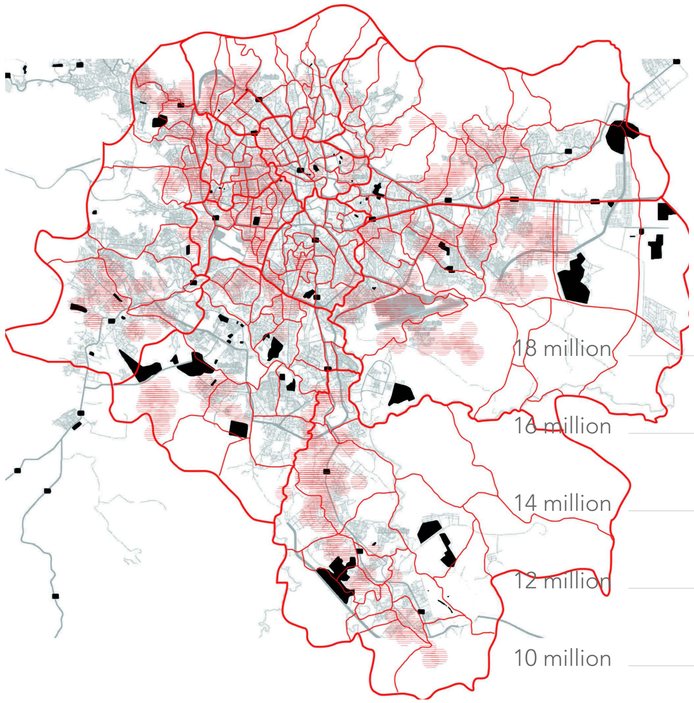
informality - intermediate-space - temporality - designing-relations

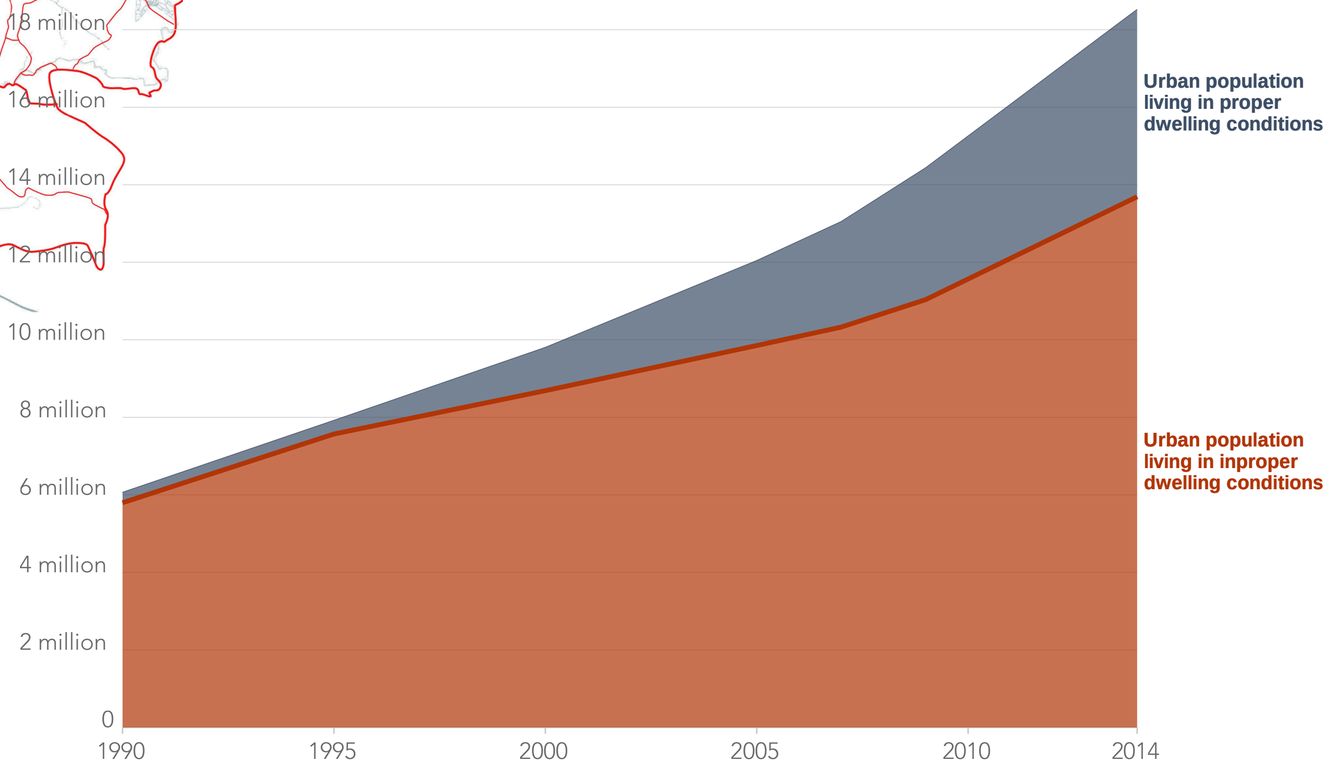
ADDIS ABABA

INFORMAL PARTS OF THE CITY



INFORMAL PARTS OF THE CITY





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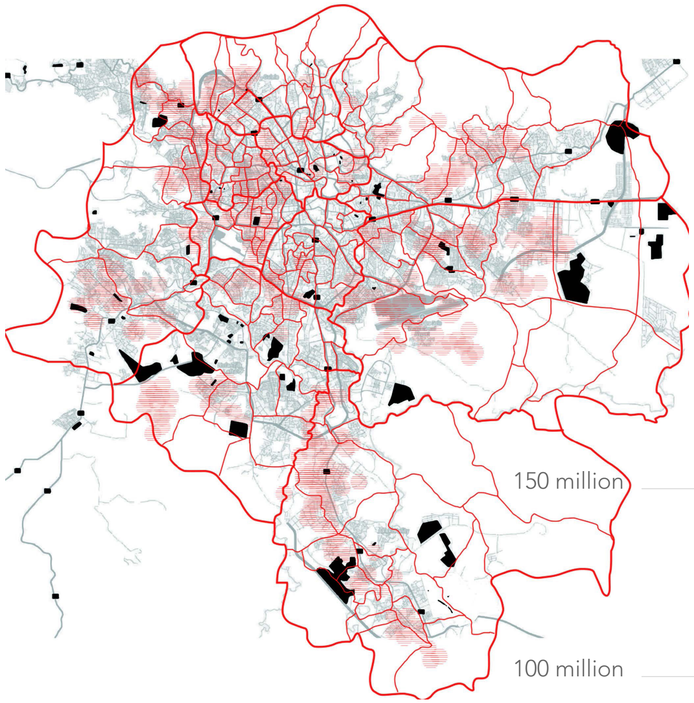
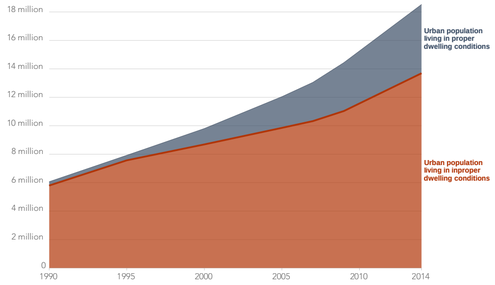
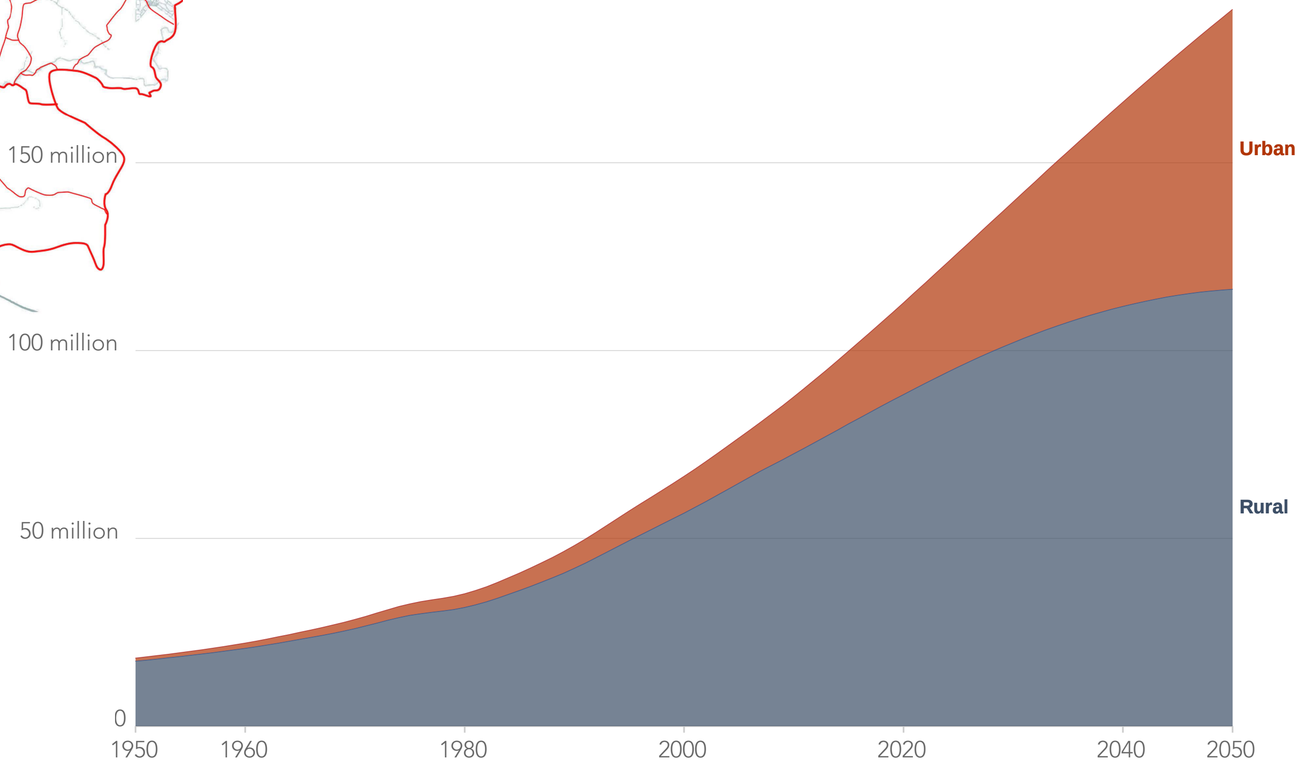
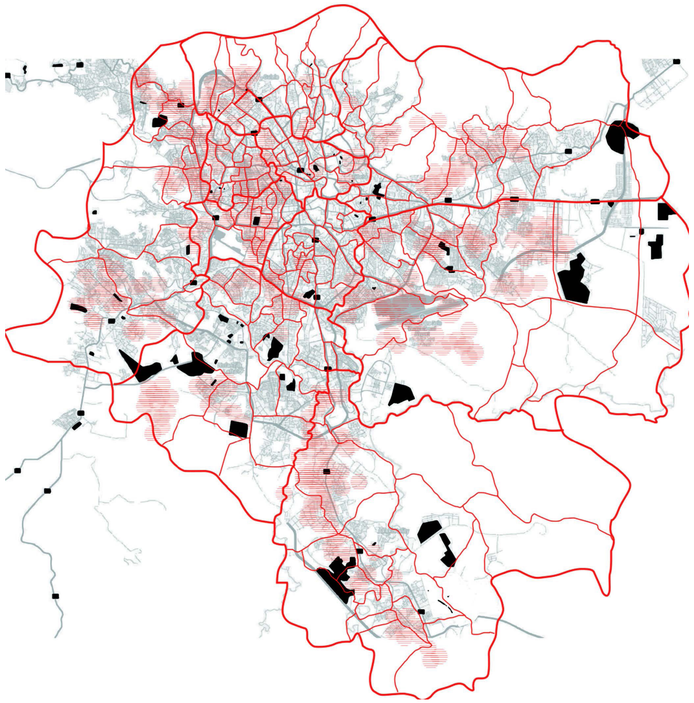
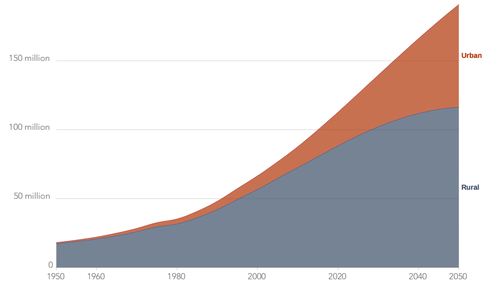


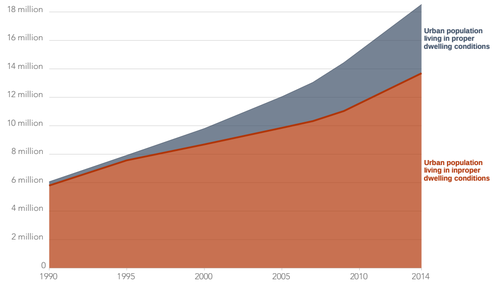




INFORMAL PARTS OF THE CITY

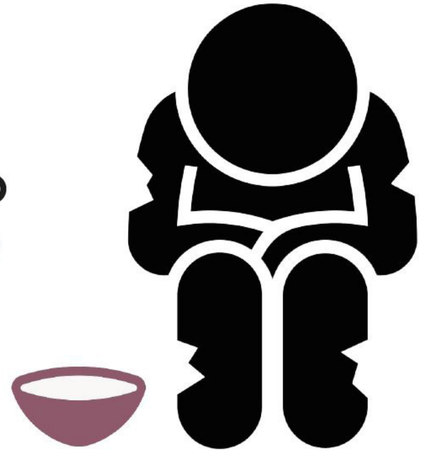






33%

< $ 1.25 /day



GOVERNMENT REACTIONS

Attitudes

Laissez-faire

Demolition

Regularisation

Building programmes

Sites & Services (1970's)

Cities without slums - Integrated Housing Development Programme (2005-)

IHDP - CONDOMINIUM

Ambition (2006-2010)

400.000 dwellings

IHDP - CONDOMINIUM

Ambition (2006-2010)

400.000 dwellings

Reality

80.245 dwellings

IHDP - CONDOMINIUM

Ambition (2006-2010)

400.000 dwellings

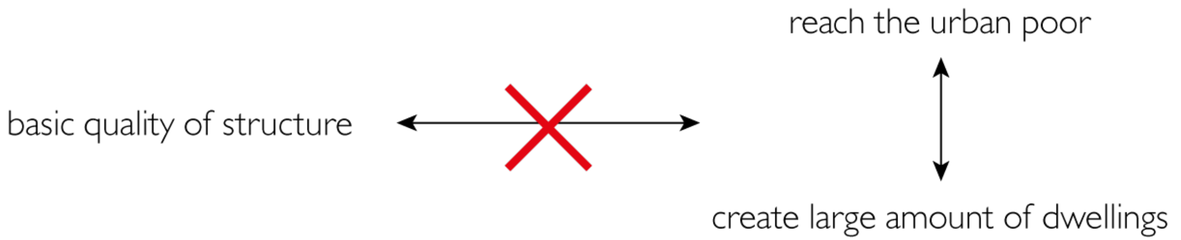
Reality

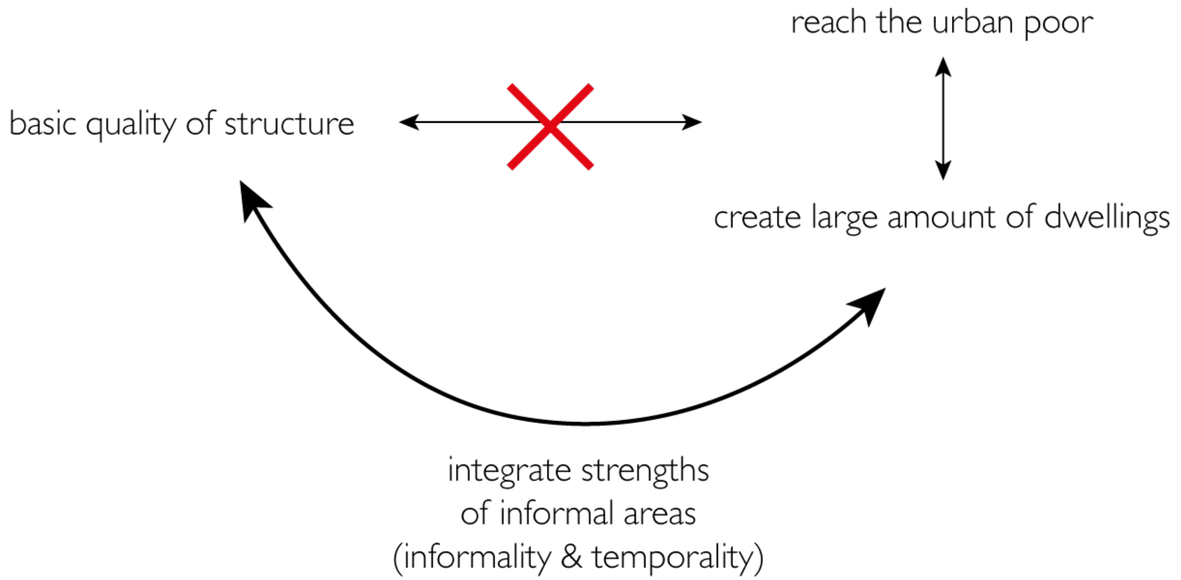
80.245 dwellings

45% perceived as ‘not affordable‘

58% affected ability to earn income

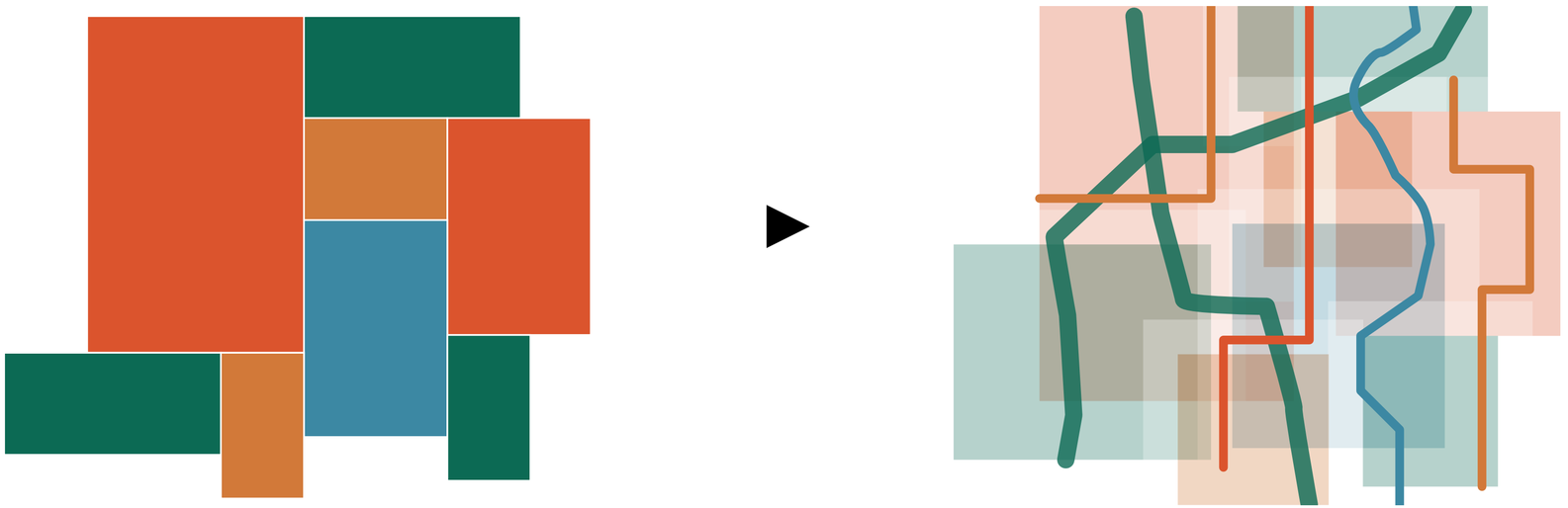
87% unable to sustain business at new location


reach the urban poor
basic quality of structure
create large amount of dwellings


reach the urban poor
basic quality of structure
create large amount of dwellings
integrate strengths
of informal areas
(informality & temporality)

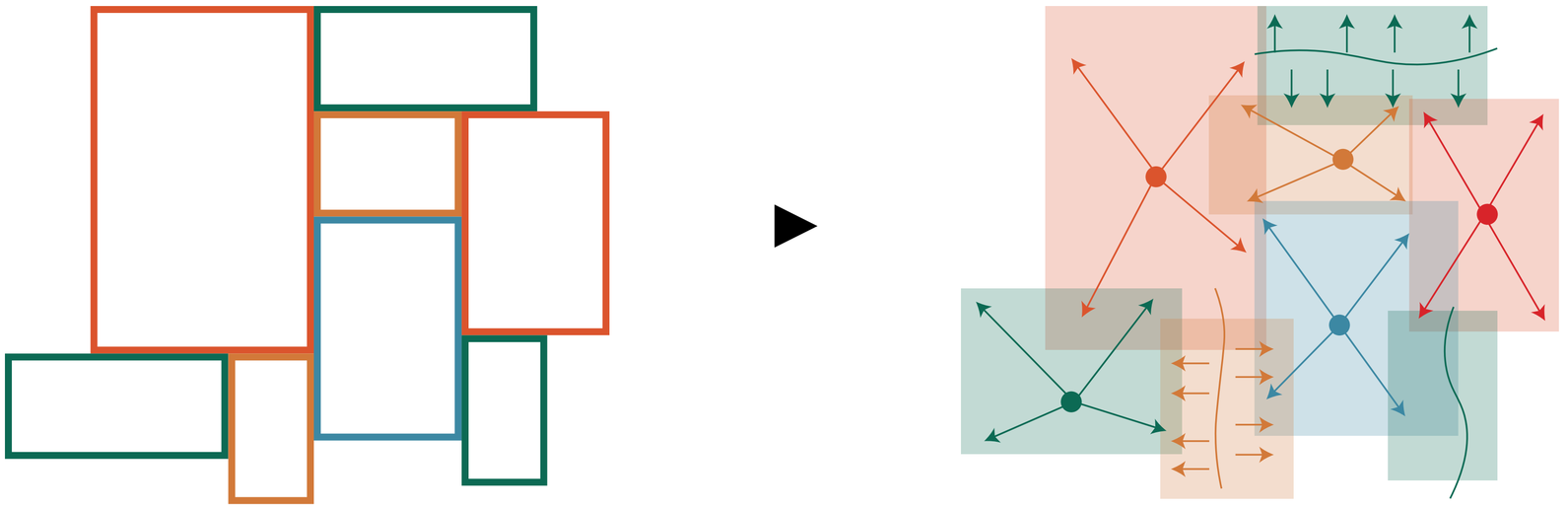
STRATEGY

from zoning to layering



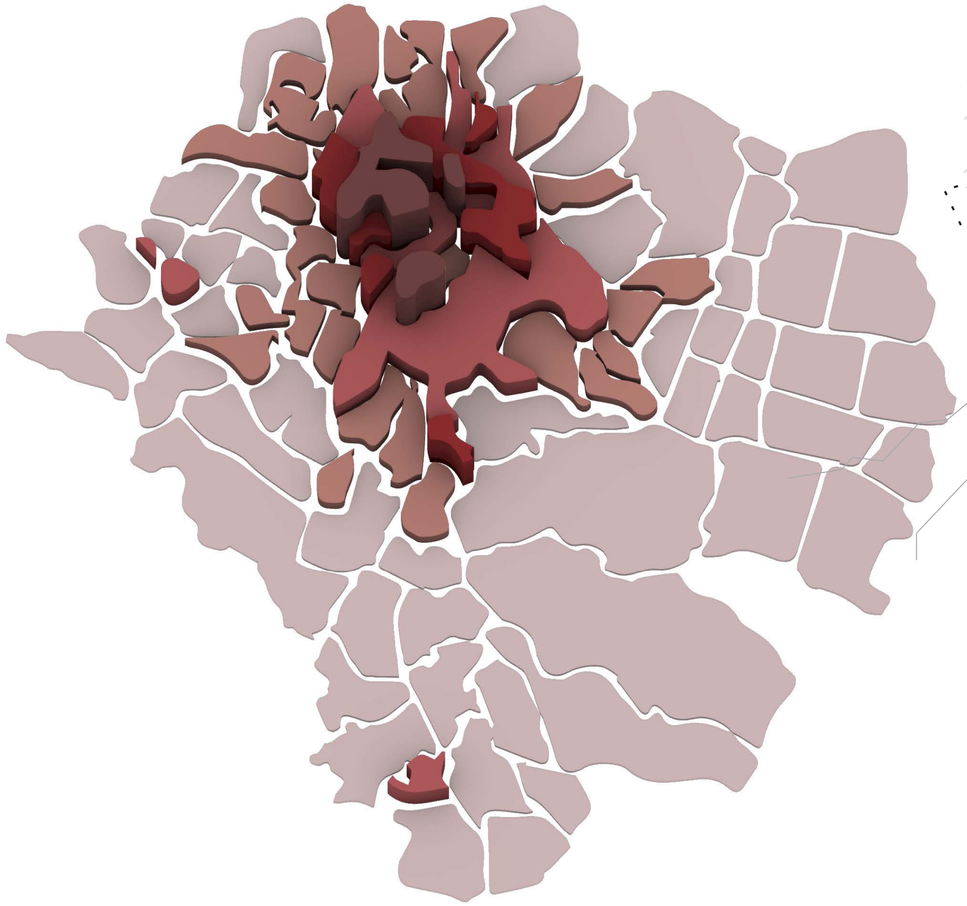
STRATEGY

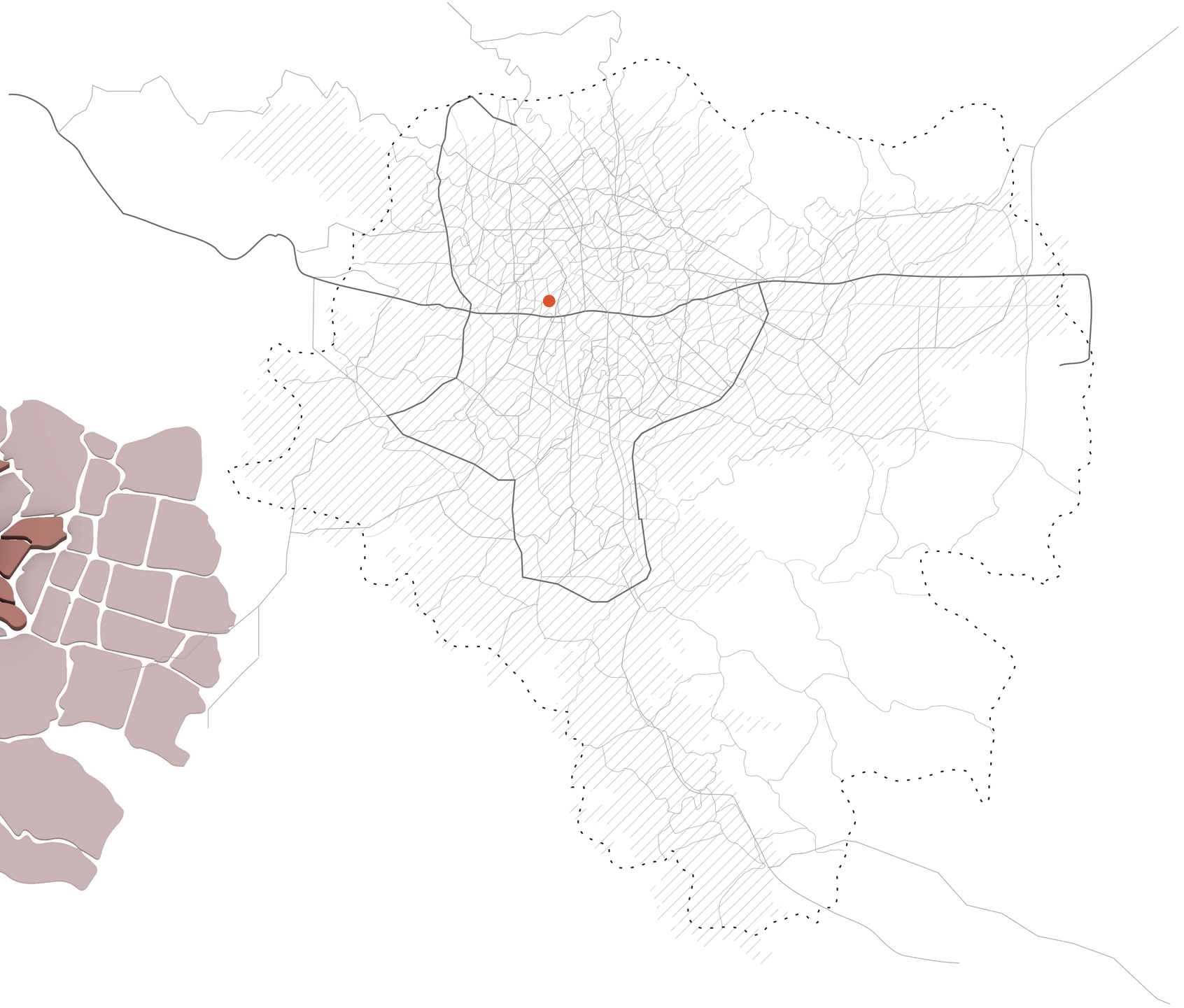
from boundary to powerpoint



LOCATION

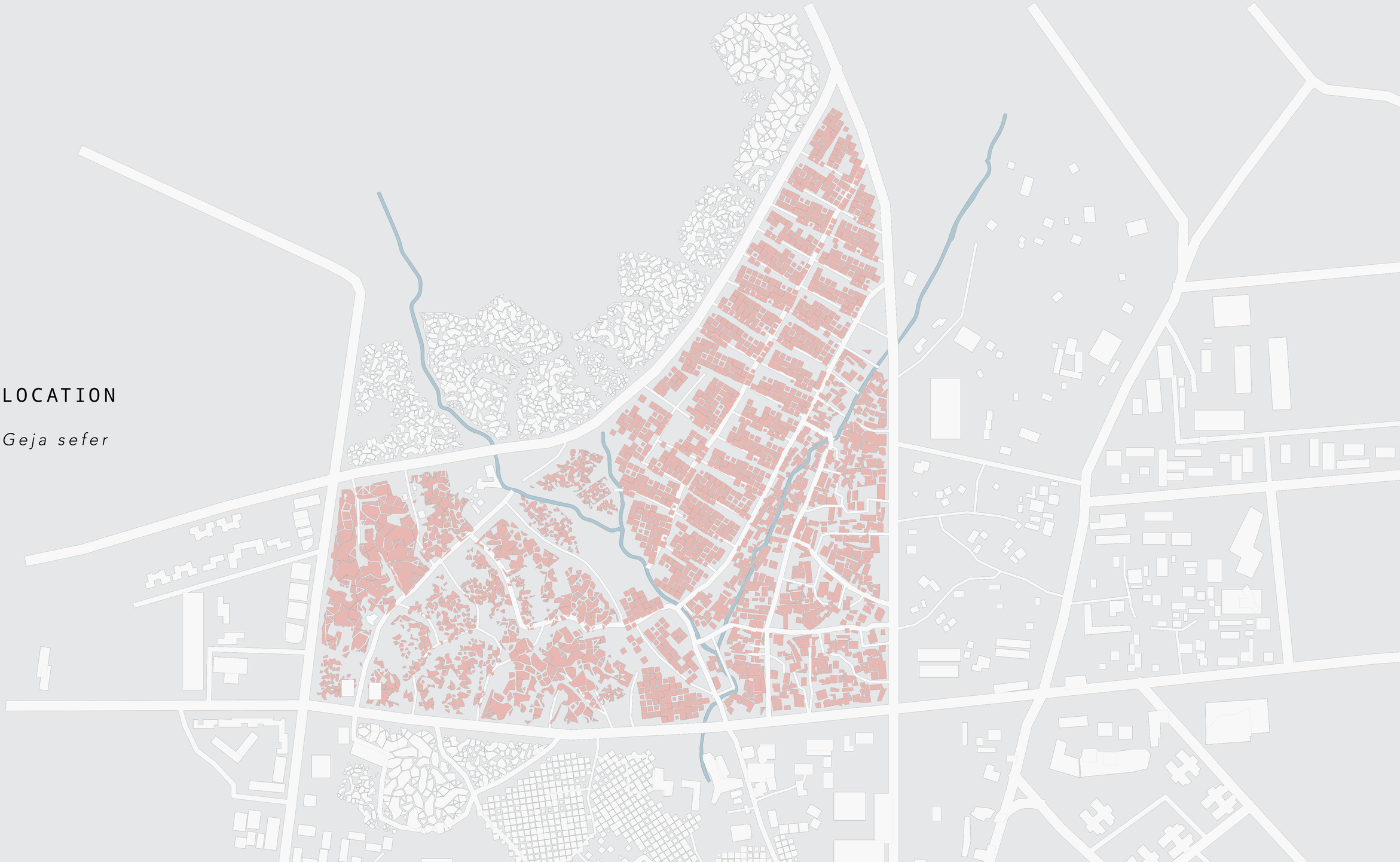
Geja sefer





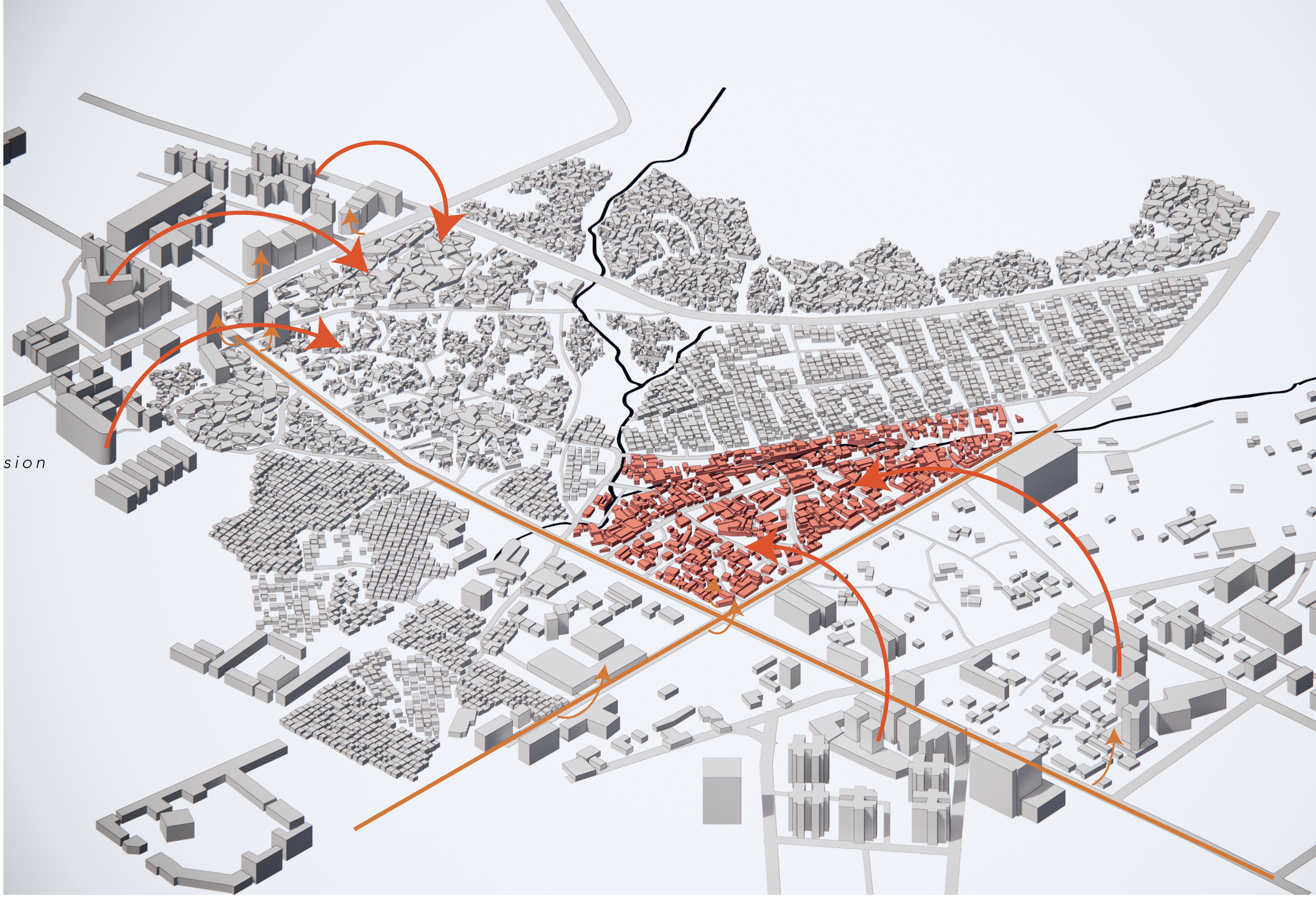
LOCATION

Geja sefer



LOCATION

context intrusion



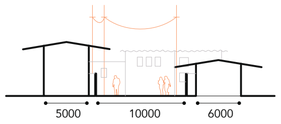
Dej Wolde Mikael Street
Burundi street

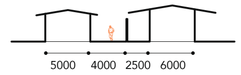
LOCATION

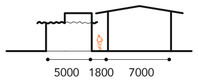
Geja sefer

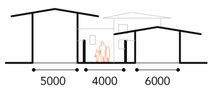
LOCATION

Sefer patterns - streets







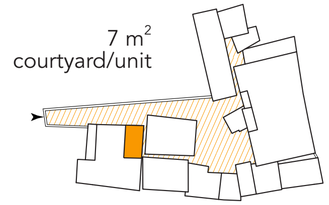


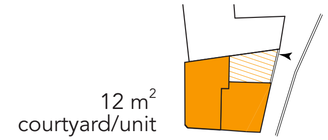
LOCATION

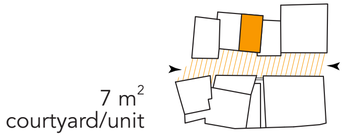
Sefer patterns - courts

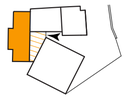
flexibility in use

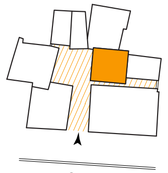
- *household activities*
- *playing fields*
- *meeting spaces*

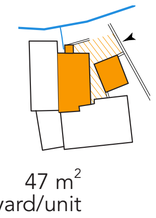


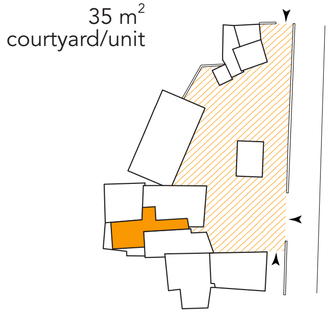


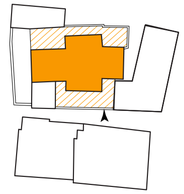


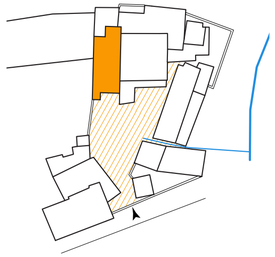


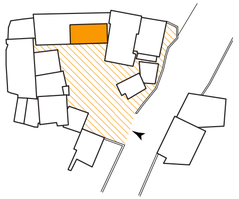






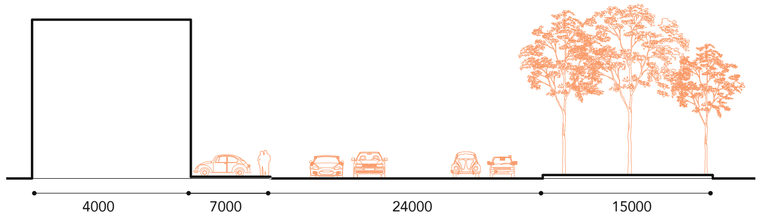


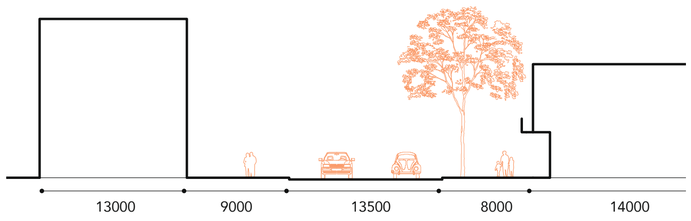


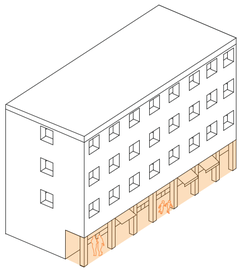


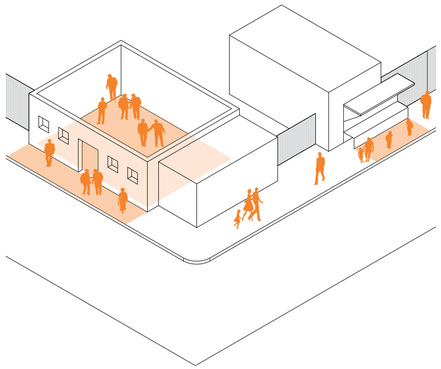
LOCATION

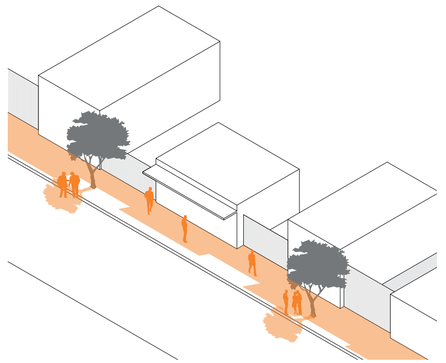
Sefer patterns - main road









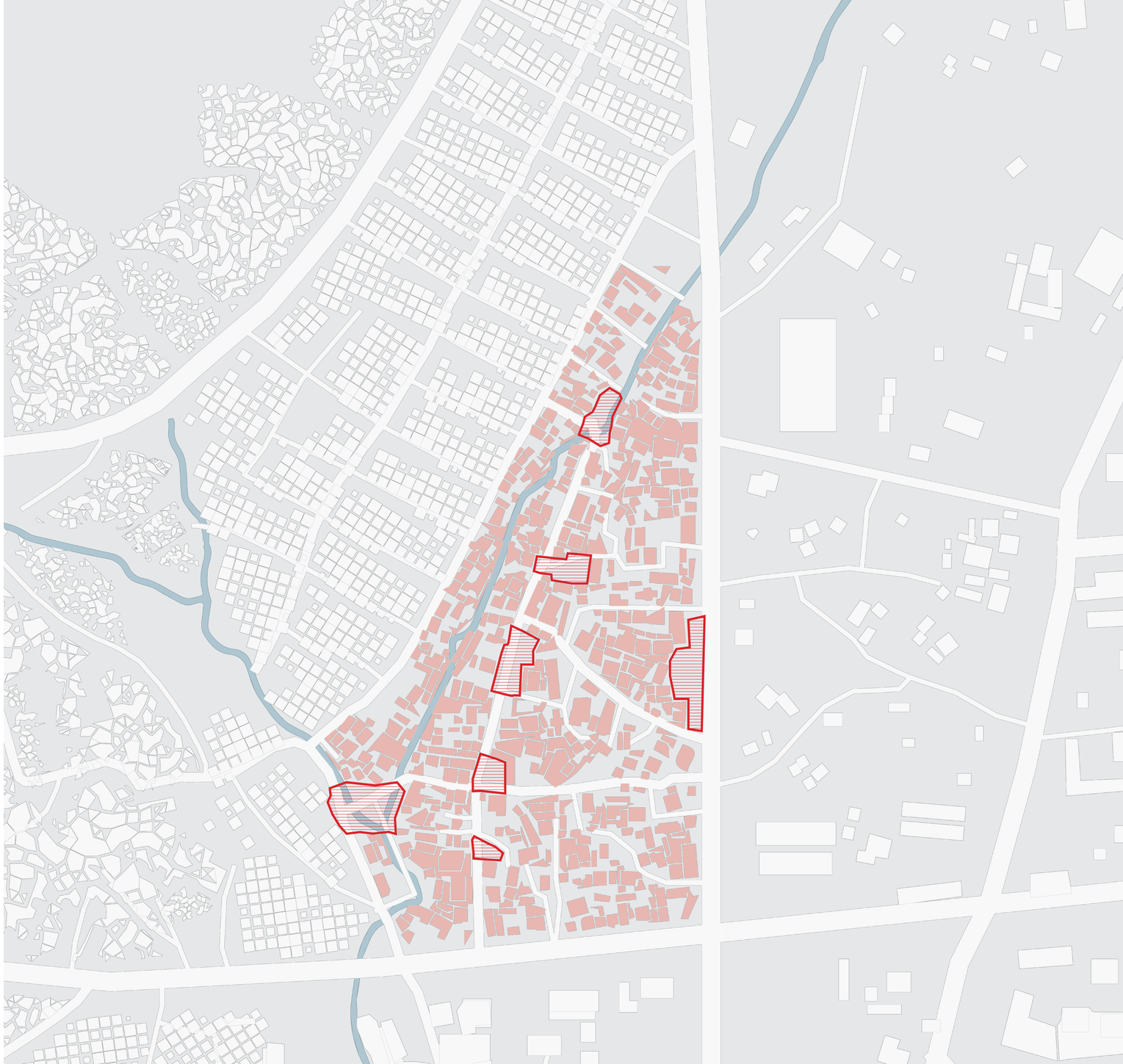


LOCATION

Geja sefer analysis

LOCATION

Geja sefer analysis



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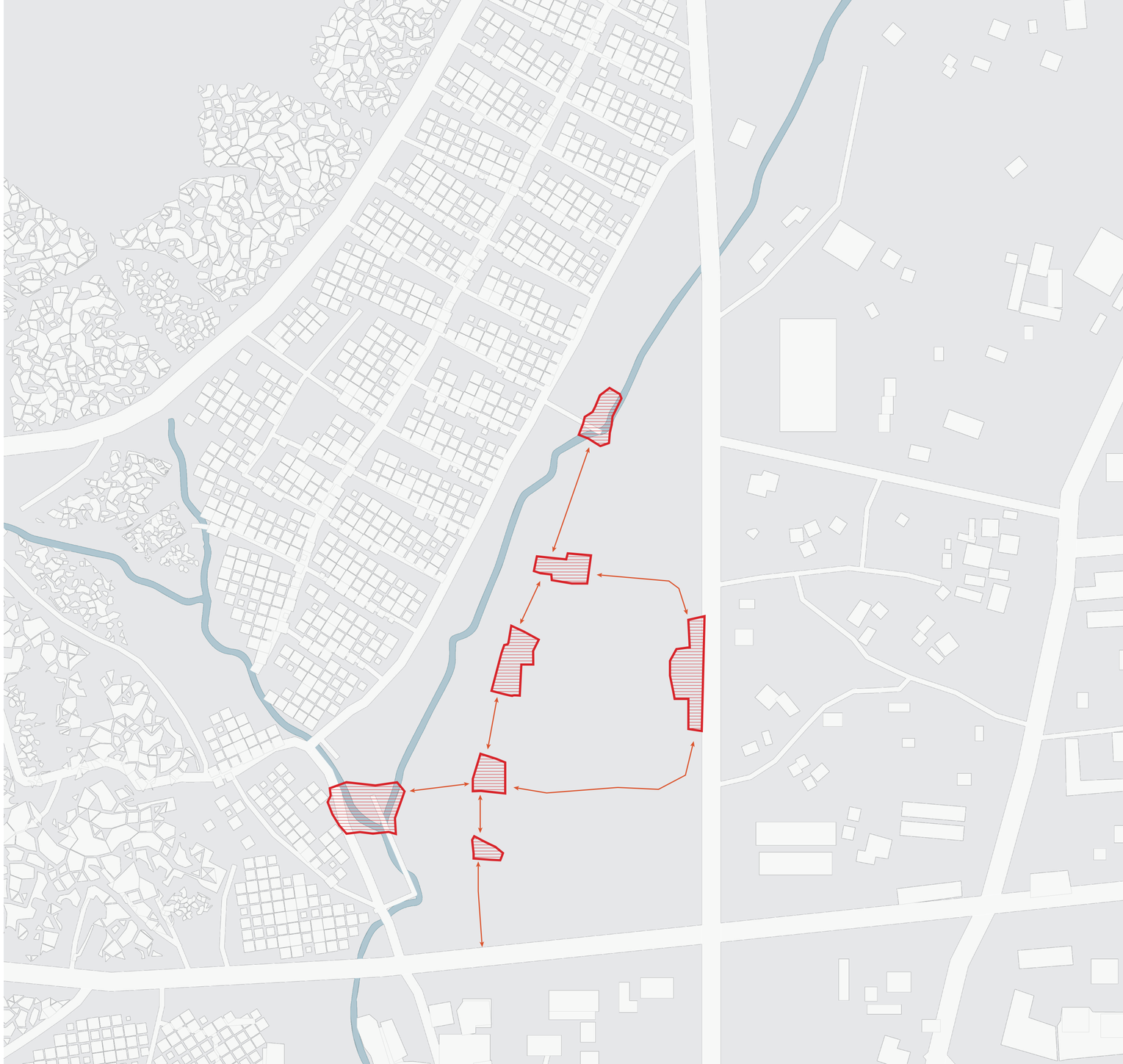
Geja sefer analysis

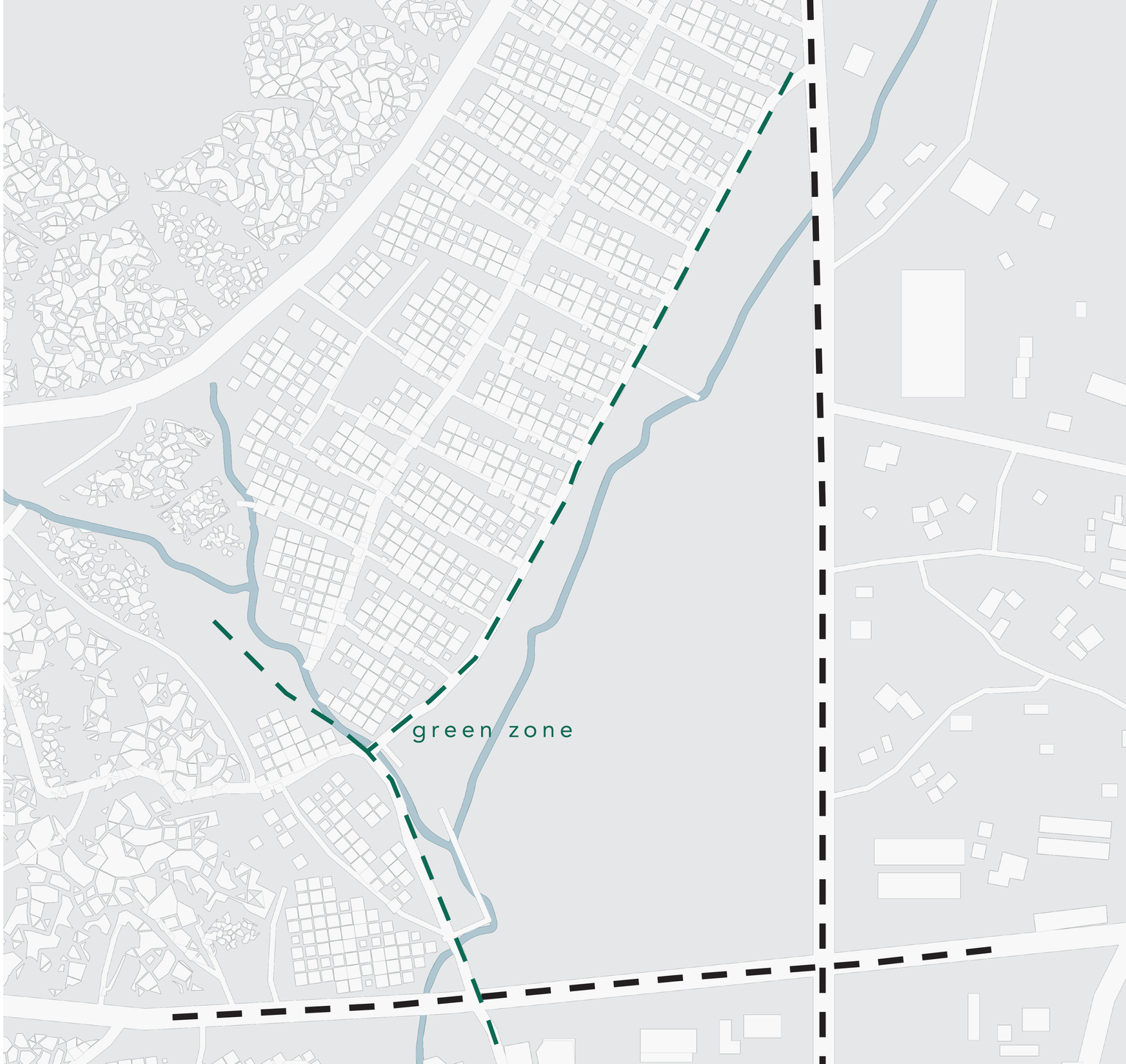


LOCATION

Structuring patterns

LOCATION

Structuring patterns



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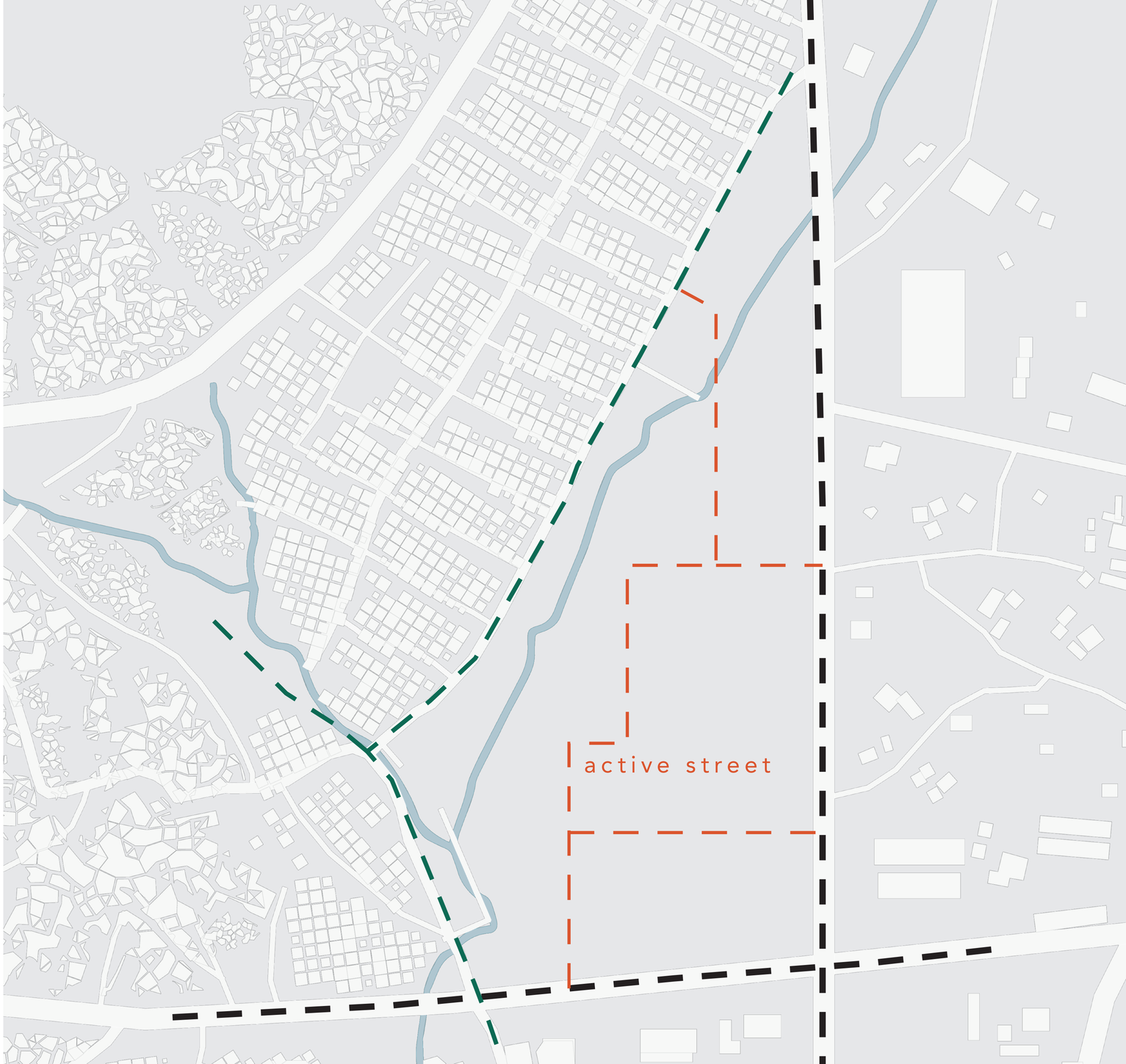
Structuring patterns



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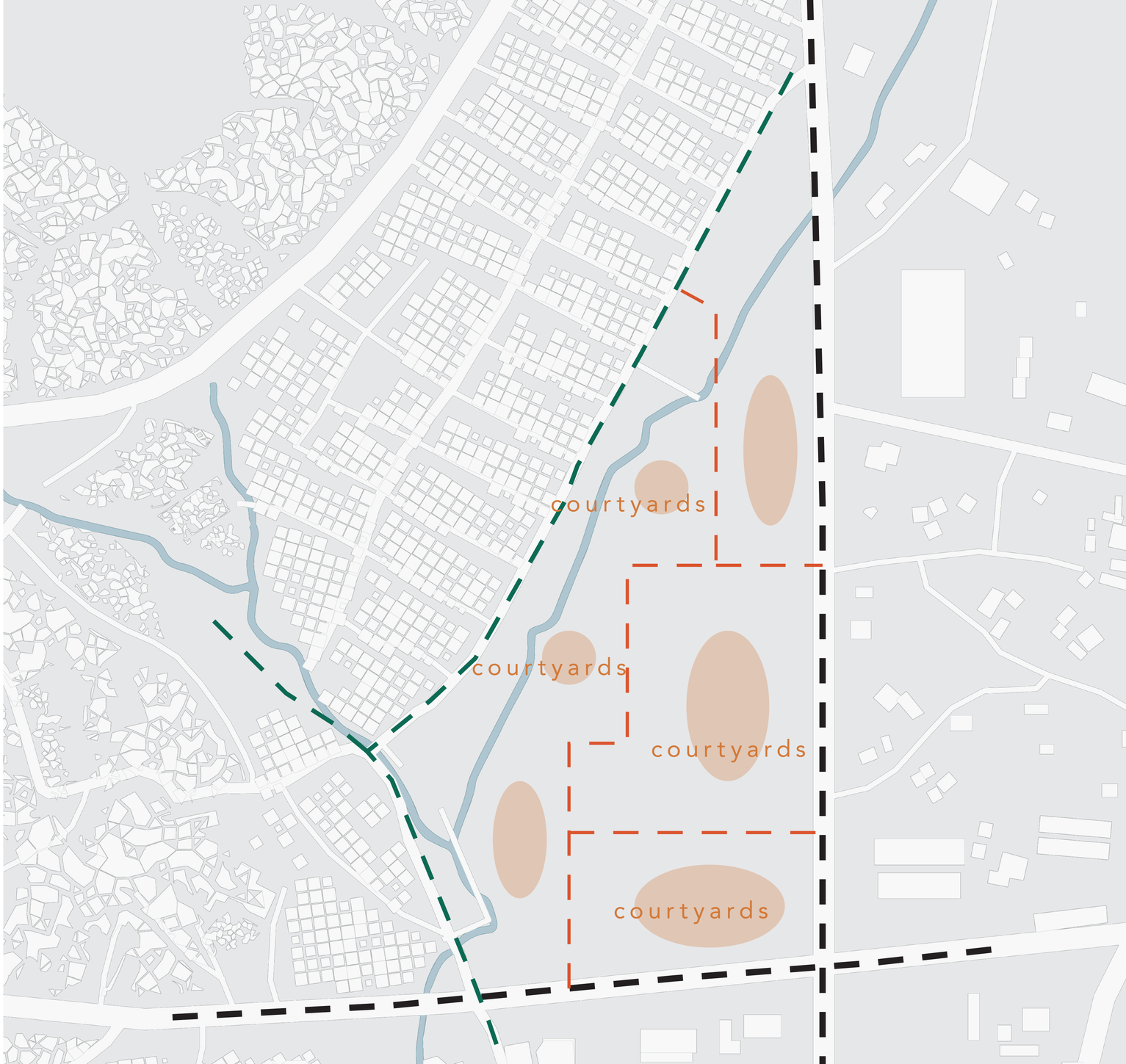
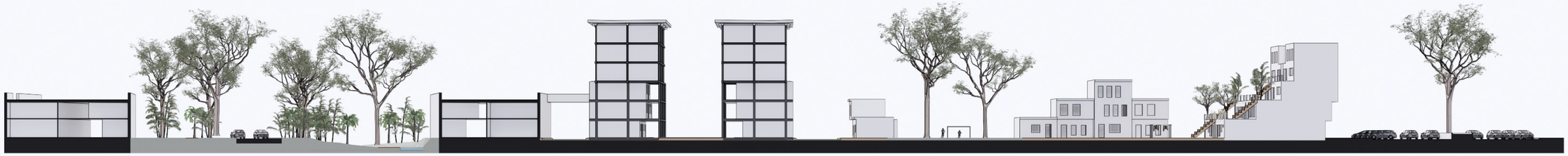


SECTION - ELEMENTS

every element is defined by a different way of interpreting temporality
buildings form the boundary of each element, and are included as such
every building has its own method, its own system



green zone

- recreational space for the whole neighbourhood
- spacious: horizontal opennes
- no dwellings
- infrastructure as single lines elements: cars, pedestrians, cycles

2

active street - informal

- street is economical hart of neighbourhood
- dense: open vertical
- plenty of opportunities for temporal activities
- informal housing along the street
- vertical frame is fixed, dwellings are temporal

3

inner court

- building plots are fixed: can extend vertically
- buildings are closely related to ground floor
- open spaces accommodate household activities
- important infrastructural connections for whole neighbourhood

4

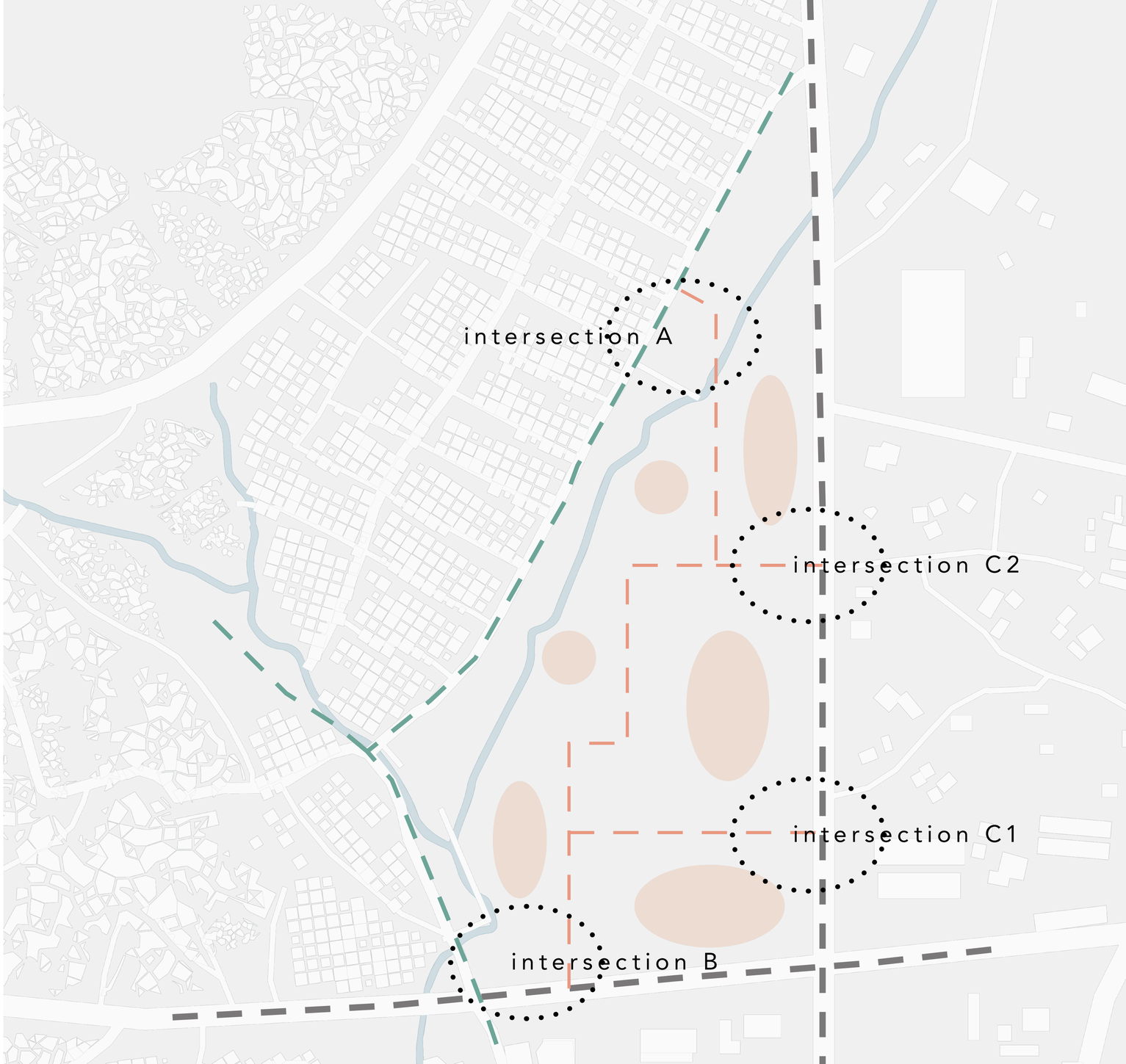
commercial street

- buildings are fixed
- roof terraces accommodate personal space
- space for cars
- space for pedestrains at the street
- direct boundary between street and building
- boundary is differentiated to accommodate space for temporary activities related to the commercial

1

LOCATION

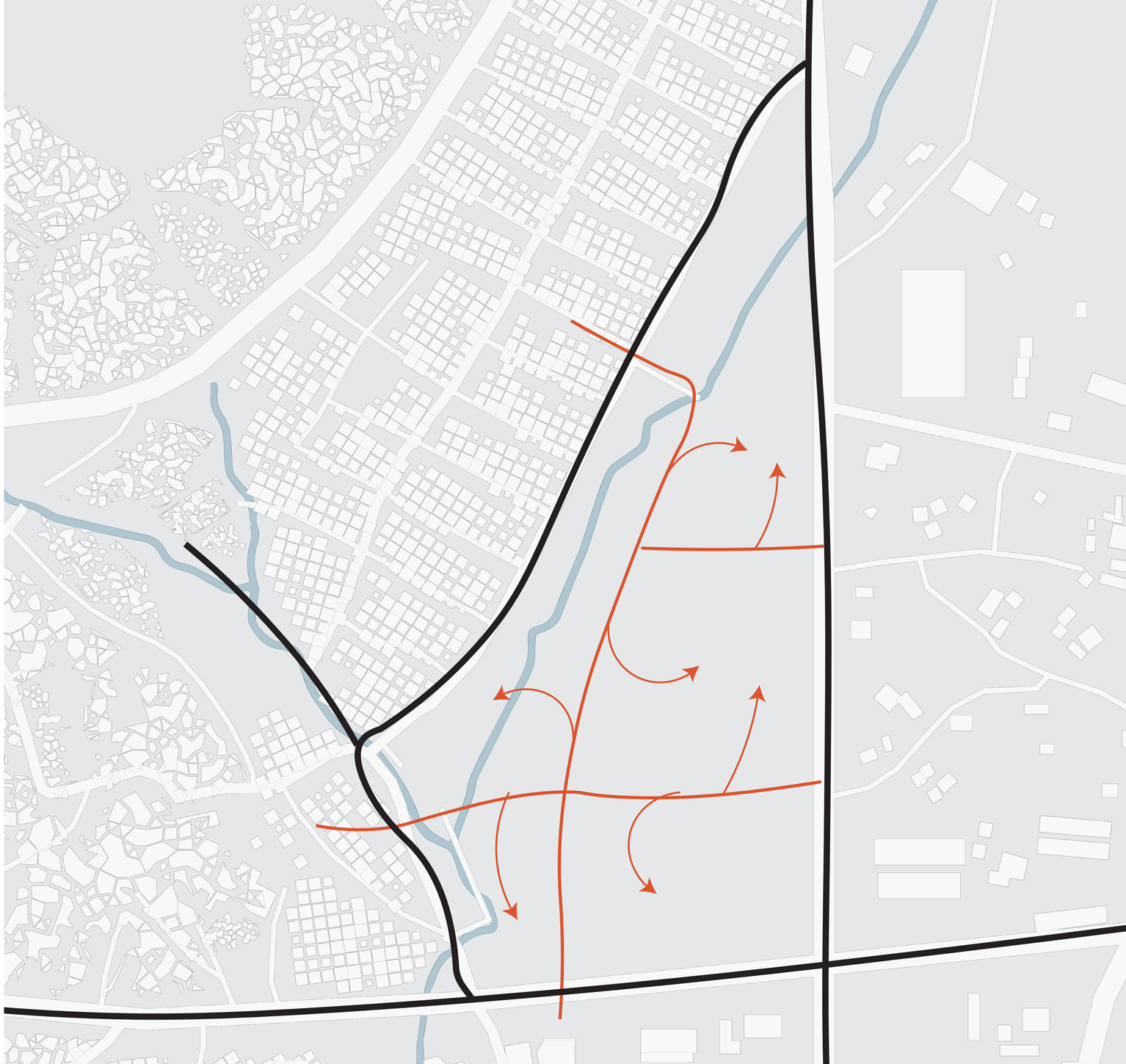
Structuring patterns



BUILDING STRATEGY

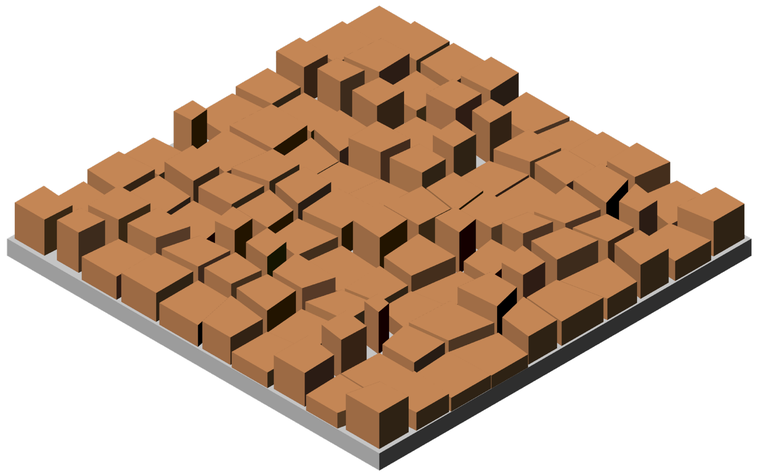
Deeveloping project

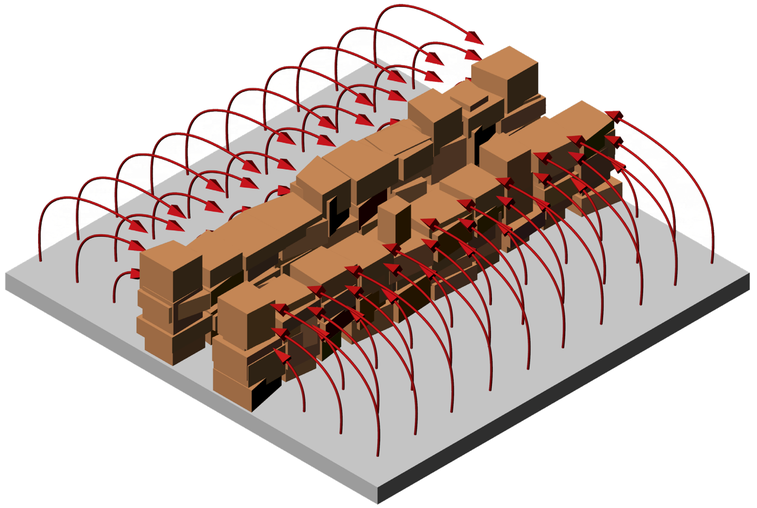
1. active street & towers
2. courtyard housing
3. commercial street



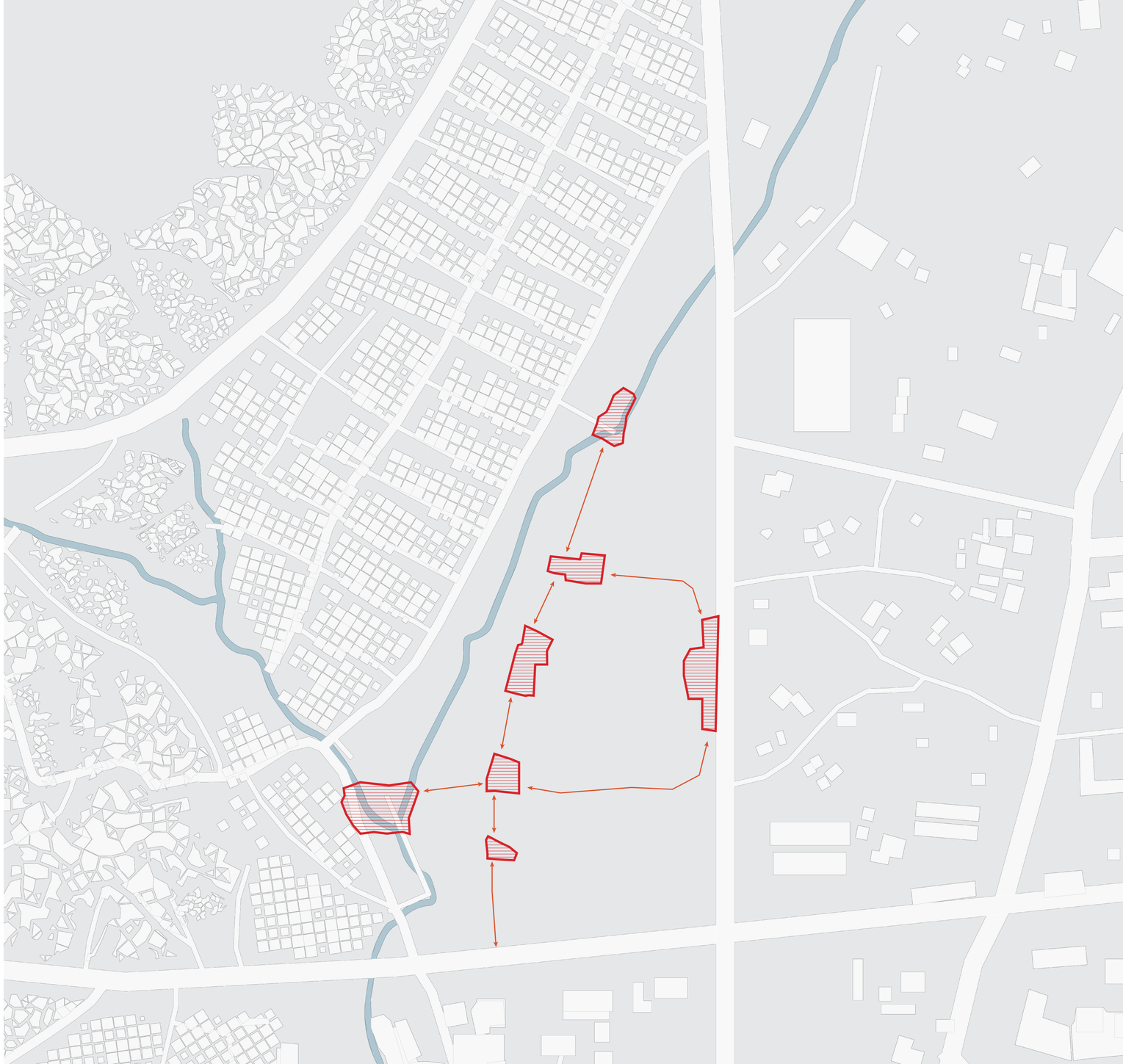
ACTIVE STREET

3 ACTIVE STREET: PRINCIPLE





3 ACTIVE STREET: PRINCIPLE



THEORY - WEB

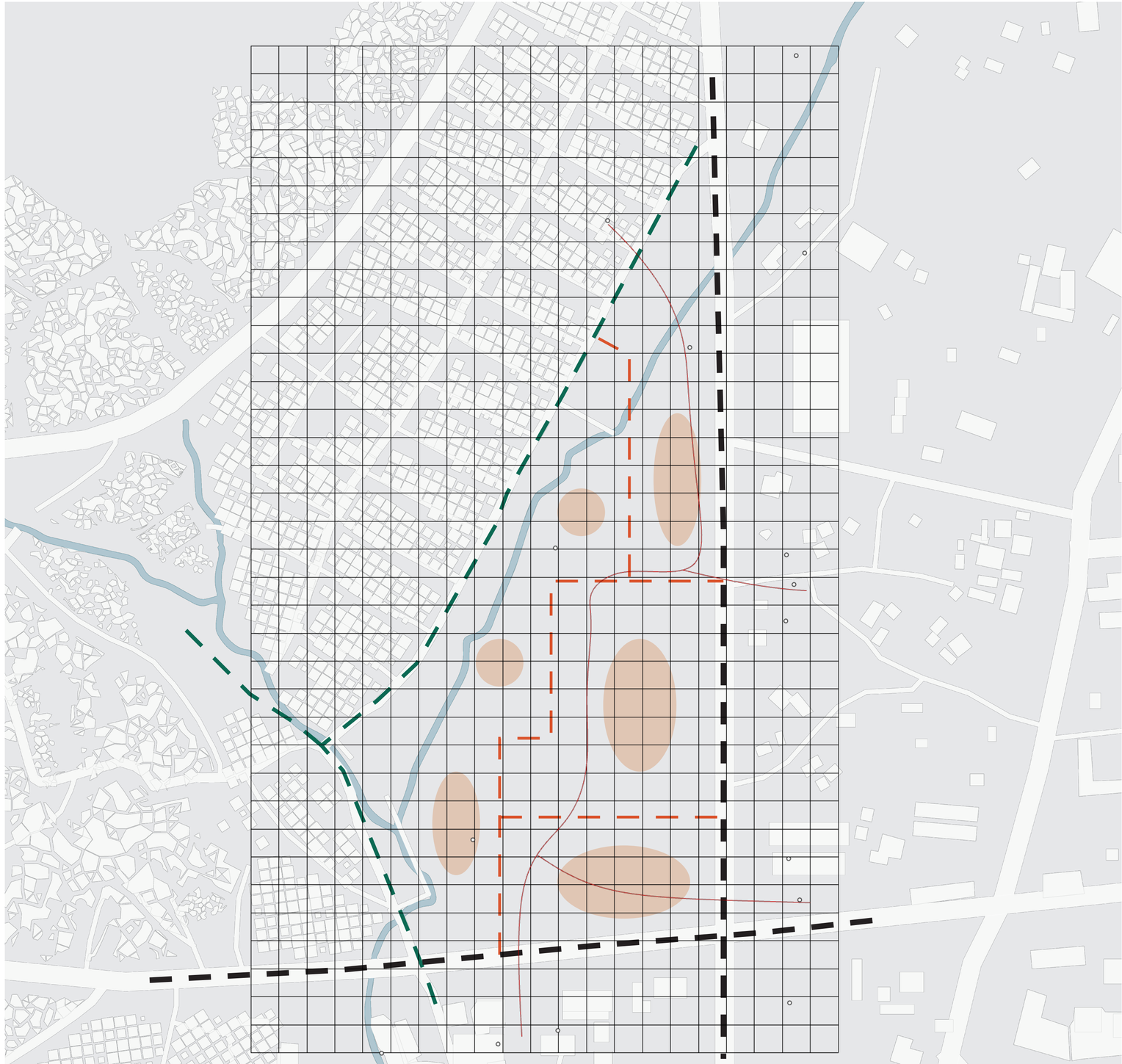
Candilis, Josic, Woods

the web is an urban planning instrument that allows for the structuring of an urban environment. A matter of weaving a fabric from threads or yarn in which different programmatic elements can evolve.

Avermaete, 2005; from Another Modern: p.318

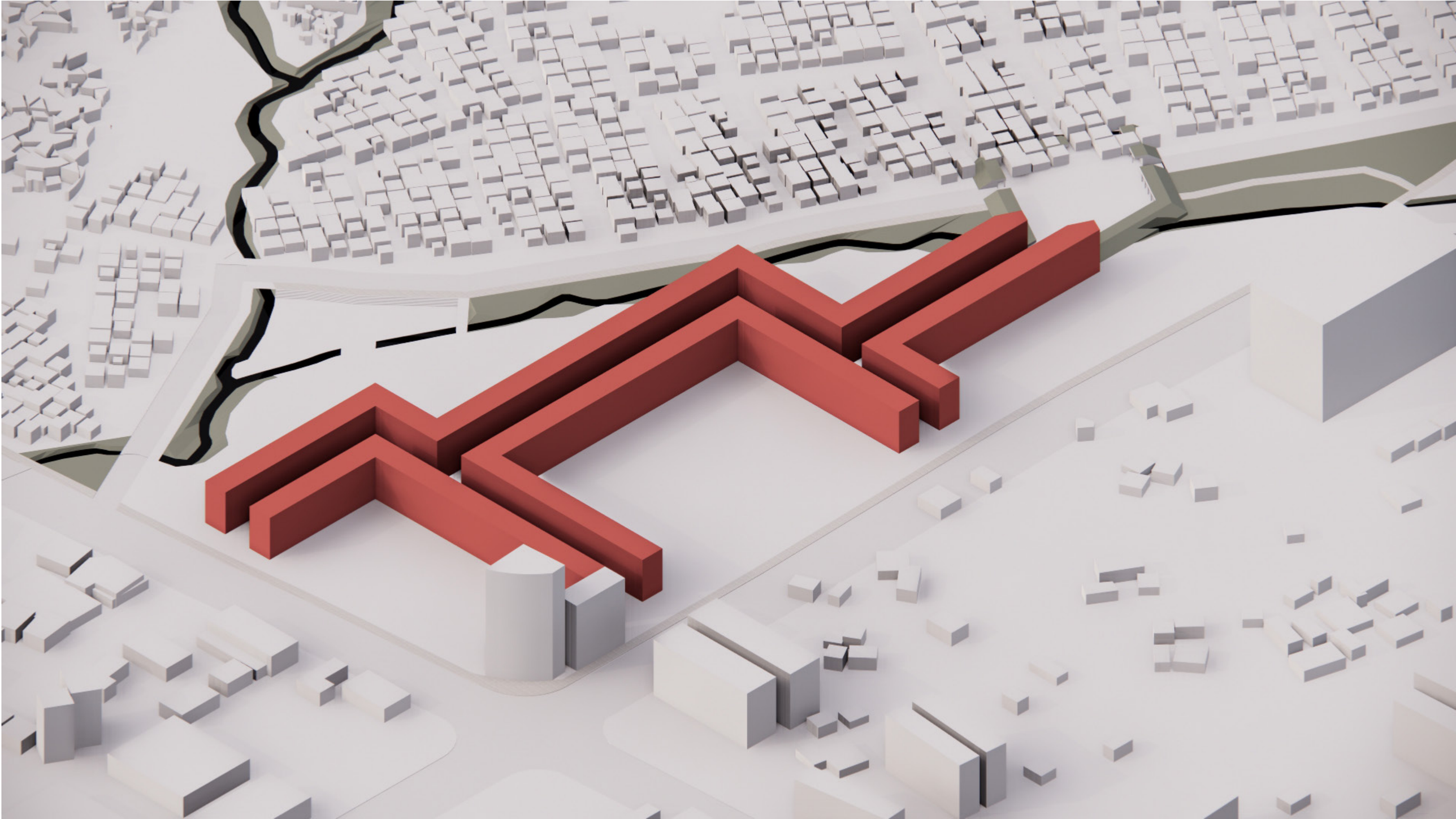
THEORY - WEB

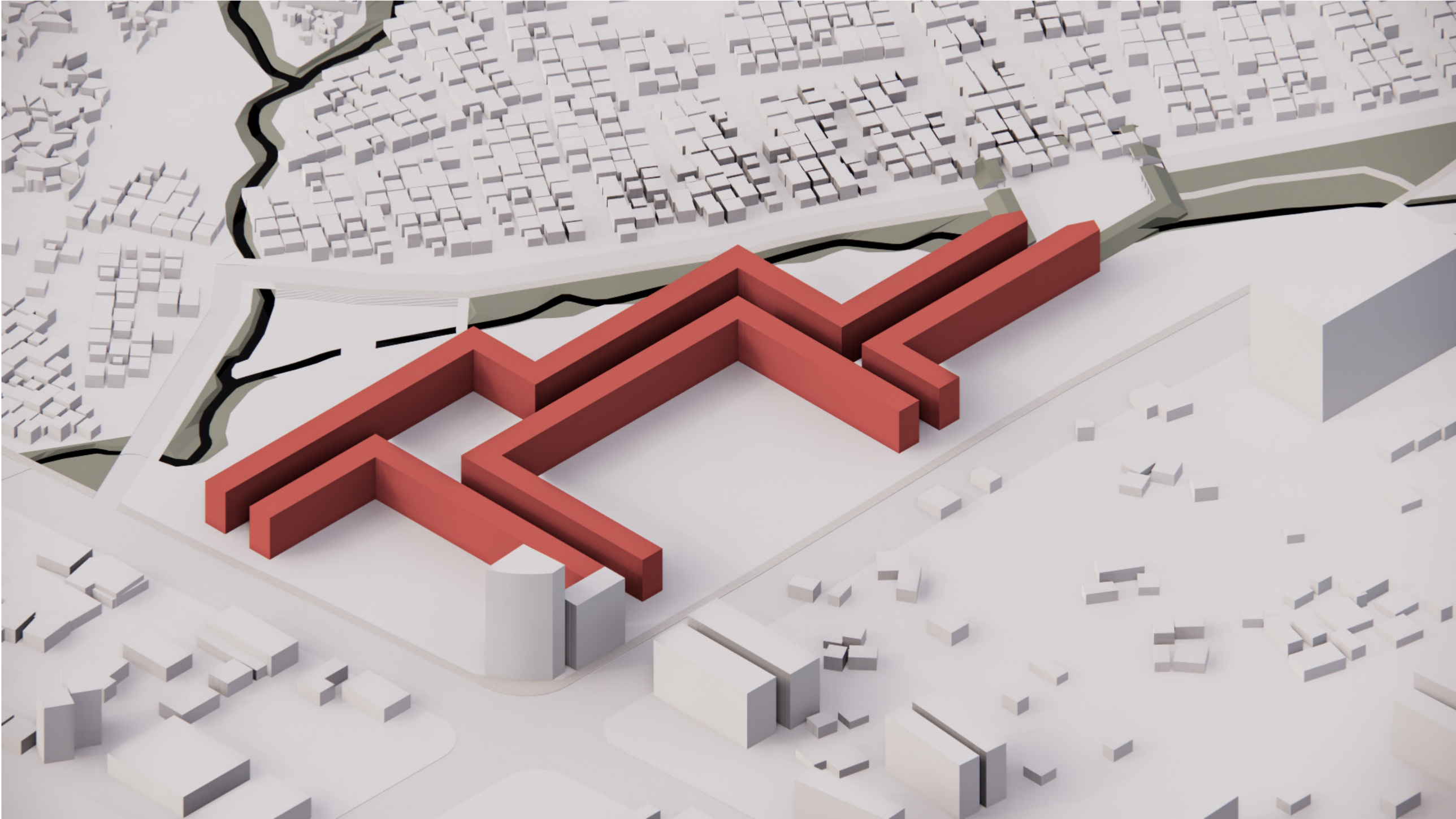
Candilis, Josic, Woods

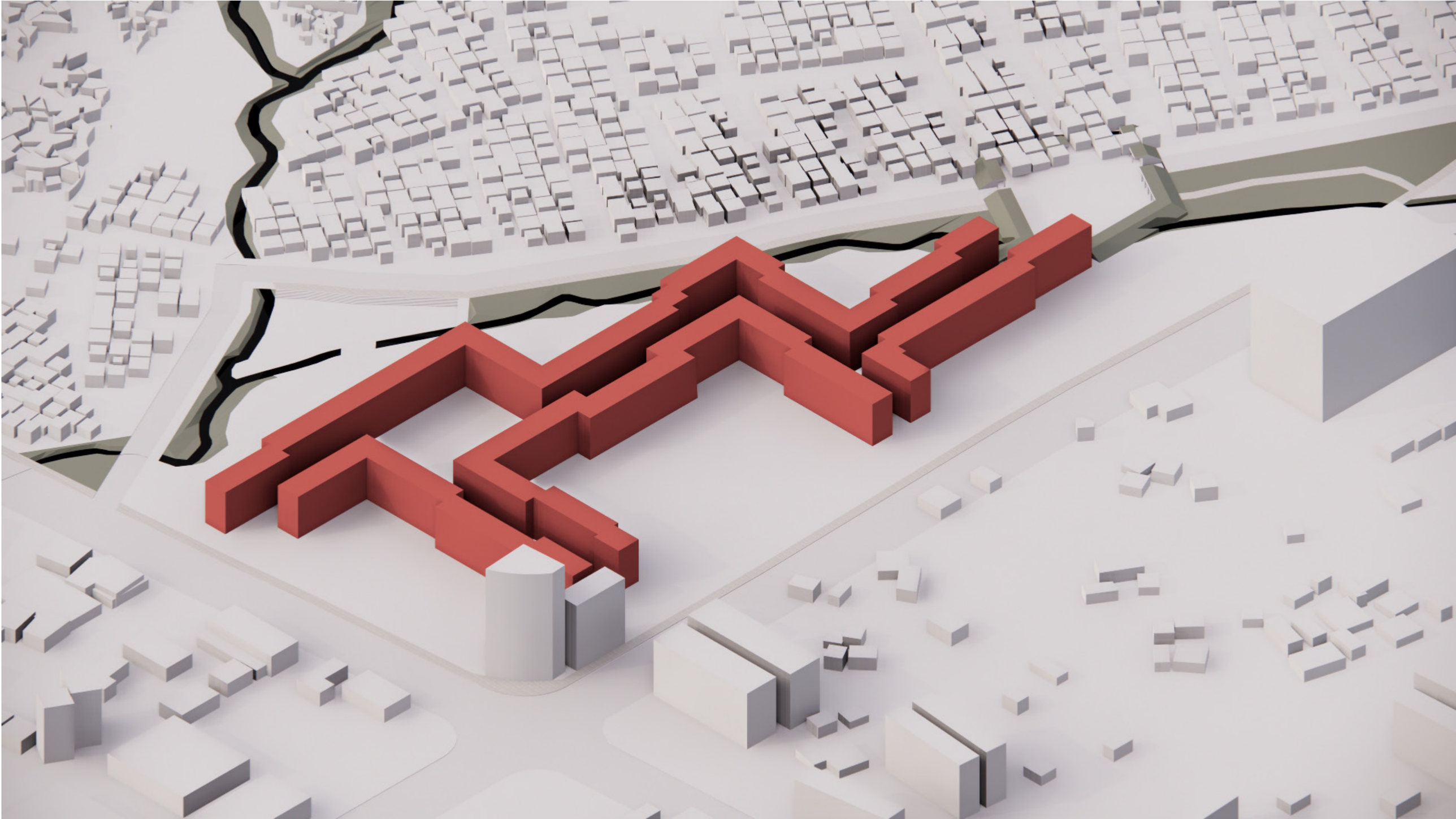


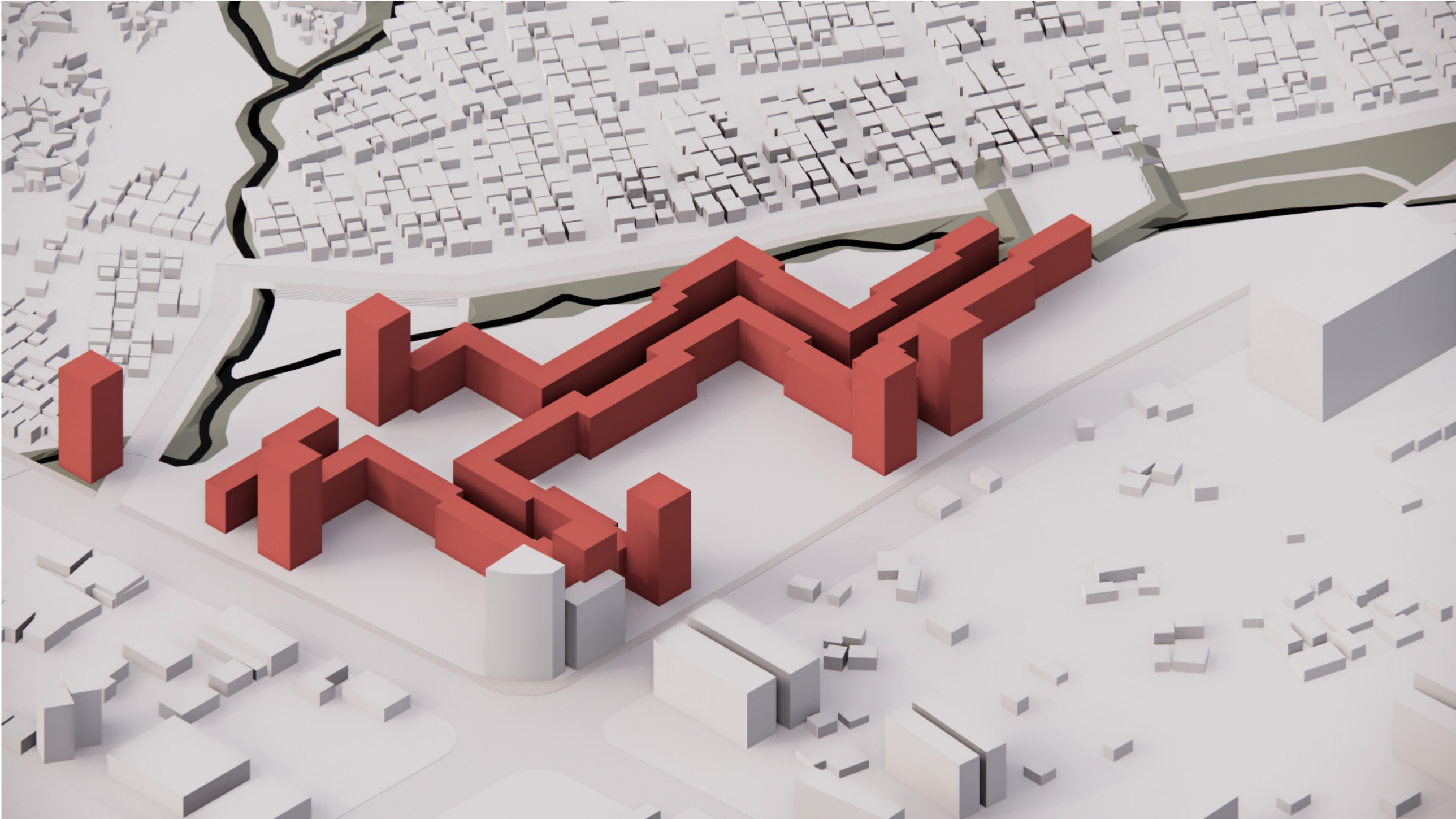
THEORY - WEB

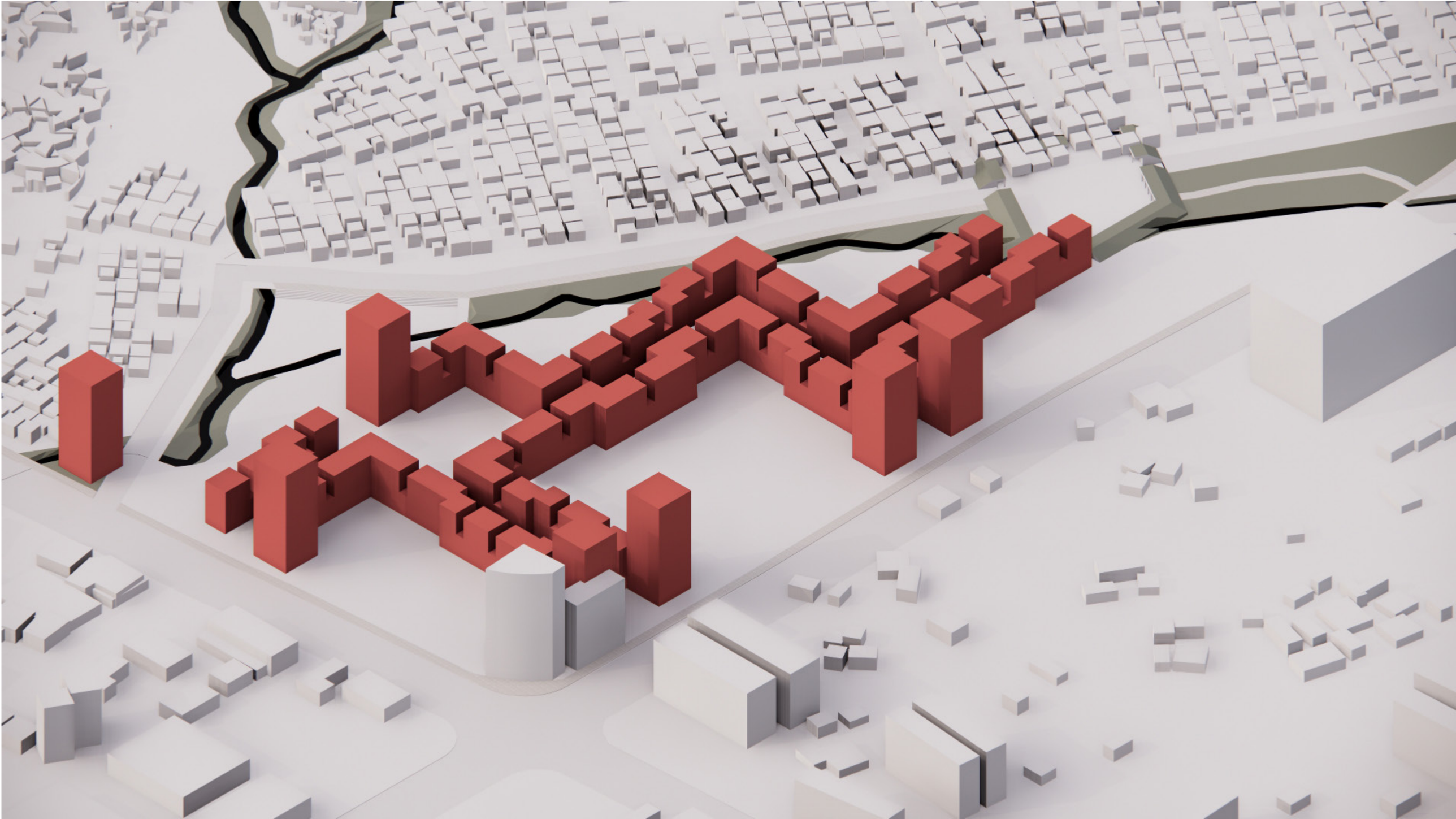
Candilis, Josic, Woods

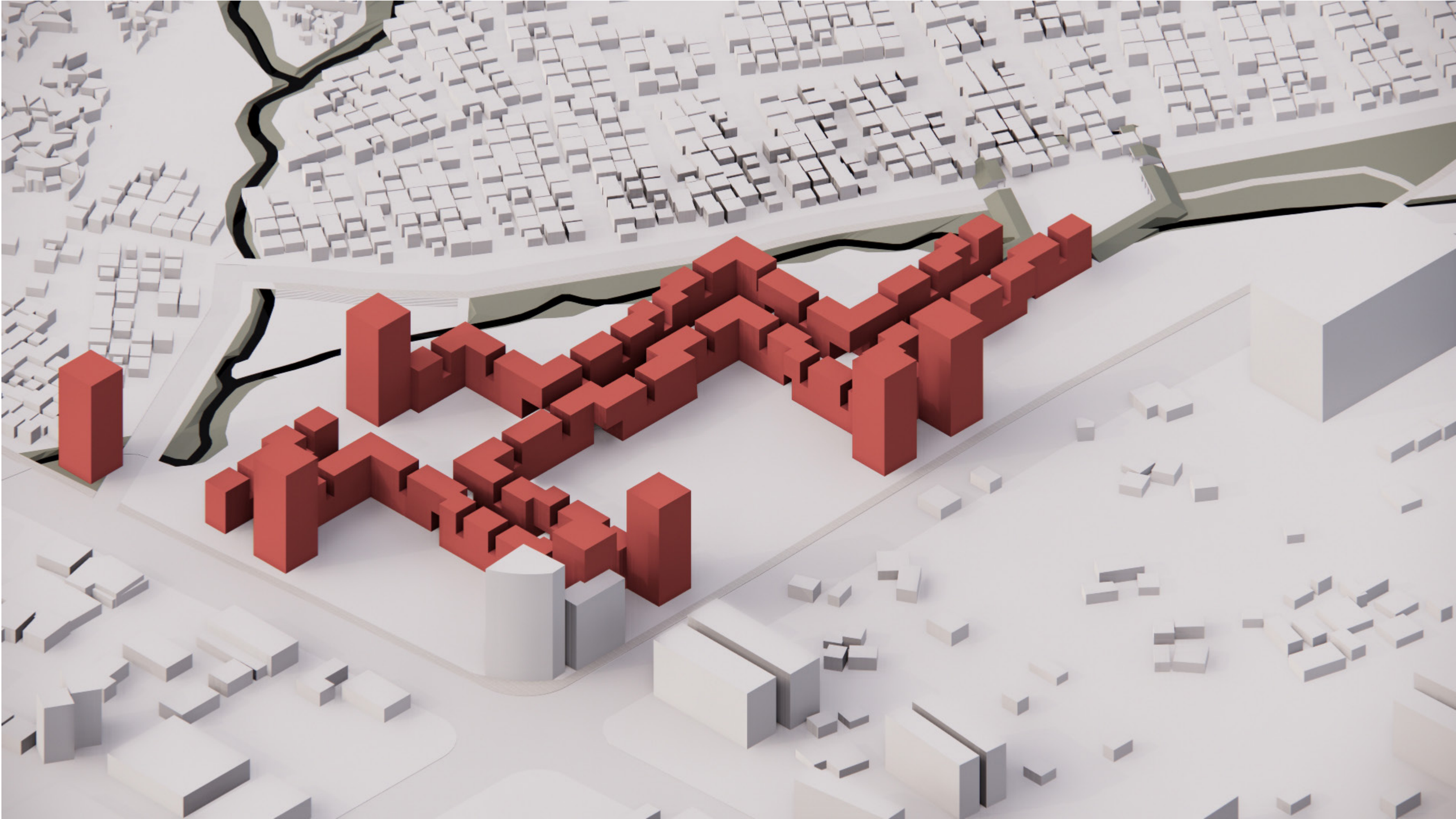


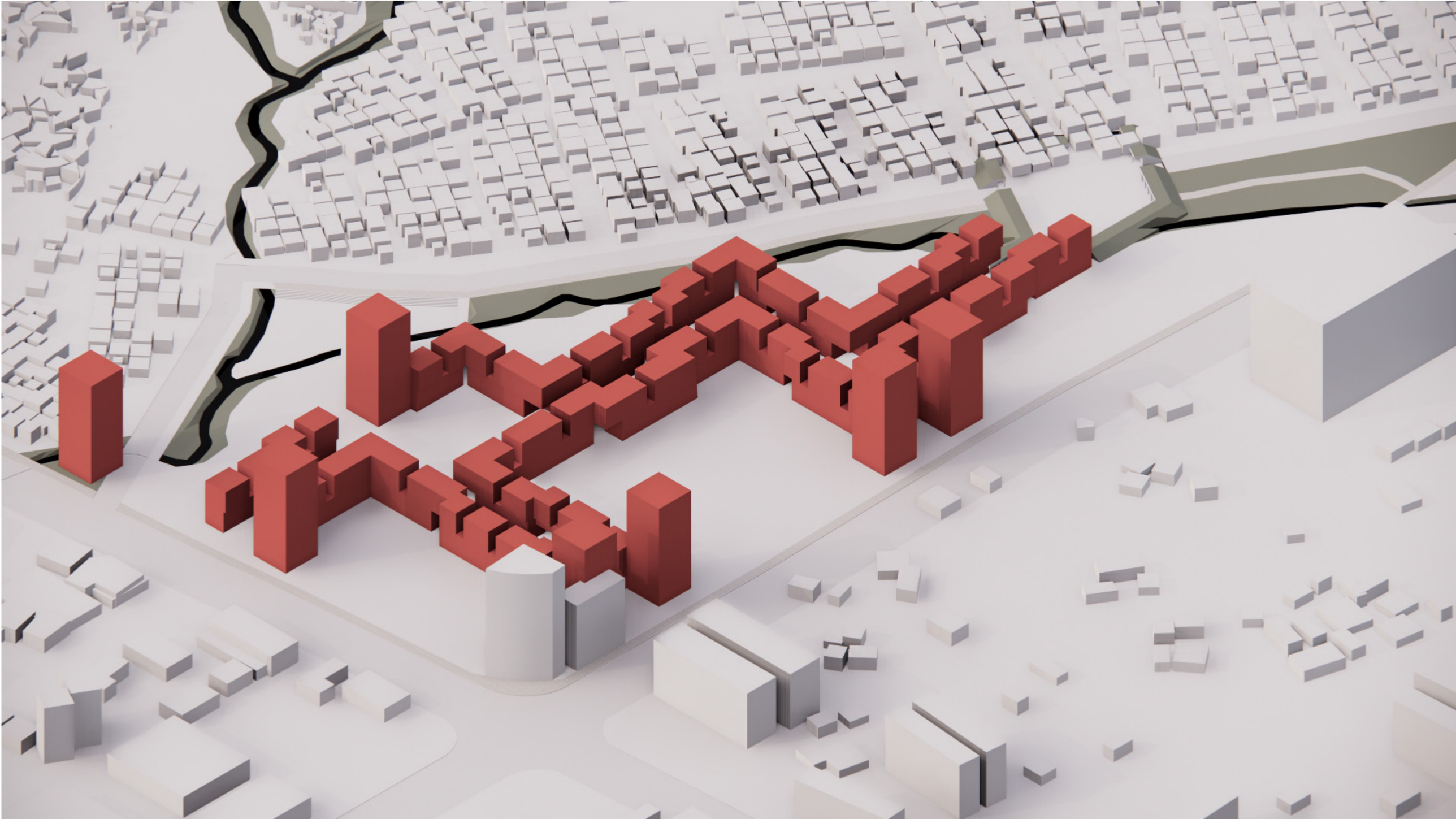












ORGANISATION - ACTORS

Government

Addis Ababa City Administration (AACA)

-selecting new sites

-allocating government resources

Addis Ababa Housing Development Project Office (AAHDPO) - subcity Lideta

-Design, construction, housing transfer and administration

Financier

Commercial Bank of Ethiopia (CBE)

-providing mortgage

Housing Investment Group

-property investment and renting out of dwellings

Building regulation group

Building supervisors

-regulation new construction by dwellers

-allocation and provision of building materials

Control group

-built environment quality check

-fire safety and acoustic insulation

Dwellers

Current dwellers (484 households)

-informal

Projected dwellers (1016 households)

-493 units on ground, first and second floor

-522 units on upper floors

Contractor

Building supervisors (i.e. Habtamu intern/K2N consultants)

-setting up building workshops

-constructing permanent part of the active street

Specialists (i.e. PACE consultants-Ethiopia)

-installation of services, structural components

ORGANISATION TIME & SCALE

before construction | main construction | apartment construction | after construction

masterplan

AACA
- selecting new sites
- allocating government resources

Building supervisors
- setting up workshops

AAHDPO
- design, construction, housing transfer and administration

building block

CBE & Housing Investment Group
- providing mortgage
- property investment and renting out of dwellings

Building supervisors & specialists
- constructing permanent part of the active street
- installation of services, structural components

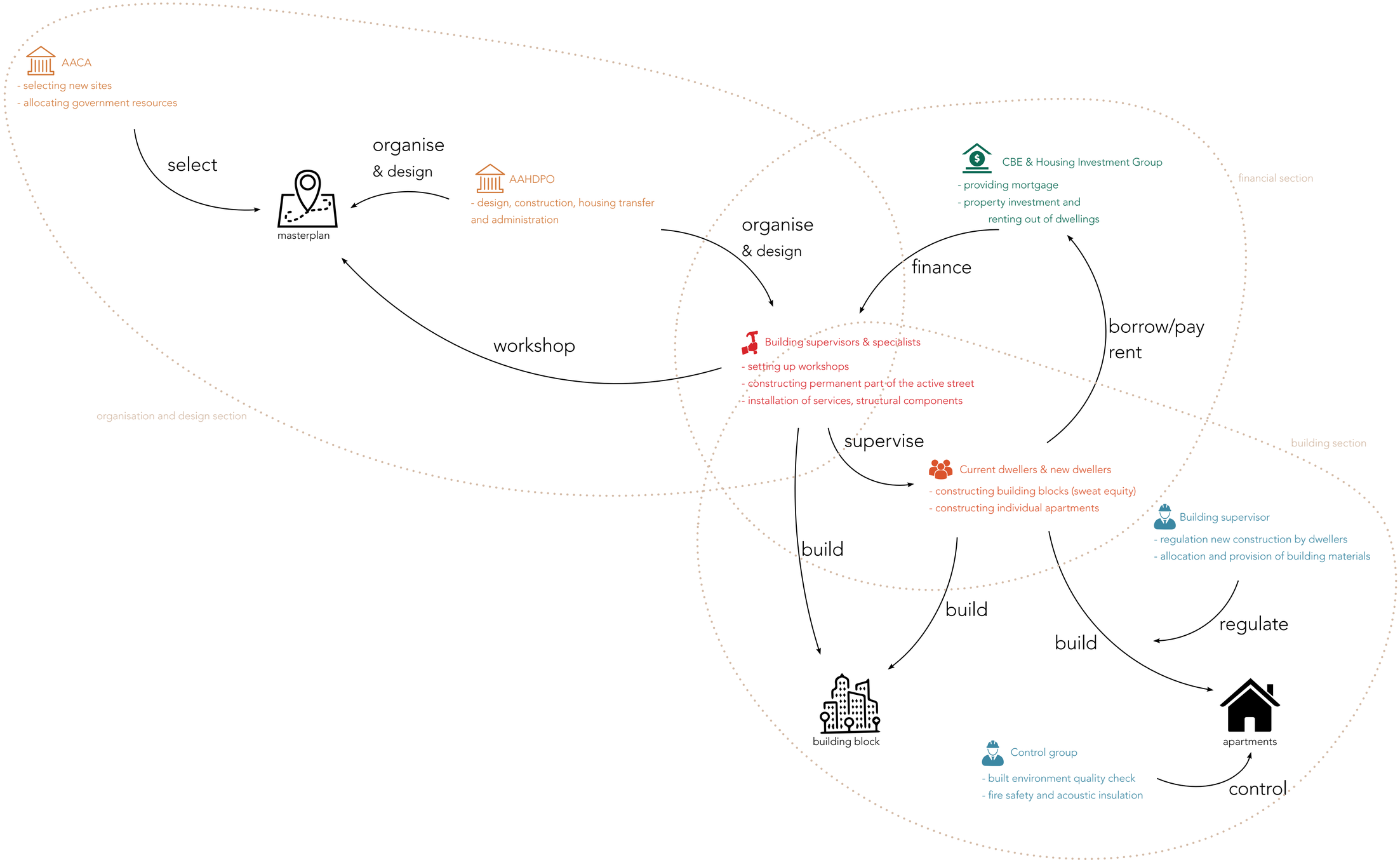
Current dwellers
- constructing building blocks (sweat equity)

apartments

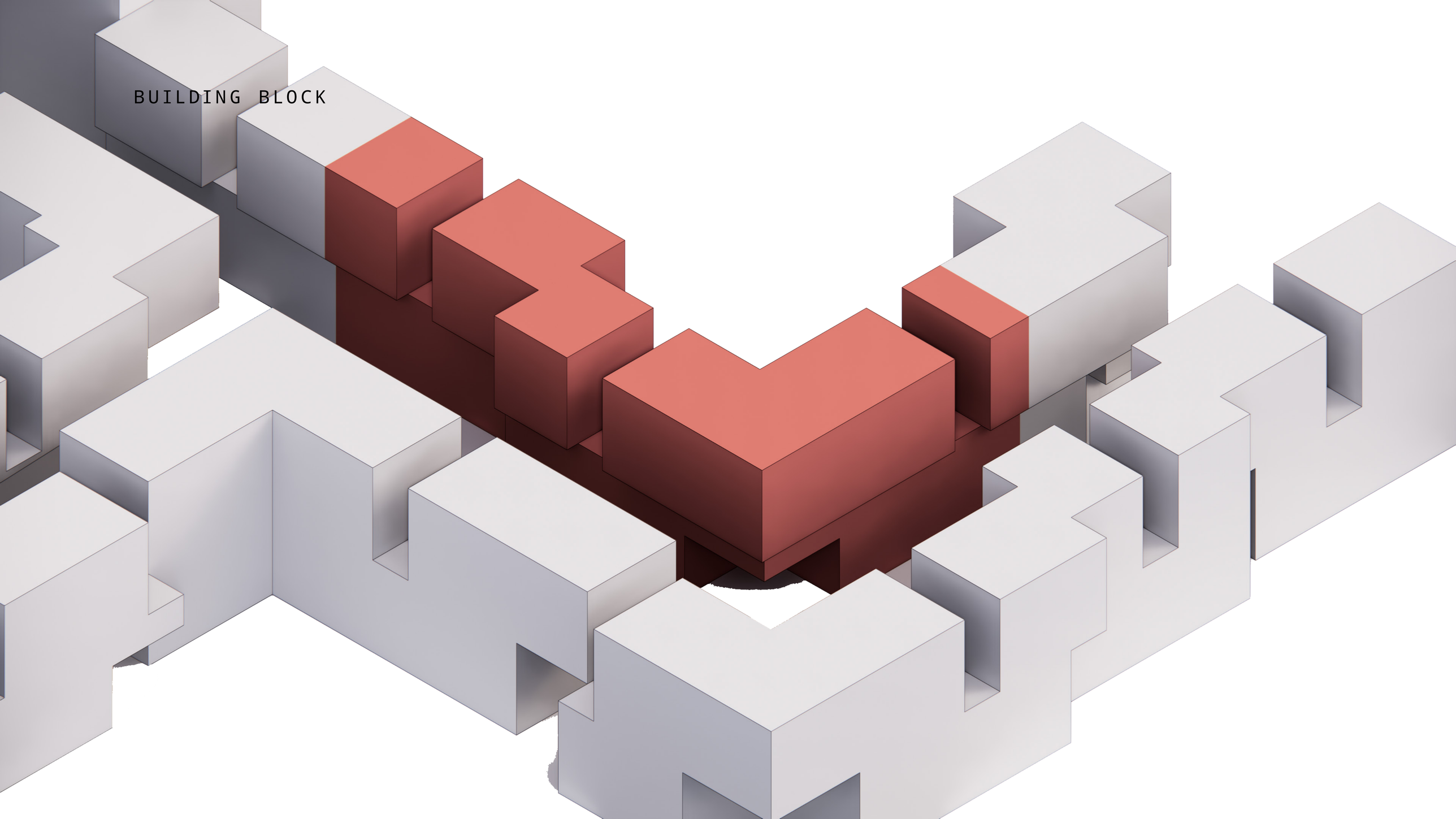
Current & new dwellers
- constructing individual apartments

Building supervisor
- regulation new construction by dwellers
- allocation and provision of building materials

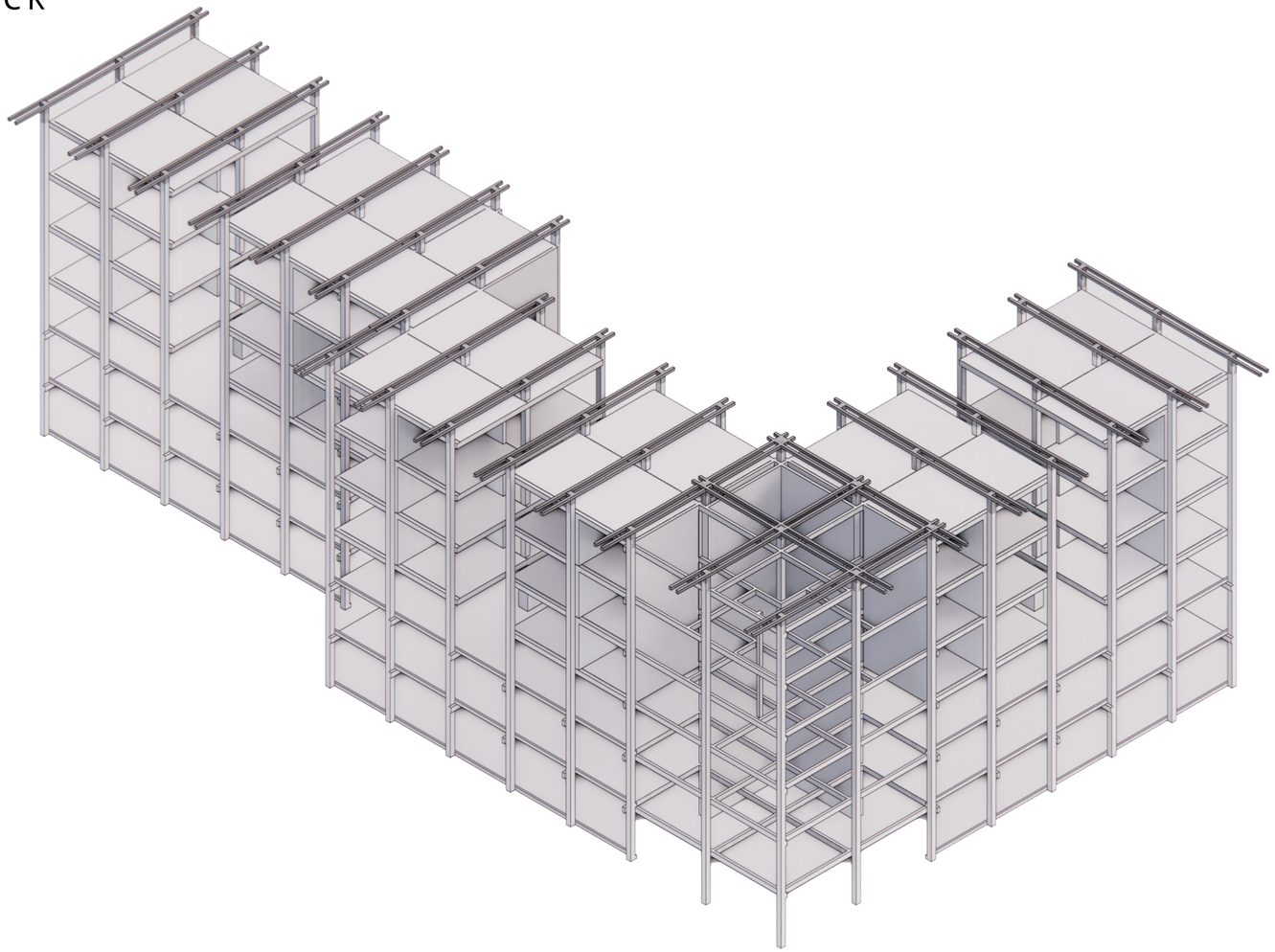
Control group
- built environment quality check
- fire safety and acoustic insulation


AACA
- selecting new sites
- allocating government resources
select
organise
& design
AAHDPO
- design, construction, housing transfer
and administration
masterplan
organise
& design
workshop
organisation and design section
CBE & Housing Investment Group
- providing mortgage
- property investment and
renting out of dwellings
financial section
finance
borrow/pay
rent
Building supervisors & specialists
- setting up workshops
- constructing permanent part of the active street
- installation of services, structural components
supervise
Current dwellers & new dwellers
- constructing building blocks (sweat equity)
- constructing individual apartments
building section
Building supervisor
- regulation new construction by dwellers
- allocation and provision of building materials
build
build
build
regulate
building block
apartments
Control group
- built environment quality check
- fire safety and acoustic insulation
control

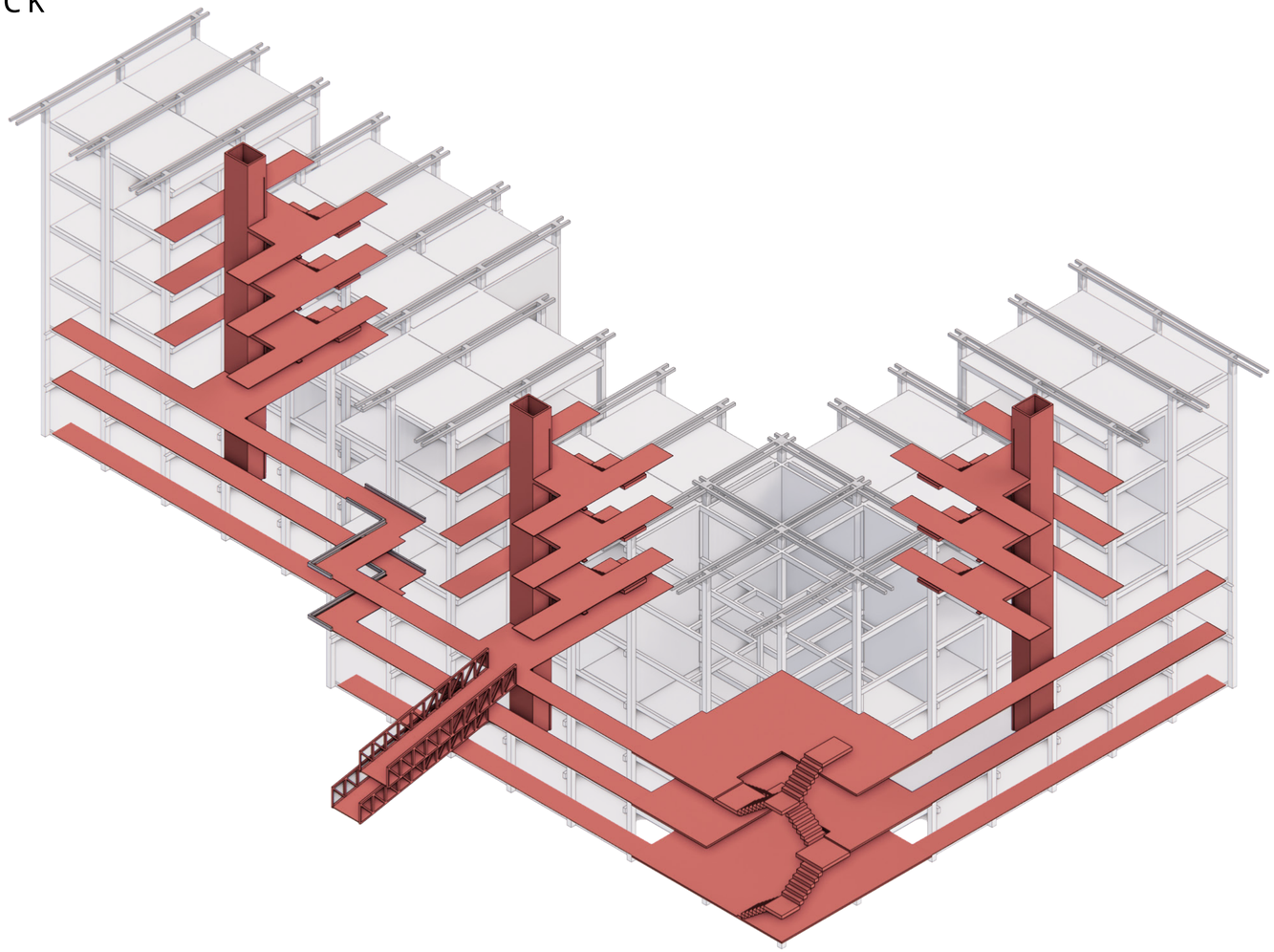
BUILDING BLOCK



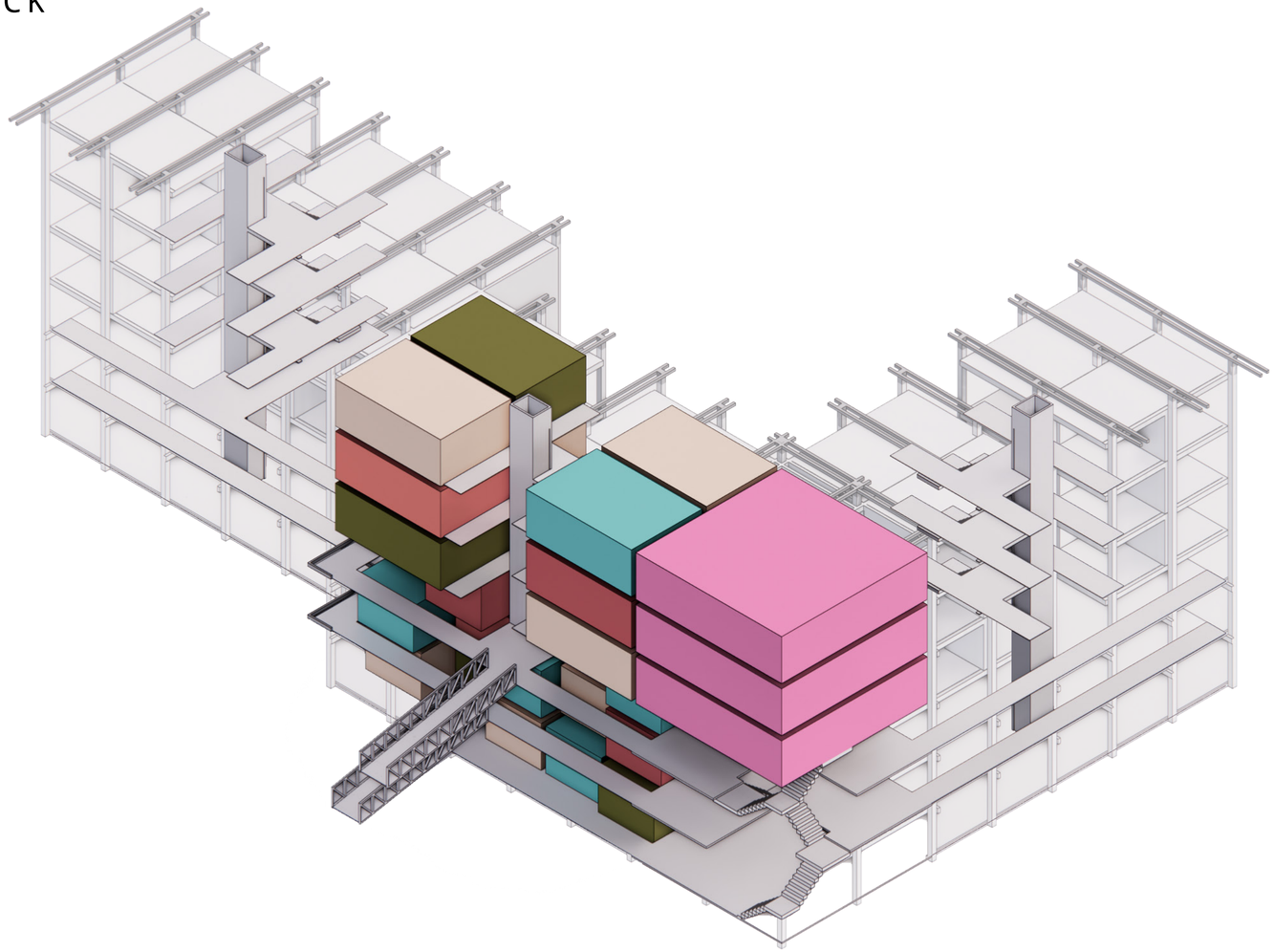
BUILDING BLOCK



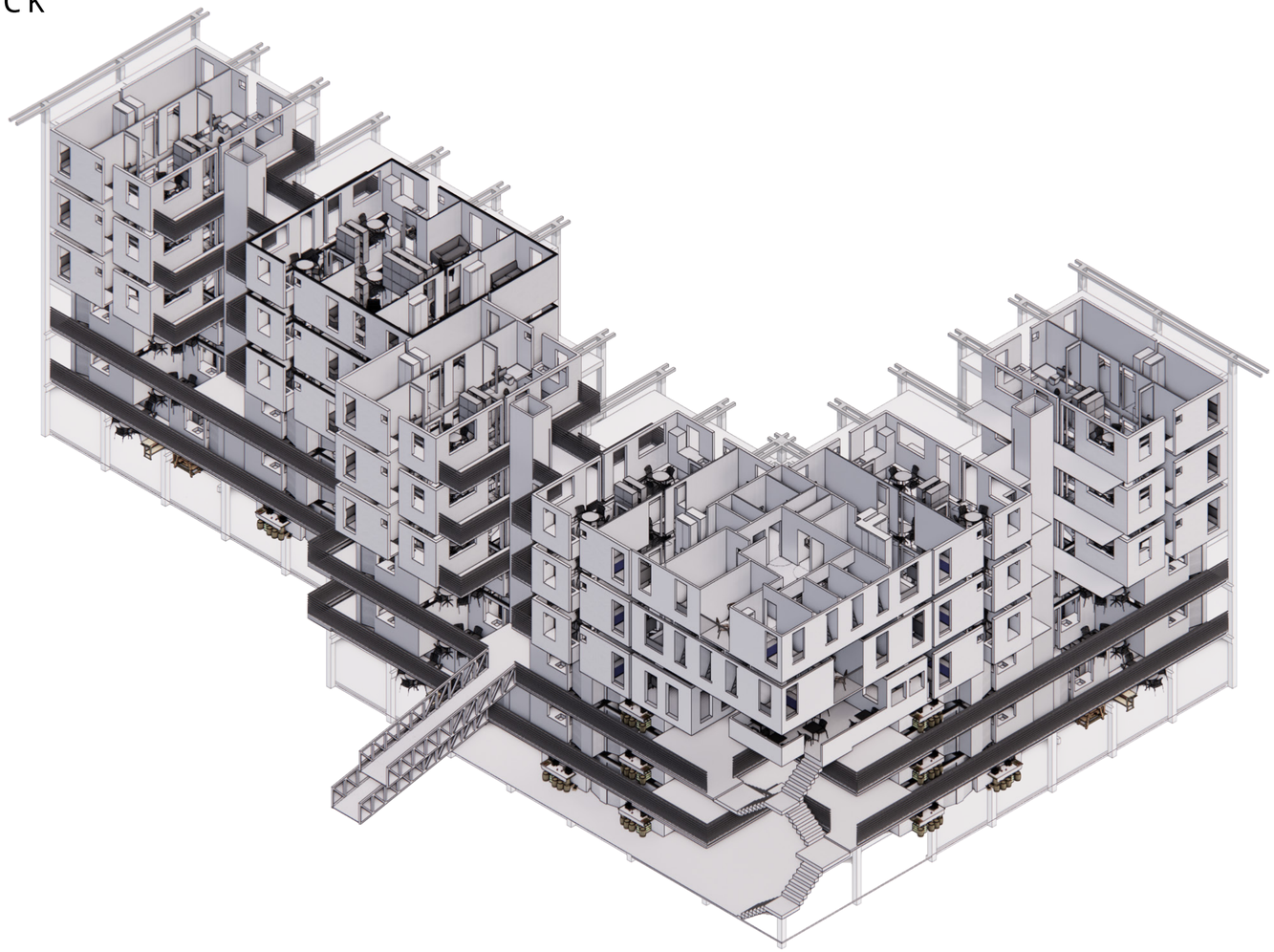
BUILDING BLOCK



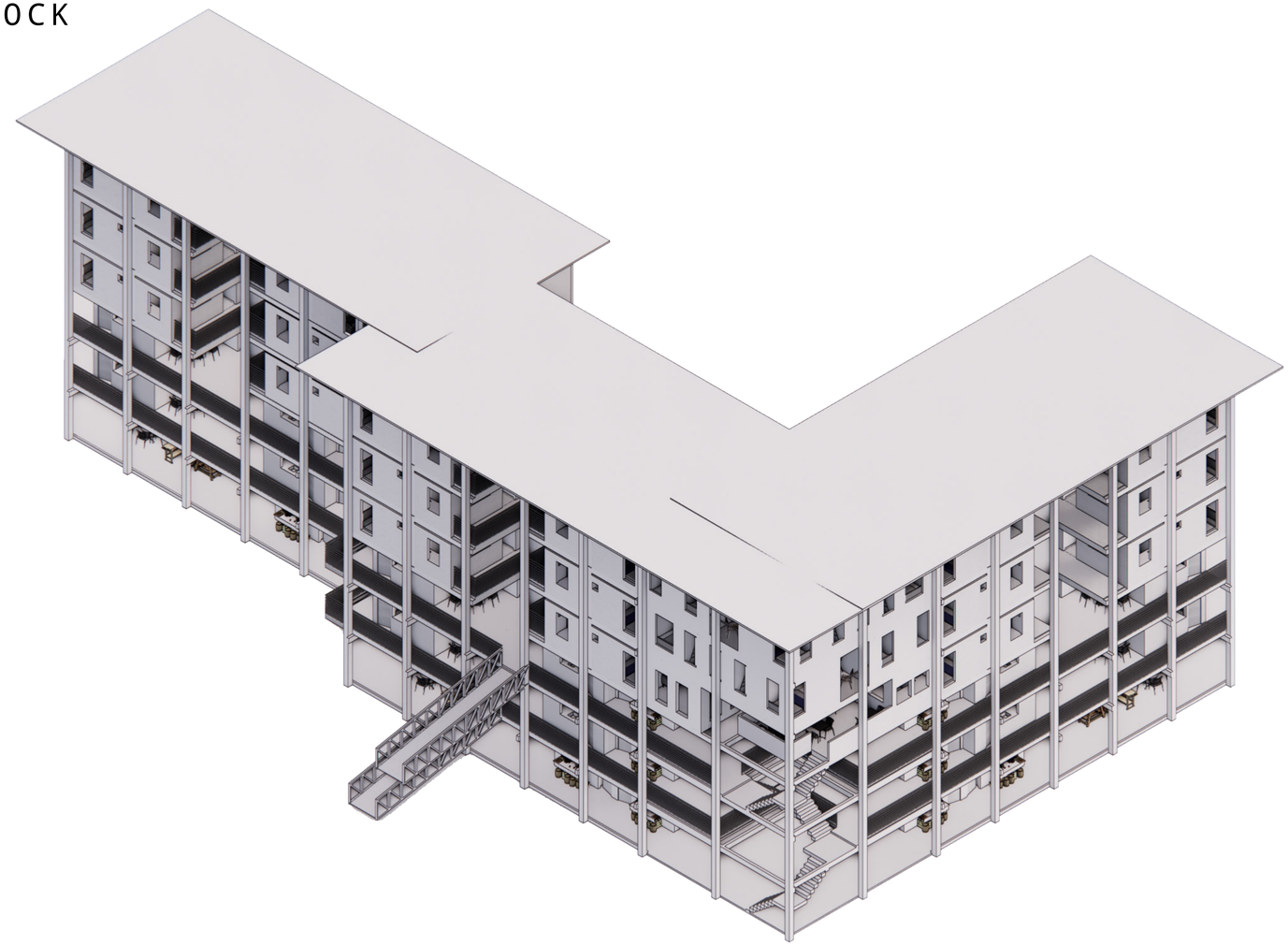
BUILDING BLOCK



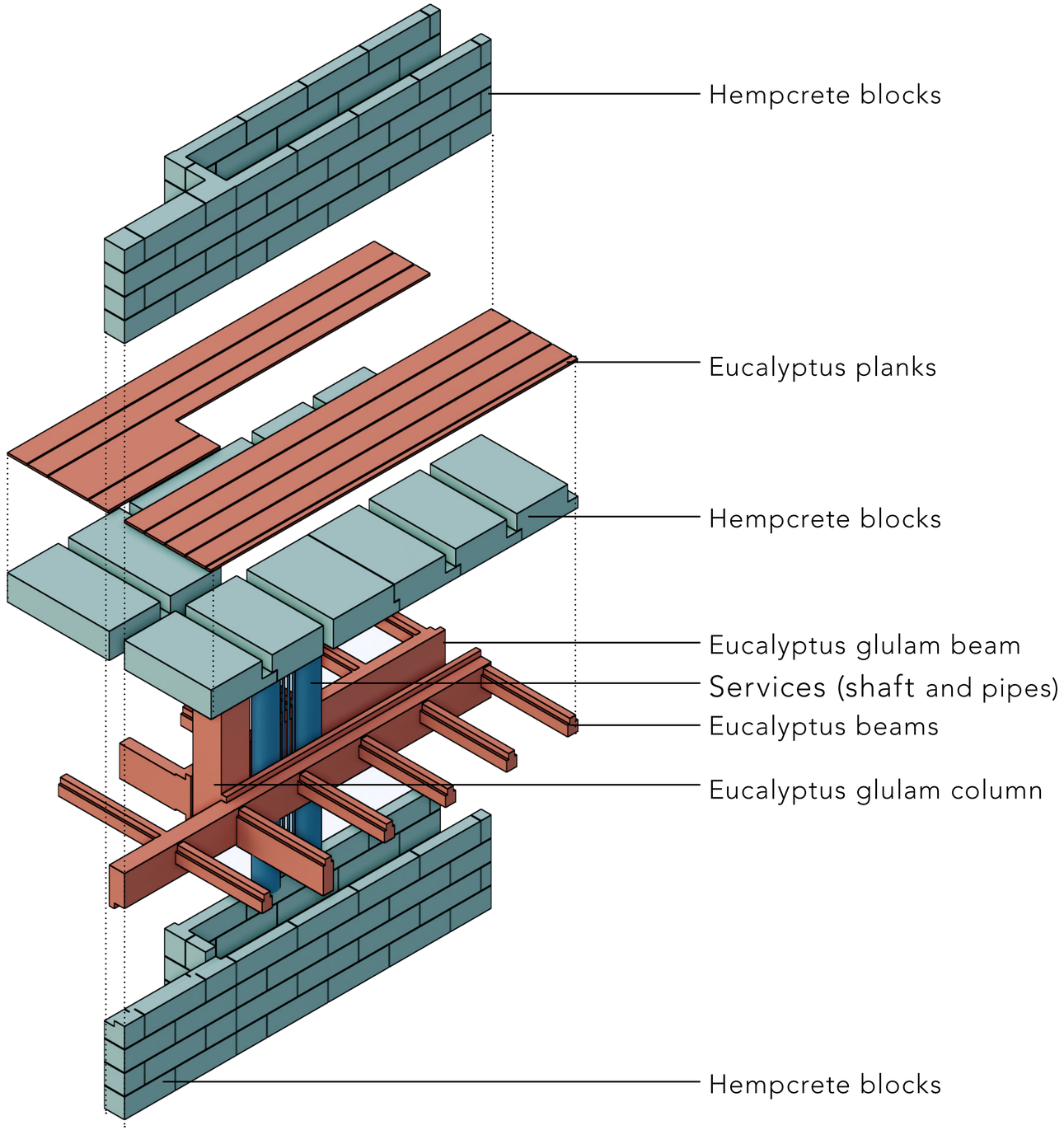
BUILDING BLOCK



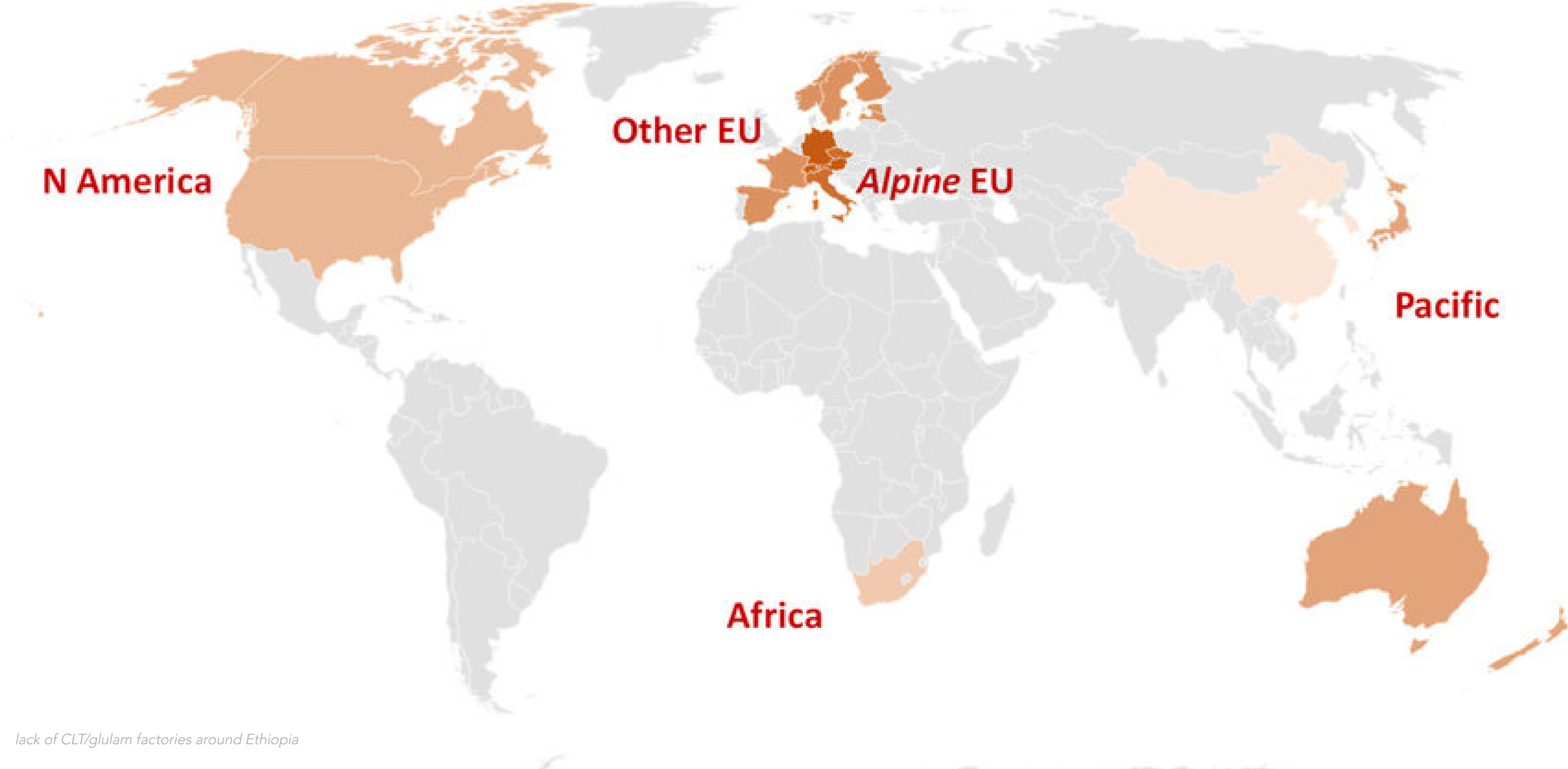
BUILDING BLOCK



MAIN MATERIALS



GLUED LAMINATED TIMBER



lack of CLT/glulam factories around Ethiopia

GLUED LAMINATED TIMBER

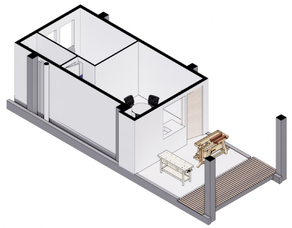
1. strength grading (visual)
2. wood drying
3. finger jointing
4. planing
5. glue spreading
6. clamping station
7. curing
8. cutting station

- finger jointing machine
- planing device
- glue and glue spreaders
- clamping jigs
- cutting machine/miter saw
- controlled space for drying and curing

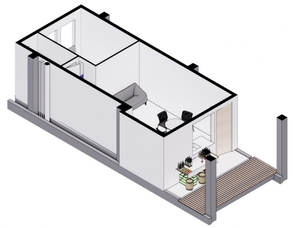
DWELLING OPTIONS

a catalogue

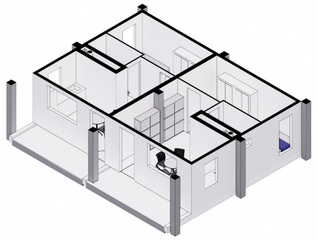
1-bedroom



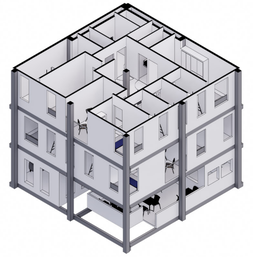
1-bedroom



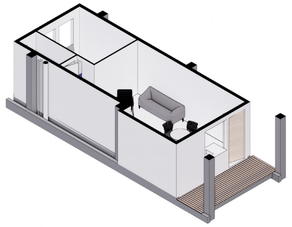
1-bedroom



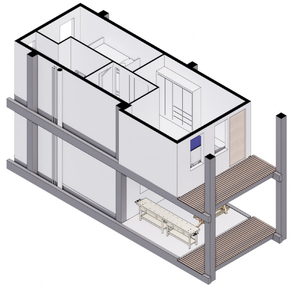
1-bedroom



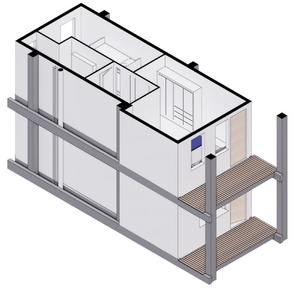
corner dwelling
group housing



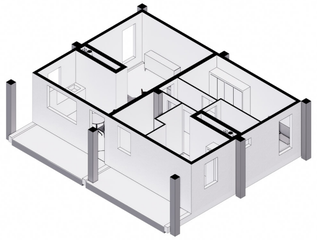
1-bedroom



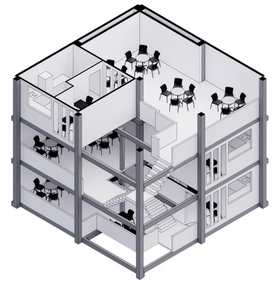
2-bedroom
alternative access



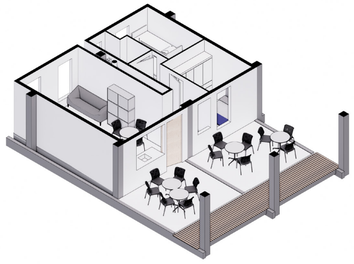
2-bedroom
alternative access



3-bedroom

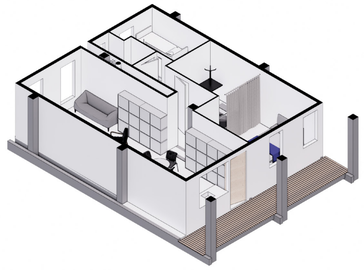


corner
amenity

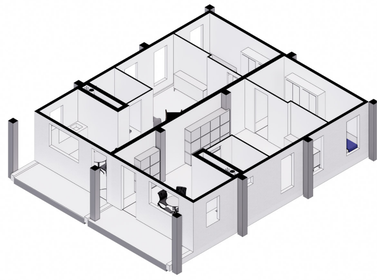


2-bedroom

2-bedroom

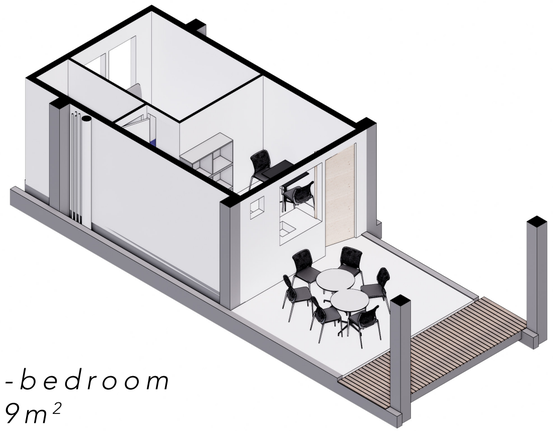


2-bedroom

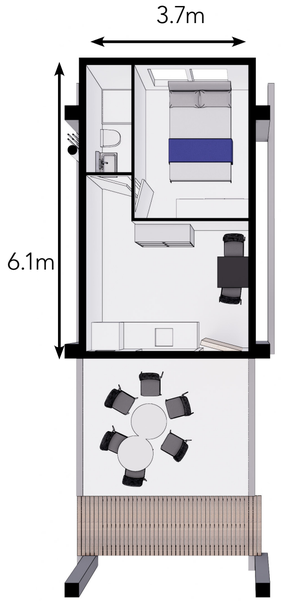


1-bedroom

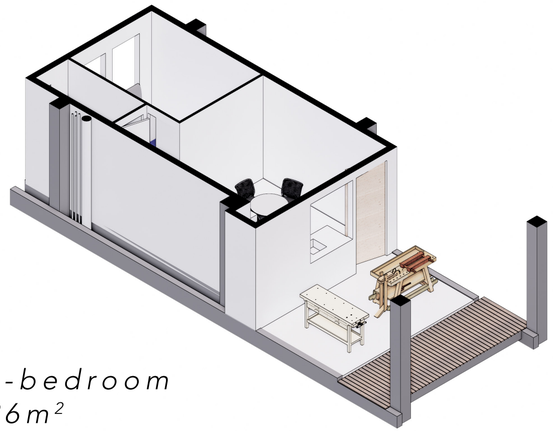
LOWER FLOORS (0-2)



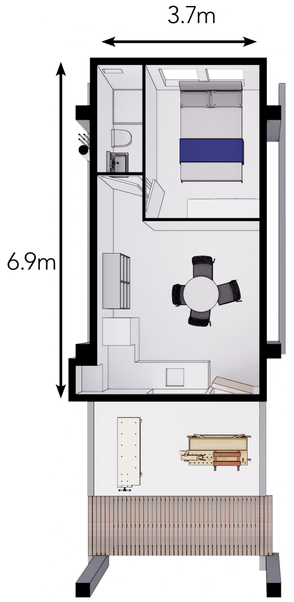
1-bedroom
19m²



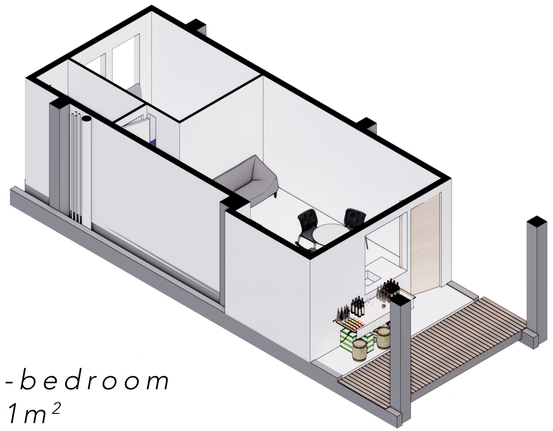
LOWER FLOORS (0-2)



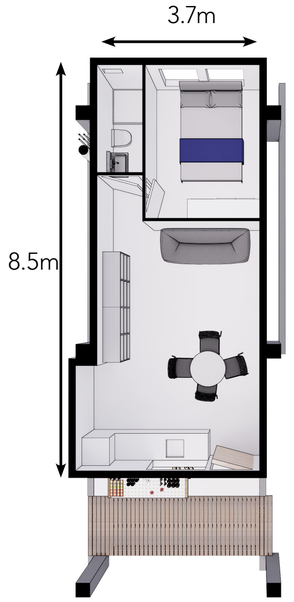
1-bedroom
26m²



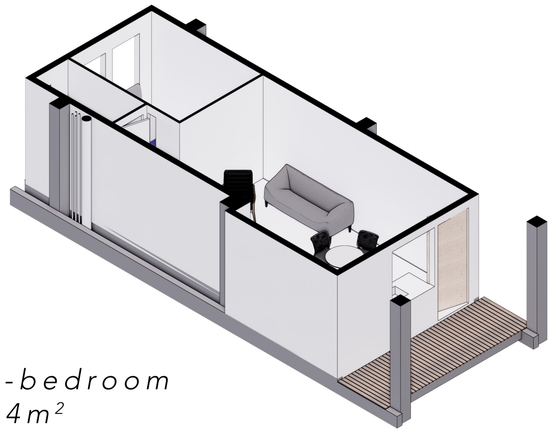
LOWER FLOORS (0-2)



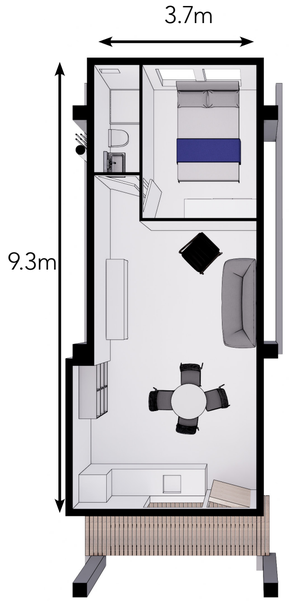
1-bedroom
31m²



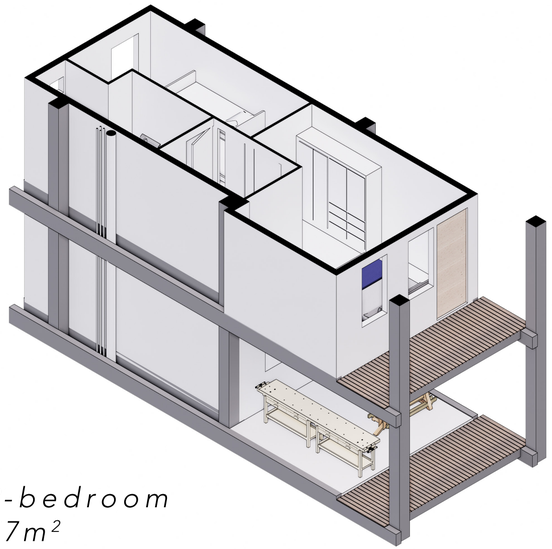
LOWER FLOORS (0-2)



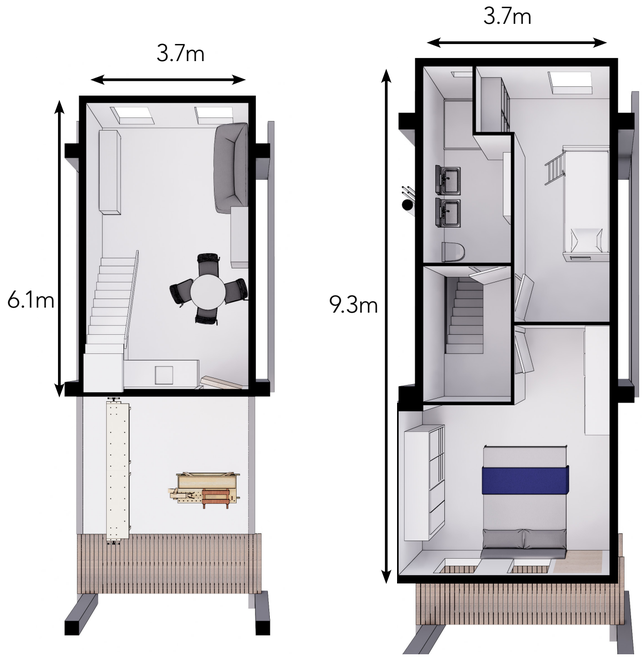
1-bedroom
34m²



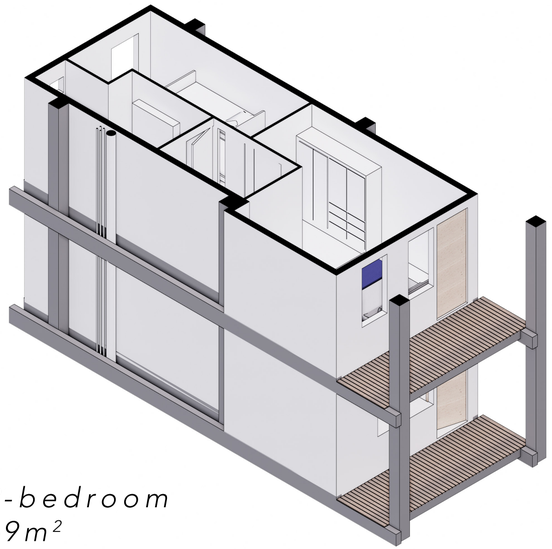
LOWER FLOORS (0-2)



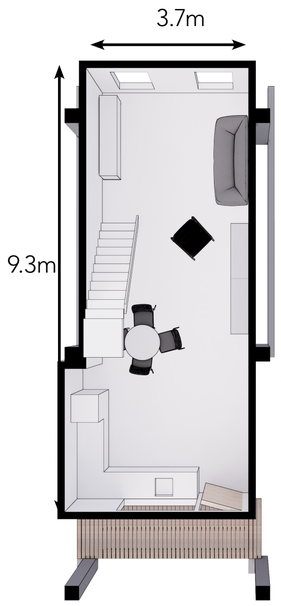
2-bedroom
57m²

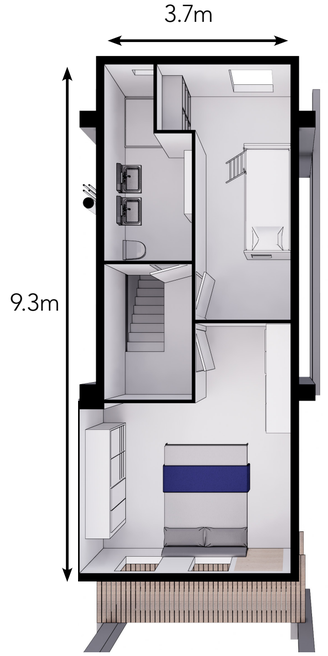


LOWER FLOORS (0-2)

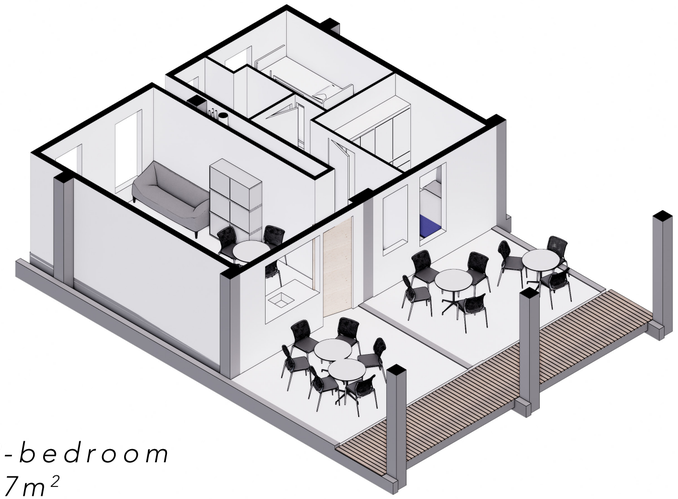


2-bedroom
69m²

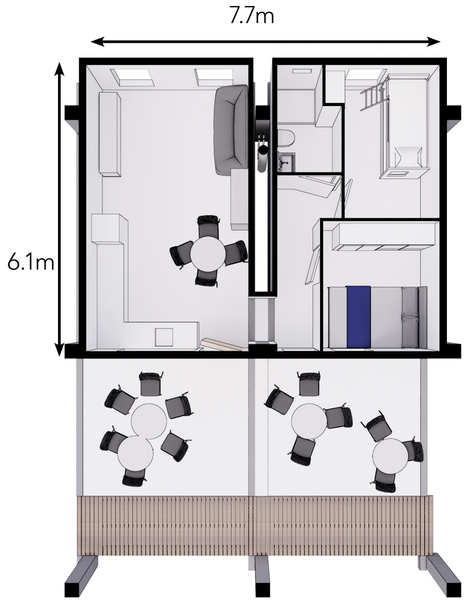




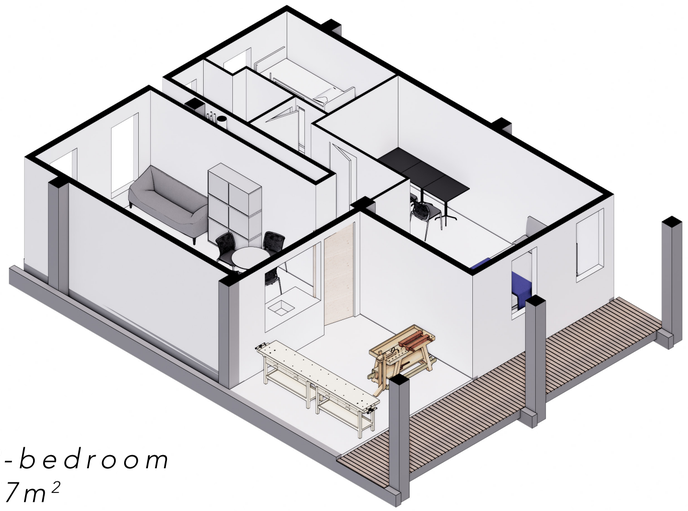
LOWER FLOORS (0-2)



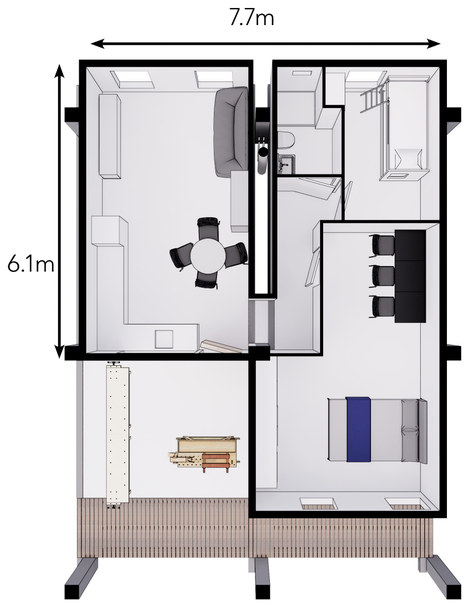
2-bedroom
47m²



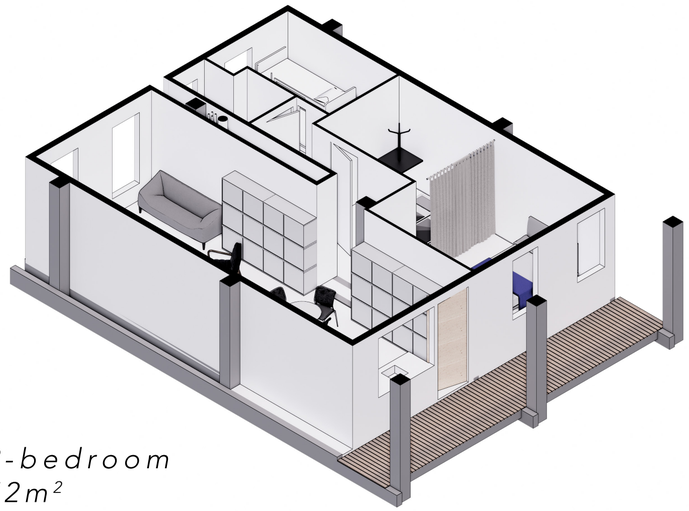
LOWER FLOORS (0-2)



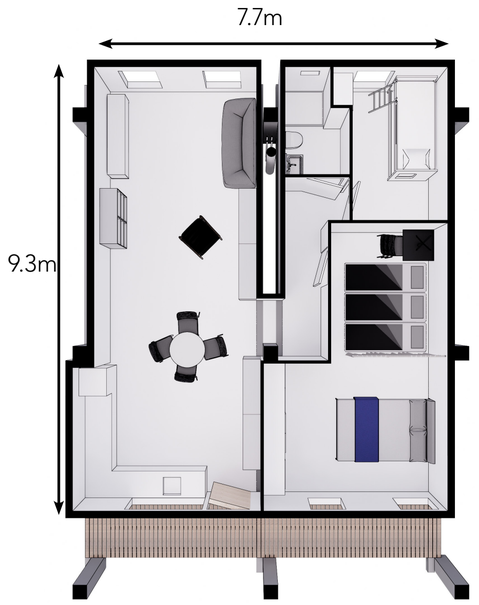
2-bedroom
57m²



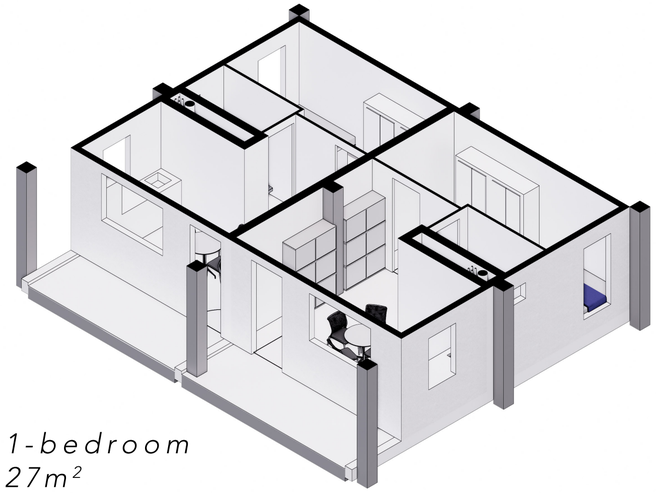
LOWER FLOORS (0-2)



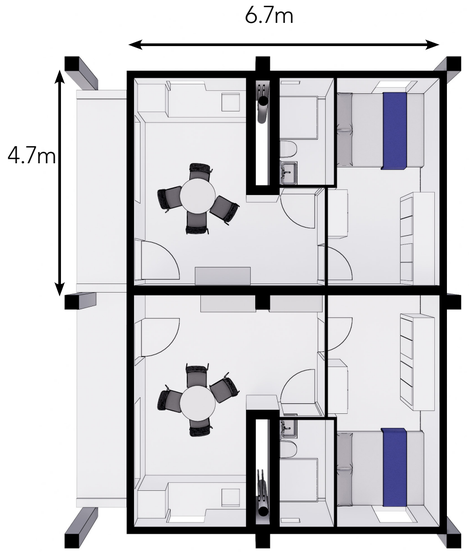
2-bedroom
72m²



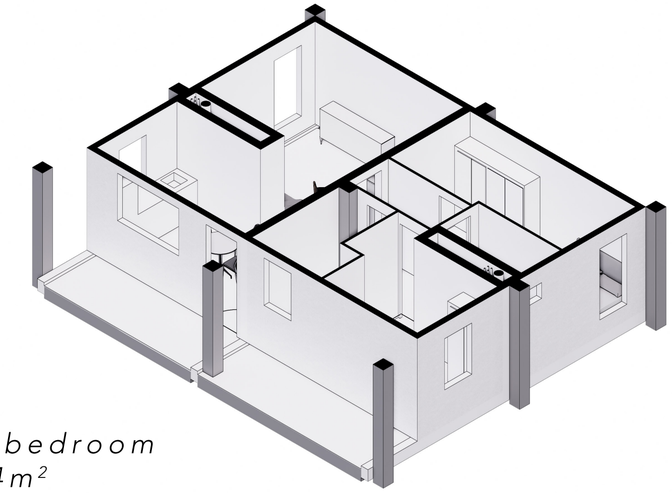
UPPER FLOOR (3-5)



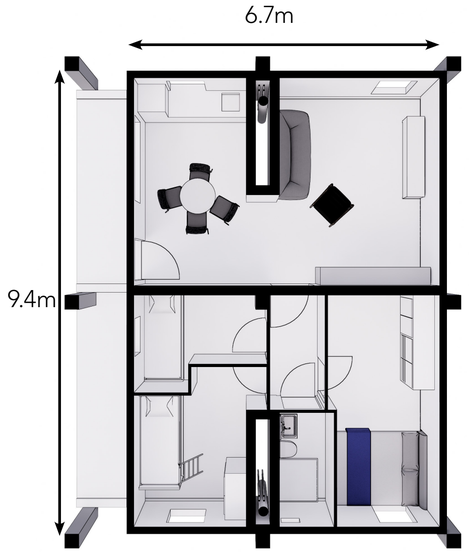
2x 1-bedroom
2x 27m²



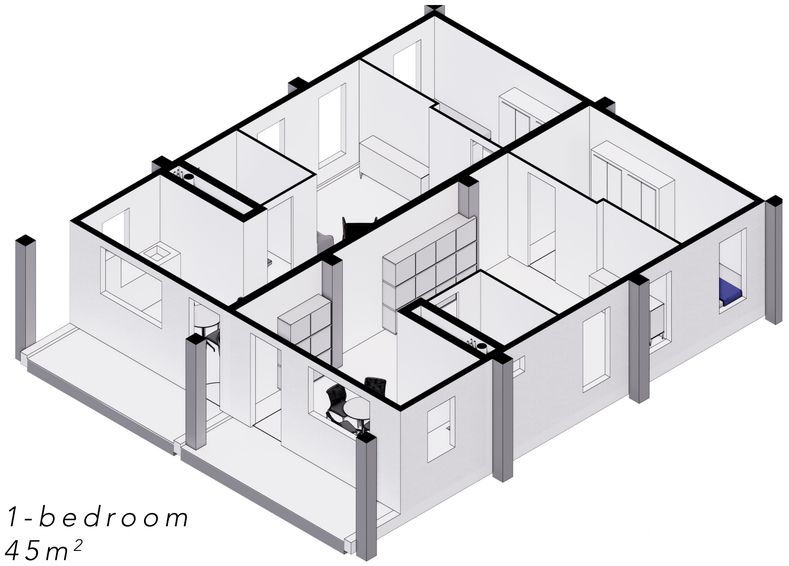
UPPER FLOOR (3-5)



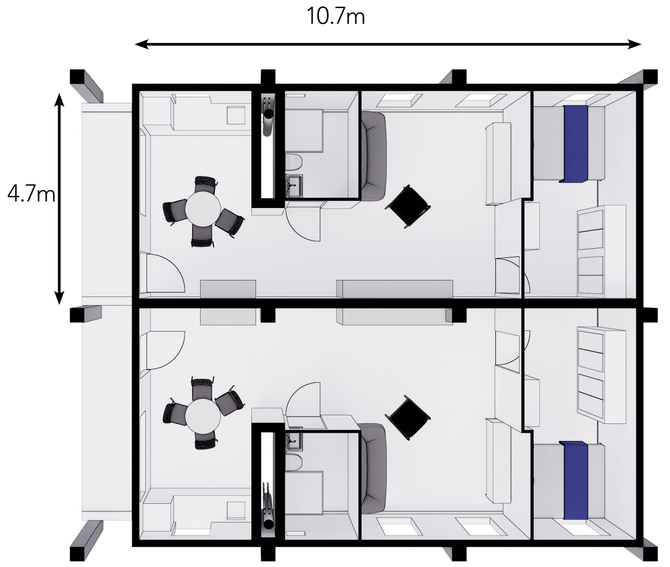
3-bedroom
54m²



UPPER FLOOR (3-5)

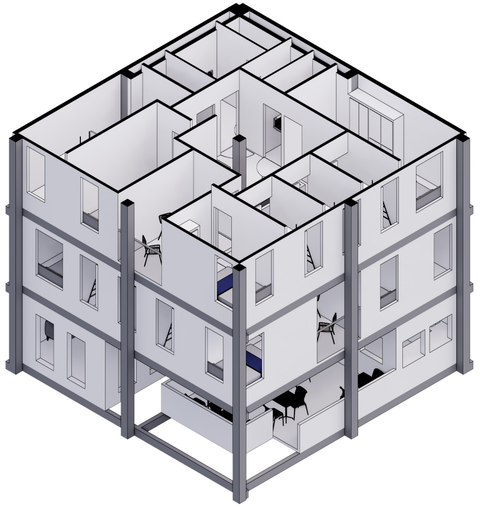


2x 1-bedroom
2x 45m²



CORNER DWELLING (3-5)

group dwelling

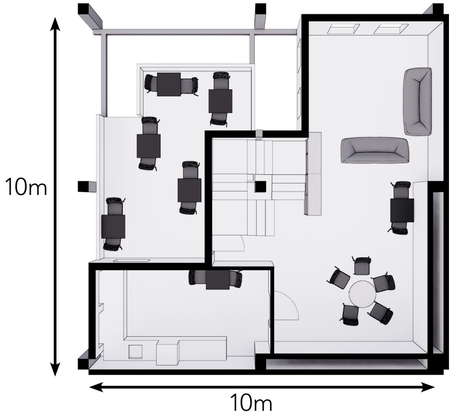


14-bedroom group unit
241m²
3rd floor (69m²)
4th floor (86m²)
5th floor (86m²)

5th floor

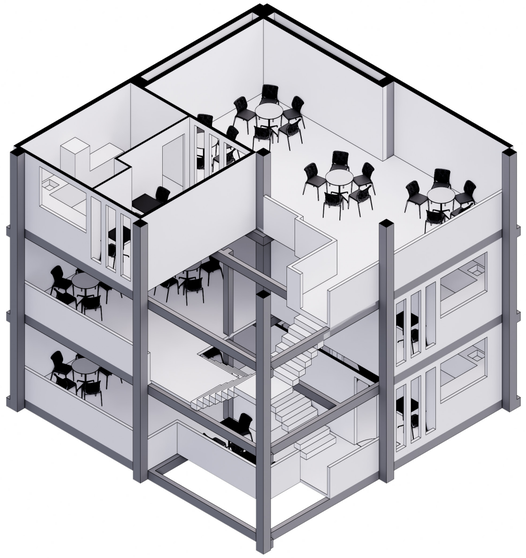
4th floor

3rd floor



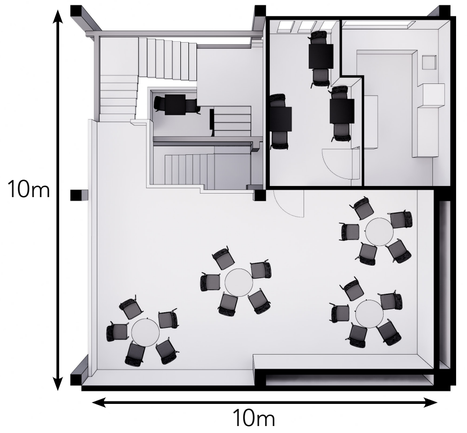
CORNER DWELLING (3-5)

public amenity

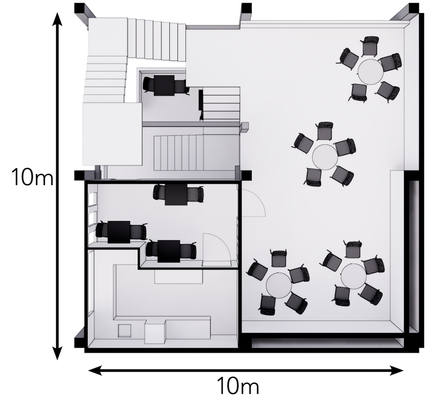


public amenity
three levels of roof terrace
& café

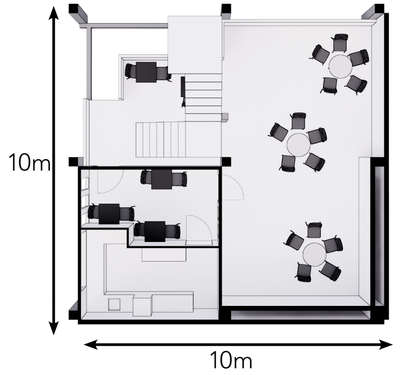
5th floor



4th floor

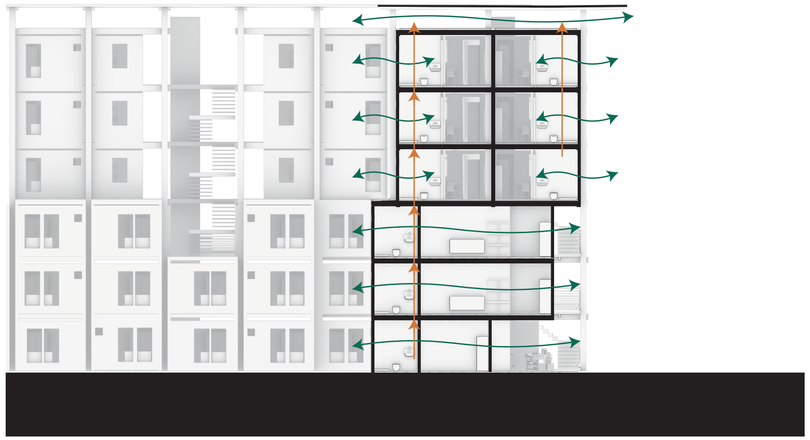


3rd floor



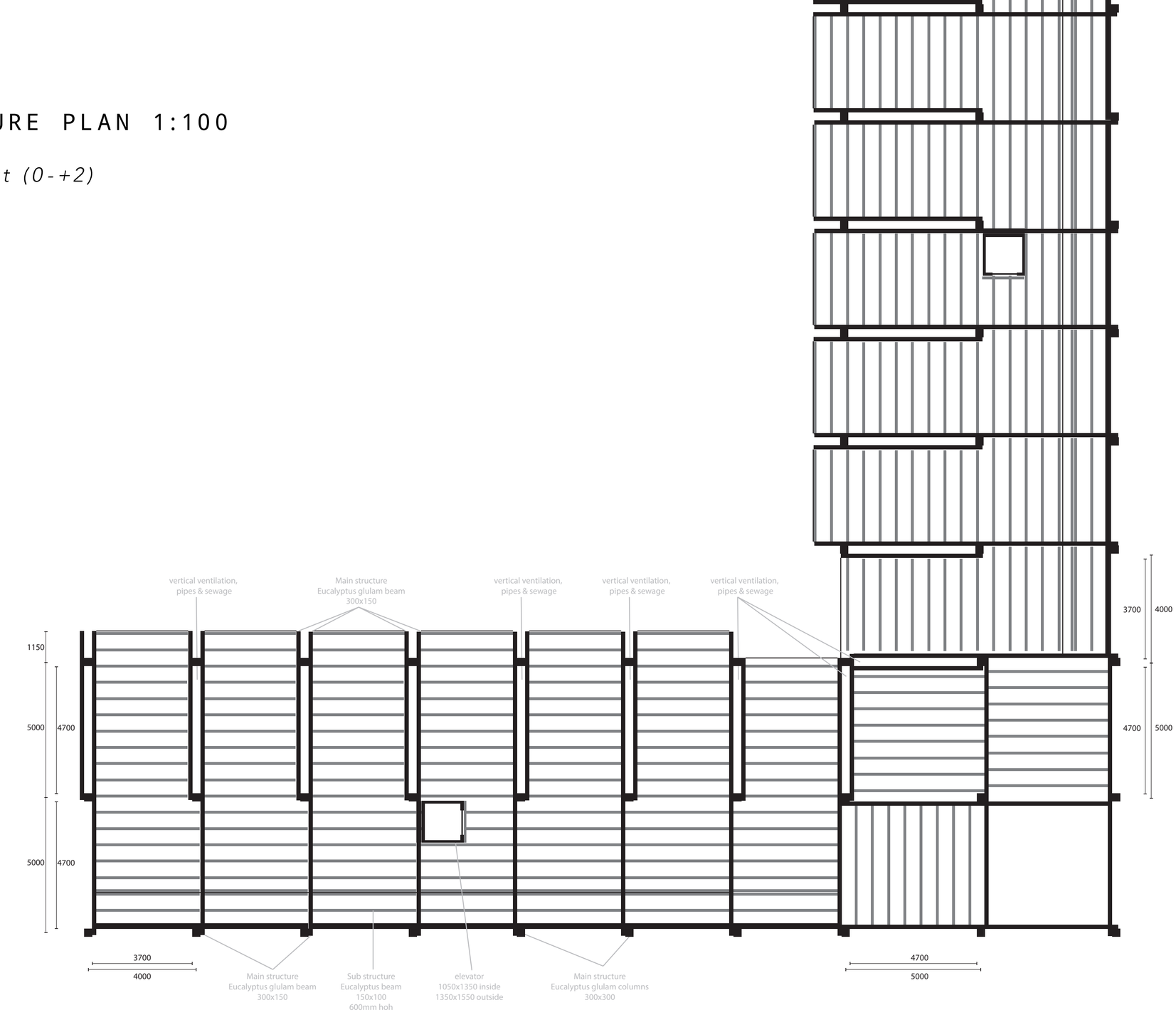
CROSS SECTION

climate control



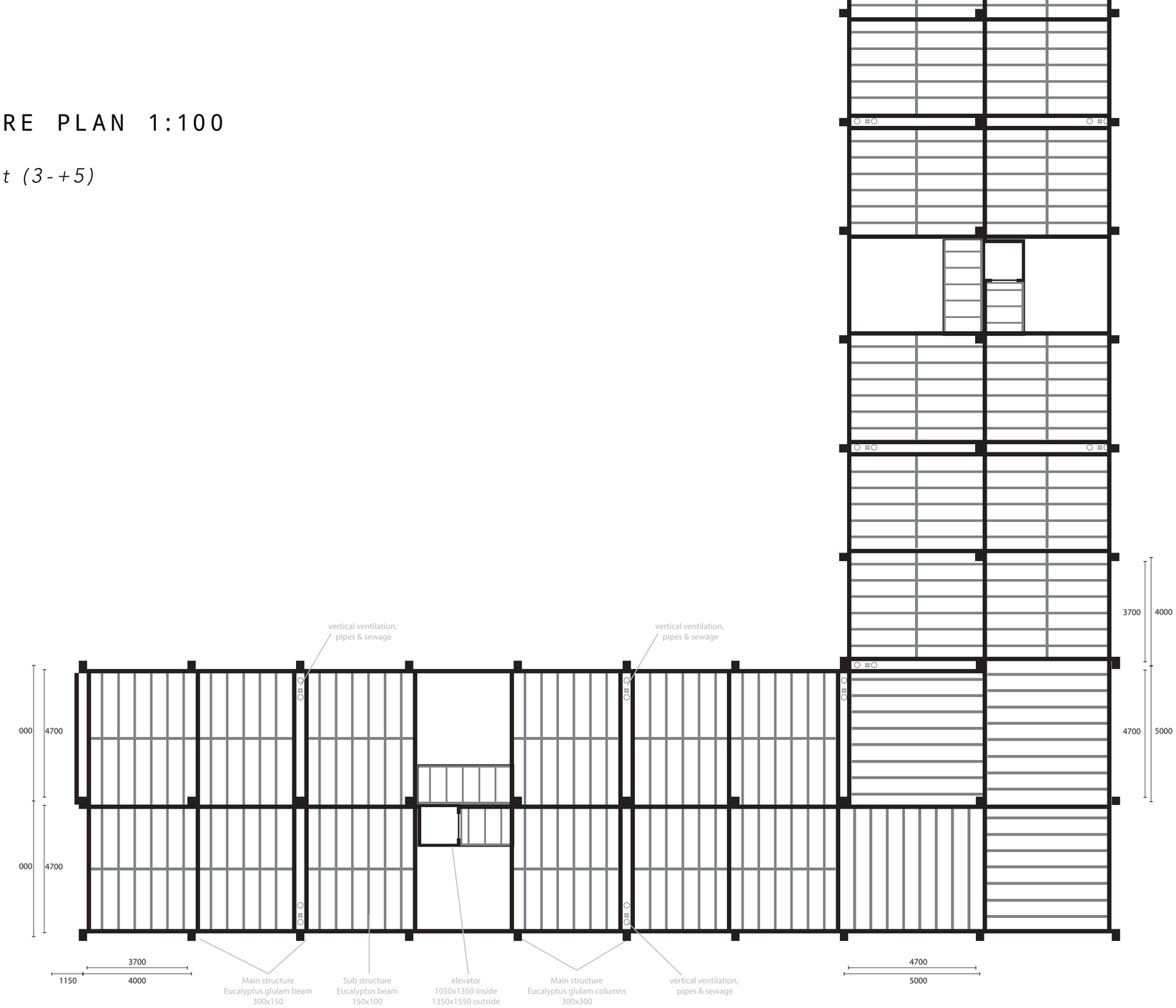
STRUCTURE PLAN 1:100

lower part (0-+2)



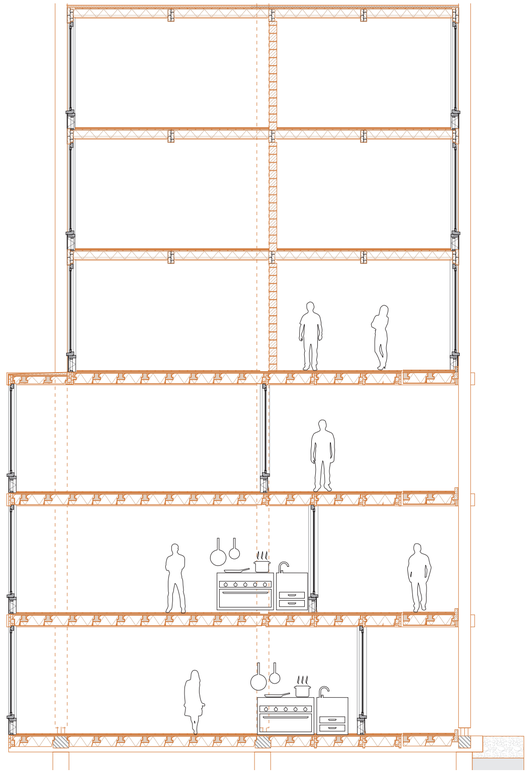
STRUCTURE PLAN 1:100

upper part (3-+5)



SECTION 1:50 - SCALED

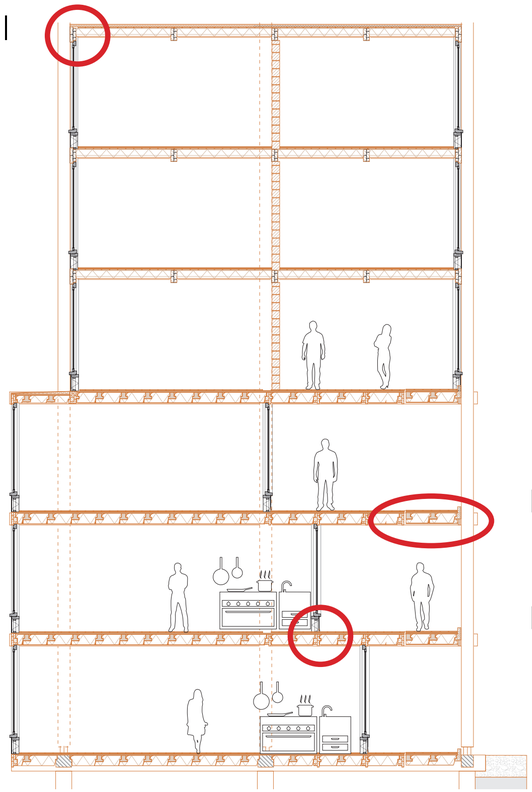
cross section - overview



DETAILS

locations

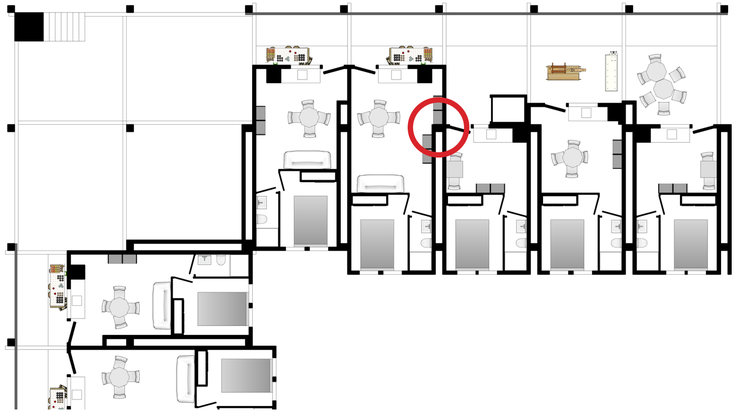
Roof detail



Detail A

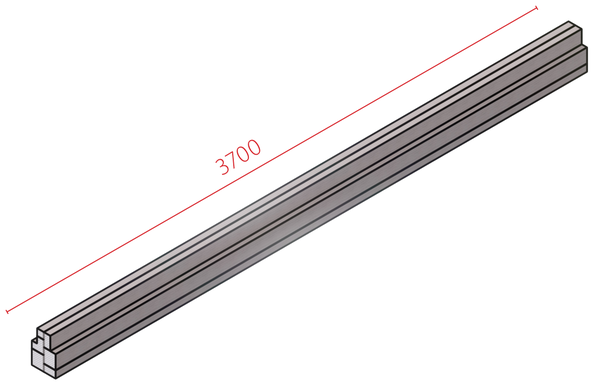
Detail B

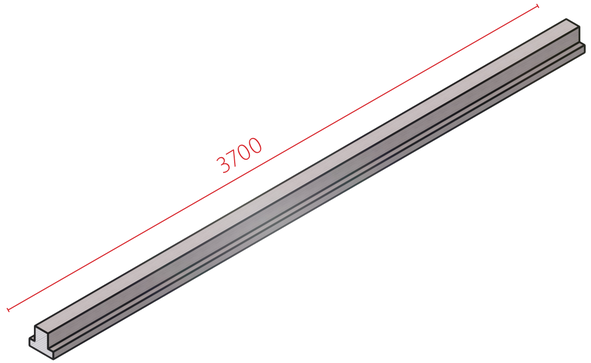
Detail C

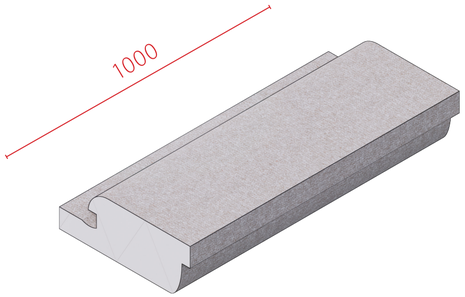


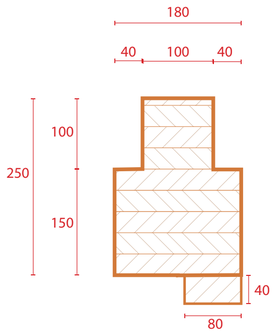
BASIC ELEMENTS

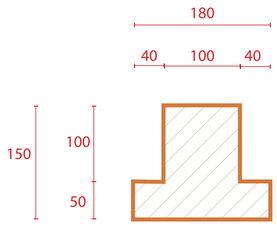
glulam, eucalyptus and hempcrete

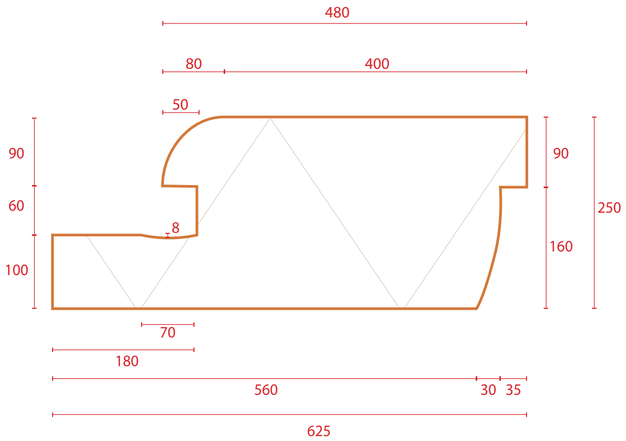


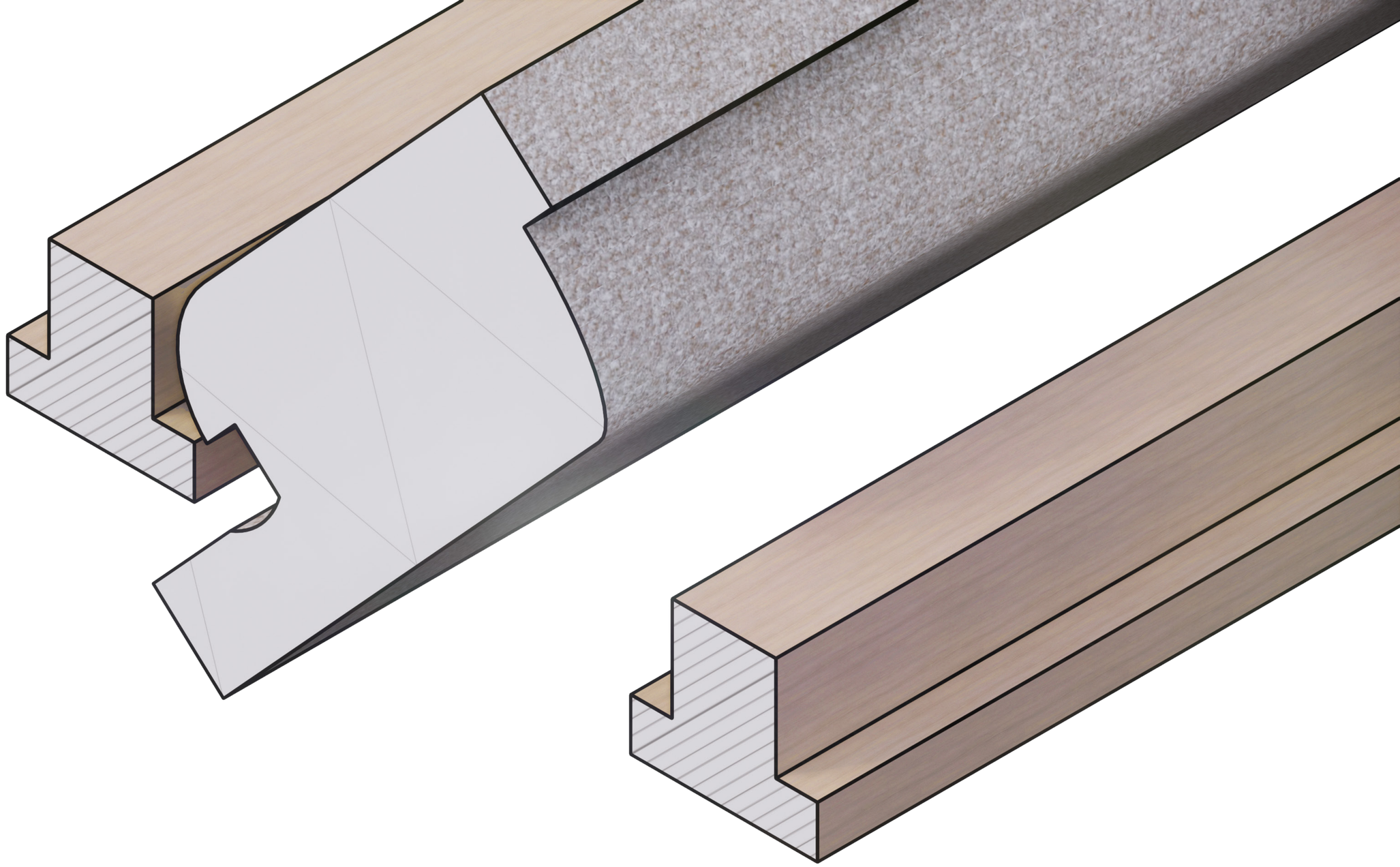


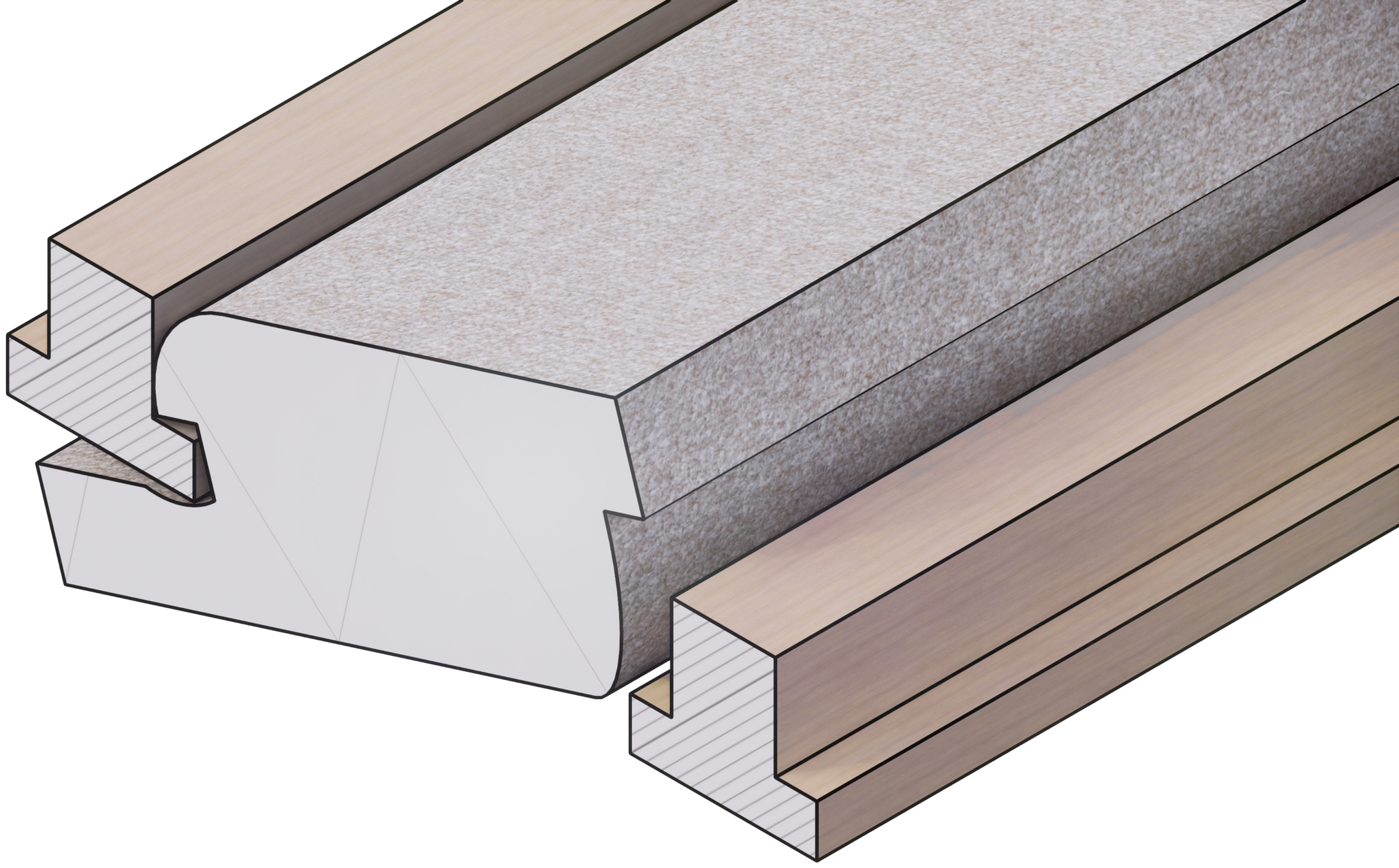


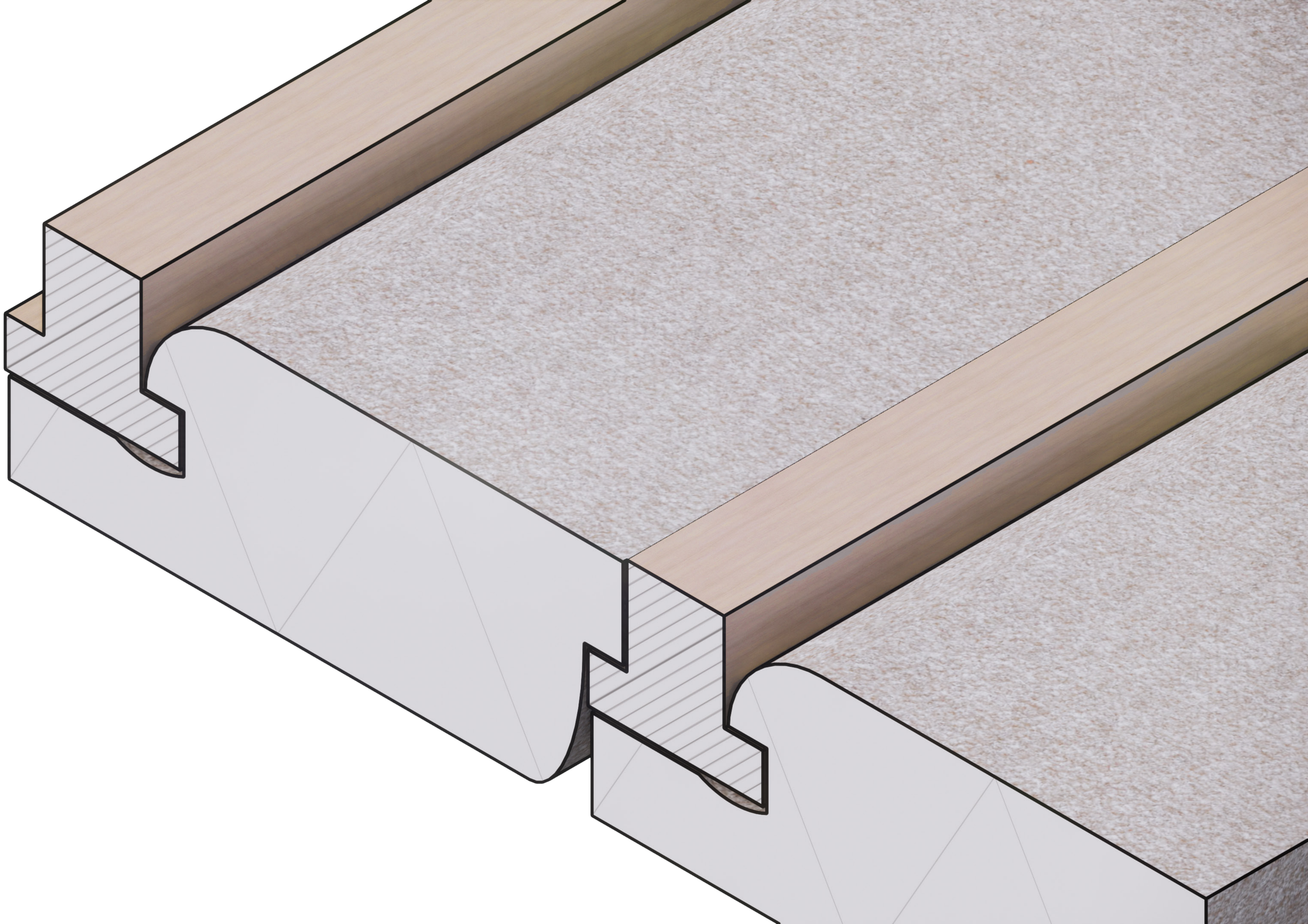


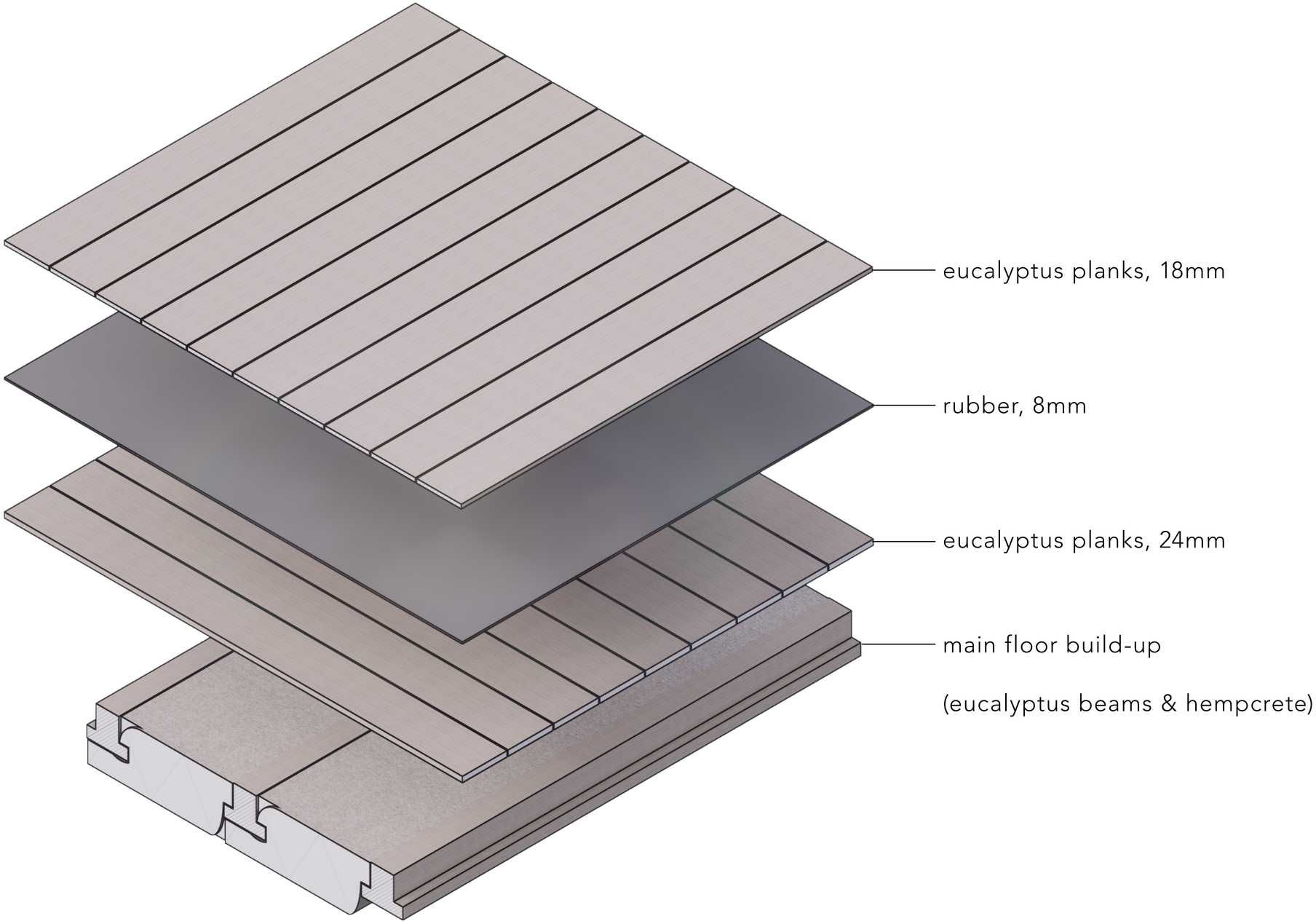






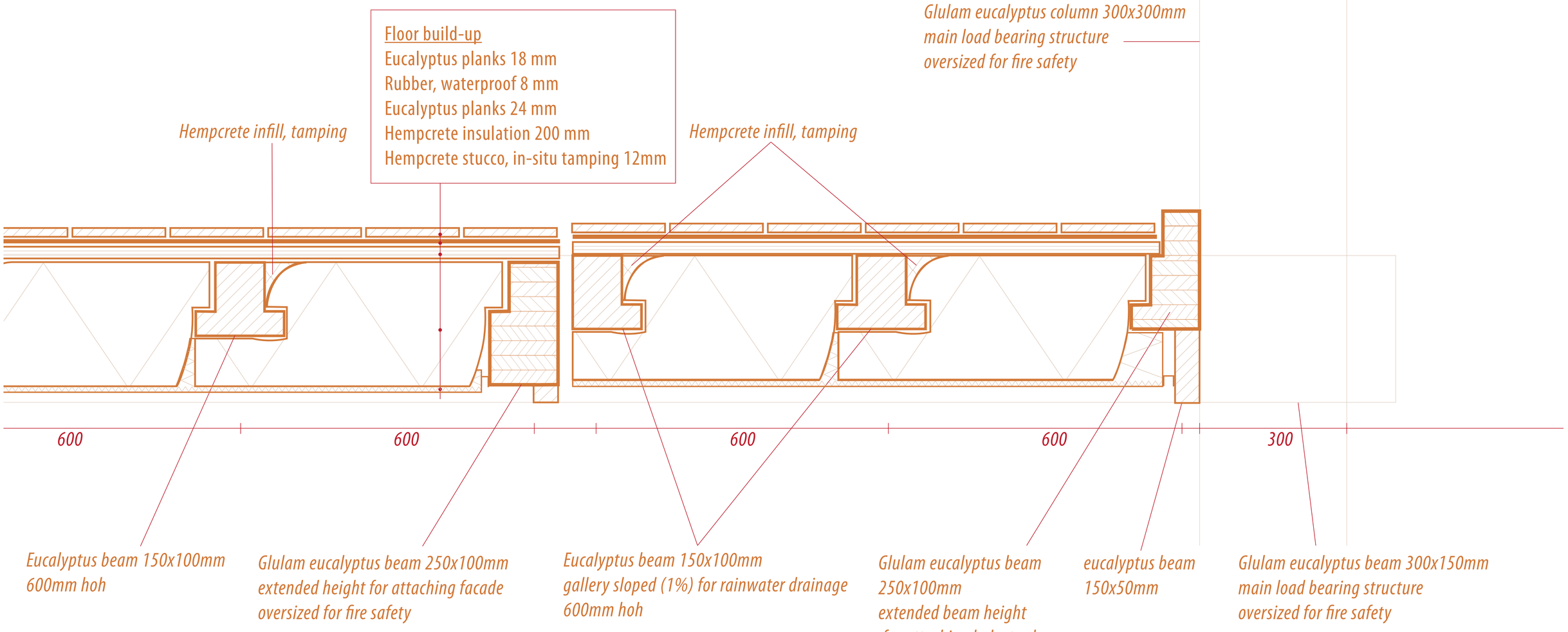





eucalyptus planks, 18mm
rubber, 8mm
eucalyptus planks, 24mm
main floor build-up
(eucalyptus beams & hempcrete)

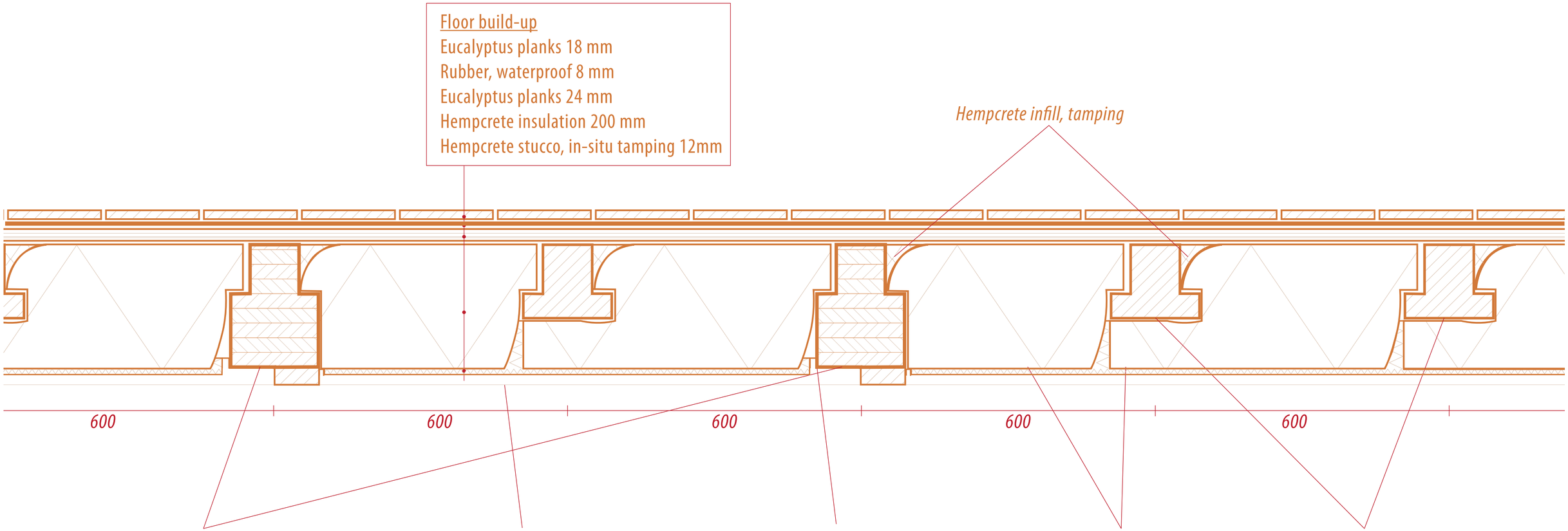
DETAIL A 1:5

basis - galery and dwelling floor



DETAIL B 1:5

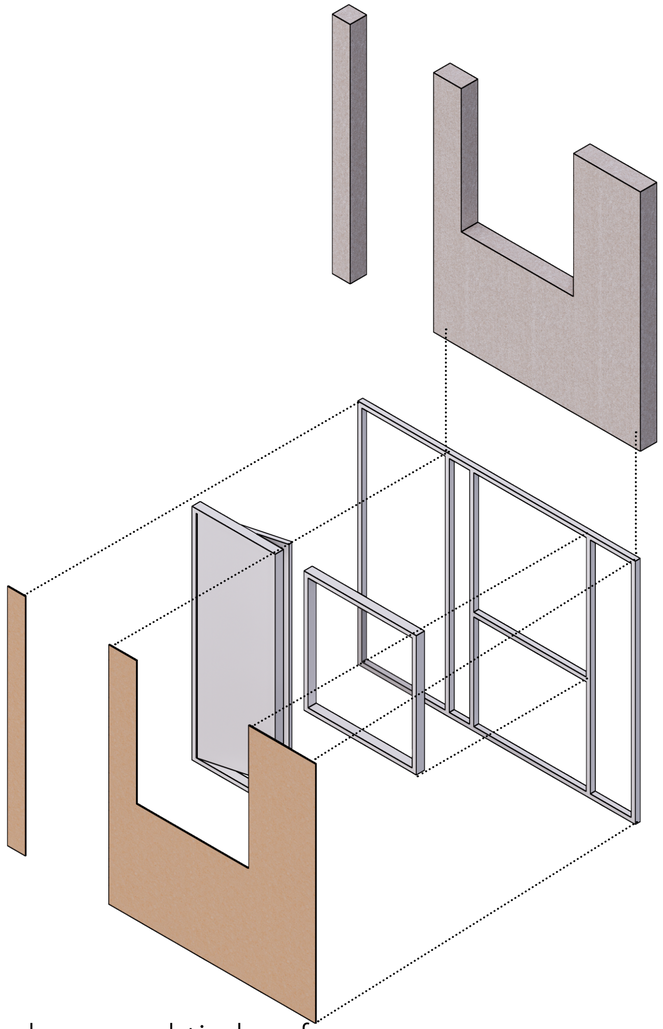
basis - dwelling floor build-up



orange is prebuilt, black is built by inhabitants & changeable over time

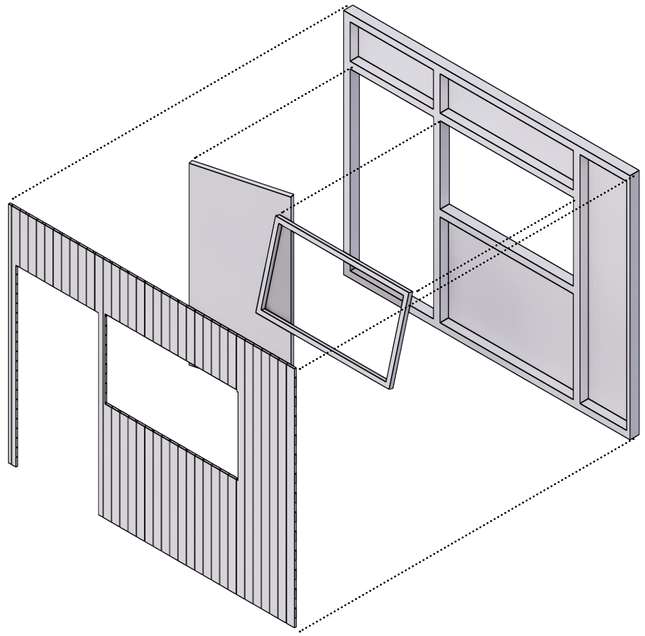
DETAIL B 1:5

facade options



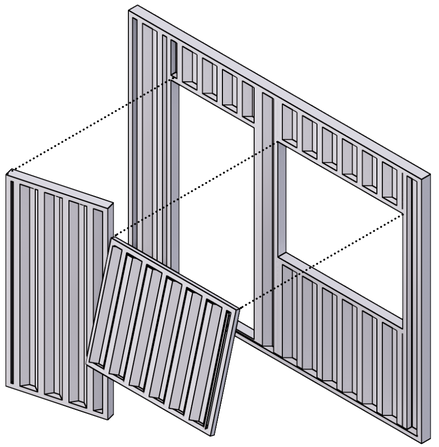
facade around timber frame

(hempcrete)



facade on timber frame

(eucalyptus planks)

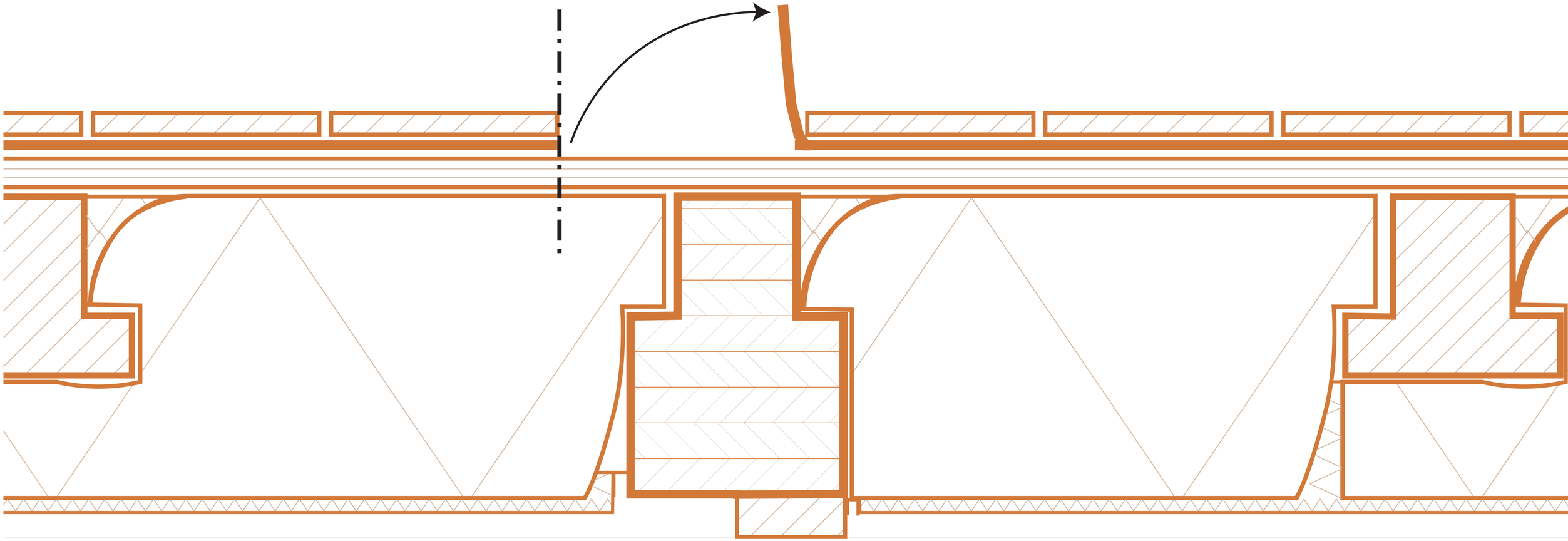


facade in timber frame

(corrugated steel)

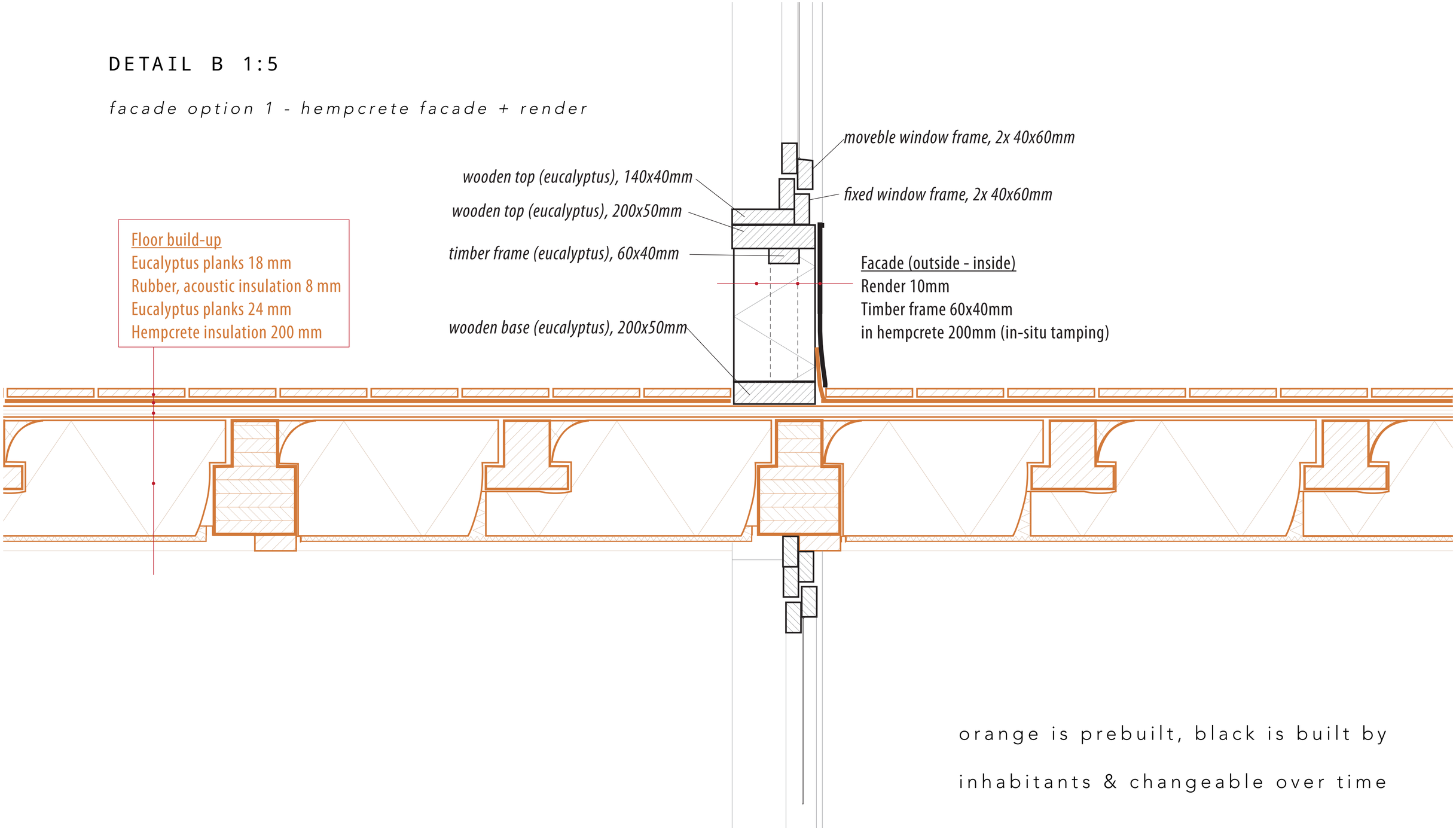
DETAIL B 1:2

option for facade placement



DETAIL B 1:5

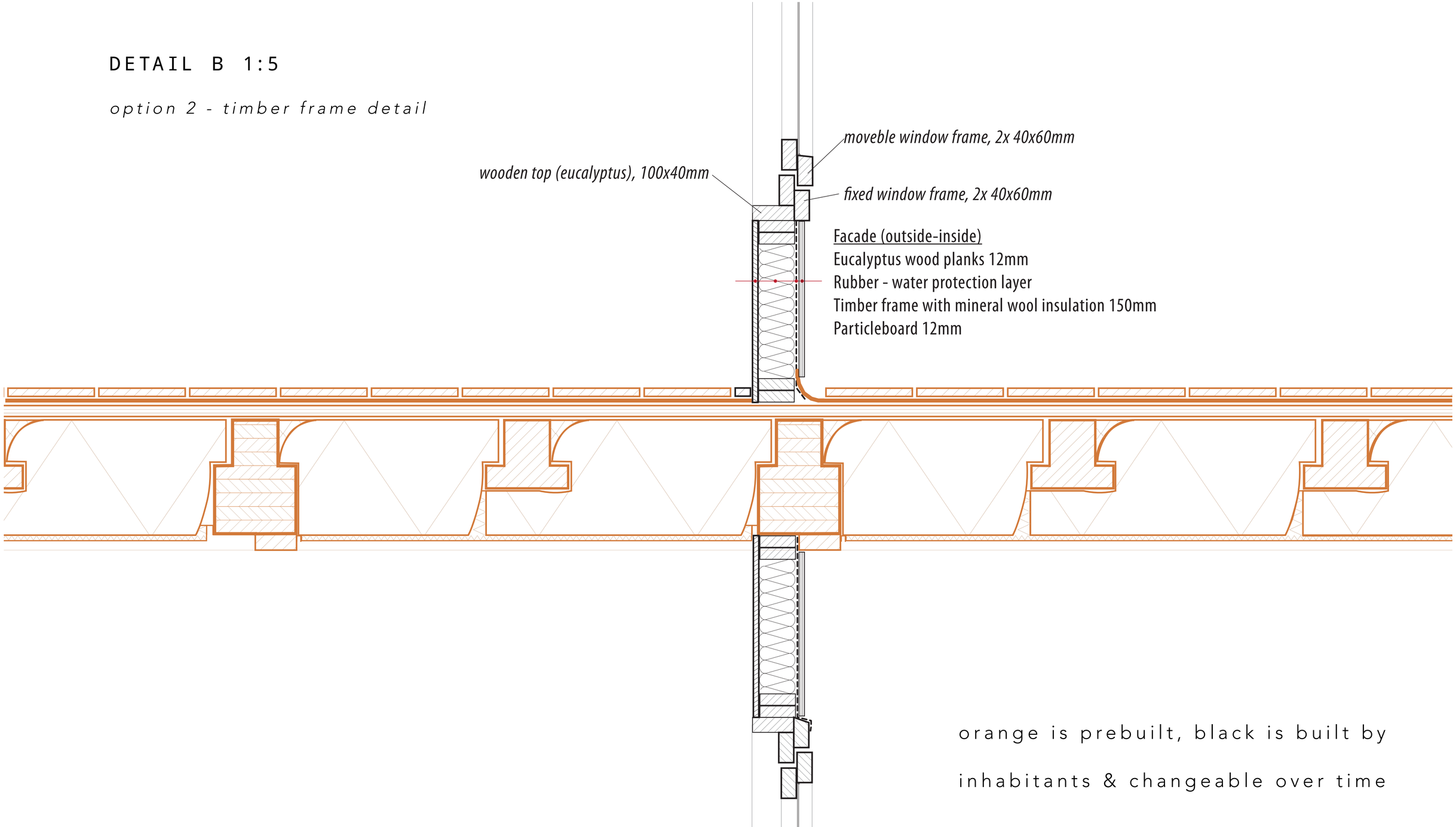
facade option 1 - hempcrete facade + render



orange is prebuilt, black is built by inhabitants & changeable over time

DETAIL B 1:5

option 2 - timber frame detail

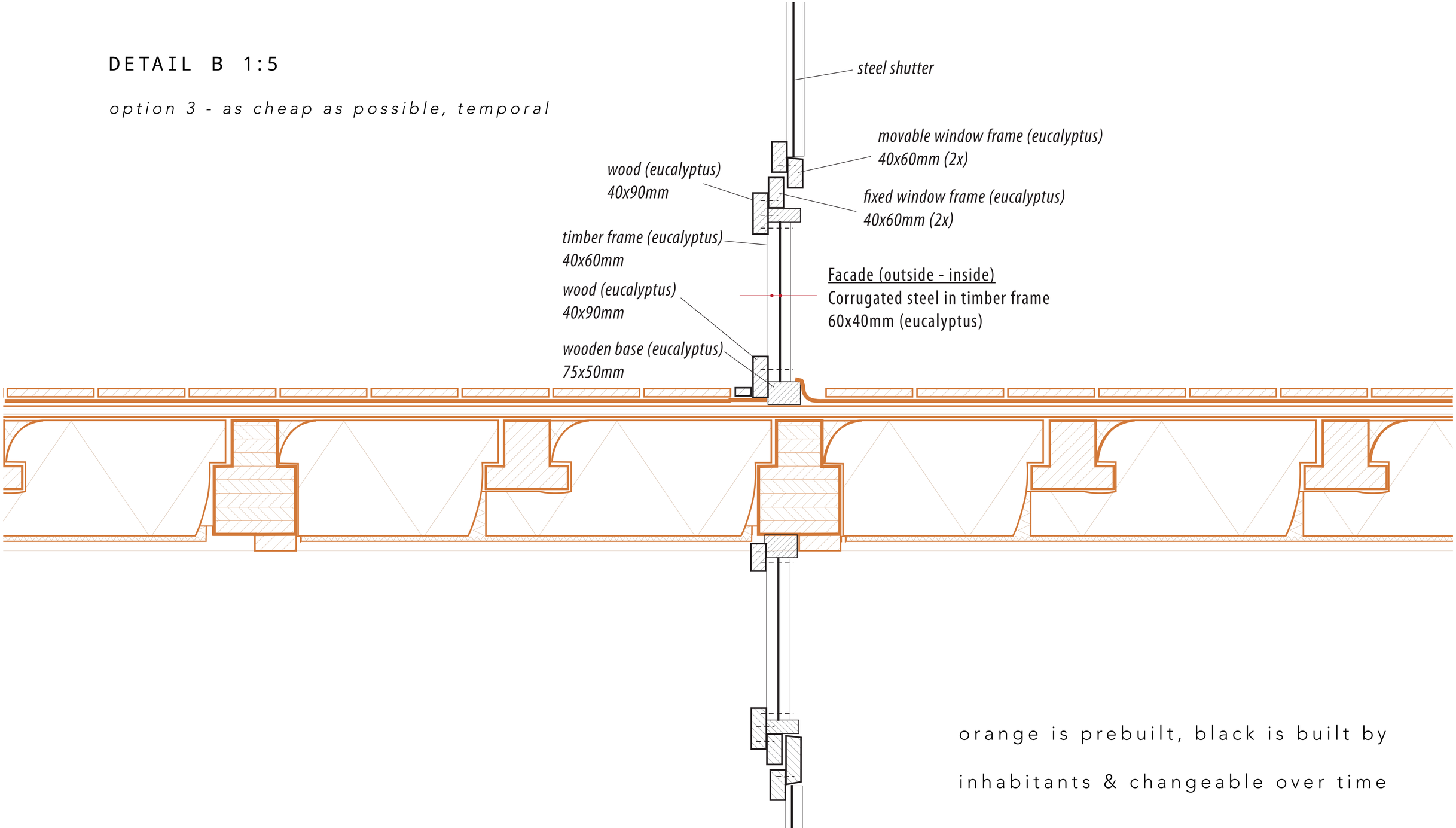


orange is prebuilt, black is built by

inhabitants & changeable over time

DETAIL B 1:5

option 3 - as cheap as possible, temporal

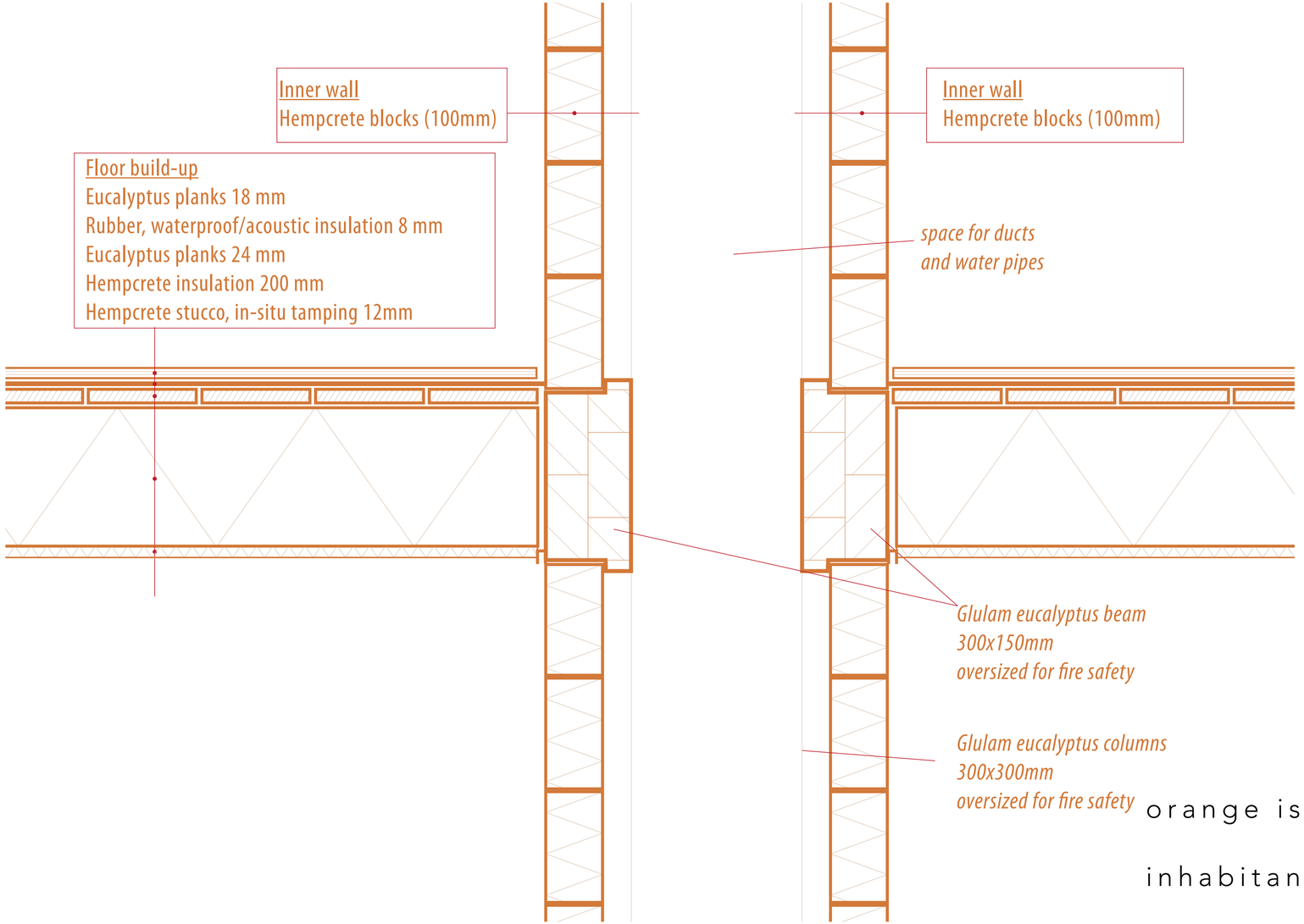


orange is prebuilt, black is built by

inhabitants & changeable over time

DETAIL C 1:5

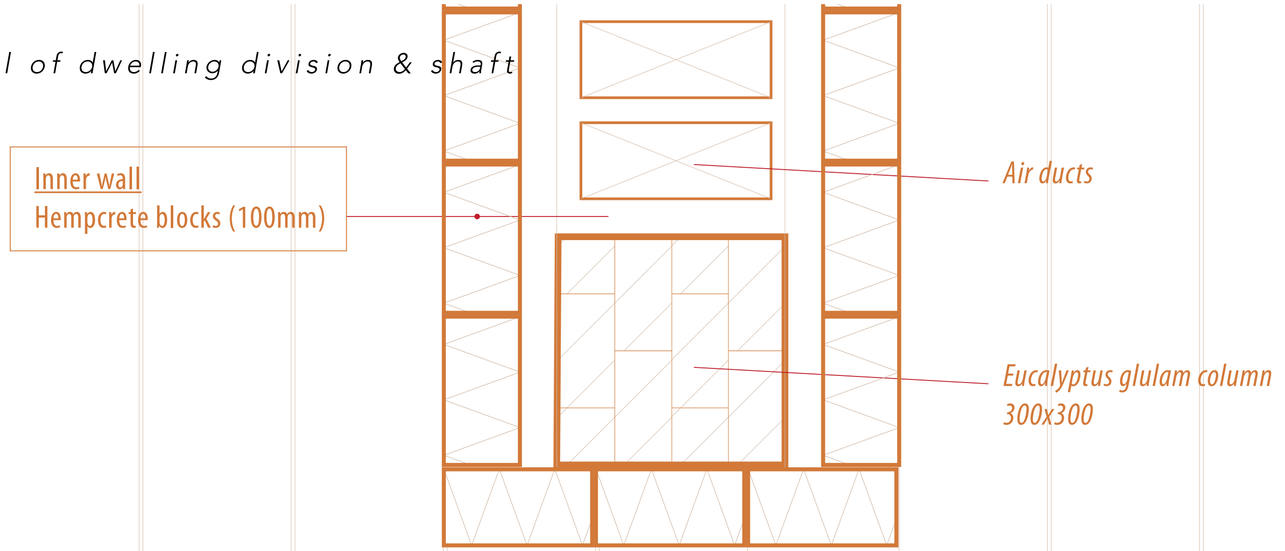
vertical detail of dwelling division & shaft



orange is prebuilt, black is built by inhabitants & changeable over time

DETAIL C 1:5

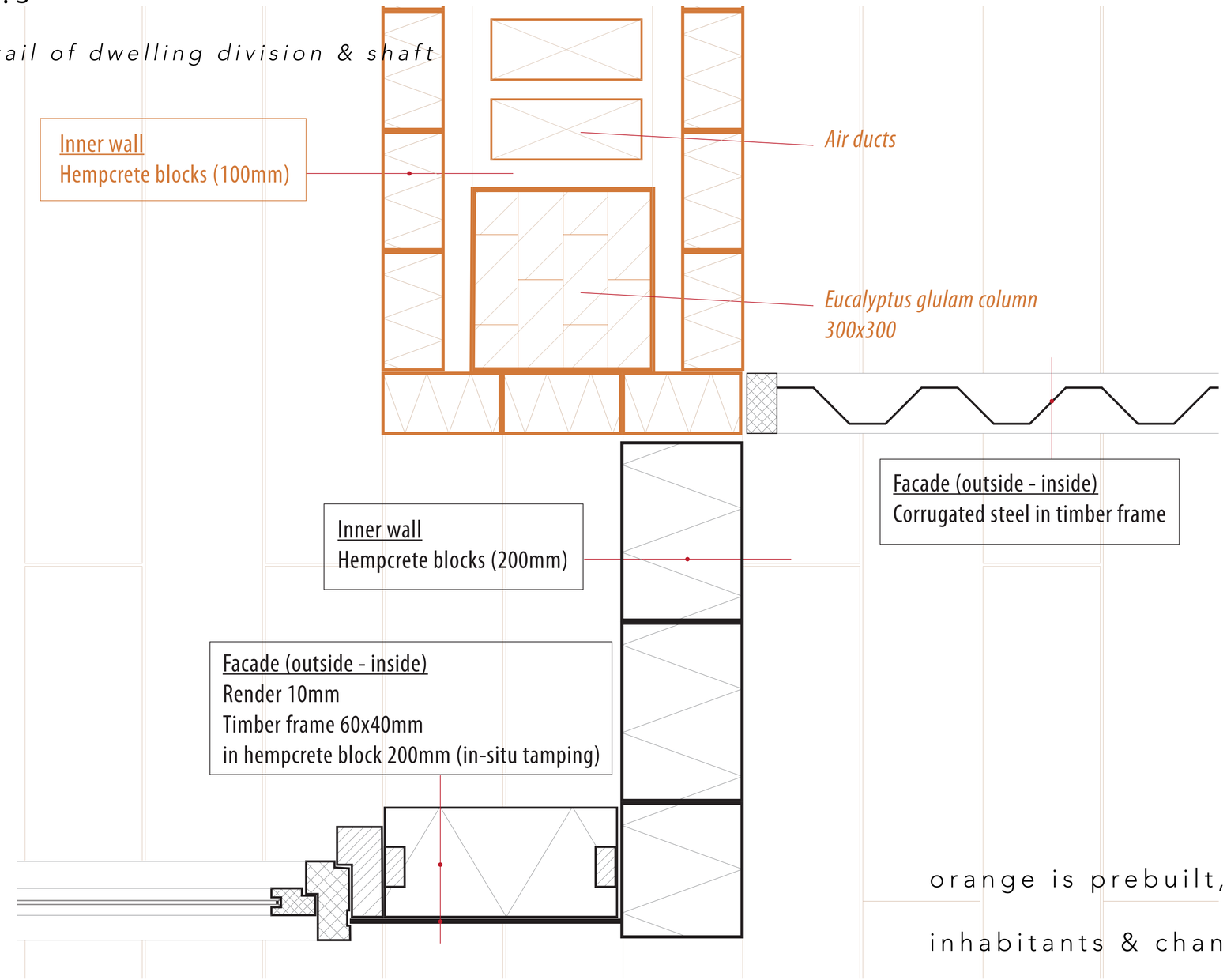
horizontal detail of dwelling division & shaft



orange is prebuilt, black is built by inhabitants & changeable over time

DETAIL C 1:5

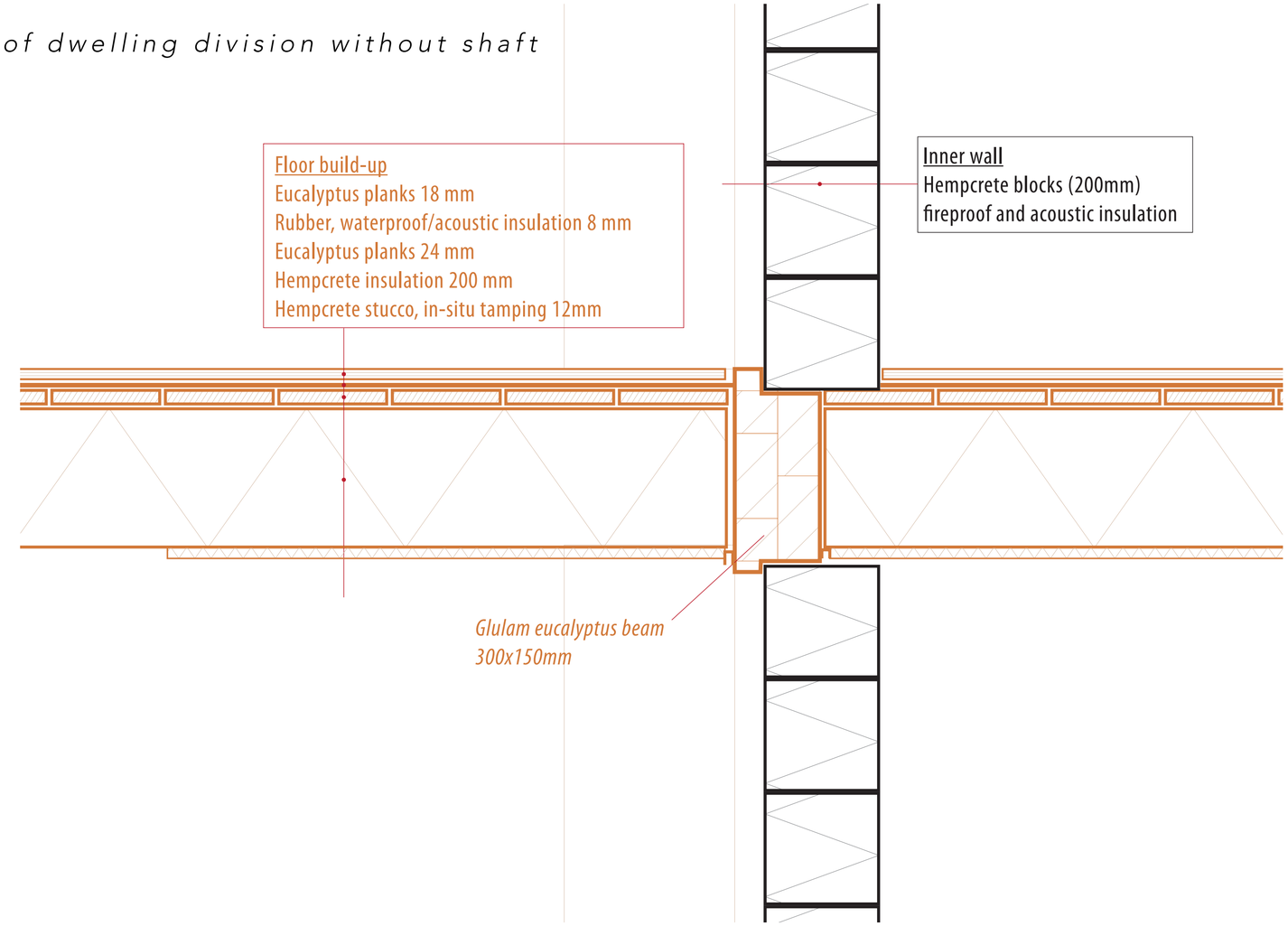
horizontal detail of dwelling division & shaft



orange is prebuilt, black is built by inhabitants & changeable over time

DETAIL C 1:5

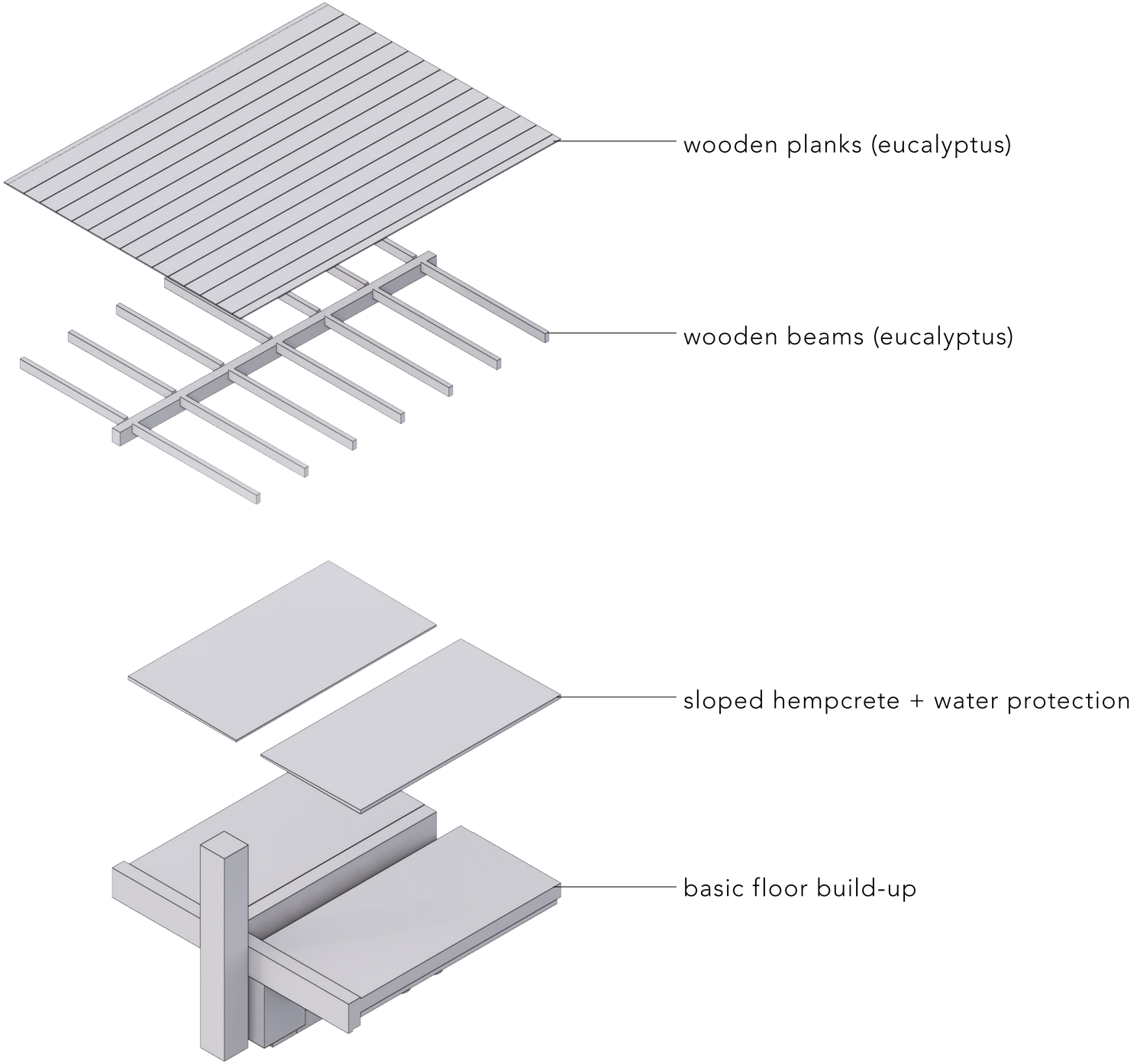
vertical detail of dwelling division without shaft



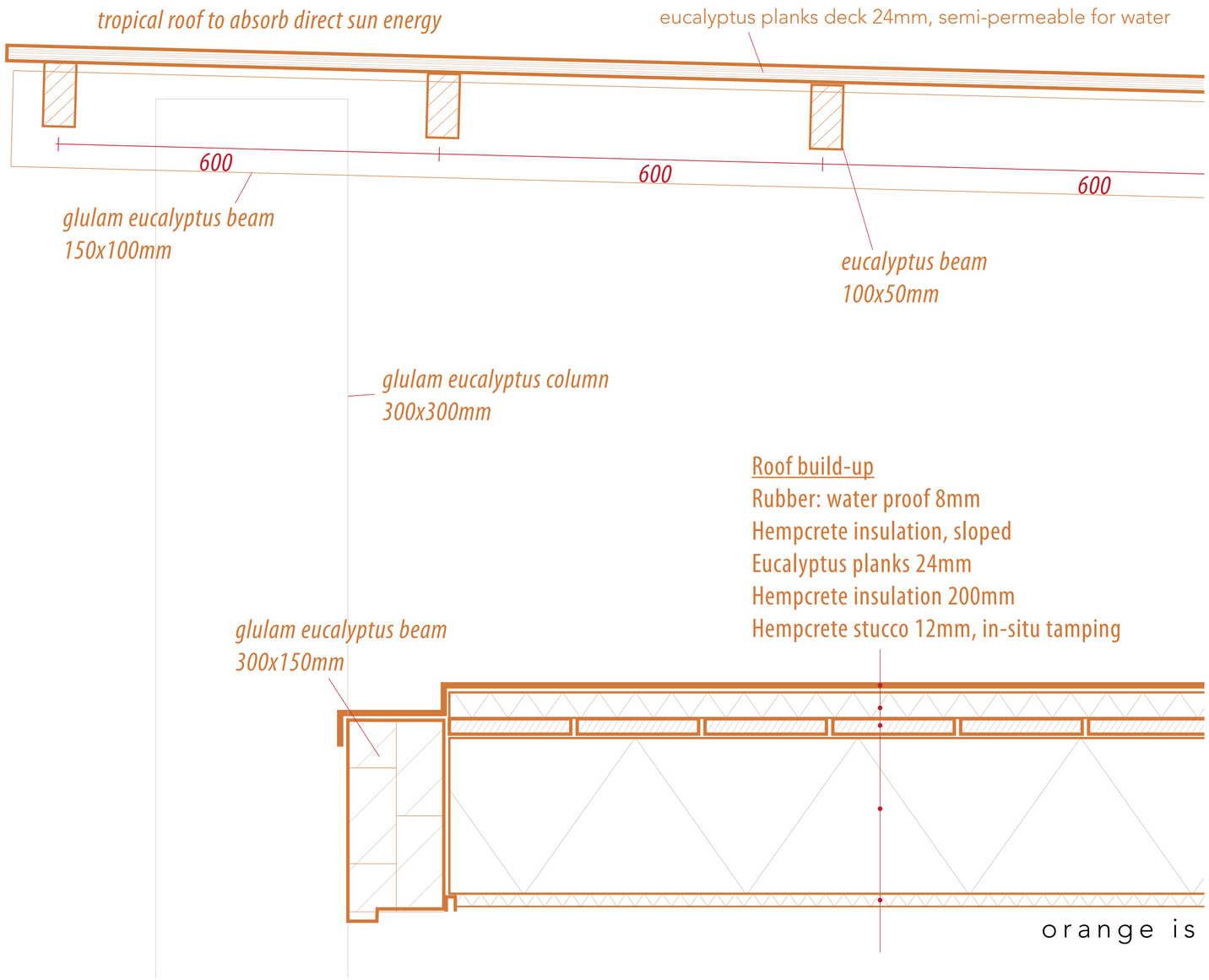
orange is prebuilt, black is built by

inhabitants & changeable over time

ROOF AXONOMETRY



ROOF DETAIL 1:5



orange is prebuilt, black is built by

inhabitants & changeable over time

AMENITIES

needs large space
close to active street

needs small space
close to active street

needs large space
open air - central square

needs small space
at active street in building block

AMENITIES

elementary school
kindergarten
church/chapel
police station
theatre
library
garden & parks
cinema

needs large space
close to active street

needs small space
close to active street

sports centre/fitness
post office
drugstore/pharmacy
doctors office
garage
ateliers
community space
clubs

festivities
open air theatre

needs large space
open air - central square

needs small space
at active street in building block

café/restaurants
galleries/workshops
garages
library/book shelves
computer work place (wifi)
bakery
butcher
clubs

amenities
(no dwelling spot)

specialised spaces
sitting spaces + bar/kitchen
hotel room
book shelves
good wifi connection
fitness installations

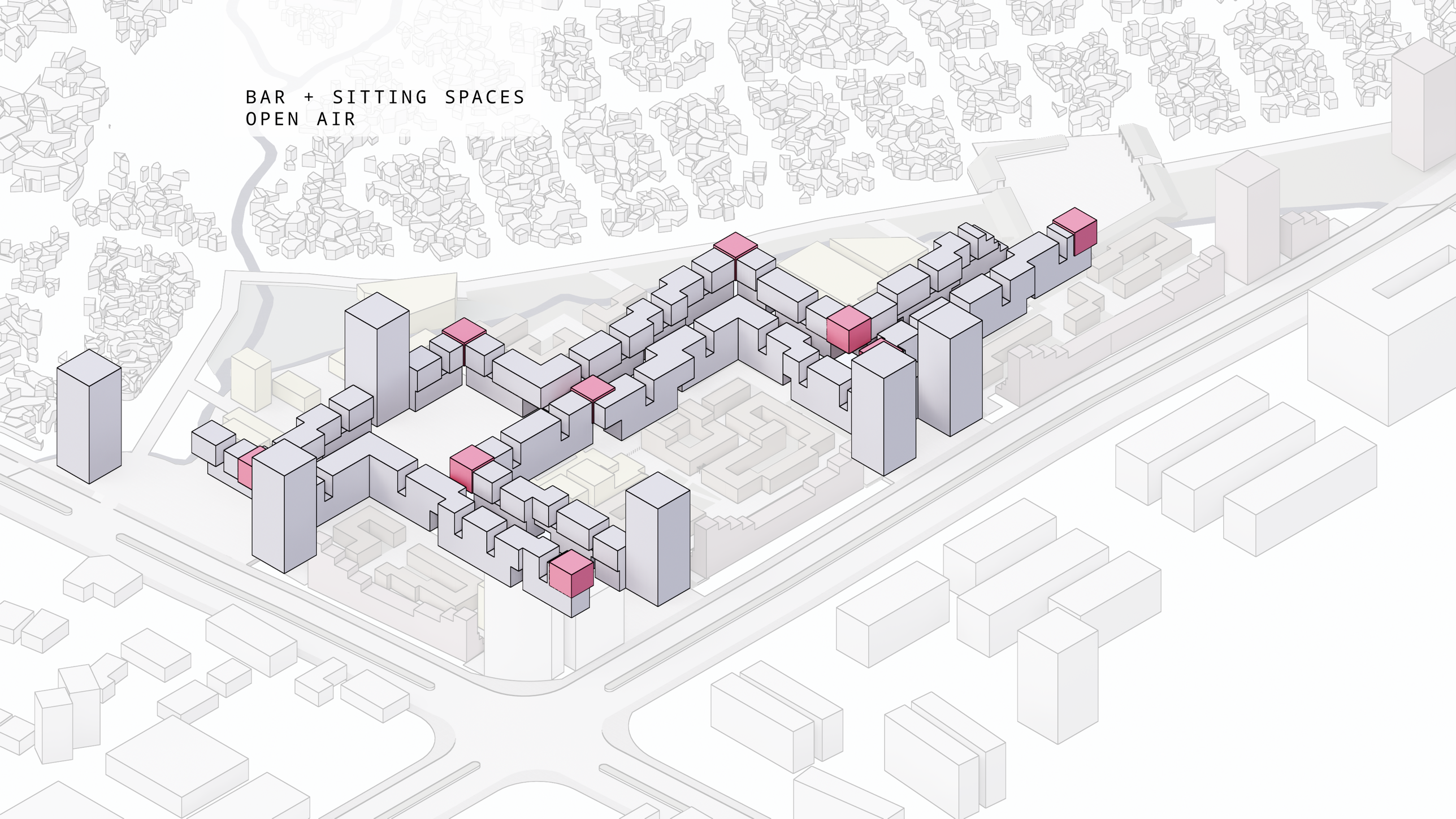
open air (outside)

versus

closed (inside)

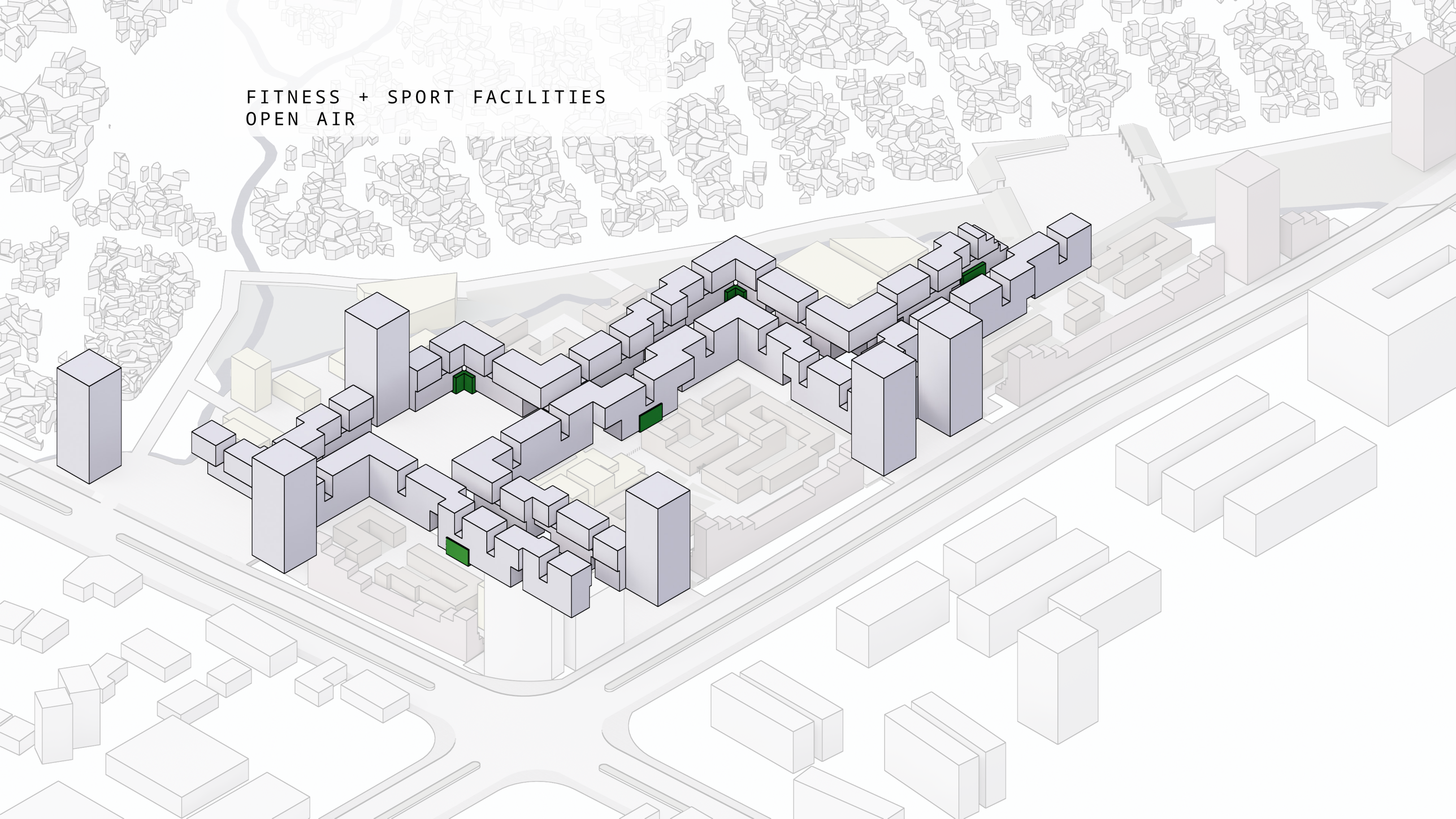
BAR + SITTING SPACES
OPEN AIR

BAR + SITTING SPACES
OPEN AIR

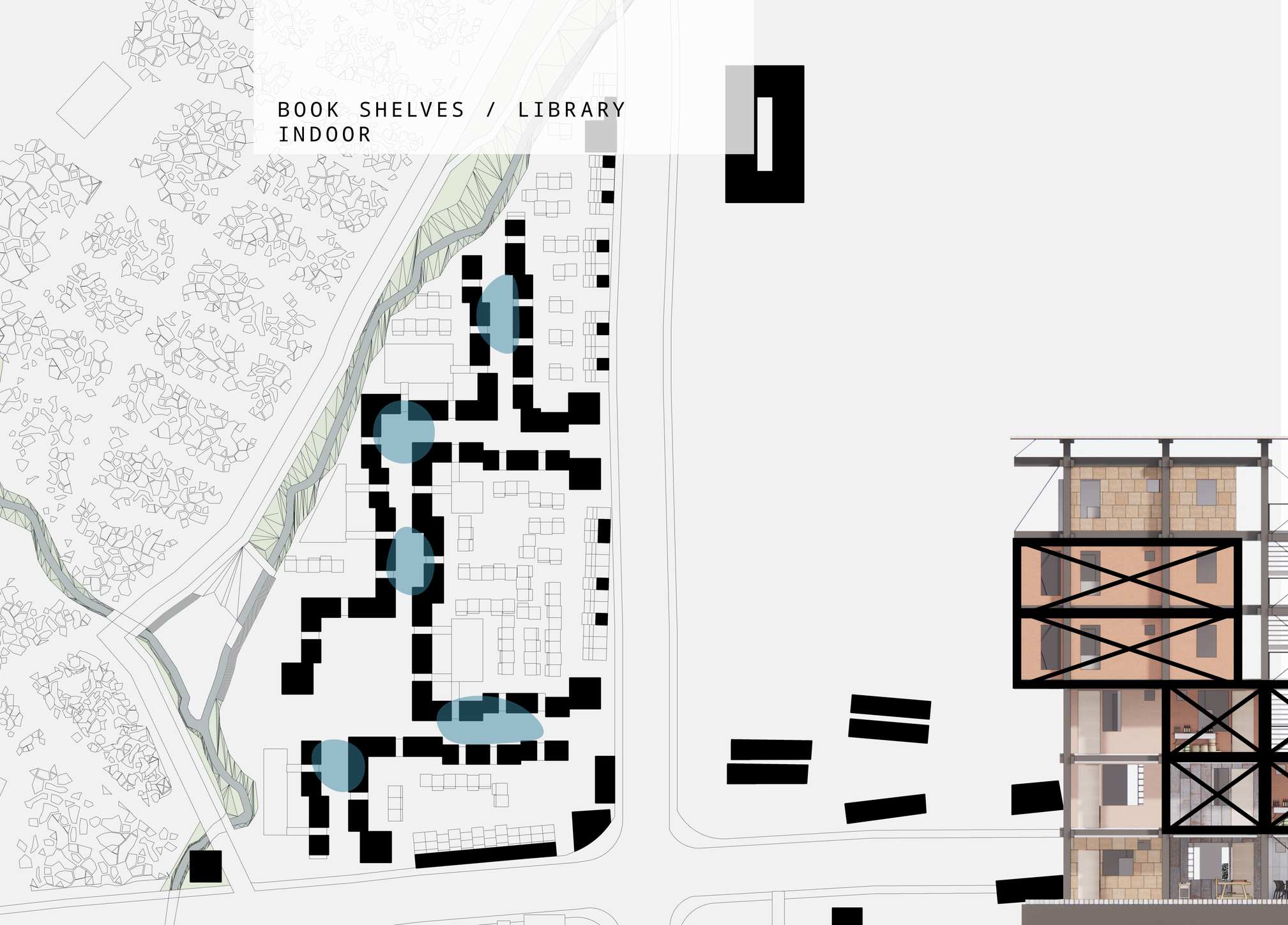


FITNESS + SPORT FACILITIES
OPEN AIR

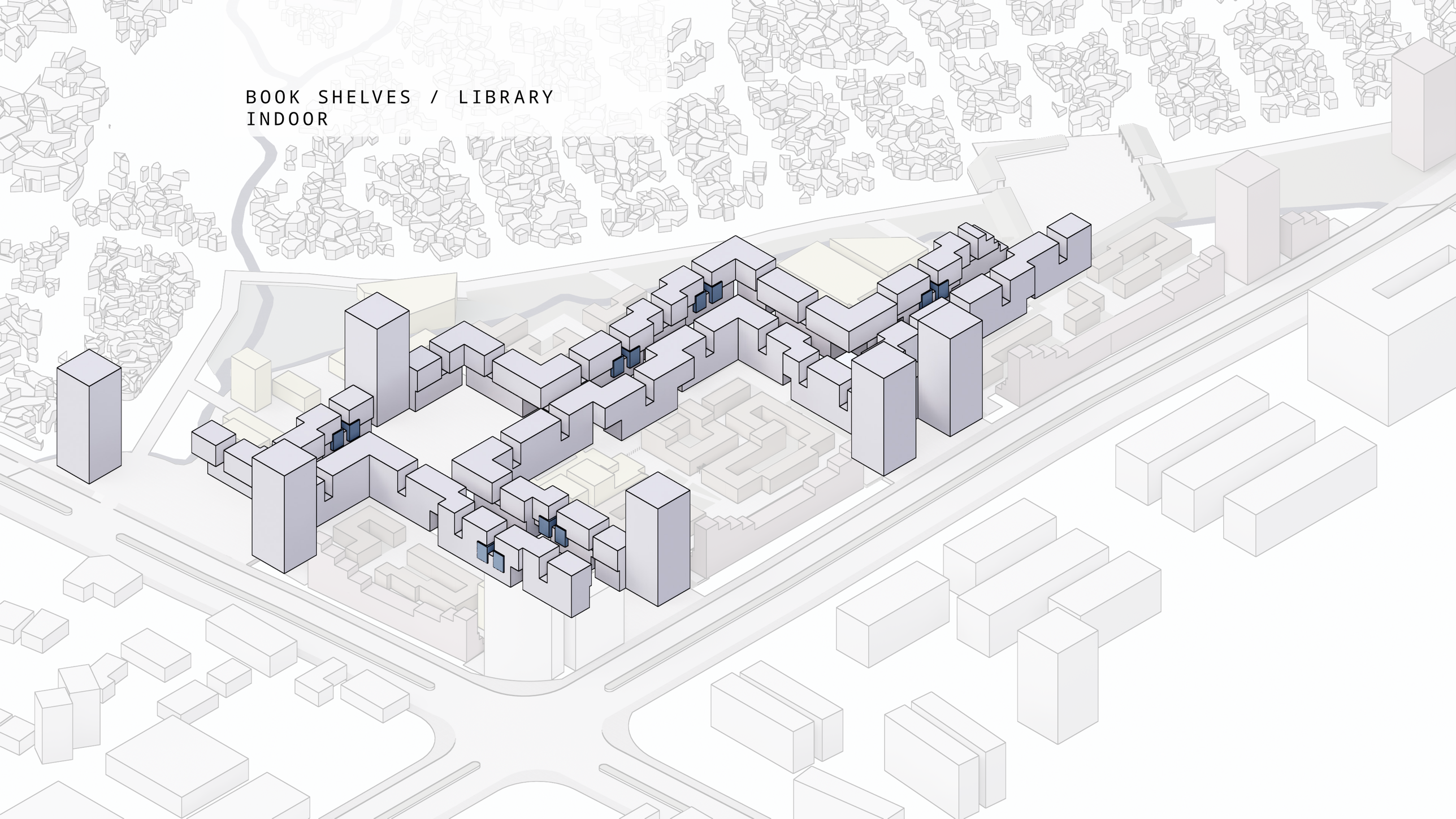
FITNESS + SPORT FACILITIES
OPEN AIR



BOOK SHELVES / LIBRARY
INDOOR



BOOK SHELVES / LIBRARY
INDOOR



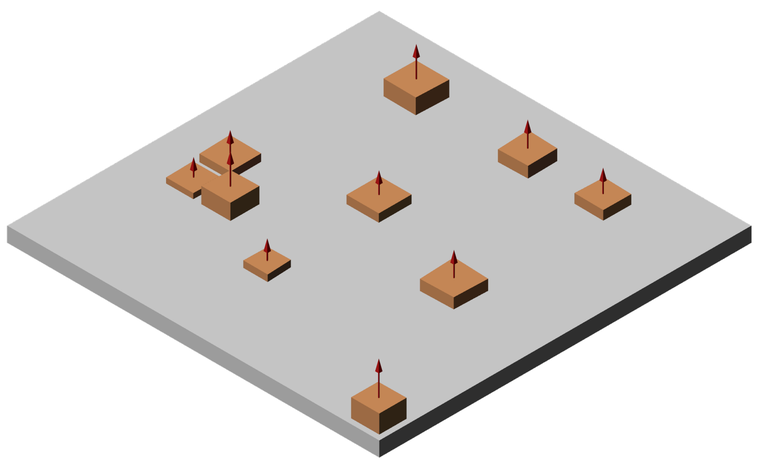
MASTERPLAN - CURRENT STATE

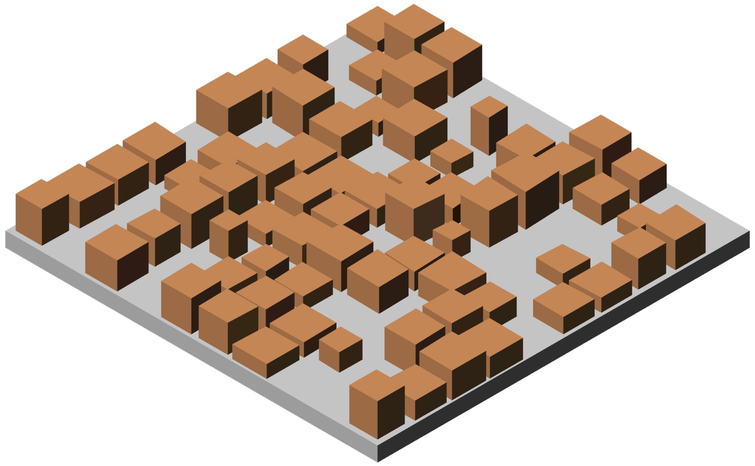
active street as main element: stem

MASTERPLAN - NEXT ELEMENT

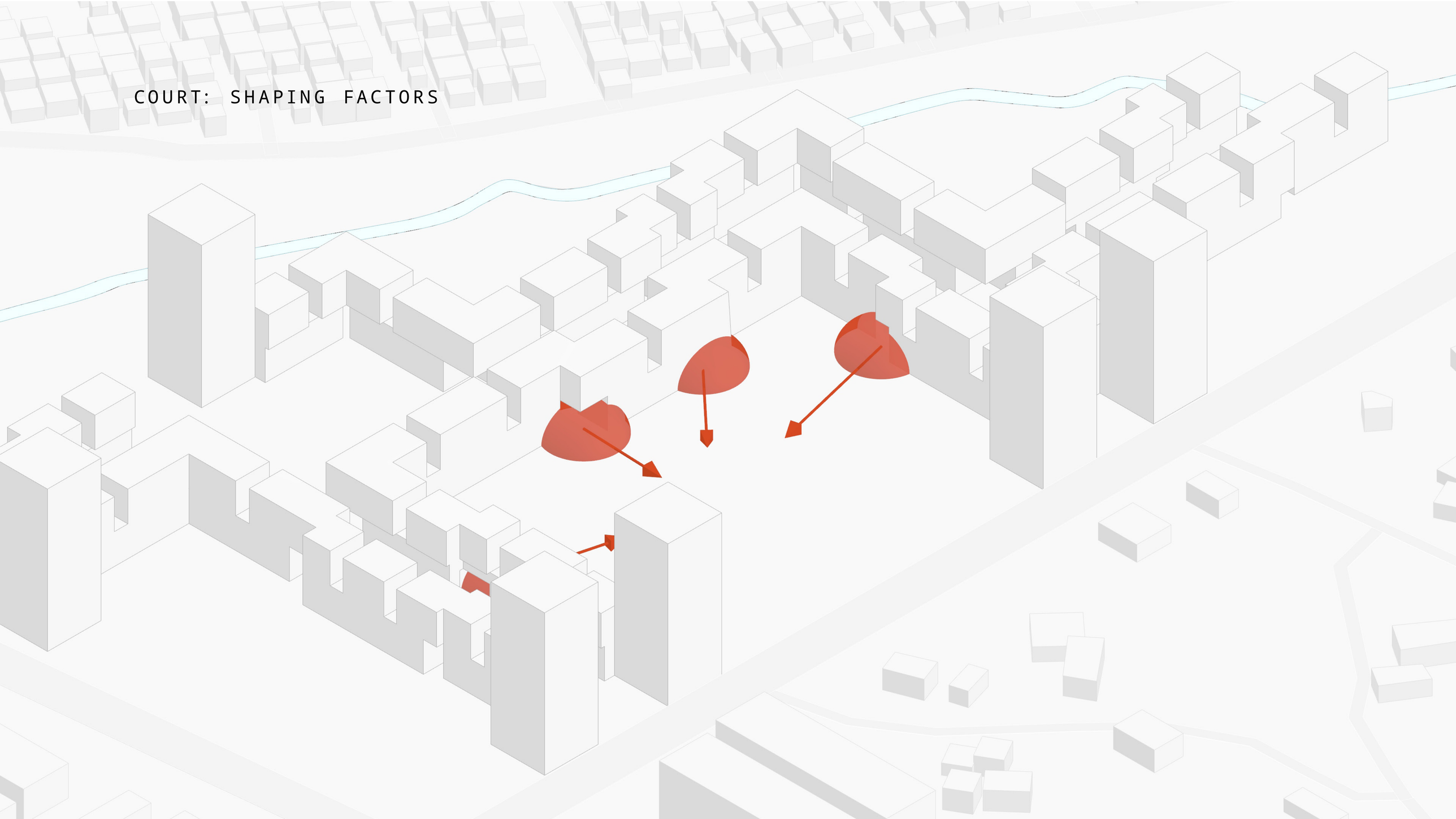
space for courtyards

COURT: PRINCIPLE

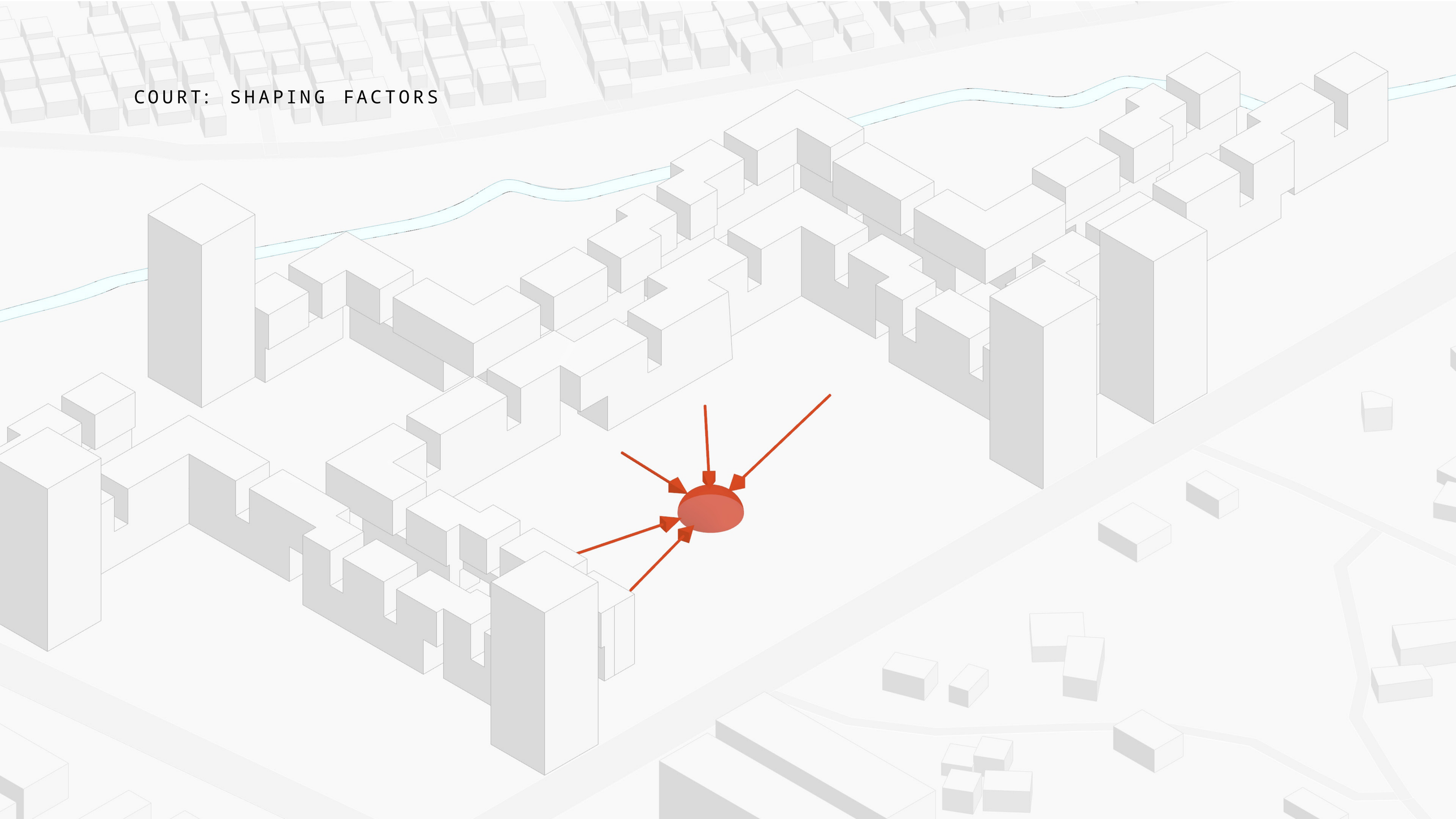




COURT: SHAPING FACTORS



COURT: SHAPING FACTORS



COURT: SHAPING FACTORS

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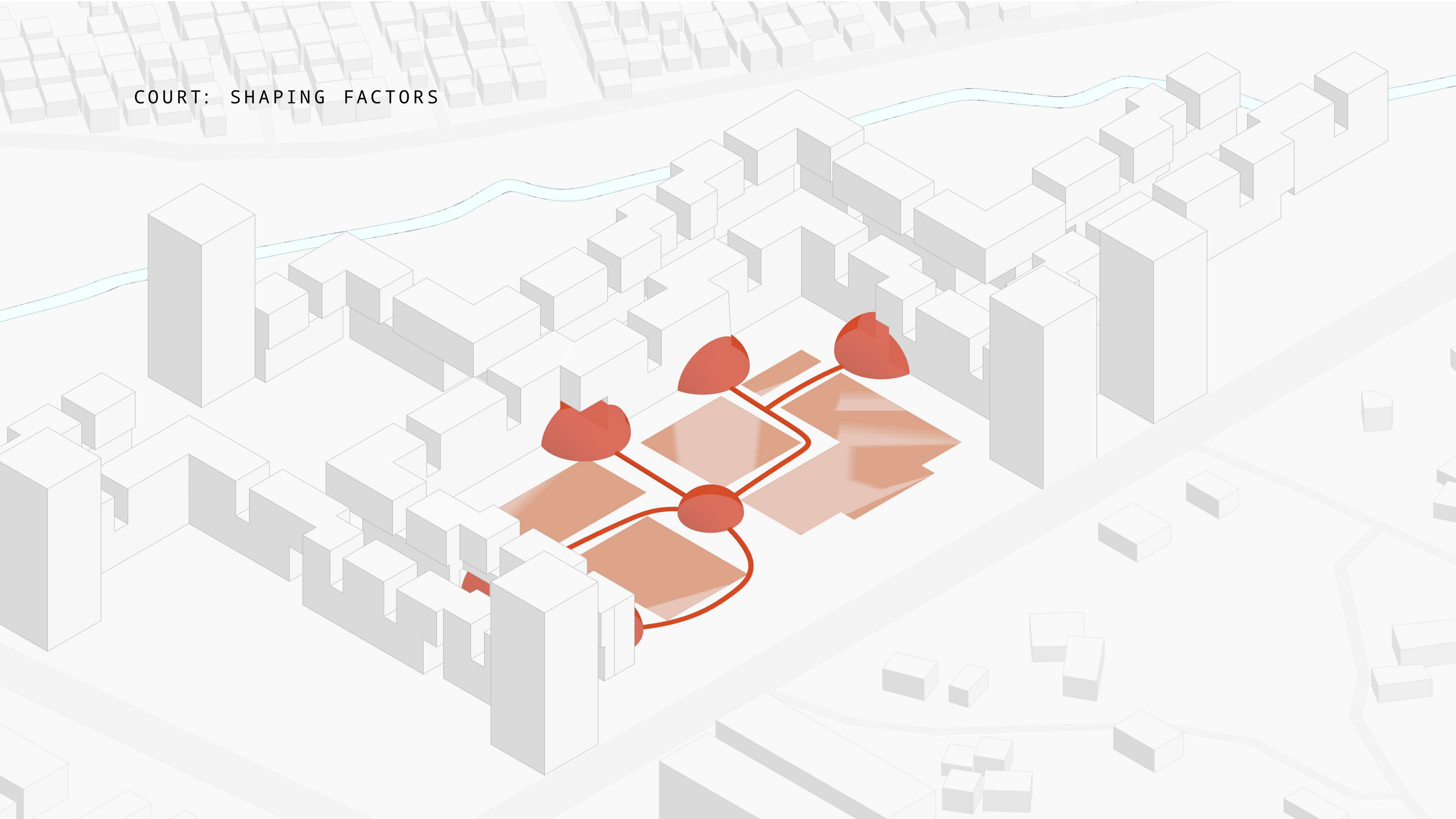

COURT: SHAPING FACTORS

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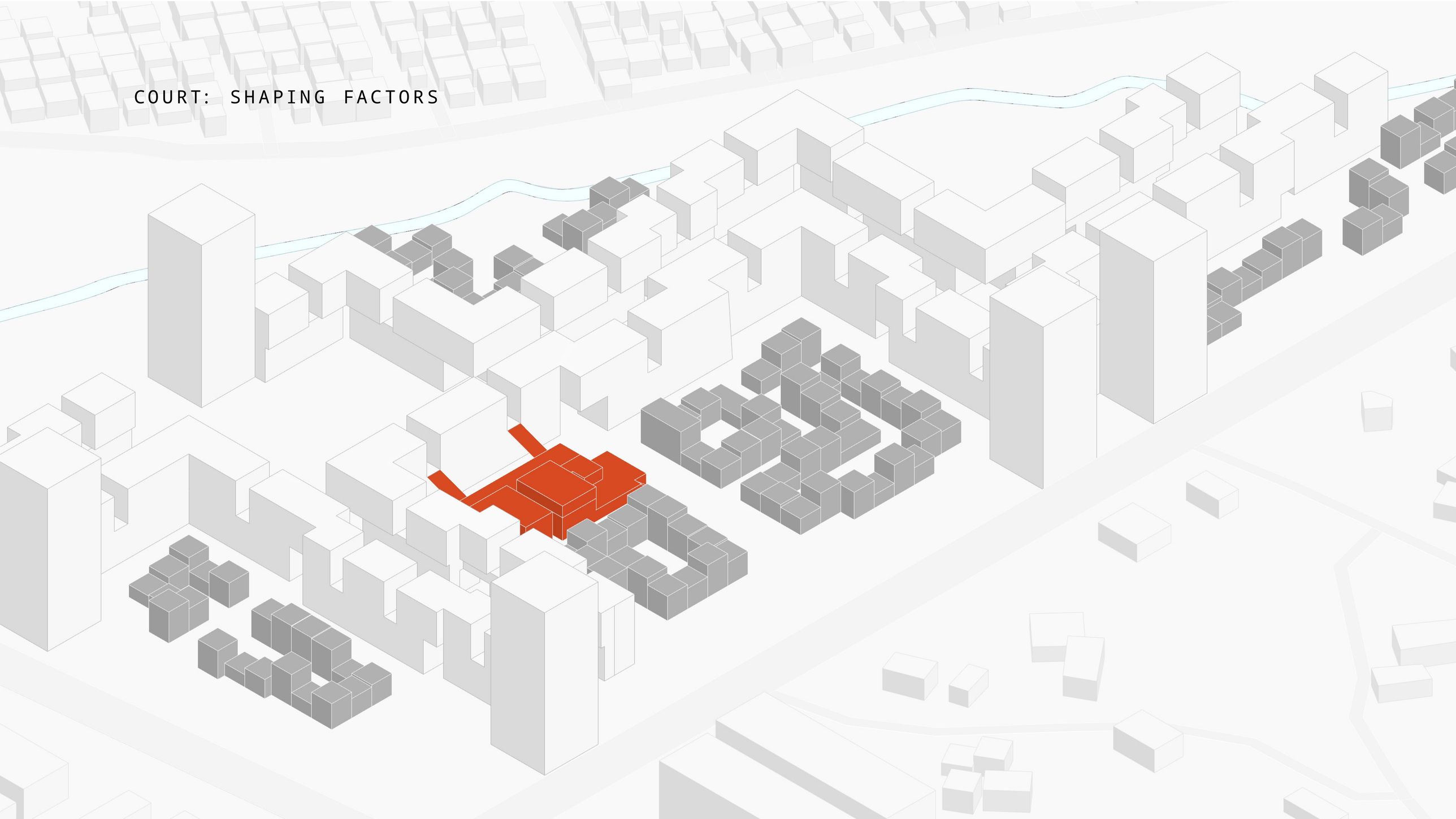

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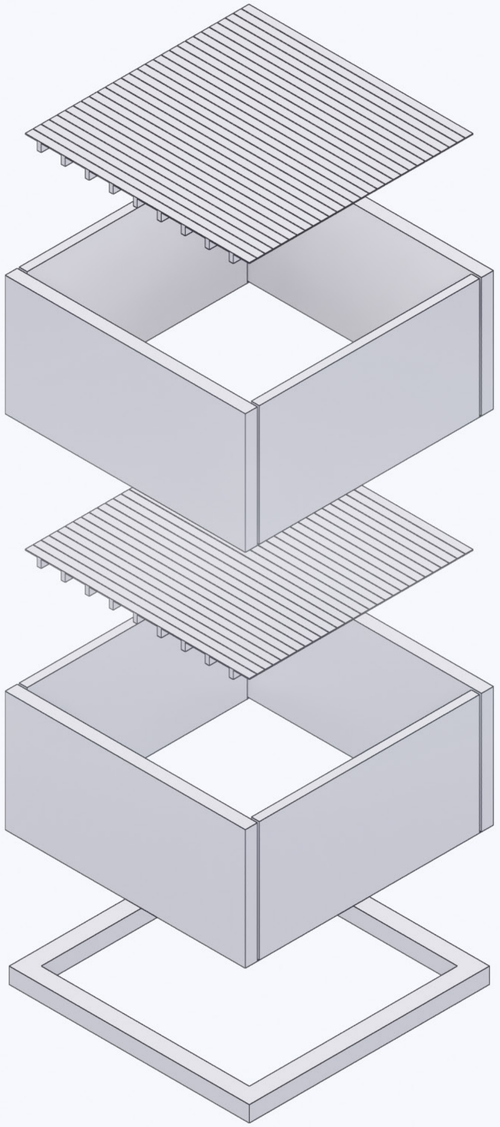


Eucalyptus floor

CEB wall

Eucalyptus floor

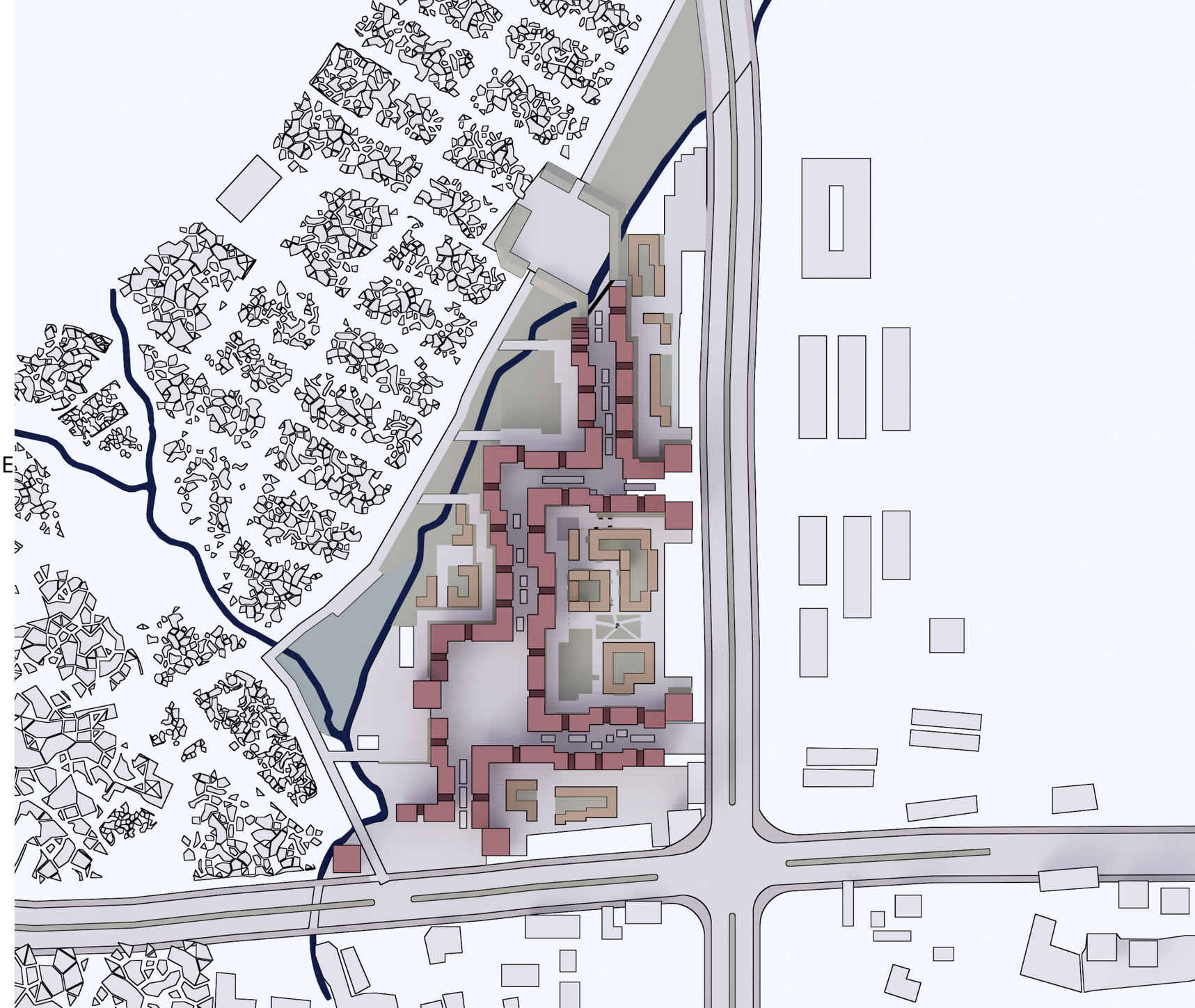
CEB wall

concrete foundation

vertical flexible direction

MASTERPLAN - CURRENT STATE

courtyards interact and feed



MASTERPLAN - UP NEXT

adding amenities

AMENITIES

elementary school
kindergarten
church/chapel
police station
theatre
library
garden & parks
cinema

needs large space
close to active street

needs small space
close to active street

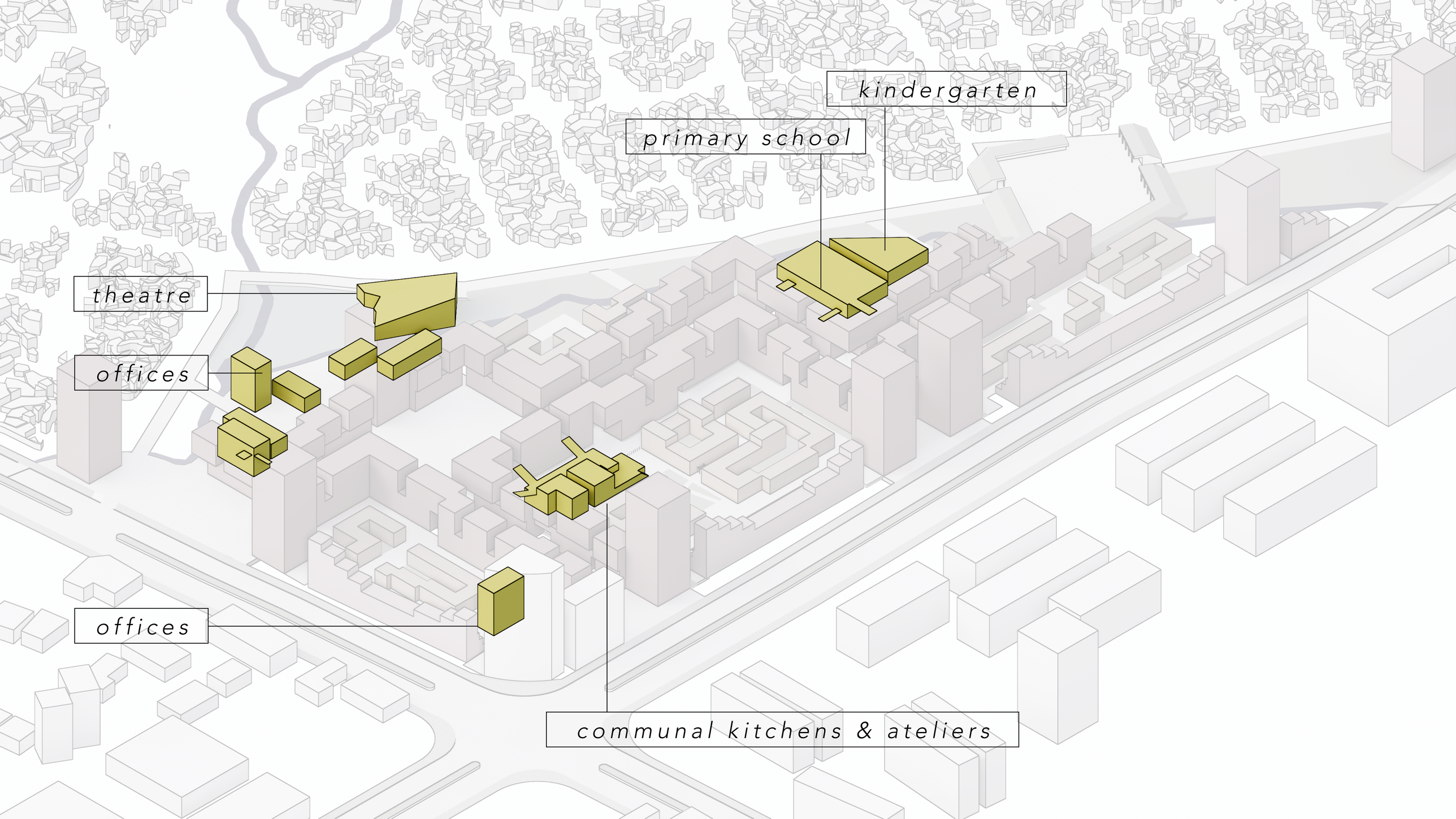
sports centre/fitness
post office
drugstore/pharmacy
doctors office
garage
ateliers
community space
clubs

festivities
open air theatre

needs large space
open air - central square

needs small space
at active street in building block

café/restaurants
galleries/workshops
garages
library/book shelves
computer work place (wifi)
bakery
butcher
clubs


kindergarten
primary school
theatre
offices
offices
communal kitchens & ateliers

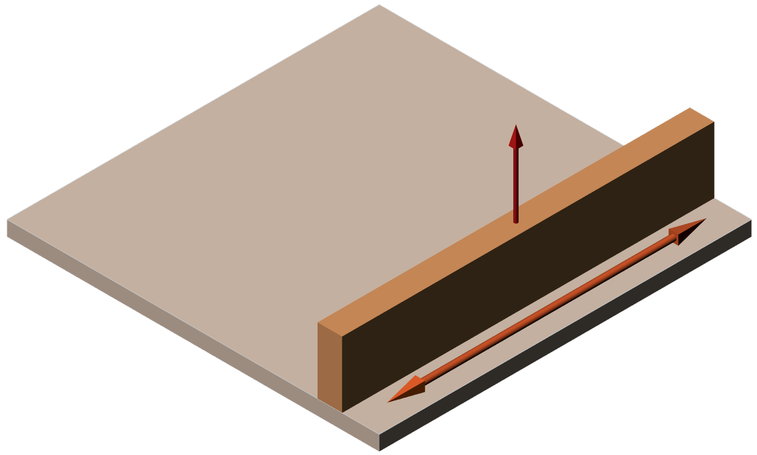
MASTERPLAN - CURRENT STATE

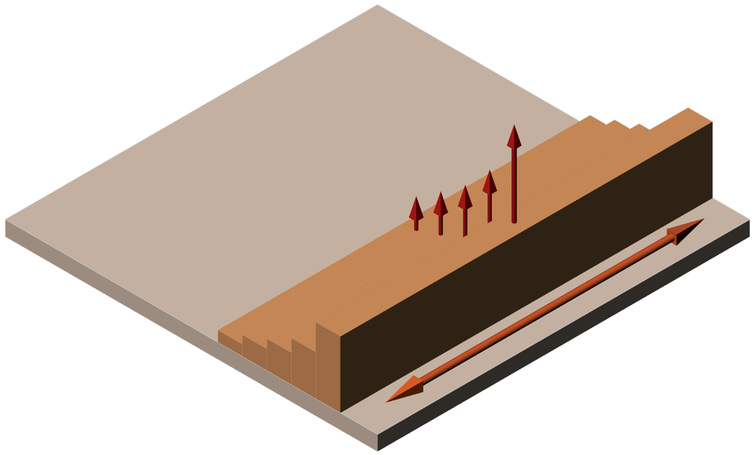
courtyards interact and feed

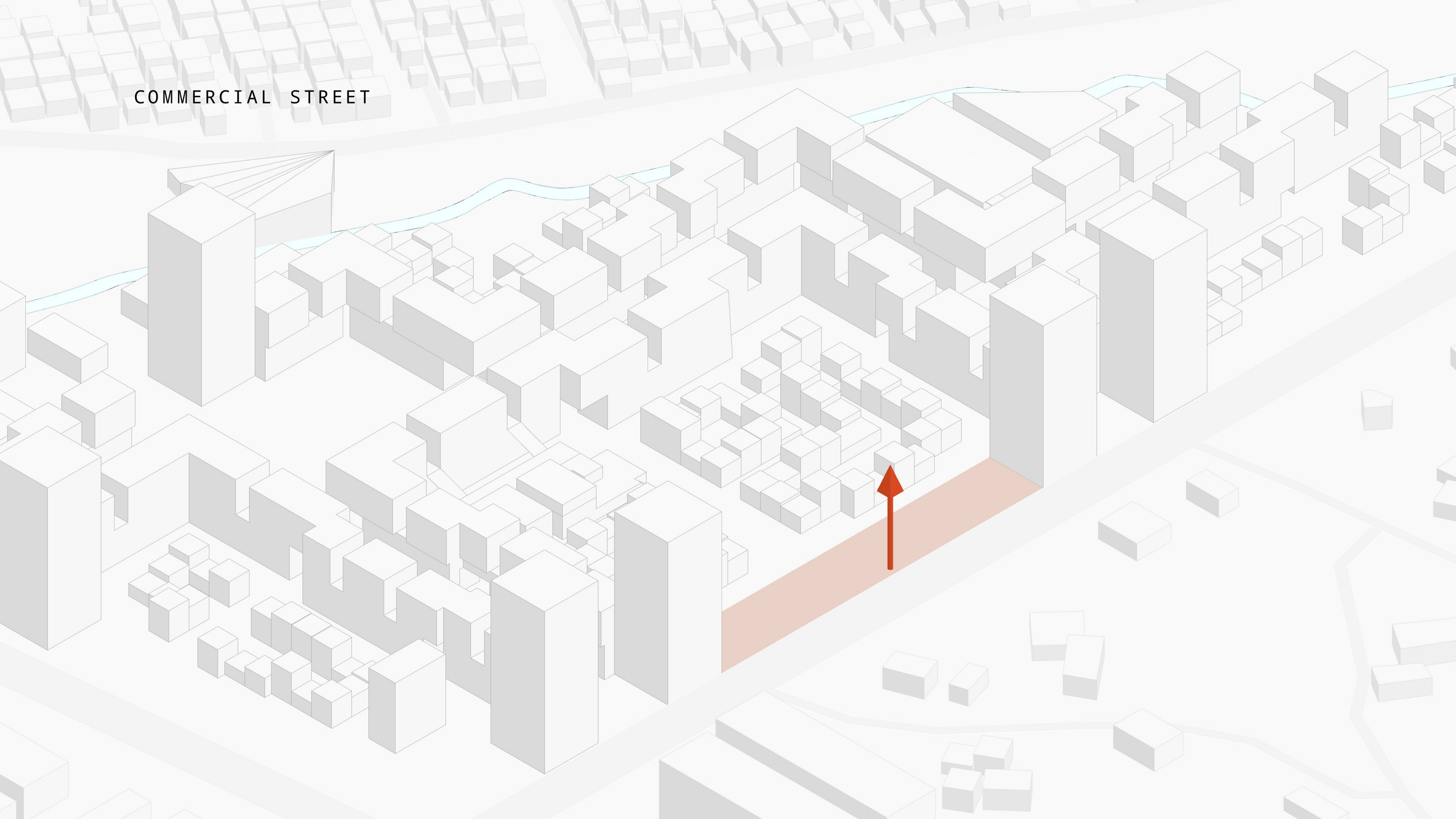
MASTERPLAN - UP NEXT

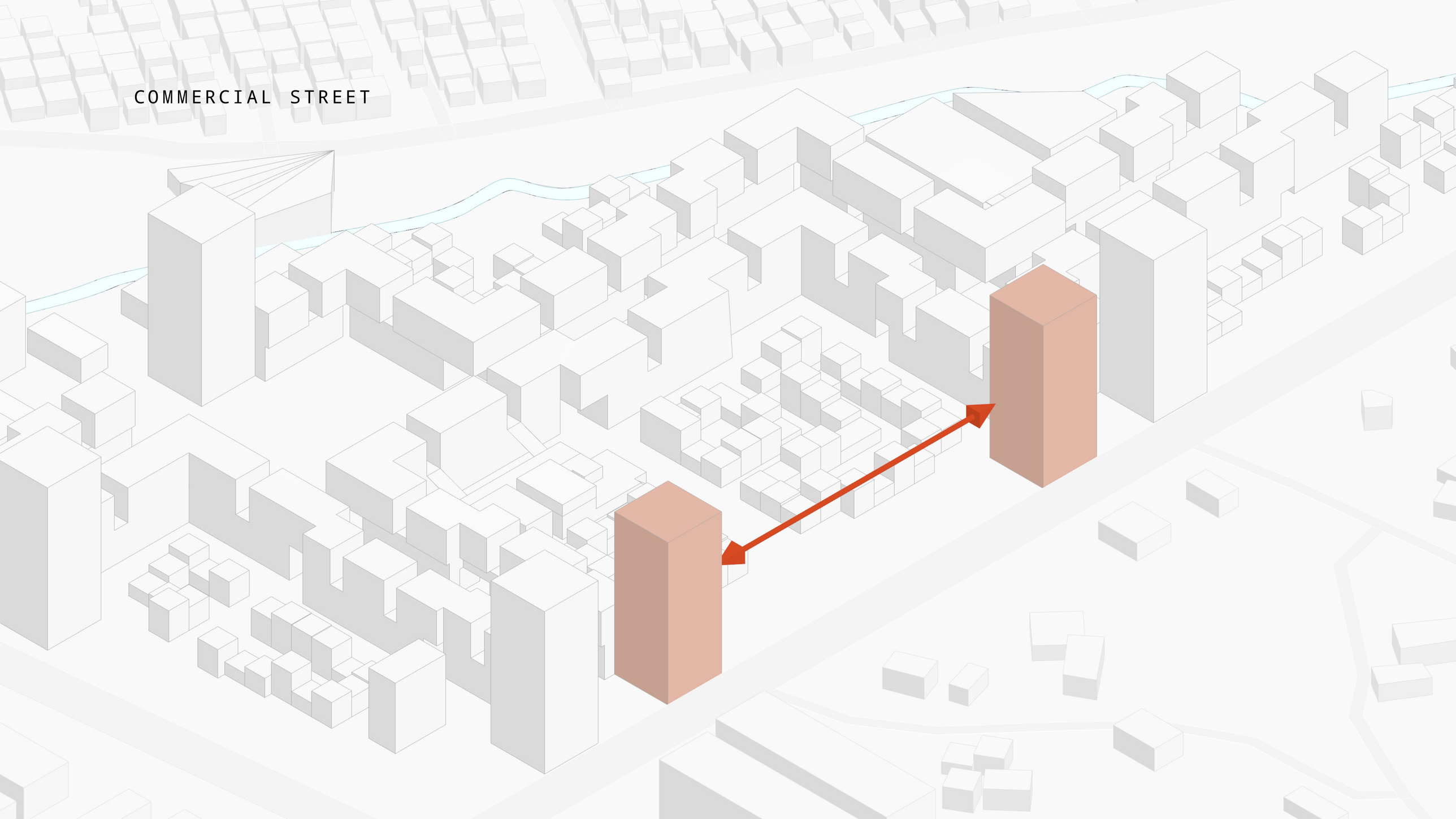
connecting to the commercial street

COMMERCIAL STREET: PRINCIPLE






COMMERCIAL STREET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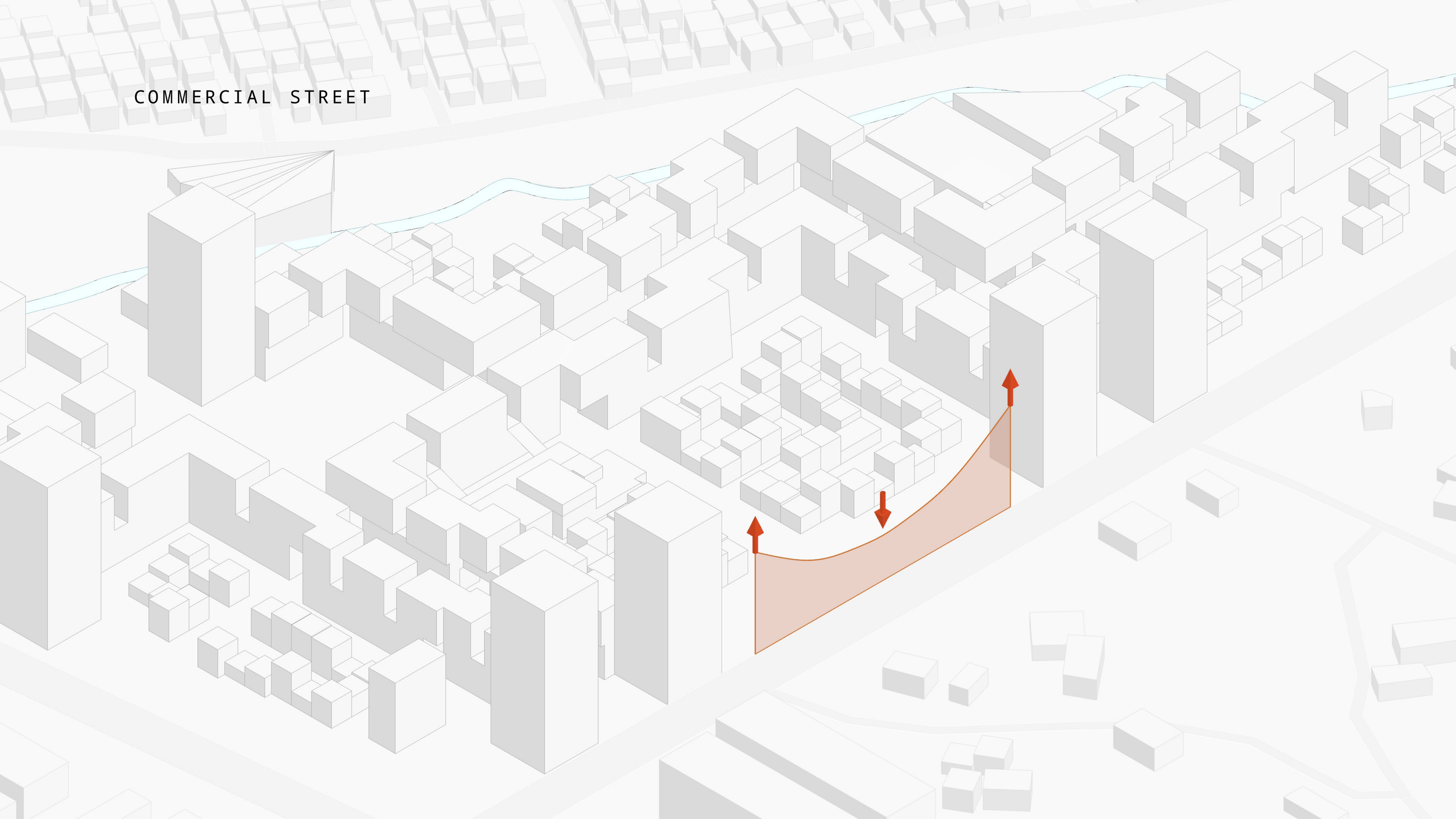
COMMERCIAL STREET

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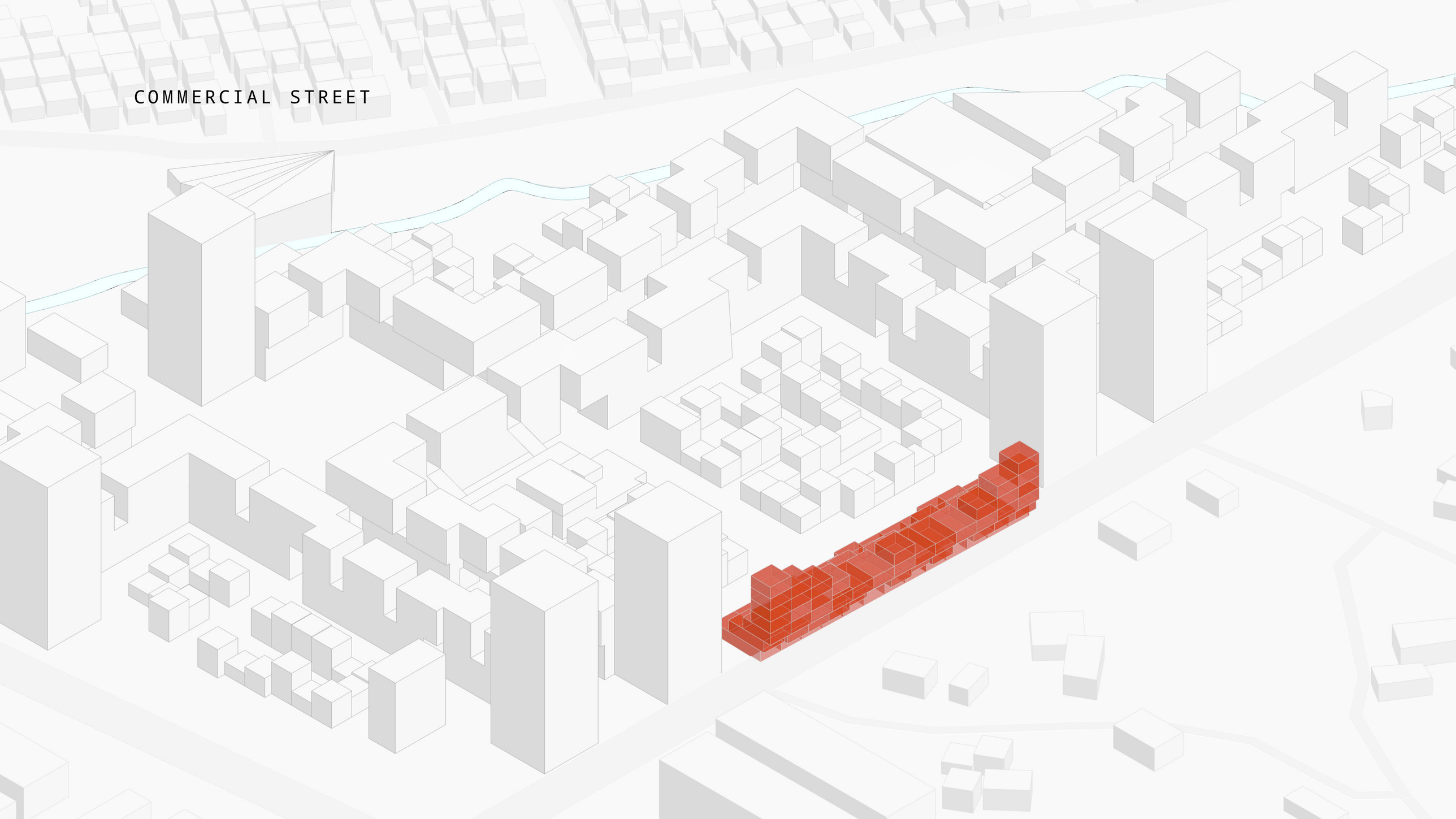
COMMERCIAL STREET

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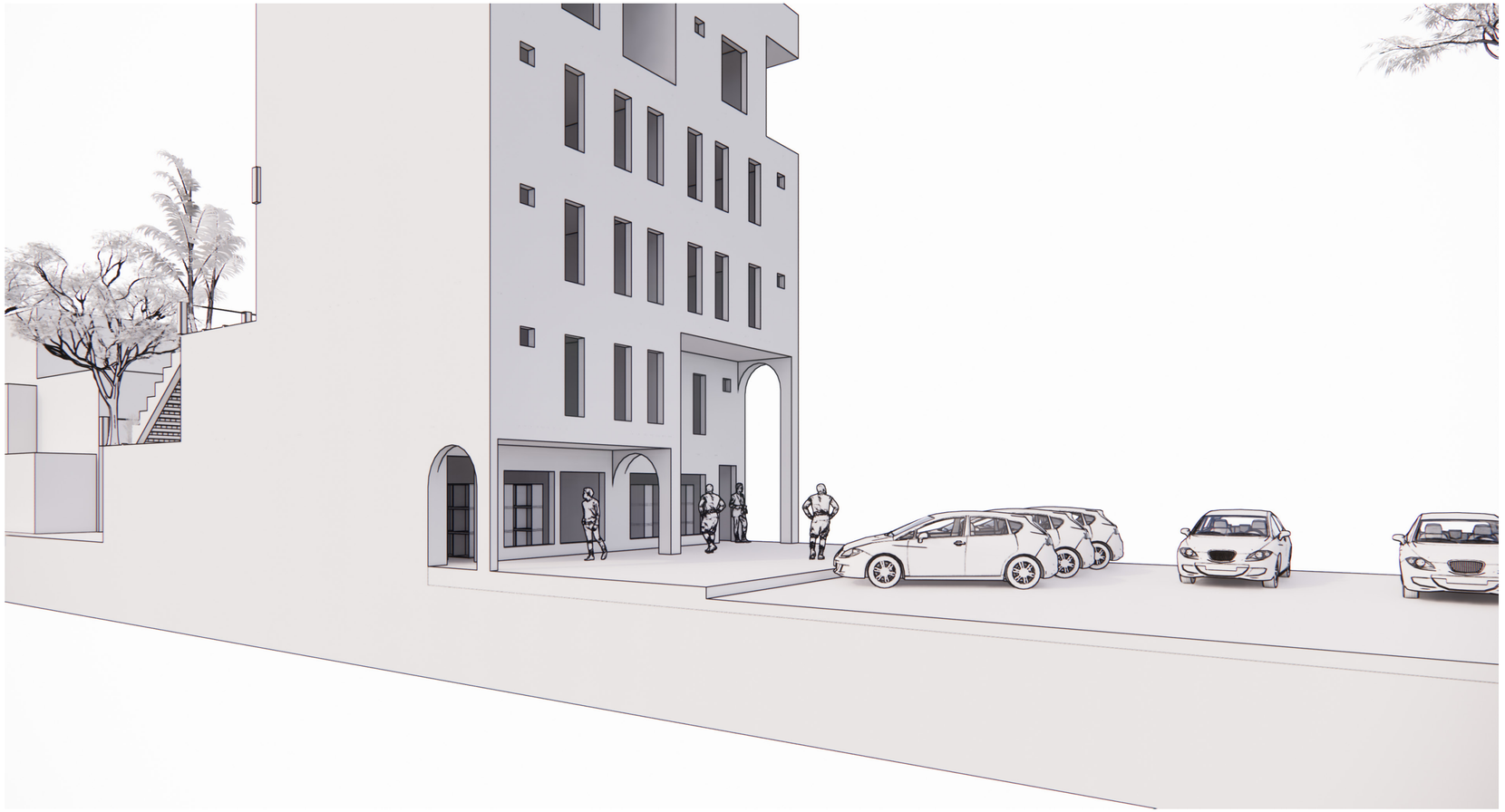

COMMERCIAL STREET

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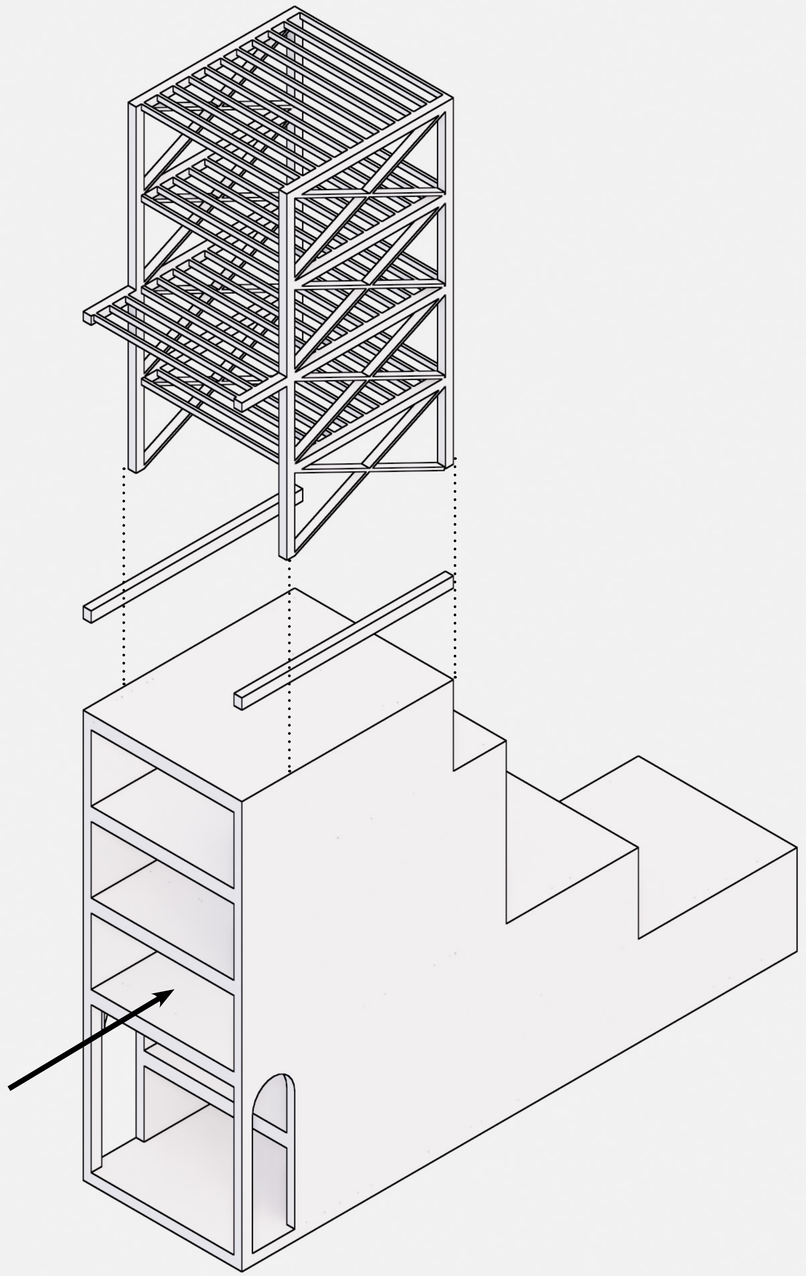
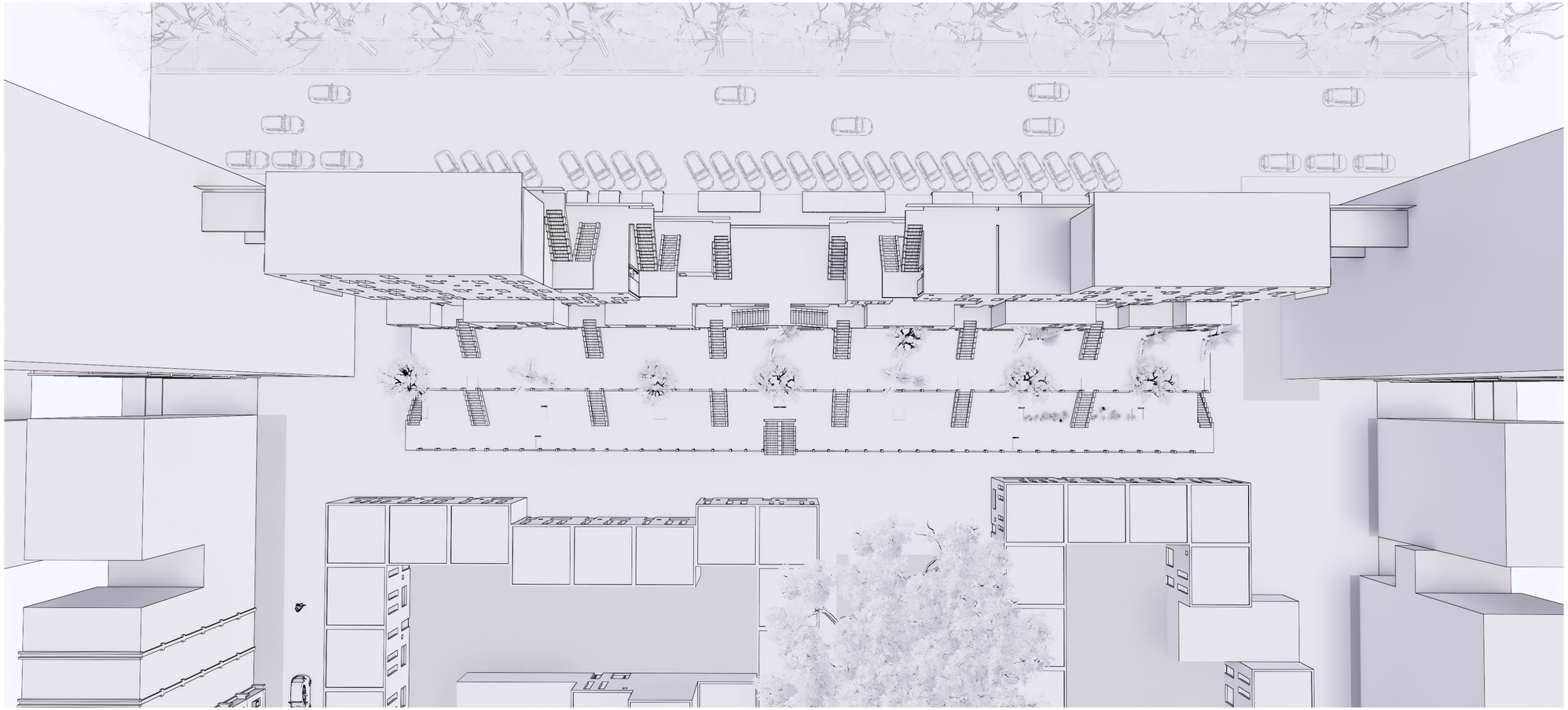
COMMERCIAL STREET



horizontal flexible direction

COMMERCIAL STREET



MASTERPLAN - CURRENT STATE

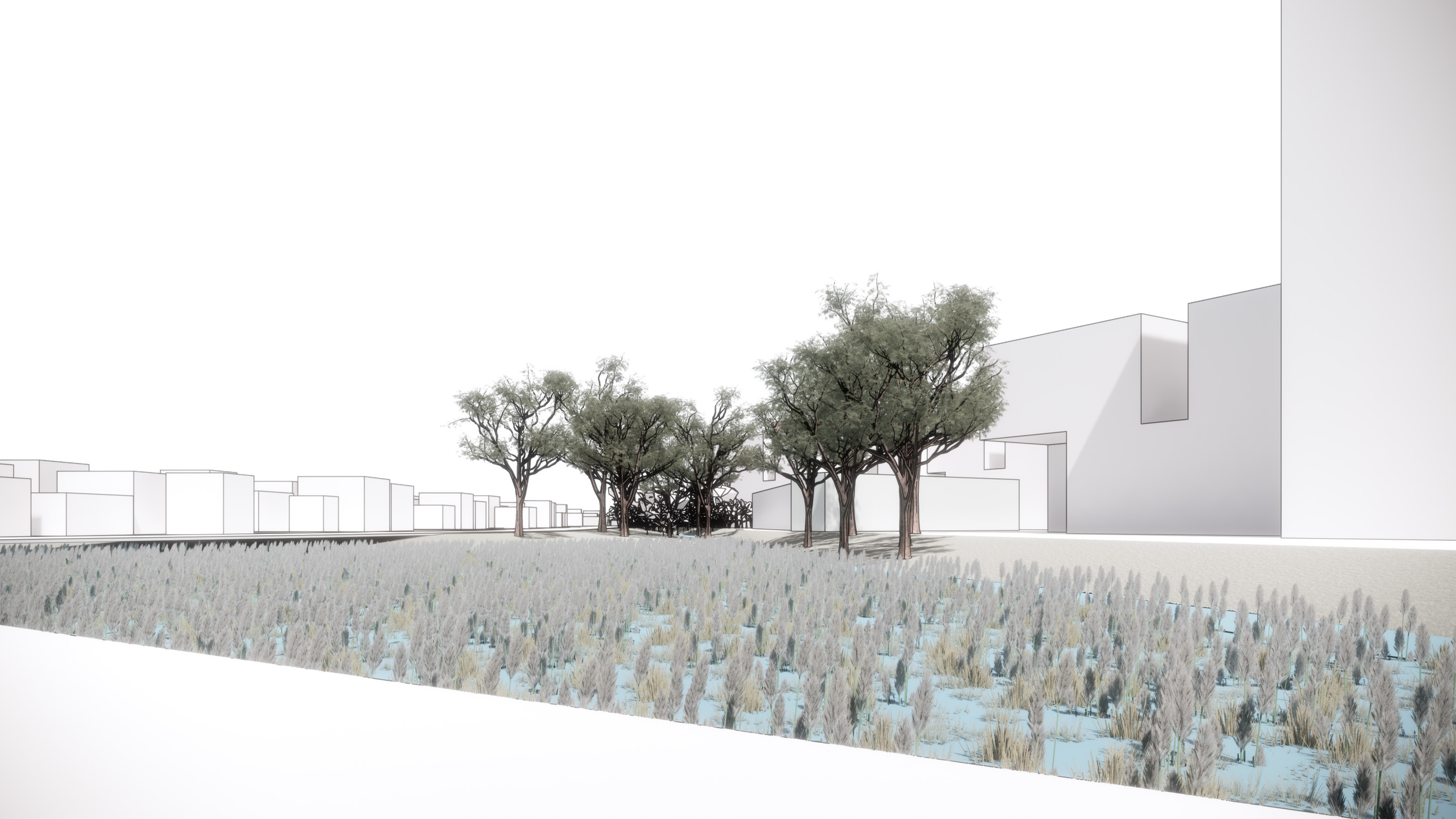
commercial street facilitates

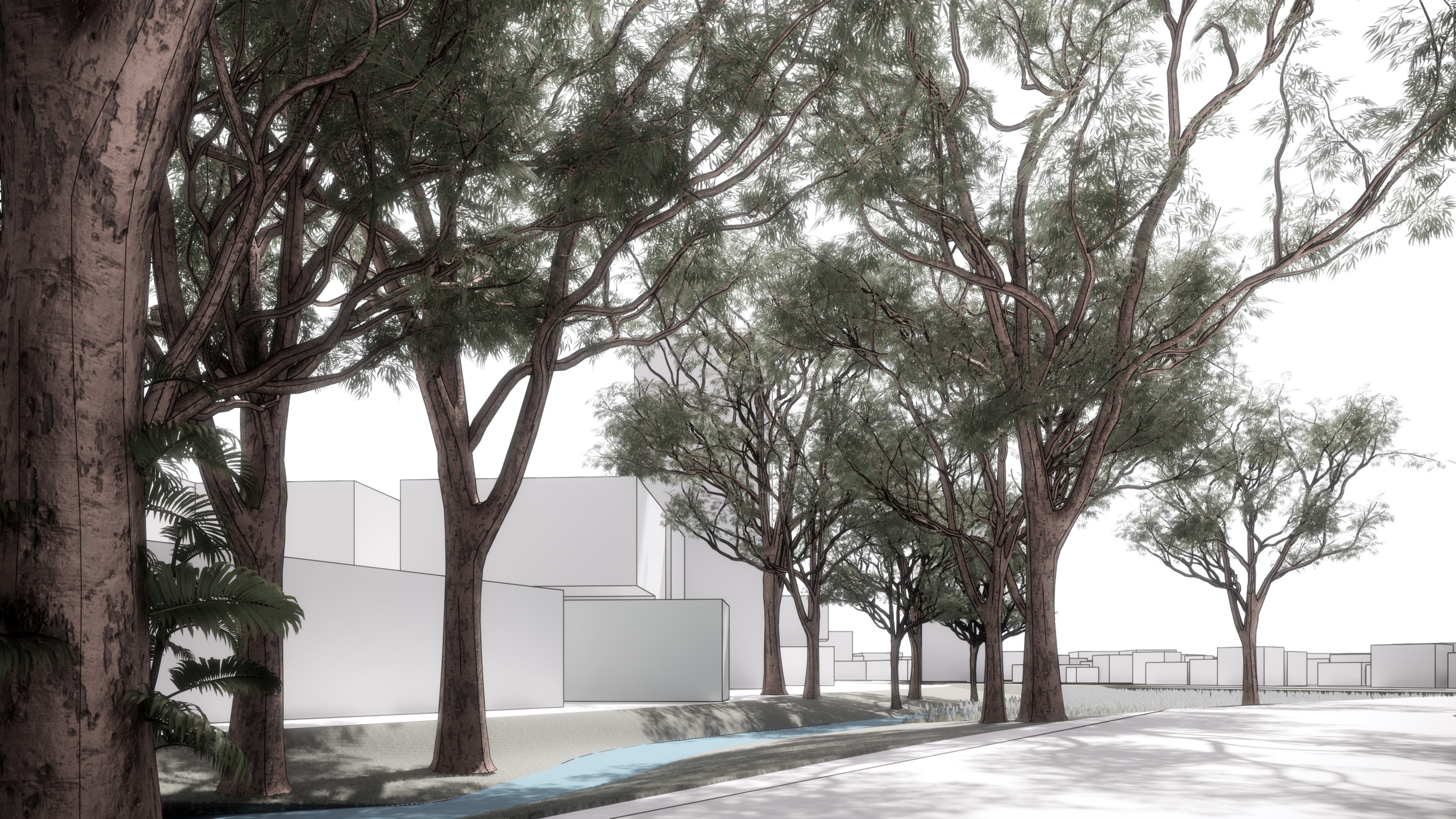
MASTERPLAN - UP NEXT

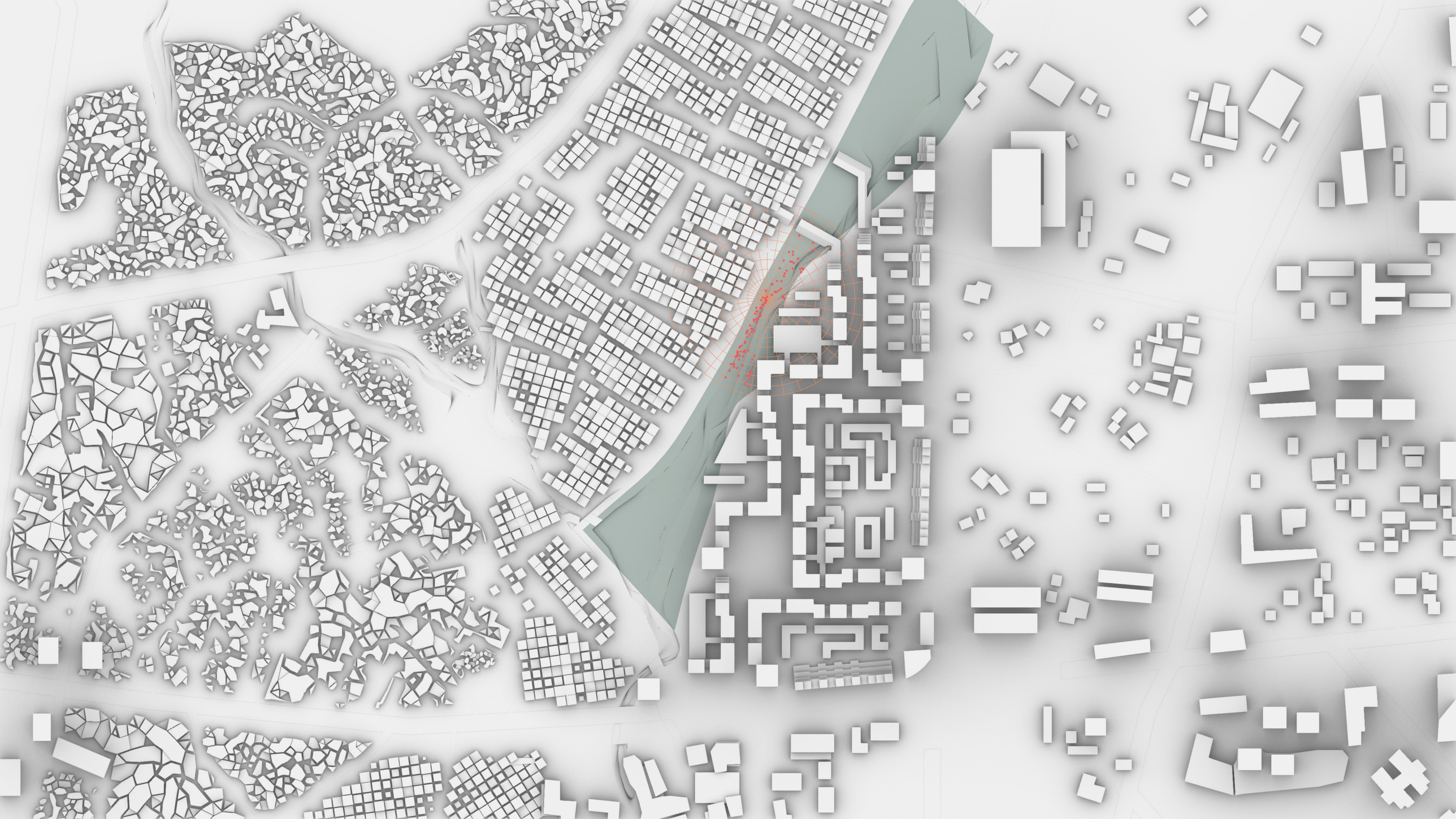
forming the green zone

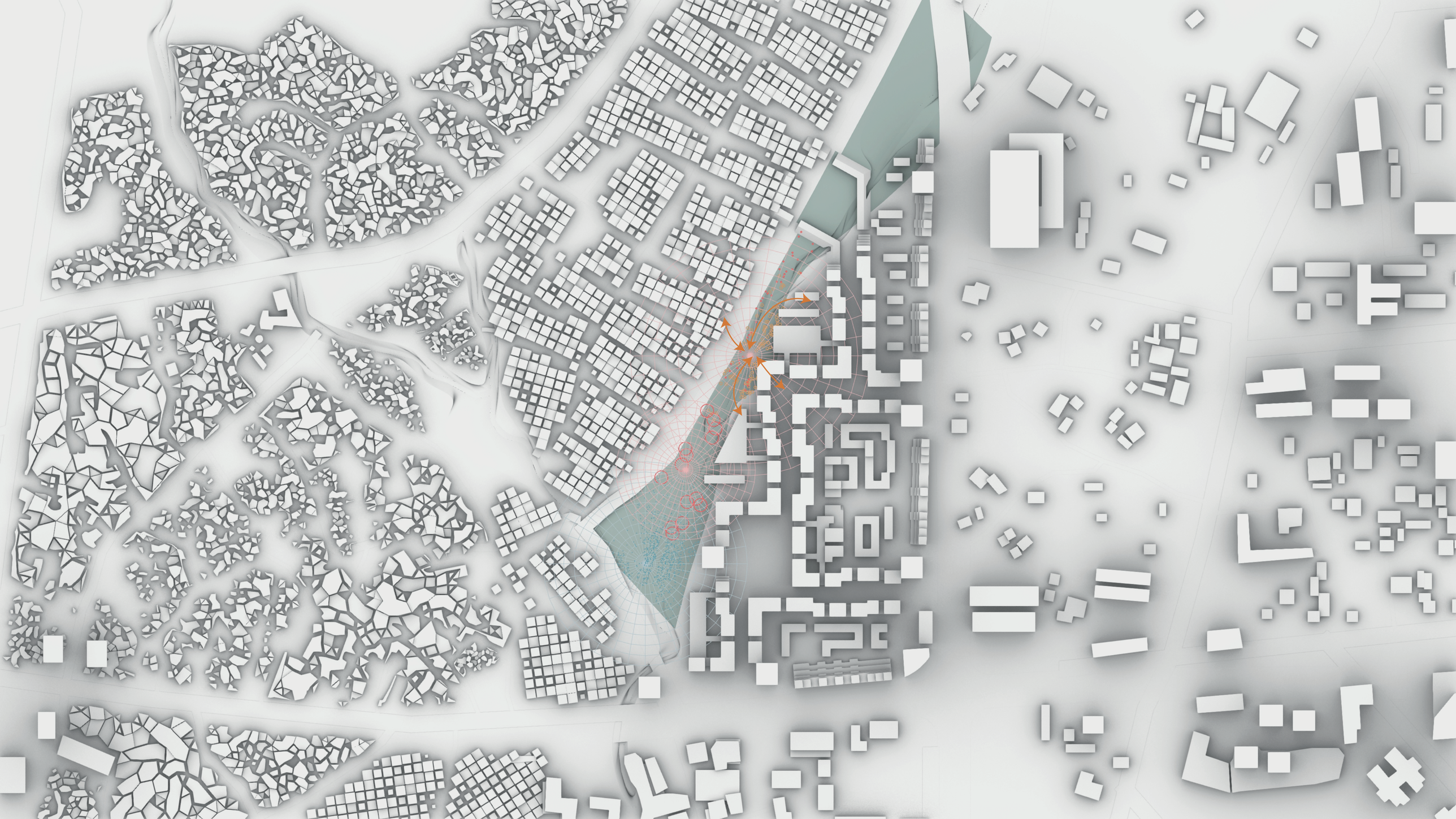
GREEN ZONE

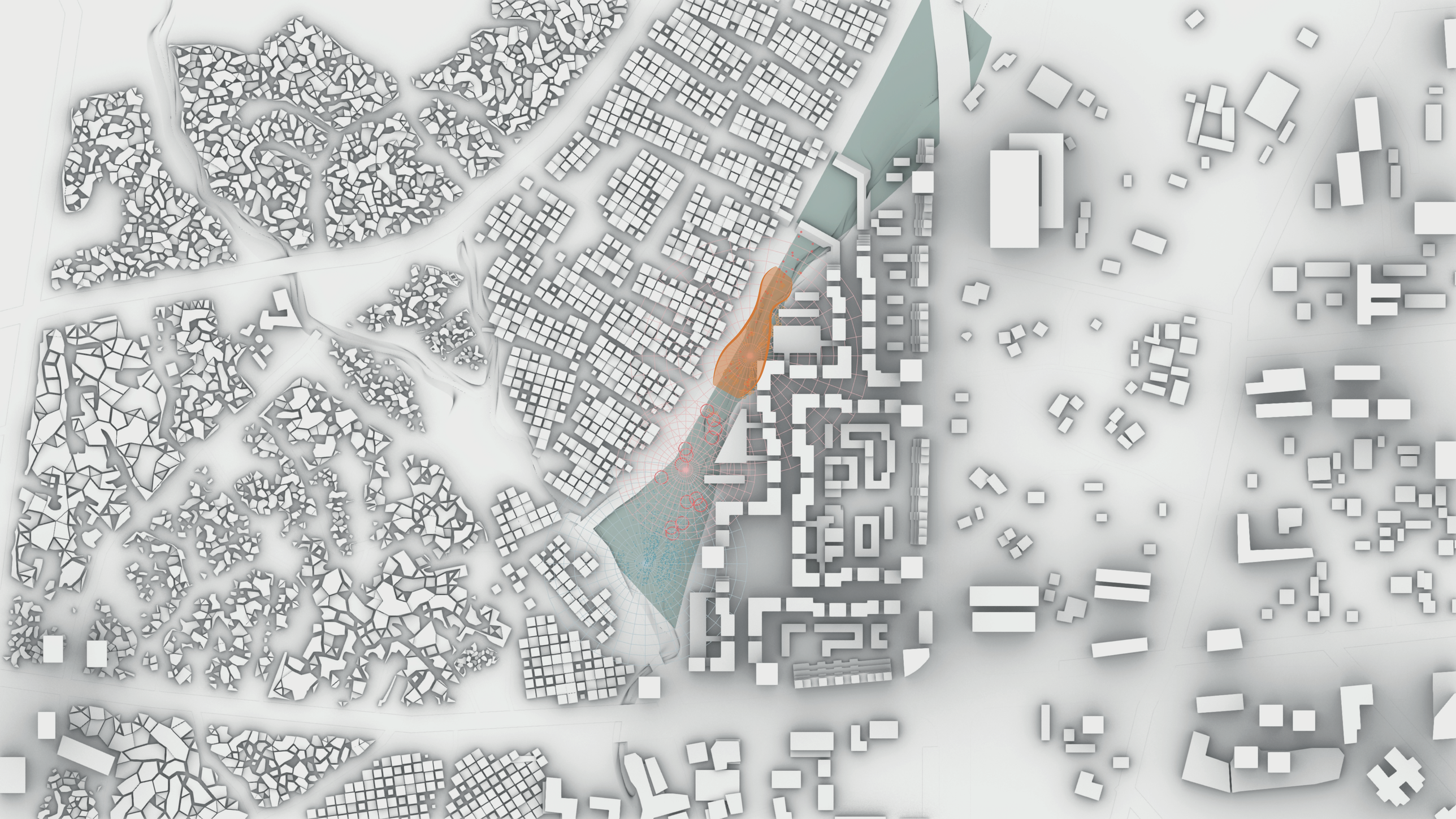
GREEN ZONE











MASTERPLAN - CURRENT STATE

green zone for all

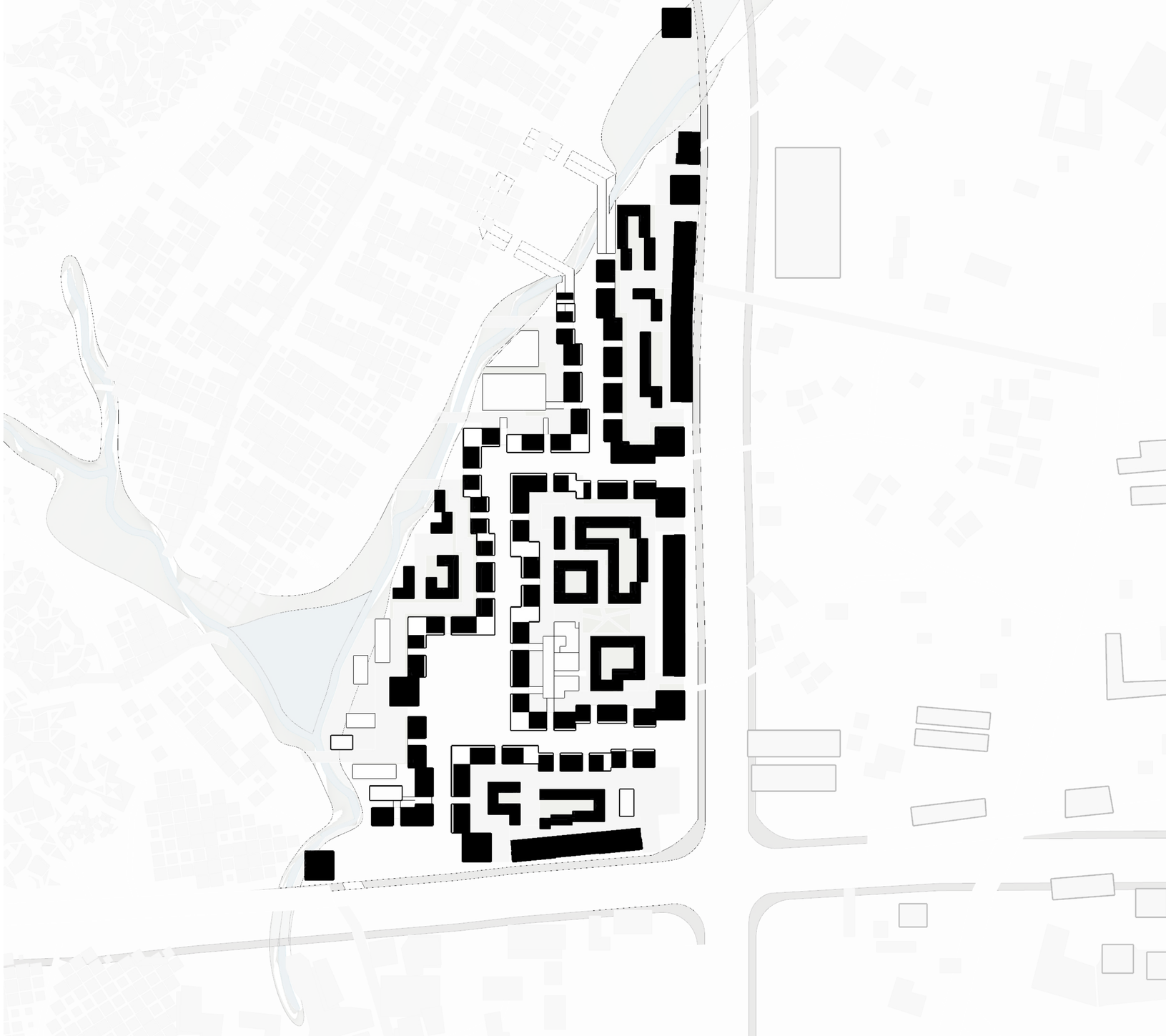
HOUSING TYPOLOGIES

PUBLIC SPACE PLAN

level 0

PUBLIC SPACE PLAN

level 3



ACTIVE STREET

flow and overflow

ACTIVE STREET

flow and overflow

ACTIVE STREET

flow and overflow

ACTIVE STREET

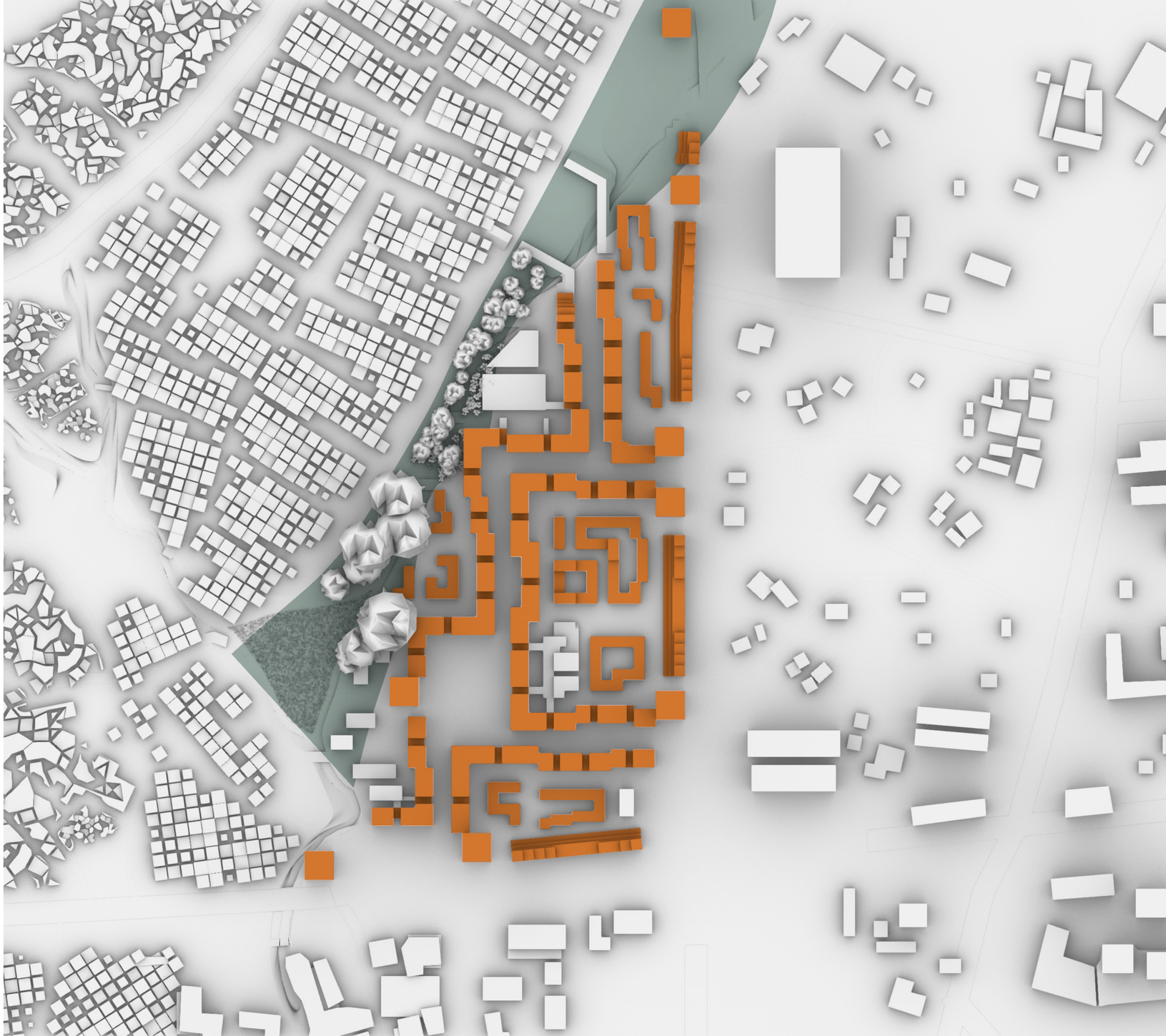
input

COMMERCIAL STREET

flow and overflow

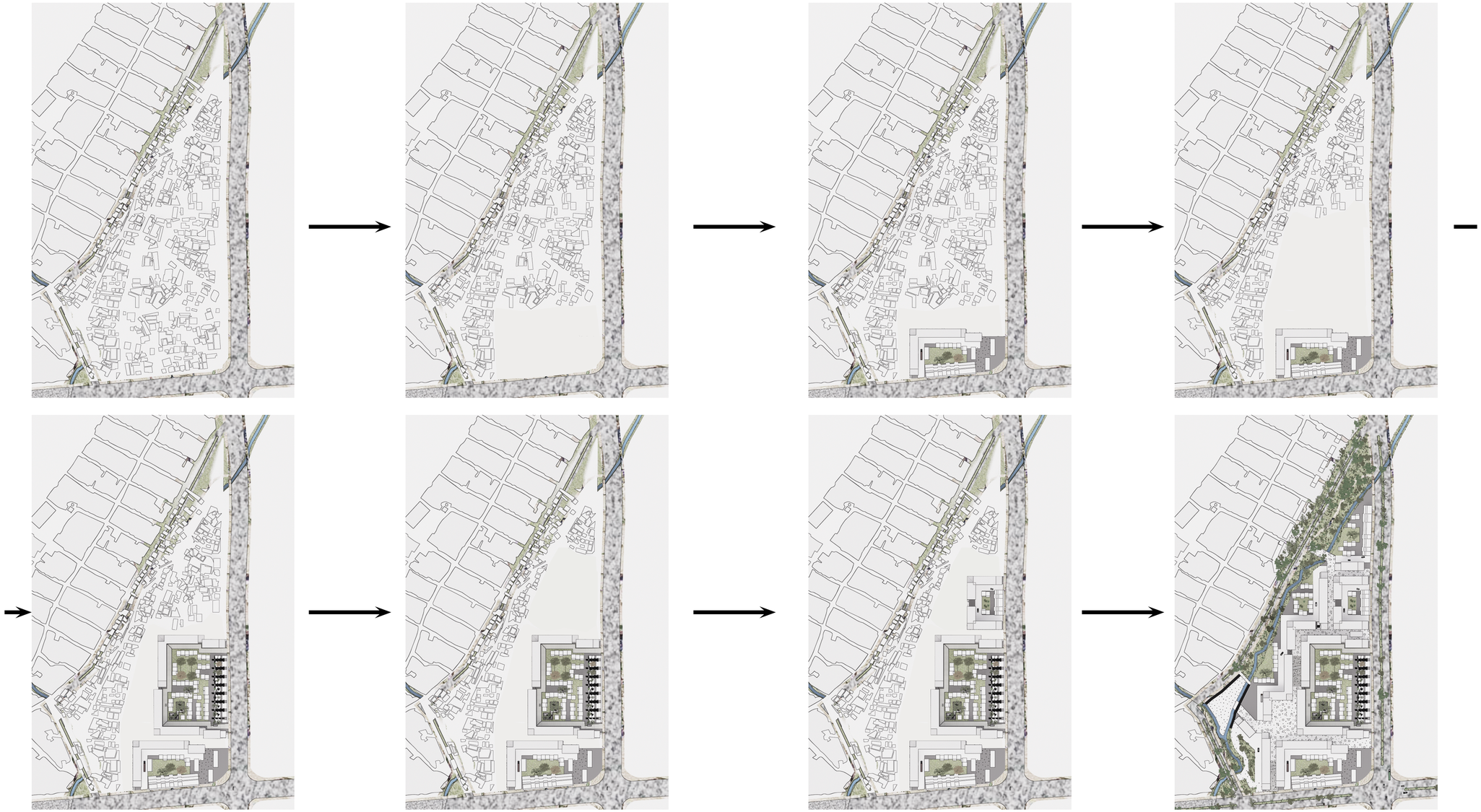
GREEN ZONE

input

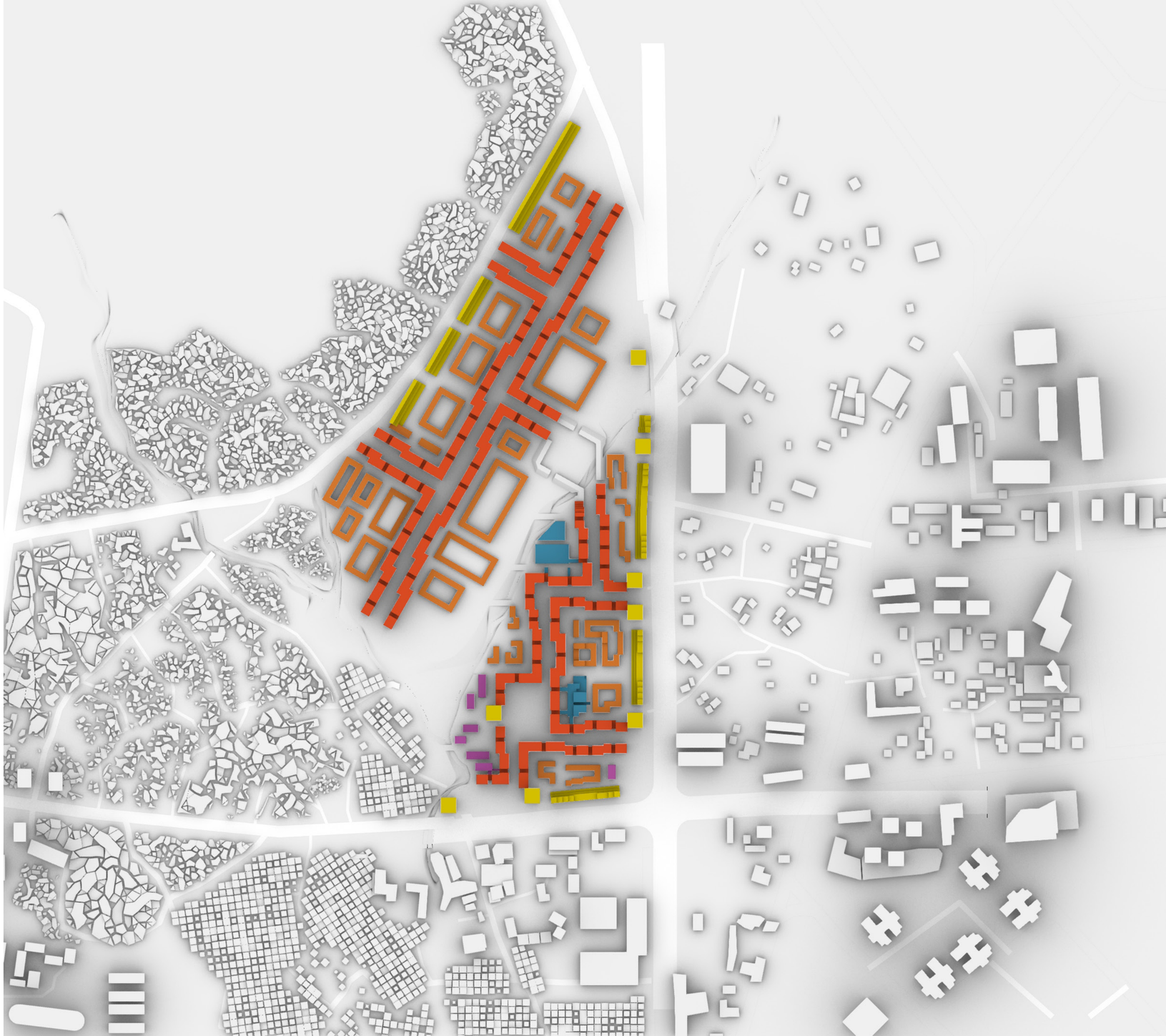


PHASING

cluster by cluster



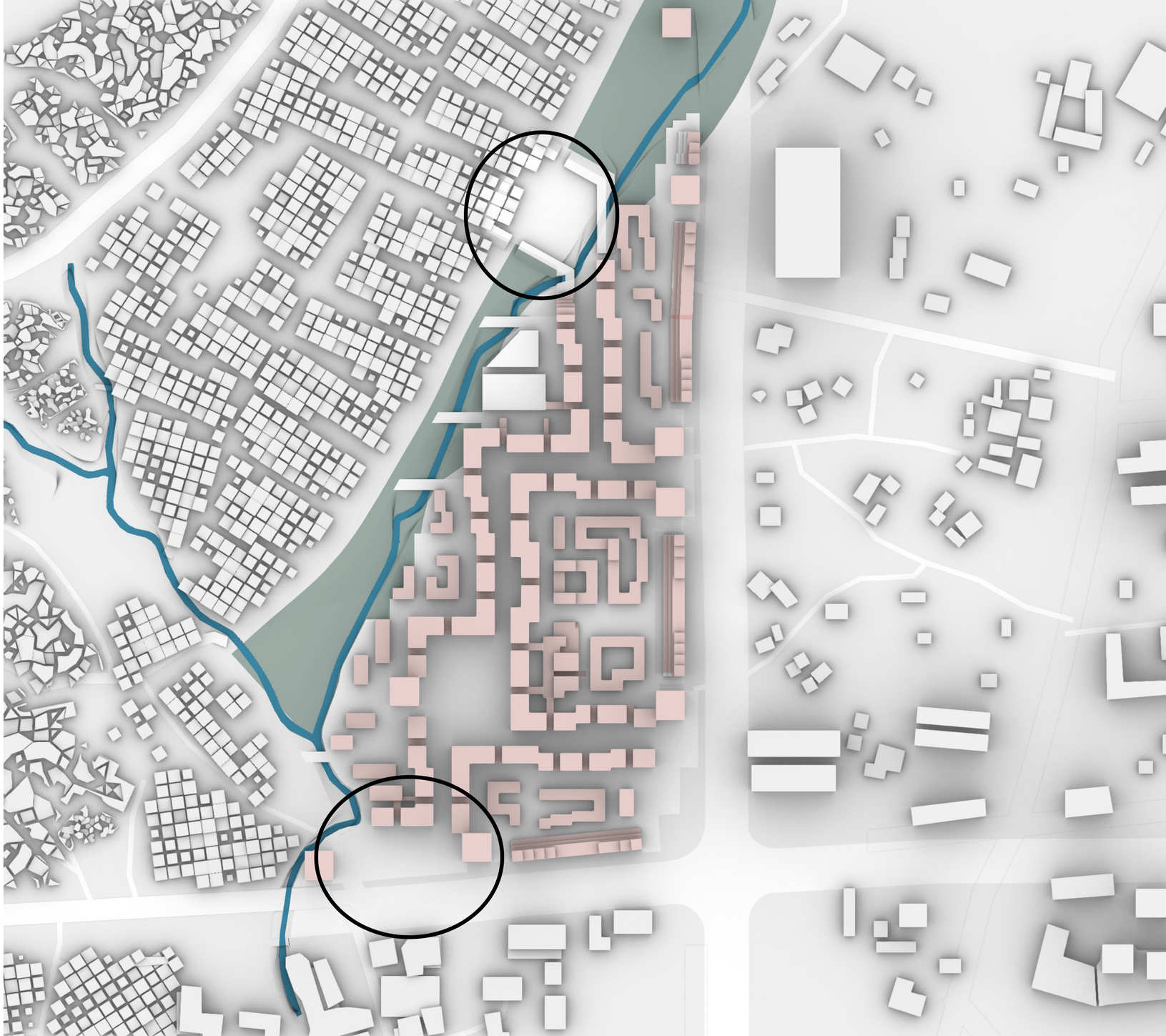
MASTERPLAN EXTENSION



MASTERPLAN EXTENSION

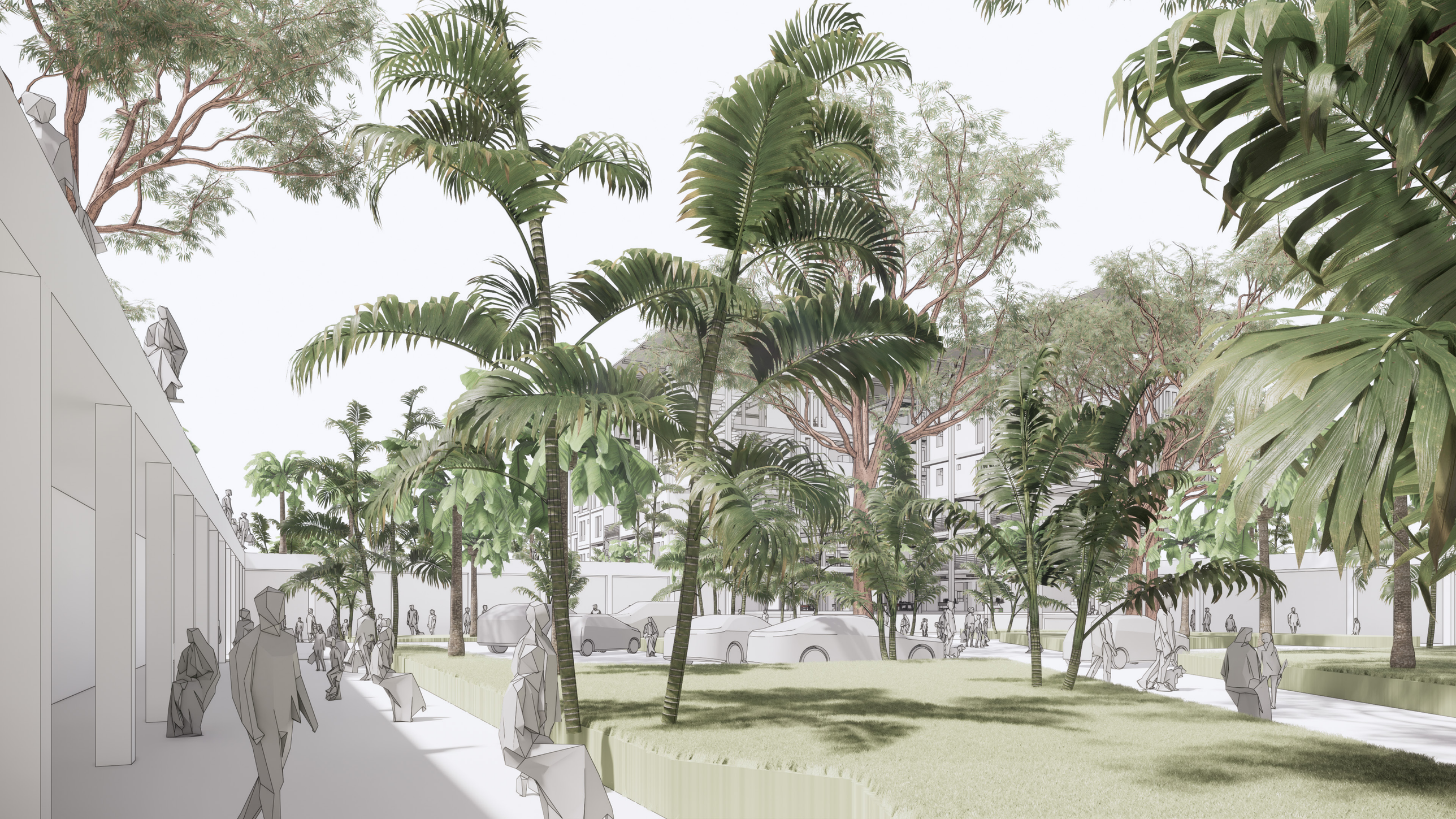
MASTERPLAN

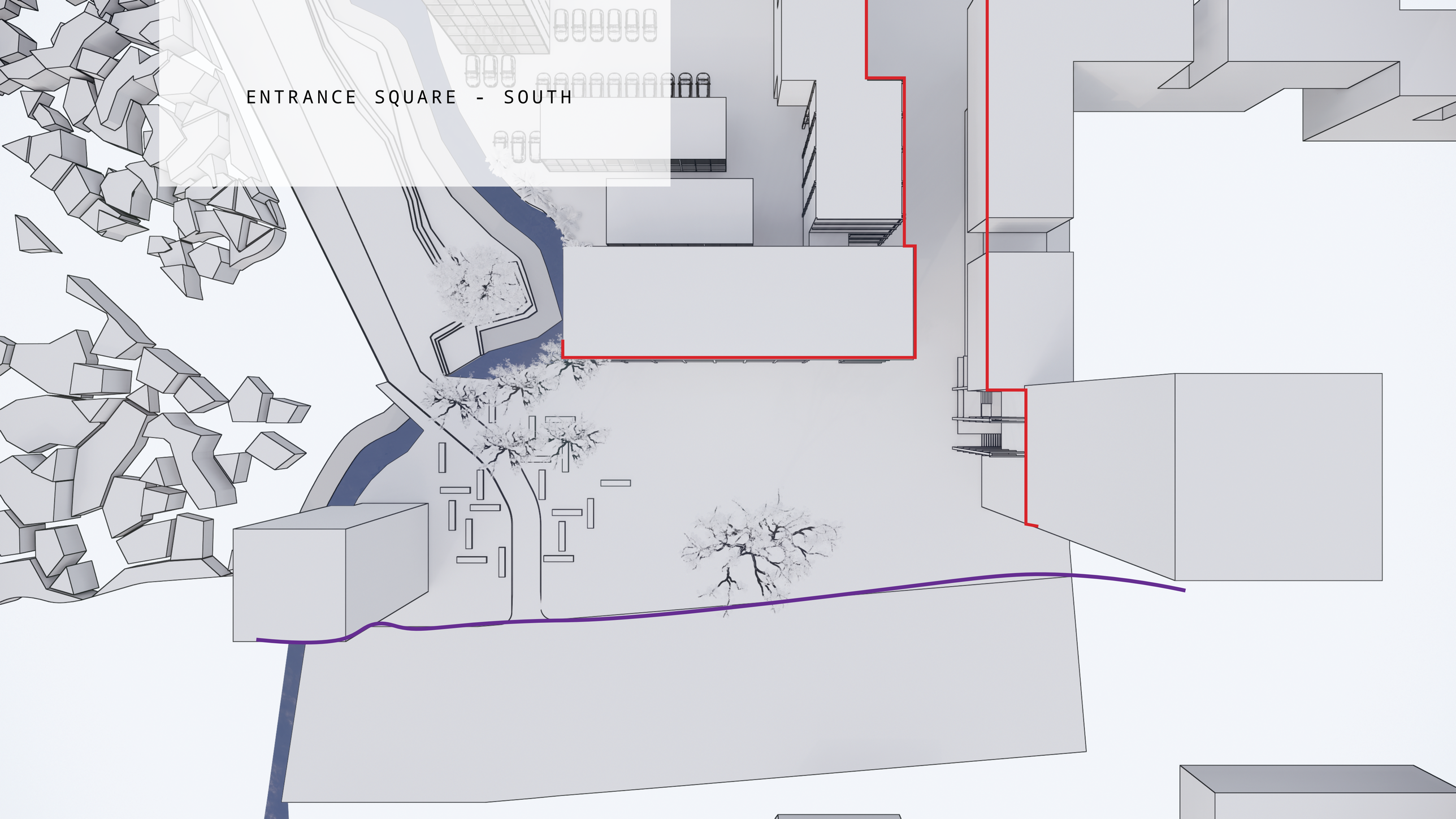
points of interest

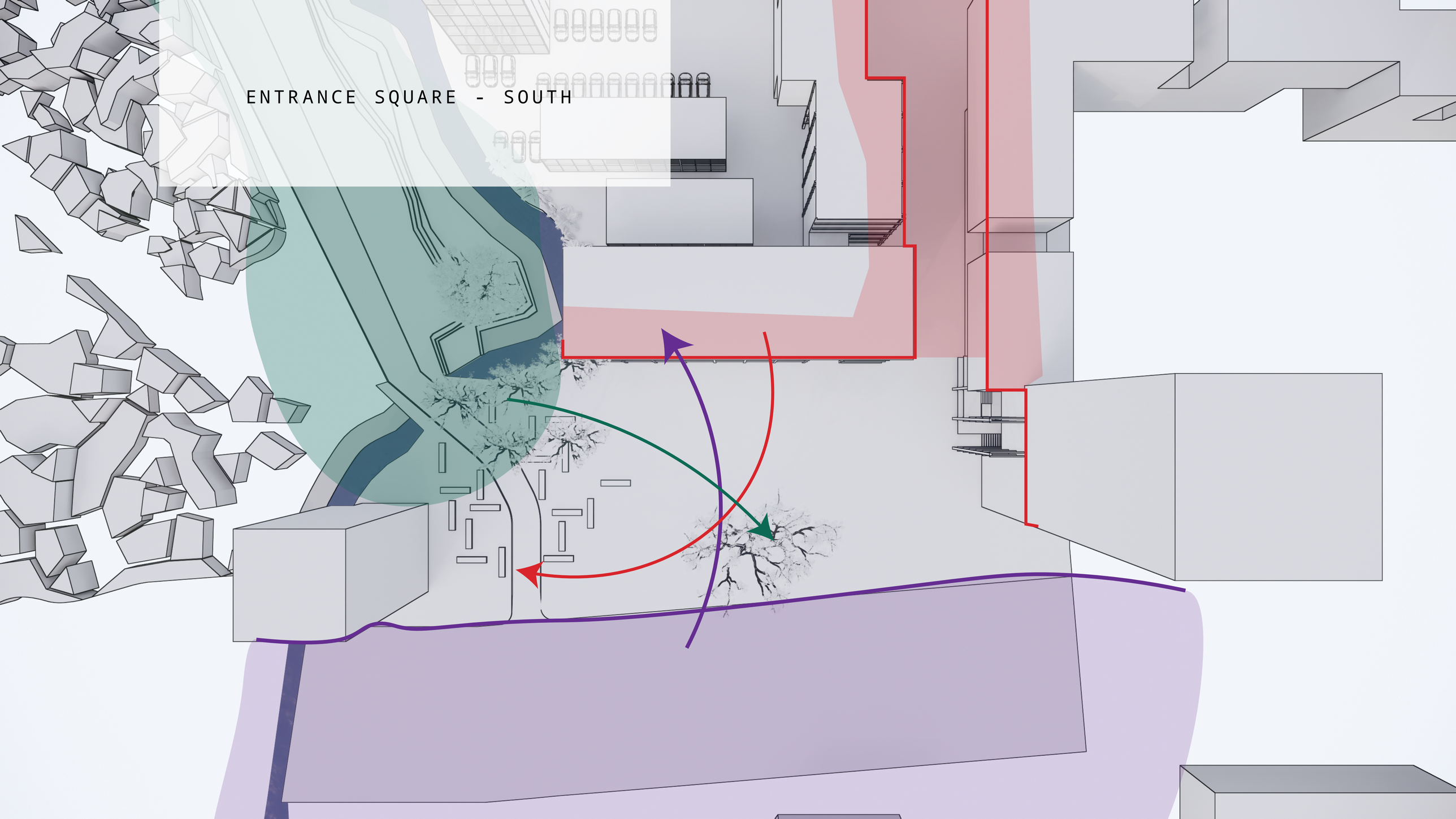


CROSS SQUARE - GREEN

CROSS SQUARE - GREEN




ENTRANCE SQUARE - SOUTH


ENTRANCE SQUARE - SOUTH

ENTRANCE SQUARE - SOUTH