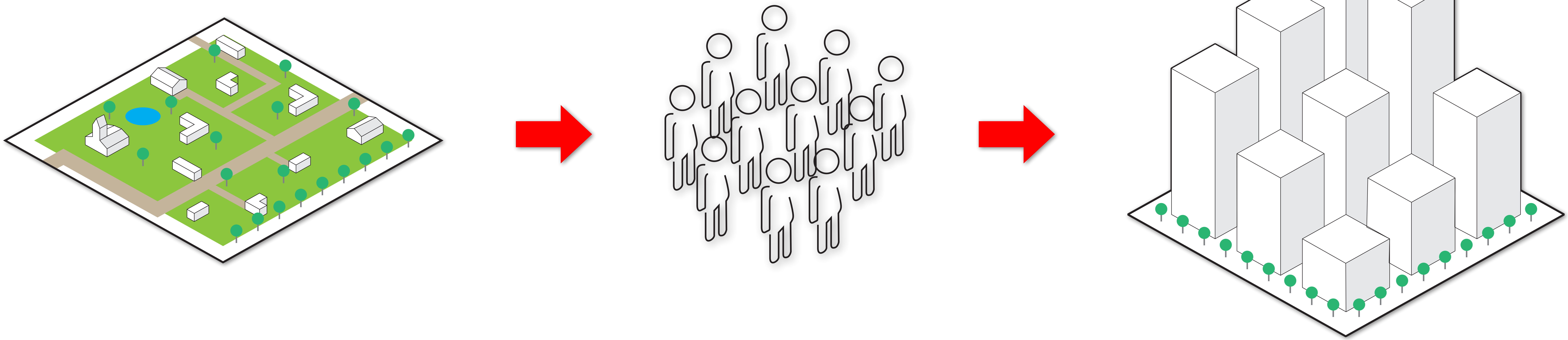
3D Villages

Presentation Structure

- Introduction
- Research
- System
- Programme
- Application
- Design
- Climate
- Sustainability
- Quality

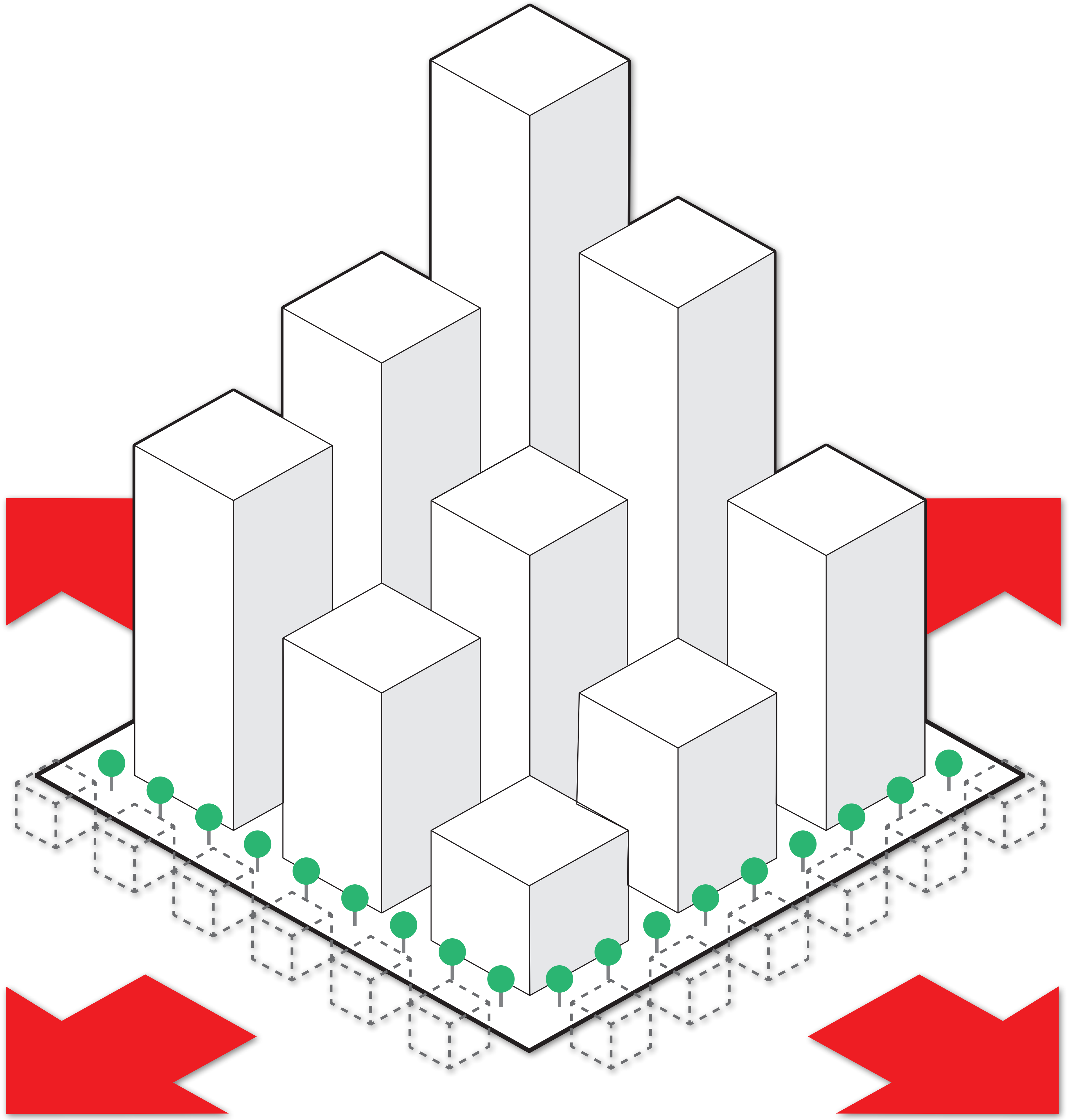
FASCINATION



2014 **3.2 billion people**

↓

2050 **6.4 billion people**



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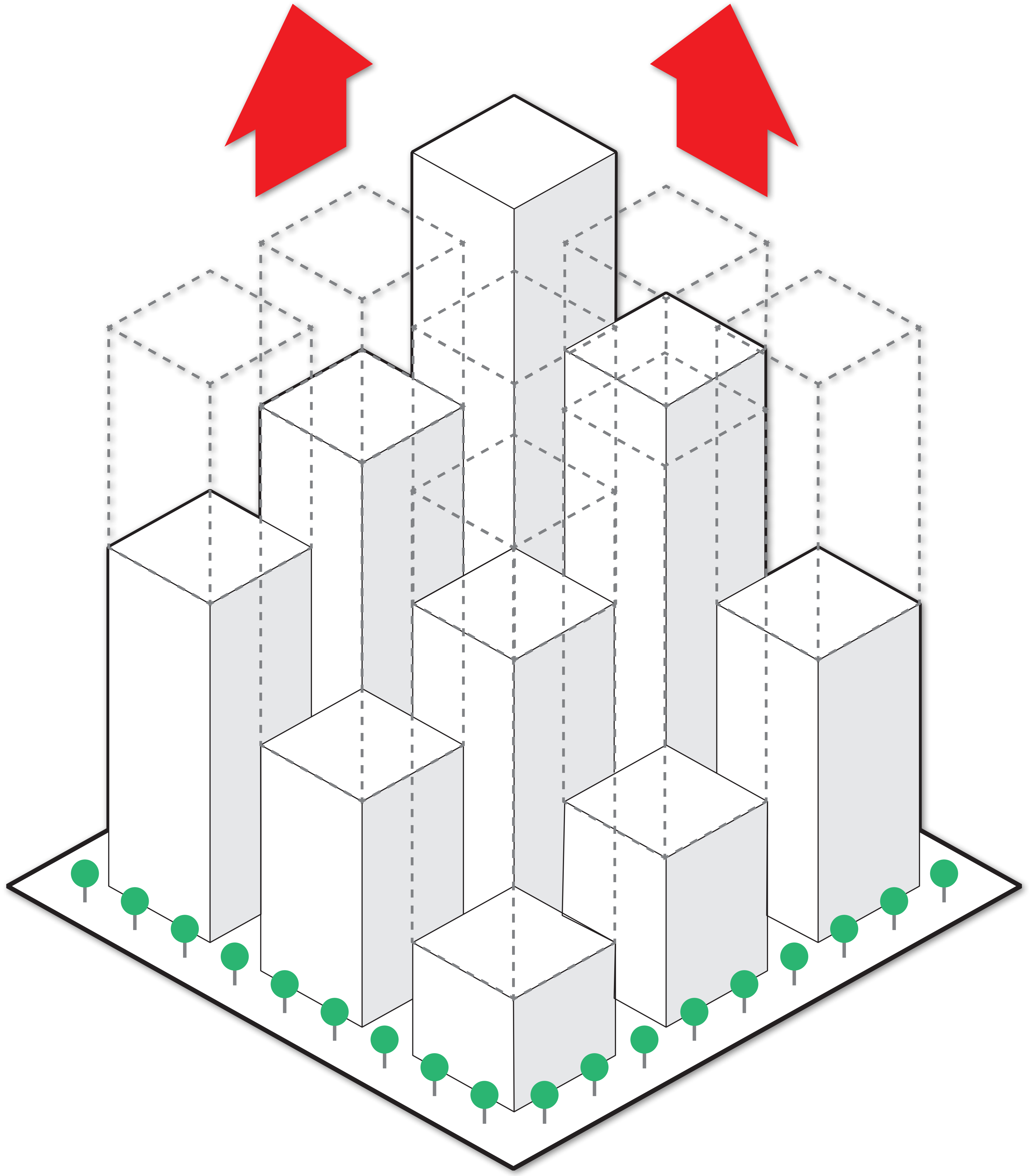

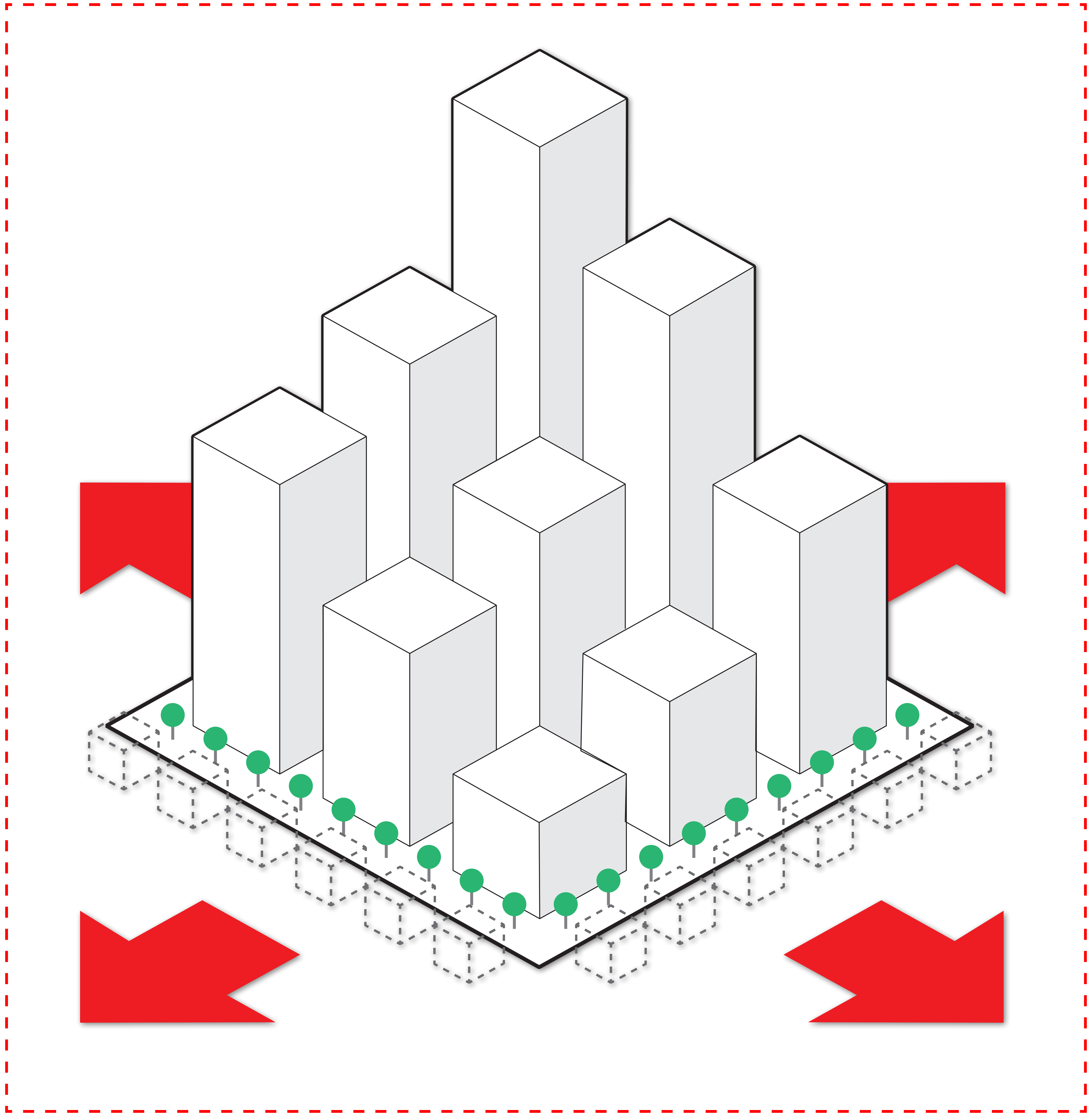

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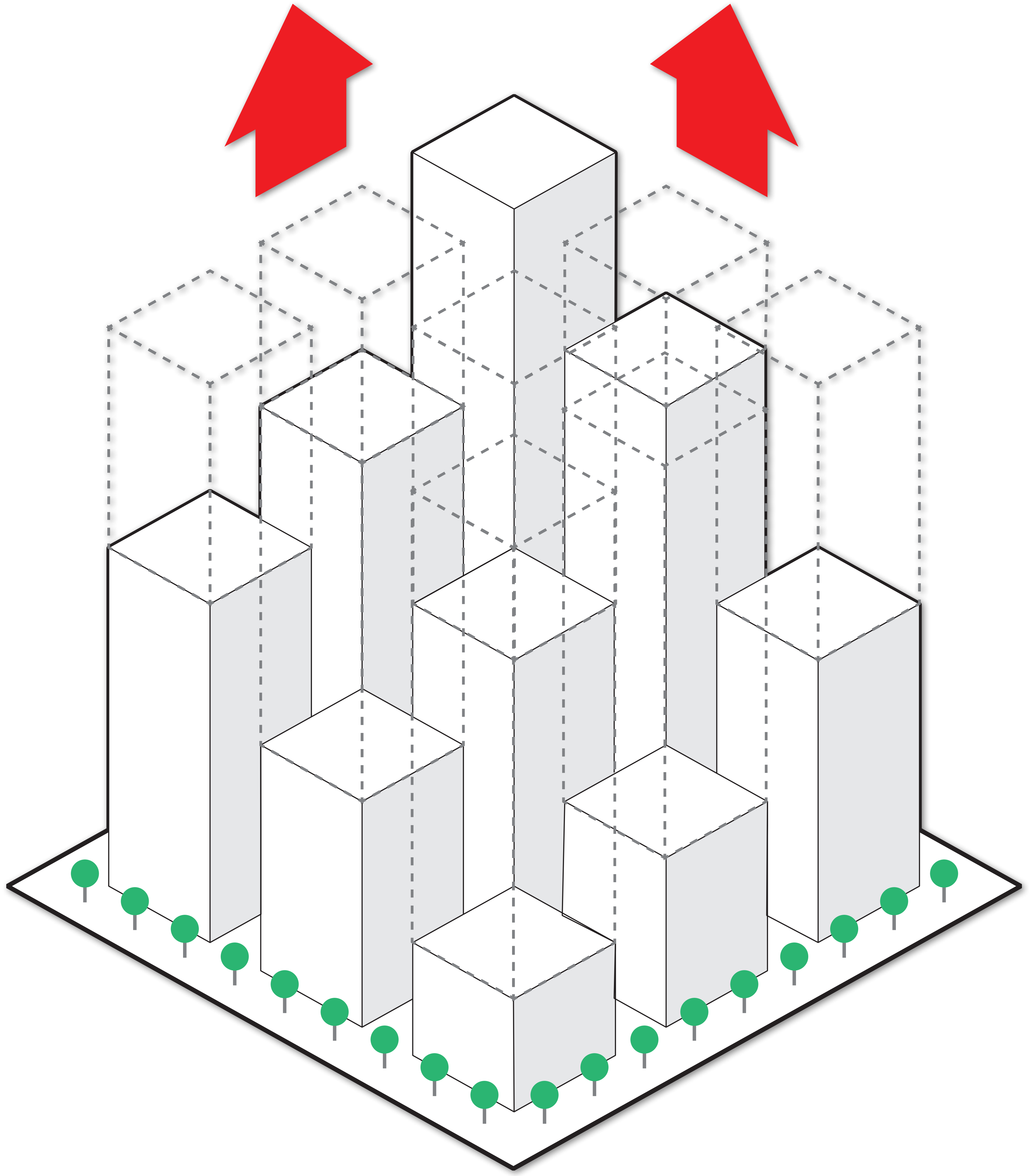
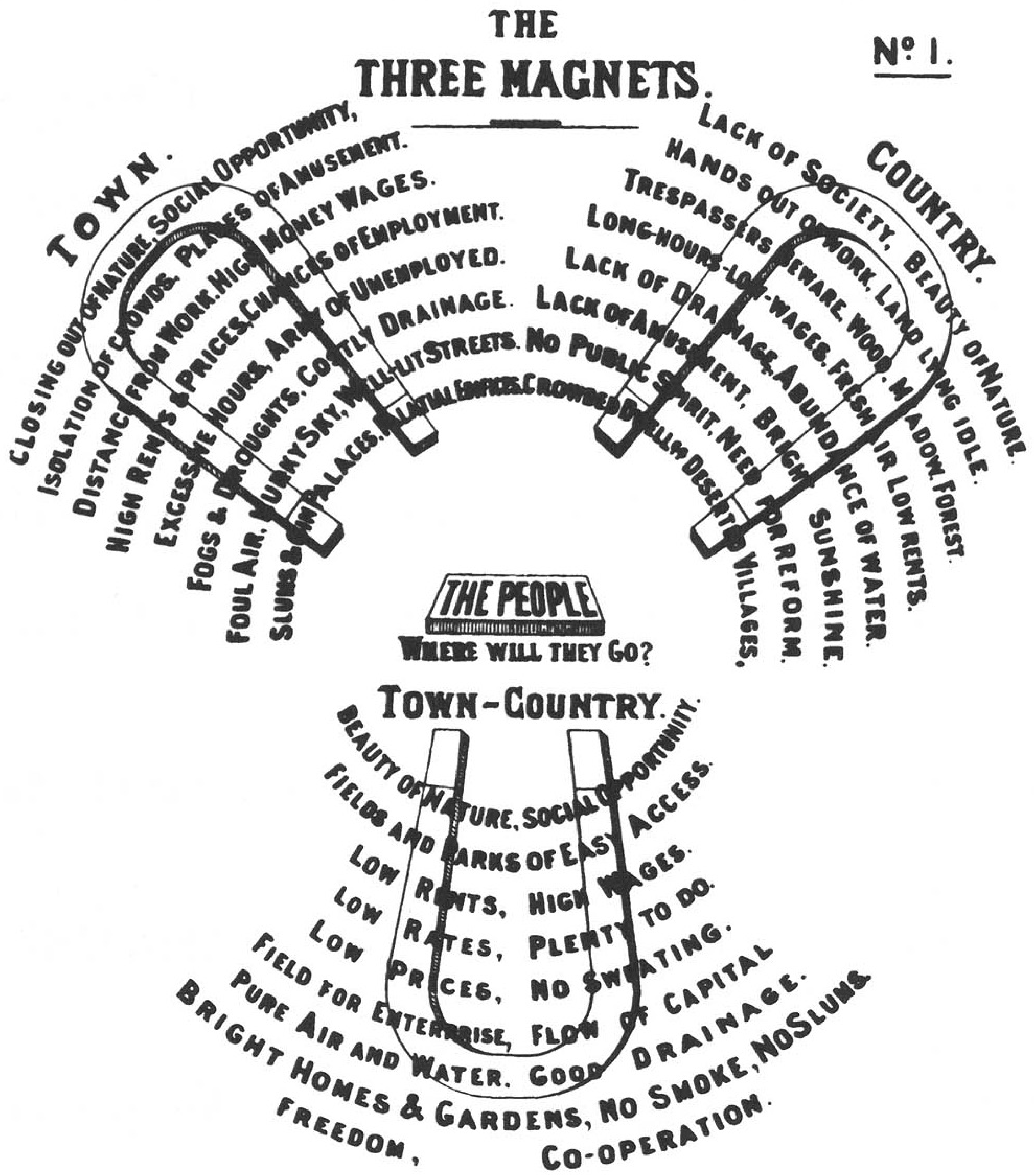
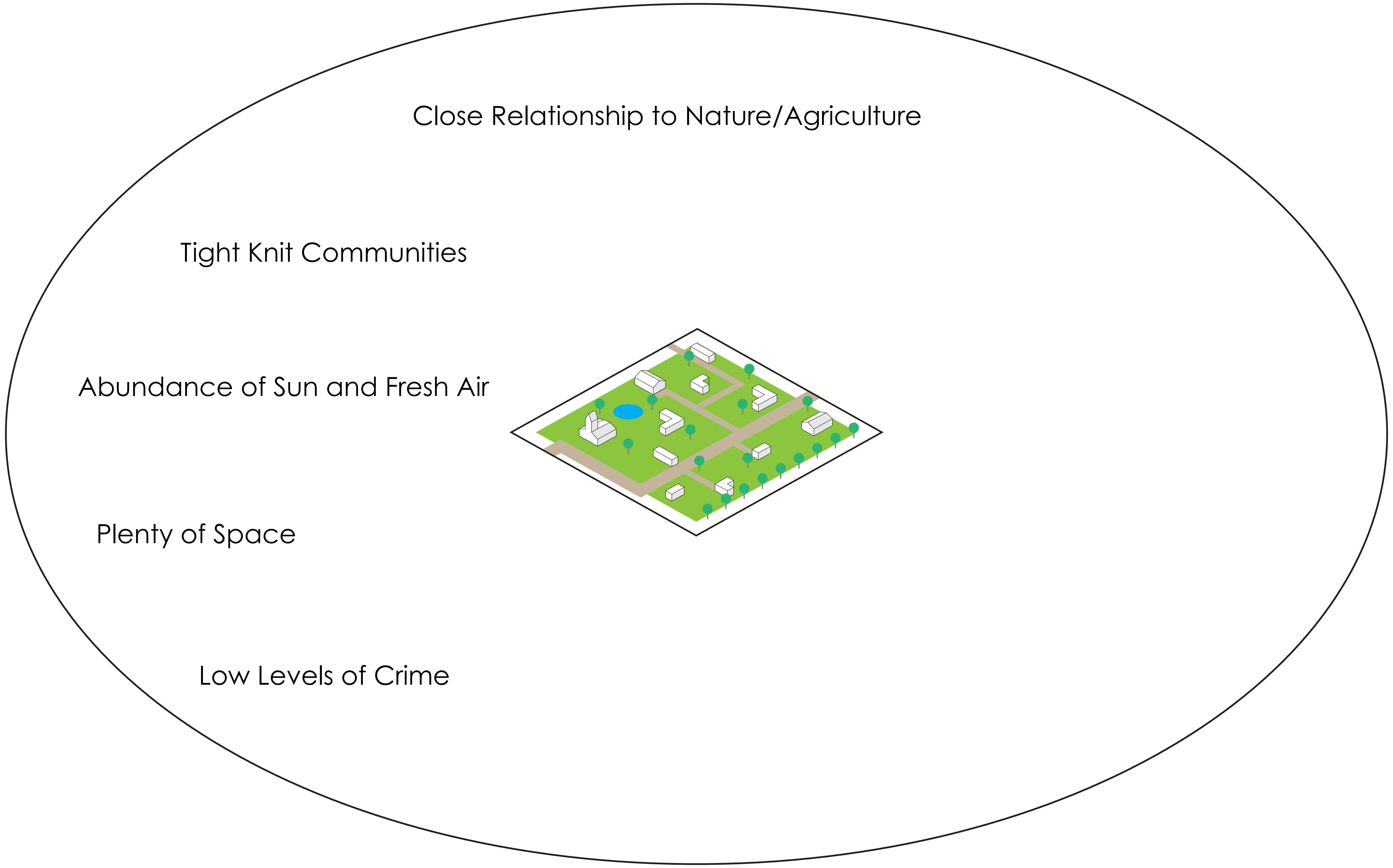



THE THREE MAGNETS.
Nº 1.
TOWN.
CLOSING OUT OF NATURE. SOCIAL OPPORTUNITY.
ISOLATION OF CROWDS. PLACES OF AMUSEMENT.
DISTANCE FROM WORK. HIGH MONEY WAGES.
HIGH RENTS & PRICES. CHANCES OF EMPLOYMENT.
EXCESSIVE HOURS. ARMY OF UNEMPLOYED.
FOGS & DROUGHTS. COSTLY DRAINAGE.
FOUL AIR. MURKY SKY. WELL-LIT STREETS.
SLUMS & GIN PALACES. PALATIAL EDIFICES.
COUNTRY.
LACK OF SOCIETY. BEAUTY OF NATURE.
HANDS OUT OF WORK. LAND LYING IDLE.
TRESPASSERS BEWARE. WOOD. MEADOW. FOREST.
LONG HOURS - LOW WAGES. FRESH AIR. LOW RENTS.
LACK OF DRAINAGE. ABUNDANCE OF WATER.
LACK OF AMUSEMENT. BRIGHT SUNSHINE.
NO PUBLIC SPIRIT. NEED FOR REFORM.
CROWDED DWELLINGS. DESERTED VILLAGES.
THE PEOPLE
WHERE WILL THEY GO?
TOWN-COUNTRY.
BEAUTY OF NATURE. SOCIAL OPPORTUNITY.
FIELDS AND PARKS OF EASY ACCESS.
LOW RENTS, HIGH WAGES.
LOW RATES, PLENTY TO DO.
LOW PRICES, NO SWEATING.
FIELD FOR ENTERPRISE, FLOW OF CAPITAL.
PURE AIR AND WATER. GOOD DRAINAGE.
BRIGHT HOMES & GARDENS, NO SMOKE, NO SLUMS.
FREEDOM, CO-OPERATION.



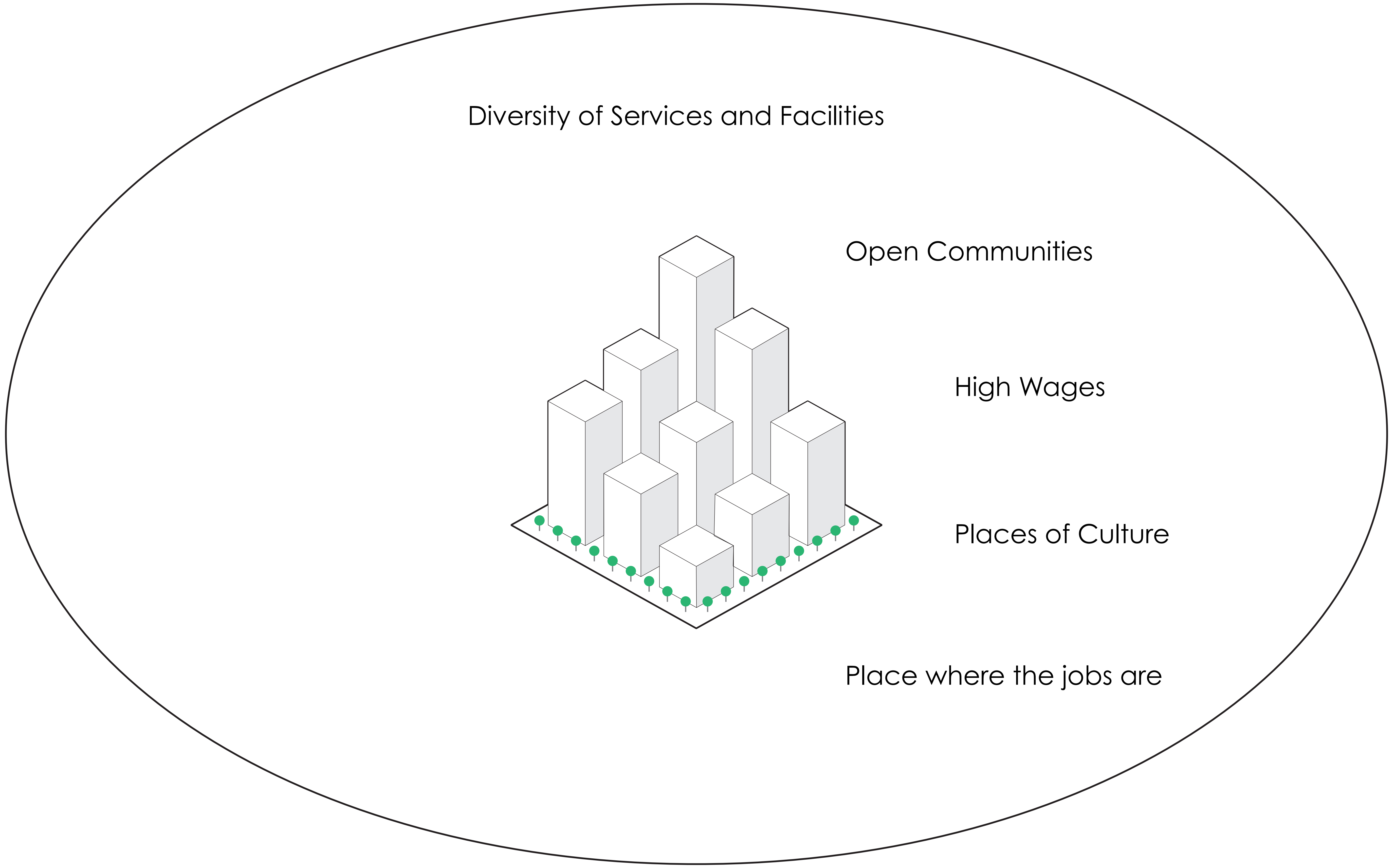
Close Relationship to Nature/Agriculture

Tight Knit Communities

Abundance of Sun and Fresh Air

Plenty of Space

Low Levels of Crime



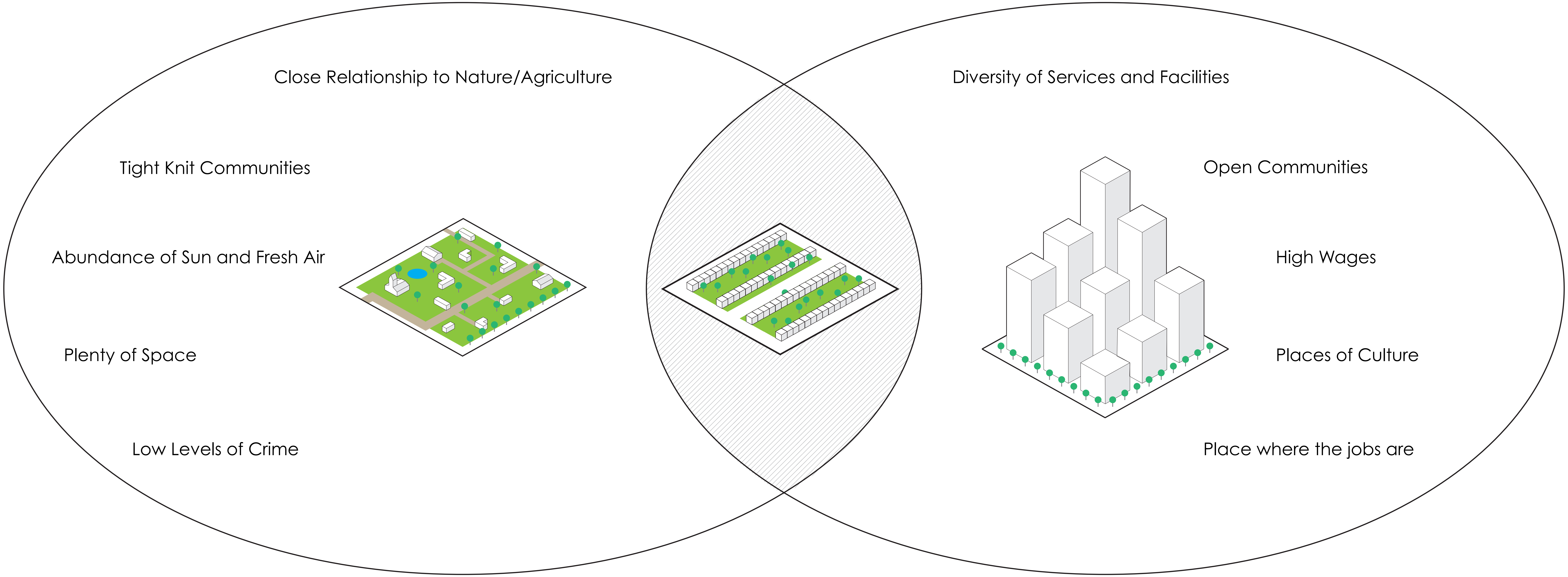
Diversity of Services and Facilities

Open Communities

High Wages

Places of Culture

Place where the jobs are



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Place where the jobs are

Ideally

Country

- Close proximity to nature/ agriculture
- Tight Knit Communities
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Suburb

- Close proximity to nature/ agriculture
- Tight Knit Communities
- Abundance of sun and fresh air
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- Low Levels of Crime
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- High Wages
- Places of Culture
- Plenty of Jobs

City

- Diversity of available services
- Diverse/open community
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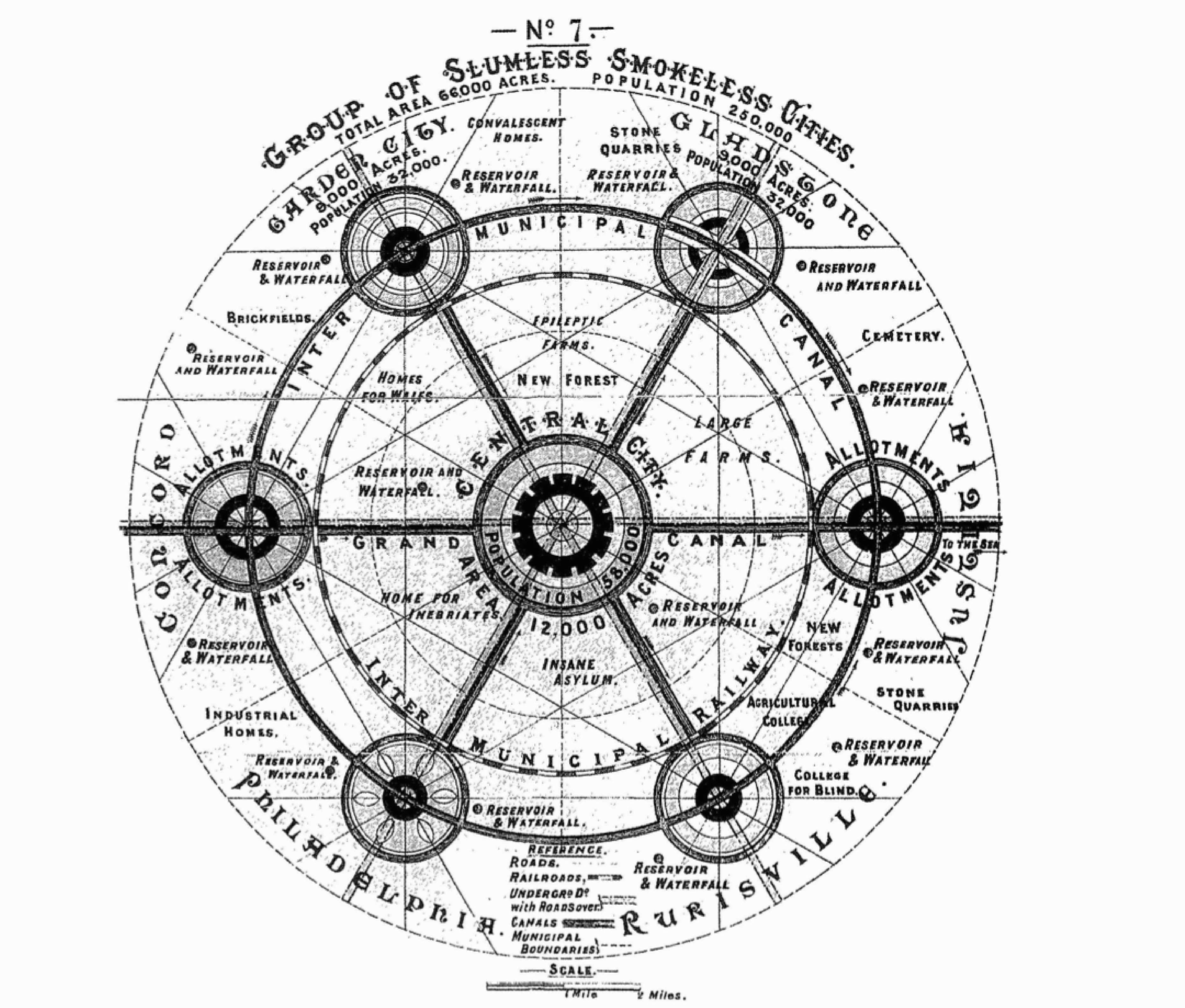
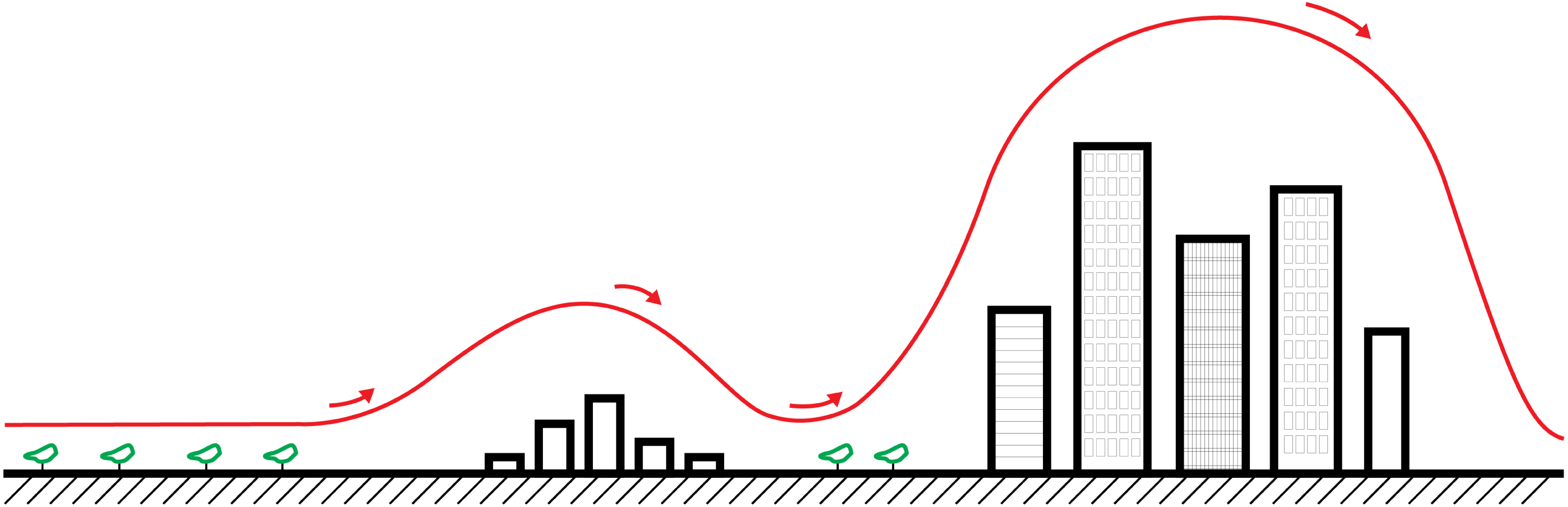
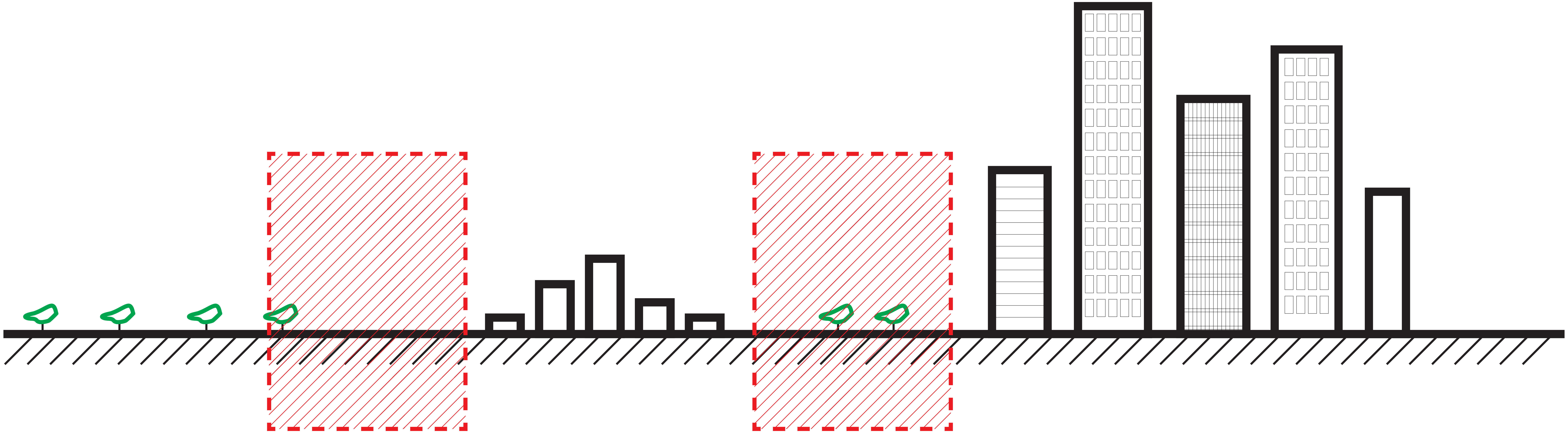

— Nº 7. —
GROUP OF SLUMLESS SMOKELESS CITIES.
TOTAL AREA 66000 ACRES.
POPULATION 250,000
GARDEN CITY.
9,000 ACRES.
POPULATION 32,000.
GLADSTONE
9,000 ACRES.
POPULATION 32,000
CONVALESCENT HOMES.
STONE QUARRIES
RESERVOIR & WATERFALL.
RESERVOIR & WATERFALL.
MUNICIPAL
INTER
CANAL
RESERVOIR & WATERFALL
RESERVOIR AND WATERFALL
BRICKFIELDS.
CEMETERY.
RESERVOIR AND WATERFALL
RESERVOIR & WATERFALL
EPILEPTIC FARMS.
NEW FOREST
HOMES FOR WAIFS.
LARGE FARMS.
CENTRAL CITY.
RESERVOIR AND WATERFALL.
CONCORD
ALLOTMENTS.
ALLOTMENTS.
ALLOTMENTS
ALLOTMENTS
JUSTICIA
GRAND
CANAL
TO THE SEA
AREA 12,000 ACRES
POPULATION 58,000
HOME FOR INEBRIATES.
RESERVOIR AND WATERFALL
NEW FORESTS
RESERVOIR & WATERFALL
RESERVOIR & WATERFALL
INSANE ASYLUM.
INTER
MUNICIPAL
RAILWAY
AGRICULTURAL COLLEGE
STONE QUARRIES
INDUSTRIAL HOMES.
RESERVOIR & WATERFALL
RESERVOIR & WATERFALL.
RESERVOIR & WATERFALL.
COLLEGE FOR BLIND.
PHILADELPHIA.
RURISVILLE.
REFERENCE.
ROADS.
RAILROADS,
UNDERGRD Rs with ROADS over.
CANALS
MUNICIPAL BOUNDARIES
RESERVOIR & WATERFALL
SCALE.
1 Mile
2 Miles.

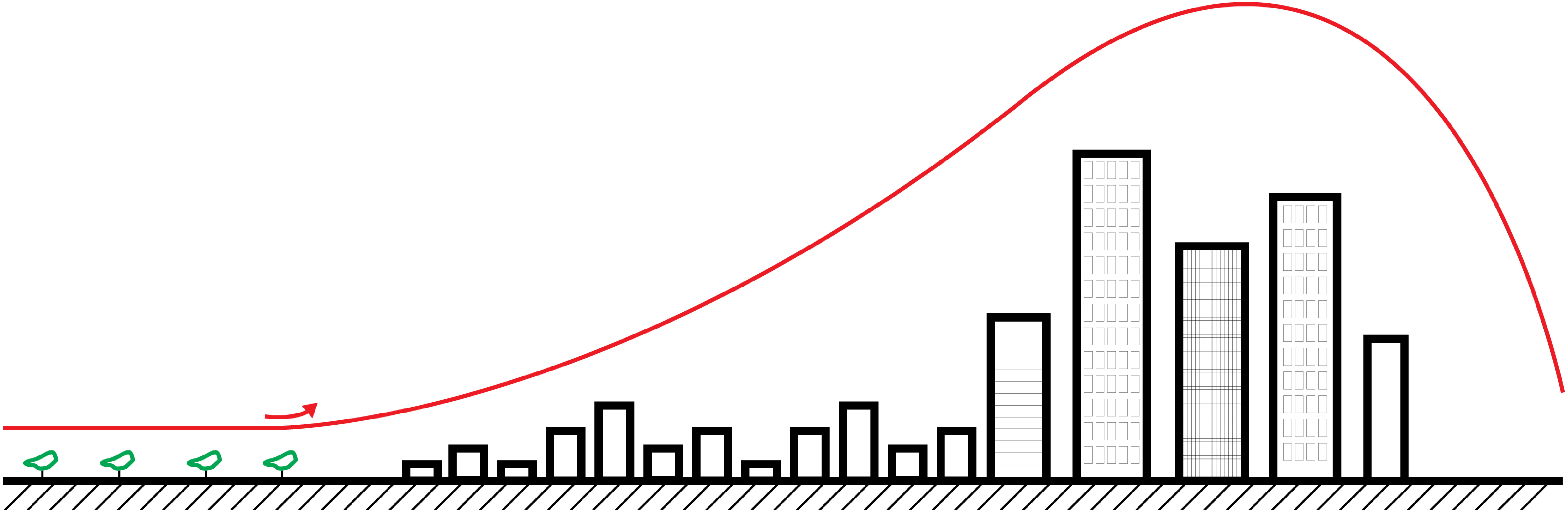
Ideally

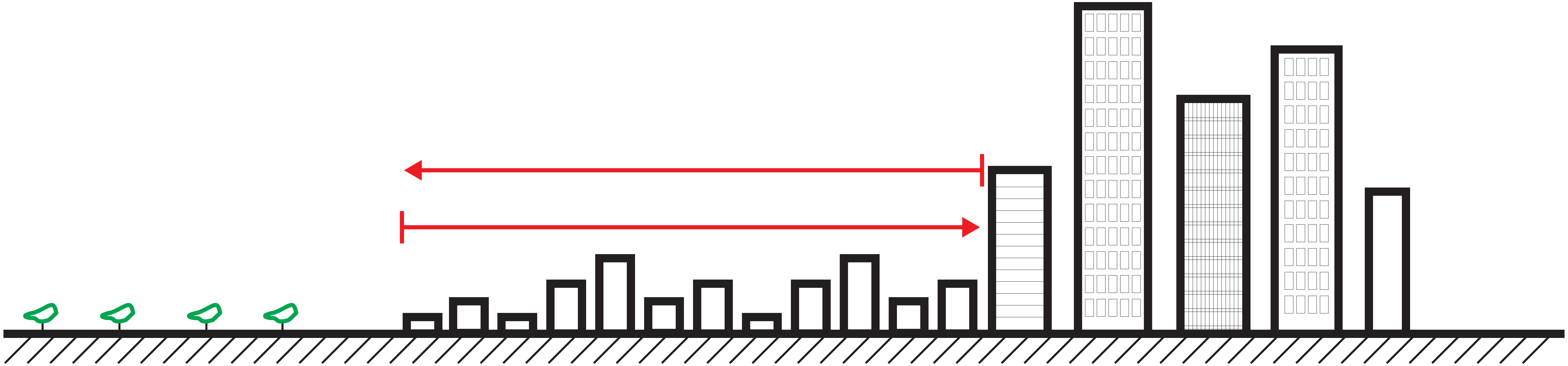


Ideally



2014





2014

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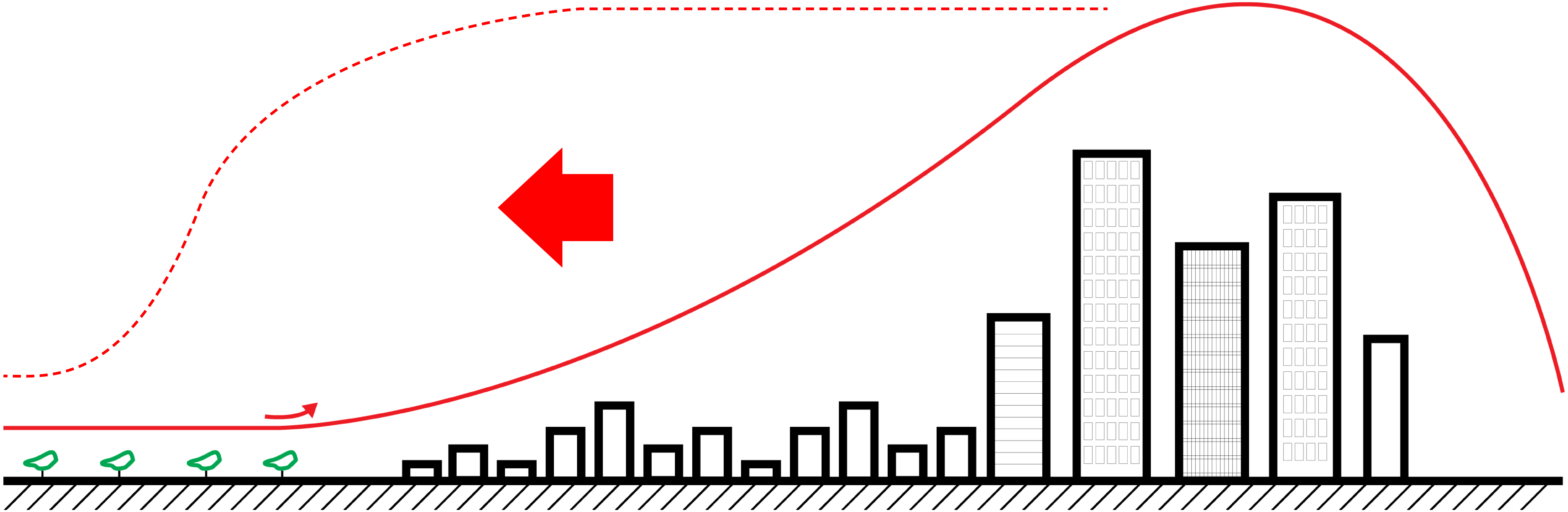
2050



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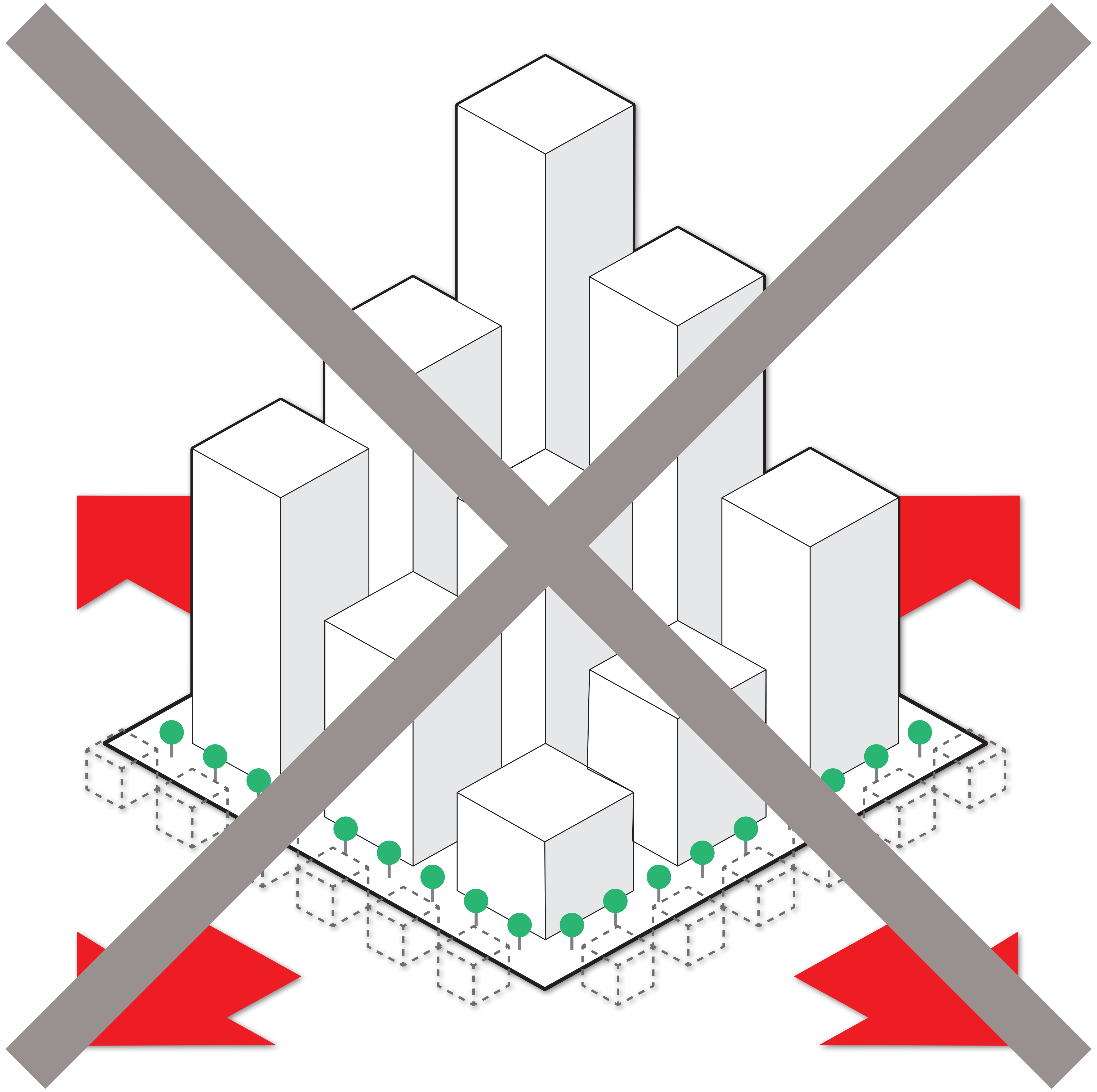
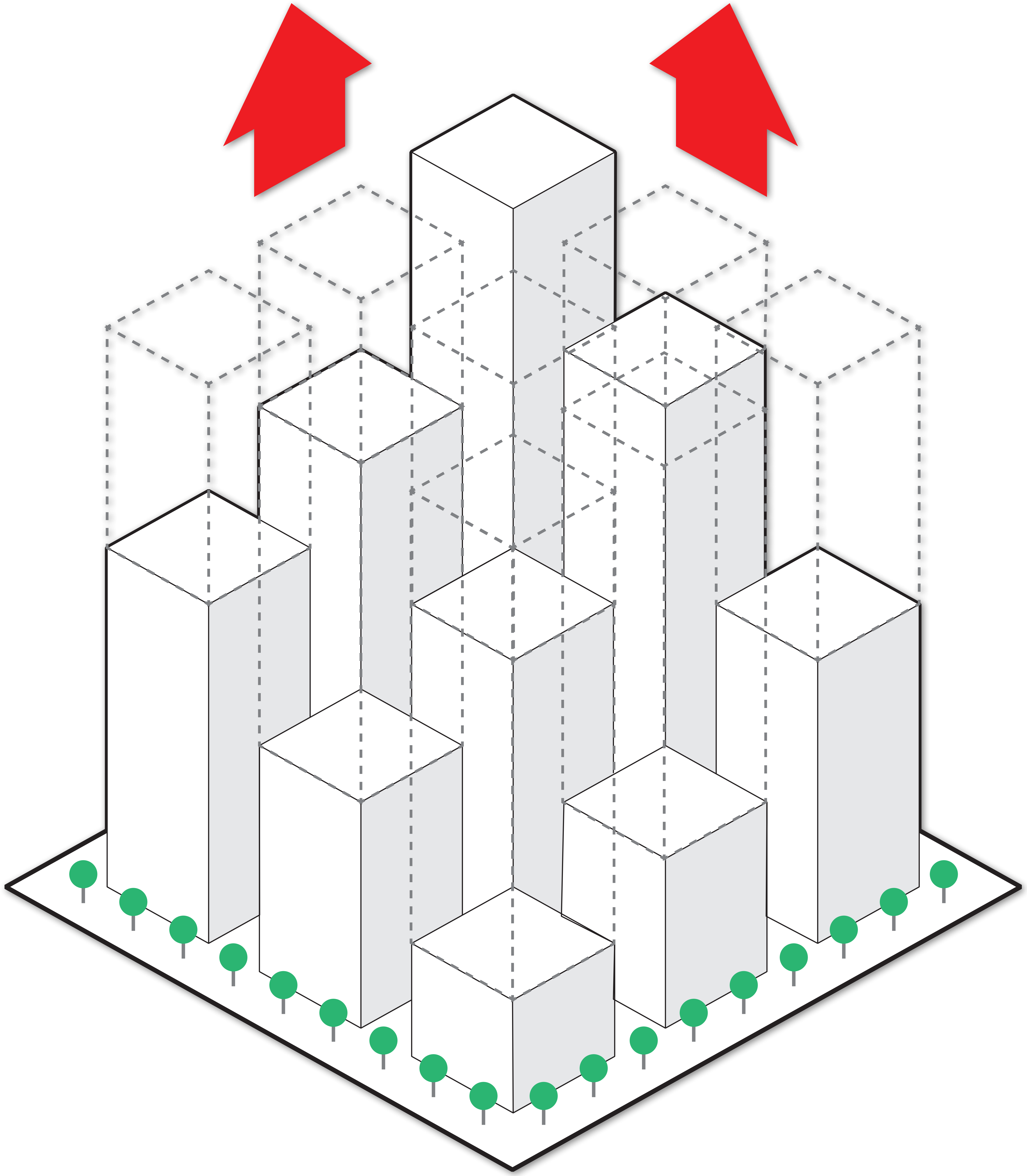
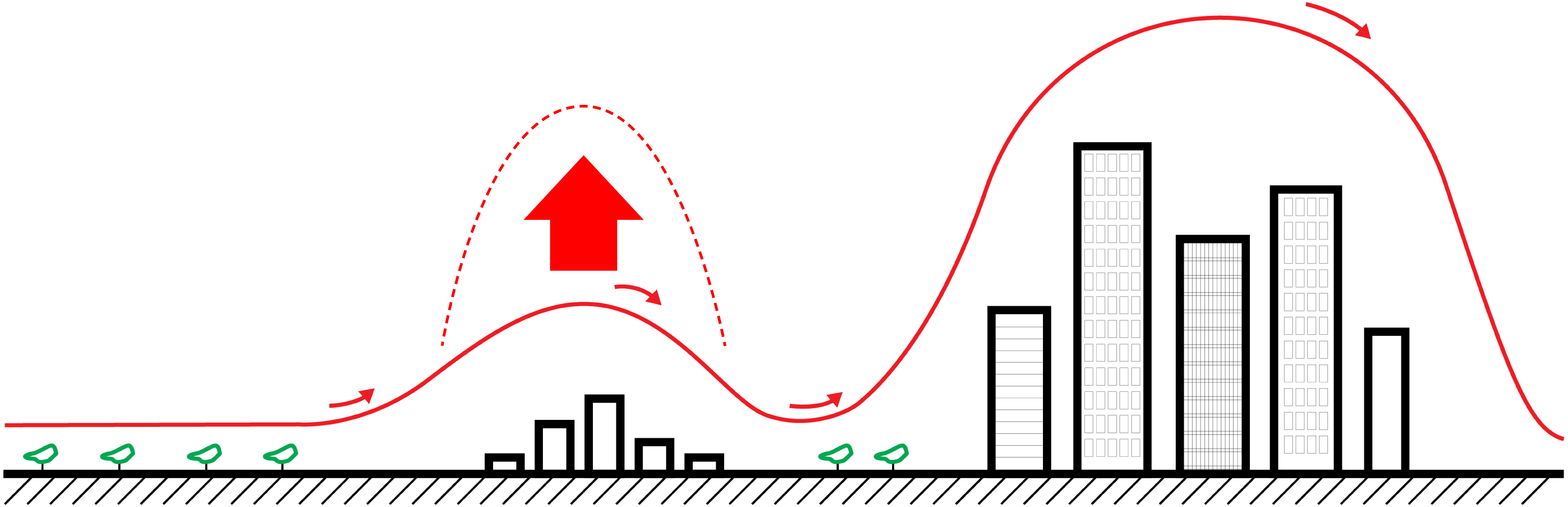


- No room for Expansion
- Loss of relationship Nature/Agriculture and Suburb





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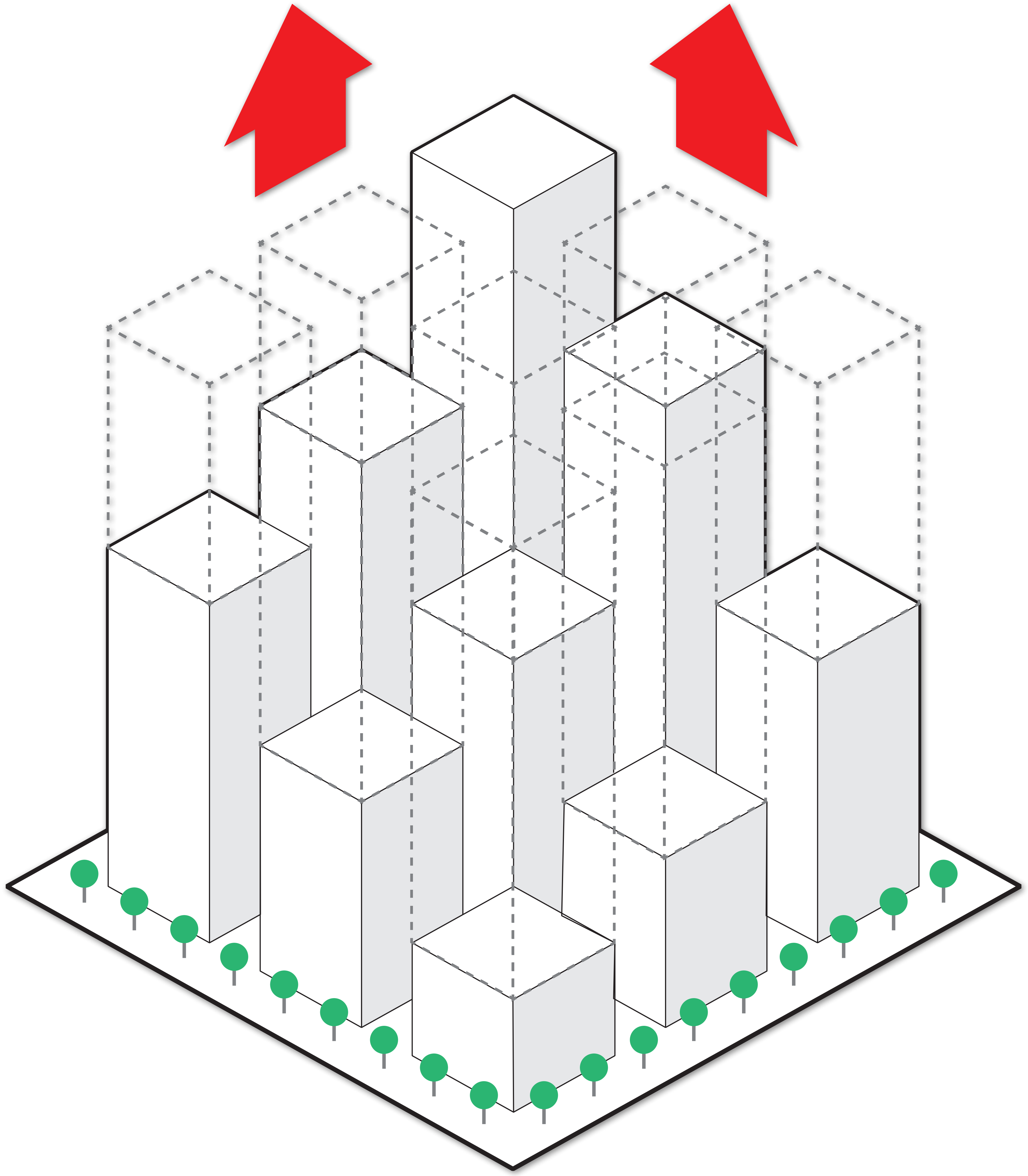
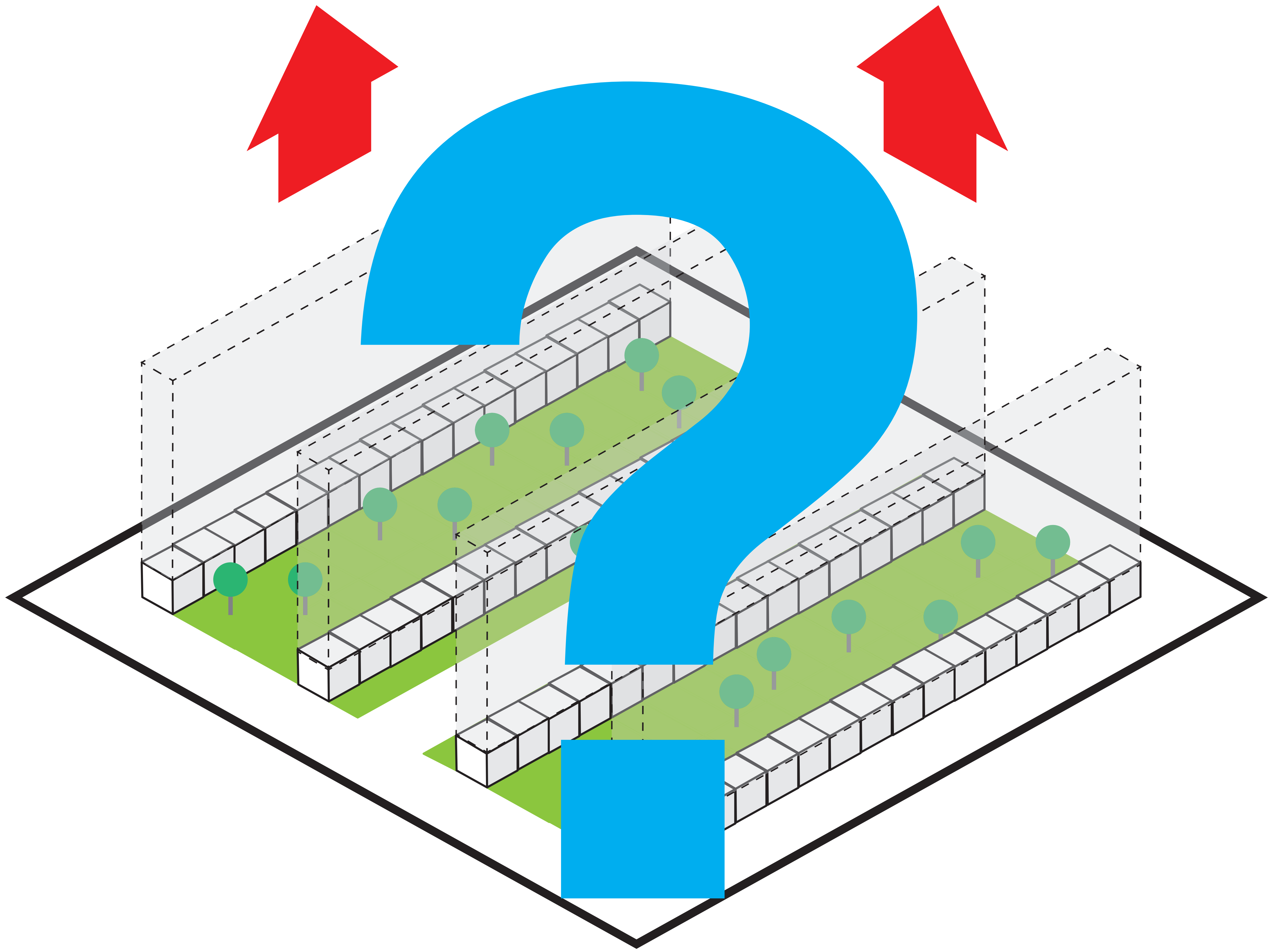


- Presents a design problem



RESEARCH

Quality

HAREN

Benchmark
Programmatic Basis
Example

Physical

- Sunlight
- Daylight
- Fresh Air
- Climate
- View
- Distance to facilities
- Distance to Leisure space

Social

- Private, Public and in-between space
- Borders between spaces with different degrees of public/privateness
- Flexibility
- Programmatic Mixture
- Network structure

Physical

- Sunlight
- Daylight
- Fresh Air
- Climate
- View
- Distance to facilities
- Distance to Leisure space

Social

- Private, Public and in-between space
- Borders between spaces with different degrees of public/privateness
- Flexibility
- Programmatic Mixture
- Network structure

Physical Qualities - Slide 1

- Min. 4 hr sunlight on 1 facade
- Min. 1 uninterrupted view from 1 facade

Physical Qualities - Slide 2

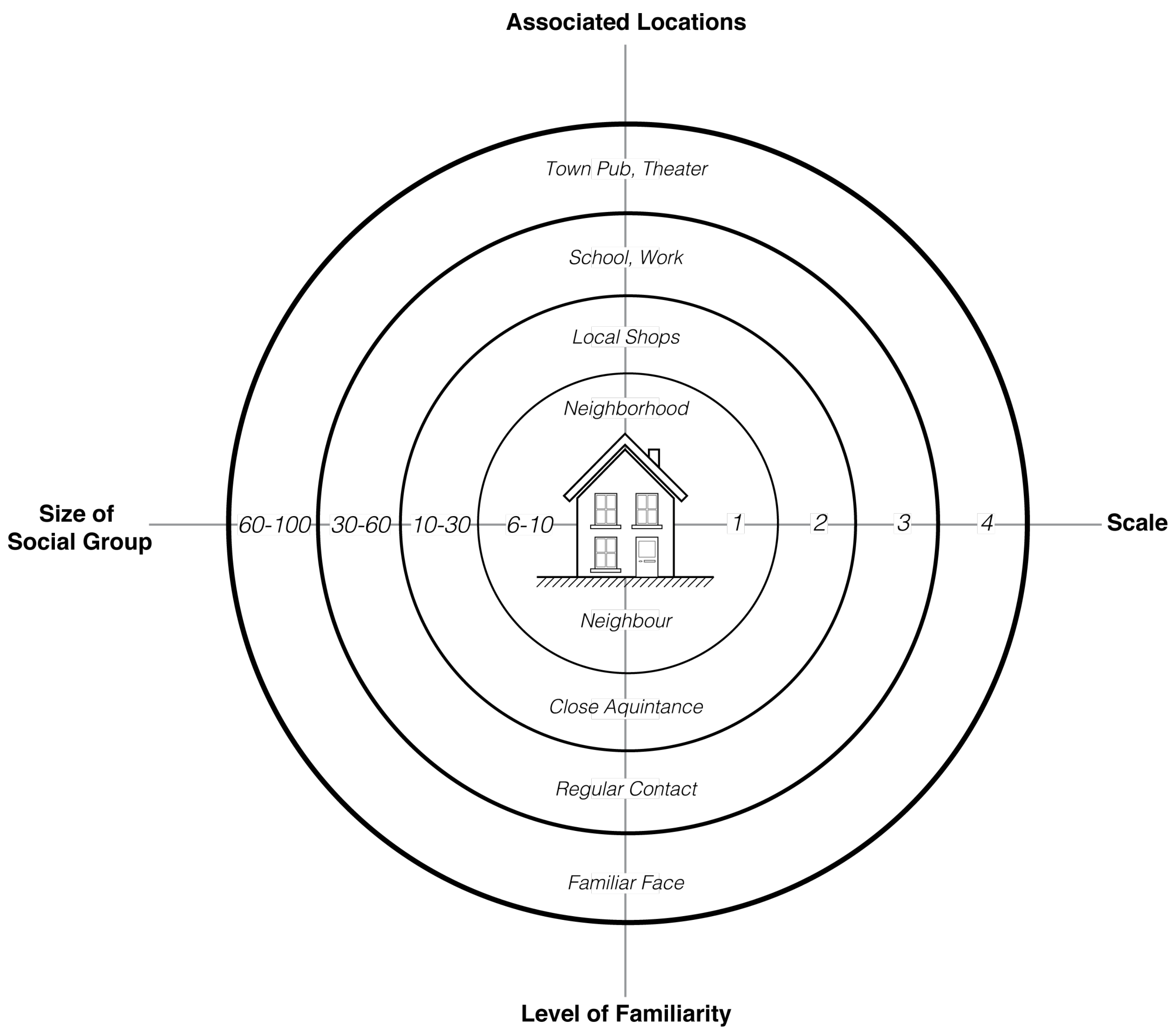
- Max. 10 minute transmute to nearest facility cluster (on foot)

- Max. 10 minute transmute to nearest Leisure space (on foot)

More Public Space!

Social Qualities

More Encounters = More interactions = Stronger Community



Associated Locations

Town Pub, Theater

School, Work

Local Shops

Neighborhood

Size of Social Group

60-100

30-60

10-30

6-10

1

2

3

4

Scale

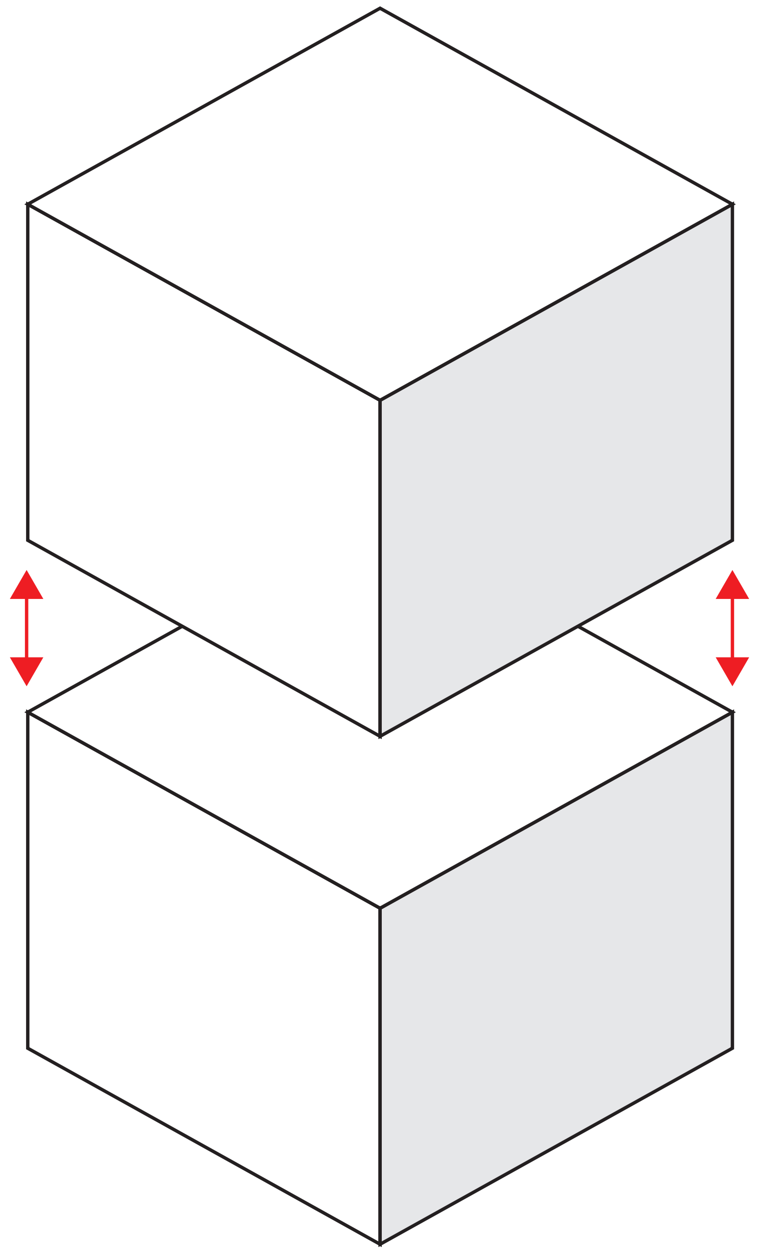
Neighbour

Close Aquintance

Regular Contact

Familiar Face

Level of Familiarity



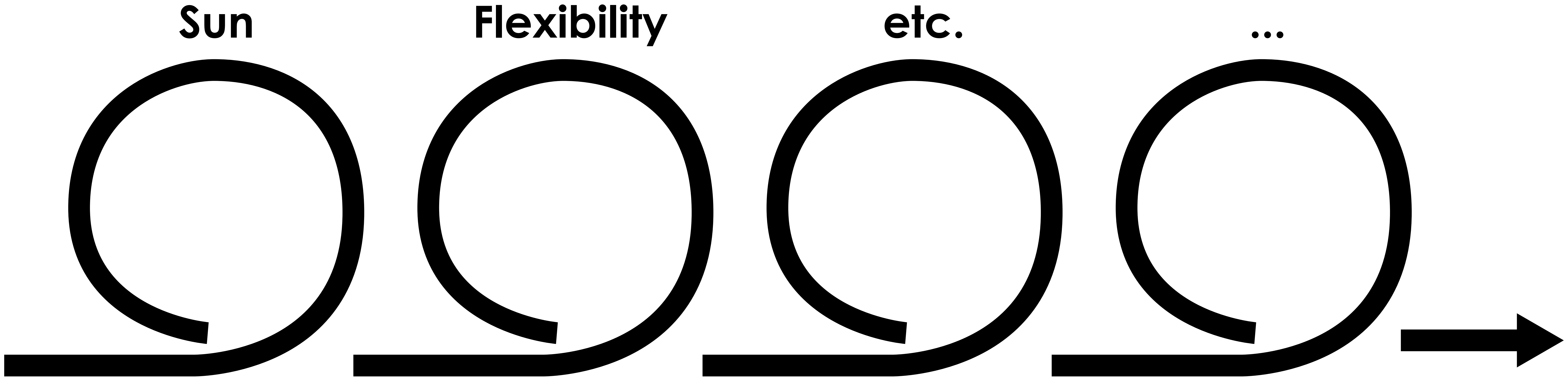
SYSTEM

Not a Building

Masterplan for a Building

Masterplanning in the air

- Flexibility to absorb different ideas about living and working.
- Flexibility to absorb a diverse programme.
- Provide ideas on placement of programme.
- Provide basic (infra)stucture on which designs can be projected.
- Supply base levels of quality throughout the system.



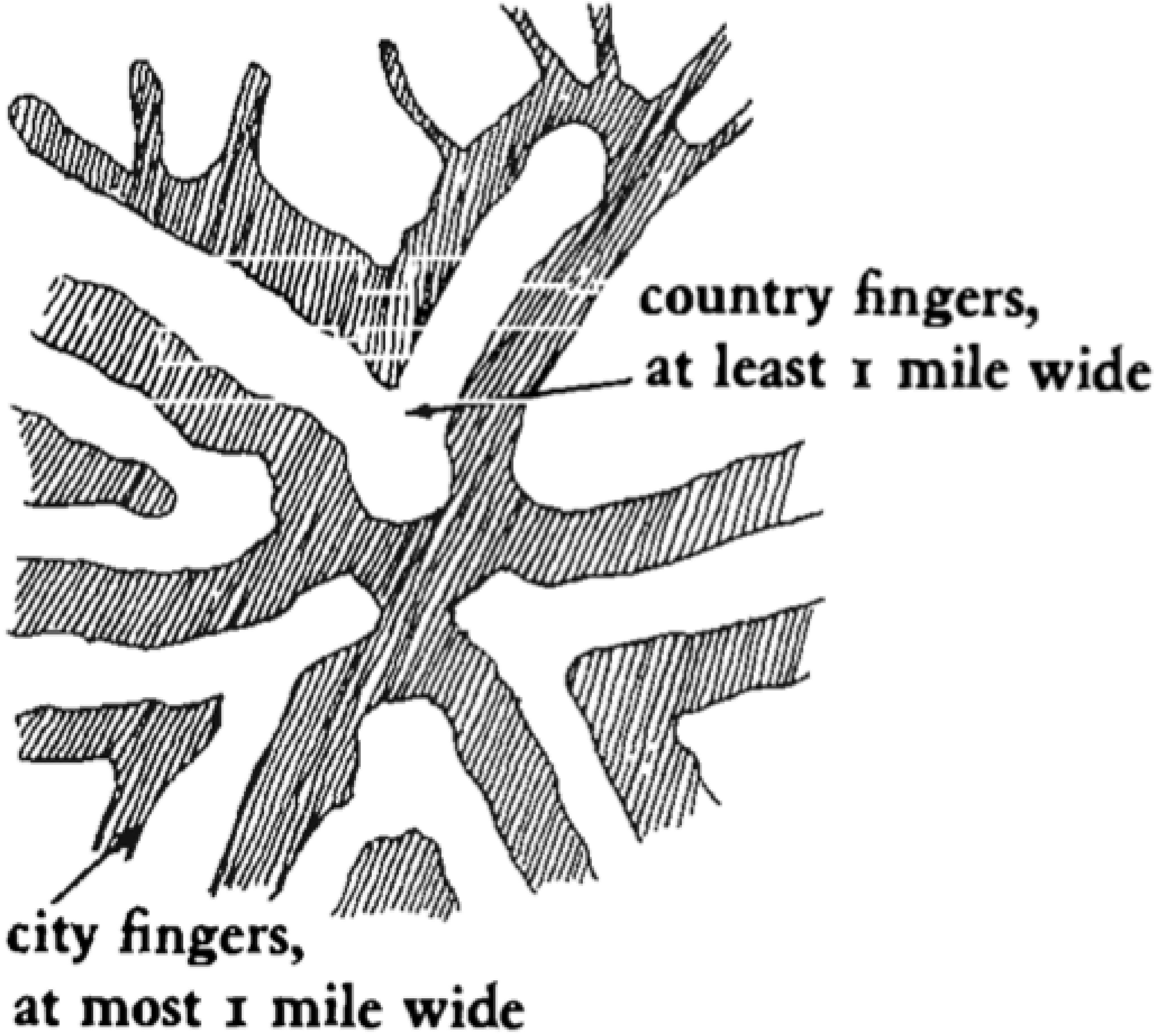
Sun

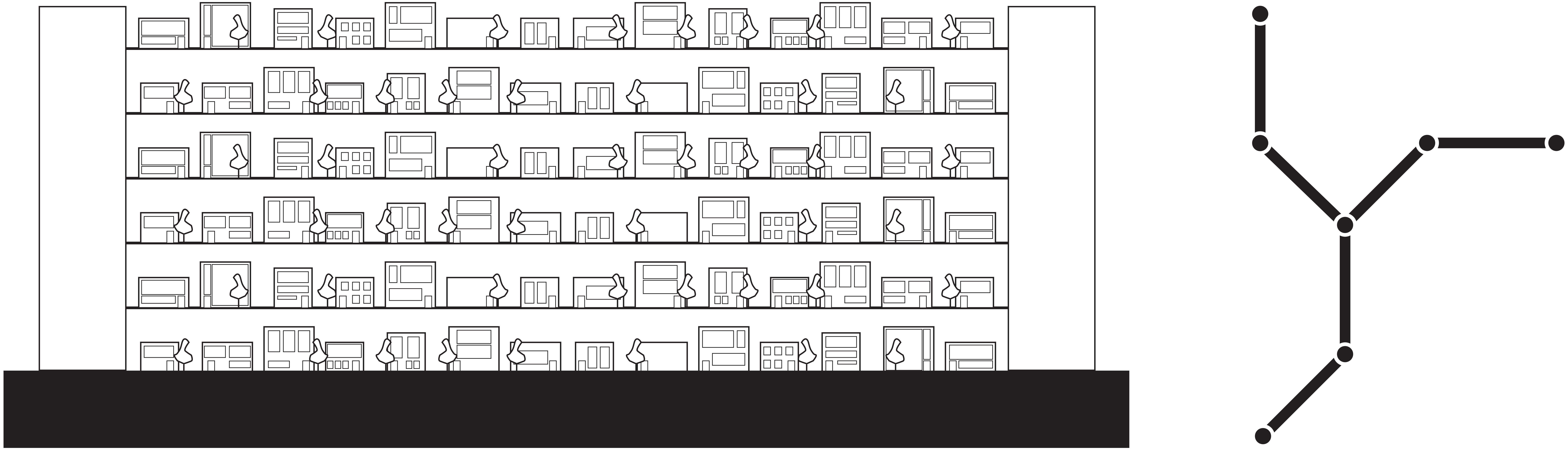
Flexibility

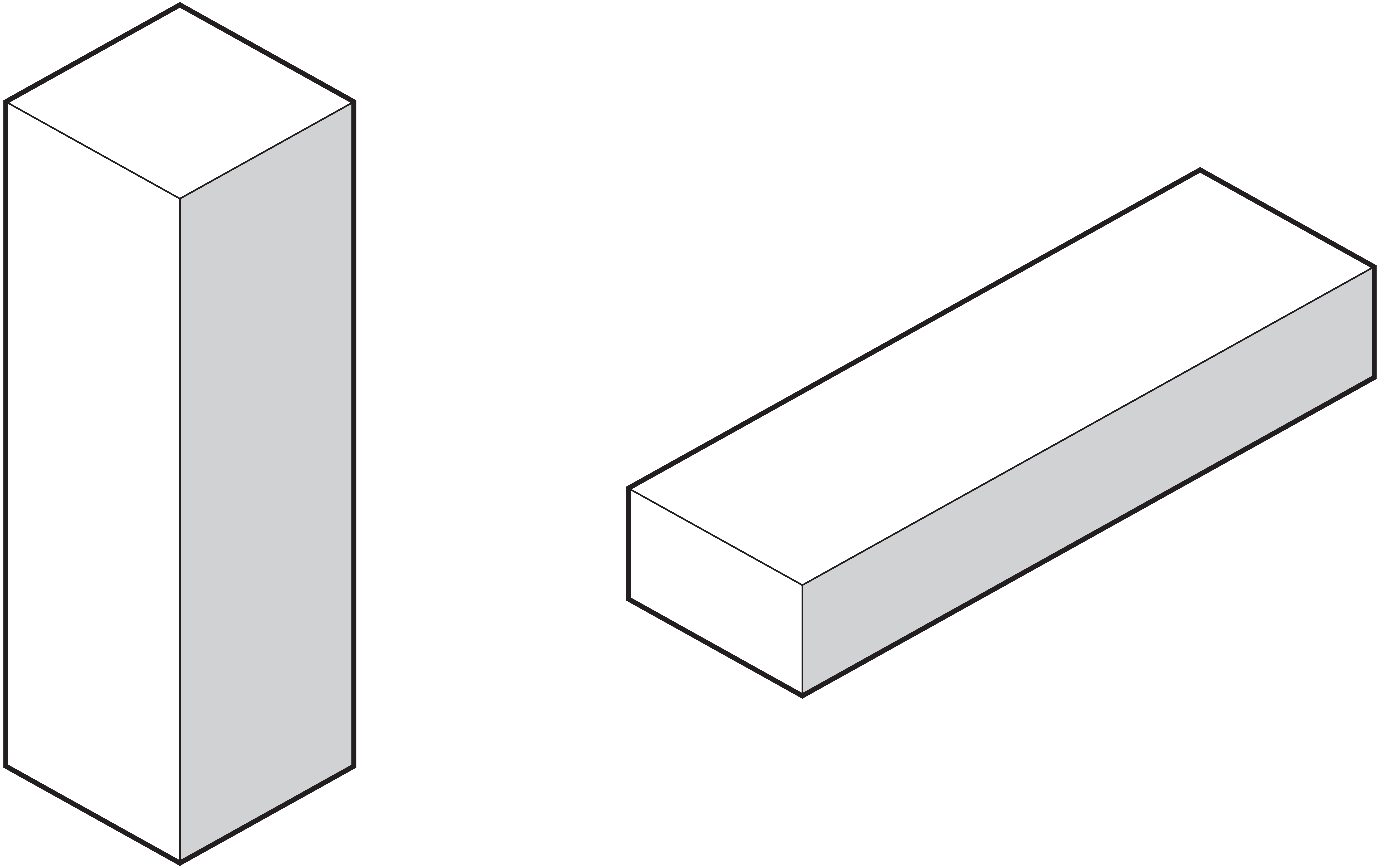
etc.

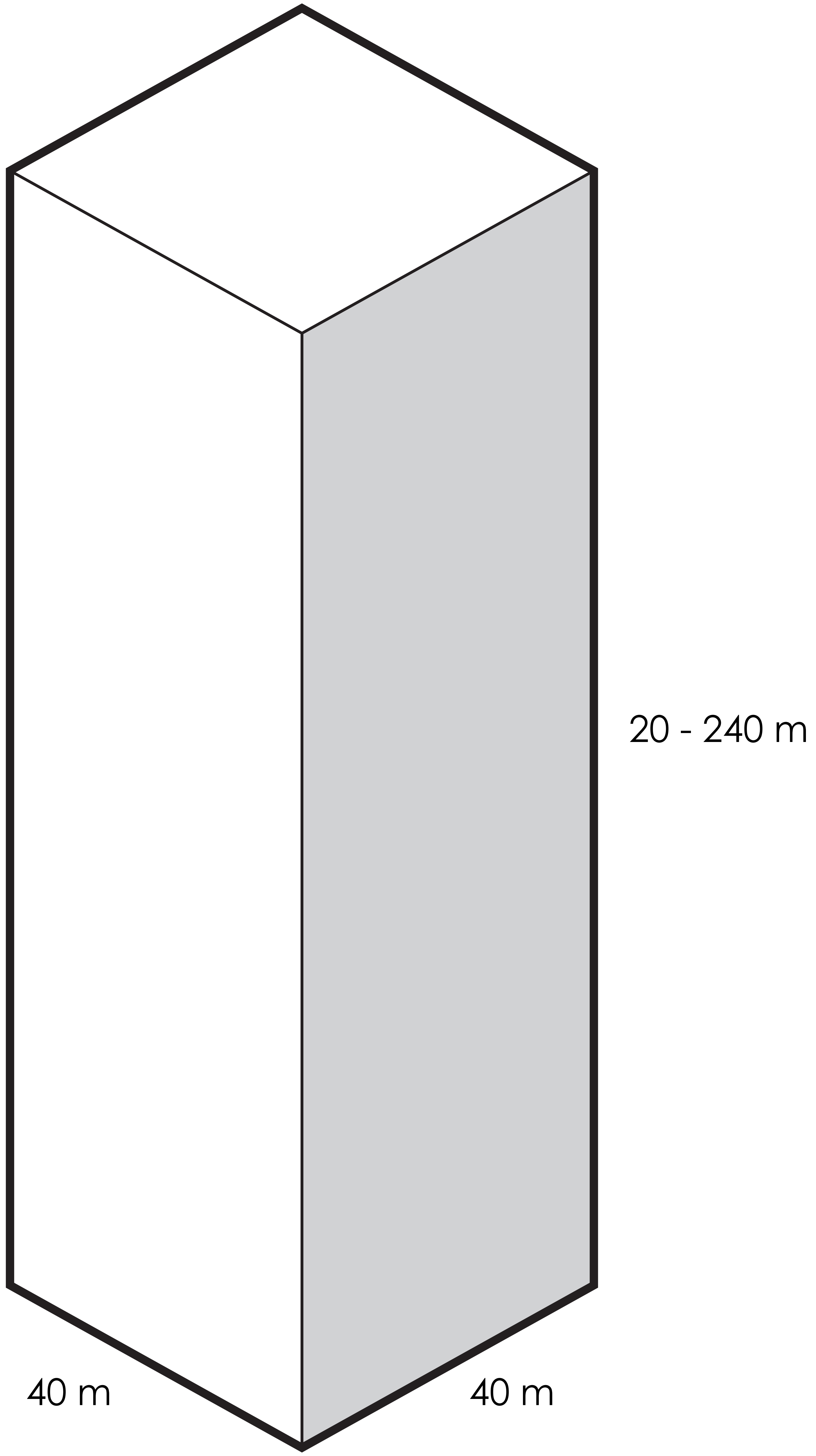
...

System Principles

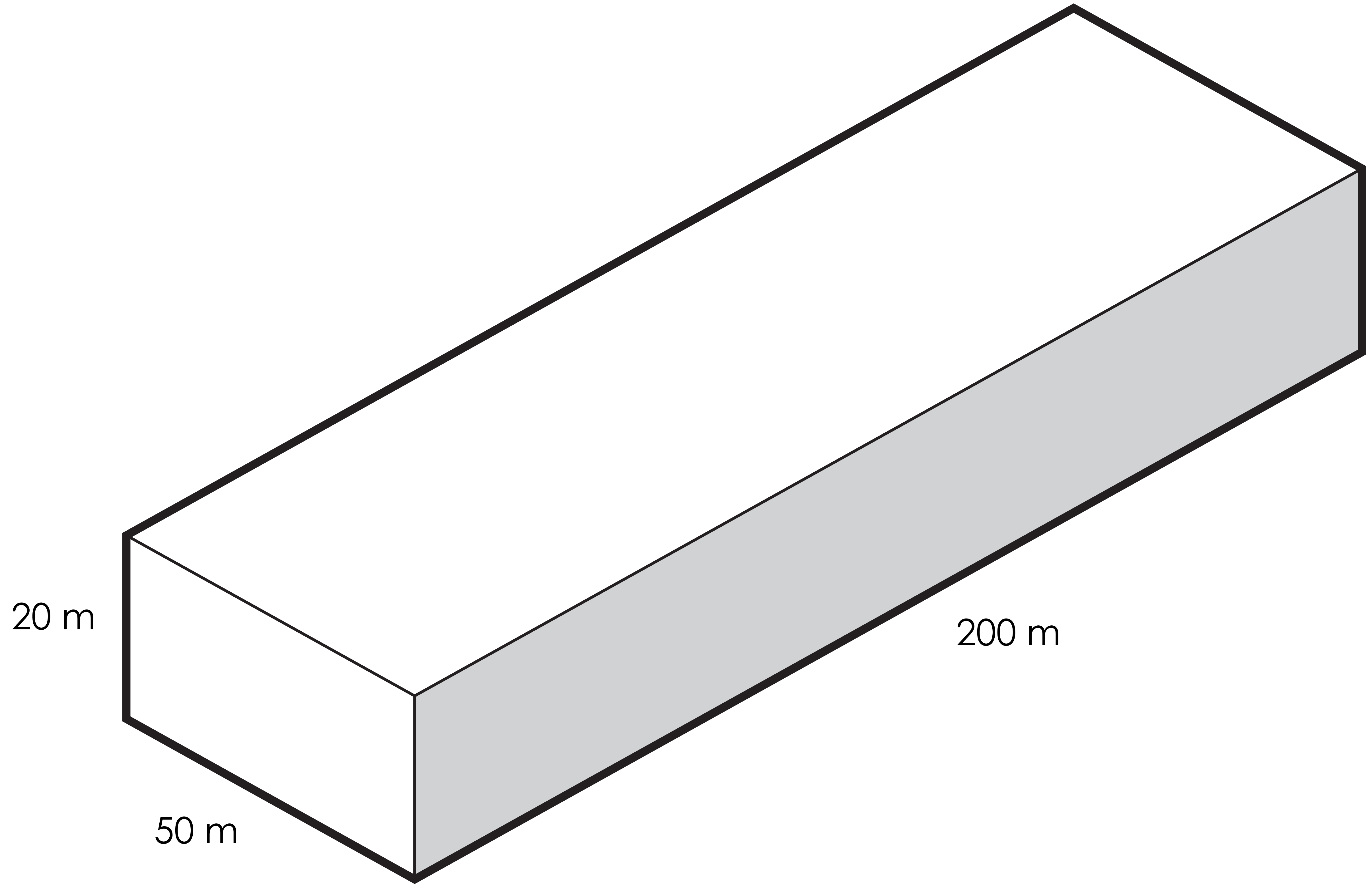

country fingers,
at least 1 mile wide
city fingers,
at most 1 mile wide

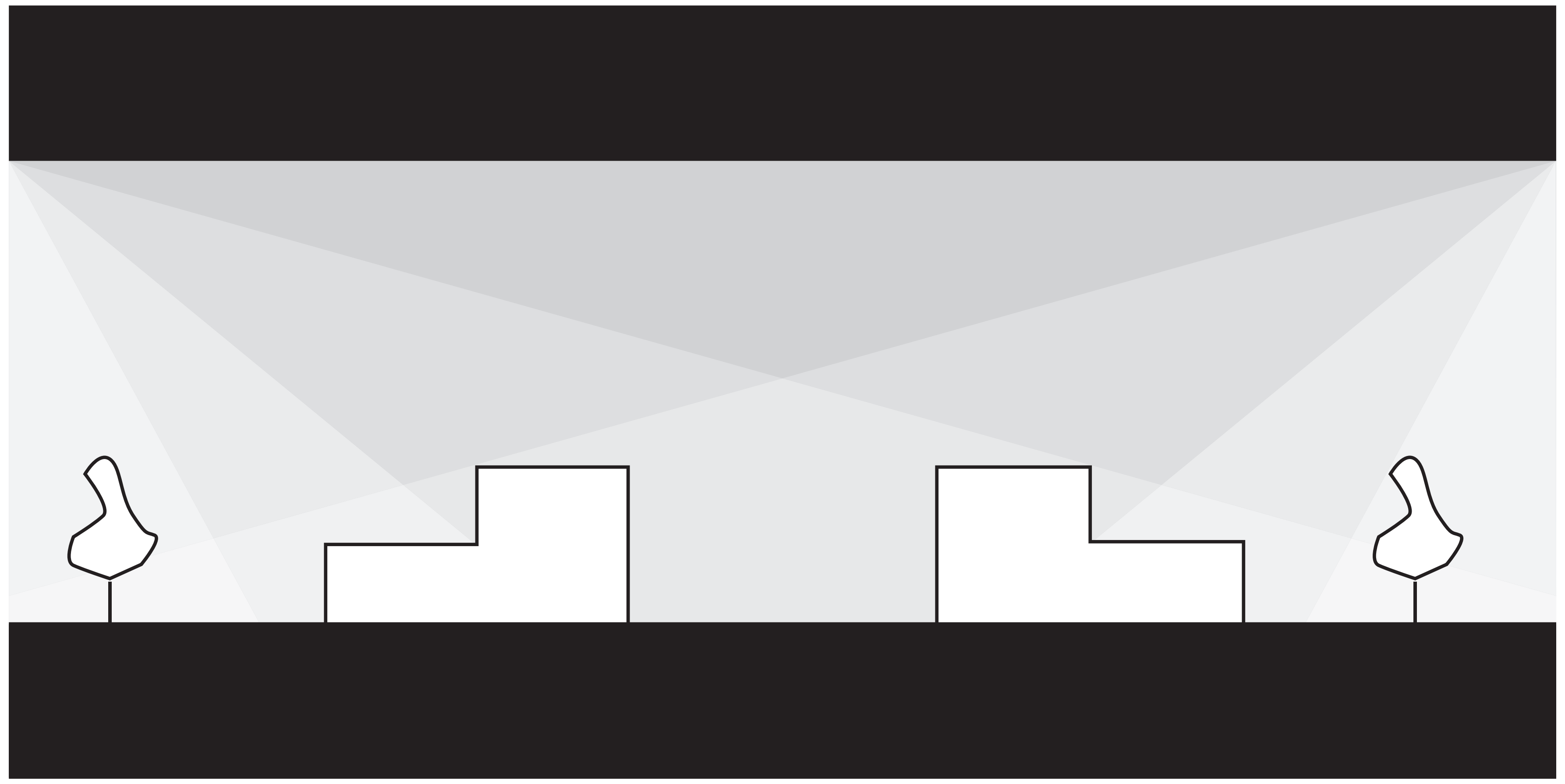


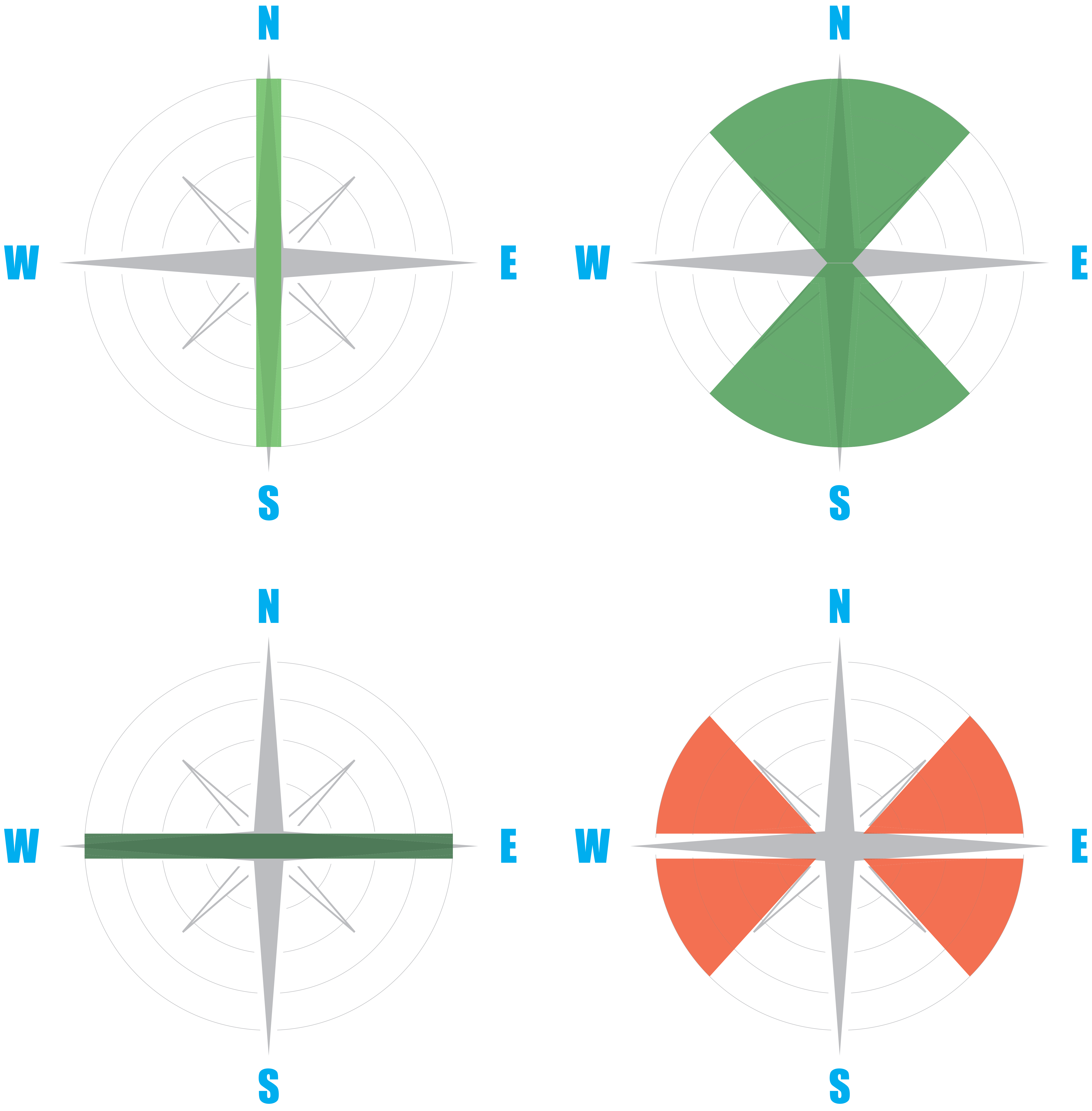




- Transportation
- Structure
- Sewage
- Water
- Electricity
- Heat
- Services
- Collective services allow design freedom in horizontal modules


20 m
200 m
50 m

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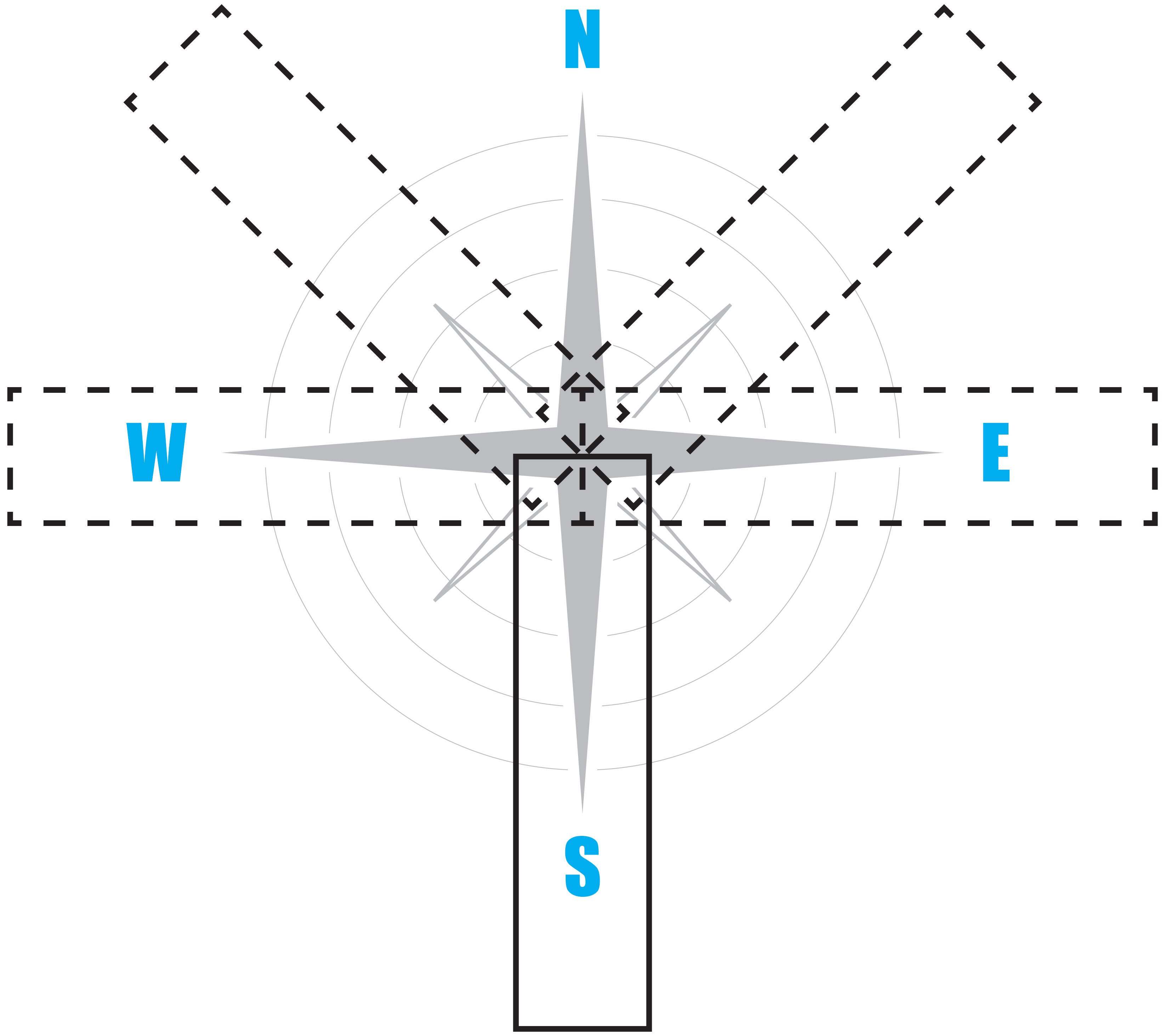
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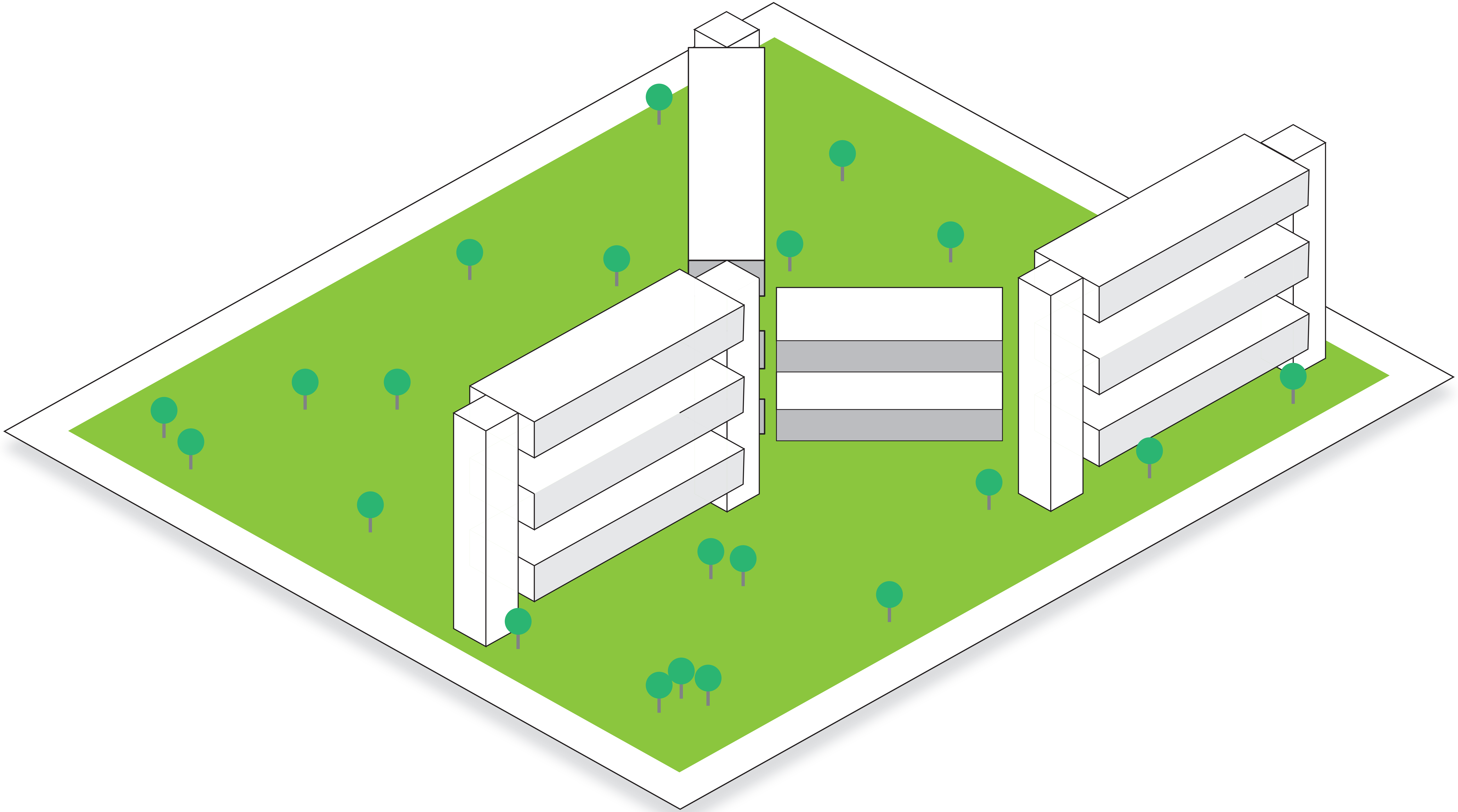

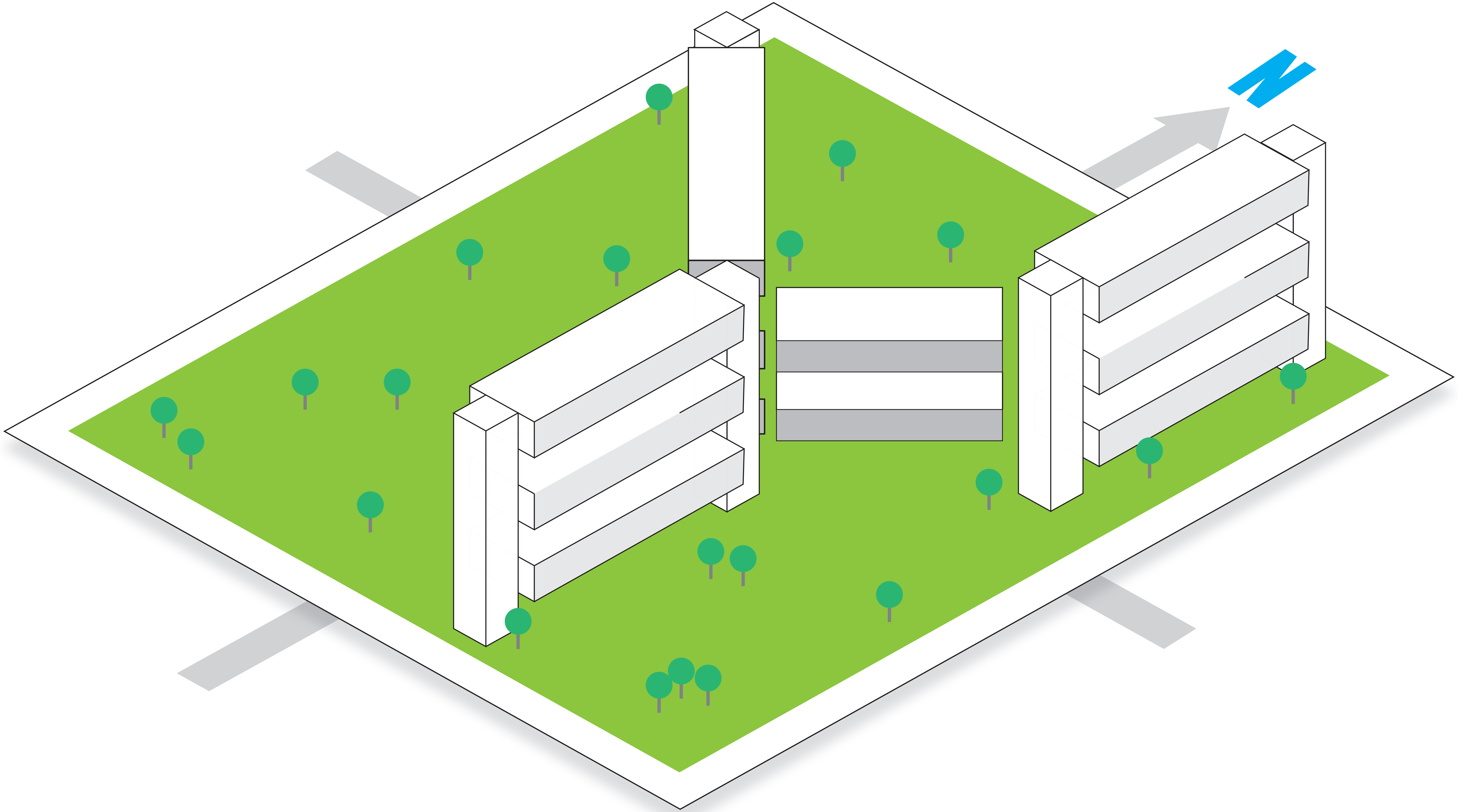
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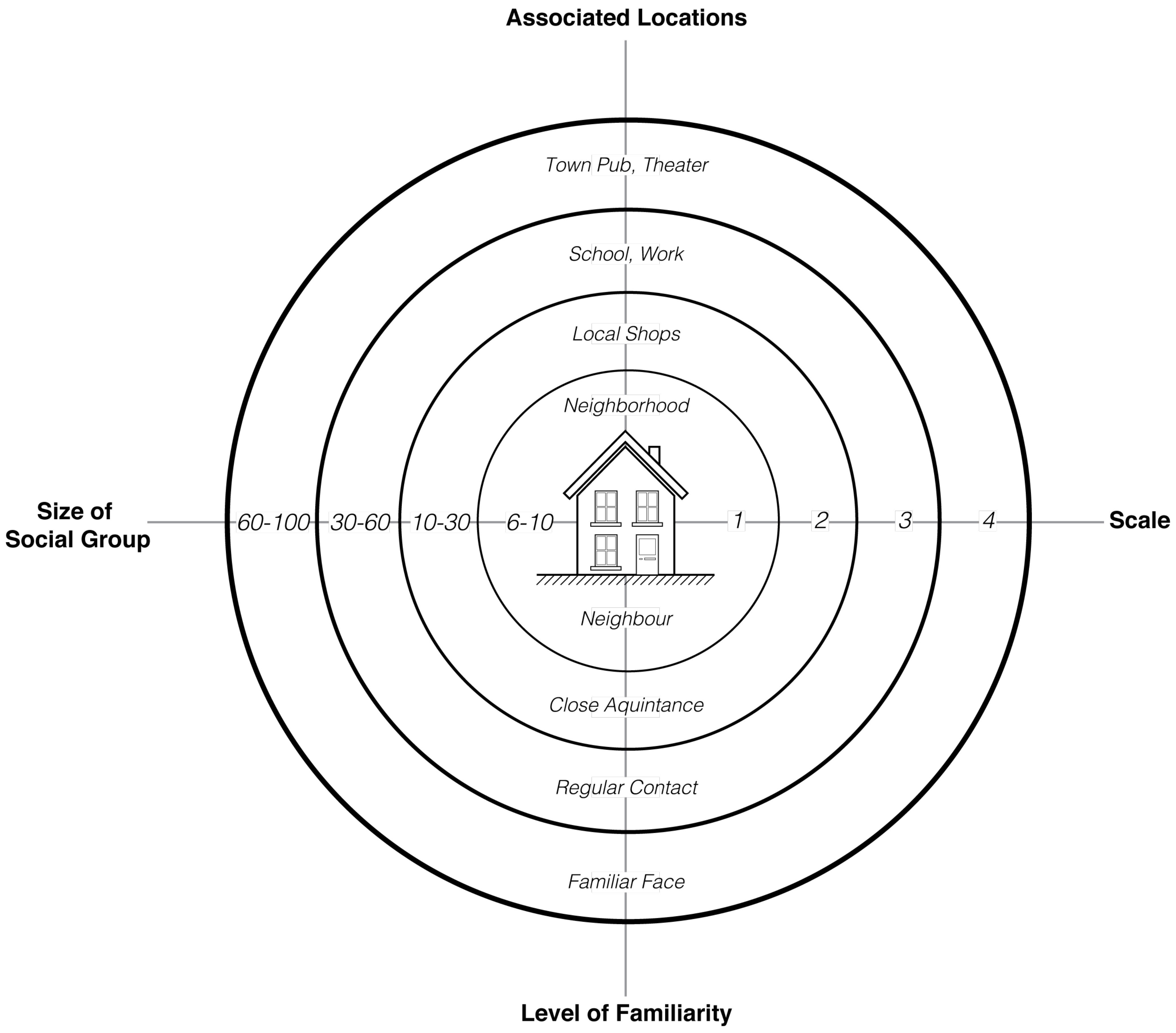

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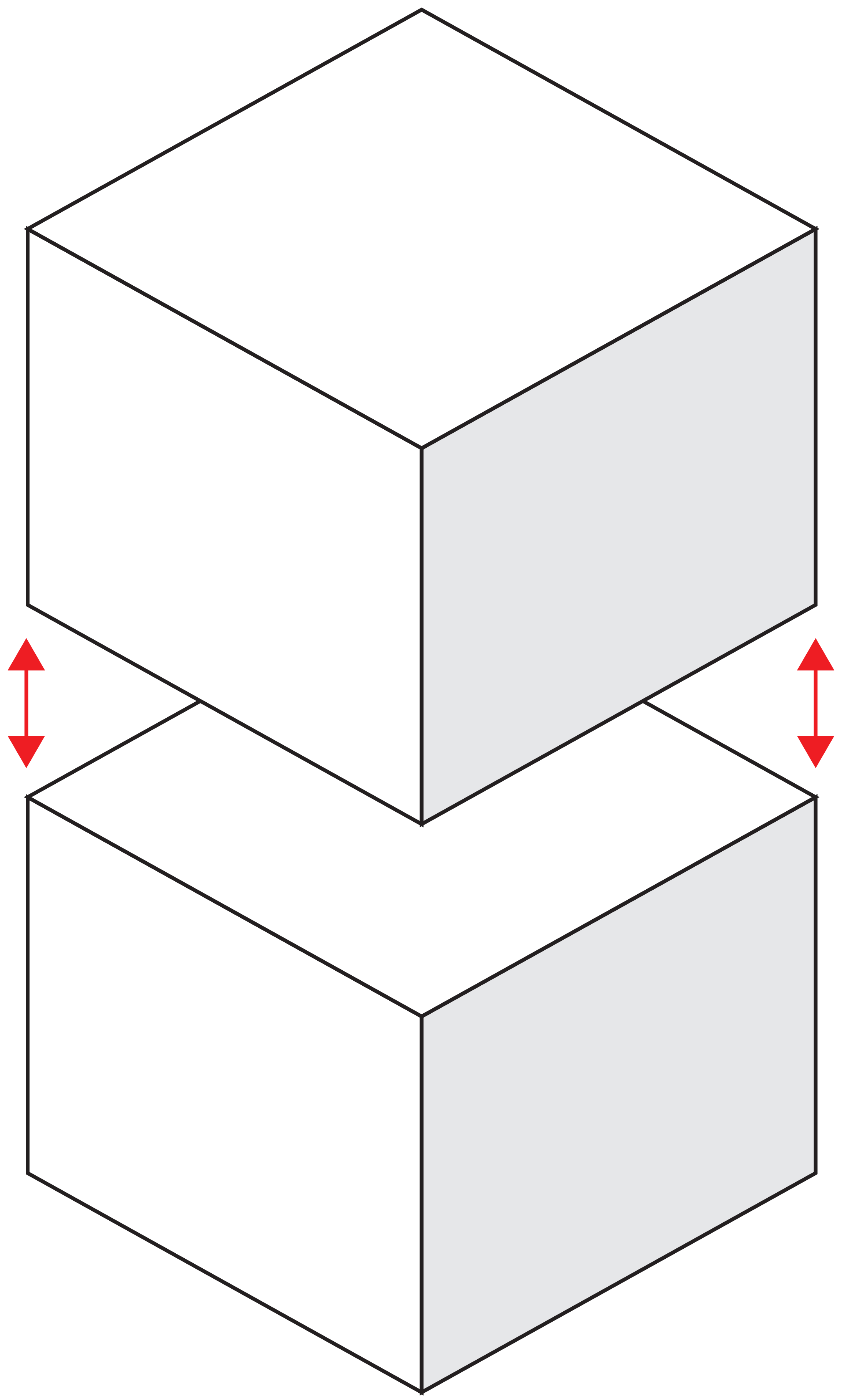
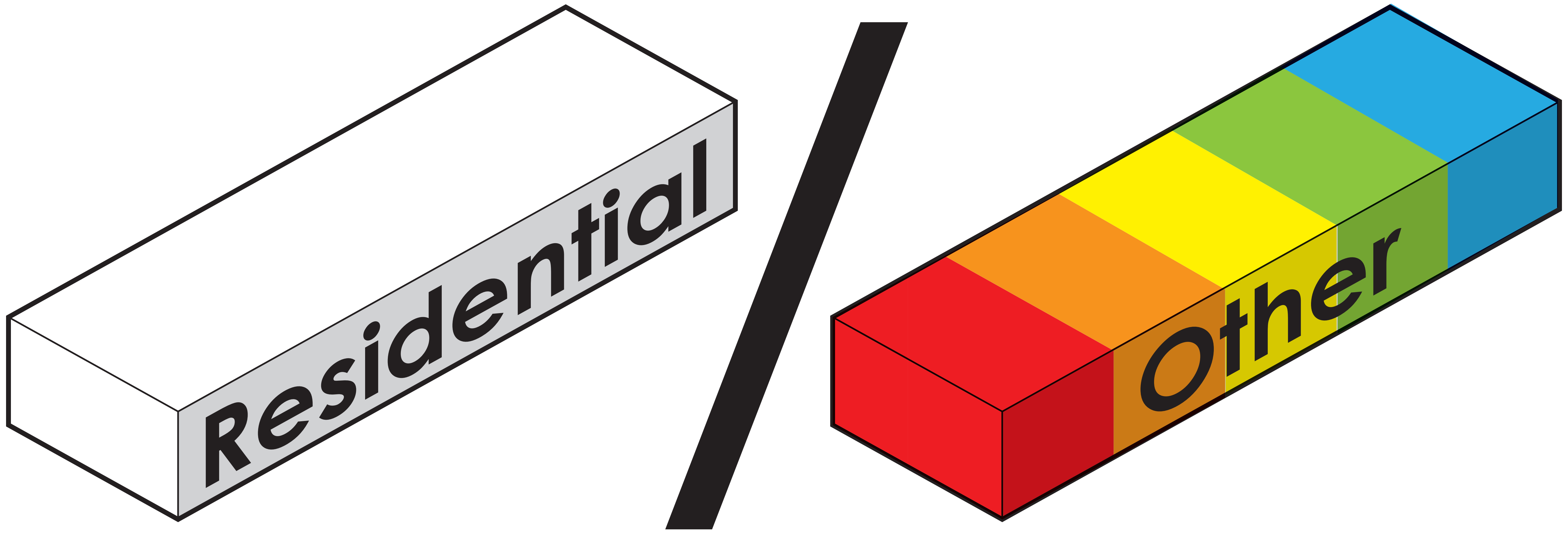
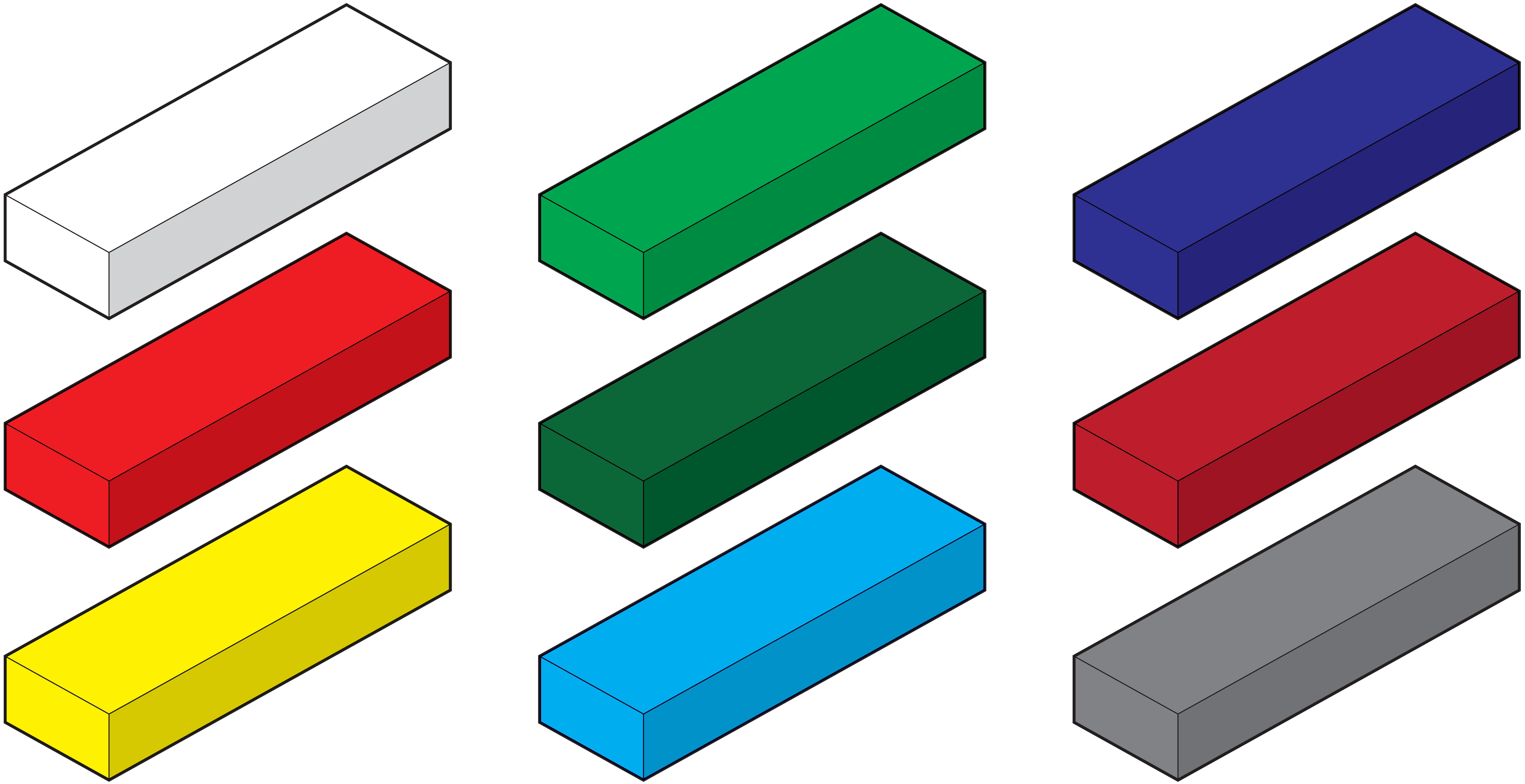
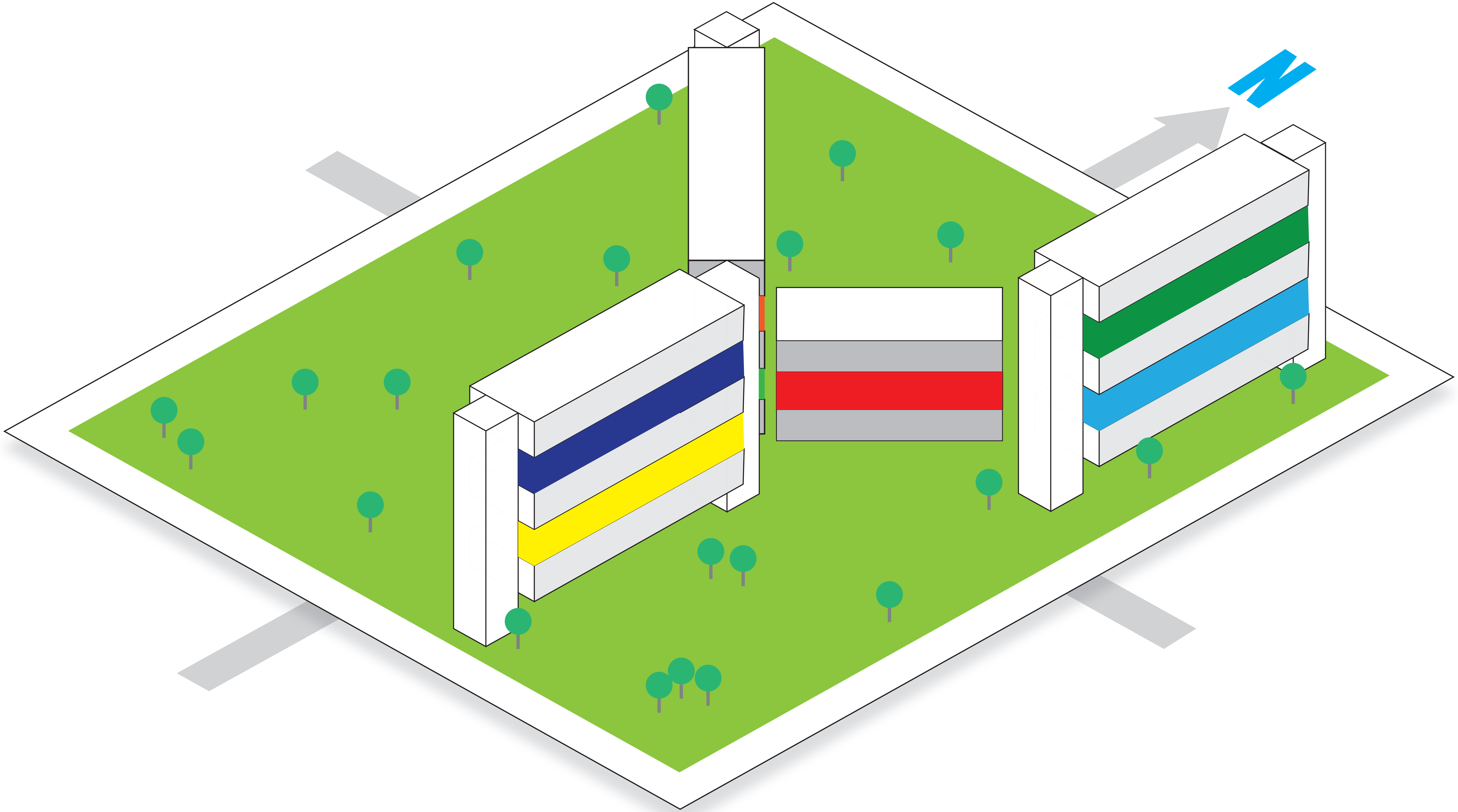



Residential
/
Other

$\approx {}^{50}/_{50}$

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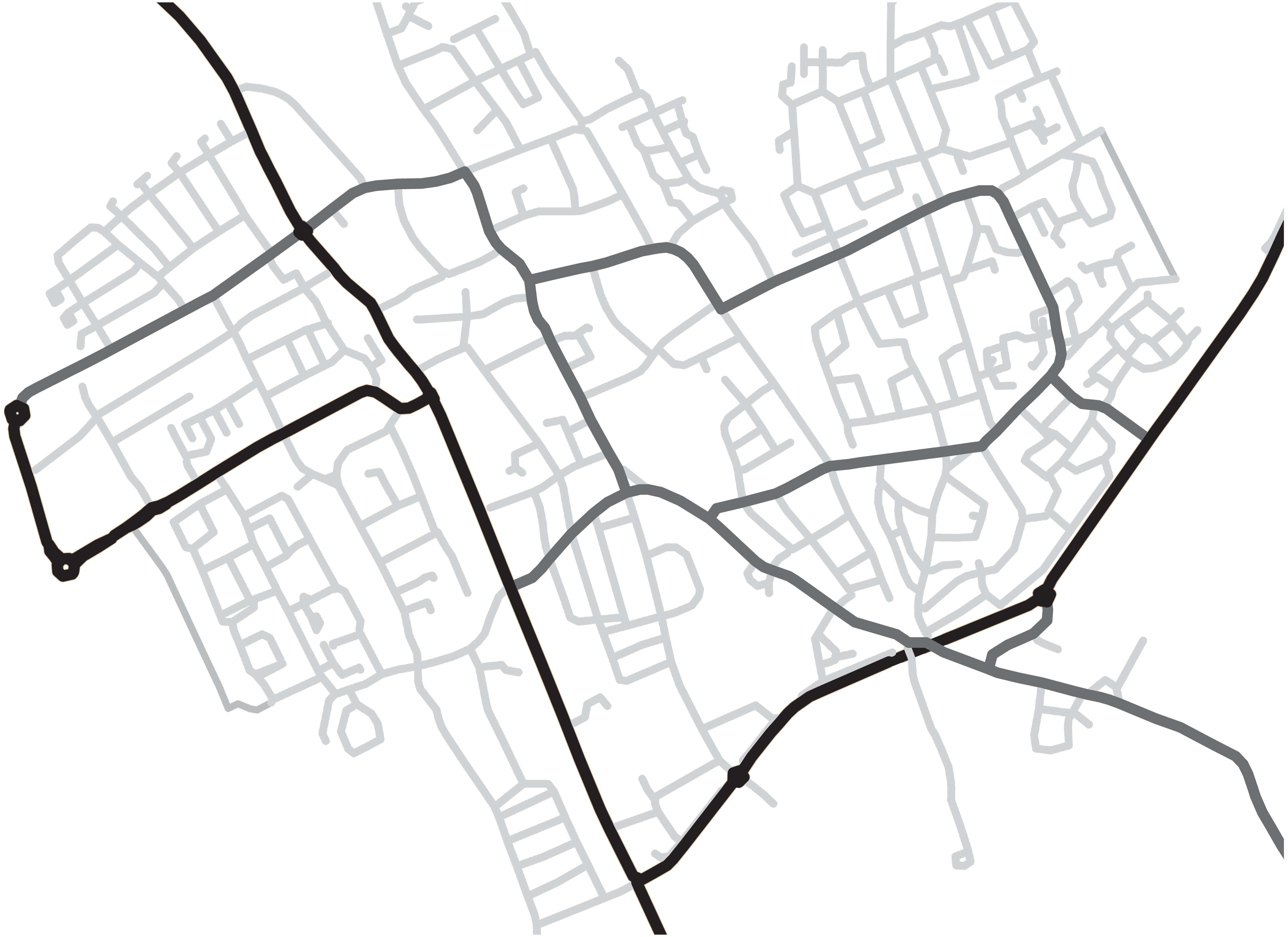
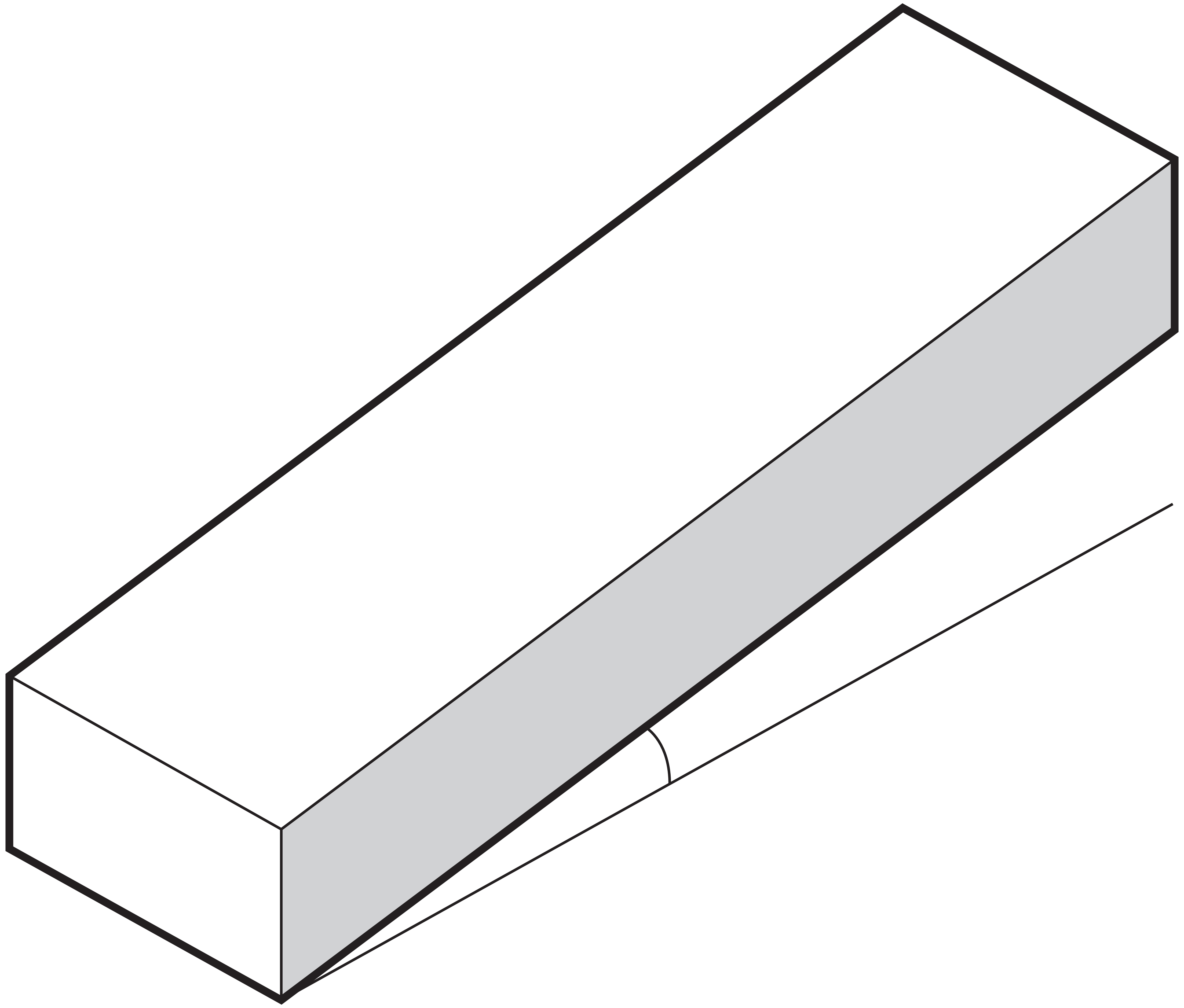
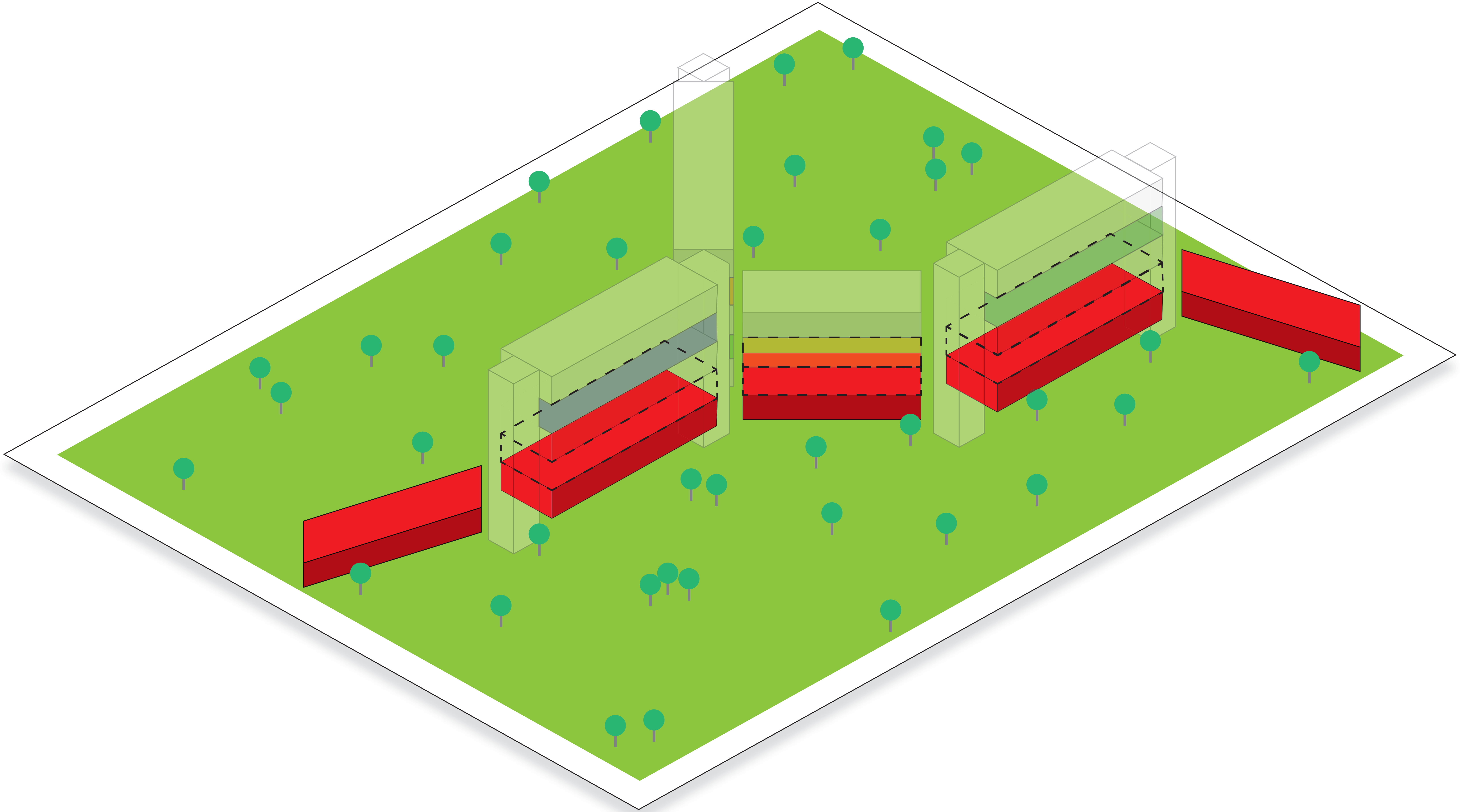
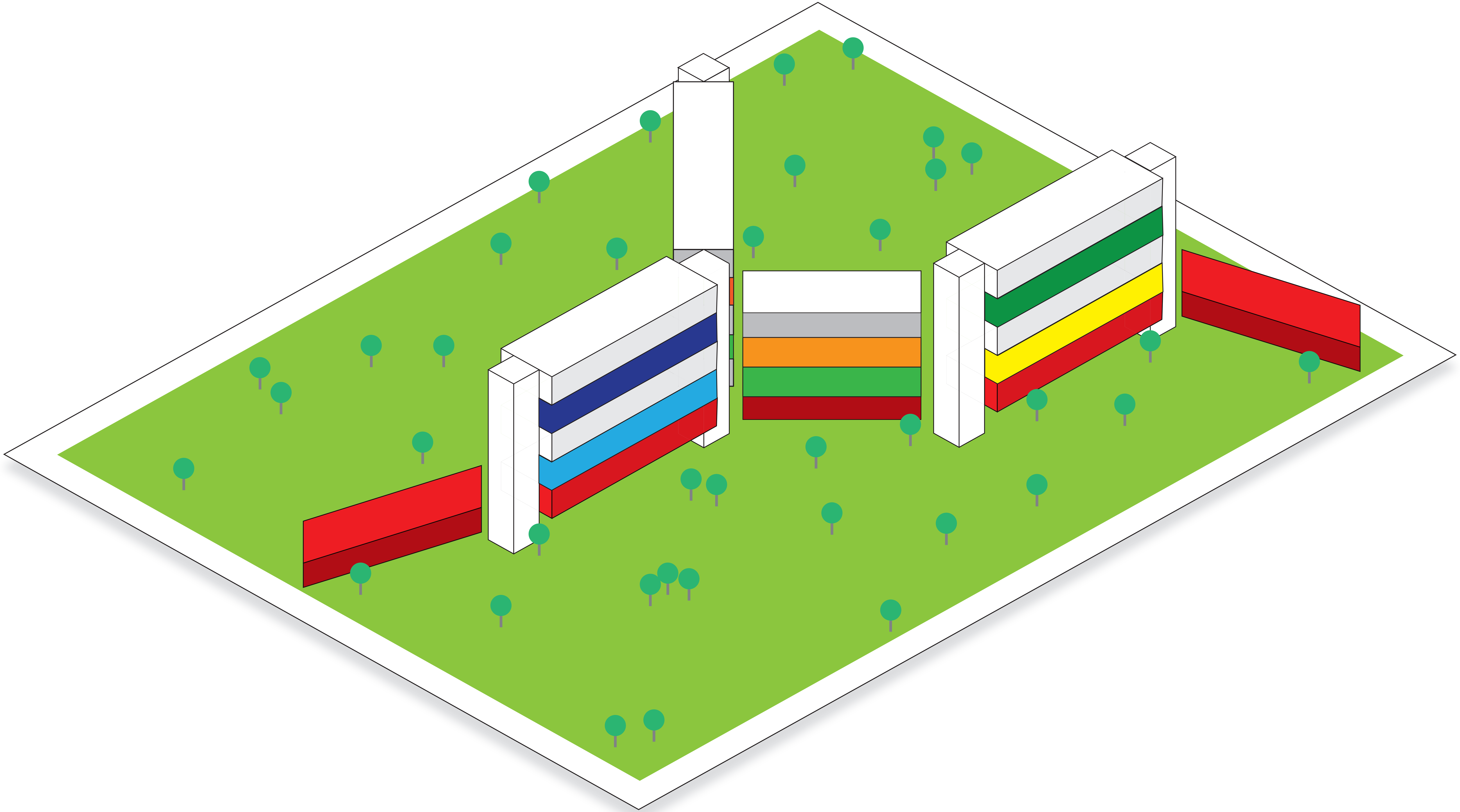
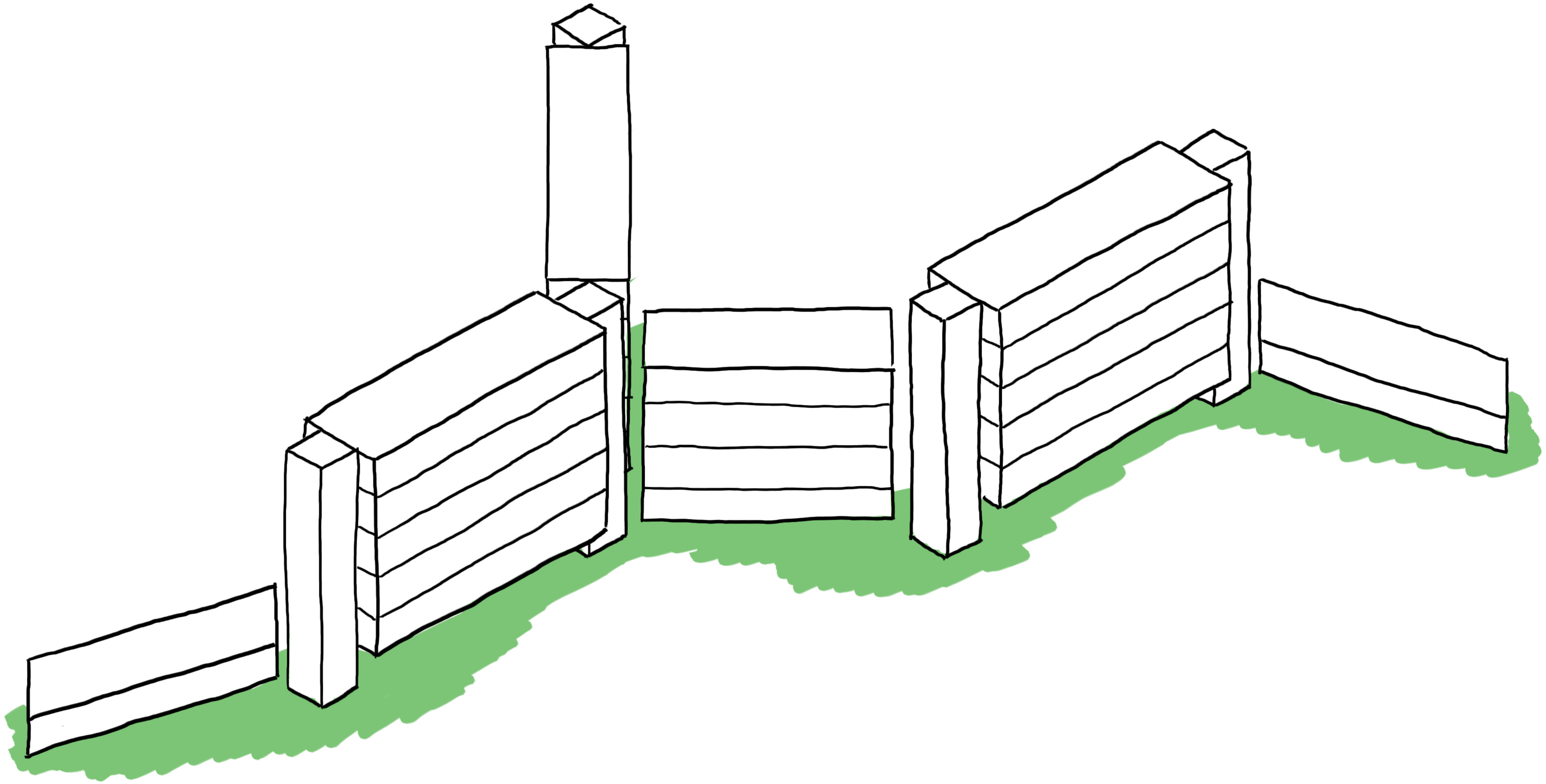
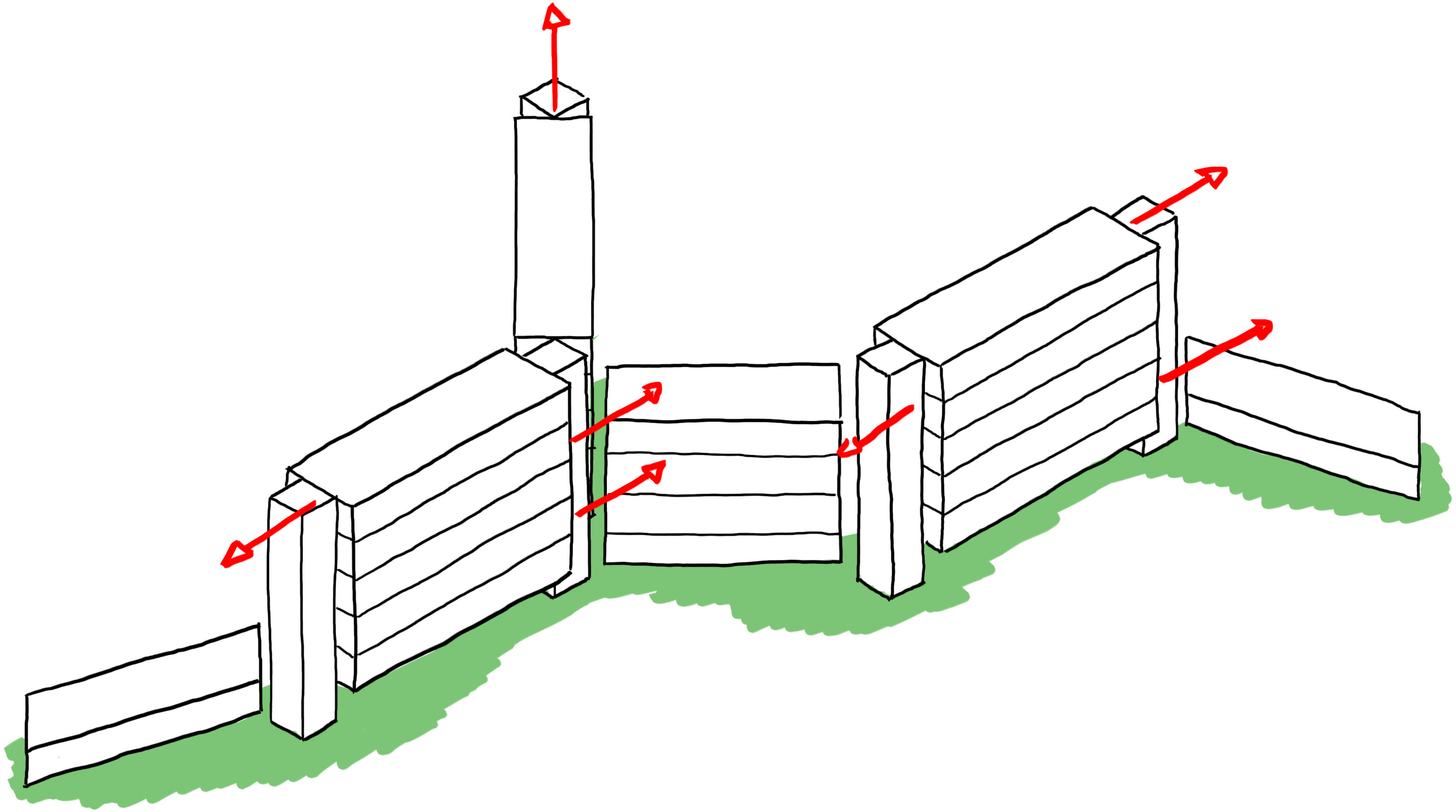


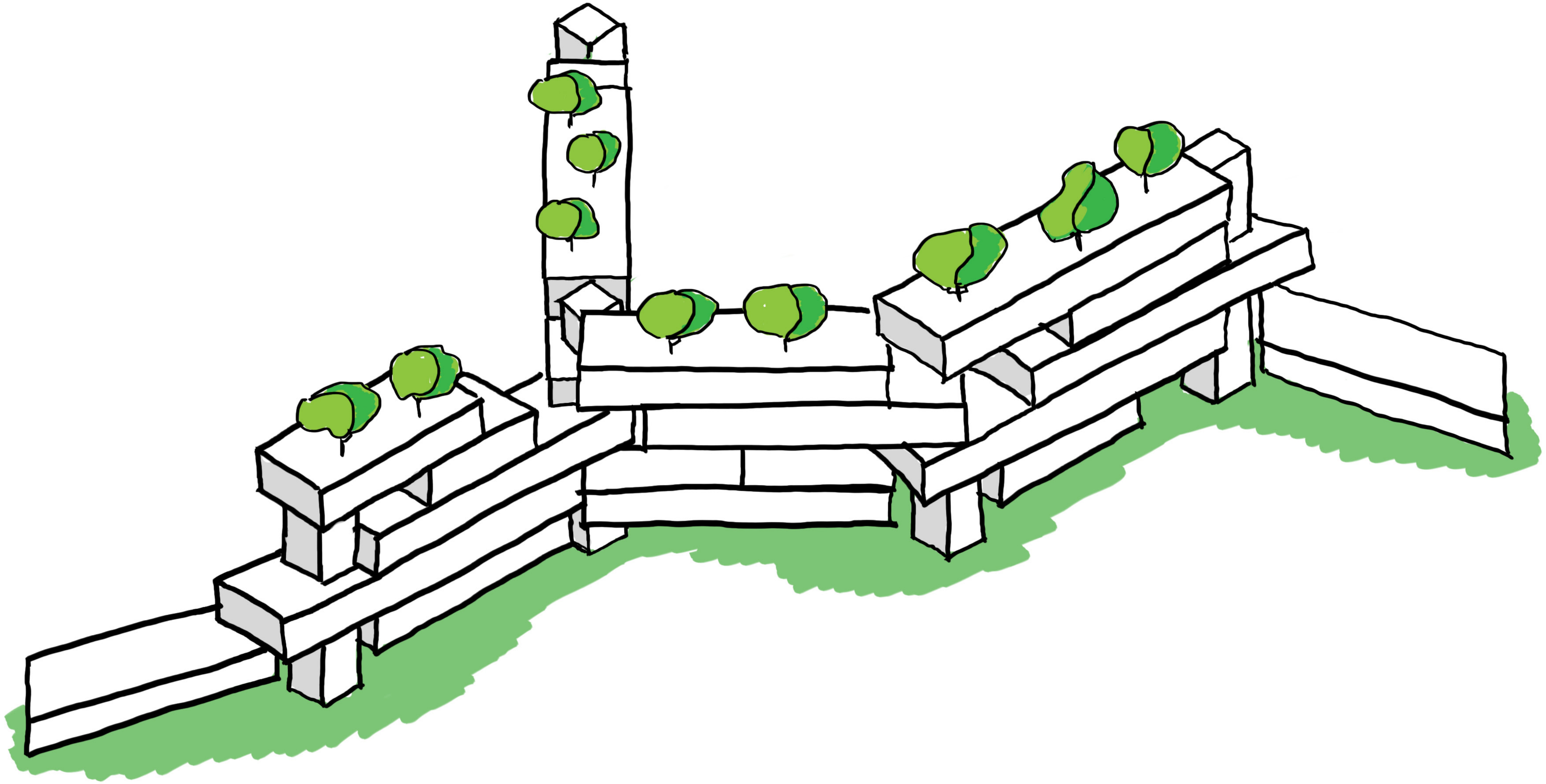










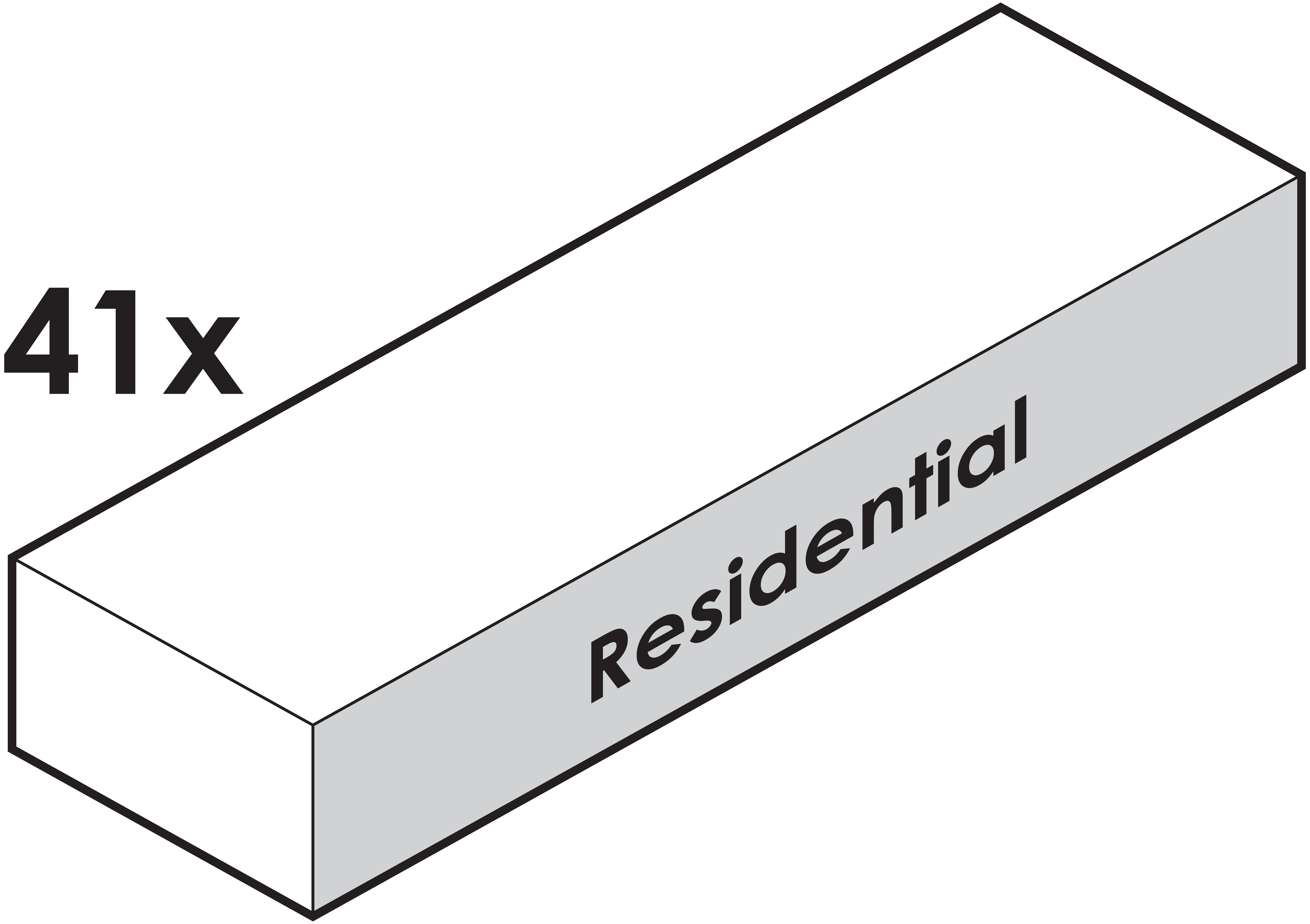


System Reflection

- Solar performance is based on residential needs, does not account for the diverse programme.
- Module length based on average street length, can be expanded to diversify the types of modules.
- More freedom in module orientation can be applied in the system.

Programme
Application (Urban Design)
Design
Structure
Climate
Sustainability
Quality

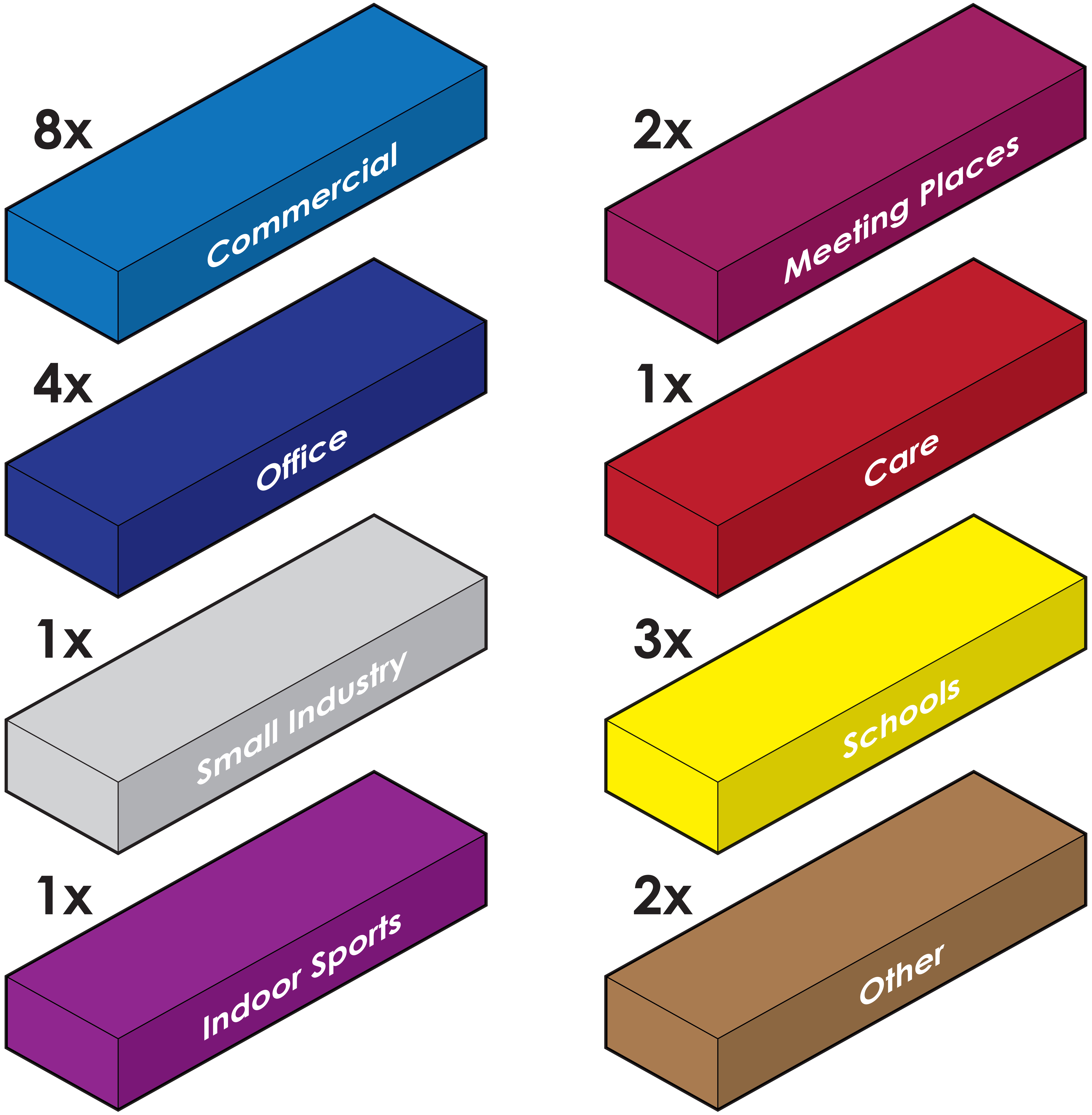
PROGRAMME

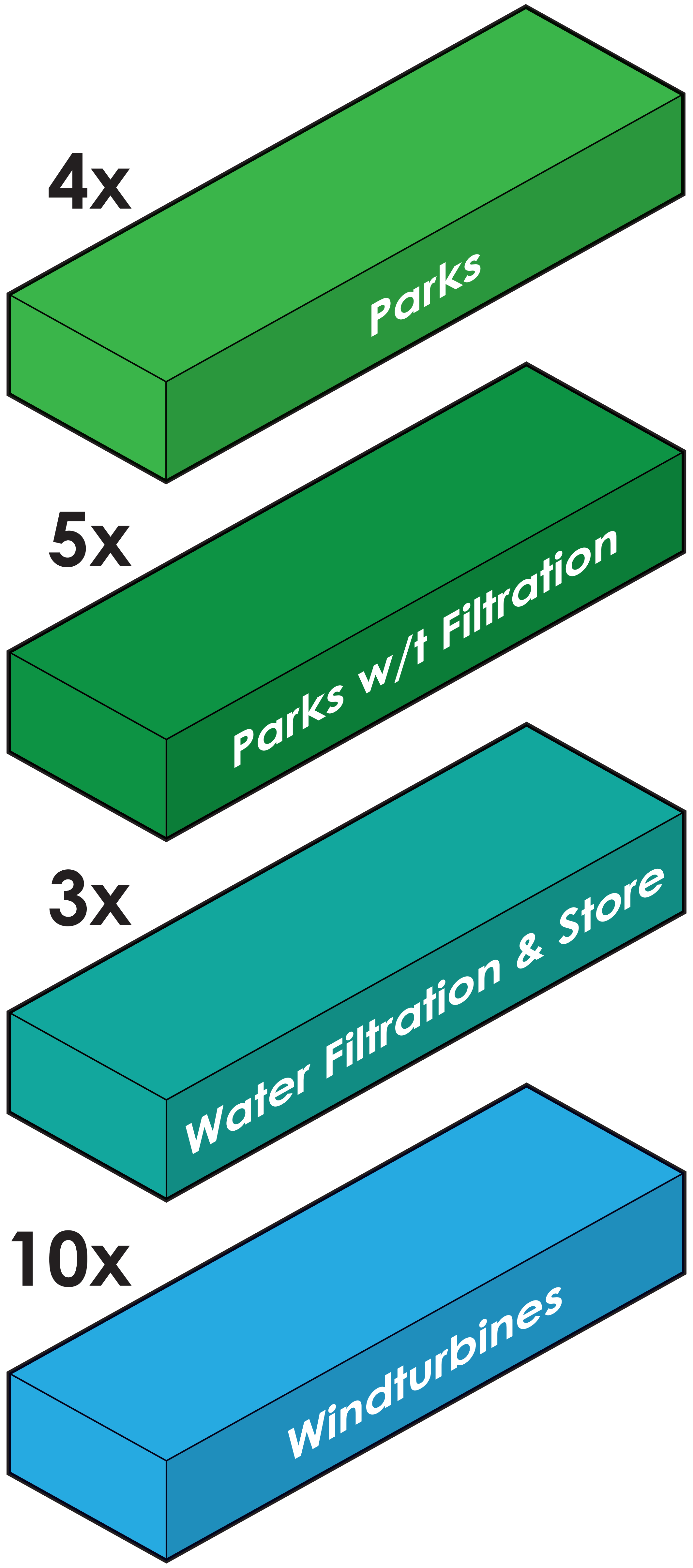


41x

Residential

19,000 Residents


8x
Commercial
2x
Meeting Places
4x
Office
1x
Care
1x
Small Industry
3x
Schools
1x
Indoor Sports
2x
Other

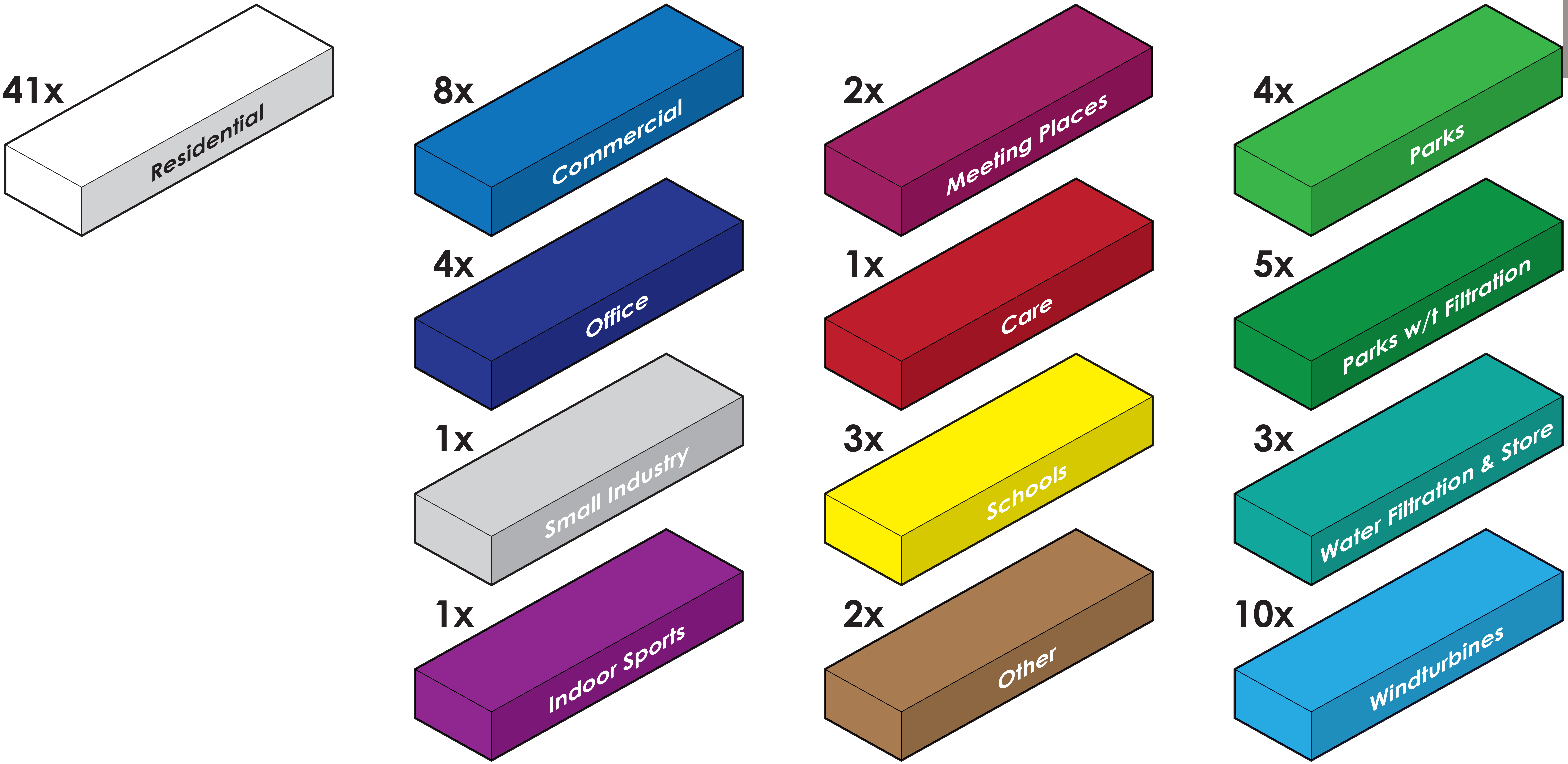


4x Parks

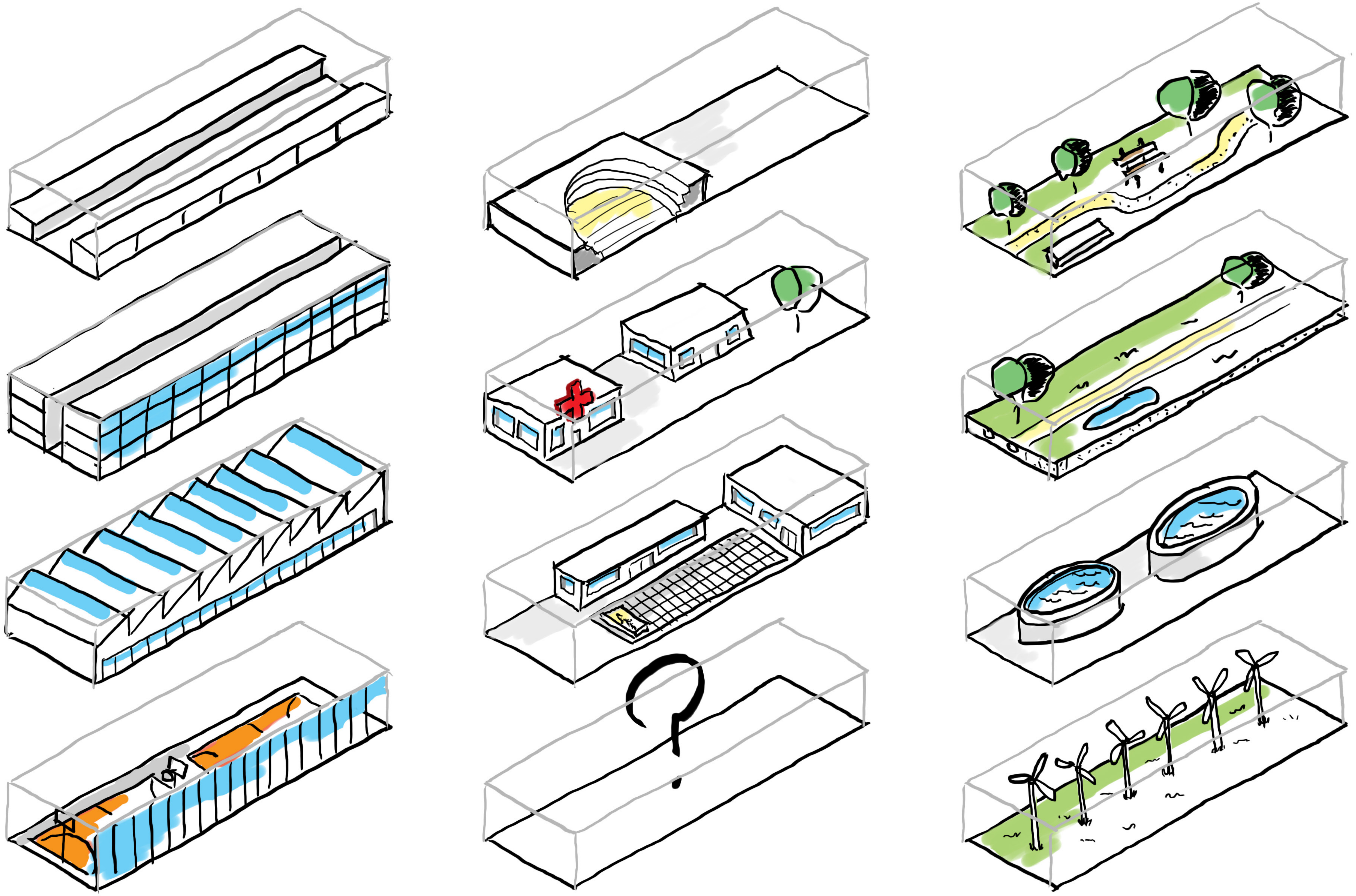
5x Parks w/t Filtration

3x Water Filtration & Store

10x Windturbines



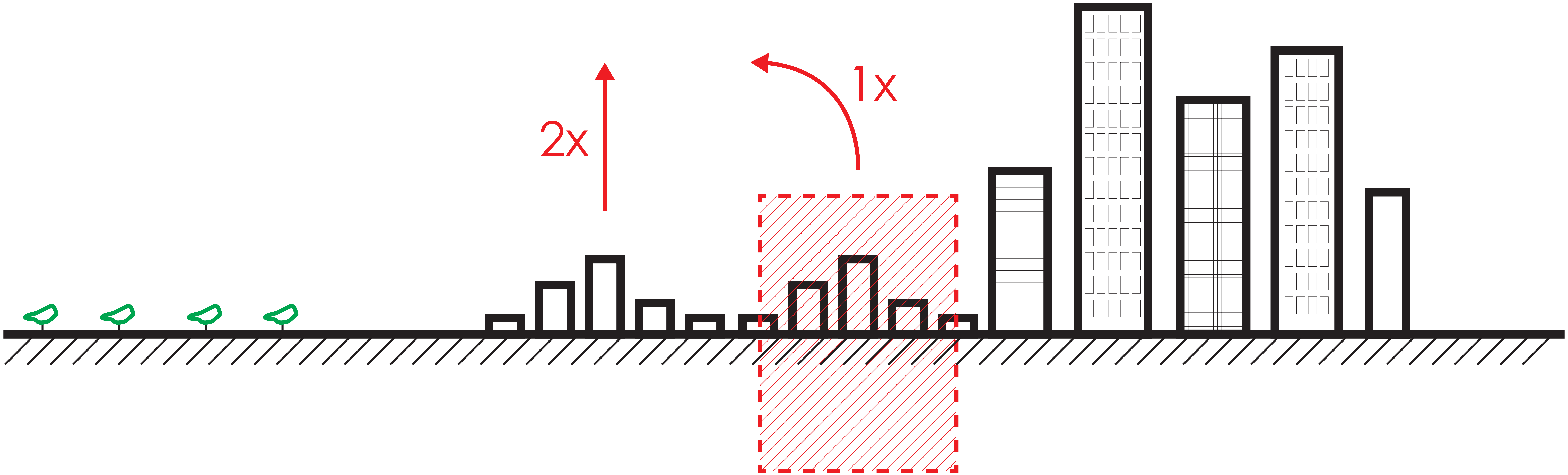
41x
Residential
8x
Commercial
4x
Office
1x
Small Industry
1x
Indoor Sports
2x
Meeting Places
1x
Care
3x
Schools
2x
Other
4x
Parks
5x
Parks w/t Filtration
3x
Water Filtration & Store
10x
Windturbines

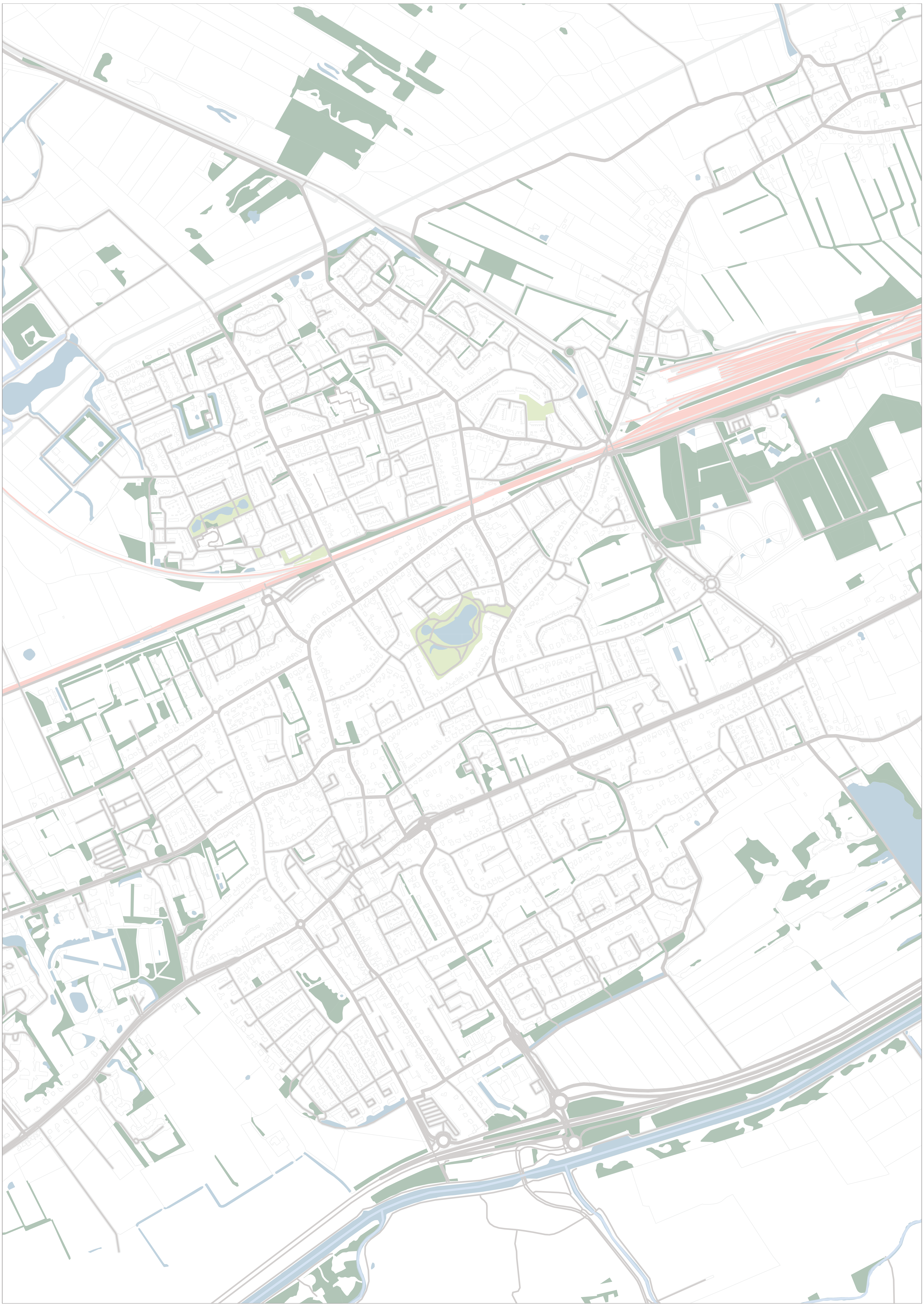


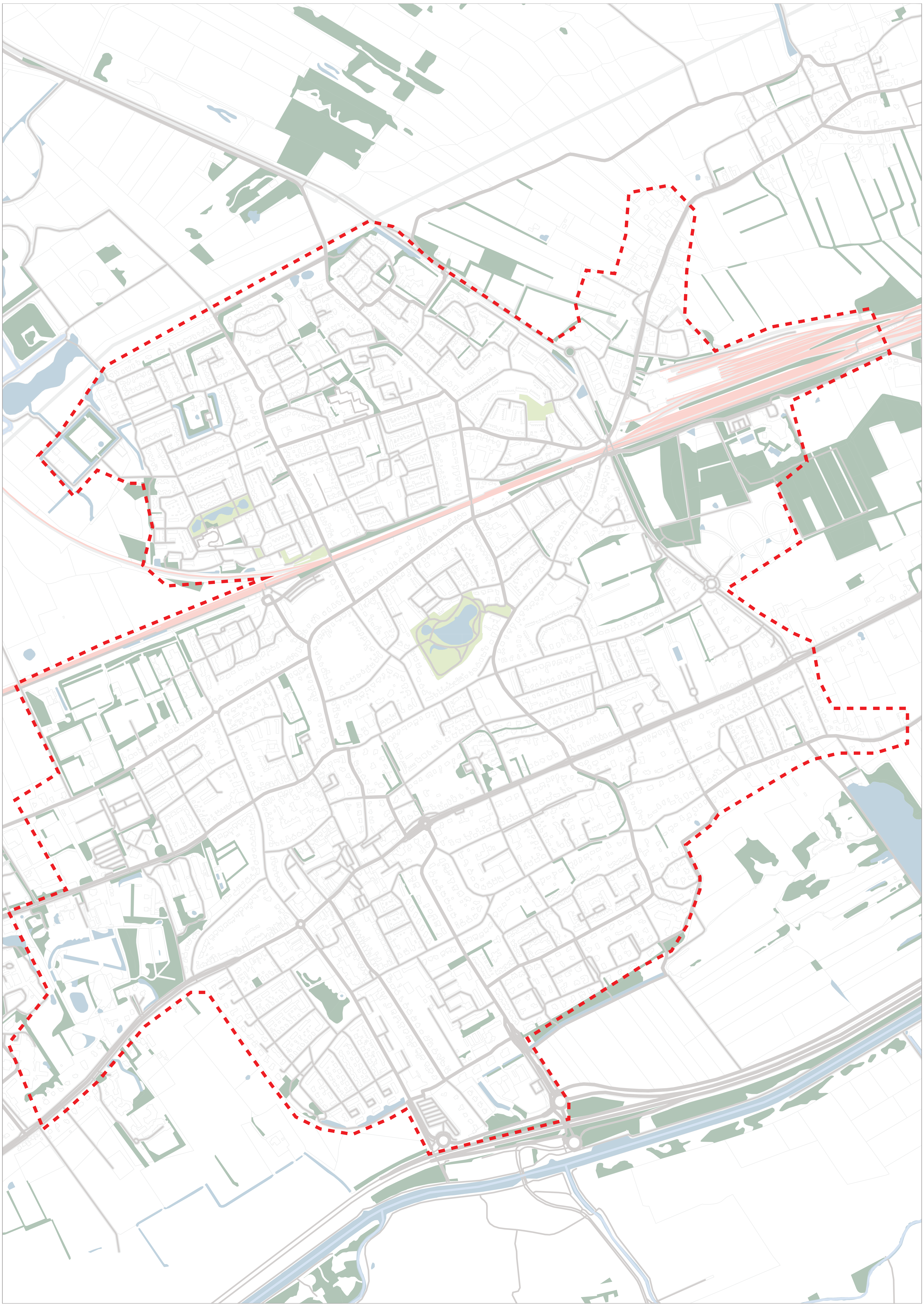
APPLICATION

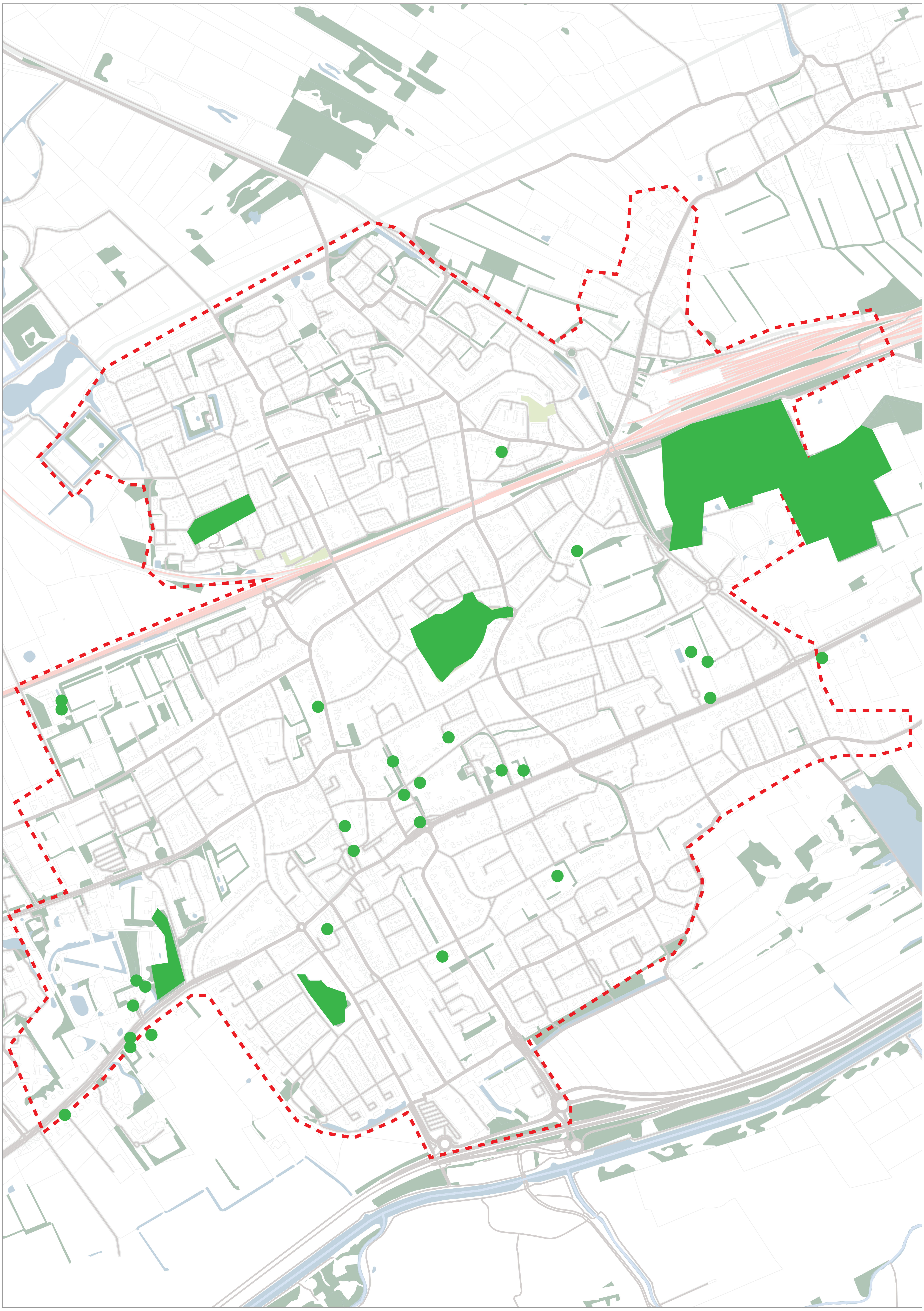
3X HAREN

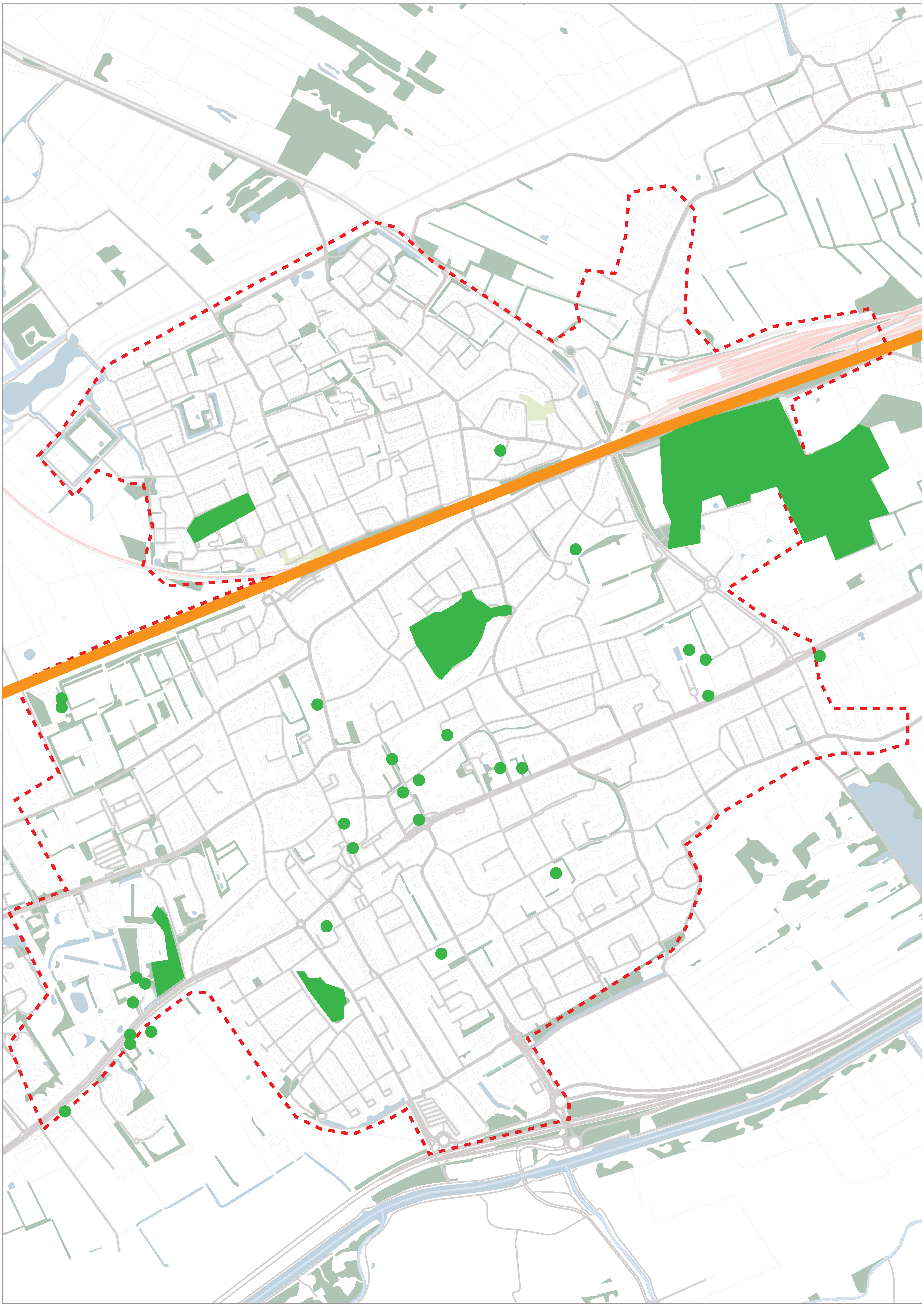
From 19,000 Residents to 57,000 Residents

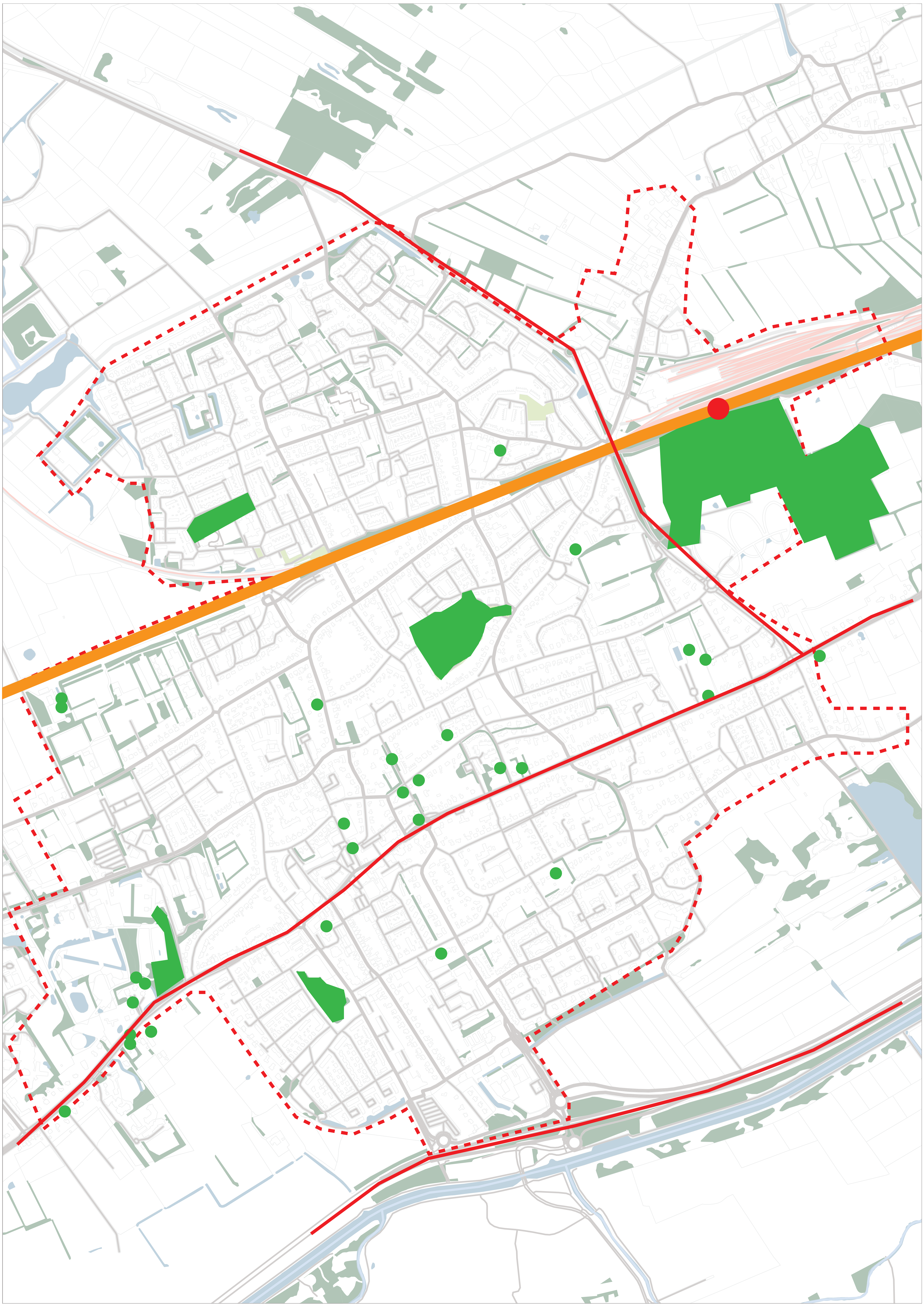

2x
1x

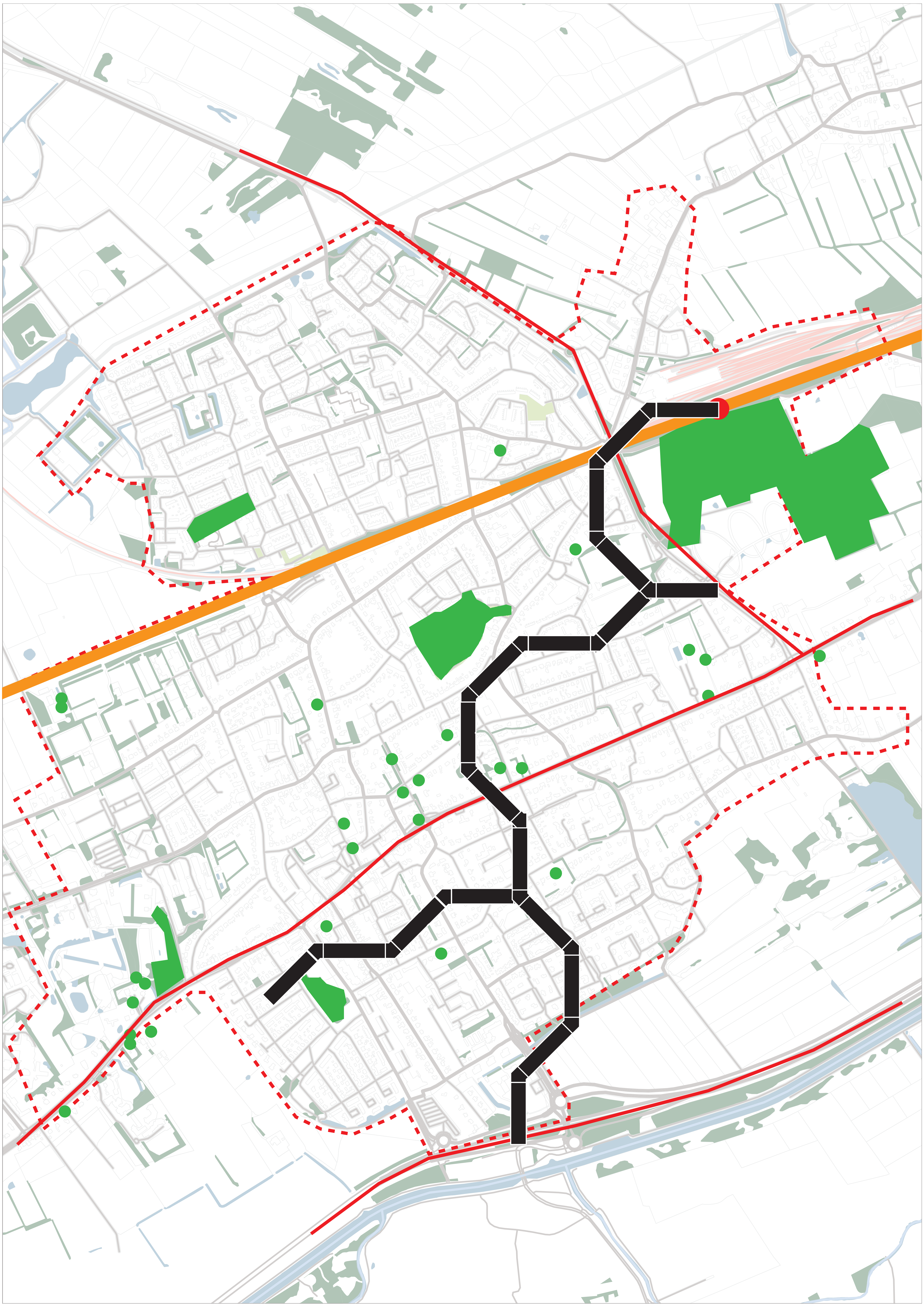


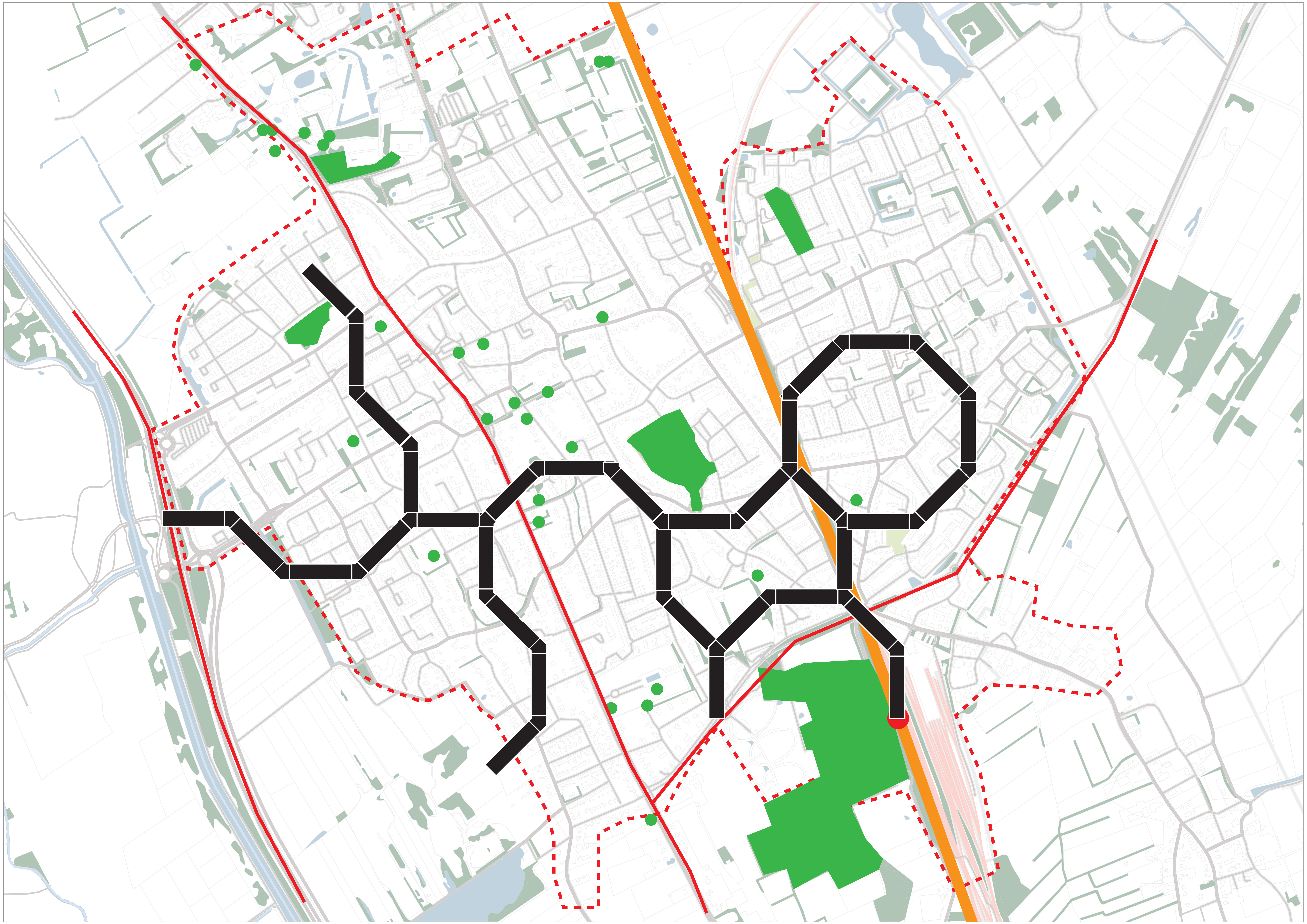


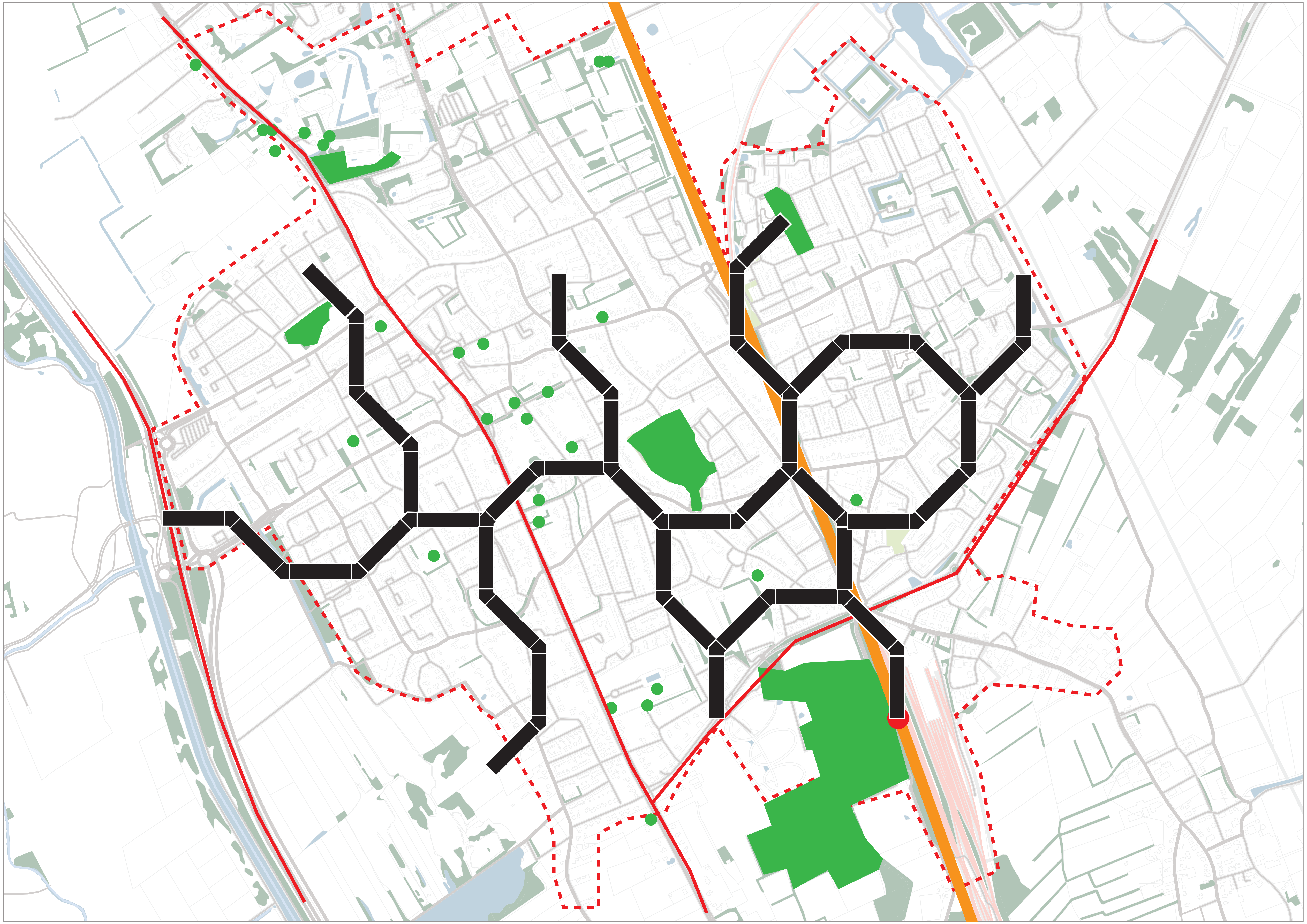


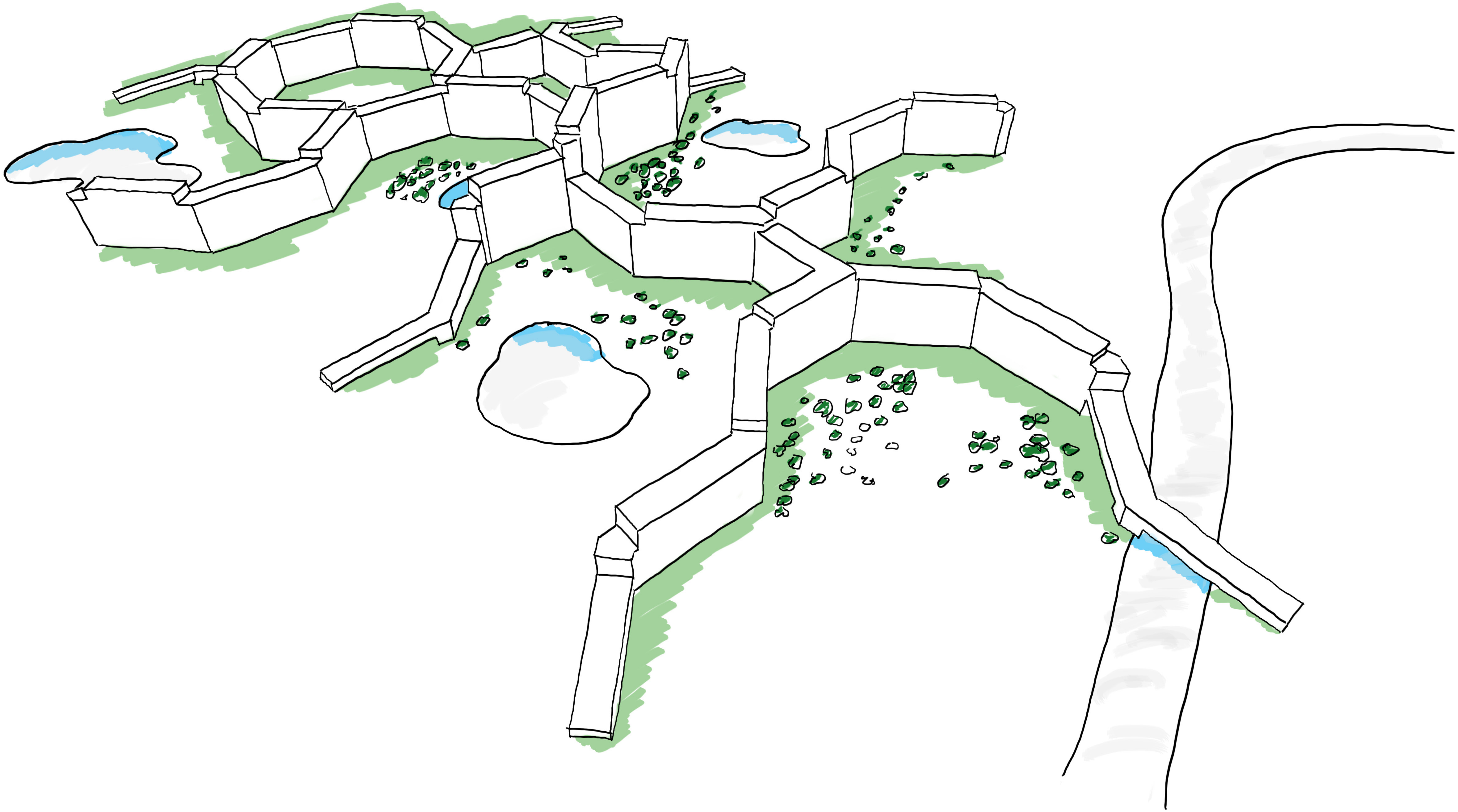


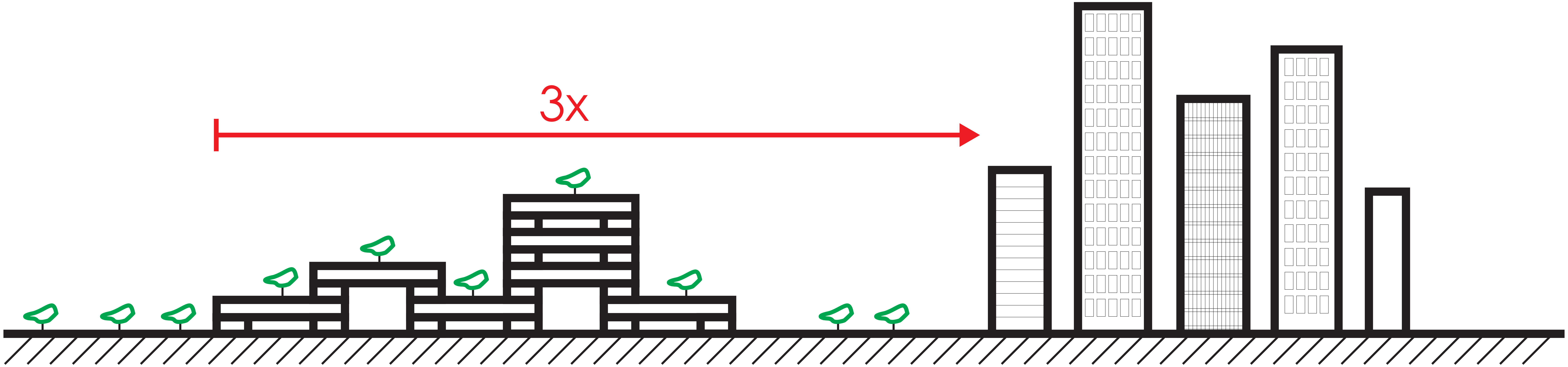


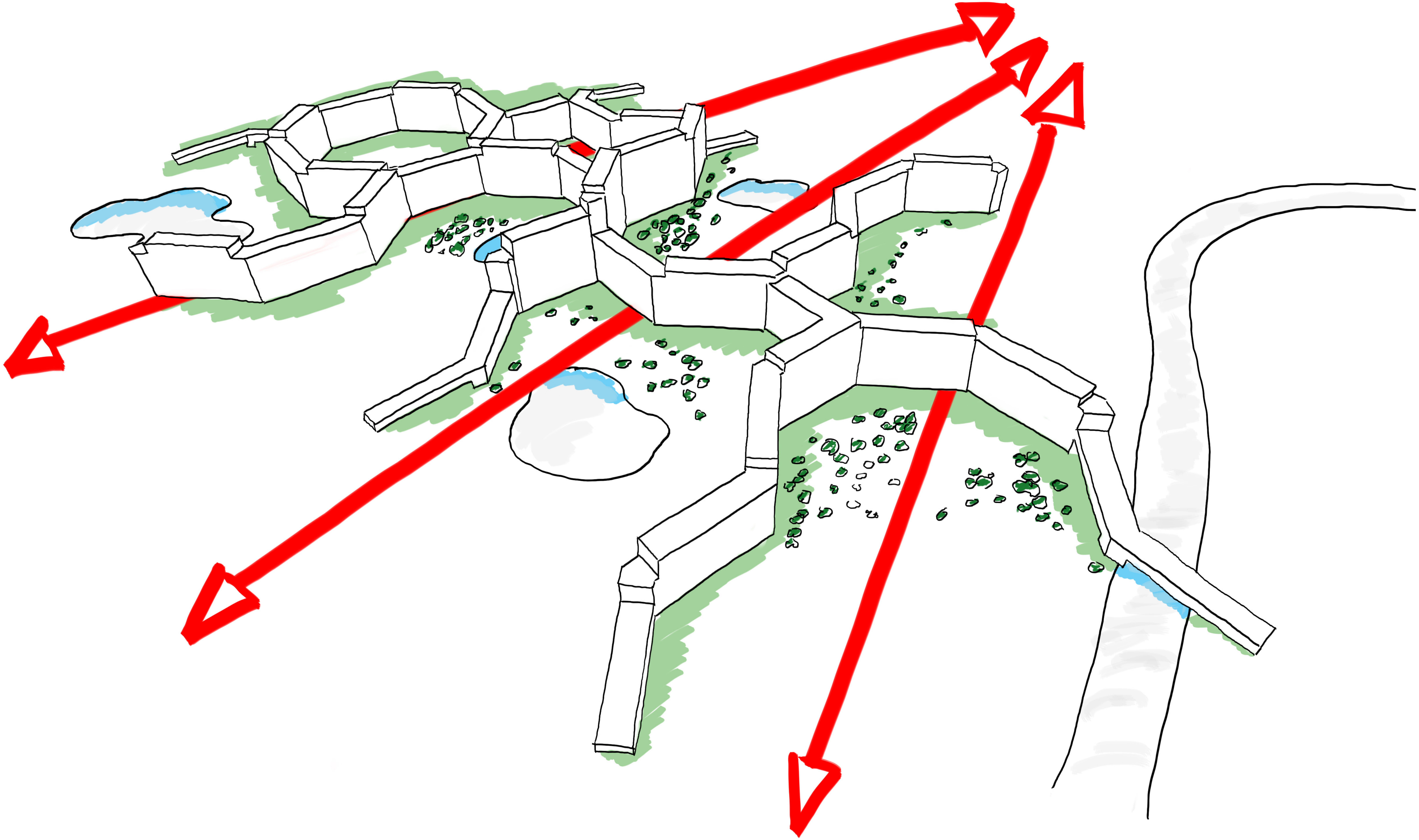


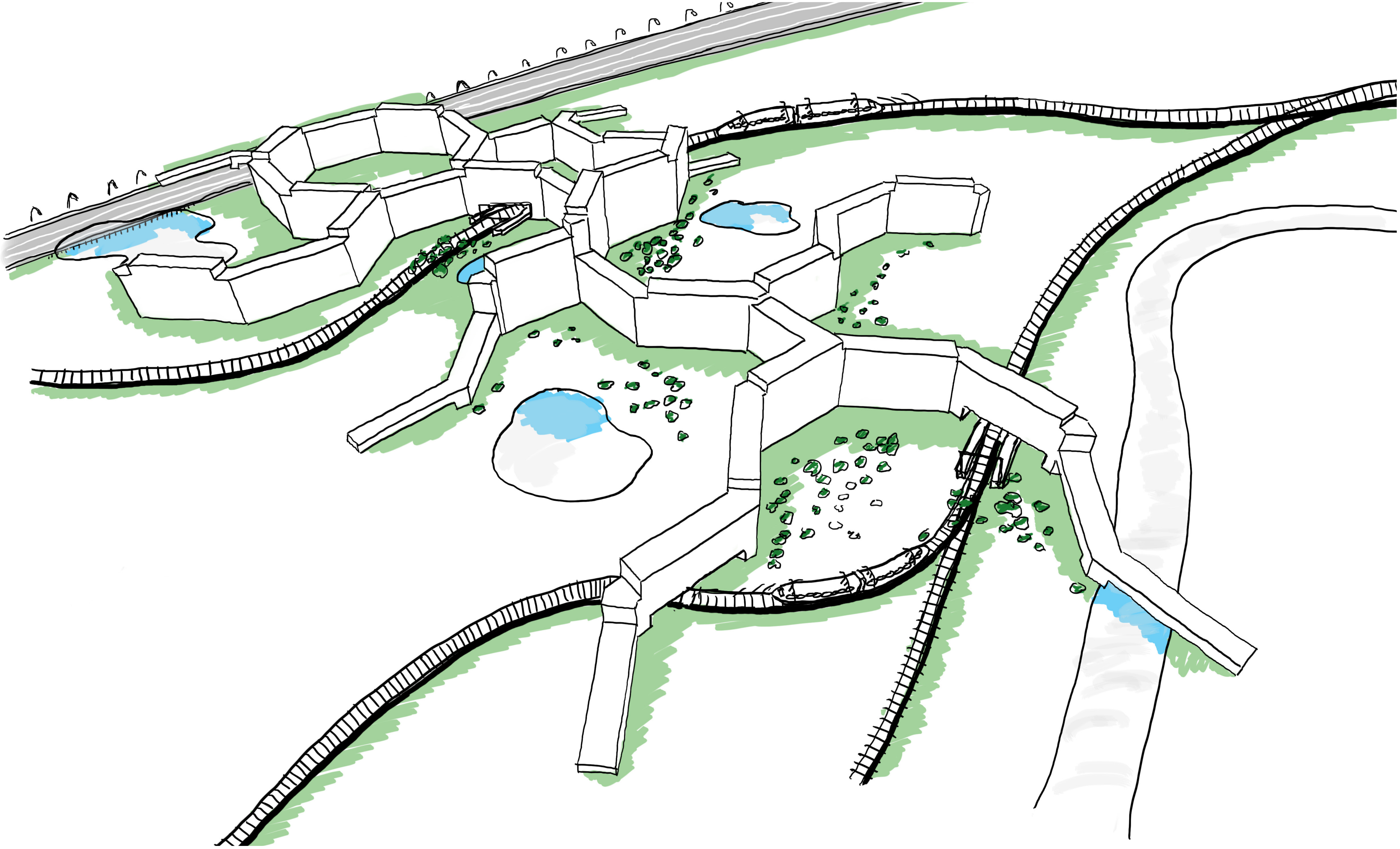


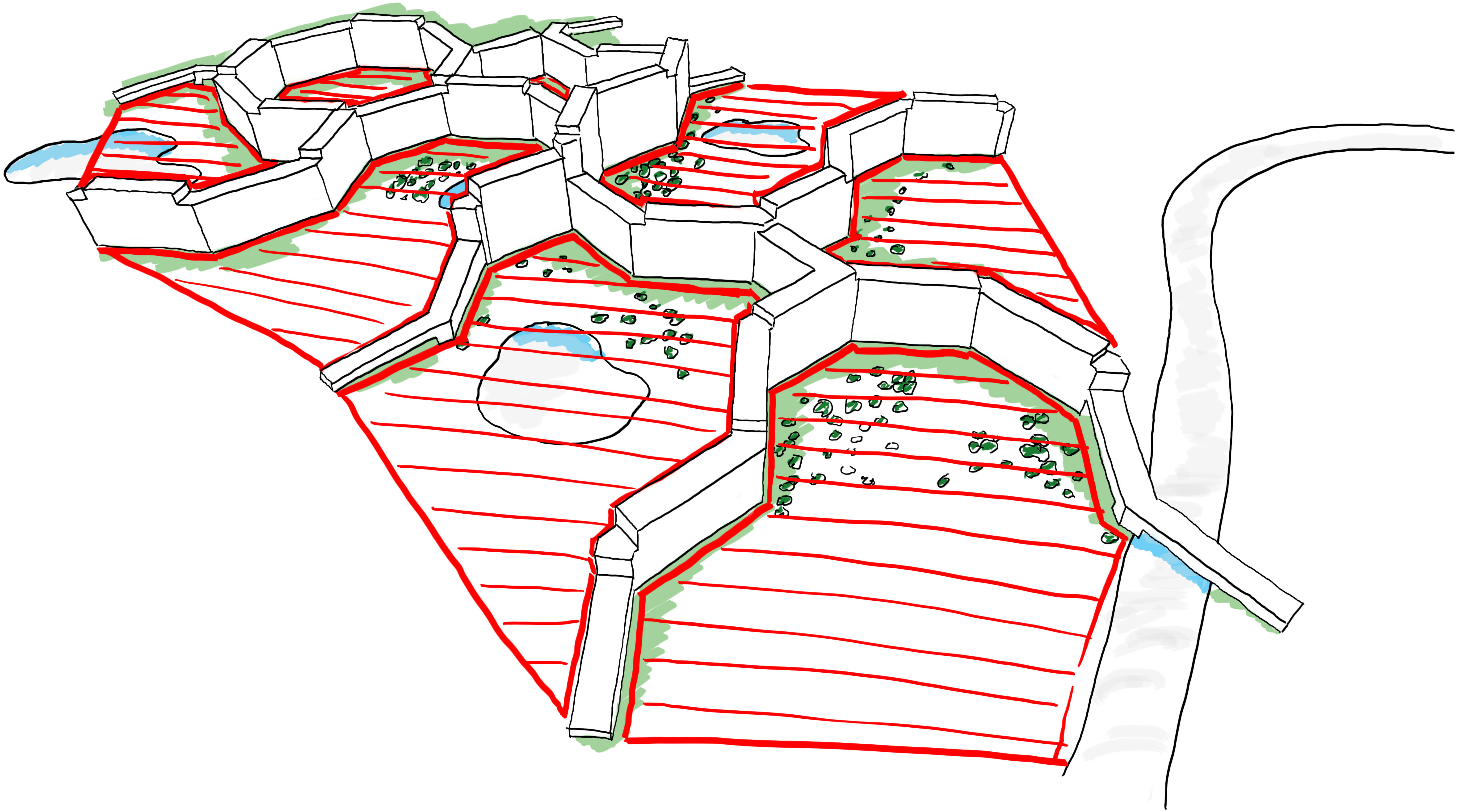


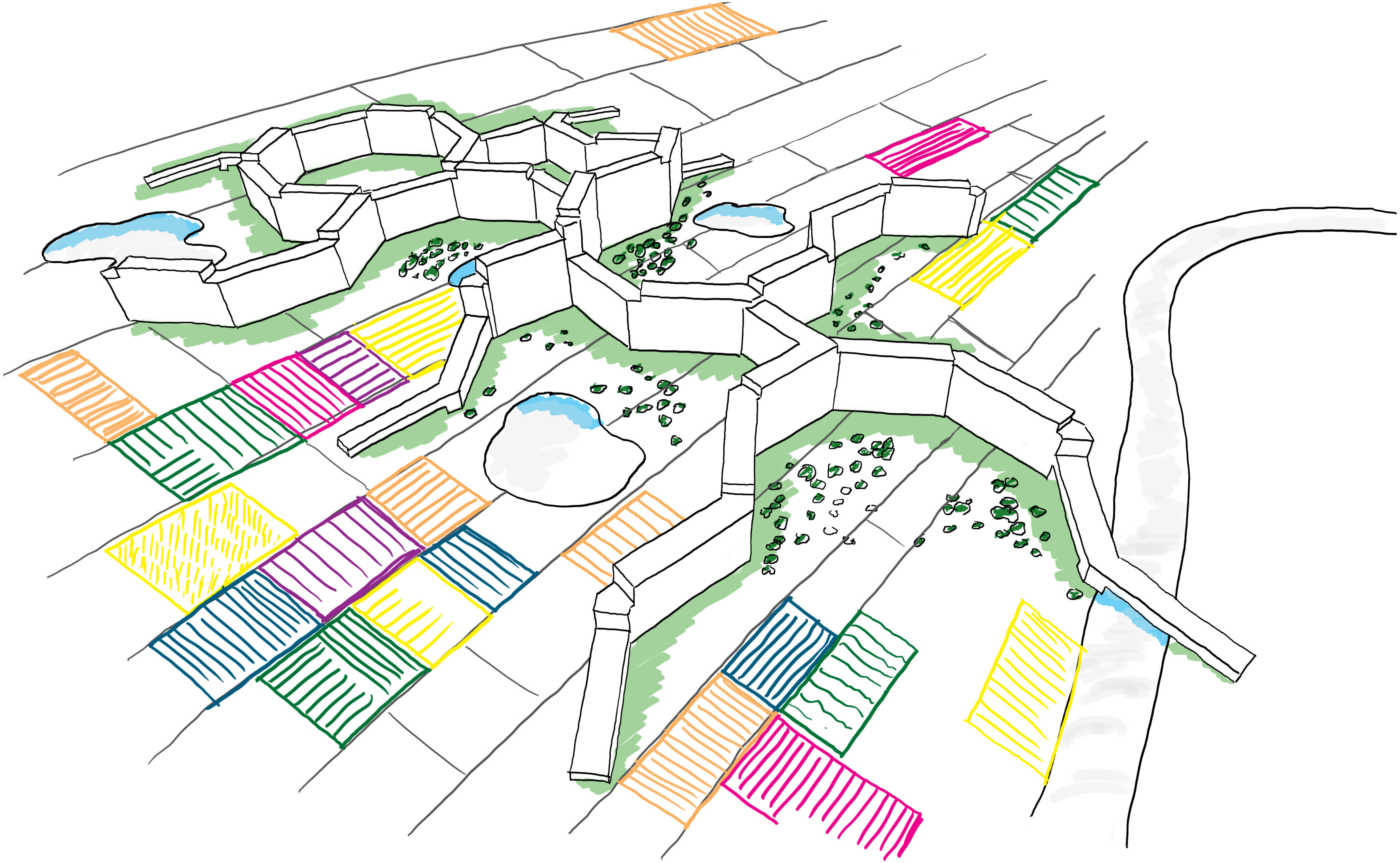


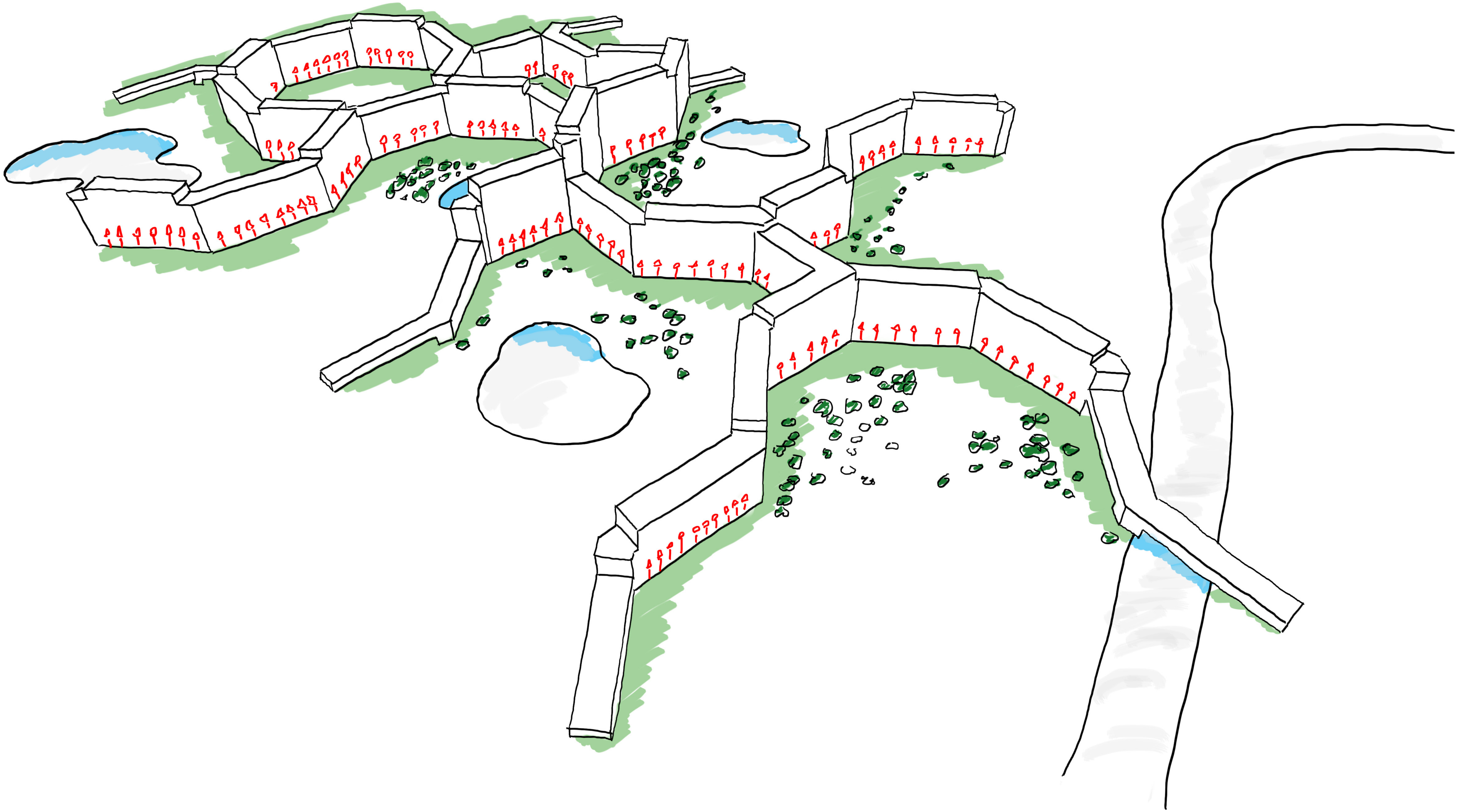

3x

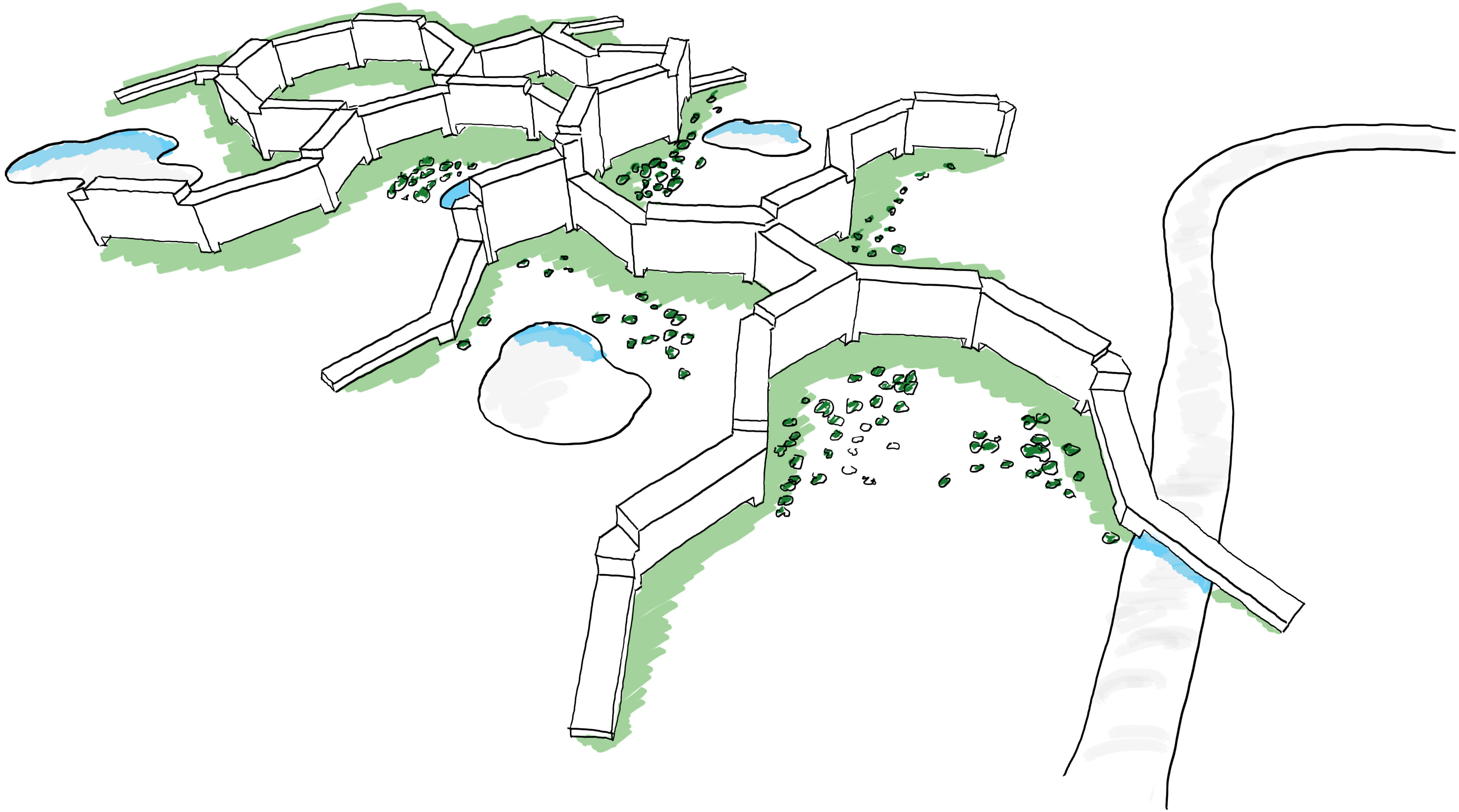


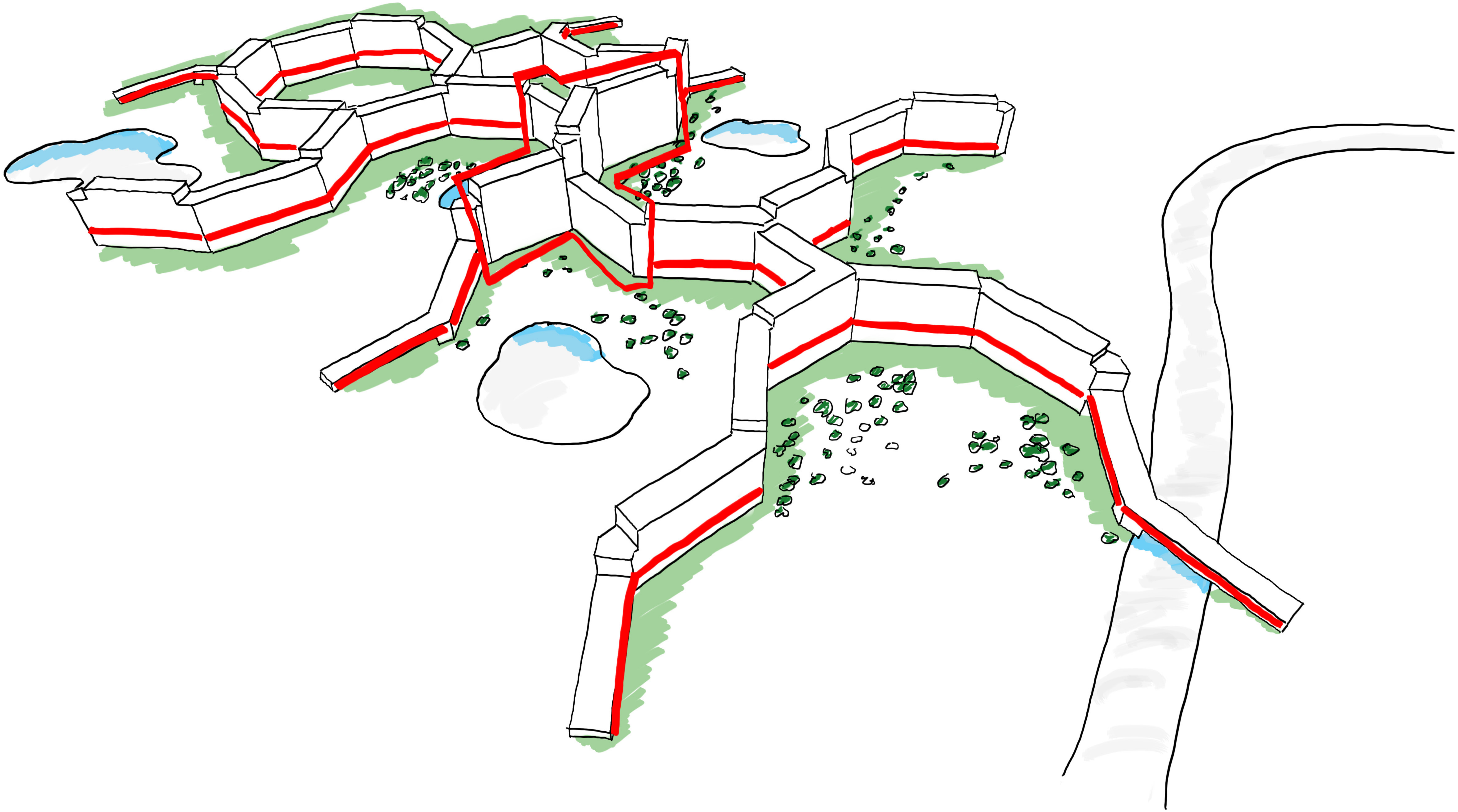




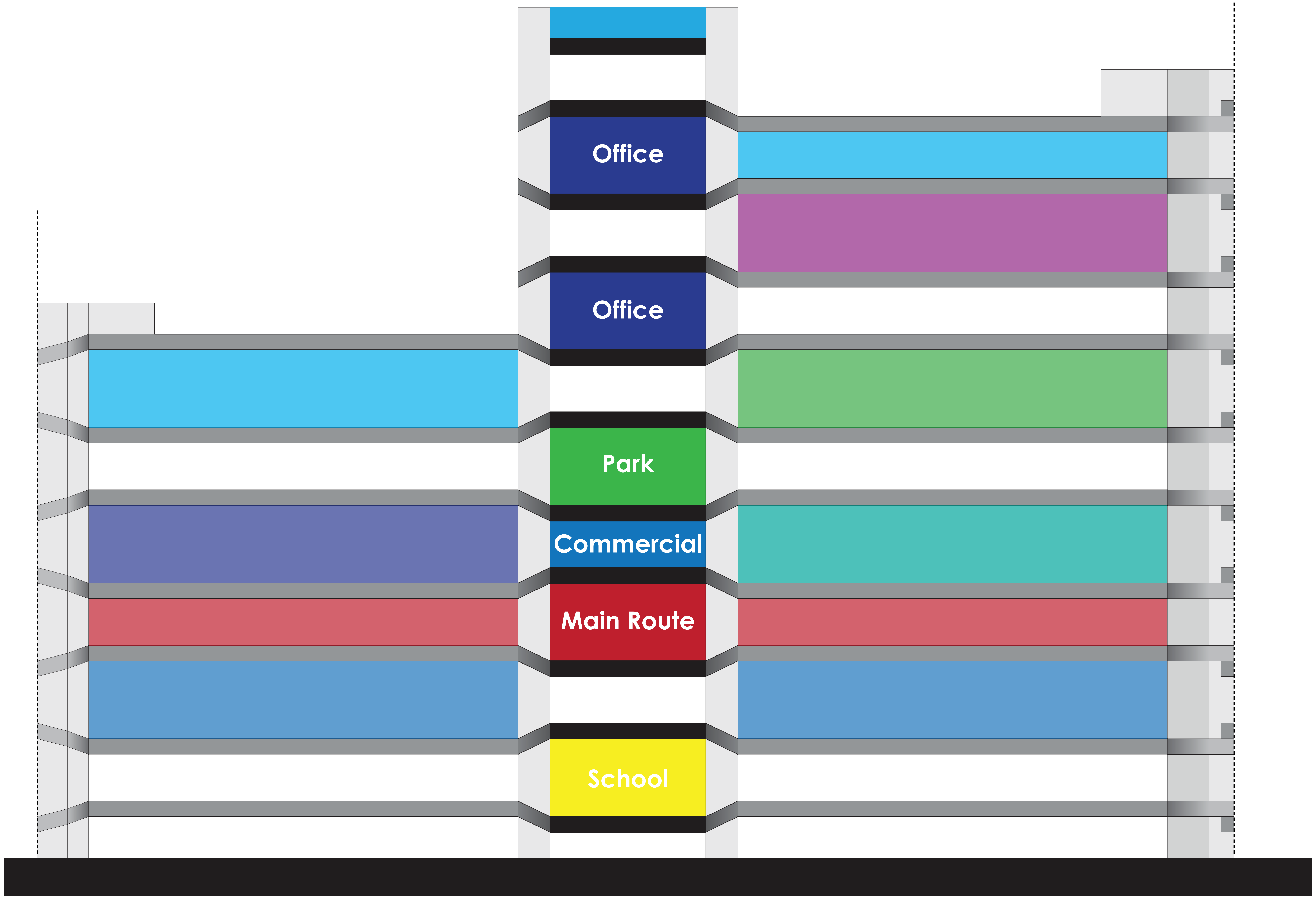


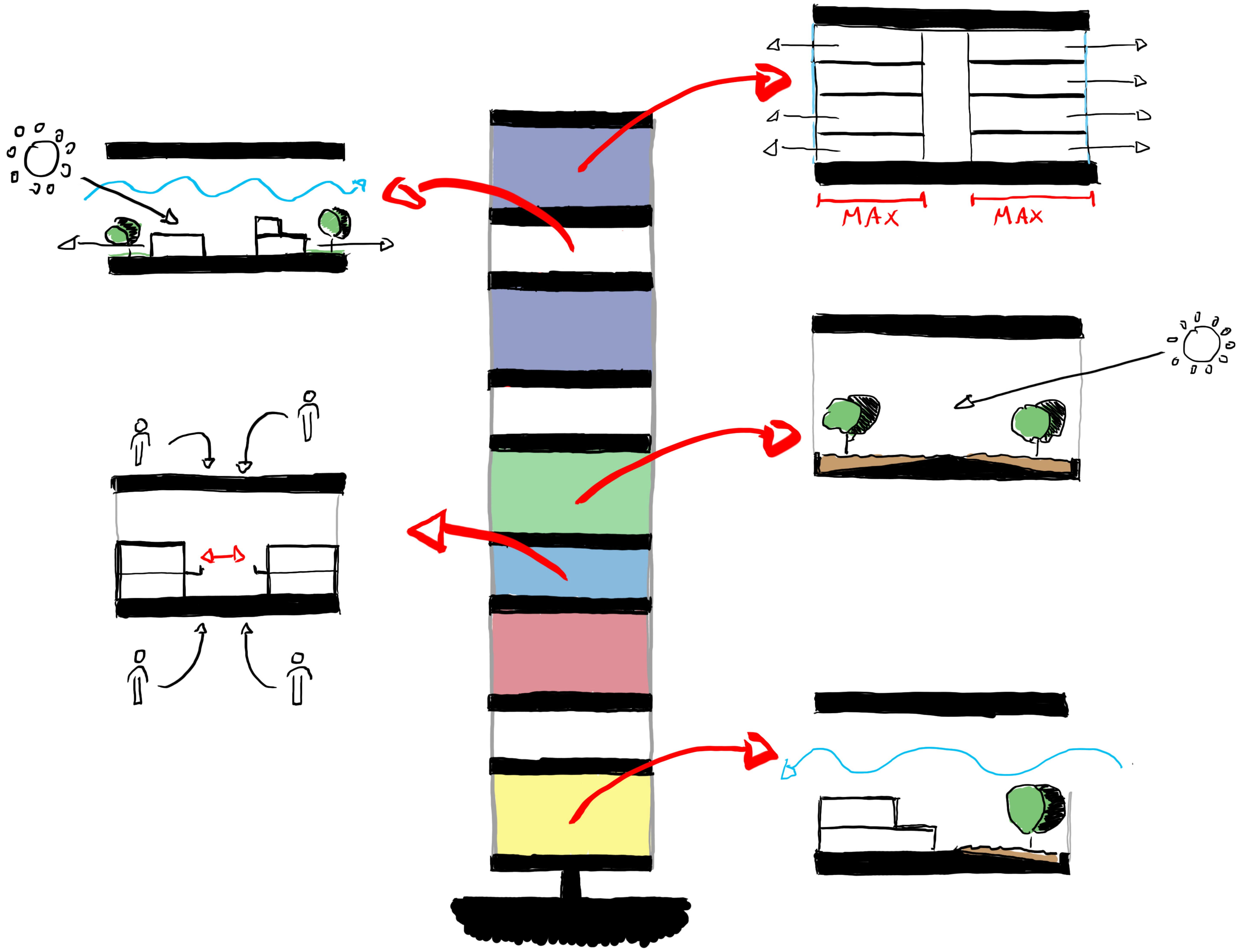


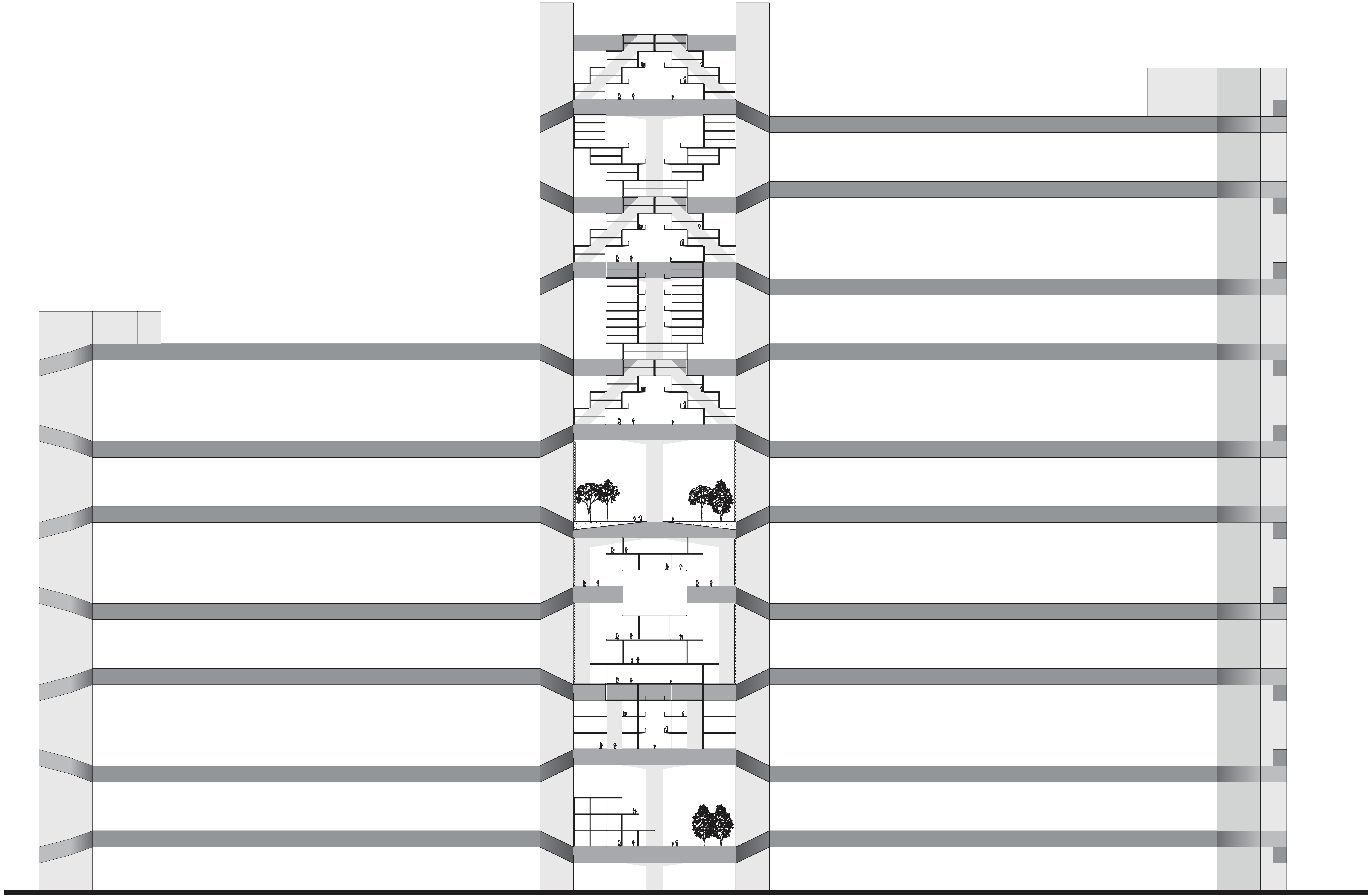




DESIGN


Office
Office
Park
Commercial
Main Route
School

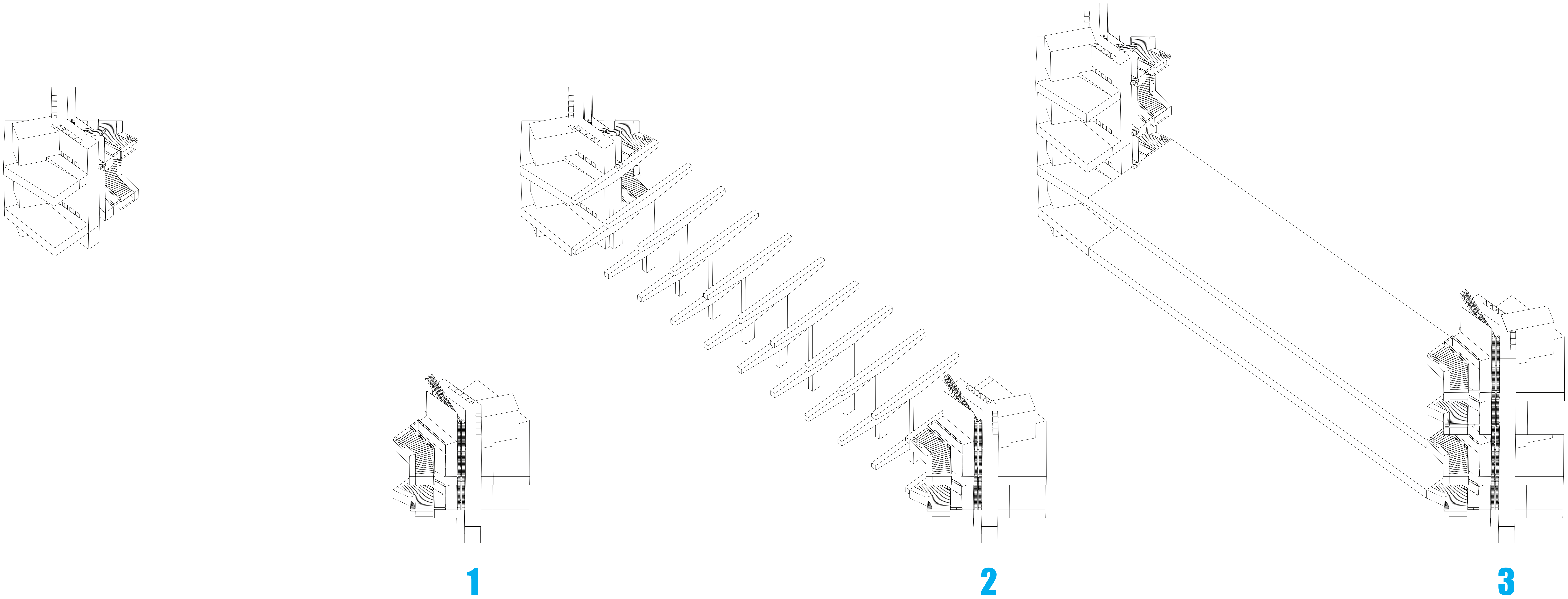

MAX
MAX

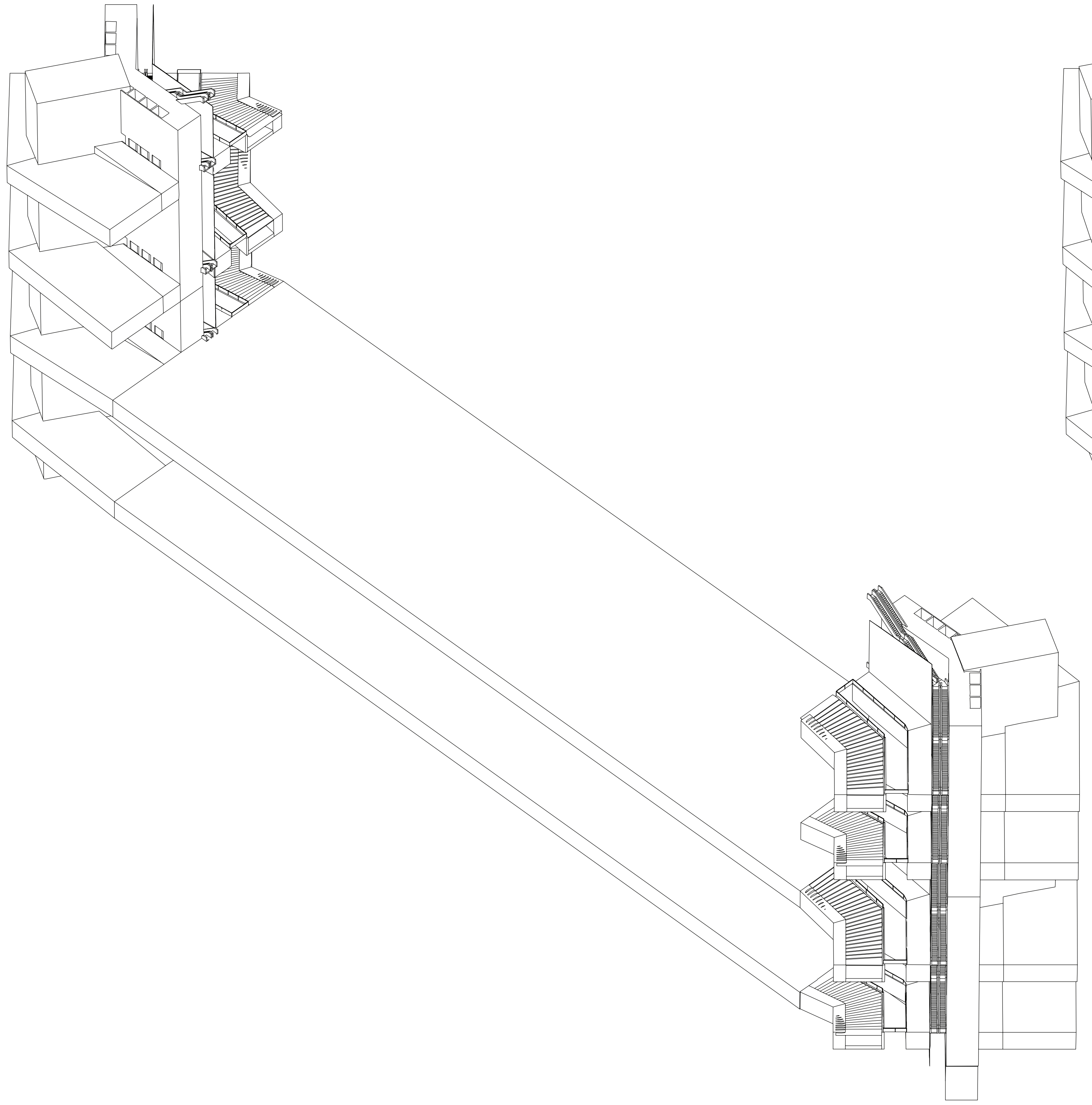


Section 1:1000

AH
BLOKKER
H&M
HEMA

STRUCTURE





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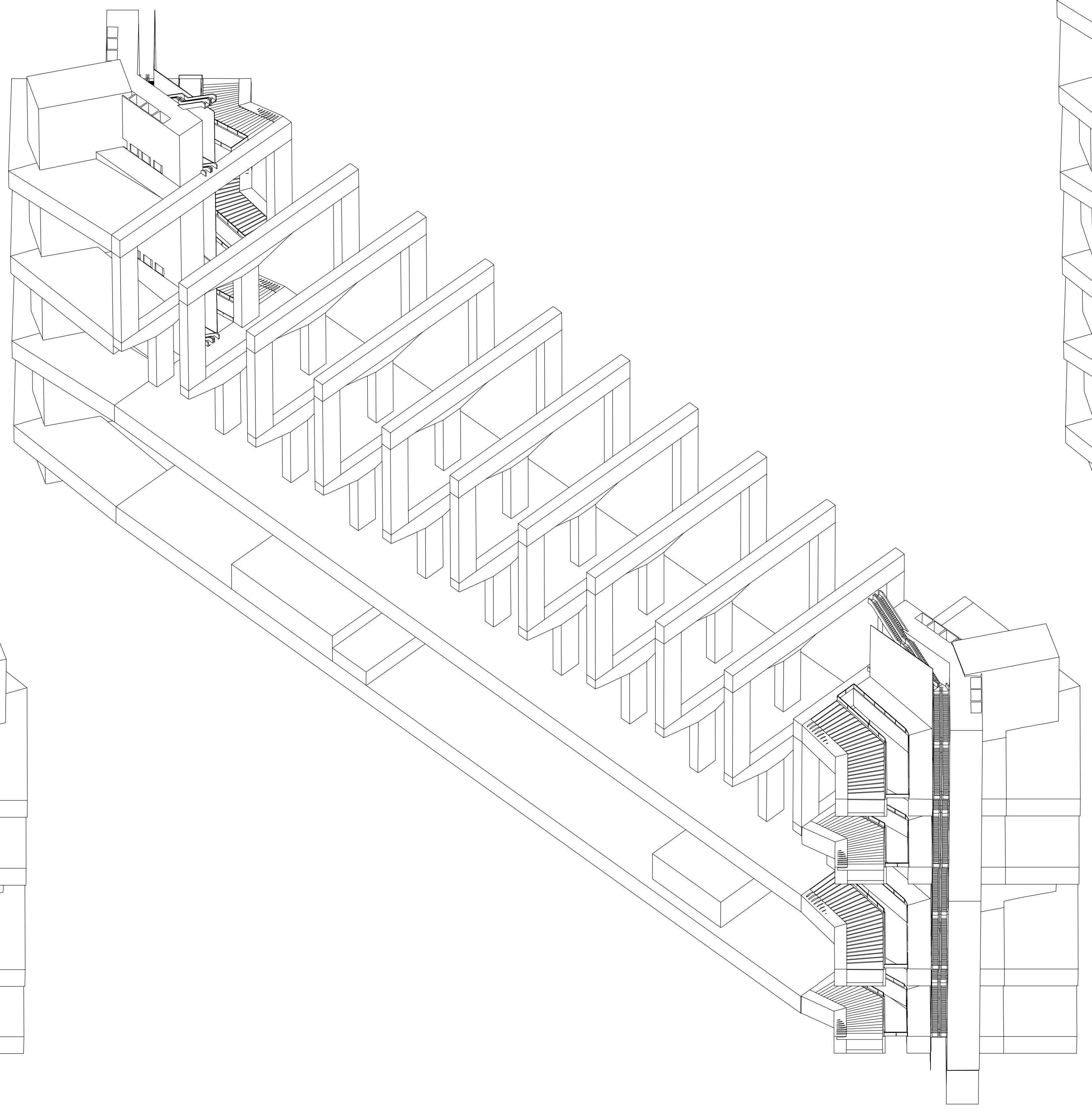

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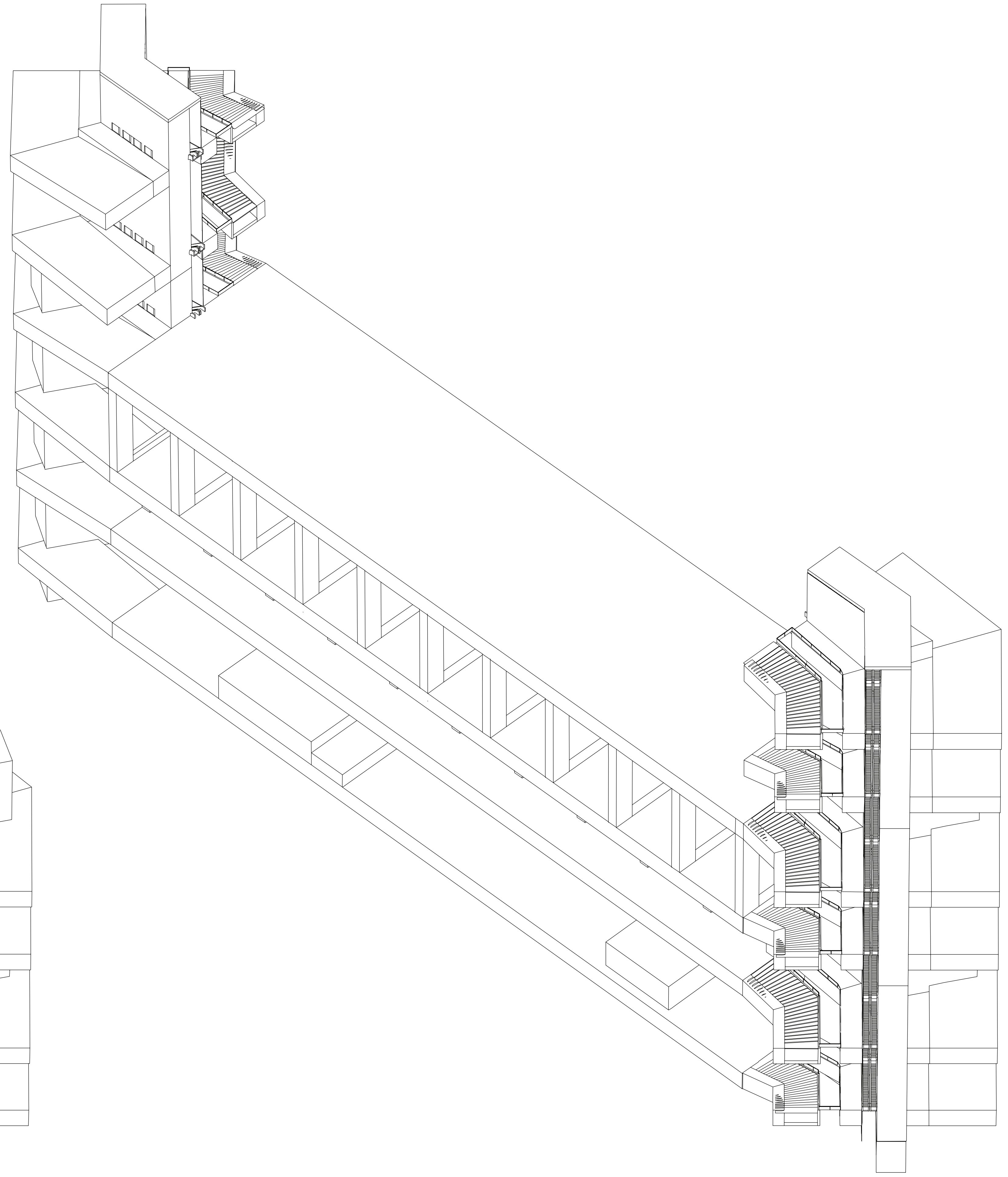

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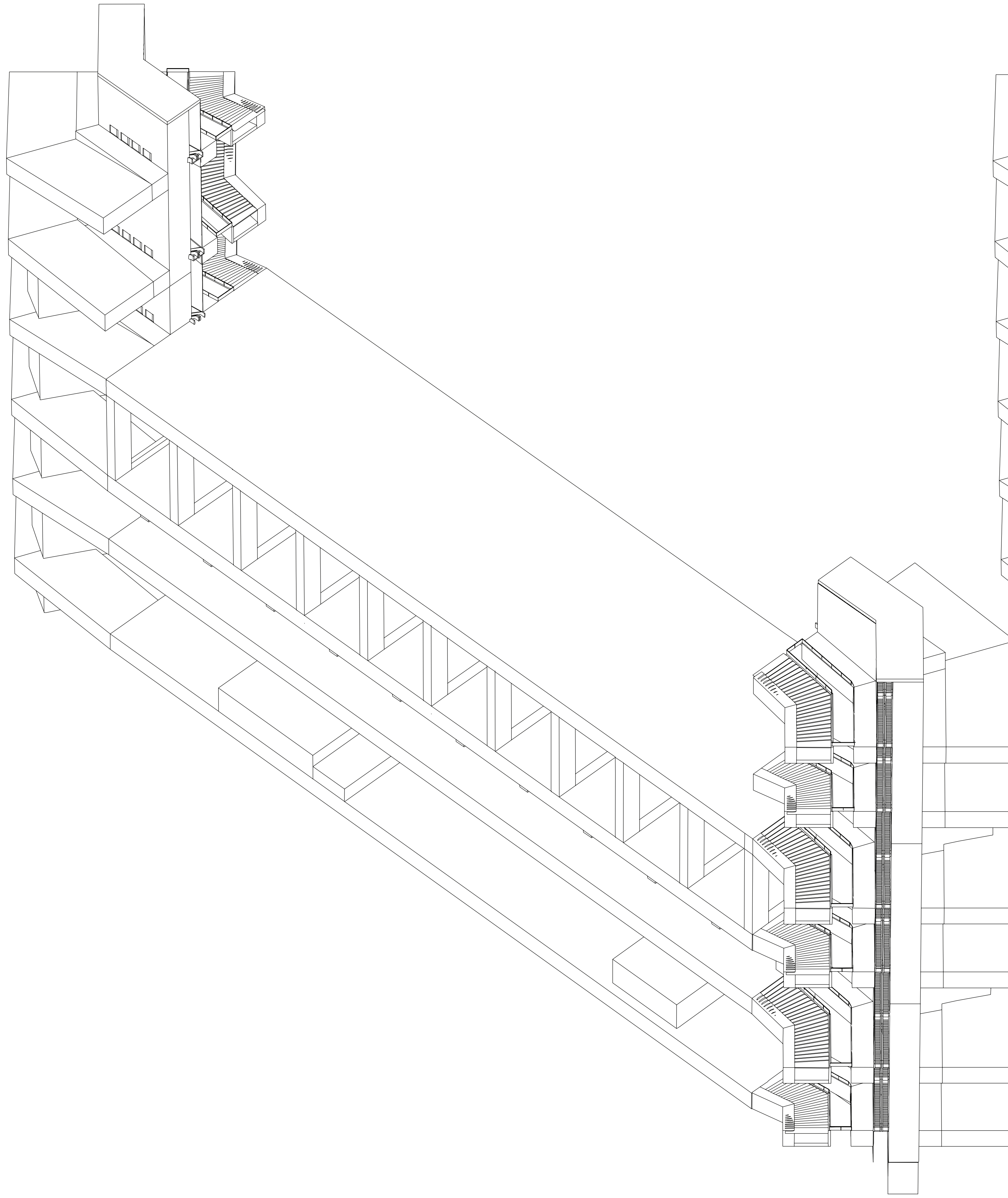

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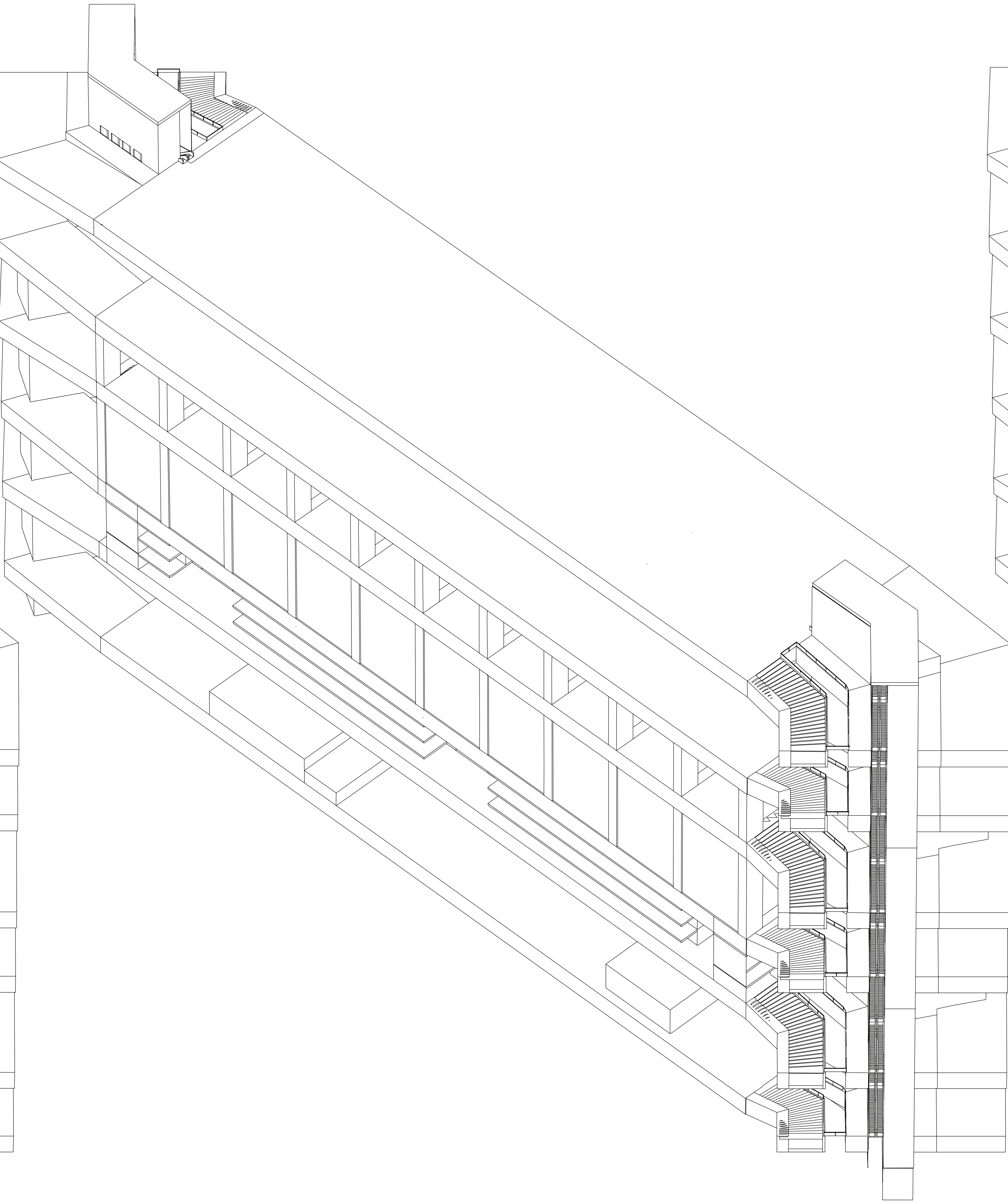

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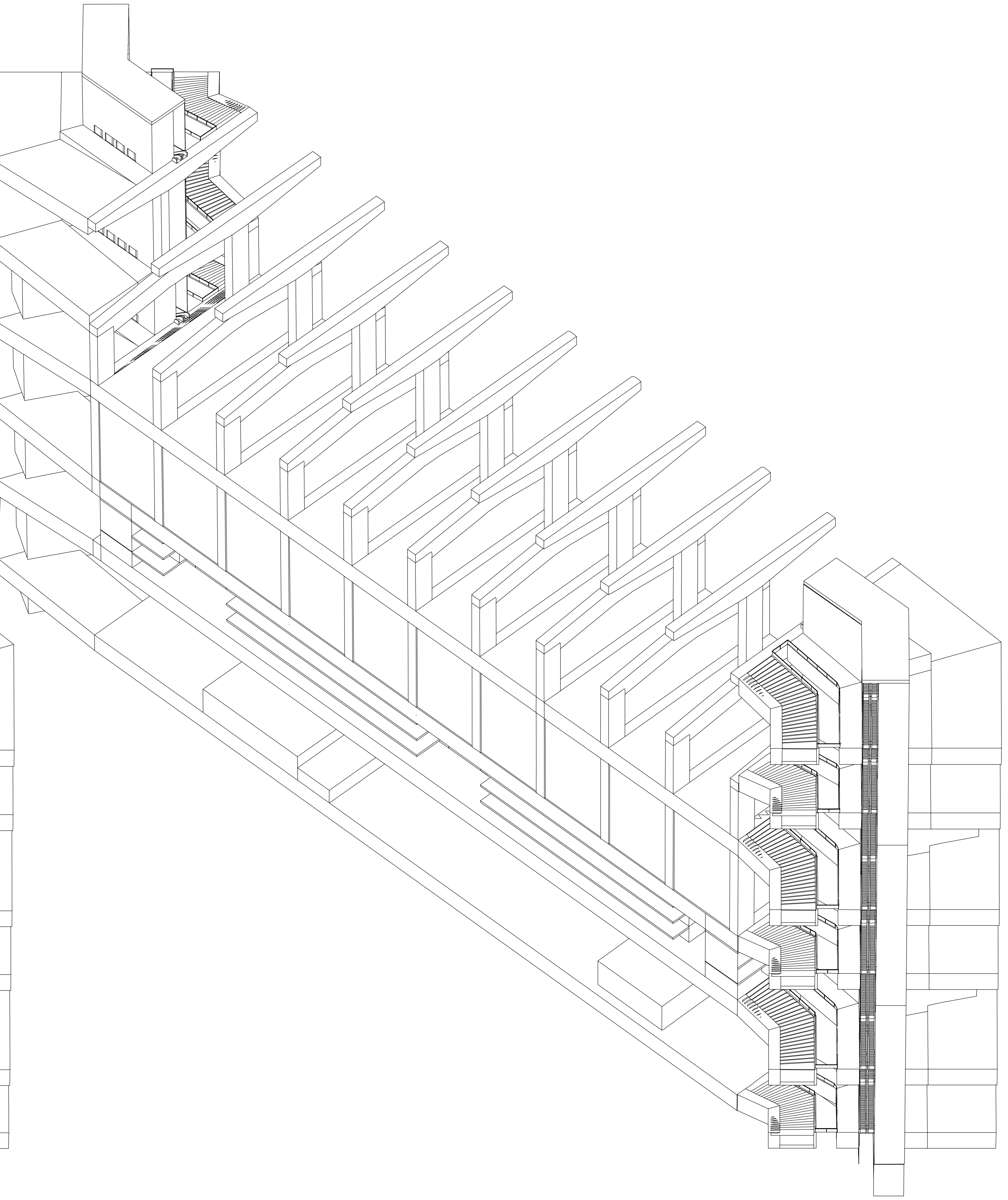

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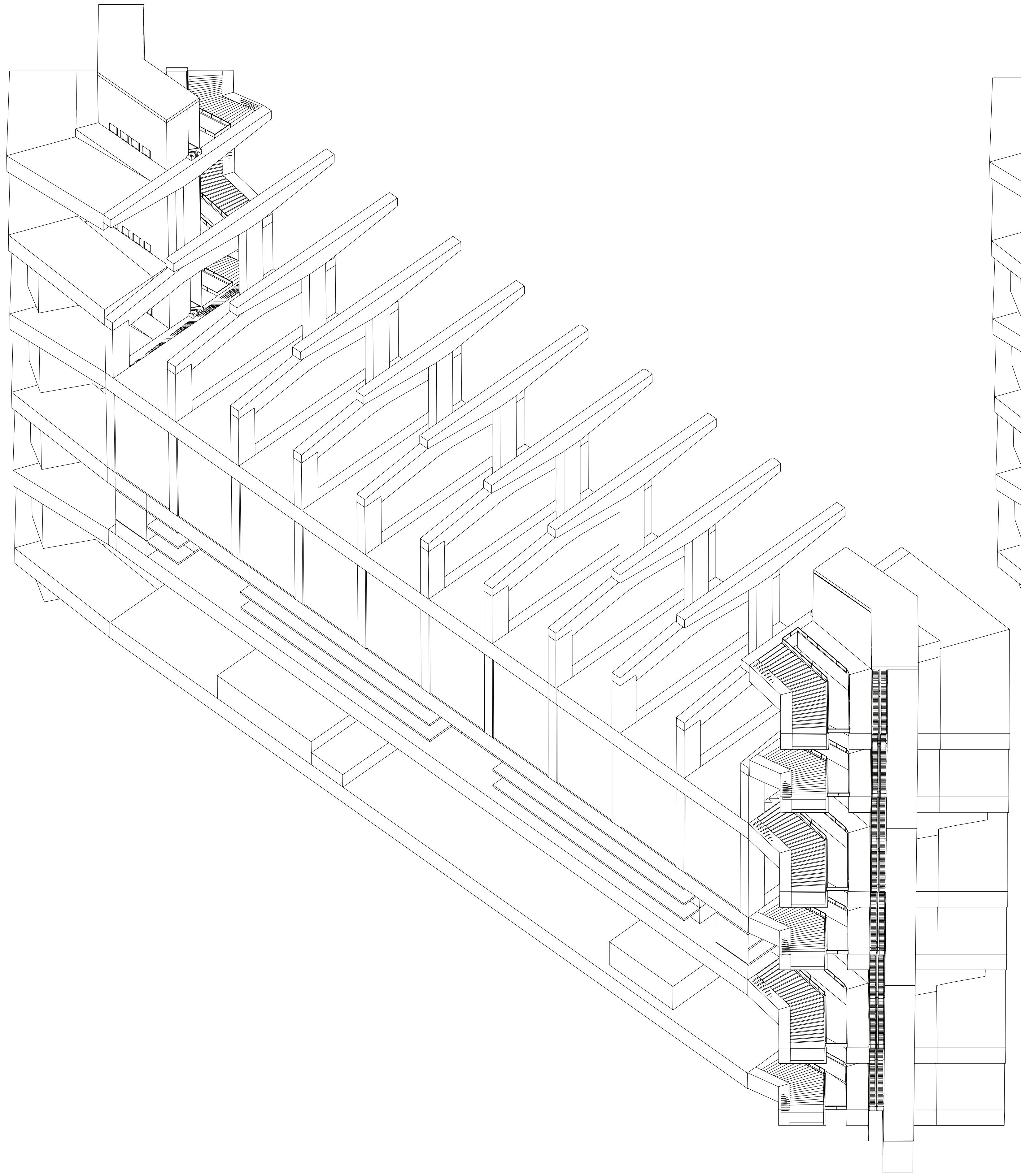

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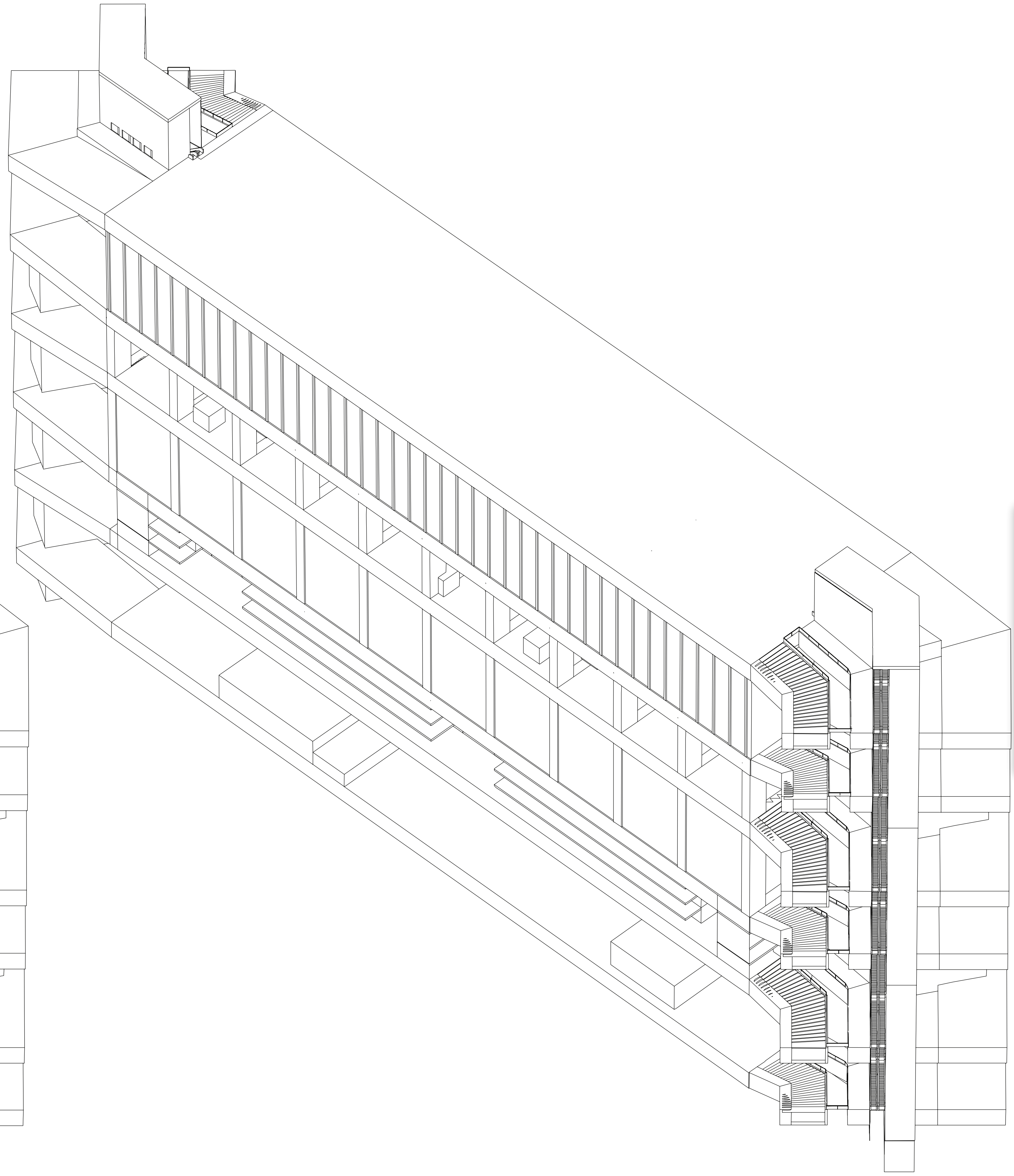

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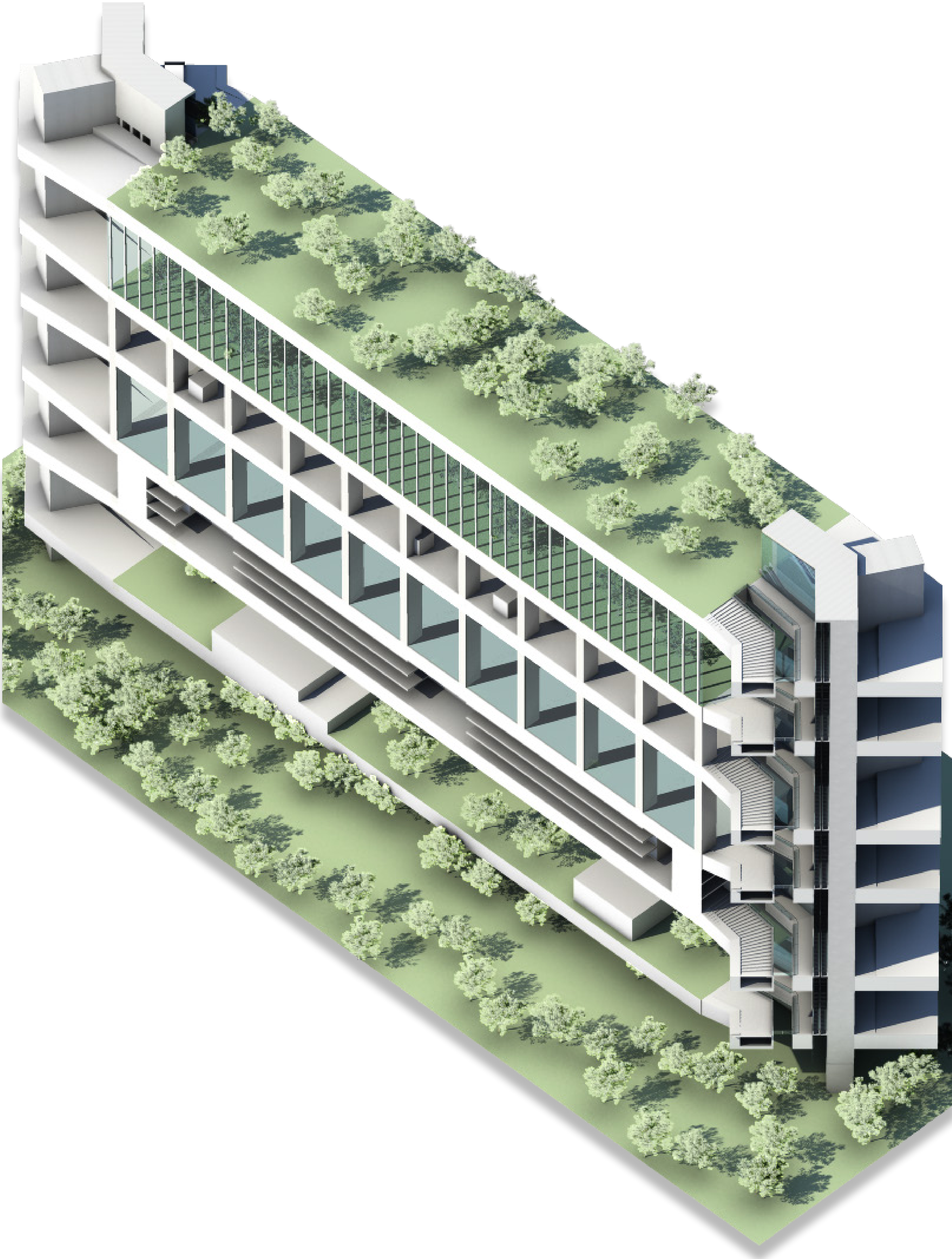
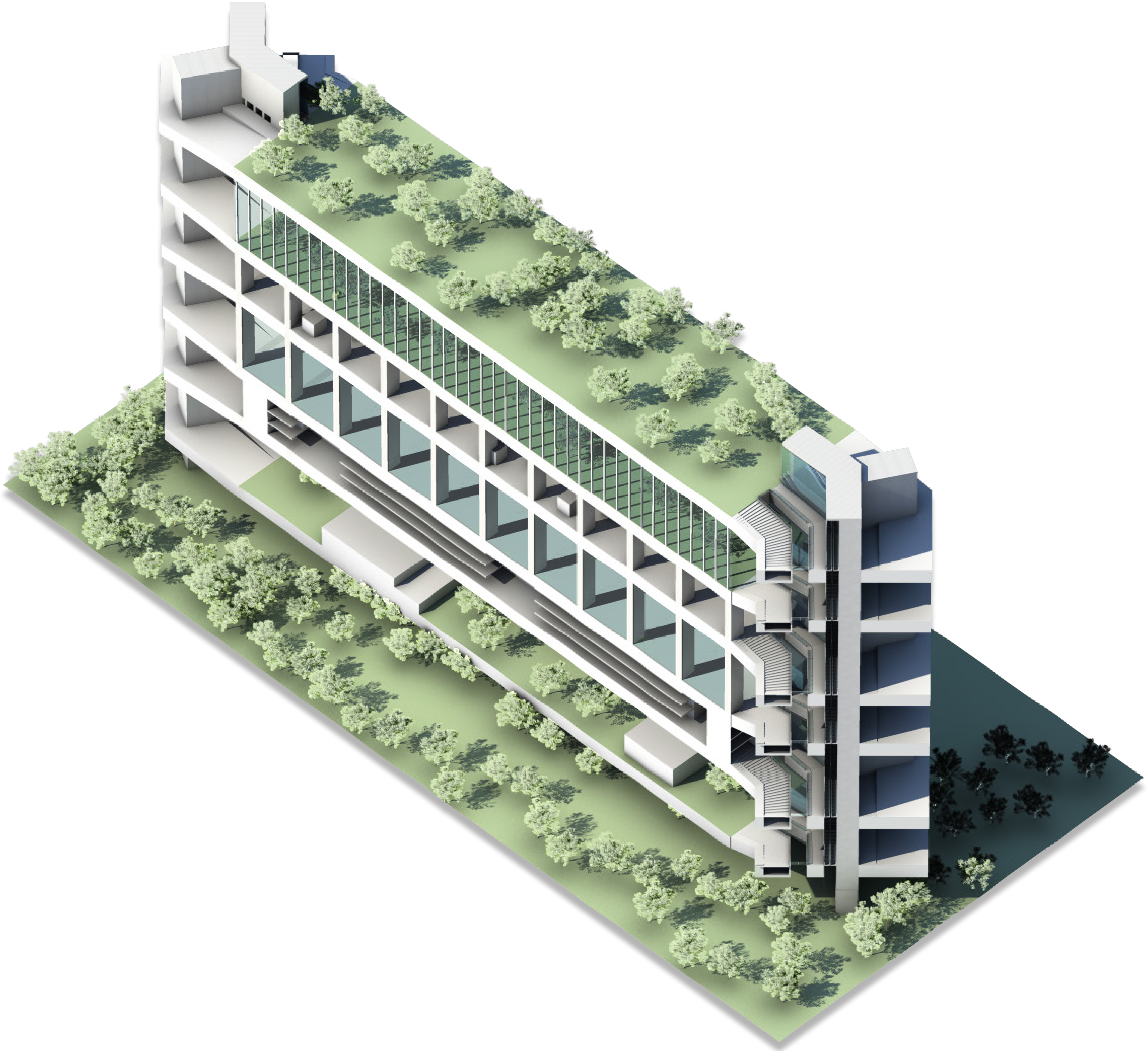
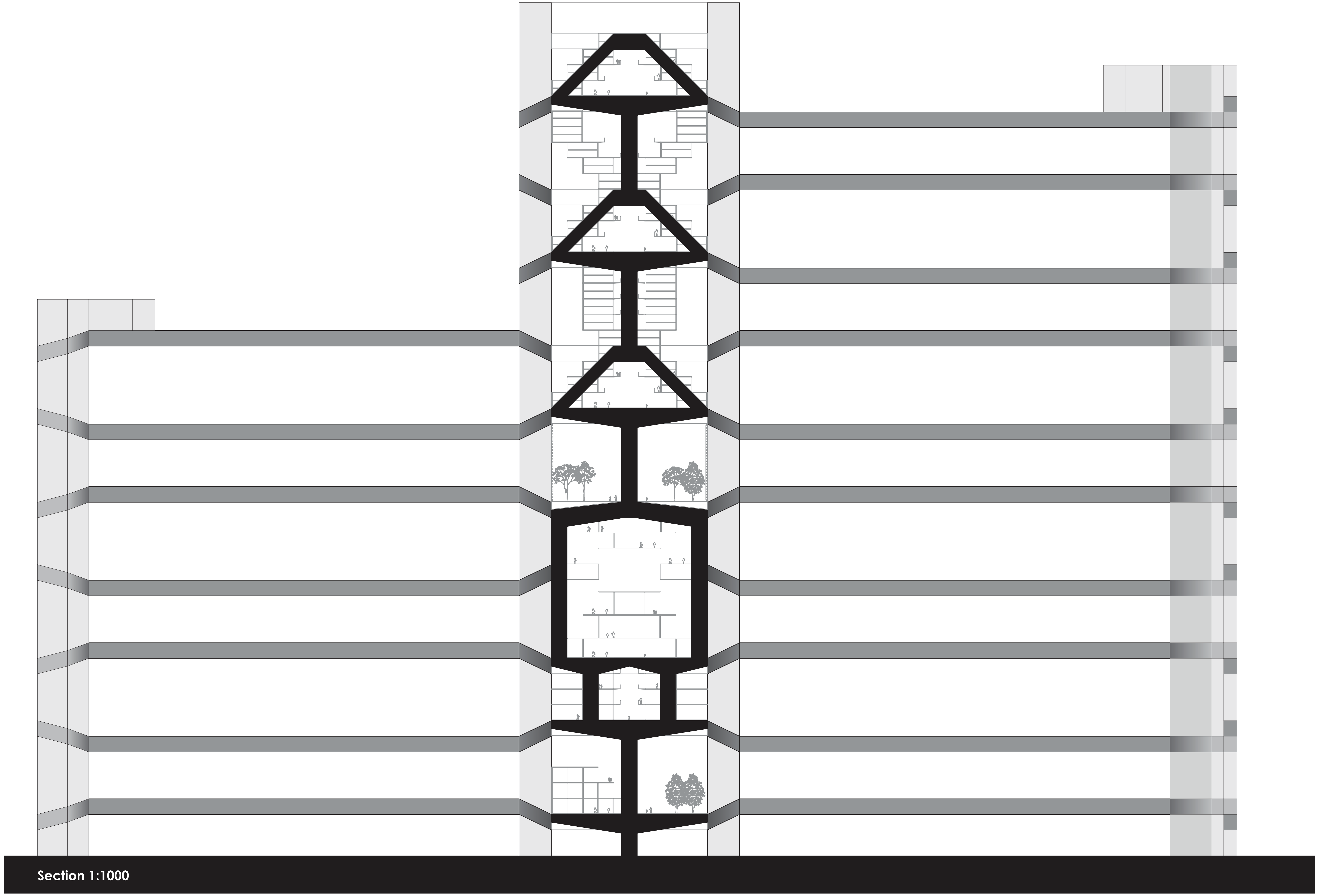
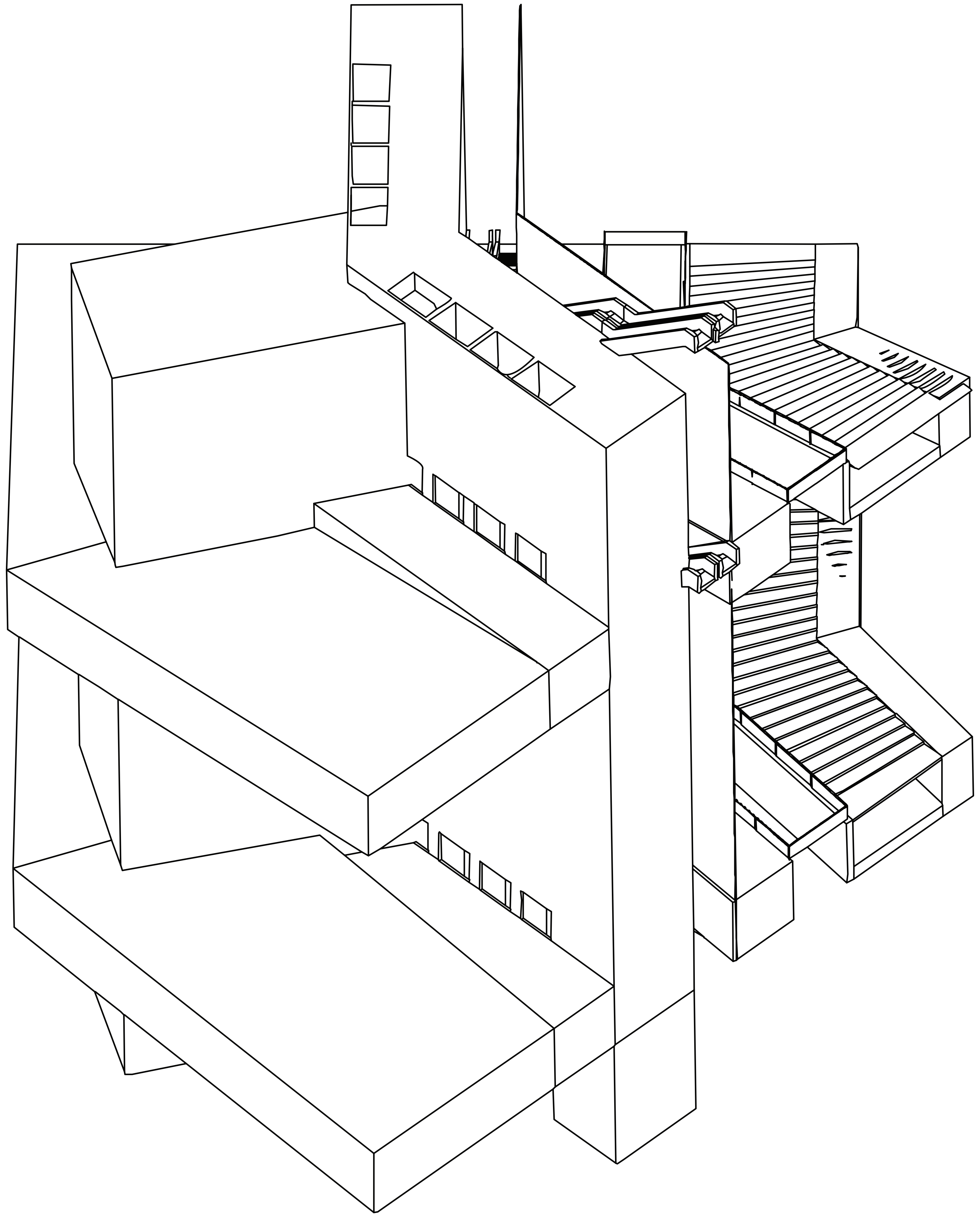


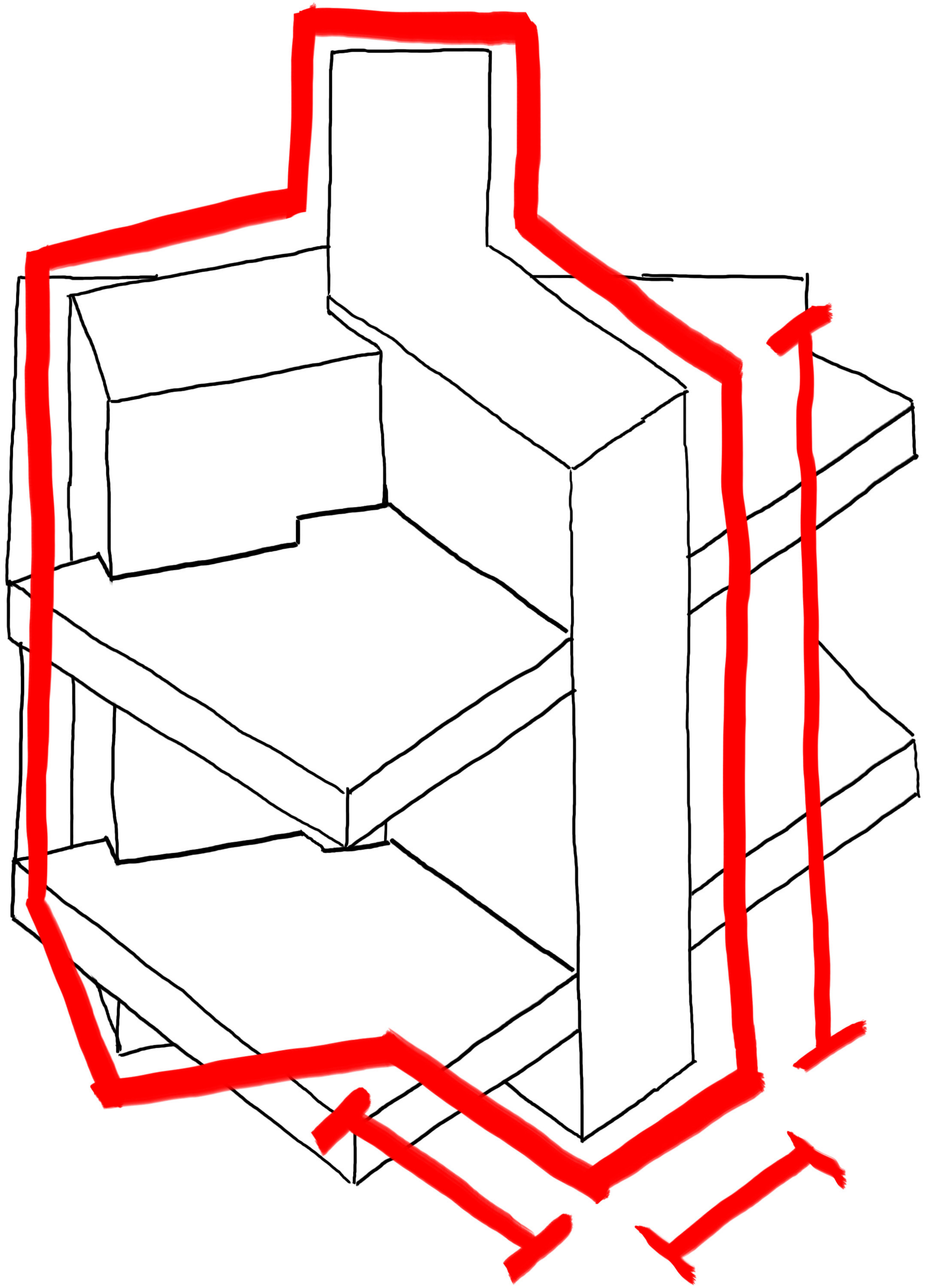


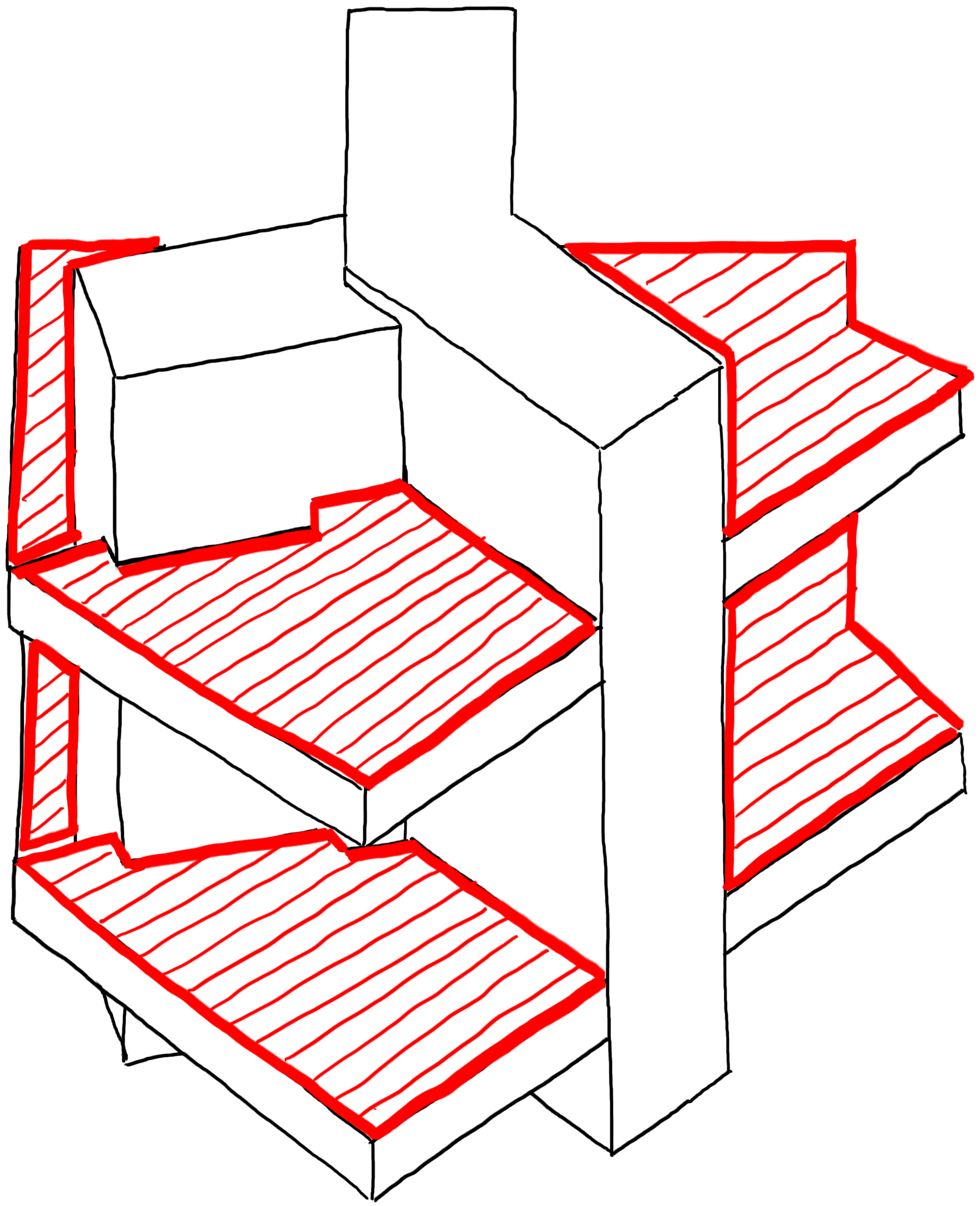


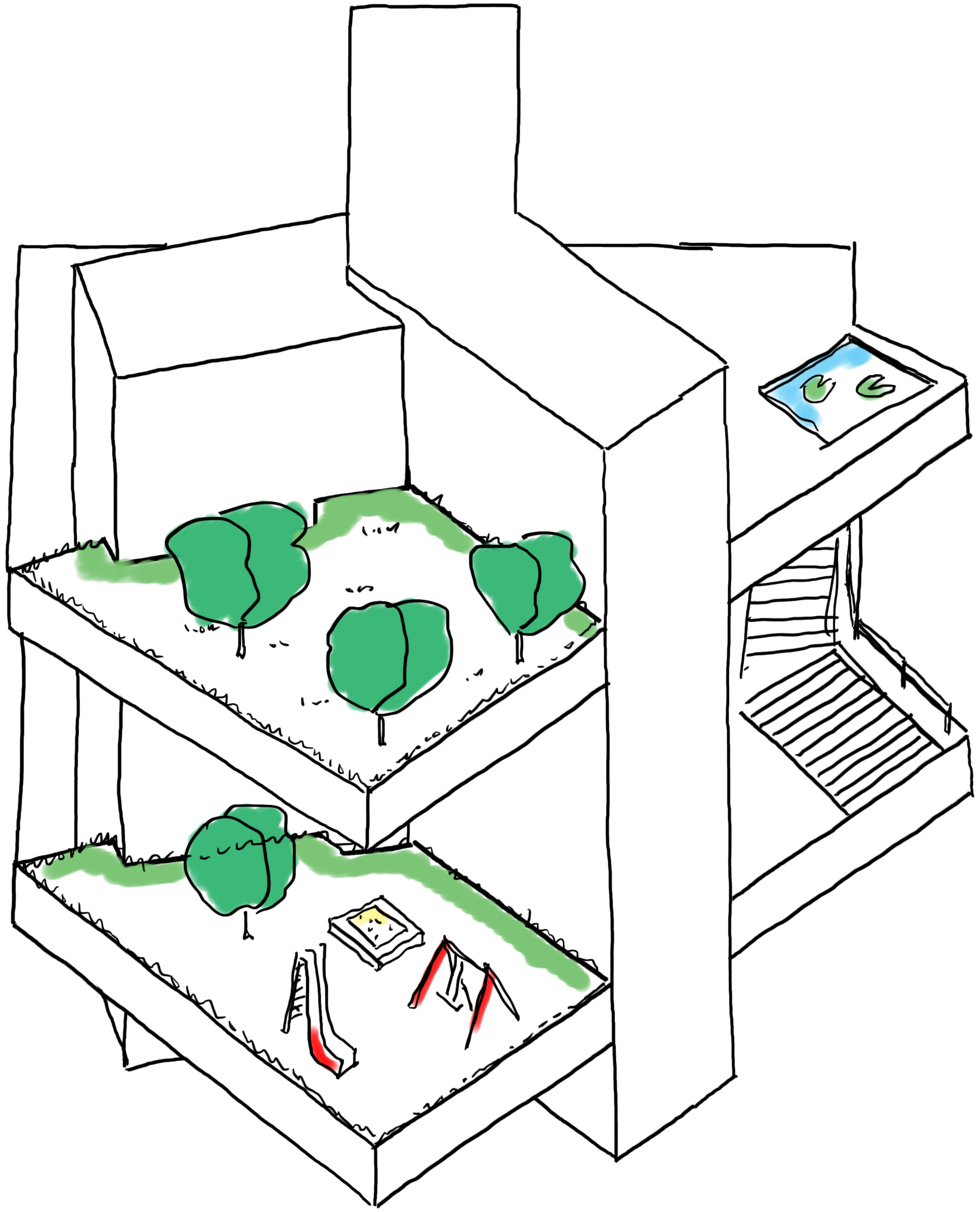
Section 1:1000

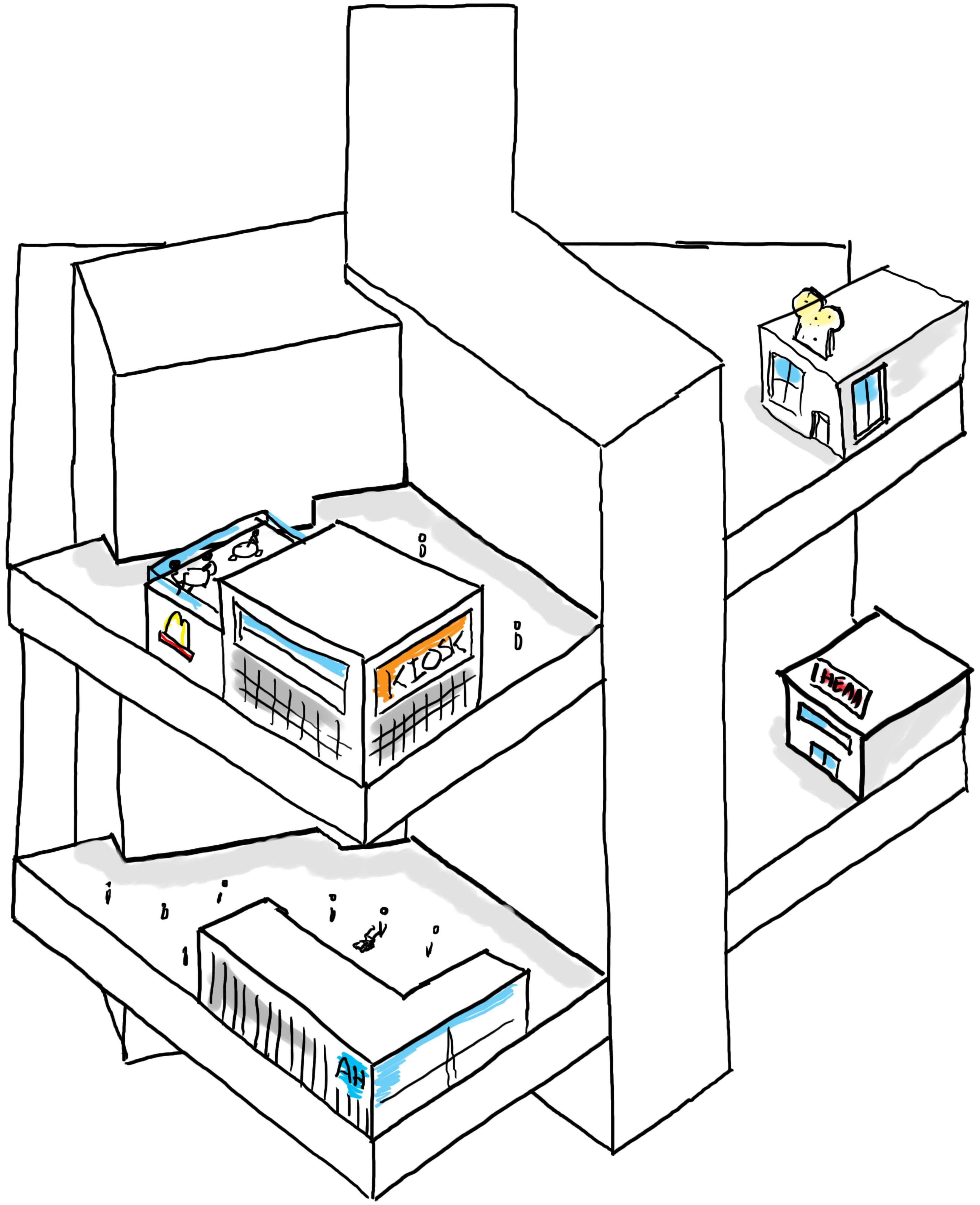
PILE



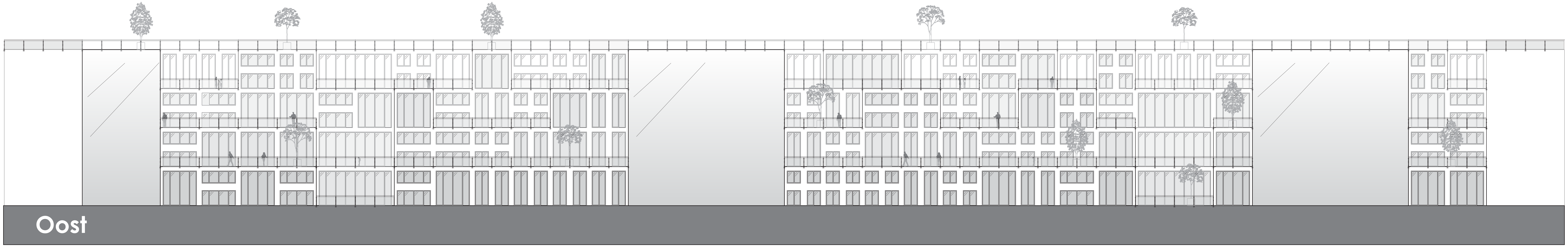







KIOSK
HEMA
AH

MODULE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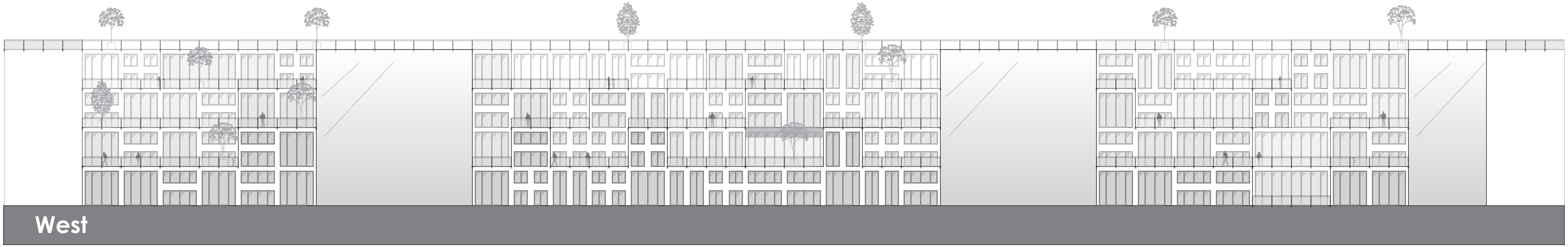
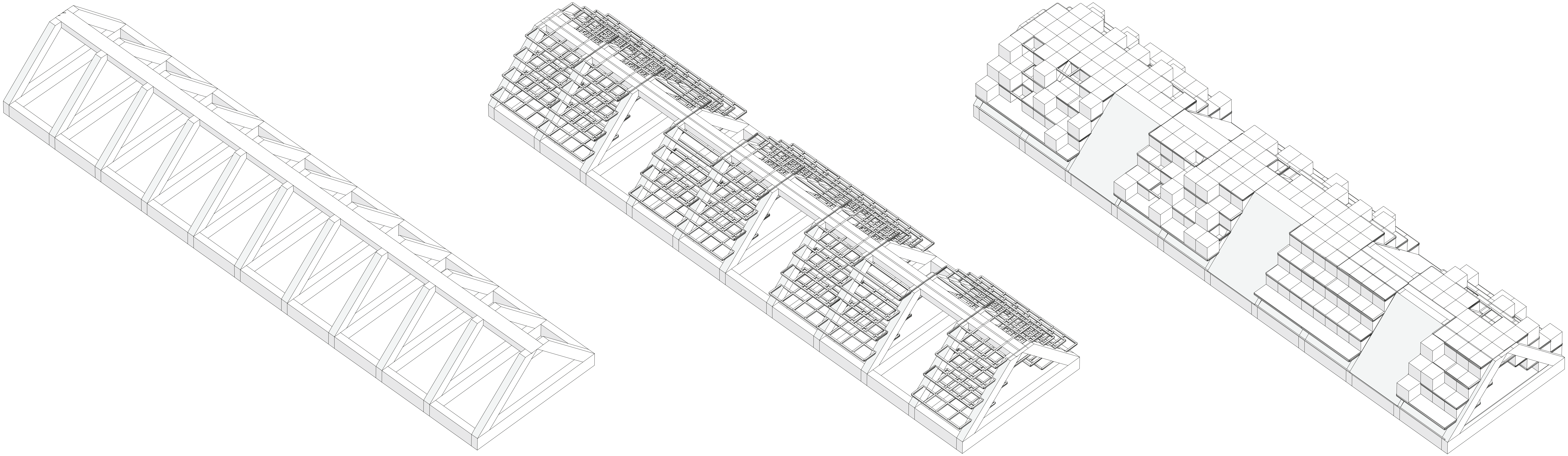
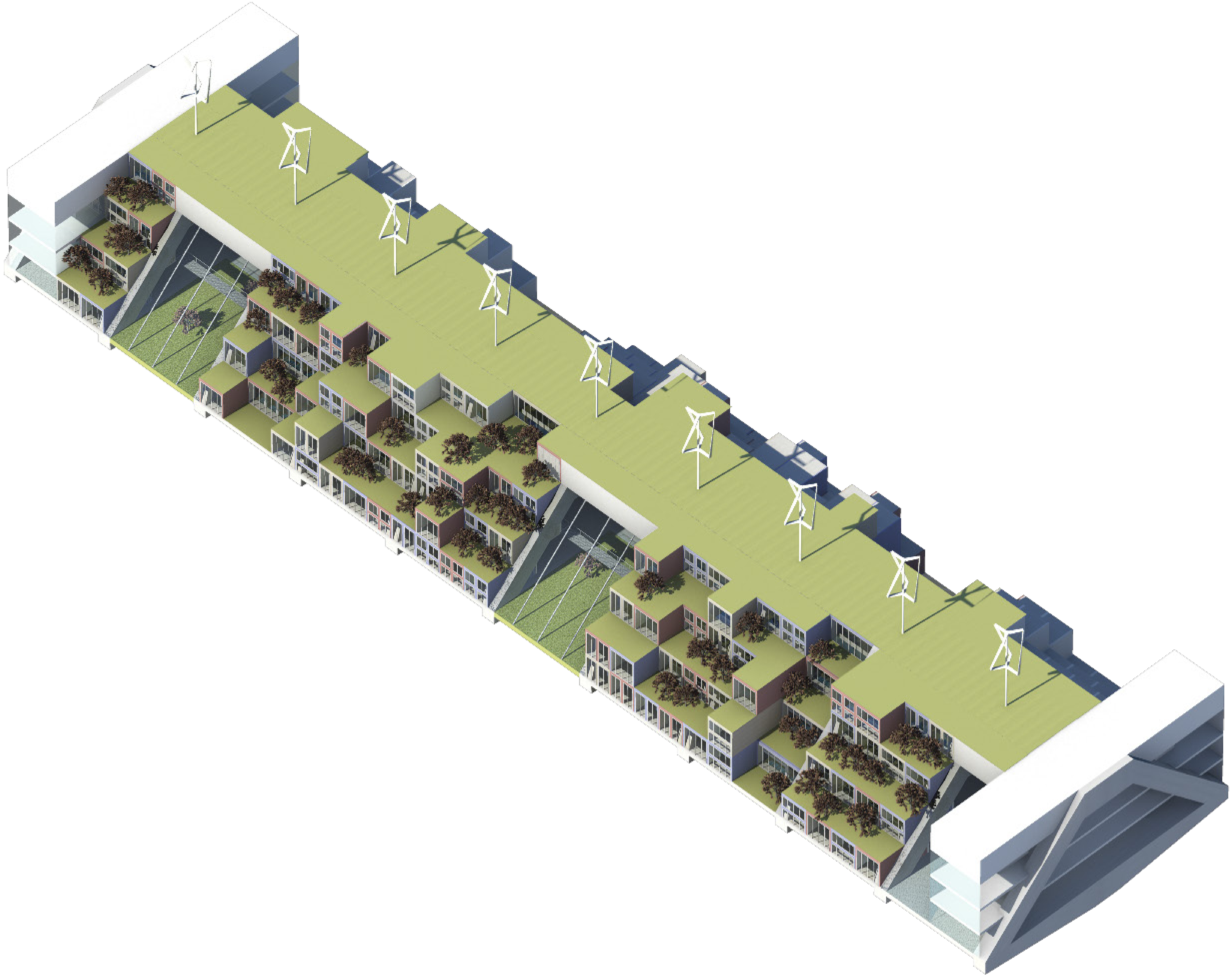
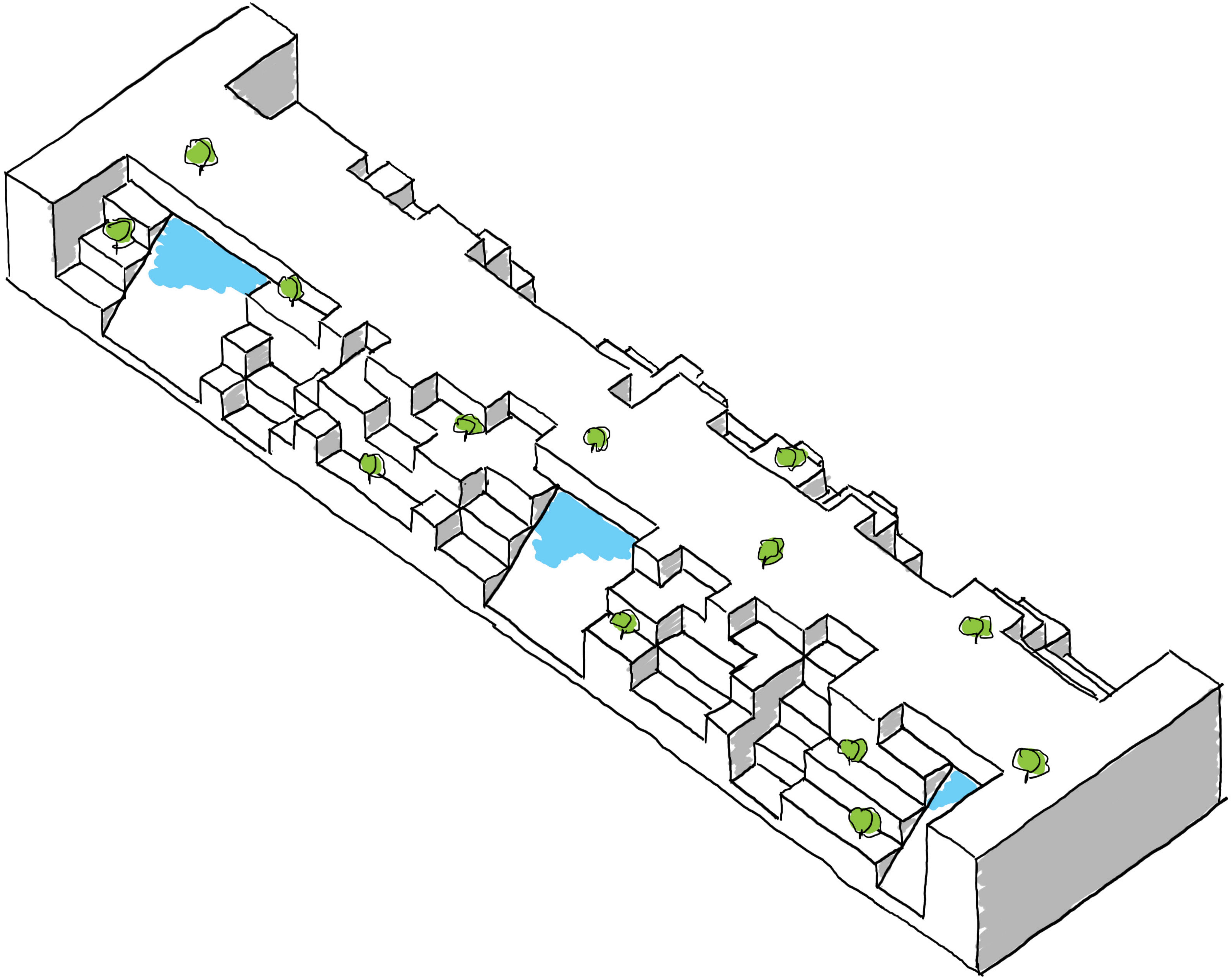
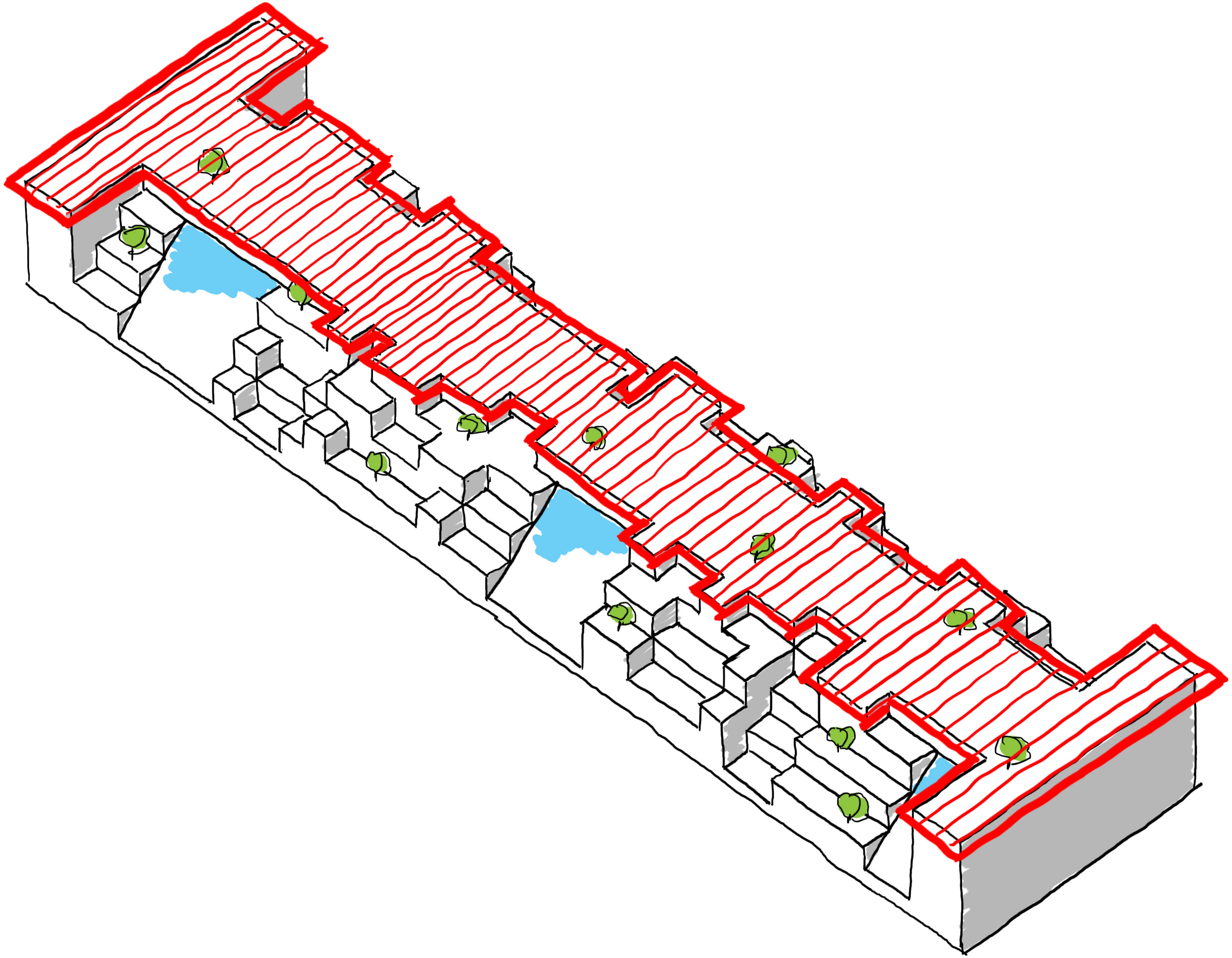
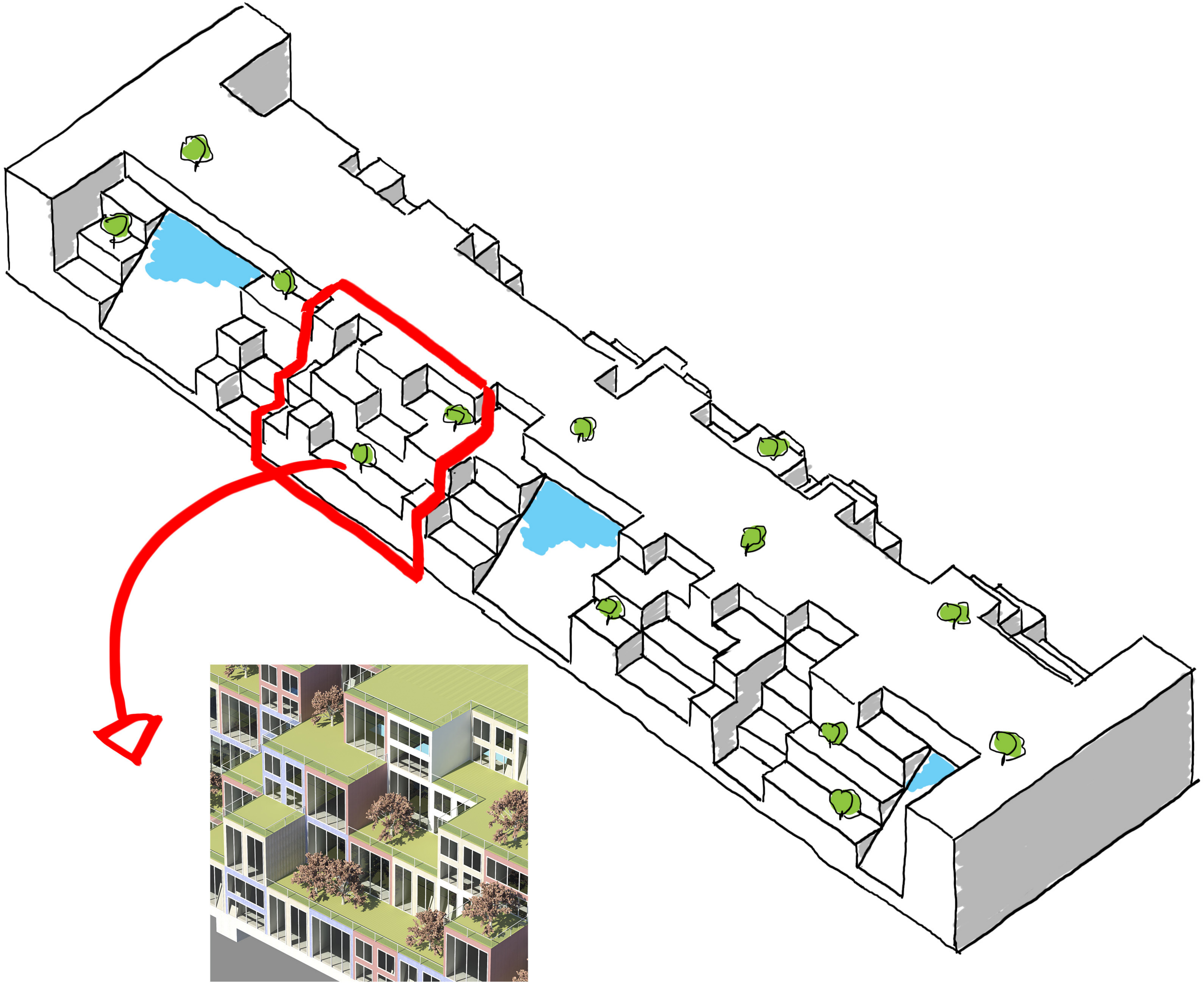

West









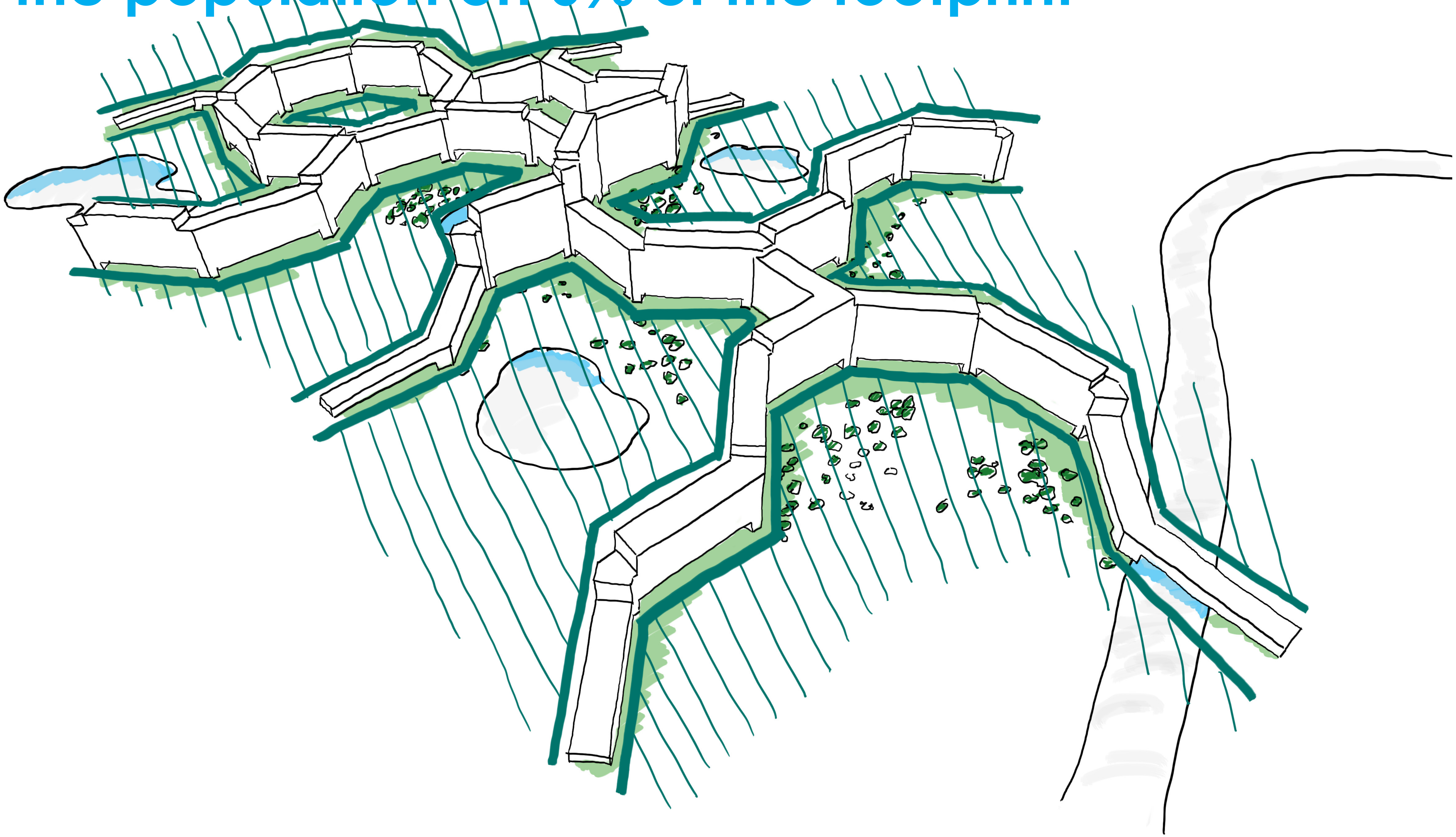


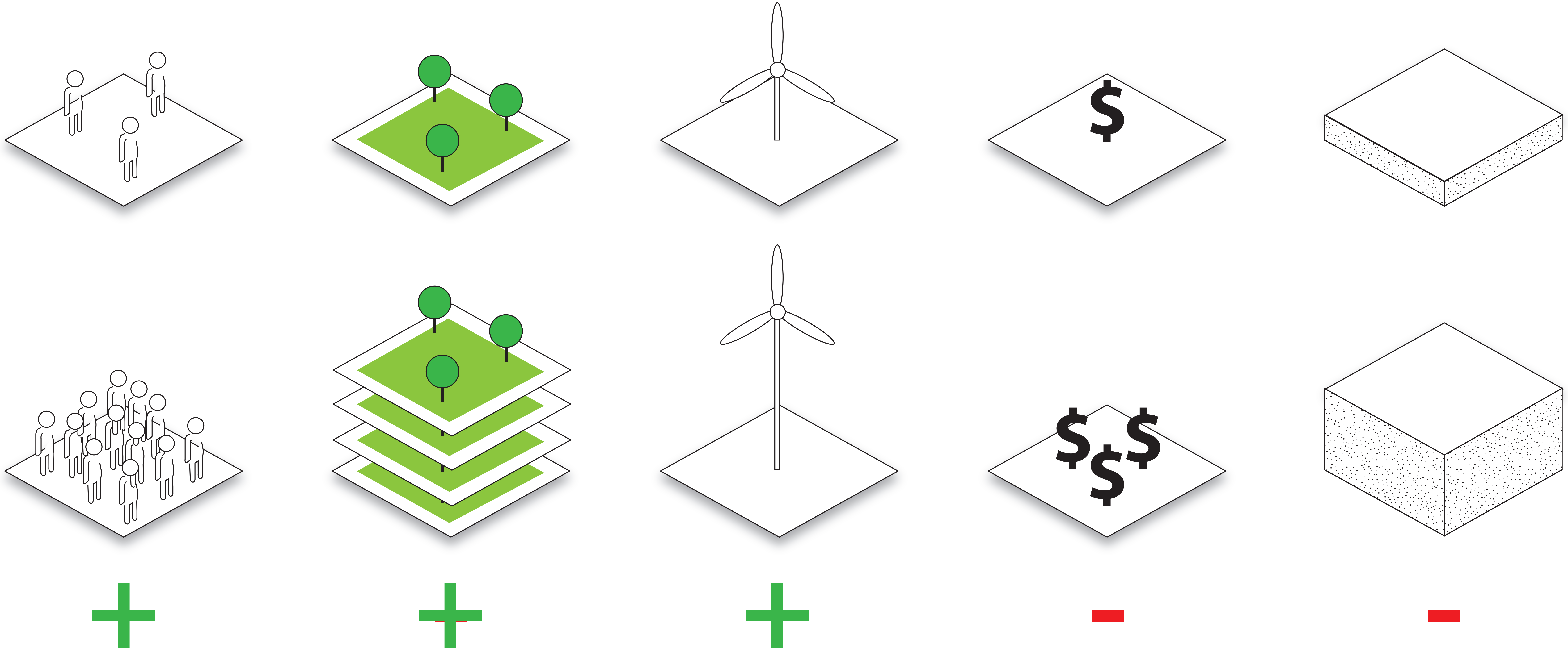
QUALITY!

SUSTAINABILITY

5652000m2 extra ground relative to benchmark

3x times the population on 6% of the footprint





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