

BEYOND MONOTONY

Transforming post-war porch flats in Amsterdam Nieuw-West

The case of the Johan Jongkindstraat



Graduation Studio H&A | P5 Presentation
Adapting 20th Century Heritage - Resourceful Housing

Julia Veerhuis
4870123

Design mentor: Uta Pottgieser

Building Technology mentor: Paddy Tomesen

Research mentor: Telesilla Bristogianni

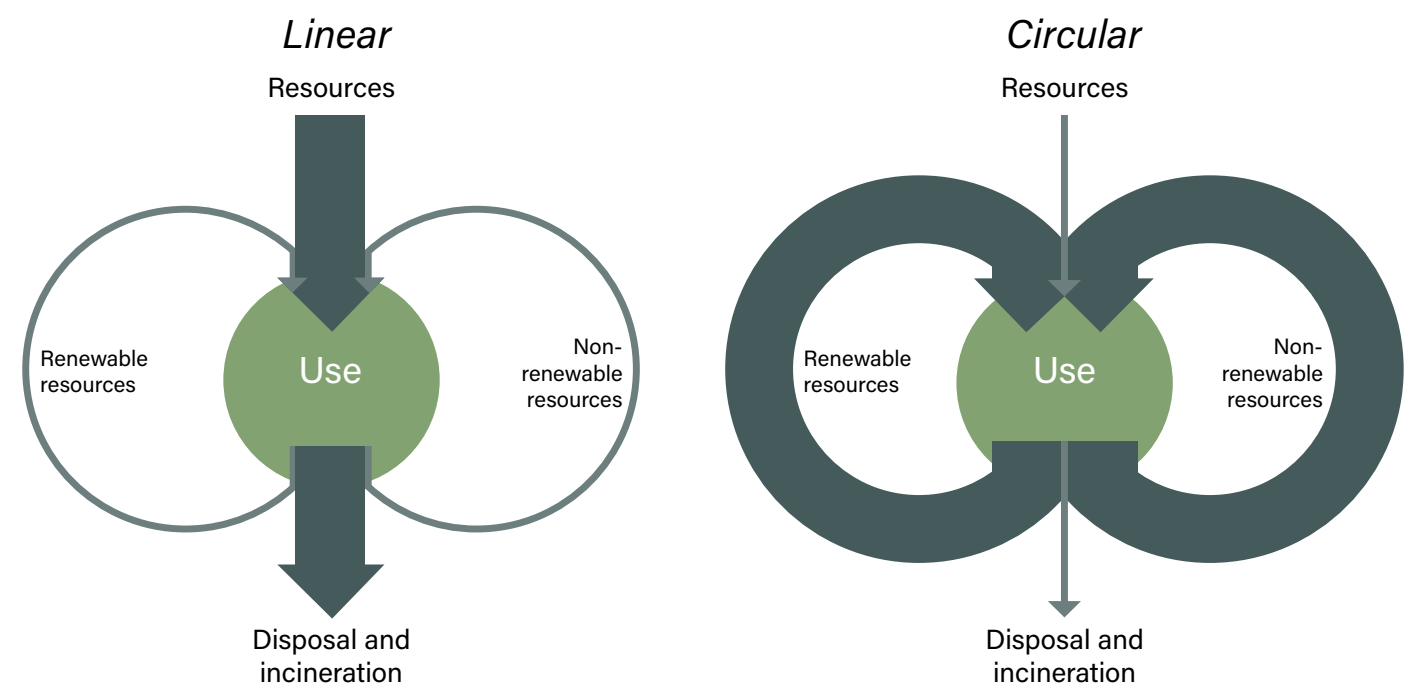
June 2024

GRADUATION STUDIO

- Housing crisis -



- Circular economy -



GRADUATION STUDIO

- **Heritage** makes the connection -



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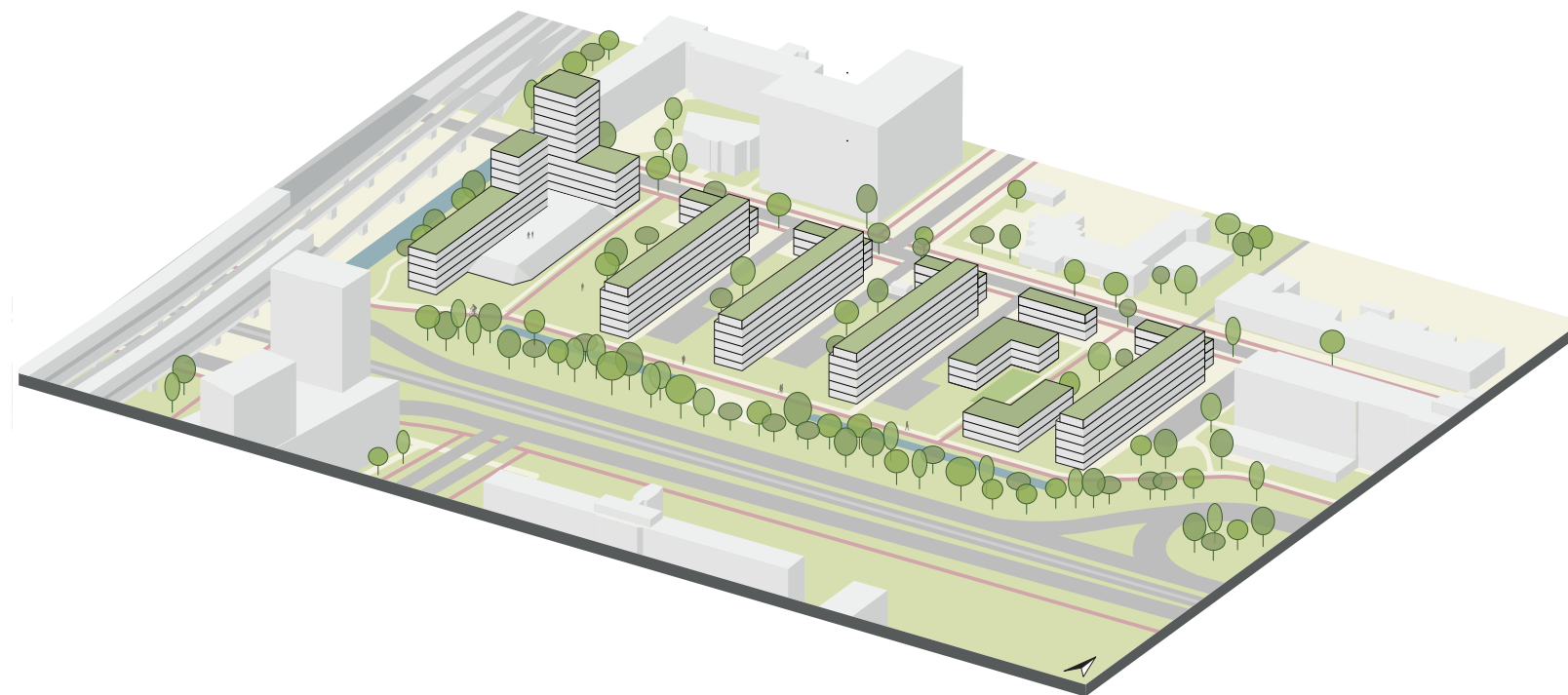
Problem statement

Research

Design case

Design proposal

Conclusion



- INTRODUCTION -

AMSTERDAM NIEUW-WEST



ALGEMEEN UITBREIDINGSPLAN



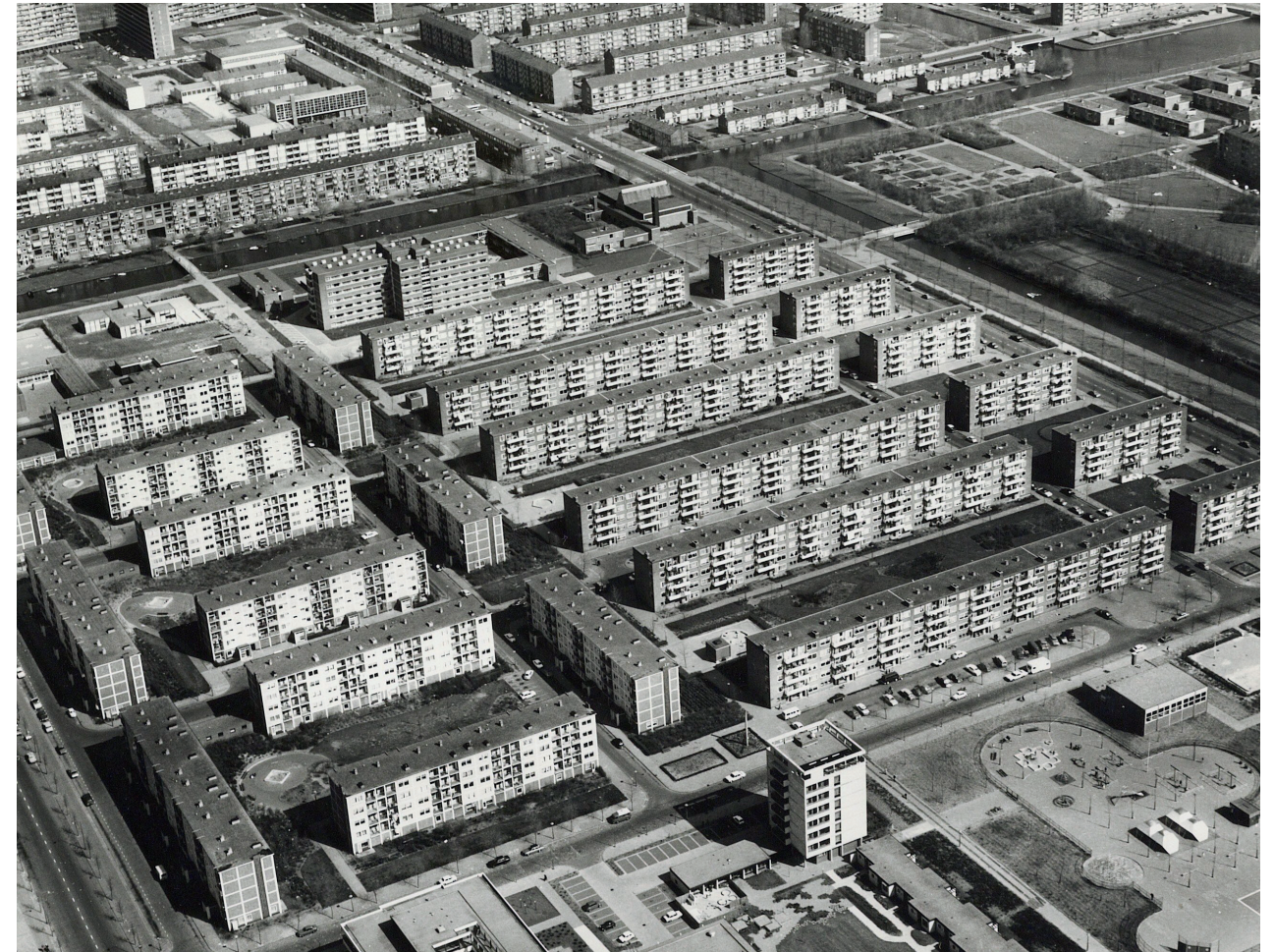
NIEUW-WEST



NIEUW-WEST



NIEUW-WEST



NIEUW-WEST



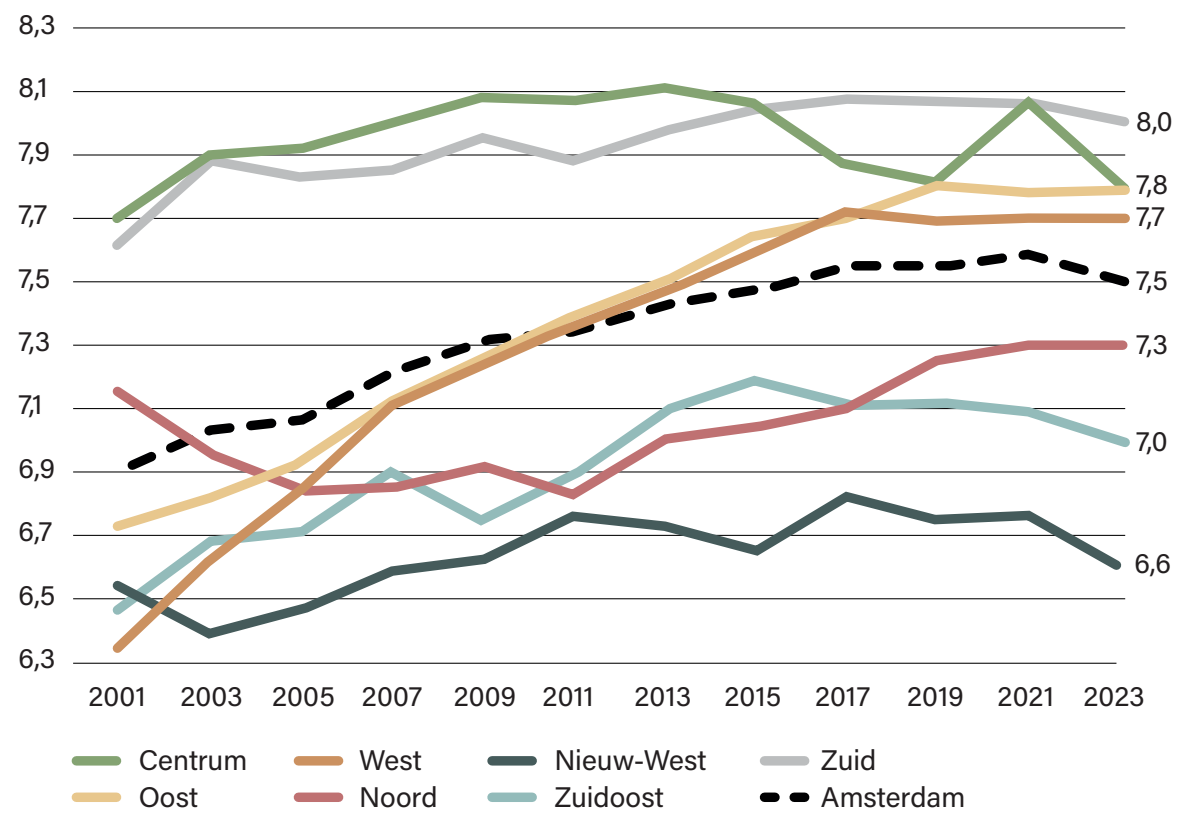
NIEUW-WEST



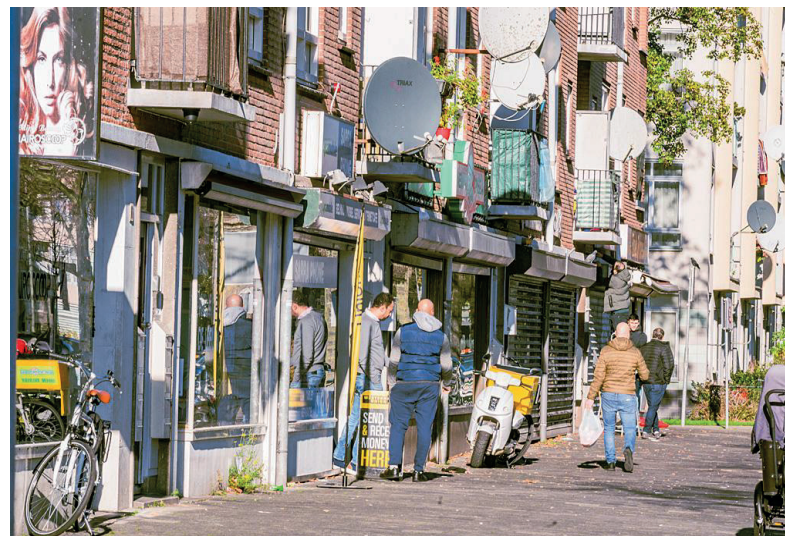
NIEUW-WEST

— The euphoria did not last for long. **Poor quality** of the
Western Garden Cities. Buildings are **outdated** and
neighbourhoods are **neglected**. —

NIEUW-WEST



Satisfaction with city district
(Gemeente Amsterdam, 2021)



NIEUW-WEST

— Western Garden Cities are **listed** by the National
— Cultural Heritage Agency of the Netherlands because of
its **meaningful urban plan.** —

- PROBLEM STATEMENT -

PROBLEM STATEMENT

Housing crisis

Reconsidering the current housing stock

Need for circular solutions

The construction industry has a great environmental impact

Quality Western Garden City

The vision of the past is gone and the district faces many problems

NIEUW-WEST



- RESEARCH -

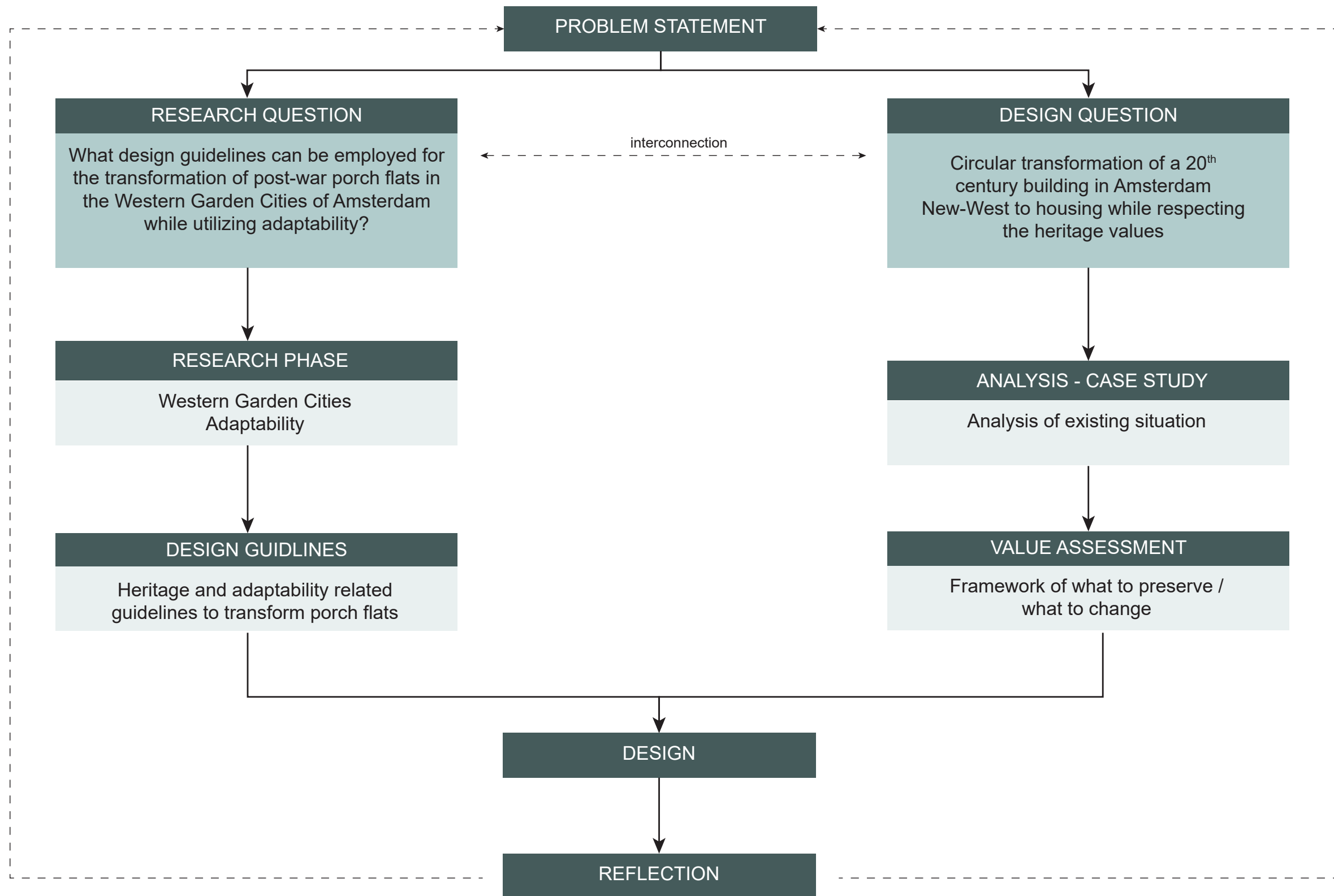
RESEARCH QUESTION

— What **design guidelines** can be employed for the transformation
of post-war porch flats in the **Western Garden Cities of** —
Amsterdam while utilizing **adaptability**?

RELEVANCE

- Little knowledge about renovating with adaptability —
- No overarching strategy on how to transform in the —
Western Garden Cities

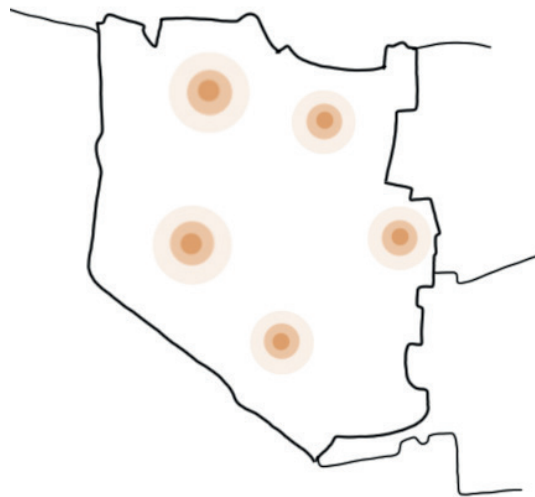
RESEARCH & DESIGN



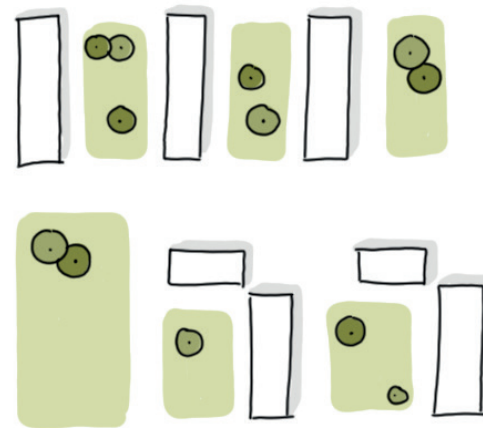
FINDINGS

Western Garden Cities | Problems urban scale

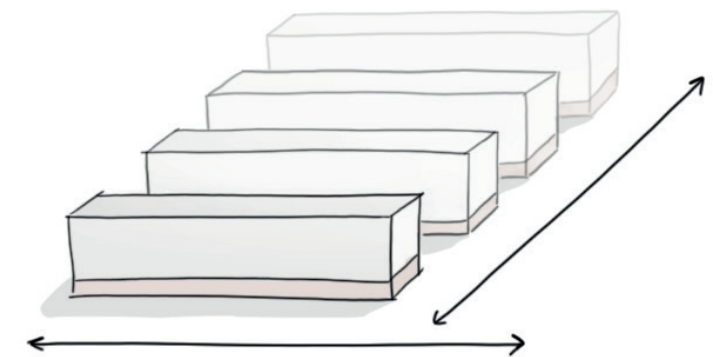
Lack of urbanity,
centered public funtions



Uniform greenery



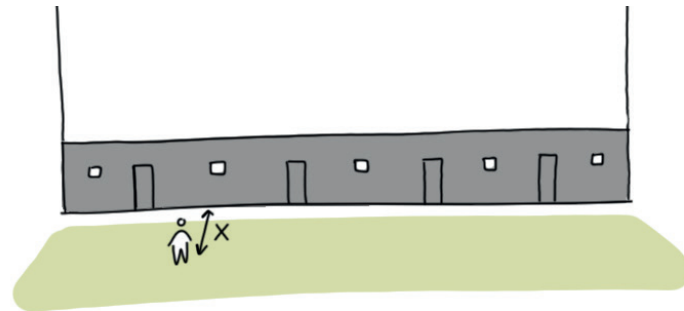
Sober character



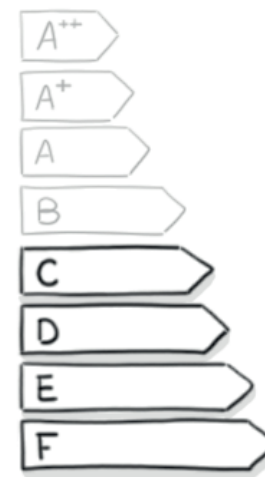
FINDINGS

Western Garden Cities | Problems building scale

Closed ground floors



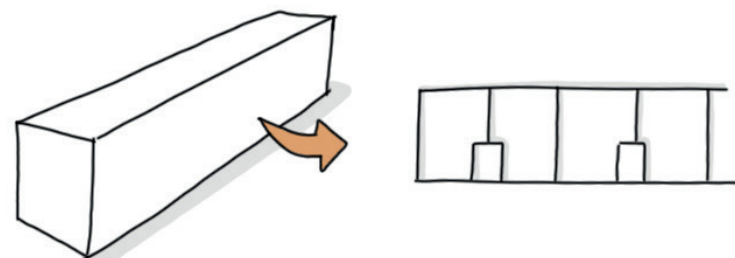
Poor building qualities



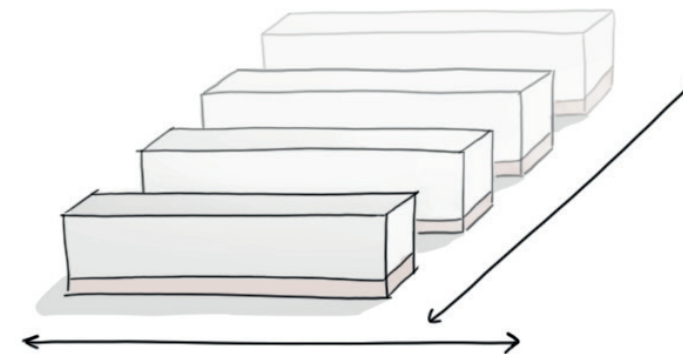
Stigma



Little diversity in dwellings & small living rooms



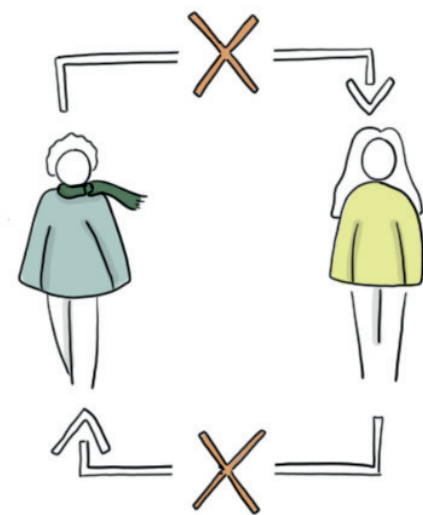
Sober appearance



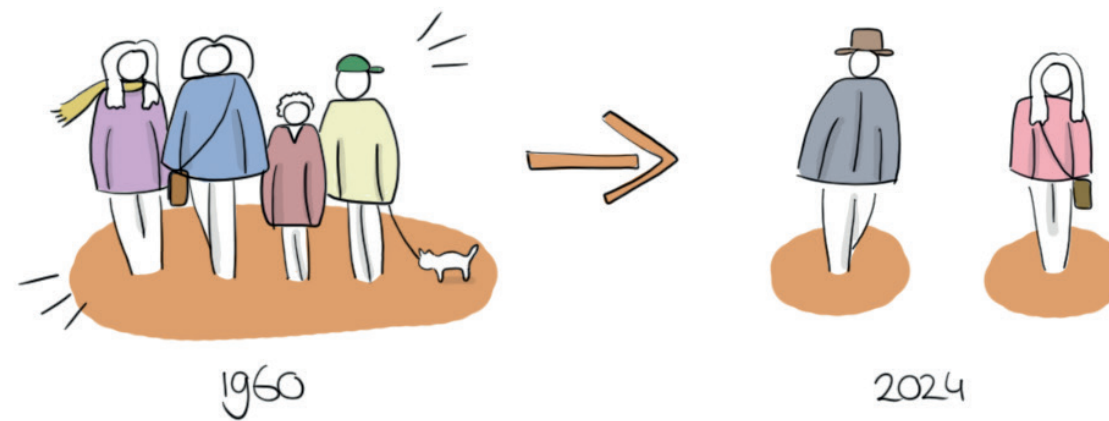
FINDINGS

Western Garden Cities | Problems residents and visitors scale

Lack of social control



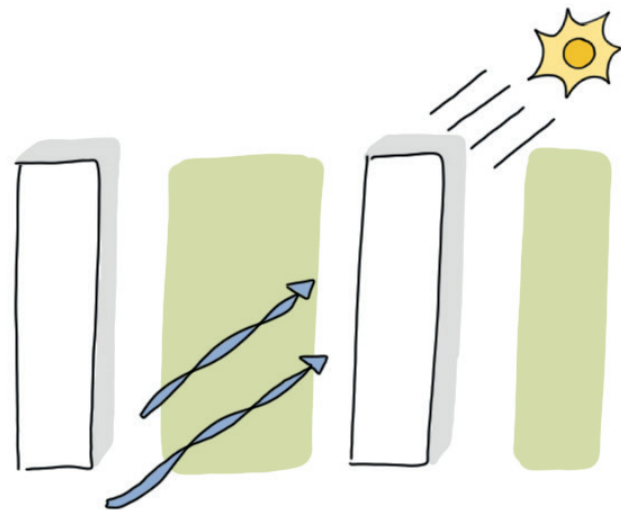
“Wijkgedachte” has disappeared



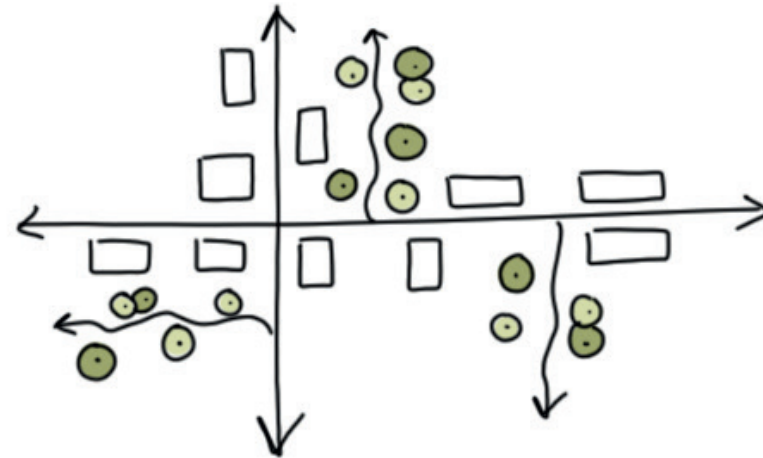
FINDINGS

Western Garden Cities | Values

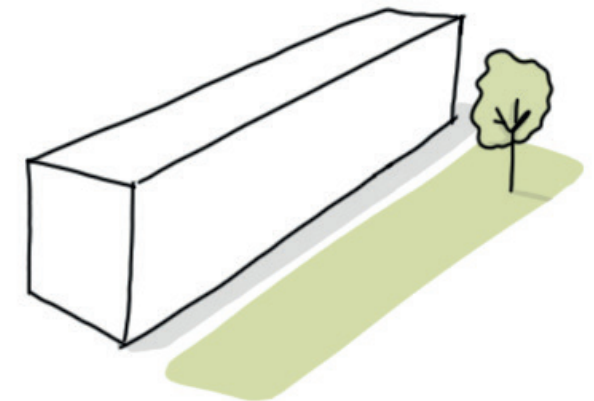
Optimal access to light, air and space



Hierarchical system



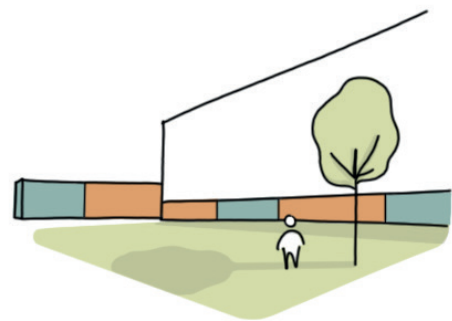
Courtyards around the buildings



DESIGN GUIDELINES

Western Garden Cities | Heritage and current wishes

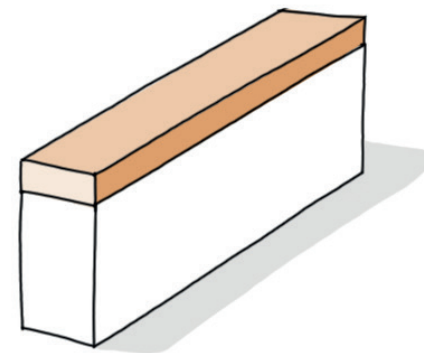
Improve urbanity by mixing functions



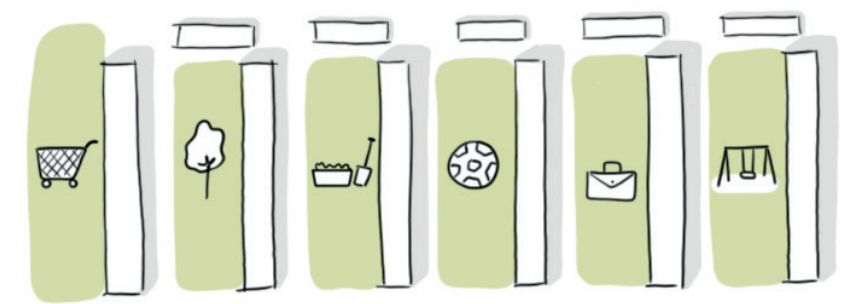
Create more space for social interaction



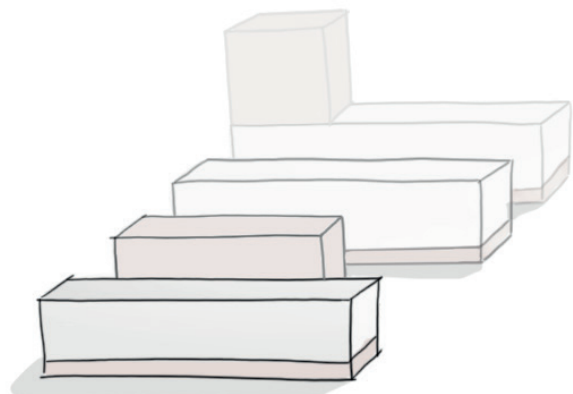
Densify to optimize space utilization



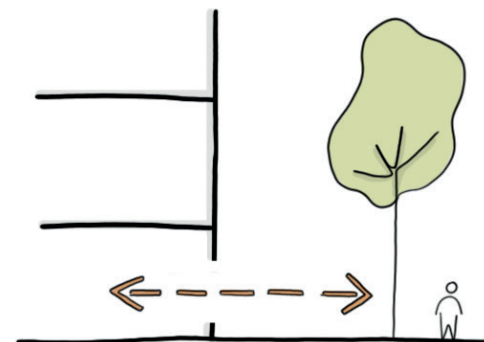
Diversify courtyards



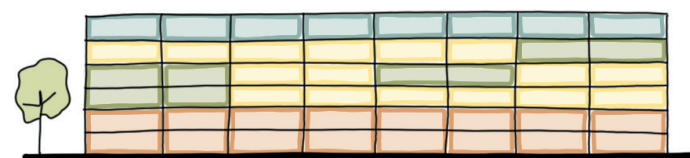
Differentiation in design



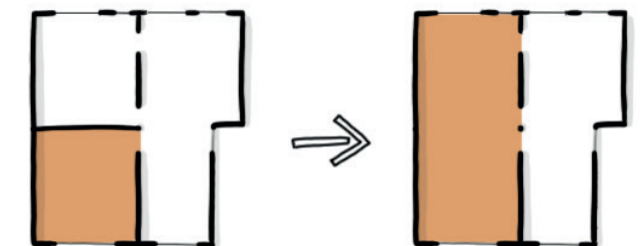
Connect to the surroundings



Variation in dwellings



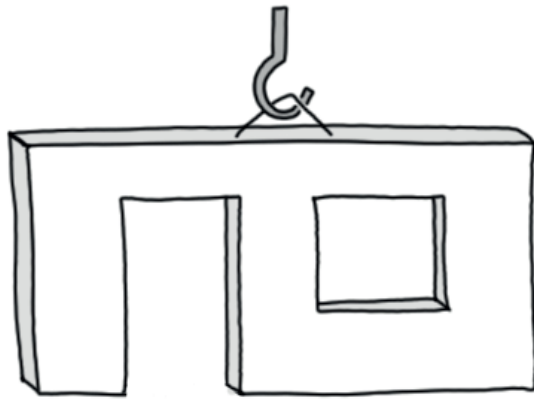
Create larger living rooms



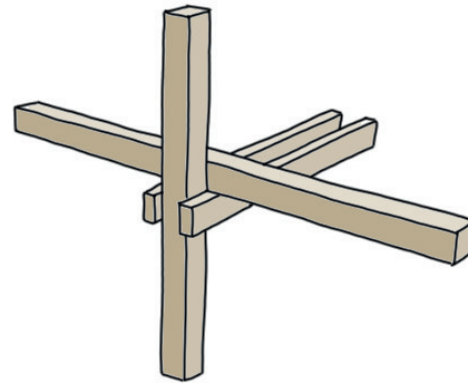
DESING GUIDELINES

Adaptability

Prefabricated materials



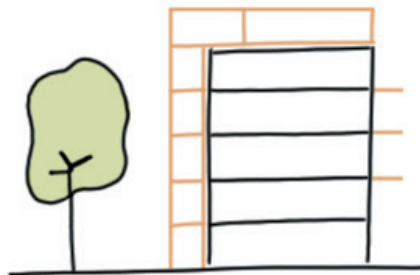
Simple joints



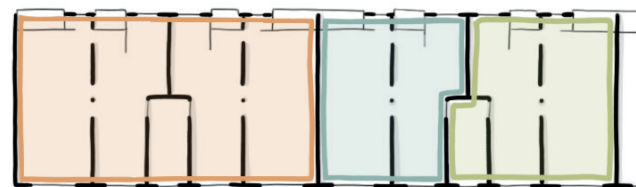
Ensure reversibility



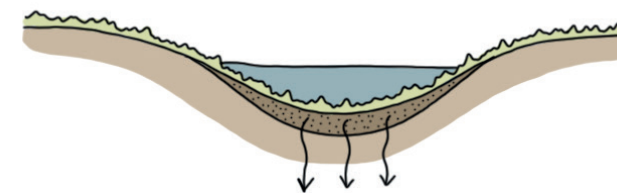
Seperate construction



Possibility to split or merge dwellings



Prepare for climatic changes

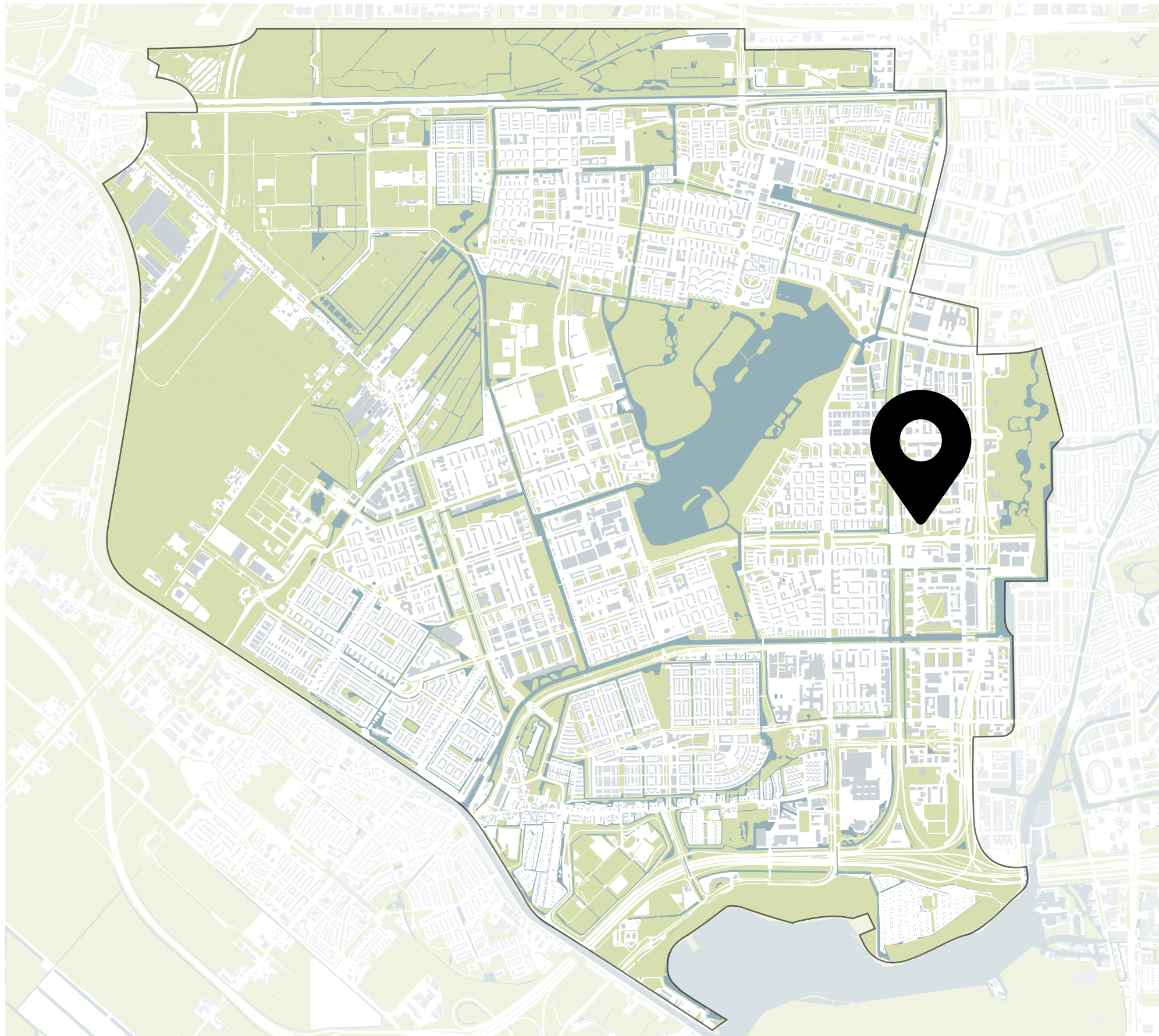


TRANSFERABILITY

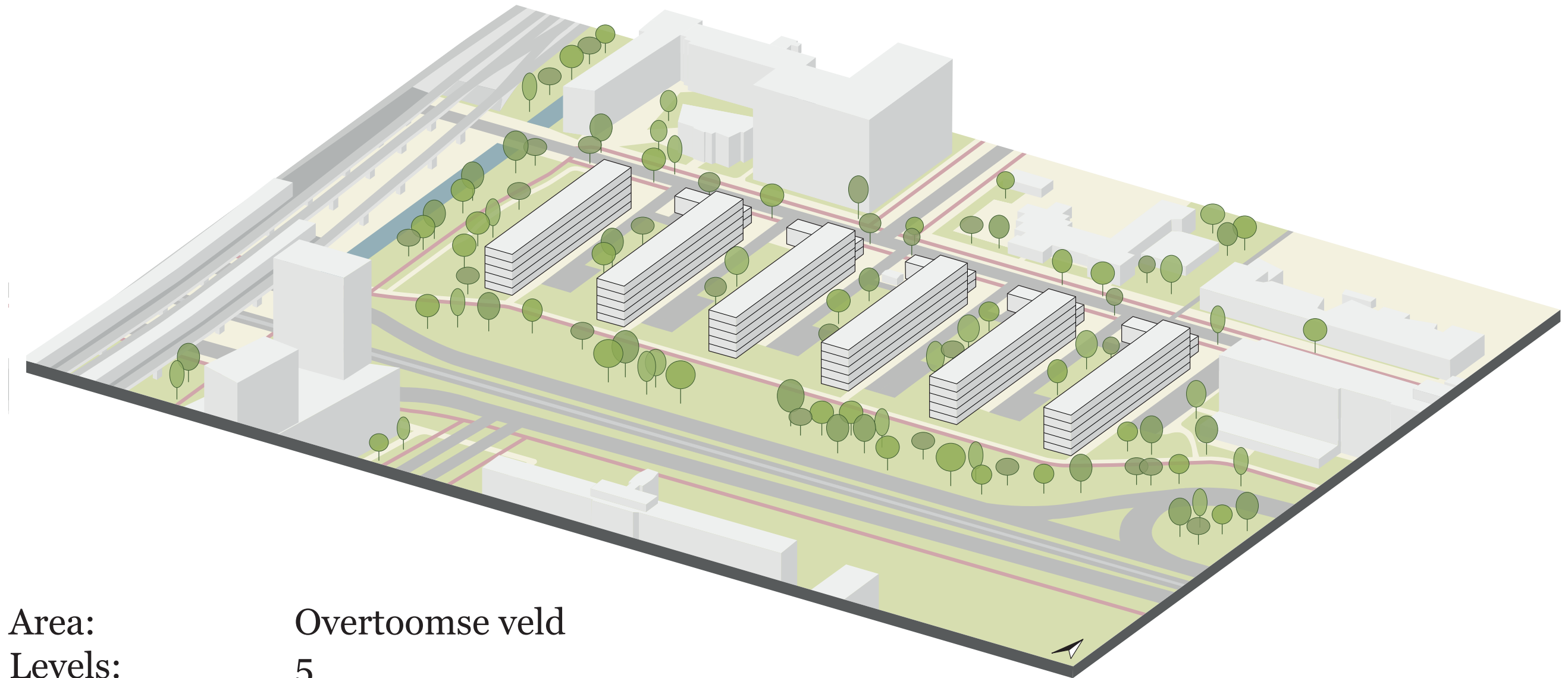
— The trustworthiness of the results depends on
understanding that these guidelines are more a
flexible framework for exploring ideas rather than
strict rules —

- DESIGN CASE -

LOCATION



SITE



Area:	Overtoomse veld
Levels:	5
Construction:	Airey
Parcel form:	Strips
Architect:	Berghoef & Klarenbeek

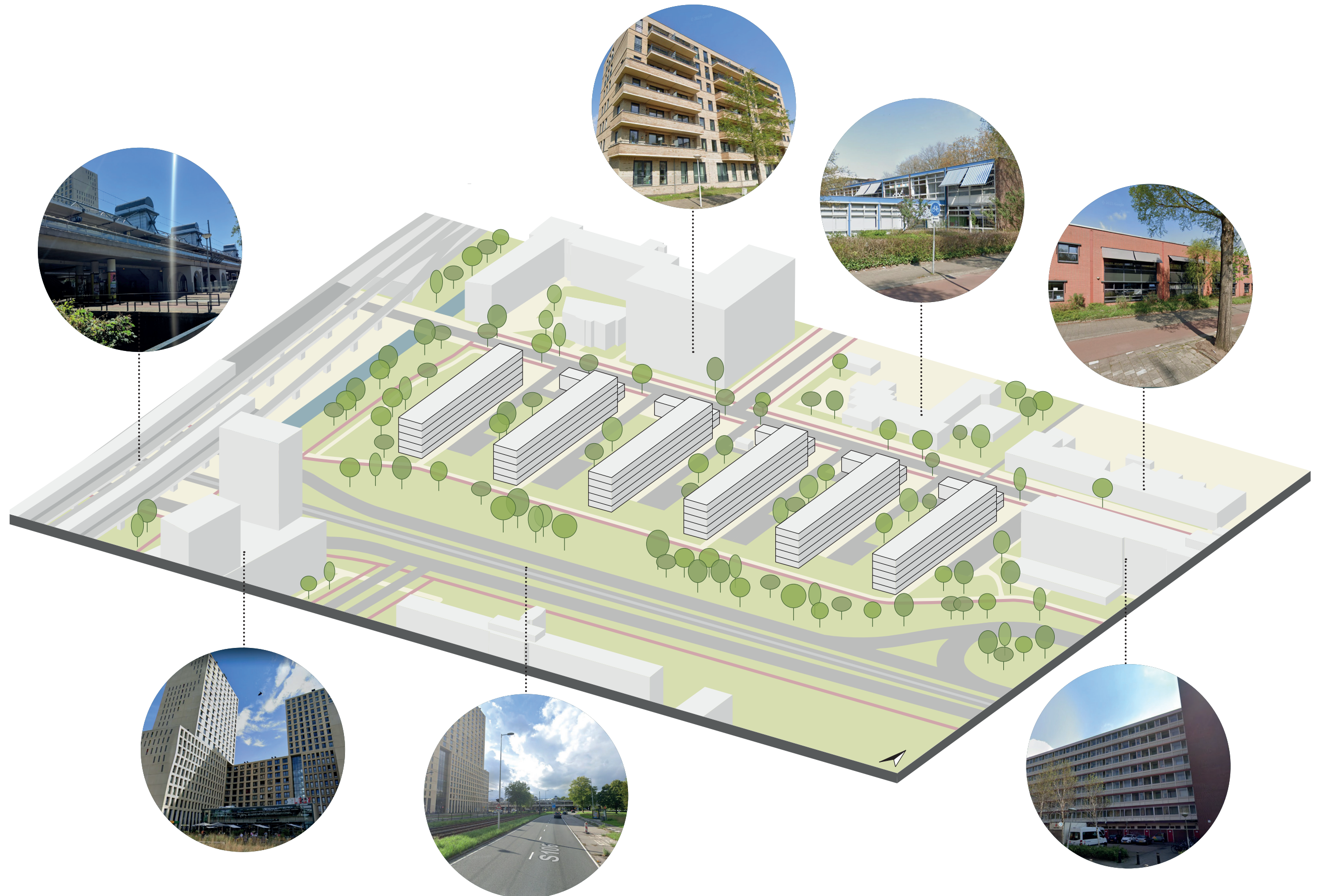
JOHAN JONGKINDSTRAAT



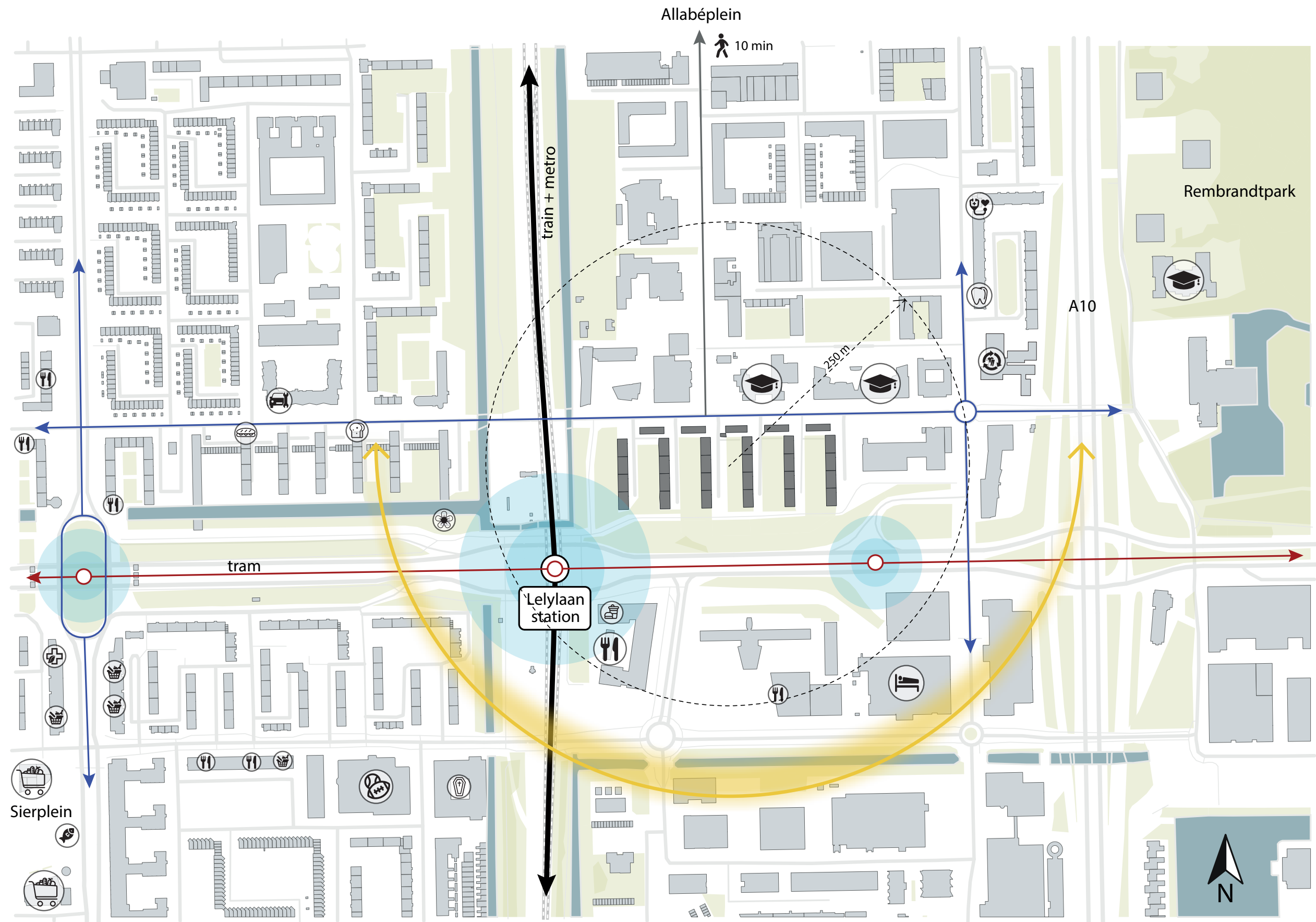
JOHAN JONGKINDSTRAAT



NEIGHBOURHOOD

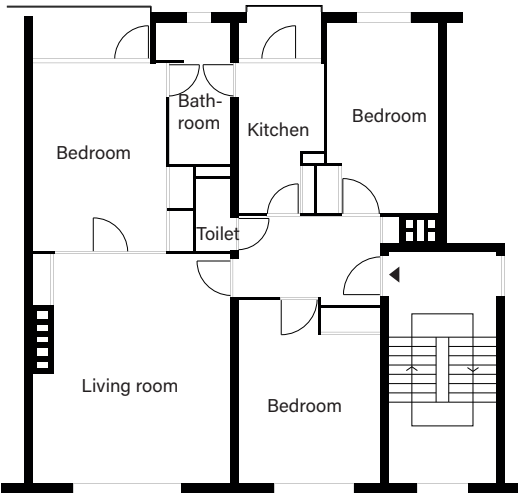


NEIGHBOURHOOD



PORCH FLATS

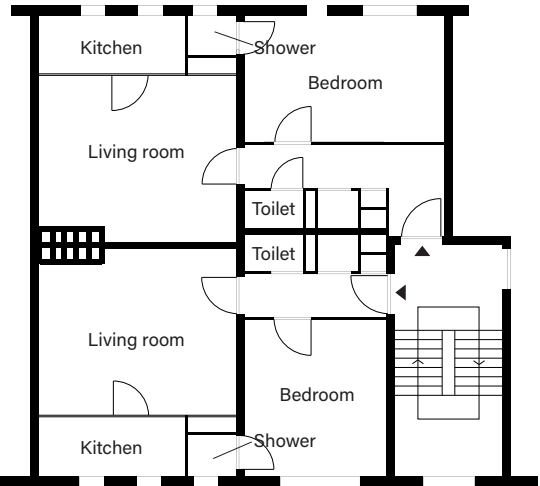
Family apartment (A)



- 28x per flat
- Max. 7 people
- 2 balconies
- Living area: 20,5 m²
- Bedroom 1: 12 m²
- Bedroom 2: 11,4 m²
- Bedroom 3: 11 m²
- Kitchen 1: 5,5 m²

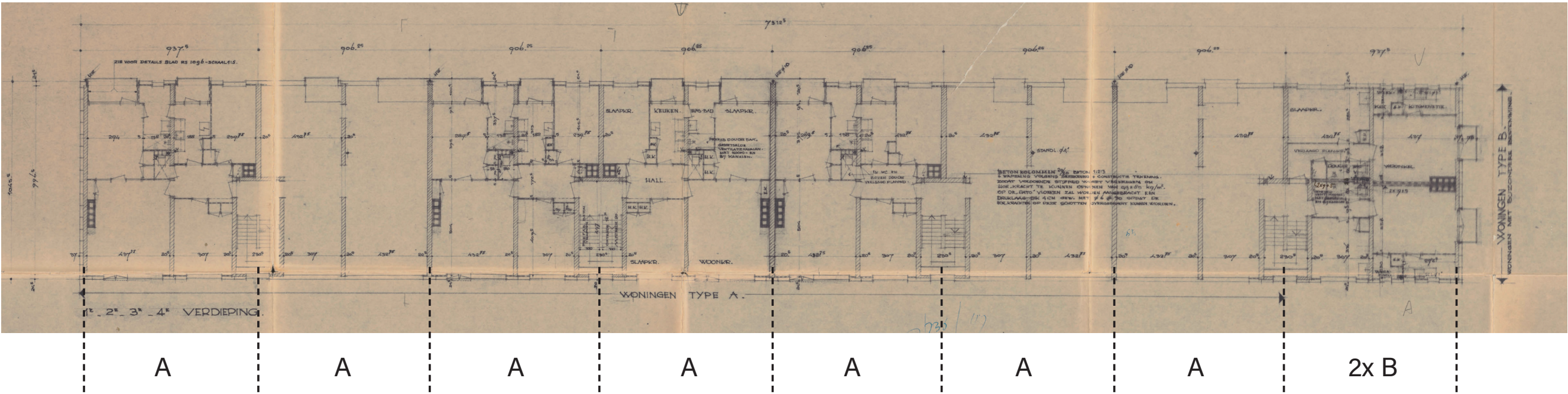
(60,4 m²)

Couple apartment (B)

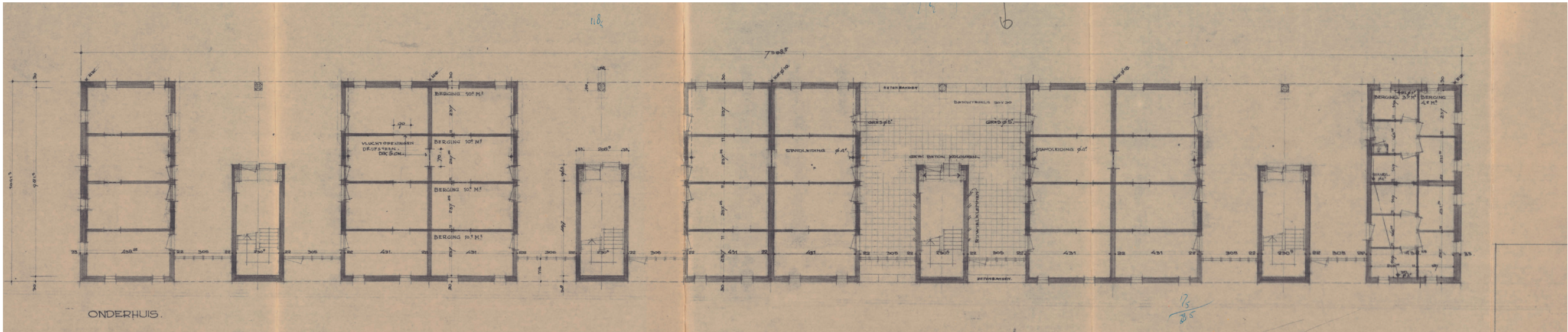
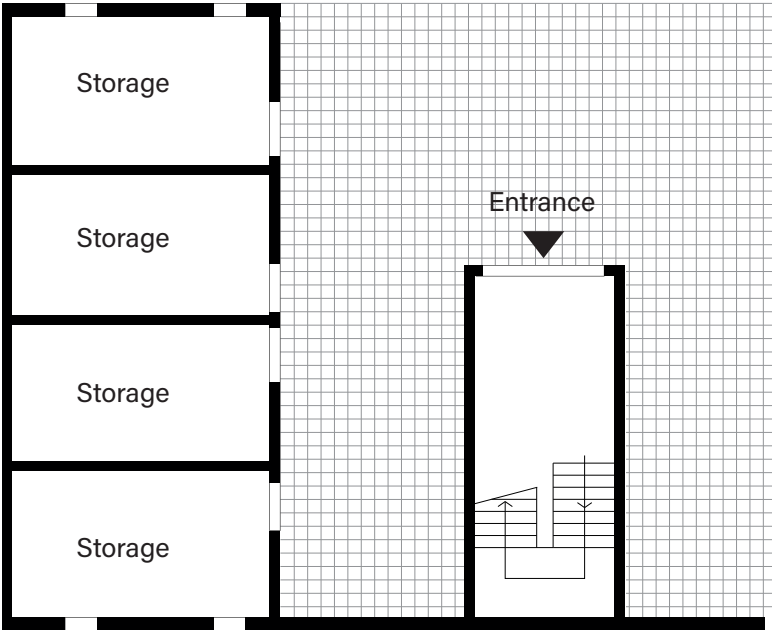


- 8x per flat
- Couple
- 1 balcony
- Living room: 15,5 m²
- Bedroom: 10-12,4 m²
- Kitchen: 4,6 m²

(30,1 - 32,5 m²)

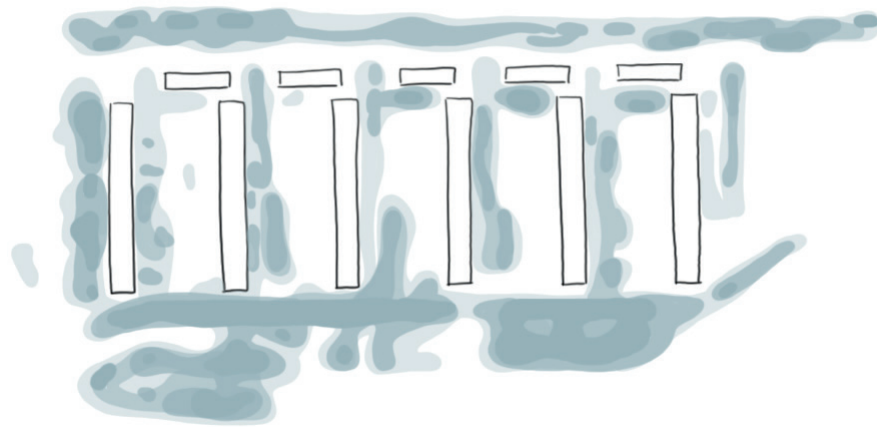


PORCH FLATS

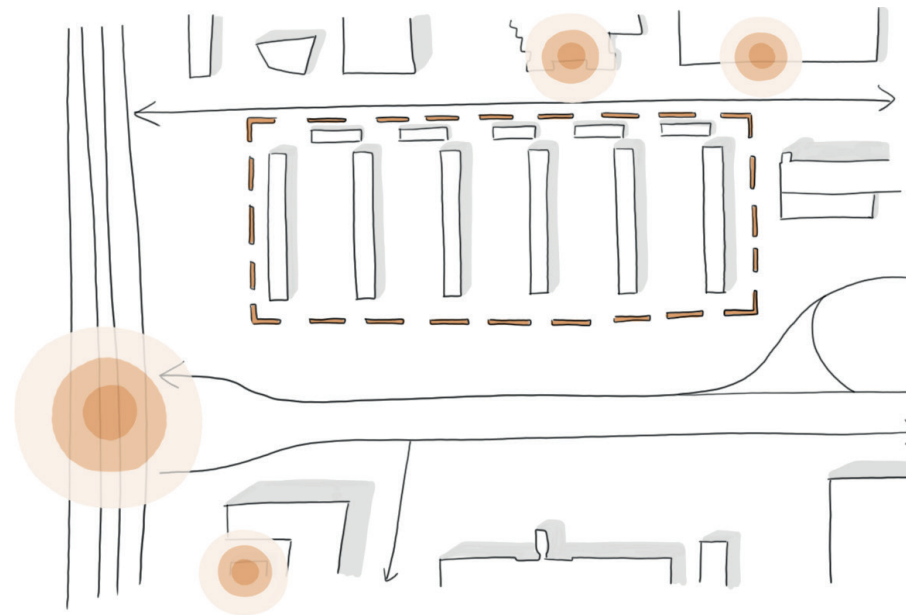


PROBLEMS

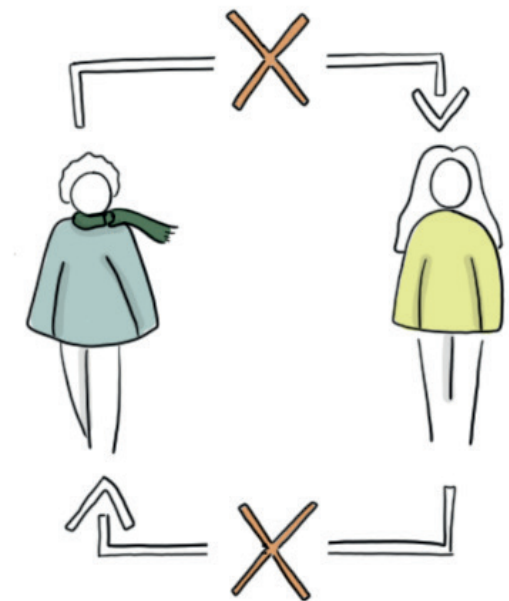
Flooding



Little connection with surroundings

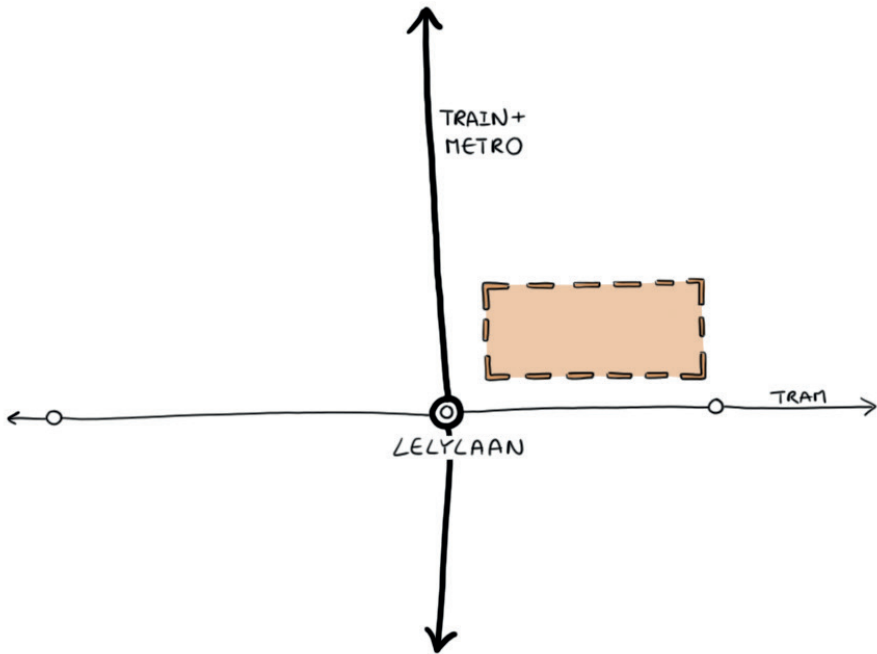


Unsafe feeling

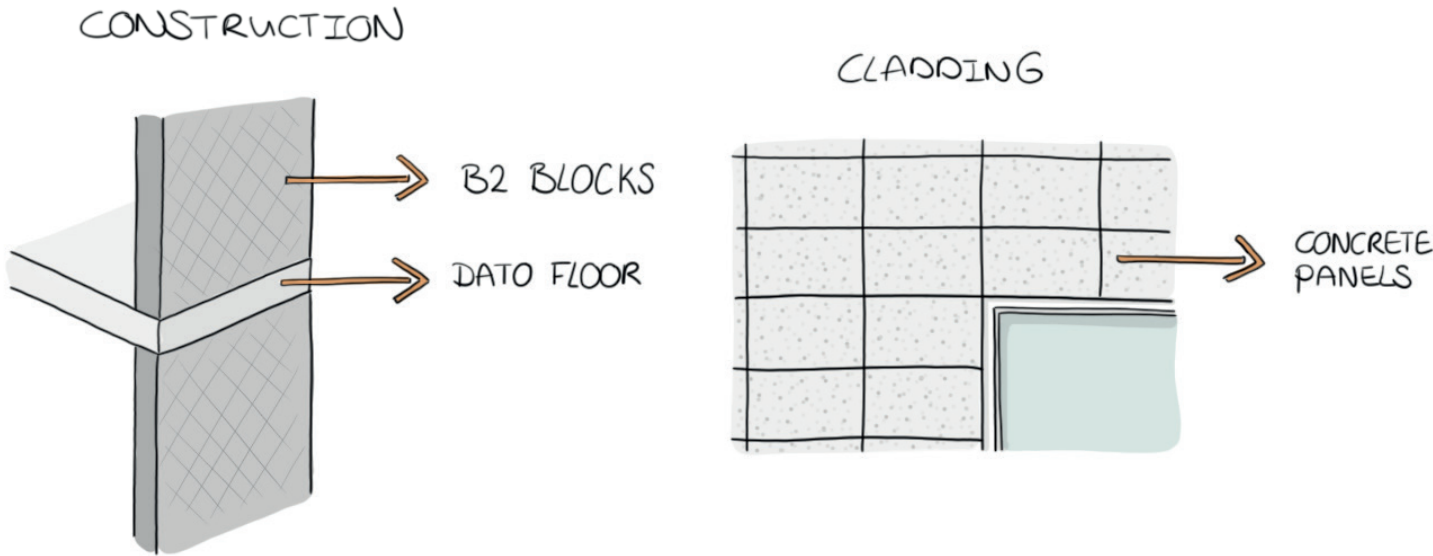


VALUES

Public transport closeby

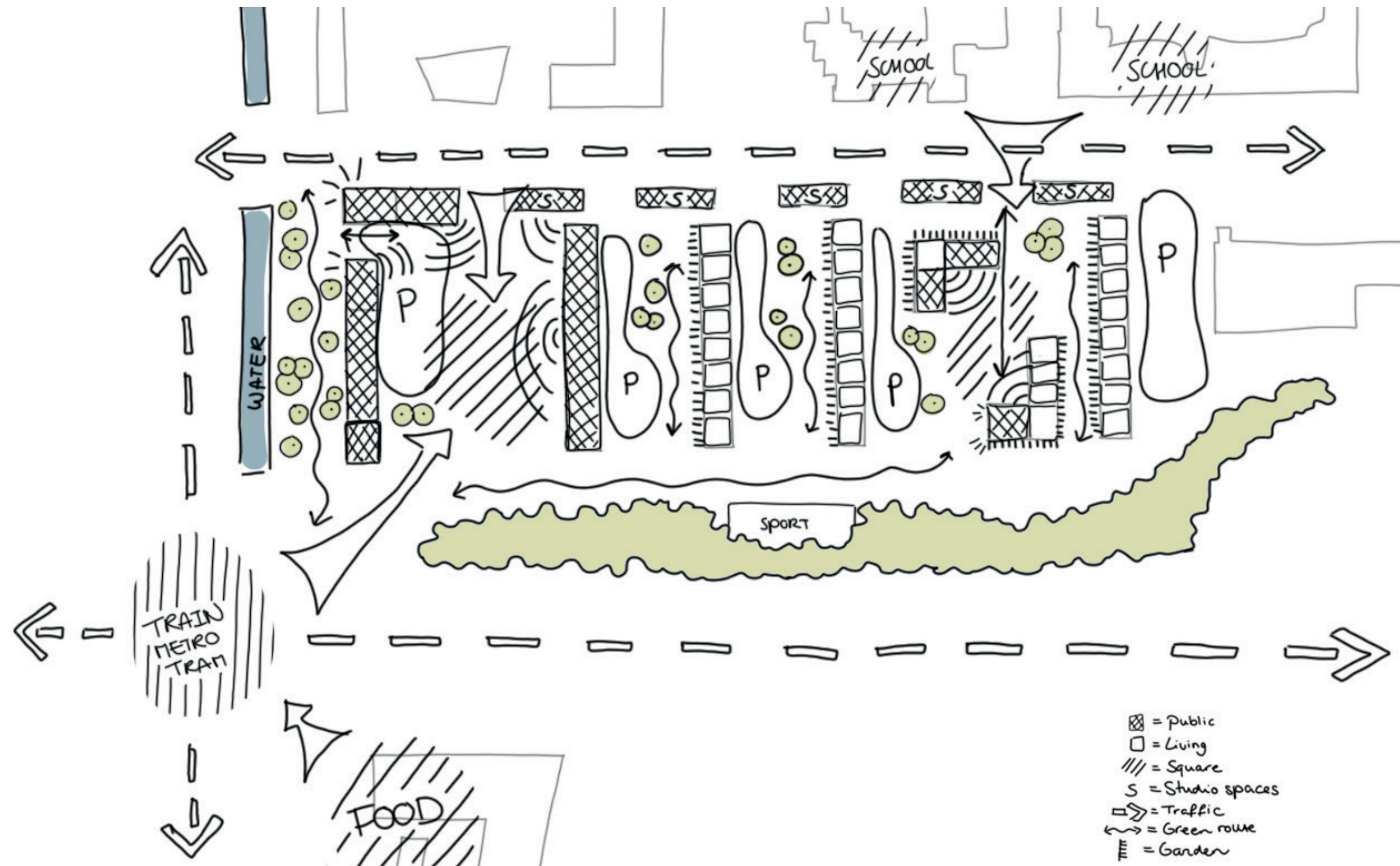


Airey construction system

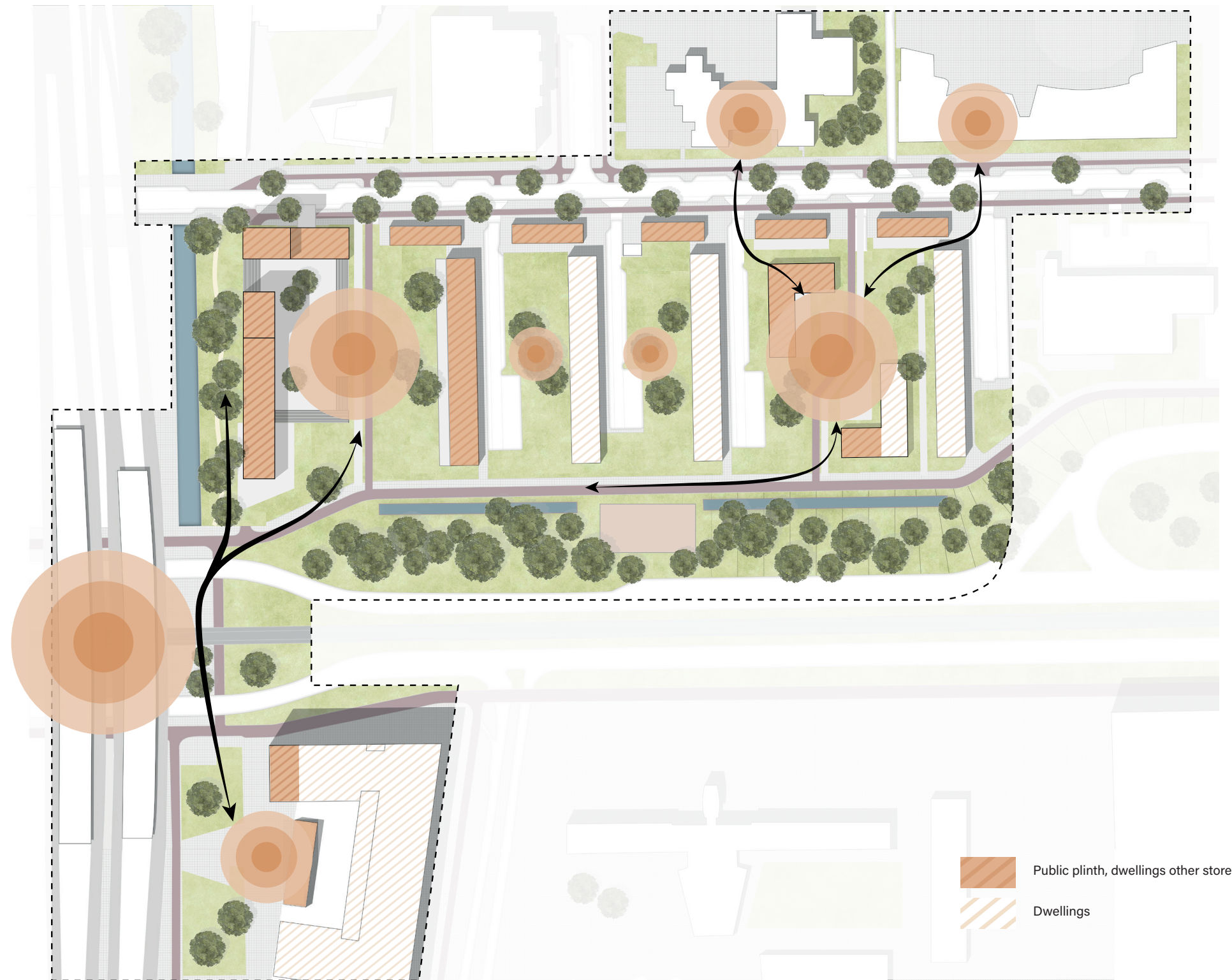


- DESIGN PROPOSAL -

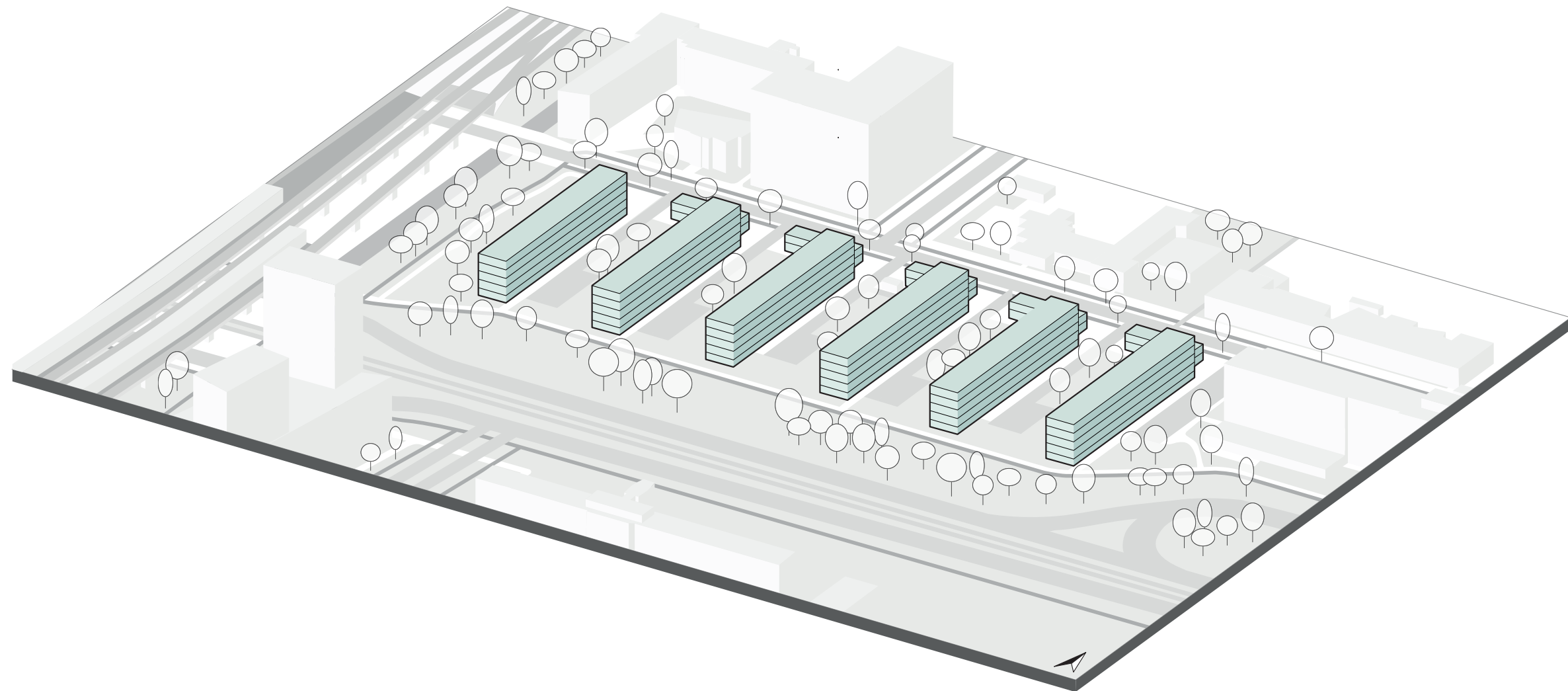
CONCEPT MAP



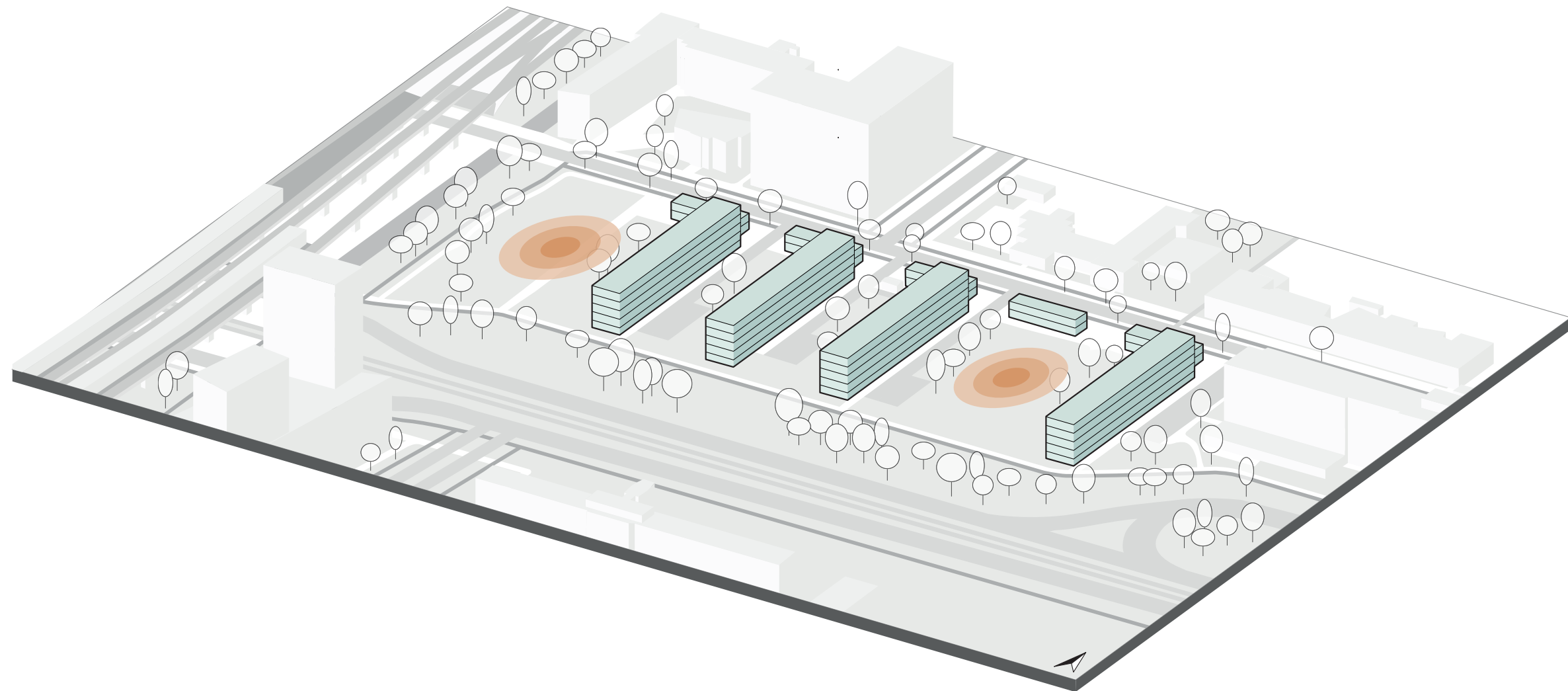
MASTERPLAN



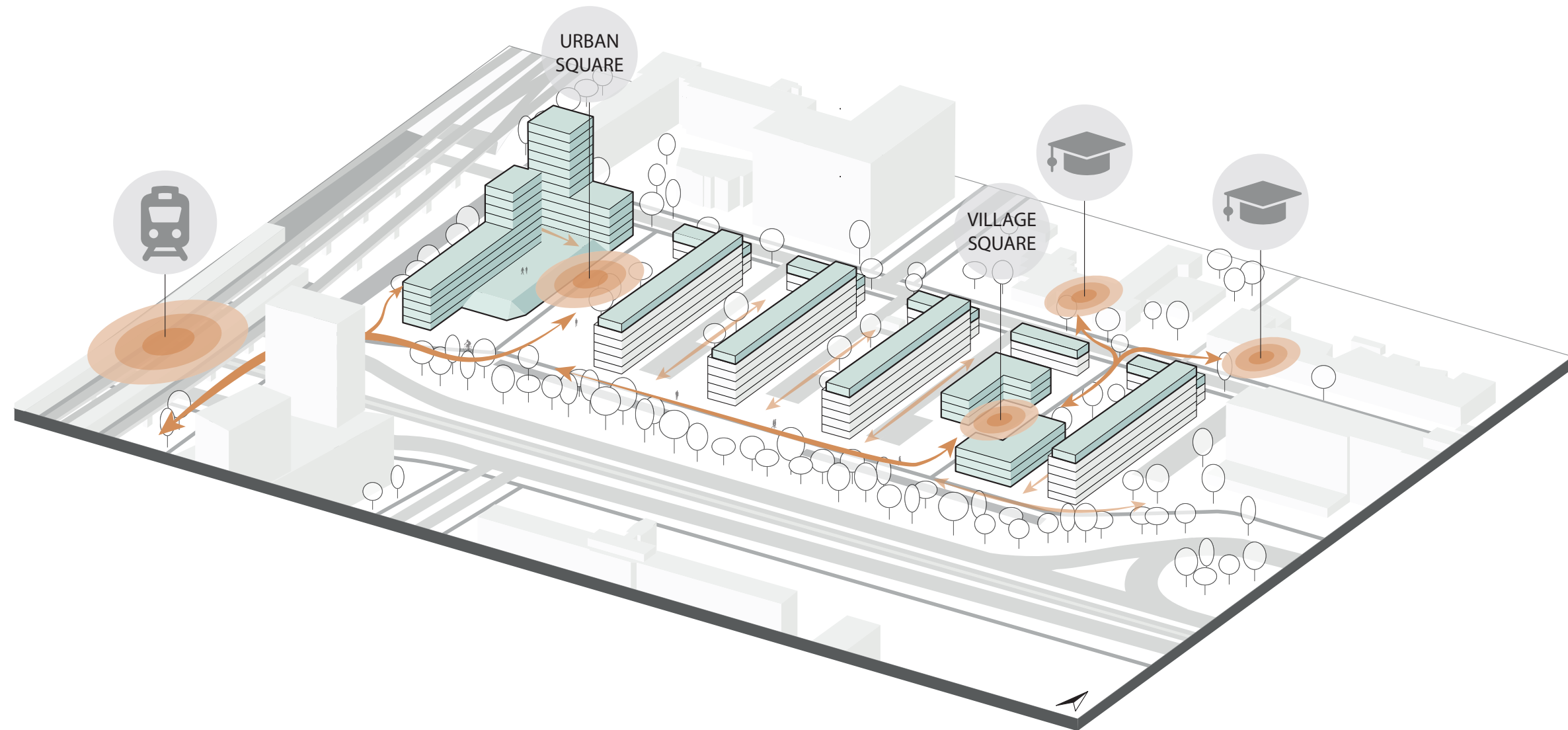
URBAN DIAGRAM



URBAN DIAGRAM



URBAN DIAGRAM



PROJECT DATA

2 housing types



11 housing types

≈ **12000 m²** housing area



≈ **20400 m²** housing area

≈ **600 m²** public and work area



≈ **3200 m²** public and work area

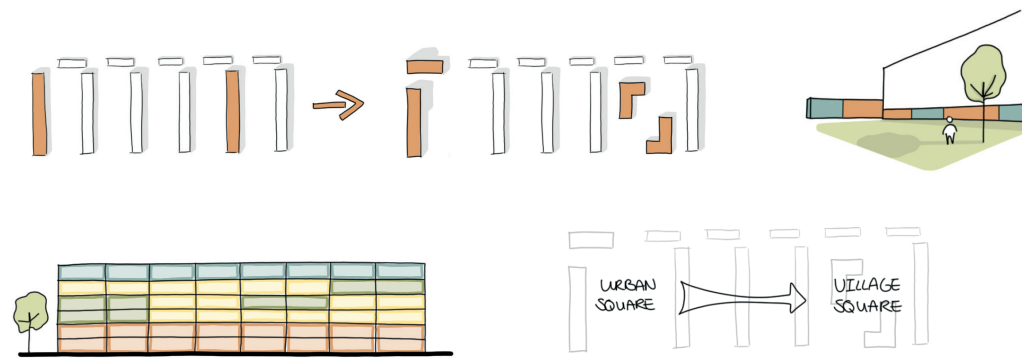
VIEW FROM LELYLAAN STATION



KEY ASPECTS

1. Breaking repetition

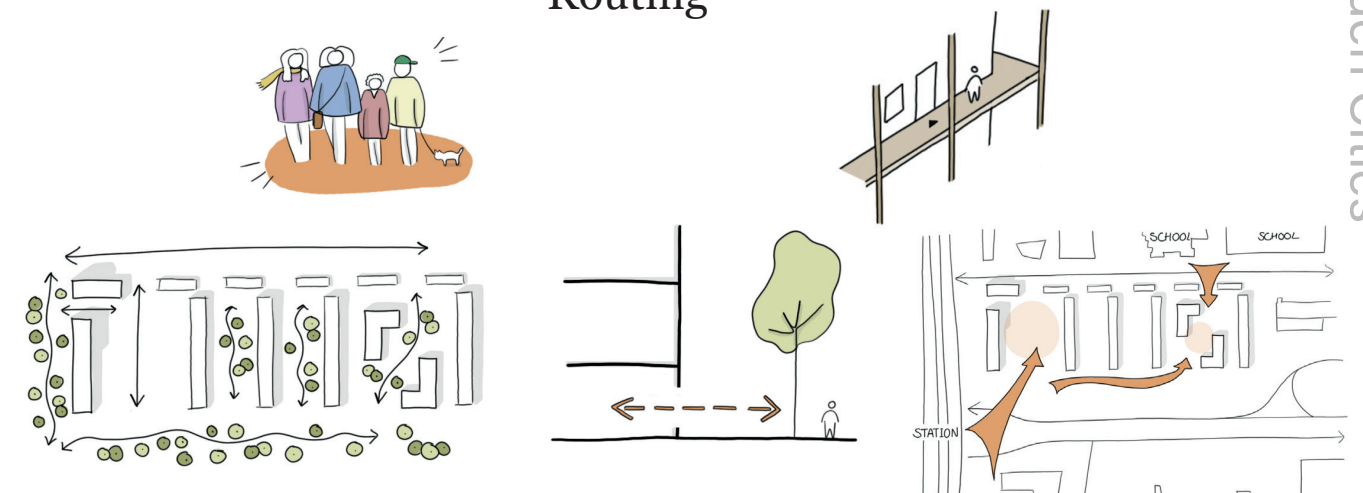
- Demolition / new build
- Variety in dwellings
- Mix in functions
- Own character to public spaces



Western Garden Cities

2. Making connections

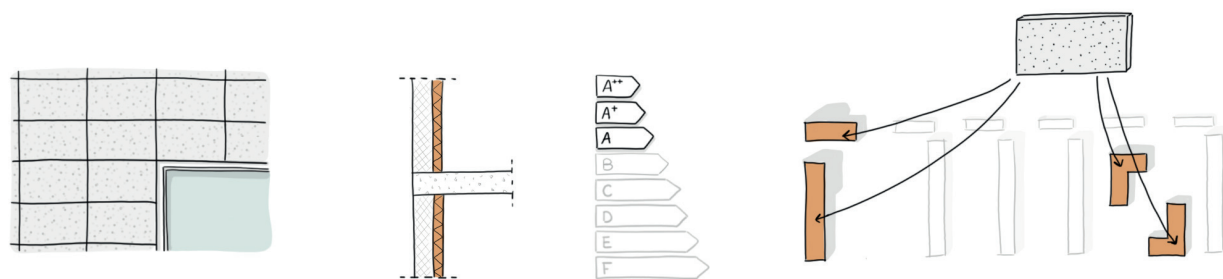
- Open ground floor
- Gallery access
- Routing



Western Garden Cities

3. Value the heritage

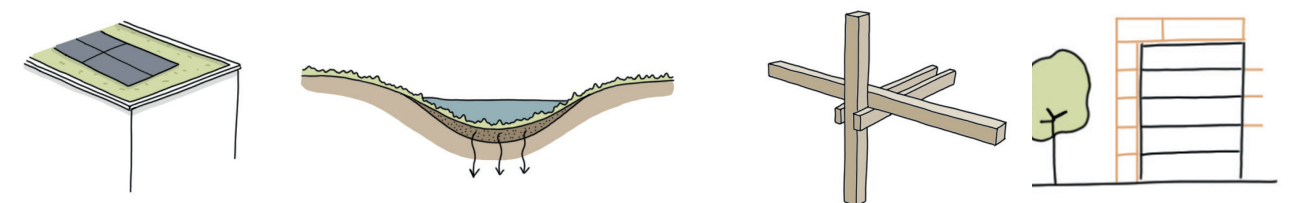
- Preserving the characteristic facade
 - Material use
 - Reuse facade tiles
- Keep openness and outdoor spaces
- Internal insulation



Western Garden Cities

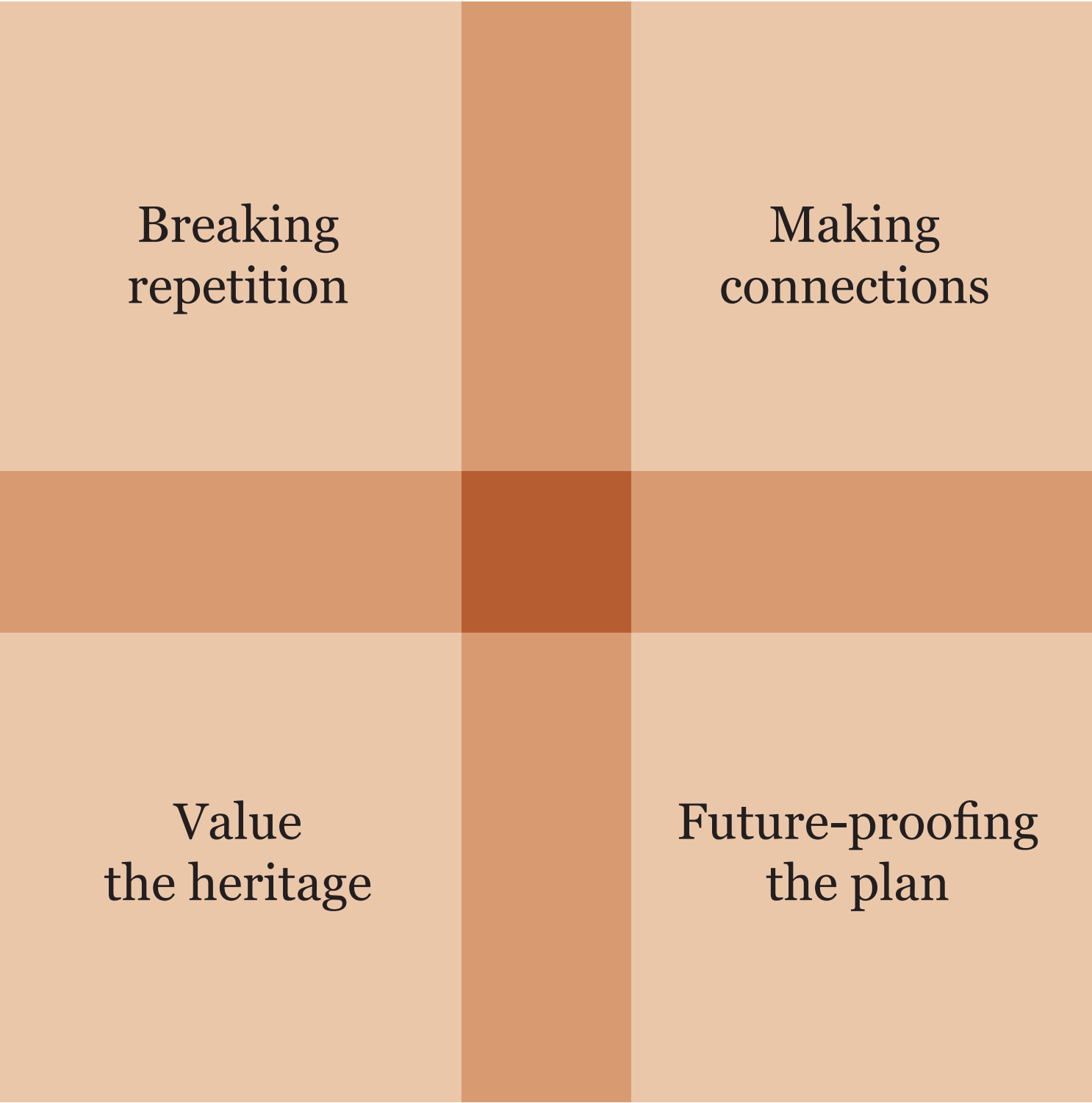
4. Future-proofing the plan

- Possibility to split or merge dwellings
- Water collection
- Sustainable materials
- Simple joints
- Seperate constructions



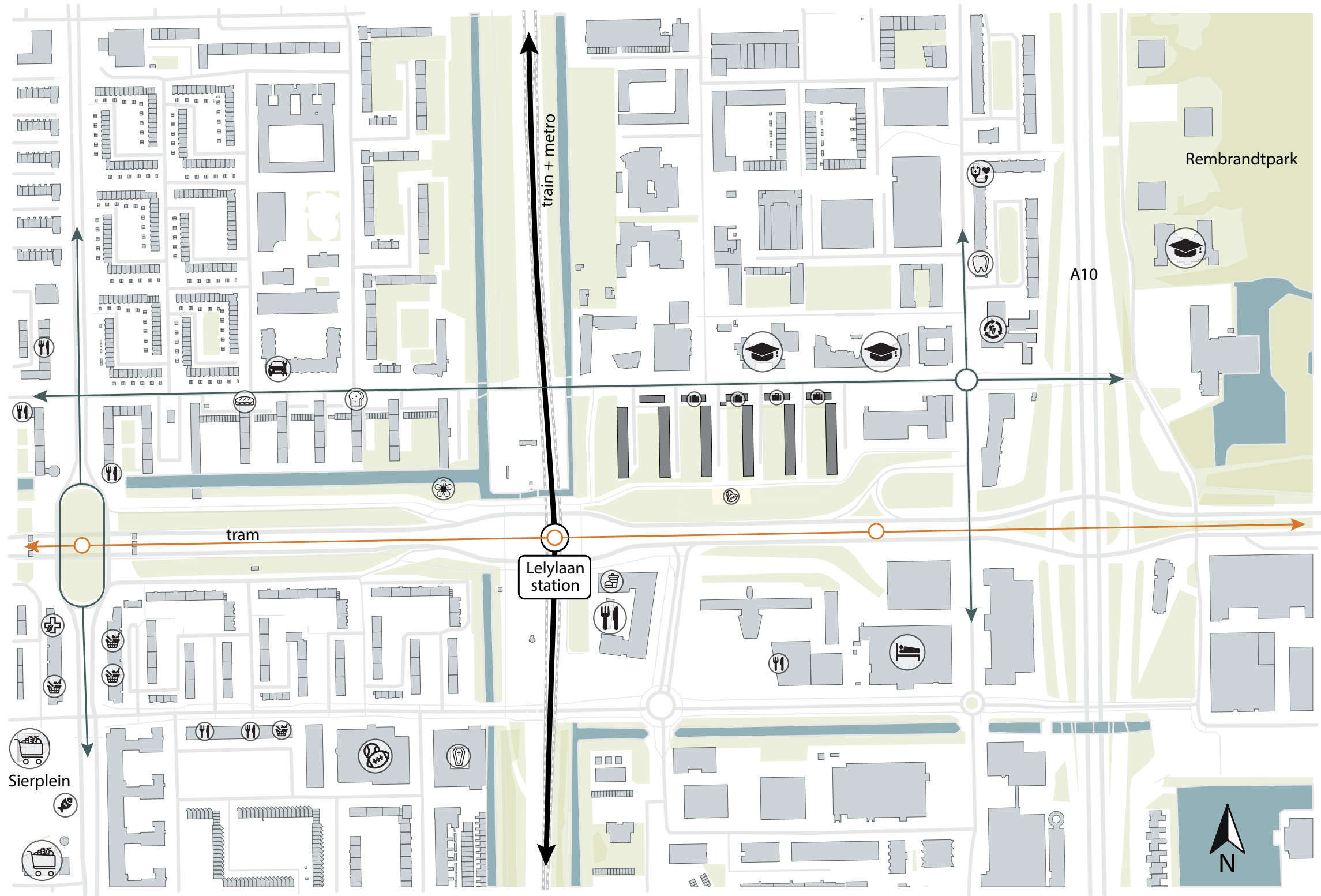
Adaptability

KEY ASPECTS



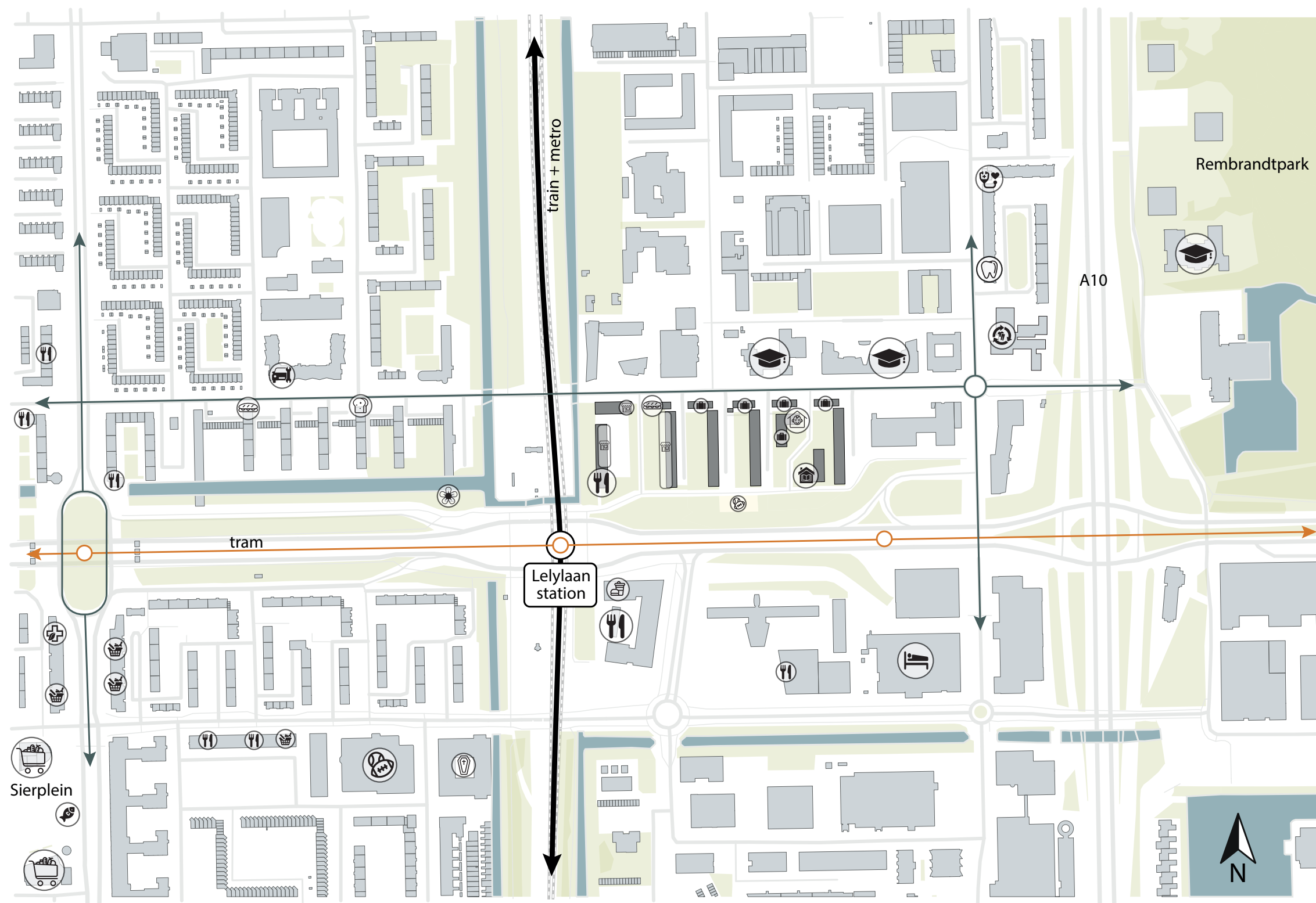
Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

EXISTING SITUATION



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

NEW SITUATION



Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

FUNCTIONS

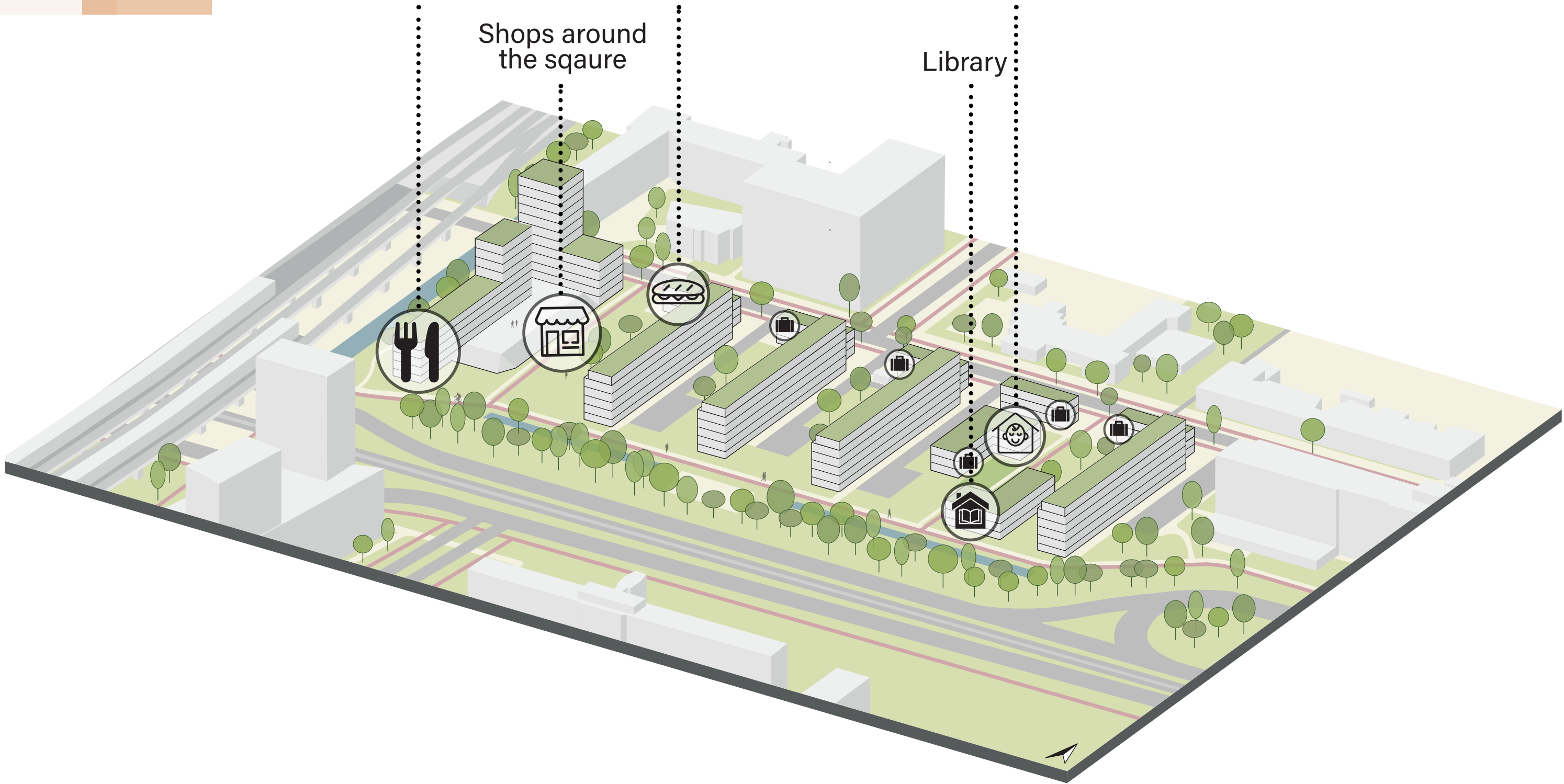
Restaurant

Lunchroom

Childcare

Shops around
the sqaure

Library



RESTAURANT



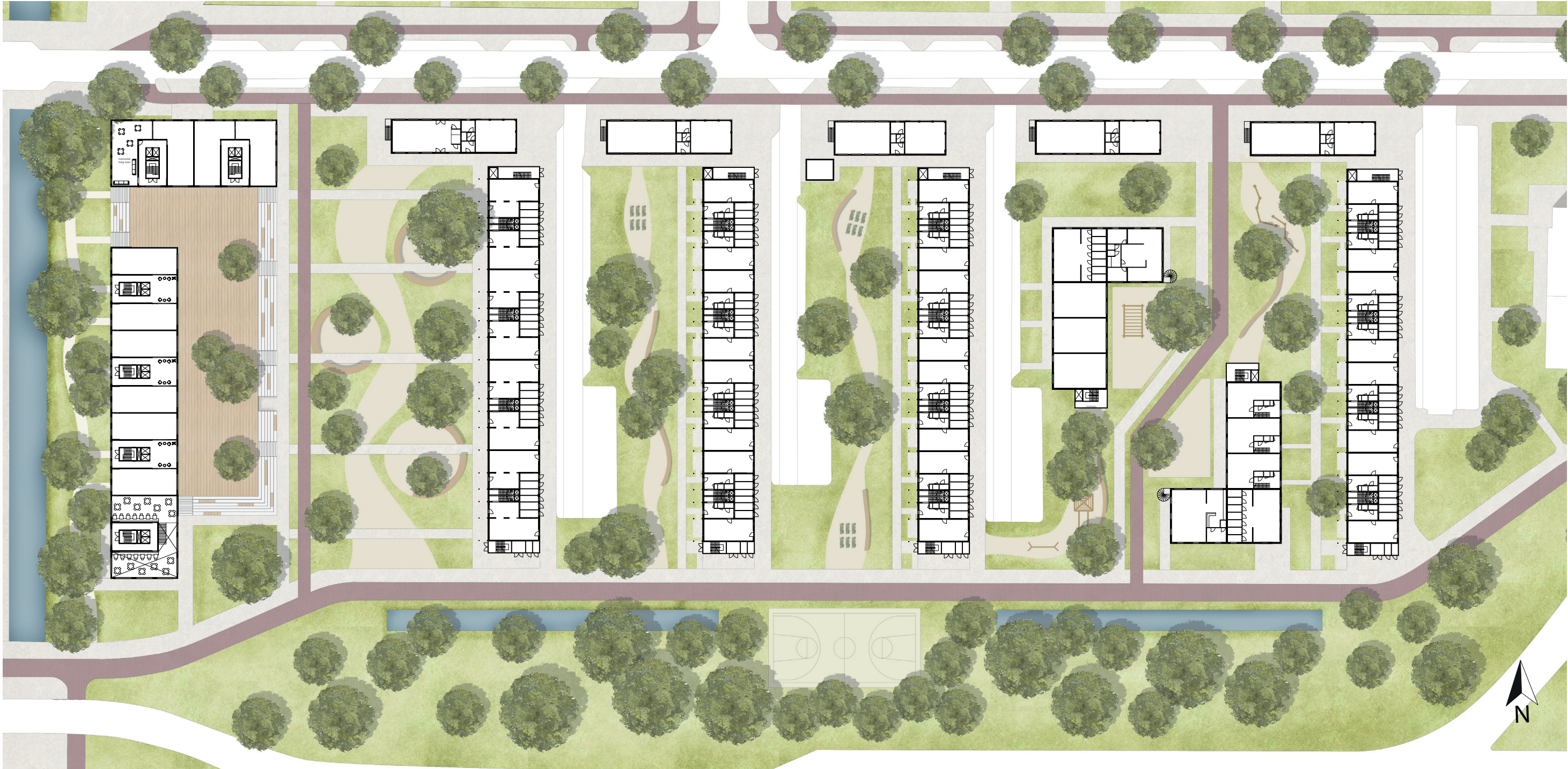
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

CLOSED GROUND FLOOR



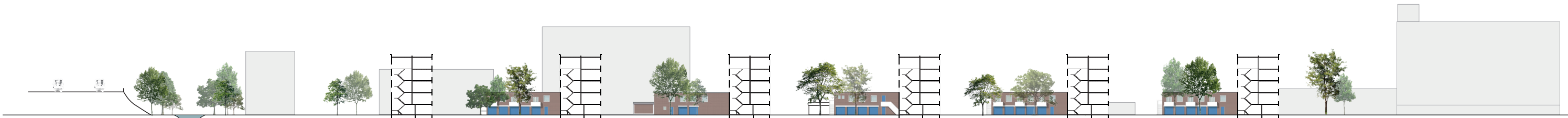
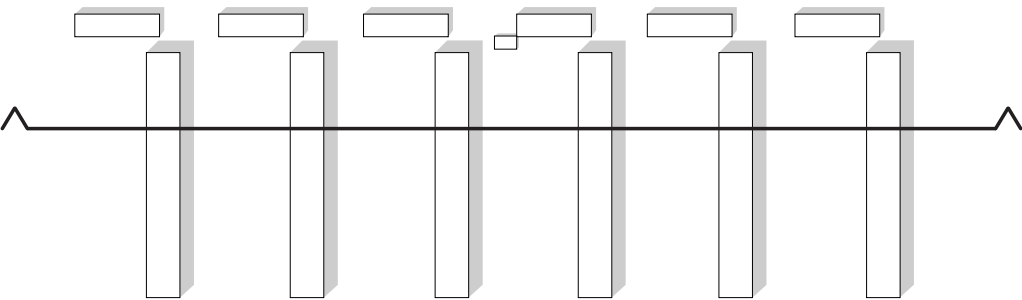
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

OPEN GROUND FLOOR



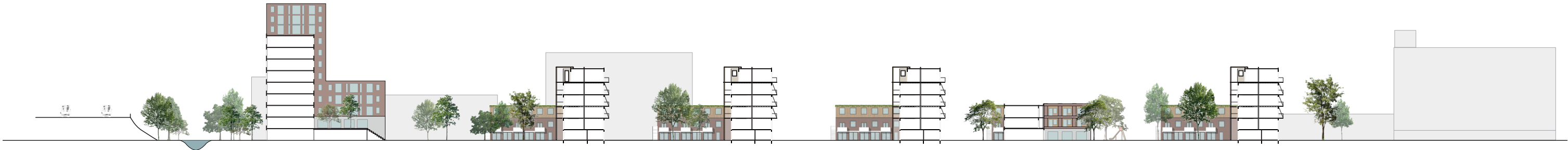
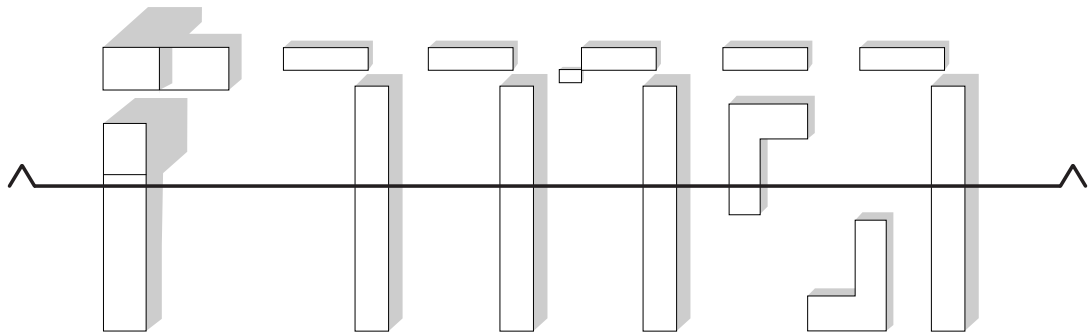
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

EXISTING CONTEXT SECTION



Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

NEW CONTEXT SECTION



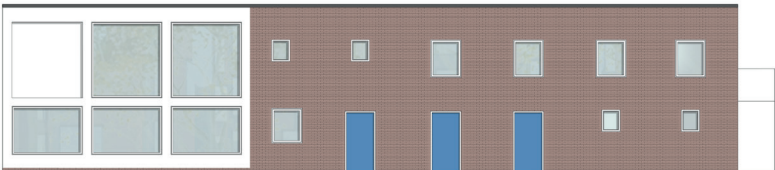
Breaking repetition		Making connections
Value the heritage		Future- proofing the plan

EXISTING ELEVATIONS

East



North



West



South



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

NEW ELEVATIONS

East



North



West



South



Breaking
repetition

Making
connections

Value
the heritage

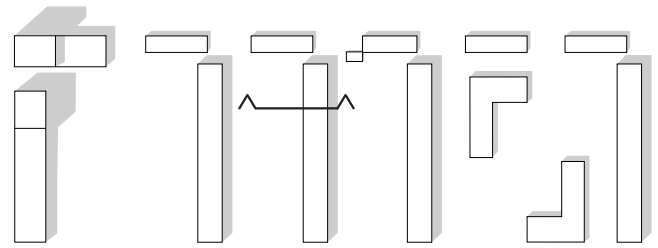
Future-
proofing
the plan

TRANSFORMED FLAT



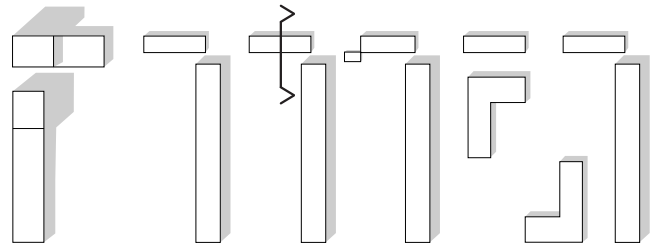
Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

BUILDING SECTION



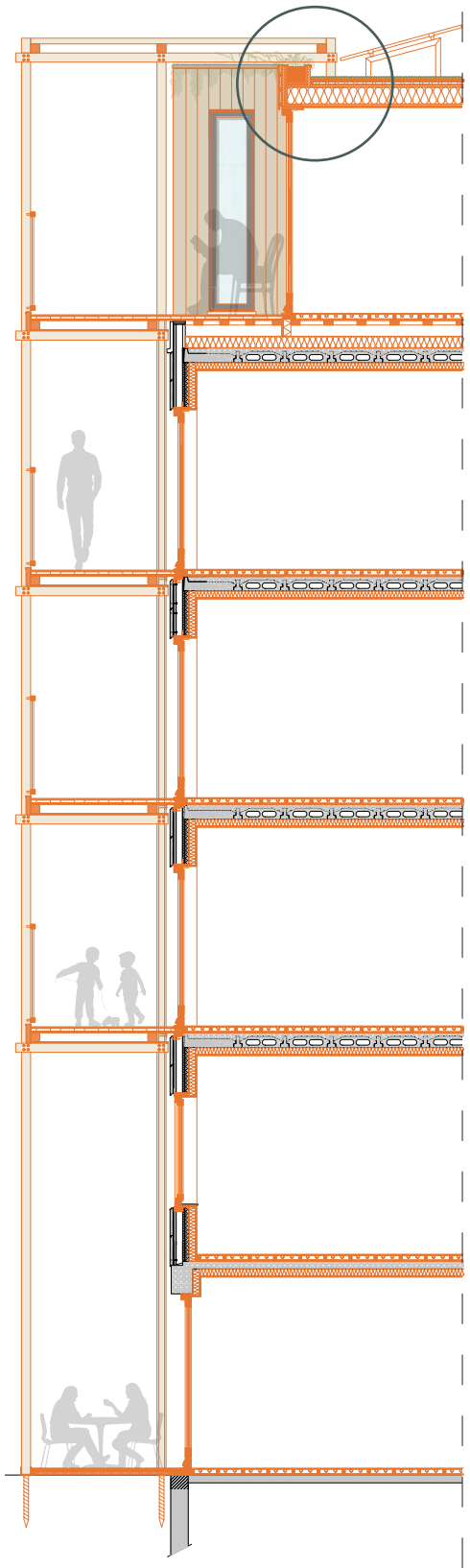
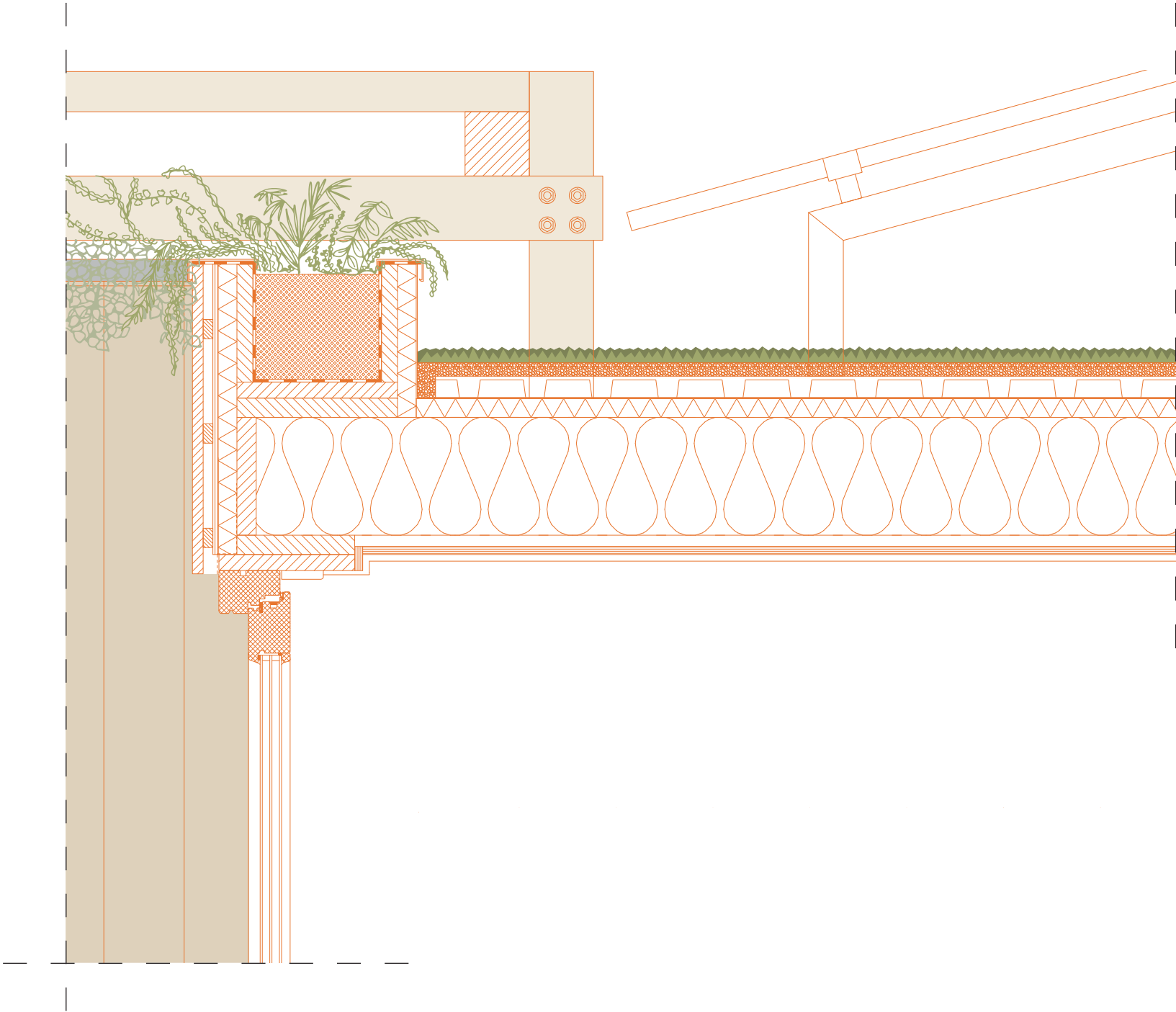
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

BUILDING SECTION



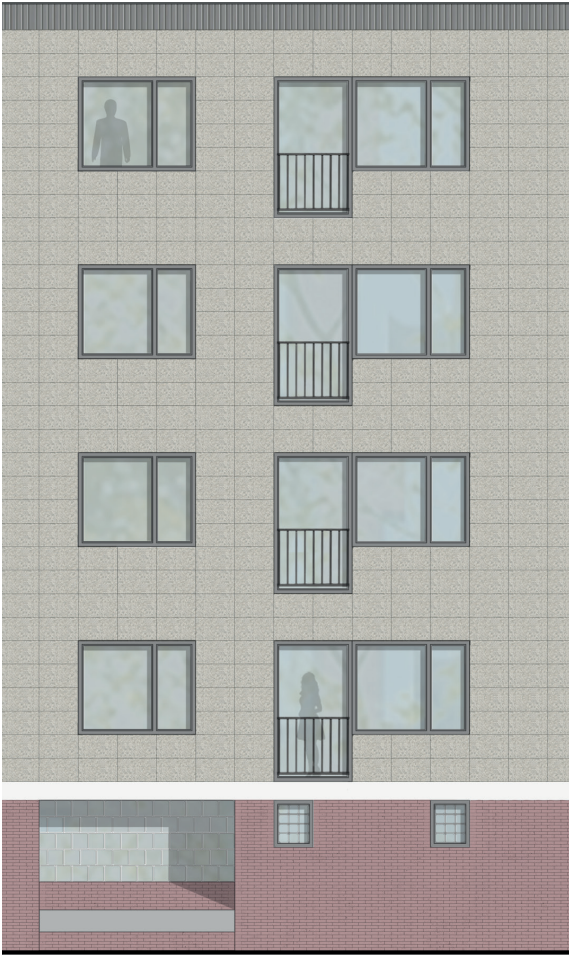
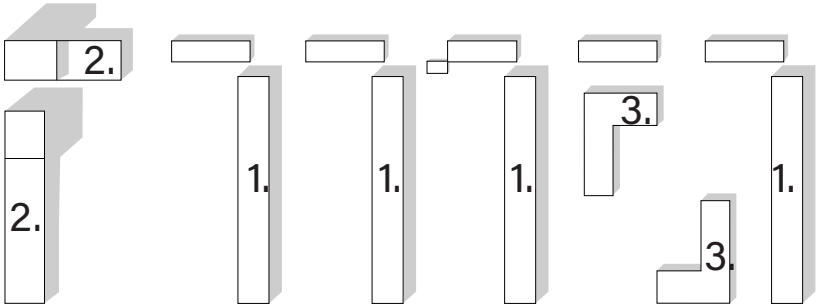
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

ROOF DETAIL



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

ELEVATION FRAGMENTS



1. Existing flat



1. Transformed flat



2. New building - urban square



3. New building - village square

NEW & OLD VILLAGE SQUARE



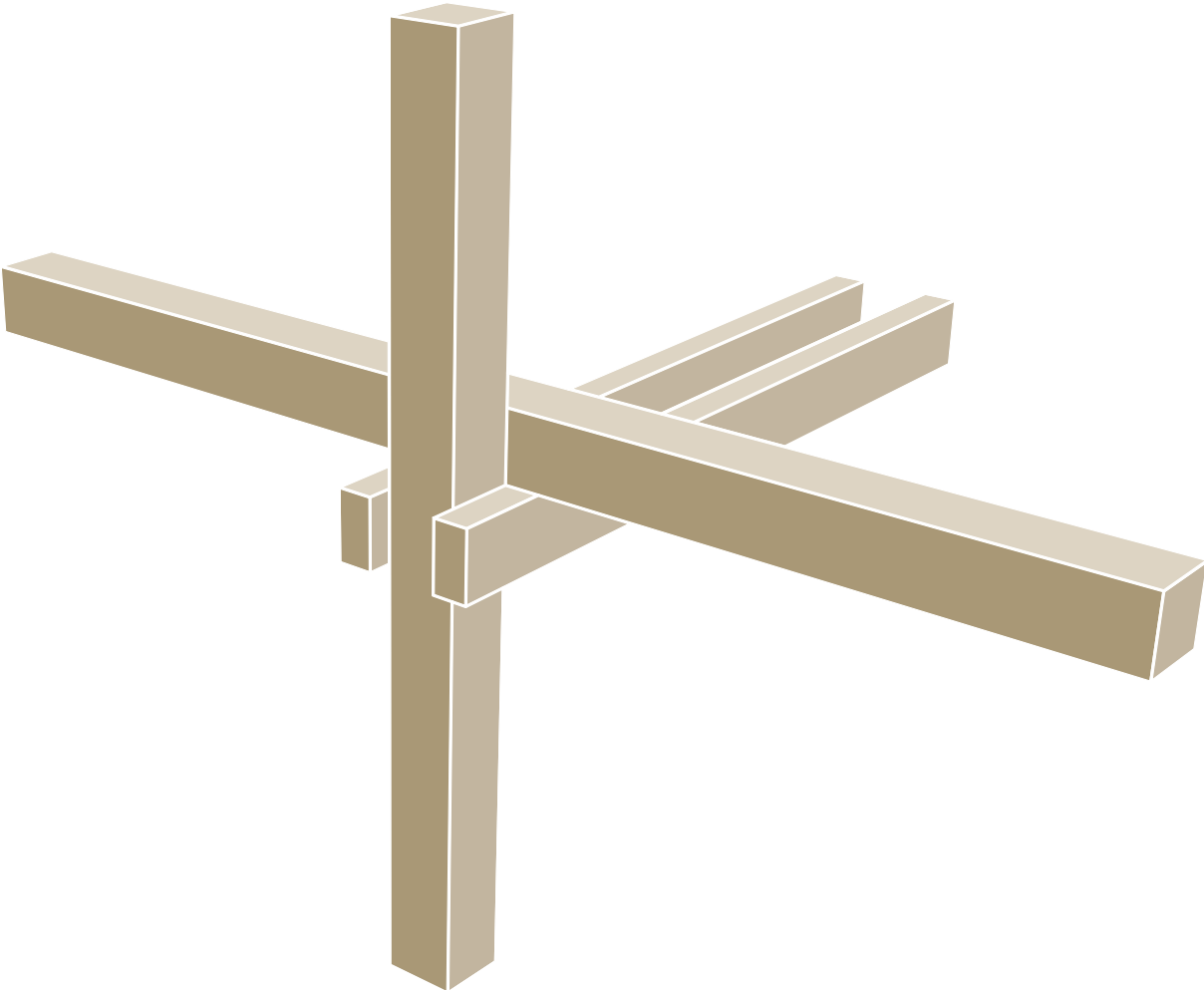
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

REUSE OF FACADE TILES



Breaking repetition		Making connections
Value the heritage		Future- proofing the plan

GALLERY CONSTRUCTION

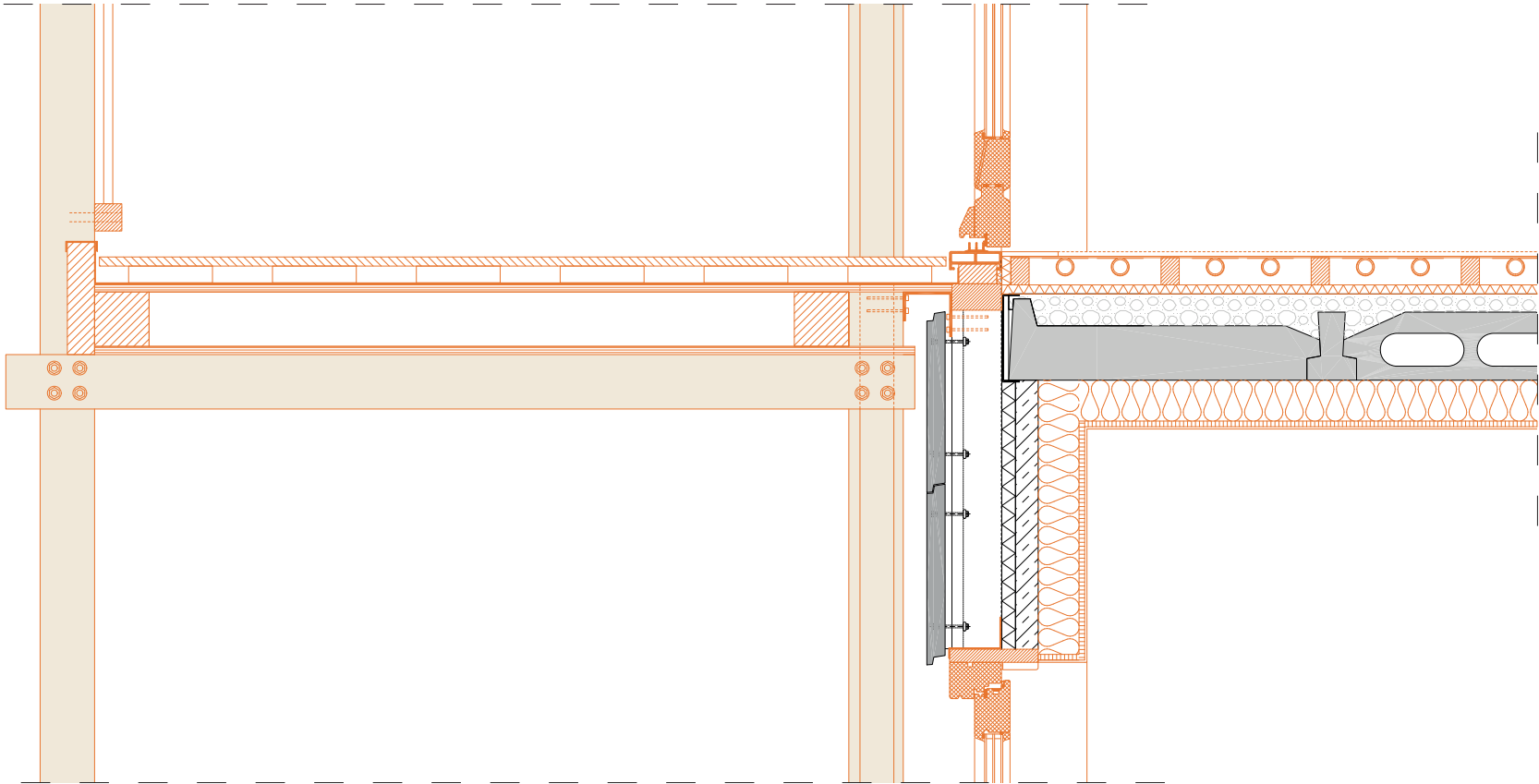


NEW BUILDING FROM GALLERY



Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

GALLERY DETAIL



Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

FOUNDATION DETAIL



Breaking
repetition

Making
connections

Value
the heritage

Future-
proofing
the plan

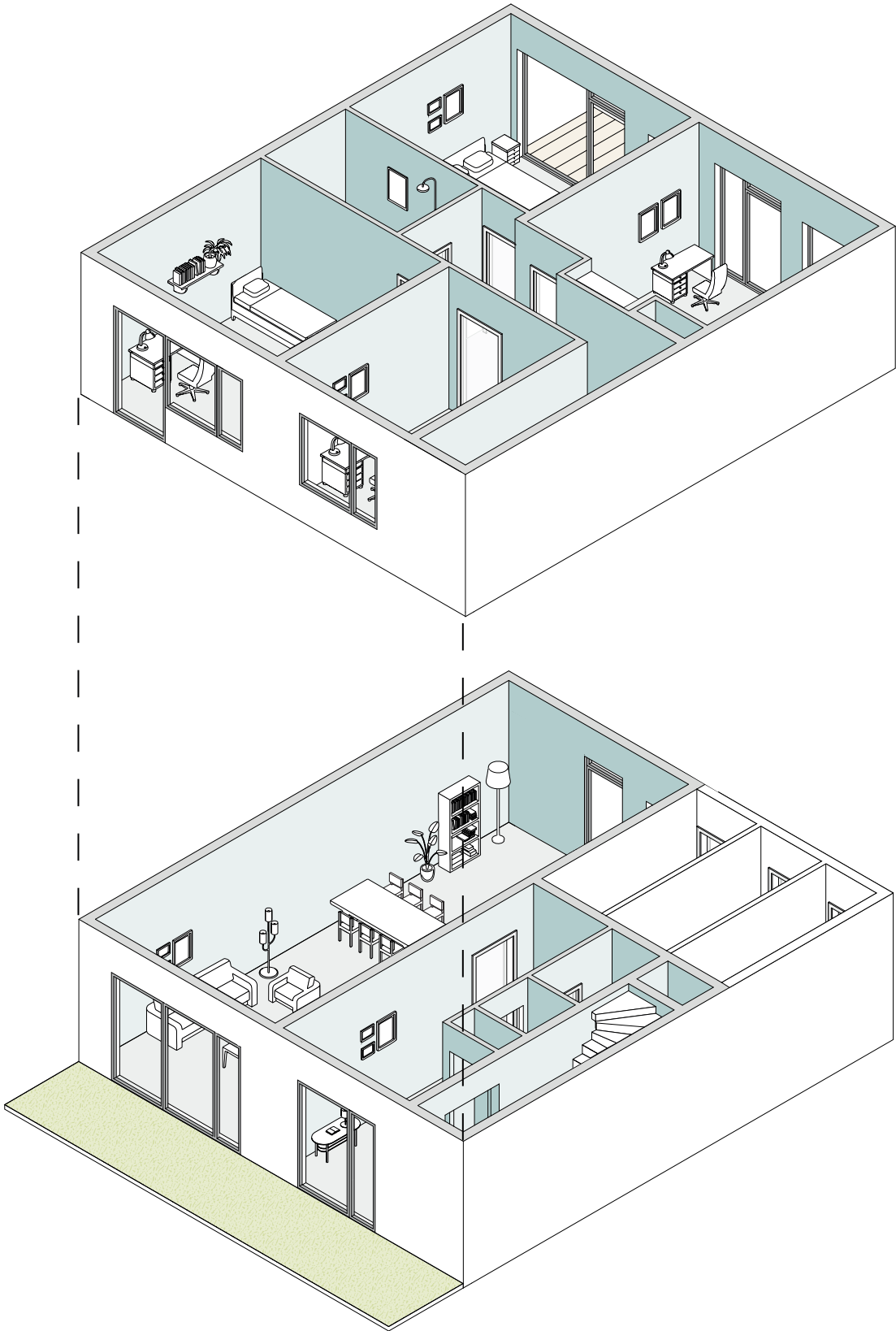
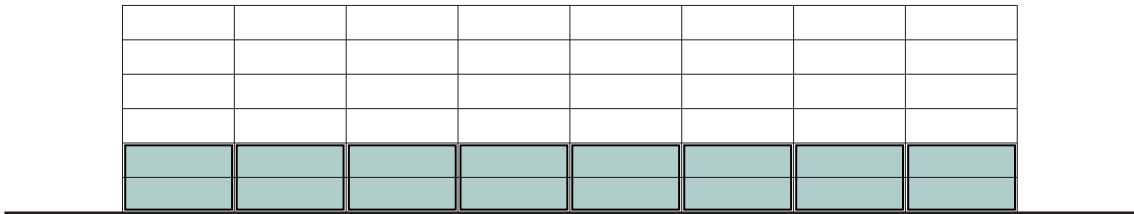
INTERIOR



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

GROUND BOUNDED FAMILY HOUSES

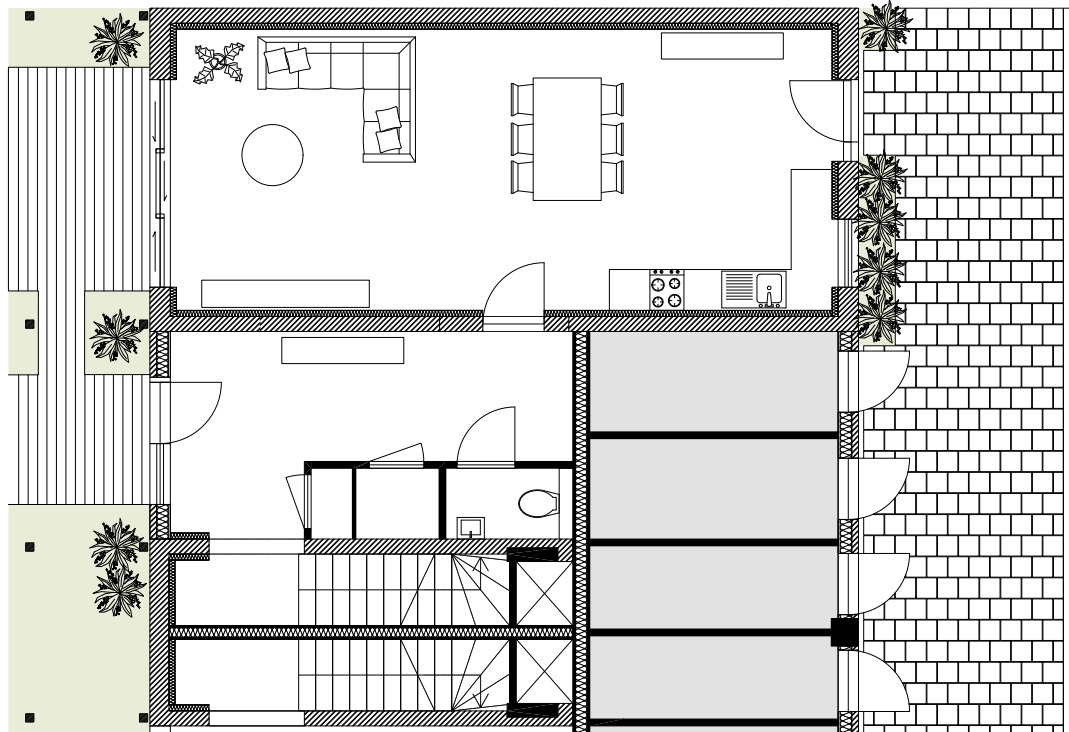
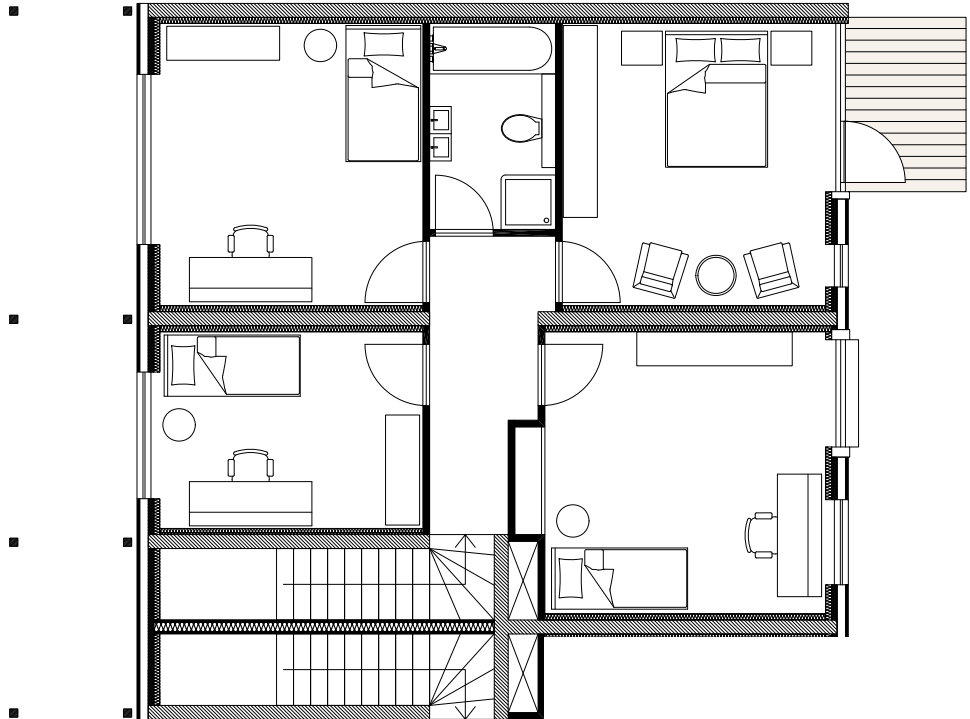
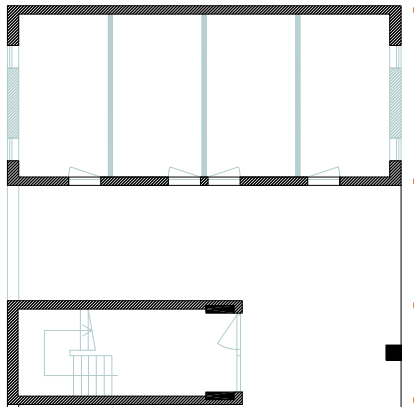
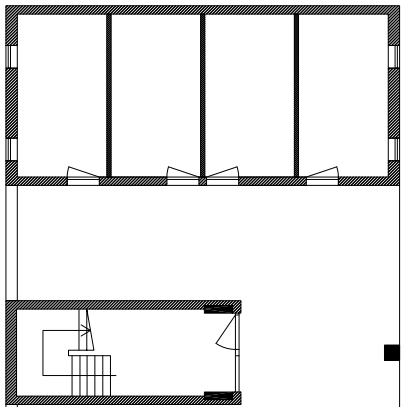
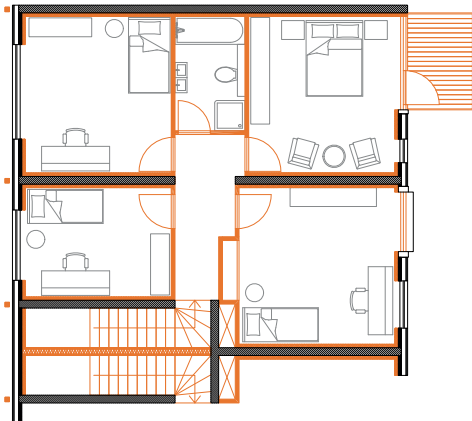
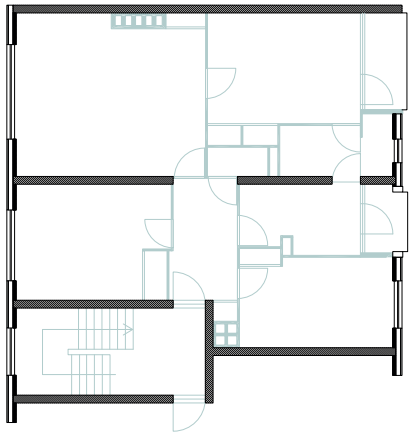
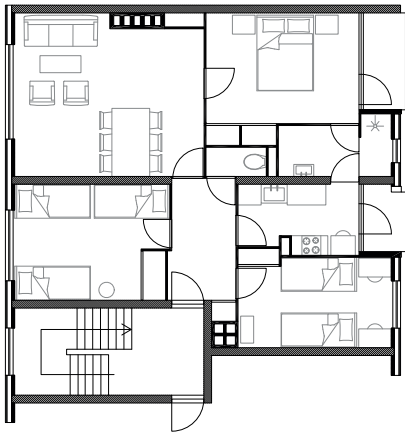
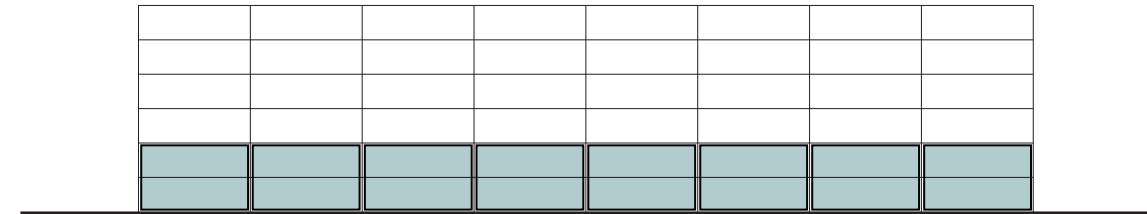
Square meters	130 m ²
Number per flat	8
Number in total	24



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

GROUND BOUNDED FAMILY HOUSES

Square meters	130 m ²
Number per flat	8
Number in total	24



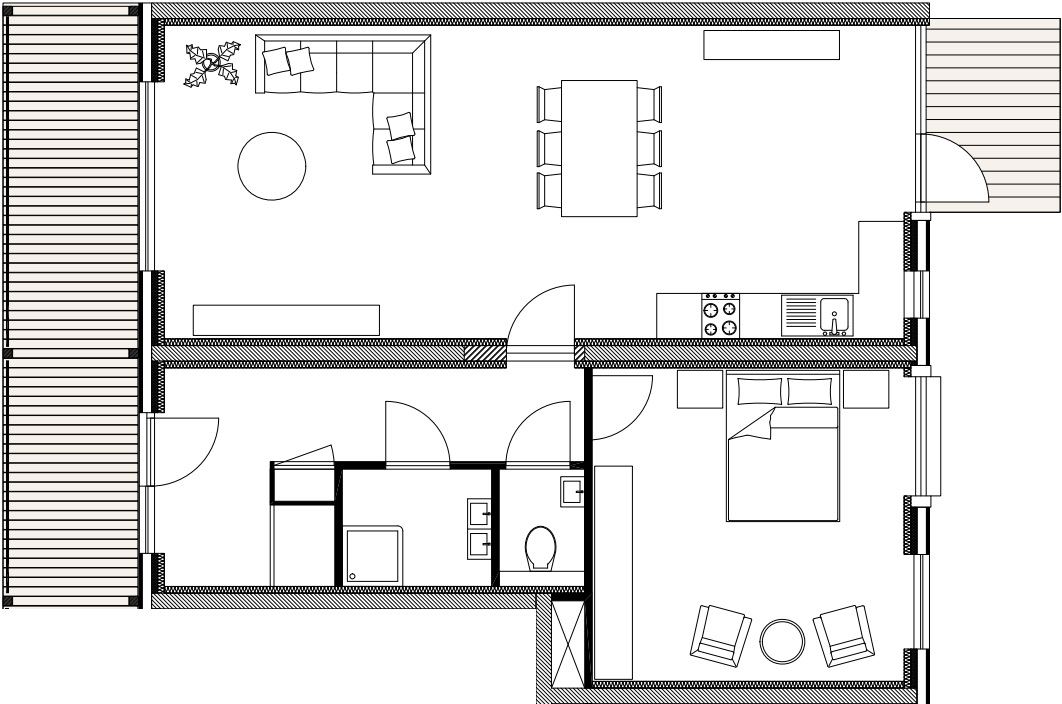
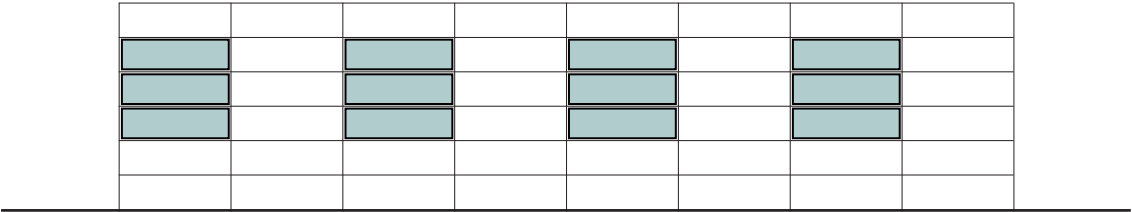
EXTERIOR AND INTERIOR



Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

1 BEDROOM APARTMENT

Square meters	72 m ²
Number per flat	12
Number in total	48



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

2 BEDROOM APARTMENT

Square meters	82 m ²
Number per flat	12
Number in total	48

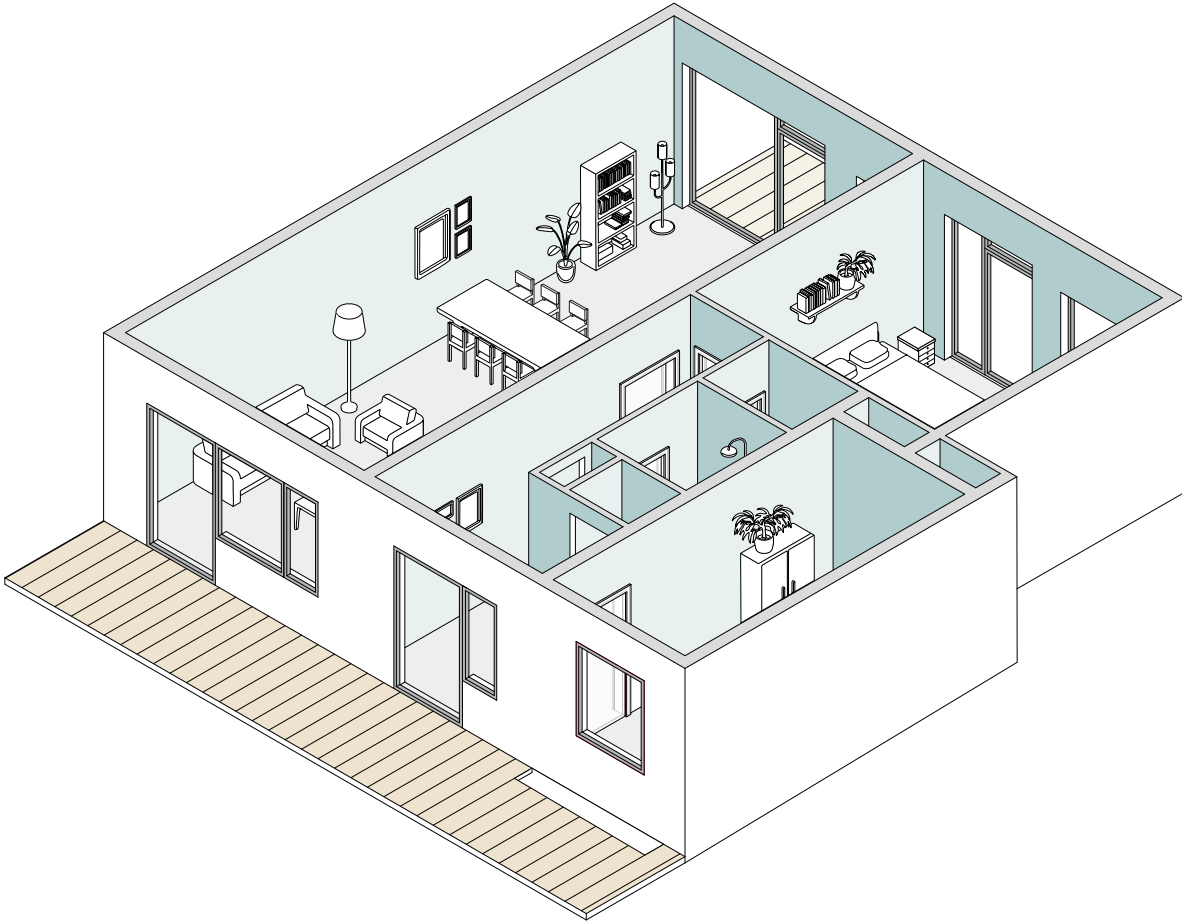
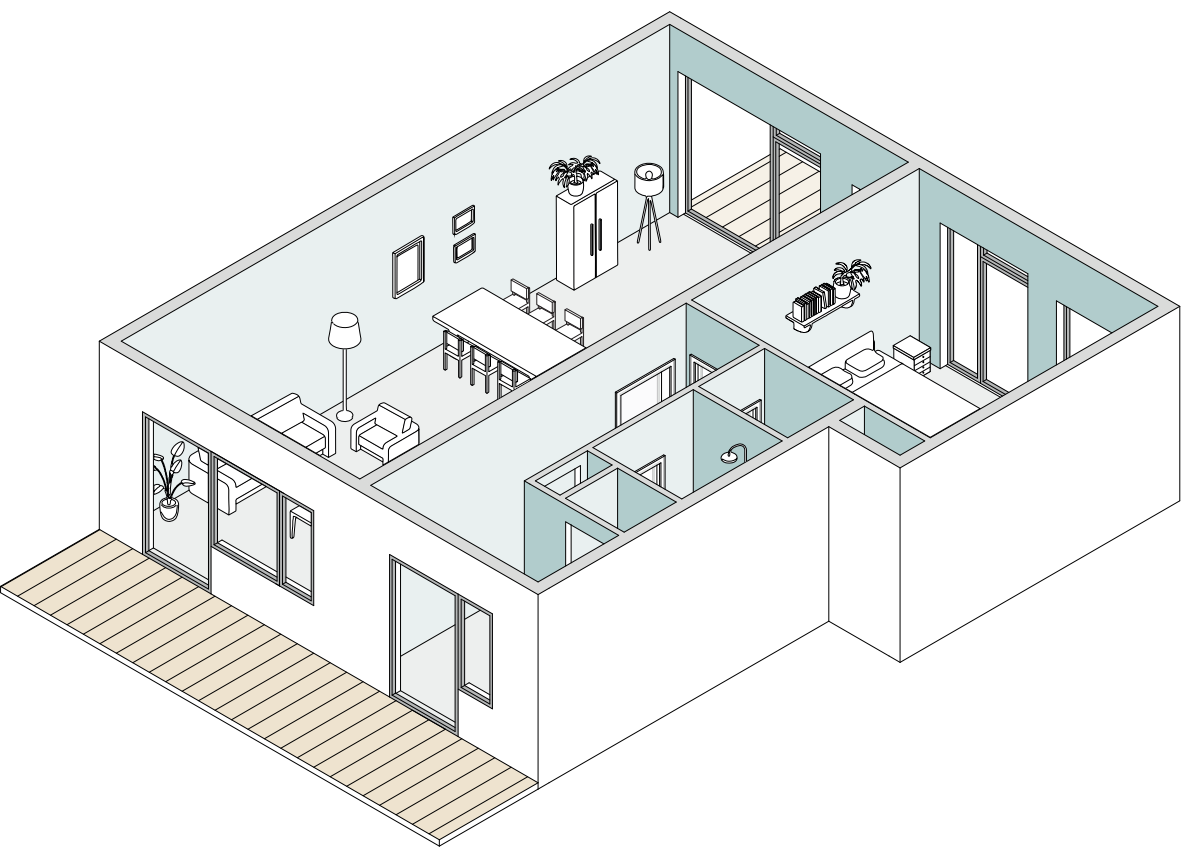


LARGER LIVING ROOMS



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

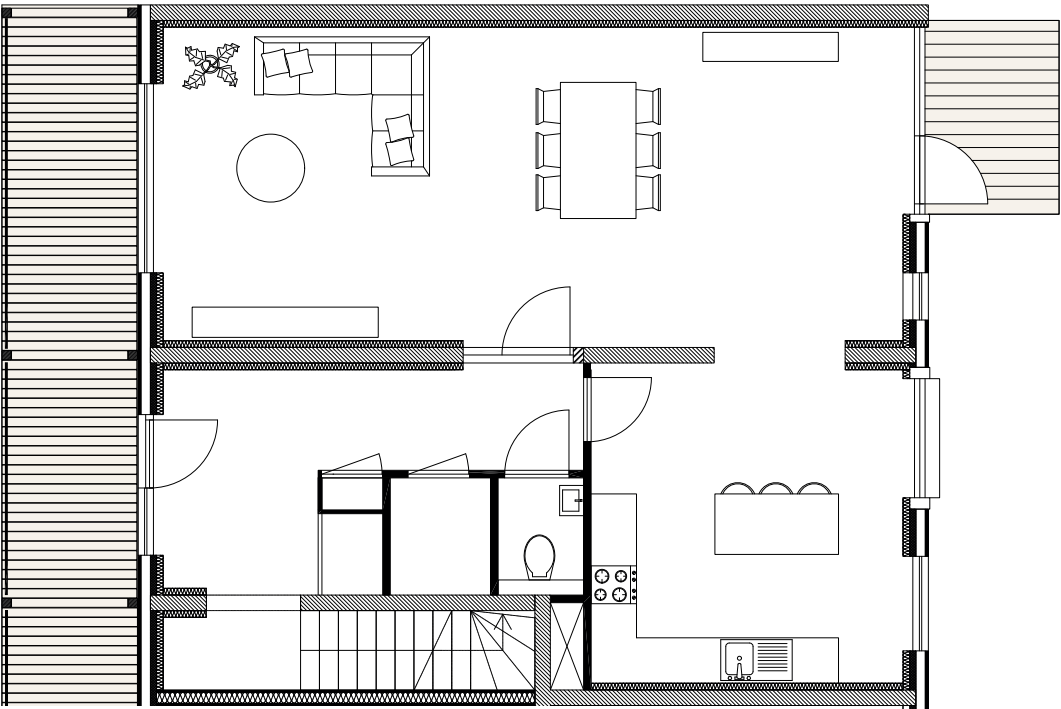
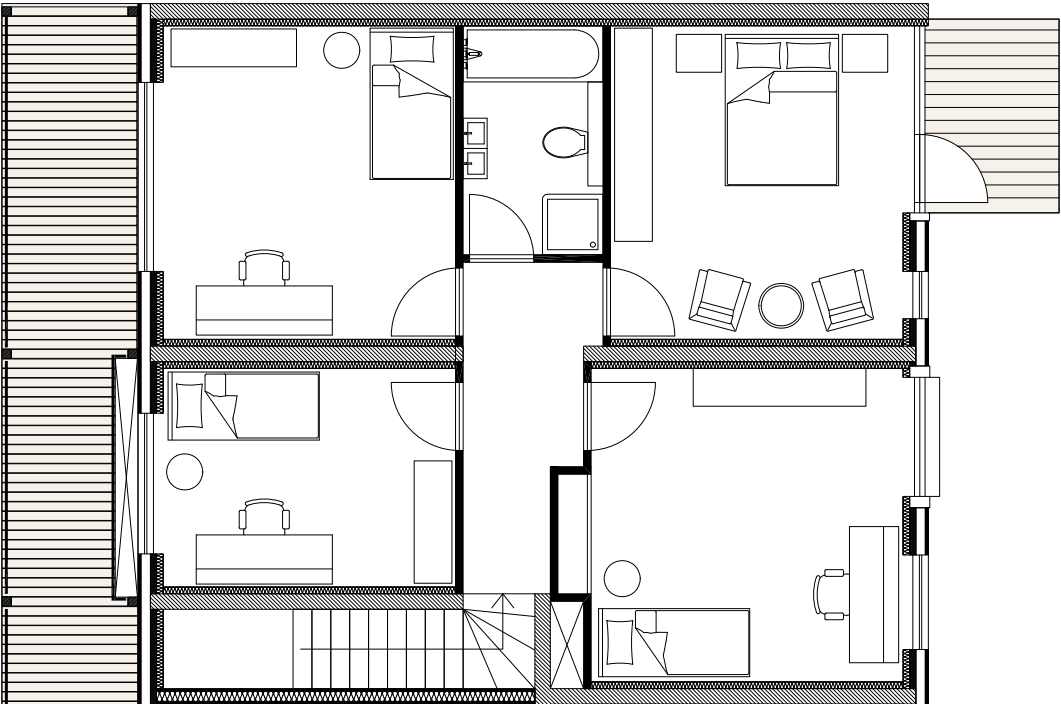
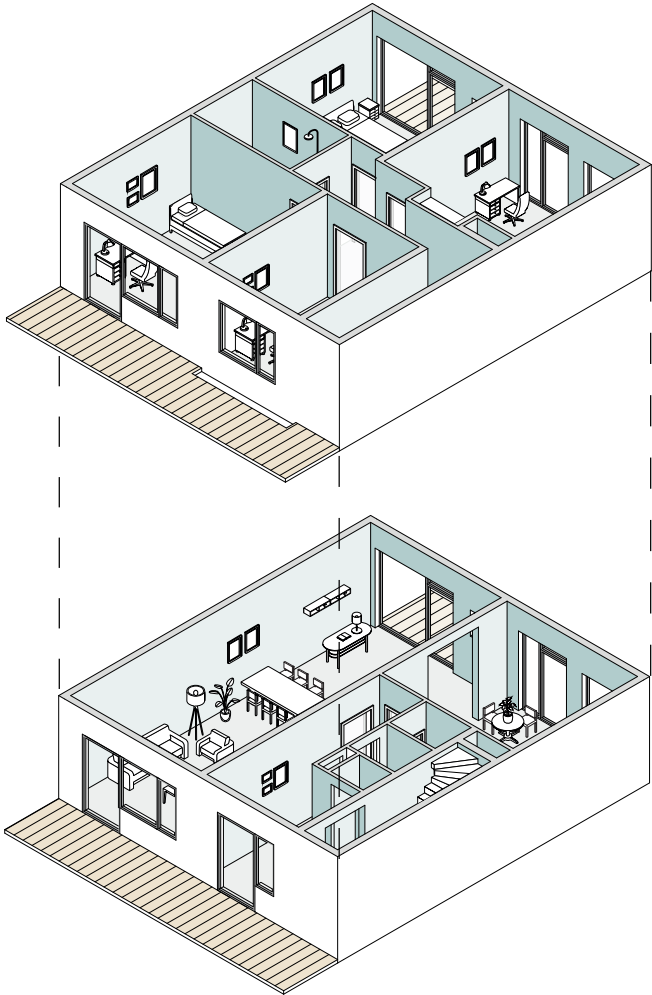
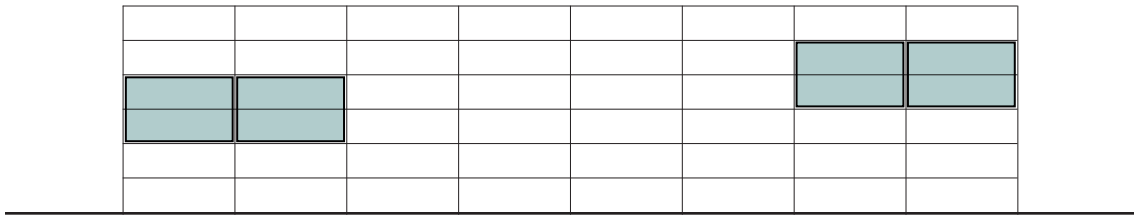
MERGE APARTMENTS



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

VERTICALLY MERGED

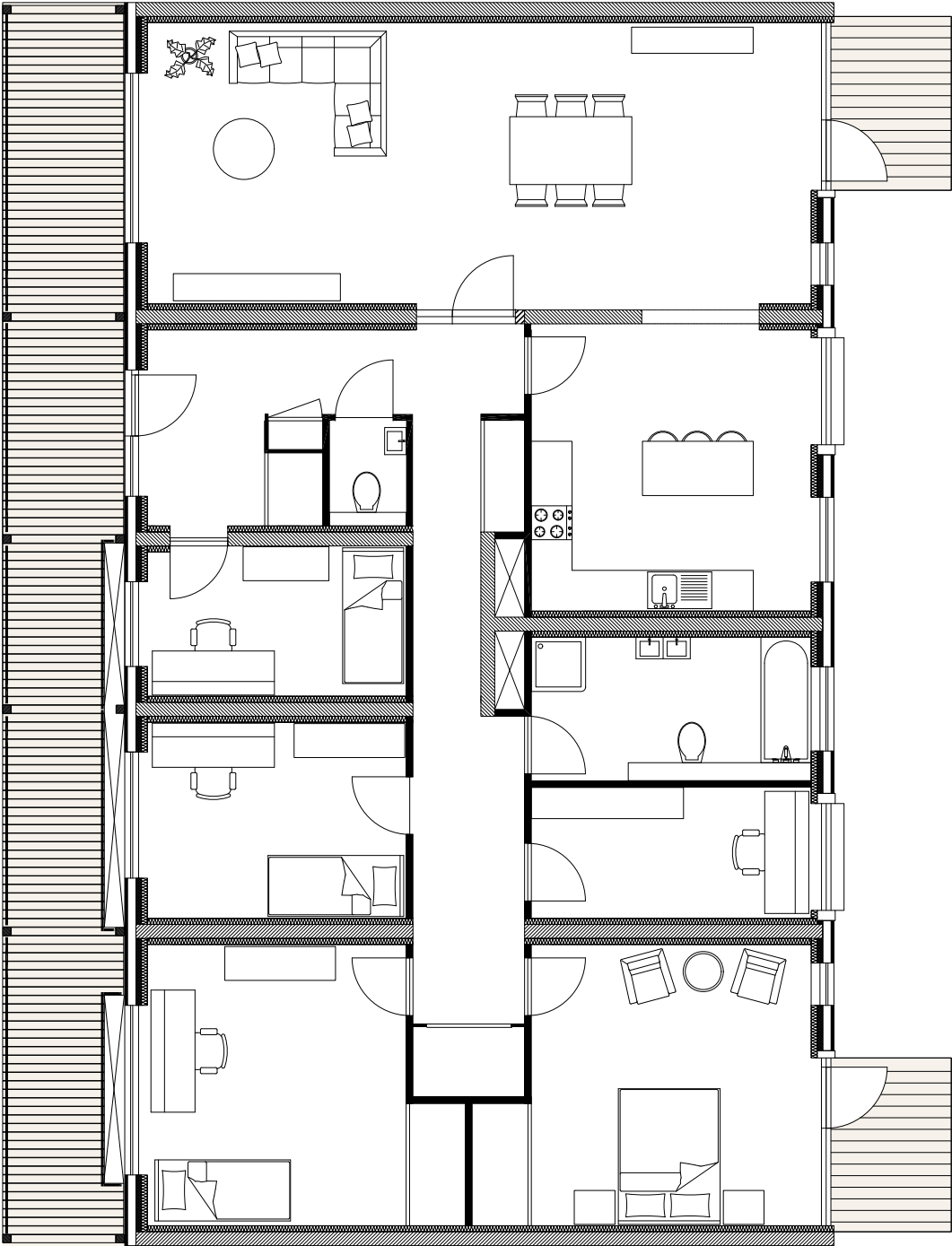
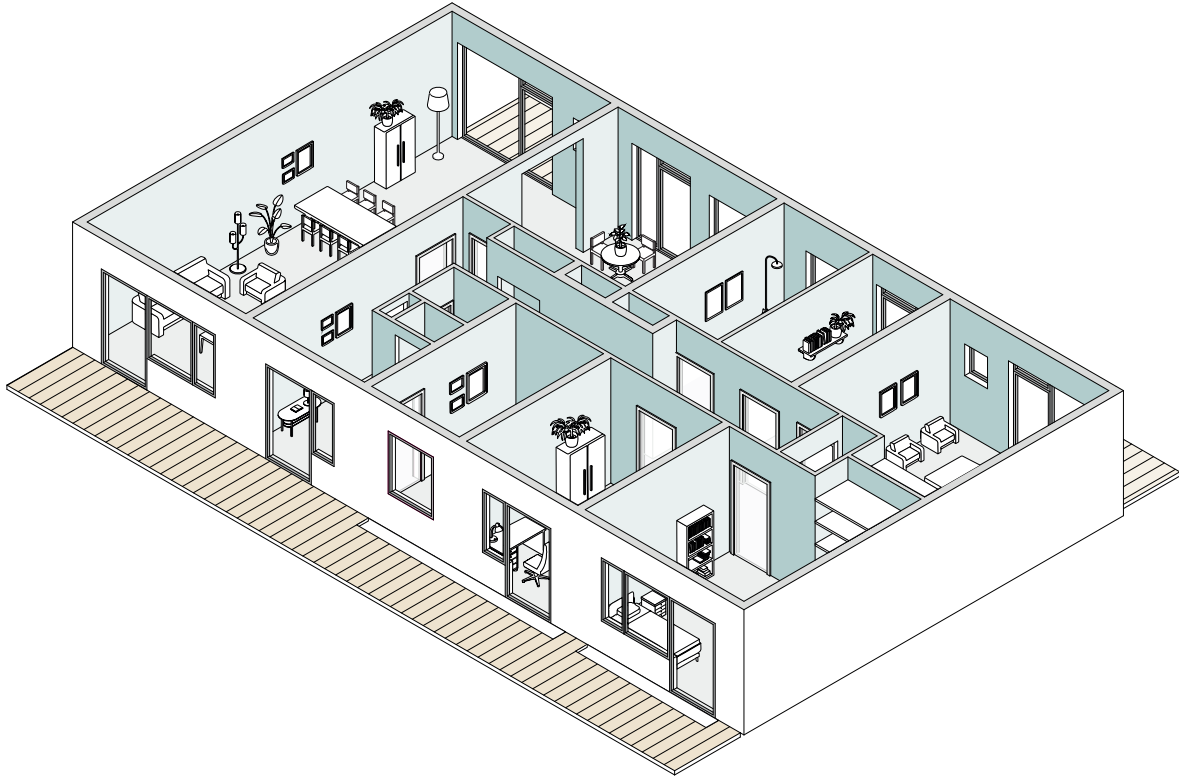
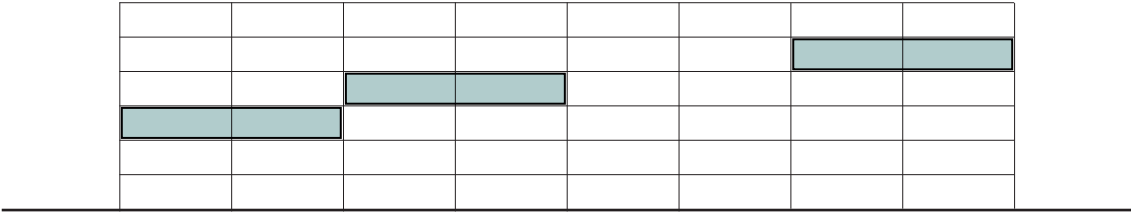
Square meters 140 m²



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

Square meters150 m²

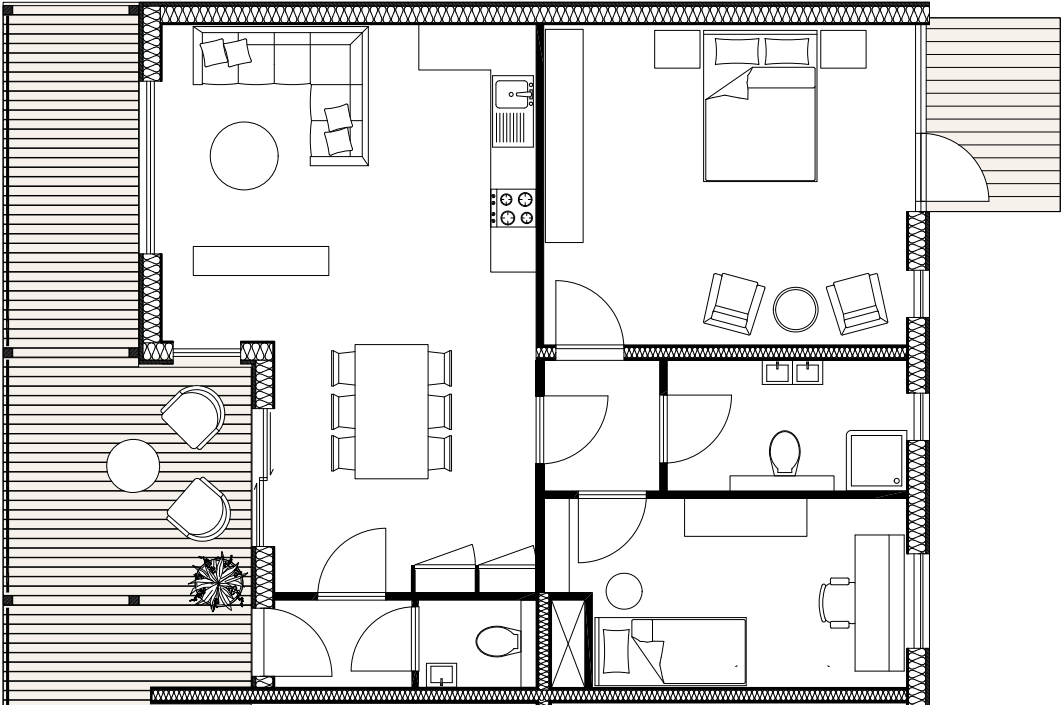
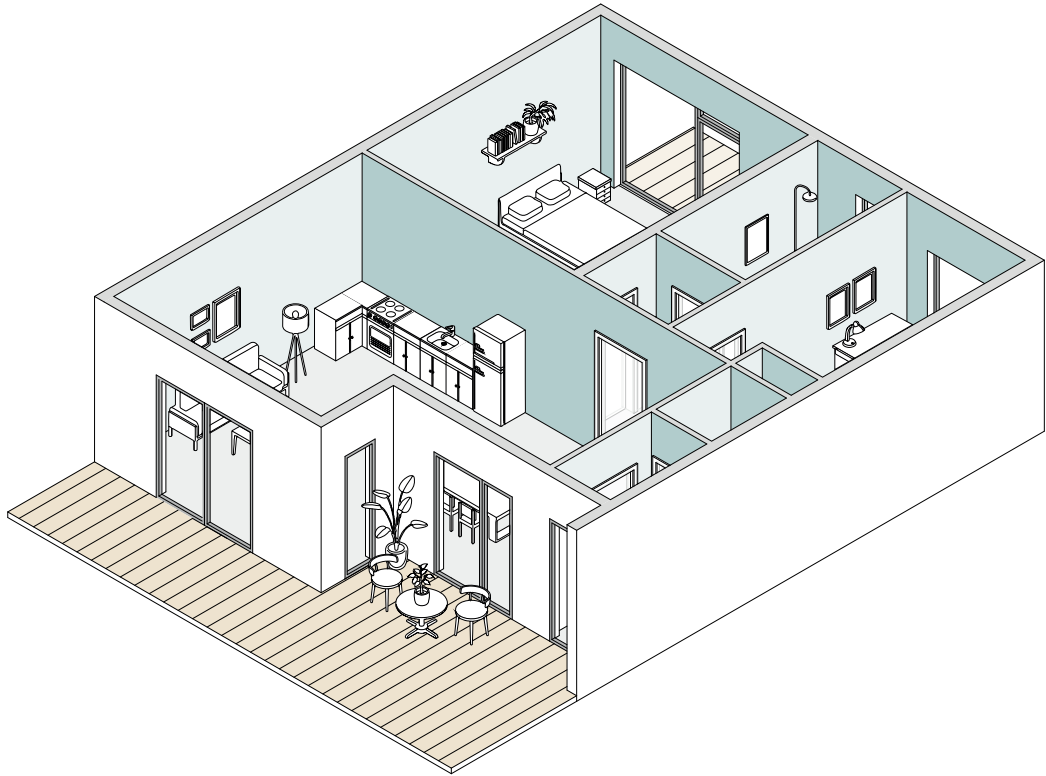
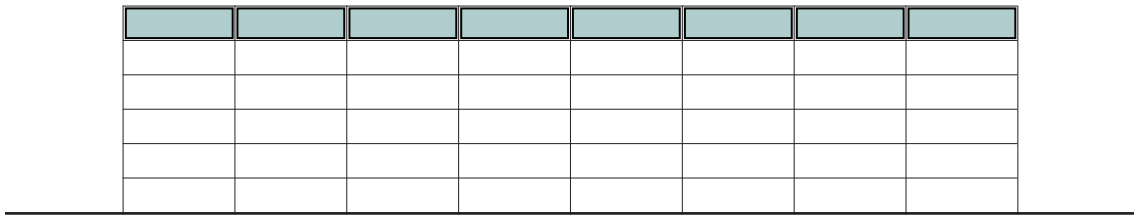
HORIZONTALLY MERGED



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

ROOF APARTMENT

Square meters	80 m ²
Number per flat	8
Number in total	32

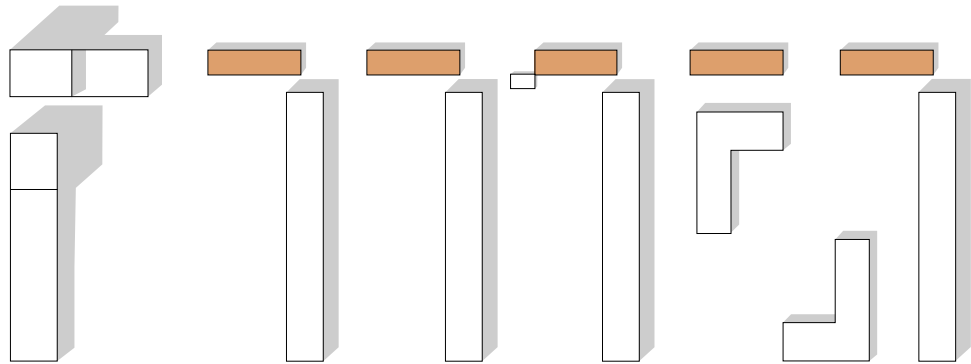


ROOF APARTMENT



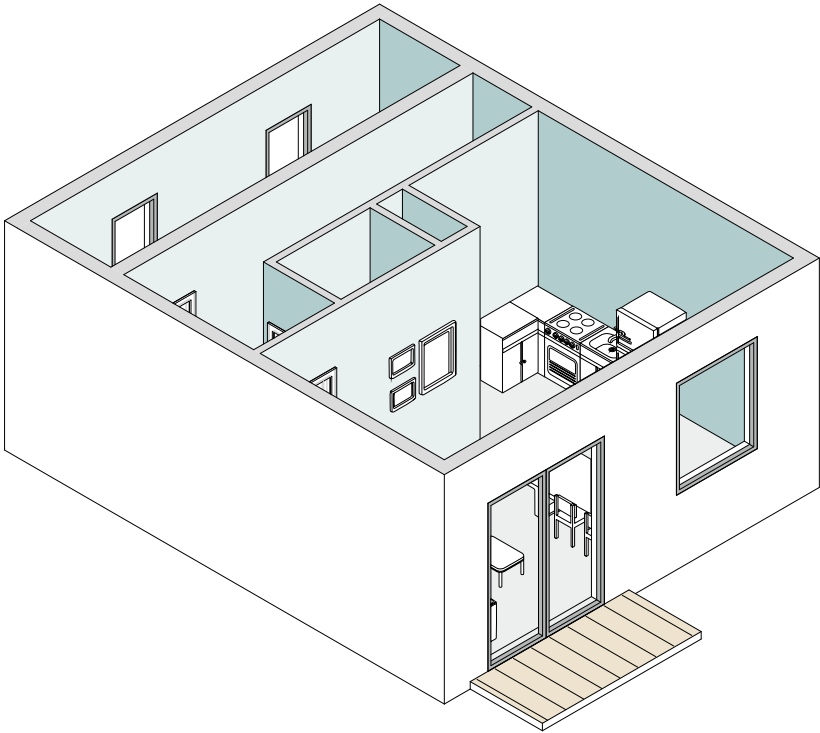
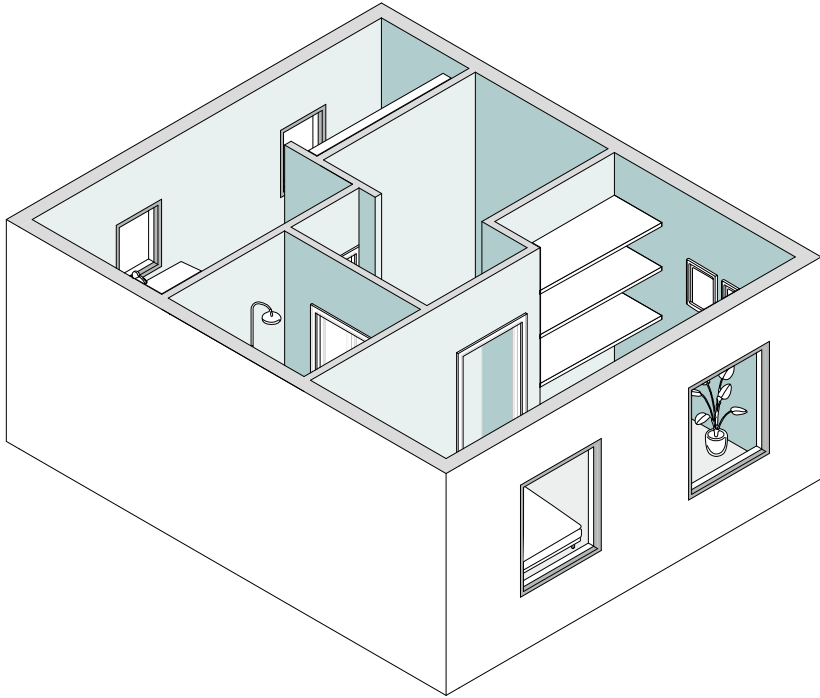
Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

ANNEX



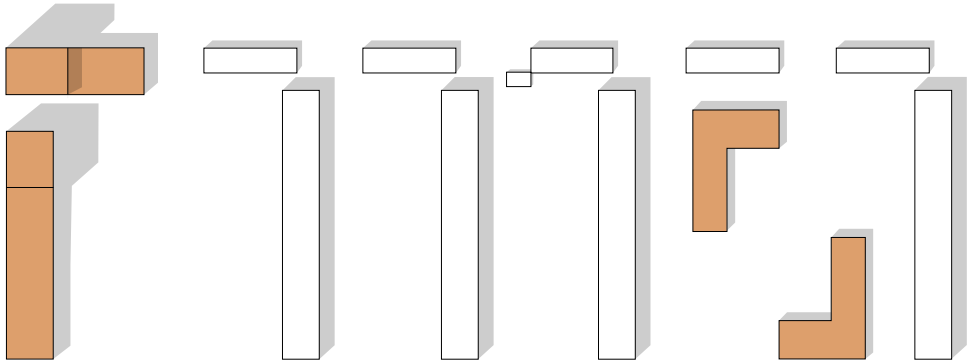
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

DUPLEX HOUSE ANNEX



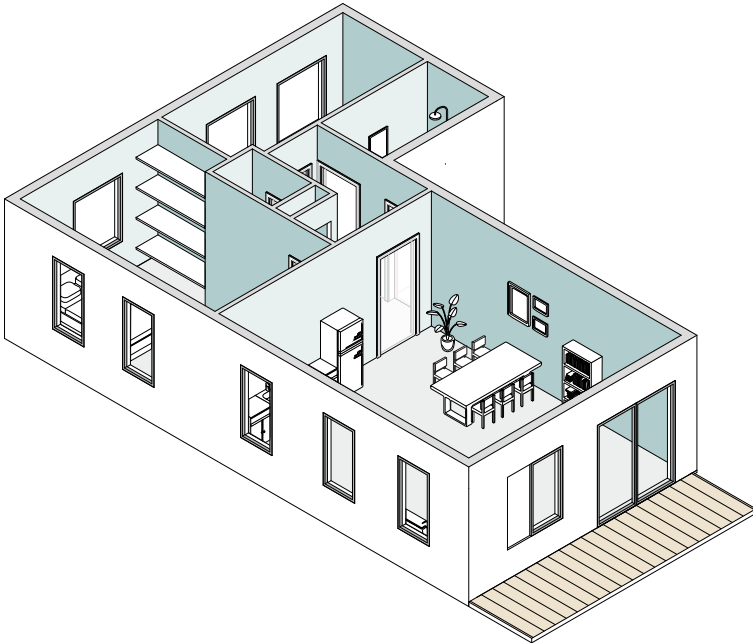
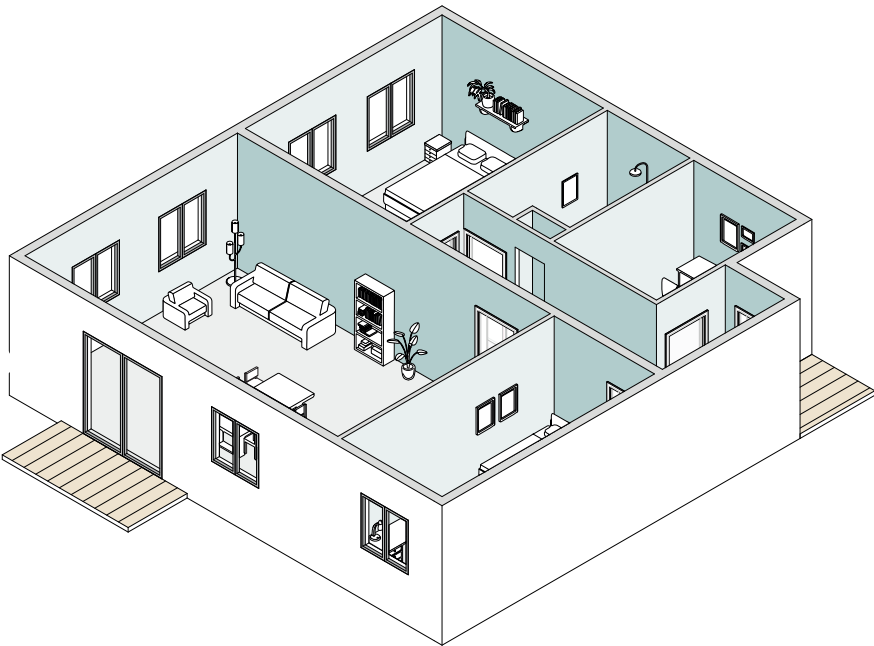
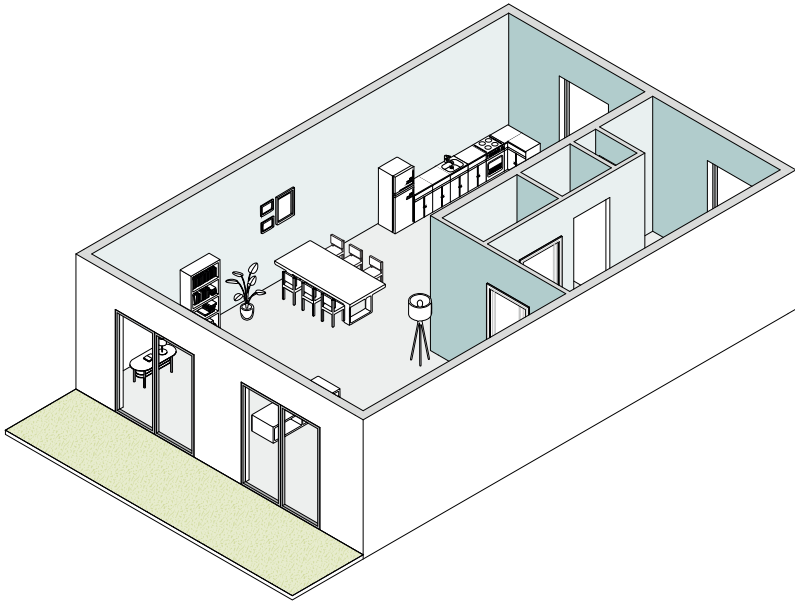
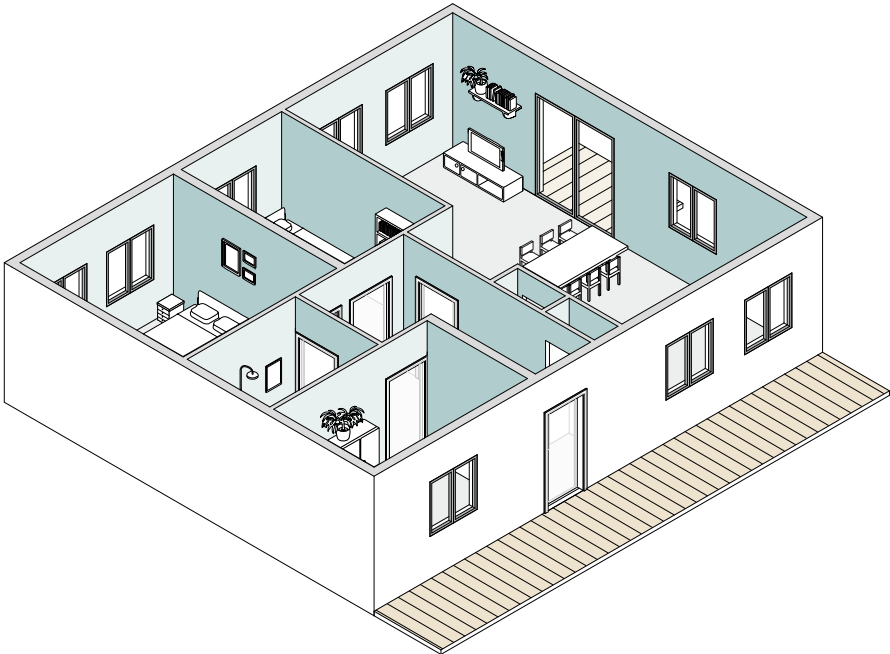
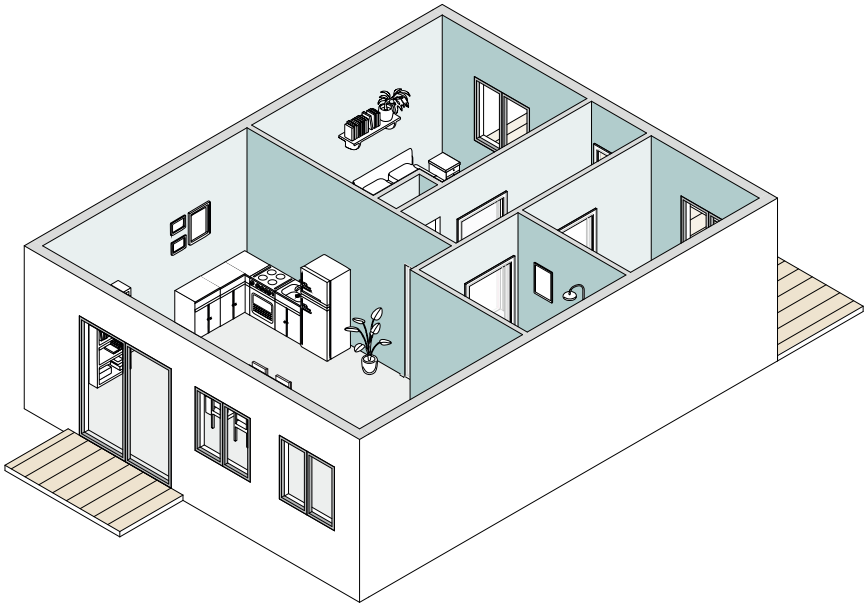
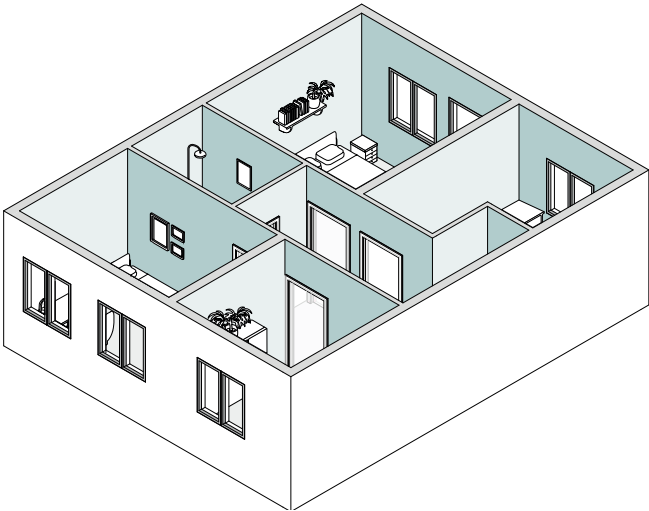
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

NEW APARTMENTS



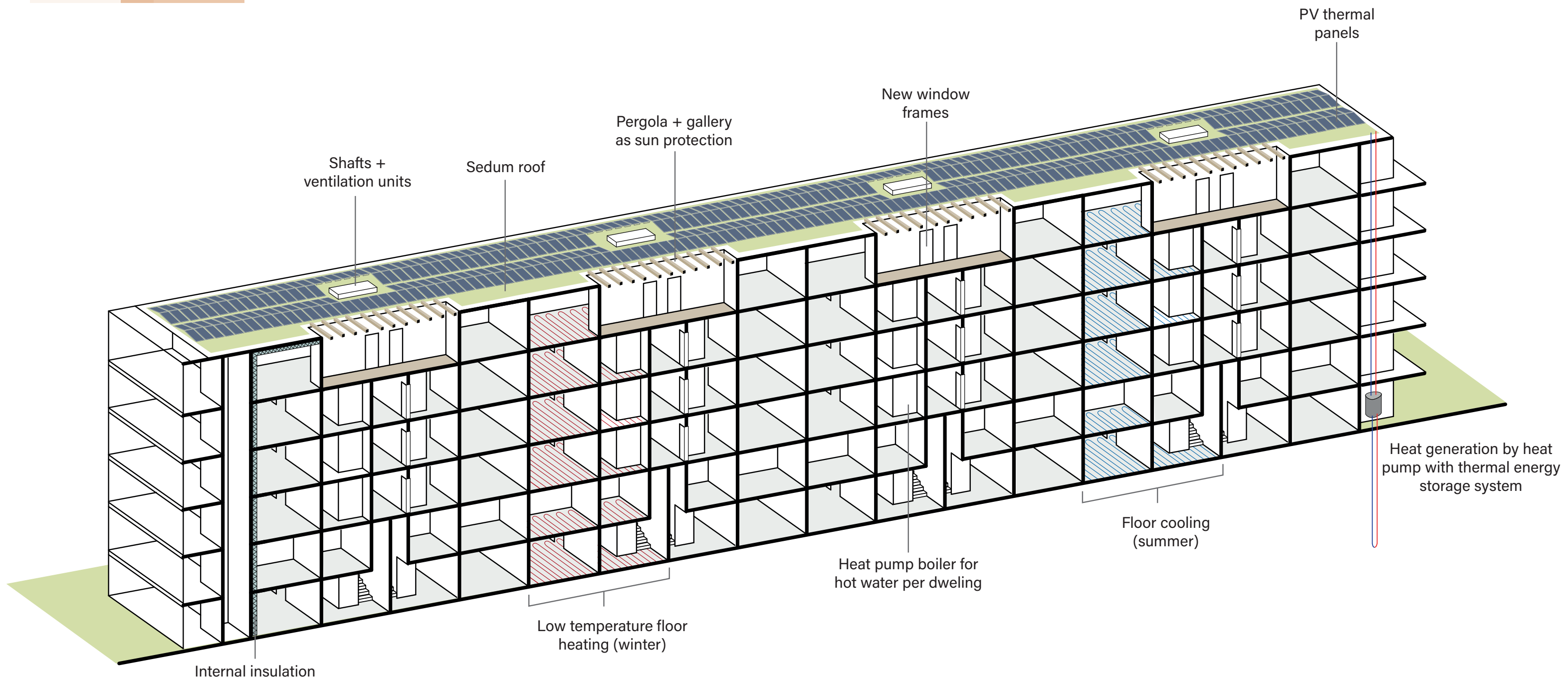
Breaking repetition	Making connections
Value the heritage	Future- proofing the plan

NEW APARTMENTS



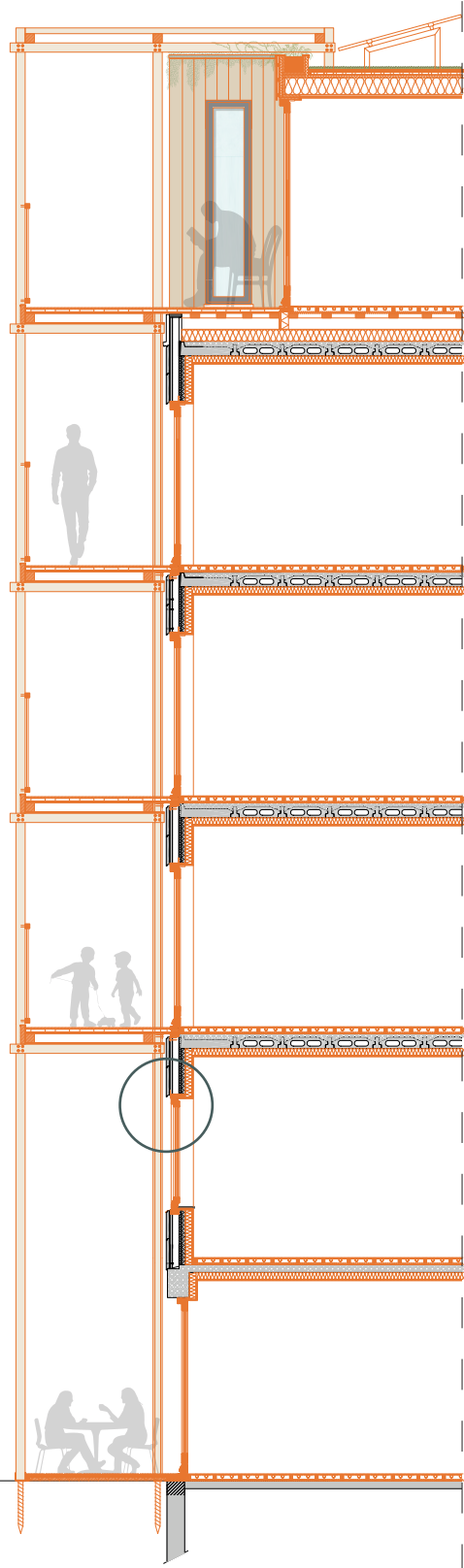
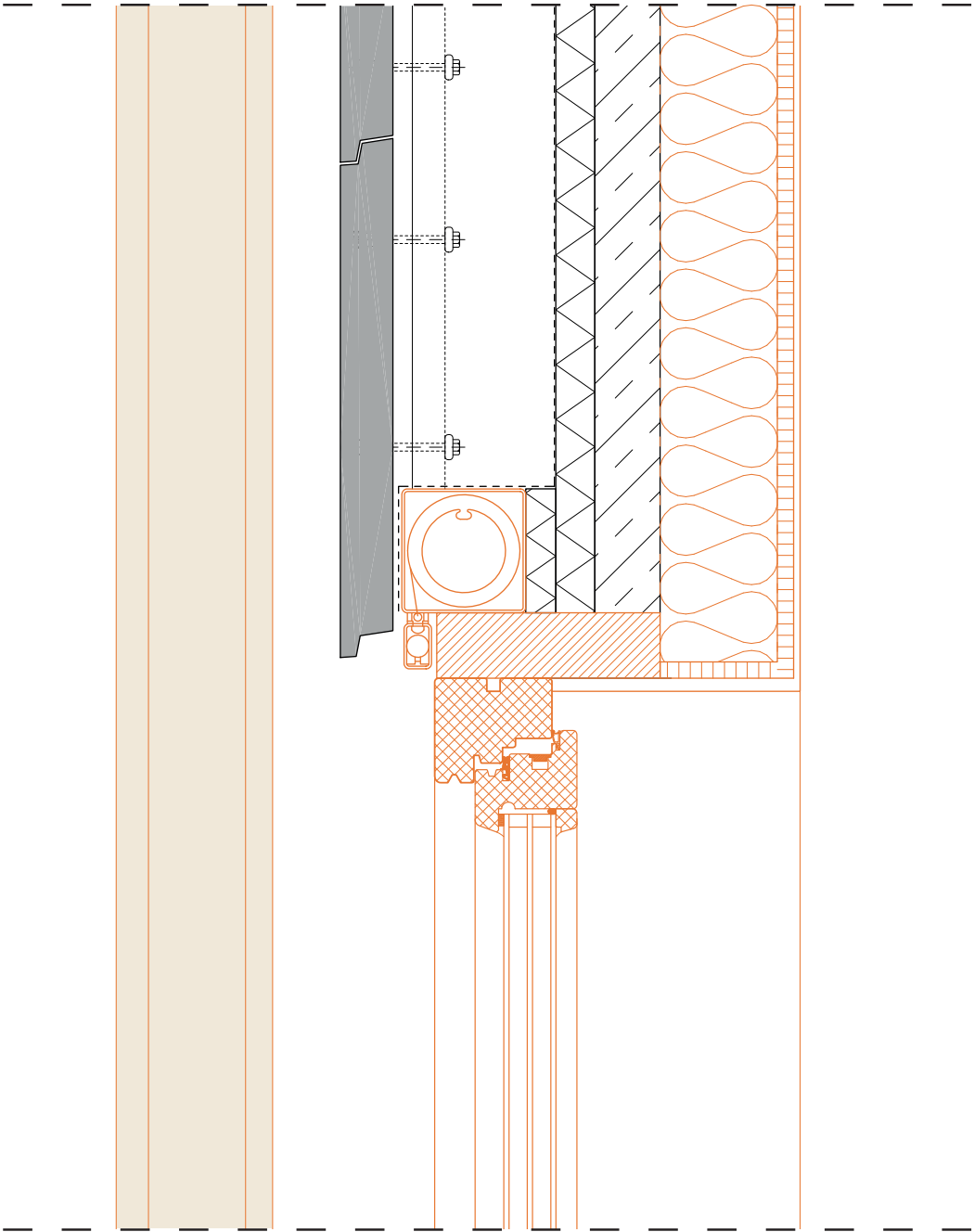
Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

CLIMATE PROPOSAL



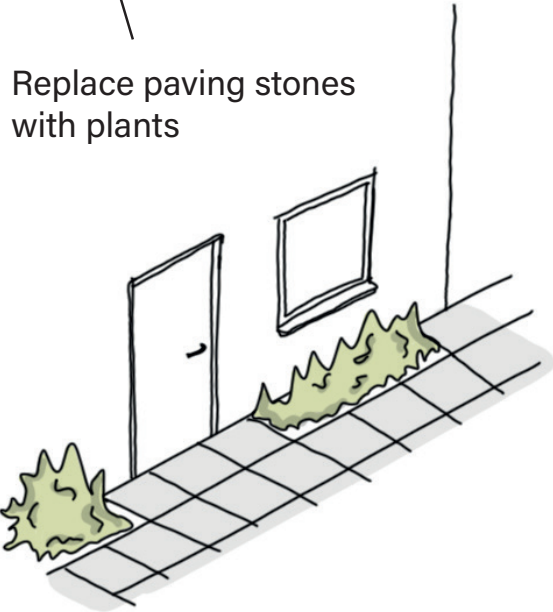
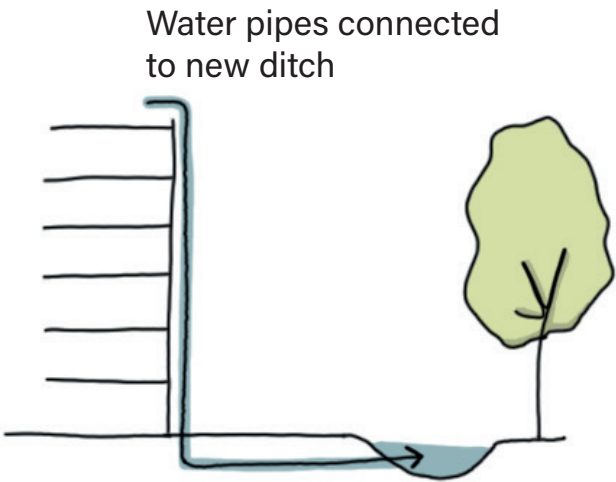
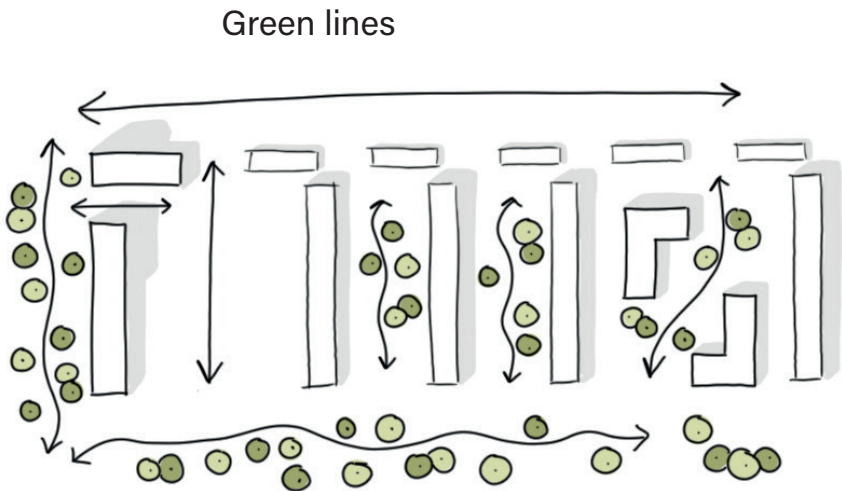
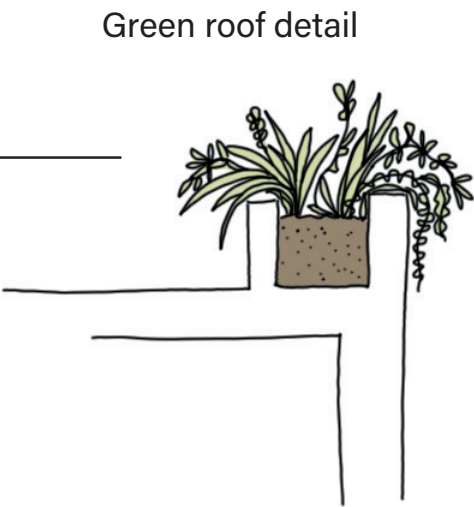
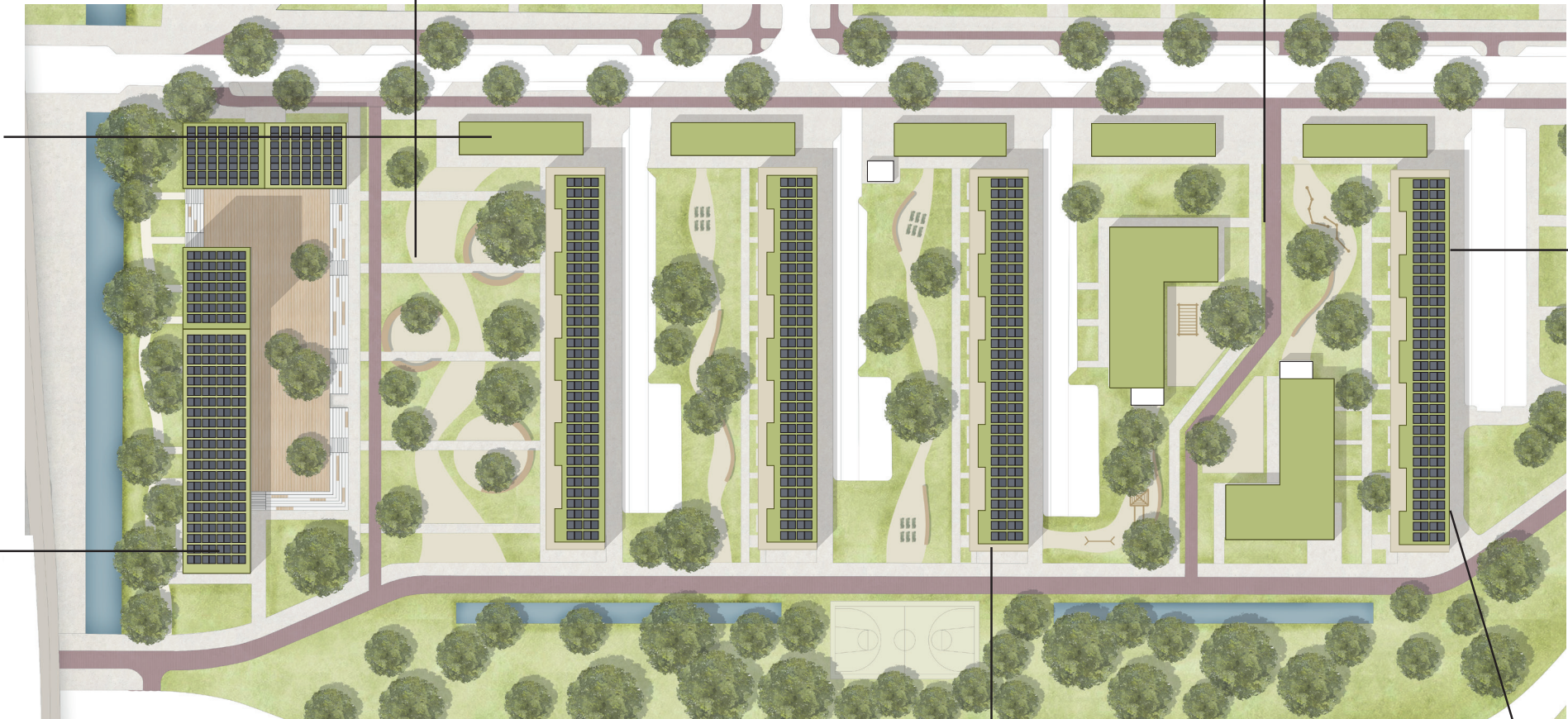
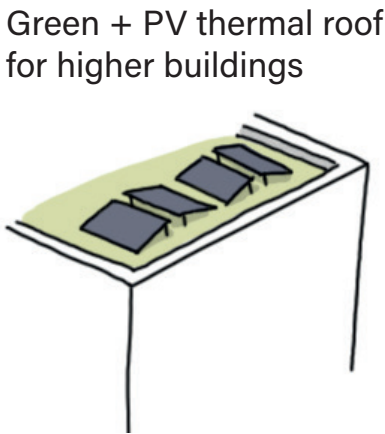
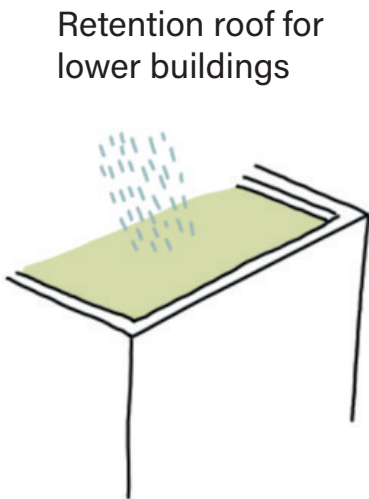
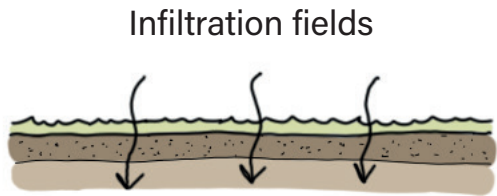
Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

CLIMATE PROPOSAL



Breaking repetition	Making connections
Value the heritage	Future-proofing the plan

CLIMATE PROPOSAL

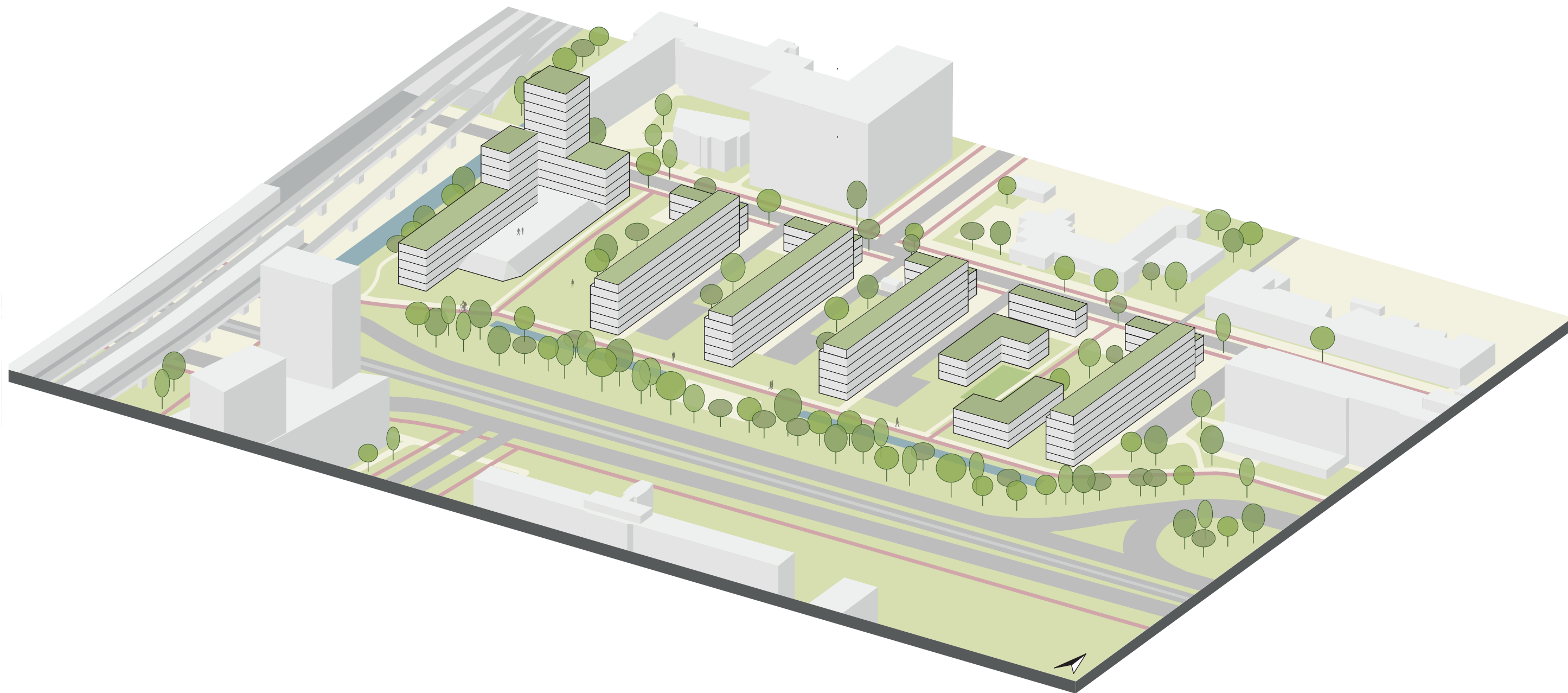


- CONCLUSION -

RESEARCH QUESTION

— What **design guidelines** can be employed for the transformation
of post-war porch flats in the **Western Garden Cities of** —
Amsterdam while utilizing **adaptability**?

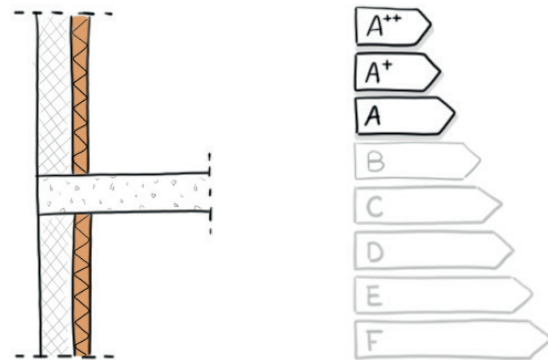
DESIGN PROPOSAL



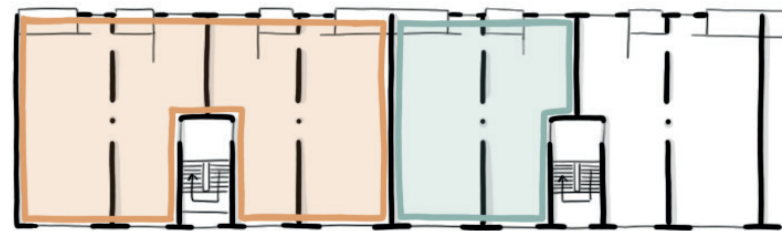
TRANSFORMING POST-WAR PORCH FLATS

Small scale interventions

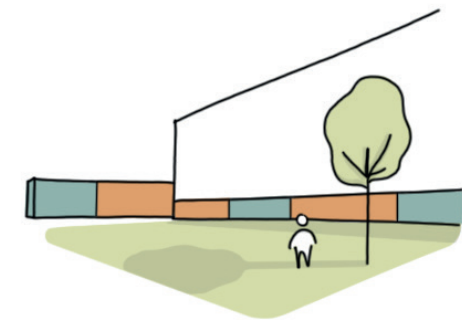
Adding insulation



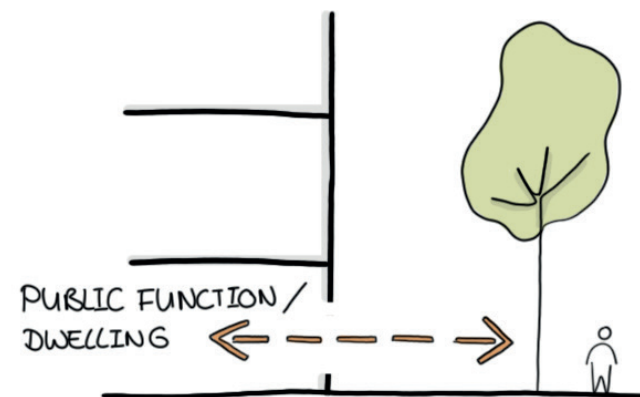
Diversify floorplans



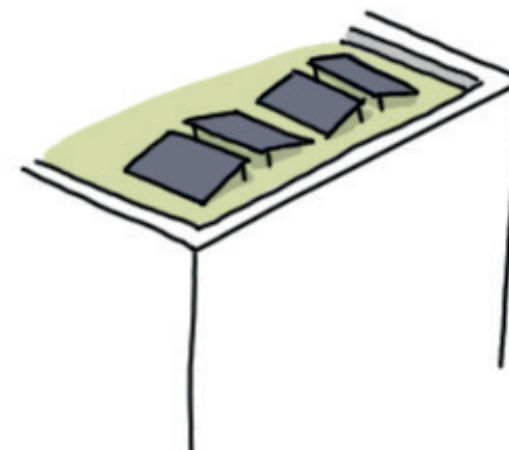
Adding mixed functions



Connect the ground floor with surroundings



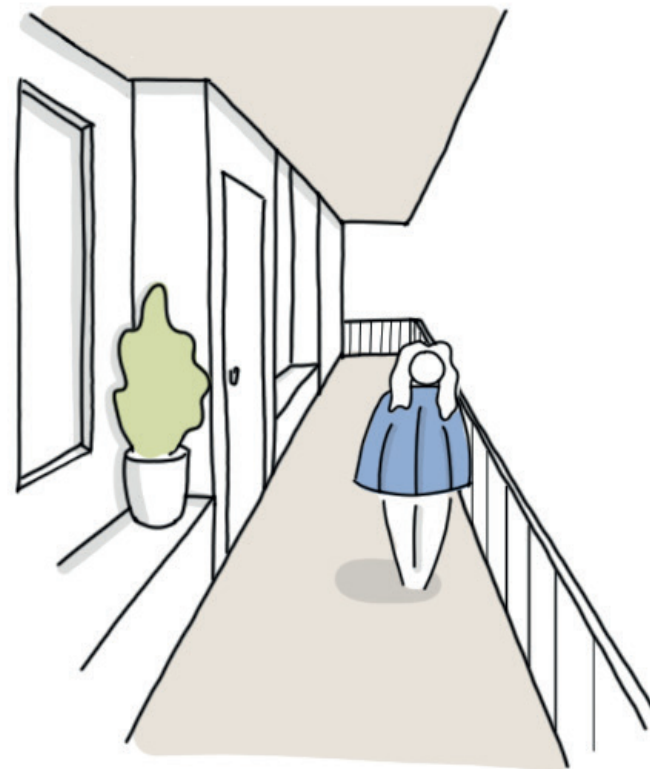
Green roof + pv panels



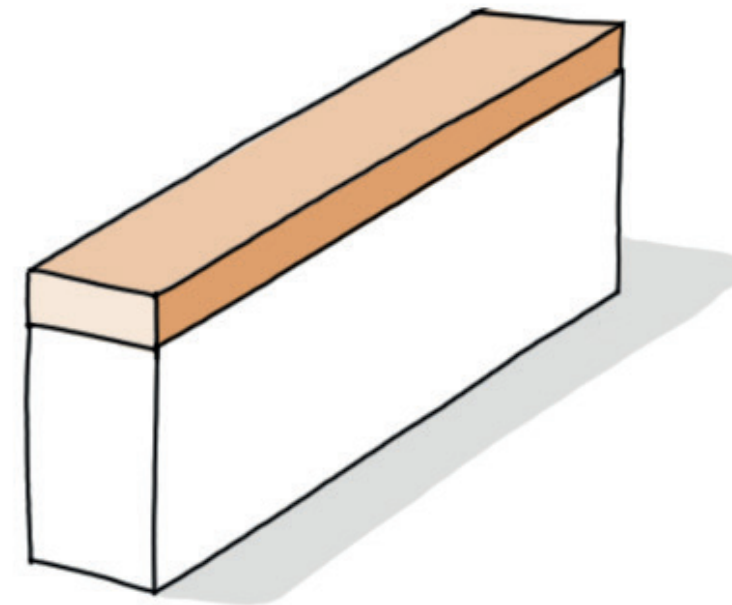
TRANSFORMING POST-WAR PORCH FLATS

Medium scale interventions

Larger transportation zones



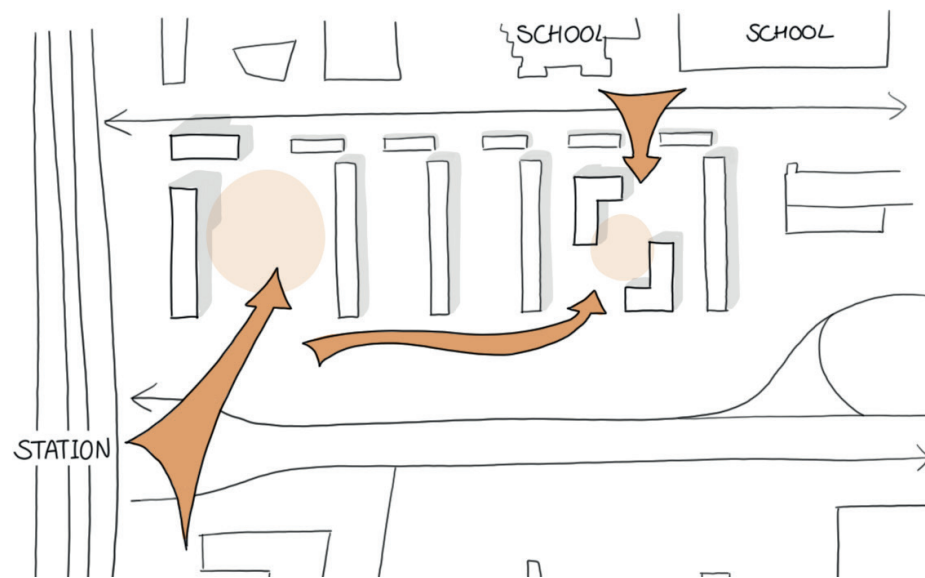
Roof extension



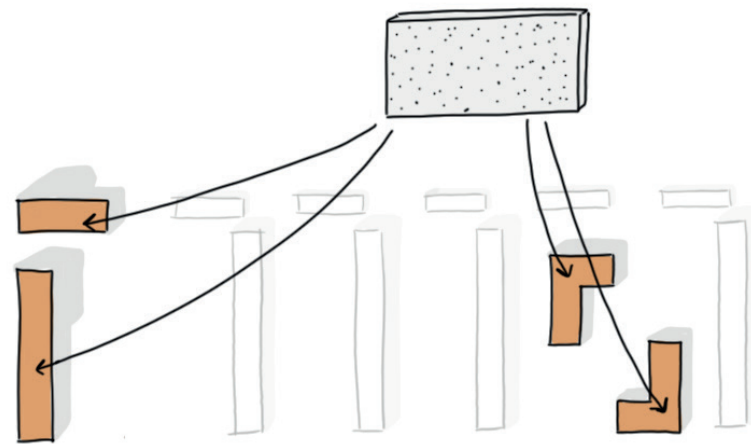
TRANSFORMING POST-WAR PORCH FLATS

Large scale interventions

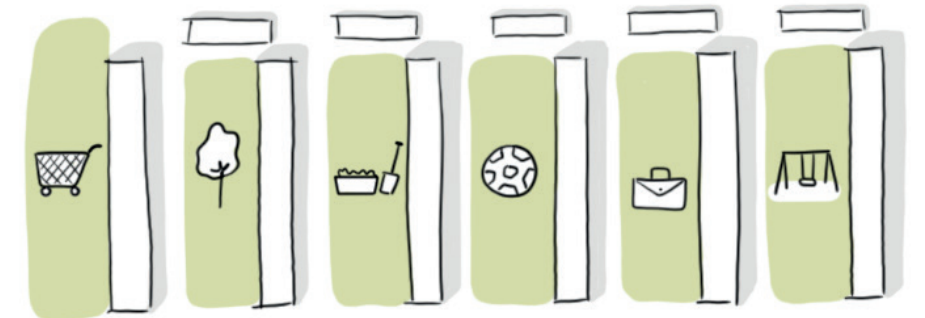
Demolition / new build



Reuse of demolished materials



Diversify courtyards



TRANSFORMING POST-WAR PORCH FLATS



TRANSFORMING POST-WAR PORCH FLATS



TRANSFORMING POST-WAR PORCH FLATS



TRANSFORMING POST-WAR PORCH FLATS



TRANSFORMING POST-WAR PORCH FLATS





- THANK YOU -

REFERENCE LIST

Page

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- 2 Linear to circular economy (2023). Illustrated by author, based on Kenniskaarten. A circular economy differs from a linear economy, but how? (2021, March 16) Kenniskaarten - Het Groene Brein. <https://kenniskaarten.hetgroenebrein.nl/en/knowledge-map-circular-economy/how-is-a-circular-economy-different-from-a-linear-economy/>
- 3 Porch flats in Amsterdam Nieuw-West (1960). Stadsarchief Amsterdam.
- 7 Algemeen Uitbreidingsplan (1935). Algemeen Uitbreidingsplan van Amsterdam. Stadsarchief Amsterdam.
- 7 Cornelis van Eesteren (1982). Van Eesteren Museum. <https://vaneesterenmuseum.nl/tuinsteden>
- 8 Construction of the Western Garden Cities (1954, 11 March). Stadsarchief Amsterdam.
- 8 Children on construction site (1956). Ruys de Beerenbrouckstraat. Op de achtergrond de nieuwbouw aan de Wigbolt Ripperdrastraat. Stadsarchief Amsterdam.
- 9 Aerial photo Sloterveer Noordoost (1980). Stadsarchief Amsterdam.
- 9 Aerial photo urban plan (1962). Luchtfoto van de Sloterveer en omgeving gezien in noordoostelijke richting. Stadsarchief Amsterdam.
- 10 Viveportenstraat Osdorper Ban (n.d.). Stadsarchief Amsterdam.
- 10 Aerial photo Osdorp-midden (1973, April). Stadsarchief Amsterdam.
- 11 Interior living room Sloterveer (n.d.). Stadsarchief Amsterdam.
- 11 Interior living room Sloterveer (1954). Stadsarchief Amsterdam.
- 11 Woman in apartment (1957). Vrouw in een woning der Westelijke Tuinsteden (vermoedelijk Geuzenveld of Sloterveer). Stadsarchief Amsterdam.
- 12 Public functions (1964). Tussen Meer 57 t/m 63. Stadsarchief Amsterdam.
- 12 Vibrant plinth Amsterdam Nieuw-West (1971). Behang Centrum West 'De Houtban' Stadsarchief Amsterdam.
- 13 Satisfaction of inhabitant with city district (scale 1-10) (2021). Gemeente Amsterdam. Wonen in Amsterdam 2021 Leefbaarheid. Gemeente Amsterdam. Amsterdamse Federatie van Woningcorporaties.
- 33 Historical photo's Johan Jongkindstraat (1997). Photographer Ton van Rijn. Stadsarchief Amsterdam.

Material without reference are taken or illustrated by author