Het talenhof | The language court

A TRANSFORMATION OF THE BAUDARTIUS COLLEGE - ZUTPHEN

P5 Presentation 03-07-18
Graduation studio Heritage & Architecture

Sophie Wijting

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- Design masterplan Nieuwstad
  - Ambitions
  - The concept of the redevelopment

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  - The architectural concept of the transformation
  - Climate system
  - Building technology

3 scales

Zutphen

Nieuwstad & the baudartius college

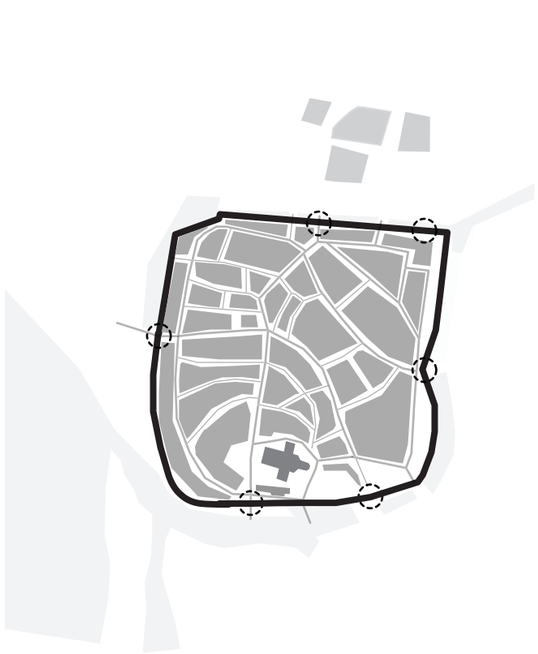
The location

Zutphen

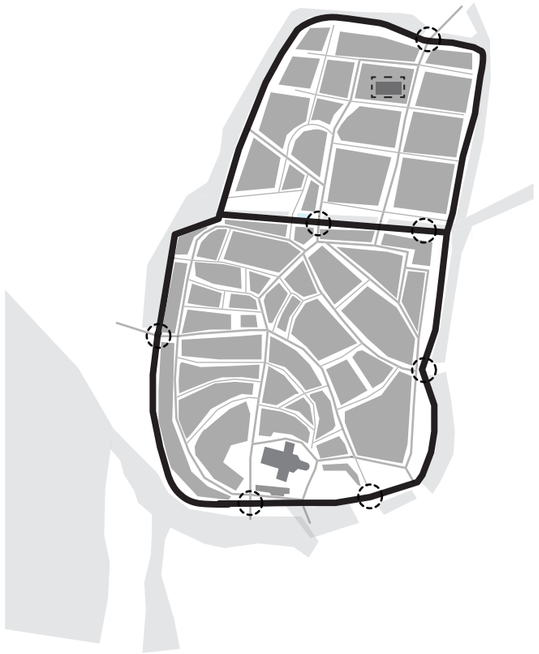
Development

Zutphen, Year 900

Zutphen, Year 1125



Zutphen, Year 1200



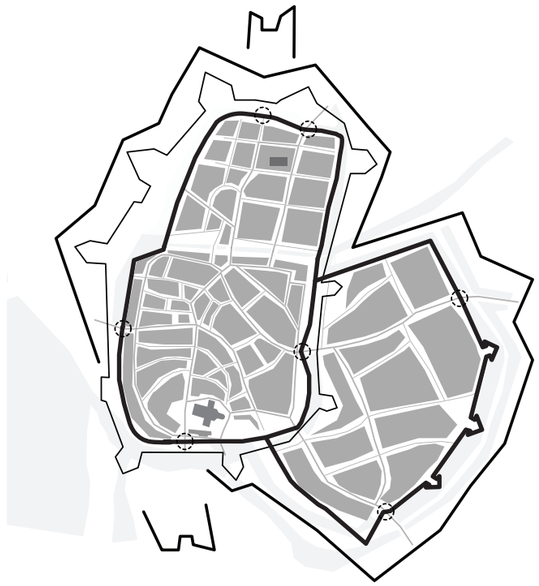
Zutphen, Year 1250

Zutphen

Historical development

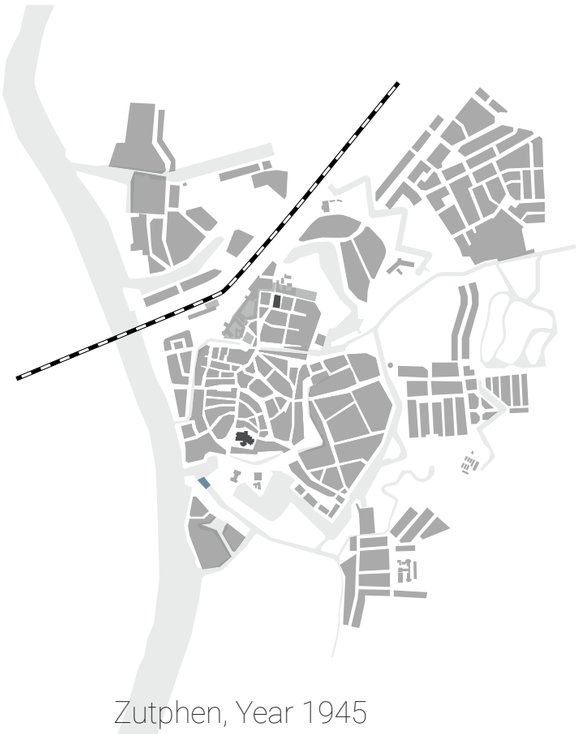
- 1312 Nieuwstad and Zutphen merged

Zutphen, Year 1300



Zutphen, Year 1650

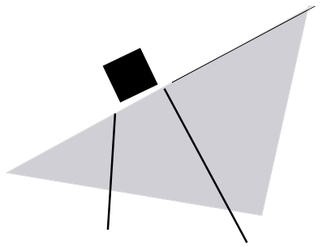
Zutphen, Year 1850



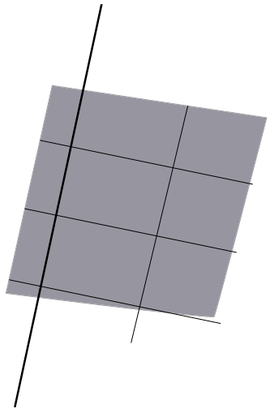
Zutphen, Year 1945

Nieuwstad

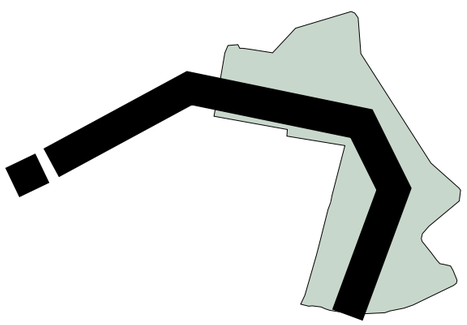
Current structure



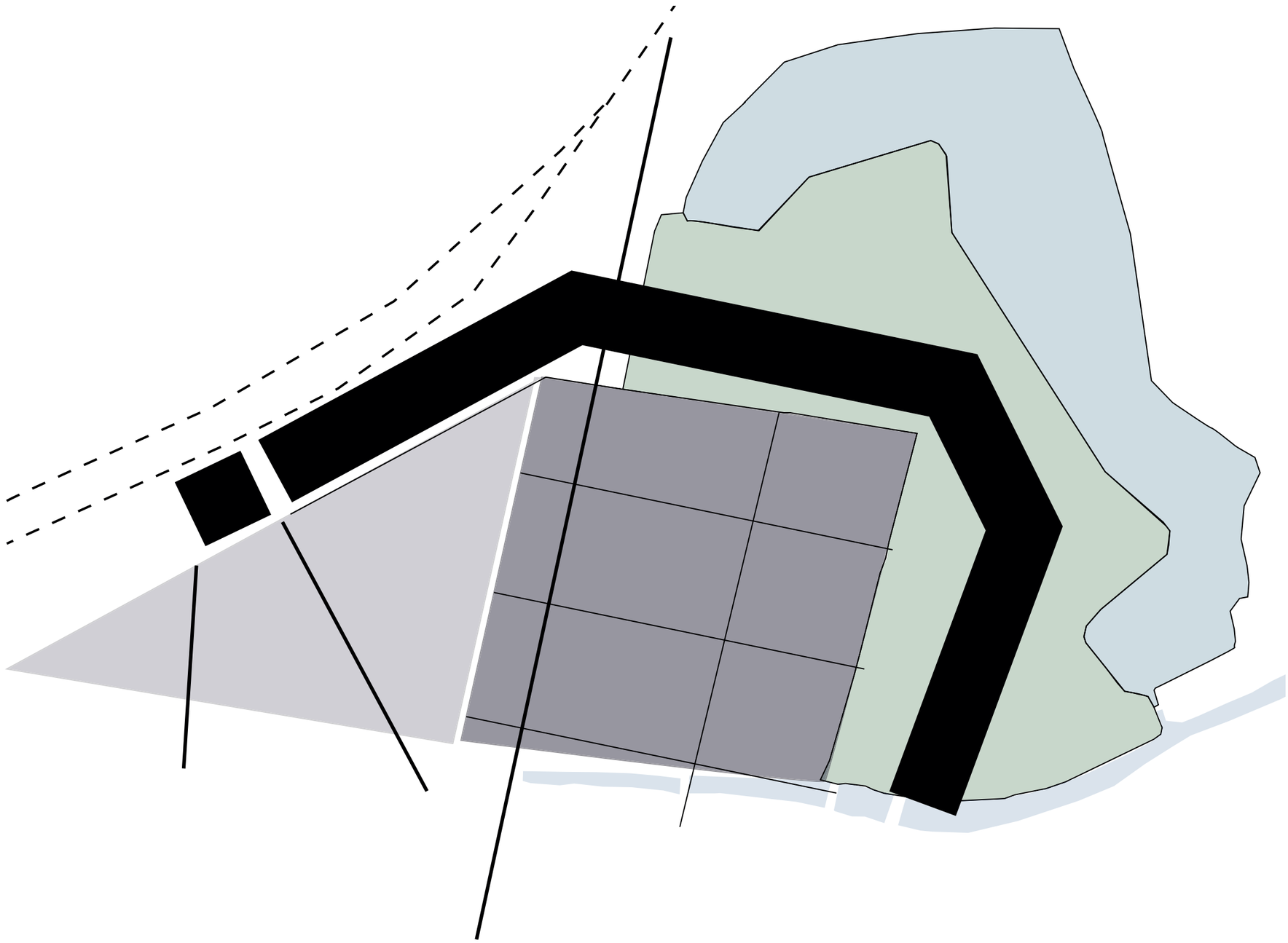
Station area



housing



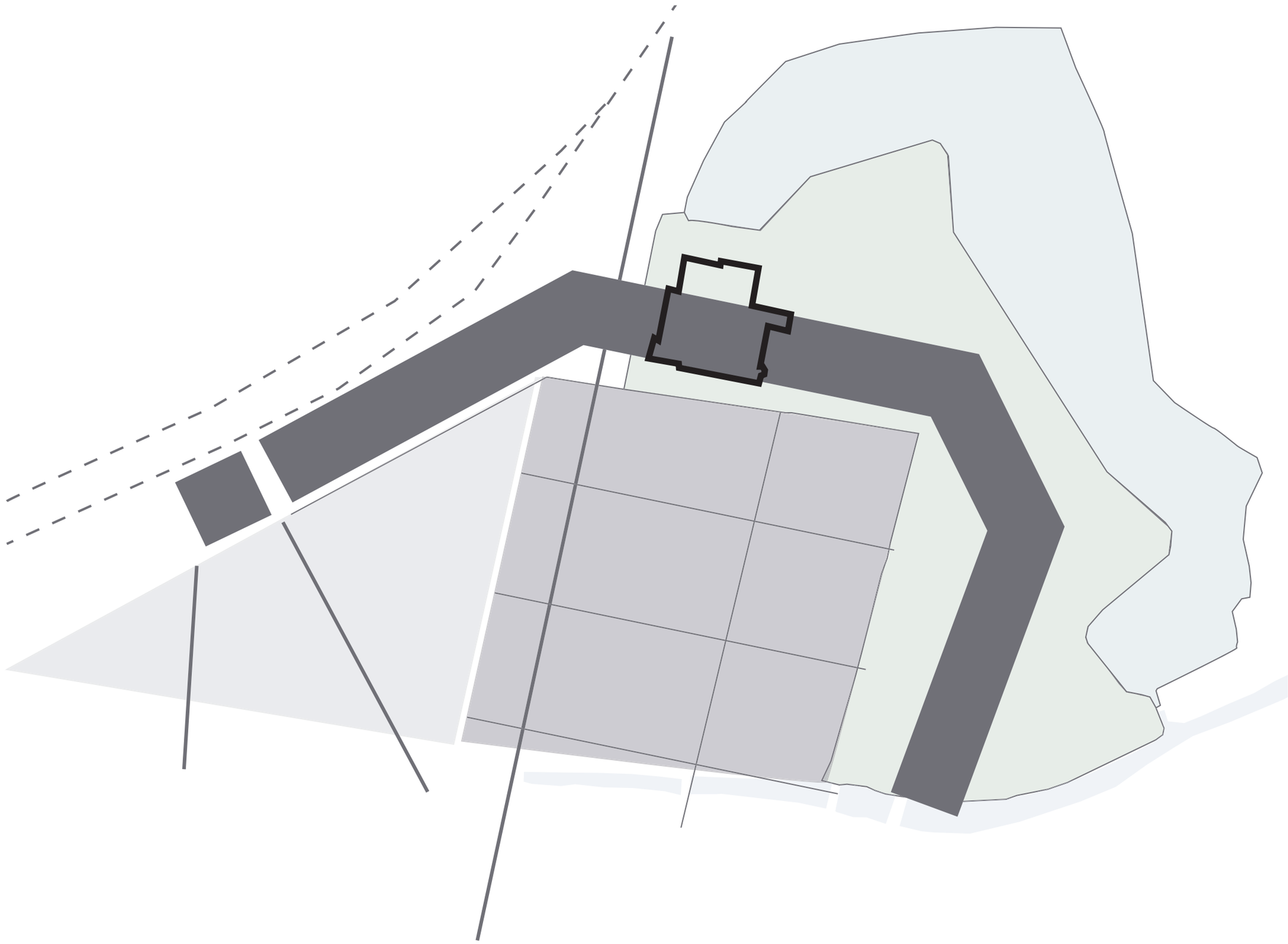
Defence area: larger scale buildings



0 50.000

Nieuwstad

Current structure



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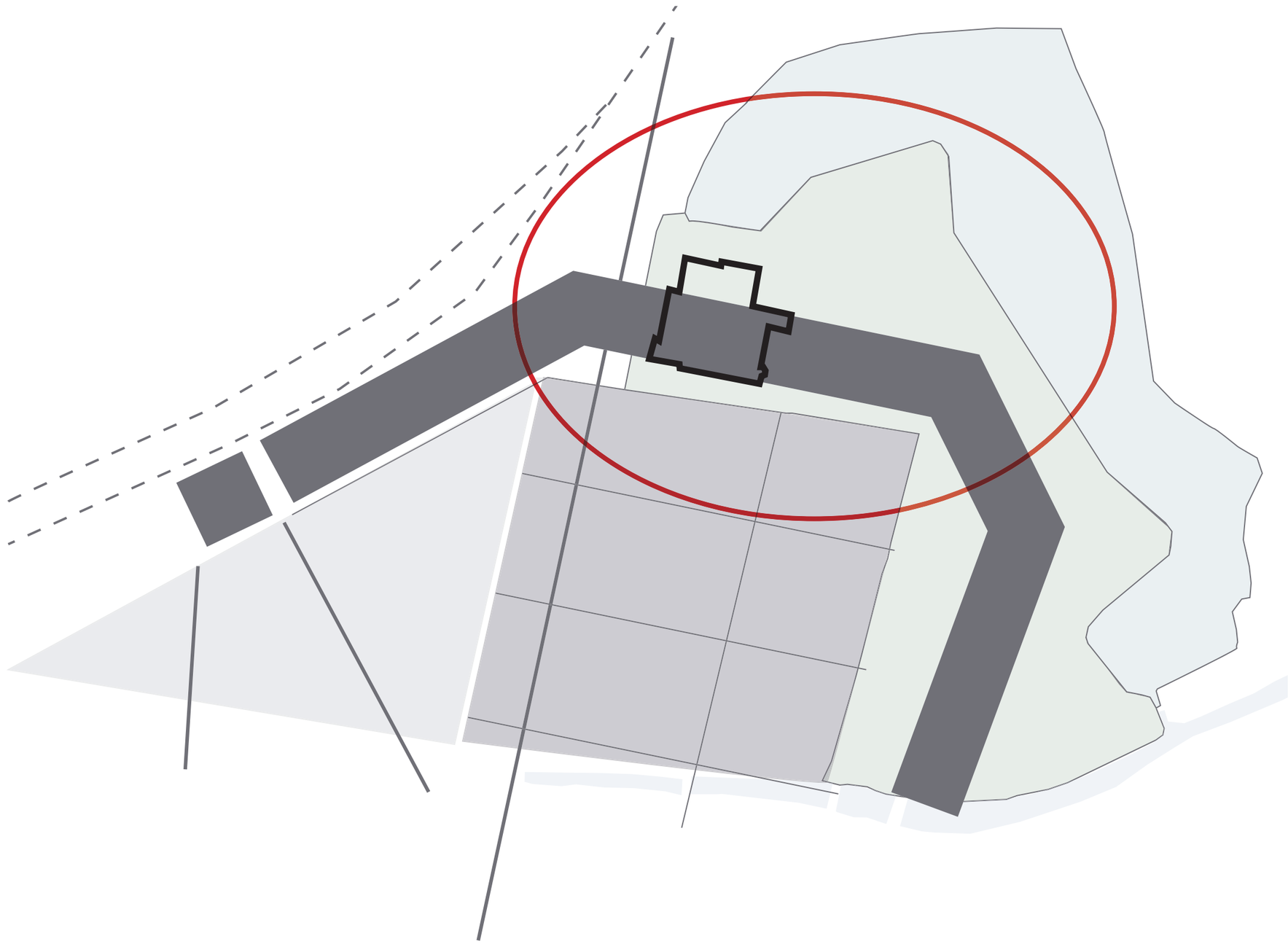
Nieuwstad

Current structure



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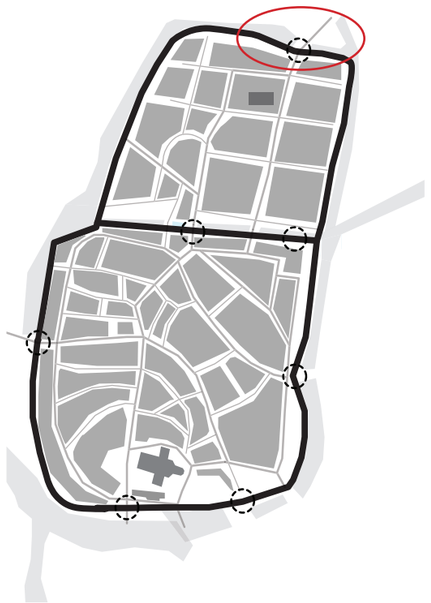
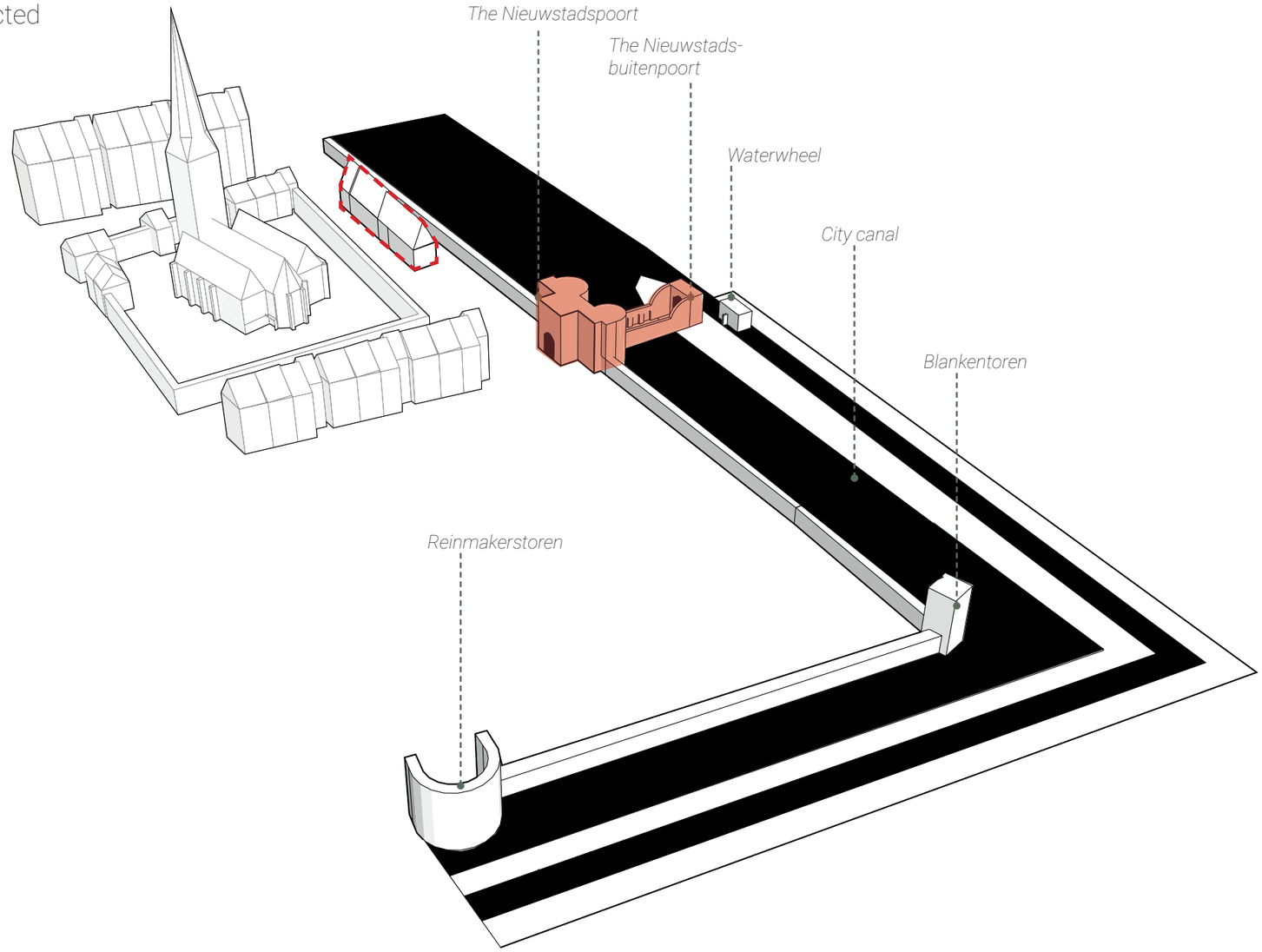
The north of Nieuwstad

Historical development

- 1393 The main gate “the Nieuwstadspoort”was constructed
- Baudartius site Women convent



Zutphen, Year 1393



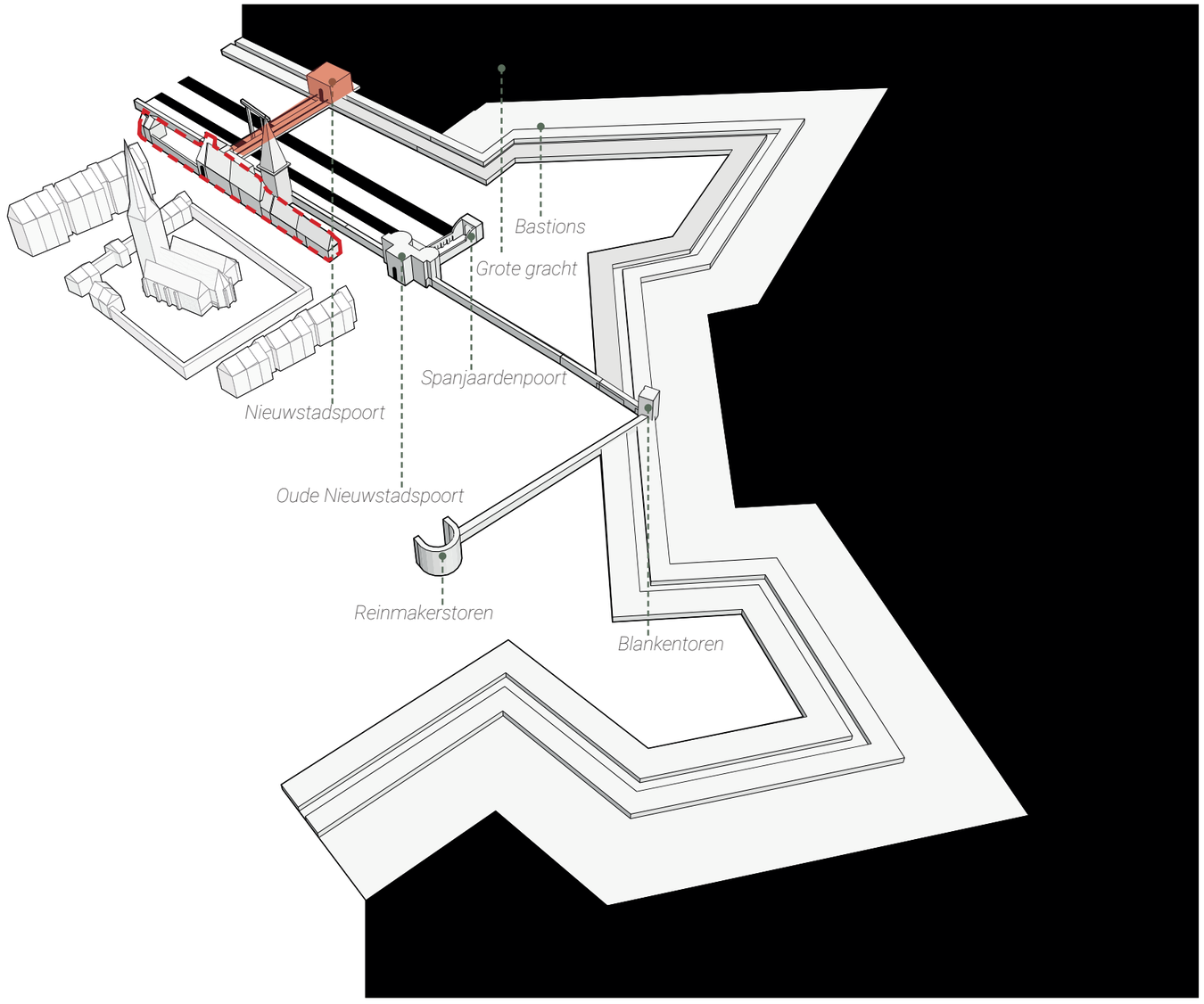
The north of Nieuwstad

Historical development

- 1536 The inner Nieuwstadspoort got demolished
- 1572 Spanish invasion
  The outer Nieuwstadspoort was named Spanish gate now
- 1616 The “new” gate Nieuwstadspoort is constructed

- Baudartius site Monastery

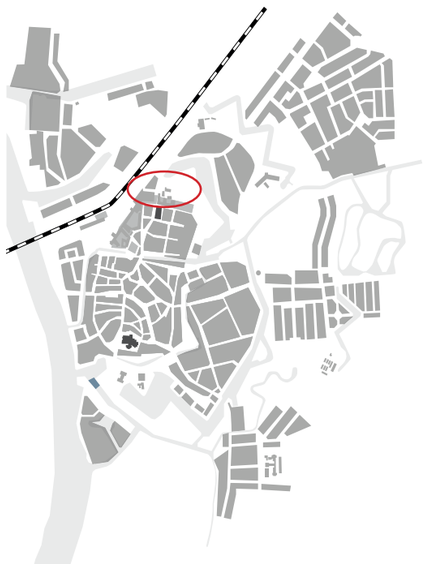
Zutphen, Year 1616



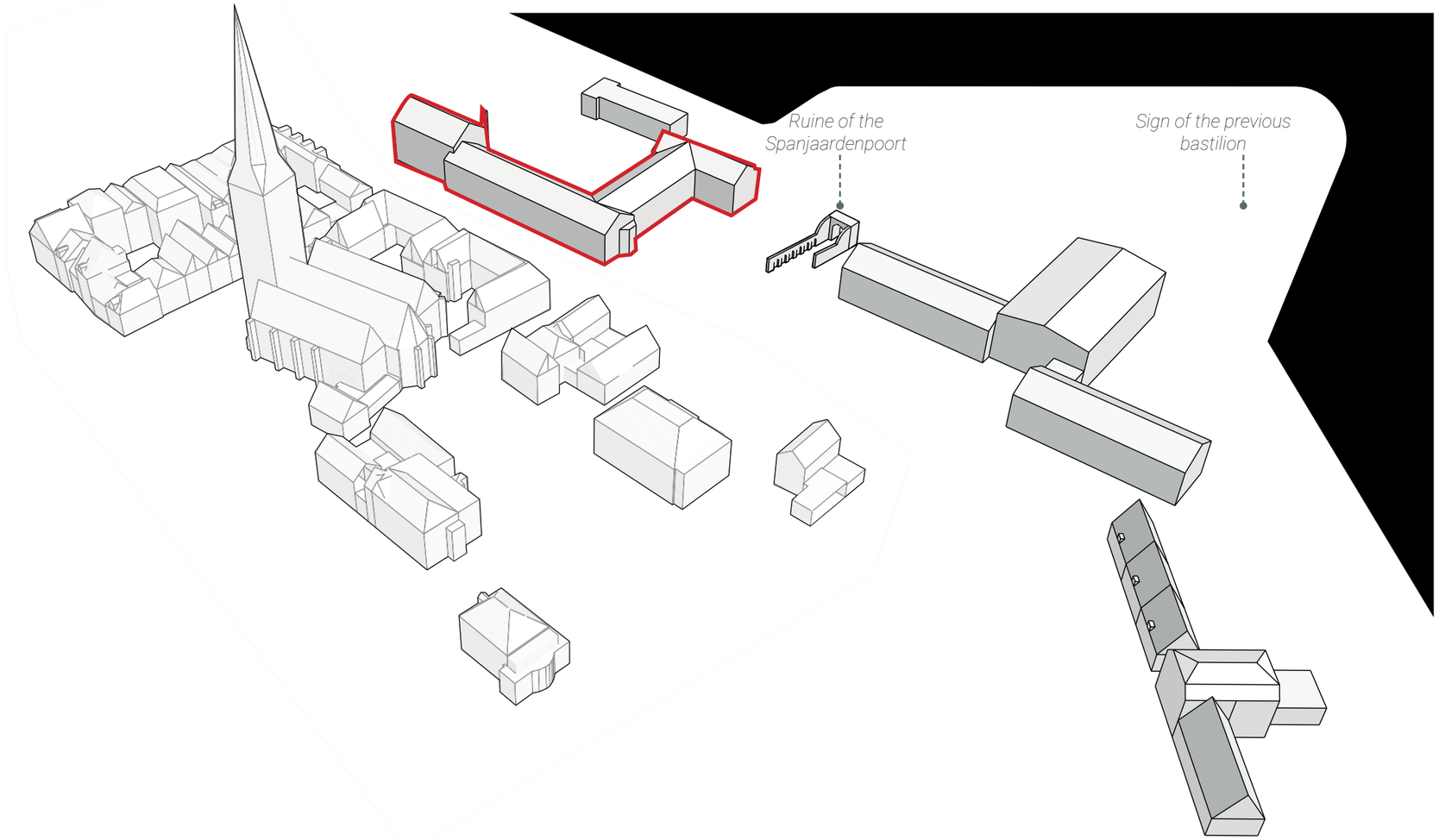
The north of Nieuwstad

Historical development

- Baudartius site Baudartius



Zutphen, Year 1951



Cultural values

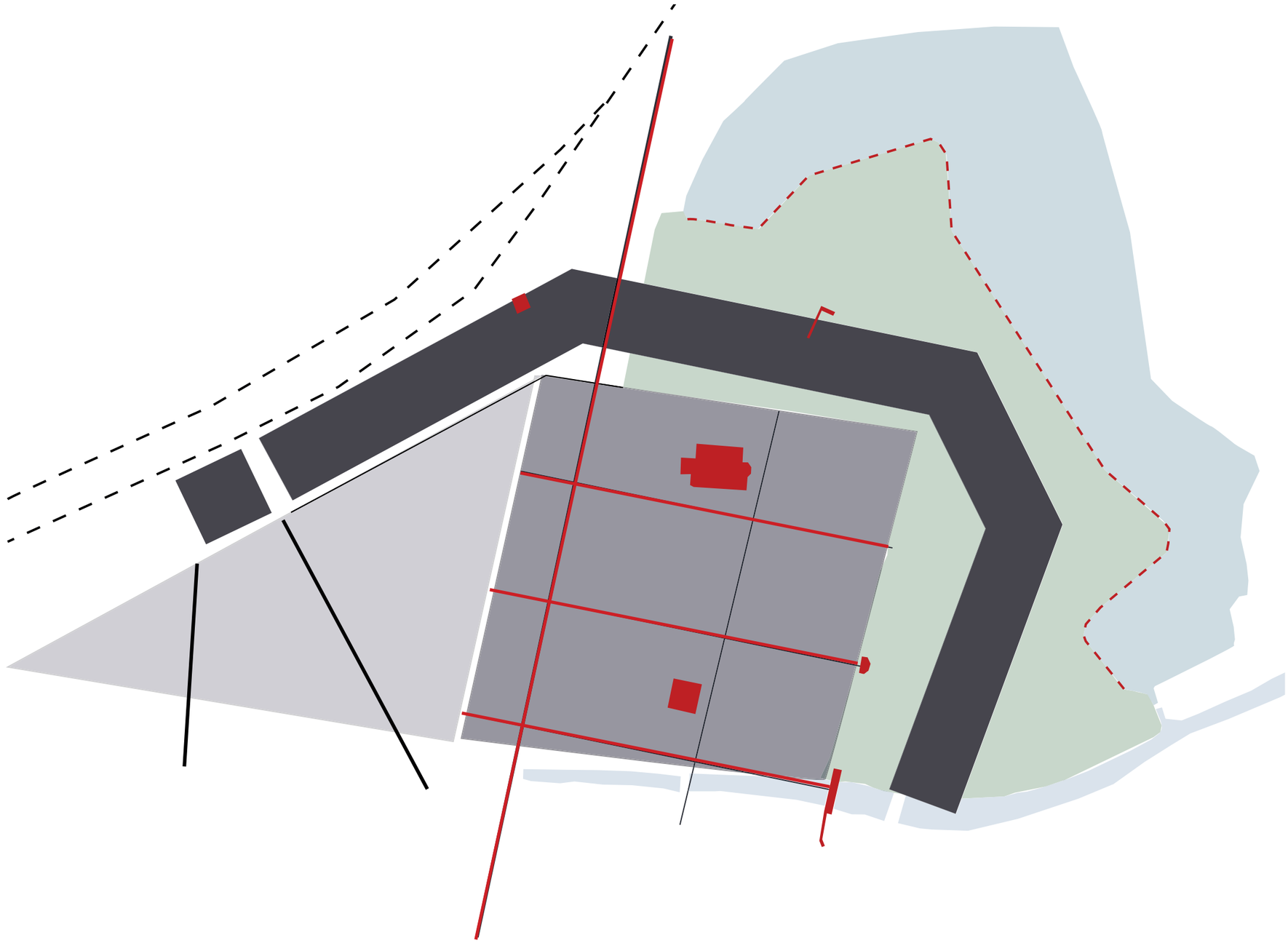
Nieuwstad

High historical value

- Medieval street pattern
- The water of the defence system
- The ruin of the medieval Spanish gate
- The remains of the city wall
- Medieval catholic Nieuwstad church

High age value

- The bells in the Nieuwstad church



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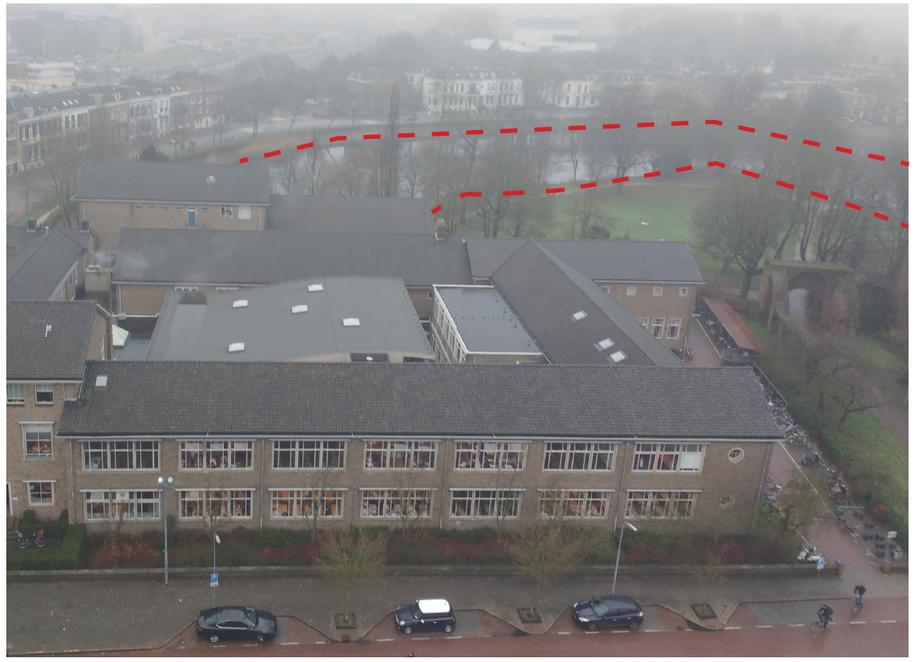
Cultural values

Nieuwstad

Spanish gate

Nieuwstads church



Shape of the bastilions

Former entrance of the city

The assignment

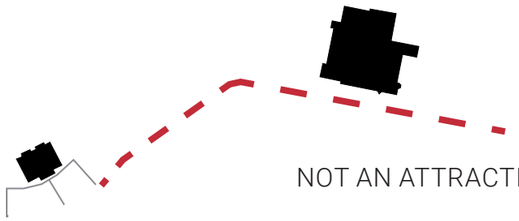
The assignment
Nieuwstad

Population out of balance

Vacancy

Limited focus on historical city centre Zutphen

The assignment
Summary conflicts



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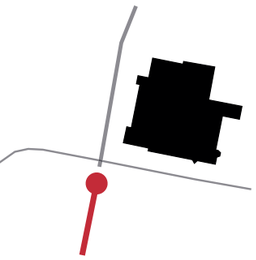

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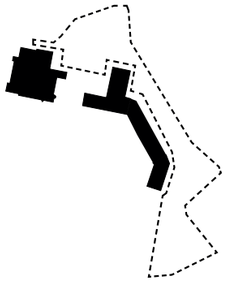
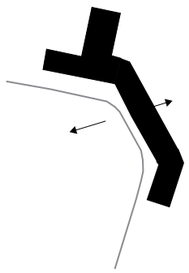
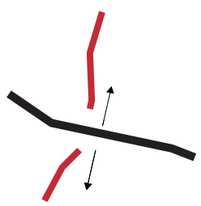


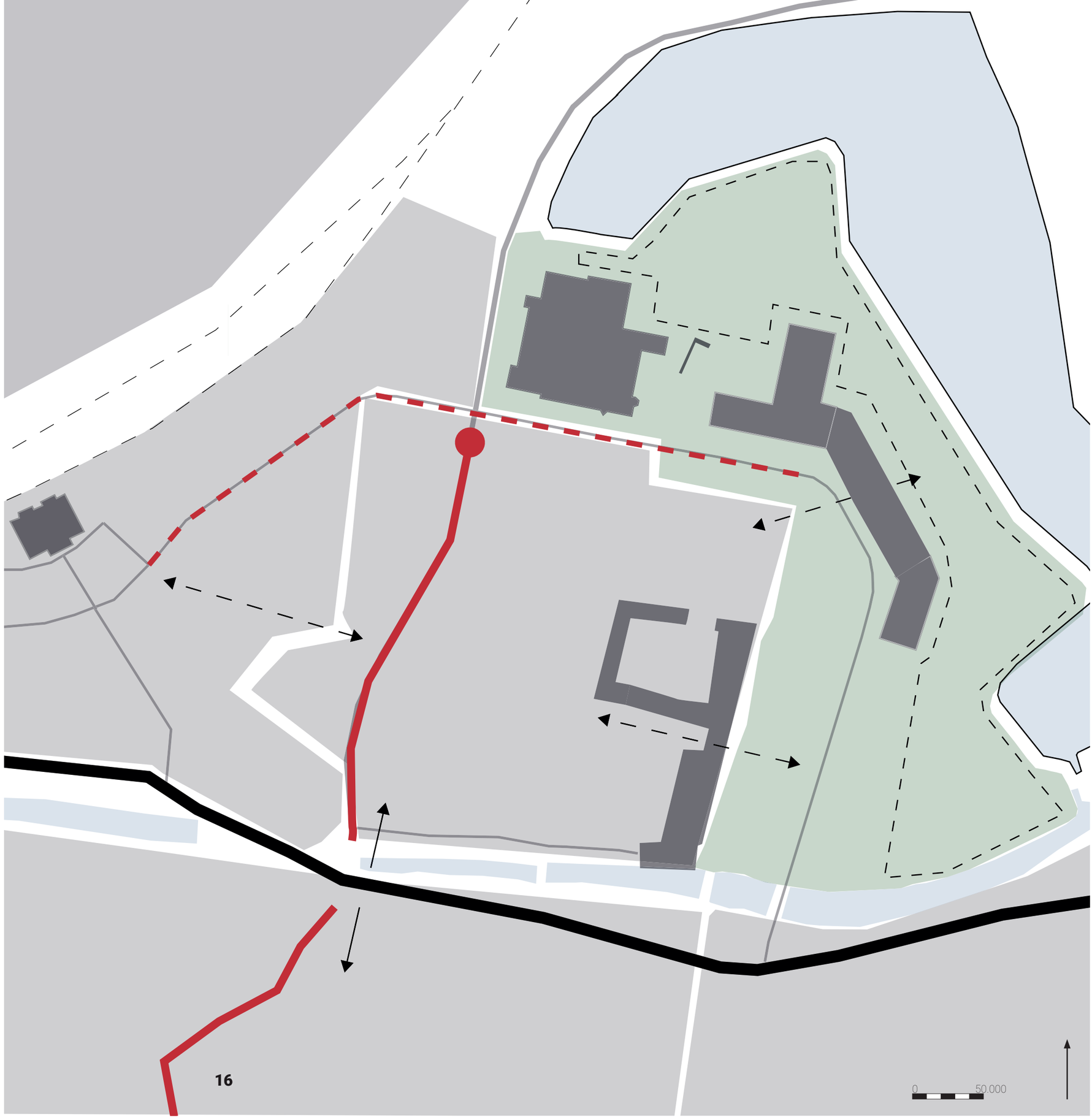
"LEFT OVER" SPACE



BLOCKING BUILDINGS

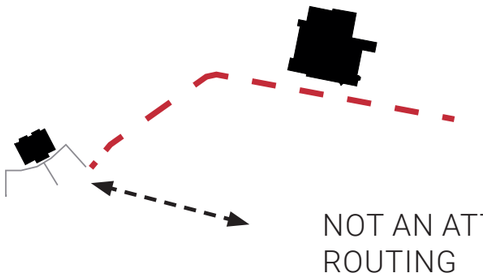


WEAK CONNECTION BETWEEN
CITY CENTRE AND NIEUWSTAD



The assignment

Connection station



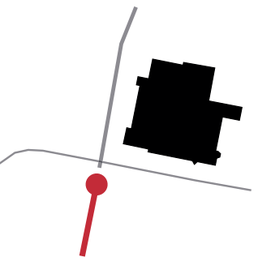
NOT AN ATTRACTIVE ROUTING

The assignment

Main street dead end

The assignment

Main street dead end



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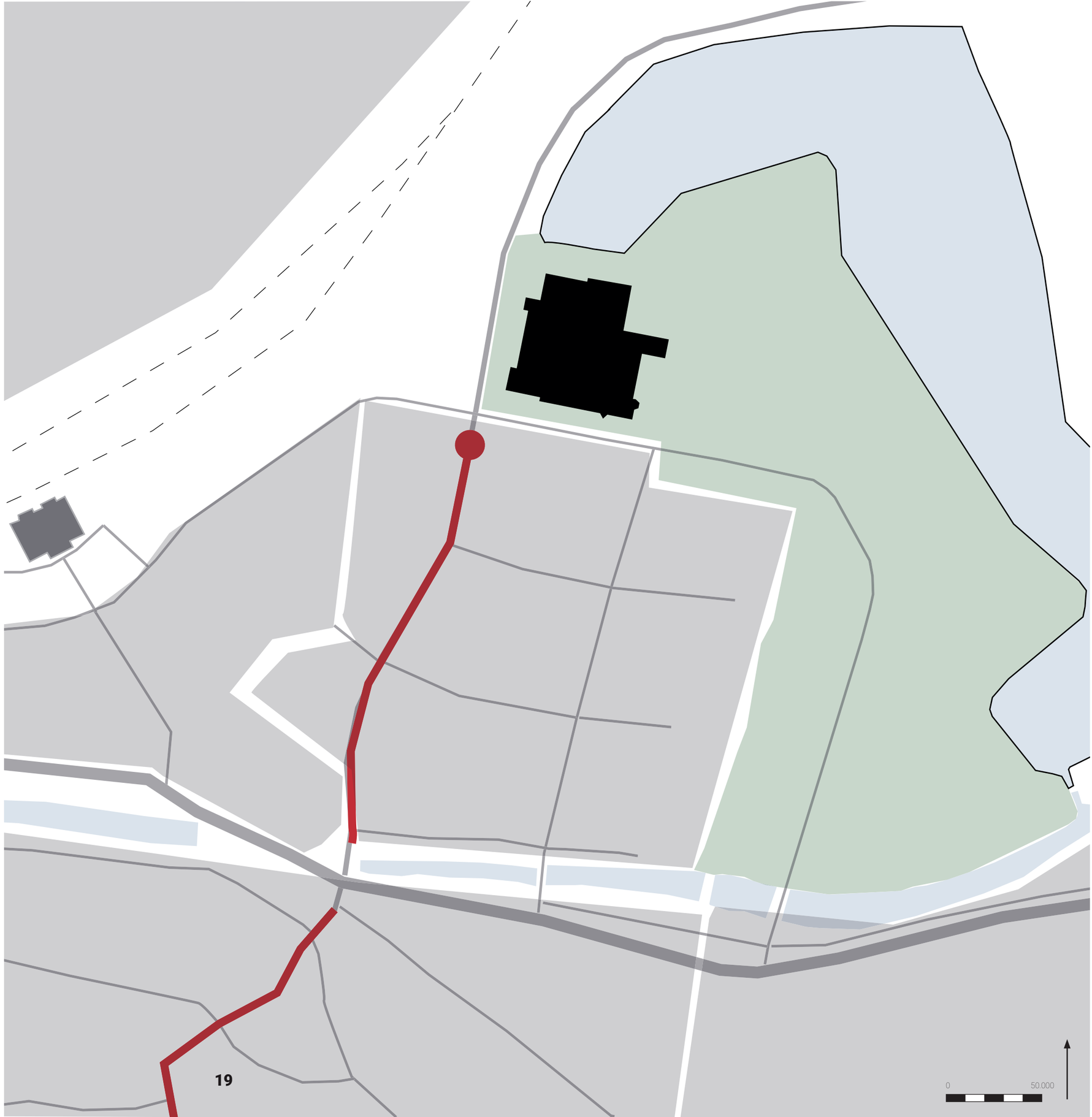
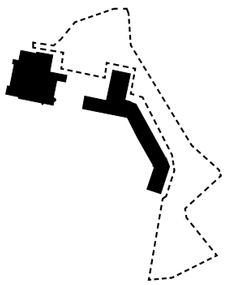


The assignment
Main street dead end

The assignment

Left over space



"LEFT OVER" SPACE

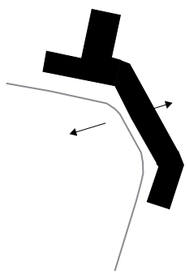
0 50.000

The assignment

Left over space

The assignment

Blocking the park

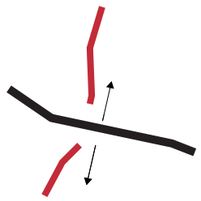


BLOCKING BUILDINGS

The assignment
Blocking the park

The assignment

Main street interruption



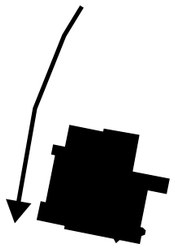
WEAK CONNECTION BETWEEN CITY CENTRE AND NIEUWSTAD

The assignment

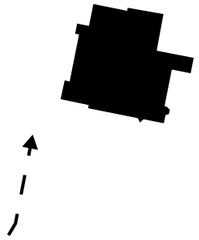
Main street interruption

Choice for the Baudartius

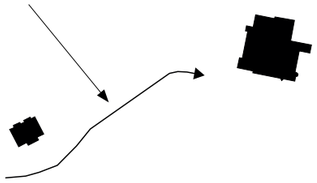
Motivation



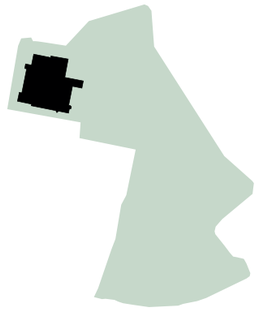
NEXT TO ENTRANCE ROAD
OF THE CITY



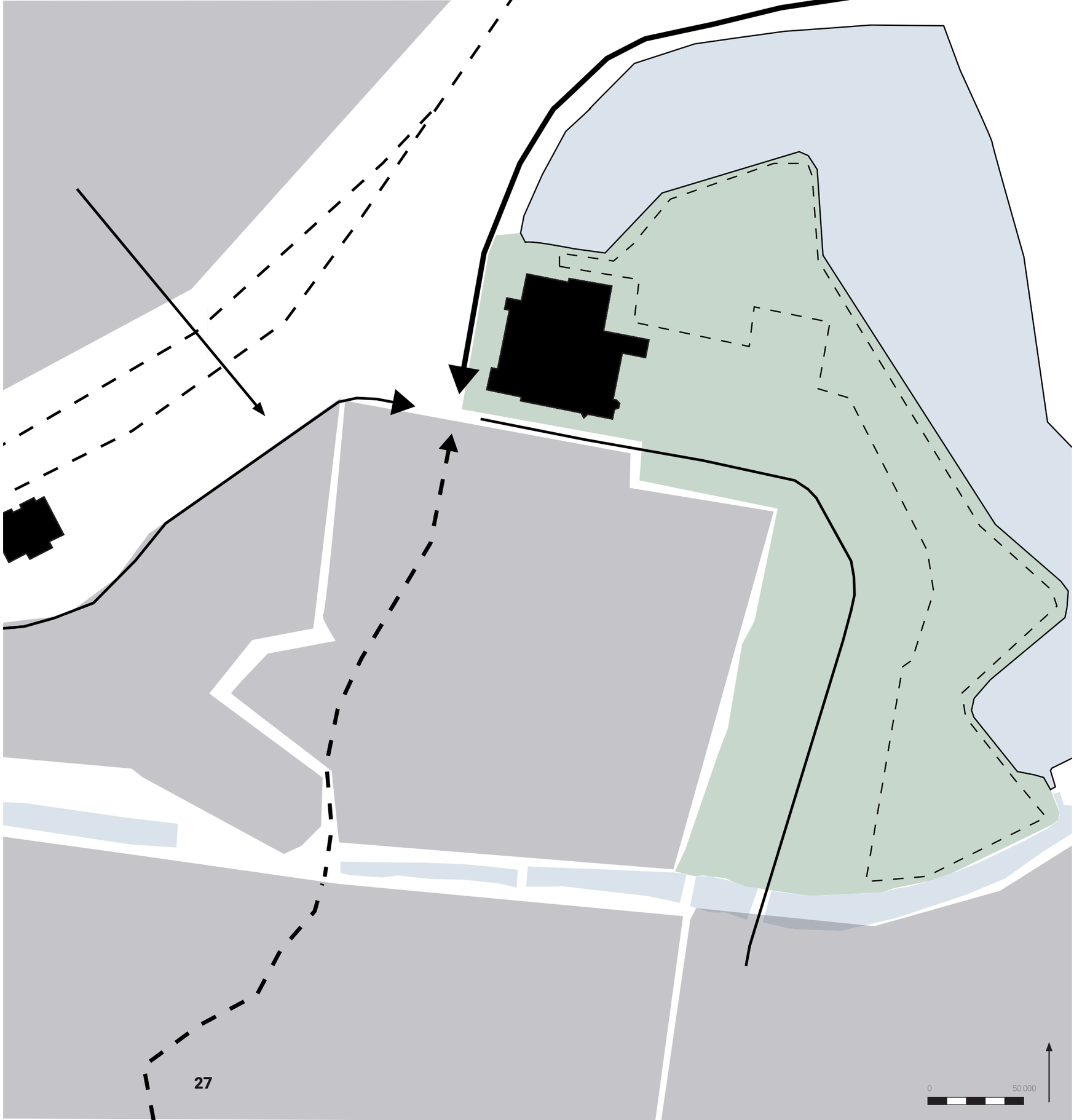
AT THE END OF THE MAIN
STREET “NIEUWSTAD”.



CLOSE TO THE STATION
AND NOORDERHAVEN



FORMER DEFENCE AREA:
SPACIOUSNESS OF THE
LOCATION



Design question

Design question:

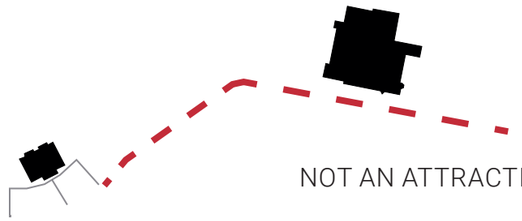
- Which **reprogramming** and **spatial interventions** could **revitalize Nieuwstad** and at the same time **strengthen the cultural values** of the area, and how could a transformation of the **Baudartius building** contribute to this goal?

Key words

- **Revitalizing Nieuwstad**
- **Strengthen cultural value**
- Reprogramming
- Spatial intervention
- Baudartius college

The masterplan Nieuwstad

The assignment
Summary conflicts



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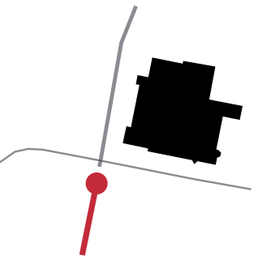

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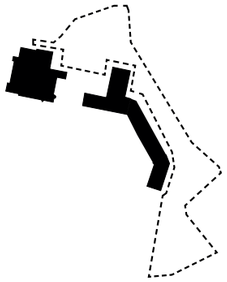

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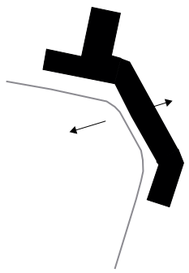
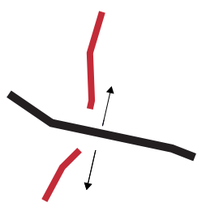


BLOCKING BUILDINGS



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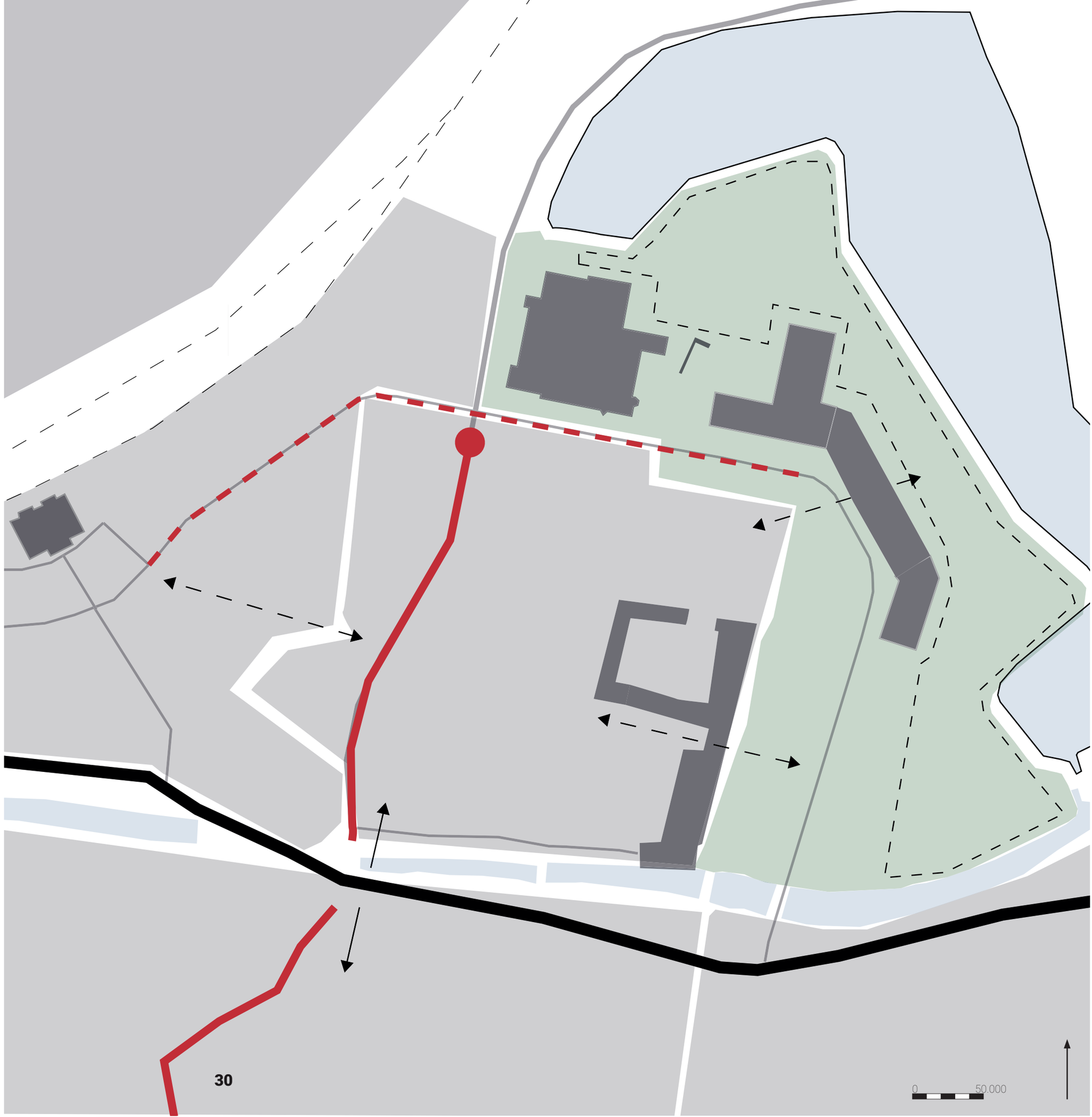
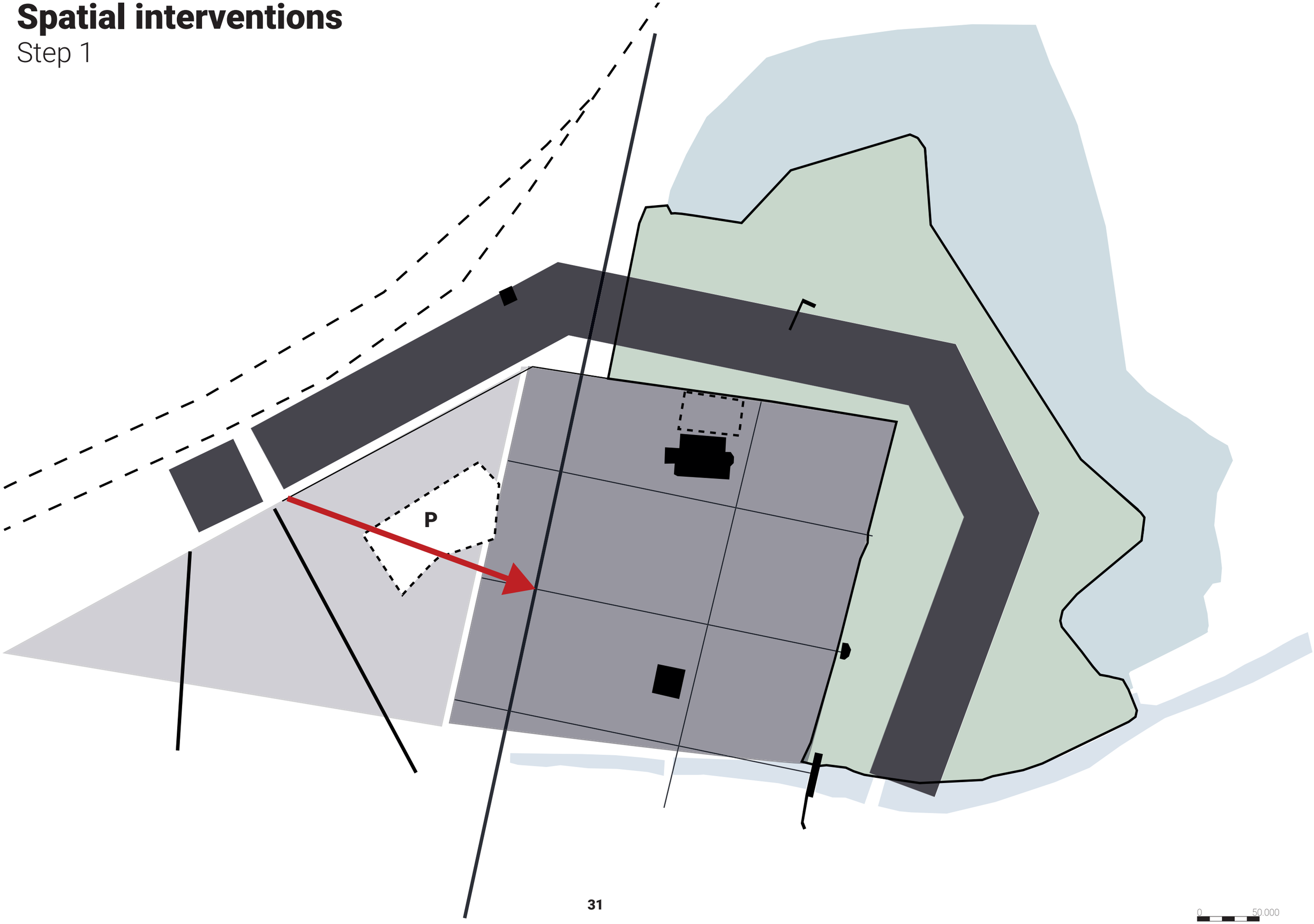


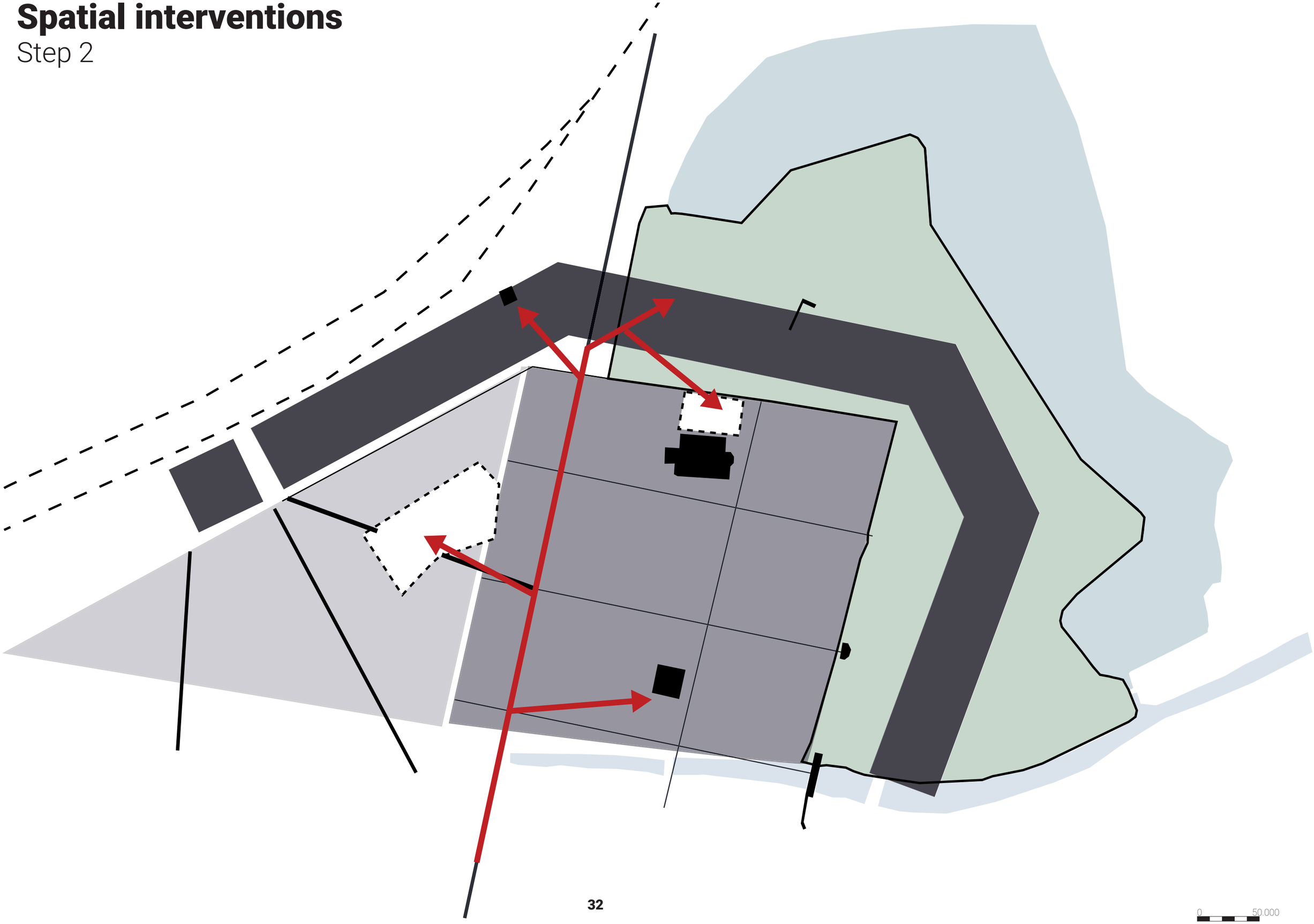
Spatial interventions

Step 1



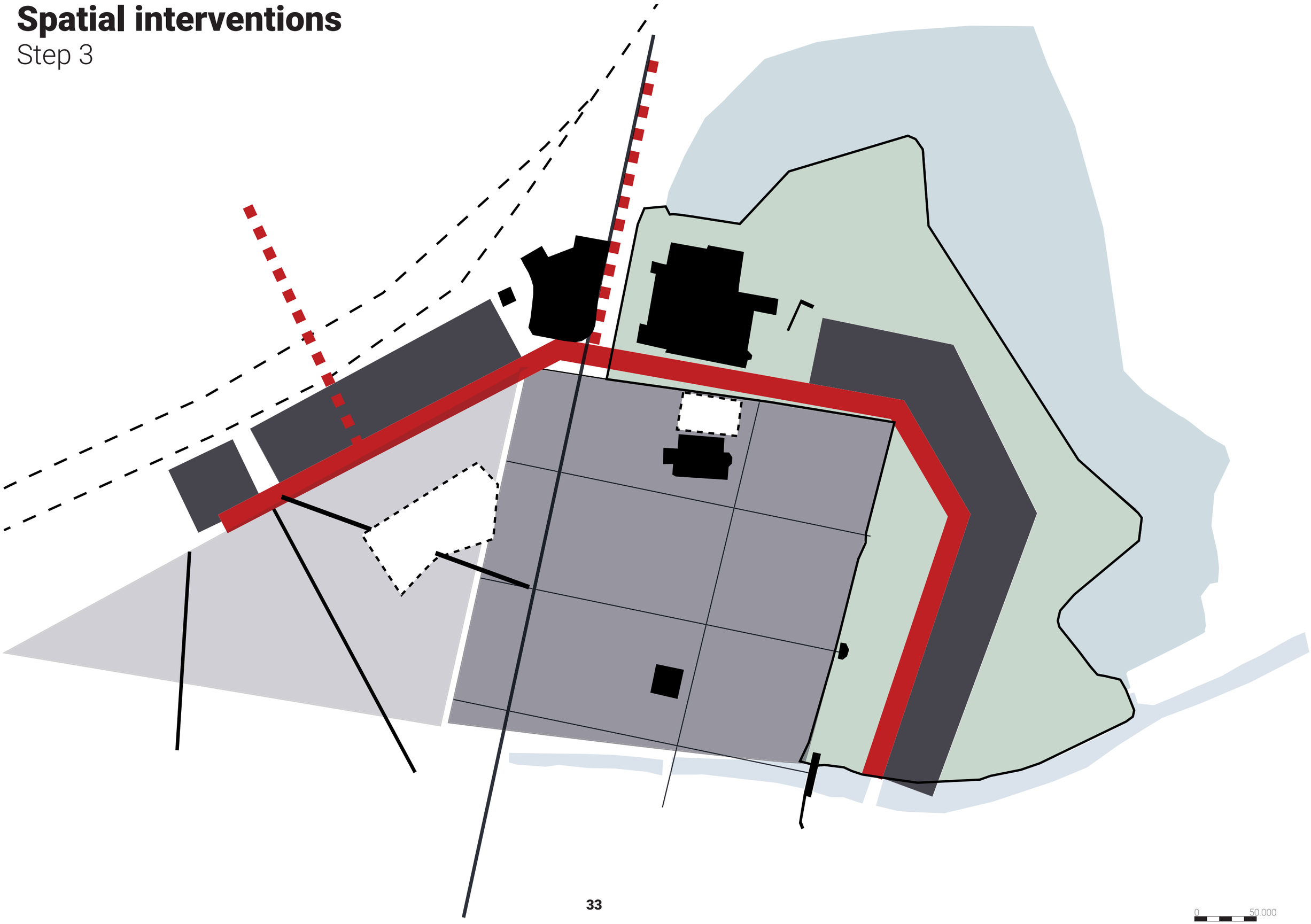
Spatial interventions

Step 2



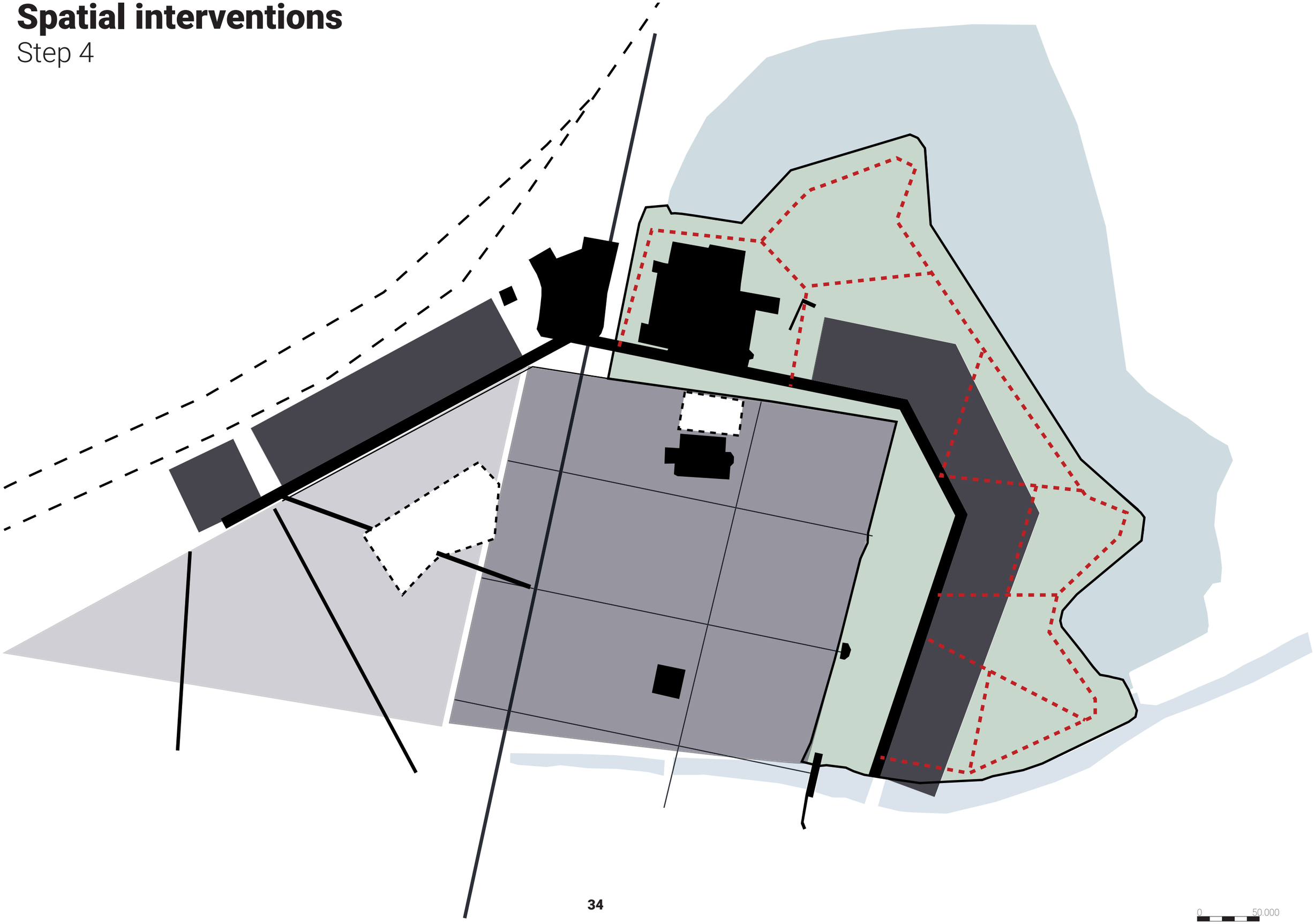
Spatial interventions

Step 3



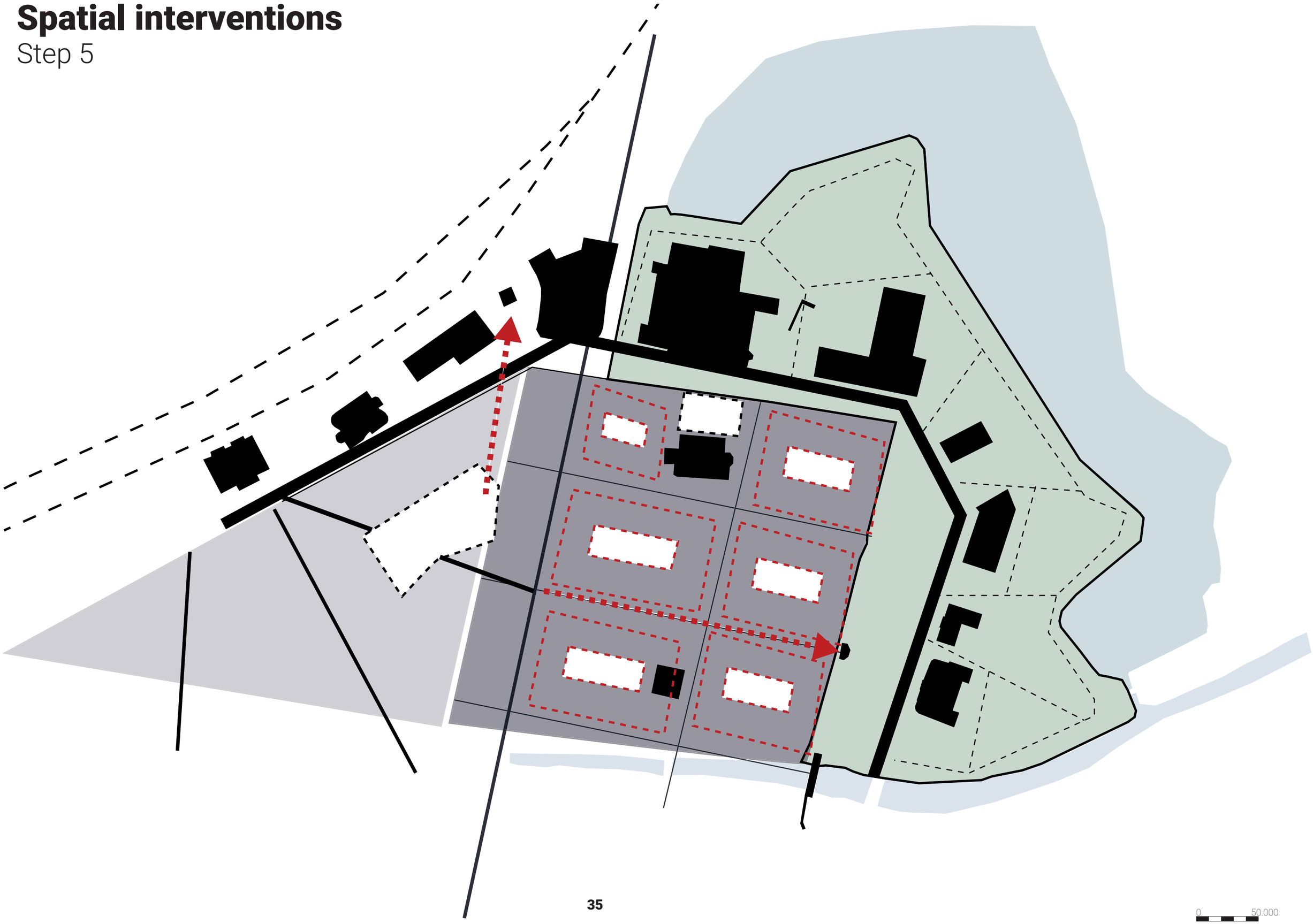
Spatial interventions

Step 4



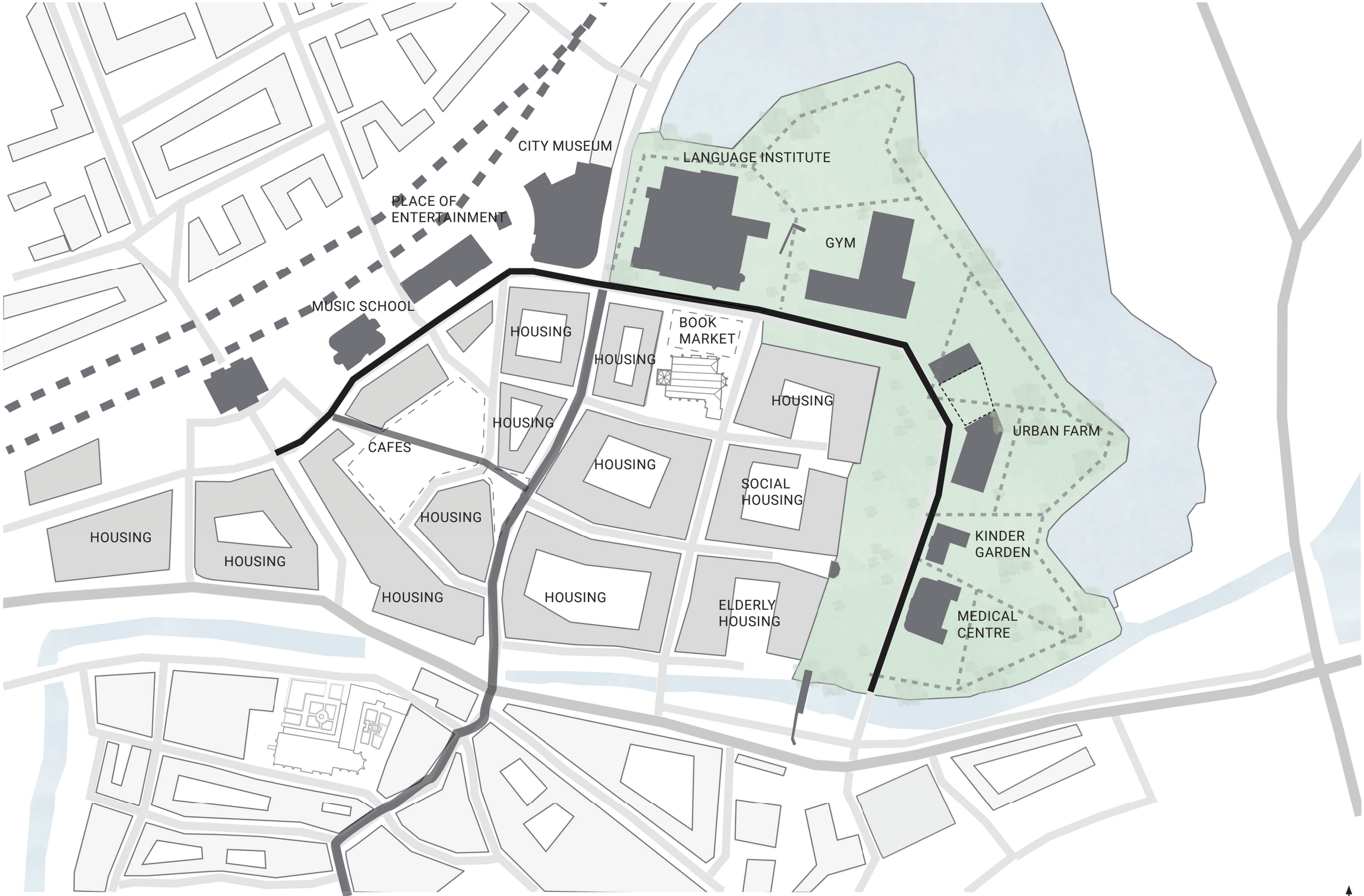
Spatial interventions

Step 5



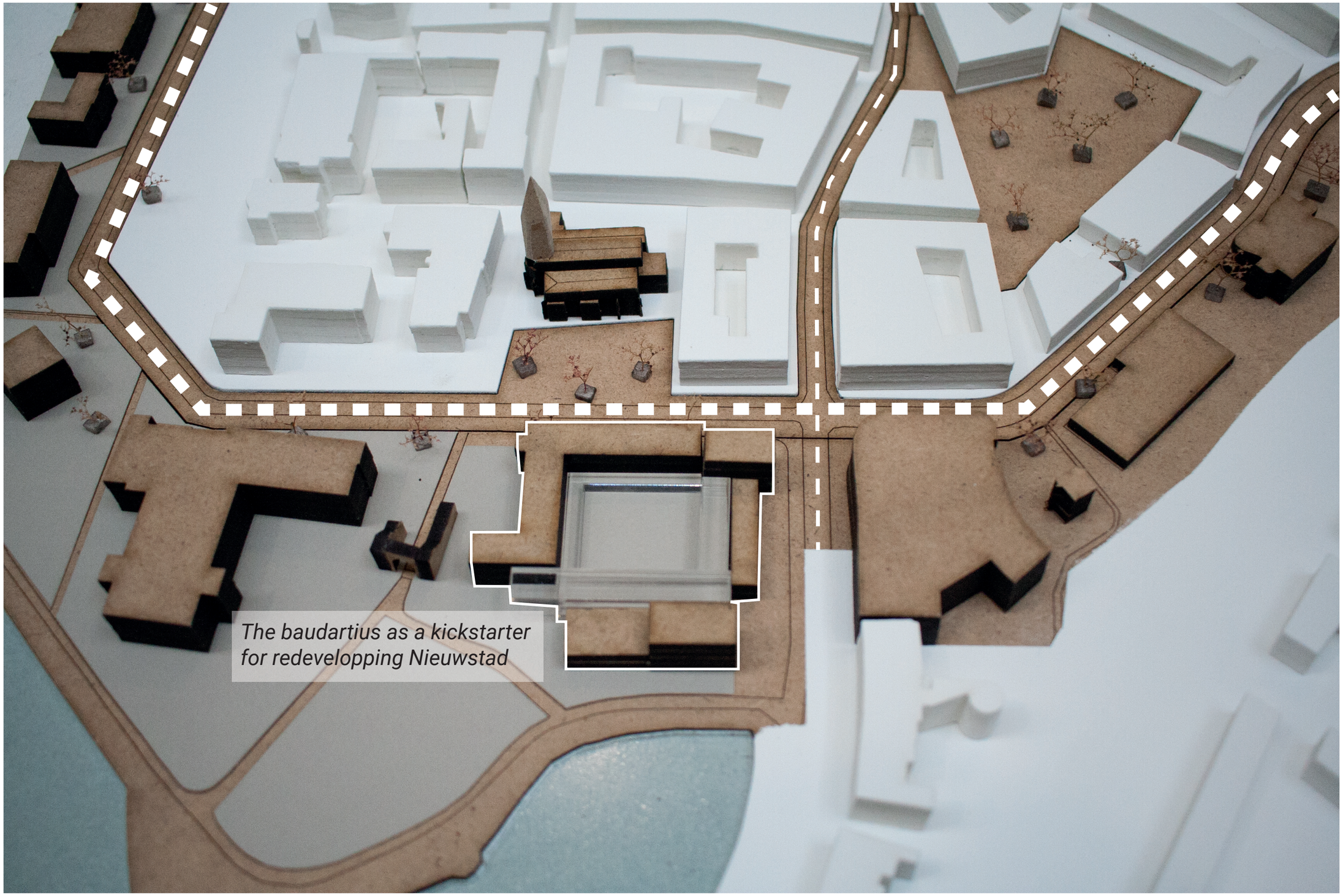
Masterplan Nieuwstad

New functions



Masterplan Nieuwstad

The Baudartius as a kickstarter



The baudartius as a kickstarter for redeveloping Nieuwstad

Masterplan Nieuwstad

The Baudartius as a kickstarter

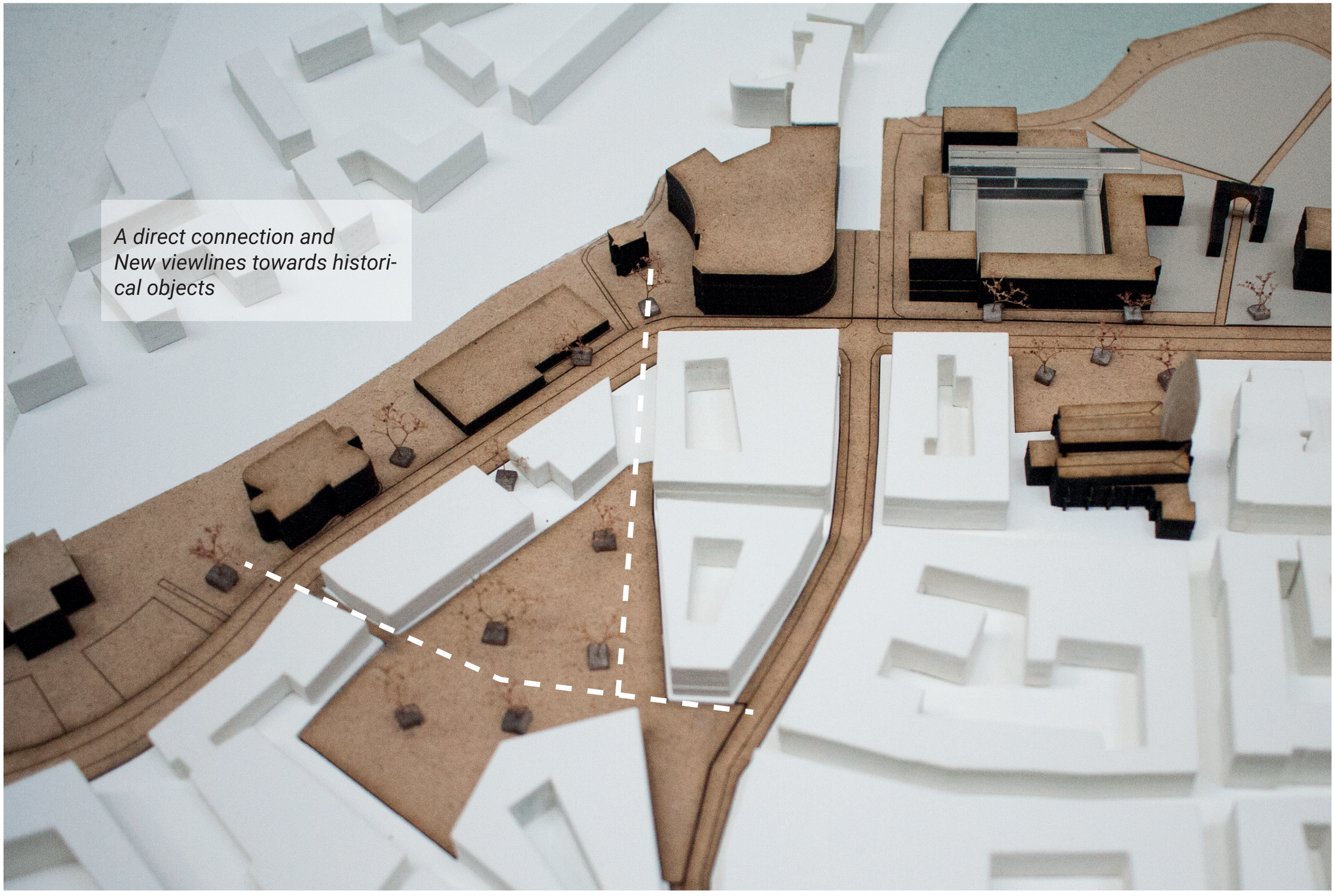
Streetlifede Podium Isles 2

Streetlifede Podium Isles 2

ROUTING, GUIDED BY GREEN AND SEATS

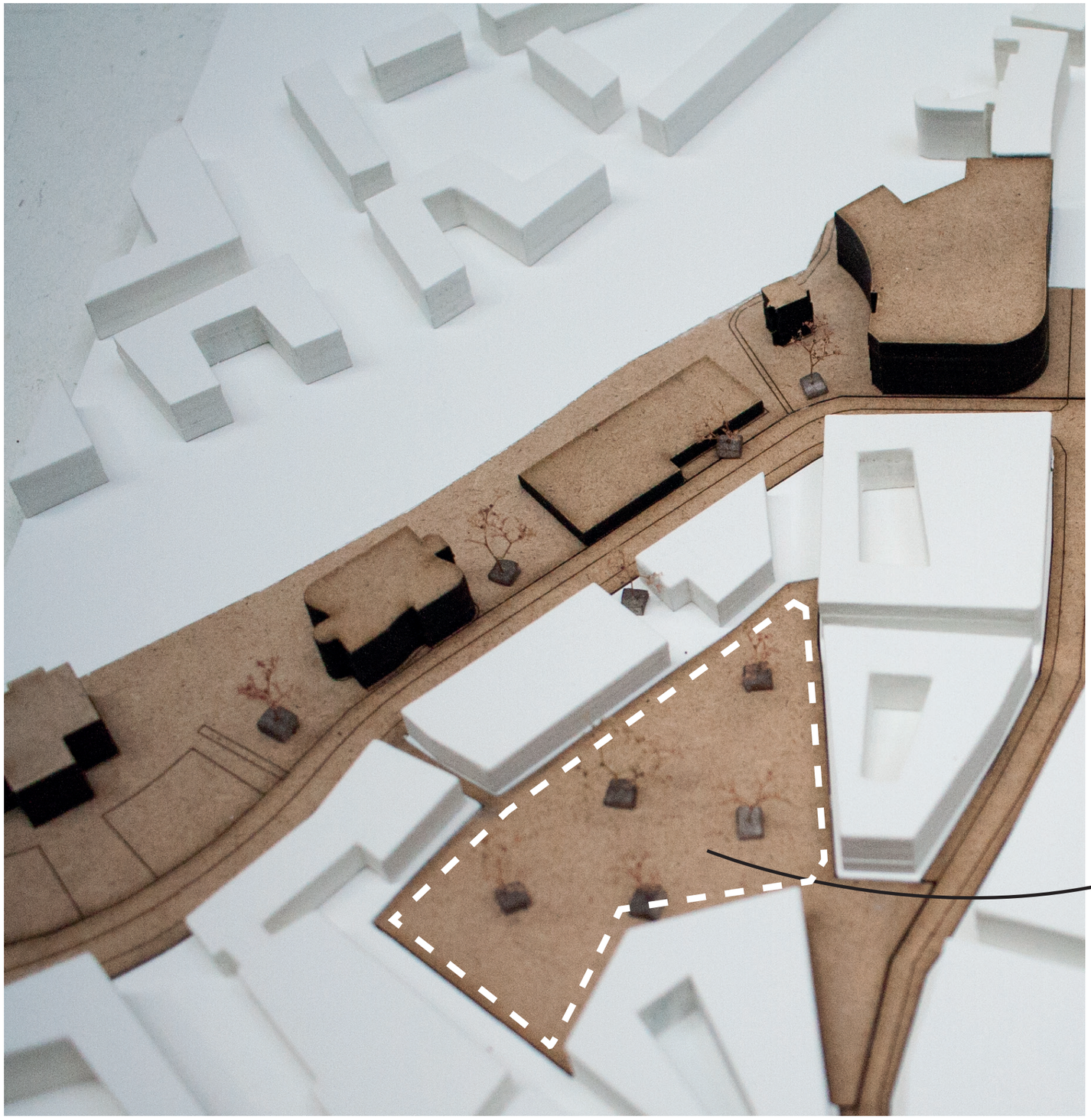
Masterplan Nieuwstad

The Baudartius as a kickstarter



Masterplan Nieuwstad

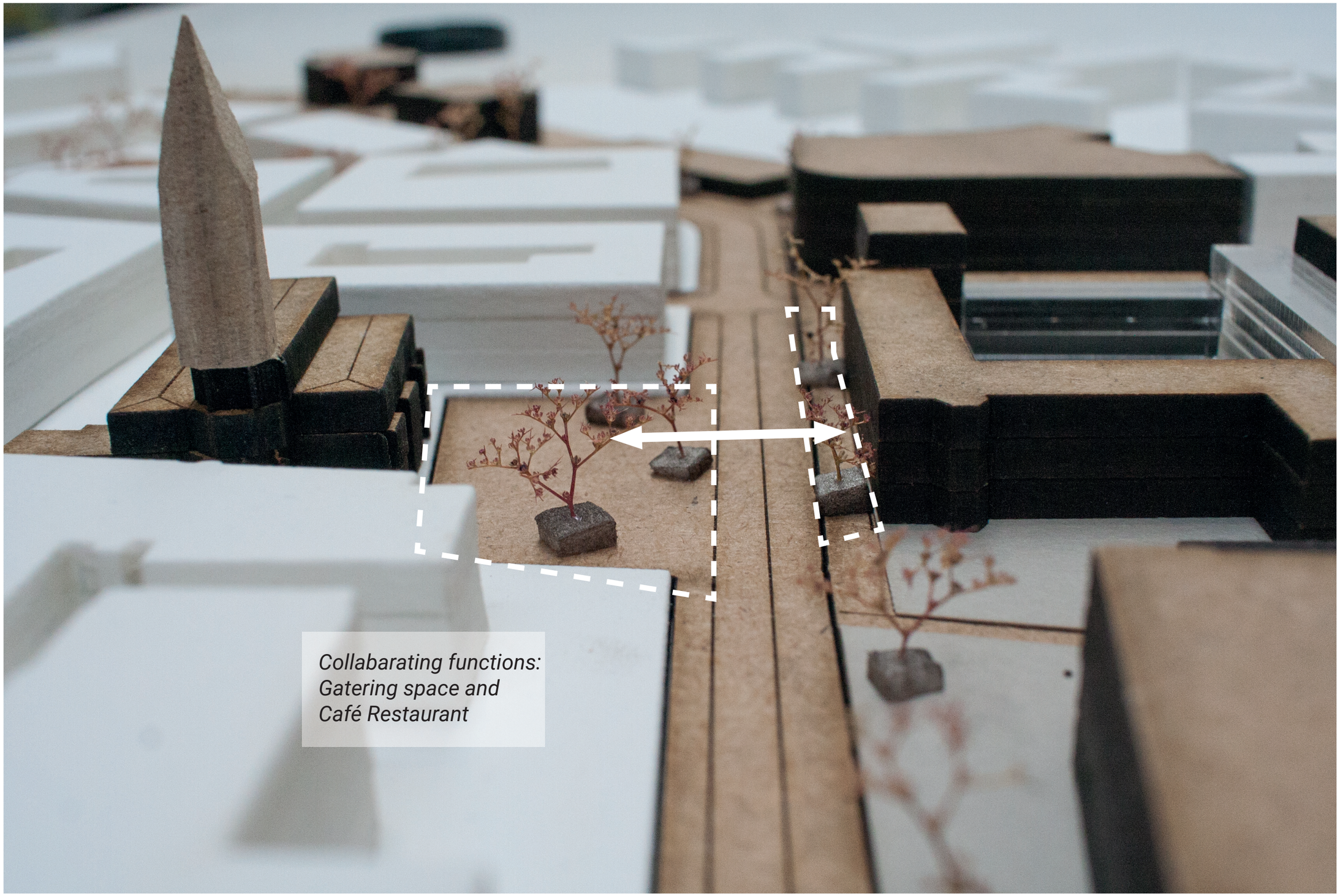
The Baudartius as a kickstarter



ENCLOSED SQUARE WITH CAFÉS

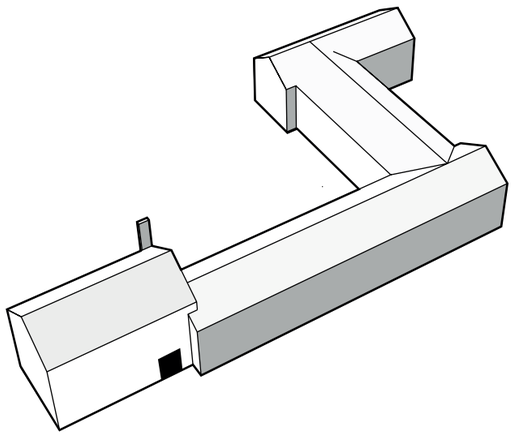
Masterplan Nieuwstad

The Baudartius as a kickstarter

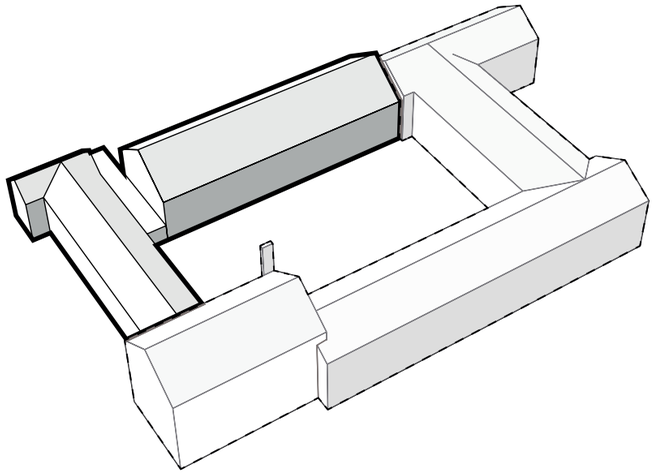


The Baudartius

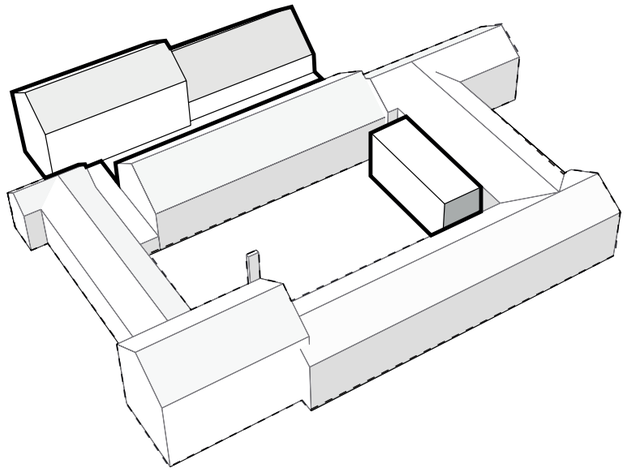
Building development
Baudartius building



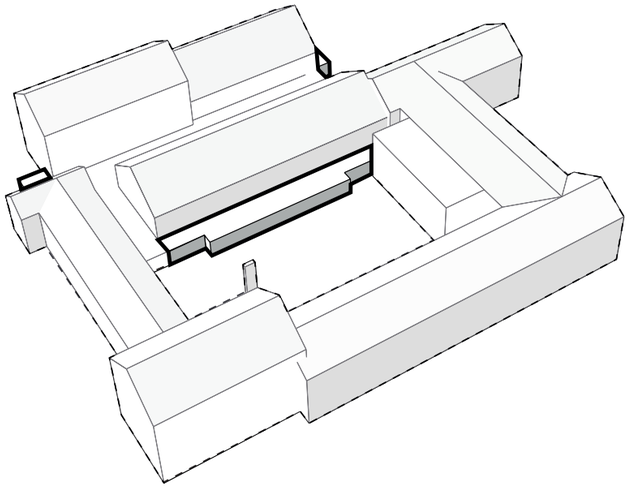
School building 1951
Rotshuizen and Wind



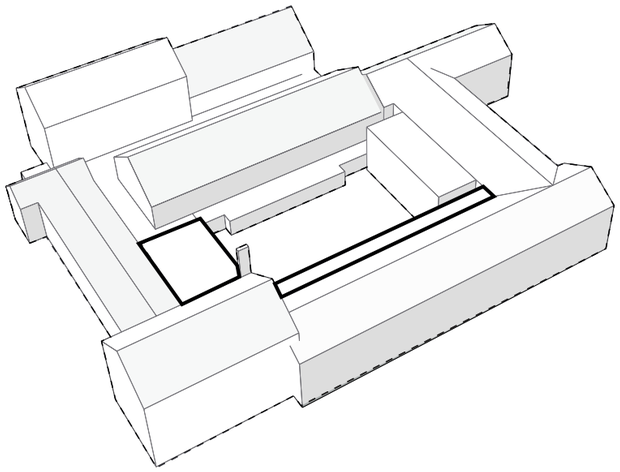
Addition 1955
Rotshuizen and Dekker



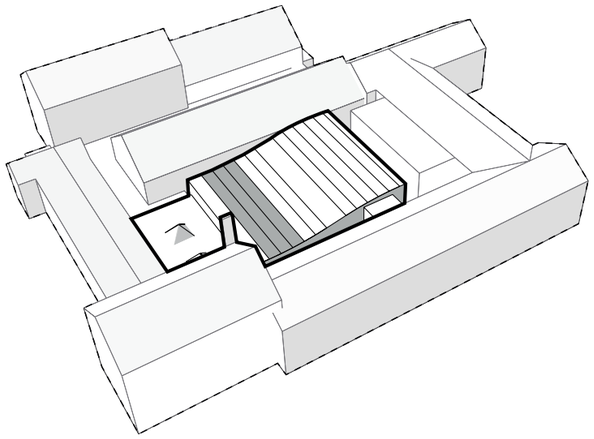
Addition 1964
Rotshuizen and Dekker



Addition 1966
Rotshuizen and Dekker



Addition 1974
Ir. A. Meerstadt

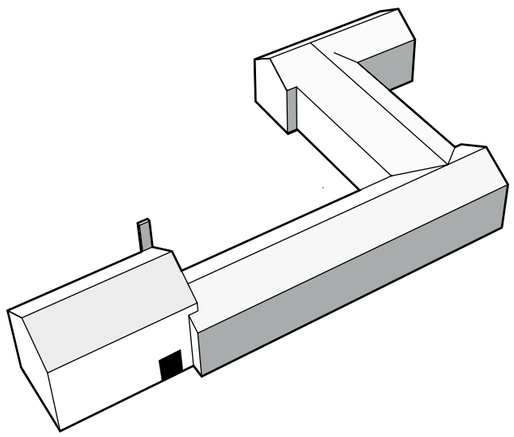


Addition 1998
Ir. F. Wiggers

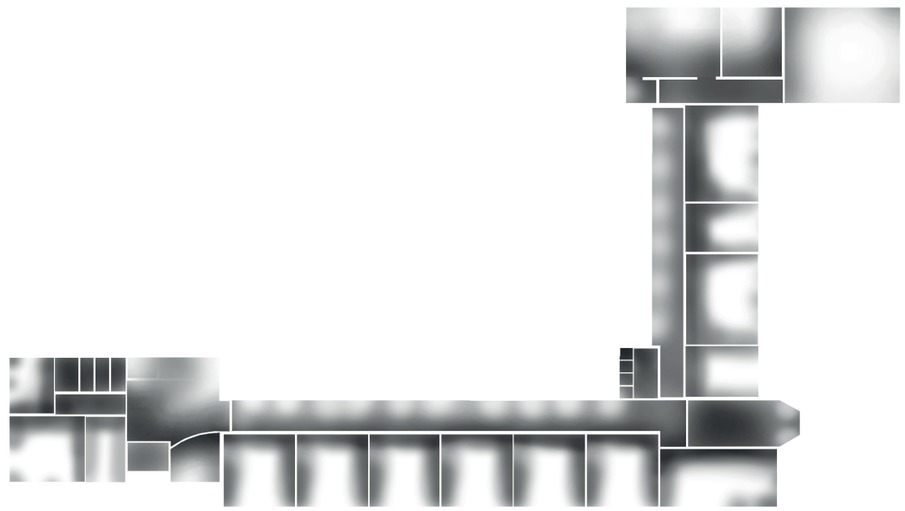
Consequences extensions

Baudartius building

- High amount natural light
- Clear spatial structure

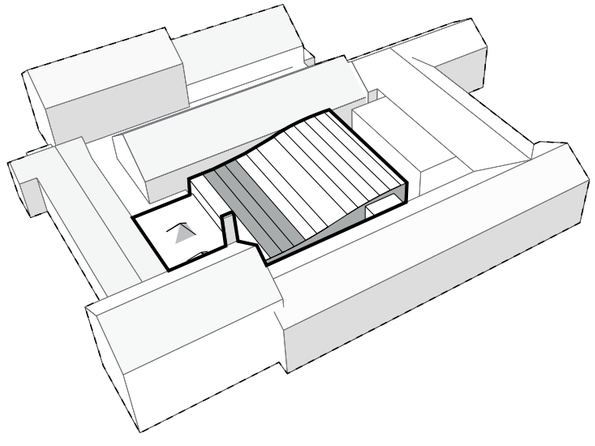


School building 1951

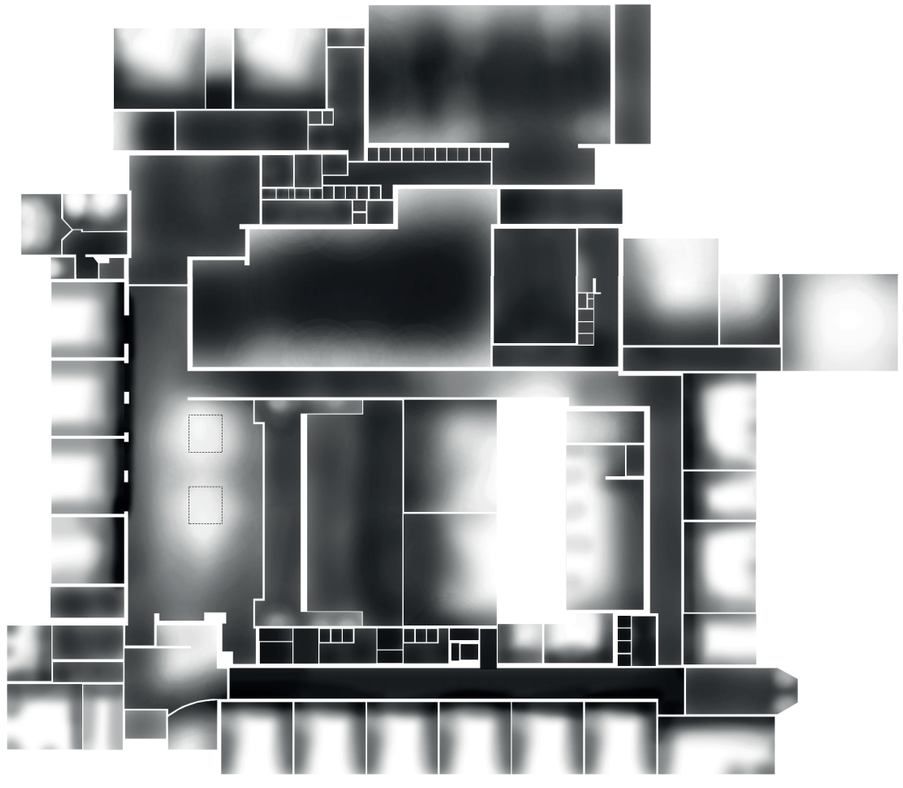


School building 1951

- Decreased amount natural light
- Chaotic spatial structure



After addition 1998

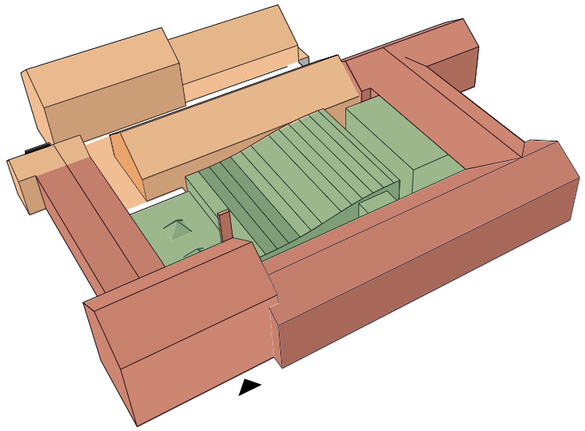


After addition 1998

Impressions
Baudartius building

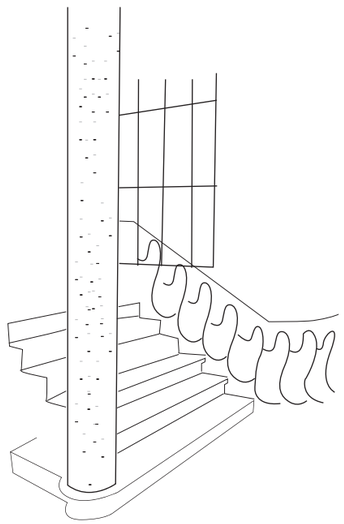
Cultural values

Aesthetic value

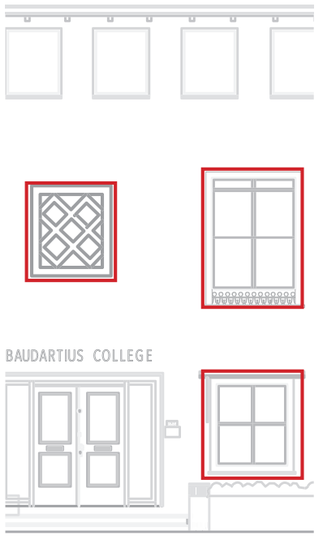


Aesthetic value

- Decorative facade elements
- Refinement of the objects



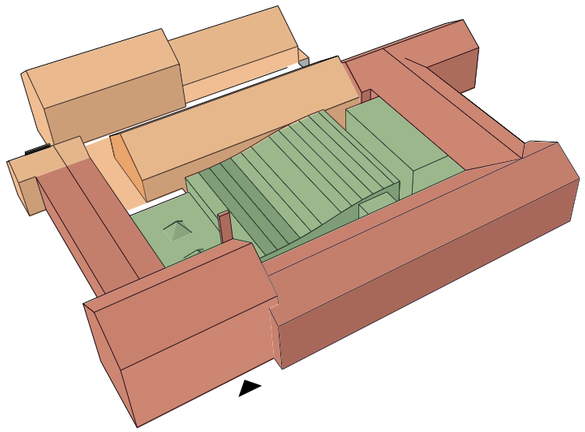
Aesthetic objects



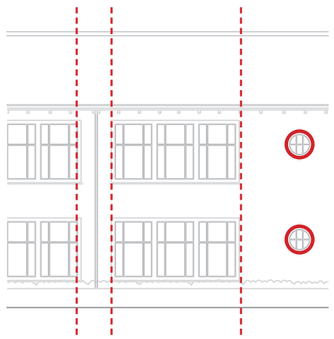
Decorative facade elements

Cultural values

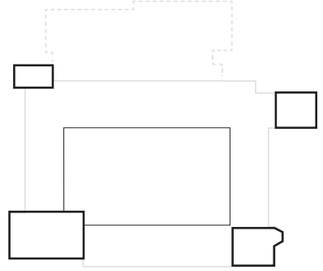
Artistic value



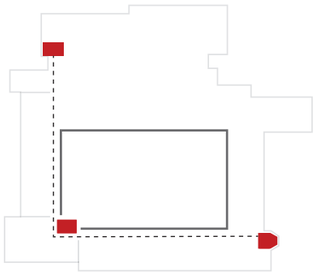
Artistic value
- **Functionalistic school style**
- Post war architecture style



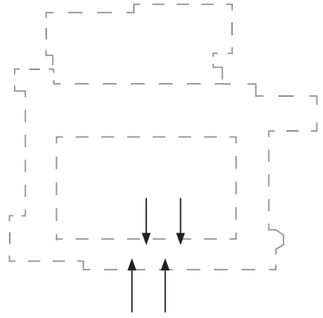
Relation facade and space plan



The articulation of the facades



Clear routing

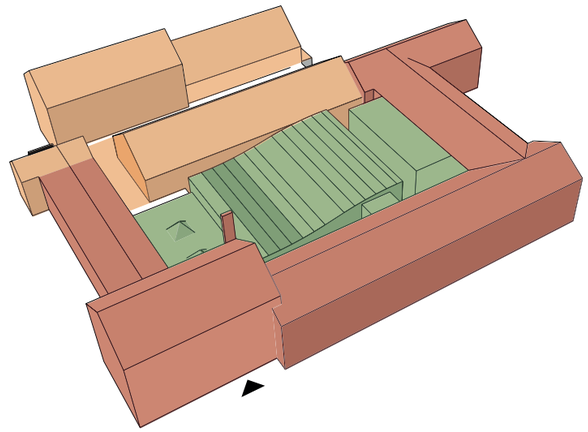


High amount natural light

Private courtyard

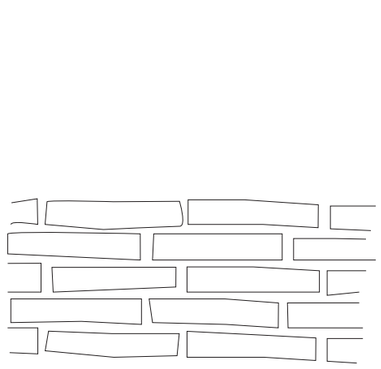
Cultural values

Artistic value

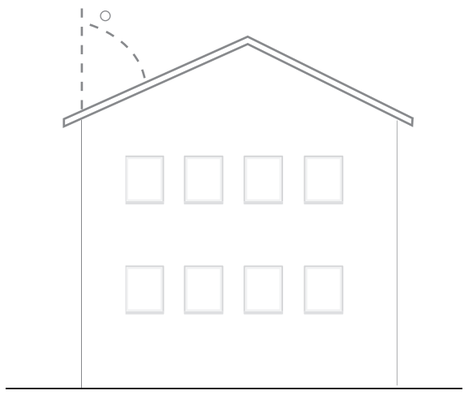


Artistic value

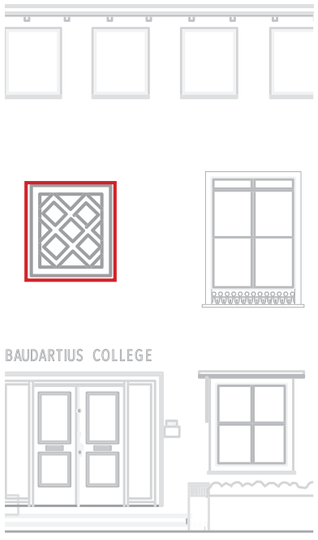
- Functionalistic school style
- **Post war architecture style**



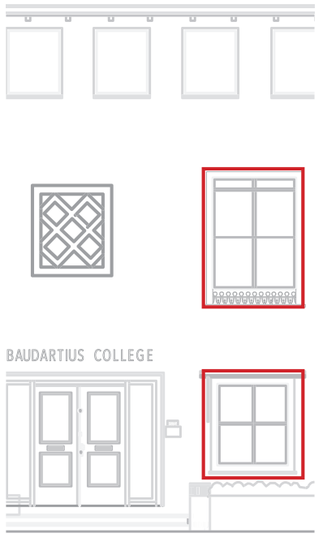
(hand-moulded) masonry



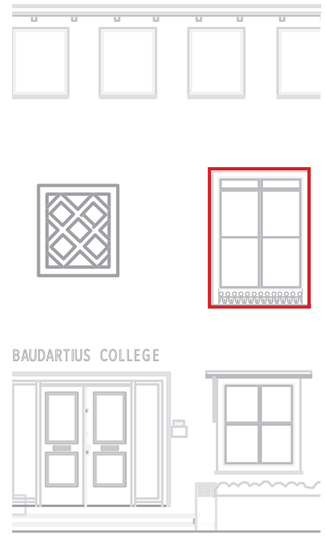
low sloped roofs



concrete window frames



Slender steel window frames



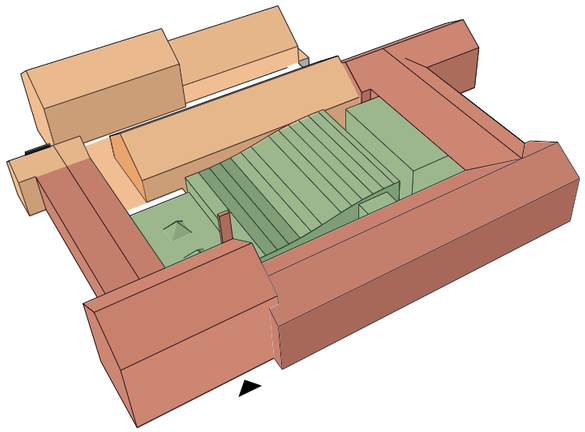
decorative steel elements

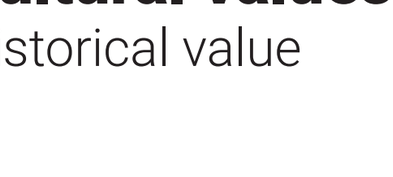
Cultural values

Historical value

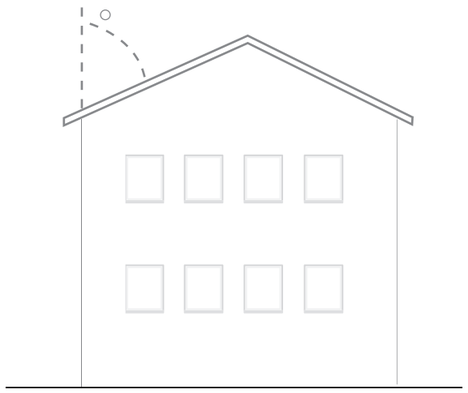
Historical value

- Post war architecture style

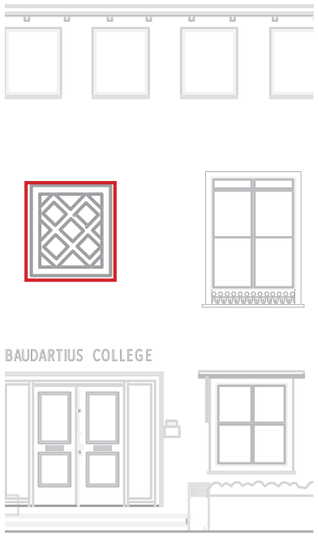




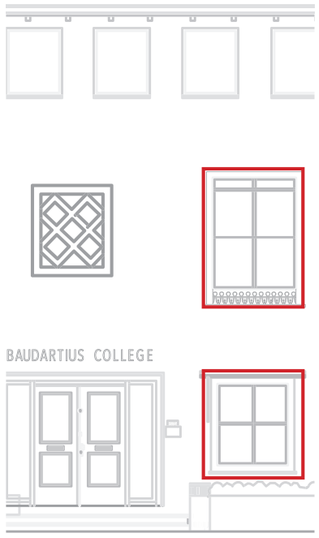
(hand-moulded) masonry



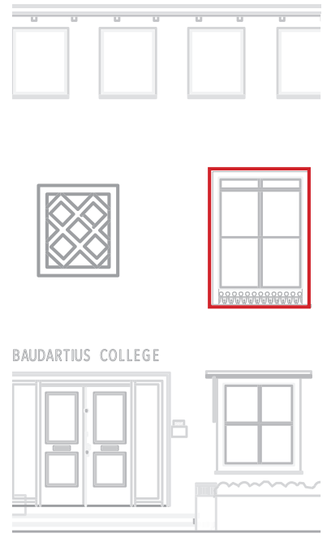
low sloped roofs



concrete window frames



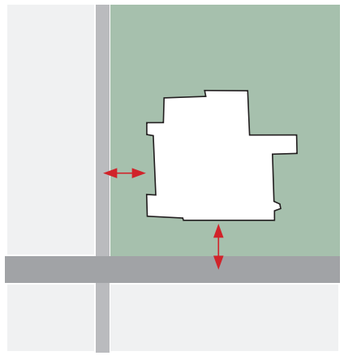
Slender steel window frames



decorative steel elements

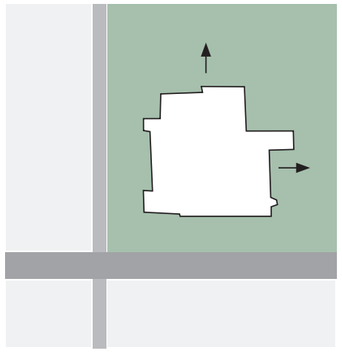
Opportunities and obligations

Baudartius



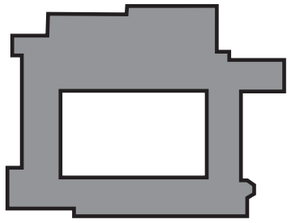
Opportunity

High potential location:
Create a vibrant atmosphere



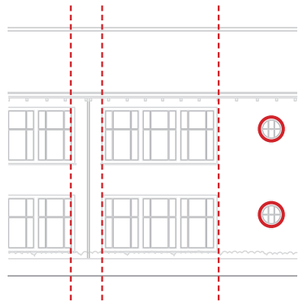
Opportunity

High potential location:
Optimize viewlines



Obligation

Strengthen qualities of
a courtyard



Obligation

Remain expressions
post-war and functionalistic school
style

Obligation

Improve the climate system

The Baudartius college

Current situation

- **Bad condition**

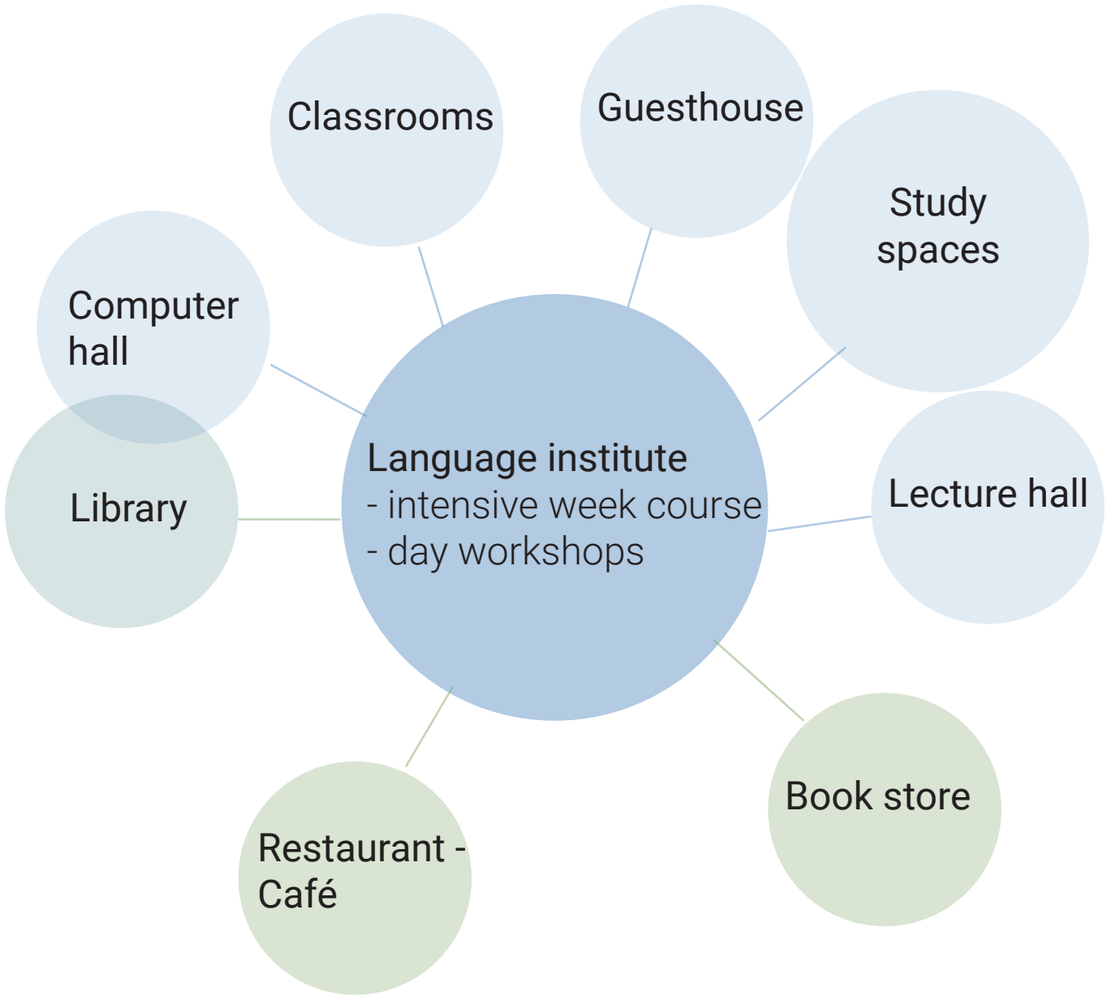
Plans to demolish

- **Baudartius college is growing**

Plans to move to an other location

Programme

A new programme
The language institute



Teachers offices
Offices for teachers, for individual sessions

Group room
Class room, for group sessions

Study space
Several types of study spaces for the students

Guesthouse
Guesthouse for the students

Restaurant & Café
Public restaurant & café

Book store
Public Book store

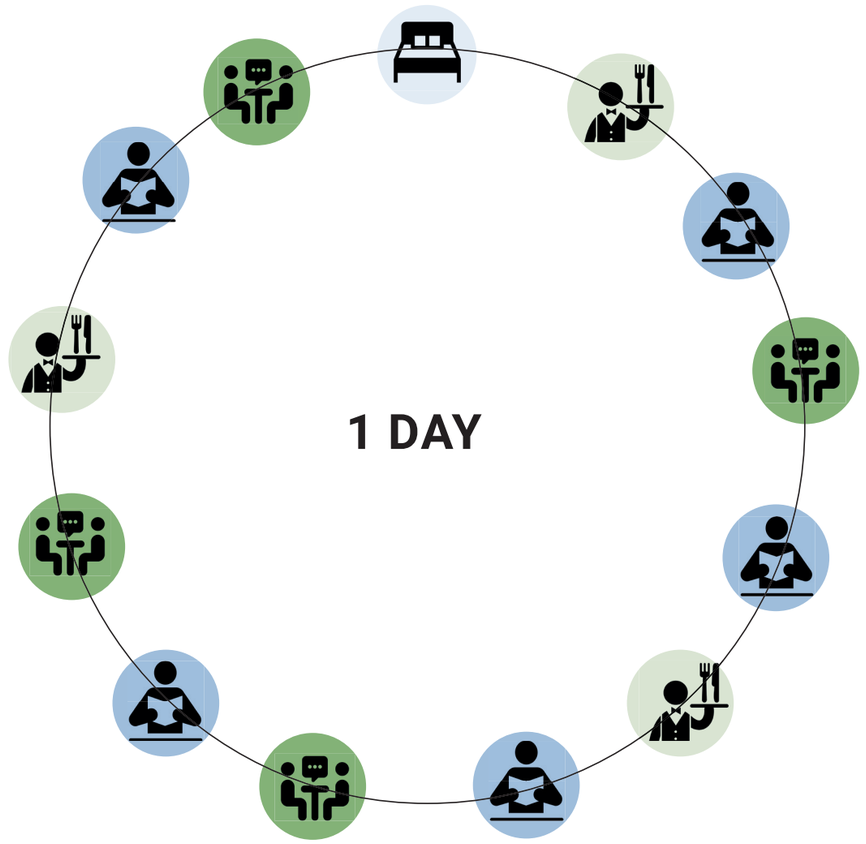
Library
Public Language Library

A new programme

Intensive week course

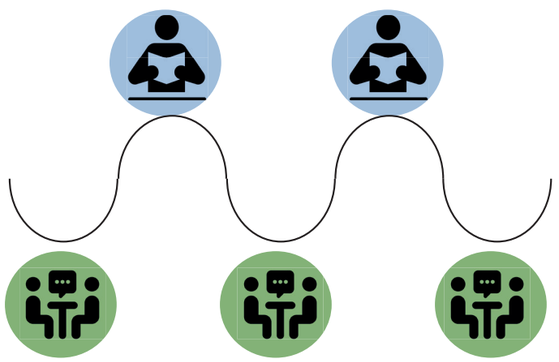
Part of the day:

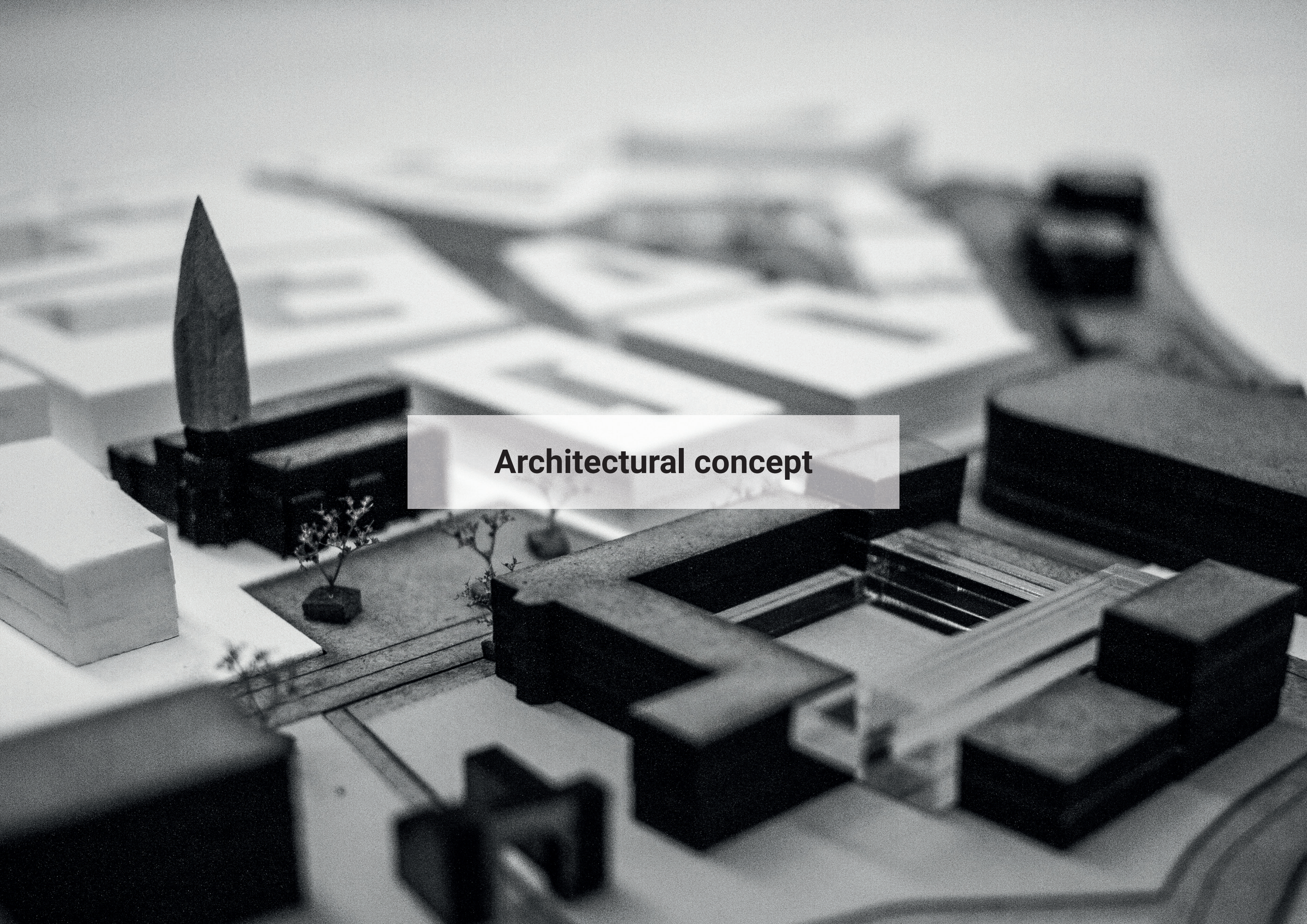
- Sleep in guesthouse
- 4 Lessons. different teachers
- Study time
- Breakfast/ lunch/ dinner, speaking the language to learn



Learning curve

- Obtaining new information
- Study/ reflection

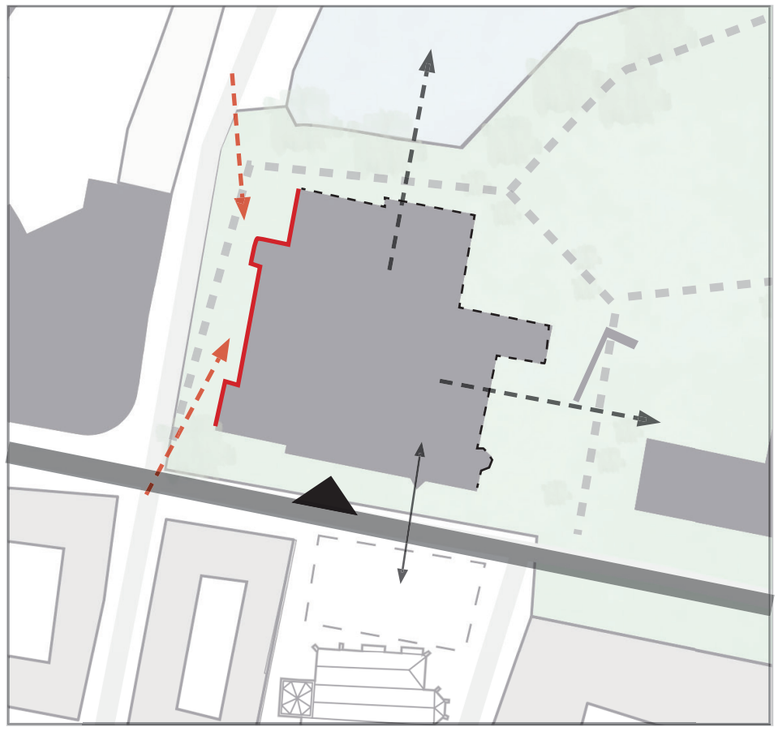




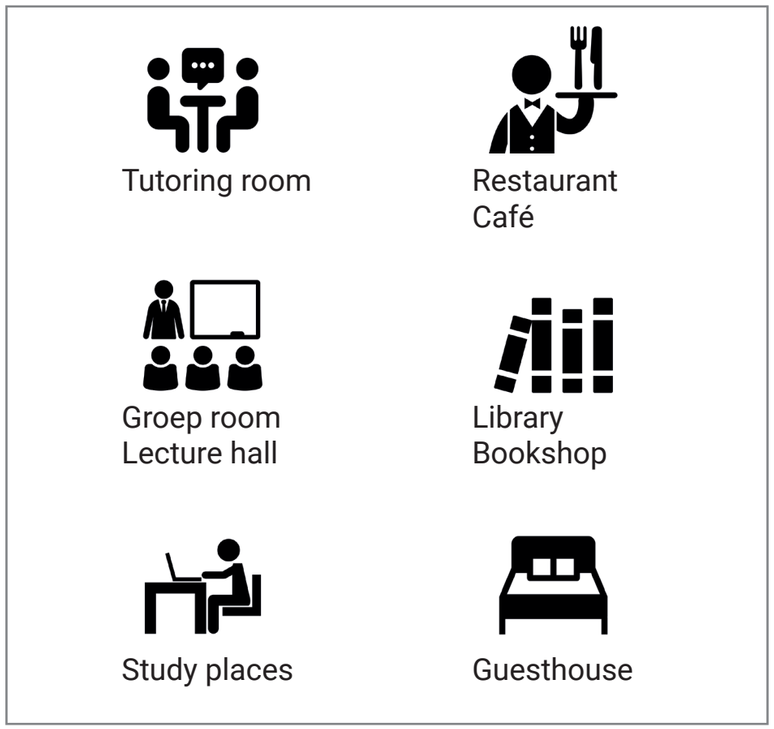
Architectural concept

Guiding lines

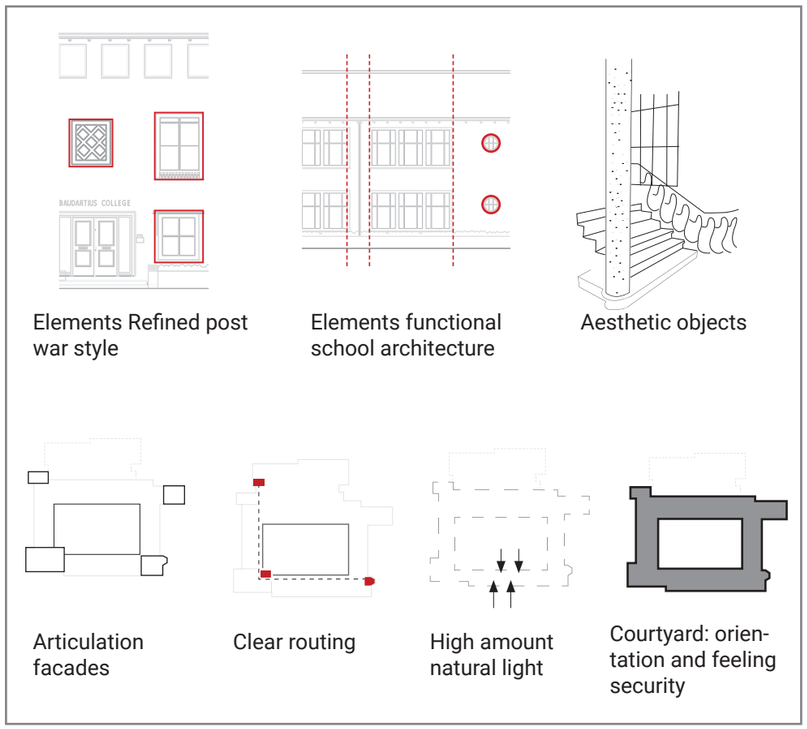
Masterplan, programme, cultural & architectural



Requirements Baudartius, as part of masterplan



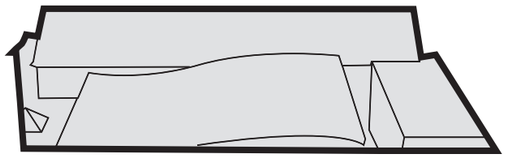
Requirements Baudartius, as Language institute



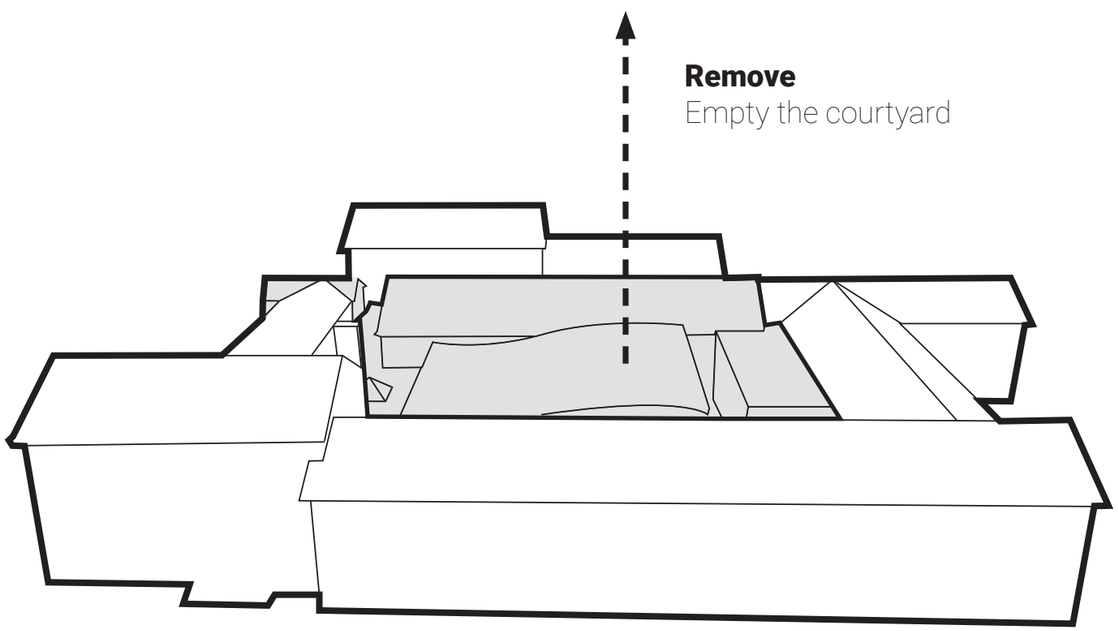
Cultural and spatial values

Main interventions

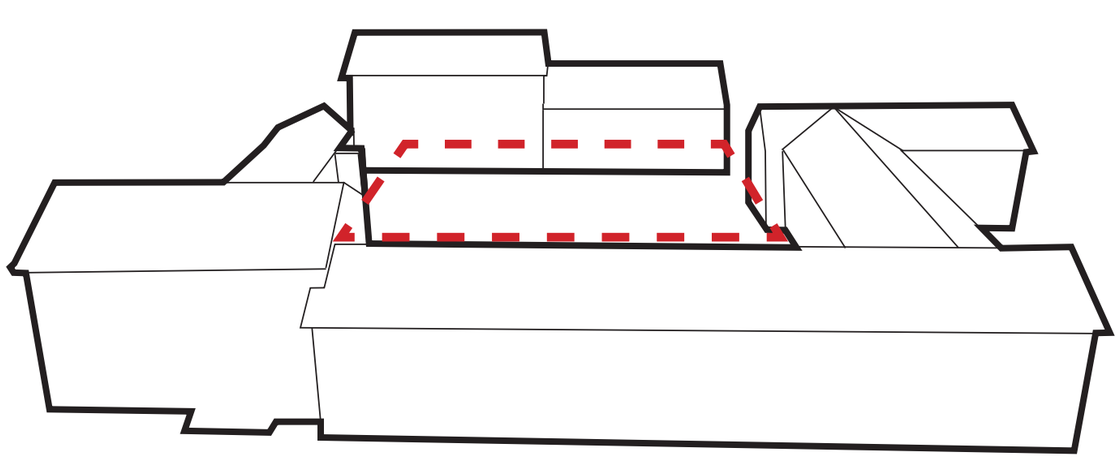
Step 1



Remove
Empty the courtyard

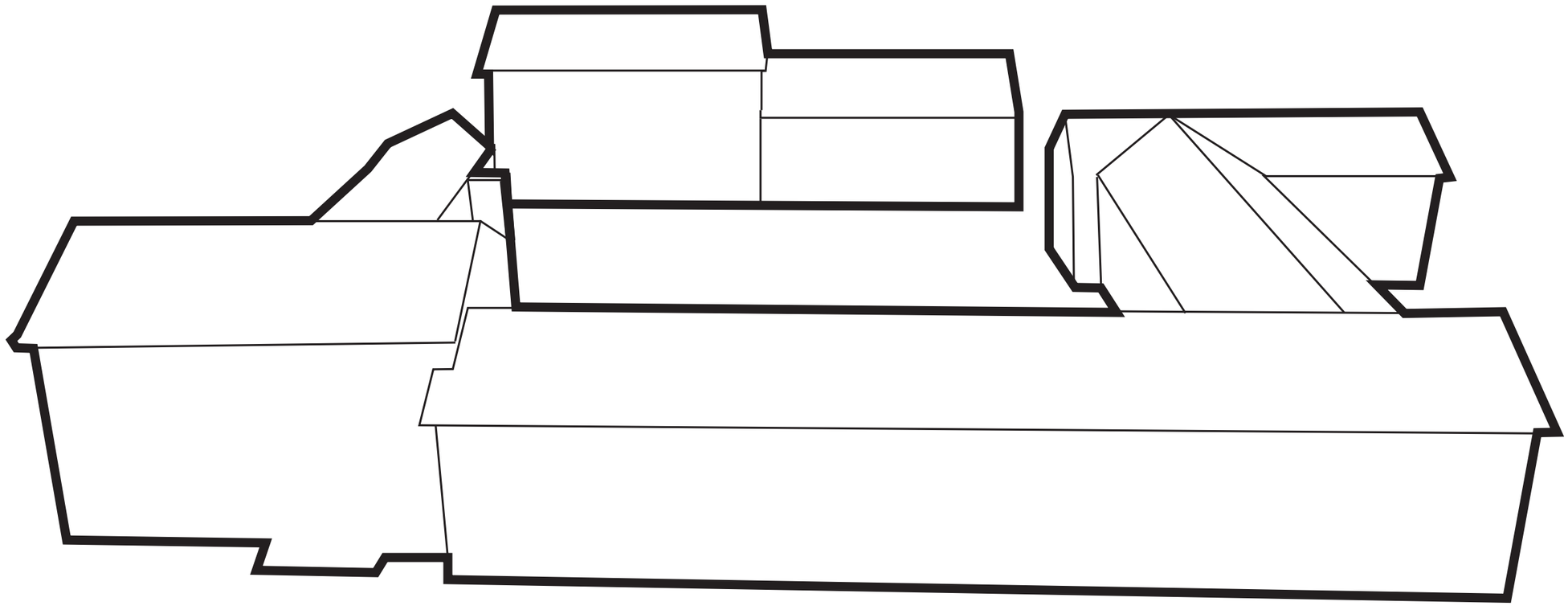


- Increase natural light
- Create orientation point
- Create quiet/ private courtyard: feeling of security



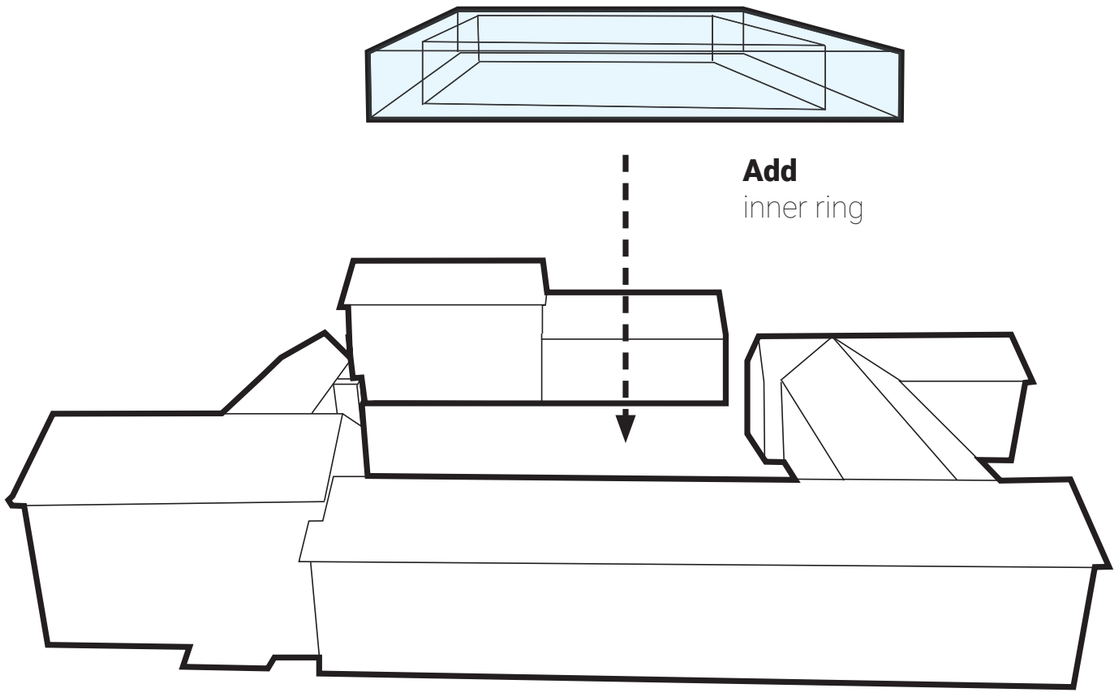
Main interventions

Starting point

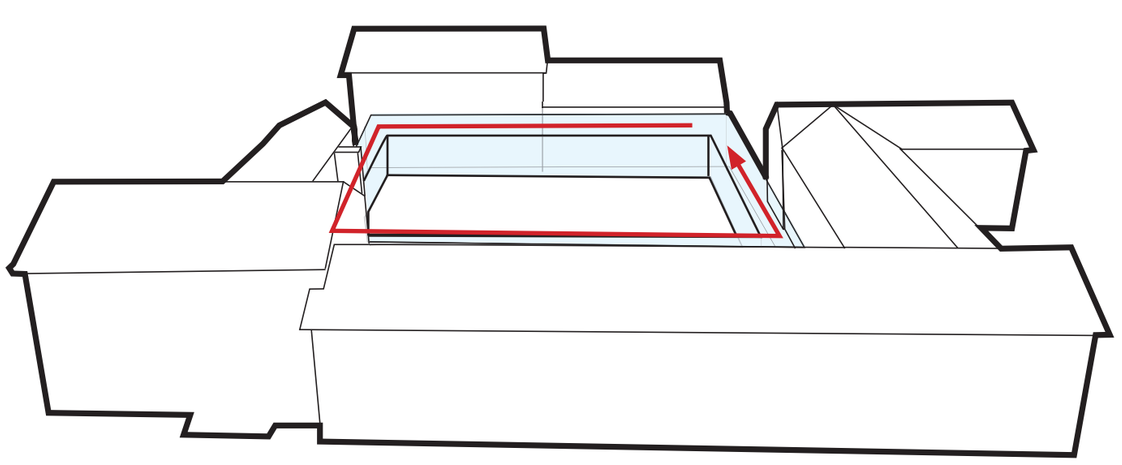


Main interventions

Step 2

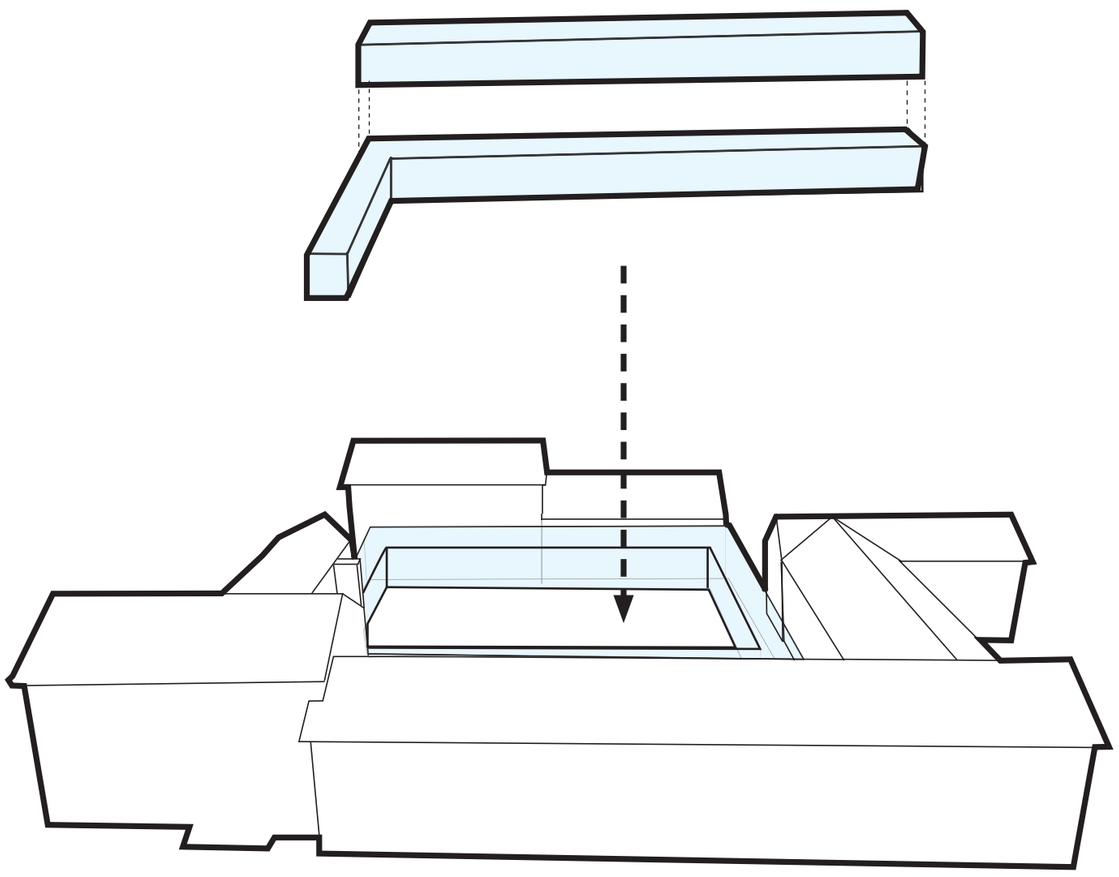


- Create clear circulation
- Connect 2 building parts

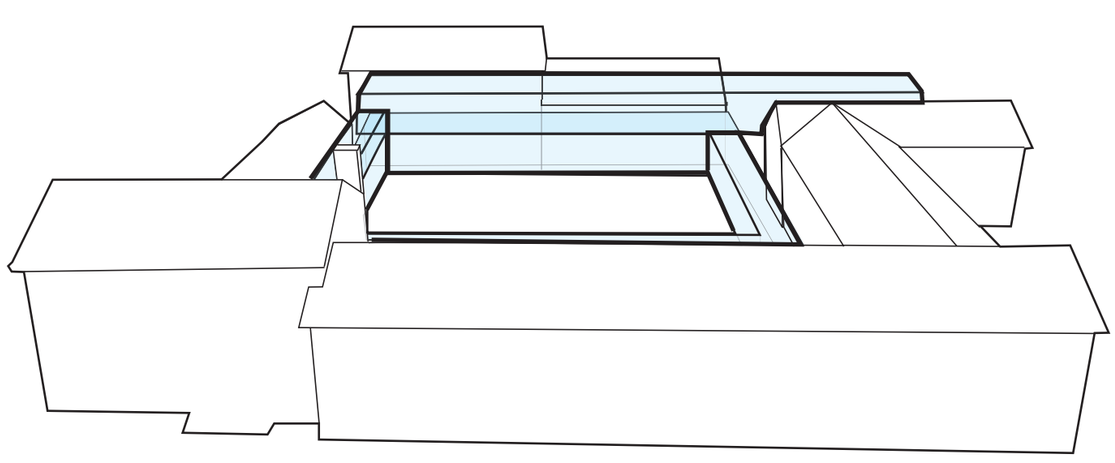


Main interventions

Step 3



- Connect the upper floors with the inner ring
- Create a volume at the south
- Create a view towards the park and Spanish gate

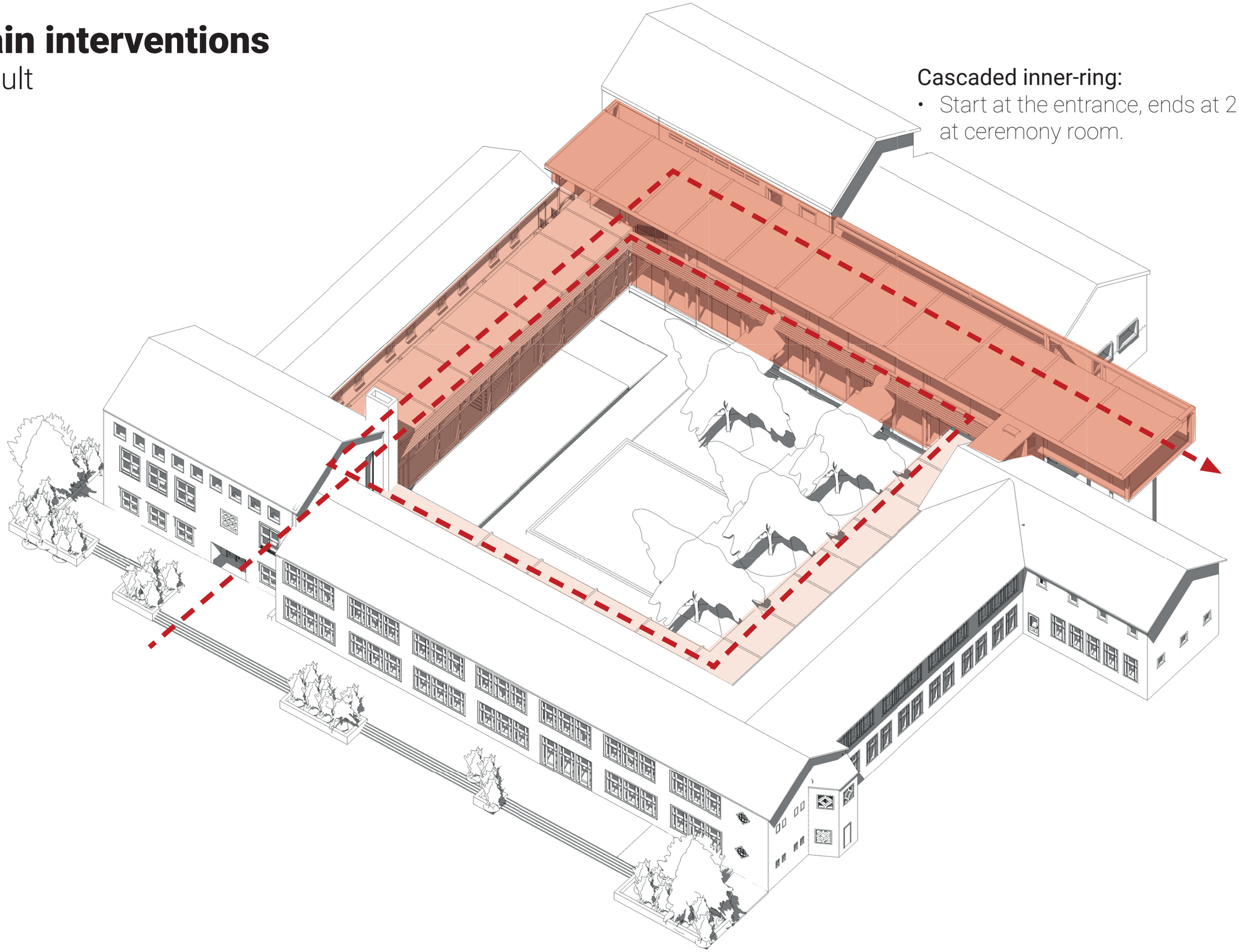


Main interventions

Result

Cascaded inner-ring:

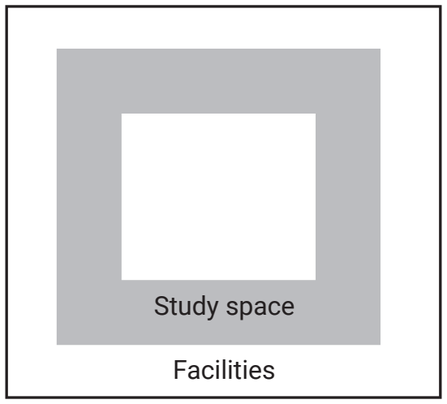
- Start at the entrance, ends at 2nd floor at ceremony room.

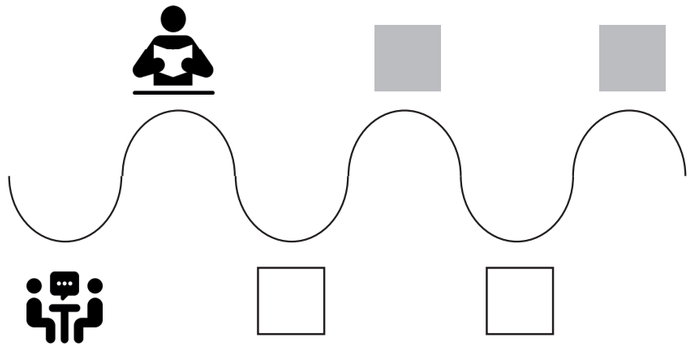


Viewpoint
Physical model

Main interventions

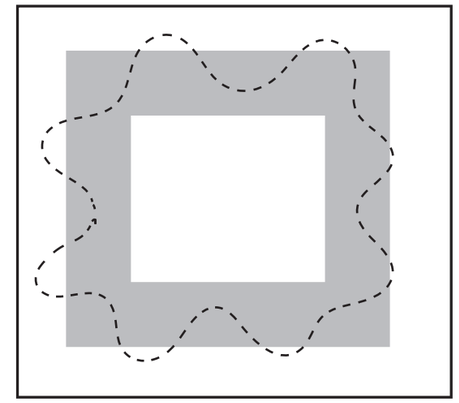
Concept programme





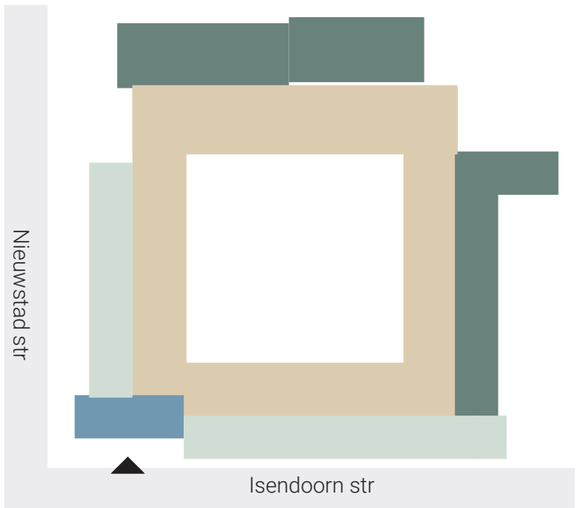
Reflection

New information



Plans

Function organization



Basement

Ground Floor

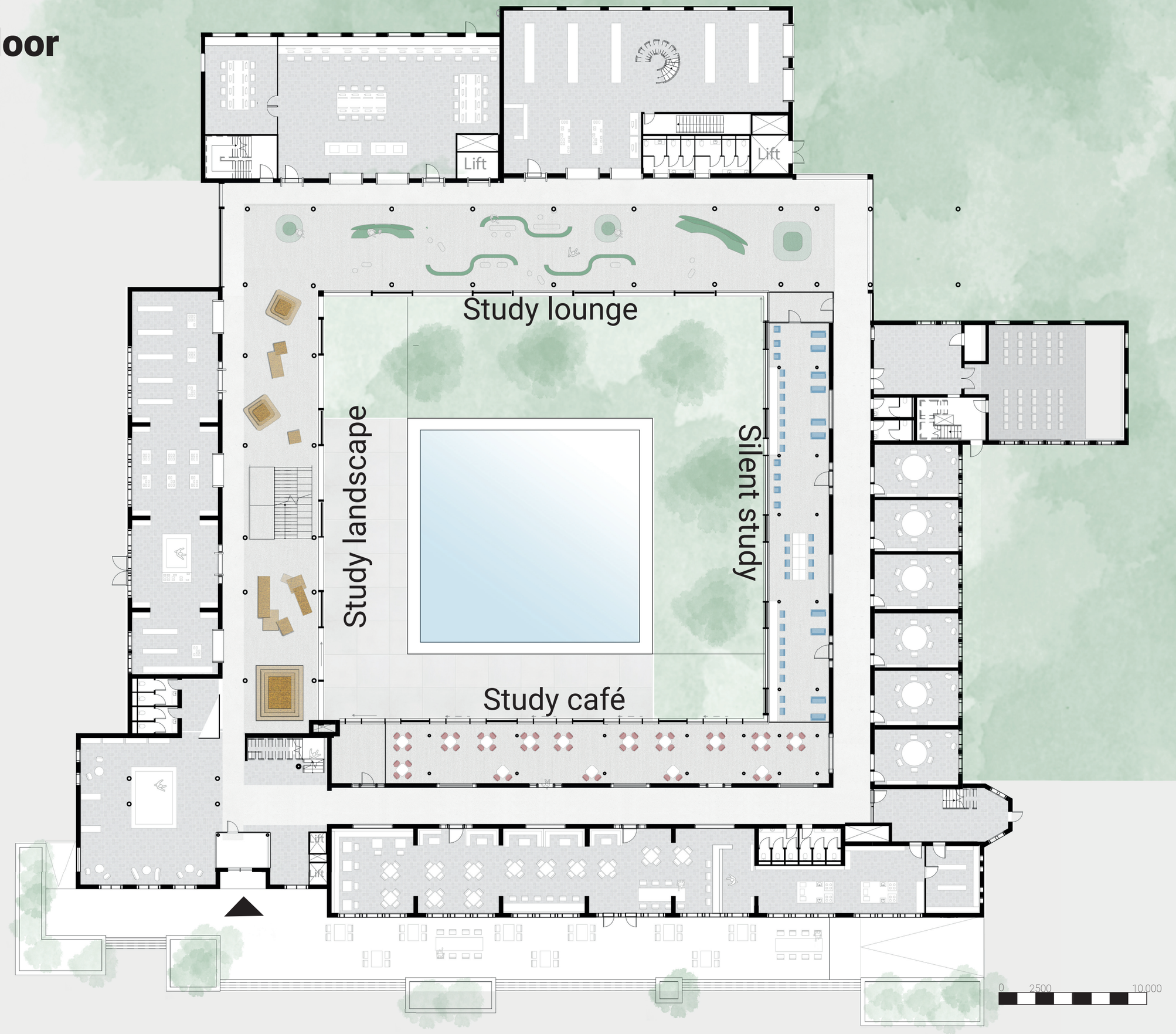
First Floor

Second Floor

- Knowledge facilities (Classrooms, lecture hall, exam room)
- Active functions (Restaurand, café, bookshop)
- Study
- Guesthouse
- Service (Administration, storage, installations)
- Entrance

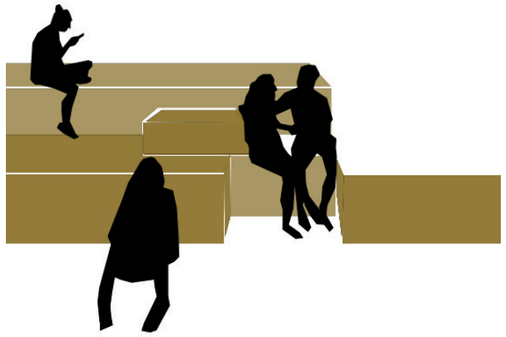
The ground floor

Study areas



Type study areas

Overview



Study landscape

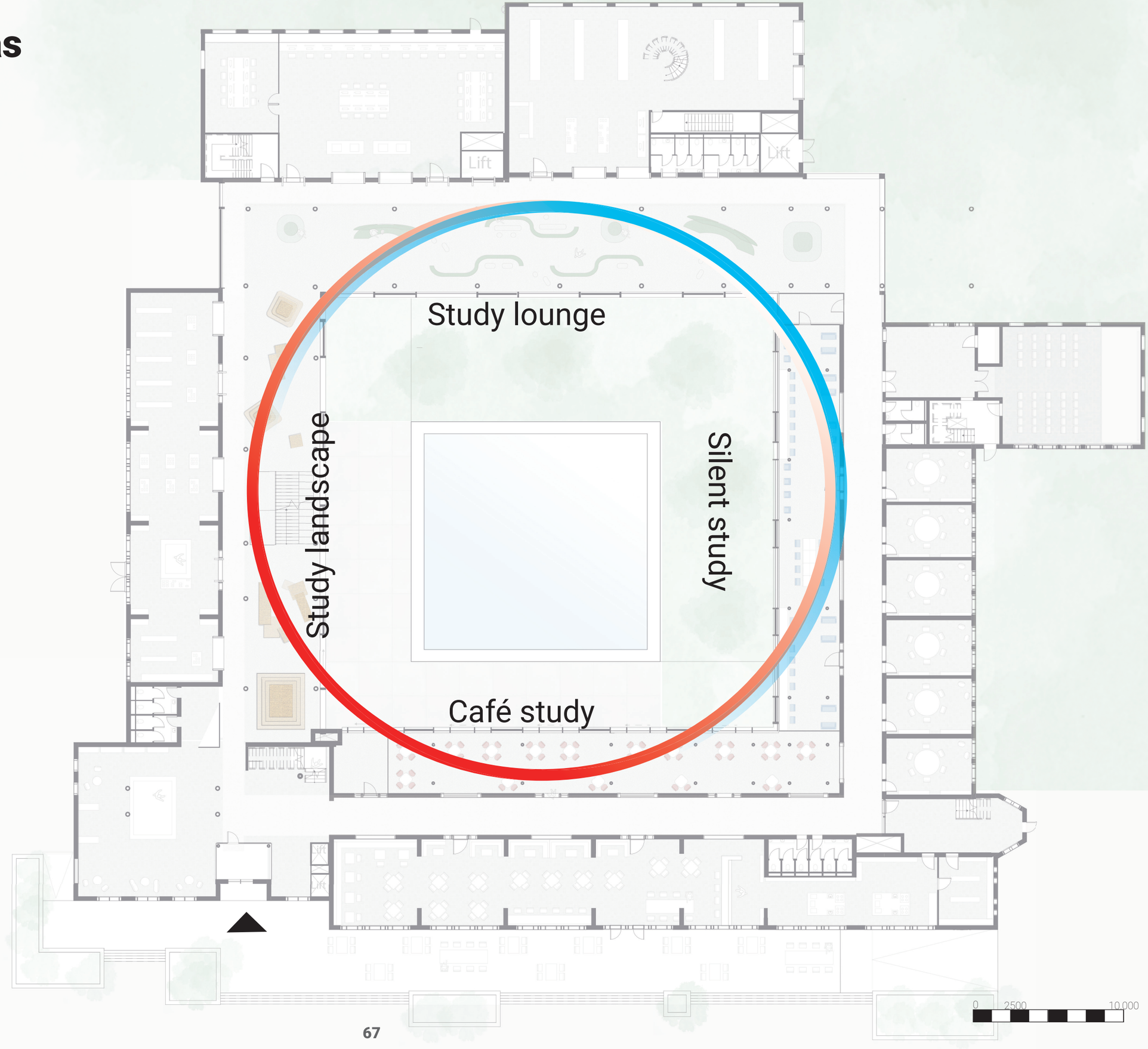
Study lounge

Silent study

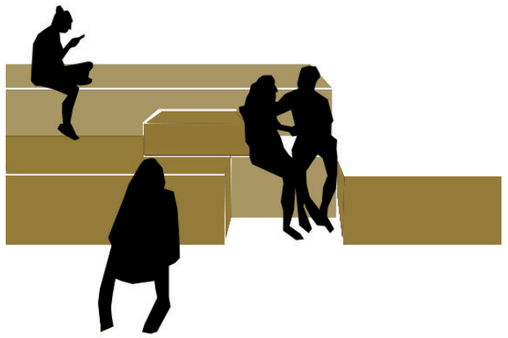
Study café

Type study areas

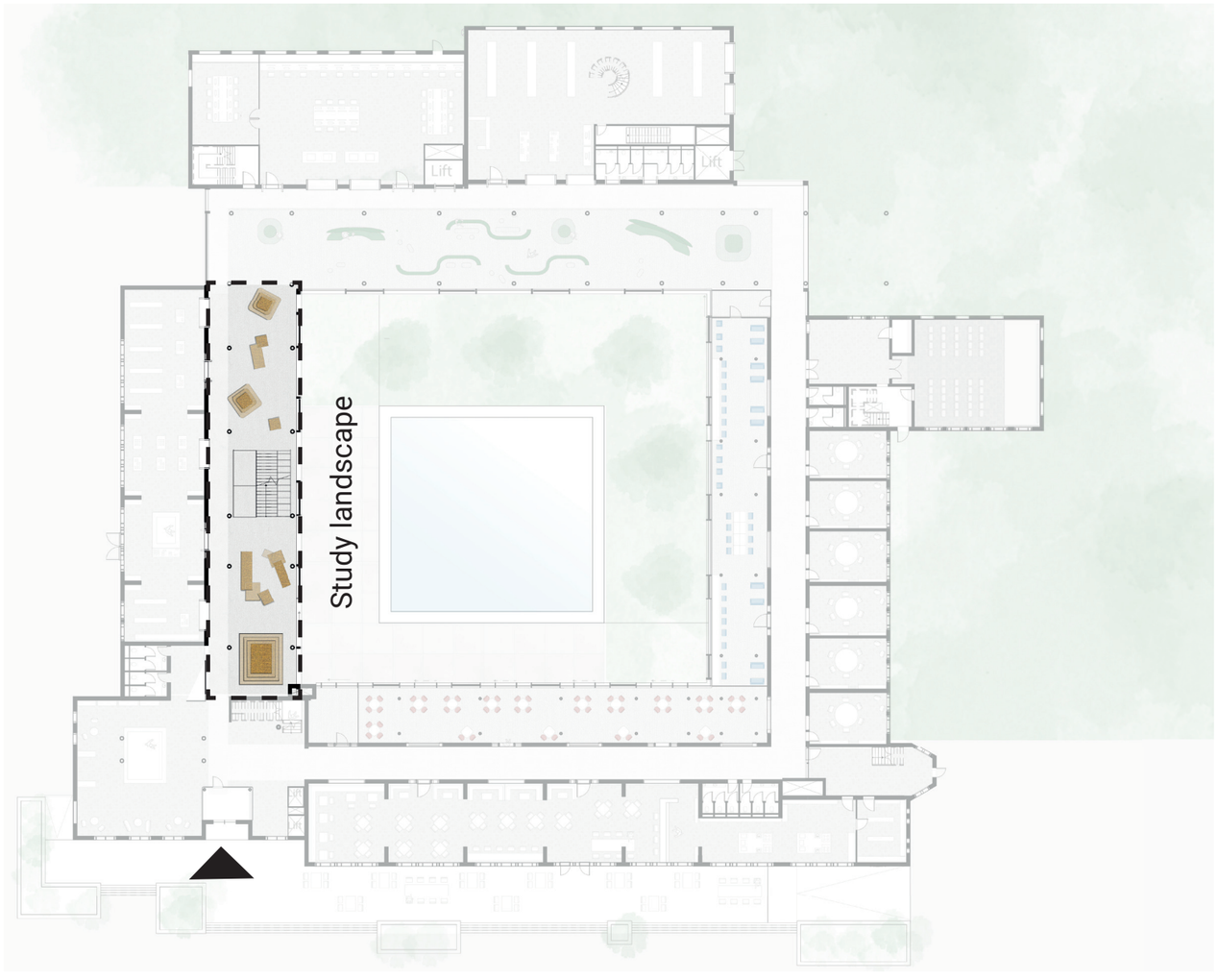
The relation



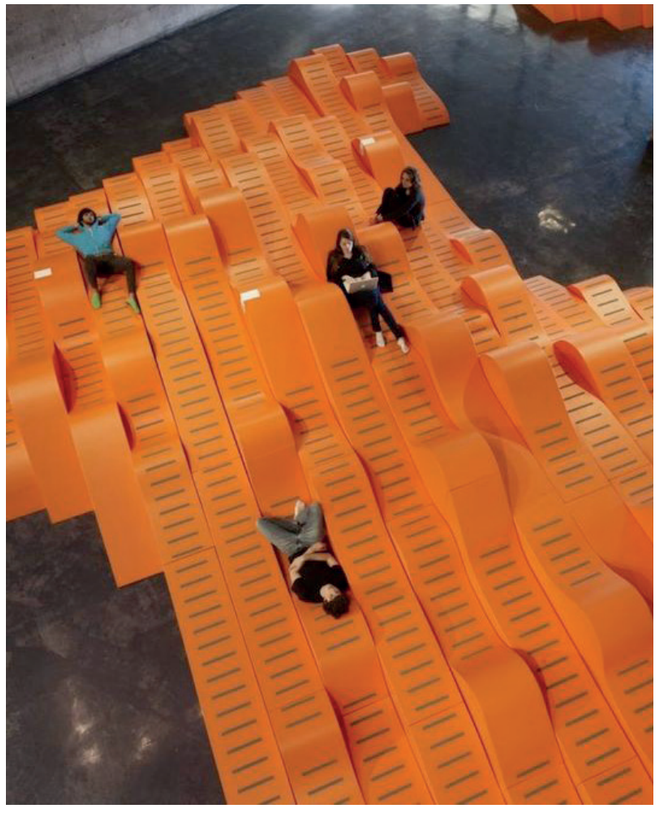
Study areas
Study landscape

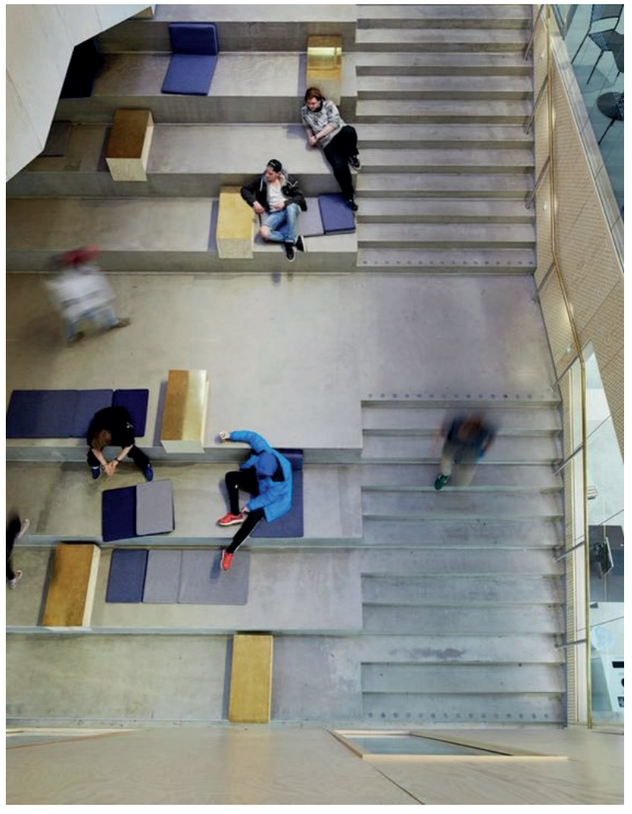


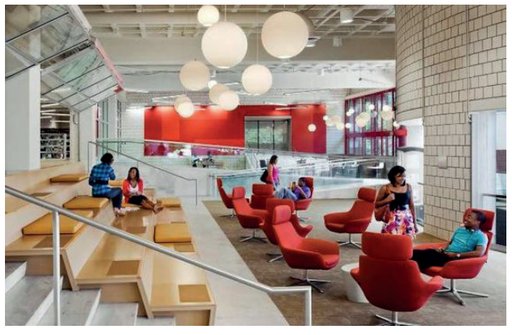
Function: Casual study space, group / individual space
Atmosphere: Spacious, bright, playfull
Furniture: A landscape of furniture, several levels



Study areas
Study landscape

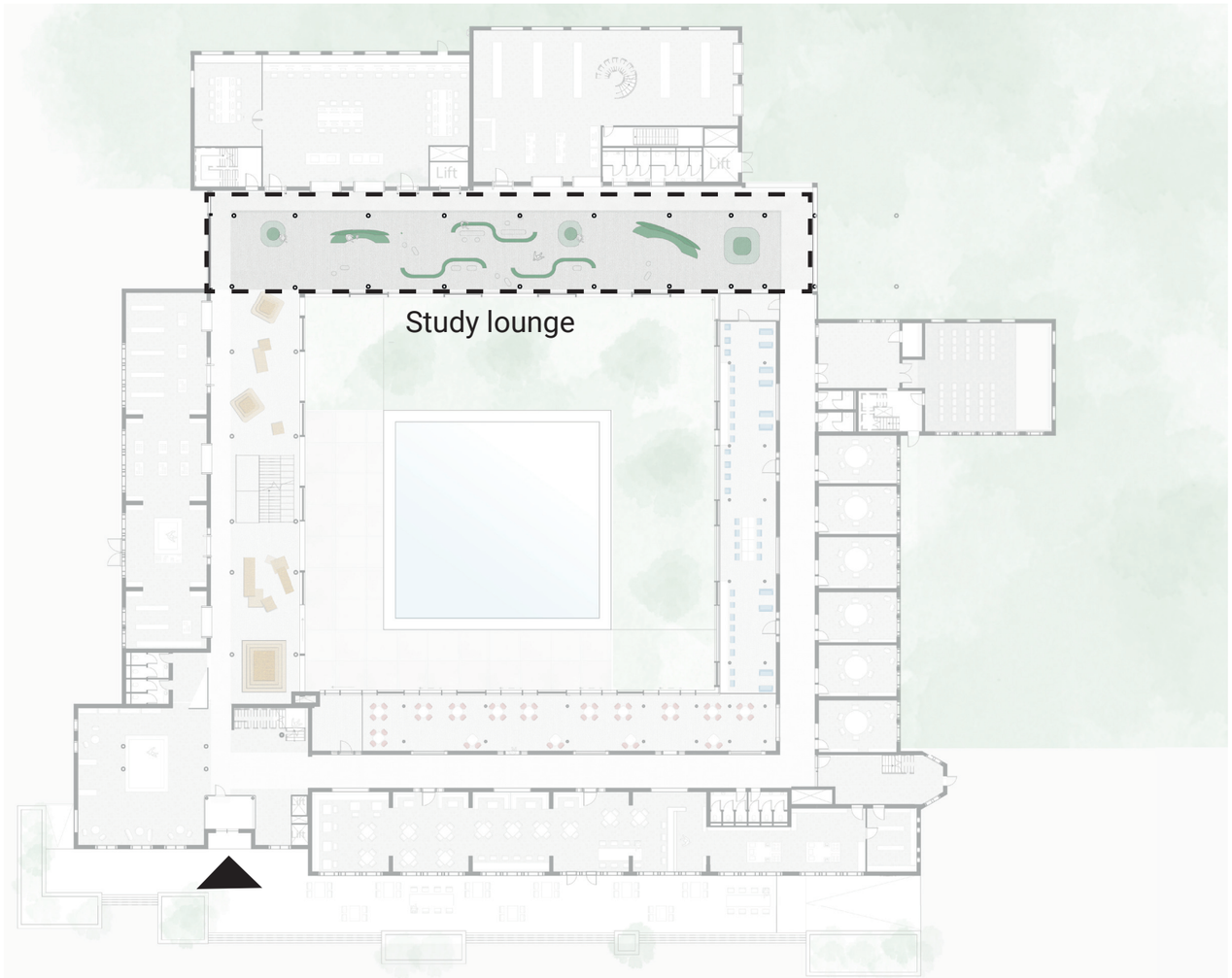






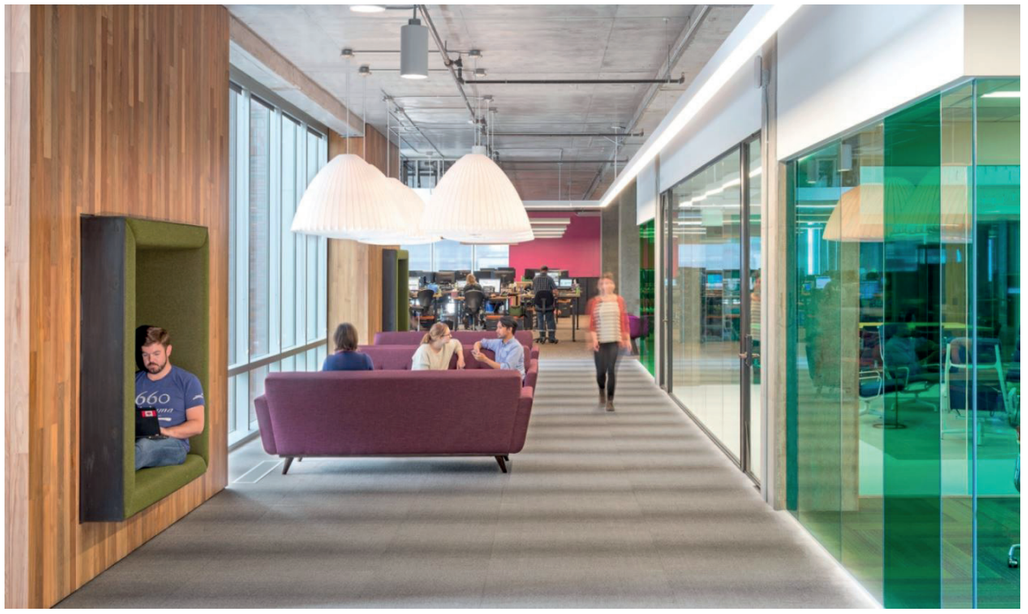
Study areas
Study lounge

Function: Relaxed study space
Atmosphere: Spacious, bright, relaxed
Furniture: Comfortable furniture, individual study spots and couches



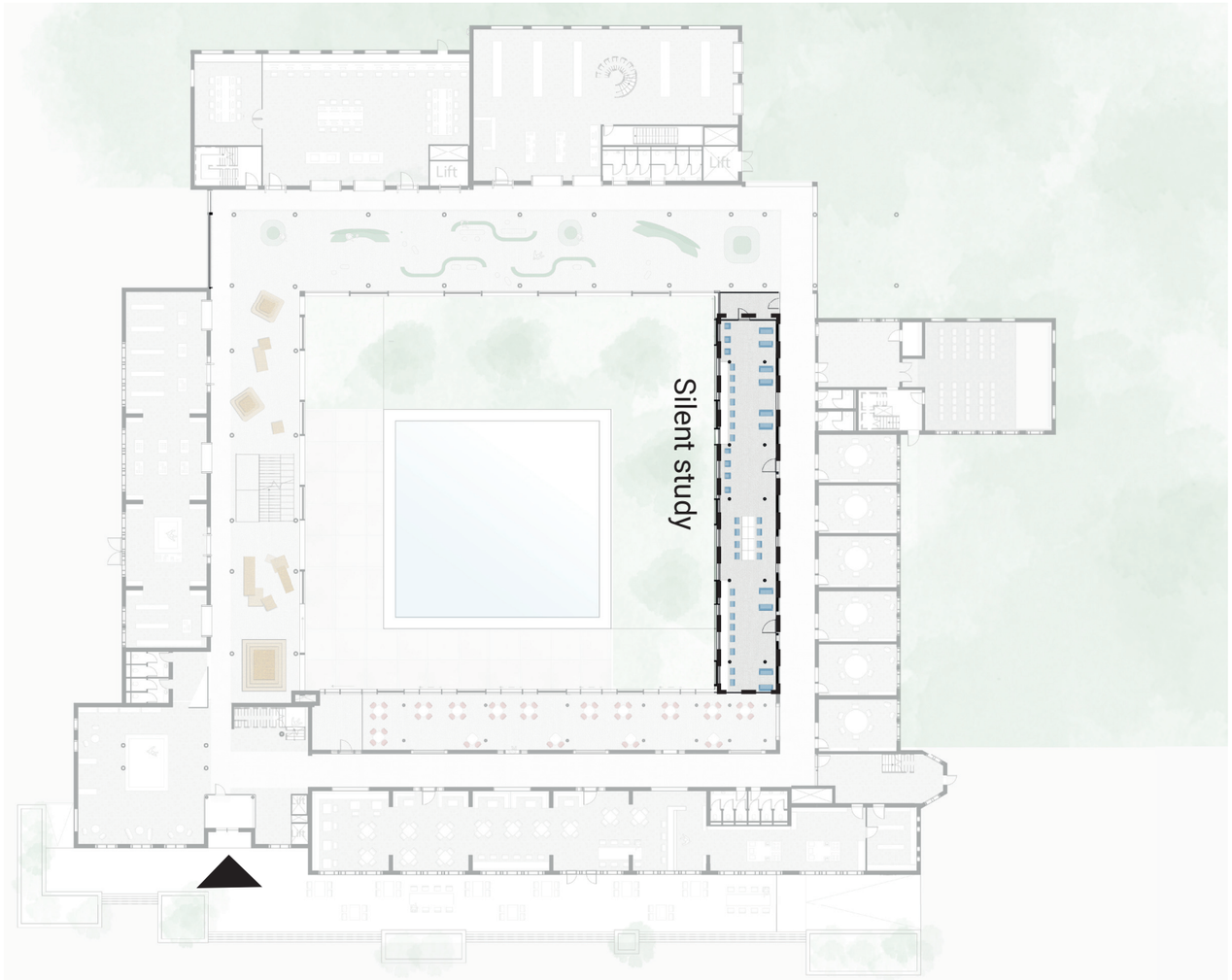
Study areas

Study lounge

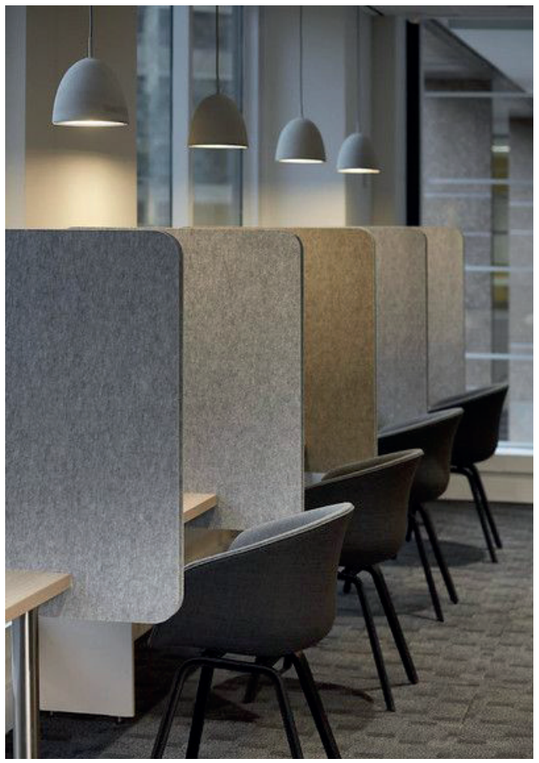


Study areas
Silent study

Function: individual quiet study spaces to focus
Atmosphere: Quiet, isolated/ hidden,
Furniture: Individual work places

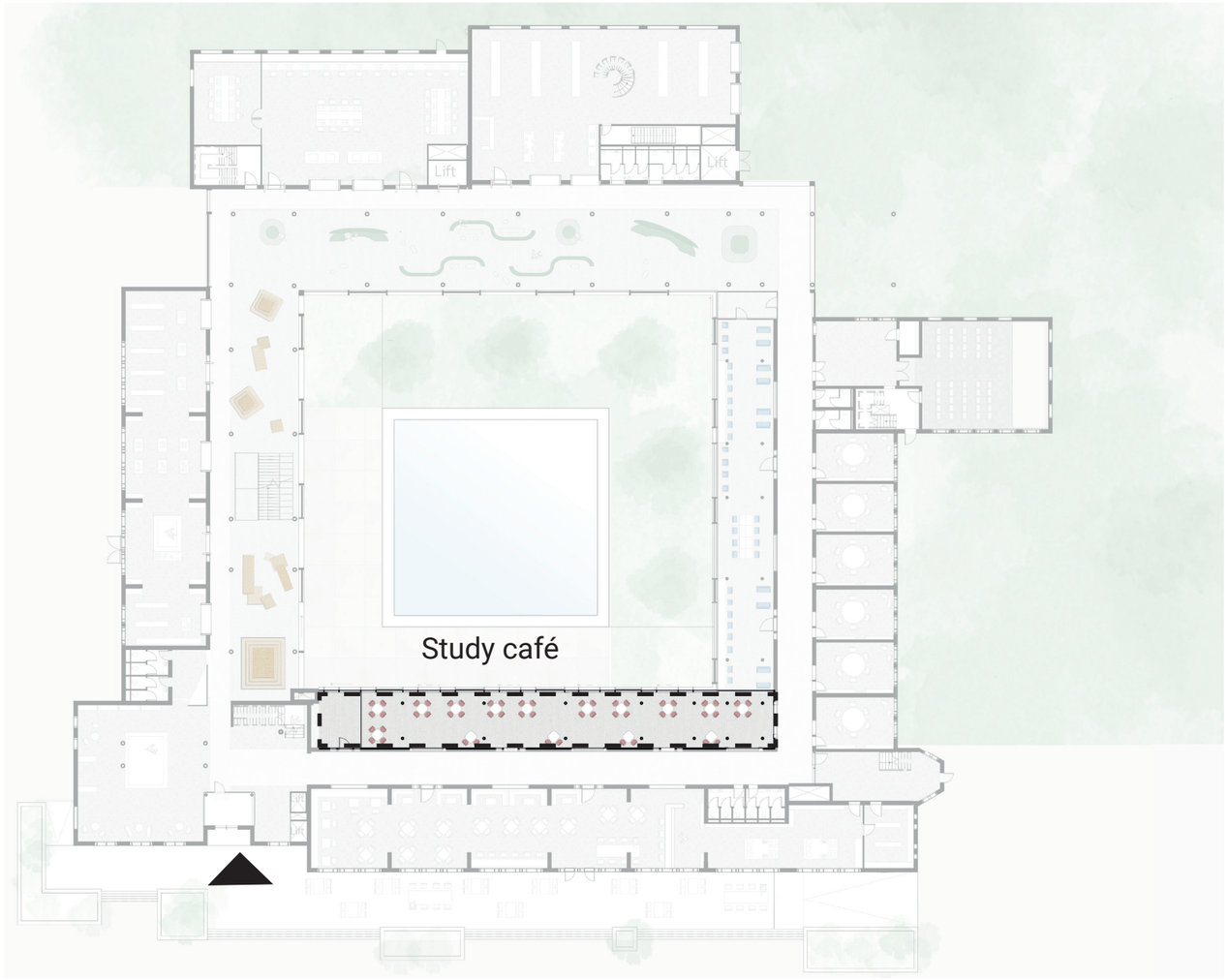


Study areas
Silent study



Study areas
Study café

Study café
Functie: Samenwerk plekken
Eigenschappen: gedeelde tafels, samenwerk-plekken,
Architectuur: Licht, open, toegankelijk,
Meubels: bistro meubels, zithoekjes



Study areas

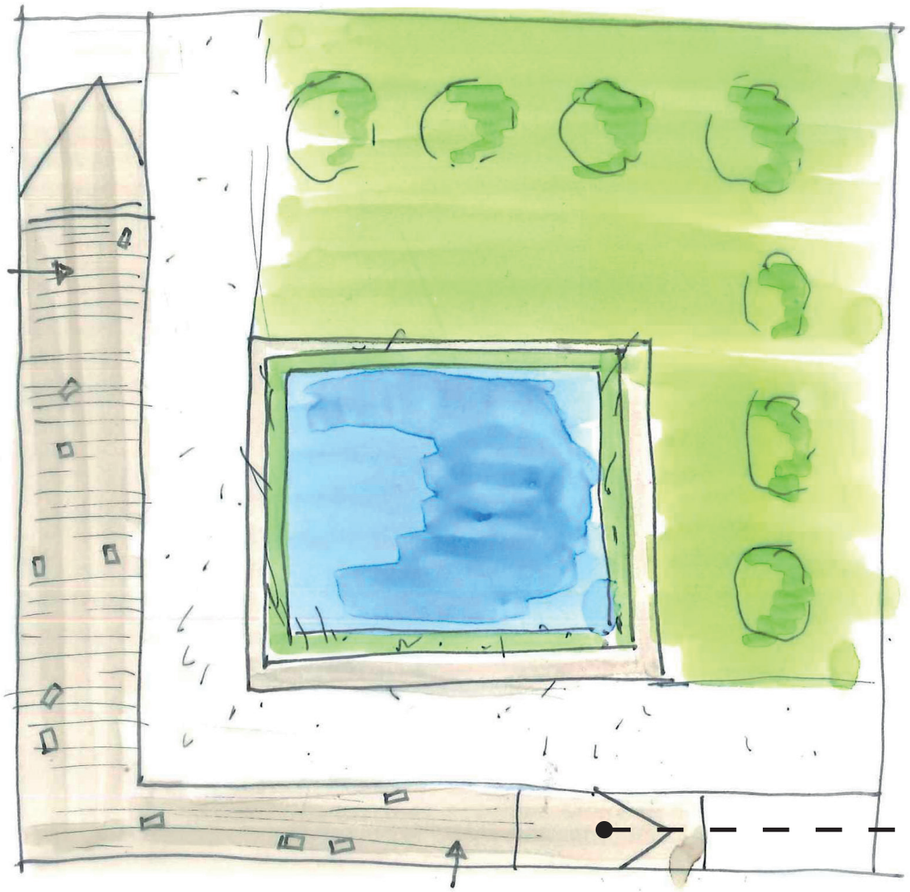
Study café

Courtyard design
Design & references

Terrace
Active functions

Green
Quiet functions

Water
Transition zone

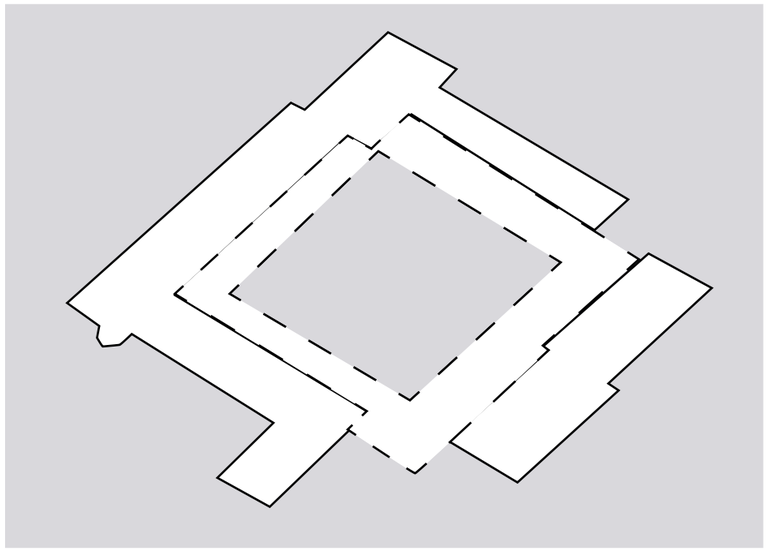


Rijksmuseum Twenthe

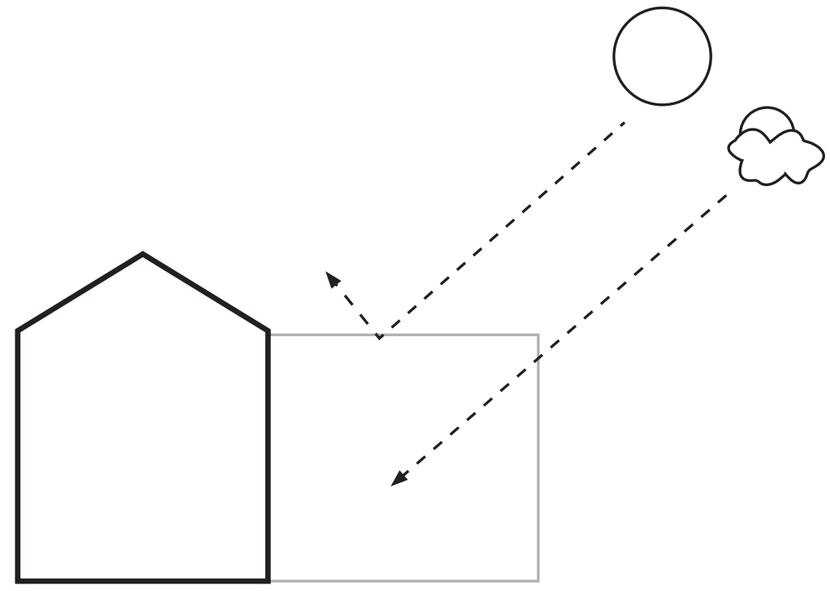
Designing te new extention

Interventions

Aspects



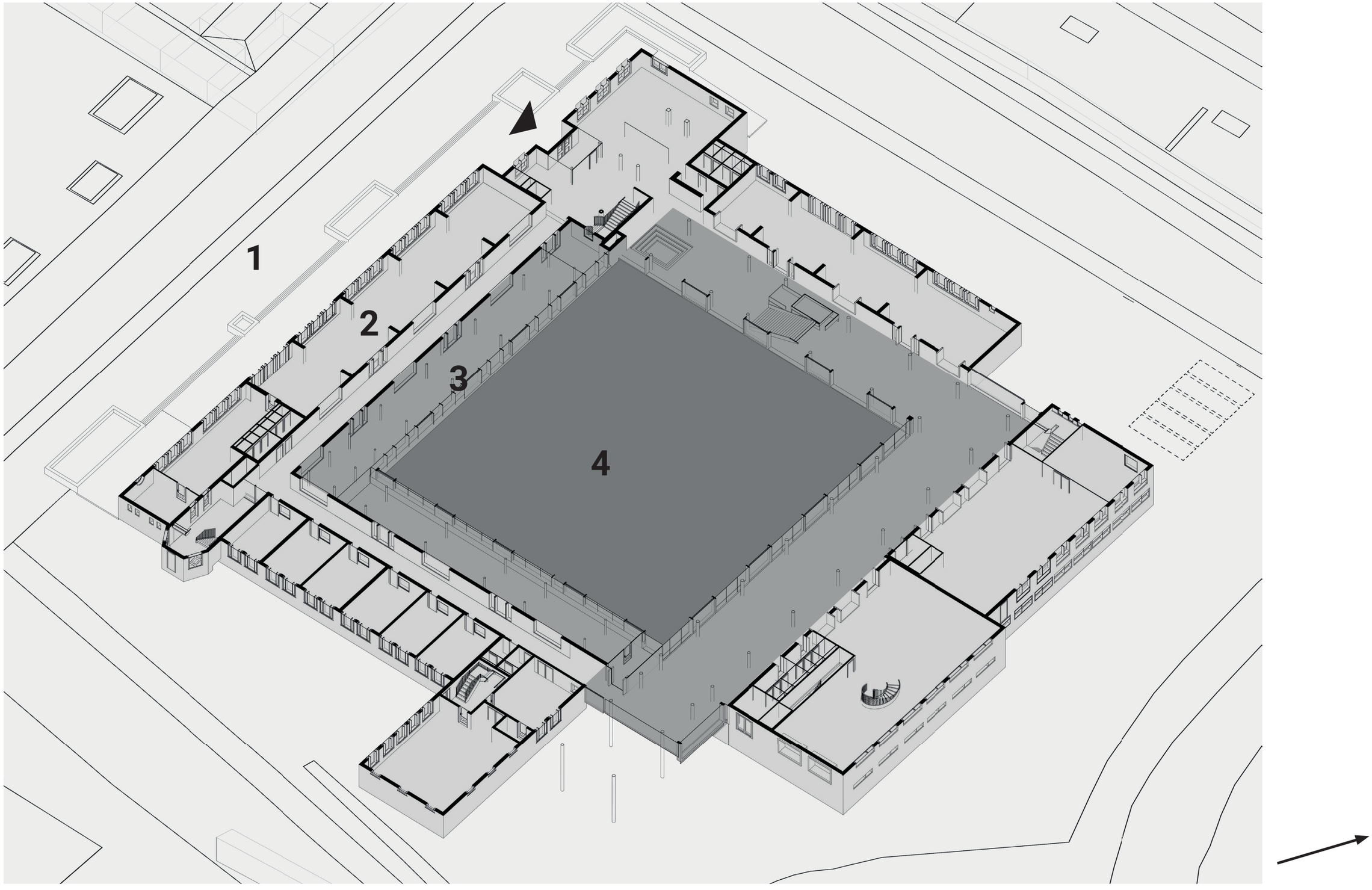
The relations between the zones



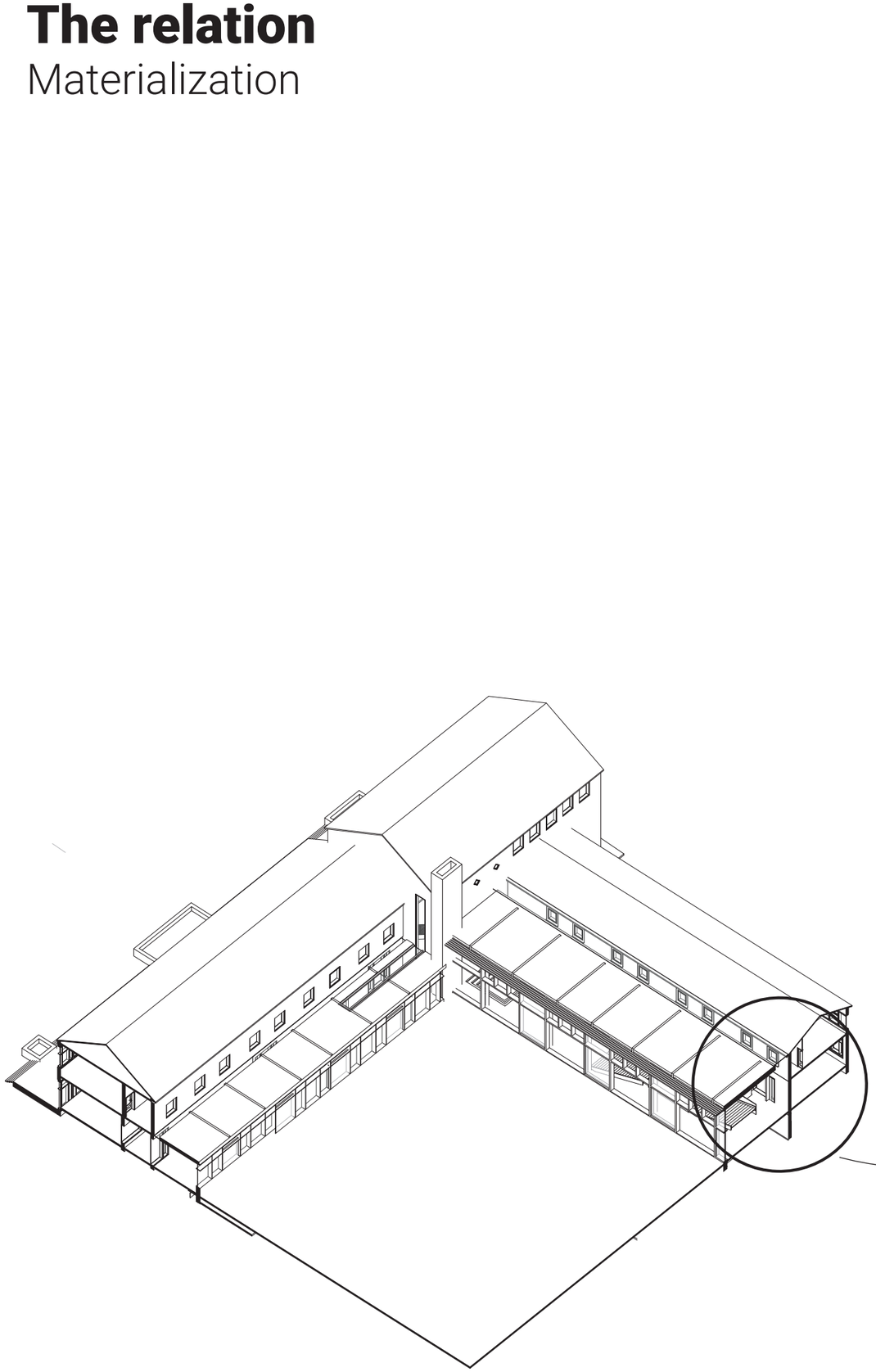
Creating the right climate

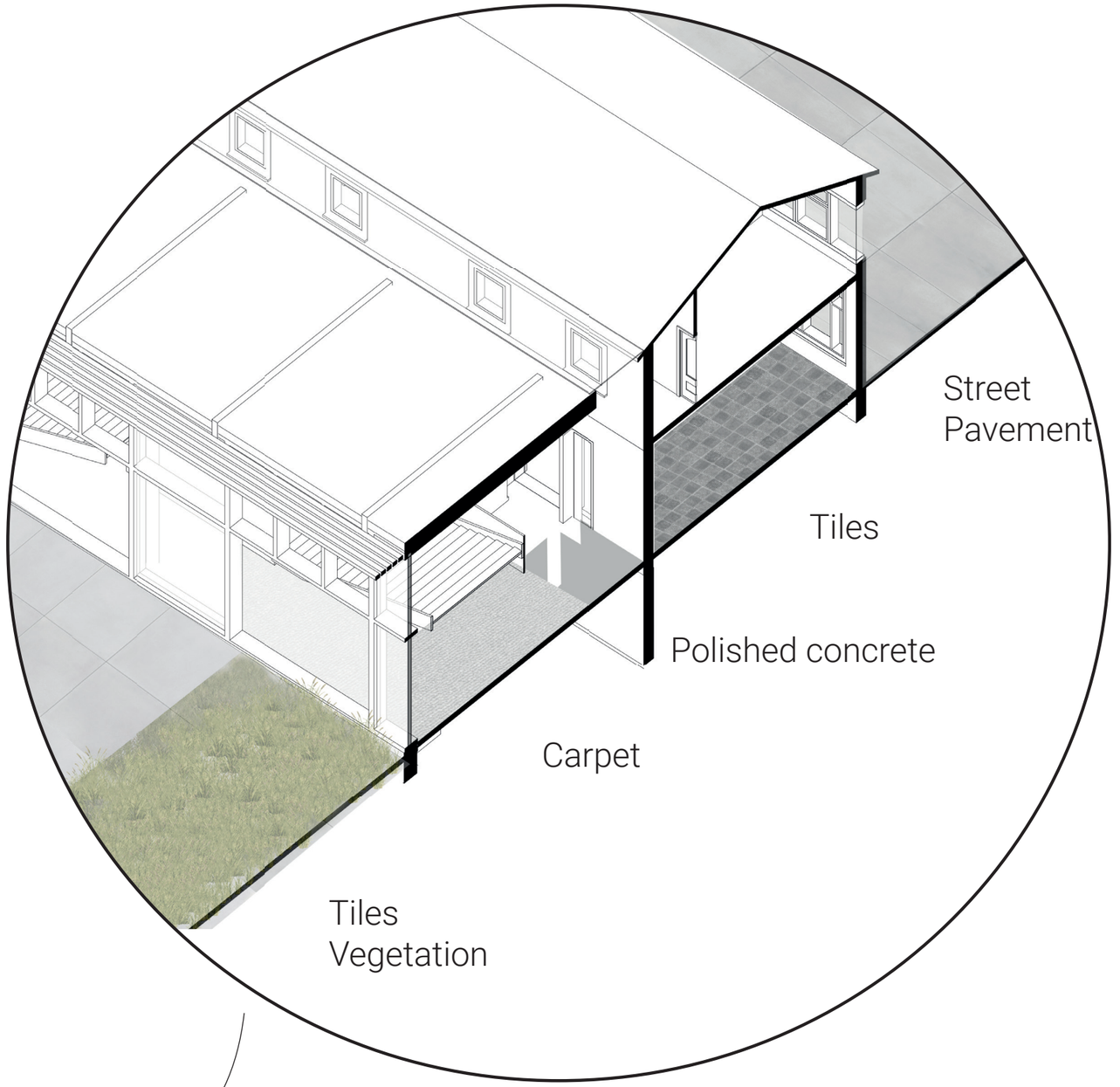
The relation

4 zones



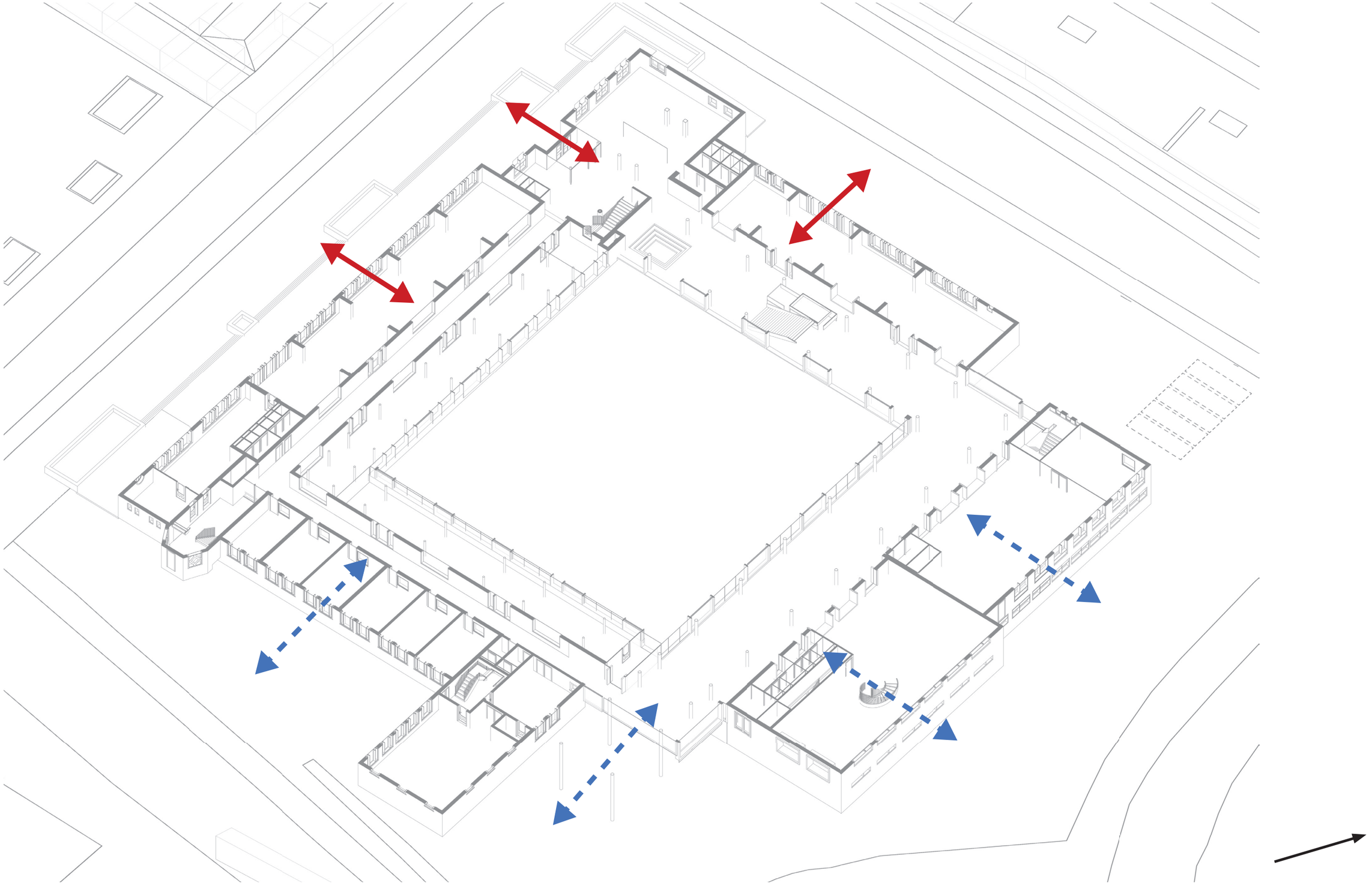
The relation
Materialization





The relation

Site - existing ring



South

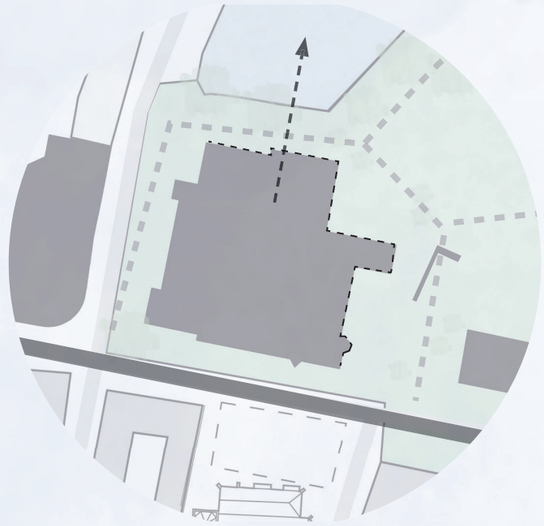
Facade 1:200

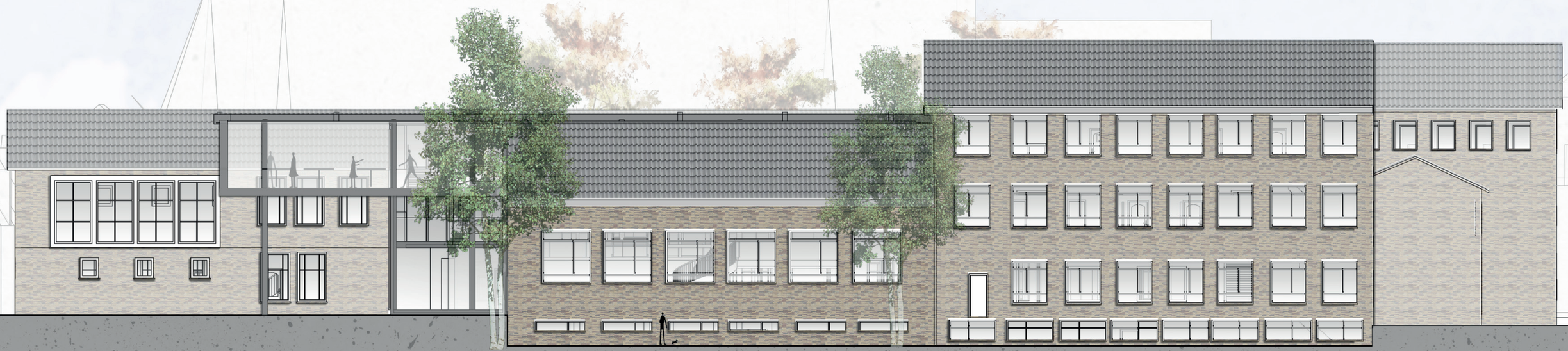
- Towards the “public backbone”
- Active and public functions

North

Facade 1:200

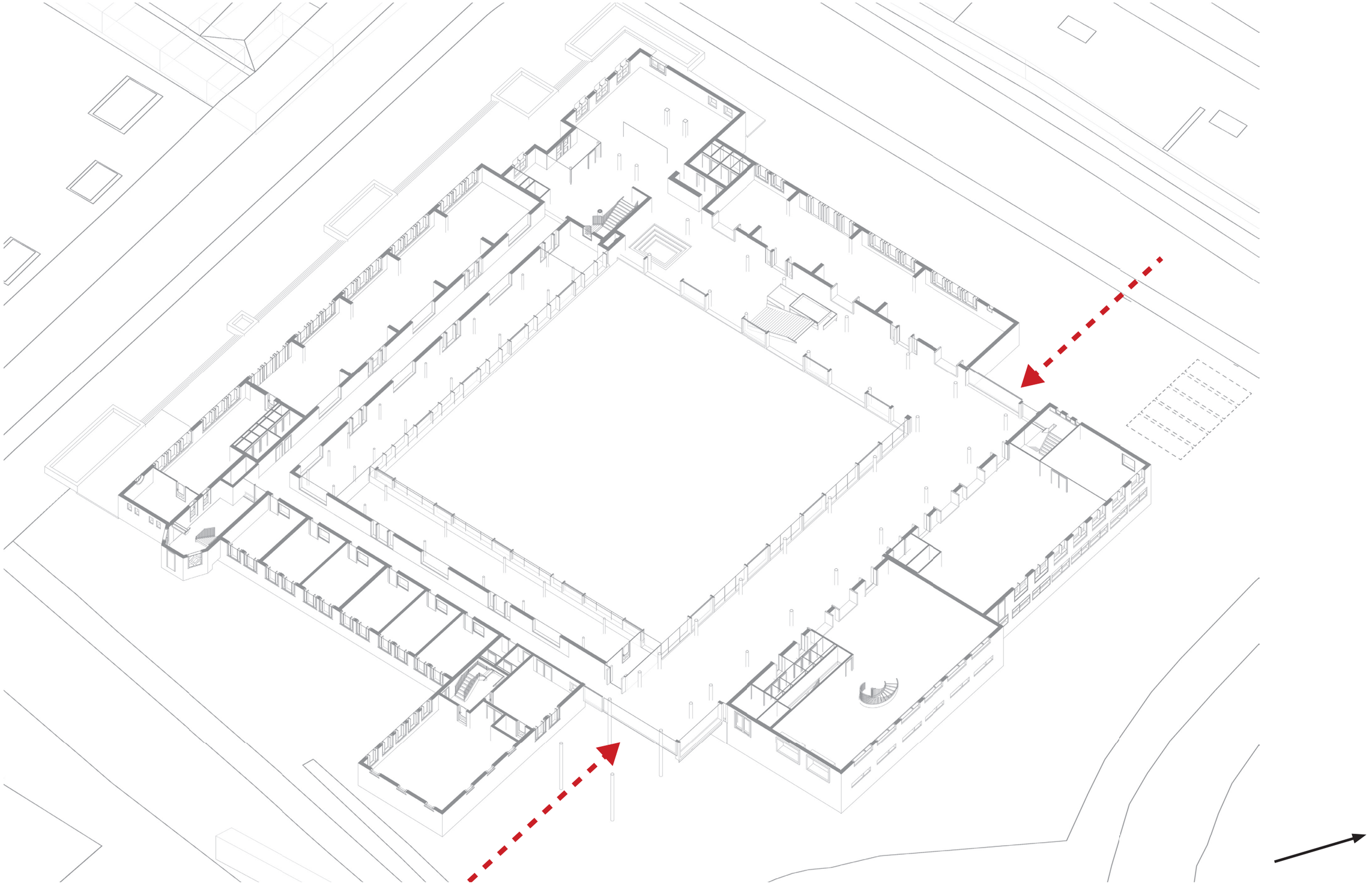
- Quiet park side
- New viewlines





The relation

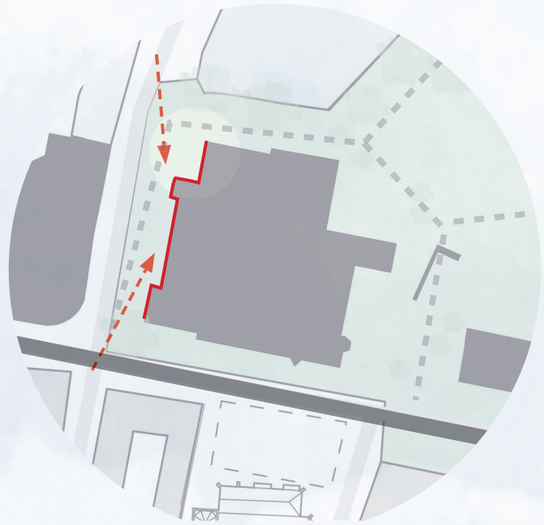
Site - added inner ring



West

Facade 1:200

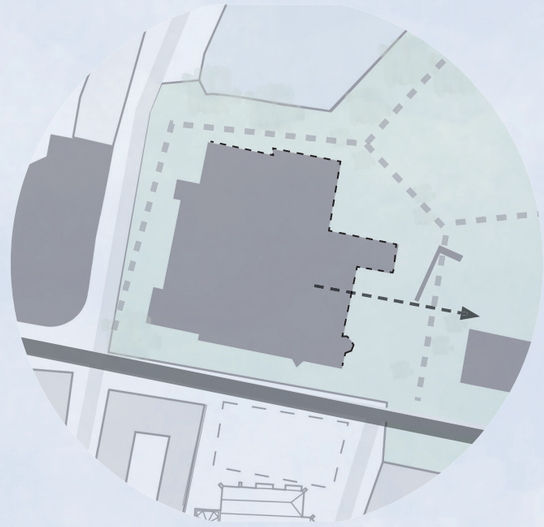
- Sneak preview visible of the intervention
- Active and public functions



East

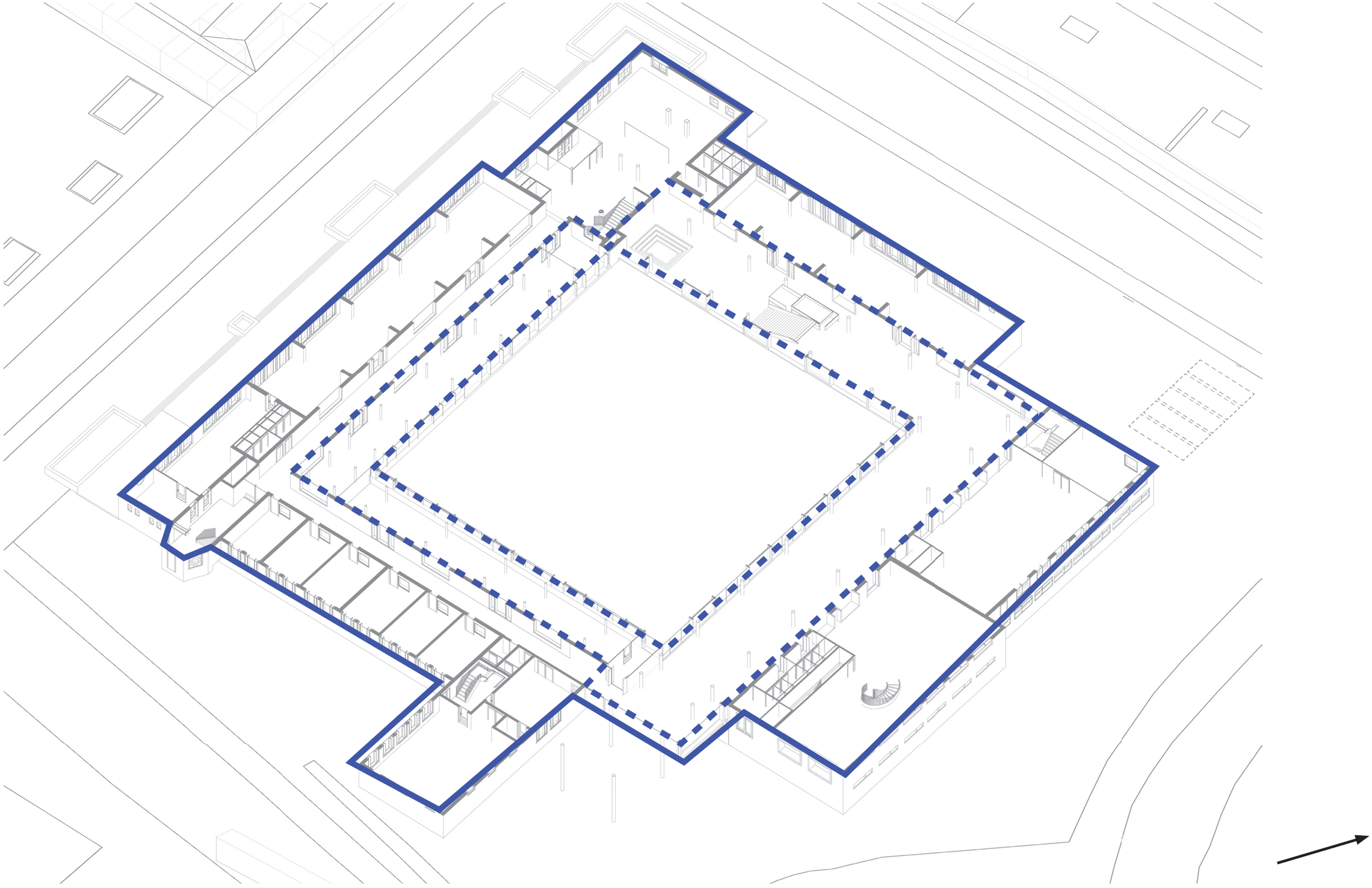
Facade 1:200

- Quiet park side
- New viewlines



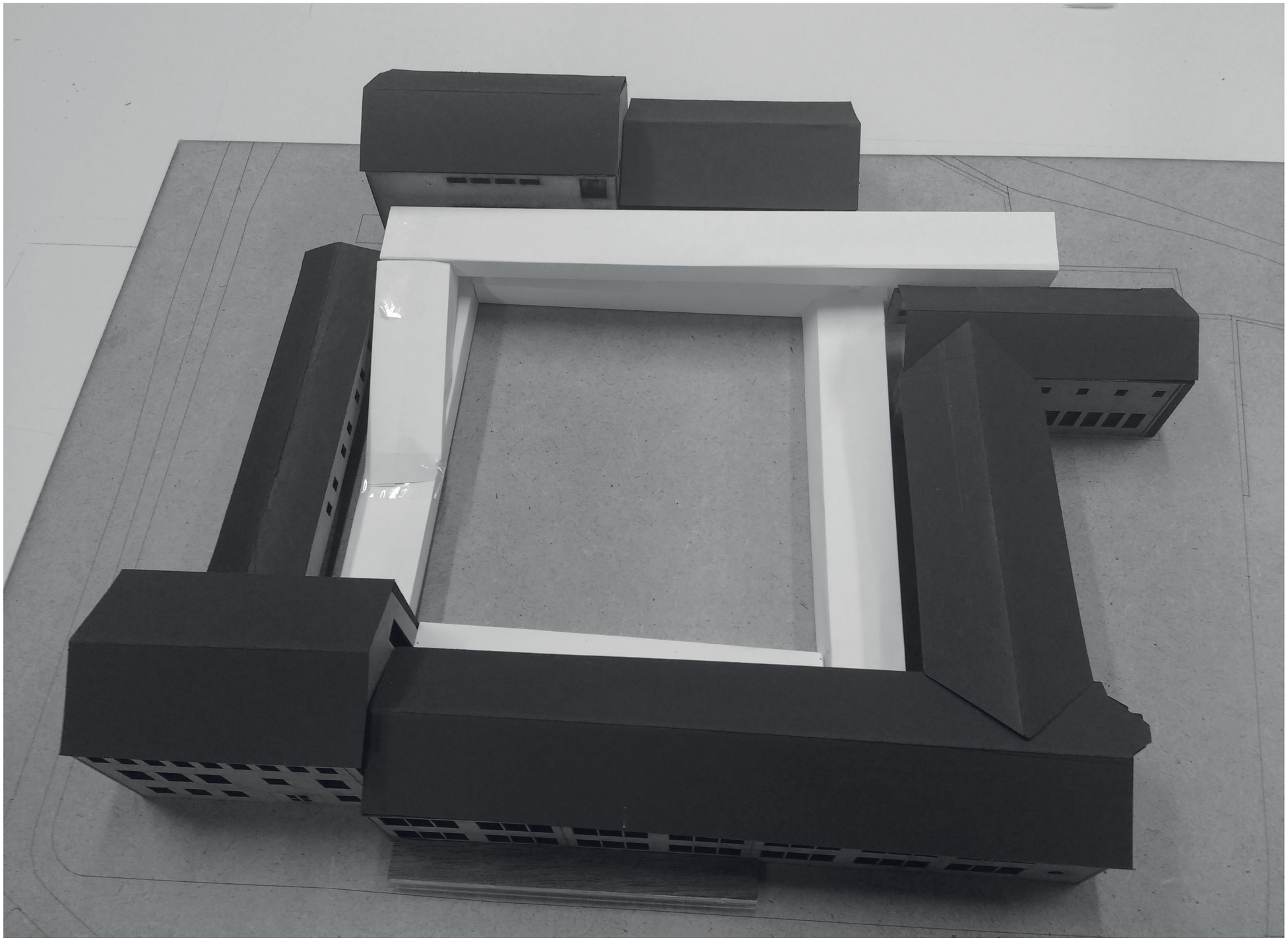
The relation

Existing ring - added inner ring



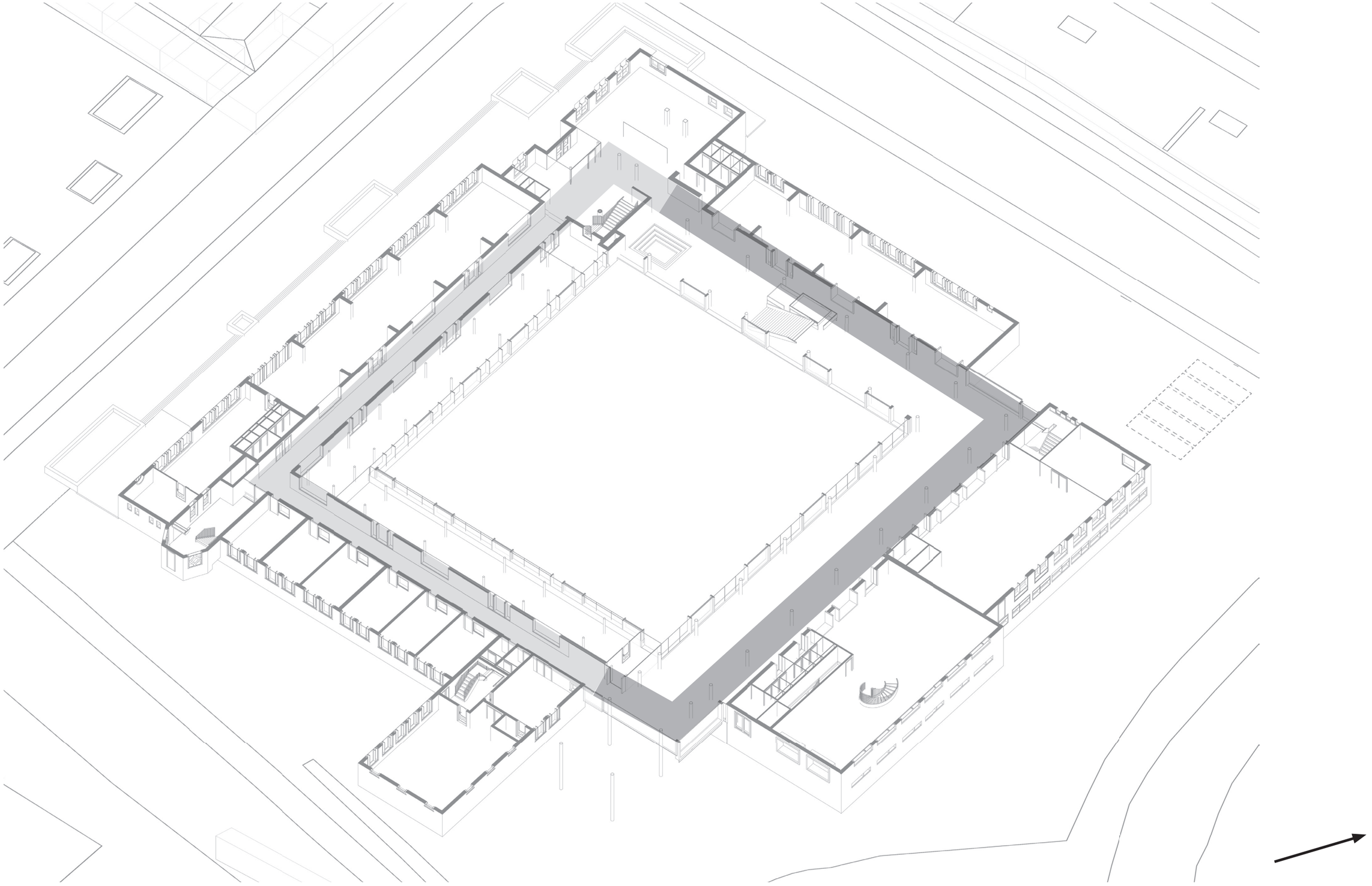
The relation

Existing ring - added inner ring



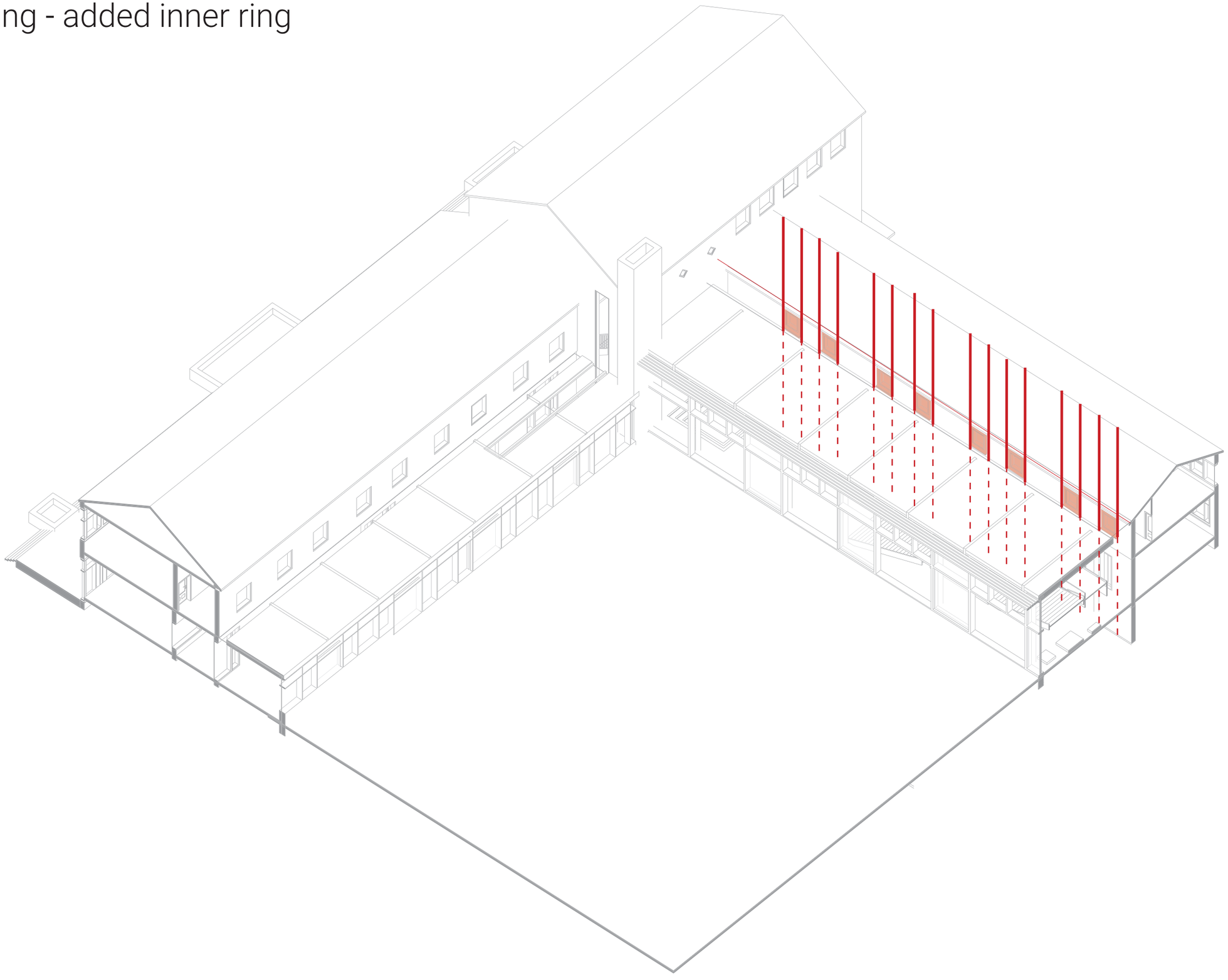
The relation

Existing ring - added inner ring



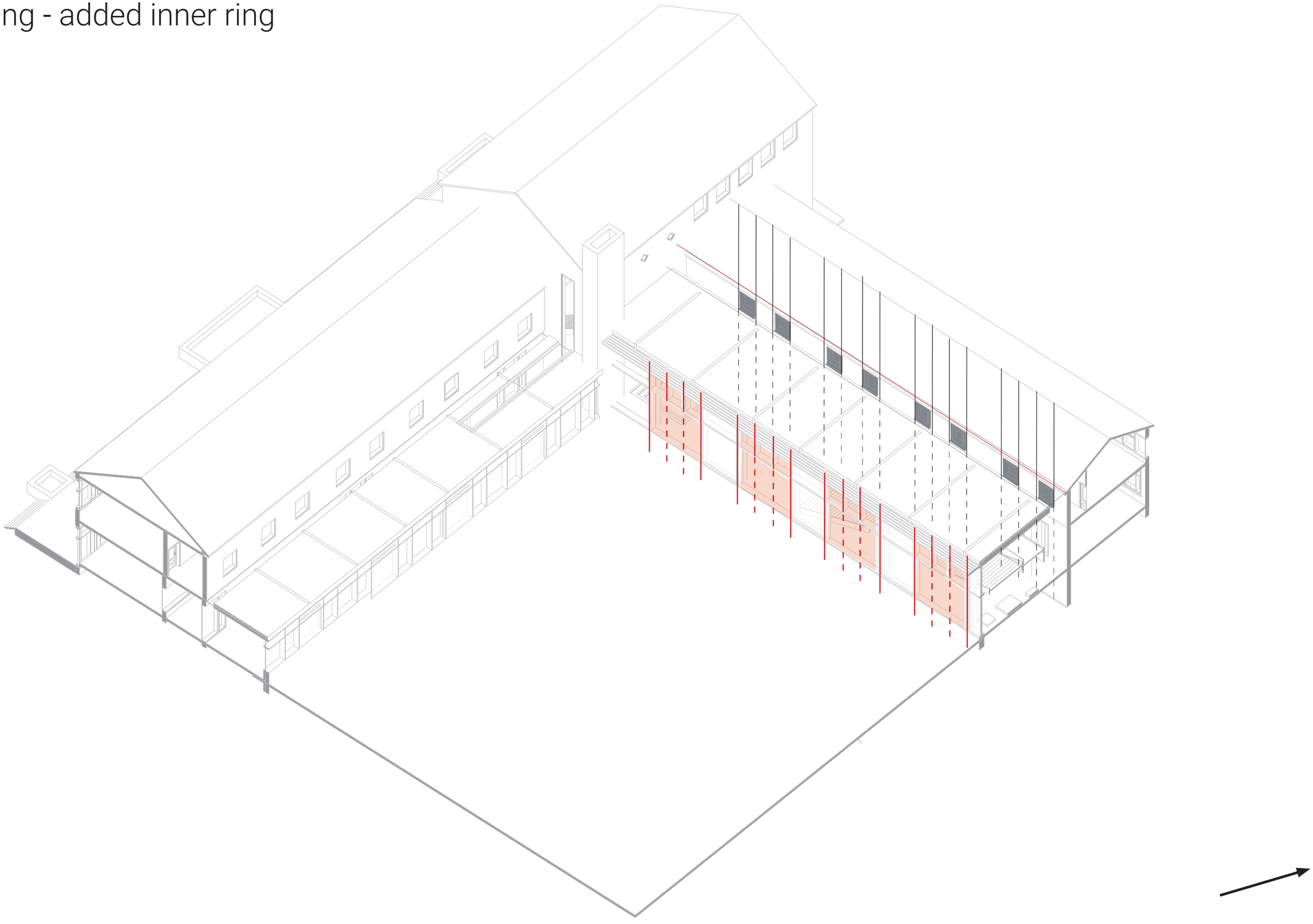
The relation

Existing ring - added inner ring



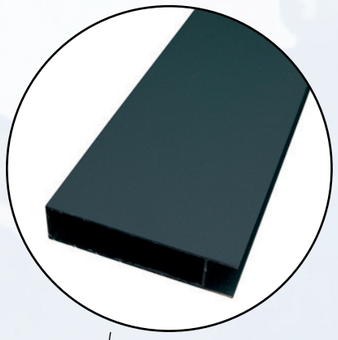
The relation

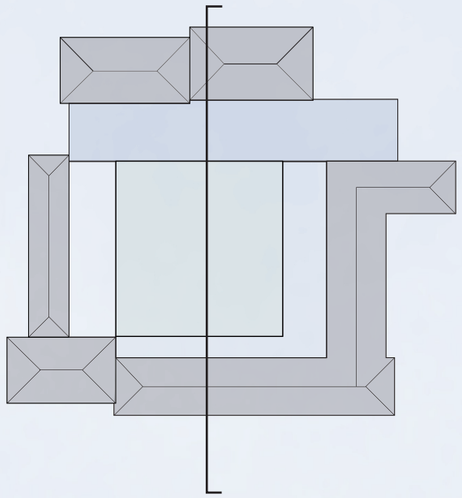
Existing ring - added inner ring

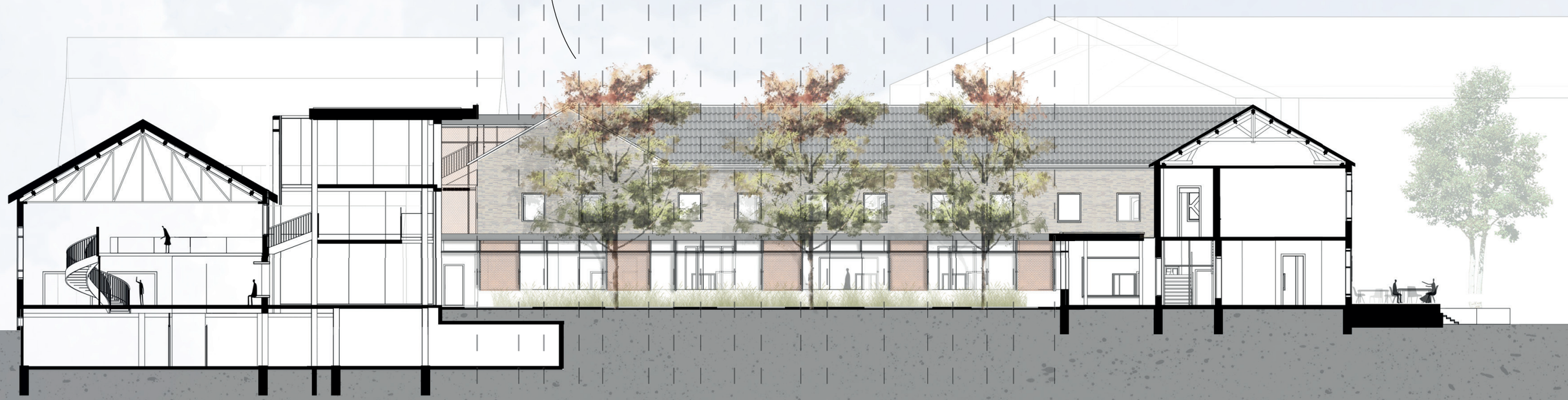


Section north - south

1:200

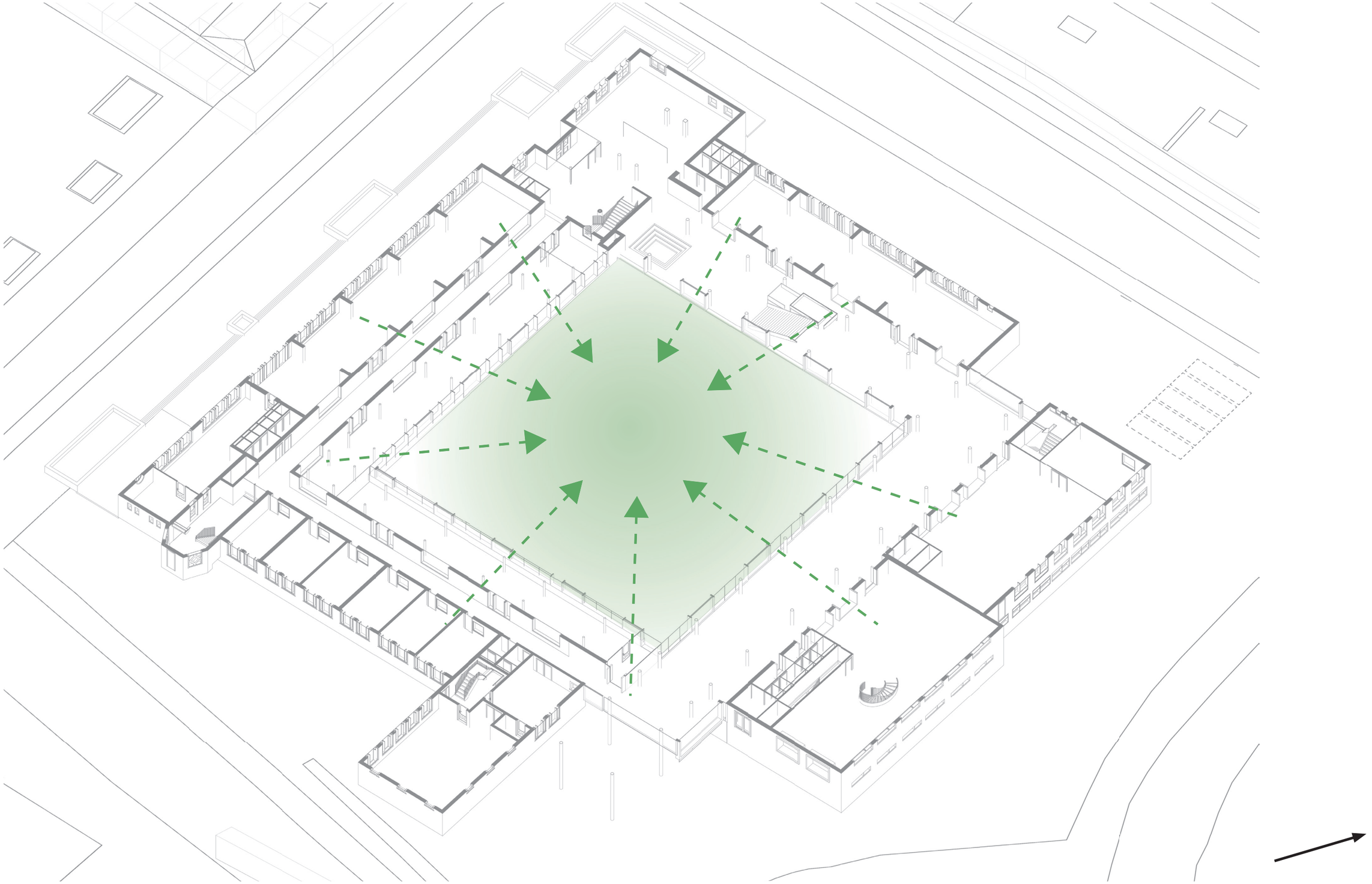






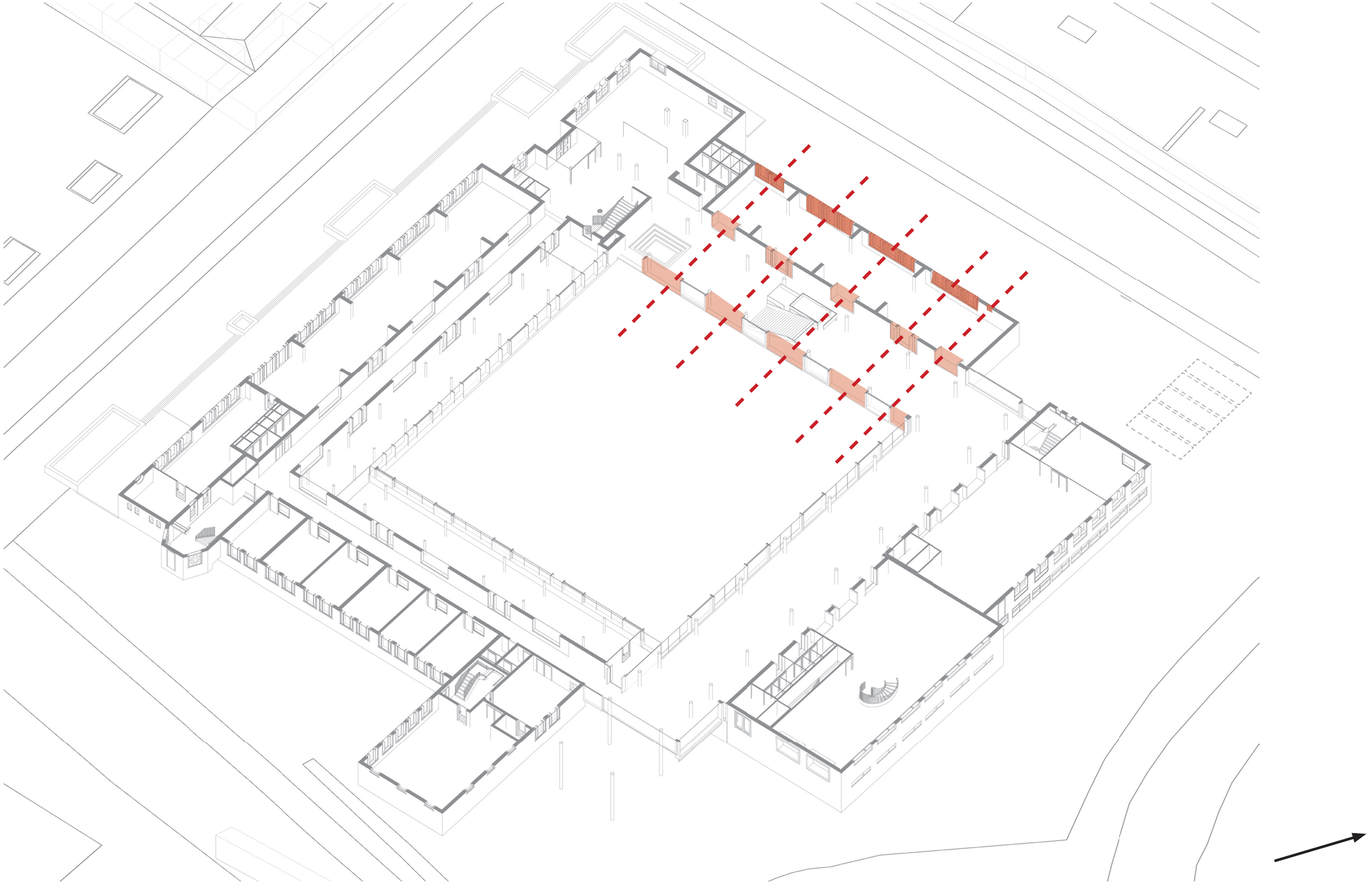
The relation

Existing ring - added inner ring



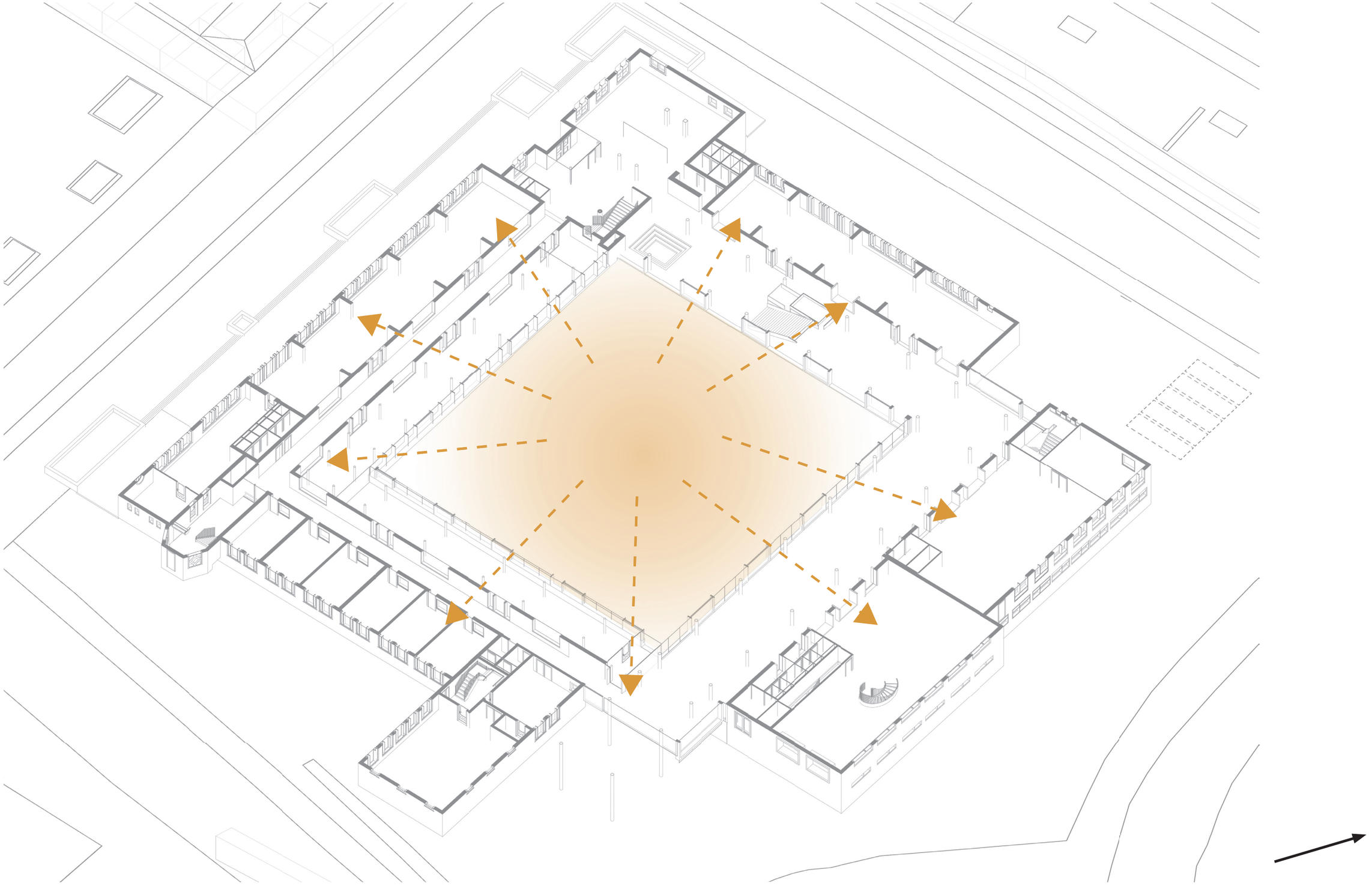
The relation

Existing ring - added inner ring



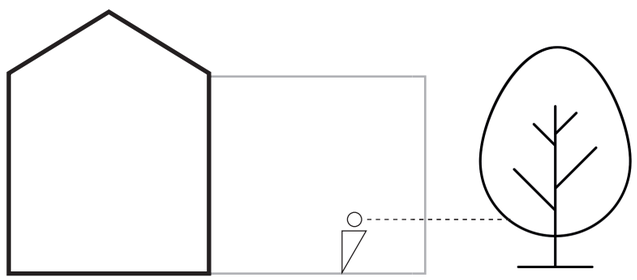
The relation

Existing ring - added inner ring



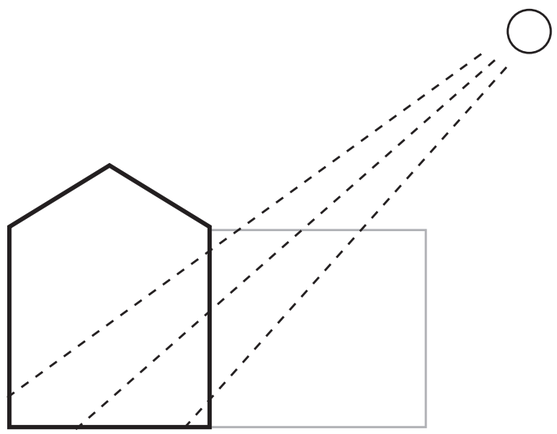
Facade requirements

Requirements & dilemma’s



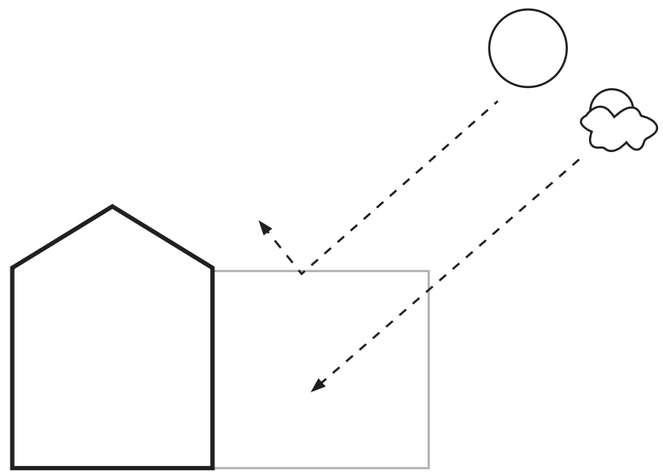
Open view

The facade must create a close visual connection with the courtyard



Light

The extension shouldn’t block natural light for the existing part

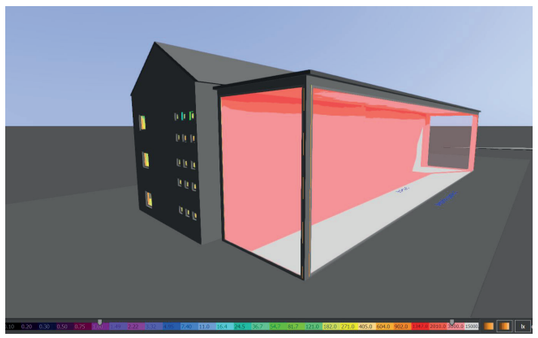


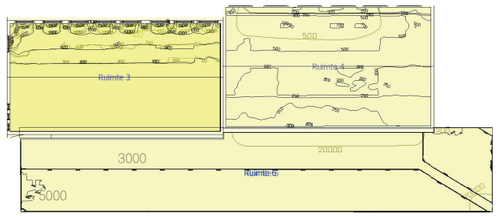
Light/ temperature

The amount of light should be adjustable

Light analysis
Options in Dialux

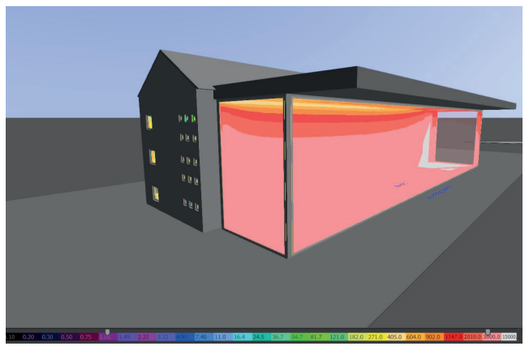
Glass facade

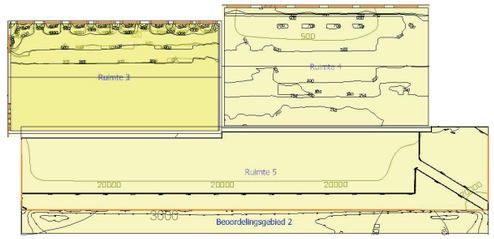




2000-5000 Lux

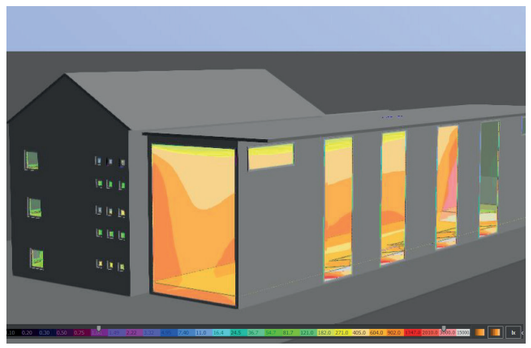
Glass facade with cantilevered roof

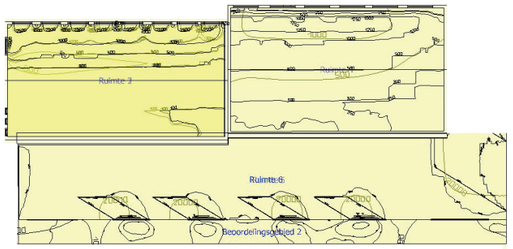




2000-3000 Lux

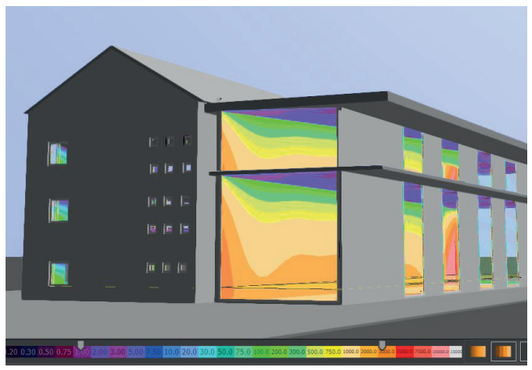
Partly closed facade
with cantilevered roof

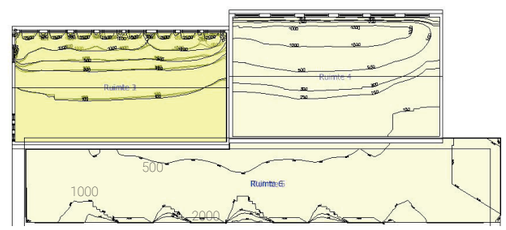




1000- 2000 Lux

Partly closed facade with double canti-
levered roof

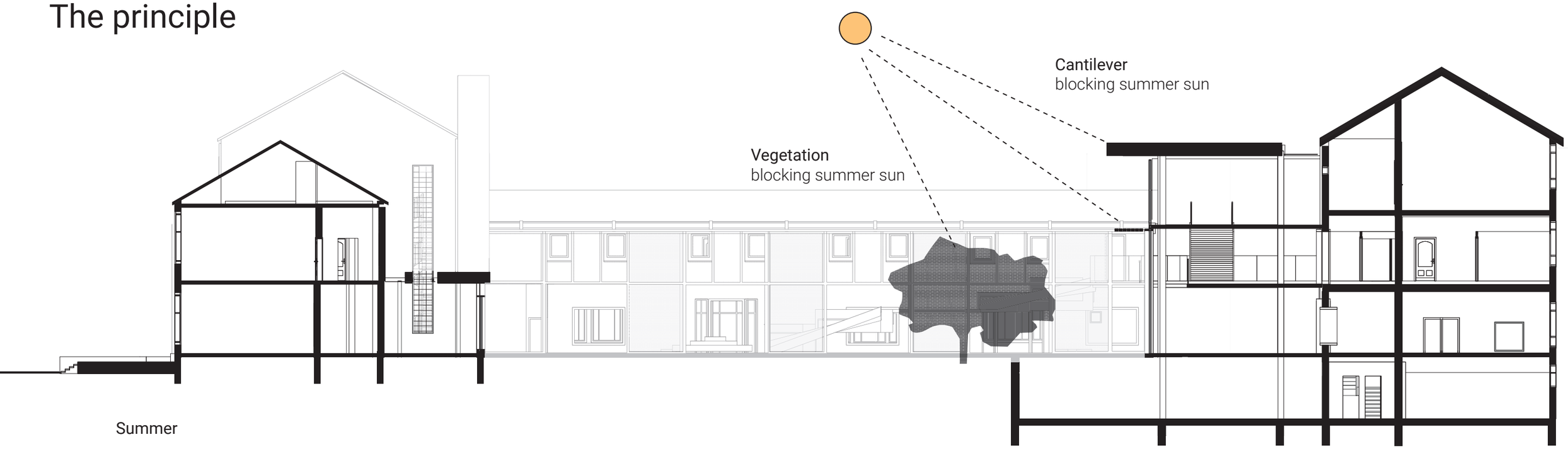




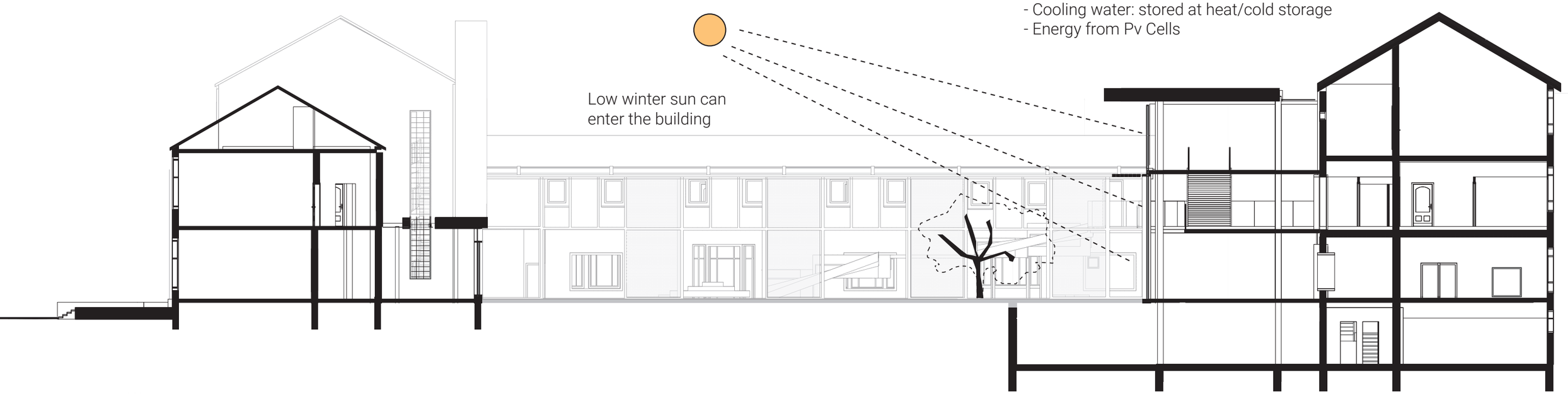
500-2000. Lux

Climate design

The principle



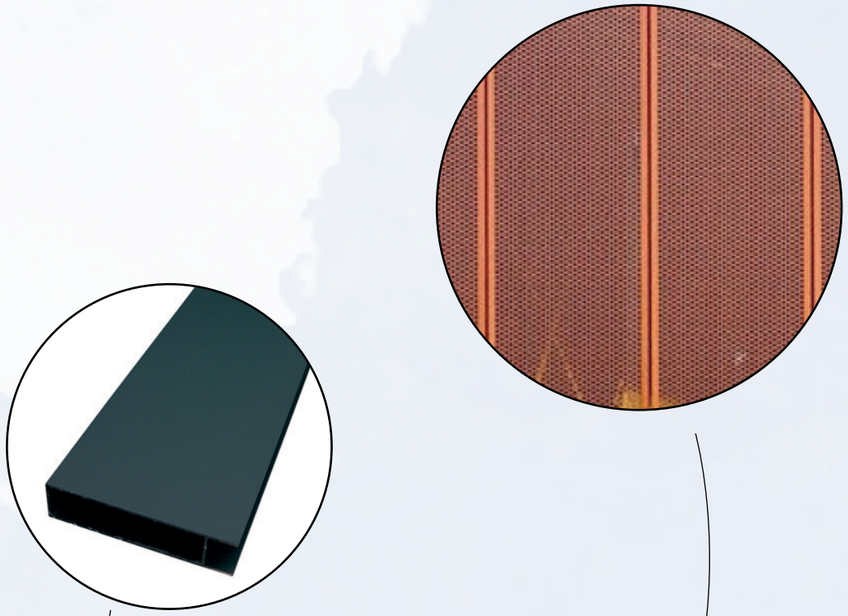
Summer

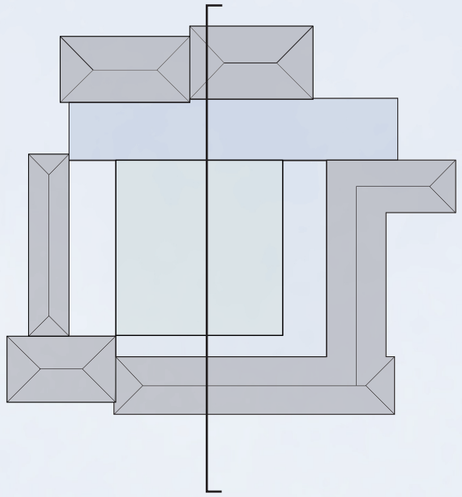


Winter

Section north - south

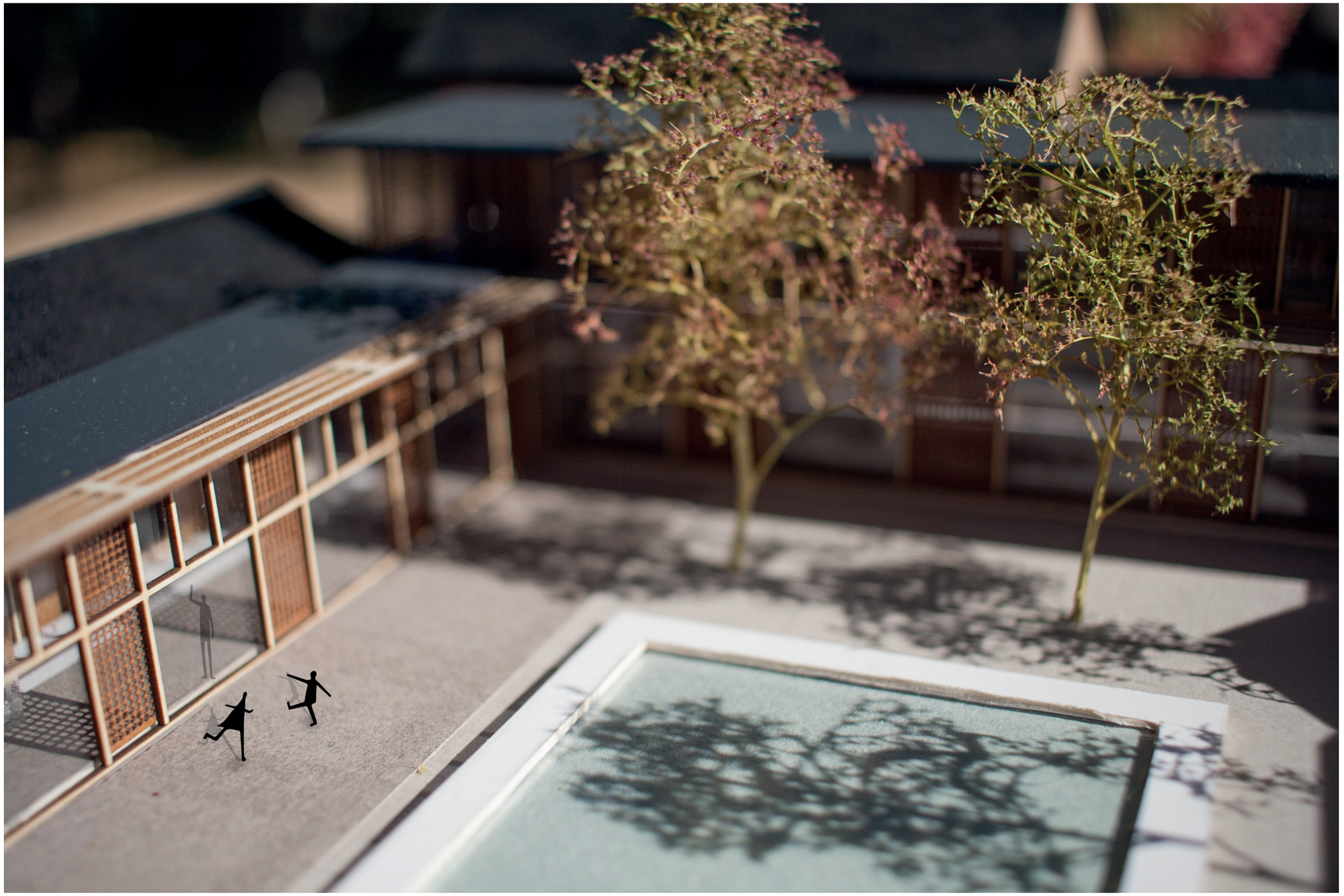
1:200





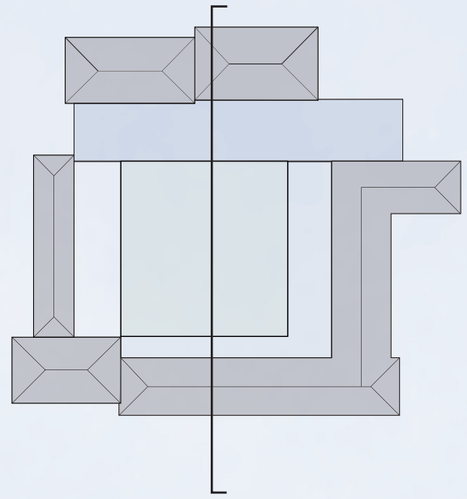
Corten steel shutters

Physical model



Section north - south

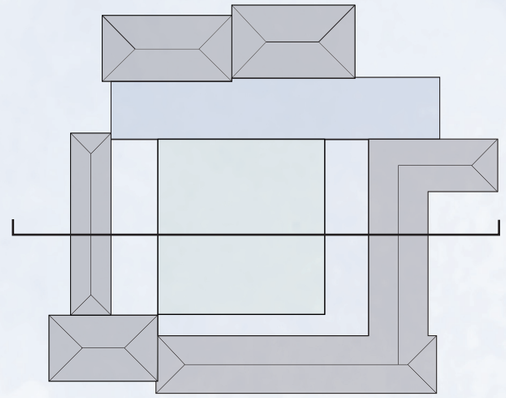
1:200



Section west - east

1:200

0 2500 10.000



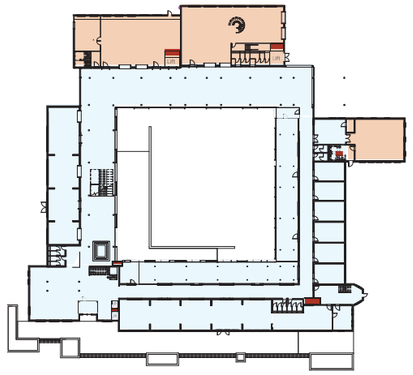
The result

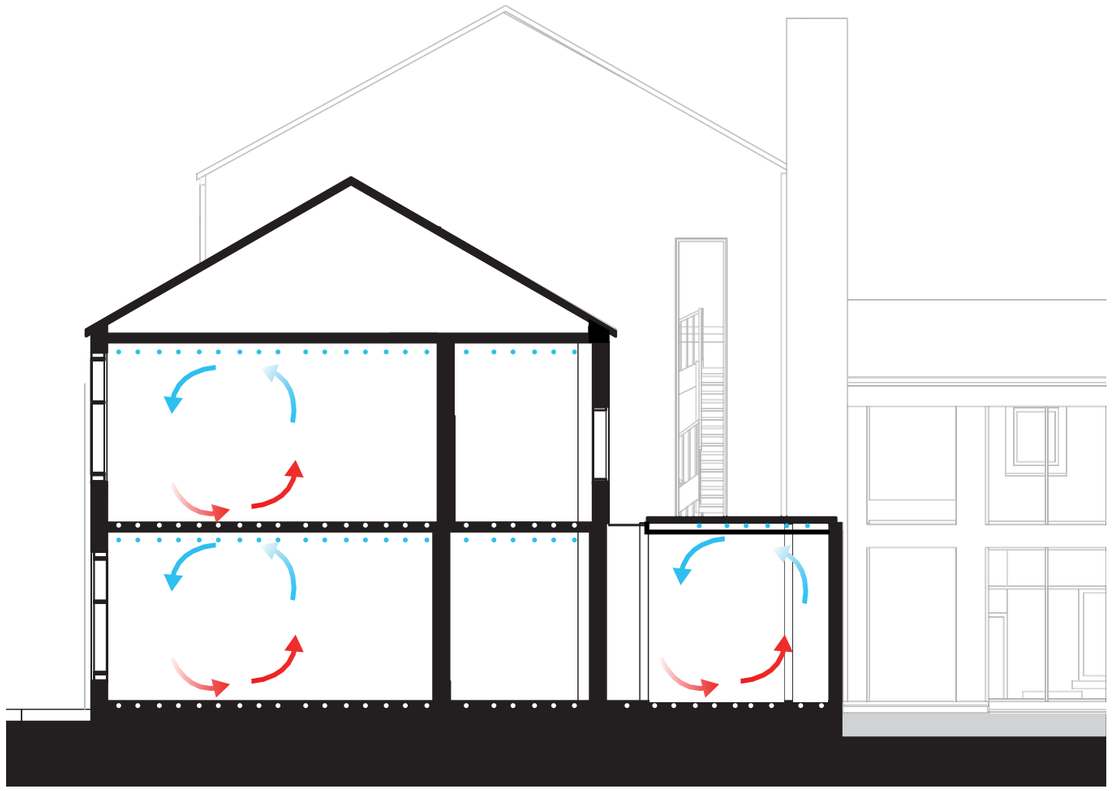
An overview

Climate system

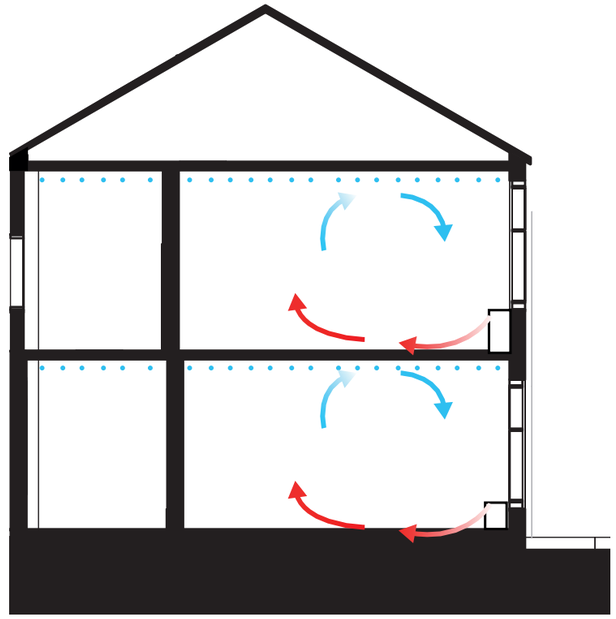
Climate system

Heating & cooling





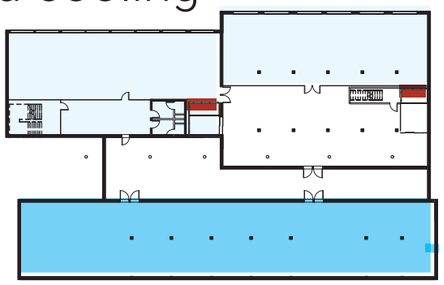
Zone floor heating & ceiling cooling



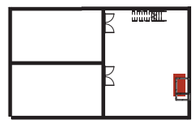
Zone radiator heating & ceiling cooling

Climate system

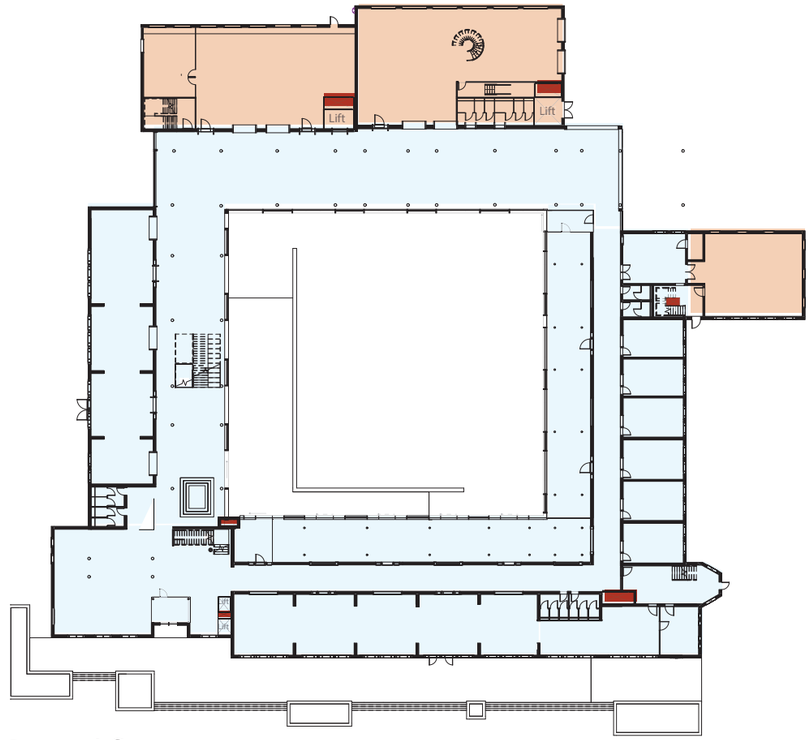
Heating and cooling



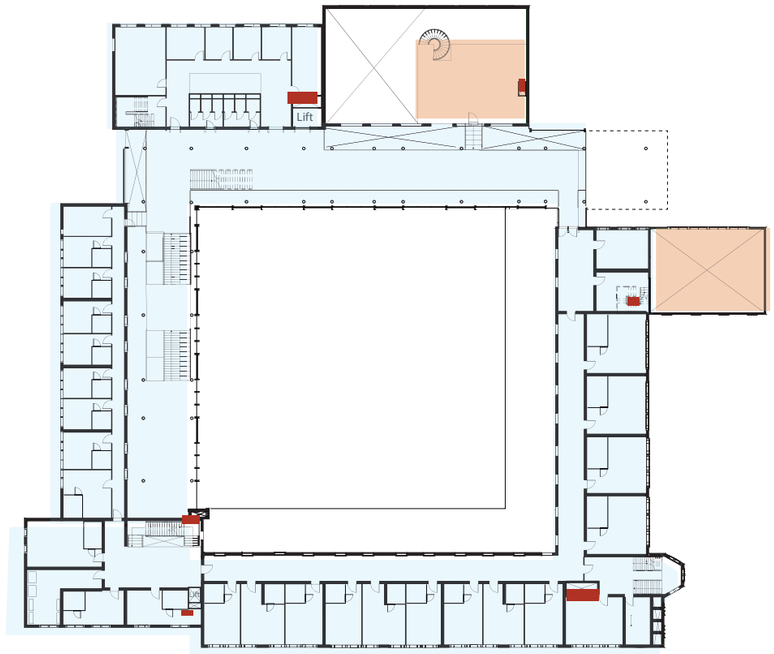
WKO
thermal storage



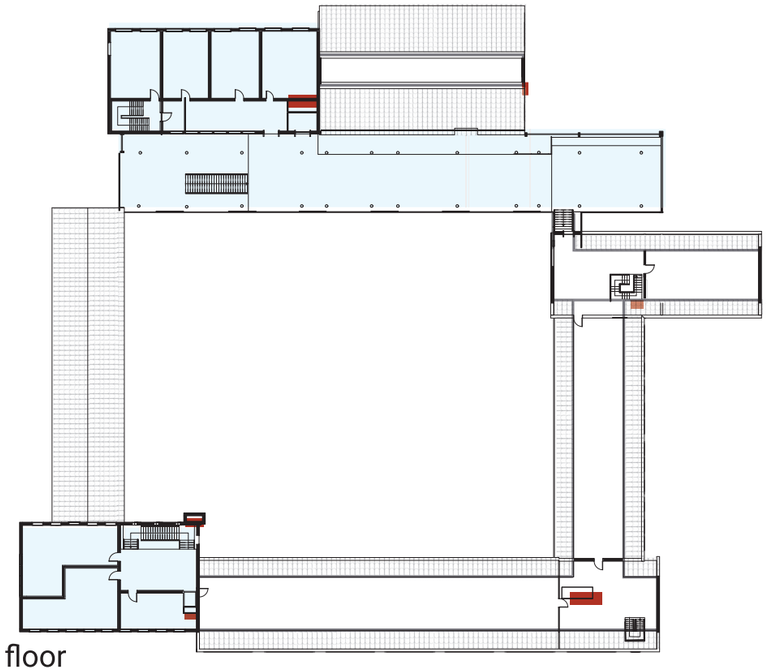
Basement



Ground floor



First floor

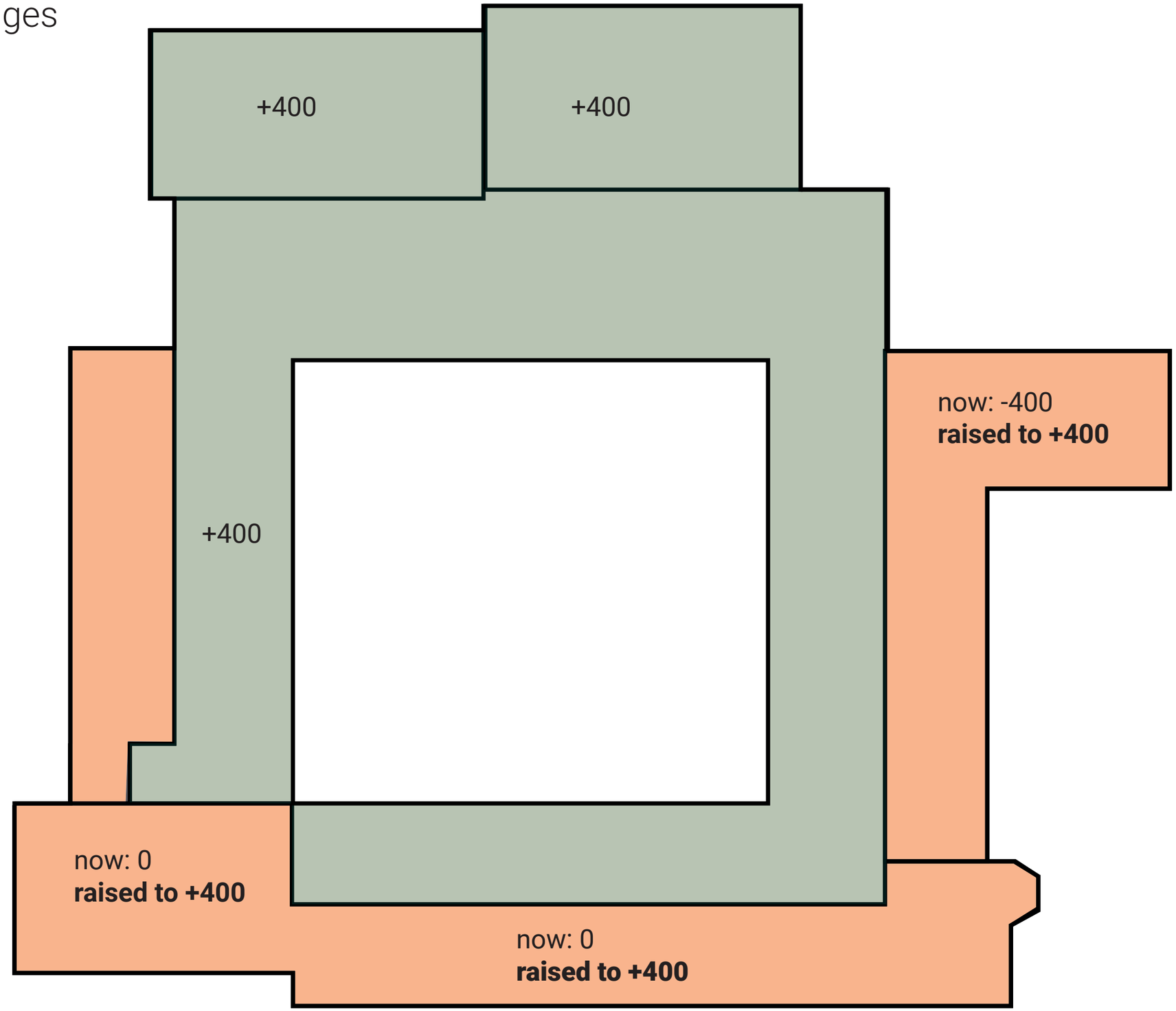


Second floor

- Installations
- Zone floor heating & ceiling cooling
- Radiator heating, ceiling cooling
- Shafts

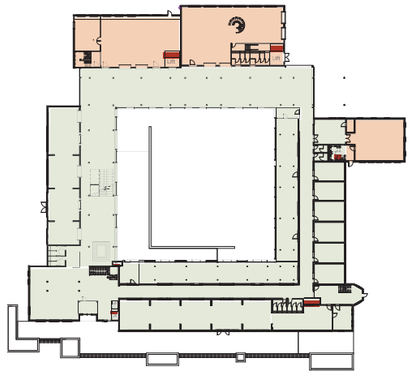
Climate systems

Floor level changes

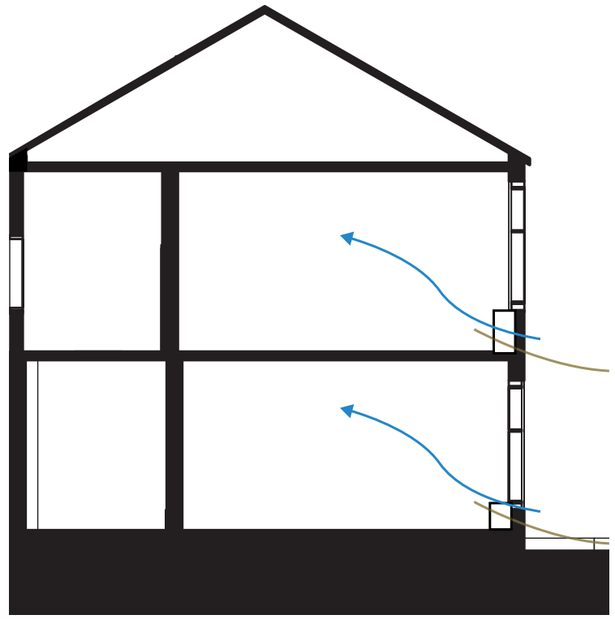


Climate system

Principles ventilation



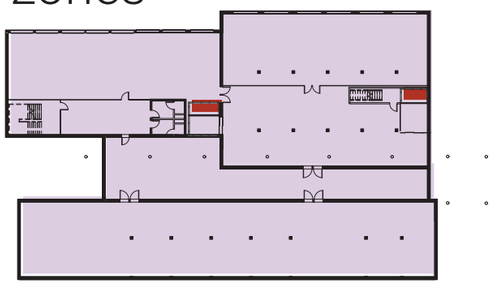
Central
Mechanical ventilation

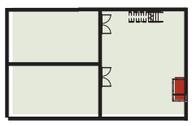


Decentral
Mechanical ventilation

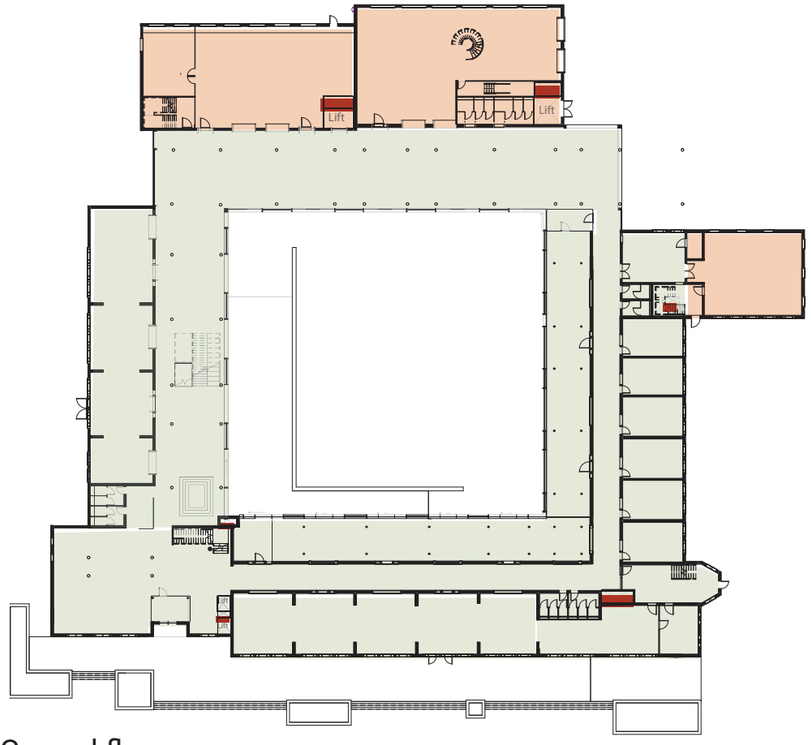
Climate system

Ventilation zones

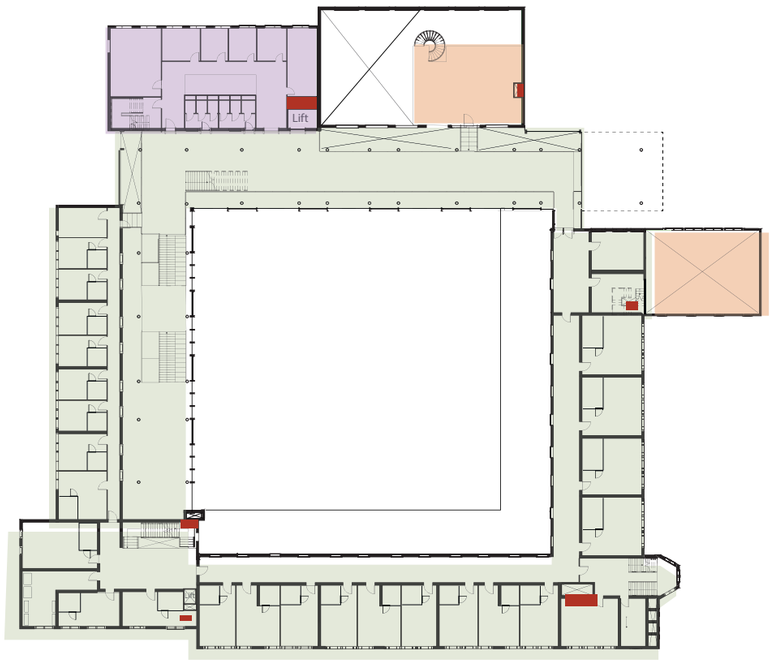




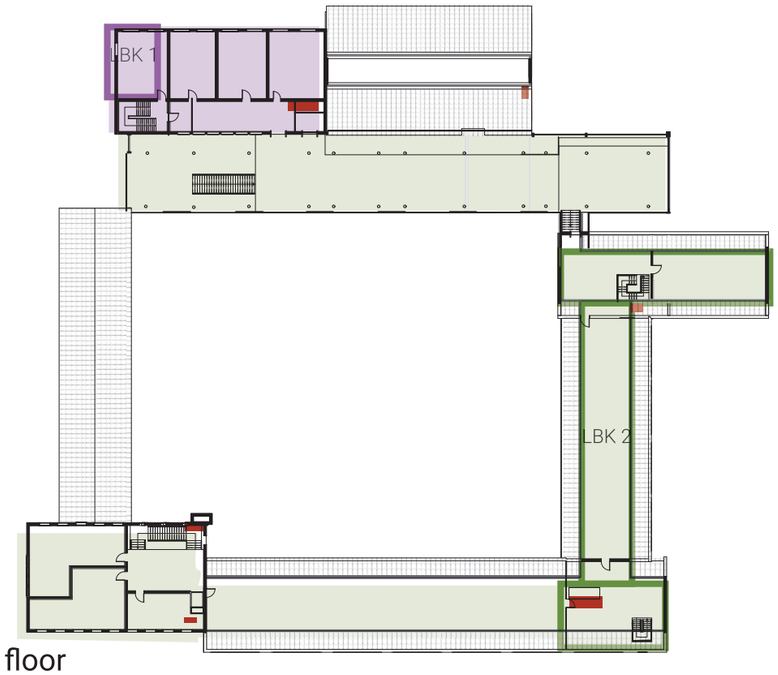
Basement



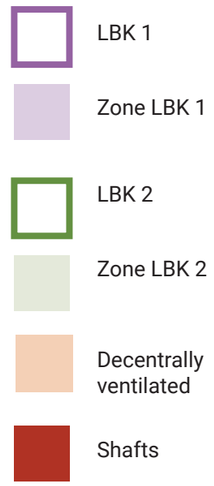
Ground floor



First floor

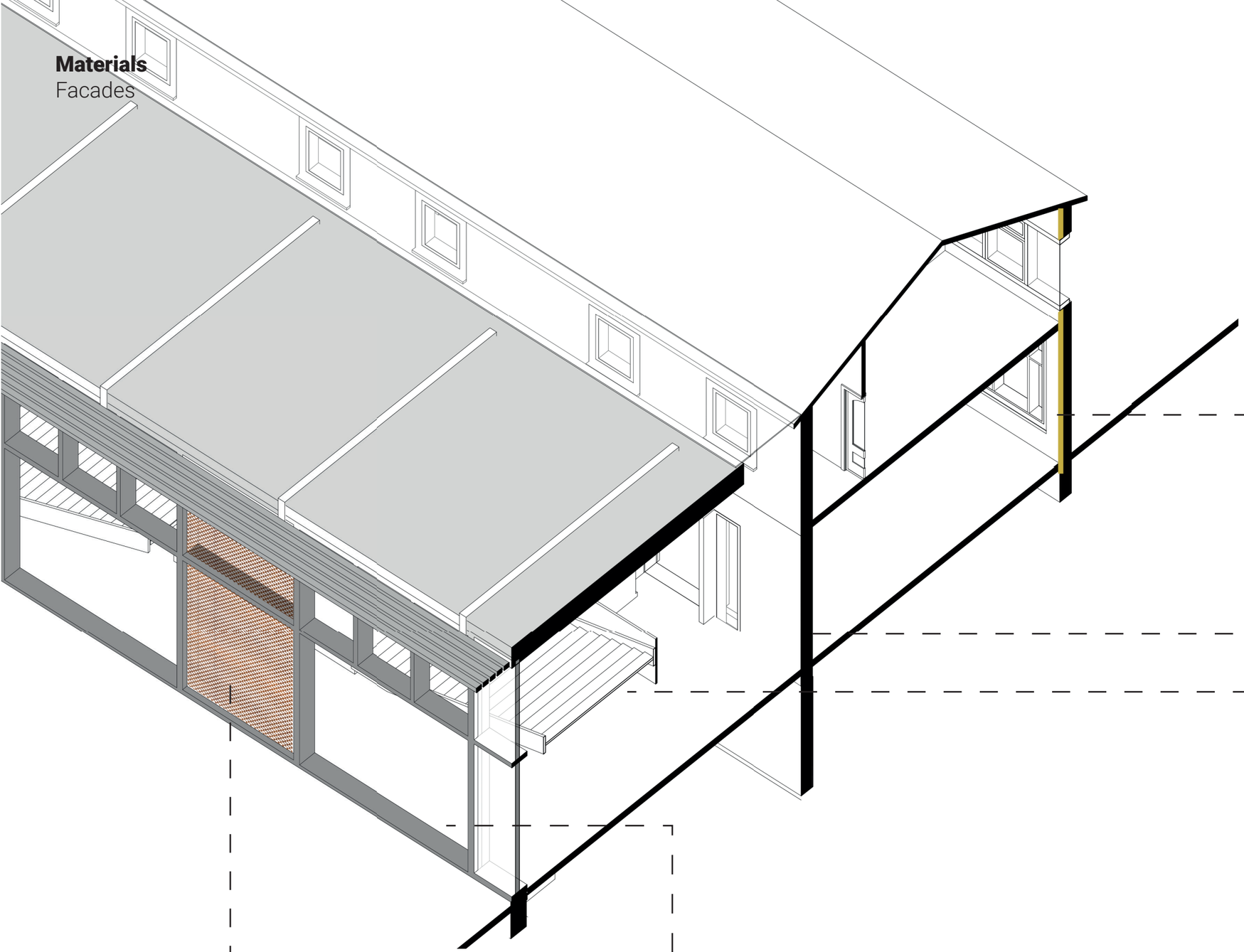


Second floor



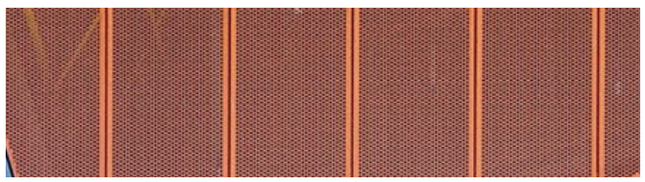
Materials &
Building technology

Materials
Facades

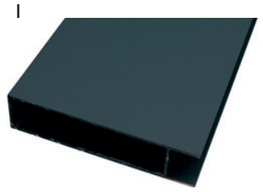


EverUse insulation

Loam plaster



Cortent steel

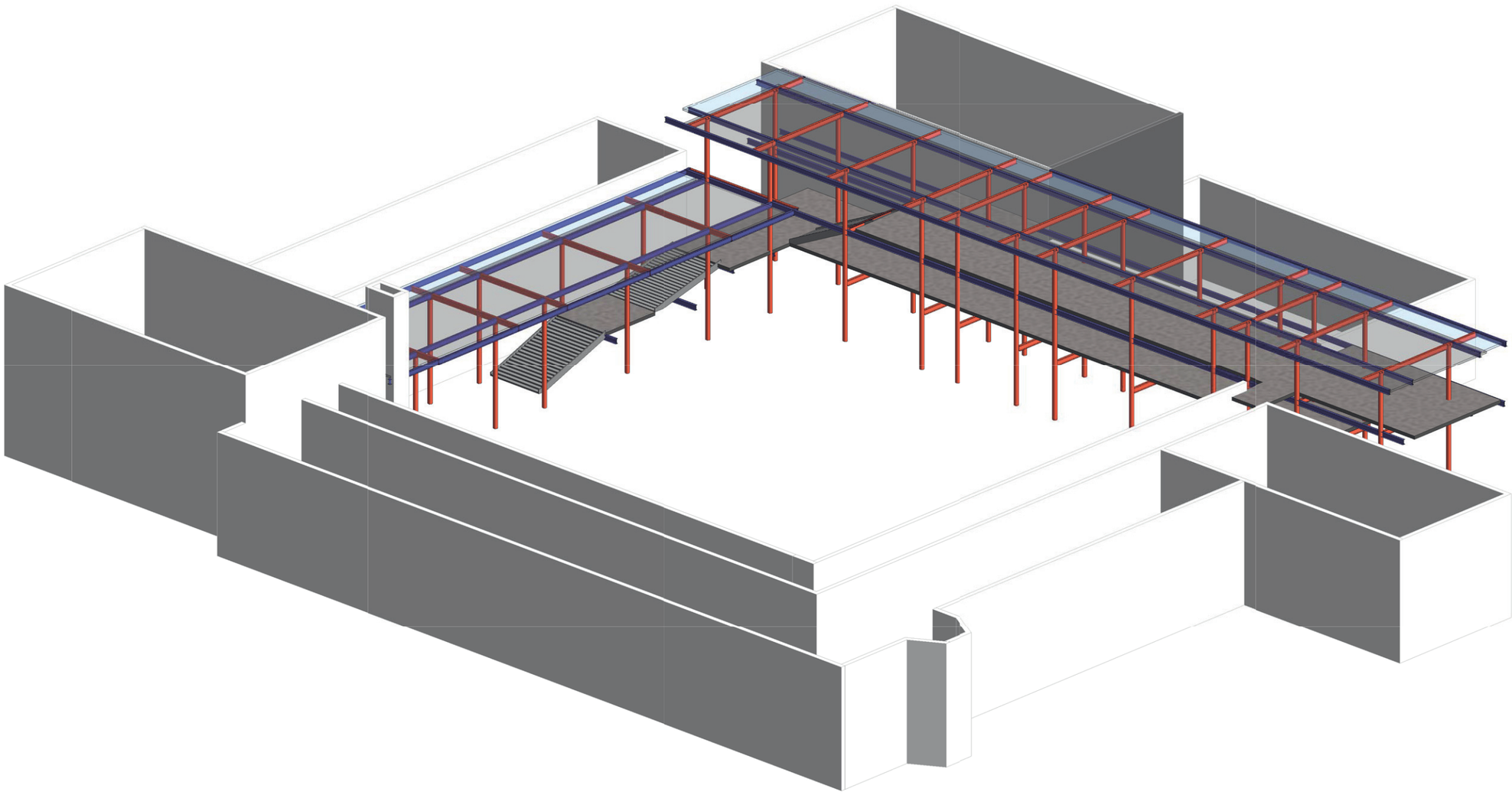


Antraciet aluminium

Kerto ripa kanaalplaten

The new structure

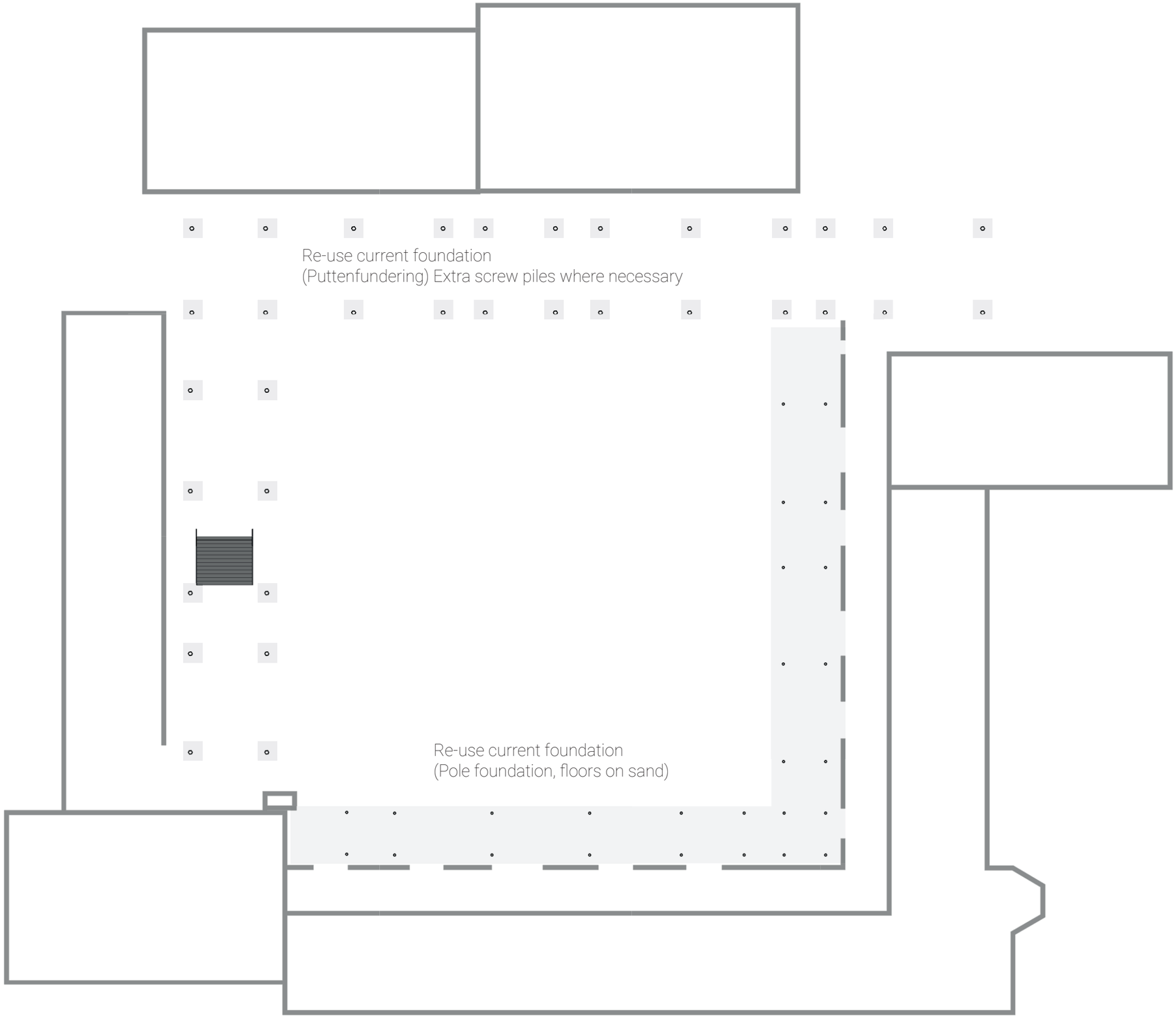
3D north west



The new structure

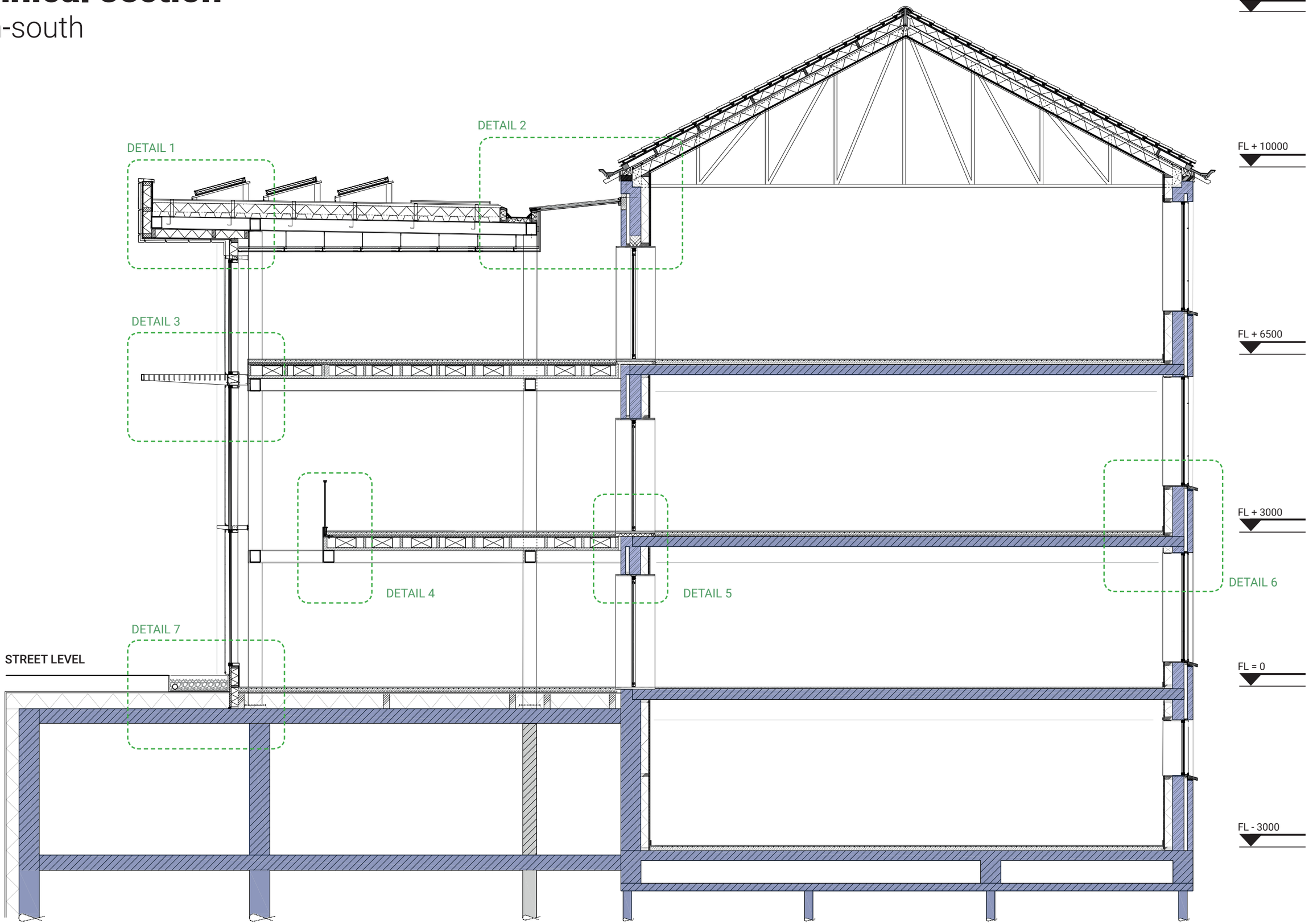
Study landscape

The new structure
Foundation



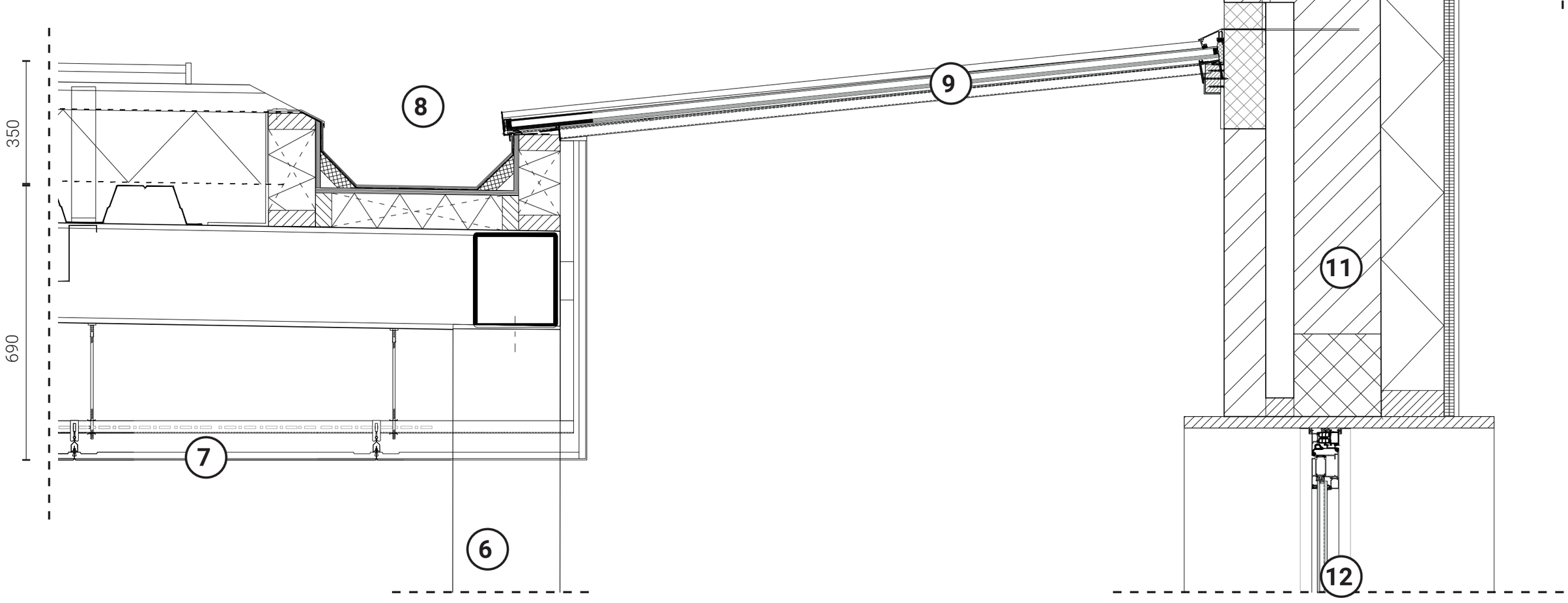
Technical section

North-south



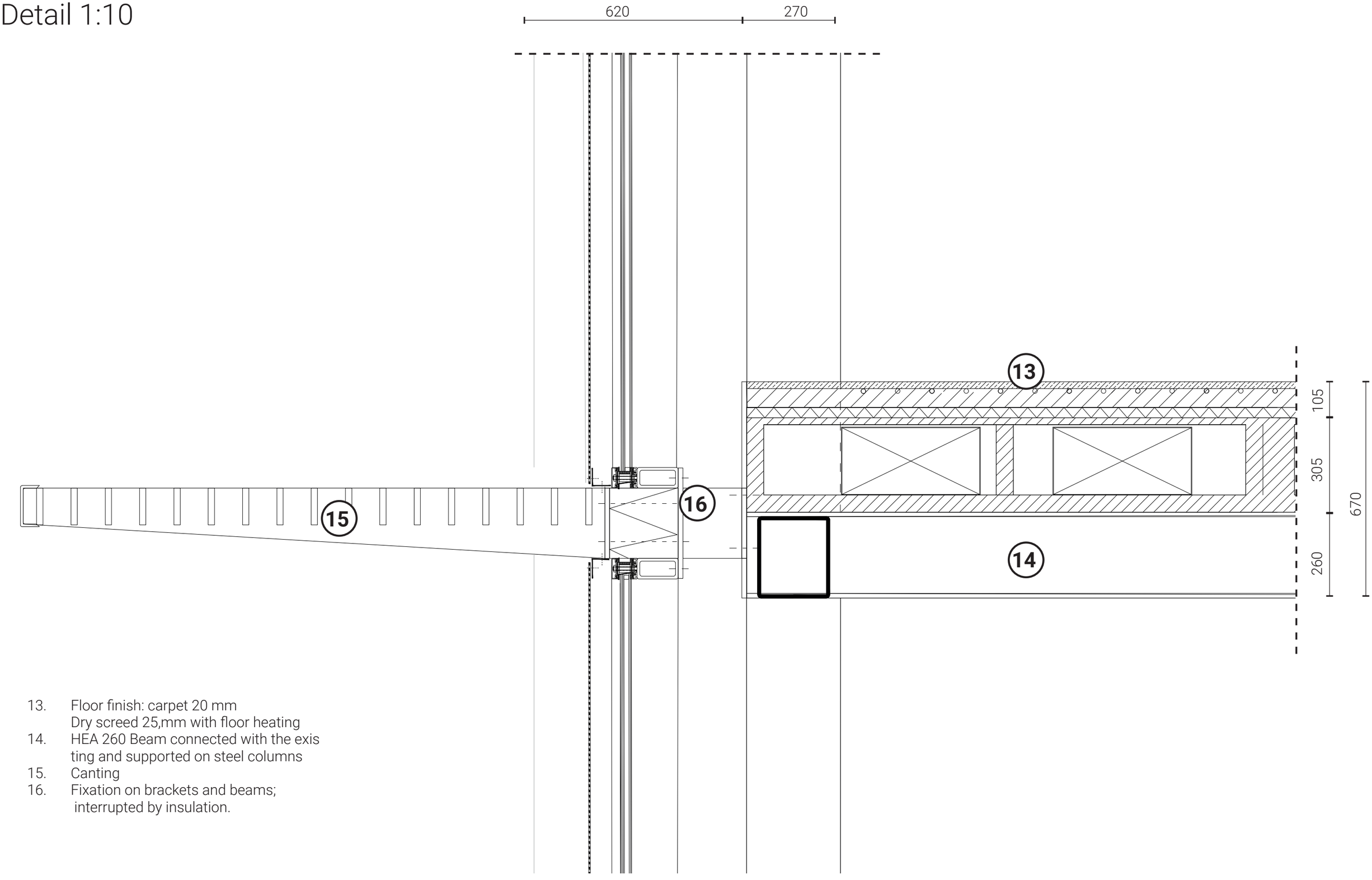
The roof connection

Detail 1:10



The sunshades

Detail 1:10

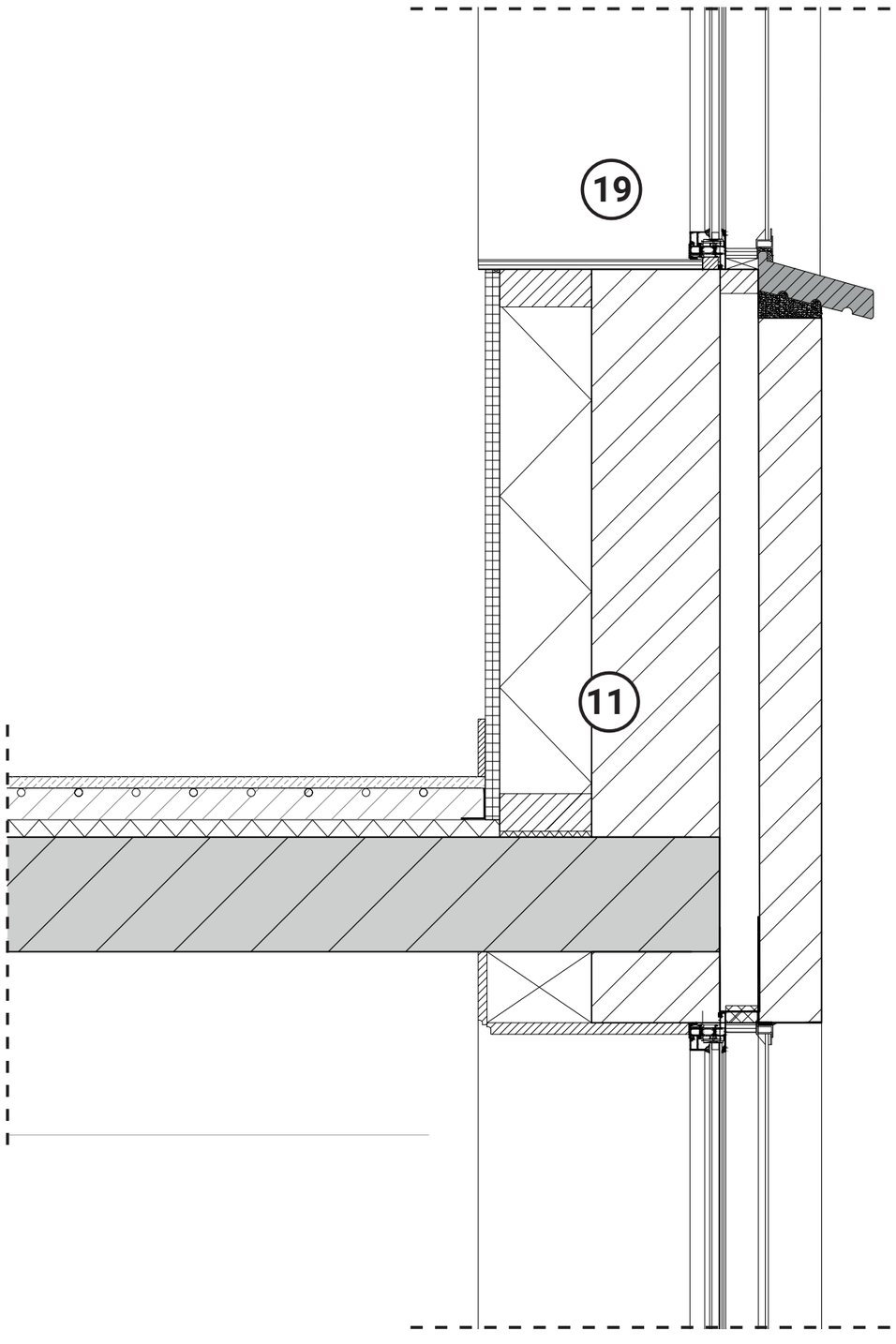


13. Floor finish: carpet 20 mm
    Dry screed 25,mm with floor heating
14. HEA 260 Beam connected with the exis
    ting and supported on steel columns
15. Canting
16. Fixation on brackets and beams;
    interrupted by insulation.

Sun shades
Physical model

Renovating the existing

Detail 1:10



11. Existing wall + insulation 160mm columns

19. Aluminum rear window

Het taleninstituut/ *The language court*

Overview

Activate the neighbourhood

- Public character
- Facilitating visitors church
- Attracting visitors: specialized courses
- High social value

(Re)gain the qualities of the courtyard

- Clear orientation point
- High amount of natural light
- Private courtyard and green environment

Remain and enforce the 2 valued architectural styles

- The appearance of the outer facades
- The main entrance
- The spatial rhythm and decorative elements

Thank you!