St. Elisabeth Heritage Garden Project

Seunghan Yeum (4572076)

0 Analysis

0-1. Urban analysis
0-1-1. Zutphen
0-1-2. Traces of city wall

0-2. Building analysis
0-2-1. Chrono mapping
0-2-2. Post-modernism

1 Problems

1-1. Problems
1-2. Main problems

2 Value assessment

2-1. Value matrix conclusion
2-2. Key elements
2-3. Research question

3 Programs & Users

3-1. Users
3-2. Programs

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor’s route
4-7. Resident’s route

0

Analysis

What was there? What is there?

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Nic. van Geelkercken, 1639.
he Hogeschool Delft, Afdeling Bouwkunde).

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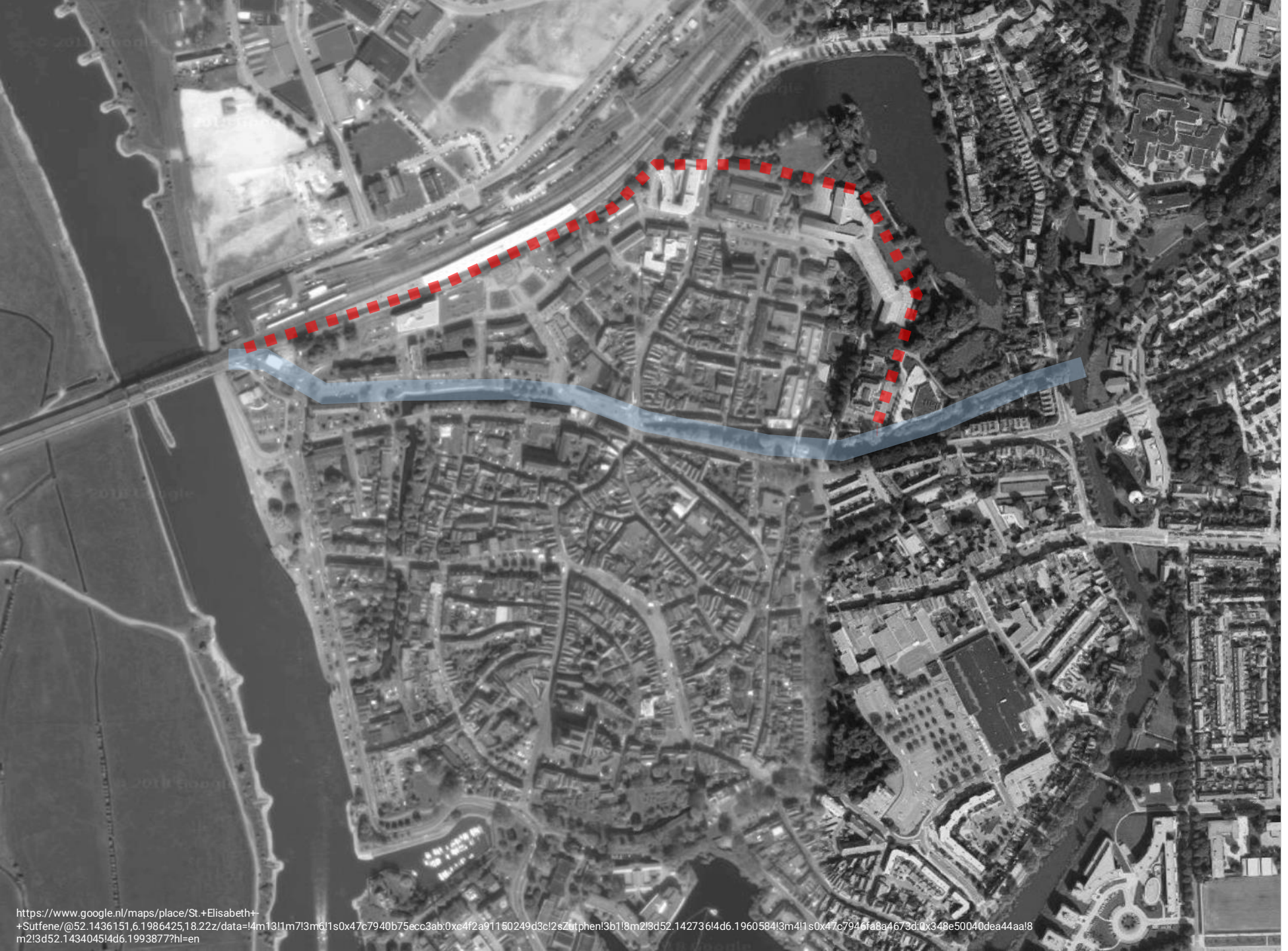
River city Zutphen

-Issel river and Berkel river had important role
-Hanseatic town with a long and rich history
-Nieuwstad was established in 1250



https://www.google.nl/maps/place/St.+Elisabeth+-+Sutfene/@52.1436151,6.1986425,18.22z/data=!4m13!1m7!3m6!1s0x47c7940b75ecc3ab:0xc4f2a91150249d3c!2sZutphen!3b1!8m2!3d52.142736!4d6.1960584!3m4!1s0x47c7946fa8a4673d:0x348e50040dea44aa!8m2!3d52.1434045!4d6.1993877?hl=en

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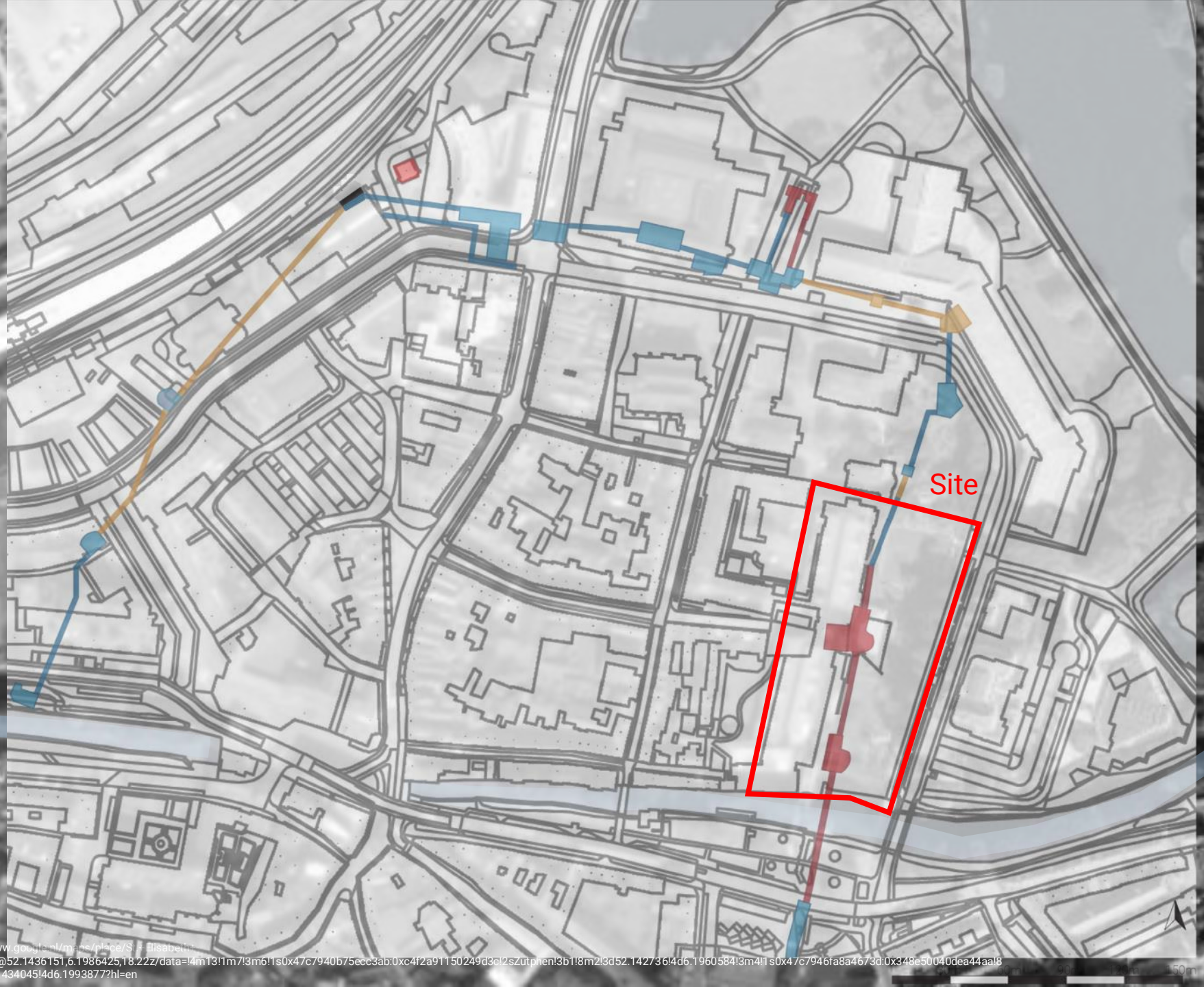
Zutphen_Nieuwstad

-Above Berkel river



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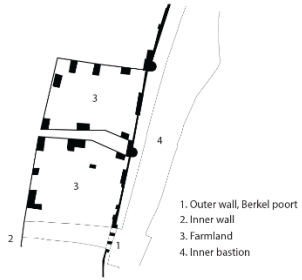
Site : St. Elisabeth complex

-Geweldigershoek 39, 7201 NC Zutphen

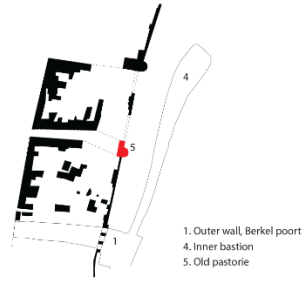
Removed
Existing
Footprint traces

'T KOFSCHIP
1996
MARTINET



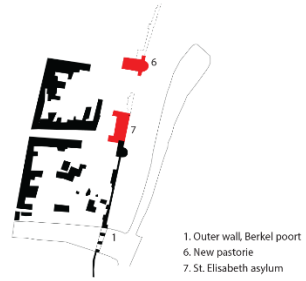
1565-1649

Continuous outer and inner city walls



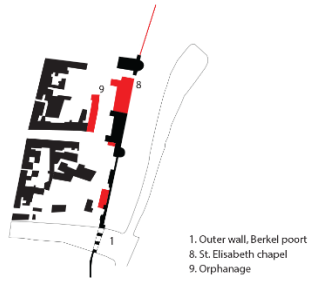
1795-1811

Breaking city walls for cultivating



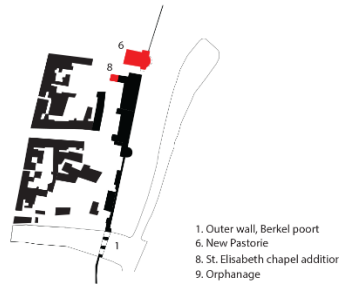
1863

First construction of St. Elisabeth & Pastorie



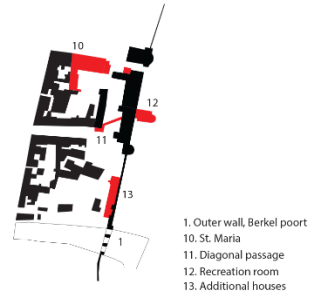
1871-1878

Expansion of St. Elisabeth



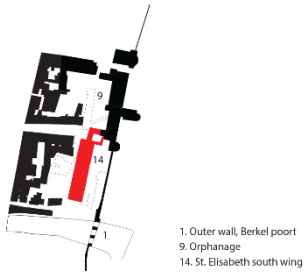
1902-1912

Expansion of Chapel & Rebuilt of Pastorie

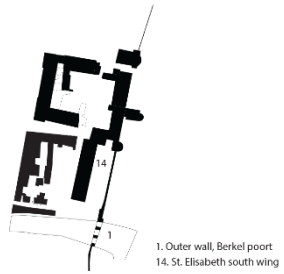


1934-1955

Waterway disappeared

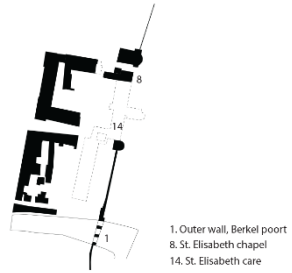


1965-1979



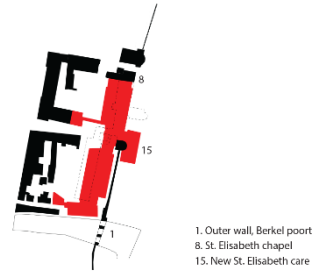
1980

Expansion of St. Elisabeth



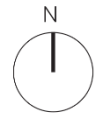
1991

Demolishment of St. Elisabeth



1993-1994

Rebuilt of St. Elisabeth



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1565-1863

1871-1955

1965-1991

1965-1991

Relation between
city wall and surrounding

Site Spirits Collage

Defense, religion, care, green, tour

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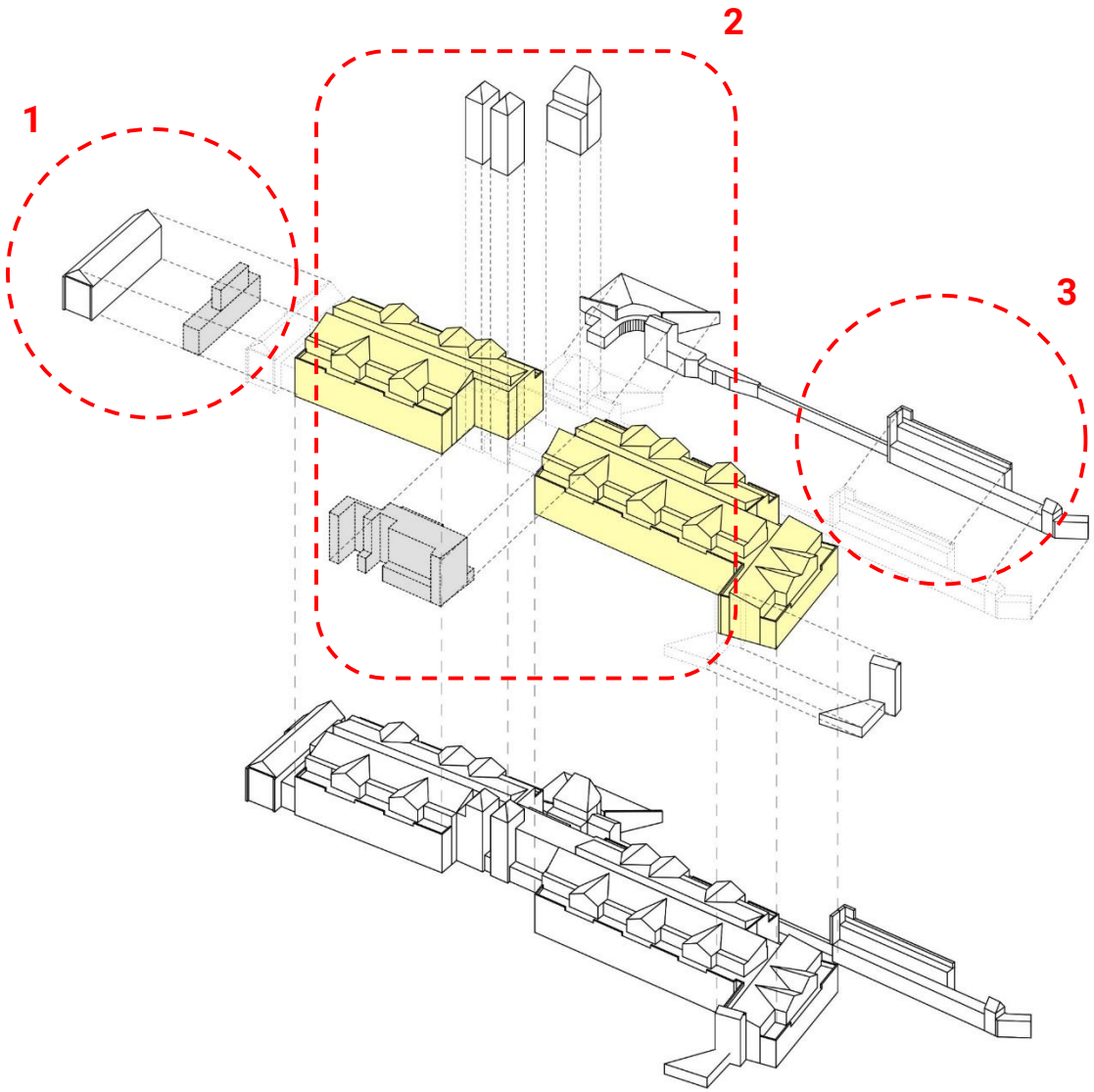
Spirits of site

1. Defense : 1565 ~ 1649
2. Productive green : 1795 ~1934
3. Care : 1863 ~ 2018
4. Religion : 1871 ~ 1984
5. Tour : 2015



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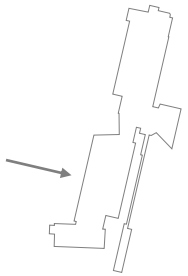
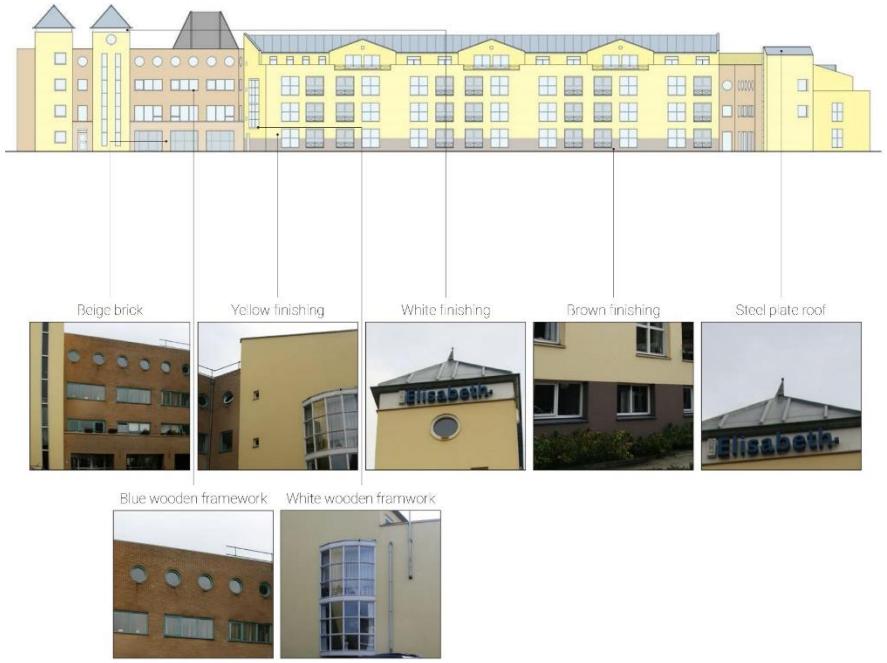
St. Elisabeth
-Two main volumes + fragmental volumes

*Fragmental volumes

1. Chapel
2. Central lobby including towers
3. Berkelpoort and city wall





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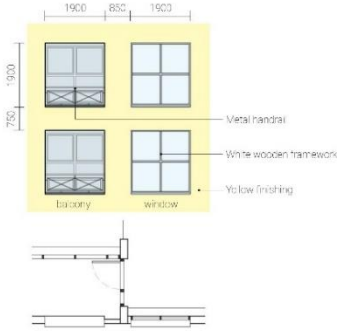
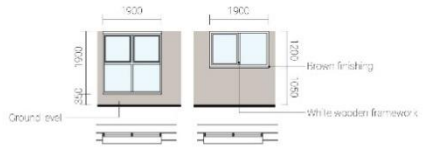
Diverse units and materials in skin.

Post-modernism style
-Considering it as a record of time

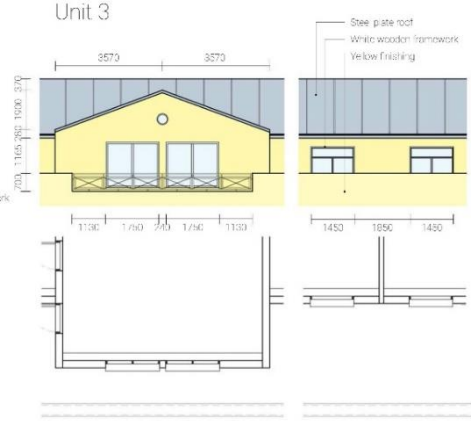
Unit 1



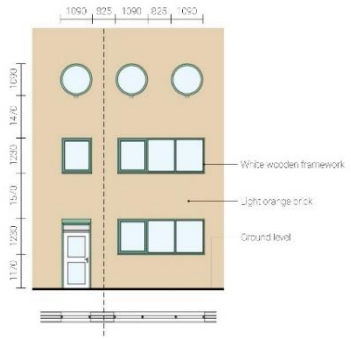
Unit 2



Unit 3



Unit 4



1 Problems

1-1. Problems
1-2. Main problems

1

Problems

What should be improved?

Elisabeth
54-LV-DG
XF-NT-04

A
53

DROGE NAP

Blocked accessibility

*Glass passage, fences and river disconnect route

Lost value of heritages

*Surrounding of heritage is being neglected

Limited use of public green space

*Lake park is occupied by high school students
* Green space behind of pastorie is out of control

N

1 Problems

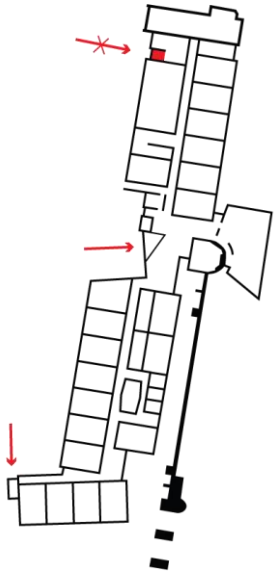
1-1. Problems
1-2. Main problems

Urban scale problems.

1 Problems

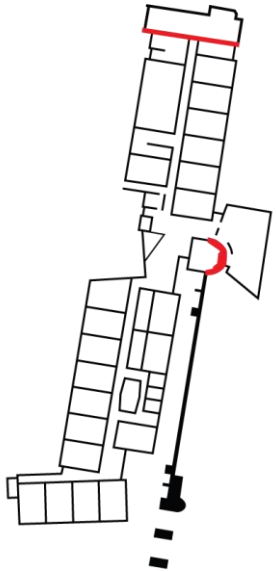
1-1. Problems
1-2. Main problems

Building scale problems.



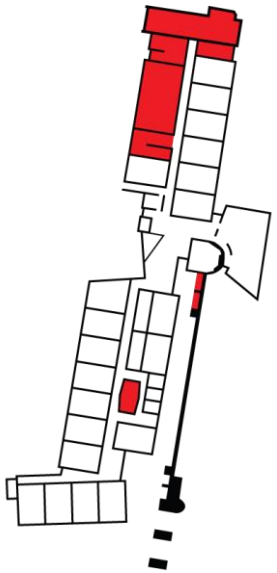
Blocked accessibility

*North wing entrance is blocked



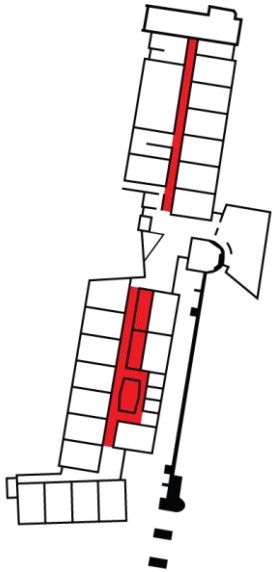
Lost value of heritages

*Chapel façade and tower are hidden



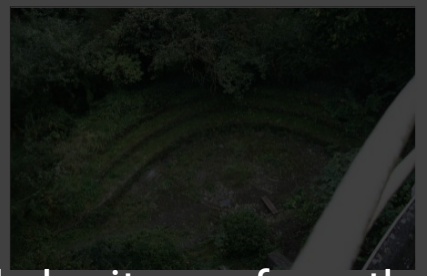
Broken function

*Chapel, kitchen and city wall terrace are vacant

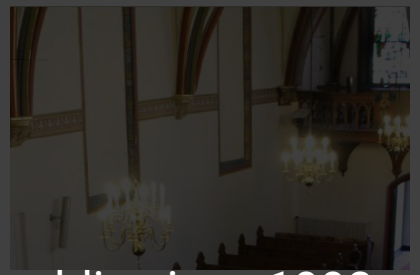


Dark and closed space

*Corridors and offices



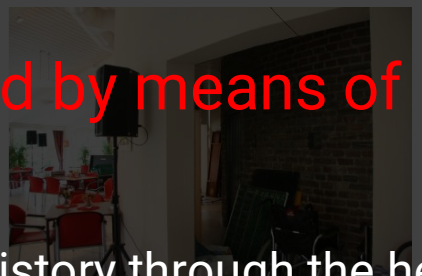
City wall remain (13c)



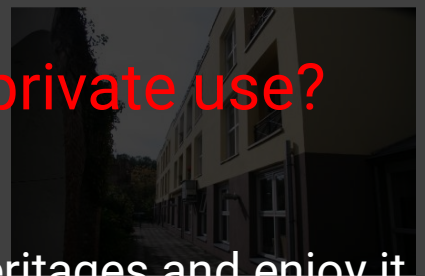
Chapel façade (1871)

St. Elisabeth has separated valuable heritages from the public since 1993, and these cultural assets are not being properly maintained.

Is cultural property justified by means of private use?



Original tower (13c)



City wall (13c)

Heritages are national asset.
Every people have a right to learn history through the heritages and enjoy it.
Therefore, When the circumstances allowed, heritage must be shared in public.

Restored city wall

Berkelpoort (13c)

1 Problems

1-1. Problems
1-2. Main problems

Lost value of heritages

2 Value assessment

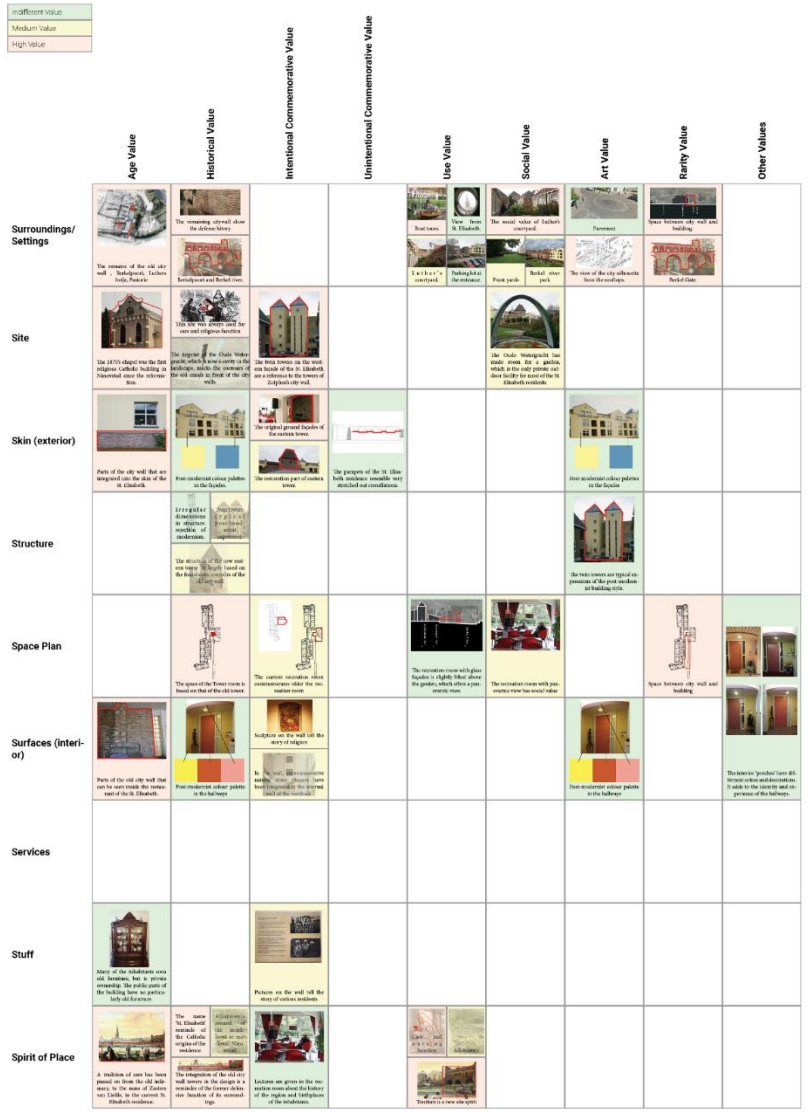
2-1. Value matrix conclusion
2-2. Key elements
2-3. Research question

2

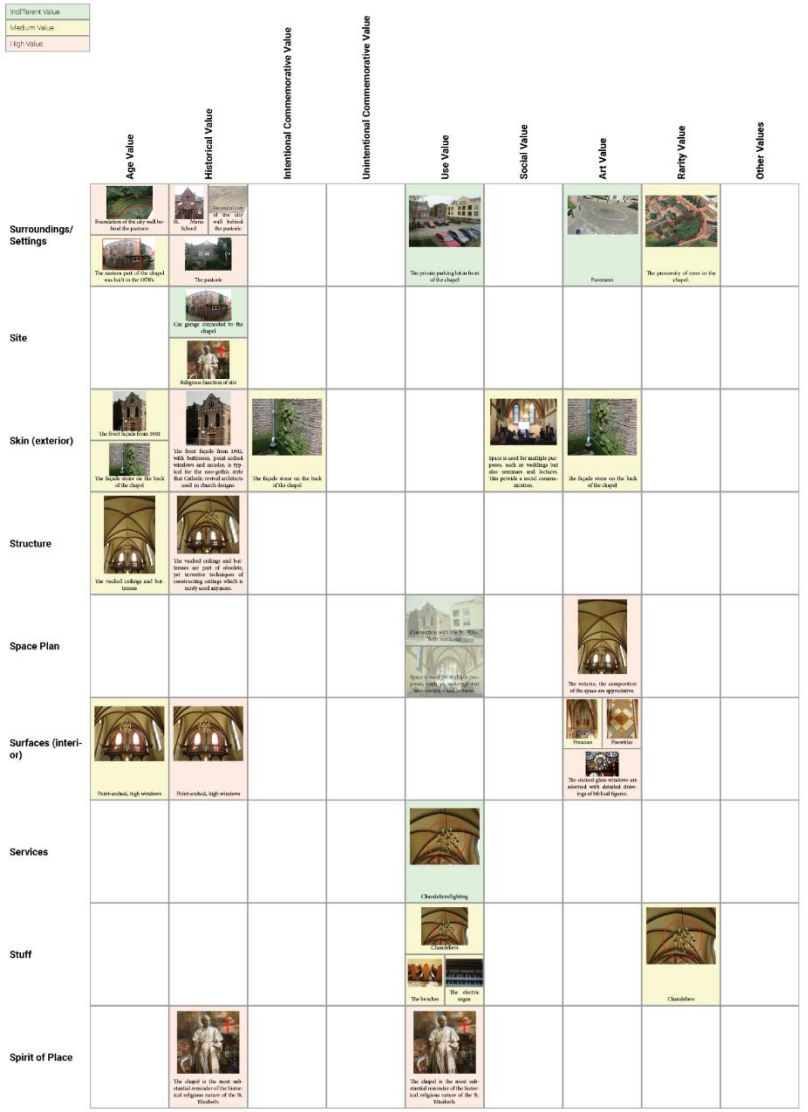
Value assessment

What is valuable?

Value Matrix - St. Elisabeth residence



Value Matrix - Chapel



2 Value assessment

2-1. Value matrix conclusion
2-2. Key elements
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2 Value assessment

2-1. Value matrix conclusion
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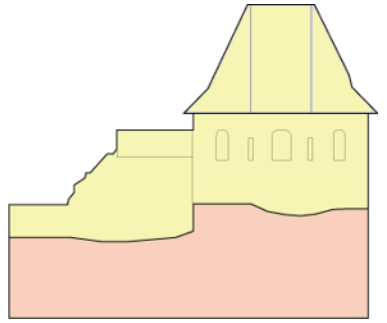
2-3. Research question

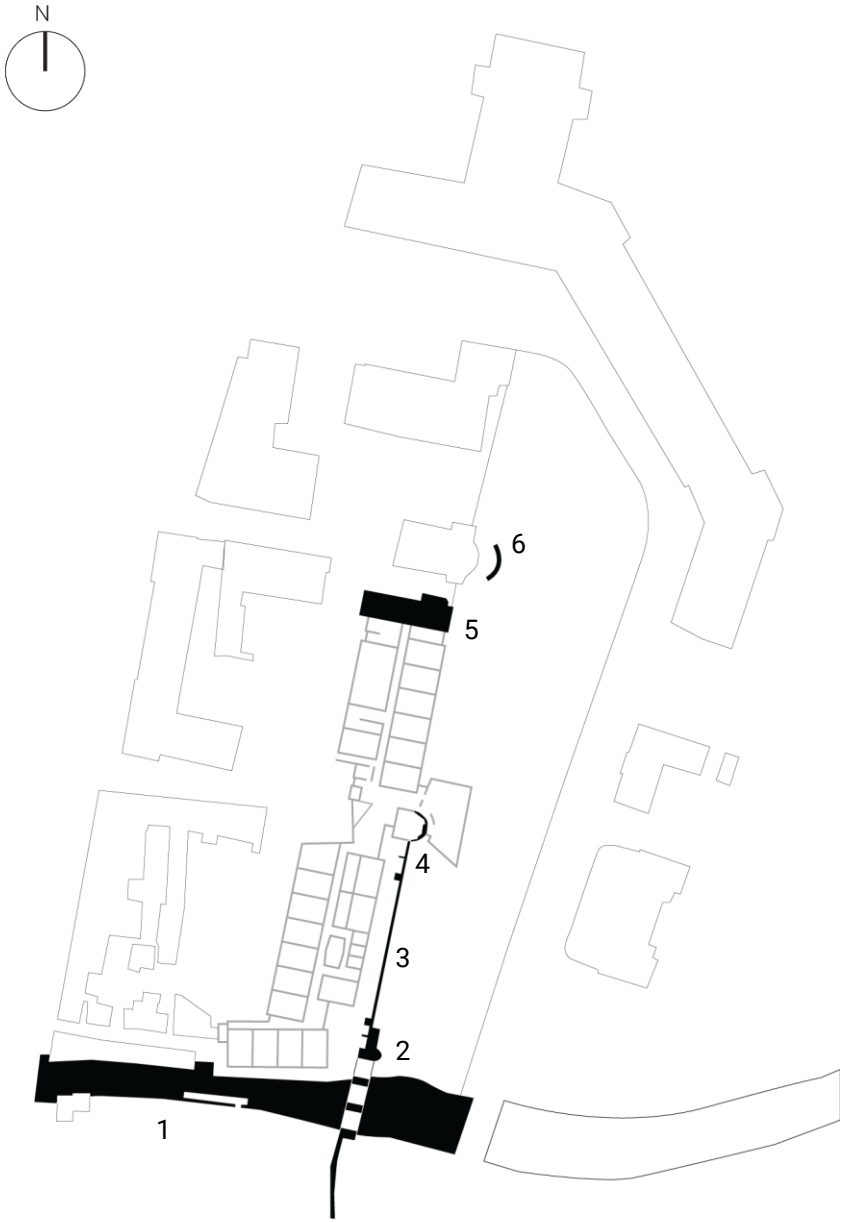
2 Value assessment

2-1. Value matrix conclusion
2-2. Key elements
2-3. Research question

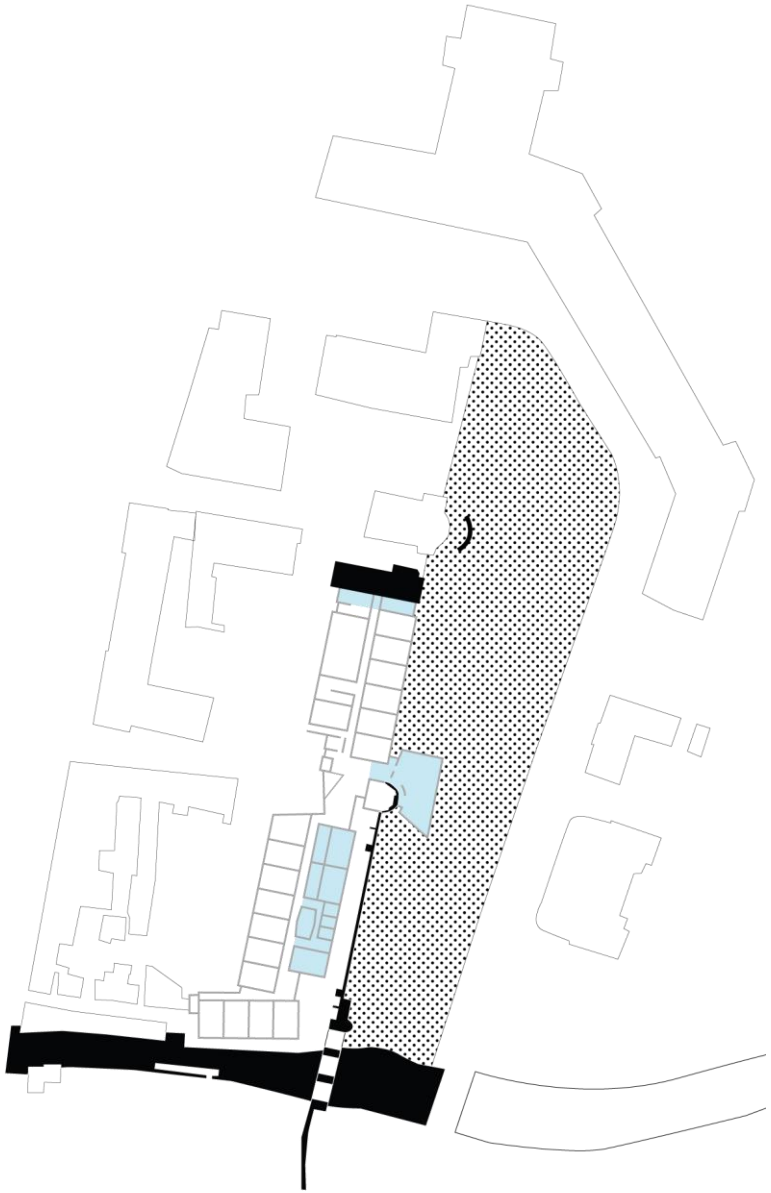
Value assessment of wall tower



High value : original part of tower
Medium value : Restored part of tower



6 Key elements with high value



Backyard has a future opportunity to connect key elements

2 Value assessment

2-1. Value matrix conclusion
2-2. Key elements
2-3. Research question

Negative impact

Q

How to connect St. backyard to surrounding to activate Nieuwstad, and to improve environment of key elements and residents?

-Which programs should be selected to attract people?
-How to protect privacy of residents while make backyard in public?

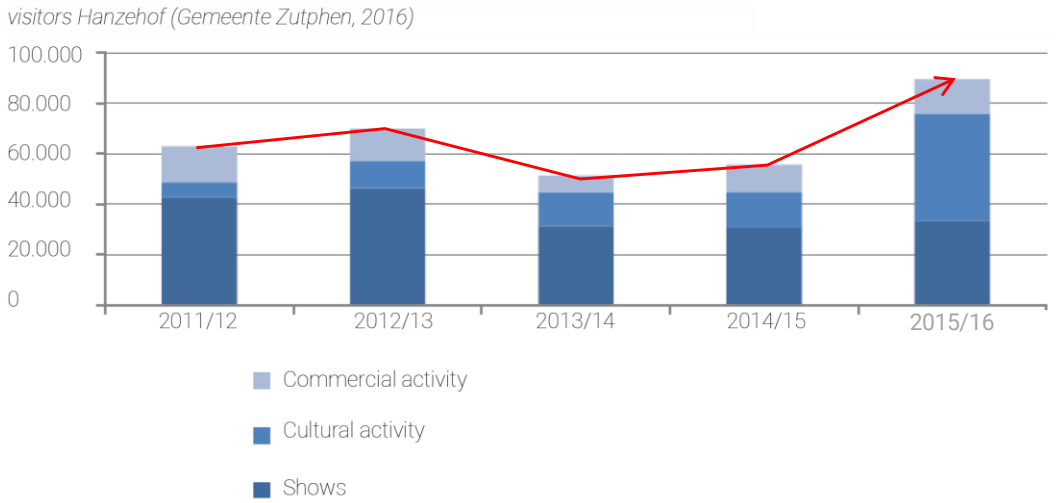
3 Programs & Users

3-1. Users
3-2. Programs

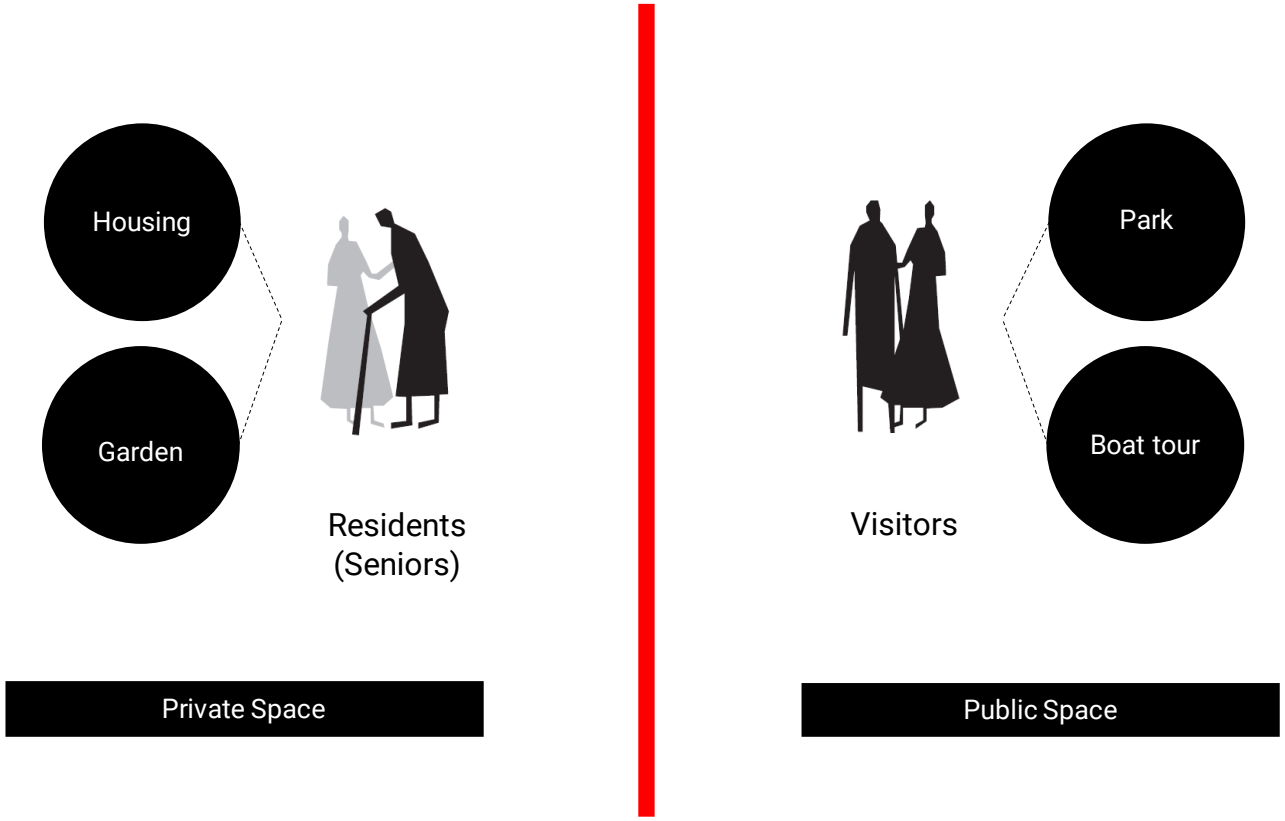
3

Programs & Users

How to attract people?



The amount of visitors increased strongly in the year 2015/2016.
Especially the **cultural activities** increased.



Current situation : Closed and disconnected relationship

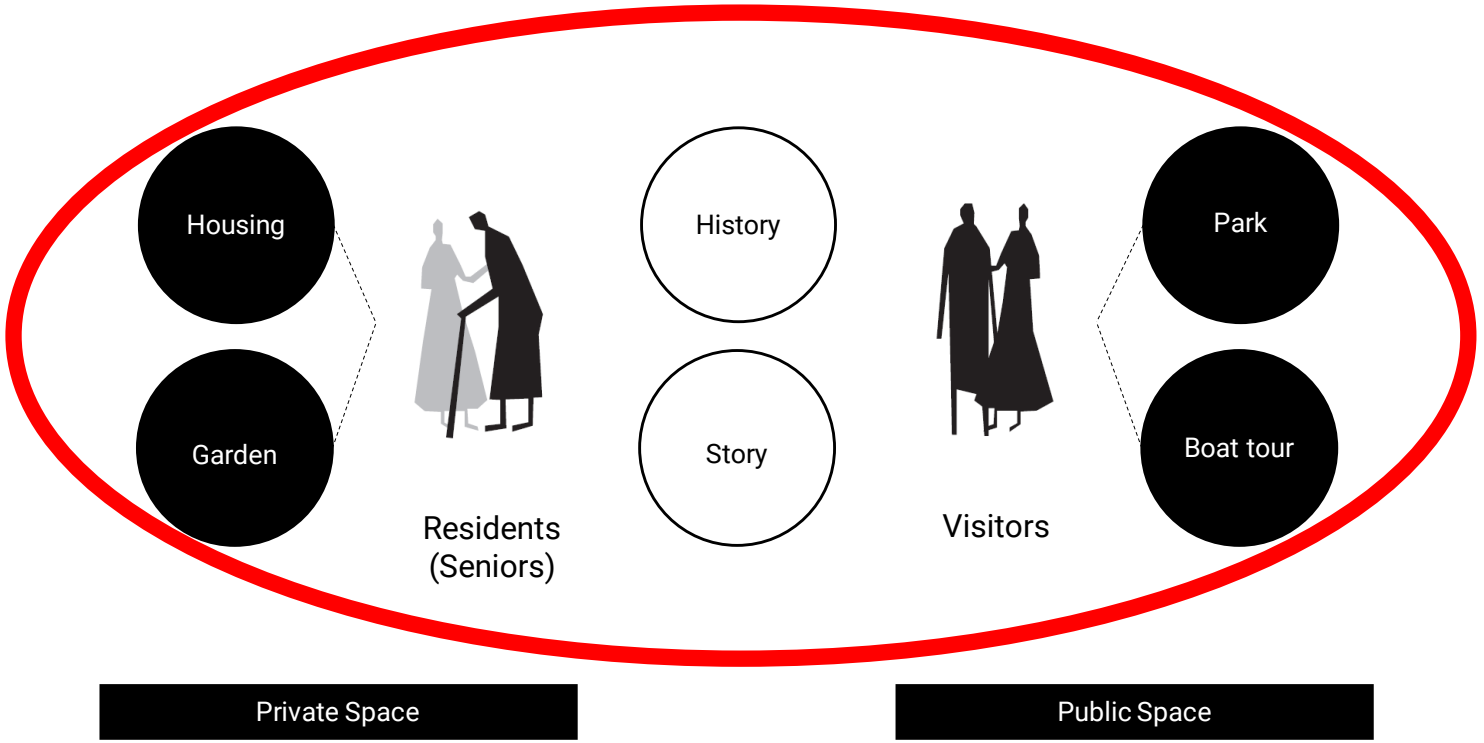
3 Programs & Users

3-1. Users
3-2. Programs

Main users of project.

3 Programs & Users

3-1. Users
3-2. Programs



Future situation : Open, Connected relationship

City wall center

City wall heritages

History

Story

City wall center

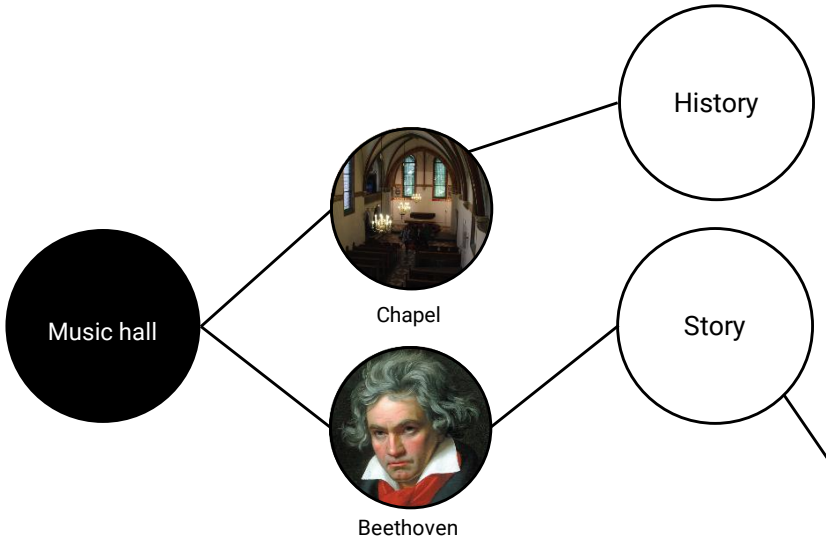
1. The only survived city wall in the Nieuwstad.
2. Absence of history information center for visitors
3. Good accessibility from the center of downtown.

3 Programs & Users

3-1. Users
3-2. Programs

Cultural programs
Case study : Hedmark museum, Norway

https://artchist.wordpress.com/2016/09/24/hedmark-museum-in-hamar-by-sverre-fehn/hedmark-museum-in-hamar-by-sverre-fehn-4/



Music hall

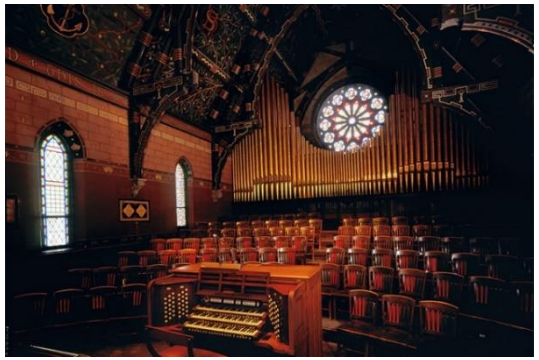
1. Chapel has an optimal space for music performance.
2. Activate Klein Vaticaan after 3pm through afterschool music program.
3. A positive contribution to 'Beethoven music festival'

Portrait of Beethoven by Joseph Karl Stieler, 1820 (Photo: WikiCommons)

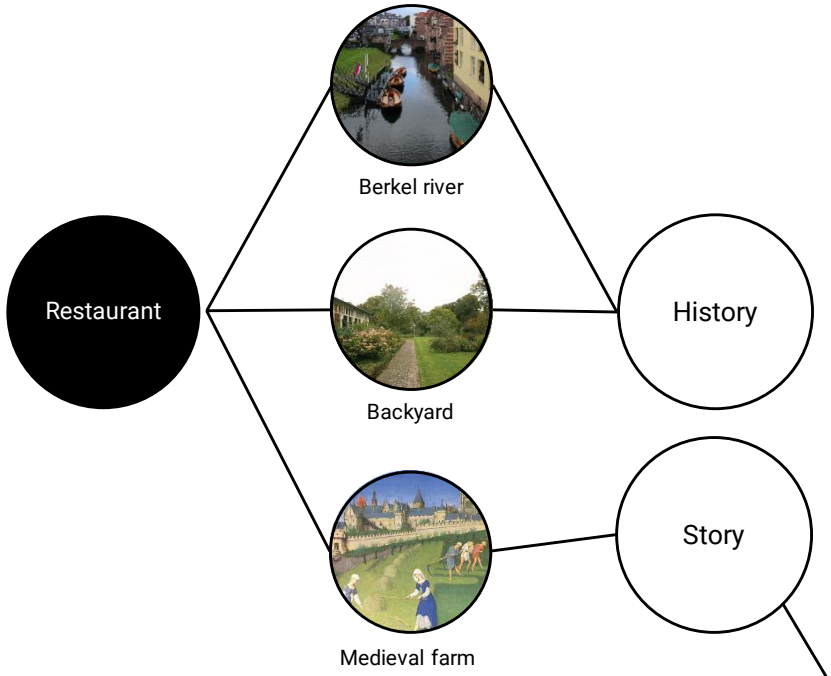
3 Programs & Users

3-1. Users
3-2. Programs

Cultural programs
Case study : Sage Chapel, Cornell University



https://music.cornell.edu/performance-spaces



Restaurant

1. Water way from Berkel river existed in the backyard until 1912
2. Backyard used to be a medieval farm over 117 years (1795-1912)
3. Provide nutritious and healthy diet to residents and local people.
4. It contribute sustainability of the city through urban farm.

3 Programs & Users

3-1. Users
3-2. Programs

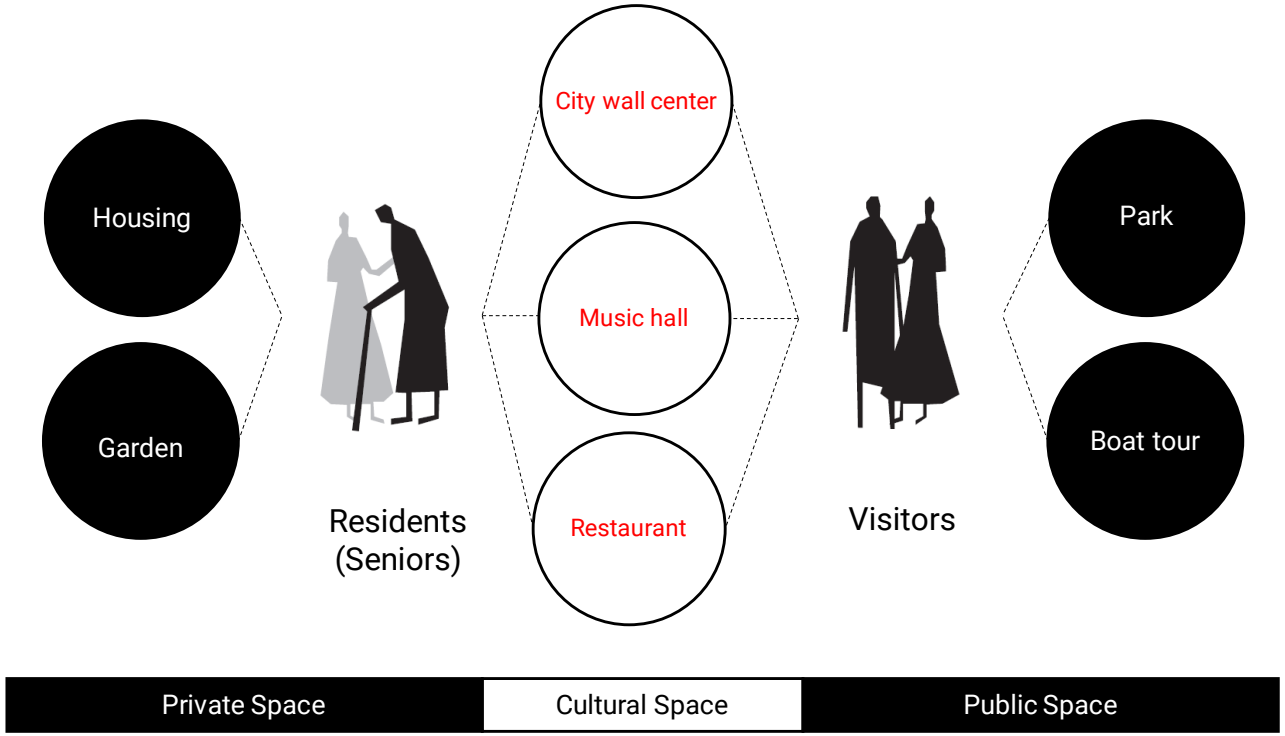
Cultural programs
Case study : Villa Augustus, The Netherlands
Restaurant Area : 15.40m * 39.79n
Vegetable garden : 57m * 84m
Restaurant area * 8 = Vegetable garden

https://www.deinrichterij.nl/villa-augustus-dordrecht

https://www.tripadvisor.com/LocationPhotoDirectLink-g188627-d1828608-i175881564-Villa_Augustus-Dordrecht_South_Holland_Province.html

3 Programs & Users

3-1. Users
3-2. Programs



4

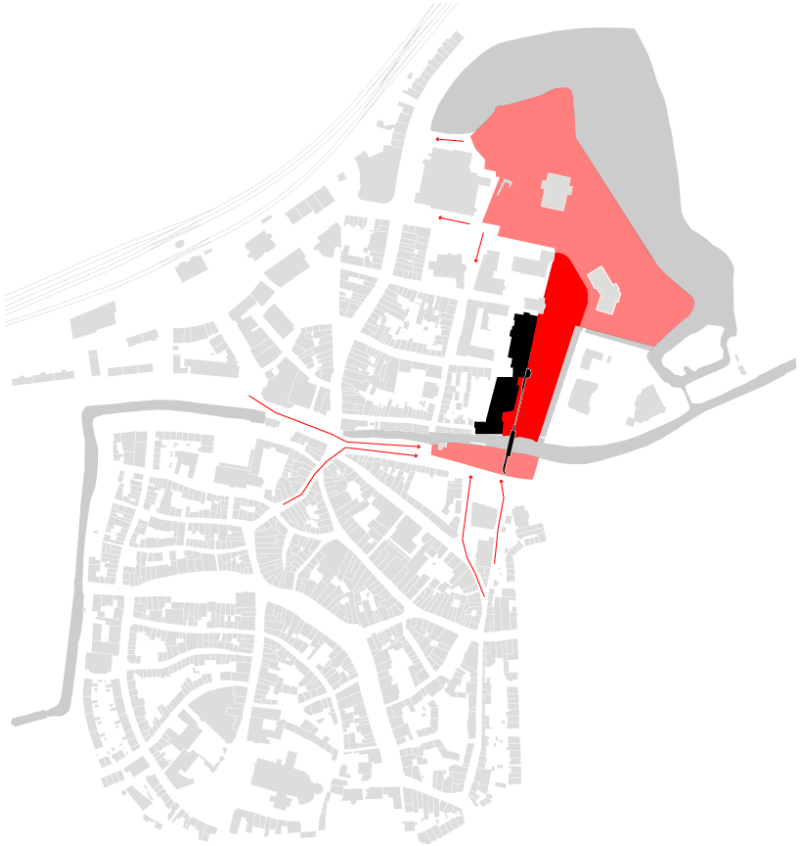
Design process

How to design?

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor’s route
4-7. Resident’s route



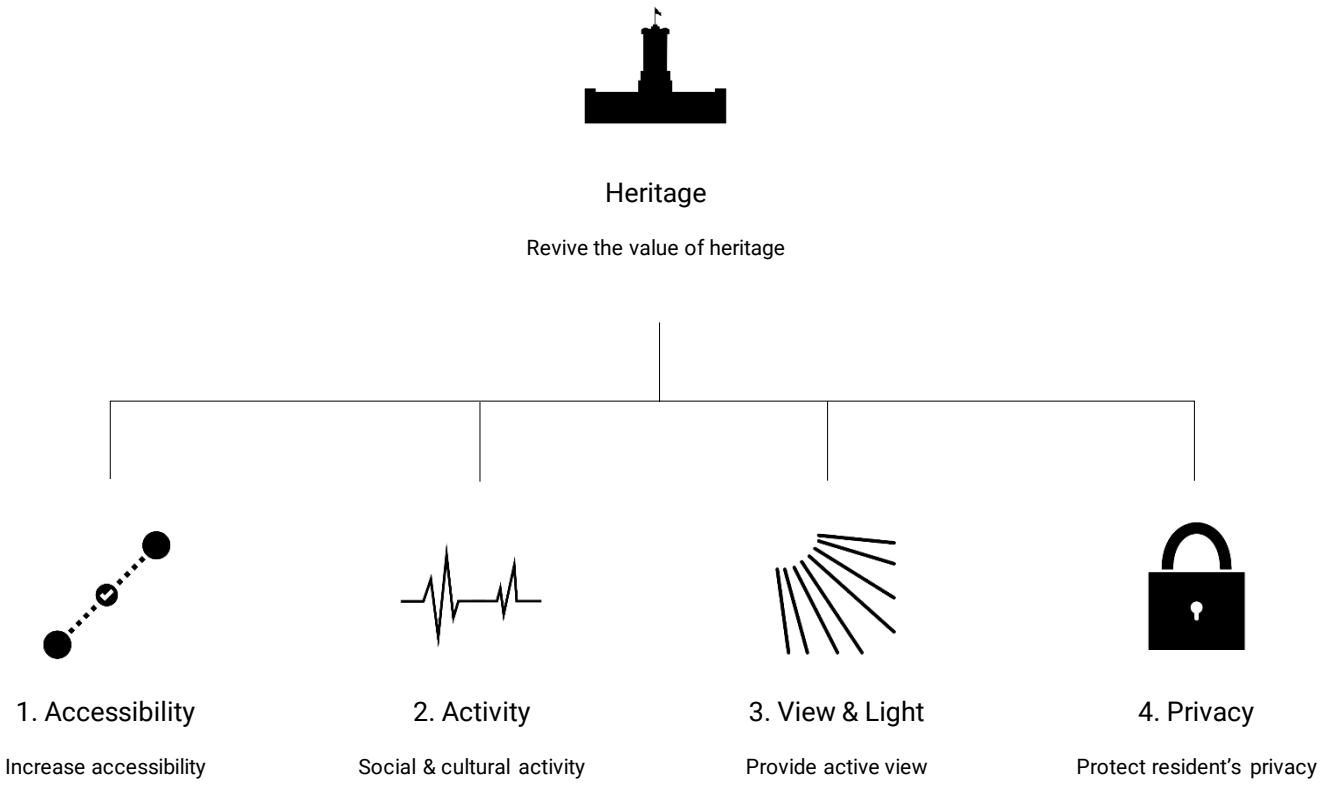
Heritage garden

Providing rich heritage space experience by sharing St. Elisabeth backyard with visitors to activate inert atmosphere of Nieuwstad.

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

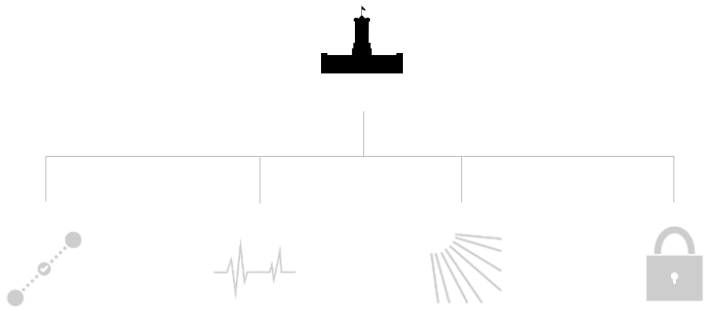


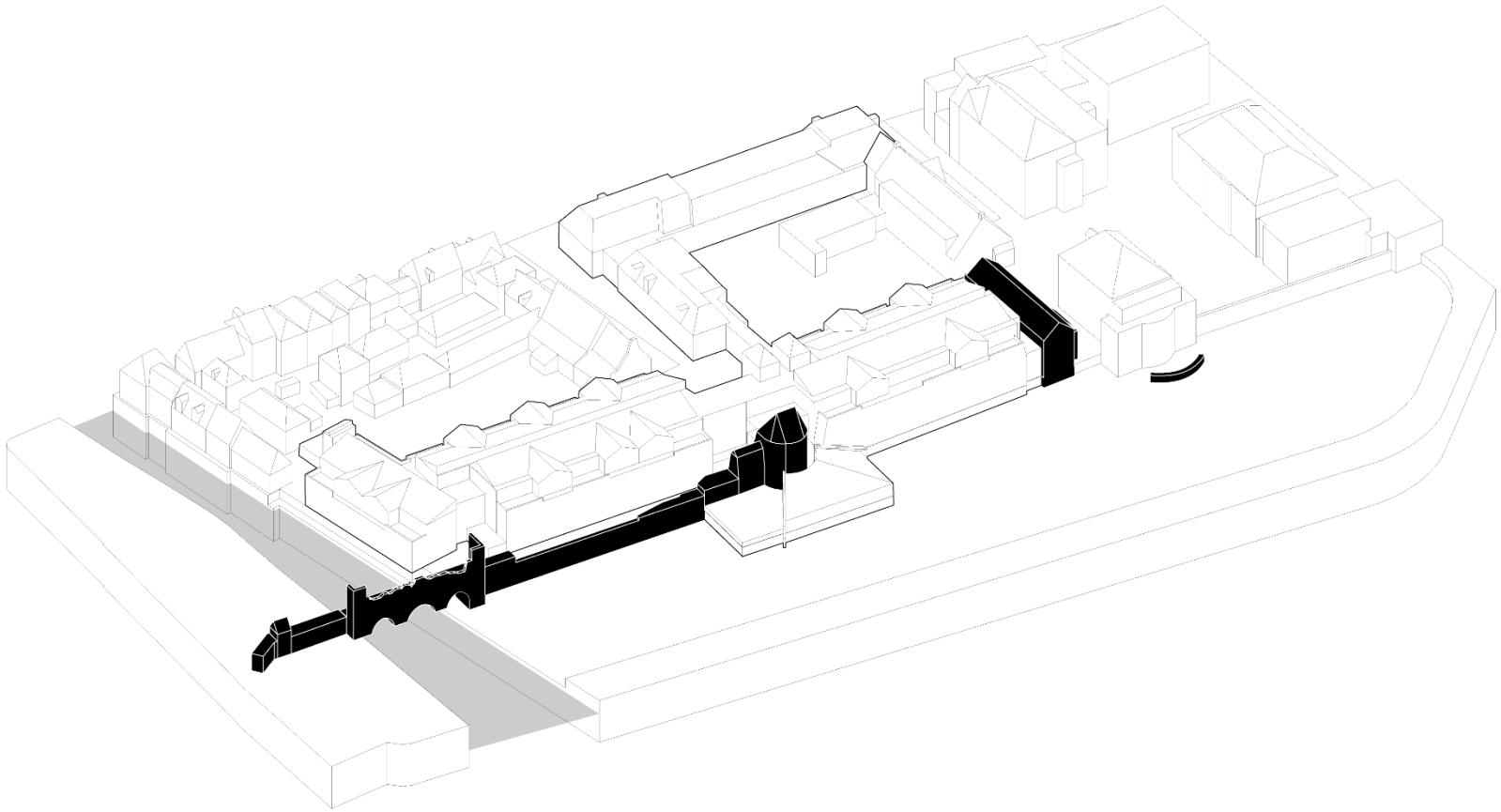
Recovering the space relationship between St. Elisabeth complex and heritages
Considering accessibility, activity, view & light and privacy issue.

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route



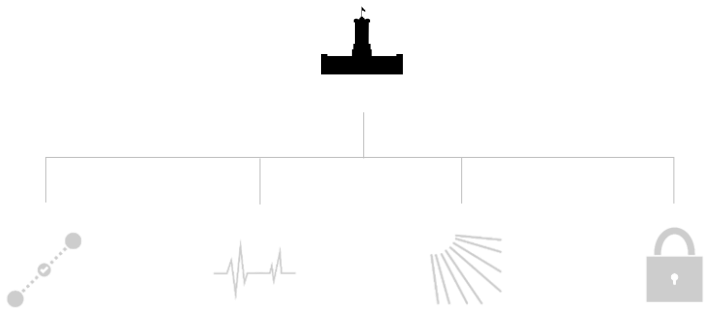


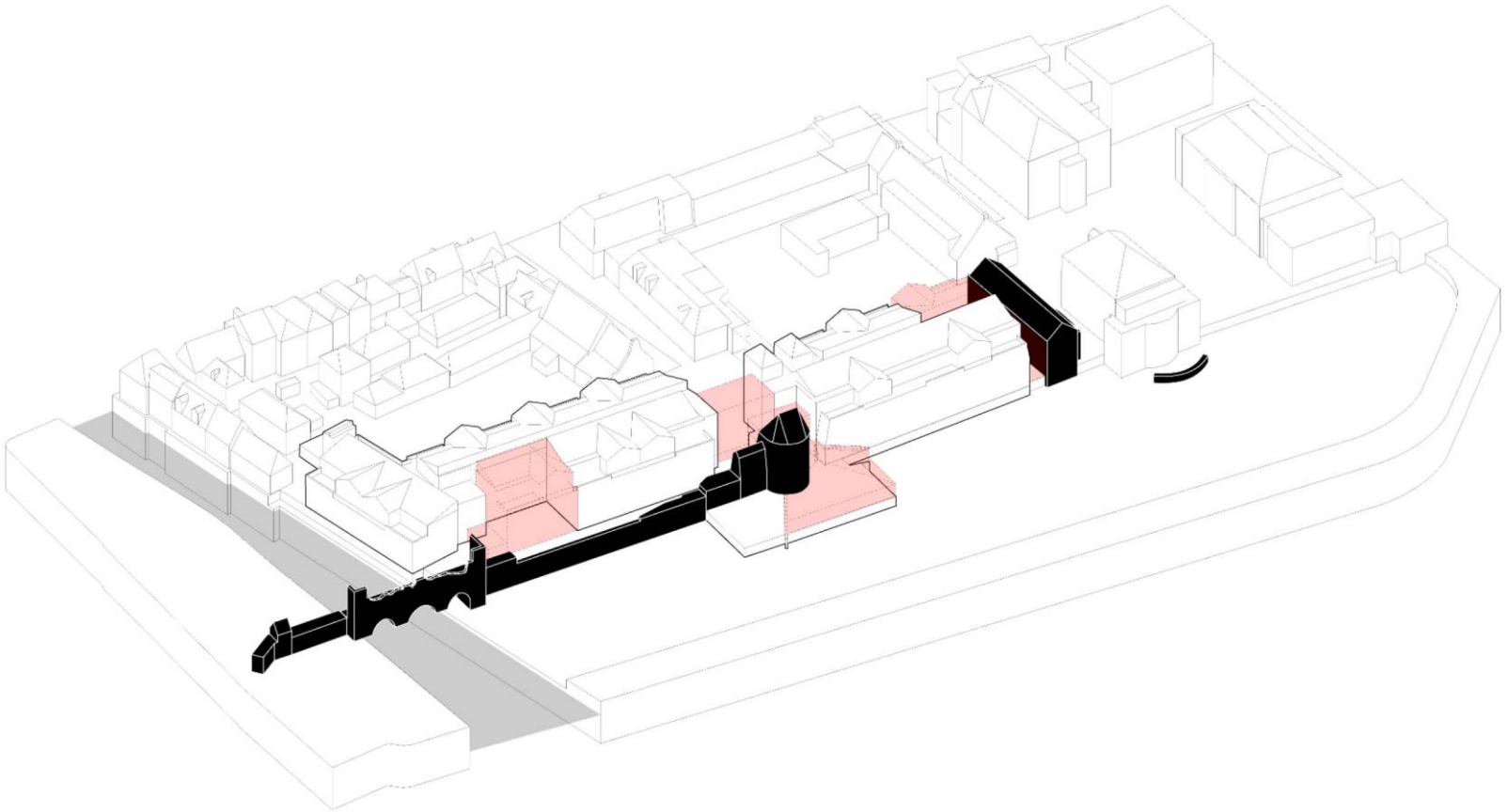
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

Process 1 : Key elements
Process 2 : Partial demolish
Process 3 : Garden design
Process 4 : Elderly house renovation





4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

Process 1 : Key elements
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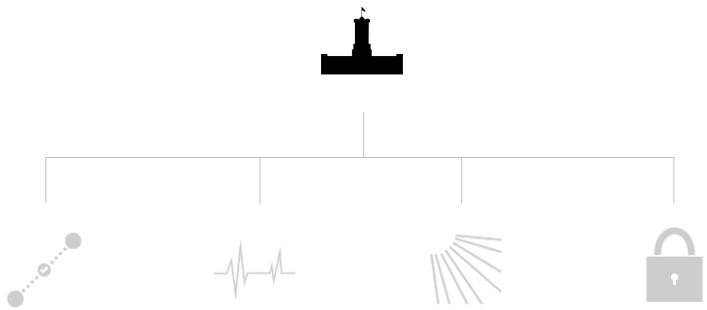
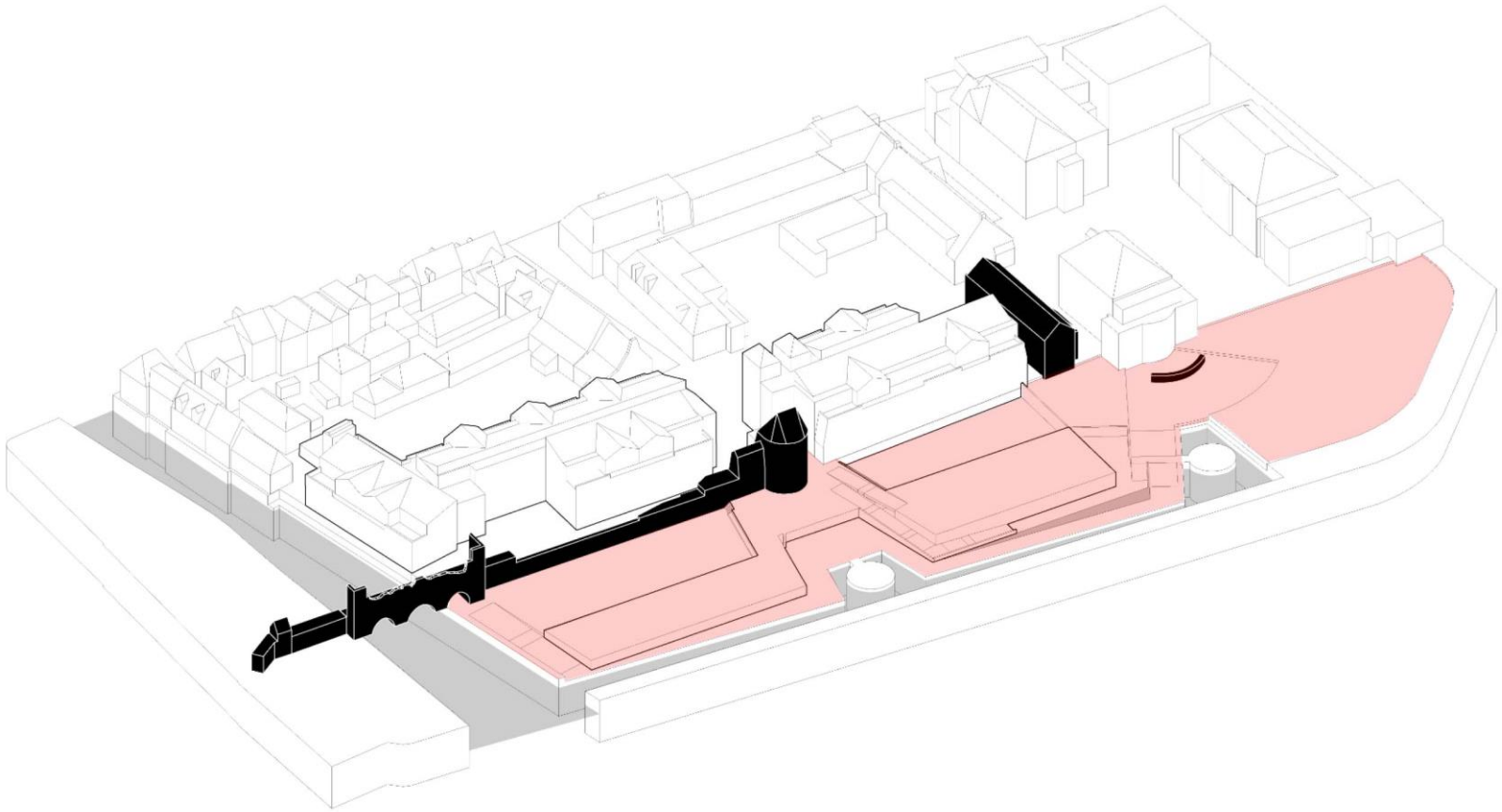
Process 4 : Elderly house renovation





4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

Process 1 : Key elements
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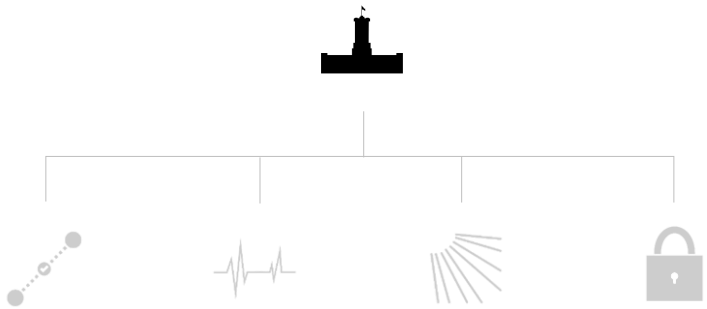
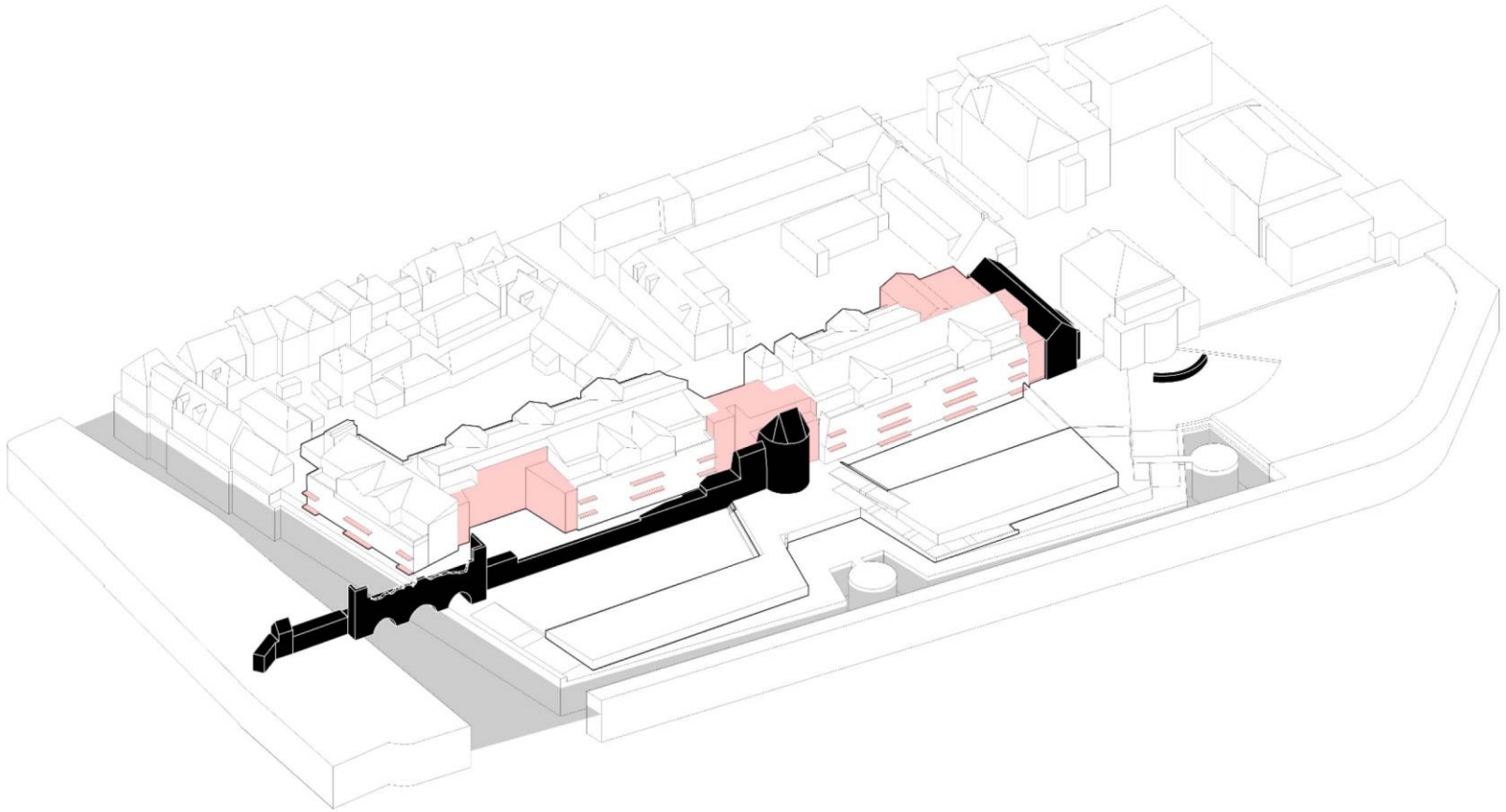


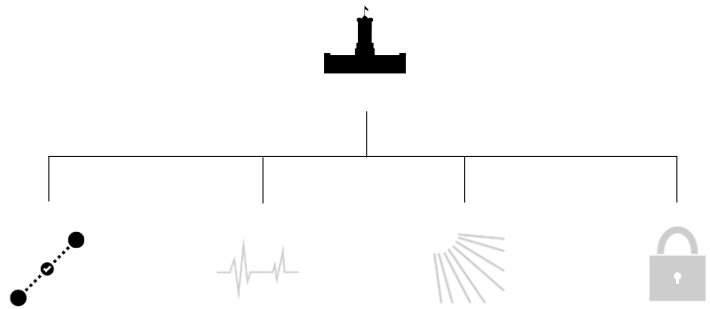


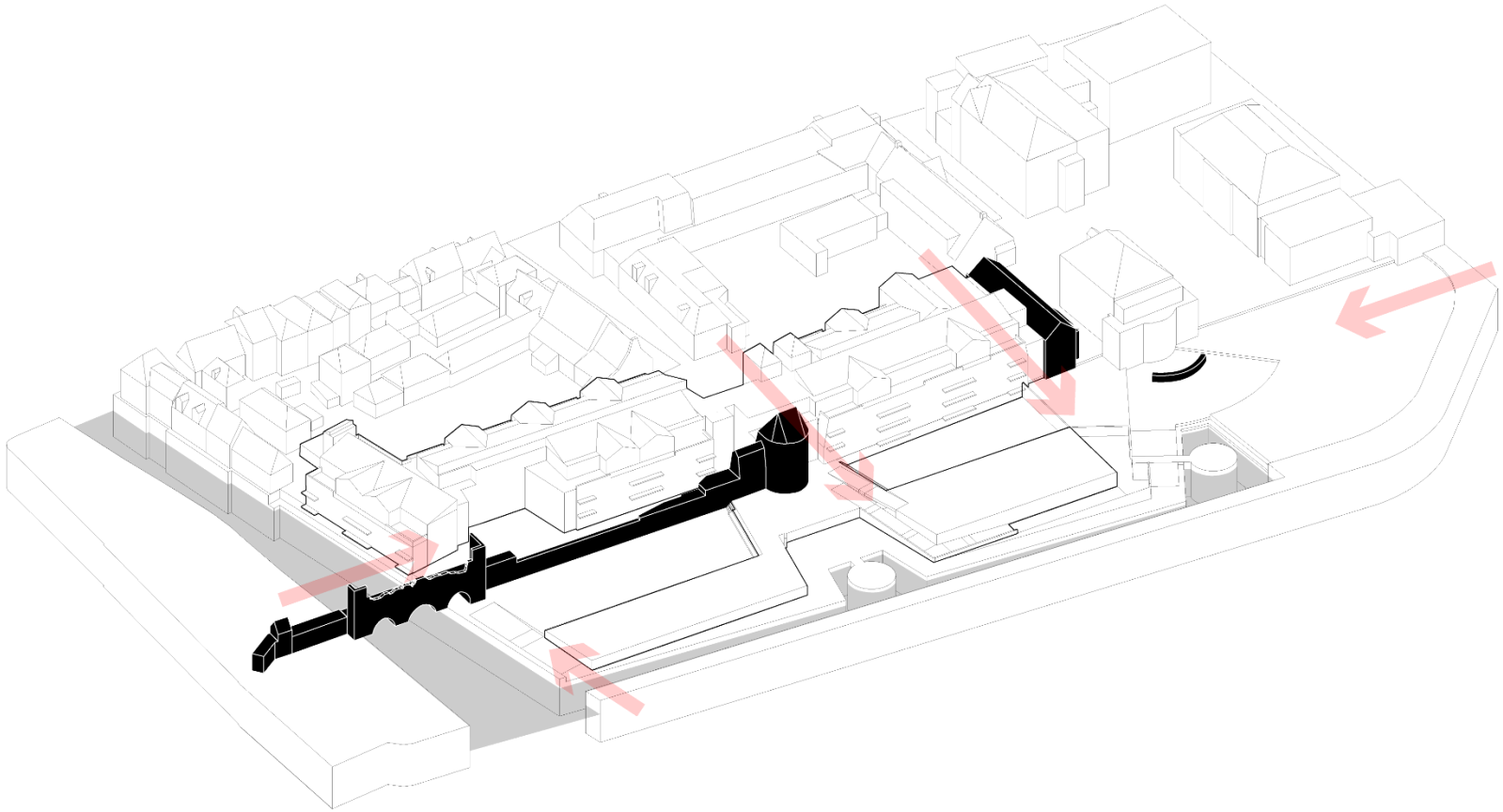
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

Process 1 : Key elements
Process 2 : Partial demolish
Process 3 : Garden design
Process 4 : Elderly house renovation





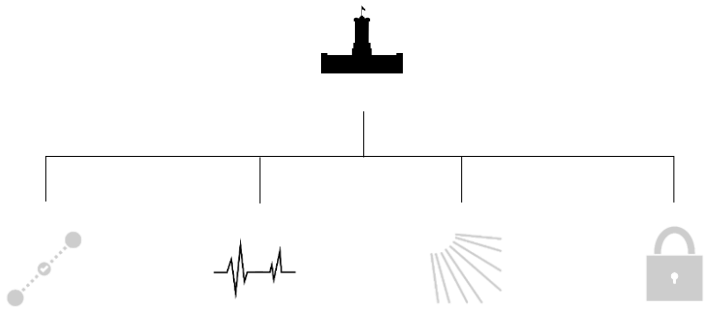
Increase accessibility

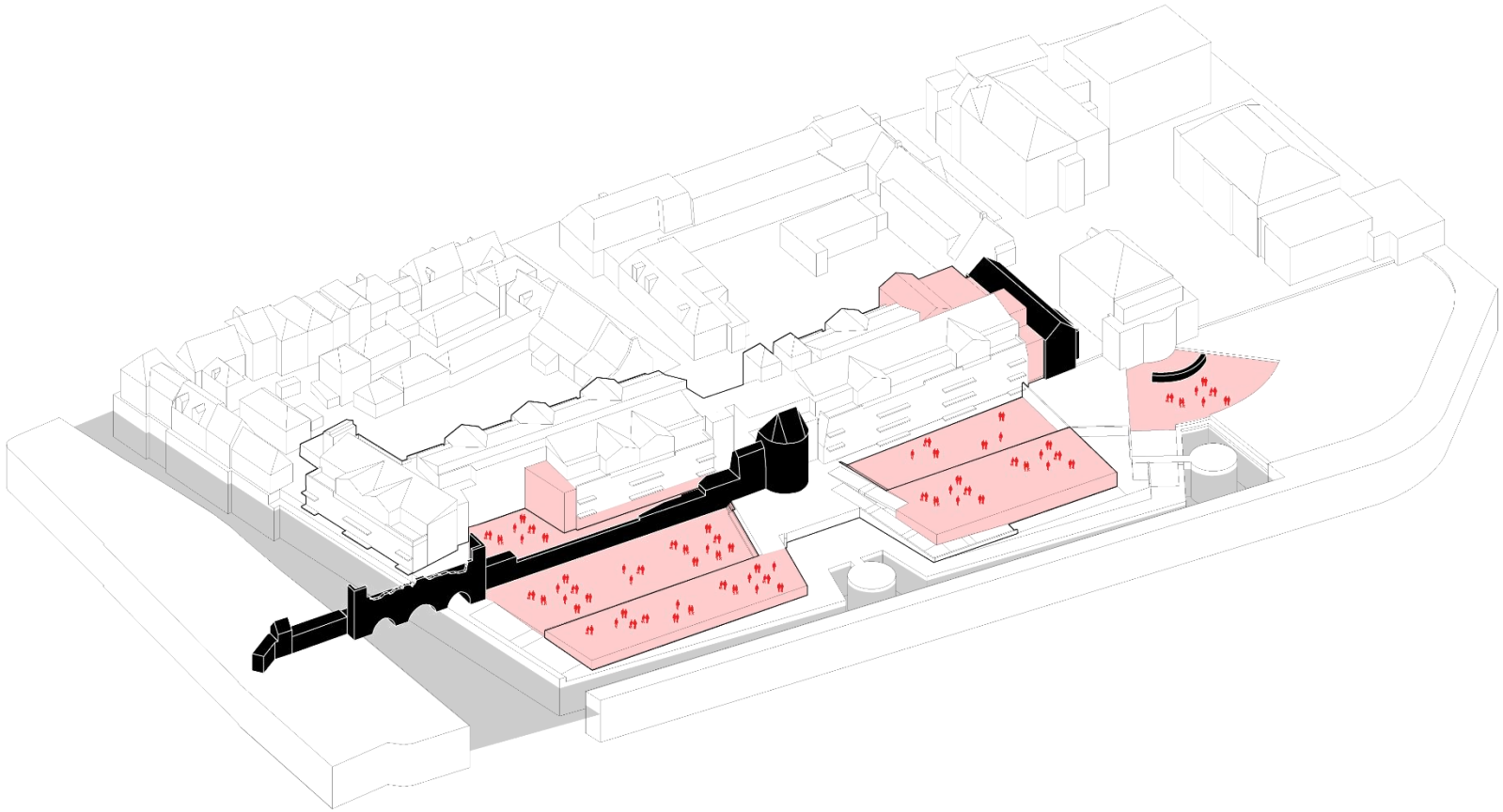
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

Strategy 1: Accessibility
Strategy 2: Activity
Strategy 3: View and light
Strategy 4: Privacy





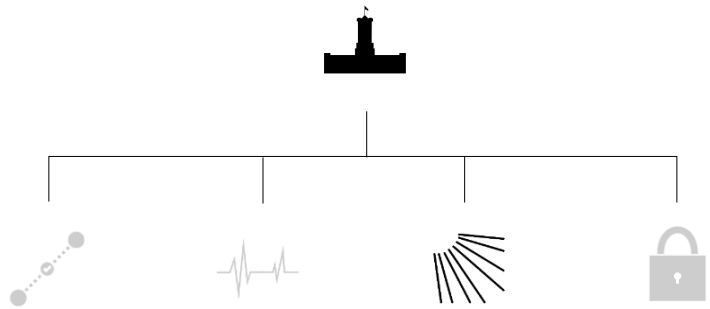
Generating social and cultural activities

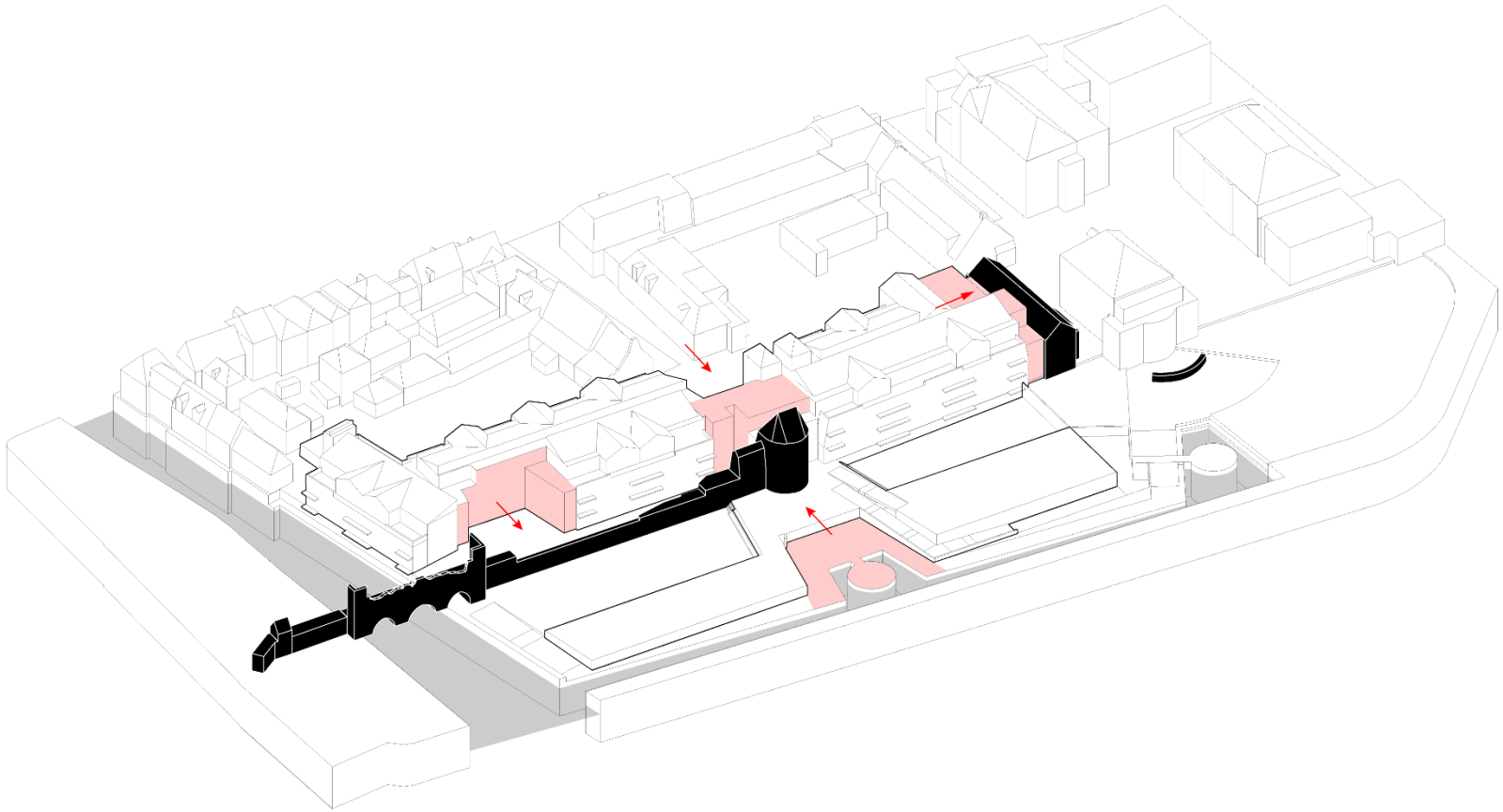
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

Strategy 1: Accessibility
Strategy 2: Activity
Strategy 3: View and light
Strategy 4: Privacy





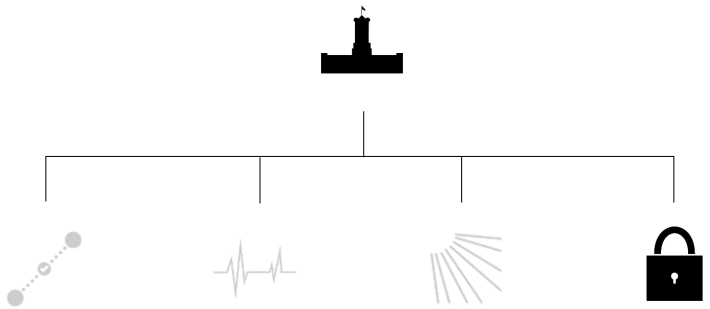
Provide active and bright view

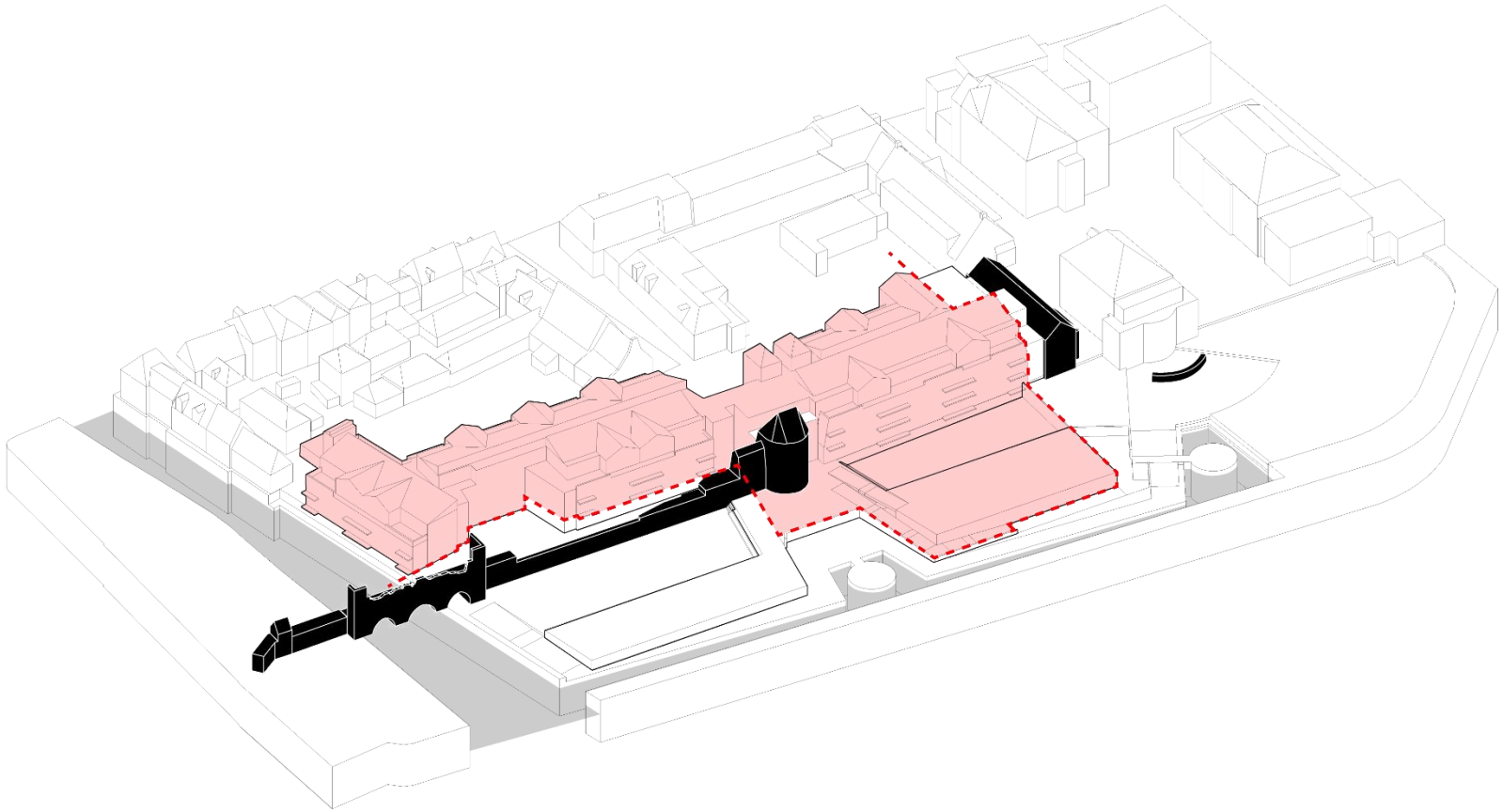
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

Strategy 1: Accessibility
Strategy 2: Activity
Strategy 3: View and light
Strategy 4: Privacy





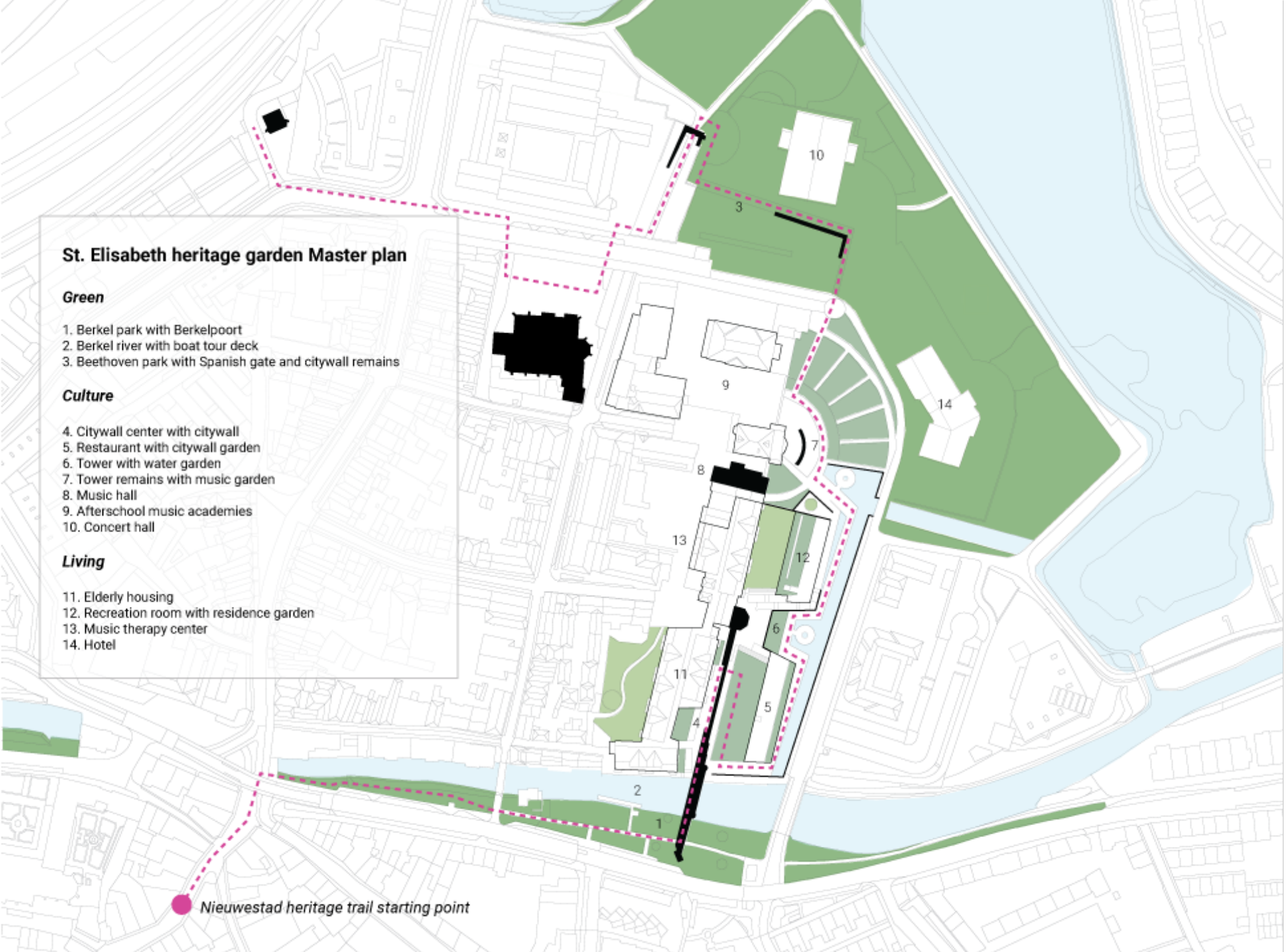
Setting resident zone to protect resident’s privacy

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor’s route
4-7. Resident’s route

Strategy 1: Accessibility
Strategy 2: Activity
Strategy 3: View and light
Strategy 4: Privacy

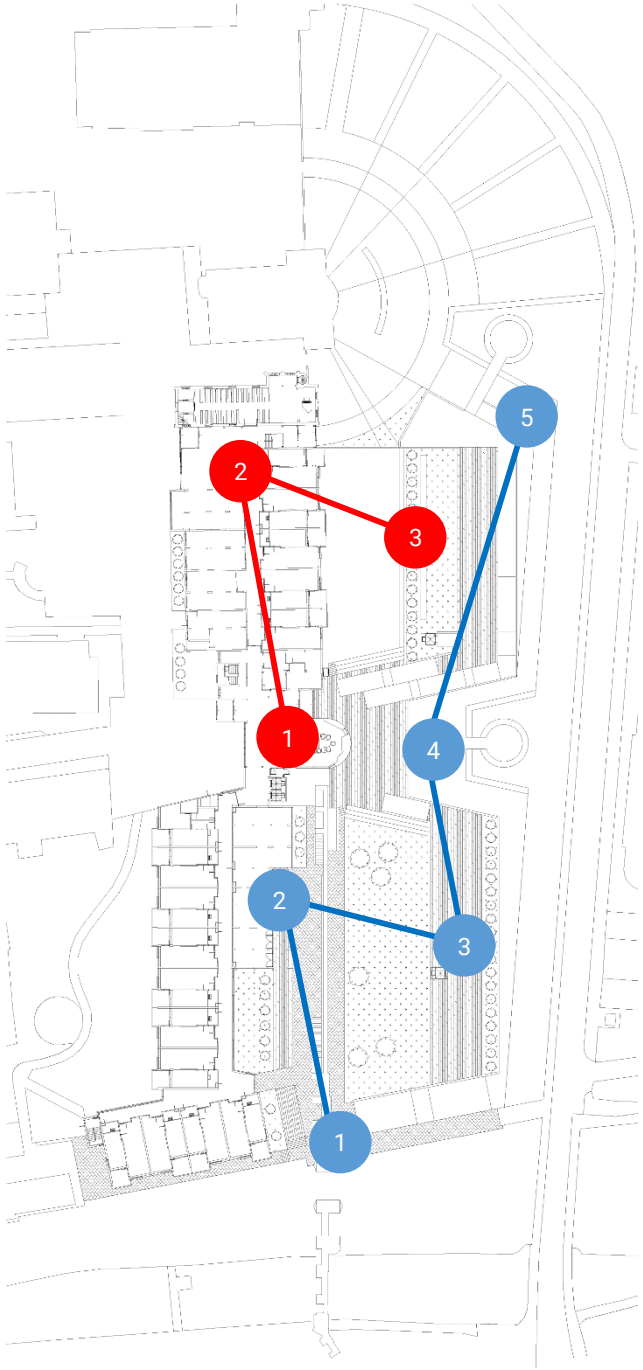


4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

-Cultural hub of Nieuwestad
-Nieuwestad Heritage trail



Two different main routes

1. Visitor's route

1-1 Entrance to garden
1-2 Citywall center
1-3 Restaurant
1-4 Water garden
1-5 Music garden

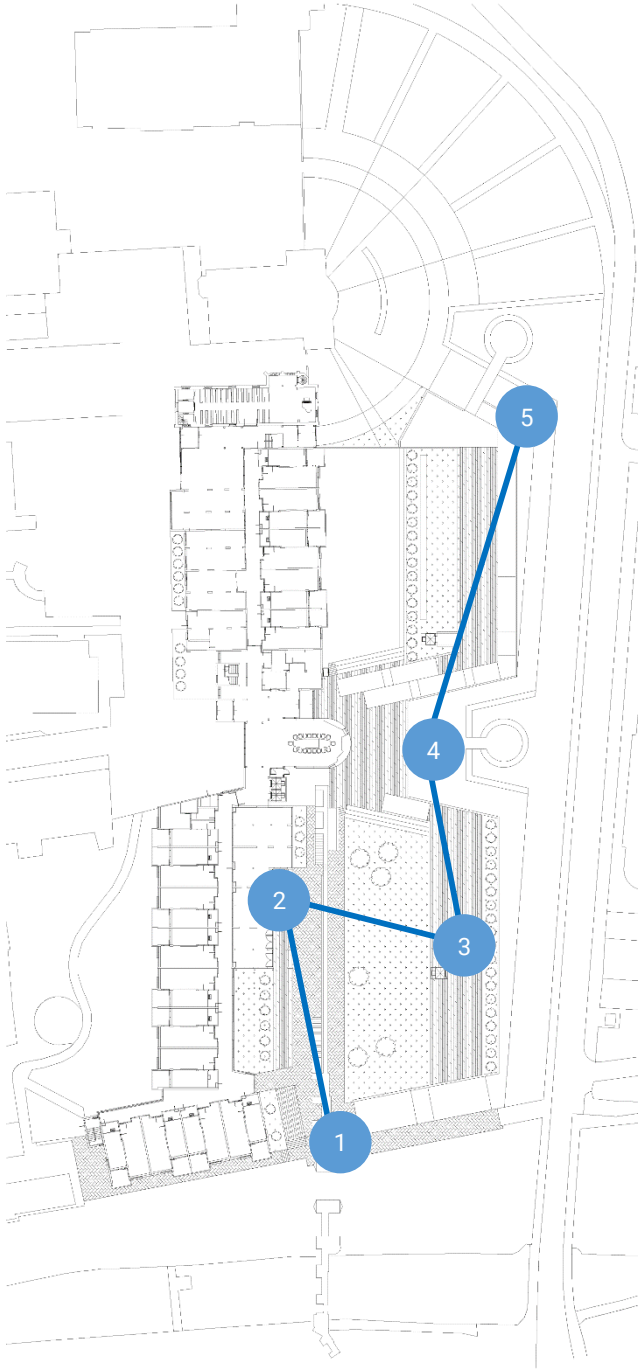
2. Resident's route

2-1 Main entrance
2-2 Music hall
2-3 Recreation room

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route



Two different main routes

1. Visitor's route
    - 1-1 Entrance to garden
    - 1-2 Citywall center
    - 1-3 Restaurant
    - 1-4 Water garden
    - 1-5 Music garden

2. Resident's route
    - 2-1 Main entrance
    - 2-2 Music hall
    - 2-3 Recreation room

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

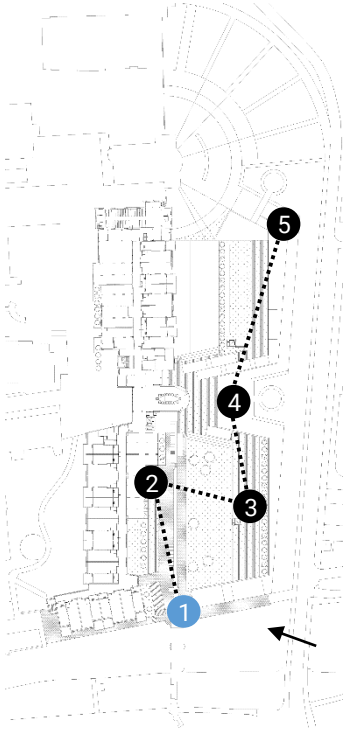
4-6. Visitor's route
4-7. Resident's route

Existing situation : Berkelpoort

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

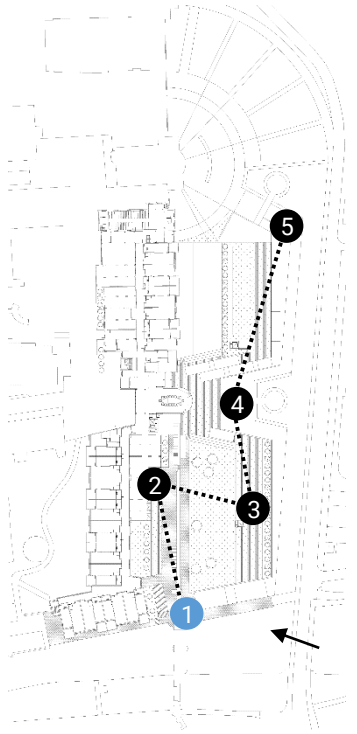


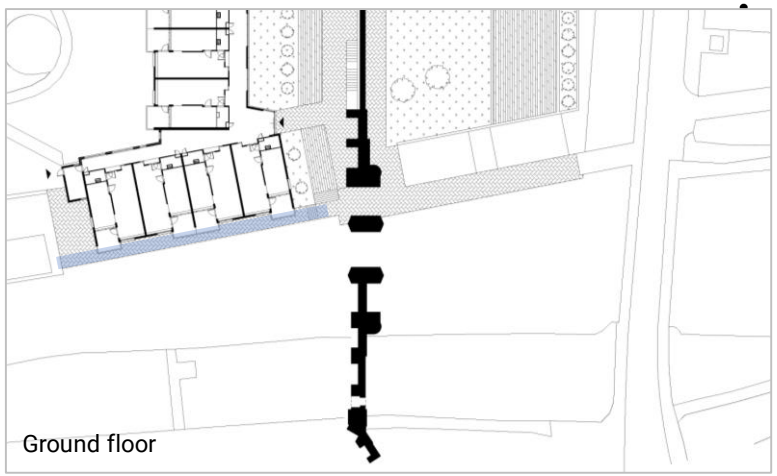
After renovation

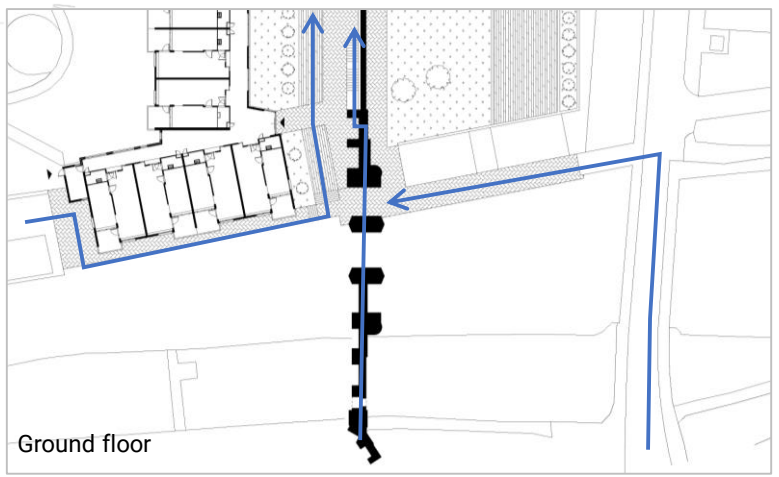
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

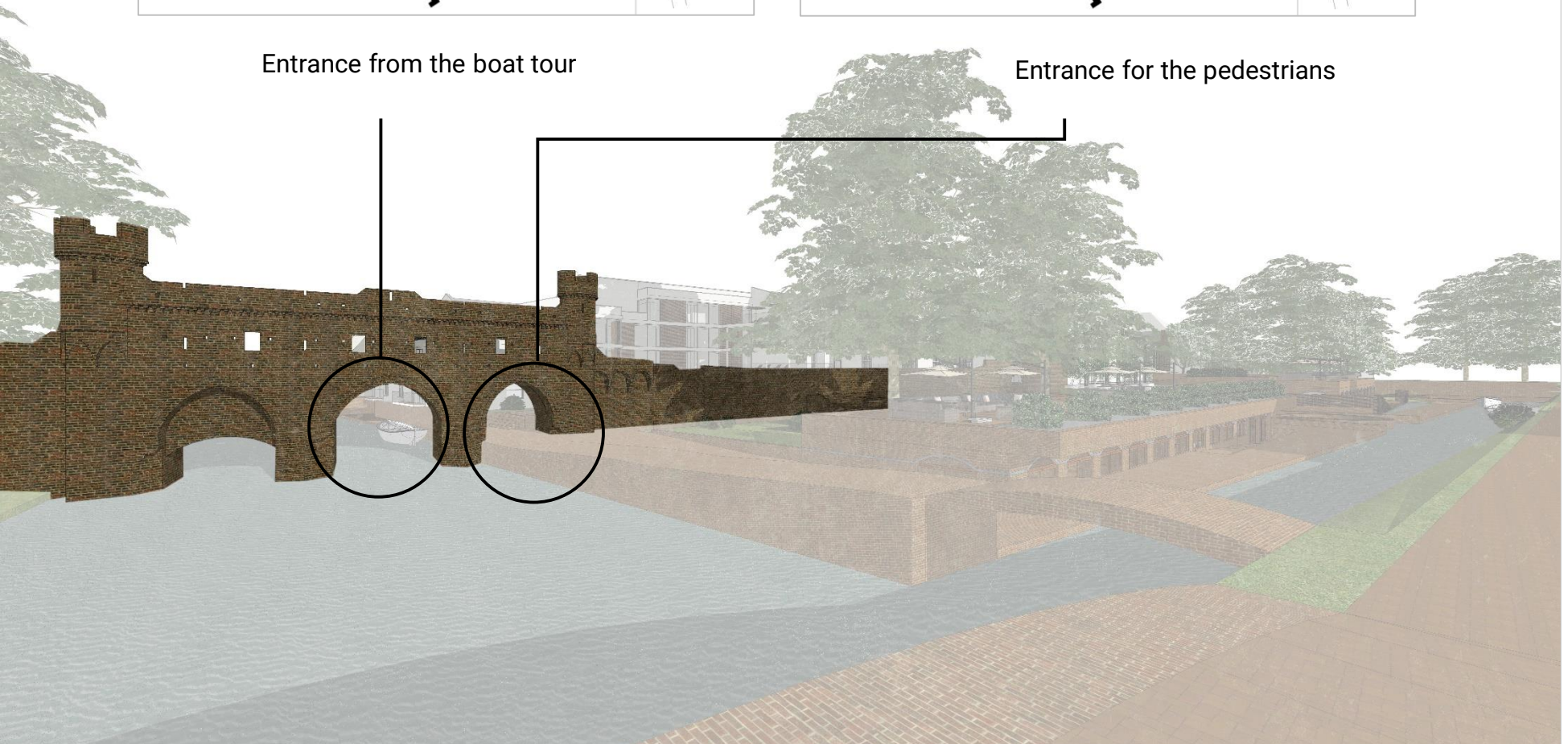






Entrance from the boat tour

Entrance for the pedestrians



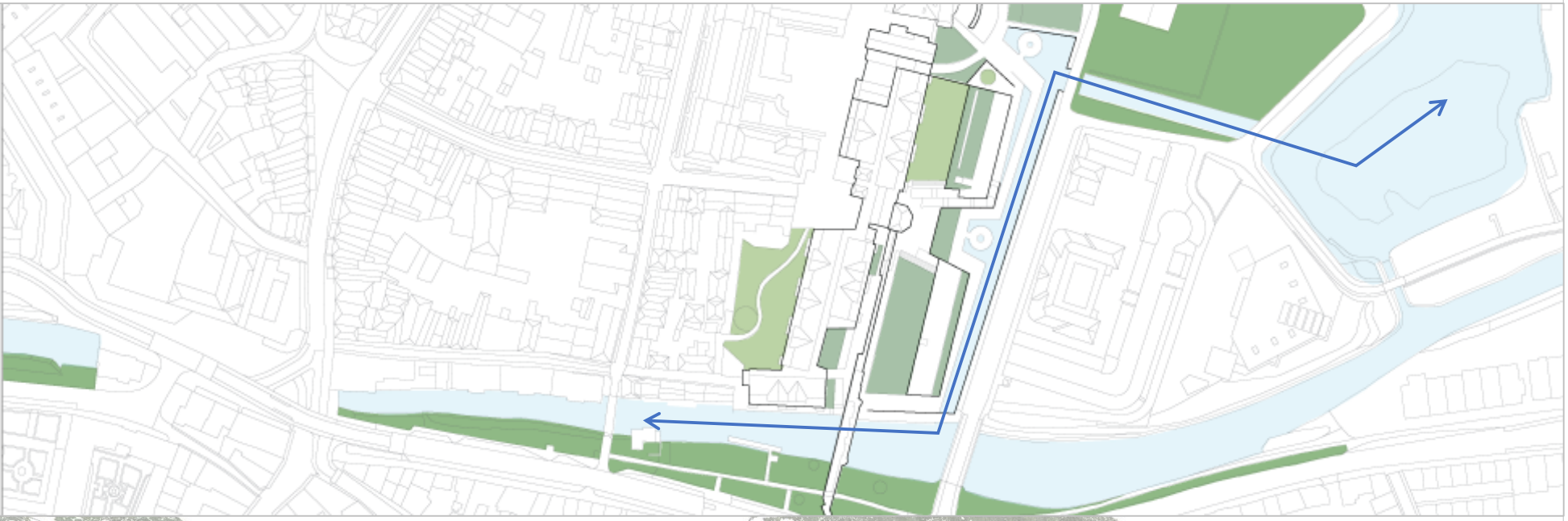
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-1 Entrance to garden

Accessibility
-Entrance from the boat tour
-Entrance from the bridges



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

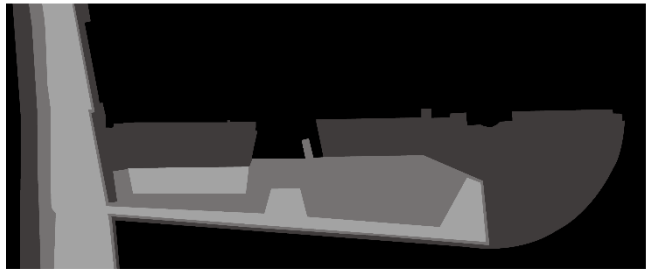
4-6. Visitor's route
4-7. Resident's route

1-1 Entrance to garden

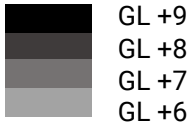
Activity
-New boat tour route
-The restoration of a lost waterway in 1912

N

Existing topography level



Renovated topography level



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-1 Entrance to garden

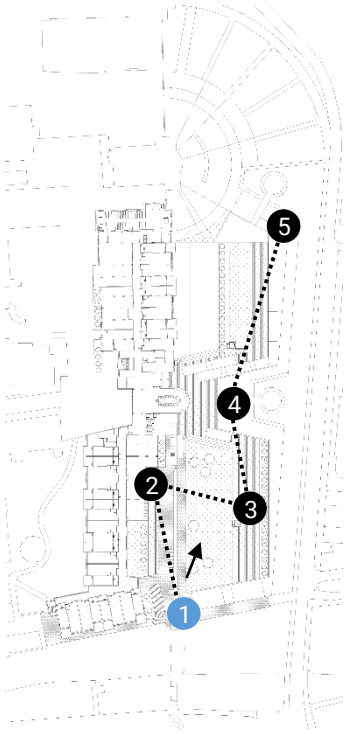
View and Light
Continuous heritage landscape
-Move trees to Beethoven park
-Using 2m ground level difference

Existing situation : Citywall and tower

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

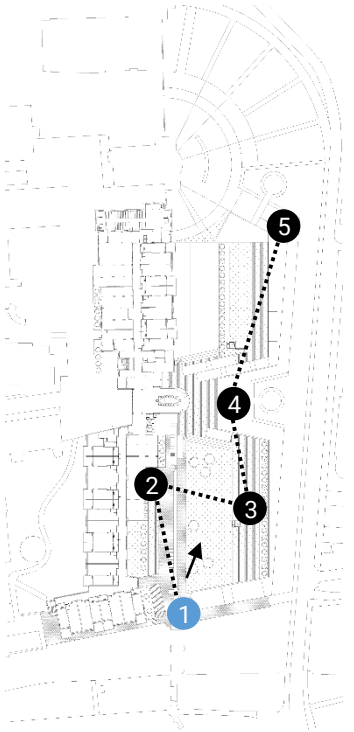


After renovation : View from the Berkelpoort

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-1 Entrance to garden

Activity
-Programs

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-1 Entrance to garden

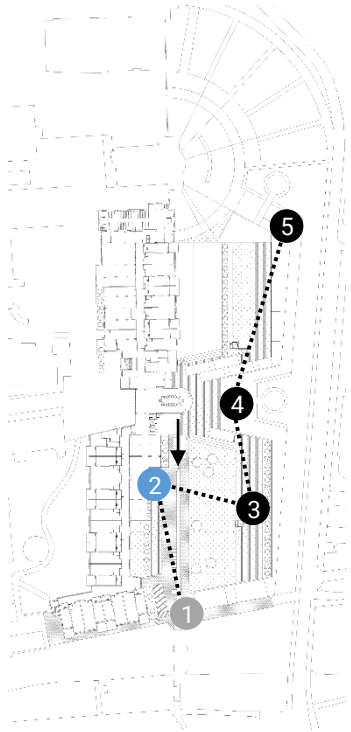
Activity
-Programs

Existing situation : Citywall

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

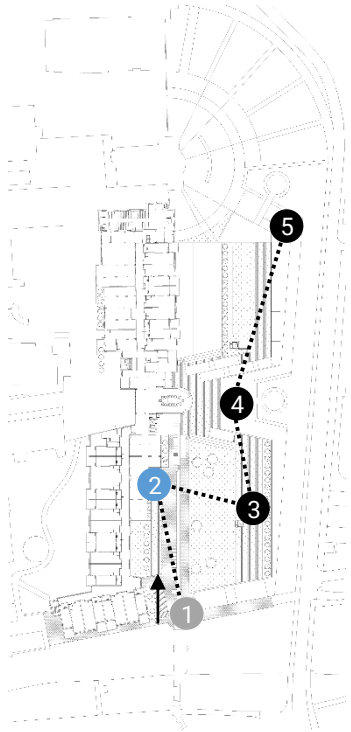


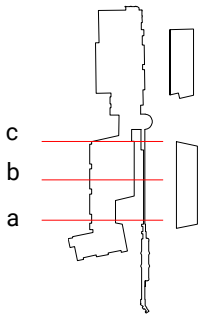
After renovation : Citywall center

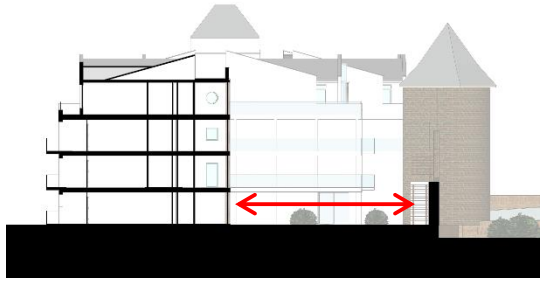
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

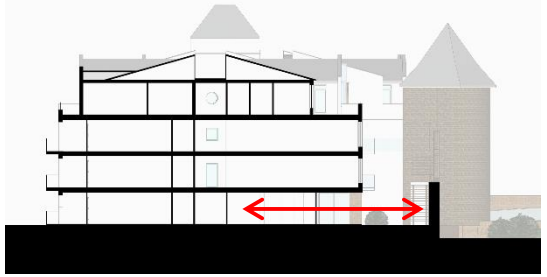
4-6. Visitor's route
4-7. Resident's route



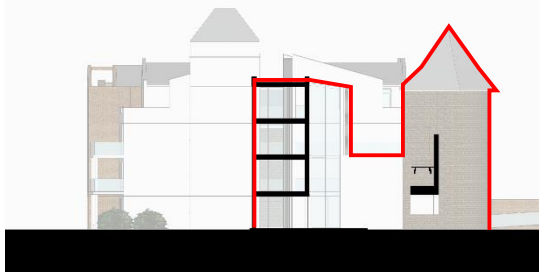




Section a



Section b



Section c

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

View and light
-Regain the relation with the city wall
--Emphasizing tower

St. Elisabeth building 1965-1991 (Zutphen archive)

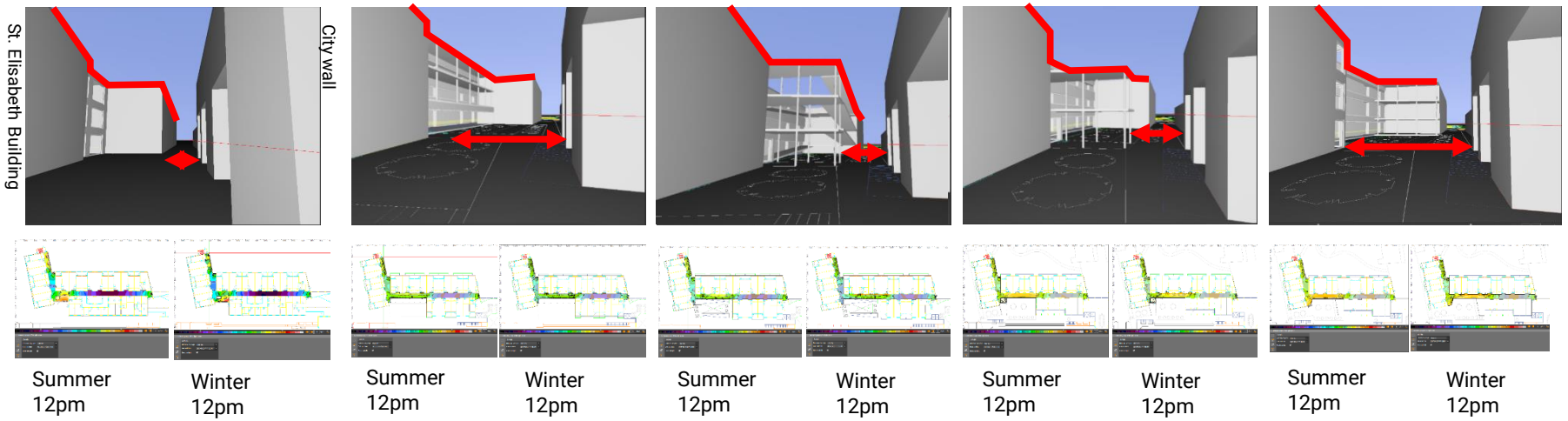
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

View and light
-Balcony design for maximum light



Current situation

-Daylight test
Average corridor brightness : 50lx

-Space test
City wall alley : 5m

-Façade test
Façade continuity : Connected

Experiment 1

-Daylight test
Average corridor brightness : 75lx

-Space test
City wall alley : 12m

-Façade test
Façade continuity : Disconnected

Experiment 2

-Daylight test
Average corridor brightness : 100lx

-Space test
City wall alley : 5m

-Façade test
Façade continuity : Connected

Experiment 3

-Daylight test
Average corridor brightness : 200lx

-Space test
City wall alley : 5m

-Façade test
Façade continuity : Disconnected

Experiment 4

-Daylight test
Average corridor brightness : 500lx

-Space test
City wall alley : 12m

-Façade test
Façade continuity : Connected

Provide right level of daylight to community zone and corridor : 200~500lx

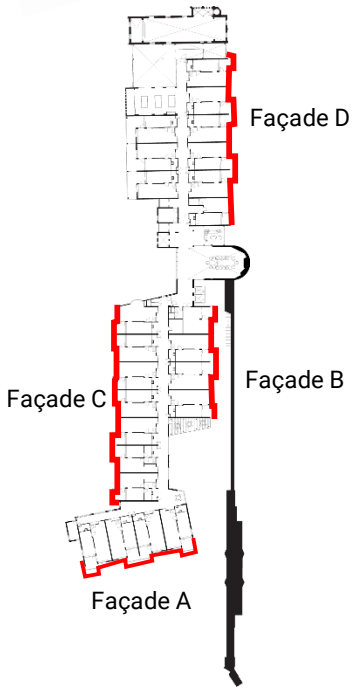
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

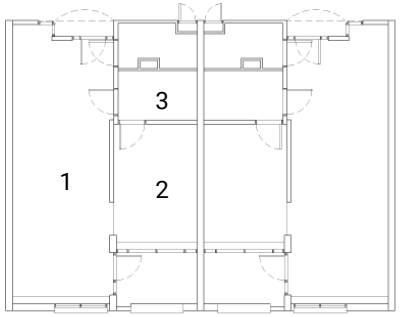
4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

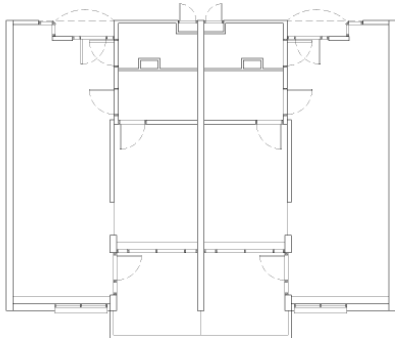
View and light
-Balcony design for maximum light



First floor plan



Current situation



1m extension

1 Livingroom

2 Bedroom

3 Restroom

-1m balcony extension to bring the garden view inside of the house
-Balcony is placed above the passage or garden
-Column should be avoided to acquire enough space

Façade A (Before renovation)

Façade B (Before renovation)

Façade C (Before renovation)

Façade D (Before renovation)

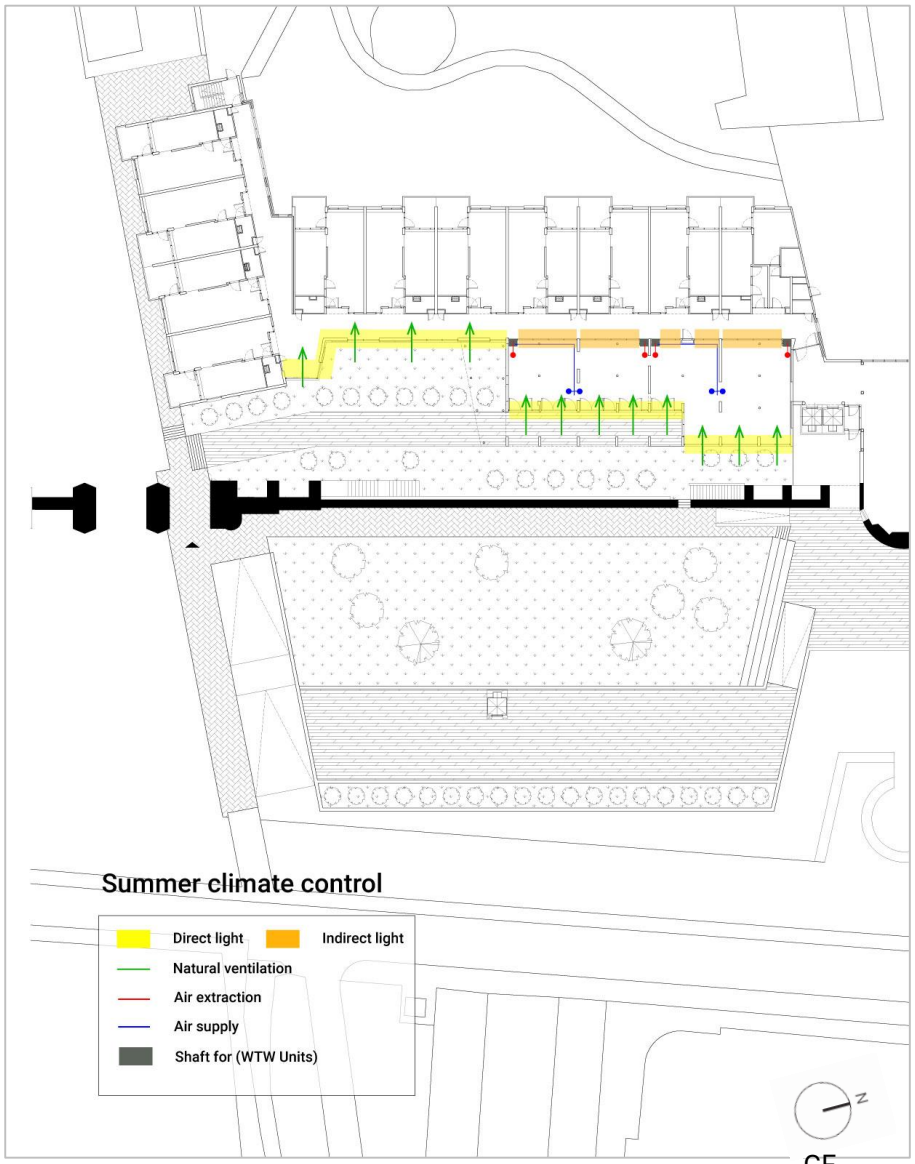
4 Design

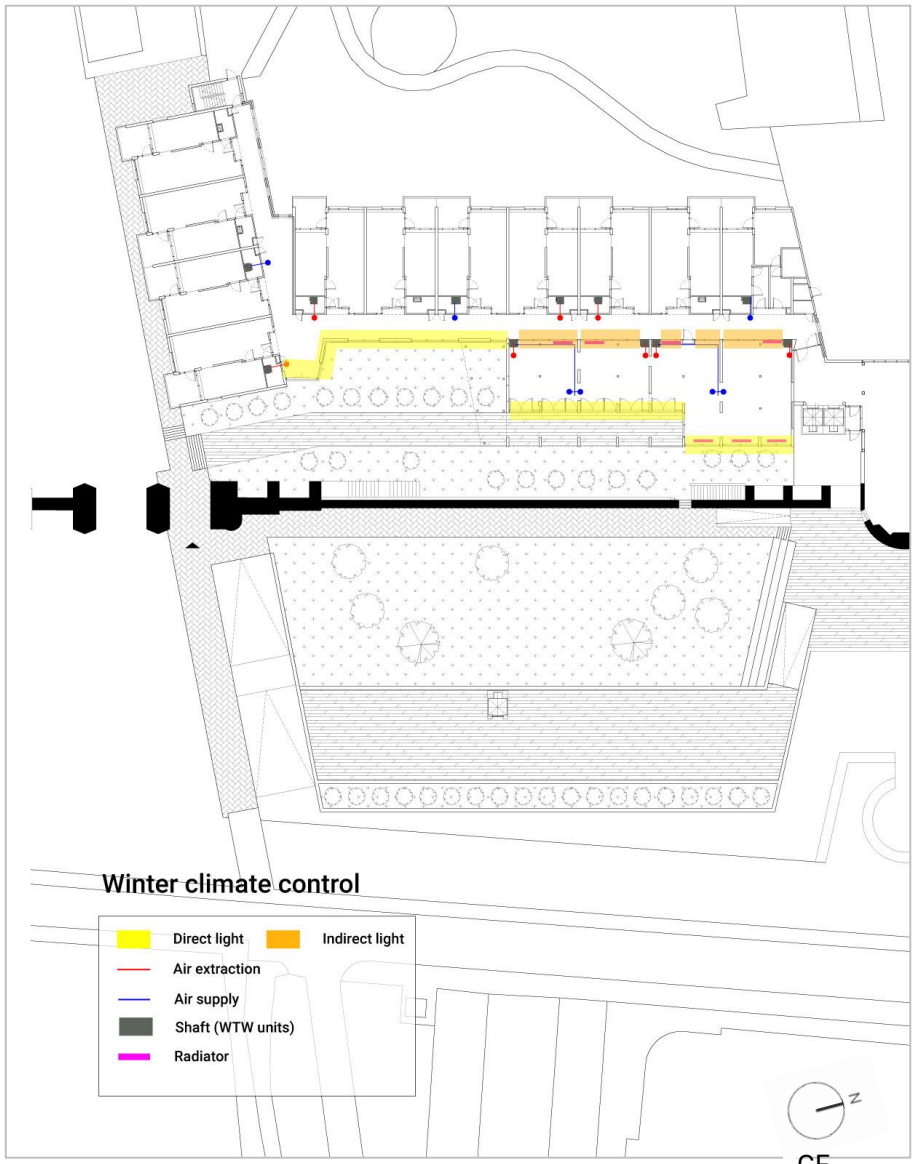
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

View and light
-Balcony extension





4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

View and light
-Summer climate control
-Winter climate control
-Light control through sliding sunscreen
-Summer door open

Sunscreen opened

Sunscreen closed

Front : Perforated red bricks
Back : Solid red bricks

Steel plate roof

White plaster

Glass railing

UV Glass

Streel railing

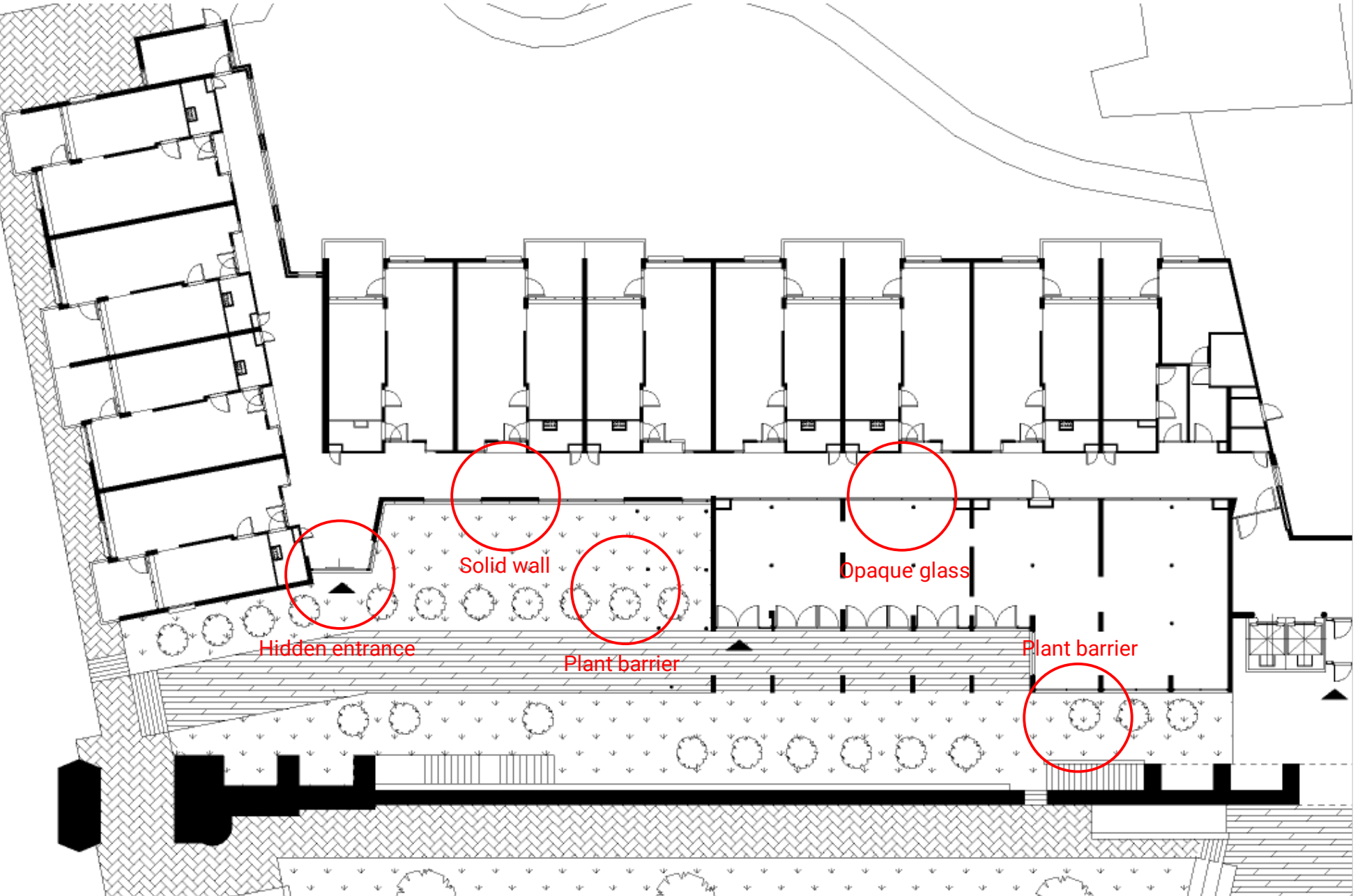
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

View and light
-Façade material



Ground floor

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

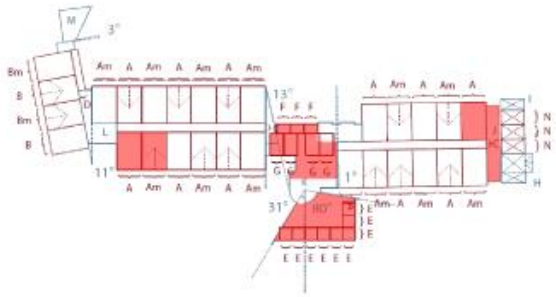
1-2 Citywall center

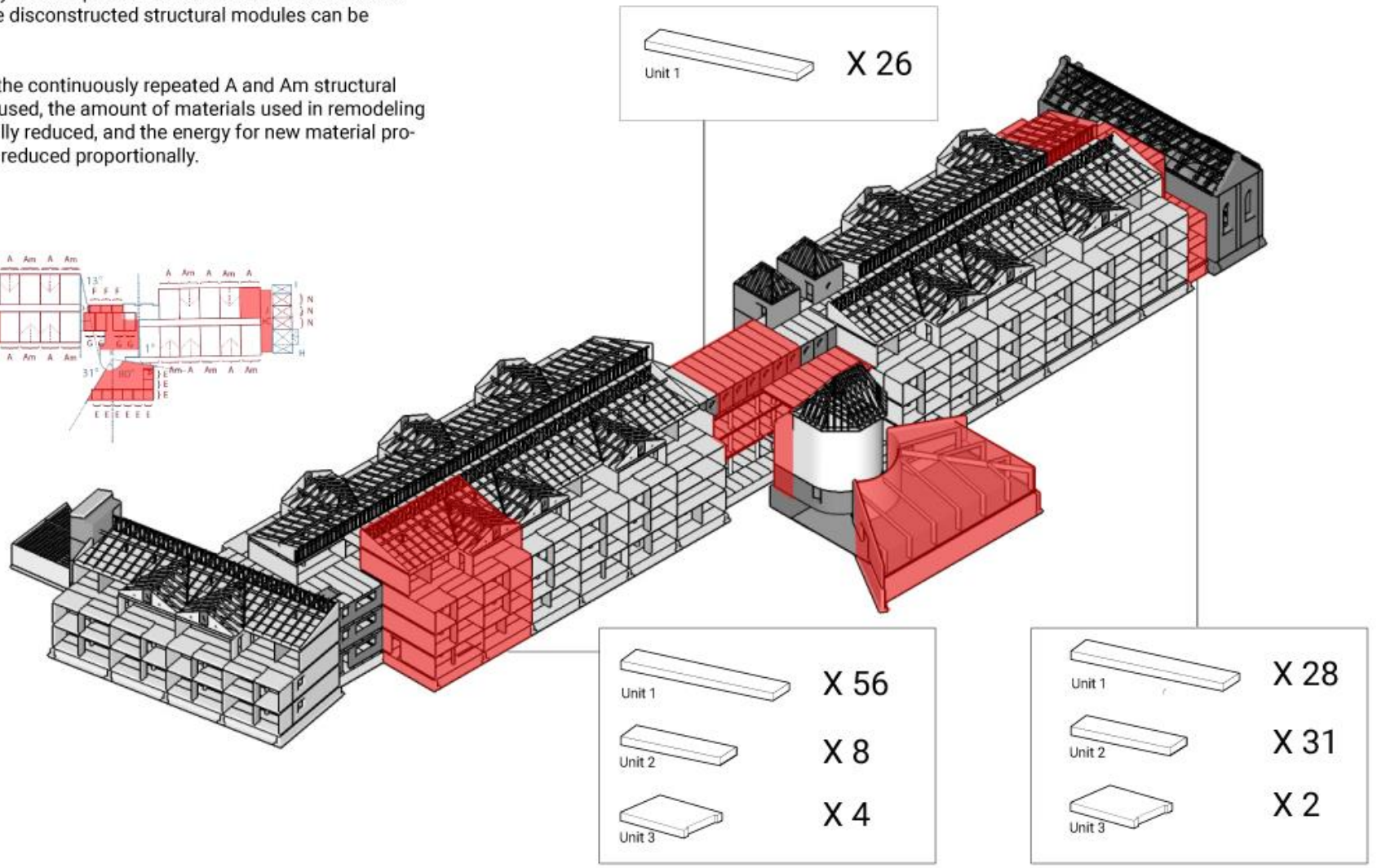
Privacy
-Solid wall in front of housing unit
-Plant barrier and hidden house entrance
-Opaque glass

Demolish parts and reuse of modules

The parts marked in red will be demolished in remodeling project. If the newly added space follows the modules of the existing building, the disconstructed structural modules can be reused.

In particular, if the continuously repeated A and Am structural modules are reused, the amount of materials used in remodeling can be drastically reduced, and the energy for new material production can be reduced proportionally.





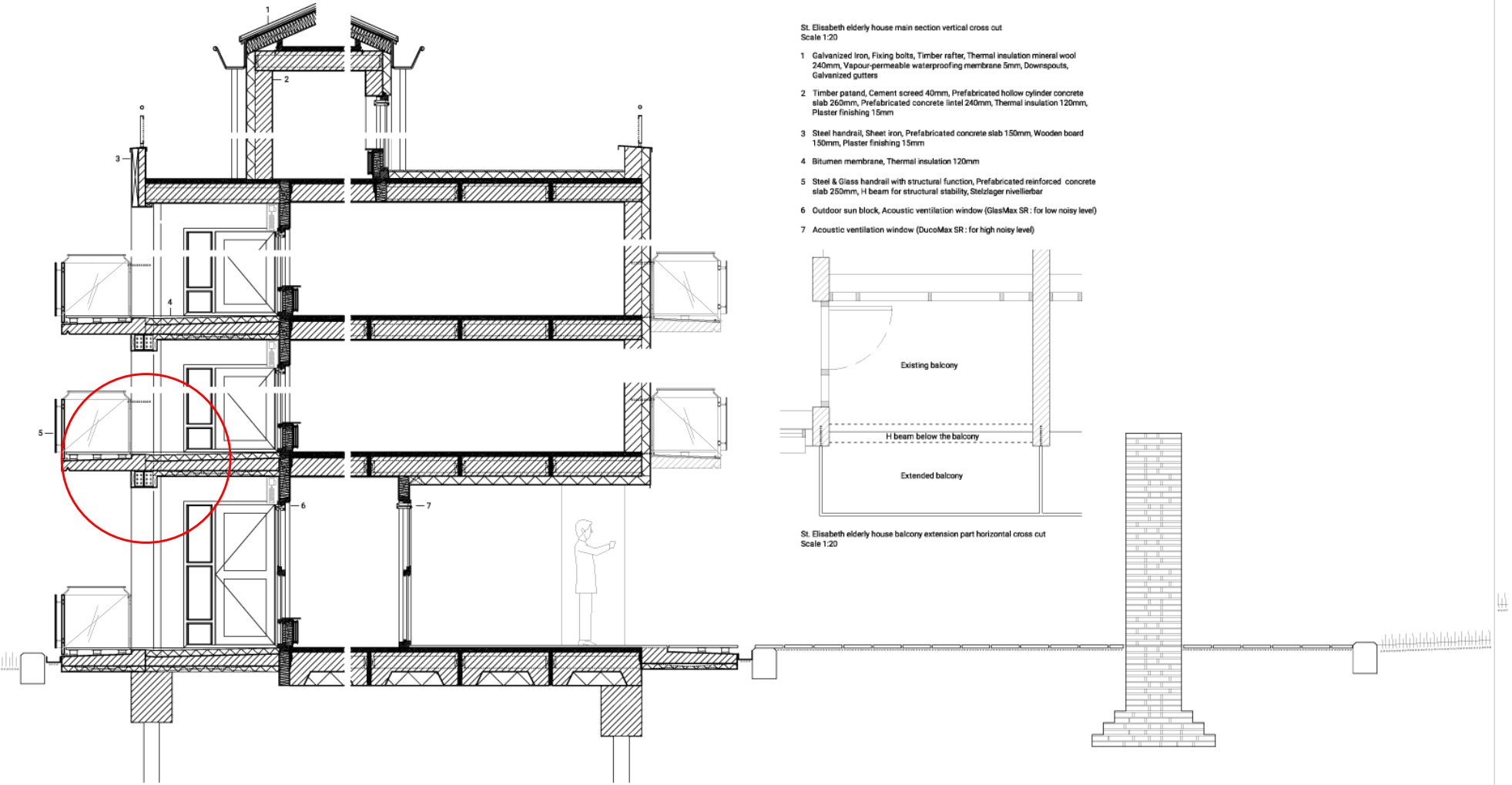
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

Structure and detail
-Adaptive reuse
-Reuse of disassembled building material



St. Elisabeth elderly house main section vertical cross cut
Scale 1:20

1 Galvanized Iron, Fixing bolts, Timber rafter, Thermal insulation mineral wool 240mm, Vapour-permeable waterproofing membrane 5mm, Downspouts, Galvanized gutters

2 Timber patand, Cement screed 40mm, Prefabricated hollow cylinder concrete slab 260mm, Prefabricated concrete lintel 240mm, Thermal insulation 120mm, Plaster finishing 15mm

3 Steel handrail, Sheet iron, Prefabricated concrete slab 150mm, Wooden board 150mm, Plaster finishing 15mm

4 Bitumen membrane, Thermal insulation 120mm

5 Steel & Glass handrail with structural function, Prefabricated reinforced concrete slab 250mm, H beam for structural stability, Stelzlager nivellierbar

6 Outdoor sun block, Acoustic ventilation window (GlasMax SR : for low noisy level)

7 Acoustic ventilation window (DucoMax SR : for high noisy level)

St. Elisabeth elderly house balcony extension part horizontal cross cut
Scale 1:20

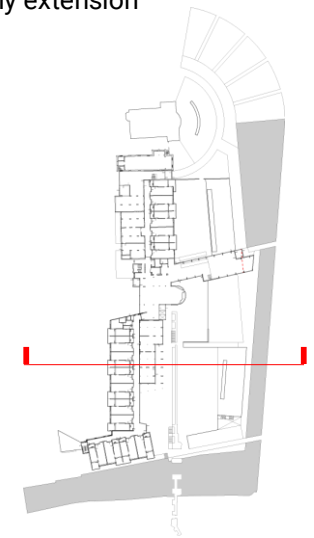
4 Design

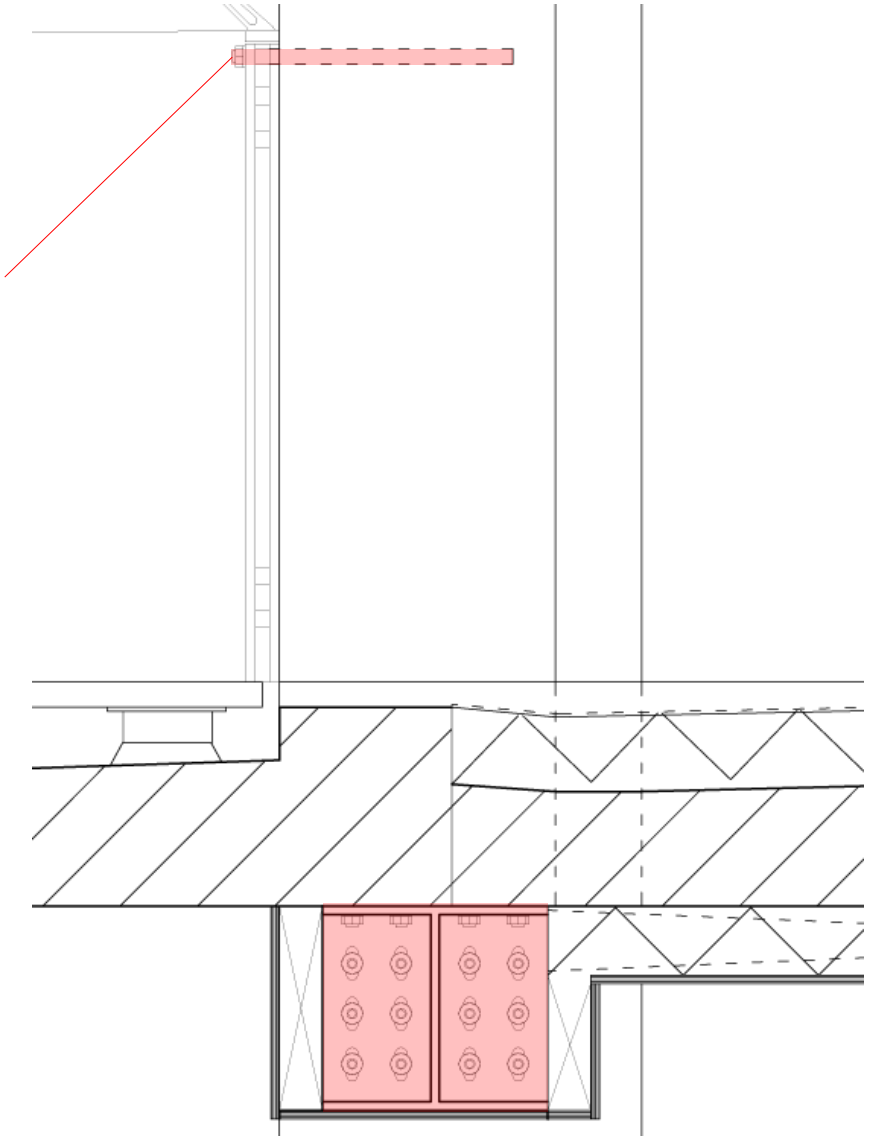
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

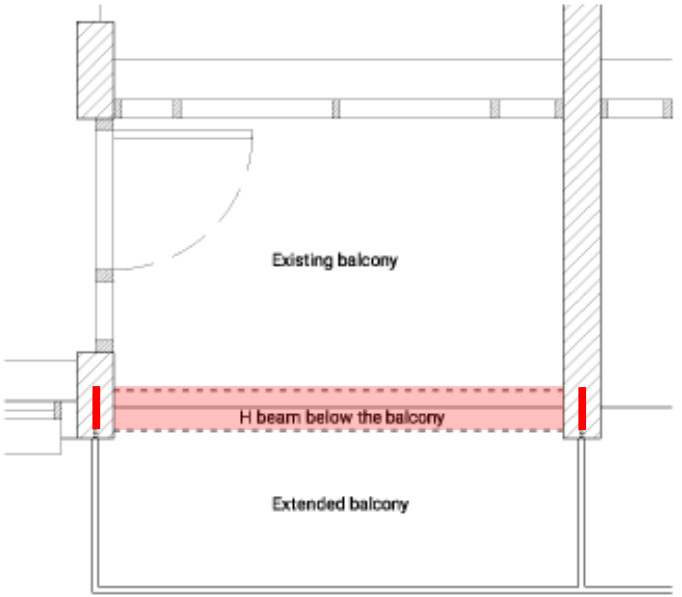
4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

Structure and detail
-Balcony extension







Extension balcony joint detail

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-2 Citywall center

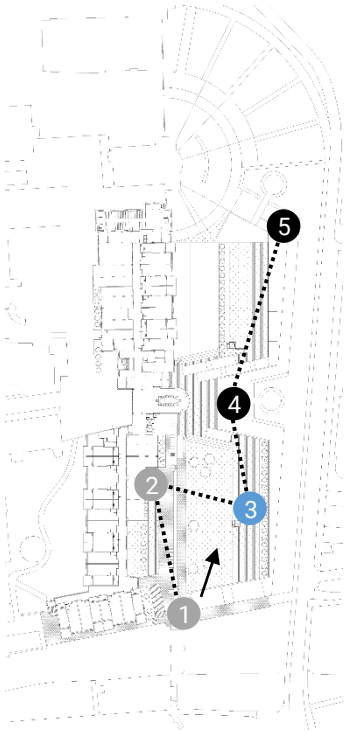
Structure and detail
-Balcony extension

After renovation : Citywall garden

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

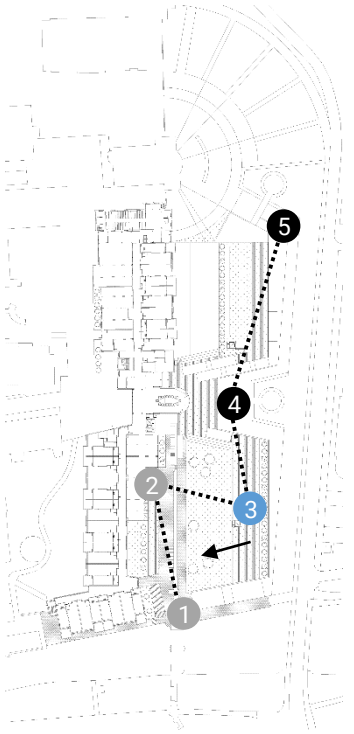


After renovation : Restaurant roof terrace

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

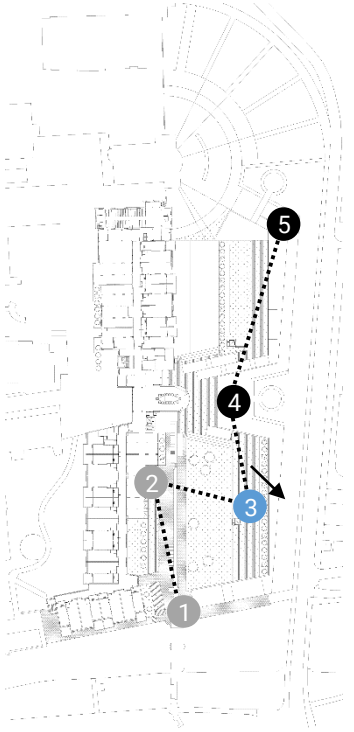


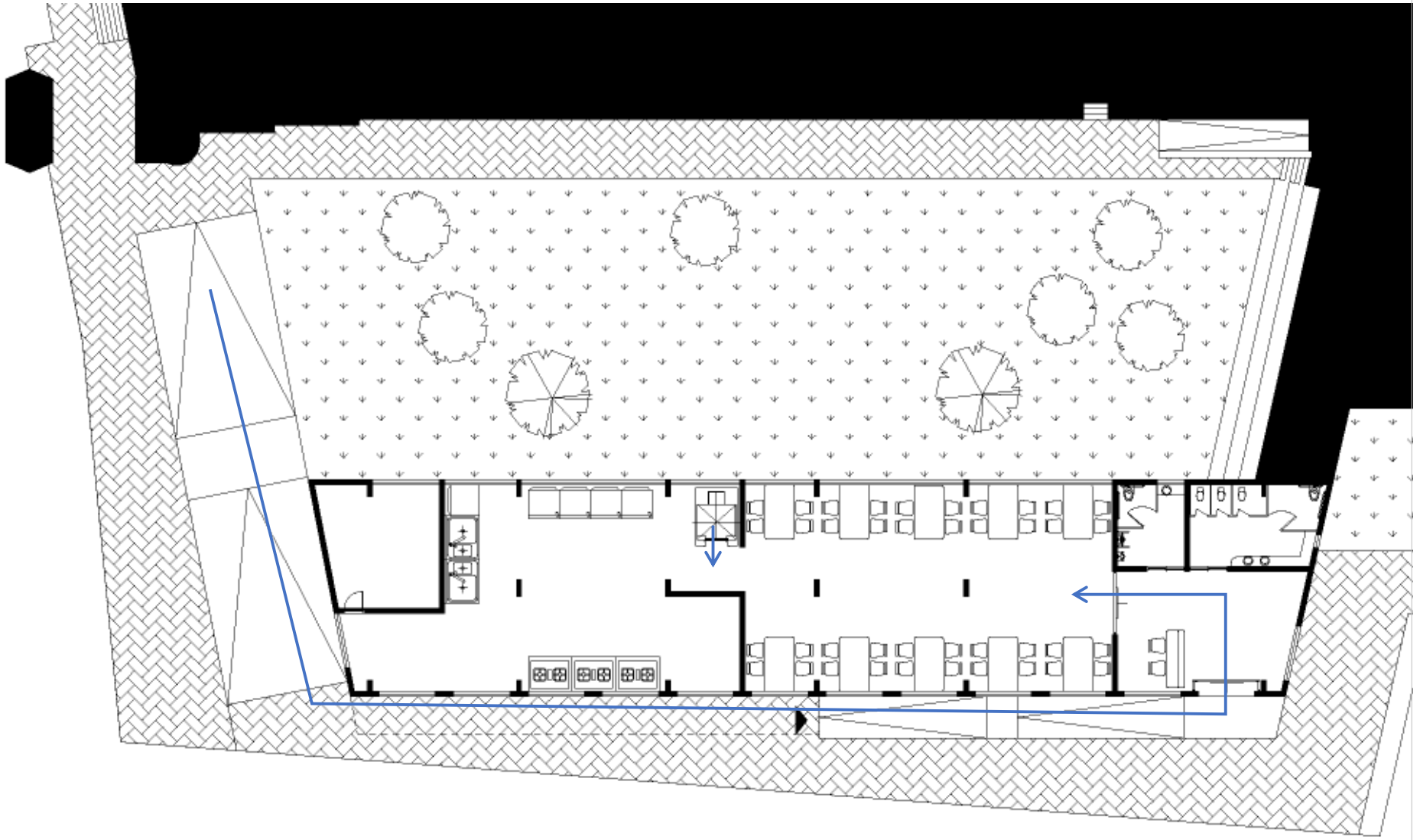
After renovation : Restaurant

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route





4 Design

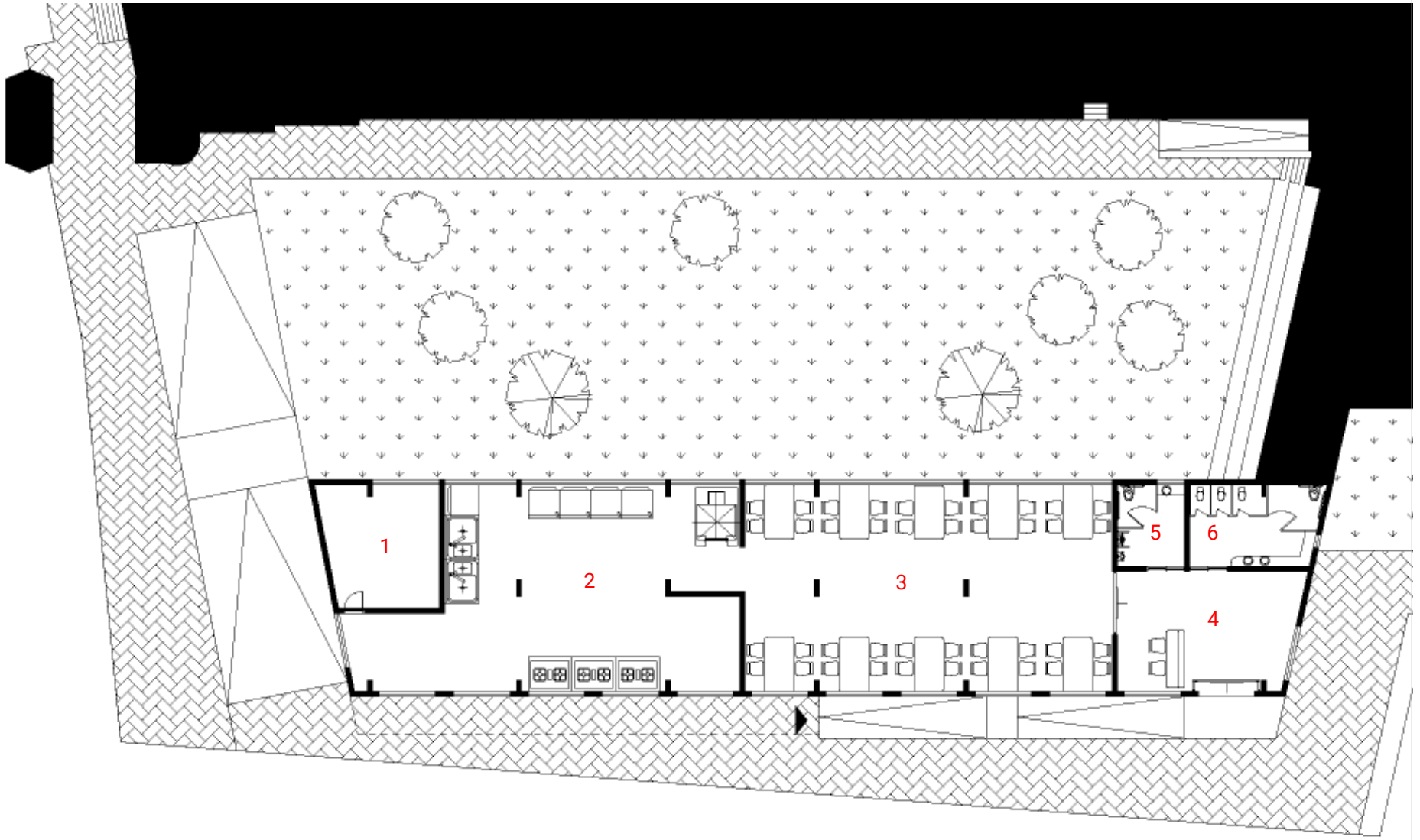
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-3 Restaurant

Accessibility
-From the ramp
-From the elevator

Basement level



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

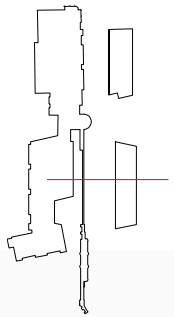
4-6. Visitor's route
4-7. Resident's route

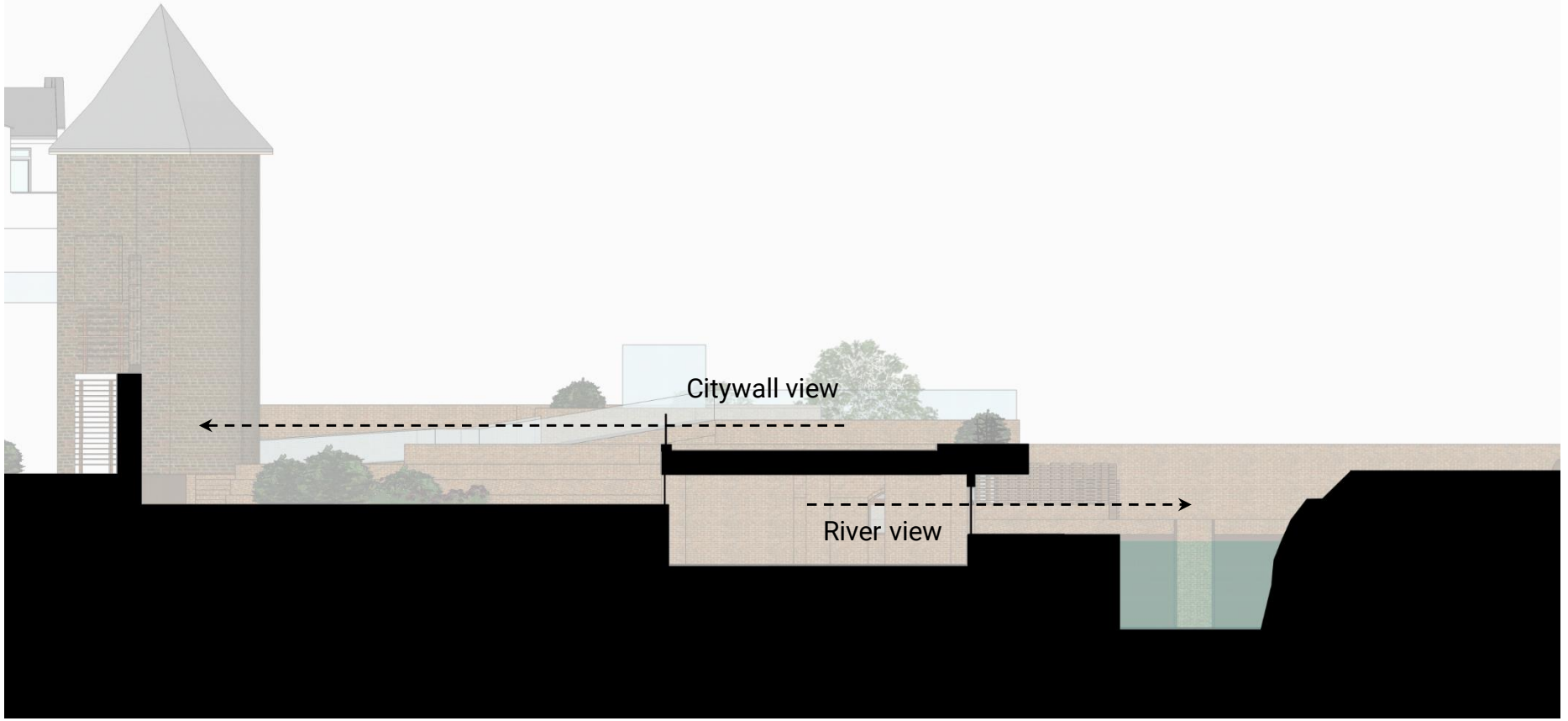
1-3 Restaurant

Activity
-Programs

1. Machine room
2. Kitchen
3. Dining area
4. Lobby
5. Man's restroom
6. Woman's restroom

Basement level





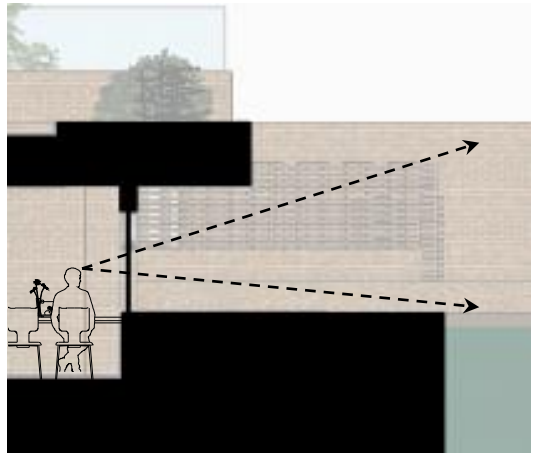
4 Design

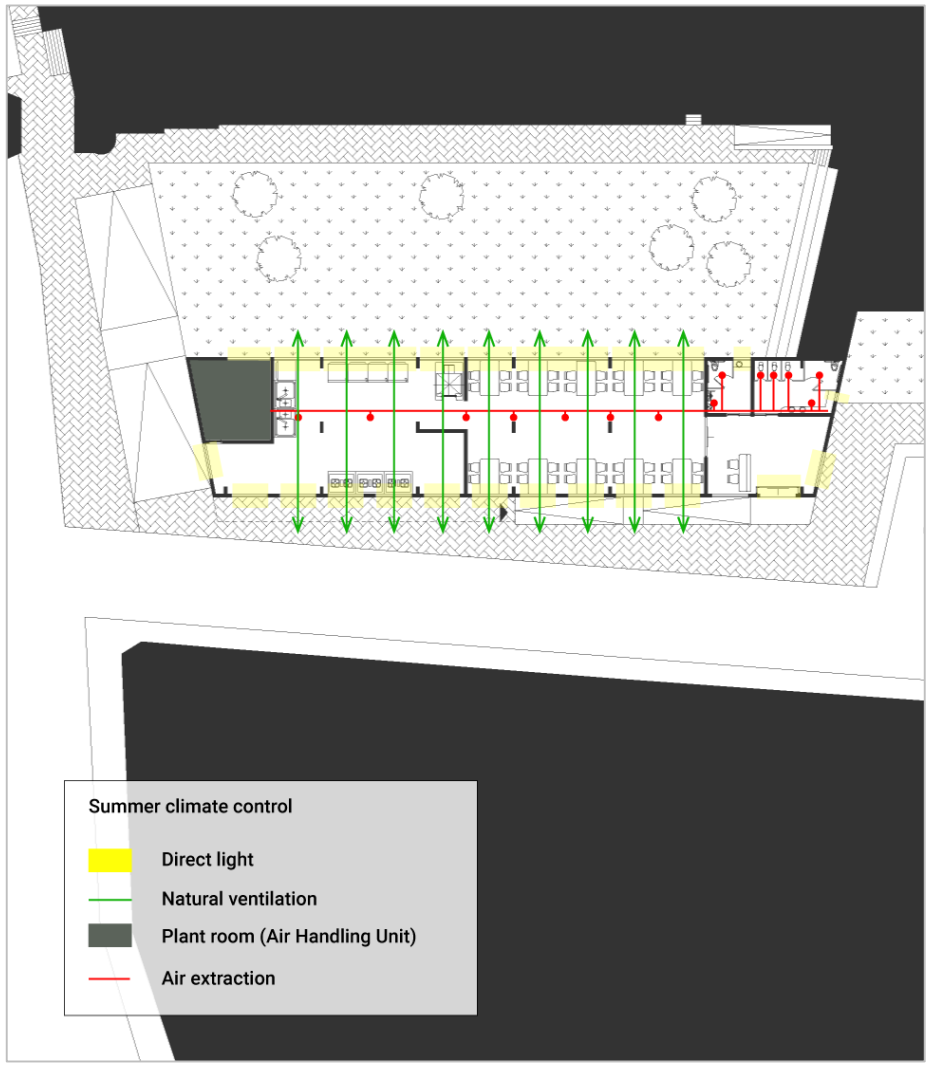
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

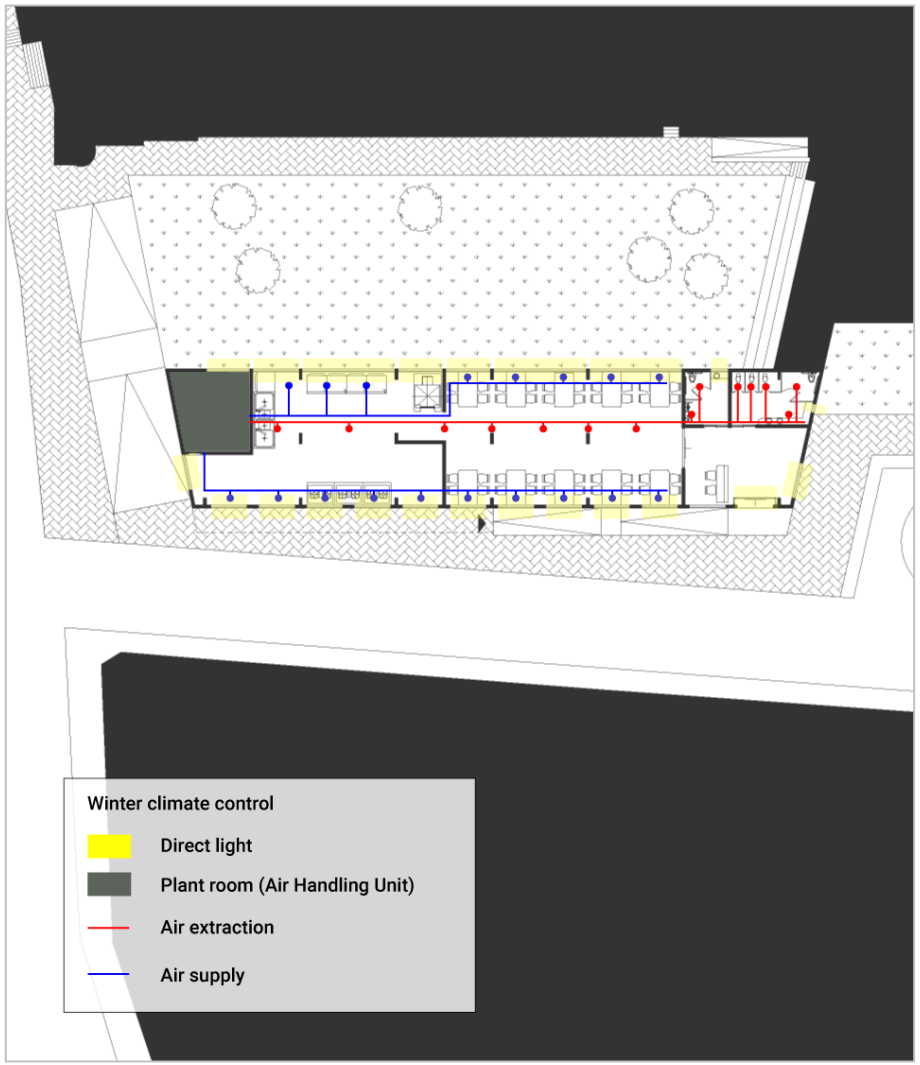
4-6. Visitor's route
4-7. Resident's route

1-3 Restaurant

View and light
-Relation with Berkel river
-Relation with citywall







4 Design

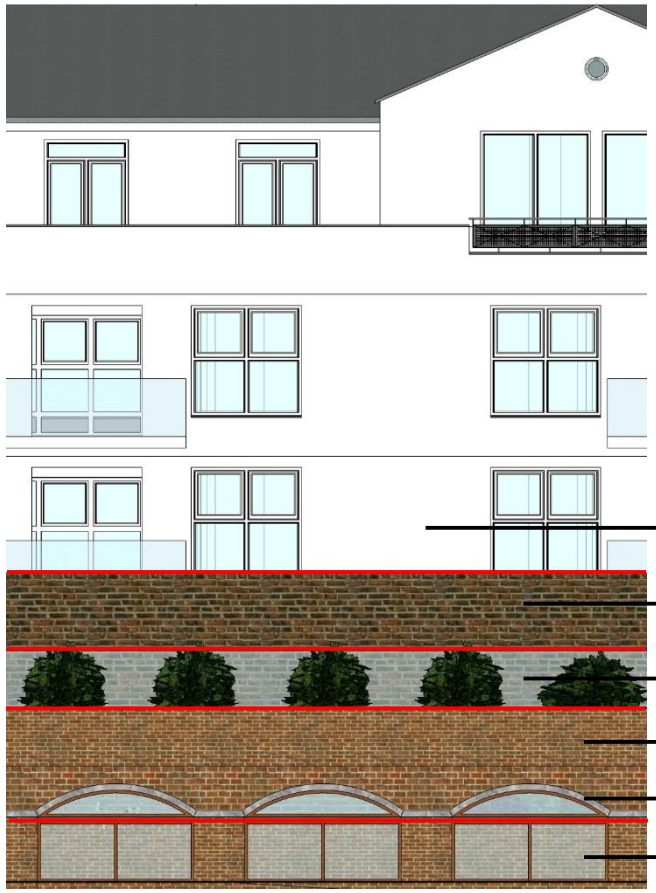
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-3 Restaurant

View and light
-Summer climate control
-Winter climate control
-Heat recovery

Basement level



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-3 Restaurant

View and light
Continuous landscape
-Brick Arch
-Horizontal lines

Outside : eave
Recycled timber board

Wall, Floor
Red brick

Ceiling
White plaster

Window frame
Cherry wood

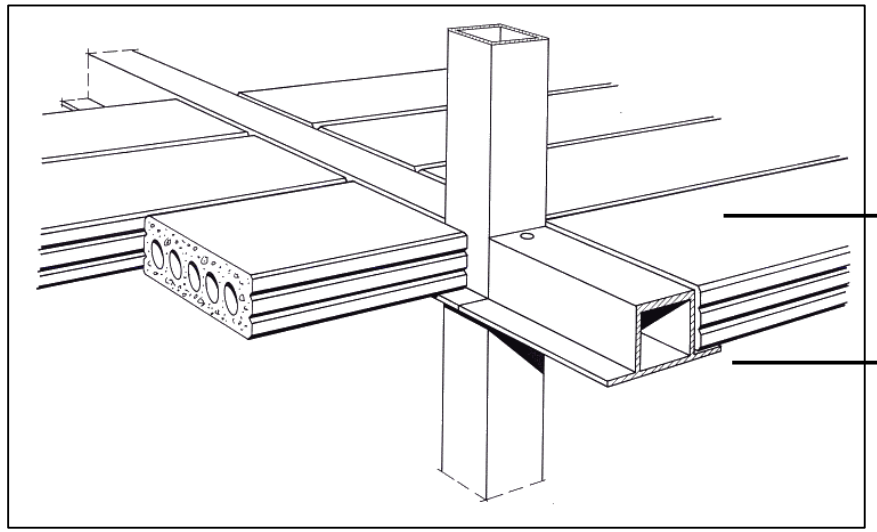
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

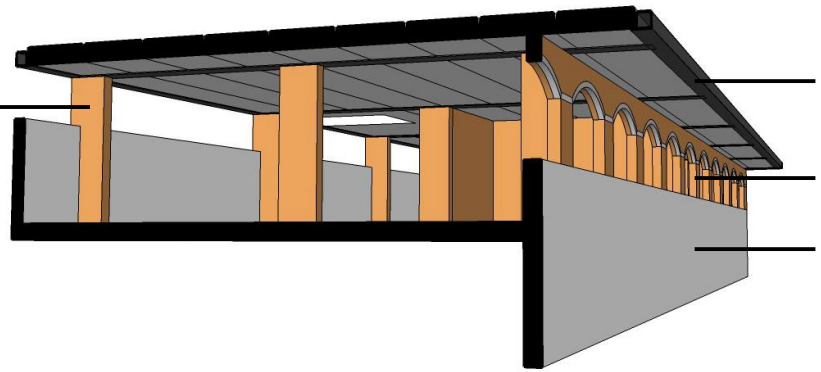
1-3 Restaurant

View and light
Continuous landscape
-Brick floor and wall
-White ceiling for light reflection



Recycled precast hollow concrete slab

Brick load bearling column



THQ Ligger

Brick and stone facade

Water tight concrete casted at once

Main structure

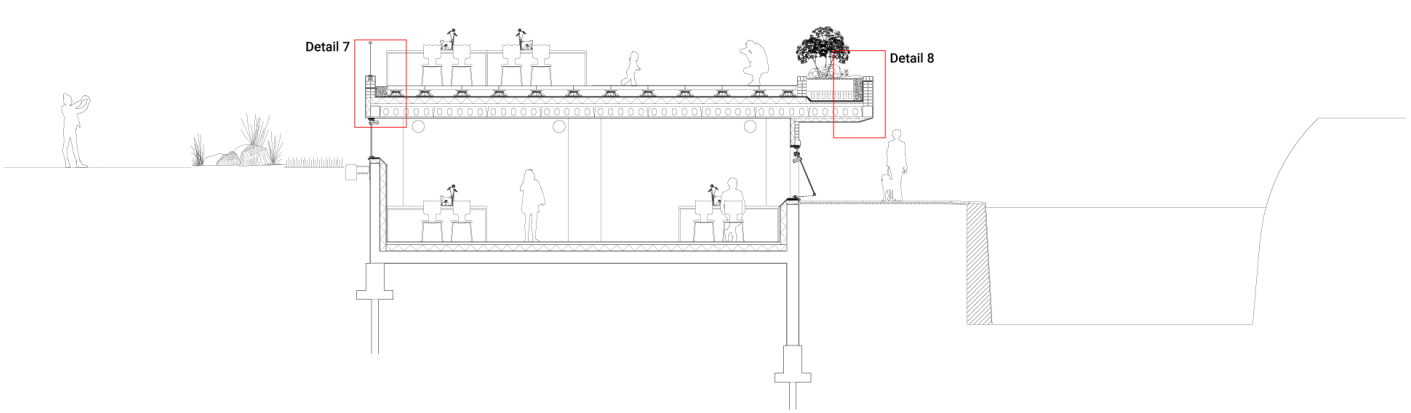
4 Design

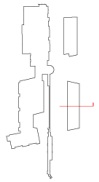
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

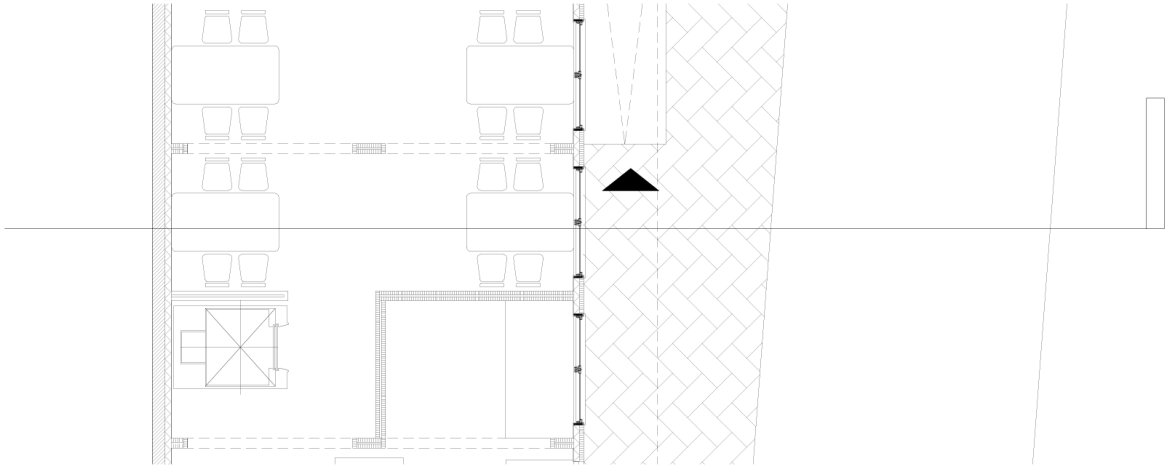
1-3 Restaurant

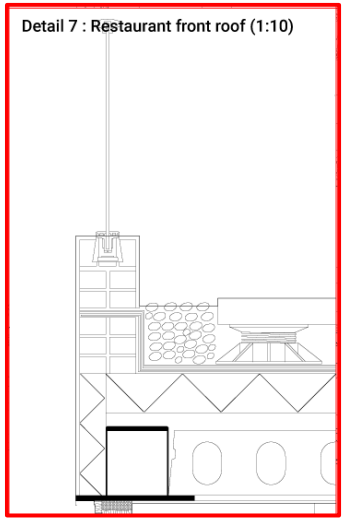
Structure and Detail
-Structure diagram

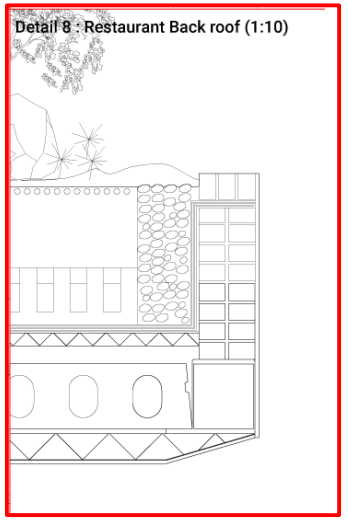




Restaurant 1 : 50 vertical section (up)
Restaurant 1 : 50 horizontal section (down)







4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-3 Restaurant

Structure and Detail

Detail 7
-Citywall view roof top restaurant
-Glass railings for visual expansion of citywall
-Recycled precast hollow concrete slab

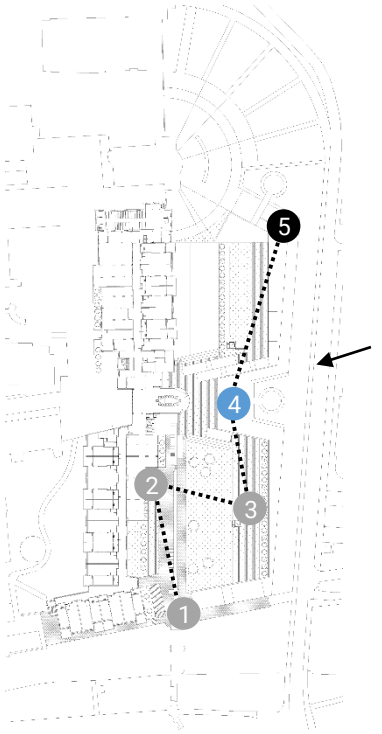
Detail 8
-River view roof top restaurant
-Plants railings for continuous garden landscape
-Recycled timber boards

Existing situation : Tower

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

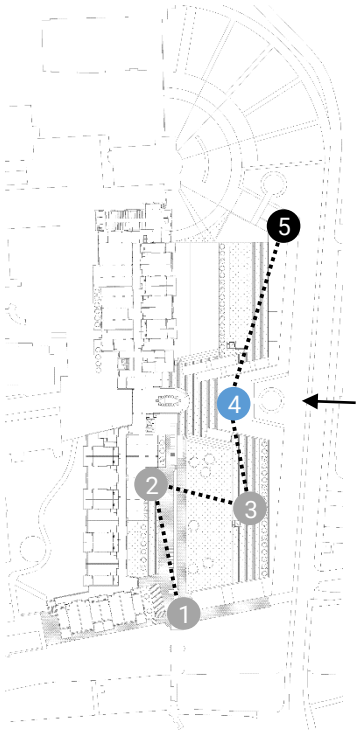


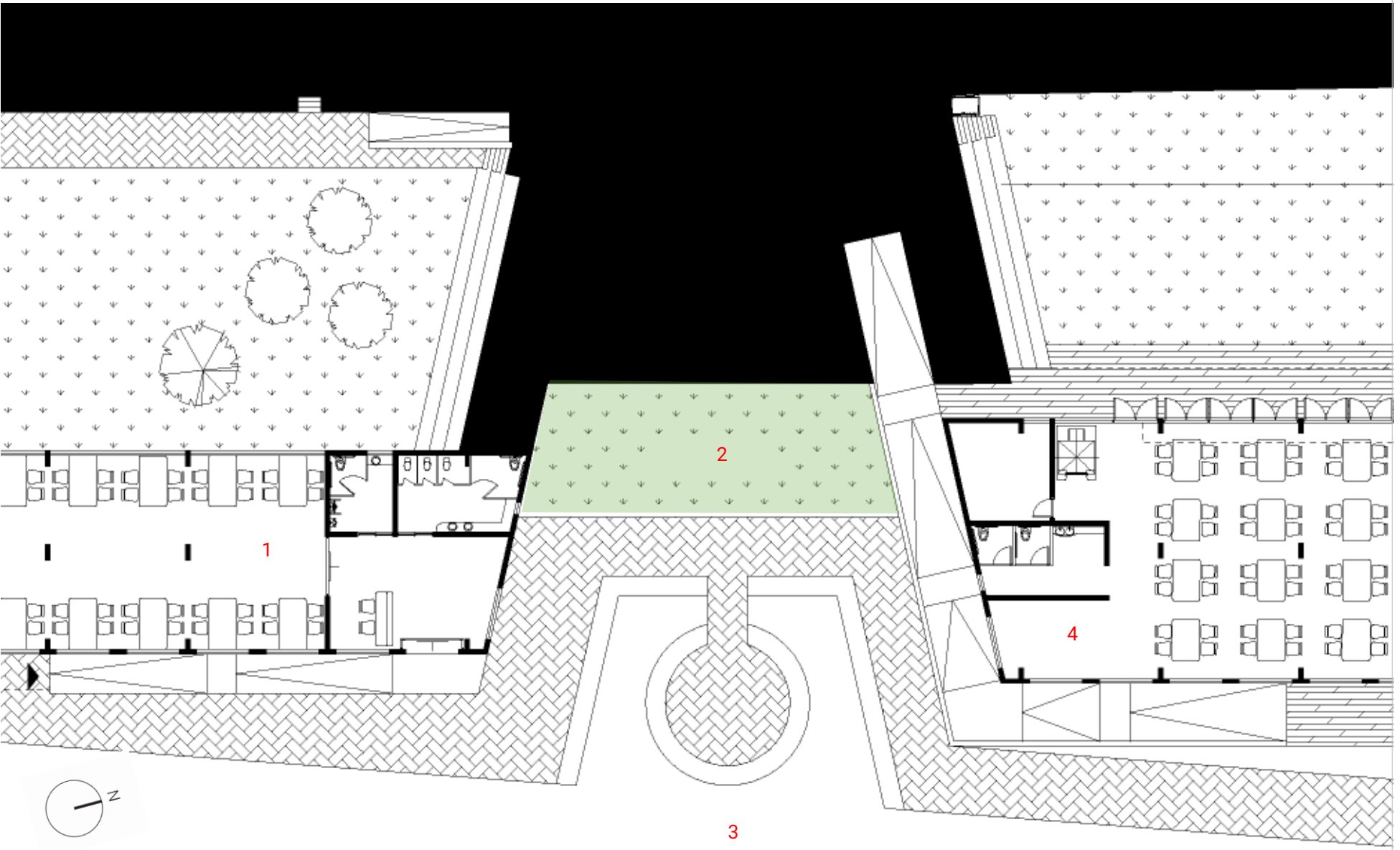
After renovation : Water garden

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route





Basement level

4 Design

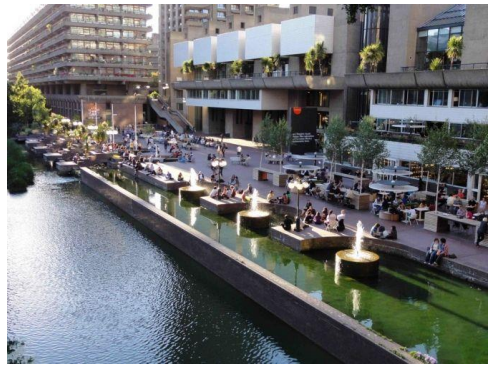
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

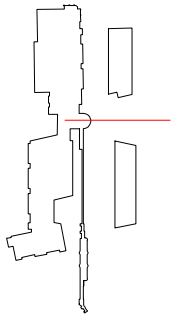
1-4 Water garden

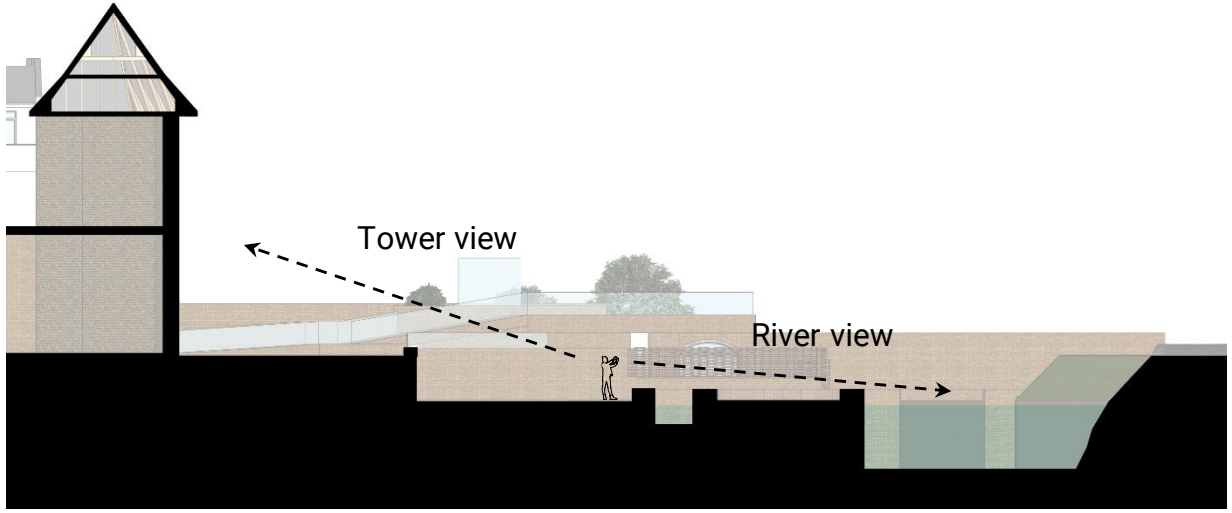
Activity
-Water garden
-Tower island

1. Restaurant
2. Garden
3. Berkel river
4. Recreation room



Precedent : Baribican center, London
https://www.pinterest.com/pin/395331673514155593/





4 Design

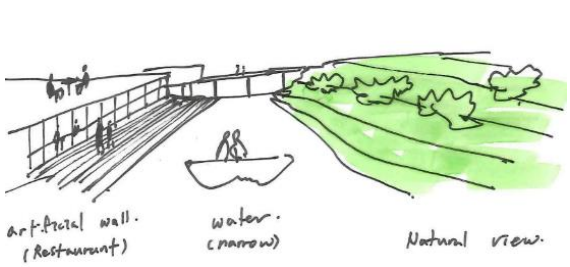
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

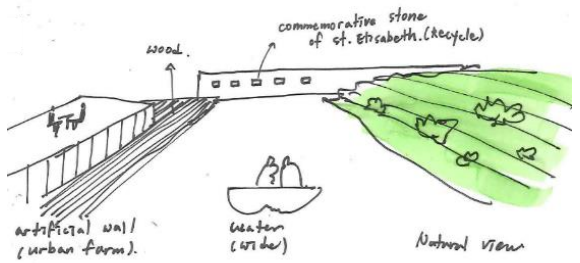
4-6. Visitor's route
4-7. Resident's route

1-4 Water garden

View and light
-Relation with tower
-Relation with Berkel river

Artificial view Water Nature view





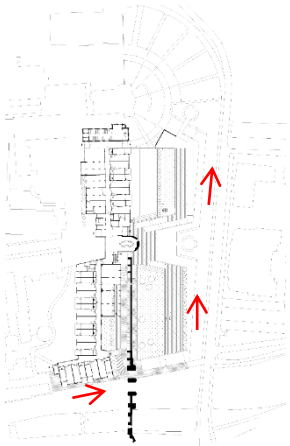
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-4 Water garden

View and light
-Sequence of water experience

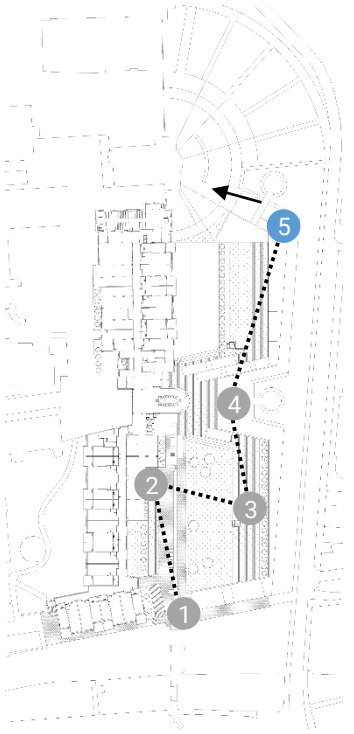


Existing situation : Tower remains and Pastorie

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

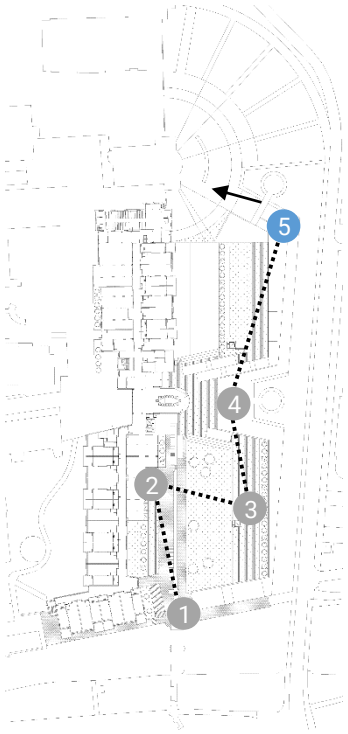


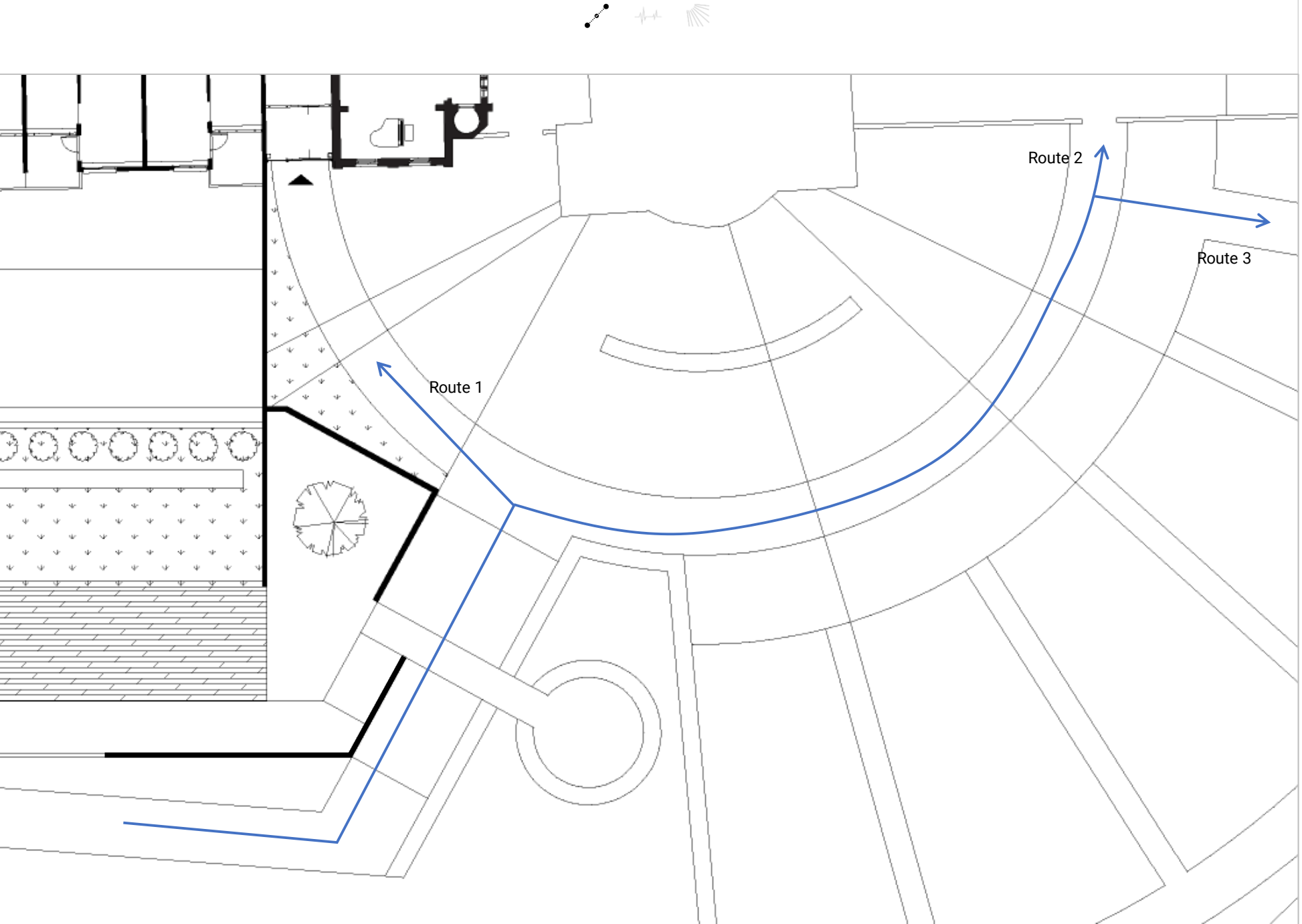
After renovation : Music garden

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route





4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

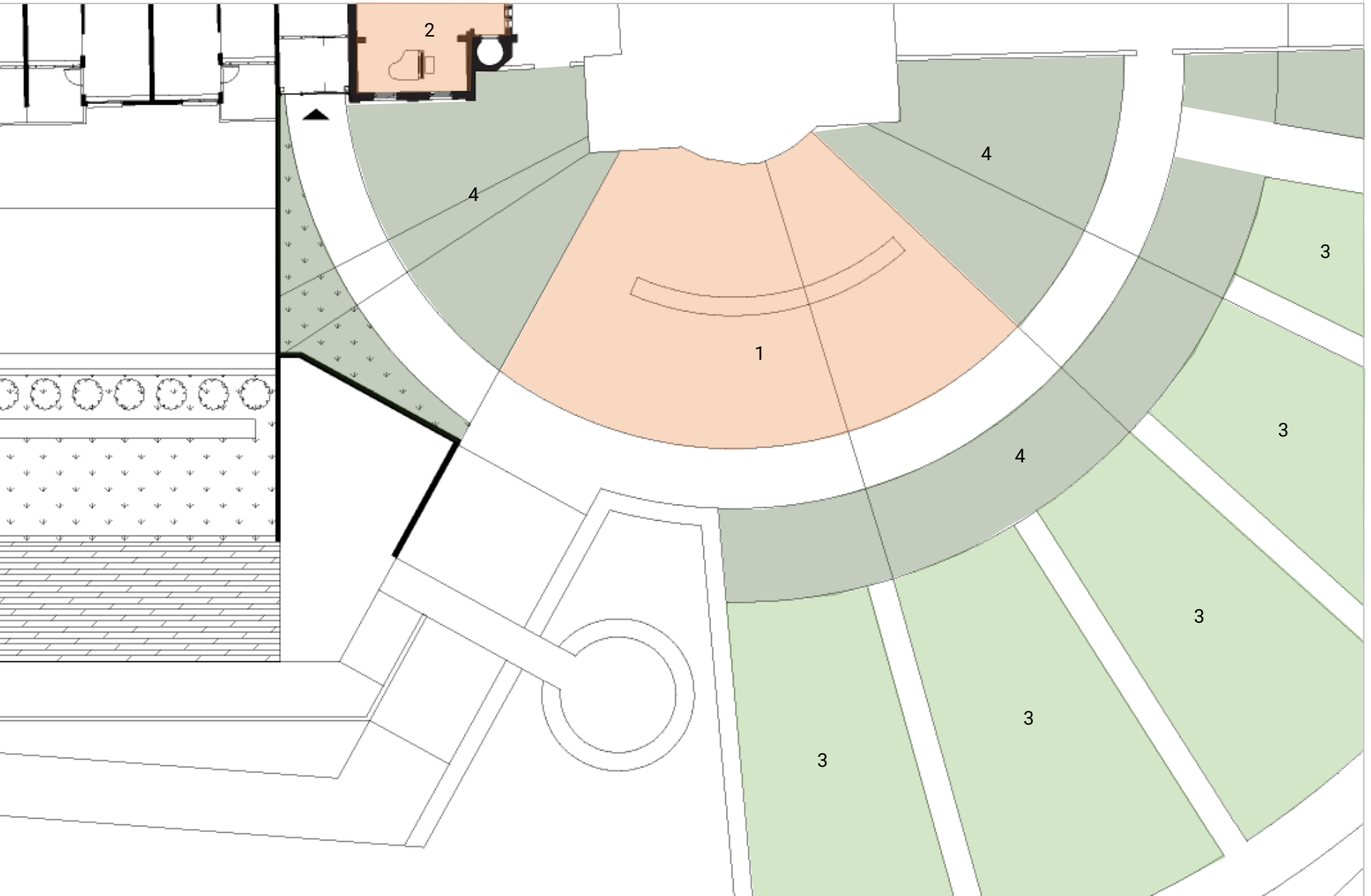
4-6. Visitor's route
4-7. Resident's route

1-5 Water garden

Accessibility
-1 : Route to music hall
-2: Route to music school
-3: Route to Beethoven park

Ground floor

Ground floor



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-5 Water garden

Activity
1. Outdoor podium
2. Music hall
3. Vegetable garden
4. Grass

Precedent : Vegetable farm, Villa Augustus
https://www.tripadvisor.com/LocationPhotoDirectLink-g188627-d1828608-i175881564-Villa_Augustus-Dordrecht_South_Holland_Province.html

History board
Stone

Podium
Stone tile

Path, Wall
Red brick

Heritages
Old brown brick

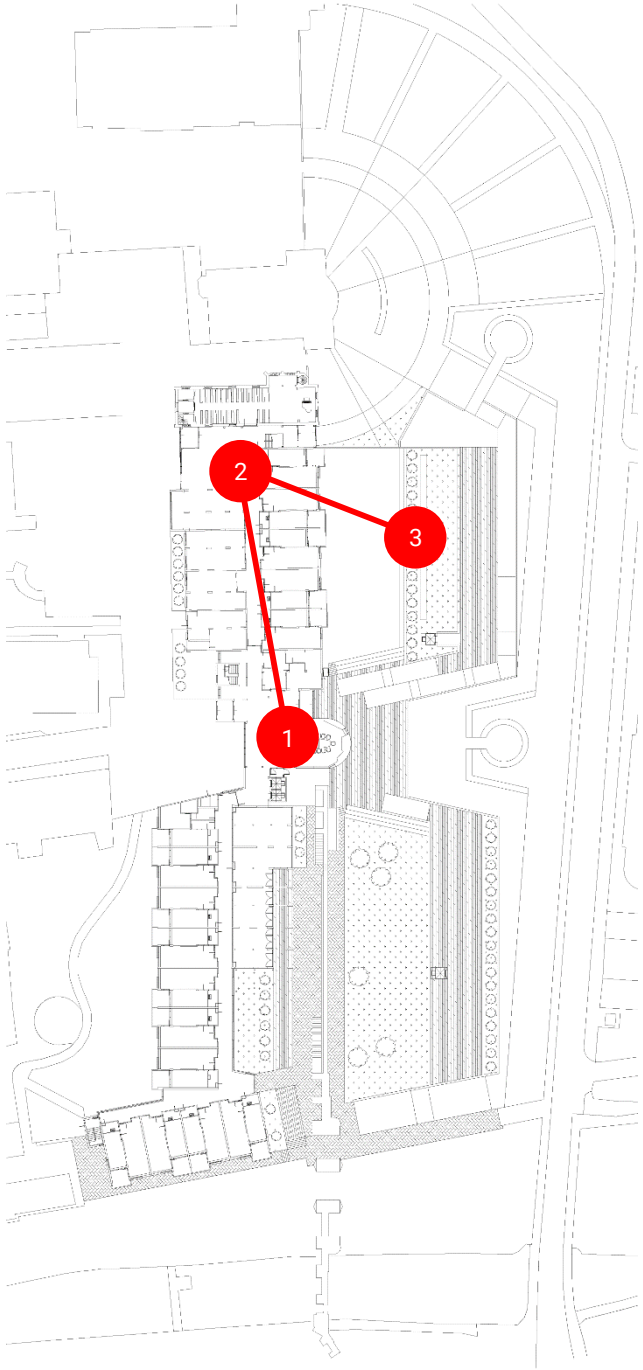
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

1-5 Water garden

View and light
Continuous landsape
-Commemorative stones



Two different main routes

1. Visitor's route
    - 1-1 Entrance to garden
    - 1-2 Citywall center
    - 1-3 Restaurant
    - 1-4 Water garden
    - 1-5 Music garden

2. Resident's route
    - 2-1 Main entrance
    - 2-2 Music hall
    - 2-3 Recreation room

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

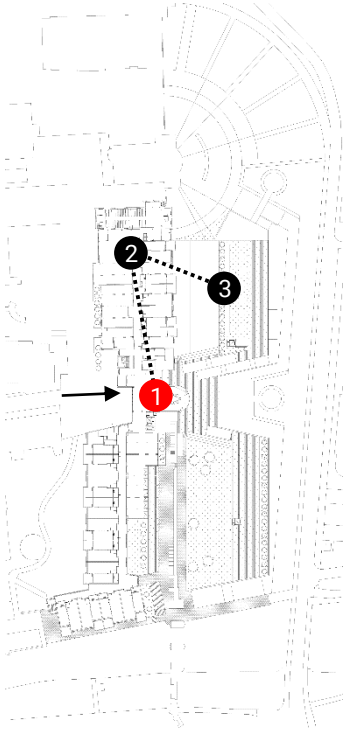
4-6. Visitor's route
4-7. Resident's route

Existing situation : Main entrance

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor’s route
4-7. Resident’s route

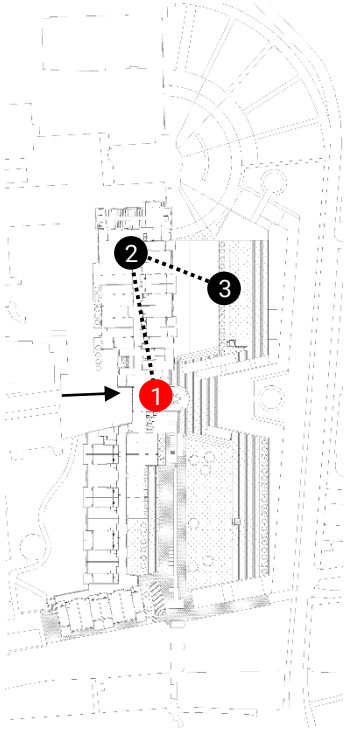


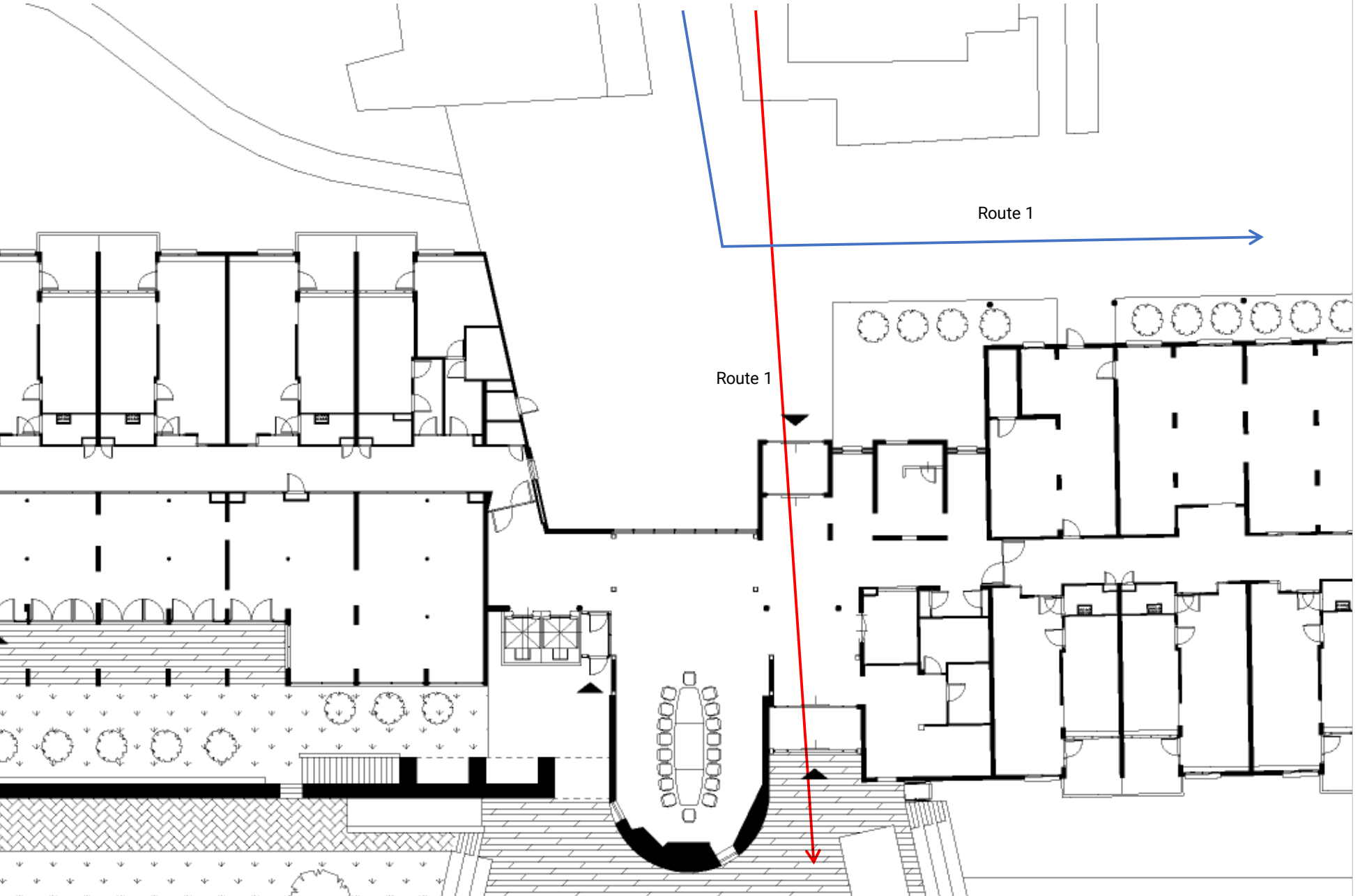
After renovation : Main entrance

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route





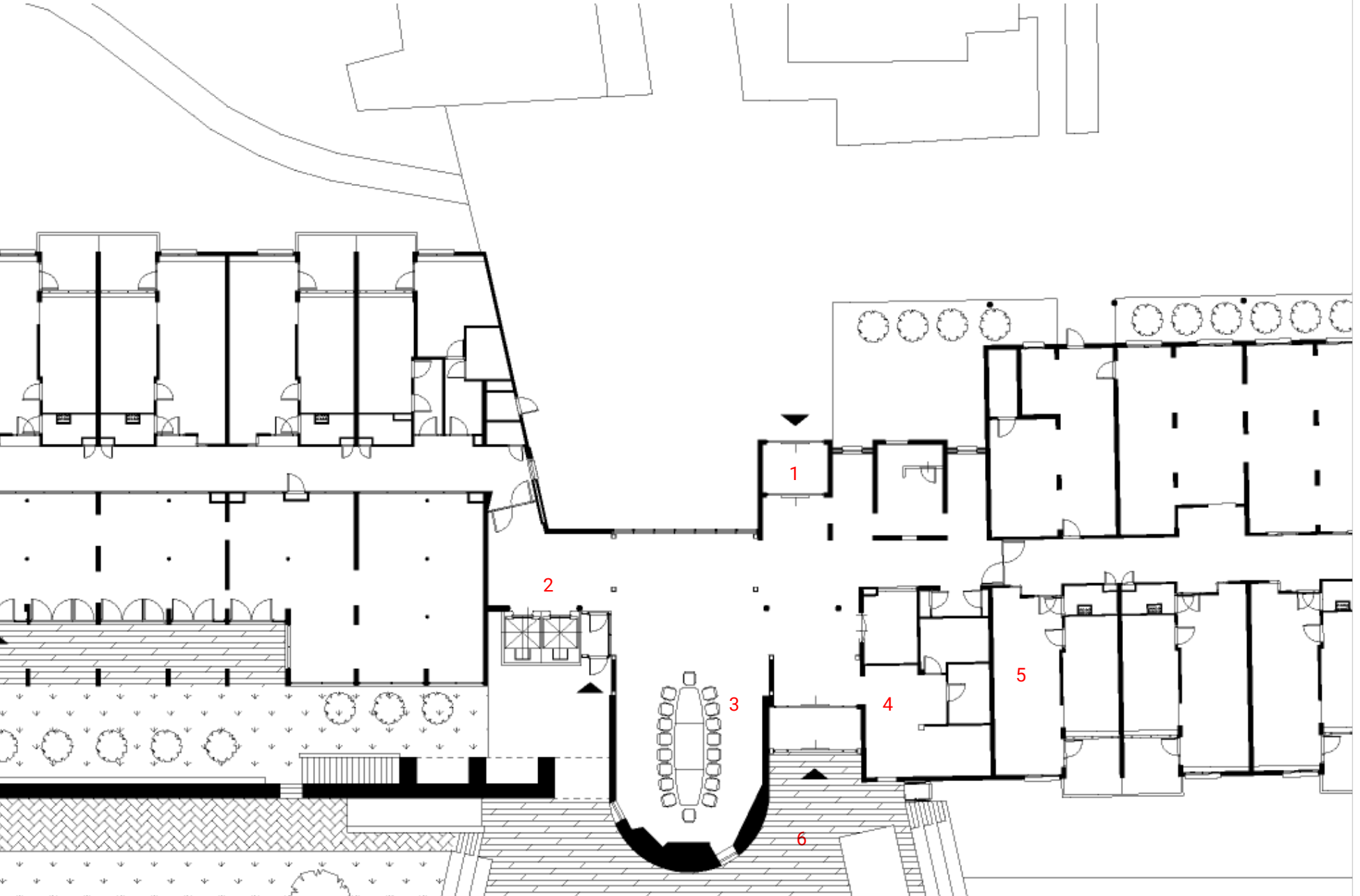
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

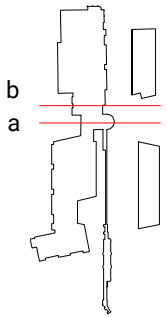
2-1 Main entrance
Accessibility
1. Pedestrian route
2. Car route
-Connectivity

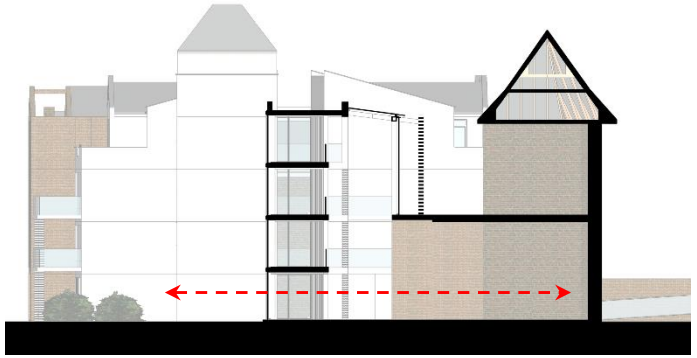
Ground floor



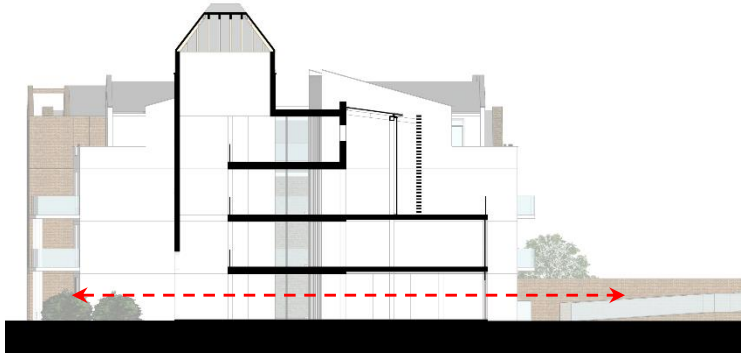
2-1 Main entrance
Activity
1. Tower entrance
2. New elevator
3. Community zone
4. Service room
5. Housing unit
6. Tower terrace

Ground floor





Section a



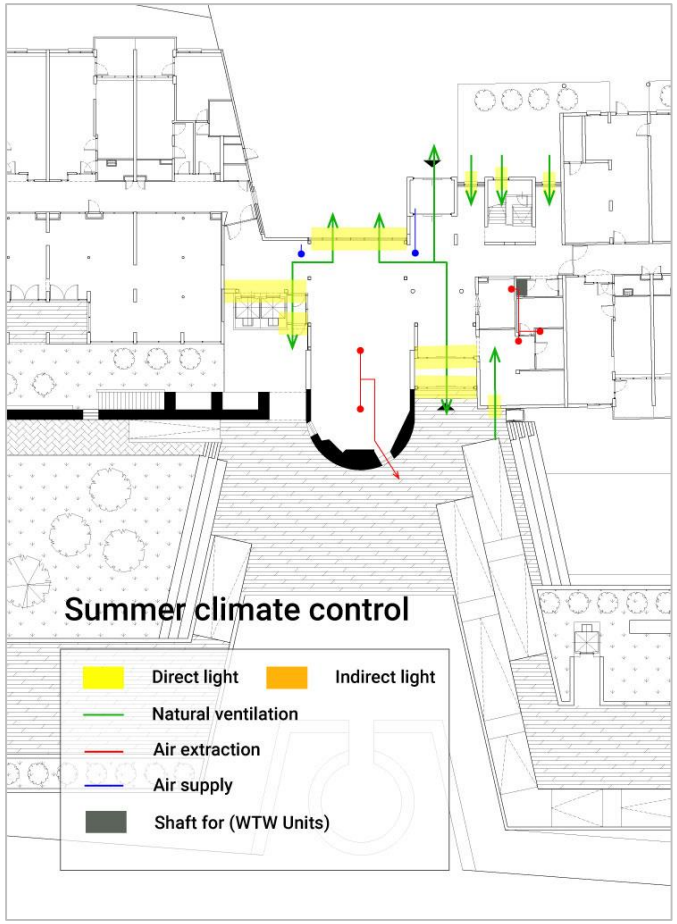
Section b

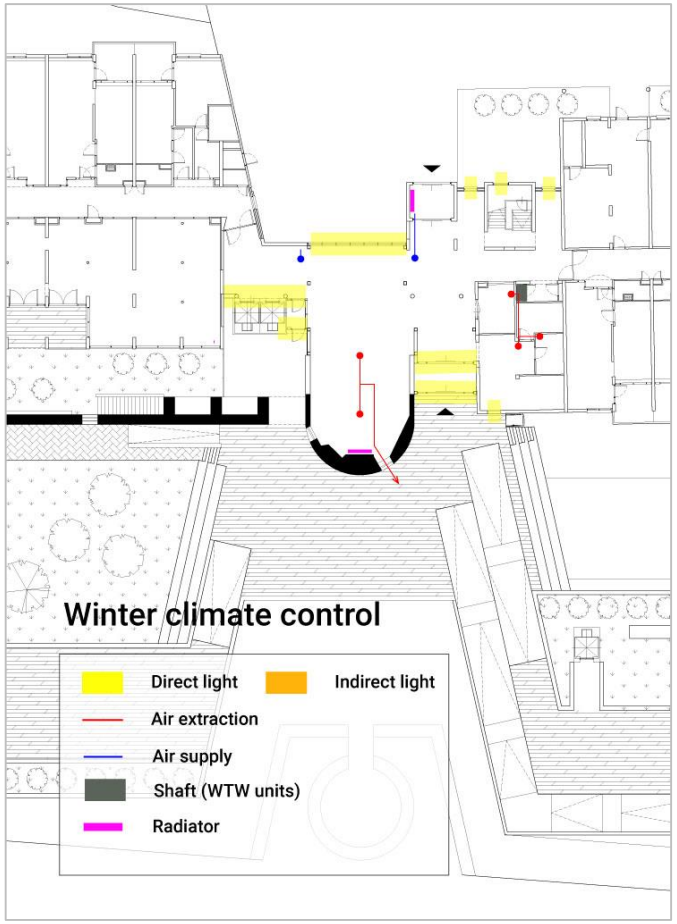
4 Design

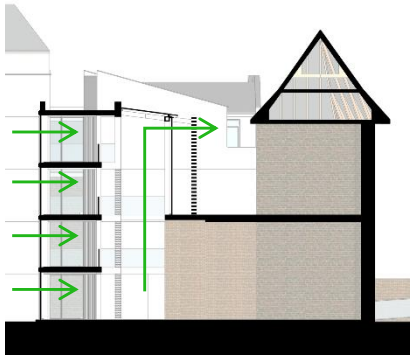
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

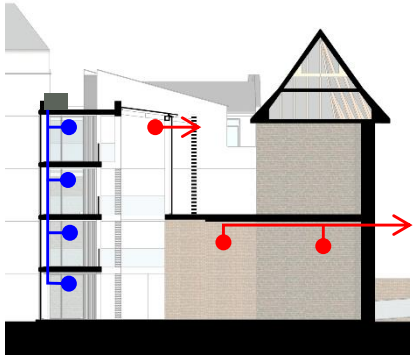
2-1 Main entrance
View and light
-Relation with tower
-Direct connect to garden







Summer



Winter

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-1 Main entrance
View and light
-Summer climate control
-Winter climate control

Ground floor

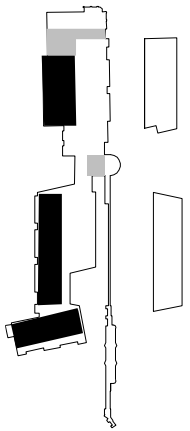
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

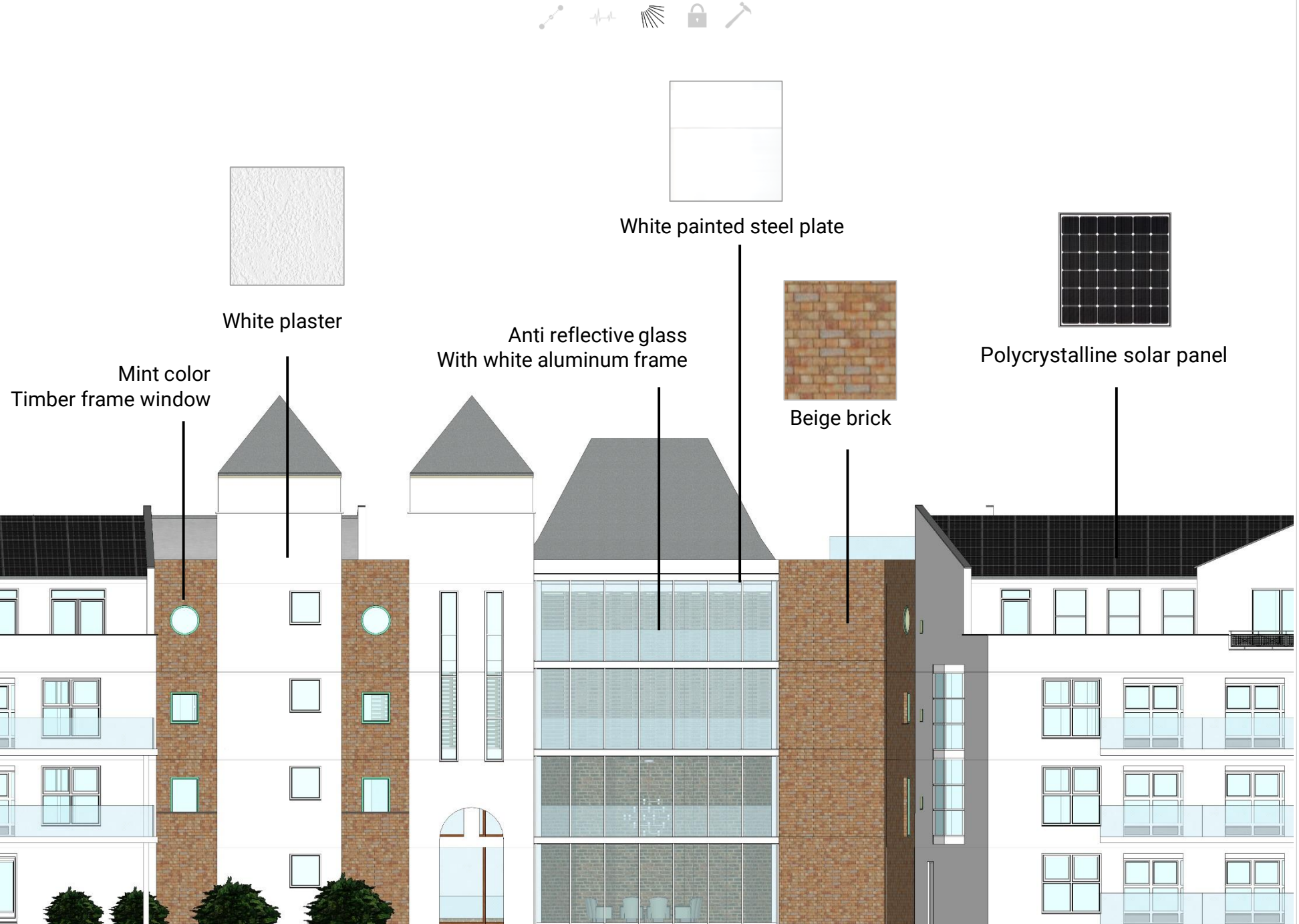
4-6. Visitor's route
4-7. Resident's route

2-1 Main entrance
View and light
1. Photovoltaic solar panels
2. Rain harvesting
3. Geothermal heat
4. Sun screen

Solar panel arrangement



Transparent solar panel
Polycrystalline Panel



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

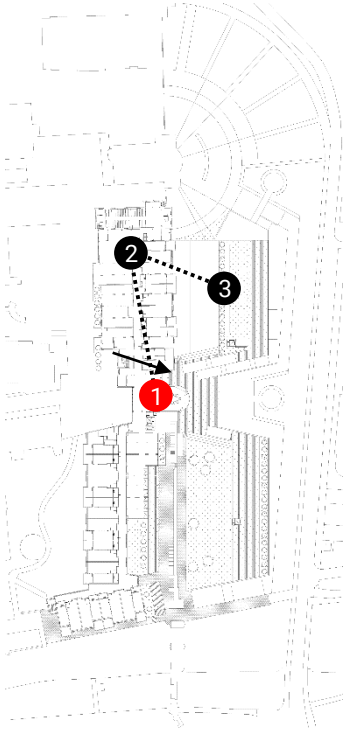
4-6. Visitor's route
4-7. Resident's route

2-1 Main entrance
View and light
-Façade materials
-Anti reflective glass

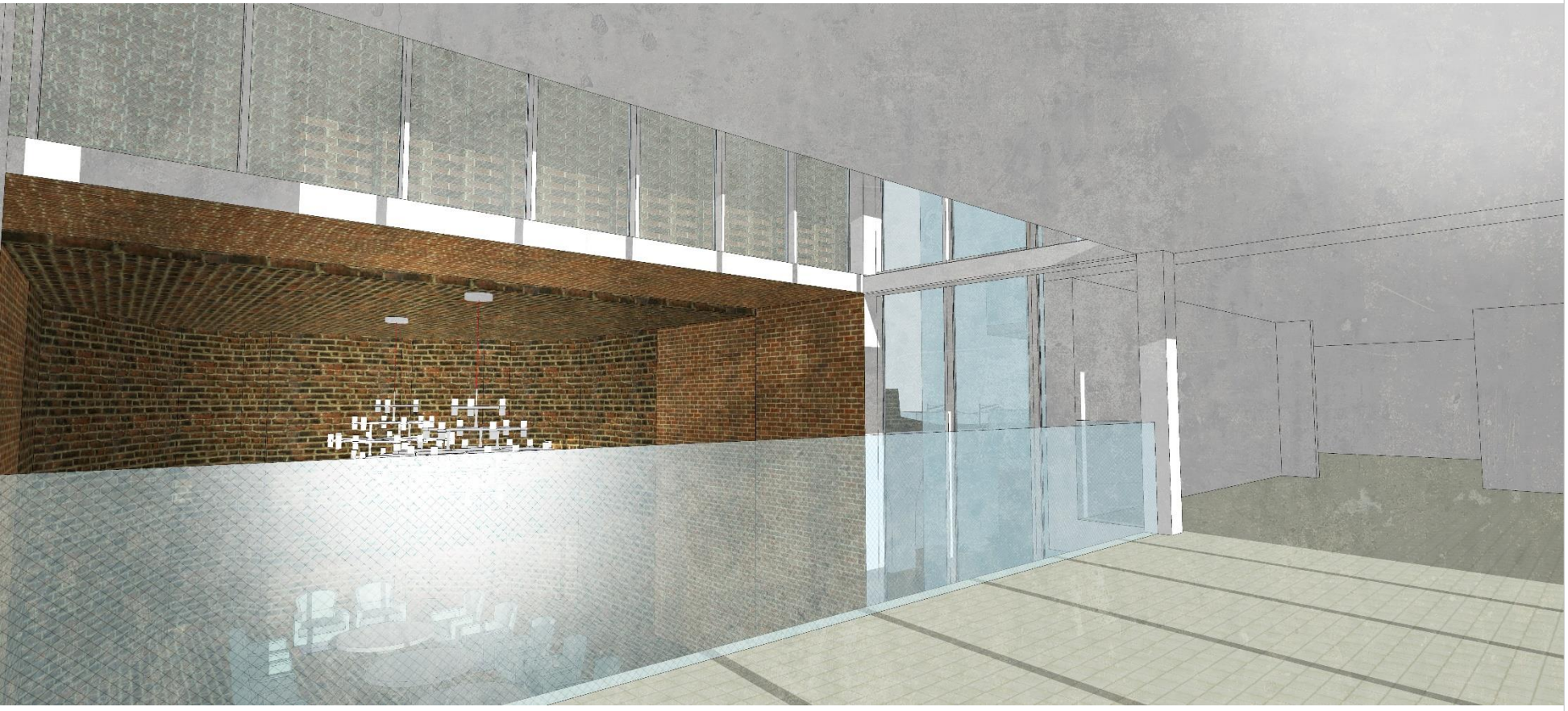
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route



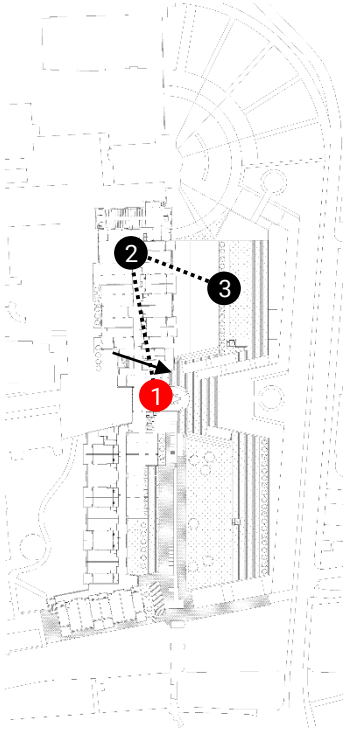
After renovation : Central lobby



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route



Tower environment

Perforated red bricks

Heritages
Old brown brick

Wall, ceiling
Red bricks

Residence

White painted
Steel

Wall ceiling
White plaster

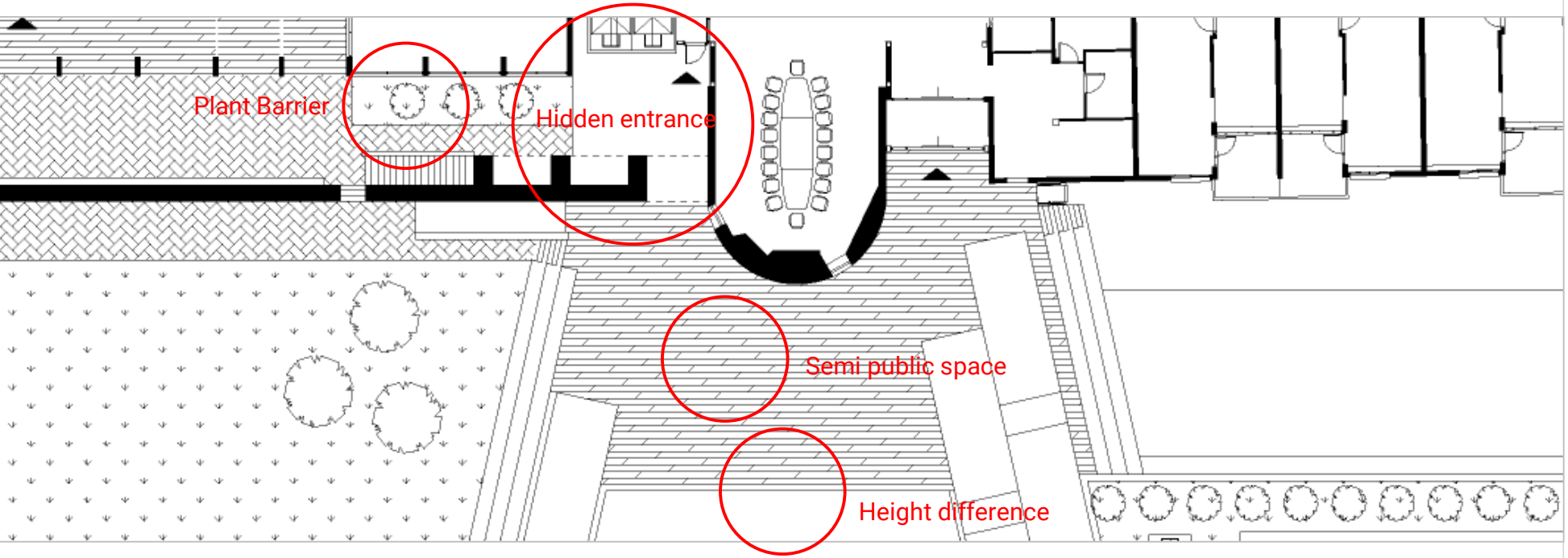
Floor
White terrazzo tile
20cm*20cm

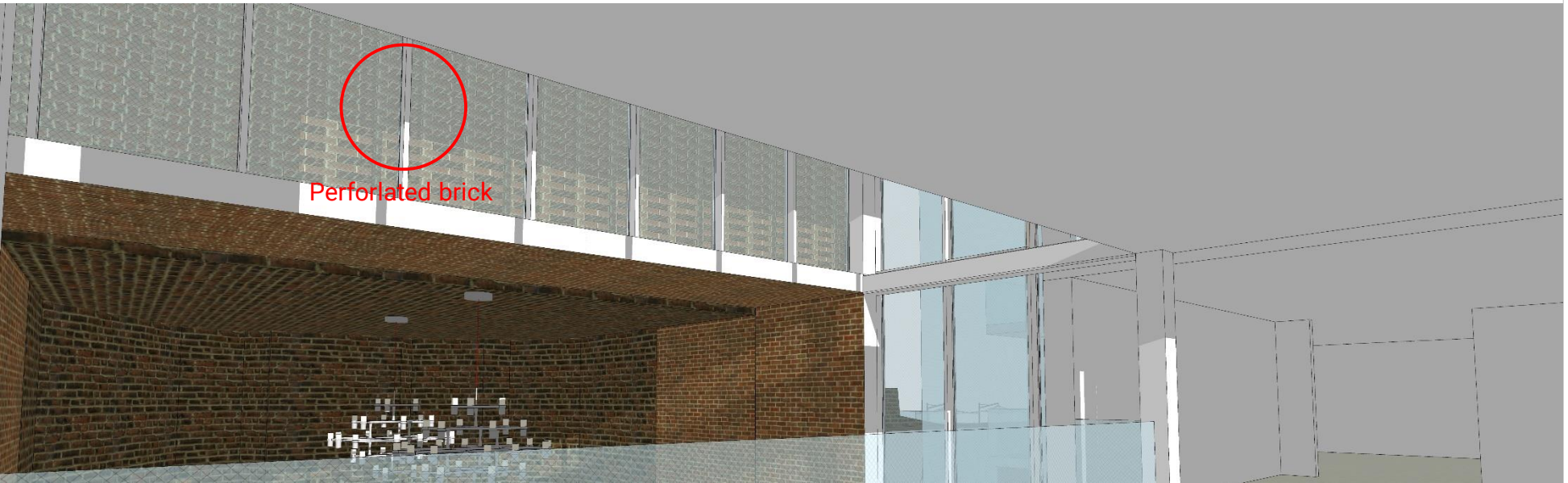
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-1 Main entrance
View and light
-Interior materials





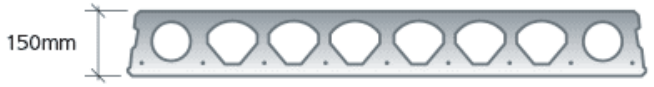
4 Design

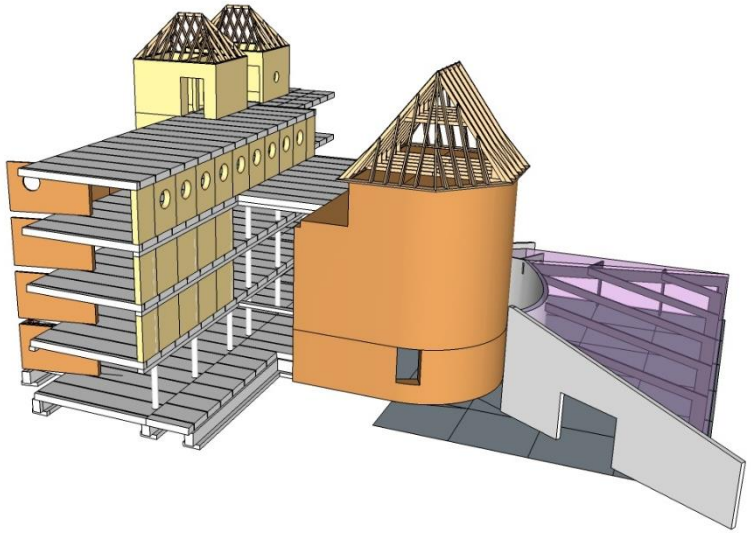
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-1 Main entrance
Privacy
1. Perforated brick façade
2. Plant barrier
3. Hidden entrance
4. Semi public space
5. Height difference

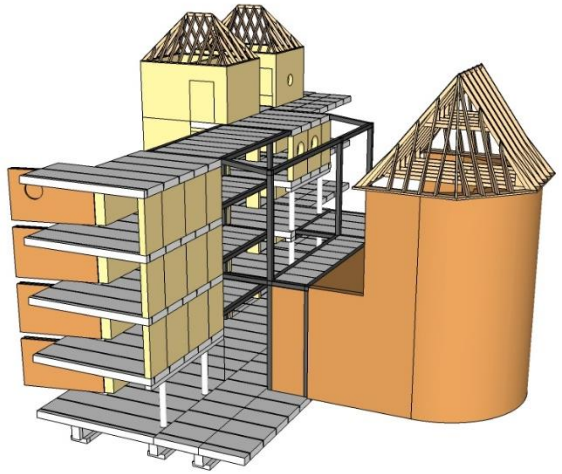
Ground floor





Load bearing wall structure with 250mm
Precast hollow concrete slab

Before



Steel frame structure with
150mm precast hollow concrete slab

After

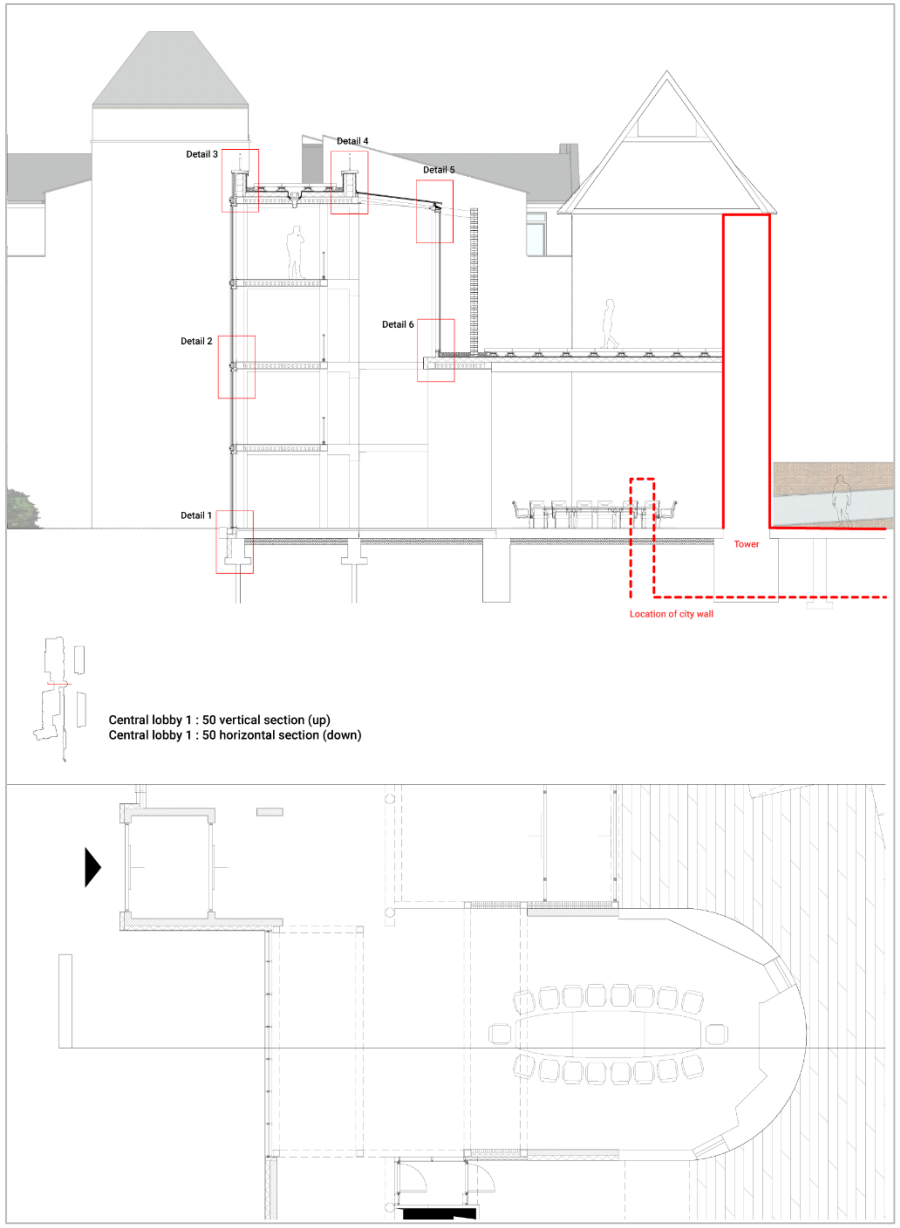
4 Design

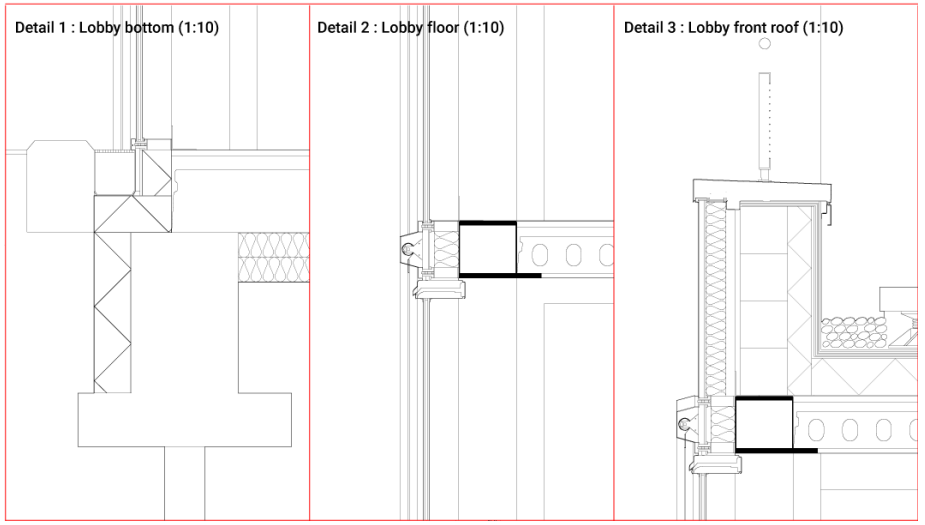
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

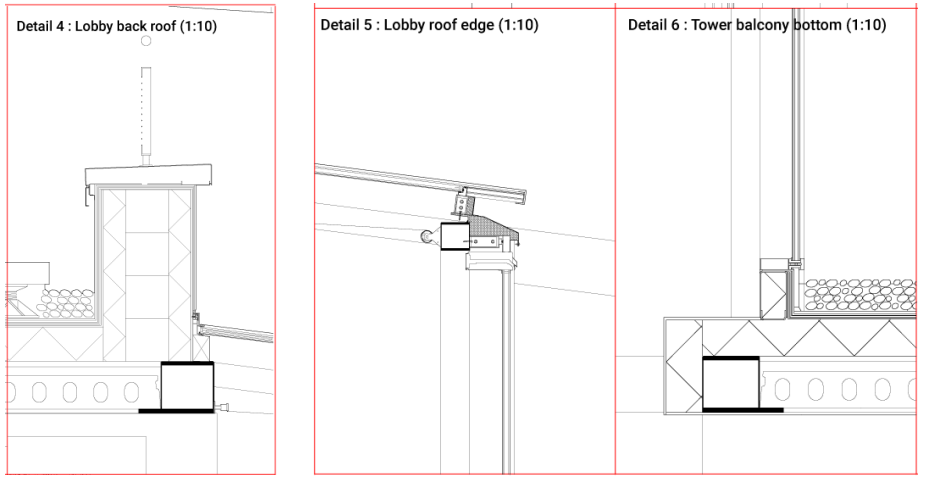
4-6. Visitor's route
4-7. Resident's route

2-1 Main entrance
Structure and detail
-Structure diagram
-Light structure

Brick
Sandlime brick stone
Conrete
Wood
Steel







Thin and slim slabs and transparent façade
to maximize tower exposure

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-1 Main entrance
Structure and detail

Detail 1 :
-Glass curtain wall to expose tower behind.
-Reuse existing floor

Detail 2 :
-Thin and slim slabs to maximize tower exposure
-Sustainable climate control through sun shades and ventilation windows

Detail 4 :
-Skylight for natural light
-Solar panel to generate energy
-Green house roof

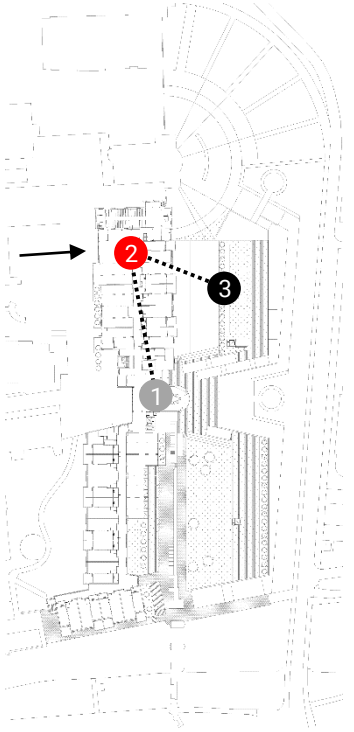
Detail 6 :
-Glass curtain wall to expose tower
-Perforated wall for privacy issue

Existing situation : Chapel

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

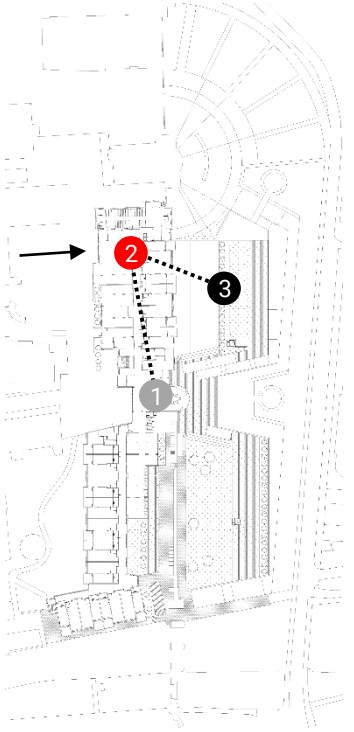


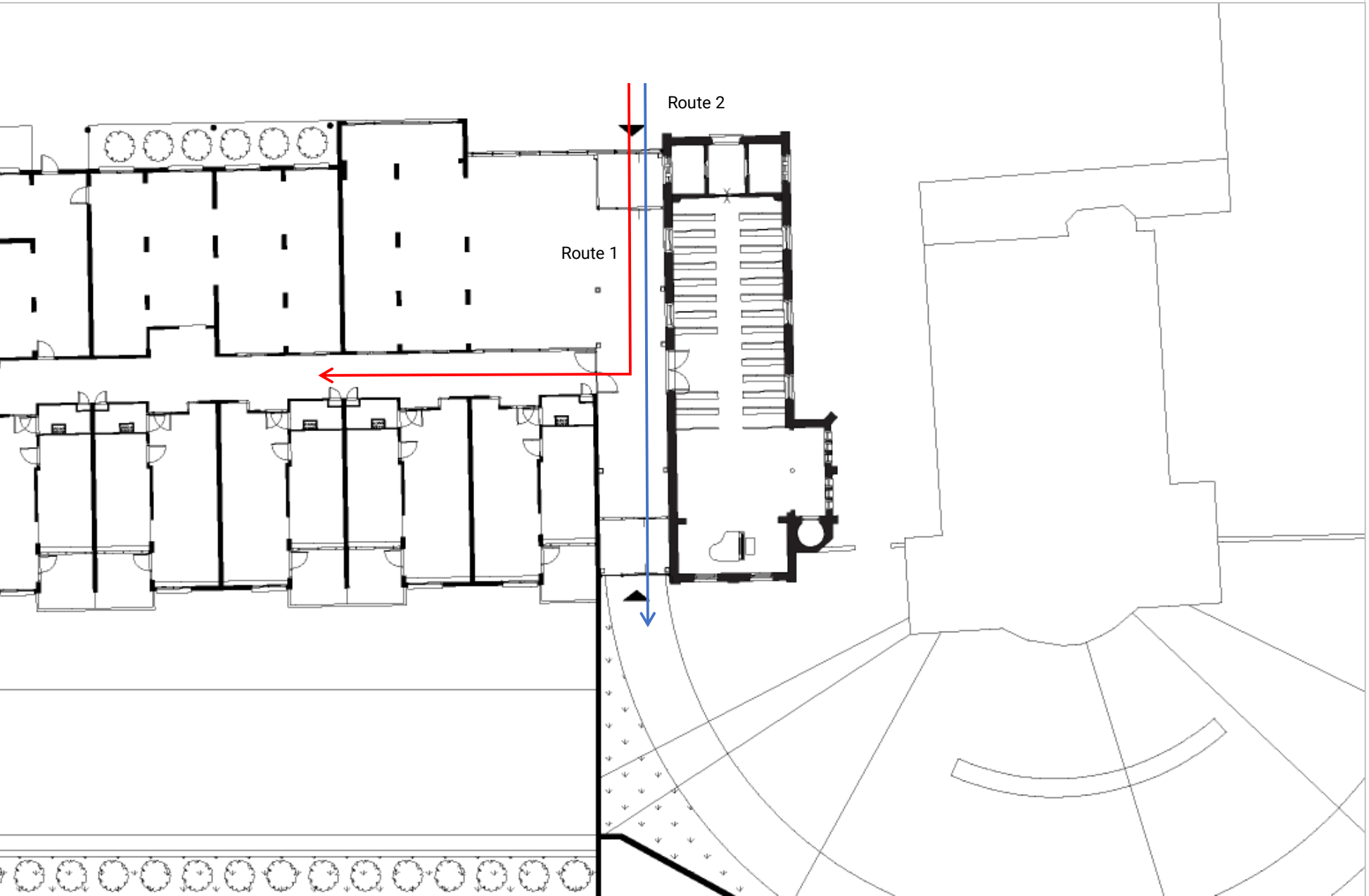
After renovation : Music hall

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route





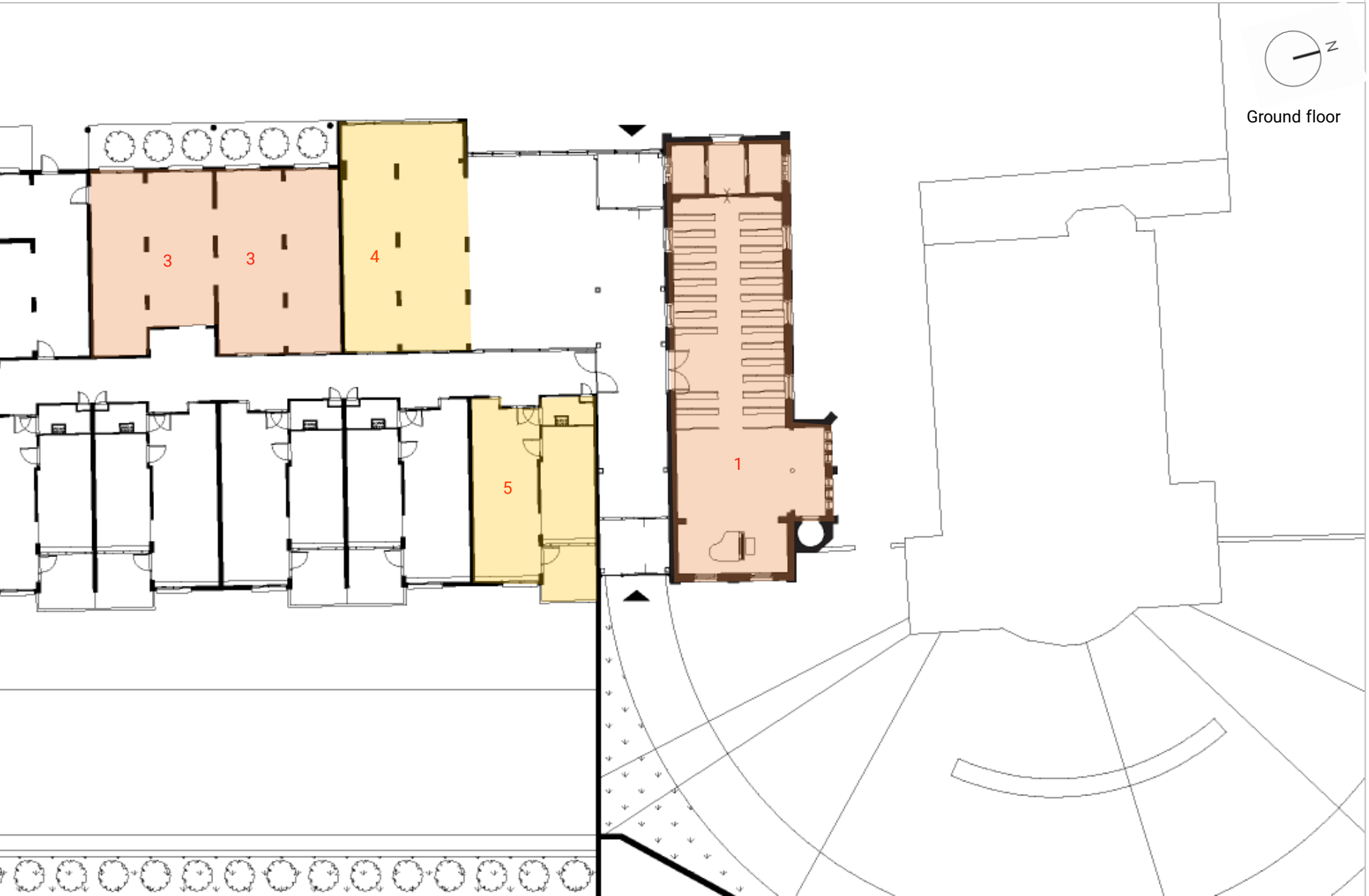
Ground floor

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

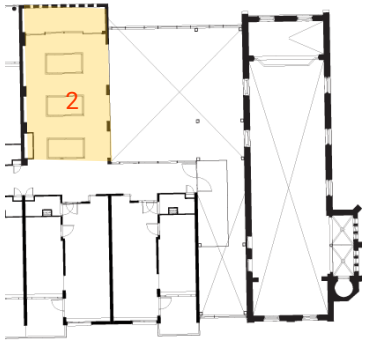
4-6. Visitor's route
4-7. Resident's route

2-2 Music hall
Accessibility
1. Resident route
2. Visitor's route
-Direct connect to garden

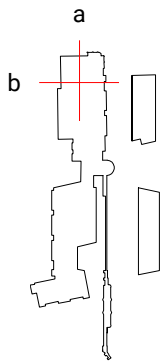


Ground floor

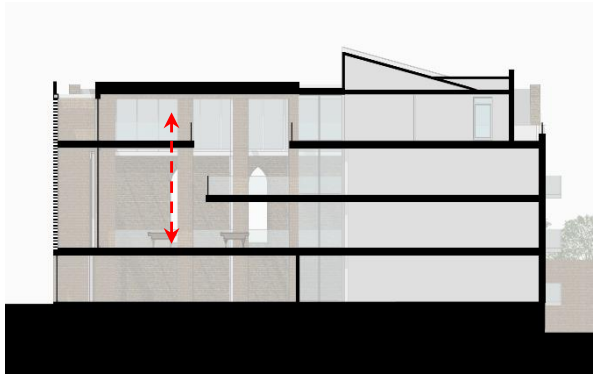
2-2 Music hall
Activity
1. Music hall
2. Community zone
3. Music therapy center
4. Administrative office
5. Housing unit



First floor



Section a



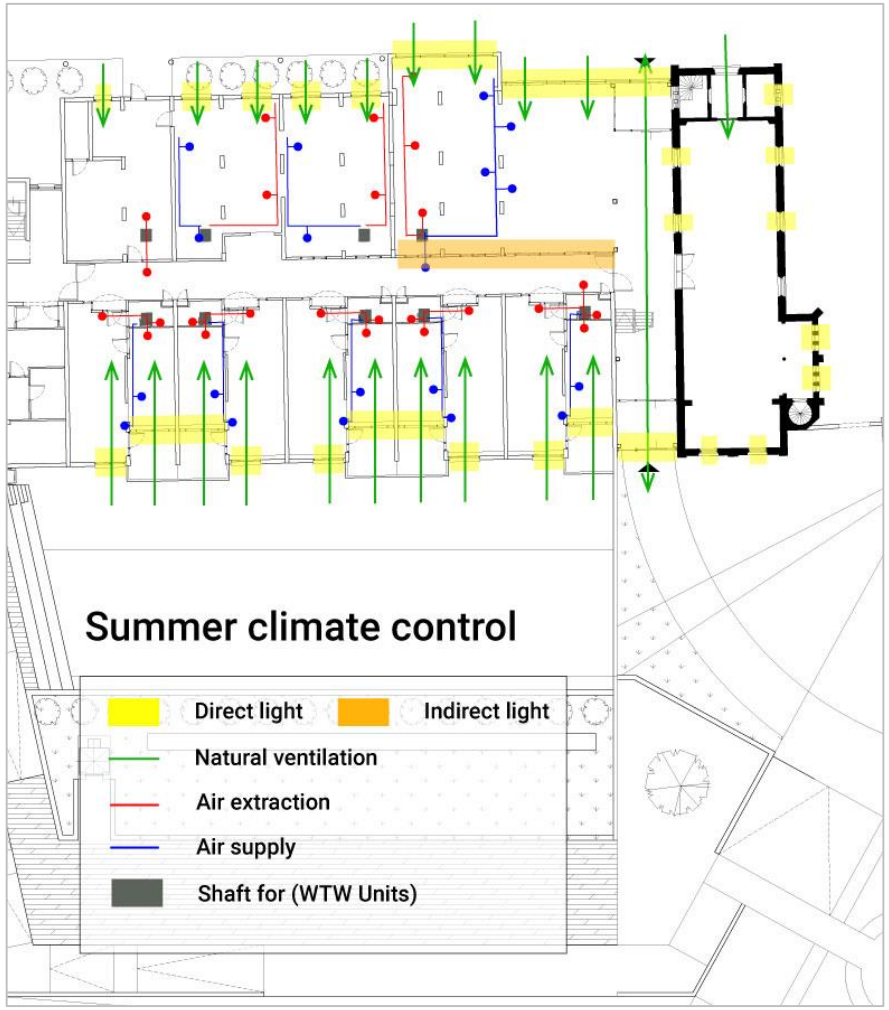
Section b

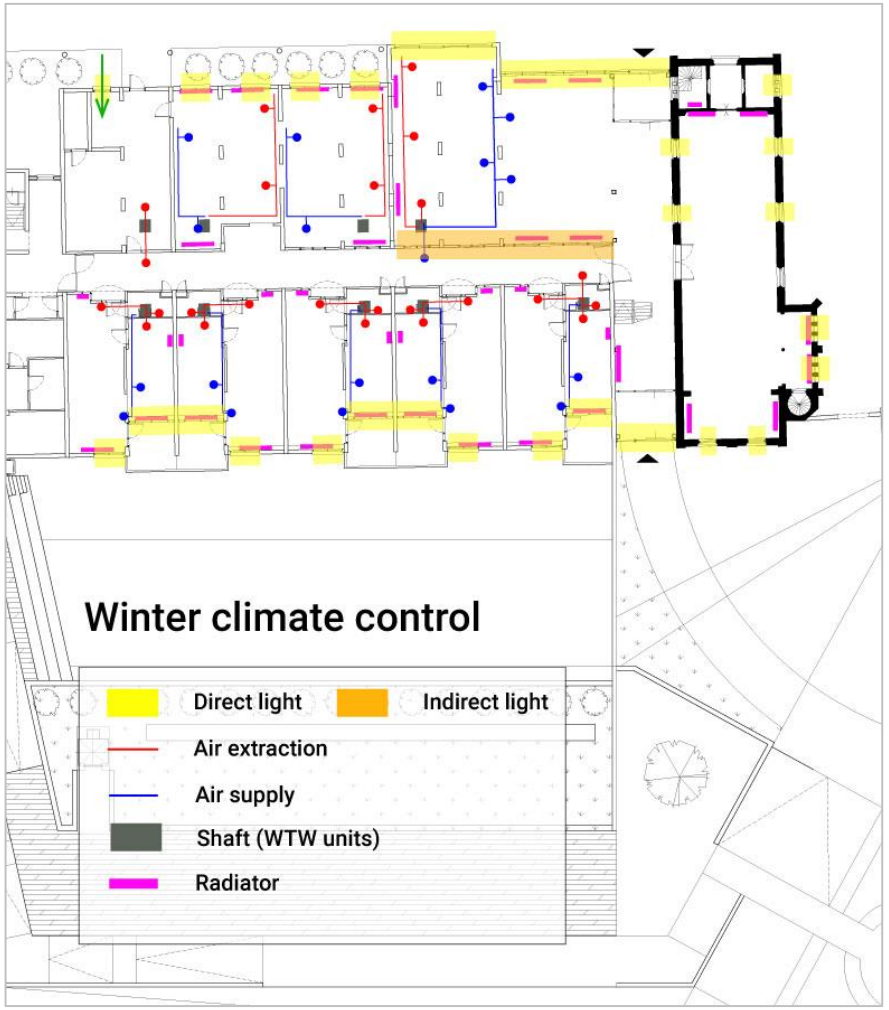
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-2 Music hall
View and light
-Relation with chapel
-Community Zone





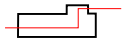
4 Design

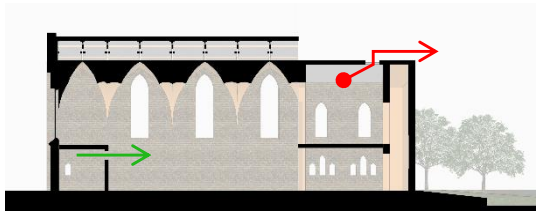
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

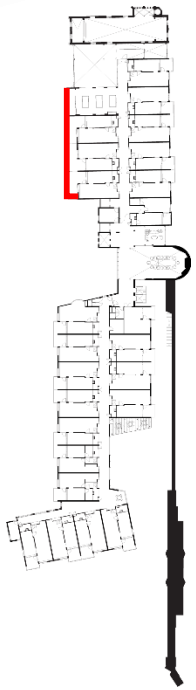
4-6. Visitor's route
4-7. Resident's route

2-2 Music hall
View and light
-Summer climate control
-Winter climate control

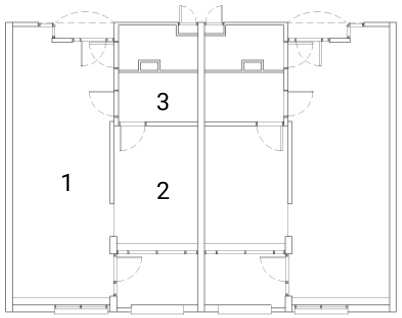
-Music hall



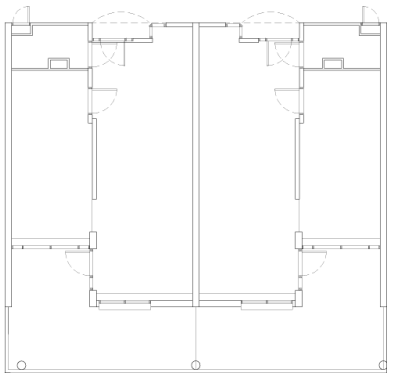




First floor plan



Current situation



2.5m extension

1 Livingroom

2 Bedroom

3 Restroom

-Balcony is placed above the parking lot

-Column can be used to support balcony since it has enough ground space.

-Maximum balcony extension (2.5m) provides winter garden

-Parking lot view can be replaced by winter garden view.

4 Design

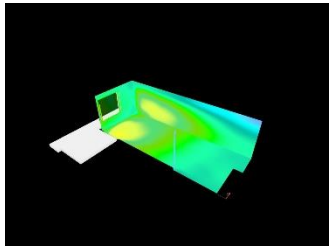
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

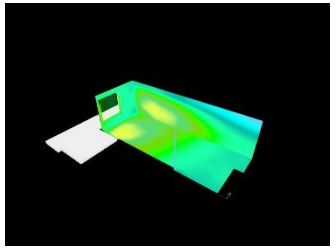
2-2 Music hall
View and light
-Balcony extension

Façade A (Before renovation)

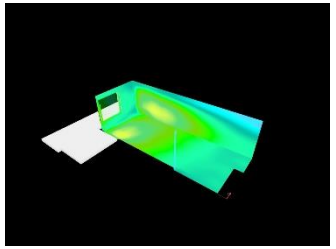
Average summer illuminance per extension_ Required illumination standard for homes 150lux



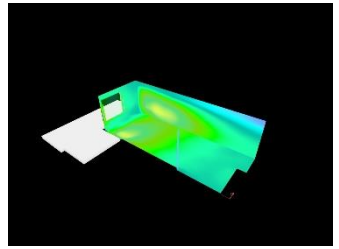
1m extension : 206lx



2m extension : 164lx



2.5m extension : 148lx



3m extension : 135lx

Polycrystalline solar panel

Old brown brick

White painted steel plate

Perforated red bricks

White plaster

Beige brick

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

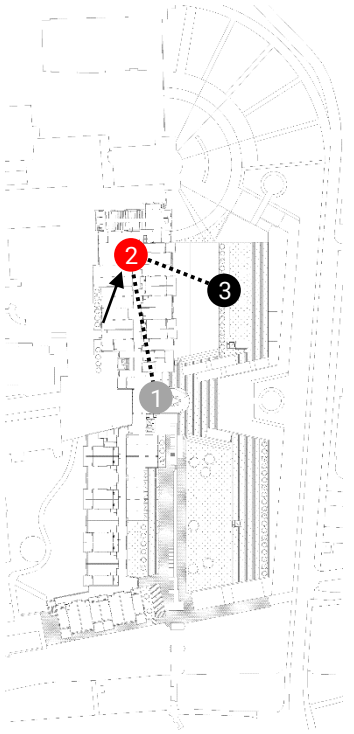
2-2 Music hall
View and light
-Façade materials

After renovation : Music hall

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route



Old brown brick

White painted
steel beam and column

Column
Red bricks

Ceiling & Wall
White plaster

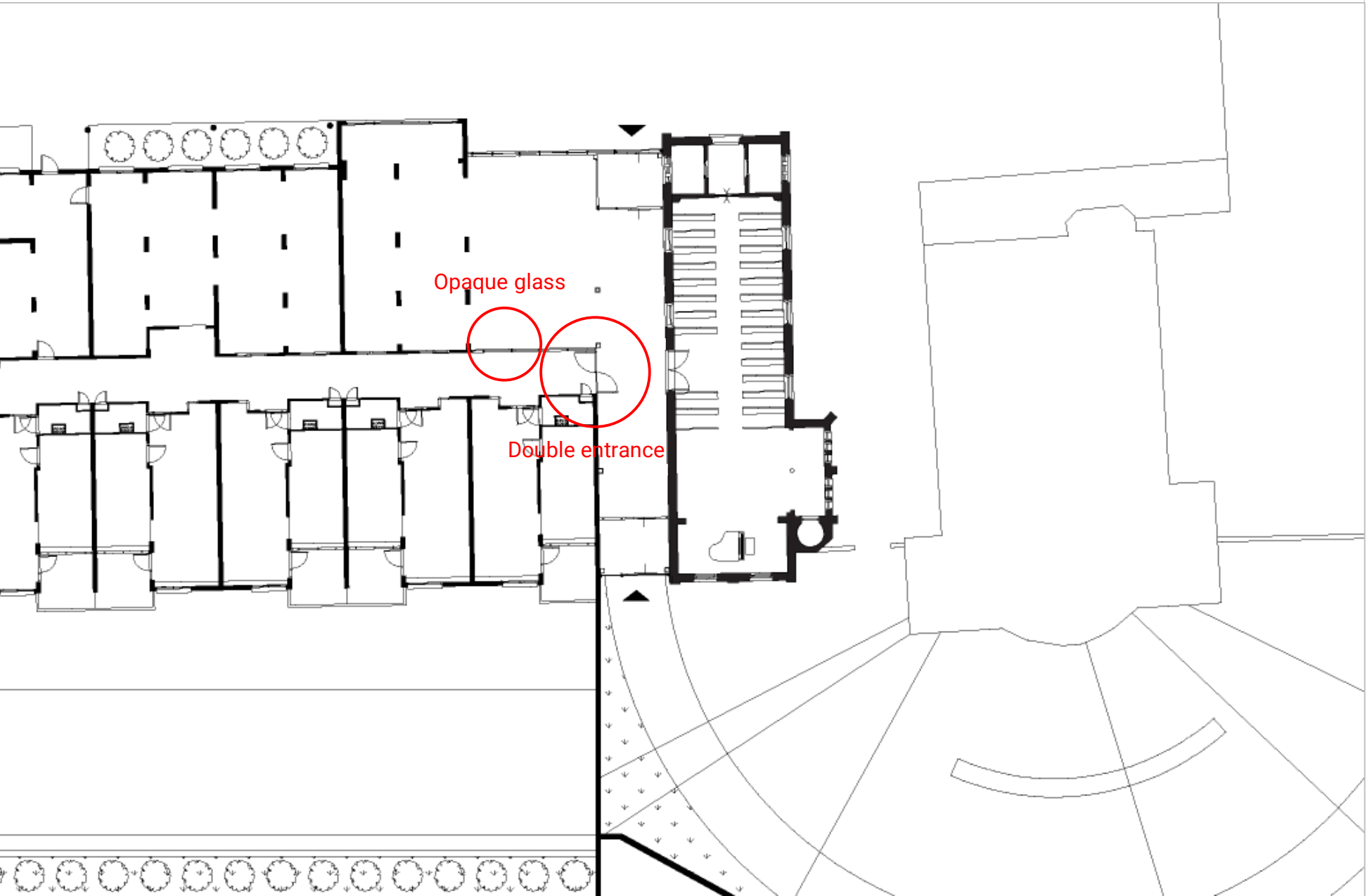
Floor
White terrazzo tile
20cm*20cm

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-2 Music hall
View and light
-Interior materials



2-2 Music hall
Privacy
-Double entrance
-Opaque glass

Ground floor

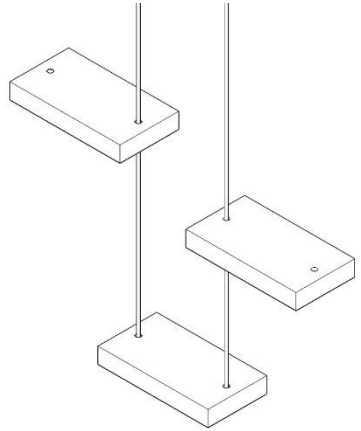
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-2 Music hall
Structure and detail
-Structure diagram

-Perforated brick combining system

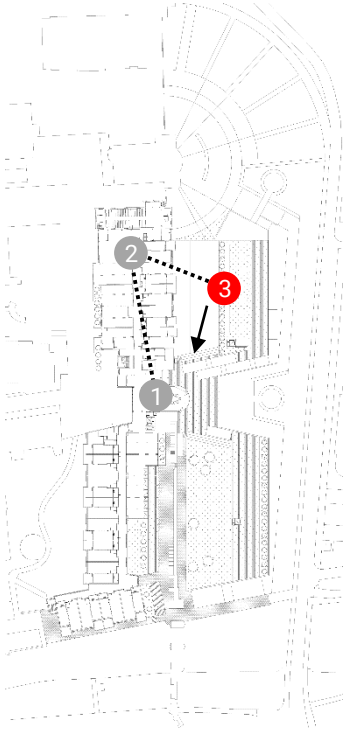


Existing situation : Recreation room

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

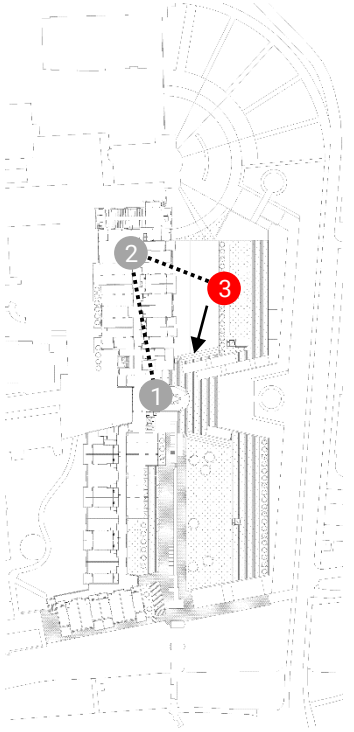


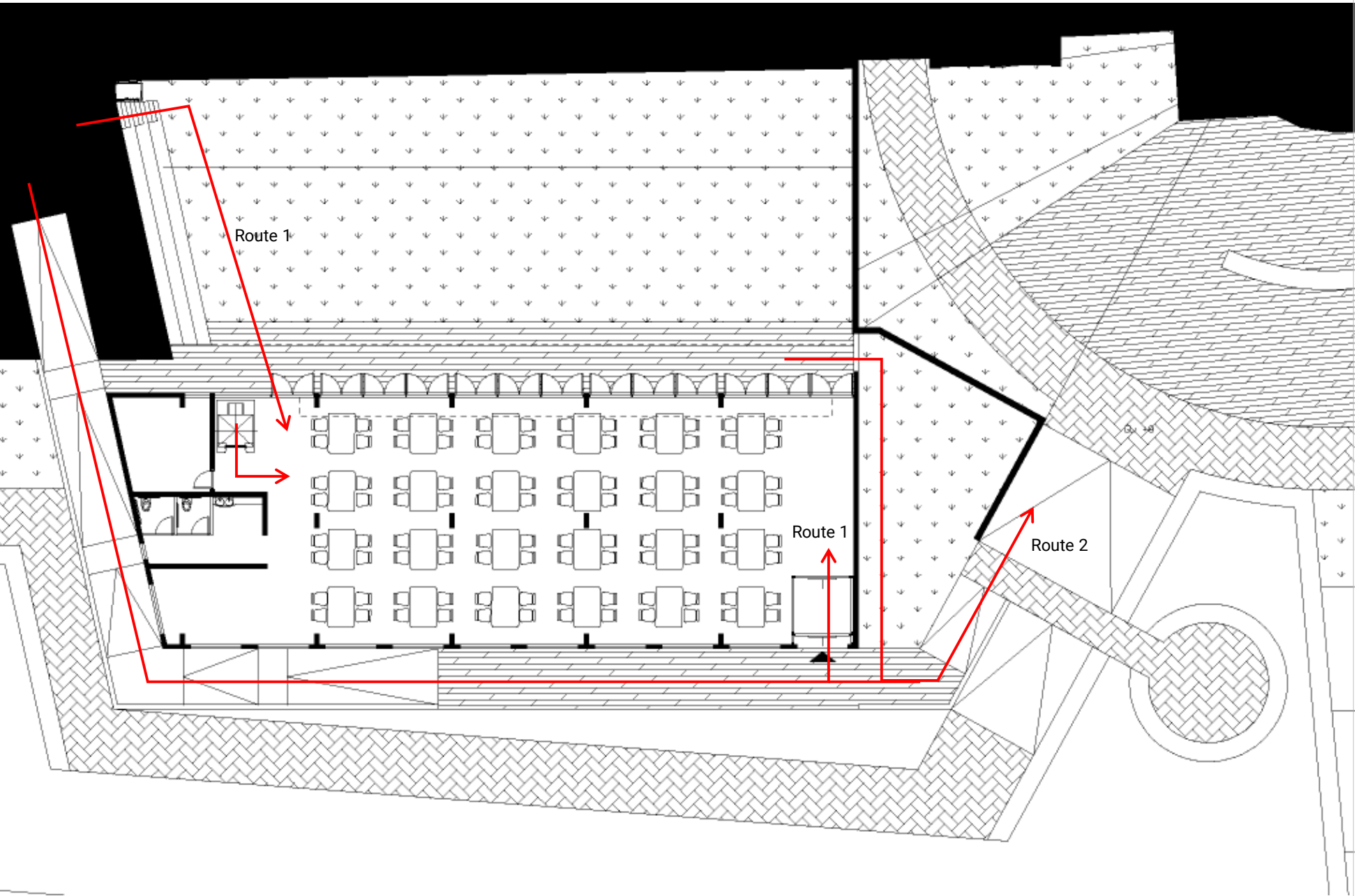
After renovation : Recreation room roof terrace

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route





4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-3 Recreation room
Accessibility
1. To recreation room
2. To music garden

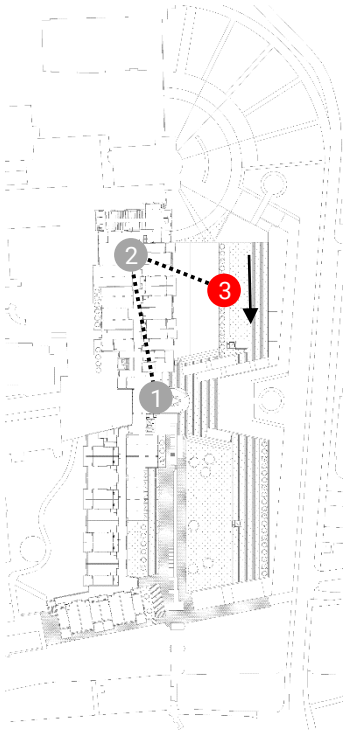
Basement level

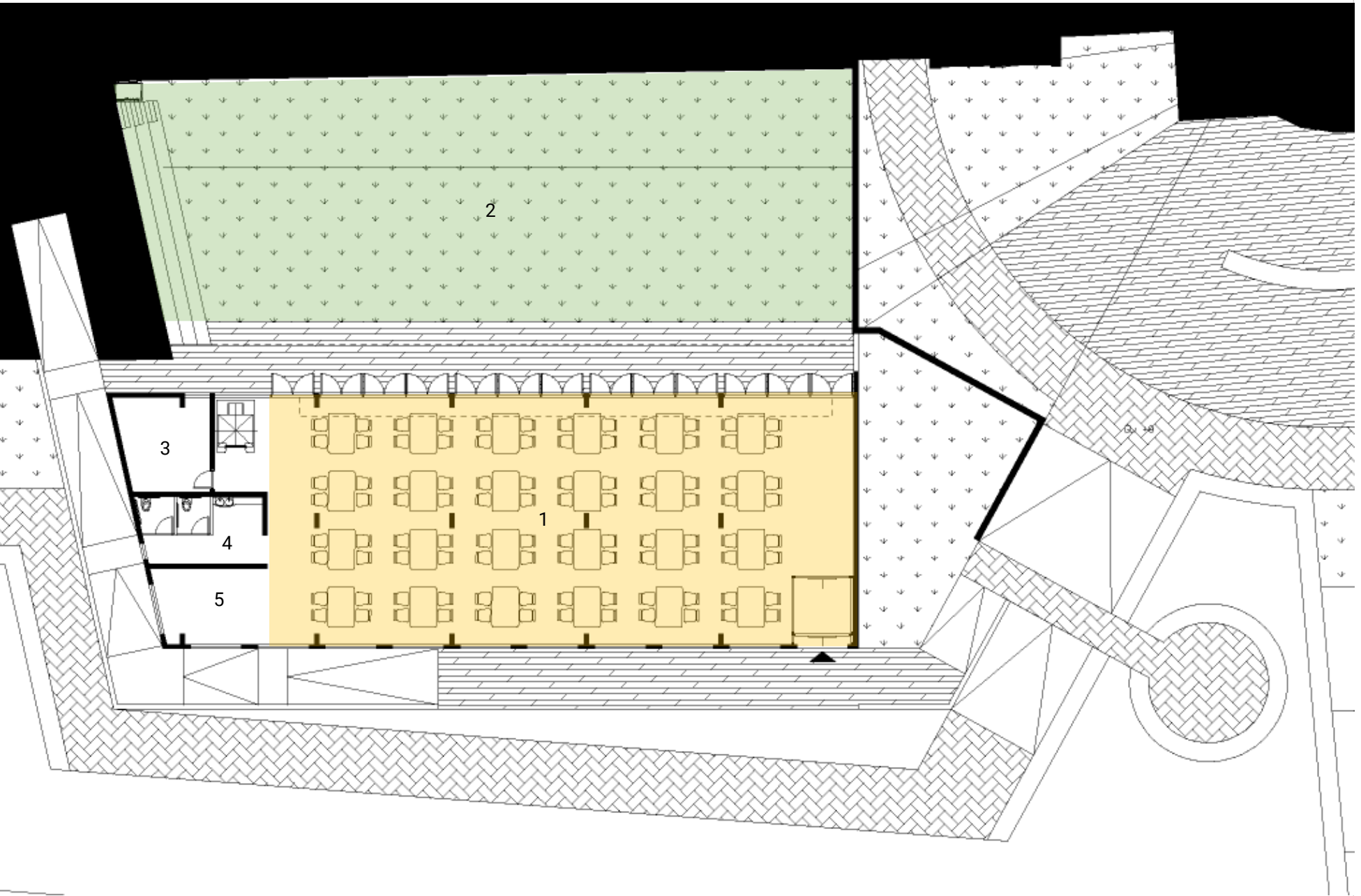
After renovation : Recreation

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

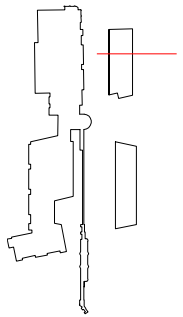
4-6. Visitor's route
4-7. Resident's route

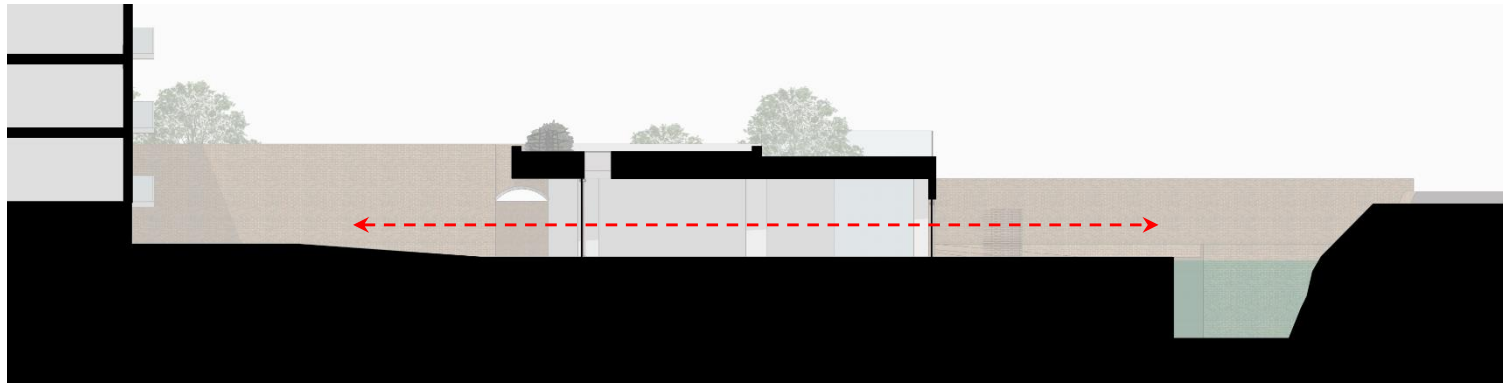




2-3 Recreation room
Activity
1. Recreation room
2. Resident garden
3. Machine room
4. Restroom
5. Mini bar

Basement level



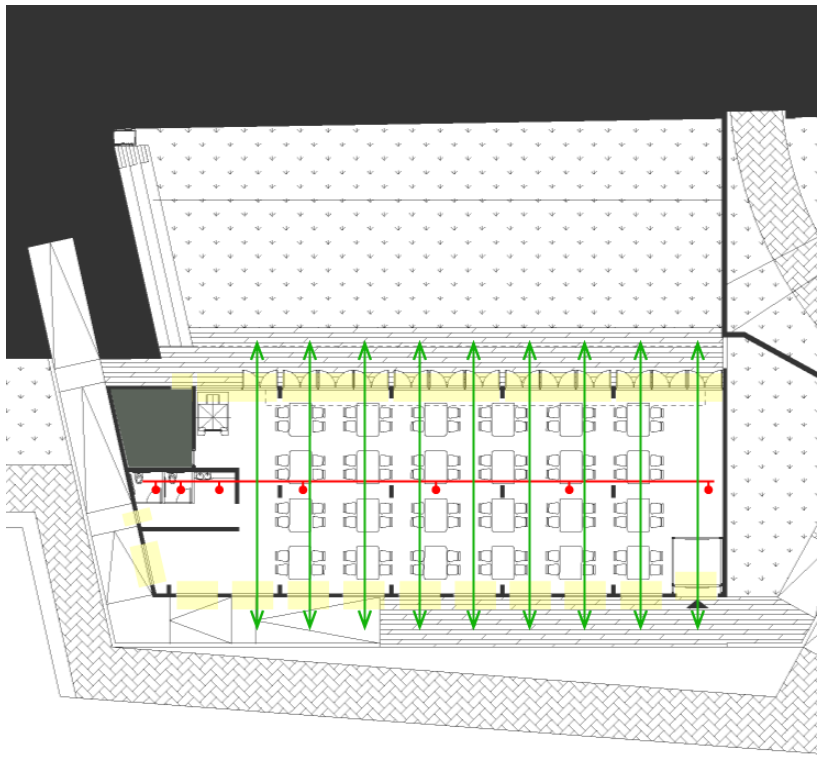


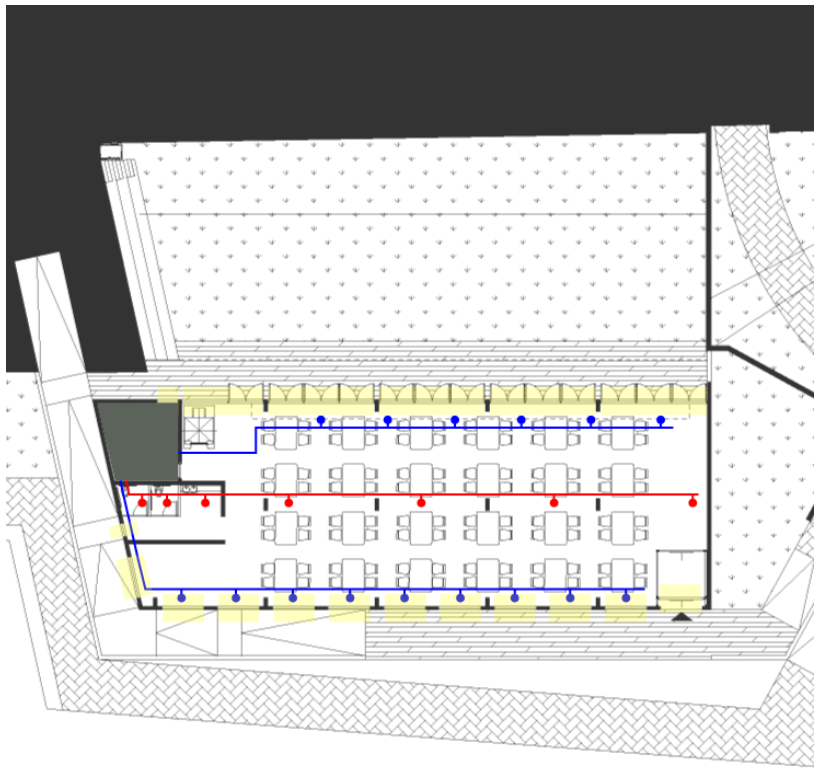
4 Design

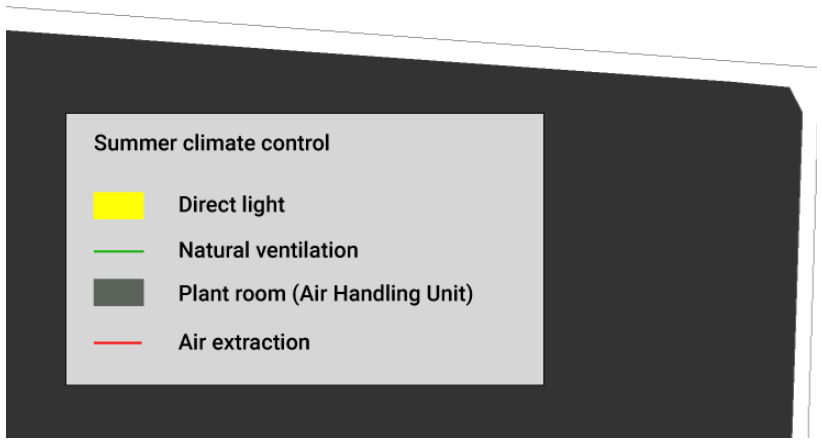
4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

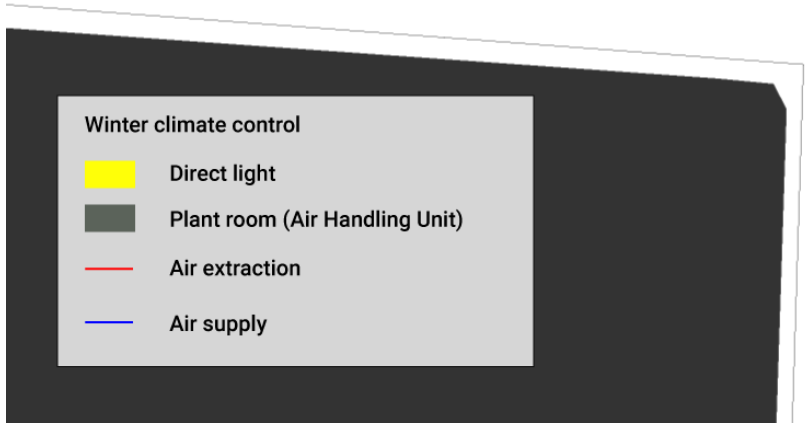
4-6. Visitor's route
4-7. Resident's route

2-3 Recreation room
View and light
-Relation with river
-Relation with resident garden









2-3 Recreation room
View and light
-Summer climate control
-Winter climate control
-Summer door open

Basement level

Recreation room west facade

Perforated red bricks | Red bricks | Stone | Window frame

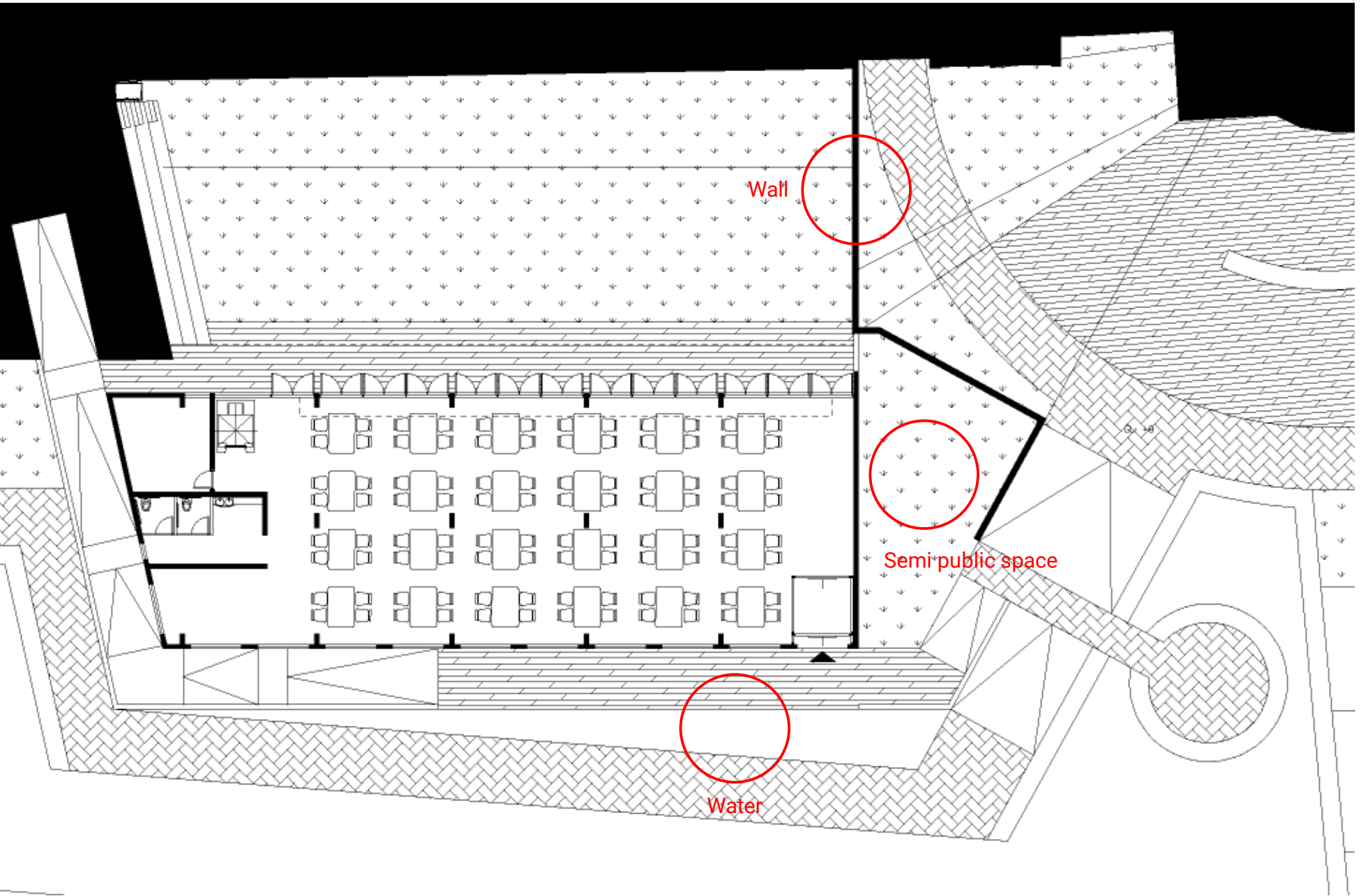
Recreation room east facade

4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route

2-3 Recreation room
View and light
-Continuous landscape
-Façade materials
-East and West



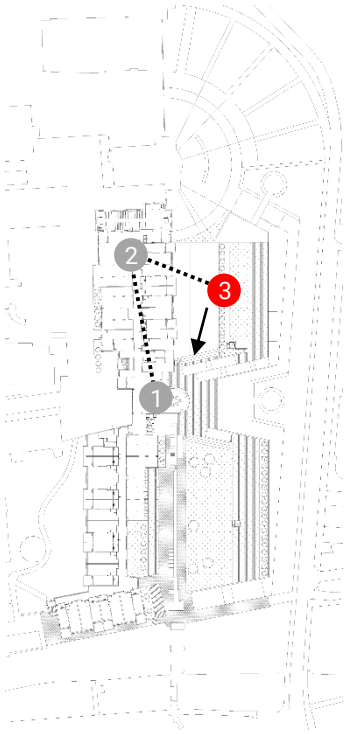
2-3 Recreation room
Privacy
-Water
-Semi public space
-Wall

Basement level

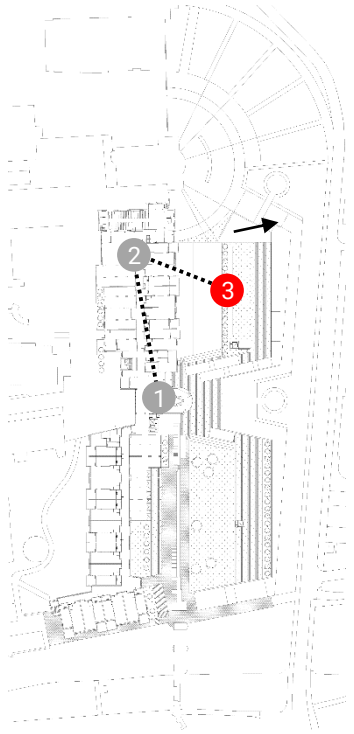
4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor’s route
4-7. Resident’s route



4 Design

4-1. Concept
4-2. Design ambition
4-3. Design process
4-4. Design strategy
4-5. Master plan

4-6. Visitor's route
4-7. Resident's route