



Publicizing Vacant Heritage

Combining public accessible use with elderly housing in the Koudenhorn in Haarlem to stimulate social interaction.

Tjeu de Gouw | 5405769
P5 presentation | 28-06-2022

ASSIGNMENT



Den Haag



Haarlem



Rotterdam - Witte de With



Rotterdam - Harbour

30%
Need for redevelopment

700.000 m²
Divested in 10 years



Eindhoven



Groningen



Middelburg

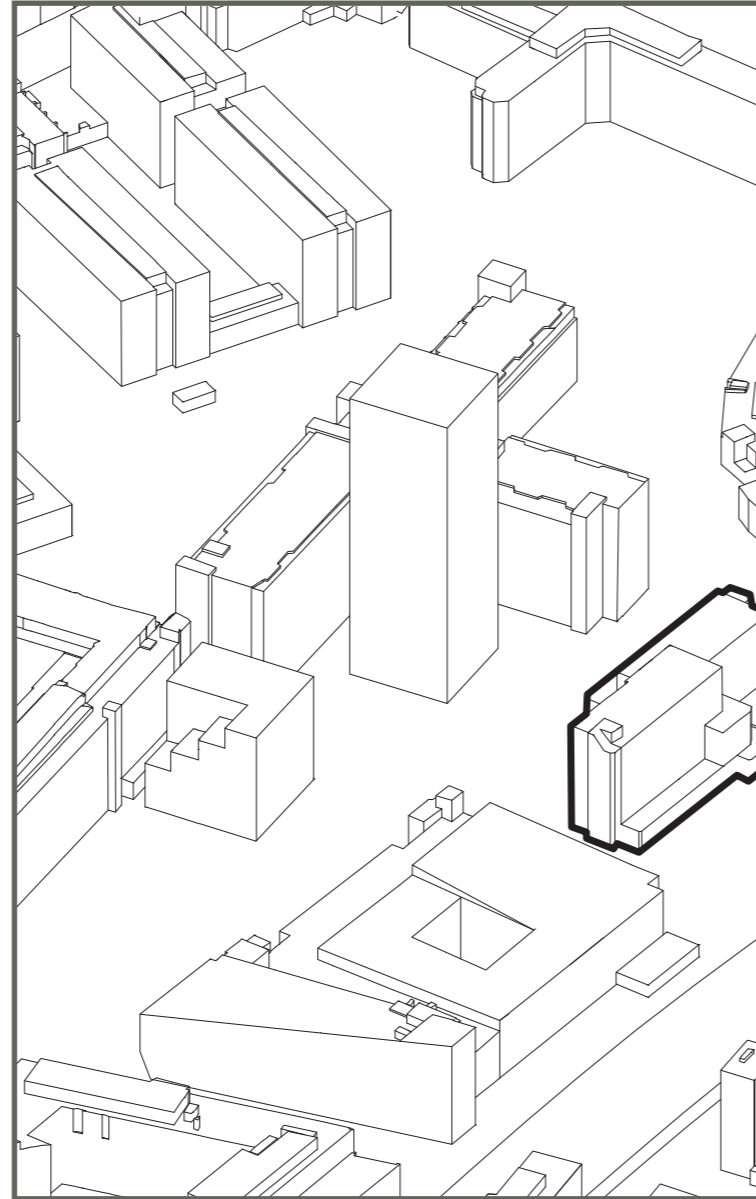


Warnsveld

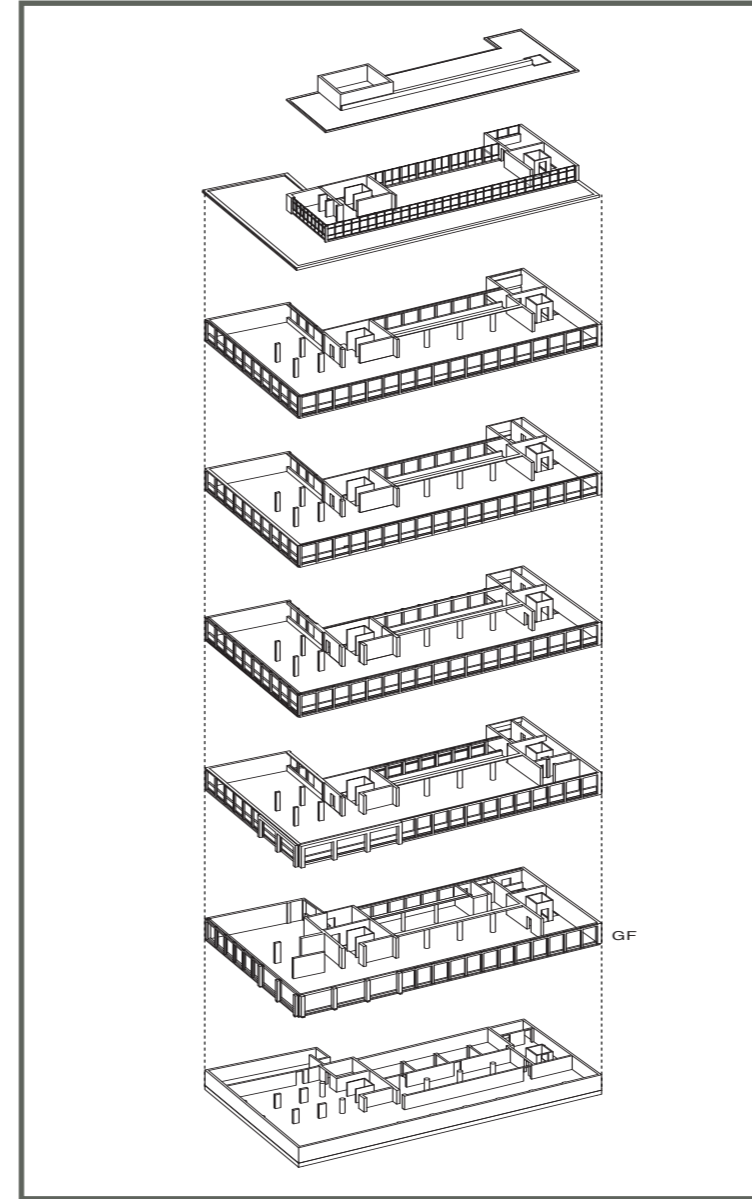
SPATIAL BUILDING TYPOLOGY



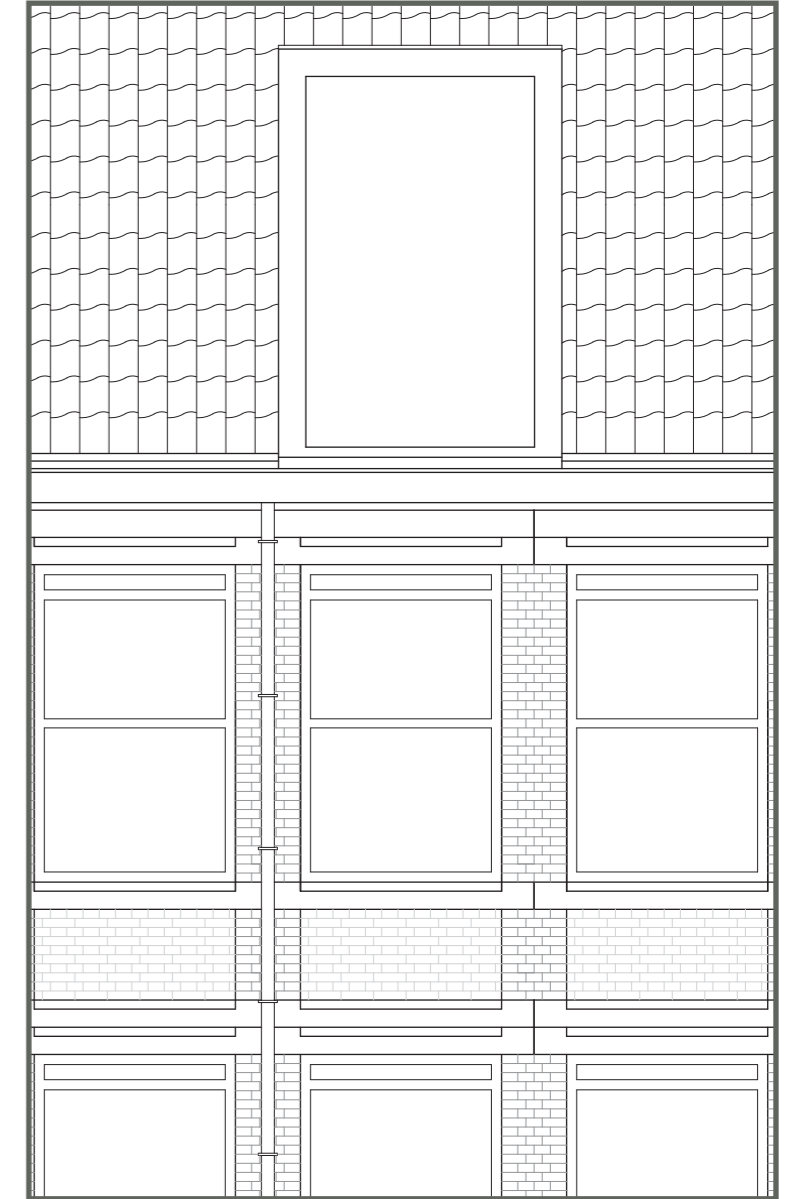
Inner city



Urban block



Building object

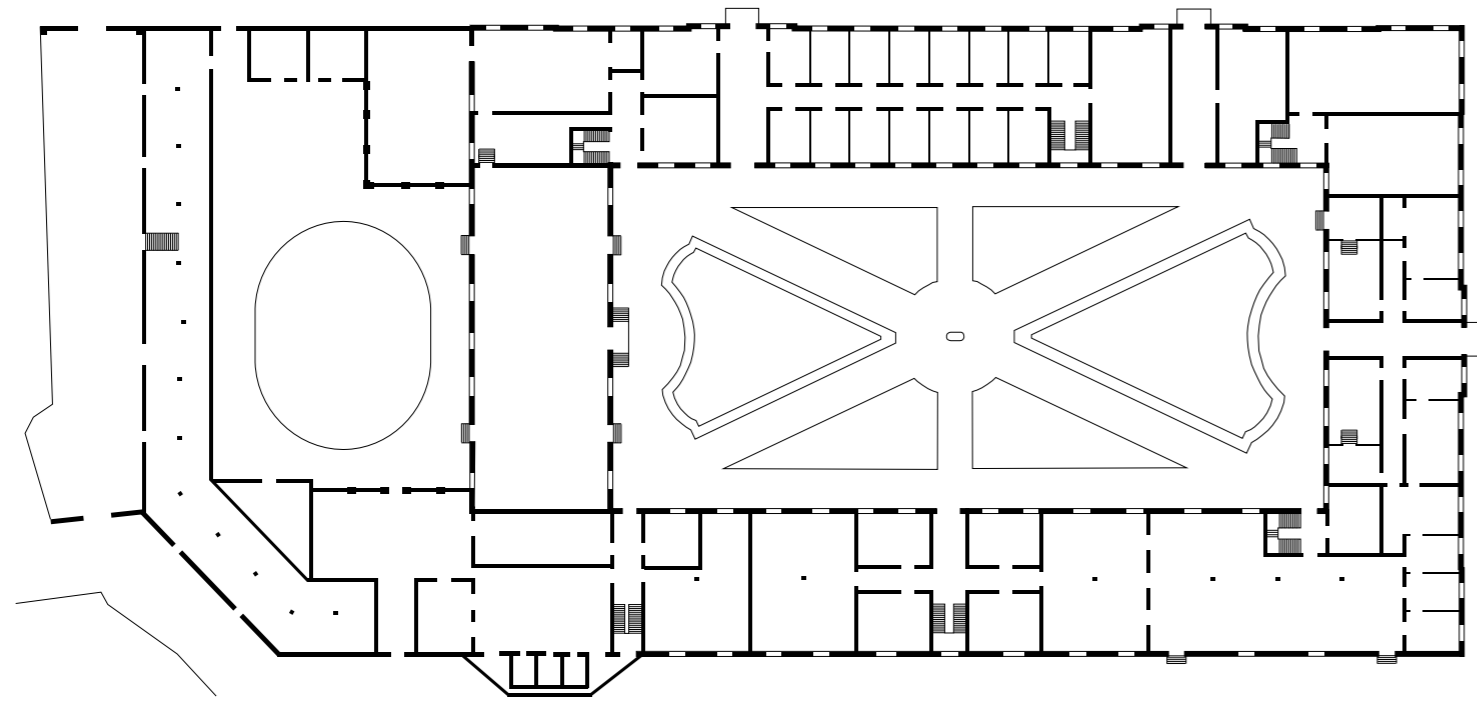


Building envelope

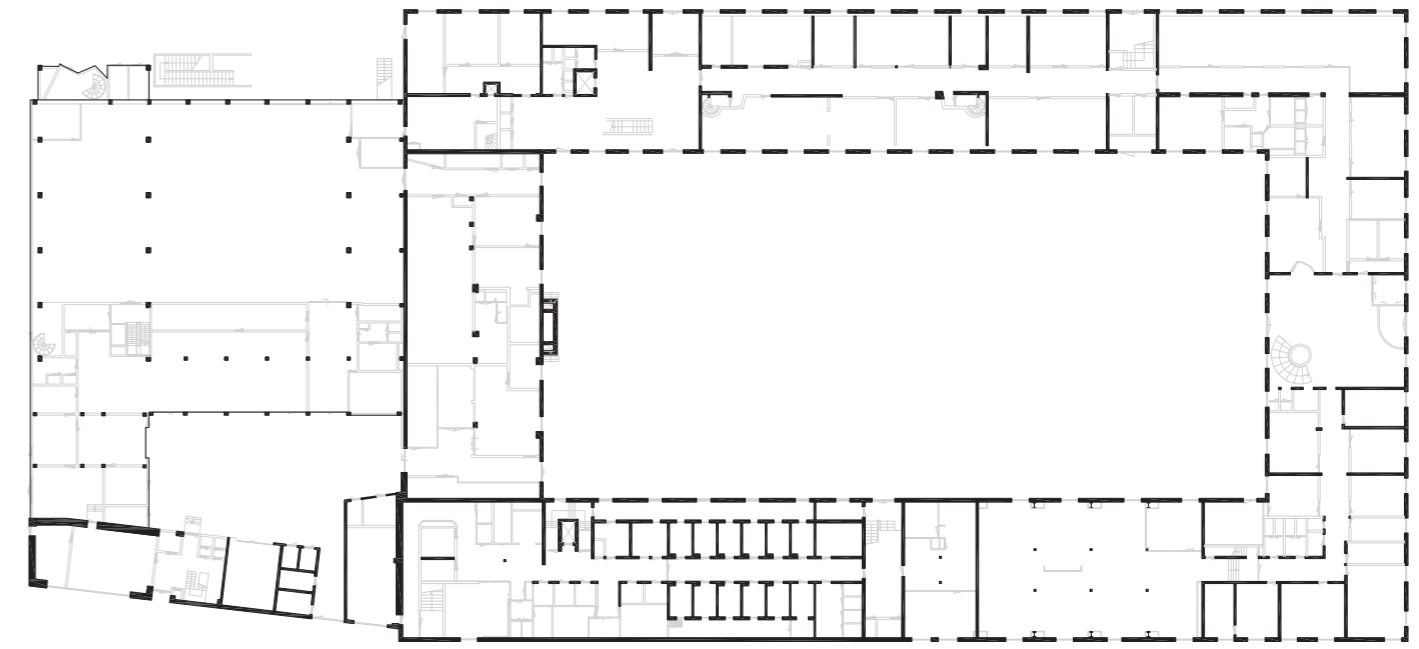
DE KOUDENHORN



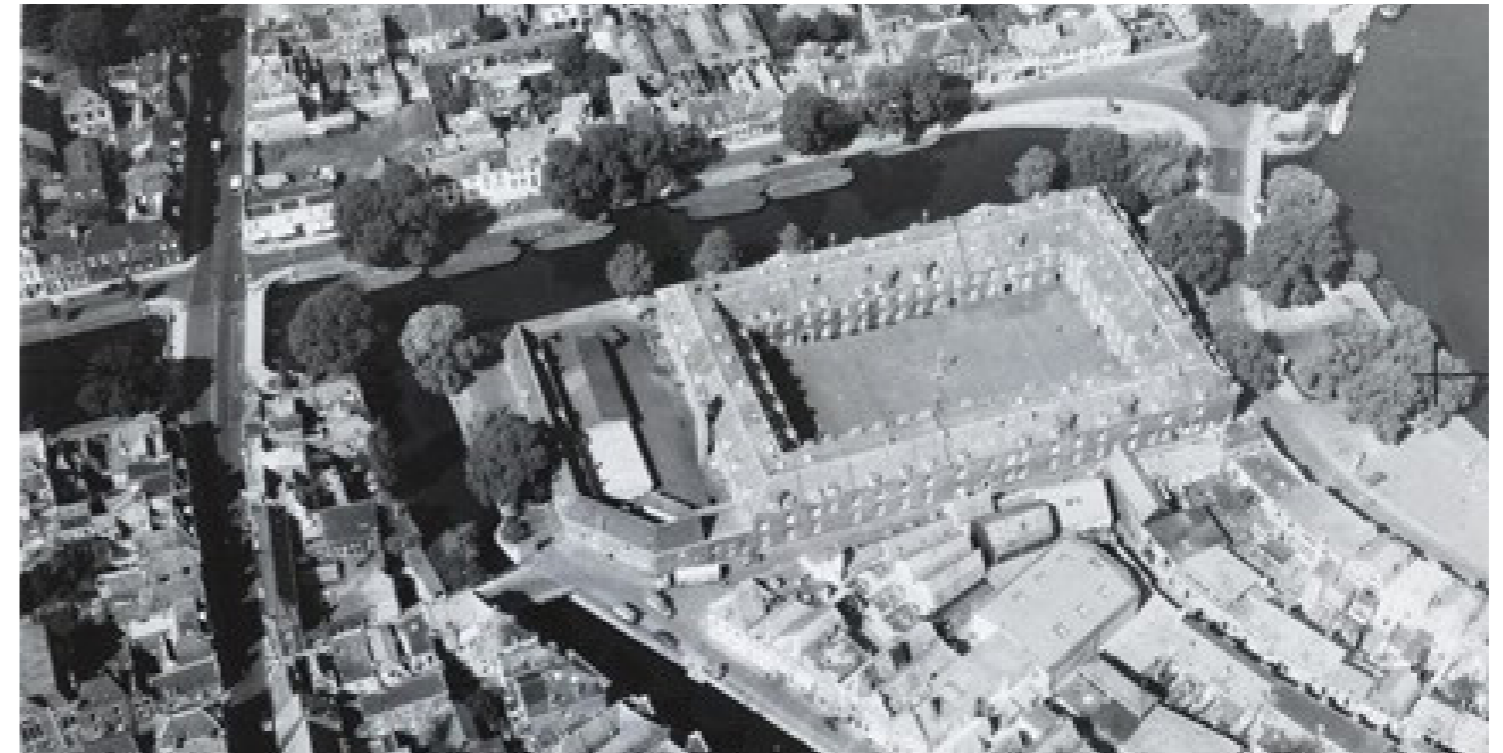
HISTORY



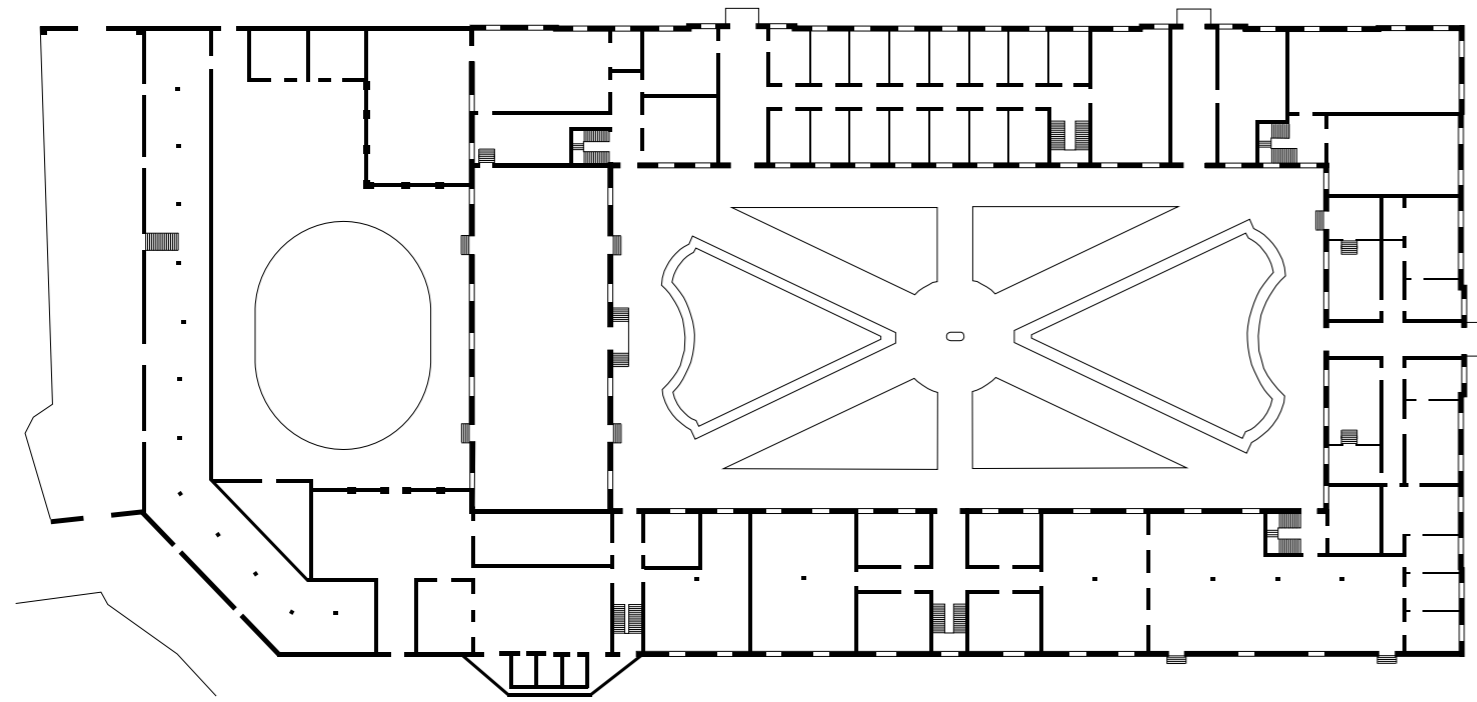
Floor plan 1768



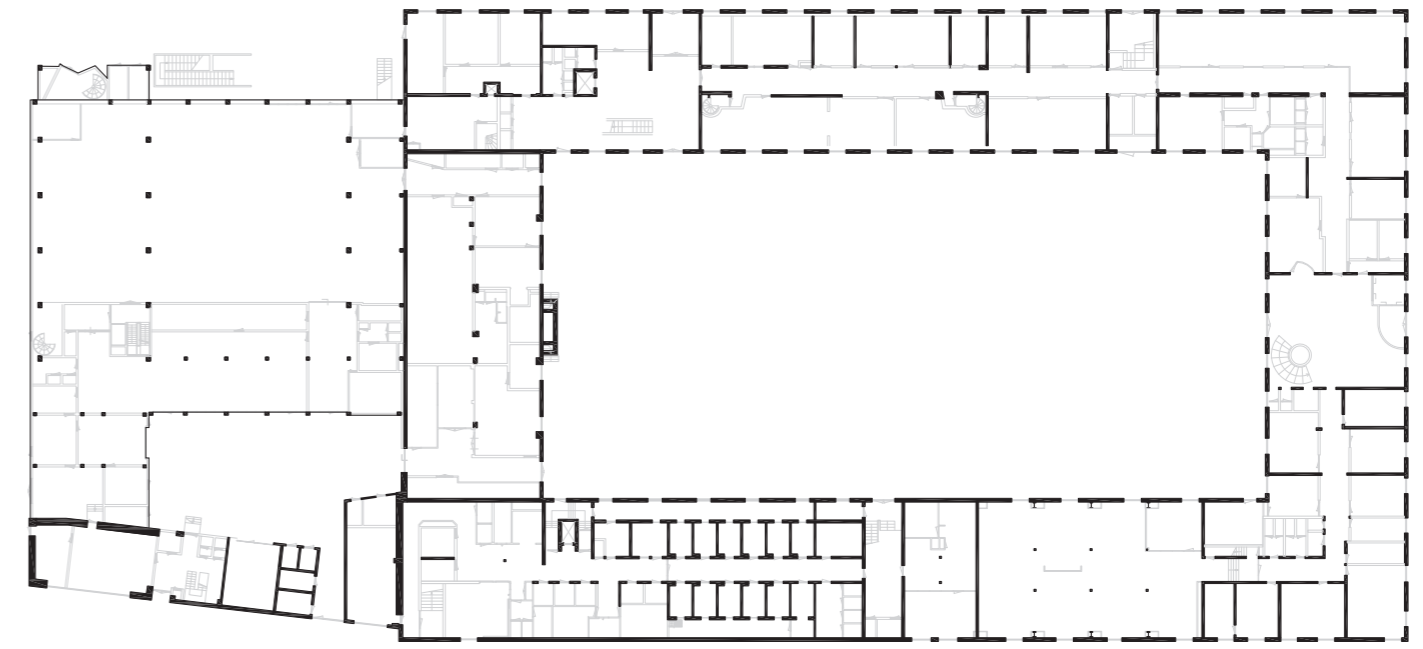
Current floor plan



HISTORY



Floor plan 1768



Current floor plan



VALUE ASSESSMENT



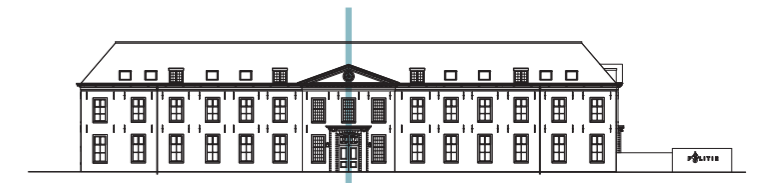
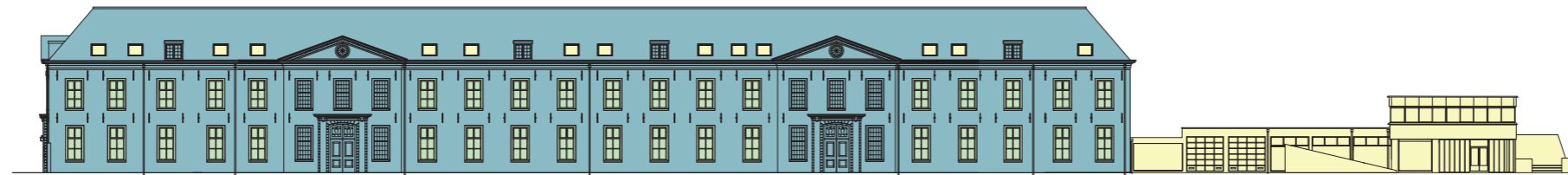
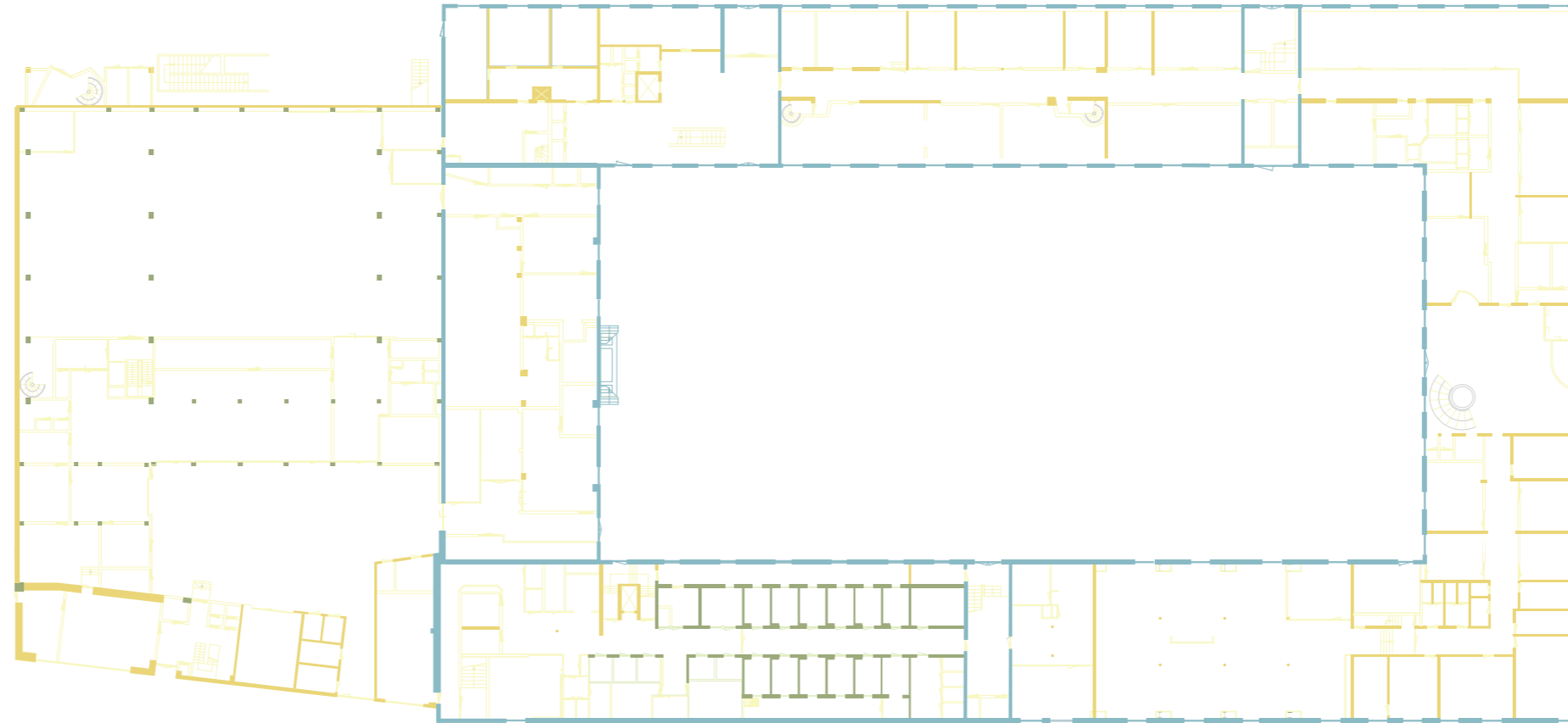
Passages and entrances



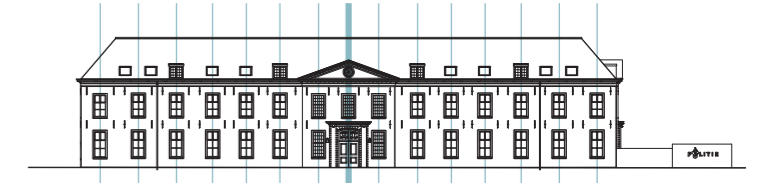
Central corridor



Spatial qualities



Symmetry



Rhythm



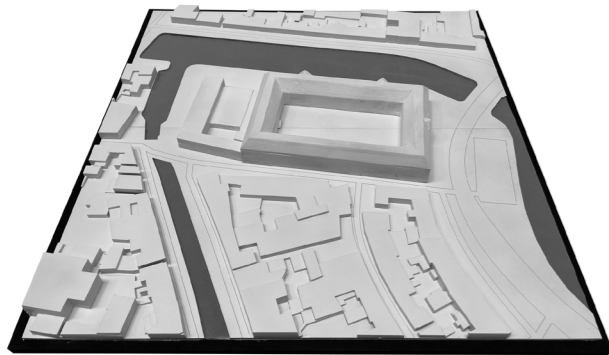
Composition



Ornamentation

- high value
- medium value
- indifferent value

ESSENCE



Enclosed character & Size



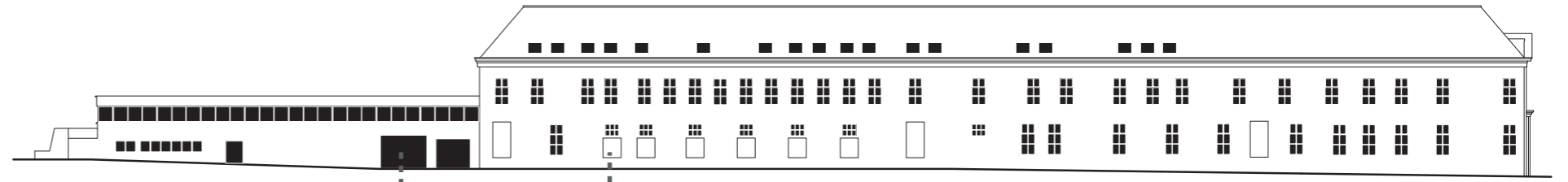
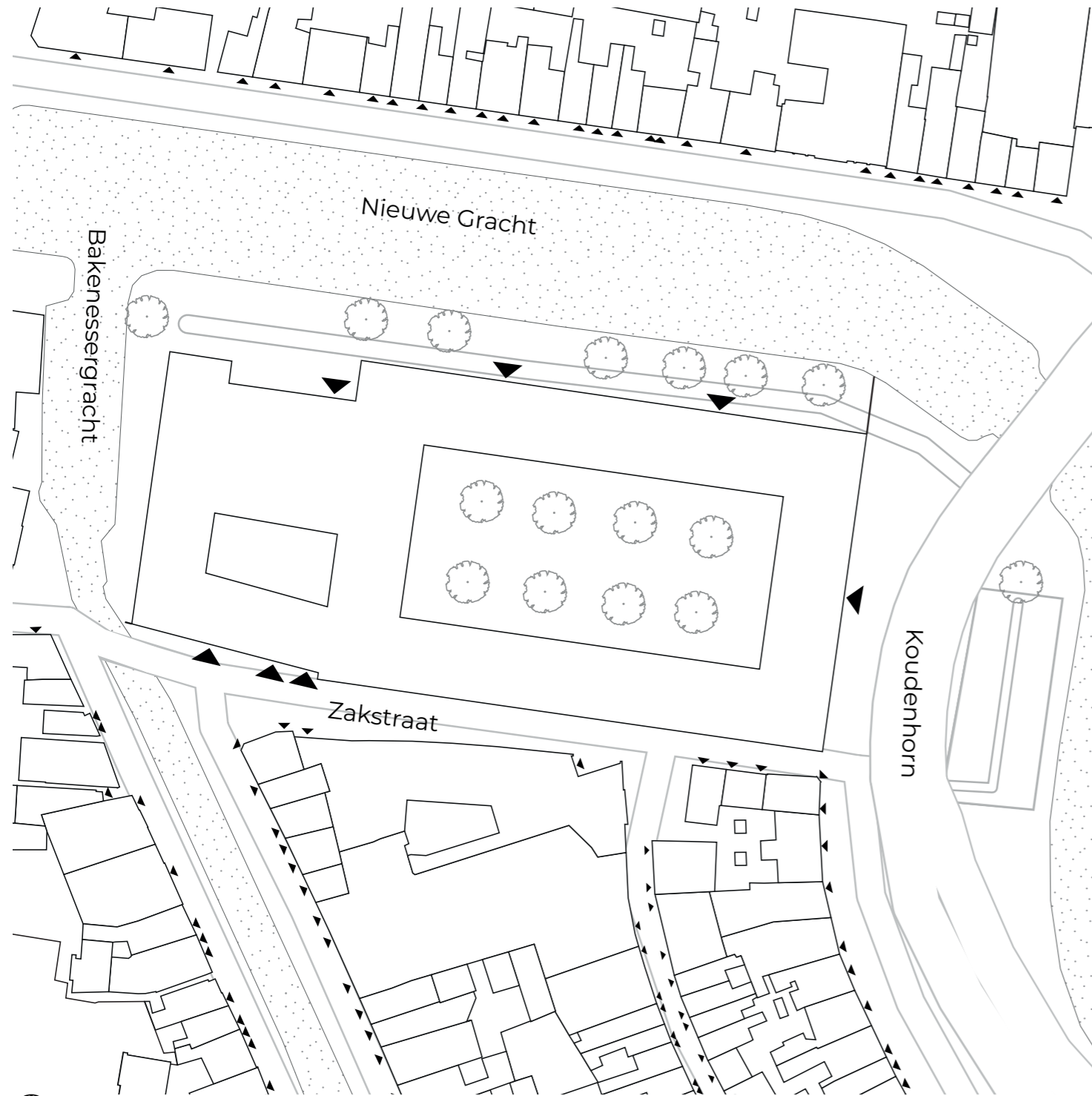
Using existing features



Continuing on contrast

INDIVIDUAL RESEARCH

OBSERVATION



RESEARCH QUESTION

“How could the Koudenhorn building in Haarlem be transformed into a building that will be **perceived** as a **public interior** by future users?”

PUBLIC INTERIORS

“Public interiors are **covered** or in another way ‘**enclosed**’ urban spaces that are **accessible for the public** en thereby play a role in the use of the **spatial structure of a city.**”

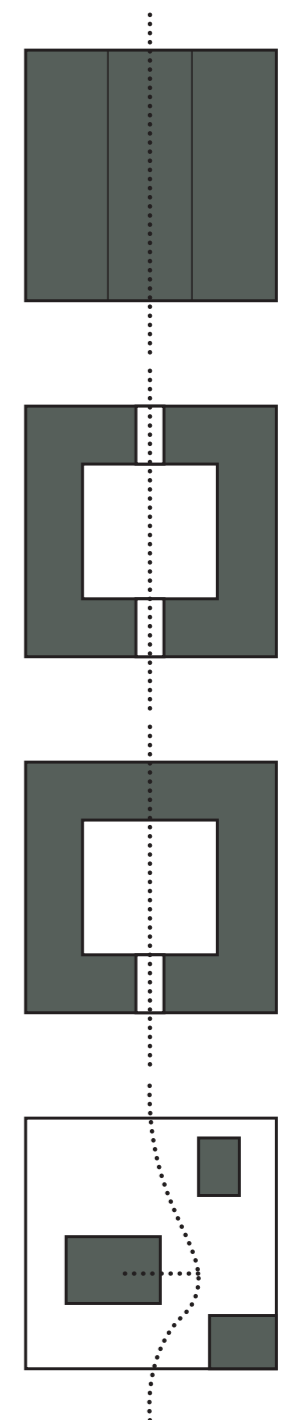
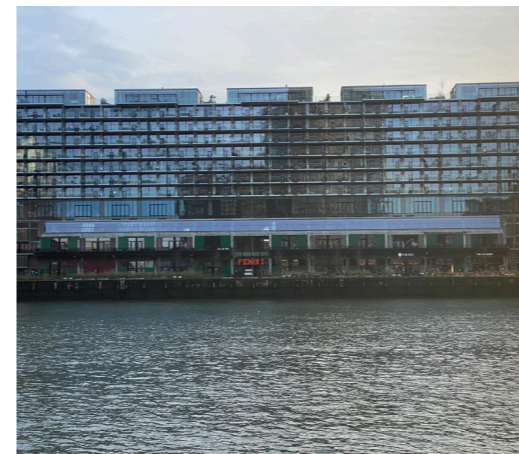
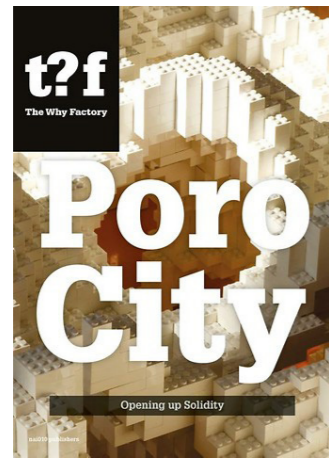
de Boer, M. (2012). Binnen in de Stad; ontwerp en gebruik van publieke interieurs. p.15

METHODOLOGY

Literature research

Case study research

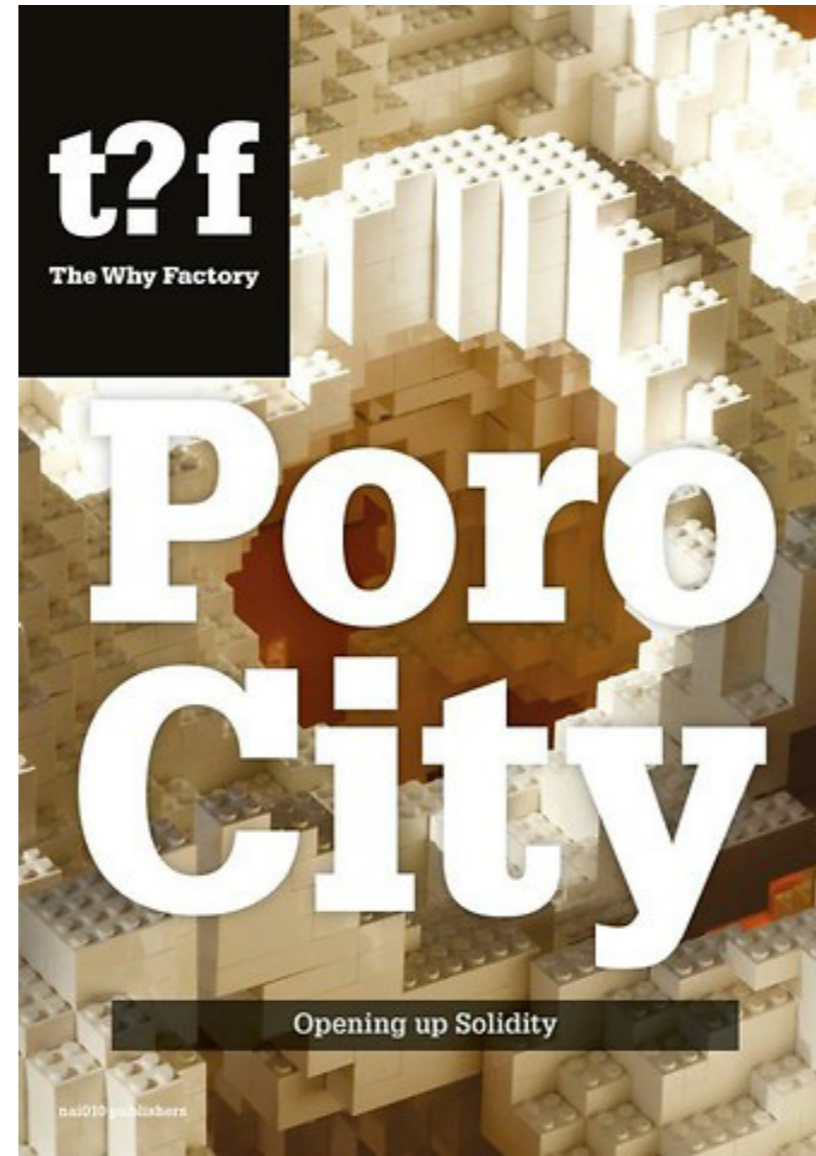
Design options



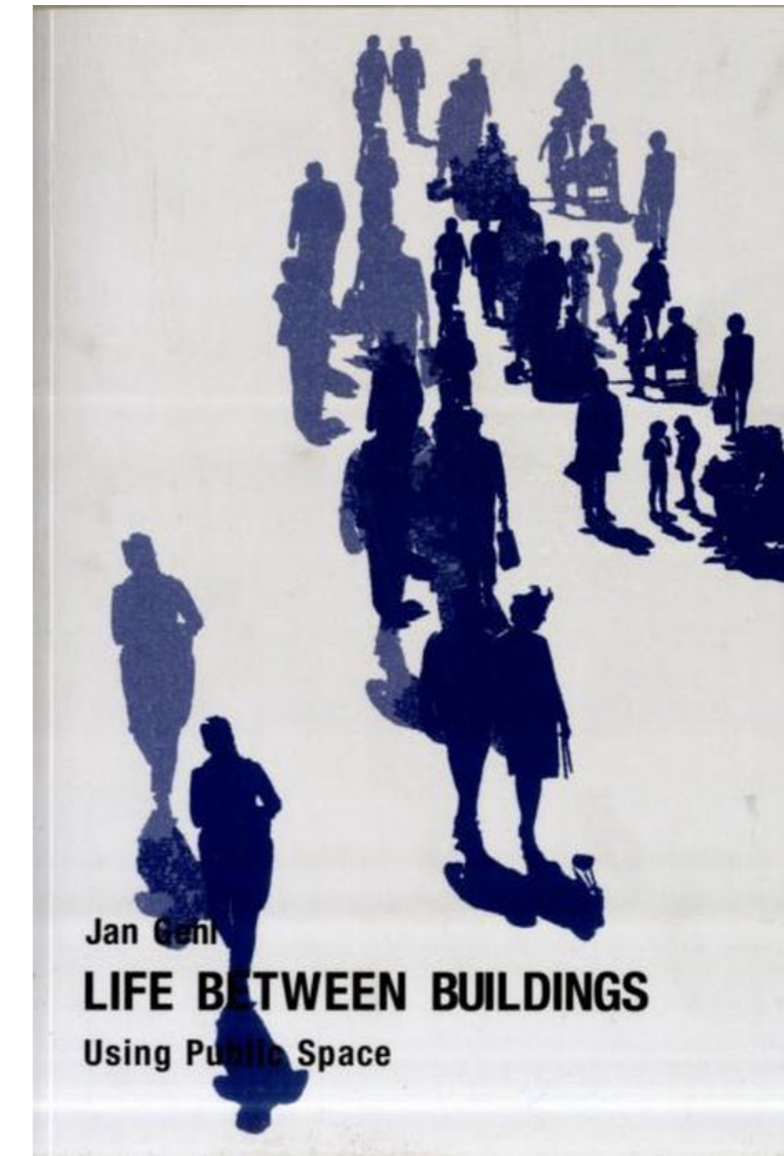
LITERATURE



Public interiors

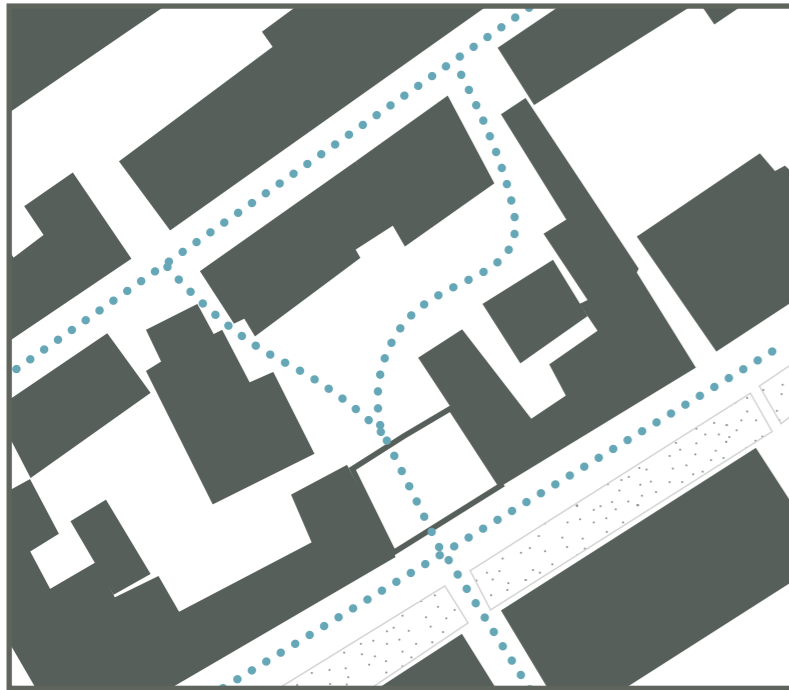


Porosity



Public space

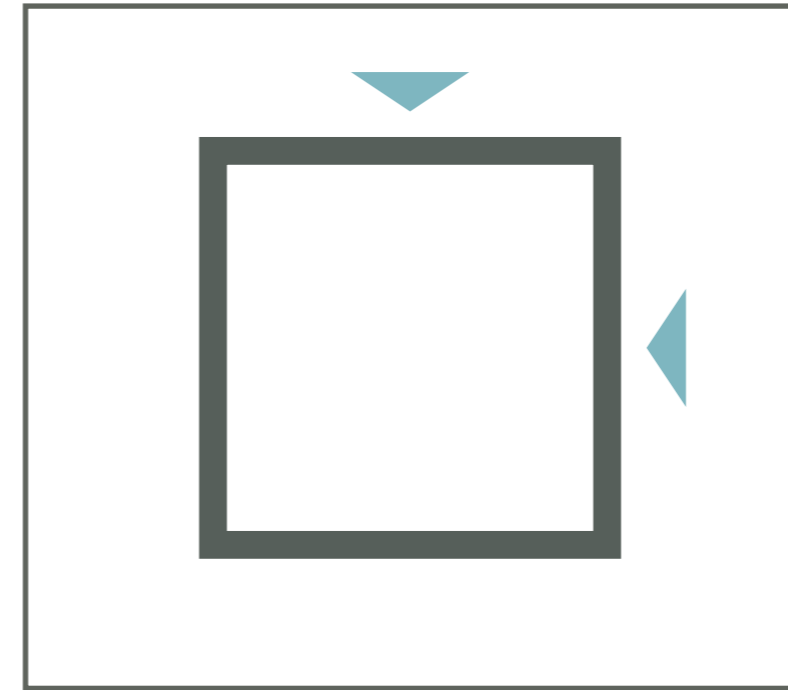
FOCUS POINTS



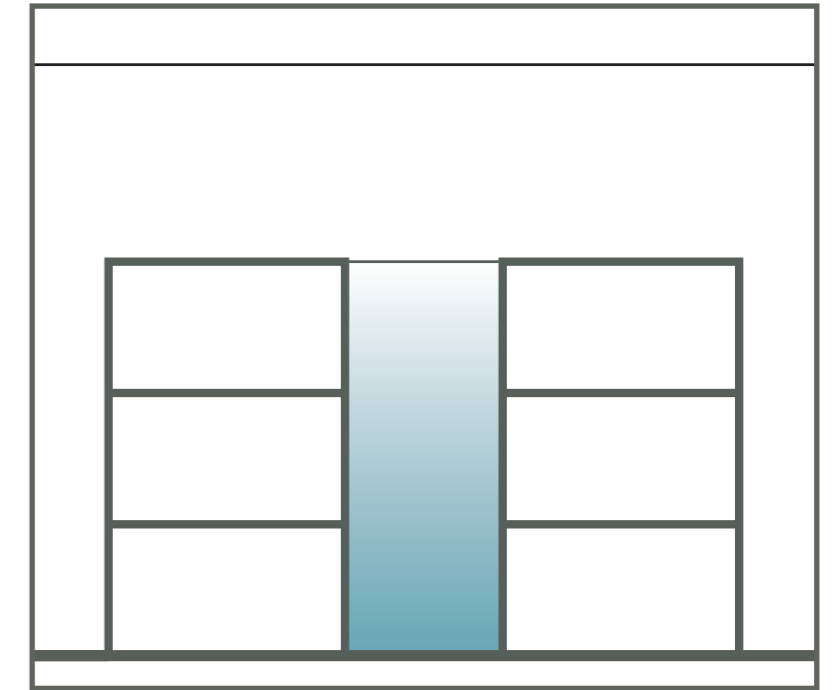
Embedding in the city



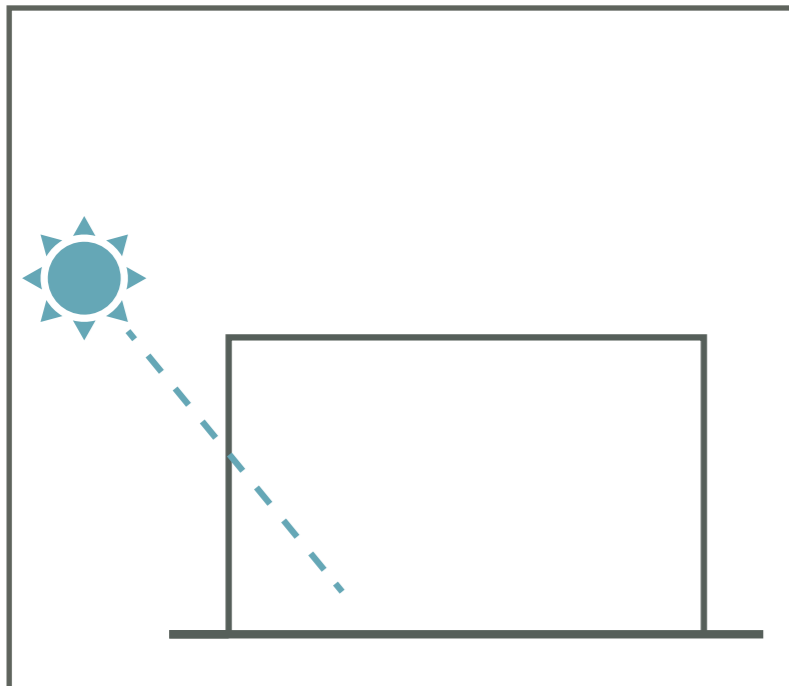
Assembling of functions



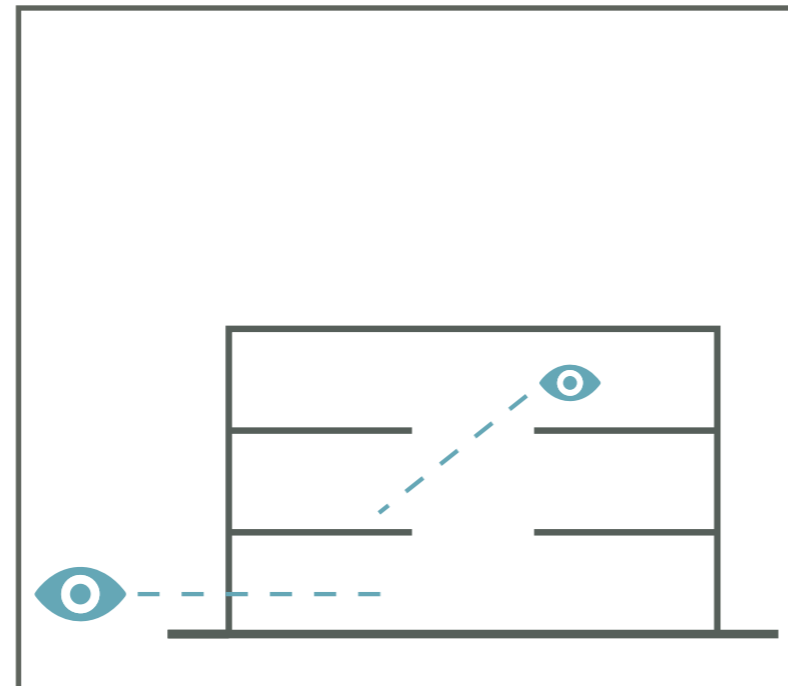
Entrances



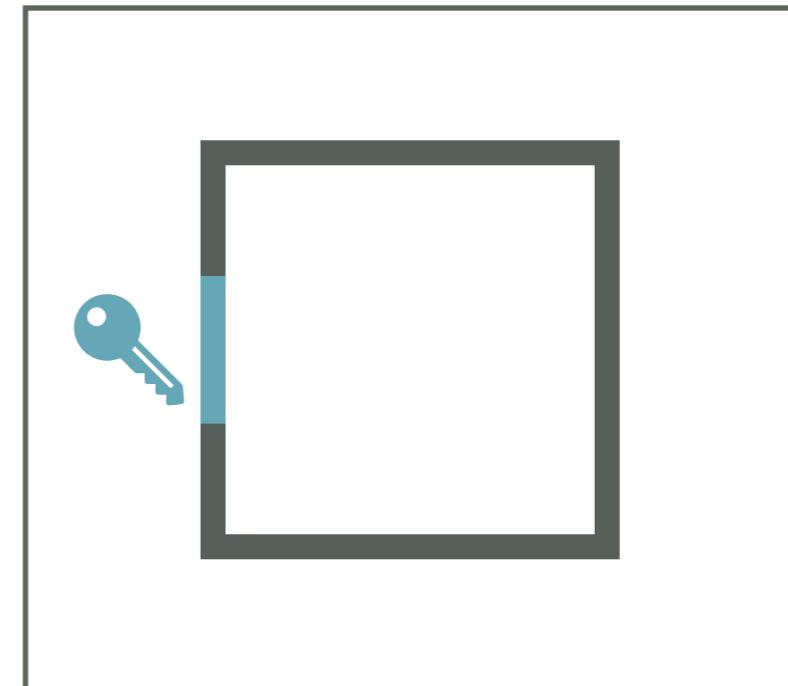
Atrium/void



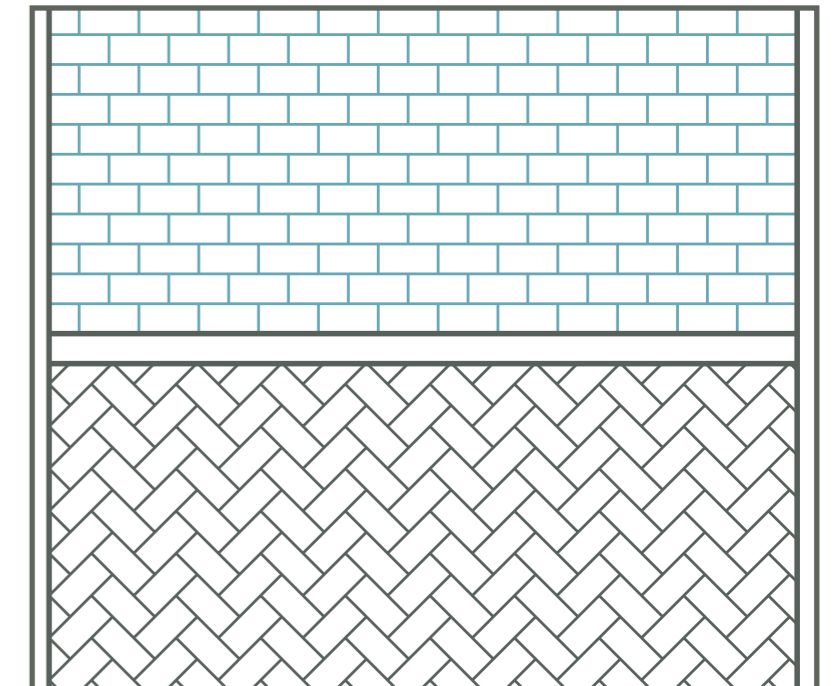
Daylight



Visual connections



Security



Materialization and interior design

CASE STUDIES



Hermitage | Amsterdam



Blokhuispoort | Leeuwarden



Neherpark | Leidschendam



Fenix I | Rotterdam

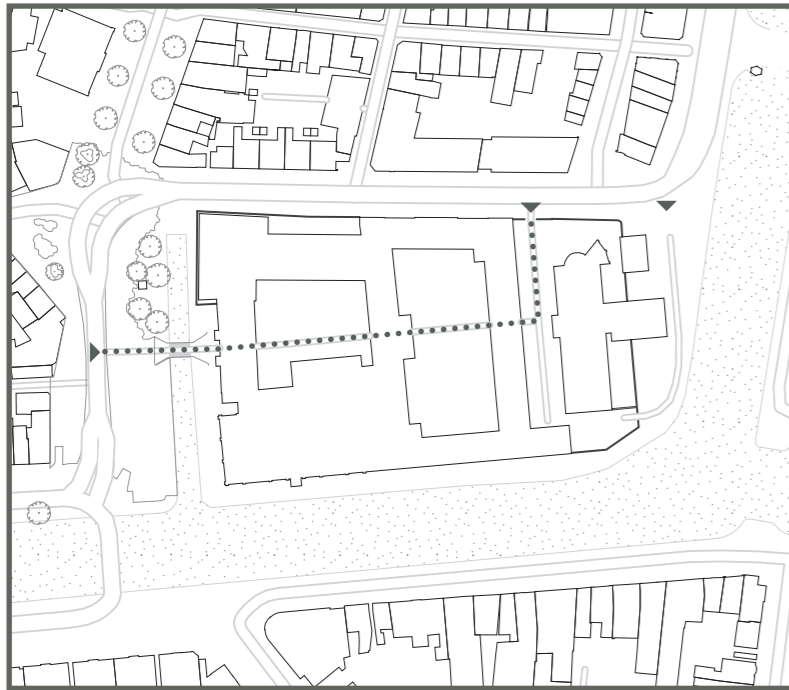


Timmerhuis | Rotterdam



Tuin van Noord | Rotterdam

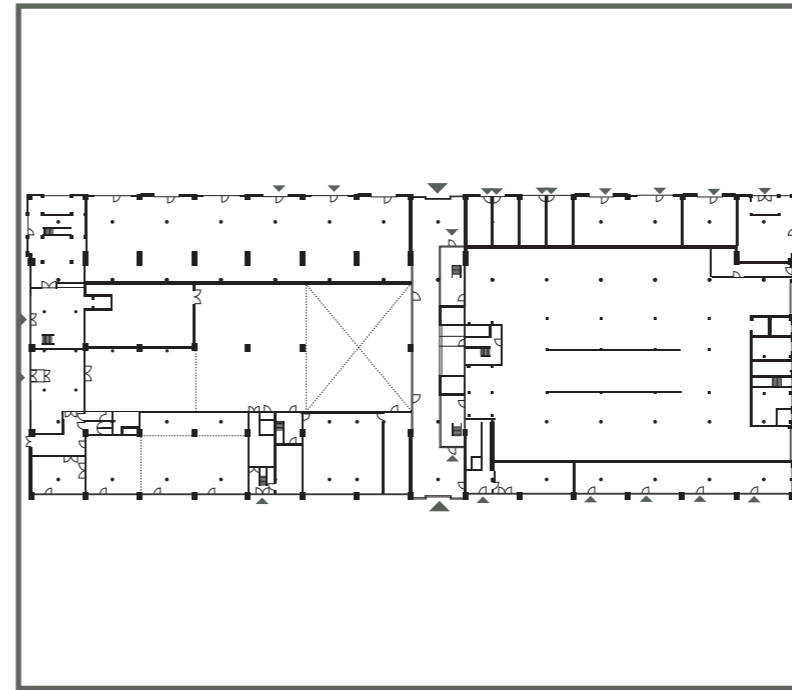
FOCUS POINTS



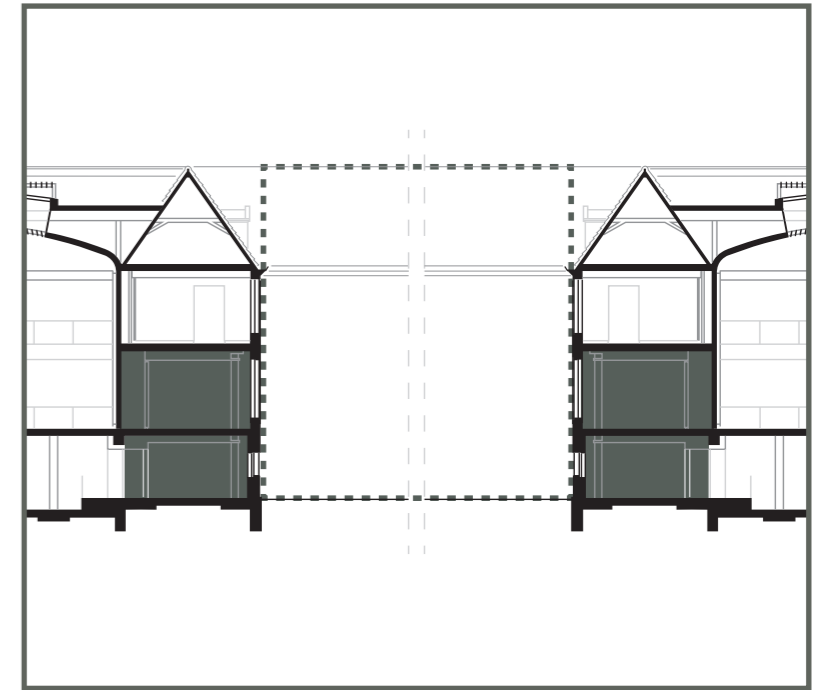
Embedding in the city



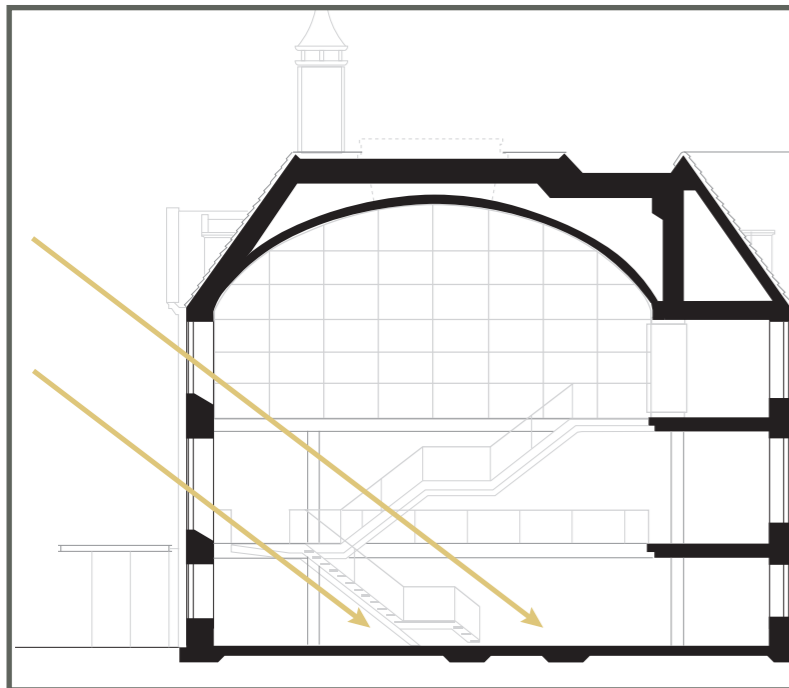
Assembling of functions



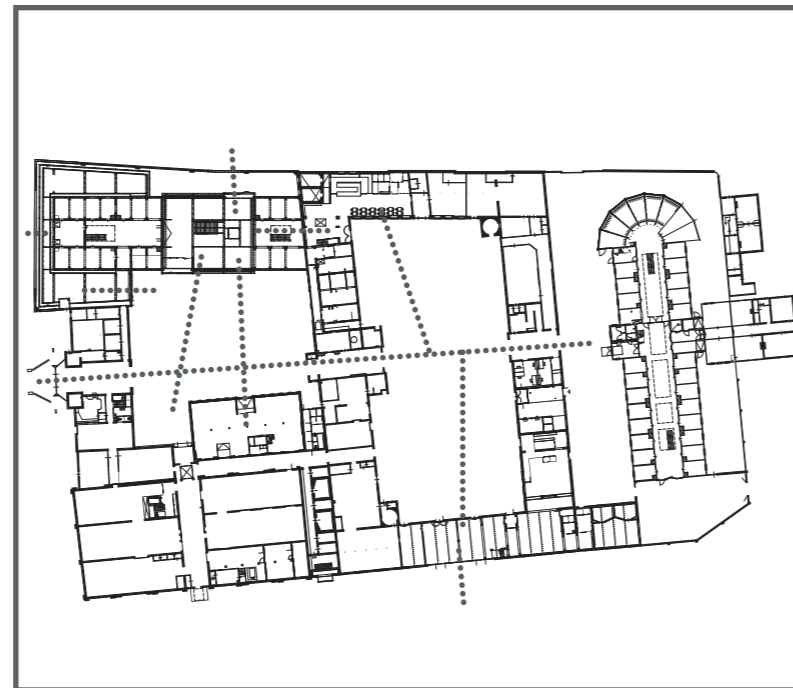
Entrances



Atrium/void



Daylight



Visual connections

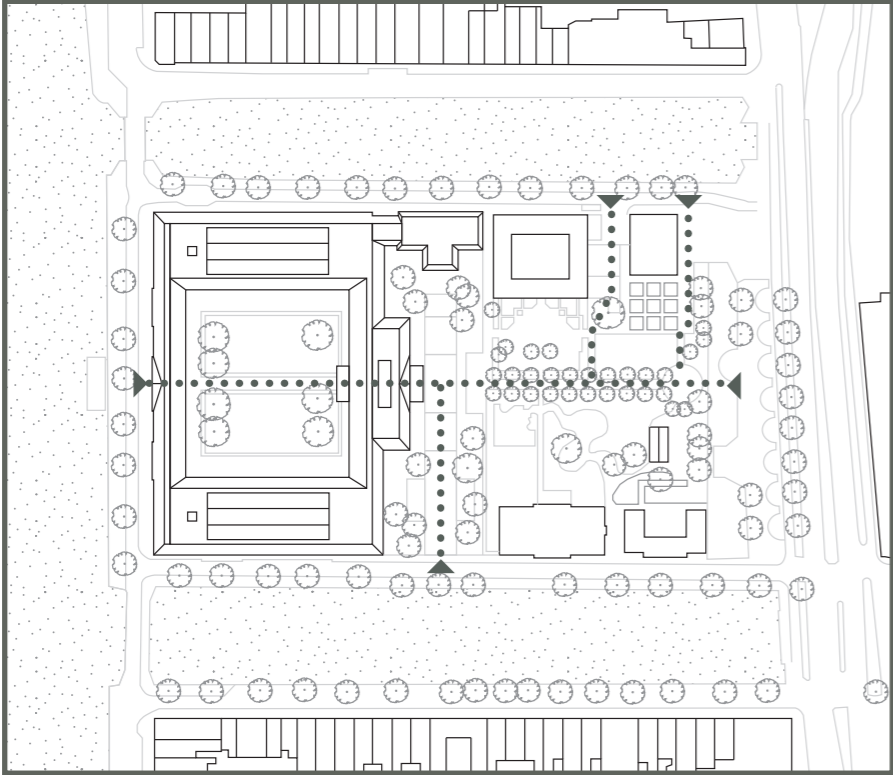


Security

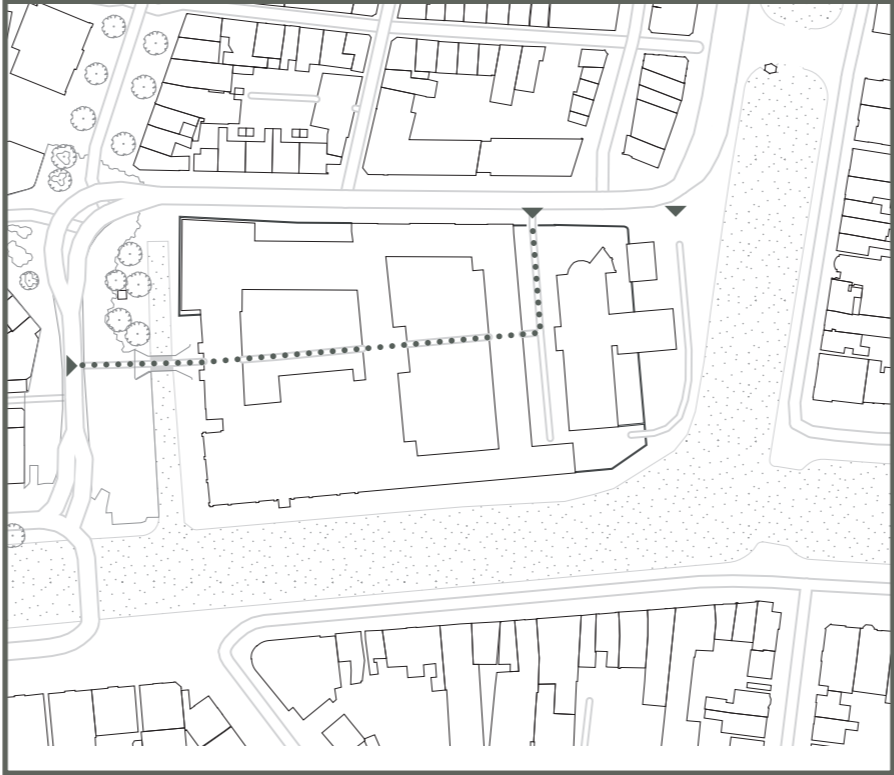


Materialization and interior design

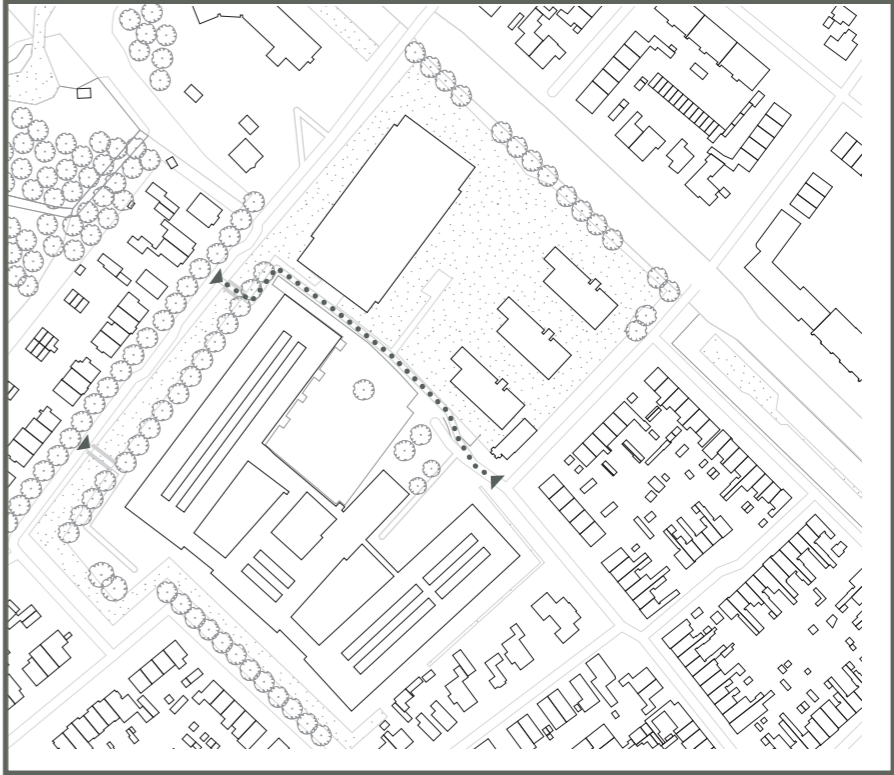
EMBEDDING IN THE CITY



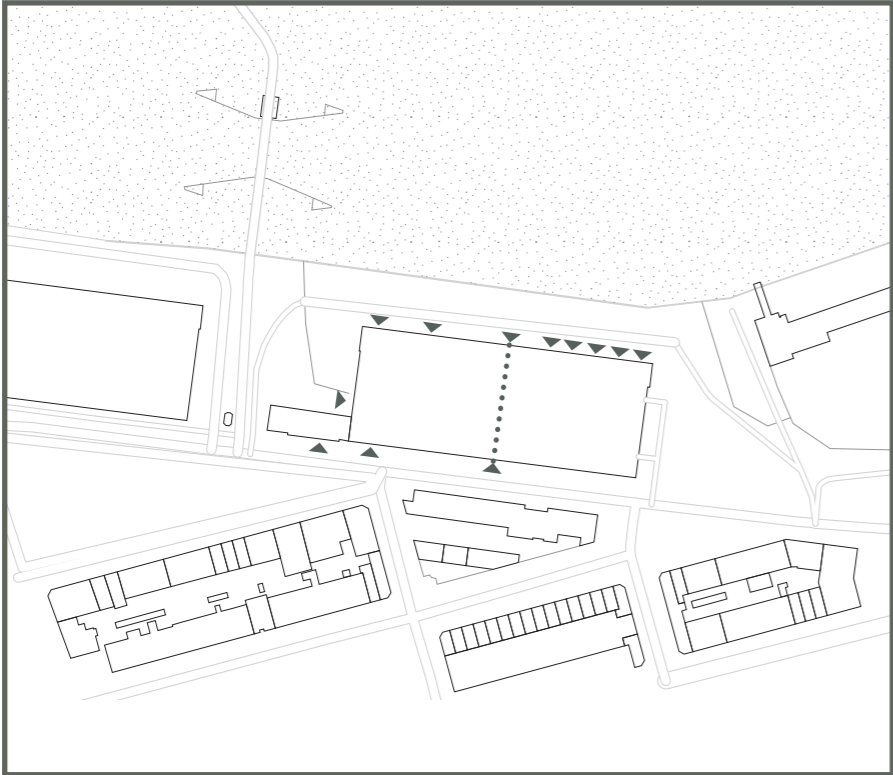
Hermitage | Amsterdam



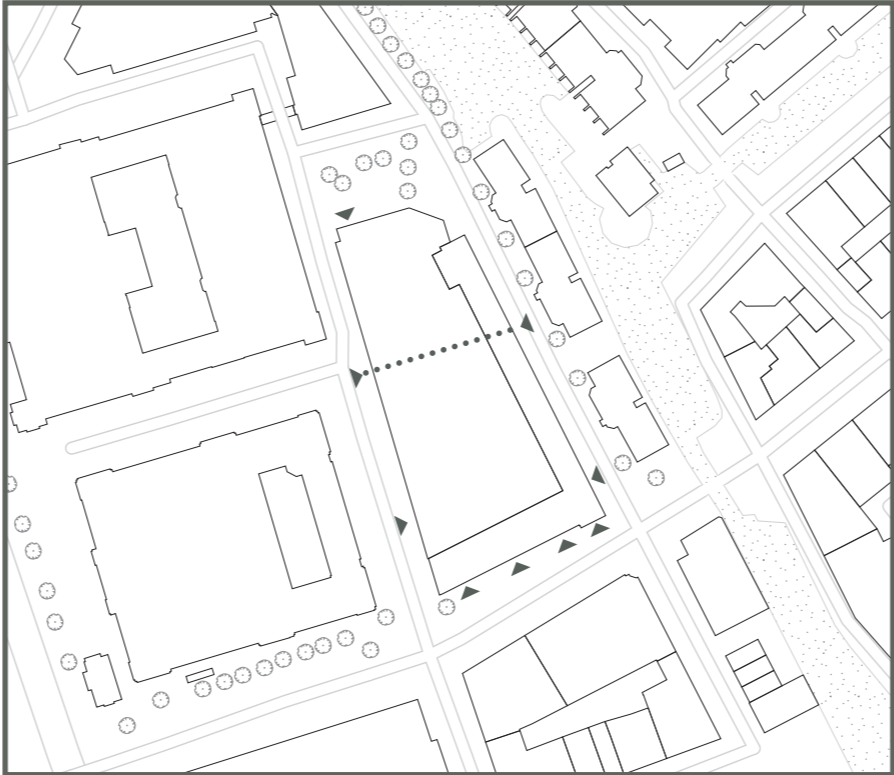
Blokhuispoort | Leeuwarden



Neherpark | Leidschendam



Fenix I | Rotterdam

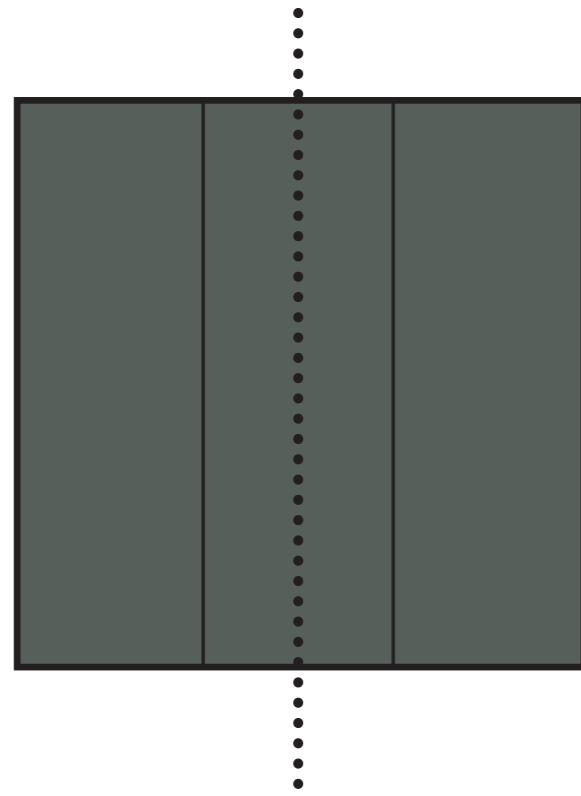


Timmerhuis | Rotterdam

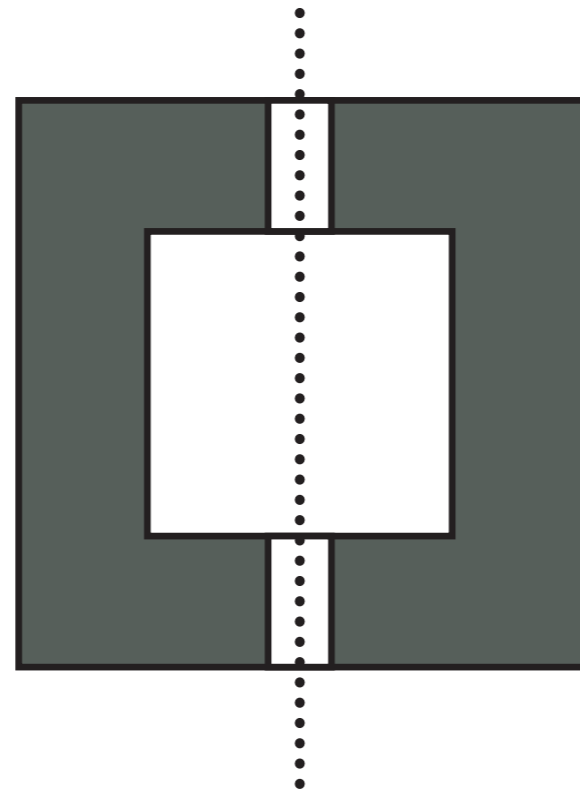


Tuin van Noord | Rotterdam

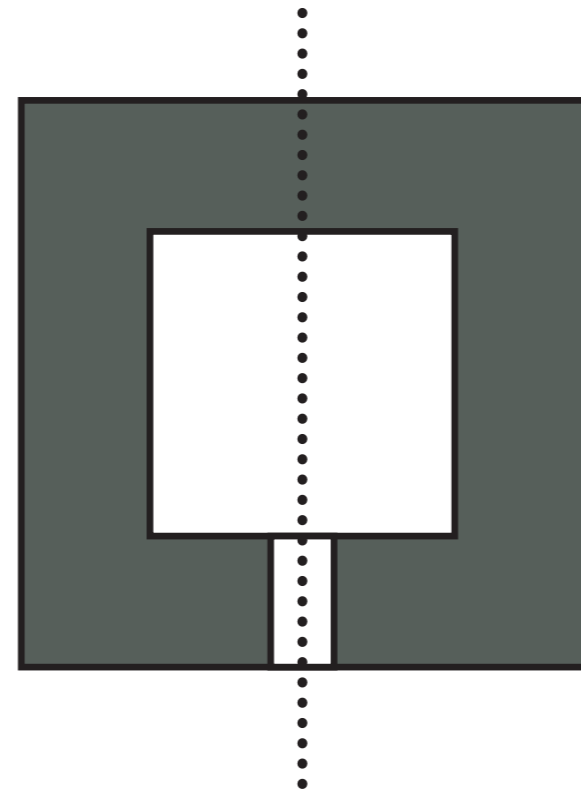
STRATEGIES



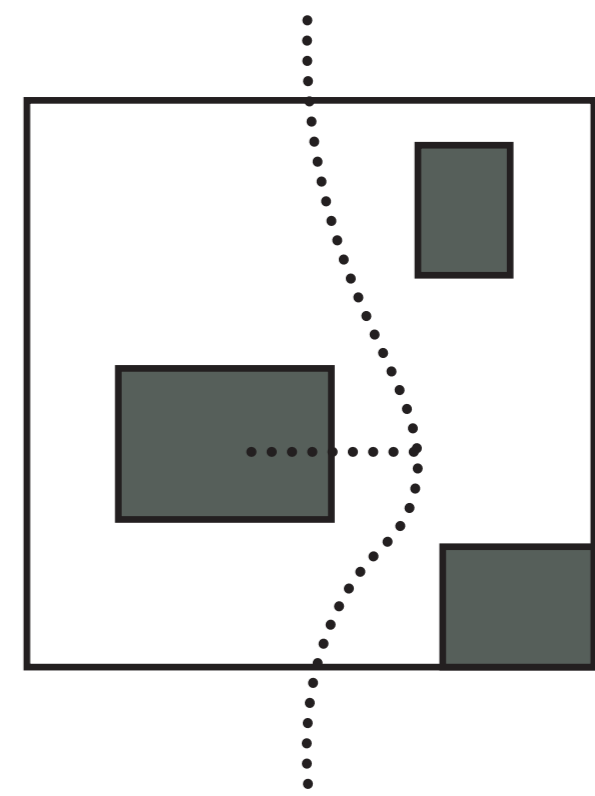
Routing through building



Routing through courtyard



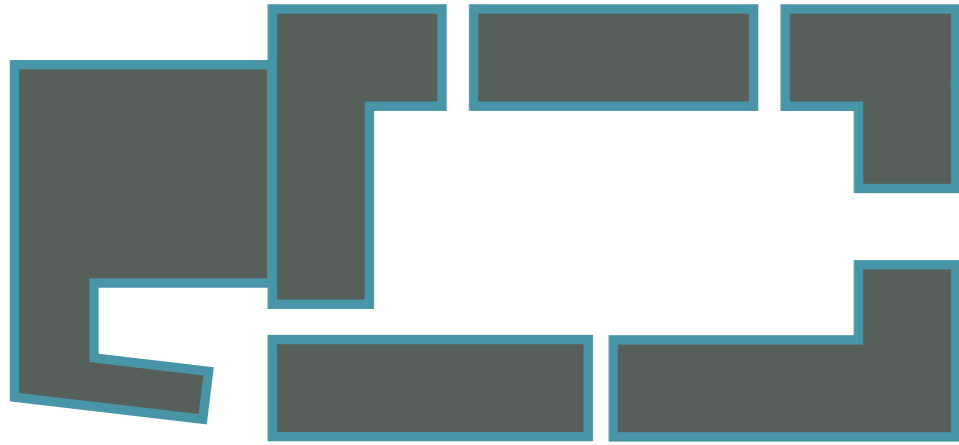
Routing through courtyard and building



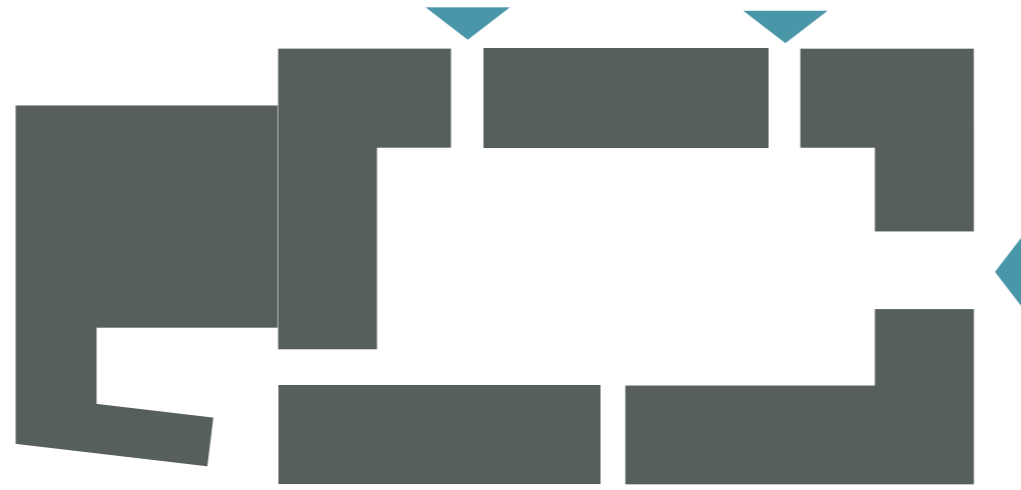
Routing through enclosed site

DESIGN

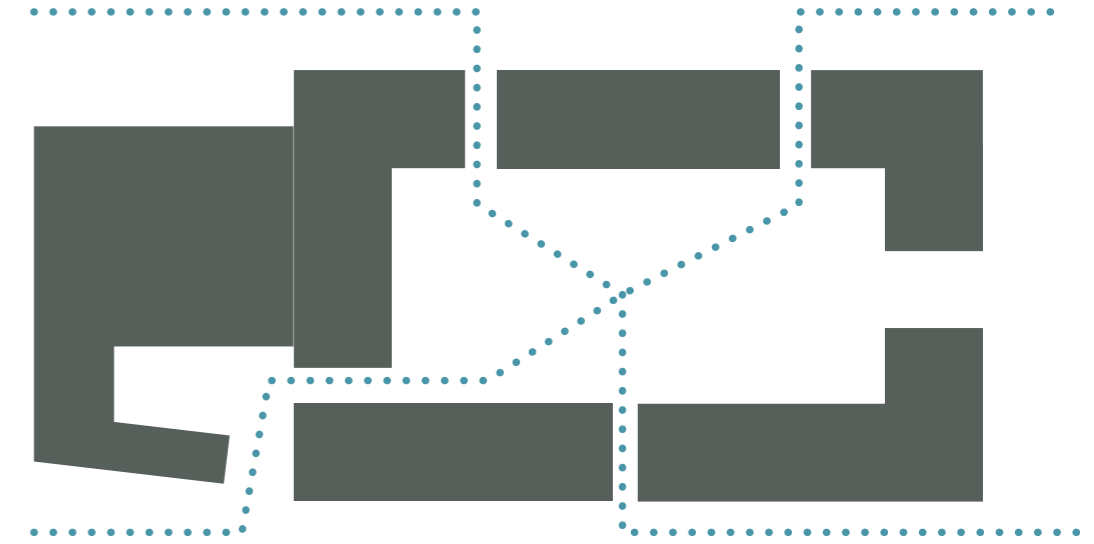
STARTING POINTS RESEARCH



Relocating borders and boundaries



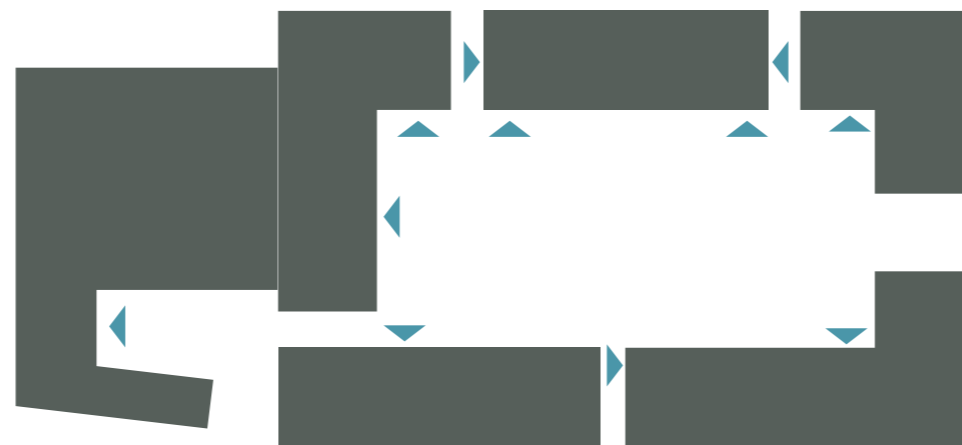
Using existing entrances for passages



Adding courtyard to pedestrian network



Mixing functions both horizontal and vertical



Assembling entrances around courtyard



Courtyard functioning as atrium

PROGRAM



Woonzorgcentrum Kennemerduin. (Joop Touw)

Ouderenzorgaanbieders Kennemerland luiden noodklok over dreigend tekort ouderenhuisvesting

do 7 jan 2021, 13:15 Zorg

1 reactie



HAARLEM De ouderenzorgaanbieders in de regio Kennemerland doen een dringende oproep tot woningcorporaties en financiers om gezamenlijk actie te ondernemen ter voorkoming van het aan huisvesting voor ouderen die zorg nodig hebben.

De ouderenzorgorganisaties Sint Jacob, Kennemerhart, Zorgbalans, Zorggroep Reinalda en Vival samen met zorgkantoor Zilveren Kruis een onderzoek laten uitvoeren naar de ontwikkeling tot aanbod van woonplekken voor zorgbehoevende ouderen. Uit dit door onderzoeksbureau Gupta blijkt dat de demografische ontwikkelingen in de regio zorgen voor een sterk groeiende vraag naar ouderen met een zware zorgvraag.

DREIGEND TEKORT OUDERENHUISVESTING Op dit moment beschikken de zorgorganisatie Kennemerland gezamenlijk over 4.670 woonplekken voor mensen met intensieve verpleging of langdurige zorg. In 2040 zullen er tot 50% meer van dit soort woonplekken nodig zijn. Dit betekent dat er 115 duizend geclusterde ouderenwoningen tot 2040 extra gevraagd door huishoudens 65+ in Kennemerland. In 2040 zullen er tot 50% meer van dit soort woonplekken nodig zijn. Dit betekent dat er 268 duizend nultredenwoningen voor huishoudens 65+ moeten worden toegevoegd. Voor een belangrijk deel gaat het om vraag naar geschikte ouderenhuisvesting het gevolg van de verwachte toename van het aantal huishoudens met mobiliteitsbeperkingen. De vraag naar geclusterde woningen is vooral op de (sociale) huursector gericht, terwijl de vraag naar aangepaste woningen zich met name in de koopsector manifesteert.



Senioren denken liever niet na over een toekomst waarin ze afhankelijker of zorgbehoevender zijn. FOTO: Pixabay

Rapport: 'Zo wil ik wonen en leven'

De uitdagingen

Om meer senioren te laten verhuizen, is het belangrijk eerst te beseffen dat ouderen niet genoeg verleid worden te verhuizen. Er zijn nog niet genoeg geschikte huizen voor hen en wat er is, is te onbekend. De vereiste nieuwbouw krijgt daarbij te weinig urgentie, evenals de promotie van deze nieuwe huizen.

Bovendien zijn de gedachtevormen van senioren vaak anders dan die van jongeren.

Verkenning wonen met zorg 2020-2040

Door Judith Willems en Wim Faessen

Gepubliceerd op 19 februari 2021

Fortuna 2020 beschikbaar

Met het prognosemodel Fortuna brengt ABF Research de huidige situatie en toekomstige vraag naar wonen in kaart. Het rapport Verkenning wonen met zorg 2020-2040 laat goed zien welke gevolgen de vergrijzing heeft op de vraag naar voor ouderen geschikte woningen en de vraag naar intramurale zorg, en welke informatie daarvoor beschikbaar is. Het rapport is ingestoken op nationaal niveau maar de meeste informatie is beschikbaar op buurtniveau en kan dus op lokaal niveau worden ingezet, bijvoorbeeld bij prestatieafspraken tussen gemeenten, woningcorporaties en zorgaanbieders. Op de website van ABF is ook een gemeentelijke voorbeeldrapportage te vinden.

Om vraag en aanbod voor wonen met zorg onder huishoudens 65+ op de gewone woningmarkt beter op elkaar aan te sluiten moet het aantal geclusterde ouderenwoningen tussen 2020 en 2040 in Nederland met 115 duizend toenemen, terwijl het aantal aangepaste woningen met 94 duizend moet worden uitgebreid. Daarnaast zijn er 268 duizend nultredenwoningen voor huishoudens 65+ moeten worden toegevoegd. Voor een belangrijk deel gaat het om vraag naar geschikte ouderenhuisvesting het gevolg van de verwachte toename van het aantal huishoudens met mobiliteitsbeperkingen. De vraag naar geclusterde woningen is vooral op de (sociale) huursector gericht, terwijl de vraag naar aangepaste woningen zich met name in de koopsector manifesteert.



Foto ter illustratie. © ANP

Ouderen woest dat zij de schuld krijgen van woningnood

Ouderenbonden reageren als door een wesp gestoken op het bericht dat honkvaste ouderen debet zouden zijn aan de wooncrisis. „Het zijn de gemeenten die geen visie hebben.”

De belangrijkste oorzaak van de woningcrisis in ons land zou de geringe doorstroming van ouderen van grote naar kleinere woningen zijn, zegt een meerderheid van gemeenten (55 procent) in antwoord op vragen van de NOS en de regionale omroepen. Ze zouden eengezinswoningen bezet houden.

Ouderenbond ANBO reageert gepikeerd: „Gemeenten moeten de hand in eigen boezem steken. Zij hebben vaak geen visie op de veranderende demografische ontwikkelingen in ons land. Veel ouderen van wie de kinderen allang het huis uit zijn, en van wie soms de partner al overleden is, willen wel verhuizen naar een kleinere woning. Niet alleen omdat het in hun eigen belang is, maar ook omdat zij daarmee kunnen bijdragen aan de doorstroming op de woningmarkt en dus starters aan een huis kunnen helpen. Maar er zijn simpel gezegd geen geschikte woningen om naartoe te verhuizen, in hun eigen wijk, met zorg dichtbij en mogelijkheden om elkaar te ontmoeten en waar nodig te helpen.”

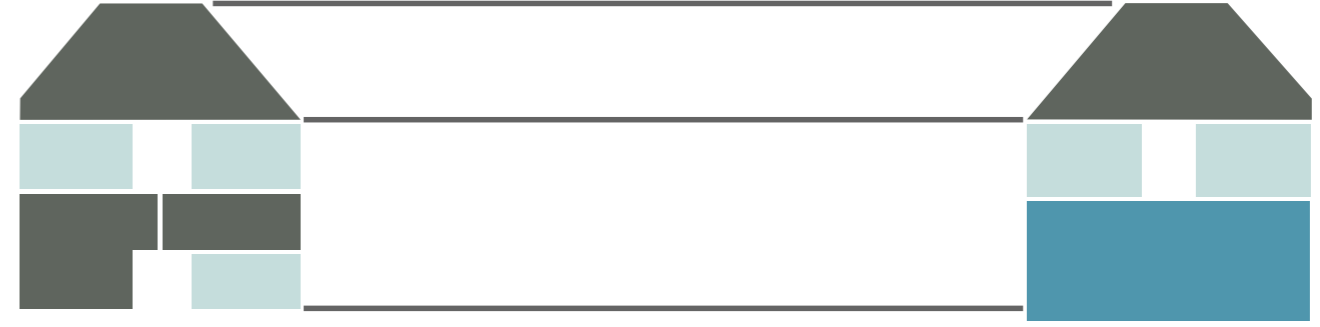
DESIGN QUESTION

“How could the Koudenhorn building in Haarlem be transformed into elderly housing that includes **public accessible** functions to stimulate **social interaction** both amongst inhabitants of the building and with the neighborhood?”

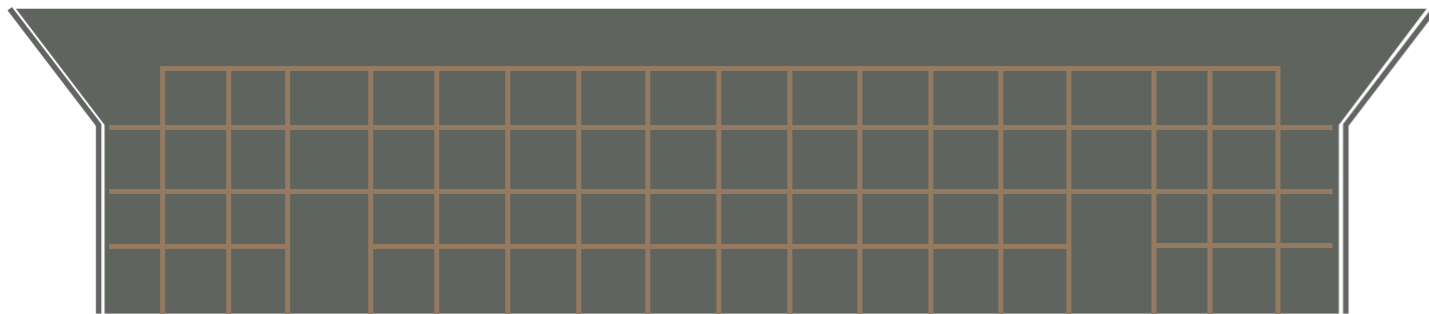
STARTING POINTS



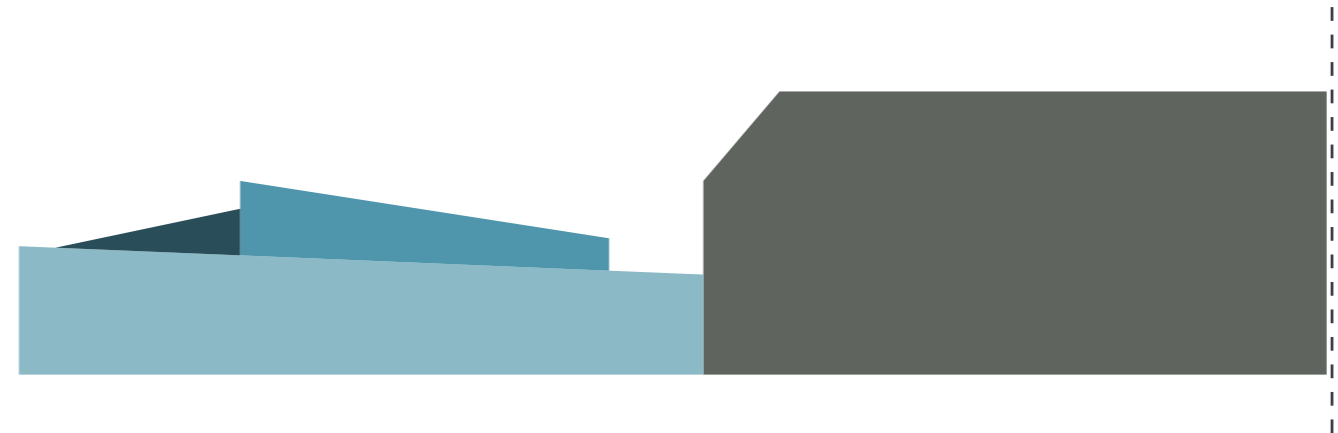
Mixing public, collective and private functions



Using existing spatial qualities

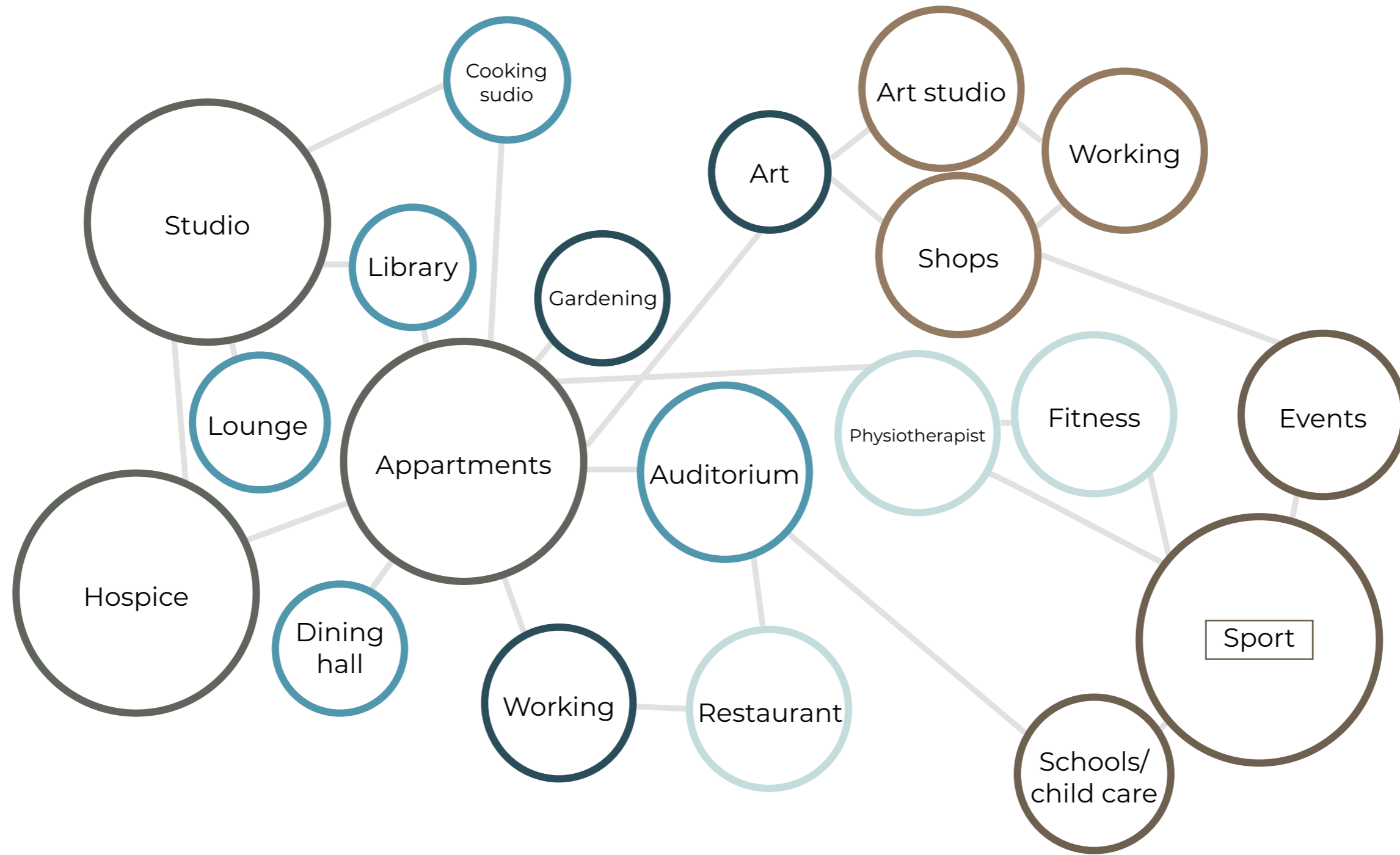


Gallery to stimulate social interaction

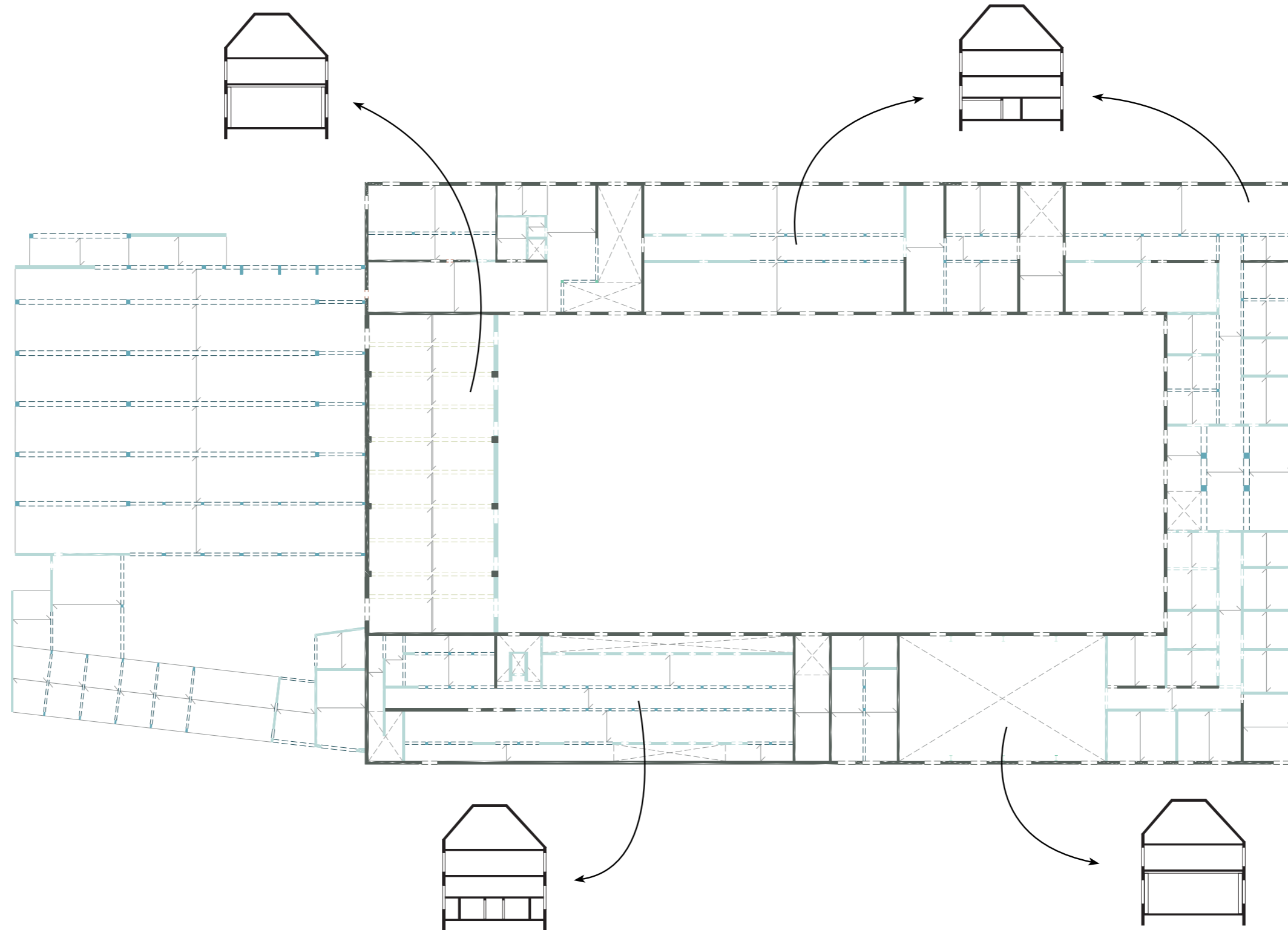


Improve and open up newer volume

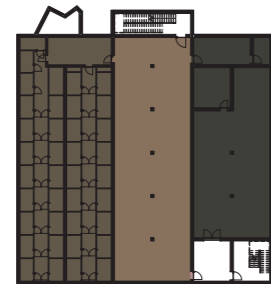
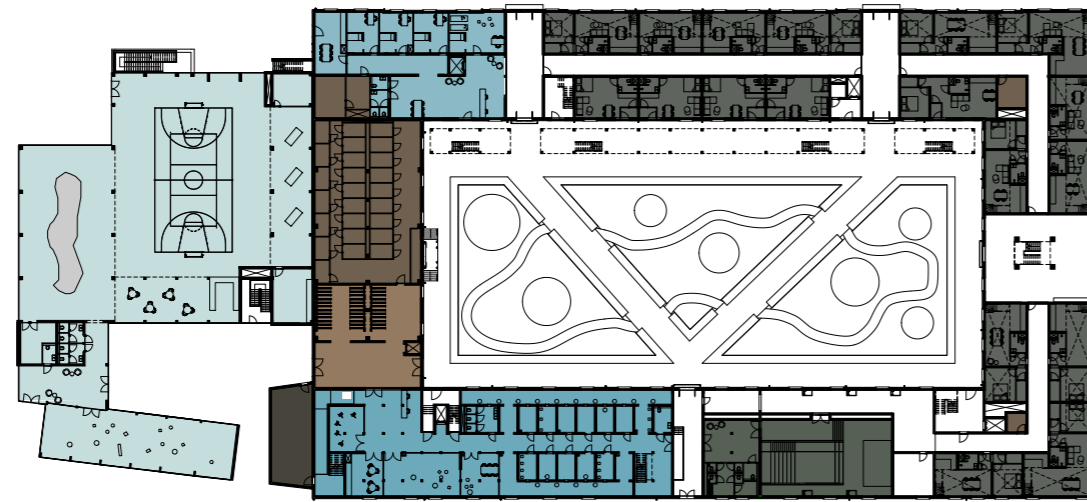
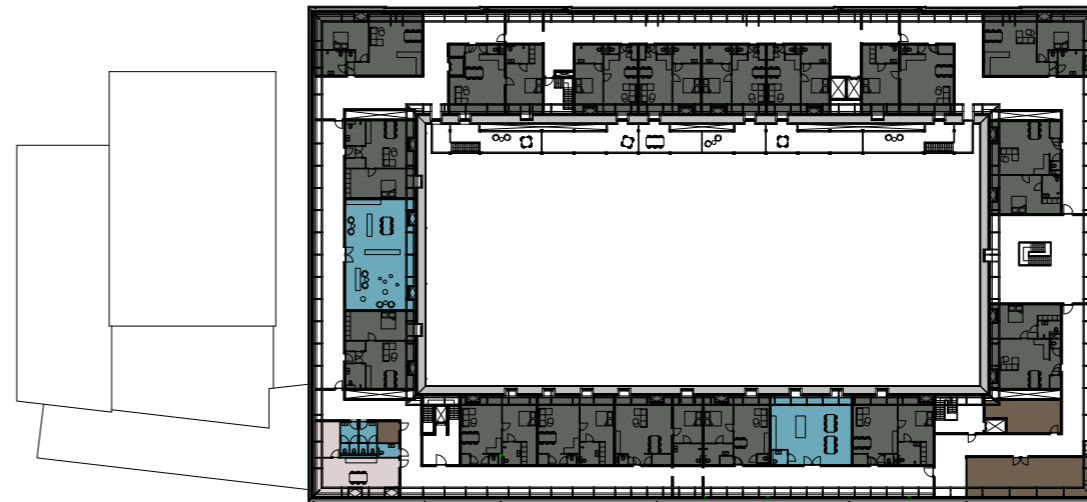
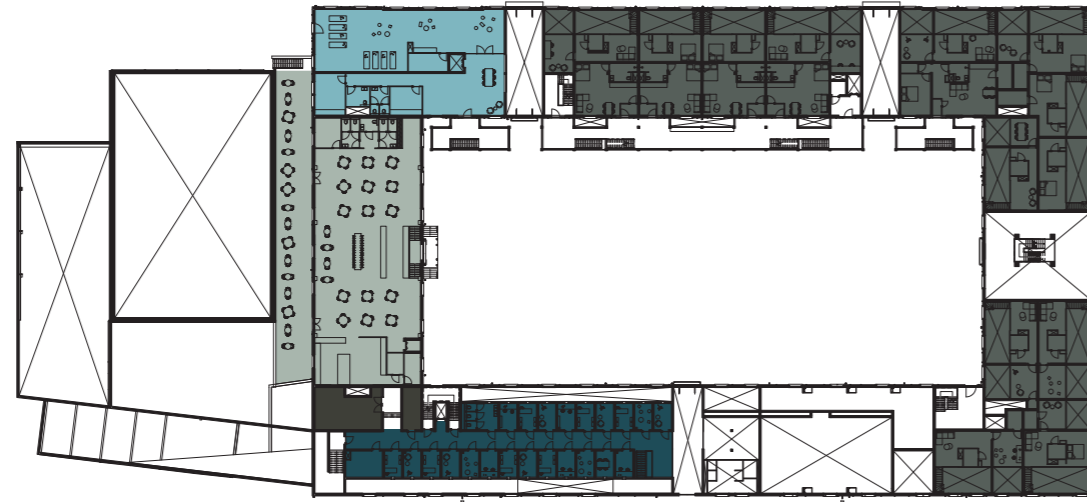
PROGRAM



INFILL

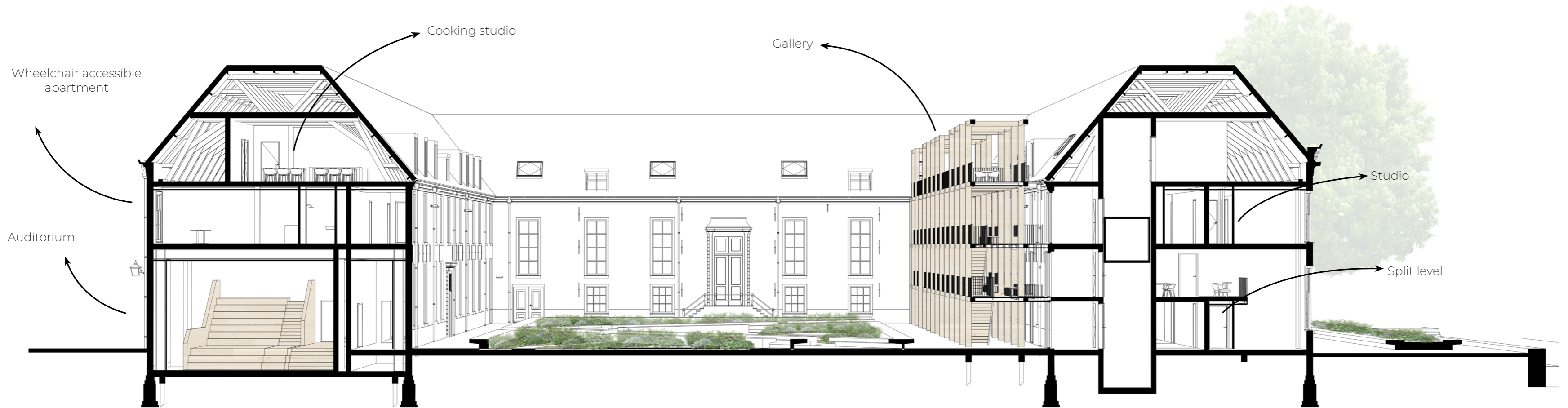


PROGRAM

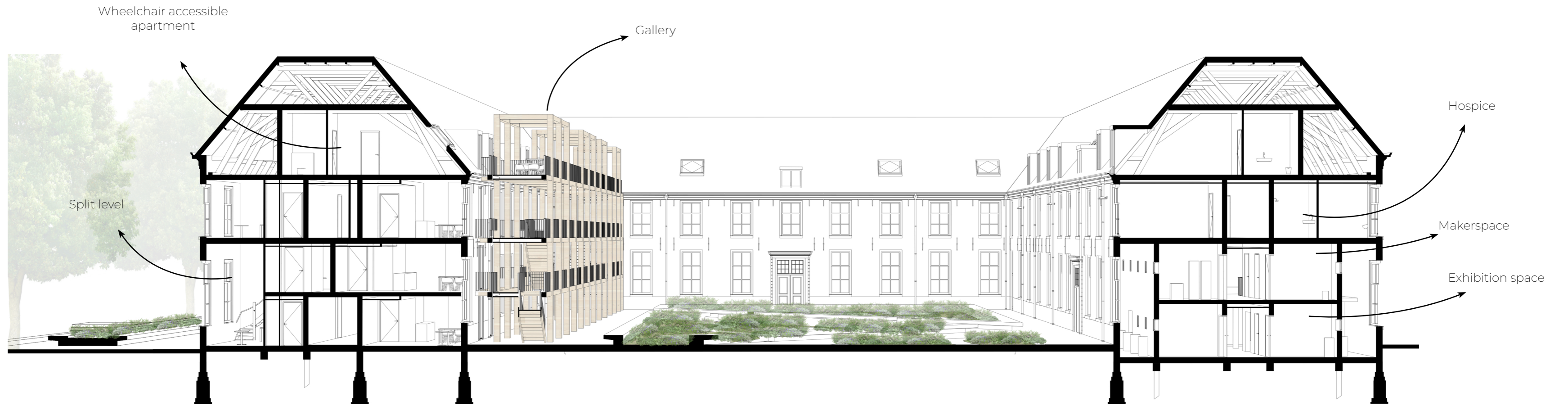


- housing
- health care
- collective space
- exhibition
- auditorium
- restaurant
- multifunctional space
- makerspace
- hospice
- storage
- bicycle parking
- services

SECTION AUDITORIUM



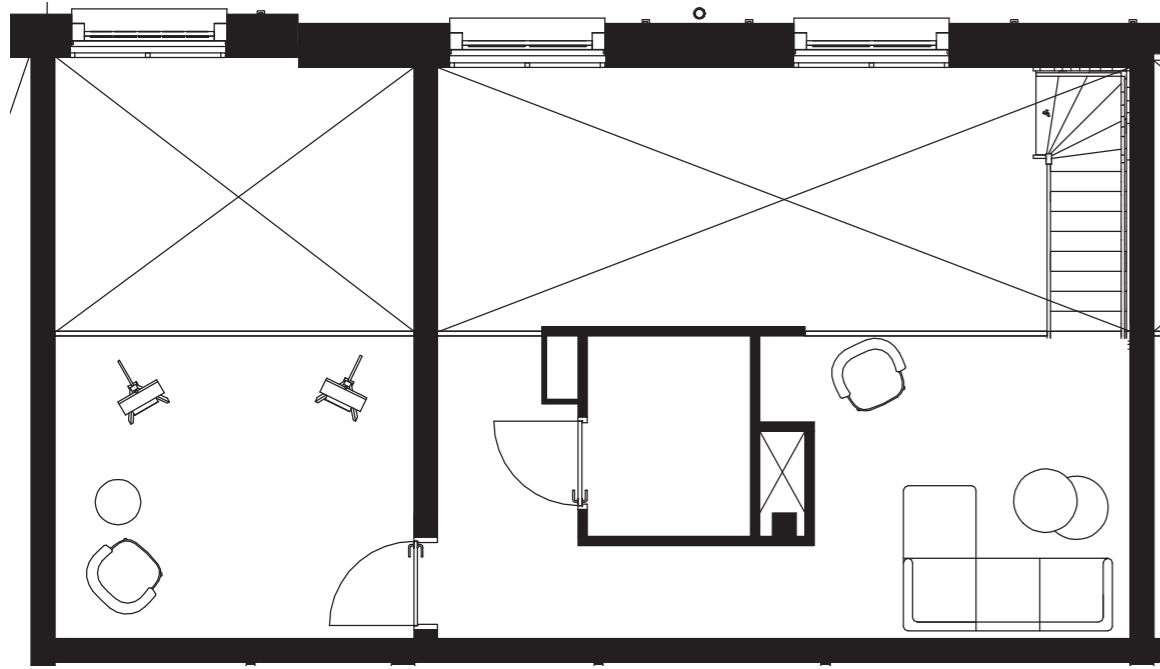
SECTION CELL BLOCK



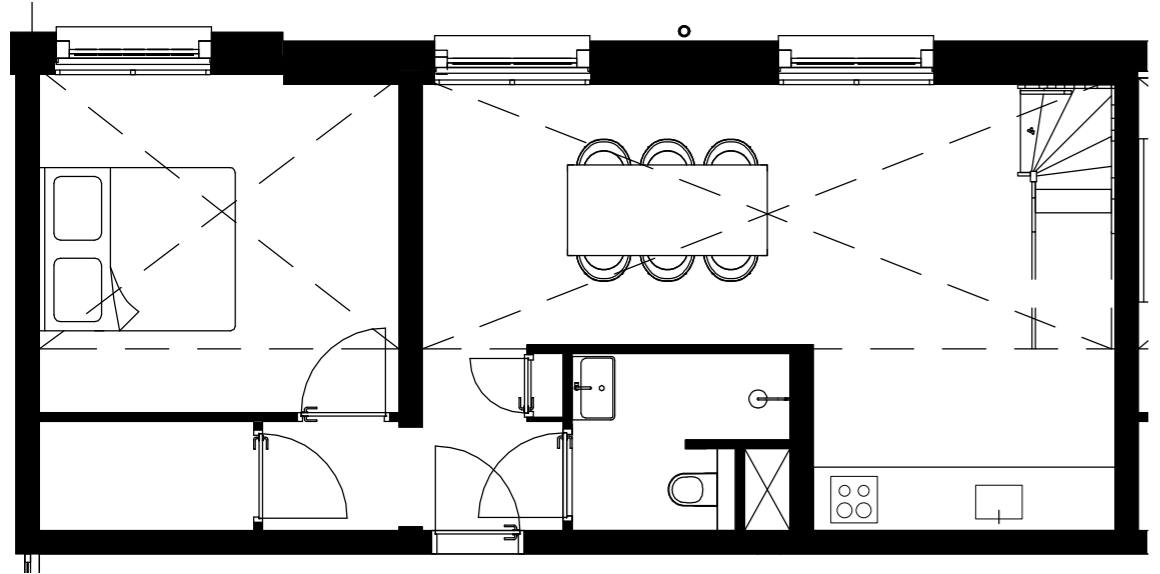
SECTION MULTIFUNCTIONAL VOLUME



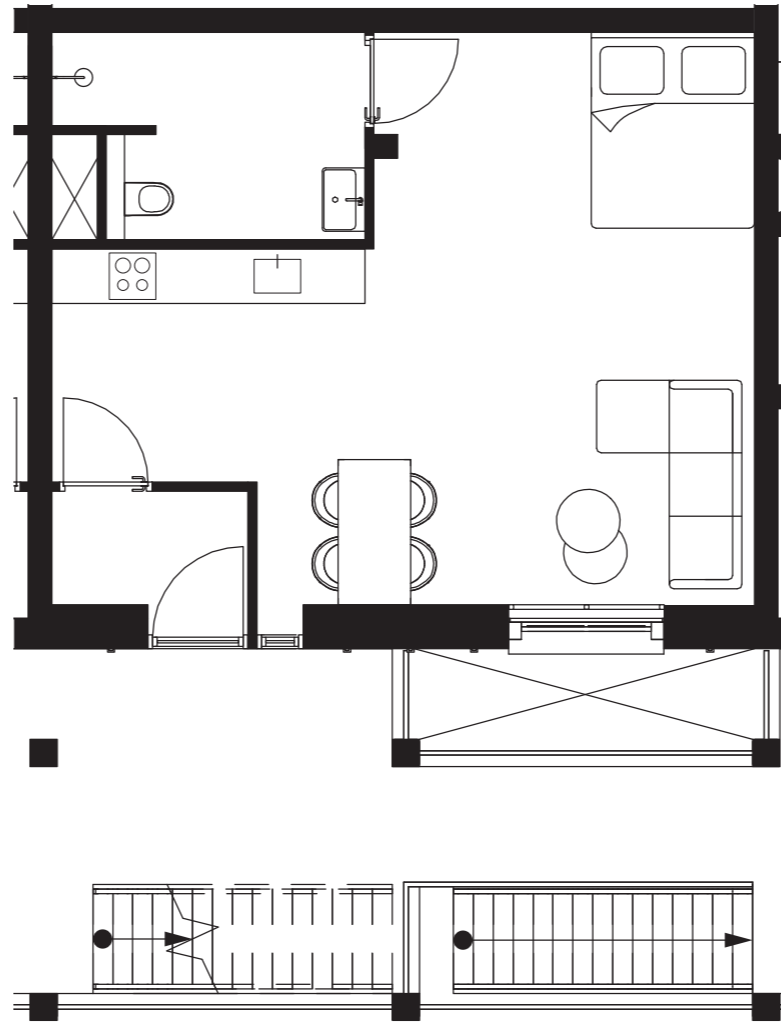
TYOLOGIES



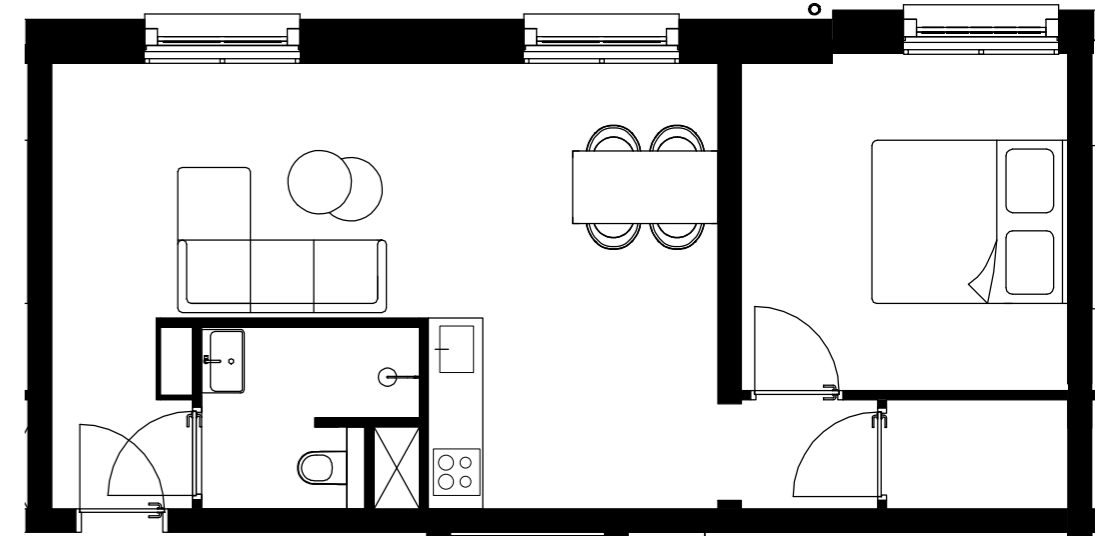
Split level
63-97 m²
13x



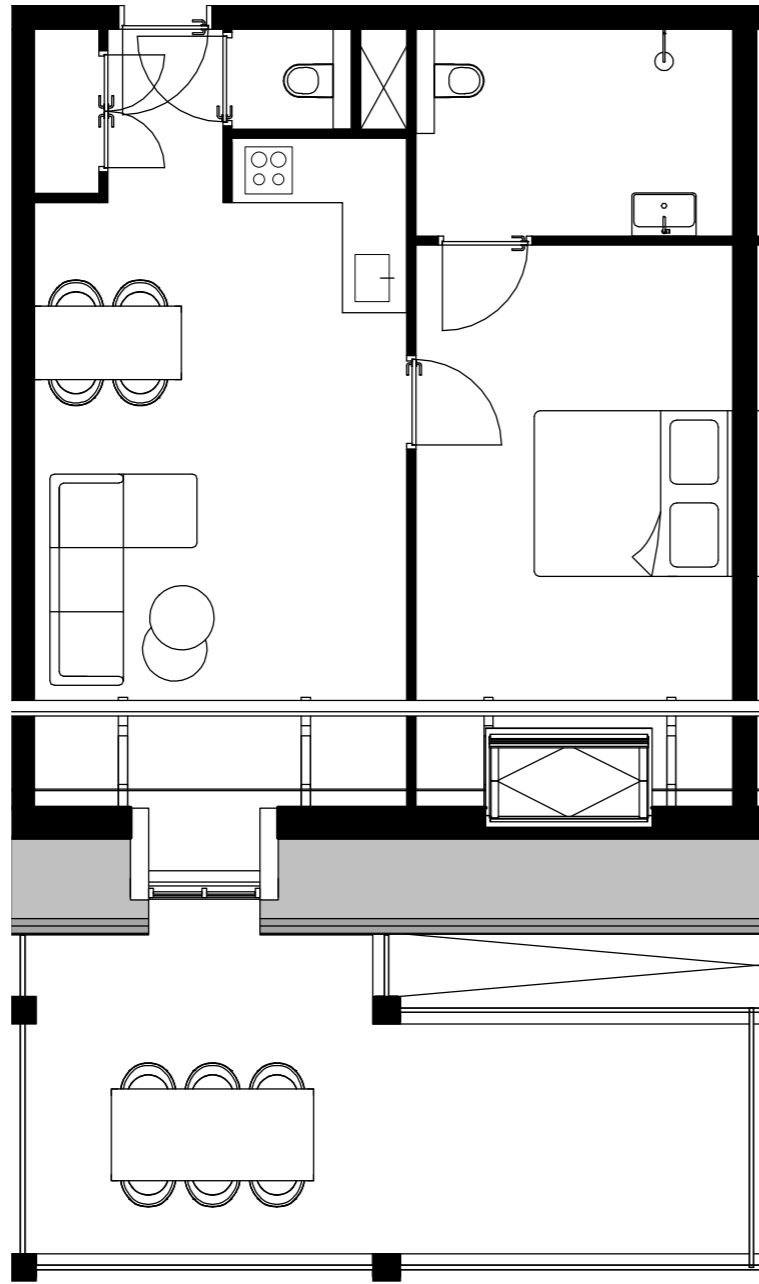
Studio's
40-50 m²
16x



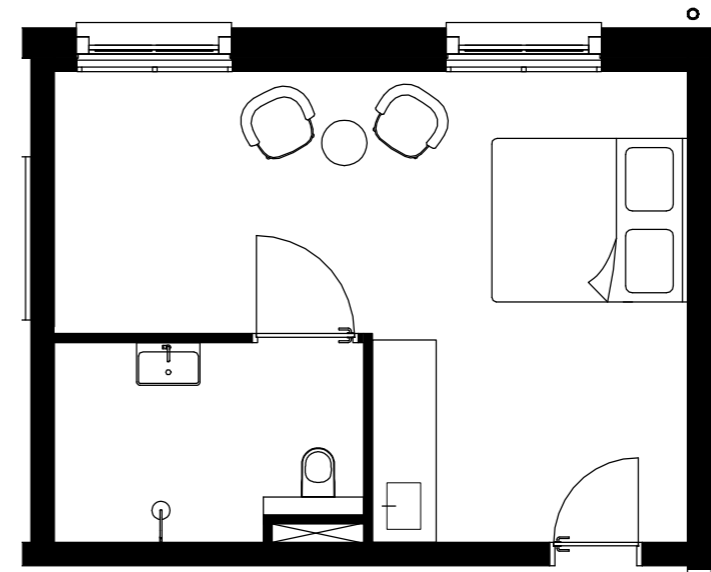
One bedroom
57 m²
13x



TYOLOGIES



Wheelchair accessible
66-80 m²
20x



Hospice
6 rooms

TYOLOGIES

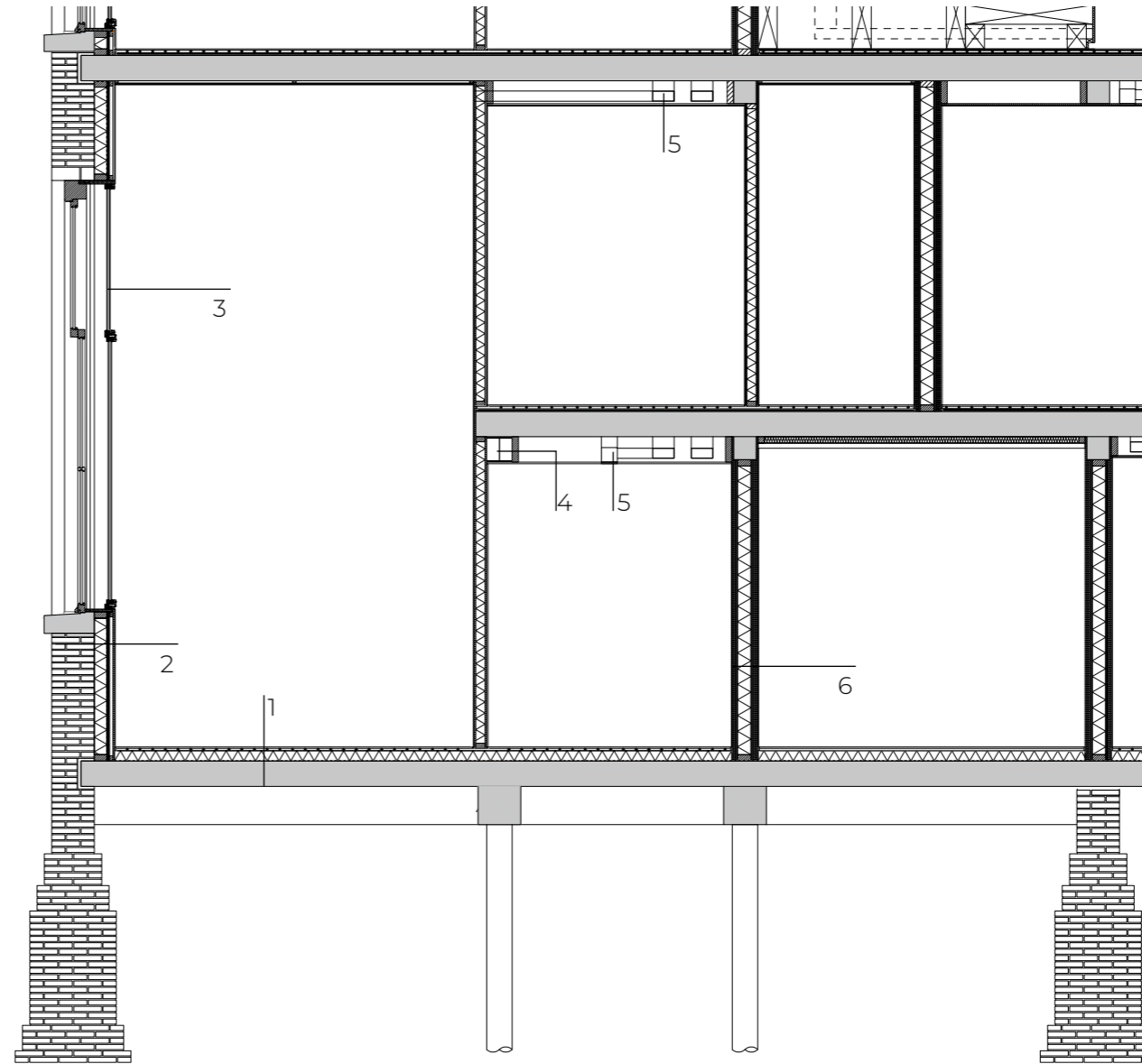
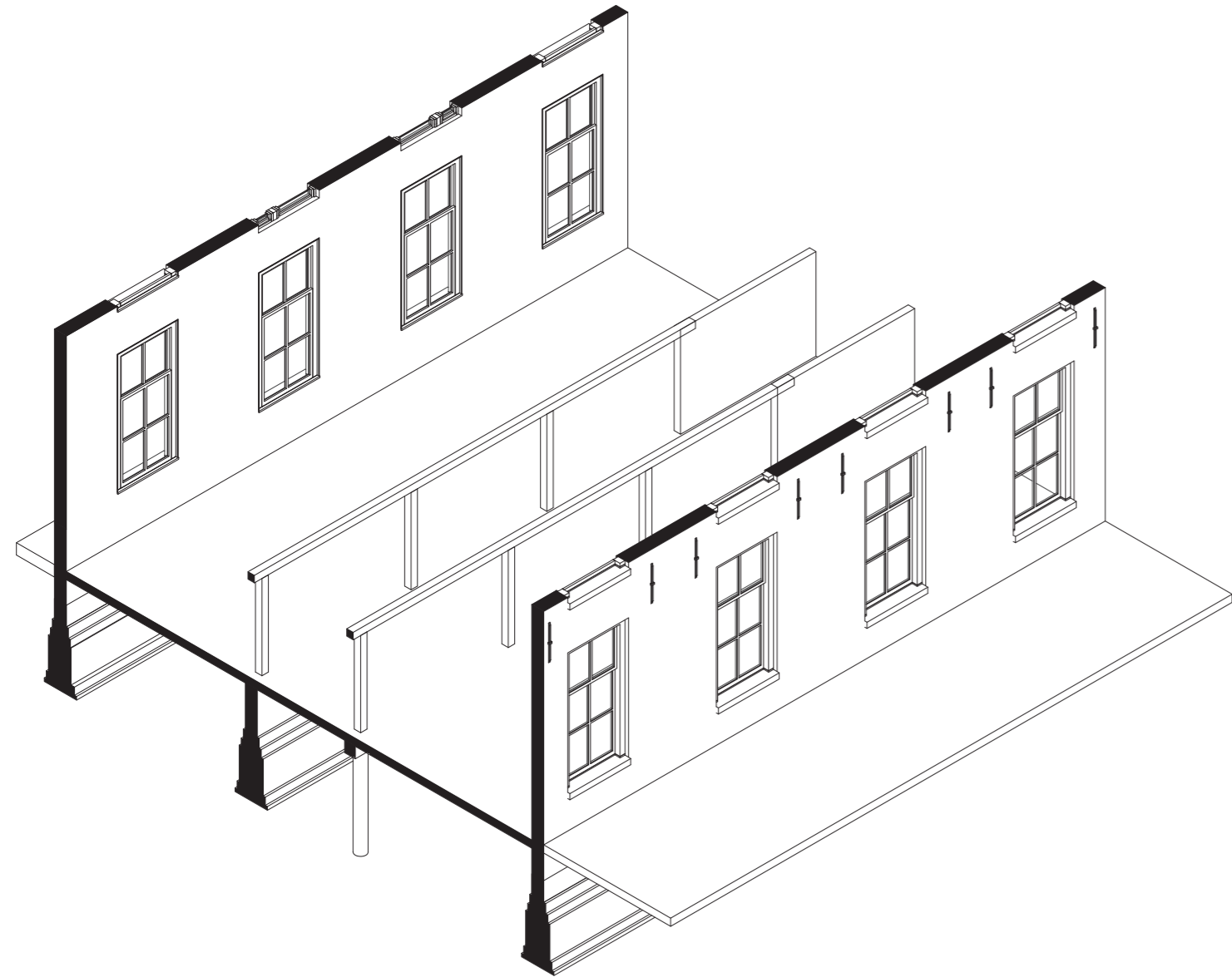


Split-level apartment



Wheelchair accessible apartment

CONSTRUCTION



- 1 Floor
 - Existing concrete floor 200 mm
 - Vapor barrier layer 1 mm
 - PIR insulation 80 mm (R=3,63)
 - Fermacell floor plates 2x9 mm with milled floor-heating tubes + 2 mm leveling compound
 - PVC floor finish 8 mm

- 2 Exterior wall
 - Existing masonry wall 335 mm
 - PIR insulation 100 mm (R=4,5) in wooden stud frame
 - Vapor barrier layer 1 mm
 - OSB 18 mm
 - Cavity for electricity 28 mm
 - Gypsum plate 12.5 mm
 - Stucco 5 mm

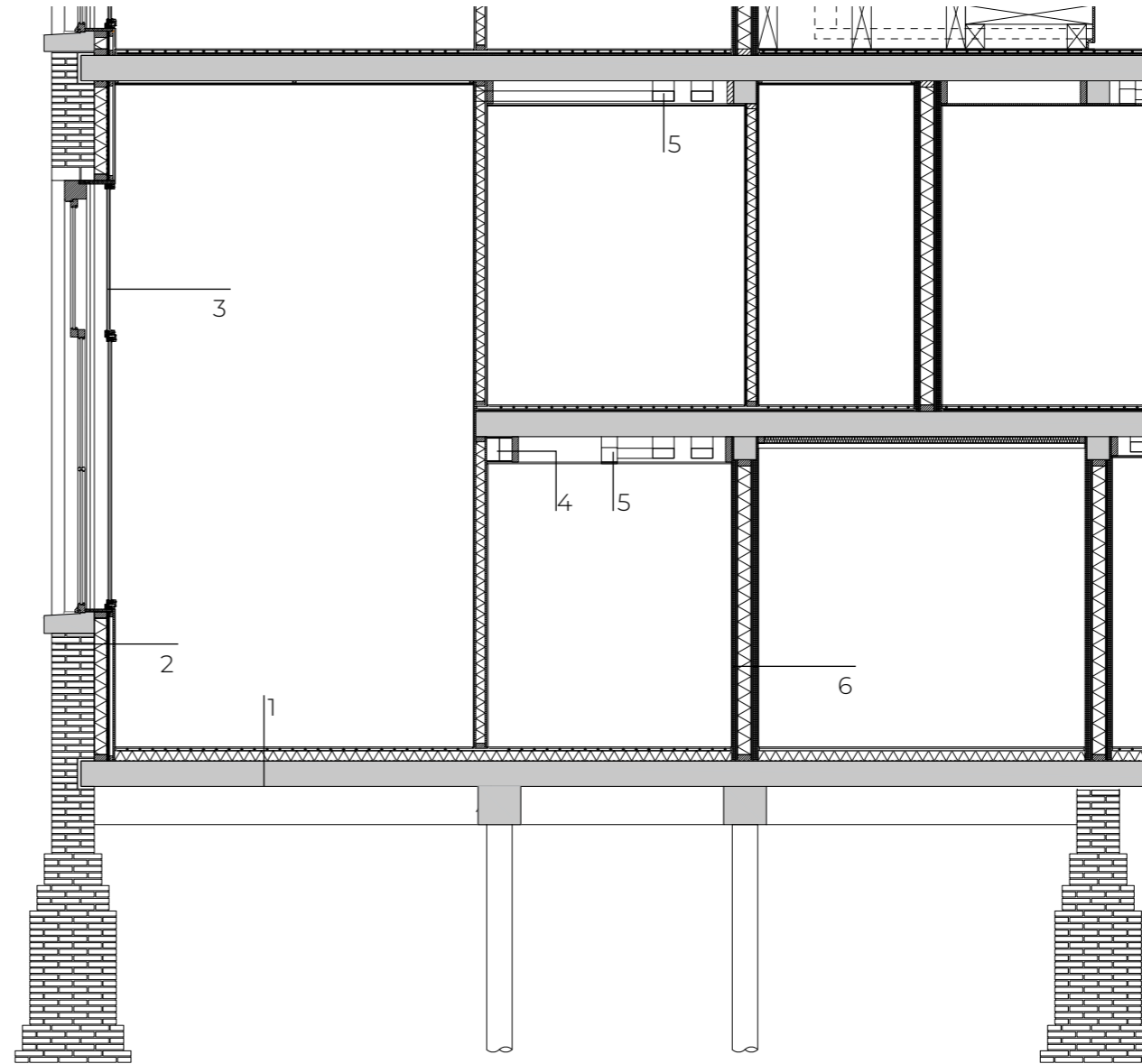
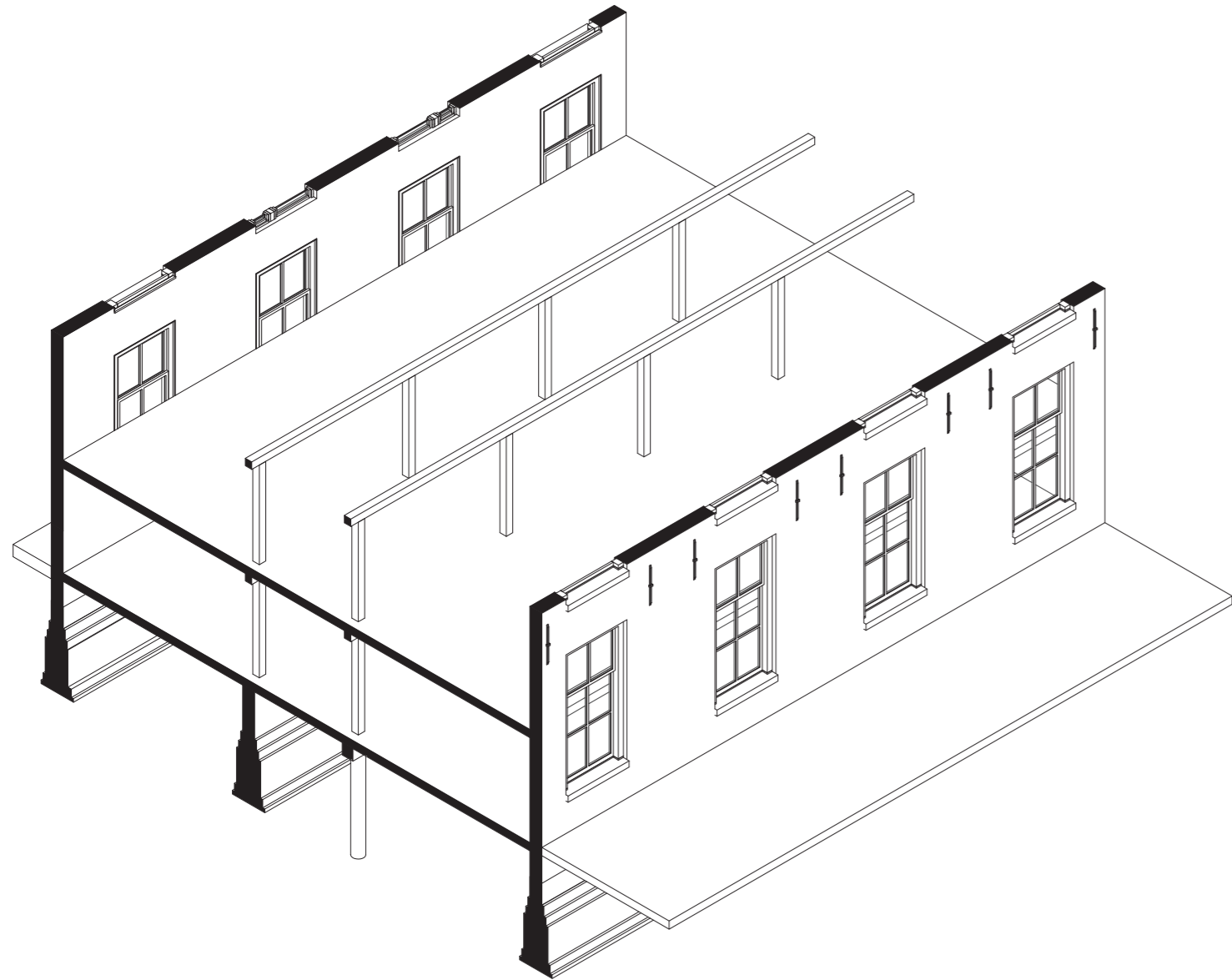
- 3 HR++ glazing in SL-38 aluminum window profile

- 4 HEB-200

- 5 Ventilation ducts in apartments 170 x 80 mm > ø 80 mm

- 6 Party wall firebreak
 - Bathroom tile finish 10 mm
 - Waterproof gypsum plate 2 x 12.5
 - OSB 18 mm
 - Mineral wool insulation 106 mm in wooden frame
 - OSB 18 mm
 - Gypsum plate 12.5 mm on acoustic strip
 - Gypsum plate 2 x 12.5 mm
 - Leemstuc finish

CONSTRUCTION



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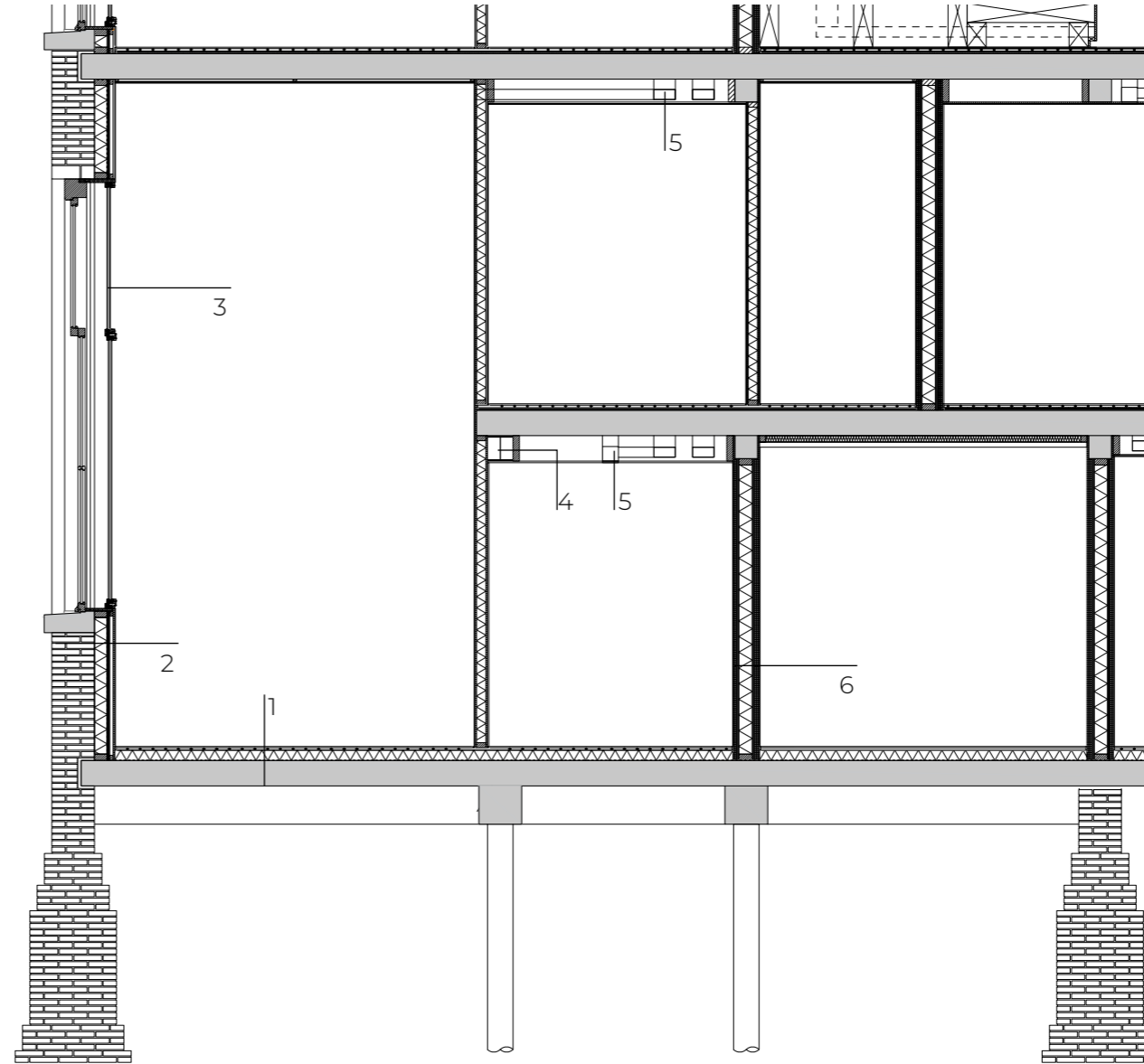
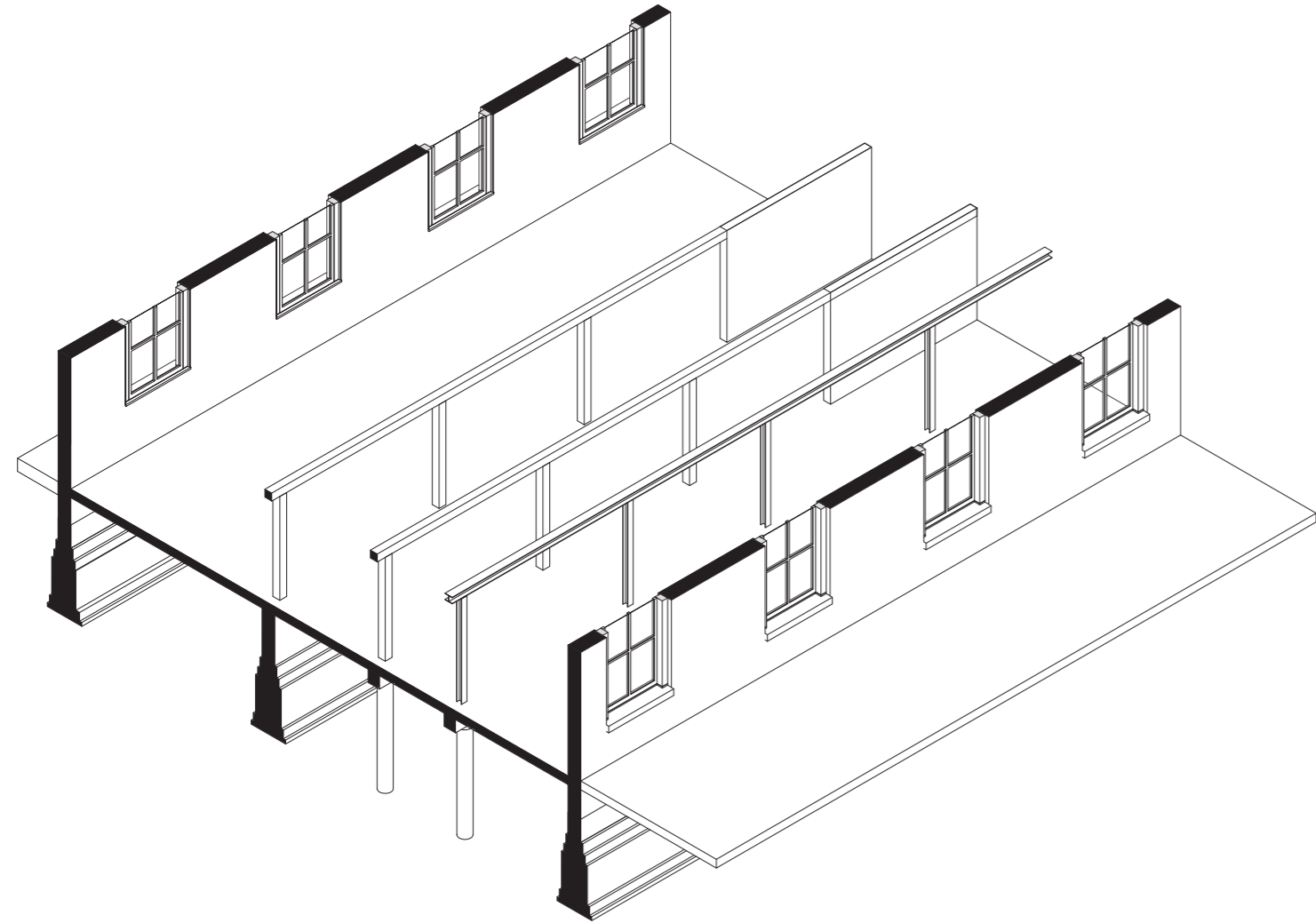
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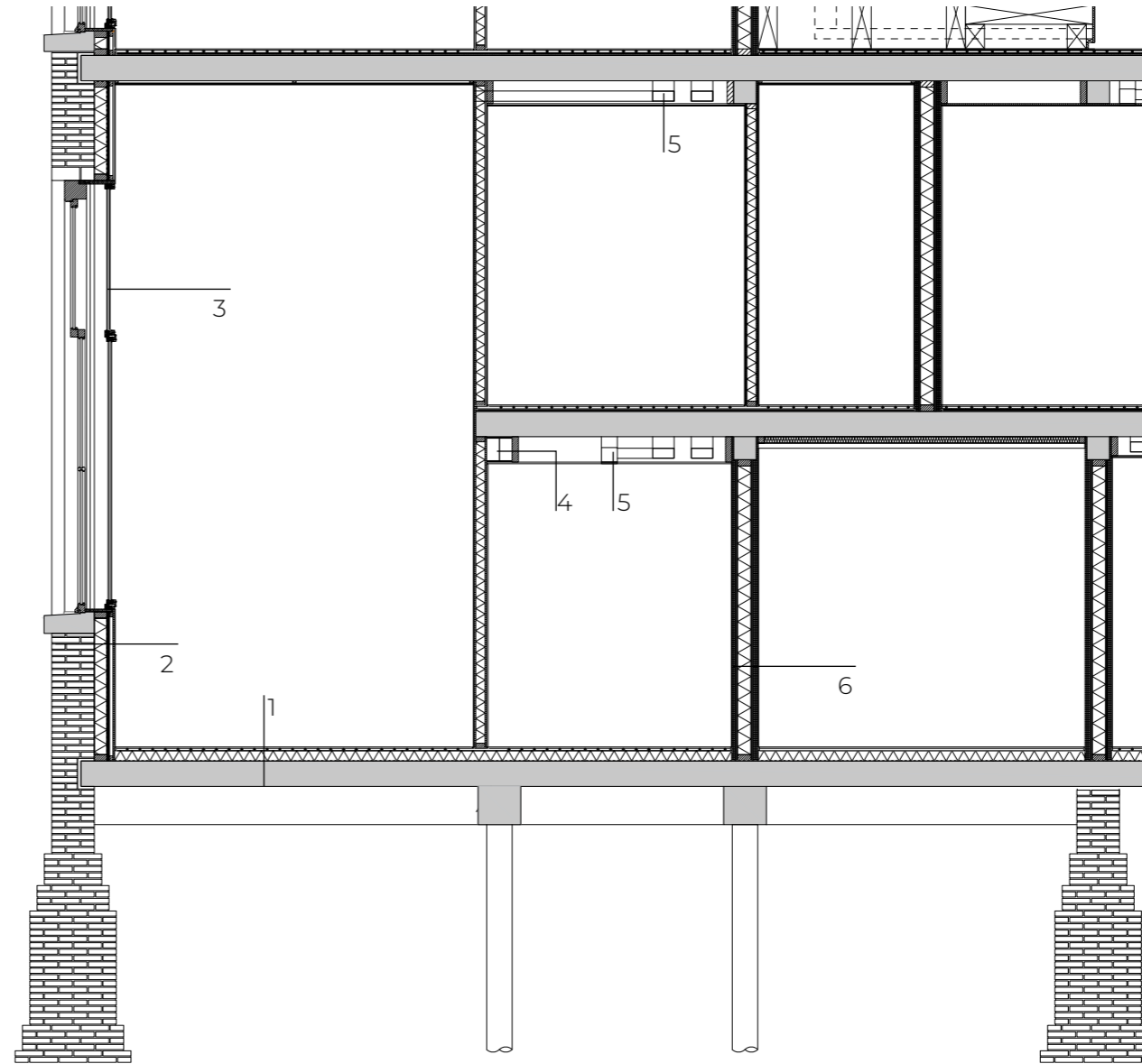
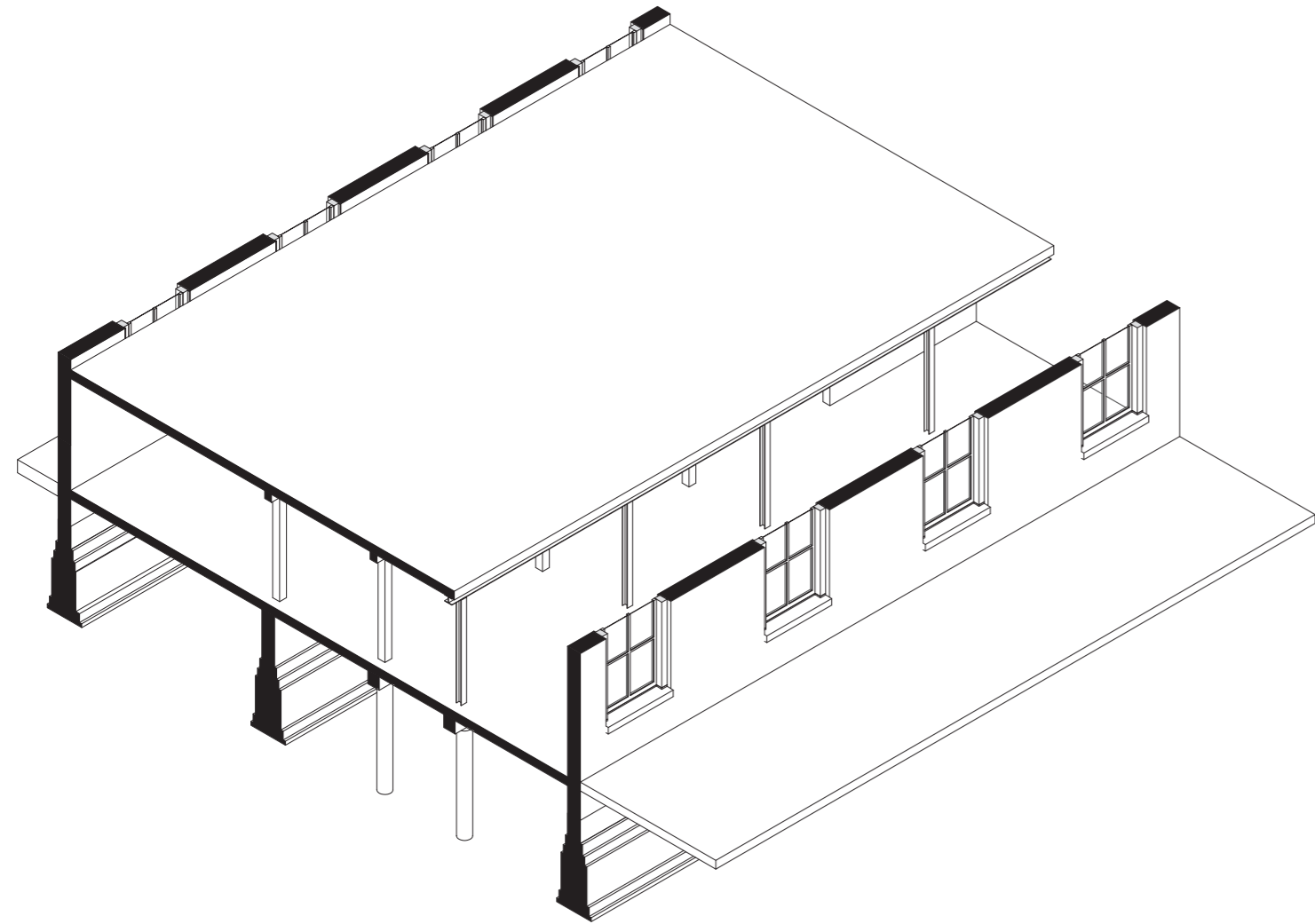
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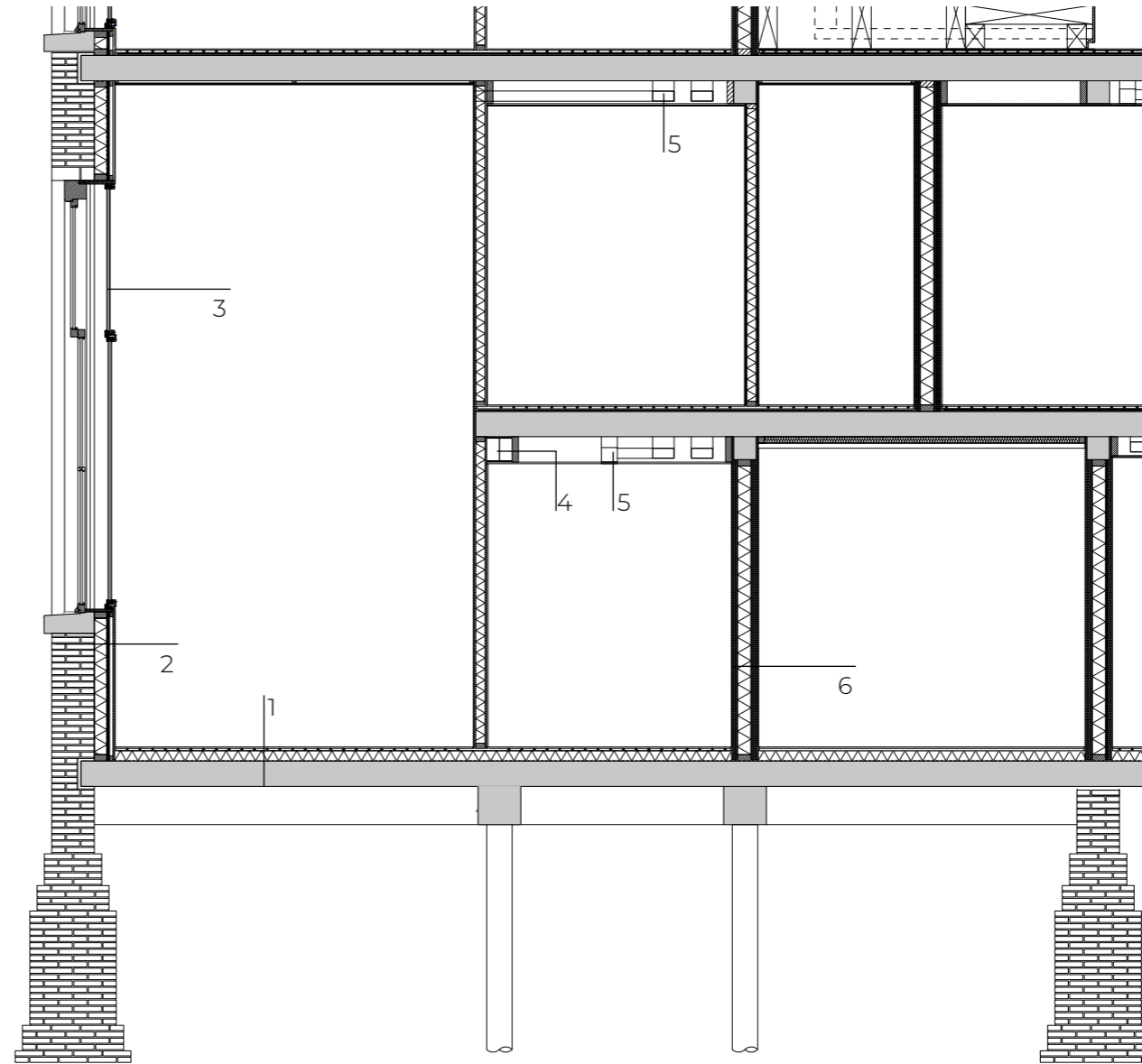
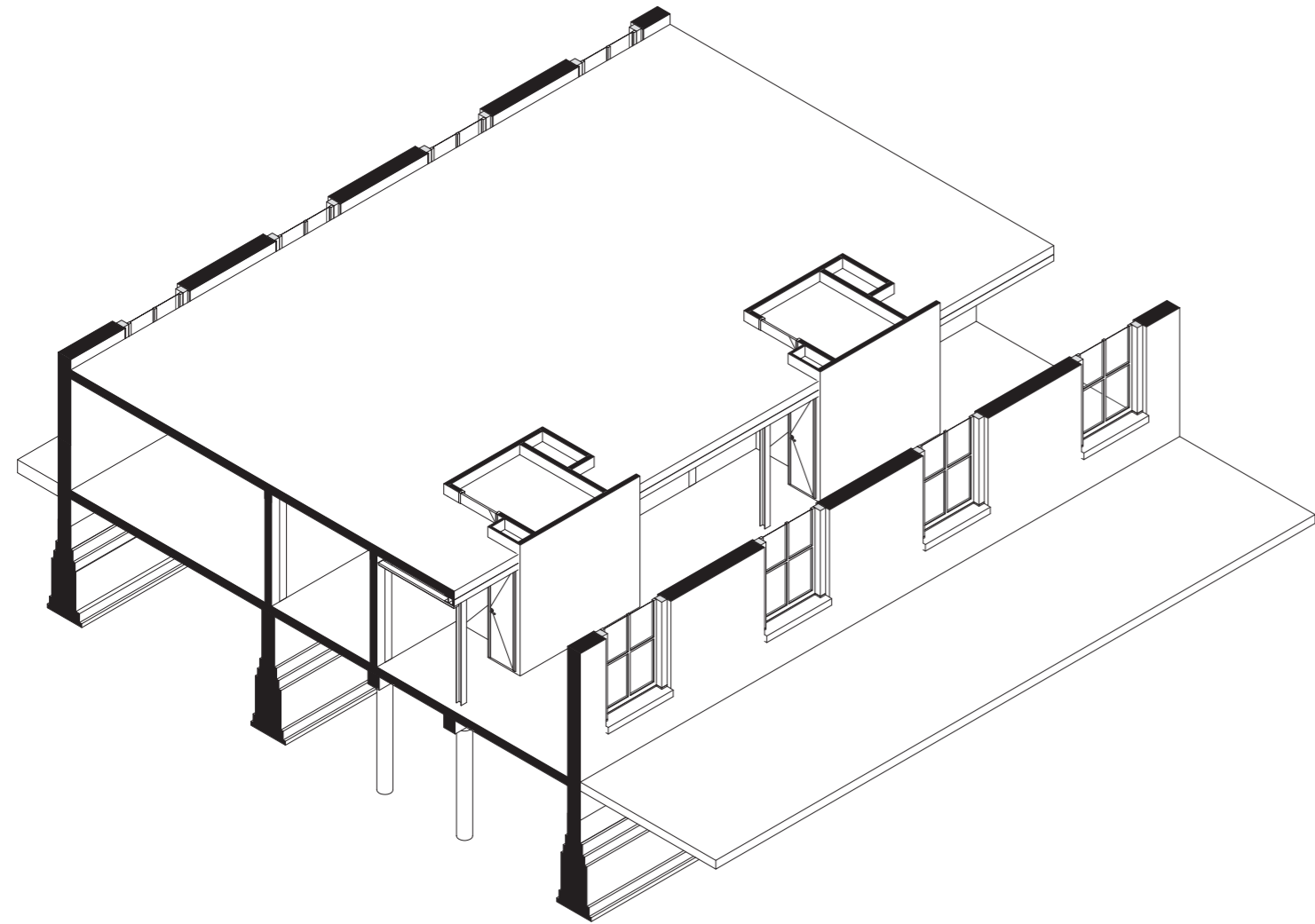
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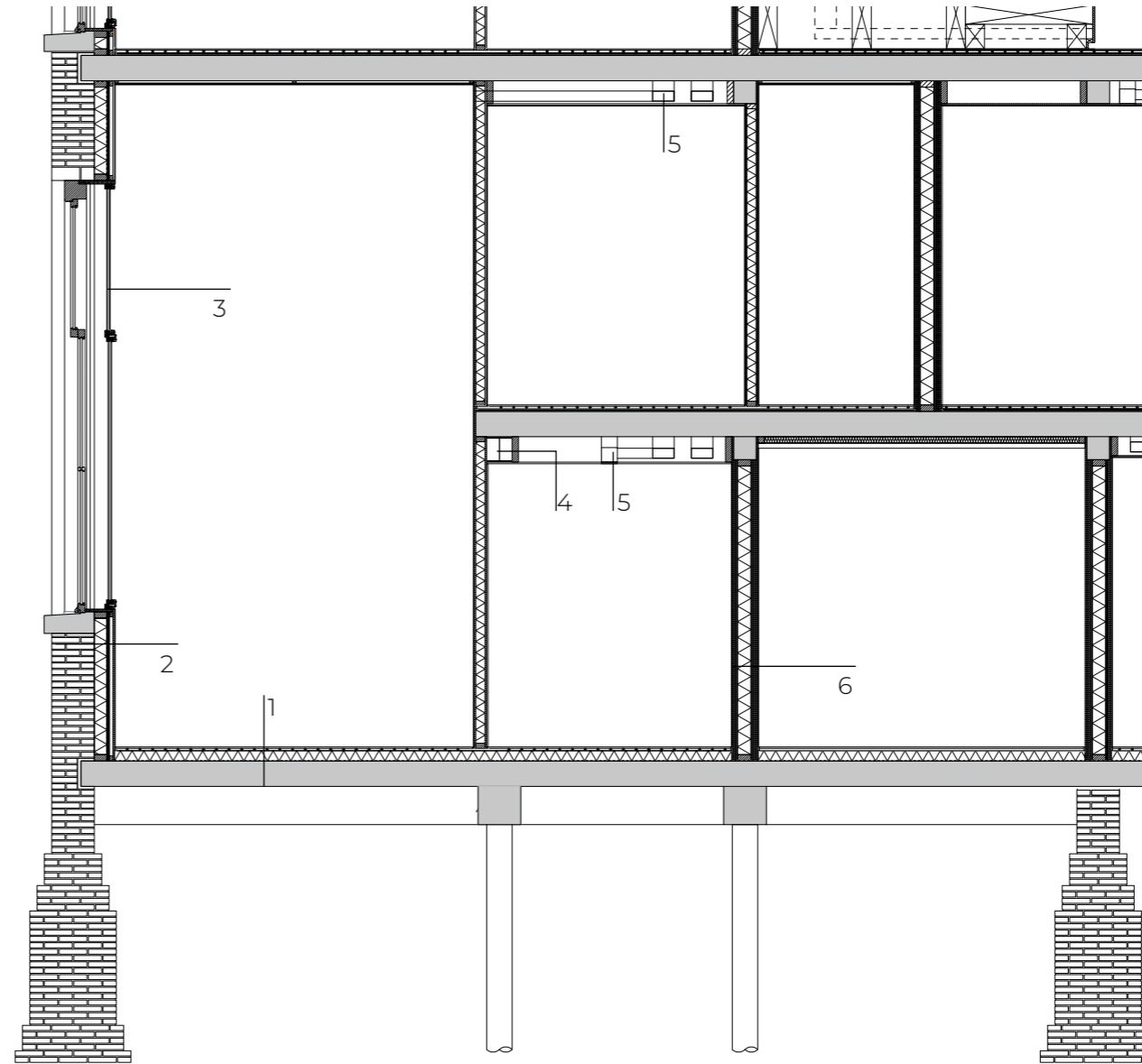
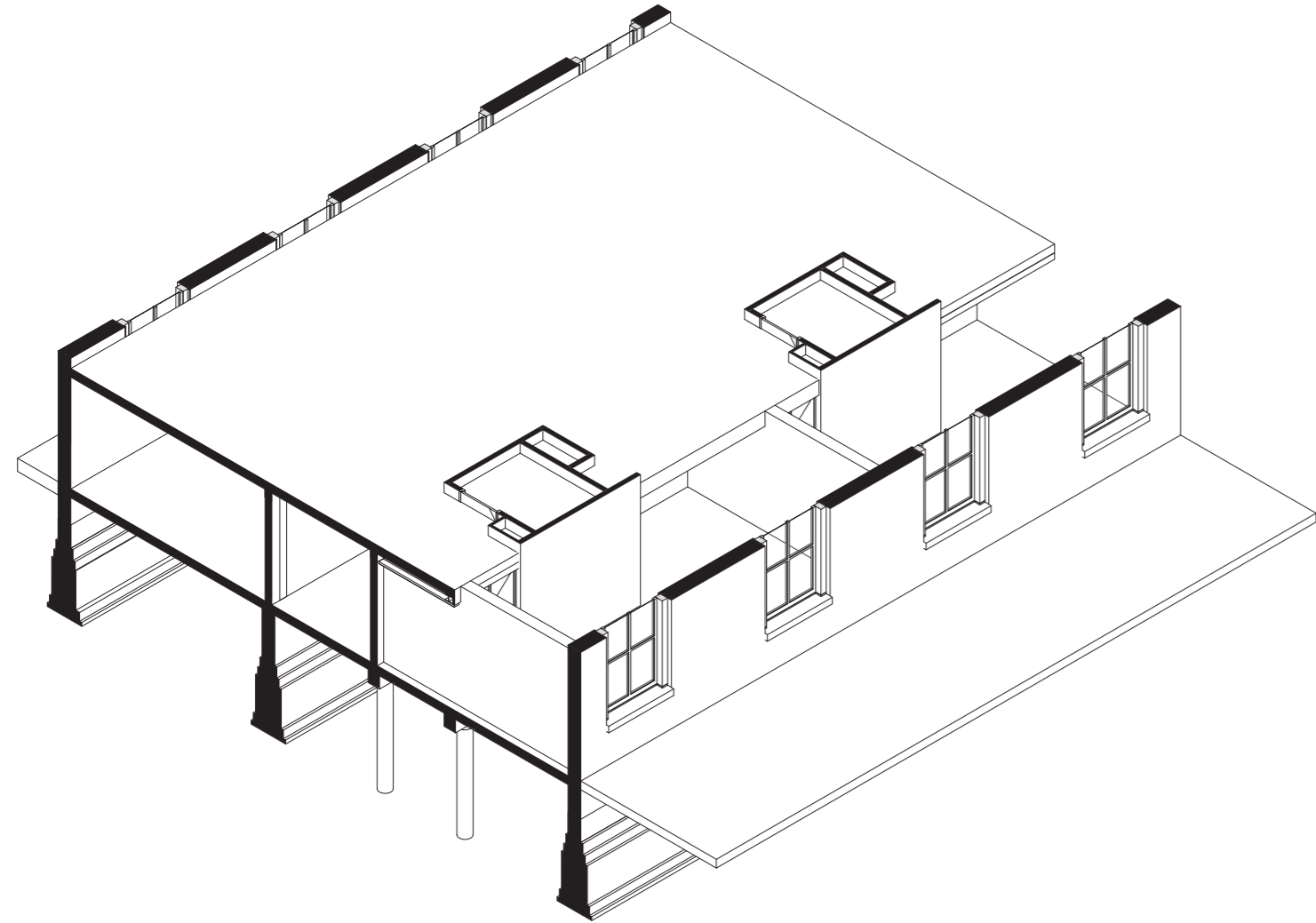
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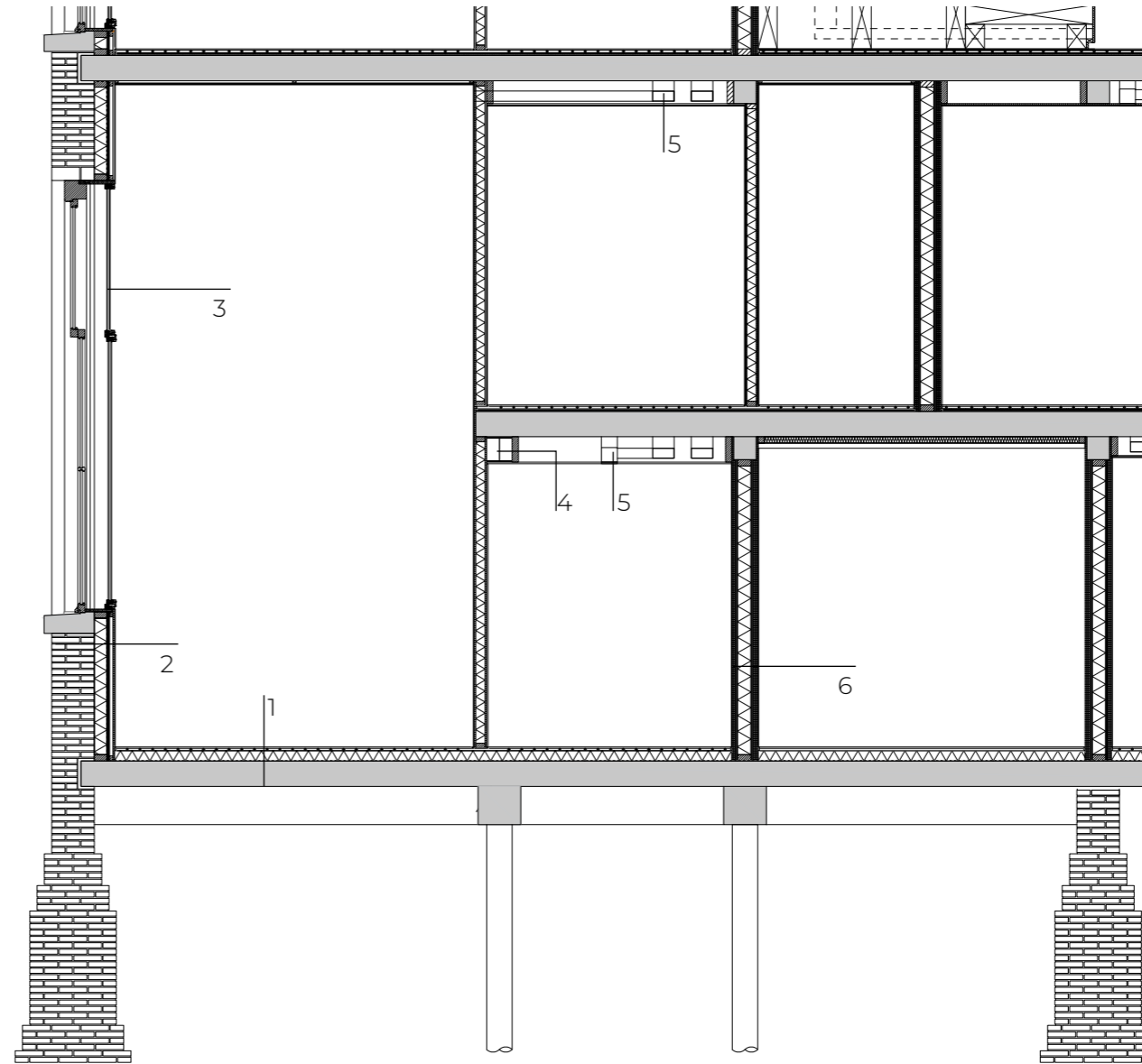
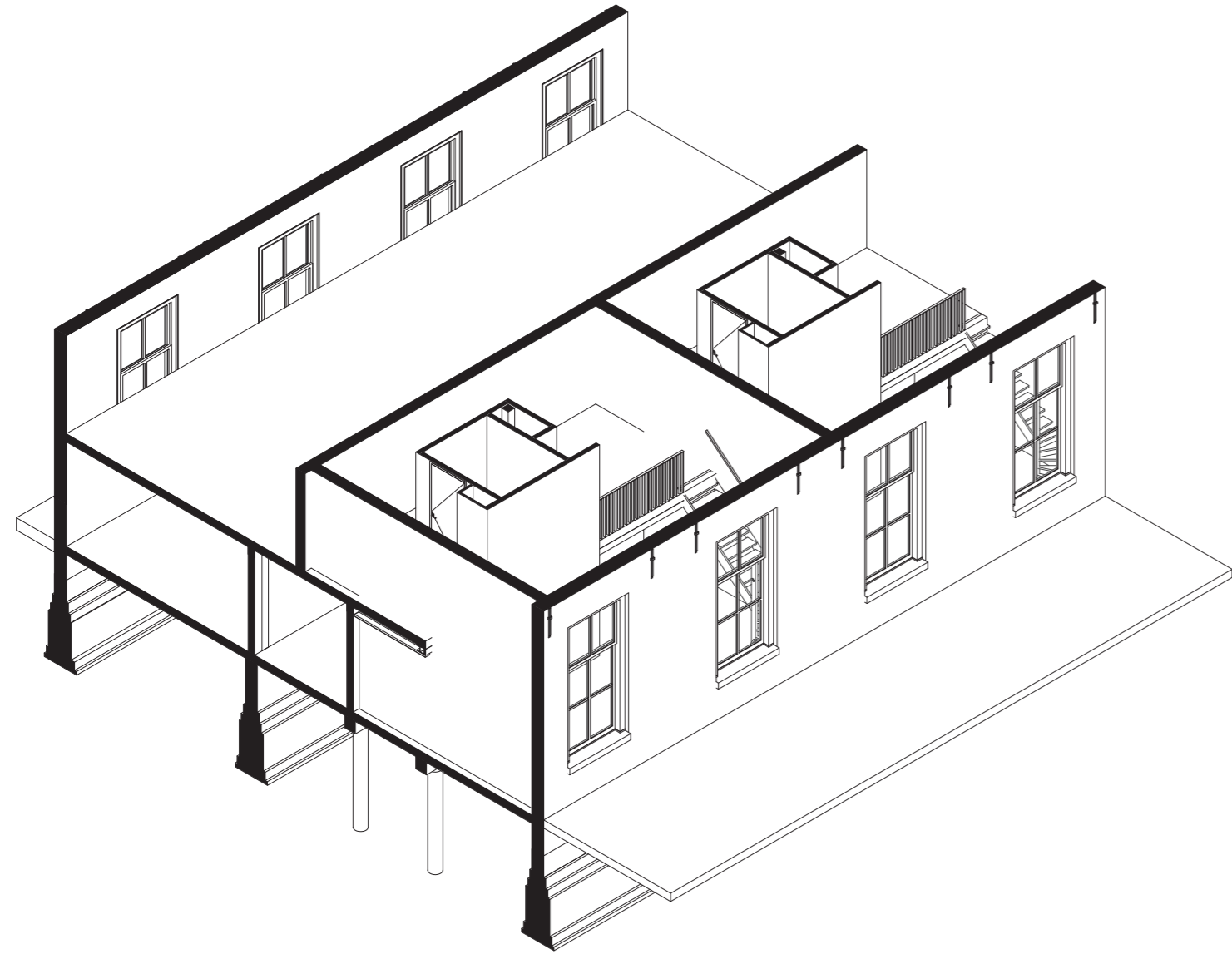
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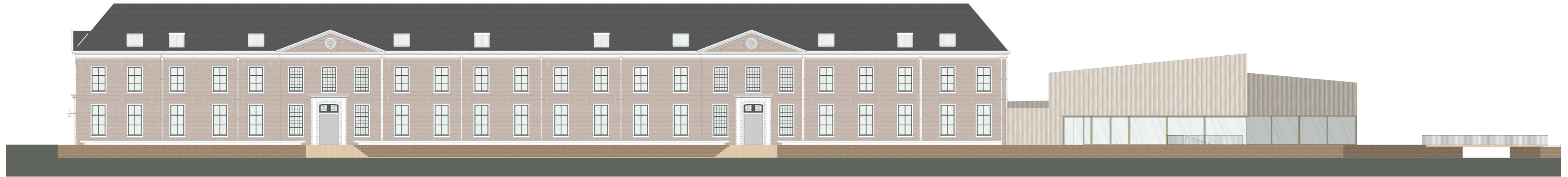
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 - Leemstuc finish

EMBEDDING IN THE CITY



FAÇADES

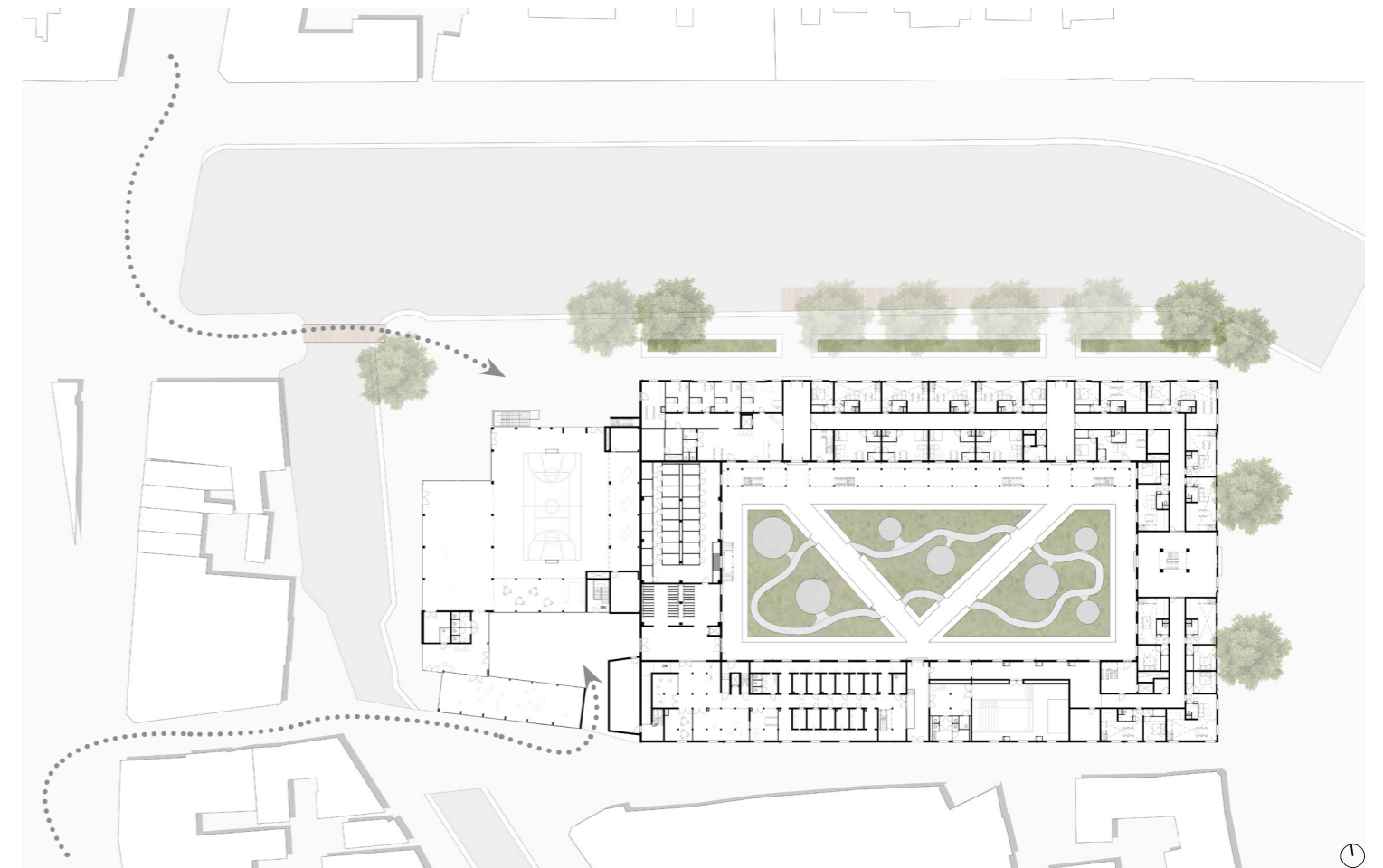


Nieuwe Gracht

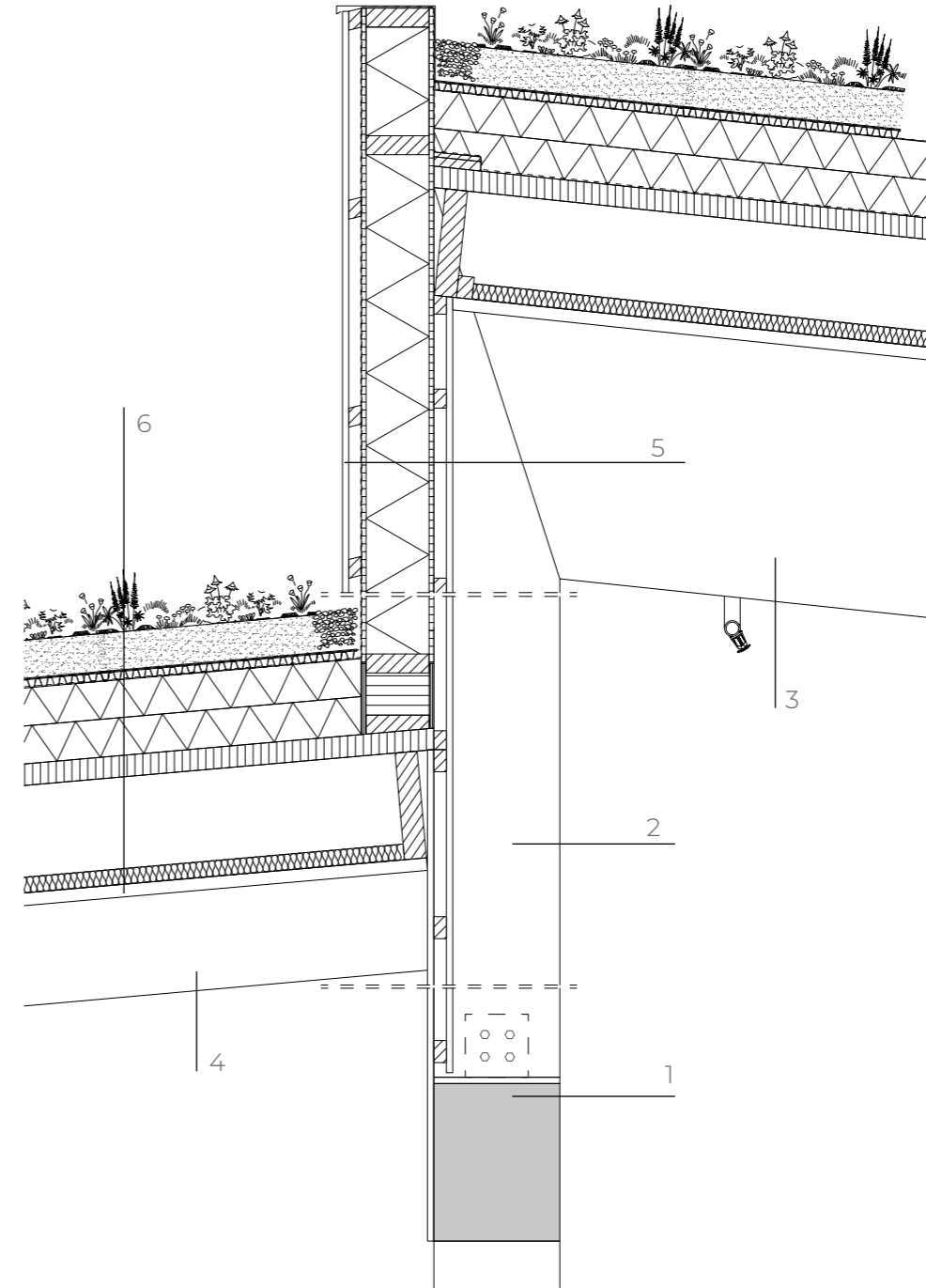


Zakstraat

MULTIFUNCTIONAL VOLUME



MULTIFUNCTIONAL VOLUME

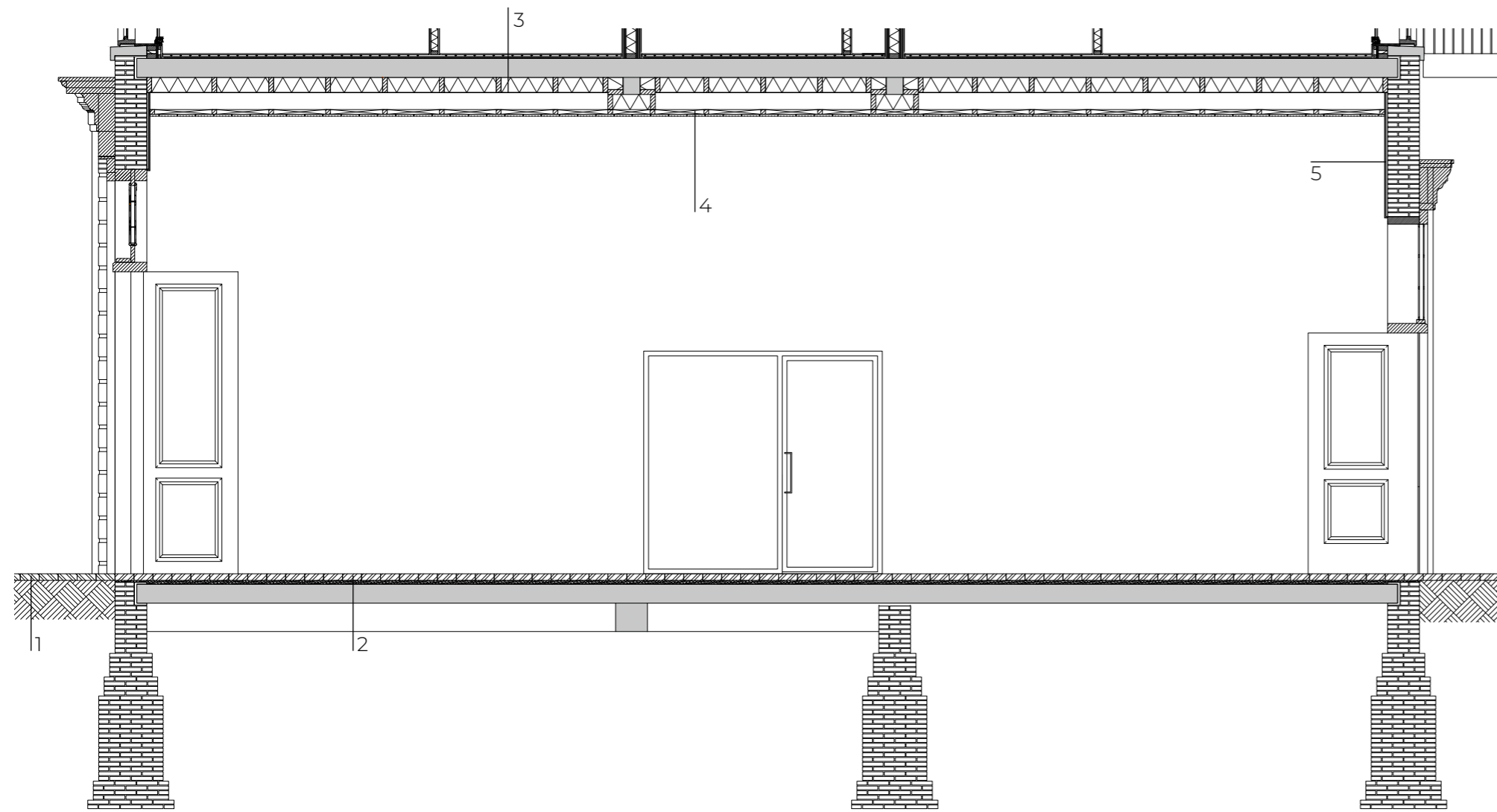


- 1 Existing concrete structure
- 2 Laminated larch column 400x200 mm
- 3 Laminated larch beam 1200x200 mm
- 4 Laminated larch beam 700x200
- 5 Wall
 - Larch wood cladding 100x20 mm
 - Ventilated cavity between 40 mm battens
 - Moisture diffusing facade membrane
 - Rockwool insulation between 200 mm wooden stud frame
 - OSB 15 mm
 - Wooden battens 40 mm
 - 100 x 20 larch wood cladding
- 6 Roof
 - Extensive vegetation roof
 - Substrate 120 mm
 - Filer sheet SF
 - Floradrain FD 25-E
 - Protection Mat SSM 45
 - Root barrier
 - Two layer bituminous sheeting
 - Insulation 2x120 mm
 - Vapour barrier
 - Plywood 68 mm
 - Laminated wood substructure 340 mm
 - Acoustic mineral fiber 50 mm
 - Still acoustics groove 24-W wooden batten ceiling

QUAY

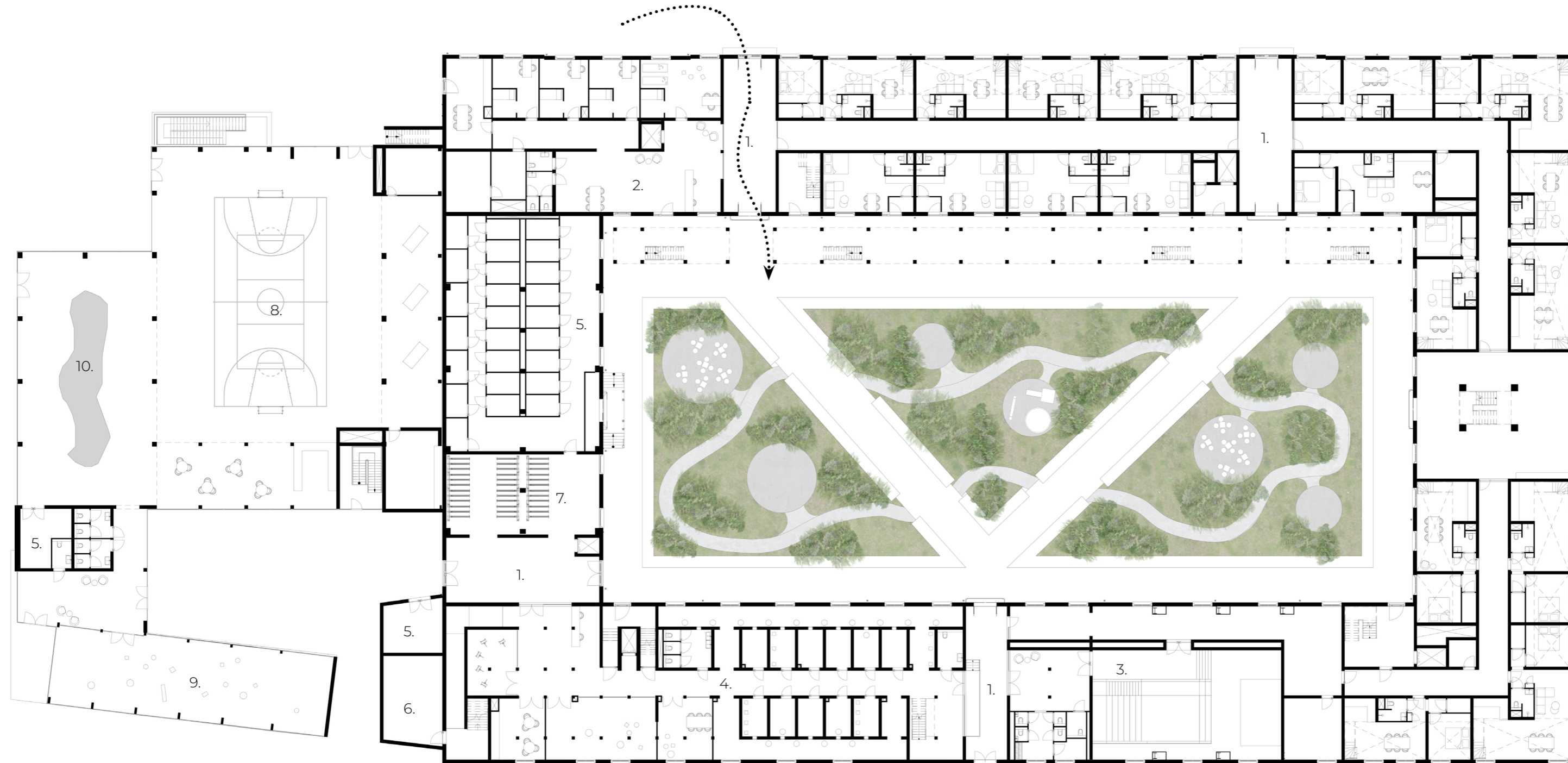


PASSAGES



- 1 Red bricks Nieuwe Gracht similar to city center of Haarlem
- 2
 - Yellow bricks 70 mm
 - Sand layer 40 mm
 - Existing concrete floor 200 mm
- 3 Floor
 - PVC floor finish 8 mm
 - Fermacell floorplates 2x9 mm with milled floorheating tubes + 2mm leveling compound
 - XPS insulation 10 mm
 - Fiberboard 10 mm
 - Existing concrete floor 200 mm
 - Mineral wool 160 mm (R=4,57) in wooden stud frame
- 4 Ceiling
 - Wooden stud frame 50 mm
 - Still acoustics groove 24-W wooden batten ceiling
- 5 Wall
 - Existing masonry wall 335 mm
 - Wooden stud frame
 - Gypsum plate 12.5 mm
 - Concrete look plaster 4 mm

GROUND FLOOR



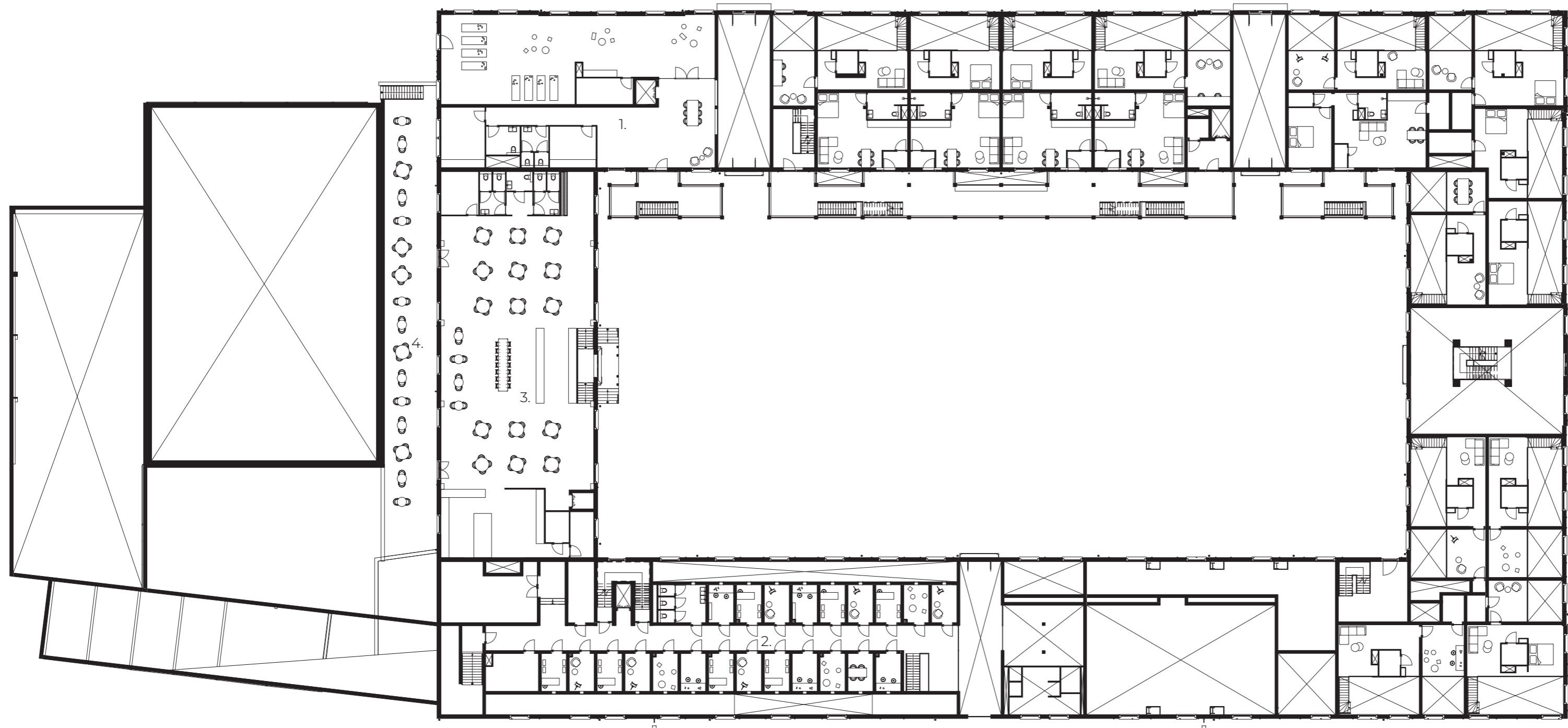
- 1. Passages
- 2. Health care center
- 3. Auditorium
- 4. Exhibition space
- 5. storage
- 6. service space
- 7. bicycle storage
- 8. multisportfield
- 9. multifunctional space
- 10. boulder wall



COURTYARD



FIRST FLOOR



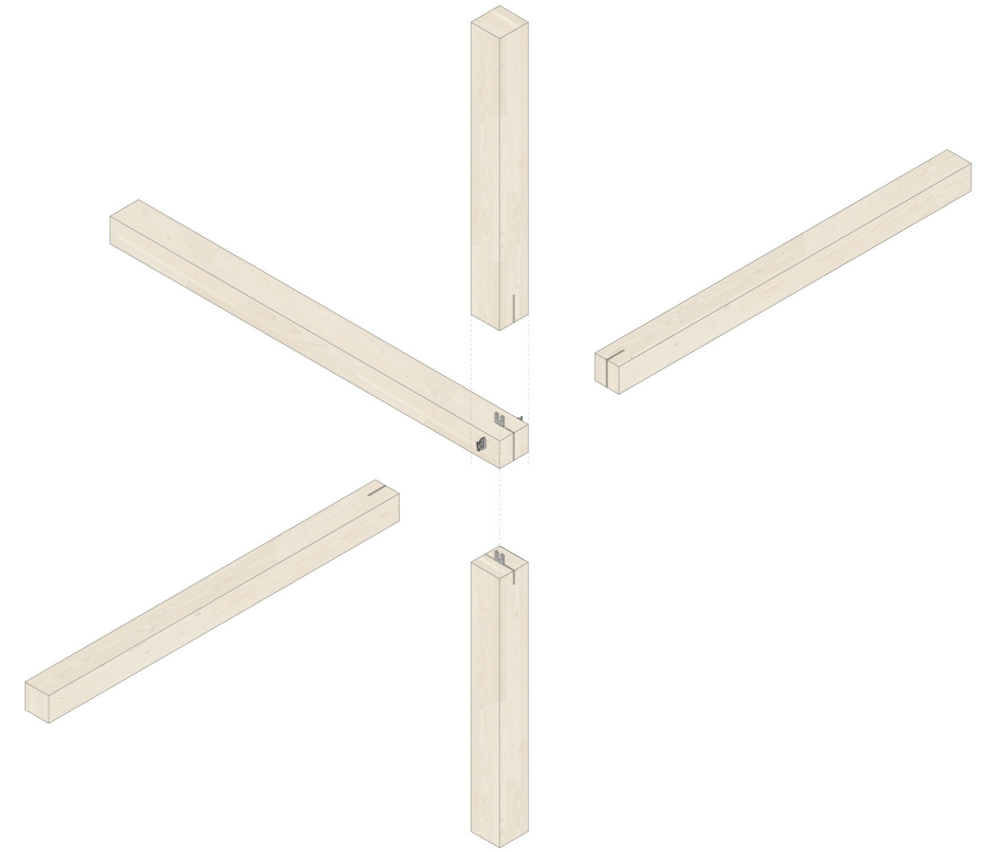
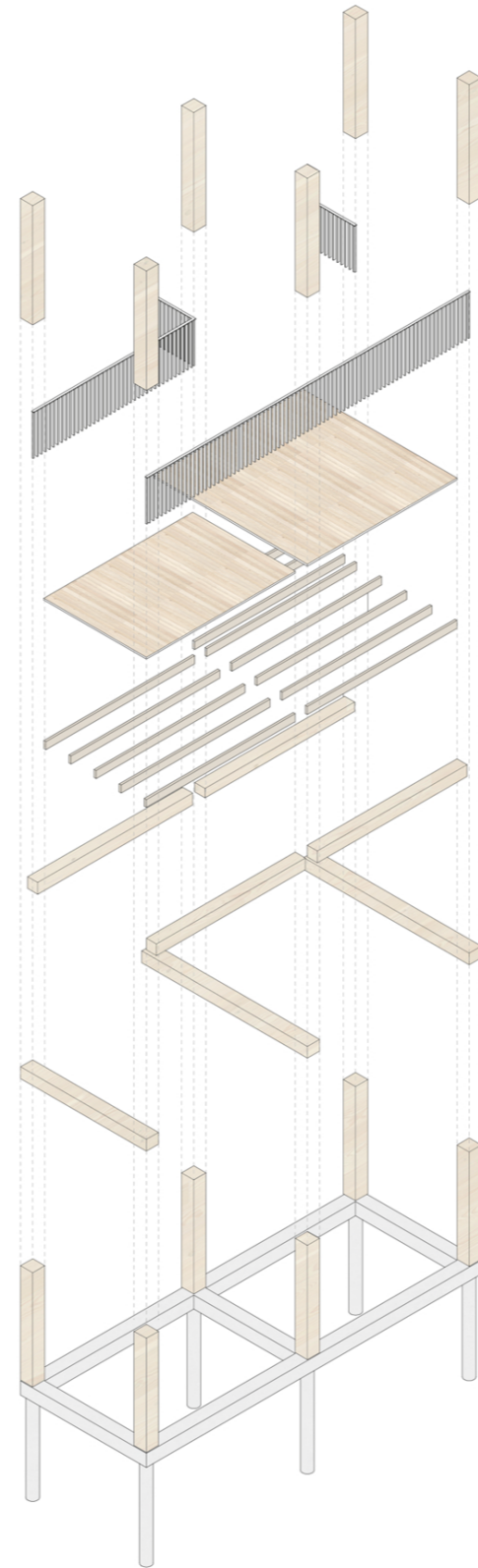
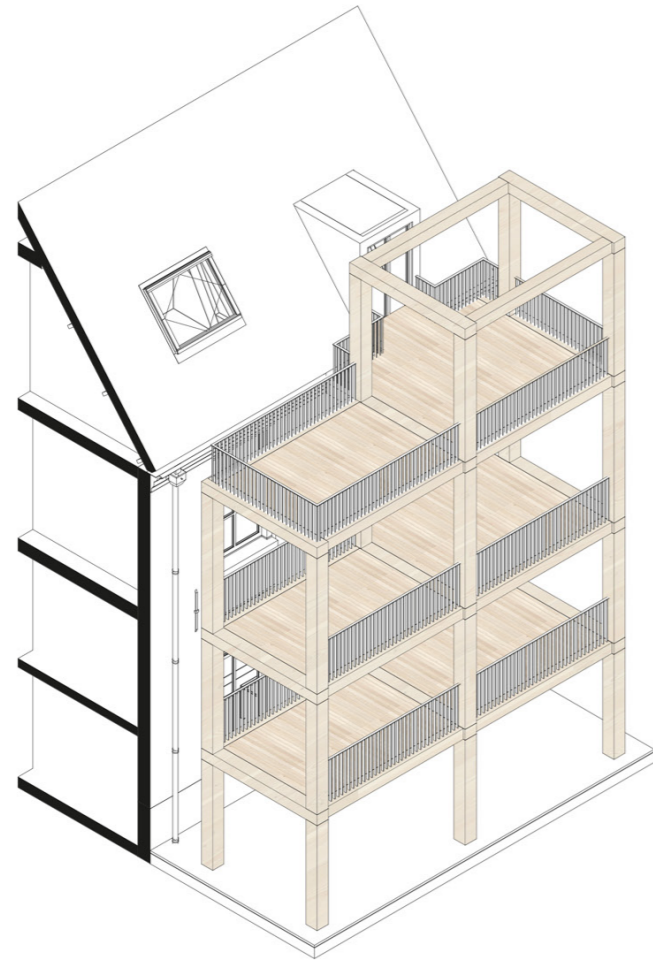
- 1. Gym
- 2. Makerspace
- 3. Restaurant
- 4. Roof terrace



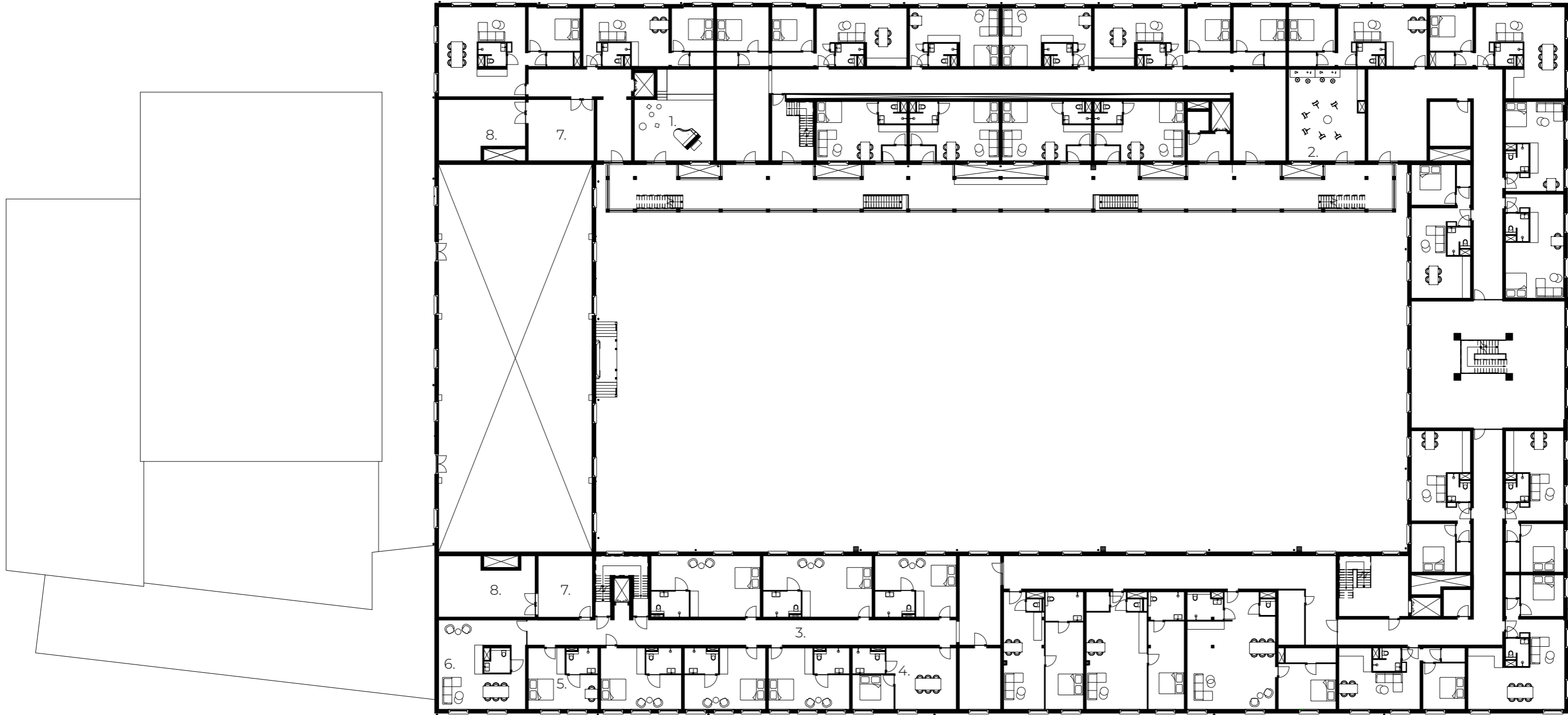
THE GALLERY



THE GALLERY

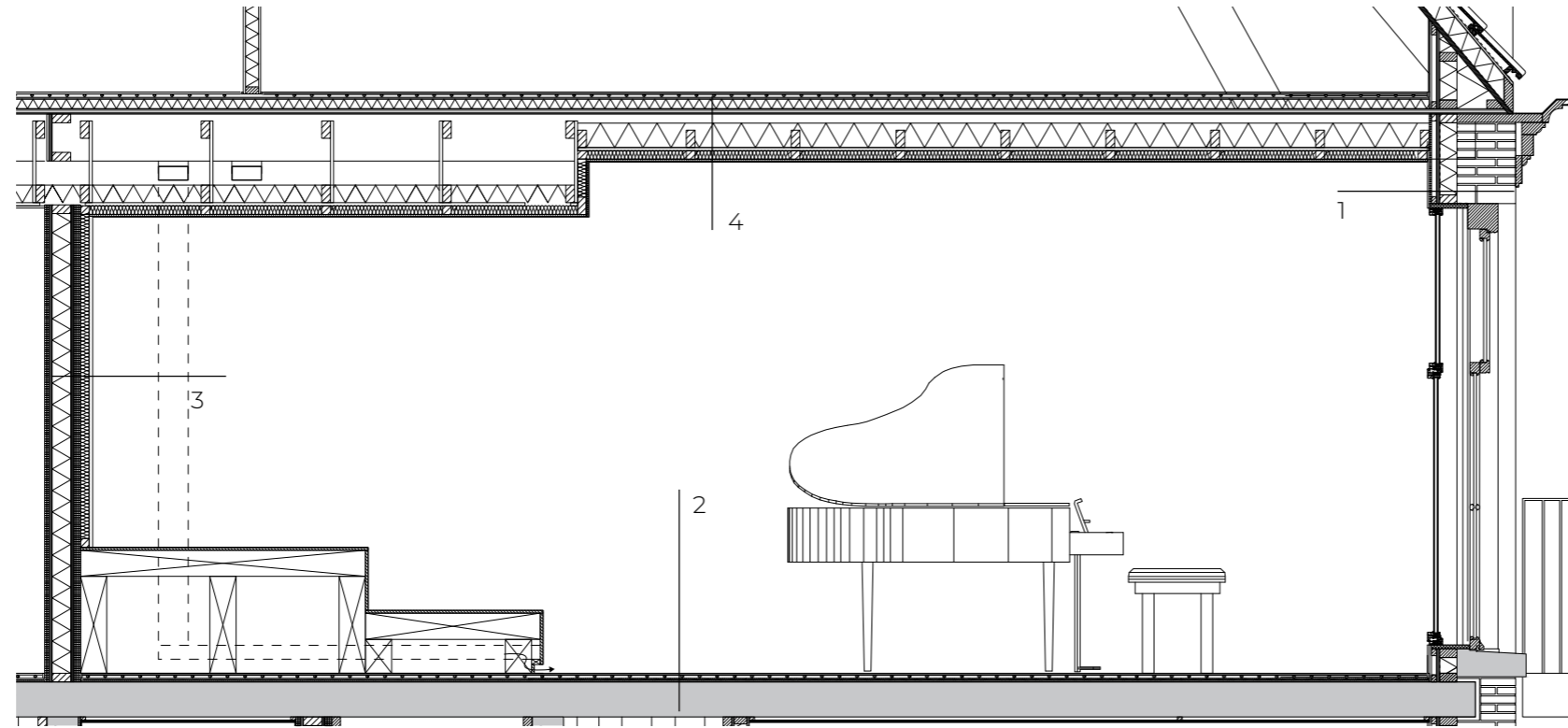


SECOND FLOOR



- 1. music studio
 - 2. art studio
 - 3. hospice
 - 4. staff room
 - 5. family room
 - 6. collective space
 - 7. storage
 - 8. services
- ⌚

COLLECTIVE SPACES



- 1 Exterior wall
- Existing masonry wall 335 mm
 - PIR insulation 100 mm (R=4,5) in wooden stud frame
 - Vapor barrier layer 1 mm
 - OSB 18 mm
 - Cavity for electricity 28 mm
 - Gypsum plate 12.5 mm
 - Plaster 5 mm

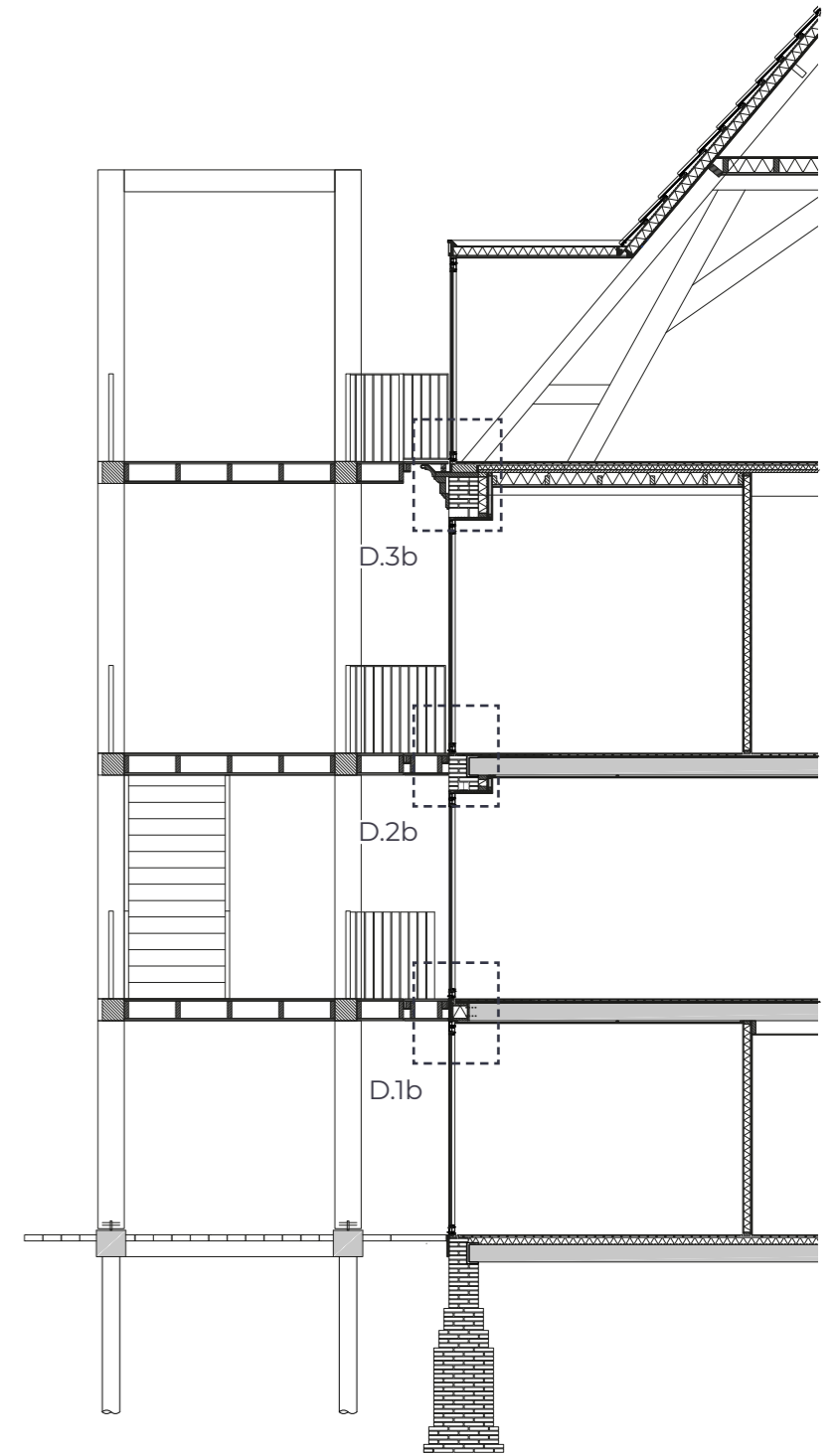
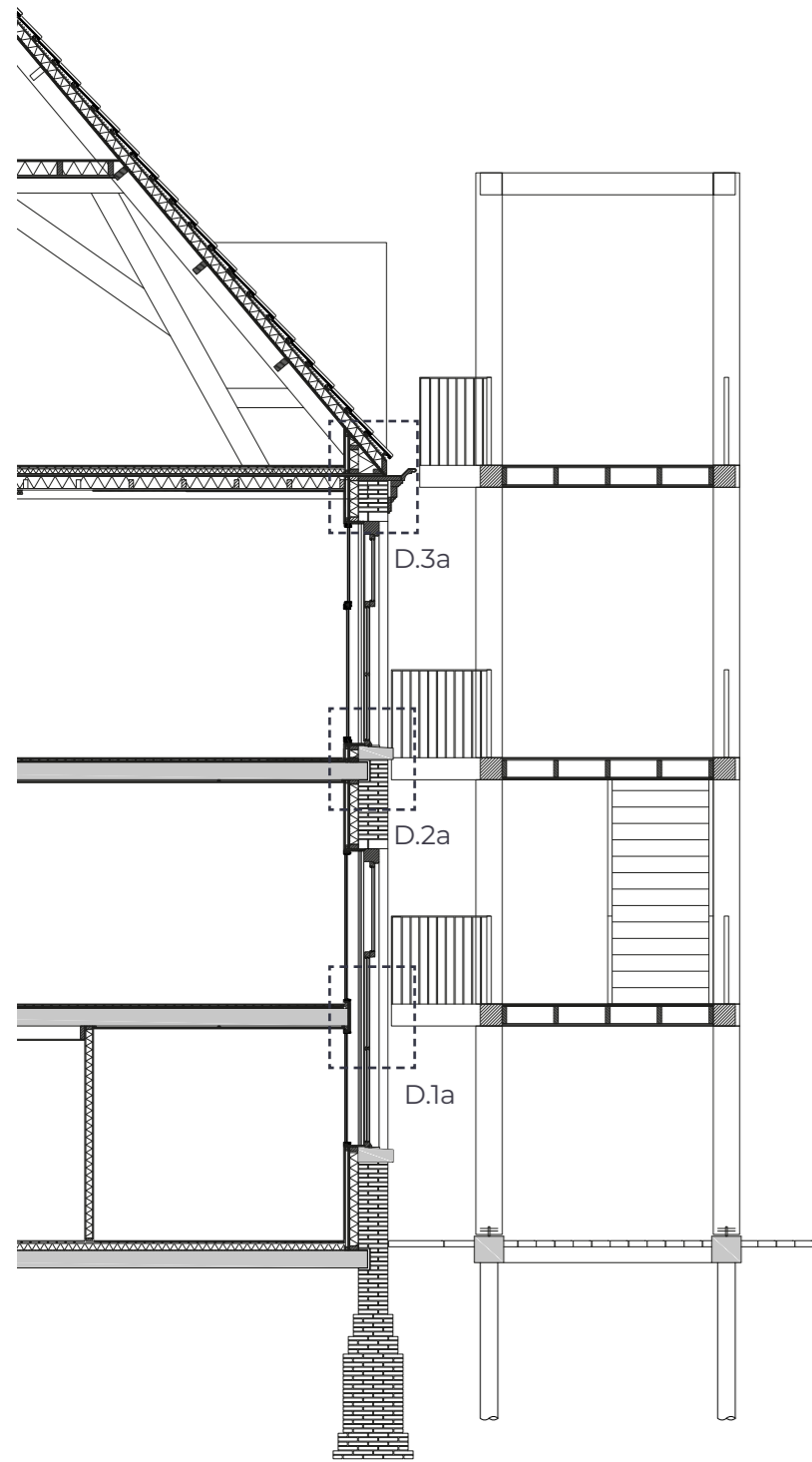
- 2 Floor
- Stucco 5 mm
 - Gypsum plate 12.5 mm
 - Wooden stud frame in between existing wooden beams with insulation 140 mm
 - Existing wooden floor
 - XPS 55 mm
 - Woodfibre board 10 mm
 - Fermacell floor plates 2x9 mm with milled floorheating tubes + 2 mm leveling compound
 - PVC floor finish 8 mm with PU rubber underlay 2 mm

- 3 Interior party wall
- Stucco 5 mm
 - Waterproof gypsum plate 2 x 12.5
 - OSB 18 mm
 - Mineral wool insulation 106 mm in wooden frame
 - OSB 18 mm
 - Gypsum plate 12.5 mm on acoustic strip
 - Gypsum plate 2 x 12.5 mm
 - Sound absorbing insulation in wooden stud frame 50 mm
 - Still acoustics groove 24-W wooden batten panel

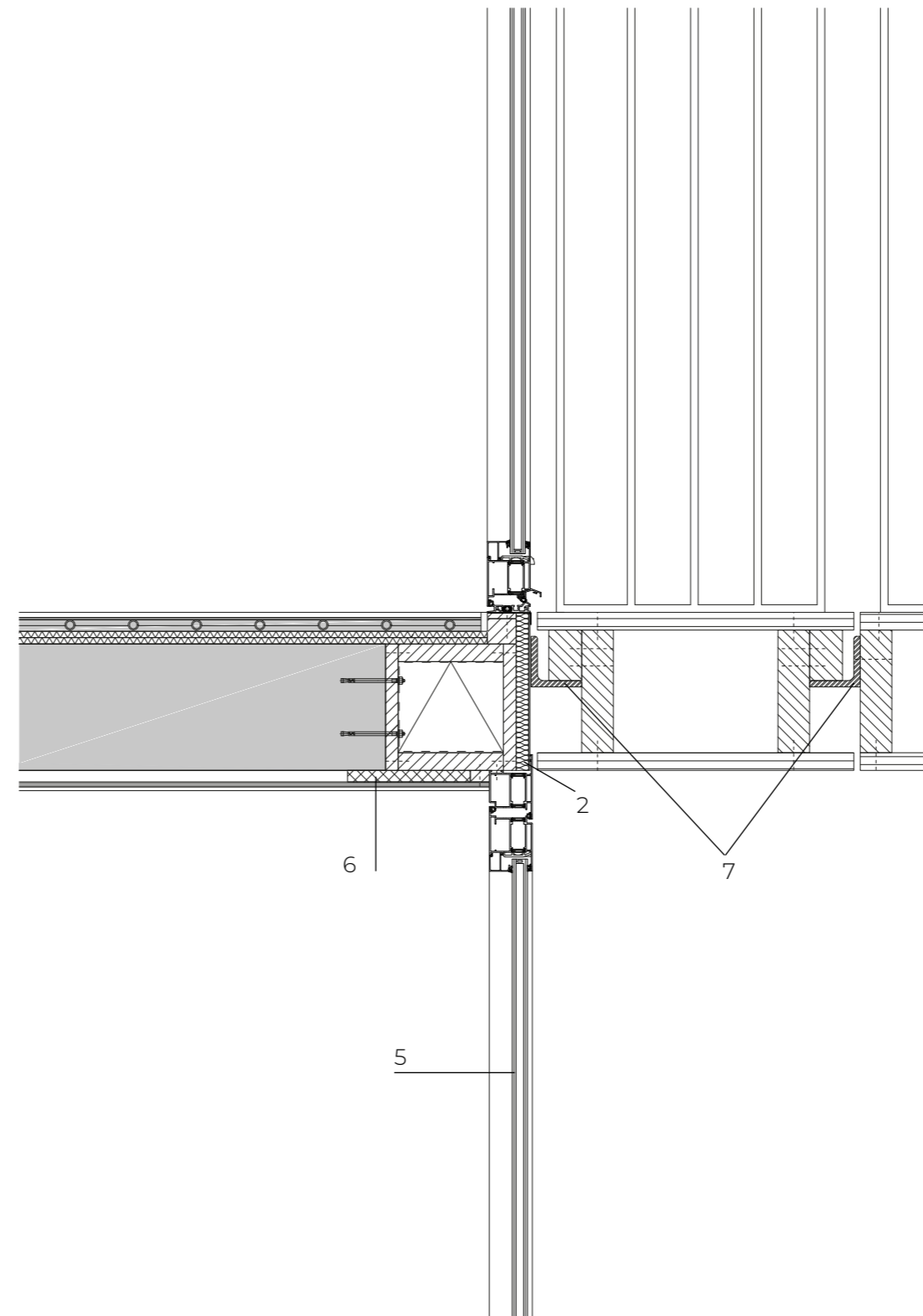
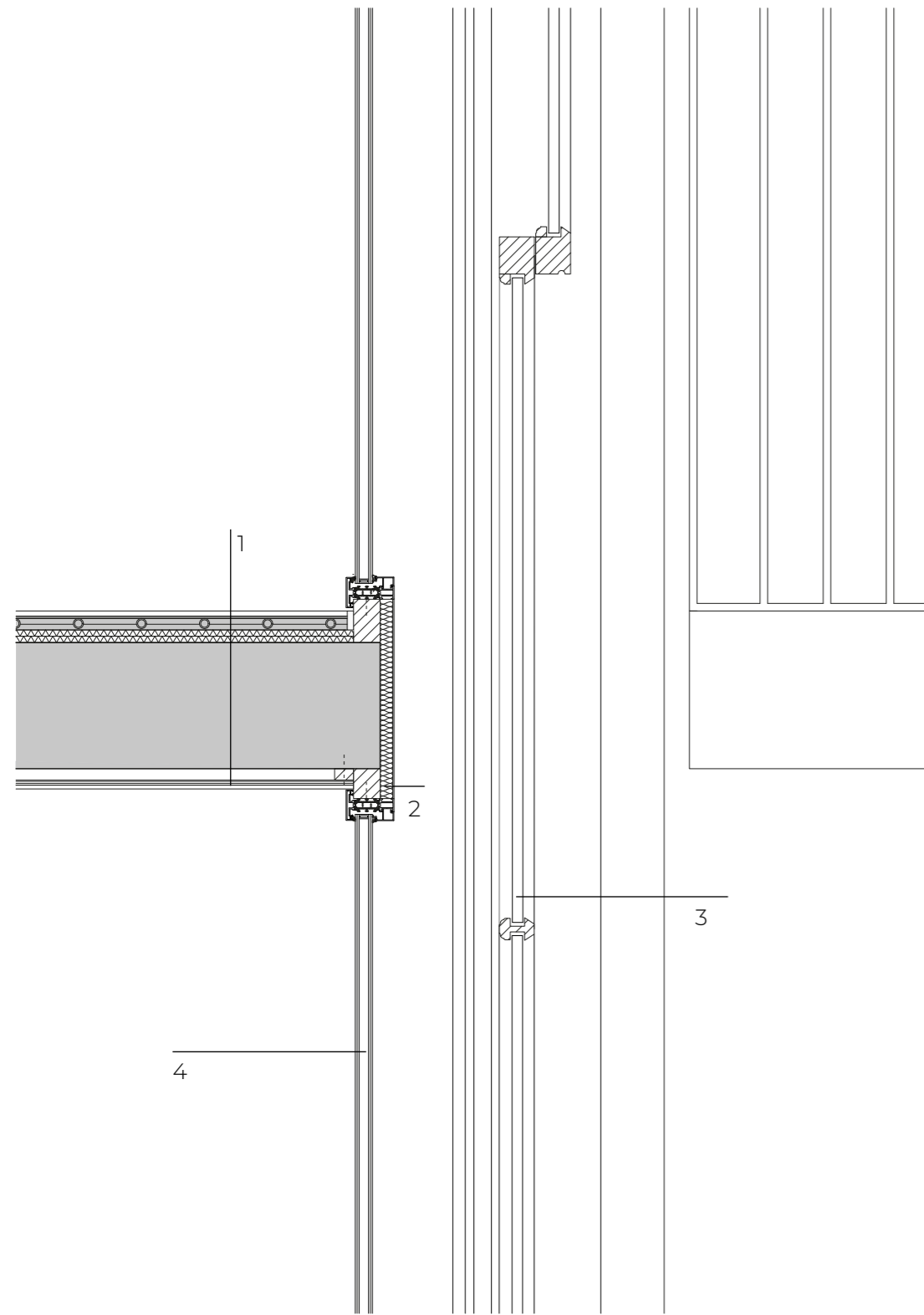
- 4 Floor
- Acoustic plaster finish
 - Acoustic plasterboard 15 mm
 - Sound absorbing insulation 50 mm
 - Mineral wool insulation between and over wooden frame 100 mm
 - Existing wooden floor
 - XPS 50 mm
 - Woodfibre board 10 mm
 - Fermacell floor plates 2x9 mm with milled floorheating tubes + 2mm leveling compound
 - PVC floor finish 8 mm with PU rubber underlayer 2 mm



FRAGMENT



DETAIL



- 1 Floor
 - Stucco finish
 - Plasterboard on wooden structure
 - Existing concrete floor 200 mm
 - Woodfibre board 10 mm
 - XPS insulation 10 mm
 - Fermacell floor plates 2x9 mm with milled floorheating tubes + 2 mm leveling compound
 - PVC floor finish 8 mm with PU rubber underlay 2 mm

- 2 Sandwich panel 20 mm with 2 mm aluminum in same color as window frames

- 3 Existing window

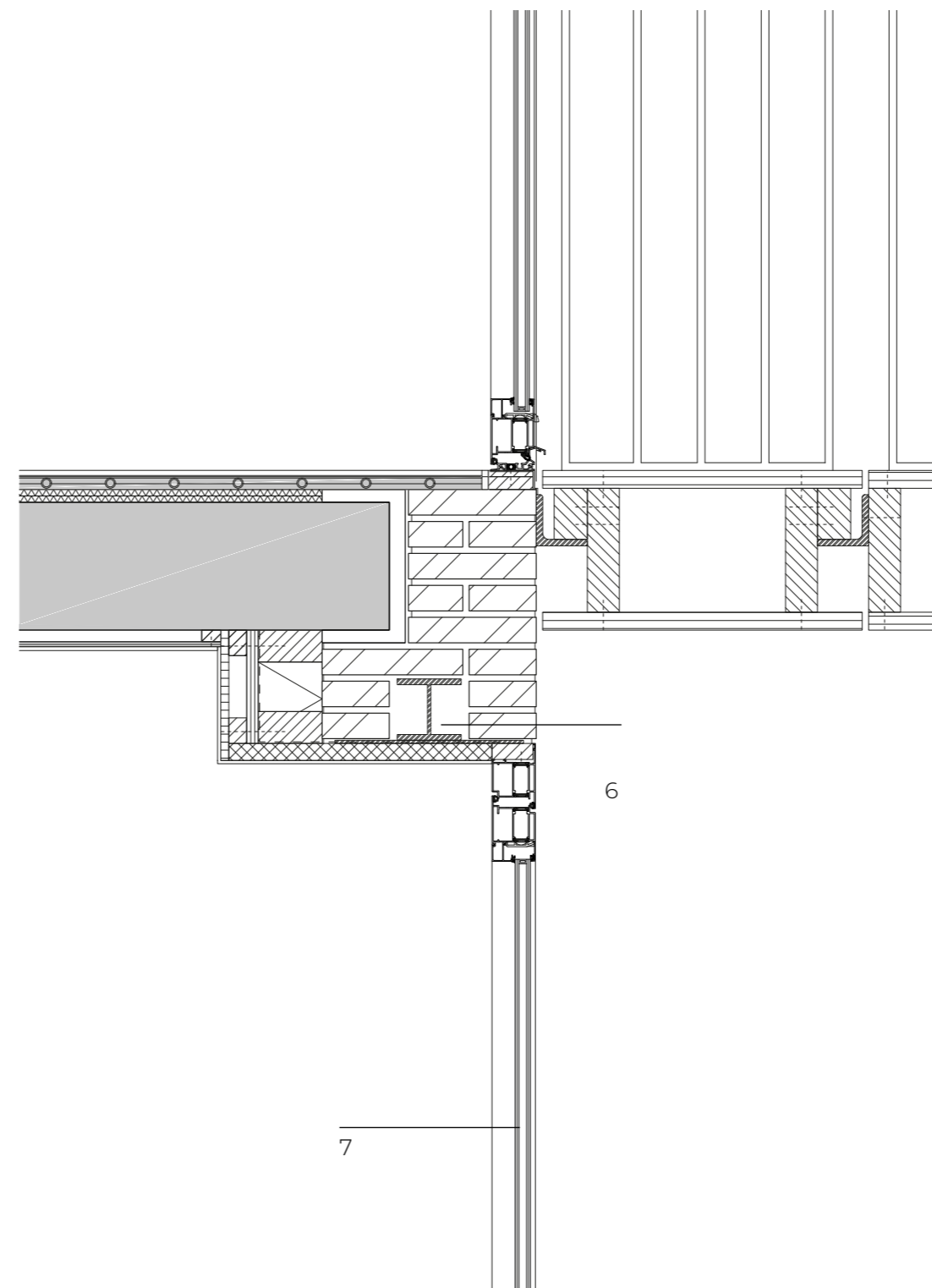
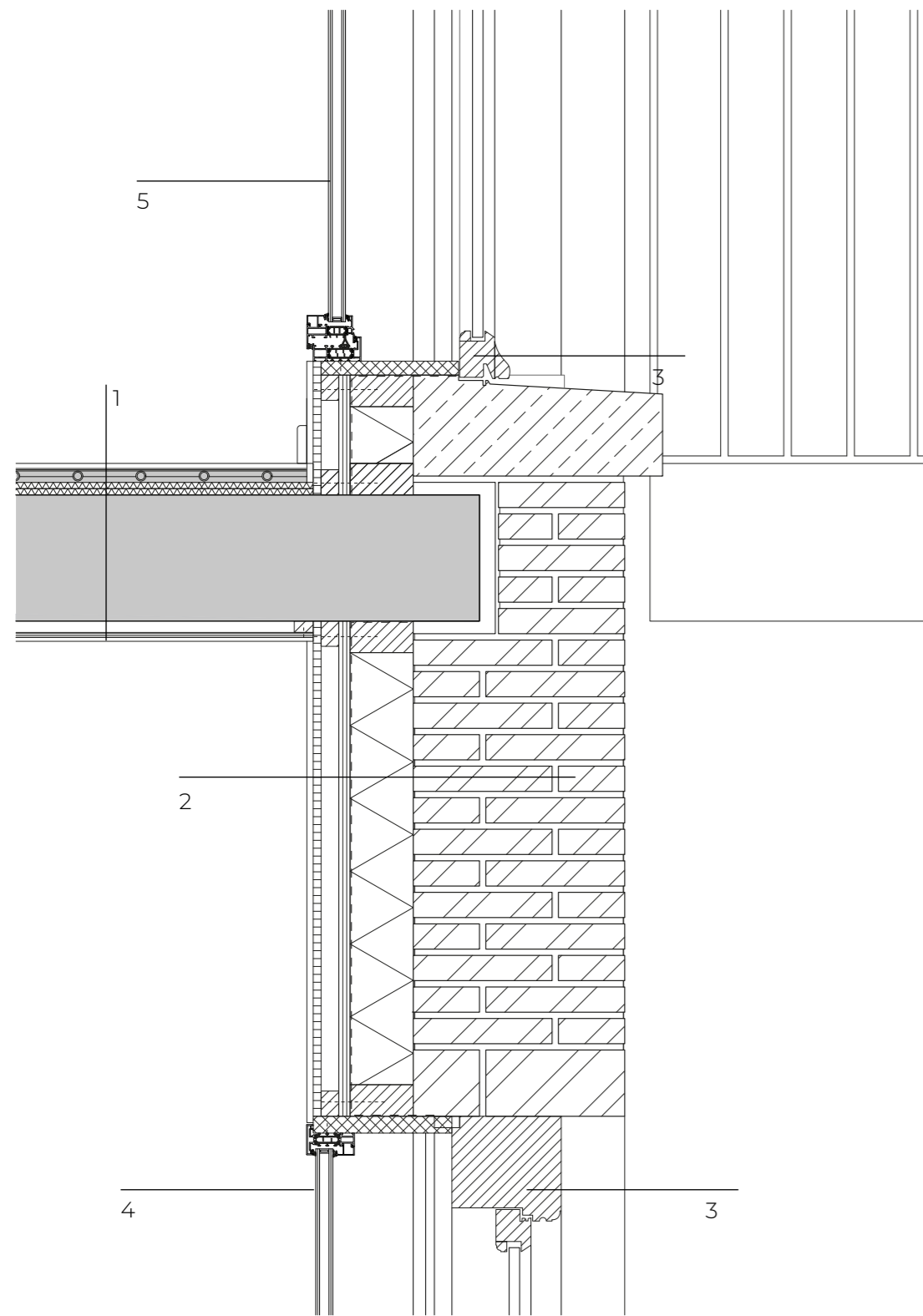
- 4 Fixed secondary window with fireproof glazing

- 5 Aluminum doors, self closing for firesafety

- 6 Promatect 200 fireproof board

- 7 80 x 80 x10 mm steel L profile

DETAIL



- 1 Floor
- Stucco finish
 - Plasterboard on wooden structure
 - Existing concrete floor 200 mm
 - Woodfibre board 10 mm
 - XPS insulation 10 mm
 - Fermacell floor plates 2x9 mm with milled floorheating tubes + 2 mm leveling compound
 - PVC floor finish 8 mm with PU rubber underlay 2 mm

- 2 Wall
- Existing masonry wall 335 mm
 - PIR insulation 100 mm (R=4,5) in wooden stud frame
 - Vapor barrier layer 1 mm
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3 Existing window

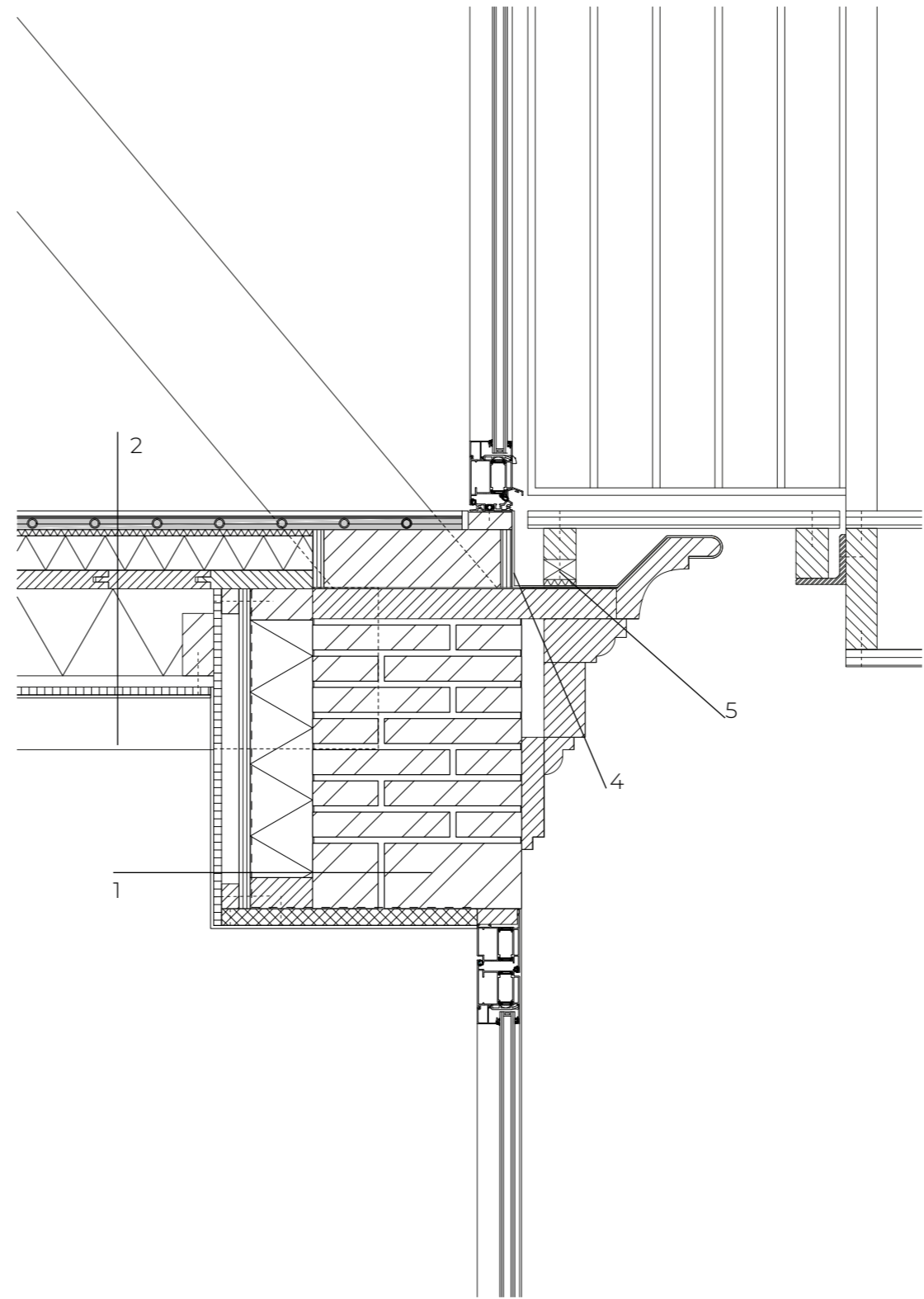
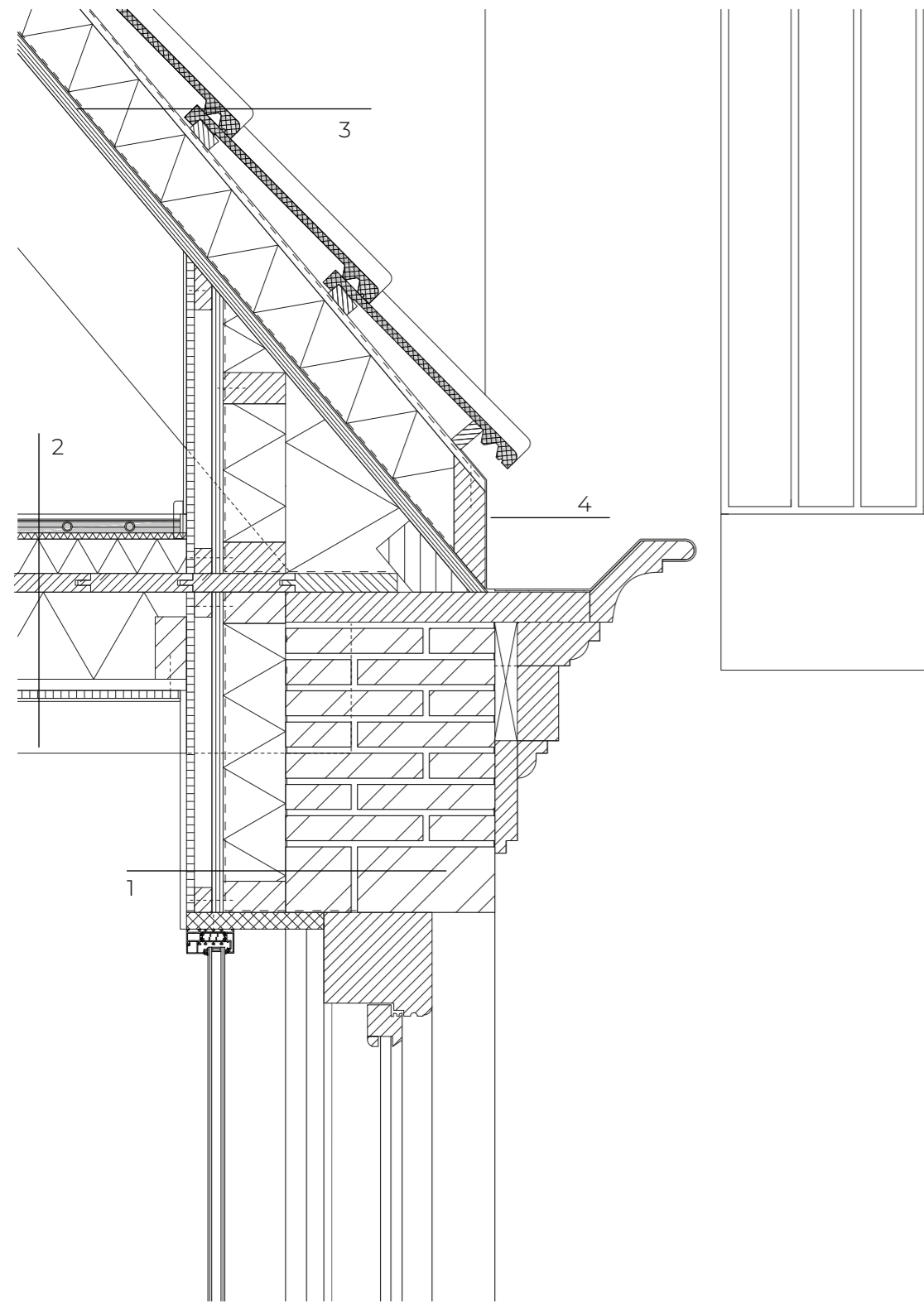
4 Fixed secondary window with fireproof glazing

5 Aluminum secondary openable window

6 Steel plate welded to HEA 100 to enlarge opening

7 Aluminum doors, self closing for firesafety

DETAIL



- 1 Wall
 - Existing masonry wall 335 mm
 - PIR insulation 100 mm (R=4,5) in wooden stud frame
 - Vapor barrier layer 1 mm
 - OSB 18 mm
 - Cavity for electricity 28 mm
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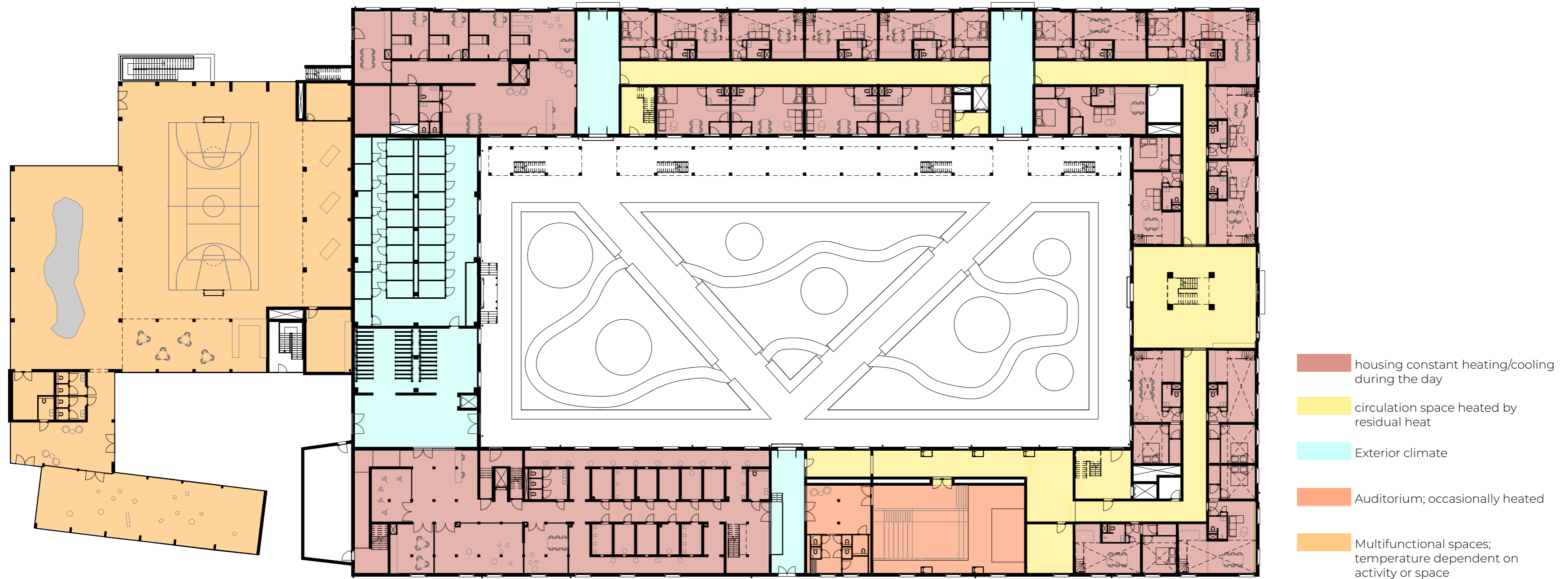
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 - Stucco 5 mm
 - Gypsum plate 12.5 mm
 - Wooden stud frame in between existing wooden beams with insulation 140 mm
 - Existing wooden floor
 - XPS 55 mm
 - Woodfibre board 10 mm
 - Fermacell floor plates 2x9 mm with milled floorheating tubes + 2 mm leveling compound
 - PVC floor finish 8 mm with PU rubber underlay 2 mm

- 3 Roof
 - Existing wooden roof structure
 - Existing wooden roof decking
 - Vapour barrier layer
 - PIR insulation 100 mm (R=4,54)
 - Vapour permeable layer
 - Existing rooftiles

- 4 Zinc cover

- 5 Wooden chock in gutter to create connection with gallery

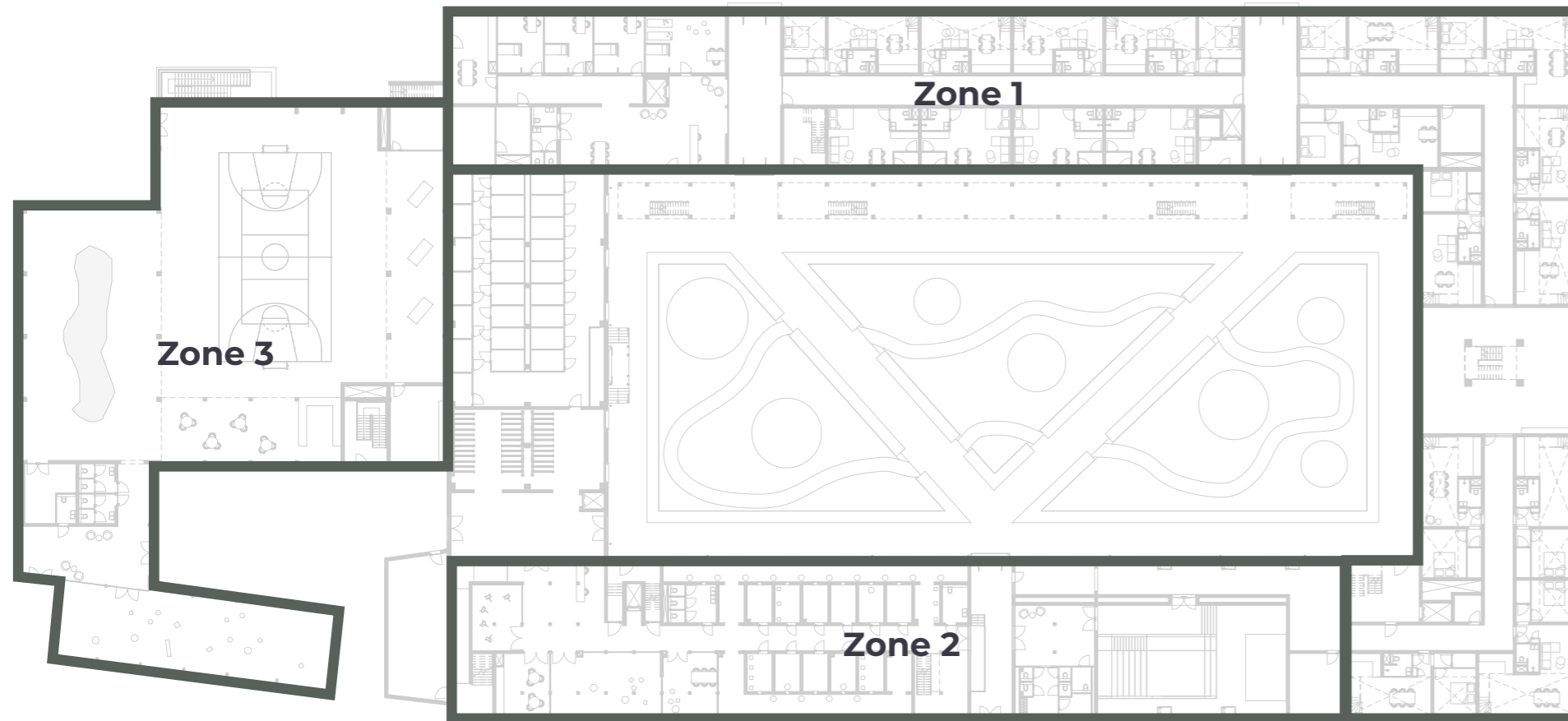
TEMPERATURE DEMANDS



- housing constant heating/cooling during the day
- circulation space heated by residual heat
- Exterior climate
- Auditorium; occasionally heated
- Multifunctional spaces; temperature dependent on activity or space



CLIMATE ZONES



Zone 1:

- Insulation of original facade on interior
- Insulation of existing roof on exterior
- Secondary window frames with HR++ Glazing (openable)
- New aluminum windows and doors with HR++ glazing

Heating:
- LTV floor heating and cooling

Ventilation:
- Mechanical ventilation system with sensors and openable windows

Zone 2:

- Insulation of original facade on interior
- Insulation of existing roof on exterior
- Secondary window frames with HR++ Glazing (openable)
- New aluminum windows and doors with HR++ glazing

Heating:
- LTV floor heating and cooling
- Preheated ventilation

Ventilation:
Mechanical ventilation system

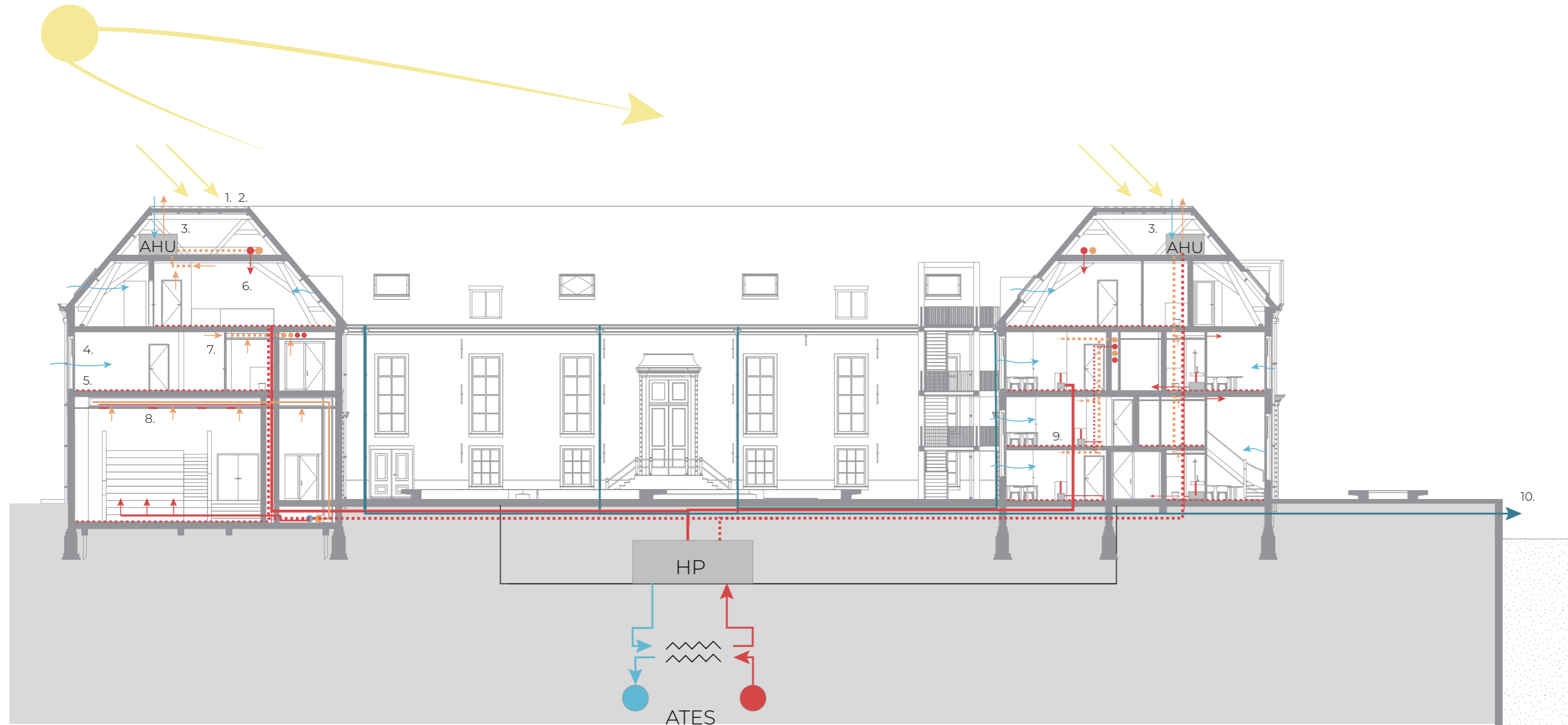
Zone 3:

- Insulation of original facade on interior
- Insulation of existing roof on exterior
- Secondary window frames with HR++ Glazing (openable)
- New aluminum windows and doors with HR++ glazing

Heating:
Infrared heating panels

Ventilation:
Mechanical ventilation system

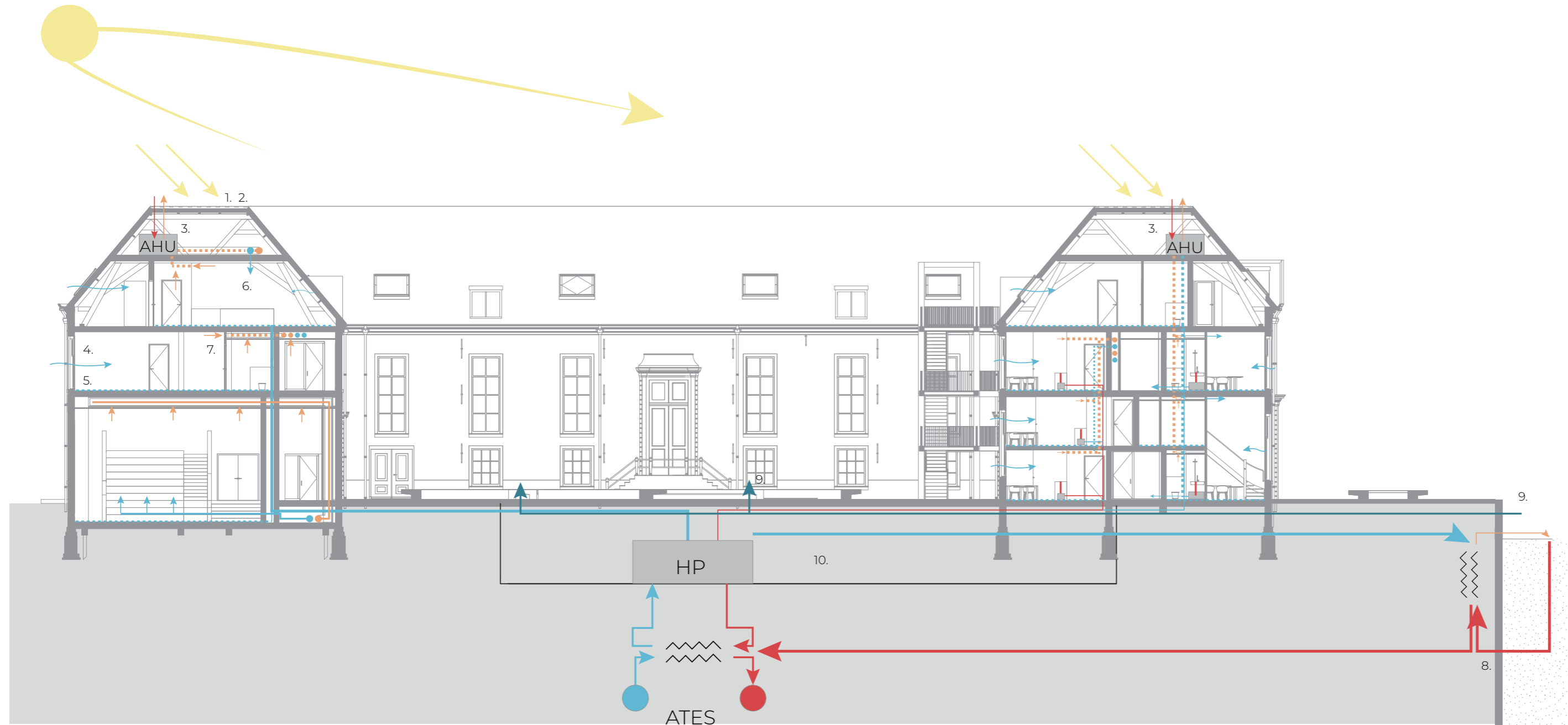
CLIMATE CONCEPT WINTER SITUATION



1. PVT panels on flat part of roof for electricity AHU and HP and heating water for WKO
2. Thermal insulated roof
3. Air Handling Units with heat recovery system (WTW) in attic
4. Secondary window frames with HR++ glazing, openable
5. Floor heating (LTV)
6. Hybrid mechanical ventilation
7. Air extraction in bathroom and kitchen
8. Optional heating panels in auditorium
9. Boiler in dwelling for hot tap water
10. Rain water directed to Nieuwe Gracht

- ■ ■ ■ Floor heating
- HTV heating
- Pre-heated air
- Exhaust air

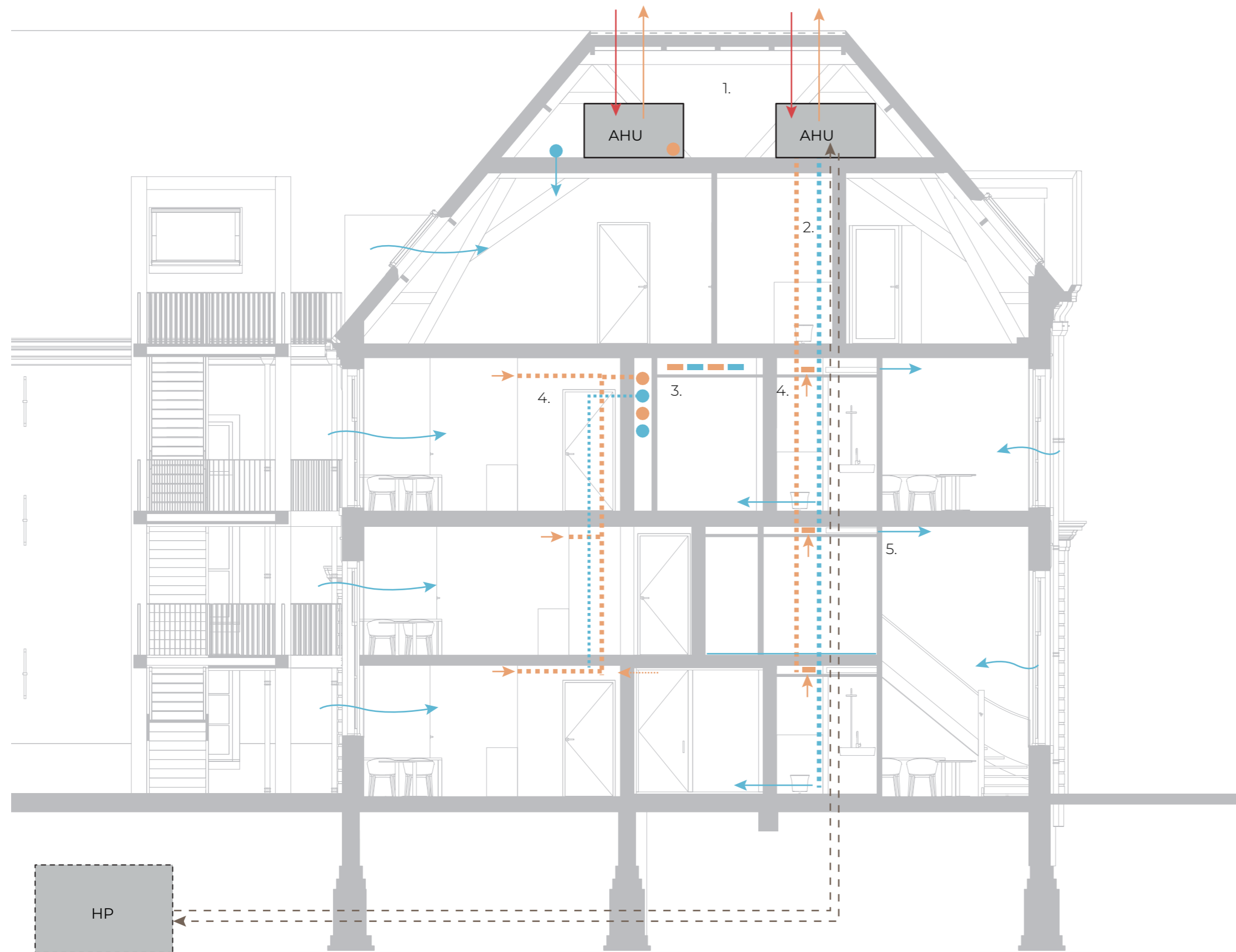
CLIMATE CONCEPT SUMMER SITUATION



1. PVT panels on flat part of roof for electricity AHU and HP and heating water for WKO
2. Thermal insulated roof
3. Air Handling Units with heat recovery system (WTW) in attic
4. Secondary window frames with HR++ glazing, openable
5. Floor cooling
6. Hybrid mechanical ventilation
7. Air extraction in bathroom and kitchen
8. Extracting heat from surface water of Nieuwe Gracht for WKO
9. Water from Nieuwe Gracht for irrigation of courtyard
10. Heatpump located in basement newer volume

- - - Floor cooling
- Pre-cooled air
- Exhaust air

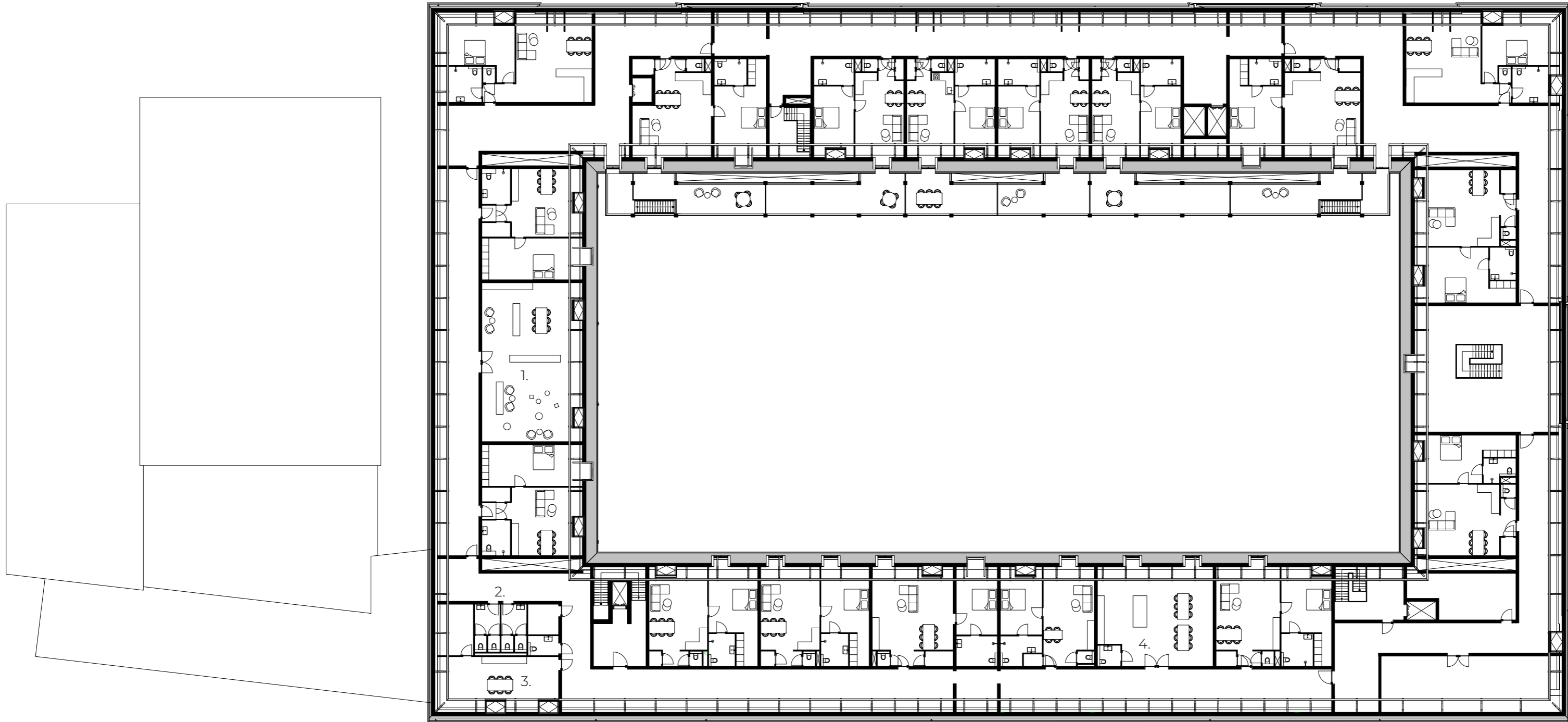
VENTILATION



1. AHU with heat recovery system in attic
2. Vertical ducts via shafts in dwellings
3. Horizontal ducts on 1st floor in lowered ceiling or second wall
4. Extract air in bathroom and kitchen, ducts hidden in lowered ceiling
5. Air inlet dwellings, ducts hidden in lowered ceiling

- Blue arrow: Pre-heated or -cooled air
- Orange arrow: Exhaust air
- Brown arrow: Heat exchanger system (run around coil)

THIRD FLOOR



- 1. Library / lounge
- 2. Toilets for library
- 3. Staff room
- 4. Cooking studio



COLLECTIVE SPACES

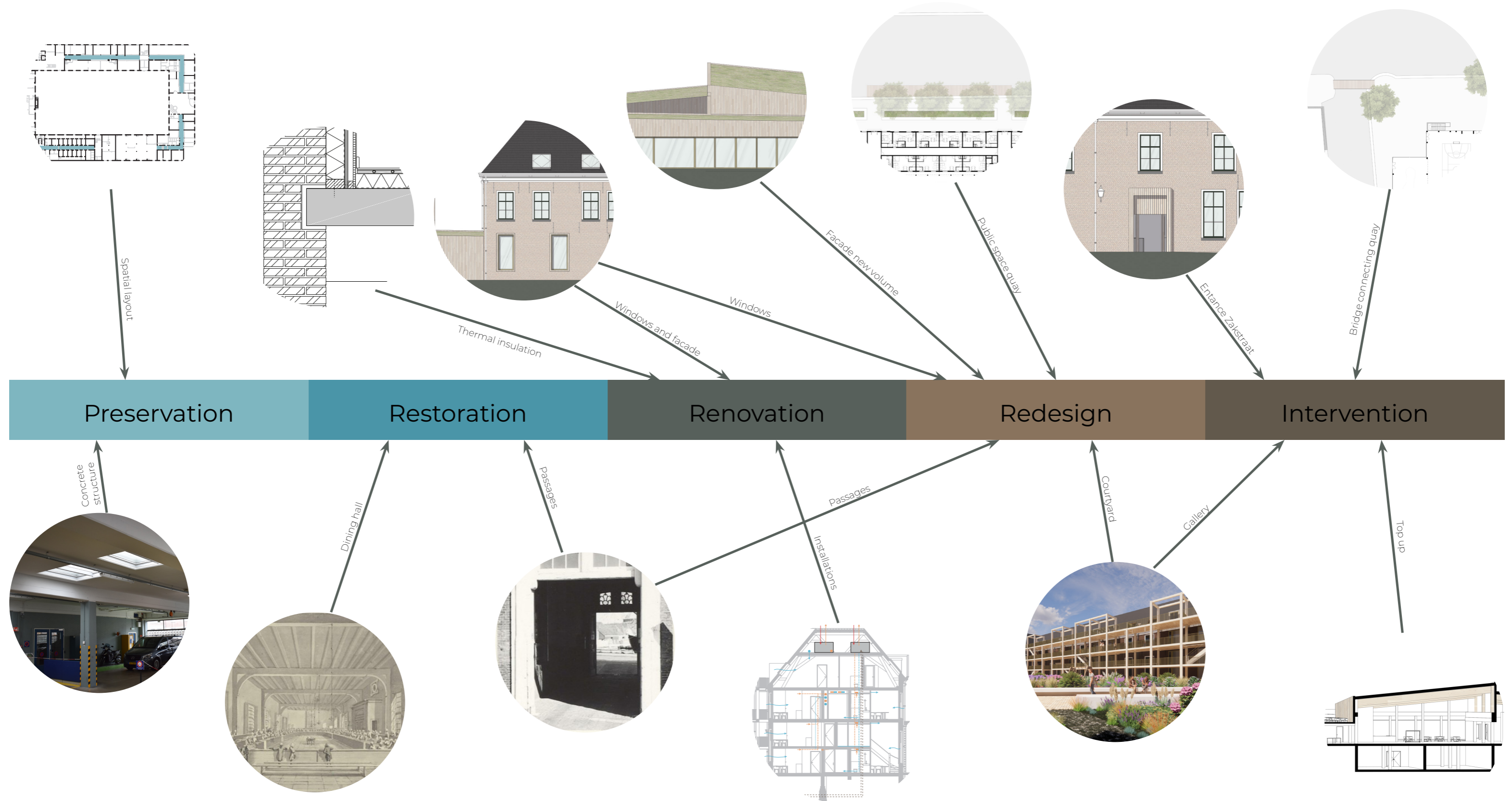


Library / lounge



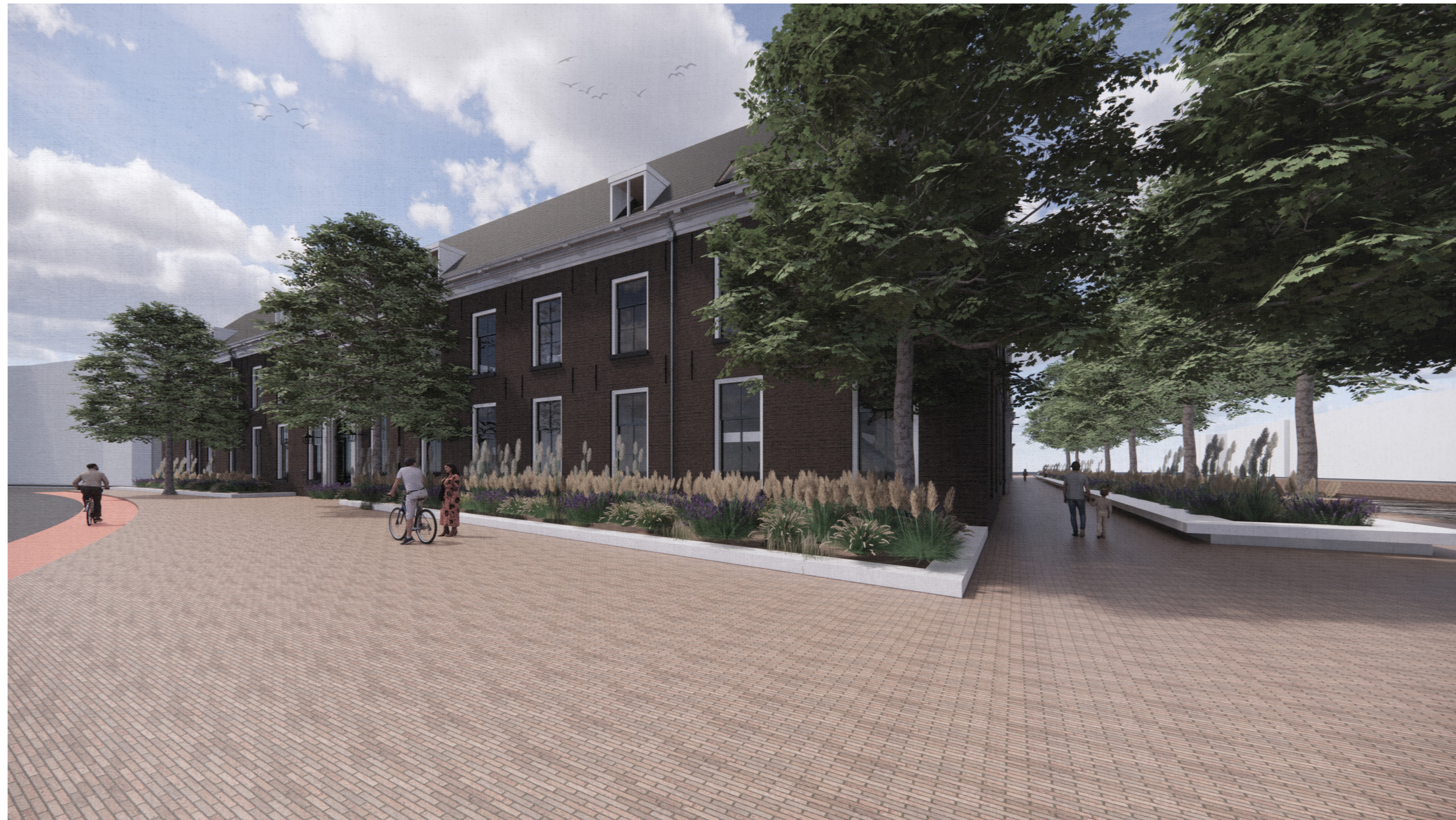
Cooking studio

HERITAGE APPROACH



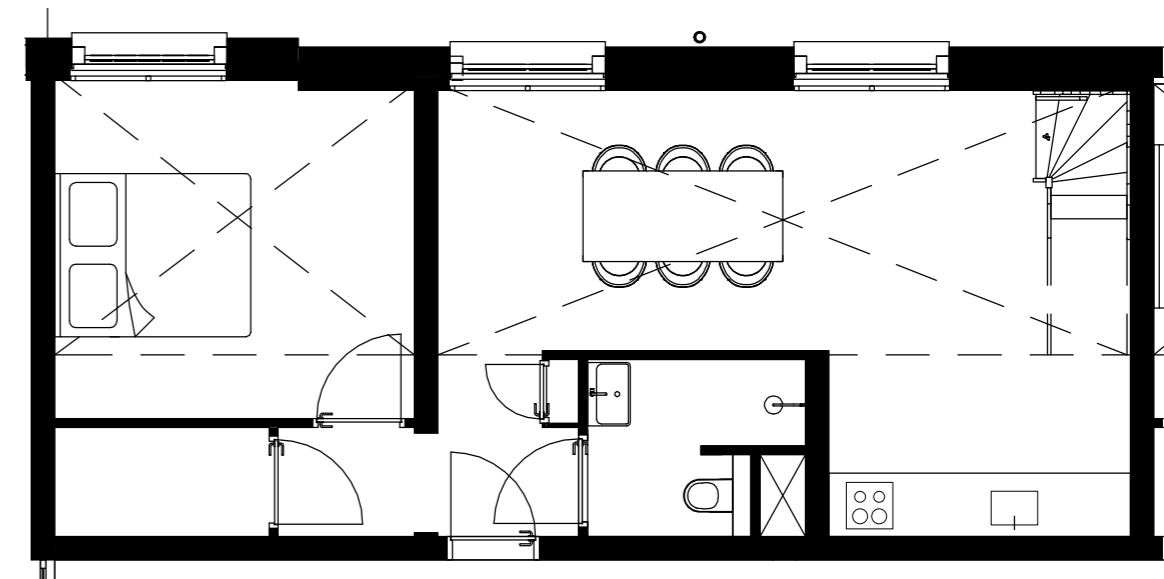
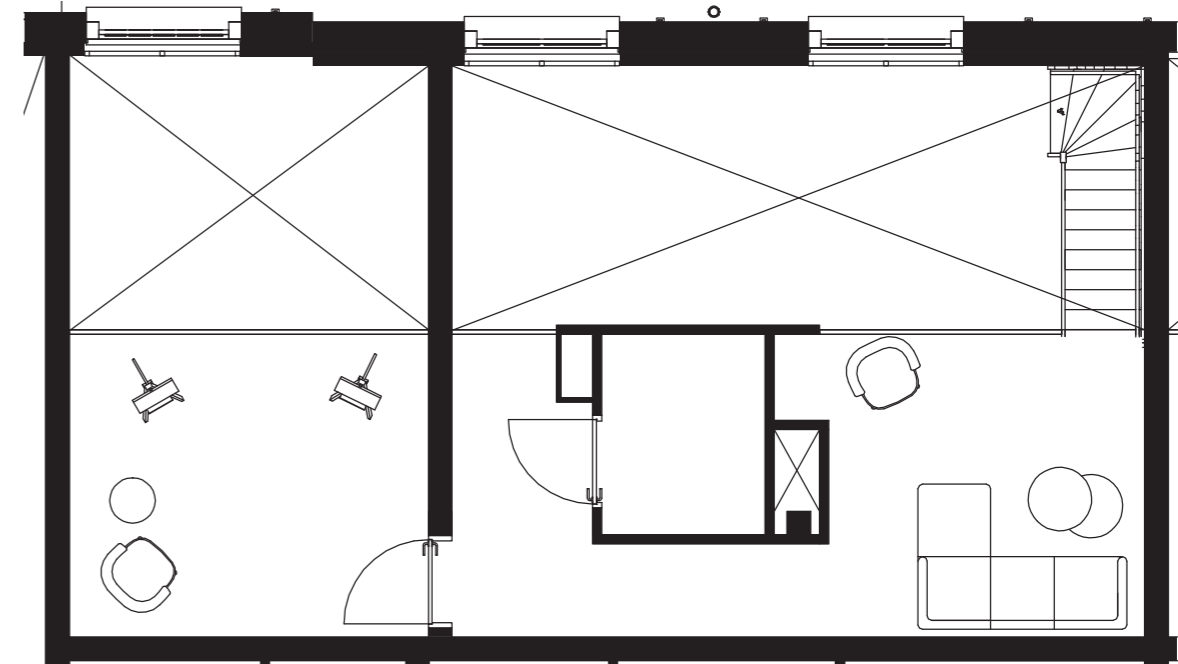
REFLECTION

“How could the Koudenhorn building in Haarlem be transformed into elderly **housing** that includes **public accessible** functions to stimulate social interaction both amongst inhabitants of the building and with the neighborhood?”



REFLECTION

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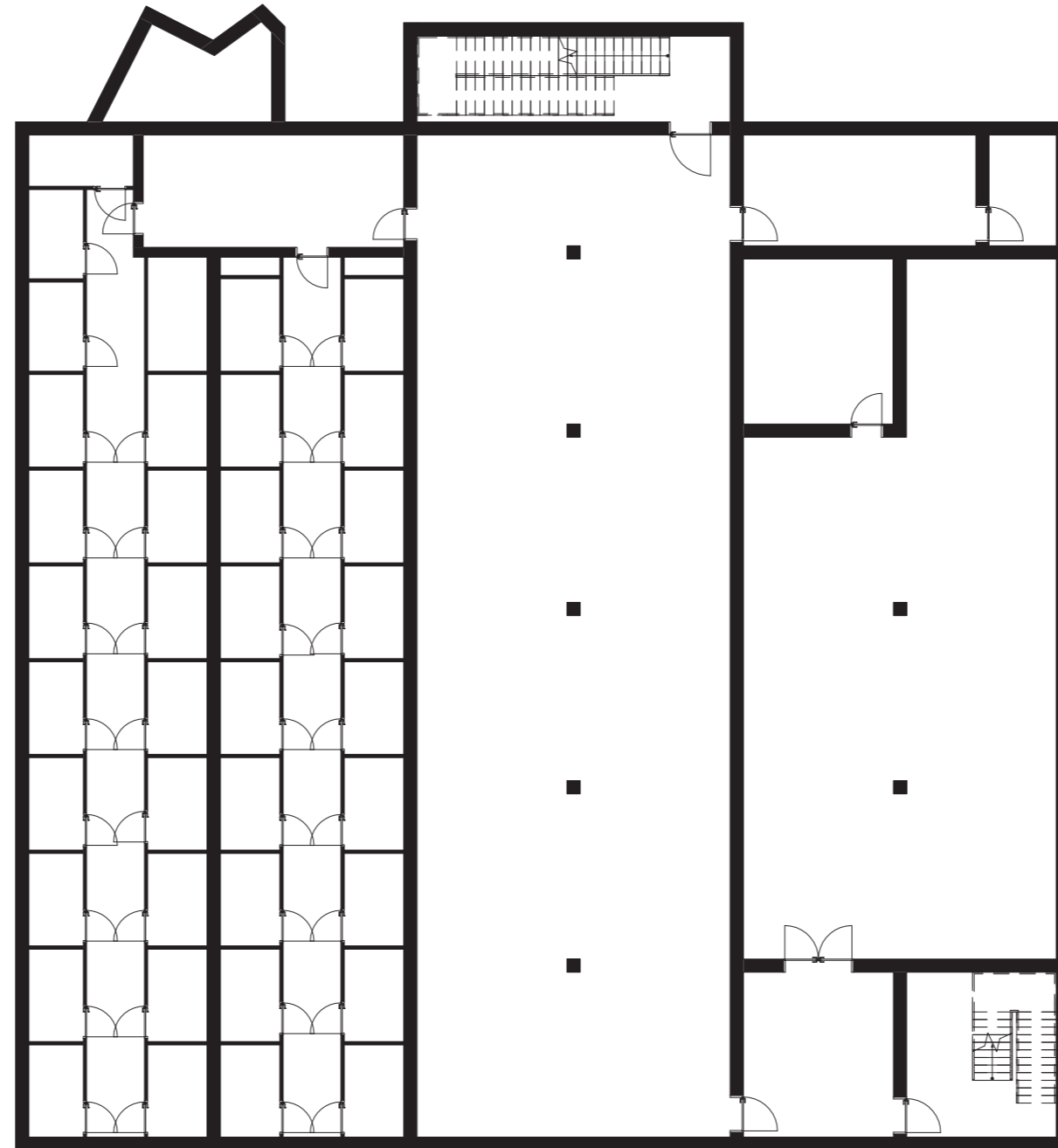


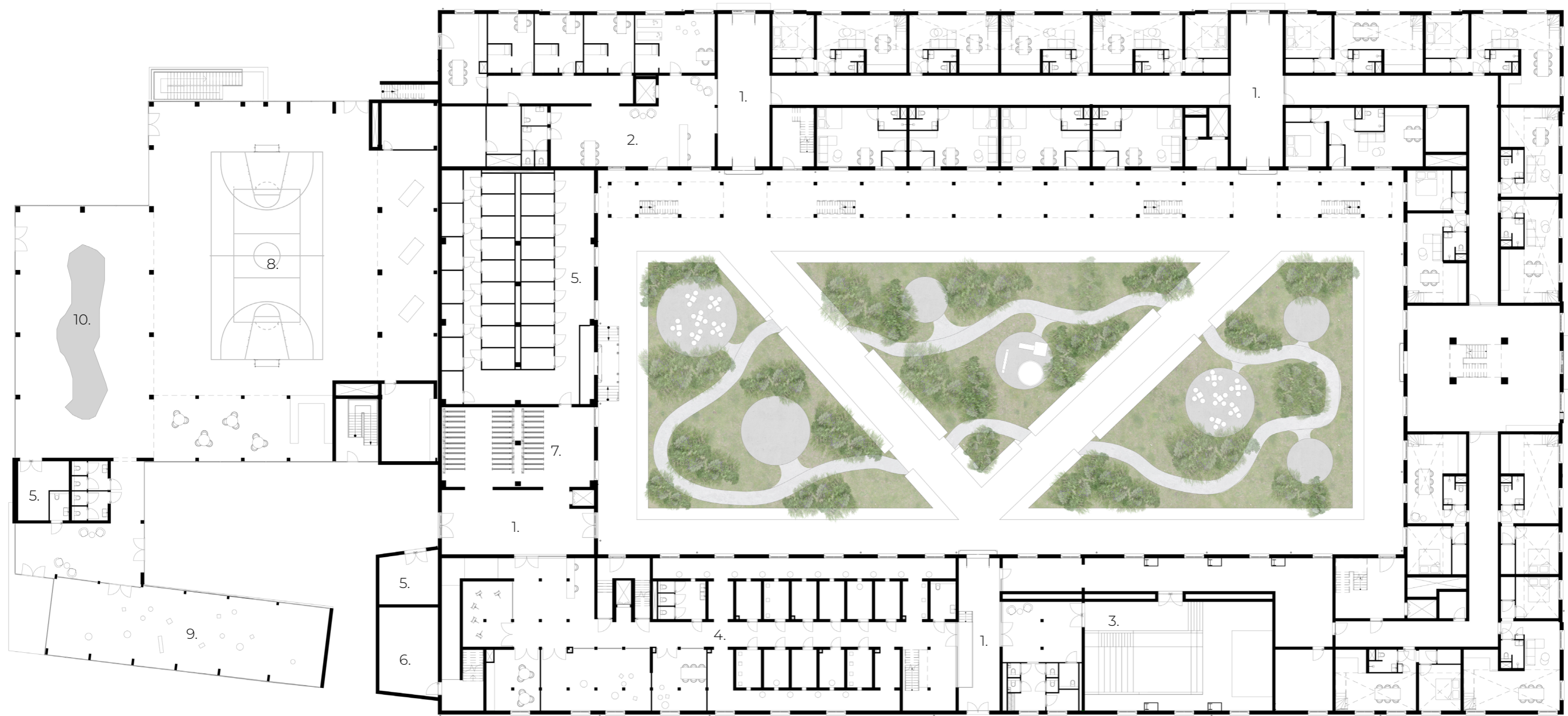
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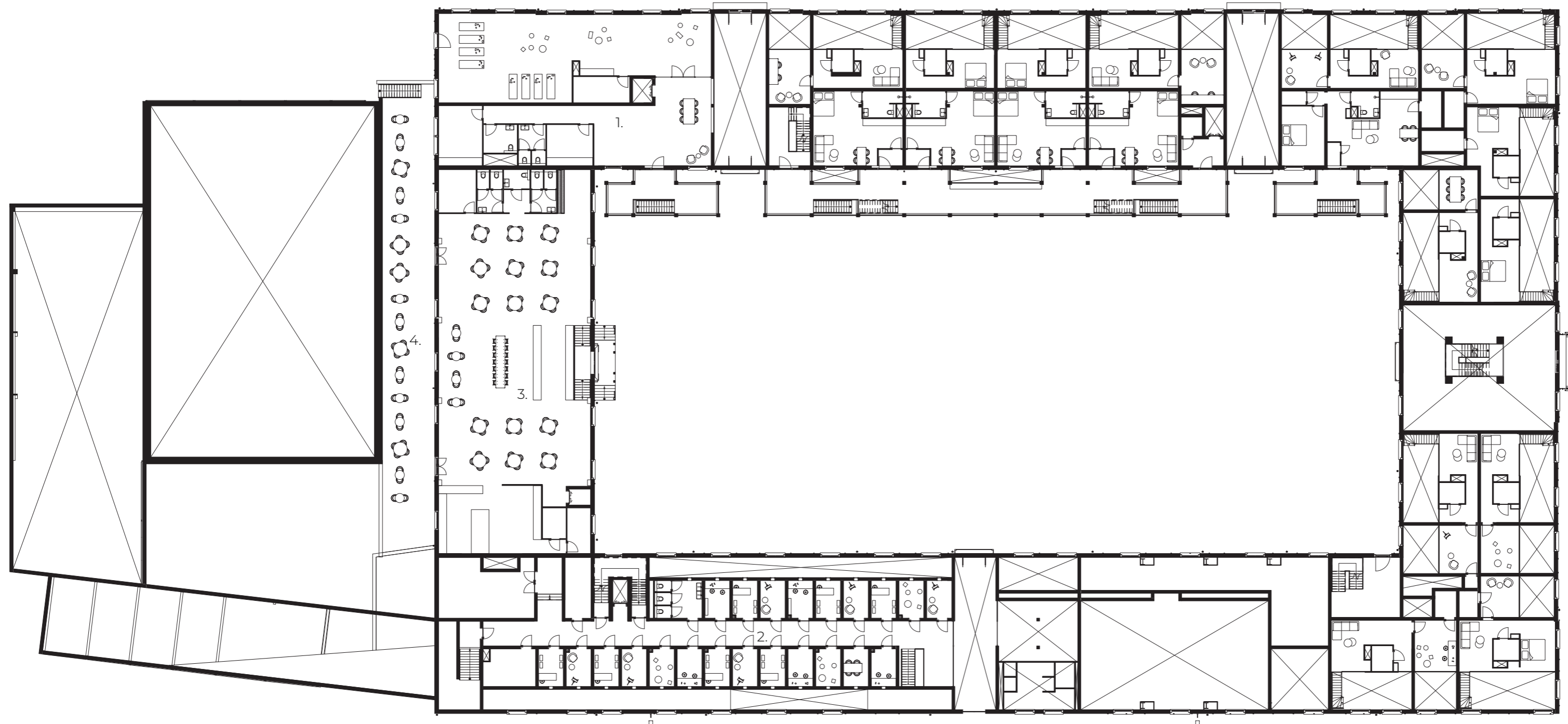






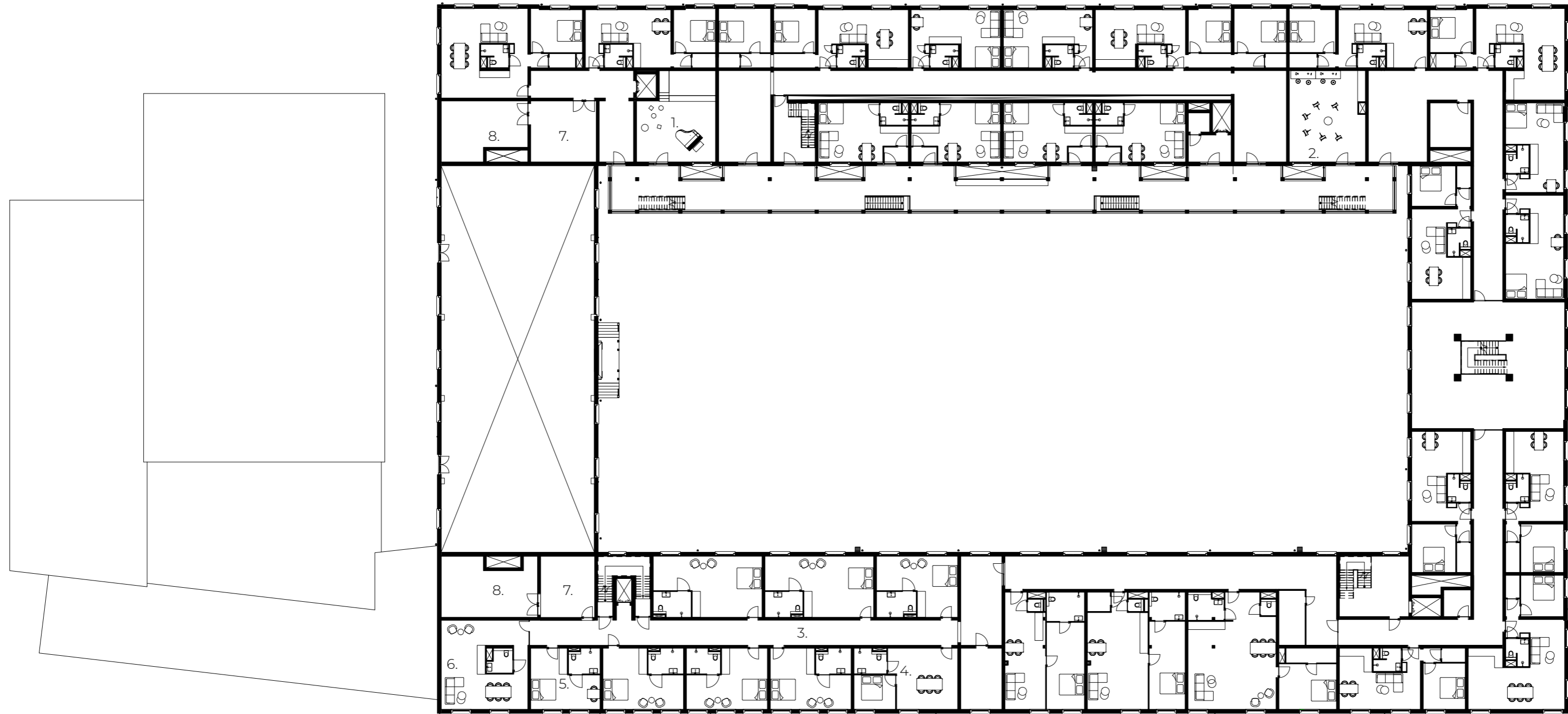
- 1. Passages
- 2. Health care center
- 3. Auditorium
- 4. Exhibition space
- 5. storage
- 6. service space
- 7. bicycle storage
- 8. multisportfield
- 9. multifunctional space
- 10. boulder wall





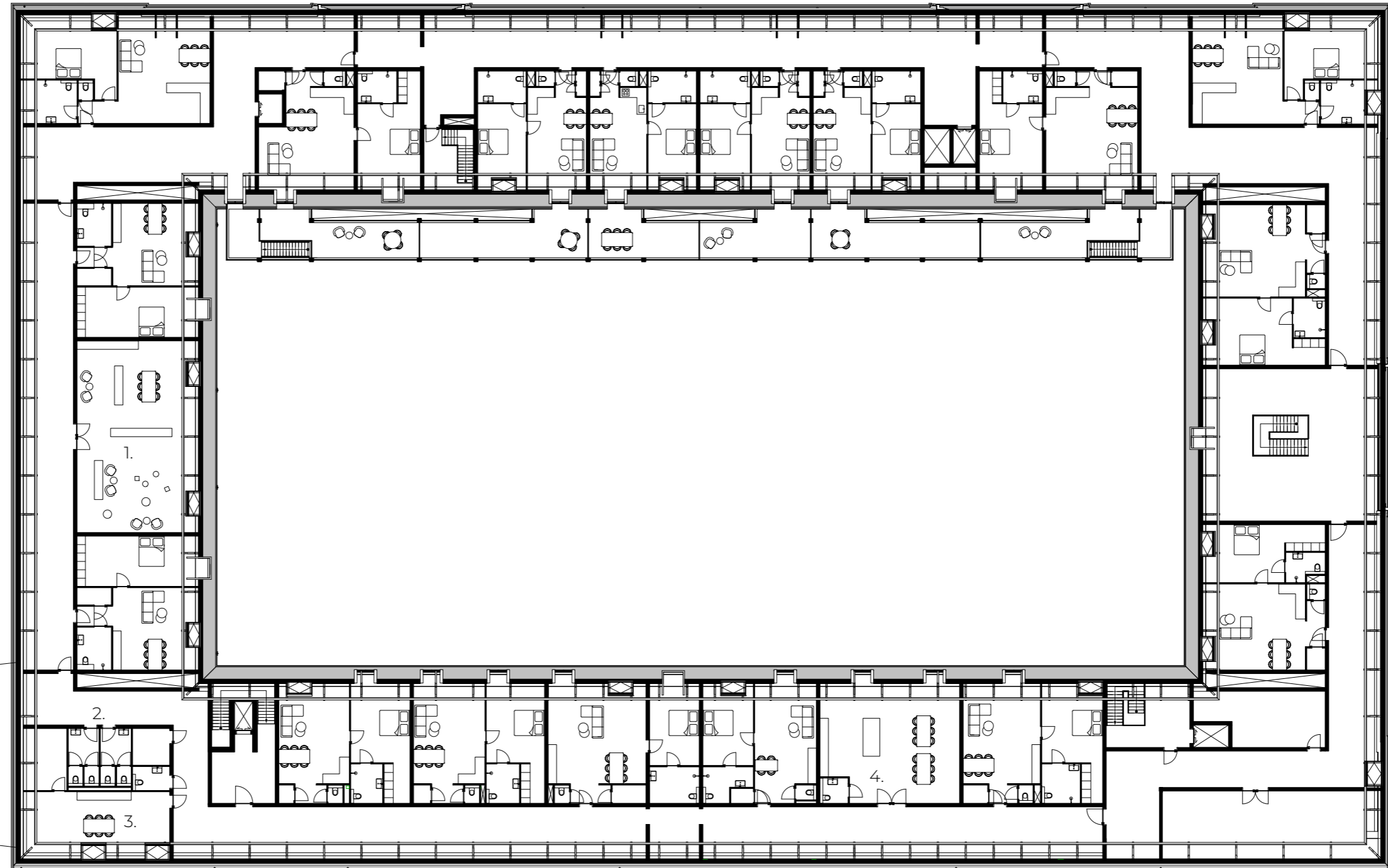
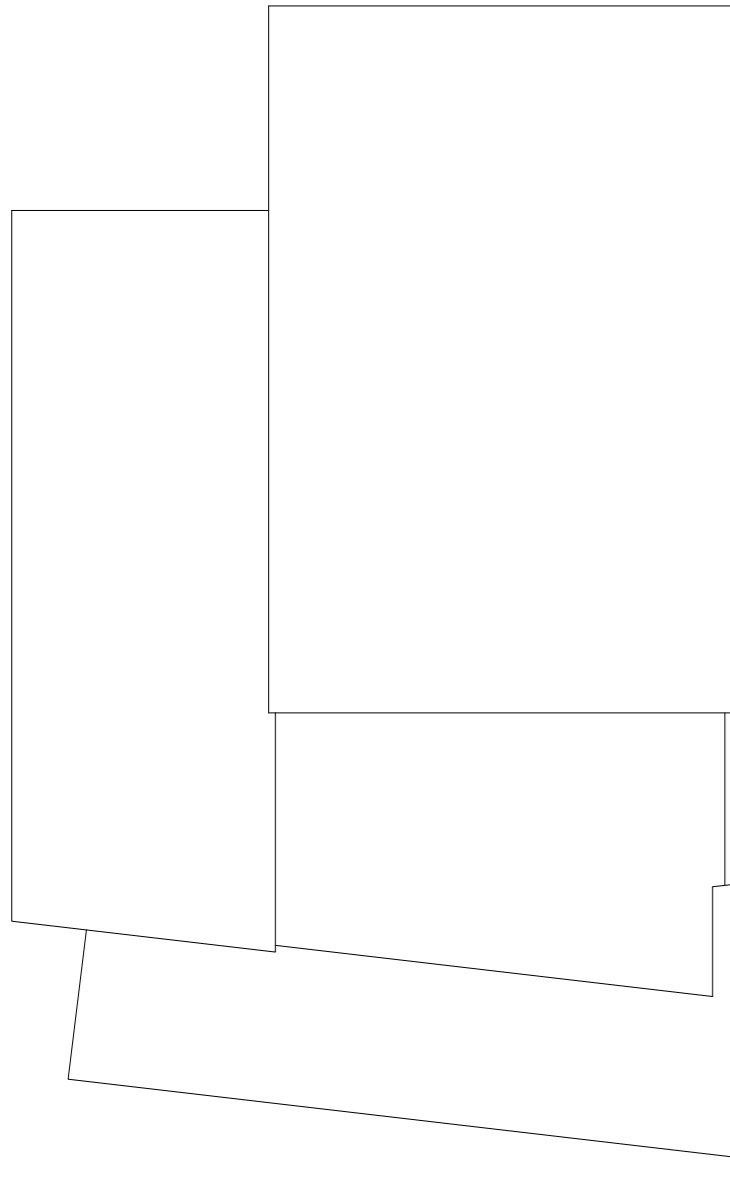
- 1. Gym
- 2. Makerspace
- 3. Restaurant
- 4. Roof terrace





- 1. music studio
- 2. art studio
- 3. hospice
- 4. staff room
- 5. family room
- 6. collective space
- 7. storage
- 8. services





- 1. Library / lounge
- 2. Toilets for library
- 3. Staff room
- 4. Cooking studio



