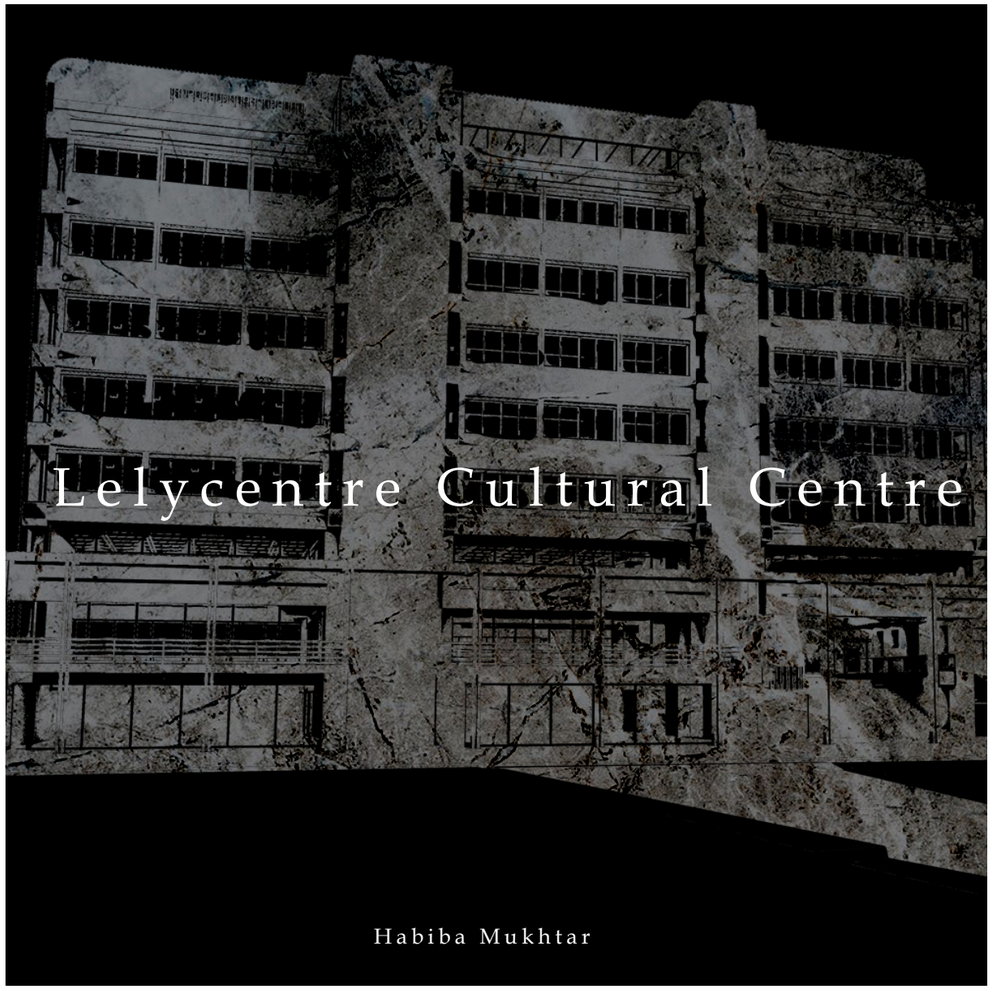
Lelycentre Cultural Centre
Habiba Mukhtar

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Acknowledgements

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I would also like to thank the many parties my team and I contacted to gather information, including Flip. P Rosdorff (the original architect of the building in this booklet), the folks from Lelystad Gemeente who allowed us access to archival material, Batavialand Archives, and Gert Schulte and Anne Linde van Gameren for arranging a visit to the Smedinghuis.
I would also like to thank my family for their unconditional support.

Contents

Introduction

In 1918, Cornelis Lely's plans for creating the Zuiderzeewerken were approved and passed by the government. In 1959, the state department RIJP tasked van Eesteren with designing the urban plan of Lelystad. He, along with advisor S.J. van Embden (urban planning), A.D. Van Eck (architecture), E.W Hofstee (sociologist), and W. De Bruijn (urban planning), formed the Plannning and Urban Planning Commission (de Planologische en Stedenbouwkundige Commissie). Their goal was to design the capital of Lelystad for 15000 - 20000 inhabitants, with the understanding that this will grow to 50000 and then 100000 in 35 to 50 years.

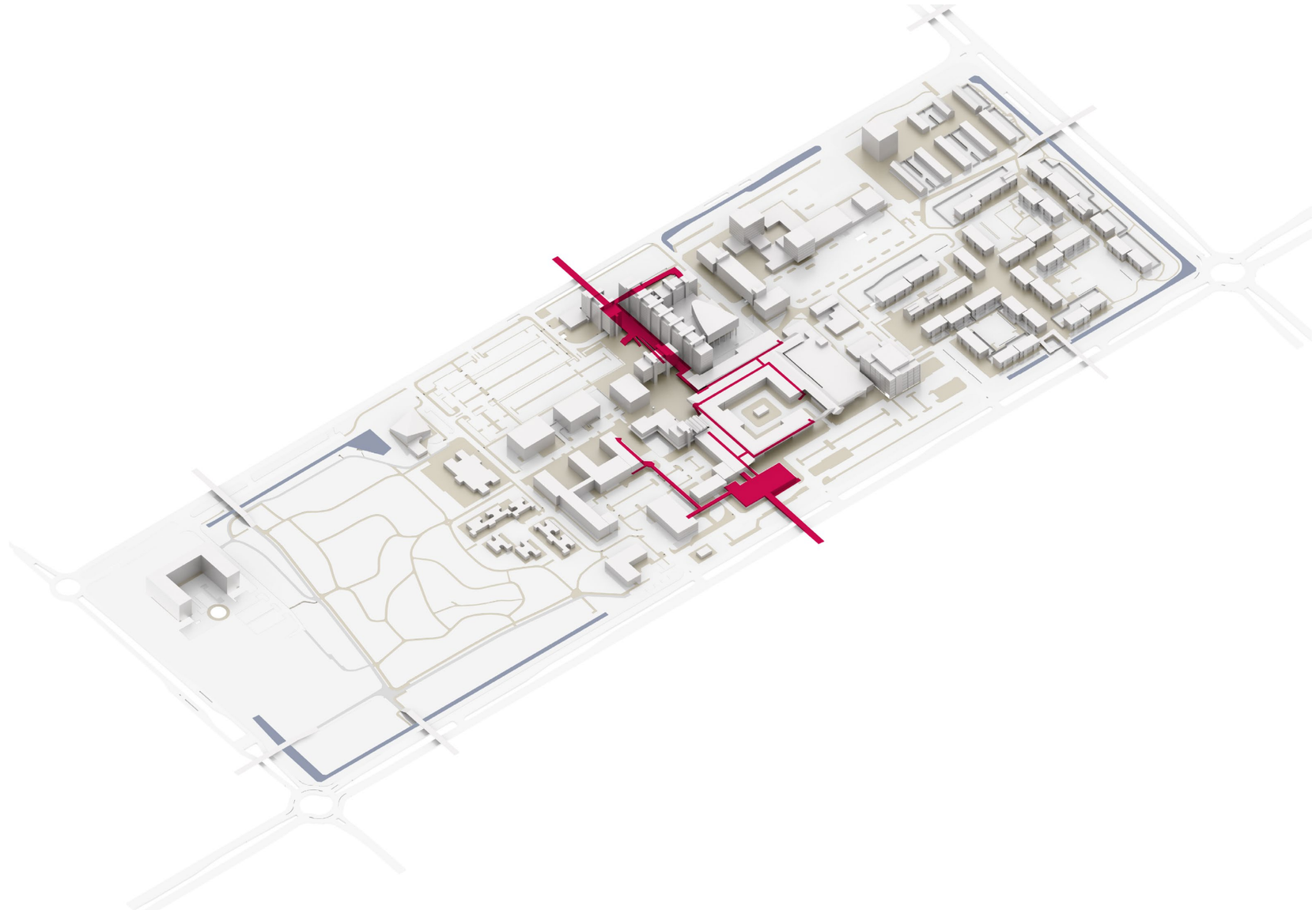
Despite the Planning Commission's best efforts to design flexibly, the Lelystad's urban planning underwent little change despite changing external factors. One early example is the halting of the fourth polder for the Zuiderzeewerken, Markermeerpolder. This external decision resulted in a change in the position and axis of the city centre. Lelycentre, which has an East-West orientation, was intended and designed as the centrum in the first phase in 1964, emphasising the connection to Markermeerpolder. Since Markermeerpolder, which was to lie West of Flevopolder, was no longer on the menu, it was decided that Lelystad's city centre should emphasise its relationship with Amsterdam 40km south. Thus the city centre began to develop in the 80's whilst Lelycentre, home to buildings designed as the city's main government household and economic hub, finds itself in an awkward situation. The local shopping centre, which once resembled Rotterdam's Lijnbaan, serves the local communities with a quiet but healthy bustle of activity. However the majority of surrounding buildings have gone through a series of changes in use and are now vacant. One such building is the former police station, which the police vacated in 2018 in favour of a more central city location.

In the 80's, the police station was instead the ZIJP building, designed as part of the Smedinghuis complex in 1967 for the RIJP and the ZIJP respectively. Architect Flip. P. Rosdorff and Engineer Dick van Mourik designed the complex as the central entrance to Lelycentre and it was meant to house the governing bodies of the time (RIJP and ZIJP). At the behest of RIJP they were required to integrate the complex into Lelystad's characteristic elevated infrastructure, a ghost of van Eesteren's ideas as his overall plan was rejected officially in 1965. Today the police wing is vacant and Smedinghuis is used by the Rijkswaterstaat, where one wing is now vacant and the rest is partly empty. The complex acts an authoritative and bold entry but as circumstances change, it lacks interaction with local users.

My self-appointed task for these past ten months has been to transform this area and add quality to the existing public space. What was a parking lot is now a park, what was the police station is now a cultural centre, and what was offices are now apartments. My goal is to facilitate public interaction with the former police station ensuring that it is integrated into the daily lives of locals, not simply because it is found along a well used route, but because it is a place residents are willing to go and to support. The police station, now the Lelycentre Cultural Centre, is designed to offer residents a place to simply be and to sit and relax, as well as to learn and develop skills.

Urban Analysis

Existing Lelycentre Elevated Infrastructure



Own image, 2019

Existing Functions in Lelycentre

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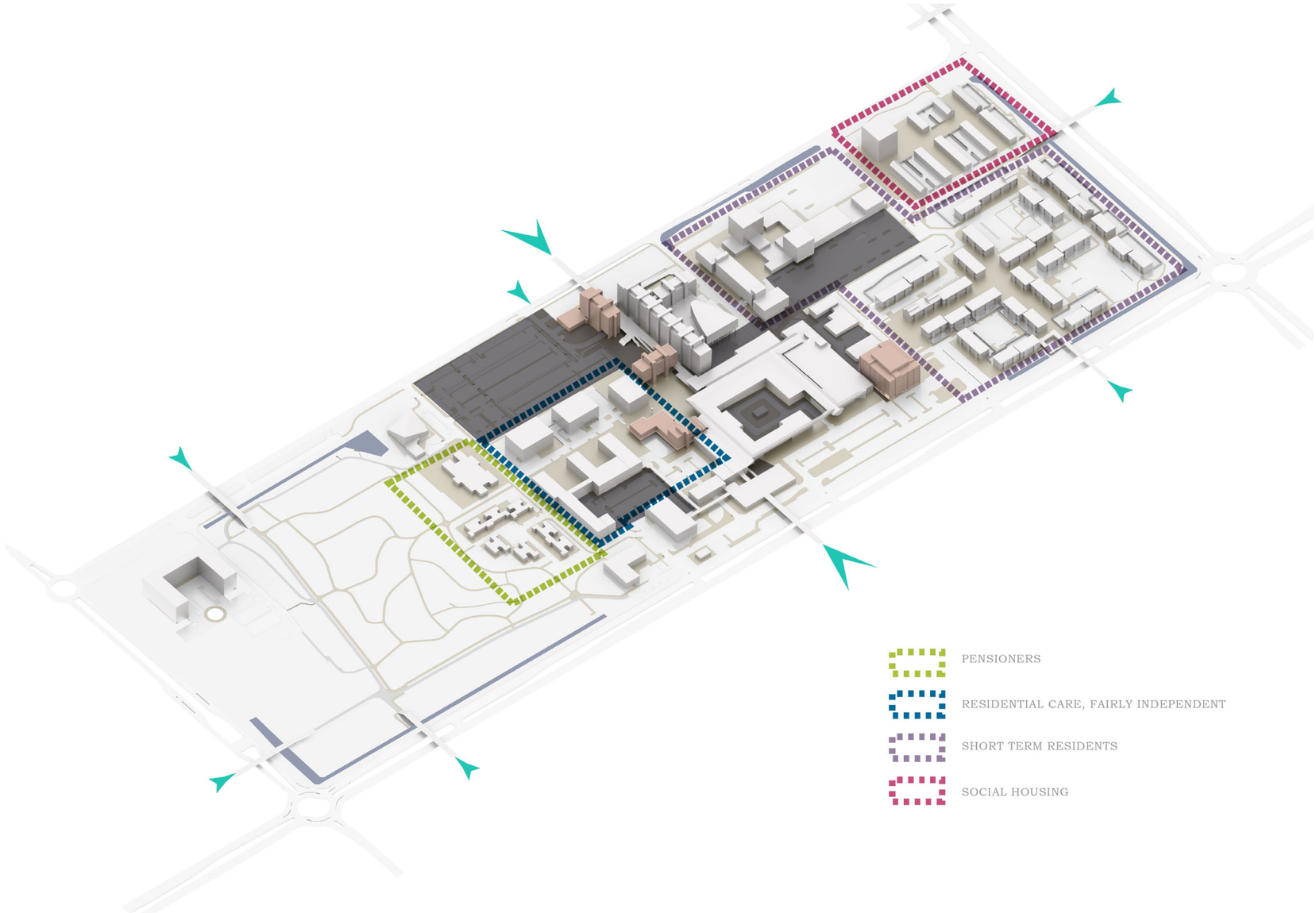
Vacancy, Low Quality Public Space, and User Groups



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Area Goals

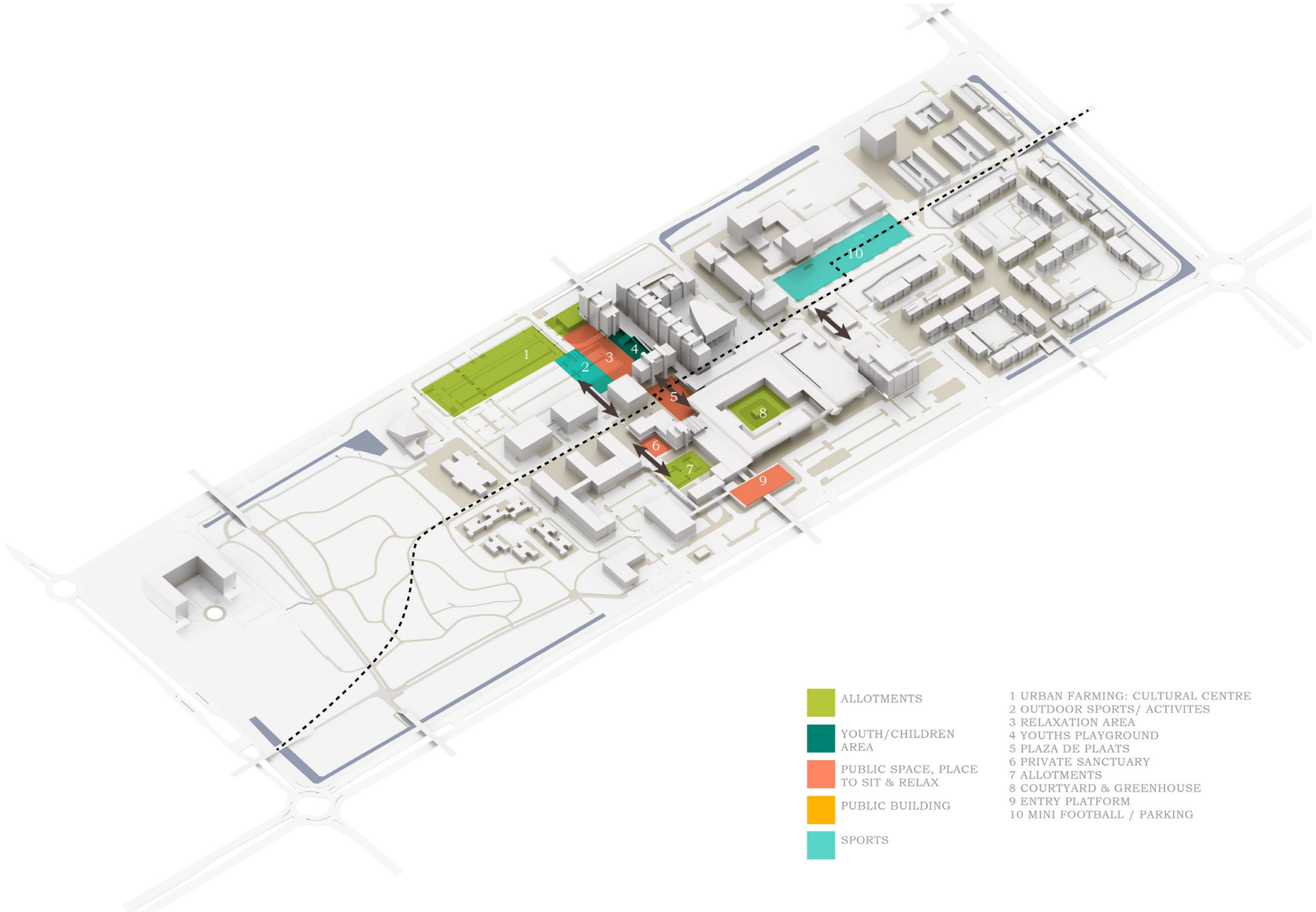
Diversify

Densify

Improve public space

Introduce community functions and activity

Response: Outdoor Public Space



ALLOTMENTS

YOUTH/CHILDREN AREA

PUBLIC SPACE, PLACE TO SIT & RELAX

PUBLIC BUILDING

SPORTS

1 URBAN FARMING: CULTURAL CENTRE
2 OUTDOOR SPORTS/ ACTIVITES
3 RELAXATION AREA
4 YOUTHS PLAYGROUND
5 PLAZA DE PLAATS
6 PRIVATE SANCTUARY
7 ALLOTMENTS
8 COURTYARD & GREENHOUSE
9 ENTRY PLATFORM
10 MINI FOOTBALL / PARKING

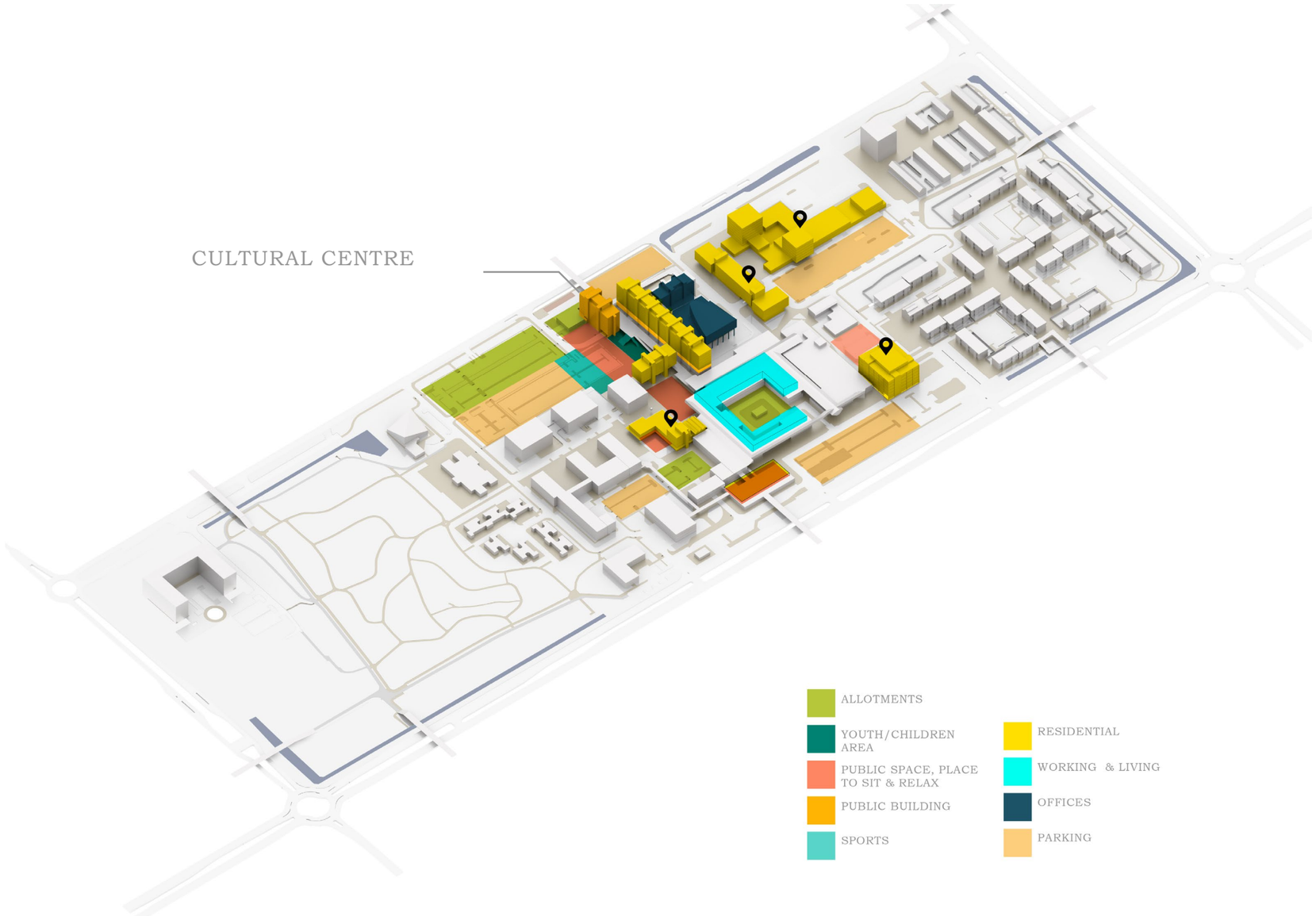
Own image, 2019

Existing Redevlopment Plans

ALLOTMENTS
YOUTH/CHILDREN AREA
PUBLIC SPACE, PLACE TO SIT & RELAX
PUBLIC BUILDING
SPORTS
RESIDENTIAL
WORKING & LIVING
OFFICES
PARKING

Own image, 2019

Masterplan



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Value Assessment

Value Assessment: Façade rhythm and shape

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Value Assessment: Shafts

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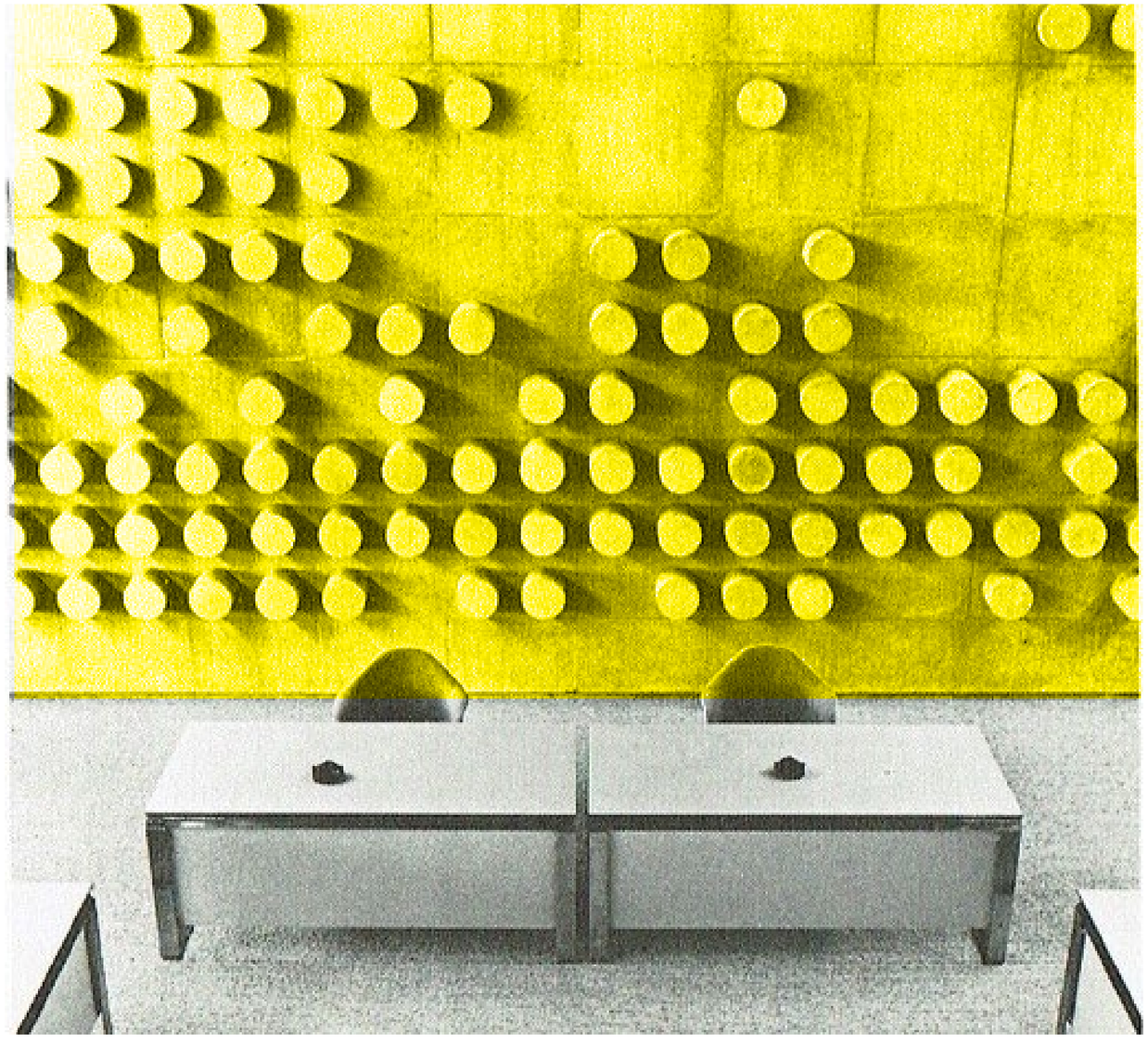
Value Assessment: Elevated infrastructure

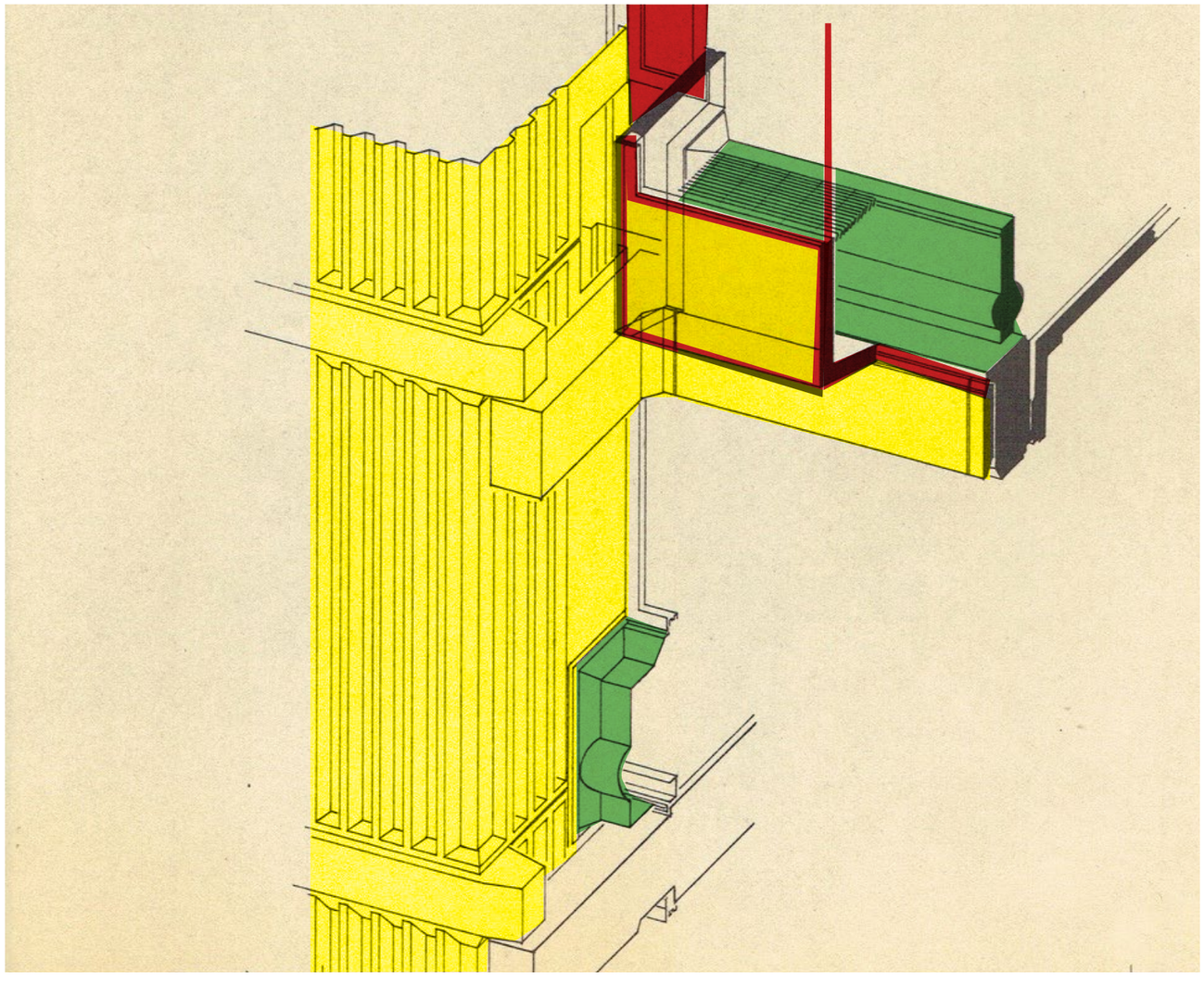
Own image, 2019

Value Assessment: Art



Raadzaal, Retrieved from Flip. P Rosdorff, 2019

Value Assessment: Integrated Design

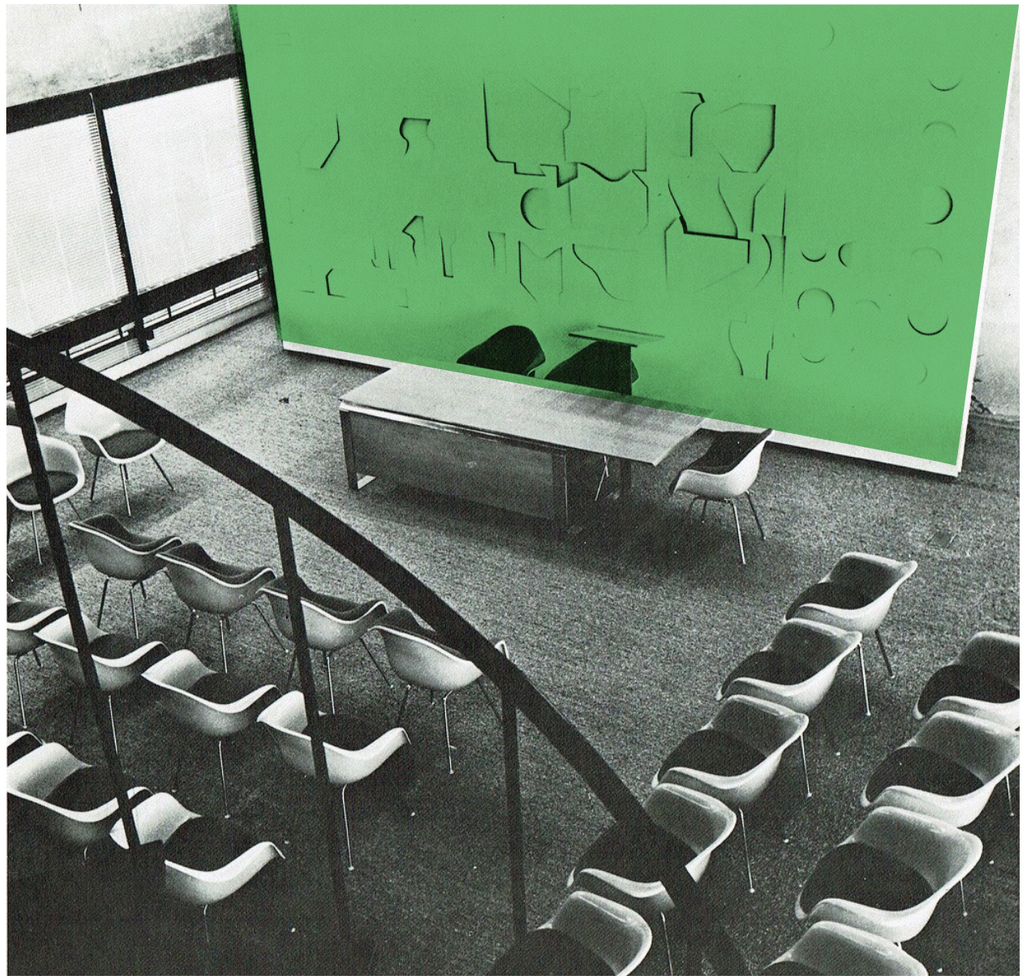


Detail Schacht Lelystad, Retrieved from Flip. P Rosdorff, 2019

Value Assessment: Art

Own image, 2018, 2019

Value Assessment: Art



Trouwzaal, Retrieved from Flip. P Rosdorff, 2019

Design

Research Questions

How can the former police station, an authoritative and closed building, be transformed into an accessible public building that acts as a common resource?

In what ways can the ground floor and first floor which connects to the elevated infrastructure both become used public spaces?

How can this 70’s concrete building be made sustainable?

Design Goals

Introduce transparency along the plinth

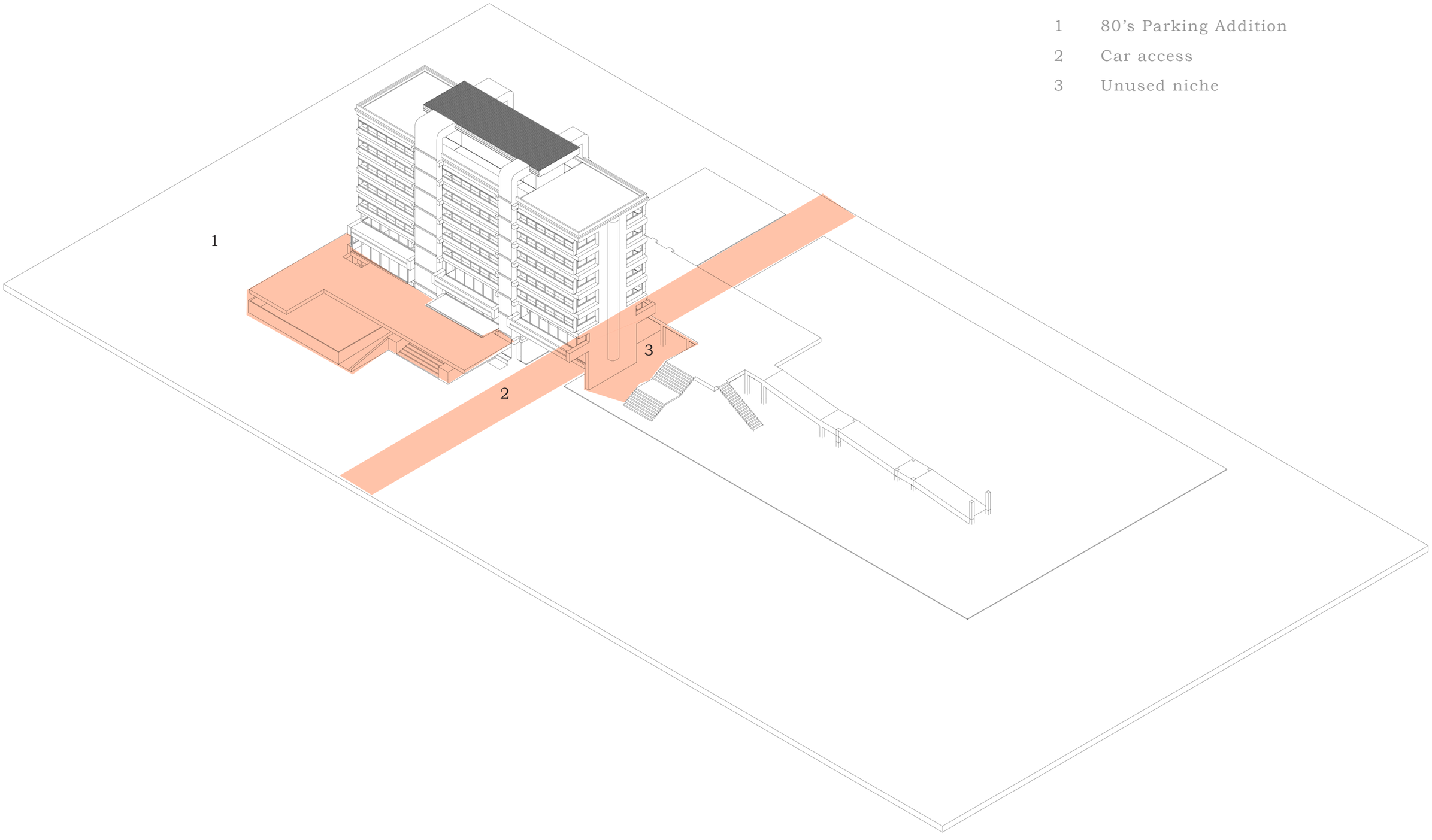
Introduce wood as an organic contrast to the original structure

Turn the cultural centre into the main transition between the transformed ground level and the elevated infrastructure

Preserve the original building and its qualities

Introduce passive design concepts

Maintain an awareness of sustainable material choice

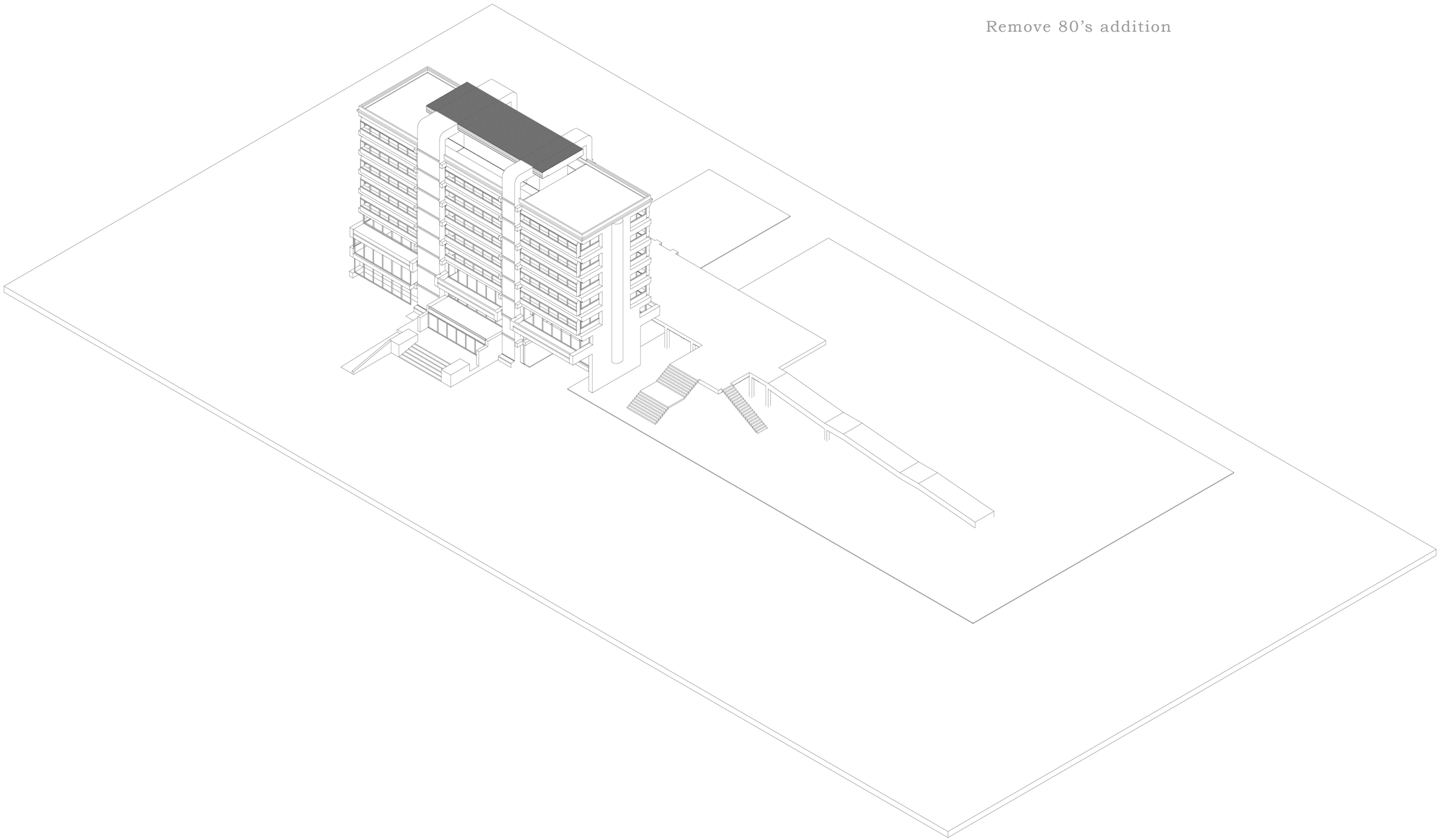


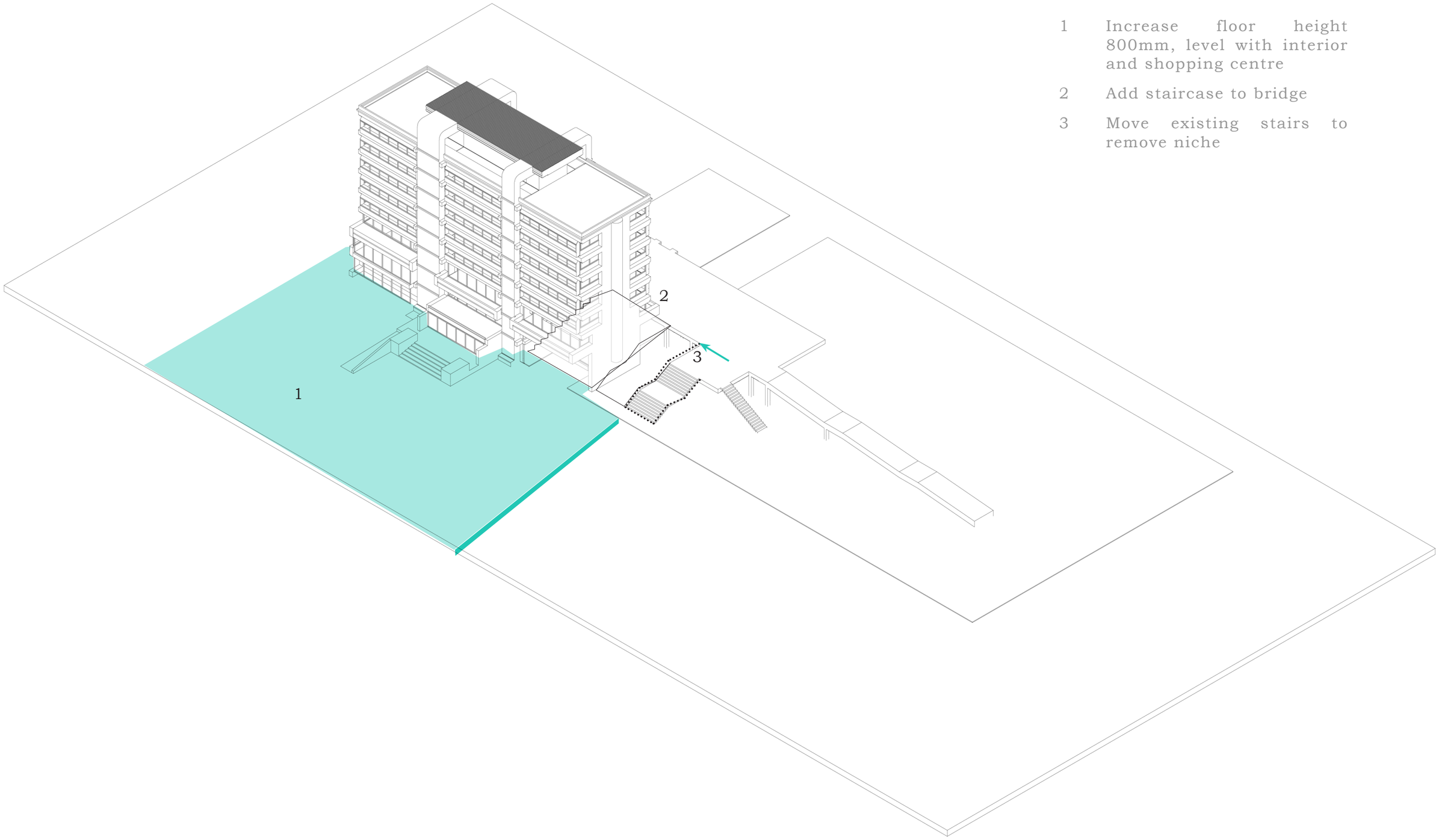
1 80’s Parking Addition

2 Car access

3 Unused niche

Remove 80's addition

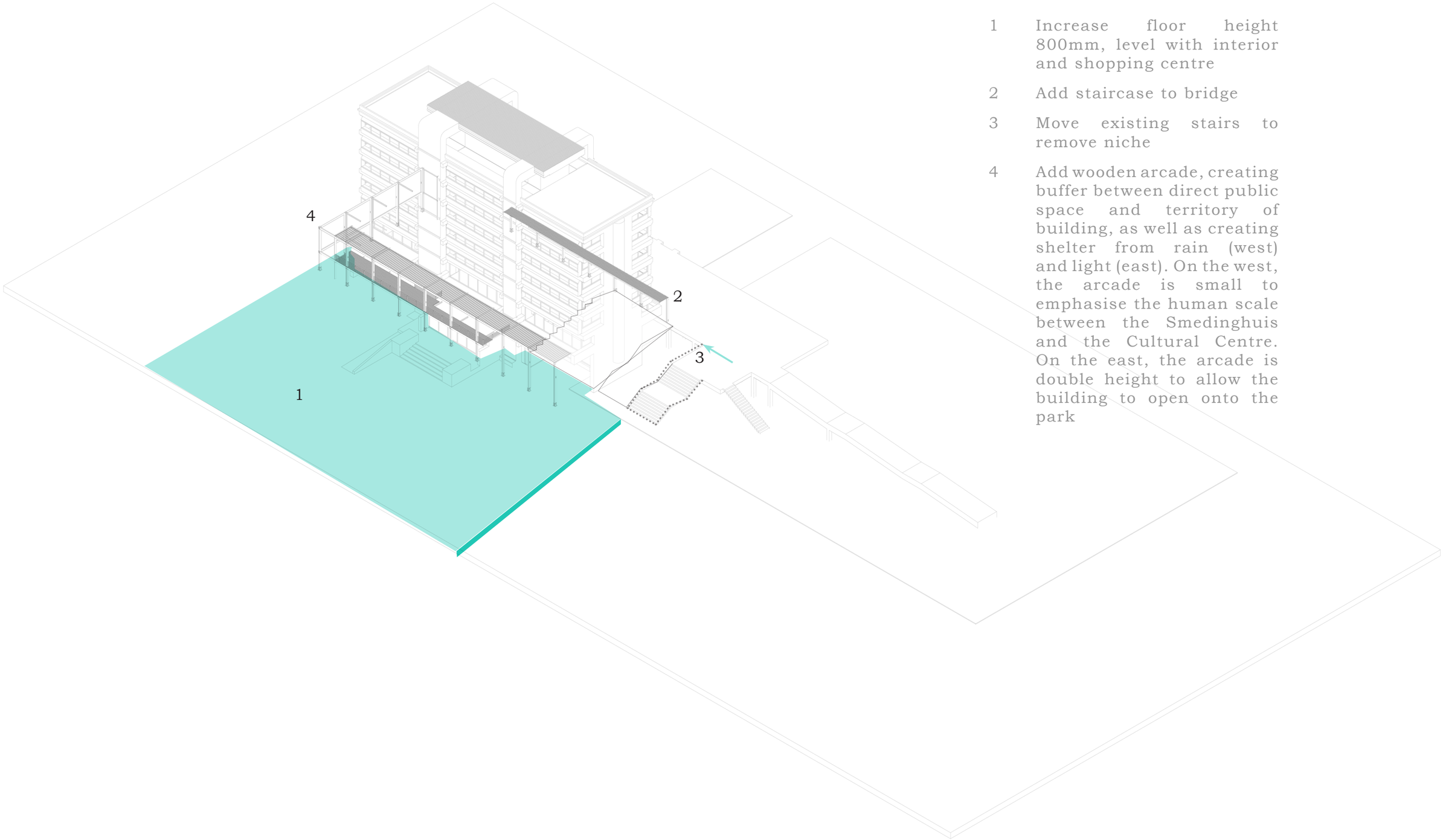




1 Increase floor height 800mm, level with interior and shopping centre

2 Add staircase to bridge

3 Move existing stairs to remove niche

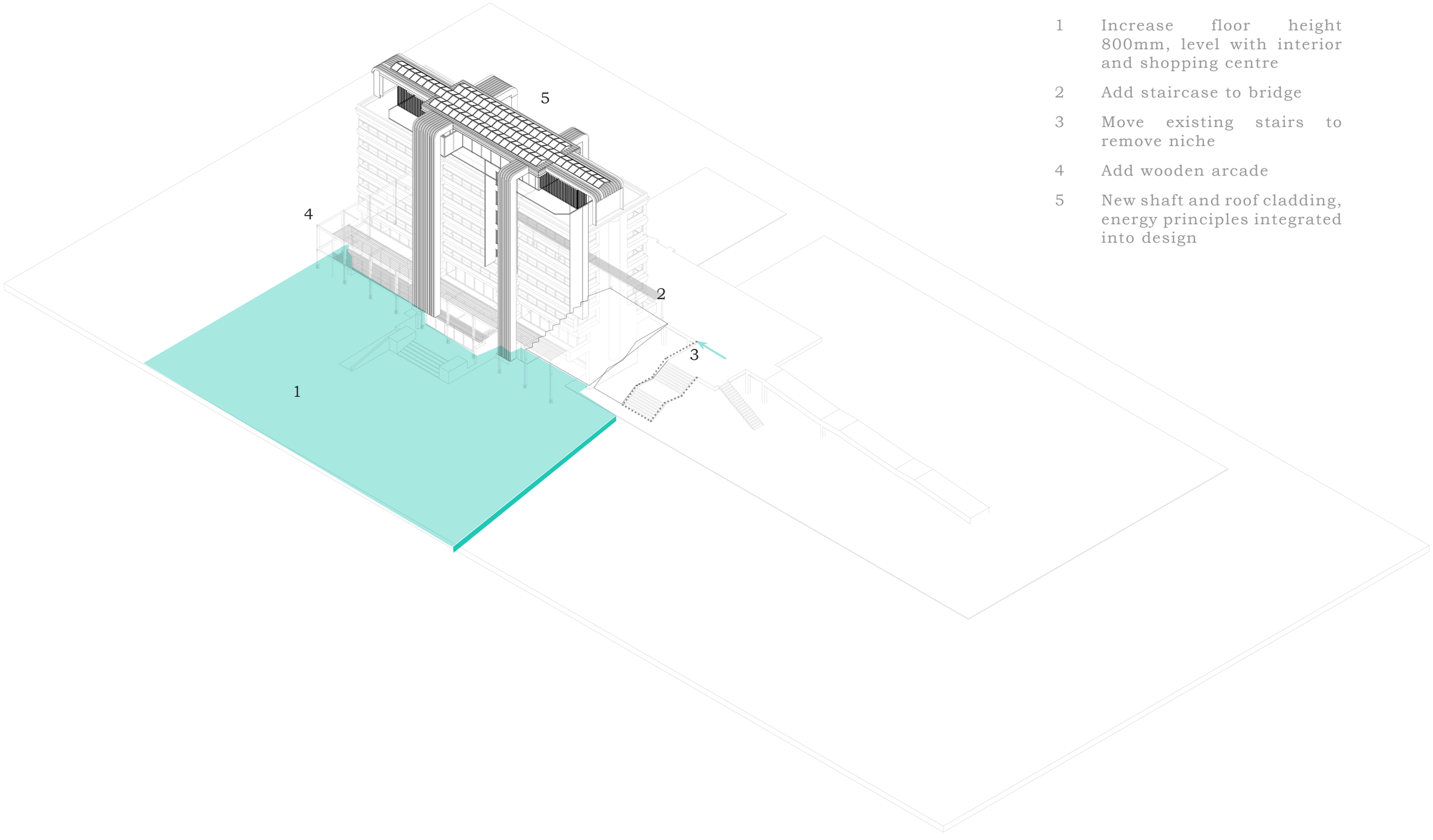


1 Increase floor height 800mm, level with interior and shopping centre

2 Add staircase to bridge

3 Move existing stairs to remove niche

4 Add wooden arcade, creating buffer between direct public space and territory of building, as well as creating shelter from rain (west) and light (east). On the west, the arcade is small to emphasise the human scale between the Smedinghuis and the Cultural Centre. On the east, the arcade is double height to allow the building to open onto the park



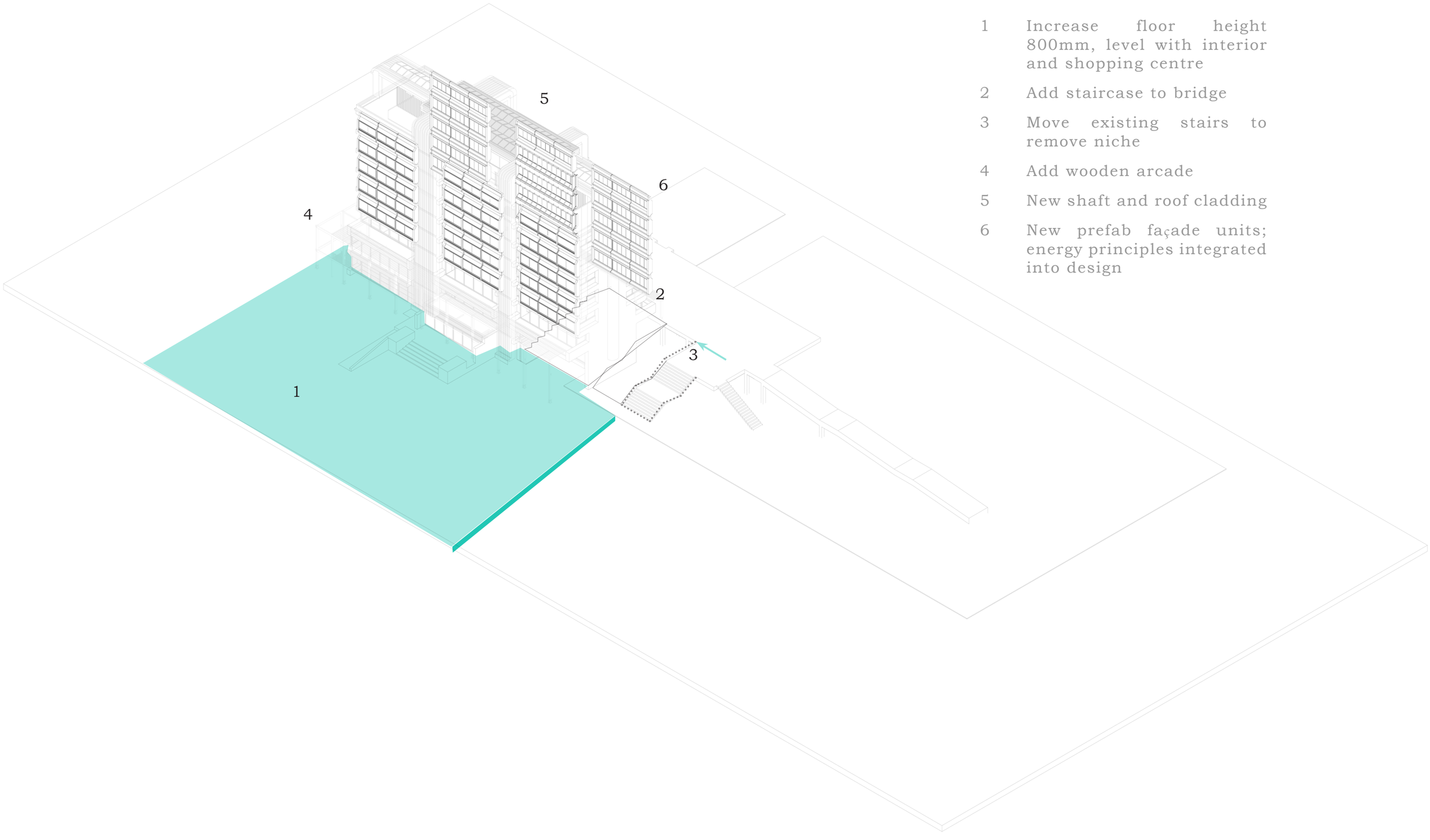
1 Increase floor height 800mm, level with interior and shopping centre

2 Add staircase to bridge

3 Move existing stairs to remove niche

4 Add wooden arcade

5 New shaft and roof cladding, energy principles integrated into design



1 Increase floor height 800mm, level with interior and shopping centre

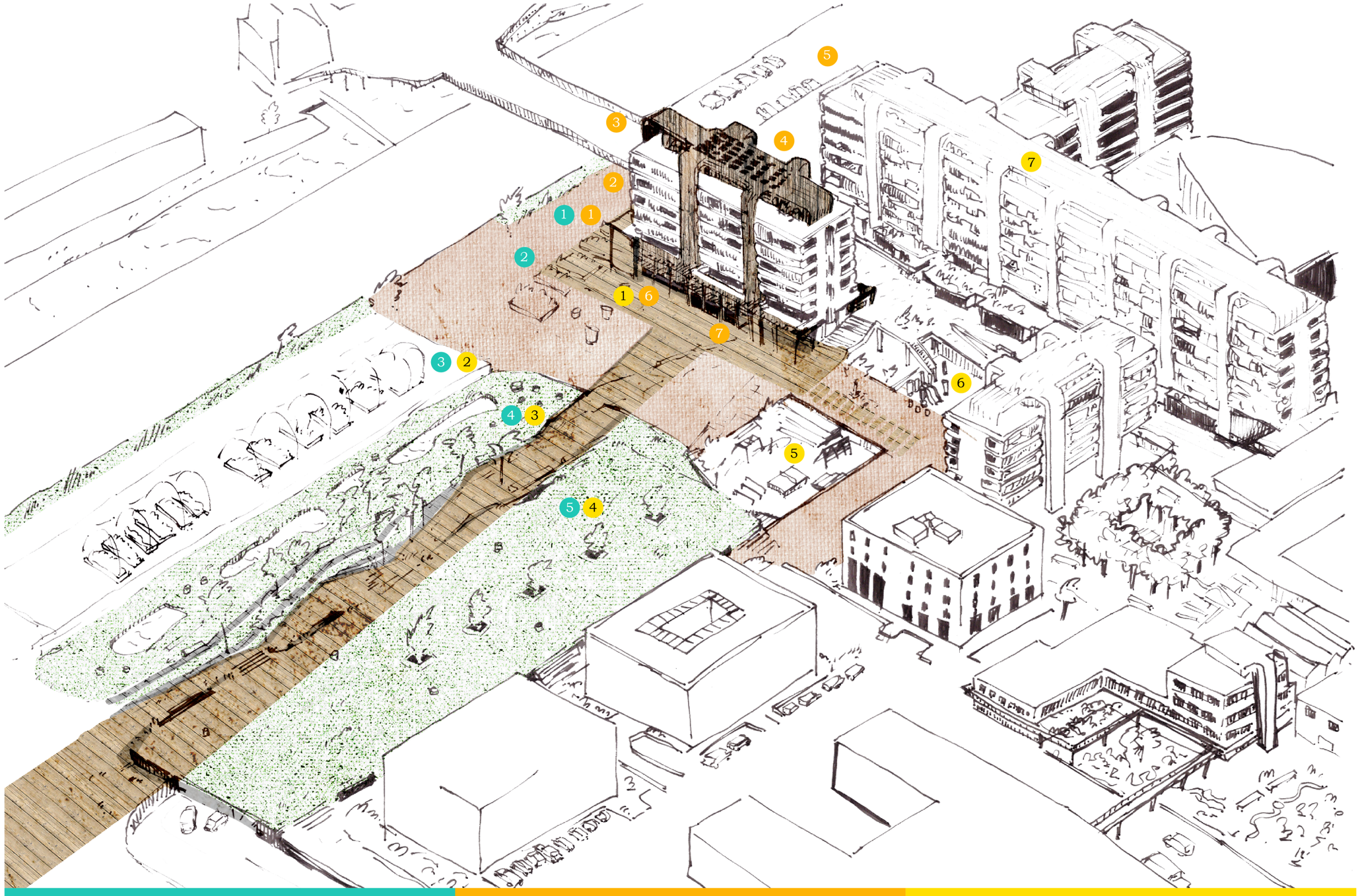
2 Add staircase to bridge

3 Move existing stairs to remove niche

4 Add wooden arcade

5 New shaft and roof cladding

6 New prefab façade units; energy principles integrated into design



Rainwater collection & vegetation

1 Greenhouse for food
2 Cultural Centre allotments
3 Local allotments
4 Park area, new ecology in landscape
5 Parking half-lowered with greenroof

Energy

1 Greenhouse as ventilation source
2 Double skin facade
3 Solar chimney for ventilation
4 PVT panels along roof
5 South facade utilised for energy
6 Ventilation labyrinth below platform
7 Wood as a sustainable resource

Community

1 Platform as gathering/event spot
2 Local allotments
3 Park area
4 Parking hidden, picnic area created
5 Calisthenics park
6 Children’s park
7 Safety through new residents

Programme

- Installations
- Roof garden
- Artist studios
- Computer learning & Administration
- Textiles and sewing
- Painting & Drawing
- Pottery
- Café / Mess hall
- Entrance
- Cooking Workshop
- Repair shop / Machine lab

Plans

East Façade

1:200

West Façade

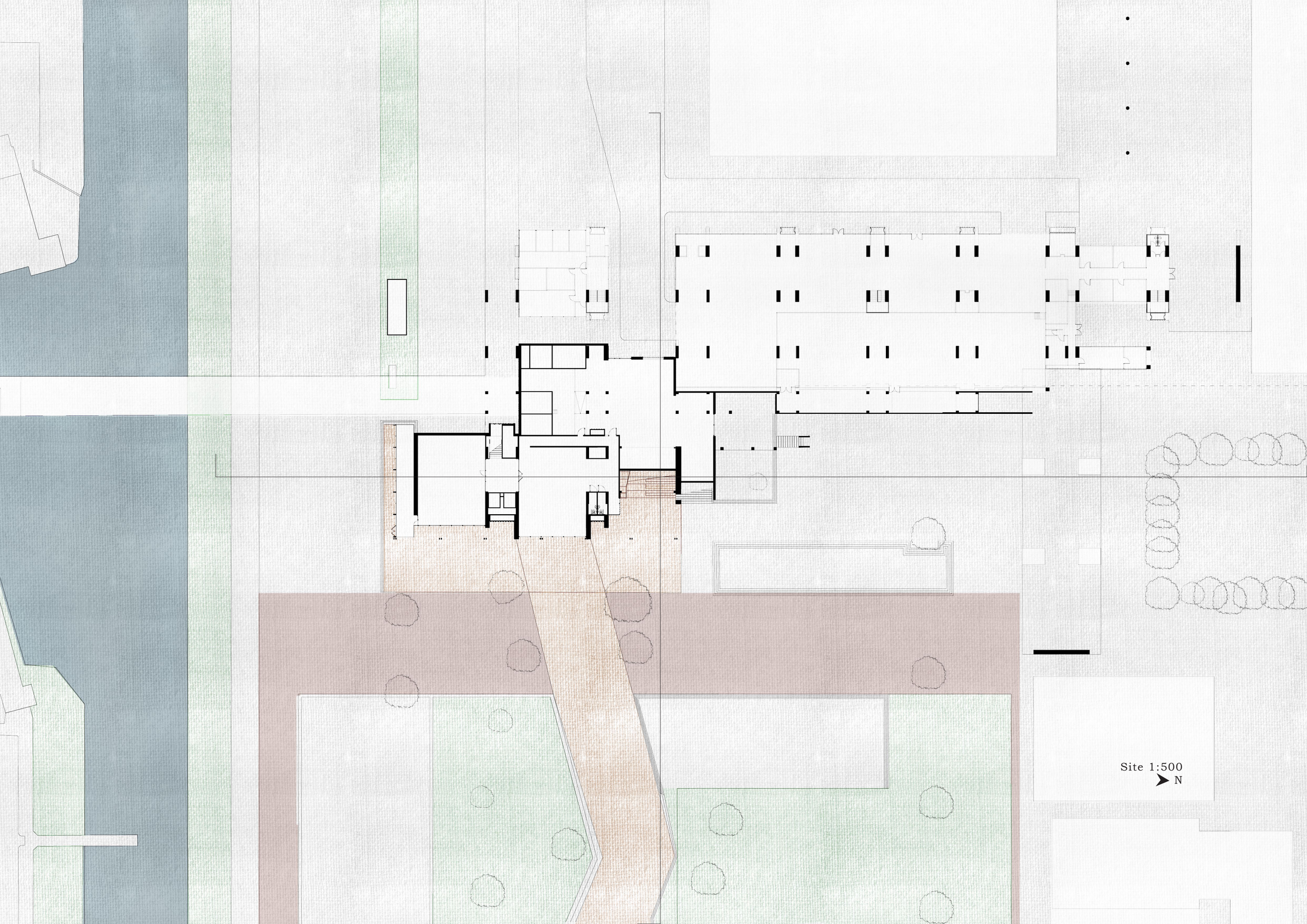
1:200

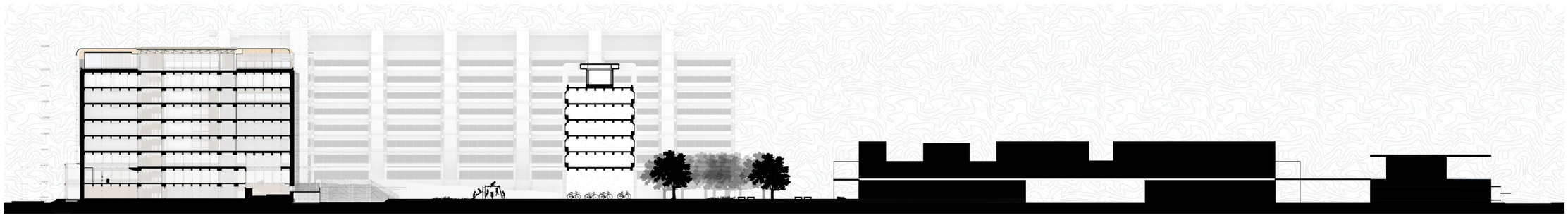
North Façade

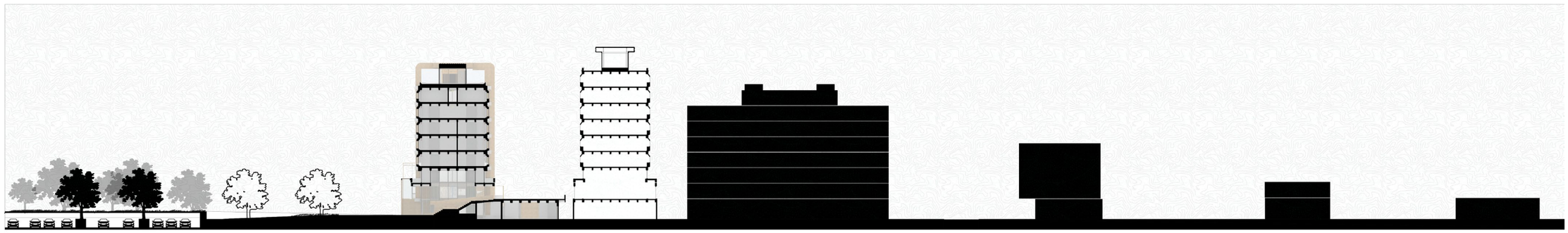
1:200

South Façade

1:200


Site 1:500
N





Site sections

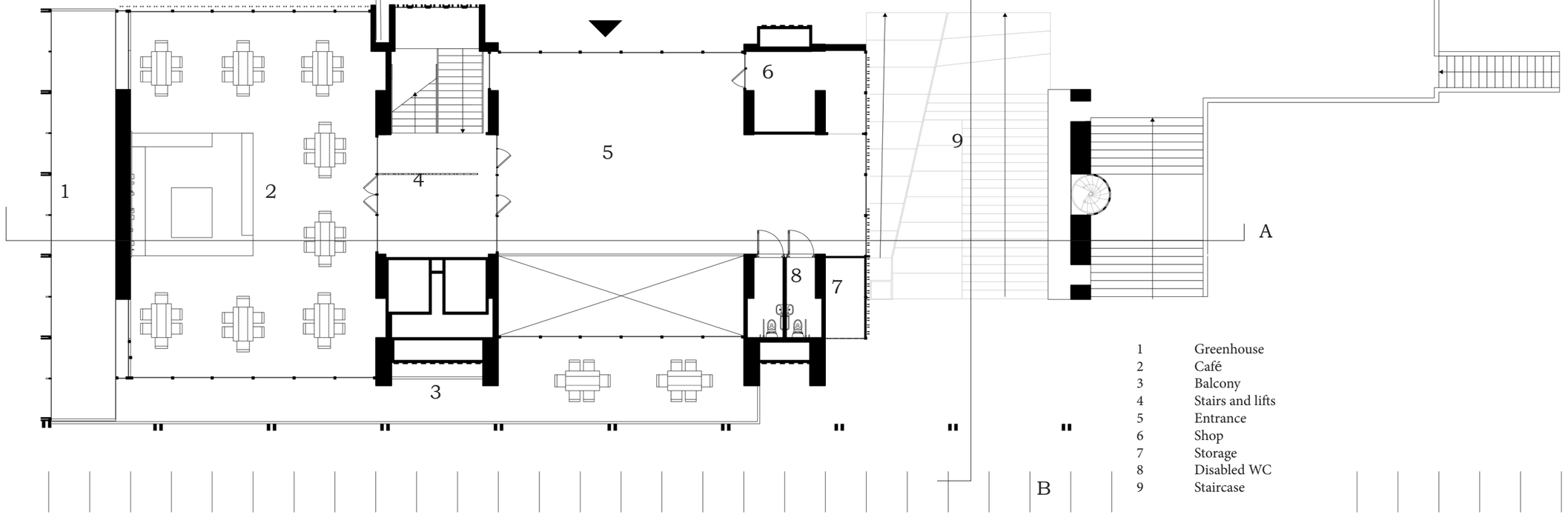
Ground floor 1:200

N

1 Greenhouse
2 Cooking workshop
3 Outdoor gathering area
4 Stairs and lifts
5 Installation room
6 Reception
7 Storage
8 Disabled WC
9 Machine Lab
10 Washing Room
11 Water Treatment
12 Repair Shop

First floor 1:200

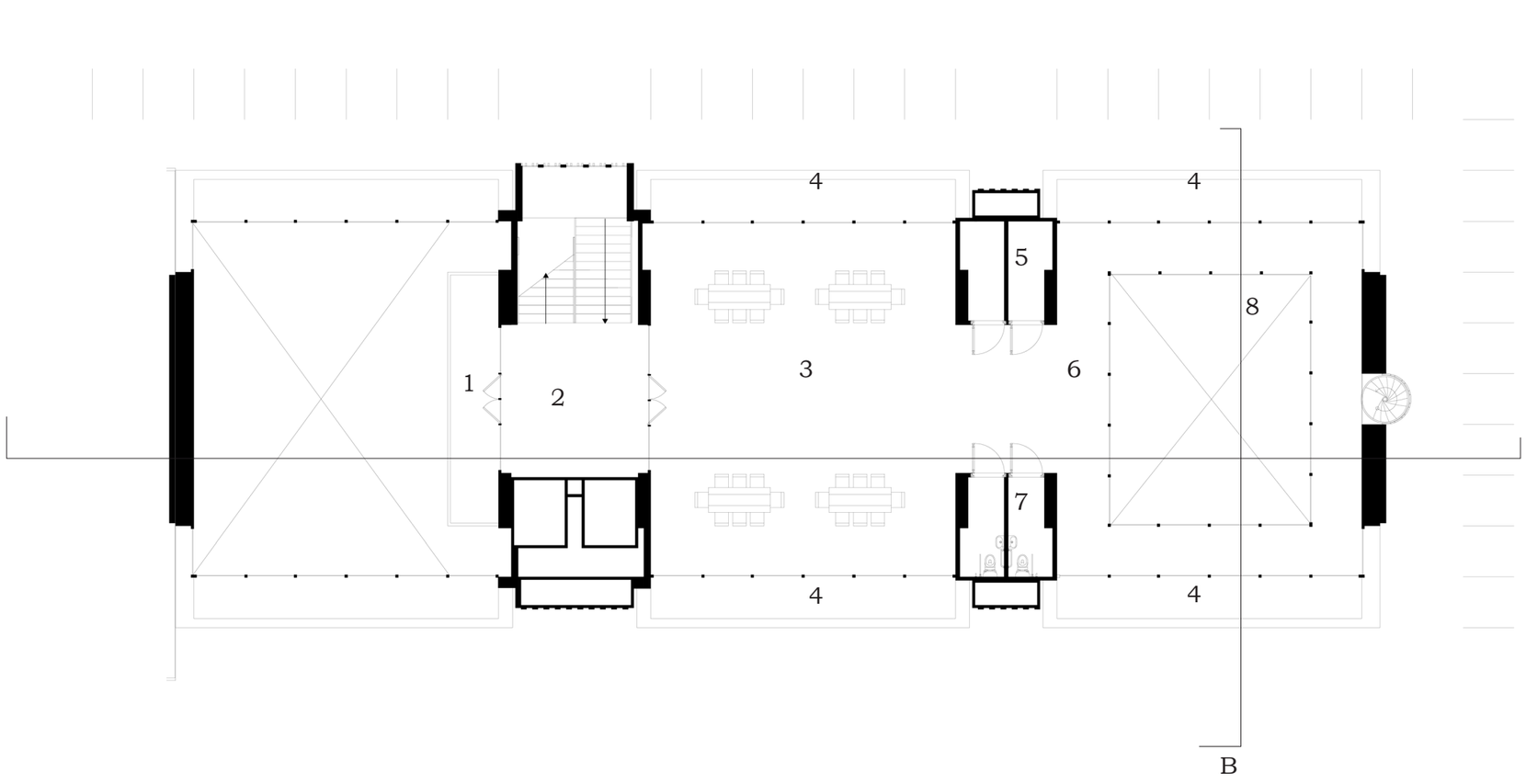
N



1 Greenhouse
2 Café
3 Balcony
4 Stairs and lifts
5 Entrance
6 Shop
7 Storage
8 Disabled WC
9 Staircase

Second floor 1:200

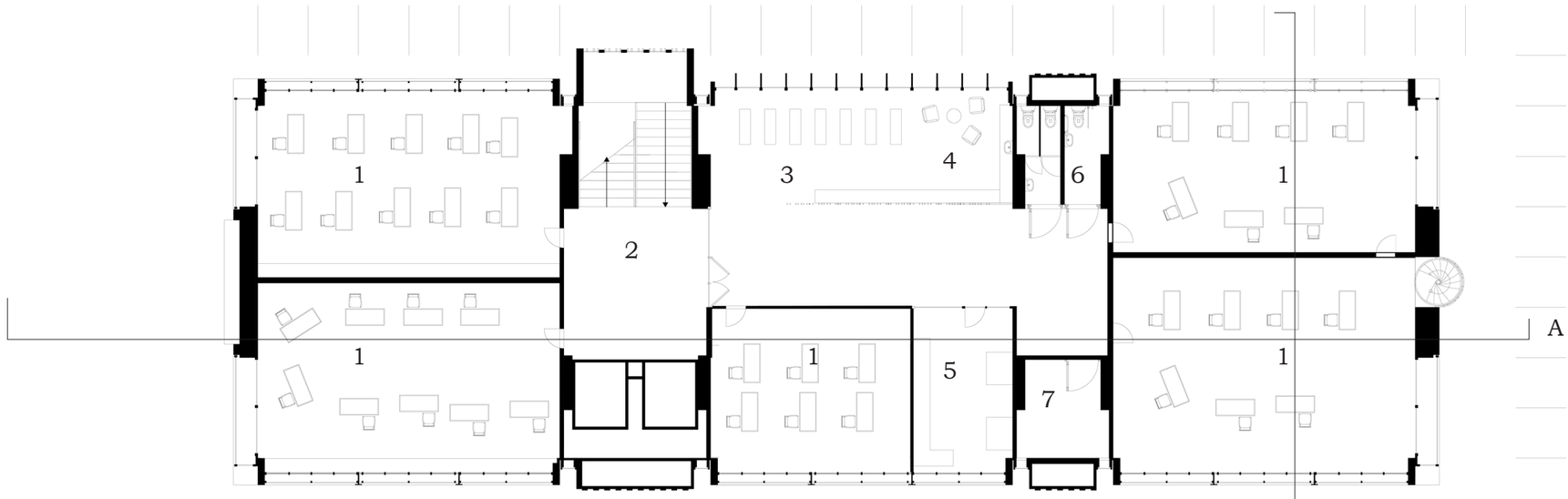
N



1 Balcony
2 Stairs and lifts
3 Mess Hall
4 Balcony
5 Installation room
6 Exhibition space
7 Disabled WC
8 Void

Third, Fourth, Fifth floor 1:200

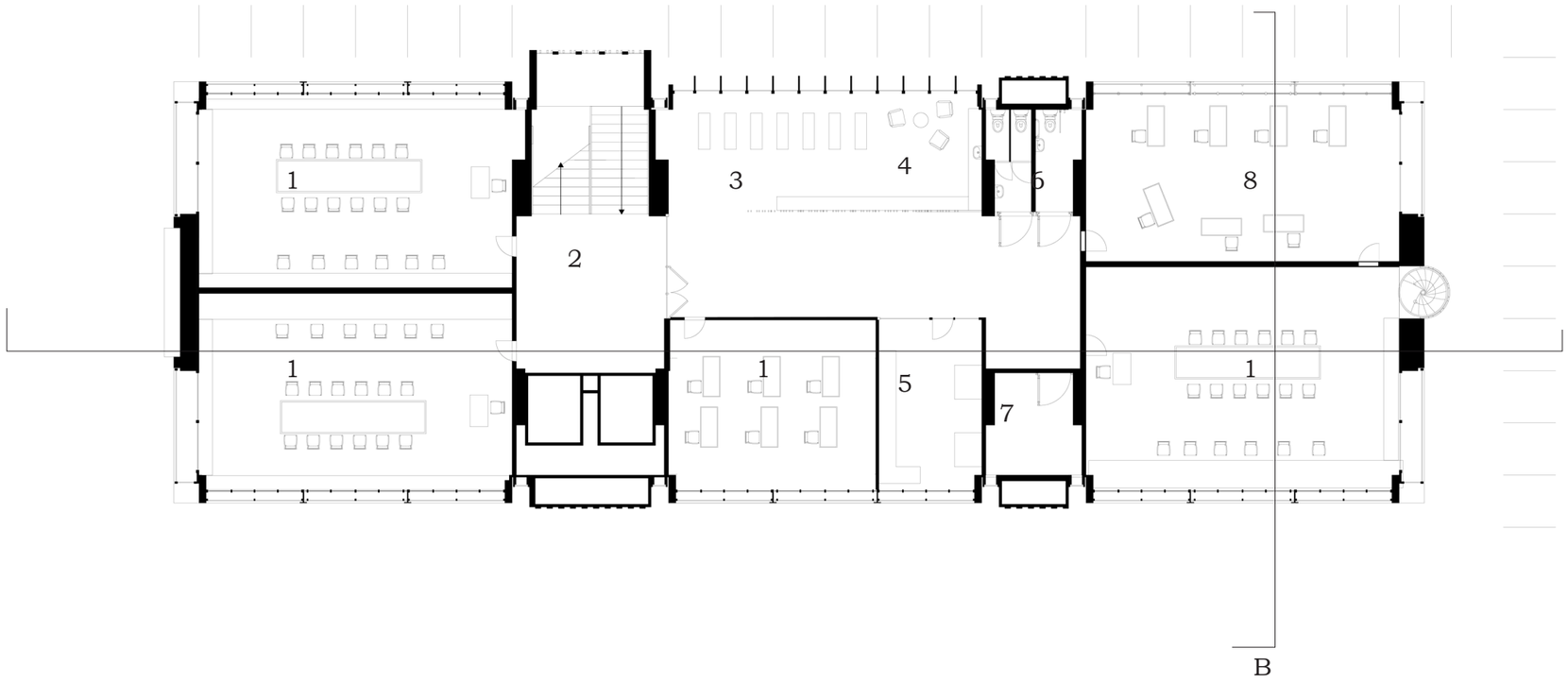
N



1	Classroom
2	Stairs and lifts
3	Exhibition space
4	Breakroom
5	Kiln room (3rd floor)
5	Storage (4th 5th floor)
6	WC
7	Storage / Installations

Sixth floor 1:200

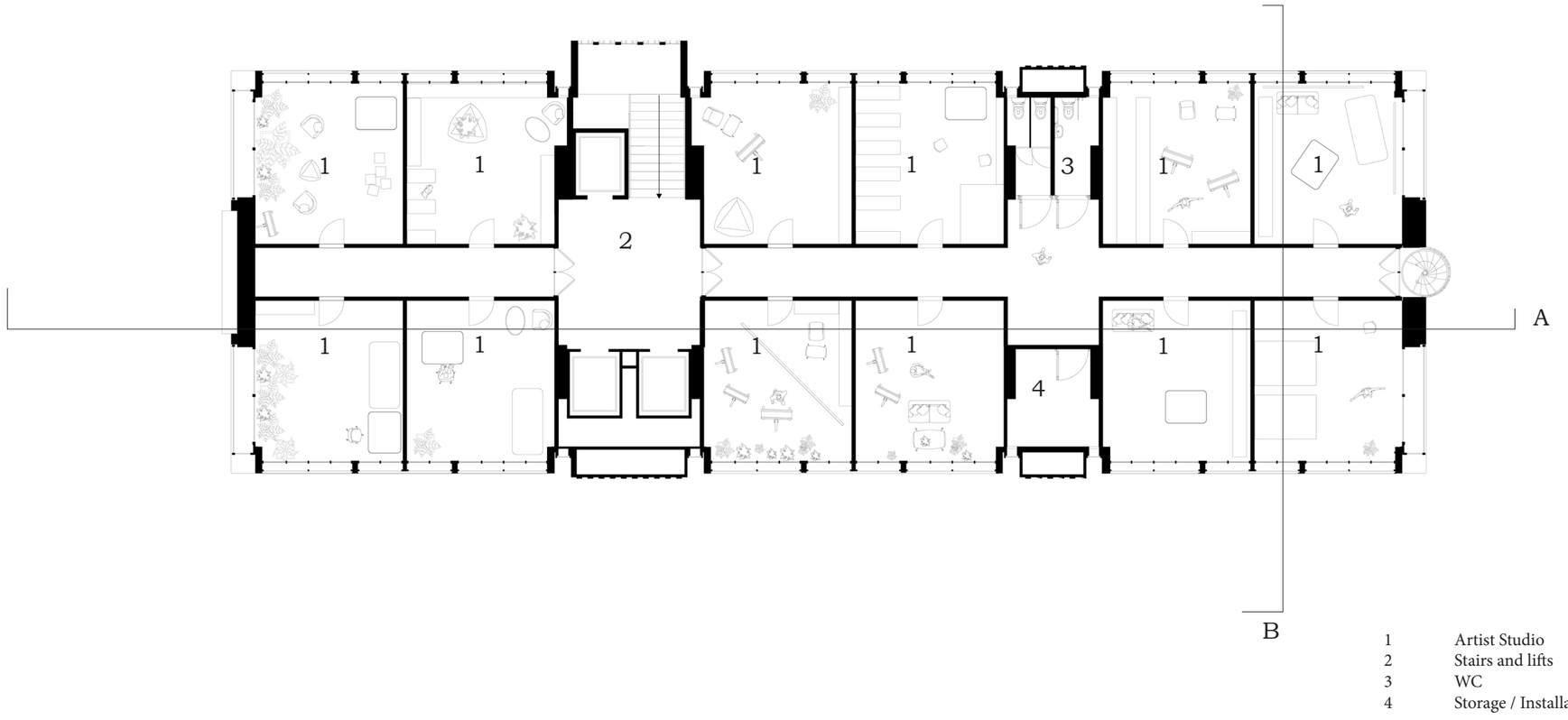
N



1 Classroom
2 Stairs and lifts
3 Exhibition space
4 Breakroom
5 Kiln room (3rd floor)
5 Storage (4th 5th floor)
6 WC
7 Storage / Installations
8 Administraation

Seventh floor 1:200

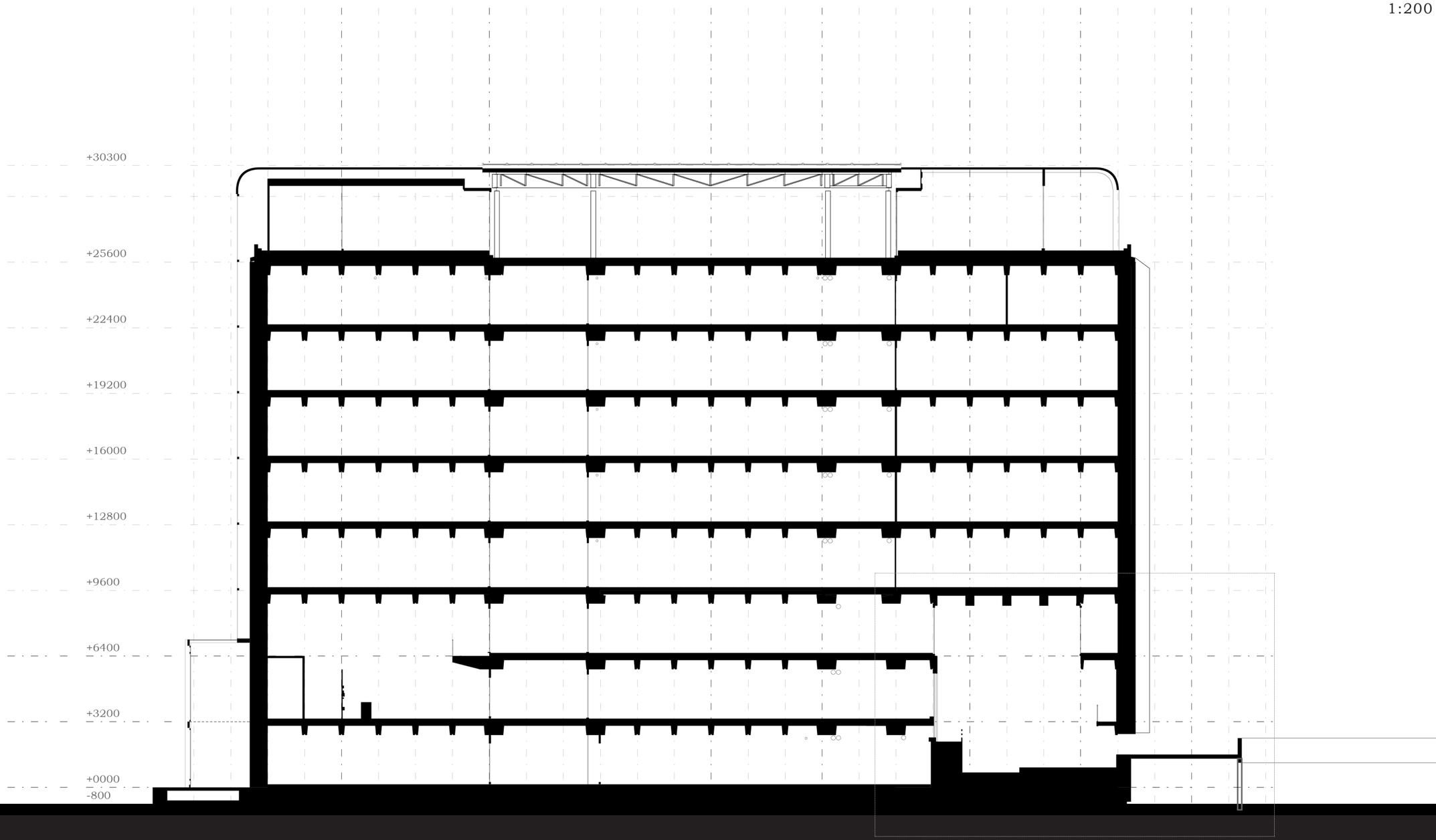
N



1	Artist Studio
2	Stairs and lifts
3	WC
4	Storage / Installations

Section A

1:200



1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800

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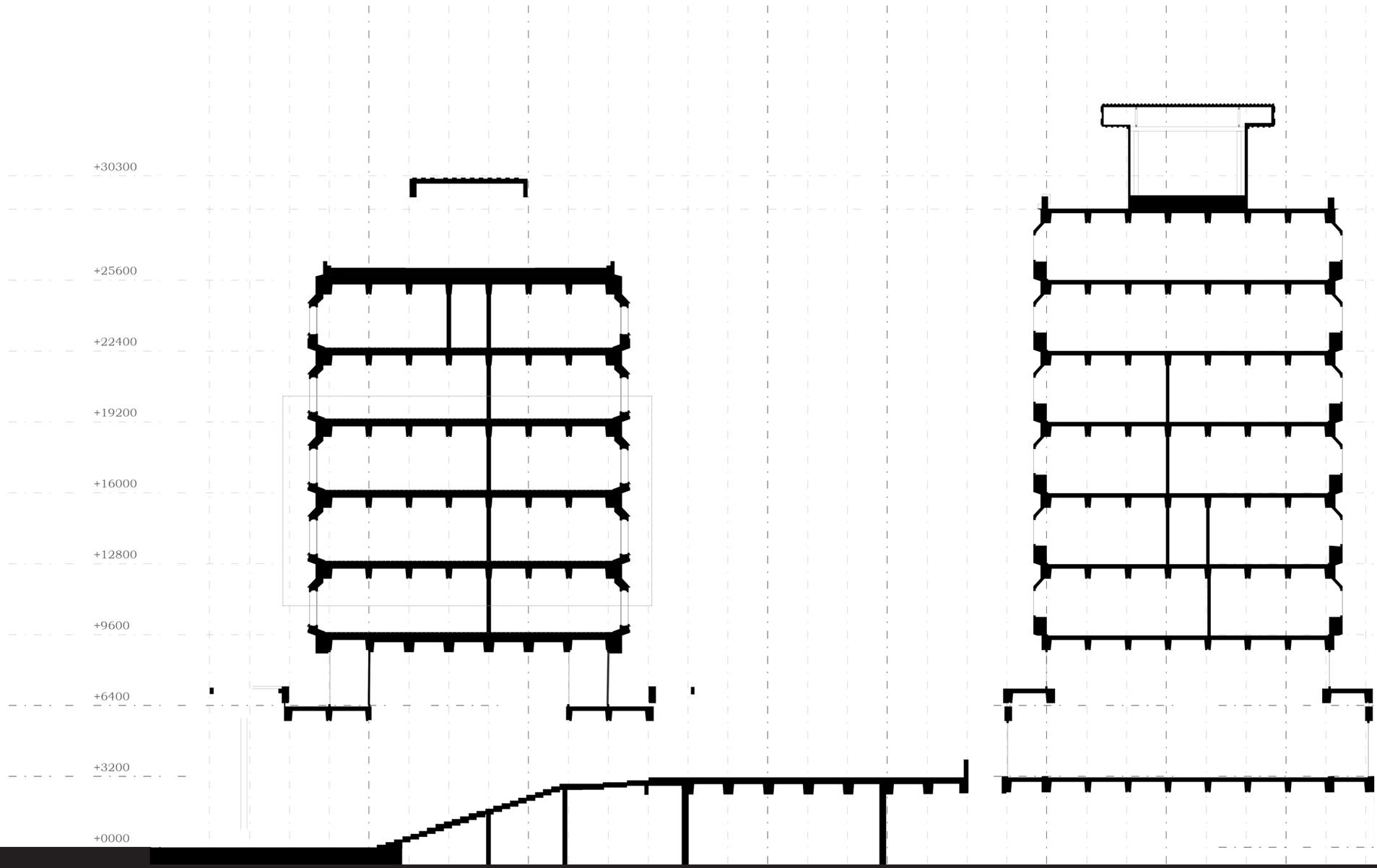
Section A Staircase

1:50

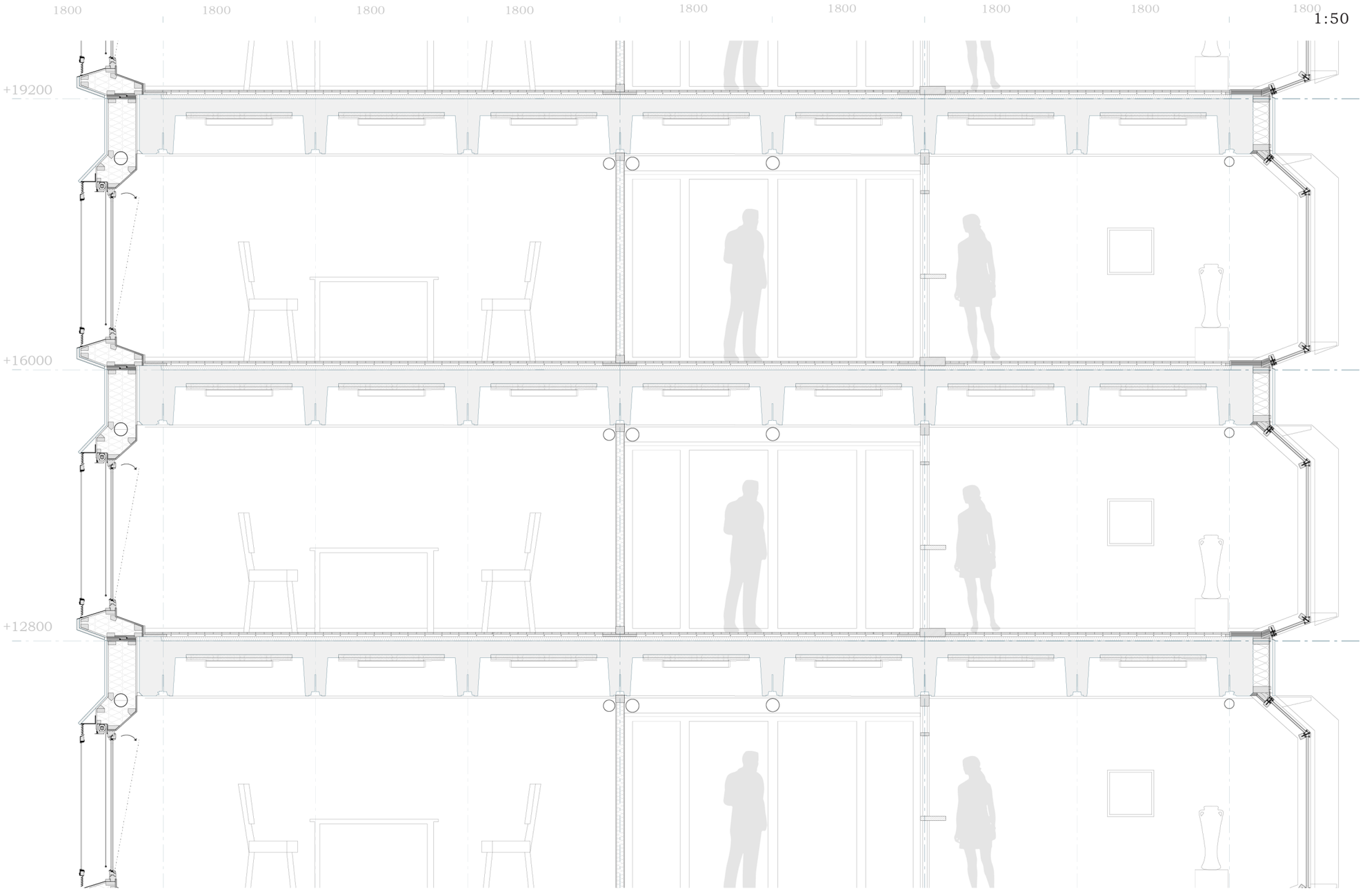
Section B

1:200



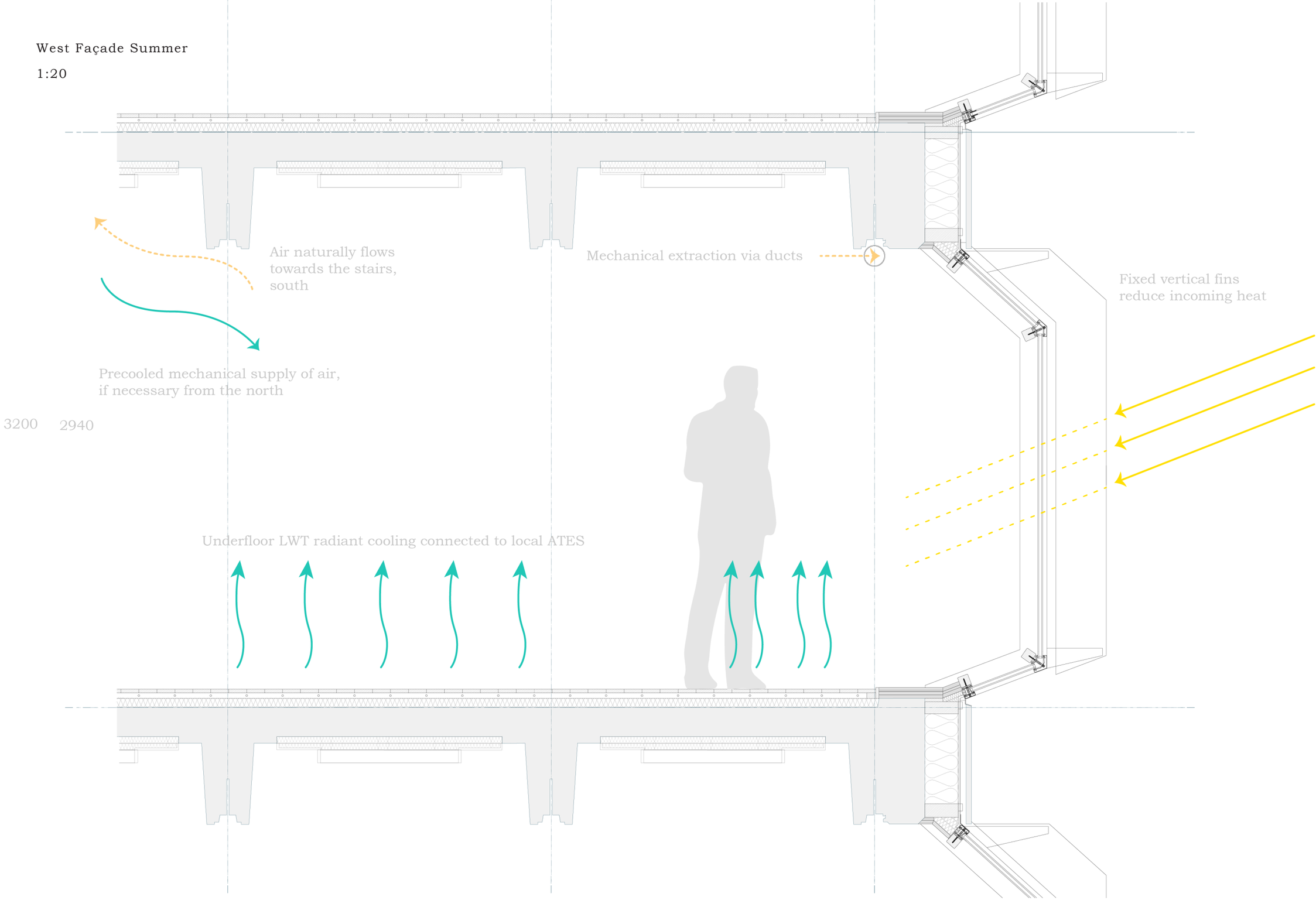
Section B Fragment

1:50



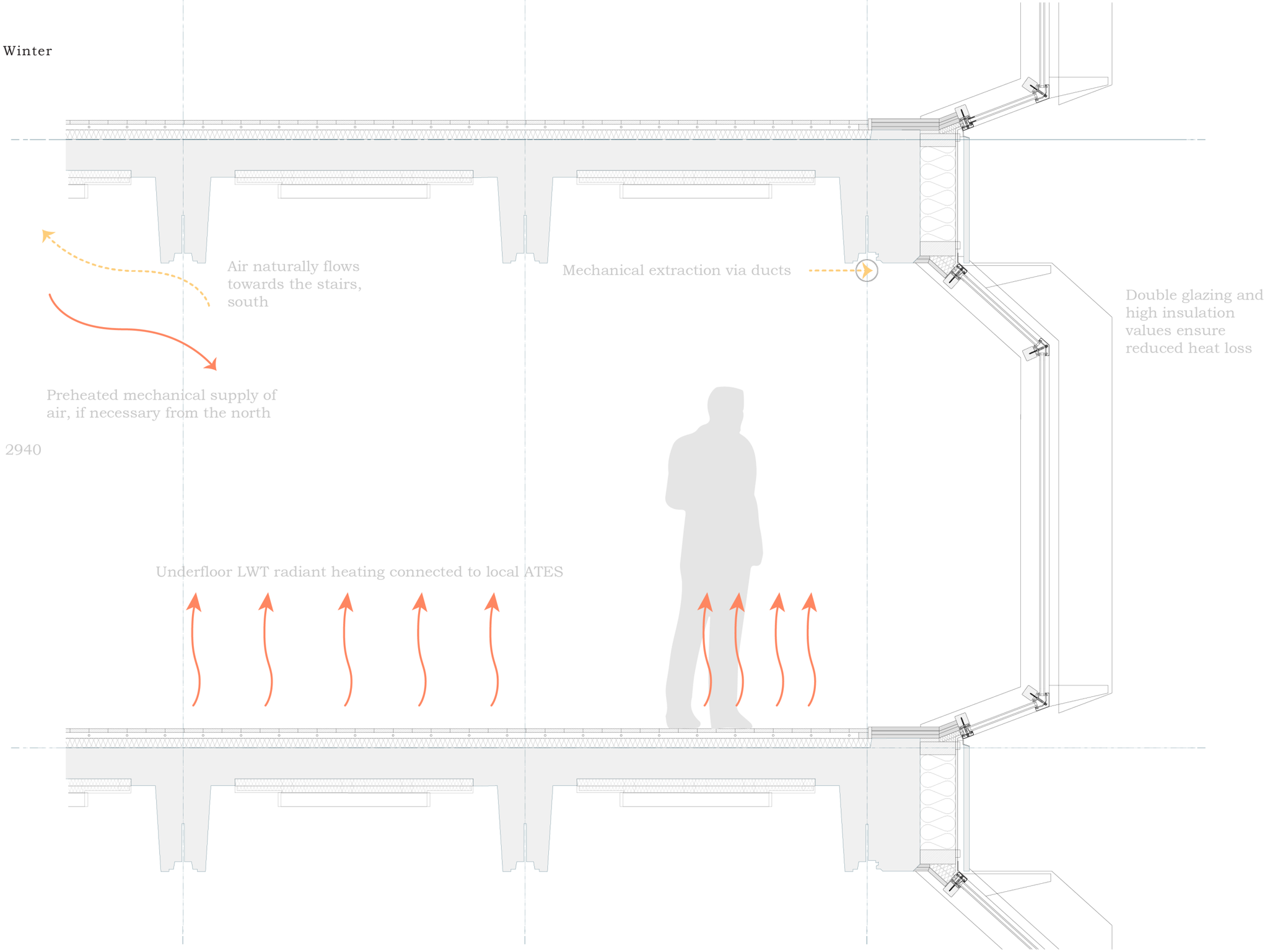
West Façade Summer

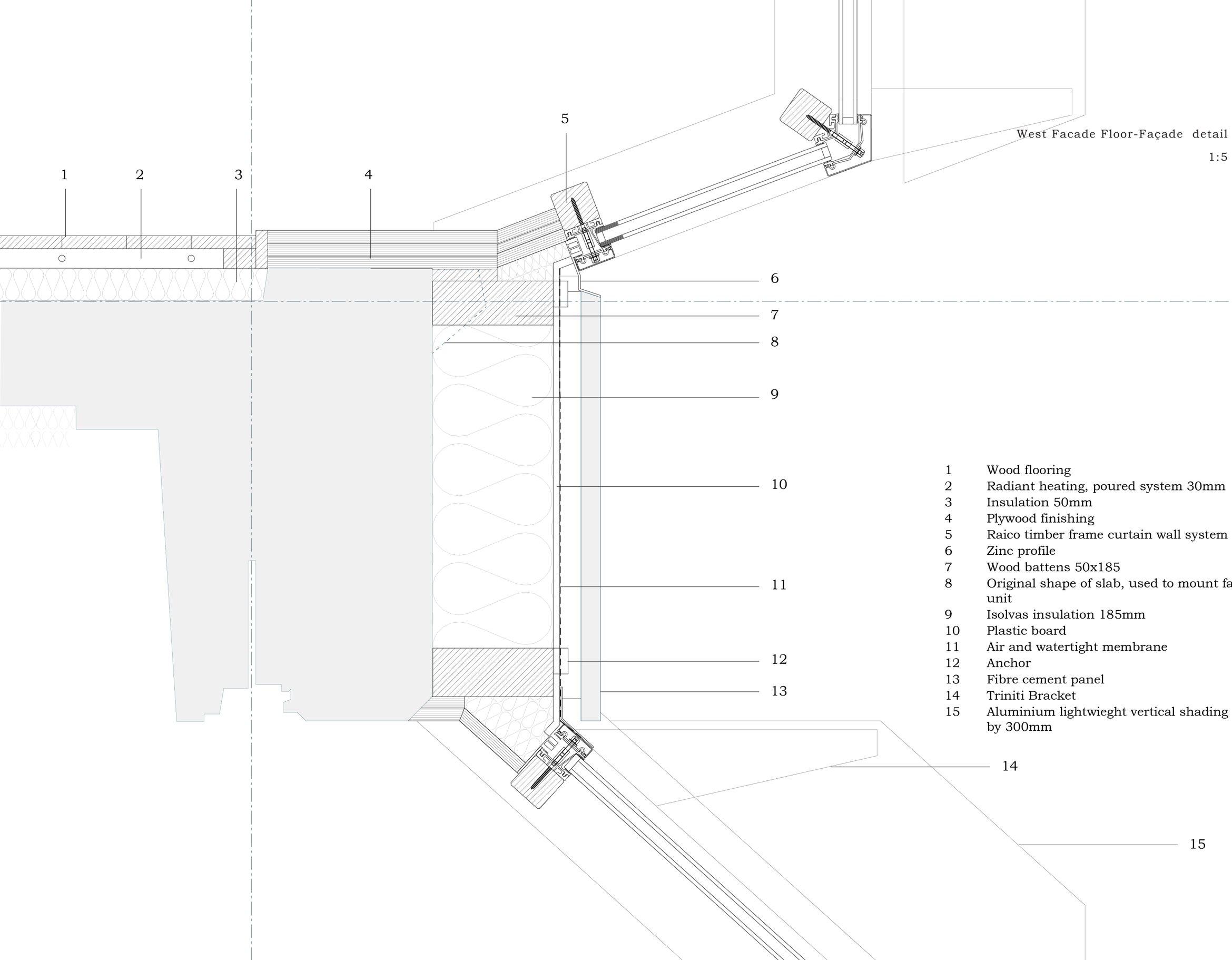
1:20



West Façade Winter

1:20





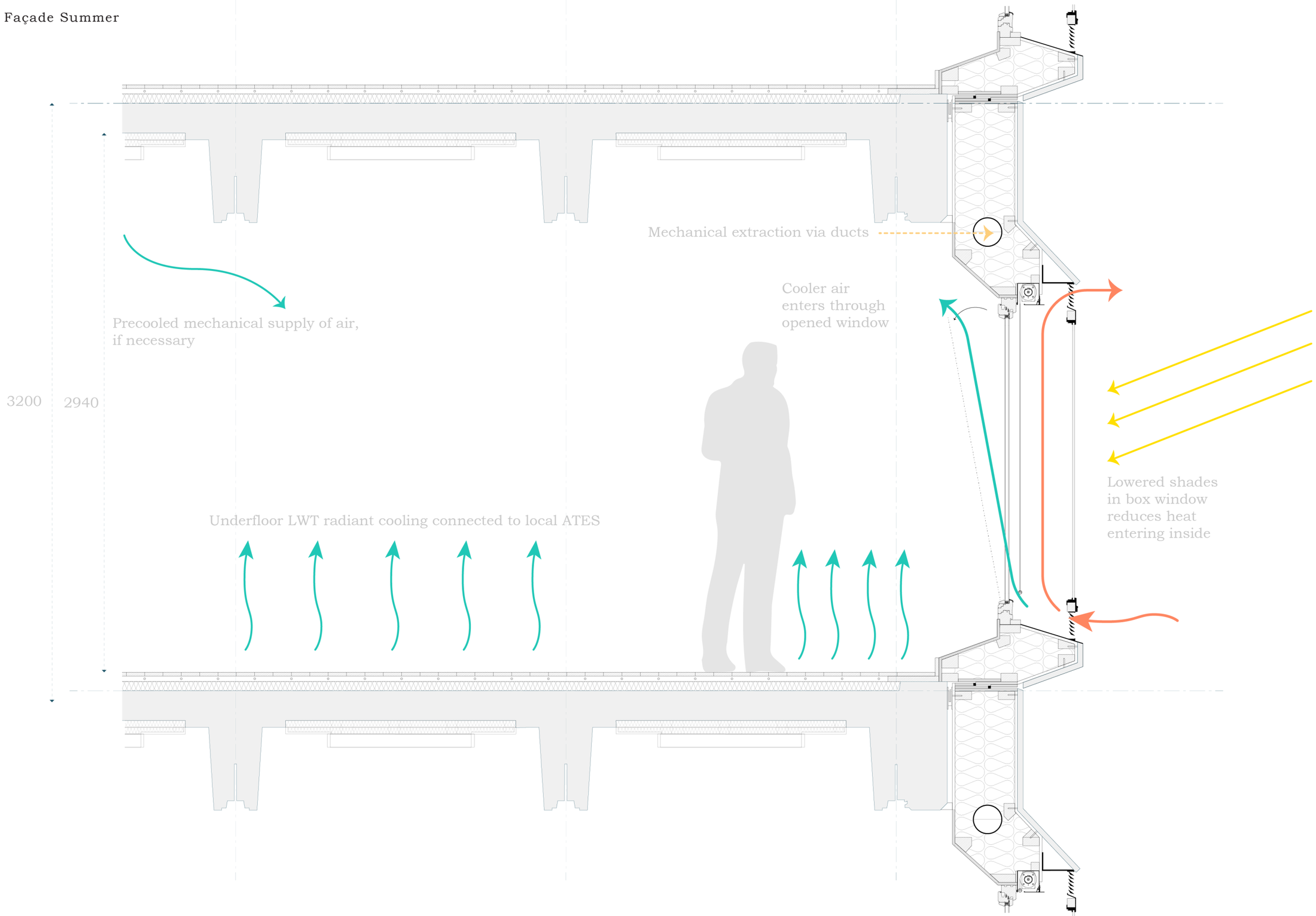
West Facade Floor-Façade detail

1:5

1 Wood flooring
2 Radiant heating, poured system 30mm
3 Insulation 50mm
4 Plywood finishing
5 Raico timber frame curtain wall system
6 Zinc profile
7 Wood battens 50x185
8 Original shape of slab, used to mount facade unit
9 Isolvas insulation 185mm
10 Plastic board
11 Air and watertight membrane
12 Anchor
13 Fibre cement panel
14 Triniti Bracket
15 Aluminium lightwieght vertical shading 50mm by 300mm

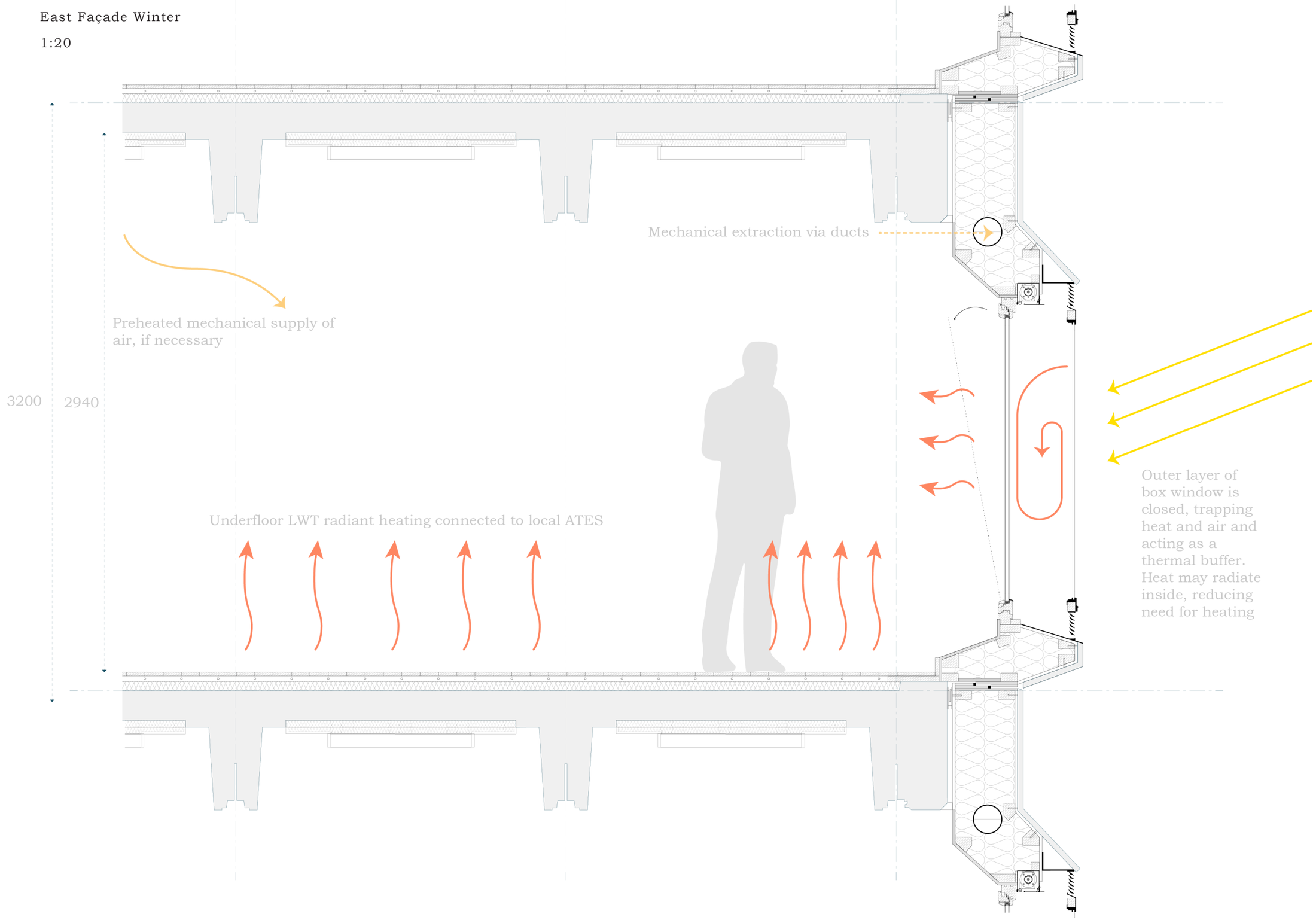
East Façade Summer

1:20



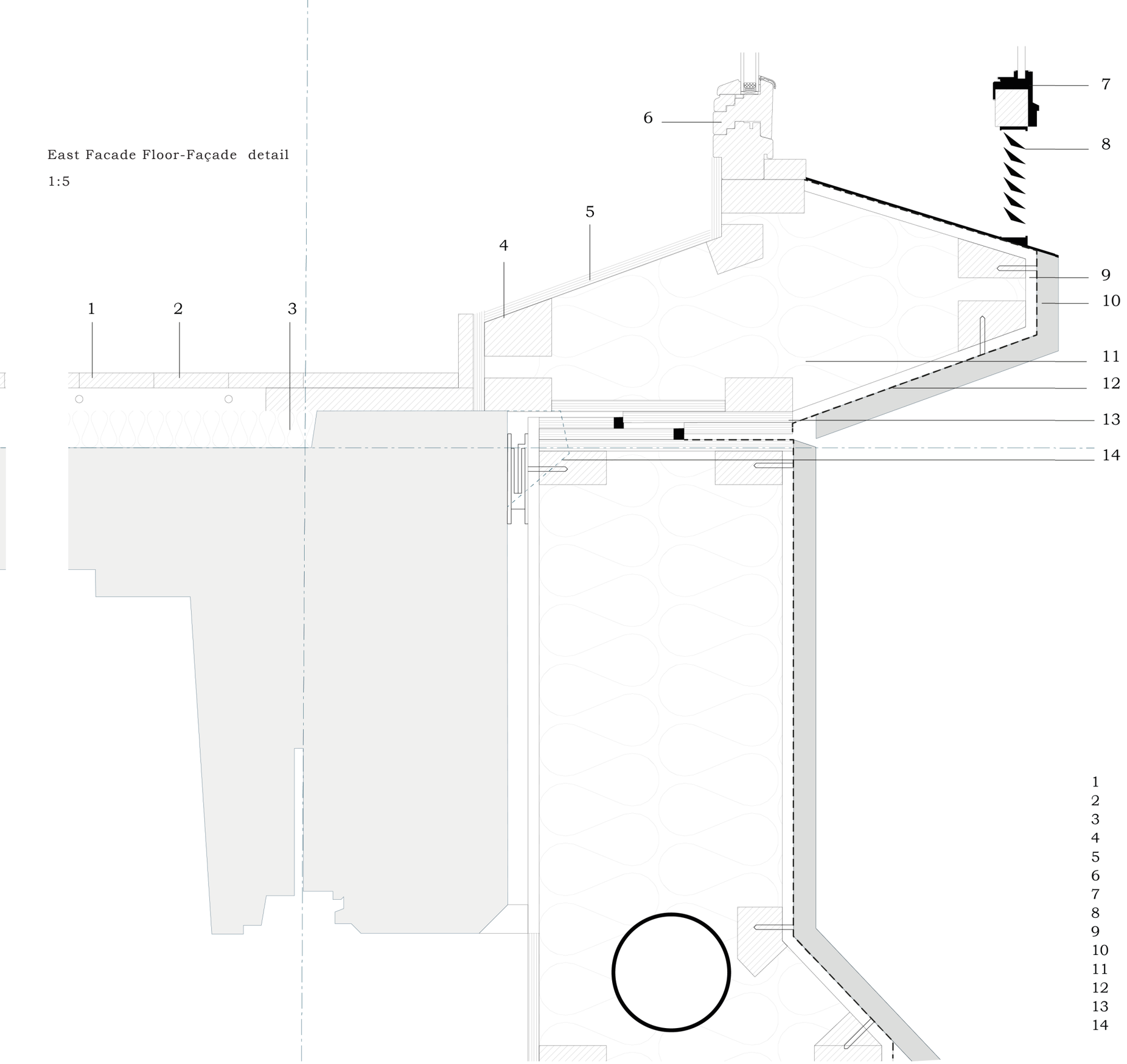
East Façade Winter

1:20

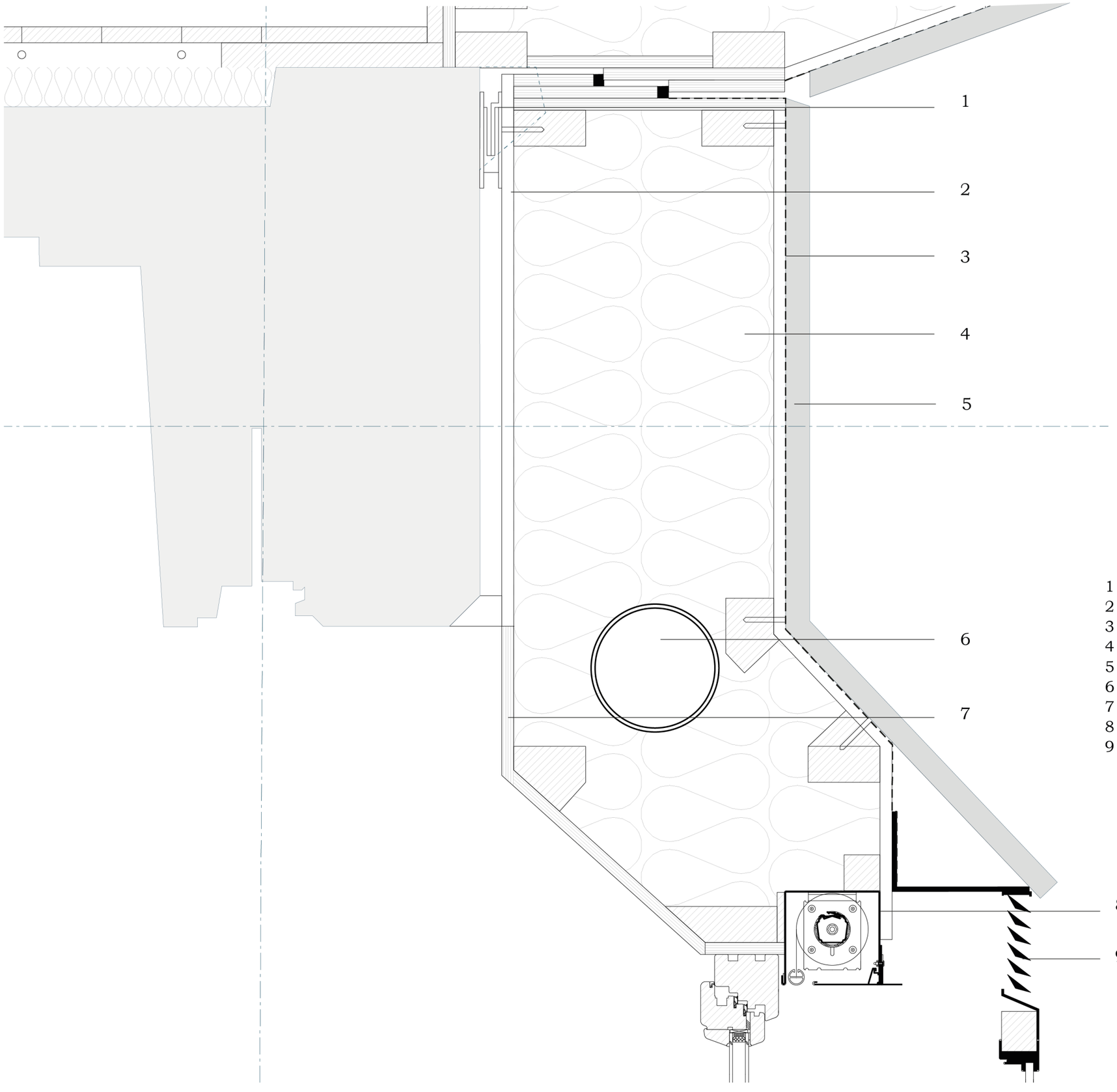


East Facade Floor-Façade detail

1:5



1	Wood flooring
2	Radiant heating, poured system 30mm
3	Insulation 50mm
4	Wood battens (45x90)
5	Plywood finishing
6	Olsen Thermo80 double glazing, tilt and turn window
7	Steel frame Janisol single glazing
8	Electronically controlled ventilation grills
9	Plastic board
10	Fibre cement cladding 30mm
11	Mineral Wool 300mm
12	Watertight and airtight membrane
13	Strutural plywood 20mm
14	Original shape of slab, used to mount facade unit



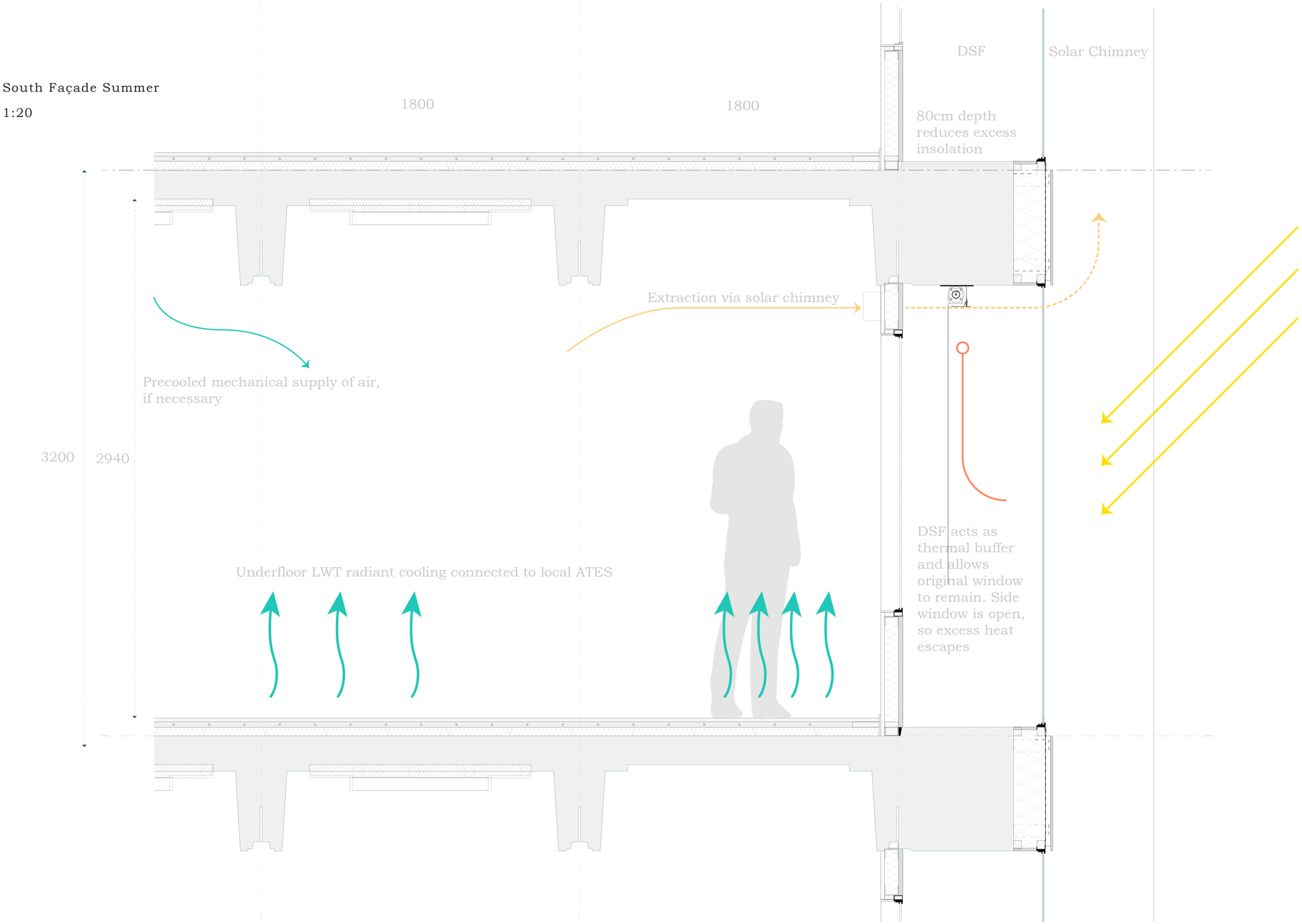
East Facade Floor-Façade detail

1:5

1 Hanging bracket
2 Plastic board
3 Watertight and airtight membrane
4 Mineral wool 300mm
5 Fibre cement cladding 30mm
6 Ventilation pipe 150mm
7 Plywood finishing 15mm
8 Levolux electronic blinds
9 Electronically controlled ventilation grills

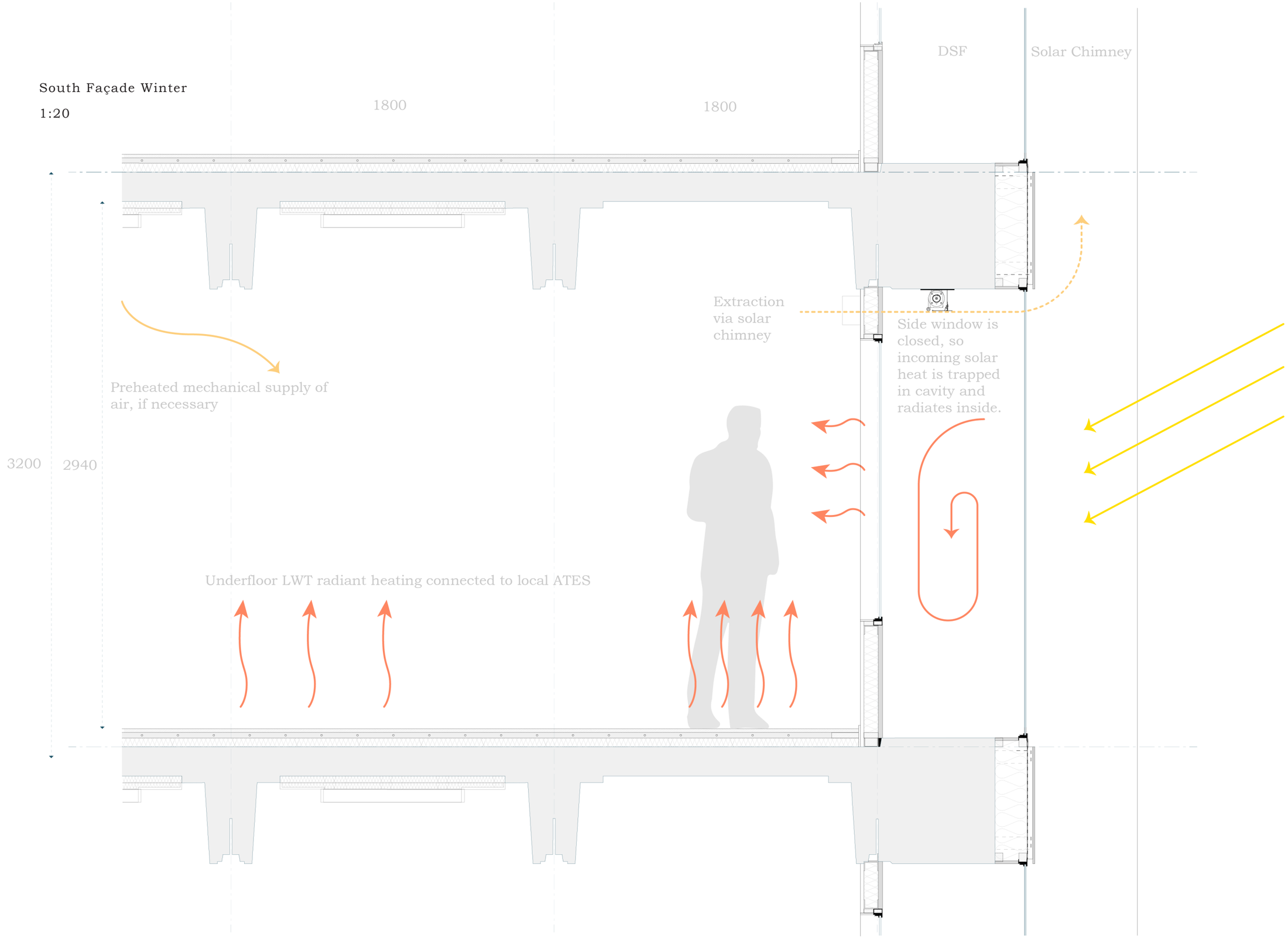
South Façade Summer

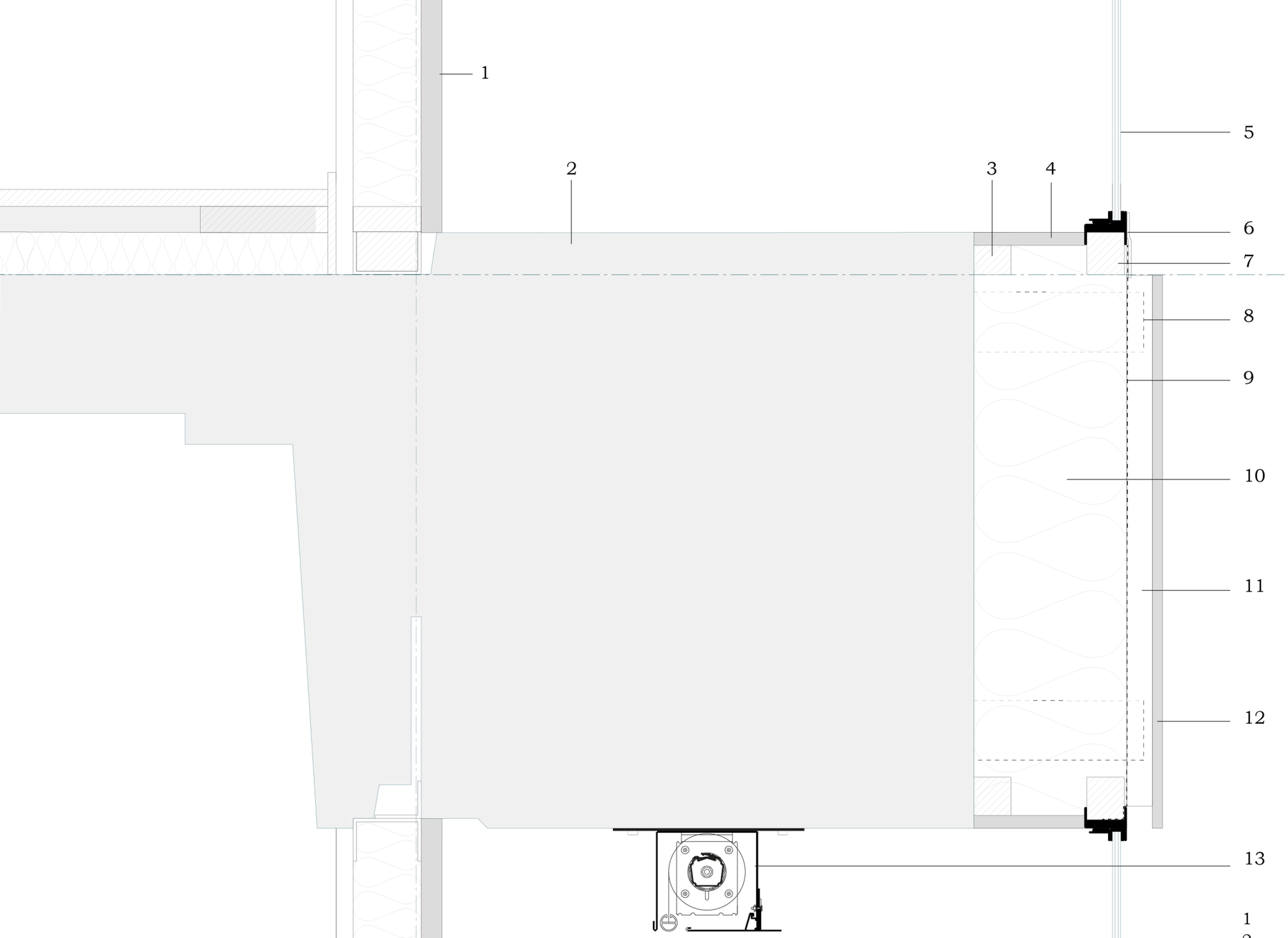
1:20



South Façade Winter

1:20

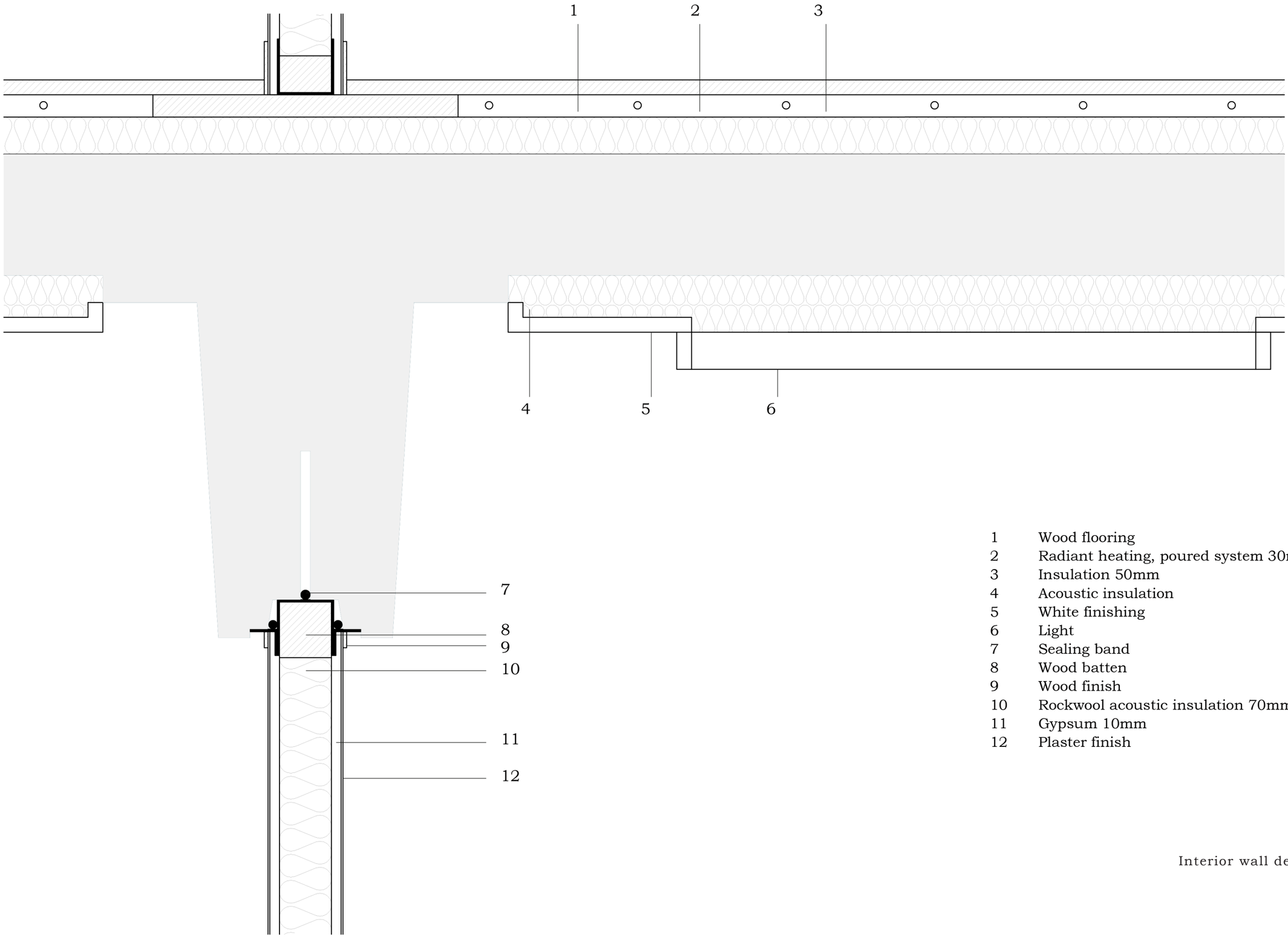




South Façade detail

1:5

1	Original Facade and window (assumed)
2	Concrete construction
3	Wood battens (30x45)
4	Fiber cement panel
5	Steel frame Janisol Artisan double glazing
6	Zinc profile
7	Wood battens (50x45)
8	Hanging bracket
9	Air and watertight membrane
10	Isovlas glasswool insulation 180mm
11	Ventilated cavity 30mm profile
12	Equitone fiber cement panel 12mm
13	Levolux Blinds



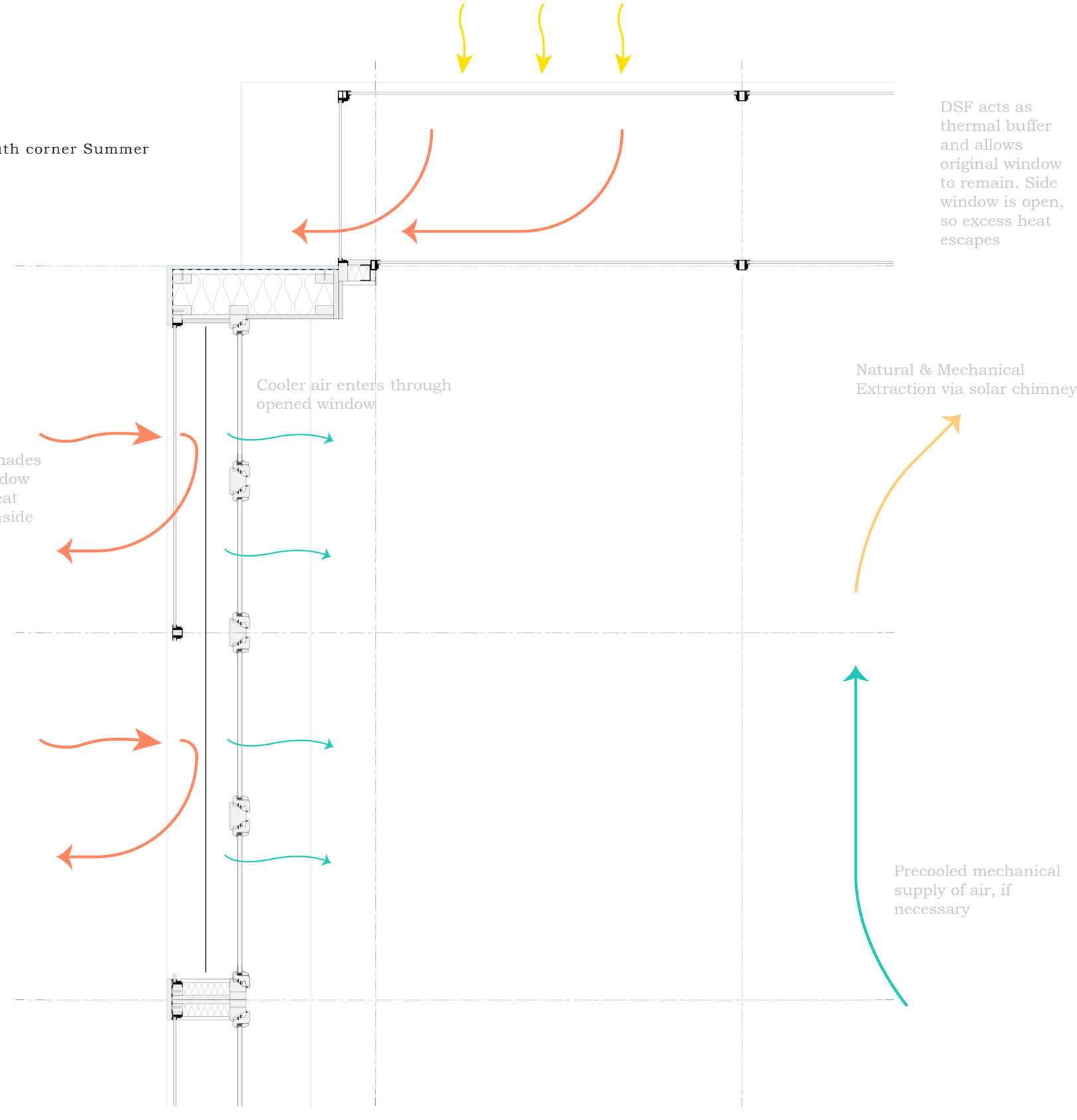
1 Wood flooring
2 Radiant heating, poured system 30mm
3 Insulation 50mm
4 Acoustic insulation
5 White finishing
6 Light
7 Sealing band
8 Wood batten
9 Wood finish
10 Rockwool acoustic insulation 70mm
11 Gypsum 10mm
12 Plaster finish

Interior wall detail

1:5

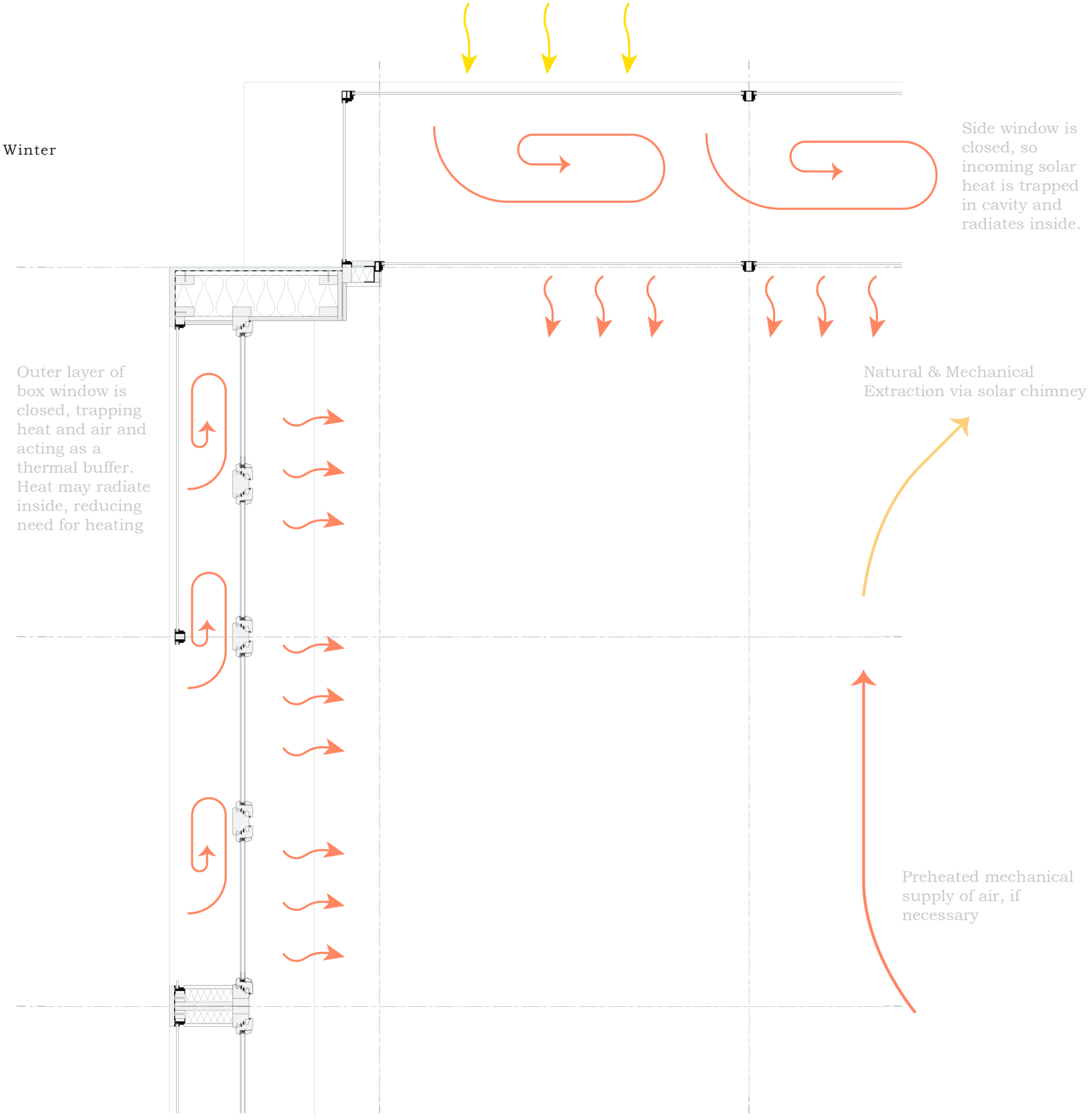
Floor plan East-South corner Summer

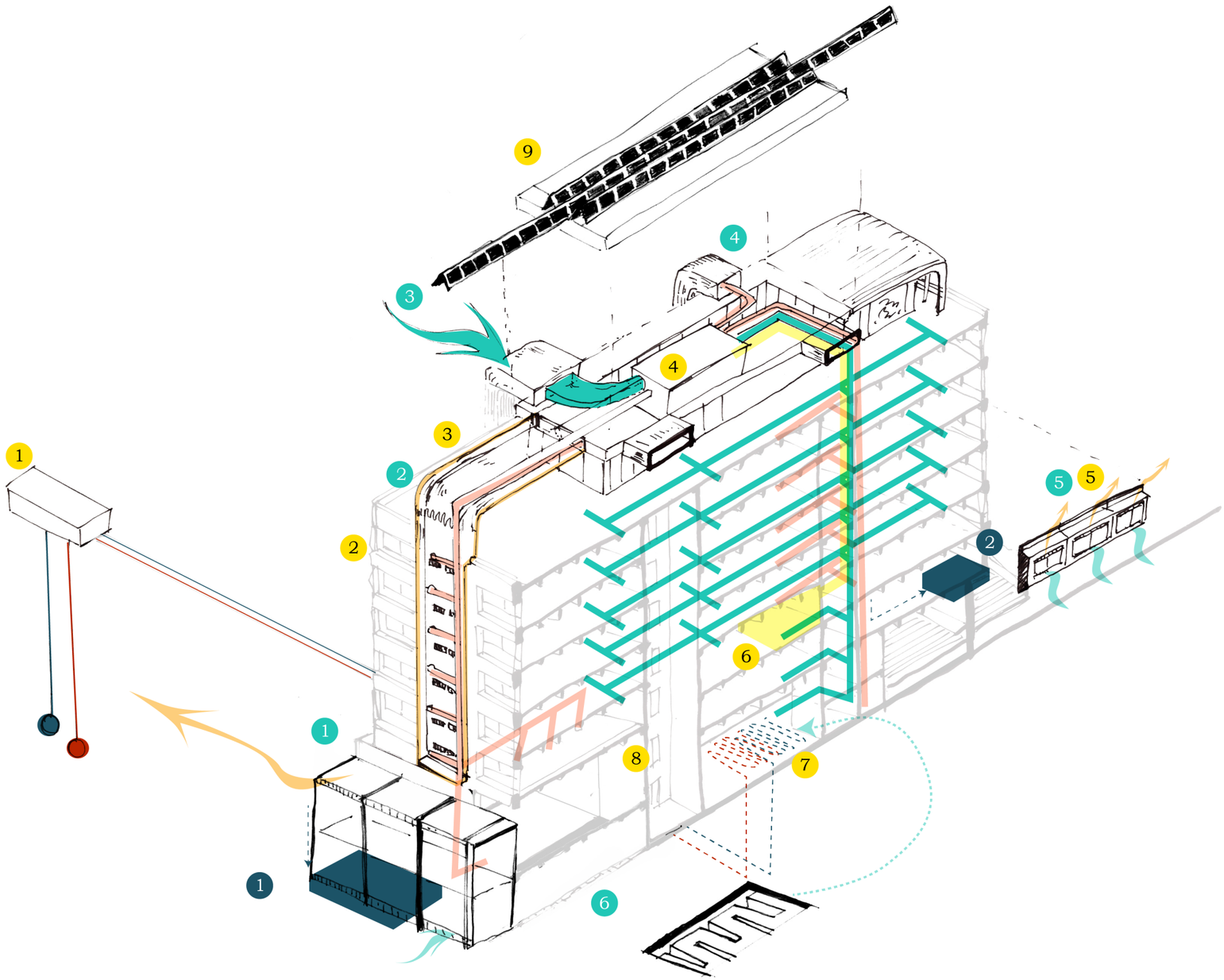
1:20



Floor plan East-South corner Winter

1:20





Ventilation

1 Greenhouse for natural extraction / supply
2 Solar Chimney for natural and assisted mechanical extraction
3 Southwestern shaft for mechanical supply
4 Northern shafts used for mechanical balanced system pipe network
5 Box window for natural supply and extraction
6 Ventilation labyrinth to preheat natural supply in winter

Water

1 Rainwater storage below platform
2 Greywater treatment and storage below new staircase

Energy

1 ATES for storing heat in summer and using in winter
2 New cladding with U-Value of 0.15, passivhaus standard
3 Solar Chimney for natural and assisted mechanical extraction
4 Heat Exchanger using solar chimney extracted air
5 Box window reducing heat loss and excess heat gain
6 Pottery kiln's waste heat used to preheat return air
7 Low Water Temperature underfloor radiant heating
8 Existing high thermal mass assists in thermal comfort
9 E-W oriented solar panels, lower efficiency per panel but higher yearly yield


Impressions

Own photo, 05/10/18

View from Park

Own photo, 05/10/18

View from Bovenoverbrug

Ramp Smedinghuis [Photograph found in Lelystad]. (n.d.). Retrieved June 28, 2019, from http://images.memorix.nl/naa/thumb/500x-500/786f976e-9171-9289-886e-055b60fff30a.jpg

View from slope

Ground Floor Reception

Repair shop/ Machine lab

View of First Floor from Staircase

View of Mess Hall from above Staircase

Own photo, 10/12/18

Western Entrance

Raadzaal in 70's, Retrieved from Flip. P Rosdorff, 2019

Café

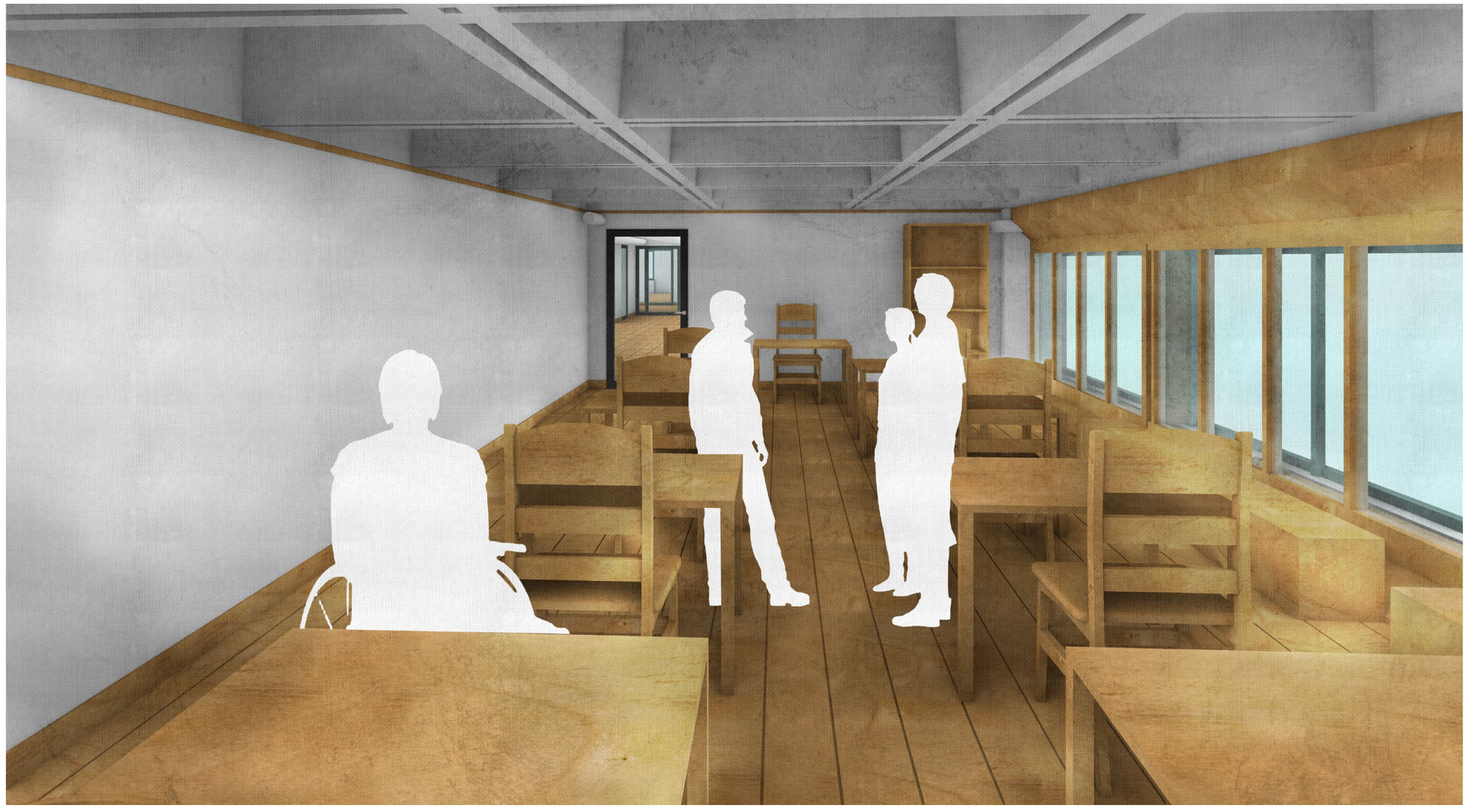
Trouwzaal in the 70's, Retrieved from Flip. P Rosdorff, 2019

View of Staircase from Mess Hall

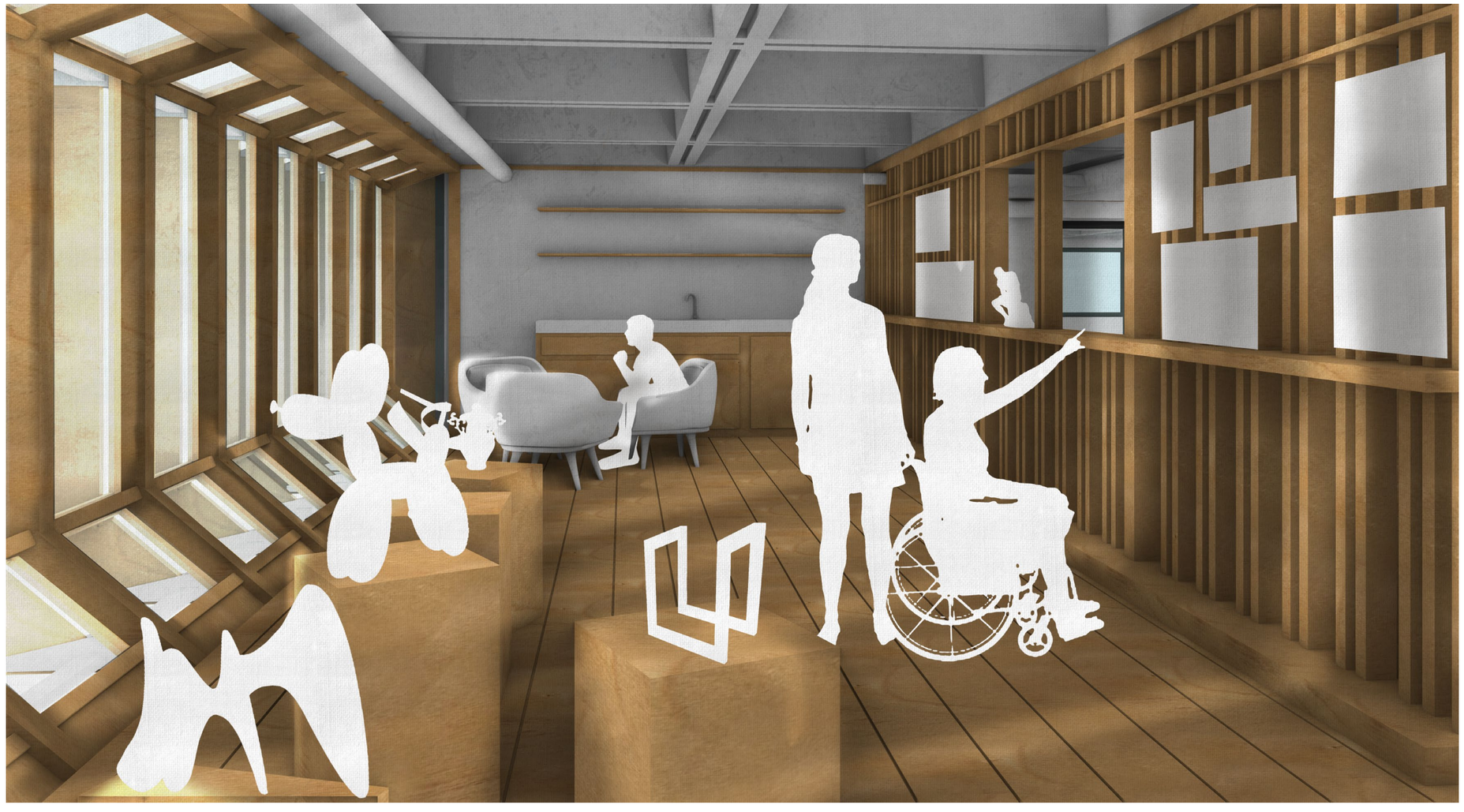
Studie naar de transformatie van het voormalig Politiebureau naar woongebouw. (2017, September).
Rotterdam: PowerHouse Company.

Corridor Artist Studios

Offices in the ZIJP building in the 70's, Retrieved from Flip. P Rosdorff, 2019



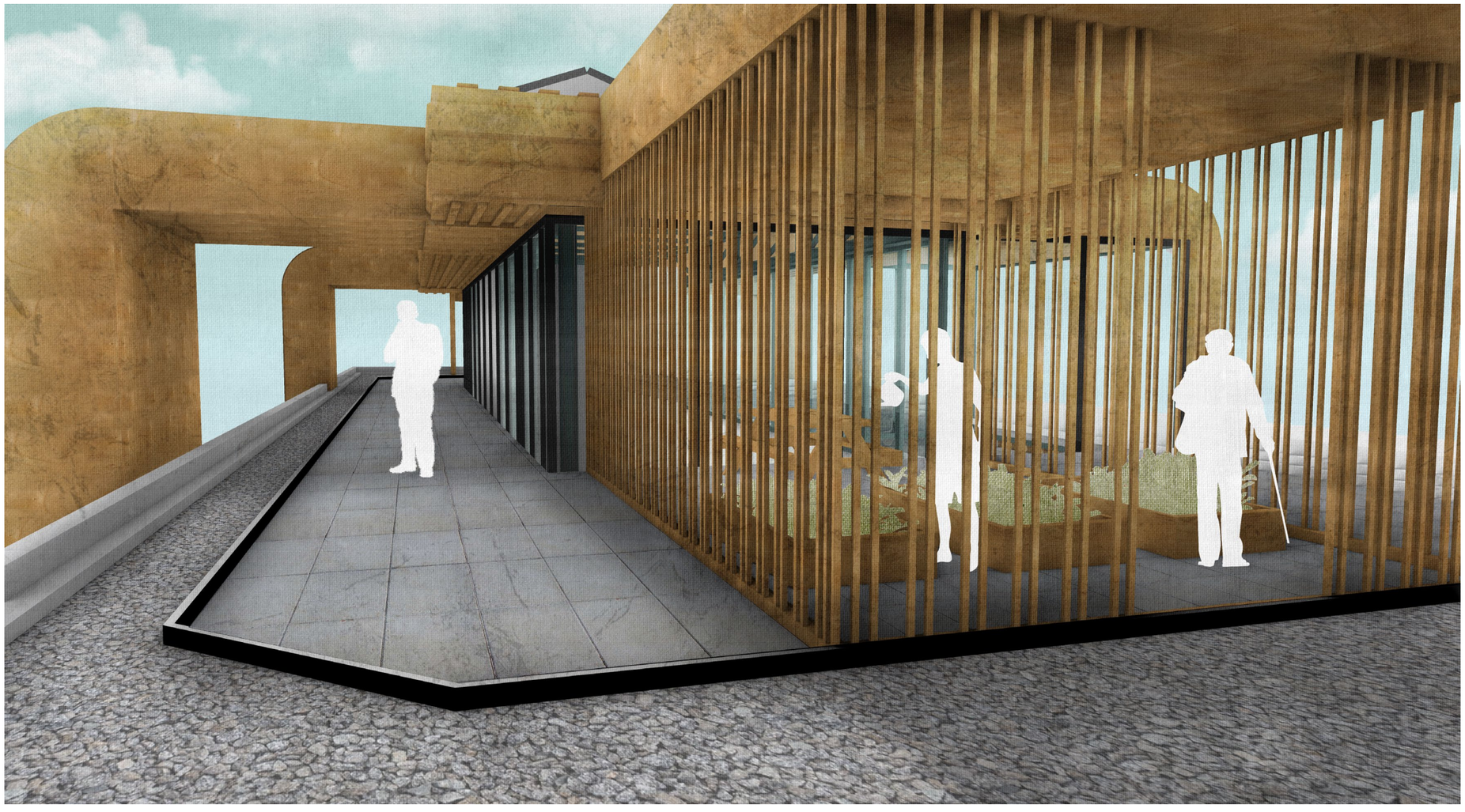
Classroom



Breakroom

Corridor

Studie naar de transformatie van het voormalig Politiebureau naar woongebouw. (2017, September).
Rotterdam: PowerHouse Company.



Roof Garden

Section Impression

References

Reference: Bergama Cultural Centre

Mayer, T. (2018, September 11). Bergama Cultural Center [Digital image]. Retrieved December, 2018, from https://www.archdaily.com/901652/bergama-cultural-center-emre-arolat-architects

Reference: Beijing Center for the Arts

Beijing Center for the Arts, Kengo Kuma and Associates, & Hu, M. (n.d.). Beijing Qianmen [Digital image]. Retrieved December, 2018, from https://kkaa.co.jp/works/architecture/beijing-qianmen/


Reflection

Kantoor Eurotower wordt omgevormd tot 81 appartementen

Geplaatst: 20-3-2019

Gemeente Lelystad en Coriander Real Estate hebben een overeenkomst gesloten over de transformatie van kantoorpand Eurotower aan het Noorderwagenplein tot 81 appartementen. De transformatie maakt deel uit van het gebiedsplan Lelycentre dat eind 2017 in samenwerking met vastgoedeigenaren, gebruikers en bewoners van het Lelycentre tot stand is gekomen en door de gemeenteraad is vastgesteld.

Lelystad, G. (2019, March 20). Kantoor Eurotower wordt omgevormd tot 81 appartementen. Retrieved June 28, 2019, from https://www.lelystad.nl/4/Lelystad/Nieuws-2019/Maart/Kantoor-Eurotower-wordt-omgevormd-tot-81-appartementen.html

Although office vacancy has reduced for the Netherlands in the past four years, it continues to be a problem. In Lelystad, office vacancy is currently being approached with an increasingly common tactic in the Netherlands: conversion into housing. My project is situated in an area where much of the vacancy is and will be addressed like this. Instead of following suit, I transform an office not into housing but into a facility of social value to the area and community for existing residents and in anticipation of newcomers.

Studie naar de transformatie van het voormalig Politiebureau naar woongebouw. (2017, September).
Rotterdam: PowerHouse Company.

There is currently interest in transforming the former police station, and whilst the Powerhouse Company has researched and analysed the Smedinghuis, their proposal varies greatly to my own. In my investigation, I attempt to hone in to the architectural qualities that make the building recognisable and make a new design whilst maintaining these, but also whilst adding something new, distinguished, and warm. All while keeping sustainability and integrated building technology design at the core of the intervention. The defining point in my research is the cultural value assessment, which is more often applied to older works of heritage and creates an interesting result when applied to this so-called “new” heritage.

Appendix

Prijs *f* 0.45

PLAN VAN AFSLUITING EN DROOGMAKING DER ZUIDERZEE.

(Opgemaakt door de Zuiderzee-Vereeniging. — In groote trekken weergegeven door A. A. BEEKMAN).

ZUTPHEN. — W. J. THIEME & Cº.

TEGENWOORDIGE TOESTAND.

Diepte. Zie het diepte-kaartje. —

T. Z. der lijn **Enkhuizen-Kampen,** gemiddeld . . . . . 3,50 M.
T. N. » » „ „ zijn eenige diepere *geulen*, o. a.:
de overgebleven geul van den ouden **Vliestroom**, diep 5 tot 12 M., toenemende in het zeegat het Vlie tot . . . . . 21 M.,
de **Texelstroom**, diep . . . . . 10 à 30 M.,
eindigend in de zeegaten bij **den Helder**, diep tot . . . . 36 M.
In het N. deel der **Zuiderzee** vallen de wad- of waardgronden bij gem. eb (gewoon laag water) droog.

Verschil gemiddelde eb en vloed:

bij den Helder . . . . . 1,25 M.
» Medemblik . . . . . 0,60 M.
» Durgerdam . . . . . 0,45 M.
» Elburg . . . . . 0,25 M.
» den mond van het Zwolsche Diep . . . . . 0,35 M.
» de Lemmer . . . . . 0,40 M.
» Stavoren . . . . . 0,50 M.
» Harlingen . . . . . 0,75 M.

afgerond.

Bij storm sterke **OPWAAIING**; vooral bij de (het meest voorkomende) Z.W., W. en N.W. stormen: dan staat het water tegen de **Gelderesche, Overijselsche** en zuidelijke **Friesche** kusten soms 4 à 5 M. hooger dan aan de **N.-Hollandsche** kust.

Bodem. (Zie het kaartje).

In het zuidelijk deel *grootendeels klei.*
» » noordelijk deel, waar door de sterke beweging van het water de fijne kleideeltjes in 't algemeen niet kunnen blijven liggen, *nagenoeg uitsluitend zand.*

PLAN DER ZUIDERZEE-VEREENIGING

(ZIE DE KAART).

Een groot gedeelte der **Zuiderzee AFSLUITEN** door een **DIJK** van **VAN EWIJKSLUIS** (**Noord-Hollandsche** kust) over **Wieringen NAAR PIAAM** (**Friesche** kust t. Z. v. **Makkum**).

Daarbinnen:

4 DROOGMAKERIJEN en
1 Groot MEER (YSELMEER) met 2 zijtakken, waarop uitkomen de **Ysel,** het **Zwolsche Diep** met **Overijselsche Vecht,** enz., de **Vecht,** de **Eem,** het overtollige water van het **Noordzeekanaal** en wat daarop loost, enz.

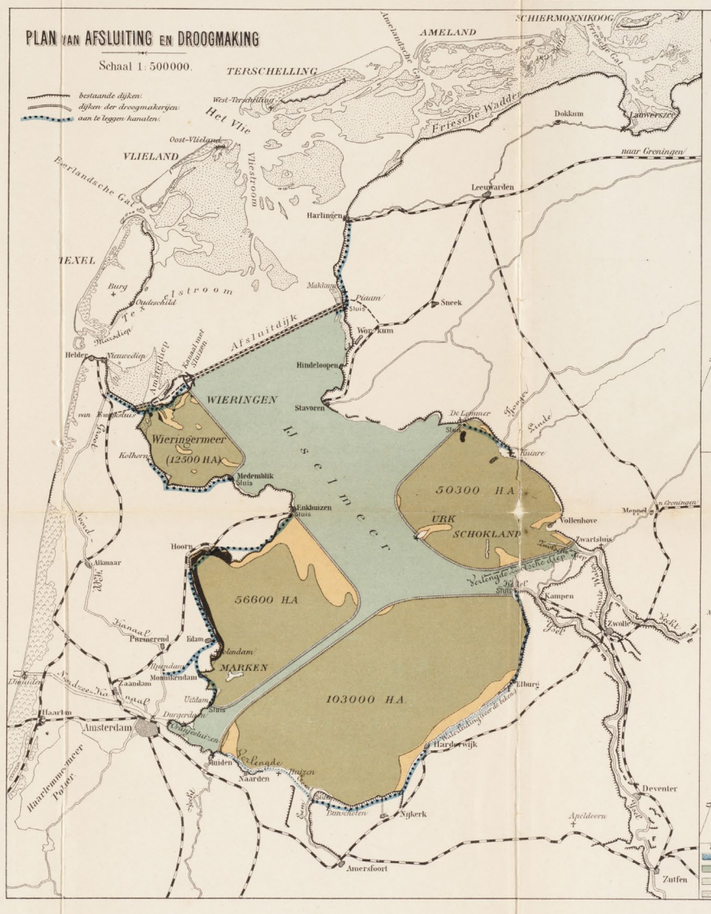
Het **Yselmeer** loost door sluizen, (24 sluizen samen 300 M. wijd) op **Wieringen.**

In de verbroken *scheepvaart* en *afwatering* wordt voorzien door **KANALEN:**

van **Elburg** naar den **Yselmond,**
» **Harderwijk** naar de **Eem** (de **Eem** wordt naar den zijtak **Amsterdam-Yselmeer** geleid),
» **Uitdam** langs **Monnikendam, Edam** tot **Lutje-Schardam** en van **Lutje-Schardam** langs **Hoorn** naar **Enkhuizen**; zijtak naar **Ilpendam,**
» **Kolhorn** naar **Medemblik,**
» het **N.-Hollandsch Kanaal** door **Anna-Paulowna-Polder** en **Wieringen,**
» de **Linde** en **Tjonger** naar het **Yselmeer** bij **de Lemmer,**
» het **Yselmeer** bij **Piaam** naar **Harlingen.**

Schutsluizen op Wieringen tusschen **Yselmeer** en **Noordzee.**

Spoorwegverbinding over den afsluitdijk tusschen de lijnen **Amsterdam—Helder** en **Stavoren—Leeuwarden.**



Oppervlakte binnen den afsluitdijk ongeveer . . . . . 360,000 H.A.
hiervan binnen de droogmakerijen ruim. . . . . 230,000 H.A.

Bodem in de droogmakerijen:

Klei . . . . . 164,000 H.A. (71%)
Lichte klei en *zavel*. . . . . 44,000 H.A. (19%)
Land en *veen* . . . . . 24,000 H.A. (10%)

Volgens Prof. MAIJER zal: „*minstens ¾ van de gronden der toekomstige polders bouwgrond zijn, grootendeels van groote waarde en slechts een ondergeschikt deel van geen onmiddelijke waarde.*"

Prof. VAN BEMMELEN oordeelt: „*dat de kleigronden van de Zuiderzee in kwaliteit gelijk zullen zijn aan de kleigronden der Ypolders, en dat de lichte kleigronden in kwaliteit gelijk zullen zijn aan de gronden der Groninger noordelijke zeepolders.*"

Tijd van uitvoering . . . **32** *jaar*, waarvan **8** jaar voor den afsluitdijk (30,000 M. lang).

Hoogstens *10,000 H.A. per jaar* voor cultuur geschikt te maken.

De 4 groote deelen worden wegens de ongelijke diepte van hun bodem elk in eenige polders verdeeld (van 3 tot 5), die **één voor één** worden drooggemaakt, zoodat nooit eene groote oppervlakte lang braak kan liggen.

Kosten.

Totaal **190 millioen** *gulden*, met inbegrip van renteverlies, doch zonder kosten voor de defensie, (de afsluitdijk alleen **28** millioen, met de sluizen **42** millioen).

Kosten per Hektare:

den afsluitdijk inbegrepen: *f* 880 zonder, *f* 1032 met renteverlies
zonder den afsluitdijk: . . . » 685 » » 746 » » »

Voorts moet gerekend worden op den aanbouw van woningen, schuren, enz., wat (ruim gerekend) *f* 250 per H.A. zal vereischen.

VOORDEELEN DER AFSLUITING EN DROOGMAKING.

1°. Voor de **waterkeering:**

Het water kan **na** de afsluiting langs de kusten hoogstens rijzen tot **1** à **2** M. minder hoogte dan thans. **Dus:**

Gevaar voor overstroming weggenomen.
Vermindering kosten van dijkonderhoud. (Na aftrek onderhoud afsluitdijk, voor **gewoon** onderhoud *f* 100.000 besparing 's jaars).

T. N. van den afsluitdijk langs de **Friesche** kust, waarschijnlijk slechts ± **0.15** M. verhooging. Daarom de dijken aldaar te verhoogen (begrepen in de kosten).

2°. Voor de **waterloozing:**

Het voordeel der afsluiting voor de waterloozing is *aanzienlijk.*
Het **Yselmeer** kan door watertoevoer van den Ysel, enz. nooit stijgen tot eene zorgwekkende hoogte, al moeten de sluizen op Wieringen eenigen tijd gesloten blijven.
Na de afsluiting zal de gemiddelde stand op het **Yselmeer** lager zijn dan thans op de **Zuiderzee:** er zal *sterker* geloosd kunnen worden en er zullen *meer uren* voorkomen waarop loozing mogelijk is.
Het door den **Ysel** aangevoerde **ijs** kan slechts een zeer klein deel van de oppervlakte van het meer beslaan en moet daarop smelten. Het zal dus minder hinderlijk zijn dan thans, nu het door de getijen heen en weer wordt bewogen.

3°. Voor de **waterverversching:**

Na de afsluiting kunnen **Friesland** en **Noord-Holland** zich uit het **Yselmeer** 's zomers zoo noodig van *zoet water* voorzien.

4°. Voor de **spoorwegverbinding:**

Door den spoorweg over den afsluitdijk wordt *de verbinding Amsterdam—Leeuwarden*

40 min. korter dan die over **Enkhuizen—Stavoren** (3 u. 40 m.),
71 min. korter dan die over **Zwolle—Meppel** (4 u. 11 m.)

5°. **Landaanwinning:**

Aanwinst van **216,000 H.A.** *verkoopbaar land*, in 't algemeen van de meest vruchtbare grondsoort. Zie boven onder »PLAN DER ZUIDERZEE-VEREENIGING" (bodem).

De **scheepvaart,** die grootendeels plaats heeft vice-versa in de richtingen van Amsterdam naar den Ysel, naar het Zwolsche Diep, naar de Lemmer en naar Harlingen, zal door de afsluiting eer gebaat dan geschaad worden, daar in de plaats van de nu dikwijls woeste Zuiderzee een kalmer binnenmeer en kanalen komen. Bovendien kan nu wegens de groote afstanden niet op tij gevaren worden, maar alleen *op de laagwaterstanden*, na de afsluiting echter bij *een vast peil.*
Eenige havens, nu alleen bij hoog water te gebruiken, zullen na de afsluiting verdiept moeten worden.

Nadeel is het verloren gaan der *Zuiderzee-visscherij.* Deze zal nagenoeg geheel verdwijnen (Rapport Dr. Hoek). Zij levert nu ongeveer 1 à 1½ millioen gulden 's jaars op, doch de opbrengst is zeer afwisselend (in 1890 alleen 2,8 millioen gulden ansjovis). Voorts verlies aan vaartuigen, netten, enz.

De meeste plaatsen die op de **Zuiderzee** vischen (bijvoorbeeld Urk, Enkhuizen, Volendam, Enkhuizen, Wieringen, den Helder, Texel) vischen echter ook op de **Noordzee,** waarmede zij volgens het plan door kanalen, enz. in verbinding blijven.

Waarschijnlijk zal de visschersbevolking zich voor een deel naar den Helder en Ymuiden verplaatsen en voor een ander deel van beroep veranderen.

Invloed der droogmaking op de gezondheid. Volgens Rapport van de Nat. Afd. der K. A. v. Wet, gevoegd bij het Wetsontwerp der Regeering van 1877 tot droogmaking van het zuidelijk gedeelte, zal »naar alle waarschijnlijkheid geen nadeelige invloed meer te duchten zijn, wanneer de volledige bemaling is verkregen en de nieuwe gronden in cultuur gebracht zijn en bestaat er geen voldoende grond voor de vrees, dat malaria-ziekten zich uit den polder of zijne onmiddellijke omgeving over de aangrenzende gewesten zullen uitbreiden." (Blijkens de ondervinding opgedaan bij de Ypolders, den Zuidplaspolder, enz.)

De gronden van den Haarlemmermeerpolder waren niet volkomen ontwaterd en van alle middelen voor eene goede waterlooszing voorzien (slooten, greppels, enz.), toen zij aan den landbouw werden overgegeven. De tijd van droogmaking viel samen met dien van eene koortsepidemie langs de kusten van het **Kanaal** en de **Noordzee;** — van daar nadeelige gevolgen).

CONSTRUCTION YEAR

- >1970
- 1970 -1980
- 1980 - 1990
- 1990 - 2000
- 2000 - 2010
- 2010 +

CONSTRUCTION ZONING

- 1975 Structure Plan
- 2005 Structure Vision 2015

NOORDELIJKE BOSZOOM

HET KUSTEILAND

LELYSTAD HAVEN

WARANDE

DE LANDERIJEN-OOST

WIJK 1

WIJK 2

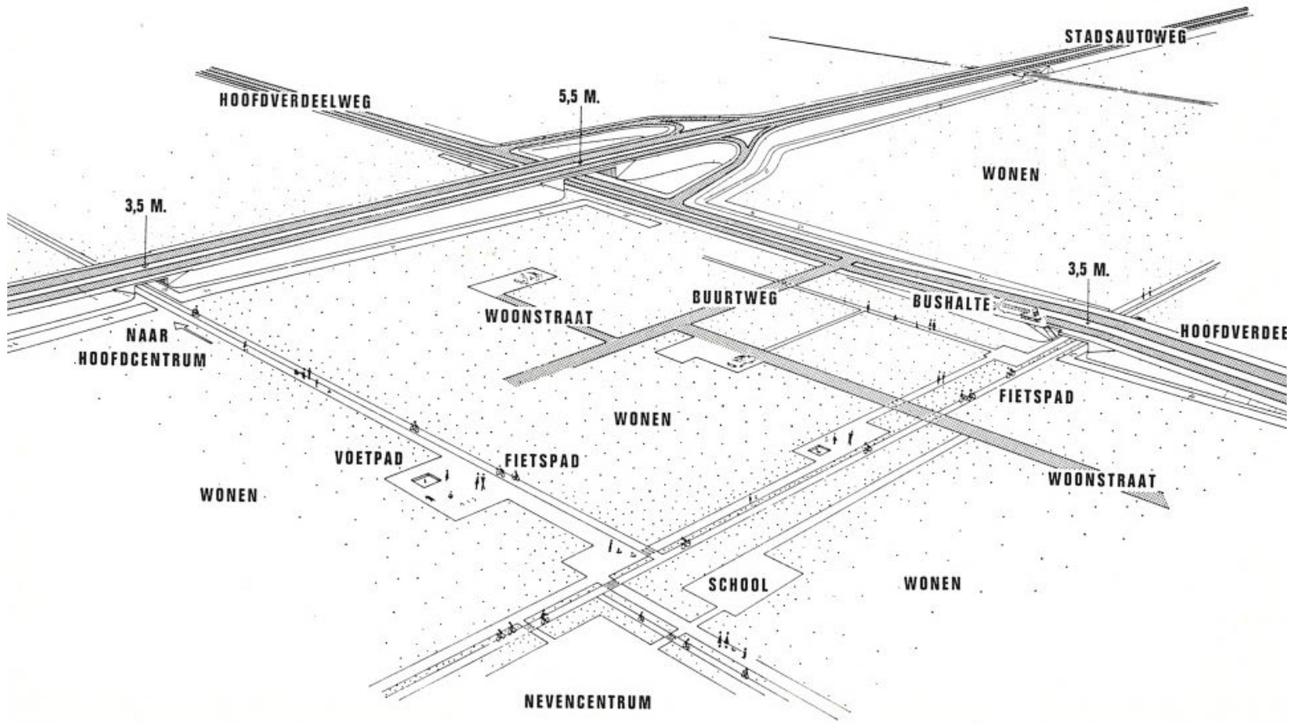
WIJK 3

WIJK 4

WIJK 5

Building age and phases of development, Own Image 2018, Based on: Geurts, A. (1993a). Woningbouw in Flevoland: De rijkswoningbouwstichtingen in Lelystad, Almere en Zeewolde (1972-1992). Zutphen: Walburg Pers.
Geurts, A. J. (1995). Lelystad: Stedebouwkundige ontwikkeling en vormgeving. Lelystad: Stichting Uitgeverij de Twaalfde Provincie.
Gemeente Lelystad. (n.d.). GIS Viewer. Retrieved October 5, 2018, from https://gis.lelystad.nl/gisviewer/viewer.do?appCode=-205caa919c16537929e-c2cb086d03dae&-forceViewer=true&cmsPageId=1

Van Eesteren's Elevated Infrastructure



Van Eesteren's concept for Lelystad's elevated infrastructure
Eesteren, C. V. (1964). Stedenbouwkundig Plan voor Lelystad (Driemaandelijks Bericht Zuiderzeewerken). Zwolle: Drukkerij Van der Worp. 29.

Smedinghuis's Elevated Infrastructure

Own photo, 05/10/18