

H A N D _ M A D E

Architecture
for
craftsmanship

P5 DRAWING SET

M.Y. DE WIT



PROJECT INFORMATION

Graduation design drawings

P5 Graduation phase

Date: 30-05-2018

Project title: HAND_MADE: Architecture for craftsmanship

Marilene Yorinde de Wit

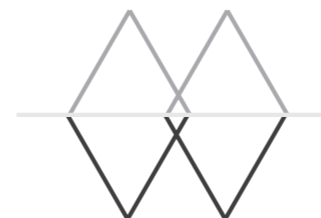
1518577

Dutch Housing Studio | Master Architecture, Urbanism and Building Sciences

Faculty of Architecture and the Built Environment | TU Delft

Mentors:

Theo Kupers, Ferry Adema Pierijn van der Putt





CONTENT

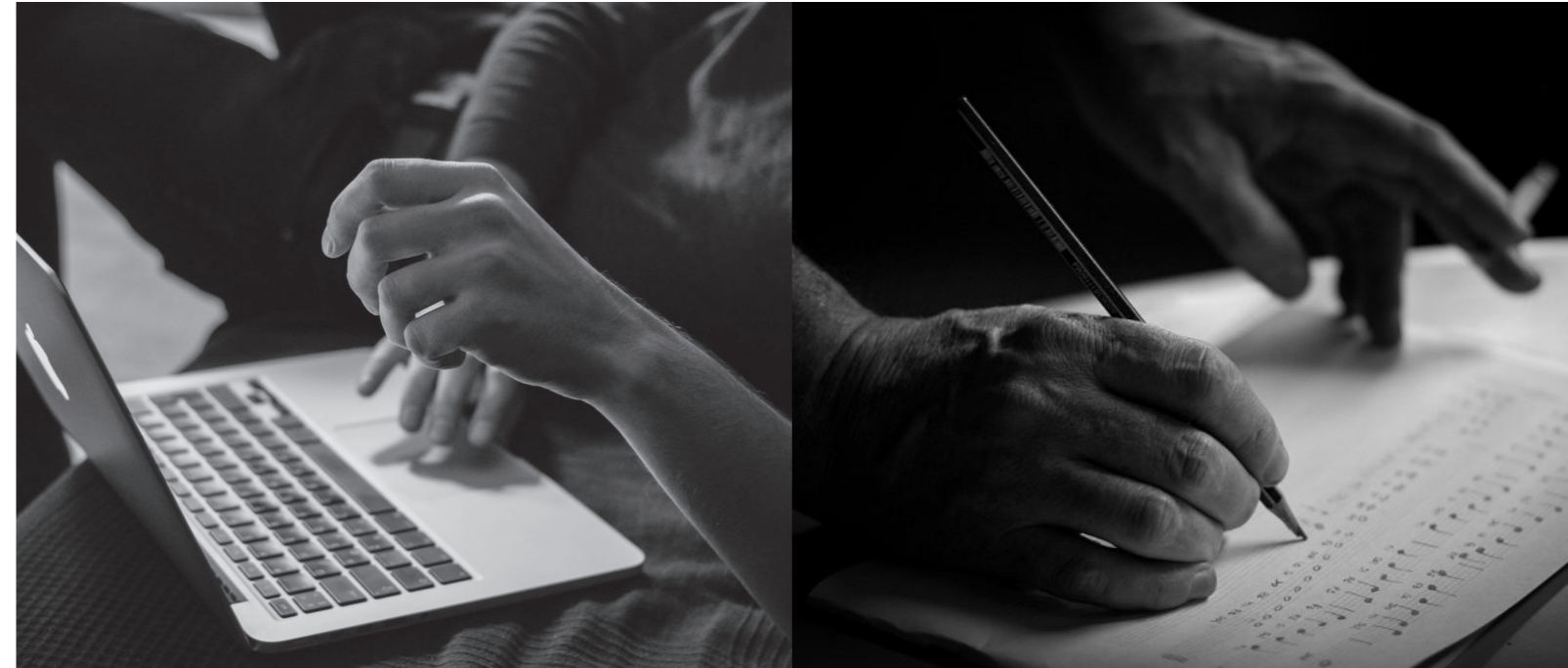
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CREATIVE AND COMMUNICATIVE CRAFTS

In the creative and communicative cluster of crafts, the following professions could be included:

- Photographer
- Game developer
- Ceramics
- Sound designer
- Software developer
- Website designer
- Graphic designer
- Interior designer
- Illustrator
- Tattoo artist
- and more



The cluster of creative industry and communication is characterized as enterprising, highly educated and growing: with 1 to 2 employees, the cluster has a relatively high share of entrepreneurs and is by far the cluster with the highest proportion of working with at least a completed MBO education (96 percent).³²

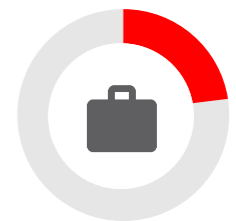
This cluster represents 23 percent of employment in the craft economy and has achieved employment growth of 9 percent between 2008 and 2013.³³



9%



96%

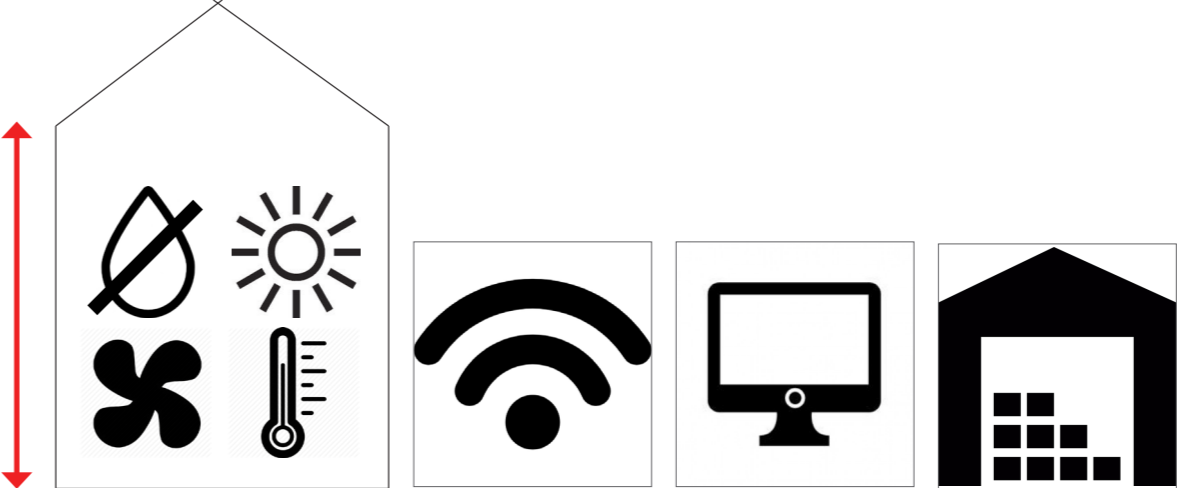


23%

Creative crafts cluster characteristics³⁴

It has many “new“ professions within the crafts sector
 It's the fastest growing cluster within the crafts economy
 Professions that are best represented within the city of Amsterdam are the advertisements business, software development business, and creative arts
 Highly educated
 When not working from home, they prefer shared commercial spaces (41%)
 Use of social media and network

Workspace preferences³⁵



- Climate that is dry, warm, plenty daylight, well ventilated.
 - High ceilings

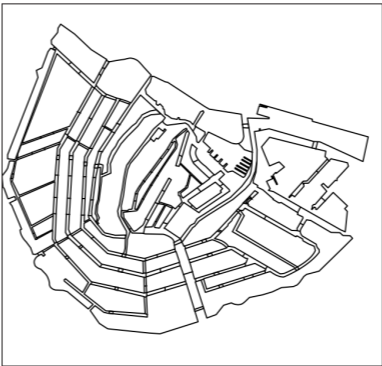
Fast internet connection

Computer

Storage space


55 m²

The average workplace for a professional in the creative crafts industry is 55m².




Most businesses are located inside the ring of Amsterdam

For specific professions there might be added demands, such as good sound isolation (filmmaker, sound designer). Also, an ‘inspiring surrounding’ is usually named as a desirable quality, which has a high degree of subjectivity.




86%

Of all businesses in the creative crafts industry, 86% is a one-man-business.



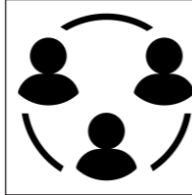
43%

In the creative cluster, 43% of the businesses are home-based.



16%

Of these businesses, 16% has trouble finding a suitable workplace to carry out their professional services.



76%

The creative crafts industry is characterized by a high degree of collaboration between professionals.

METALWORKING, WOODWORKING AND OTHER PRODUCTION CRAFTS

The separate workplaces, so detached from the dwelling but inside the building, will vary between private, collective and public. These are spaces that are added to the functional program of the building, in order to create the right setting for craftsmanship in both working, sharing and educating.

Types of professions that belong to this cluster include:

- Metal workshops
- Wood workshops
- Furniture makers
- Welders
- Clothing maker
- Musical instrument maker
- Leather worker
- Glass blower



Within the cluster of metal, wood and other production craft, the decline in employment is the strongest (-12 percent).³⁶ This is also due to the loss of knowledge in this cluster of craftsmanship and globalization of large companies that are competitive in this field (cheap production, sales and marketing).³⁷



12%



26%



8%

TARGET GROUP



DESCRIPTION AND RESEARCH

Production crafts cluster characteristics³⁸

Shrinking (12%)

Out of all crafts, wood and metal production are shrinking the hardest due to aging professionals.

Aging population ('greying')

Shrinking amount of people per business (3 to 2 within 4 years)

5% decline in professionals since 2010

-growth of amount of businesses 8%

High percentage of male

High amount of 55+

Varied clients

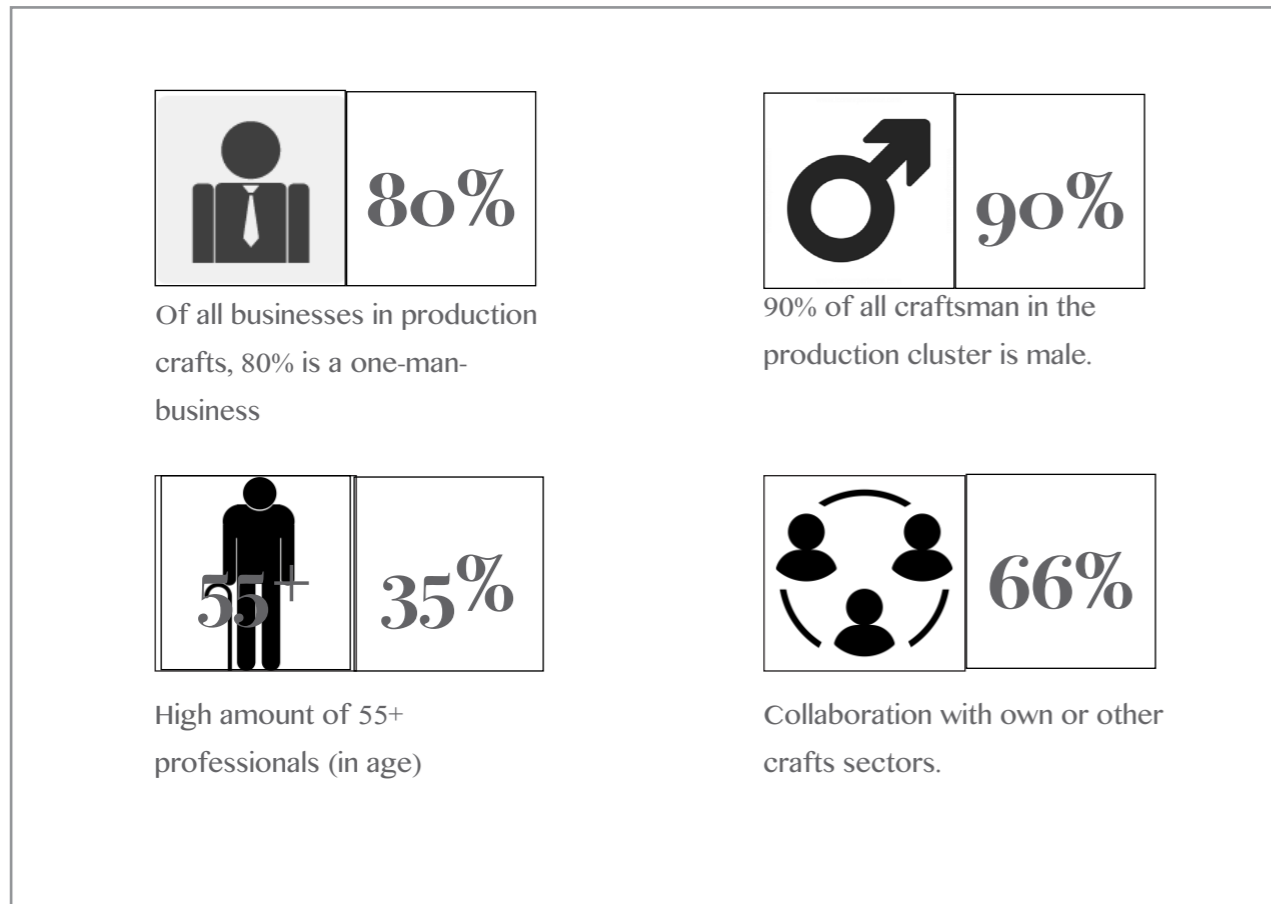
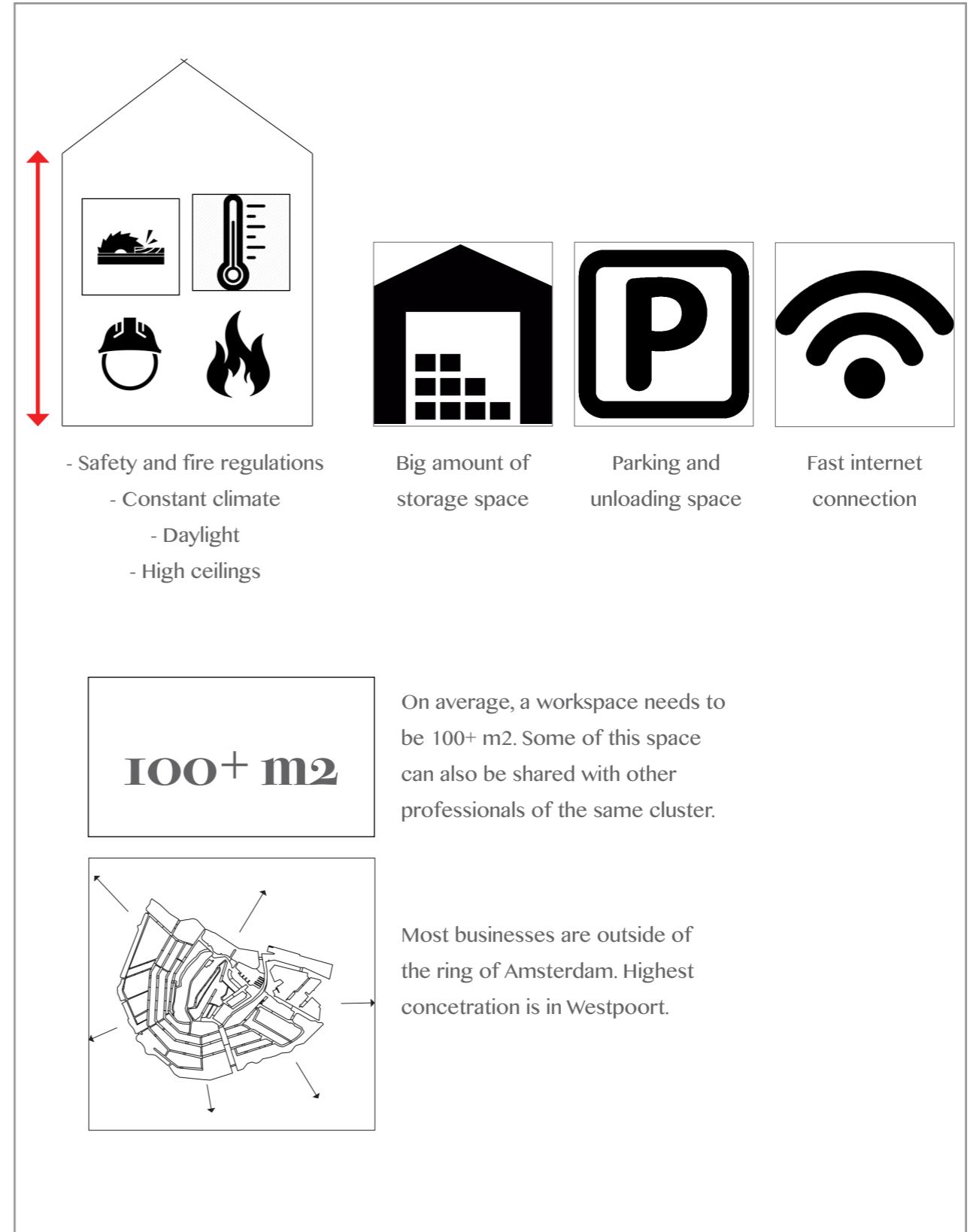
In production crafts, many need a big workspace

Workspaces spread out over the entire city, more outside of the ring

Workspaces inside home, a commercial shared building or on industrial terrains.

- Most are lower educated, or learned in practice. 26% is highly educated.

Workspace preferences³⁹



TARGET GROUP // DESCRIPTION AND RESEARCH

There are three ways in classifying the target groups for this project:

- Based on crafts sector cluster

There are two main target groups based on crafts cluster: the creative and communicative arts, and the metalworking, woodworking and other production crafts cluster. The requirements for the dwelling unit as well as the collective workspaces are different for each of these target groups. The main idea will be to group these people per building based on professional interest.

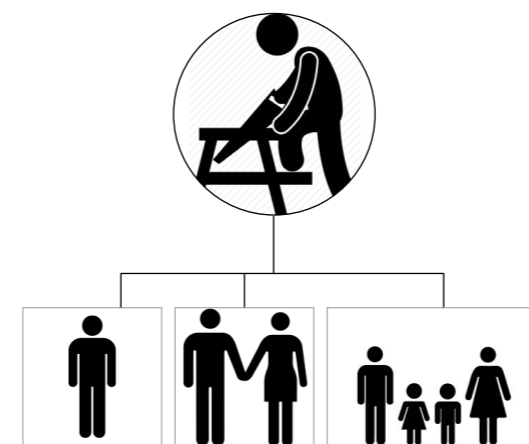
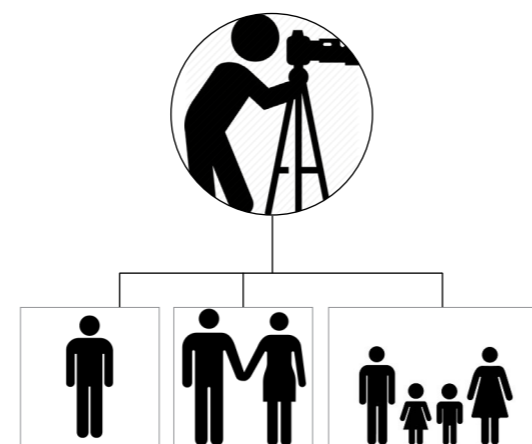
- Based on household composition

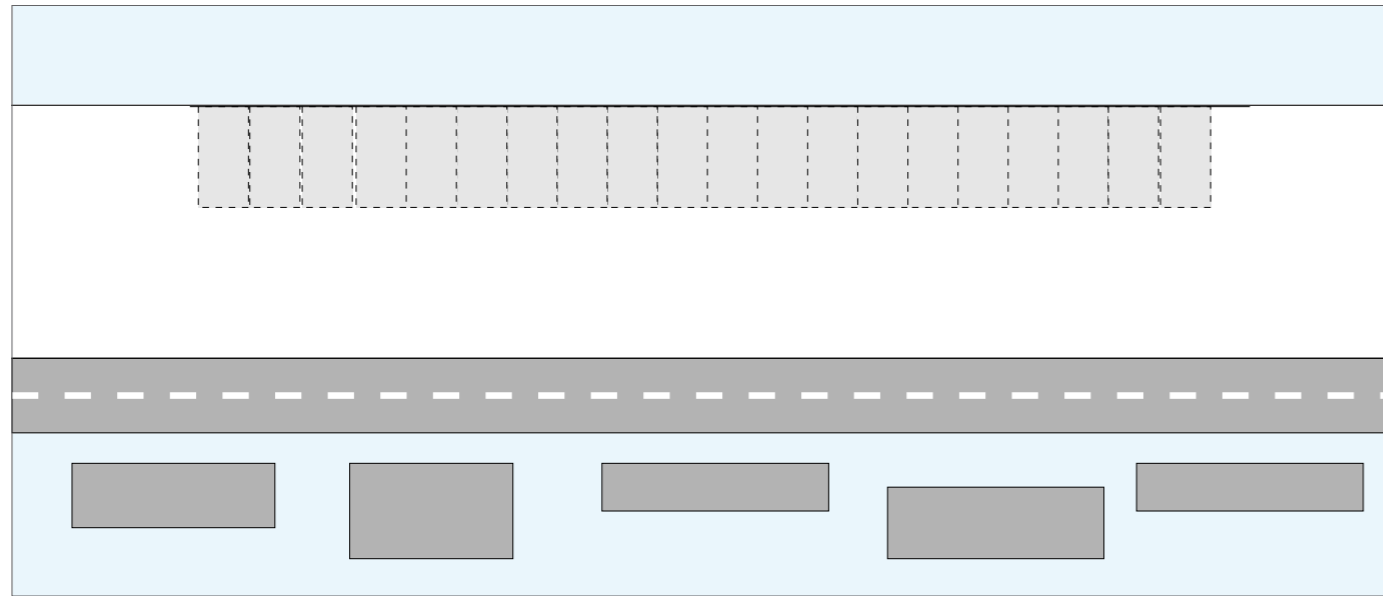
As main target group is the starting entrepreneur in crafts, most will probably be a single or double household when starting to live there, with a smaller percentage

of young families. But as time goes by the double households might evolve into young families. The dwellings, buildings and environment should take this flexibility in household composition in mind. For dwellings this means flexibility in dwelling layout, for the building and environment this means making it also family-friendly.

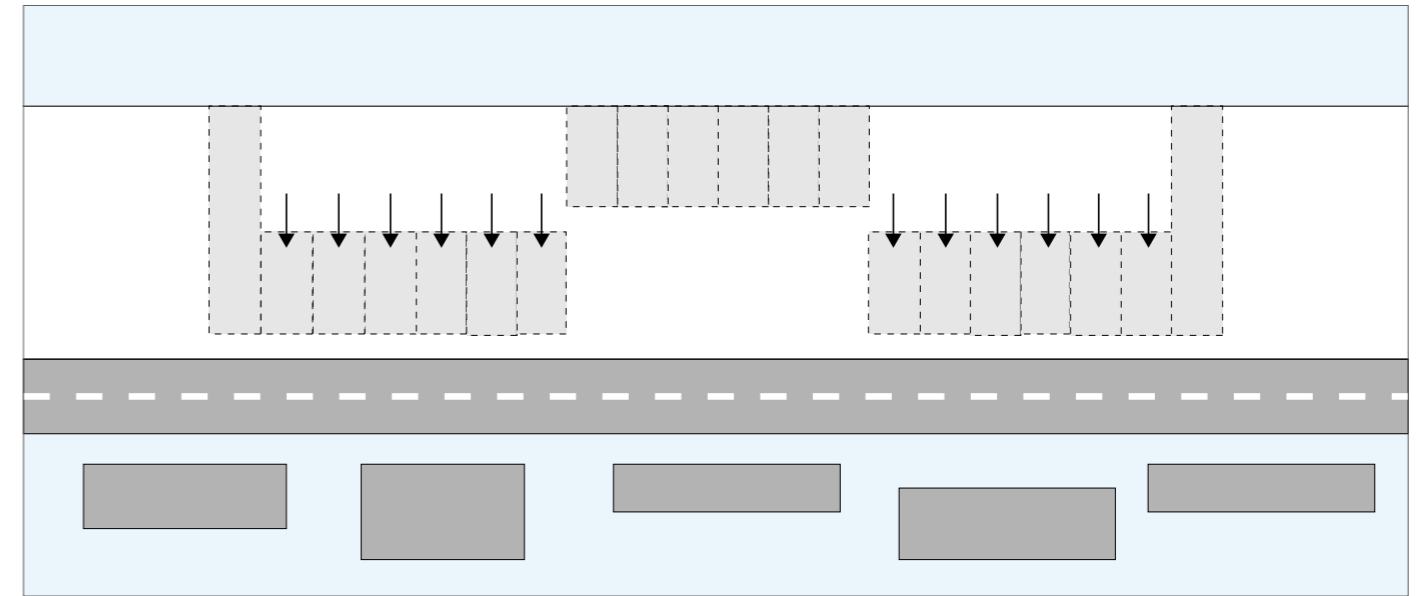
- Based on business stage / type

A starting business with no clients and employees might grow into something bigger. This can partly be resolved by using the collective workspaces. Inside the live-work units themselves and the accesses to these it should be possible to be representative as a business.

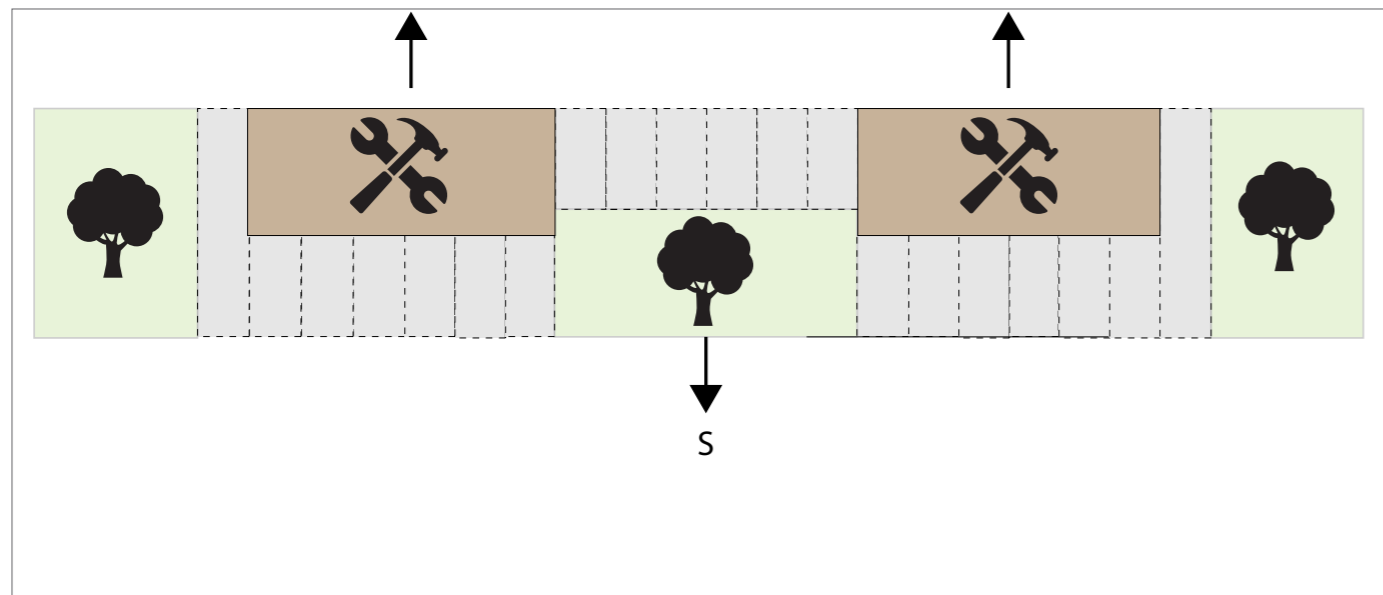




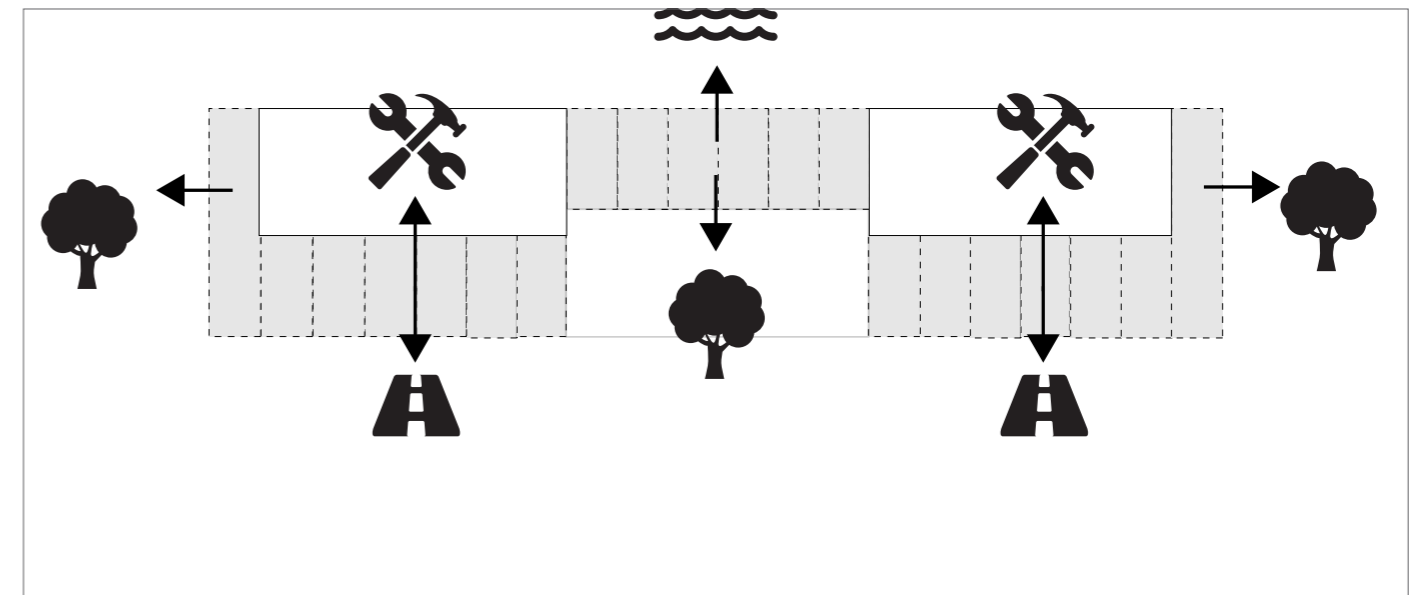
Shape suitable for location and flexibility concept



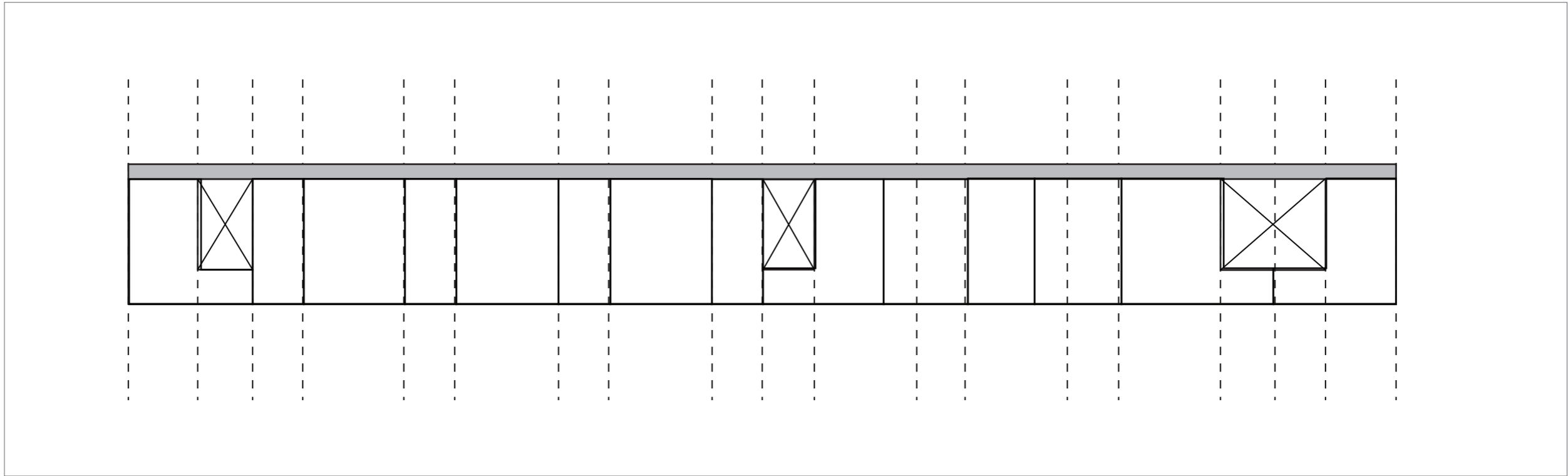
Fold building into the new shape



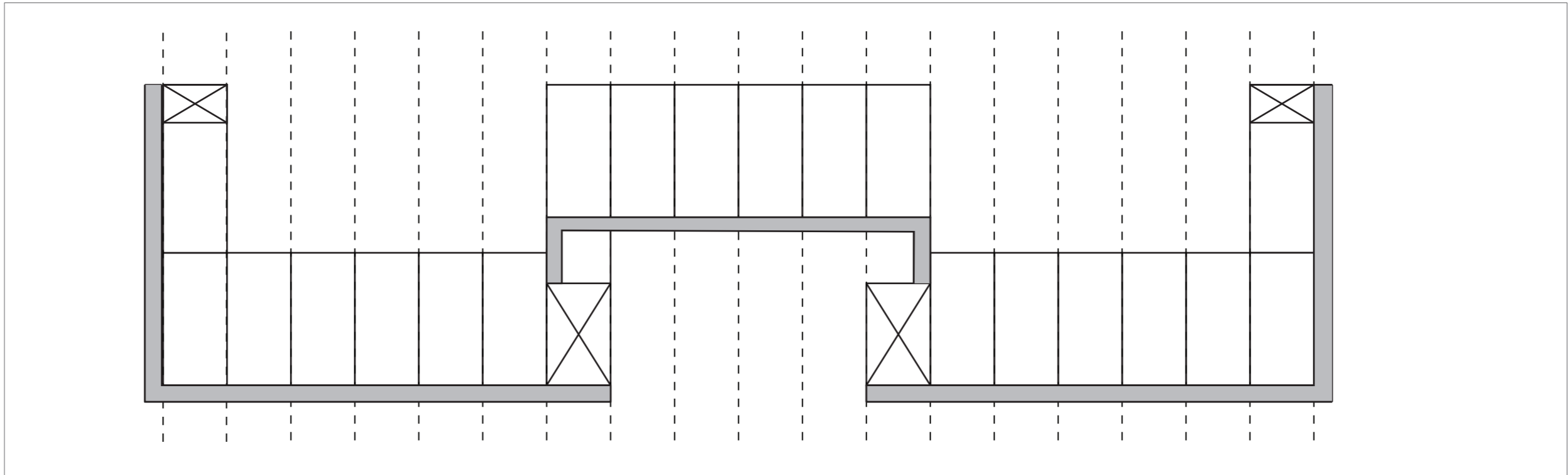
Public and collective spaces: Preferred orientation for the outside space is south, preferred orientation for workshops is north.



This folding is creating different settings for the building parts. Back dwellings: Square/park and water, south dwellings: road and workshop.

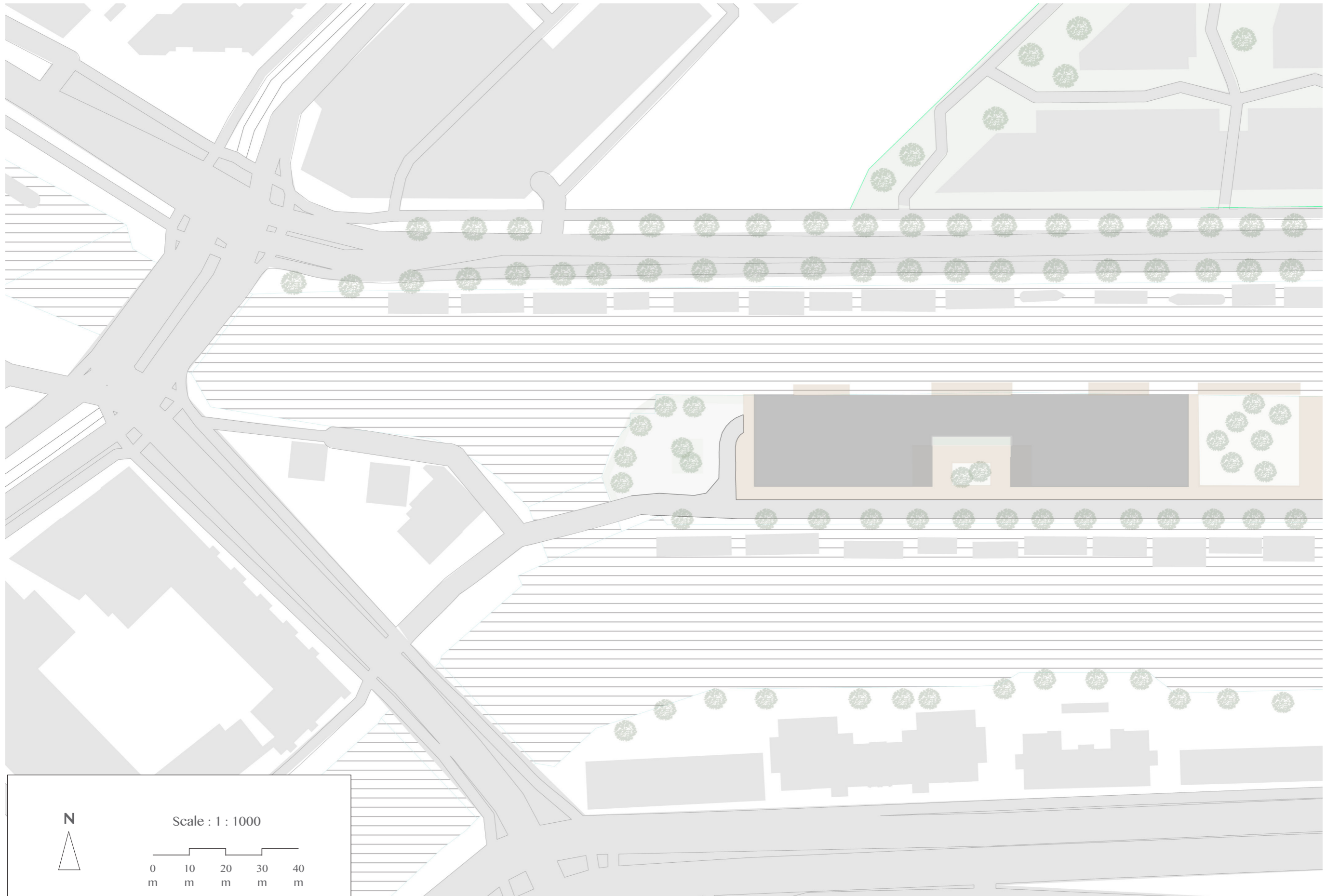


Analysis drawing from another live-work flexible building design, with flexible dwellings and access type

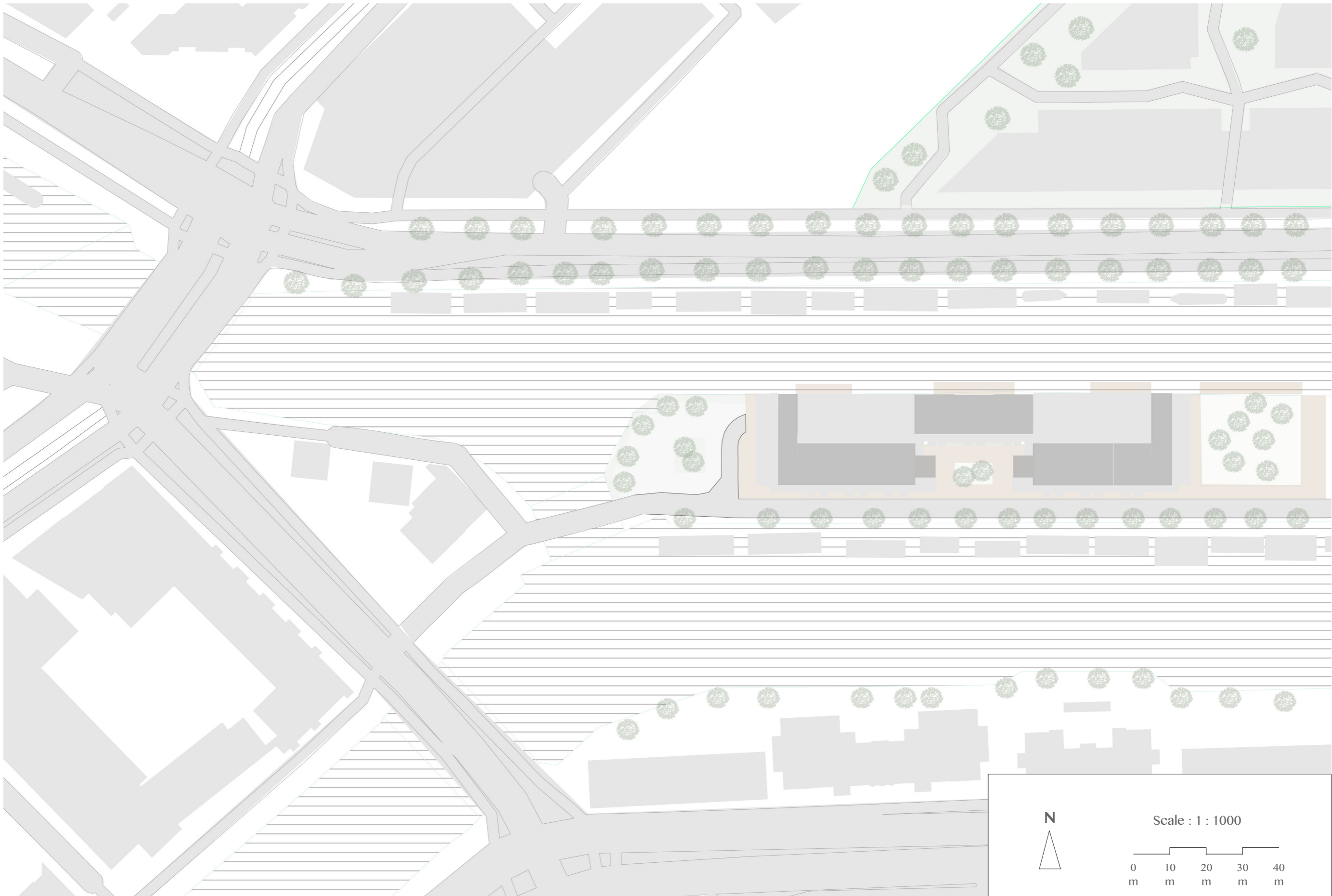


Implemented scheme in the design, with flexible dwellings and access type

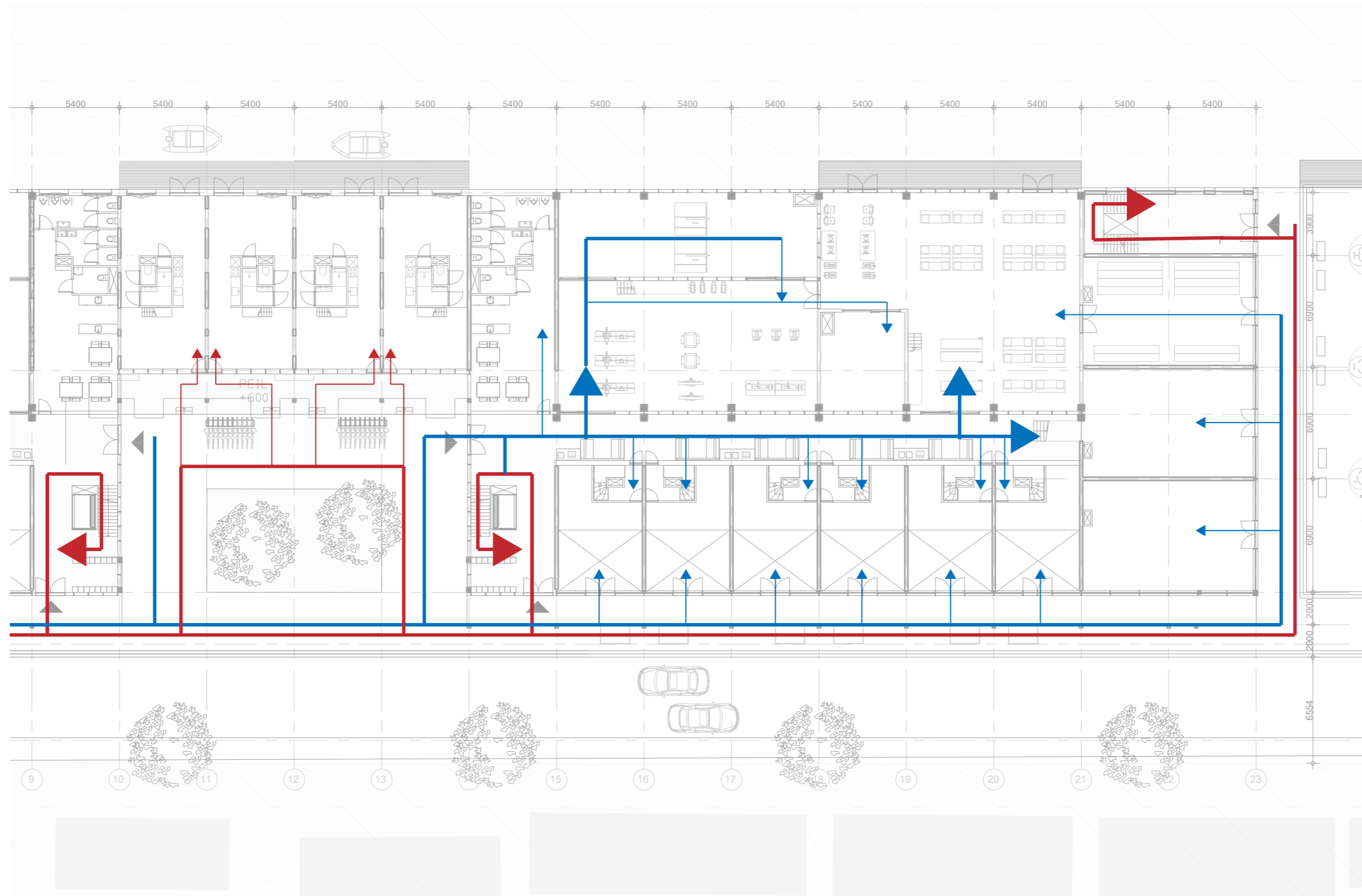
URBAN SCHEME // GROUND FLOOR



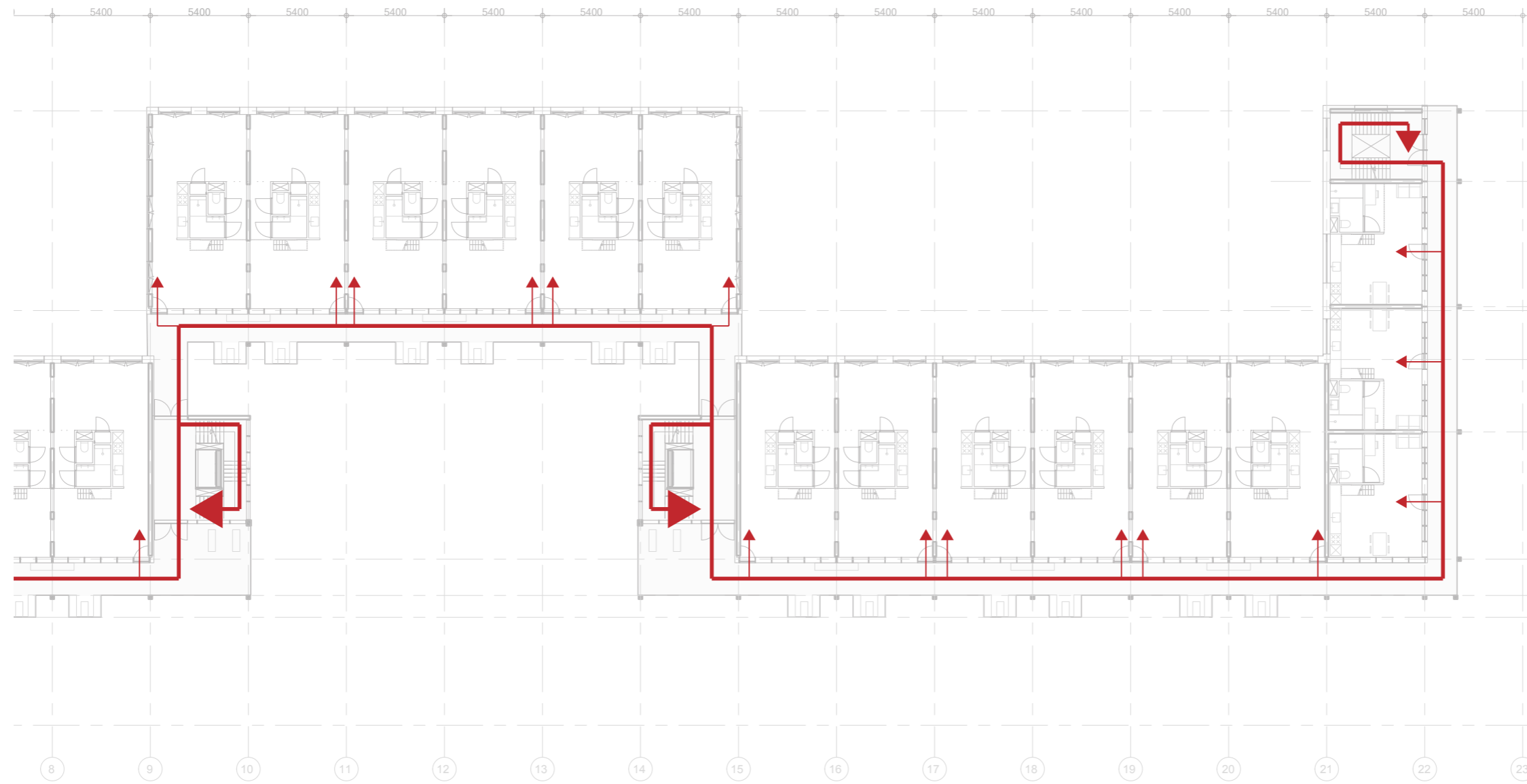
URBAN SCHEME // TOP FLOORS



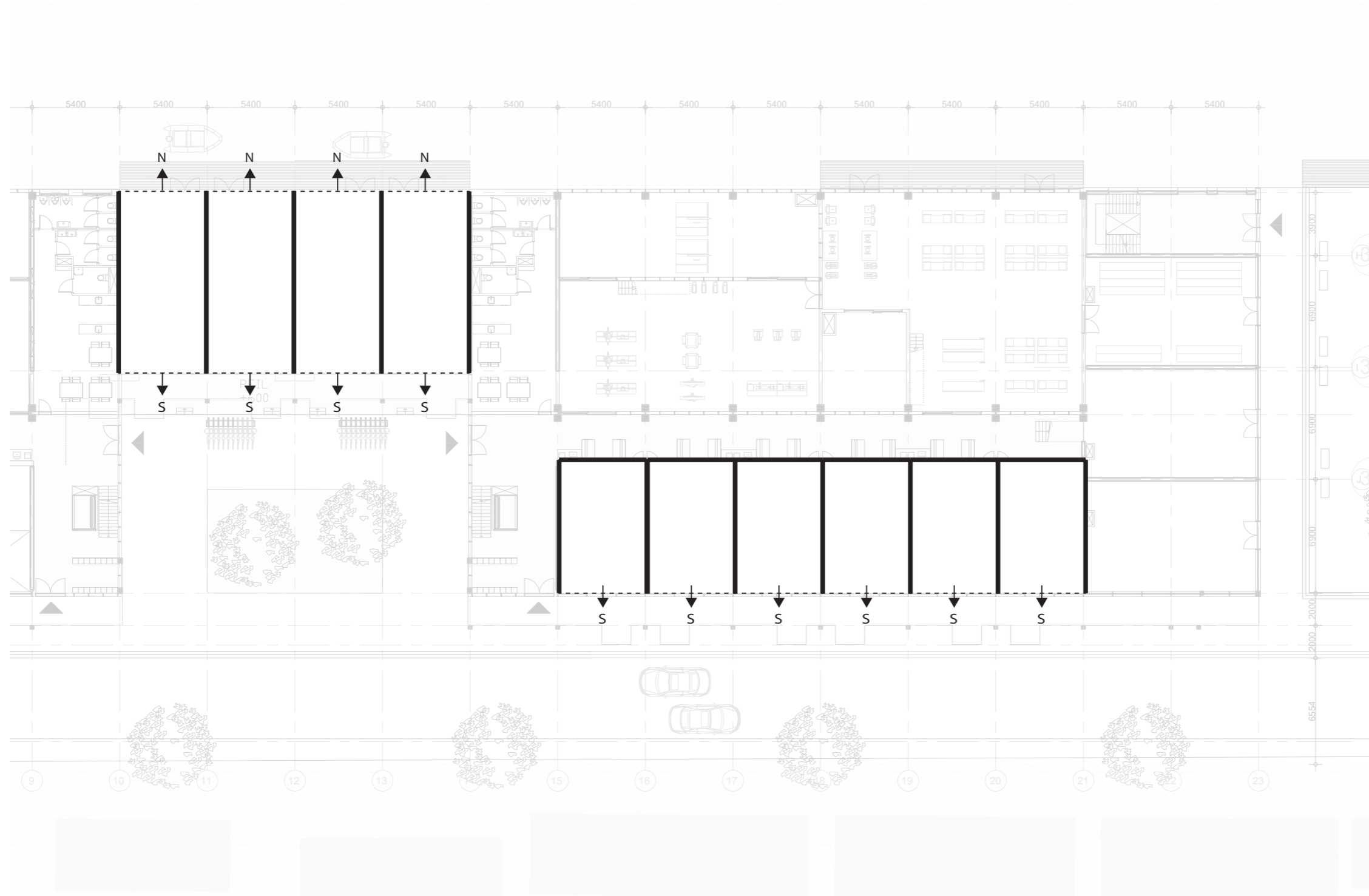
CIRCULATION // GROUND FLOOR



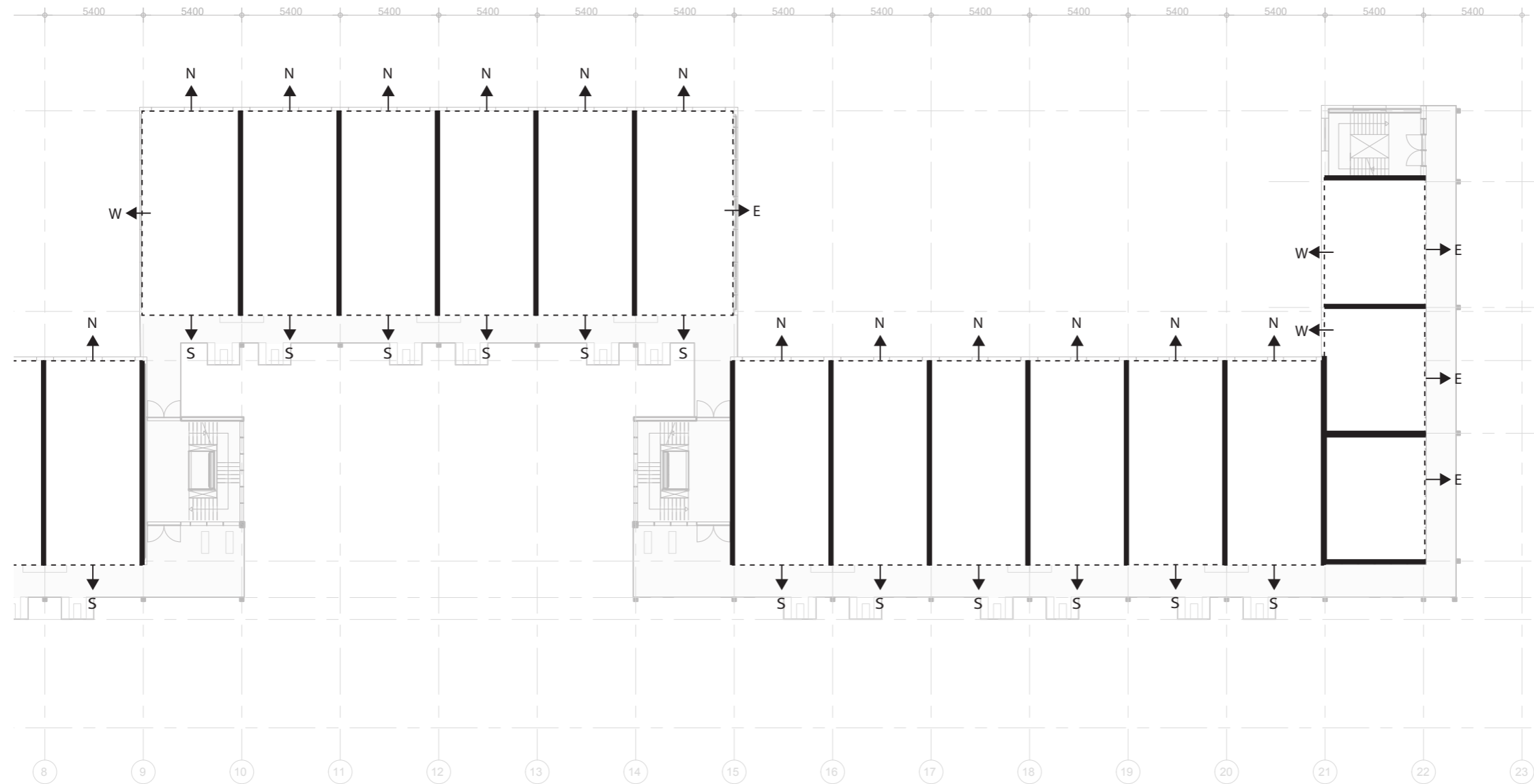
CIRCULATION // UPPER FLOORS



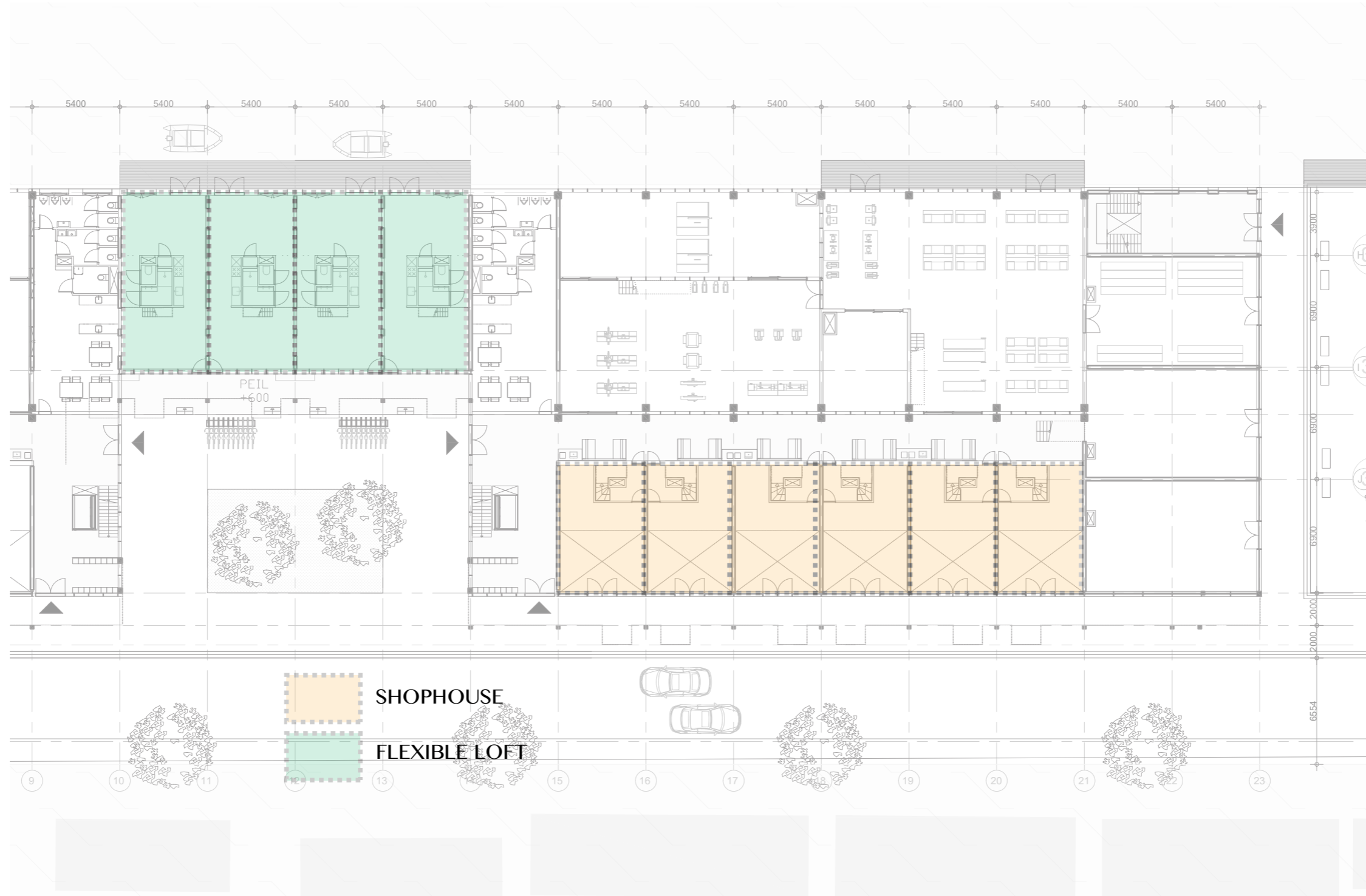
DWELLING ORIENTATIONS // GROUND FLOOR



DWELLING ORIENTATIONS // UPPER FLOORS

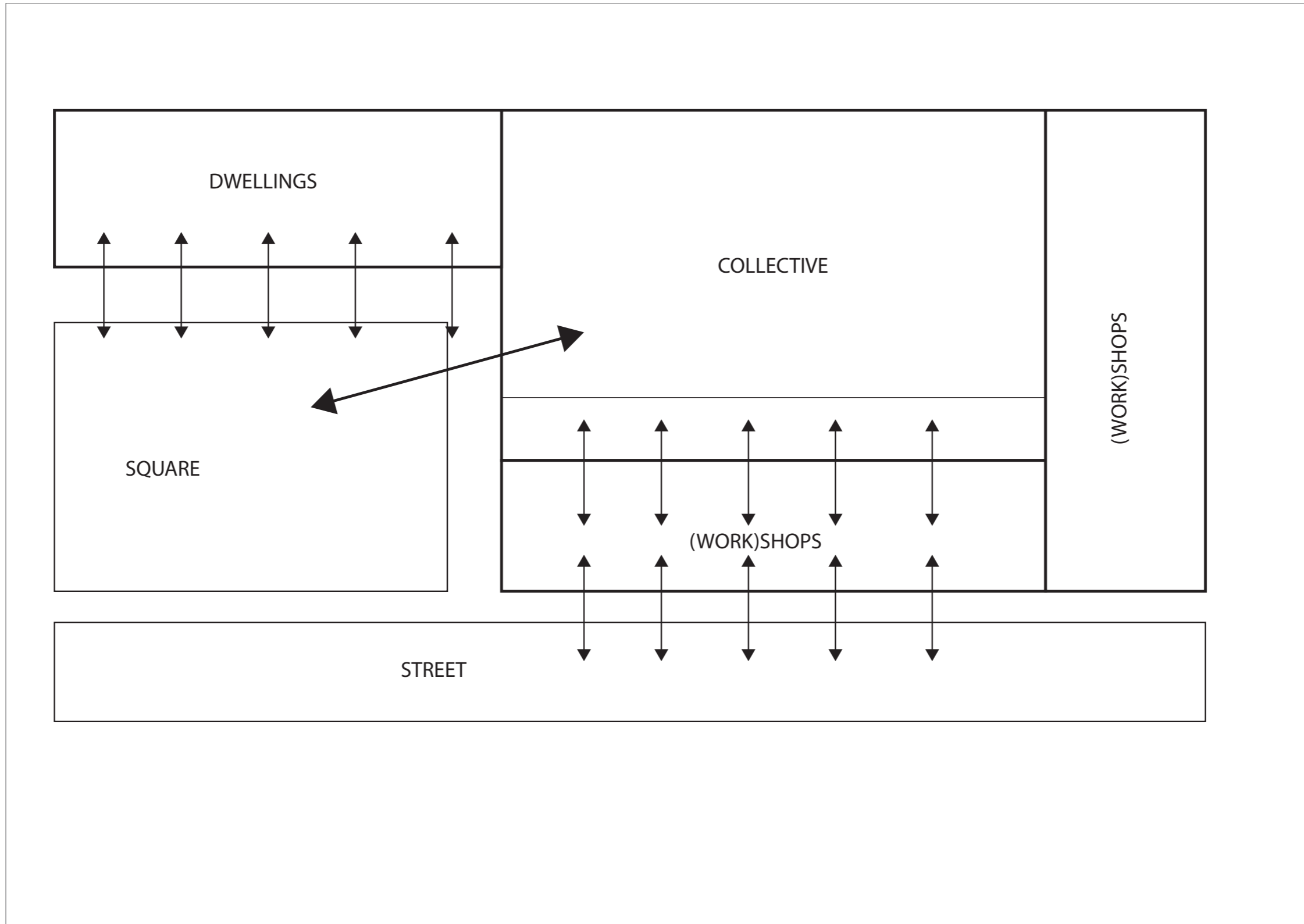


DWELLING TYPOLOGIES // GROUND FLOOR

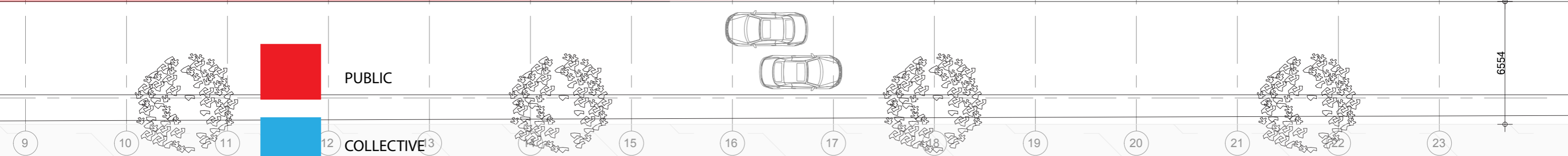
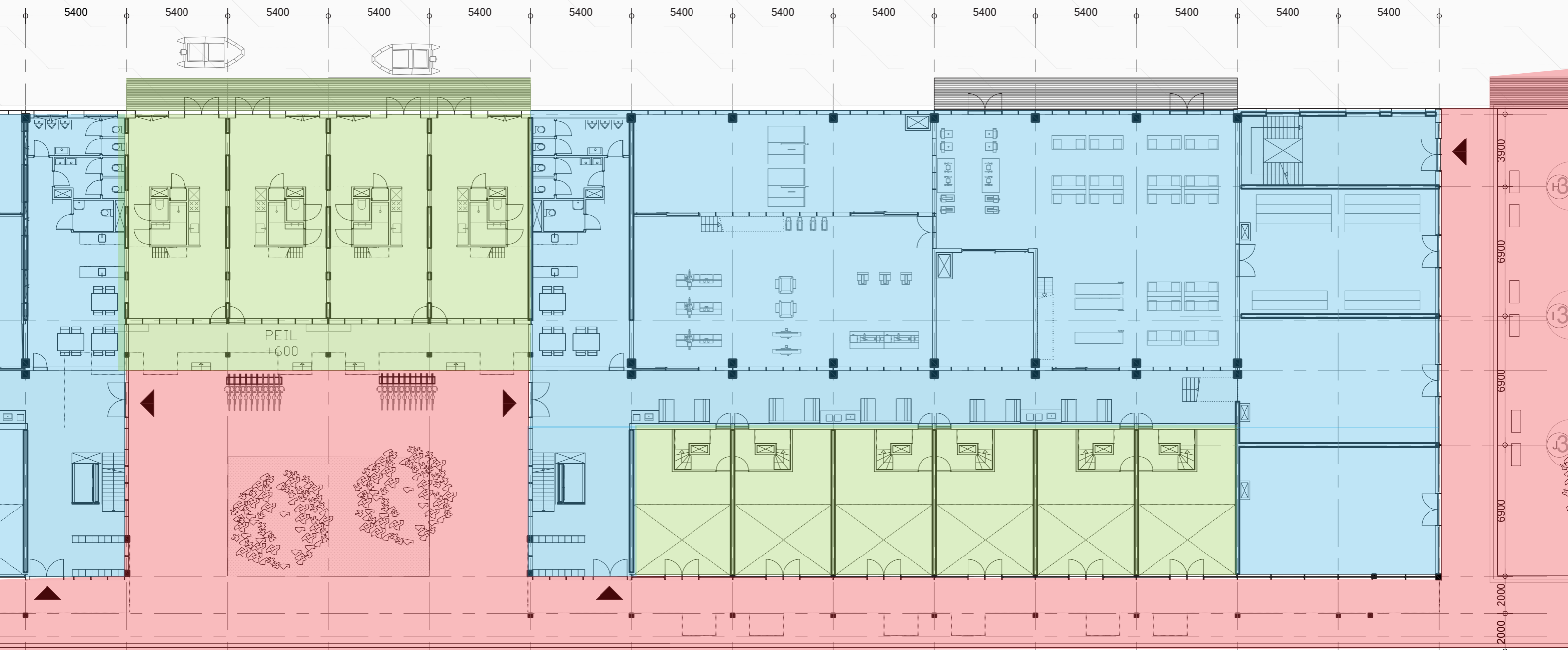




COLLECTIVE / PRIVATE / PUBLIC SPACE // DIAGRAM



COLLECTIVE / PRIVATE / PUBLIC SPACE // GROUND FLOOR



PUBLIC

COLLECTIVE

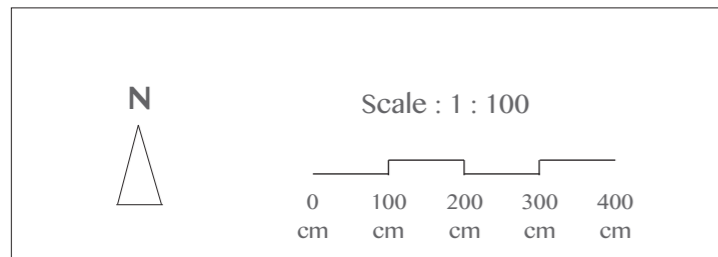
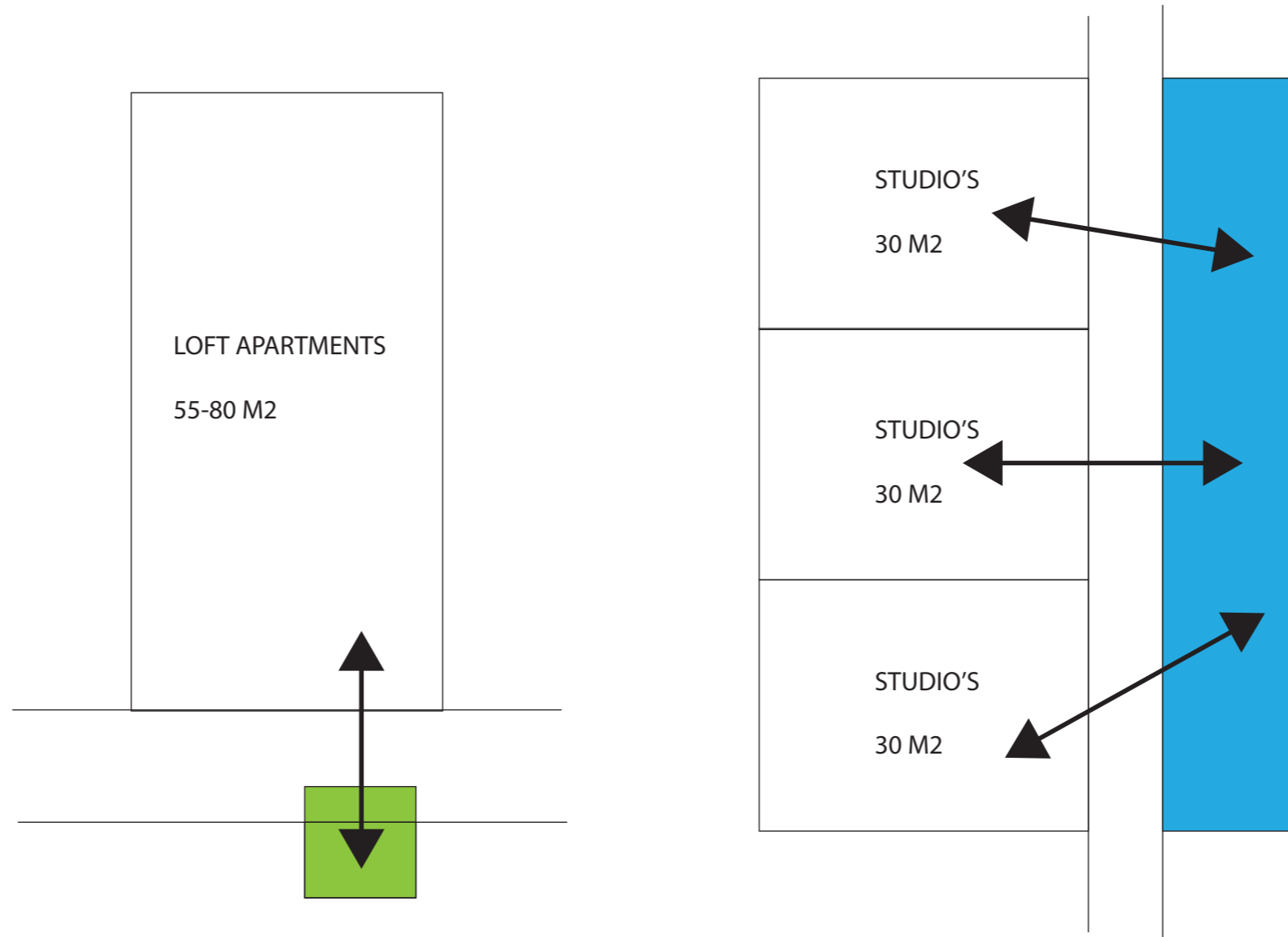
PRIVATE

N

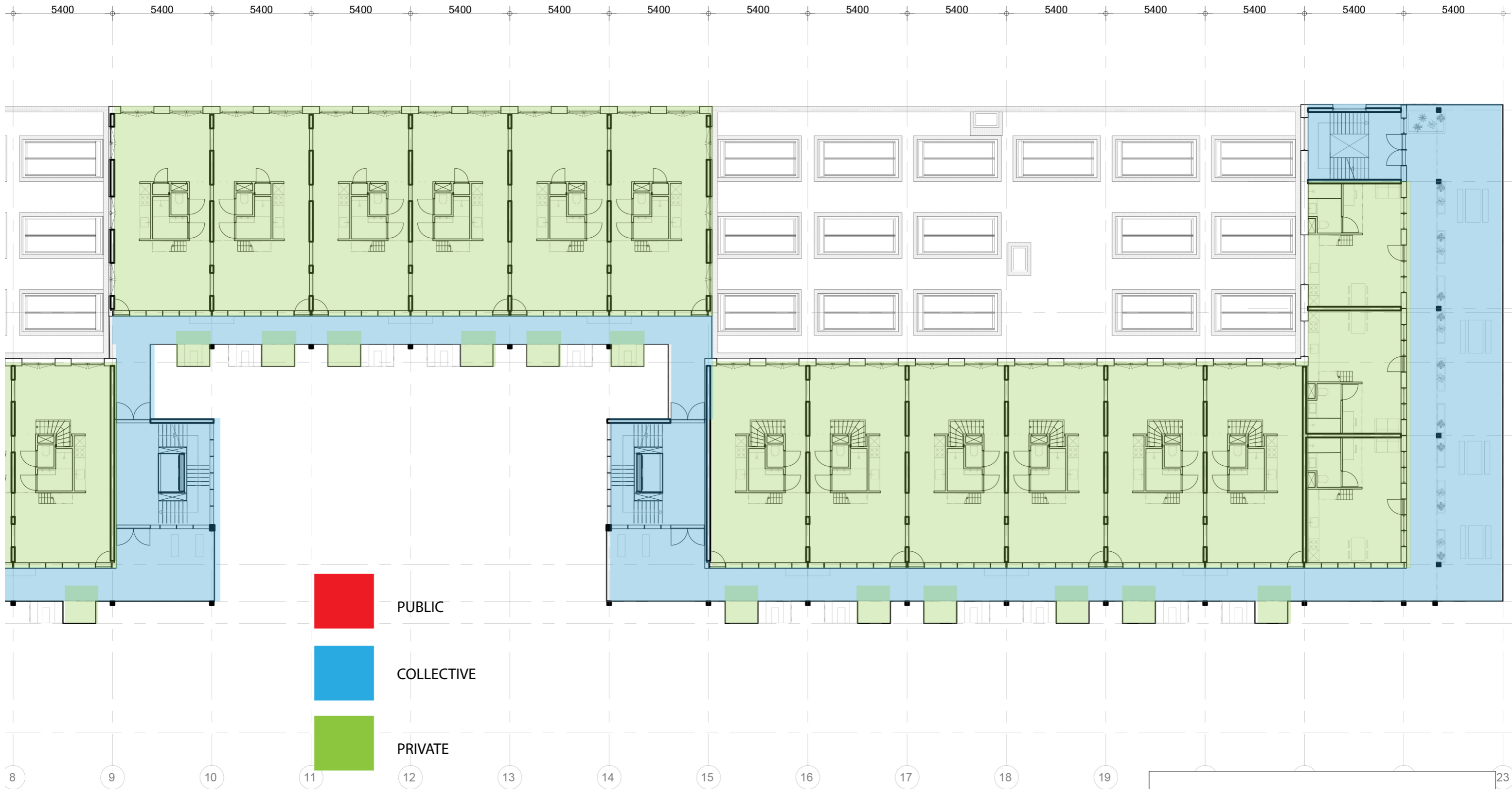
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cm cm cm cm cm

COLLECTIVE / PRIVATE / PUBLIC SPACE // DIAGRAM



COLLECTIVE / PRIVATE / PUBLIC SPACE // UPPER FLOORS

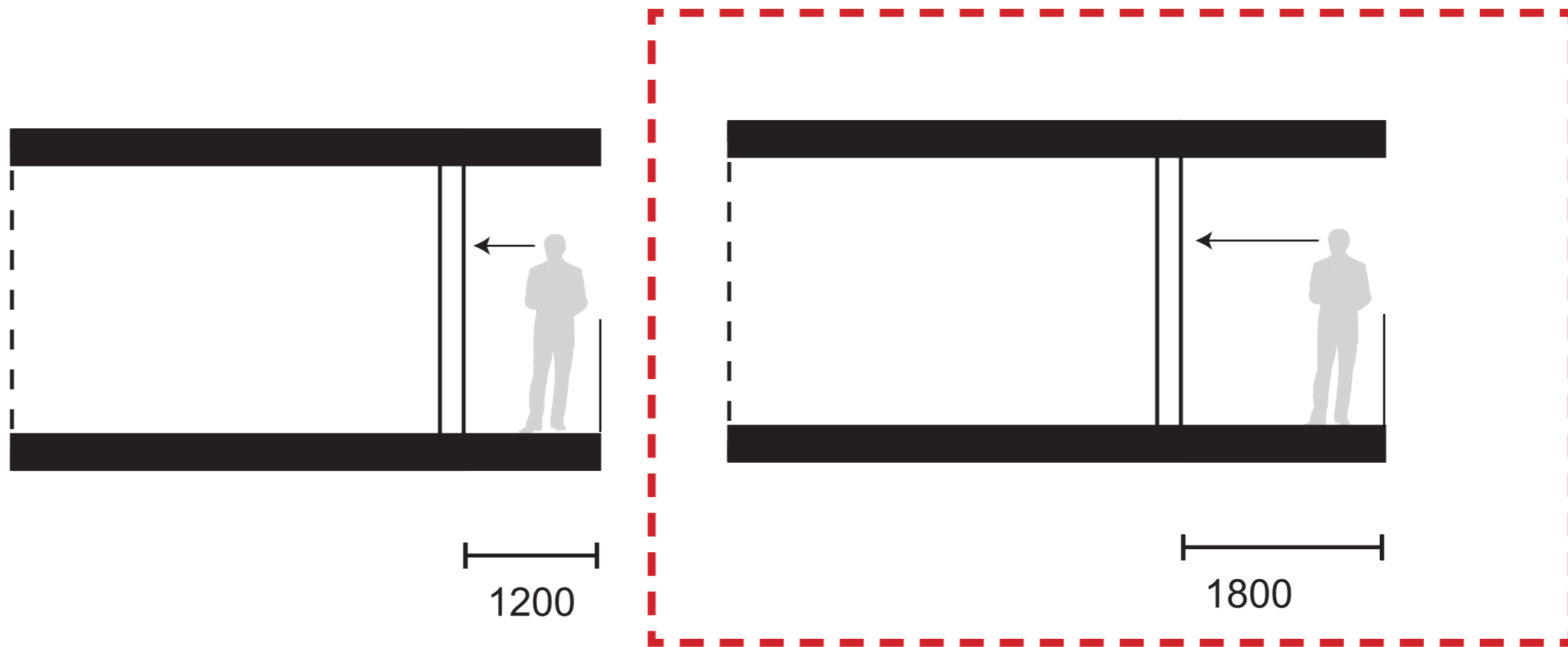


- PUBLIC
- COLLECTIVE
- PRIVATE

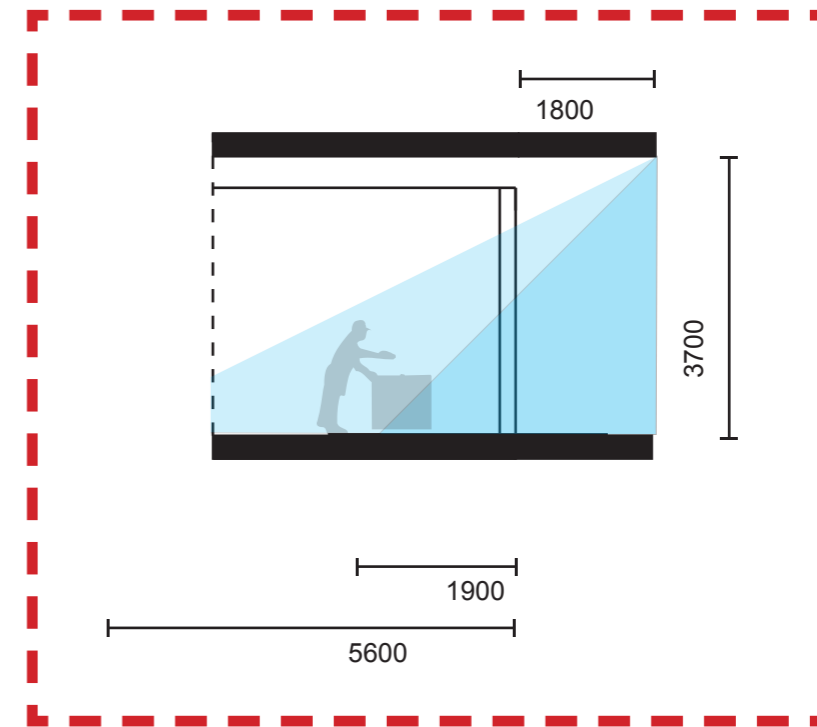
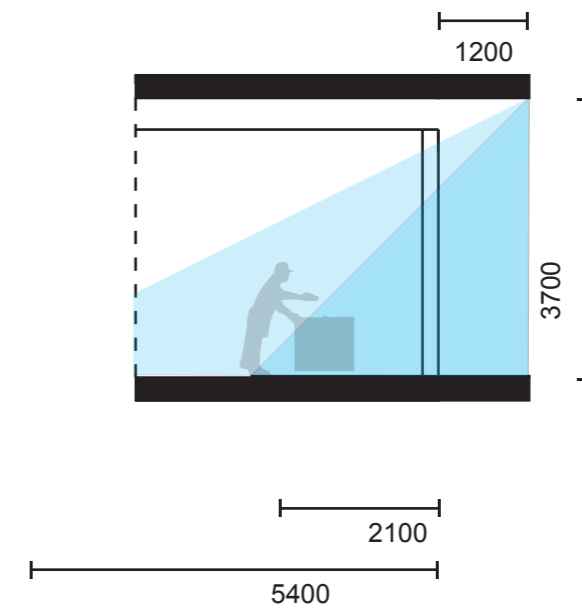
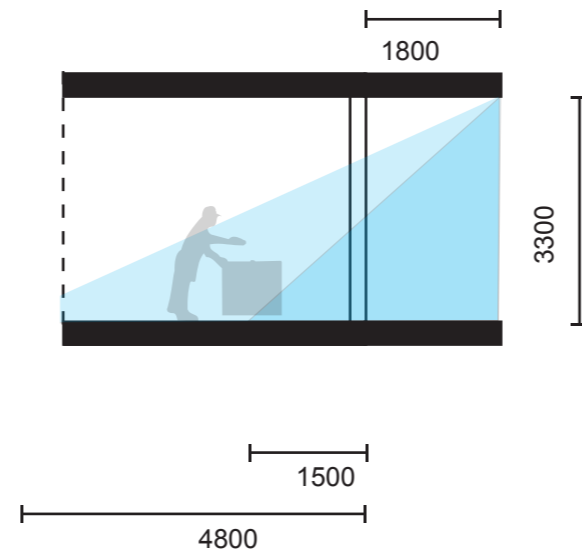
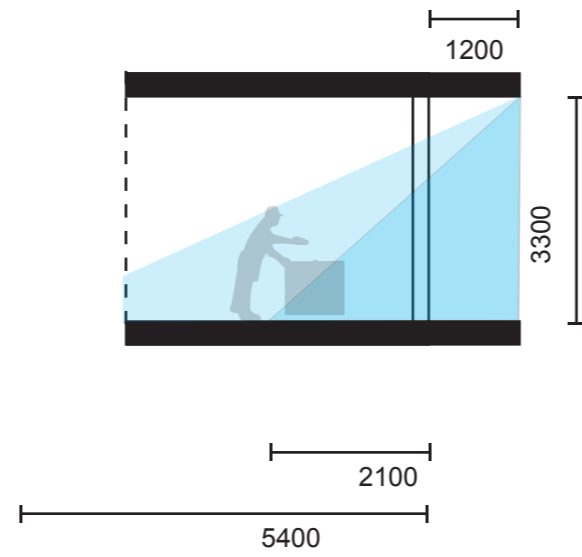
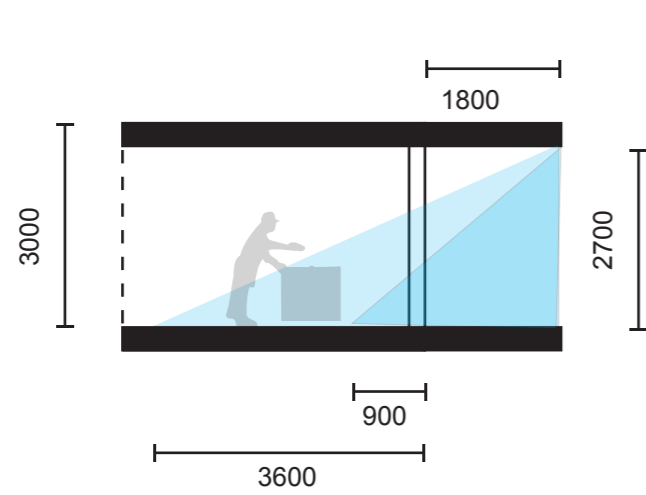
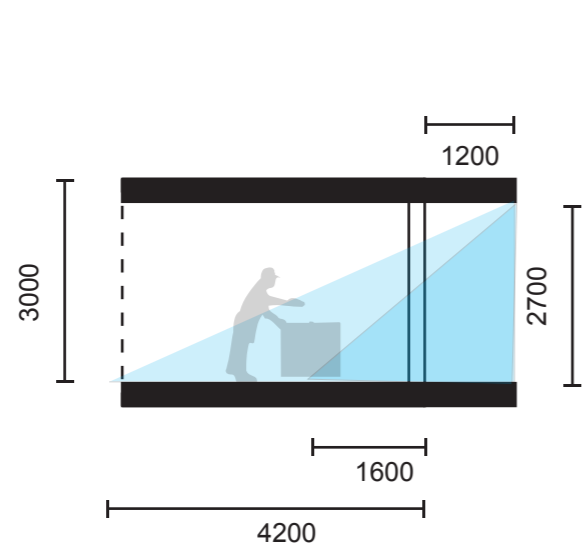
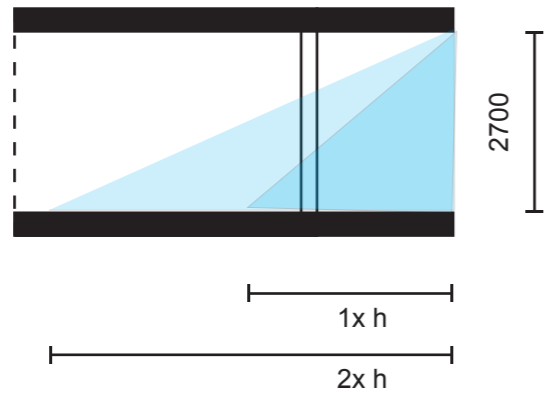
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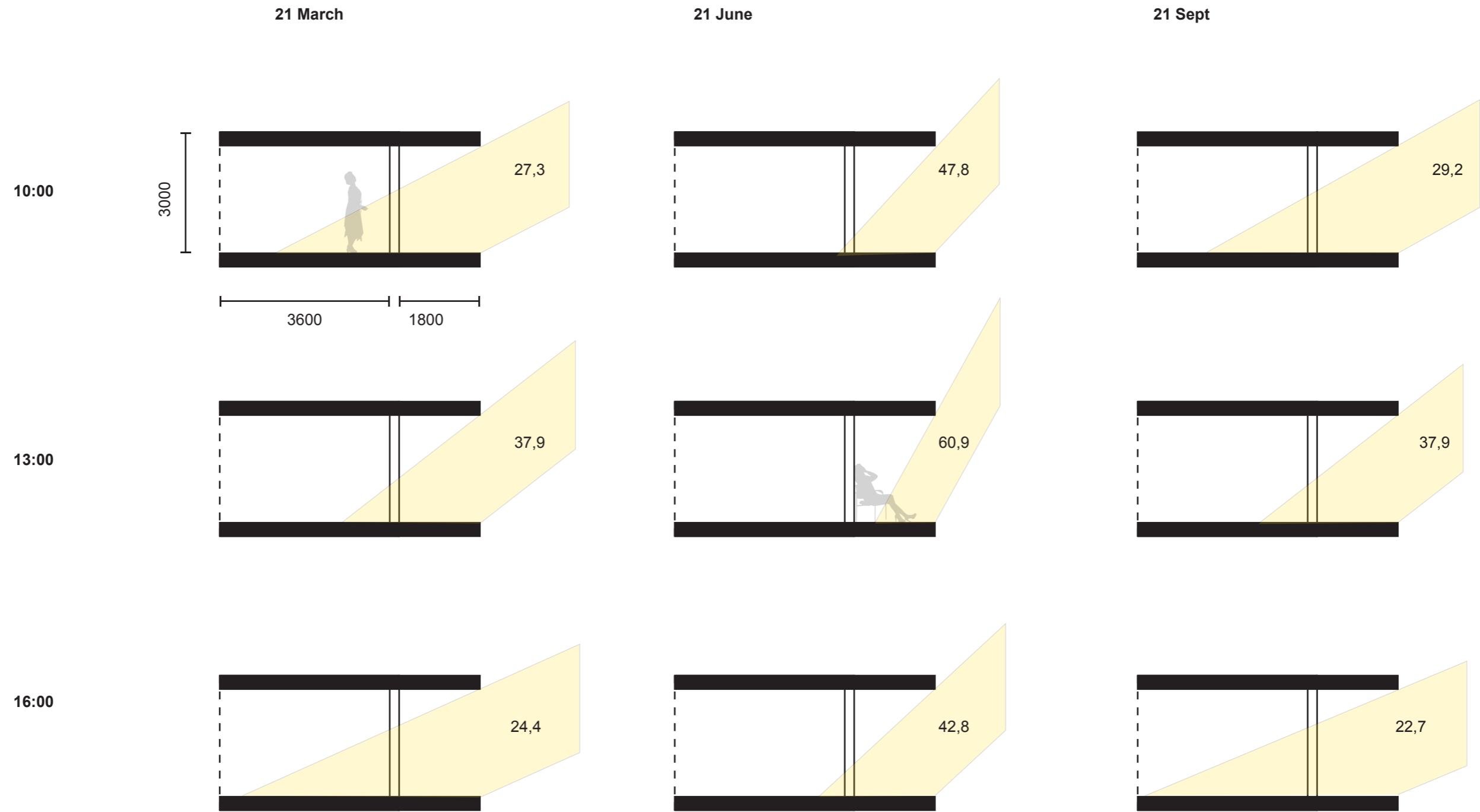
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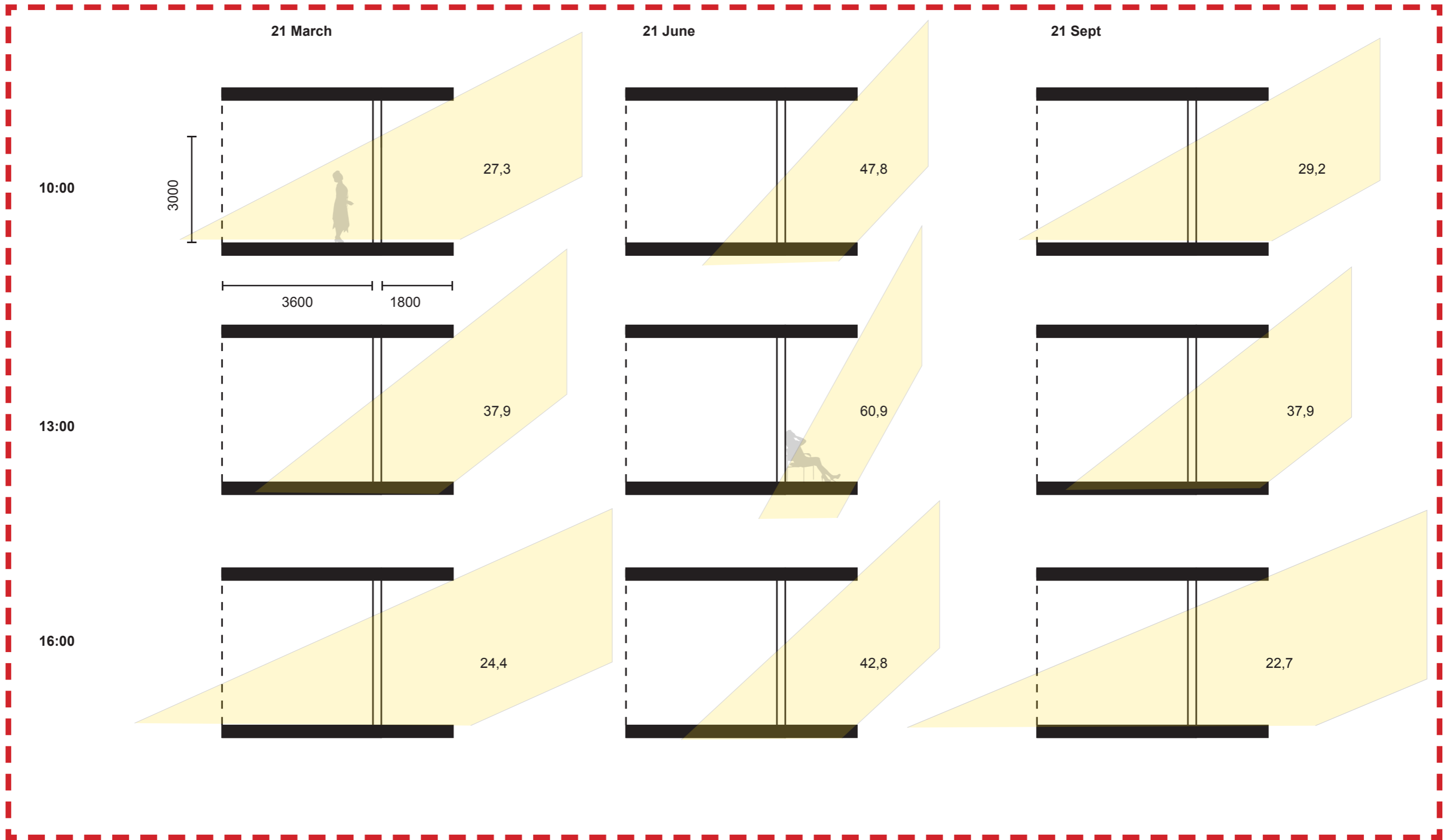


GALLERY DIAGRAMS // DAYLIGHT STUDY



GALLERY DIAGRAMS // SOLAR / SHADOW STUDY



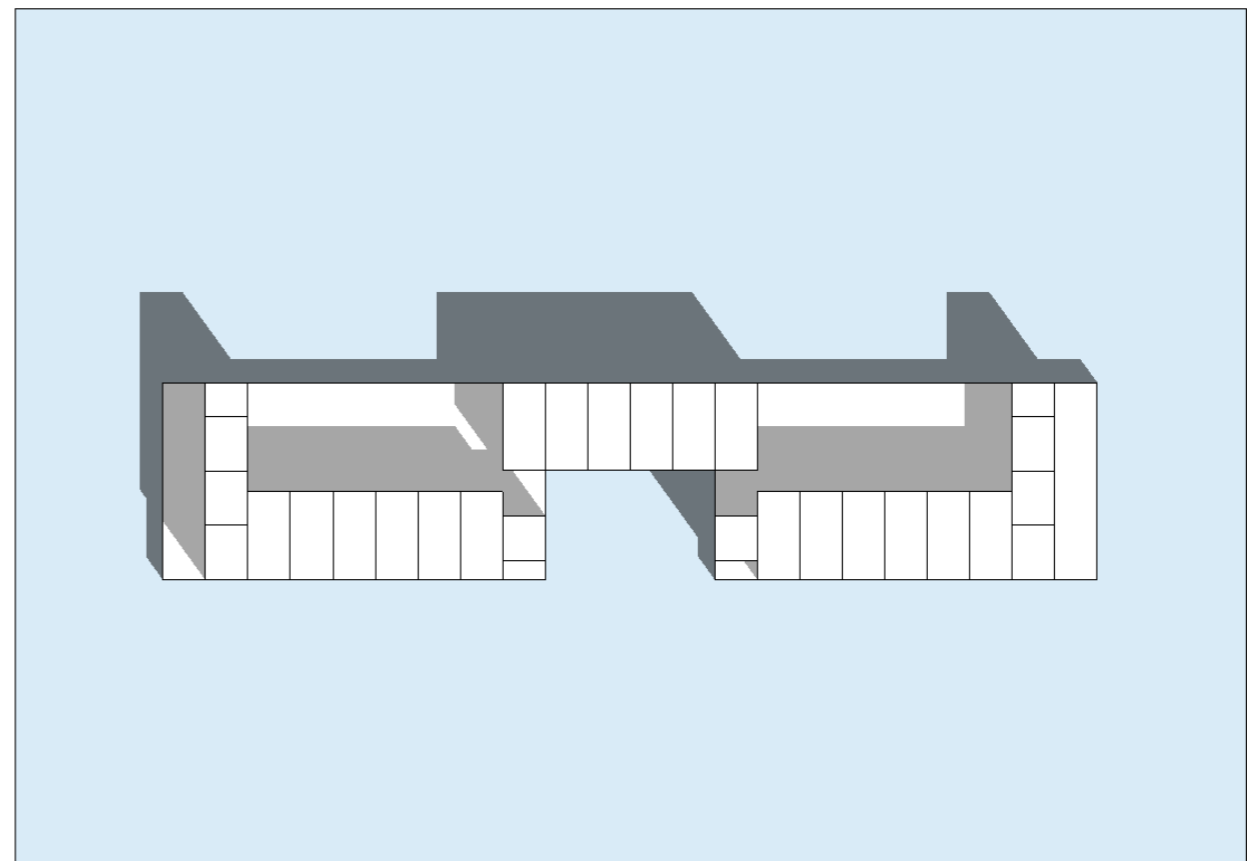


SHADOW DIAGRAMS //

BUILDING SCALE



21 MARCH, 12:00 AM

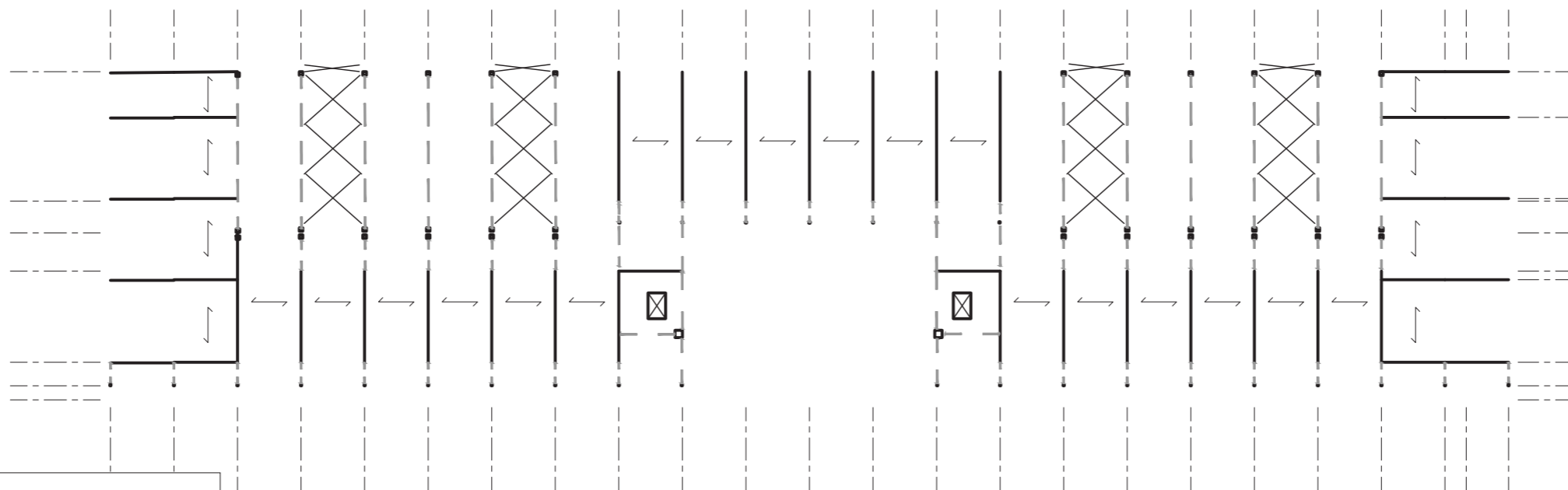
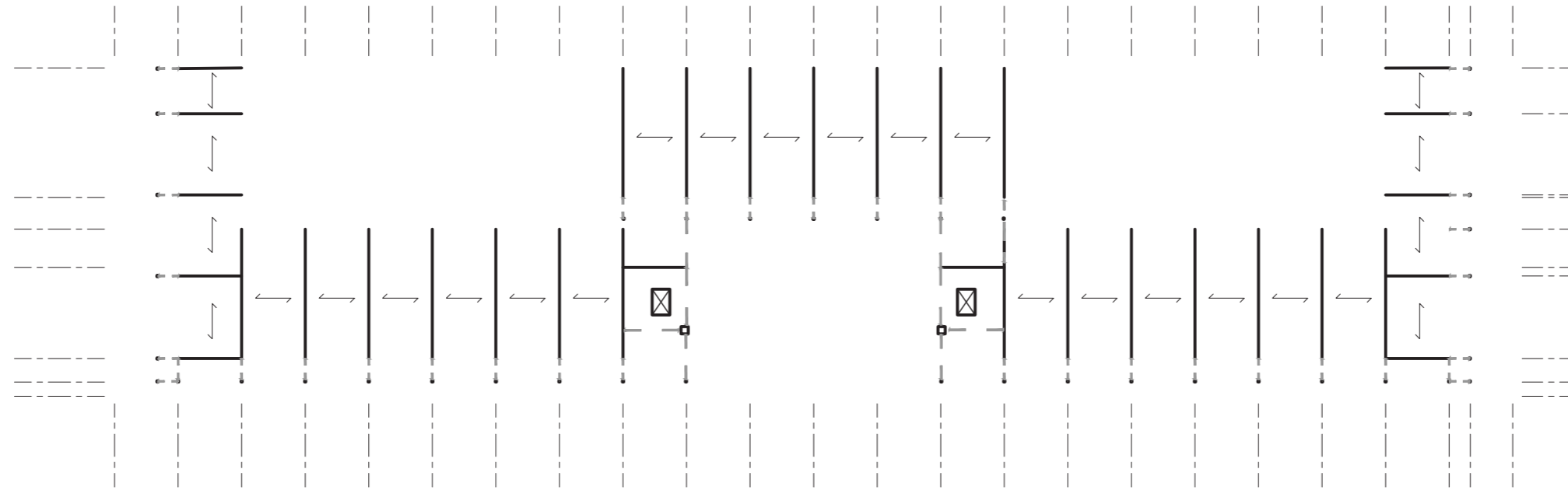


21 JUNE, 12:00 AM



21 SEPTEMBER, 12:00 AM

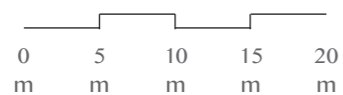
LOADBEARING STRUCTURE // CONSTRUCTION DIAGRAM

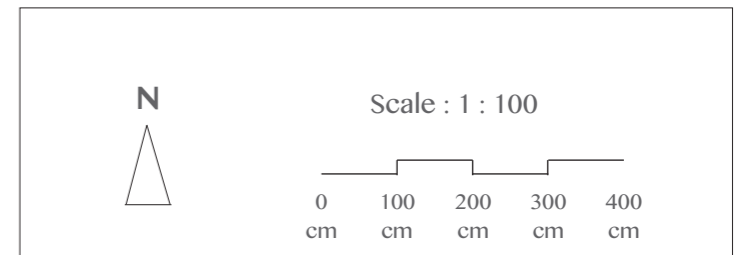
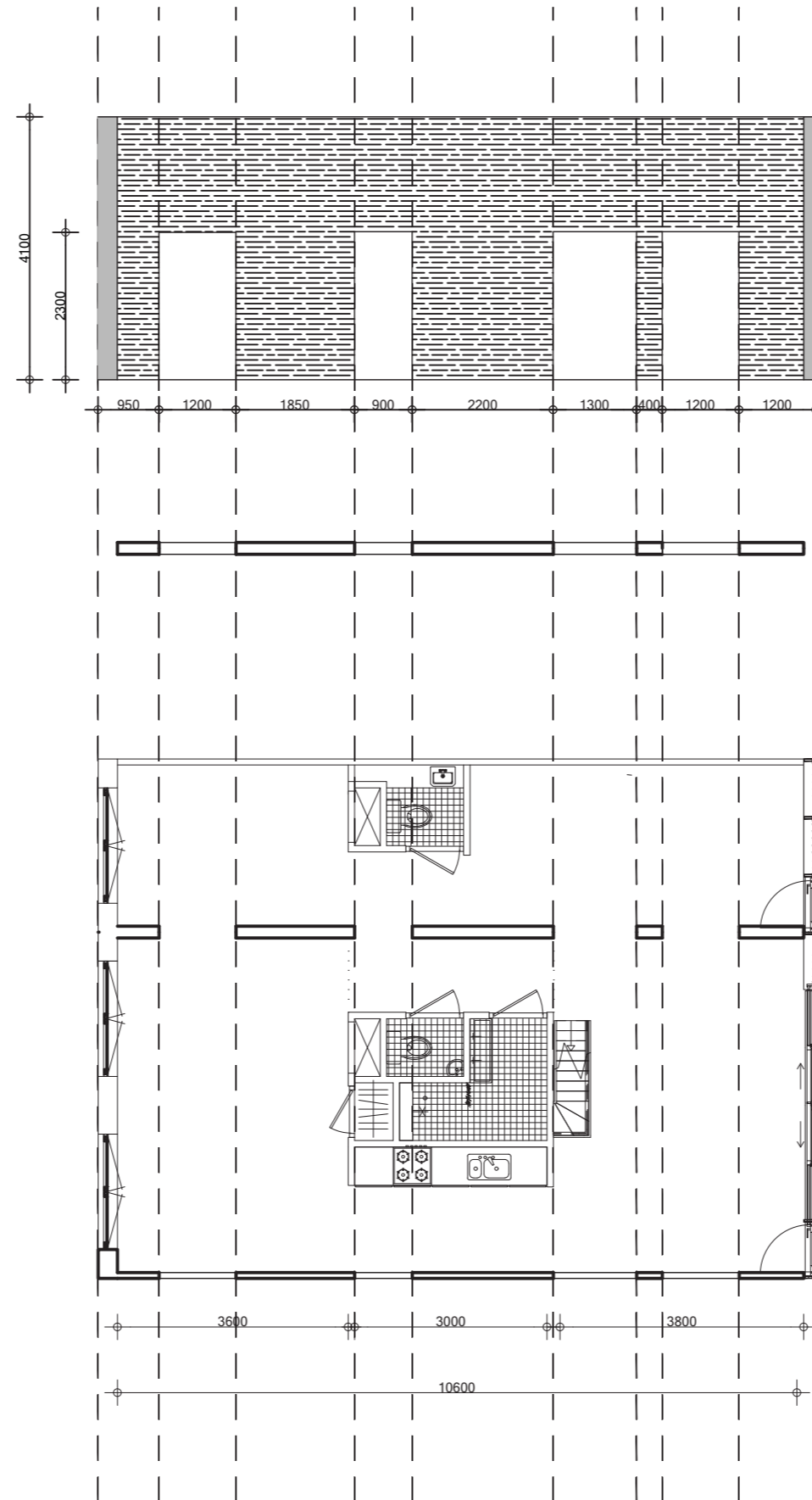


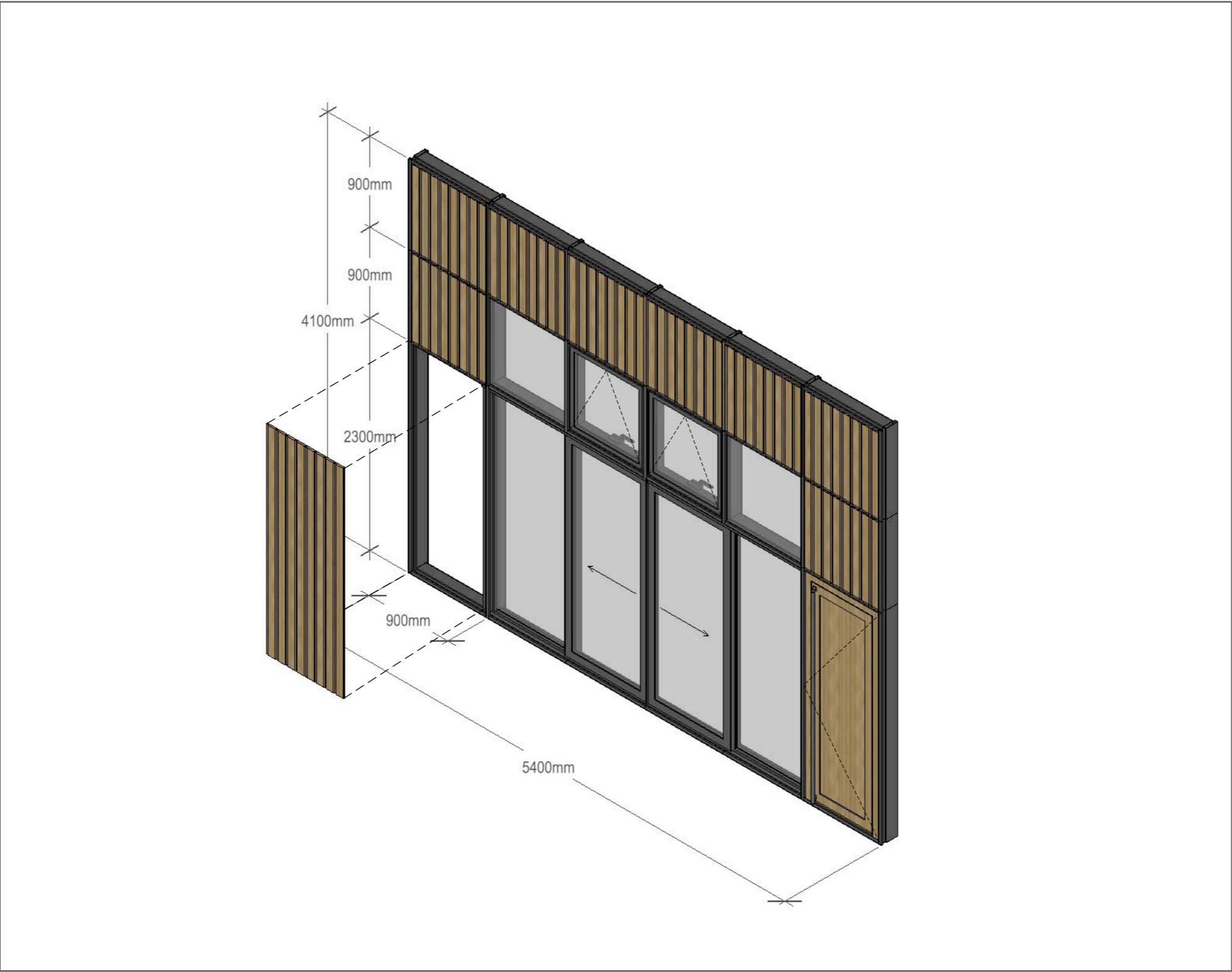
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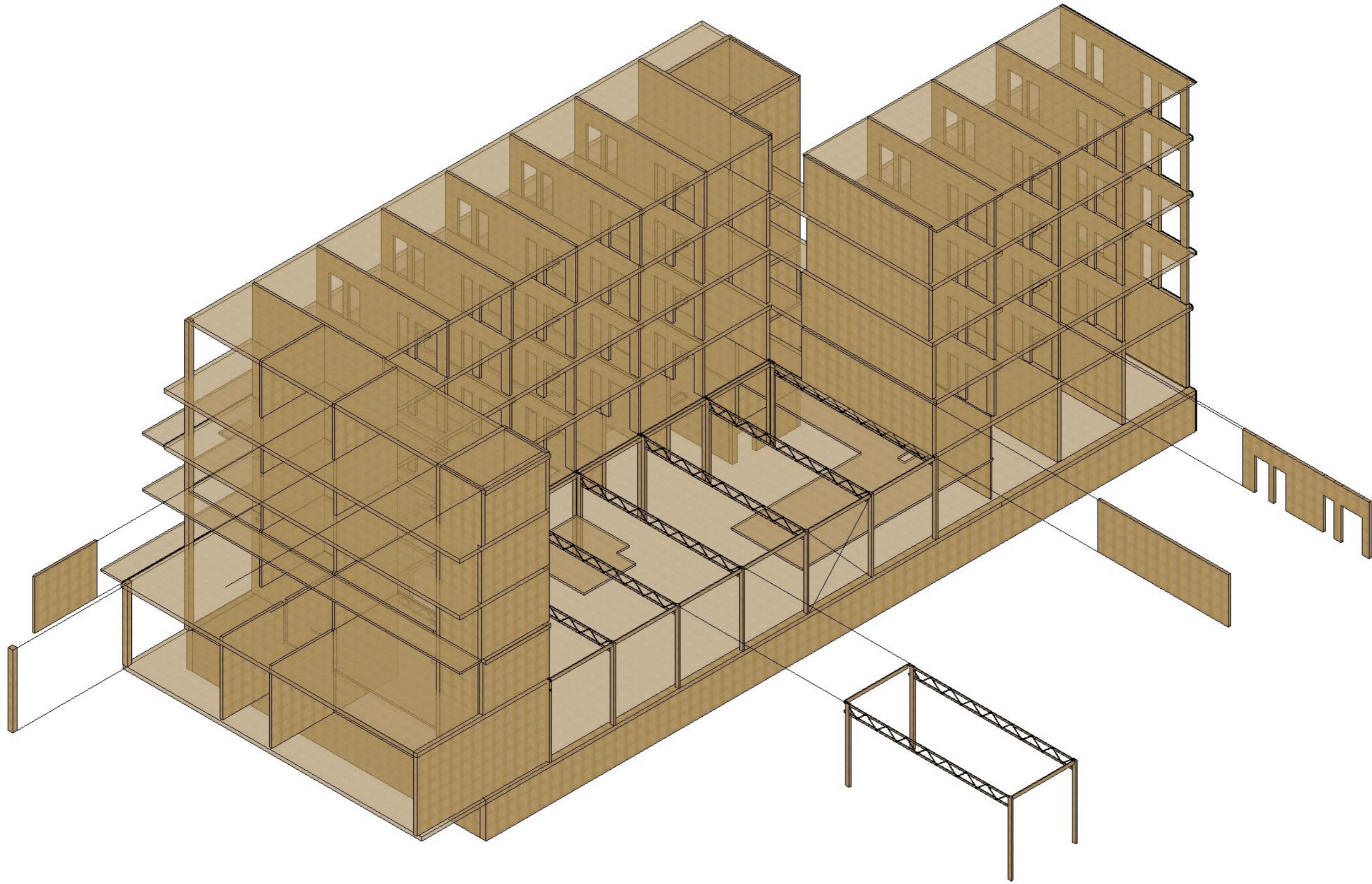


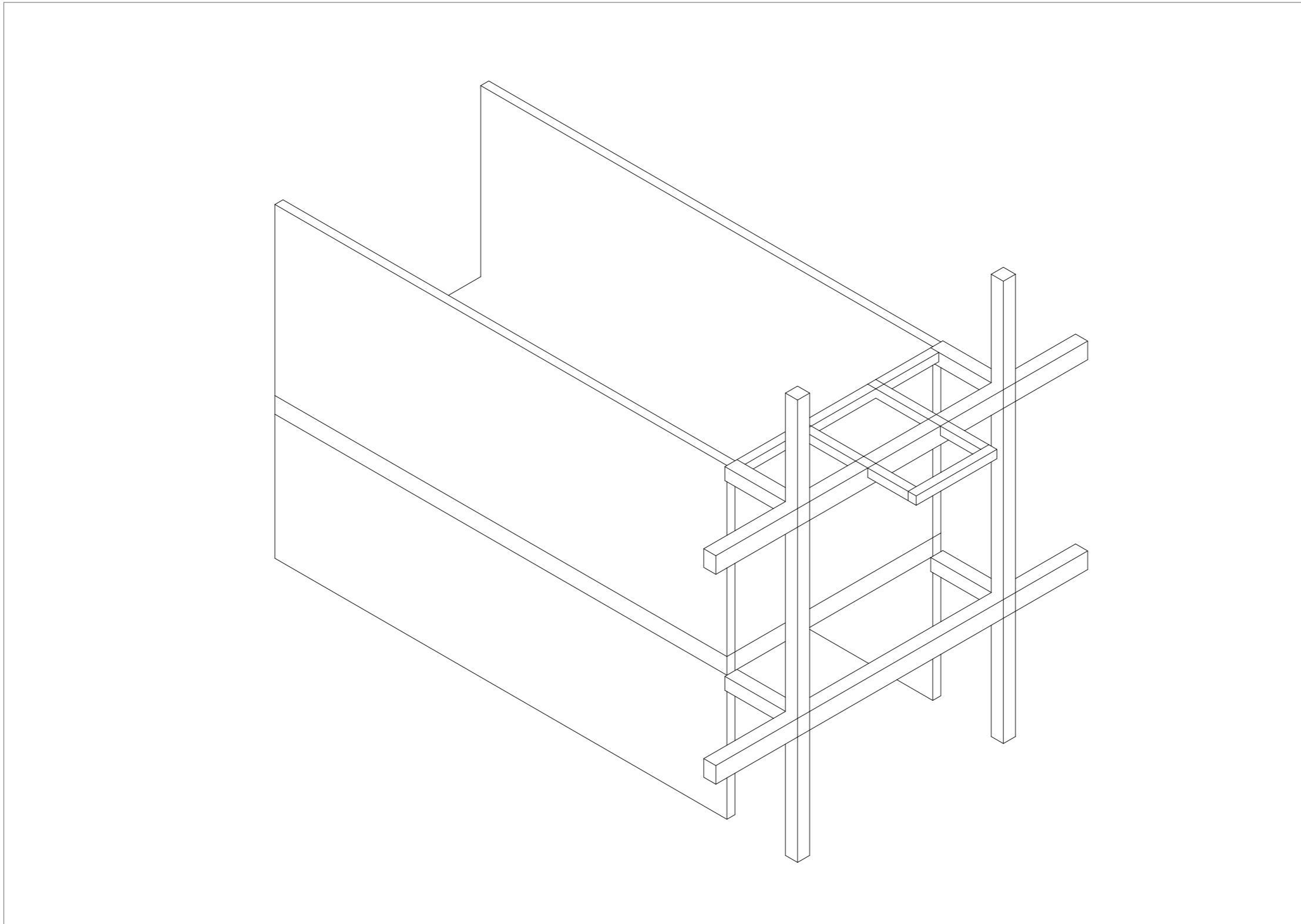
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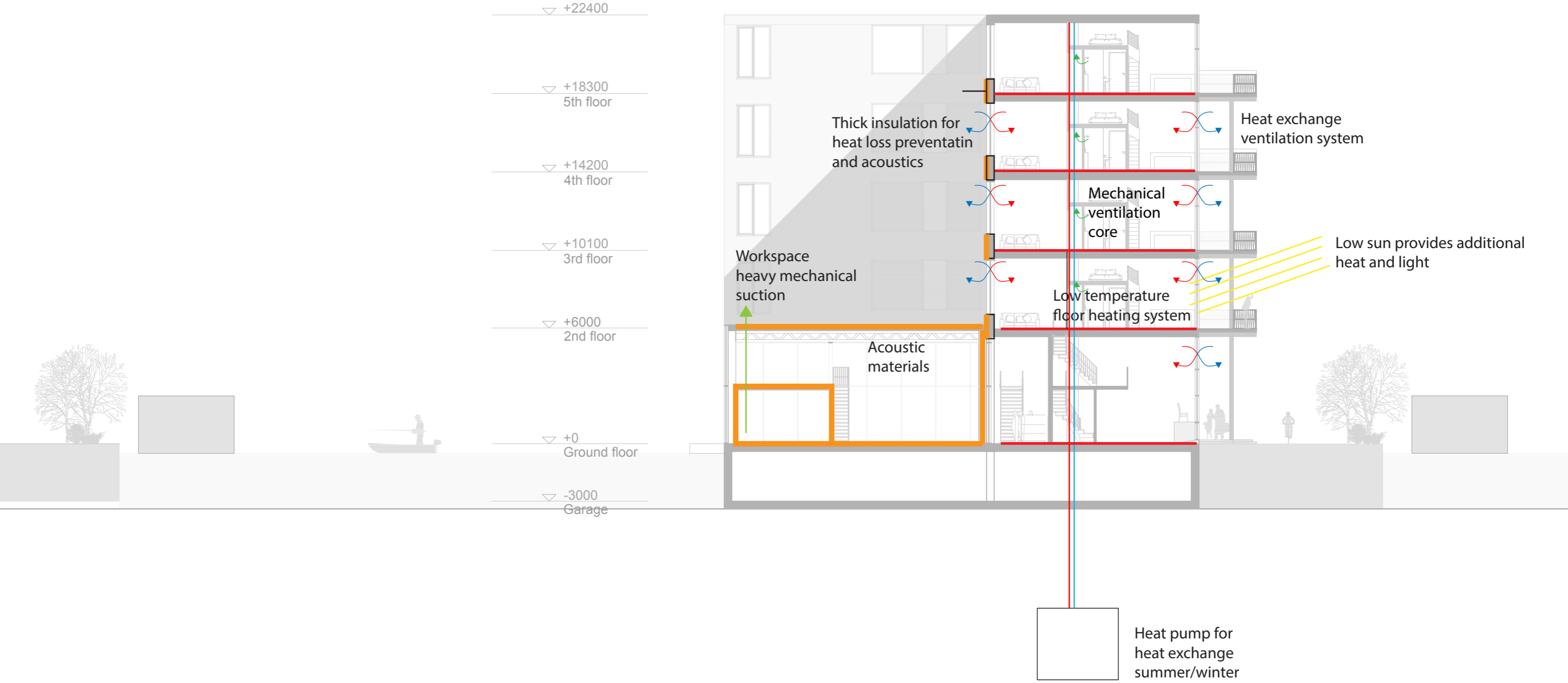




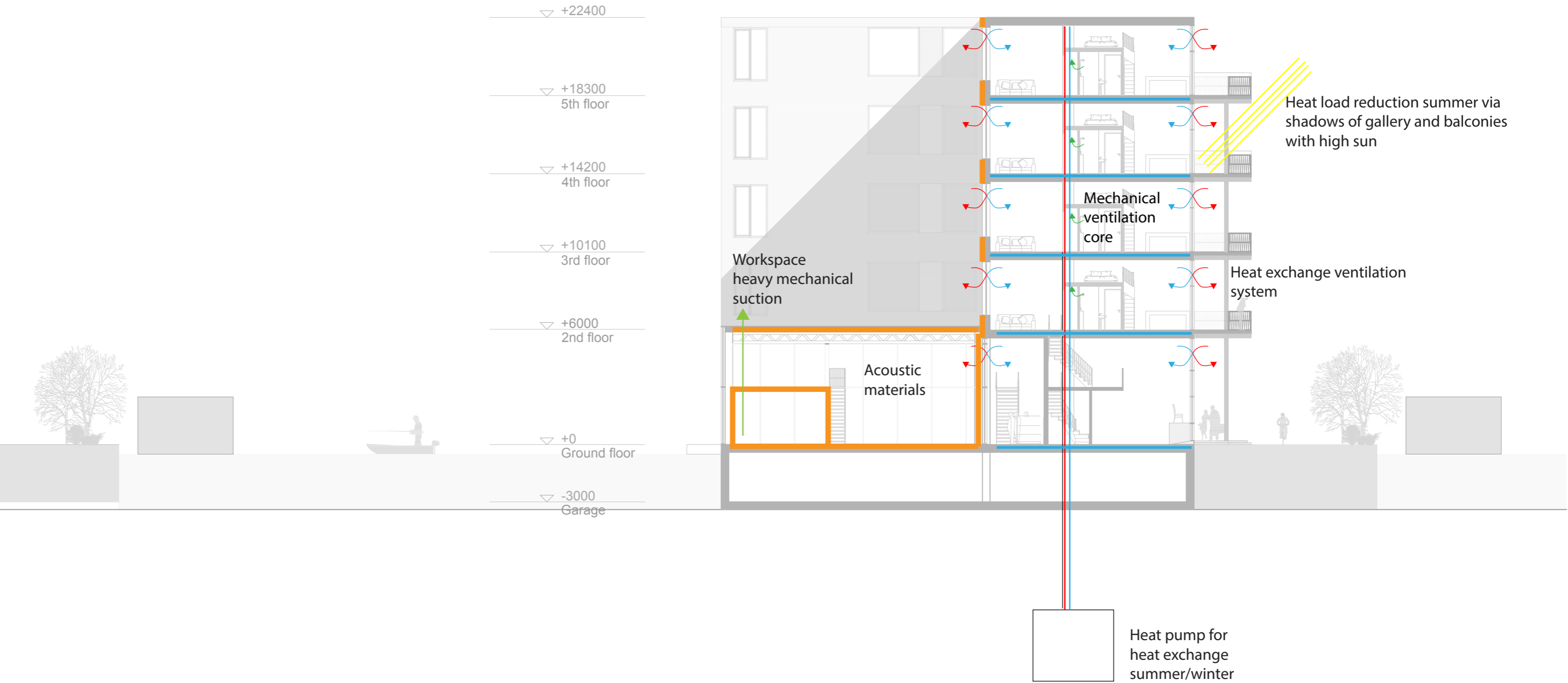


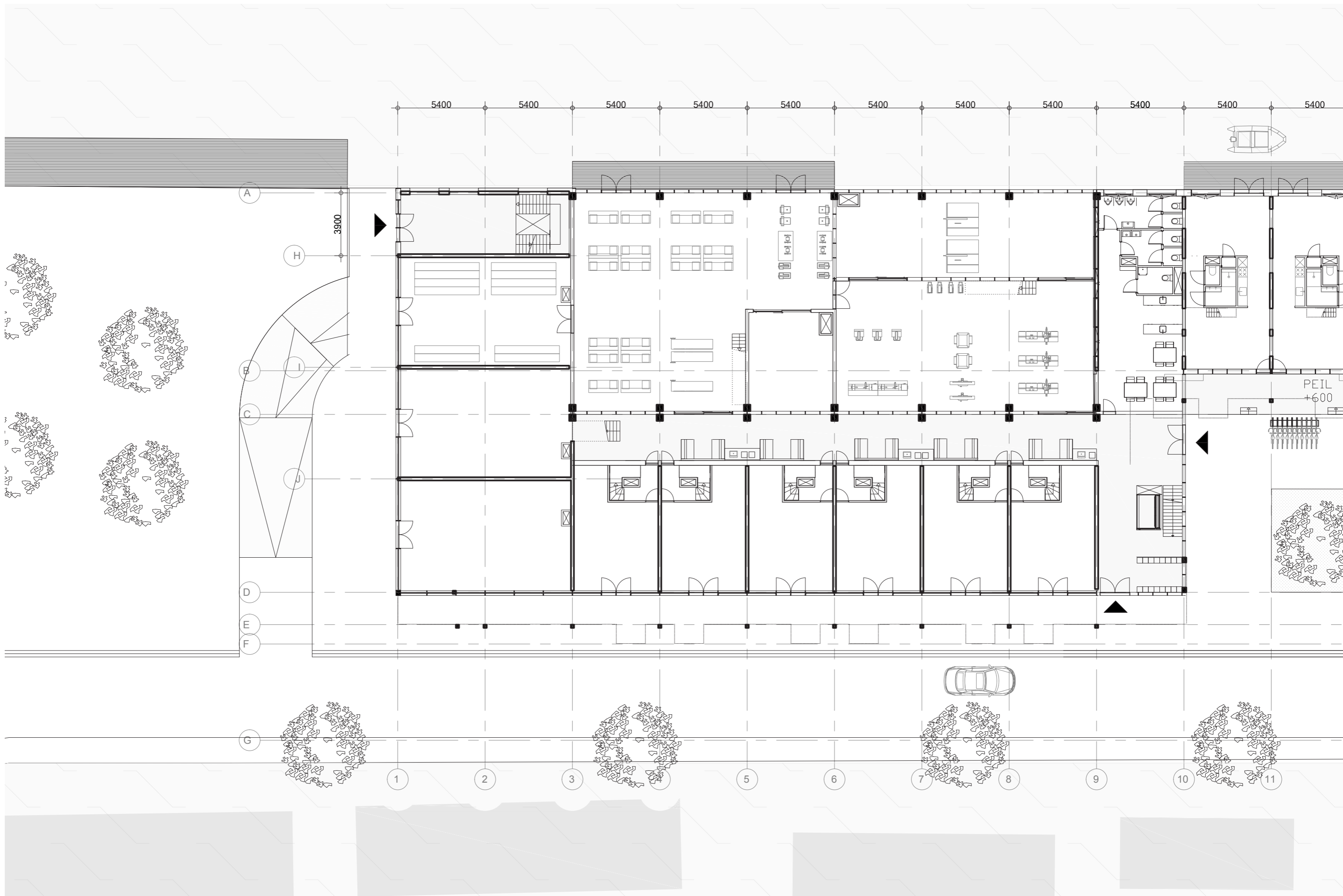


CLIMATE SCHEME // WINTER

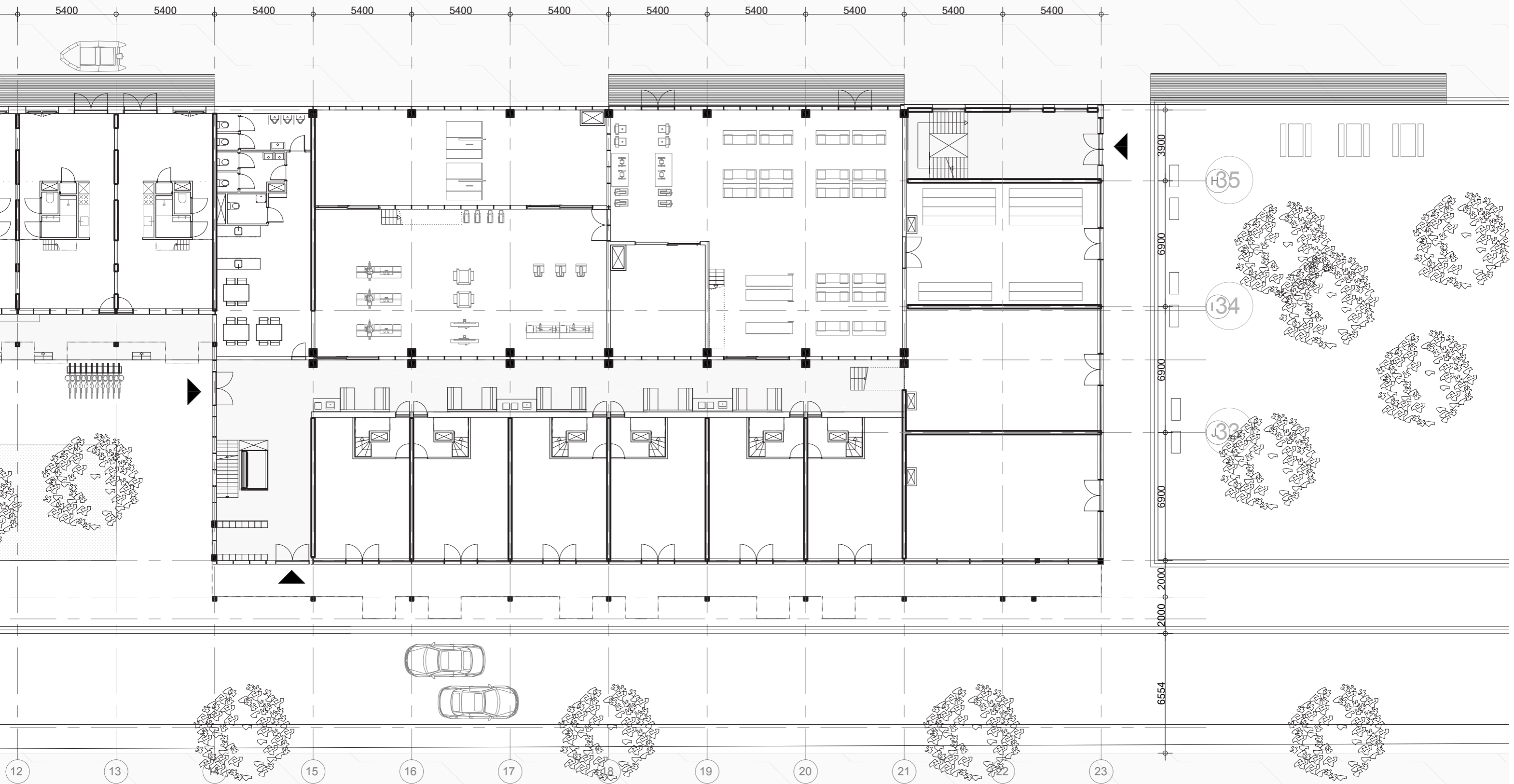


CIMATE SCHEME // SUMMER





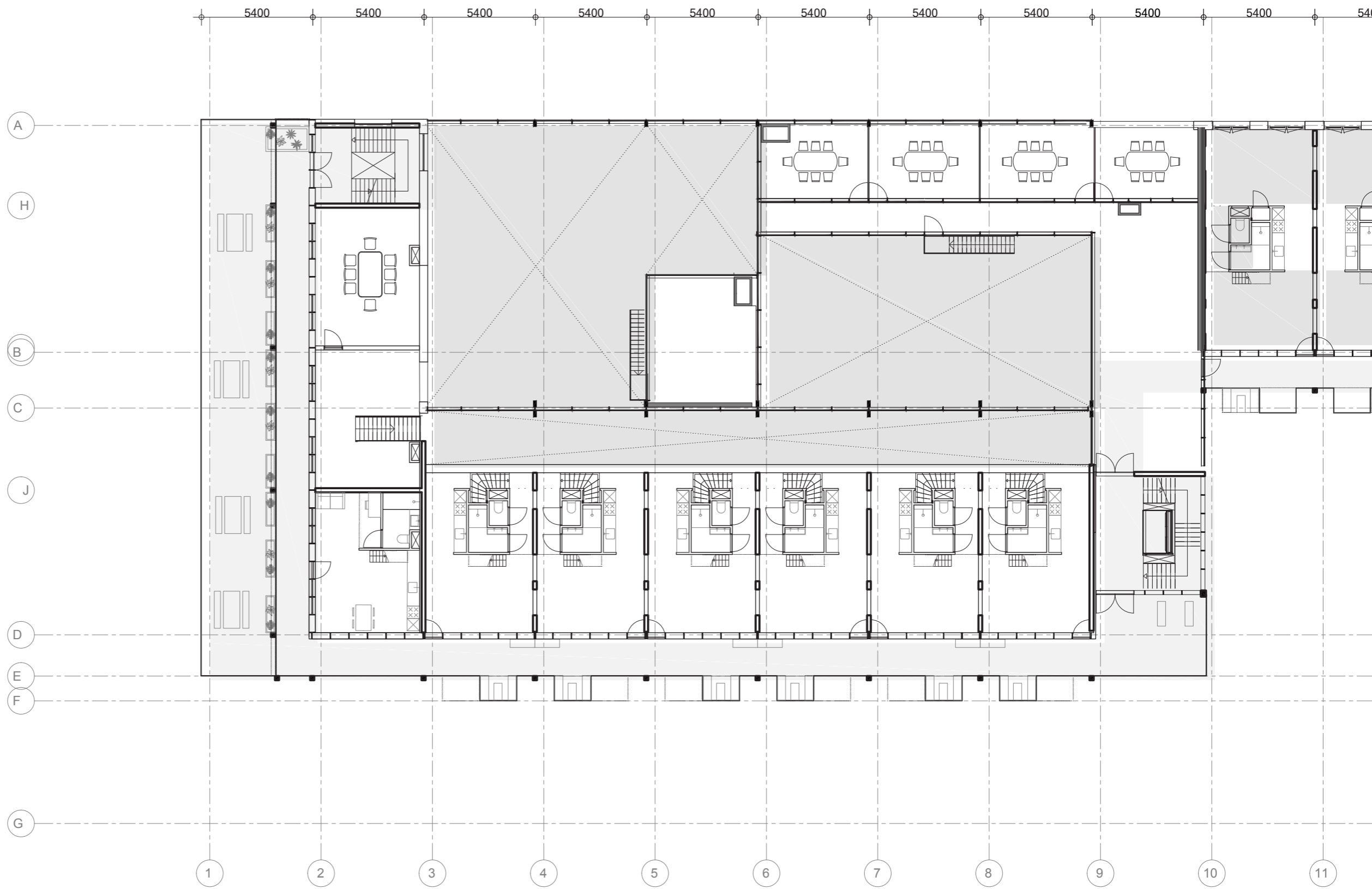
FLOOR PLAN // GROUND FLOOR



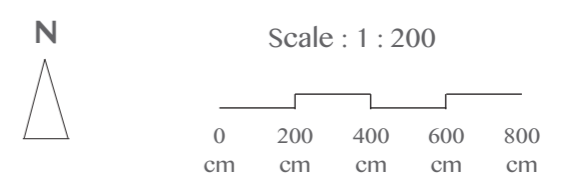
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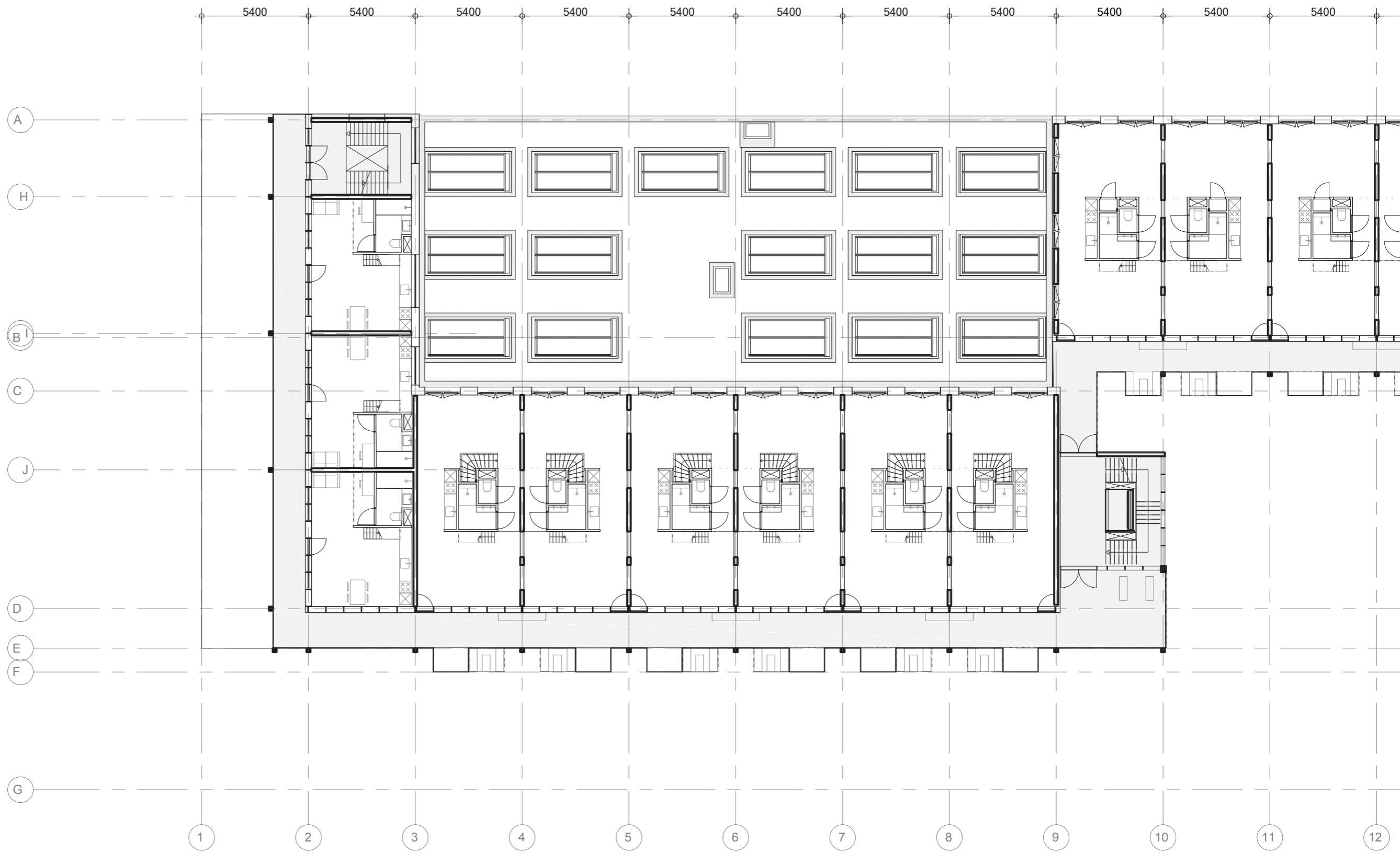
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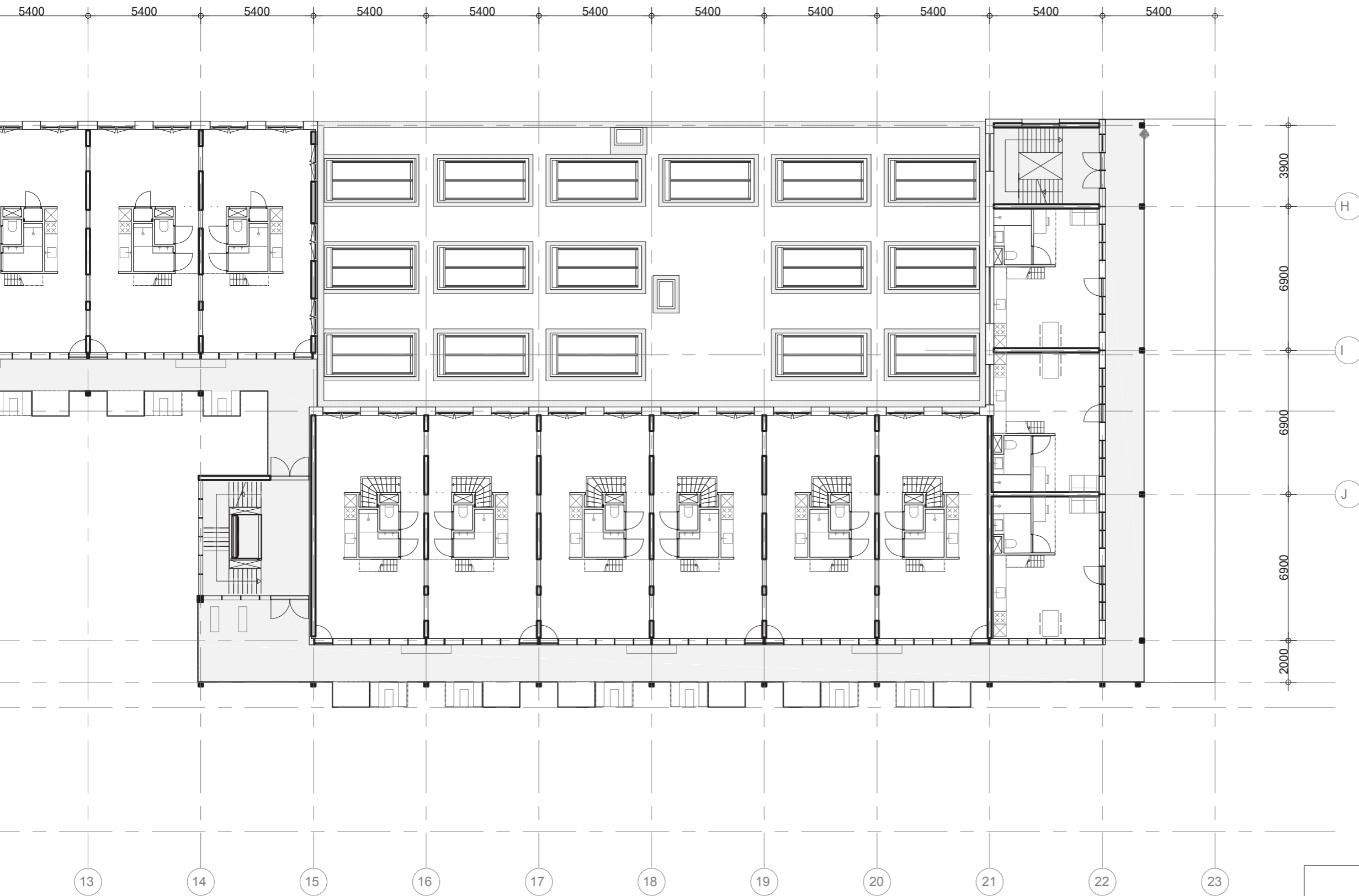


FLOOR PLAN // SECOND FLOOR (+4100)





FLOOR PLAN // THIRD FLOOR (+8200)



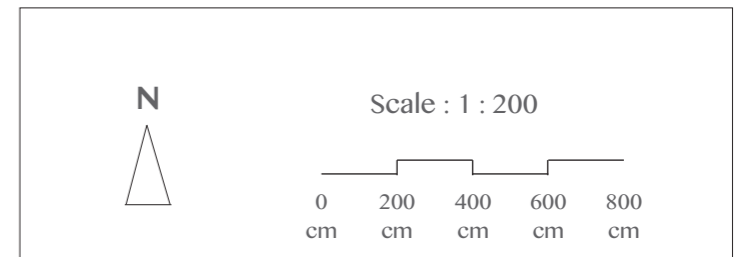
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Scale : 1 : 200

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cm cm cm cm cm



FLOOR PLAN // FOURTH FLOOR (+12300)

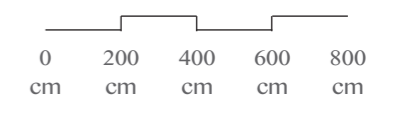


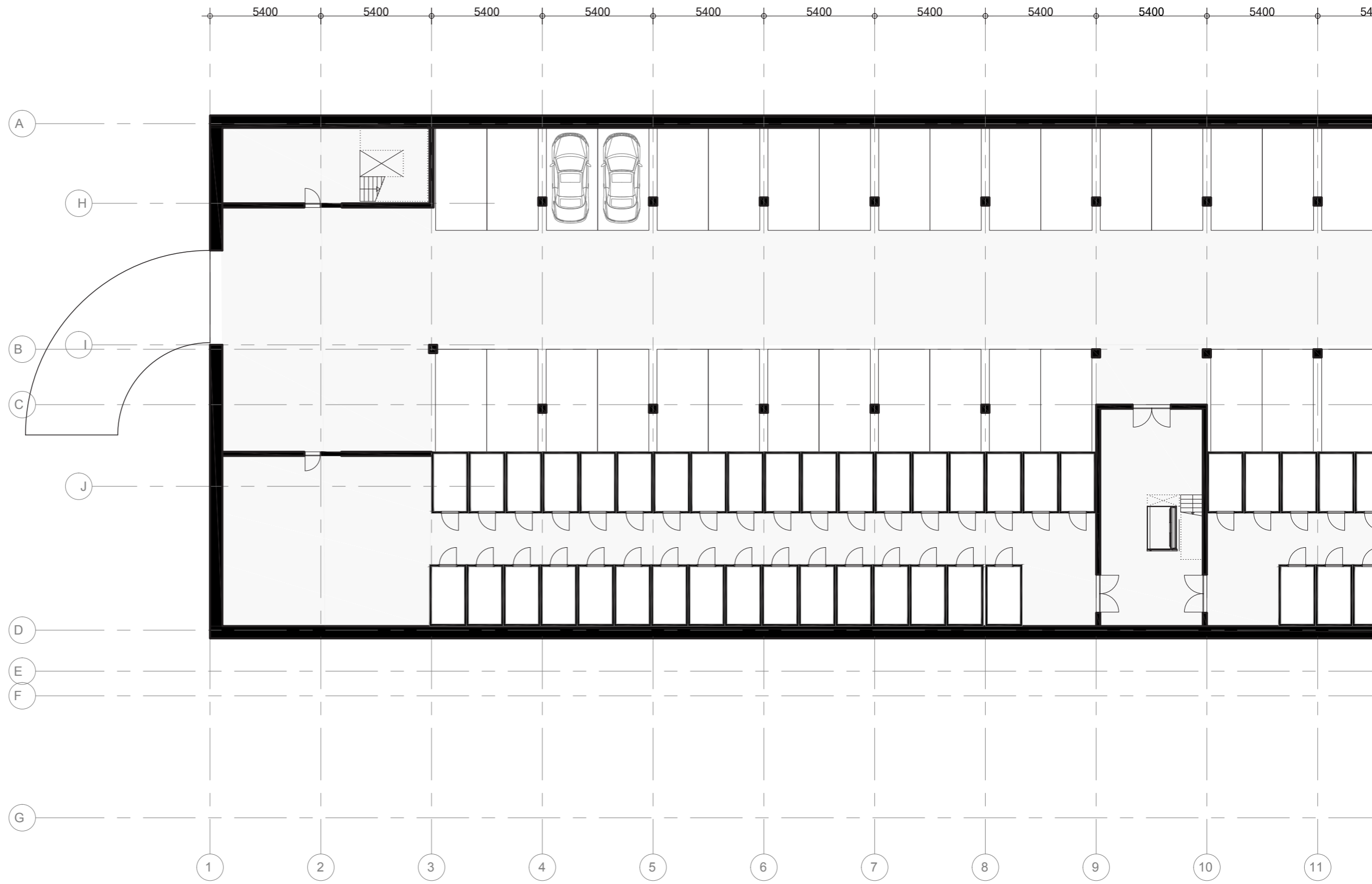


FLOOR PLAN // FIFTH FLOOR (+16400)

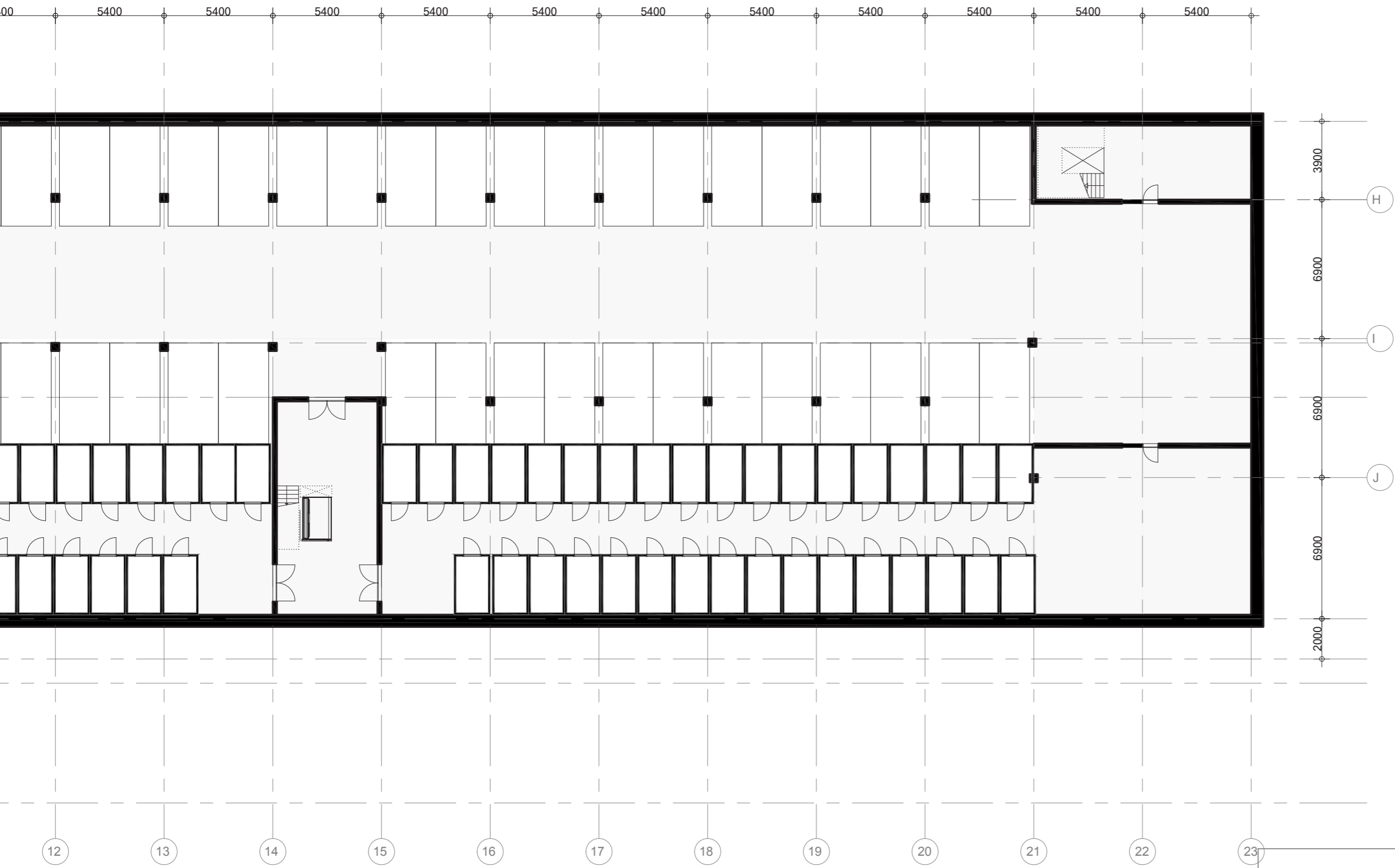


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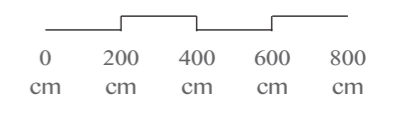




FLOOR PLAN // GARAGE (-3000)



Scale : 1 : 200

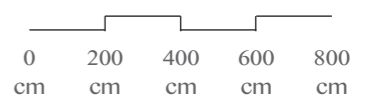




ELEVATION // SOUTH



Scale : 1 : 200



ELEVATION // WEST



ELEVATION // EAST





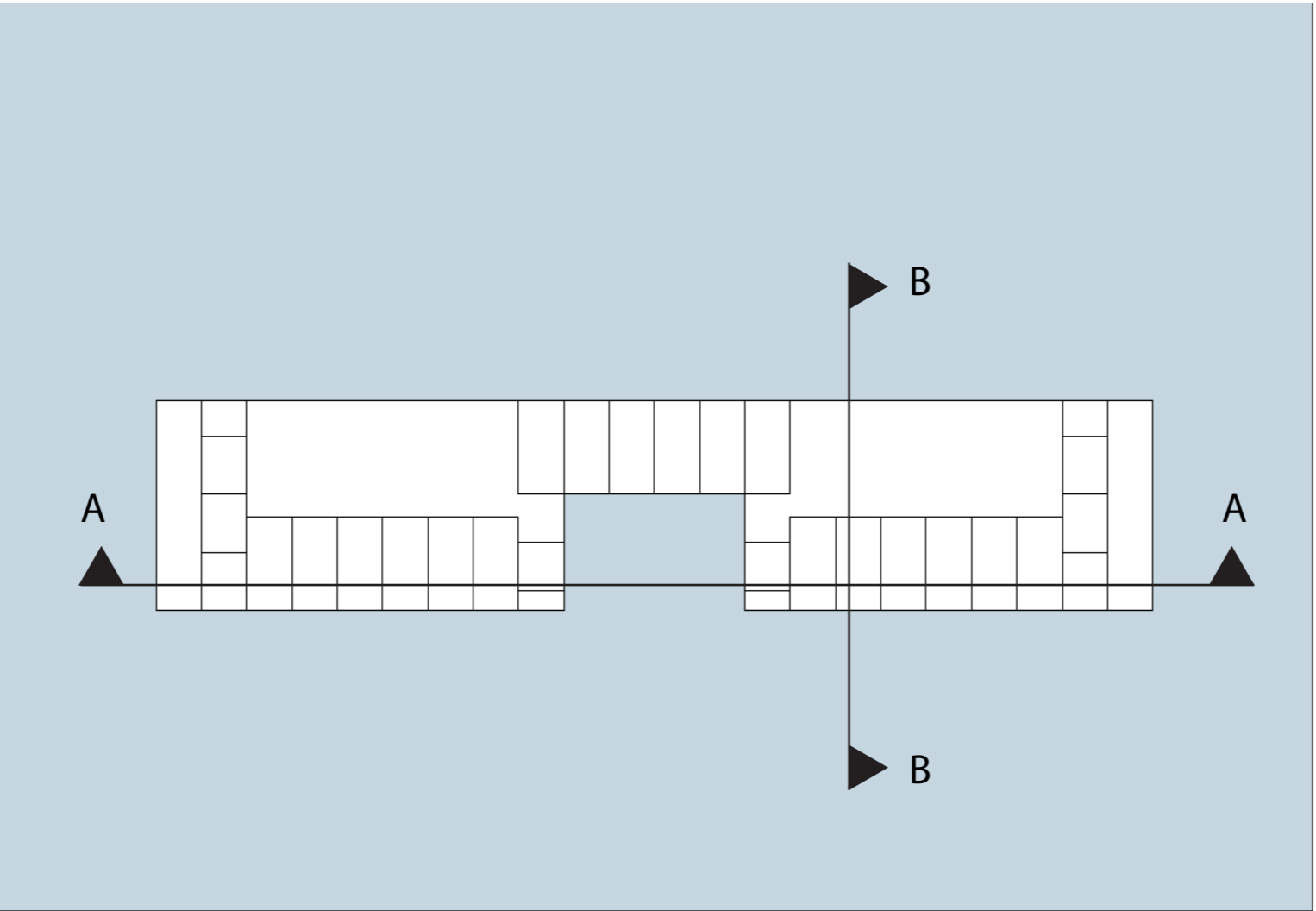
ELEVATION // NORTH



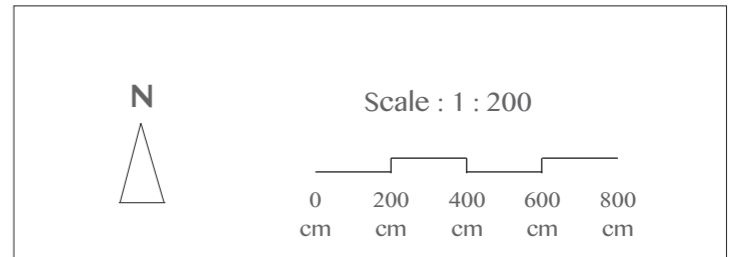
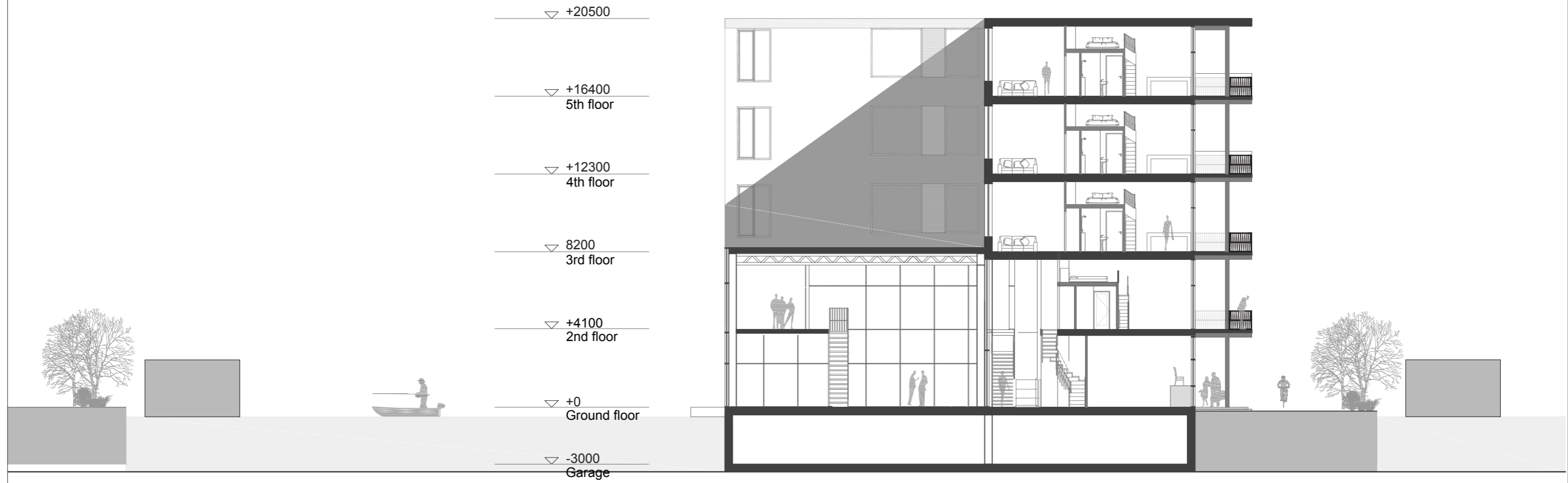
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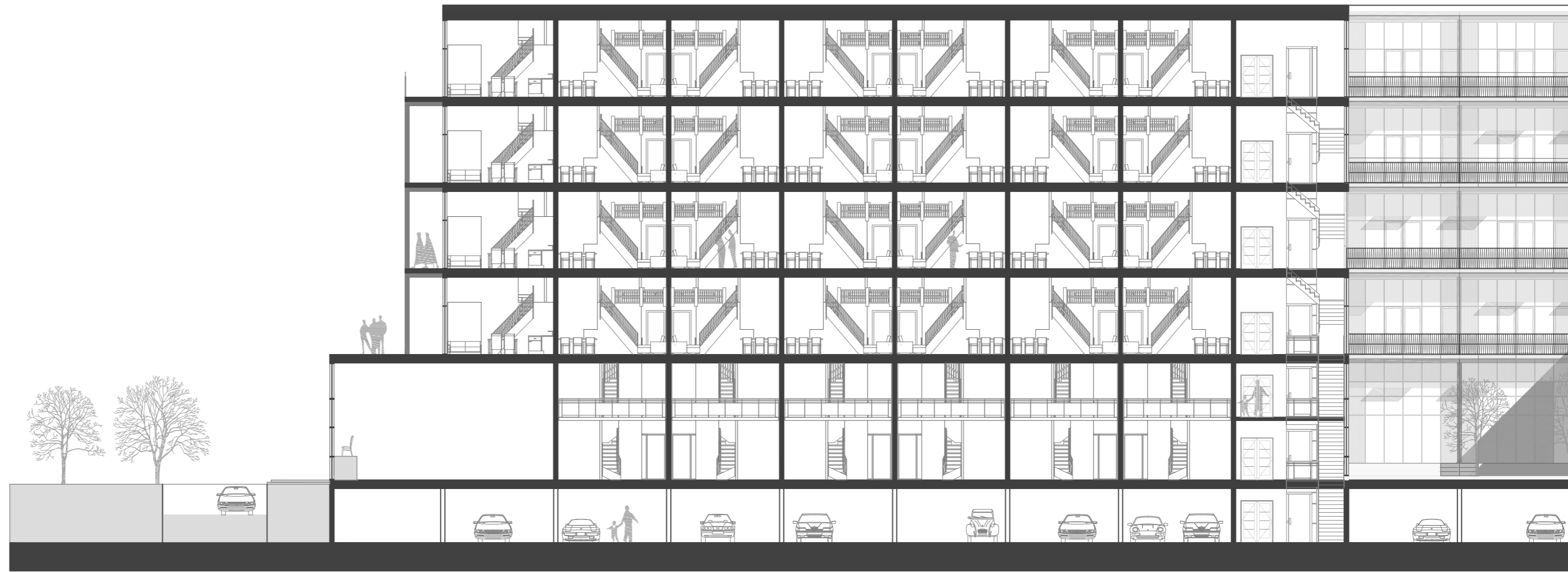
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cm cm cm cm cm

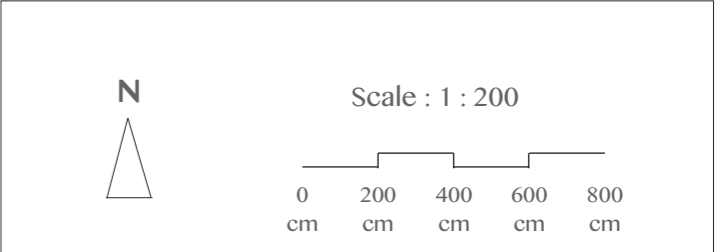
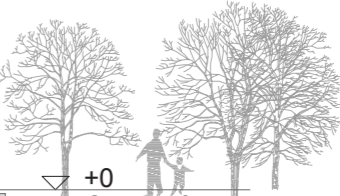
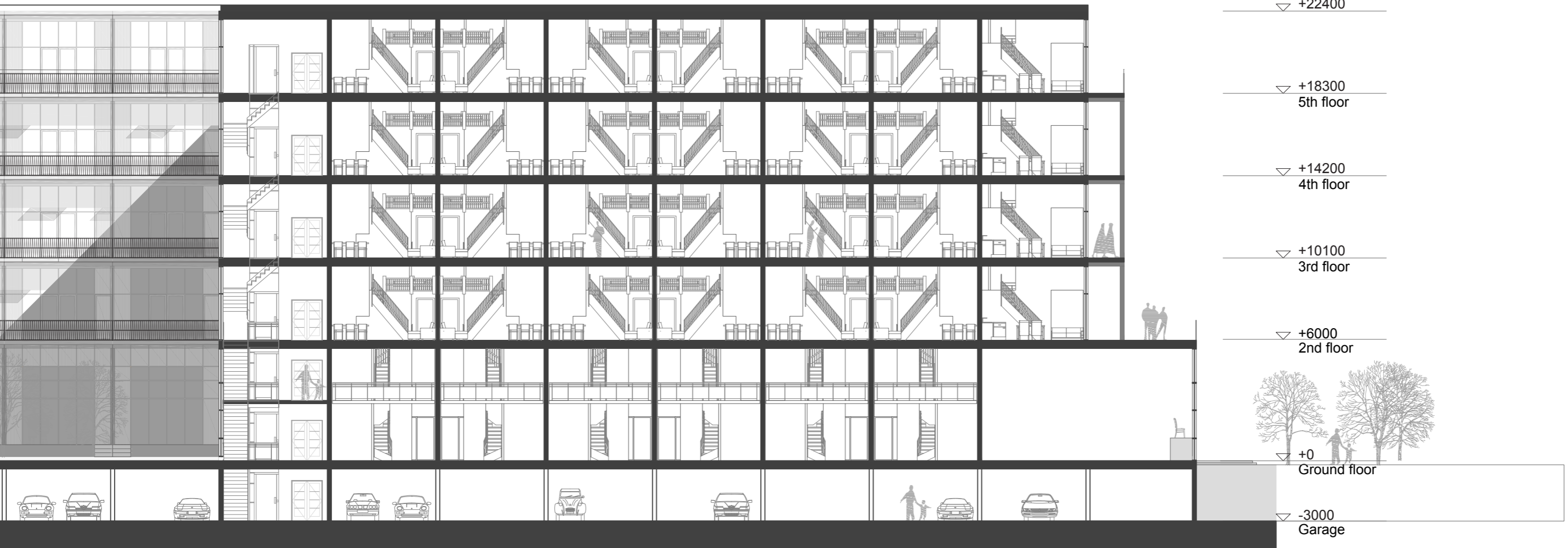


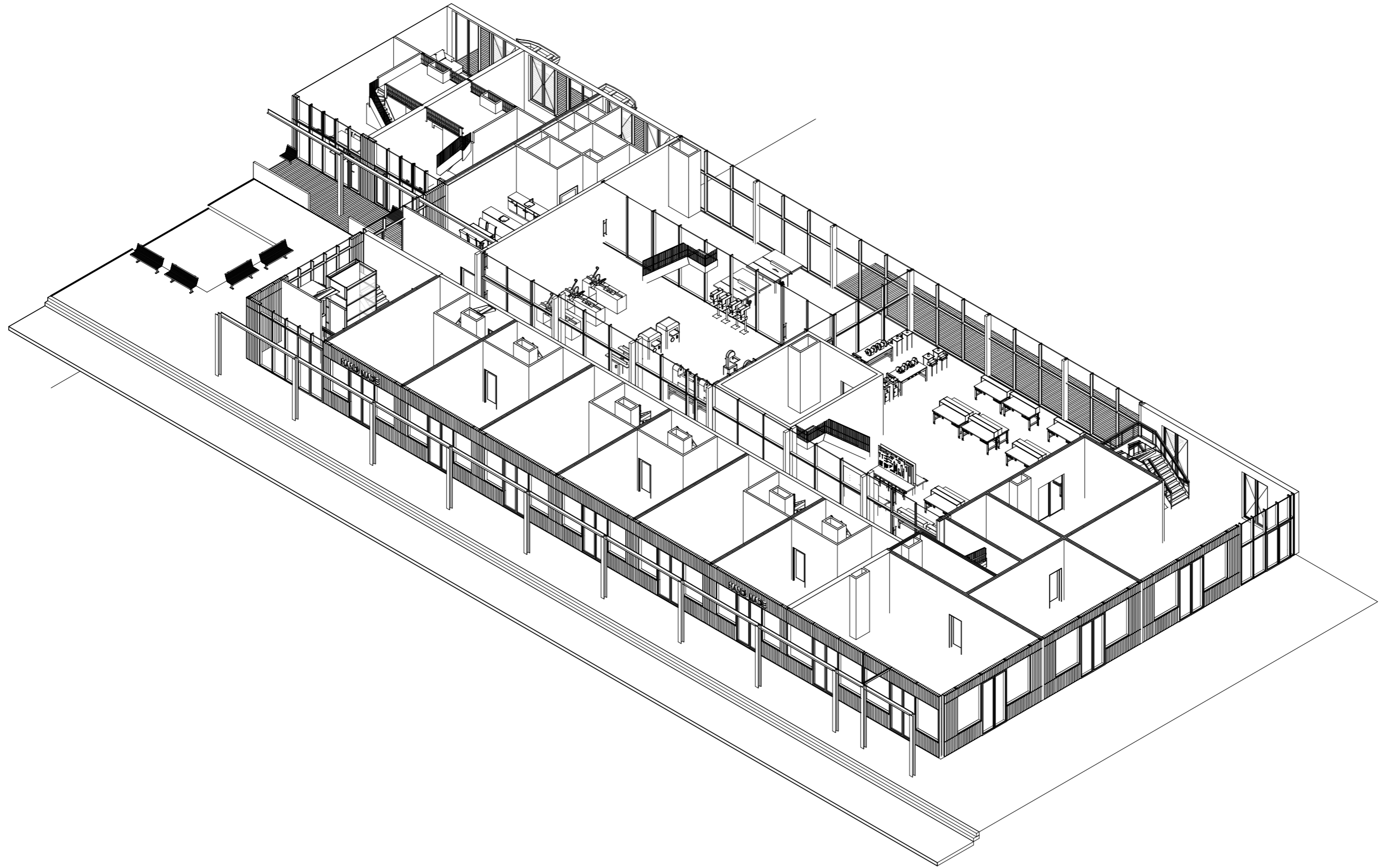
SECTION // B-B



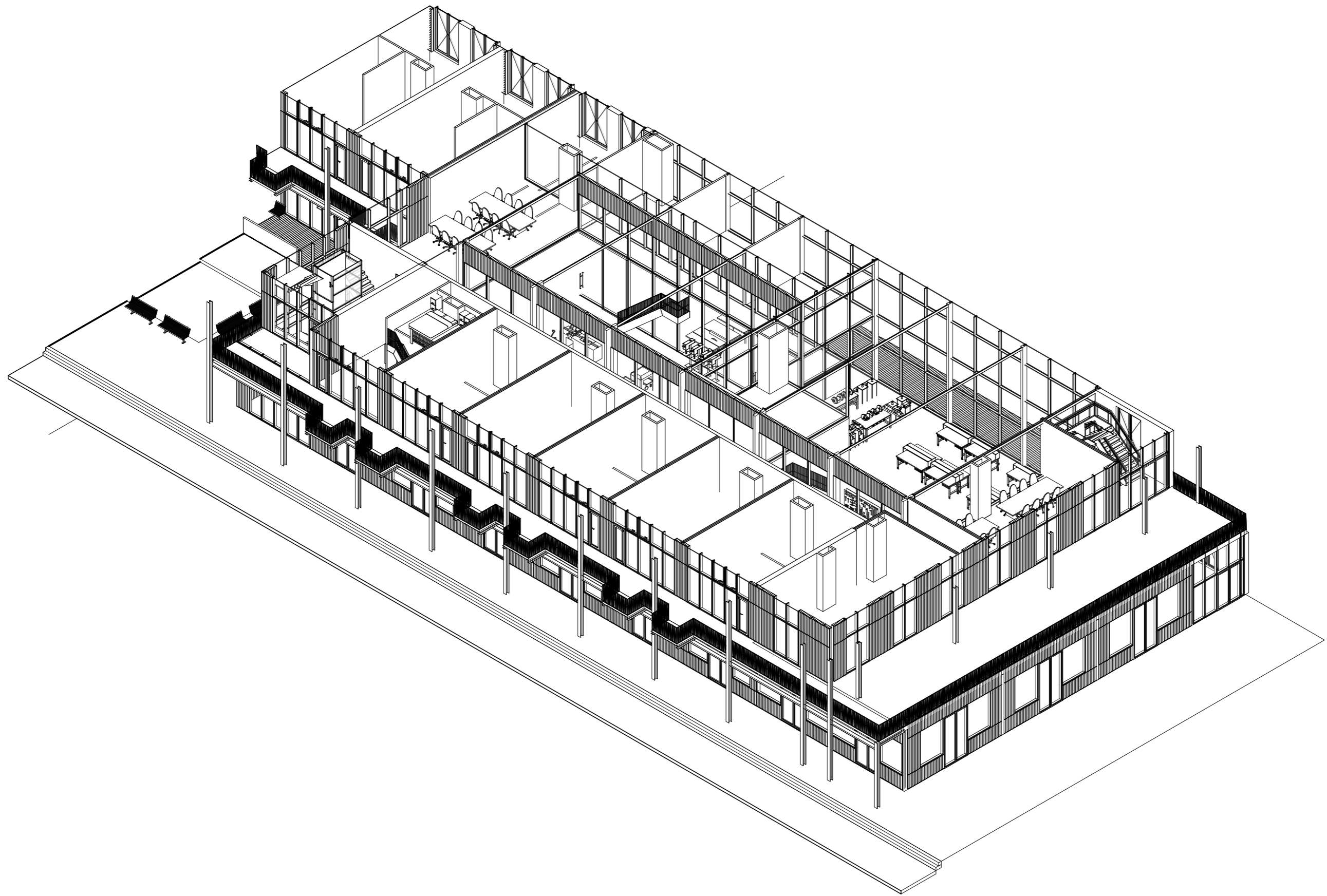


SECTION // A-A



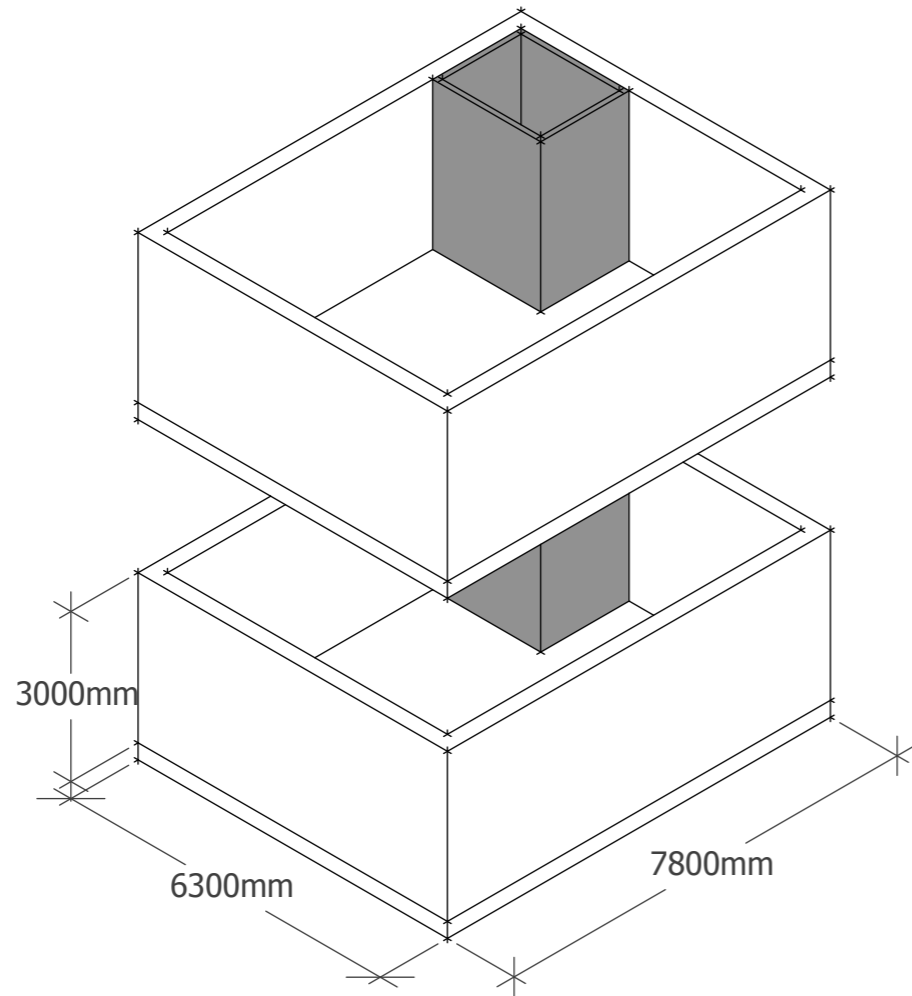


COLLECTIVE ATELIER // ISOMETRIC SECTION

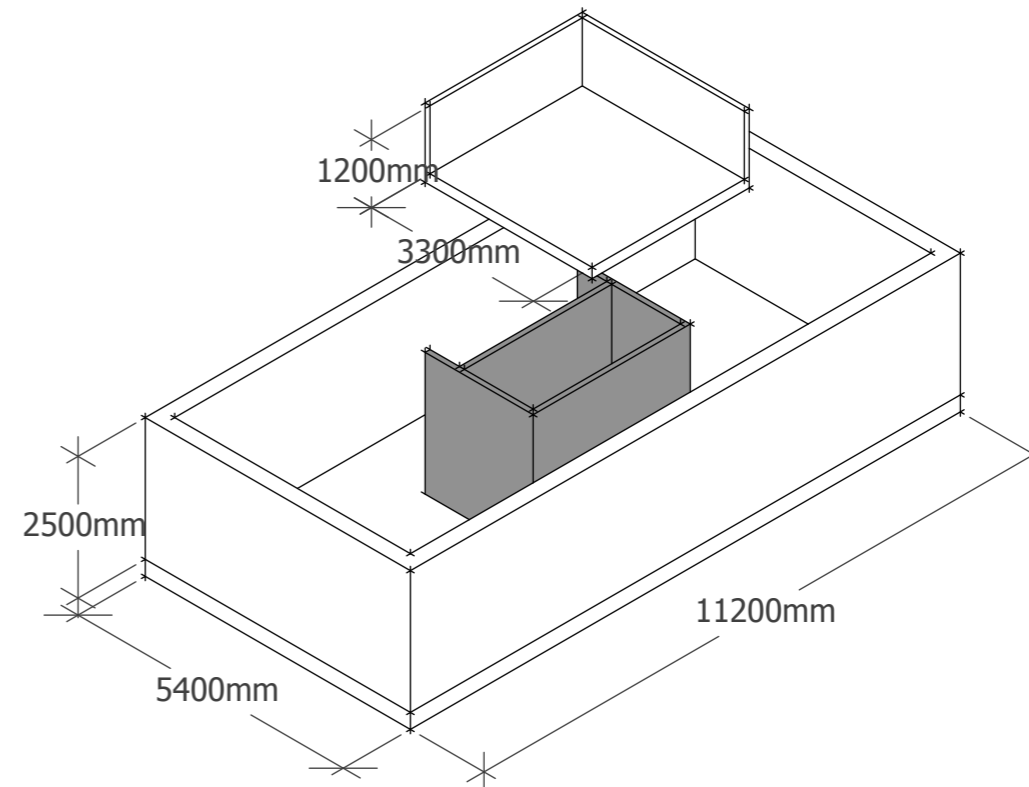




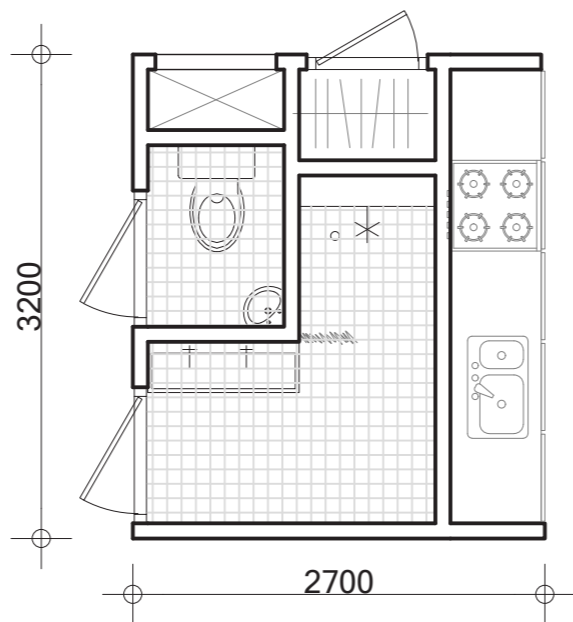
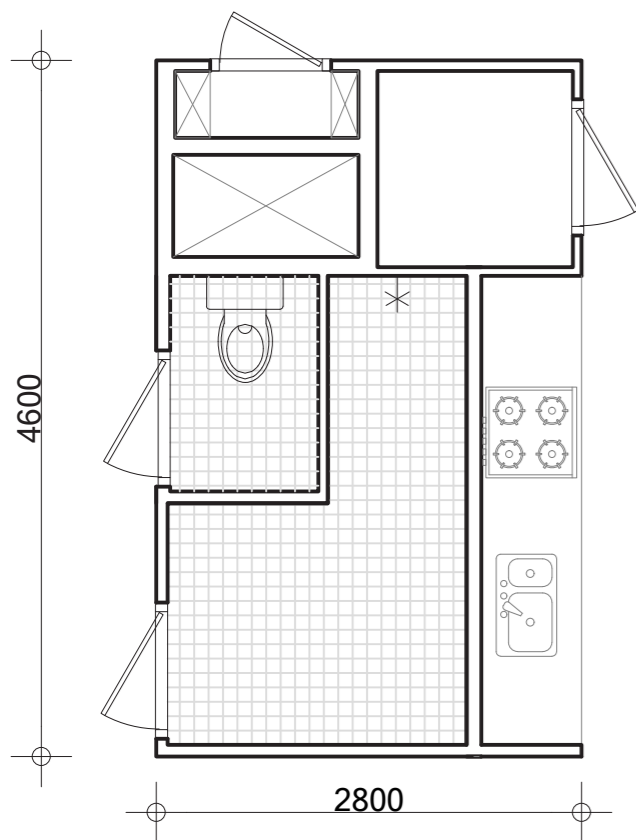




ANALYSIS DRAWING OF THE TYPOLOGICAL RESEARCH INTO LIVE-
WORK DESIGN BY FRANCES HOLLISS

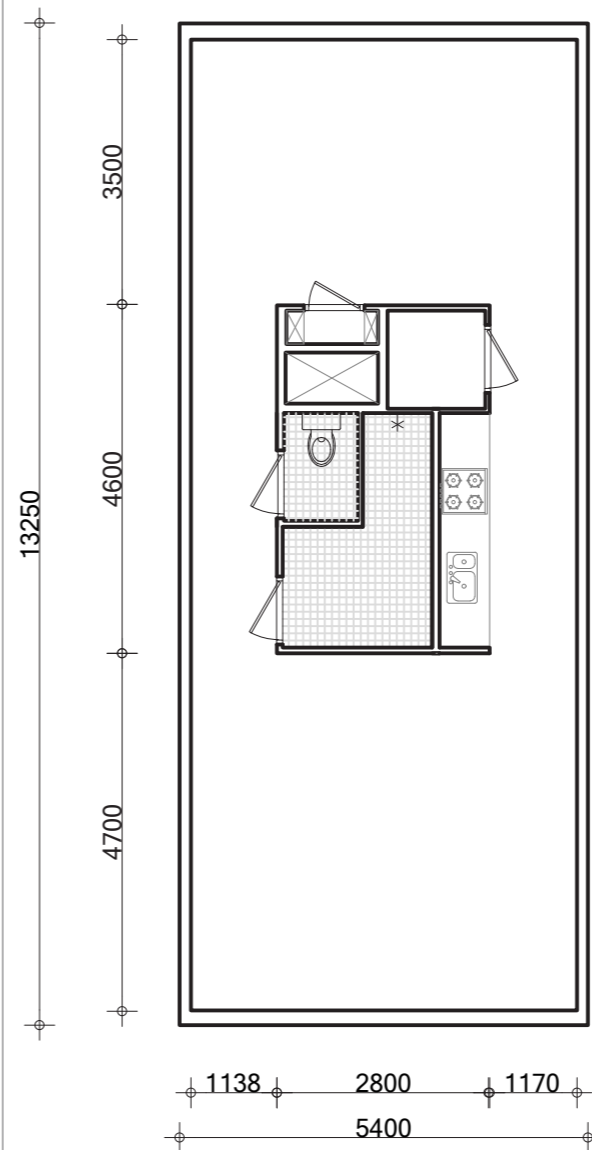


OWN DESIGN STRATEGY FOR THE LOFT APARTMENTS

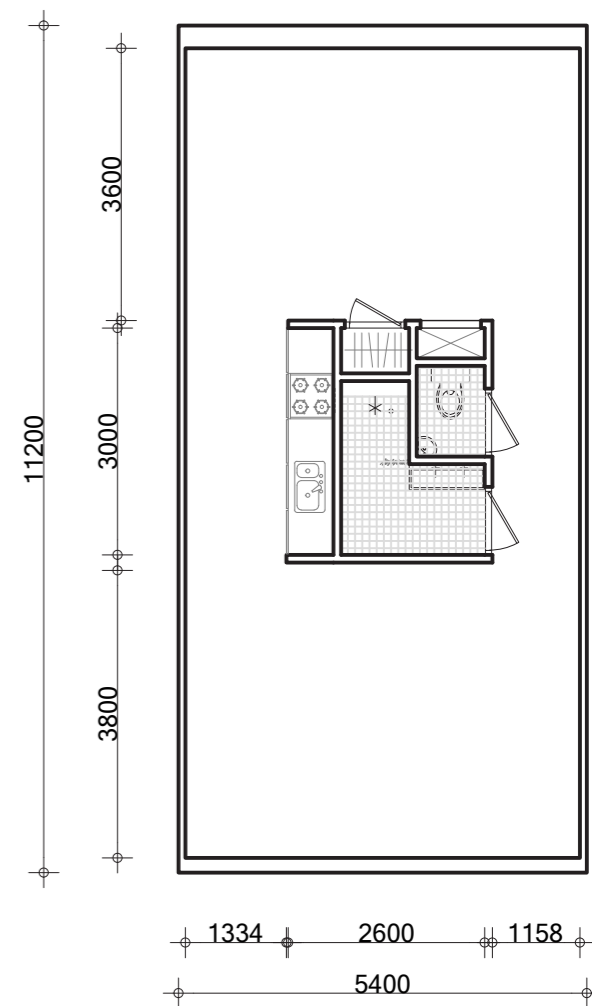


FUNCTIONAL CORE OF THE SCHIECENTRALE 4B

FUNCTIONAL CORE DESIGN

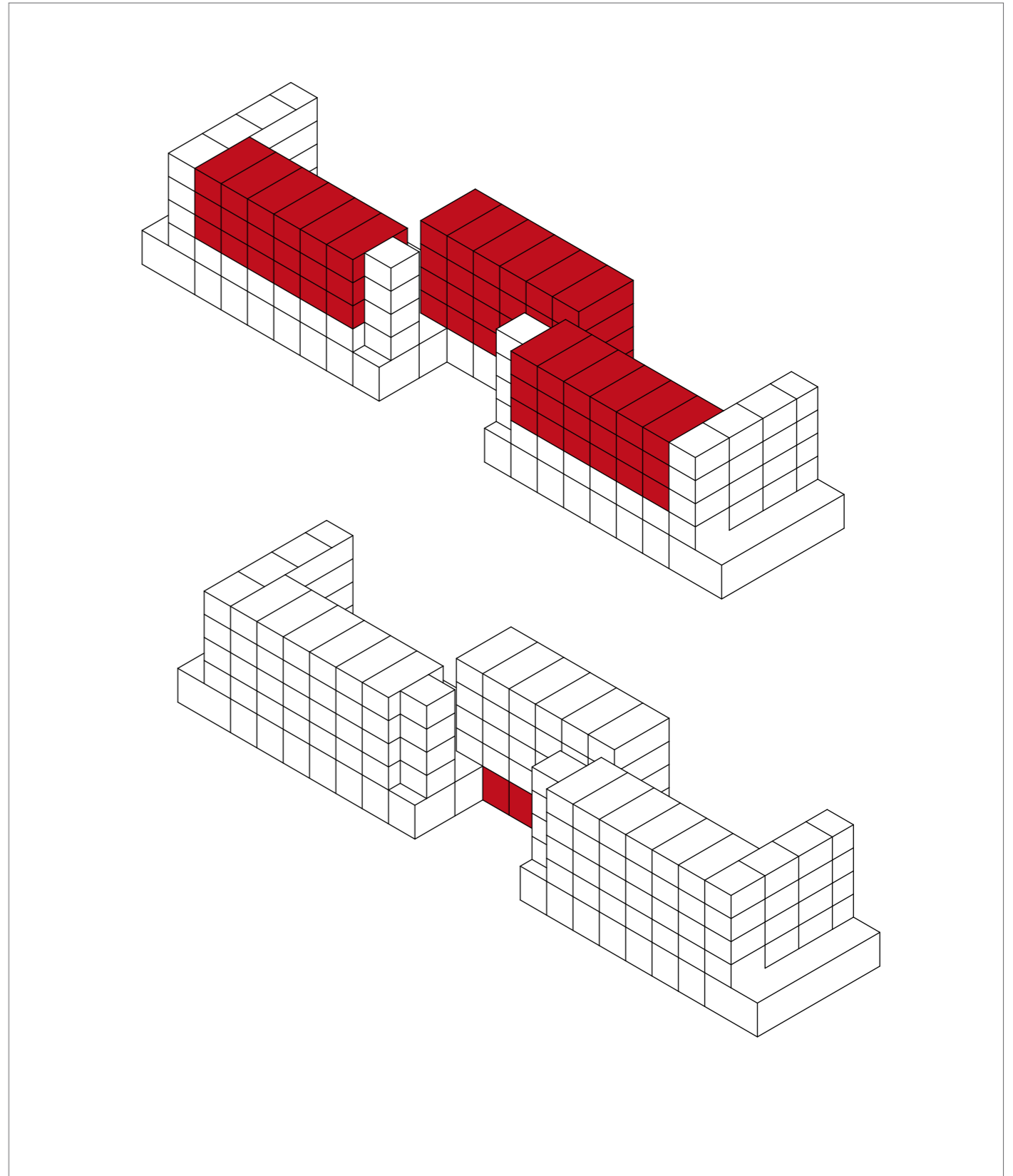


PLACEMENT OF CORE IN DWELLING DIMENSIONS, SCHIECENTRALE 4B



PLACEMENT OF CORE IN DWELLING DIMENSIONS

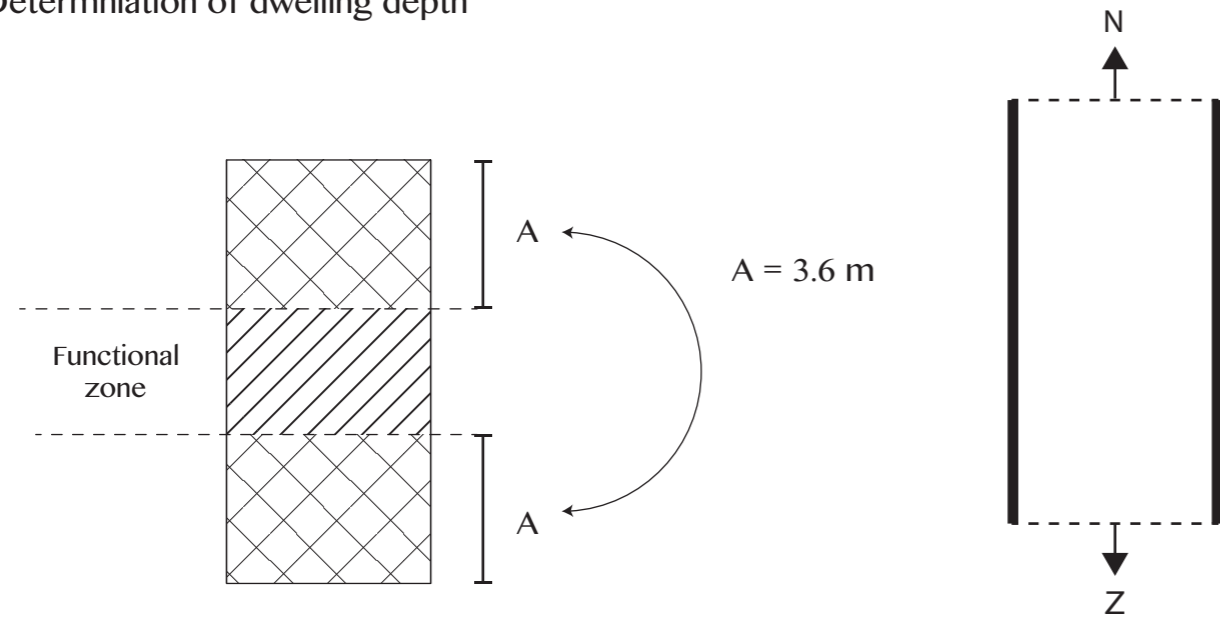
TYPE: LIVE-WORK LOFT APARTMENT
DWELLING SIZE: 53 M2
DESIGN STRATEGY: FUNCTIONAL CORE
FLEXIBLE IN USE
FLEXIBLE IN EXPANDING DUE TO STRUCTURAL DESIGN
FLEXIBLE FACADE
GALLERY ACCESS

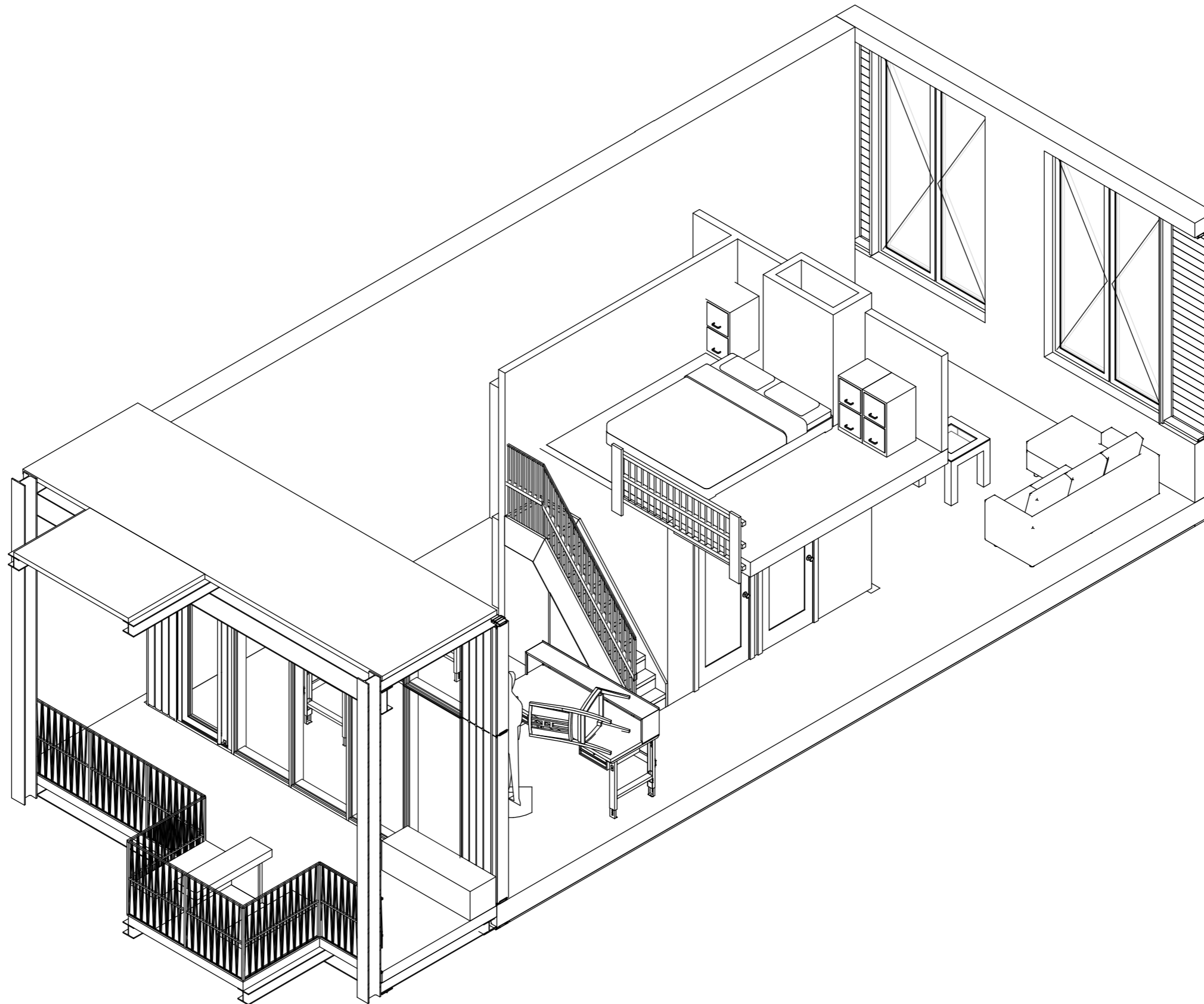


User flexibility - Polyvalent use of space

Determination of dwelling depth

Standard orientation of dwellings

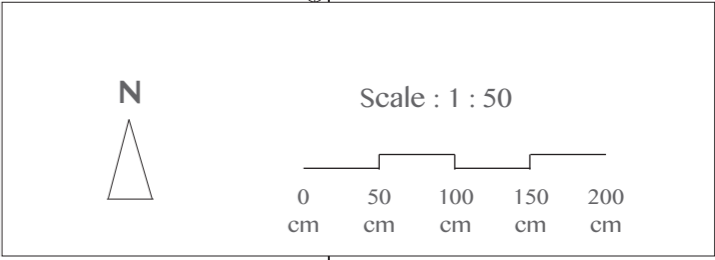
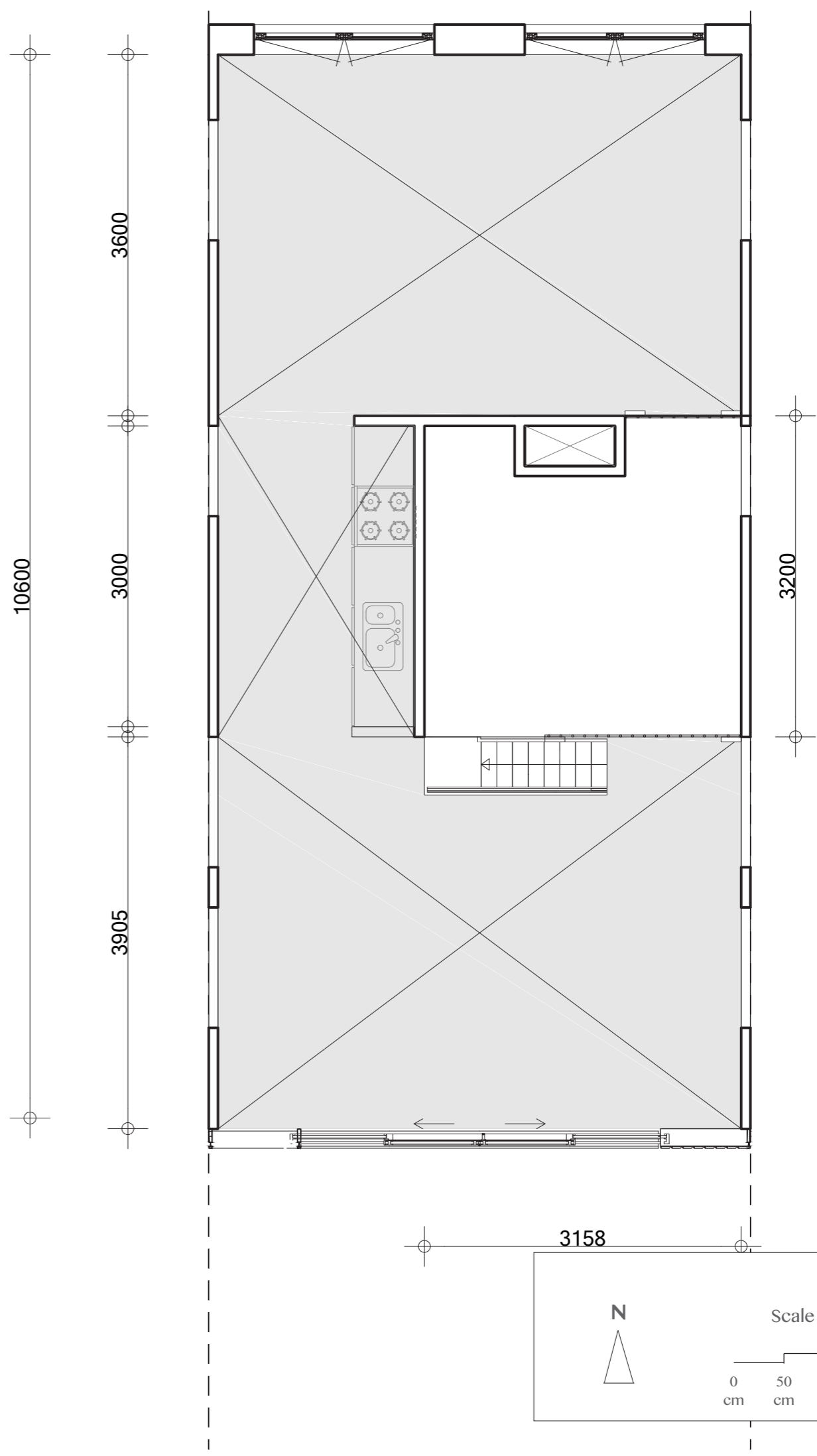
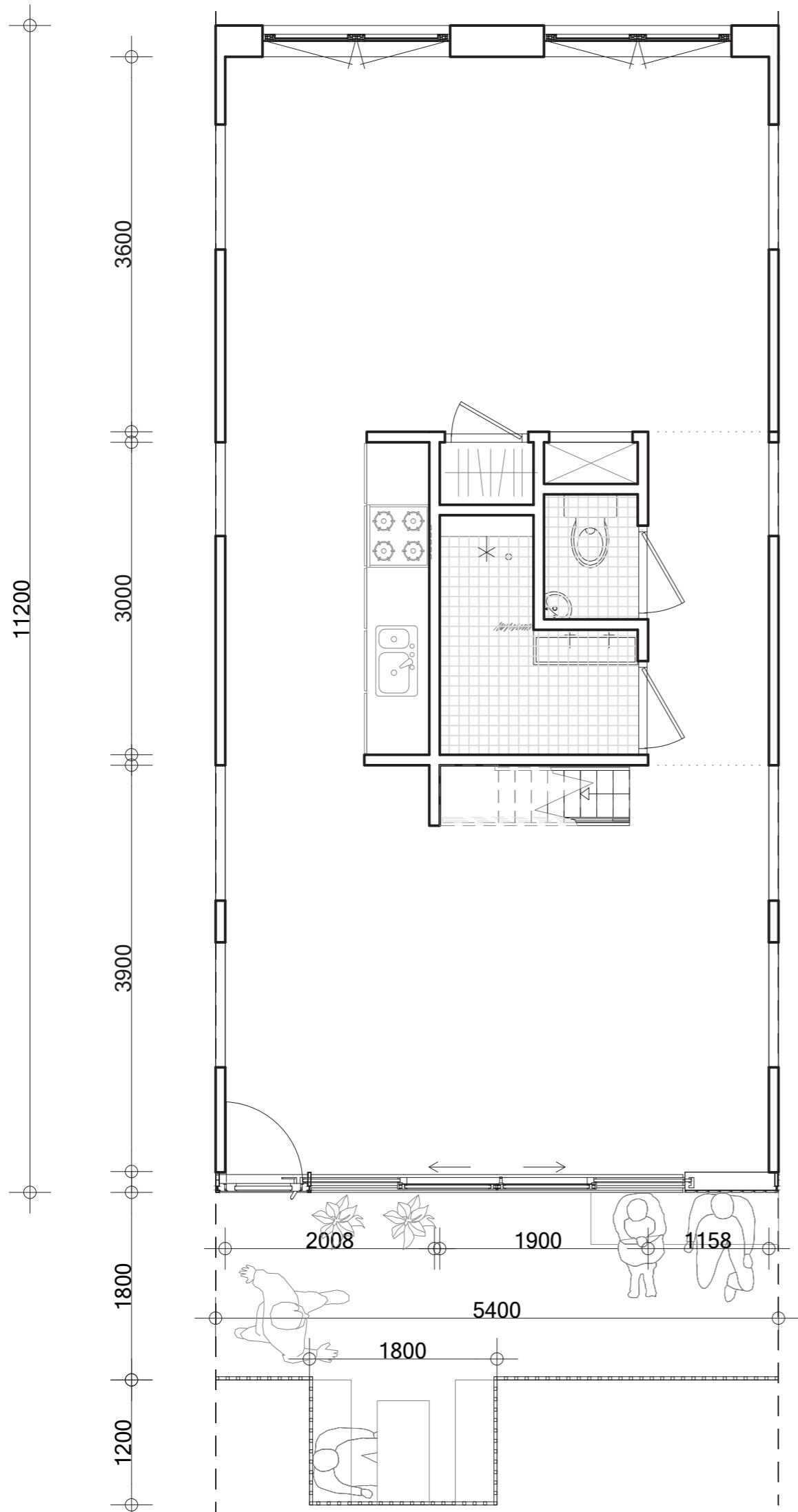


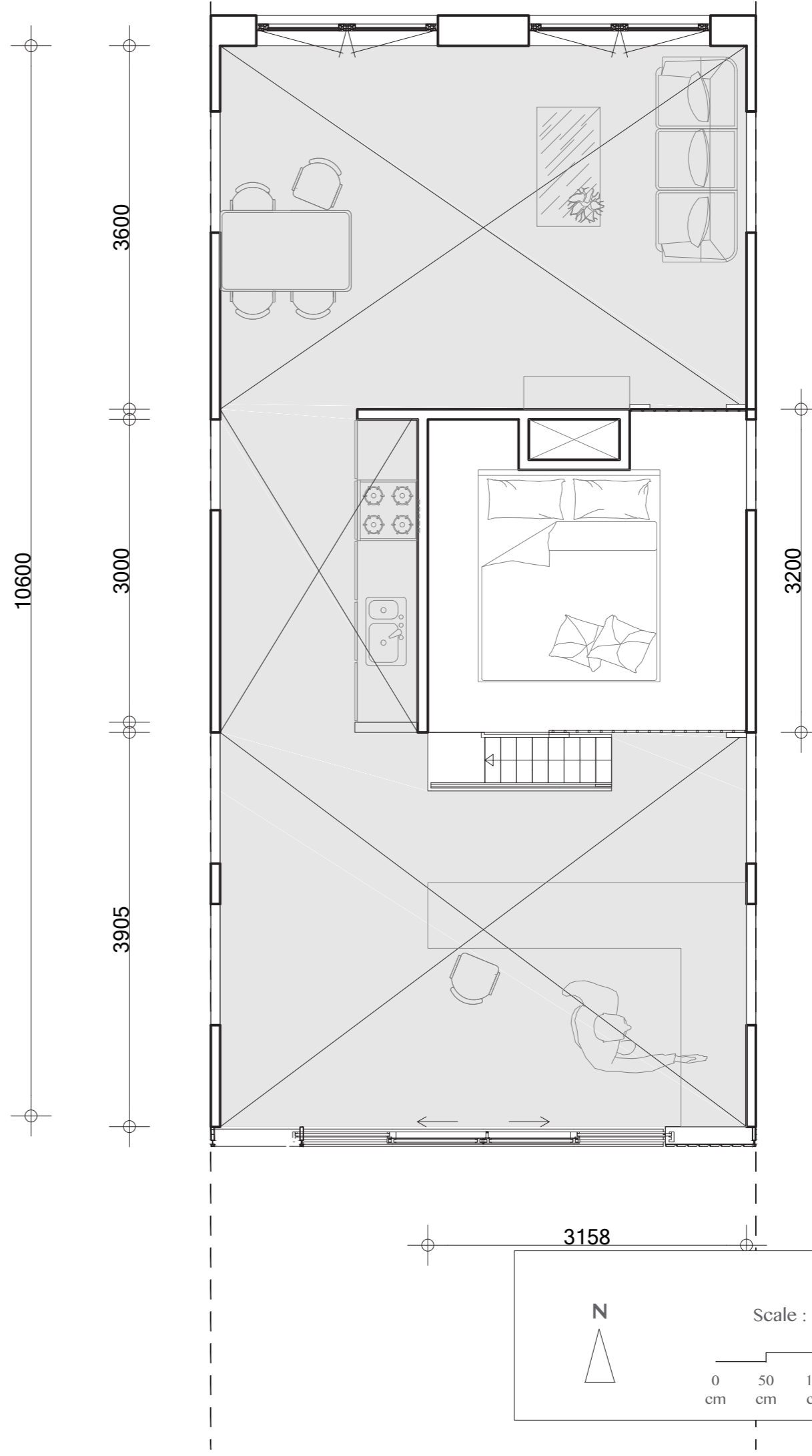
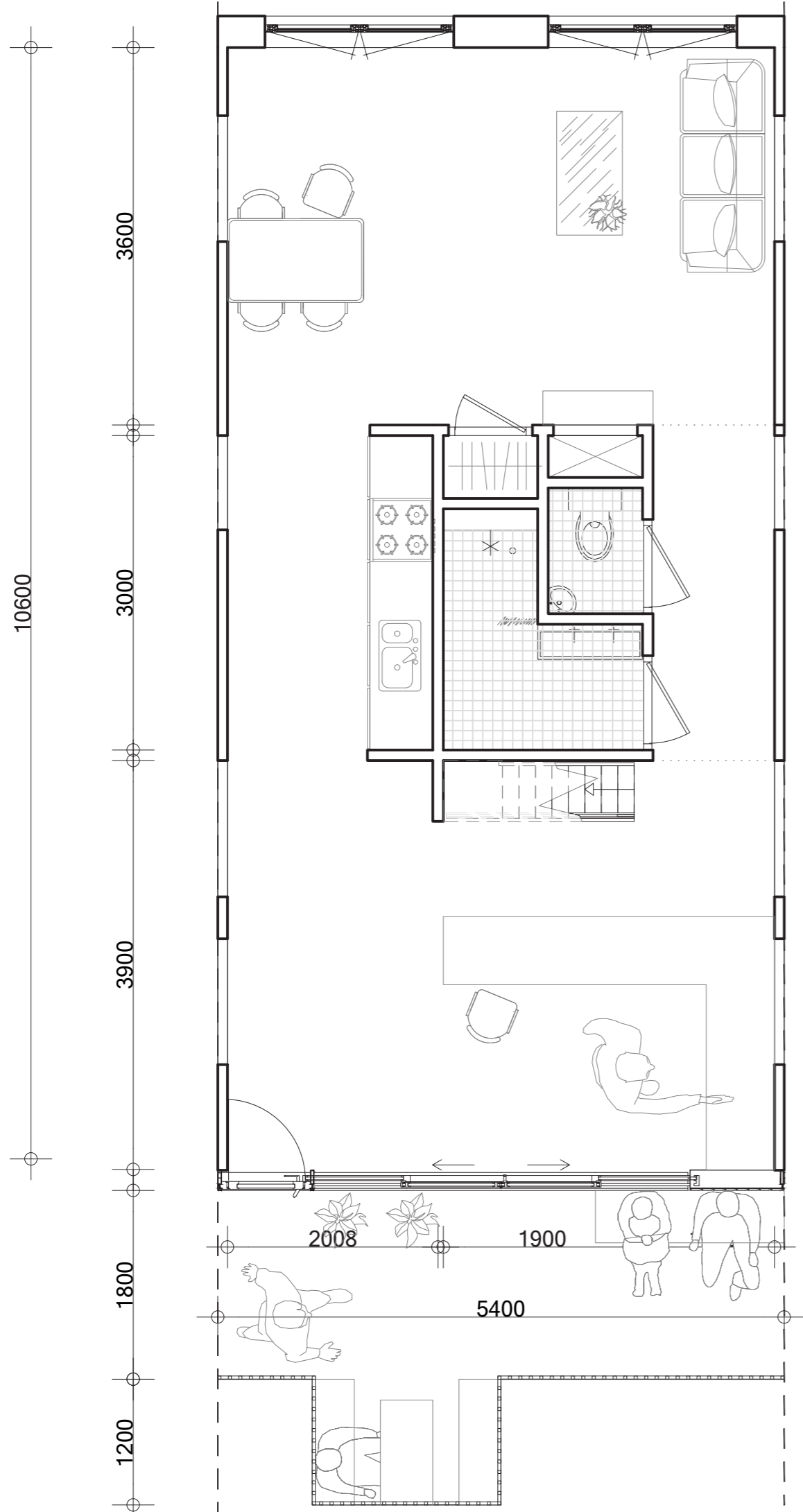


FLOOR PLAN LIVE-WORK
LOFT APARTMENT

// VARIANT: CORE ONLY

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FLOOR PLAN LIVE-WORK
LOFT APARTMENT

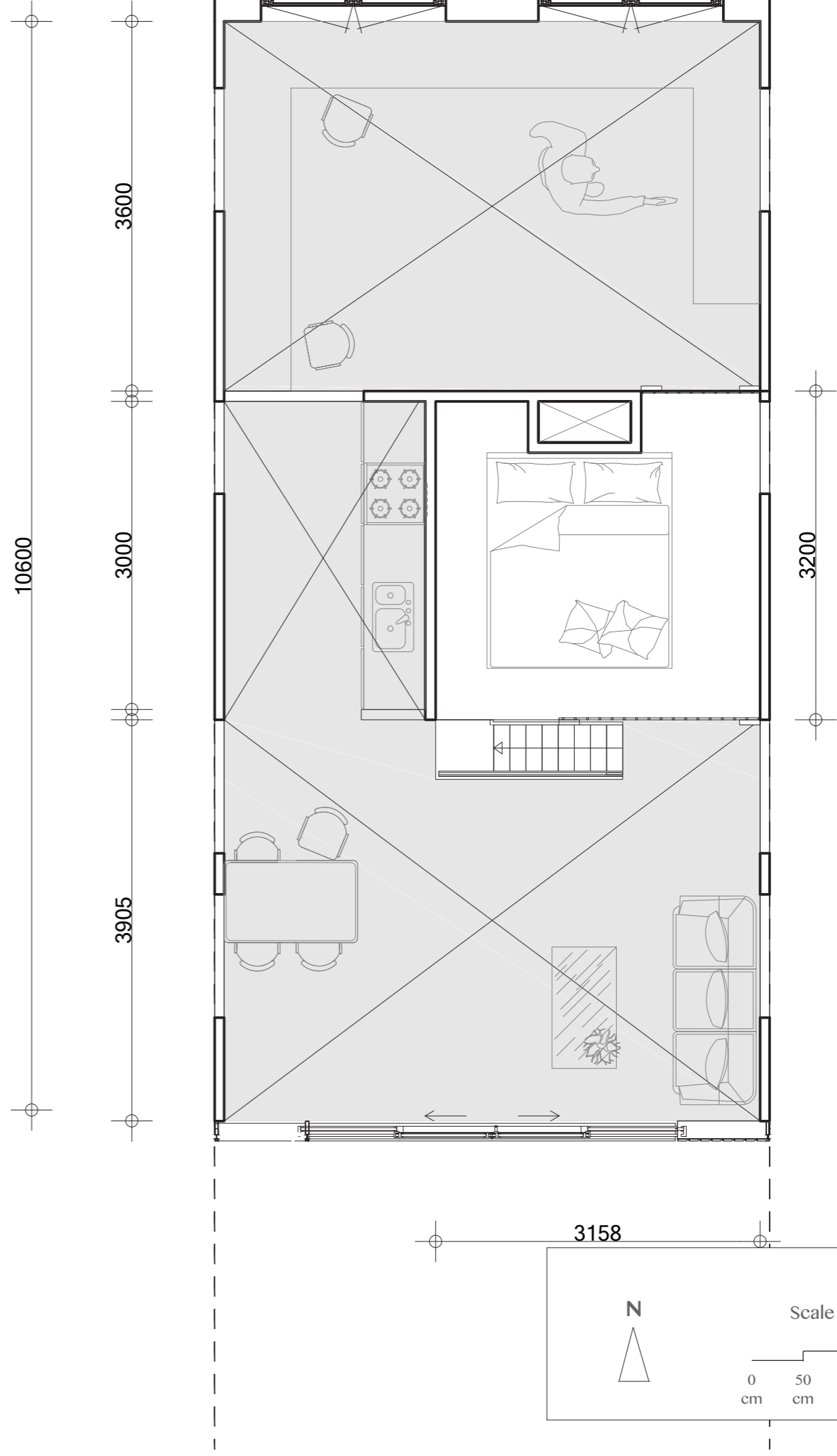
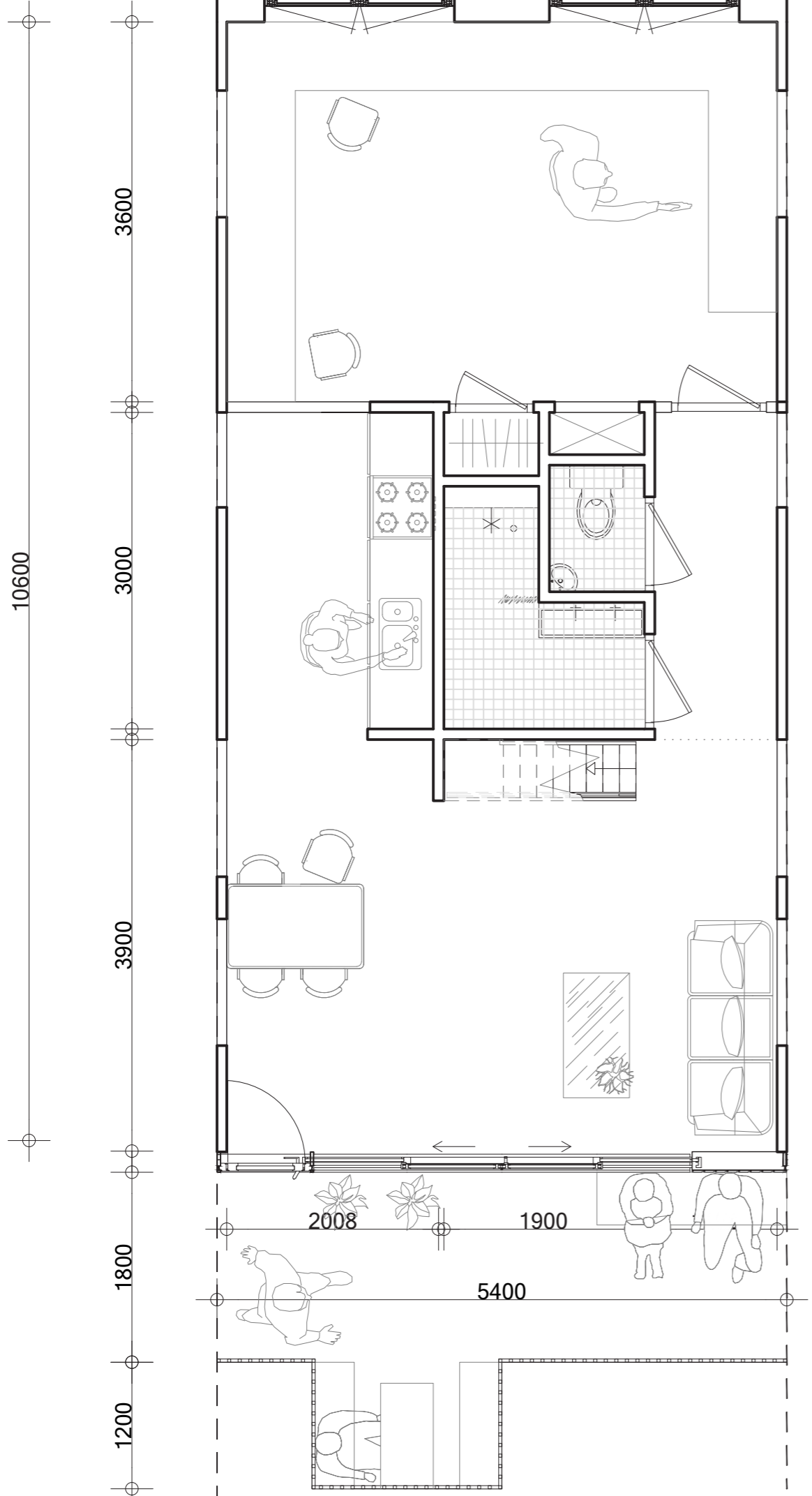
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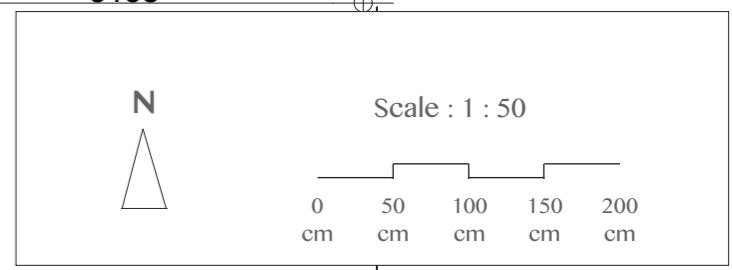
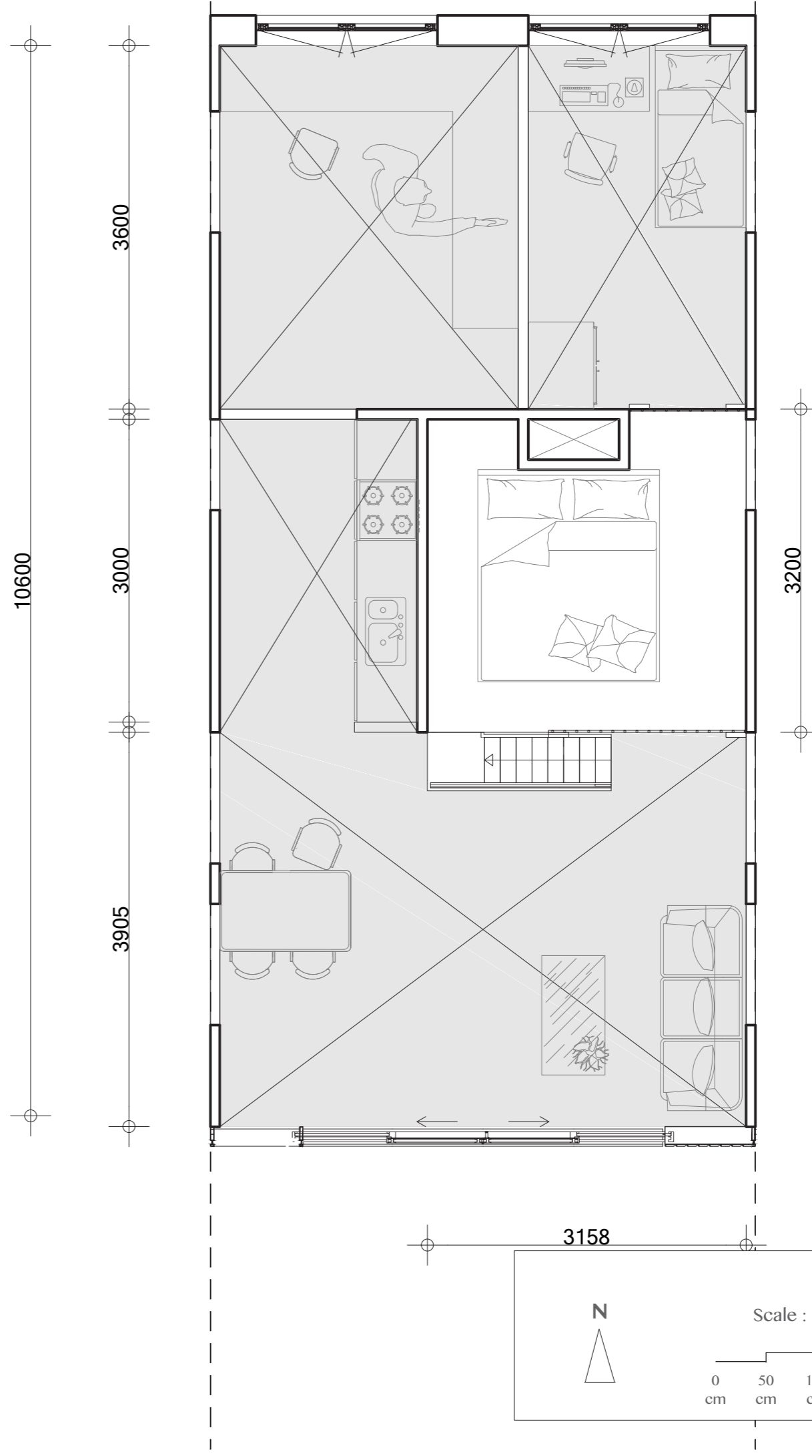
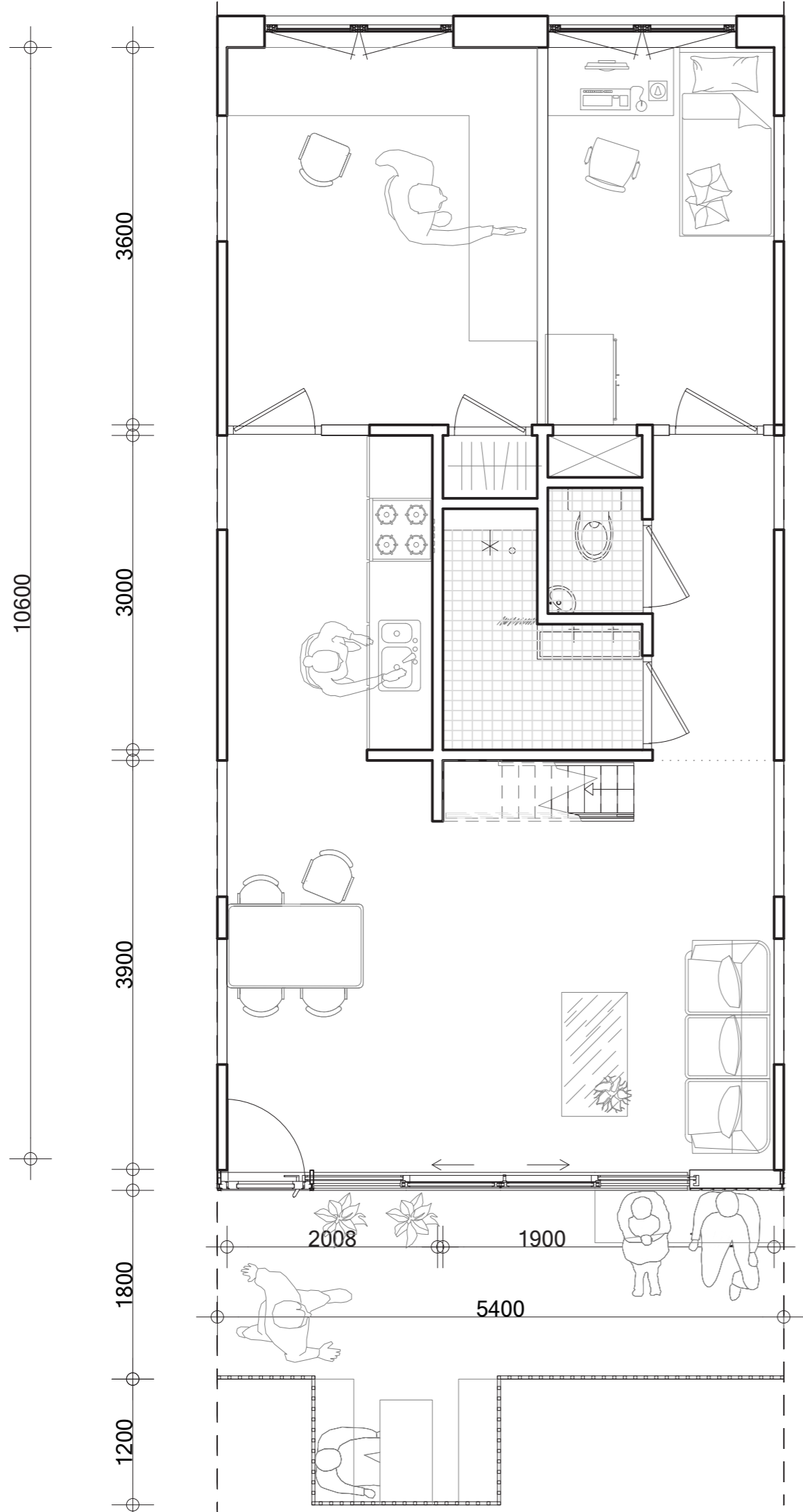
VARIANT: GALLERY WORKSPACE

FLOOR PLAN LIVE-WORK
LOFT APARTMENT

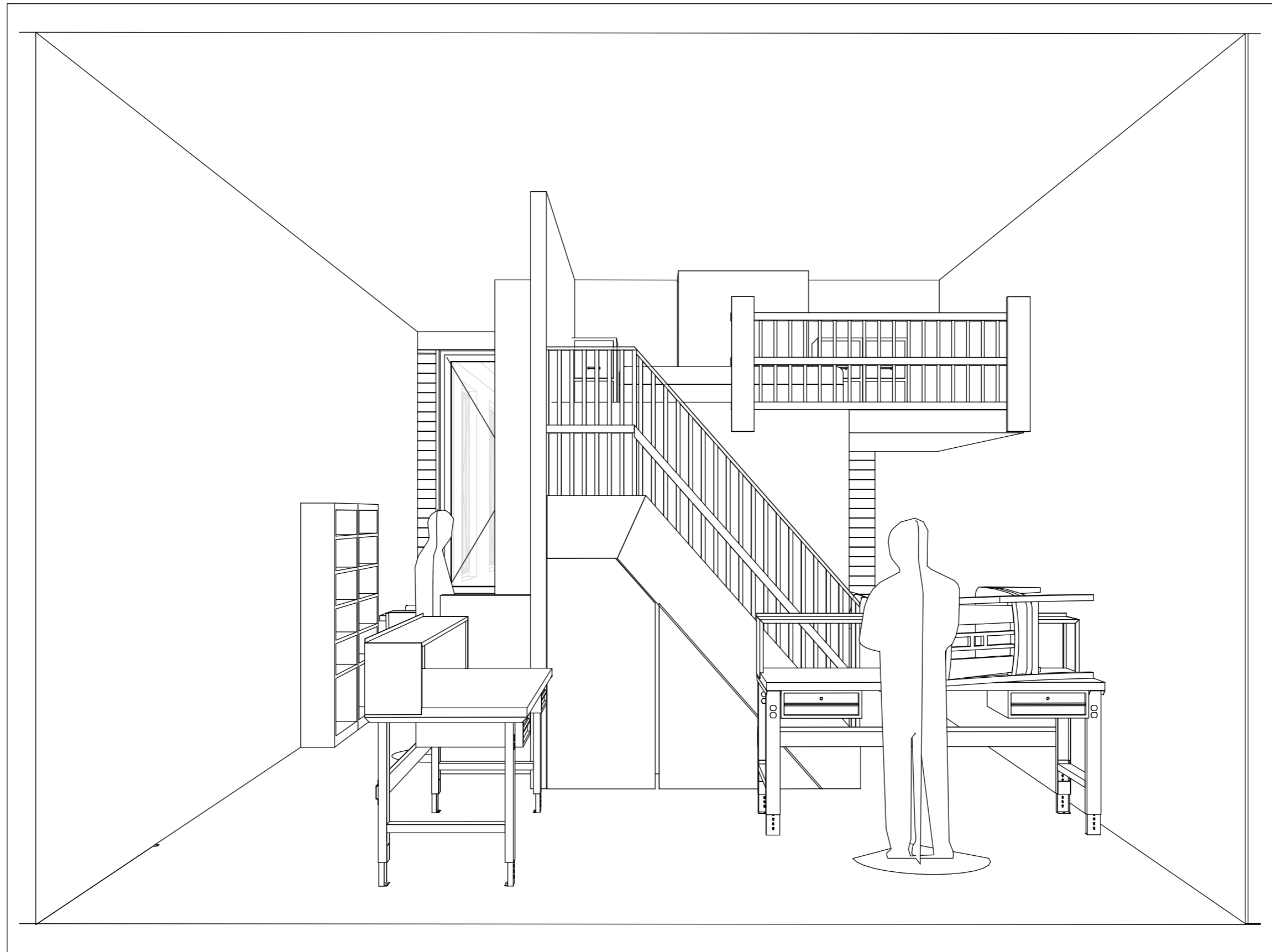
PRIVATE WORKSPACE

72





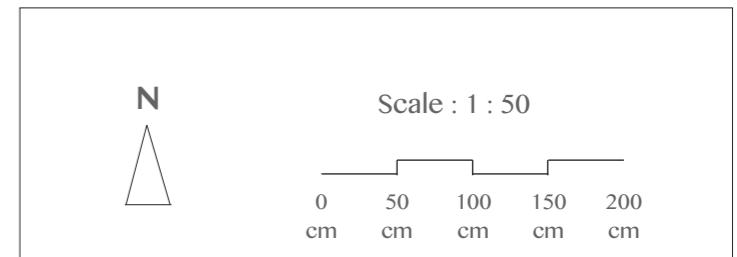
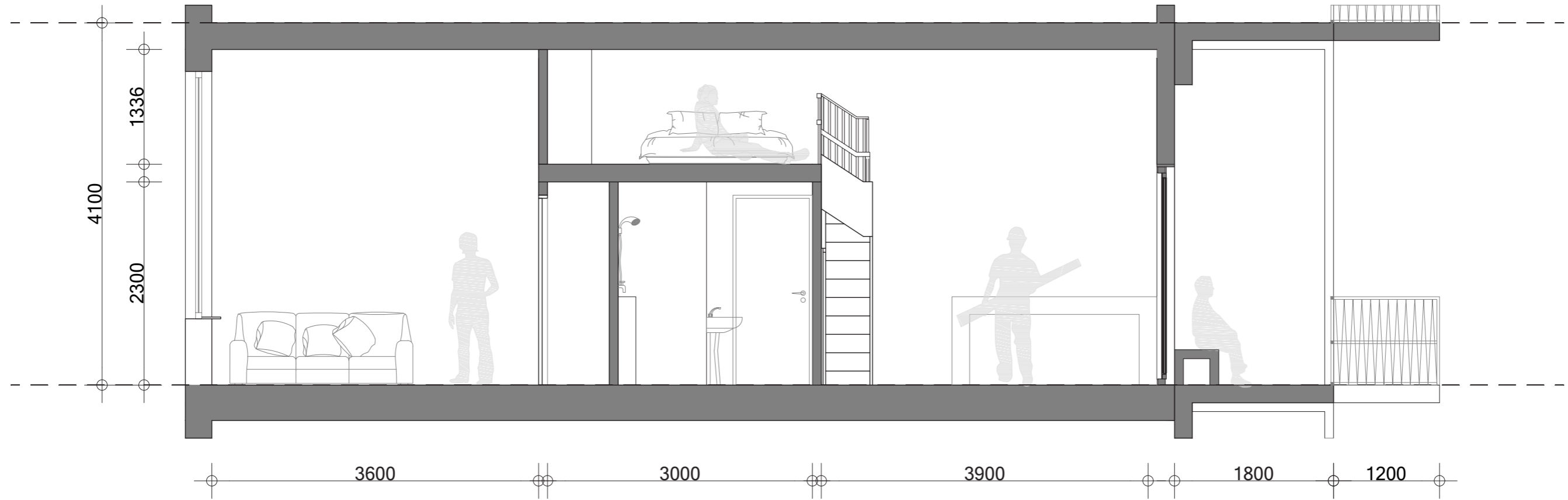
LIVE-WORK LOFT
APARTMENT // PERSPECTIVE SECTION



LIVE-WORK LOFT
APARTMENT

//

DWELLING SECTION



TYPE: LIVE-WORK LOFT APARTMENT, LARGE
REPLACEMENT DWELLINGS WHEN BIGGER DWELLINGS ARE WANTED IN THE BUILDING
DWELLING SIZE: 80 M2
DESIGN STRATEGY: FUNCTIONAL CORE
FLEXIBLE IN USE
FLEXIBLE IN EXPANDING DUE TO STRUCTURAL DESIGN
FLEXIBLE FACADE
GALLERY ACCESS

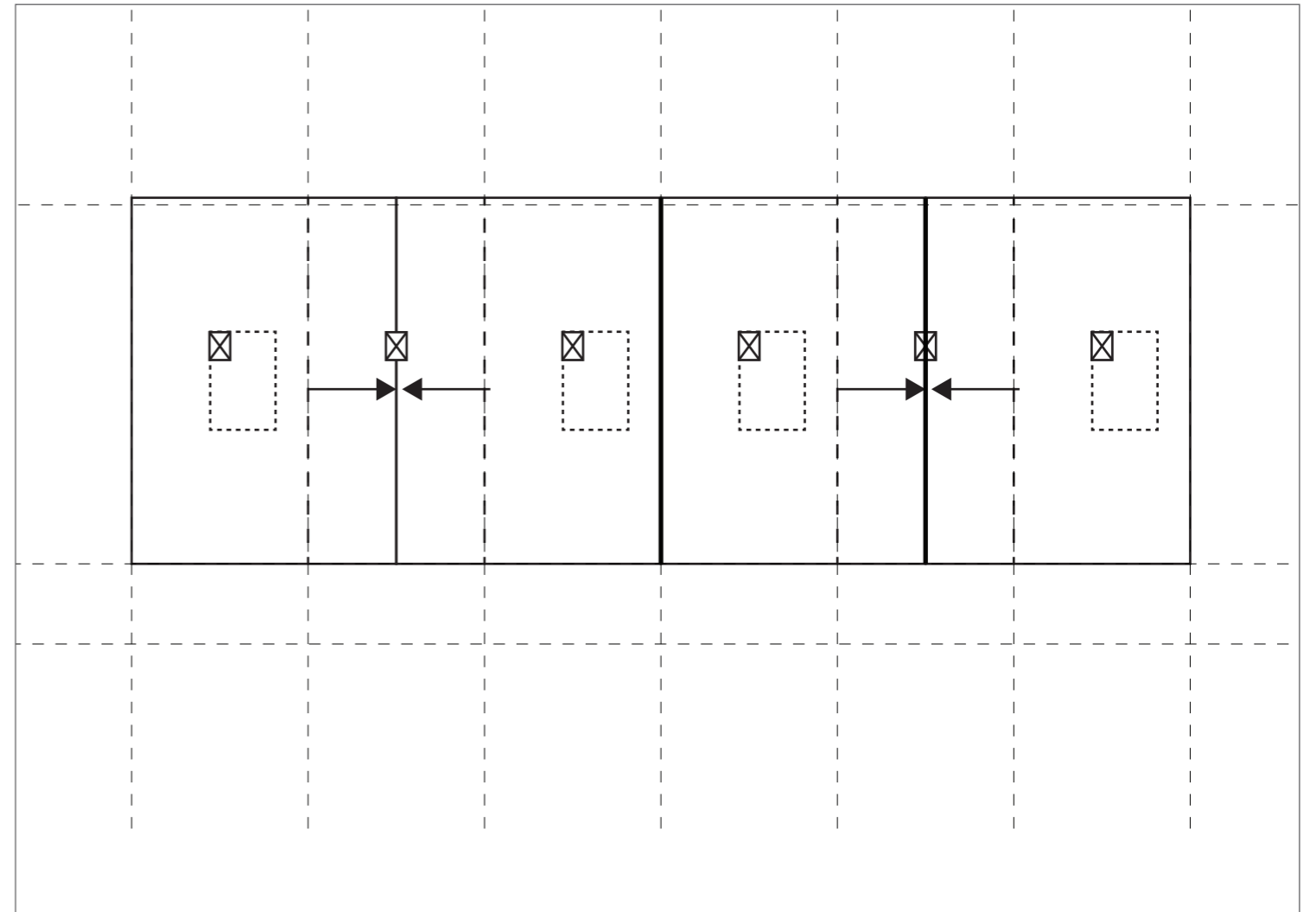
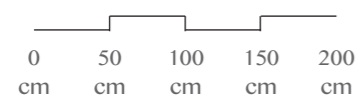


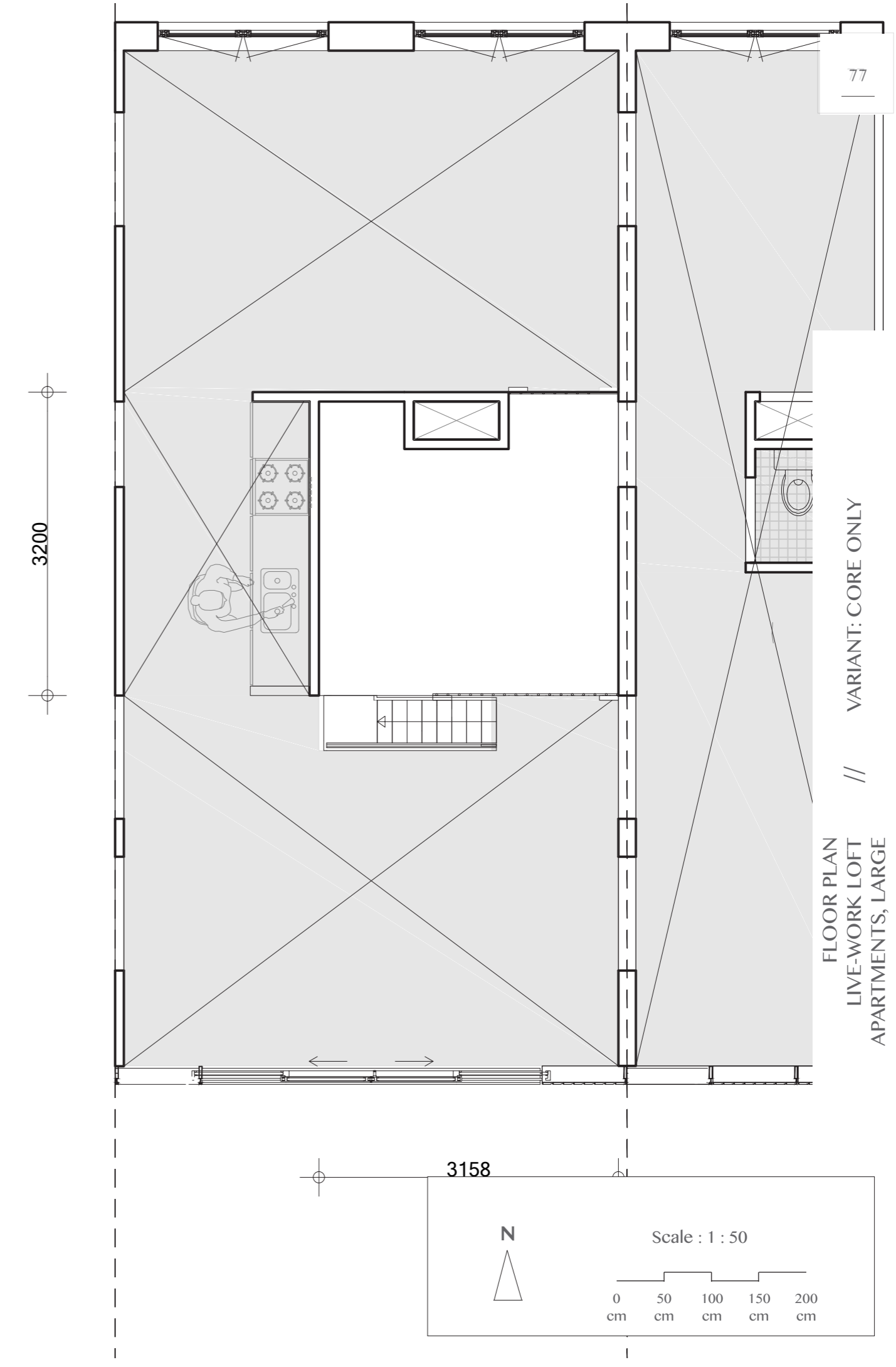
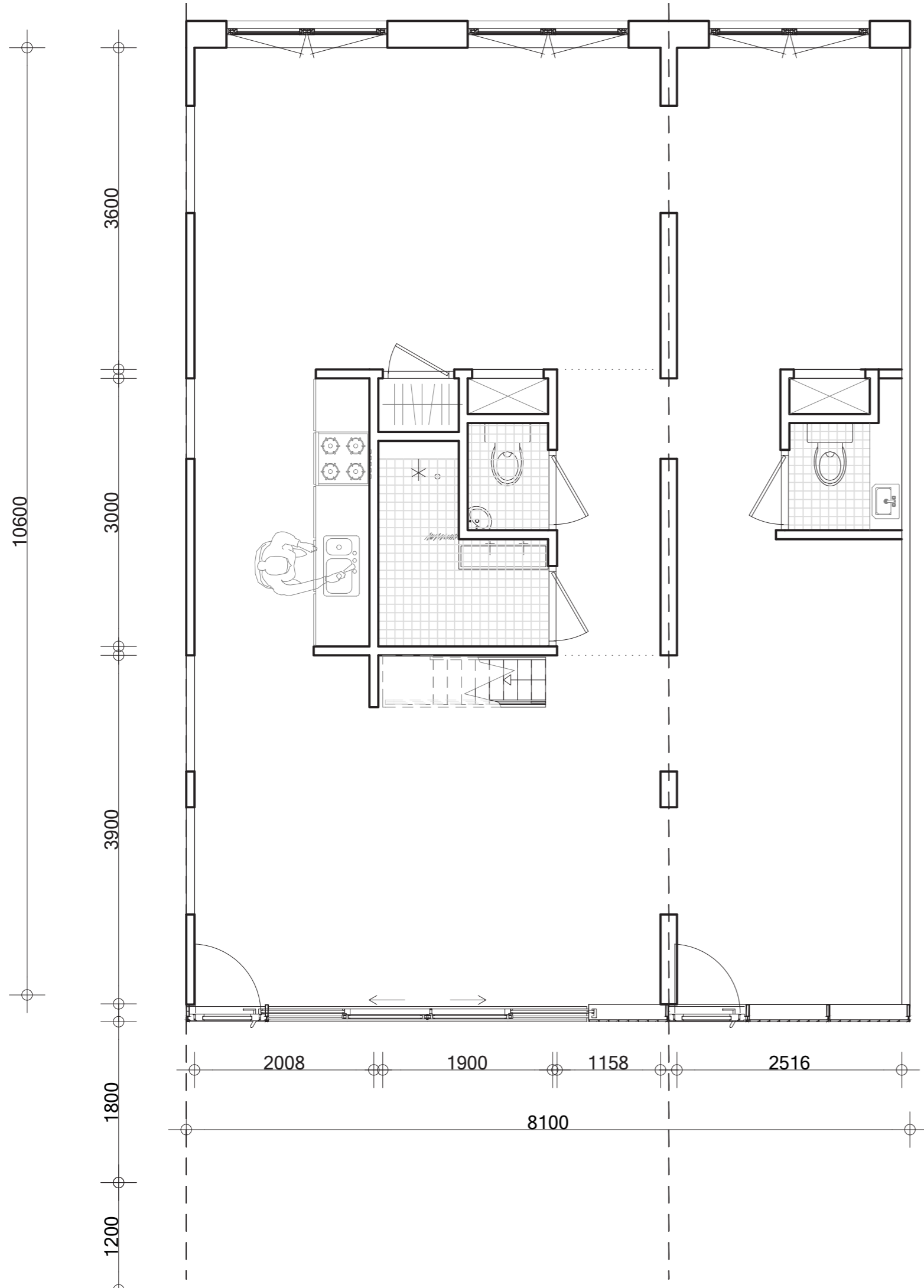
DIAGRAM SHOWING THE FLEXIBILITY PRINCIPLE

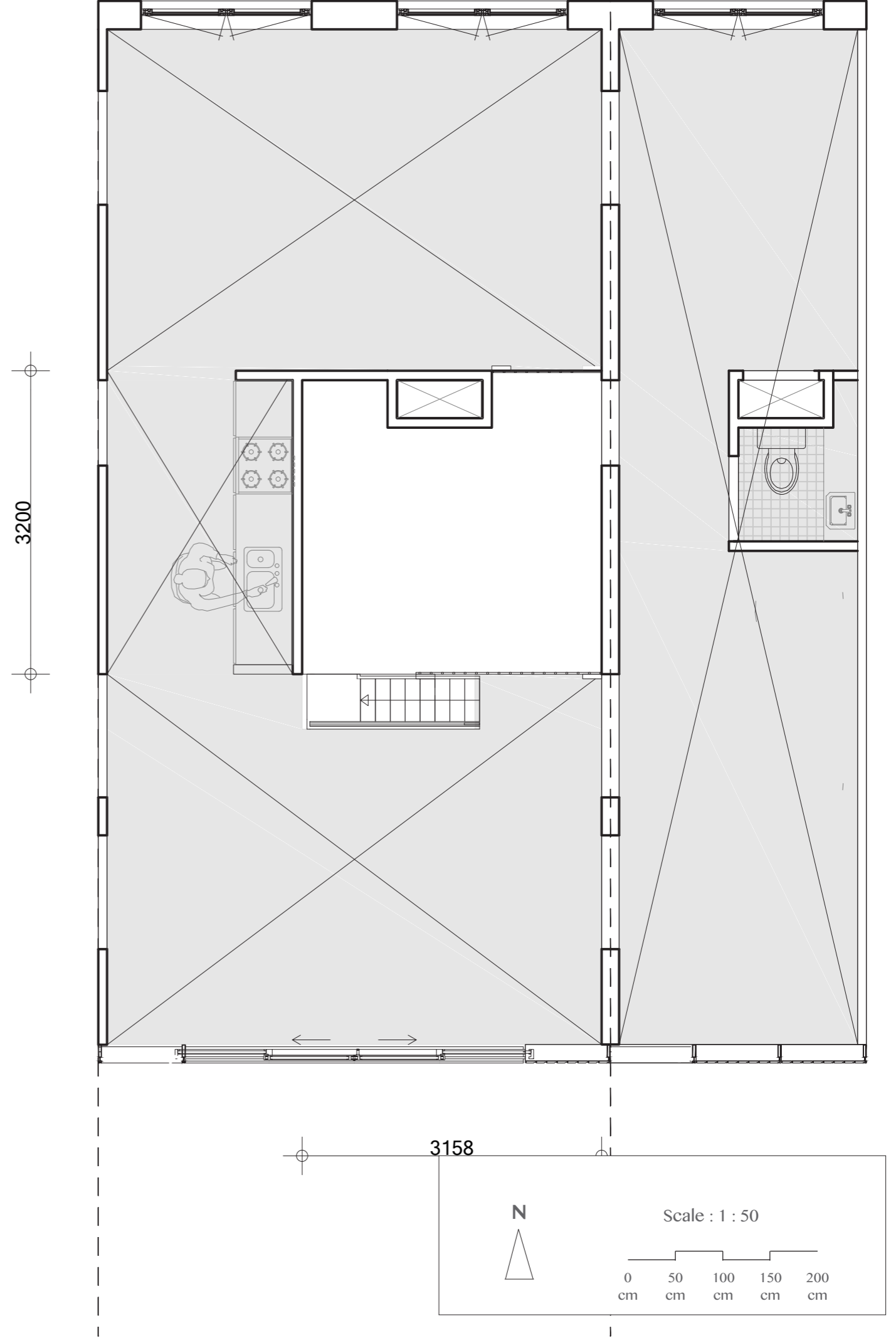
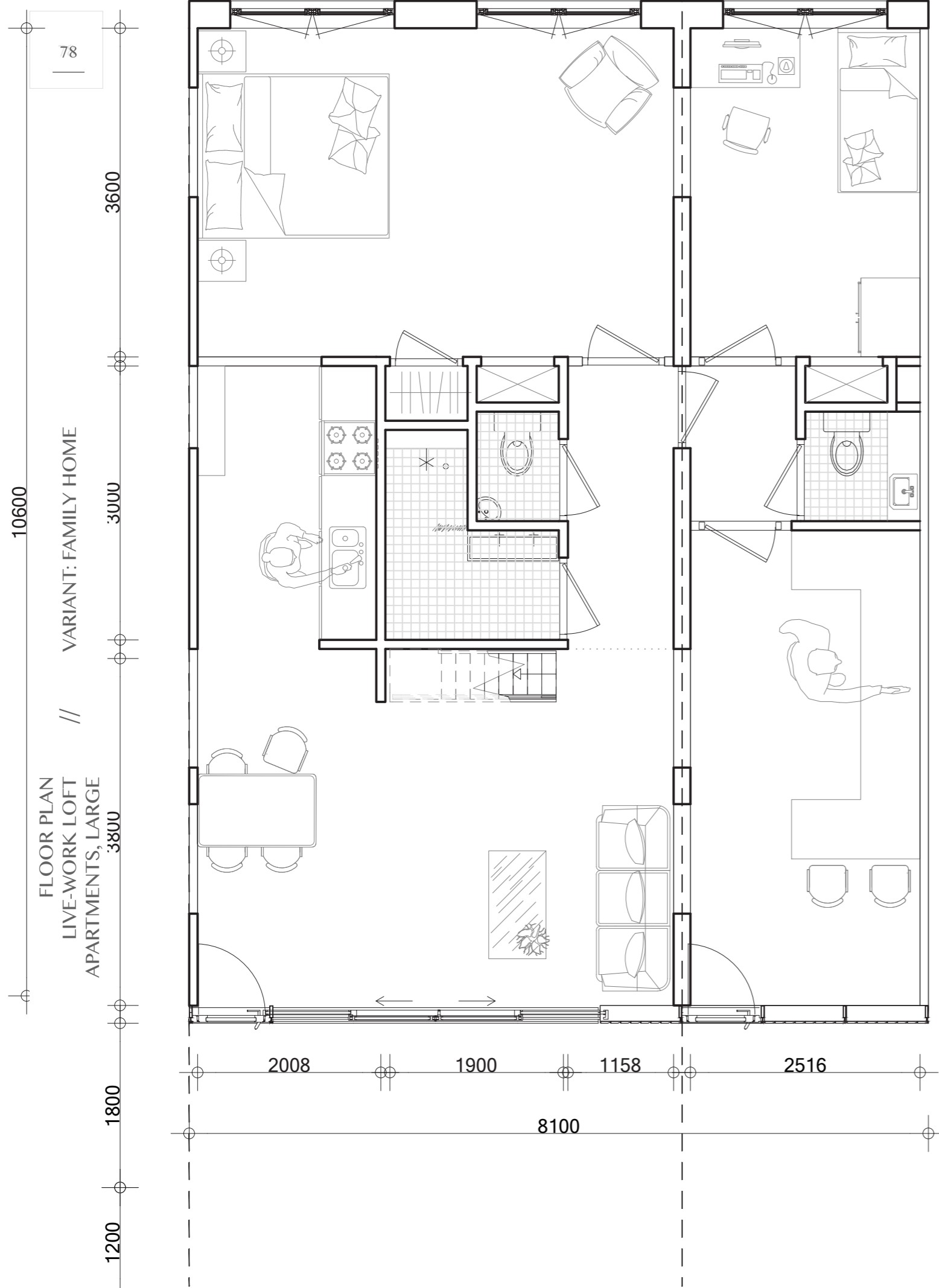
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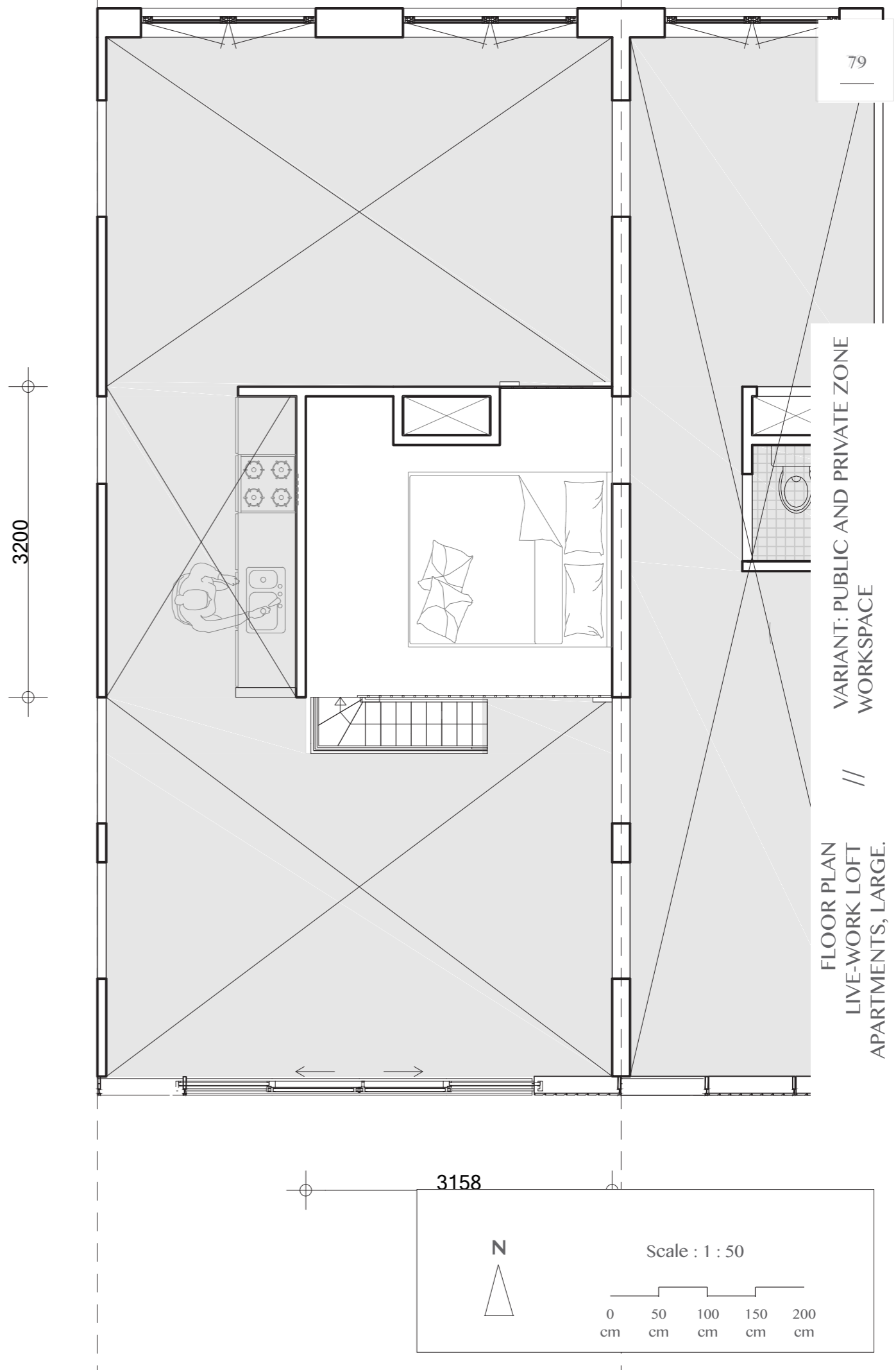
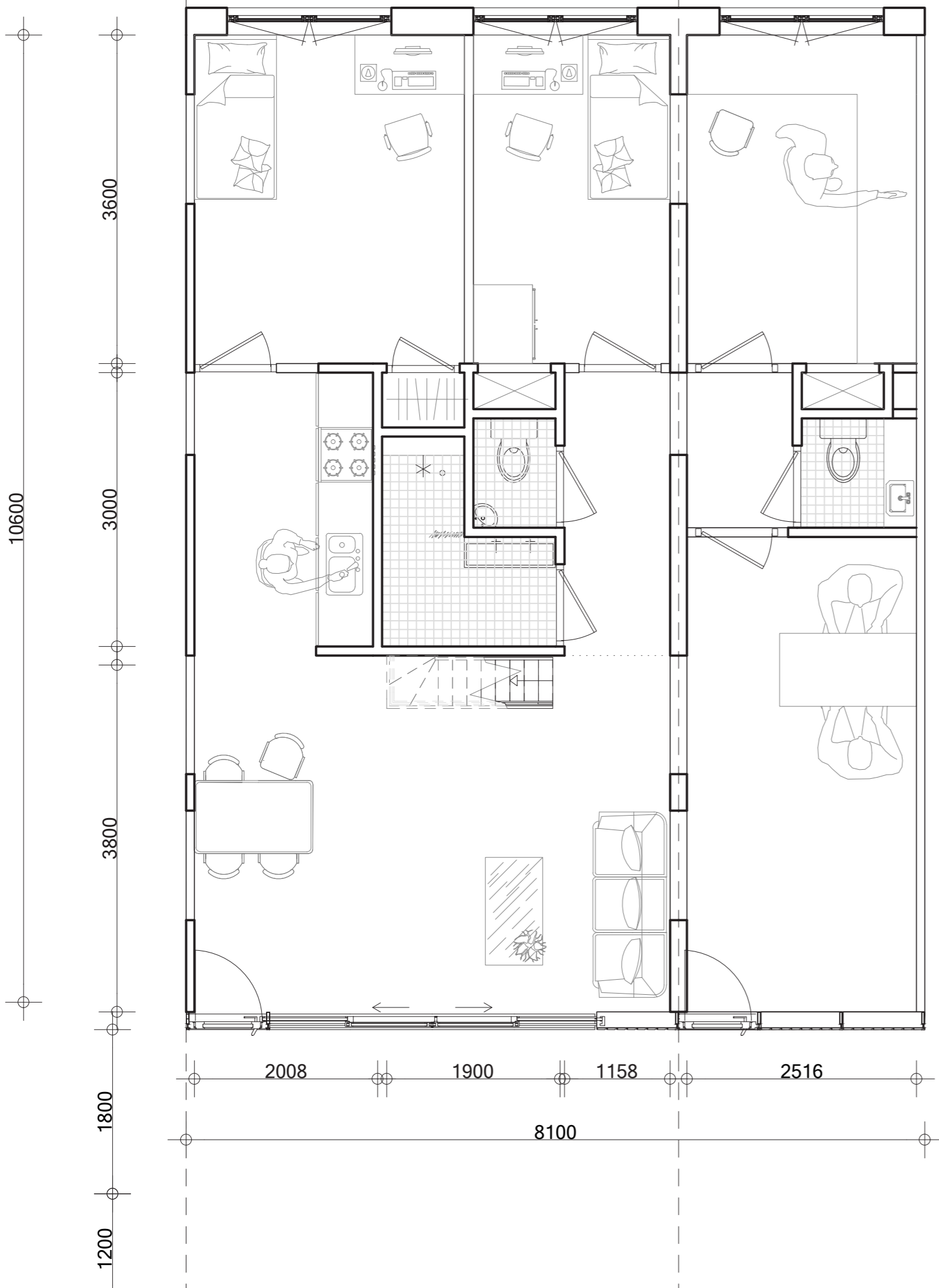


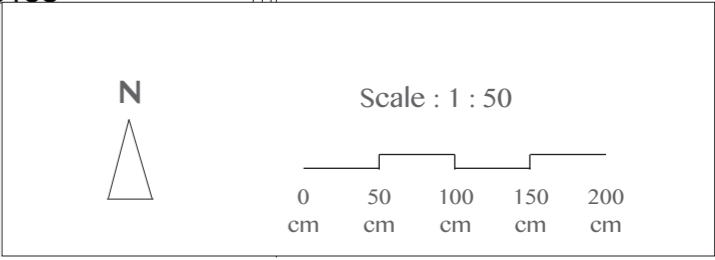
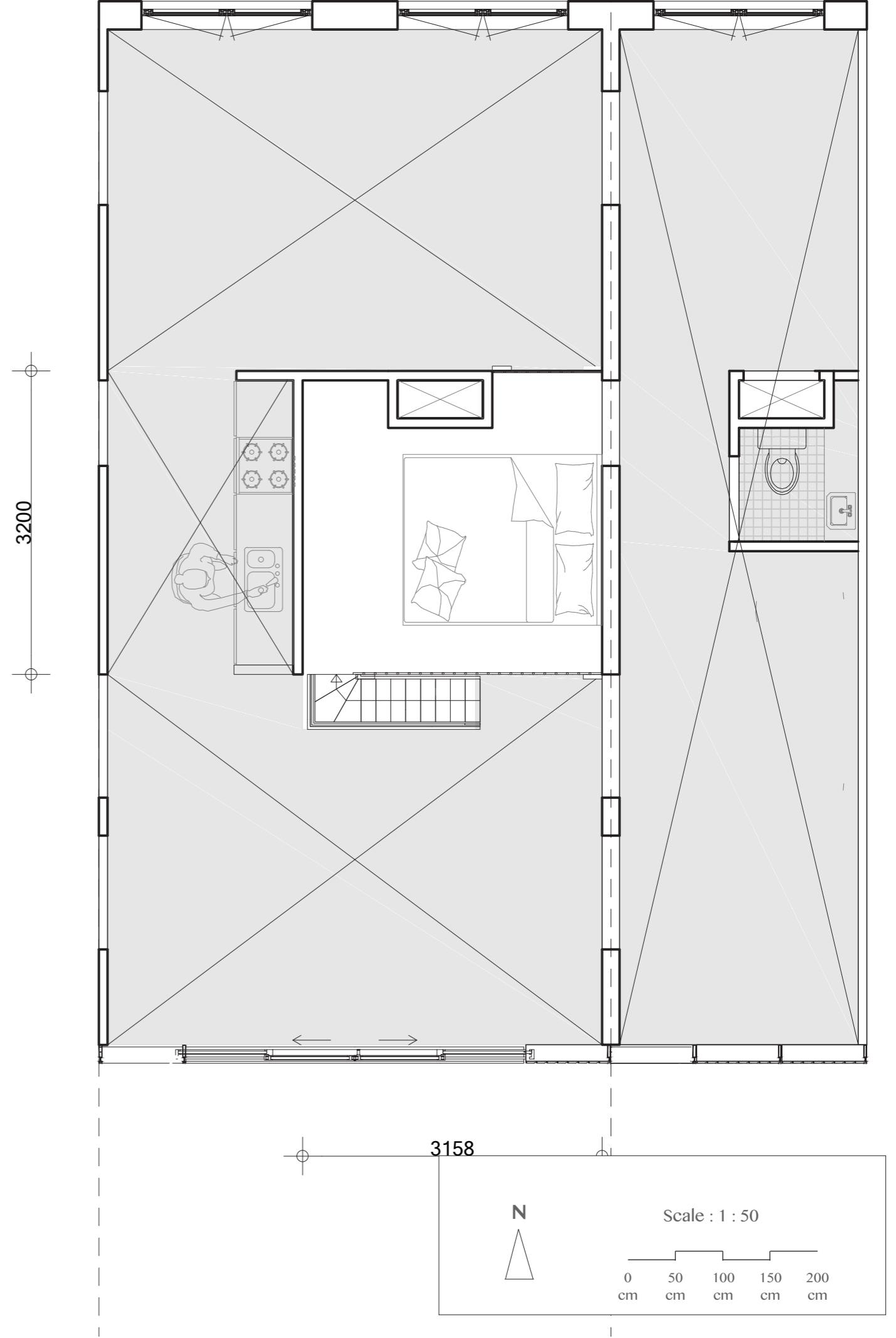
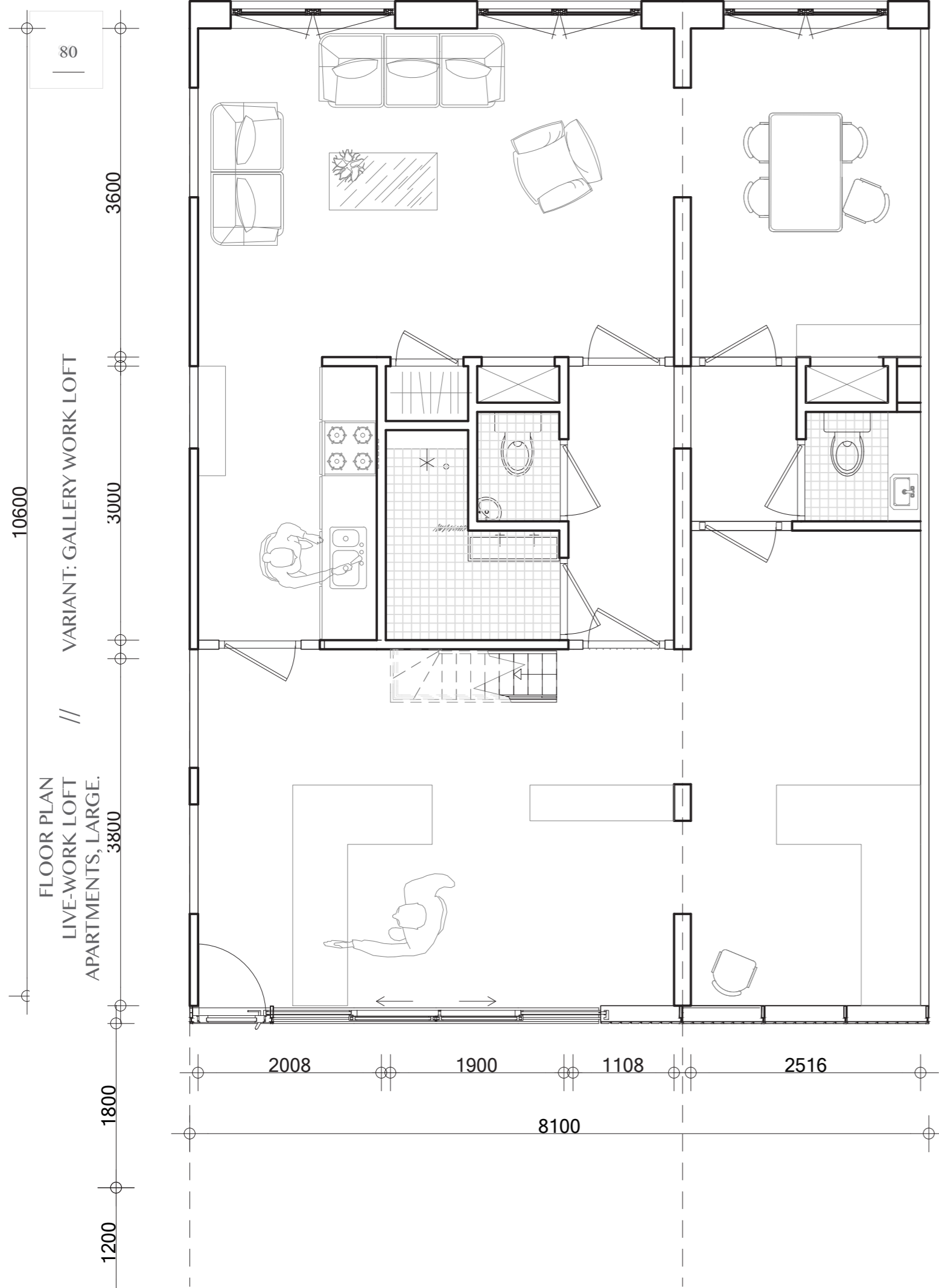
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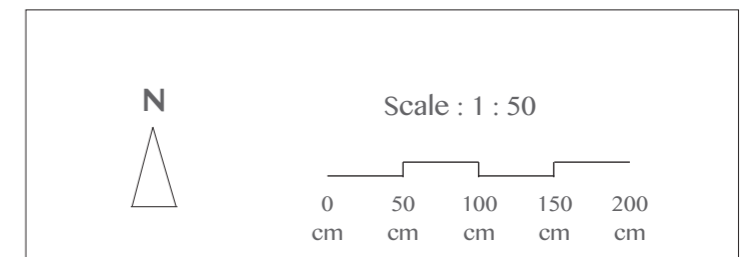
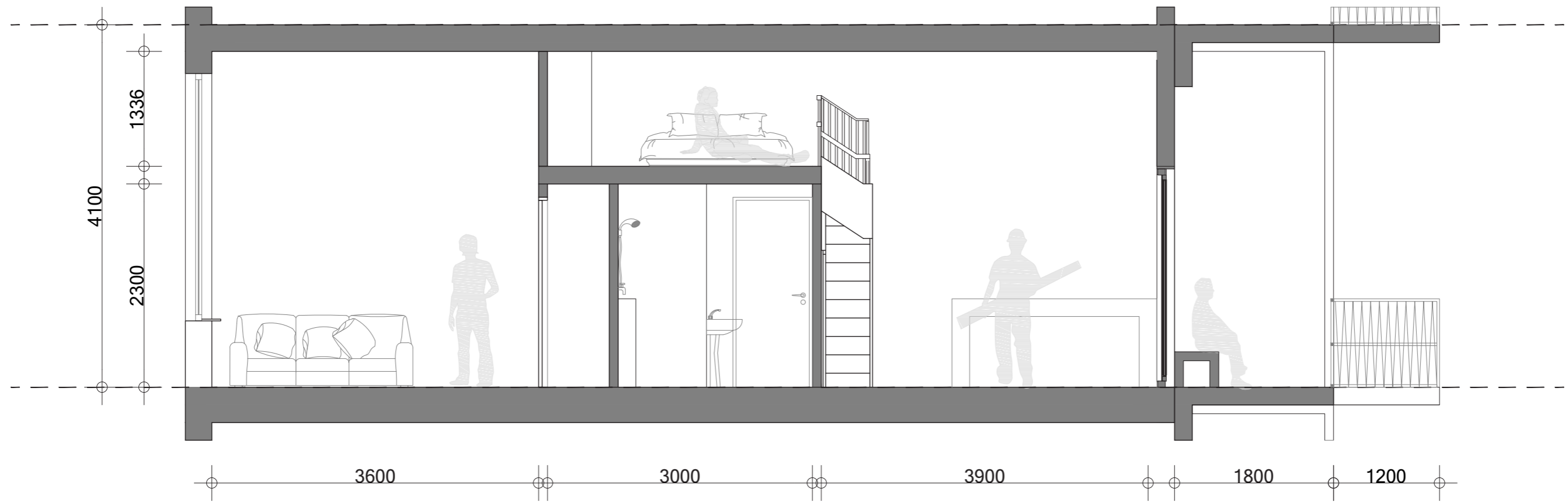




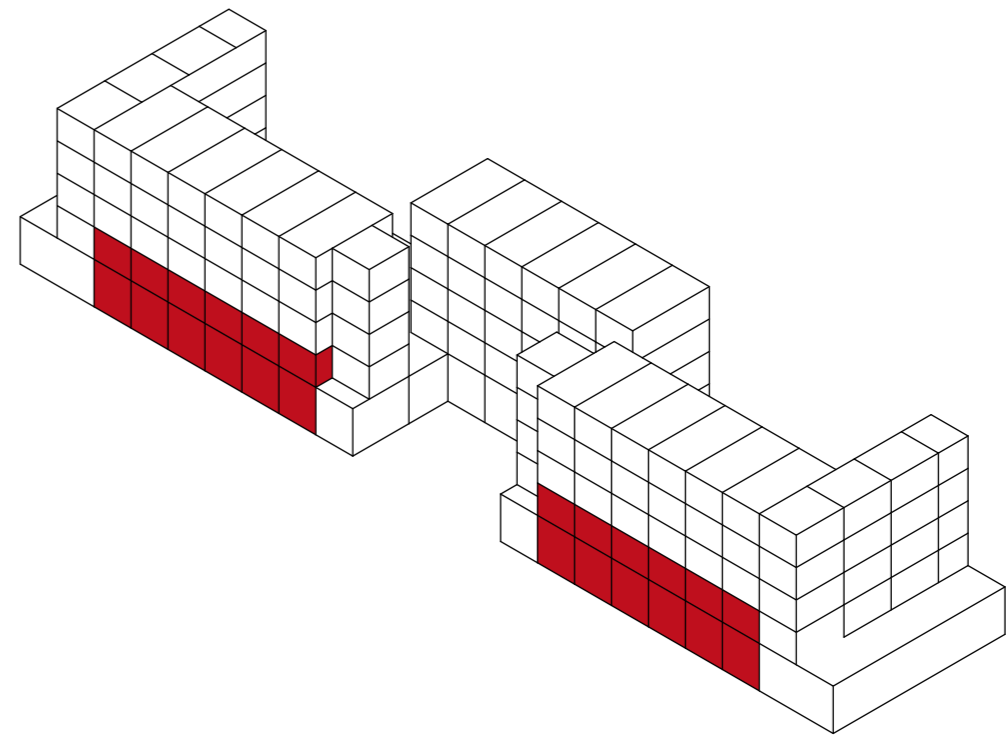




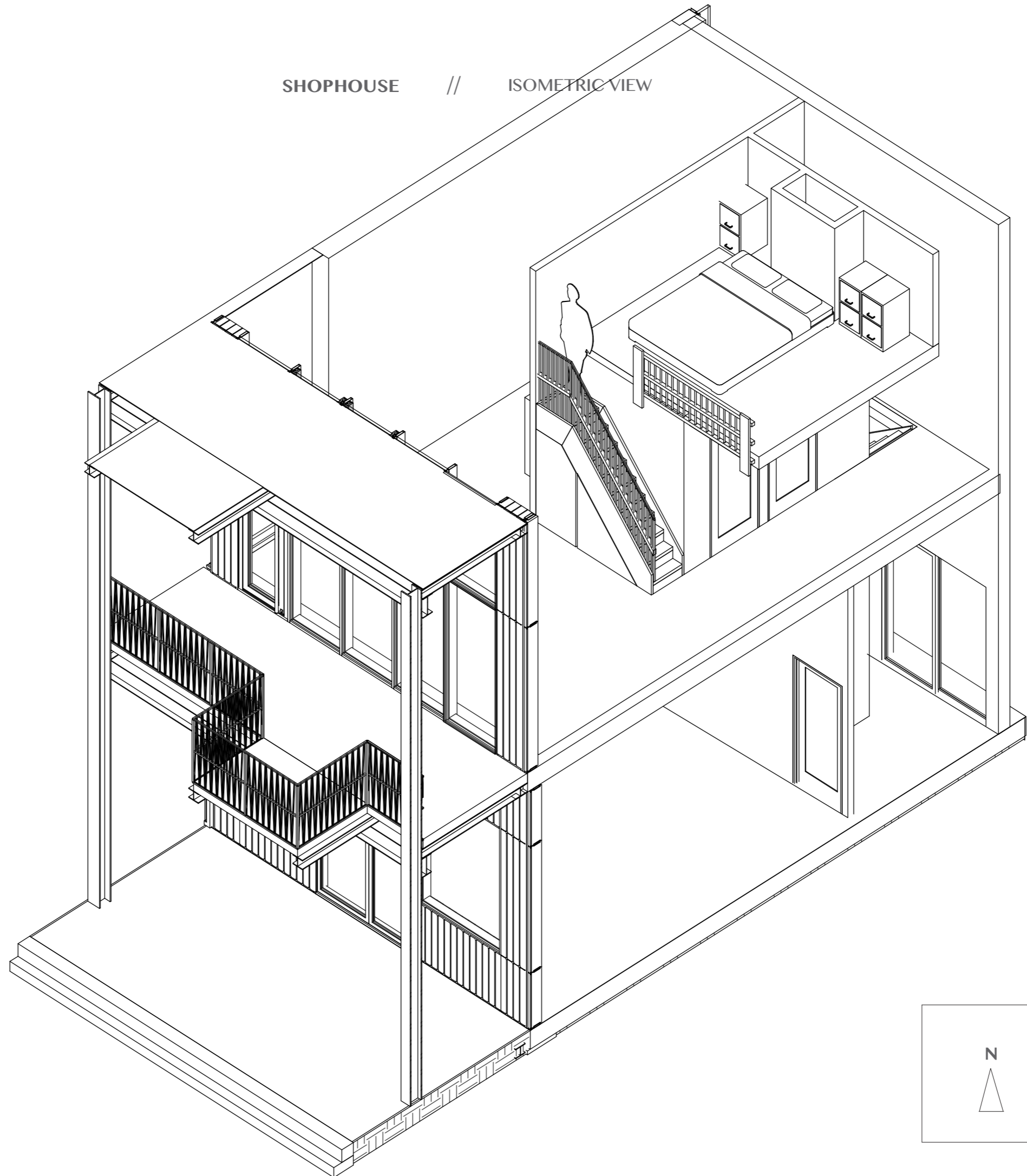




TYPE: SHOPHOUSE
DWELLING SIZE: 53 M2
SHOP SIZE: 40M2
FLEXIBLE FLOORSPACE: 20
TOTAL FLOORSPACE: 113 M2
DESIGN STRATEGY: FUNCTIONAL CORE
FLEXIBLE IN USE
FLEXIBLE IN EXPANDING DUE TO STRUCTURAL DESIGN
FLEXIBLE FACADE
STREET ACCESS TO SHOP, GALLERY ACCESS TO DWELLING



SHOPHOUSE // ISOMETRIC VIEW

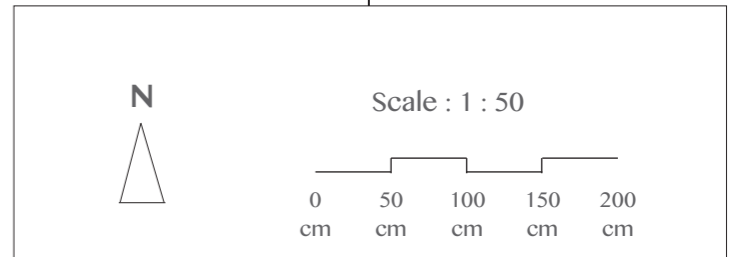
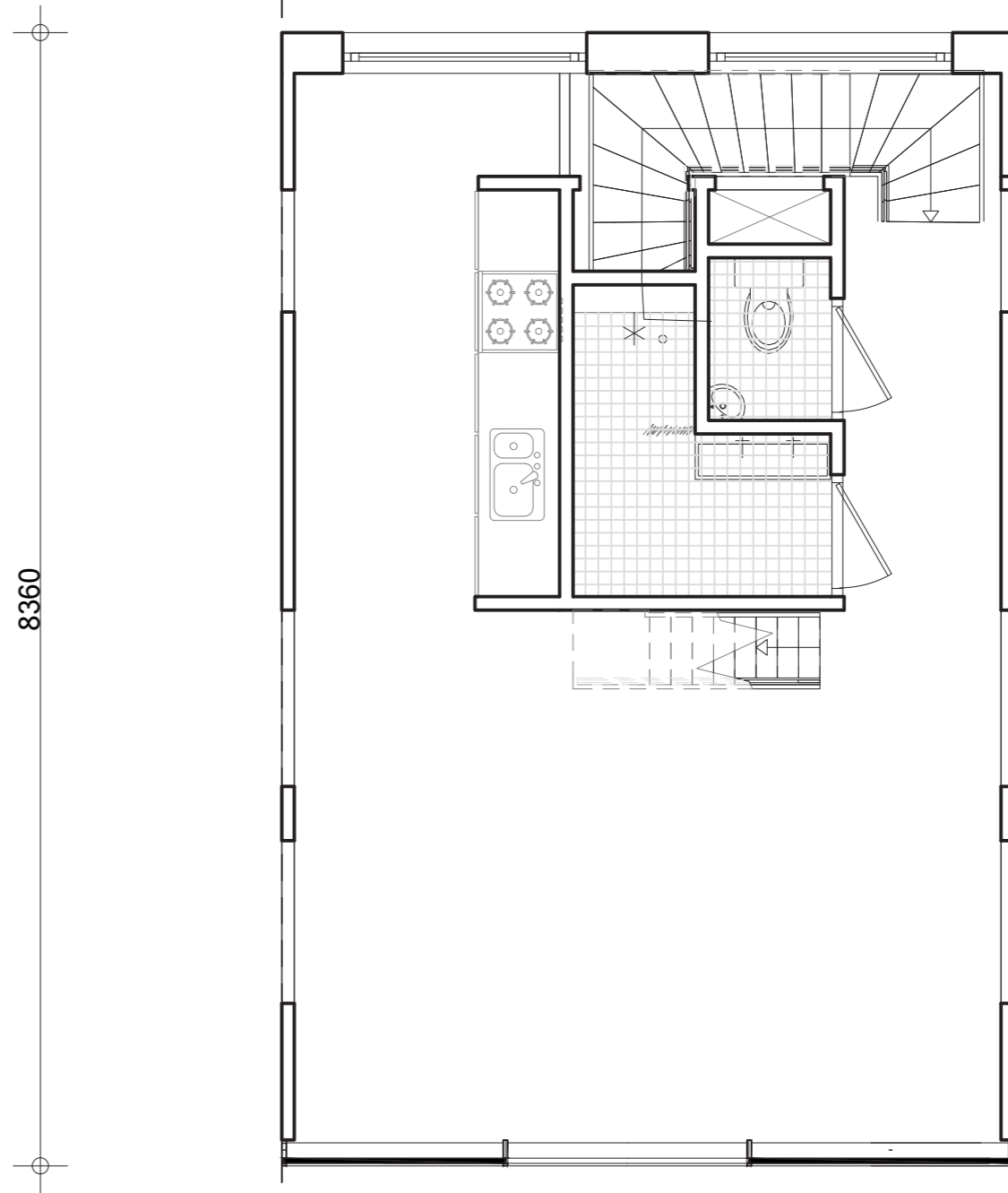
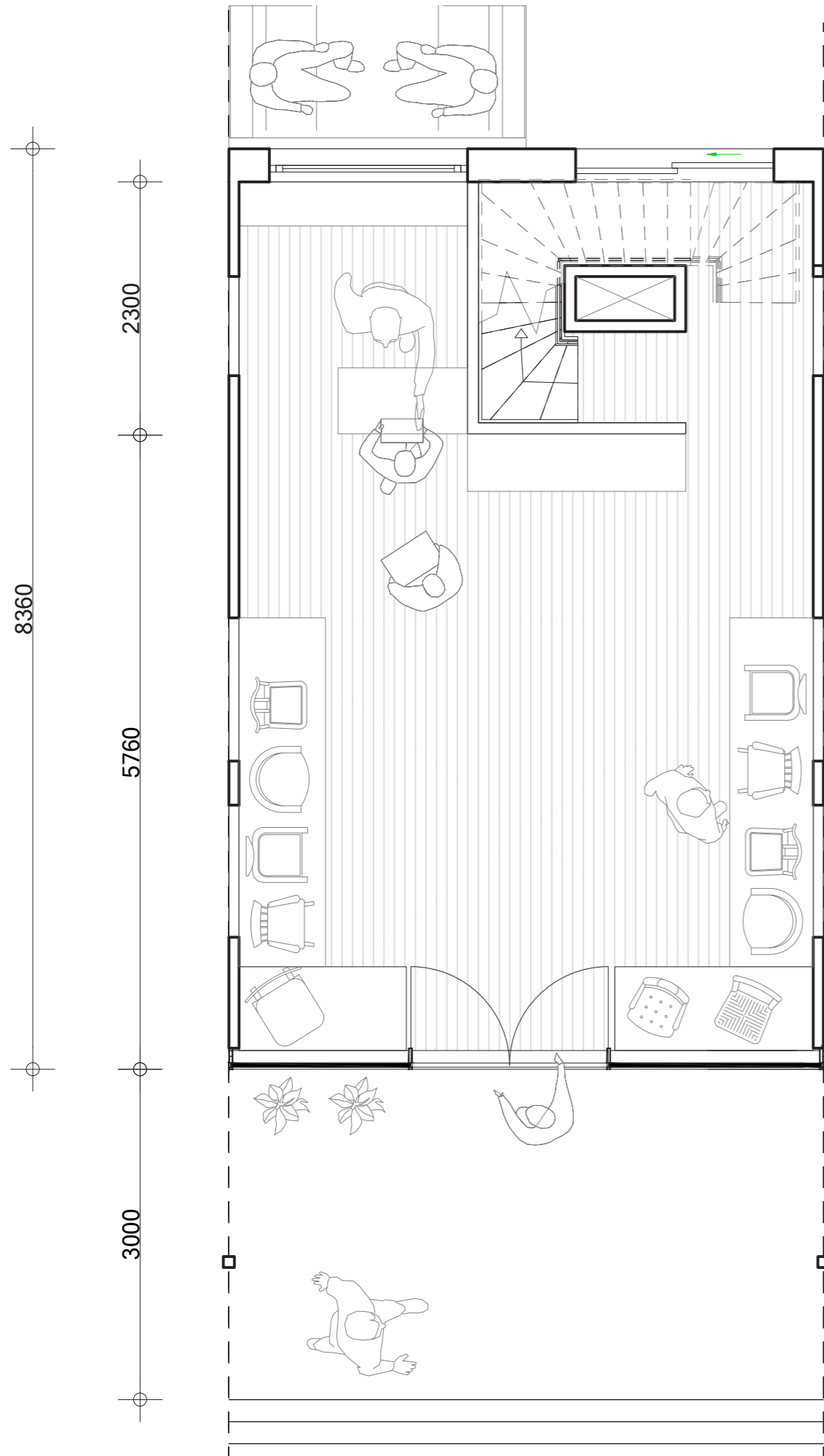


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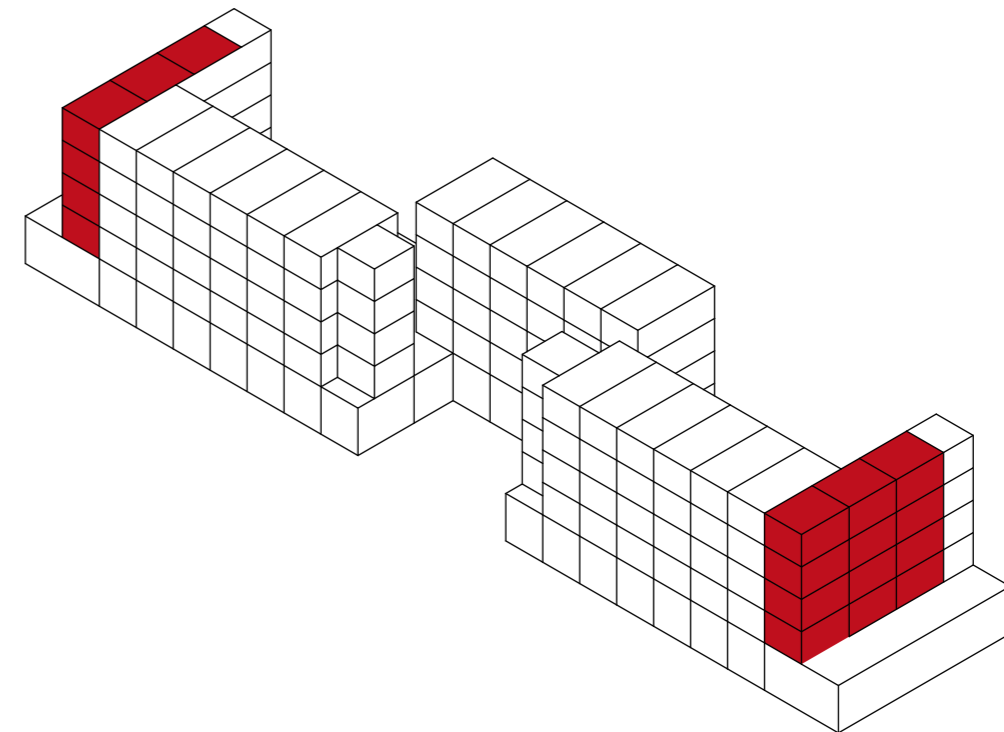
Scale : 1 : 100

0 100 200 300 400
cm cm cm cm cm

SHOPHOUSE // FLOOR PLAN



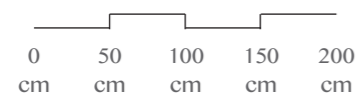
TYPE: STUDIO LOFTS
DWELLING SIZE: 30M2
DESIGN STRATEGY: FUNCTIONAL SPACES IN THE BACK
FLEXIBLE IN USE
FLEXIBLE IN EXPANDING DUE TO STRUCTURAL DESIGN
FLEXIBLE FACADE
STREET ACCESS TO SHOP, GALLERY ACCESS TO DWELLING

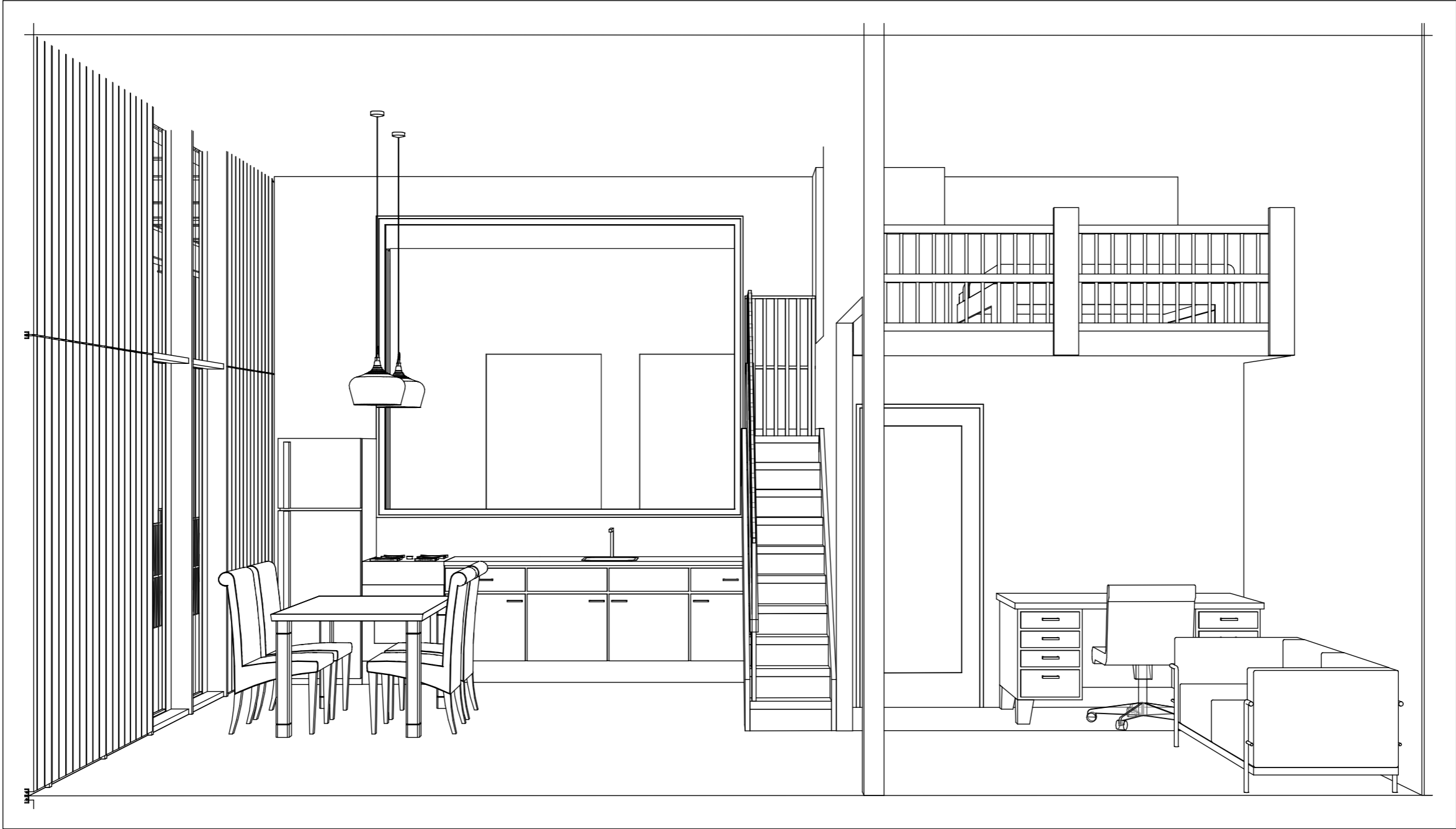


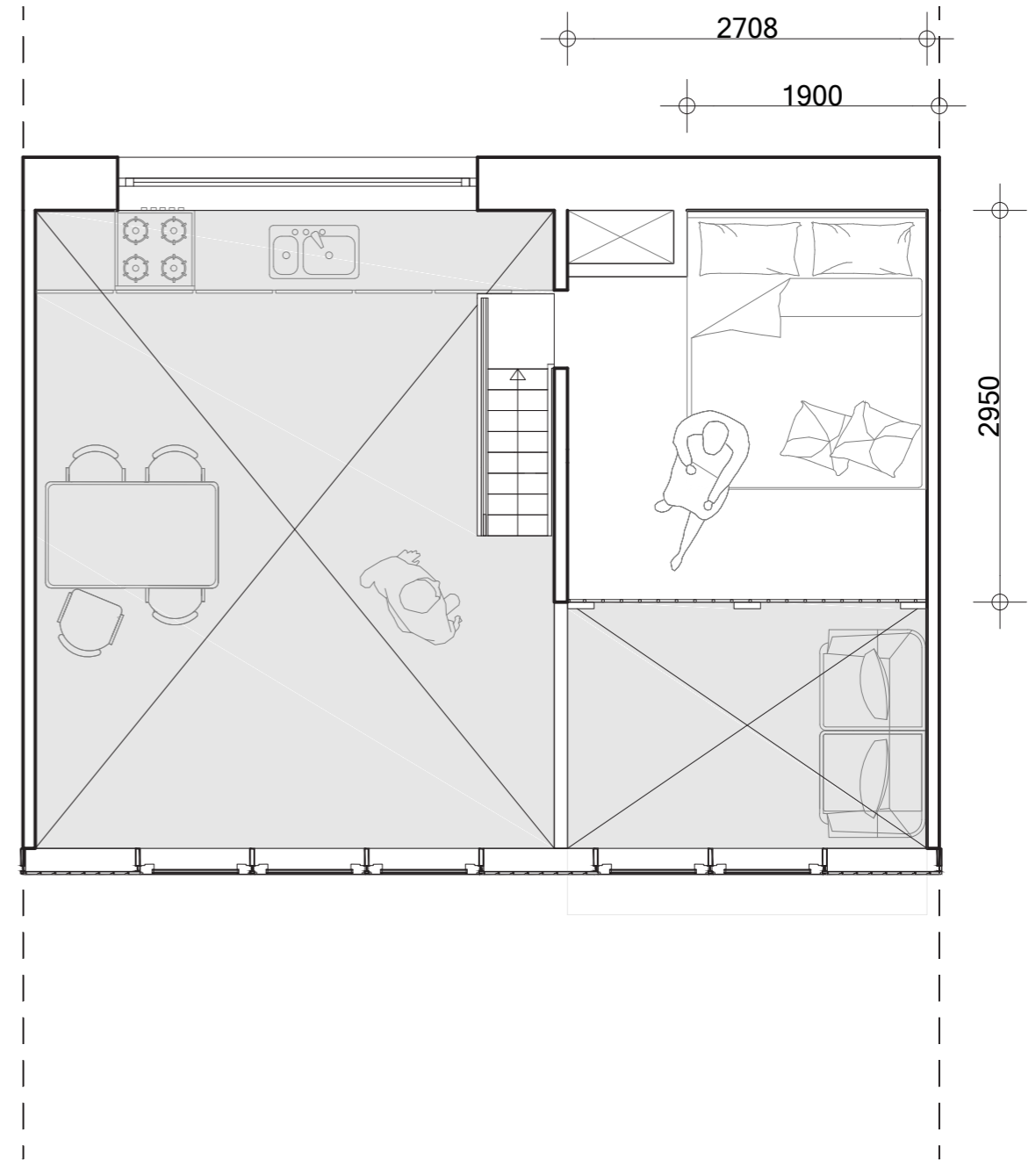
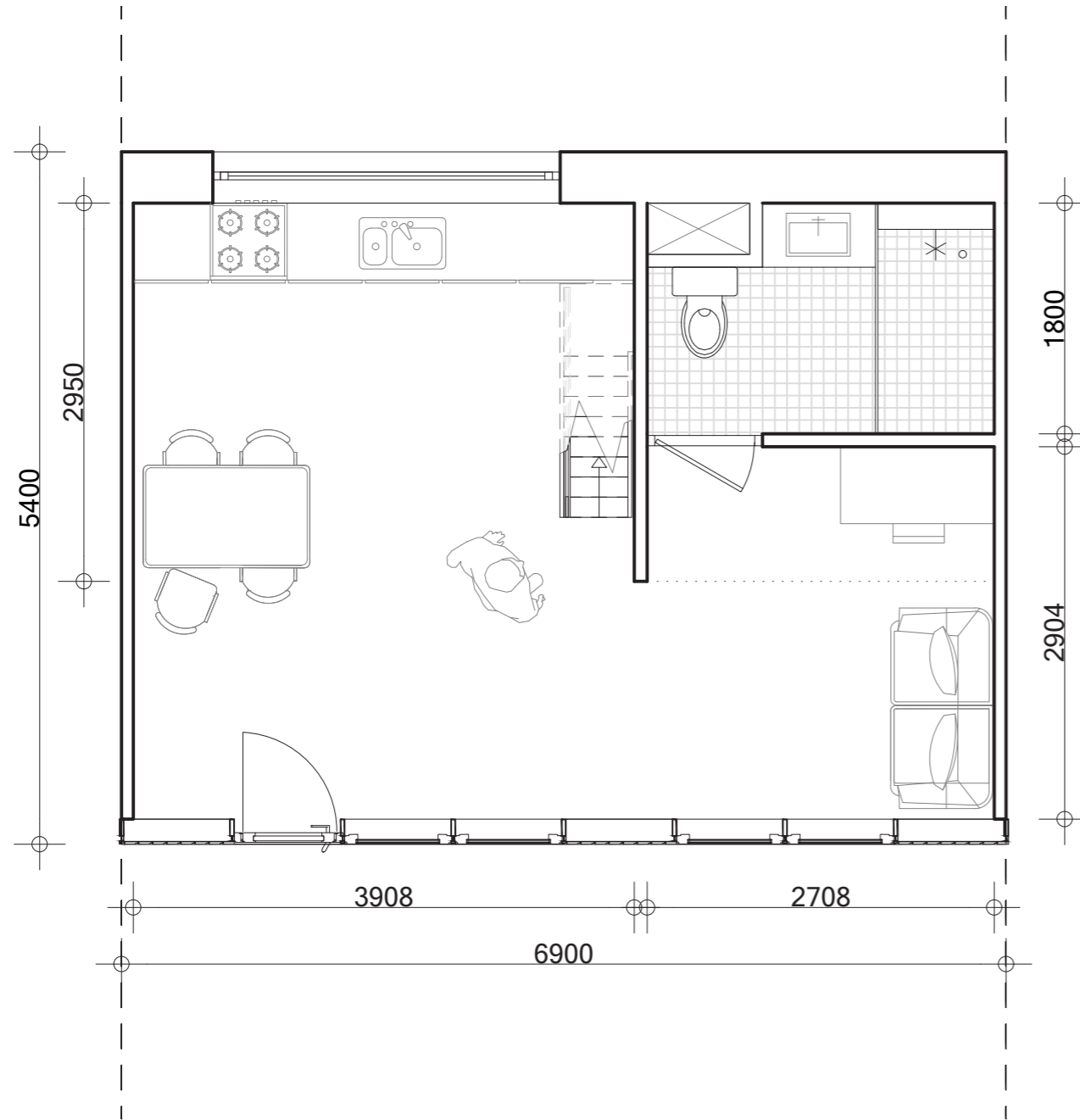
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Scale : 1 : 50



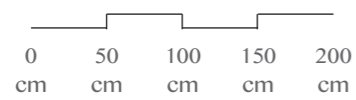




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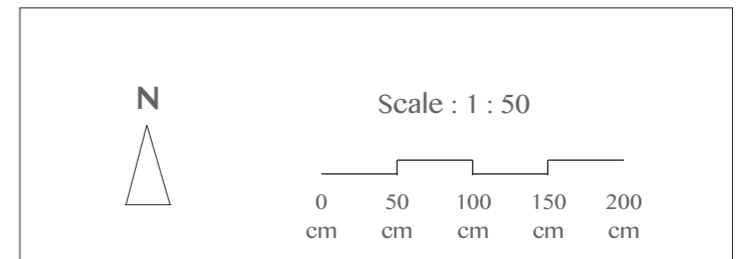
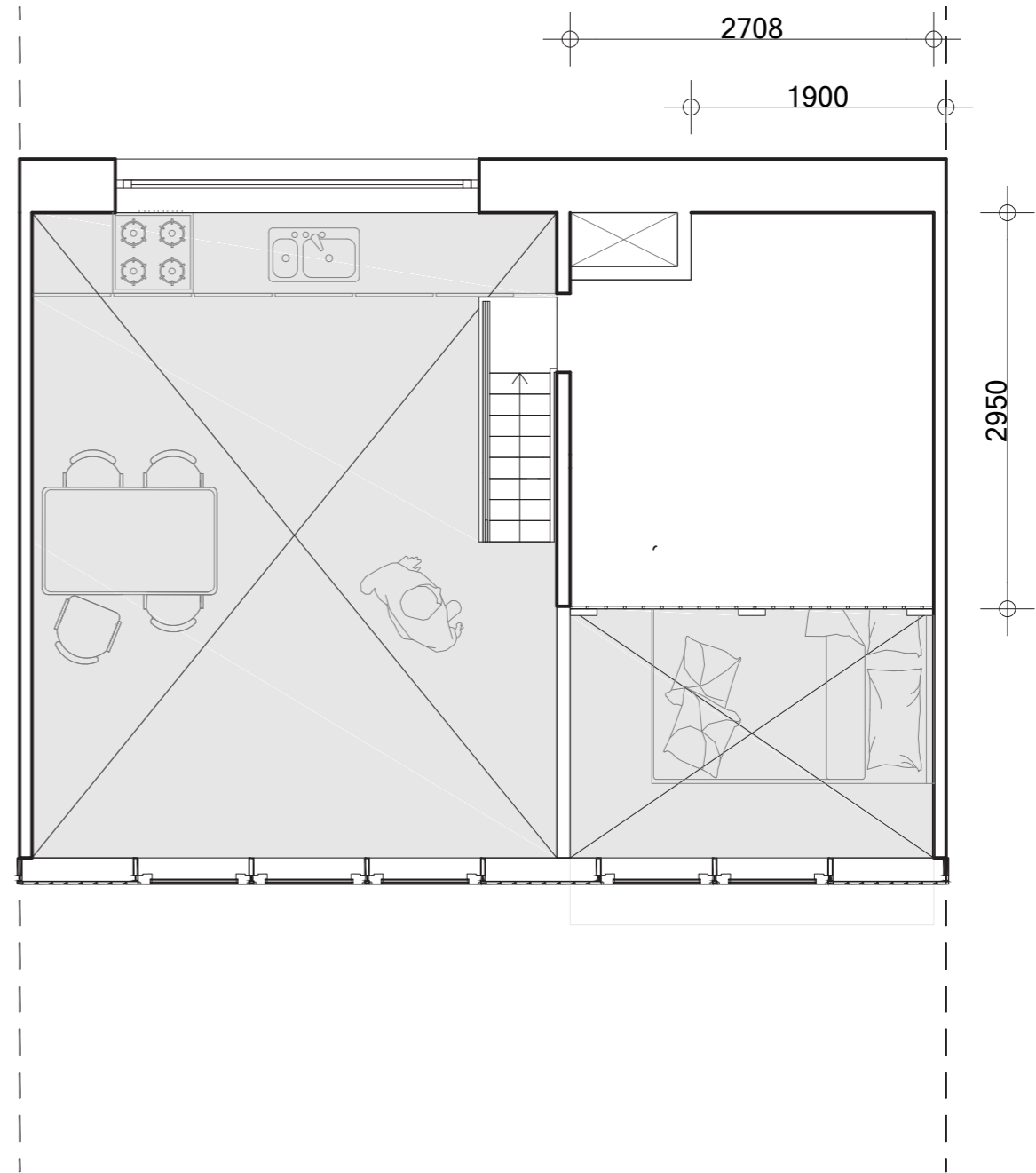
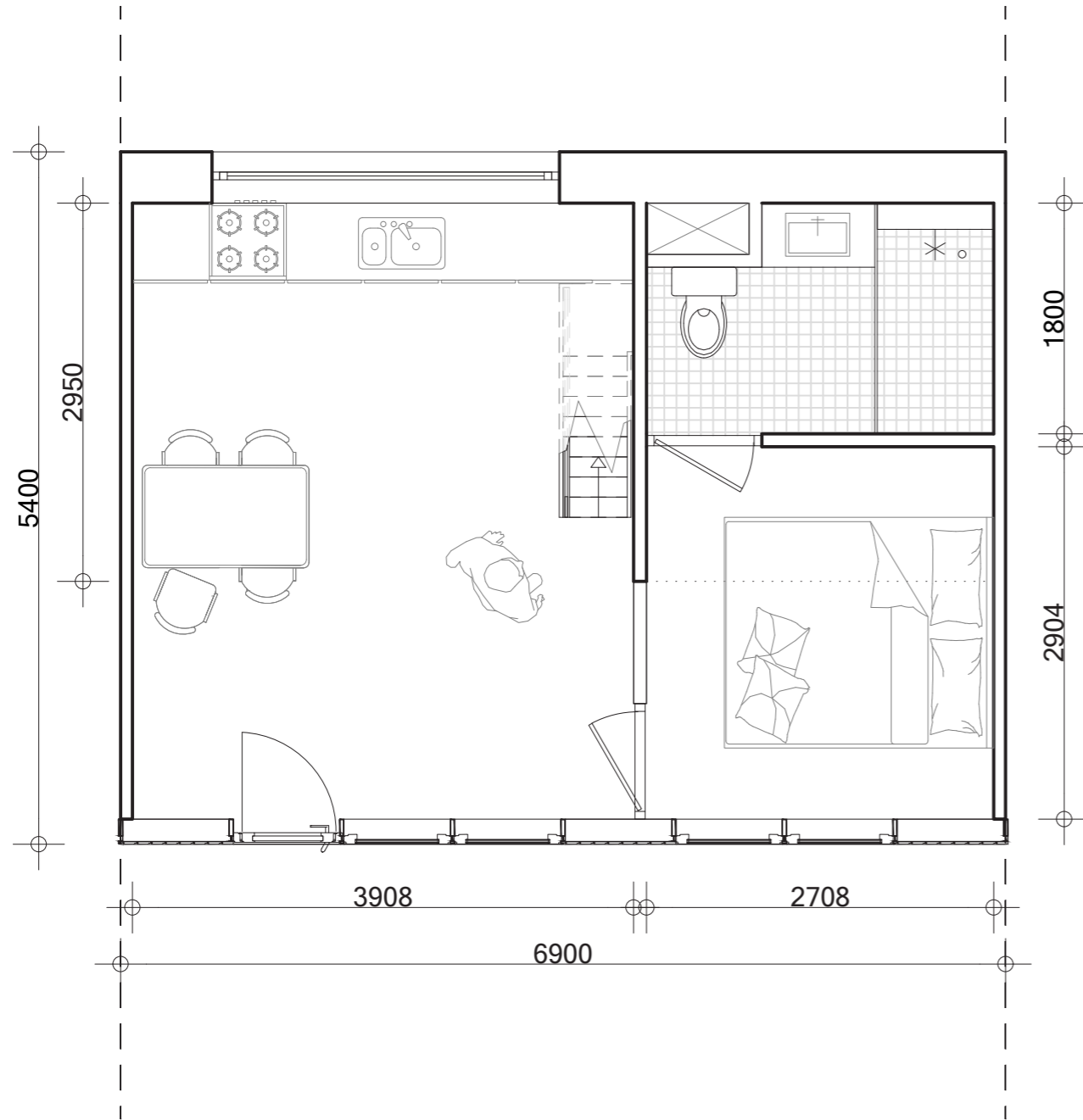
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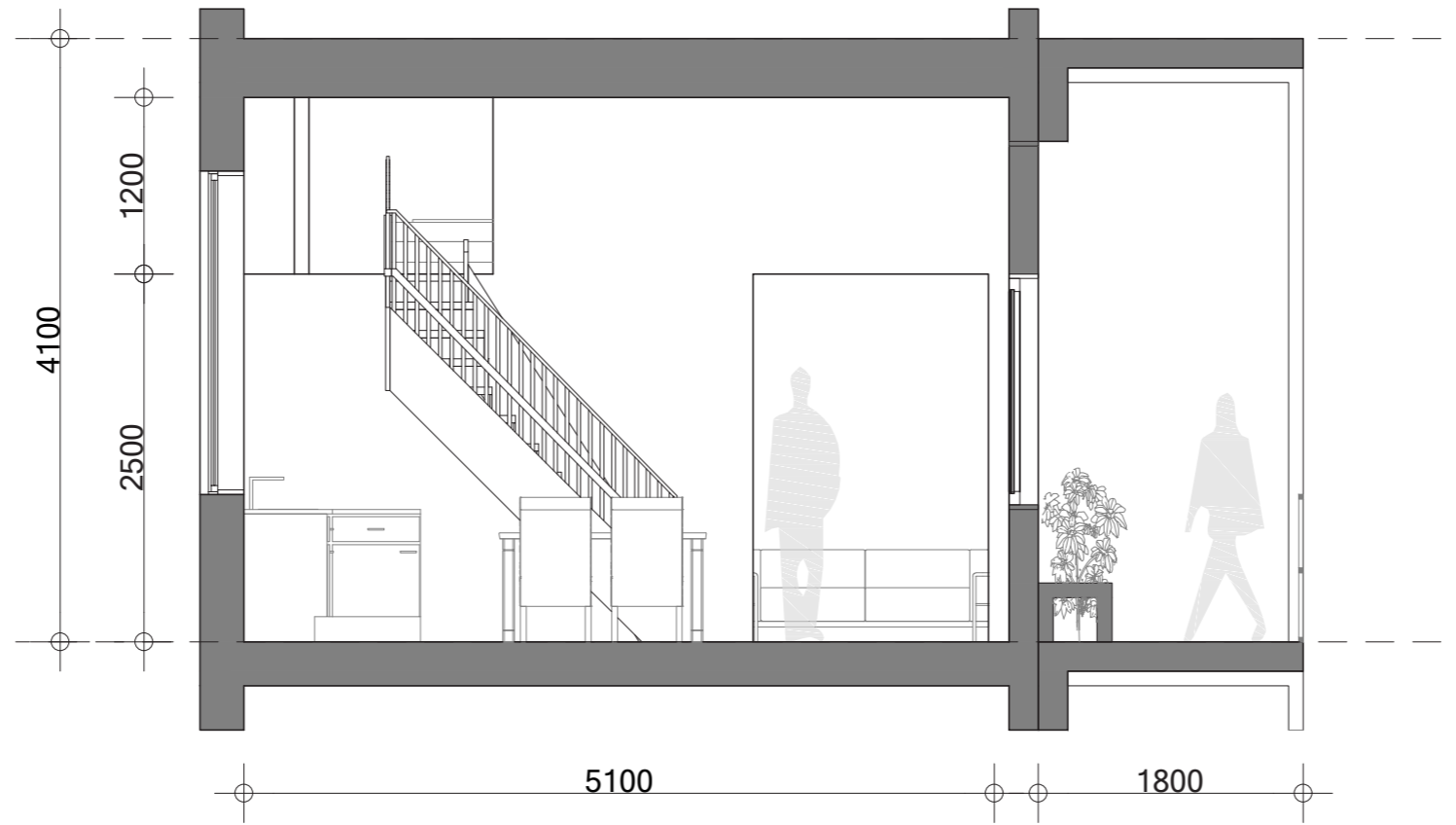
STUDIO LOFT

//

FLOOR PLAN, USE 2



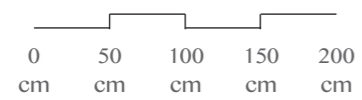
STUDIO LOFT // DWELLING SECTION

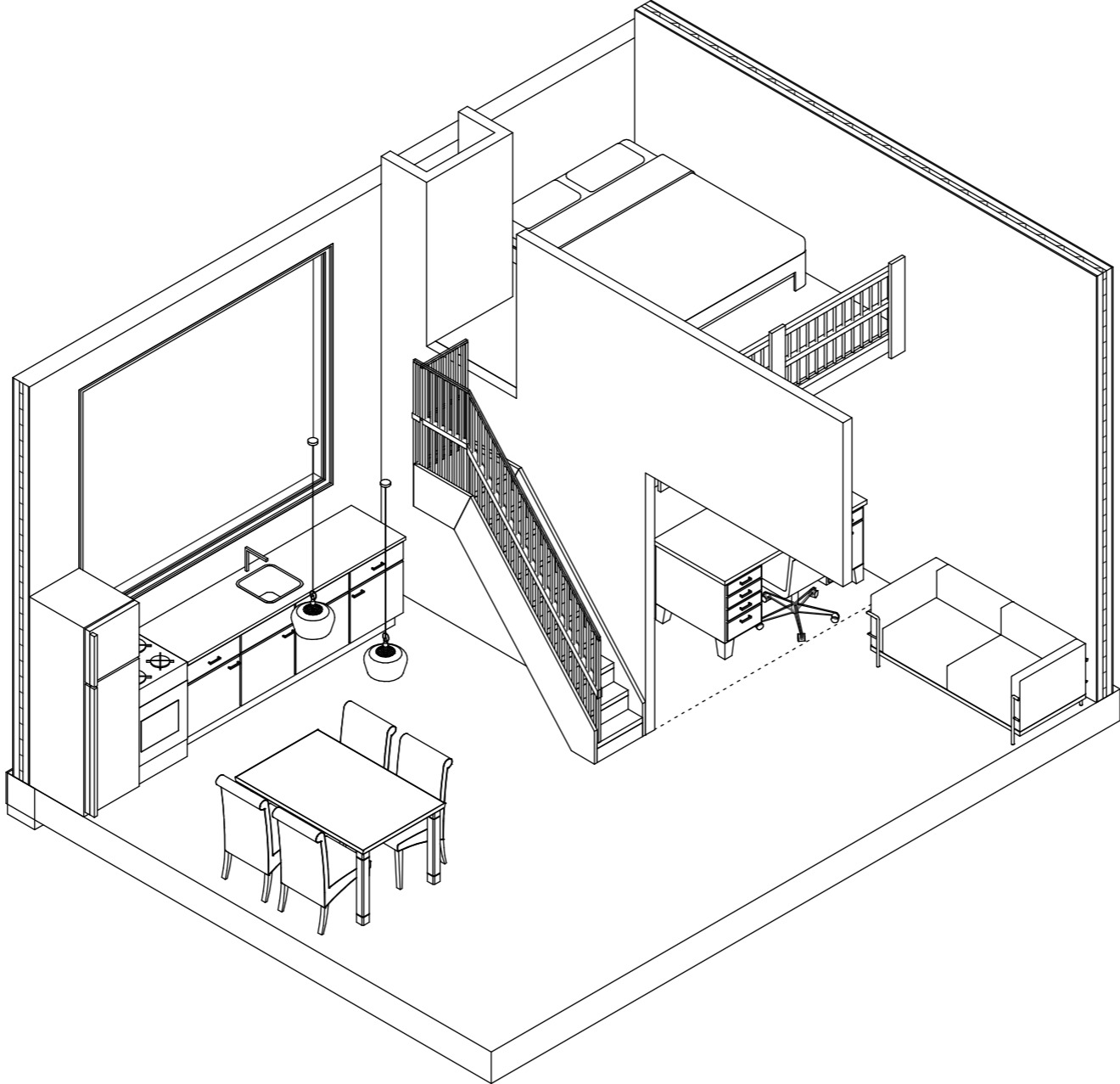


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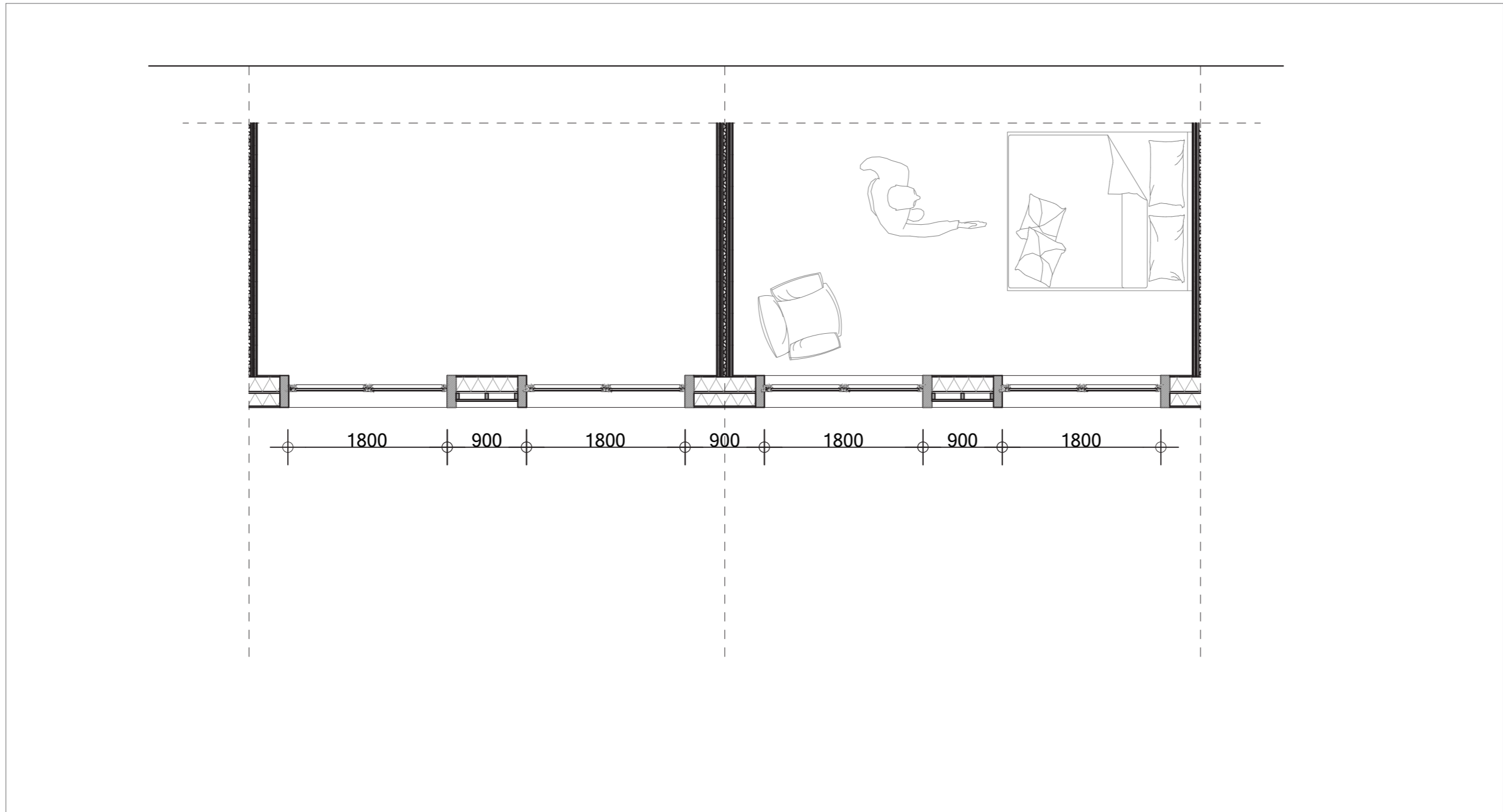


Scale : 1 : 50





NORTH FACADE // HORIZONTAL SECTION



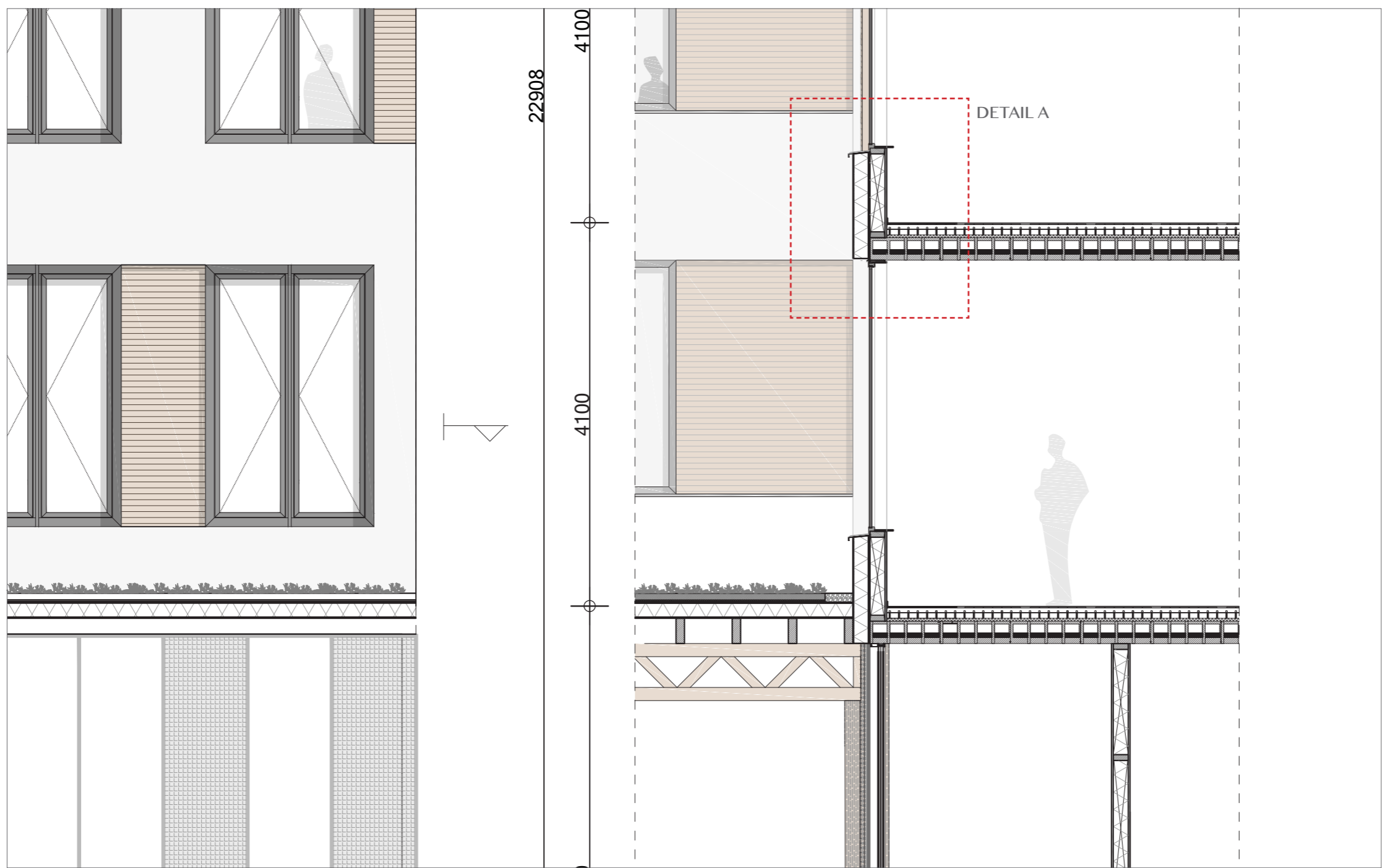
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Scale : 1 : 50

0 50 100 150 200
cm cm cm cm cm

This block contains a north arrow pointing upwards, labeled 'N'. Below it is a scale bar with markings at 0, 50, 100, 150, and 200 centimeters. The text 'Scale : 1 : 50' is positioned above the scale bar.

NORTH FACADE // VERTICAL SECTION



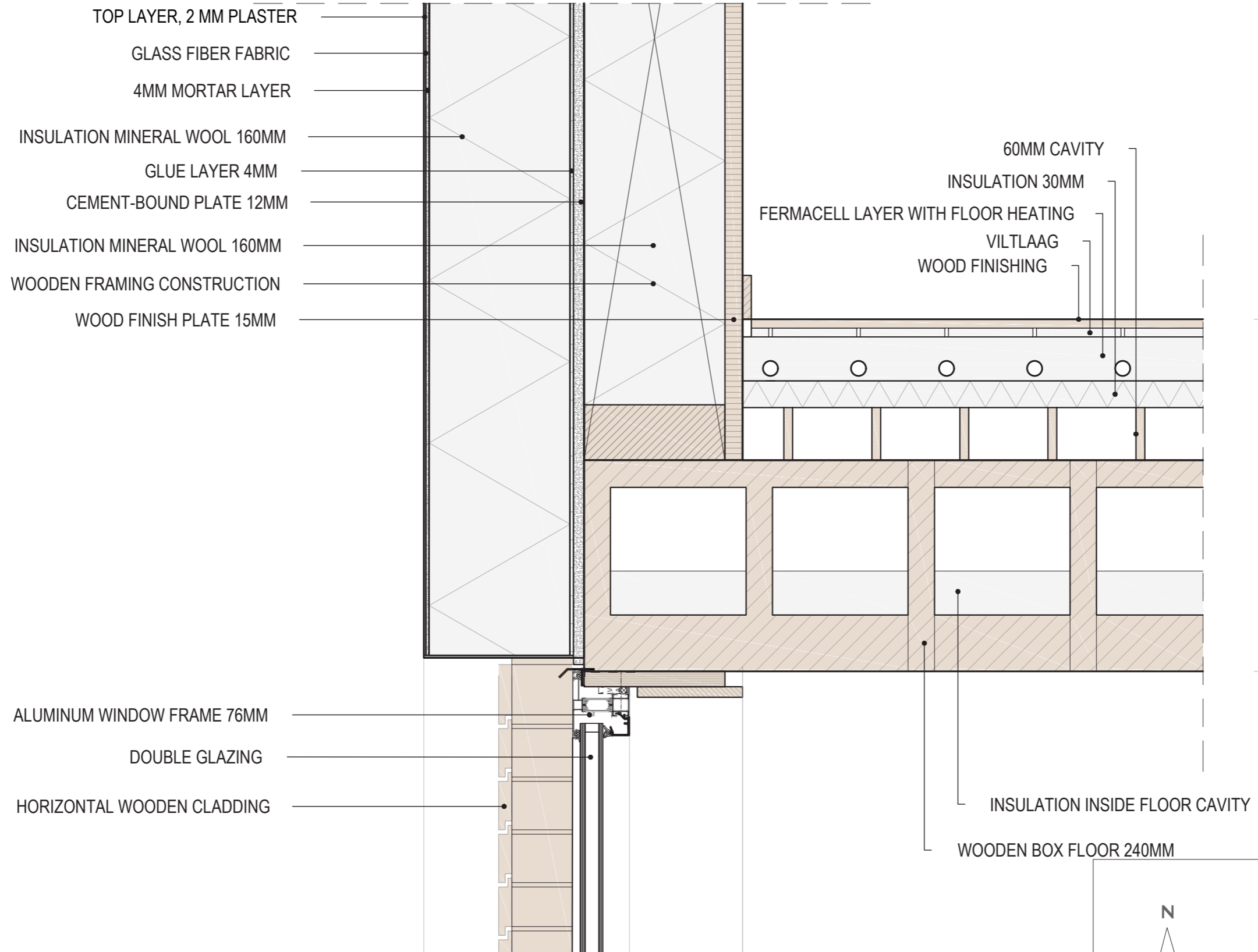
N

Scale : 1 : 50

0 50 100 150 200
cm cm cm cm cm

FACADE DETAIL // DETAIL A

362



400

ALUMINUM WINDOW FRAME 76MM
DOUBLE GLAZING
HORIZONTAL WOODEN CLADDING

60MM CAVITY
INSULATION 30MM
FERMACELL LAYER WITH FLOOR HEATING
VILTLAG
WOOD FINISHING

INSULATION INSIDE FLOOR CAVITY
WOODEN BOX FLOOR 240MM

N

Scale : 1 : 5

0 5 10 15 20
cm cm cm cm cm













