THE THRESHOLD HOUSE

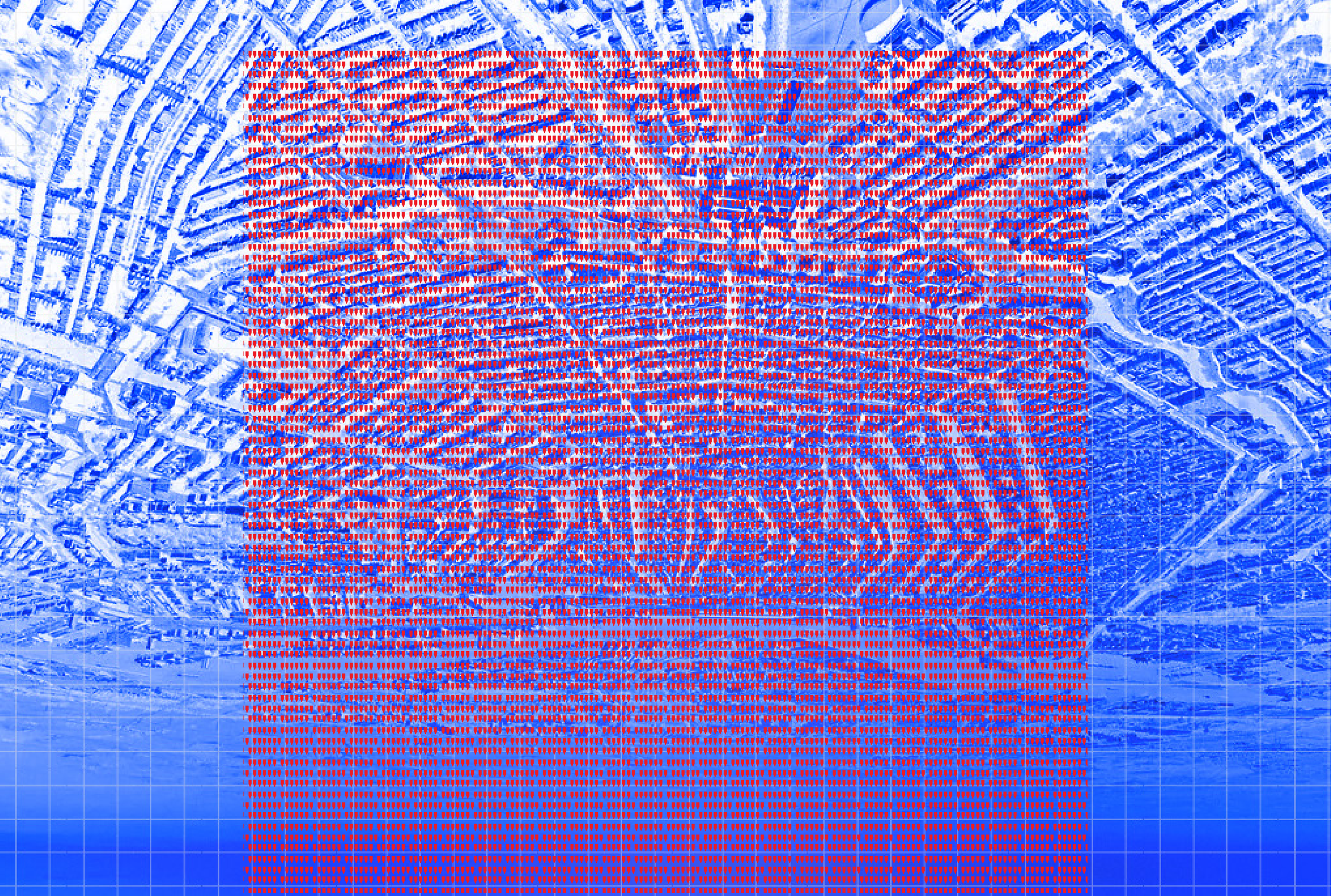


A BLUEPRINT TO RETHINK PRIVACY IN HIGH DENSITY SHARED LIVING CONDITIONS

LUKE FINN VAN DER LEE

AMSTERDAM





7.500

NEW HOUSES EVERY YEAR

HOW CAN WE DESIGN NOT MERELY THE QUANTITIES BUT RATHER THE QUALITIES THAT RESPOND TO THE LIVING STANDARDS AND EXPECTATIONS A CITY LIKE AMSTERDAM WANTS TO OFFER?

PROBLEM STATEMENT

Problem Statement

CURRENT MARKET PRICES



BELLAMYBUURT-ZUID

Problem Statement

CURRENT MARKET PRICES



BELLAMYBUURT-ZUID

Problem Statement

CURRENT MARKET PRICES



ROBERT SCOTTBUURT-WEST

Problem Statement

CURRENT MARKET PRICES



ROBERT SCOTTBUURT-WEST

Problem Statement

SPATIAL IMPLICATIONS



LITTLE ROOM FOR MOVEMENT, ADAPTATION, OR PERSONAL EXPRESSION - NO SPATIAL SEPARATION

Problem Statement

SPATIAL IMPLICATIONS

Brain associates with rest



Brain associates with wakefulness



Strong environmental cues



Weak environmental cues

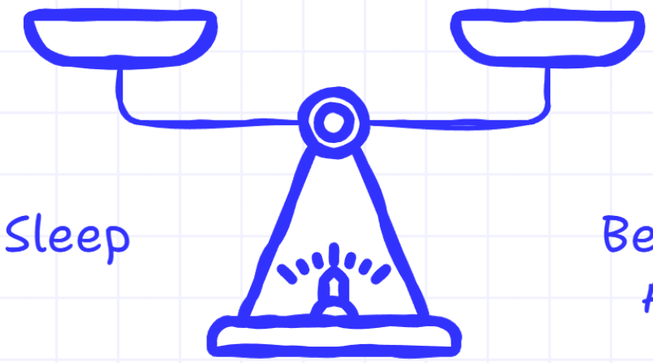


Healthy sleep patterns



Disturbed sleep patterns





Bedroom for Sleep

Bedroom for Activities

Problem Statement

SPATIAL IMPLICATIONS



FORCED TO USE LOW QUALITY MATERIALS - LACK OF SHARED SPACES


WHEN DID “AFFORDABLE” START
TO MEAN “UNLIVEABLE”?

RESEARCH QUESTION

WHAT IF OPENNESS AND PRIVACY CAN BE RETHOUGHT TO IMPROVE SHARED LIVING CONDITIONS OF YOUNG PROFESSIONALS IN HIGH DENSITY AREAS OF AMSTERDAM, WHILE MAINTAINING PERSONAL COMFORT AND WELL-BEING?

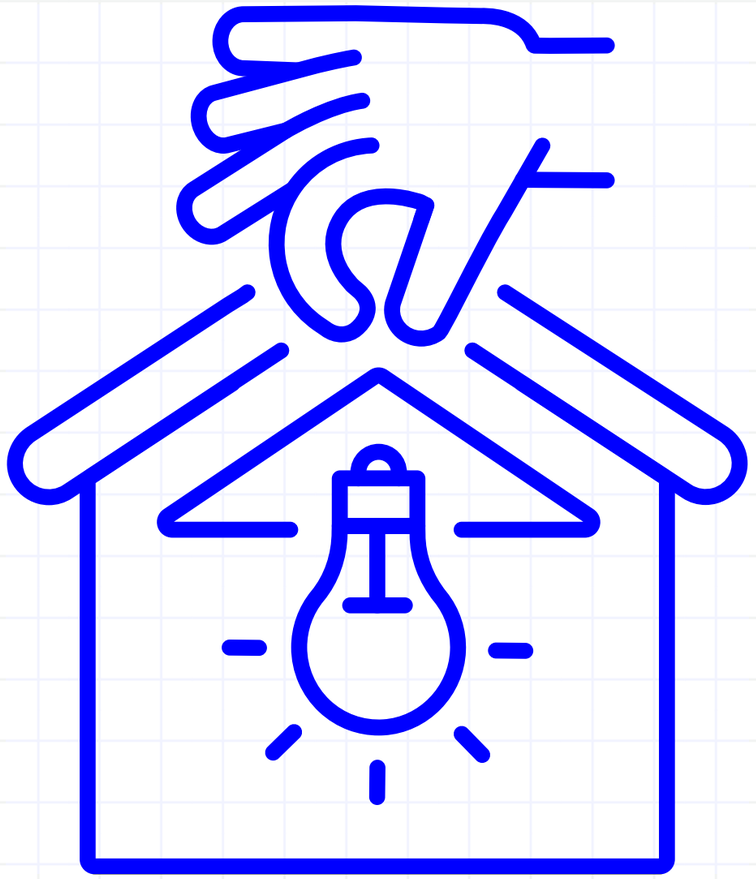
WHAT IF WE COULD FIND A NEW WAY FOR YOUNG PEOPLE TO SHARE HOMES IN BUSY CITIES LIKE AMSTERDAM?

METHOD OF EVALUATION

Method of Evaluation

OBJECTIVE

NEW HOUSING TYPOLOGY



PROVIDING AFFORDABLE HOUSING FOR STARTERS WHILE **CHALLENGING SPATIAL AND ECONOMIC LIMITATIONS** OF THE TRADITIONAL STUDIO MODEL.

Method of Evaluation

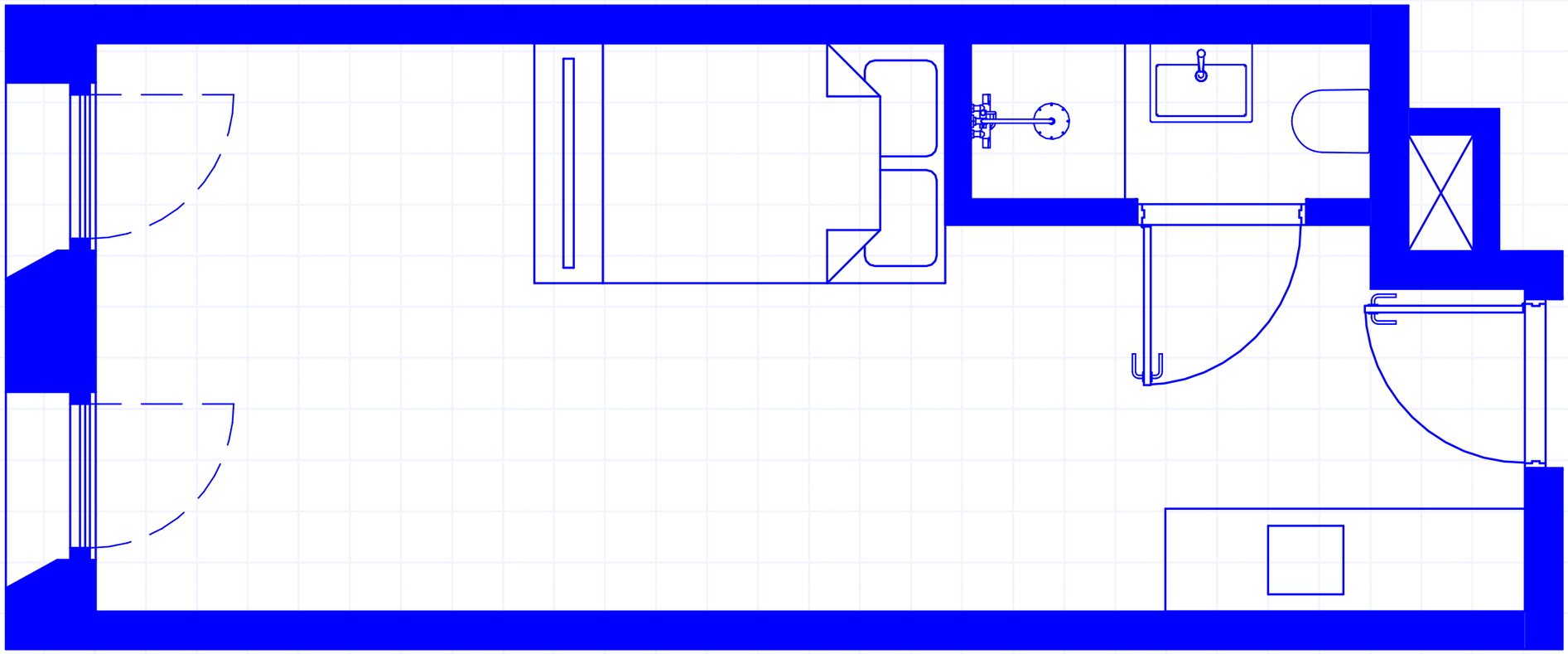
REFERENCE CASE



LITTLE MANHATTAN

Method of Evaluation

REFERENCE CASE



TOTAL LIVING AREA OF 27 M2

Method of Evaluation

REFERENCE CASE



869 APARTMENTS

31,5 M2 GFA PER RESIDENT

Method of Evaluation

REFERENCE CASE

Little Manhattan

Socially Isolated



Intense Activity Overlap



Low-Quality Materials



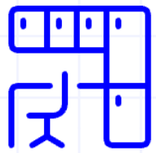
Lack of Place Attachment



The Threshold House



Socially Connected



Clear Spatial Differentiation



High-Quality Materials

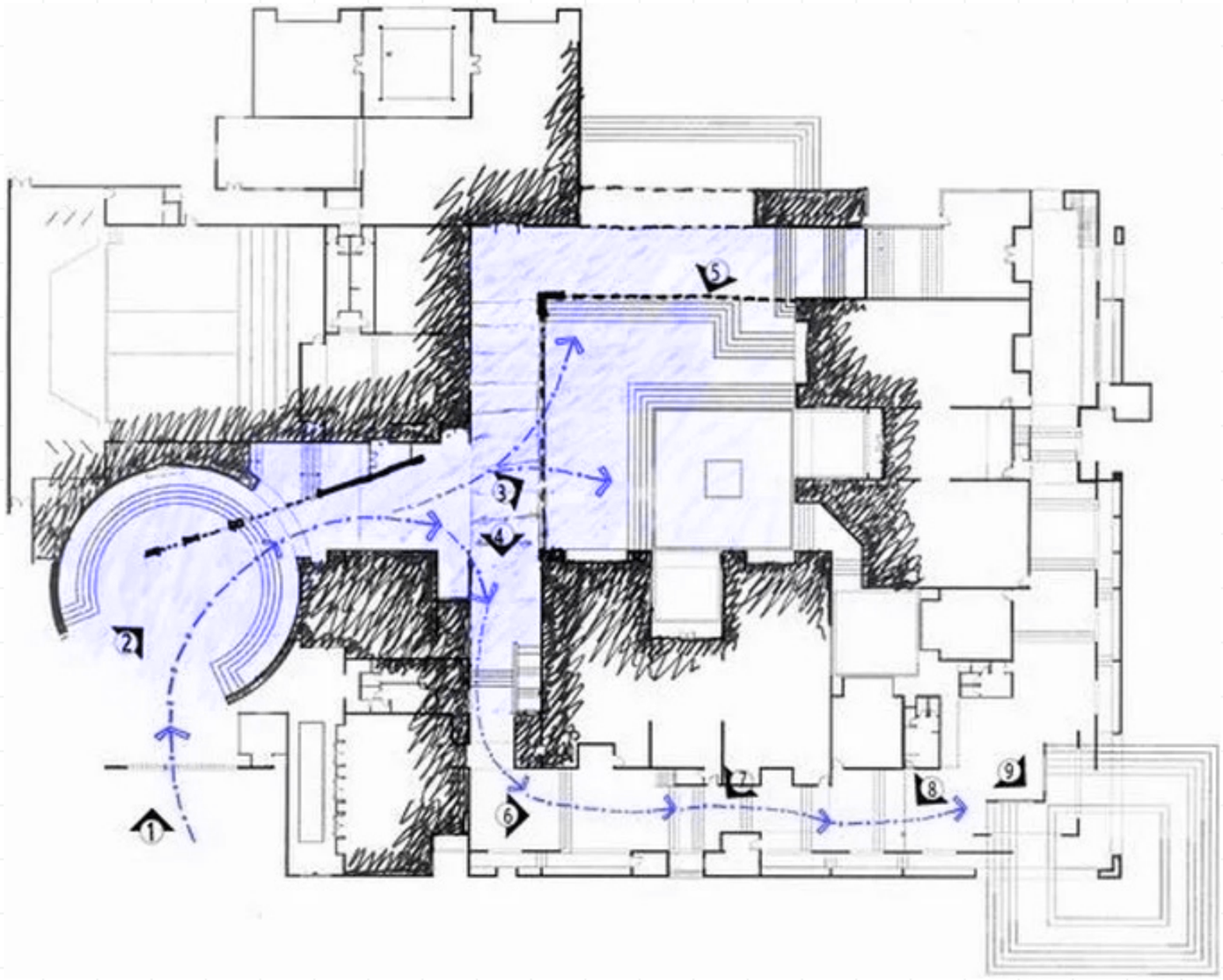


Place Attachment Fostered

LITERATURE RESEARCH

Literature Research

THRESHOLD SPACES



- HELPS BALANCE PRIVACY AND OPENESS
- TRANSITIONAL ZONES BETWEEN PRIVATE AND COLLECTIVE

Literature Research

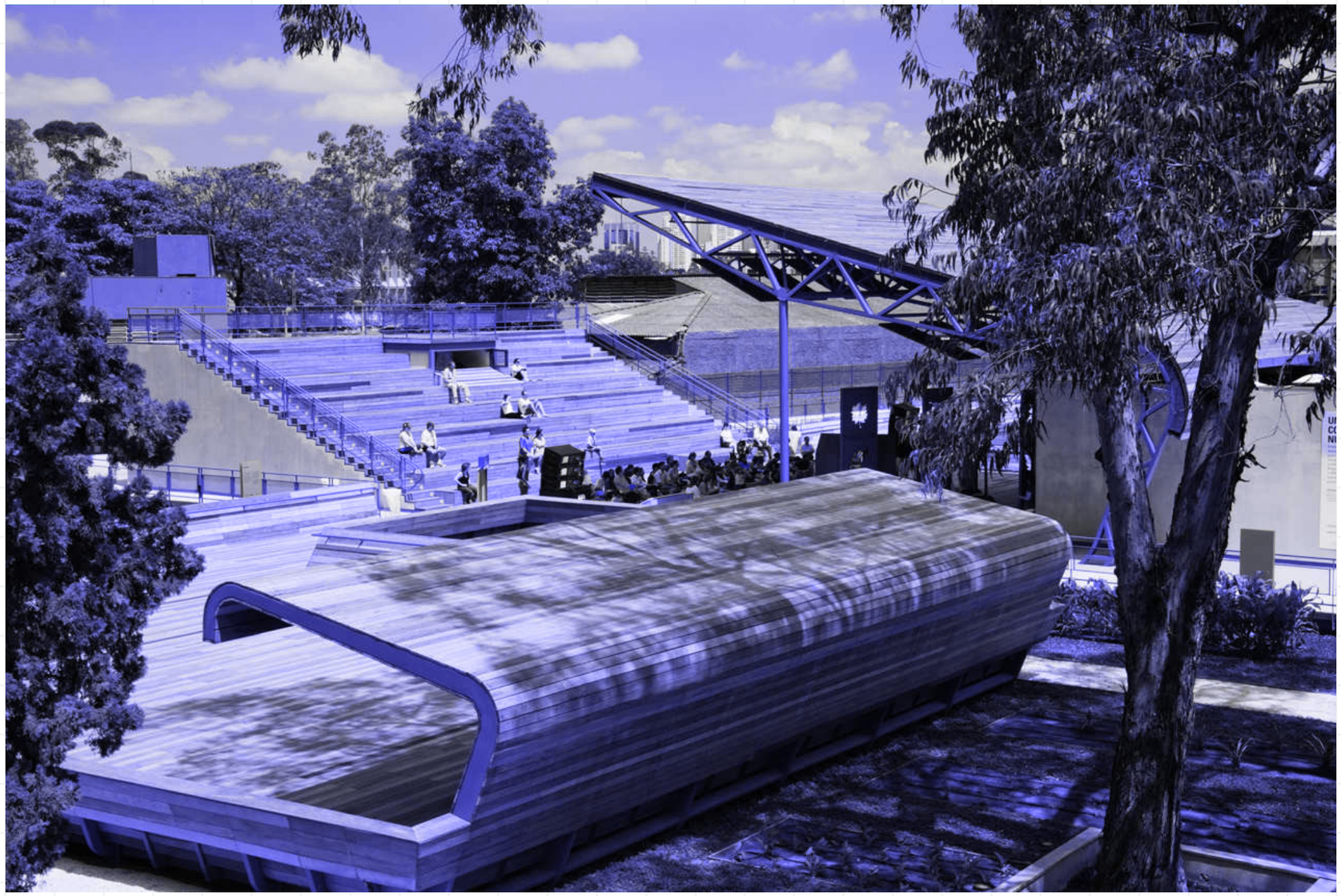
THRESHOLD SPACES



- SPACES OF PAUSE, ENCOUNTER, AND NEGOTIATION
- ALLOW RESIDENTS TO GRADUALLY ENGAGE WITH OTHERS

Literature Research

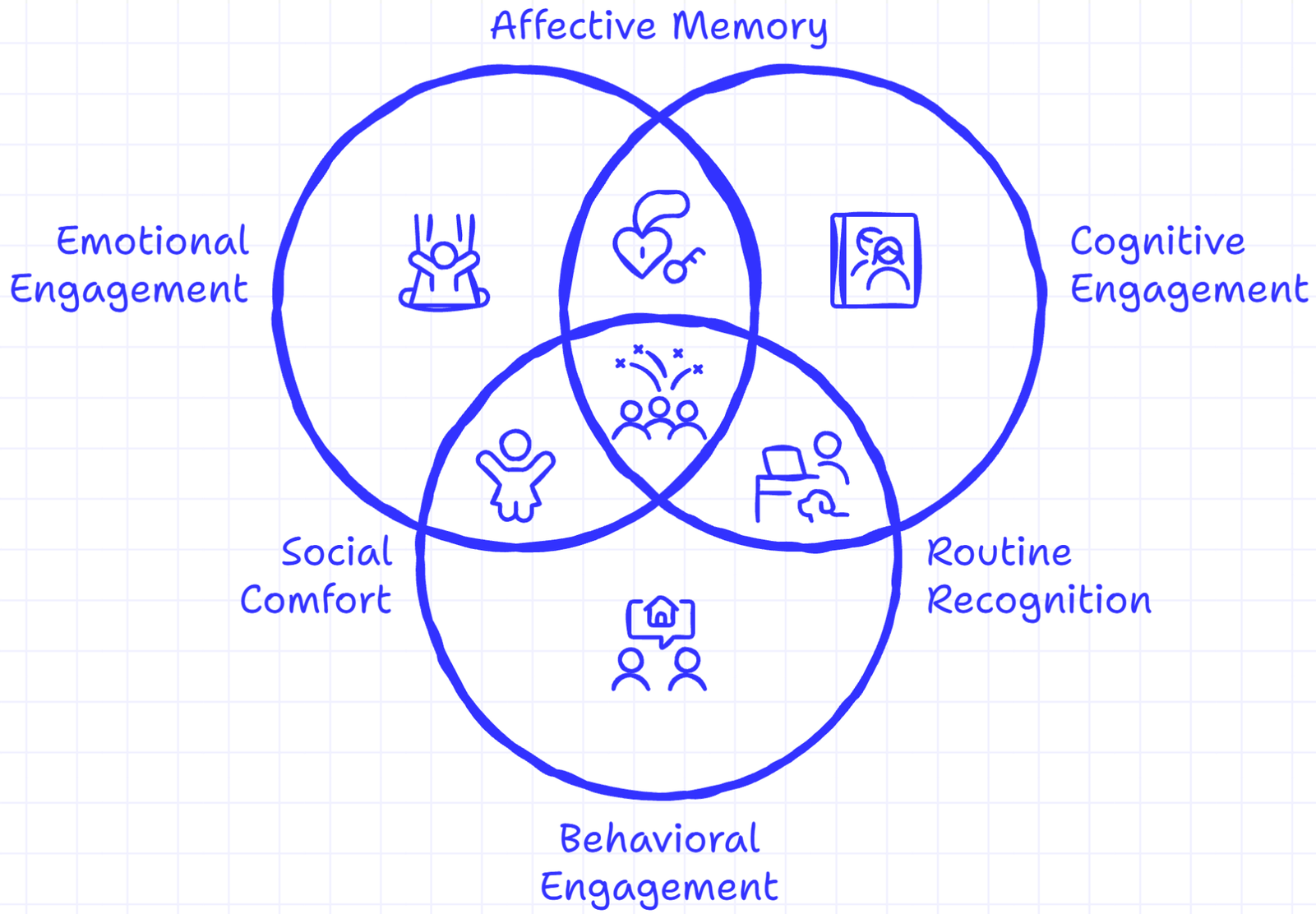
POCKET SPACES



- SMALL SPACES OF THAT ENCOURAGE RESIDENTS TO LINGER, OBSERVE, AND INTERACT ON THEIR OWN TERMS.
- SUPPORT EVERYDAY SOCIAL INTERACTION WITHOUT THE PRESSURE OF FORMAL COMMUNAL AREAS.

Literature Research

PLACE ATTACHMENT

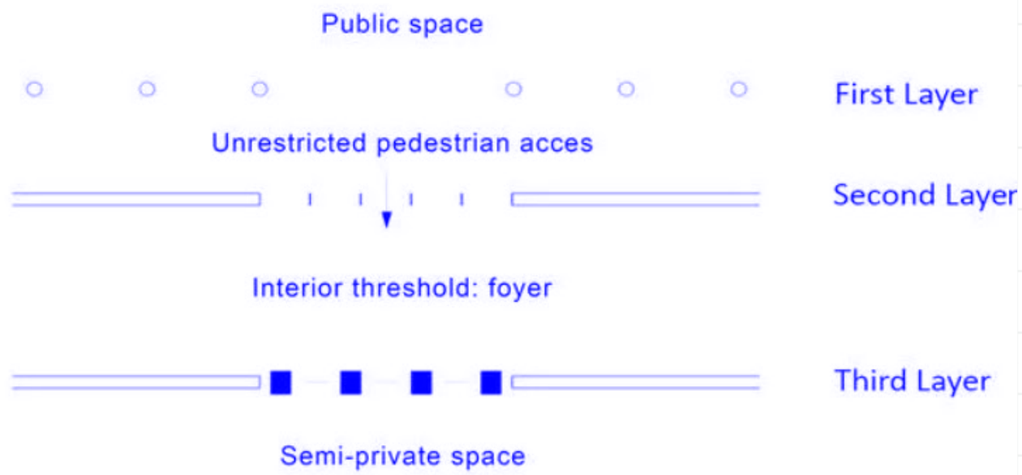


- EMOTIONAL BOND BETWEEN PEOPLE AND THEIR LIVING ENVIRONMENT AND CREATES A SENSE OF BELONGING
- DEVELOPS THROUGH USE, PERSONALIZATION, MEMORY, AND SOCIAL INTERACTION, RATHER THAN THROUGH FORM

Literature Research

LAYERED SECURITY





- SUPPORTS A HOUSING MODEL THAT FEELS SAFE WITHOUT BEING CLOSED, ENCOURAGING TRUST, FAMILIARITY, AND COMMUNITY.
- ORGANIZES SAFETY THROUGH GRADUATED SPATIAL TRANSITIONS, RATHER THAN THROUGH STRICT SEPARATION OR SURVEILLANCE.

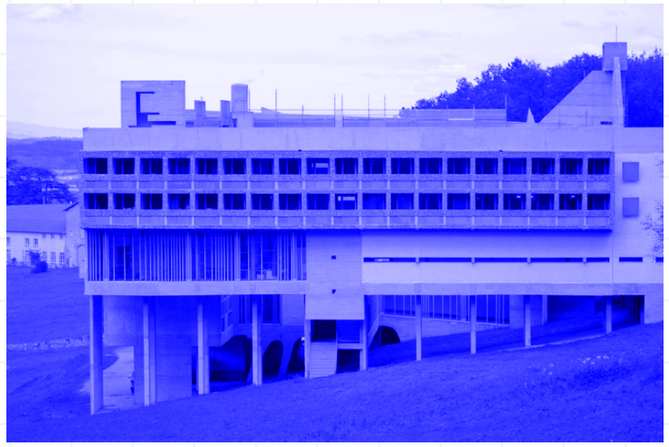
CASE STUDY RESEARCH

Research

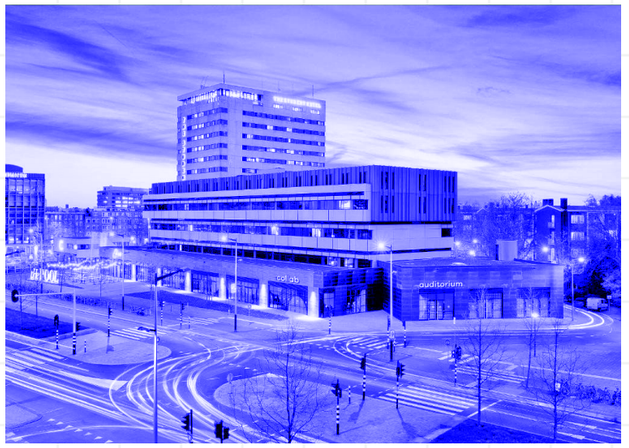
CASE STUDY TIMELINE



PANOPTICON, 1785



SAINTE MARIE DE LA TOURETTE, 1960



THE SOCIAL HUB, 2016

?

PRESENT

GODDARDS, 1900

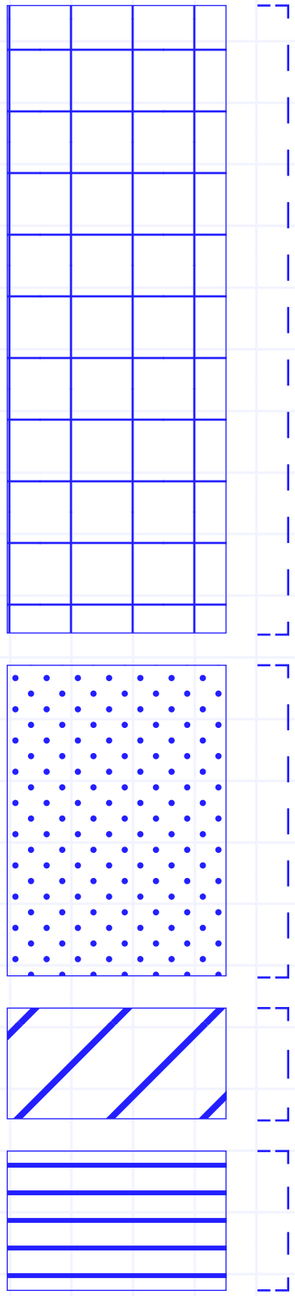


KRUISPLEIN, 1985



Research

GODDARDS

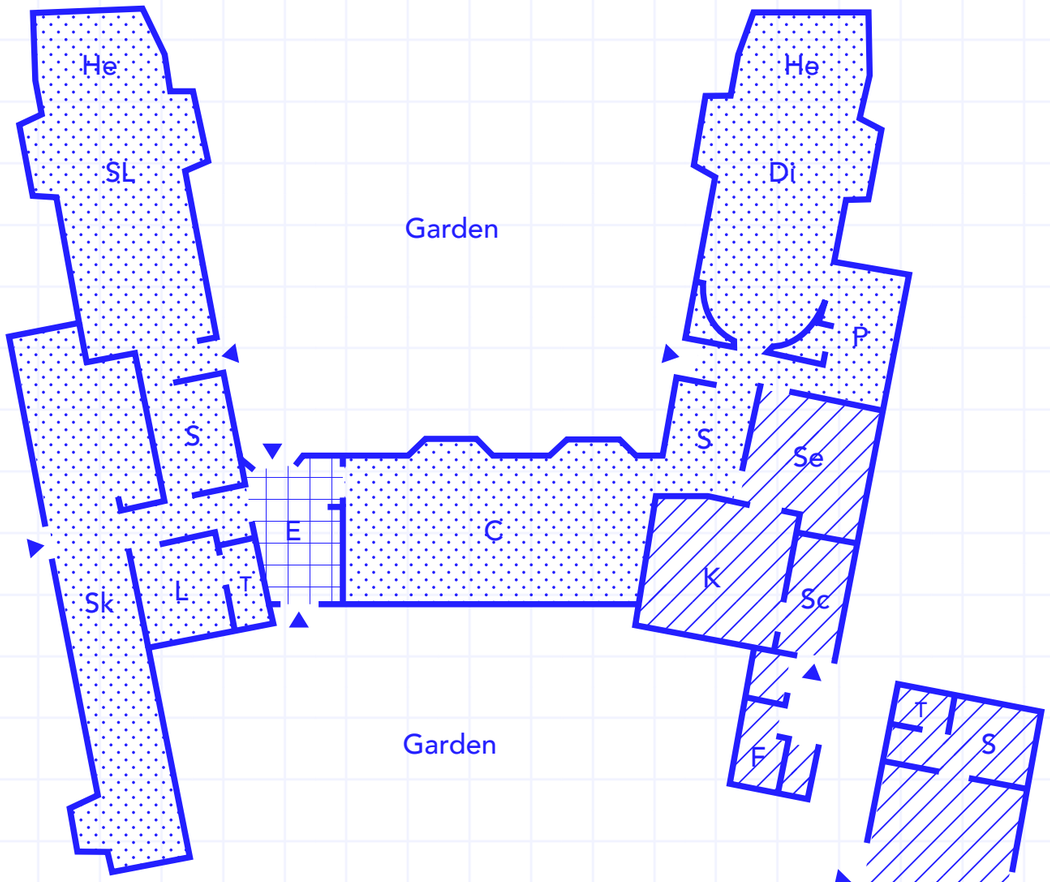


53% Shared (Public-Residents)

26% Shared (Residents)

9% Private (Staff)

12% Private (Residents)

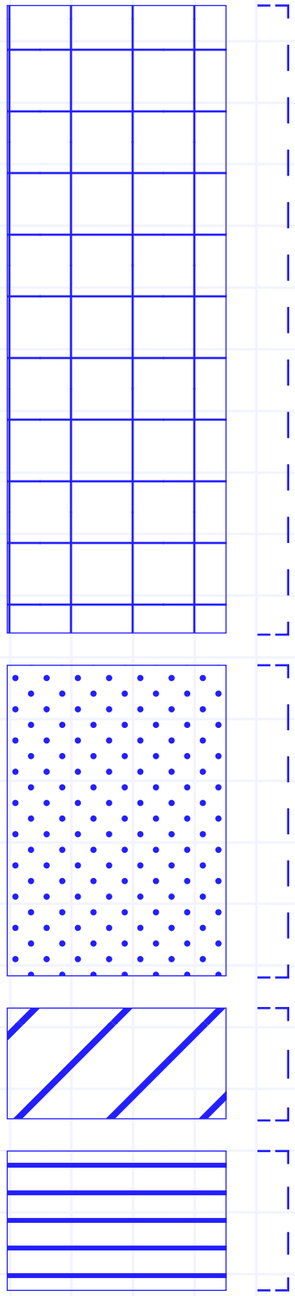


Shared (Public-Residents)
Shared (Residents)
Shared (Household)
Private (Staff)
Private (Residents)
Controlled Private (Residents)

Ground Floor Plan
E = Entrance hall, C = Common room, K = Kitchen, Sc = Scullery, Se = Servants hall, S = Staircase, P = Pantry, Dining room, He = Hearth, T = Toilet, L = Lavatory, Sk = Skittle alley, SL = Study and Library, Sh = Shed

Research

GODDARDS

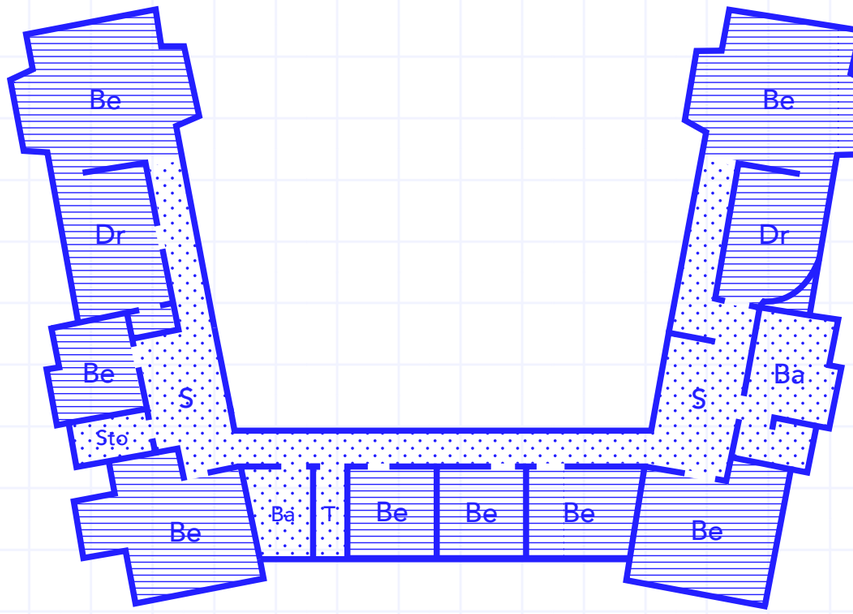


53% Shared (Public-Residents)

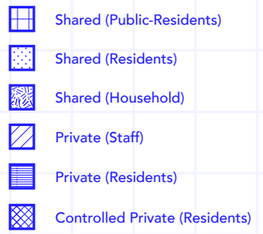
26% Shared (Residents)

9% Private (Staff)

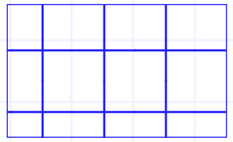
12% Private (Residents)



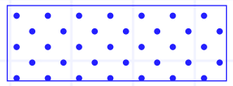
First Floor Plan
Be = Bedroom, Ba = Bathroom, T = Toilet, S = Stairs, Dr = Dressing room, Sto = Store



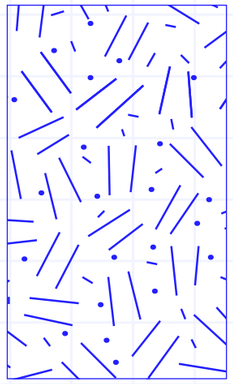
Research
KRUISPLEIN



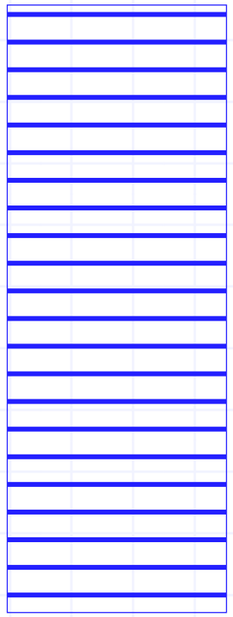
12% Shared (Public-Residen



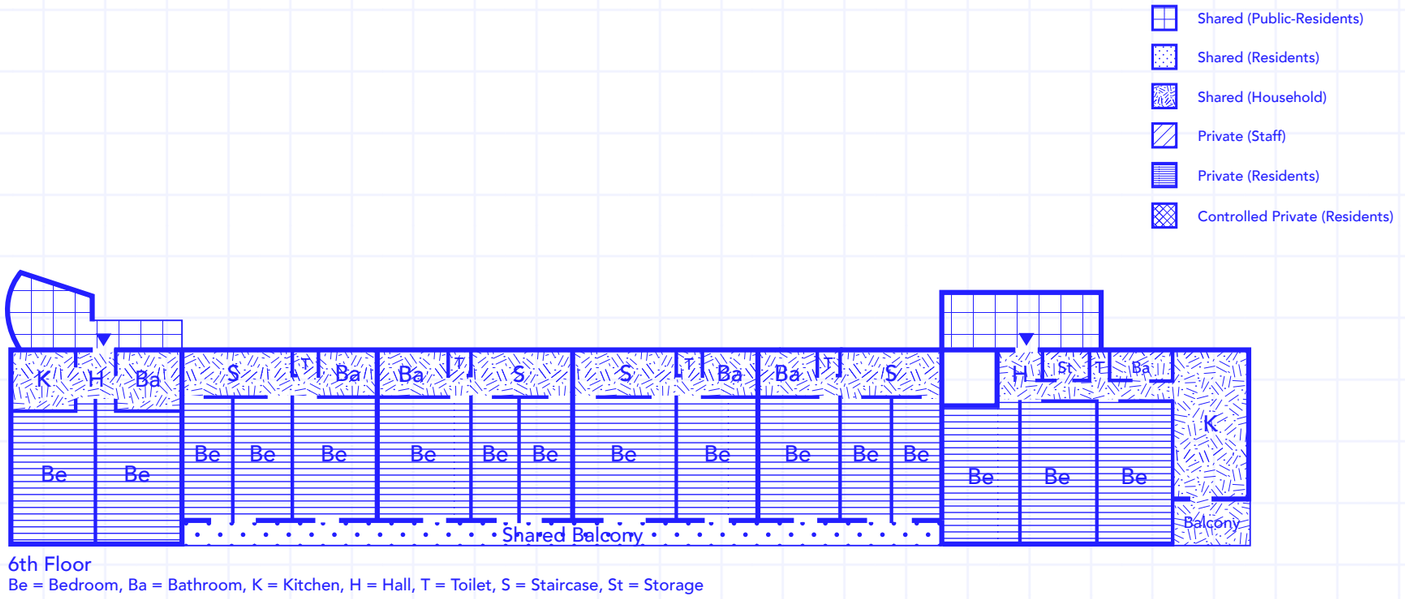
6% Shared (Residents)



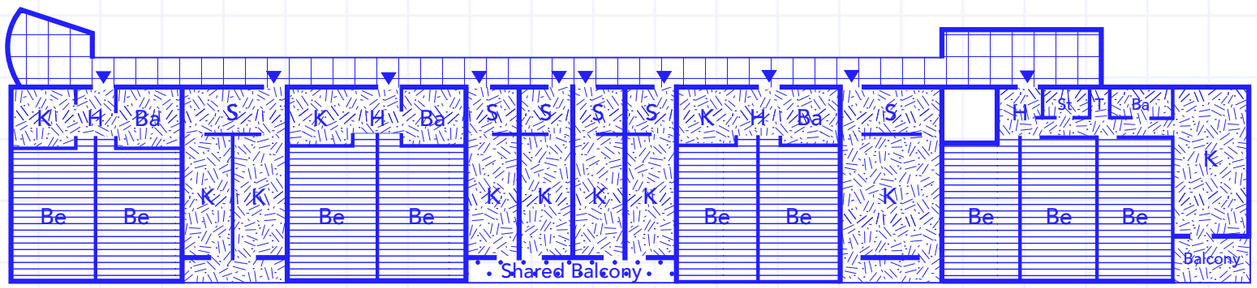
31% Shared (Household)



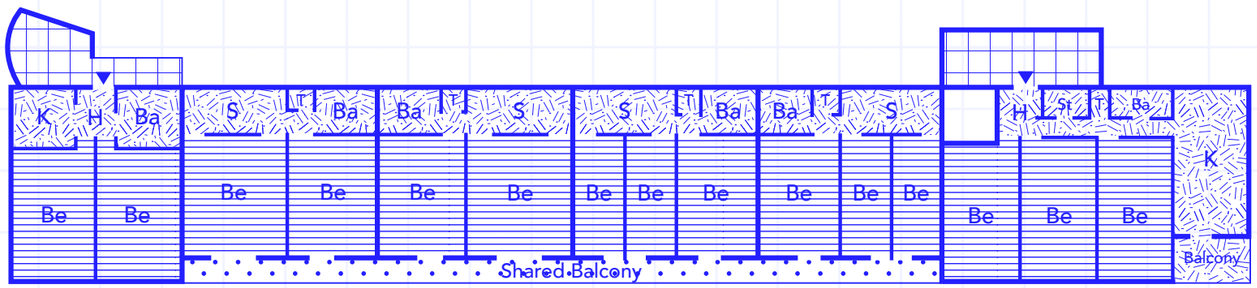
51% Private (Residents)



6th Floor
Be = Bedroom, Ba = Bathroom, K = Kitchen, H = Hall, T = Toilet, S = Staircase, St = Storage



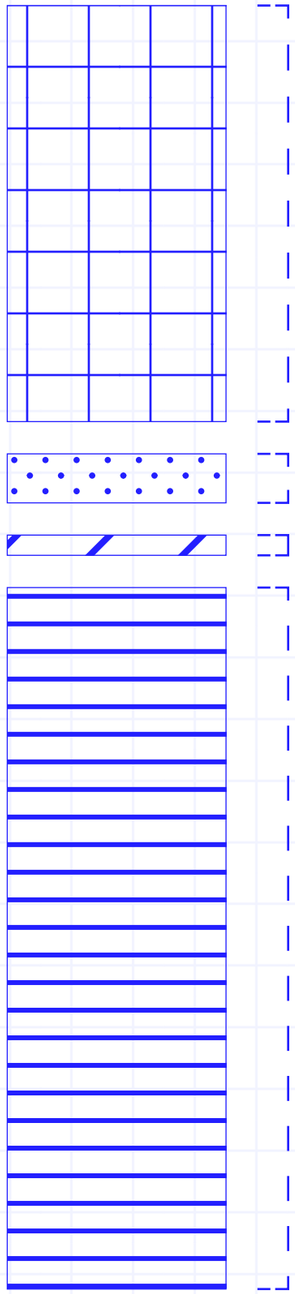
5th Floor
Be = Bedroom, Ba = Bathroom, K = Kitchen, H = Hall, T = Toilet, S = Staircase, St = Storage



4th Floor
Be = Bedroom, Ba = Bathroom, K = Kitchen, H = Hall, T = Toilet, S = Staircase, St = Storage

Research

THE SOCIAL HUB AMSTERDAM CITY



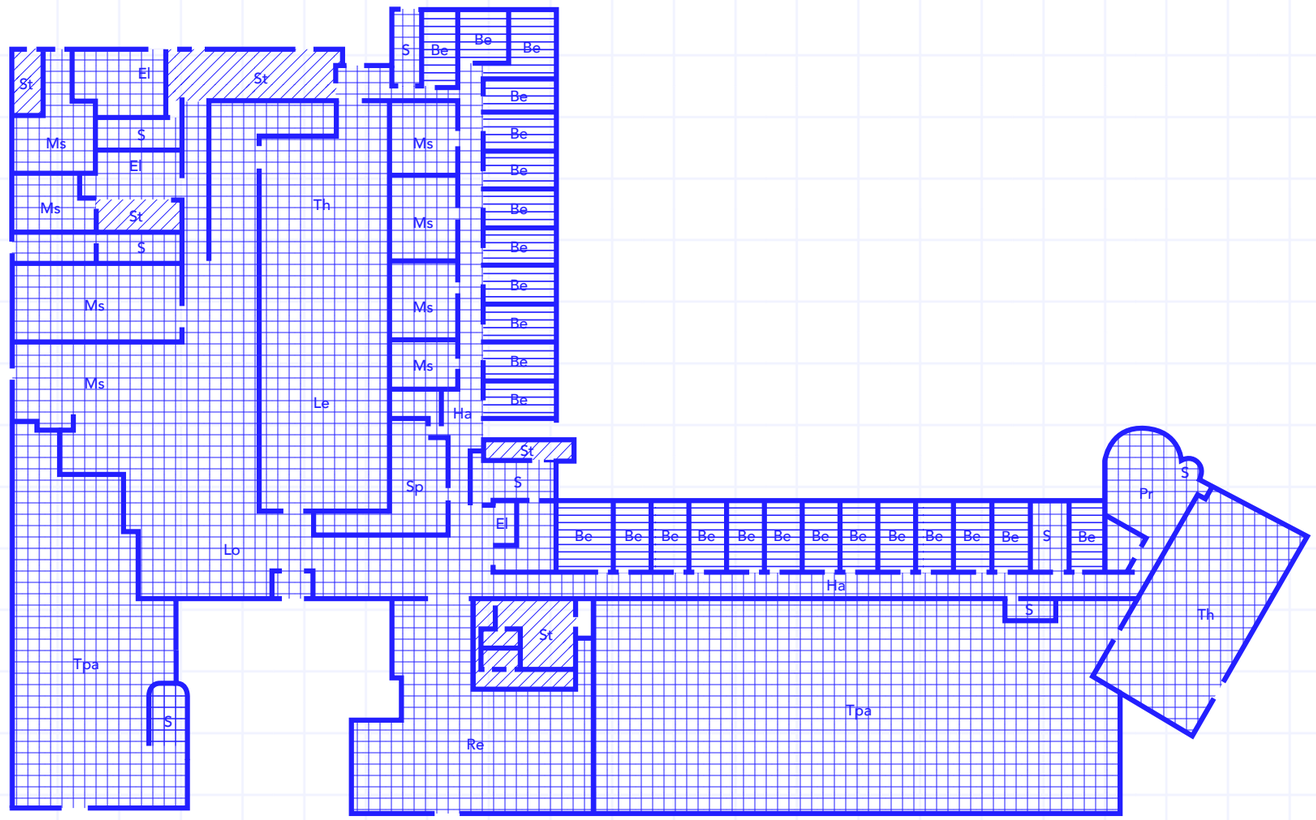
35% Shared (Public-Residents)

4% Shared (Residents)

2% Private (Staff)

59% Private (Residents)

- Shared (Public-Residents)
- Shared (Residents)
- Shared (Household)
- Private (Staff)
- Private (Residents)
- Controlled Private (Residents)

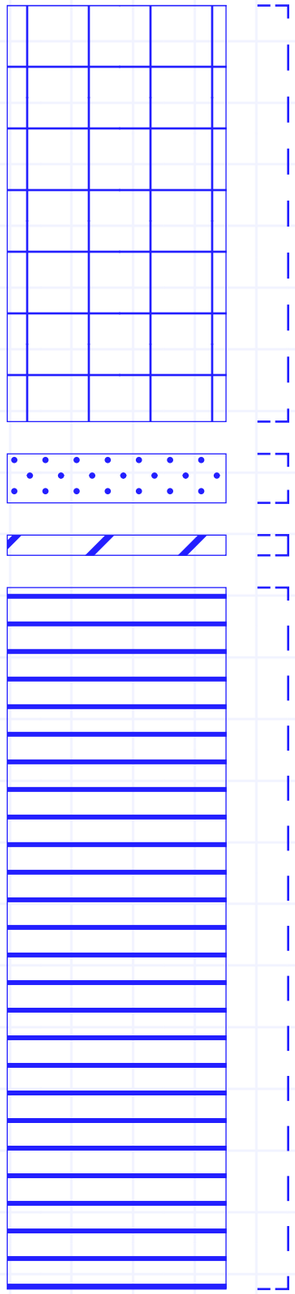


Ground Floor Plan

Th = Theatre, Le = Lobby Event Space, Re = Restaurant, Tr = Terrace, Lc = Lobby Cafe, Ms = Meeting Space, Pr = Playroom, Ba = Bar, Ha = Hallway, Lo = Lobby, Ws = Working Spaces, S = Staircase, El = Elevator, Sp = Study Spot, Tpa = Third Party Amenities, Be = Bedroom, St = Staff Areas

Research

THE SOCIAL HUB AMSTERDAM CITY

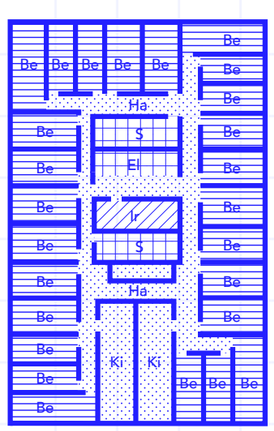


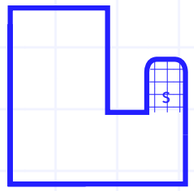
35% Shared (Public-Residents)

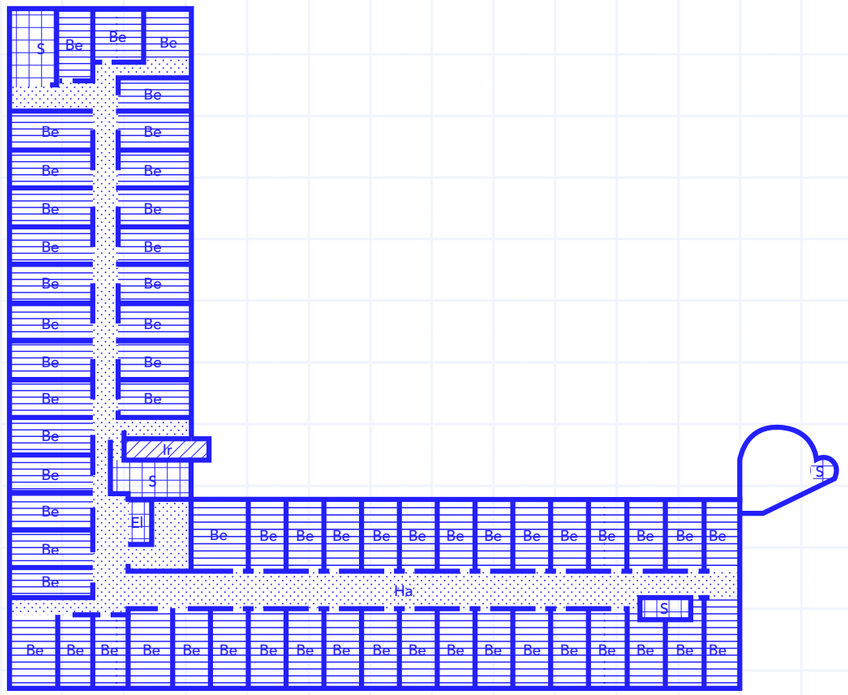
4% Shared (Residents)

2% Private (Staff)

59% Private (Residents)







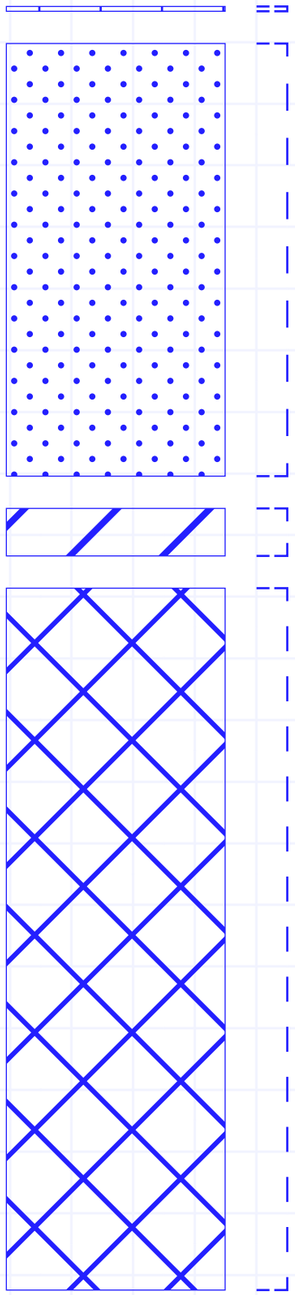
- Shared (Public-Residents)
- Shared (Residents)
- Shared (Household)
- Private (Staff)
- Private (Residents)
- Controlled Private (Residents)

Standard Floor Plan

Ha = Hallway, S = Staircase, El = Elevator, Be = Bedroom, Ki = Kitchen, Ir = Installation Room

Research

PANOPTICON MODEL

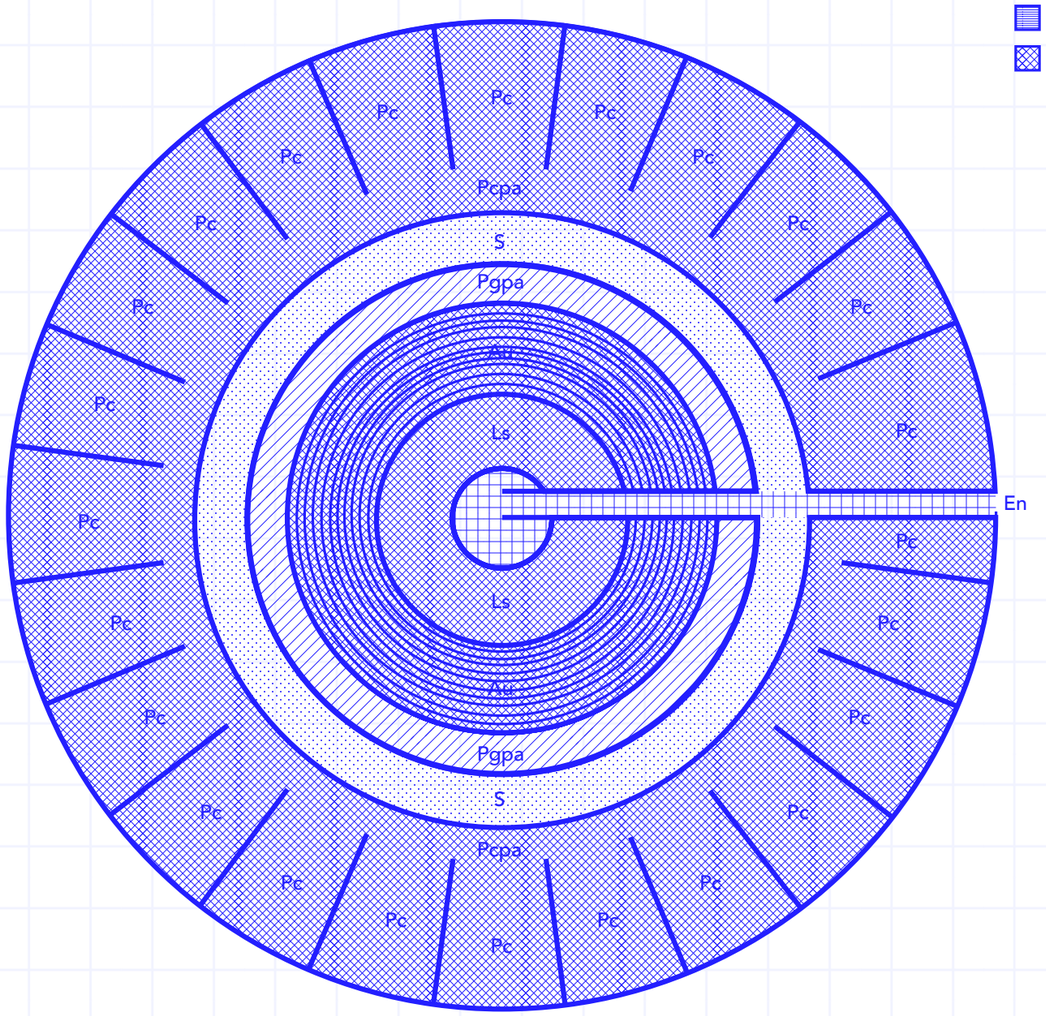


1% Shared (Public-Residents)

36% Shared (Residents)

4% Private (Staff)

59% Controlled private (Residents)

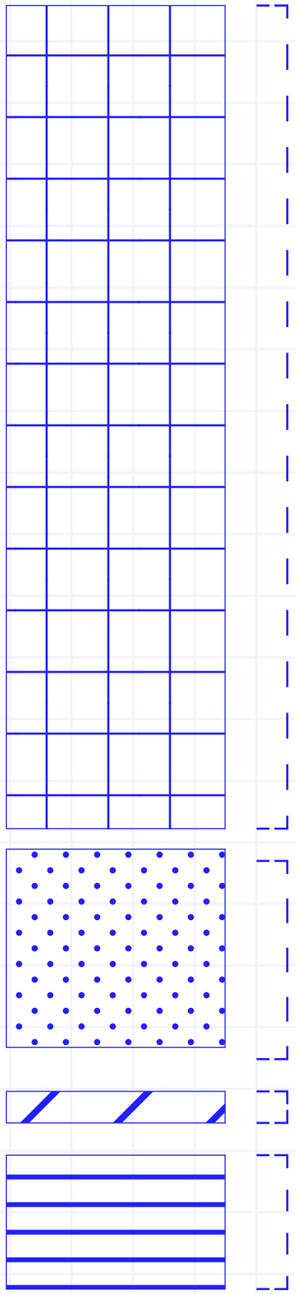


Shared (Public-Residents)
Shared (Residents)
Shared (Household)
Private (Staff)
Private (Residents)
Controlled Private (Residents)

Standard Floor Plan
En = Entrance, Pcpa = Prison Cell Passageway, S = Stairs, Au = Auditorium, Ls = Lecture Space, Pgpa = Private Guard Passageway, Pc = Prison Cell

Research

SAINTE MARIE DE LA TOURETTE MONASTERY

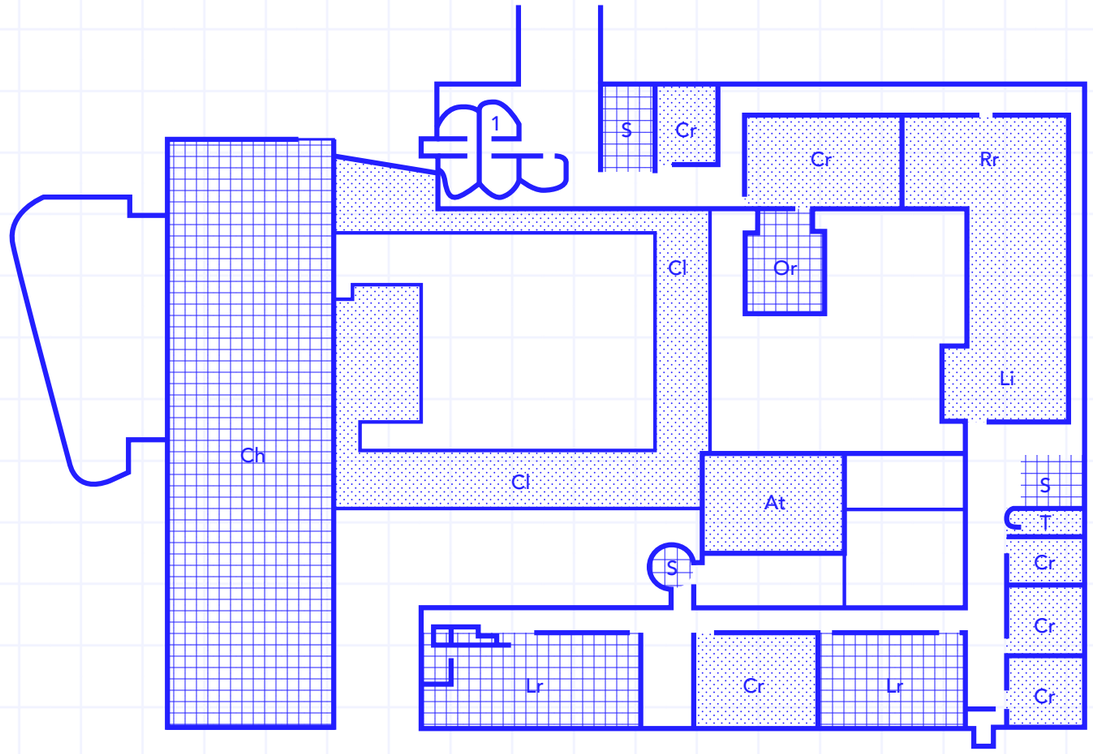


69% Shared (Public-Residents)

17% Shared (Residents)

3% Private (Staff)

11% Private (Residents)

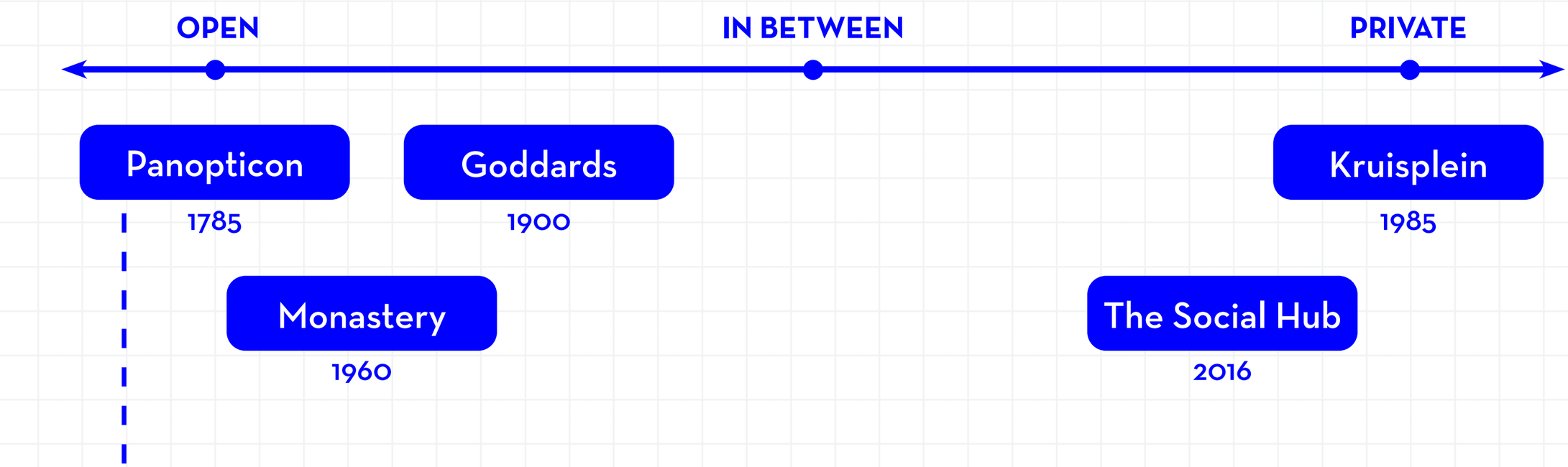


Shared (Public-Residents)
Shared (Residents)
Shared (Household)
Private (Staff)
Private (Residents)
Controlled Private (Residents)

Entrance Floor Plan
Cc = Conversation Cells, Po = Porter, Mr= Meeting Room, Cr = Common Room, Or = Oratory, Rr = Reading Room, Li = Library, Le = Lecture Rooms, Cl = Cloister, At = Atrium, T = Toilet, Ch = Church, Ha = Hallway, S = Stairs

Research

CASE STUDY COMPARISON



Research

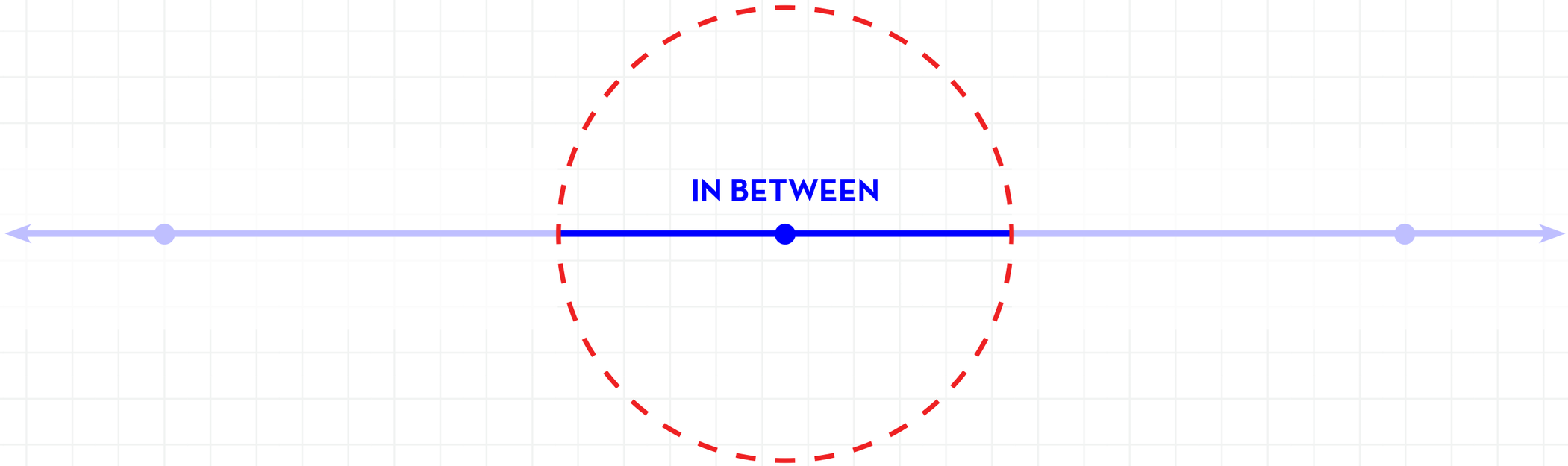
CASE STUDY COMPARISON

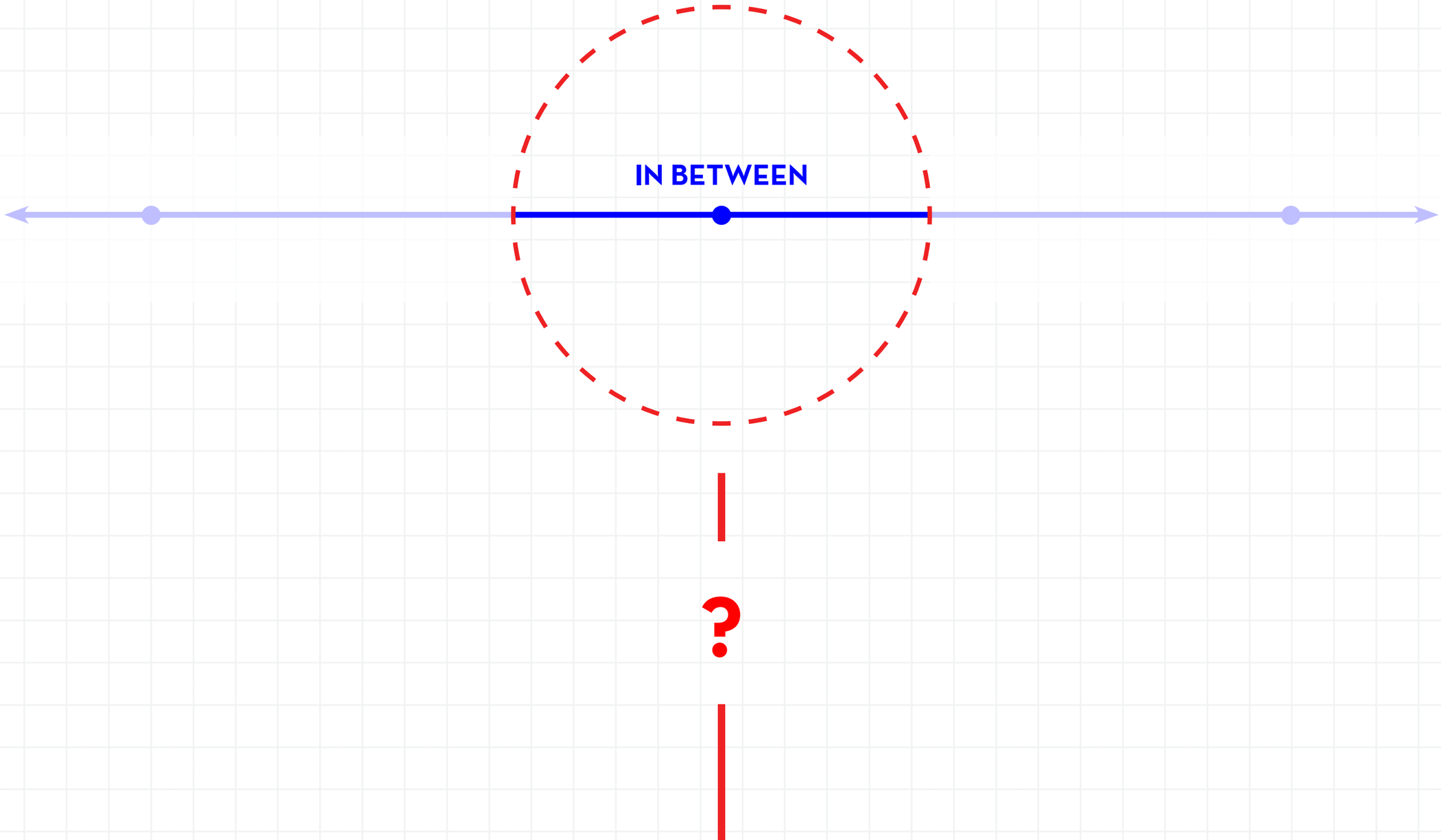
BUT...

Research

CASE STUDY COMPARISON

PRIVACY IS A DYNAMIC FACTOR


IN BETWEEN


IN BETWEEN
?

1. FUNCTIONAL CLARITY AND SHARED LUXURY

2. PRIVACY BEYOND PHYSICAL SEPARATION

3. PERSONALIZATION AND PLACE ATTACHMENT

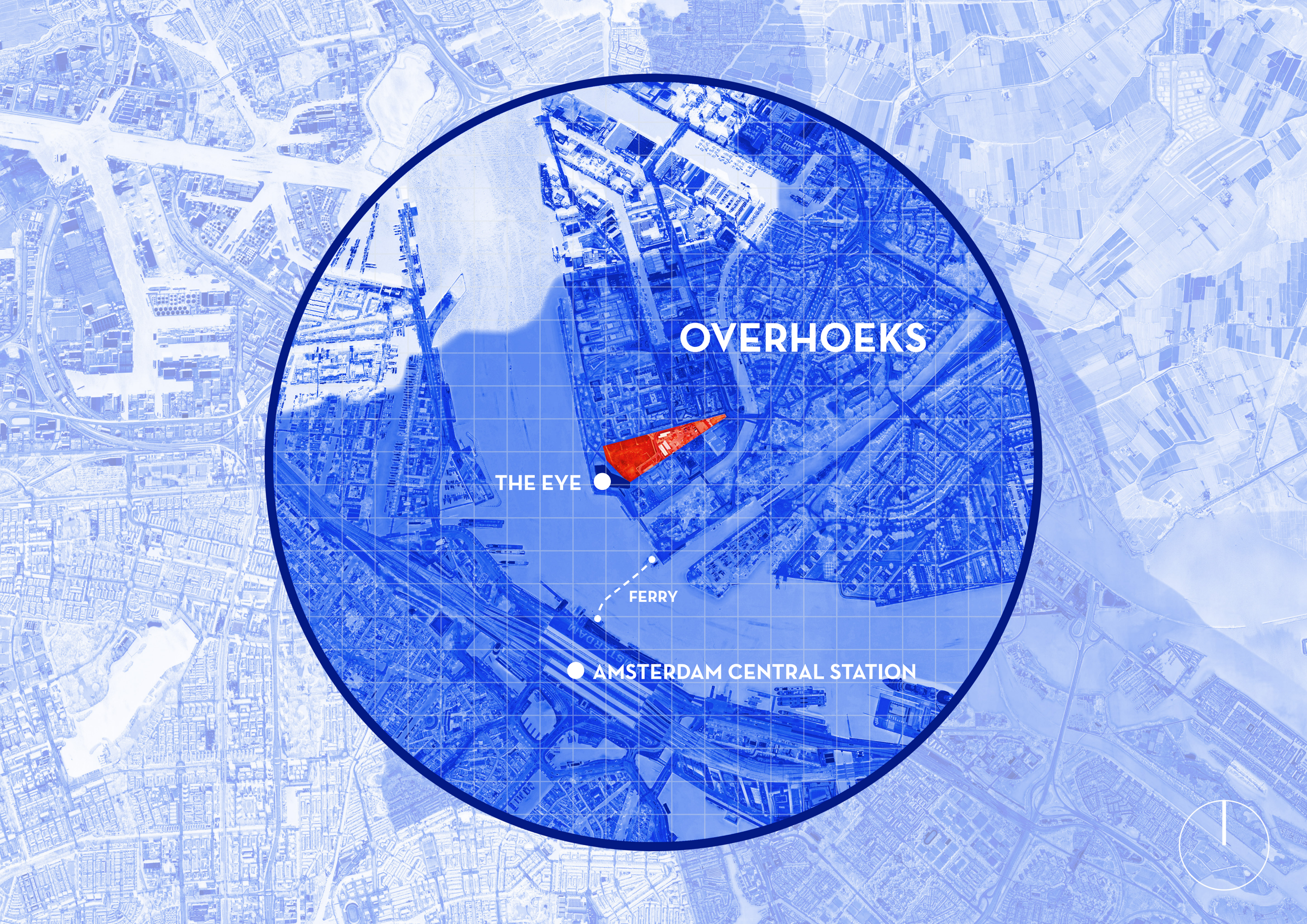
4. INFORMAL ENCOUNTERS THROUGH POCKET SPACES

5. LAYERED SECURITY AND CONNECTION TO THE CITY

SITE

AMSTERDAM

OVERHOEKS


OVERHOEKS
THE EYE
FERRY
AMSTERDAM CENTRAL STATION

SHELL CHEMICS

OVERHOEKSBUURT

VAN DER PEKBUURT

OEVERPARK

29.100 M²

LYCEUM

APARTMENT BUILDINGS

EYE MUSEUM

A'DAM TOWER

THIS IS HOLLAND

CULTURAL CENTRE & HOSTEL

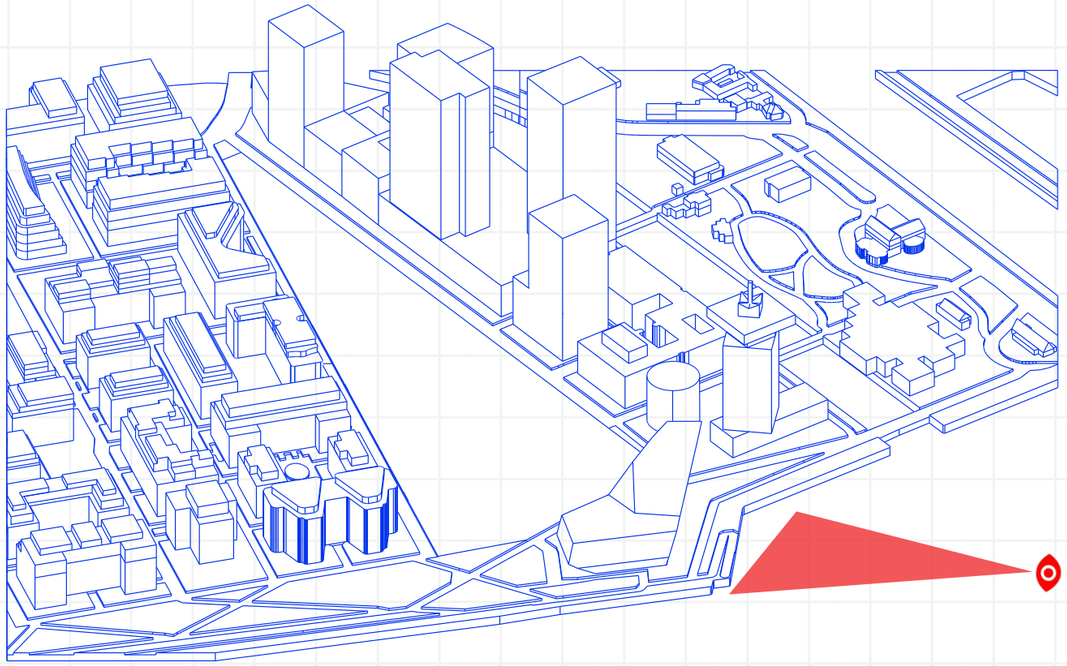
TOLHUISTUIN

IJ RIVER

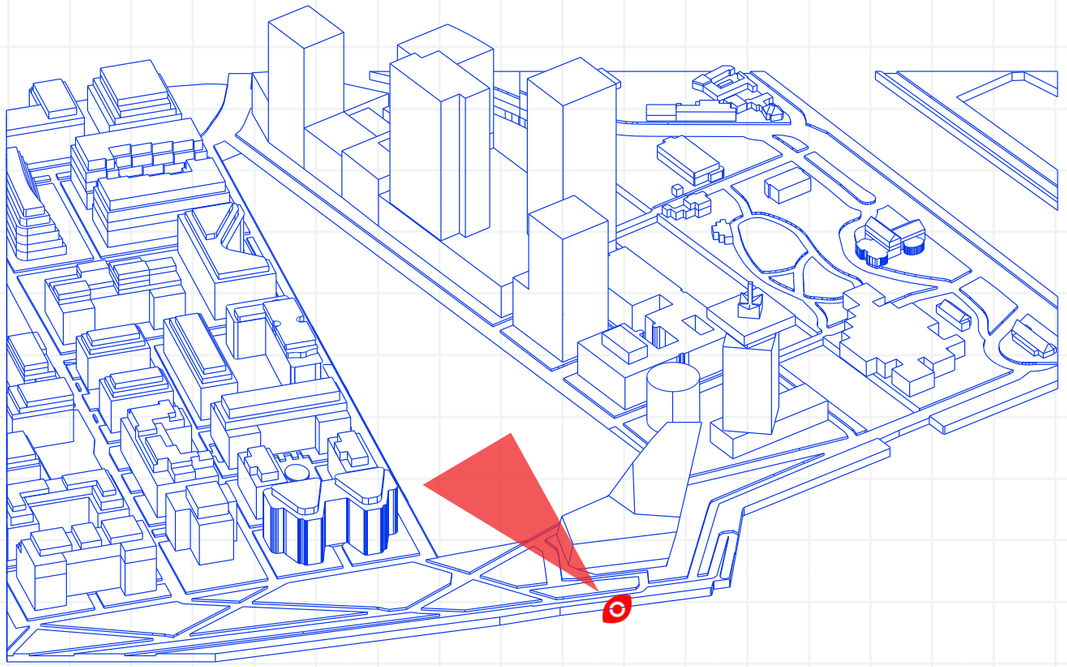
Site

VIEWS



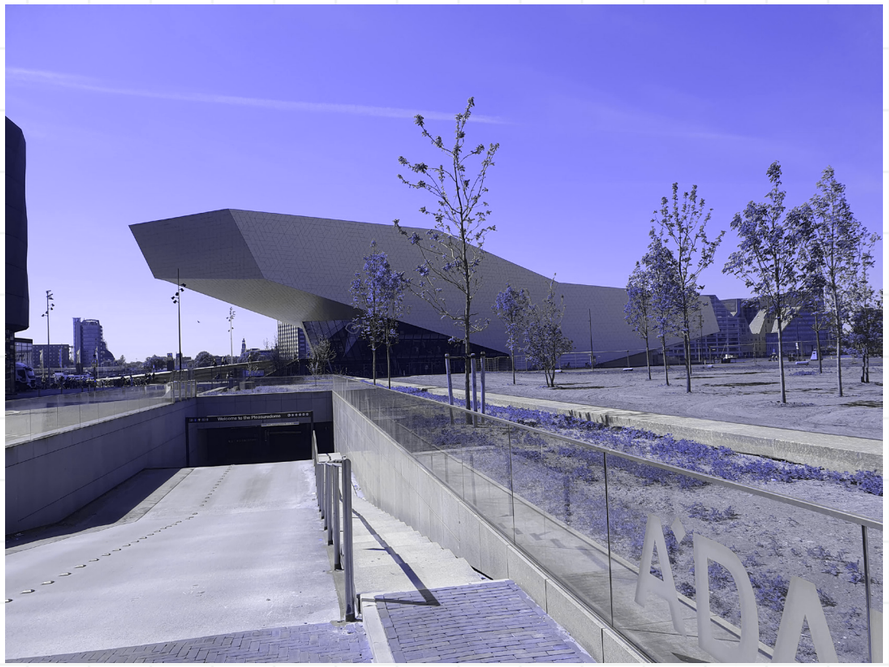


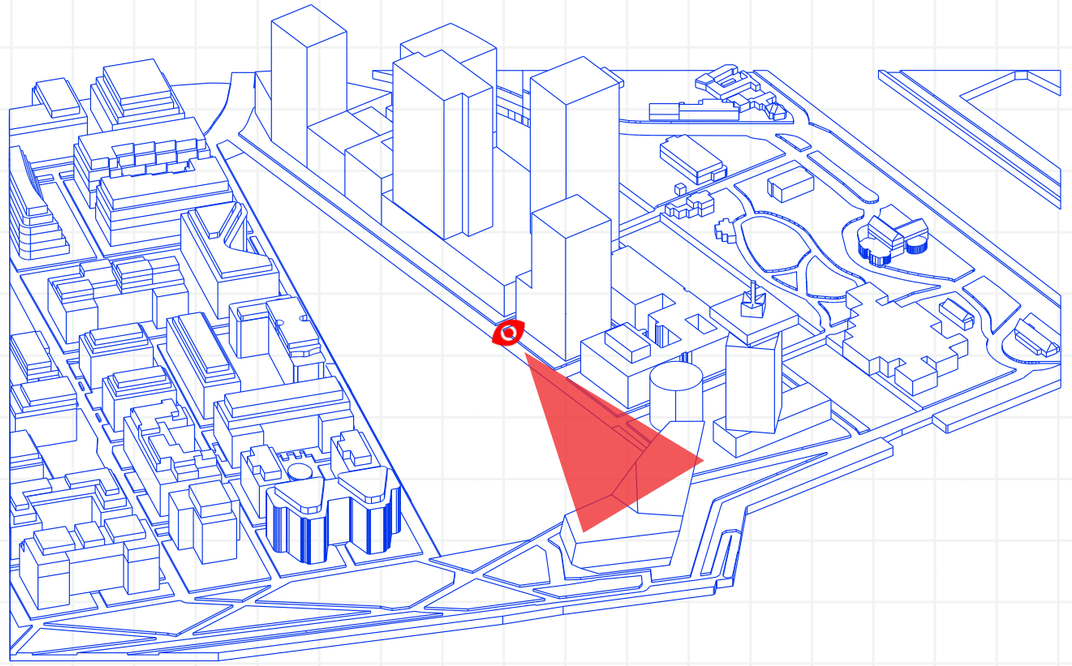


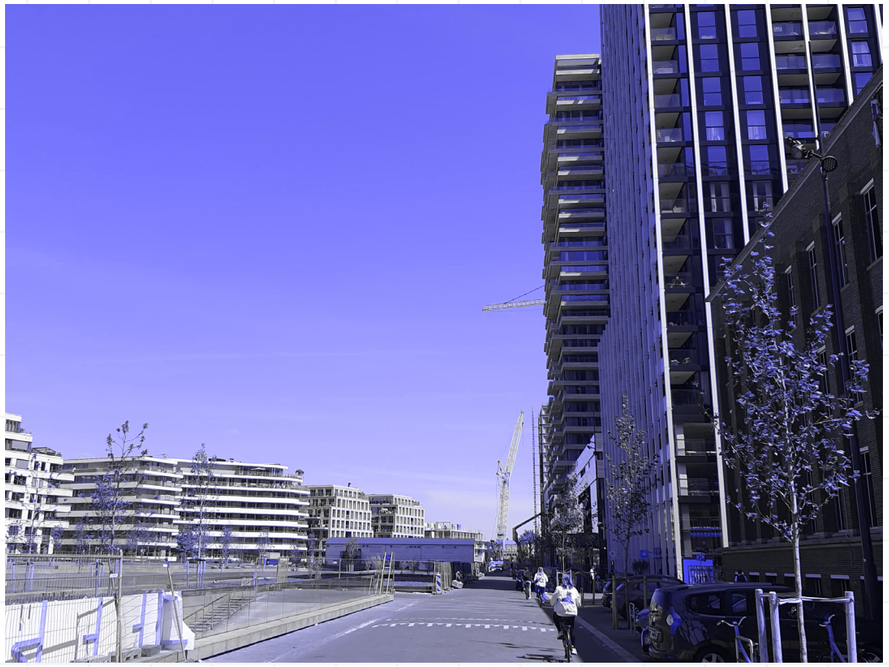


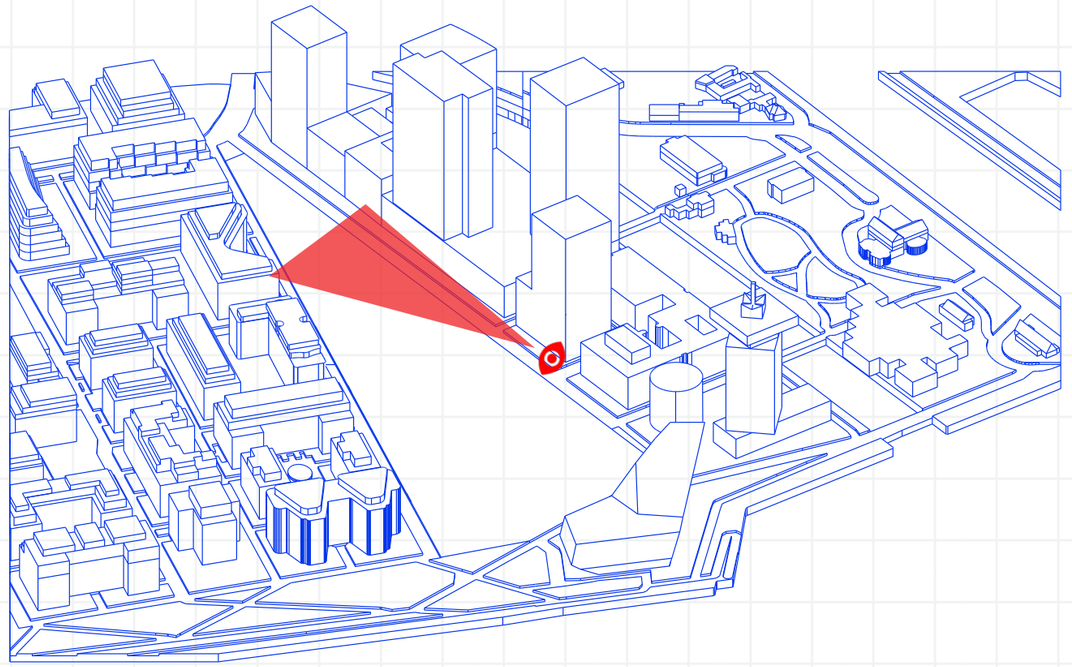
Site

VIEWS





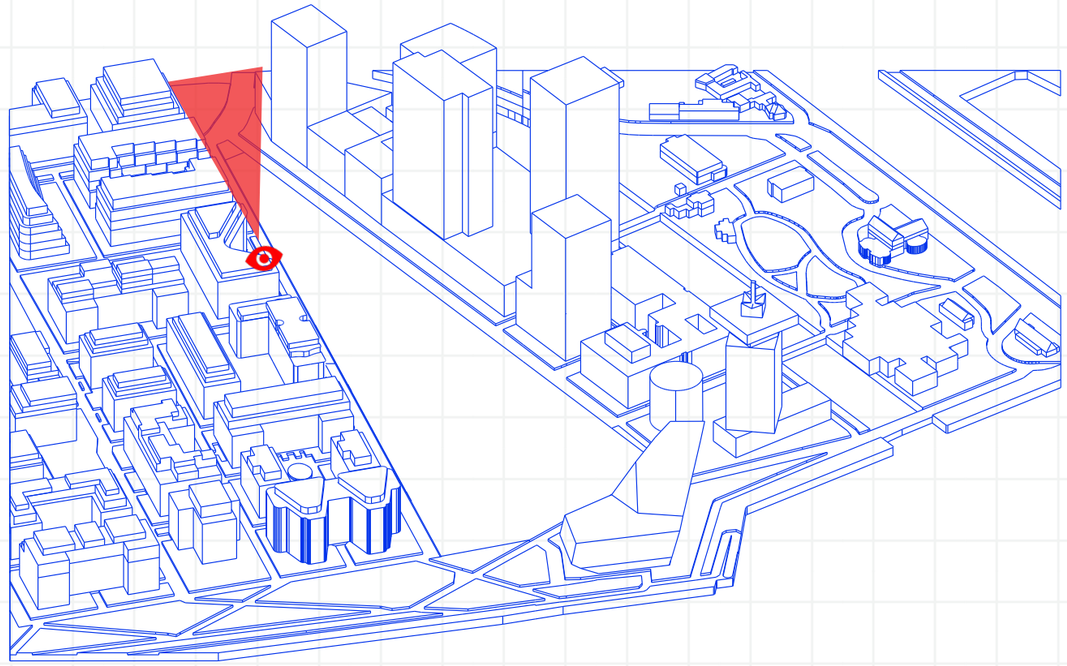




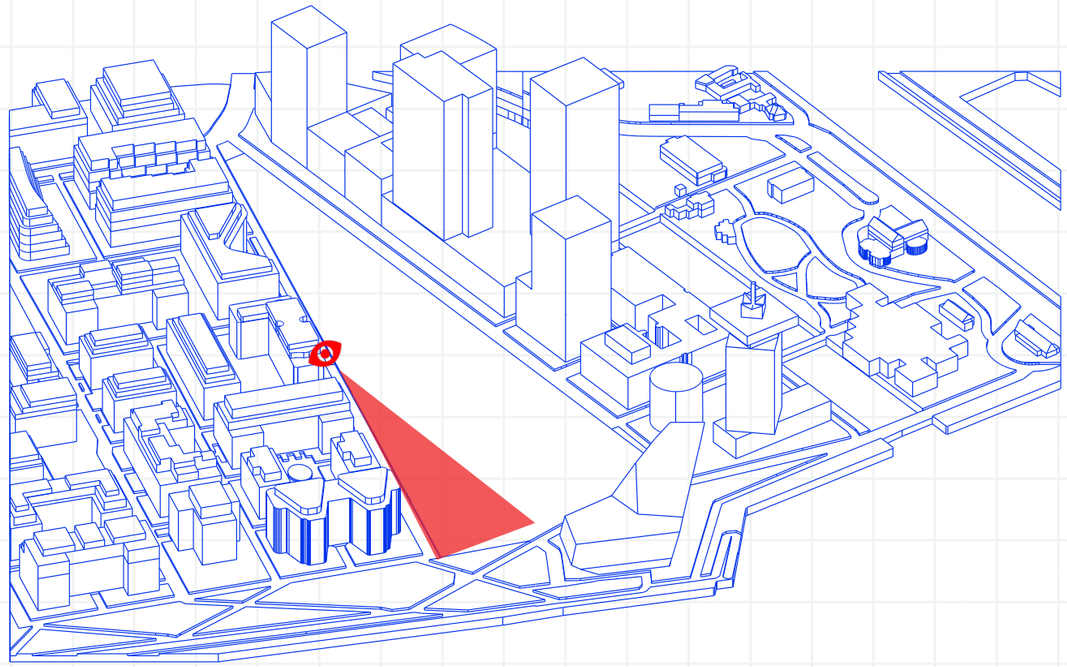
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VIEWS





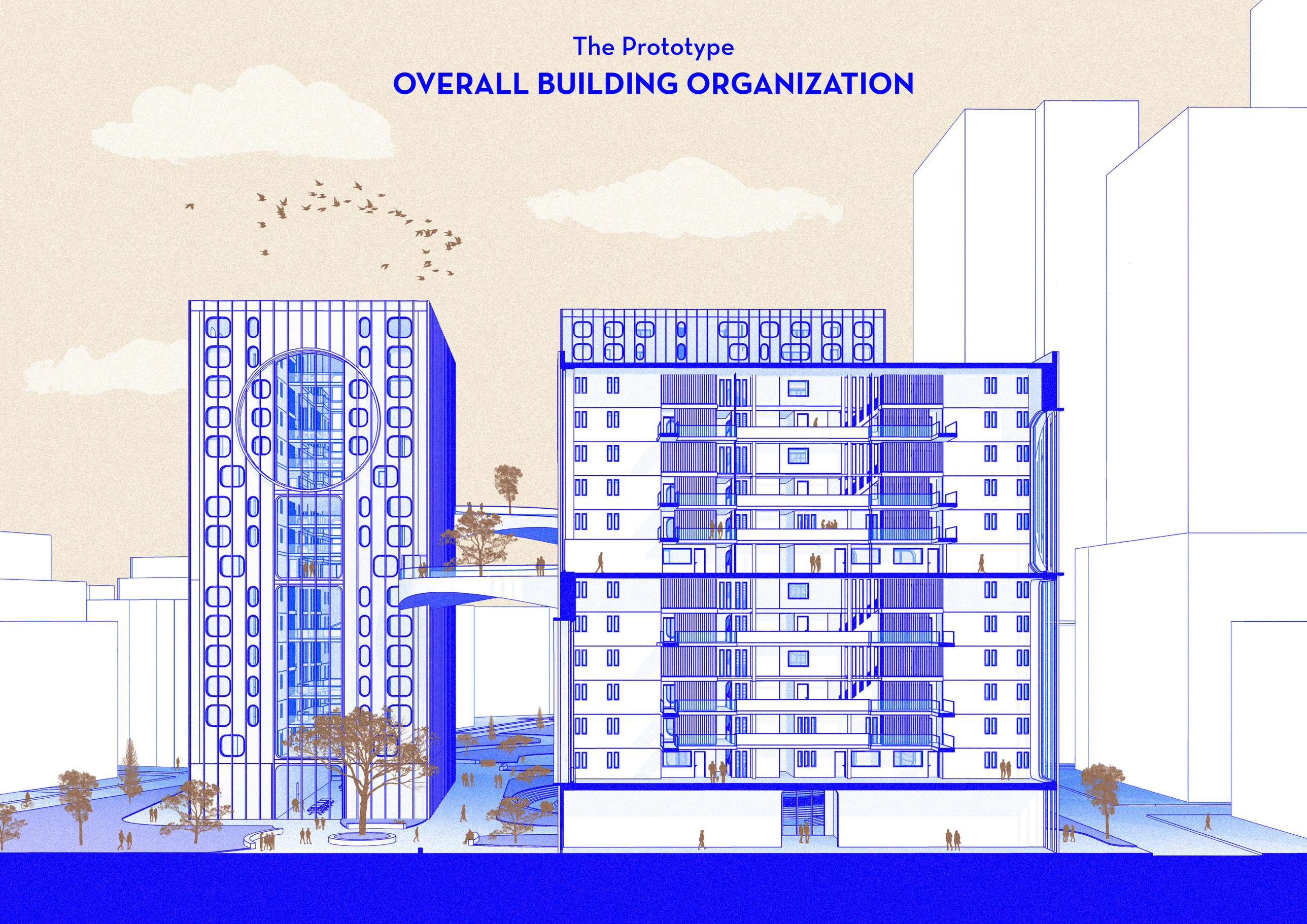




THE PROTOTYPE

The Prototype

OVERALL BUILDING ORGANIZATION



The Prototype

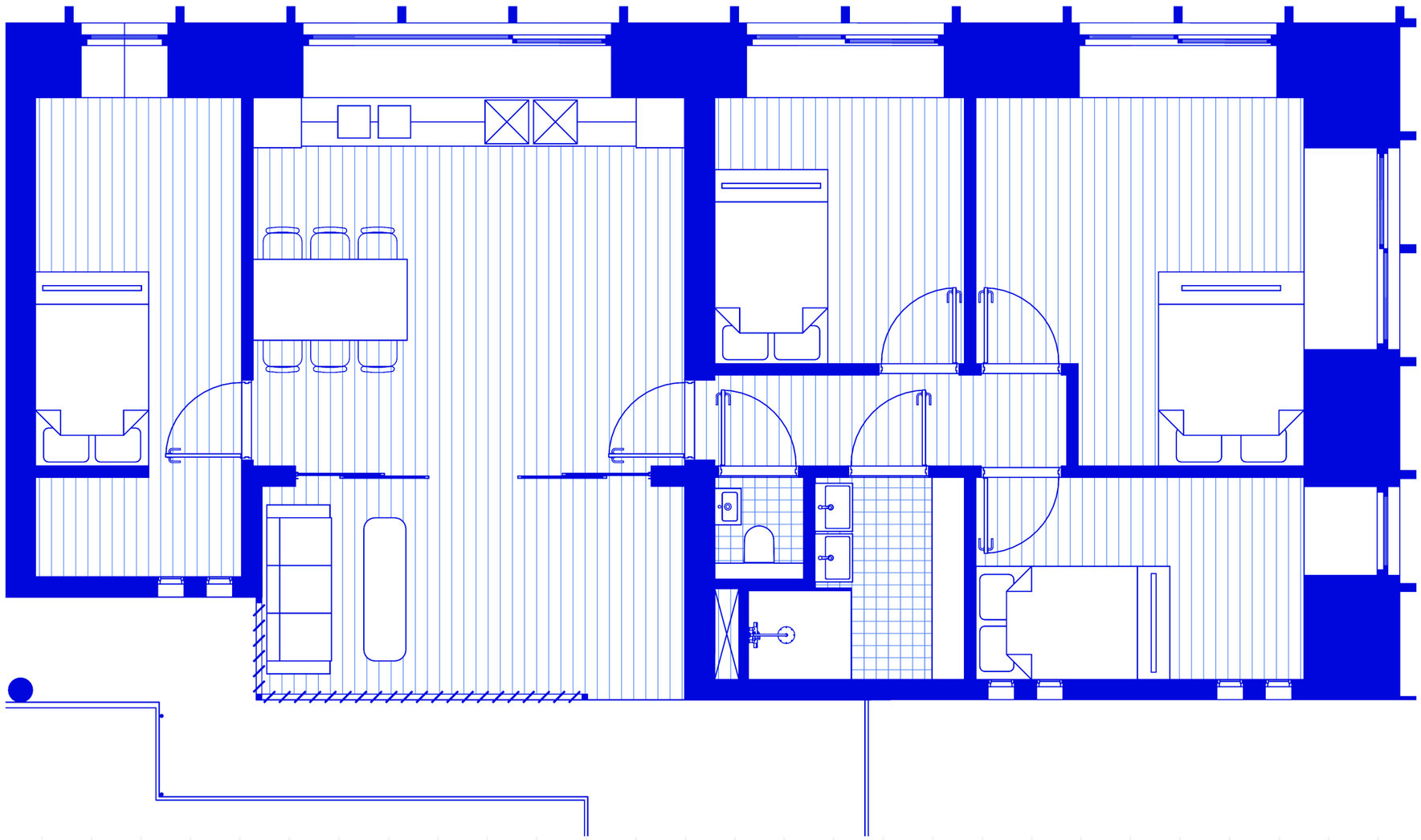
OVERALL BUILDING ORGANIZATION



The Prototype

PRIVACY GRADATION IN HOUSEHOLD

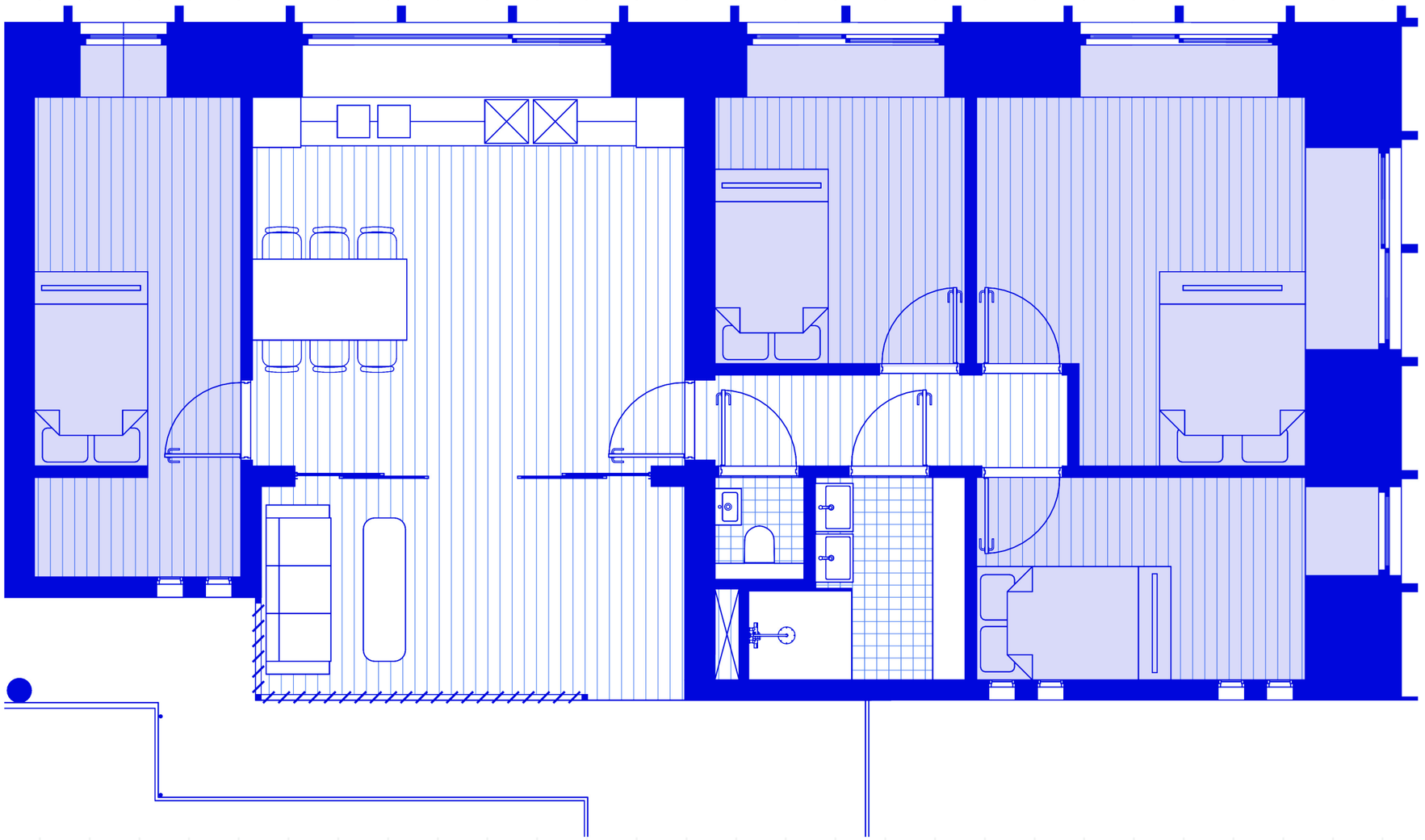
5 PERSON HOUSEHOLD



The Prototype

PRIVACY GRADATION IN HOUSEHOLD

1ST GRADATION OF PRIVACY

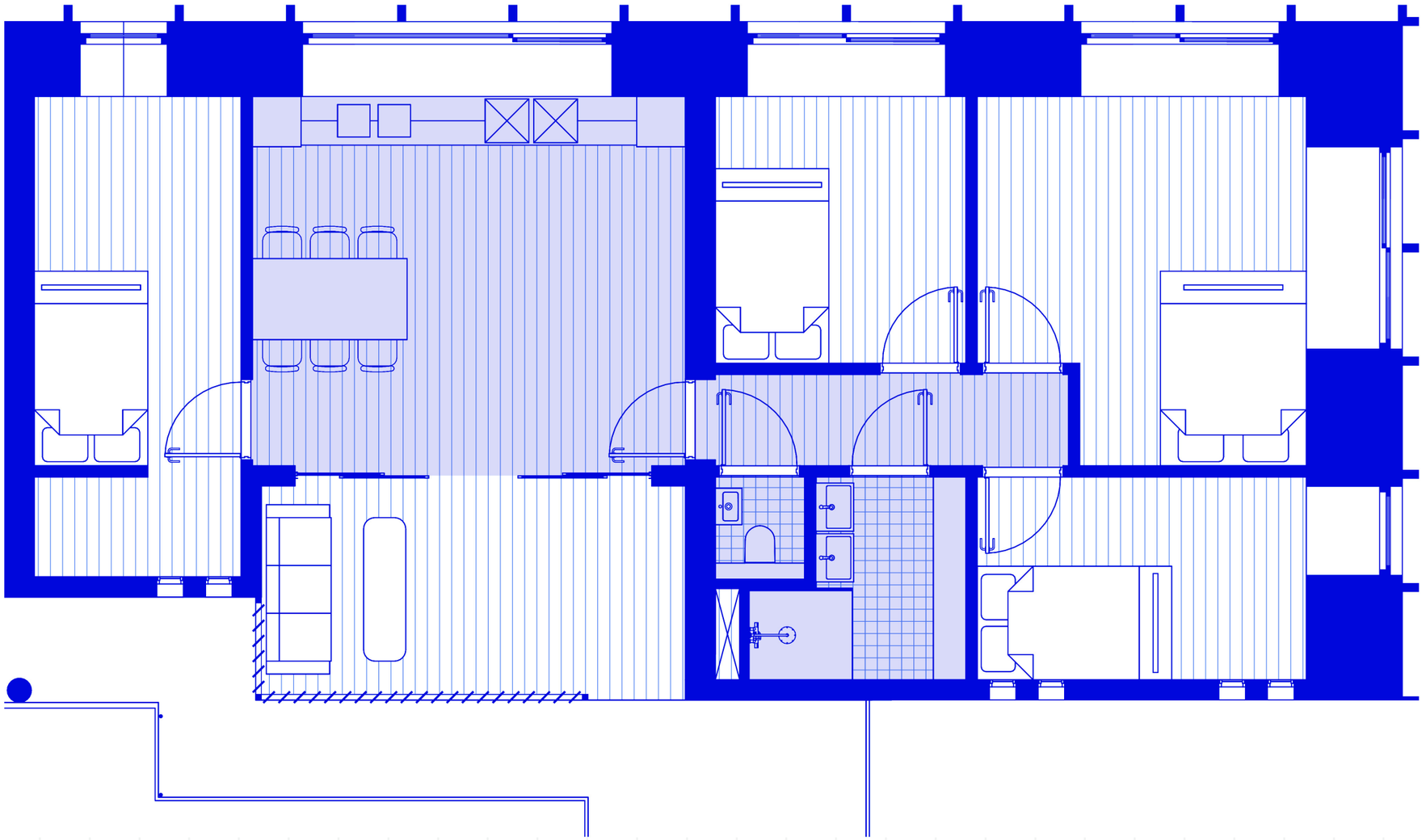




The Prototype

PRIVACY GRADATION IN HOUSEHOLD

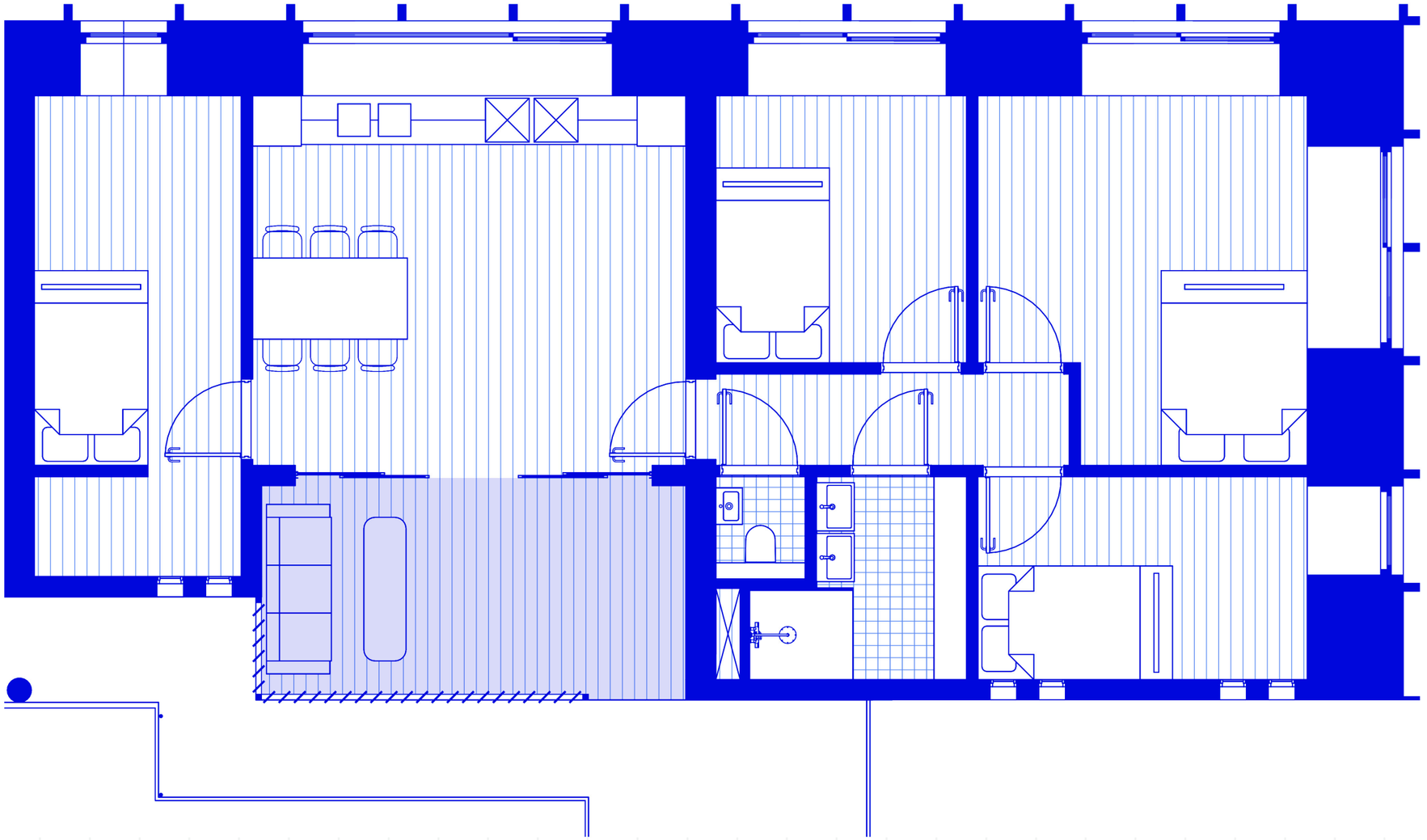
2ND GRADATION OF PRIVACY



The Prototype

PRIVACY GRADATION IN HOUSEHOLD

3RD GRADATION OF PRIVACY

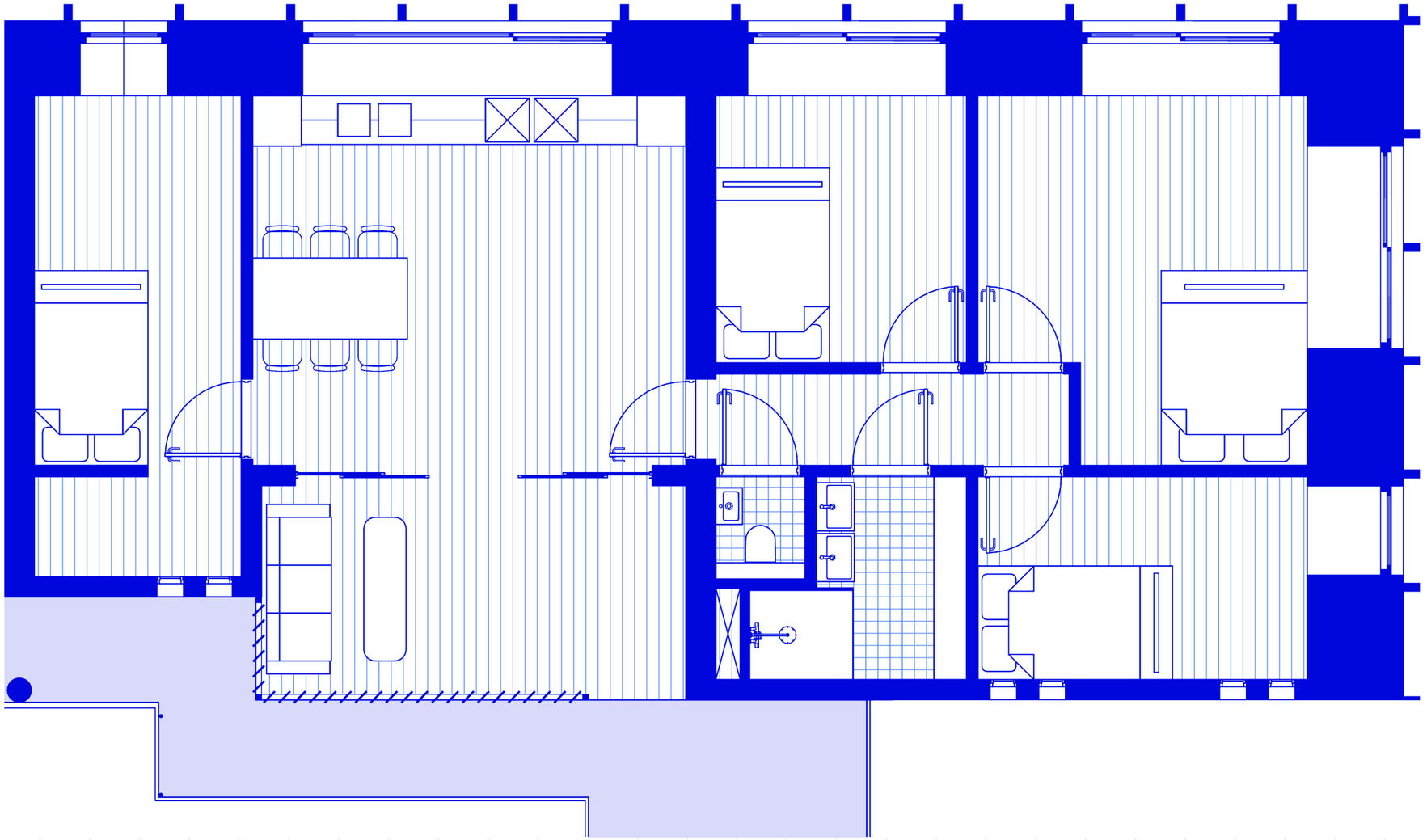




The Prototype

PRIVACY GRADATION IN HOUSEHOLD

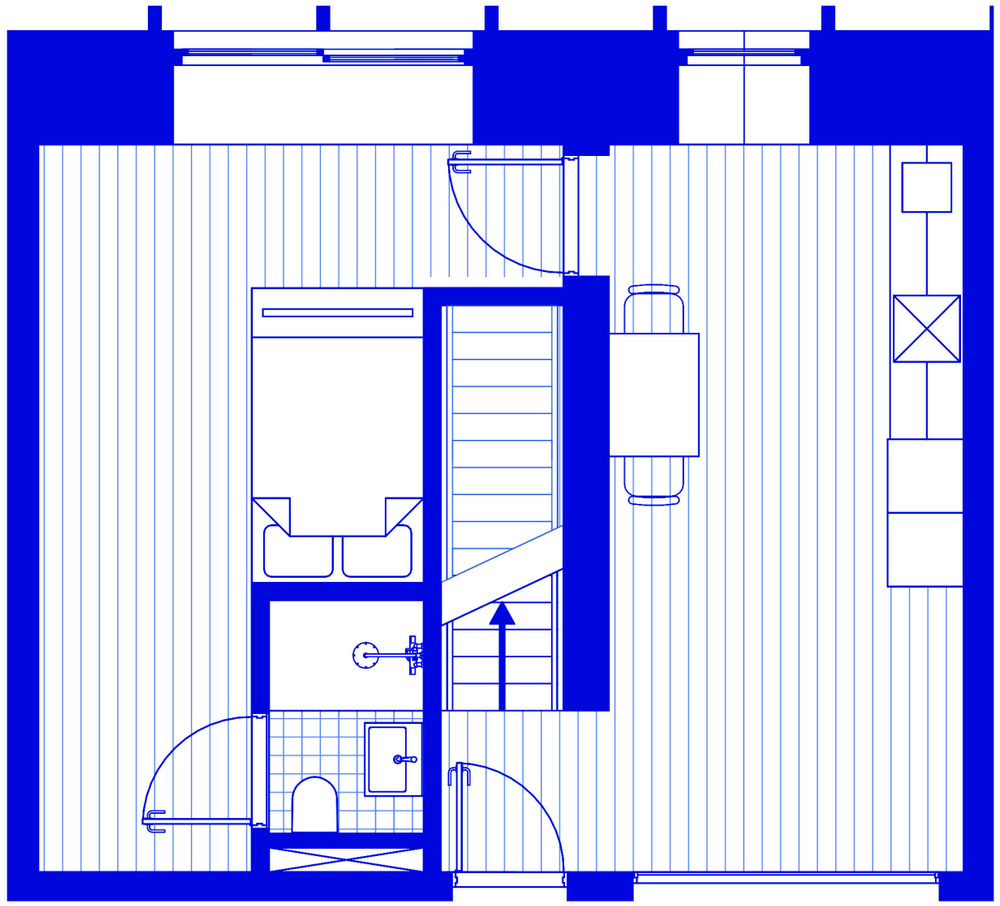
4TH GRADATION OF PRIVACY



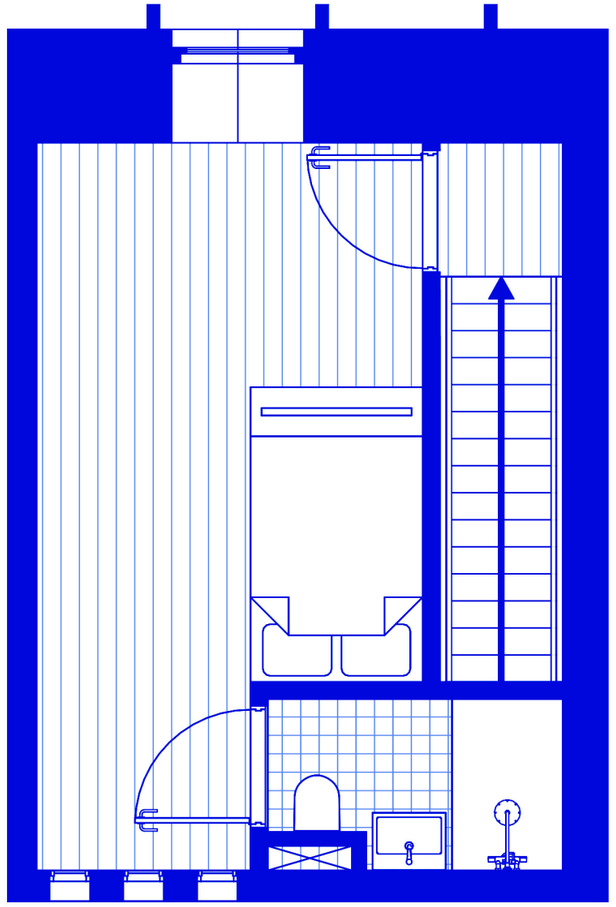
The Prototype

OTHER HOUSEHOLDS

2 PERSON HOUSEHOLD



GROUND FLOOR

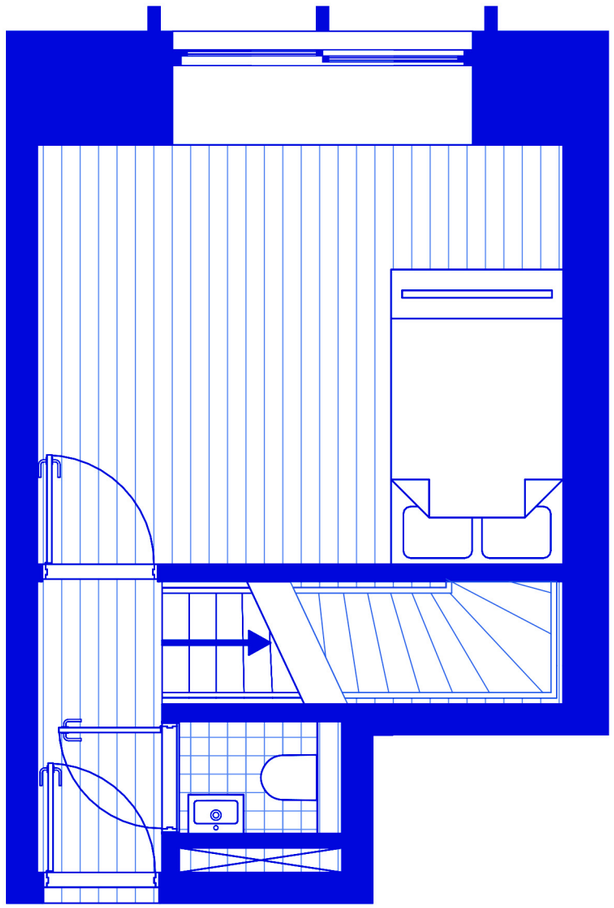


1ST FLOOR

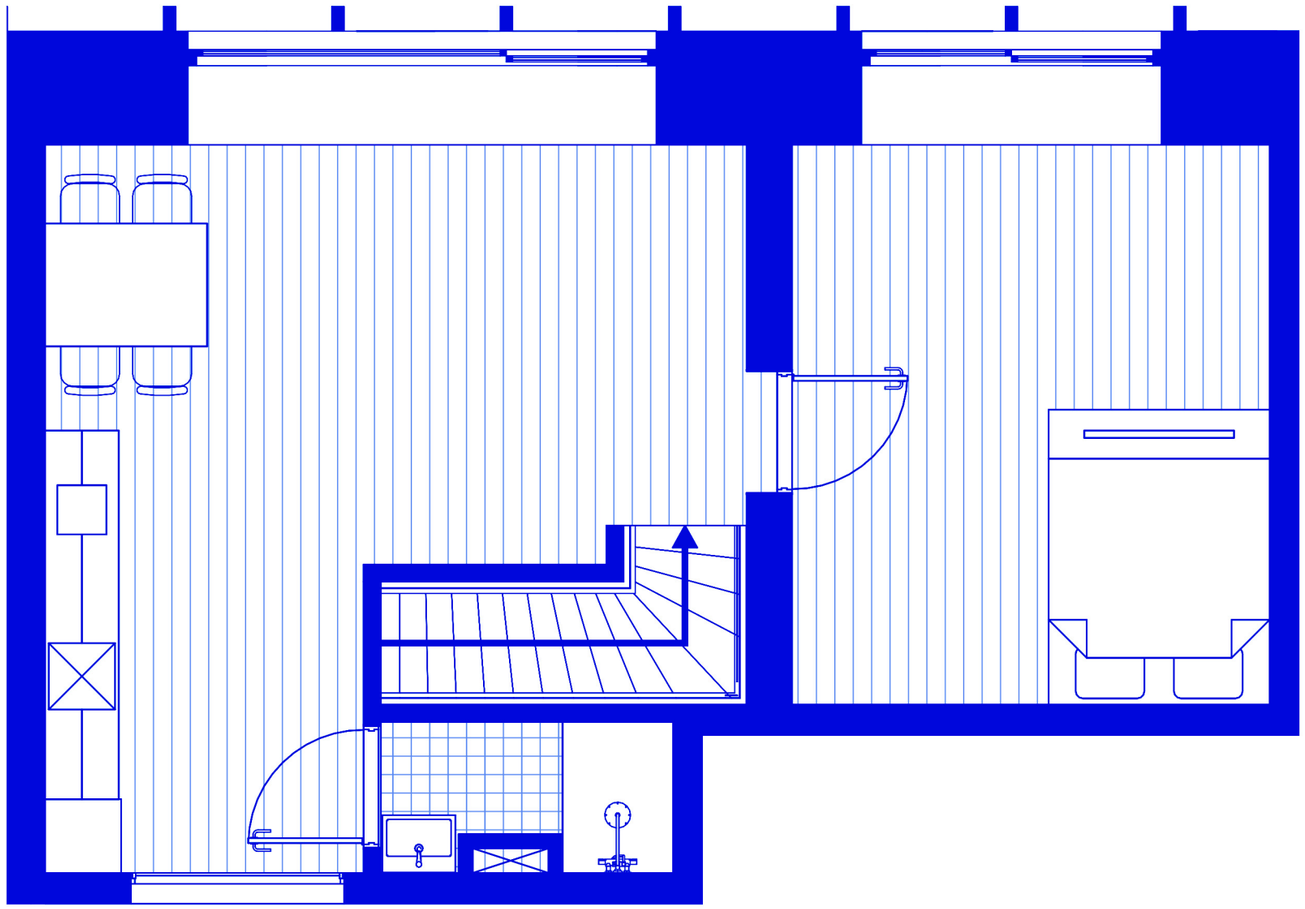
The Prototype

OTHER HOUSEHOLDS

3 PERSON HOUSEHOLD



GROUND FLOOR

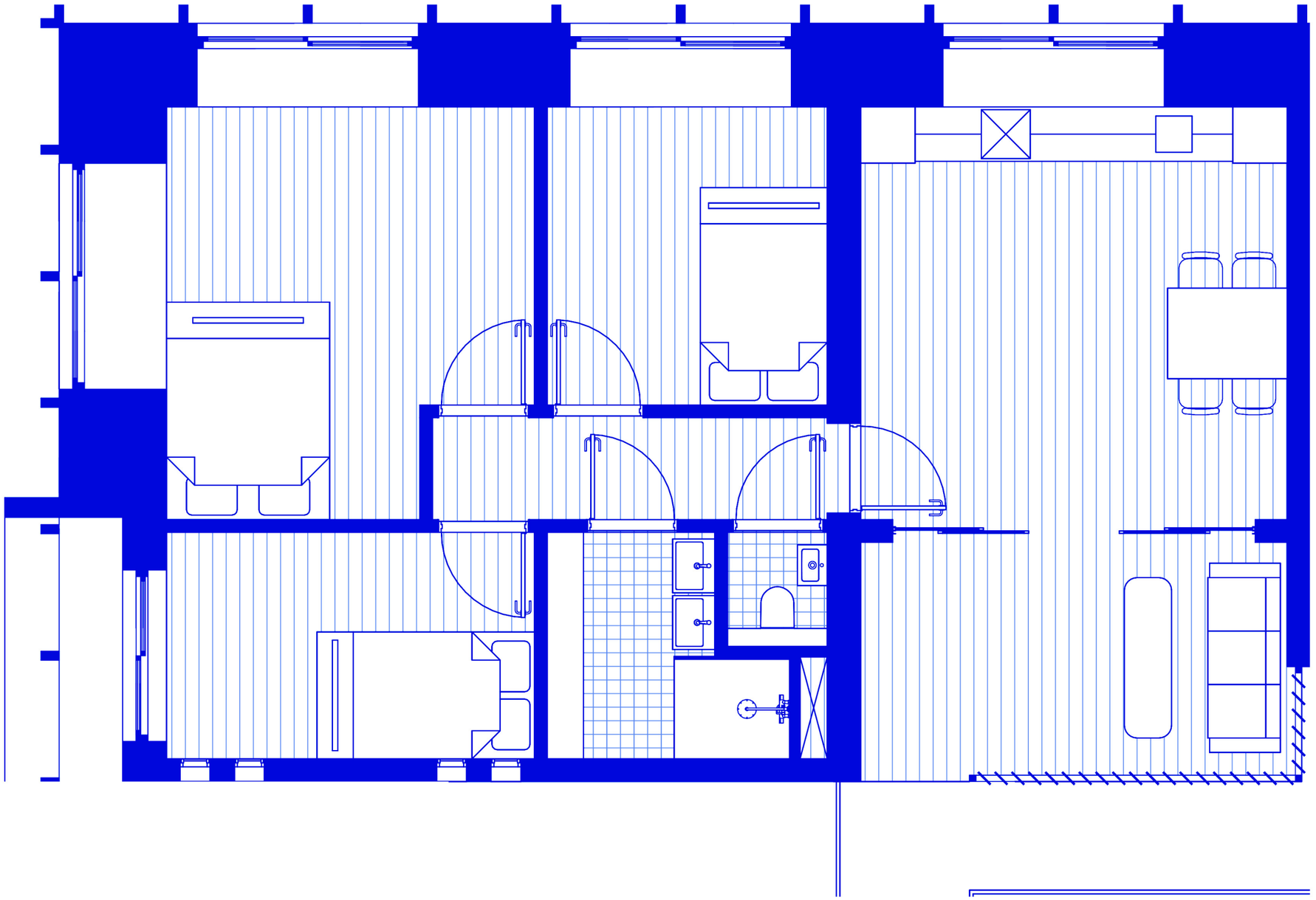


1ST FLOOR

The Prototype

OTHER HOUSEHOLDS

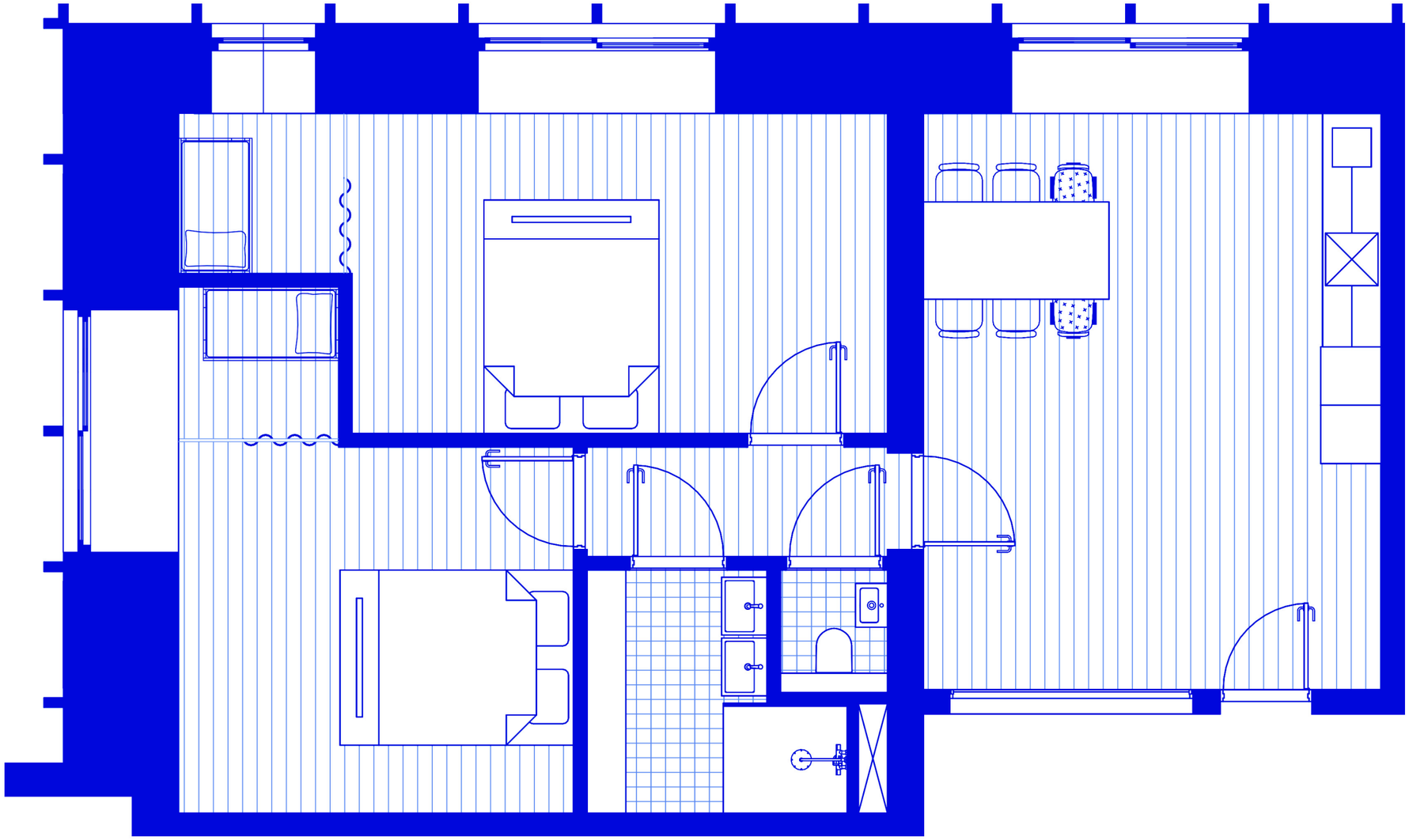
4 PERSON HOUSEHOLD



The Prototype

OTHER HOUSEHOLDS

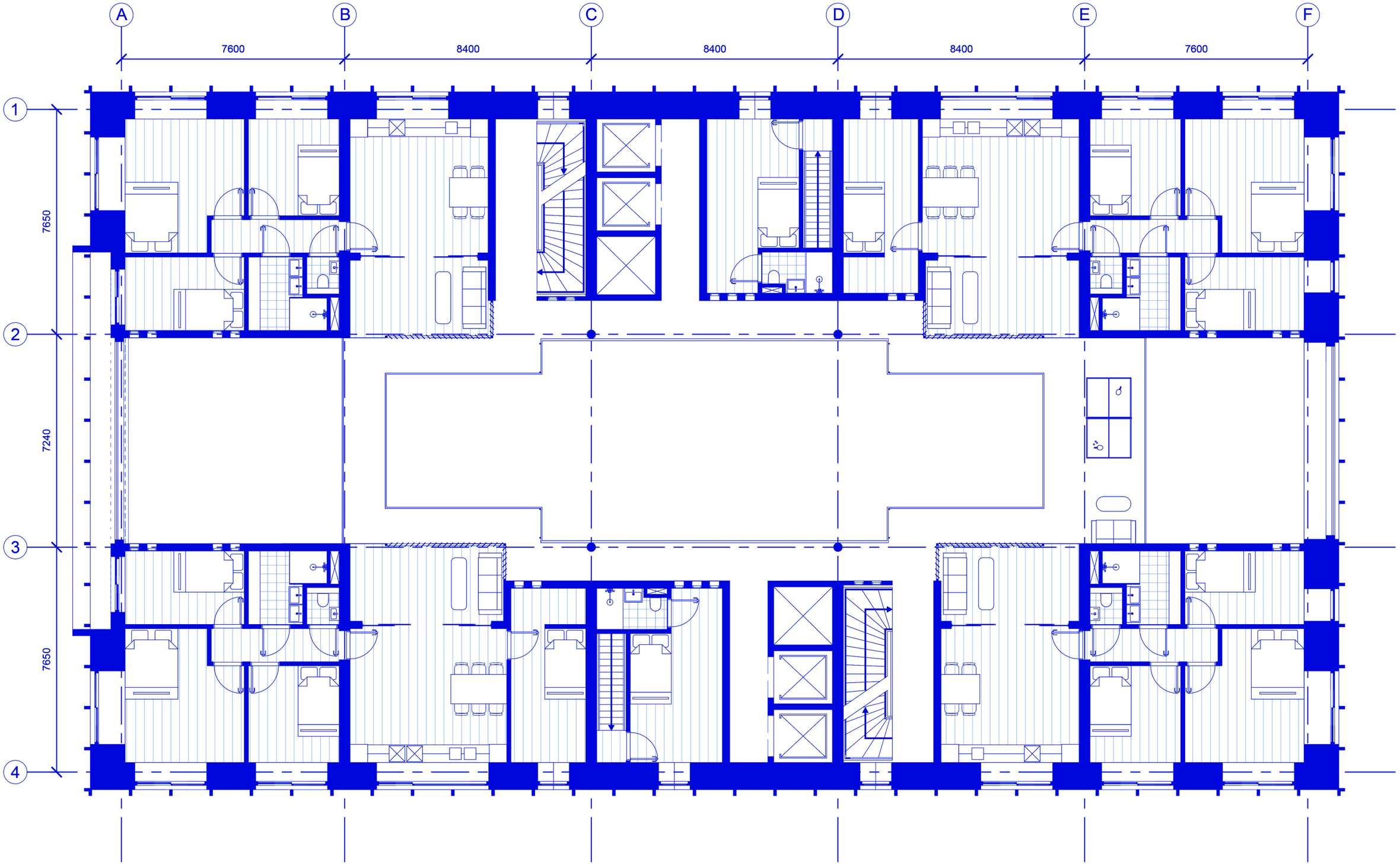
FAMILY HOUSEHOLD



The Prototype

THE GALLERY AS SOCIAL INFRASTRUCTURE

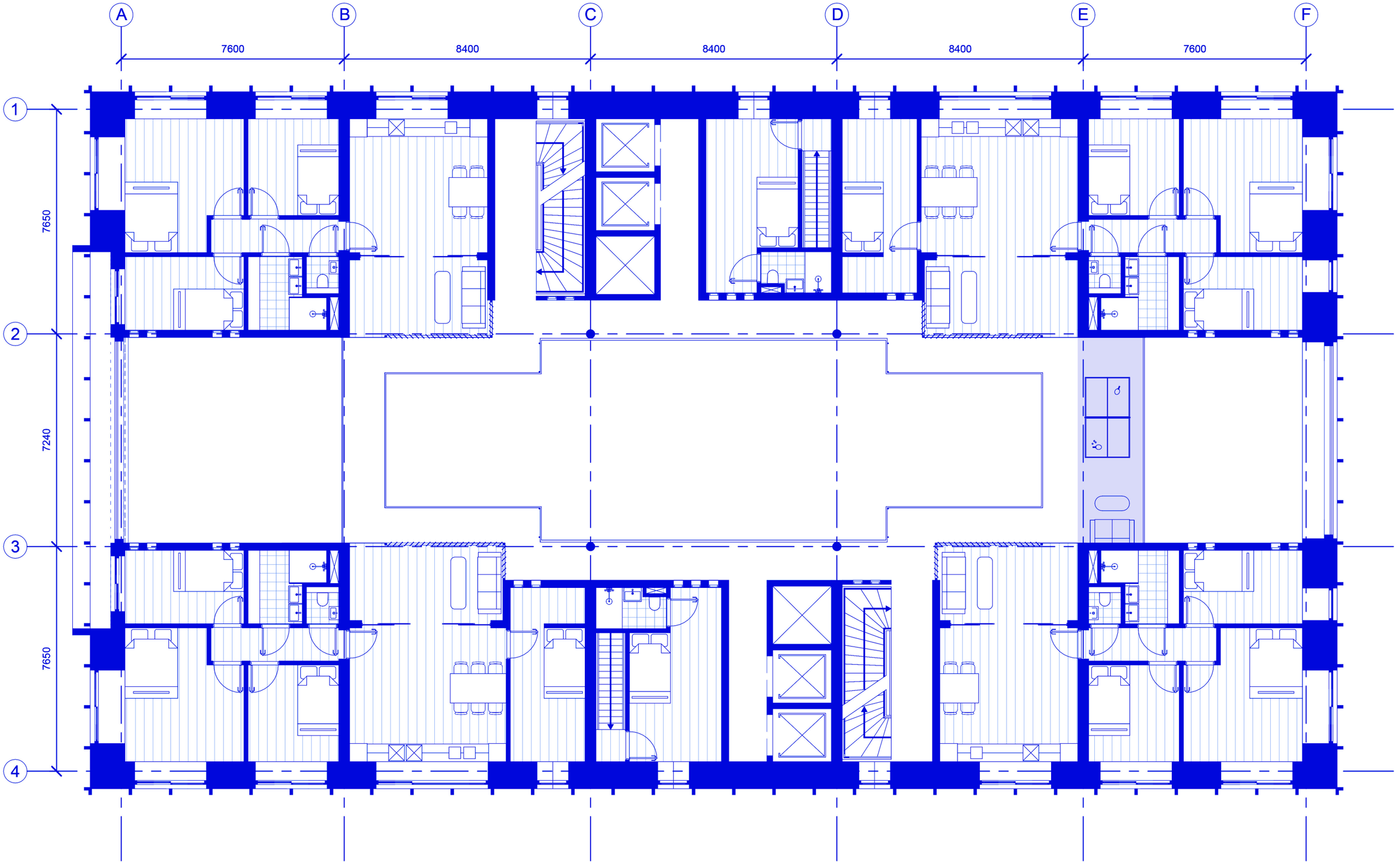
FIRST FLOOR



The Prototype

THE GALLERY AS SOCIAL INFRASTRUCTURE

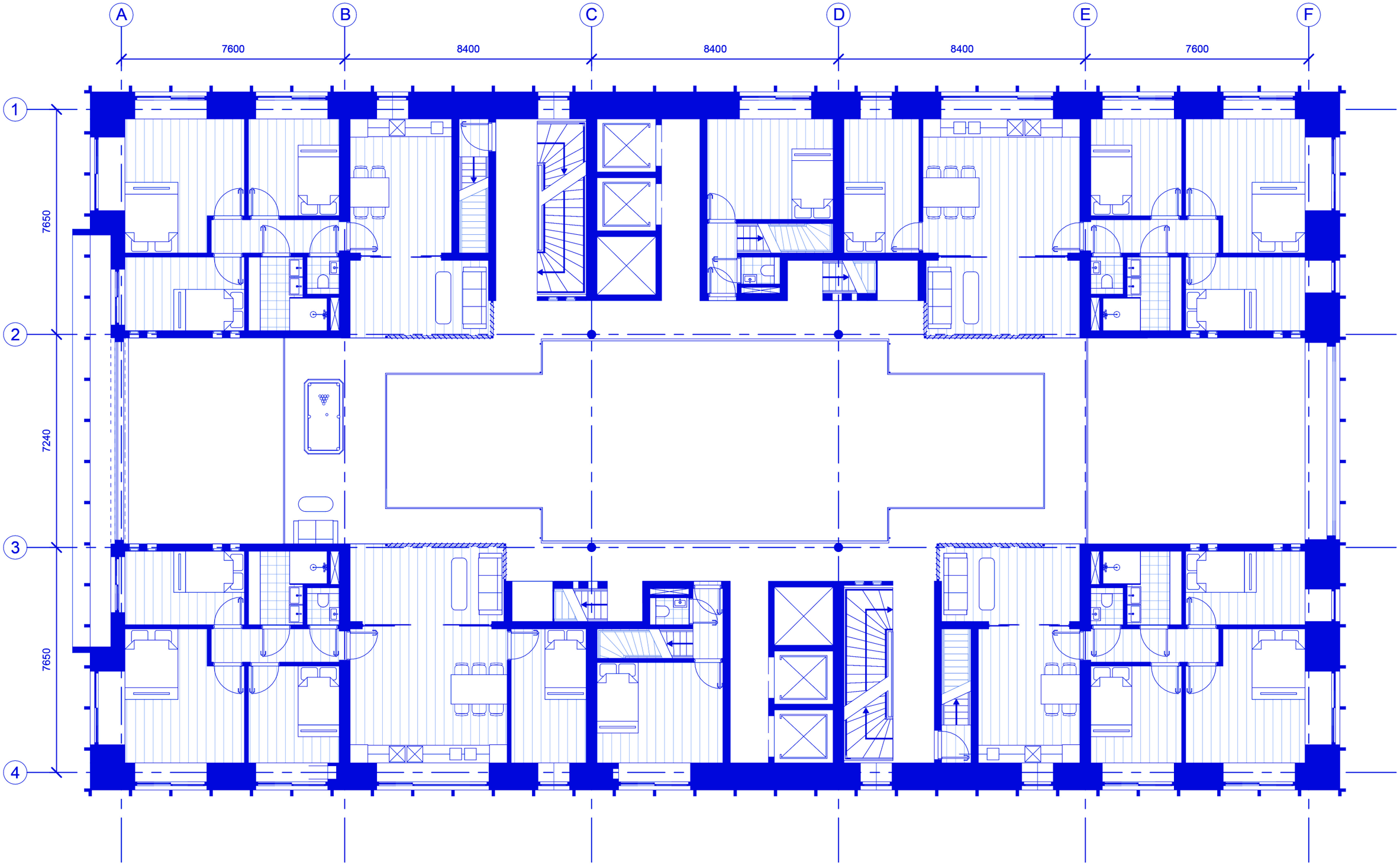
FIRST FLOOR



The Prototype

THE GALLERY AS SOCIAL INFRASTRUCTURE

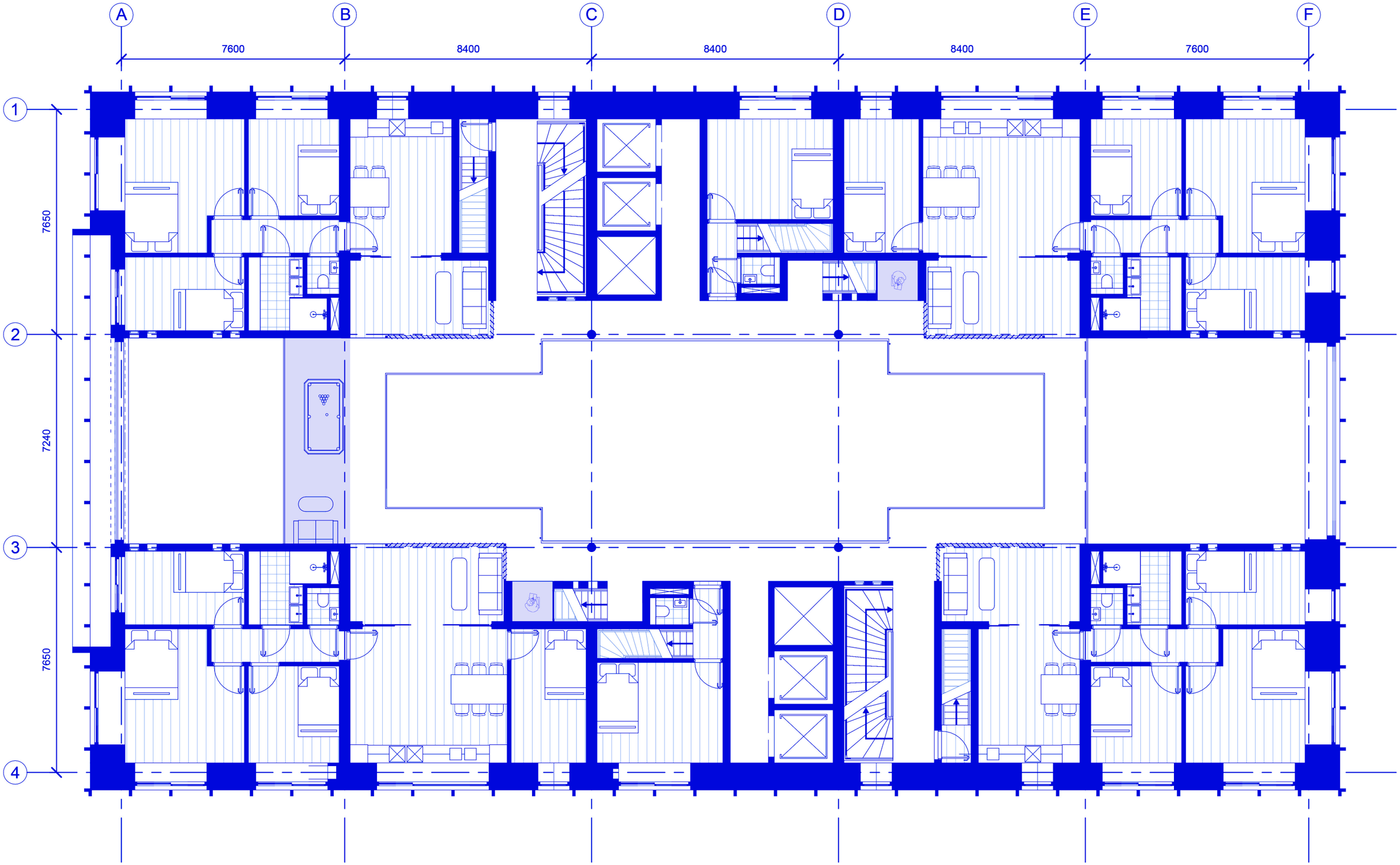
SECOND AND FOURTH FLOOR



The Prototype

THE GALLERY AS SOCIAL INFRASTRUCTURE

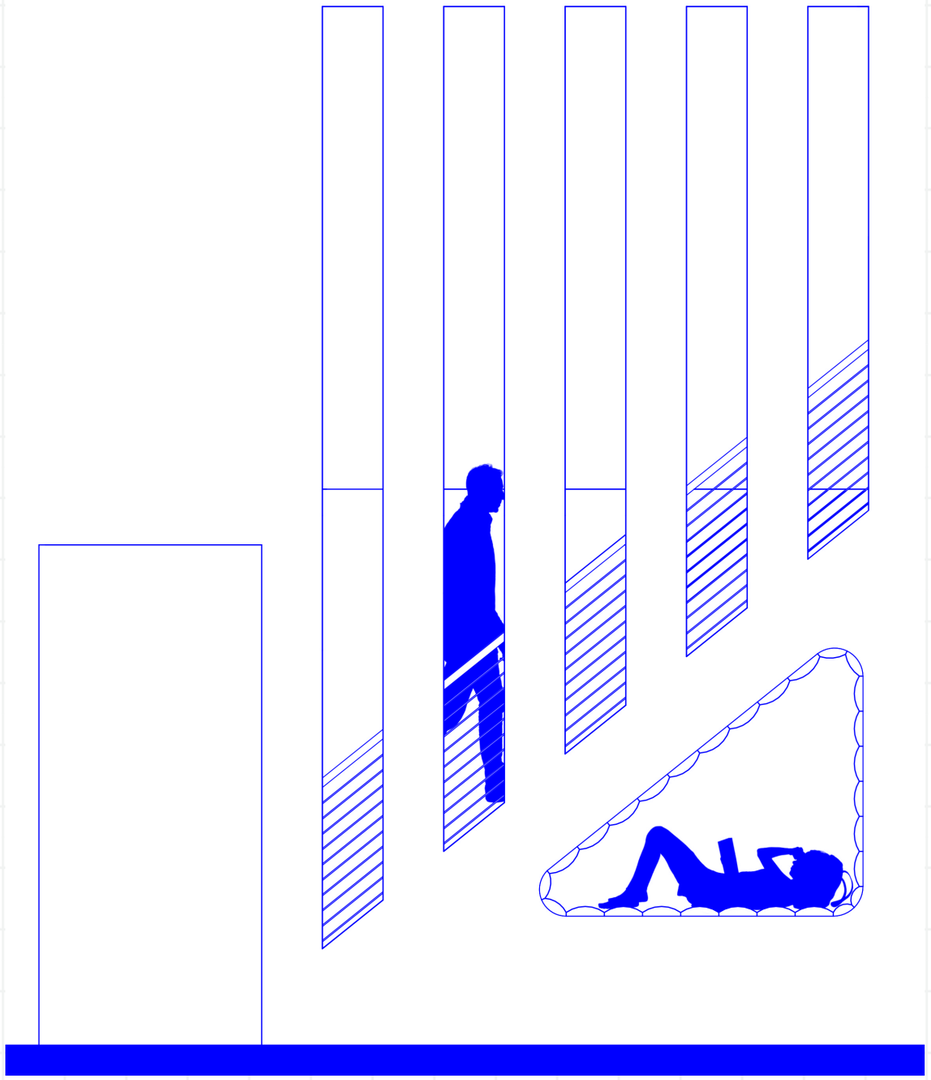
SECOND AND FOURTH FLOOR



The Prototype

THE GALLERY AS SOCIAL INFRASTRUCTURE

SECOND AND FOURTH FLOOR



SEATING NICHES AS POCKET SPACES

The Prototype

THE GALLERY AS SOCIAL INFRASTRUCTURE

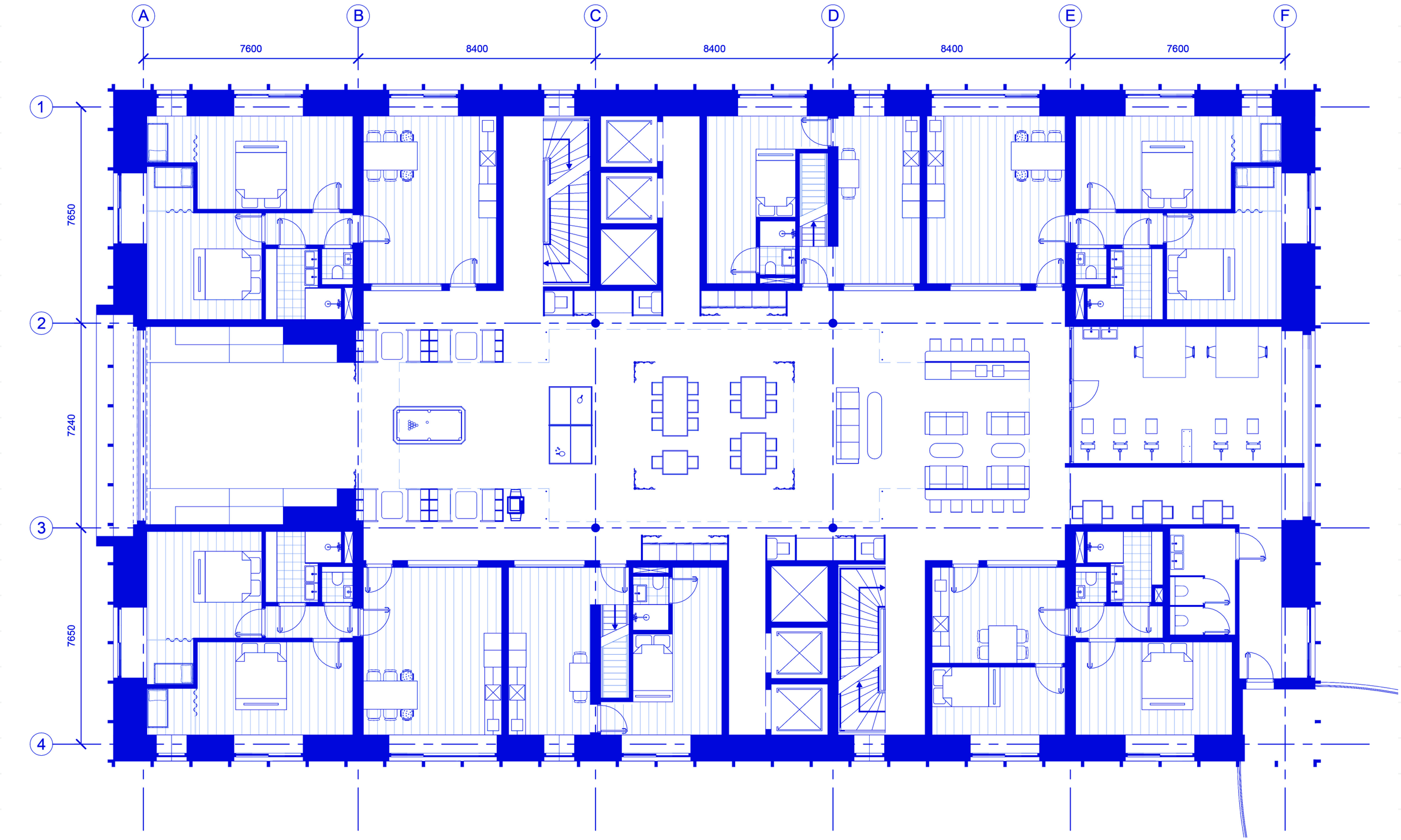
THIRD AND FIFTH FLOOR





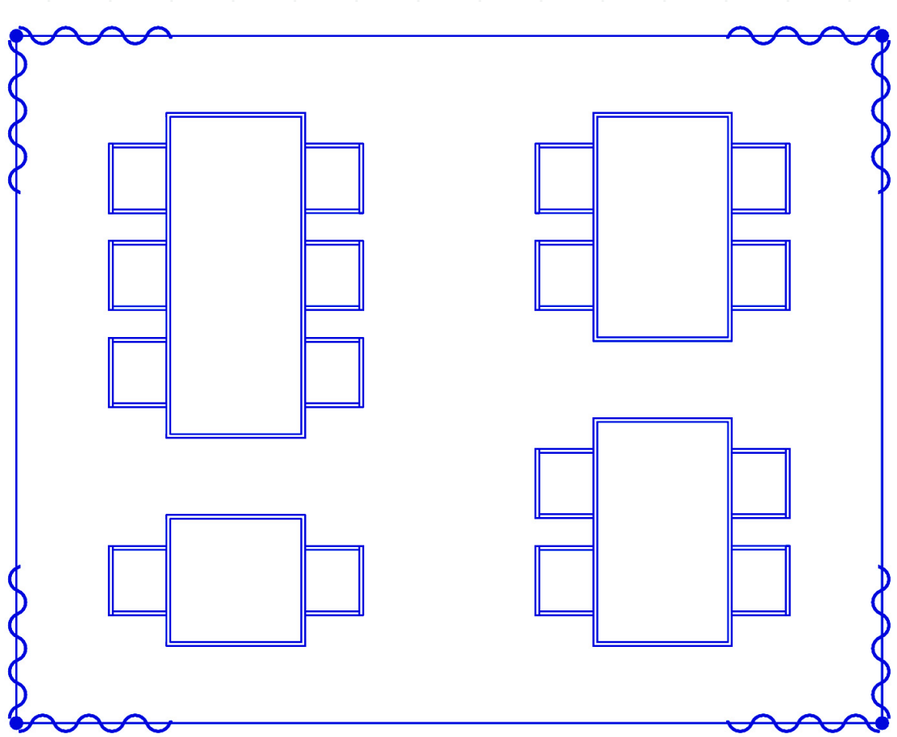
The Prototype

COLLECTIVE FACILITIES IN THE CLUSTER



The Prototype

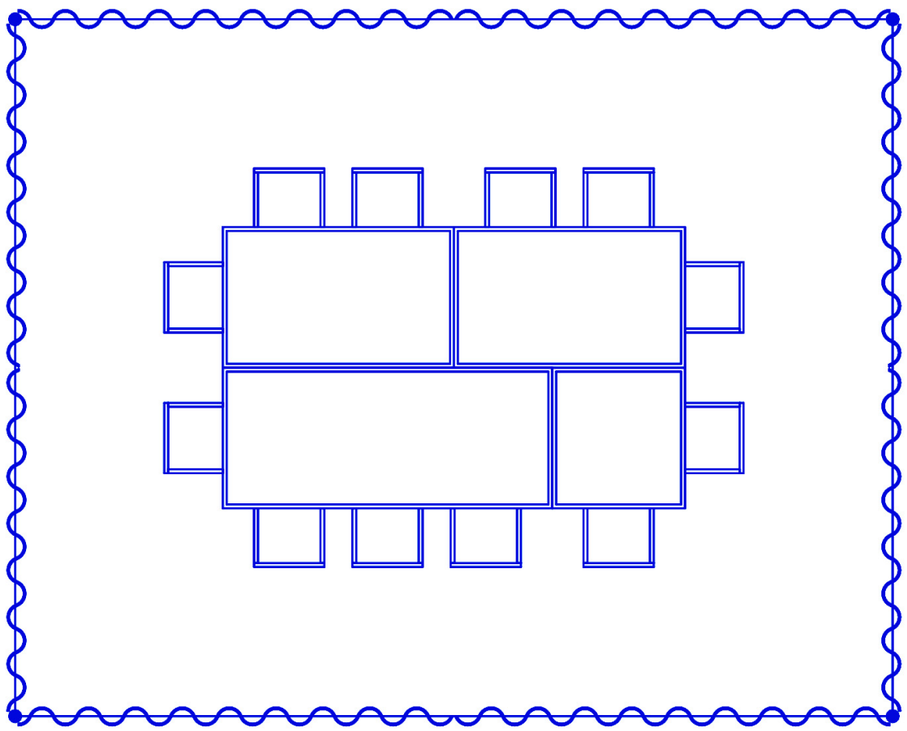
COLLECTIVE FACILITIES IN THE CLUSTER



LUNCH TABLES

The Prototype

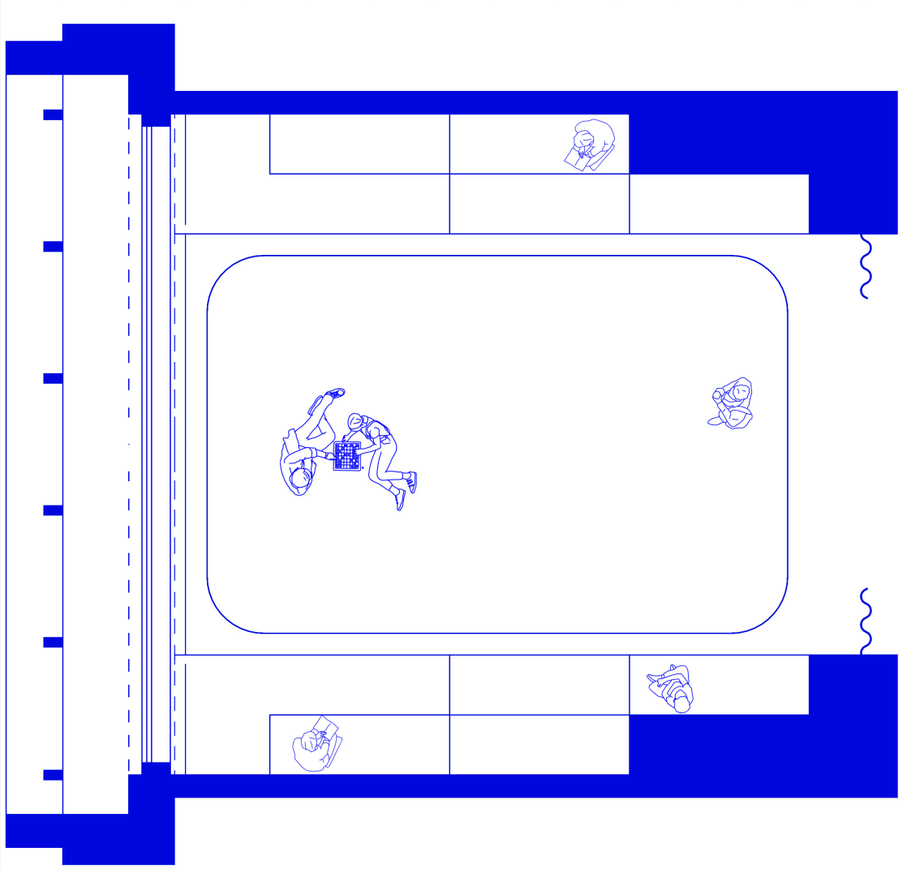
COLLECTIVE FACILITIES IN THE CLUSTER



SPACE TO HOST DINNER PARTIES

The Prototype

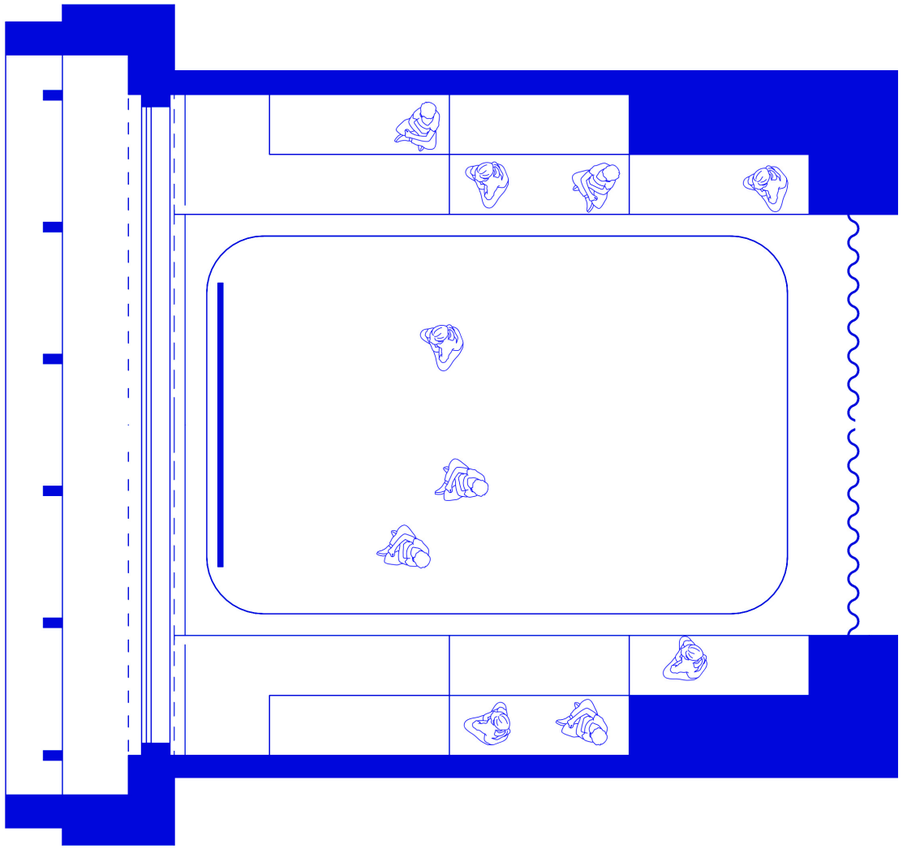
COLLECTIVE FACILITIES IN THE CLUSTER



STEPPED SEATING

The Prototype

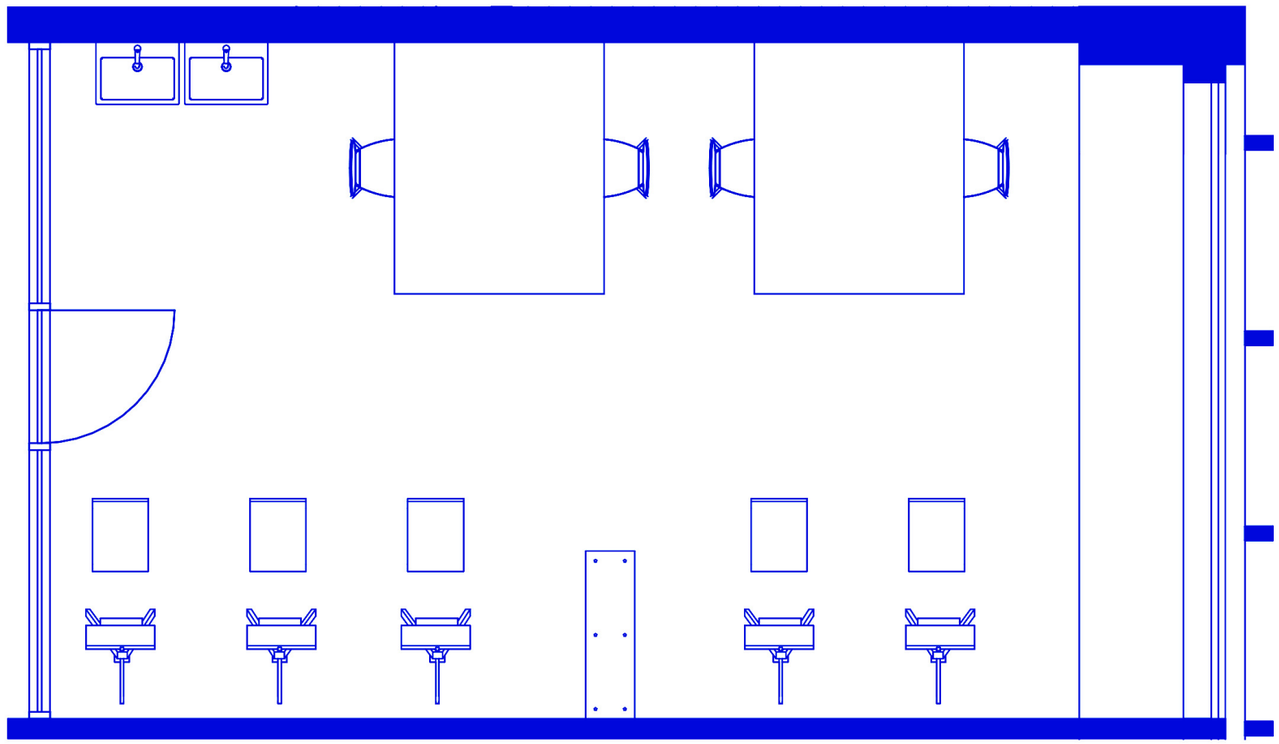
COLLECTIVE FACILITIES IN THE CLUSTER



MOVIE ROOM

The Prototype

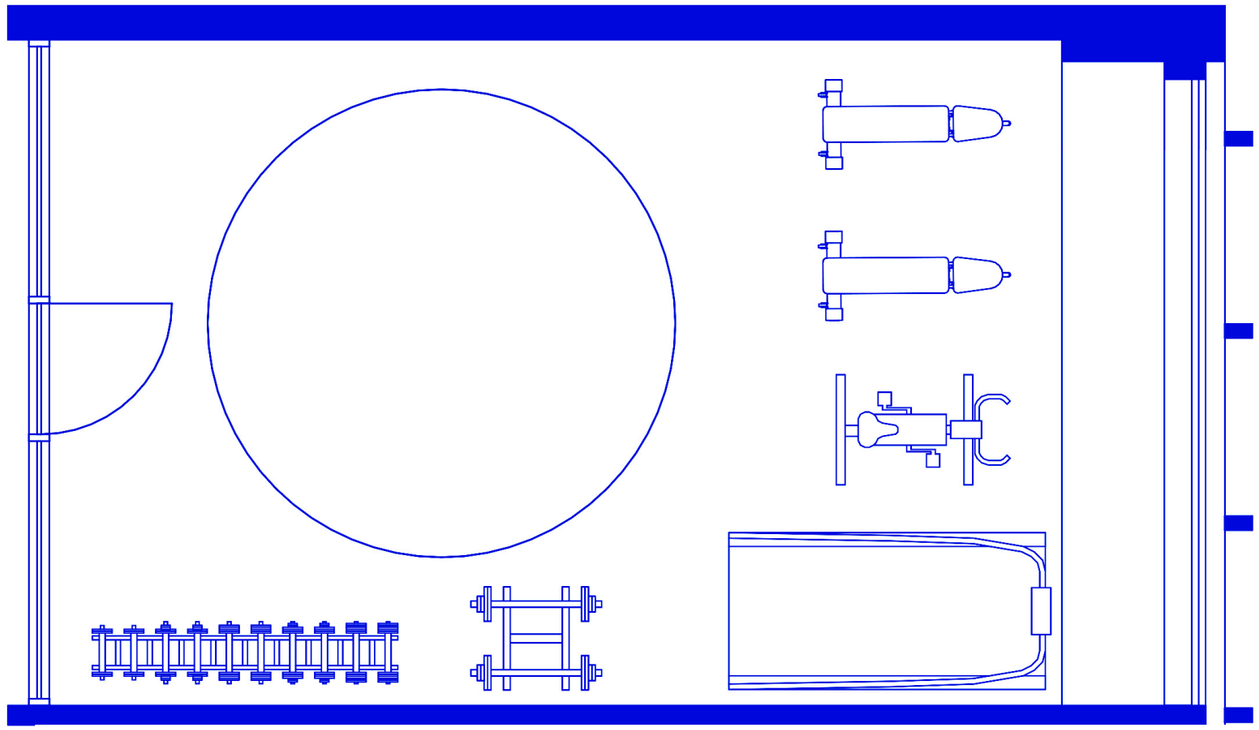
COLLECTIVE FACILITIES IN THE CLUSTER



ART STUDIO

The Prototype

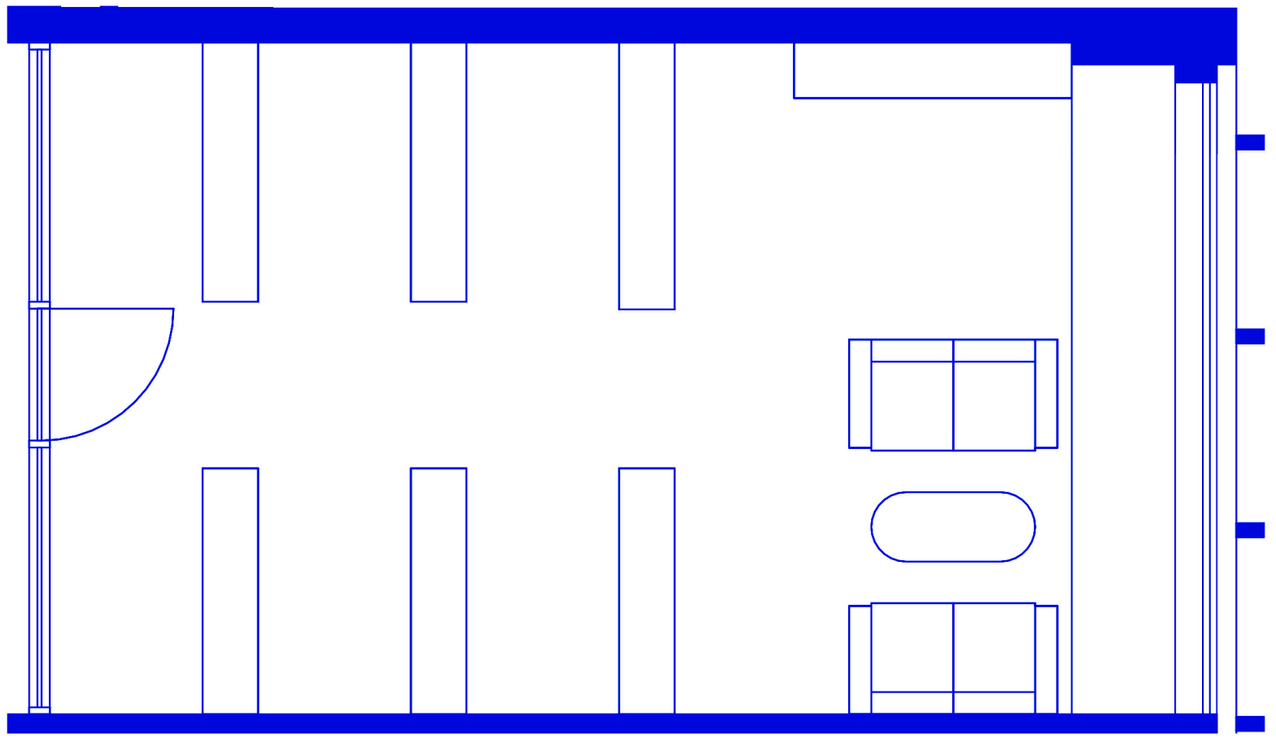
COLLECTIVE FACILITIES IN THE CLUSTER



WORKOUT ROOM

The Prototype

COLLECTIVE FACILITIES IN THE CLUSTER

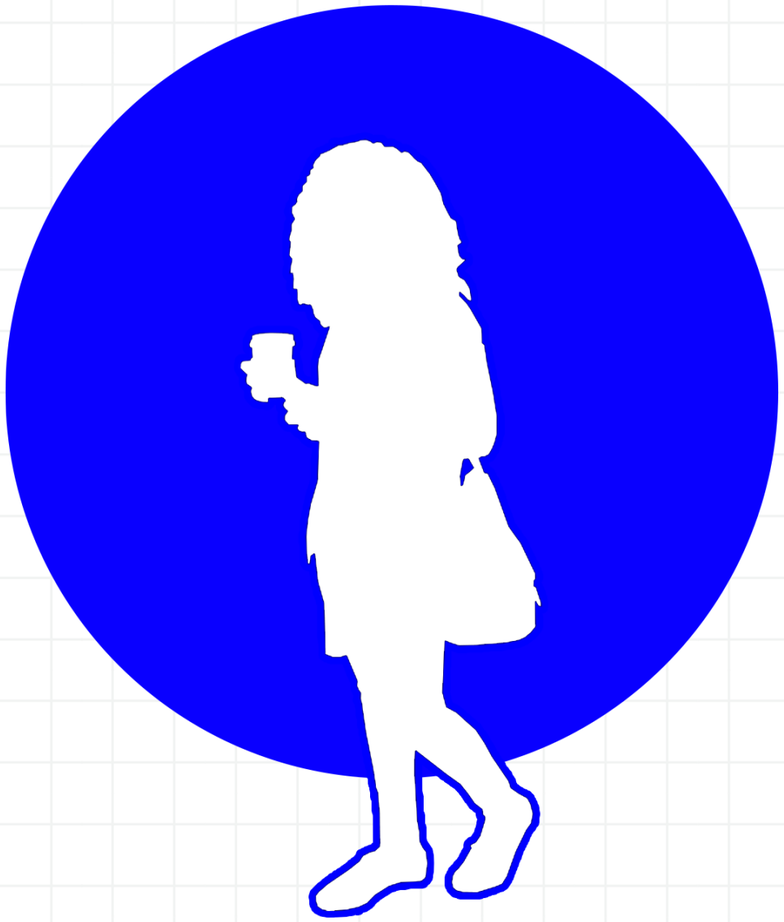


LIBRARY

The Prototype

EVERYDAY LIFE IN THE CLUSTER

ANNA



The Prototype

EVERYDAY LIFE IN THE CLUSTER



The Prototype

EVERYDAY LIFE IN THE CLUSTER



The Prototype

EVERYDAY LIFE IN THE CLUSTER



The Prototype

EVERYDAY LIFE IN THE CLUSTER



The Prototype

EVERYDAY LIFE IN THE CLUSTER



The Prototype

EVERYDAY LIFE IN THE CLUSTER



The Prototype

EVERYDAY LIFE IN THE CLUSTER



Prototype

DAILY ROUTINE IN THE LIFE OF ANNA



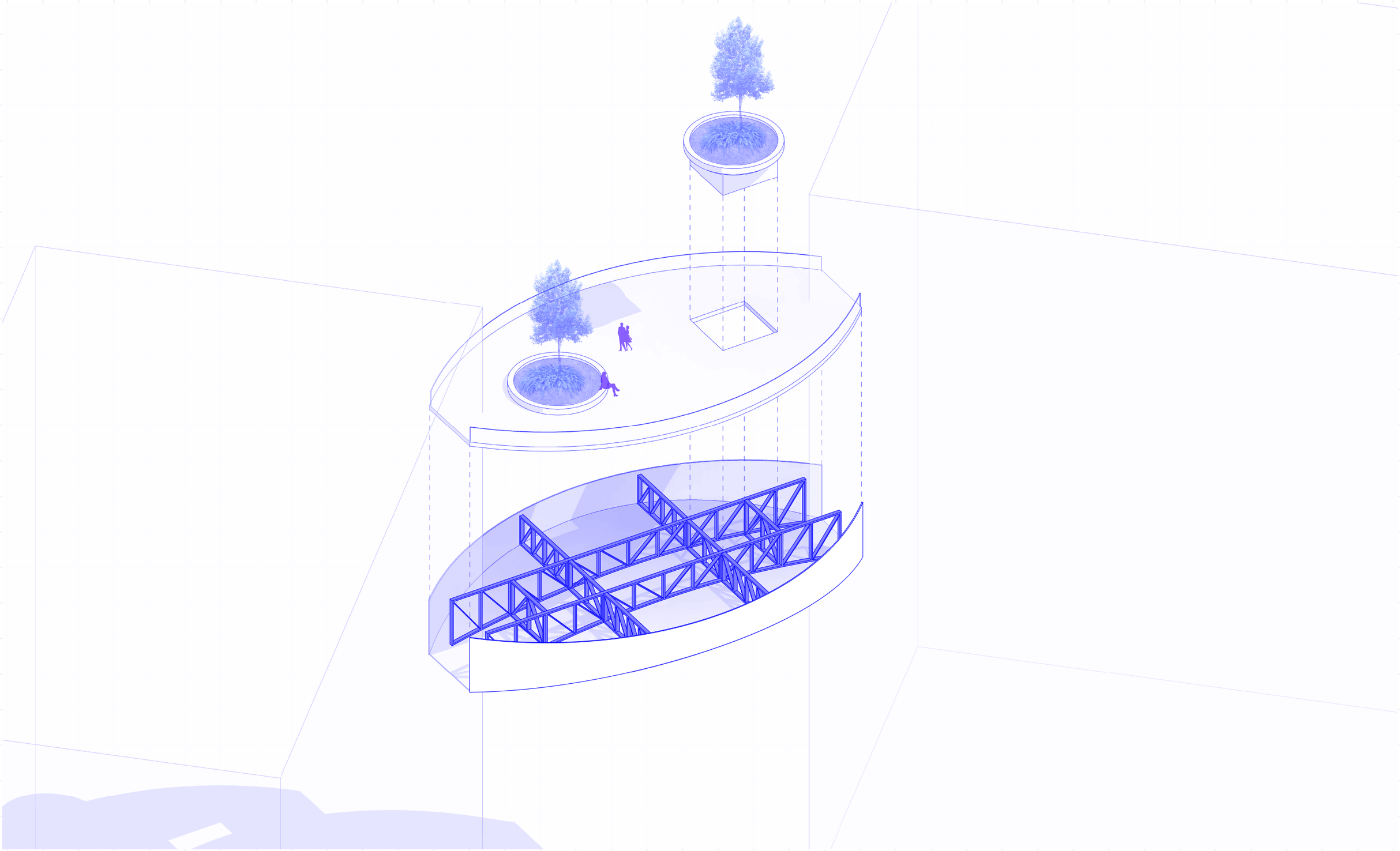
Prototype

DAILY ROUTINE IN THE LIFE OF ANNA

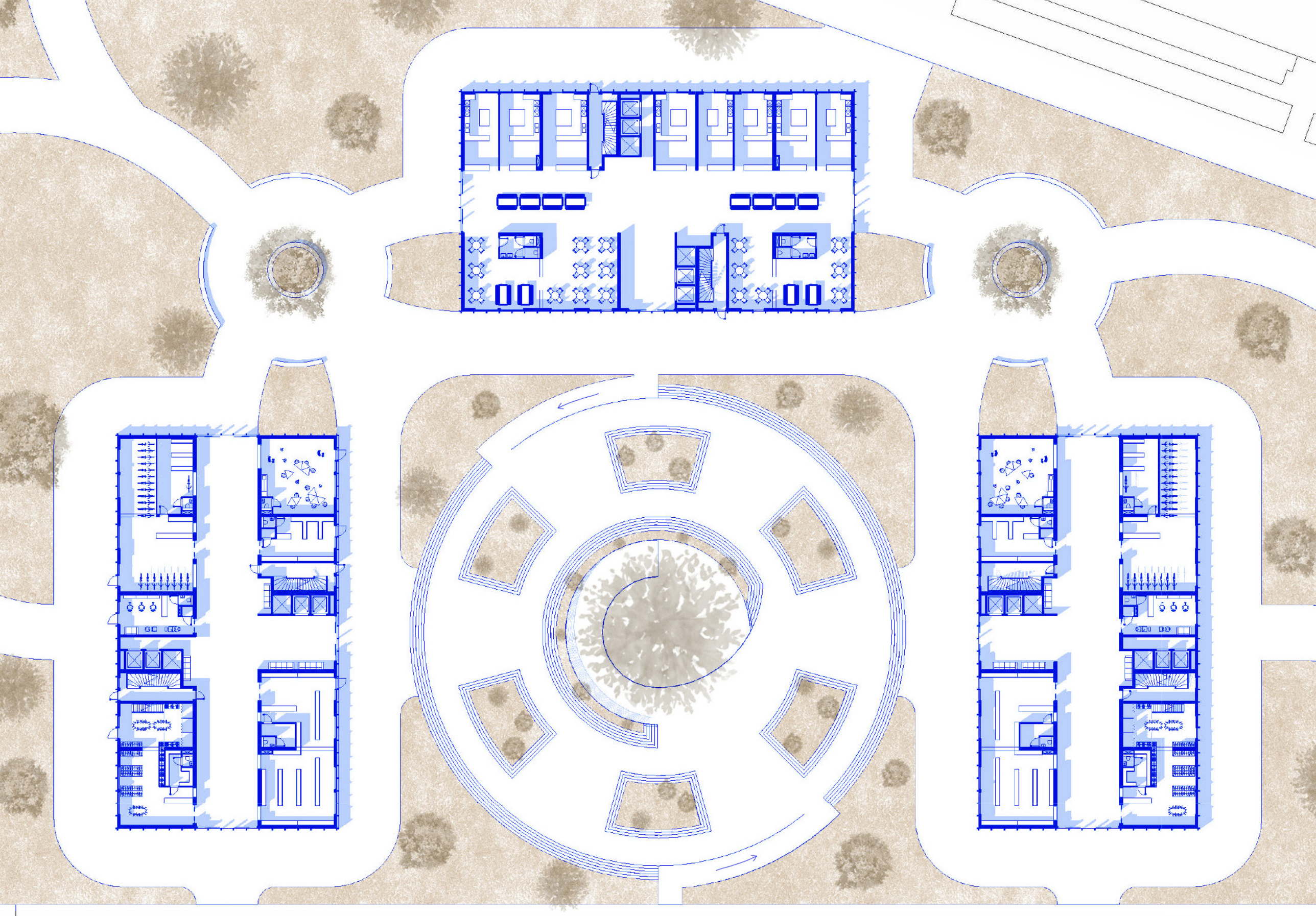


The Prototype

CONNECTION BETWEEN TOWERS

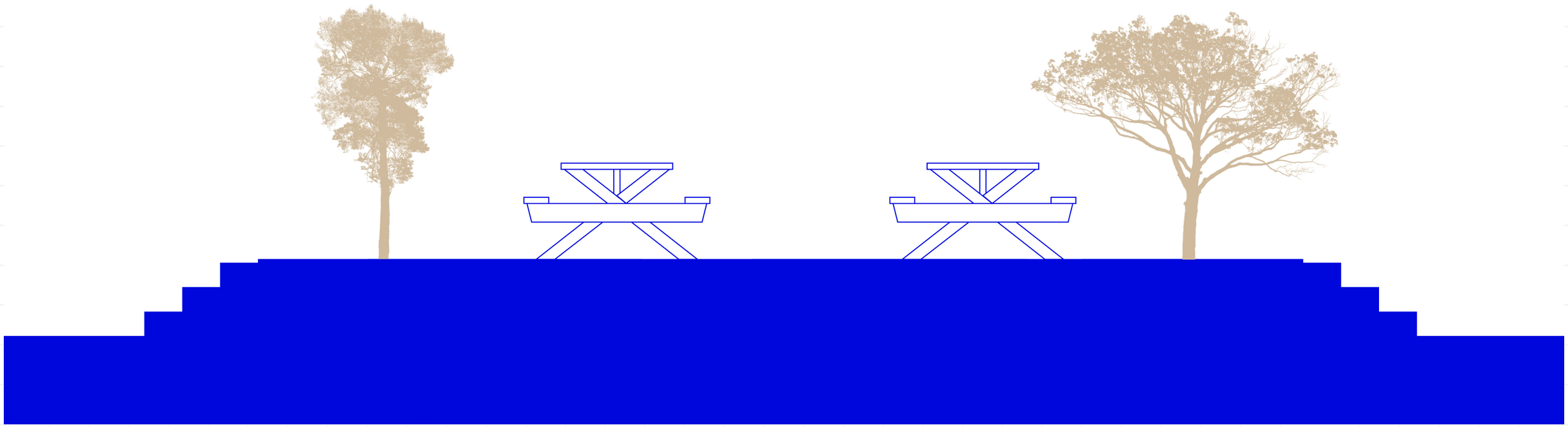






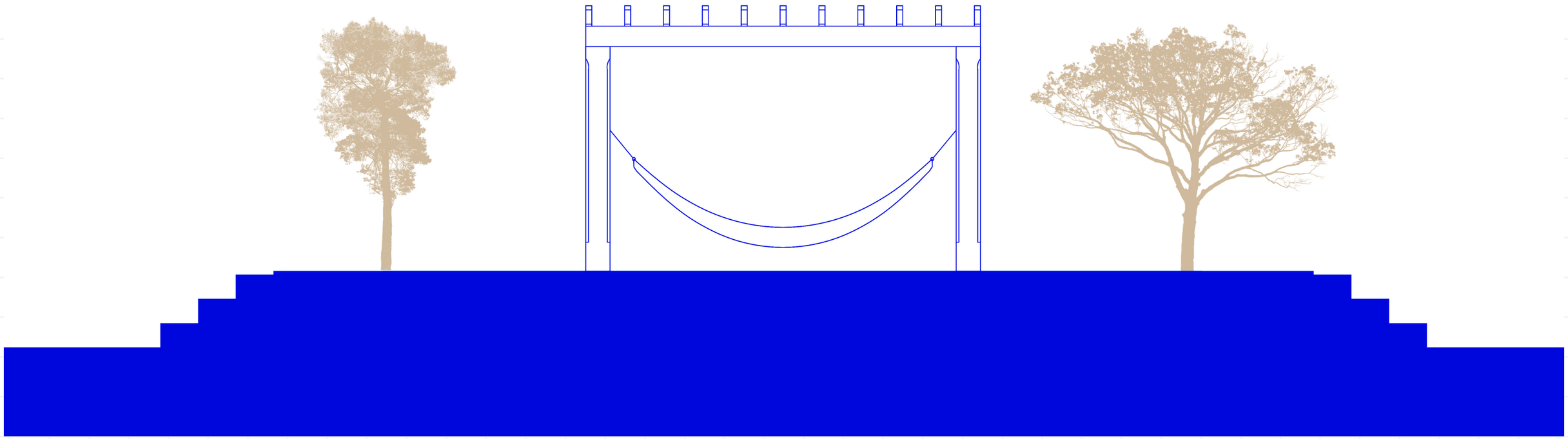
The Prototype

CONNECTION TO THE CITY



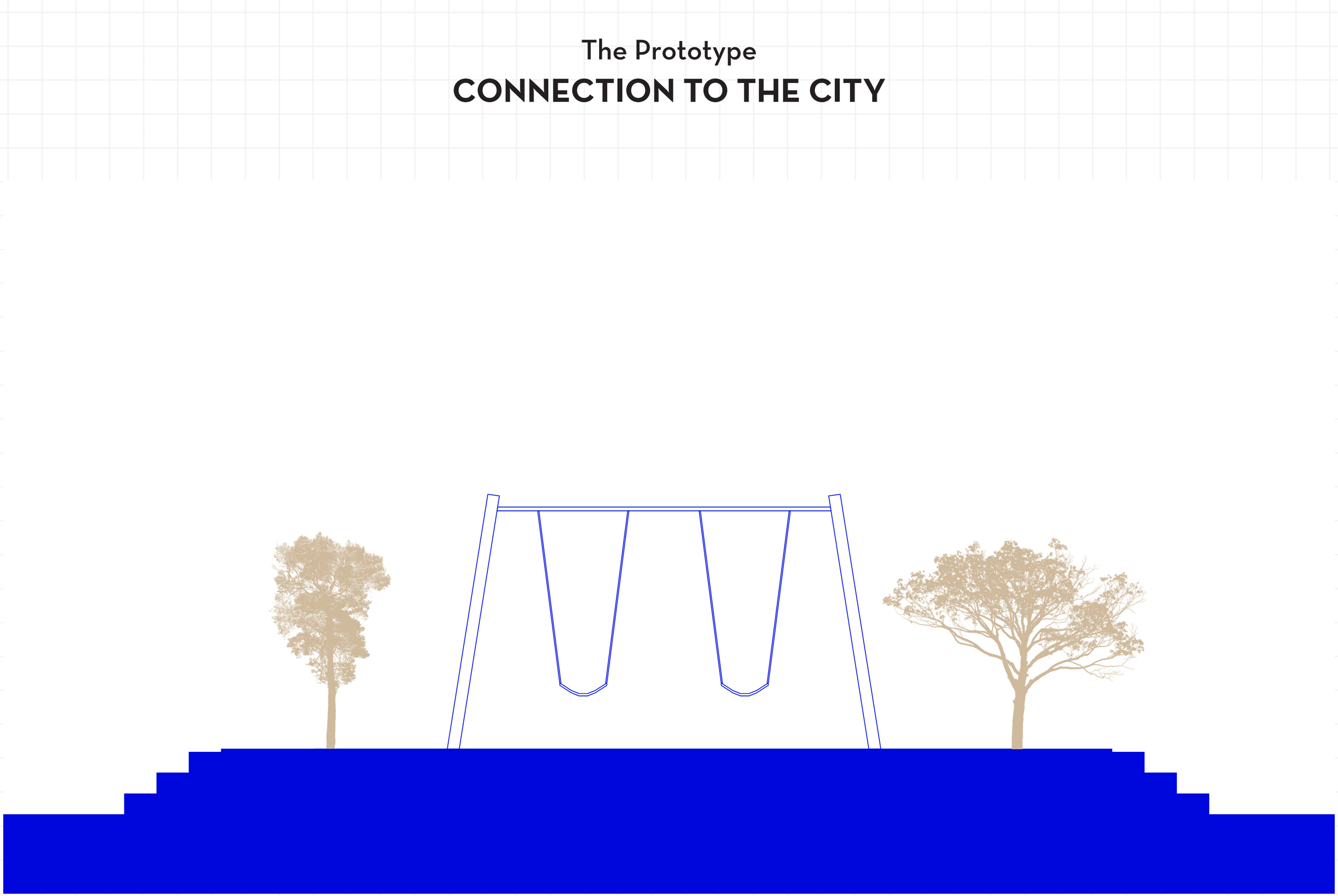
The Prototype

CONNECTION TO THE CITY



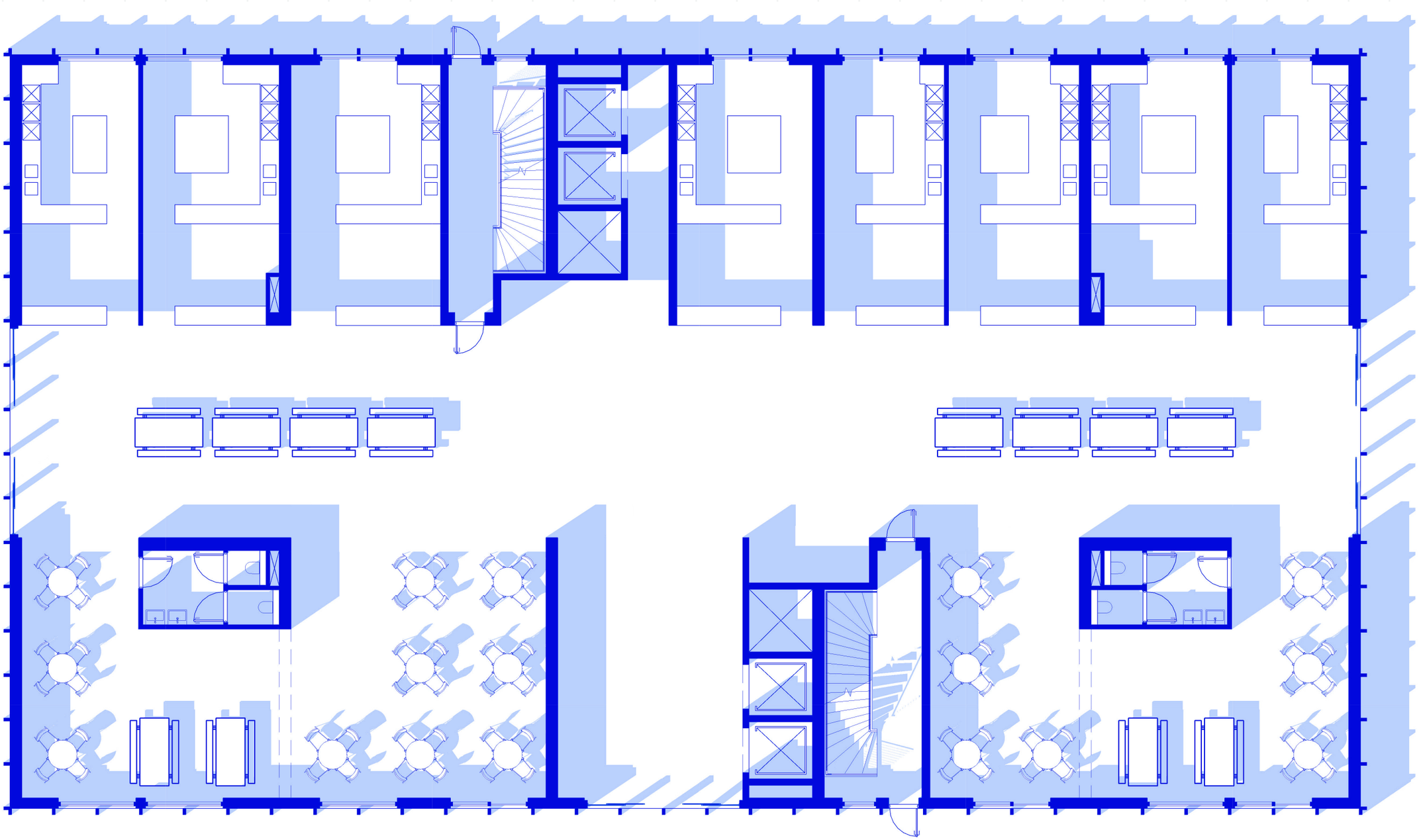
The Prototype

CONNECTION TO THE CITY



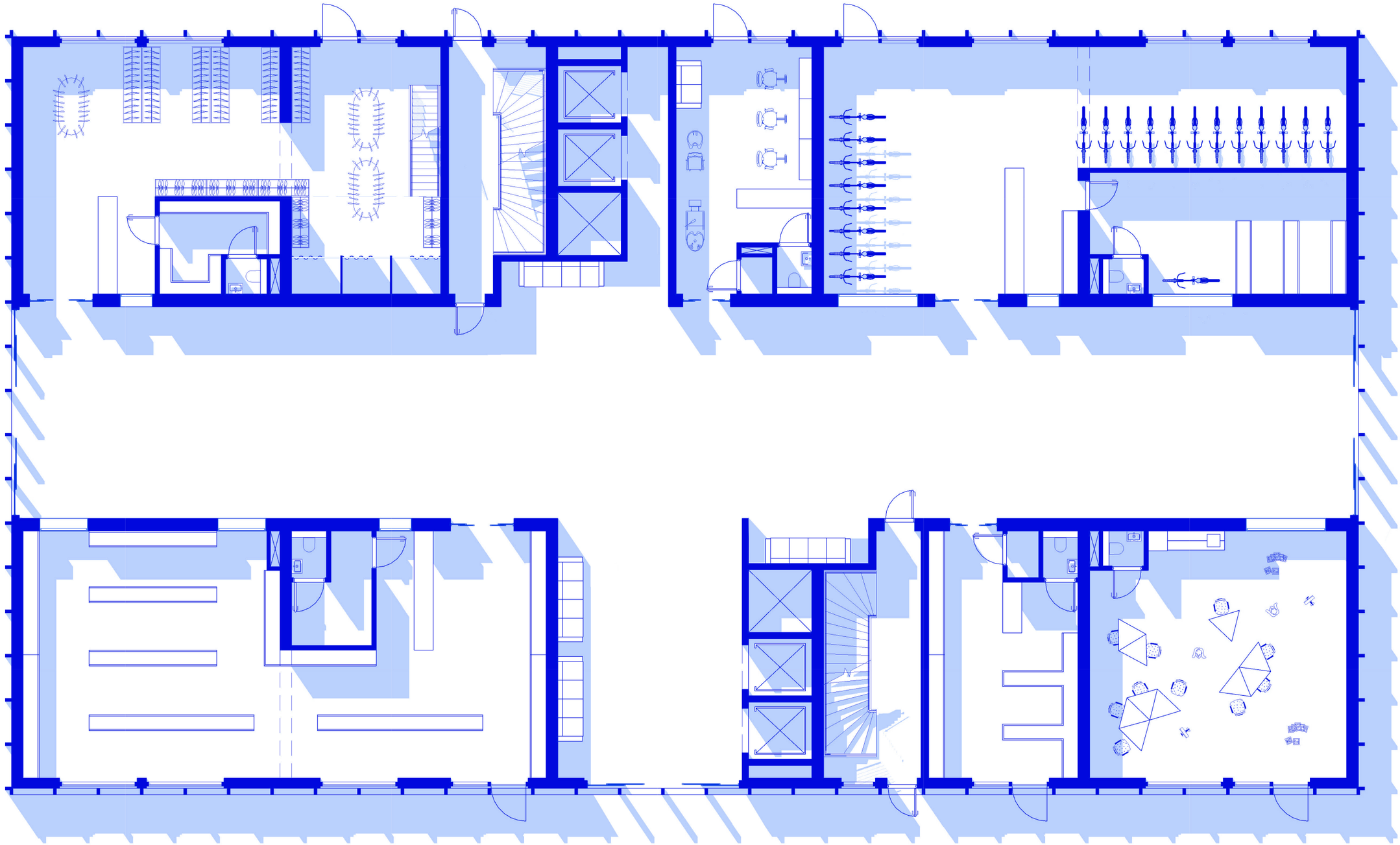
The Prototype

CONNECTION TO THE CITY



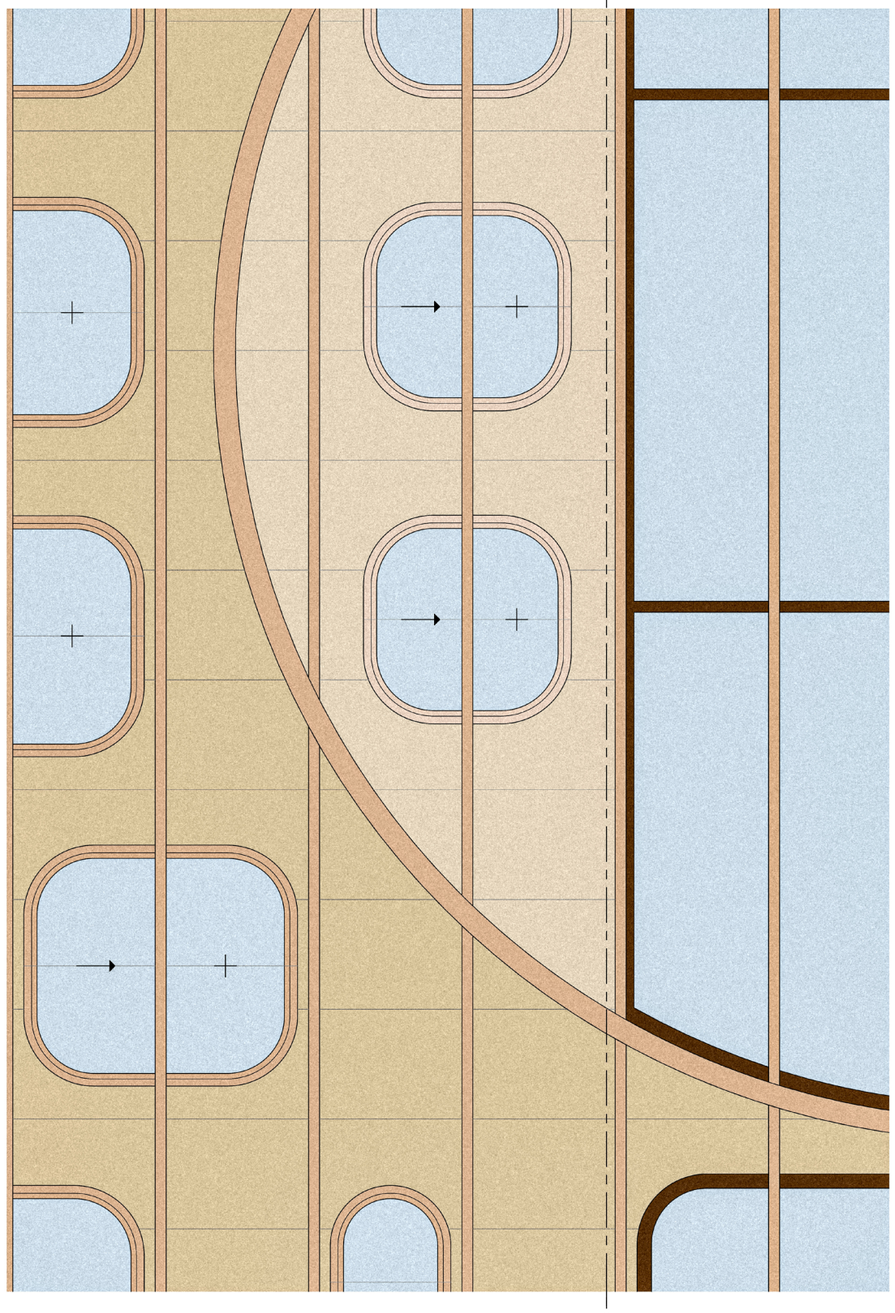
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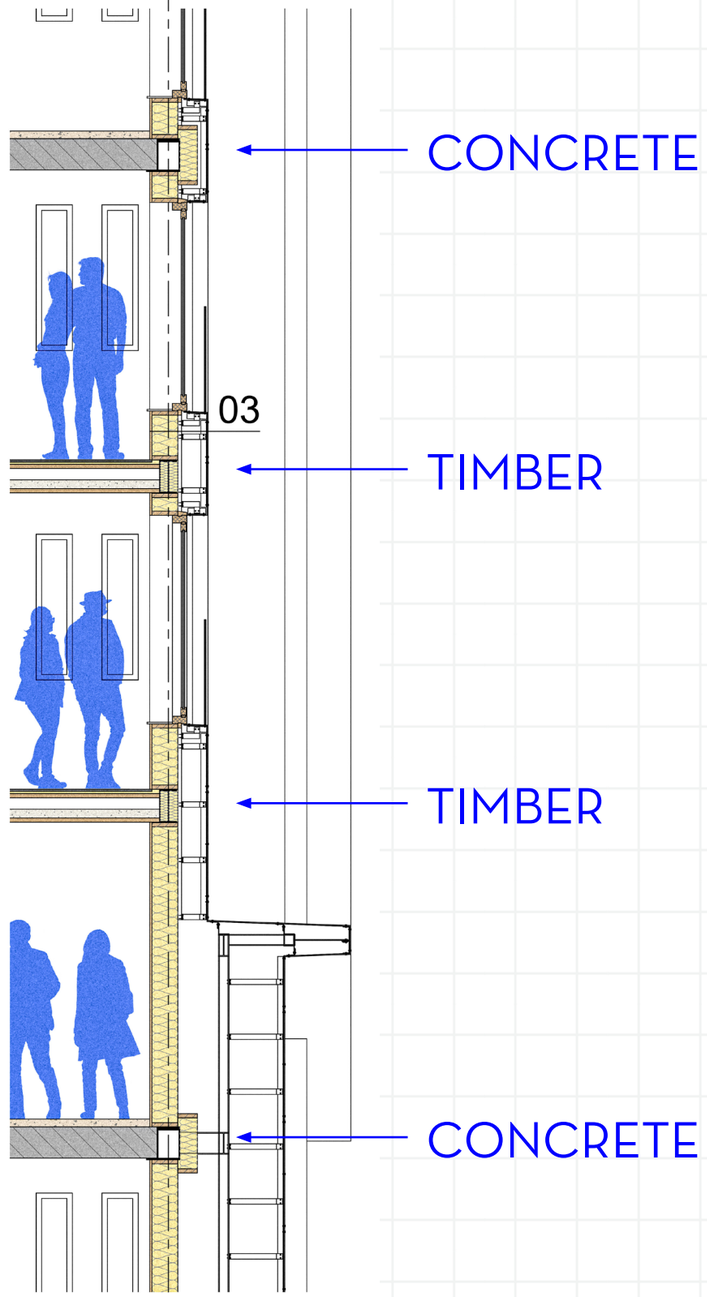
CONNECTION TO THE CITY

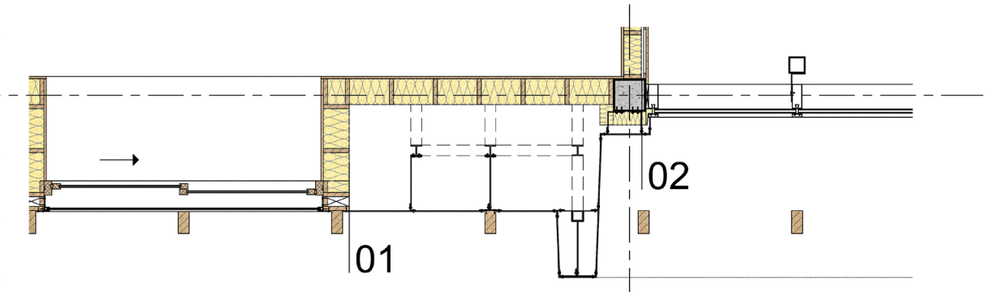


The Prototype

BUILDING STRUCTURE



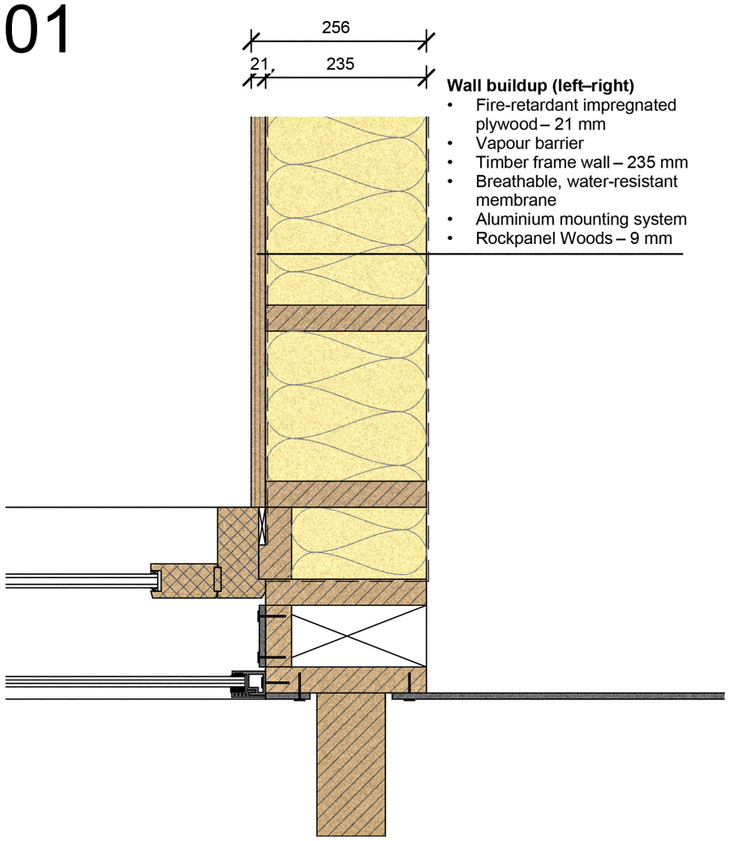




The Prototype

BUILDING STRUCTURE

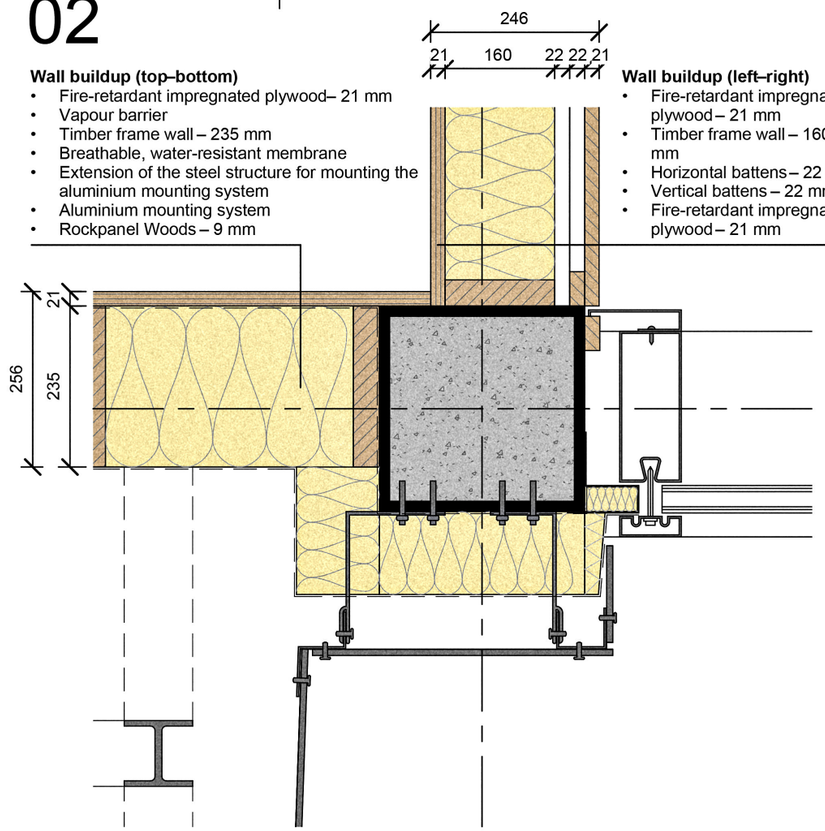
01



Wall buildup (left–right)

- Fire-retardant impregnated plywood – 21 mm
- Vapour barrier
- Timber frame wall – 235 mm
- Breathable, water-resistant membrane
- Aluminium mounting system
- Rockpanel Woods – 9 mm

02



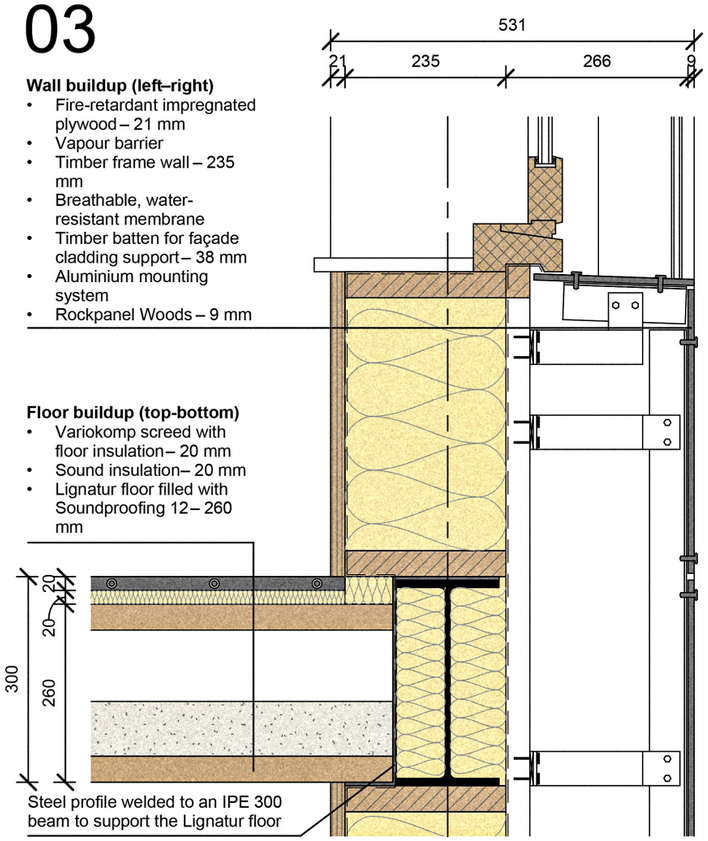
Wall buildup (top–bottom)

- Fire-retardant impregnated plywood– 21 mm
- Vapour barrier
- Timber frame wall – 235 mm
- Breathable, water-resistant membrane
- Extension of the steel structure for mounting the aluminium mounting system
- Aluminium mounting system
- Rockpanel Woods – 9 mm

Wall buildup (left–right)

- Fire-retardant impregnated plywood – 21 mm
- Timber frame wall – 160 mm
- Horizontal battens – 22 mm
- Vertical battens – 22 mm
- Fire-retardant impregnated plywood – 21 mm

03



Wall buildup (left–right)

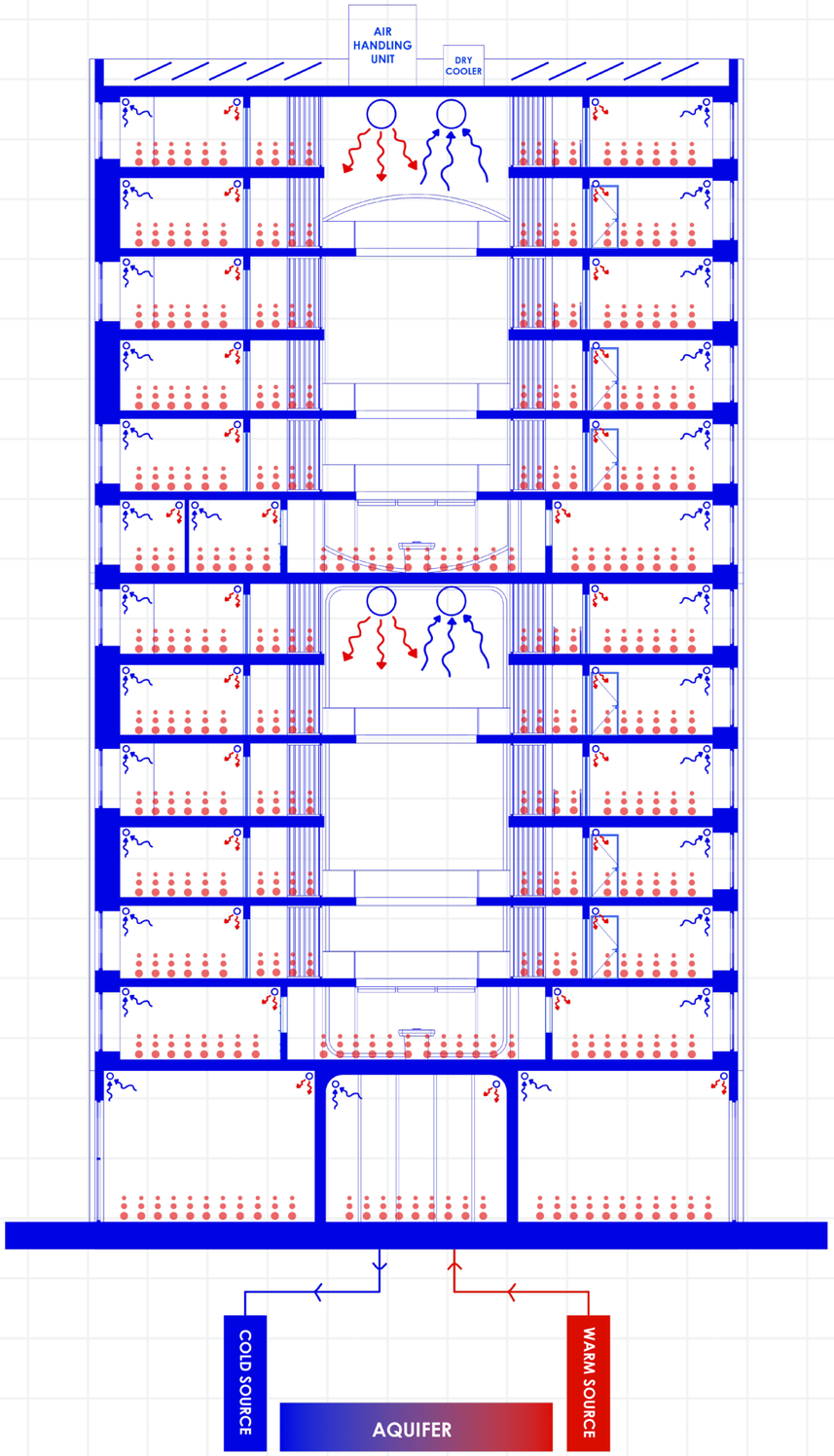
- Fire-retardant impregnated plywood – 21 mm
- Vapour barrier
- Timber frame wall – 235 mm
- Breathable, water-resistant membrane
- Timber batten for façade cladding support – 38 mm
- Aluminium mounting system
- Rockpanel Woods – 9 mm

Floor buildup (top-bottom)

- Variokomp screed with floor insulation – 20 mm
- Sound insulation – 20 mm
- Lignatur floor filled with Soundproofing 12 – 260 mm

The Prototype

WINTER CLIMATE

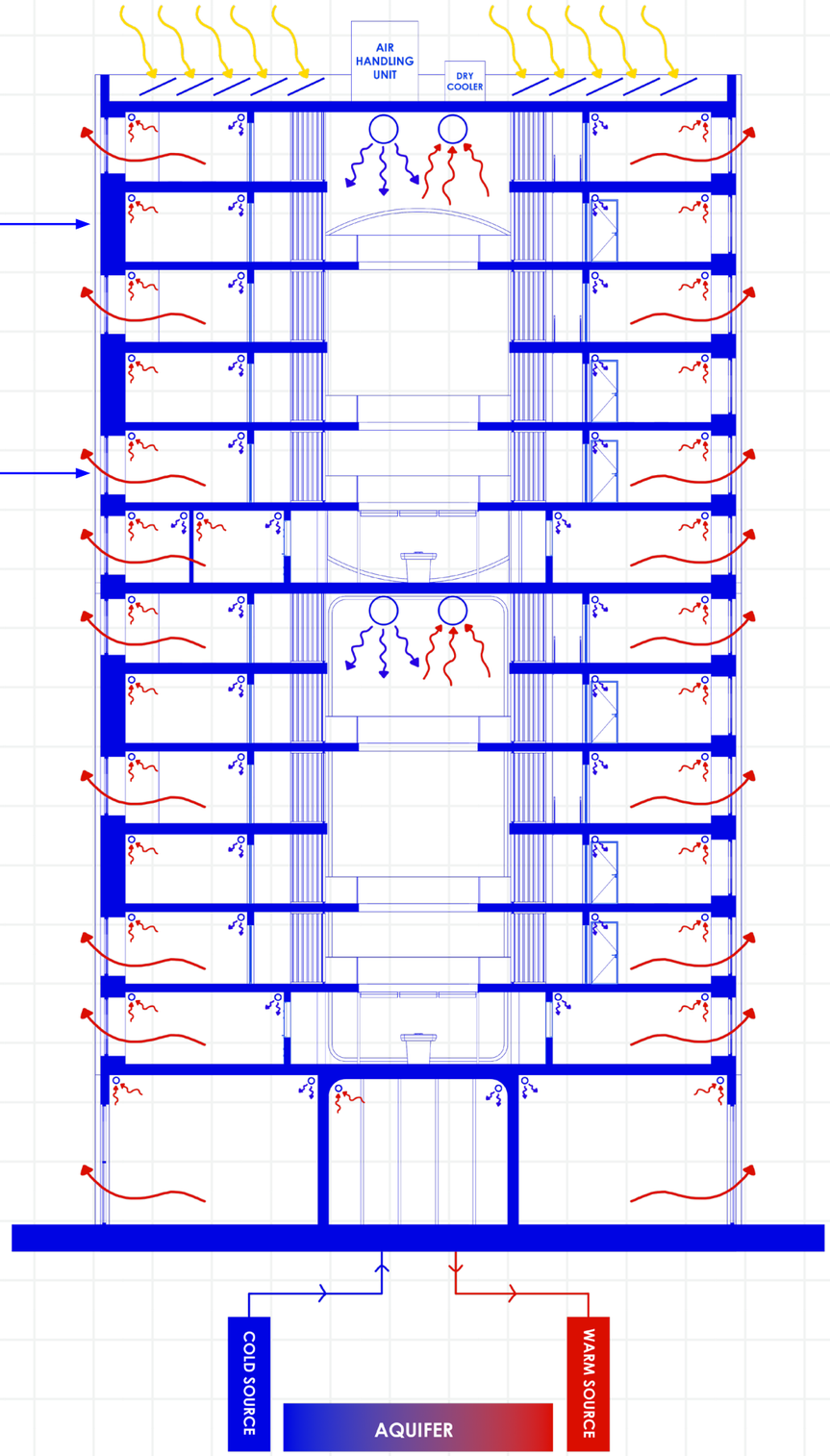


The Prototype

SUMMER CLIMATE

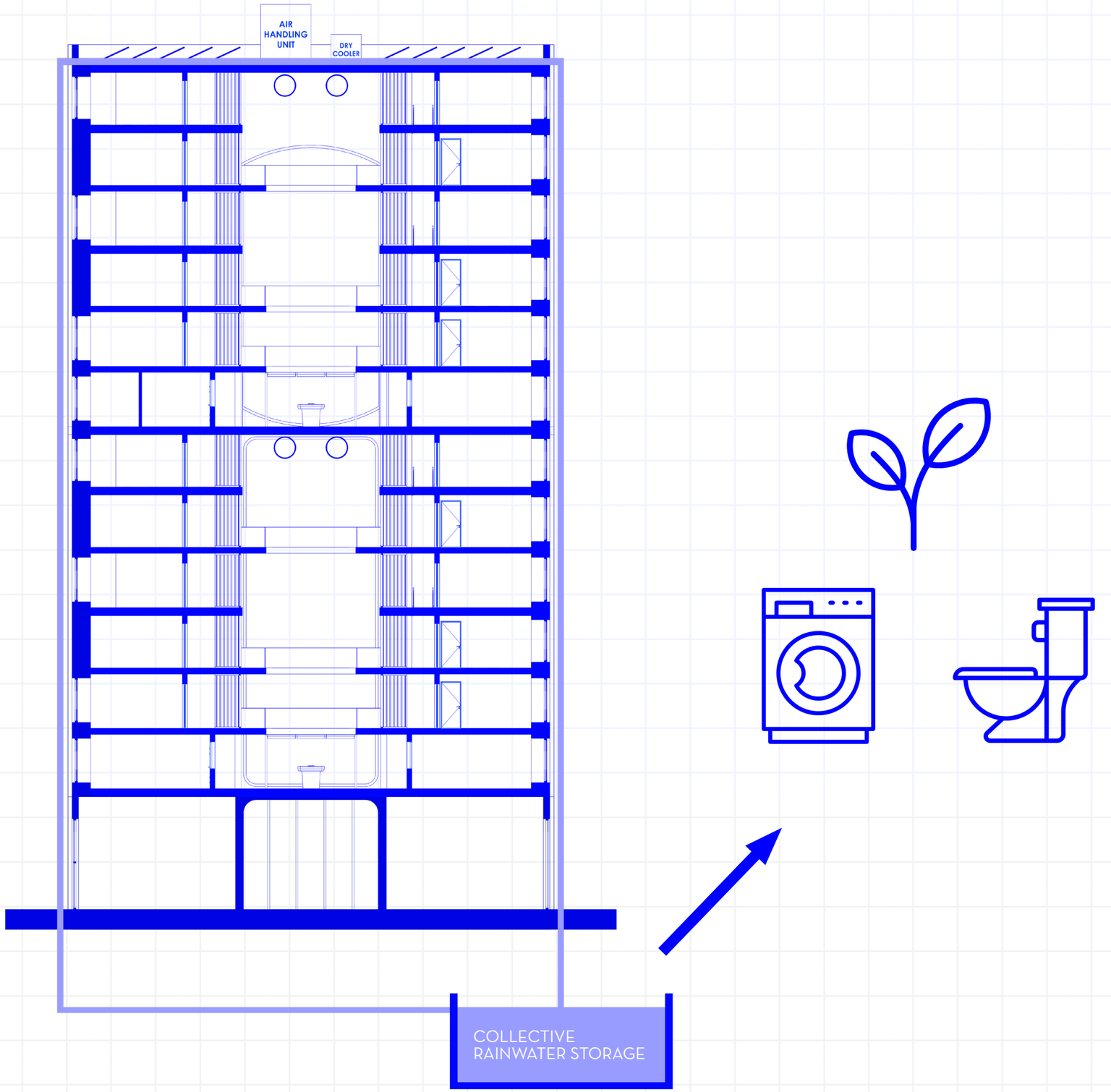
WALL CAVITY CREATES
THERMAL BUFFER ZONE

TIMBER FINS SERVING
AS VERTICAL LOUVRES



The Prototype

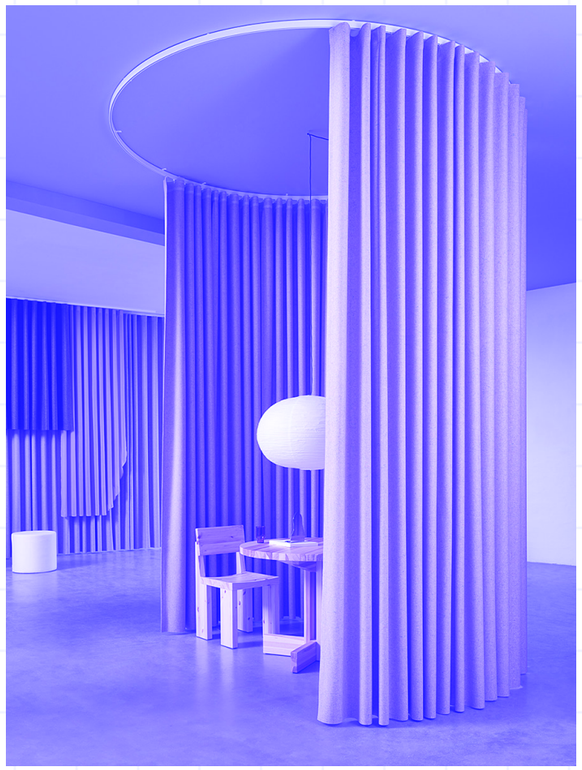
RAINWATER STORAGE



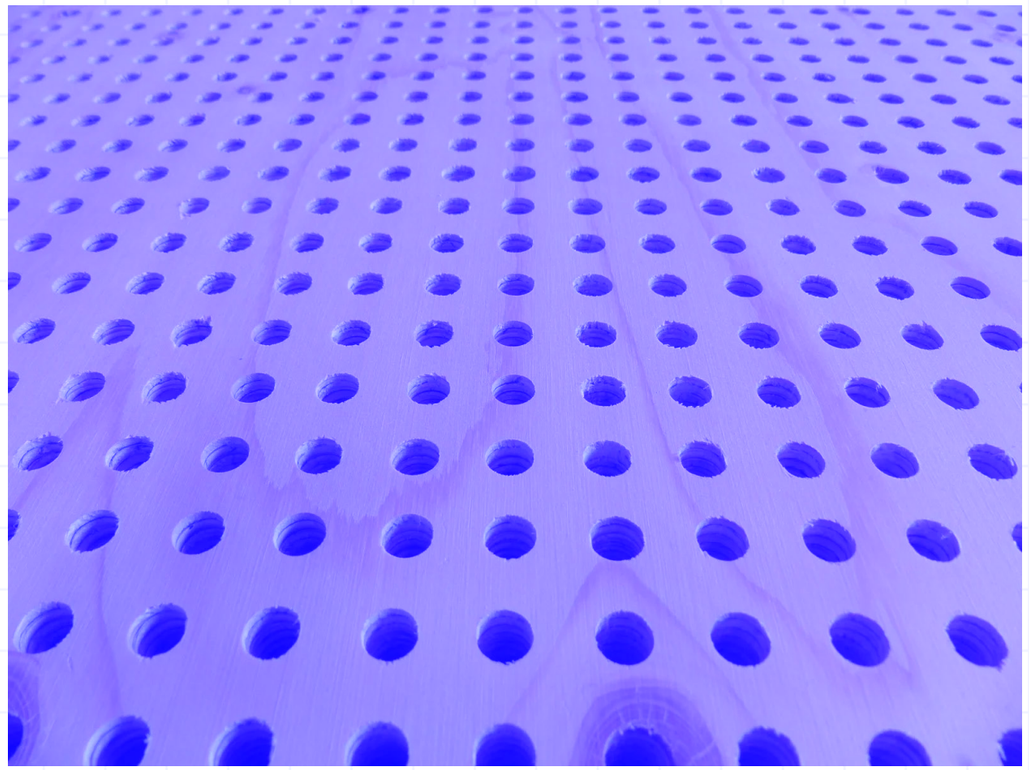
The Prototype

ACOUSTIC MEASURES

ACOUSTIC CURTAINS USED IN POCKET SPACES



PERFORATED WOODEN PANELS USED IN GALLERIES



ACOUSTIC ELEMENTS PLACED AGAINST CEILING



SOUND DAMPING FOR FREQUENCY 500 - 2000HZ (SPEECH LEVEL)

DESIGN EVALUATION

Design Evaluation

QUANTITATIVE ASSESSMENT

Level	Gross Floor Area (m2)	Number of Residents
Bicycle Parking	1,963	
Ground Floor + 1st Floor	Commercial plinth (exclud ed from GFA)	
2nd Floor	2,634	78
3rd Floor	1,953	60
4th Floor	1,953	60
5th Floor	1,665	60
6th Floor	1,953	60
7th Floor	1,665	60
8th Floor	2,874	72
9th Floor	1,953	60
10th Floor	1,953	60
11th Floor	2,225	66
12th Floor	1,953	60
13th Floor	1,761	60
14th Floor	1,433	46
15th Floor	1,302	40
16th Floor	1,206	40
17th Floor	555	20
18th Floor	651	20
19th Floor	555	20
Total	**32.207 m2**	**942 residents**
Average per resident	**34,2 m2**	

Design Evaluation

QUANTITATIVE ASSESSMENT

LITTLE MANHATTAN

31,5 M2

VS

THE THRESHOLD HOUSE

34,2 M2

Level	Gross Floor Area (m2)	Number of Residents
Bicycle Parking	1,963	
Ground Floor + 1st Floor	Commercial plinth (excluded from GFA)	
2nd Floor	2,634	78
3rd Floor	1,953	60
4th Floor	1,953	60
5th Floor	1,665	60
6th Floor	1,953	60
7th Floor	1,665	60
8th Floor	2,874	72
9th Floor	1,95	60
10th Floor	1,9	60
11th Floor	5	
12th Floor	53	
13th Floor	1,761	60
14th Floor	1,433	46
15th Floor	1,302	40
16th Floor	1,206	40
17th Floor	555	20
18th Floor	651	20
19th Floor	555	20
Total	**32.207 m2**	**942 residents**
Average per resident	**34,2 m2**	

A BLUEPRINT FOR COLLECTIVE URBAN LIFE

THANK YOU

