Gabriele Piazzo

OPEN & CLOSED
A PUBLIC SPACE IN ROTTERDAM AT THE BORDER CONDITION

Hotel New York Group

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2nd mentor   Sjap Holst
3rd mentor   Hrvoje Šmidihen
Board of Examiners delegate   Hendrik Ploeger

complex projects

22/01/2021

fall semester

INTRODUCTION
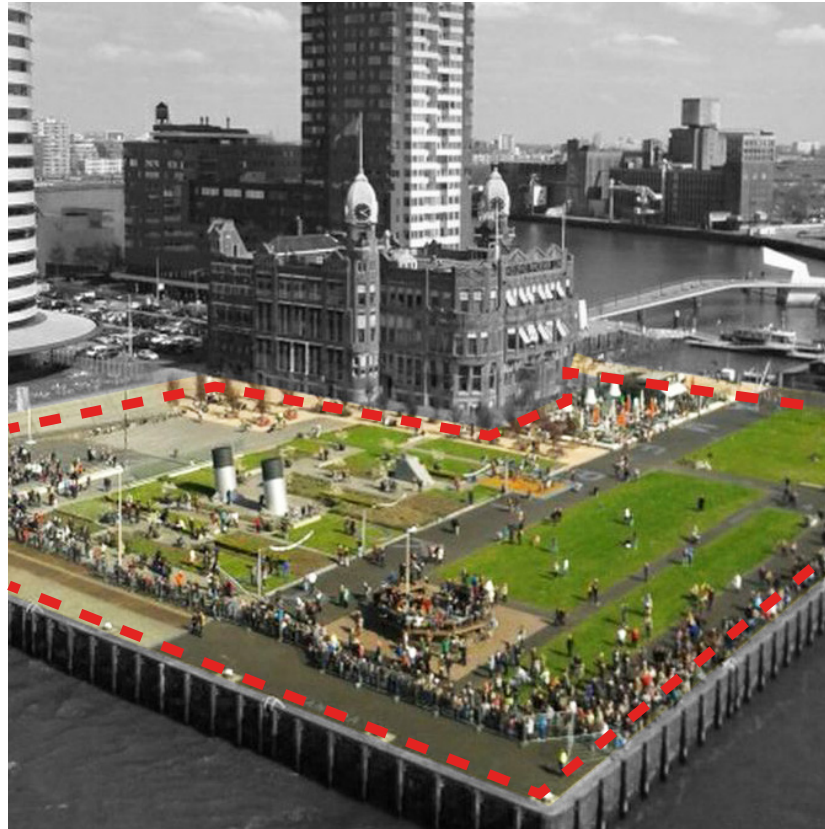
A GROWING SCALE

We are the Hotel New York group

IT IS GROWING...

Built environment size
From human scale

... AND GROWING

Built environment size
To tower scale

Introduction

MITIGATED BY THE PUBLIC SPACE

The use of the public space bring down to the human scale
It blurs the difference in size

# BECOMING MORE GLOBAL AND INTERNATIONAL CITY

Rotterdam wants to build 50,000 homes

Rotterdam is tightening up residential construction. The municipality wants to build no fewer than 50,000 homes, says alderman Robert Simons. The only question is where there is room for all those extra houses.

Antti Liukku 08/31/17, 7:30 AM   Last update: 07:31

New upcoming densification for the city centre of Rotterdam
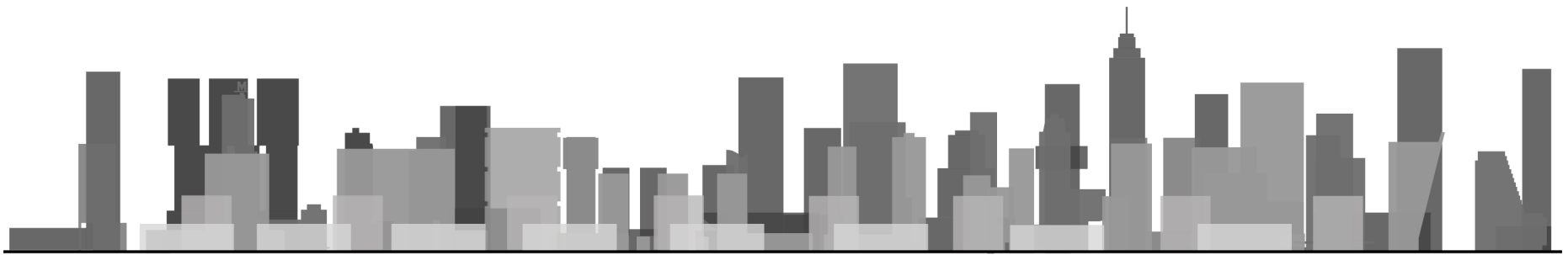
2040 HIGH-RISE STRATEGY OF ROTTERDAM
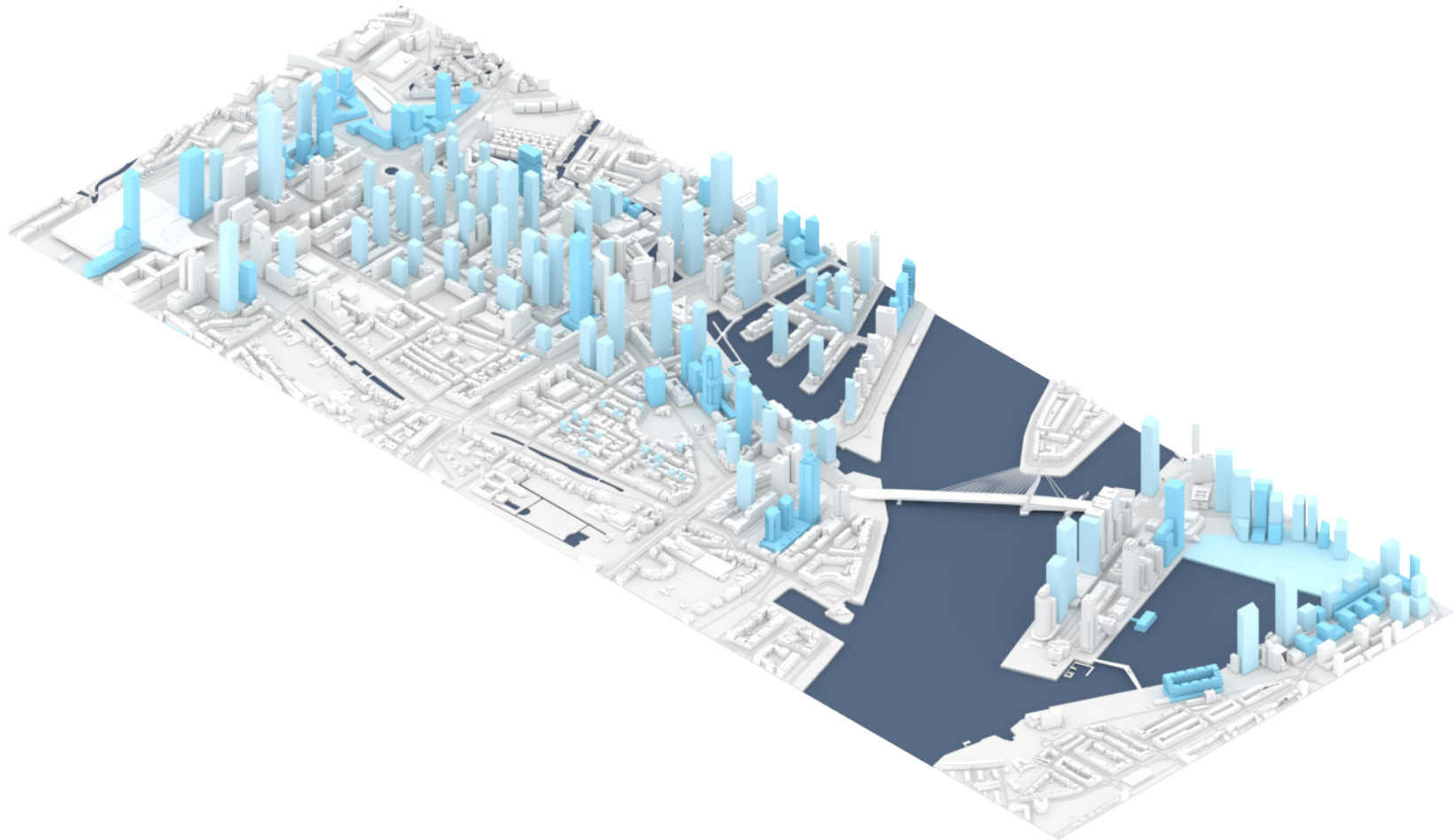
Municipality's vision
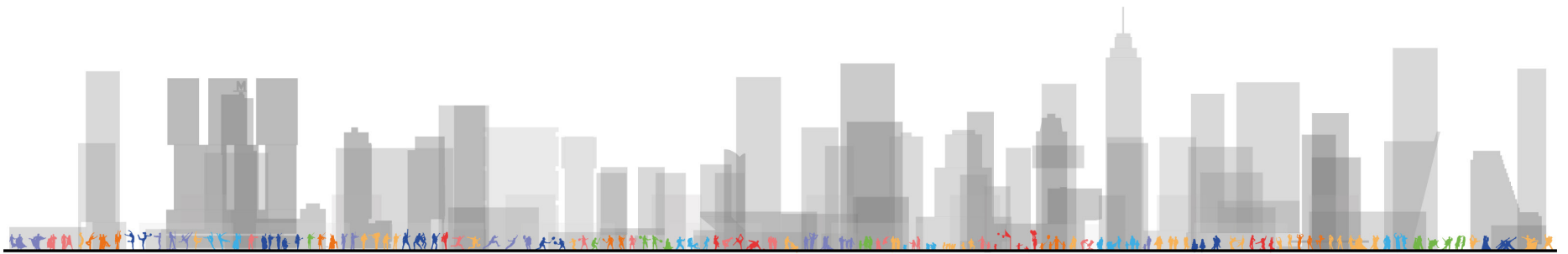New densification within the city center of Rotterdam

UP-COMING FUTURE?

Metropolis
by Fritz Langz, 1927

SKY-LINE

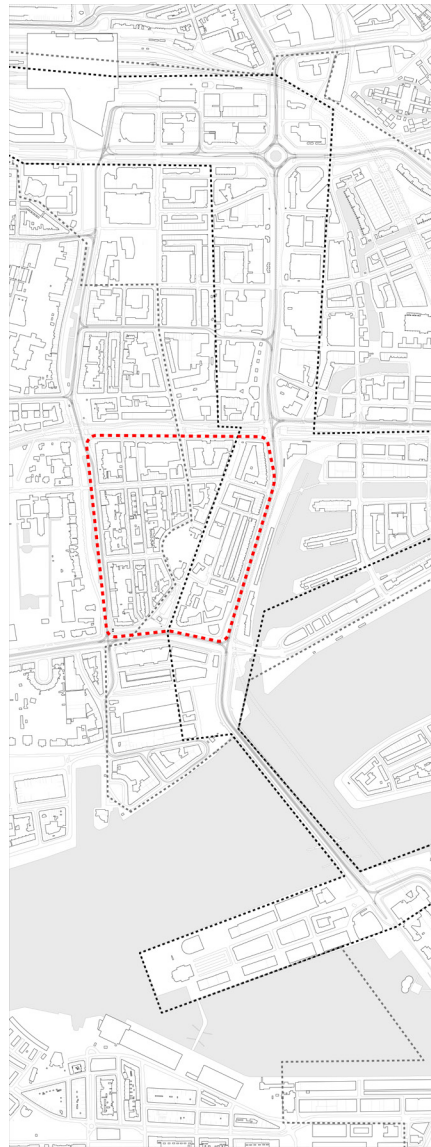The Municipality focuses on the skyline of the city

GROUND-LINE

OPEN & CLOSED acts on the floorscape or groundline of the city

RESEARCH QUESTION

How is public space going to be reconsidered within
the international character and the highrise strategy of Rotterdam?

AT THE BORDER OF THE HIGH-RISE STRATEGY

Cool Zuid | Baankwartier
Residential neighborhood // Location of the focus

UP-COMING HIGH-RISE DEVELOPMENTS

Maasbode
70 m

De Zalmhaven
215 m

Baantower
150 m

DWNTWN
70 m

The Cooltower
150 m

Residential towers

ARCHITECTURAL TOPIC

BORDER CONDITION

lowrise	I	HIGHRISE
history	I	FUTURE
intimate	I	DYNAMIC
human scale	I	SKYSCRAPER
neighborhood	I	CITY

Neighborhood paradox
Tension within the neighborhood

BORDER CONDITION
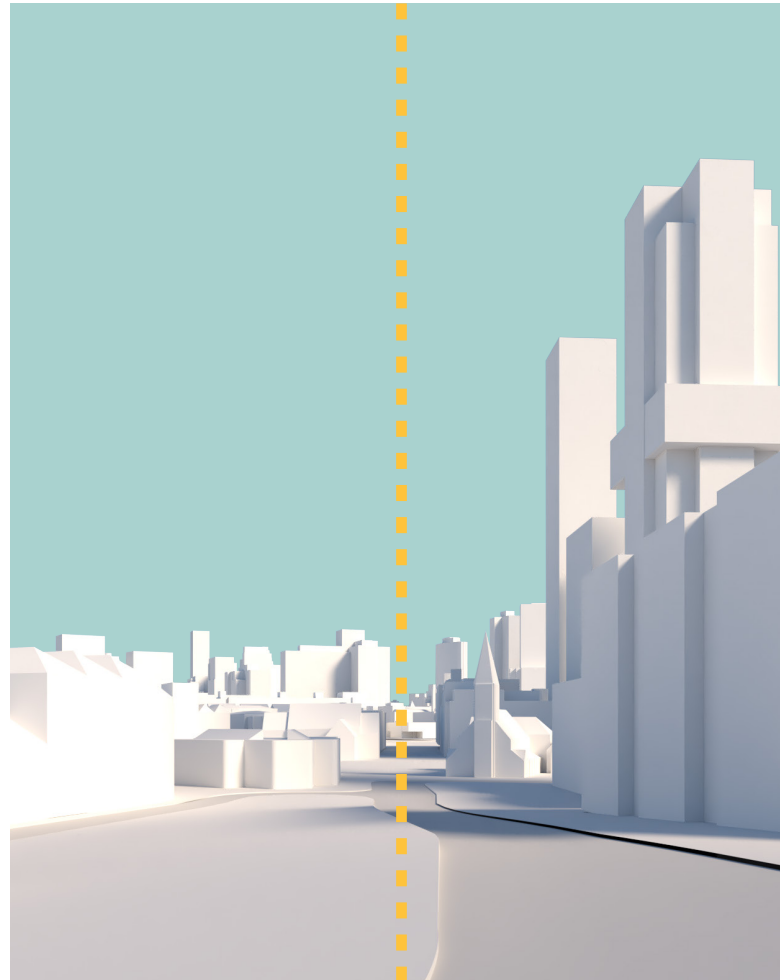
Neighborhood paradox
Tension within the neighborhood

MIGRATION

To explore the meaning of public space around the world

USE OF THE PUBLIC SPACE

IMPORTED

Playground in the sky
Mechanix Illustrated, New York 1957

Jan Prins en Willibrordusschool
Rotterdam 2008
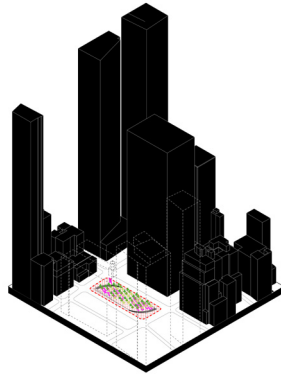

EXPORTED

Rockefeller Center Skating Rink
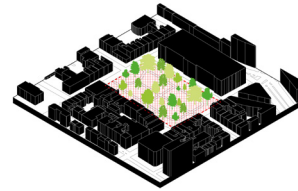New York 2018

Ice skiting at Voorhaven
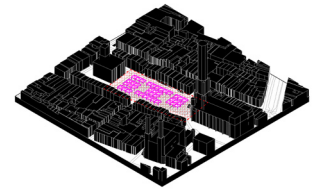Rotterdam 1985

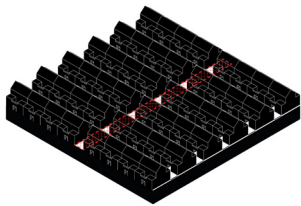# GLOBAL PUBLIC SPACE TYPOLOGIES
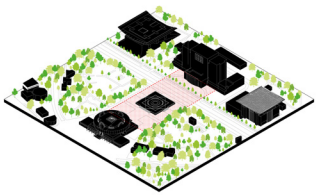
Communism
Square of Power

Metropolis
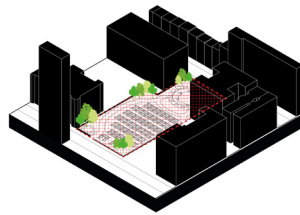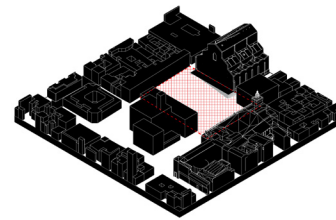Monumental building square

British
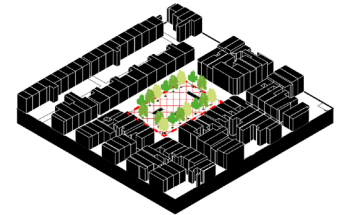Garden Square

Dutch
Market Square

Chinese
Shared outdoor Shikumen

American
Community Neighborhood

South European
Heart of the City

Dutch
Neighborhood Square

IN NORTHERN EUROPE

OPEN

CLOSED

+

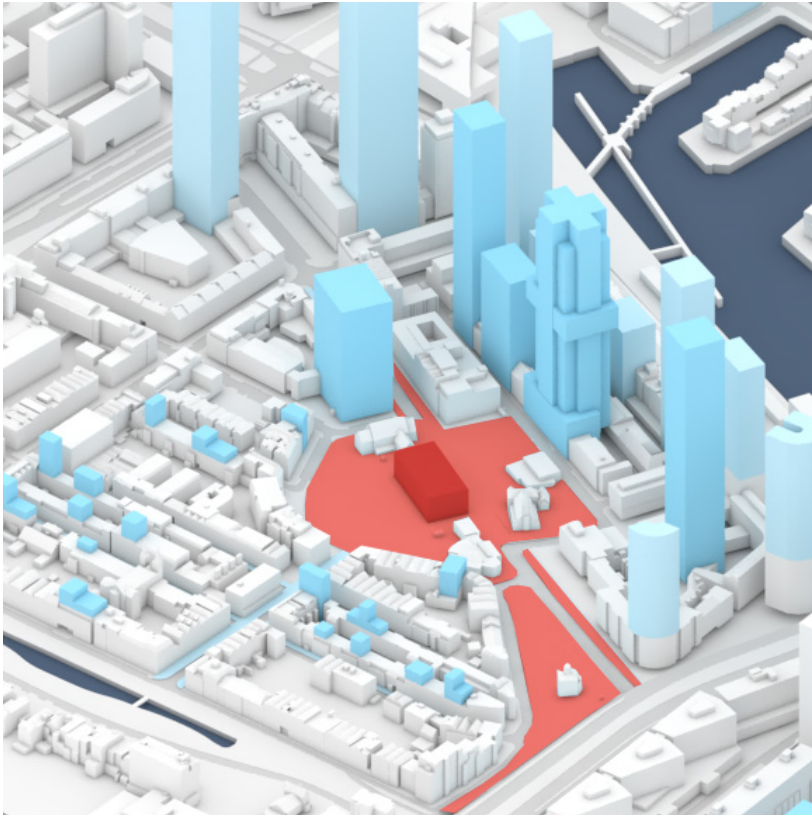The Fight Between Carnival and Lent
by Pieter Bruegel the Elder, 1559

Interior of the Cathedral in Antwerp
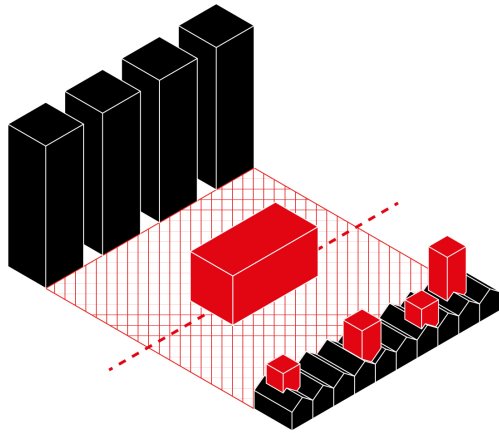by Pieter Neefs II and Frans Francken III, 1659

What could it be the future of this (public space) neighbourhood?
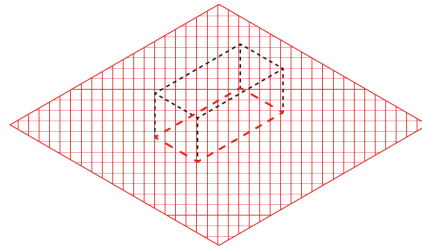A vision led by the OPEN & CLOSED public space

VISION OF THE NEIGHBORHOOD

The synergy of the OPEN & CLOSED public space as new catalyst.
Future densification at a different scale, preserving the human scale

HOW

Human scale

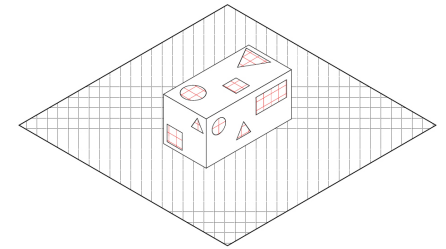Catalyst densification at a different scale preserving the human scale

OPEN & CLOSED public space

One synergic element
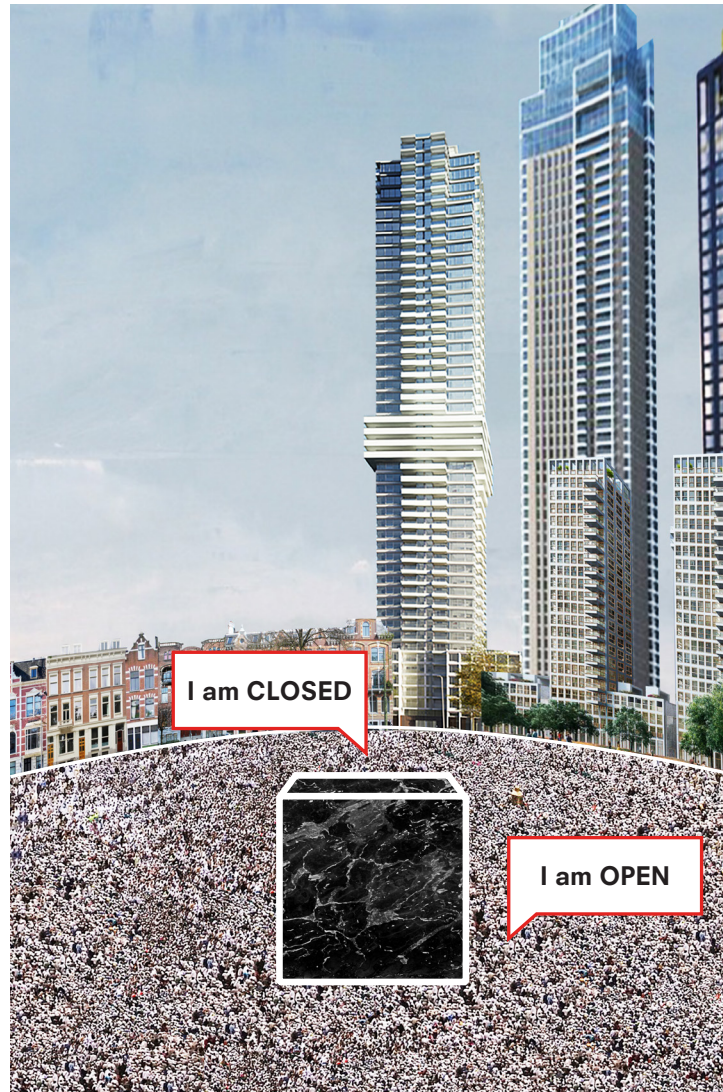
OPEN public space

Informality and no imposition of function, diversifing its purpose

CLOSED public space

Accessibility and visual relationship as Performing art center for the public life

WHAT THE PROJECT IS TRYING TO ACHIEVE?

Synergy

AMBITION

The **Open & Closed public space** as meeting point for the history and the future **densification at different scales**, of both Rotterdam and the neighborhood, blurring the border condition and preserving the **human scale**
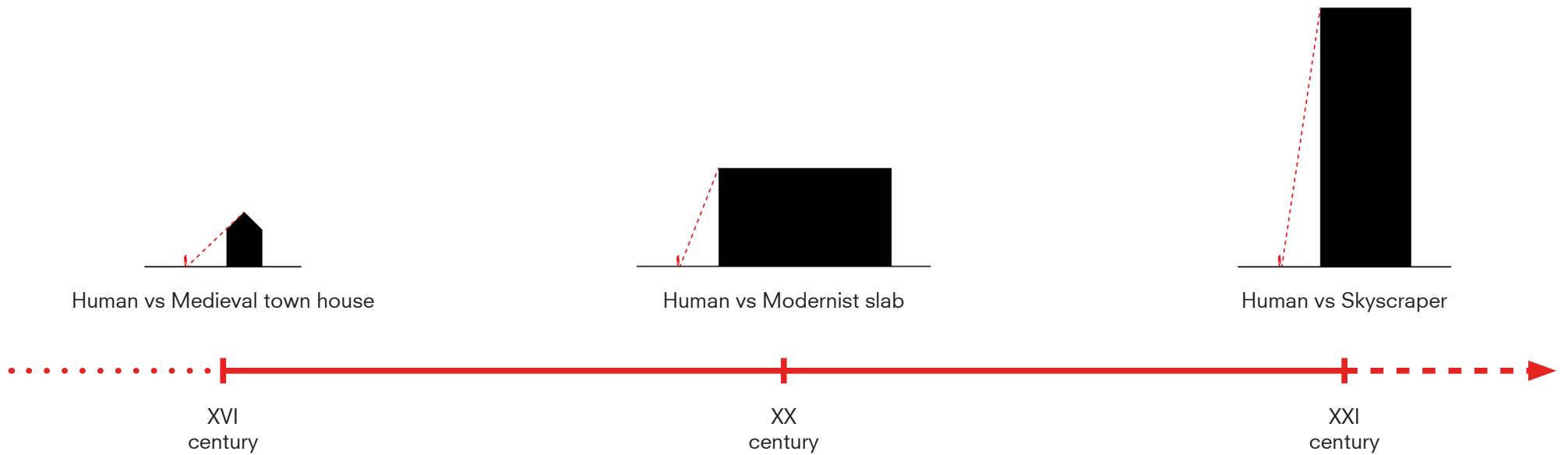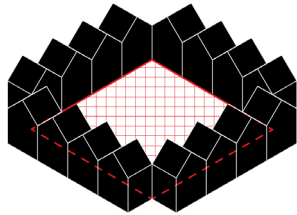
AMBITION

RESEARCH

The historical evolution of Rotterdam in relation to and around
the public space which always had a functional and fixed purpose
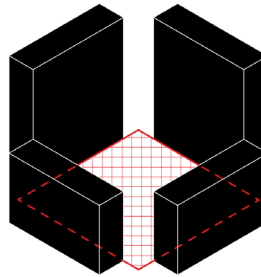
MORE AND MORE DISTANCE FROM THE HUMAN SCALE

Human vs Medieval town house

Human vs Modernist slab

Human vs Skyscraper

XVI
century
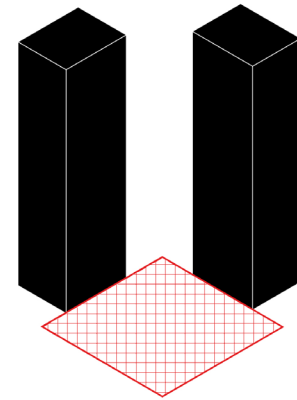
XX
century

XXI
century

Evolution of the built environment
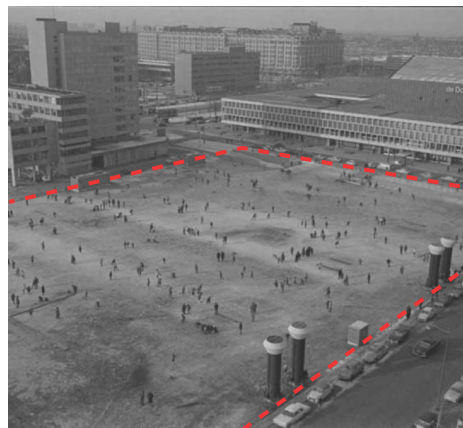
PUBLIC SPACE THROUGH TIME

Market square

Rationalist open-air space

Monumental open space

De Rotterdamse Nieuwe Markt
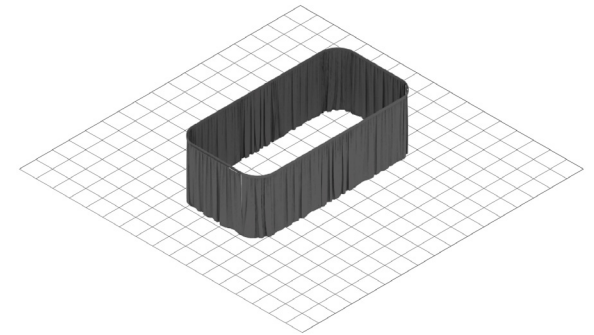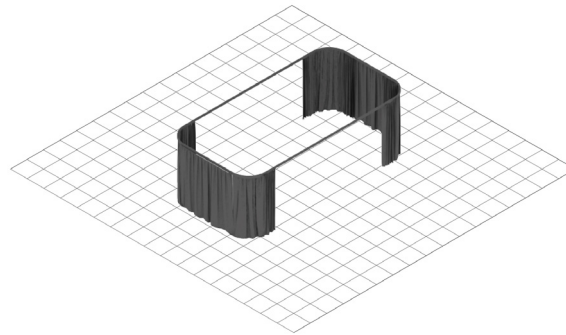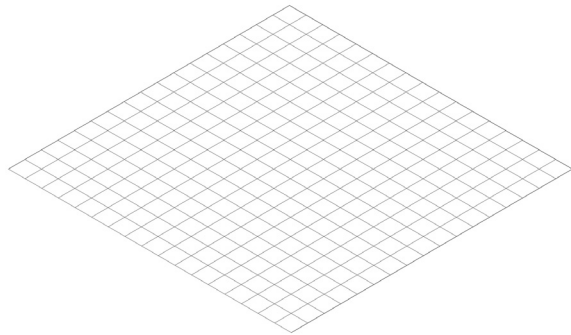

Schouwburgplein
1967

Cool Tower
2021

Evolution of the public space in Rotterdam

The public space reflects social and economical aspects of its country.

However, Rotterdam becaming more and more global and international city,
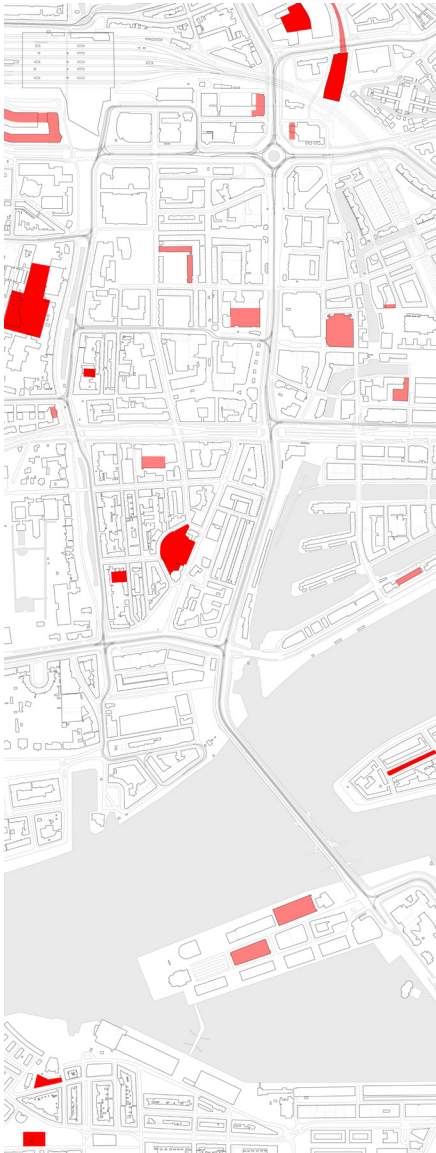it will need a **more informal** and **less functional** type of public space

OPEN & CLOSED PUBLIC SPACE

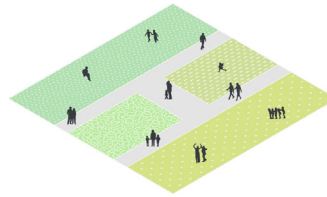# OPEN & CLOSED PUBLIC SPACE

As a curtain to wrap the urban life
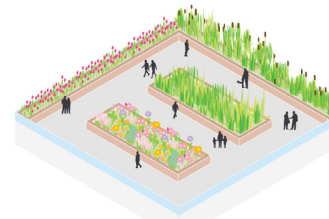
OPEN PUBLIC SPACE IN ROTTERDAM
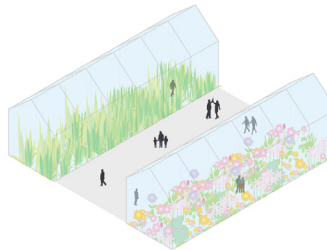

OPEN public space

Education garden

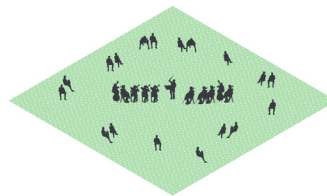Urban agriculture roof

Playground

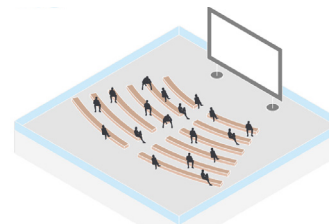
Urban agriculture

Leisure roof
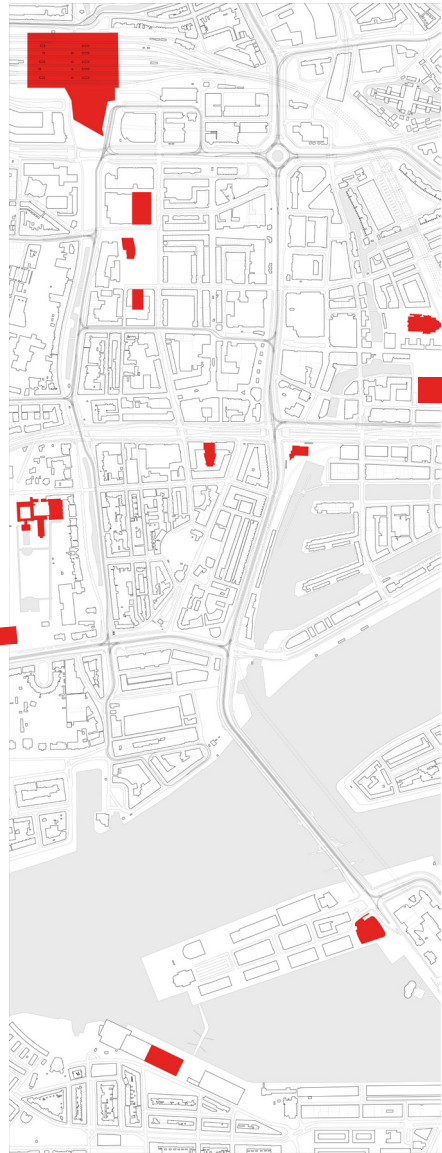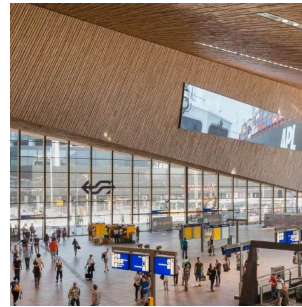

Sport field

Event garden

Event roof

Street culture

CLOSED PUBLIC SPACE IN ROTTERDAM

CLOSED public space

Rotterdam Central Station

Central Library

Markthal

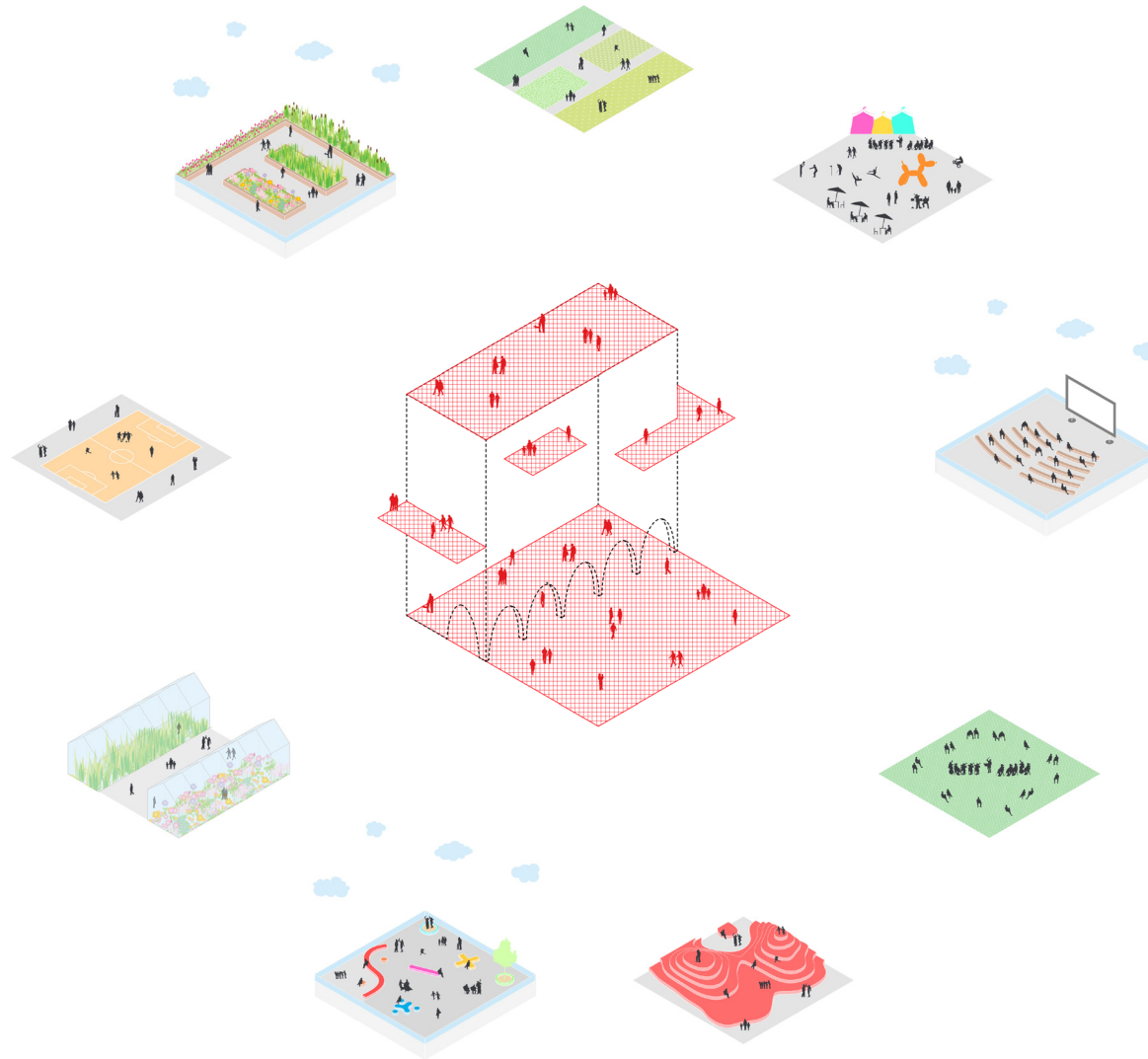Fenix Food Factory

Depot Boijmans
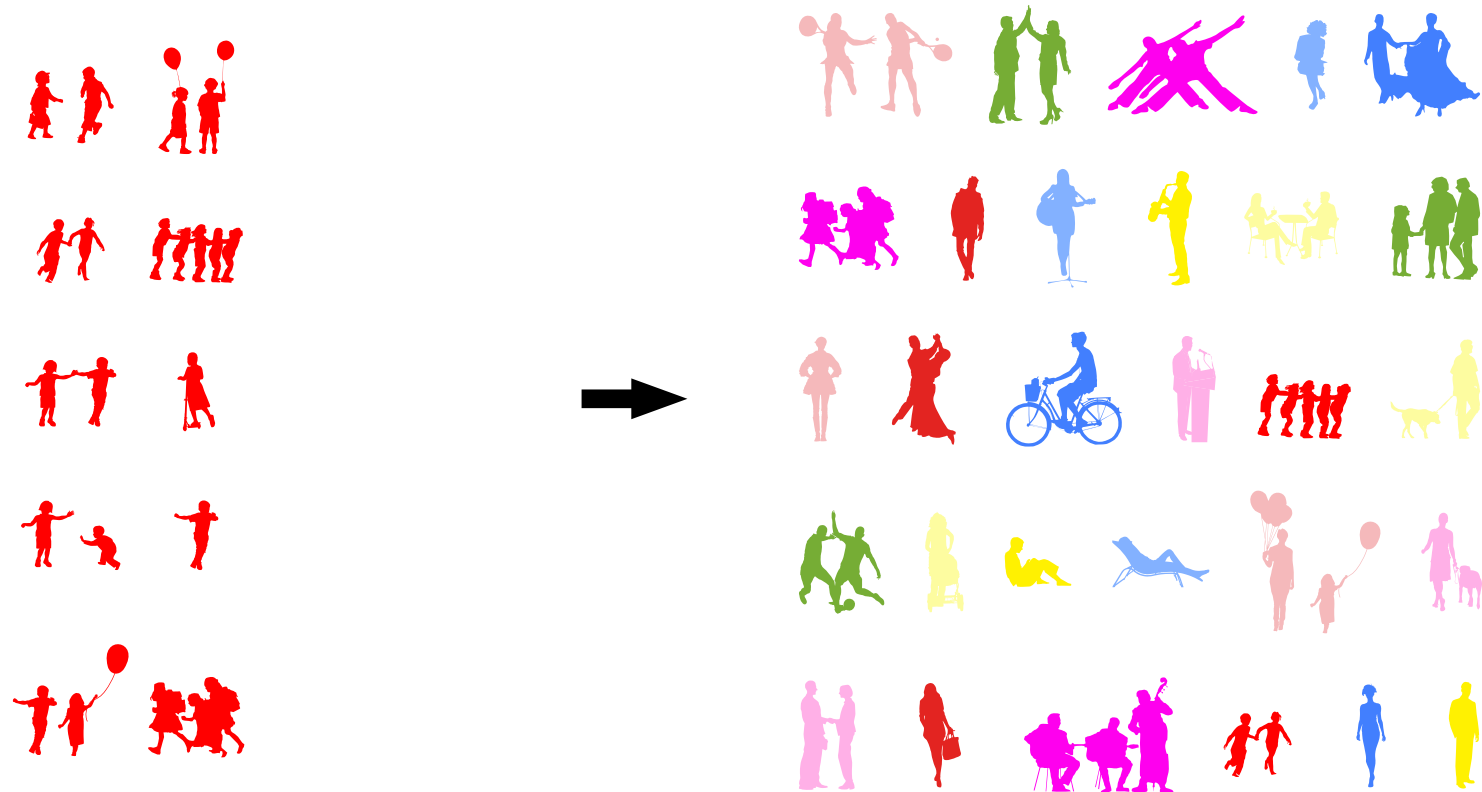

Kunsthal

DESIGN BRIEF

OPEN & CLOSED PUBLIC SPACE AS ONE SYSTEM

The two have to co-exist as one synergic system

FROM FIXED MONO-PROGRAM TO MULTI-INFORMALITY CHARACTER

New informal activities city square. Multi-purpose public space
Diversifing the uses and users

A NEW PERFORMING ART CENTER
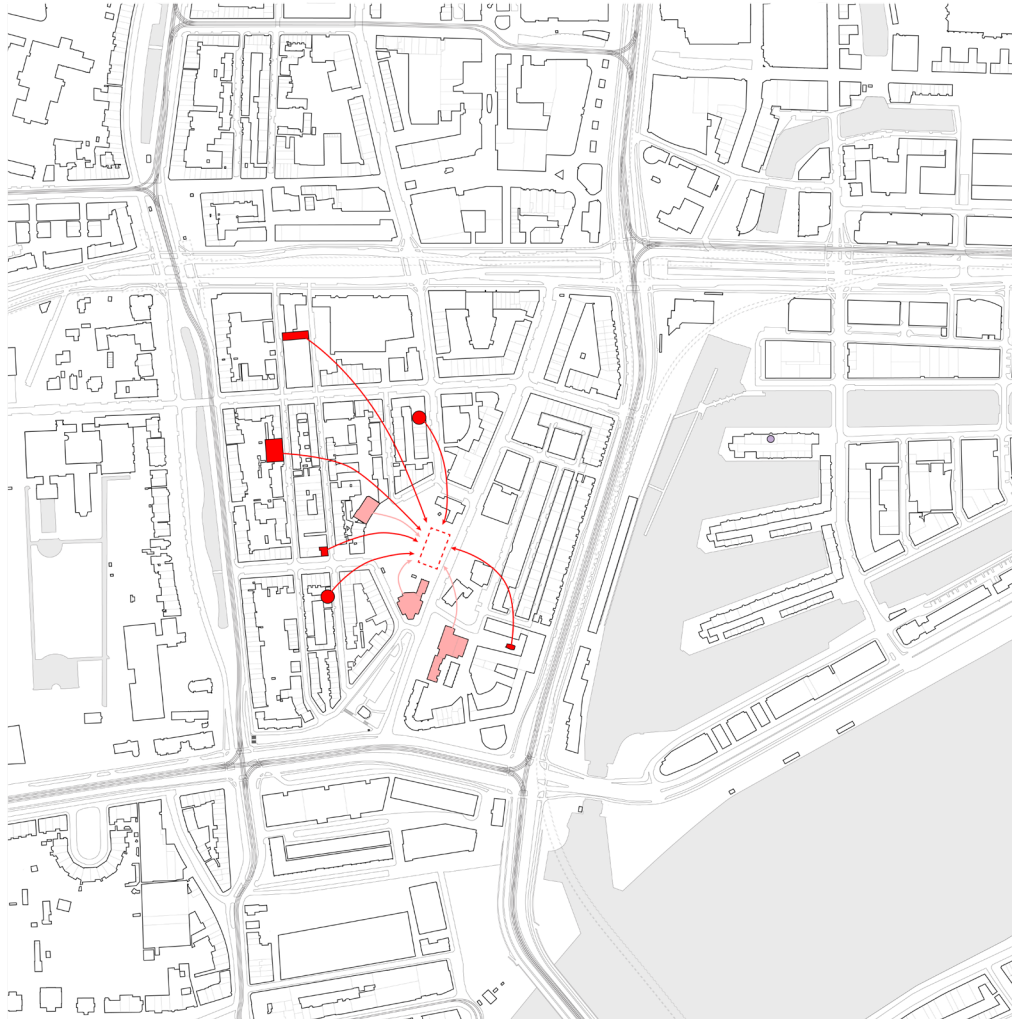

Dancers

Evites Ballet

Dansschool Bellyssima

Foundation Scapino Ballet

Actors

Stichting Theater op Katendrecht

Musicians

Zanglesrotterdam

Maciej Domaradzki

Students

Rotterdamse Schoolvereniging

Elementary School Landje

Basisschool het Landje

Rotterdammers

From the city

Future international inhabitants

The CLOSED public space will highlight the artistic character of the Cool Zuid by providing a new place to serve the active cultural neighbors, new opportunity for the primary students and Rotterdammers

VISION LED BY THE OPEN & CLOSED PUBLIC SPACE
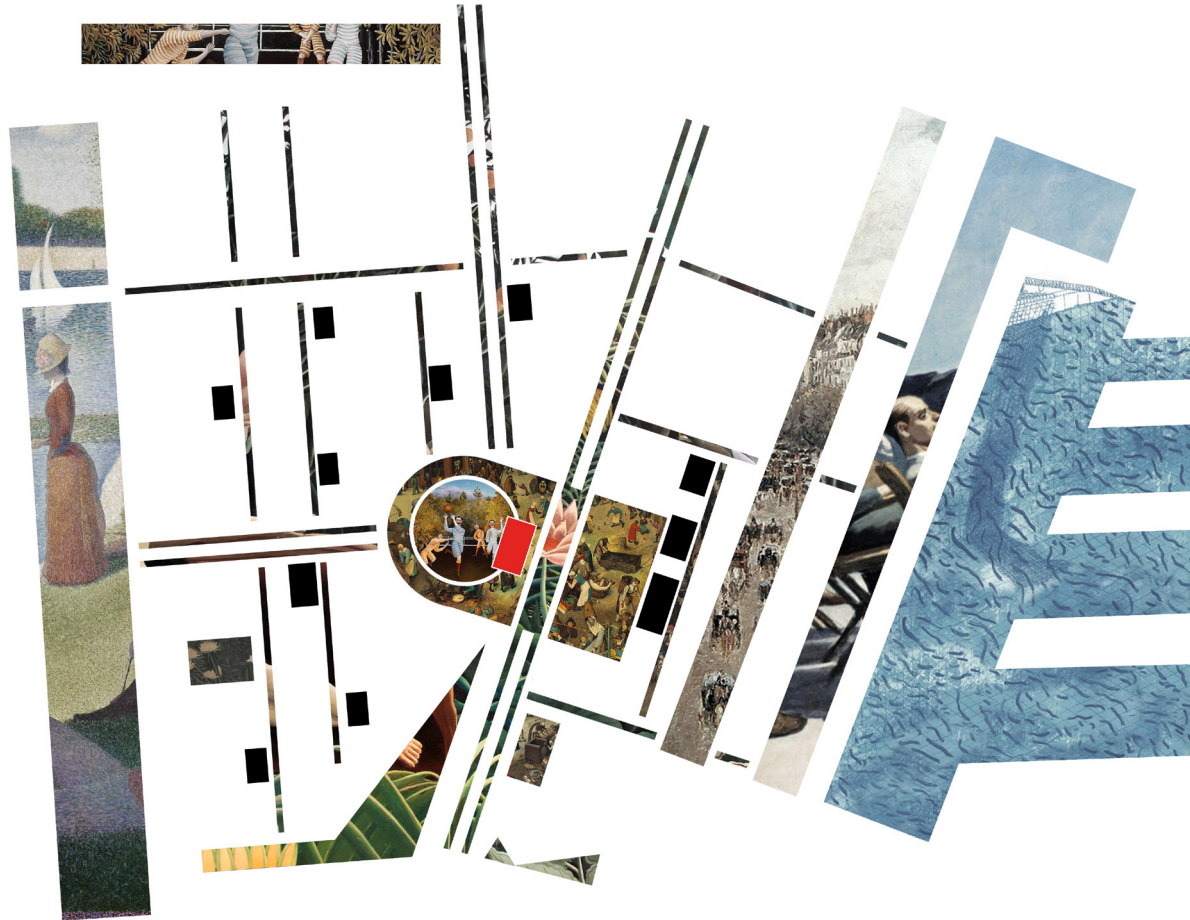
The vision will grow and connect the neighborhood

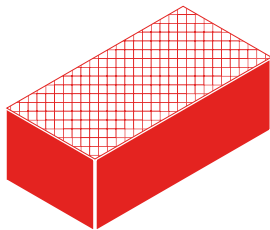# VISION LED BY THE OPEN & CLOSED PUBLIC SPACE

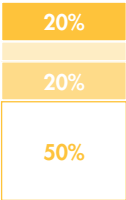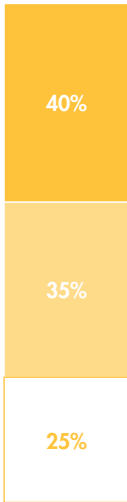**Urban plaza**   +   **Playground**   +   **Linear Street Park**   +   **Green park**   +   **Performing arts center**

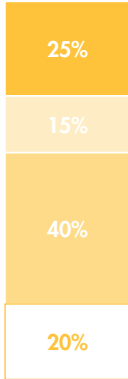|				
20%	40%	30%	25%	20%
20%	35%	20%	15%	17%
50%	25%	50%	40%	17%
			20%	20%
				20%
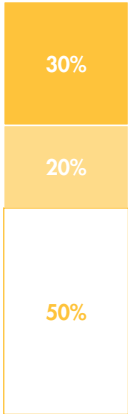
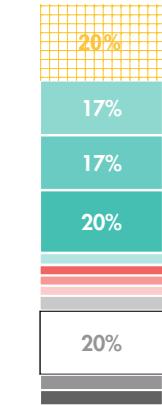**3500 m²** + **7800 m²** + **6500 m²** + **6200 m²** + **1500 + 6500 m²** = **32000 m²**
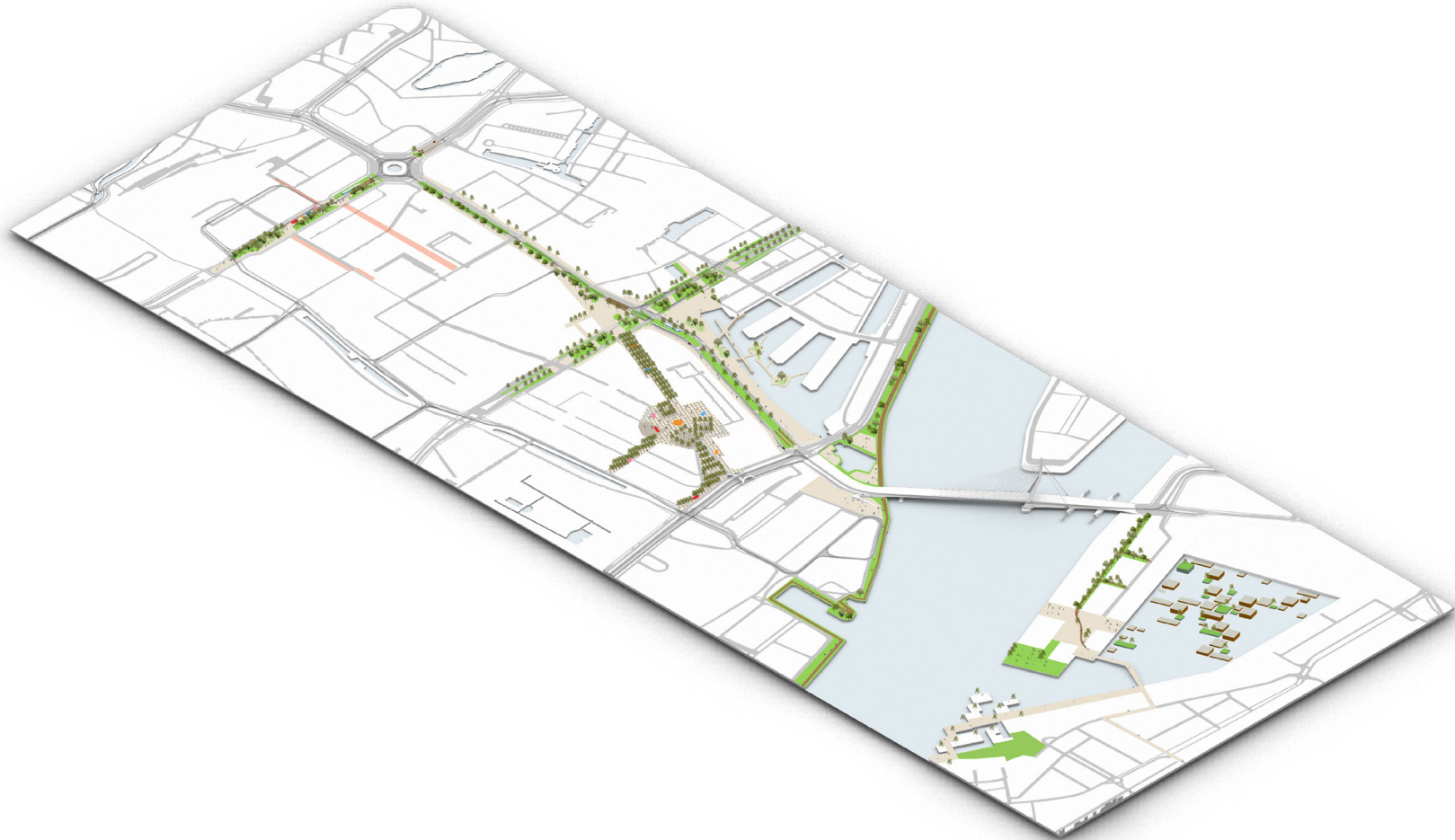
HNY GROUP VISION

GROUP VISION

North - South connection
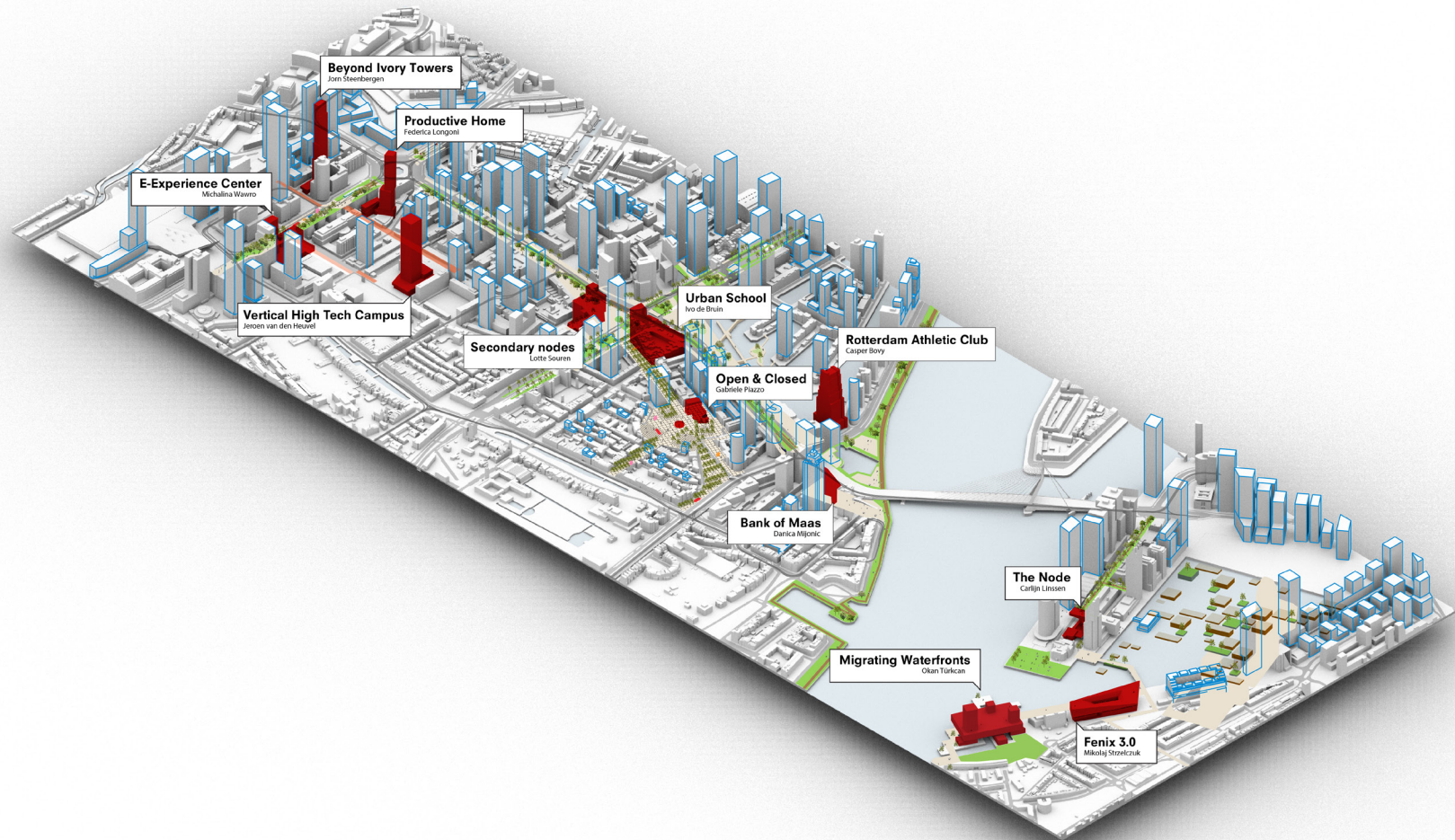Along the High-rise strategy proposed by the Municipality

GROUP VISION

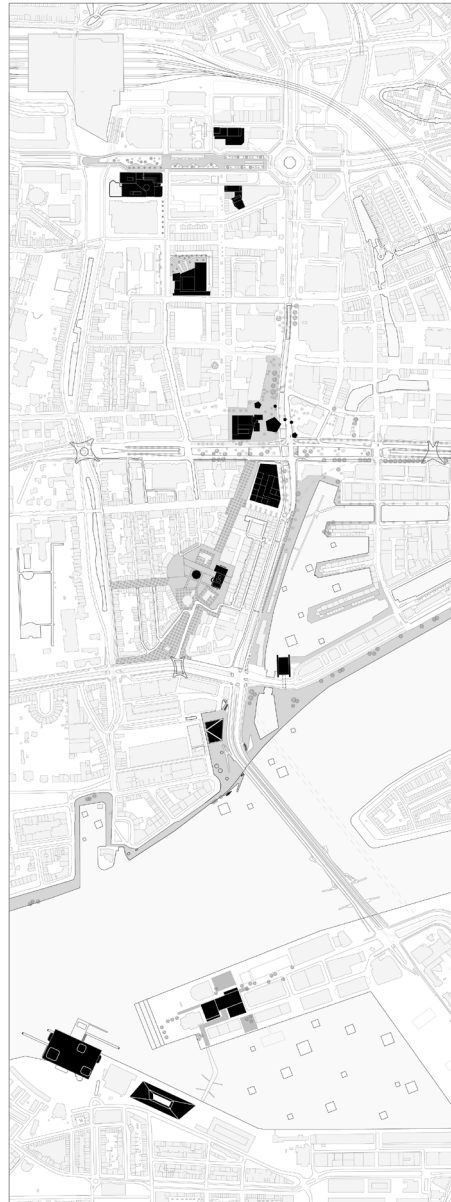Envisioned a stronger connection of public spaces along the High-rise vision of Rotterdam

Future

GROUP VISION

Beyond Ivory Towers
Jorn Steenbergen

Productive Home
Federica Longoni

E-Experience Center
Michalina Wawro

Vertical High Tech Campus
Jeroen van den Heuvel

Urban School
Ivo de Bruin

Secondary nodes
Lotte Souren

Rotterdam Athletic Club
Casper Bovy

Open & Closed
Gabriele Piazzo

Bank of Maas
Danica Mijonic

The Node
Carlijn Linssen

Migrating Waterfronts
Okan Türkcan

Fenix 3.0
Mikolaj Strzelczuk

Empowered by punctual interventions

GROUP VISION

0m   500m

NEW BEURS NODE

Beurs metro-station ....

Urban school ....

Boijmans Museum
Van Beuningen ....

Museumpark ....

Kunsthal Museum ....

Rotterdam Athletic Club ....

Bank Maas ....

Open & Closed

0m   500m
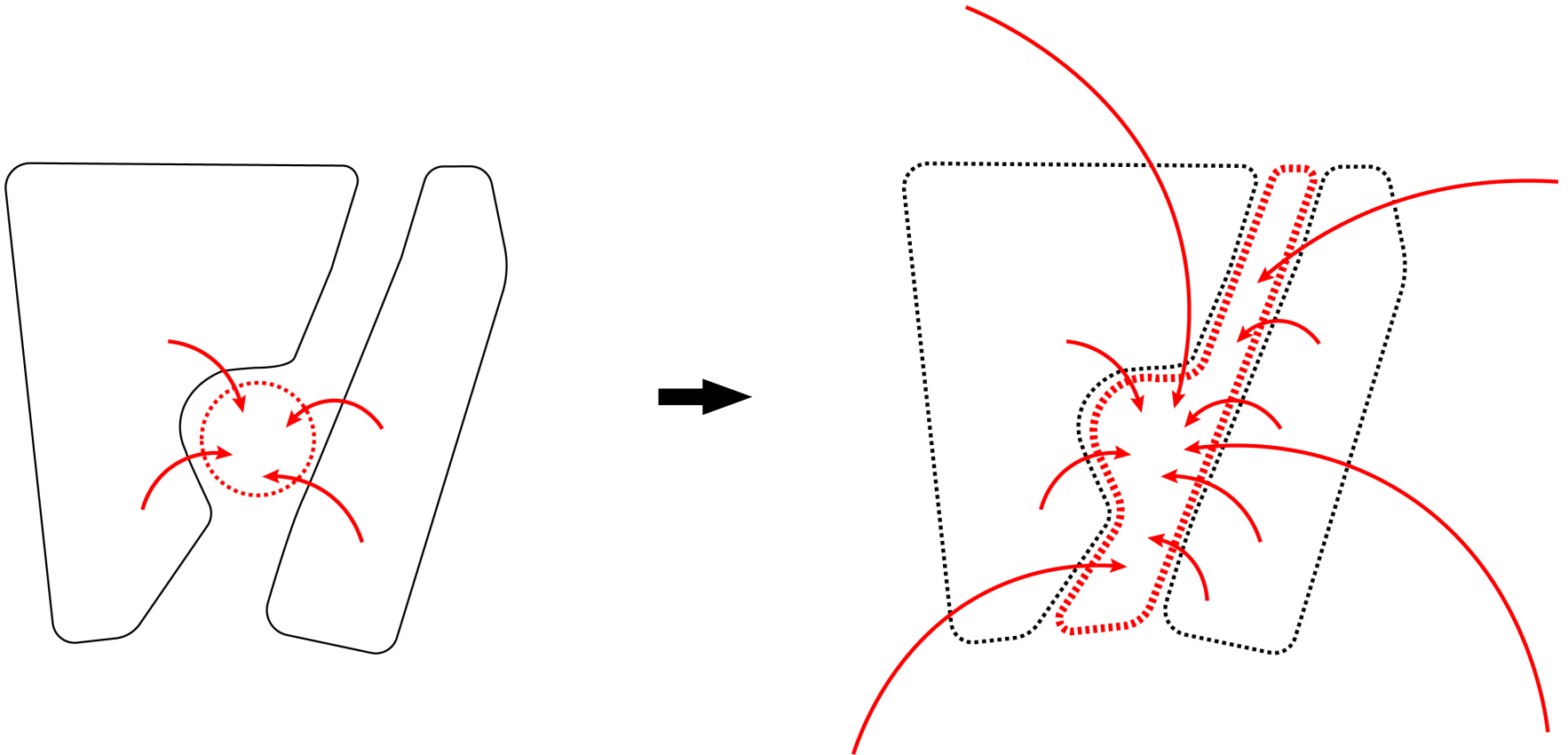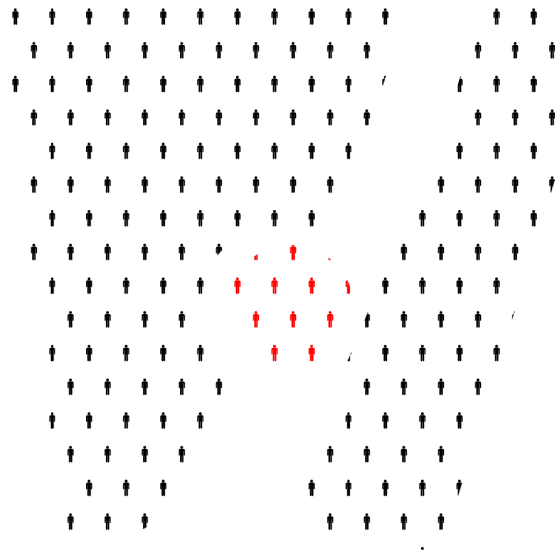
A more more pedestrian friendly area.
The new metro station of Beurs as catalyst for new highrise residential developments and new amenities for the city.
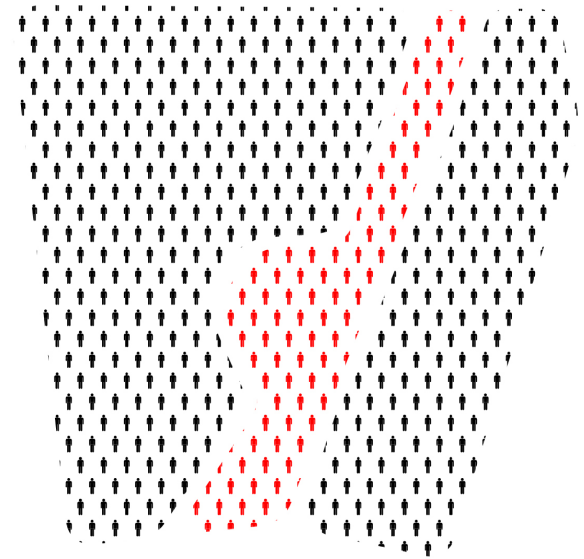
ENGAGING THE CITY

The border condition is blurred
Now the neighborhood is able to engage a relationship with the city.
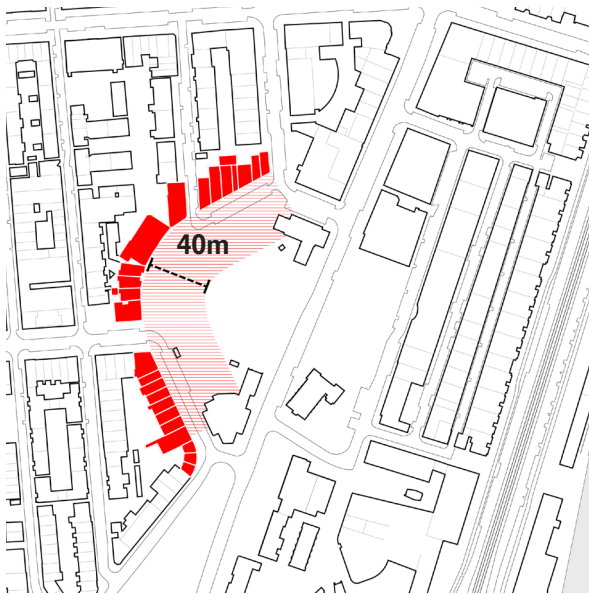
RESULT OF DENSIFICATION

1400 Dwellings

4000 Dwellings

A DESIGN JOURNEY

SITE CONSTRAINTS

URBAN PARAMETERS
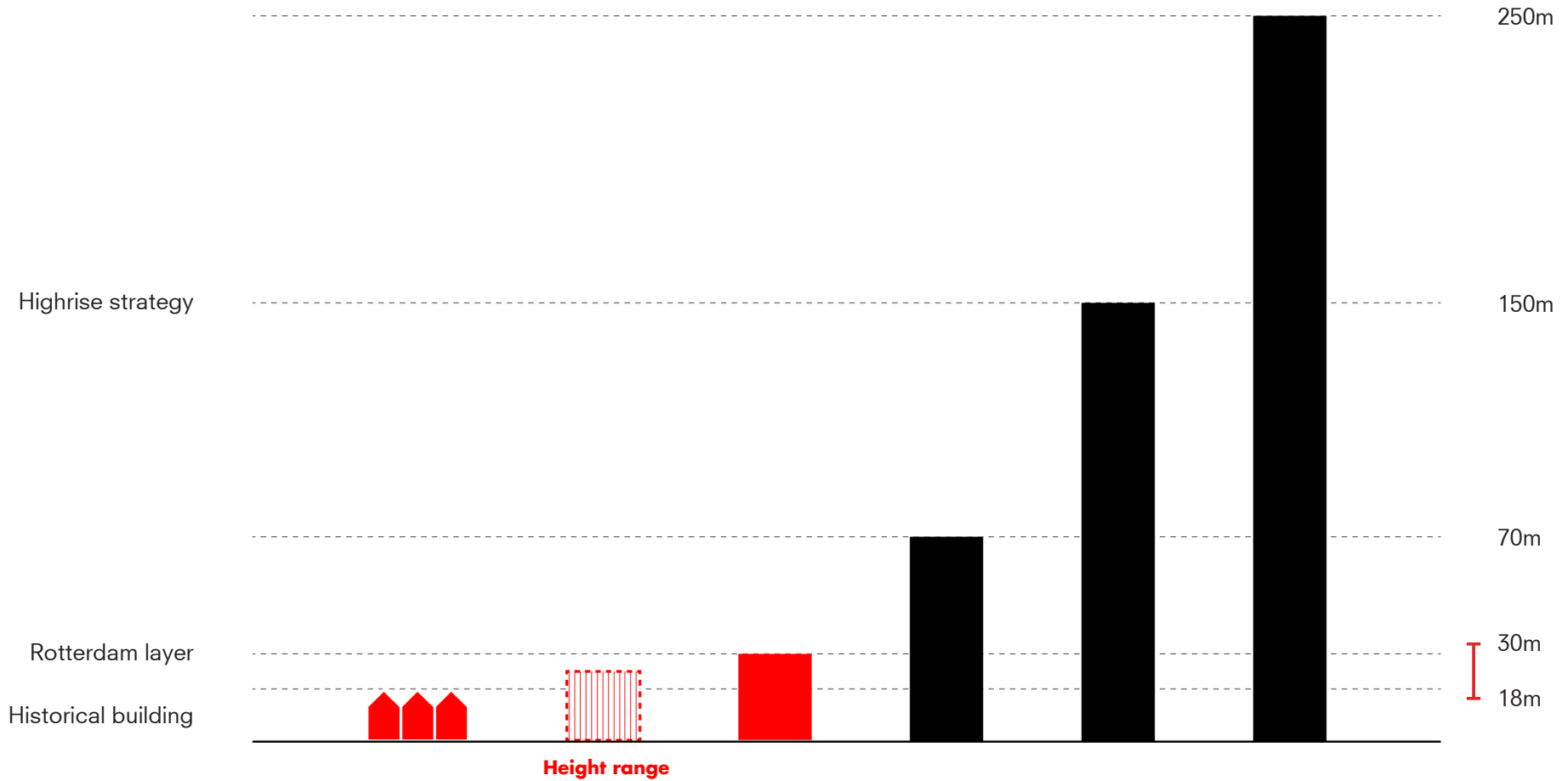

Historical curved facade as theatrical backdrop

Offset from objects

Result

HEIGHT SETTINGS

Highrise strategy

Rotterdam layer

Historical building

Height range

250m

150m

70m

30m

18m

The height of the building will range between the Rotterdam layer and
the historical building height in order to maintain the human scale
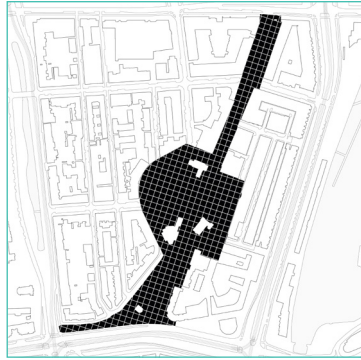
PRELIMINARY STUDIES

Conceiving the OPEN & CLOSED as one system

FLOORSCAPE & MASSING RELATIONSHIP

01 Strips

02 Square

03 Impact

04 Curves
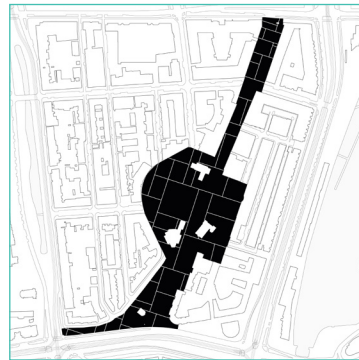

05 Polars

06 Streets

07 History Canal
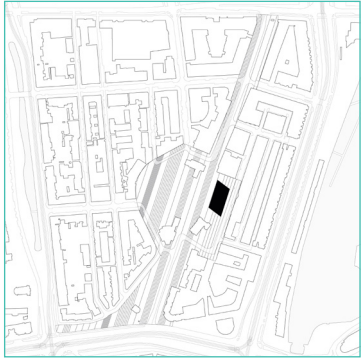

08 Patchwork

09 Offset

10 Dots

OPEN public space

FLOORSCAPE & MASSING RELATIONSHIP
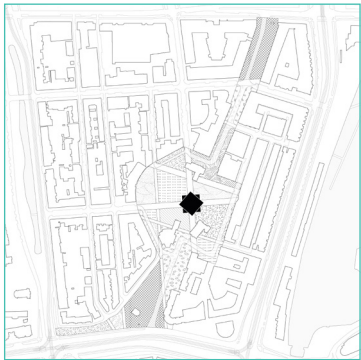

01 Strips

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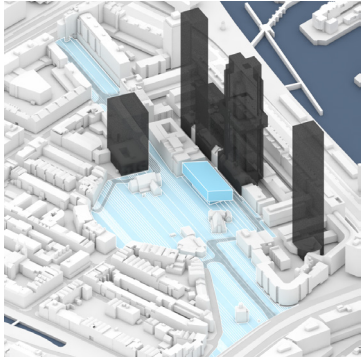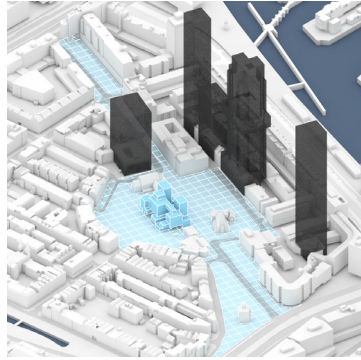

07 History Canal

08 Patchwork

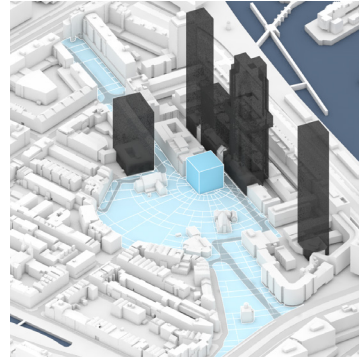09 Offset

10 Dots

CLOSED public space

MASSING & FLOORSCAPE RELATIONSHIP
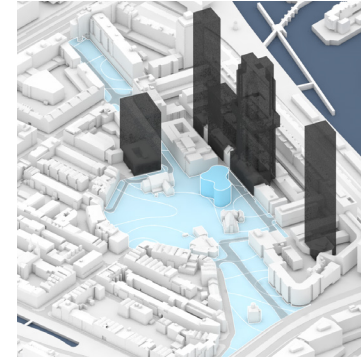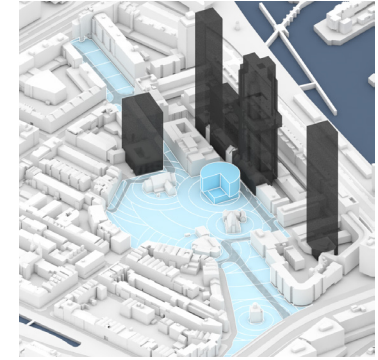

01 Strips

02 Square
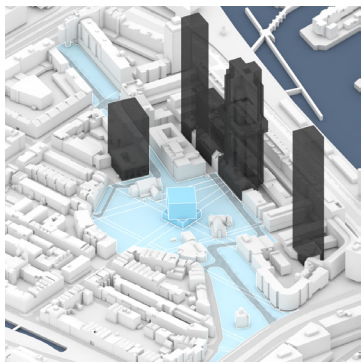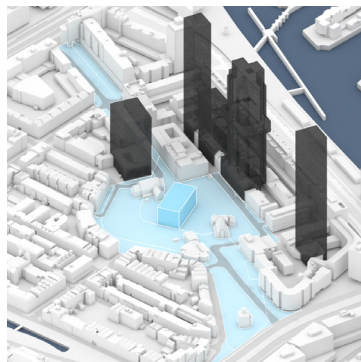

03 Impact

04 Curves
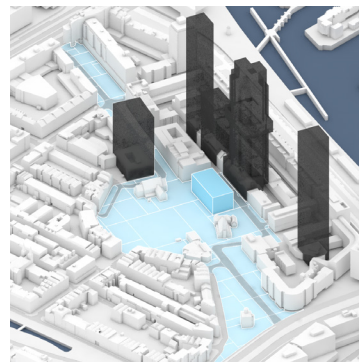

05 Polars

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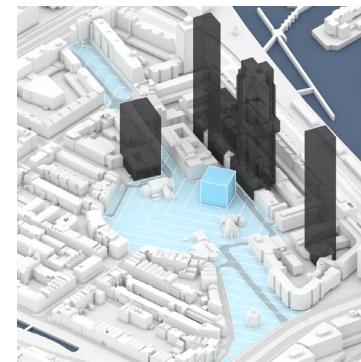
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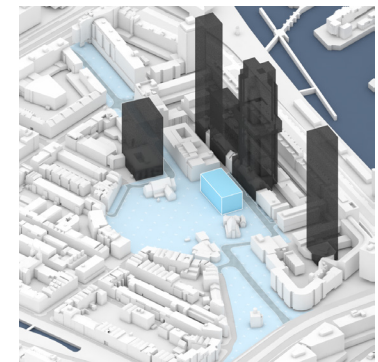
10 Dots

OPEN & CLOSED public space

OPEN PUBLIC SPACE

Floorscape

PRINCIPLES

OPEN & CLOSED PUBLIC SPACE RELATIONSHIP
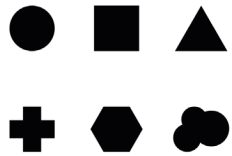
Pure or sculptural shape
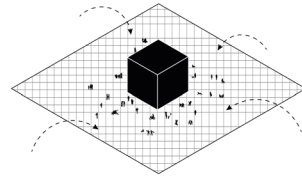
Multiple accesses
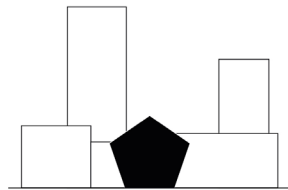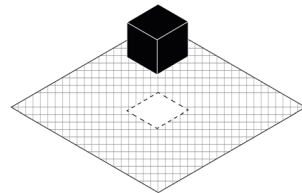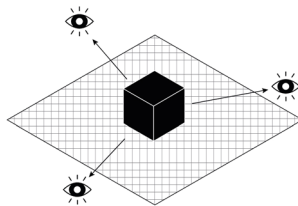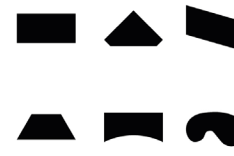
Extended shape

Main entrance

Recognizable

Lifted up

Urban fabric

On top

Outward-looking

Inward-looking

CENTRAL
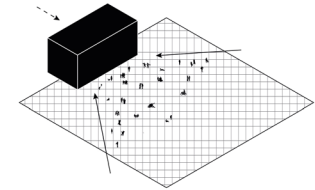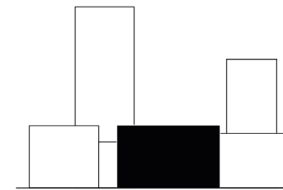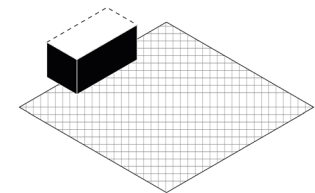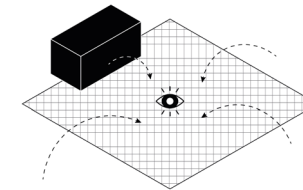
LATERAL

INWARD-LOOKING

Two facades as scenography
Piazza del Campo, Siena

INWARD-LOOKING

Two facades as scenography

INWARD-LOOKING

Two facades as scenography
A new dialogue

INWARD-LOOKING

Two facades as scenography
A new dialogue

COMPOSITION

CLOSED PUBLIC SPACE
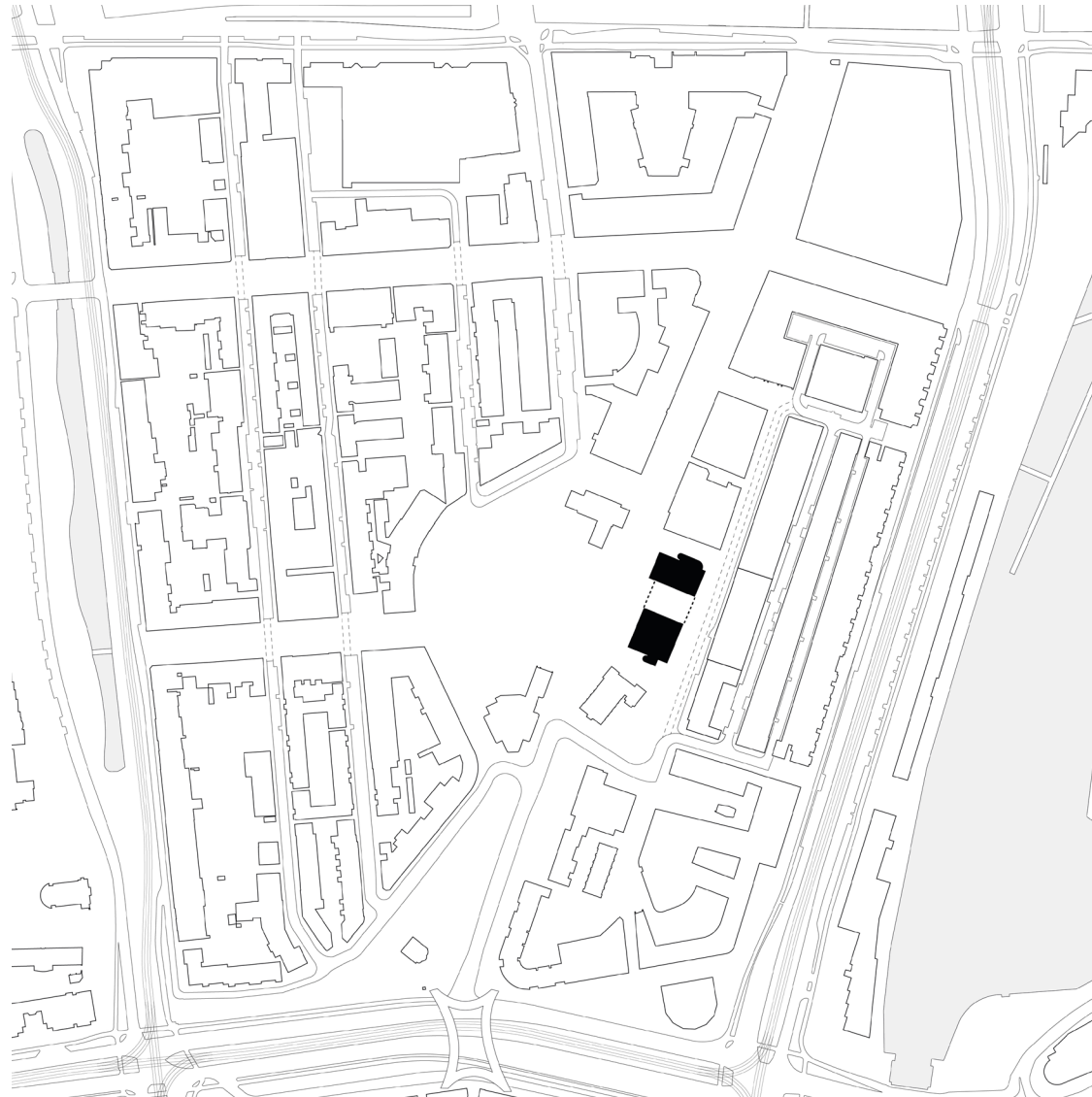
At the side of the Open public space

MAIN GRID ORIENTATION

The CLOSED public space follows the urban fabric
generating a main grid orientation for a new pedestrian-friendly area

OBJECTS IN THE OPEN PUBLIC SPACE

Schiedamsesingel
Historical curved facades

OBS het Landje
Primary school

Alexander Nevskikerk
Russian Orthodox Church

Scots International Church
Scottish Church

Waalse Kerk
Wallonian Church
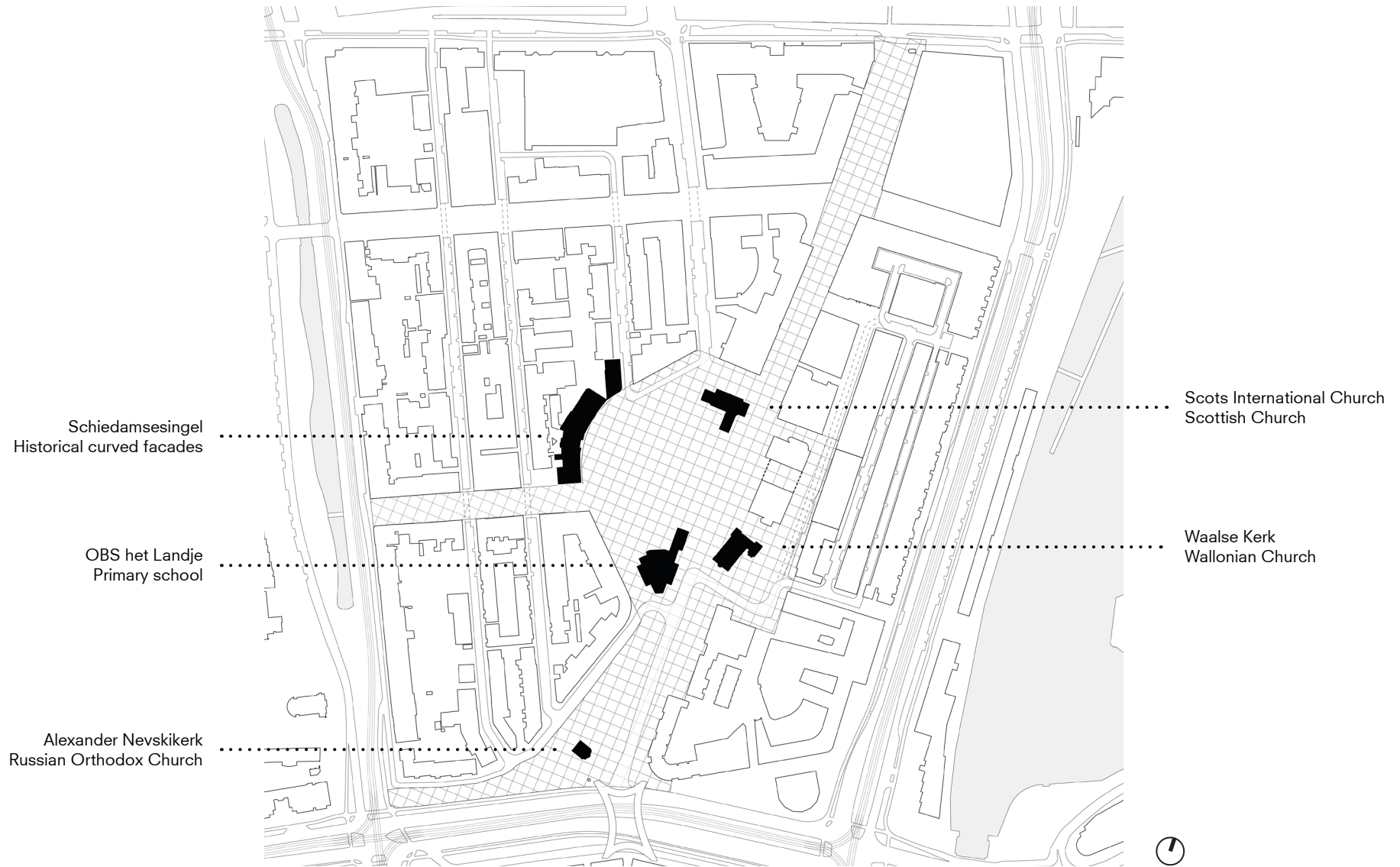
Important buildings / objects of the neighborhood

OWN GRID

It overlaps and highlights different objects

INFORMALITY

USE OF THE SPACE

INFORMALITY
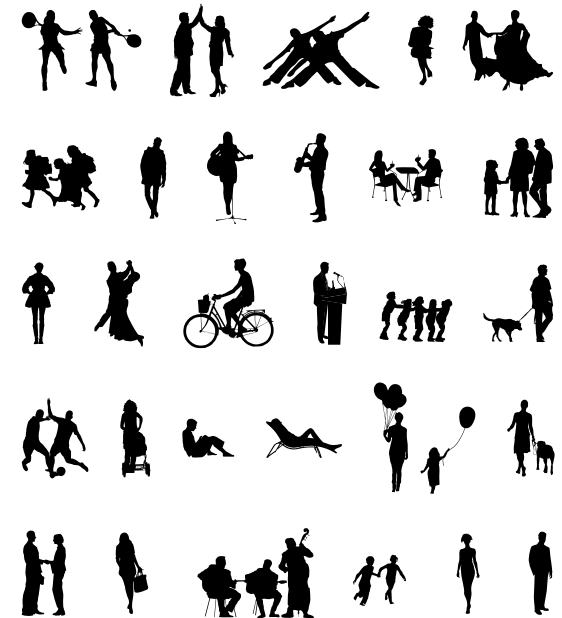
Walk   Rest   Perform

To provide coexistence of Historical residents / Towers residents / Students / Workers /
Passers-by / Performers / Protesters / Partygoers

How to achieve it?

INFORMALITY
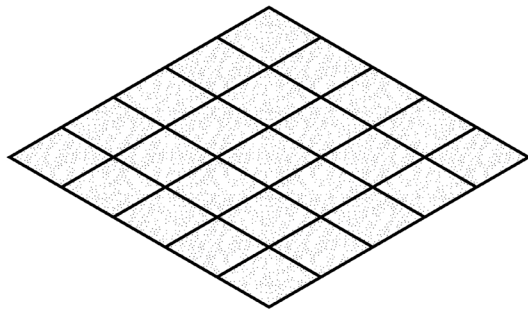
Hard
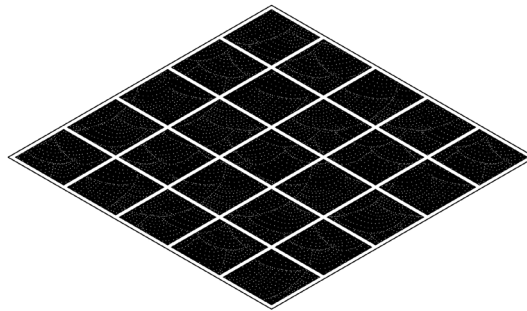
Soft
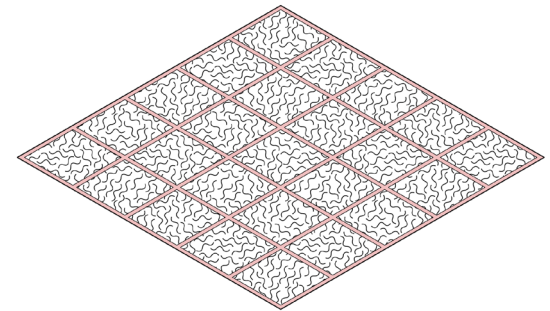
Playful

Different types of pavement

CATALOGUE

CATALOGUE

Sitting
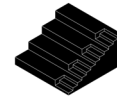
Vegetation
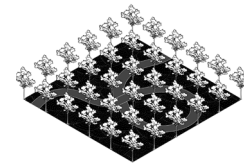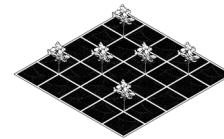
Perform
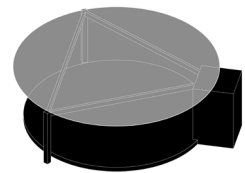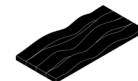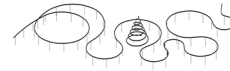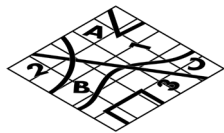
Different types of elements

SITTING

One seat
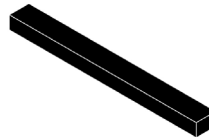
Raw seat
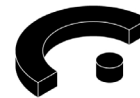
Talk seat

Movable seat

Deckchair
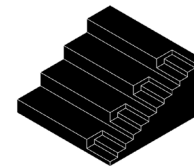
Tribune

VEGETATION
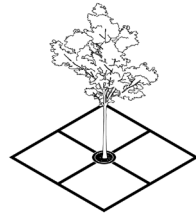
One tree

Pot tree

Flower pot
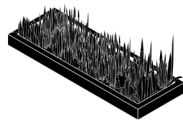
Community garden
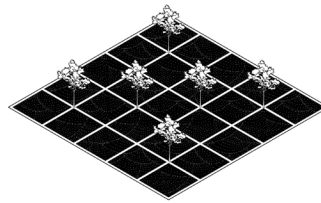
Tree grid
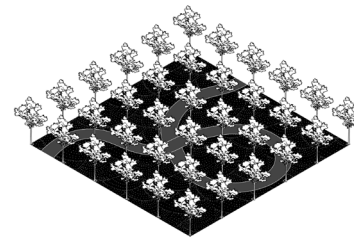
Ecological path

PERFORM - INTERACTION
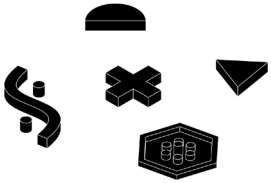
Interaction objects
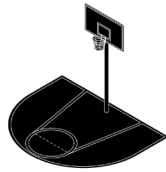
Sport
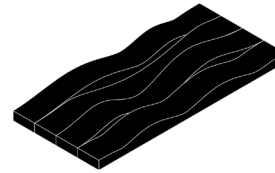
Morphology
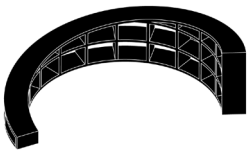
Open-air stage

Open library
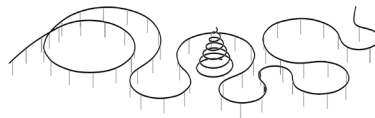
Rail path
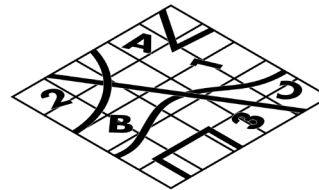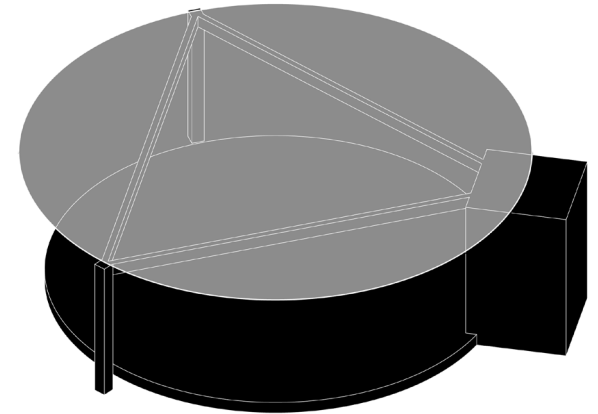
Playscape

OPEN-AIR STAGE
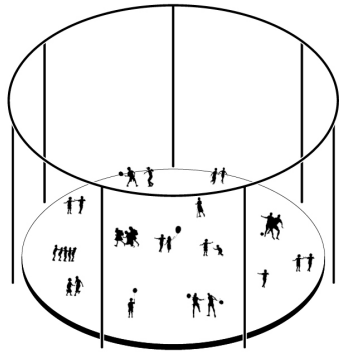
Play
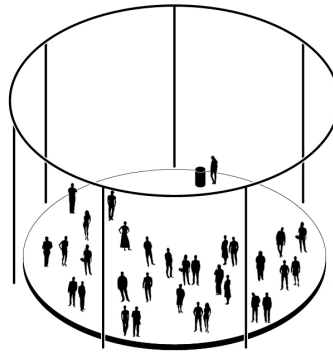
Event
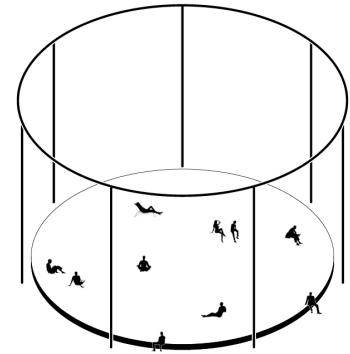
Rest
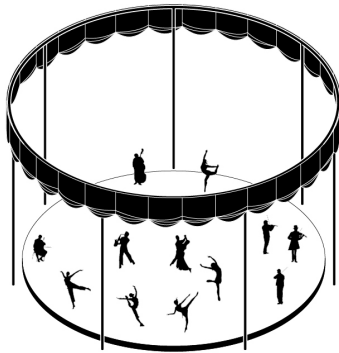
Performance

Exhibition
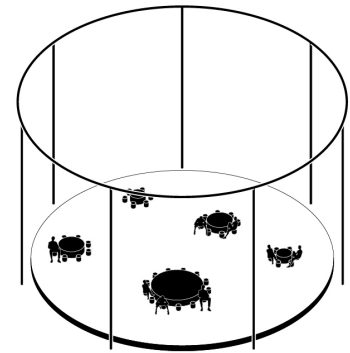
Dinner

Multiple uses for multiple users

MATERIALIZATION

TODAY
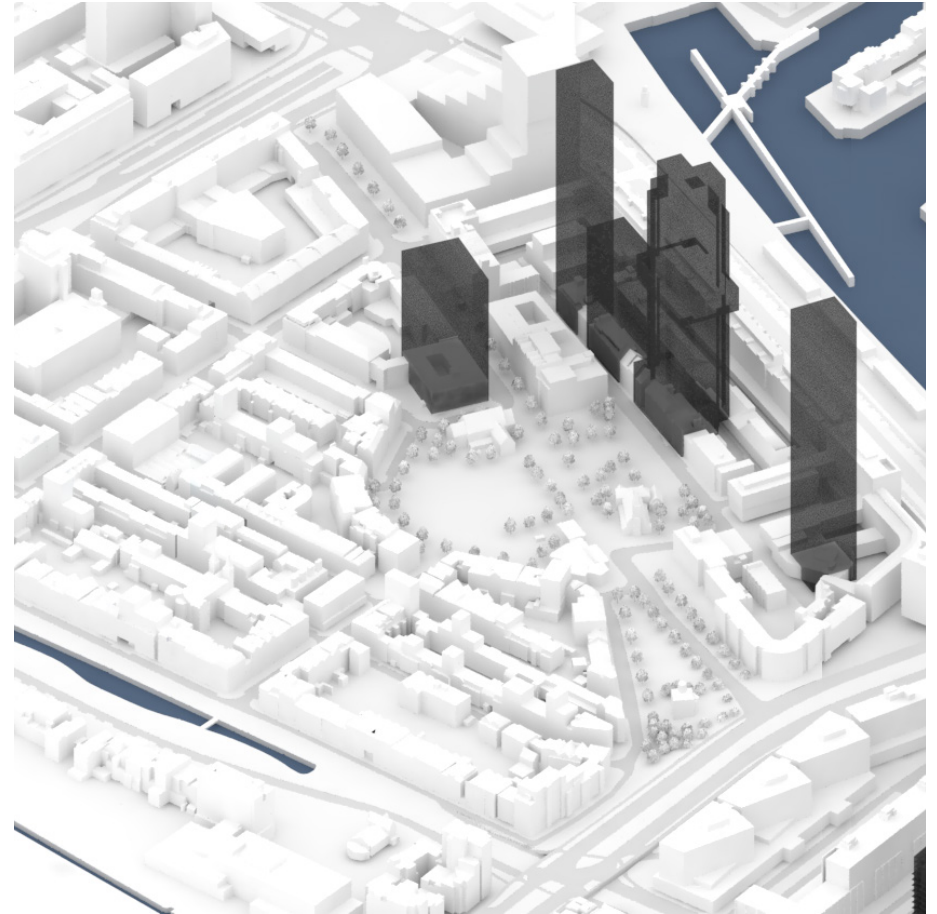
Stony and lack of coherency
Scattered and mono-function

PROPOSAL
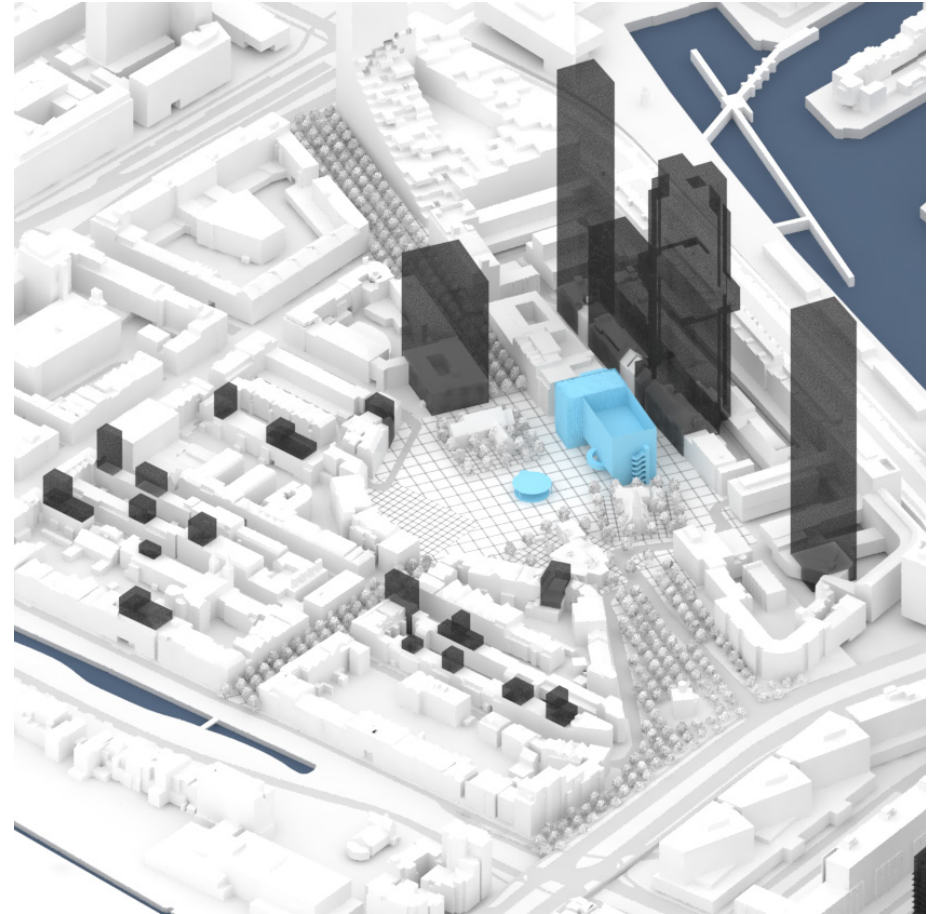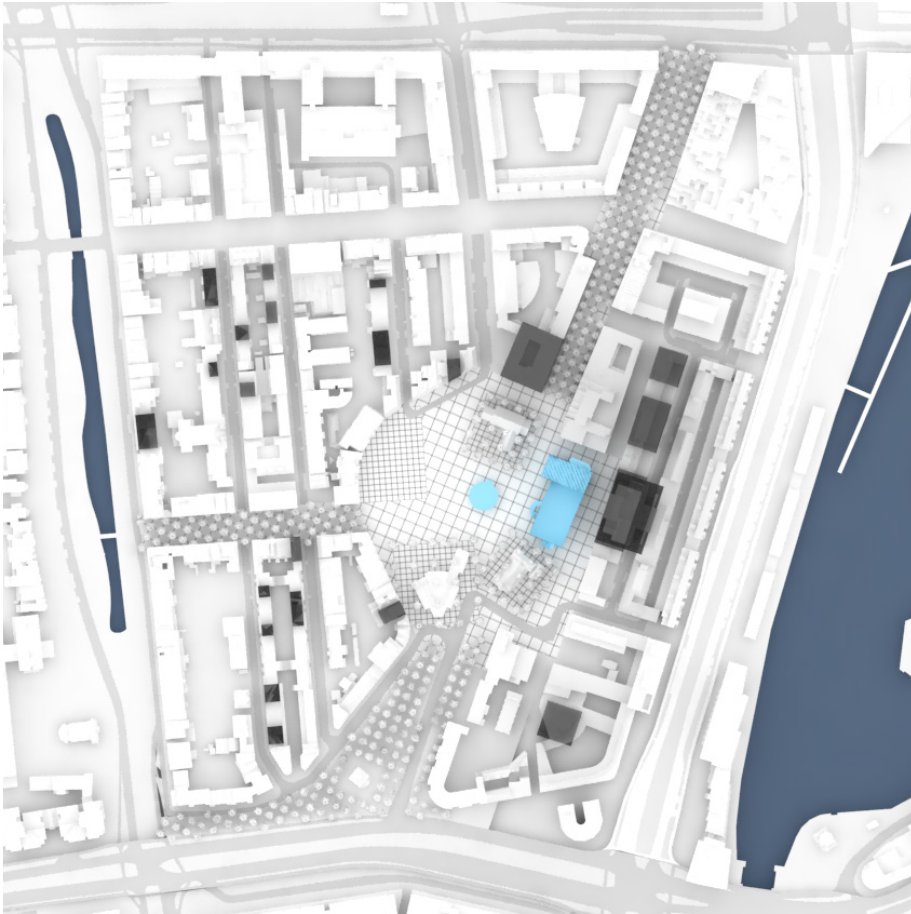
New vegetation buffer as threshold of the neighborhood
leds to the free central open central square

URBAN HEAT ISLAND
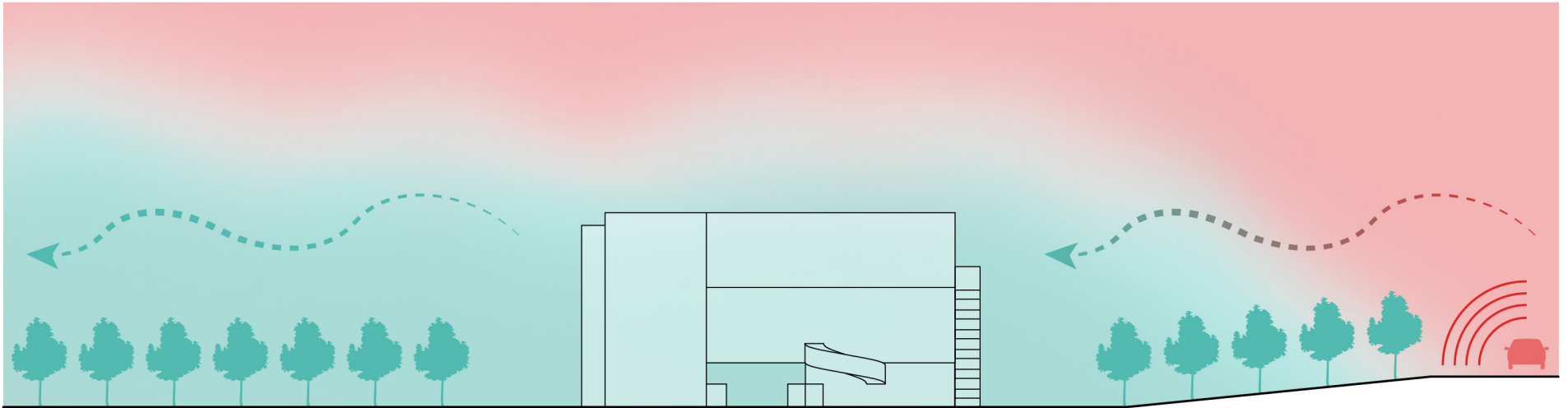
Vegetation refresh and clean the air coming from South-West direction
towards the city center and the neighborhood

Climate

WATER SYSTEM

Boulevard   Fountain   Permeable soil   Water square
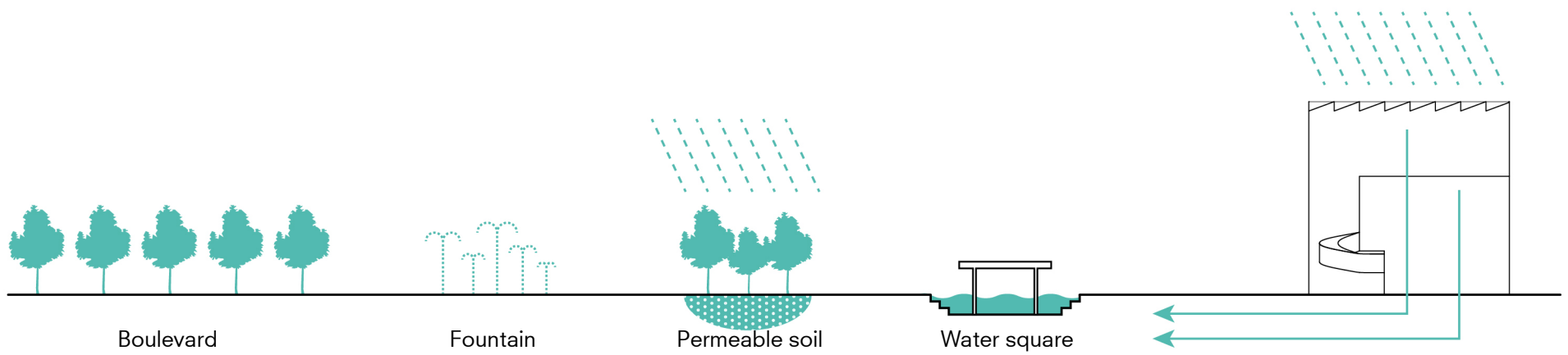
Rainwater is temporarily stored during storm to prevent floods
and to avoid overload of the sewage system

URBAN IMPLEMENTATION 1:500

0m   200m

OPEN PUBLIC SPACE TYPOLOGY SECTIONS

Boulevard

Resting area

Playground

Stage

Materialization
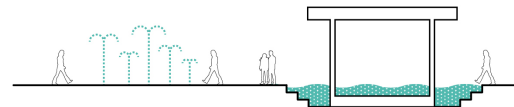
URBAN IMPLEMENTATION 1:500

Playground

Resting area

Boulevard
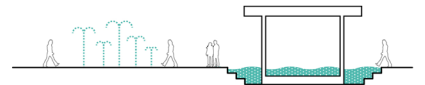
Stage
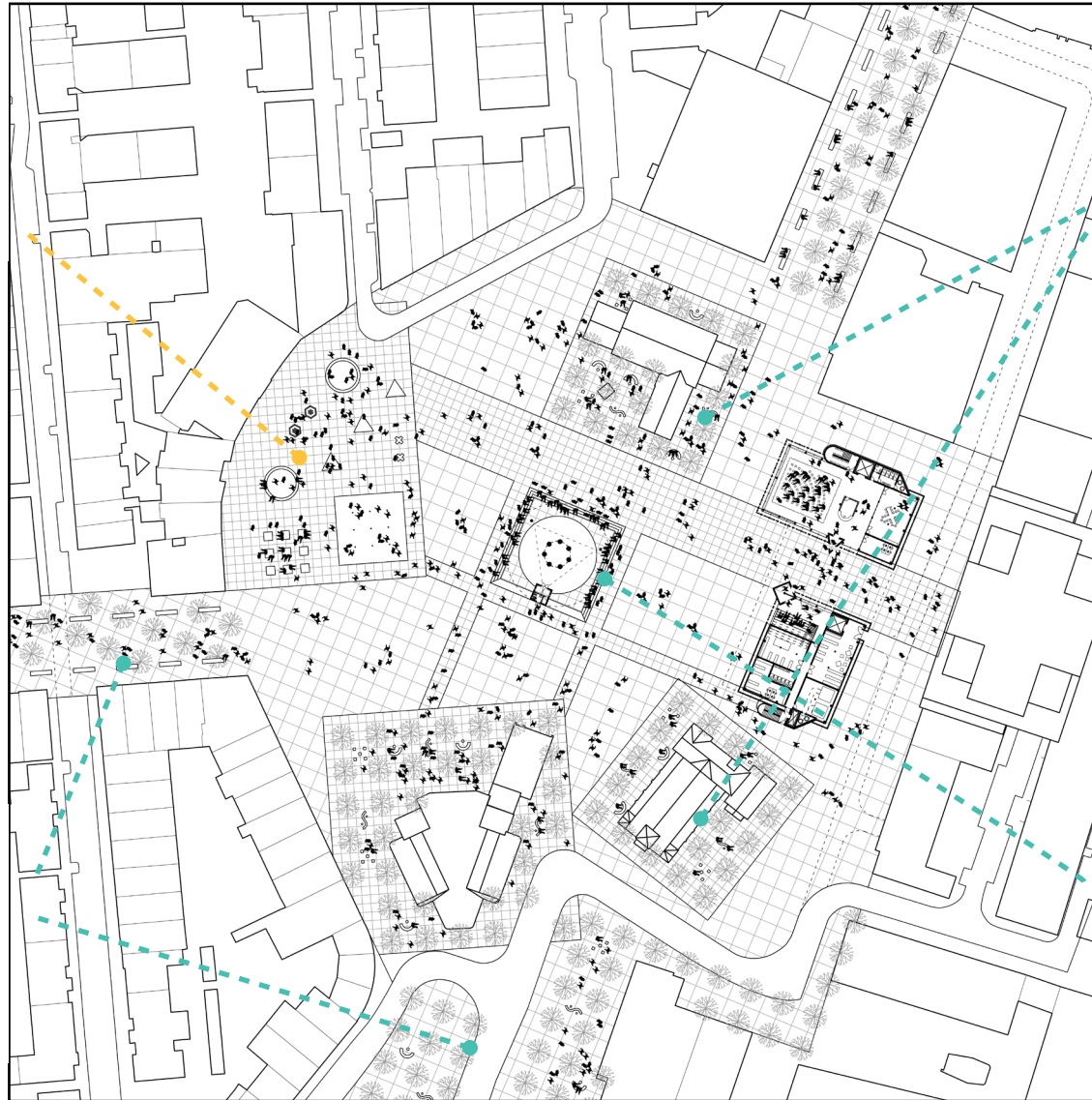
0m   200m

MATERIAL
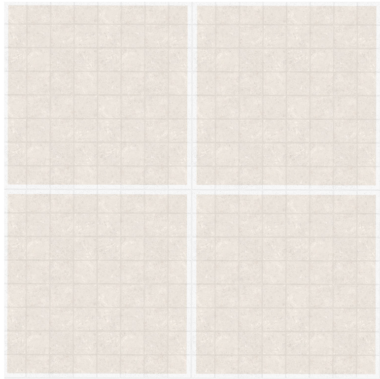
Hard

Granite + White finishing
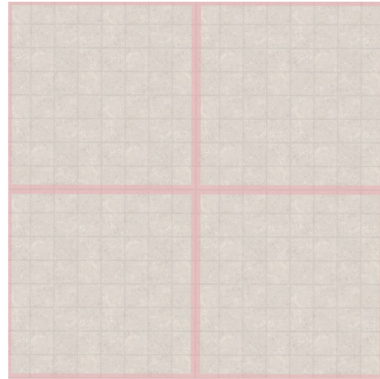
Hard

Granite + Colorful finishing
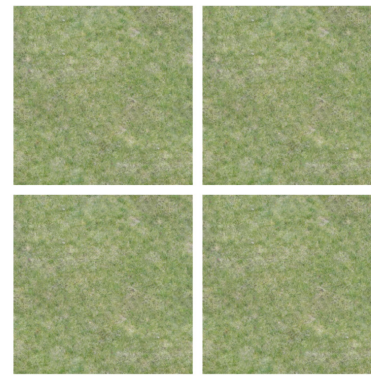
Soft

Grass
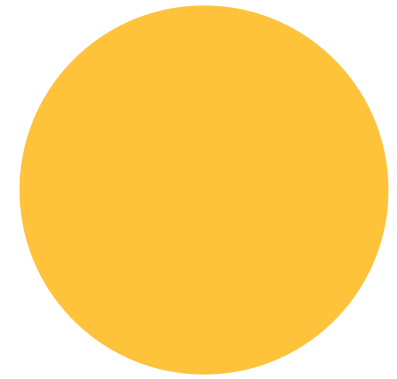
Playful

Colorful furniture

USE OF THE SPACE

New vegetation tresholds for the neighborhood

USE OF THE SPACE

New vibrant heart of the neighborhood

USE OF THE SPACE

CLOSED PUBLIC SPACE

PERFORMING ARTS CENTER

Directly connected to the open square

PROGRAM

PERFORMING ART CENTER
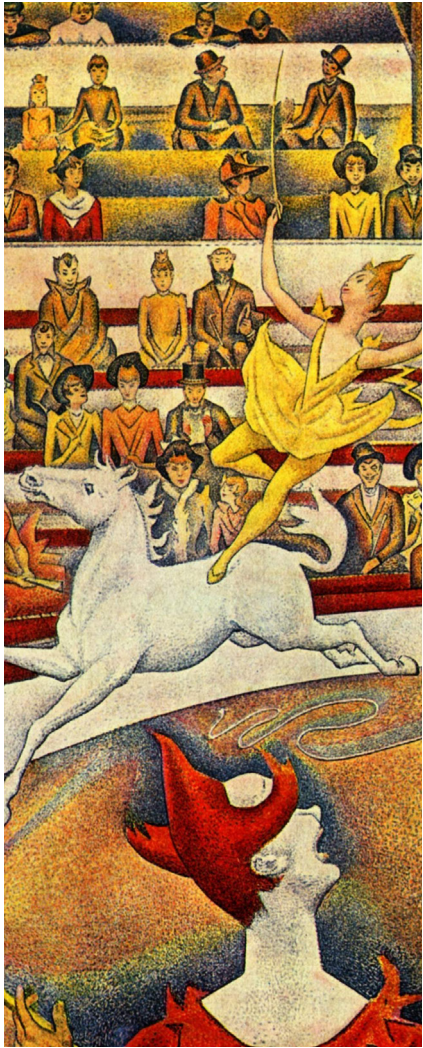
Black box theater

"The Circus"
by Georges Seurat (1891)
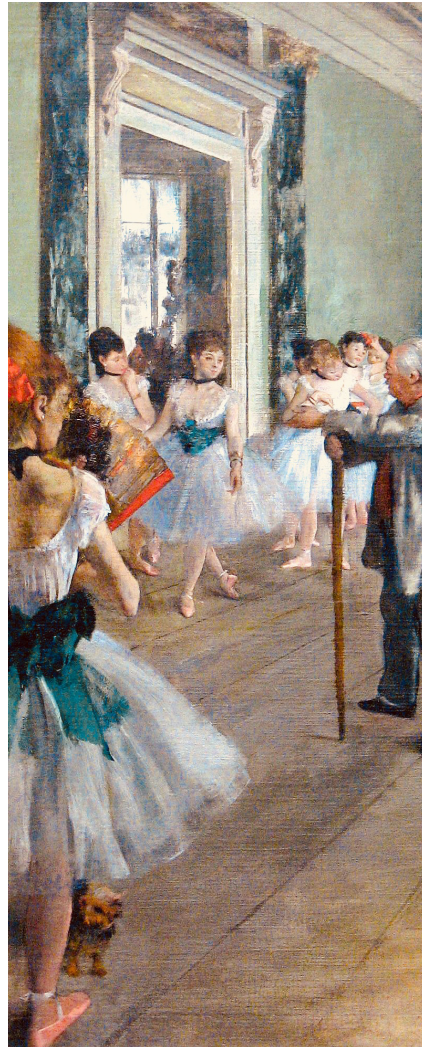
Dance studio

"The Dance Class"
by Edgar Degas (1874)

Music studio

"The Music Lesson"
by Johannes Vermeer (1662)

Café

"A Bar at the Folies-Bergère"
by Édouard Manet (1882)

ACTIVATOR - PUBLIC PROGRAMS
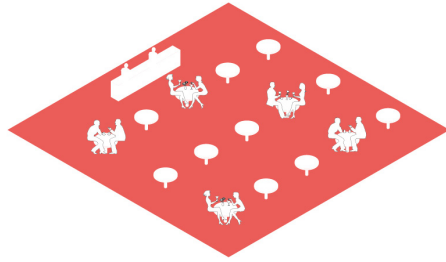
Cafè

Workshop & Exhibition

Foyer lounge
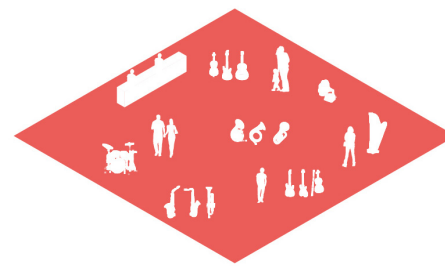
Performing art shop

To engage other users acting as Closed public space

ACTIVATOR - INTEGRATED OPEN PUBLIC SPACE
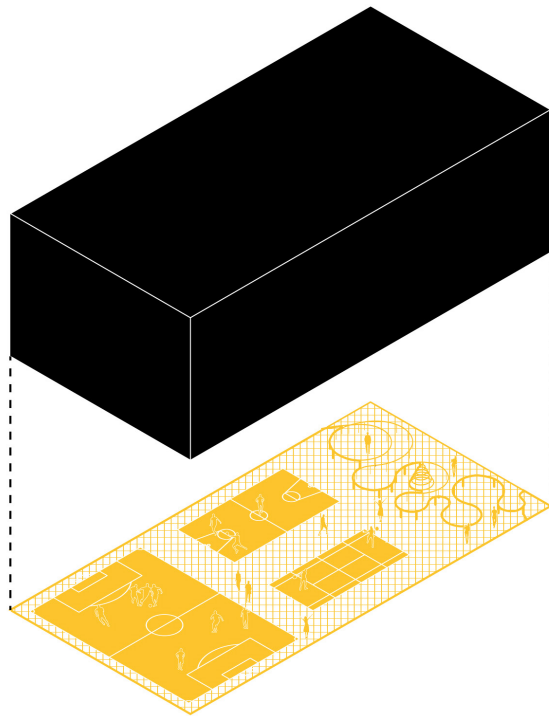
Covered public space
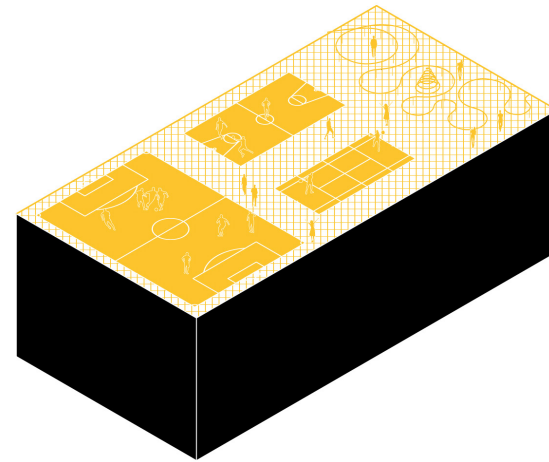
Elevated public space

To engage other users acting as Closed public space

QUANTITIES

15%	**950 m²**	Music related
15%	**950 m²**	Dance related
15%	**900 m²**	Theater / Auditorium
5%	**550 m²**	Changing room
4%	**200 m²**	Lounge / Café
3%	**130 m²**	Performing art shop
4%	**190 m²**	Kids related
5%	**250 m²**	Office
24%	**1500 m²**	Lobby / Circulation
5%	**300 m²**	Services
5%	**120 m²**	Vertical Circulation

6000 m²

+ 1300 m²

5%	**250 m²**	Percussion room / Piano Room / Rehearsal room
7%	**350 m²**	Exercise classroom / Sing classroom / Theory classroom
4,5%	**225 m²**	Teacher room / Group classroom / Music library / Recording studio
12%	**600 m²**	Main Dance studios / Dance studios
4,5%	**225 m²**	Small dance studios
11%	**830 m²**	Auditorium / Orchestra / Black box theaters / Foyer
3%	**200 m²**	Backstage / Control room / Storage
5%	**550 m²**	Changing room M/F / Changing room teachers
3%	**150 m²**	Student lounge / Public café
3%	**150 m²**	Performing art shop
3%	**150 m²**	Kindergarten / After school / Activity workshops
23%	**1500 m²**	Lobby / Circulation
5%	**250 m²**	Offices / Meeting room / Secretary
5%	**250 m²**	Technical rooms / Storages / Toilette
5%		

CONCEPT OF COMPOSITION:

SCALESS

REPETITION OF PATTERN // GLIMPSE OF INTERACTION
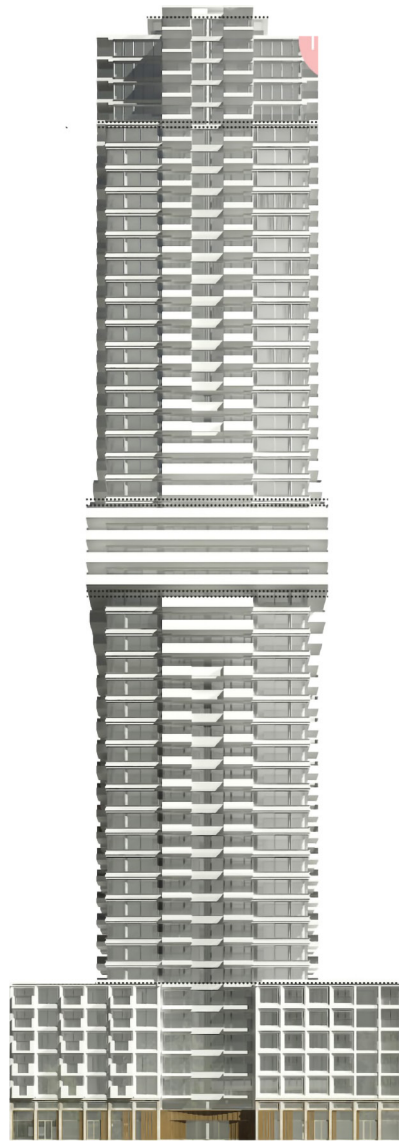
VS
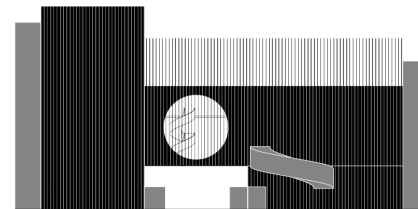
Tackle the human scale differently

ABSTACTION // AMBIGUITY // PURENESS // MONUMENTALITY

Characters

The CLOSED public space is perceived out of scale with **no pattern** related to the human scale. It is scaless**.**

Only a few elements of interaction, together with the the use of the integrated OPEN public space bring back to the **human scale**.

The system works thank to a synergy made by **dichotomy**.

NAKED
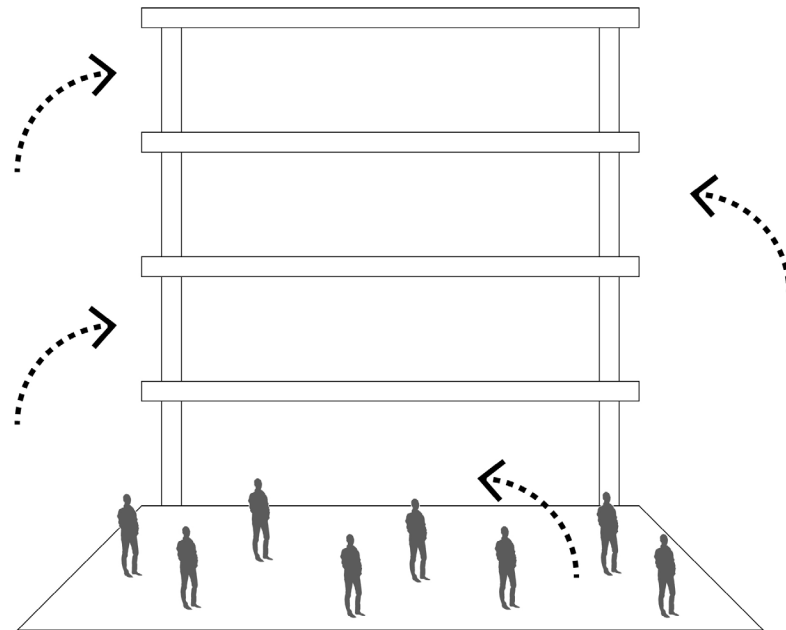
SCALESS ENVELOPE
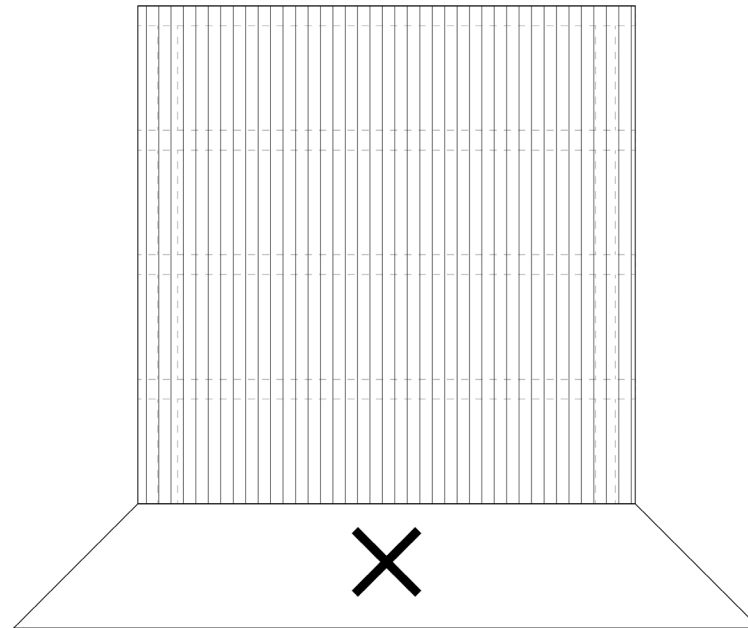
No interaction with the human scale

HIDDEN ENTRANCE
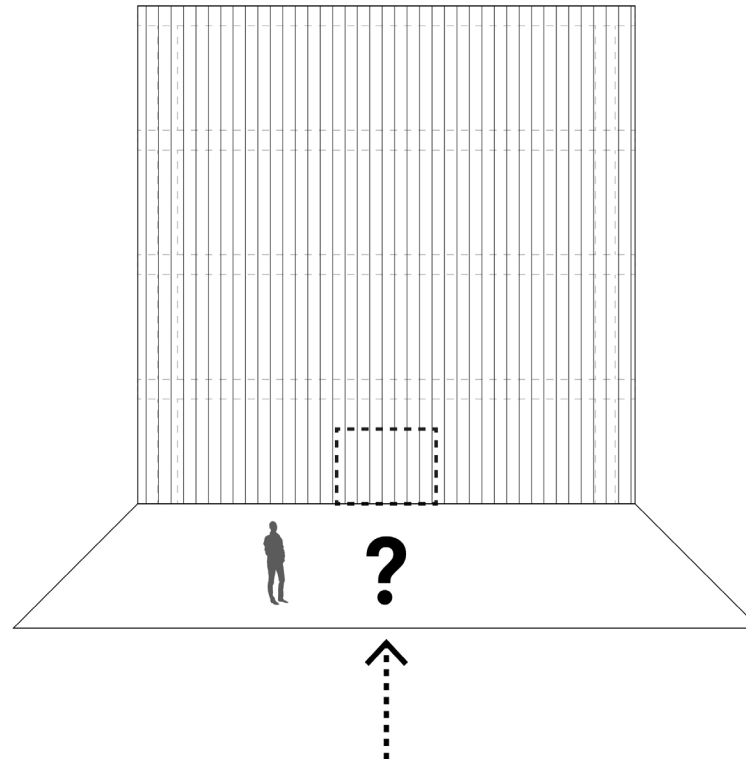
Ambiguity of the entrance will generate less interaction

RECOGNIZABLE ENTRANCE
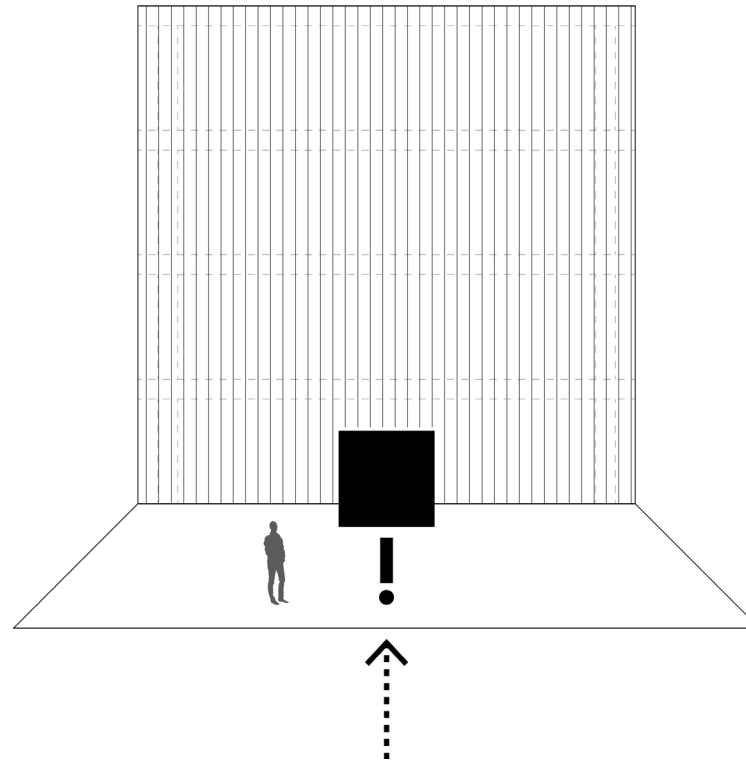
Elements stick-out , interaction with the human scale

BACK TO THE HUMAN SCALE
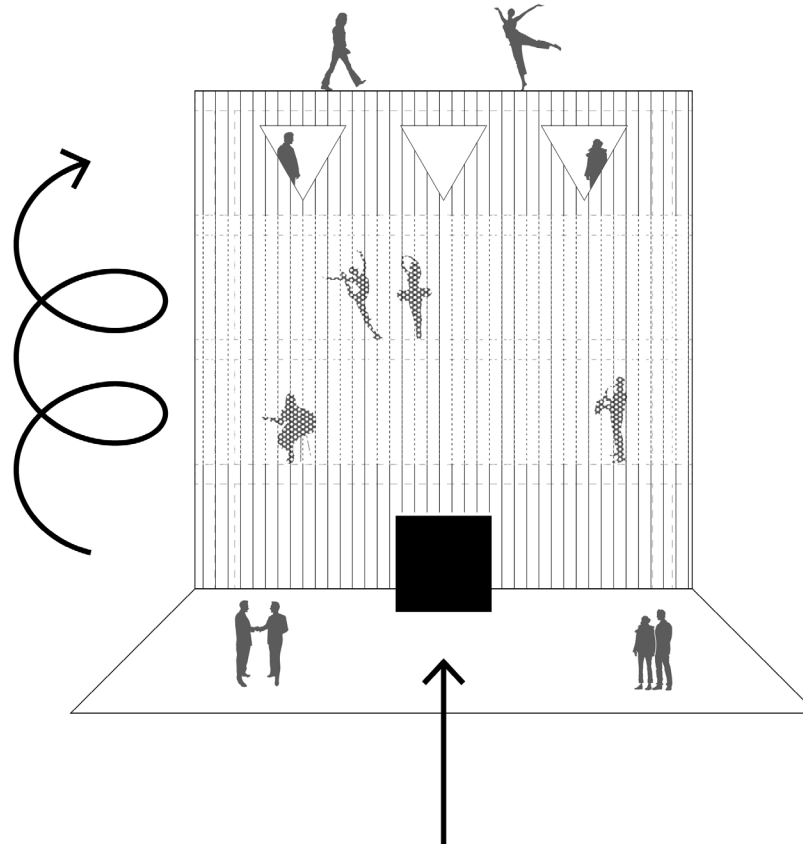
The elements of interaction, the use of the materials, visual and physical relationships togheter with the use of the space will evolve the scaless into human scale

USE OF THE MATERIAL AS ENVELOPE

REFLECTIVE ANOIZED ALUMINIUM

Reflective aluminium cladding

Reflective aluminium pipes

ENVELOPE COMPOSITION
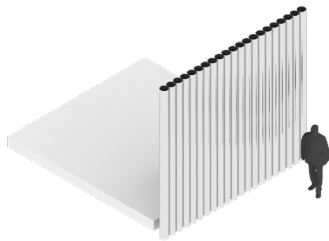
Opt 01
1 - 1 -1
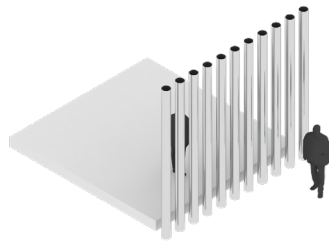
Opt 02
1-0-1
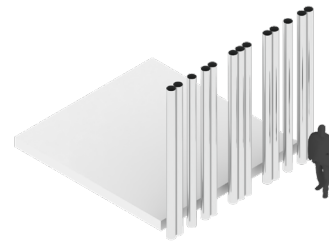
Opt 03
1-1-0-1-0-1-1-0-0-1-1-1
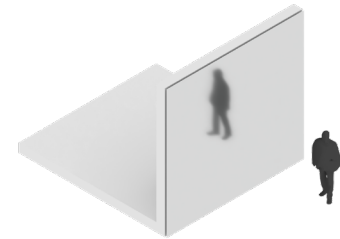
Cladding

Open & Closed envelope.
It creates a system of physical and visual relationships

AN EYE OVER THE OPEN PUBLIC SPACE
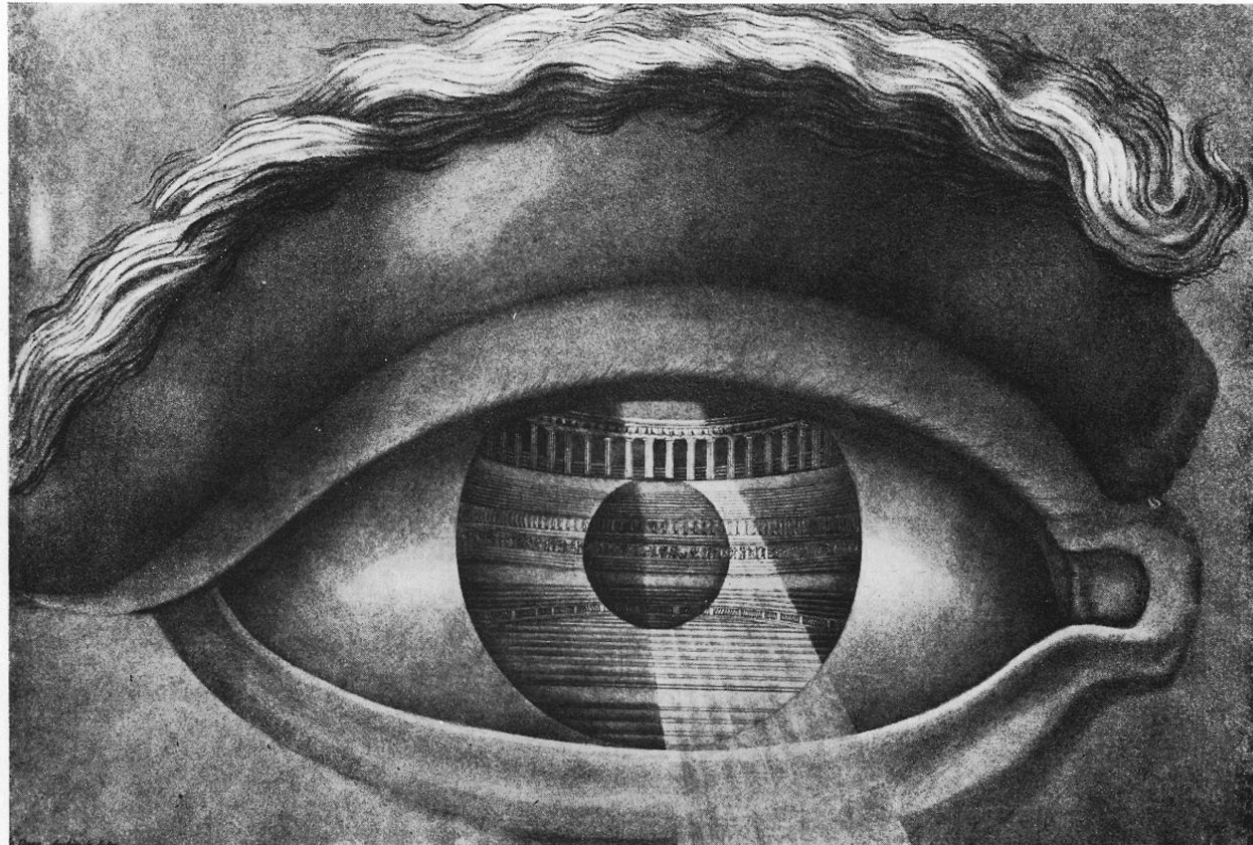
Eye enclosing the theatre at Besançon
Claude Nicolas Ledoux, c. 1800
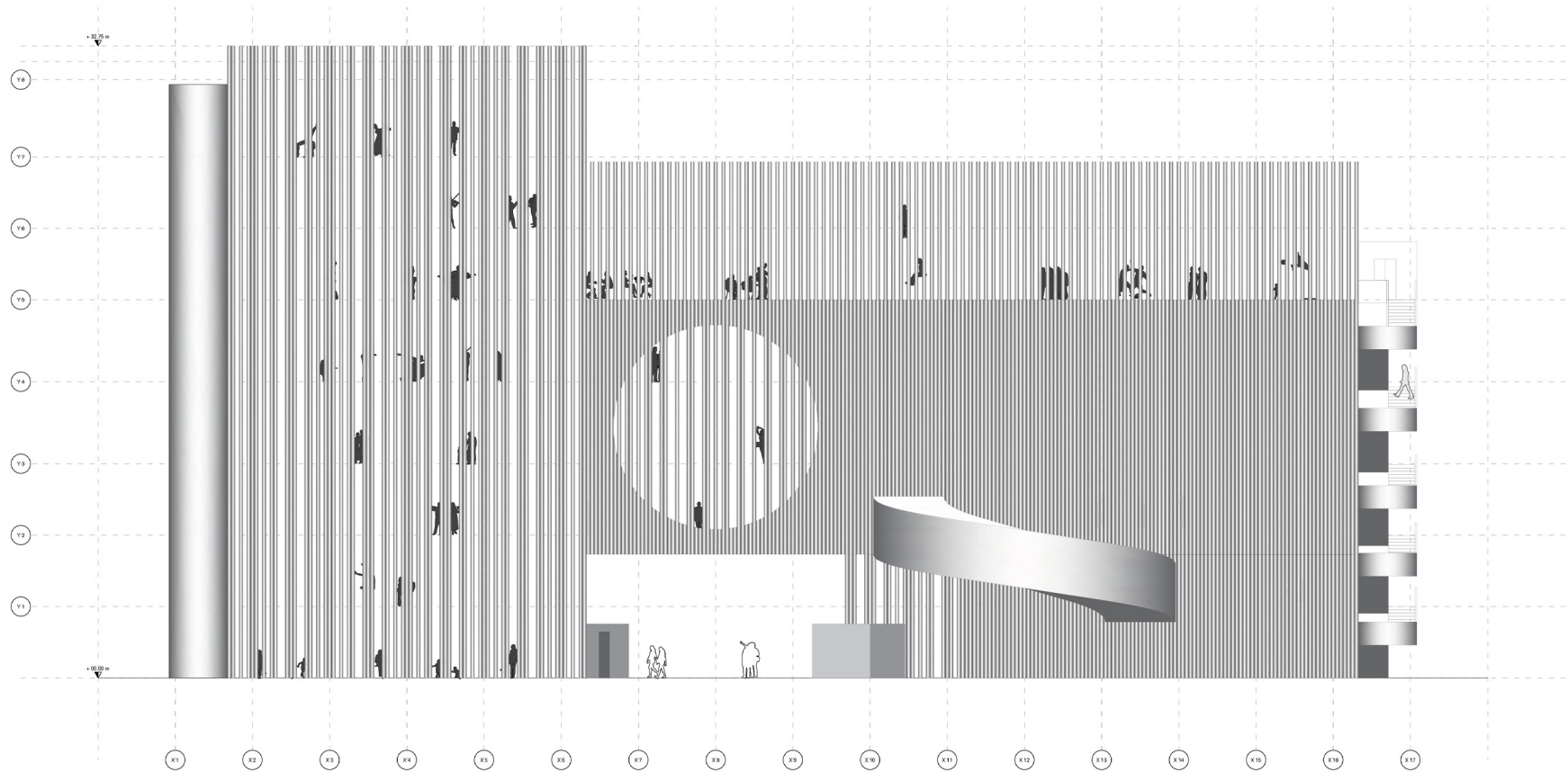
ELEVATION 1:200

0m   20m

Exterior
Physical and visual relatioship

ELEVATION 1:200

Multi-purpose space

Dance studio

Orchestra room   Student lounge   Music room

Choral room   Foyer   Black box theater

Dance studio

Ticket   Music shop

Multi-purpose space   Music library   Costume workshop   Toilette   Archive

0m   20m
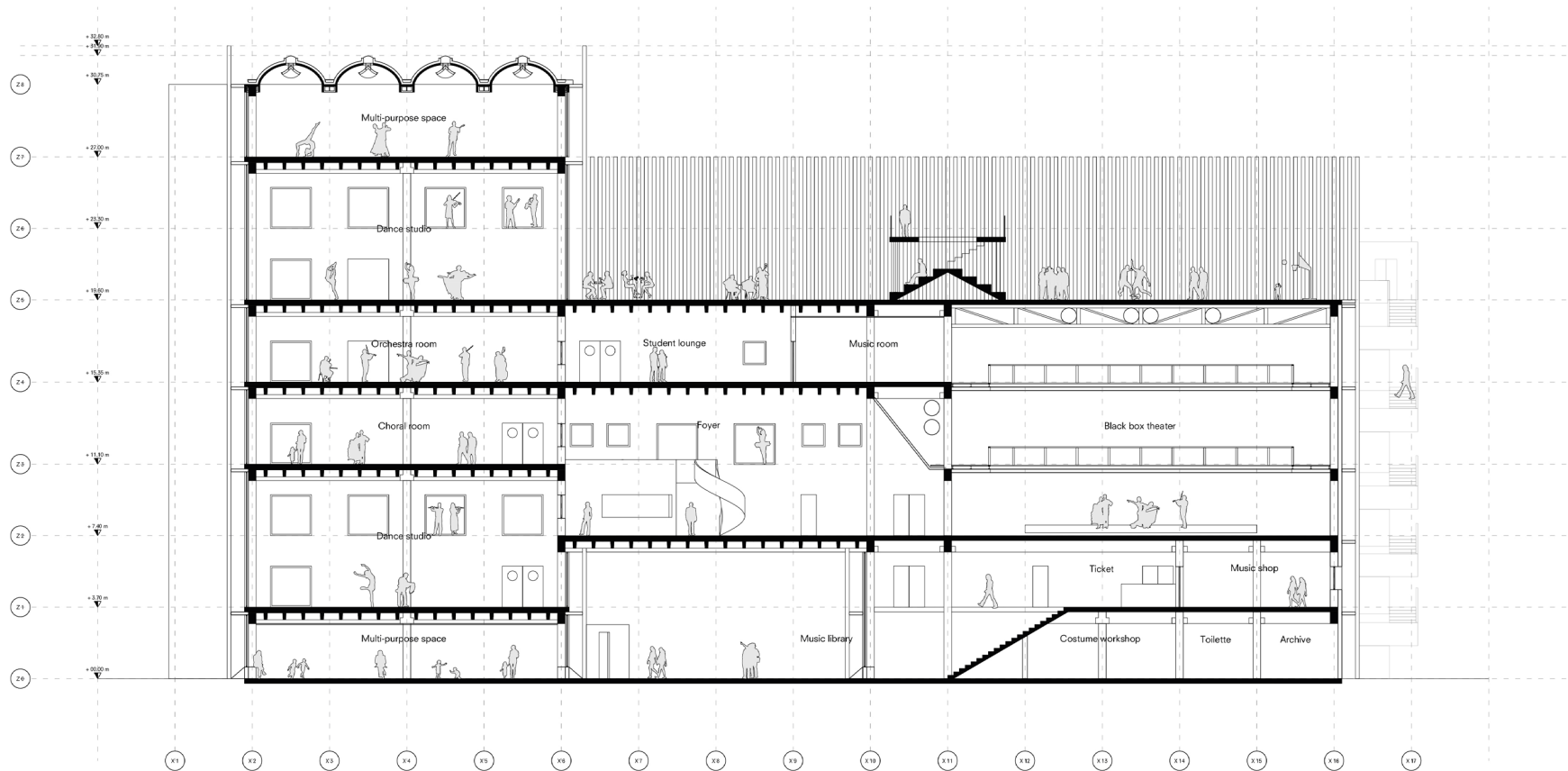
Interior
Physical and visual relatioship

ABSTRACTION + GLIMPSE OF CONTACT

Scaless envelope + Elements of interaction to connect it to the human scale

Hotel New York

OPEN & CLOSED PUBLIC SPACE

Abstraction + Glimpse of interaction

EXTERIOR GLOSSY ELEMENTS OF INTERACTION

Theater entrance
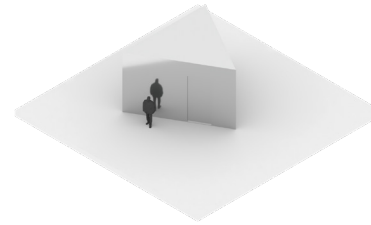
Academy entrance
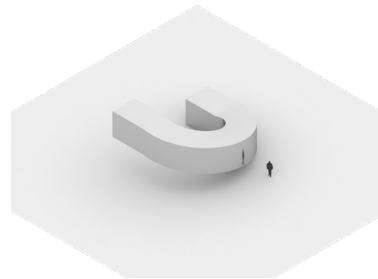
Foyer stair
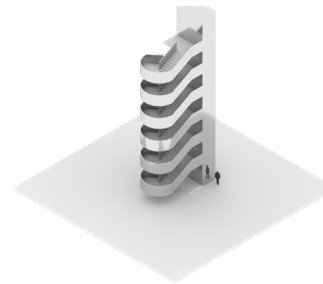
Emergency roof stair
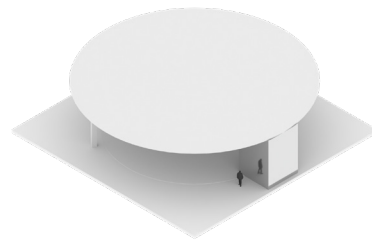
Open stage
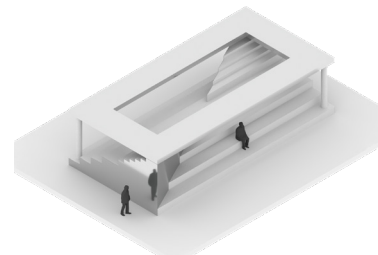
Rooftop tribune

To create connection to the human scale

OPEN-AIR STAGE

OPEN-AIR STAGE 1:50

0m   10m

- 1.20 m

OPEN-AIR STAGE 1:50

Roof 500 mm
Natural drainage 3% 60 mm
Acoustic sound insulation 40 mm
Composite slab with steel deck and reinforced concrete 100 mm
I-beam 300 mm
Reflective cladding

Concealed water gutter

Open public toilette

Open-air stage

+ 0.00 m

-1.20 m
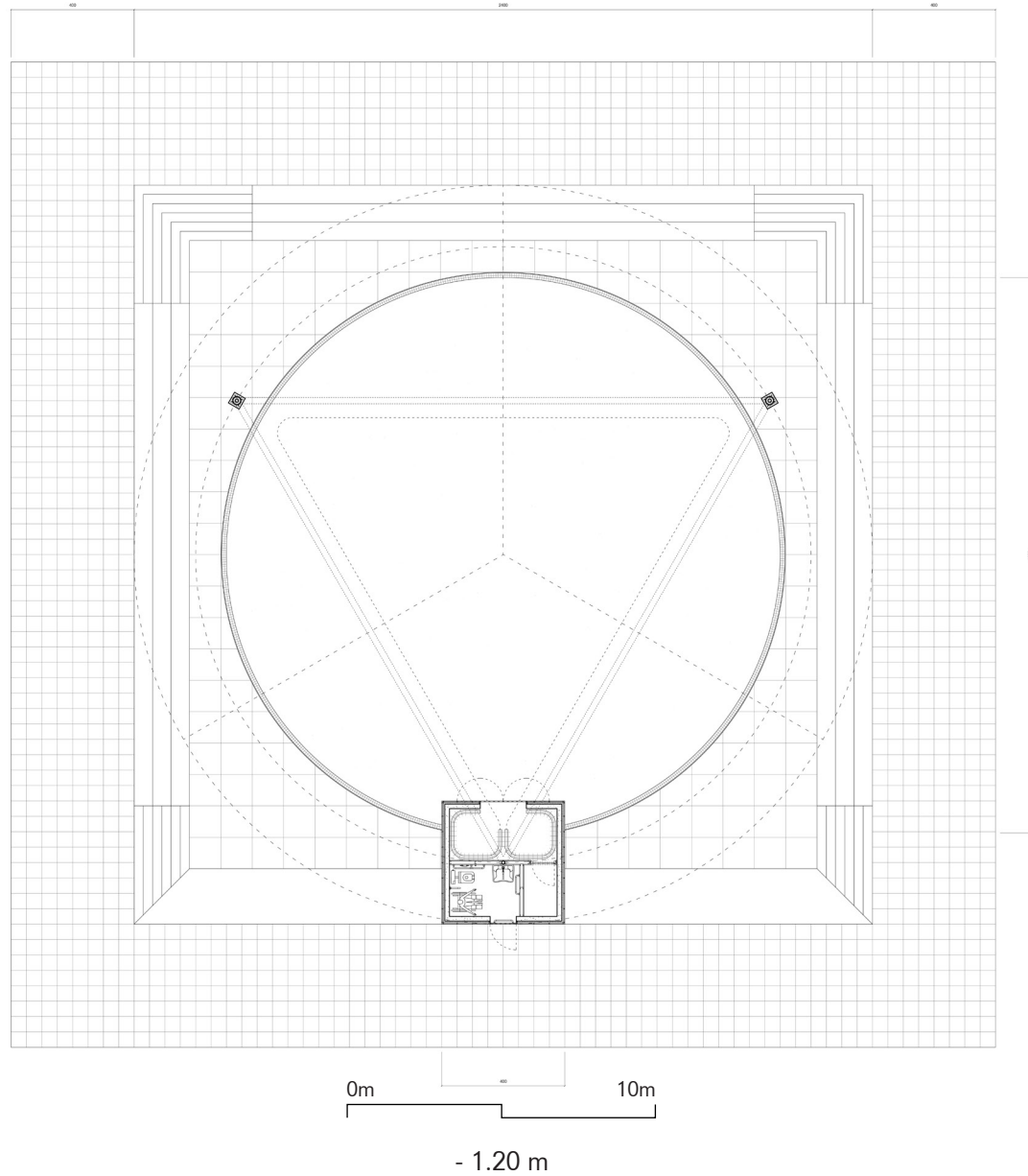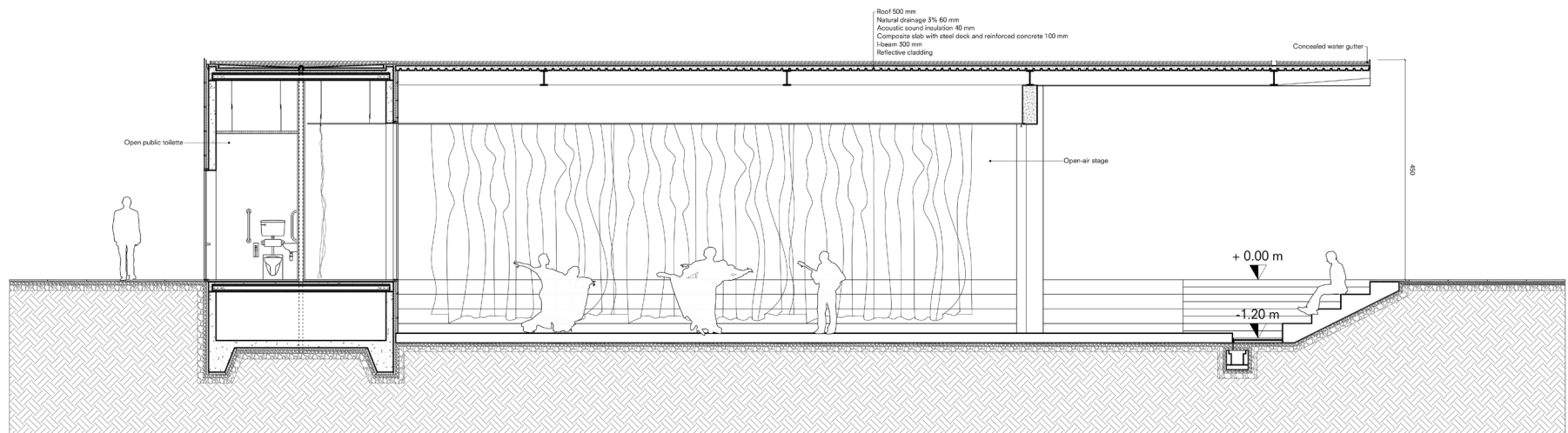
0m   10m

OPEN-AIR STAGE

To enjoy a public event

Abstraction + Glimpse of interaction

REFLECTIVE CLADDING 1:10

Concealed gutter

Envelope support,
C element, aluminium

Envelope panel,
reflective aluminium 20 mm

Envelope support,
mullion and transom, aluminium

Waterproof membrane, 2.5 mm

Thermal insulation,
polyurethane rigid panel, 50 mm

Vapor barrier, 2.5 mm

Exterior wall,
prefabricated reinforced concrete,
125 mm

Roof, 400mm
Natural drainage system, 50-100 mm
Waterproof membrane, 2.5 mm
Screed, slope 3%, concrete, 50 mm
Thermal insulation,
polyurethane rigid panel, 50 mm
Vapor barrier, 2.5 mm
Topping, reinforced concrete, 50 mm
Hollow core slab,
precast concrete 150mm

Separation wall 300 mm

Roof water drainage

False ceiling, metal grid mesh
50 mm

0m   1m

DICHOTOMY

EXTERIOR VS INTERIOR

Glossy exterior vs Colofrul interior

COLORFUL INTERIOR
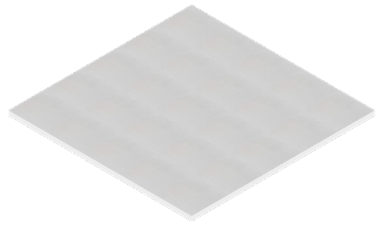
Polished concrete floor
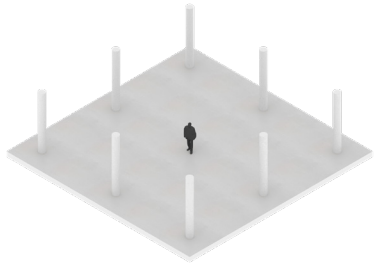
Exposed concrete structure
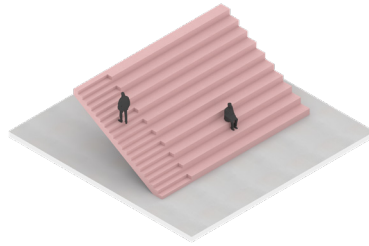
Colorful cladding
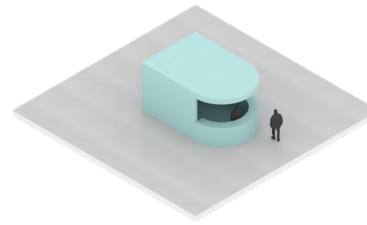
Colorful cladding reception
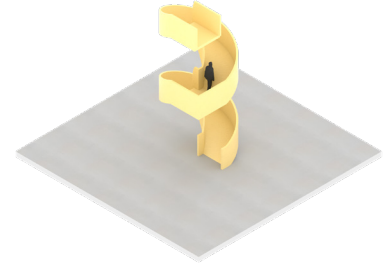
Colorful cladding stair
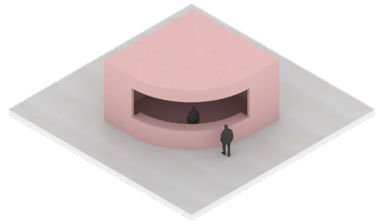
Colorful cladding bar
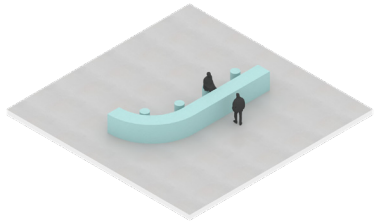
Colorful cladding ticket
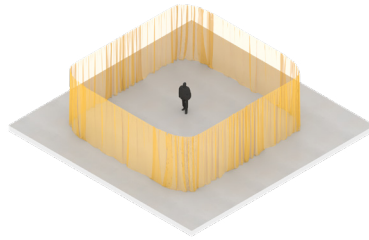
Colorful dampening courtain
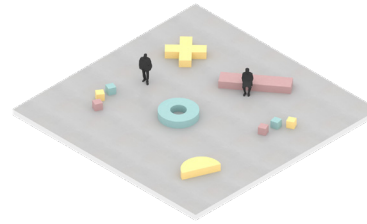
Colorful forniture
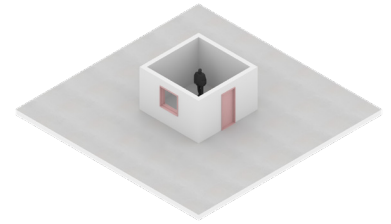
Colorful frames and doors
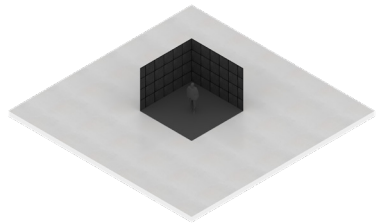
Acoustic black panel
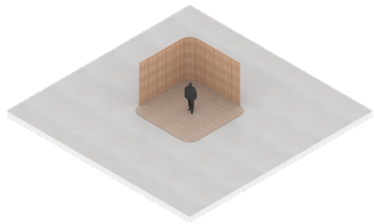
Acoustic wood panel
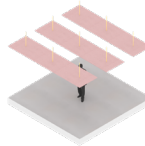
Acoustic clouds ceiling
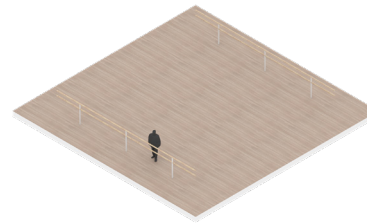
Timber sprung floor
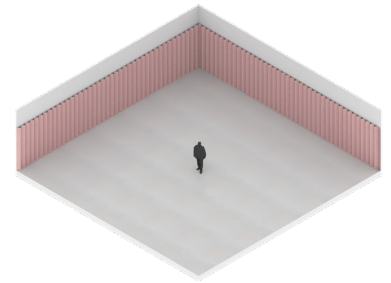
Extra interior cladding

THE BUILDING SYSTEM

Closed Public space

MASSING
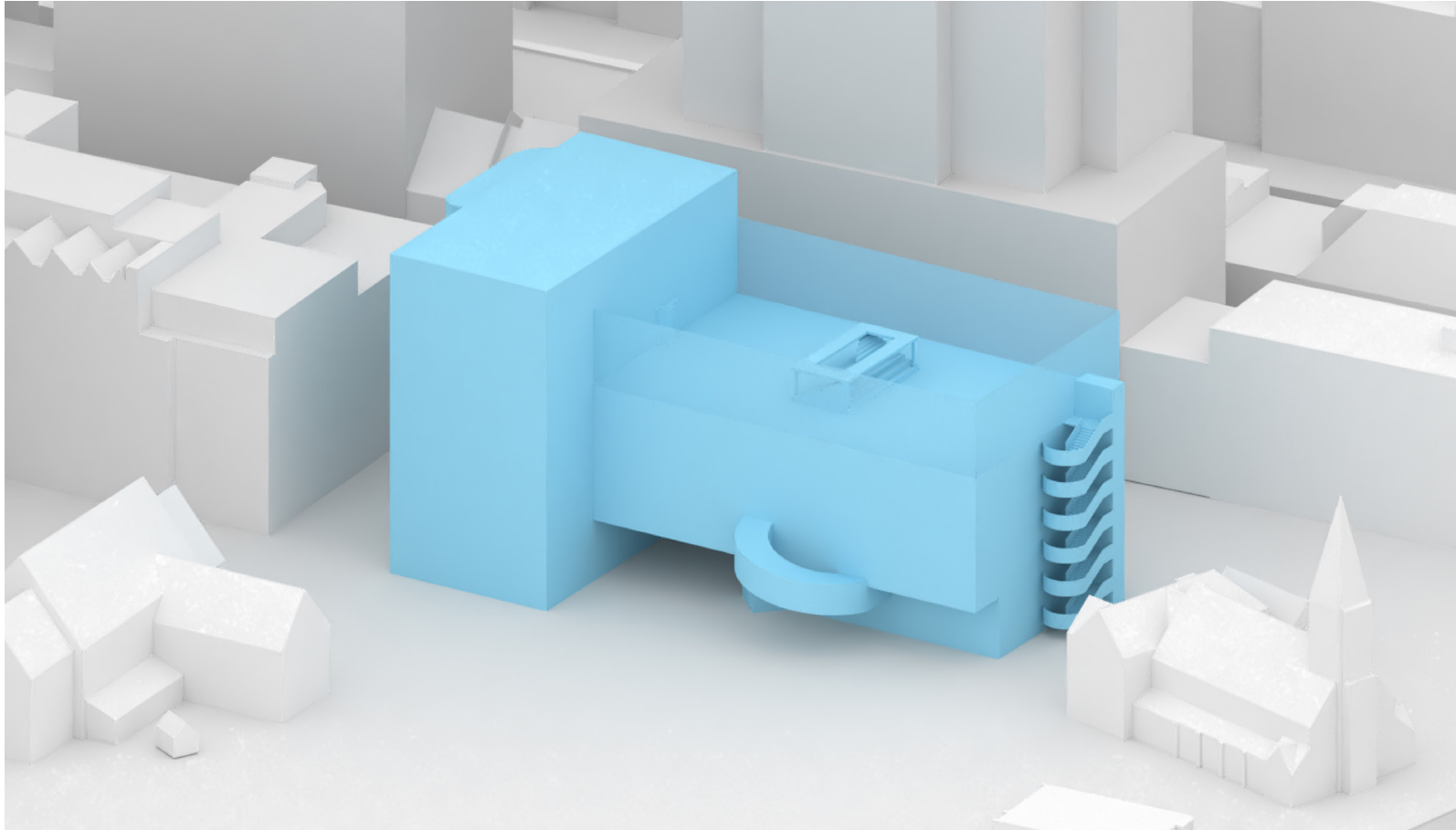
GENERAL ORGANIZATION
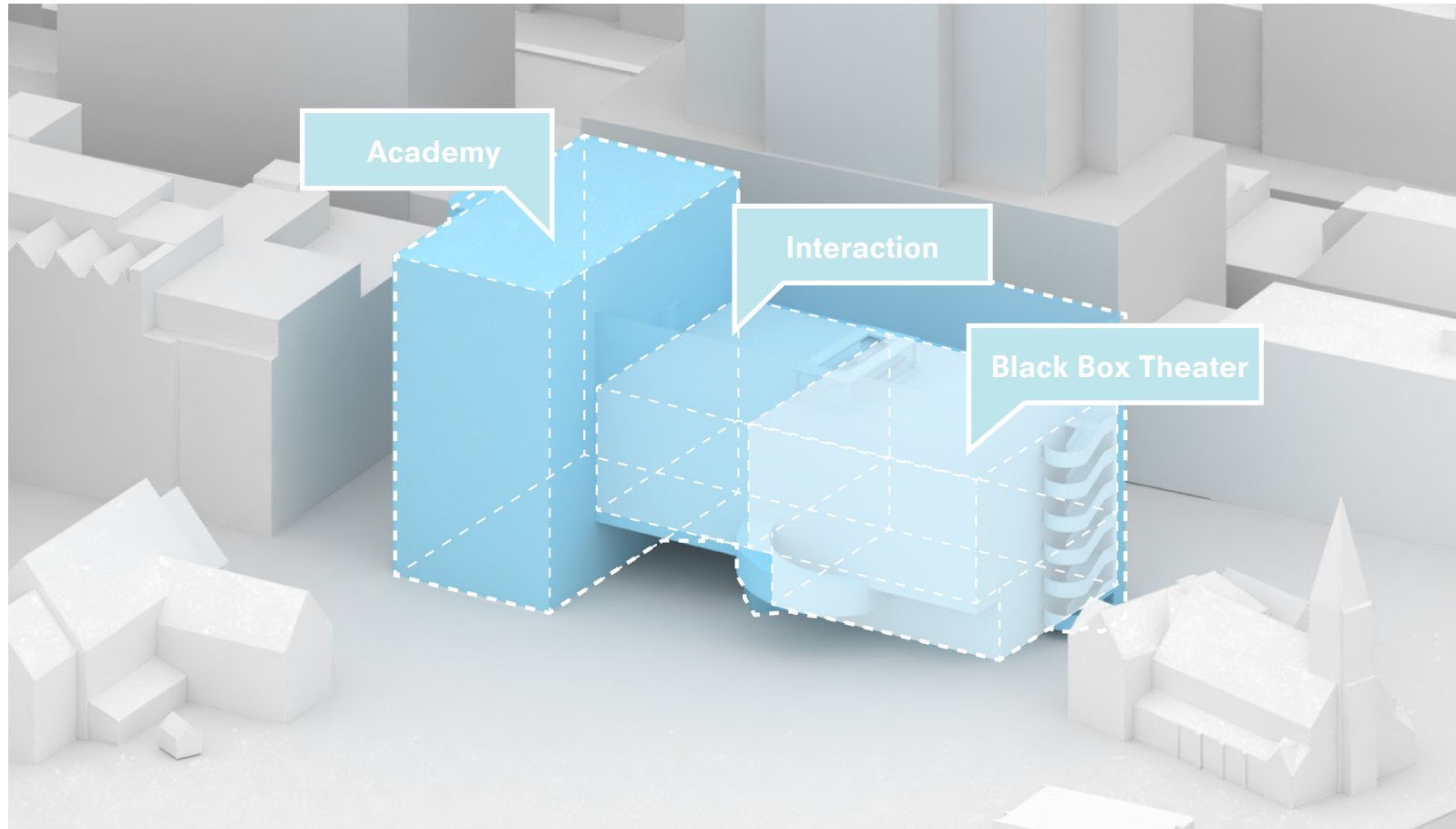
Performing arts center subdivision
Theater to enjoy shows / Academy to lear how to perform

VERTICAL CIRCULATION
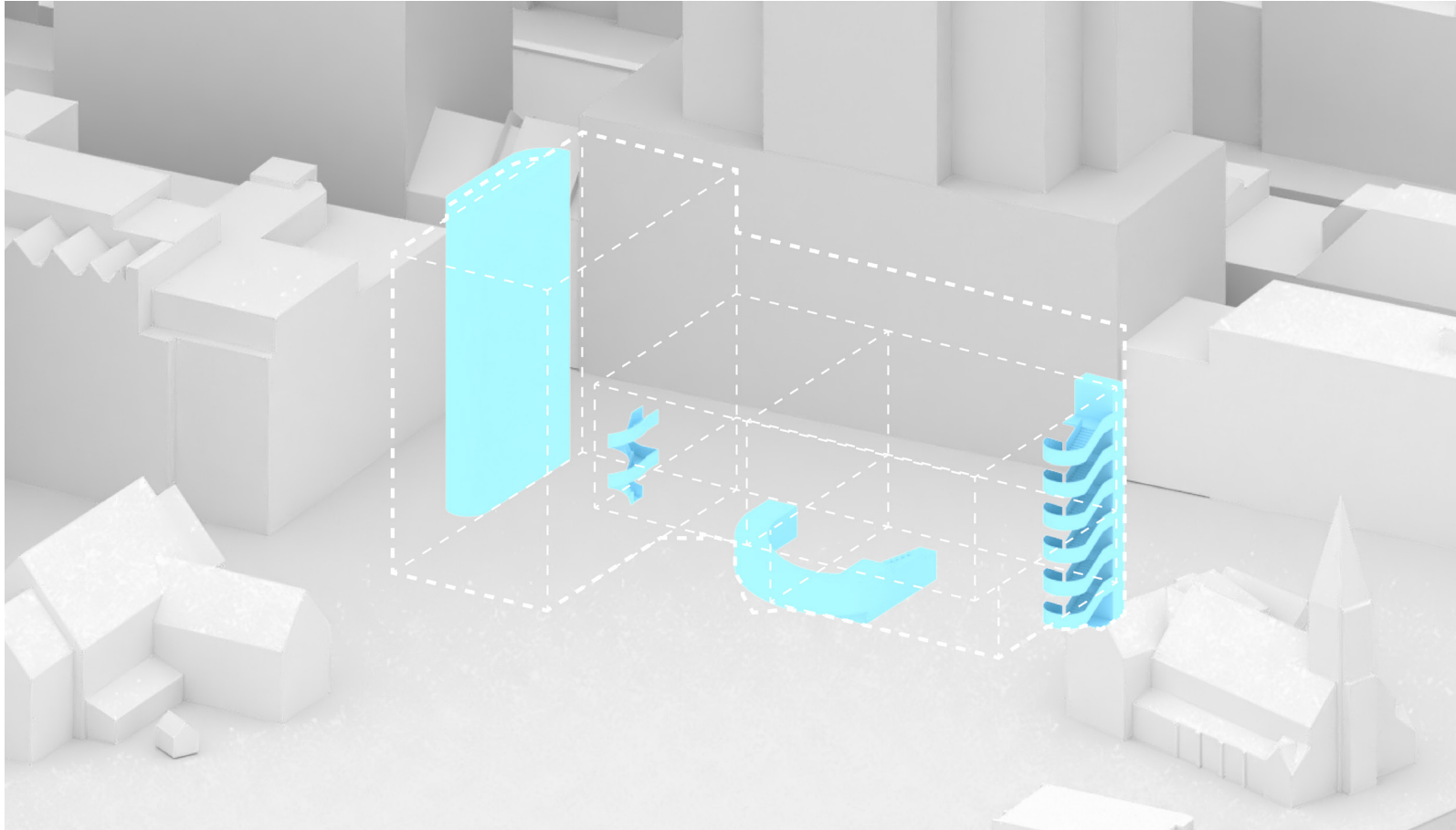
Vertical cores at the extremities + internal staircases

FLOORS
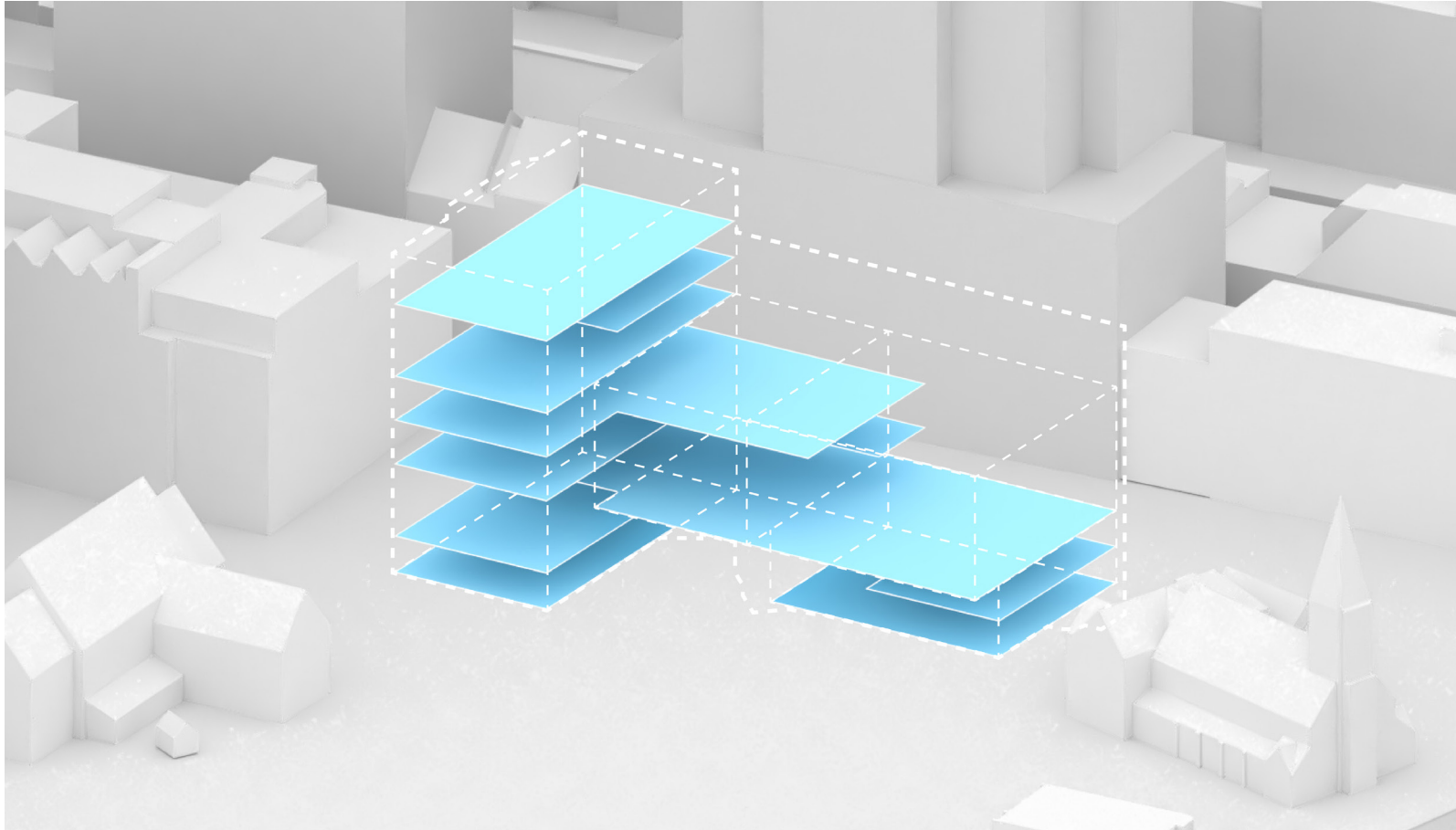
Single storeys and double height spaces

PUBLIC PROGRAM

Multi-purpose

Café

After school

Foyer

Black Box Theater

Performing art shop
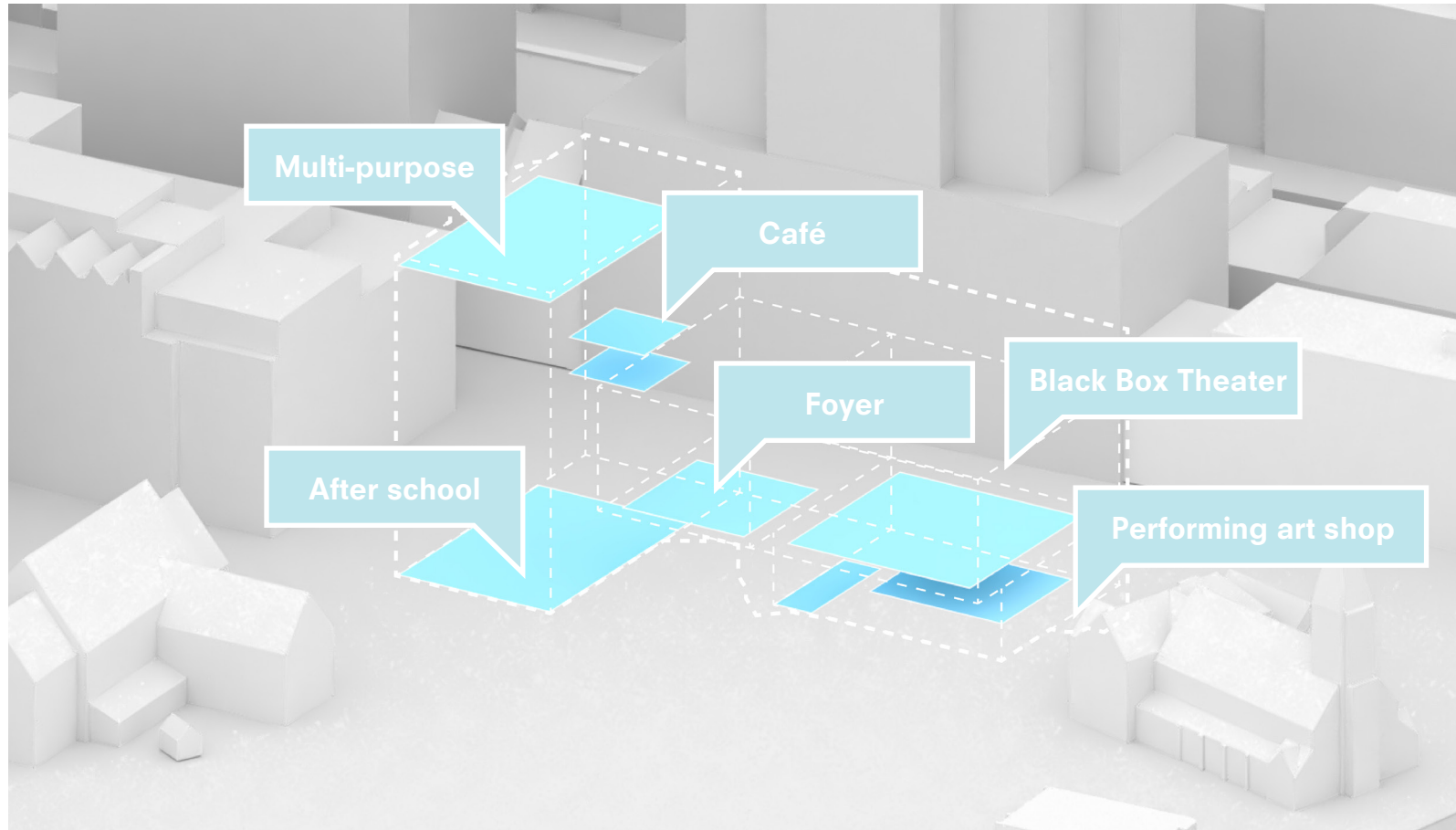
To engage a broader audience indoor

Closed Public space

INTEGRATED OPEN PUBLIC SPACE
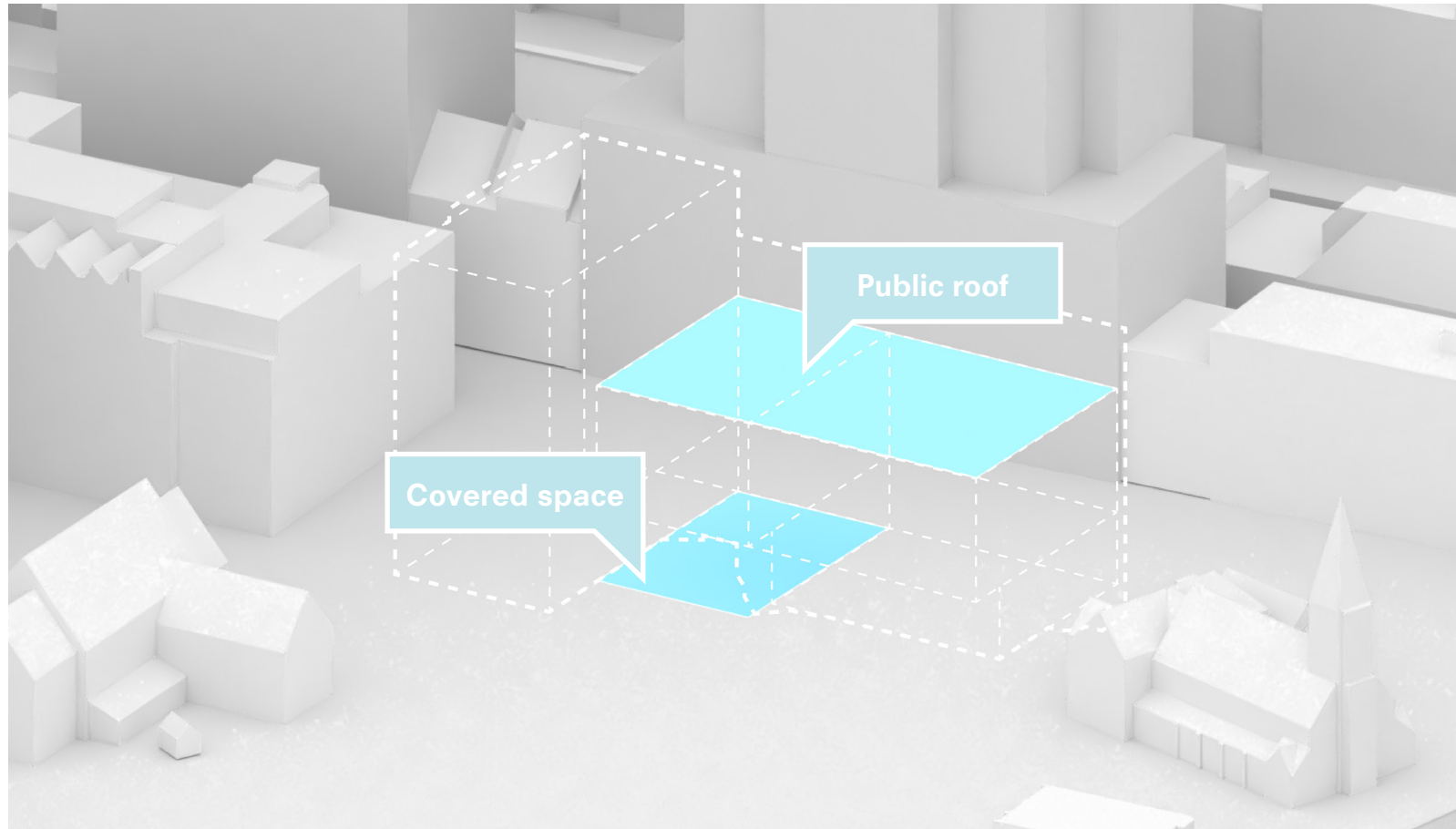
To engage a broader audience outdoor

STRUCTURE

STRUCTURE SYSTEM
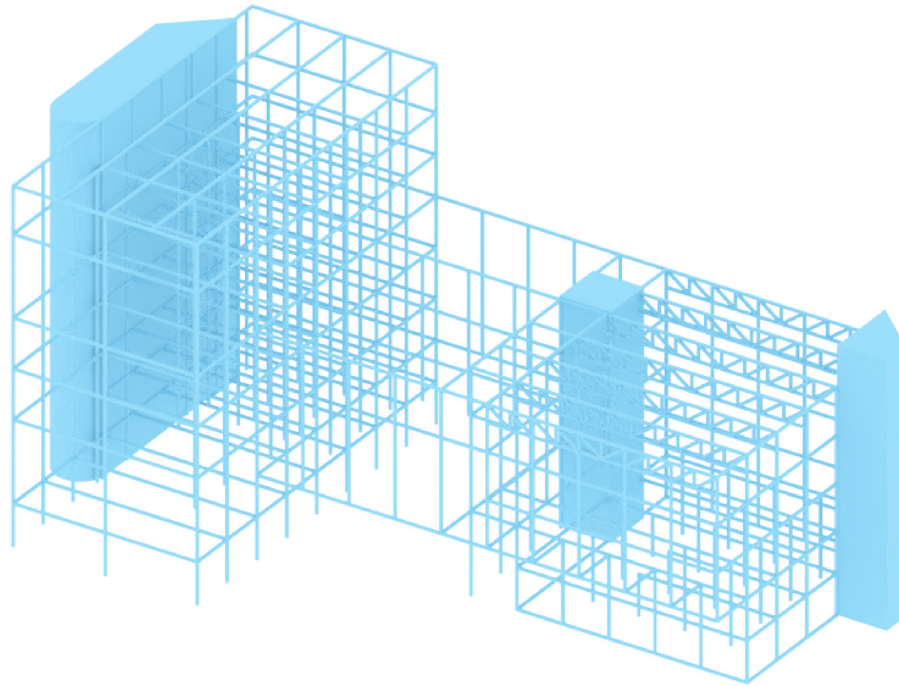
Structure is made of PRECAST REINFORCED CONCRETE
Exposed structure feeling / Good thermal mass properties and Acoustic performance

STRUCTURE GRID + STABILITY CORES

4m

4m
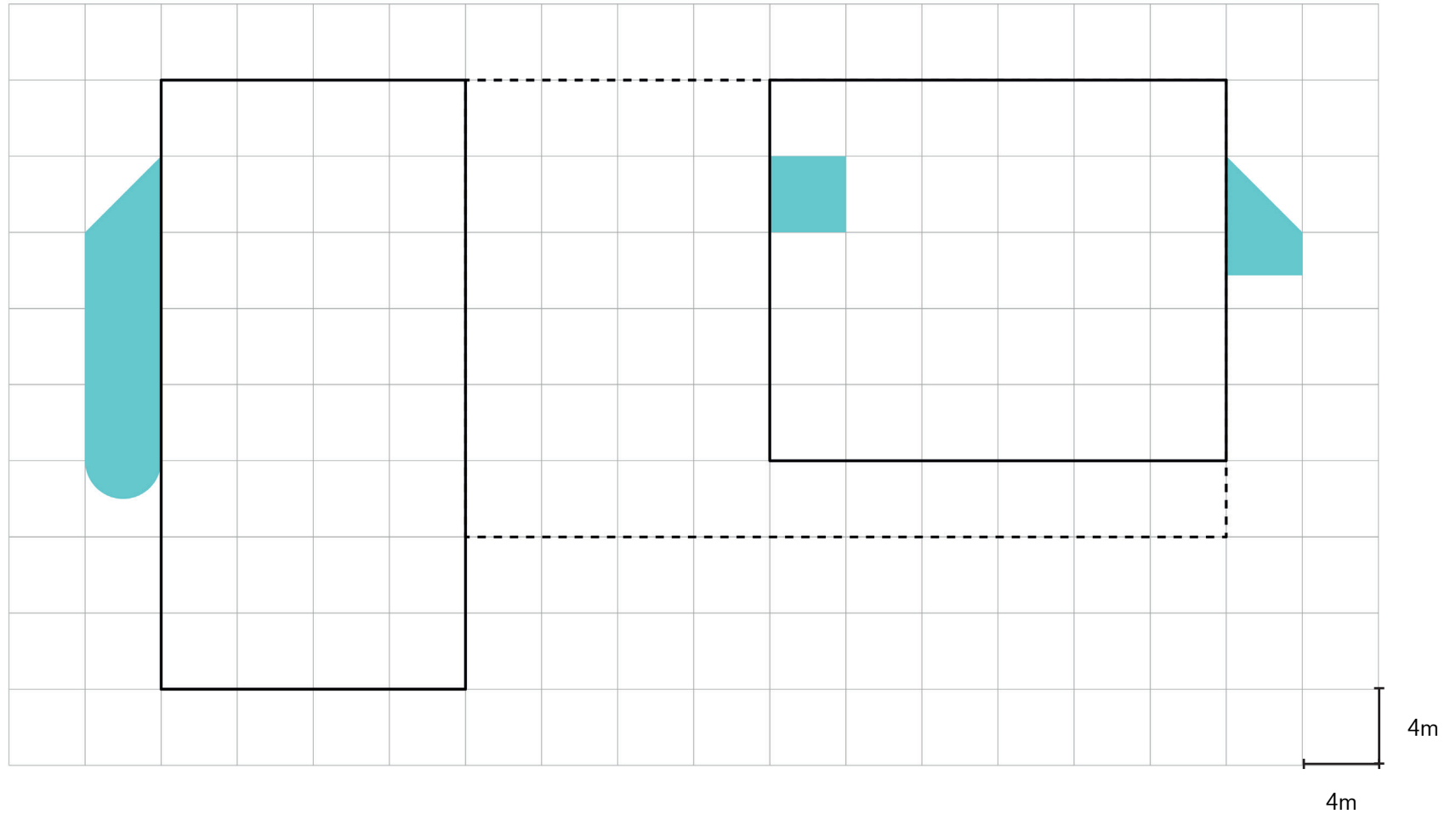
Structure grid is 4x4m

CORE & FOUNDATION
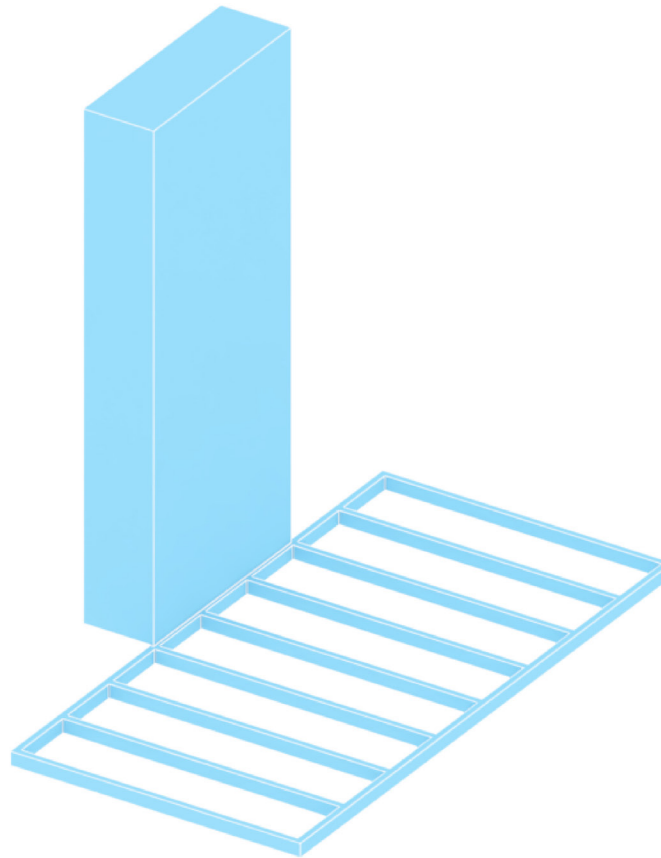
Precast concrete construction

HINGED COLUMN TO FOUNDATION
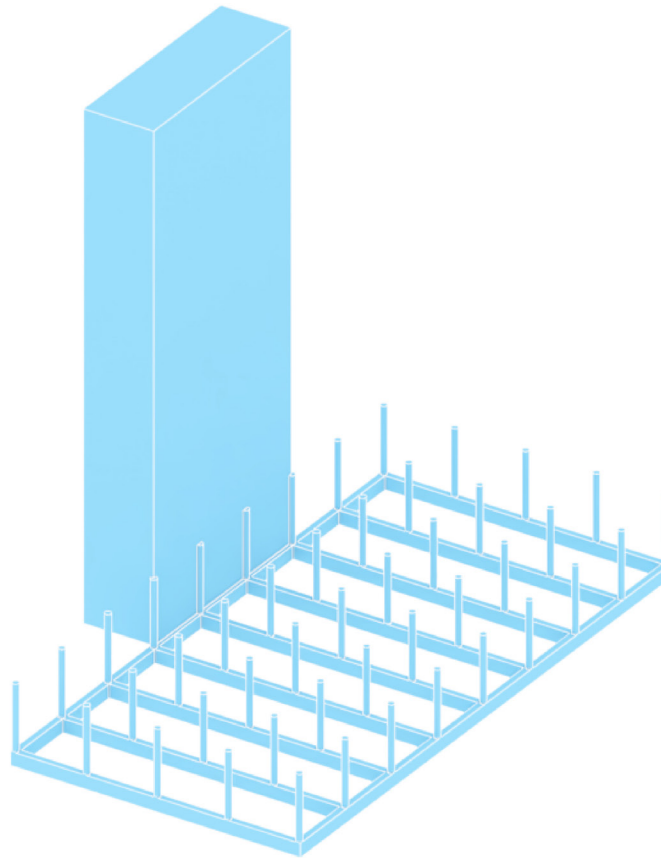
Precast concrete construction

VERTICAL COLUMN SYSTEM
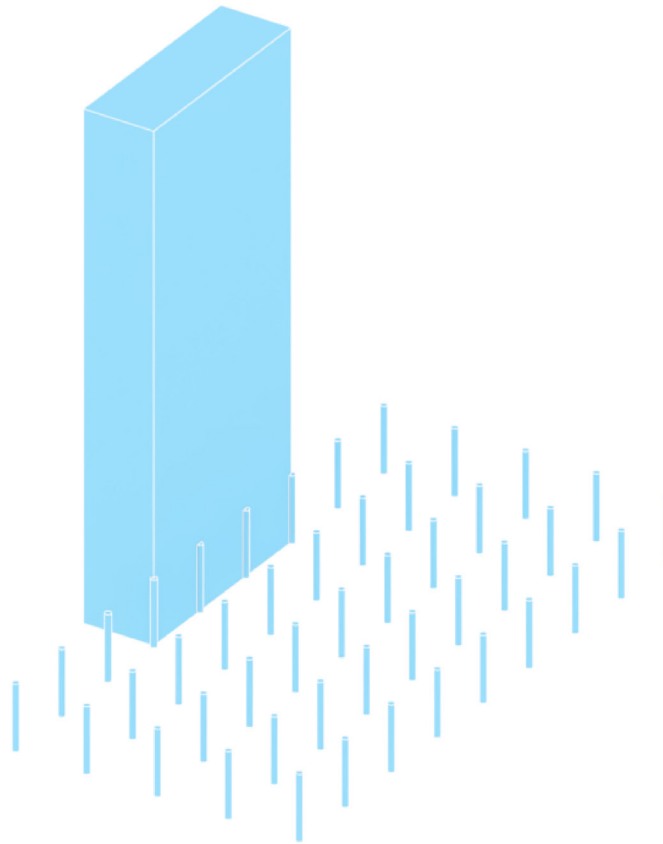
Precast concrete construction

TEMPORARY STABILITY ELEMENT
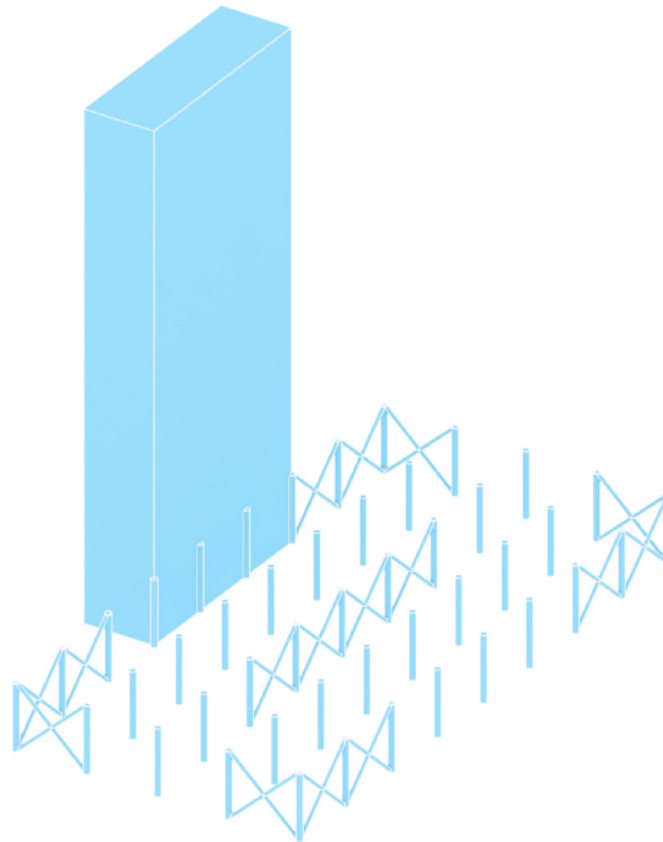
Precast concrete construction

BEAM - COLUMN
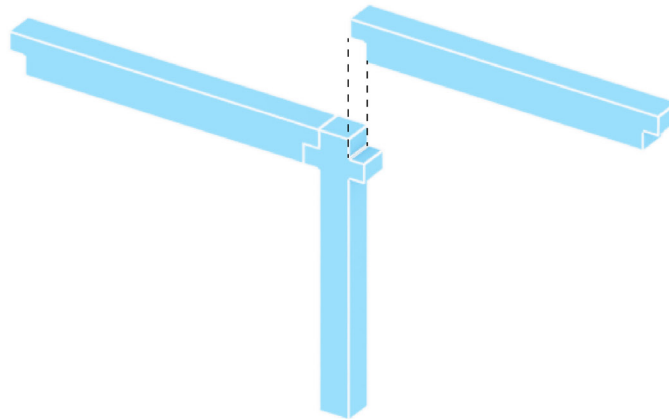
Precast concrete construction

BEAM SYSTEM
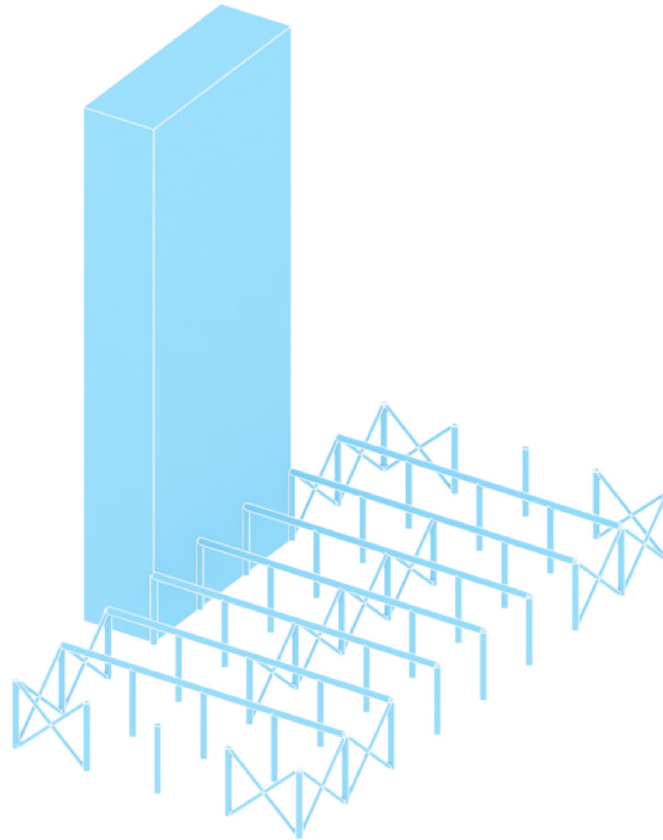
Precast concrete construction

GRINDER - COLUMN
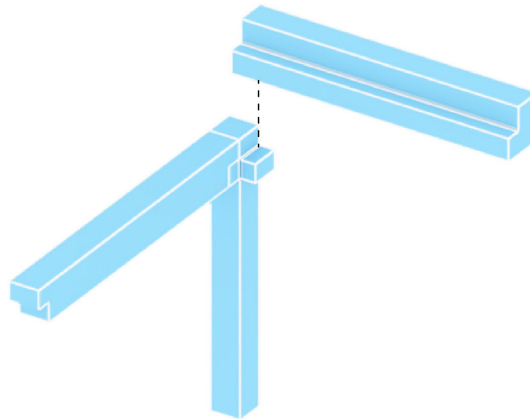
Precast concrete construction

PERIMETRAL GRINDER SYSTEM
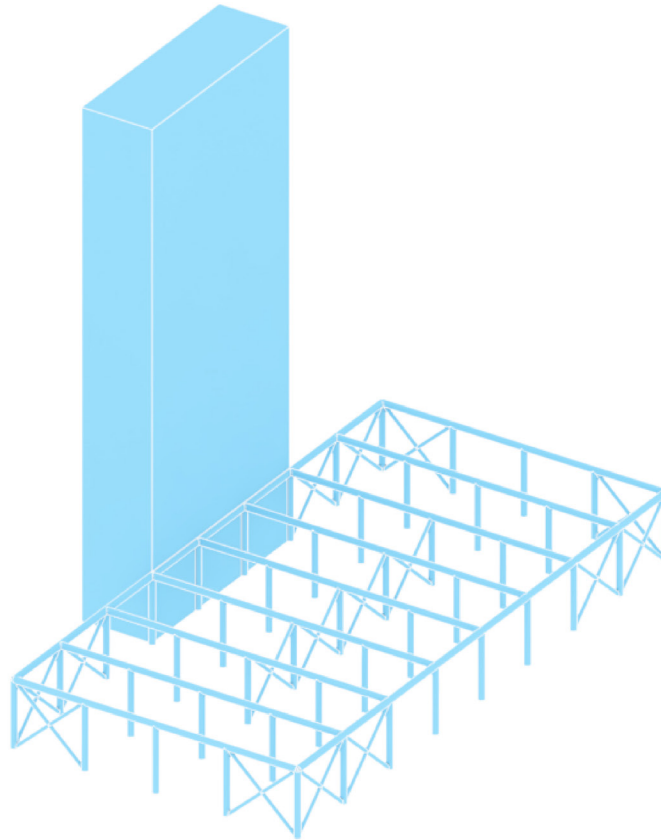
Precast concrete construction

ONE-WAY SLAB
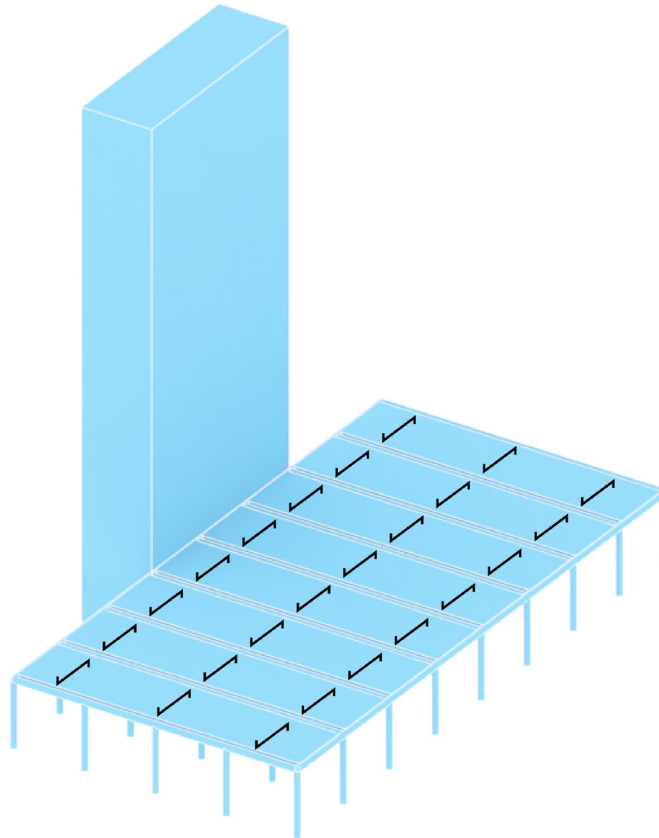
Temporary stability elements are removed

SLAB SPAN DIRECTION
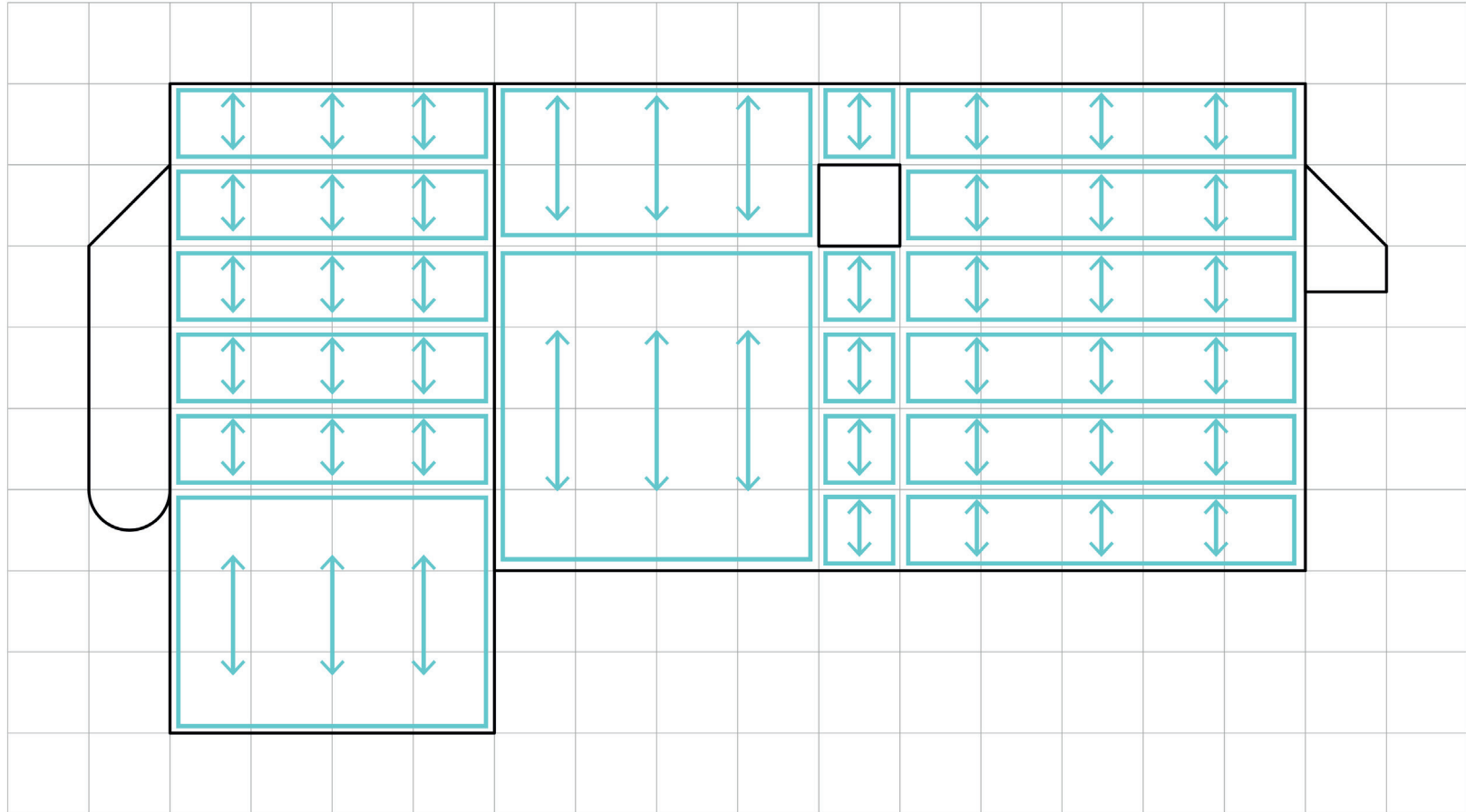
Precast concrete construction

MULTIPLY
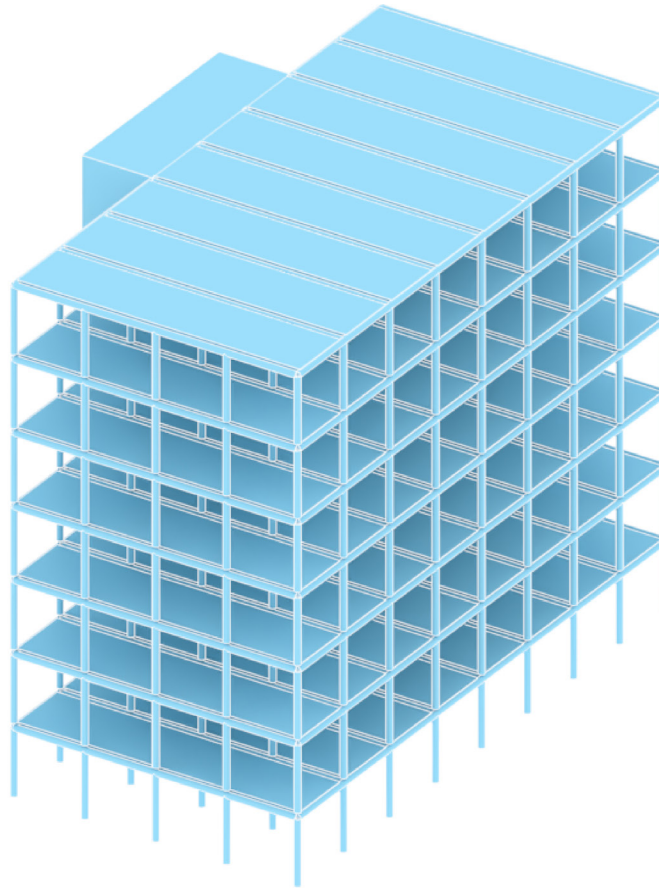
Precast concrete construction

ELEMENTS

VERTICAL	HORIZONTAL		SLAB	SPECIAL

Prefabricated column
400x400 / 250x250 mm
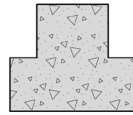
Prefabricated beam
T-shape 600/800 mm

Prefabricated beam
800x400 mm

Prefabricated Hollow core slab
150 mm

Truss
1300 mm

Prefabricated column
400 mm
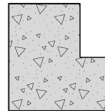
Prefabricated beam
L-shape 600/800 mm

Prefabricated beam
300x250 mm
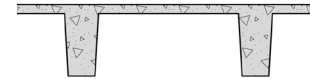
Prefabricated Double tees
400/600 mm

Composite column
HEA 280 mm

Prefabricated concrete elements, plus few special elements, when particular
spaces with larger spans would otherwise required oversize structural elements

CLIMATE

VENTILATION
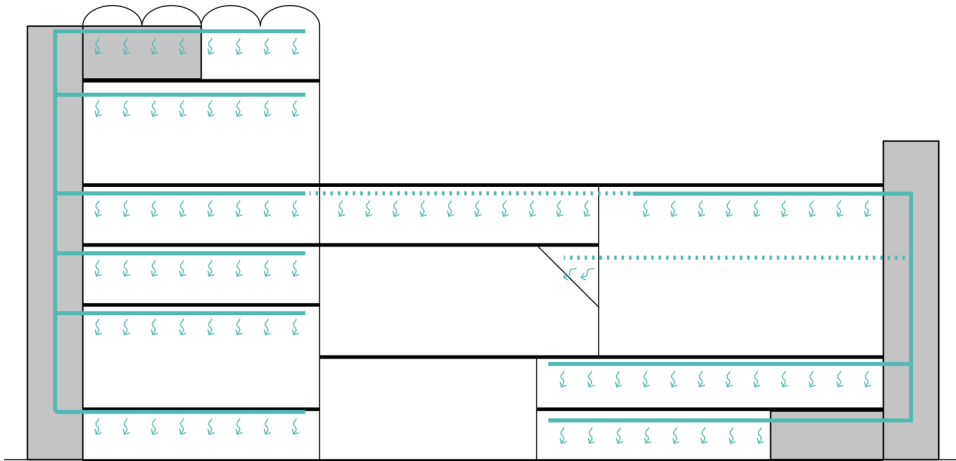
Mechanical ventilation
as main actor
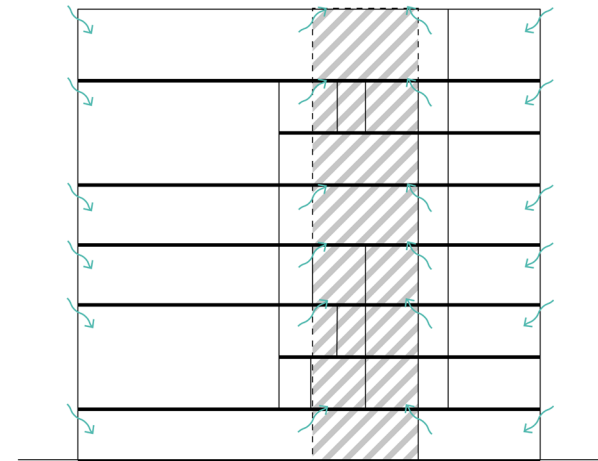
Natural ventilation
to achieve an extra gain especially during summer

Large shafts inside the cores + Two technical rooms

MECHANICAL VENTILATION

TYPE OF SPACE	AMOUNT OF AIR PER HOUR	AIR VELOCITY	DUCT SIZE Ø
• Theater (150-200 people)	– 25 m³/h	– Normal duct 2,5 m/s	– Technical shafts 1000 + 1000 mm
• Foyer (150)	– 40 m³/h	– Shaft 5 m/s	– Theater 600 + 600 mm
• Dance studios (25-30 people)			– Foyer 700 mm
• Music rooms (1-8)			– Dance 400 mm
			– Music 10/20 mm

Dimensioning for the ventilation ducts

GEOTHERMAL ENERGY - HEATING
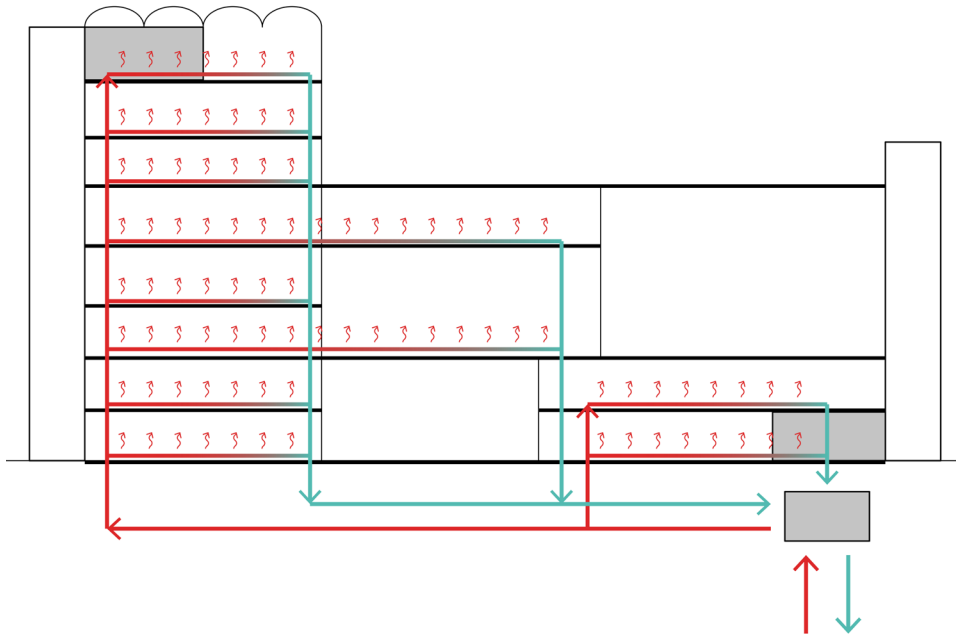
Heat pump system
Heating floor system
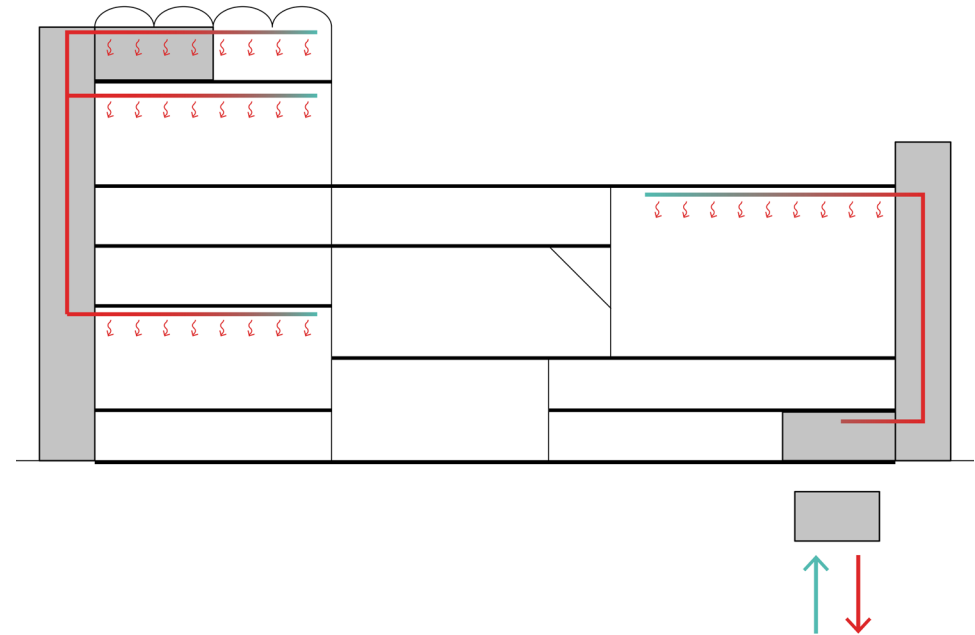
Mechanical ventilation
Controls the temperature in the performing spaces

Winter

GEOTHERMAL ENERGY - COOLING
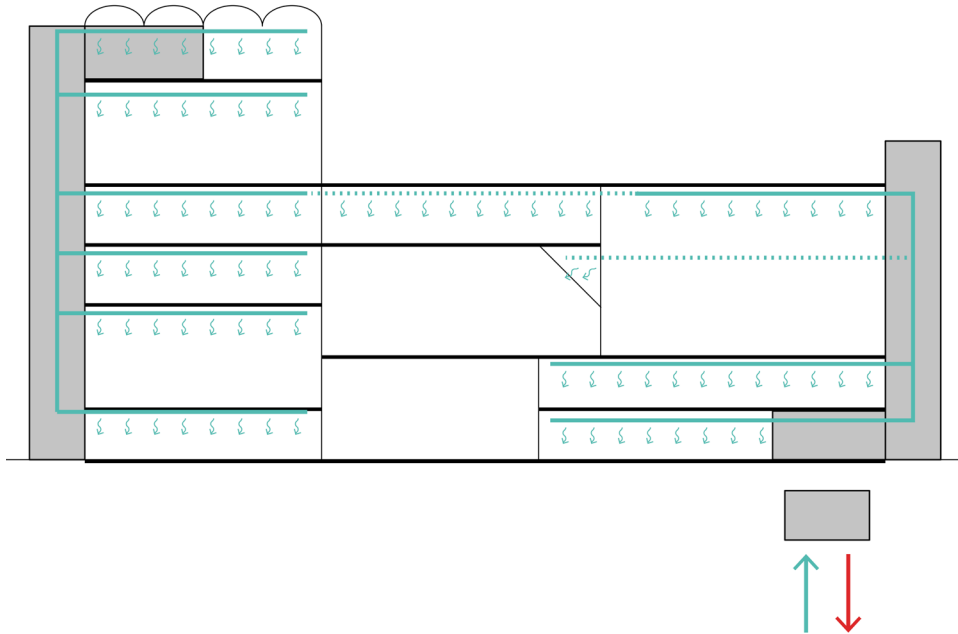
Mechanical ventilation
Controls the temperature to cool down the temperature
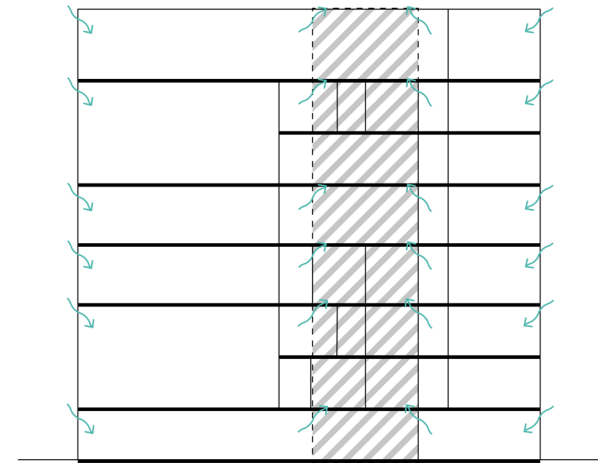
Natural ventilation
to achieve an extra gain especially during summer

Summer

WATER SYSTEM
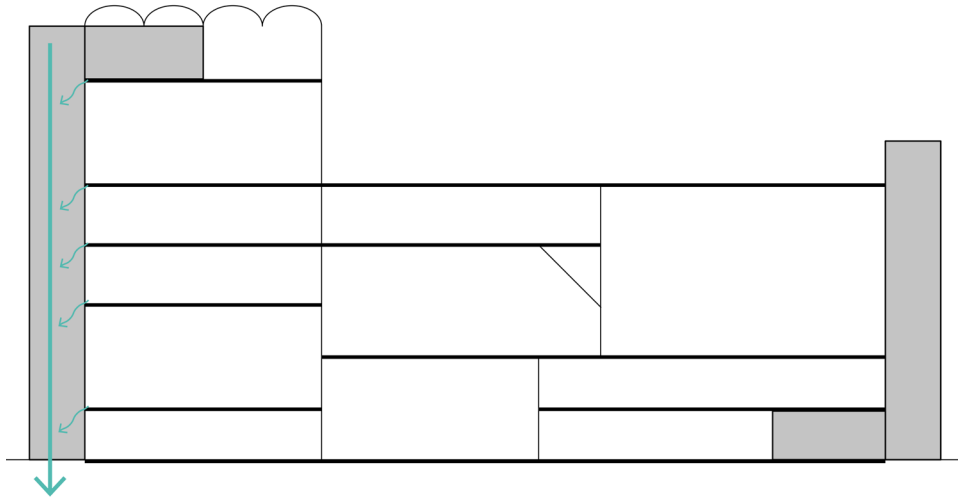
Sewage system
Left core for mixed-toilettes
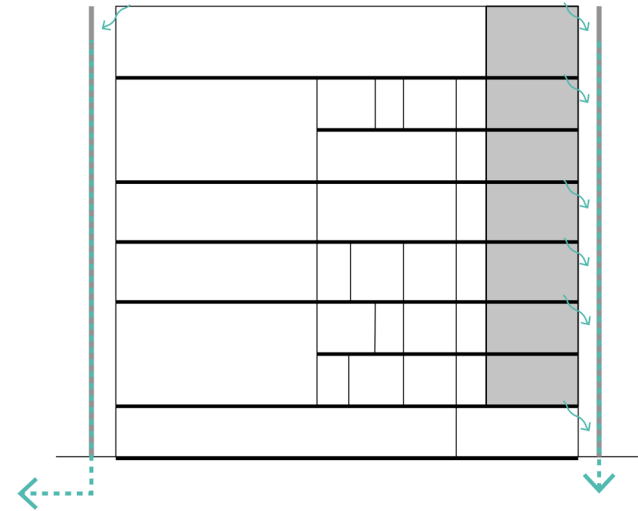
Changing room's sewage system + Roof water drainage
Hidden inside and behind the envelope

SOLAR ENERGY
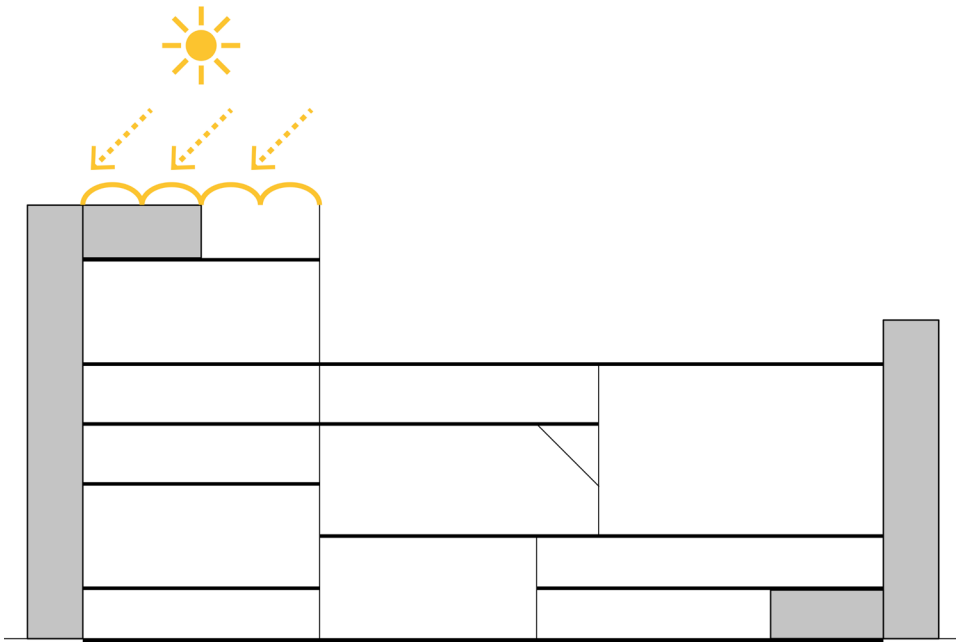
PV cells
Glued on the roof
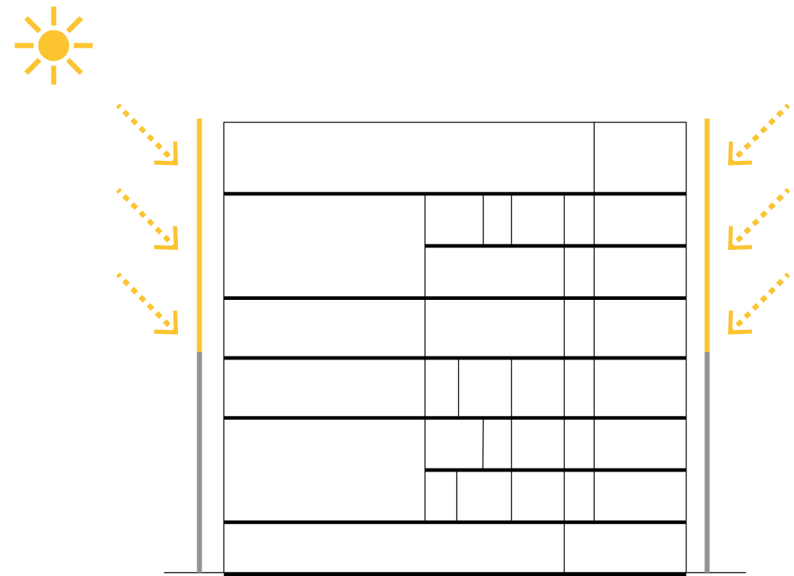
PV cells
Glued on the higher part of the pipes

ACOUSTIC

DAMPENING & SOUNDPROOF ELEMENTS

DAMPENING SOUND   SOUNDPROOF
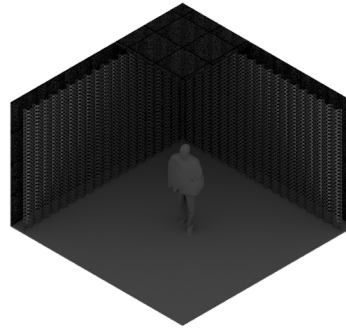
Wood acoustic panel Music   Wood acoustic panel + Perforated aluminium   Acoustic insulated walls, ceilings and floors
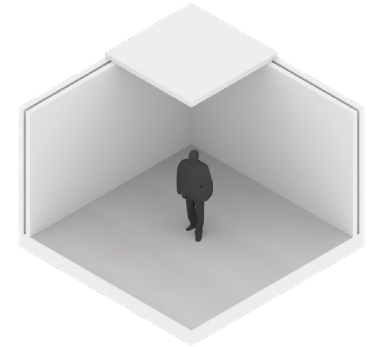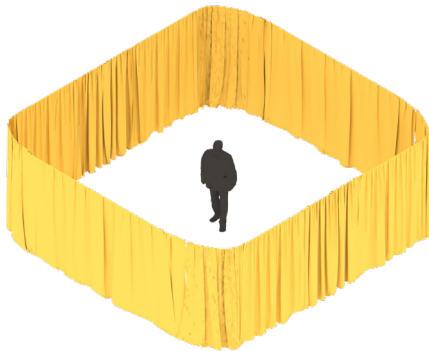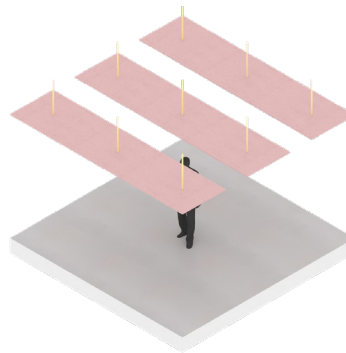
Dampening courtain   Acoustic ceiling clouds   Triple glass & Airlock double doors
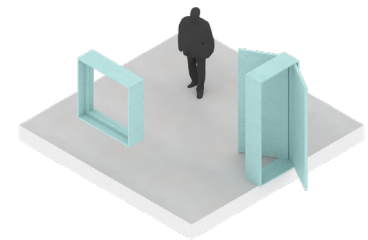
Defined in Dampening and Soundproof elements.
Also the concrete mass helps thanks to its good sound properties and mass

ACOUSTIC & MECHANICAL VENTILATION
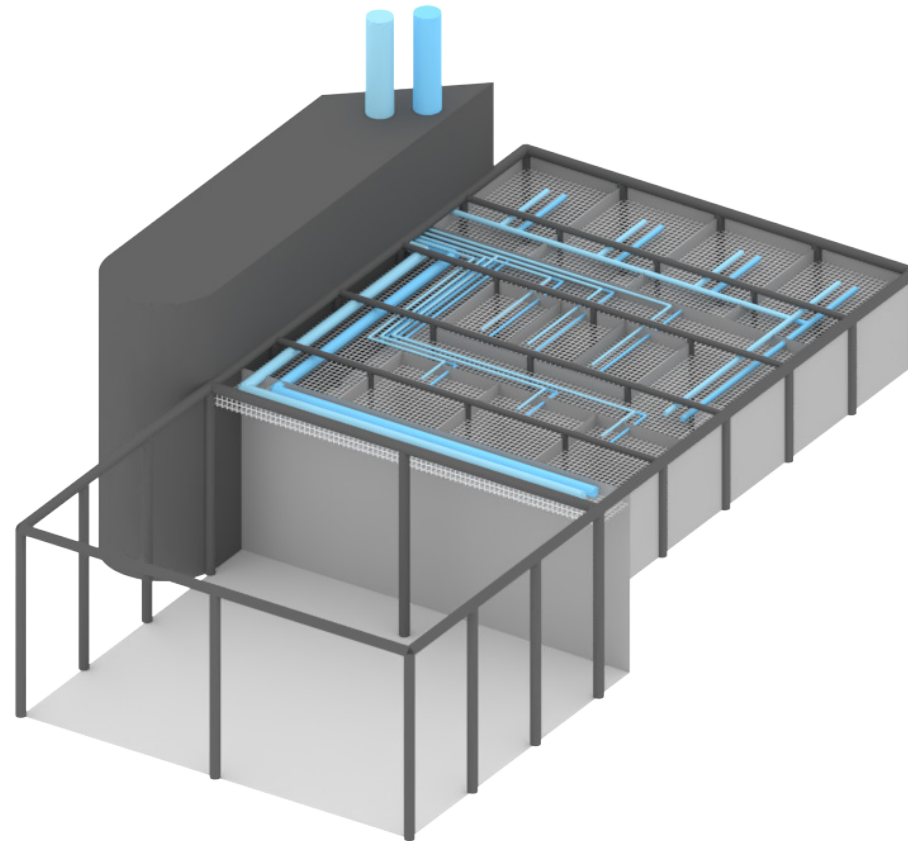
Singular ducts to avoid contamination of noise between different rooms.
False ceiling to hide the system

ARCHITECTURAL LOGIC

Hotel New York

SPATIAL CONCEPT

Static

Semi-dynamic   Circulation   Semi-dynamic

Dynamic

Open public space
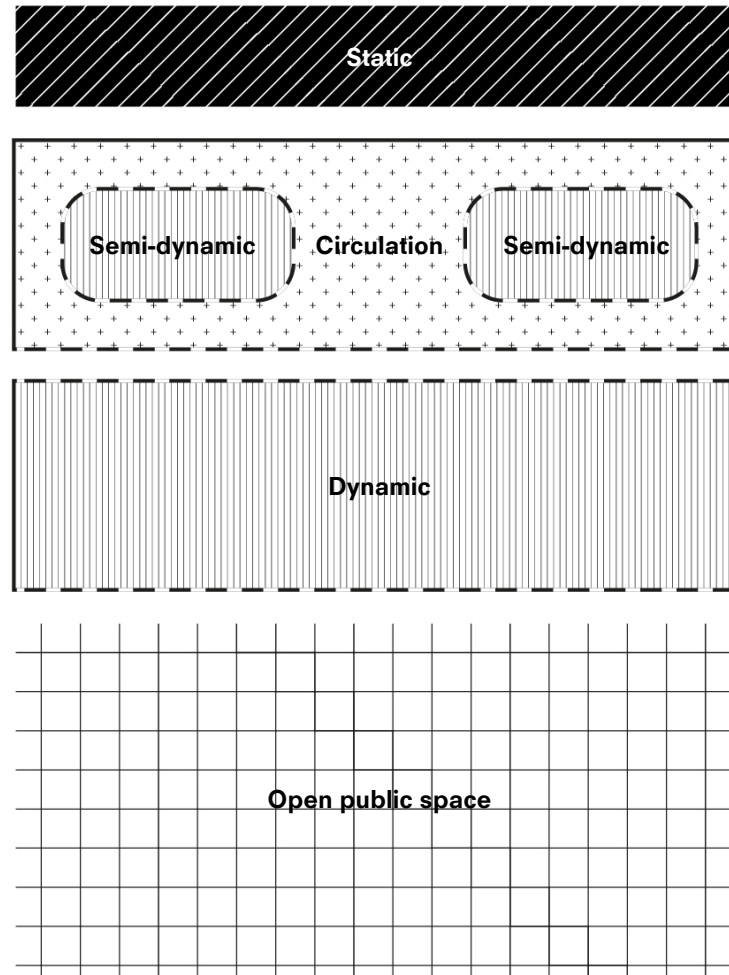
In order to achieve both physical and virtual relationships

SPATIAL CONCEPT

Services + Changing room + Offices + Studying

Playing   Circulation   Playing

Perform

Open public space
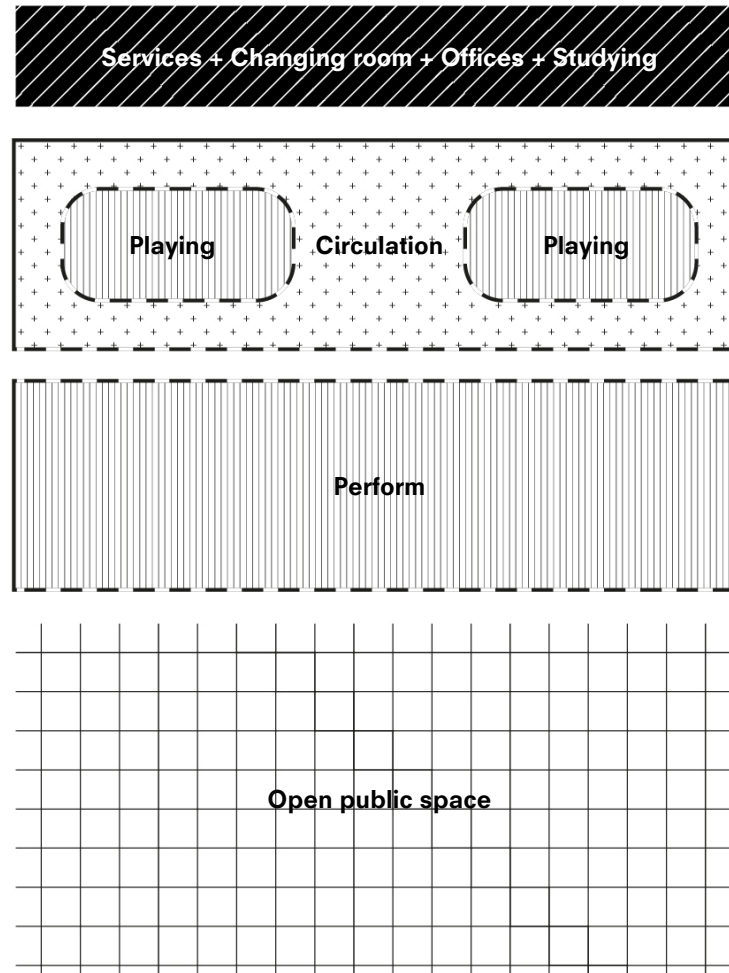
In order to achieve both physical and virtual relationships

VISUAL RELATIONSHIPS
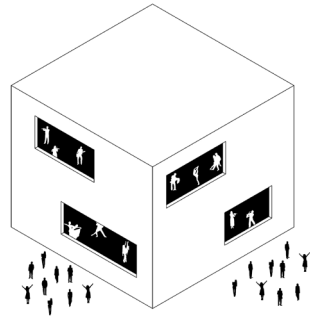
Performer - Neighborhood

Performer - Performer
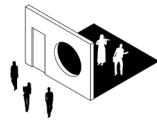
Performer - Visitor
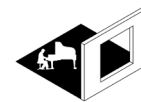
Performer - Outdoor

Interaction between differet users

EXPERIENCE

URBAN IMPLEMENTATION 1:500
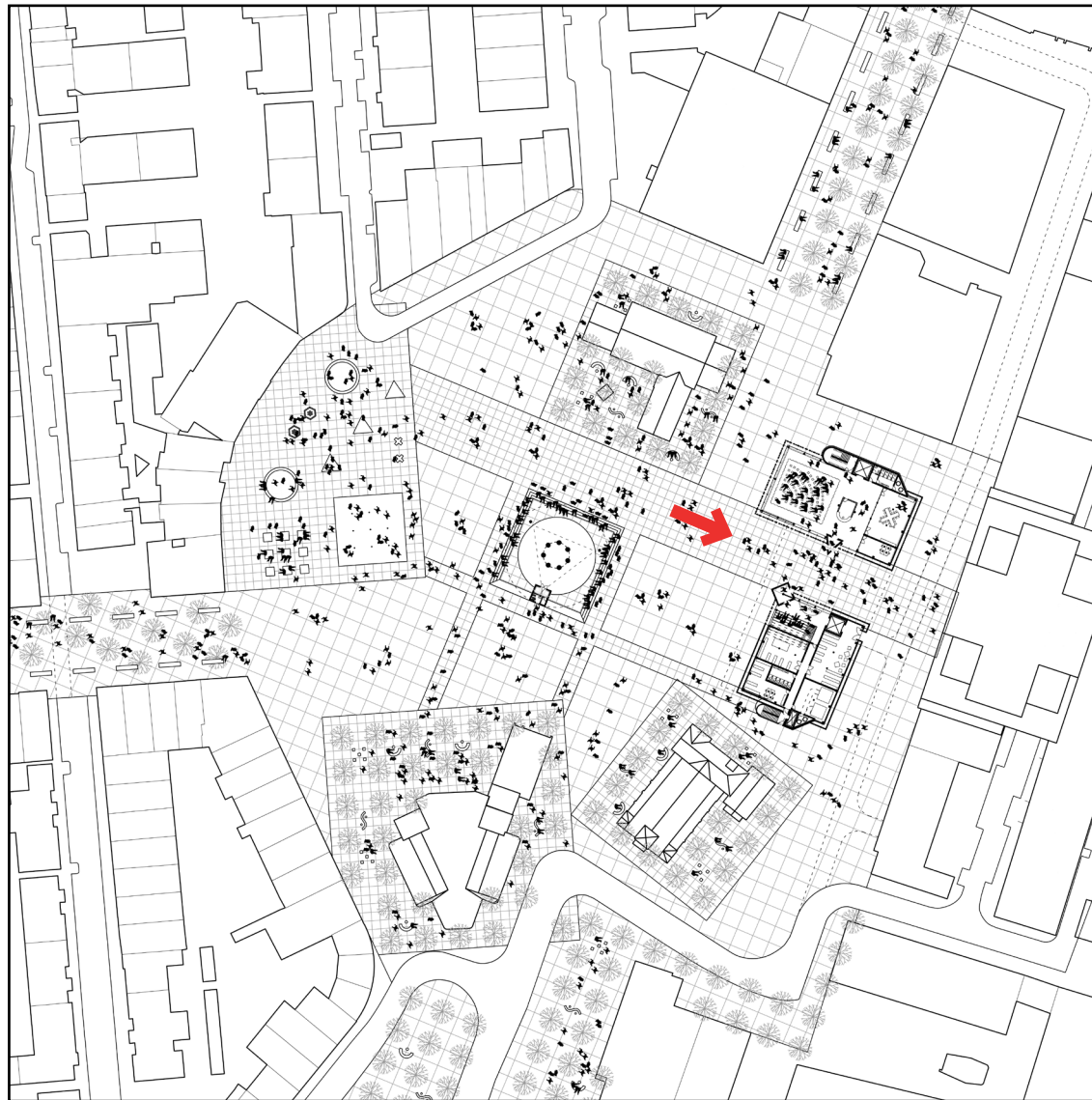
0m   200m

From the Open public space to the Closed public space

COVERED STAGE
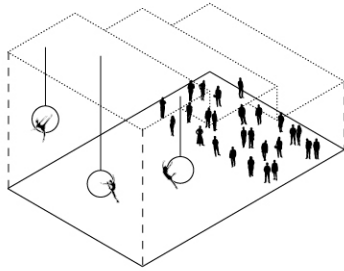
Performance
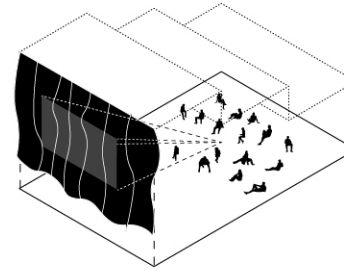
Movie night
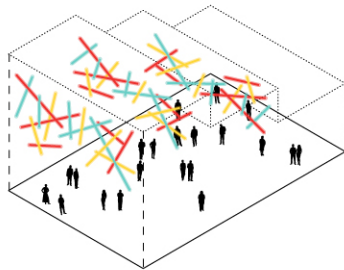
Lights performance
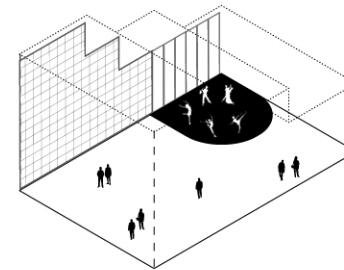
material

Multiple uses

VIEW FROM THE OPEN PUBLIC SPACE

Approaching attracted by elements of interaction

Entrance

AVOID REVOLVING DOOR

Ugly - To be avoided

CORN ENTRANCE
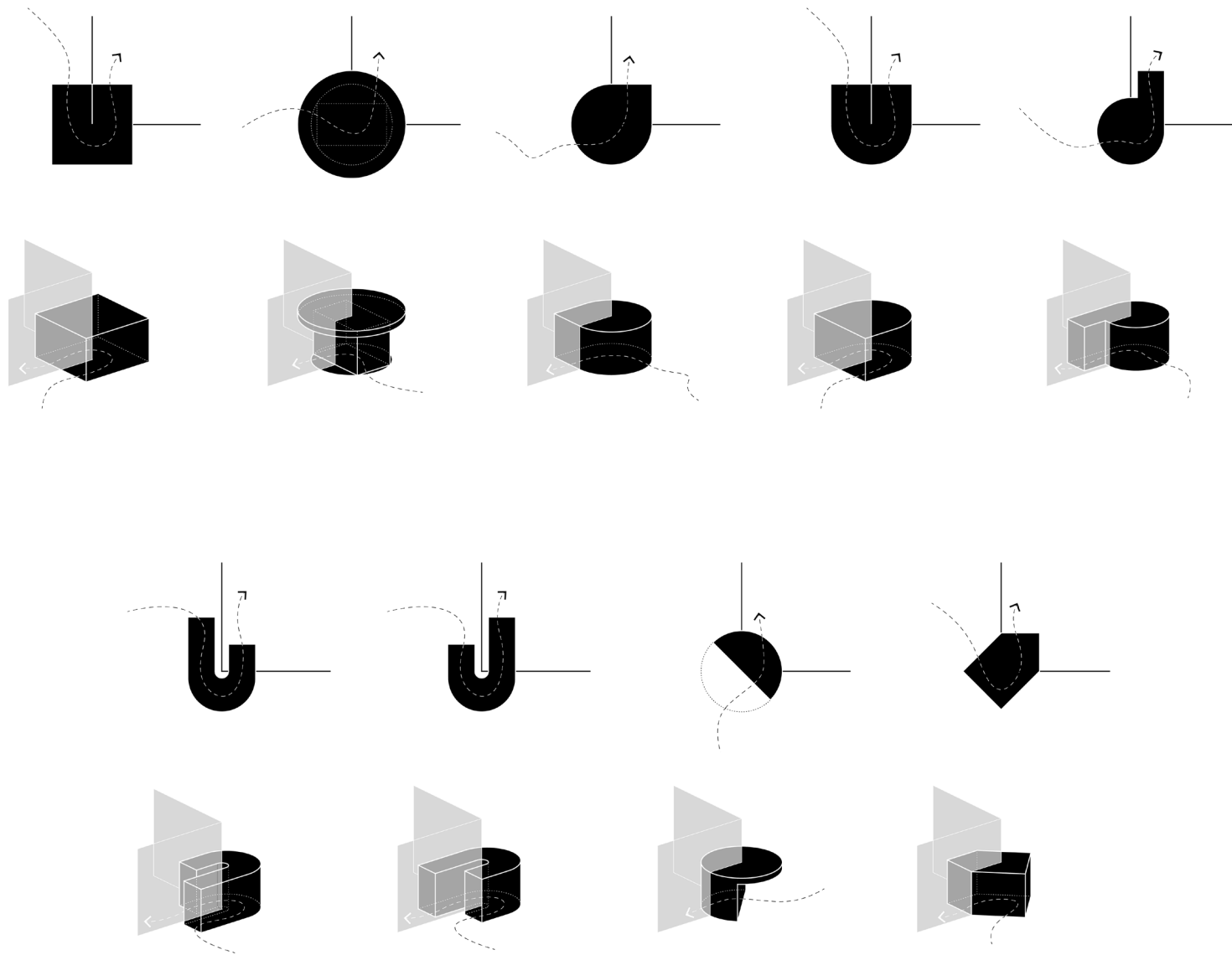
To mitigate the wind tunnel effect

FLAT ENTRANCE
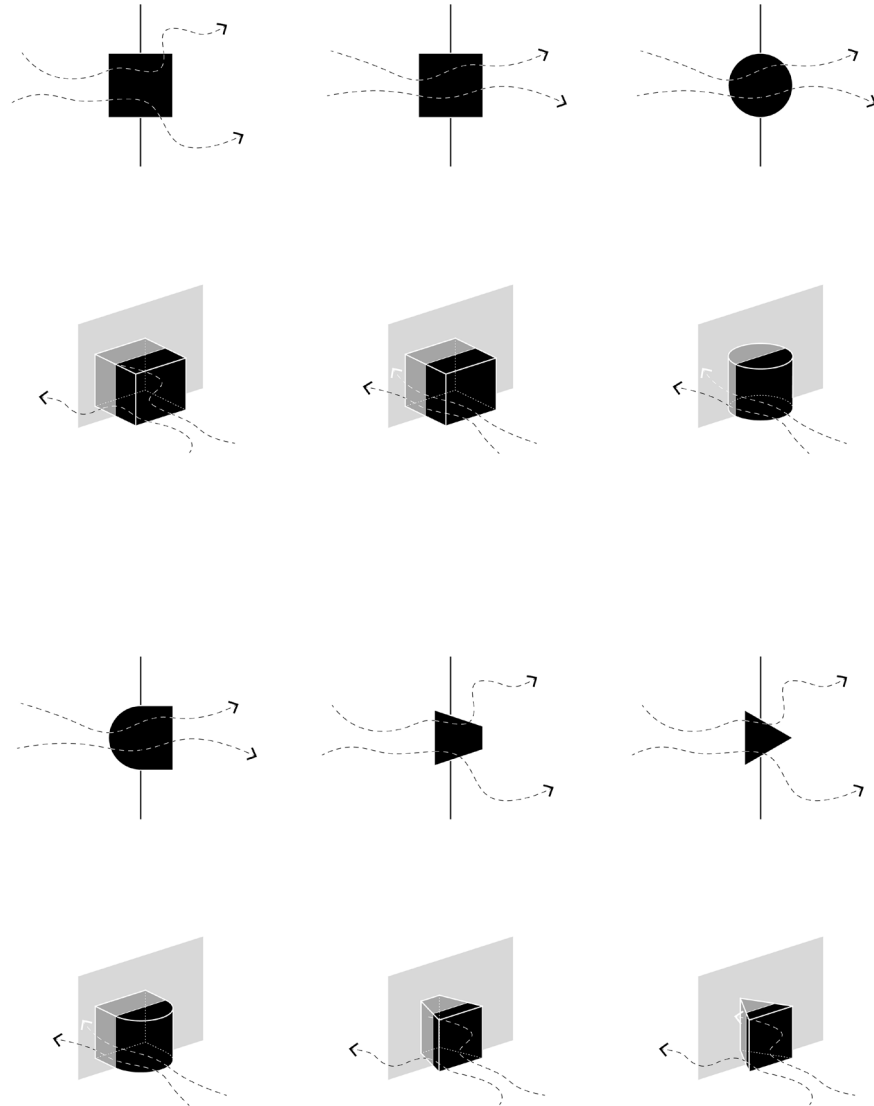
To mitigate the wind tunnel effect

Closed Public space

GROUND FLOOR

Music Library

Secretary

Black Box Theater
Entrance

Technical room

Reception

Perform
School
Entrance

Costume workshop

Archive

Multi-purpose space

Black Box Theater
Entrance

0m

20m

+ 0.00 m

Closed Public space

GROUND FLOOR

Music Library

Secretary

Reception

Academy

Perform School Entrance

Multi-purpose space

Black Box Theater Entrance

Technical room

Costume workshop

Archive

Theater

Black Box Theater Entrance
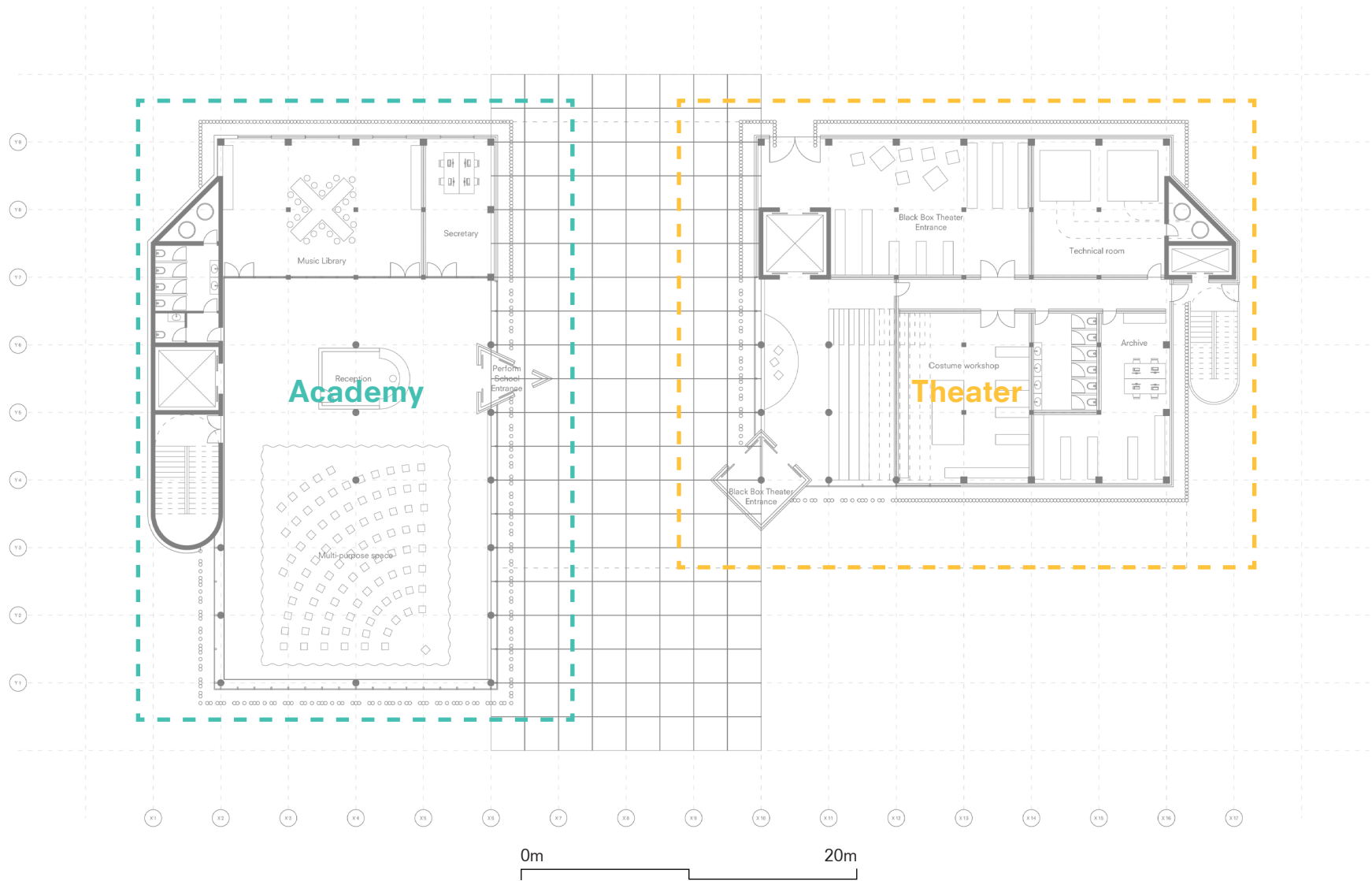
0m   20m

+ 0.00 m

ACADEMY

Closed Public space

GROUND FLOOR

Music Library

Secretary

Reception

Perform School Entrance

Multi-purpose space

Black Box Theater Entrance

Technical room

Costume workshop

Archive

Black Box Theater Entrance

0m

20m

+ 0.00 m
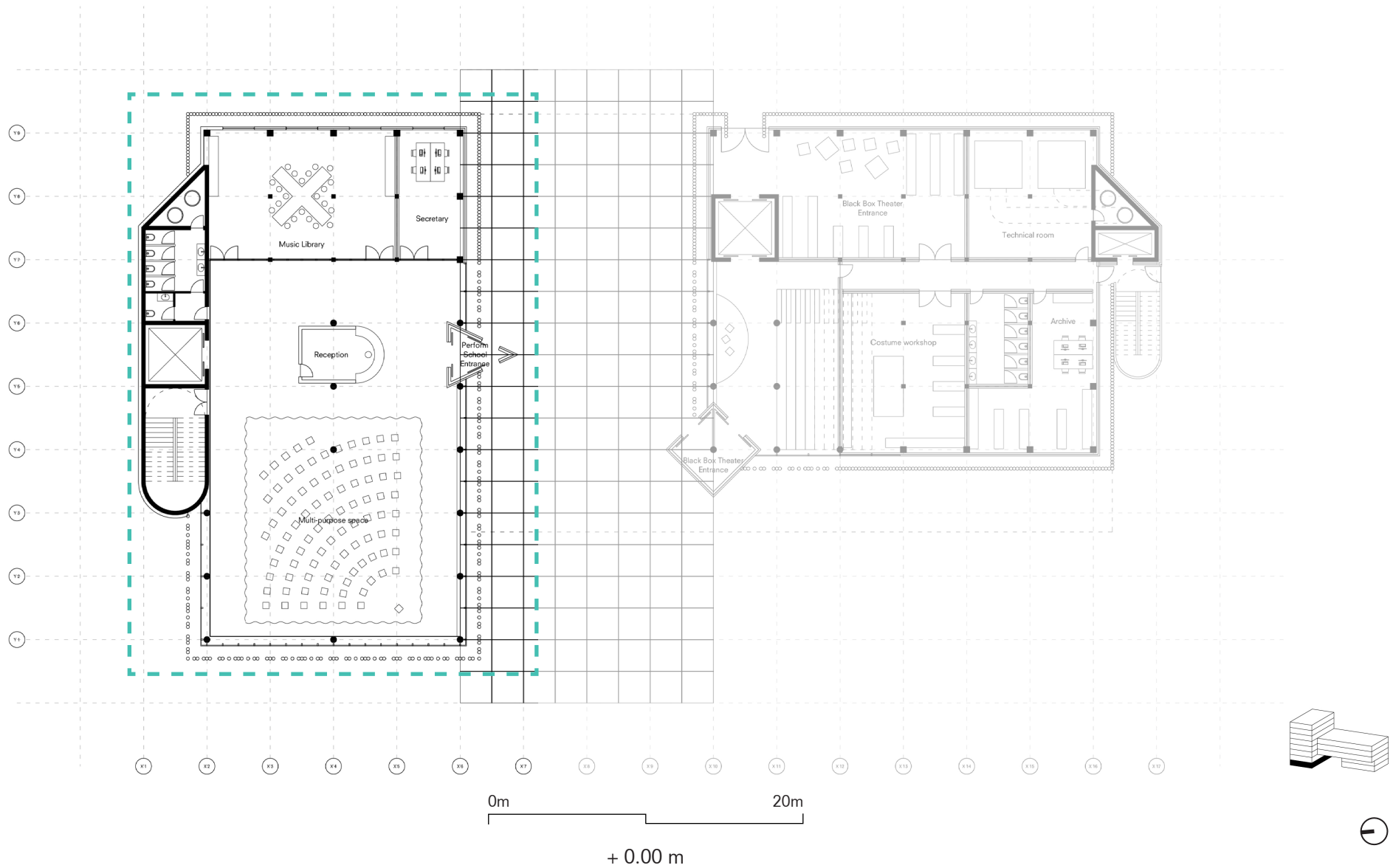
MULTIPURPOSE SPACE
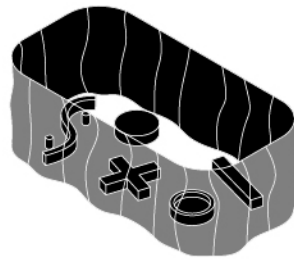
Kids activity
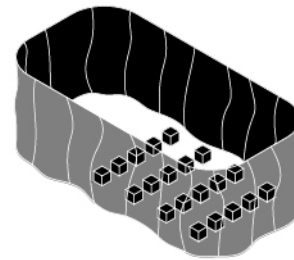
Discussion Event

MULTIPURPOSE SPACE

As kindergarden / after school / workshop

MULTIPURPOSE SPACE

As conference room

1st FLOOR

Changing room
Changing room
Music room
Music room
Music room
Music room
Music room
Music room
Dance studio

Storage
Locker room
Music shop Storage
Toilette
Music shop
Ticket

0m
20m

+ 3.70 m

CROSS SECTION

Multi-purpose space | Multi-purpose space | Changing room

Music room | Music room | Music room

Dance studio | Café | Music room

Orchestra room | Café | Music room

Choral room | Music room | Music room | Music room

Music room | Music room | Changing room

Dance studio | Music room | Music room | Music room

Multi-purpose space | | Music library

0m   20m

FRAGMENT LEARNING PERFORMANCE 1:50

+ 11.10 m

+ 7.40 m

+ 3.70 m

Z 3

Z 2

Z 1

Y 1   Y 2   Y 3   Y 4   Y 5   Y 6   Y 7   Y 8   Y 9

Floor 250mm
Timber sprung floor, 100mm
Acoustic insulation, 50mm
Topping, reinforced concrete, 100 mm
Double tee beam, precast reinforced concrete, 450 mm

Mechanical ventilation

Triple glass window

Soundproof door

Maintenance catwalk

Floor 250mm + 100 mm
Screed concrete with floor heating system, 50mm
Topping, reinforced concrete, 50mm
Hollow core slab, precast reinforced concrete 150 mm
Acoustic insulation, 100 mm

Floor 250mm
Screed concrete with floor heating system, 50mm
Topping, reinforced concrete, 50mm
Hollow core slab, precast reinforced concrete 150 mm

Mechanical ventilation

Dampening panel, microforated wood 10 mm

False ceiling, metal mesh 5 mm

Interior wall 80 + 250 + 50 mm
Acoustic insulation 100 + 100 mm
Plaster 50mm
Dampening panel, microforated wood 50mm

0m   10m

FRAGMENT MUSIC 1:50

Airlock
Double soundproof doors

Triple glass window

Polished concrete floor

800

400

25   375   25   375   25

0m   10m

FRAGMENT MUSIC 1:50

Wood acoustic panel Music

Acoustic ceiling clouds

Airlock
Double soundproof doors

Triple glass window

Polished concrete floor

800

400

25   375   25   375   25
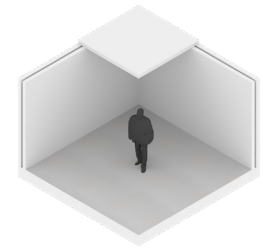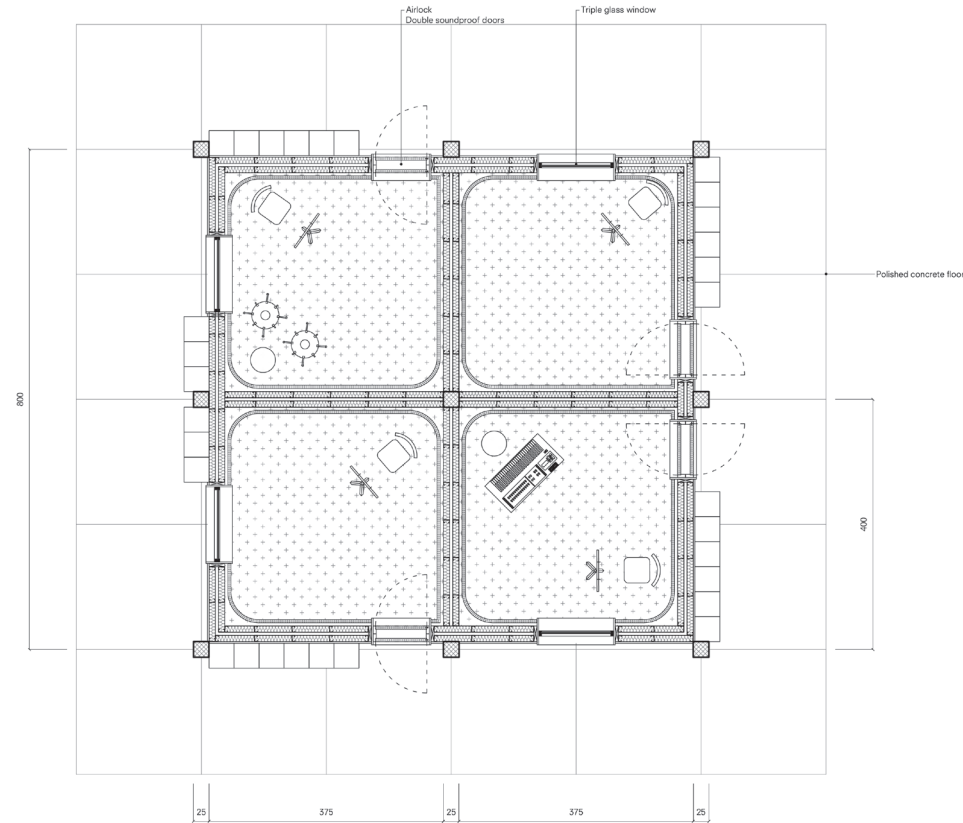
Acoustic insulated walls, ceilings and floors
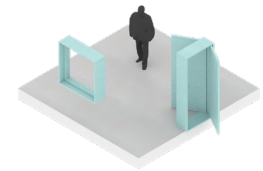
Triple glass & Airlock double doors

0m   10m
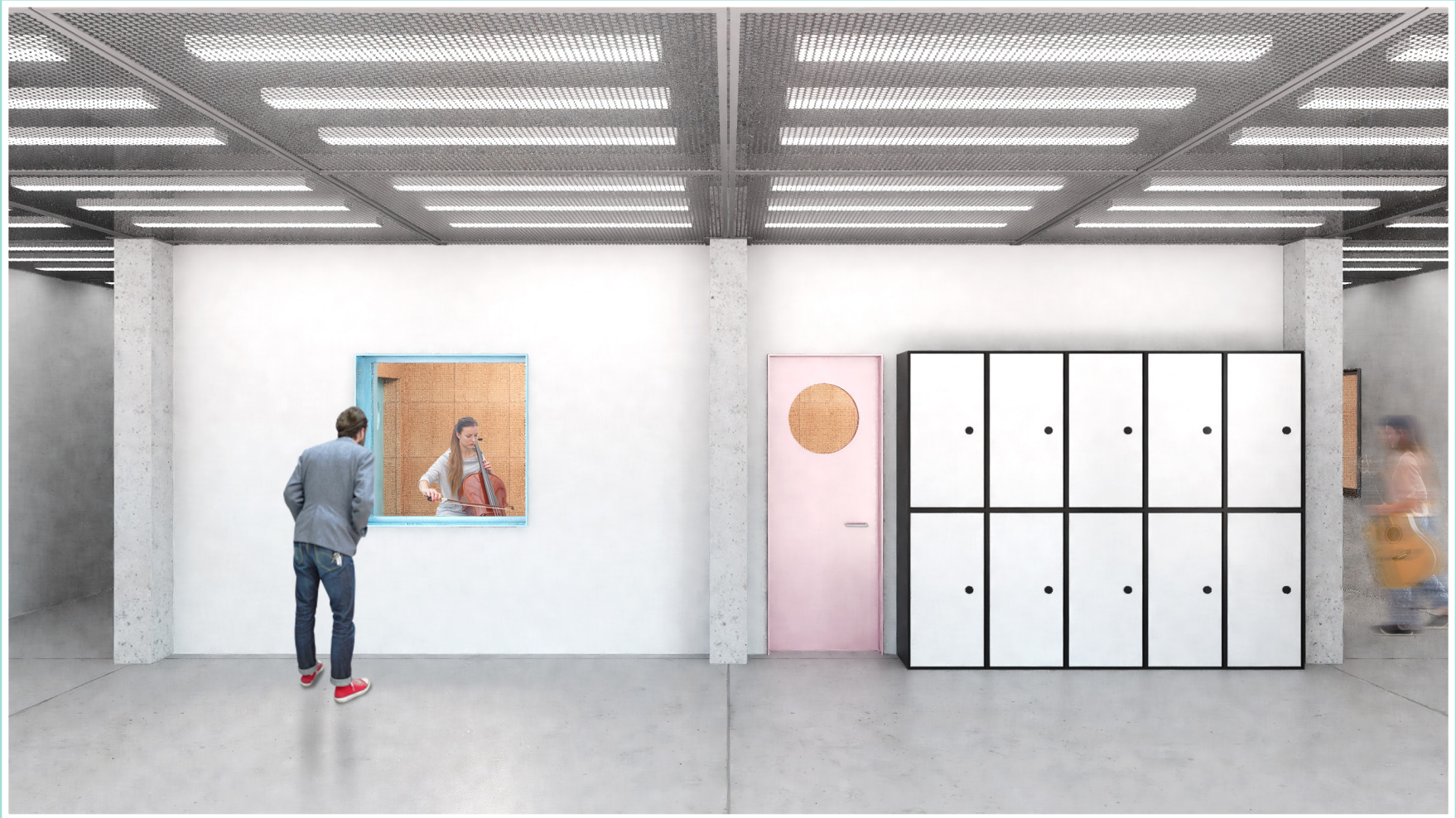
Visual relationship and interaction

FRAGMENT MAIN DANCE STUDIOS 1:50

Triple glass window • Mirror wall • Composite column 400 mm HEA 280 and reinforced concrete • Interior wall 250 Acoustic insulation 100+100 mm Plaster • Soundproof door

Envelope pipe 200 mm
Triple glass curtain wall
Maintenance catwalk
Sun-screen, metal mesh curtain
Dampening curtain
Timber sprung floor
Wood ballet barre
Water drainage

0m   10m

FRAGMENT MAIN DANCE STUDIOS 1:50

Triple glass window   Mirror wall   Composite column 400 mm   Interior wall 250   Soundproof door
HEA 280 and reinforced concrete   Acoustic insulation 100+100 mm
Plaster

Acoustic ceiling clouds

Envelope pipe
200 mm

Triple glass
curtain wall

Maintenance
catwalk

Barre

Water drainage

Dampening courtain

Timber sprung floor

0m   10m

DANCE STUDIO

Nice view over the neighborhood

2nd FLOOR

Changing room Changing room Changing room

Music room

Toilette

Music room Music room Music room

Lounge
Bar

Black Box Theater

Music room Music room Music room

Foyer

0m   20m

+ 7.40 m

DANCE STUDIO

Double height space provides interaction between different performers

3rd FLOOR

Changing room

Changing room

Music classroom

Dance studio

Music room

Music room

Music room

Music room

Lounge Bar

Technical

Orchestra room

0m

20m

+ 11.10 m

4th FLOOR

Changing room

Changing room

Music classroom

Music room

Dance studio

Toilette

Café

Student Lounge

Rec studio

Music room

Music room

Music room

Control room

Dance studio

0m 20m

+ 15.35 m
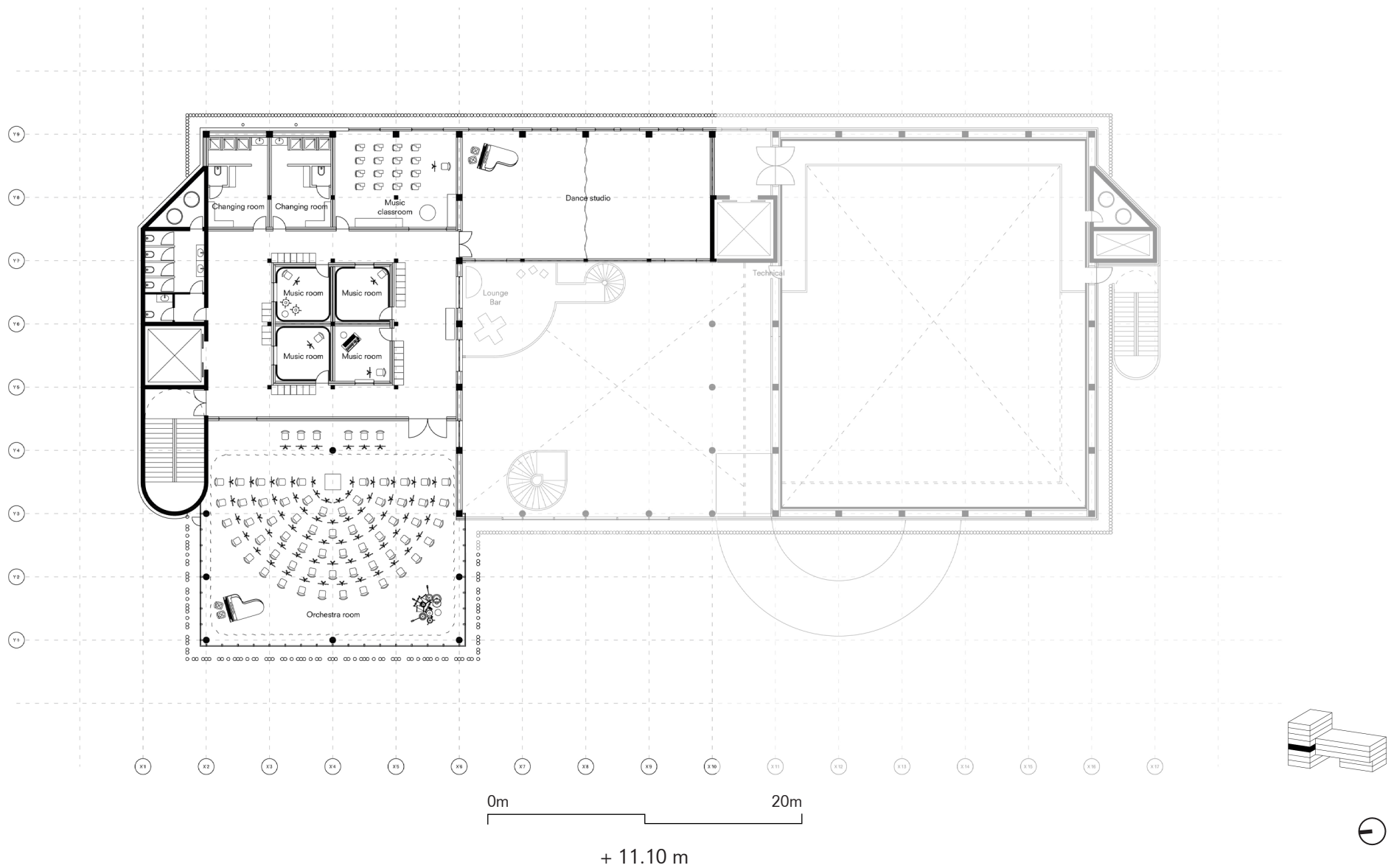
PERFORMERS LOUNGE

To chill out before a lecture

Storage

Changing room Changing room Music room

Toilette

Café

Dance studio

0m   20m

+ 19.60 m

CAFÉ

Day

Perform

Event

CAFÉ
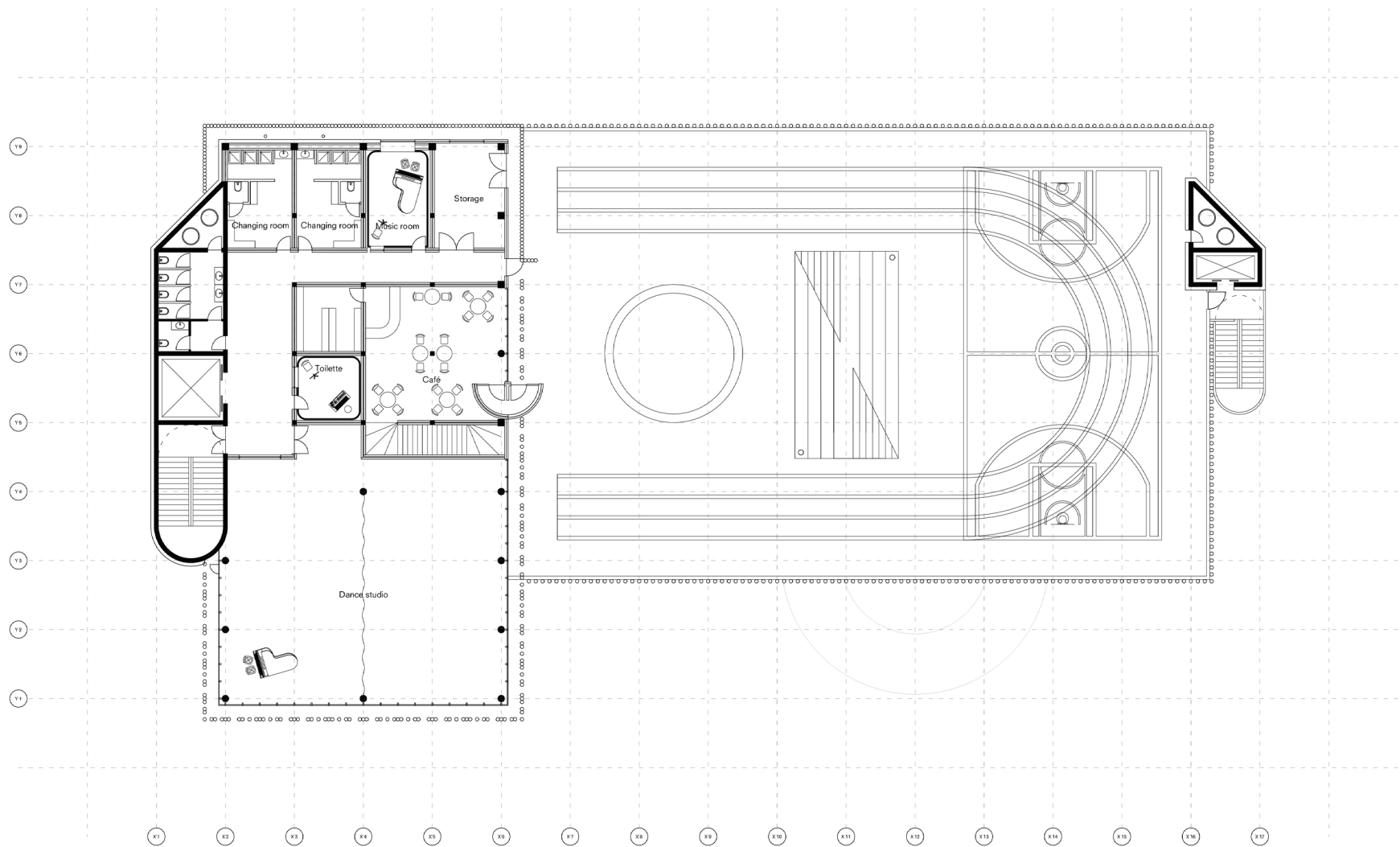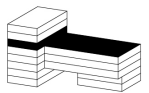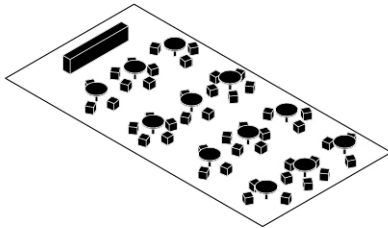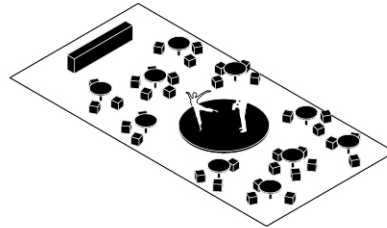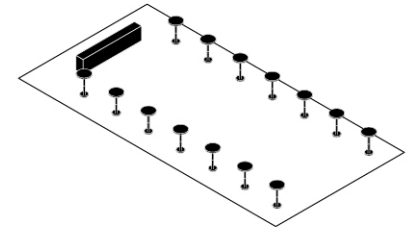
Public and accessible also from the outside

UPPER STAGE
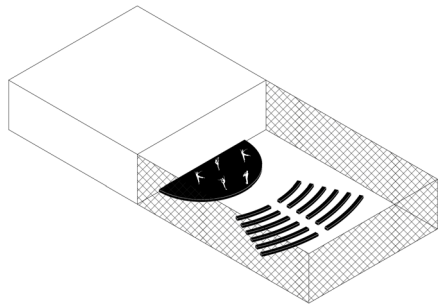
Performance
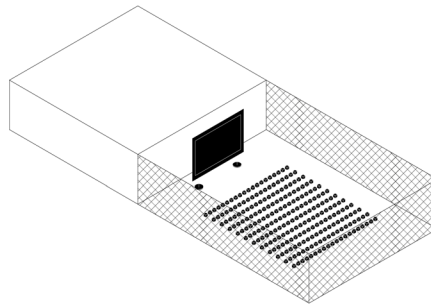
Movie night
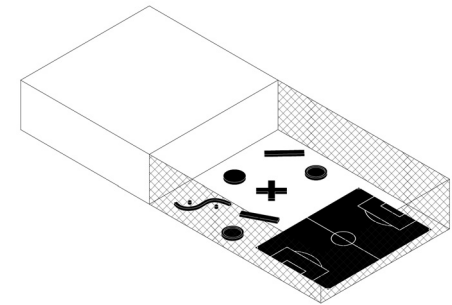
Play

AN ACCESSIBLE ROOF WHERE TO PERFORM
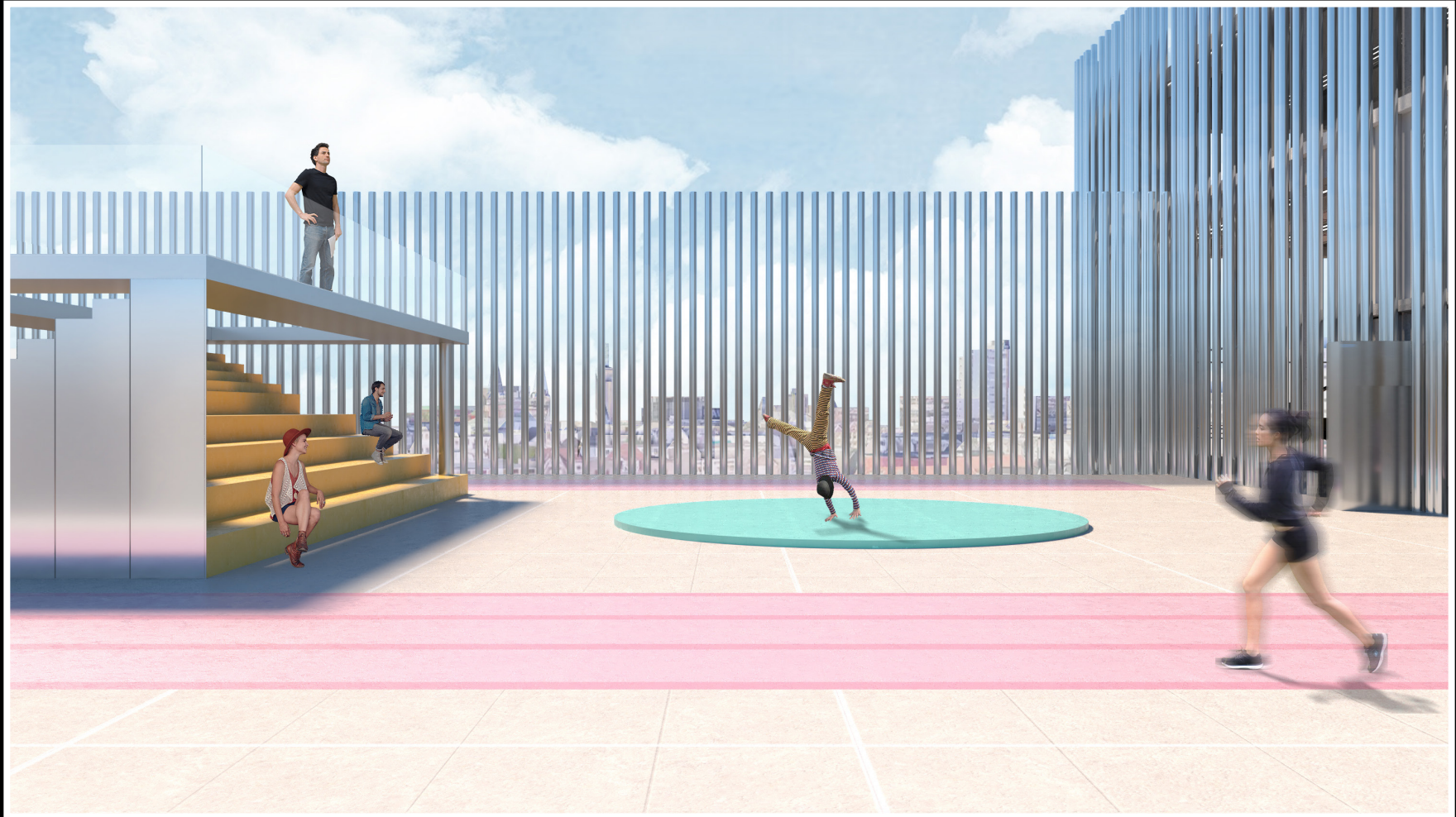
A central tribune defines the space

AN ACCESSIBLE ROOF WHERE TO PLAY

A central tribune defines the space

6th FLOOR

Music room

Physiotherapy

Meeting room

Music room Music room Music room

Music room Music room Music room

0m

20m

+ 23.30

7th FLOOR

Technical room

Changing room

Changing room

Multi-purpose space

Multi-purpose space

Y 9
Y 8
Y 7
Y 6
Y 5
Y 4
Y 3
Y 2
Y 1

X 1 X 2 X 3 X 4 X 5 X 6 X 7 X 8 X 9 X 10 X 11 X 12 X 13 X 14 X 15 X 16 X 17

0m   20m
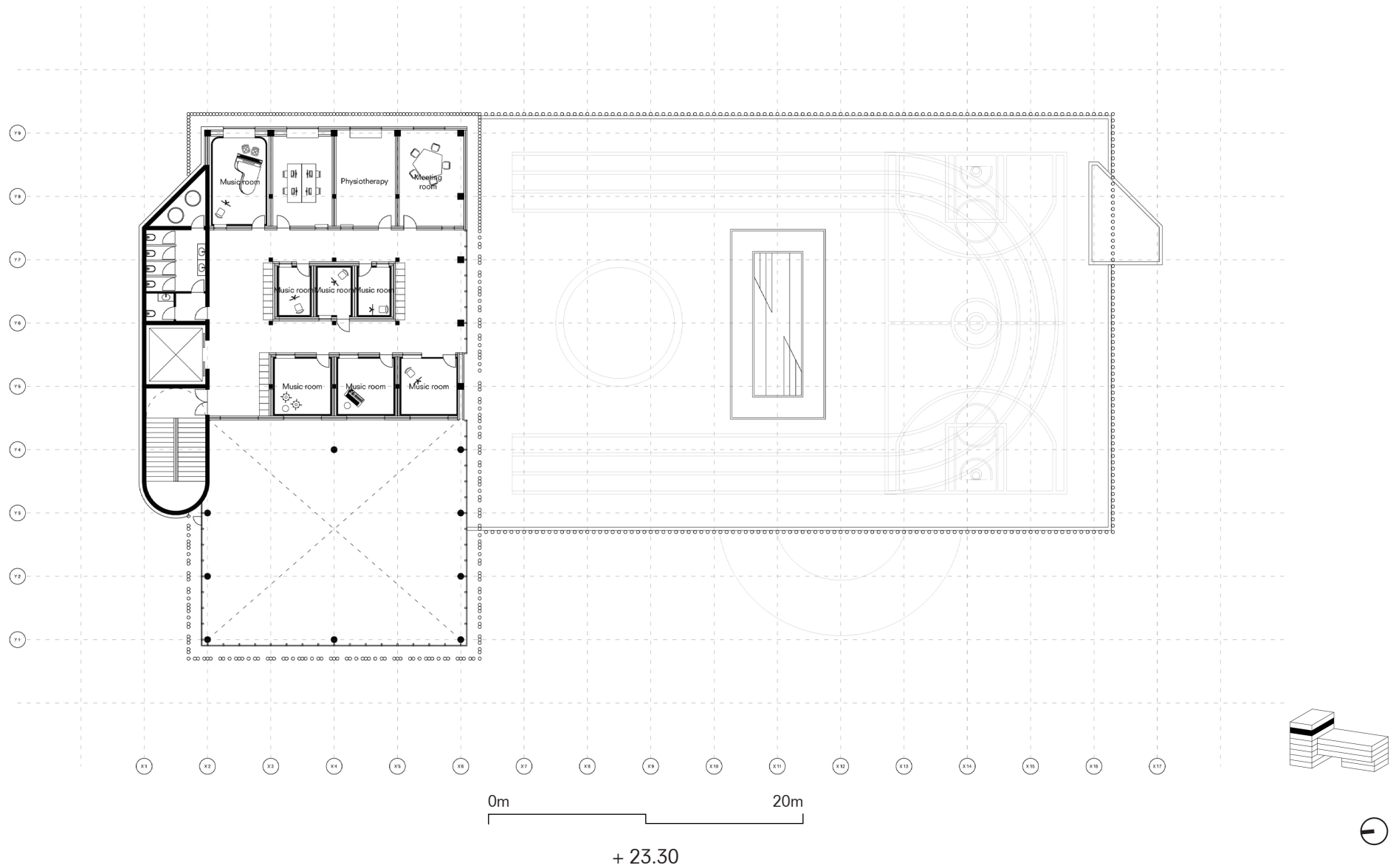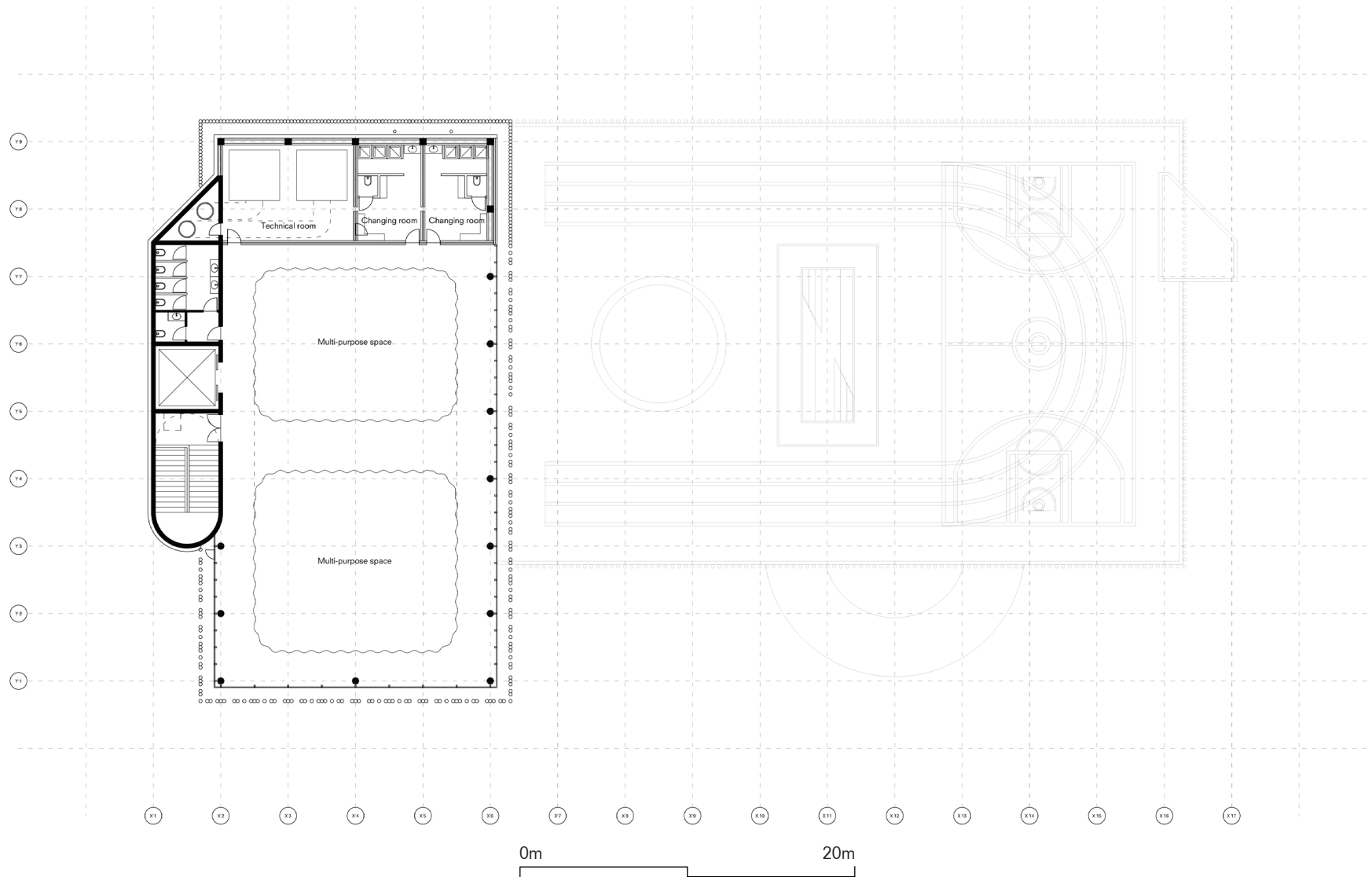
+ 27.00 m
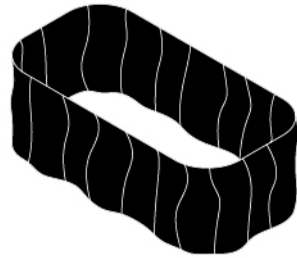
MULTIPURPOSE

Performance
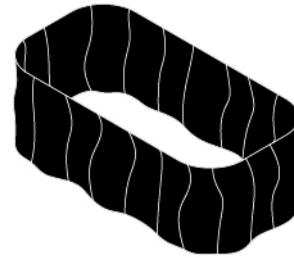
Exhibition

VR Performance

MIXED Reality Performance

MULTIPURPOSE FLOOR

As performing space

MULTIPURPOSE FLOOR

As public exhibition space

THEATER

Theater

GROUND FLOOR

Secretary

Music Library

Reception

Perform
School
Entrance

Multi-purpose space

Black Box Theater
Entrance

Technical room

Costume workshop

Archive

Black Box Theater
Entrance

0m

20m

+ 0.00 m

1st FLOOR

Changing room

Changing room

Music room

Music room

Music room

Music room

Music room

Music room

Dance studio

Storage

Locker room

Music shop
Storage

Toilette

Ticket

Music shop

0m

20m

+ 3.70 m
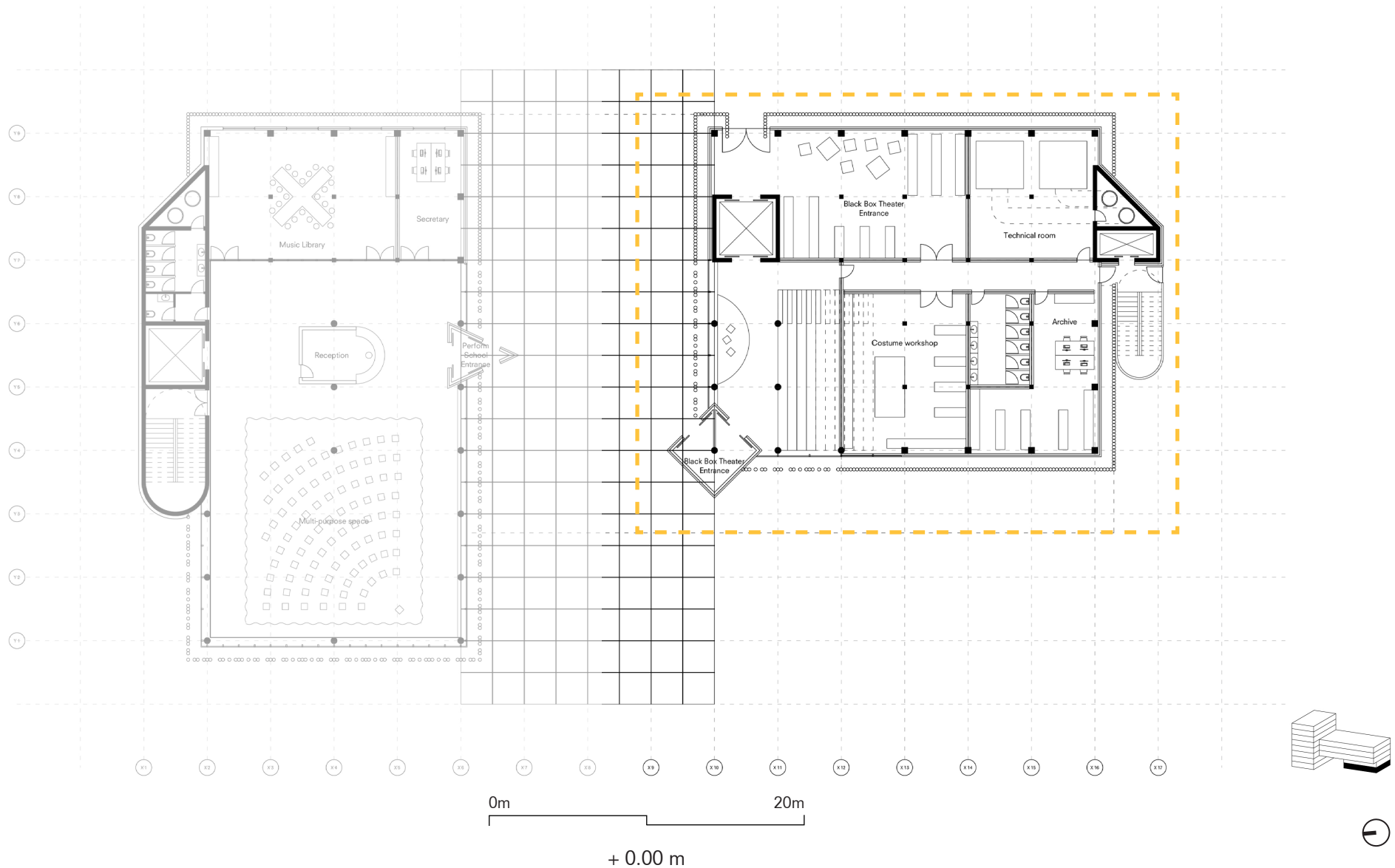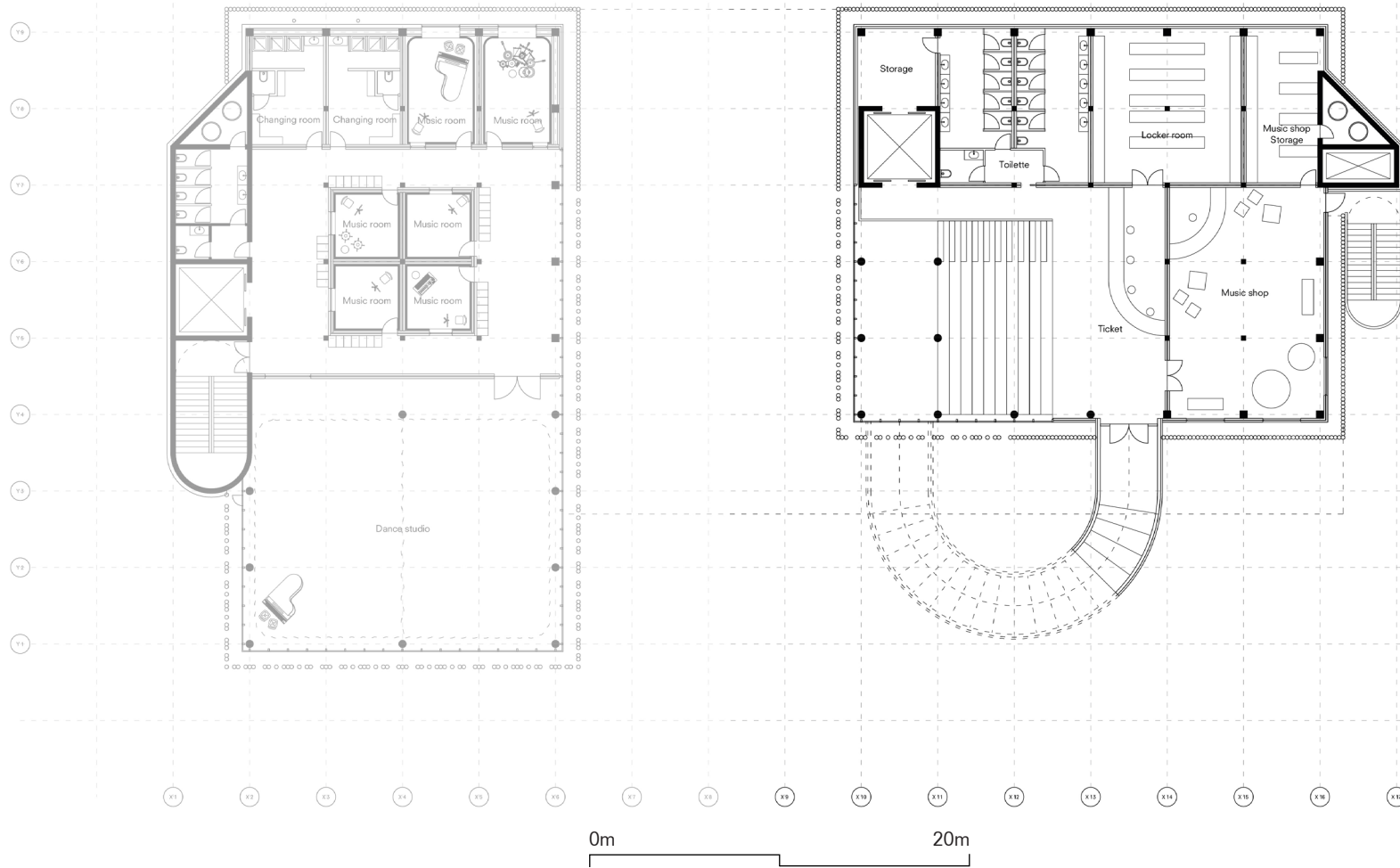
TICKET

Where to buy a tickect and leave the jacket

Theater

3rd **FLOOR**

Changing room | Changing room | Changing room

Music room

Toilette

Music room | Music room | Music room

Lounge Bar

Music room | Music room | Music room

Foyer

Black Box Theater

0m   20m

+ 11.10 m

Theater

CROSS SECTION

Student lounge

Dance studio

Dance studio

Foyer

Music room

0m   20m

FOYER

To enjoy a cocktail before the show and having also a visual interaction with the academy's performers

FRAGMENT FOYER 1:50

Floor 400 mm
Raised exterior floor, 100 mm
Waterproof membrane, 3mm
Thermal insulation, 100mm
Topping, reinforced concrete, 5 mm
Hollow core slab; precast reinforced concrete 150 mm

+ 19.60 m

Interior wall 250 mm
Acoustic insulation 100 +100 mm
Plaster 50 mm

Exterior wall 600 mm
Acoustic insulation 100 +100 mm
Cavity 200 mm
Thermal insulation 100 +100 mm

Floor 250 mm
Timber sprung floor, 50 mm
Topping, reinforced concrete, 50 mm
Precast hollow core slab 150 mm

+ 15.35 m

Triple glass window

Floor 250 mm
Timber sprung floor, 50 mm
Topping, reinforced concrete, 50 mm
Precast hollow core slab 150 mm

+ 11.10 m

Triple glass window

Floor 250 mm
Screed polished concrete with floor heating system, 50mm
Thermal insulation, 100 mm
Topping, reinforced concrete, 100 mm
Double tee beam, precast reinforced concrete, 500 mm

+ 7.40 m

Z 5
Z 4
Z 3
Z 2

Y 3 Y 4 Y 5 Y 6 Y 7 Y 8 Y 9

0m   10m

FRAGMENT FOYER 1:50

Colorful stair

Colorful furniture

Colorful lounge bar

Floor 400 mm
Raised exterior floor, 100 mm
Waterproof membrane, 3mm
Thermal insulation, 100mm
Topping, reinforced concrete, 5 mm
Hollow core slab; precast reinforced concrete 150 mm

Interior wall 250 mm
Acoustic insulation 100
+ 100 mm
Plaster 50mm

Exterior wall 600 mm
Acoustic insulation 100 +100 mm
Cavity 200 mm
Thermal insulation 100 + 100 mm

Floor 250 mm
Timber sprung floor, 50 mm
Topping, reinforced concrete, 50 mm
Precast hollow core slab 150 mm

Floor 250 mm
Timber sprung floor, 50 mm
Topping, reinforced concrete, 50 mm
Precast hollow core slab 150 mm

Triple glass window

Triple glass window

Floor 250 mm
Screed polished concrete with floor heating system, 50mm
Thermal insulation, 100 mm
Topping, reinforced concrete, 100 mm
Double tee beam, precast reinforced concrete, 500 mm

+ 19.60 m

+ 15.35 m

Acoustic insulated walls, ceilings and floors

+ 11.10 m

+ 7.40 m

Triple glass & Airlock double doors

Z 4

Z 3

Z 2

Y 3   Y 4   Y 5   Y 6   Y 7   Y 8   Y 9

0m   10m

FOYER

A nice view over the Open public space

Theater

CROSS SECTION

+ 32,80 m
+ 31,50 m
+ 30,75 m
+ 27,00 m
+ 23,30 m
+ 19,60 m
+ 15,35 m
+ 11,10 m
+ 7,40 m
+ 5,70 m
+ 00,00 m

Z8
Z7
Z6
Z5
Z4
Z3
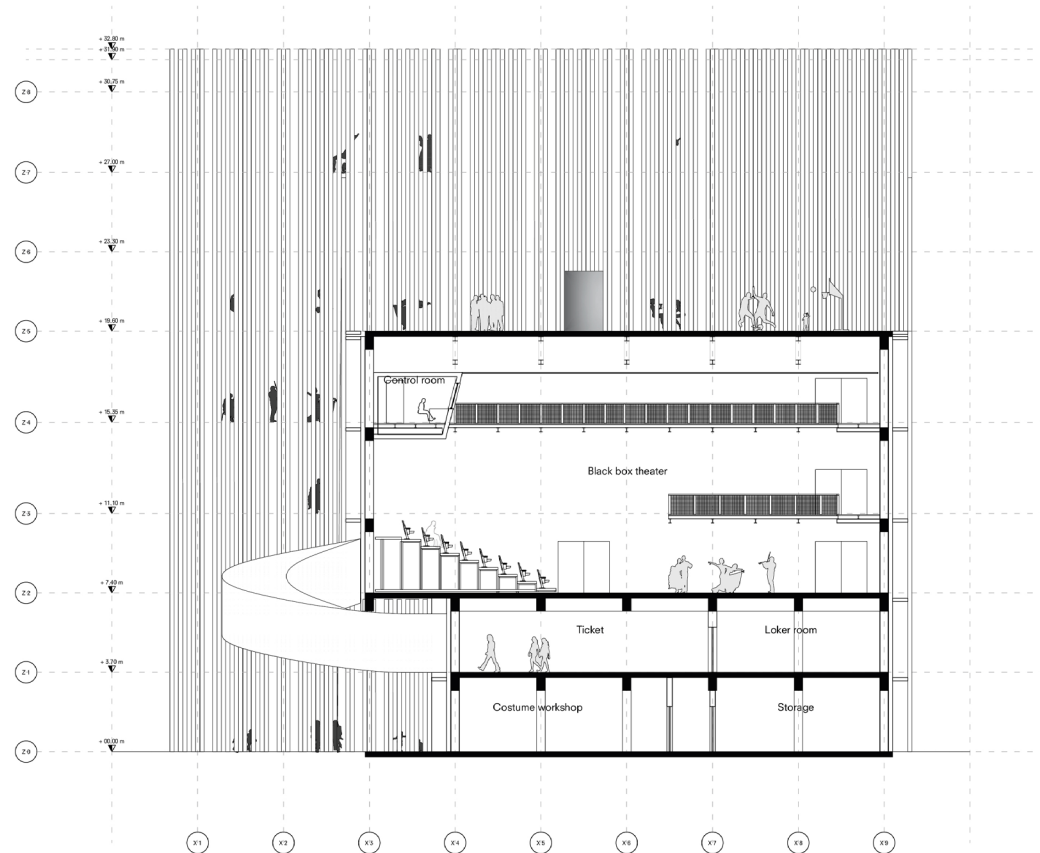Z2
Z1
Z0

Control room

Black box theater

Ticket

Loker room

Costume workshop

Storage

X1 X2 X3 X4 X5 X6 X7 X8 X9

0m   20m

FRAGMENT BLACK BOX THEATER 1:50

Floor 400 mm
Raised exterior floor, 100 mm
Waterproof membrane, 3mm
Thermal insulation, 100mm
Topping, reinforced concrete, 9 mm
Hollow core slab, precast reinforced concrete 150 mm
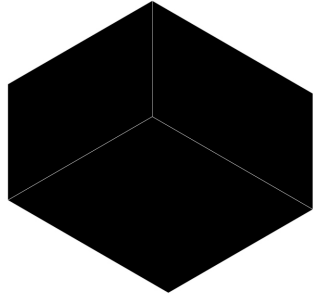
Truss, steel, 1300 mm

Theater
Mechanical ventilation
600 mm
2.5 m³/s

Acoustic ceiling damping

Control table

Technical floor 250 mm
Metal grid, 50 mm
I-beam, steel 200 mm

Spotlights

Foyer
Mechanical ventilation
700 mm
2.5 m³/s

Movable seatings

Floor 250 mm
Timber sprung floor, 50 mm
Topping, reinforced concrete, 50 mm
Precast hollow core slab 150 mm

Z 5
Z 4
Z 3
Z 2

+ 19.60 m
+ 15.35 m
+ 11.10 m
+ 7.40 m

Y 3   Y 4   Y 5   Y 6   Y 7   Y 8   Y 9

0m   10m

FRAGMENT BLACK BOX THEATER 1:50

Wood acoustic panel &
Perforated aluminium pipes
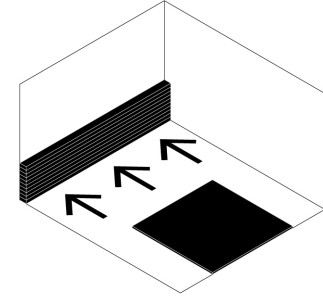

Acoustic insulated walls,
ceilings and floors

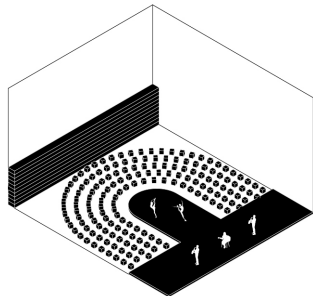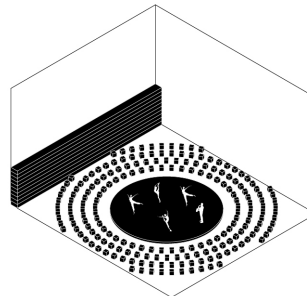# BLACK BOX THEATER

Play

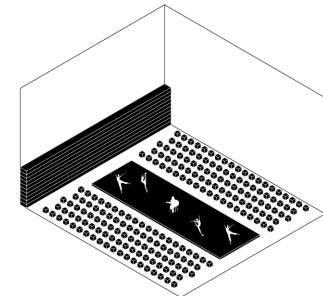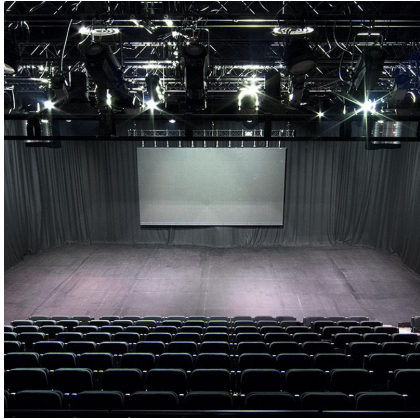Standard Stage

Flexible Stage

Thrust Stage

Arena Stage

Traverese Stage

Flexible arrangement

Theater

TYPES OF PERFORMANCES

Black Box Theater
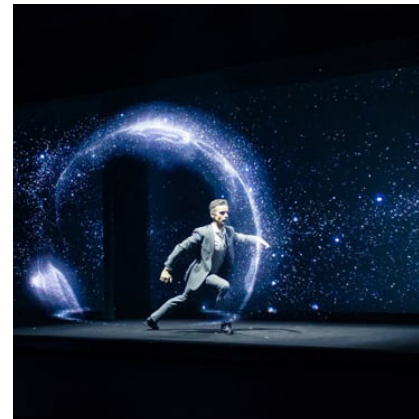

Music performance

Dance performance

Fixed scenography performance

Light performance

Light performance

Interactive light performance

Mixed reality performance

Different experience performances.
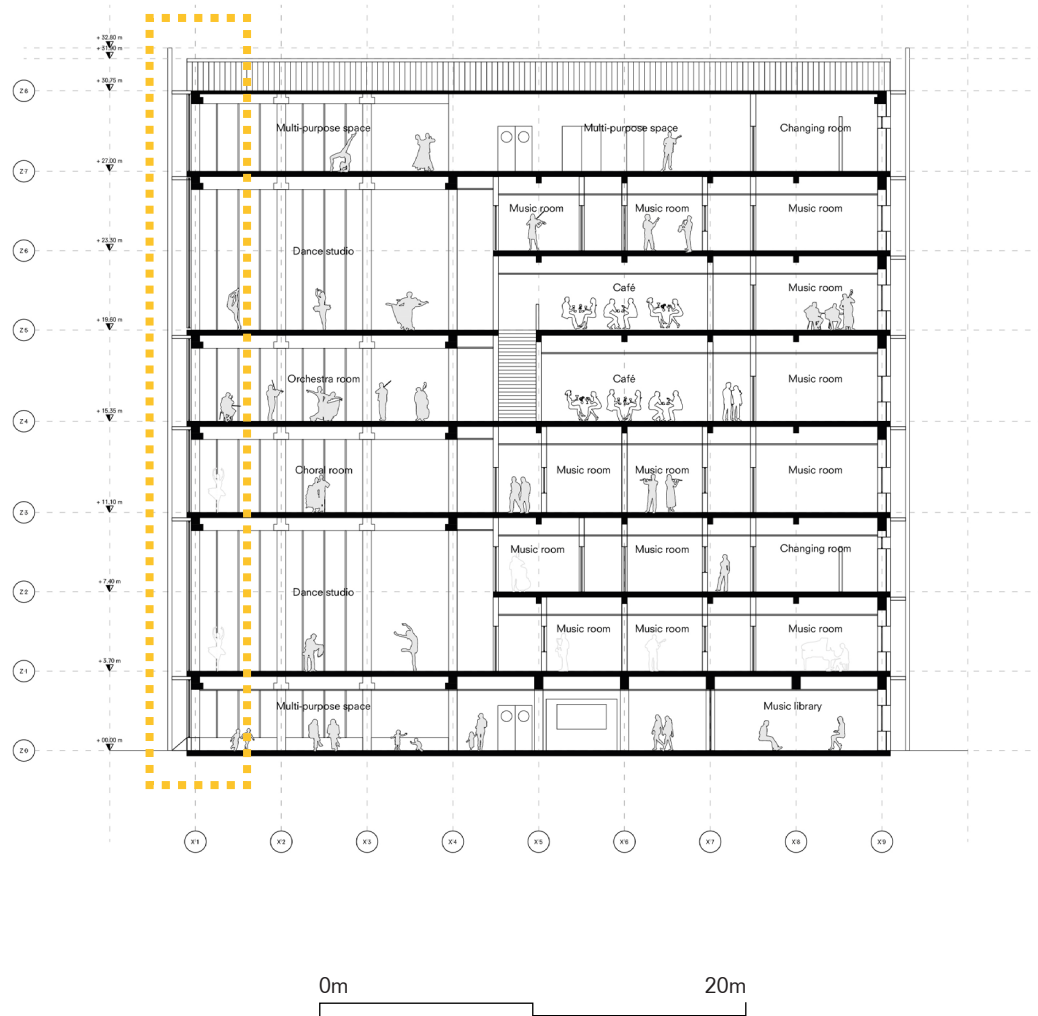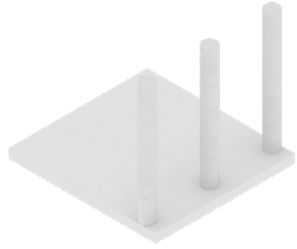From more traditional to future oriented augmented reality ones

HOLOGRAM PERFORMANCE

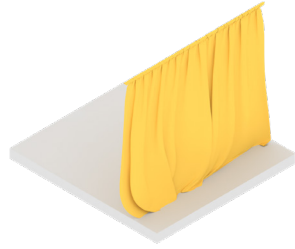To enjoy a futuristic show

ENVELOPE CLOSER LOOK

Envelope

CROSS SECTION

Floor levels (top to bottom):
+ 32.60 m
+ 31.80 m
Z8 + 30.75 m
Z7 + 27.00 m
Z6 + 23.30 m
Z5 + 19.60 m
Z4 + 15.35 m
Z3 + 11.80 m
Z2 + 7.40 m
Z1 + 5.70 m
Z0 + 00.00 m

Room labels:
Multi-purpose space | Multi-purpose space | Changing room
Dance studio | Music room | Music room | Music room
| Café | Music room
Orchestra room | Café | Music room
Choral room | Music room | Music room | Music room
Dance studio | Music room | Music room | Changing room
Multi-purpose space | Music library

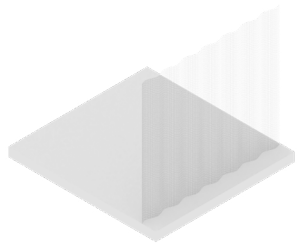Column grid: X'1 X'2 X'3 X'4 X'5 X'6 X'7 X'8 X'9

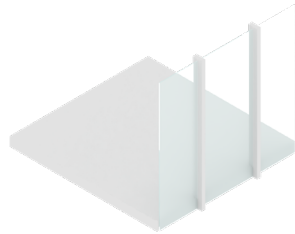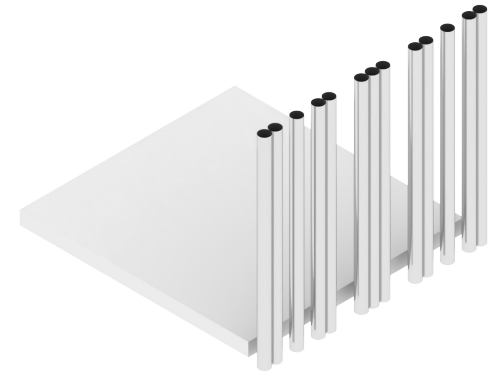Scale: 0m —————— 20m

FROM INSIDE TO OUTSIDE ENVELOPE

Exposed concrete

Dampening curtain

Metal mesh curtain sun screen
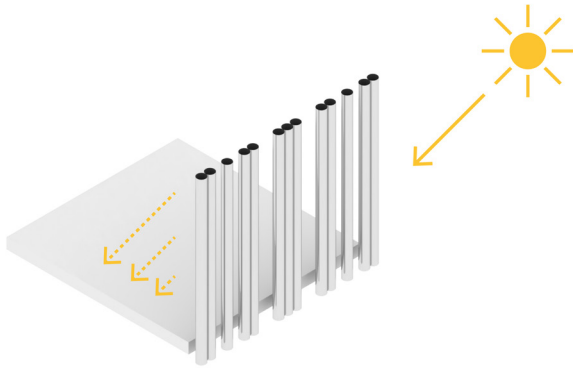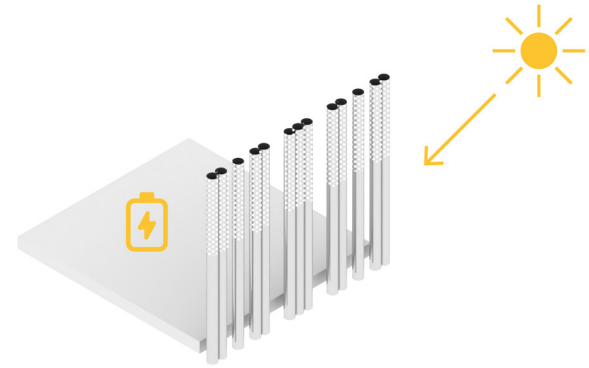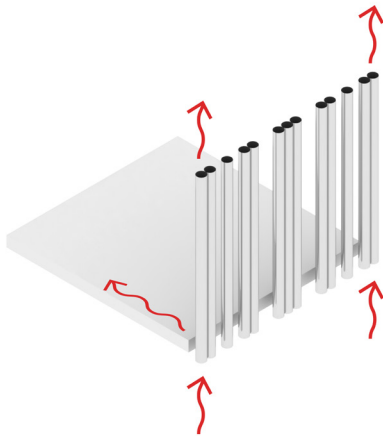
Triple glass curtain wall

Open & Closed envelope
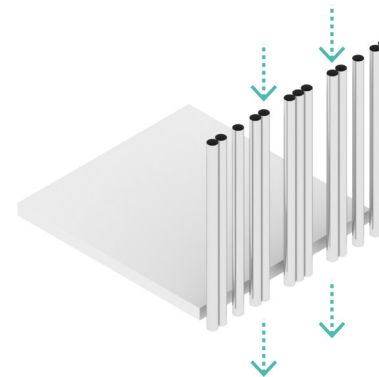
REFLECTIVE ANOIZED ALUMINIUM PIPES MULTIPLE-FUNCTION

Sun screen

Adhesive (transparent) PV cells - Solar energy
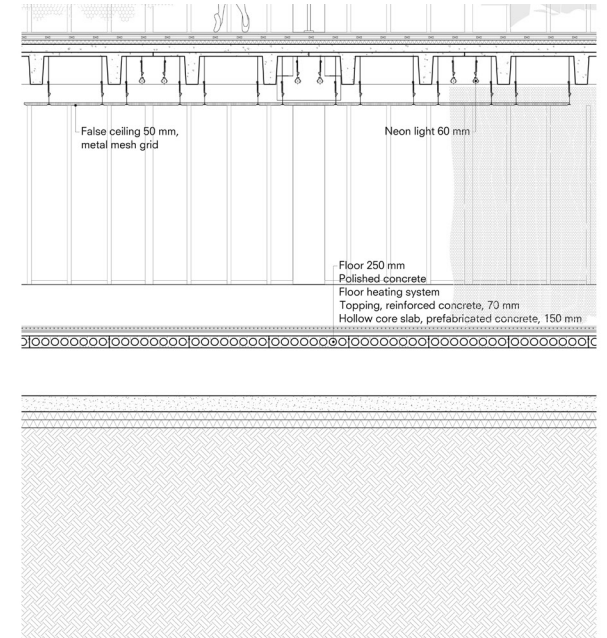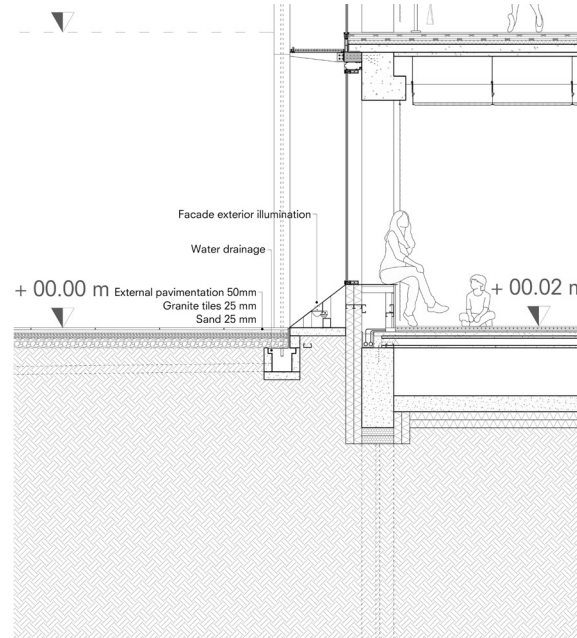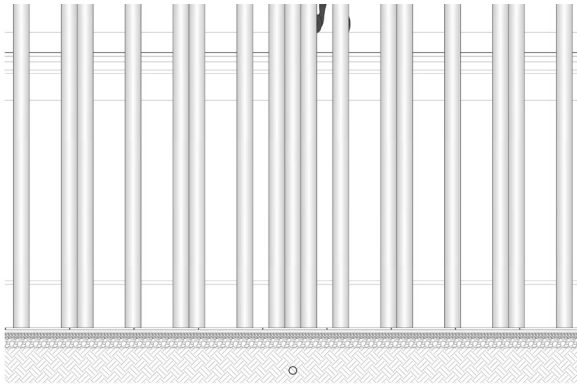
Heat pump system
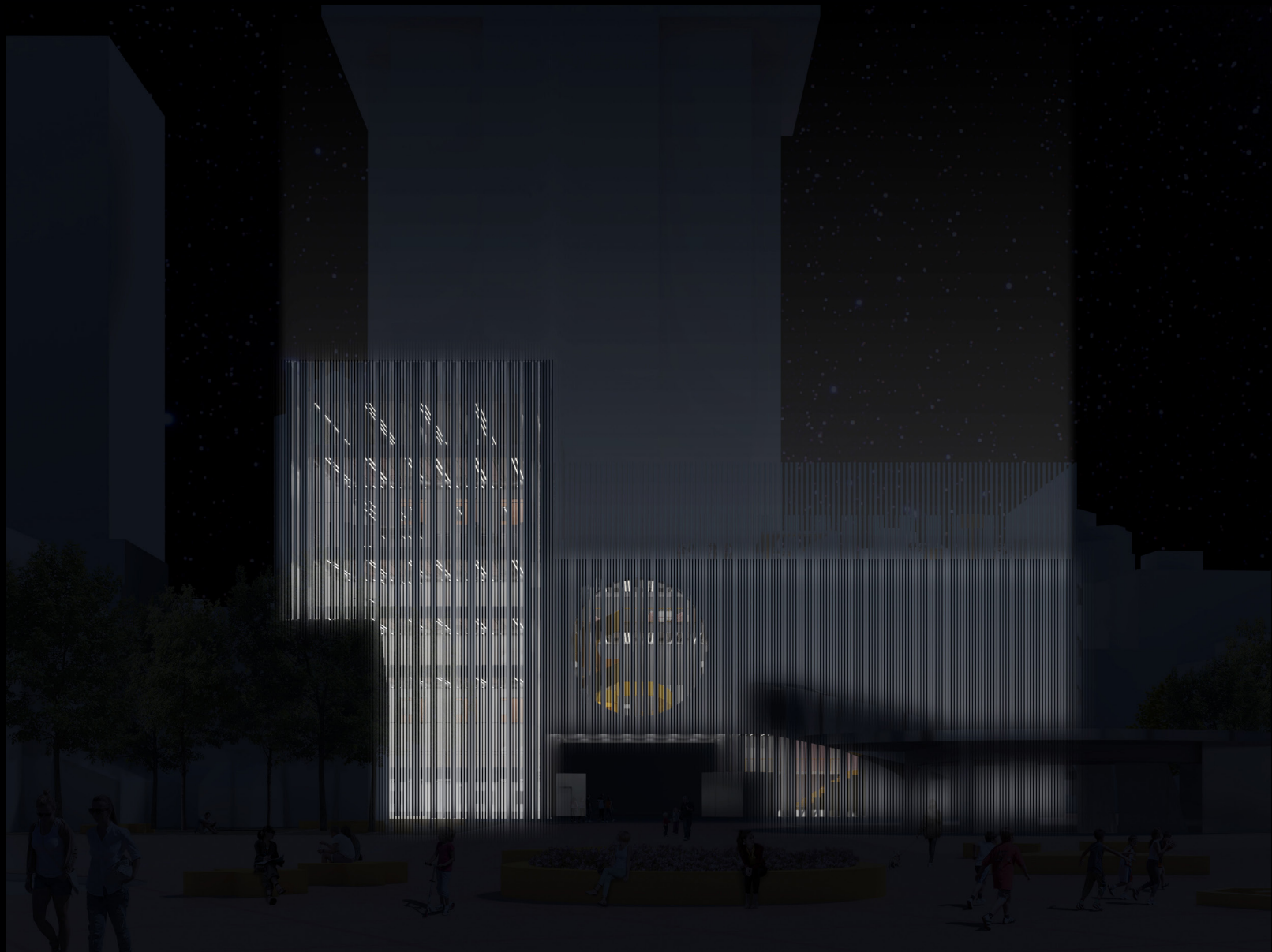
Rain water gutter

OPEN & CLOSED

ENVELOPE DETAIL 1:20

+ 32.80 m
+ 32.50 m

+ 30.75 m

+ 27.00 m

+ 23.30 m

+ 19.60 m

+ 15.35 m

+ 11.10 m

+ 7.40 m

+ 3.70 m

+ 00.00 m

+ 00.02 m

0m — 4m

ENVELOPE DETAIL 1:20

Facade exterior illumination

Water drainage

+ 00.00 m External pavimentation 50mm
Granite tiles 25 mm
Sand 25 mm

+ 00.02 m

False ceiling 50 mm,
metal mesh grid

Neon light 60 mm

Floor 250 mm
Polished concrete
Floor heating system
Topping, reinforced concrete, 70 mm
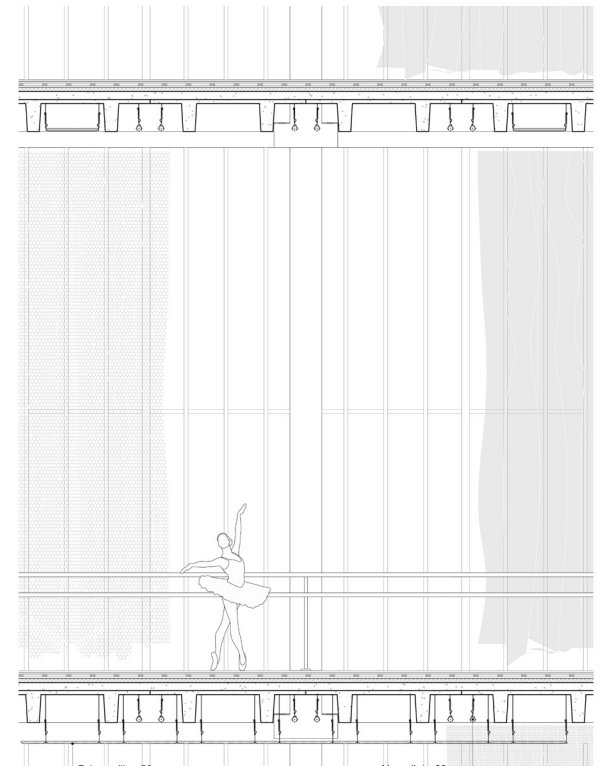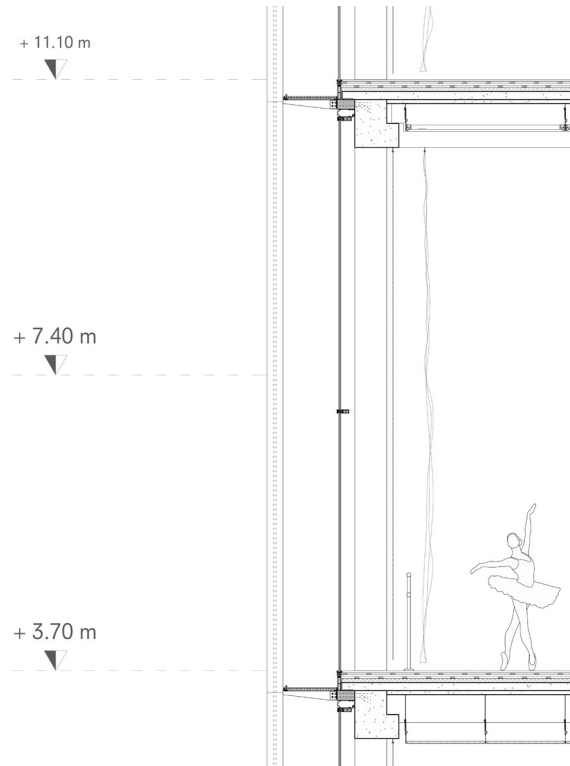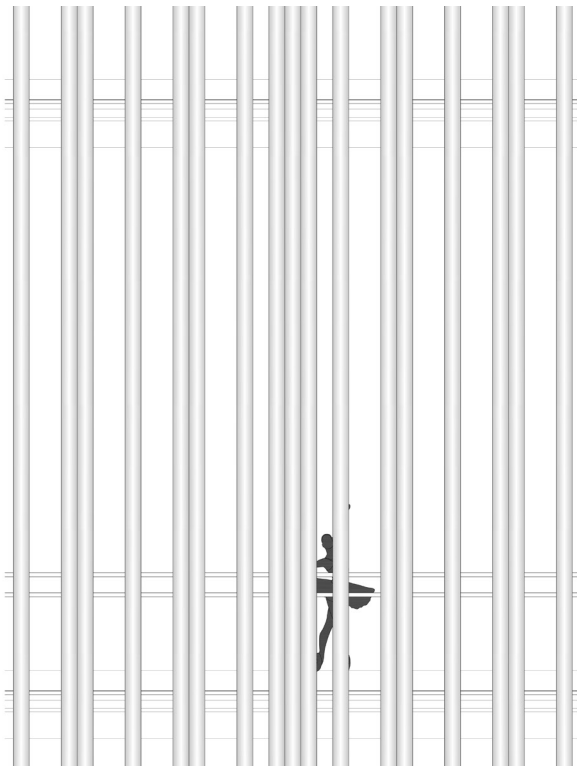Hollow core slab, prefabricated concrete, 150 mm

0m ⸺⸺⸺ 4m

OPEN & CLOSED

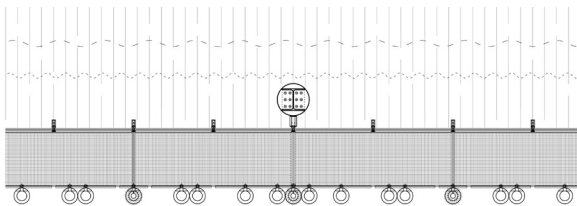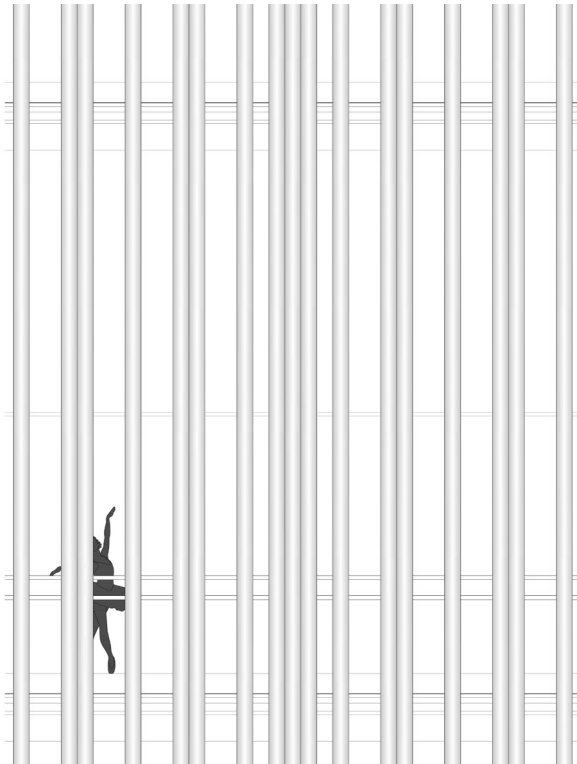To highlight even more the rhythm of the envelope

ENVELOPE DETAIL 1:20

+ 11.10 m

+ 7.40 m

+ 3.70 m

0m   4m

ENVELOPE DETAIL 1:20

+ 19.60 m ▽

+ 15.35 m ▽

+ 11.10 m ▽

Floor 250mm
Timber sprung floor, 100mm
Acoustic insulation, rockwool, 50mm
Topping, reinforced concrete, 100 mm
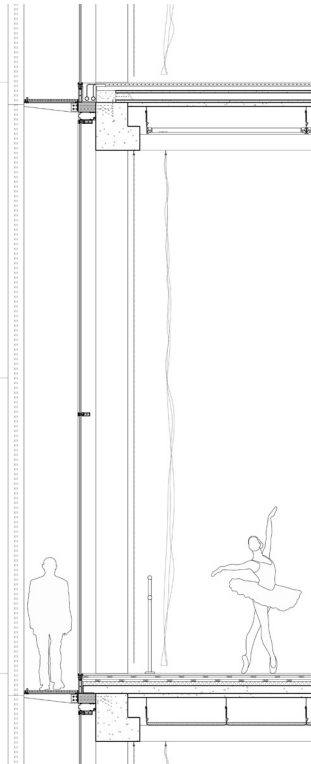Double tees beam, precast reinforced concrete, 400
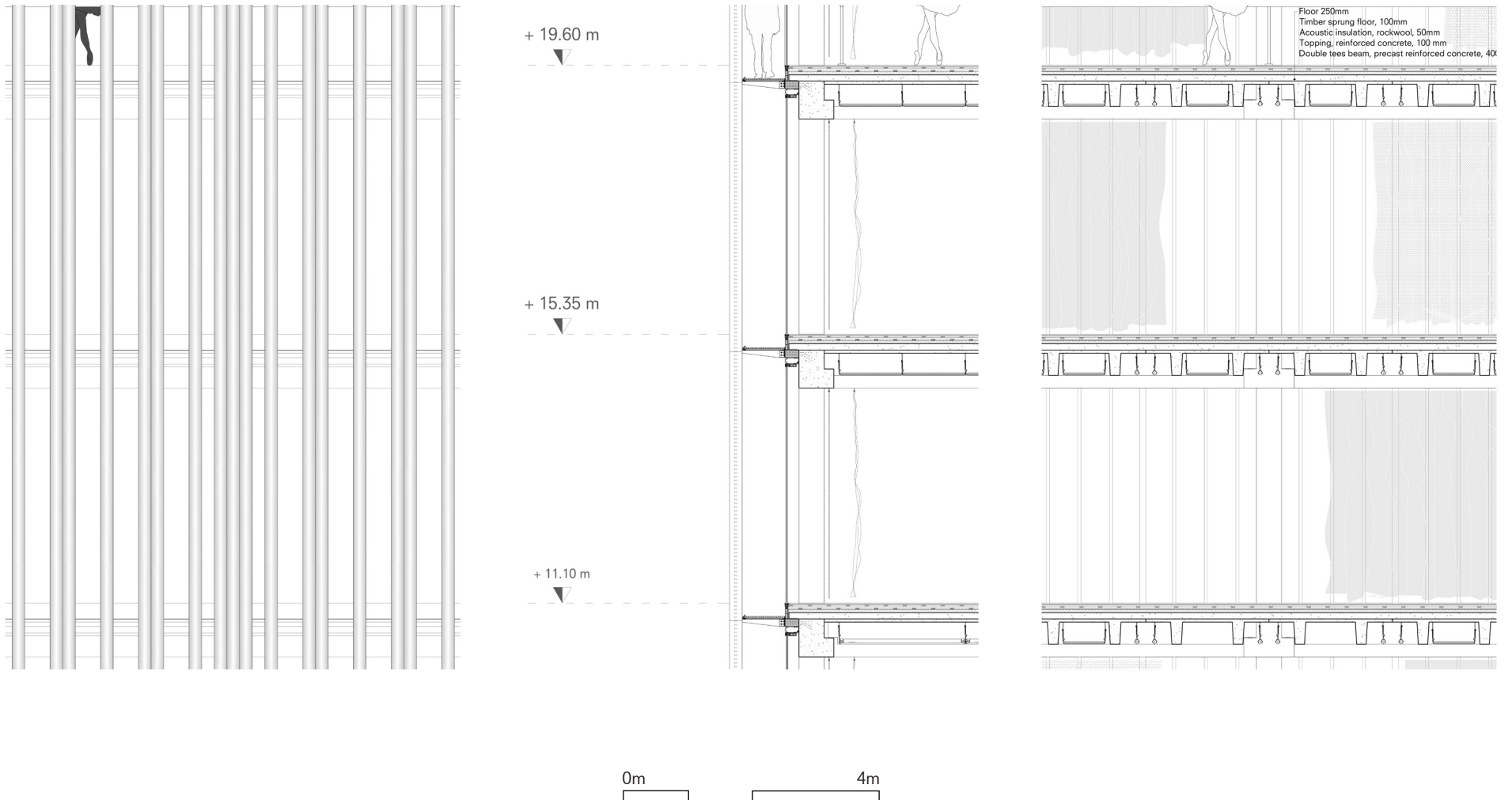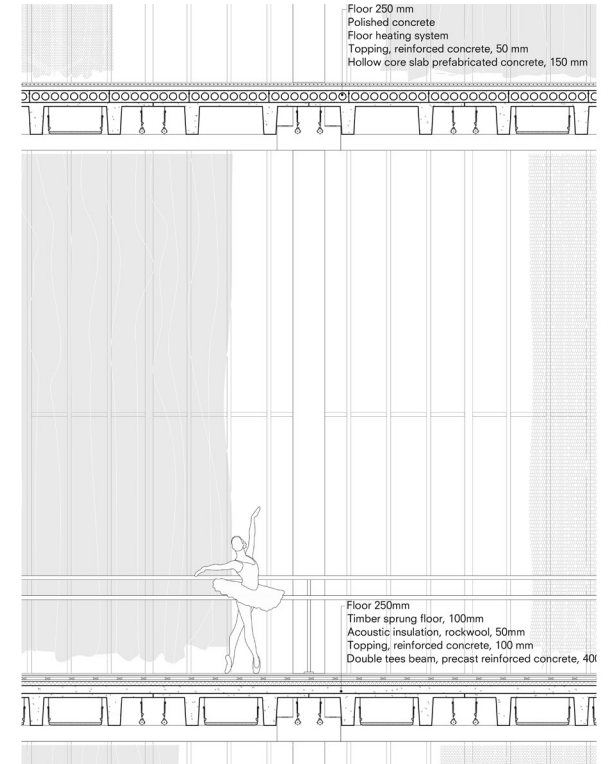
0m ⌐_____⌐‾⌐_____ 4m
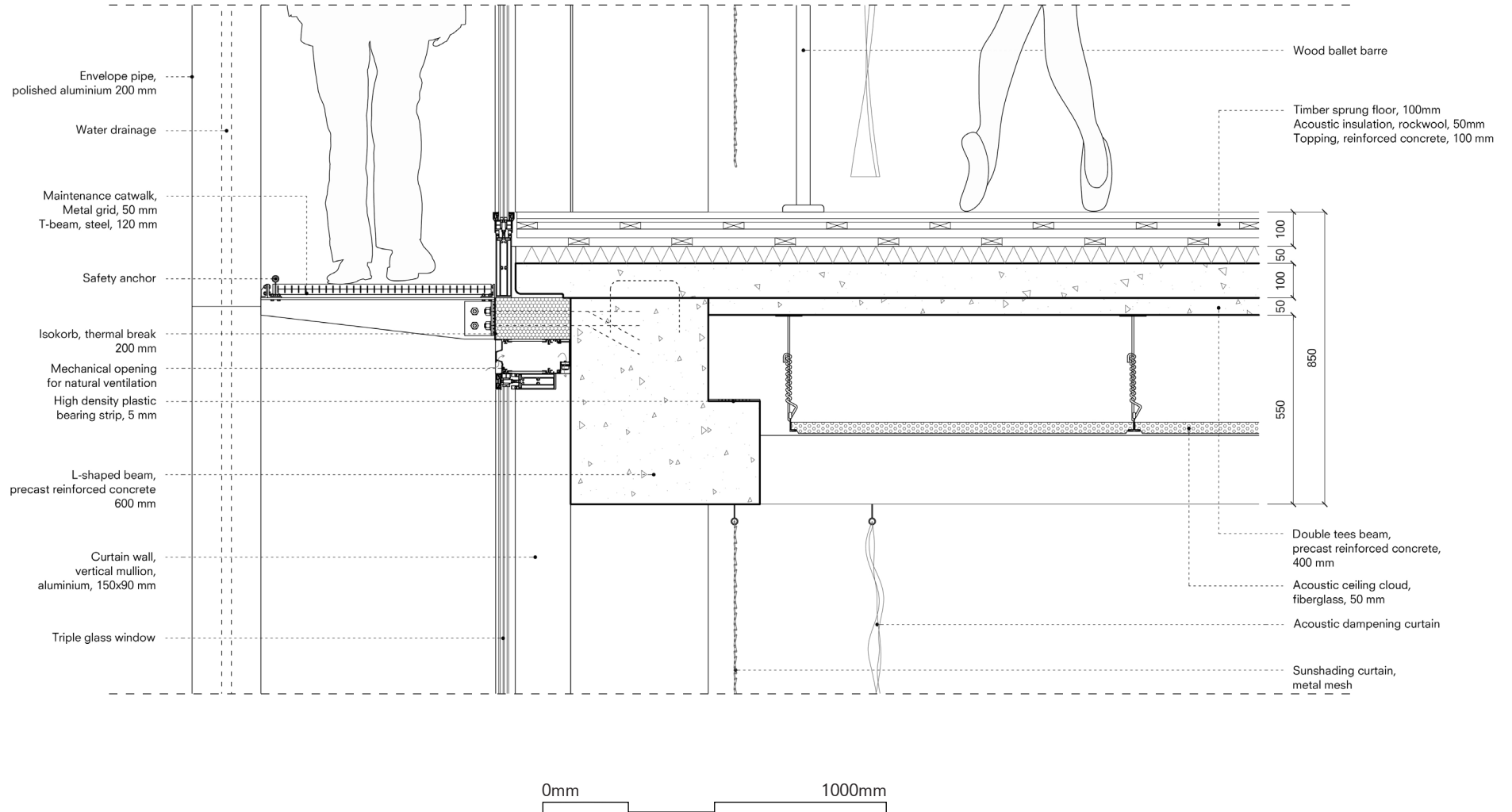
ENVELOPE DETAIL 1:20
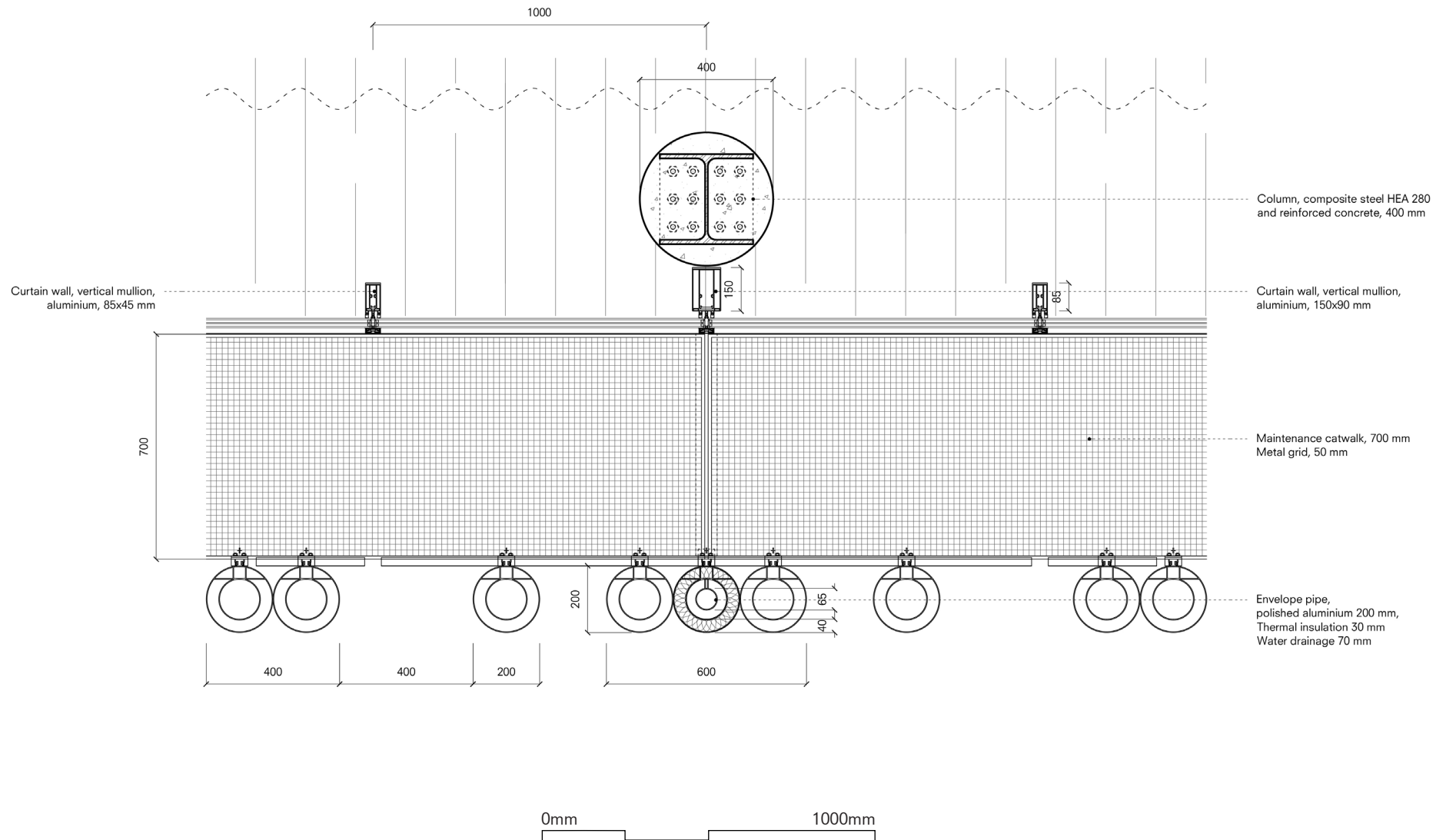
+ 27.00 m

+ 23.30 m

+ 19.60 m

Floor 250 mm
Polished concrete
Floor heating system
Topping, reinforced concrete, 50 mm
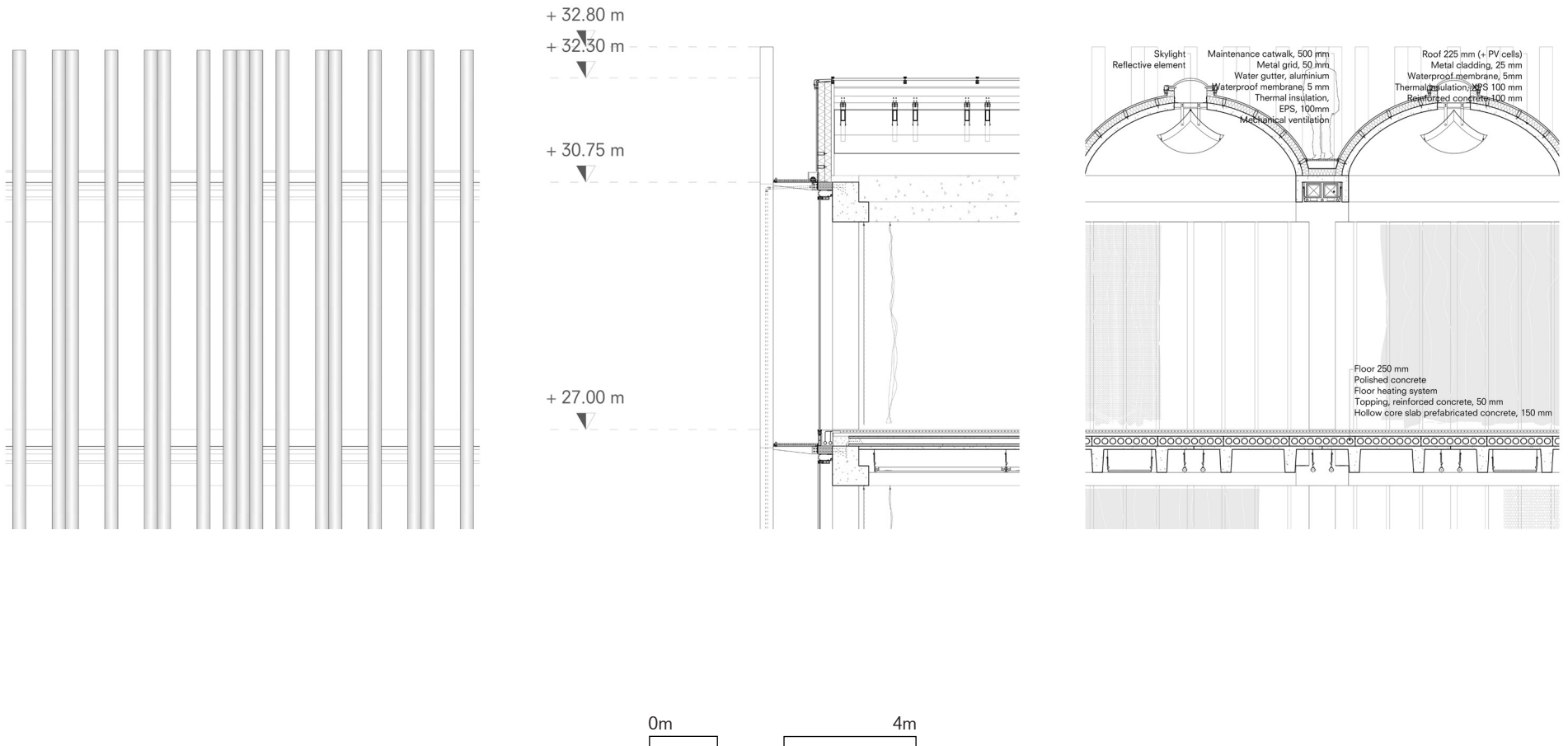Hollow core slab prefabricated concrete, 150 mm

Floor 250mm
Timber sprung floor, 100mm
Acoustic insulation, rockwool, 50mm
Topping, reinforced concrete, 100 mm
Double tees beam, precast reinforced concrete, 400
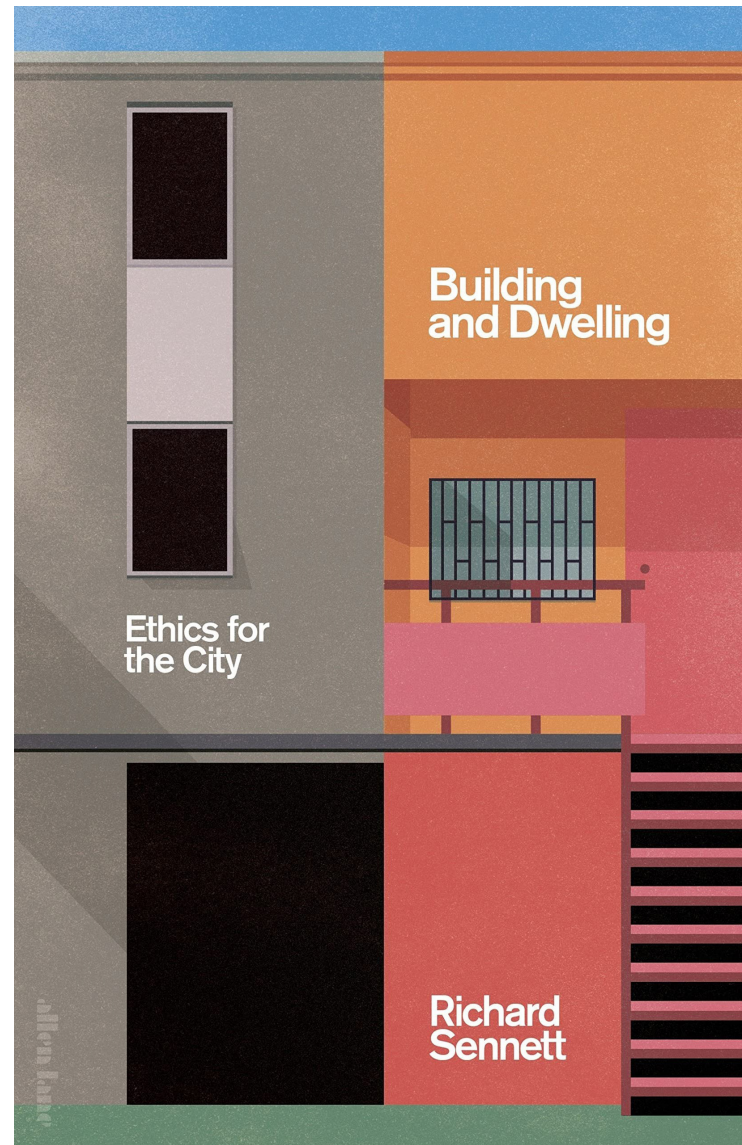
0m   4m

ENVELOPE DETAIL 1:10

Wood ballet barre

Envelope pipe,
polished aluminium 200 mm

Timber sprung floor, 100mm
Acoustic insulation, rockwool, 50mm
Topping, reinforced concrete, 100 mm

Water drainage

Maintenance catwalk,
Metal grid, 50 mm
T-beam, steel, 120 mm

100
50
100
50

Safety anchor

850

Isokorb, thermal break
200 mm

550

Mechanical opening
for natural ventilation

High density plastic
bearing strip, 5 mm

L-shaped beam,
precast reinforced concrete
600 mm

Double tees beam,
precast reinforced concrete,
400 mm

Curtain wall,
vertical mullion,
aluminium, 150x90 mm

Acoustic ceiling cloud,
fiberglass, 50 mm

Acoustic dampening curtain

Triple glass window

Sunshading curtain,
metal mesh

0mm   1000mm

ENVELOPE DETAIL 1:10

1000

400

Column, composite steel HEA 280
and reinforced concrete, 400 mm

150

Curtain wall, vertical mullion,
aluminium, 85x45 mm

85

Curtain wall, vertical mullion,
aluminium, 150x90 mm

700

Maintenance catwalk, 700 mm
Metal grid, 50 mm

200

65

40

Envelope pipe,
polished aluminium 200 mm,
Thermal insulation 30 mm
Water drainage 70 mm

400   400   200   600

0mm   1000mm

ENVELOPE DETAIL 1:20

+ 32.80 m

+ 32.30 m

+ 30.75 m

+ 27.00 m

Skylight
Reflective element

Maintenance catwalk, 500 mm
Metal grid, 50 mm
Water gutter, aluminium
Waterproof membrane, 5 mm
Thermal insulation, EPS, 100mm
Mechanical ventilation

Roof 225 mm (+ PV cells)
Metal cladding, 25 mm
Waterproof membrane, 5mm
Thermal insulation, XPS 100 mm
Reinforced concrete 100 mm

Floor 250 mm
Polished concrete
Floor heating system
Topping, reinforced concrete, 50 mm
Hollow core slab prefabricated concrete, 150 mm

0m   4m

FINAL REFLECTION

Final reflection

Ville vs Cité

P5   Hotel New York

Sky-line vs Ground-line

International city vs Historical neighborhood

There is not a main user, but it is important to provide a new scenario, where the border condition is blurred by the co-existance of different users, realities and scales.

An OPEN & CLOSED public space in Rotterdam

PERFORMING STAGES
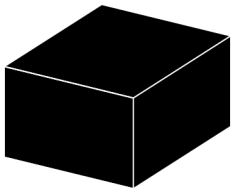
Black Box Theater

Performing art center with a flexible character
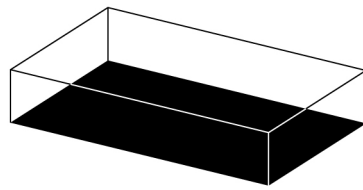
Upper stage

Public space with an elevated point of view to the City
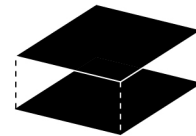
Cover stage

Possibility to use the ceiling during the performance

Open-air stage

The historical and new facades as scenography

Different stages

Final reflection
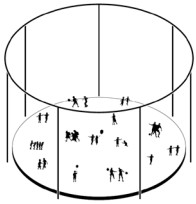
PERFORMING STAGES

Play
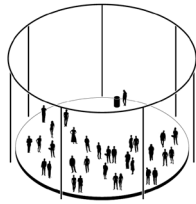
Event
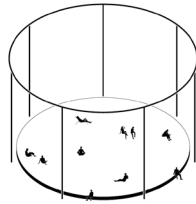
Rest
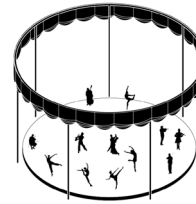
Performance
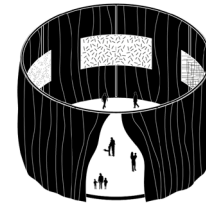
Exhibition
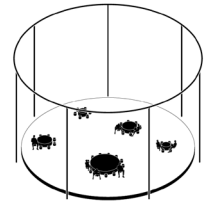
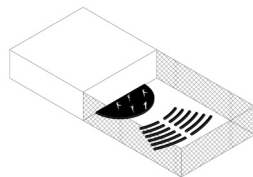Dinner
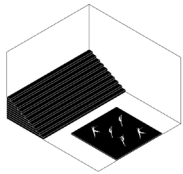
Standard Stage
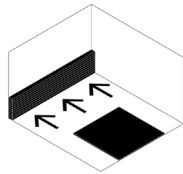
Flexible Stage
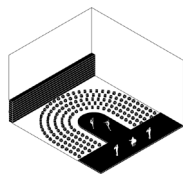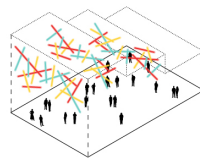
Thrust Stage
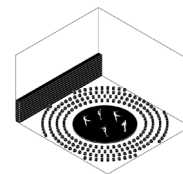
Arena Stage
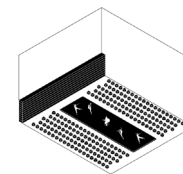
Traverese Stage
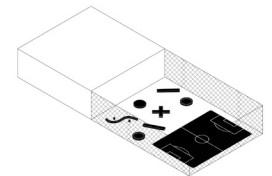
Play
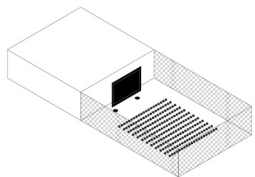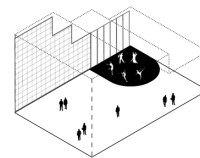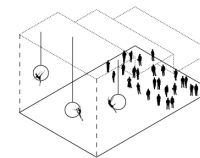
Movie night

Performance

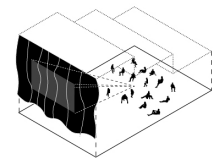Lights performance

material

Performance
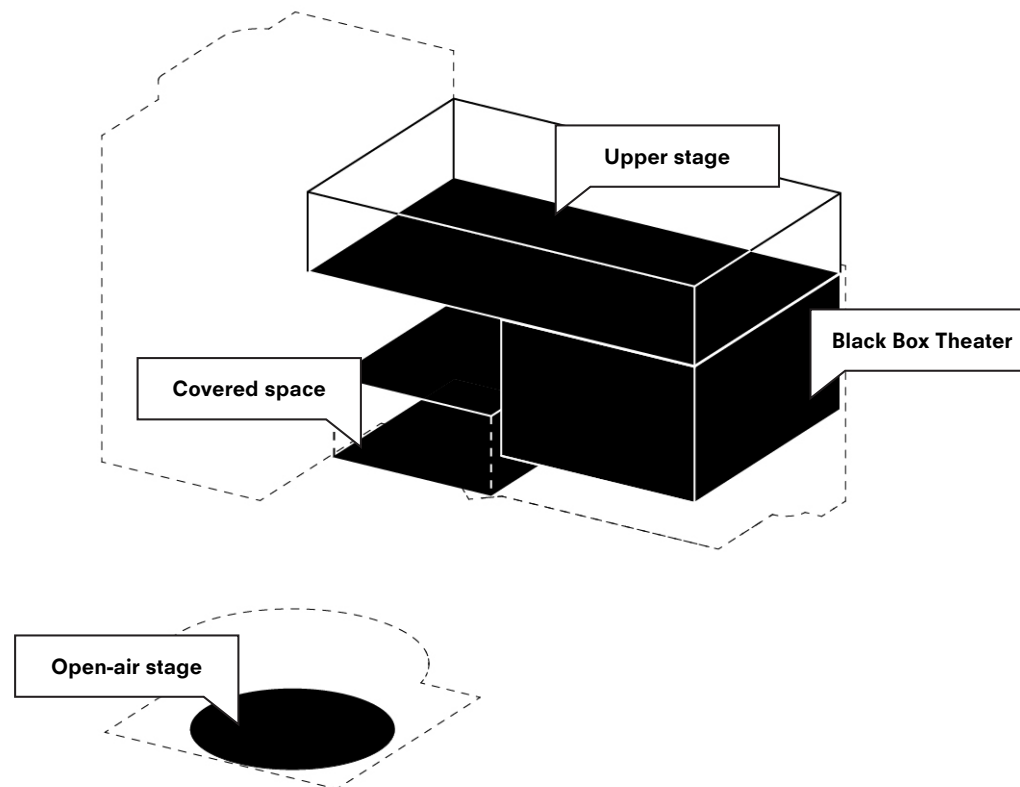
Movie night

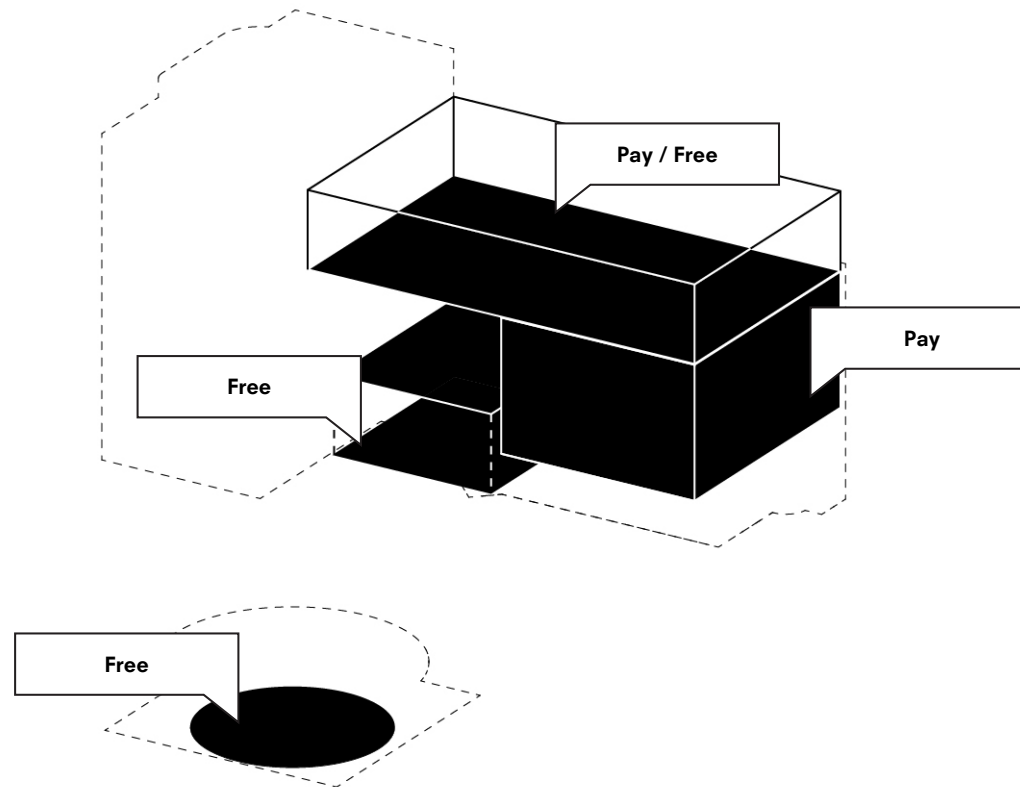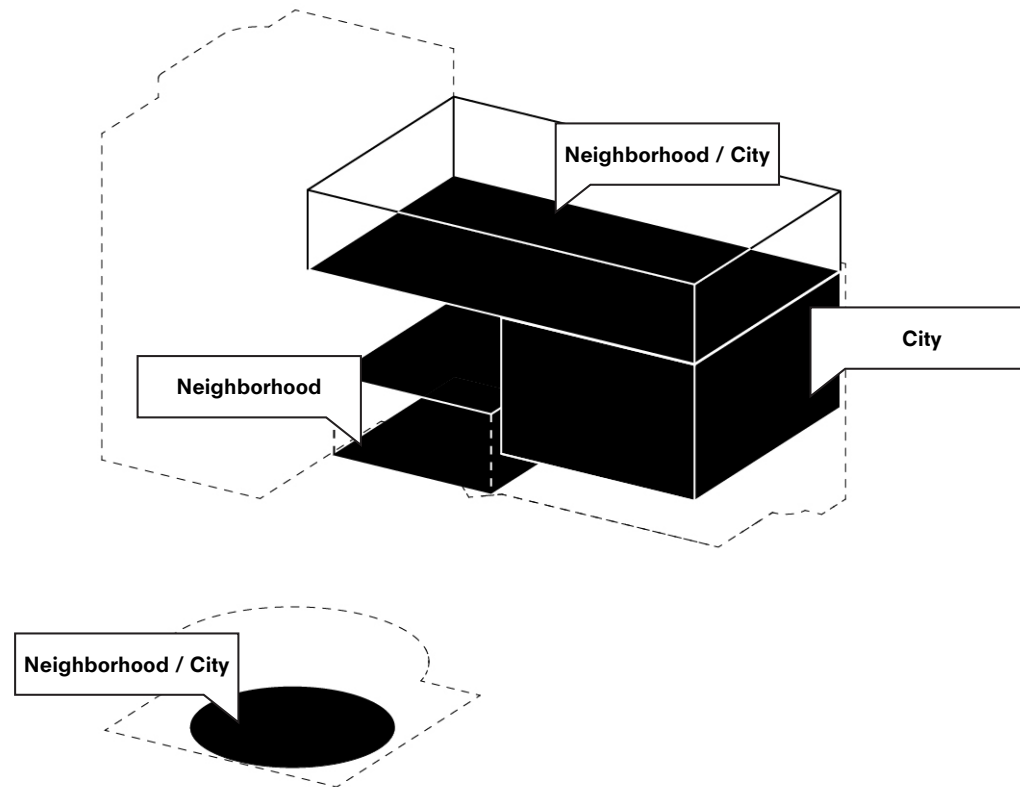Multiple uses

PERFORMING STAGES

Upper stage

Black Box Theater

Covered space

Open-air stage

Different possibilities

PERFORMING STAGES

Pay / Free

Pay

Free

Free

Different accesses

PERFORMING STAGES

Neighborhood / City

City

Neighborhood

Neighborhood / City
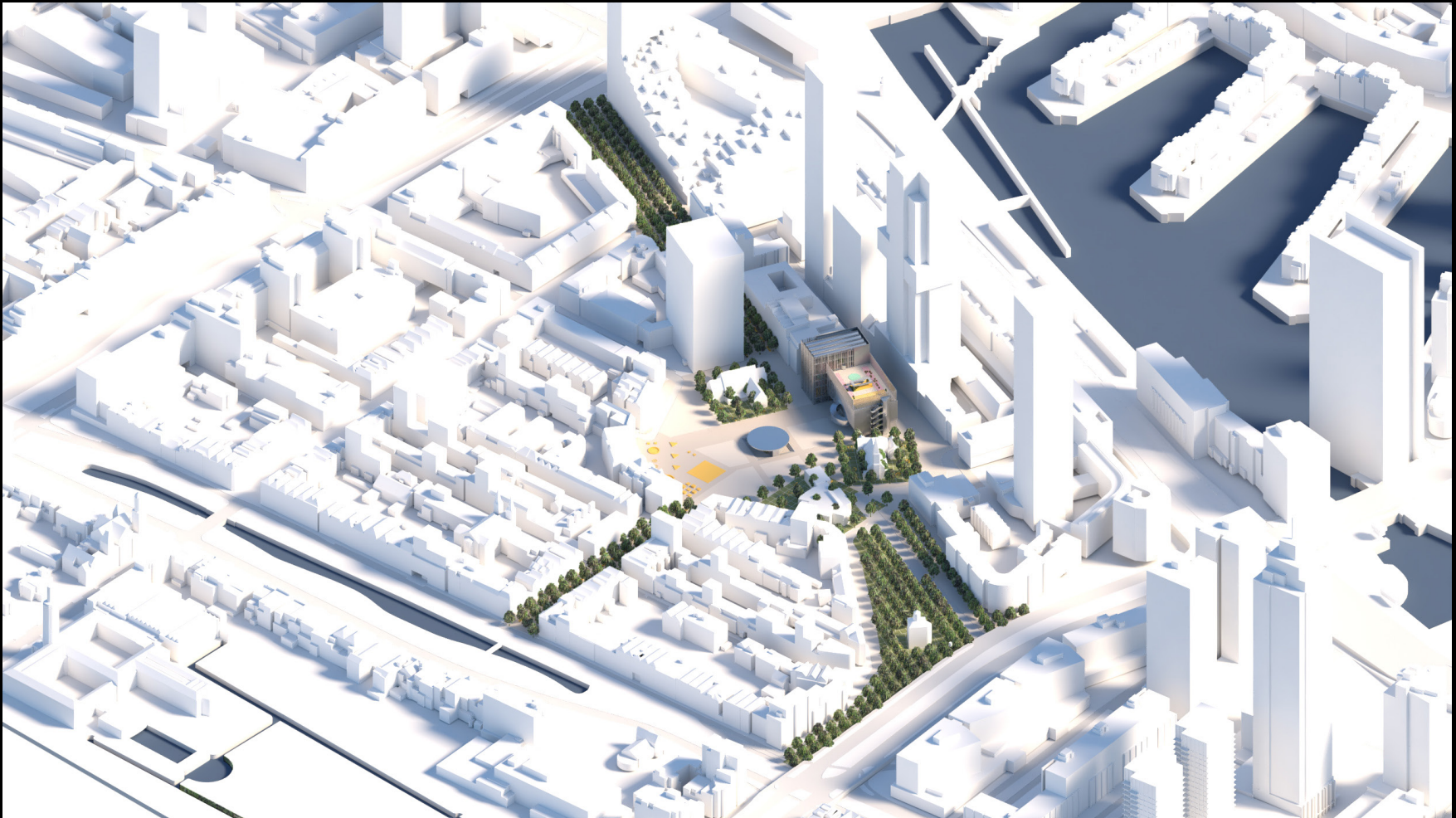
Referring to different audiences

CLOSED PUBLIC SPACE
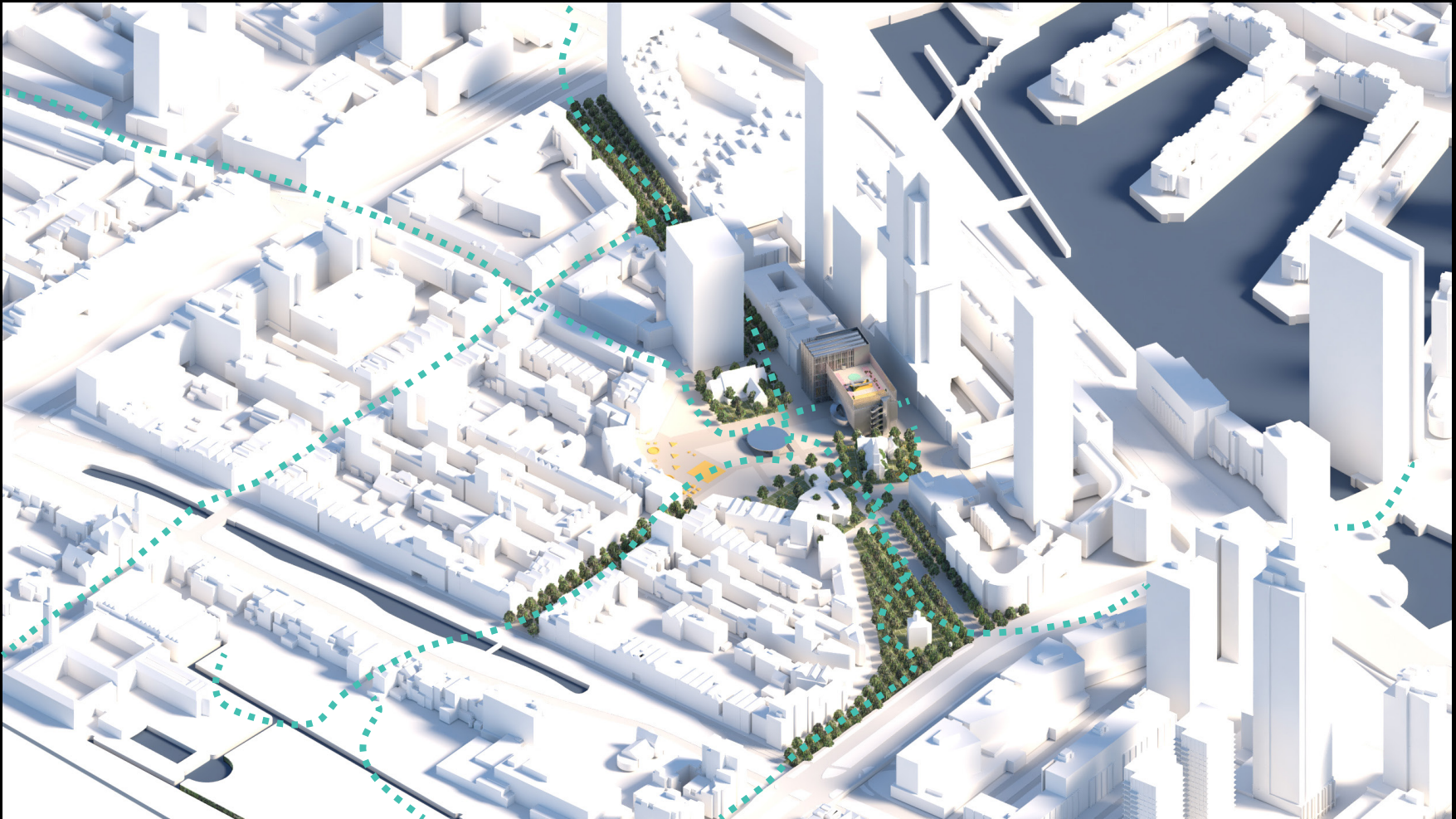
OPEN & CLOSED PUBLIC SPACE

Adapted to different users / actors

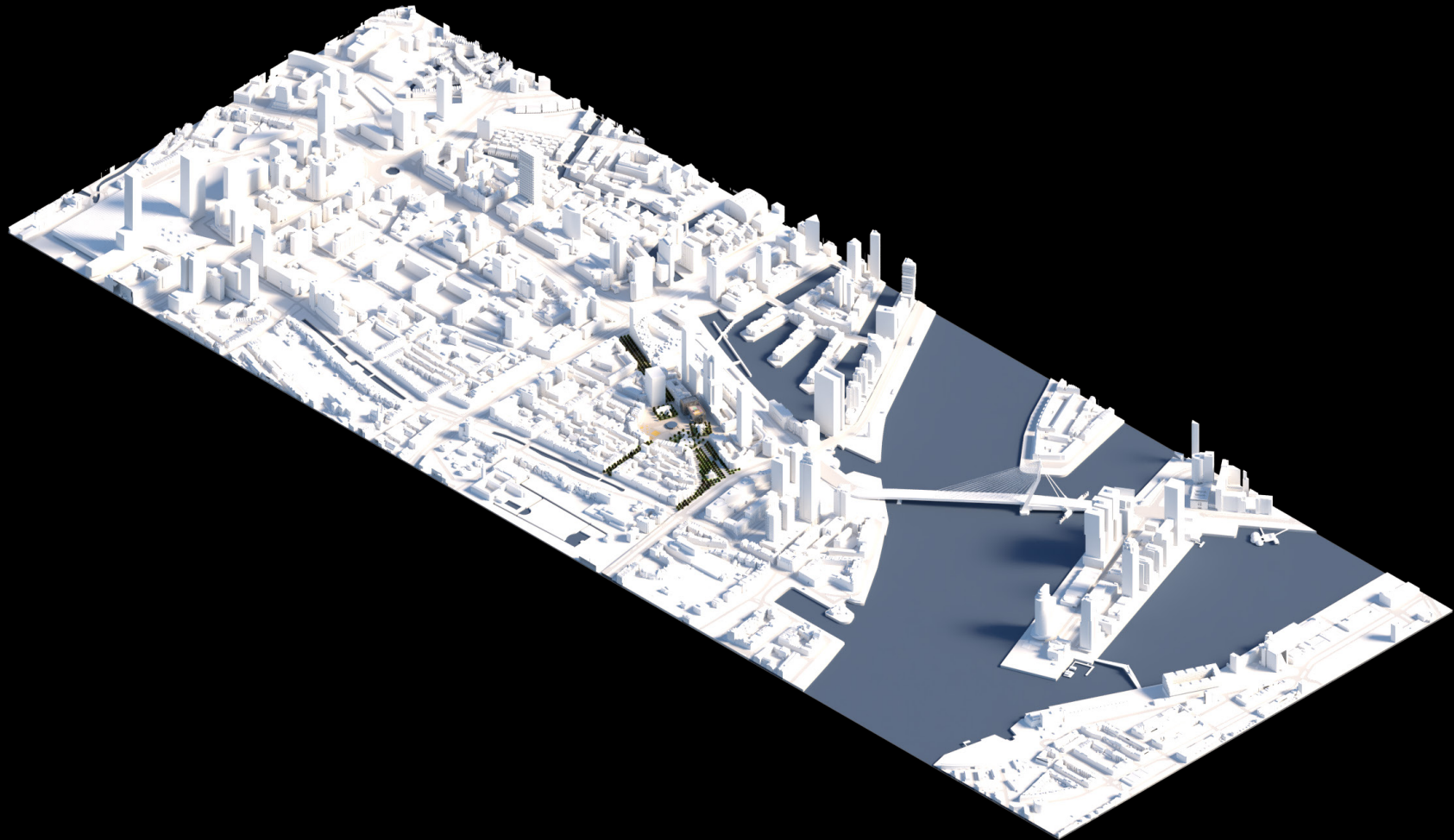# OPEN & CLOSED PUBLIC SPACE WITHIN THE NEIGHBORHOOD & THE CITY

ADAPTED TO DIFFERENT ACTORS AND SURROUNDINGS

Playground / Garden / Stage / Passage / Work / Live / Study / Manifest / Religious / Culture / Festival

ROTTERDAM 2030
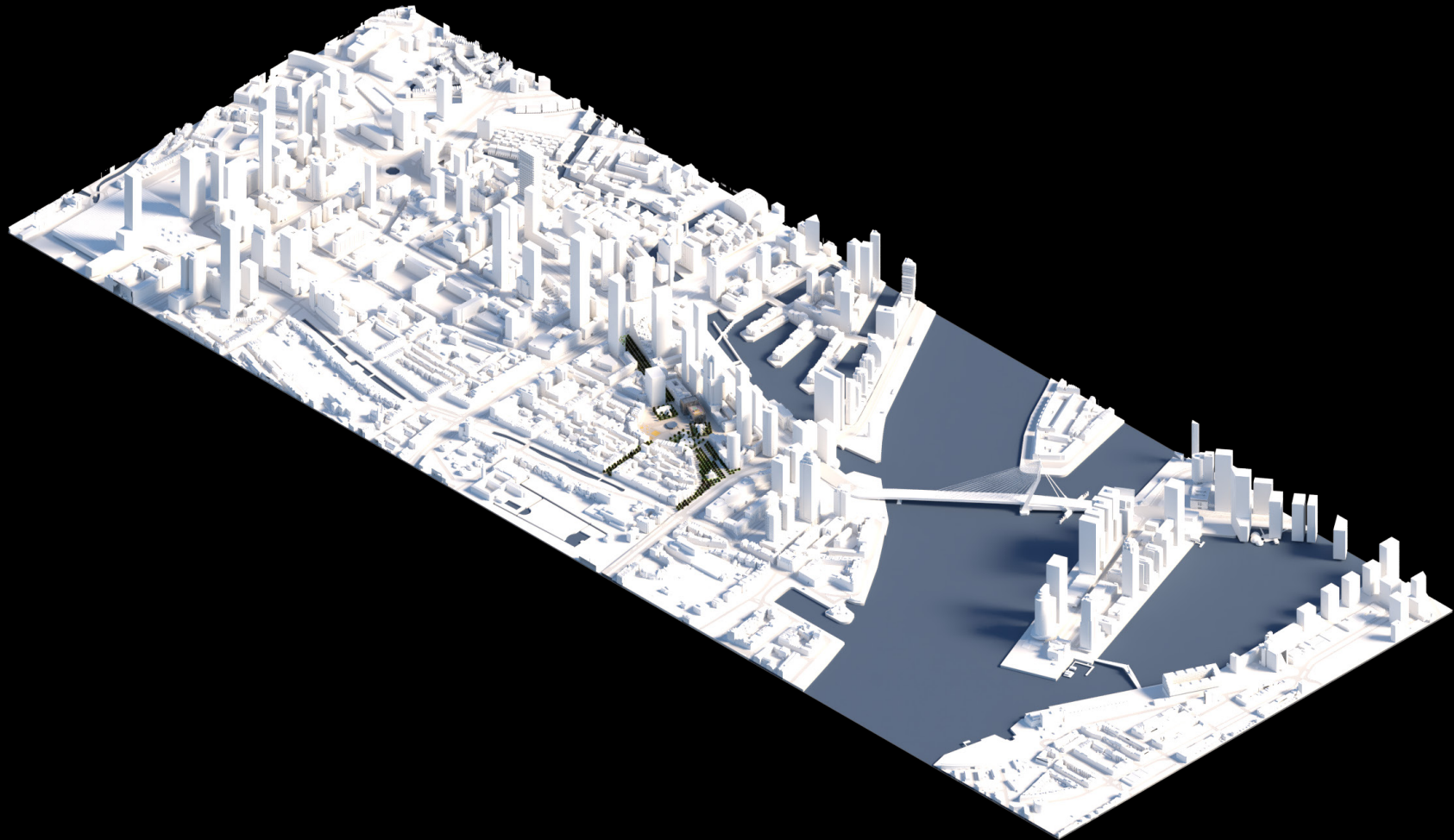

Responding to the future growth and needs of Rotterdam and Rotterdammers

ROTTERDAM 2040

Responding to the future growth and needs of Rotterdam and Rotterdammers

THANK YOU.

complex projects