

POCKETS OF EXCHANGE

P5 graduation presentation - Tara Meuleman



01.	INTRODUCTION
02.	RESEARCH
03.	DESIGN BRIEF
04.	CONCEPT
04	IMPLEMENTATION
05.	CONCLUSION

INTRODUCTION

01

LIBRARY



Active Participation

LIBRARY TYPOLOGY



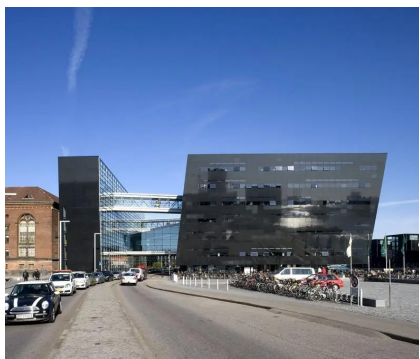
Library of Alexandria
300 BC
Egypt



Bibliotheca Marciana
1468
Venice



Bibliotheca Ambrosiana
1609
Milan







Black diamond library
1999
Kopenhagen



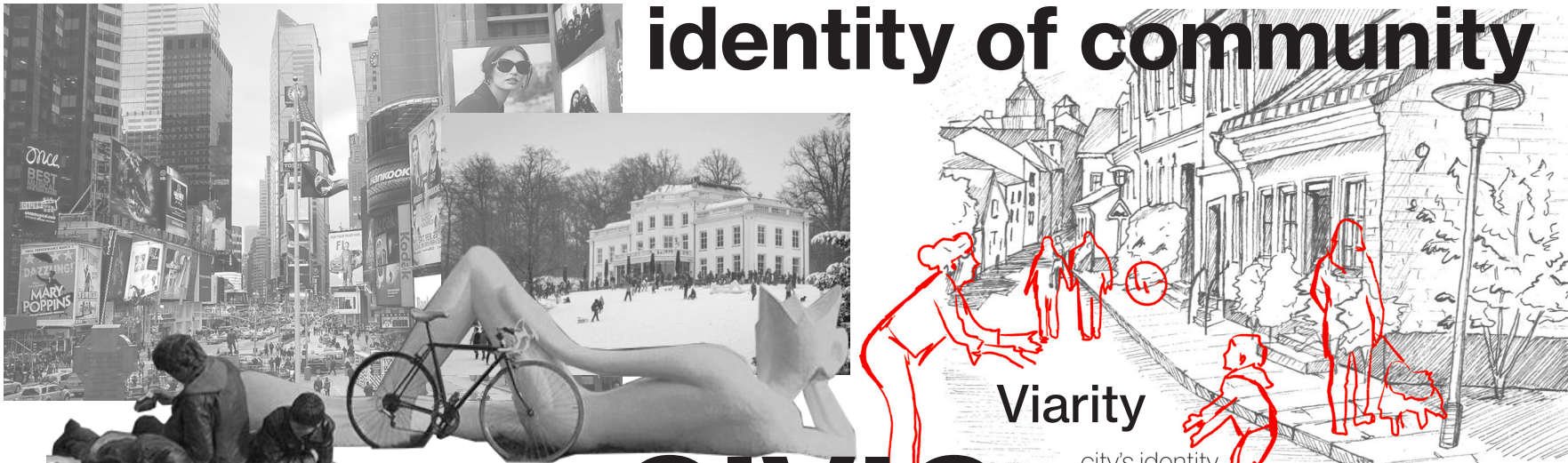
Porta Volta library
2016
Milano

private collections → public institutions

LIBRARY TYPOLOGY

academic library	public library	specialist library	national library
Support the educational and research needs of students, faculty, and staff at universities and colleges	Serve the general public by providing access to a wide range of books, magazines, audiobooks, digital resources, and more.	Focus on specific subjects or fields of interest, such as law, medicine, or engineering.	Is established by a government to collect, preserve, and provide access to the national heritage of a country, typically in the form of books, manuscripts, journals, and other cultural materials.
			
bibliotheque Marzarine, Paris	Seattle Central Library, U.S	British Law Library, London	National library of China

CIVIC VALUE



identity of community

Viarity
city's identity

CIVIC

community of like minded

within the building


space of meeting

Interaction

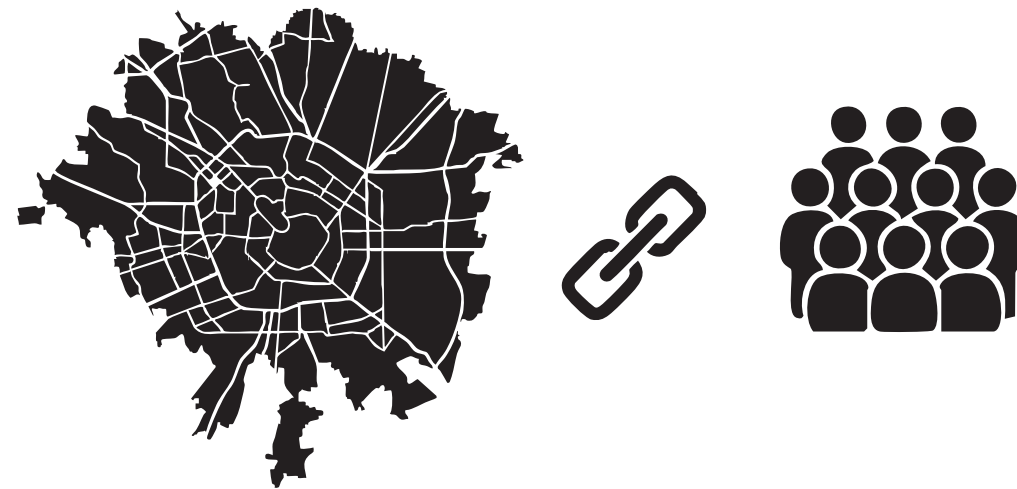
Civic monumentality

Collective activities
making place into space

"Civic spaces reflect on the image of collective membership and is in the end more enduring than a single person's view."
-Peter C. Rowe



Meeting space connecting community of milan.



Are libraries finished? Five arguments for and against

🕒 4 February 2011 · 💬 4 Comments

[Blog](#) / [GENERAL](#) / [Do We Still Need Libraries?](#)

Do We Still Need Libraries?



William Grainger · Jun 5, 2024 · 3 min read

The Future of Libraries: Will They Disappear or Evolve?

Why do we still need public libraries in the digital age?

By Tomas Doherty

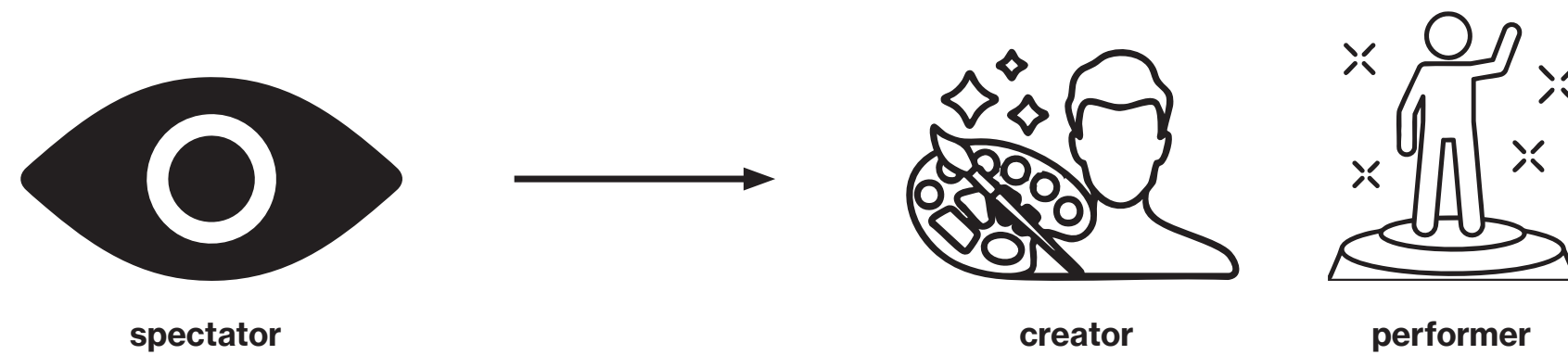
19 September 2014 - 16:44

SHIFT



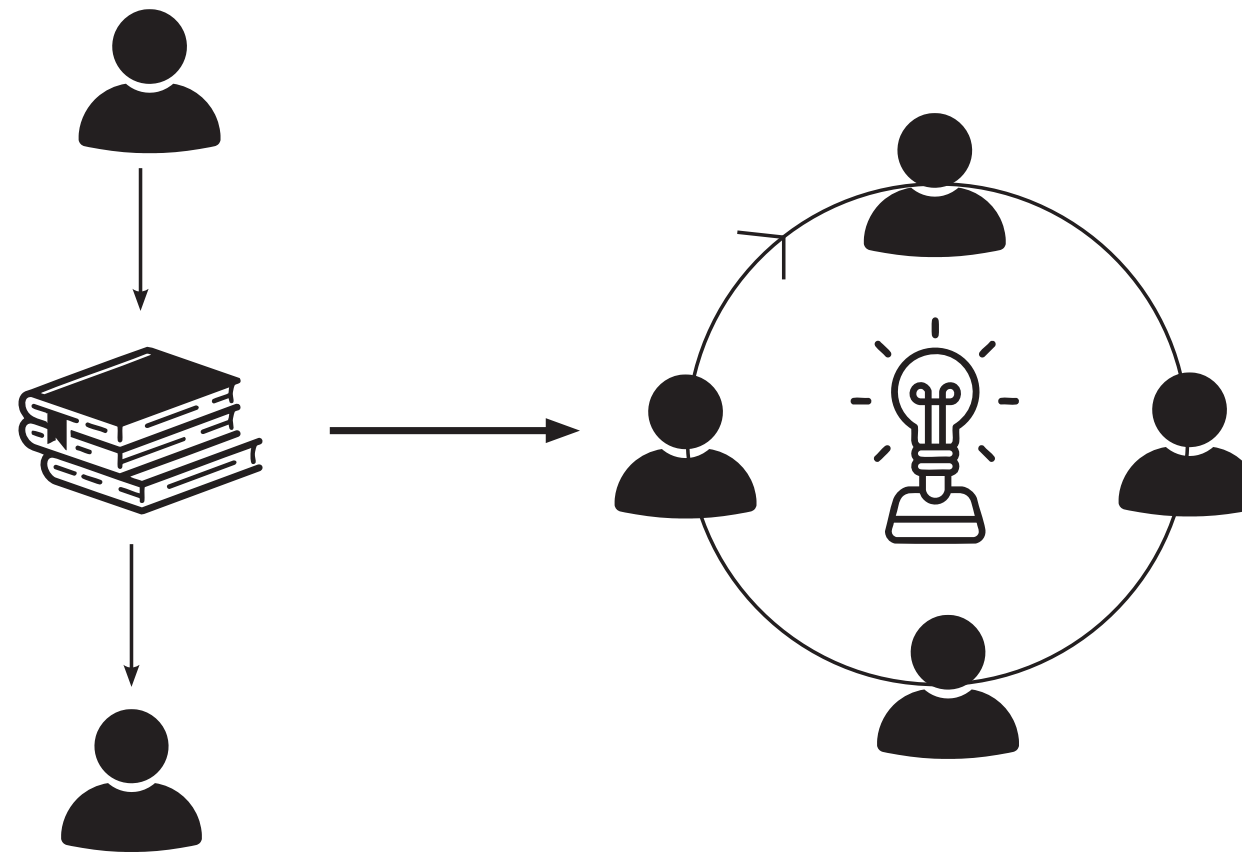
passive storage of knowledge to active
centers of community engagement.

SHIFT



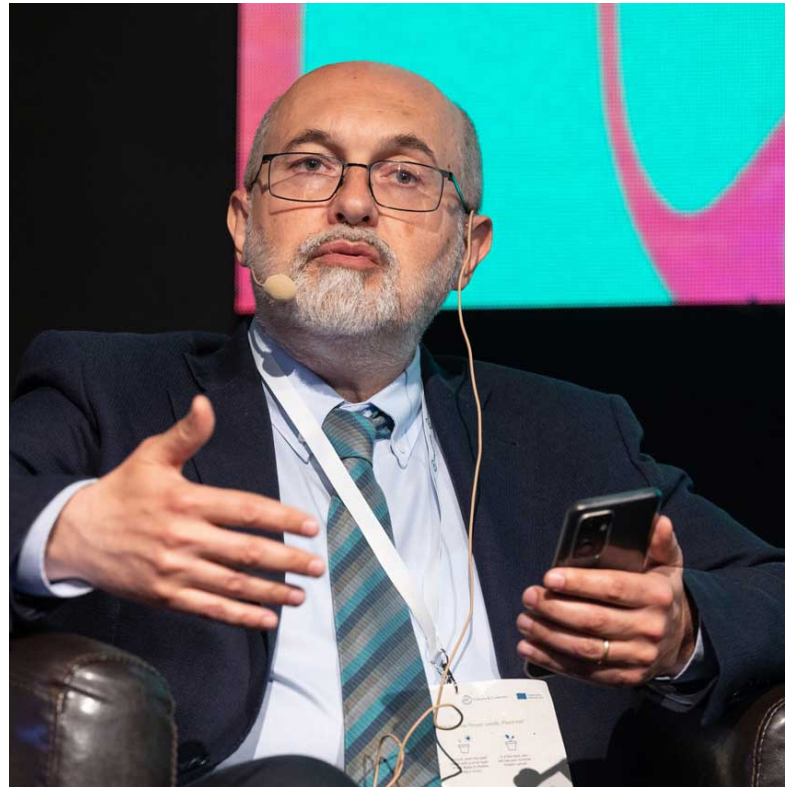
The role of the user shifts to active participant, from spectator to creator and performer.

SHIFT



One-sided exchange from author to reader changes into a constant flow of exchange between diverse people of the community.

ACTIVE PARTICIPATION



<https://eit-culture-creativity.eu/at-least-one-foot-on-the-ground/>

Culture 3.0 and the importance of active participation

“By active cultural participation, we mean a situation in which individuals do not limit themselves to absorb passively the cultural stimuli, but are motivated to put their skills at work: Thus, not simply hearing music, but playing; not simply reading texts, but writing, and so on. By doing so, individuals challenge themselves to expand their capacity of expression, to re-negotiate their expectations and beliefs, to reshape their own social identity (P. L. Sacc0, 2014-2020)”.

RESEARCH QUESTION

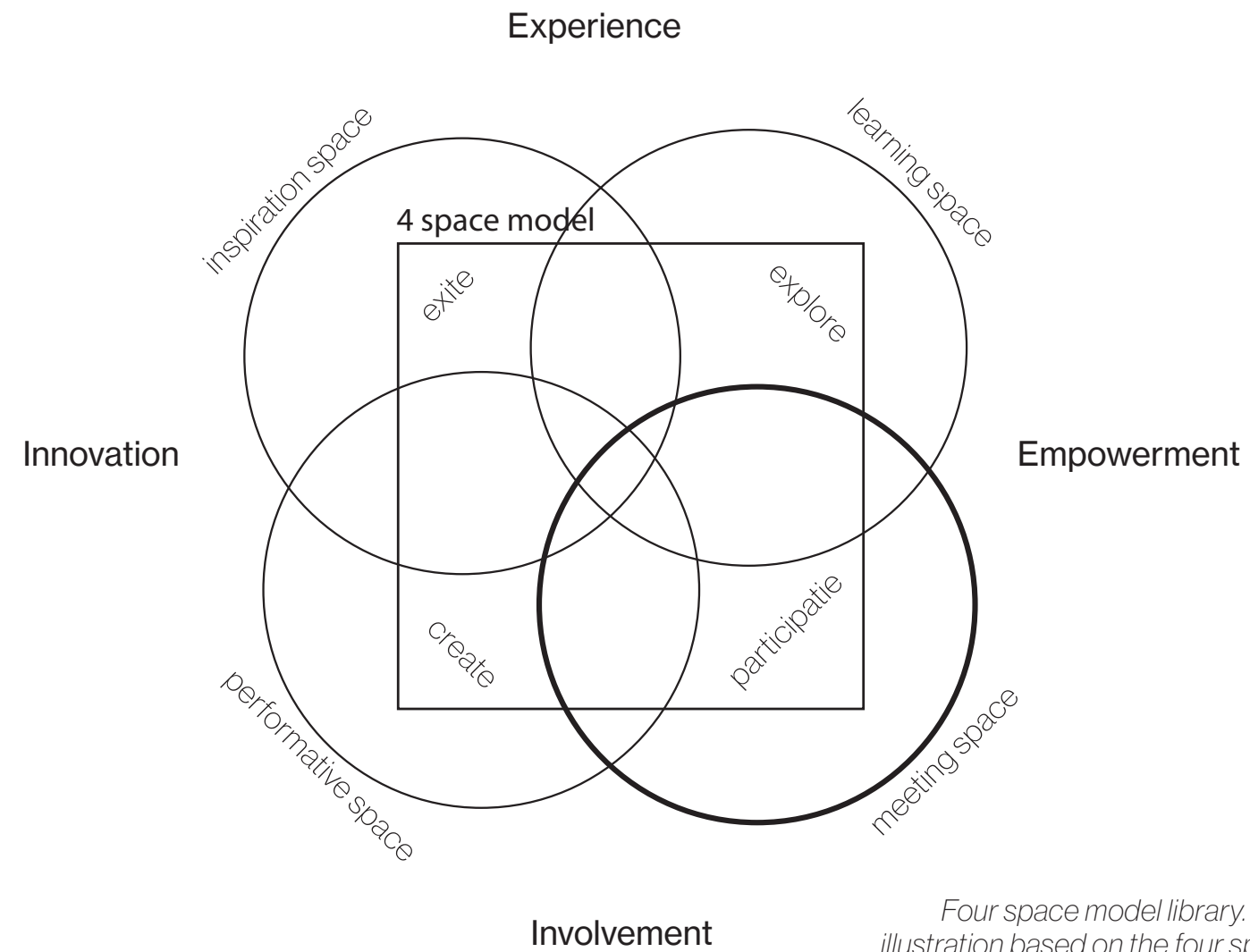
How can a library foster active participation?

This research aims to explore how libraries can be reimagined as spaces of active participation that involve community members in meaningful dialogue, civic engagement, and collaboration to boost a cultural uplift for the citizens of Milan.

RESEARCH

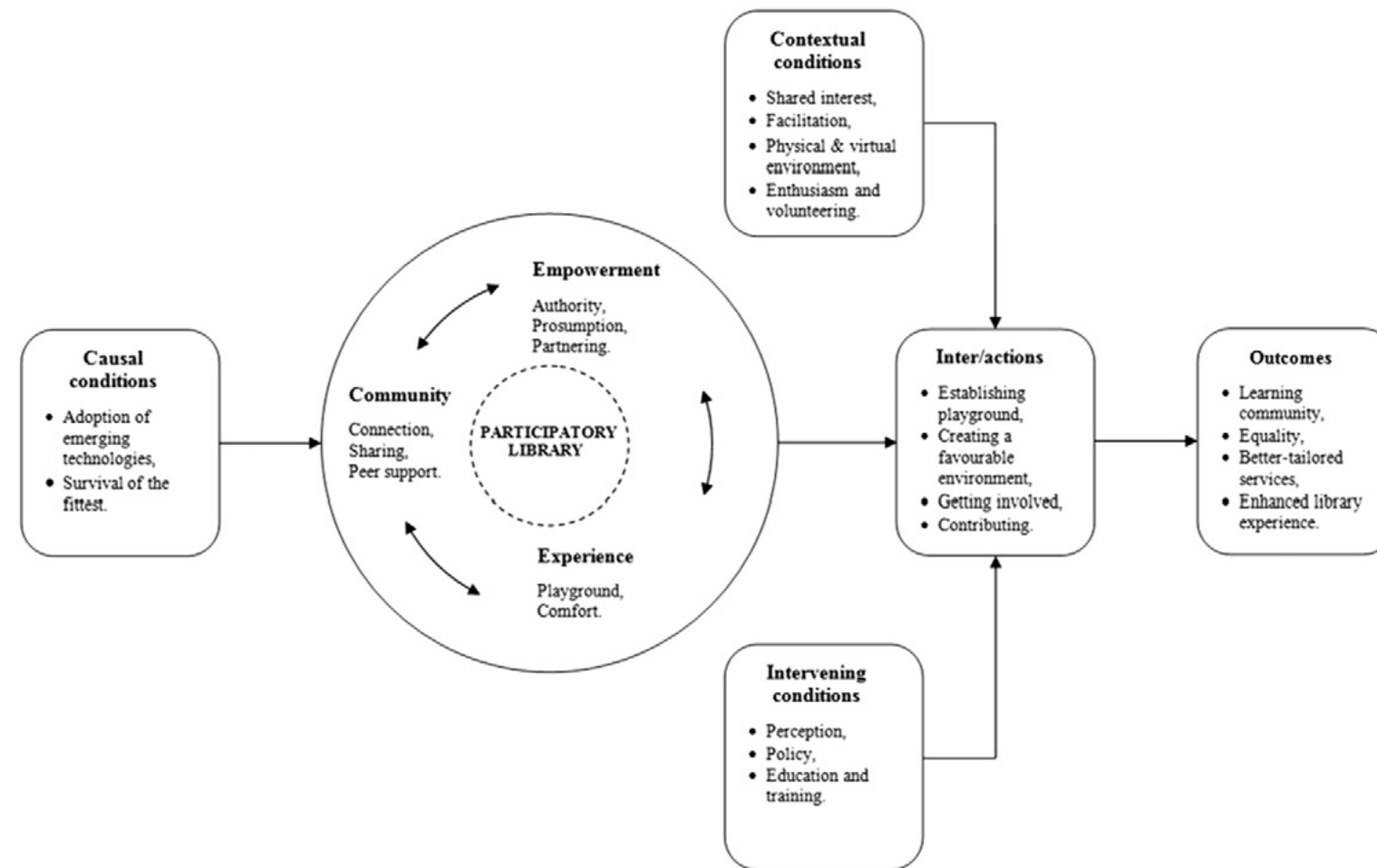
02

4 SPACE MODEL



*Four space model library. own
illustration based on the four space
model of Jochumsen, H., Skot-
Hansen, D., & Rasmussen, C. H.*

PARTICIPATION MODEL



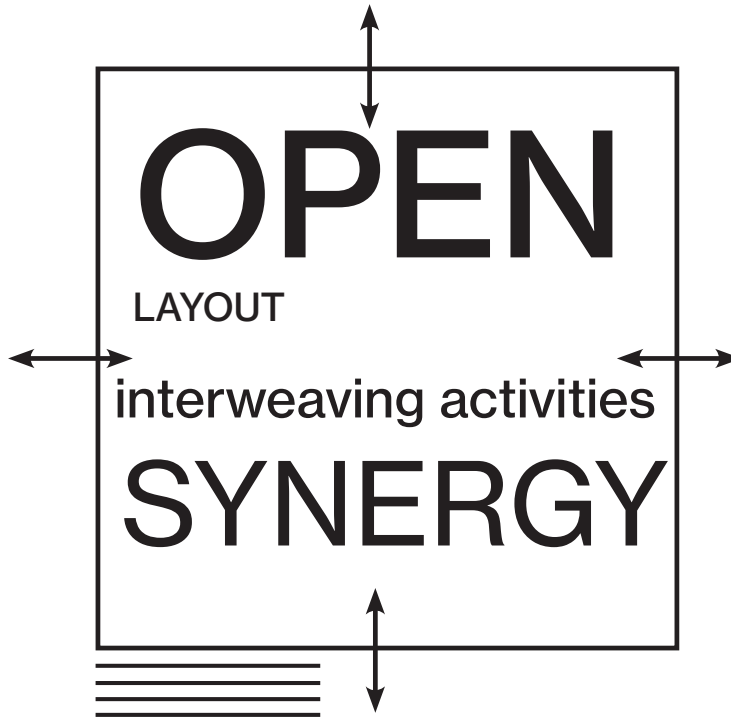
Model participatory library: L.C. Nguyen / The Journal of Academic Librarianship 41 (2015) 475–487

LIBRARY OF ACTIVE PARTICIPATION

Elements	Important themes	Achitectural translation
Community	collective intelligence, sharing, exchange, connection, diversity	designed meeting spaces (cafe, restaurant, informal reading spaces)
Empowerment	own interpretation, self service, shared responsibility, collaboration.	(flexible) spaces for activities, multifunctional spaces
Experience	informal, accessibility, comfortable, facilitated playground	entrance, circulation space
(semi) private		
Historic documentation	connection to the historic site	archive
Administration	functionality	offices, information desk, technical installations

figure x, Relation important spaces in library, own scheme

COMMUNITY BY COLLABORATION



Key requirement:
transparent covered urban space



dokk1
2015
Aarhus, Denmark
35600 m2

EMPOWERMENT BY INITIATIVE



Helsinki central library Oodi
2018
Helsinki, Finland
17.000 m²



Key requirement:
multi purpose building, open to all. ‘a place of freedom and equity.’

EXPERIENCE BY EXPOSURE



***When exposed to different activities
interest is created what leads to active
participation***

DESIGN BRIEF

03

DESIGN ASSIGNMENT



327 Porta Volta Fondazione Feltrinelli
Milan, Italy
Herzog de meuron
Project 2008-2011
Realization 2011-2016

DESIGN BRIEF

WHO

CLIENT

WHERE

SITE

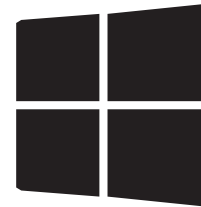
WHAT

PROGRAM

CLIENT



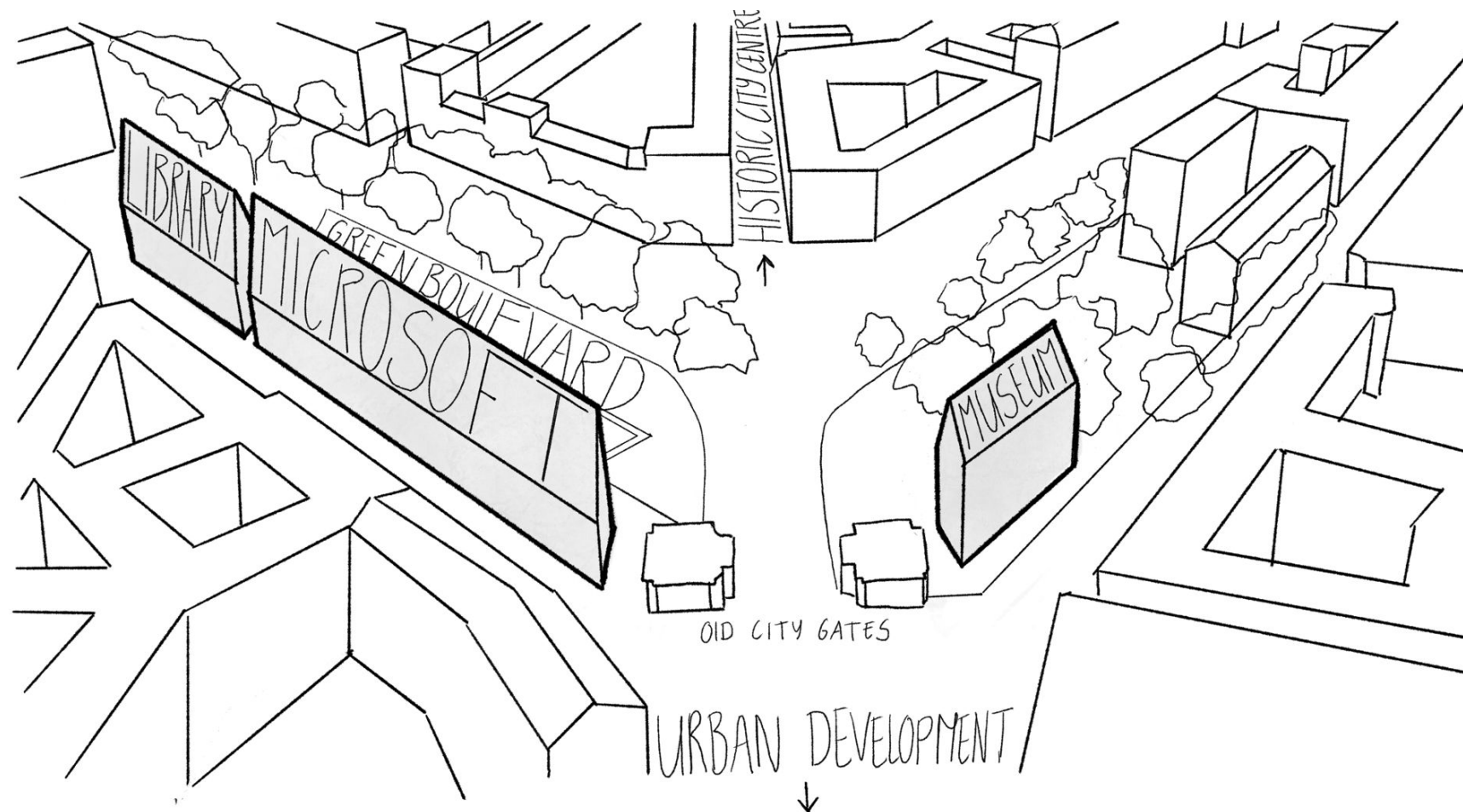
Fertinelli foundation library



Microsoft



Museum



Current situation division clients in building volumes, own illustration

CLIENT AMBITIONS

Microsoft



exchange knowledge



accessible to public
in some extend



innovation



Democratizing
technology

Museum



exchange knowledge



accessible to public
in some extend



historic relevance



connection to milan

Library



exchange knowledge



accessible to public
in some extend



interaction



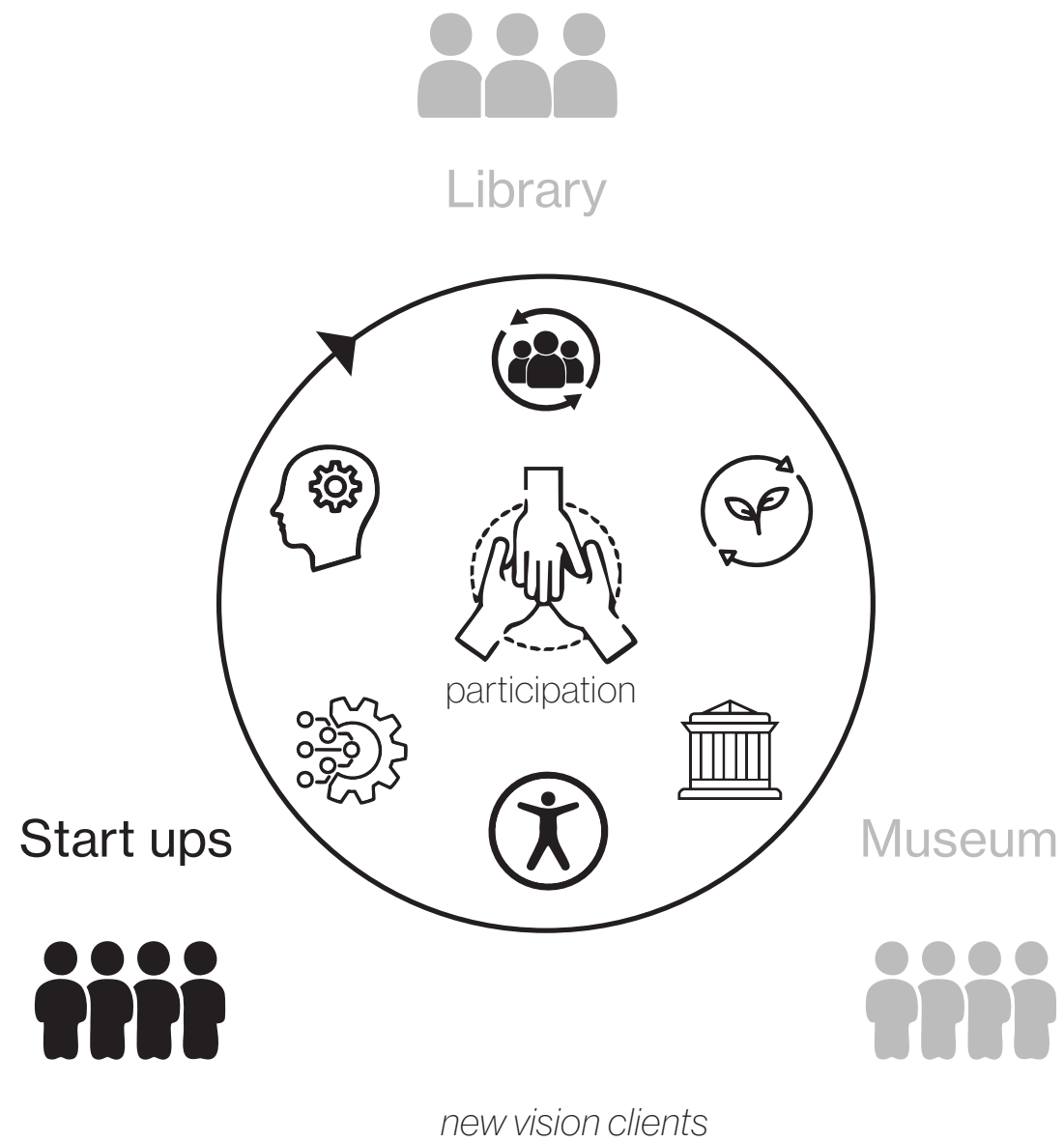
sustainability



participation

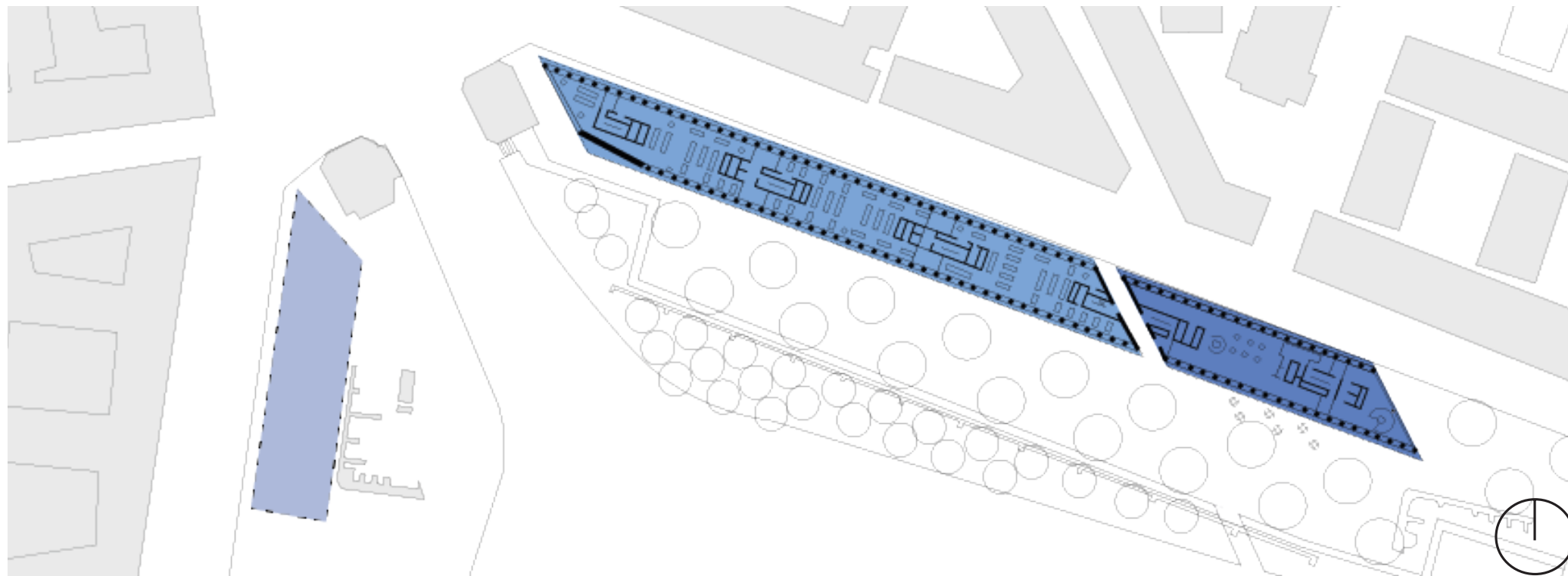
client ambitions, own illustration

NEW CLIENT RELATION

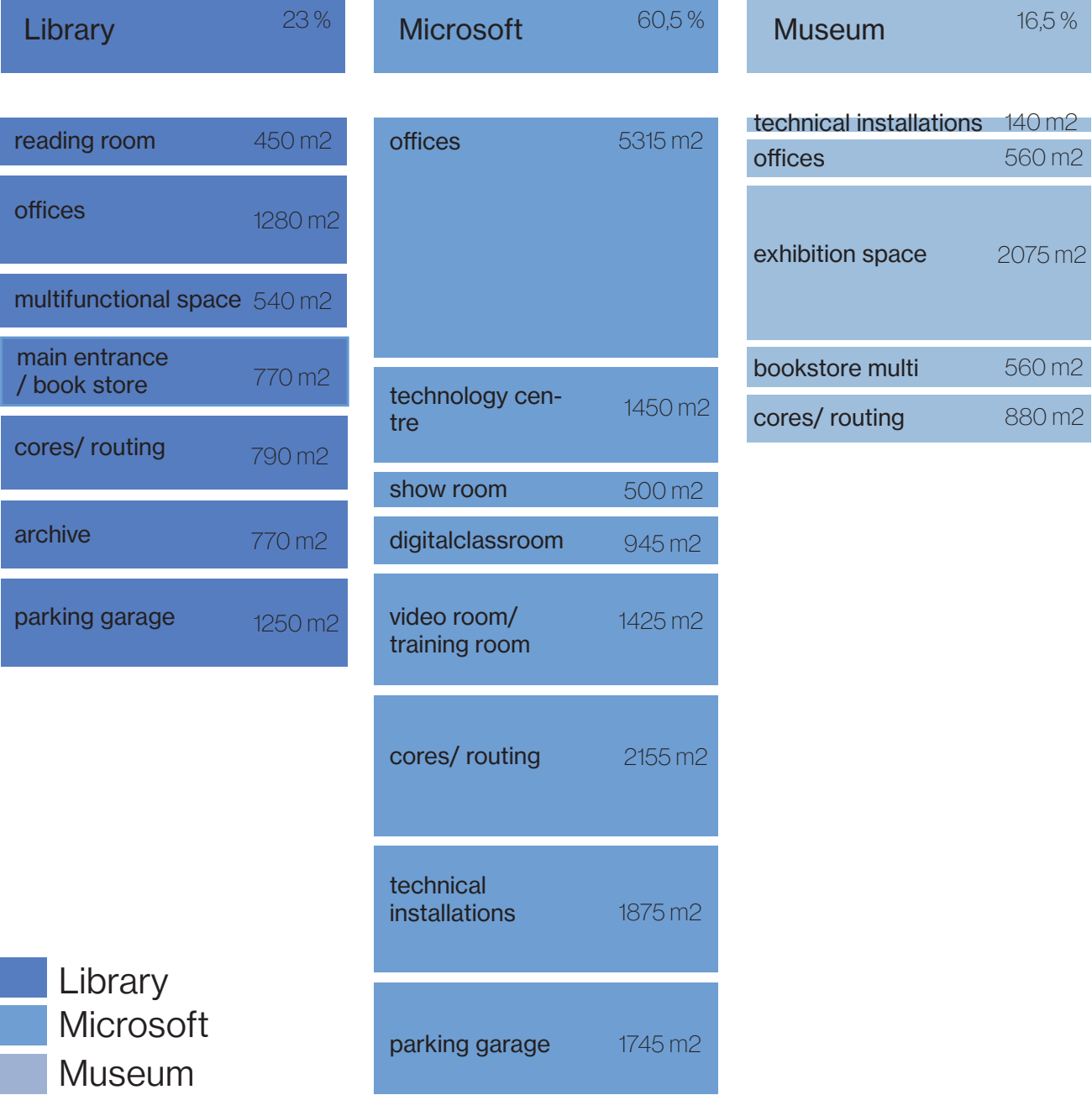
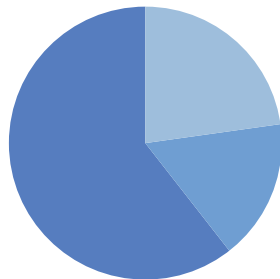


CURRENT PROGRAM

- Library
- Microsoft
- Museum



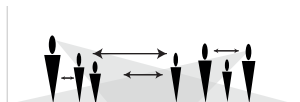
CURRENT PROGRAM



Library
Microsoft
Museum

CURRENT PROGRAM

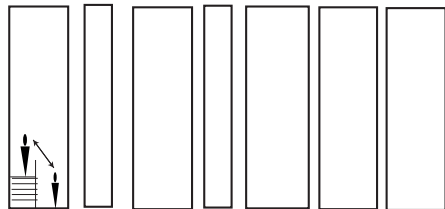
Library



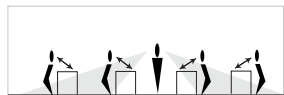
multifunctional space
540 m2
create/ participate



main entrance/ book store
770 m2
inspire/ participate



cores/ routing
790 m2
meet/ participate



reading room
450 m2
explore



offices
1280 m2
explore

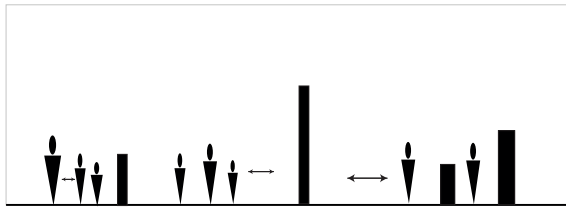


archive
770 m2
explore/ exite



parking garage
1250 m2

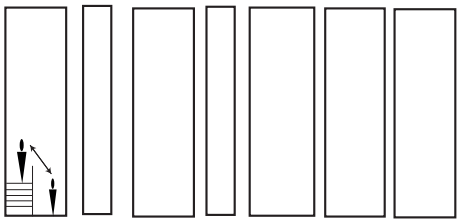
Museum



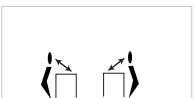
Exhibition space
2075 m2
meet/ participate



bookstore
560 m2
inspire

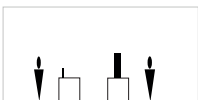


cores/ routing
880 m2
meet / participate

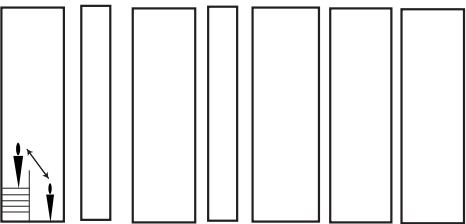


offices
560 m2
explore

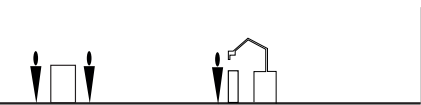
Microsoft



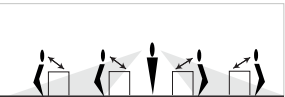
showroom
500 m2
exite



cores/ routing
2155 m2
meet



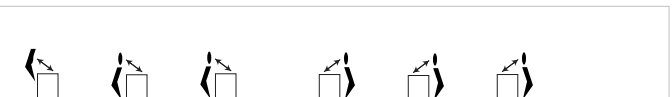
technology centre
1450 m2
create



digital classroom
945 m2
explore



training room
1425 m2
explore

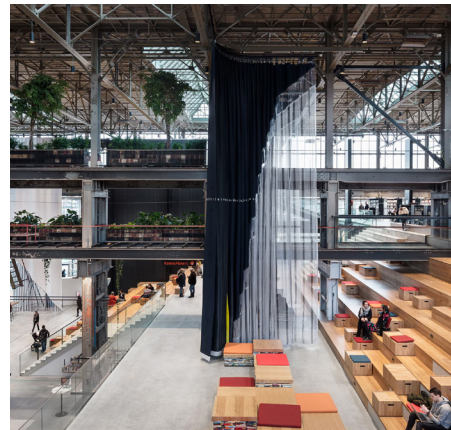


offices
5315 m2
explore

CASE STUDIES



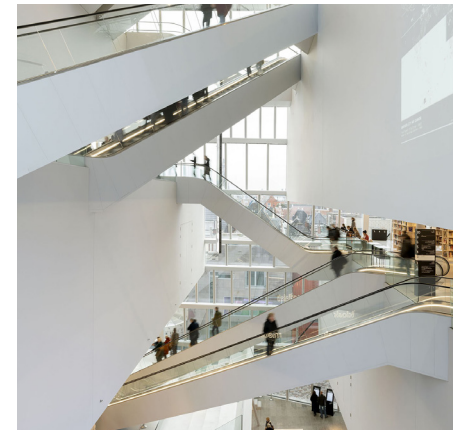
Rozet - Arnhem
2013
Neutelings Riedijk Architecten
12.000 m2



LocHal - Tilburg
2015
CIVIC
11.200 m2



Venessla learning centre - Norway
2016
Helen & Hard
1938 m2.



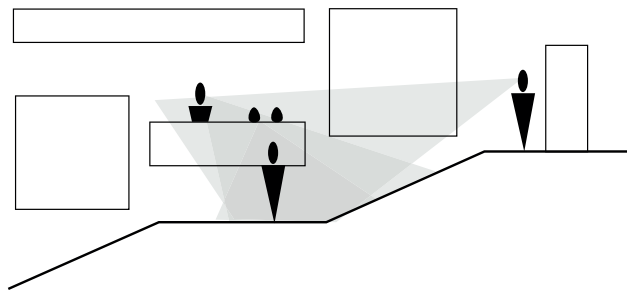
Forum Groningen
2021
NL Architects
17.000 m2



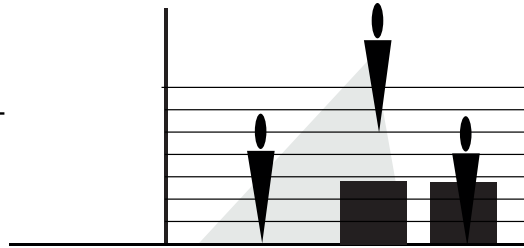
Winter Park Library & Events Center - US
2021
Adjaye Associates
25,000 sqft - 100,000 sqft

CASE STUDIES

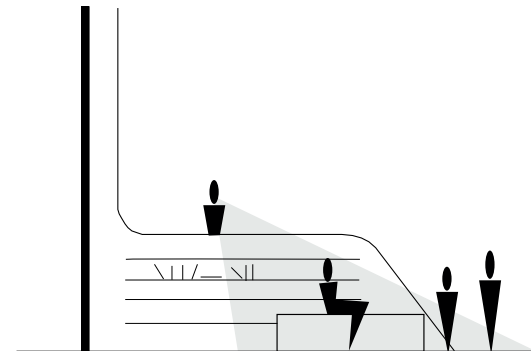
interaction and participation



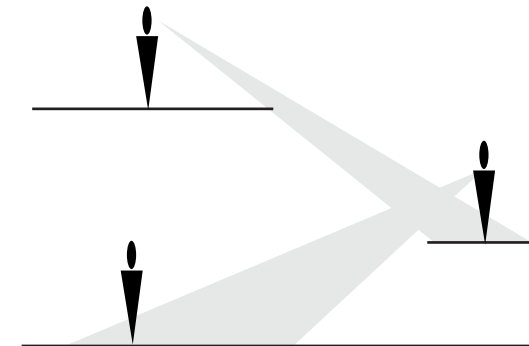
Rozet
1013
Arnhem



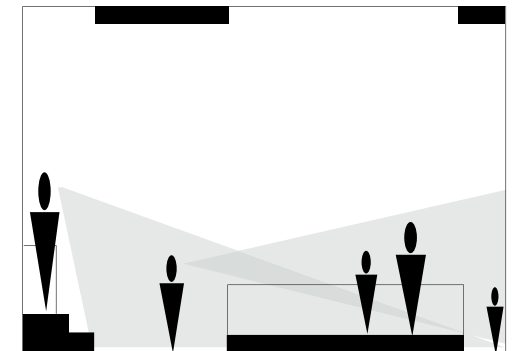
LocHal
2015
Tilburg, the Netherlands



**Vennesla library &
cultural centre**
2011
Vennesla, Norway

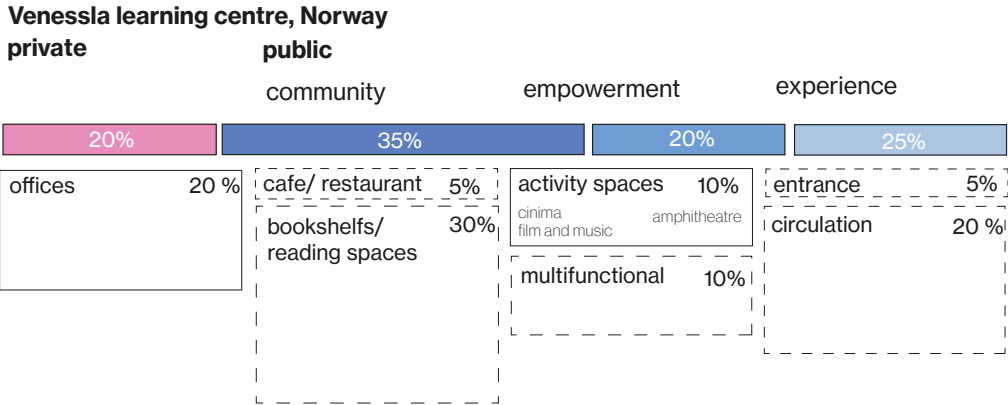
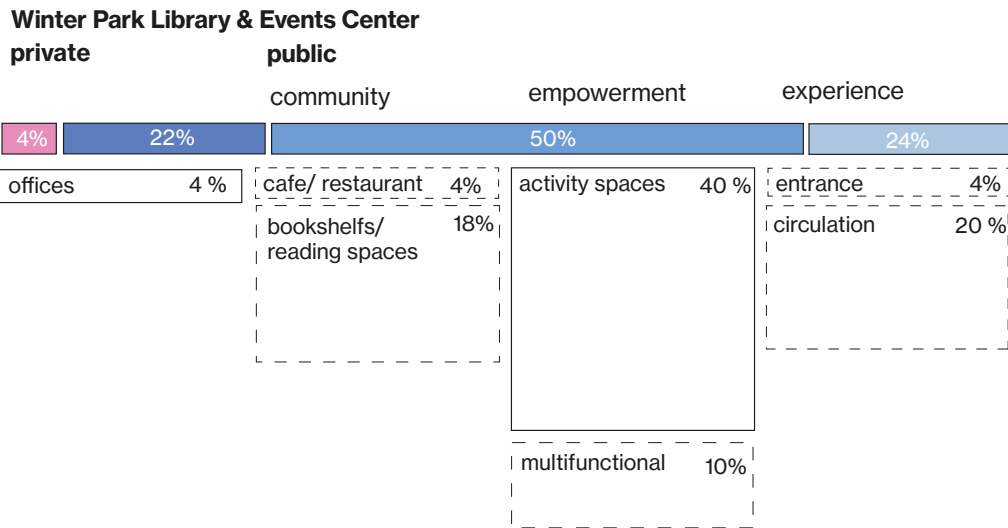
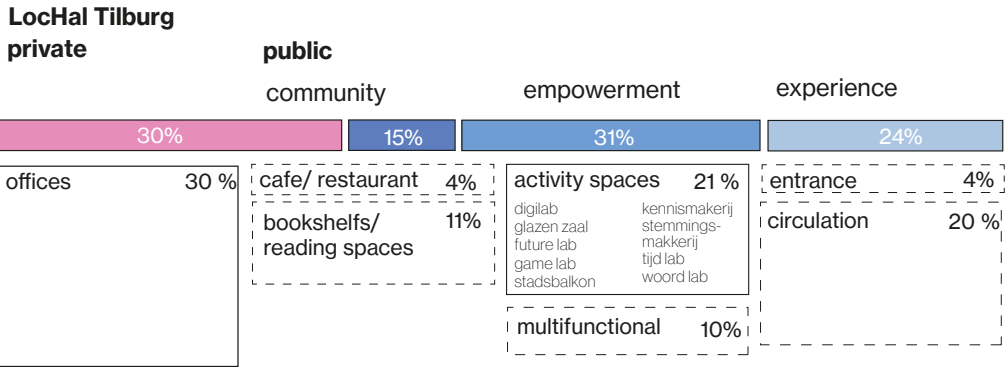
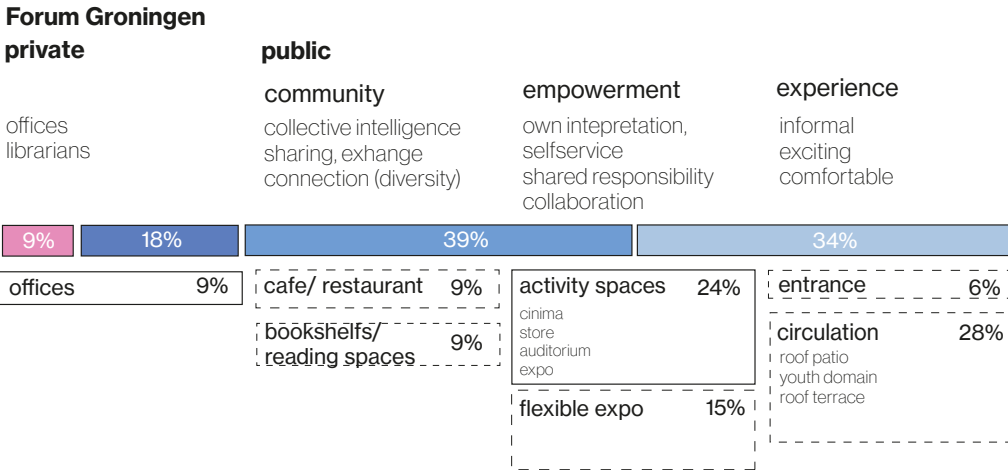
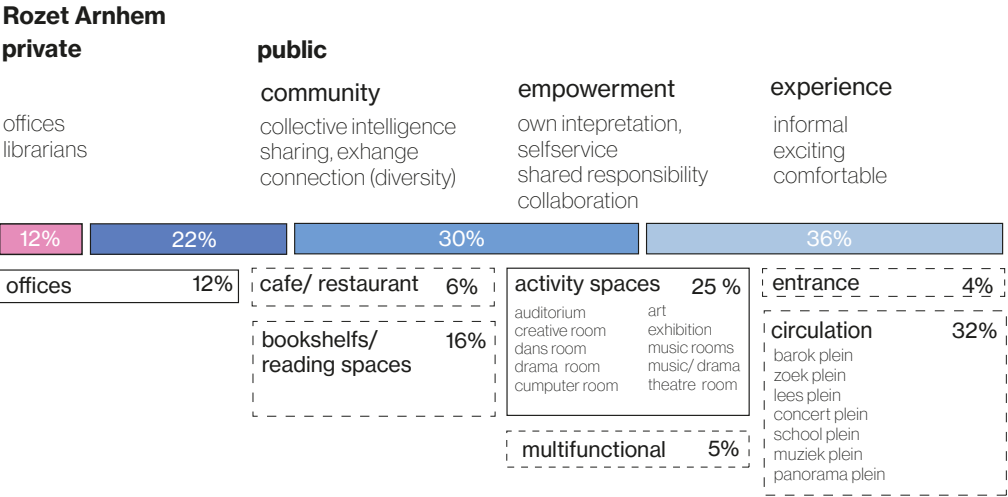


Forum
2011
Groningen, the Netherlands

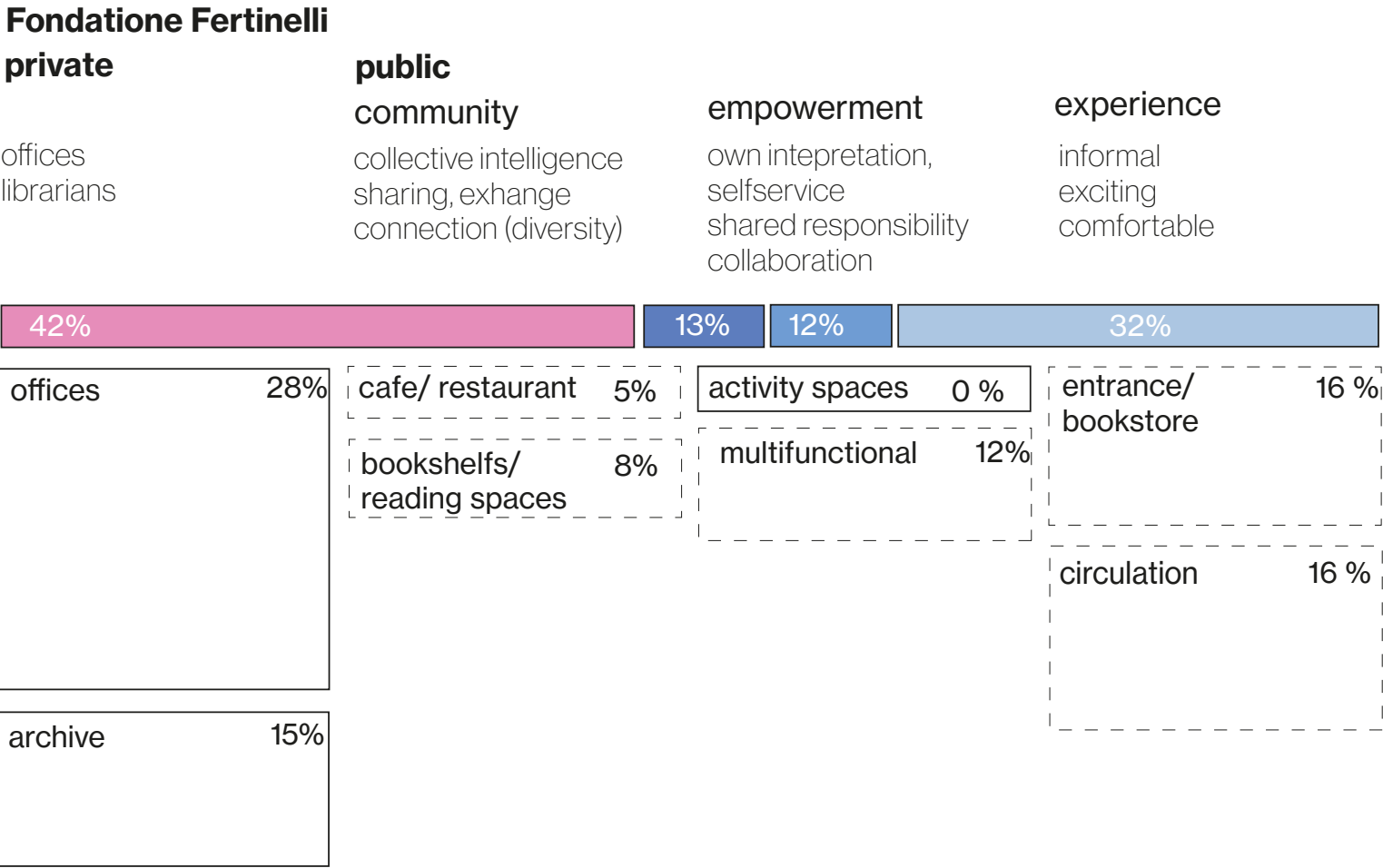


Rolex learning centre
2010
Ecublens, Switzerland

BENCH MARKING



CURRENT LIBRARY DESIGN



NEW PROGRAM RELATION

Rozet - Arnhem



LocHal - Tilburg



Venessla learning centre - Norway



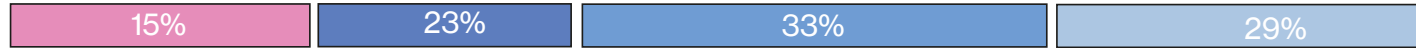
Forum Groningen



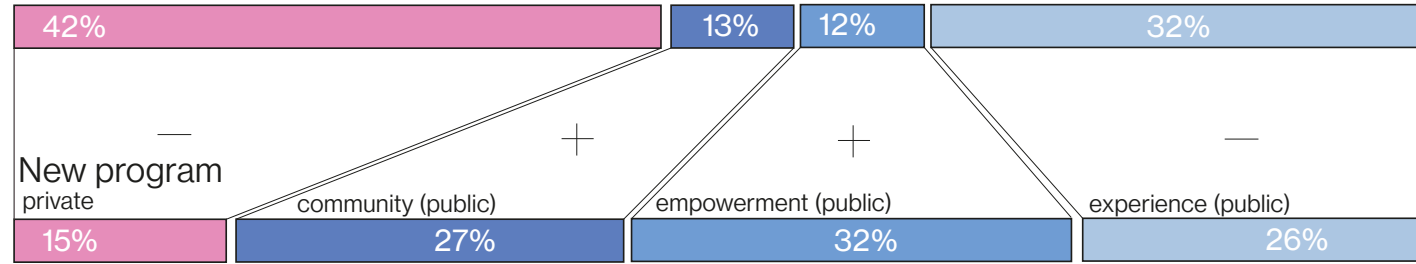
Winter Park Library & Events Center - US



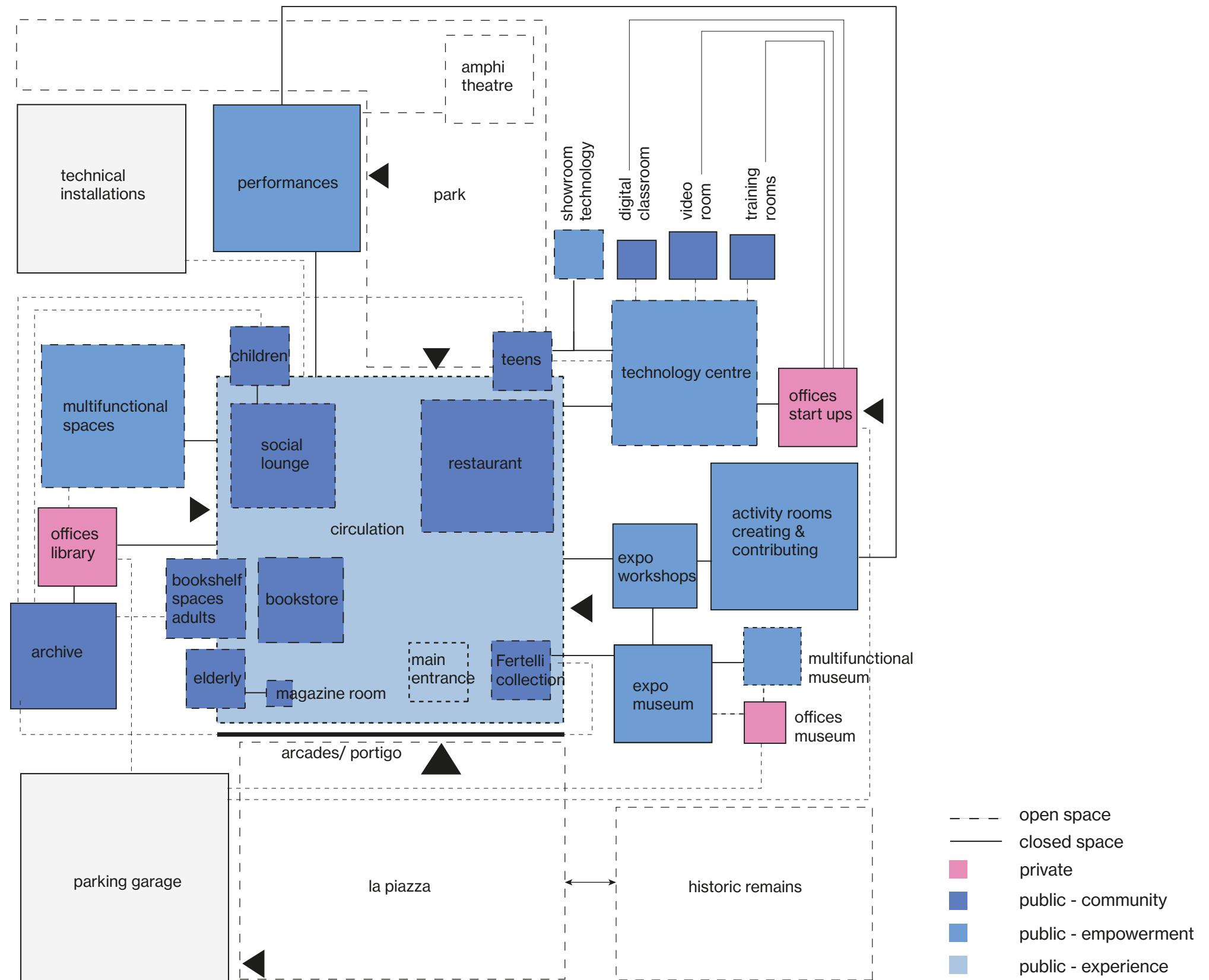
Avarage



Fondatione Fertinelli - Milan



PROPOSED RELATION SCHEME

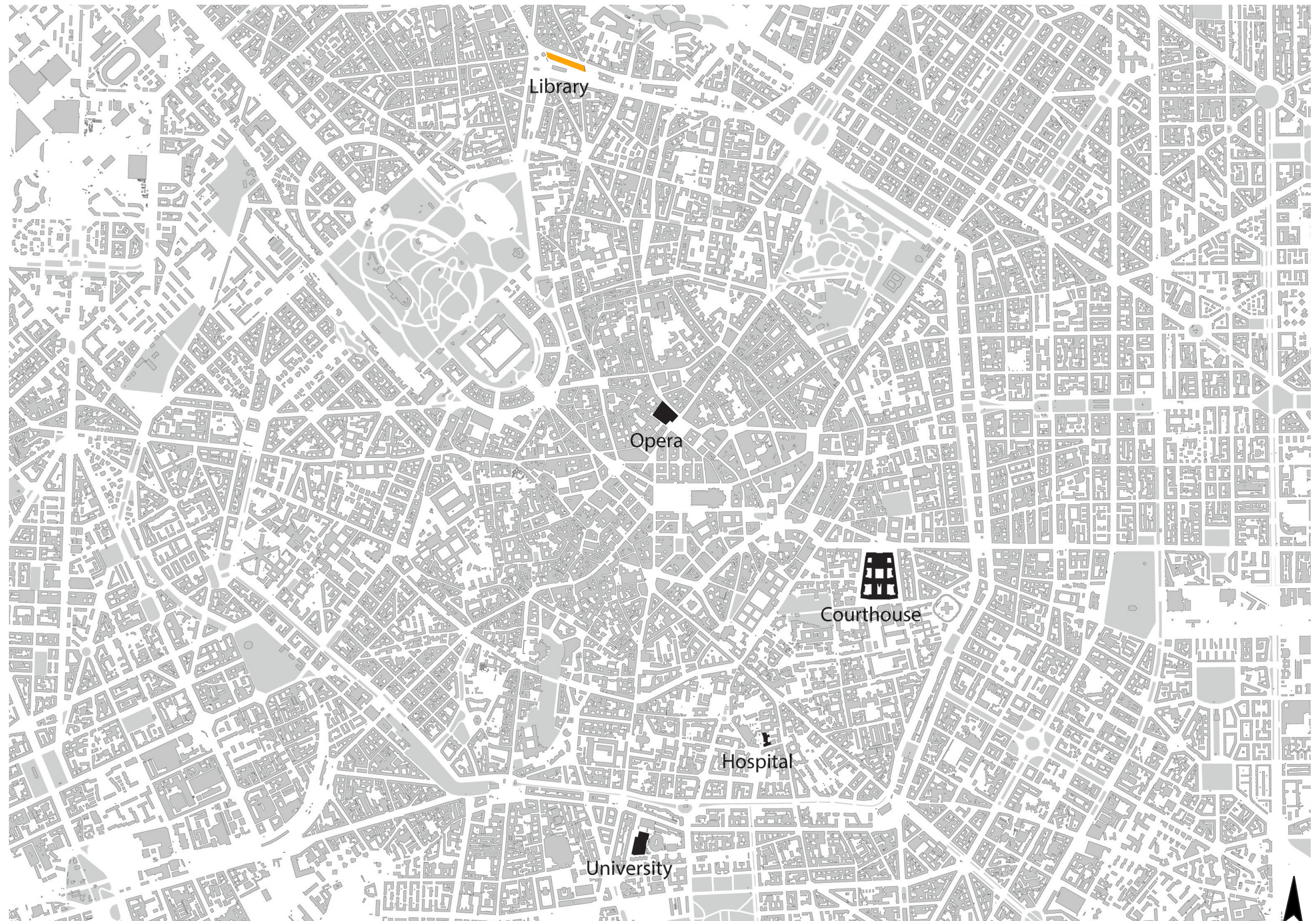


PROPOSED PROGRAM BREAKDOWN

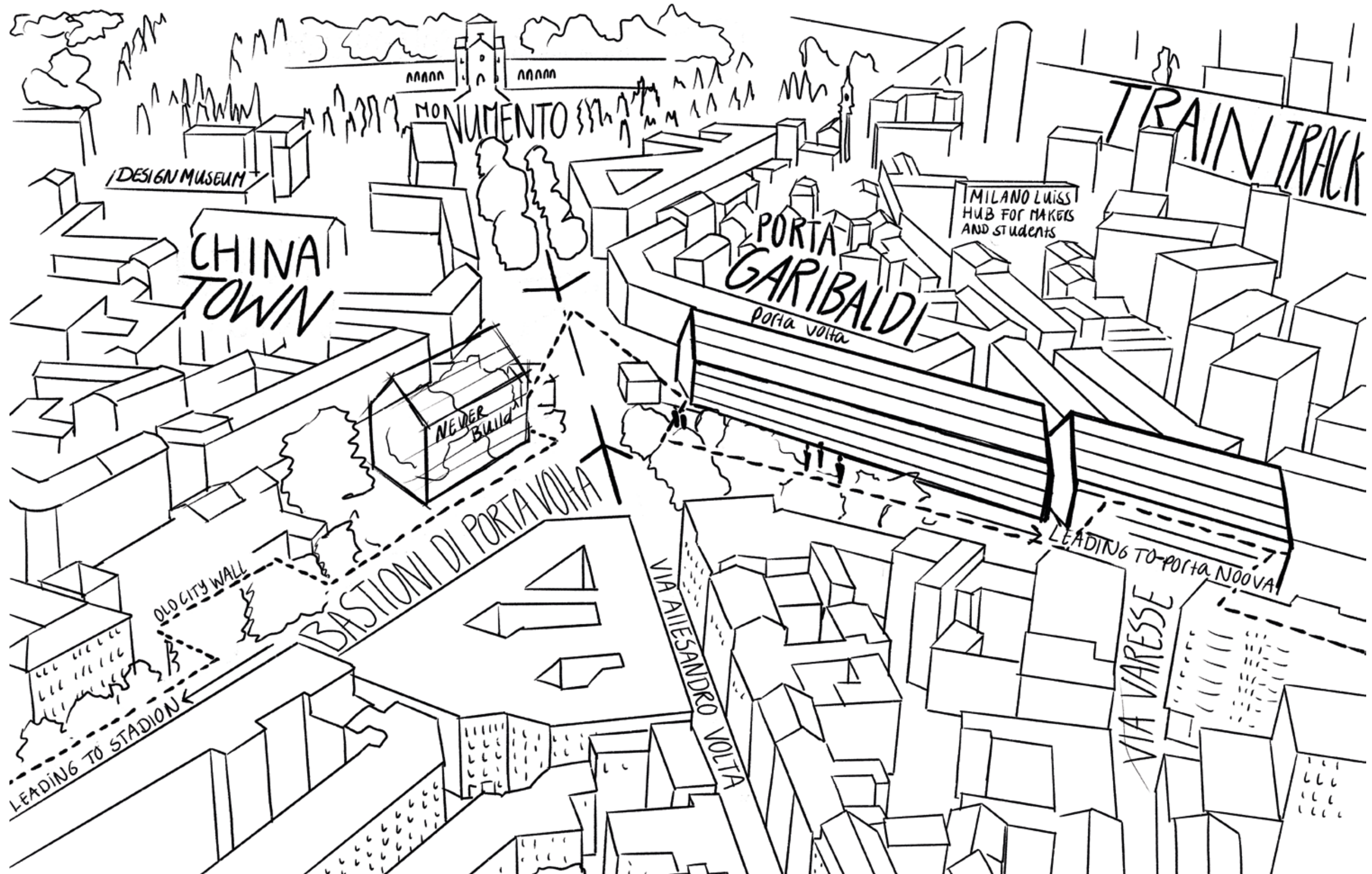
15%	Private spaces (3245 m2)					
	offices	1350 m2	technical installations	1900 m2		
	library	575 m2				
	museum	200 m2				
	start ups	575 m2				
27%	Community (5840 m2)					
	Meeting	1220 m2	Collective intelligence	3250 m2	Historic meaning	1370 m2
	café/ restaurant	1100 m2	bookshells study spaces		Fertinelli history showroom	200 m2
	sitting/ tables	40 m2	seniors	500 m2	collection	
	kitchen	20 m2	adults	500 m2	bookstore	400 m2
	toilets	20 m2	teens	500 m2	archive	770 m2
	storage		children	500 m2		
		60 m2	training rooms	300m2		
	magazine room		video room	450 m2		
			digital classroom	500 m2		
32%	Empowerment (6920m2)					
	Creating & Contributing	2380 m2	Multifunctional	2170 m2	Performace	2385 m2
	technology centre	1450 m2	(for events organised		performace hall with seating	250 m2
	art room	90 m2	by locals)		changing rooms	25 m2
	dans studio's	75 m2	co- working spaces	120 m2	toilets	20 m2
	theatre rehearsal	50 m2	debate centre	100 m2	decor workshop	60 m2
	music studio's	90 m2	auditorium	350 m2	costume workshop	30 m2
	drama room	75 m2	lecture halls	200 m2	show room technology	400 m2
	workshop rooms		multifunctional space library	700 m2	exhibition space for workshops	500 m2
	art	100 m2	multifunctional space museum	500 m2	small exhibition space museum	800 m2
	music	90 m2			amphi theatre	300 m2
	technology	80 m2				
	computer rooms	80 m2				
	photography room	50 m2				
	print shop (2d/3d)	50 m2				
crafts	100 m2					
26%	Experience (5660 m2)					
	Inviting entrance	200 m2	Circulation	4800 m2	Bookstore	400 m2
	wardrobe	40 m2	(possibility for sub devision)			
	desk	20 m2	-stairs	TBD		
	social lounge	200 m2	-multifunctional area	TBD		
			-elevators	TBD		
			-hallways	TBD		
			-corridors	TBD		
			-informal reading area's	TBD		
				external spaces		
				parking garage	200 spots	
				piazza	TBD	
				park	TBD	
				arcade	TBD	

SITE

1:10.000



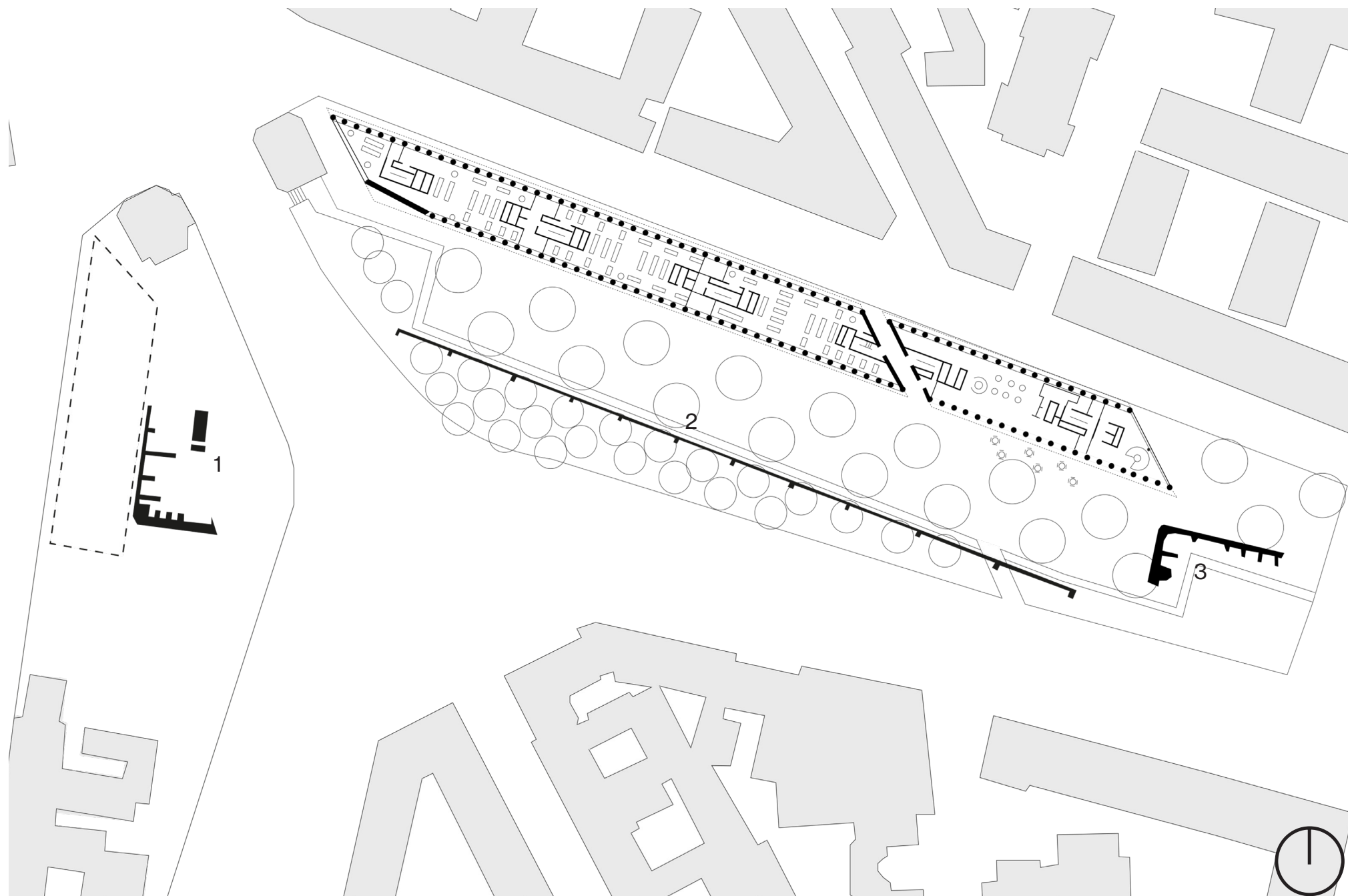
SITE



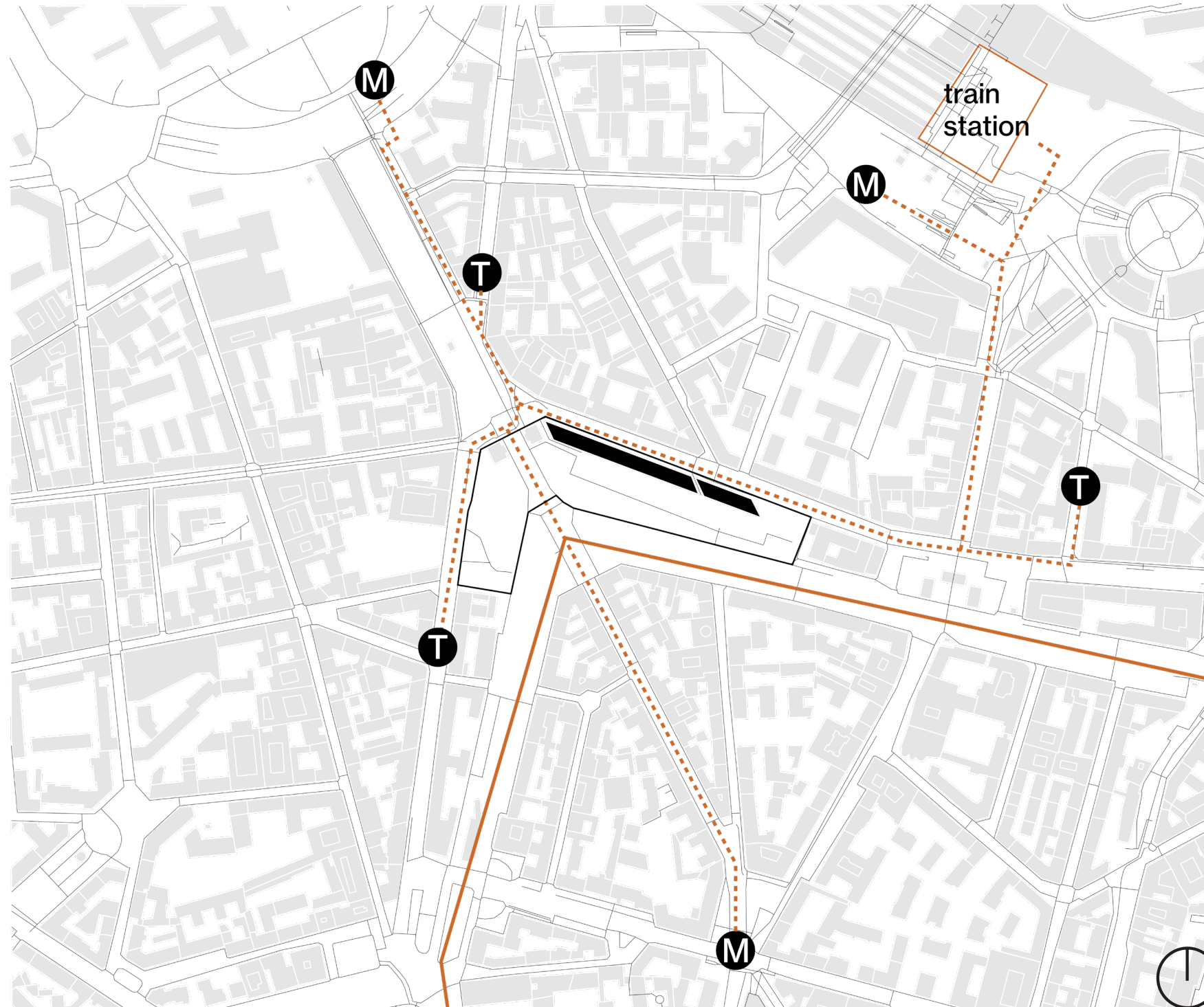
HISTORIC RELEVANCE



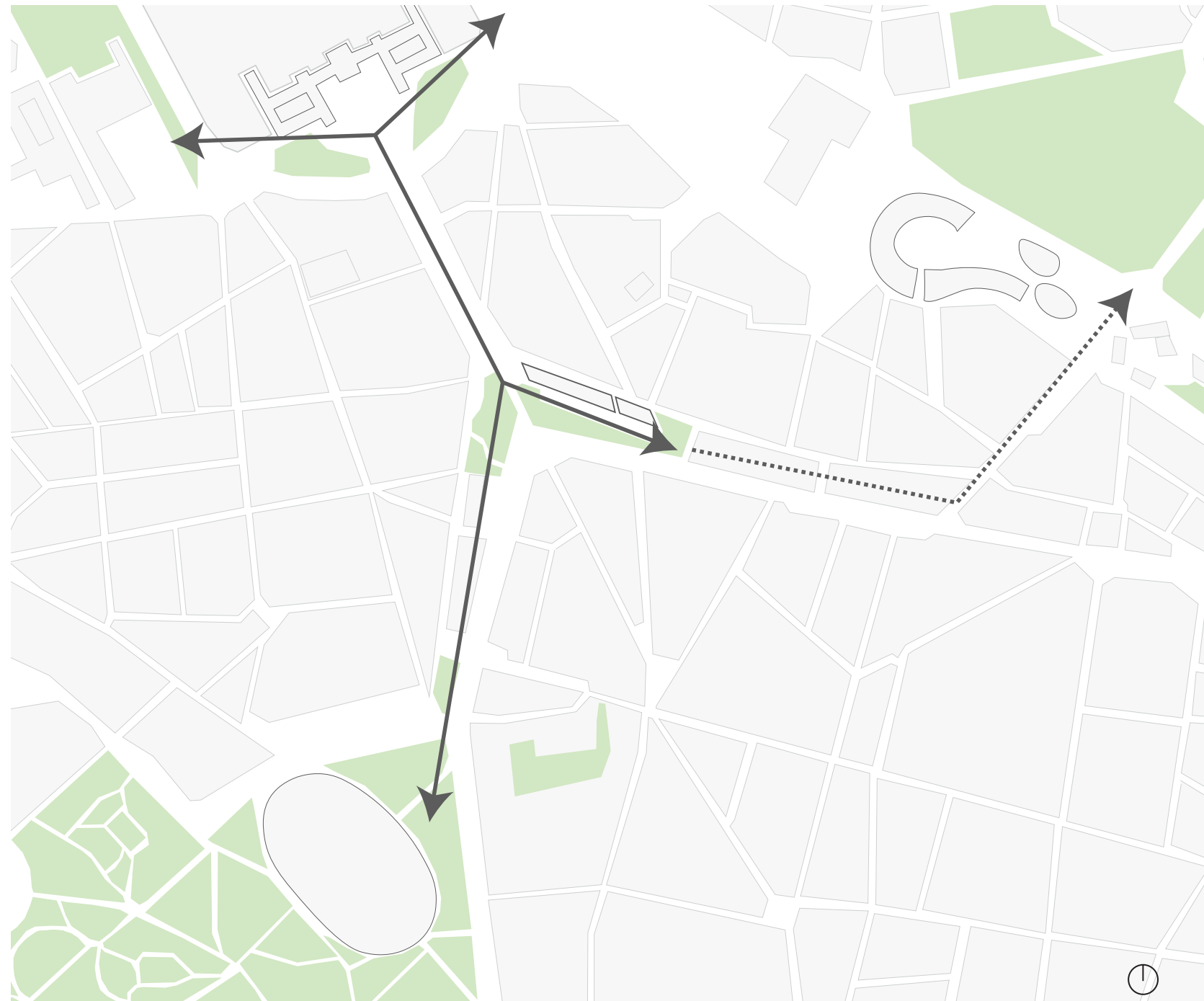
REMAINS ON SITE



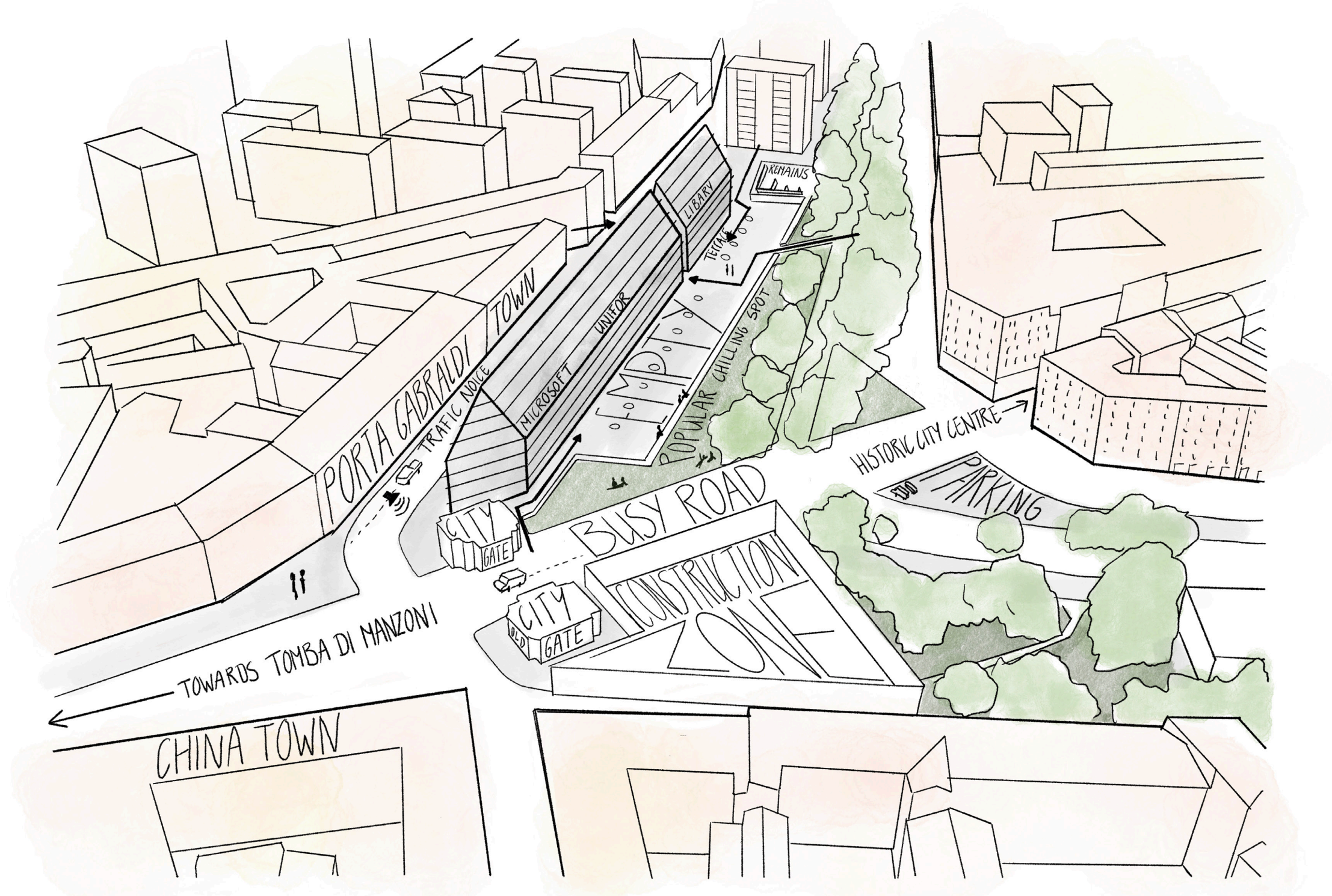
CONNECTION



GREEN CONNECTION



SITE HIGHLIGHTS



SITE AMBITION

civic quality



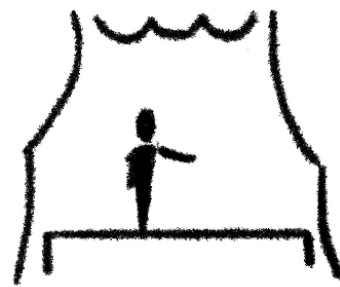
REQUIREMENTS

REQUIREMENTS



The building must encourage active participation inside and outside its walls.

Active participation will support ongoing exchange, where individuals become co-creators of knowledge rather than passive users.



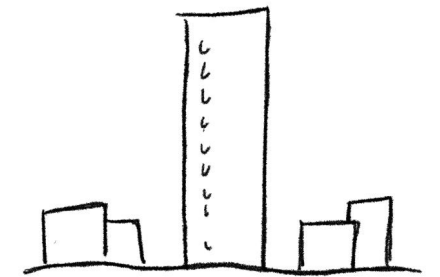
The library must serve as a collection of stages for creativity and technology.

These “pockets of exchange,” in varying scales and formats, allow users to demonstrate, perform, and share their skills, encouraging others to join and learn.



The design must create a strong physical and social link with the surrounding neighborhoods.

By creating this connection the diverse society can come together and exchange ideas.



The building should be a landmark for creation and technology

The library should inspire visitors to contribute in creation and technology by being an eye catcher. Seeing - getting inspired - participating

CONCEPT

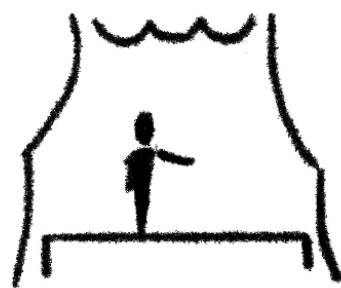
04

RESEARCH TO DESIGN

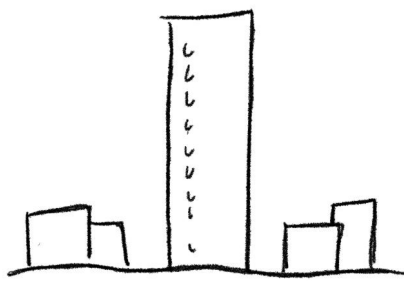
Community



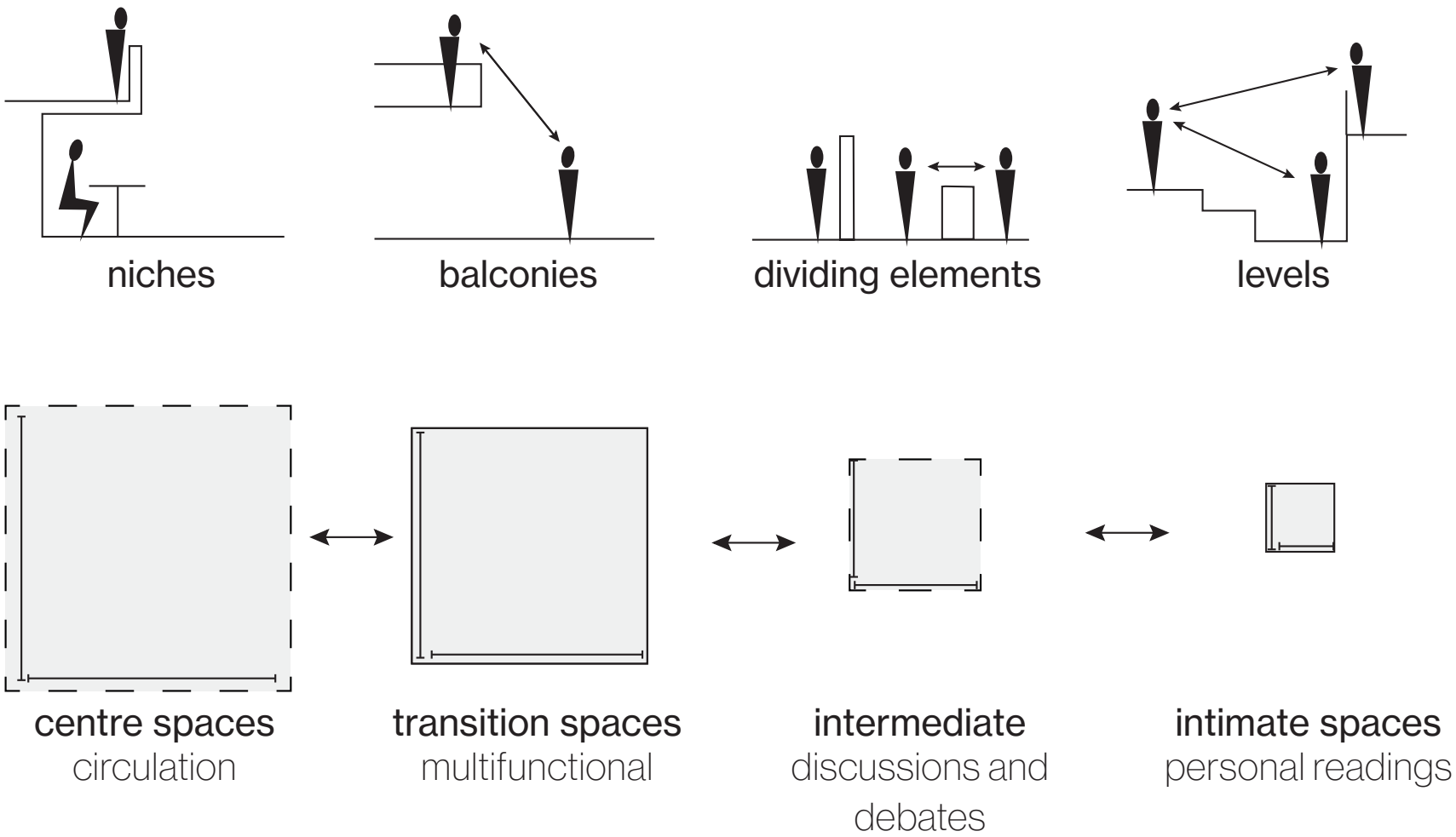
Experience



Empowerment

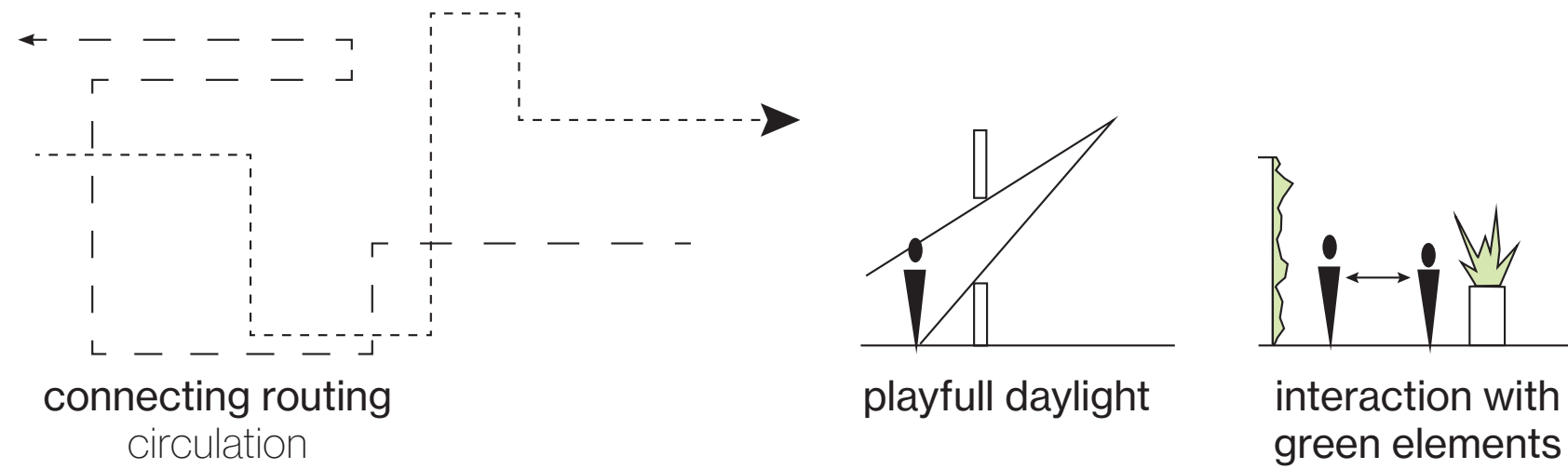


COMMUNITY
design implementation

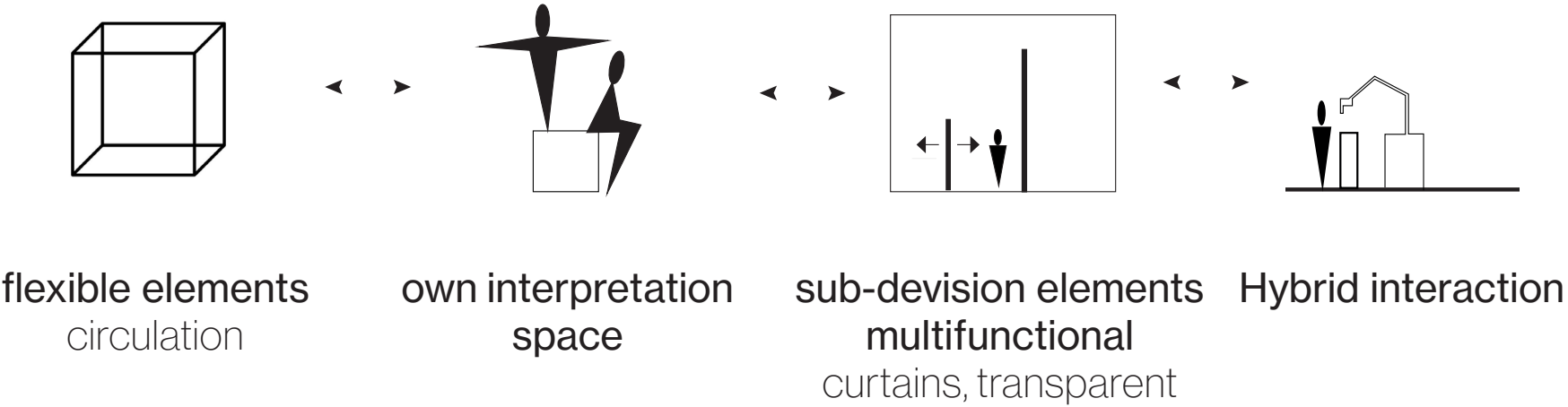


EXPERIENCE

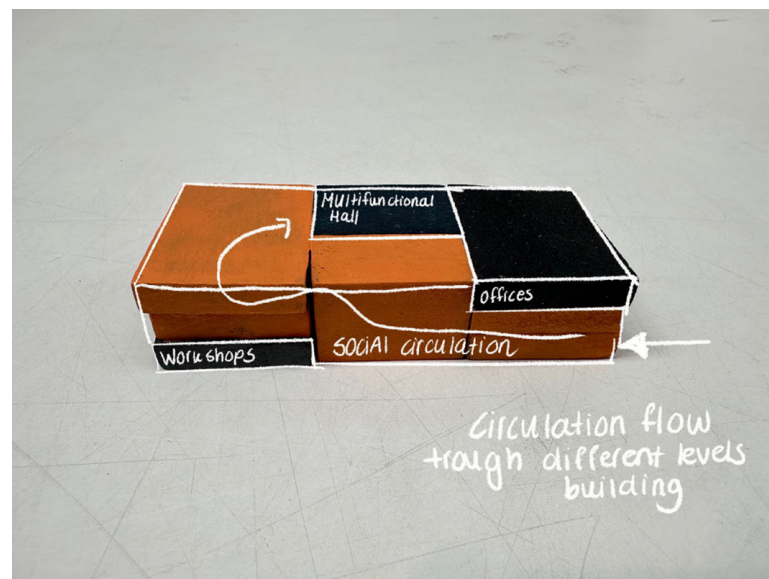
design implementation



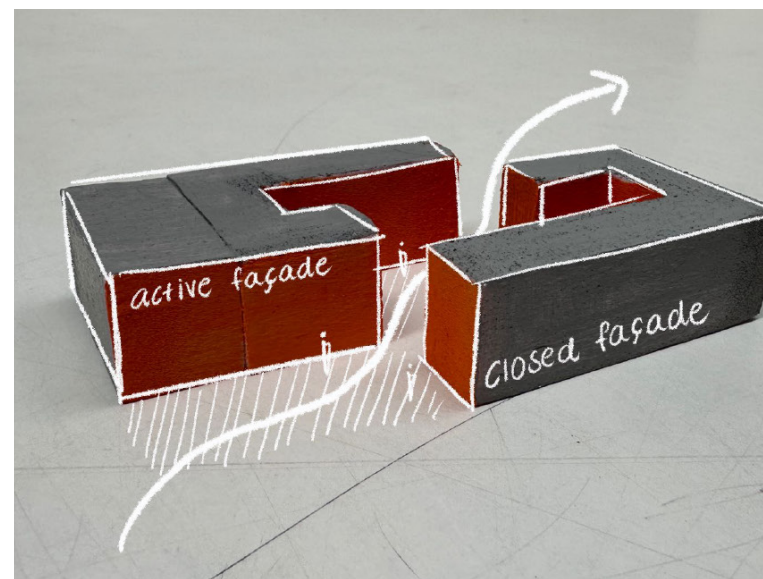
EMPOWERMENT
design implementation



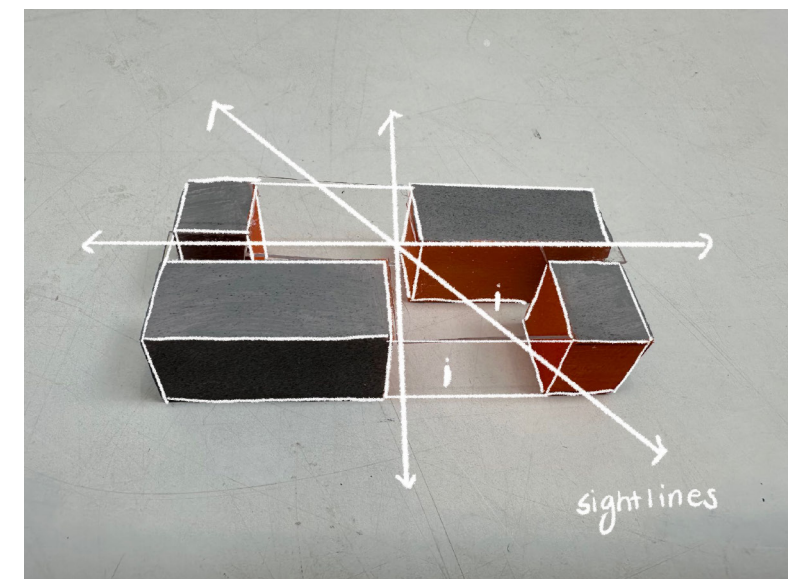
MASSING



social connecting library

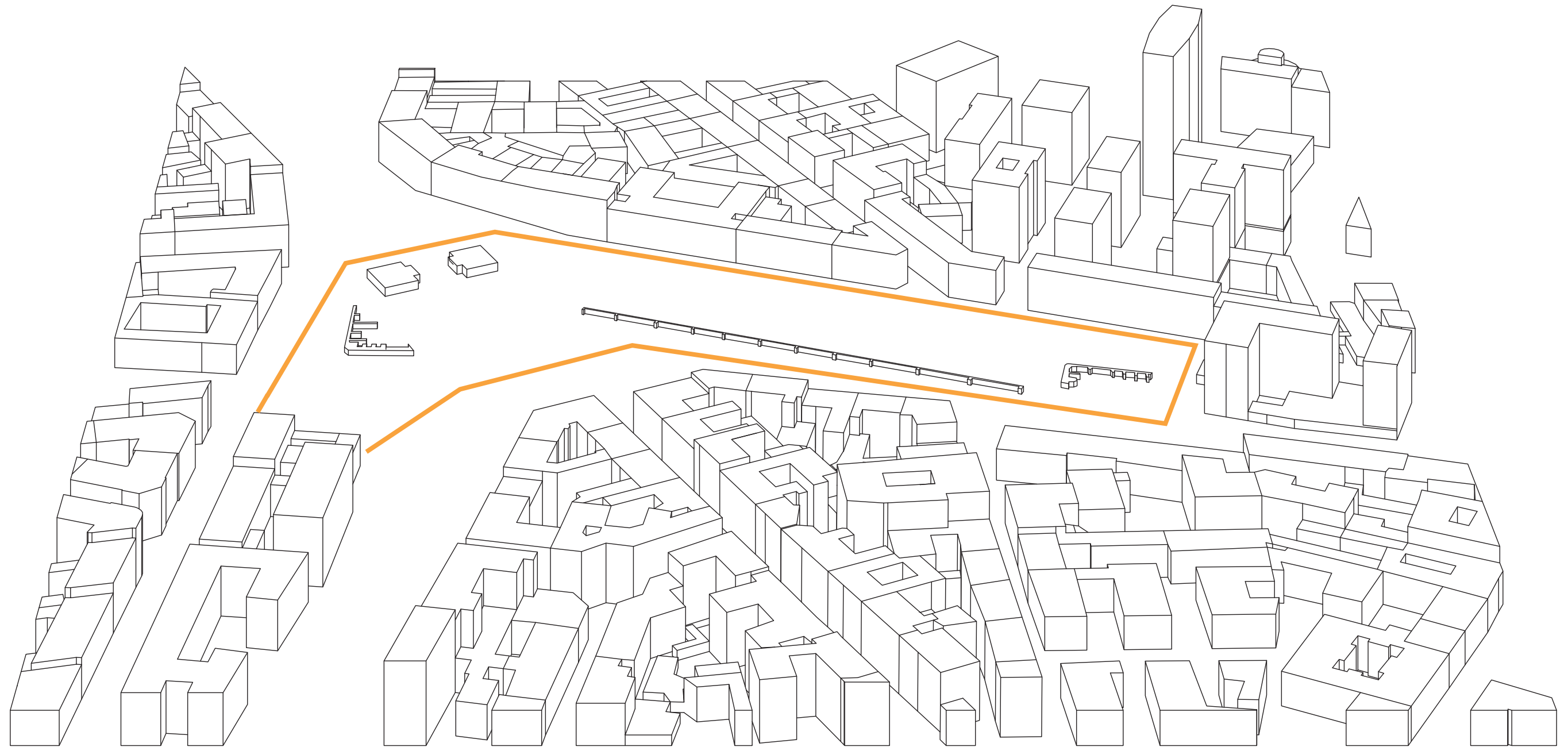


engagement with site

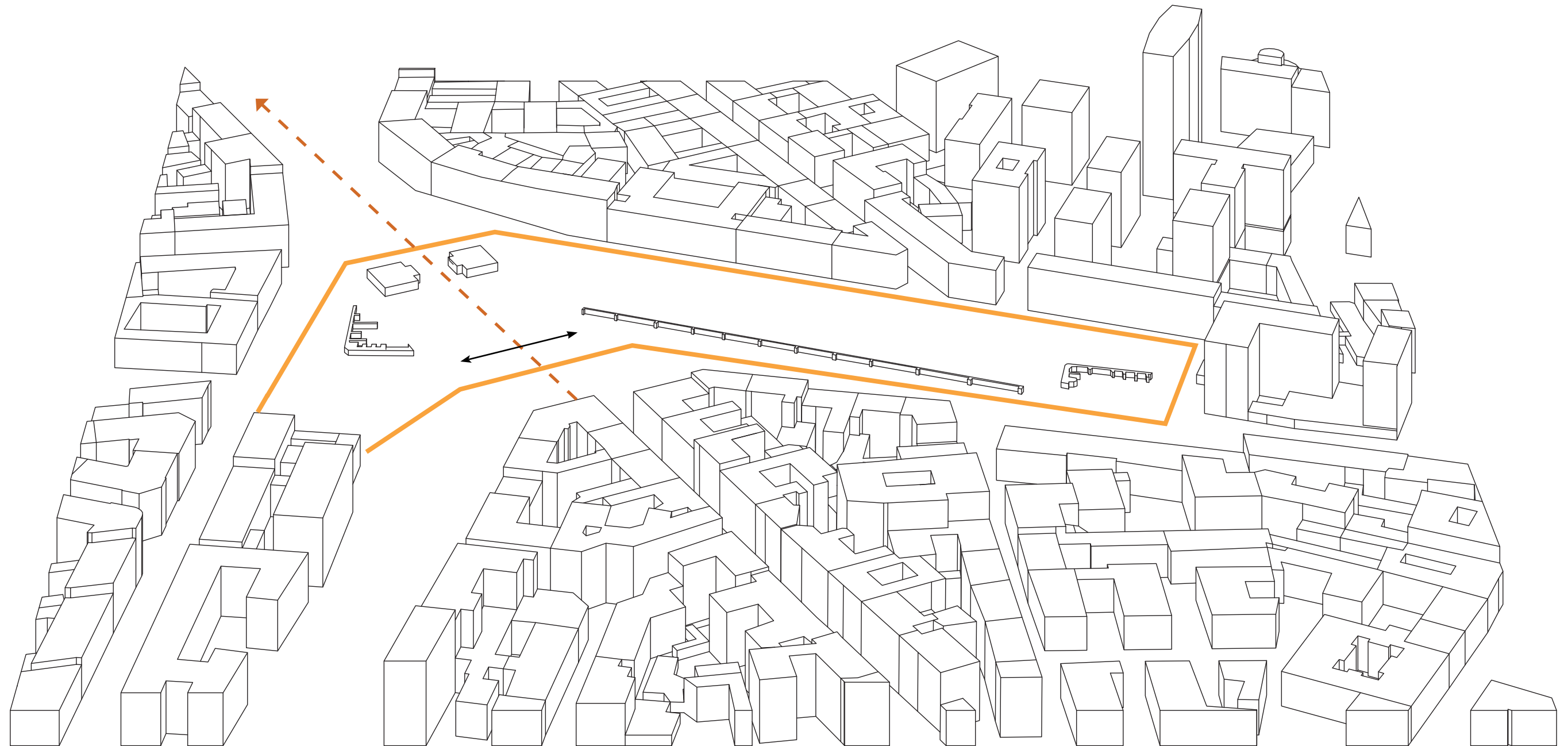


sightlines

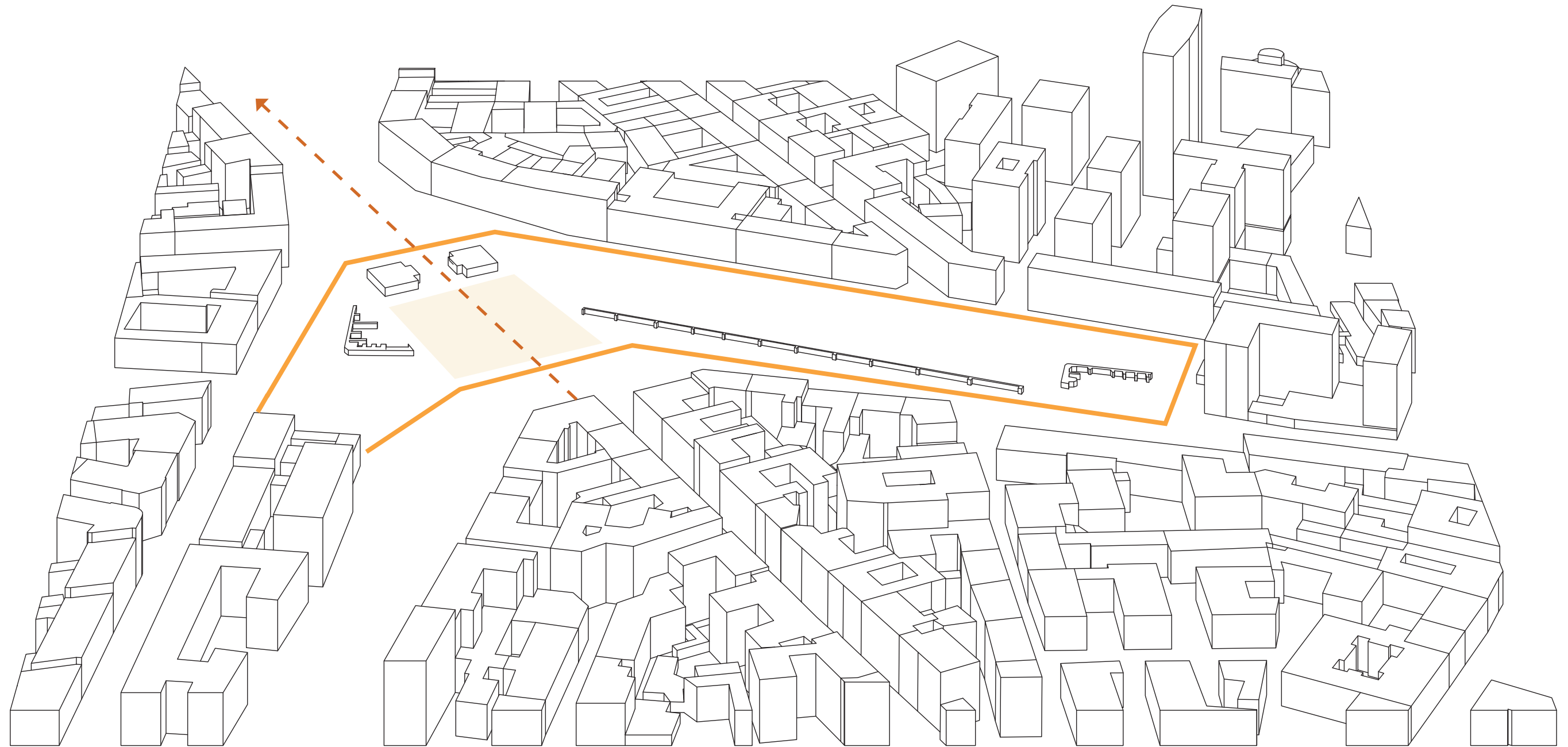
PLOT



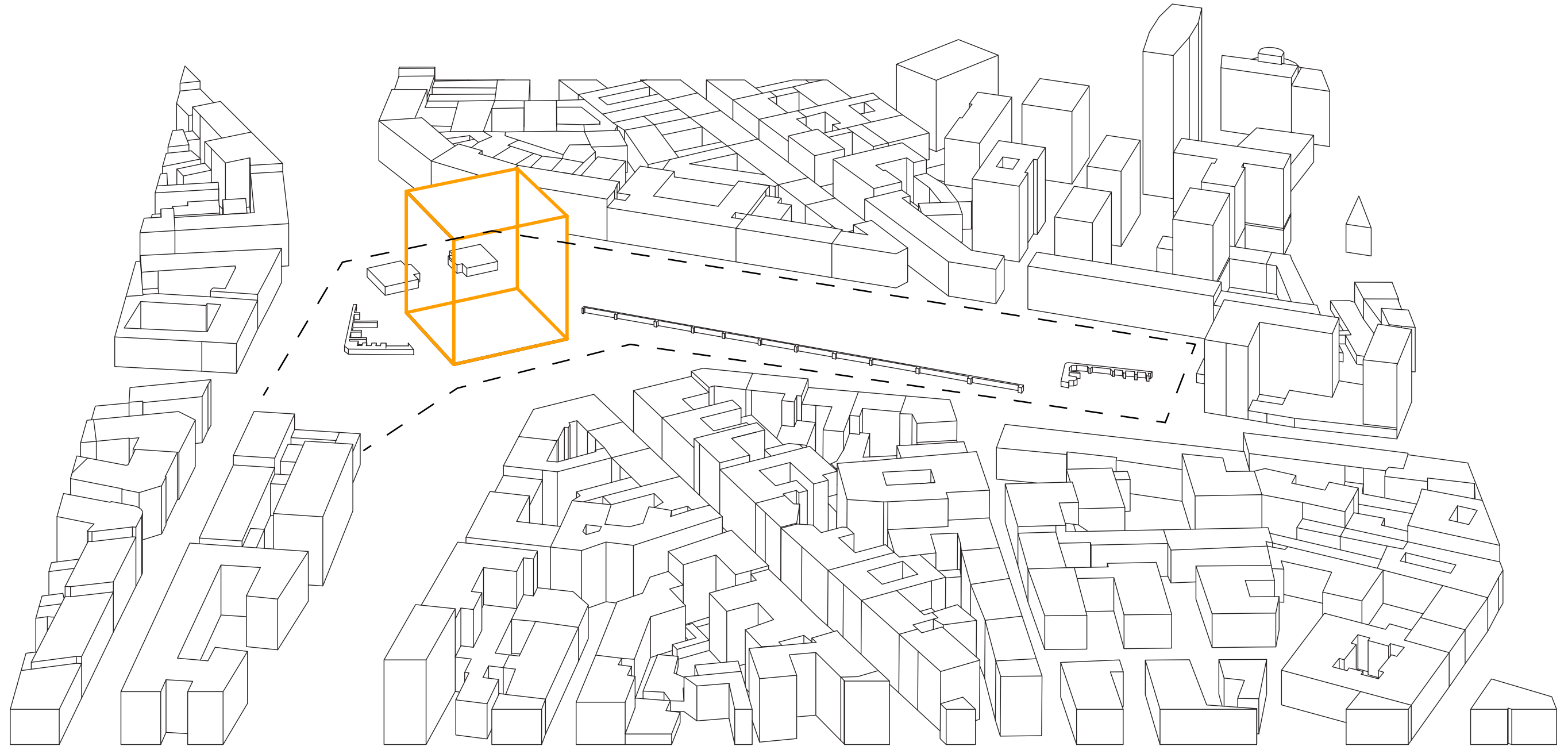
PLOT



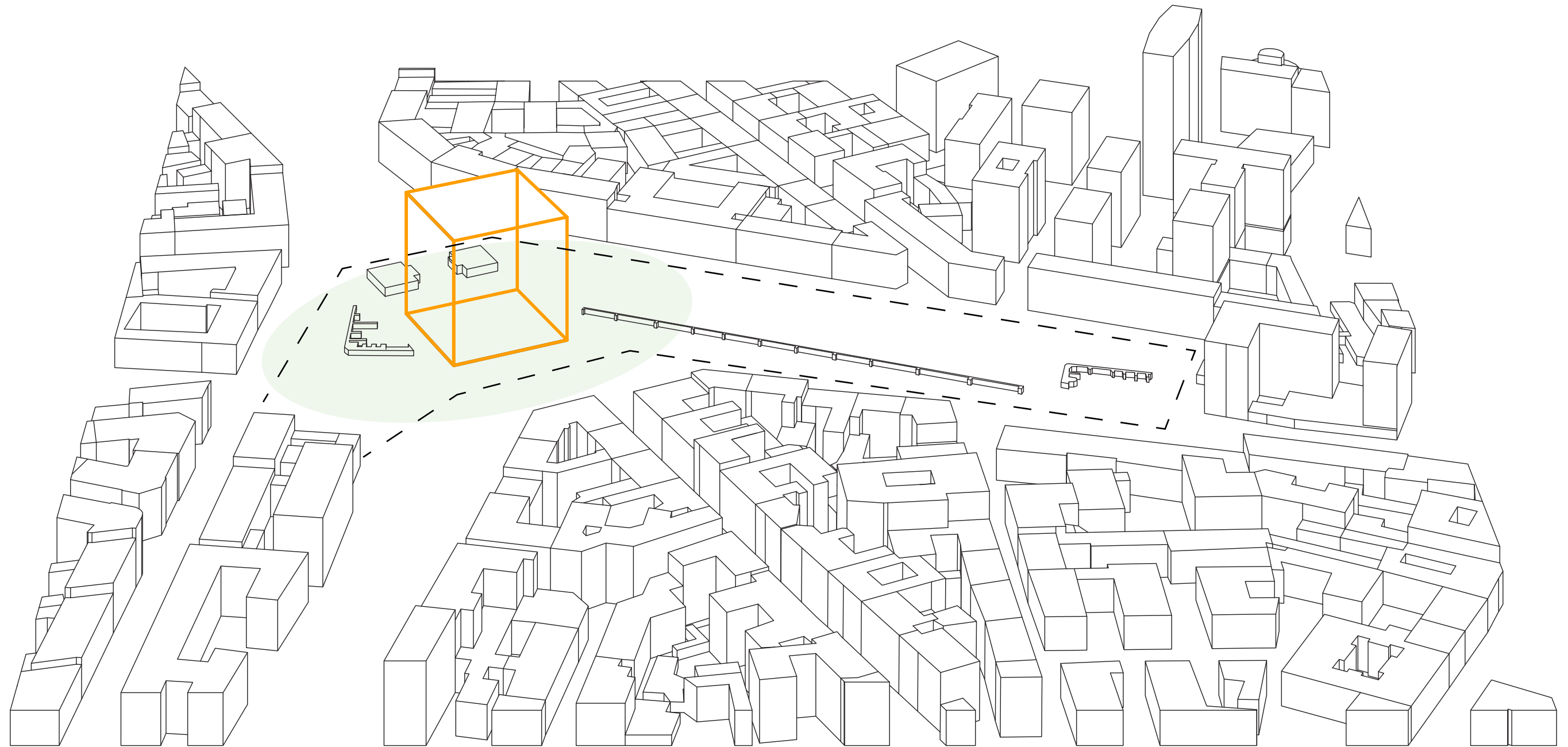
PLOT



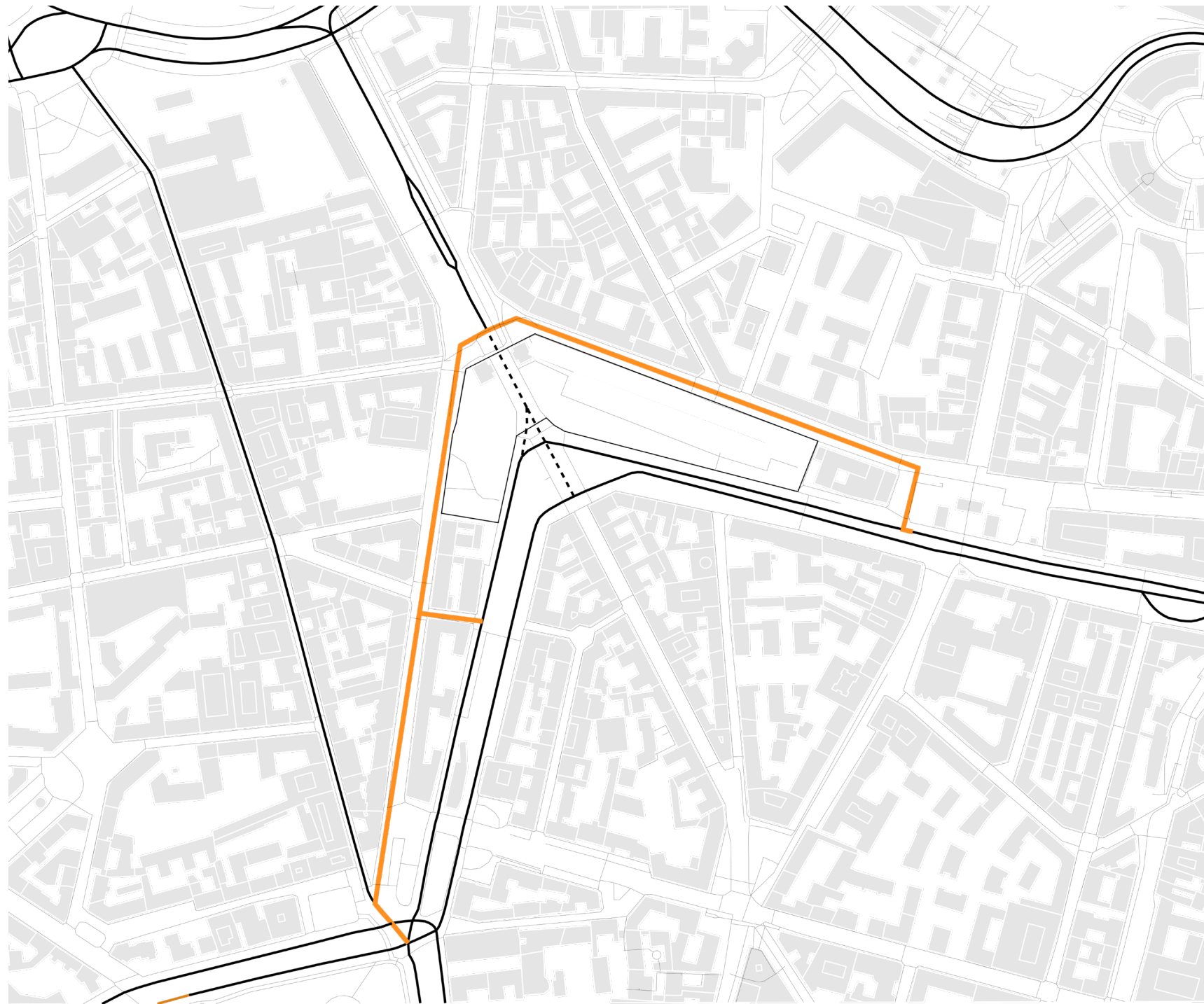
POSITION ON PLOT



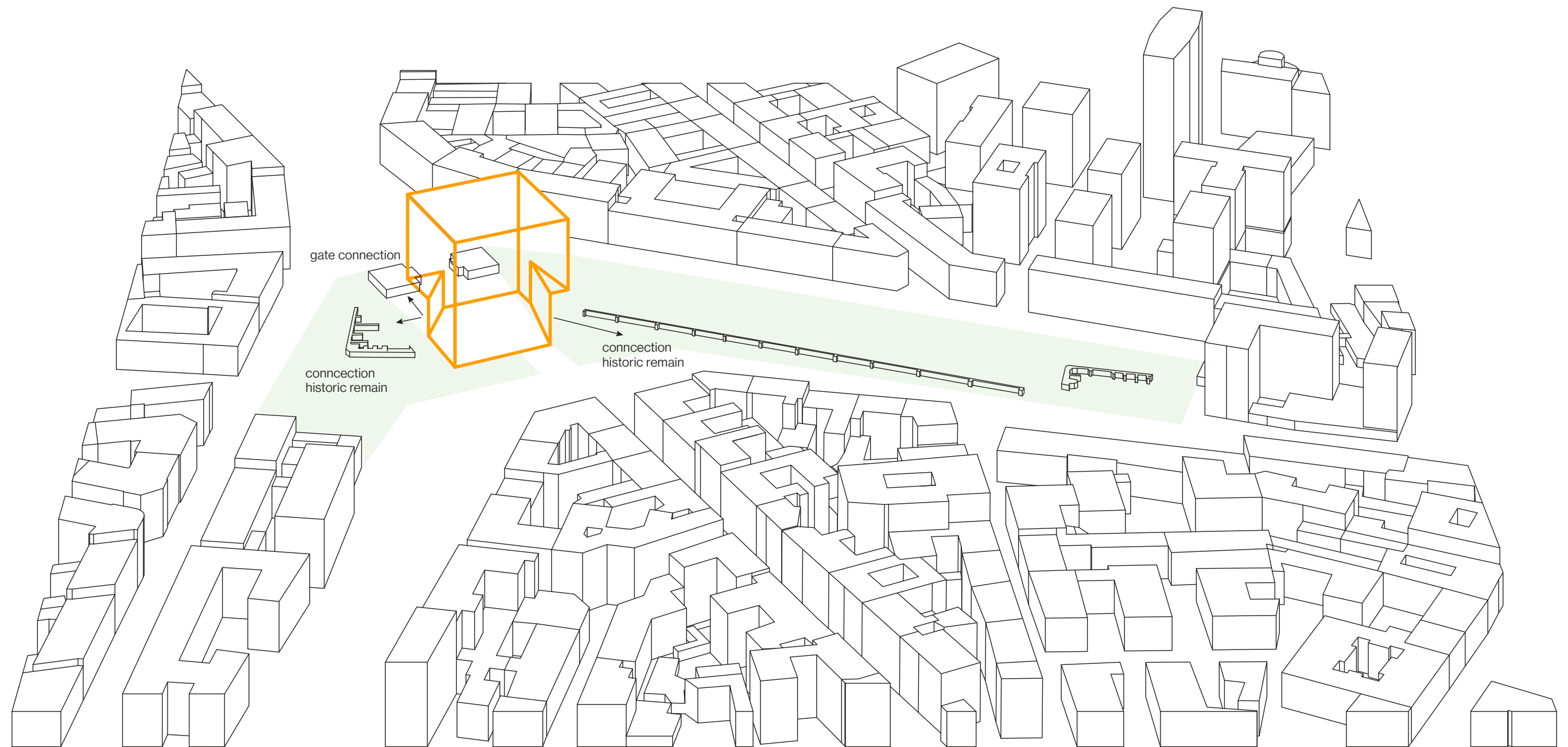
POSITION ON PLOT



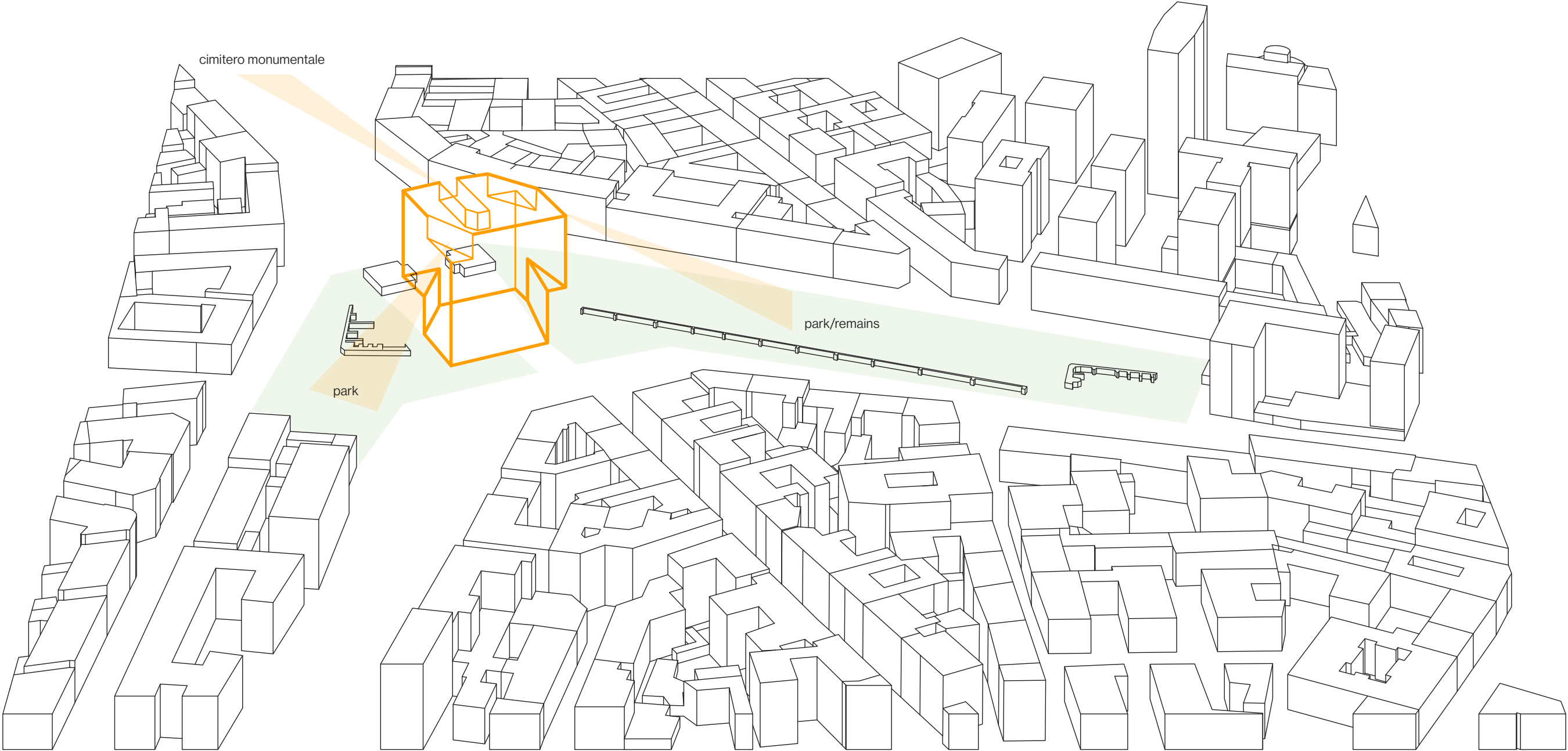
PROPOSAL DIVERT ROAD



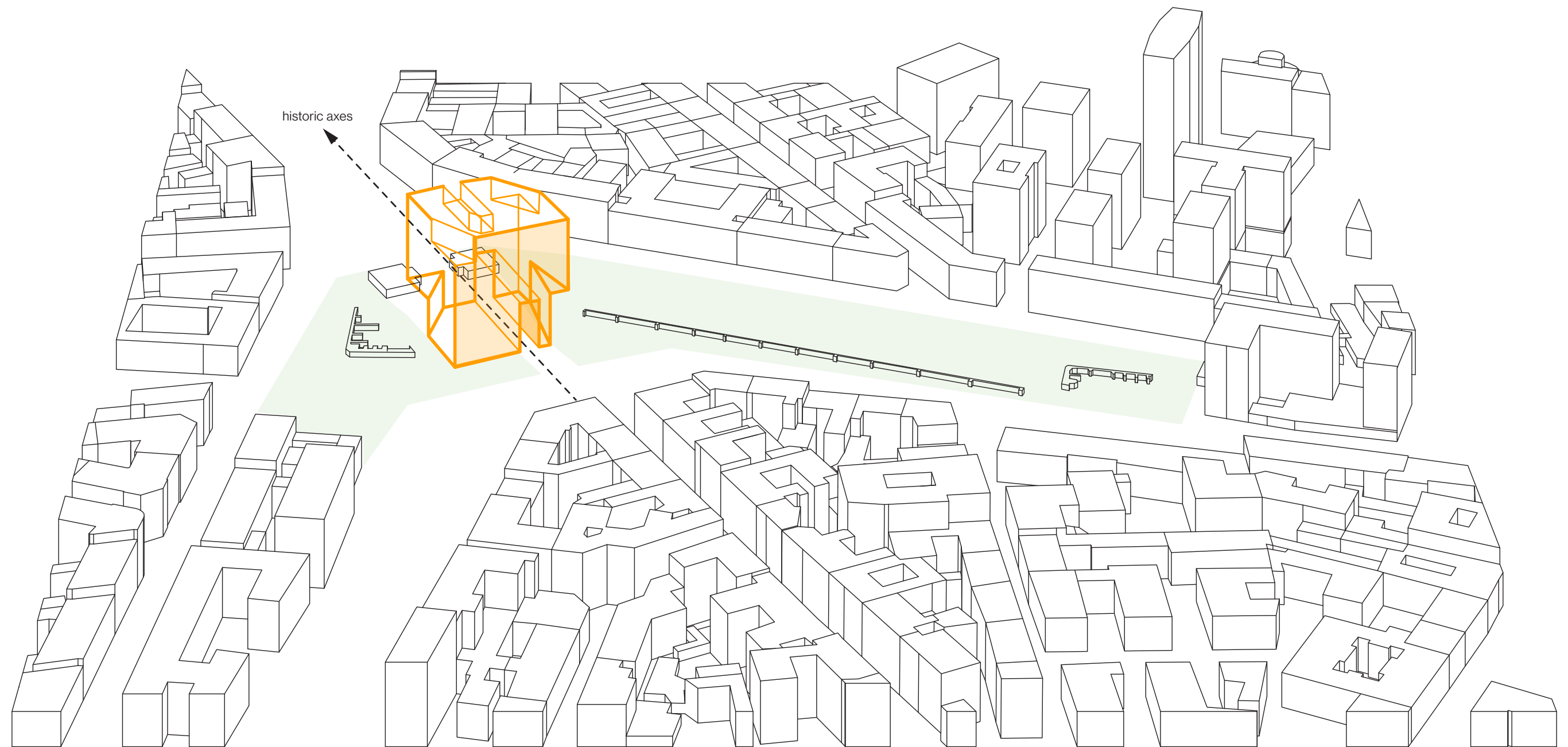
CONNECTION PARK



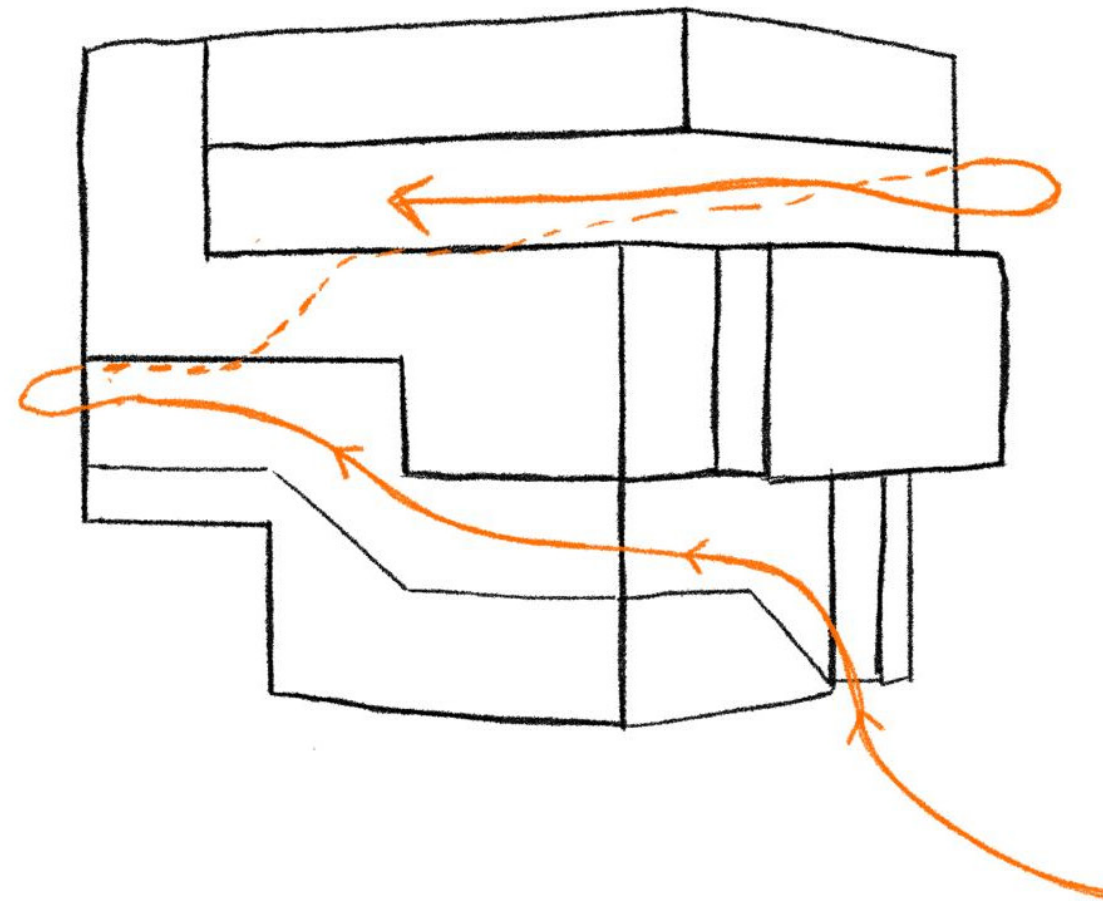
VIEWS



POSITION ON PLOT



VERTICAL RELATION

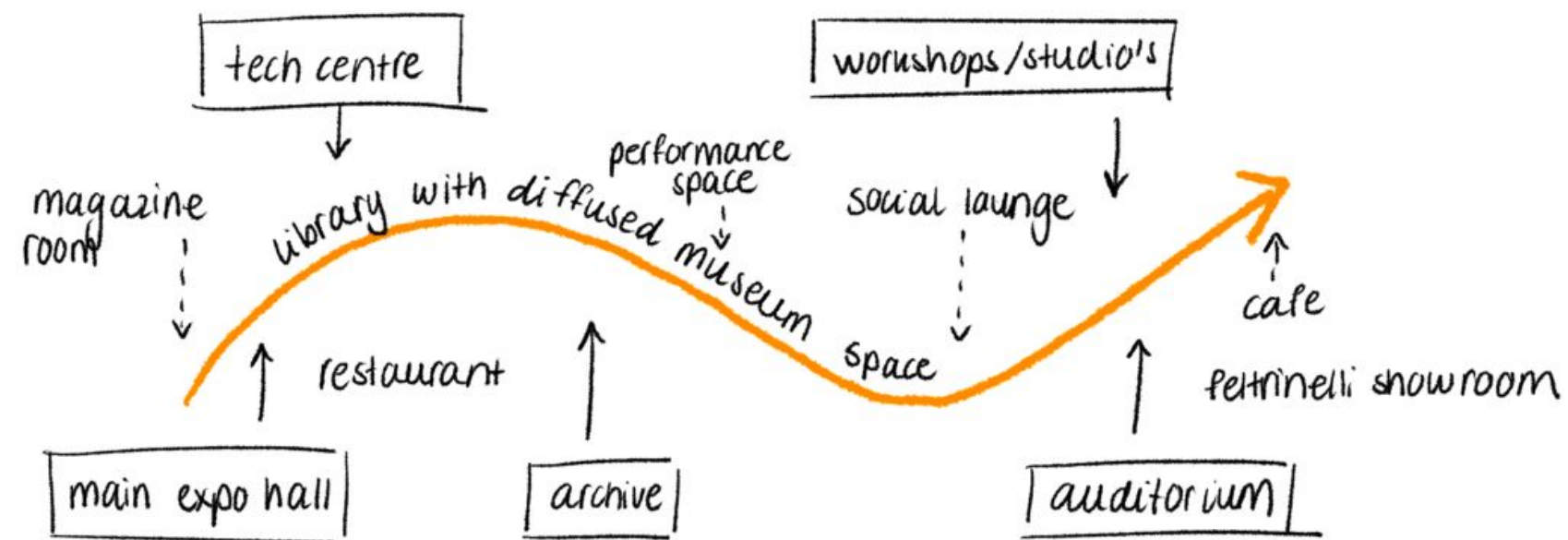


VISIBILITY ROUTING

model 1:100



FUNCTION RELATION



IMPLEMENTATION

05

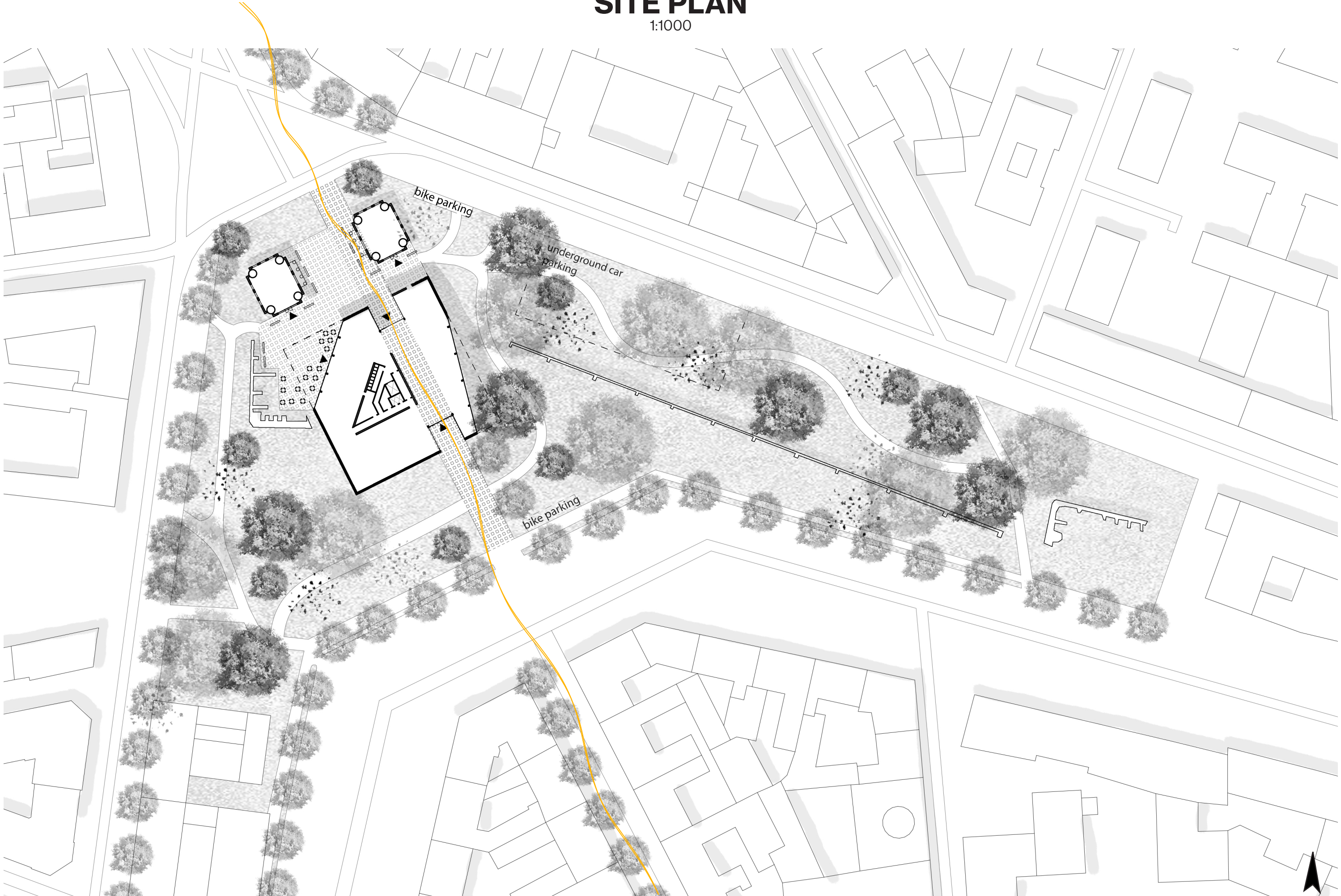
IMPRESSION

exterior



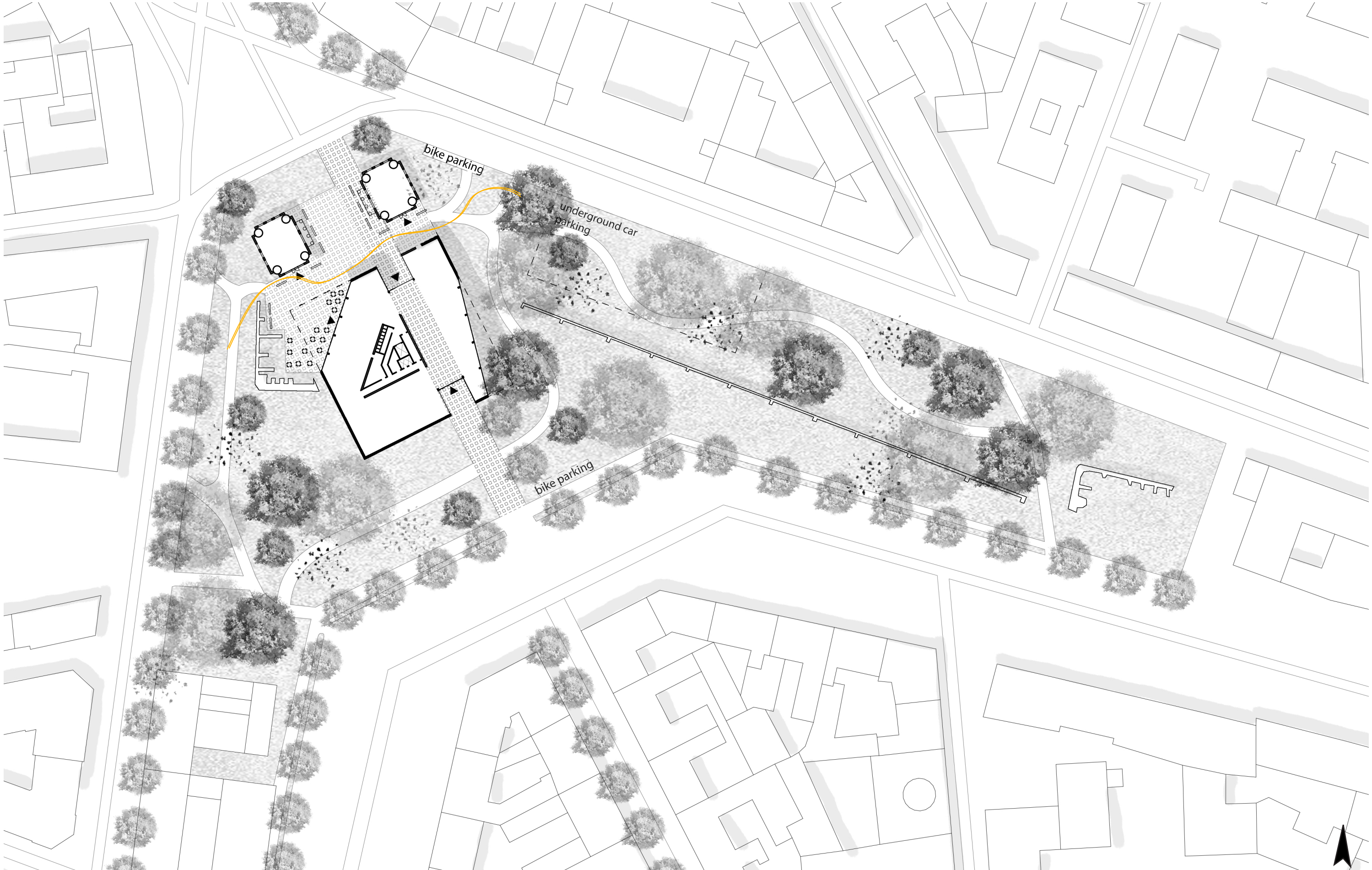
SITE PLAN

1:1000

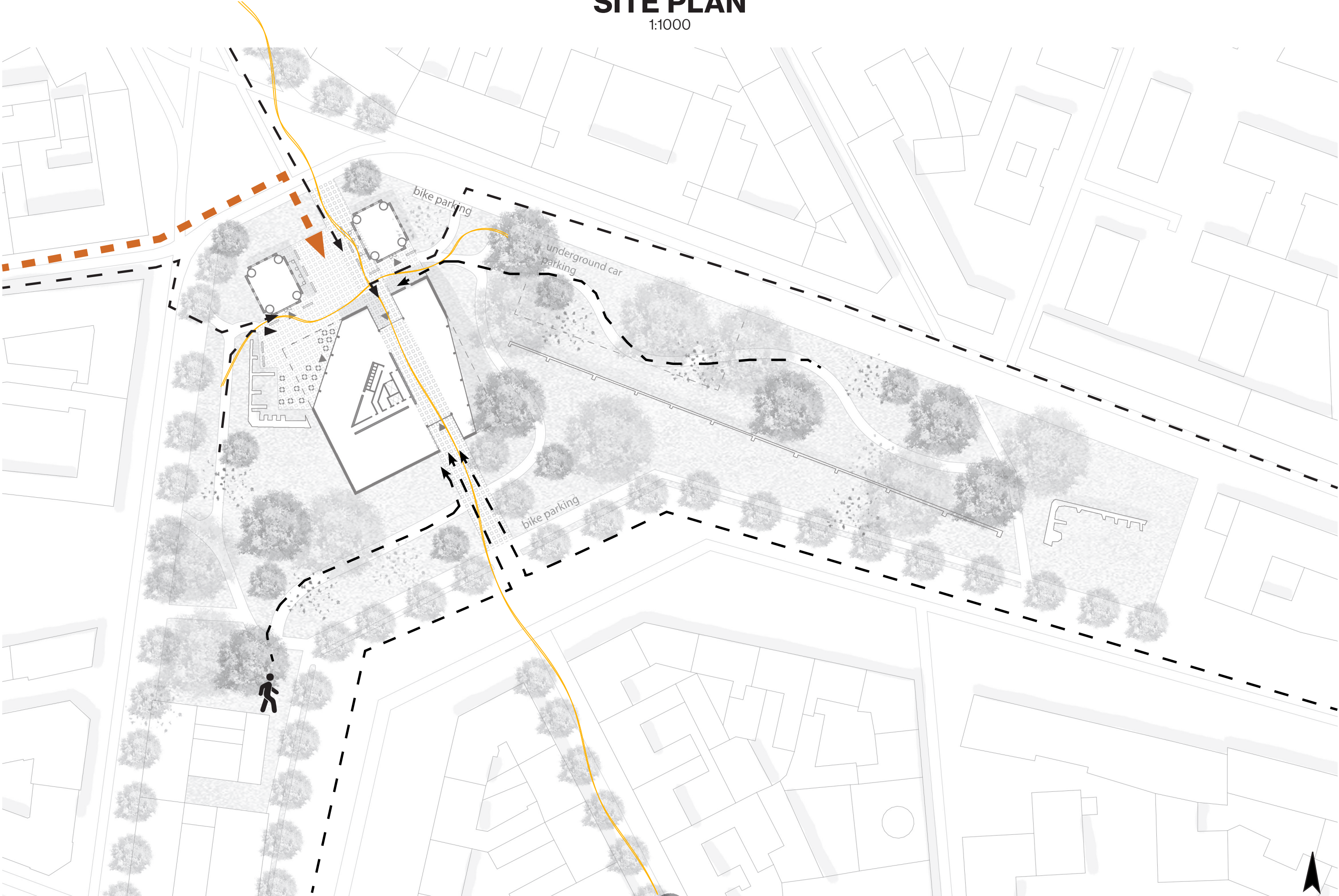


SITE PLAN

1:1000



SITE PLAN
1:1000

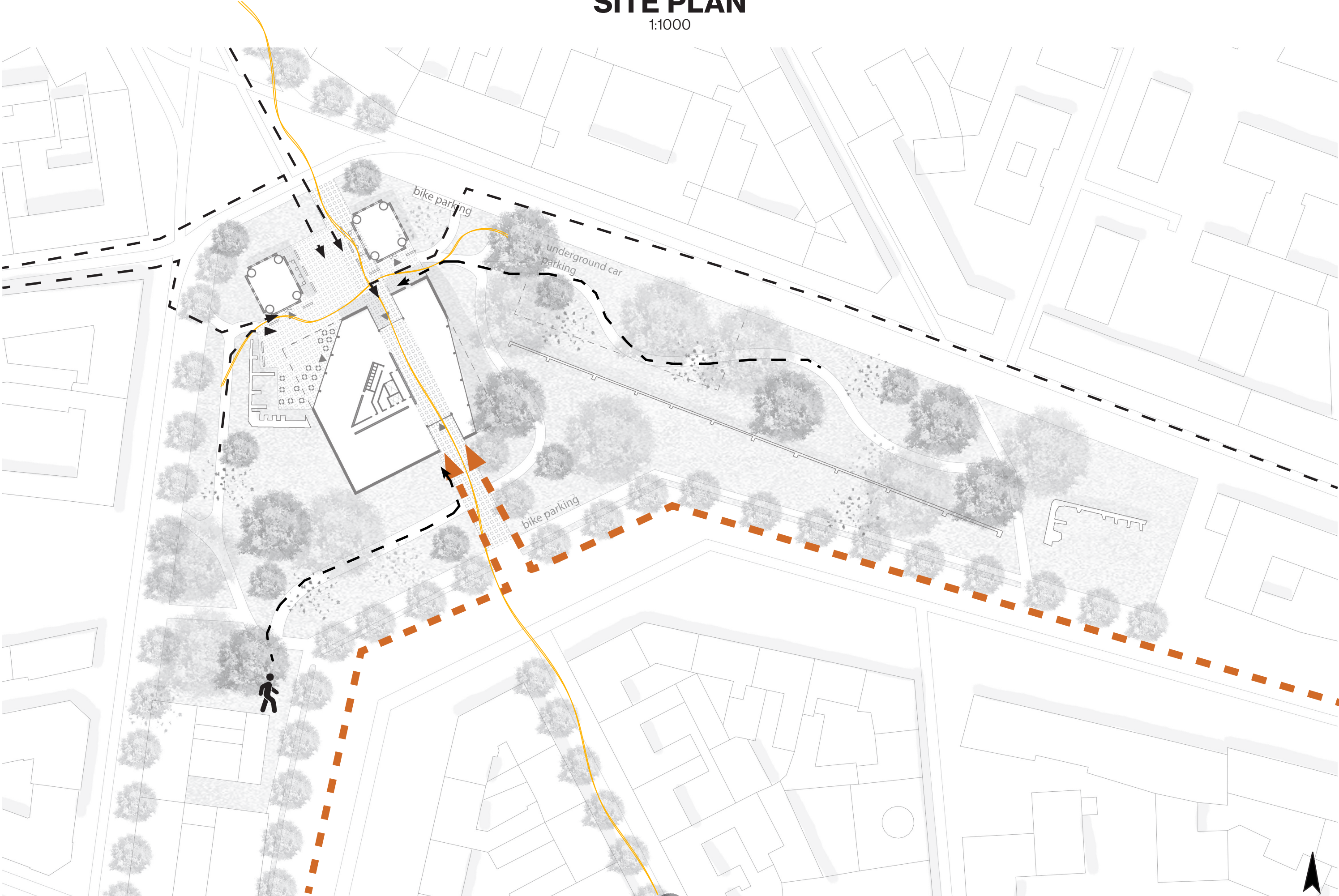


IMPRESSION

Entering building



SITE PLAN
1:1000



SOUTH-EAST ELEVATION

1:200



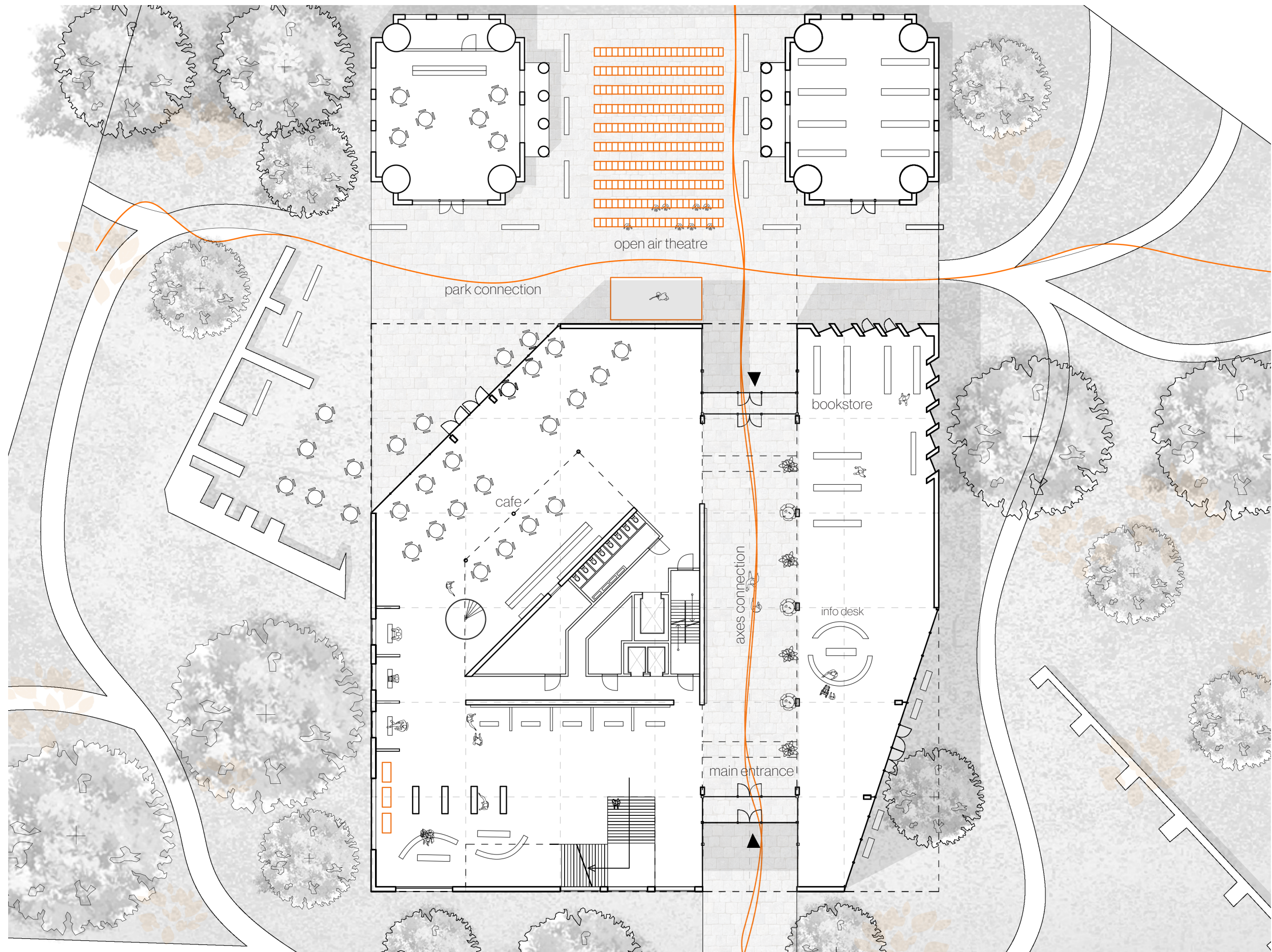
ENTRANCE

model 1:100



FLOORPLAN GF

1:200



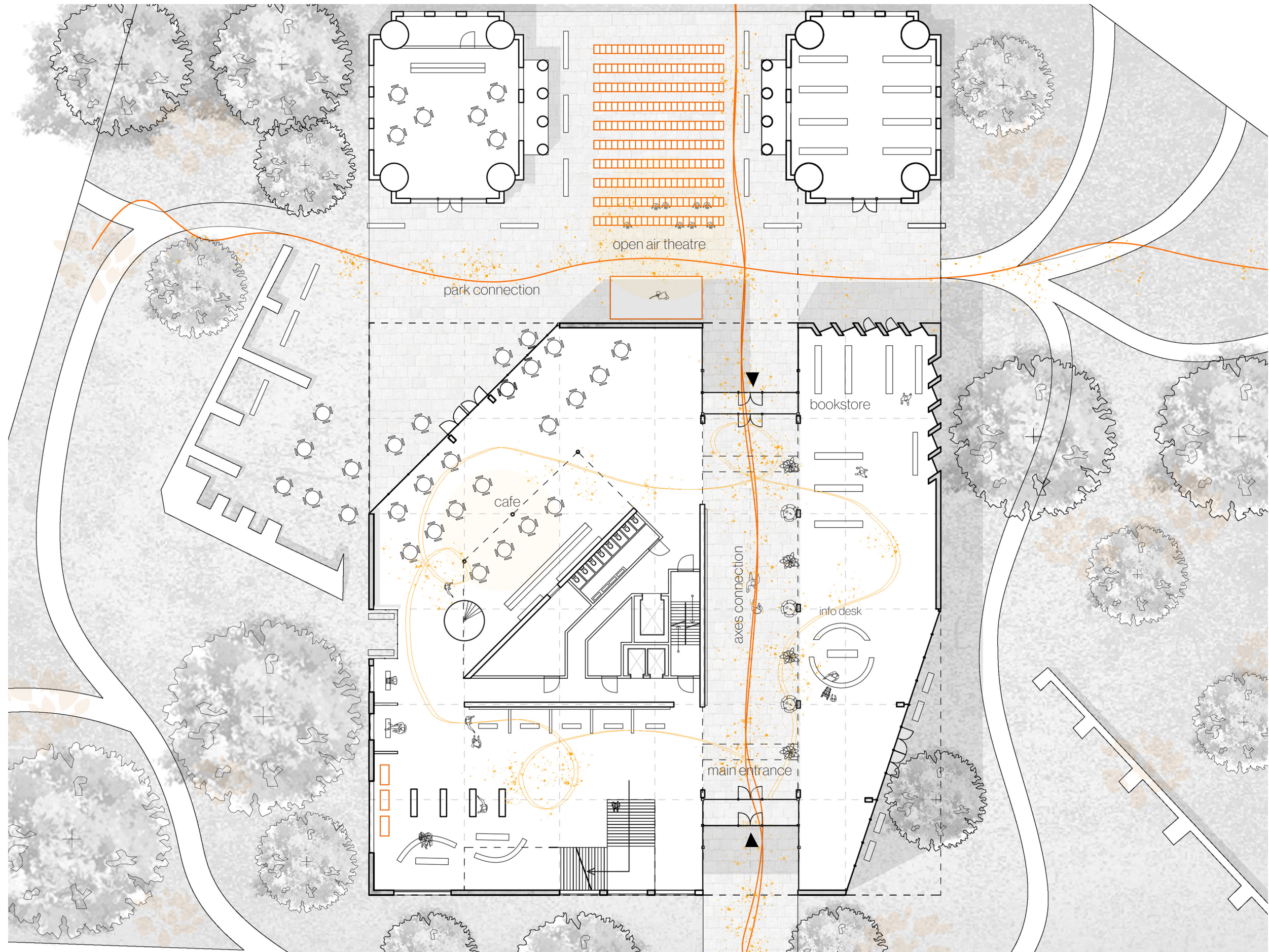
IMPRESSION

inside street



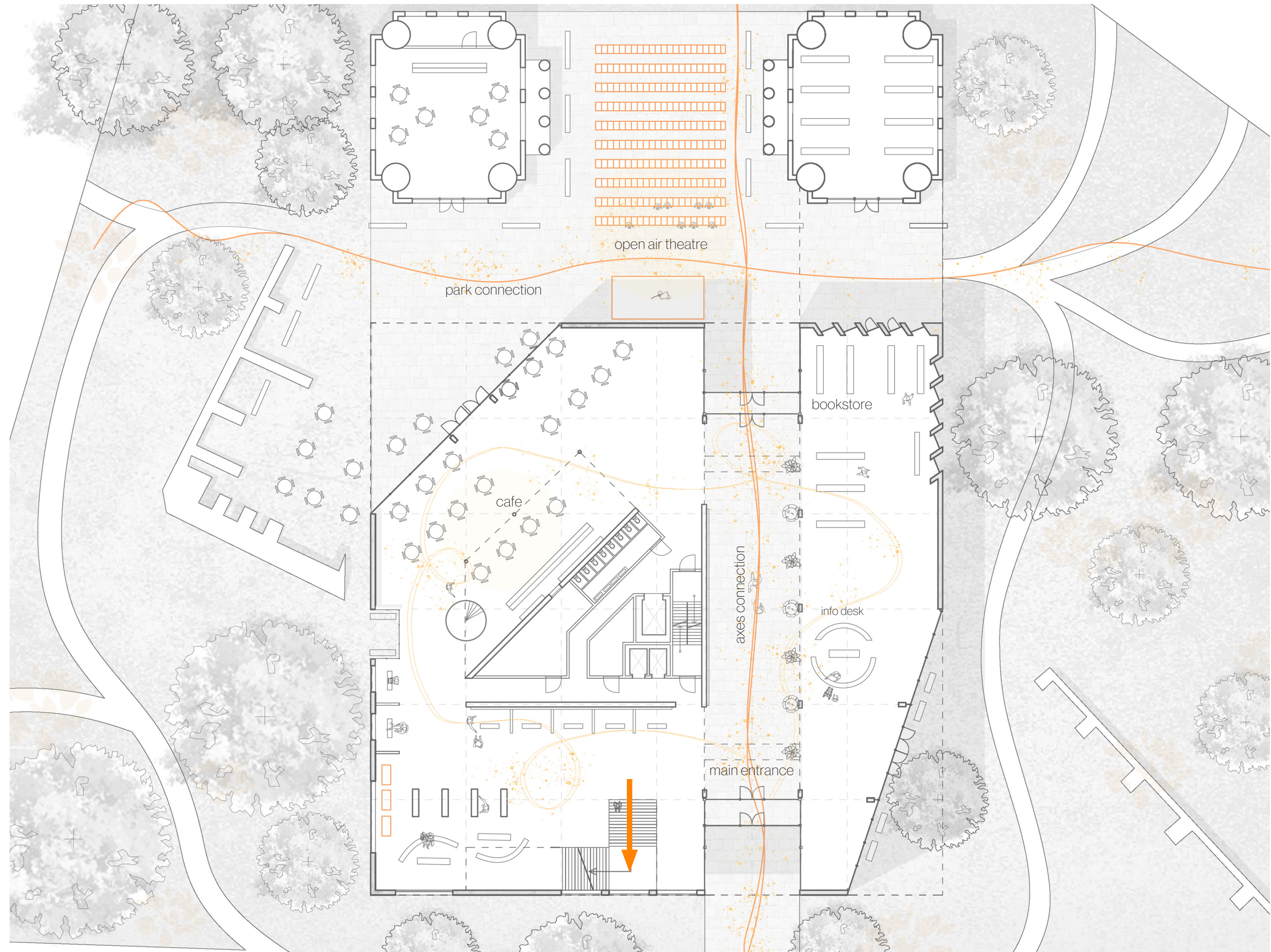
FLOORPLAN GF

1:200



FLOORPLAN GF

1:200



SECTION 1

(1:100)

12
roof terrace /solar panels

10/11
archive learning spaces

8/9
restaurant
auditorium

7
start up offices
tech centre

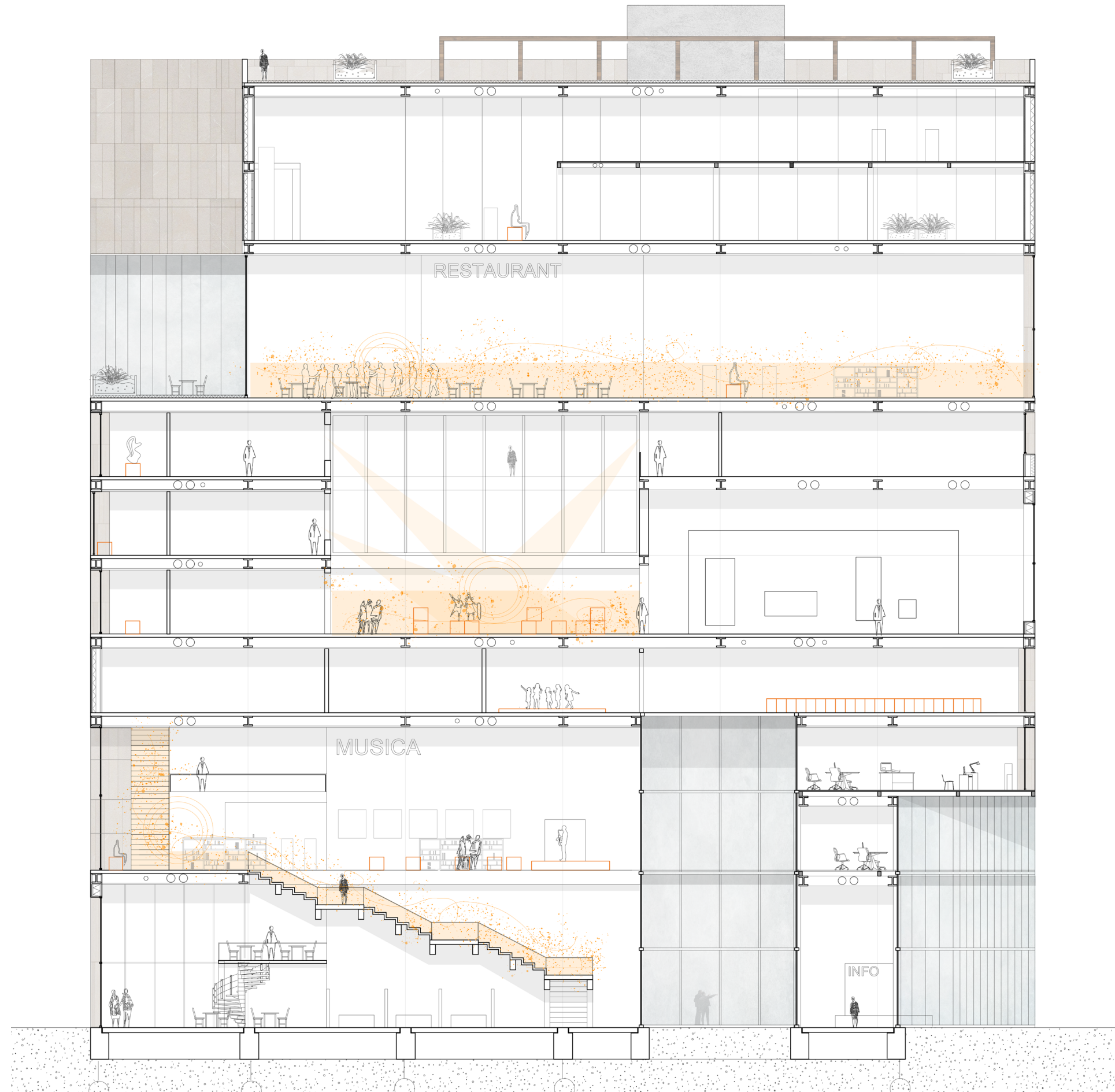
5/6
main museum hall
workshop spaces art
collaboration space

4
studio spaces dance

3
offices museum/ library
art workshops

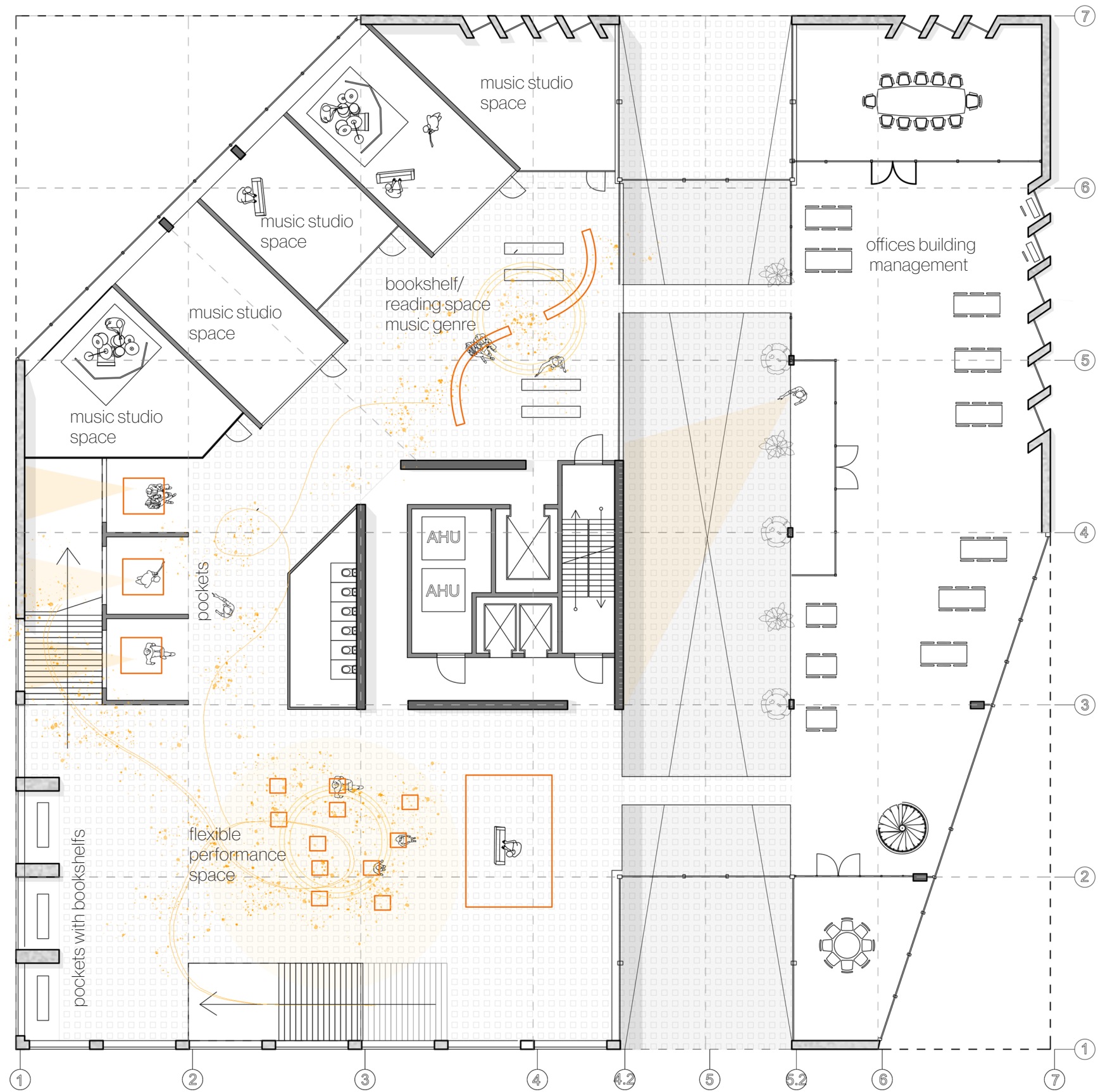
2
offices
studio's music

GF/1
cafe, bookstore, entrance
info desk, feltrinelli collection



FLOORPLAN 2nd

1:200
Musica floor



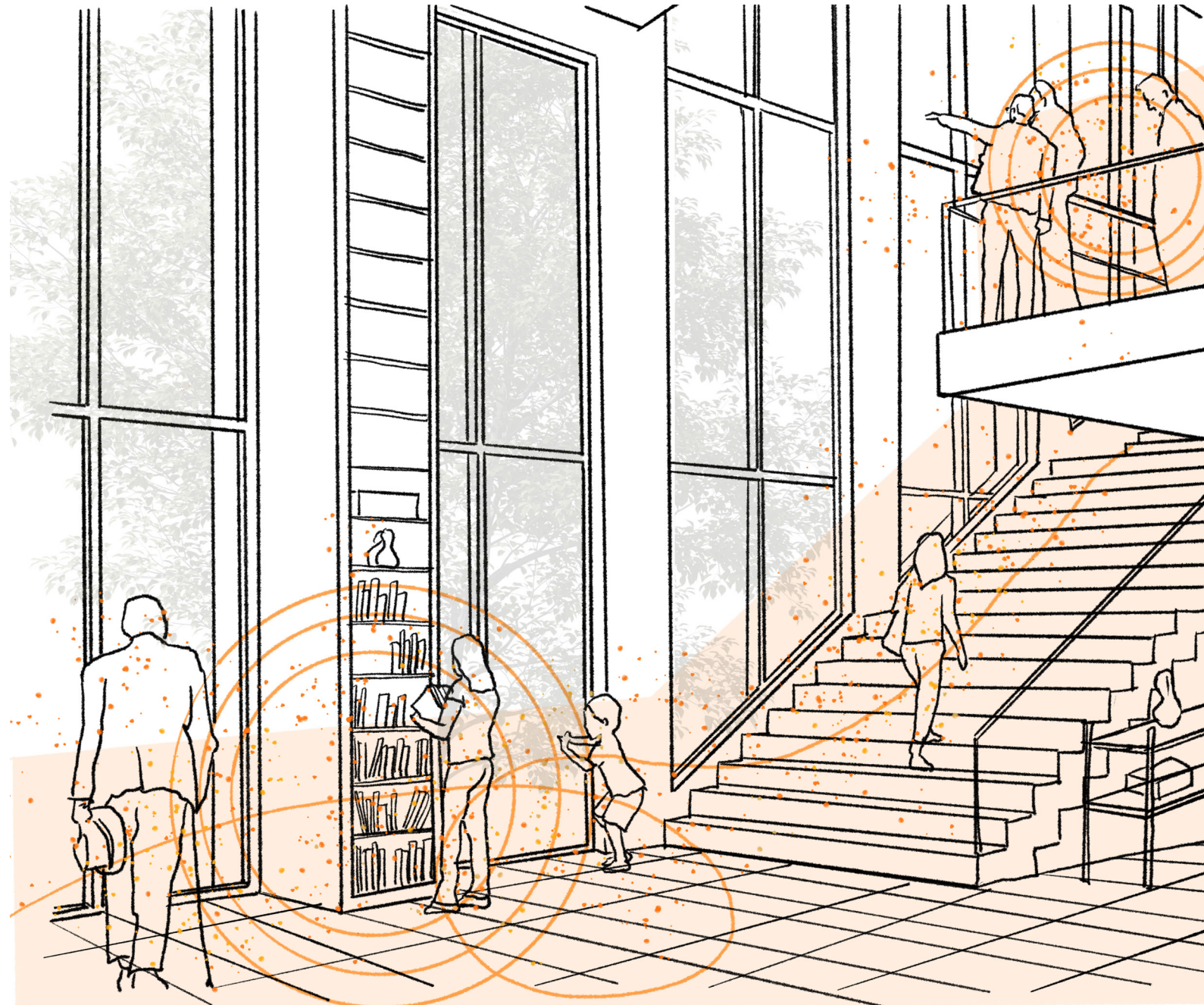
KEY SPACES

flexible performance/ exhibition spaces on every floor



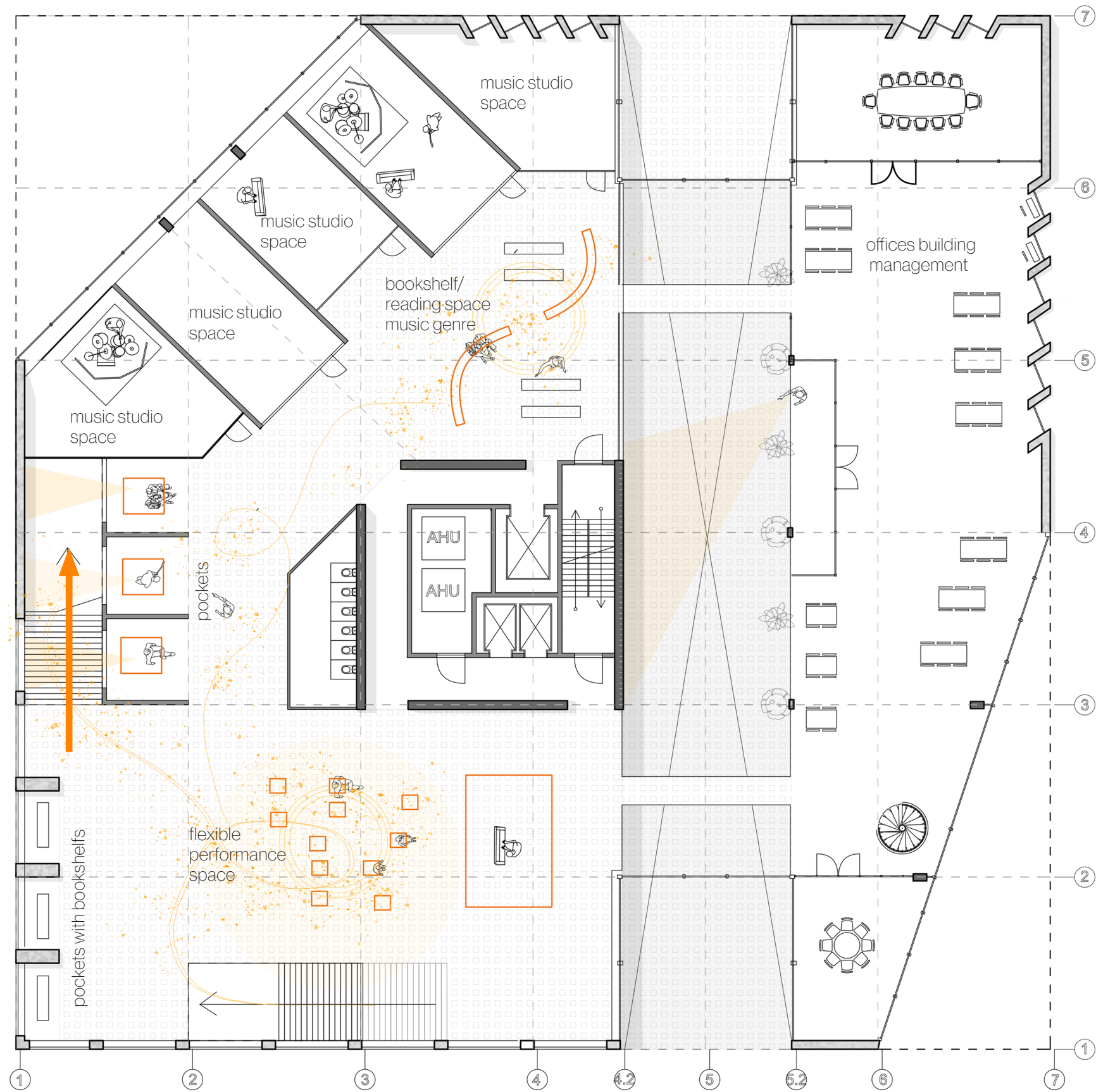
ROUTING

Impression



FLOORPLAN 2nd

1:200
Musica floor



POCKETS ALONG ROUTING

impression



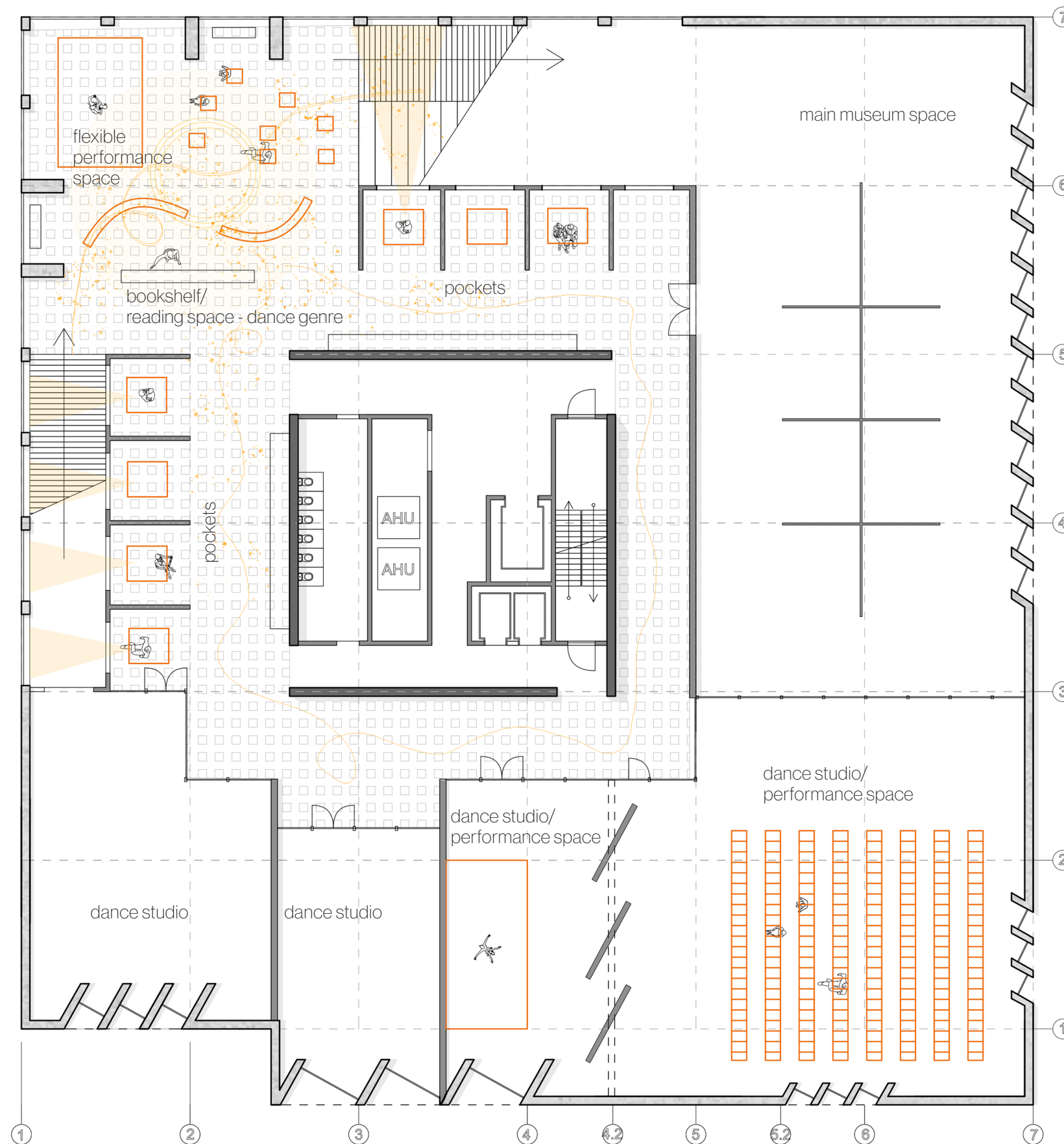
POCKETS ALONG ROUTING

model 1:100



FLOORPLAN 4th

1:200
danza & museo floor



KEY SPACE

impression central space 4th level



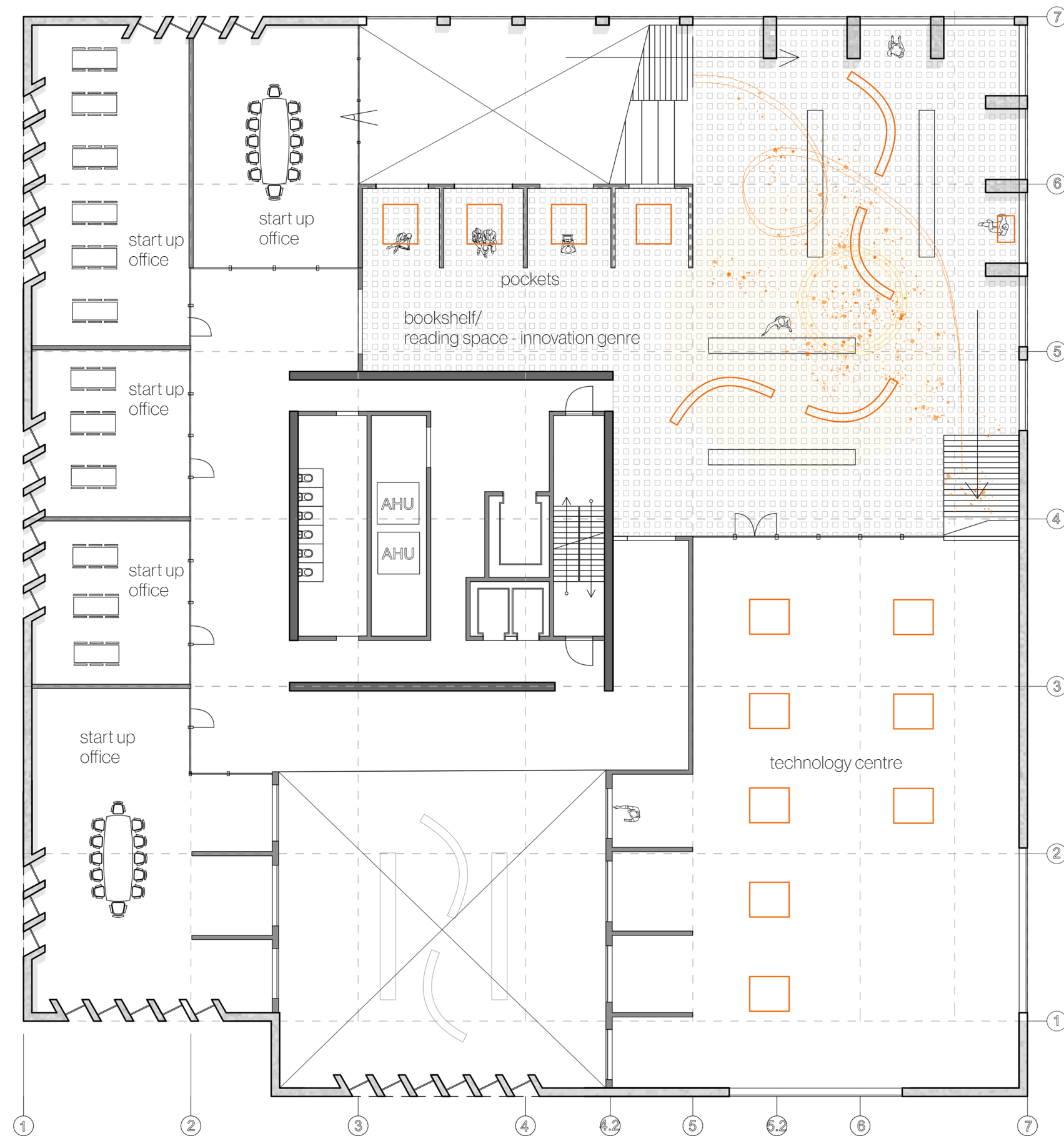
INTERACTIVE STAIRCASES

impression



FLOORPLAN 6th

1:200
innovazione floor



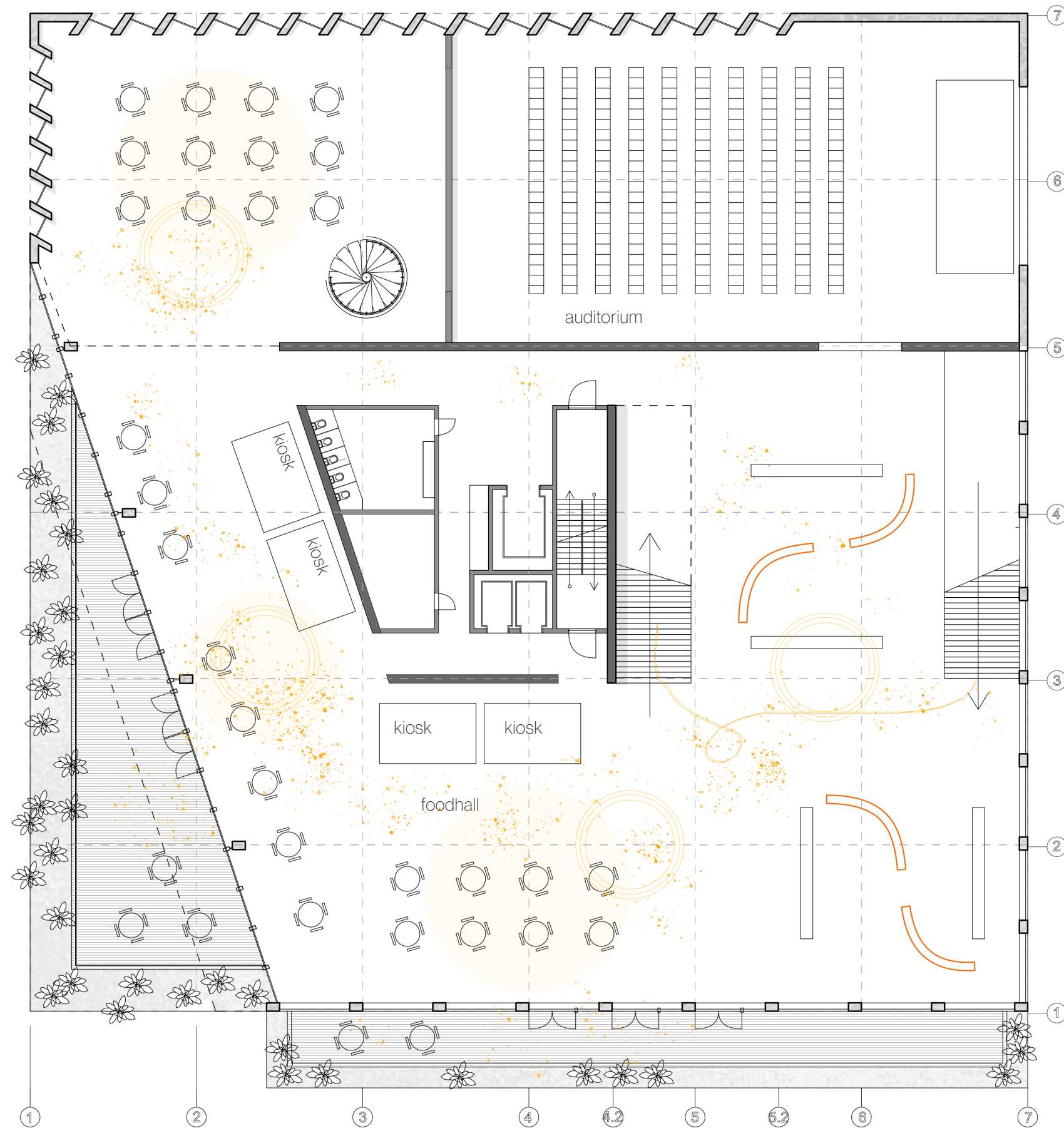
KEY SPACE

impression central space 6th level



FLOORPLAN 8th

1:200
foodhall floor

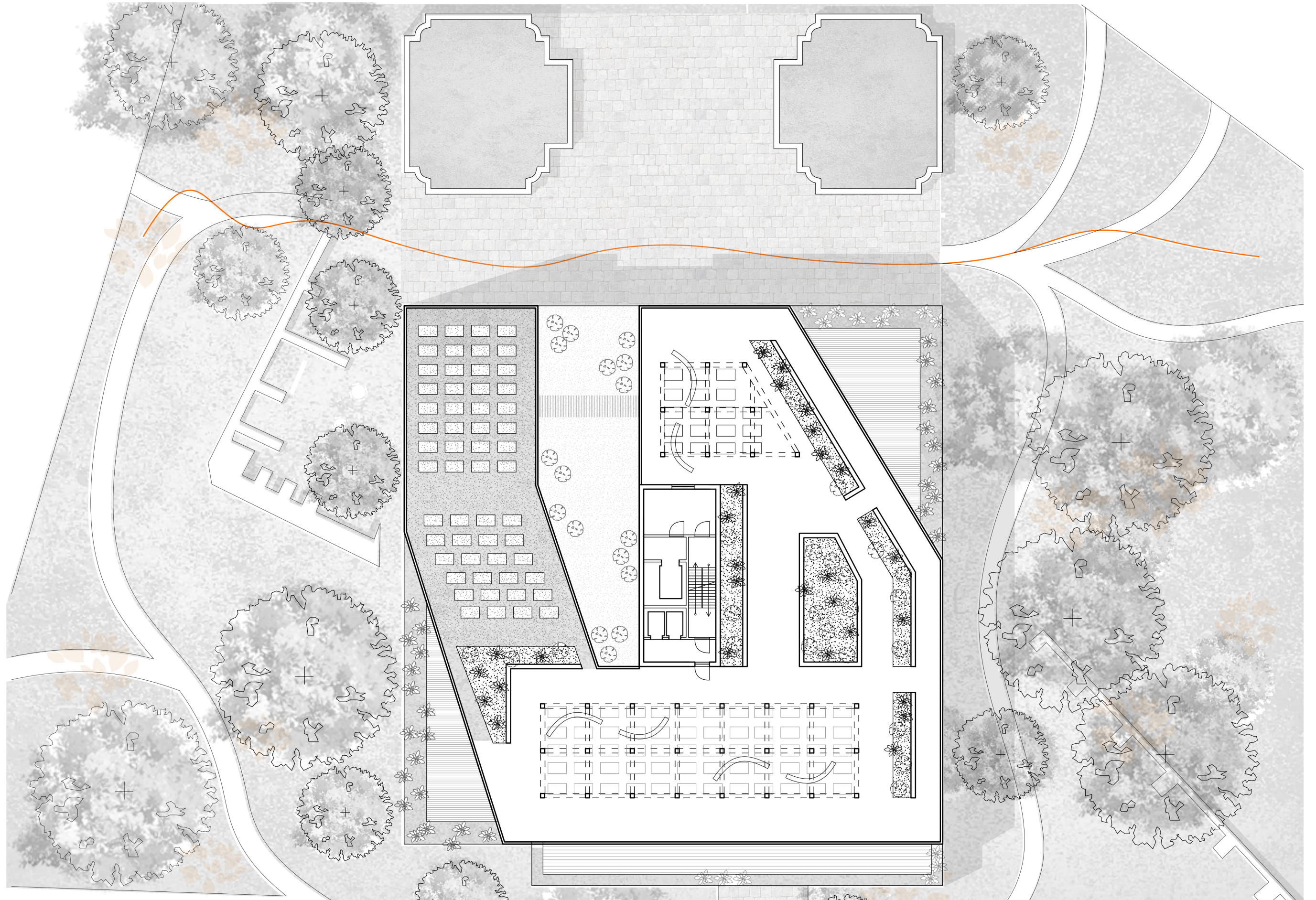


AUDITORIUM

model 1:100



ROOF



3D SECTION

model 1:100



ELEVATIONS



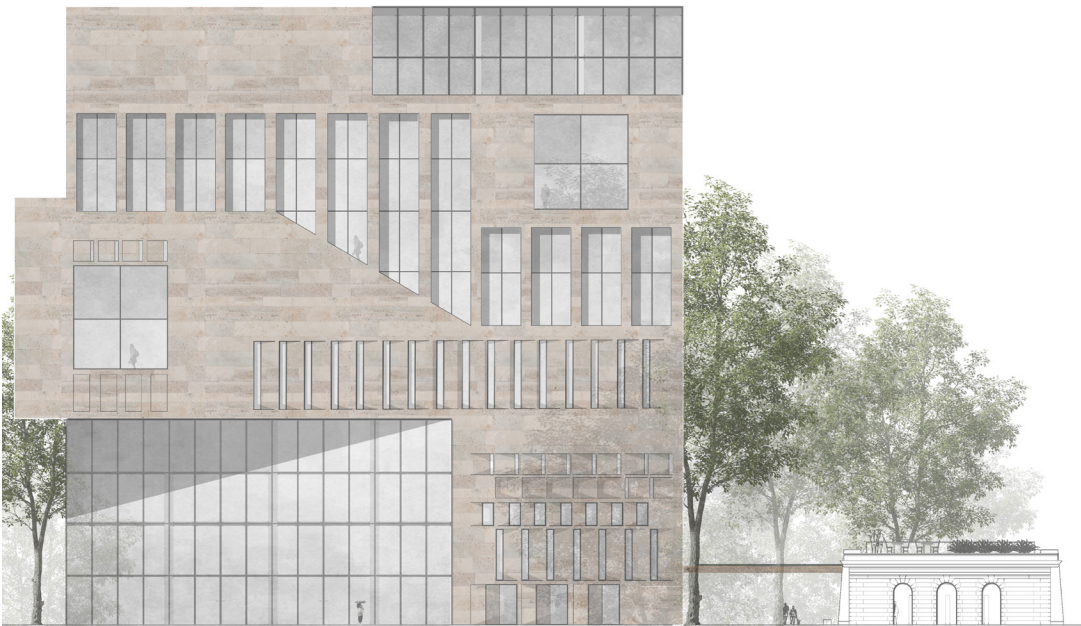
SOUTH-EAST ELEVATION
1:200



SOUTH-WEST ELEVATION
1:200



NORTH-WEST ELEVATION
1:200



NORTH-EAST ELEVATION
1:200

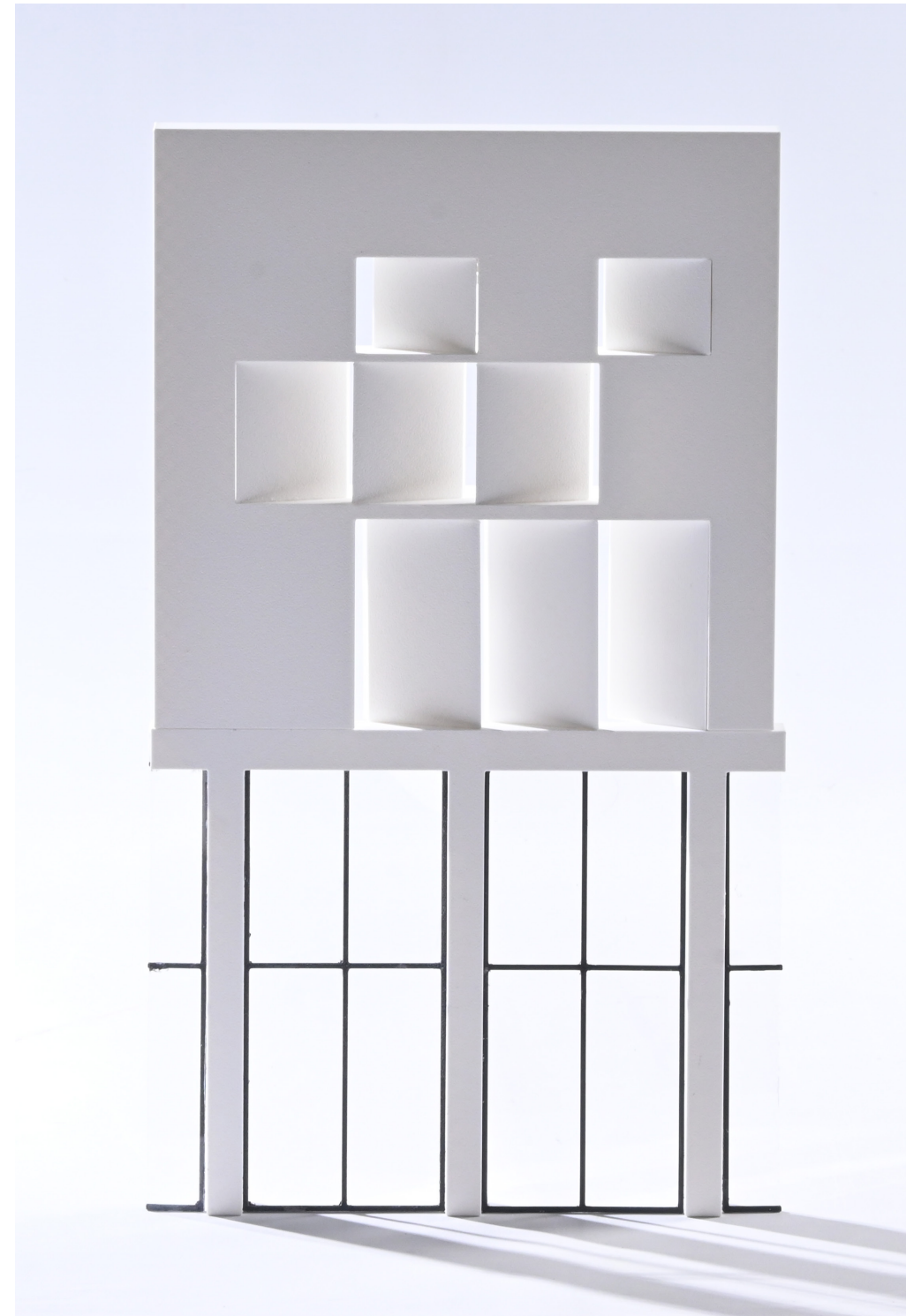
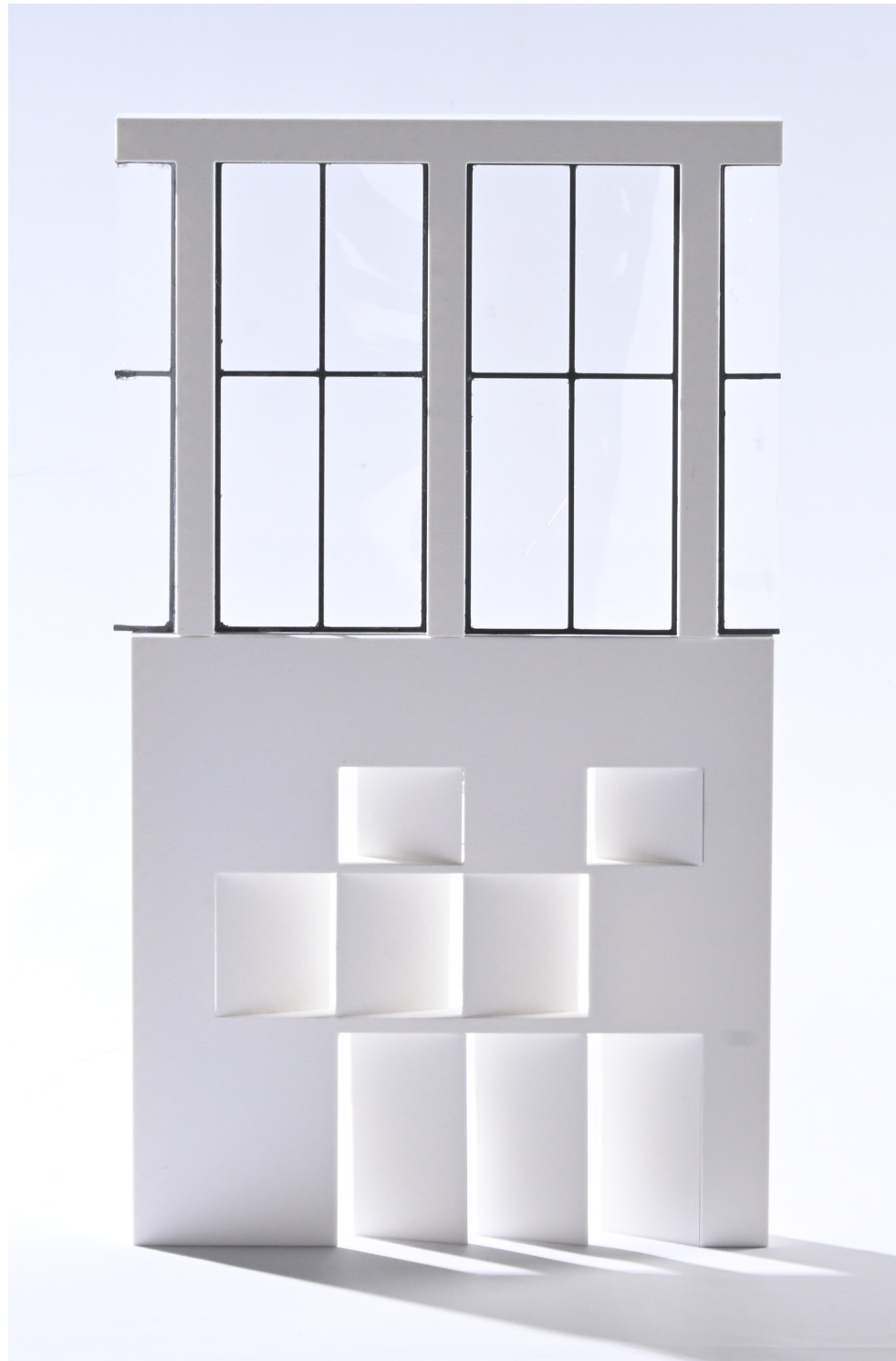
MATERIALITY

limestone cladding



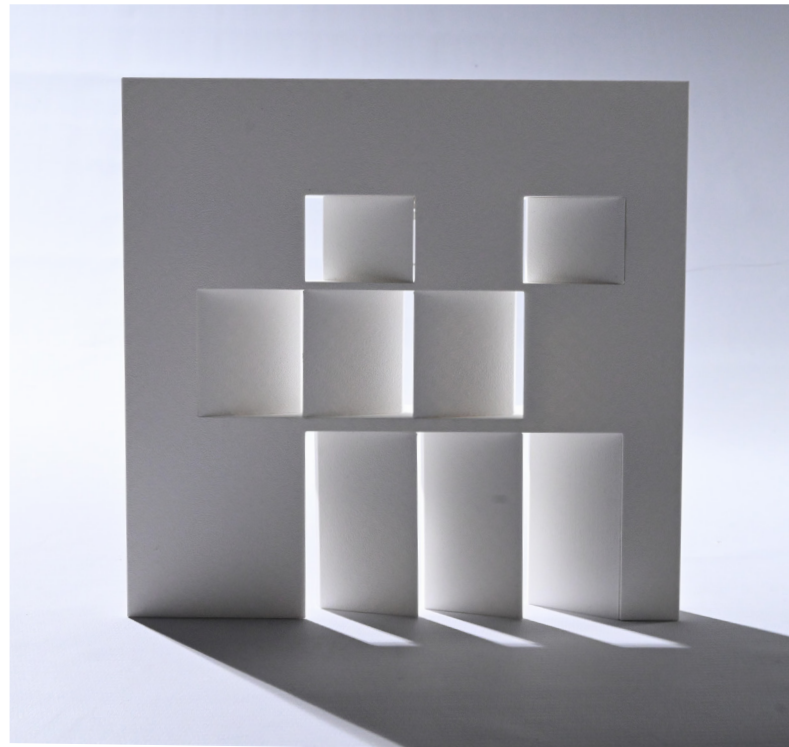
FAÇADE

fragment model 1:50



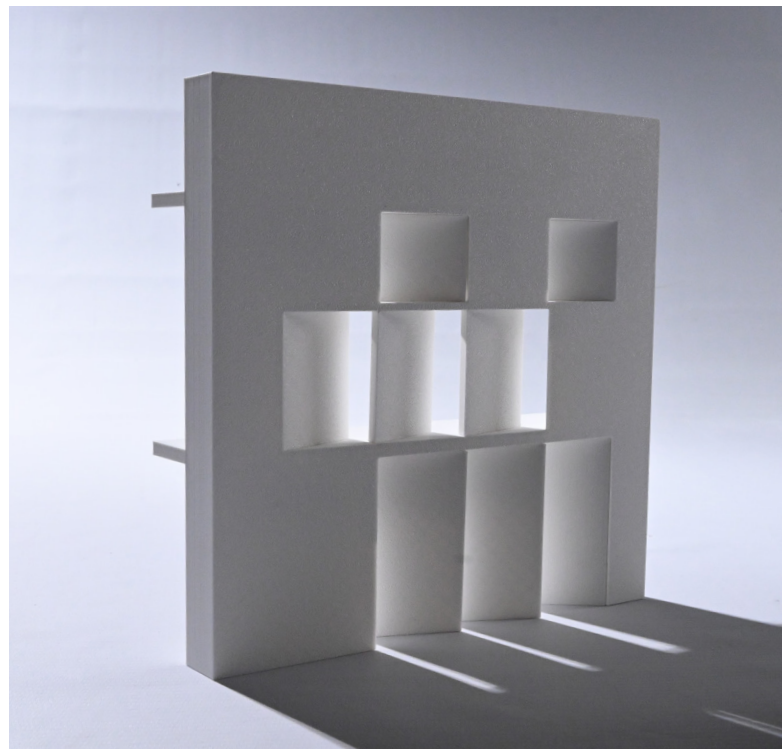
FAÇADE

fragment model 1:20



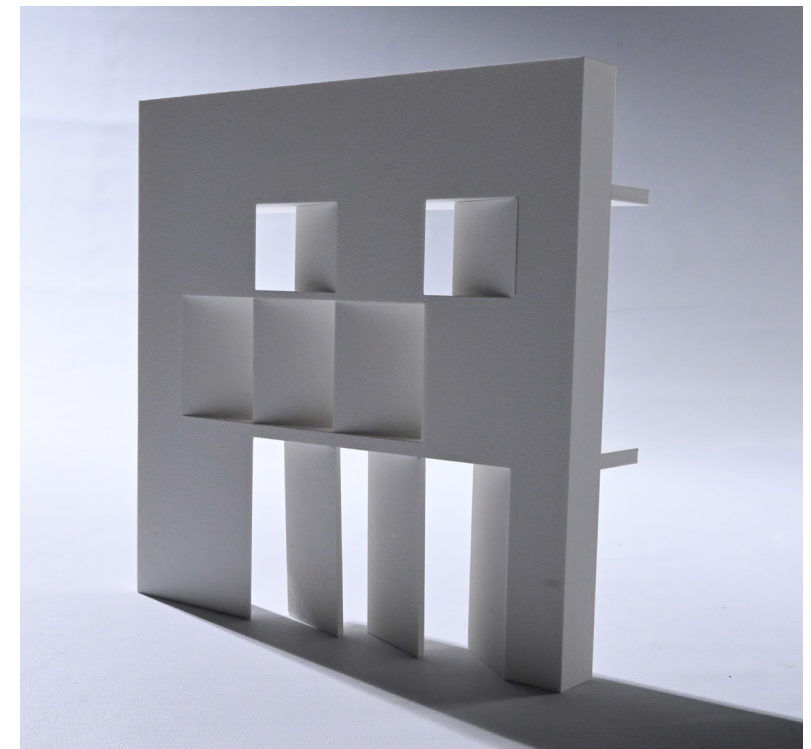
FAÇADE

fragment model 1:20



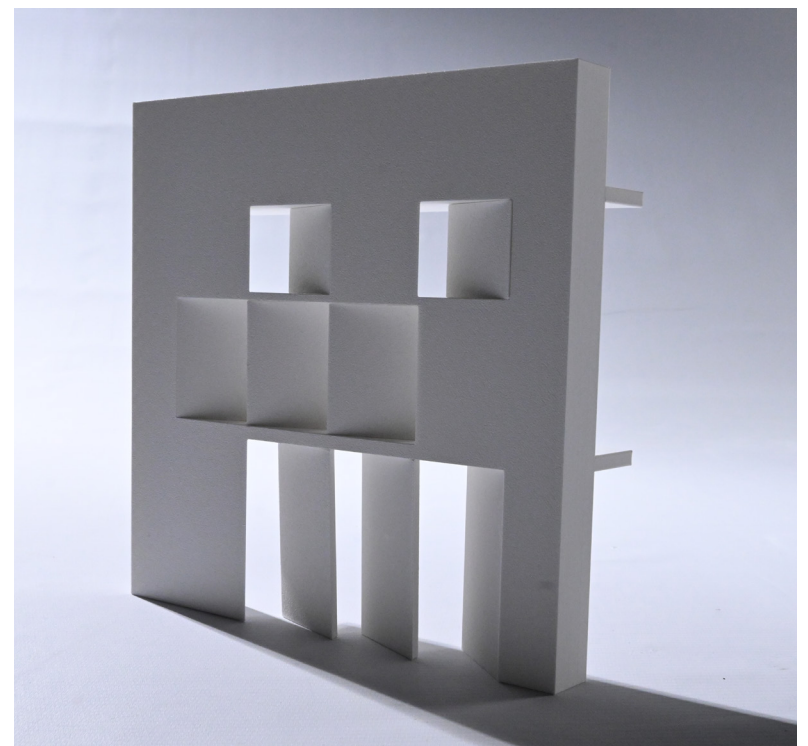
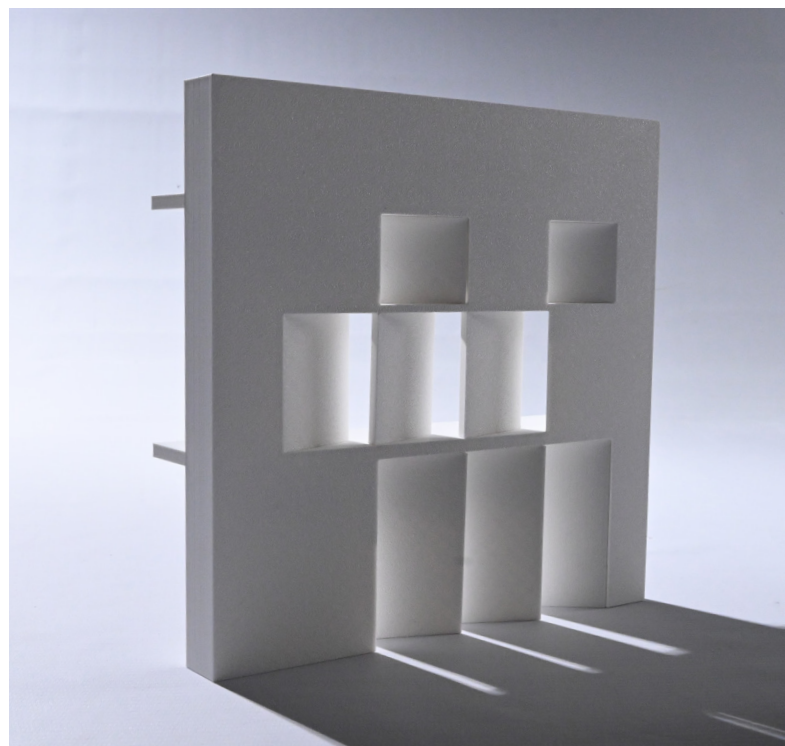
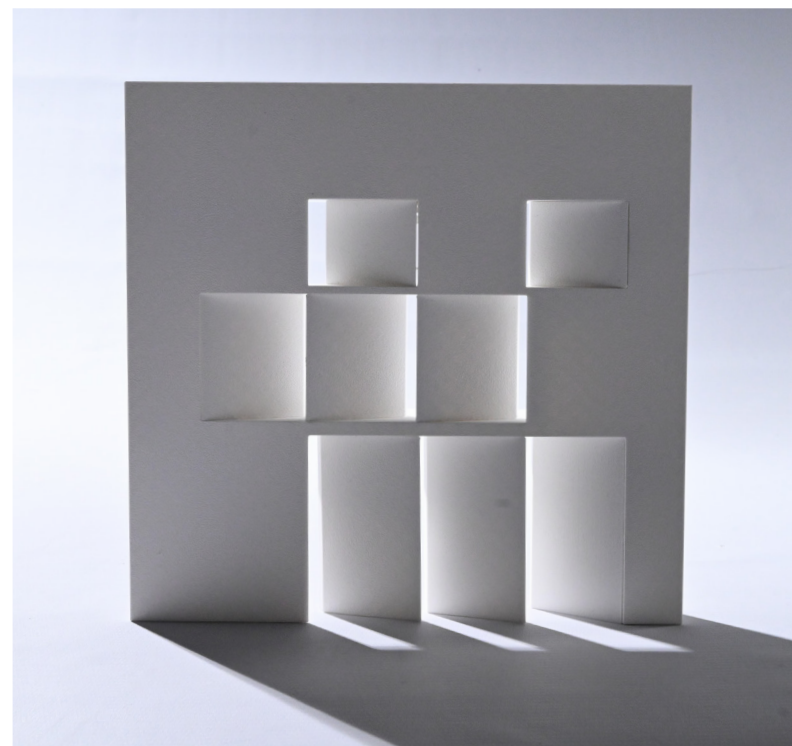
FAÇADE

fragment model 1:20



FAÇADE

fragment model 1:20



PLAYFULL LIGHT EXPERIENCE

interior impression



POCKETS BOOKSHELFS

impression



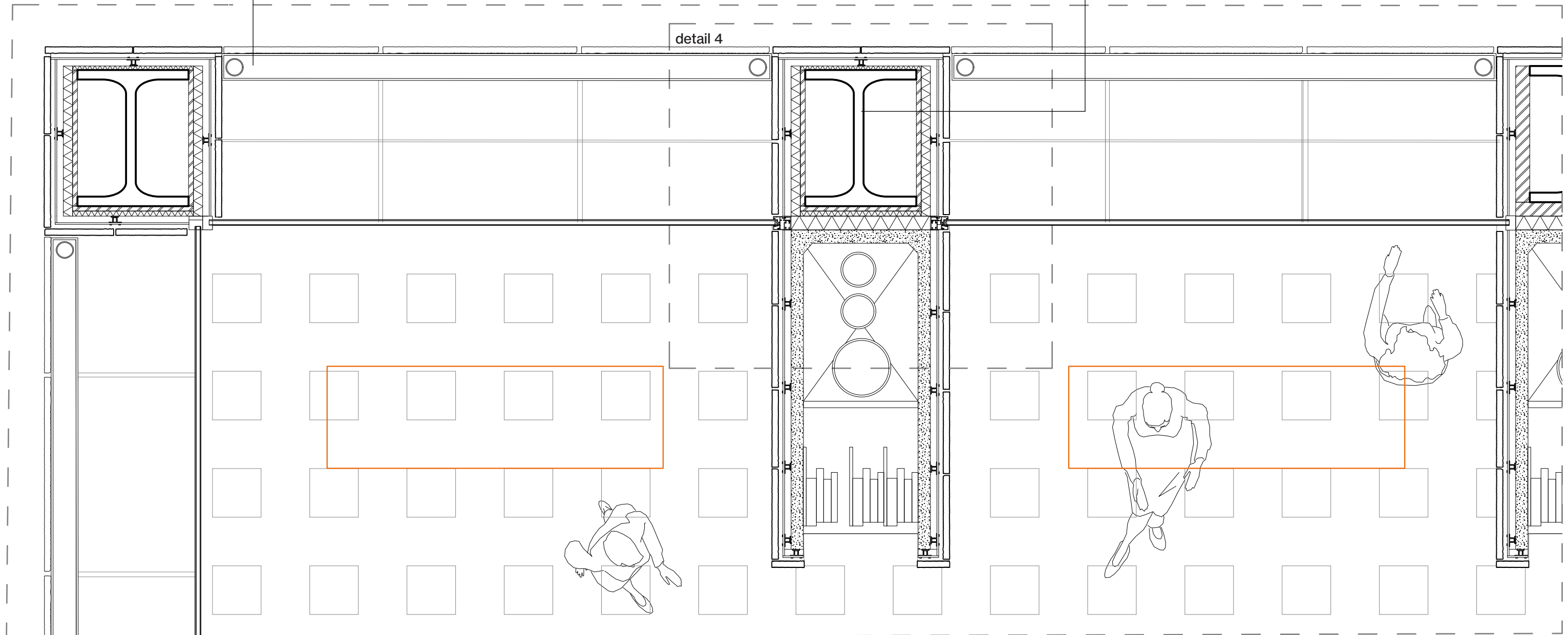
DETAIL POCKETS 1

horizontal routing facade (1:20)

drainage gutter
hidden

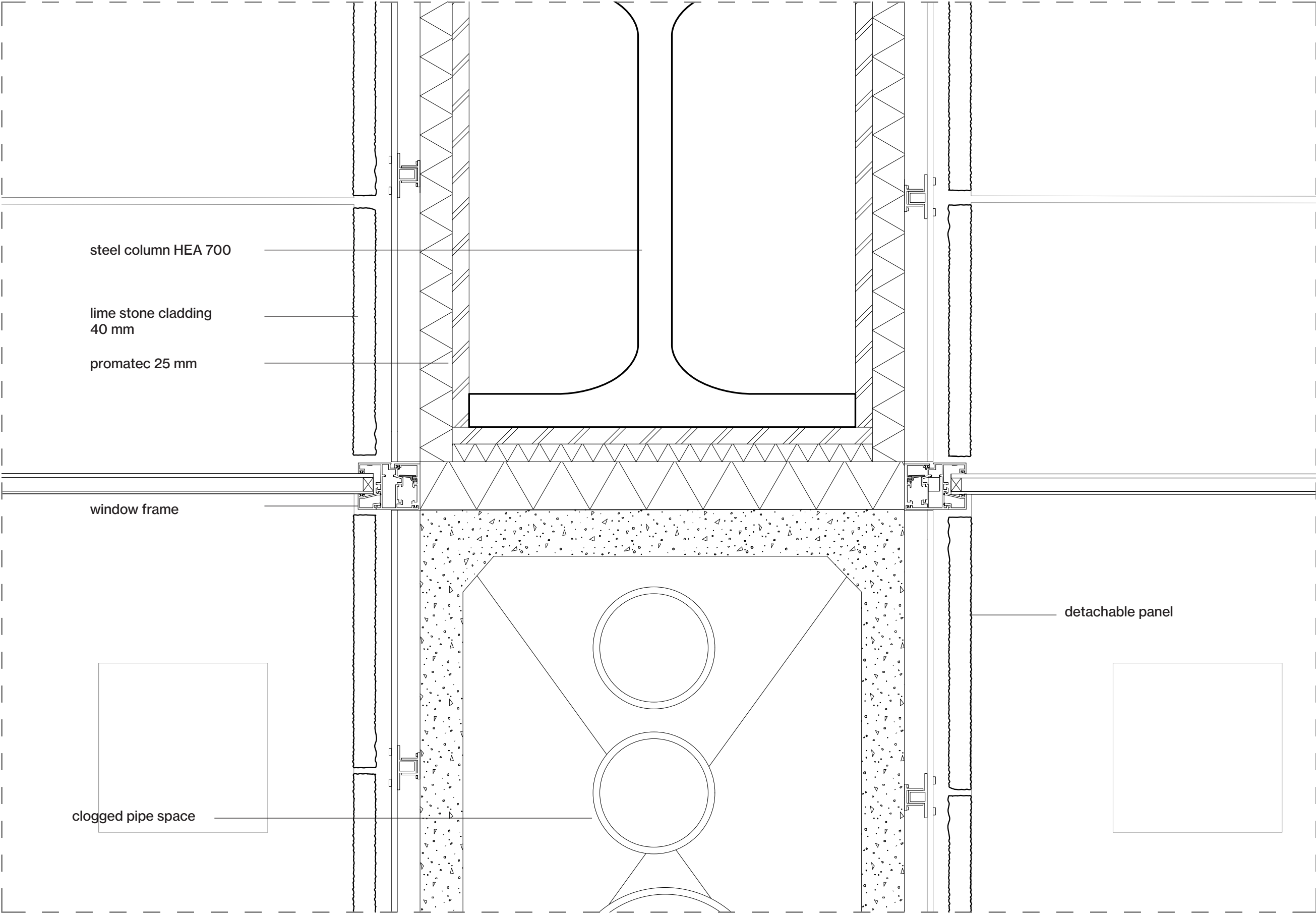
detail 4

lime stone cladding 40 mm
aluminium profile 40 mm
ventilated space 50 mm
mineral wool insulation 30 mm
promatec 25 mm
HEA 700



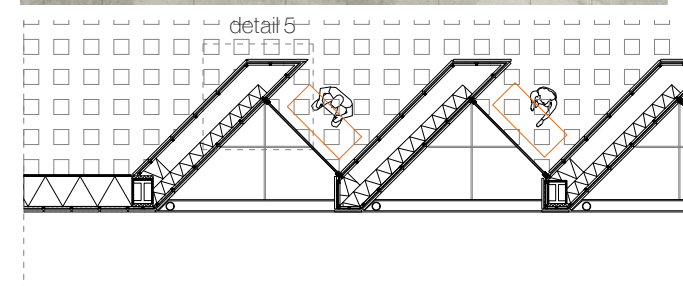
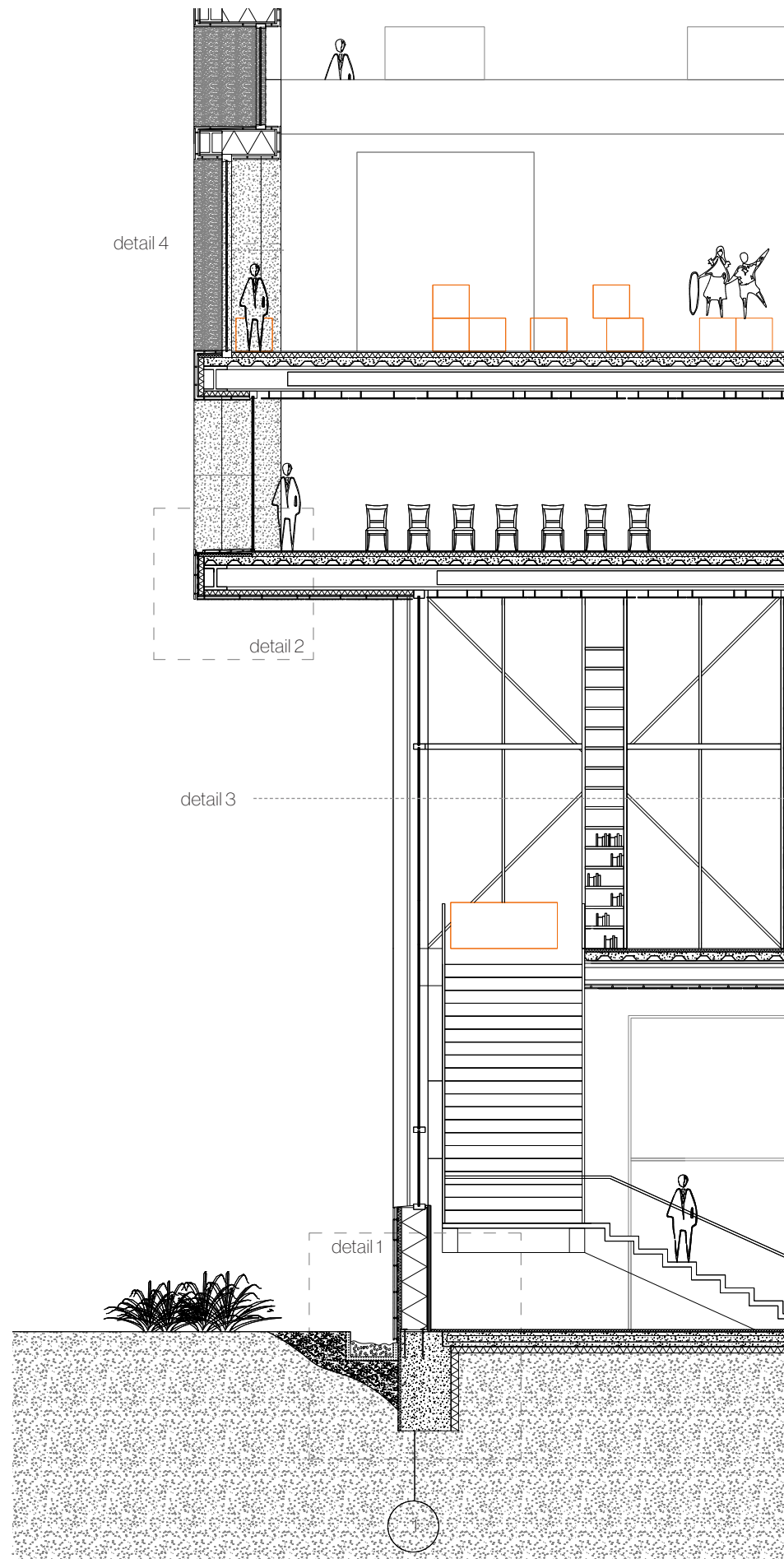
DETAIL POCKETS 1

horizontal routing facade (1:5)



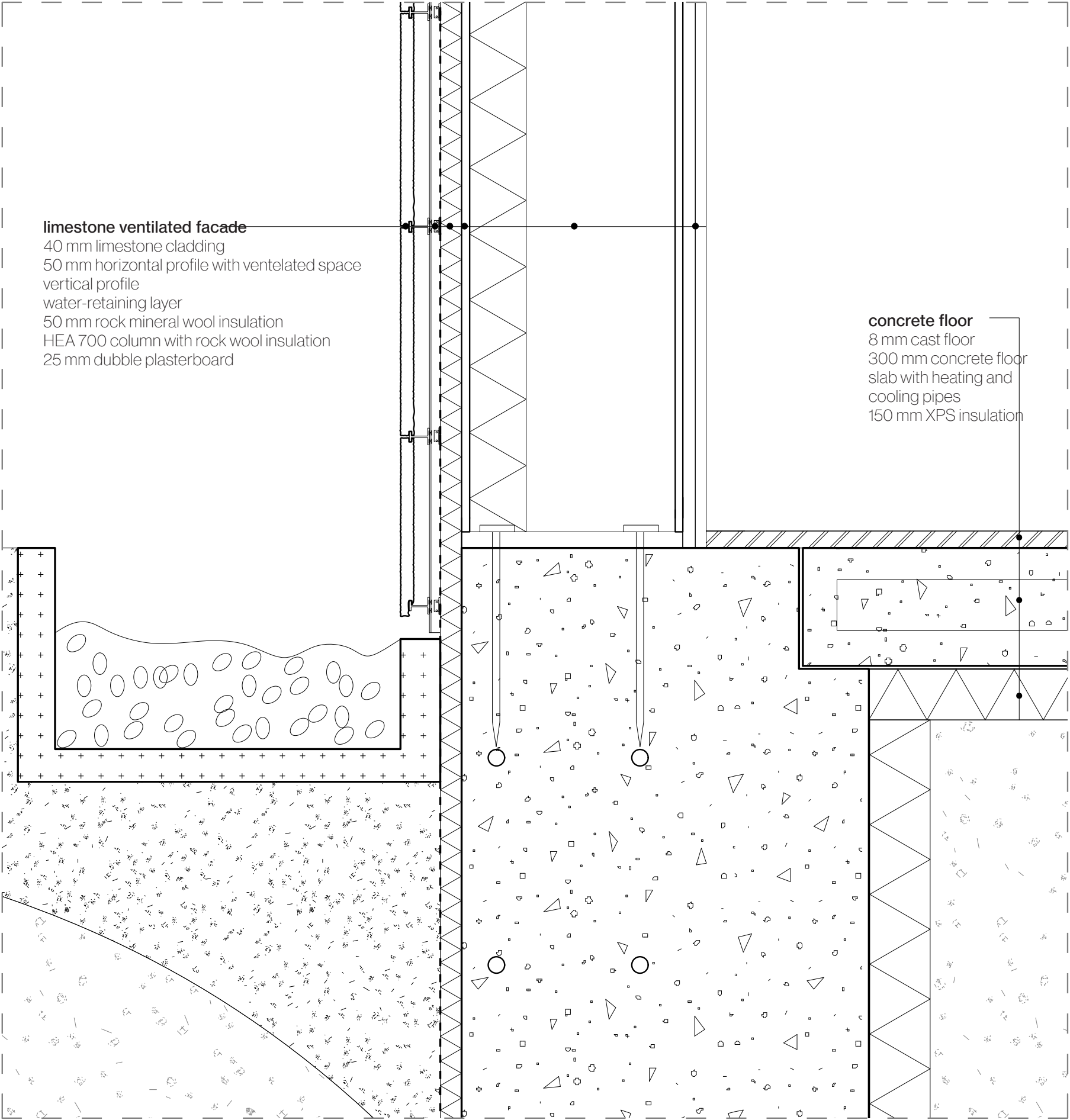
FRAGMENT

1:20



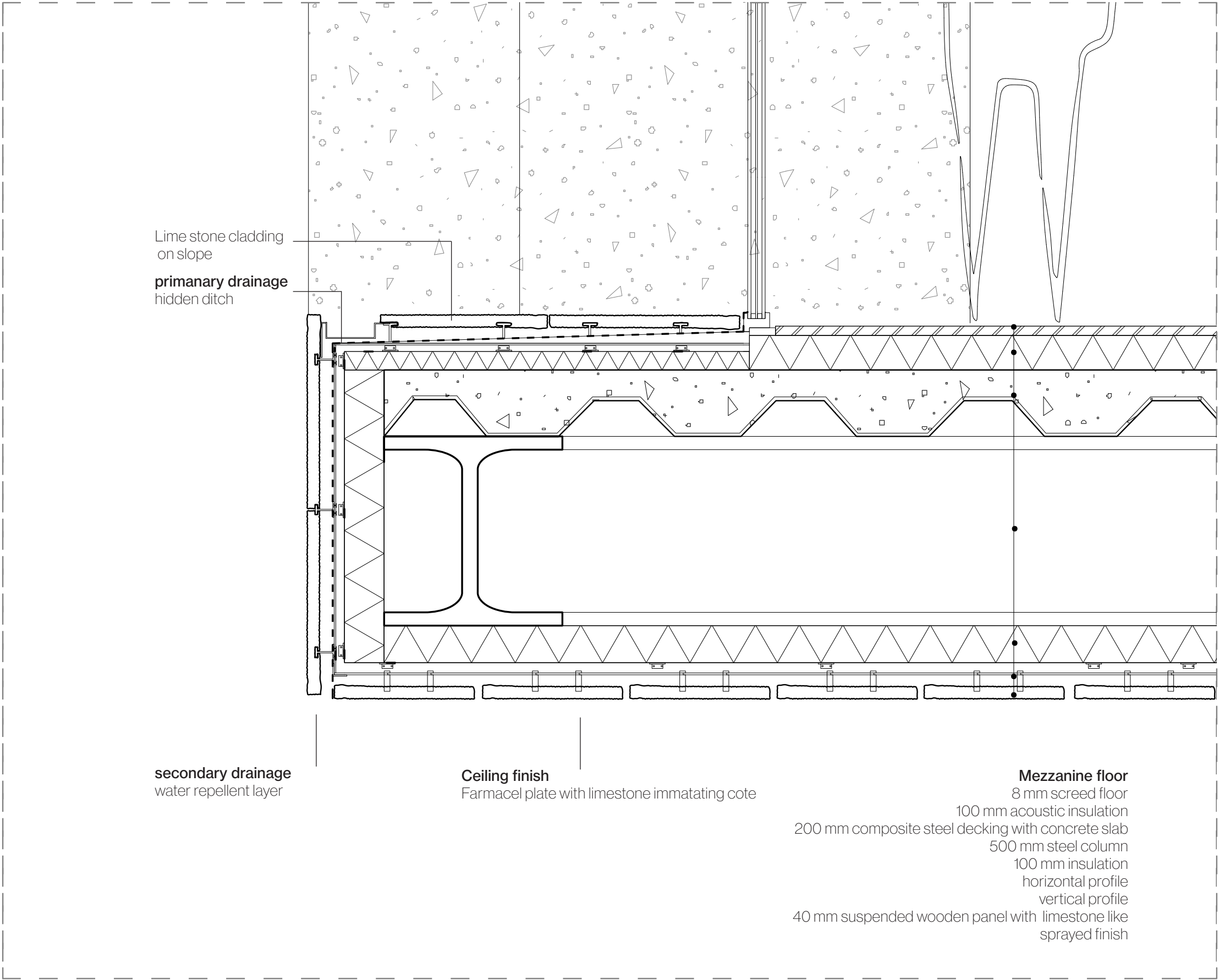
DETAIL FOUNDATION

vertical detail (1:10)



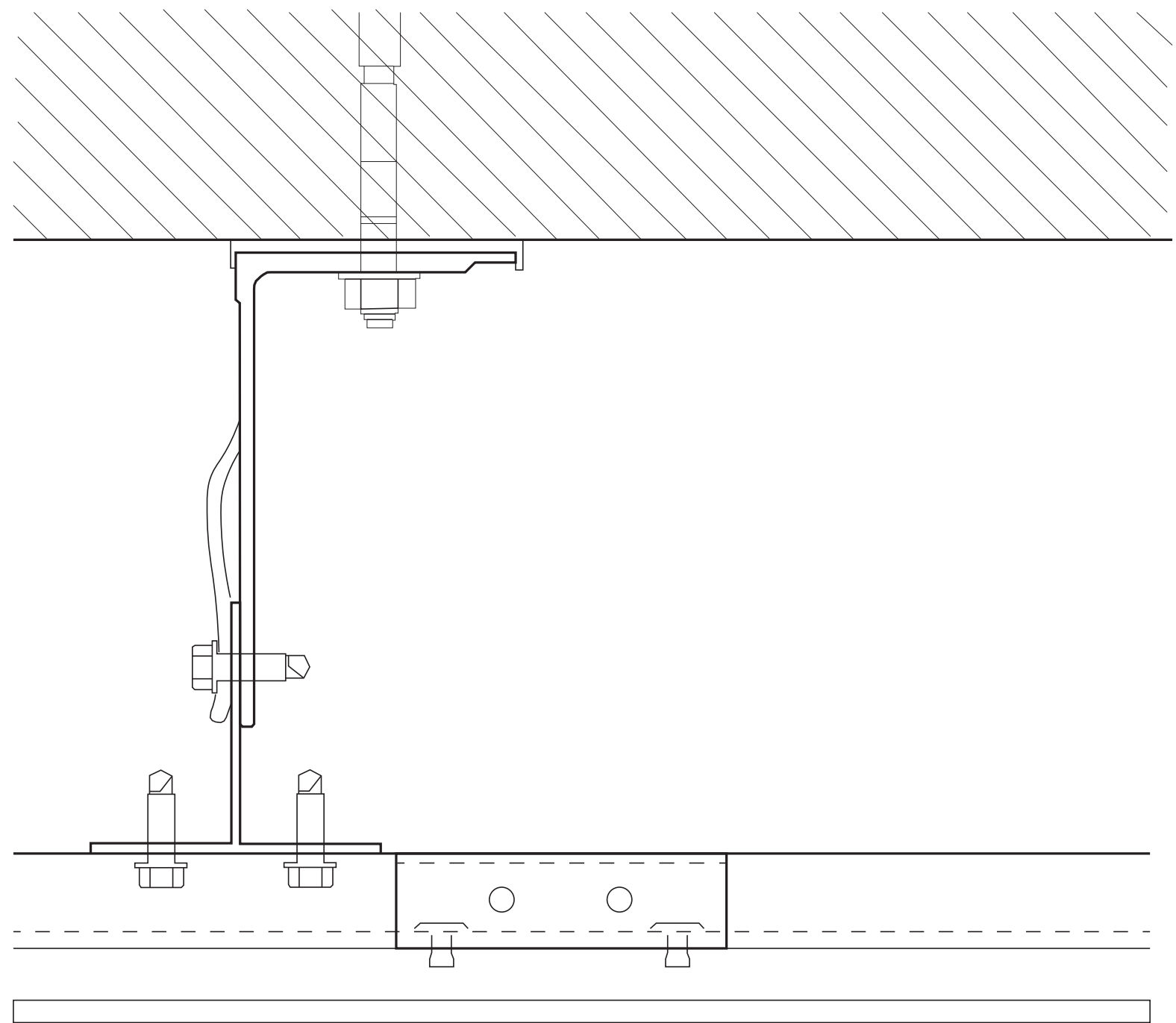
DETAIL MEZZANINE FLOOR

vertical detail (1:10)



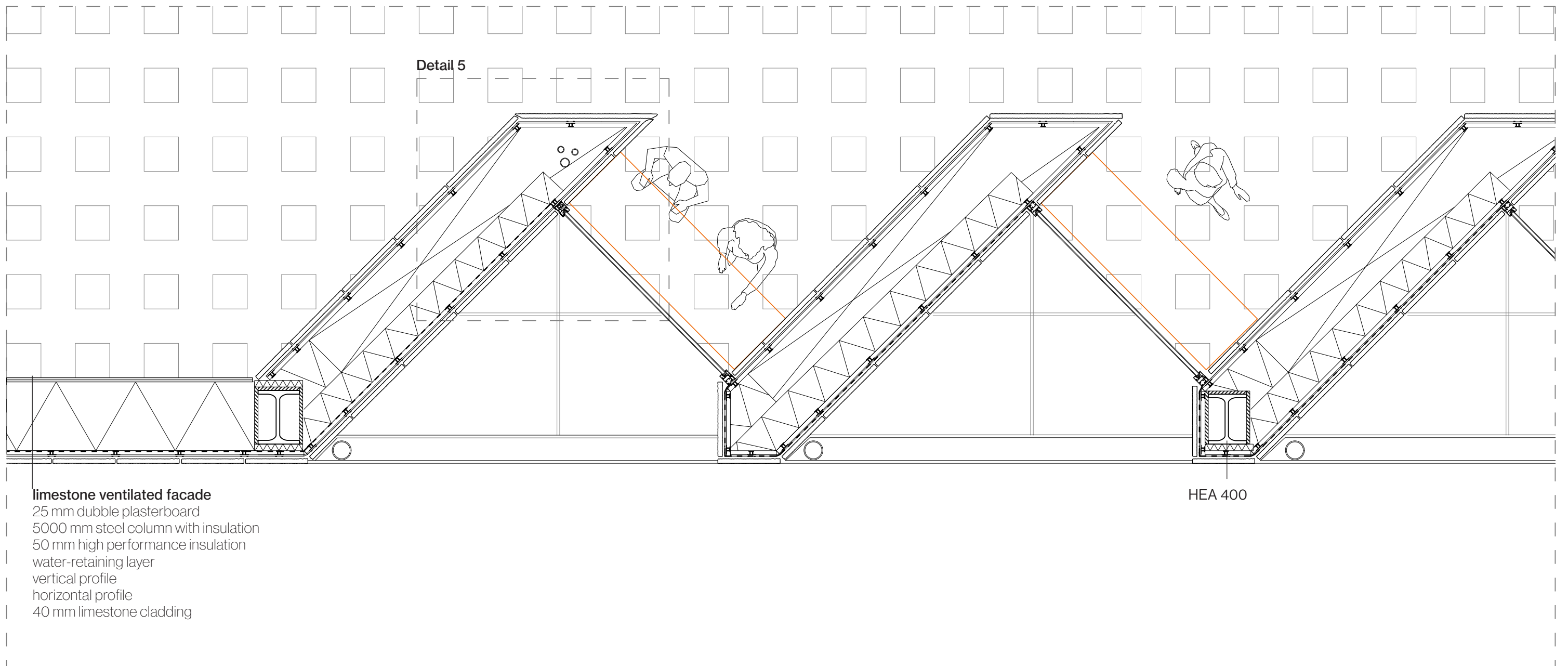
LIMESTONE CEILING

vertical detail



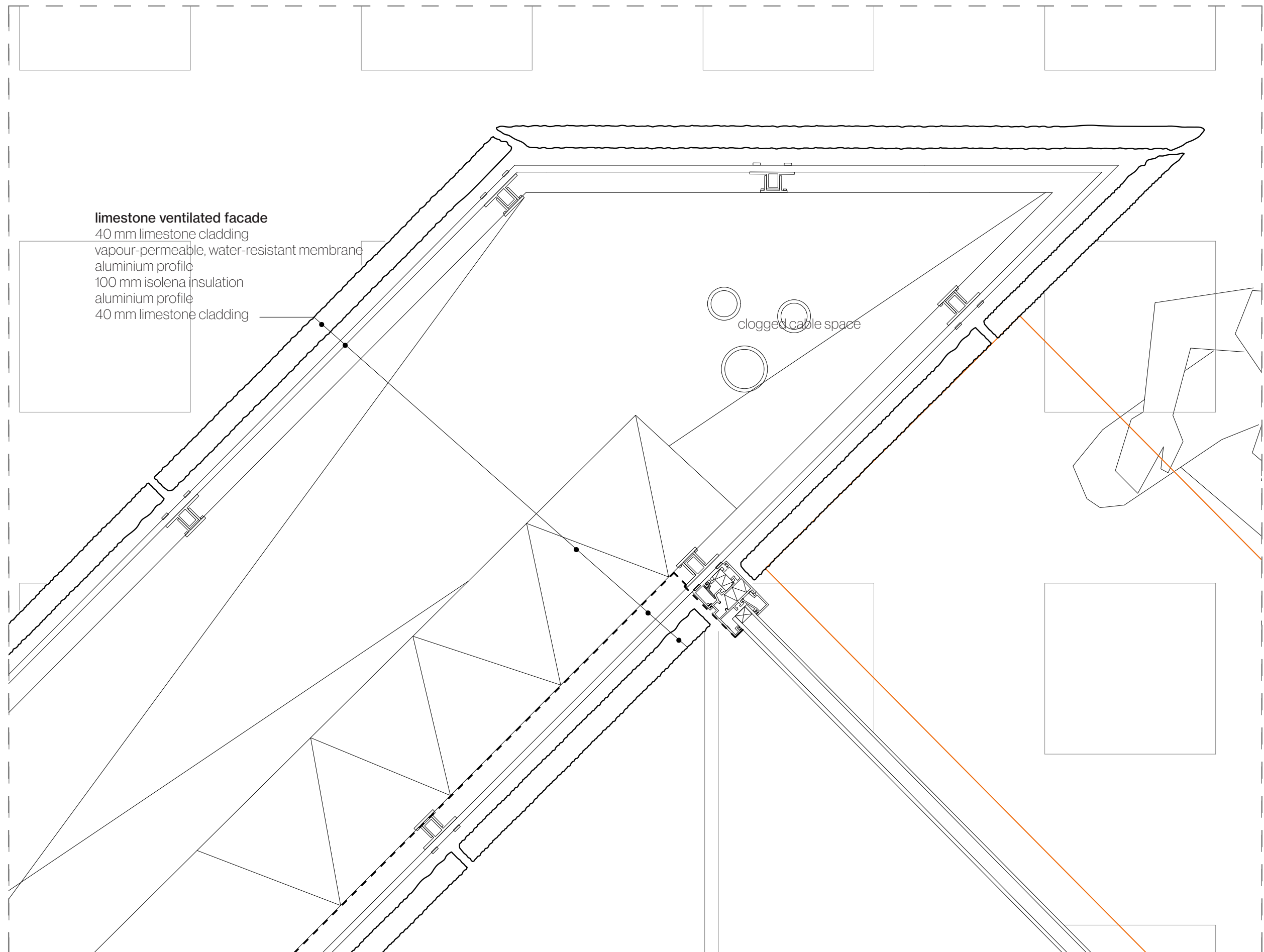
DETAIL POCKETS 2

horizontal detail (1:20)



DETAIL POCKETS 2

horizontal detail (1:5)



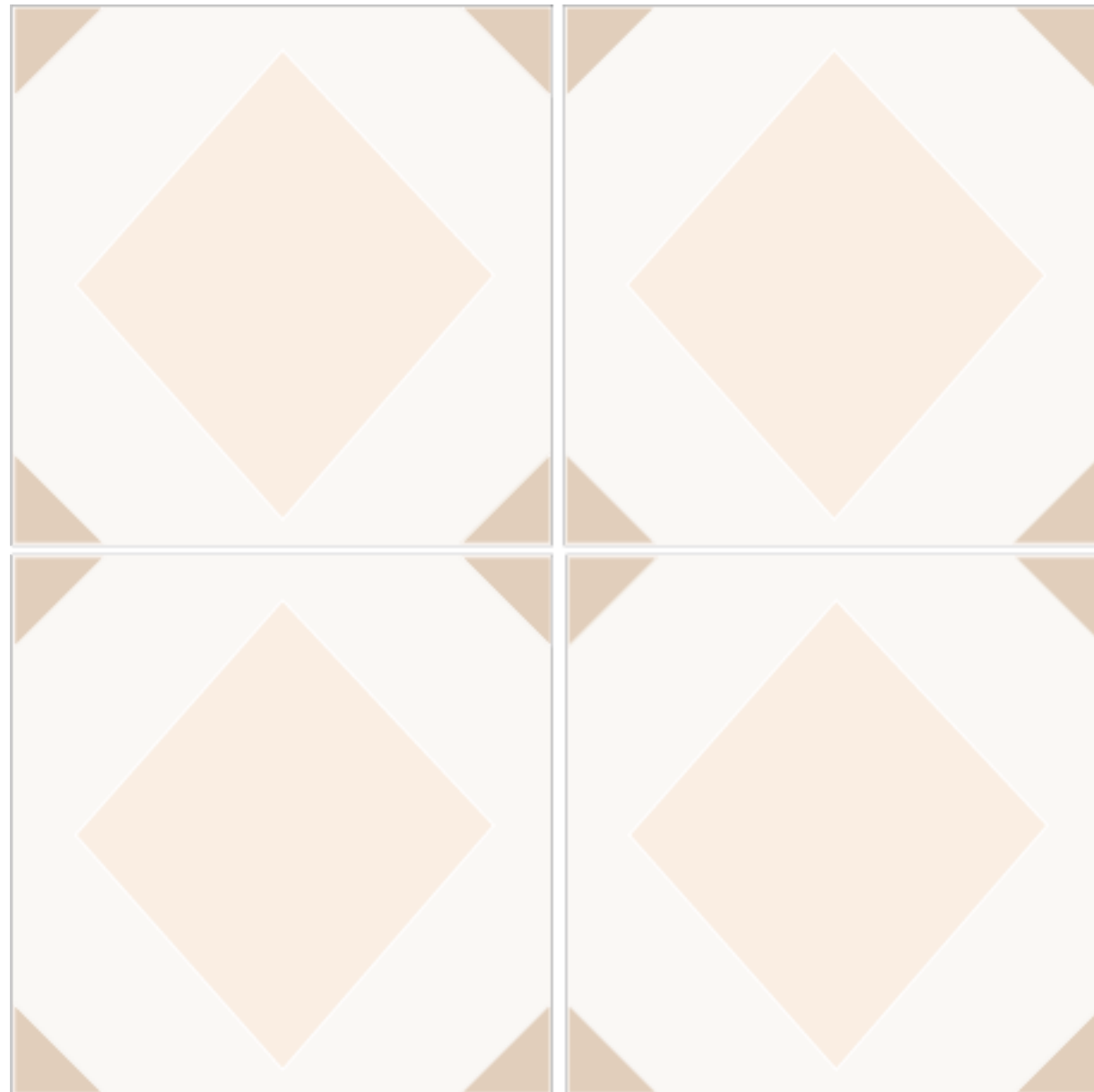
FAÇADE POCKETS

interior impression



MATERIALITY

tile pattern



SECTION 2
(1:100)

12
roof terrace /solar panels

10/11
archive learning spaces

8/9
restaurant
auditorium

7
start op offices
tech centre

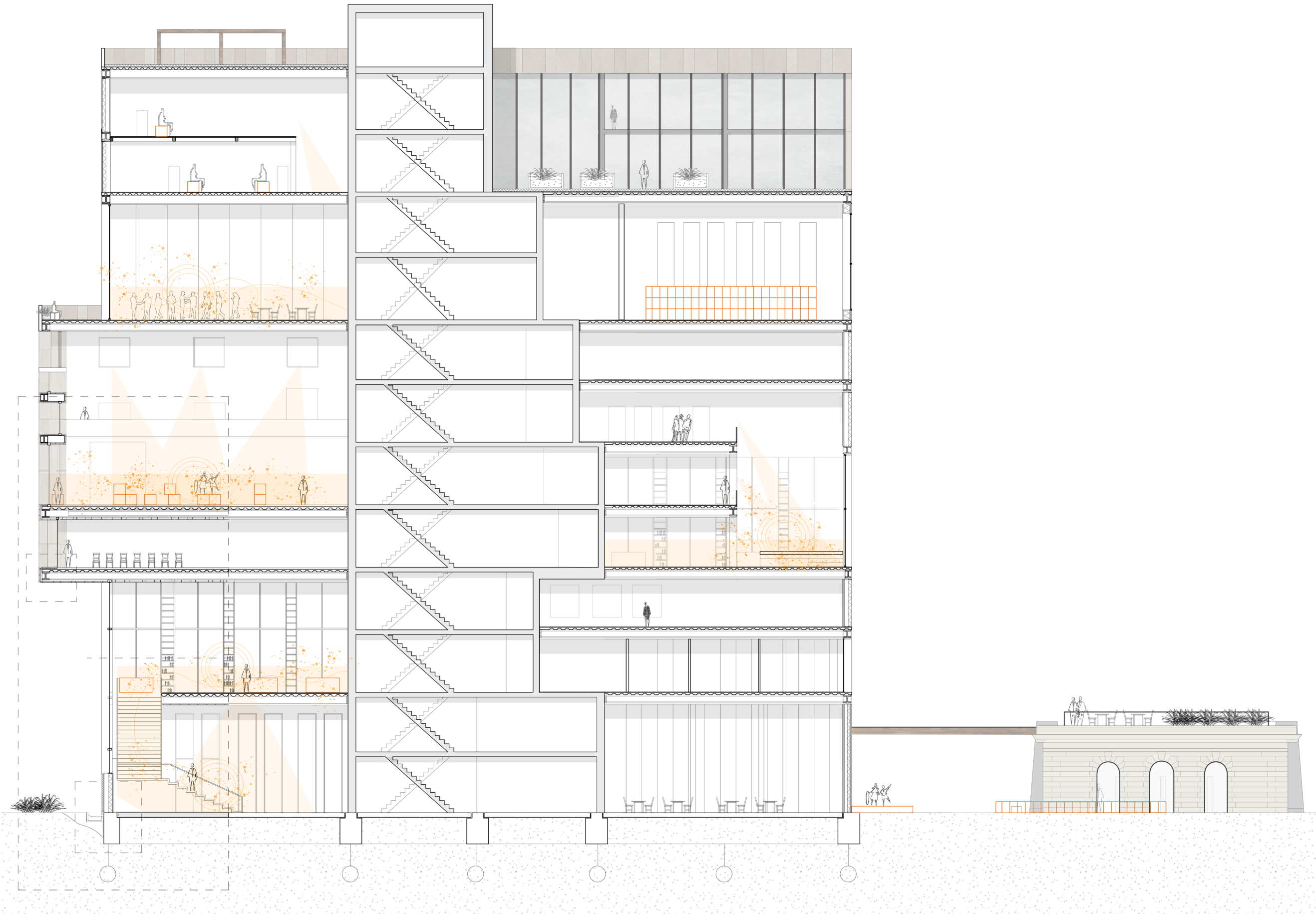
5/6
main museum hall
workshop spaces art
collaboration space

4
studio spaces dance

3
offices museum/ library
art workshops

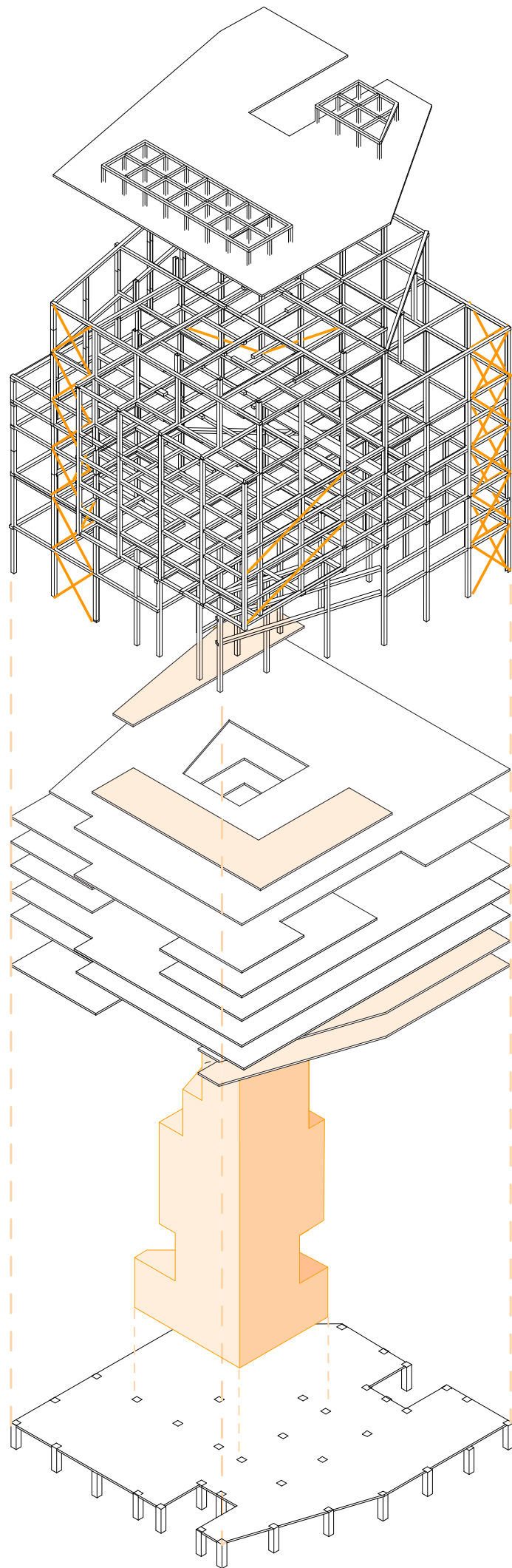
2
offices
studio's music

GF/1
cafe, bookstore, entrance
info desk, feltrinelli collection



AXONOMETRIC

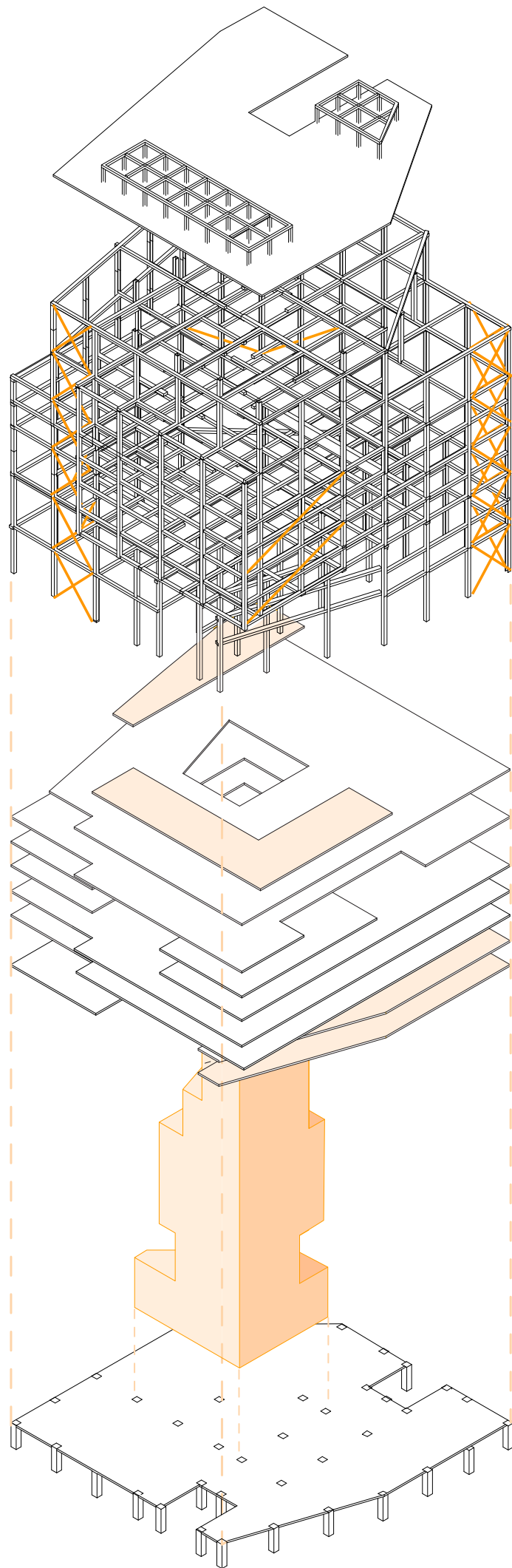
construction



Foundation
The ground floor consists of a cast-in-place concrete slab supported by a pile foundation system

AXONOMETRIC

construction

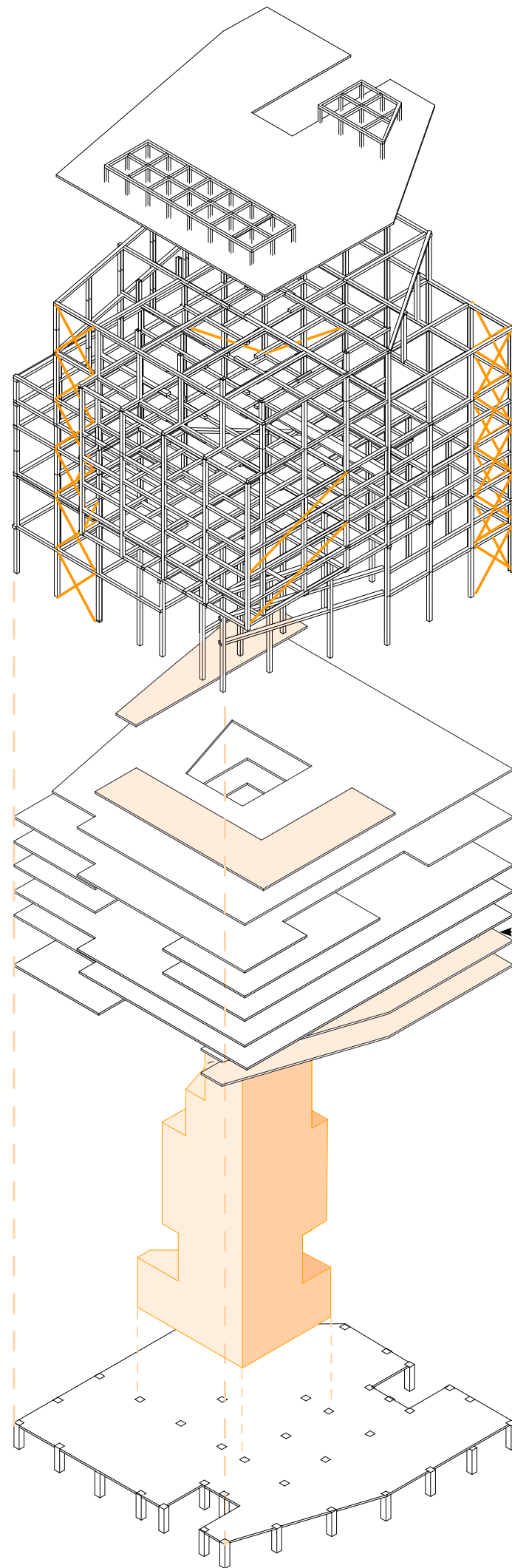


Core
A rigid in-situ cast concrete core provides structural stability and functionality

Foundation
The ground floor consists of a cast-in-place concrete slab supported by a pile foundation system

AXONOMETRIC

construction



Floors

The composite steel deck floor is anchored to both the steel structural frame and the reinforced-concrete core. By eliminating internal columns, the design provides full interior flexibility and adaptability.

Lighter structure wooden floors, add to flexibility

Core

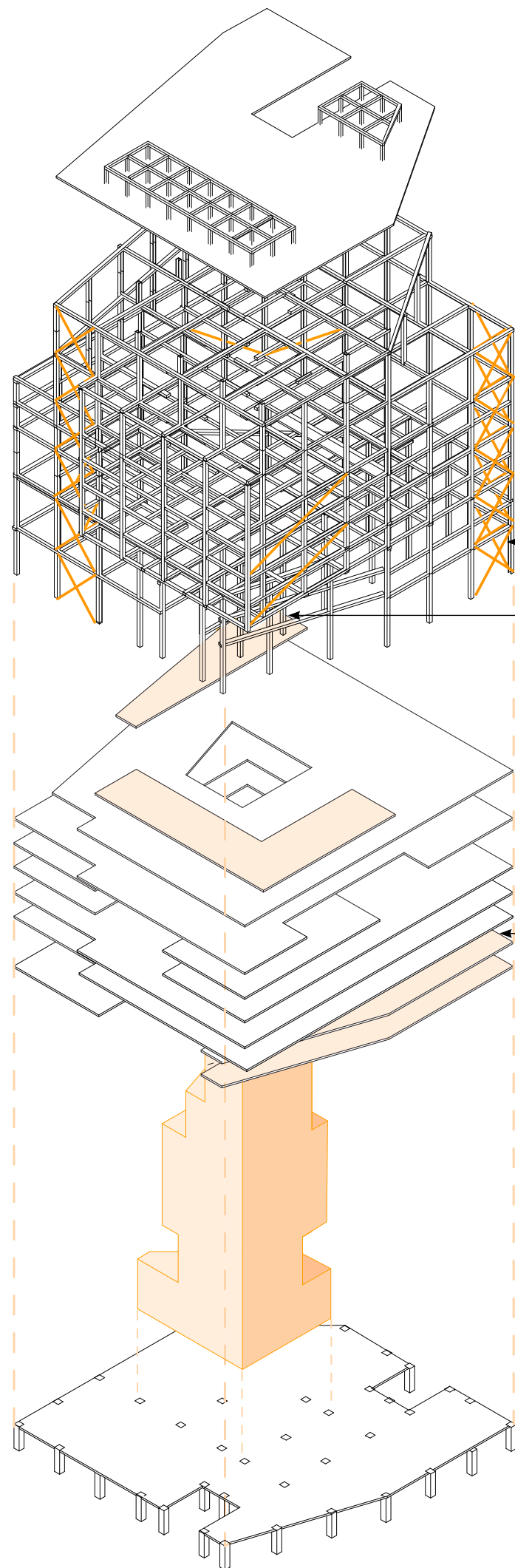
A rigid in-situ cast concrete core provides structural stability and functionality

Foundation

The ground floor consists of a cast-in-place concrete slab supported by a pile foundation system

AXONOMETRIC

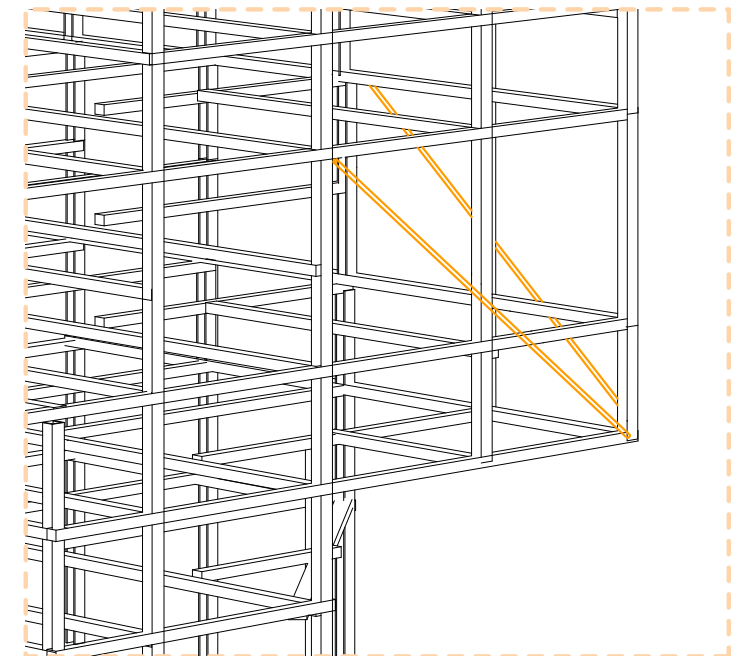
construction



Steel structure
HEA 700/HEA 400 columns
The steel structure, in combination with the concrete core, carries the roof and floor slabs

Wind bracing is applied to provide lateral stability to the structure.

Hung cantilevered structures



Floors
The composite steel deck floor is anchored to both the steel structural frame and the reinforced-concrete core. By eliminating internal columns, the design provides full interior flexibility and adaptability.

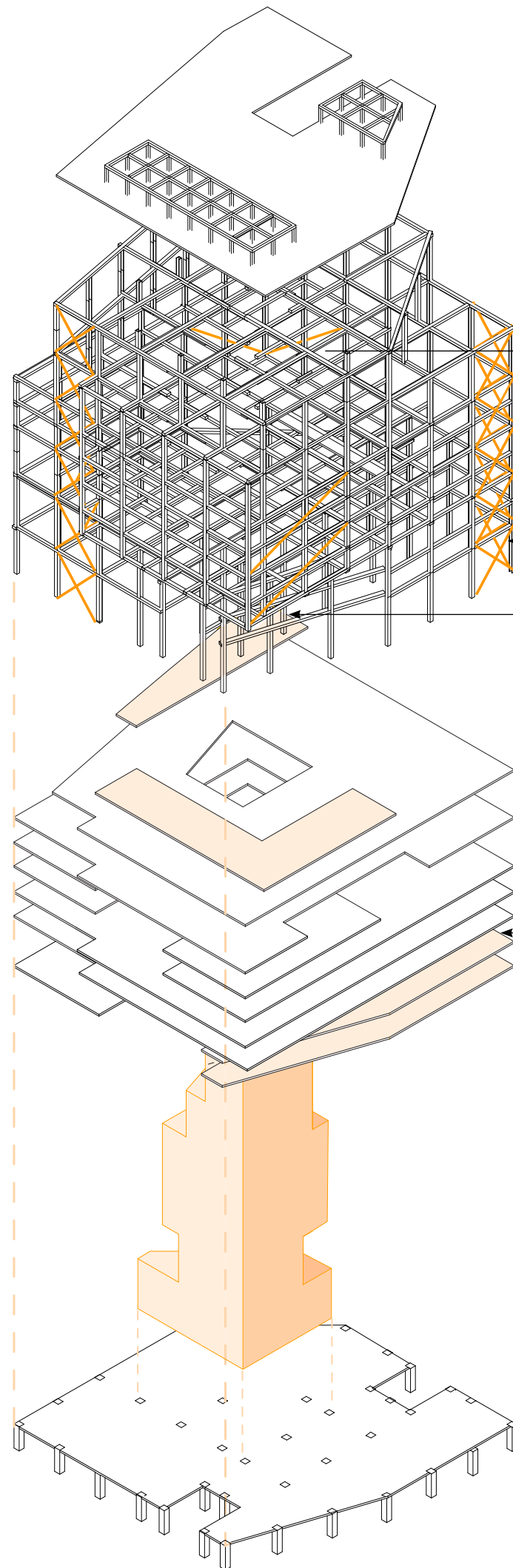
Lighter structure wooden floors, add to flexibility

Core
A rigid in-situ cast concrete core provides structural stability and functionality

Foundation
The ground floor consists of a cast-in-place concrete slab supported by a pile foundation system

AXONOMETRIC

construction



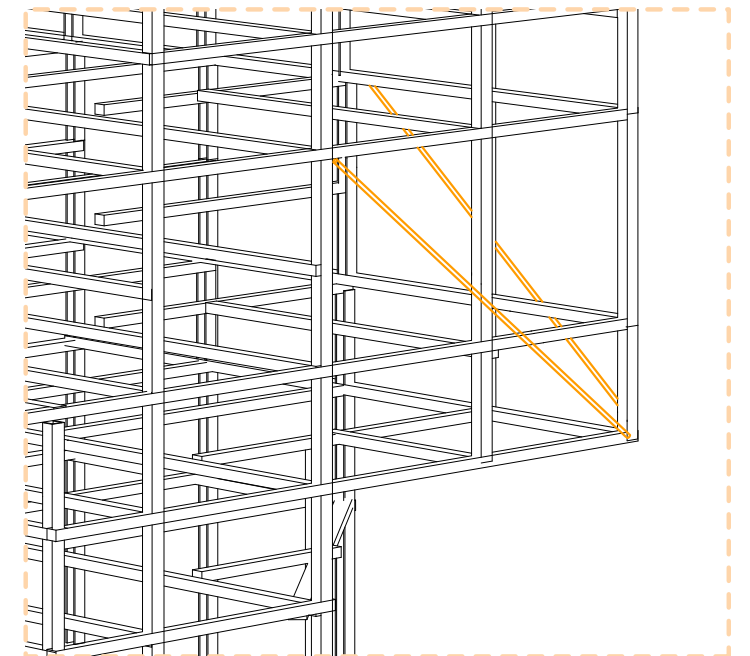
Roof

Composite steel-concrete deck roof with external pergola structure

Steel structure
HEA 700/HEA 400 columns
The steel structure, in combination with the concrete core, carries the roof and floor slabs

Wind bracing is applied to provide lateral stability to the structure.

Hung cantilevered structures



Floors
The composite steel deck floor is anchored to both the steel structural frame and the reinforced-concrete core. By eliminating internal columns, the design provides full interior flexibility and adaptability.

Lighter structure wooden floors, add to flexibility

Core
A rigid in-situ cast concrete core provides structural stability and functionality

Foundation
The ground floor consists of a cast-in-place concrete slab supported by a pile foundation system

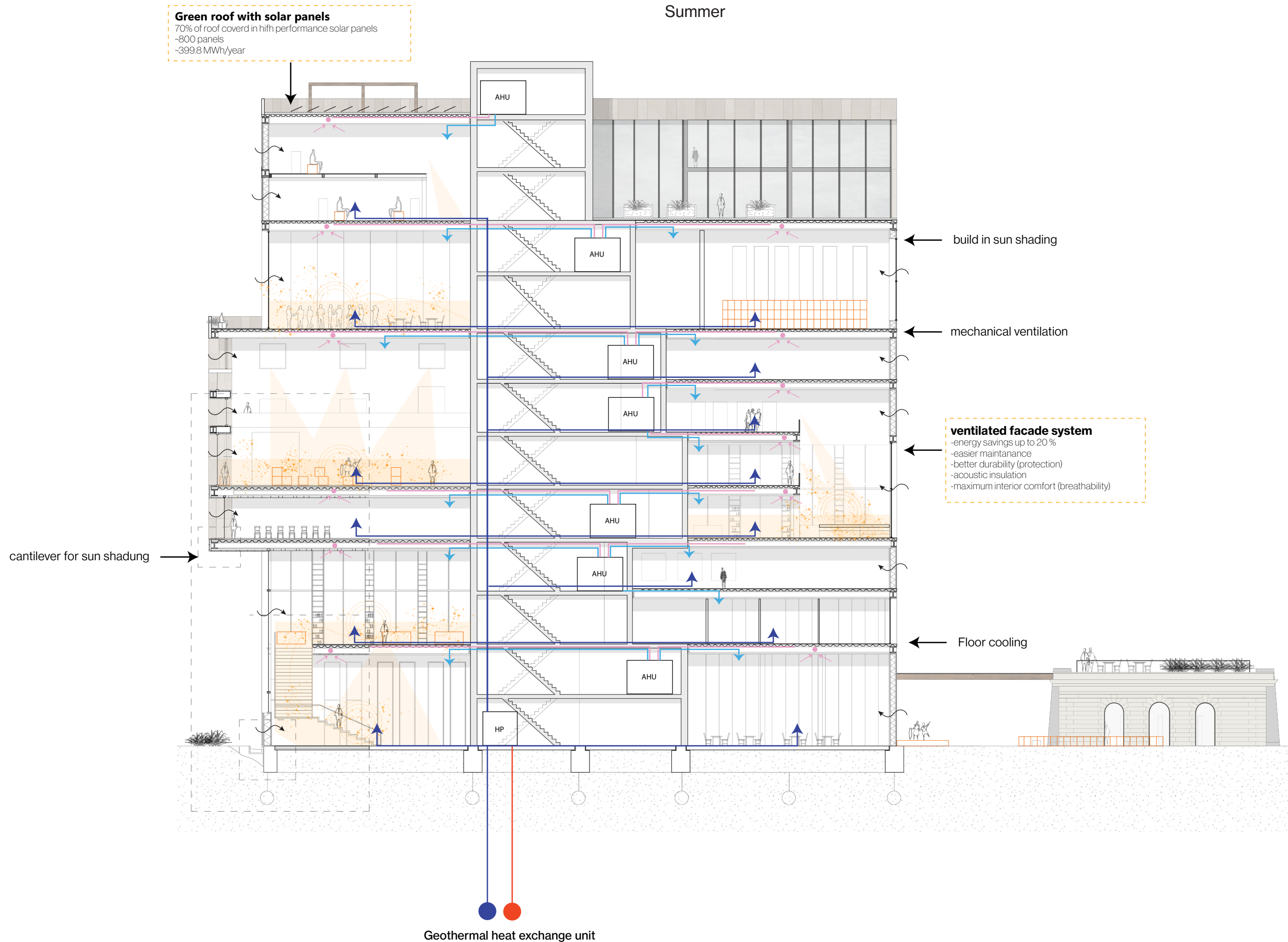
CLIMATE DIAGRAM

Winter

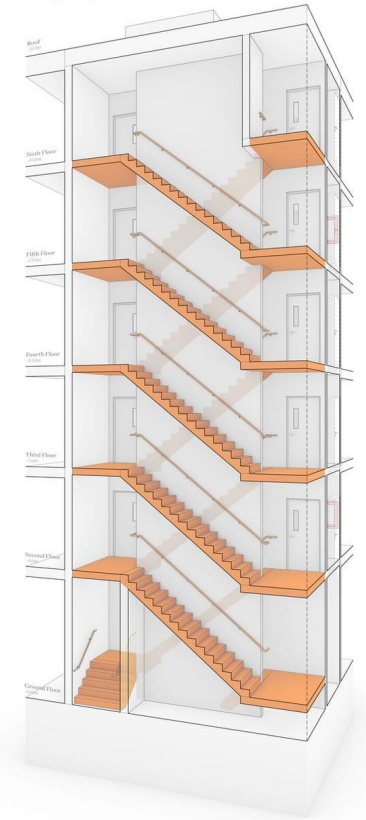
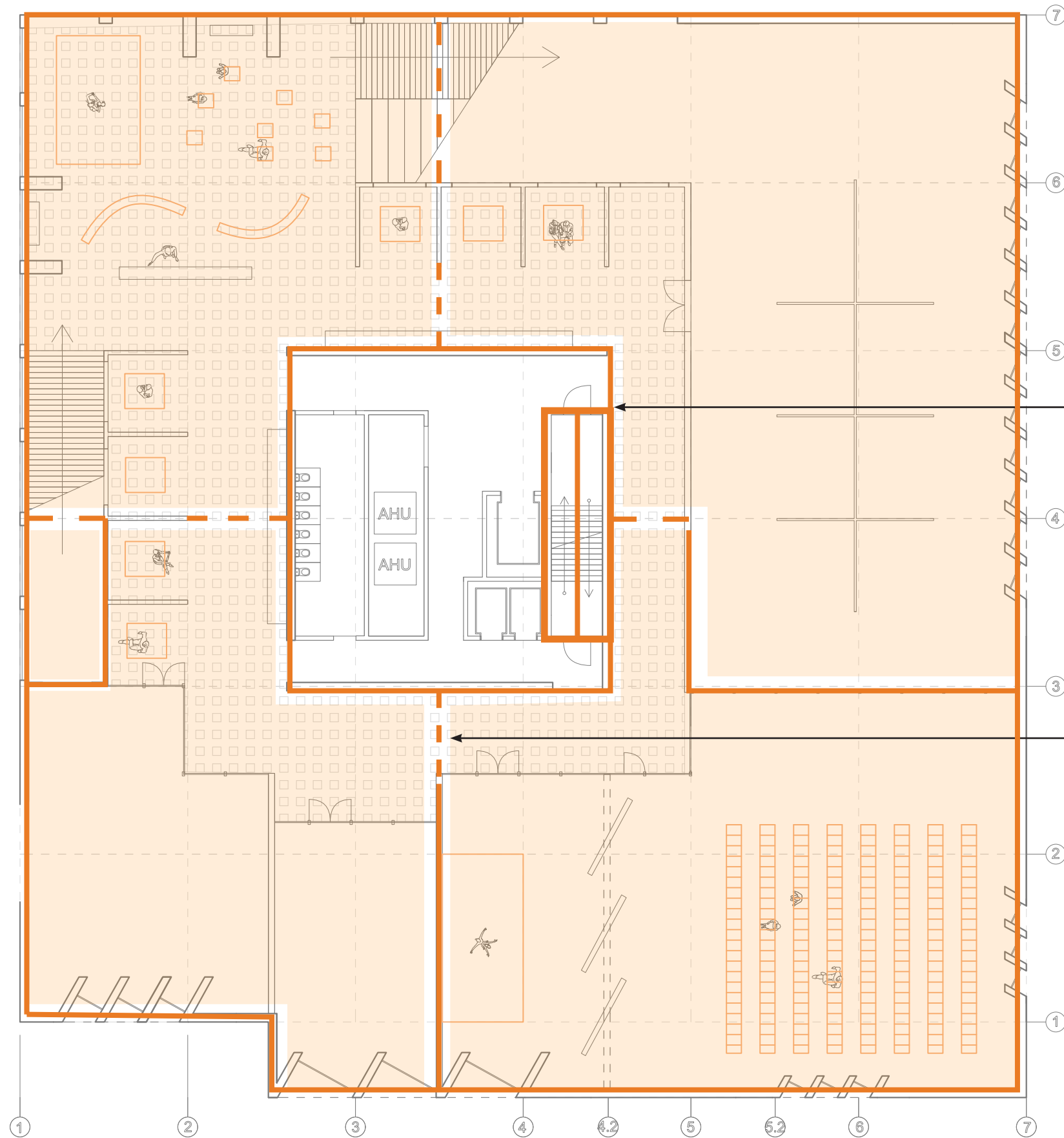


CLIMATE DIAGRAM

Summer



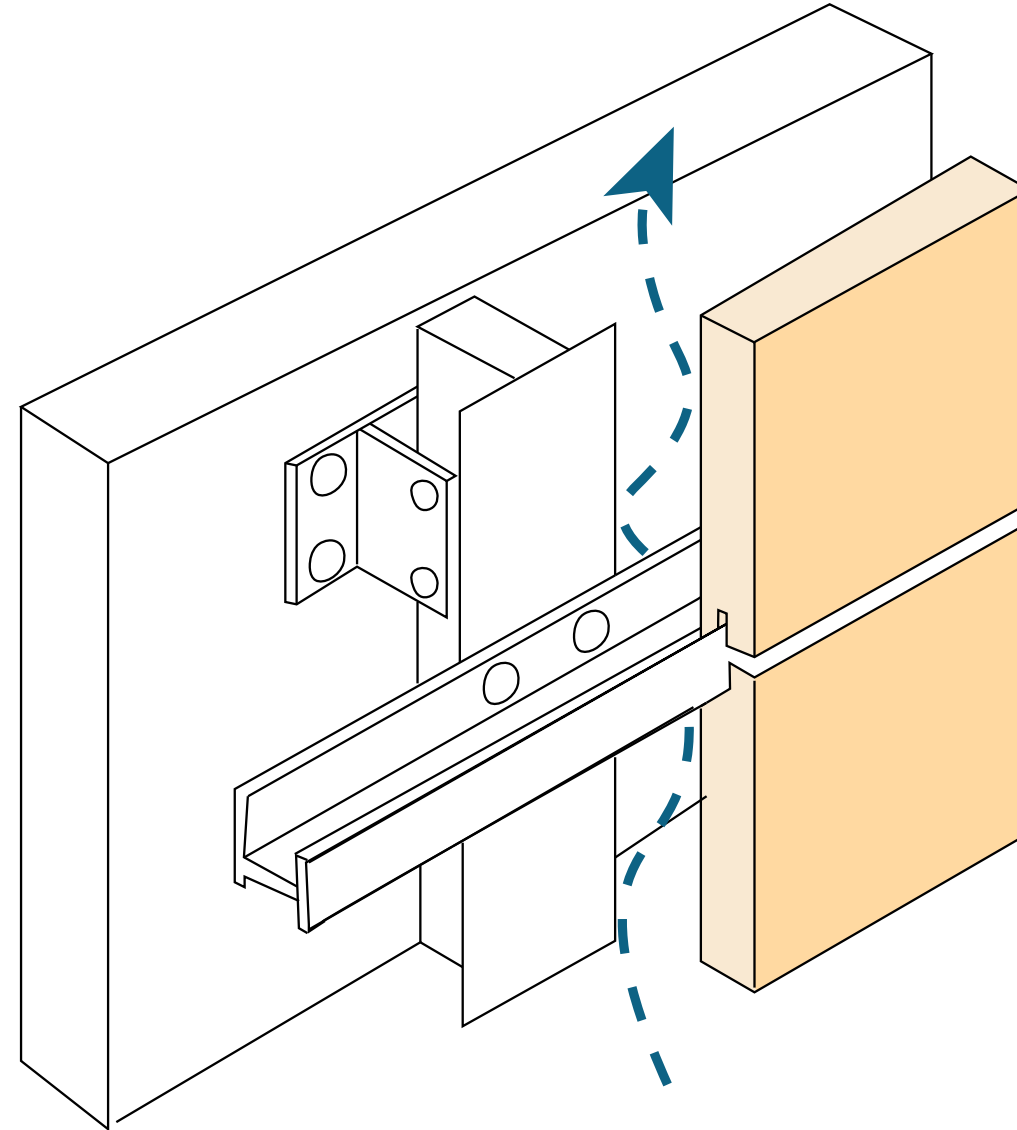
FIRE SAFETY PLAN



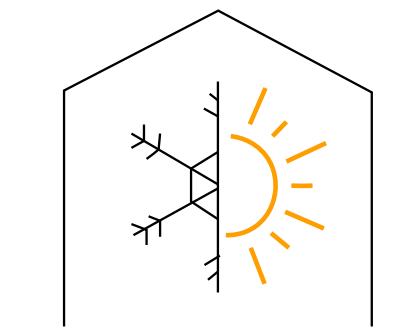
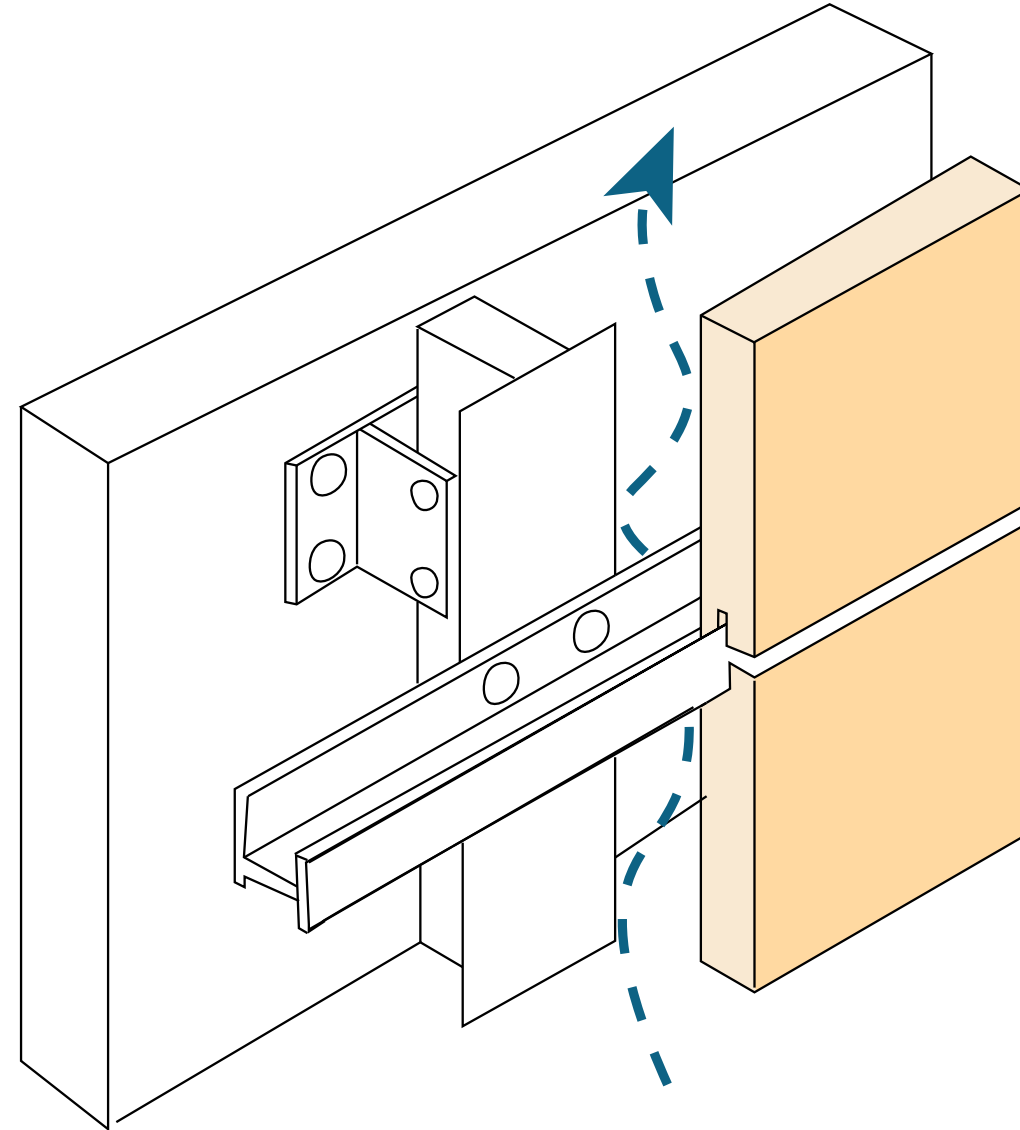
scissor stairs
escape routing

smoke curtains

VENTILATED FACADE

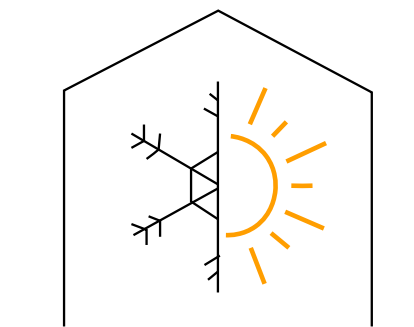
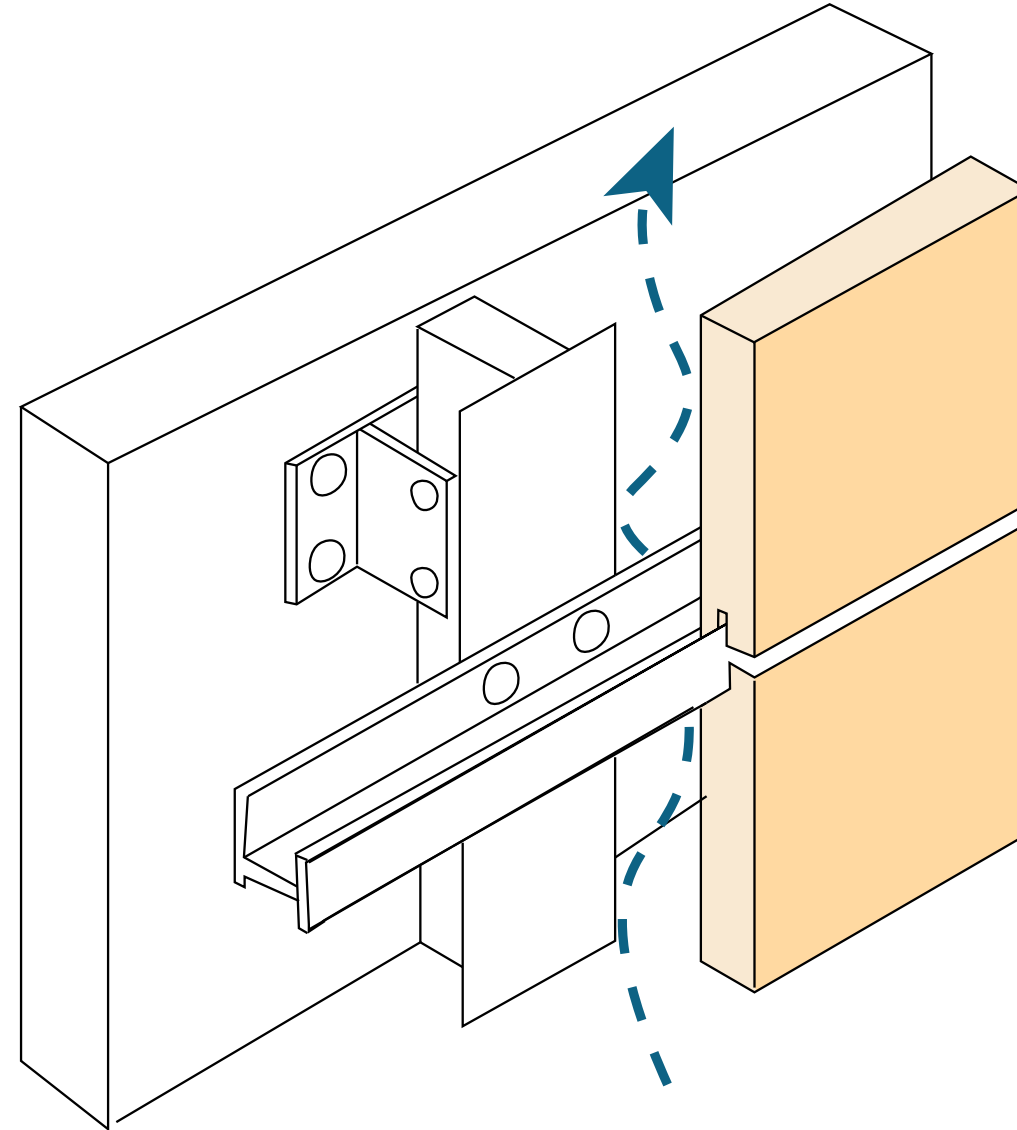


VENTILATED FACADE

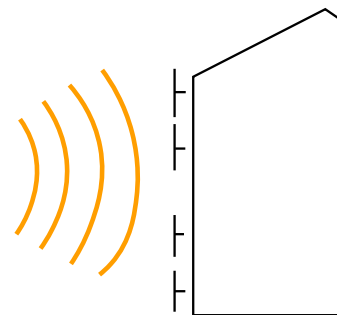


Thermal insulation
constant and uniform

VENTILATED FACADE

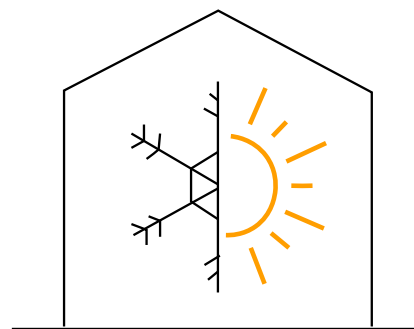
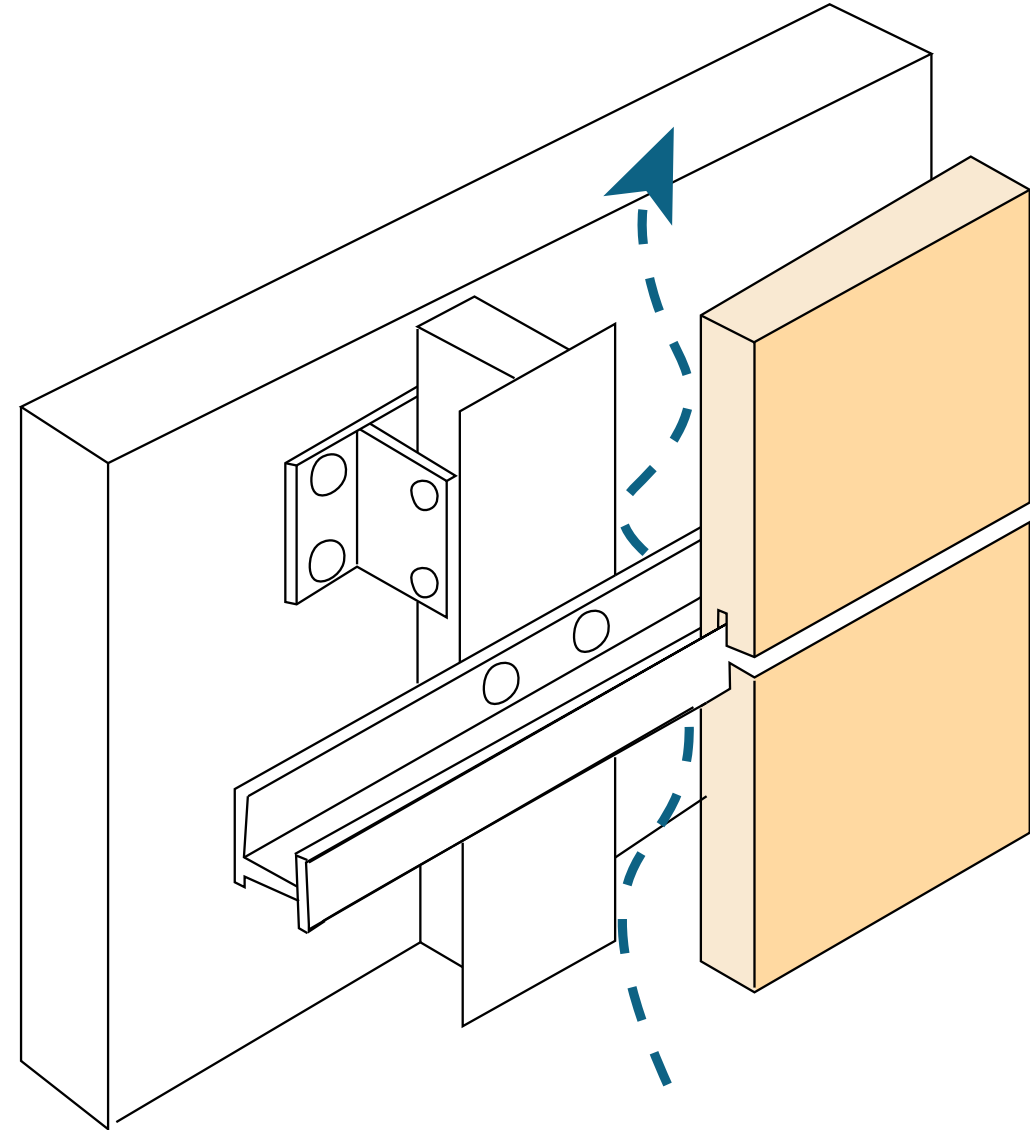


Thermal insulation
constand and uniform

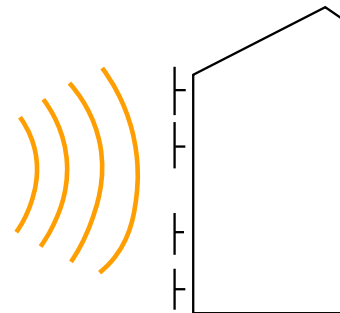


Acoustic insulation
for greater comfort

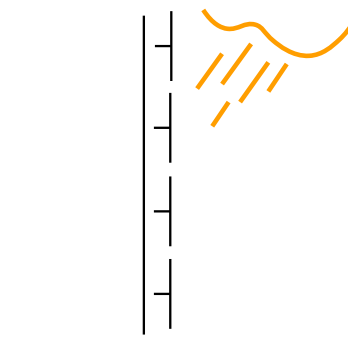
VENTILATED FACADE



Thermal insulation
constant and uniform

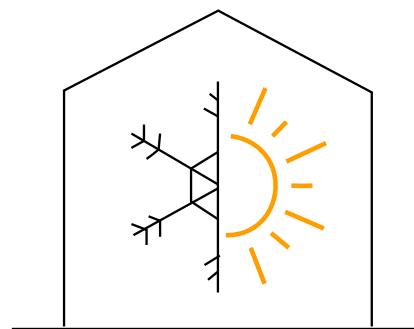
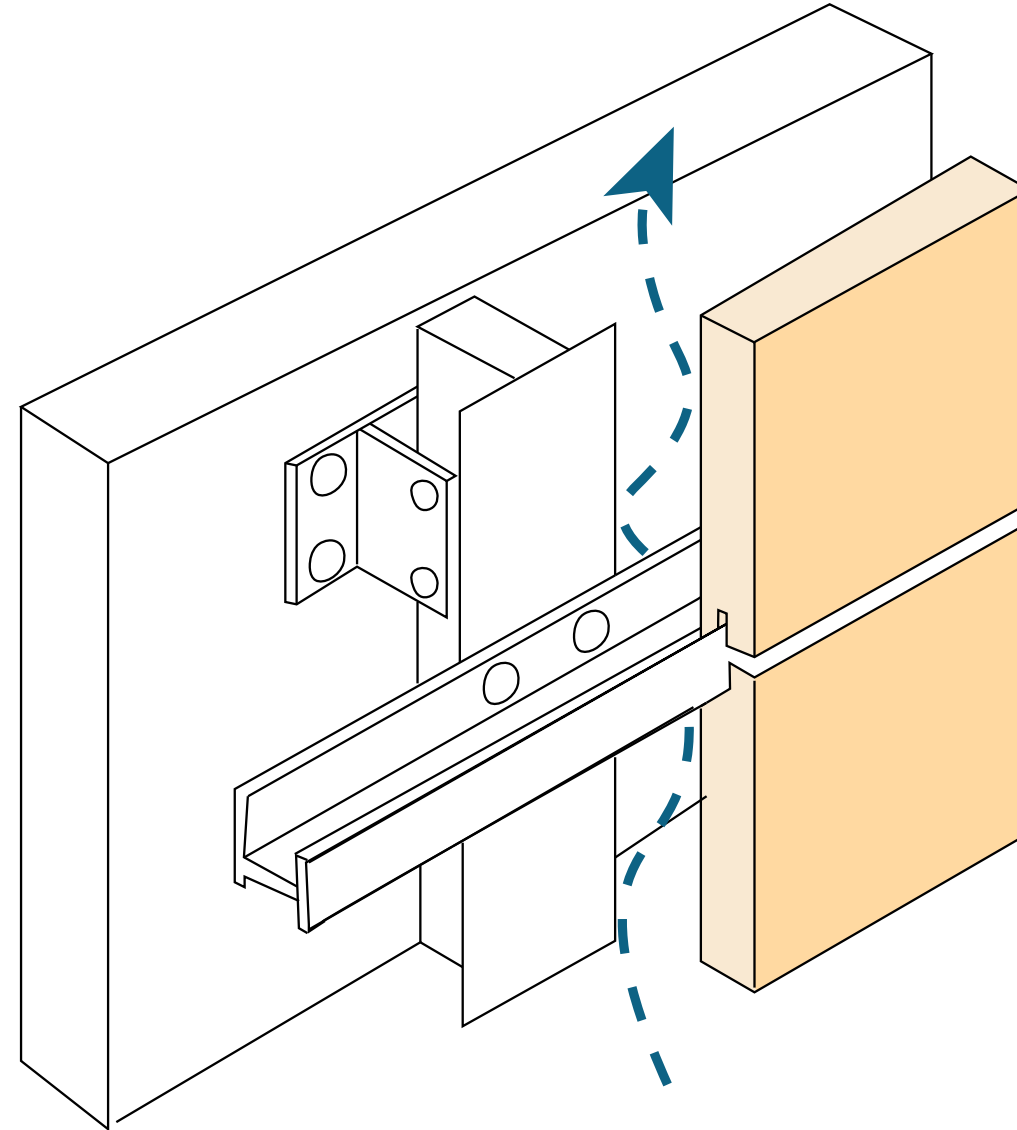


Acoustic insulation
for greater comfort

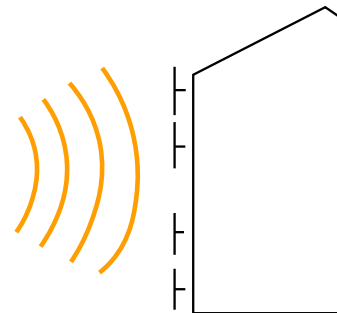


Protection
to safeguard the structure

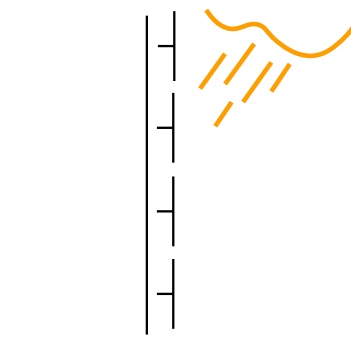
VENTILATED FACADE



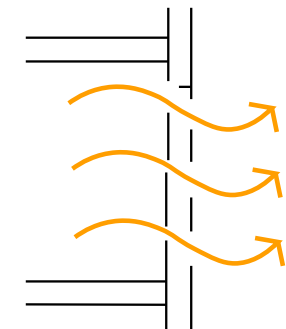
Thermal insulation
constant and uniform



Acoustic insulation
for greater comfort



Protection
to safeguard the structure

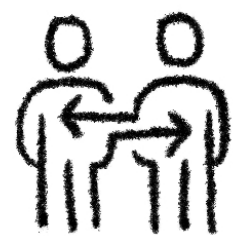


Breathability
for maximum interior comfort

CONCLUSION

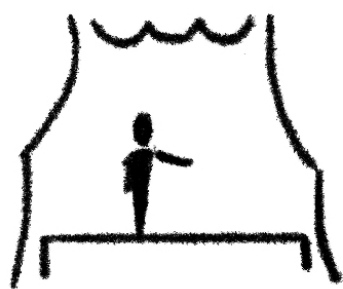
05

GOALS



The building must encourage active participation inside and outside its walls.

Active participation will support ongoing exchange, where individuals become co-creators of knowledge rather than passive users.



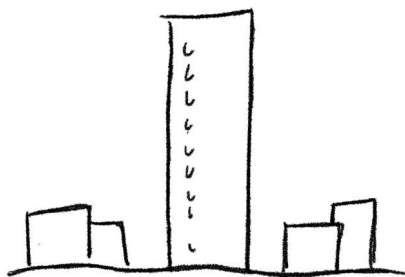
The library must serve as a collection of stages for creativity and technology.

These “pockets of exchange,” in varying scales and formats, allow users to demonstrate, perform, and share their skills, encouraging others to join and learn.



The design must create a strong physical and social link with the surrounding neighborhoods.

By creating this connection the diverse society can come together and exchange ideas.



The building should be a landmark for creation and technology

The library should inspire visitors to contribute in creation and technology by being an eye catcher. Seeing - getting inspired - participating

ACTIVE PARTICIPATION INSIDE AND OUTSIDE

Goals



Several activities in and around the building.
creating public space around the building.

COLLECTION OF STAGES FOR CREATION

Goals



on every floor there is a open flexible performance/ exhibition space to pique interest.

LINK TO SURROUNDINGS

Goals



By its location the building is placed in the direct centre of multiple areas. The building connects to the site interacting with the park and the historic remains and continuing axes through building.

LANDMARK



The building serves as a landmark by its location, breaking the axes and program, performing as a stage for creation and technology.

POCKETS OF EXCHANGE



POCKETS OF EXCHANGE

THANK YOU!

