

MEDIAHEIM BERLIN

MEDIATHEQUE & COMMUNITY LOUNGE, FRIEDRICHSHAIN

Public Building P5

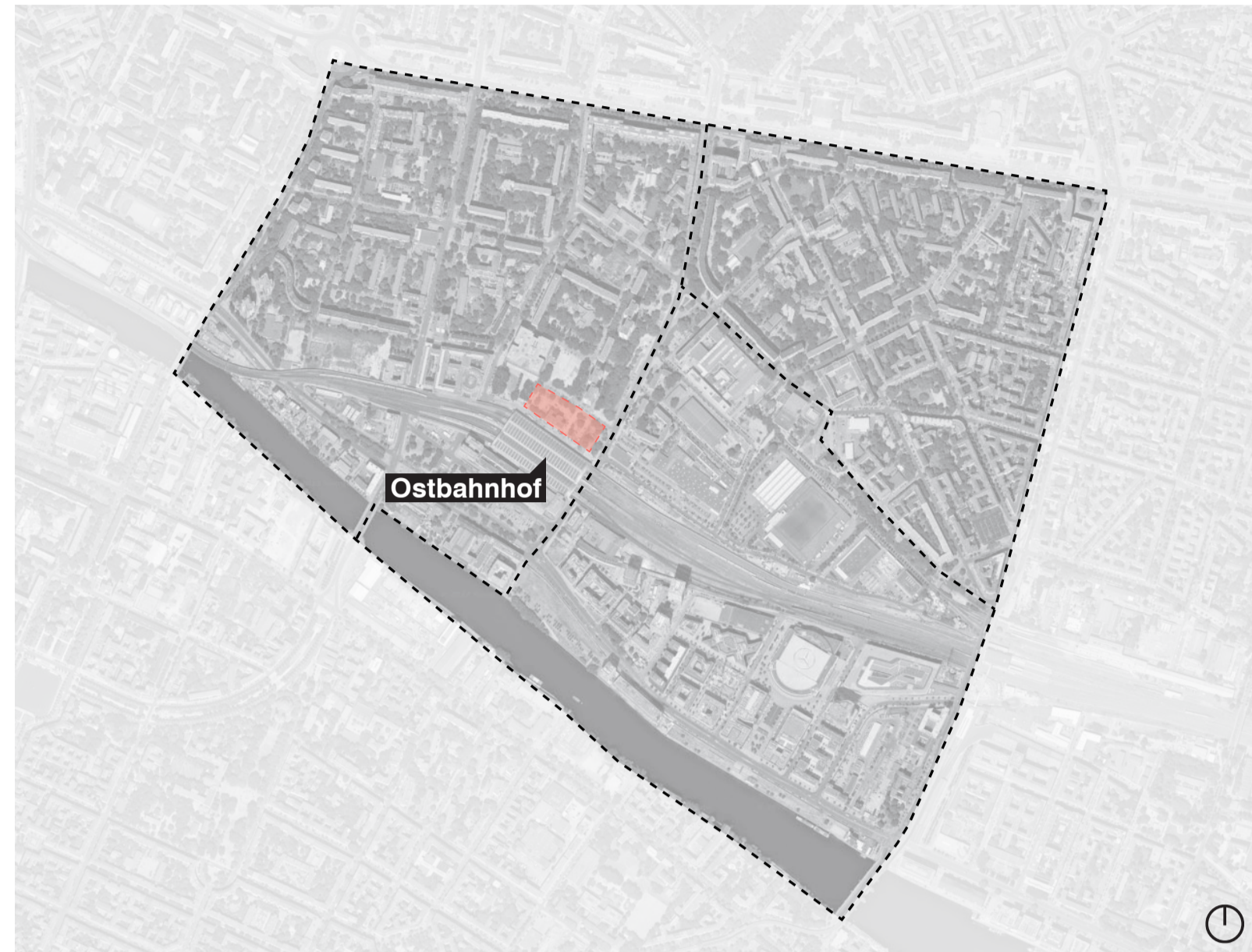
Public Condenser 2022-2023

Iris van der Moolen | 5482887

Located north of Ostbahnhof in Berlin lies the plot for Friedrichshain's new media library. Friedrichshain is an excellent example of a gentrifying district where new residential towers rise from the ground, and the rents of existing housing go up. Local residents often have to move to areas further outside the city centre, and others lose connection with their familiar neighbourhood. In addition, the railway station creates a strict separation between the district's northern and southern neighbourhoods.

The media library will become a new cultural heart for the emerging and existing neighbourhood and society. Besides a public library, it will also function as an urban lounge where different generations can interact and cohabit. The current buildings will be demolished to activate the back of the station. The new building will connect the station, offices, residential buildings and the future school.

The programme consists of 12 activities, each with its own character. The activities are organised according to the usual process of acquiring knowledge: read, learn, debate, create and present. The library is part of the building's circulation and connects the different activities through its spiral route. The staircase is in a different place on each floor and offers visitors a different view each time. In short, the media library will serve as an urban living room where different generations can interact and cohabit. The design focuses on diversity, visibility, interactivity and flexibility to create a new central heart for contrasting neighbourhoods.



PROJECT LOCATION



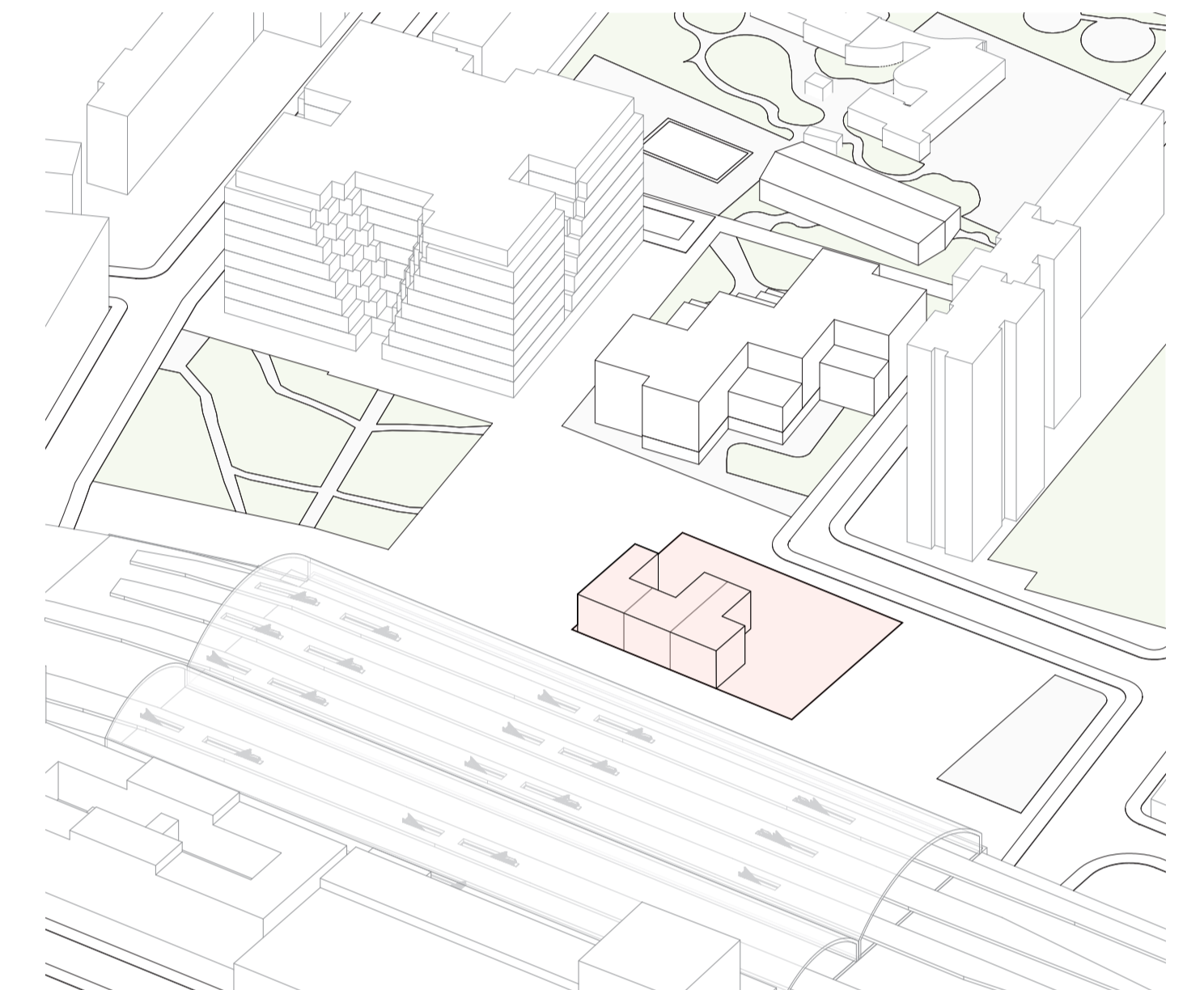
SITE CONDITIONS



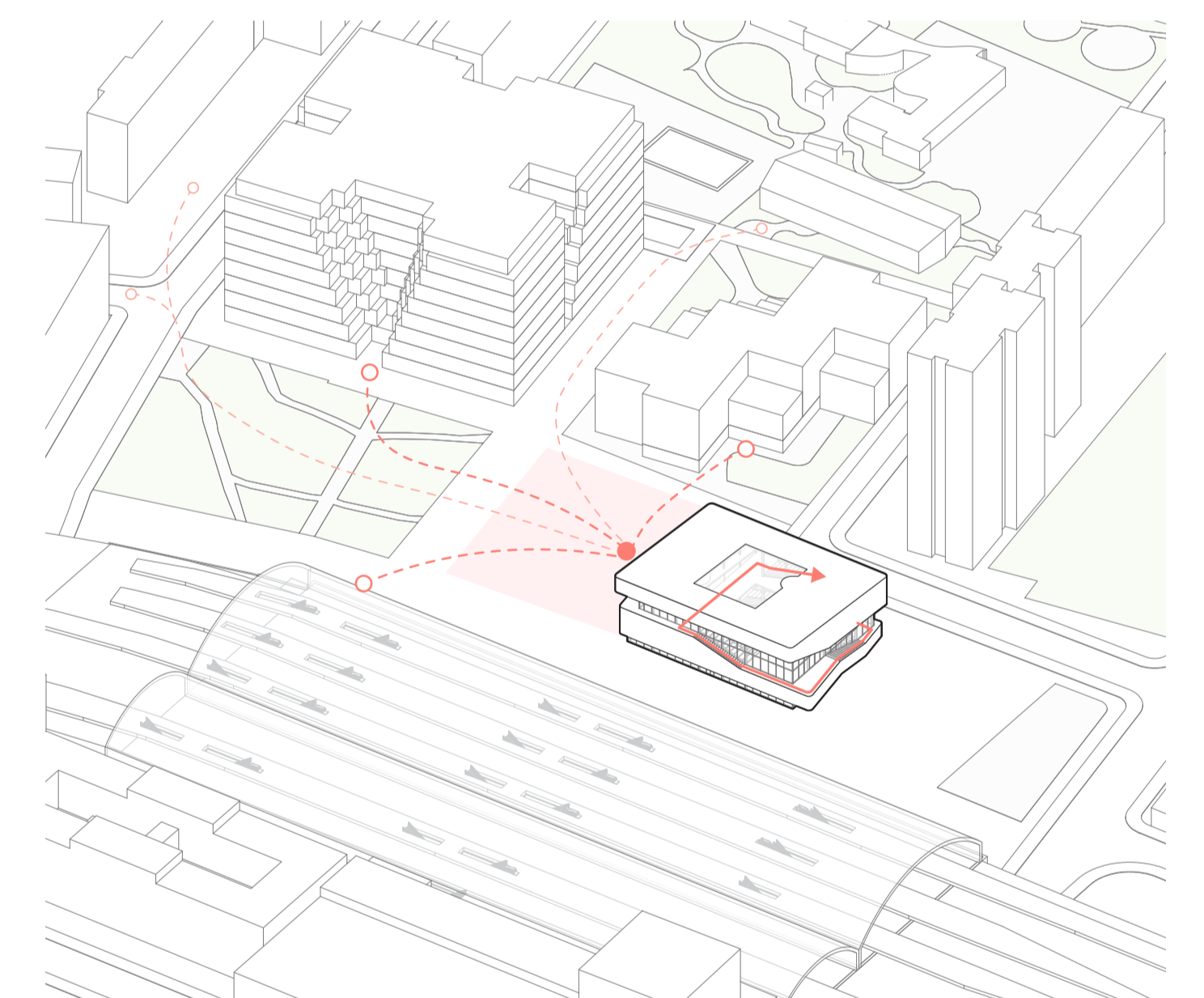
IMPRESSION FROM SOUTH SIDE OF THE MEDIATHEQUE AND COMMUNITY LOUNGE



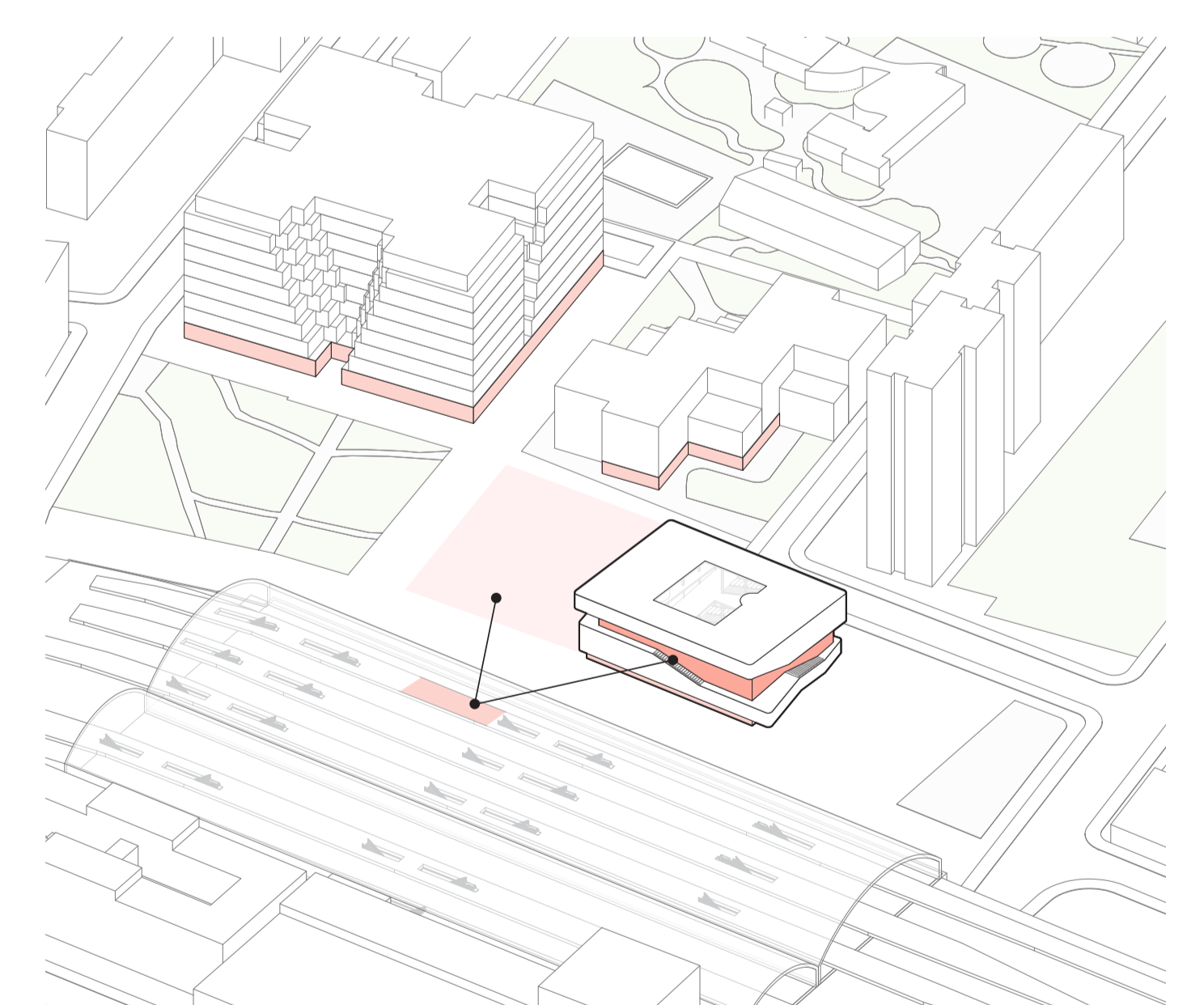
SITE PLAN, SCALE 1:500



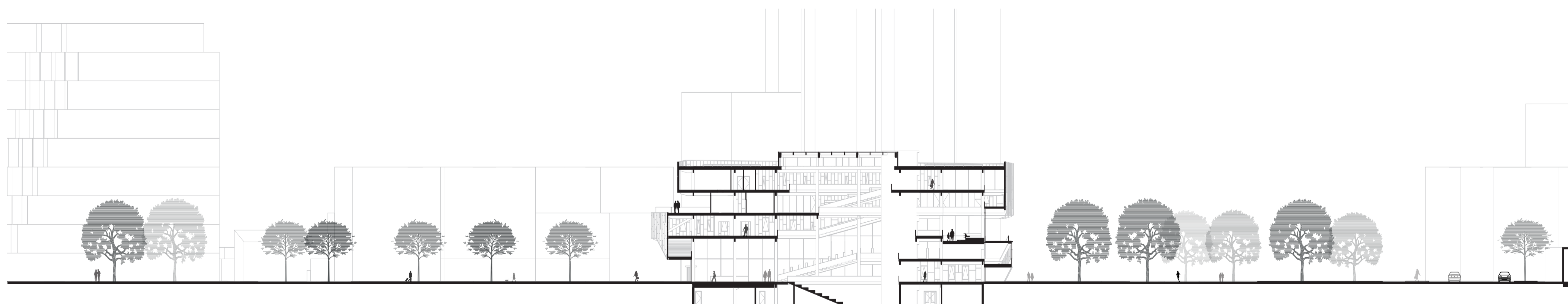
CURRENT SITE CONDITIONS



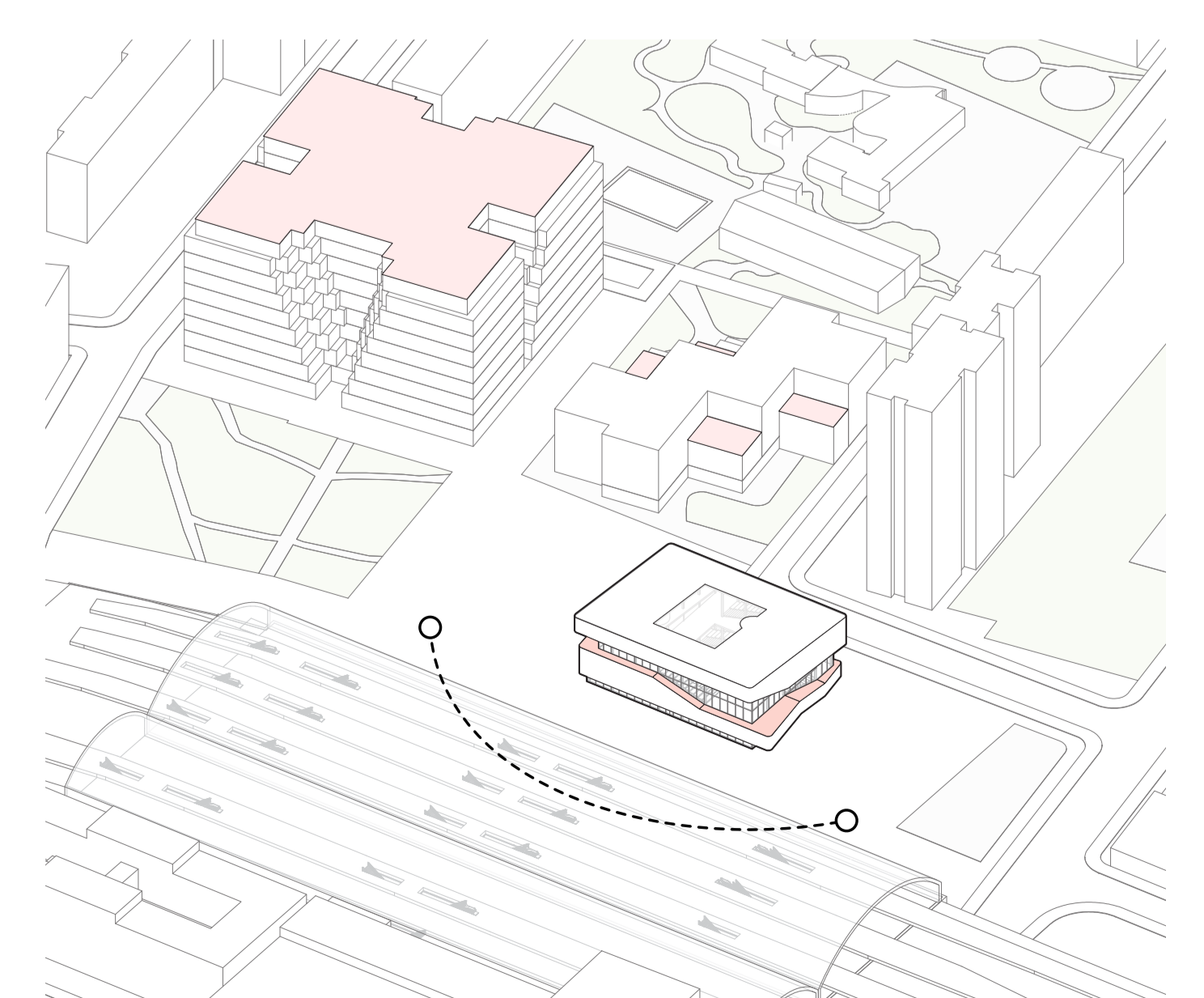
EXTENSION OF THE STREET



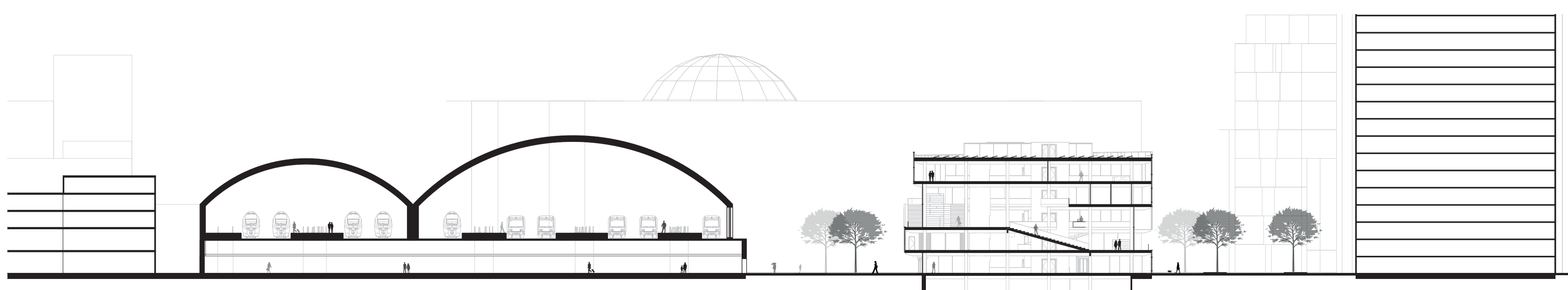
LIBRARY AS CONNECTING ELEMENT



LONGITUDINAL SECTION, SCALE 1:500



UTILISING OUTDOOR SPACES



CROSS SECTION, SCALE 1:500

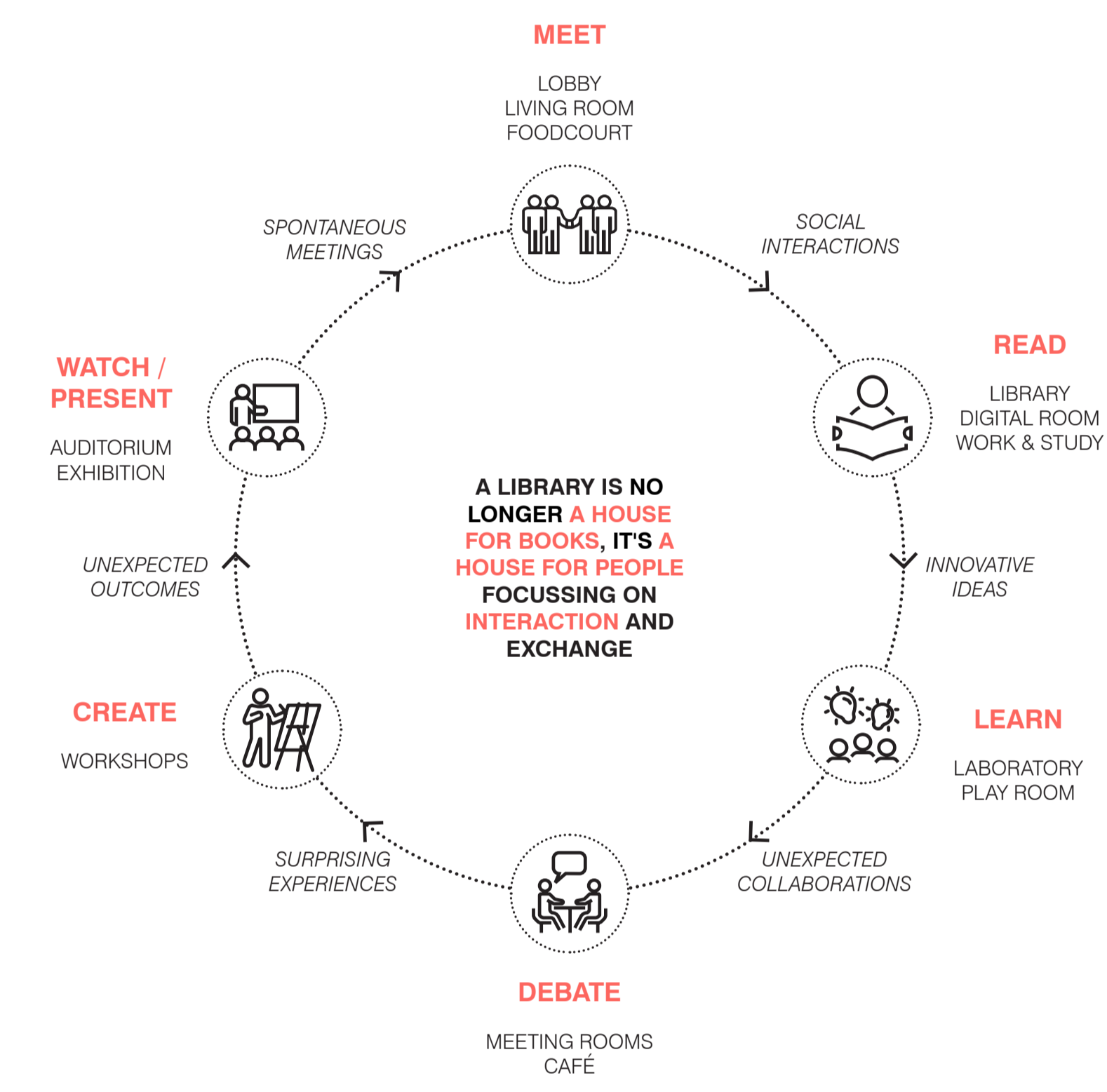
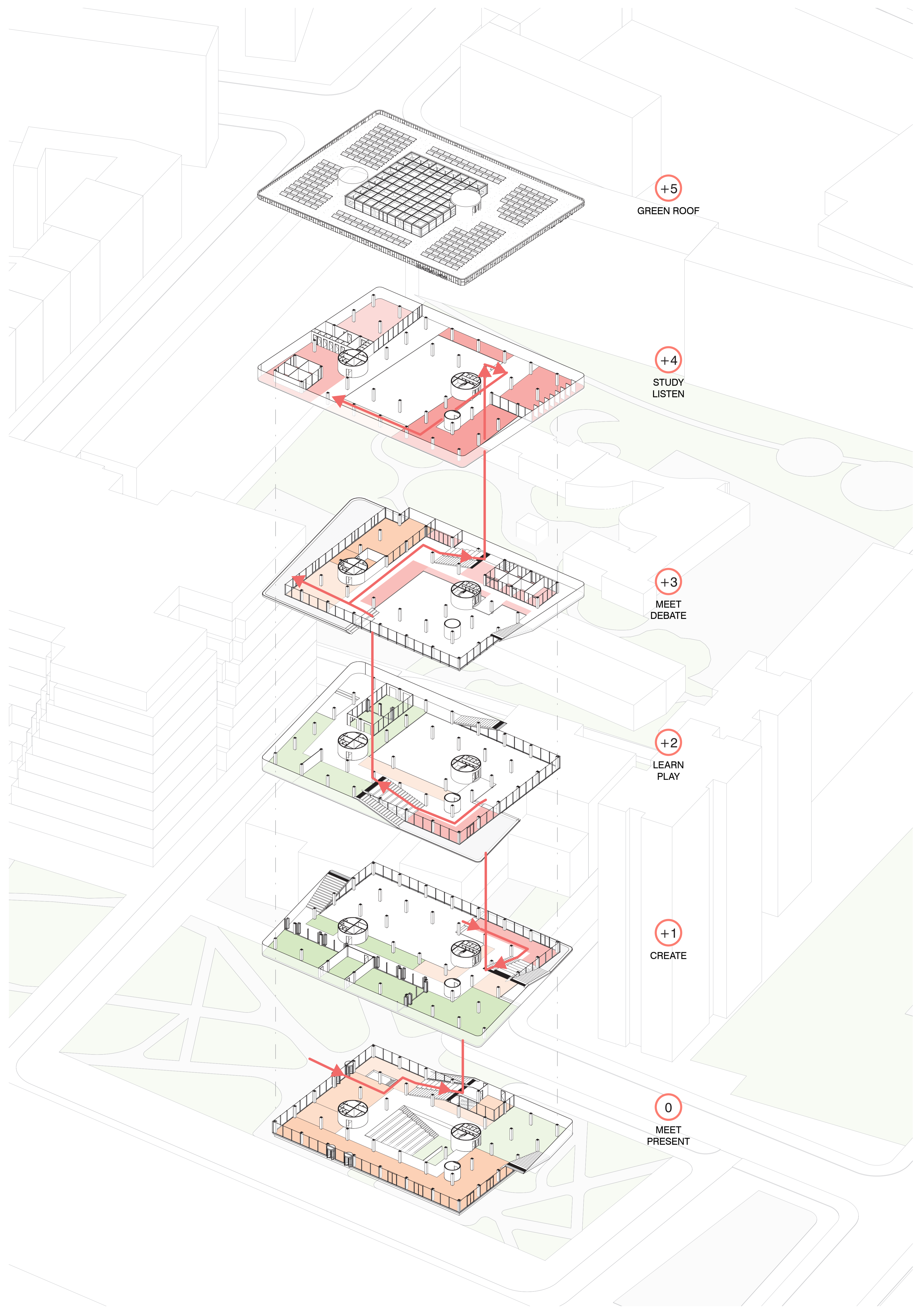
MEDIAHEIM BERLIN

MEDIATHEQUE & COMMUNITY LOUNGE, FRIEDRICHSHAIN

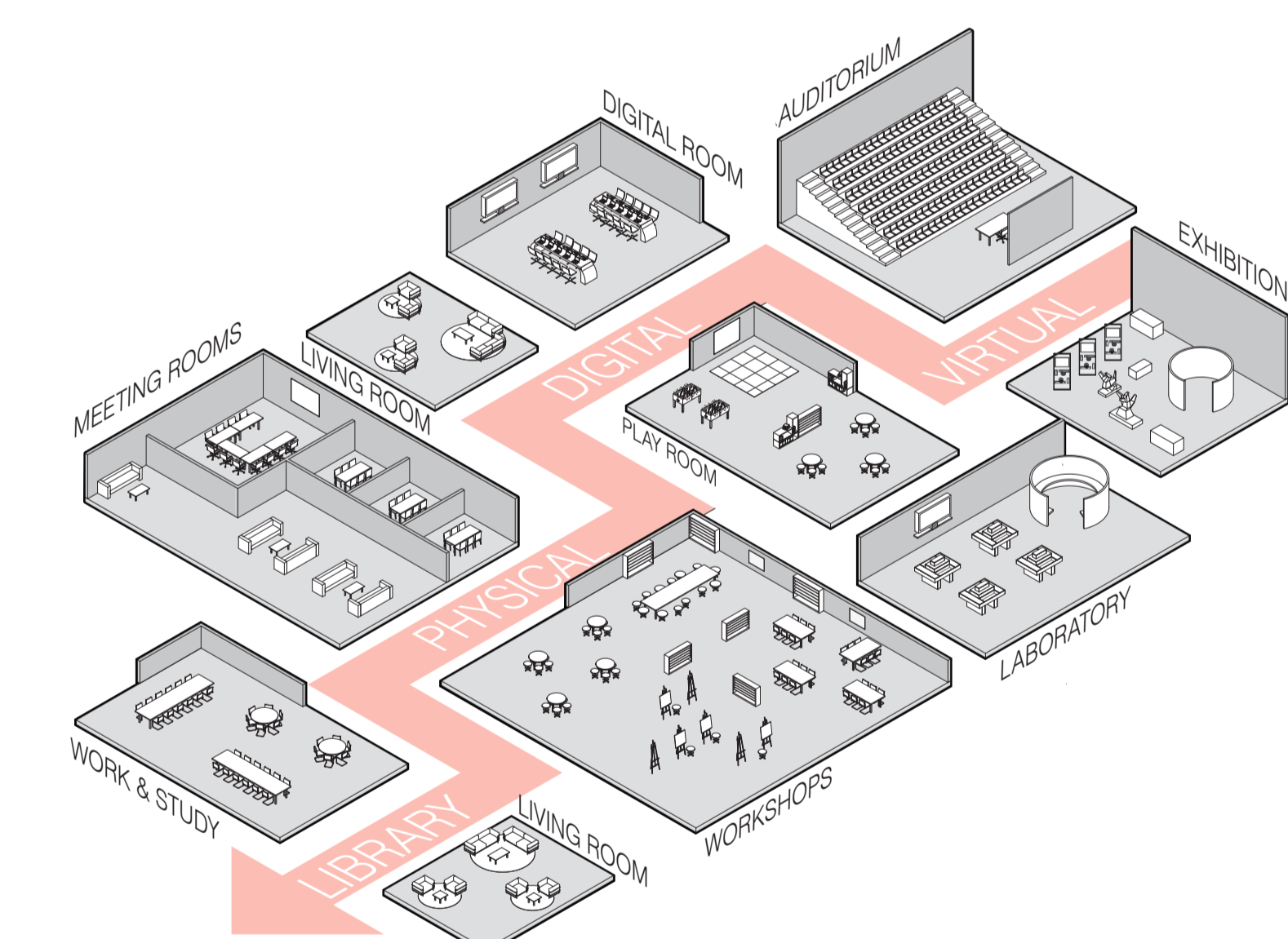
Public Building P5
Public Condenser 2022-2023
Iris van der Moolen | 5482887

Category	Activity	Area (m²)	Percentage	Room Type	Area (m²)
INTELLECTUAL	Operate	180	4%	Offices	180
	Debate	270	6%	Meeting rooms	270
	Focus	450	10%	Library	450
	Study	495	11%	Digital room	180
	Work & Study	315		Work & Study	315
SOCIAL	Recreate	450	10%	Lounge	450
	Arrive	450	10%	Lobby	225
	Consume	675	15%	Parking	225
				Café	225
				Foodcourt	450
CREATIVE	Present	450	10%	Auditorium	225
	Learn	630	14%	Exhibition	225
				Laboratory	180
				Game area	180
				Play area	270
	Create	450	10%	Workshops	450

BUILDING PROGRAM 4,500m²

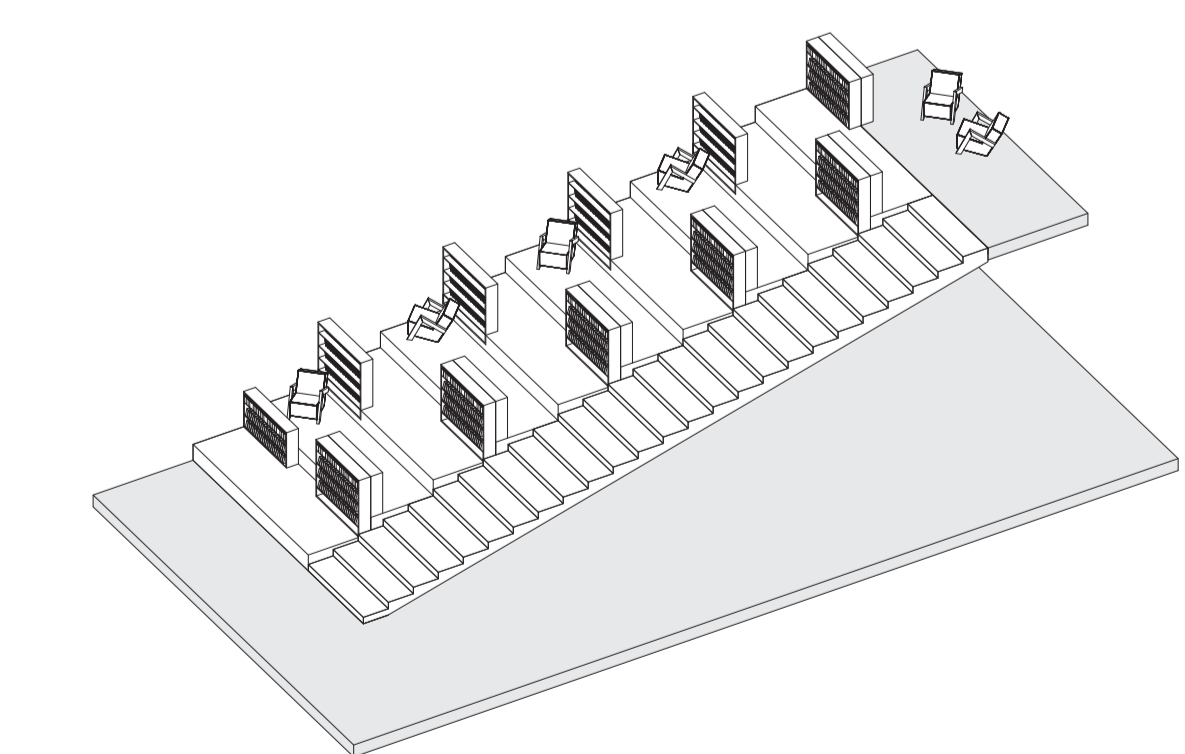


ORGANISATION BY THE CIRCLE OF LEARNING

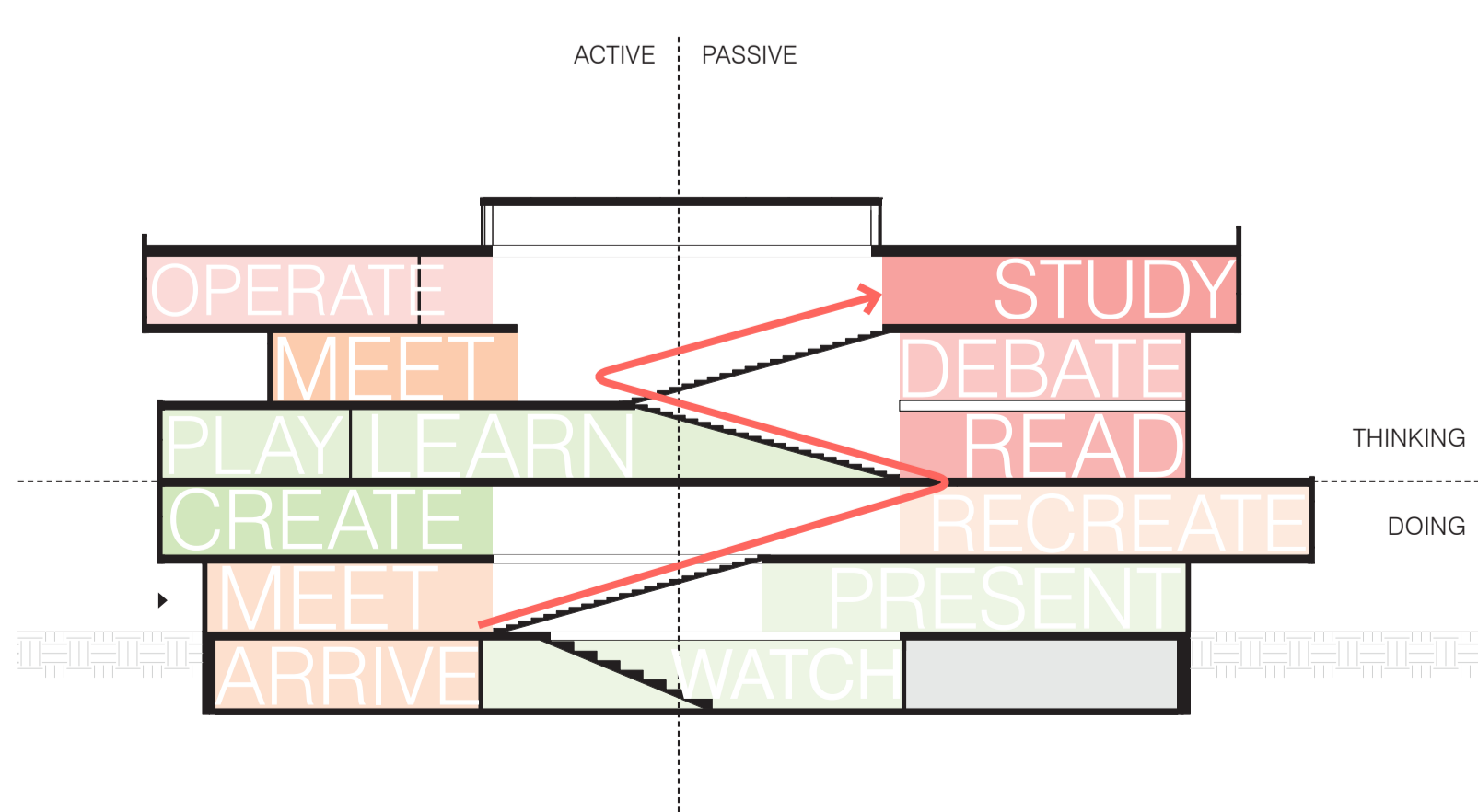


MEDIA TYPES USED IN BUILDING

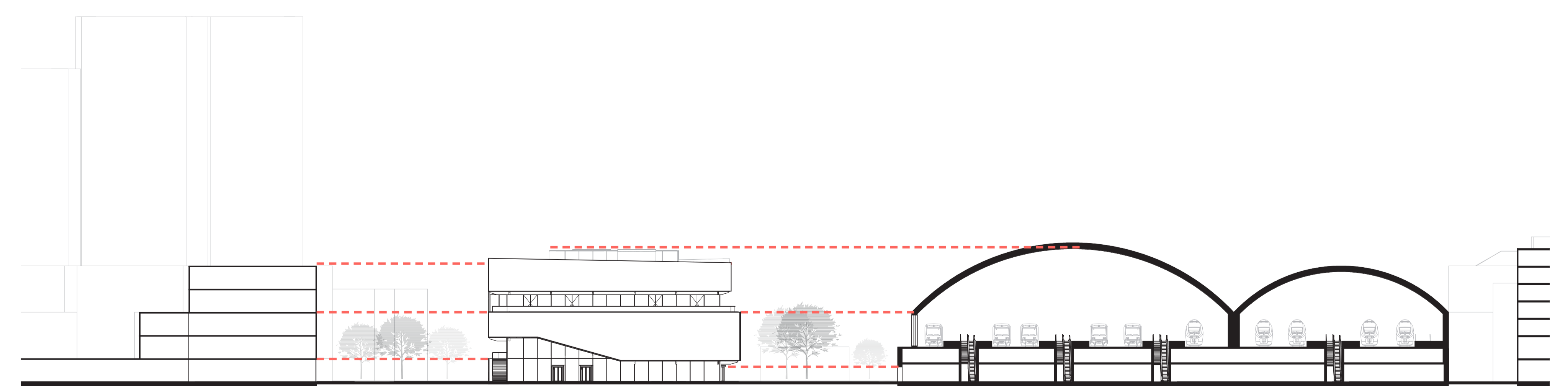
BUILDING ORGANISATION



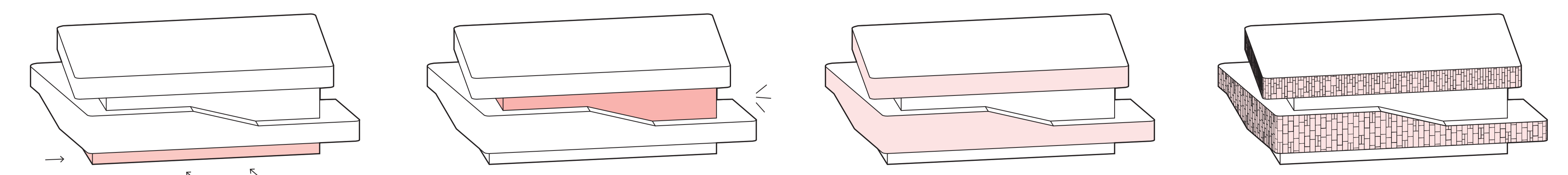
MULTIFUNCTIONAL CIRCULATION



PROGRAM ORGANISATION, SCALE 1:400



FACADE INTEGRATION IN SITE; WEST FACADE, SCALE 1:500



TRANSPARENT PLINTH

LIBRARY CLEARLY VISIBLE FROM OUTSIDE

OTHER FUNCTIONS ARE SEMITRANSSPARENT

FACADE PATTERN REFERS TO BOOKCASE

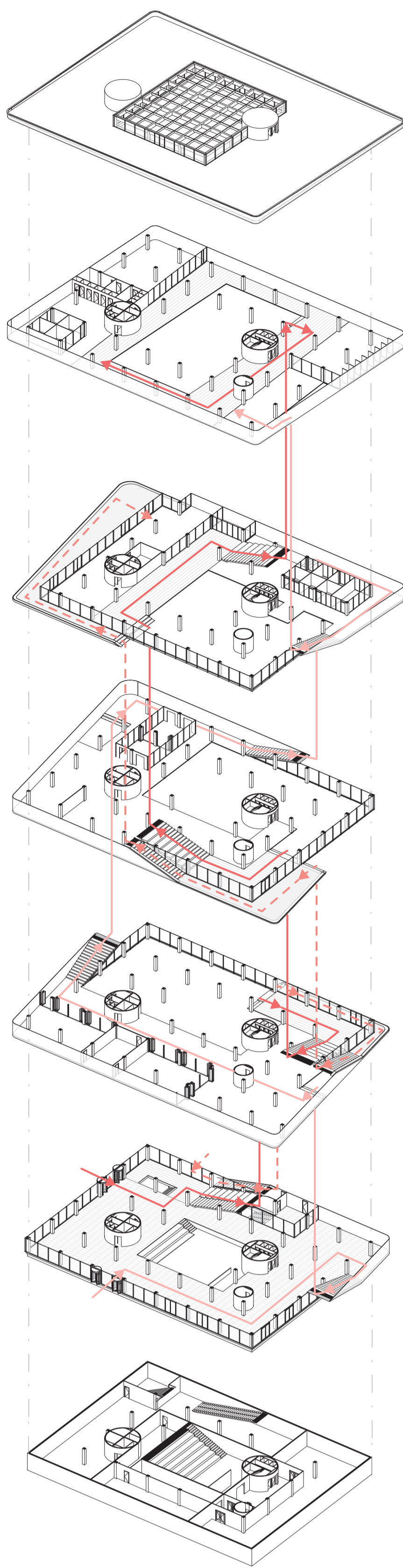
MEDIAHEIM BERLIN

MEDIATHEQUE & COMMUNITY LOUNGE, FRIEDRICHSHAIN

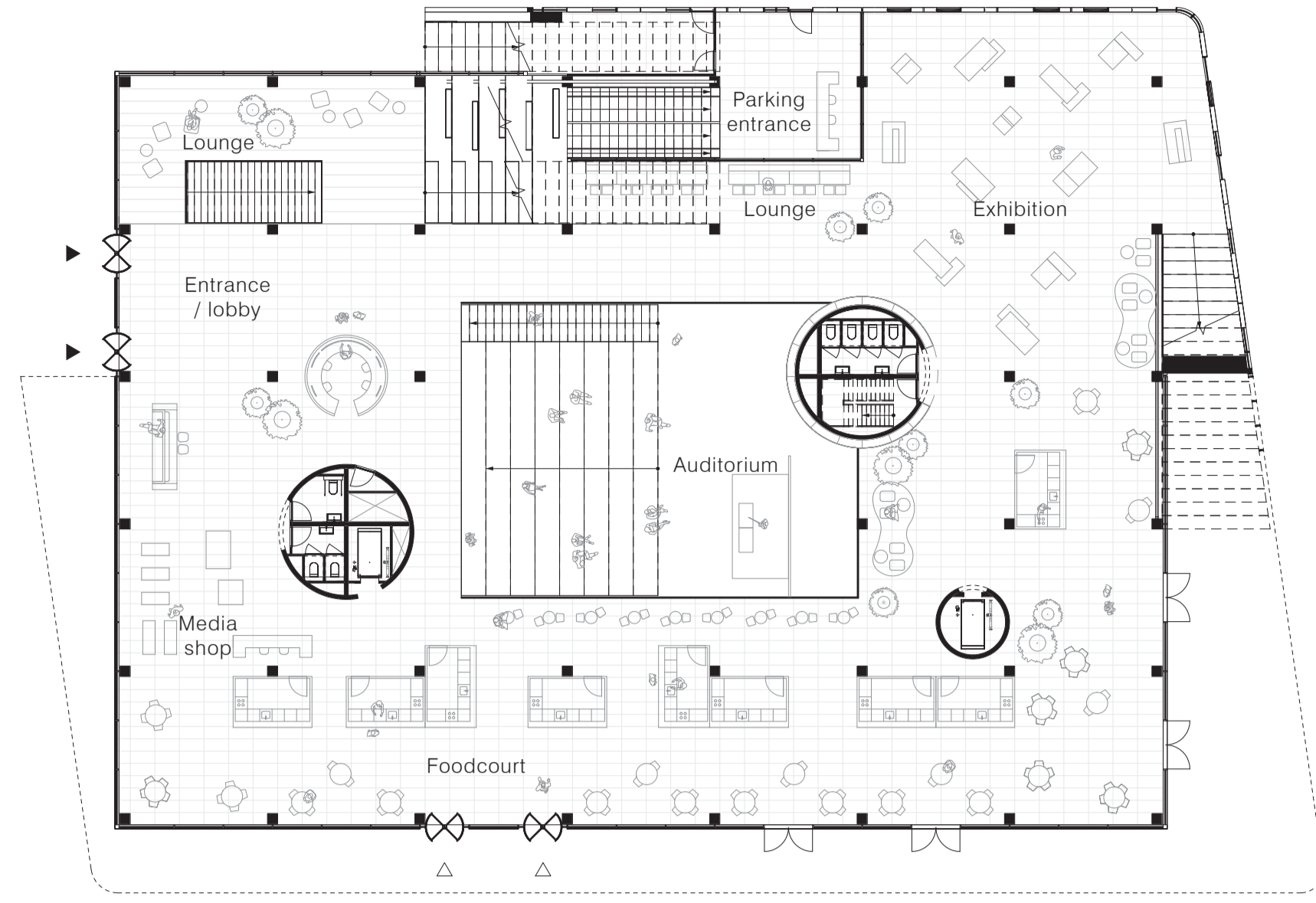
Public Building P5

Public Condenser 2022-2023

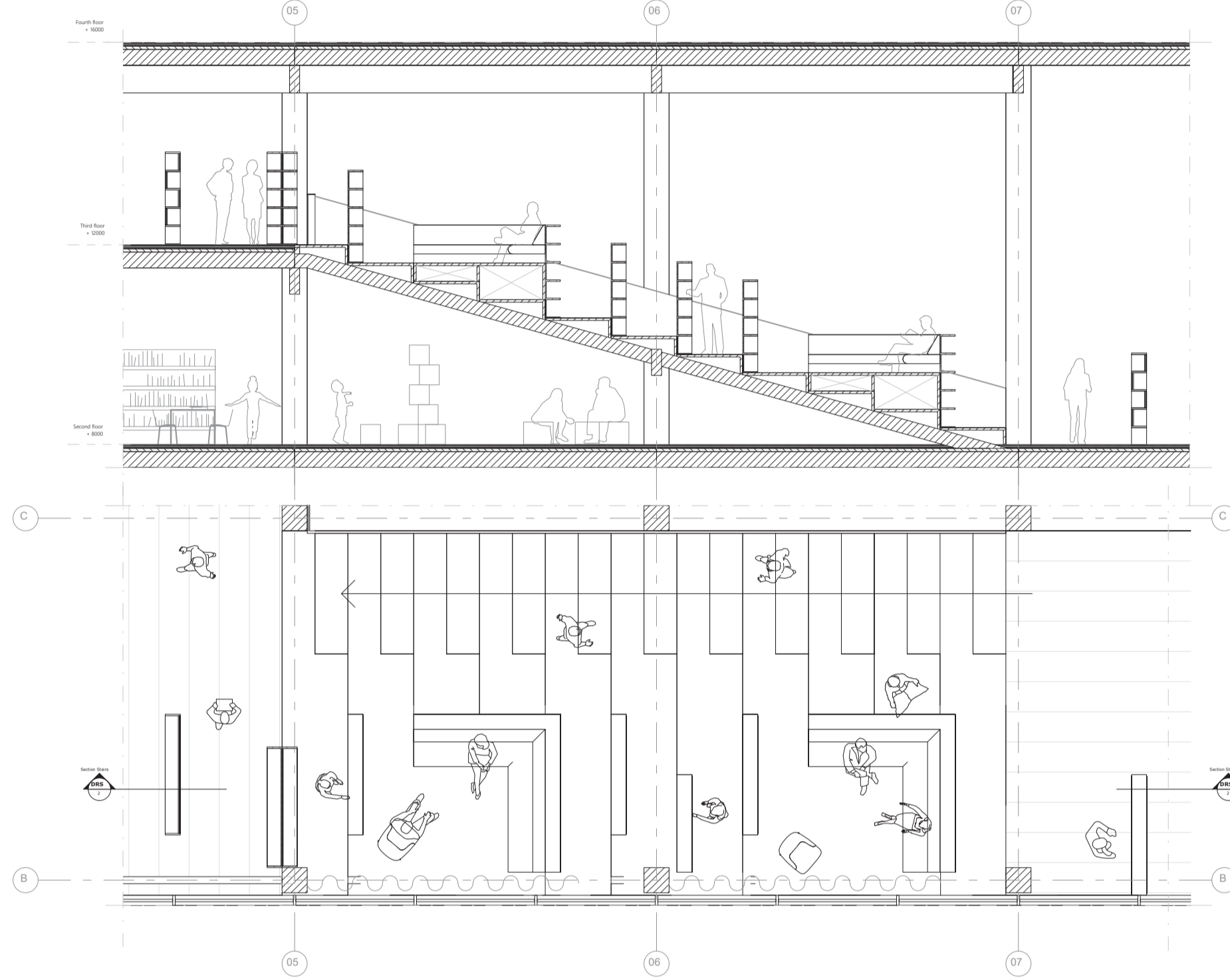
Iris van der Moolen | 5482887



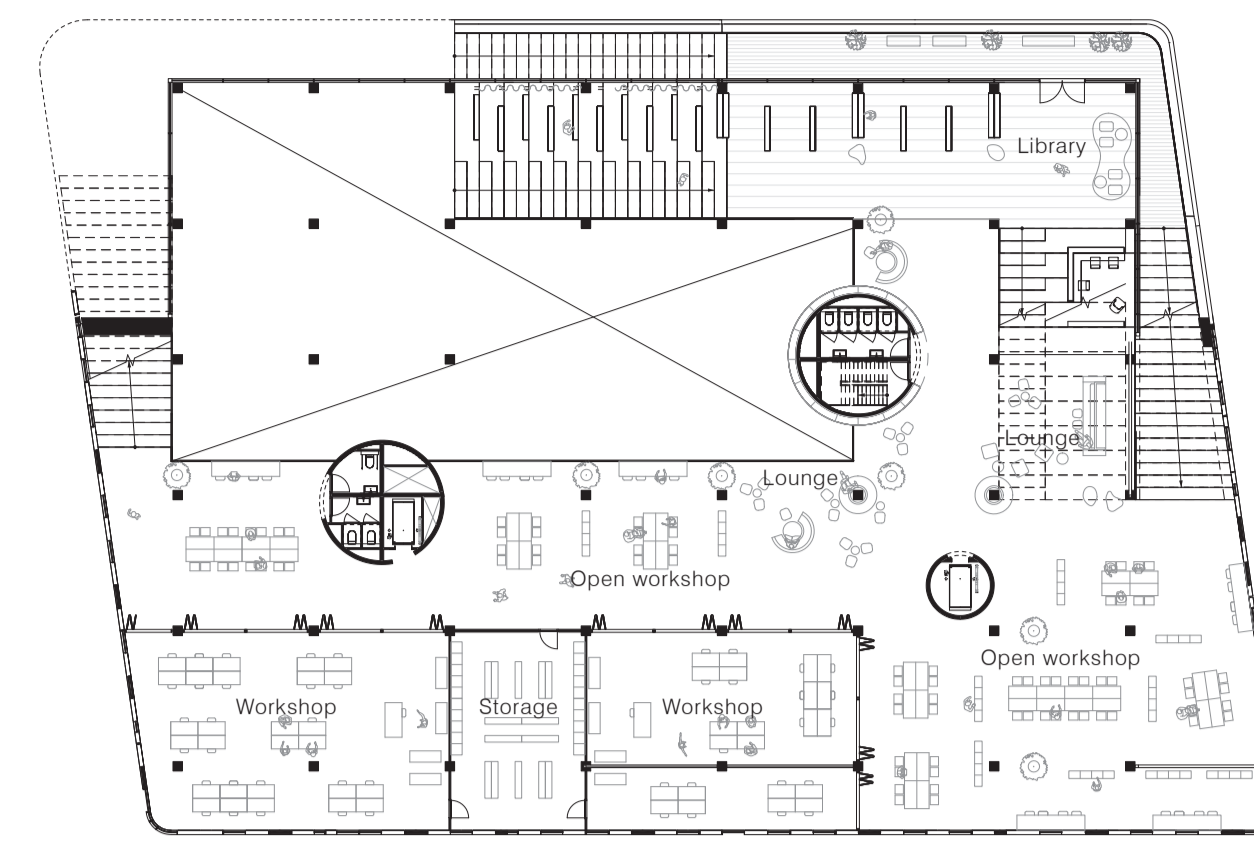
ROUTINGS THROUGH BUILDING



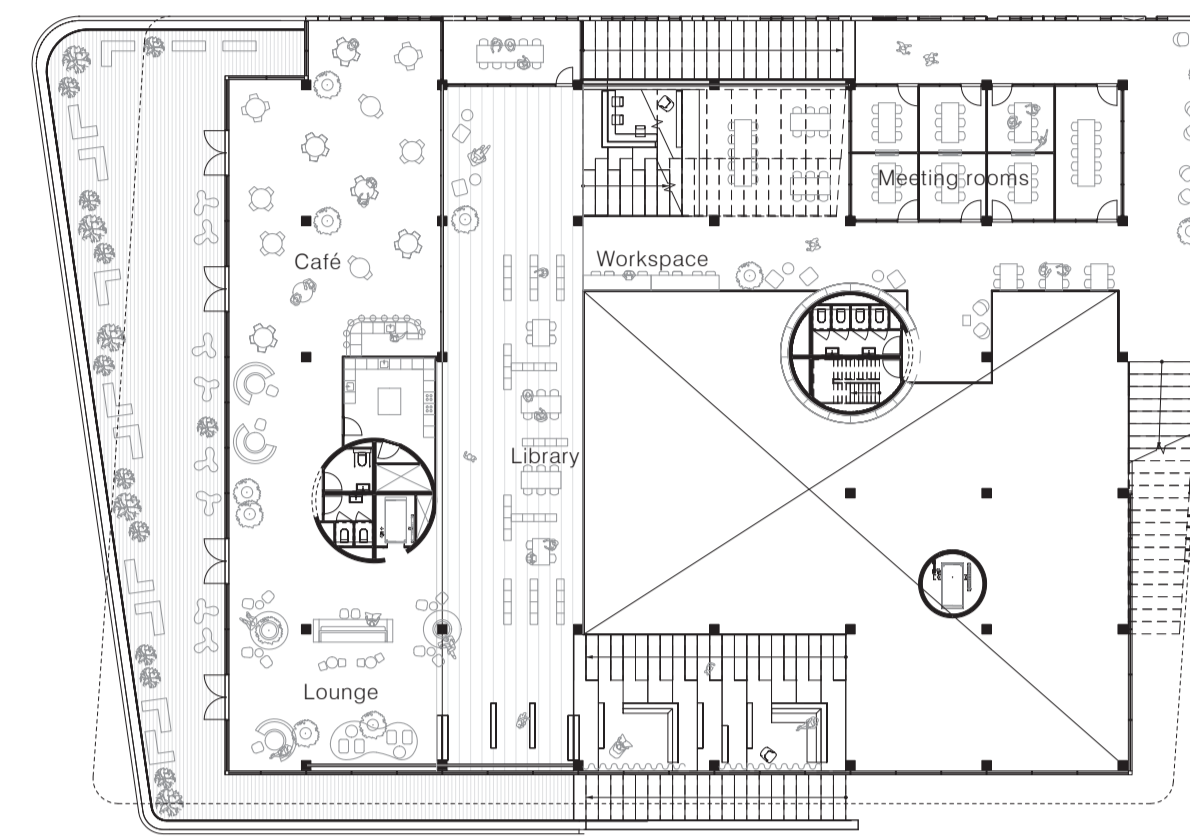
GROUND FLOOR



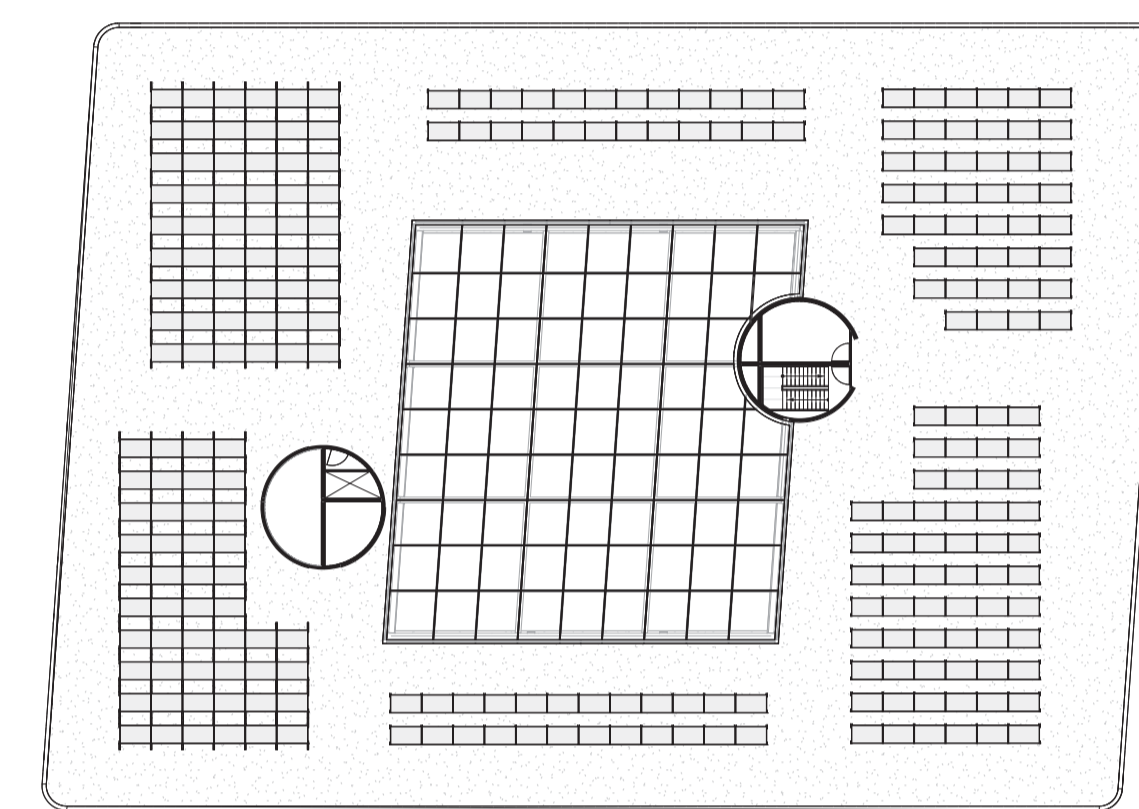
STAIR FRAGMENT, SCALE 1:100



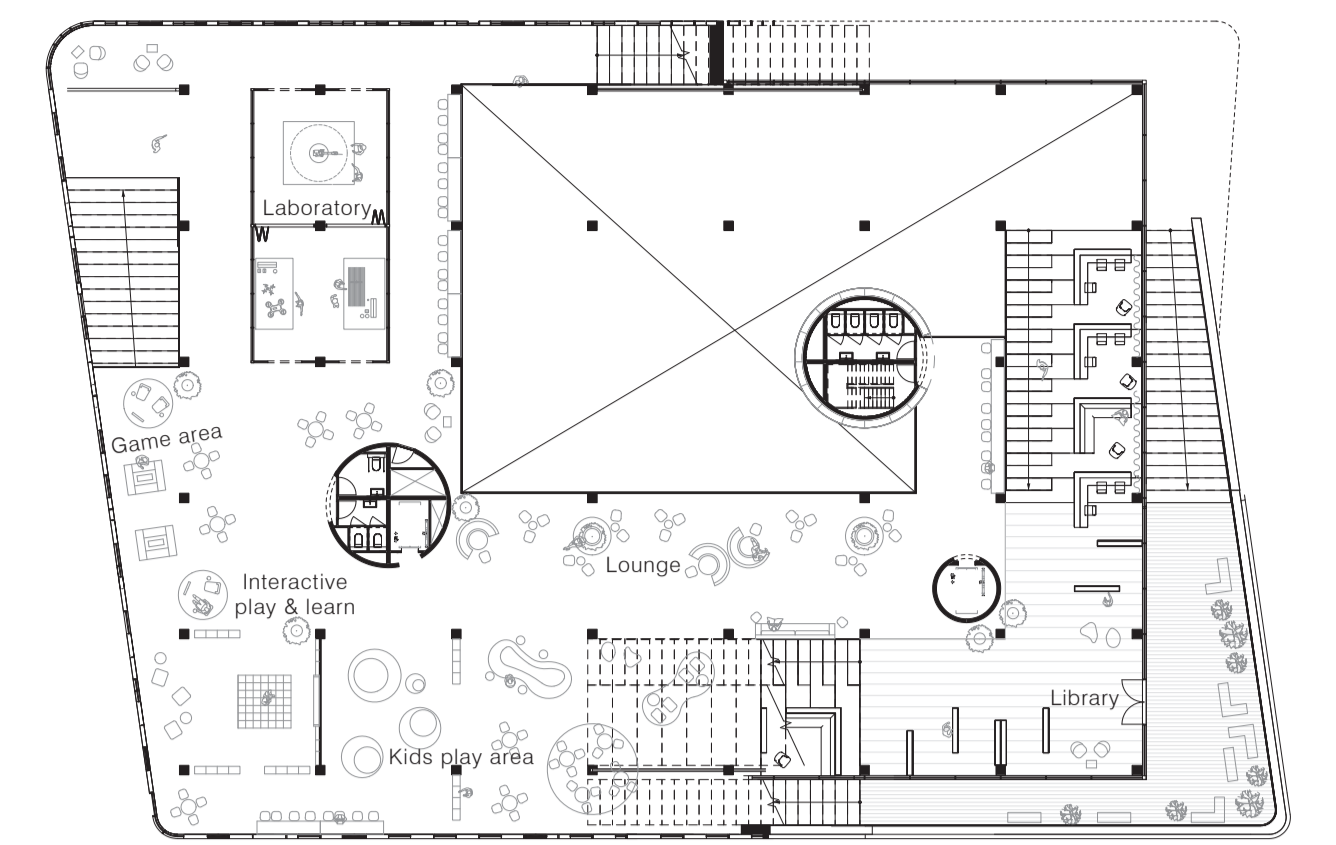
FIRST FLOOR, SCALE 1:400



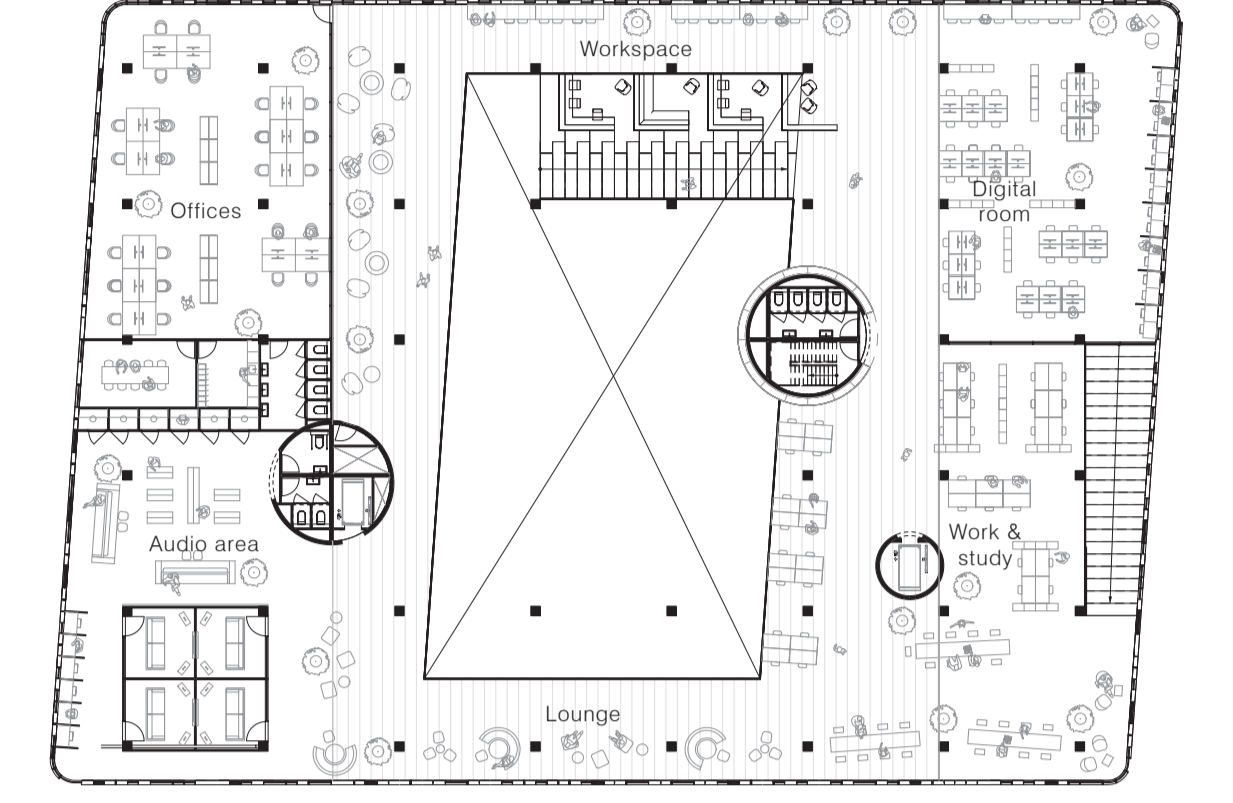
THIRD FLOOR, SCALE 1:400



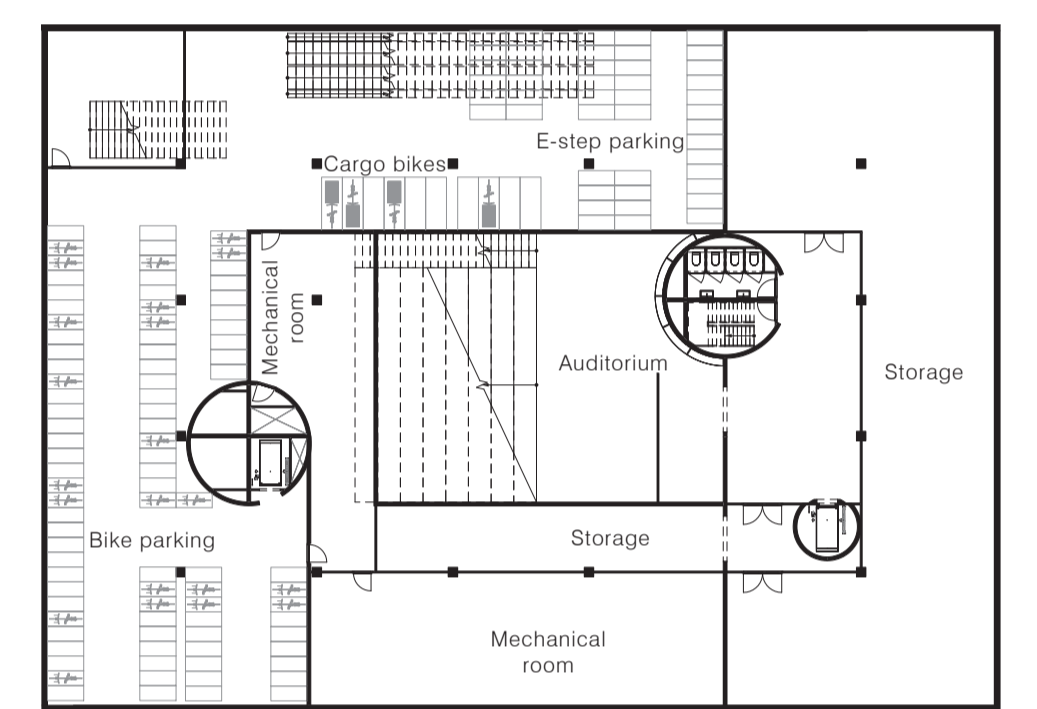
ROOF, SCALE 1:400



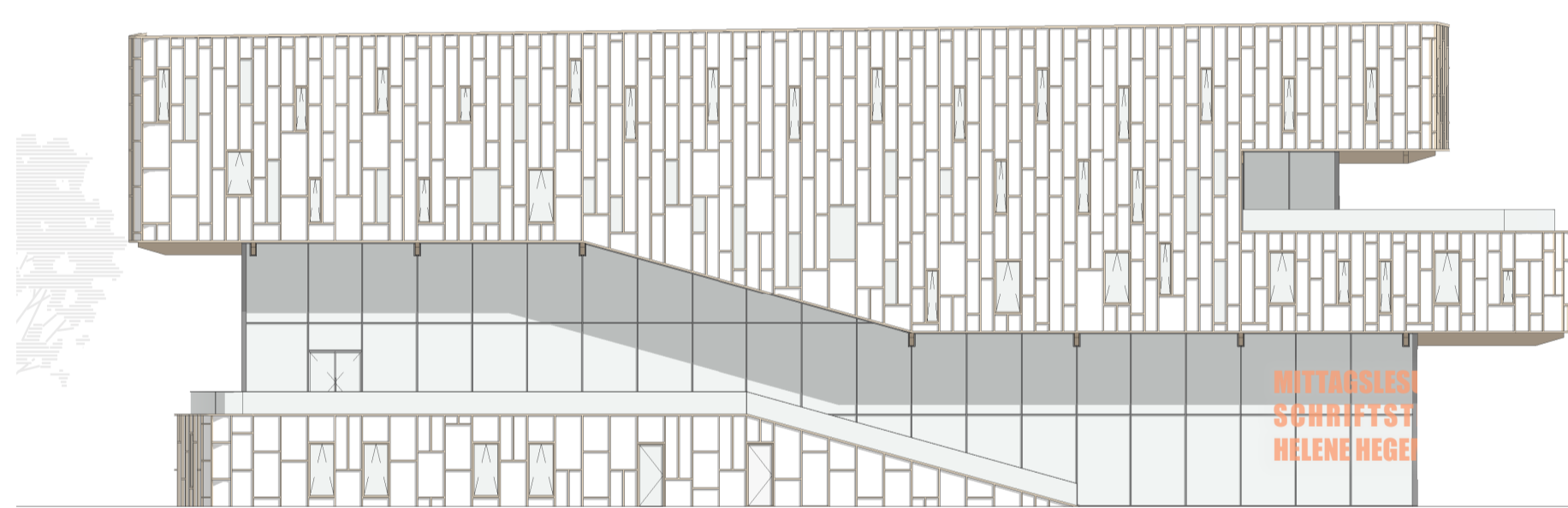
SECOND FLOOR, SCALE 1:400



FOURTH FLOOR, SCALE 1:400



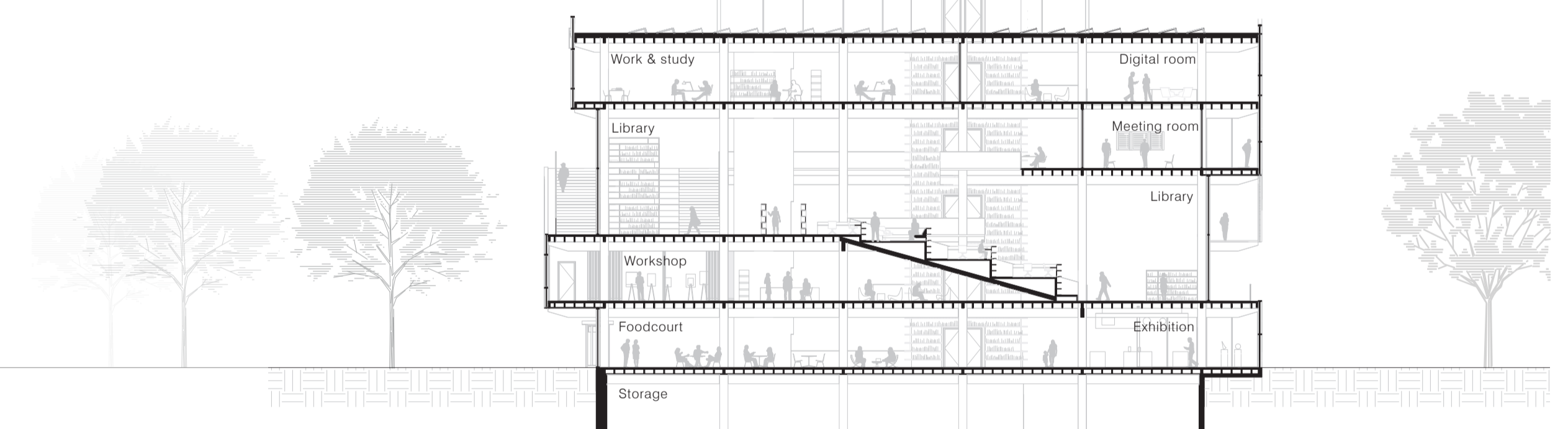
BASEMENT, SCALE 1:400



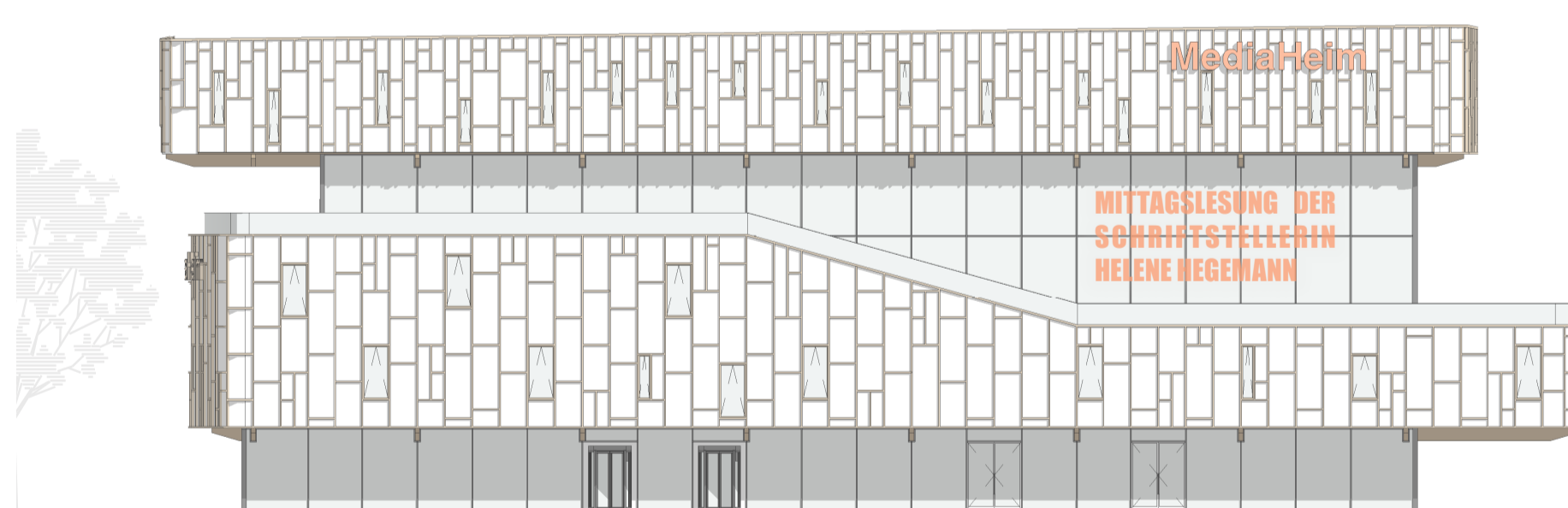
NORTH FACADE



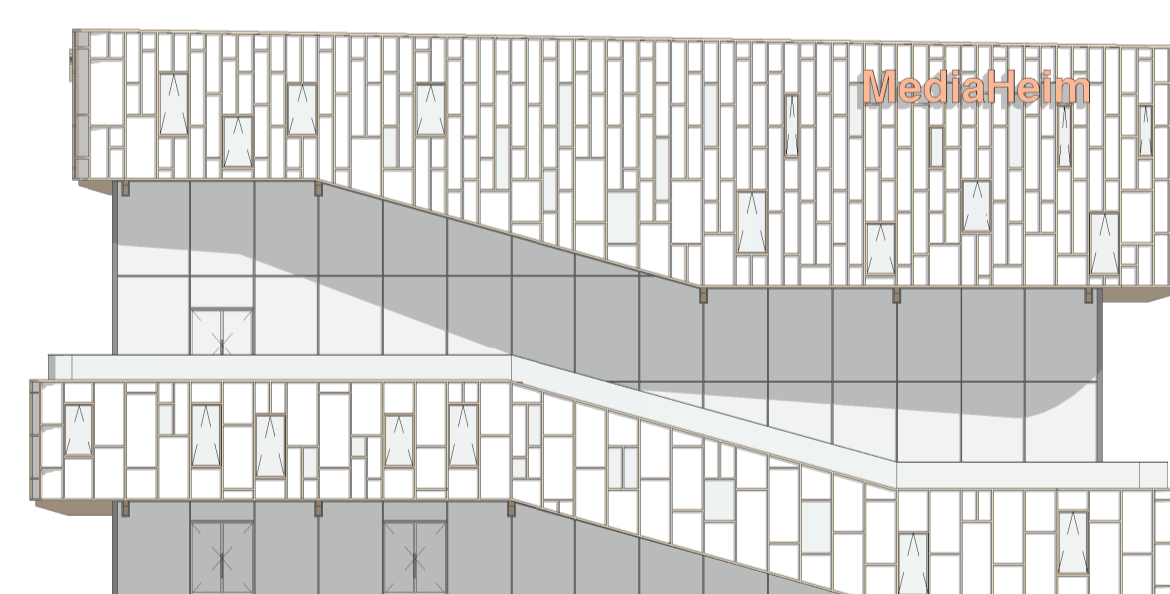
WEST FACADE



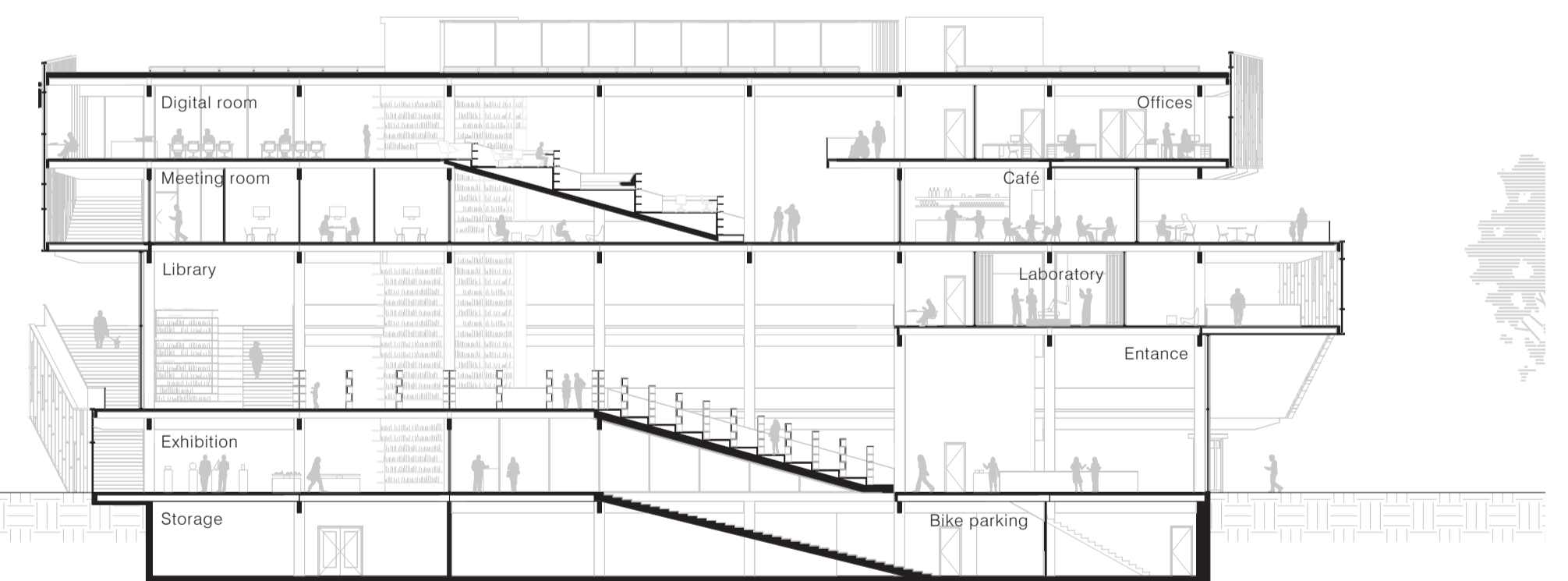
CROSS SECTION



SOUTH FACADE



EAST FACADE



LONGITUDINAL SECTION



IMPRESSION OF THE AUDITORIUM AND LIBRARY, GROUND FLOOR



IMPRESSION FROM DIGITAL ROOM AND STUDY AREA, FOURTH FLOOR

MEDIAHEIM BERLIN

MEDIATHEQUE & COMMUNITY LOUNGE, FRIEDRICHSHAIN

Public Building P5

Public Condenser 2022-2023

Iris van der Moolen | 5482887

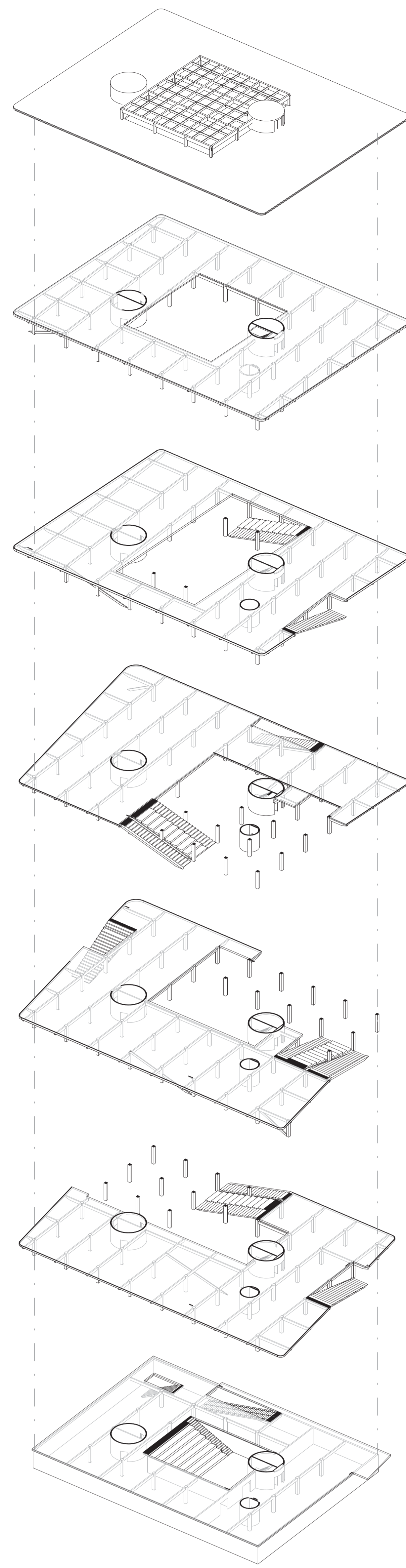
The elaboration of the media library is categorised using Stewart Brand's 'shearing layers'. Particular emphasis was placed on the shearing layers structure, skin, services, and space plan. To ensure the adaptability of the building in the future for changes in media or function, a generic and a specific element were used for each layer. Generic means that the building component does not need to be adapted; it can last many years. Specific means that the element can be adapted to a particular activity or user need.

The building's sustainability ambition was set beforehand on making it a carbon-positive building. A carbon-based design is essential today because of the significant CO2 emissions that buildings contribute to date. Three R-strategies for the transition from a linear to a circular economy were used for the design, which helped create a carbon-based design. The three strategies used are reduce, reuse and recycle. With the help of a light wooden structure and an intelligent facade, the media library has become a carbon-positive design. In other words, the building absorbs more CO2 than it emits.

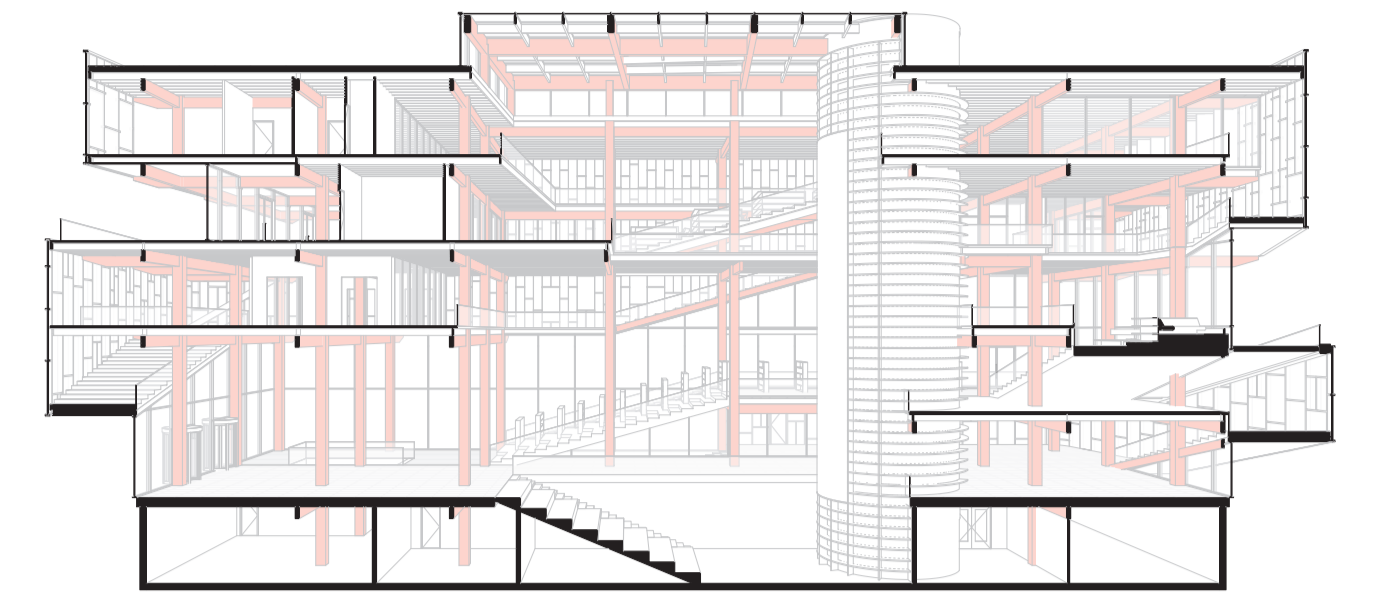
All elements of the building perform in different ways. For example, the structure is flexible, transformable, circular and absorbs CO2. The skin is the separation between outside and inside, communicates the function of the building and provides natural ventilation and daylight. In addition, the solar panels on the roof produce energy used in the construction. And finally, the atrium offers comfort, sightlines and interaction, and daylight and night ventilation. In short, the building is productive in use and in the performance of materials and its environment.



IMPRESSION OF MULTIFUNCTIONAL STAIRS, SECOND FLOOR



STRUCTURE SCHEME



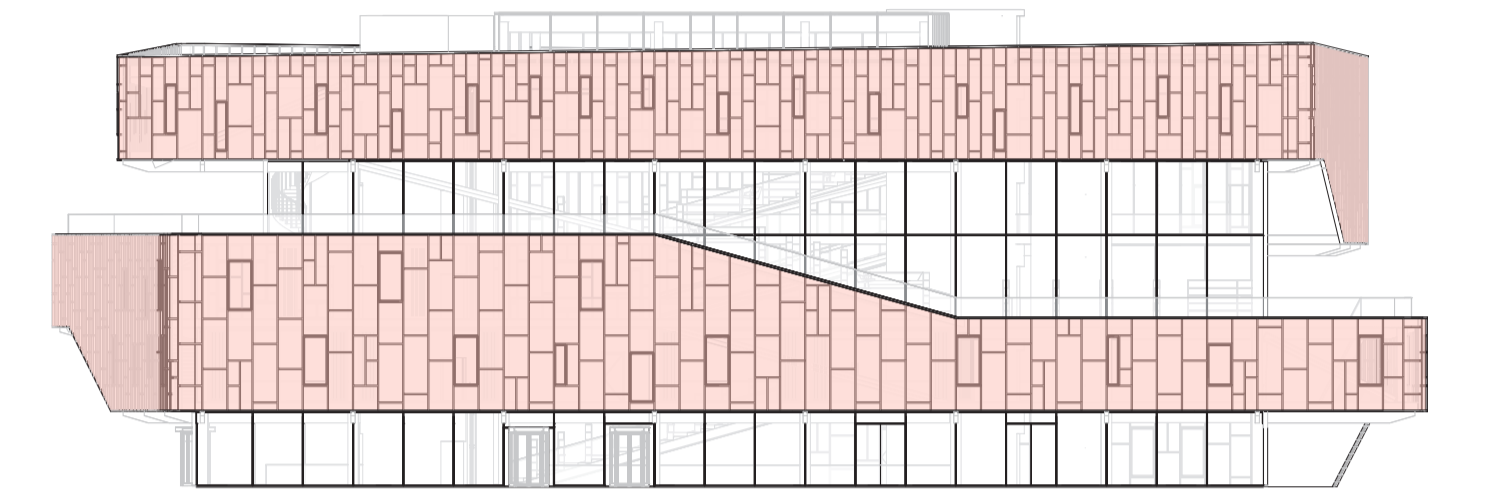
STRUCTURE FOR...

The framework of the building

Defining rooms and spaces

The flexibility of rooms and divisions

Absorption of carbon



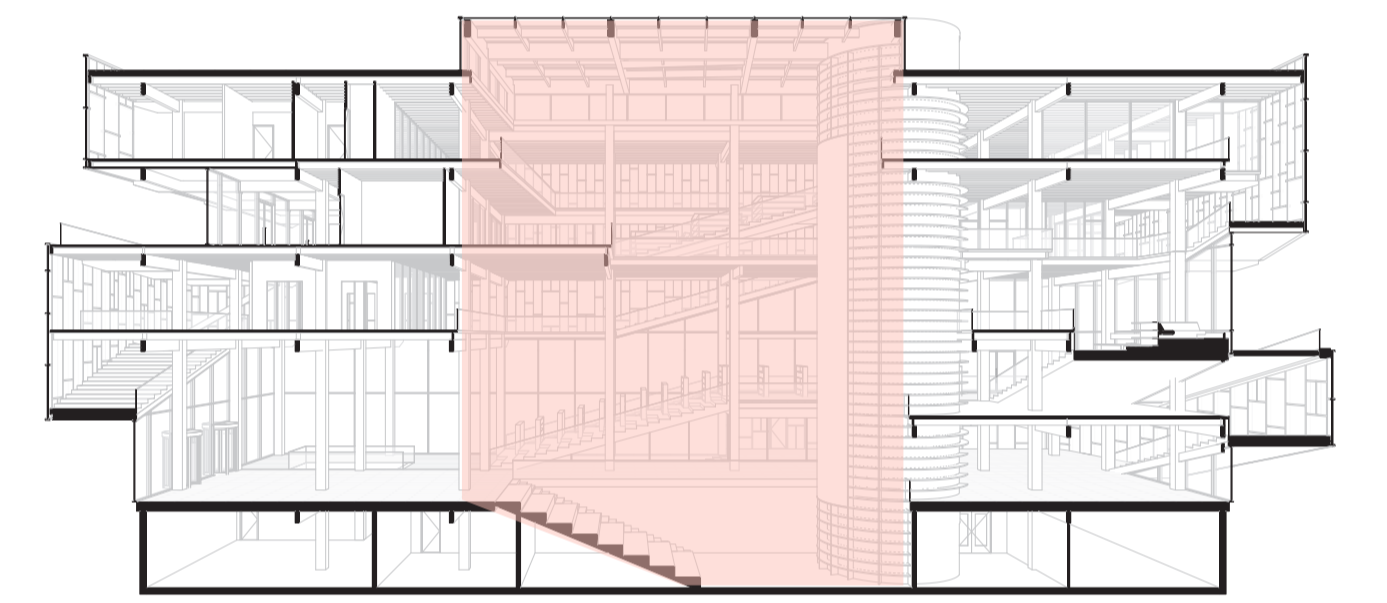
SKIN ACTS AS...

Separation between inside and outside

Relation with surrounding buildings

Communication of the buildings' function

Supply of natural ventilation and daylight



ATRIUM PROVIDES...

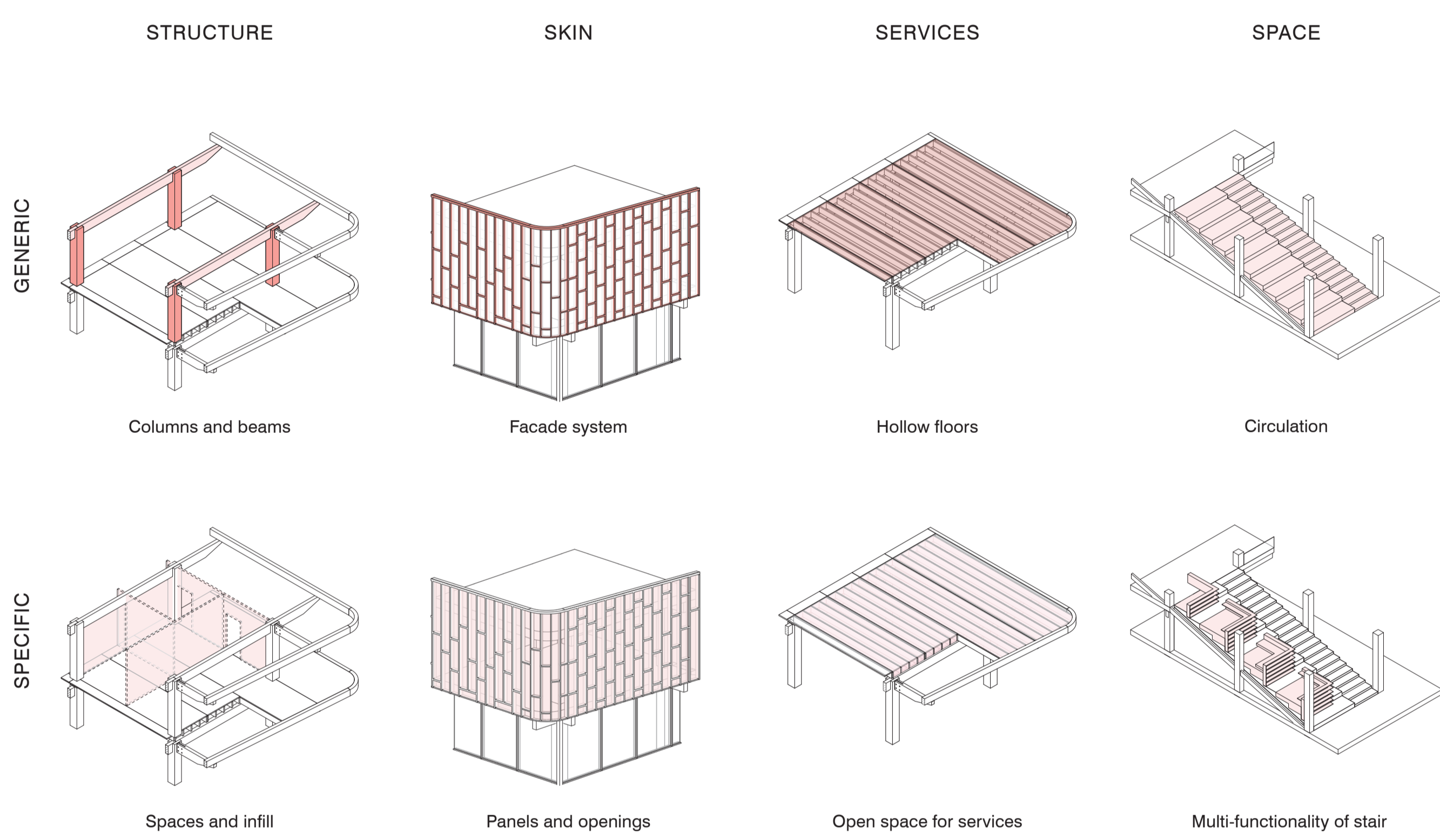
A positive effect on the users' comfort perception

Sightlines and interaction between floors

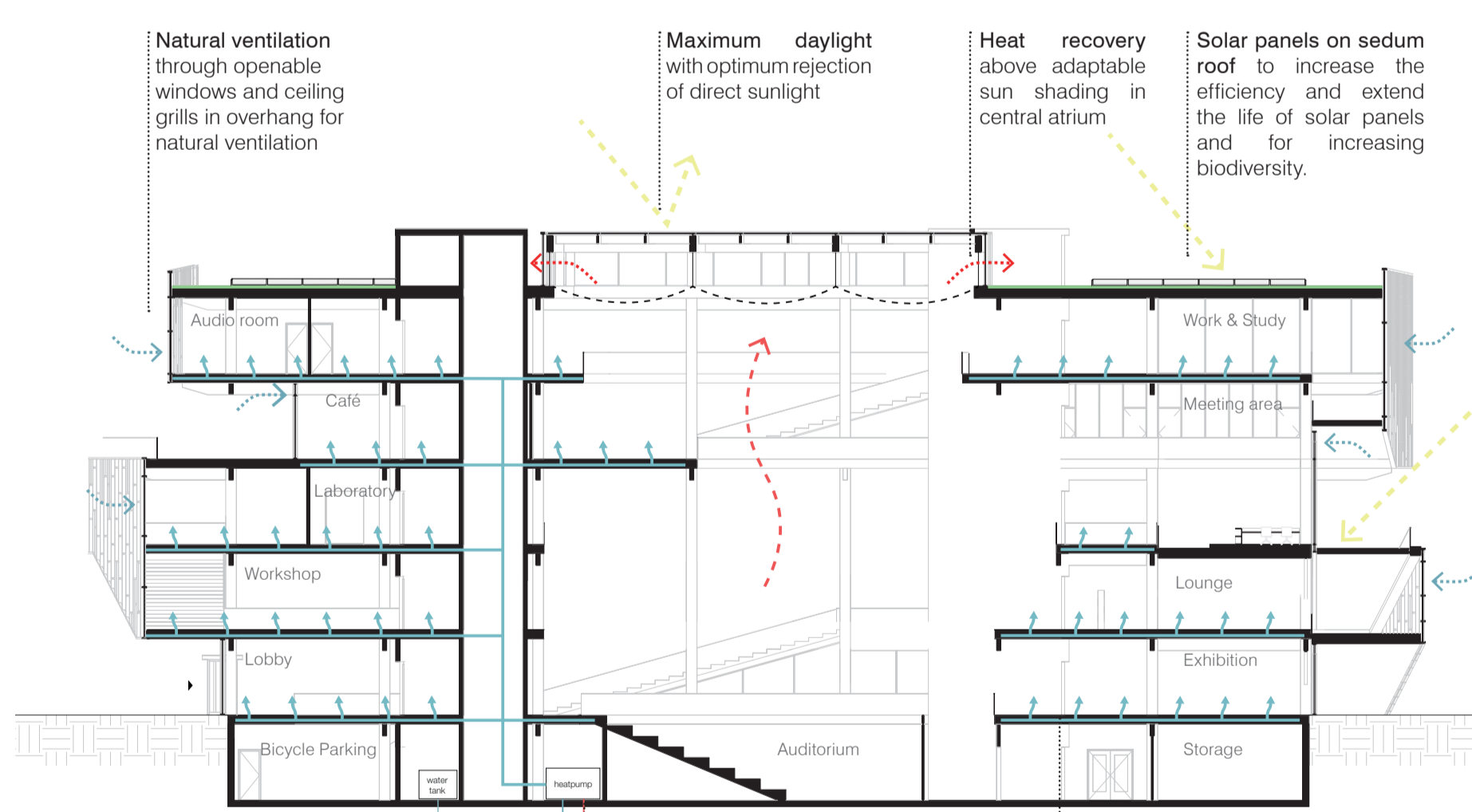
Daylighting for centrally located functions

Night ventilation through the building

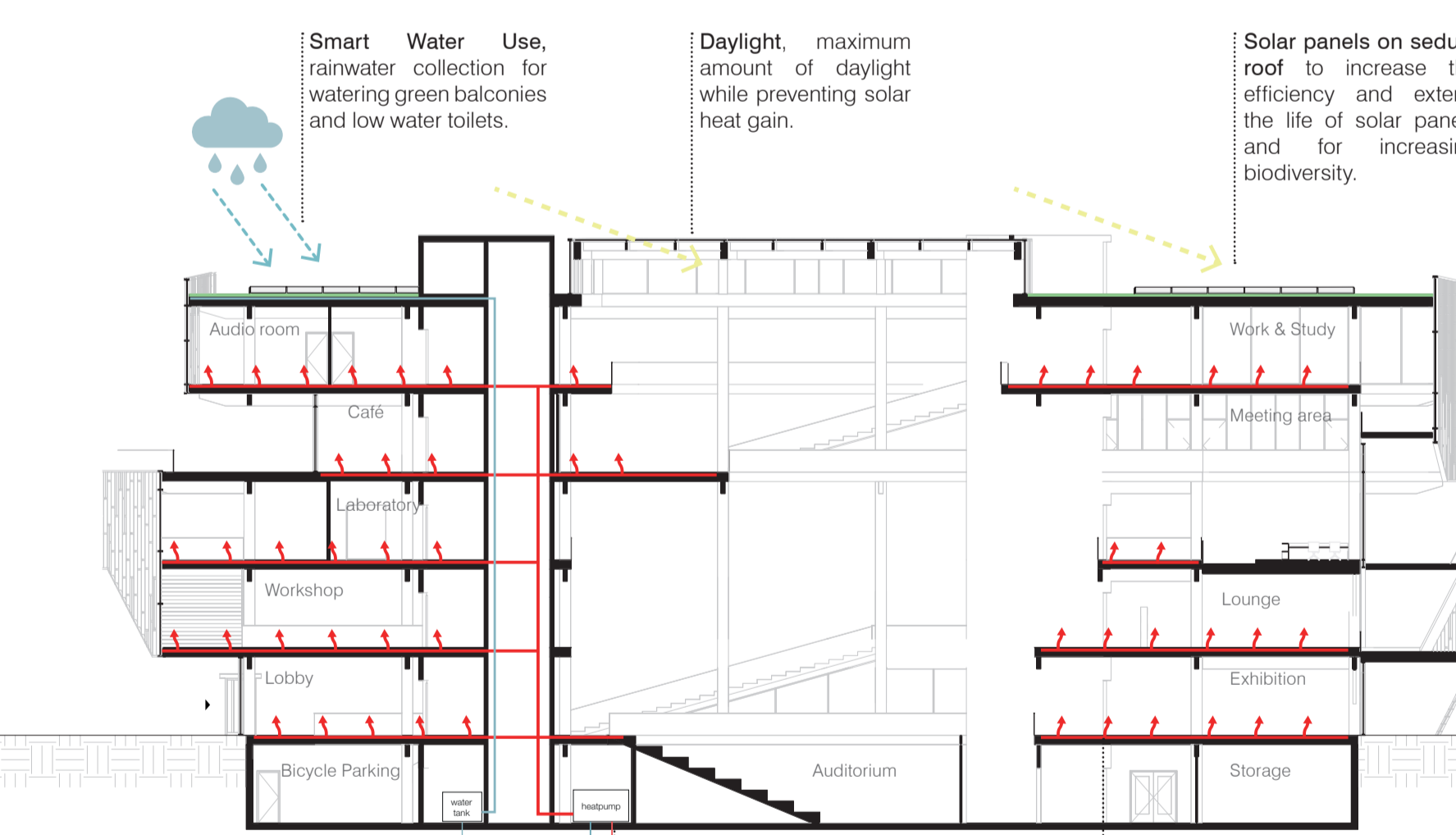
MULTIPLICITY CONCEPT



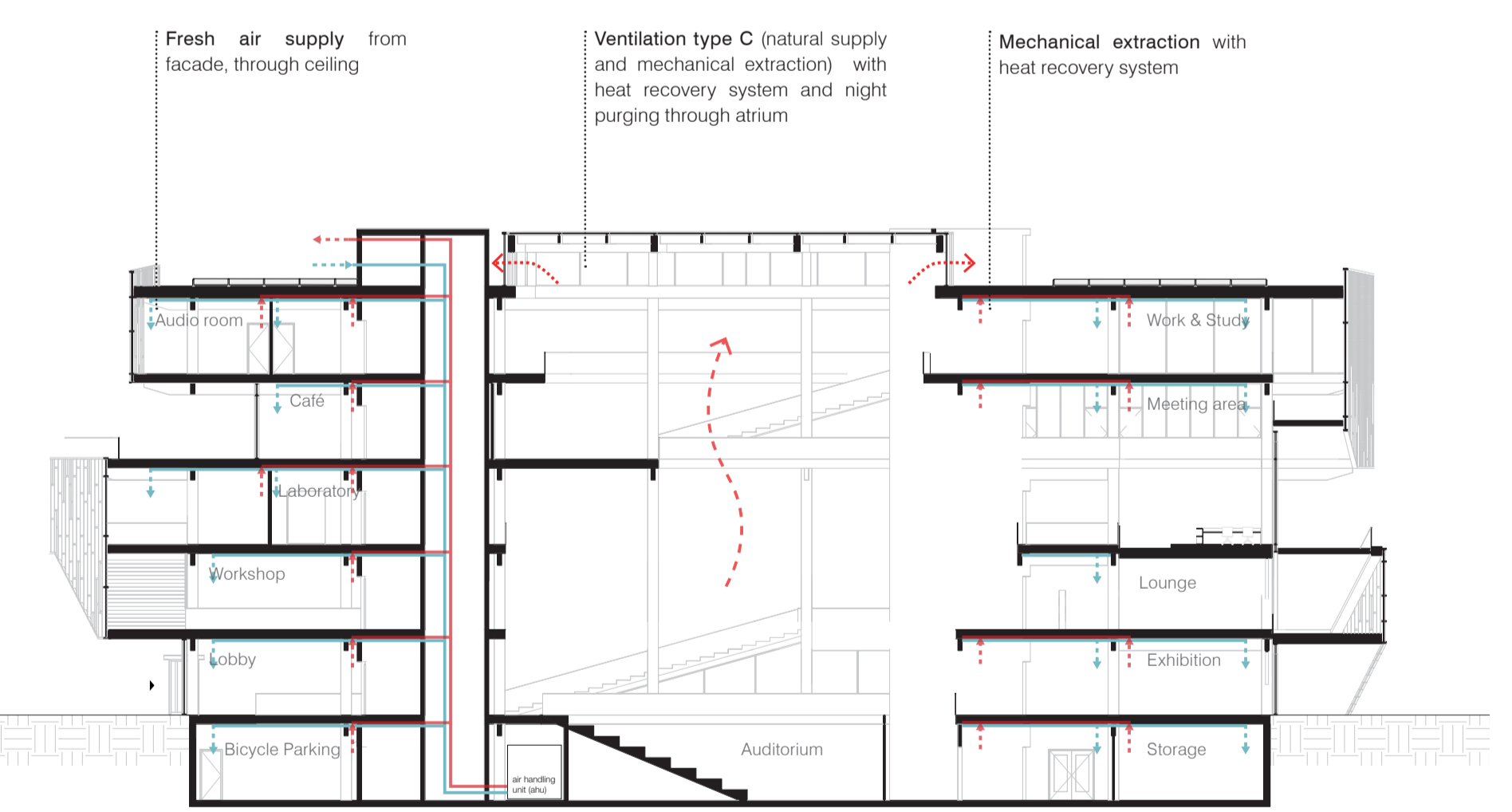
GENERIC VS SPECIFIC ELEMENTS IN BUILDING LAYERS



CLIMATE SYSTEM IN SUMMER



CLIMATE SYSTEM IN WINTER



VENTILATION SYSTEM IN BUILDING



IMPRESSION OF THE MAIN ENTRANCE AT THE NORTH SIDE



IMPRESSION FROM MAIN STATION EXIT TOWARDS THE ENTRANCE OF MEDIAHEIM

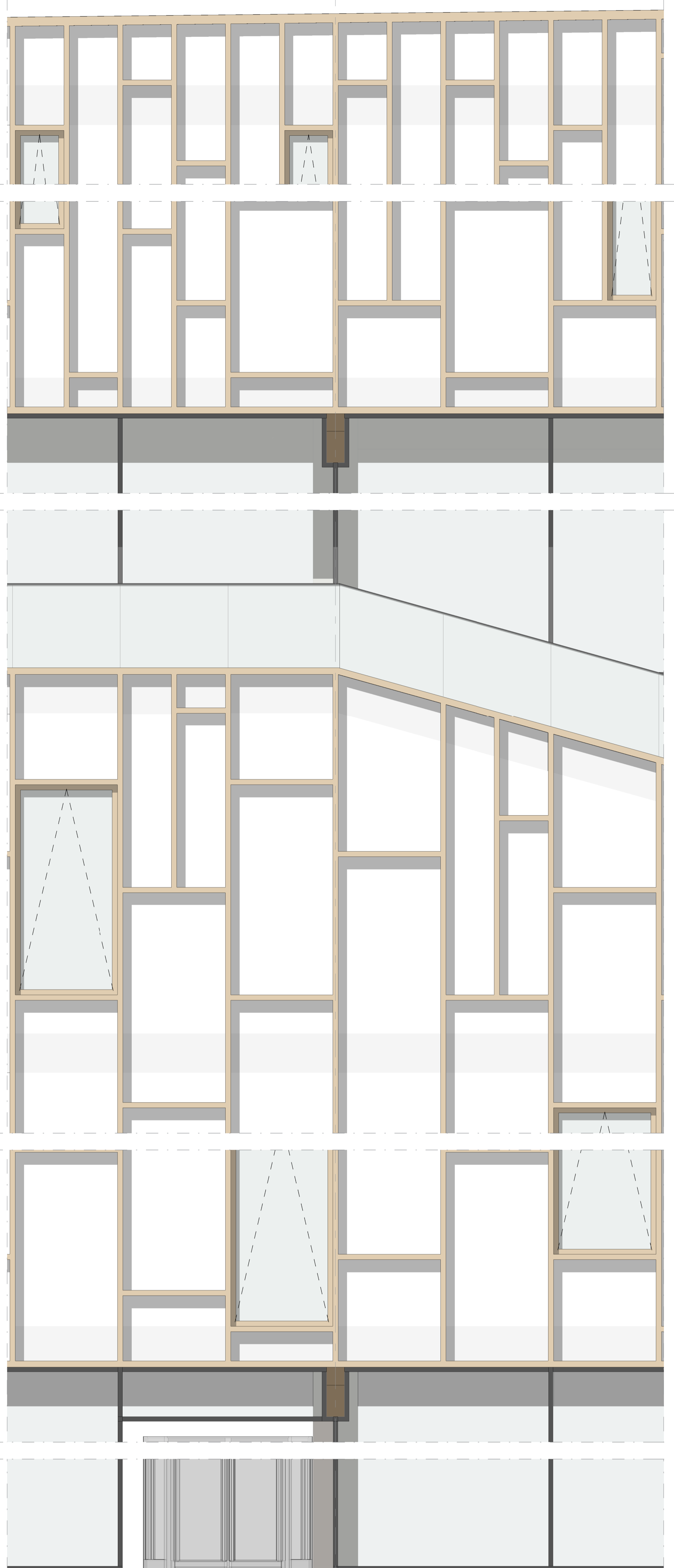
MEDIAHEIM BERLIN

MEDIATHEQUE & COMMUNITY LOUNGE, FRIEDRICHSHAIN

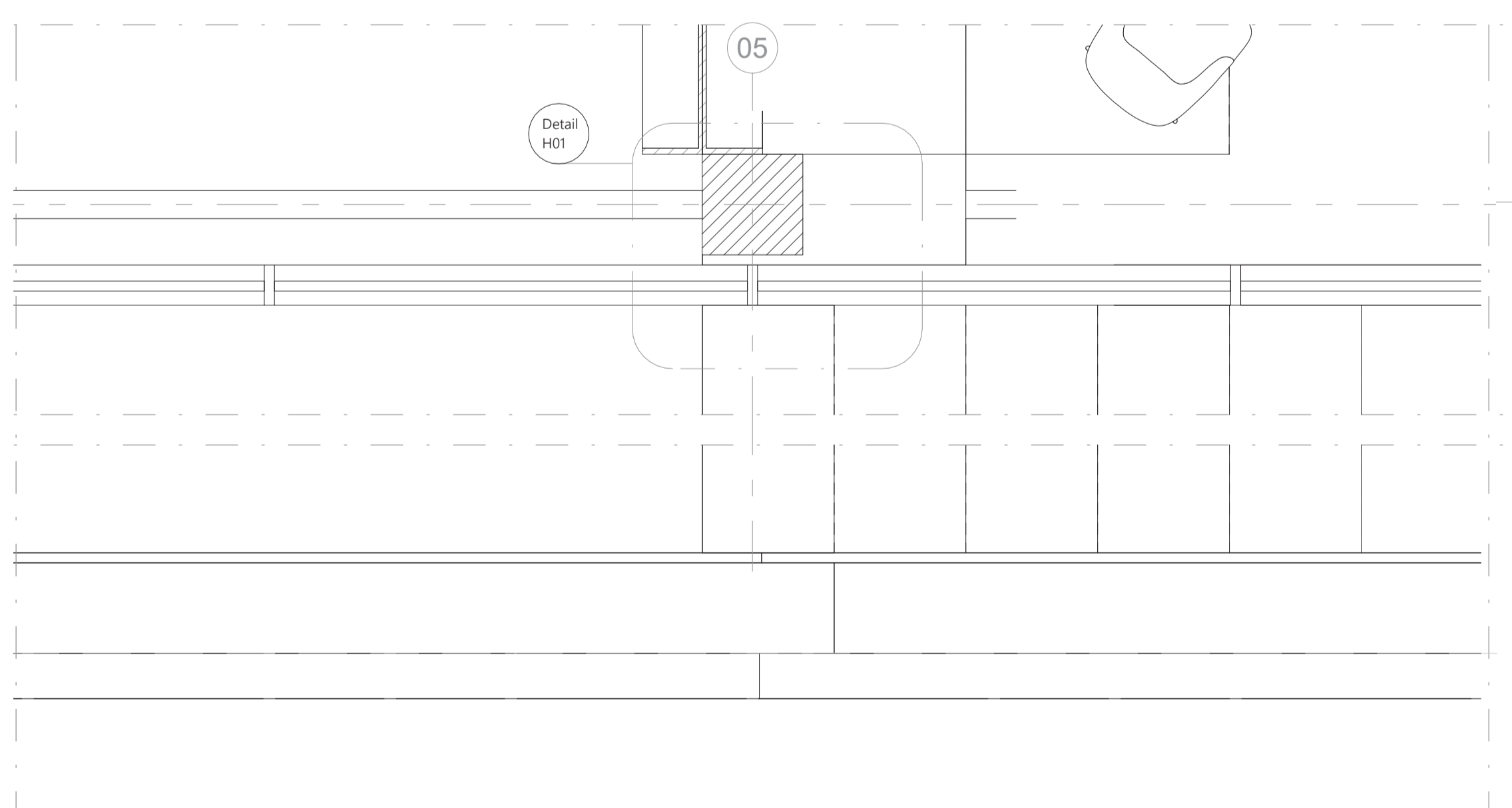
Public Building P5

Public Condenser 2022-2023

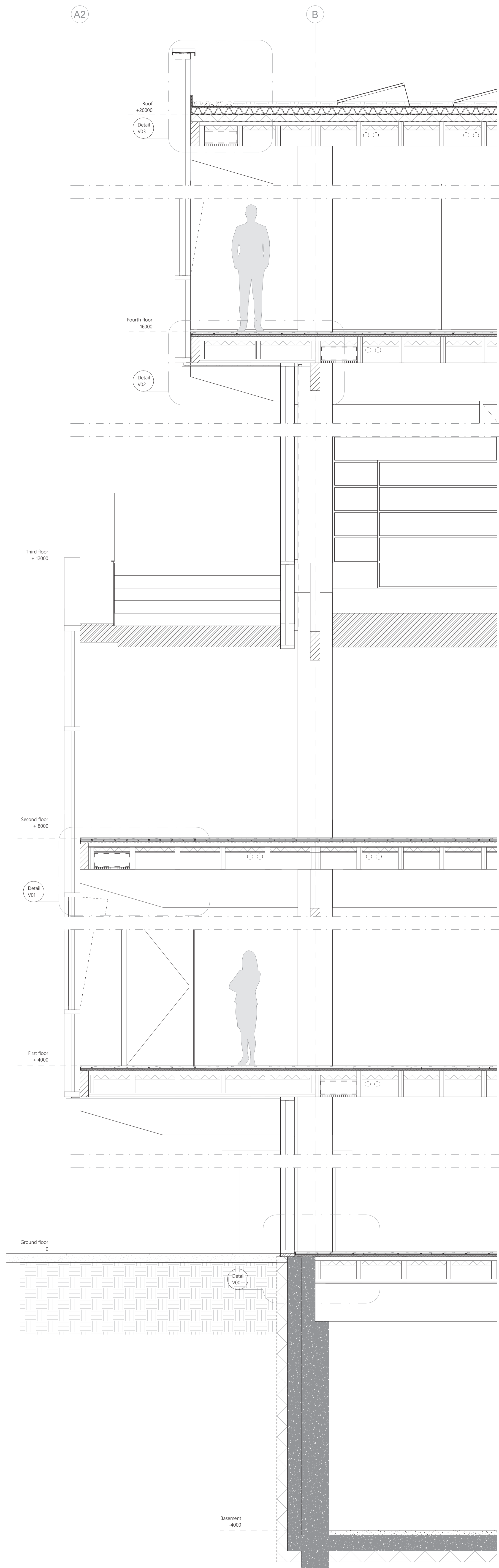
Iris van der Moolen | 5482887



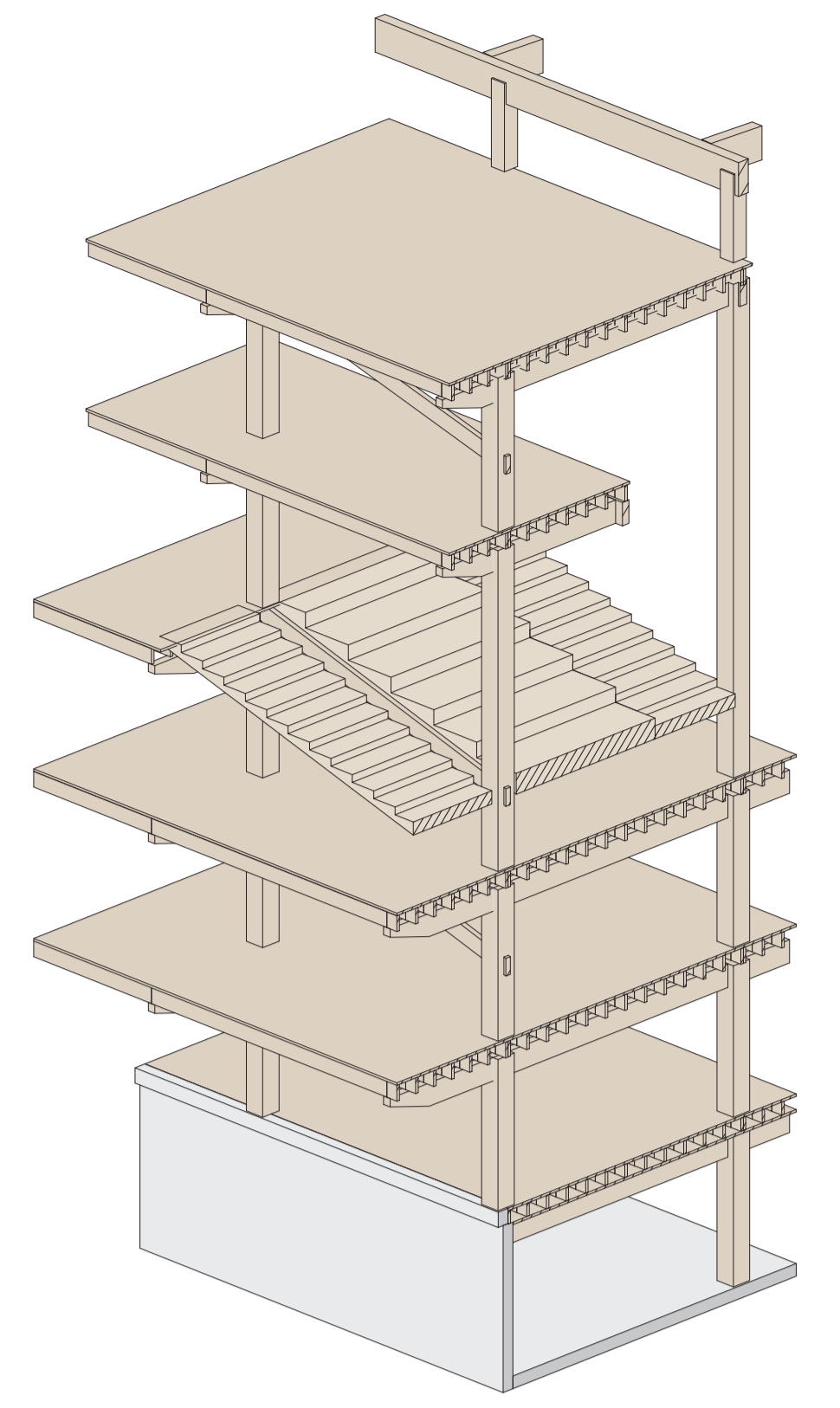
FAÇADE FRAGMENT, SOUTH SIDE, SCALE 1:25



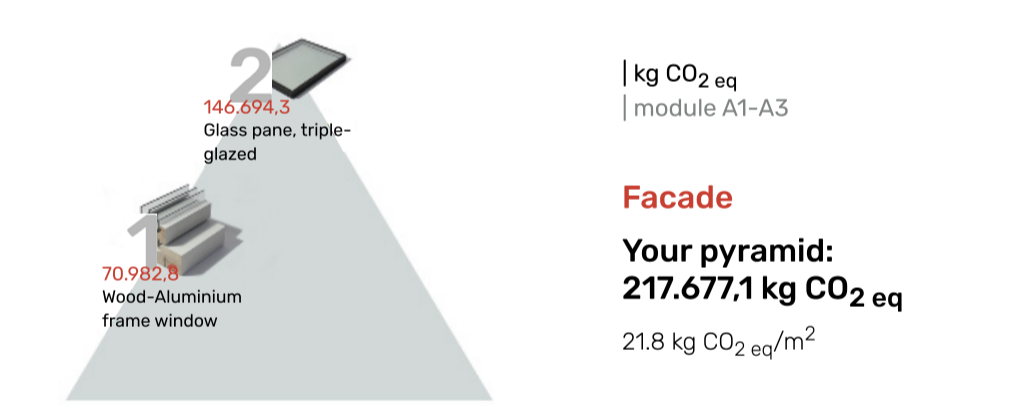
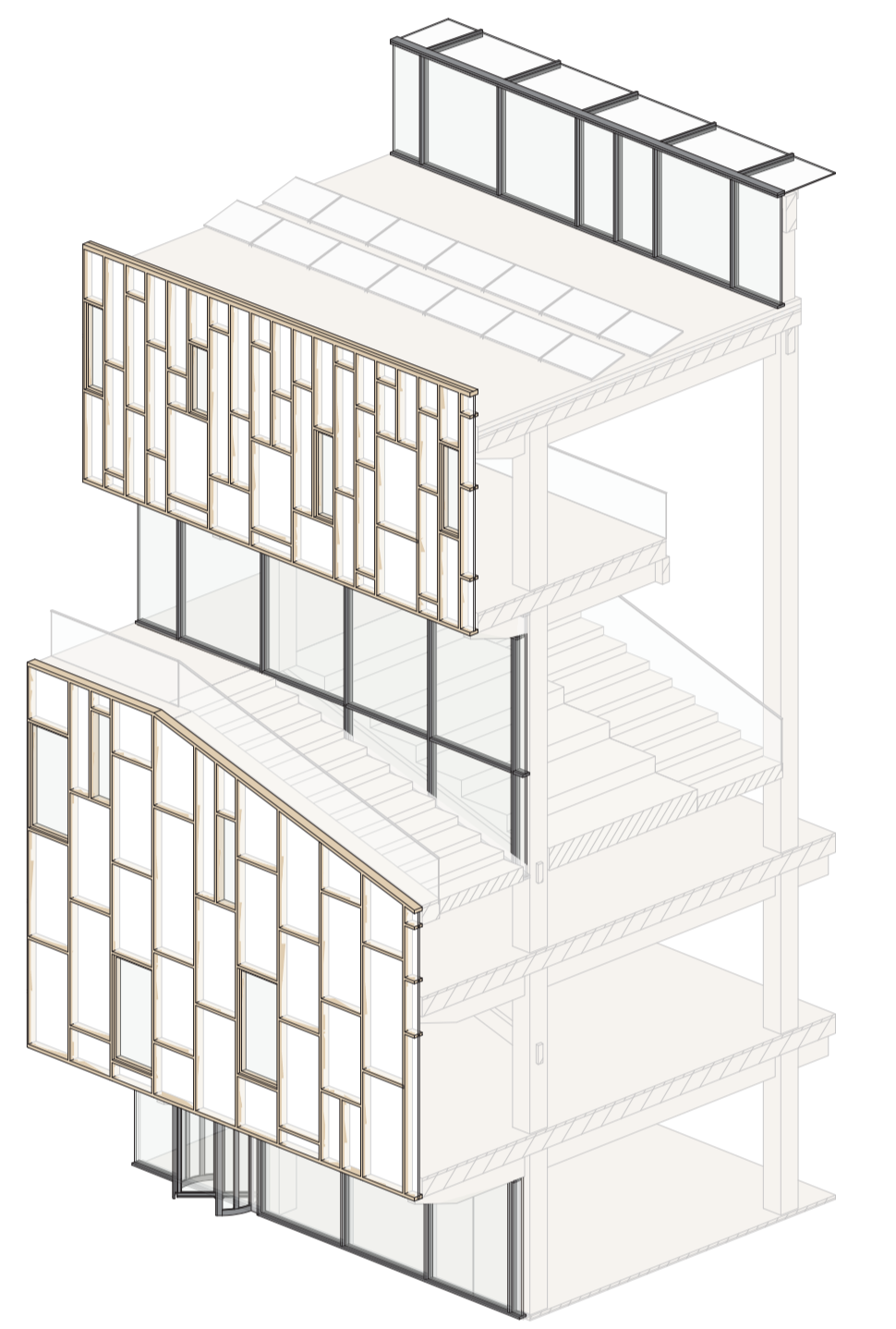
HORIZONTAL FAÇADE SECTION, THIRD FLOOR, SCALE 1:25



VERTICAL FAÇADE SECTION, SOUTH SIDE, SCALE 1:25

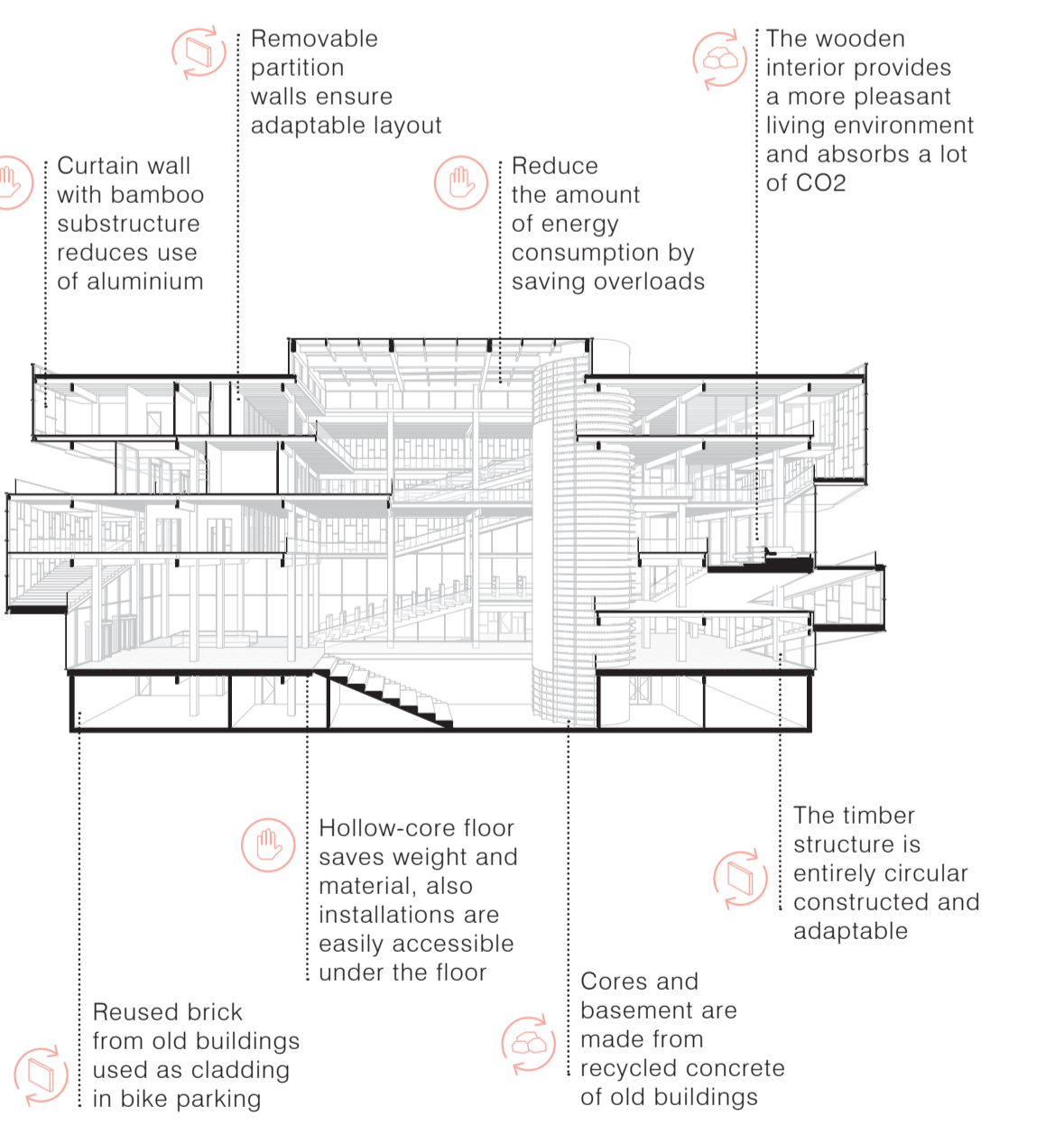


CARBON IN STRUCTURE

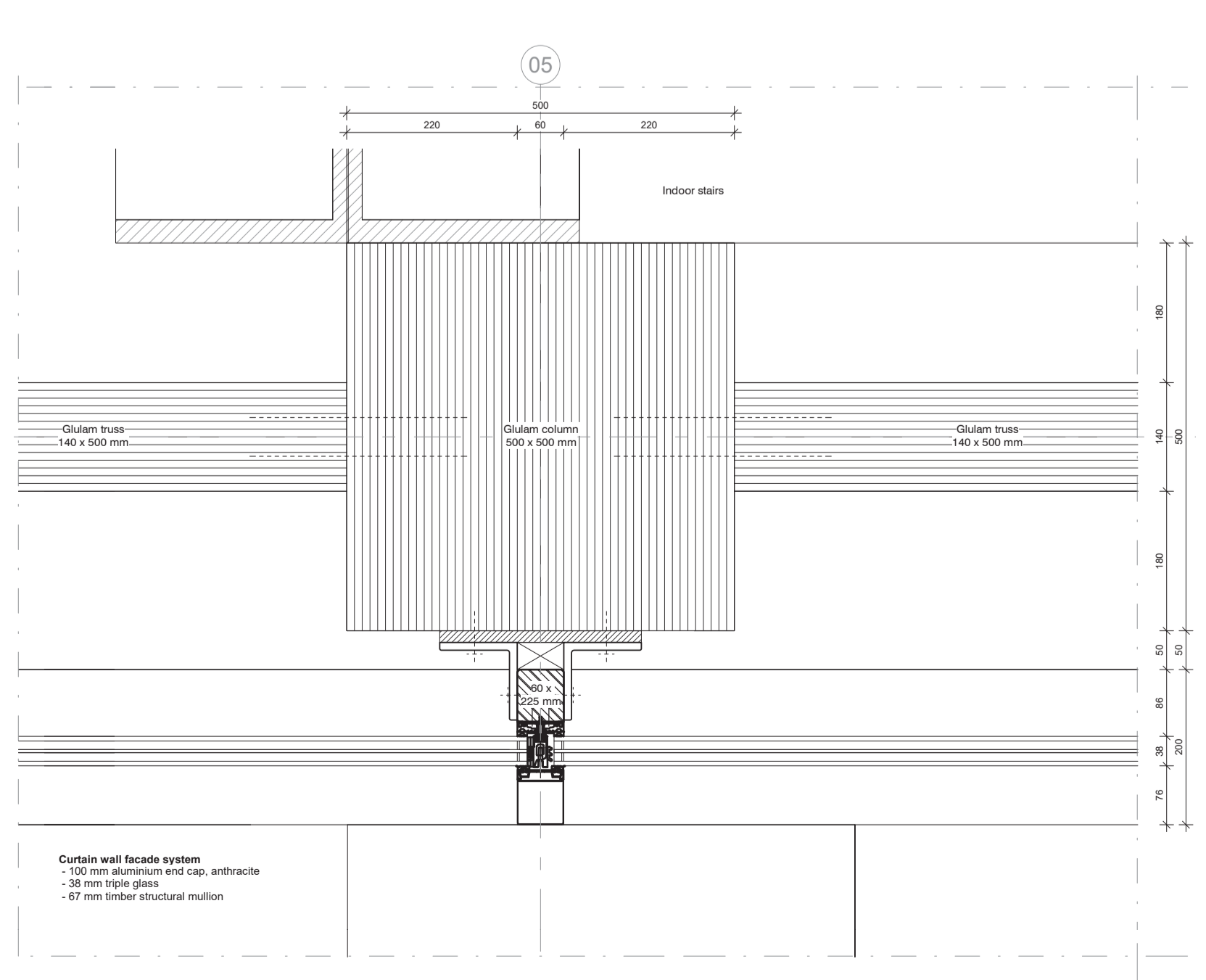


CARBON IN FAÇADE

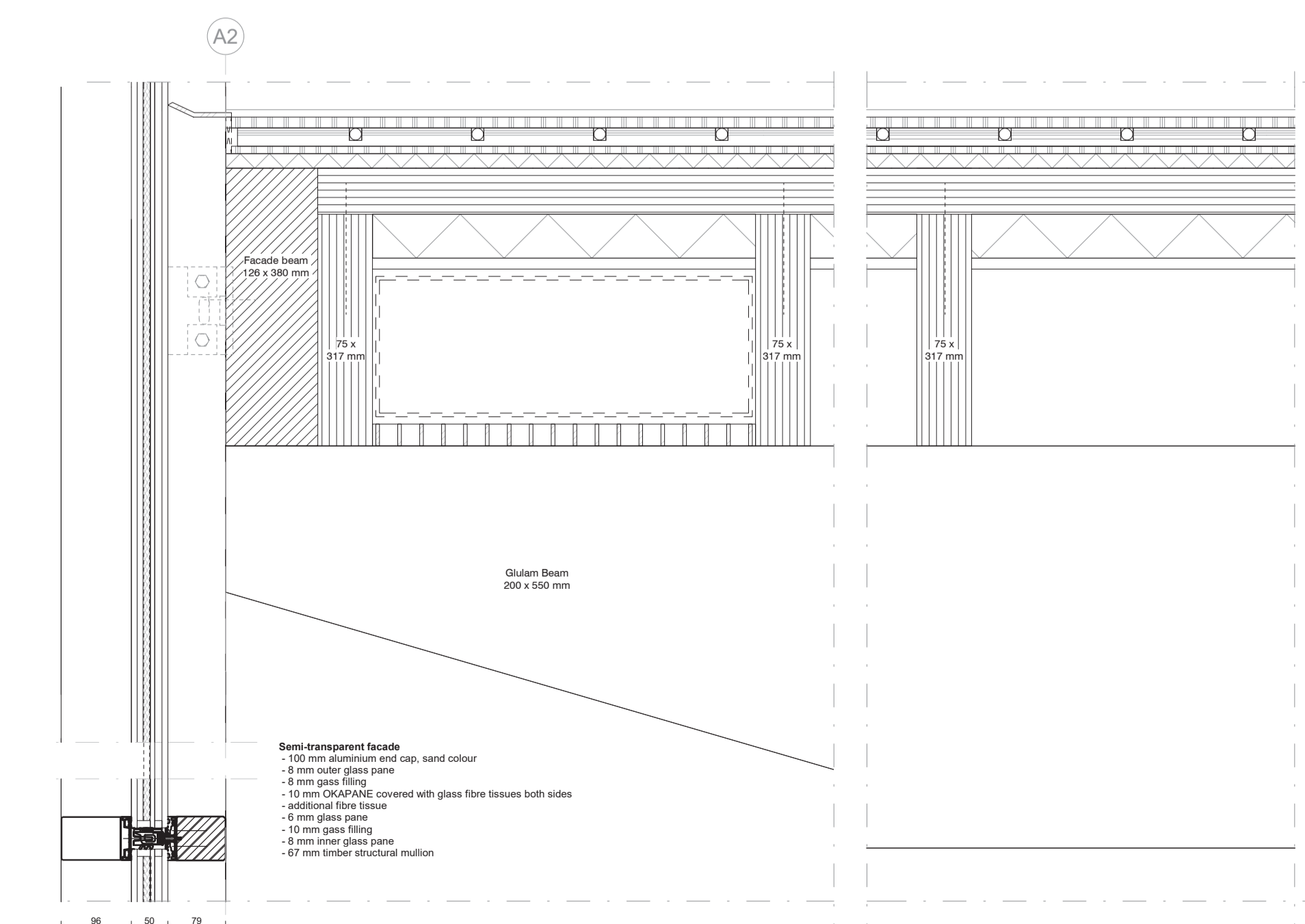
Total GWP impact of structure and facade: -3.123.440,9 kg CO₂ eq / m²



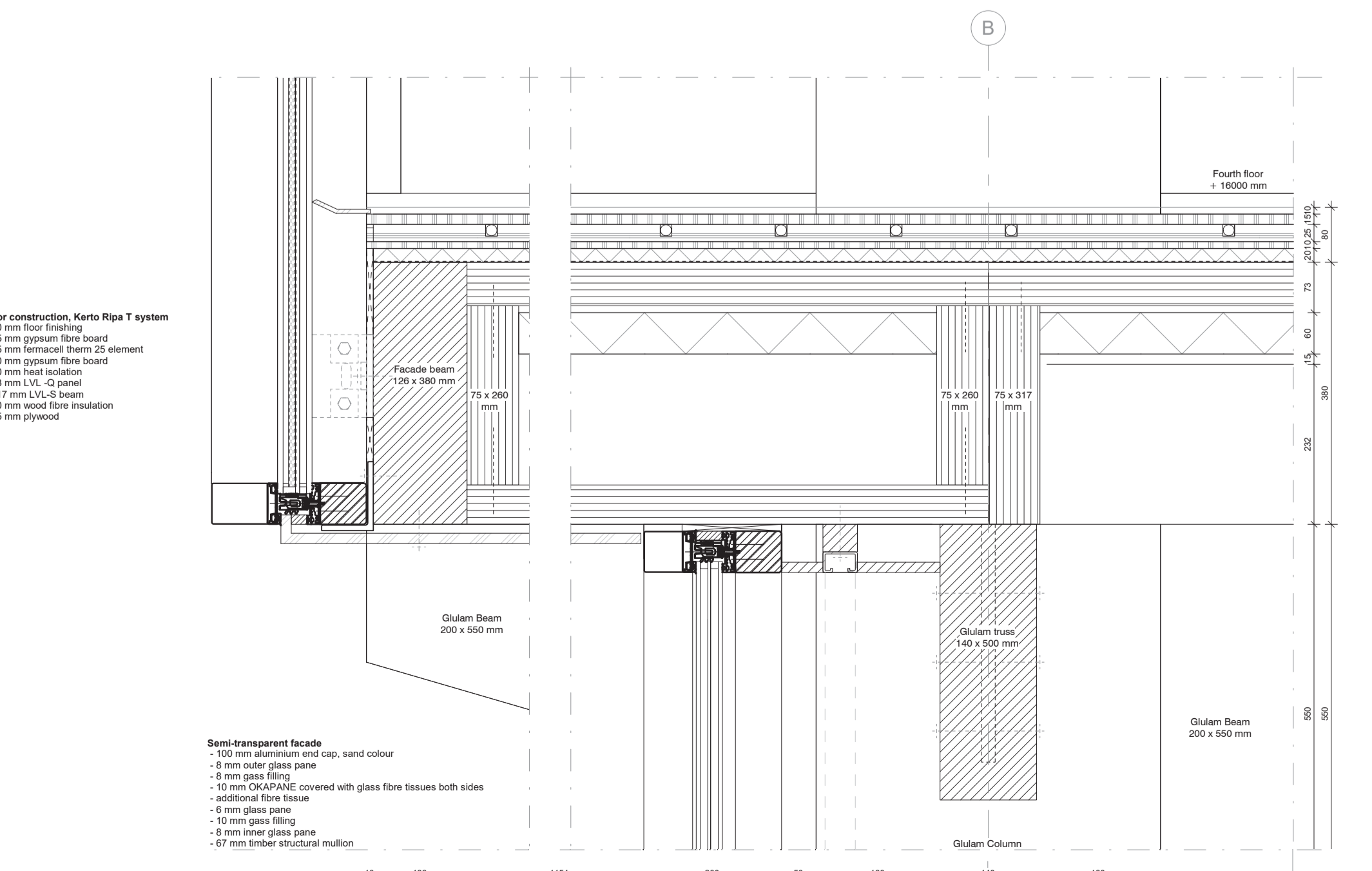
CIRCULARITY SECTION, SCALE 1:400



HORIZONTAL DETAIL CURTAIN WALL, SCALE 1:5



VERTICAL DETAIL FLOOR, SCALE 1:5



VERTICAL DETAIL OVERHANG, SCALE 1:5

1:5 M