Fostering Social Inclusion

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Graduation Report
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Content

I. P1 Progress

II. P2 Progress

III. Theory and Delineation Assignments

IV. P2 Retake

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VI. P4 Progress

VII. P5

VIII. Reflection Paper

Analysis

Copenhagen

Copenhagen, Denmark

Amager-Vest, Copenhagen

Analysis

Observations

- Empty
- Abundance of gates and fences
- Gloomy
- Full of needle bins
- Insufficient/ unpleasant walking paths

Analysis

Observations

Analysis

Interviews

First interview: older lady (lived here for a year) wtih a dog

- not a nice area
- does not want to live here
- the alcoholics should stay at their area and not mix around the neighborhood
- “if there is a park close to them, they can just stay there and not come to the other parks”

Second interview: young guy, student with a dog

- likes the area
- everything is within reach, don’t need to travel a lot
- airport is close

Third interview: young boy (primary school)

- likes it
- all his friends live here, they play out a lot
- always lived here, parents like it
- doesn’t go to school in this area (20 min biking to his school)
- maybe a library in the area would be nice

In Orange Circle: This park is named unsafe, as people go there to get drunk at night, make a lot of noise and in general make a lot of nuisance.

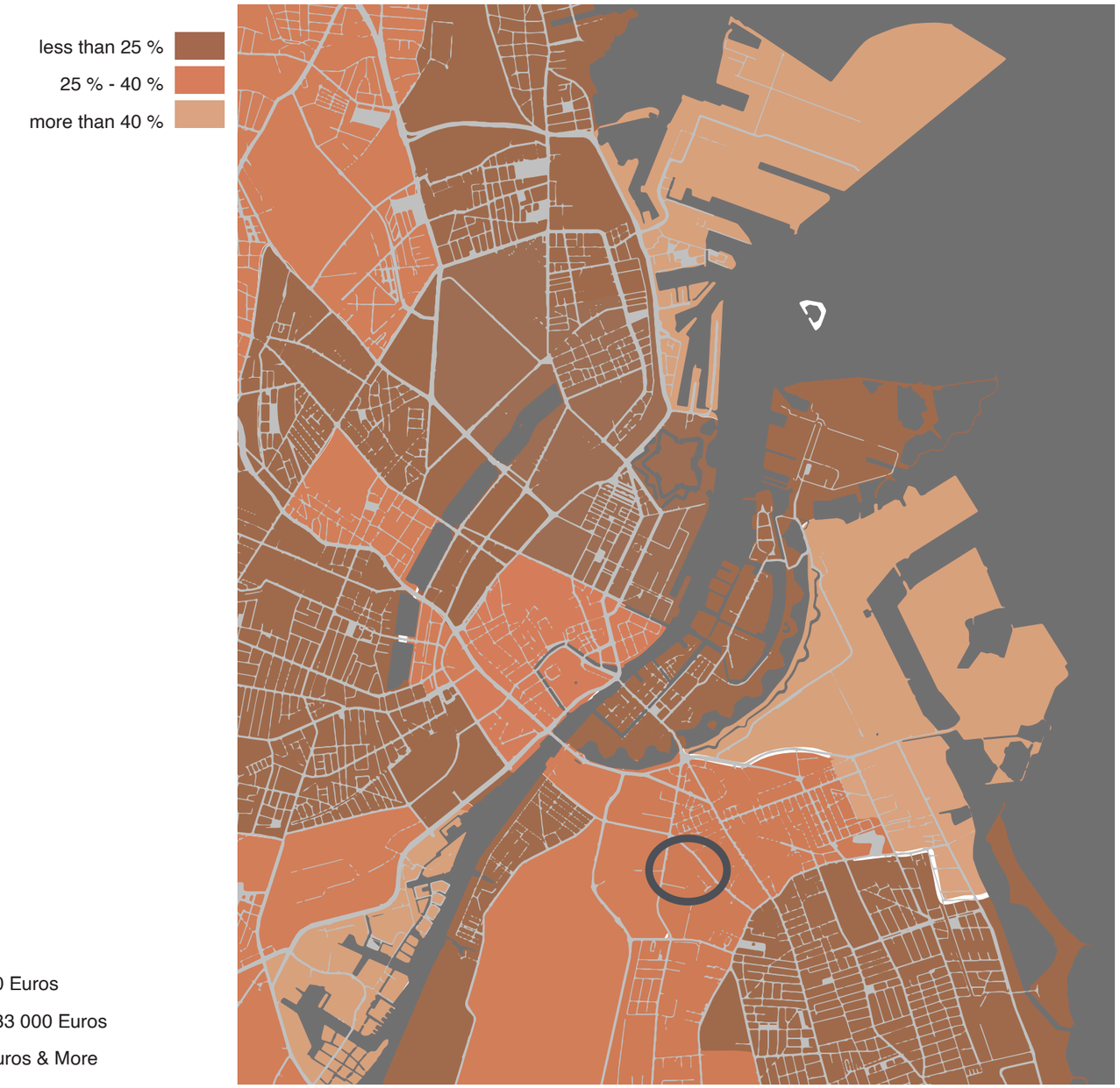
In Green Circle: Gullandsgarden Residential Area
In that area the atmosphere is completely different, there are many people on the streets, such as many young families with children and many young people.

Analysis

Copenhagen

Annual Average Income per Region

Foreign Background per Region



Analysis

Problems in Sundholm

Marginalized & Vulnerable Community

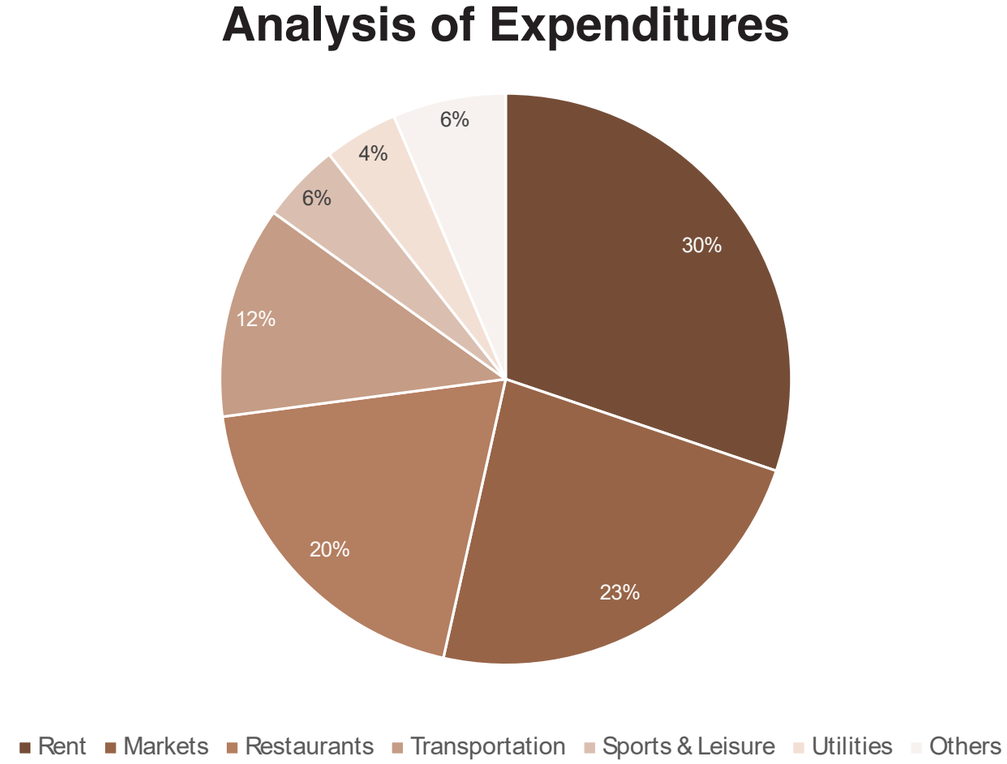
- Ethnical Separation

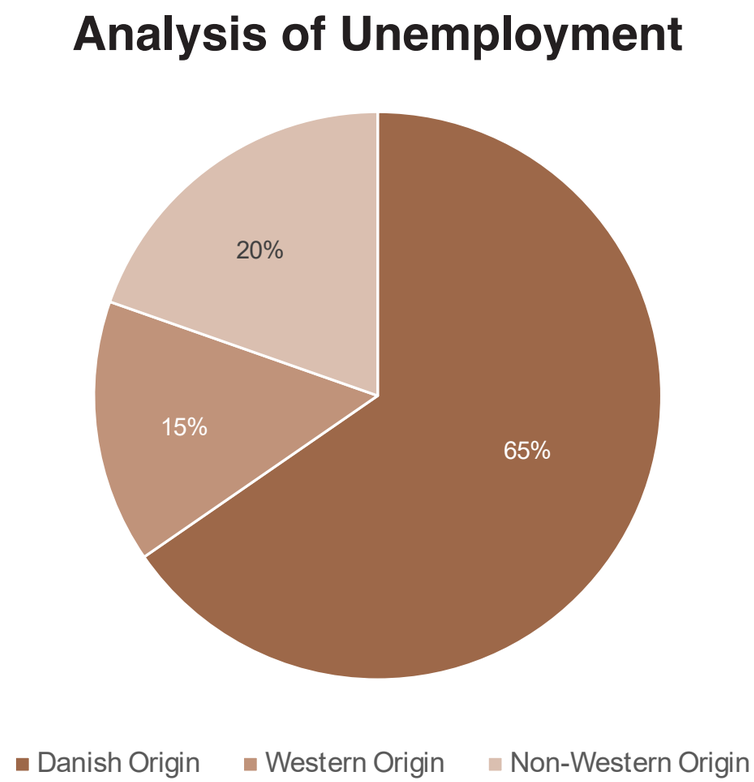
- Previously Labeled ‘Ghetto’ by the Government

- Problematic/ Area with High Criminality

- Low Income Area

- Vulnerable Age Groups - Children & Elderly

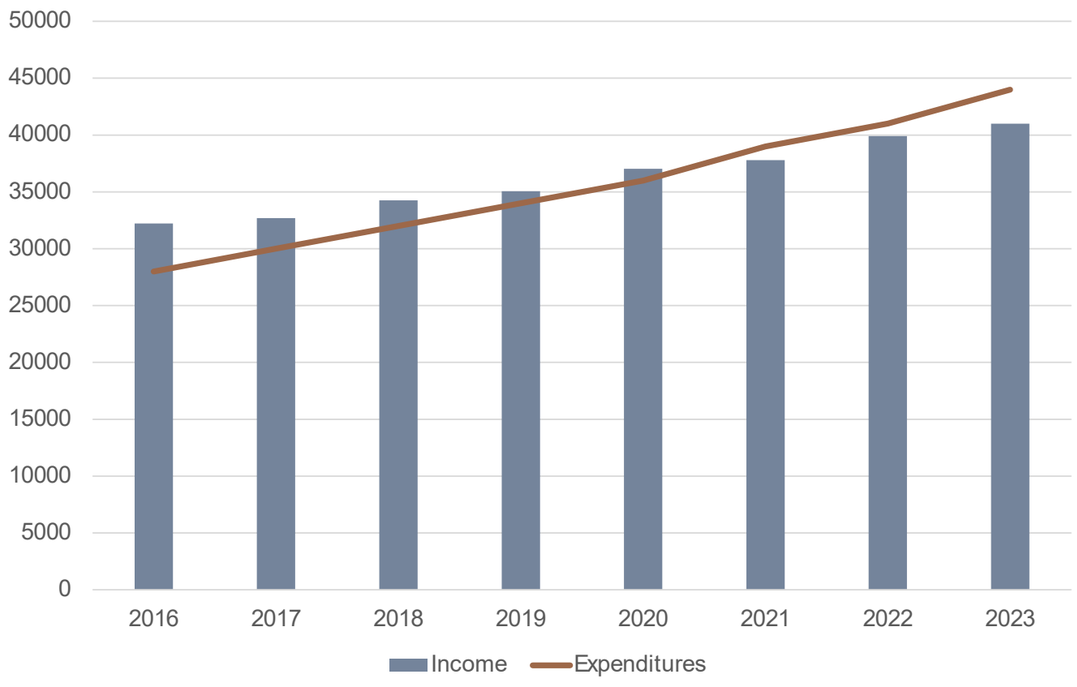




Analysis

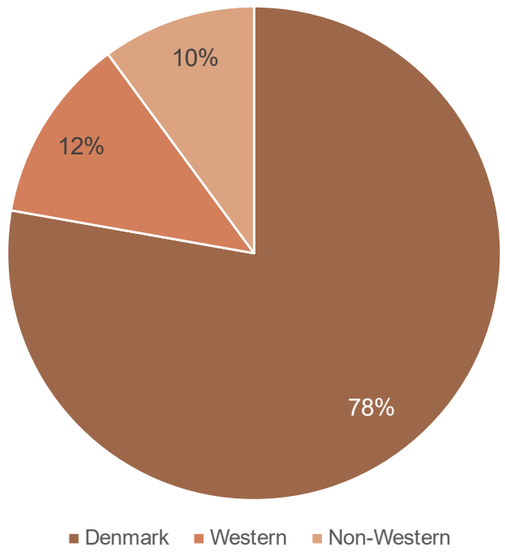
Sundholm Area

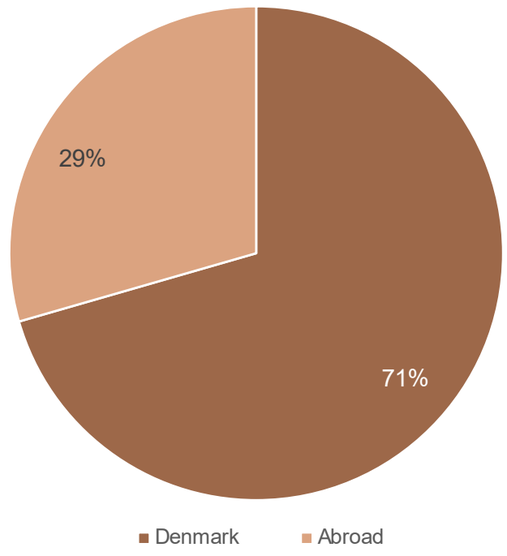
Low Income Area



The cost of life is very high in Copenhagen and even unaffordable by the majority of the population that resides outside of the city center. Especially, with almost 30% of their expenditures going into rent and housing, leaving very little for other necessities. This issue is exemplified in the area of Sundholm where in recent years the annual expenditures and cost of living exceed the people's average income.

Ethnic Separation





Looking at the socio-demography of the Sundholm area, diagrams are created showing the statistics of citizens with foreign background and their respective places of birth. The data shows that around 20% of the citizens are with foreign citizenship, however taking a look at where they are born, the percentage increase to 30%. Hence, even though the majority of the population of Sundholm has Danish citizenship, certain separations within the community could be based on preceeding ethnical divisions.

Analysis

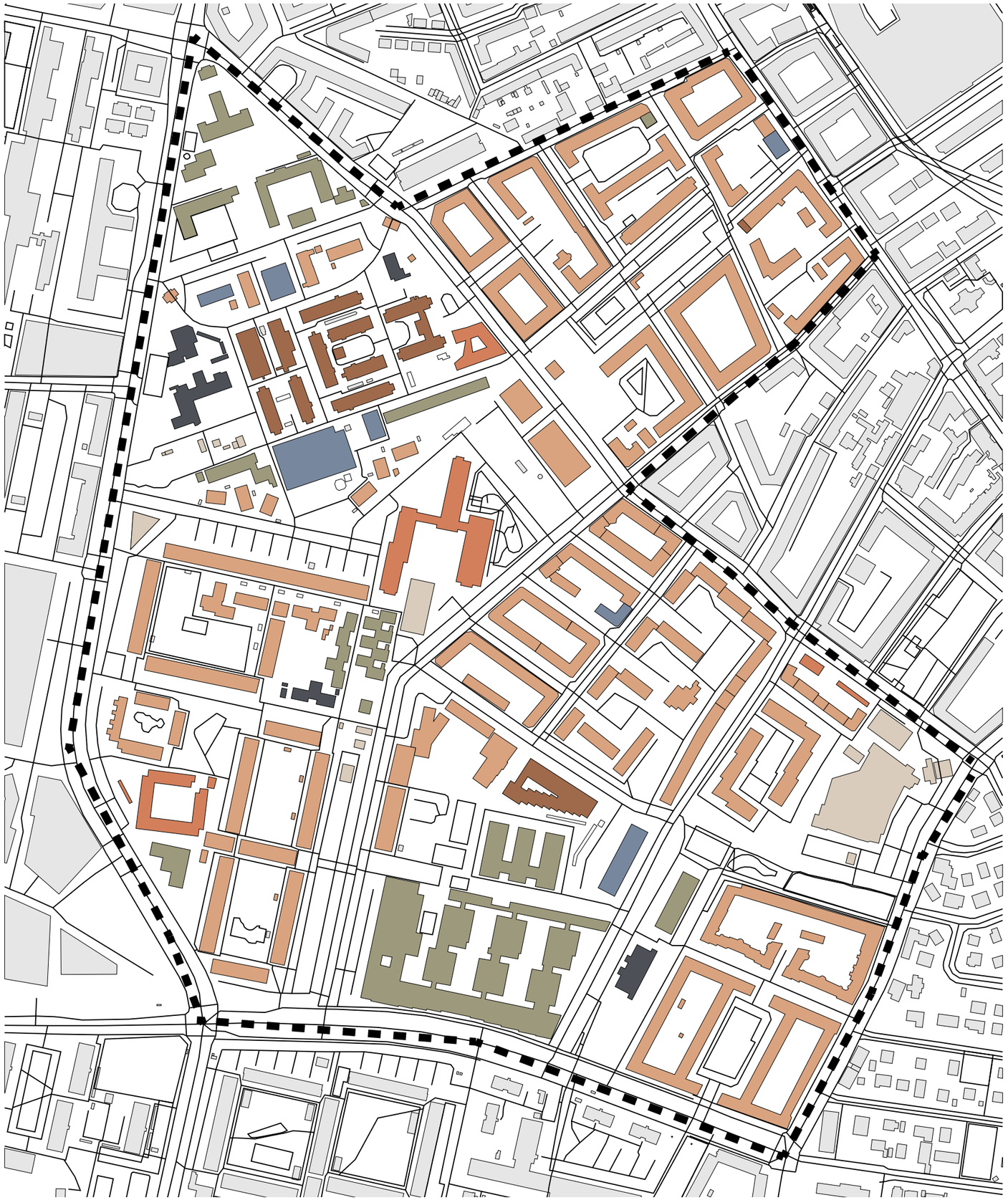
Safety

Preferred Walking Routes/
Main Streets
(based on Surveys & Observations)

Unsafe Areas/
Avoided Walking Areas
(based on Surveys)

Analysis

Functions



Homeless Shelters

Health Amenidities/ Elderly Homes

Residential Buildings

Supermarkets/ Public Buildings

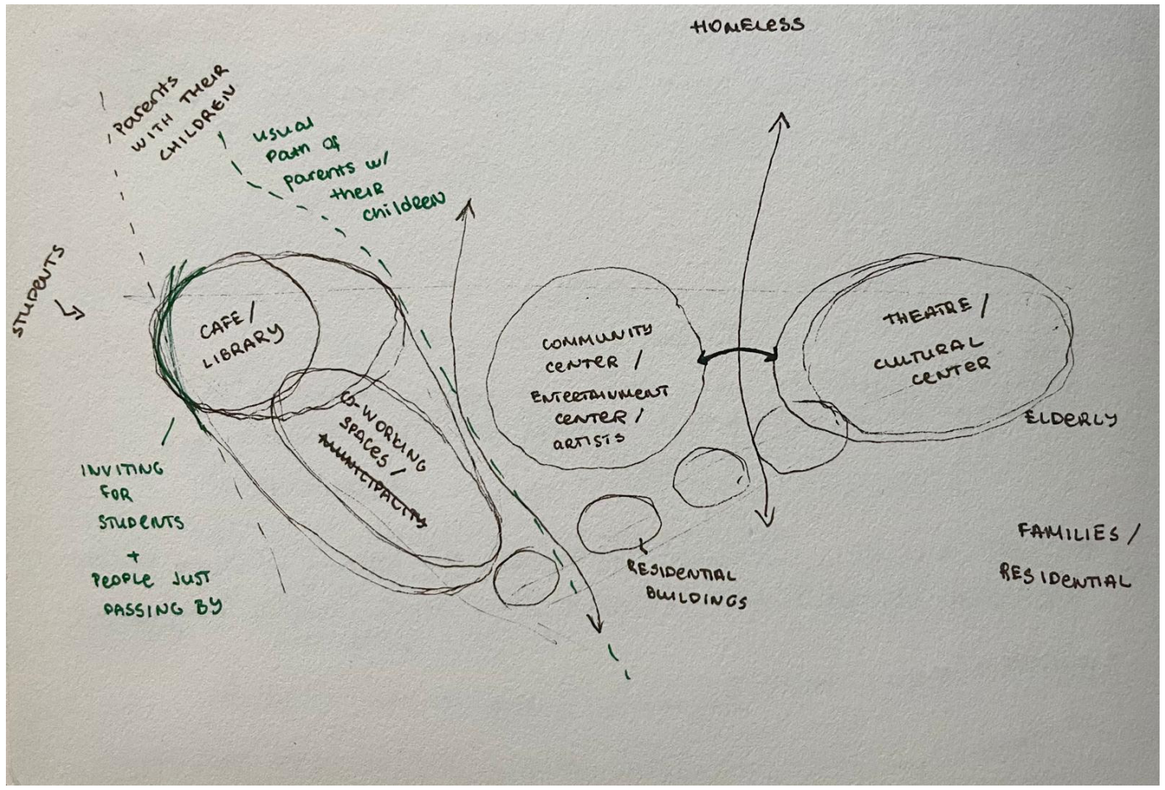
Government Buildings

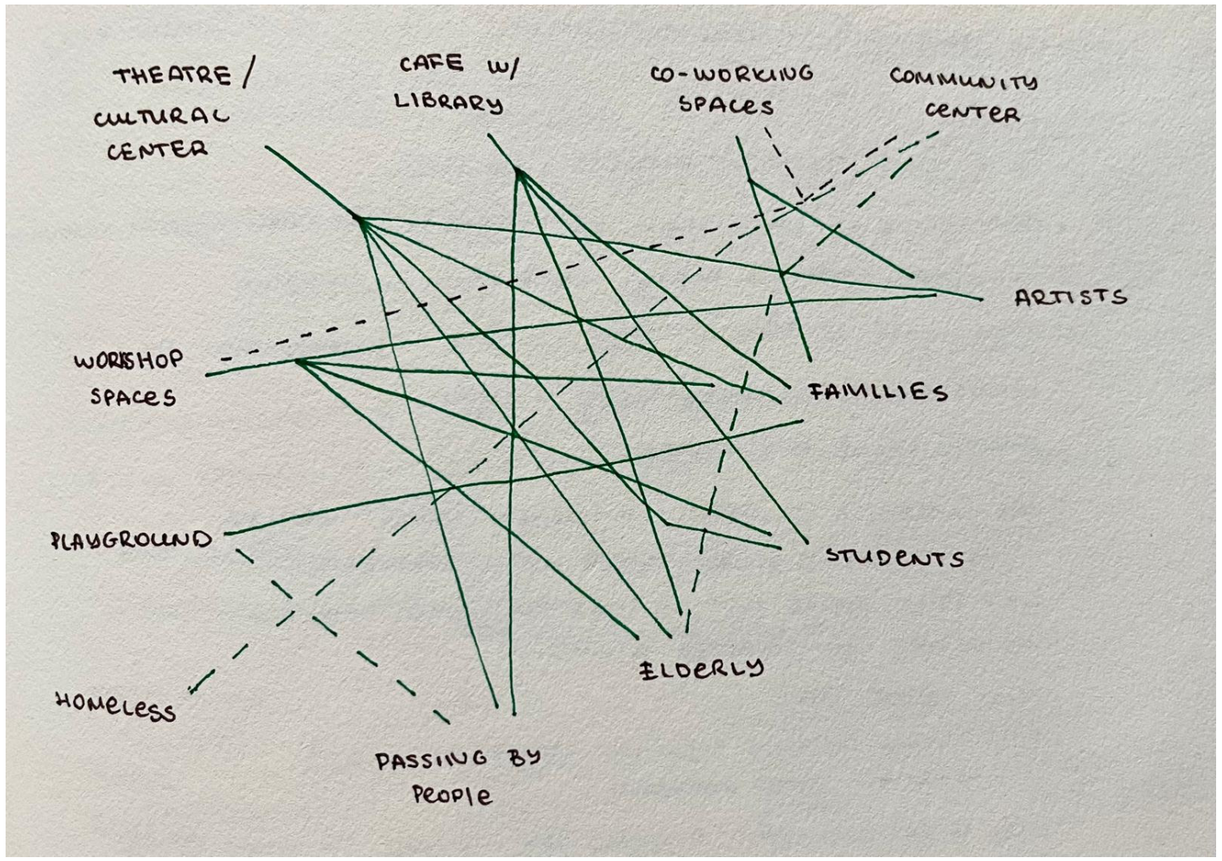
Businesses

Educational Institutions

Analysis

Function Sketches





Analysis

Necessities

Community Engagement

Safe Commuting Routes

Access to Essential Services

Working Spaces

Green Areas

Municipal Functions

Awareness

Workshops

Accidental Meeting Spaces

Cafe/ Food

Connectivity/ Places to Come Together

Community Center

Theatre

Integration into Society

Volunteer Programs

Art Spaces

Library

Job Opportunities

Cultural Places

Analysis

Concept

PUBLIC CONDENSER

BRINGING PEOPLE TOGETHER

MULTI-FUNCTIONALITY

LEVELS OF PRIVACY

PROSPECT-REFUGE THEORY

OPEN VS CLOSE

ACCESSIBILITY

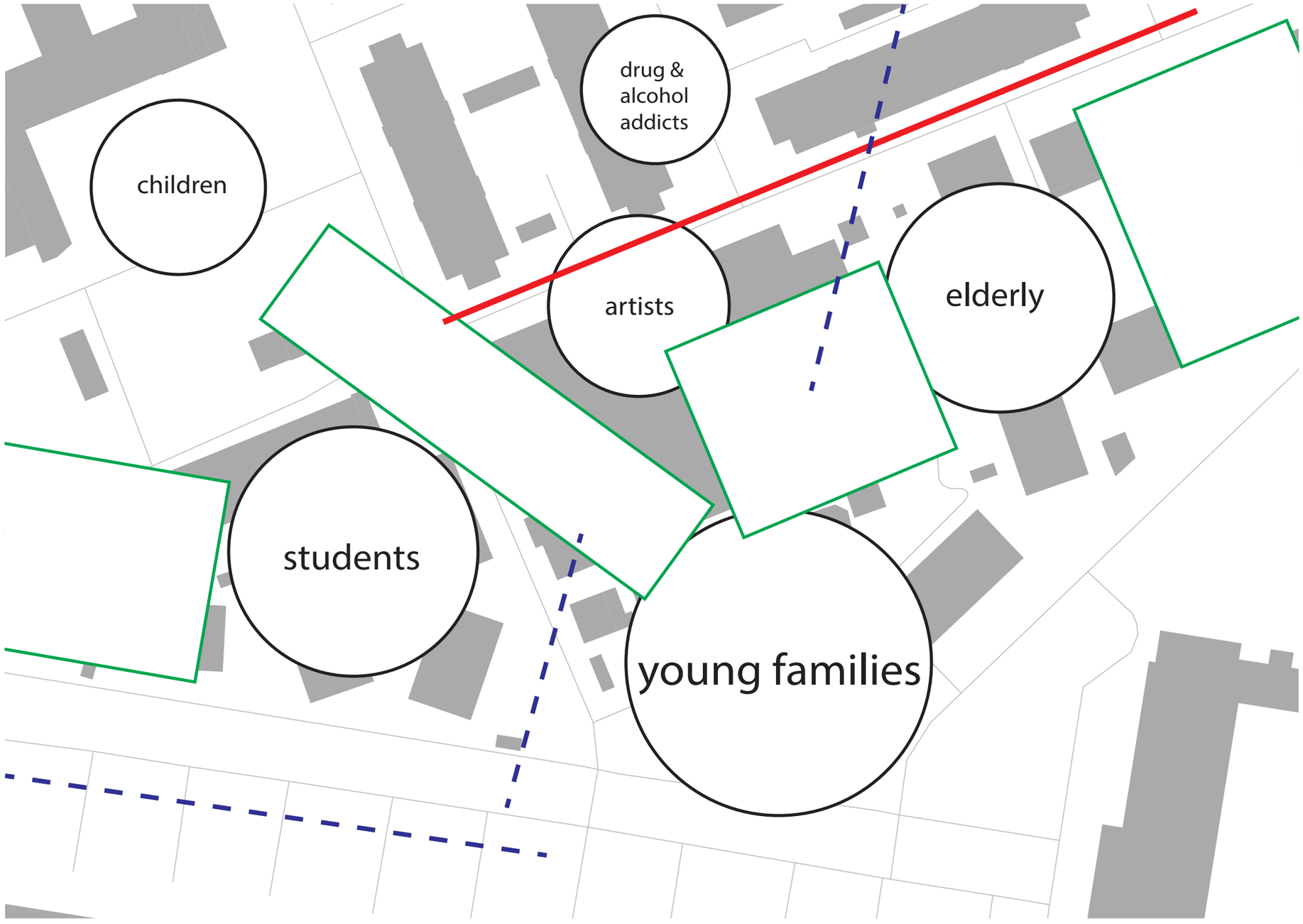
CONNECTIVITY

CIRCULARITY

INTEGRATION OF ROOF INTO DESIGN

Analysis

Borders



Problem Statement

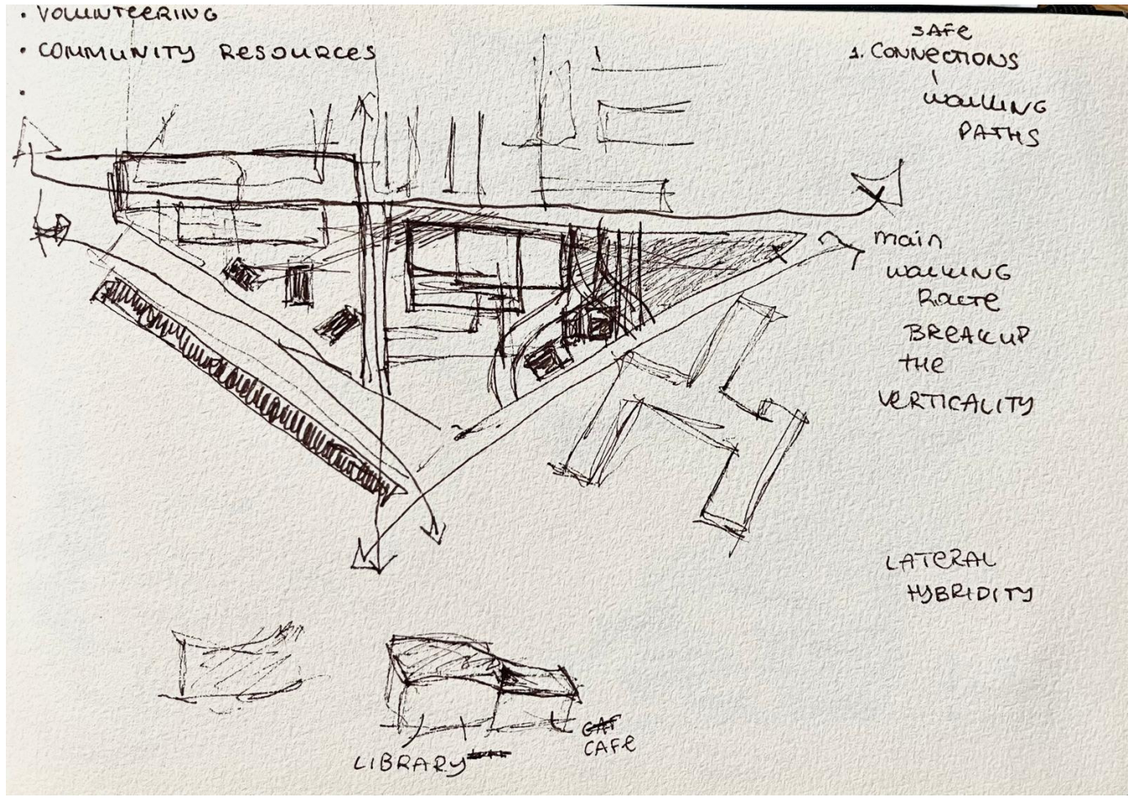
Research Question

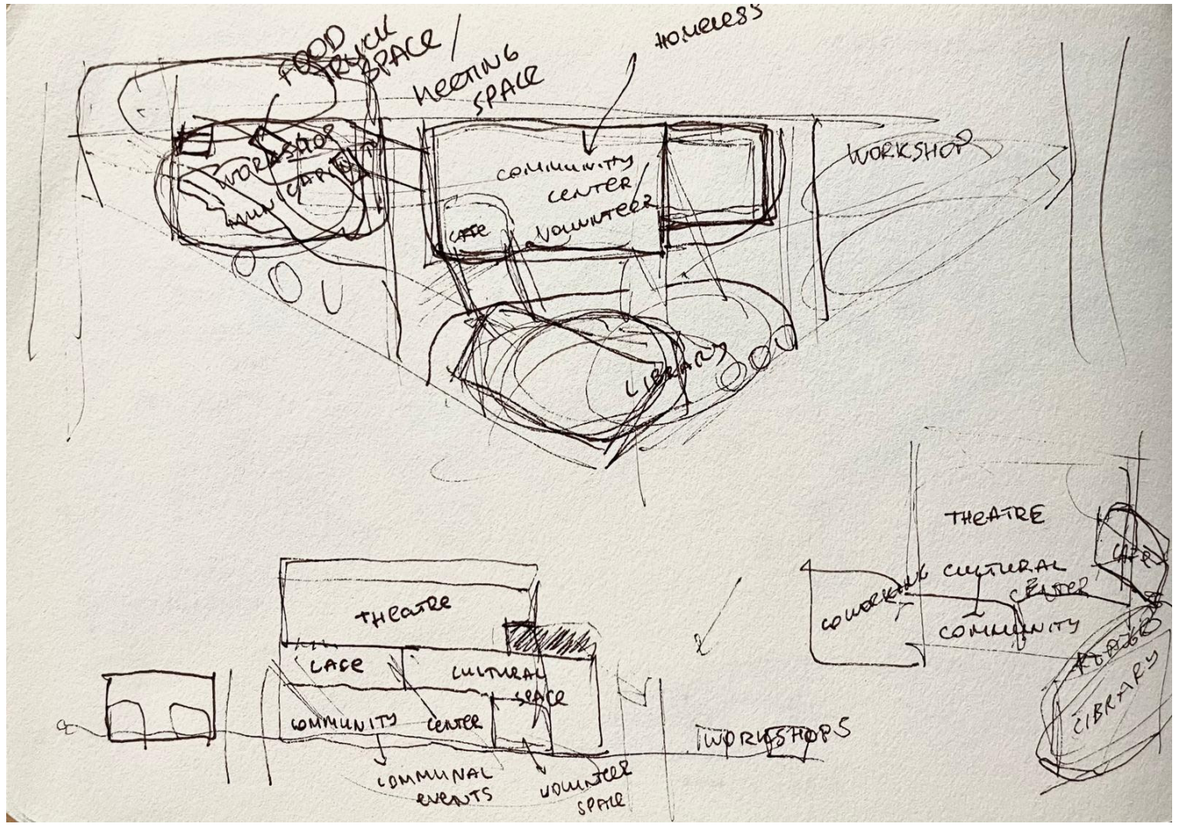
How does the design of a Public Condenser contribute to the establishment of social integration and inclusivity in a community, while promoting a healthy environment and accessibility?

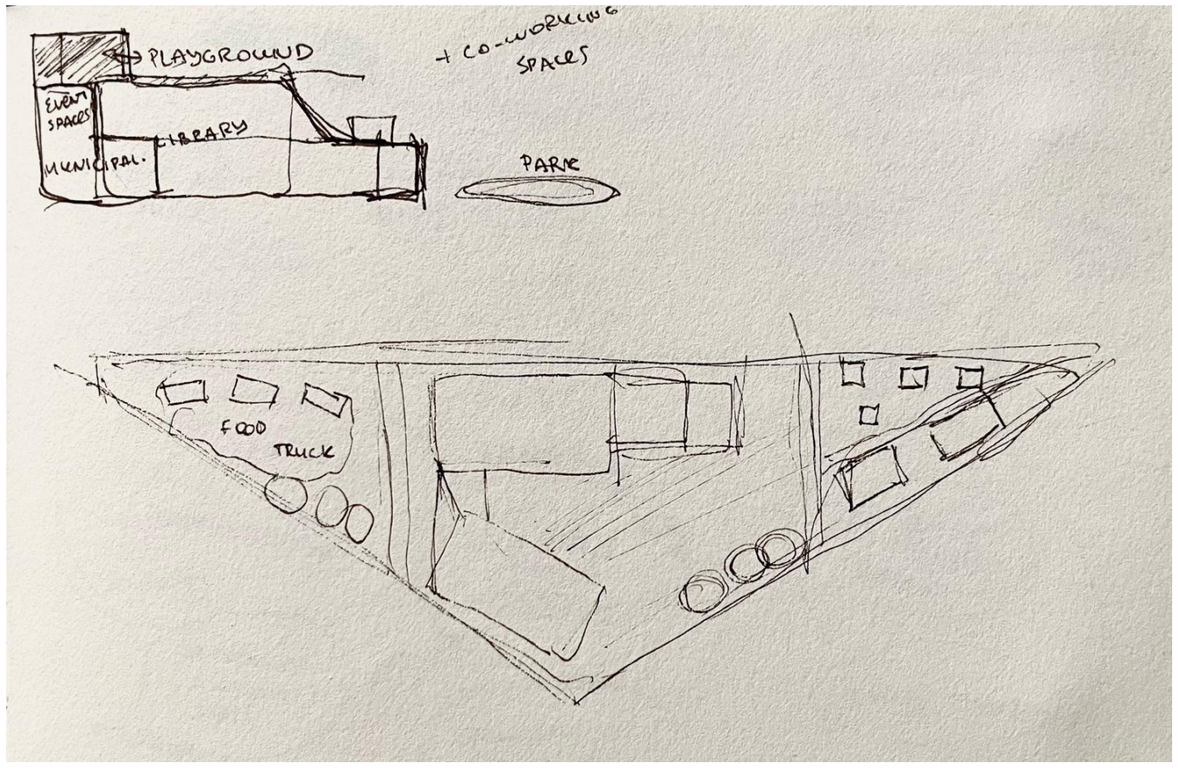
- design strategies contributing to the improvement of social inclusivity
- implementation of reuse, resilience and modular design
- adaptation and transformation for a futureproof public building

Design

Plan Sketches





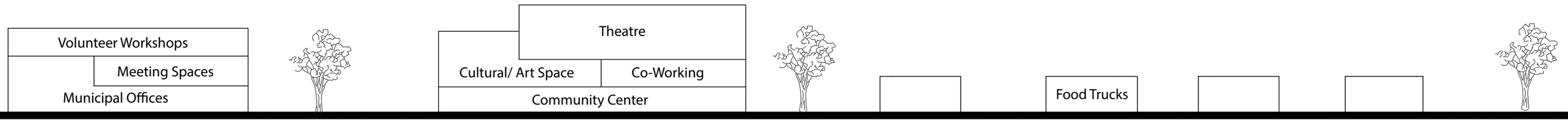


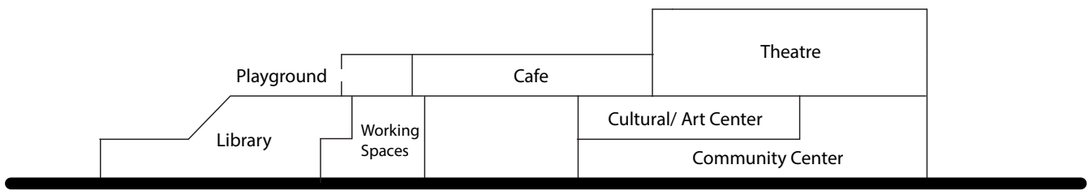
Design

Masterplan

Design

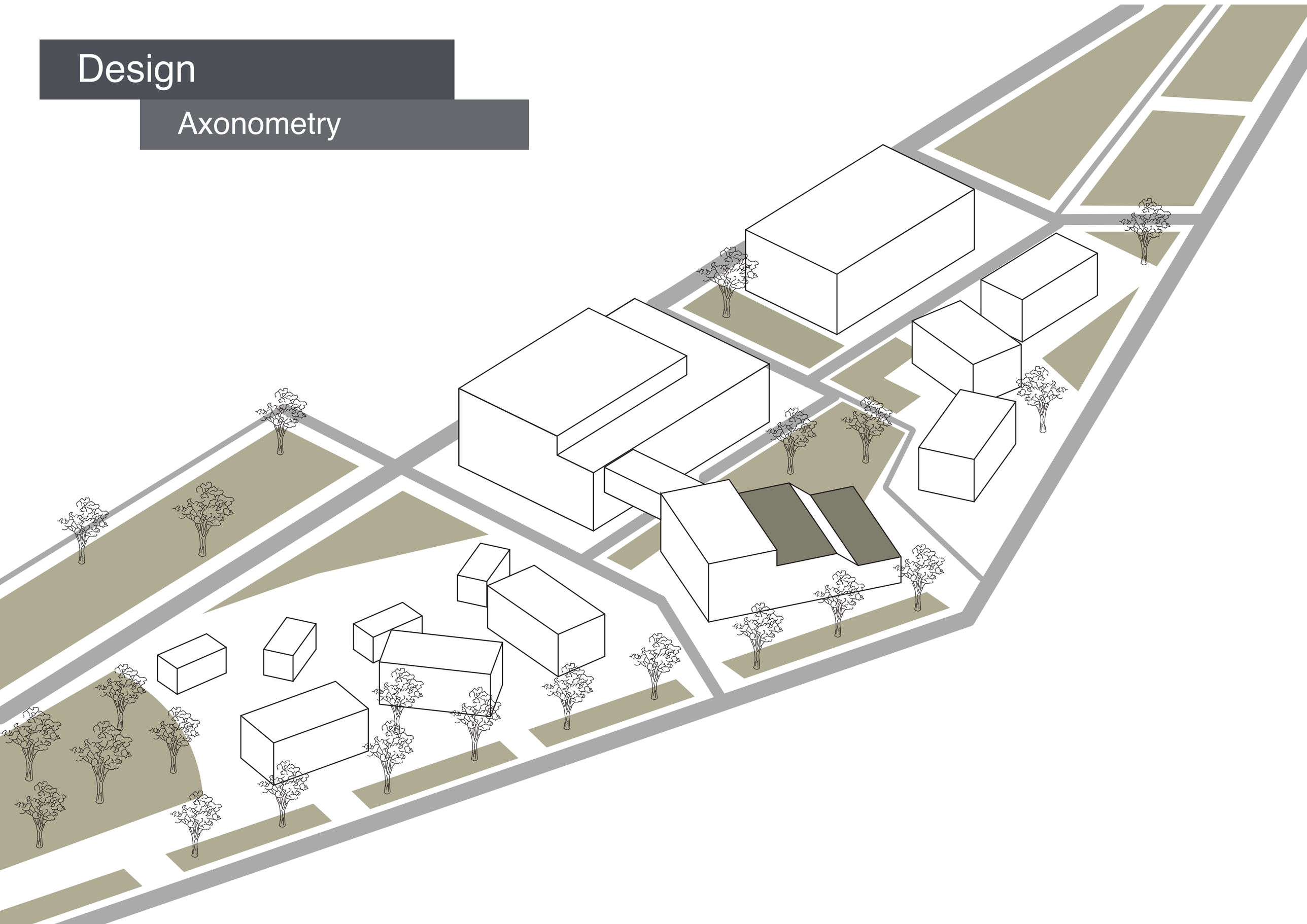
Section Diagrams





Design

Axonometry



Conclusion

Takeaways P1

Main Concepts:

Safe Walking Paths

Better Infrastructure

Better Connection to the Rest of Amager

Job Opportunities

Meeting Spaces

More Green Connections

Communal Spaces

Cultual Spaces

Hybrid Spaces

Takeaways from P1 Presentation:

Good idea for redeveloping existing buildings

What is the Condenser? the area or a specific building

What are going to be the accidental meeting spaces?

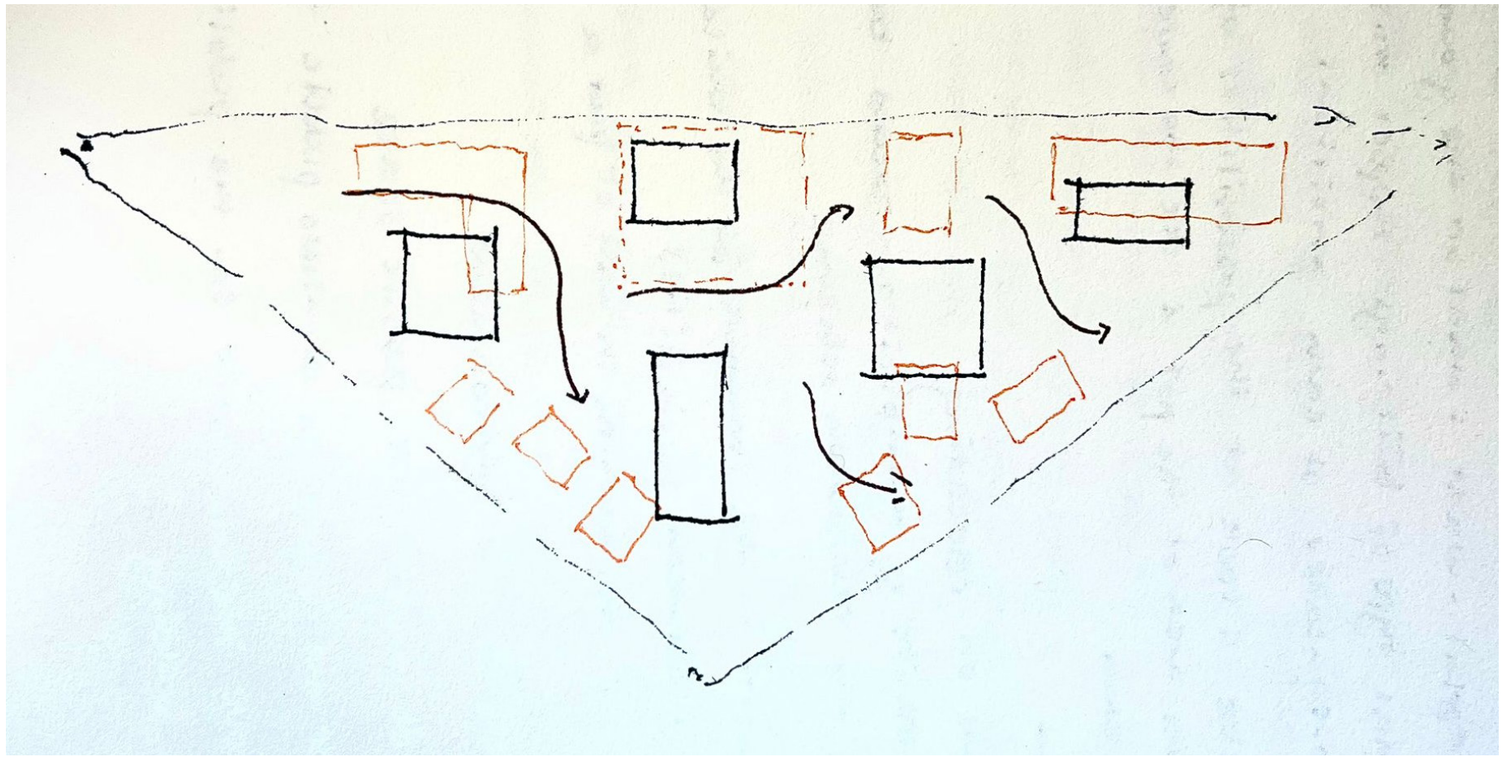
Do not limit only in the triangle area

Take each concept separately

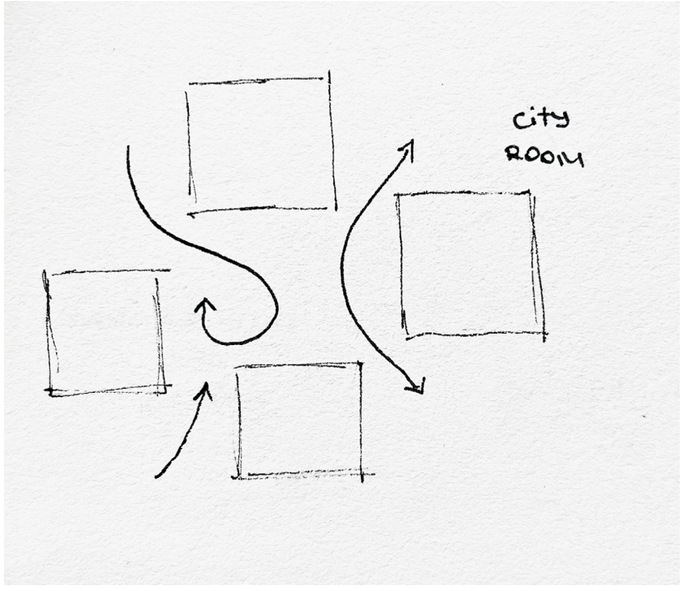
Let the concepts forward the design

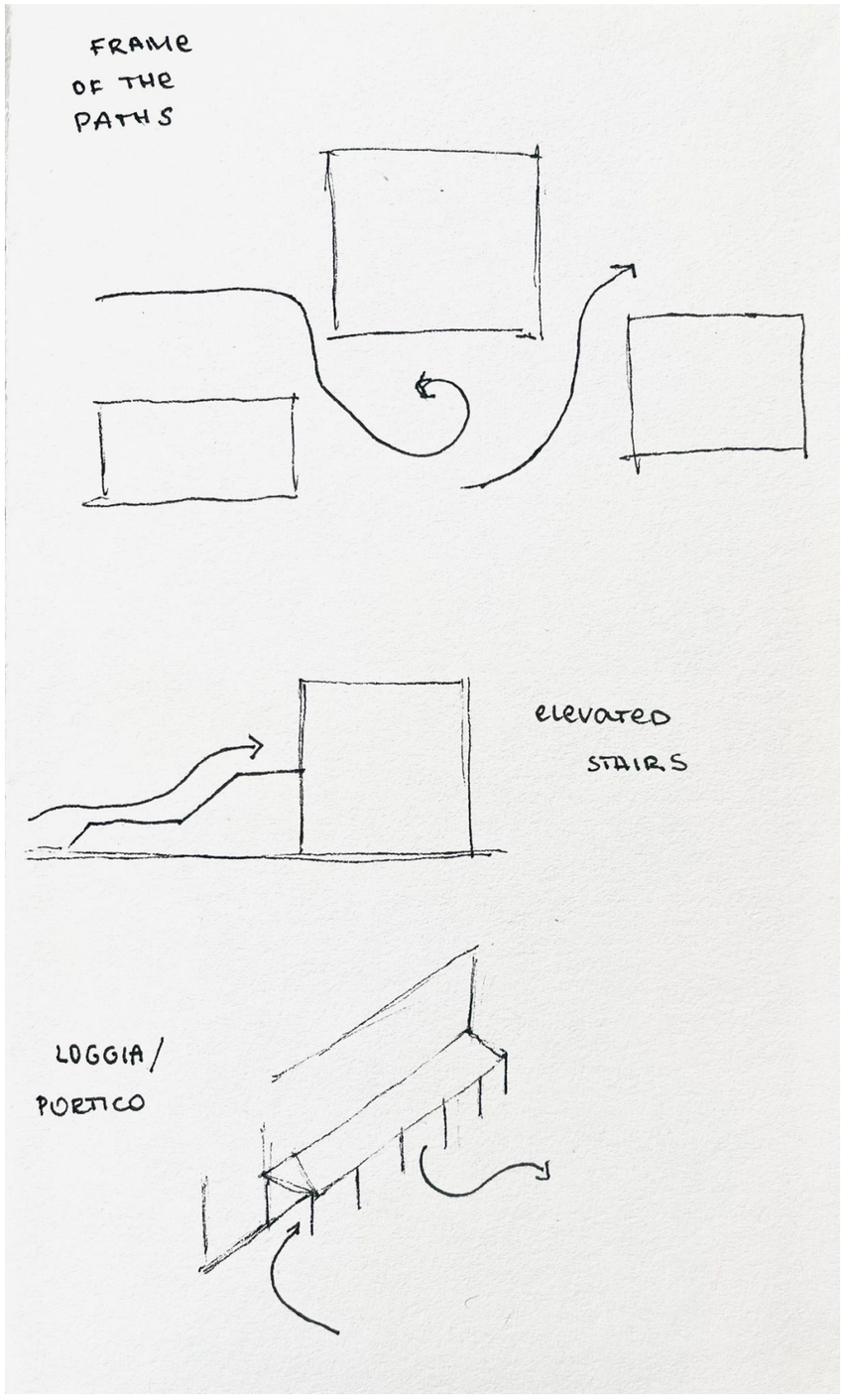
Design

Masterplan Sketches



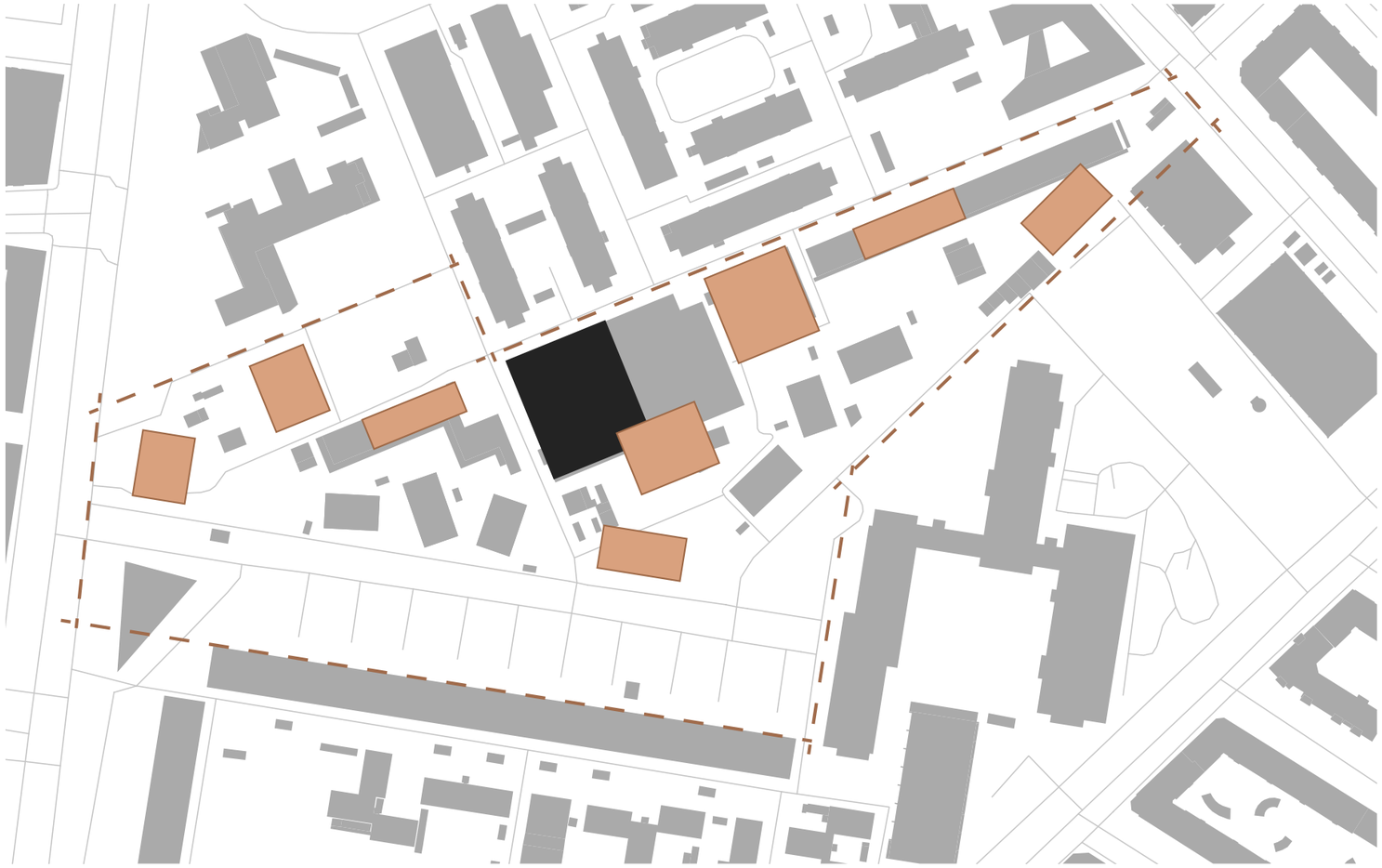
The area creates unique opportunities of connecting to different parts of the nighbourhood. As the triangle area is situated in the middle of the neighbourhood, it allows for good connectivity to be introduced in the area. Hence, by researching different opportunities of positioning the buildings and the connections between them, the cohesion with the rest of the neighbourhood is created. In these sketches some ideas were researched, such as having decentralized building model with many smaller connections around them. But also connections on different levels were researched, such as elevated surface and the connection with the ground floor.

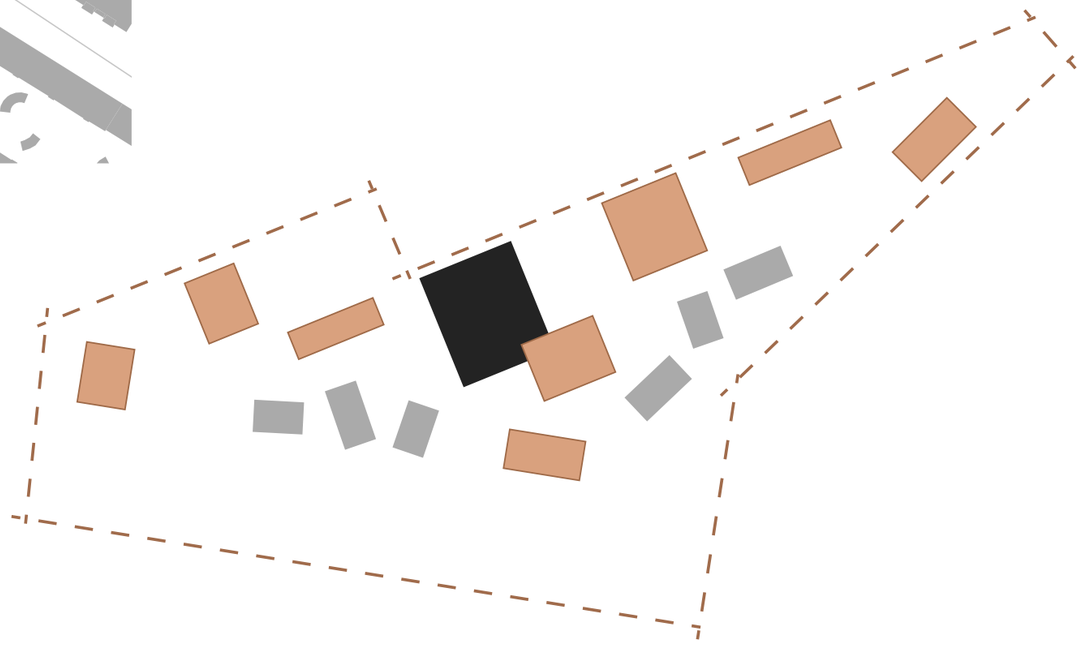




Design

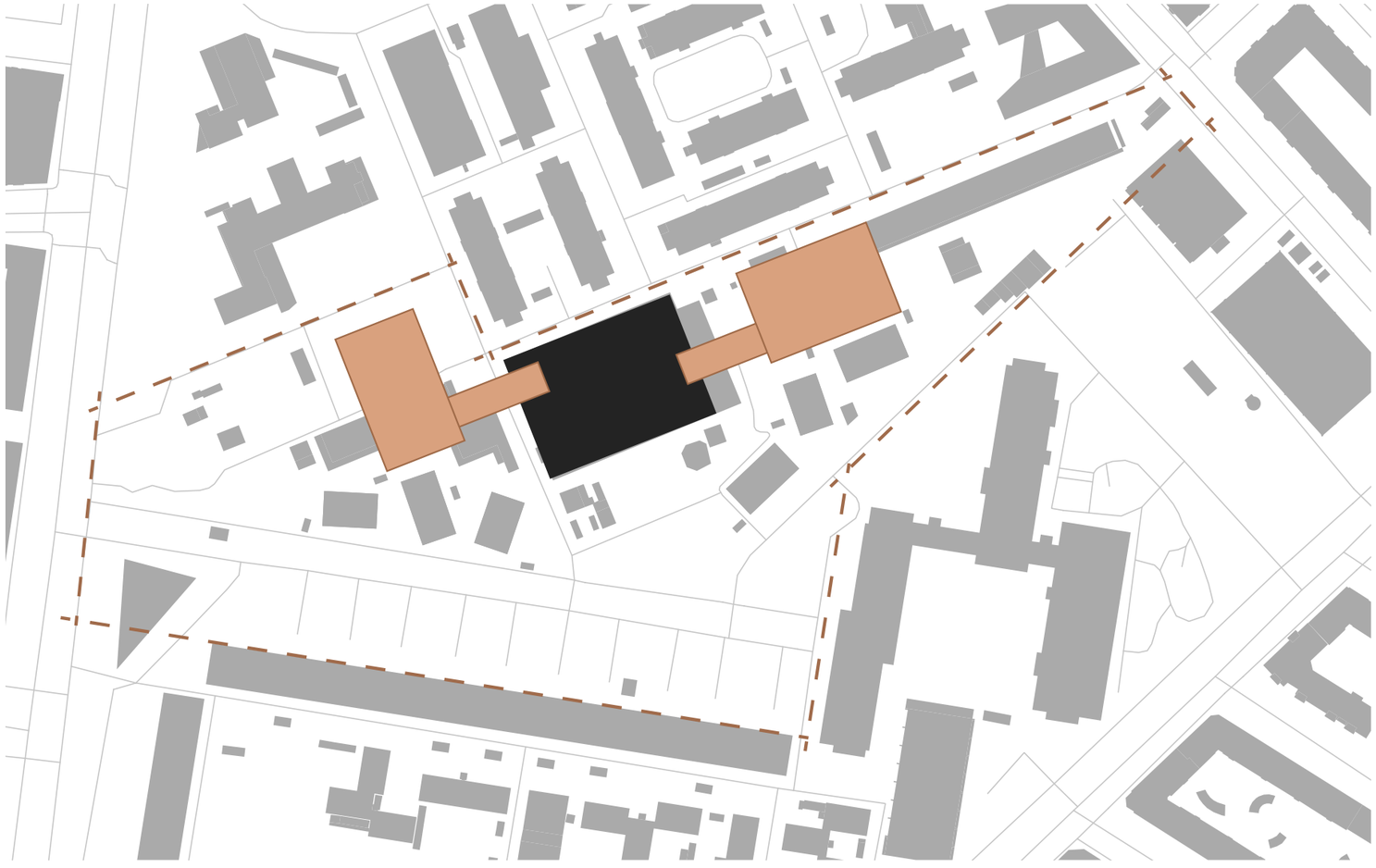
Masterplan Proposal 1

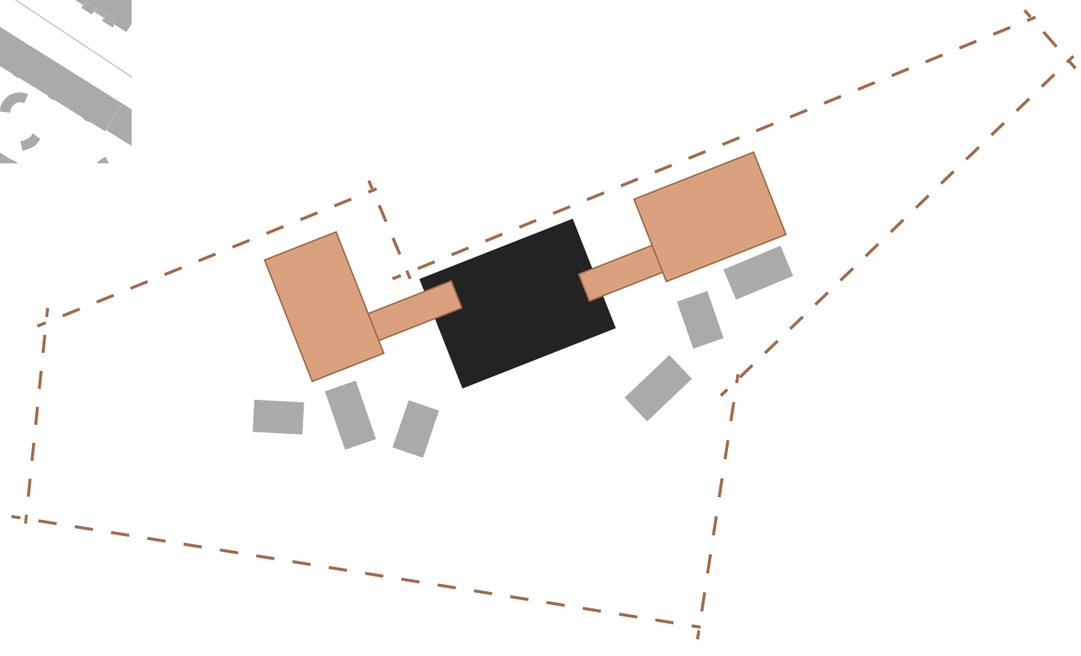




Design

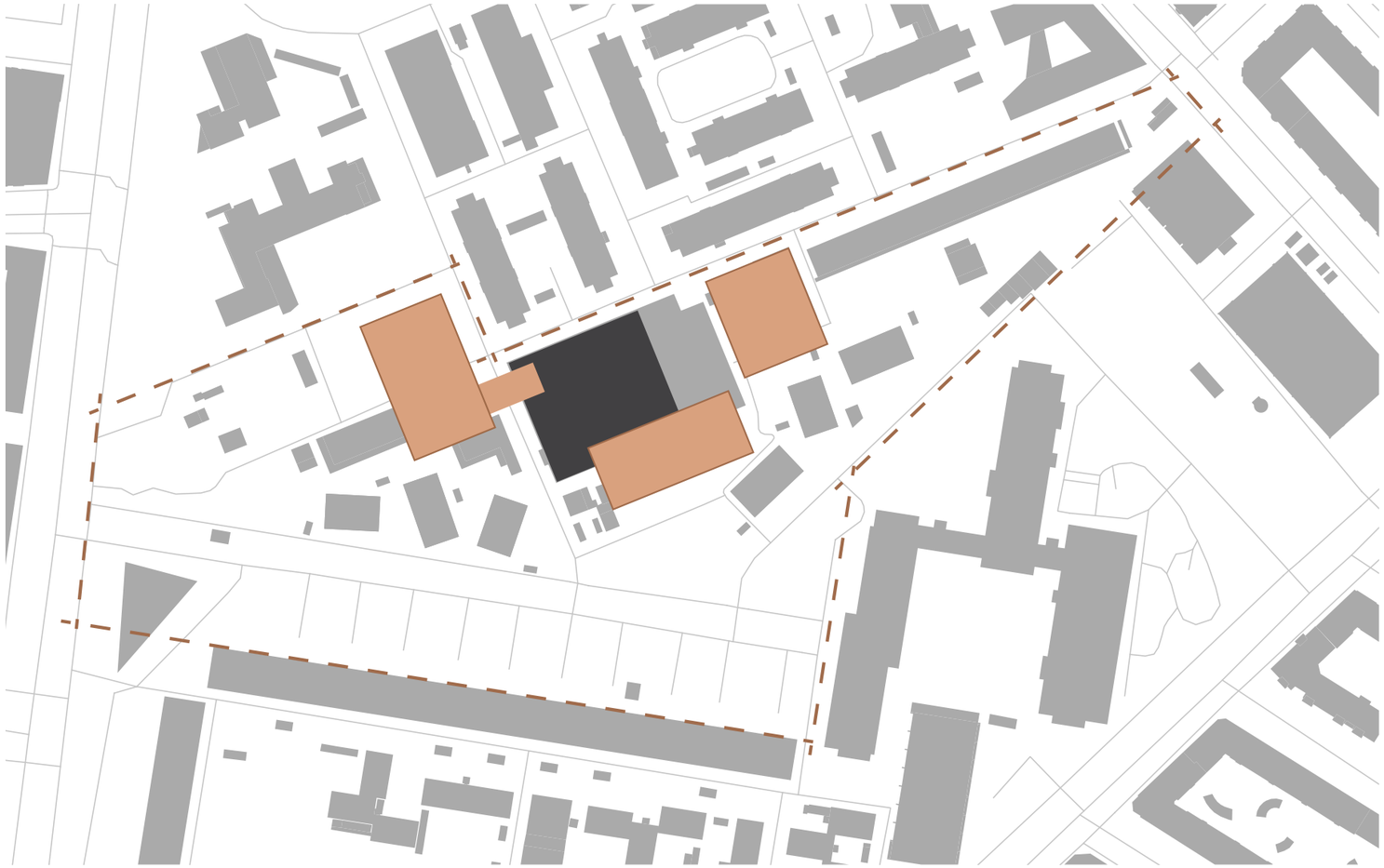
Masterplan Proposal 2

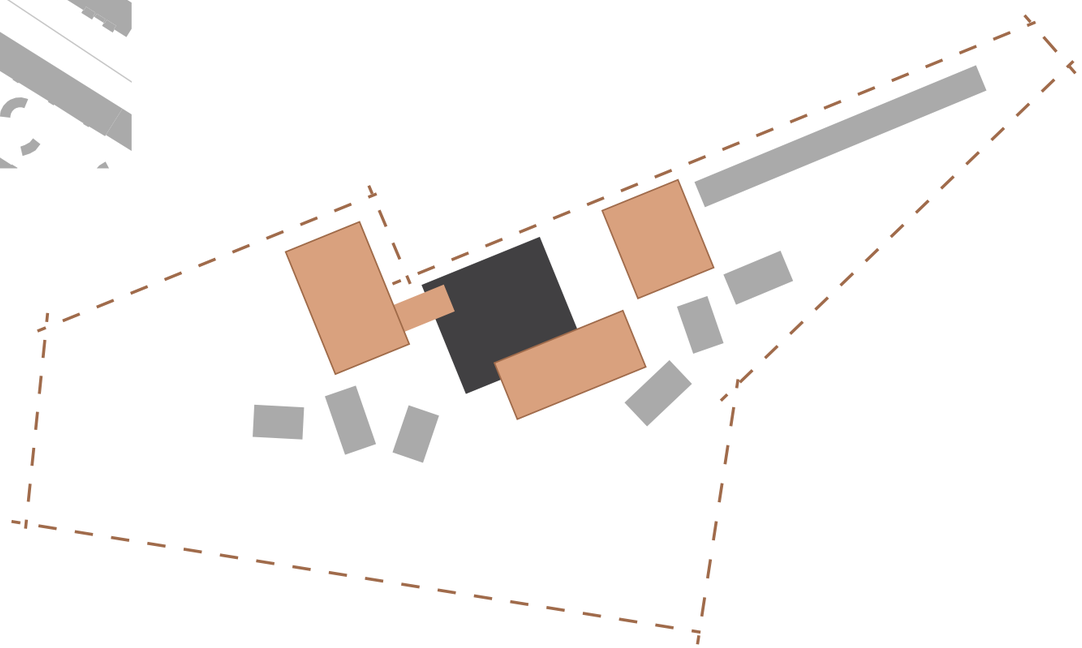




Design

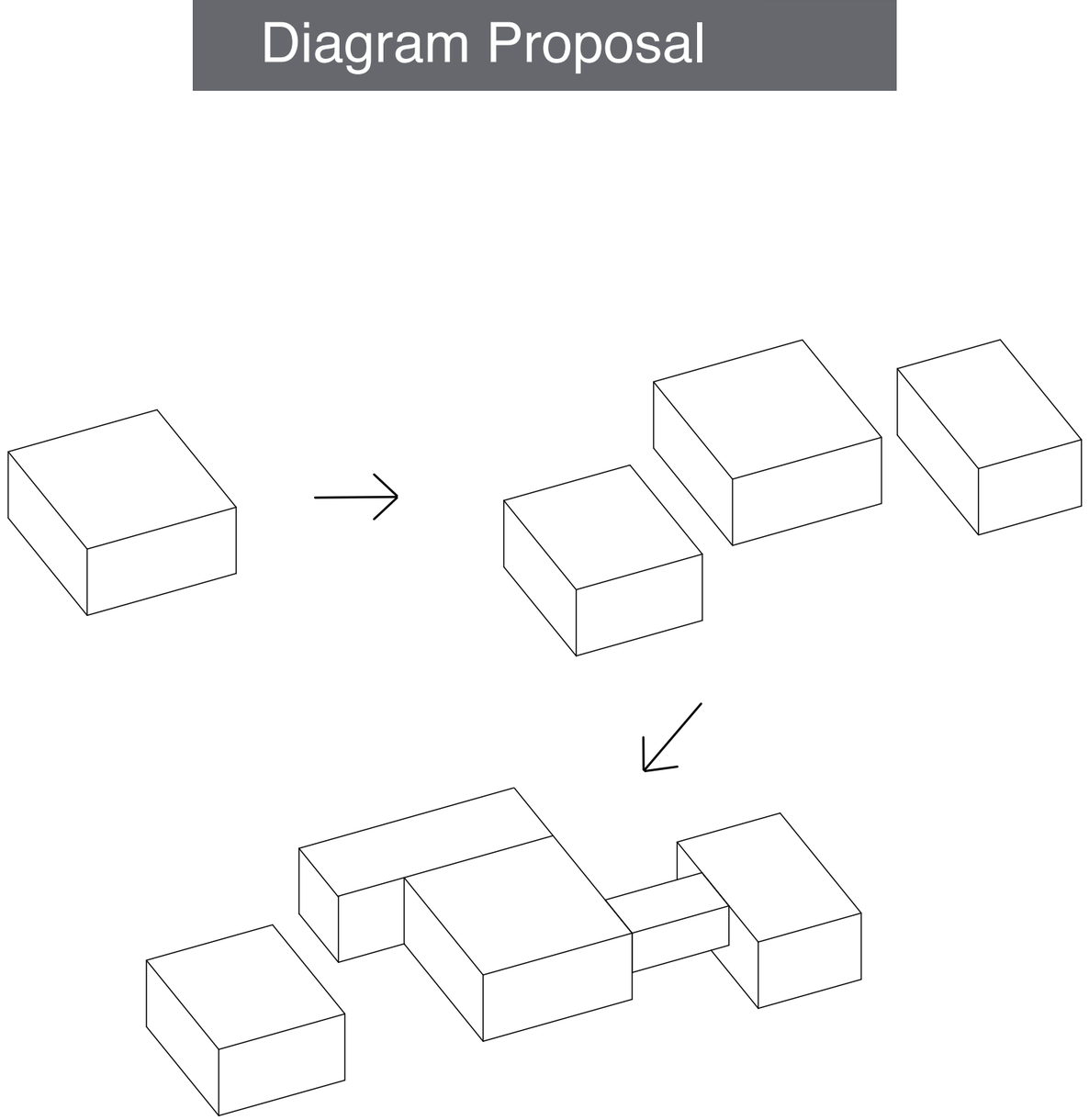
Masterplan Proposal 3

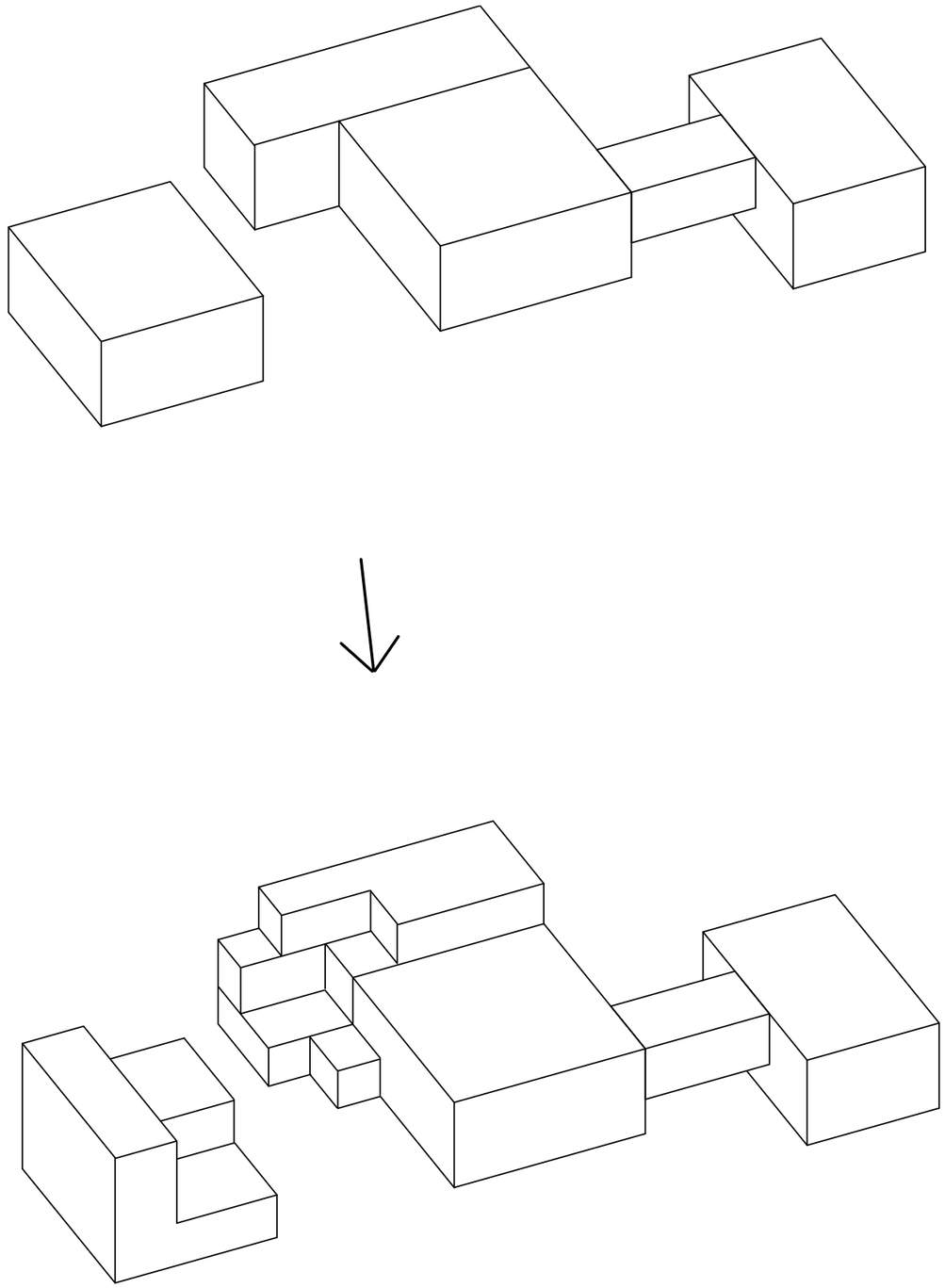




Design

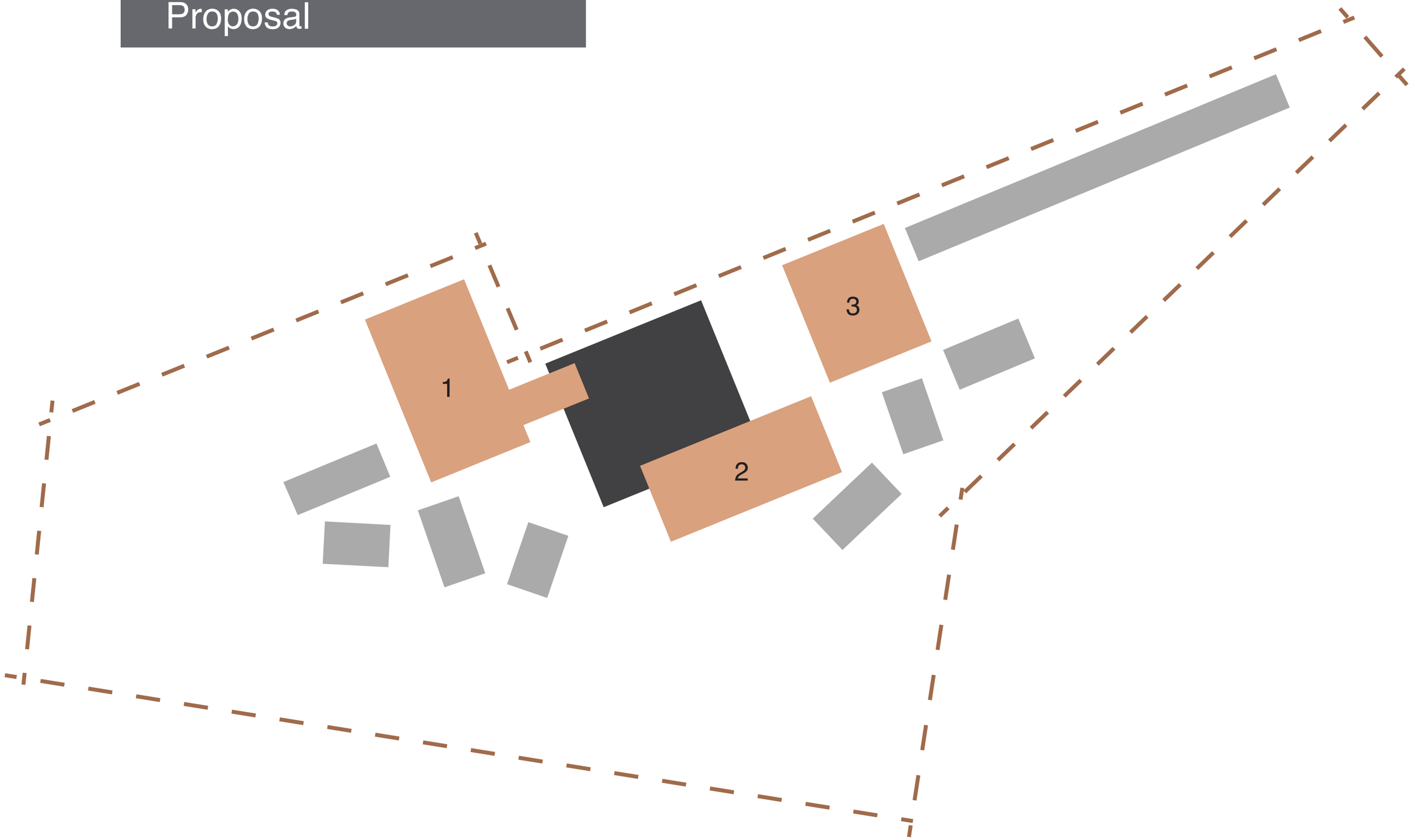
Diagram Proposal





Design

Proposal



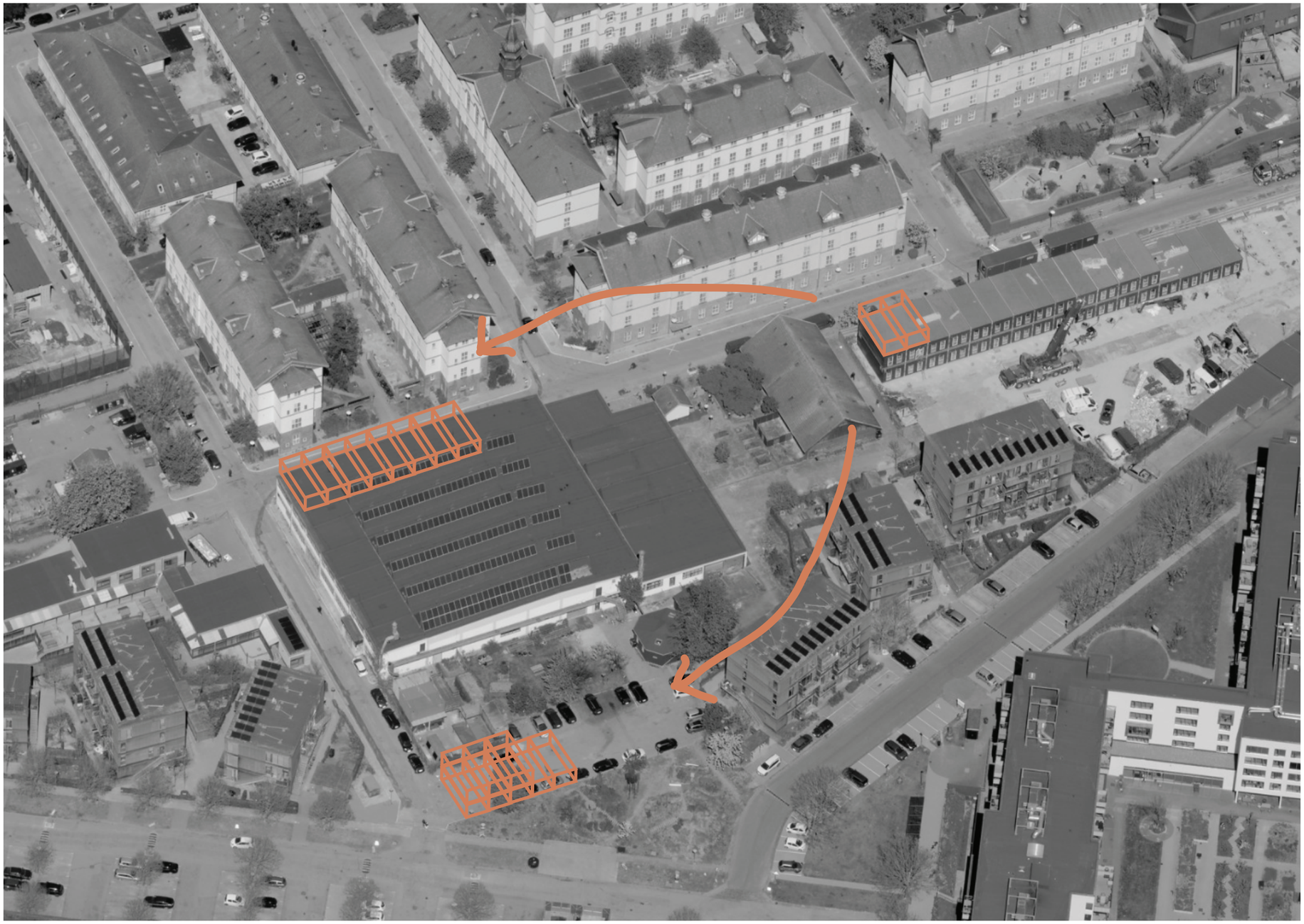
1. Semi-Attached

2. Attached

3. Detached

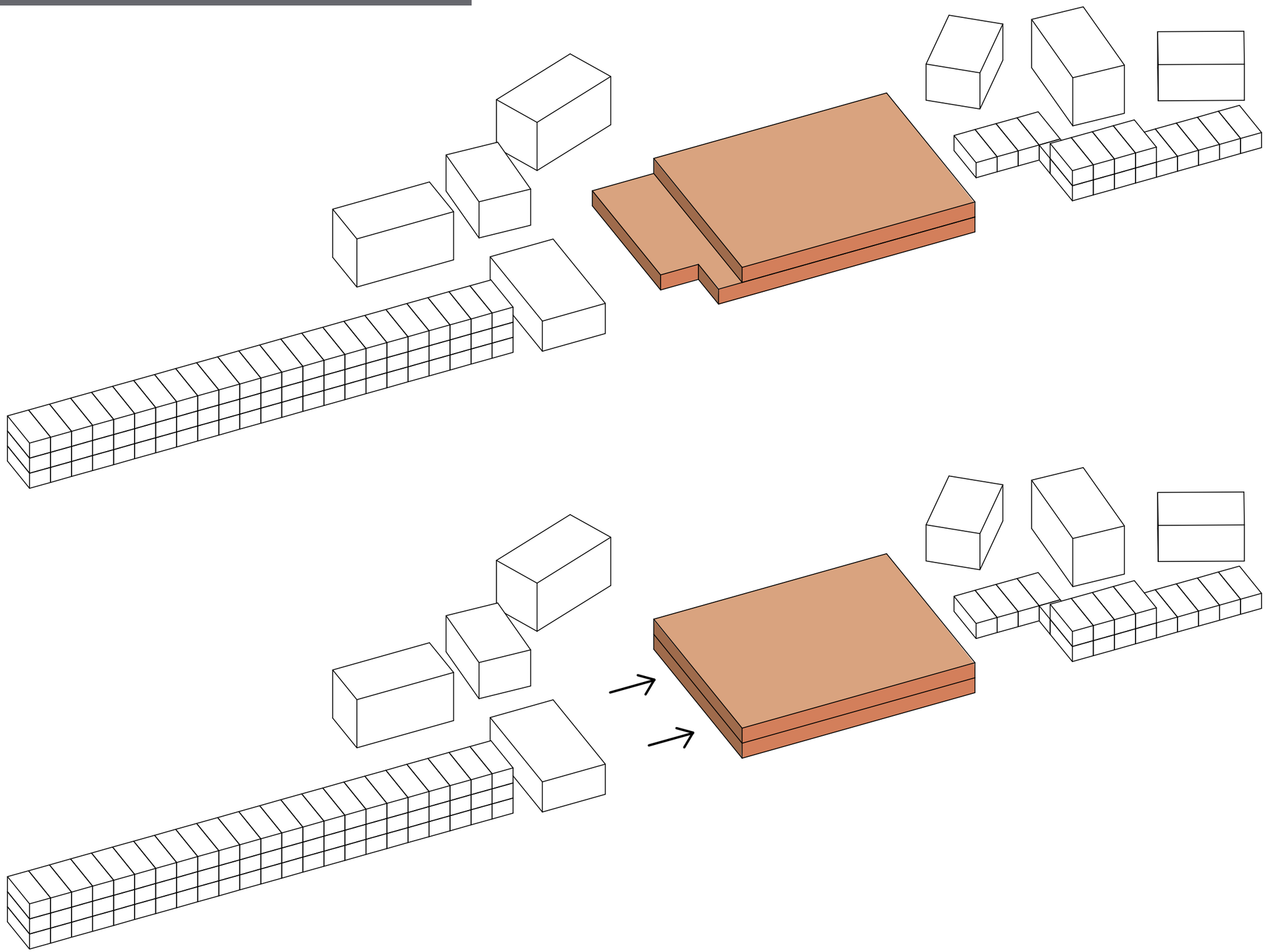
Sustainability

Assemble/ Reassemble



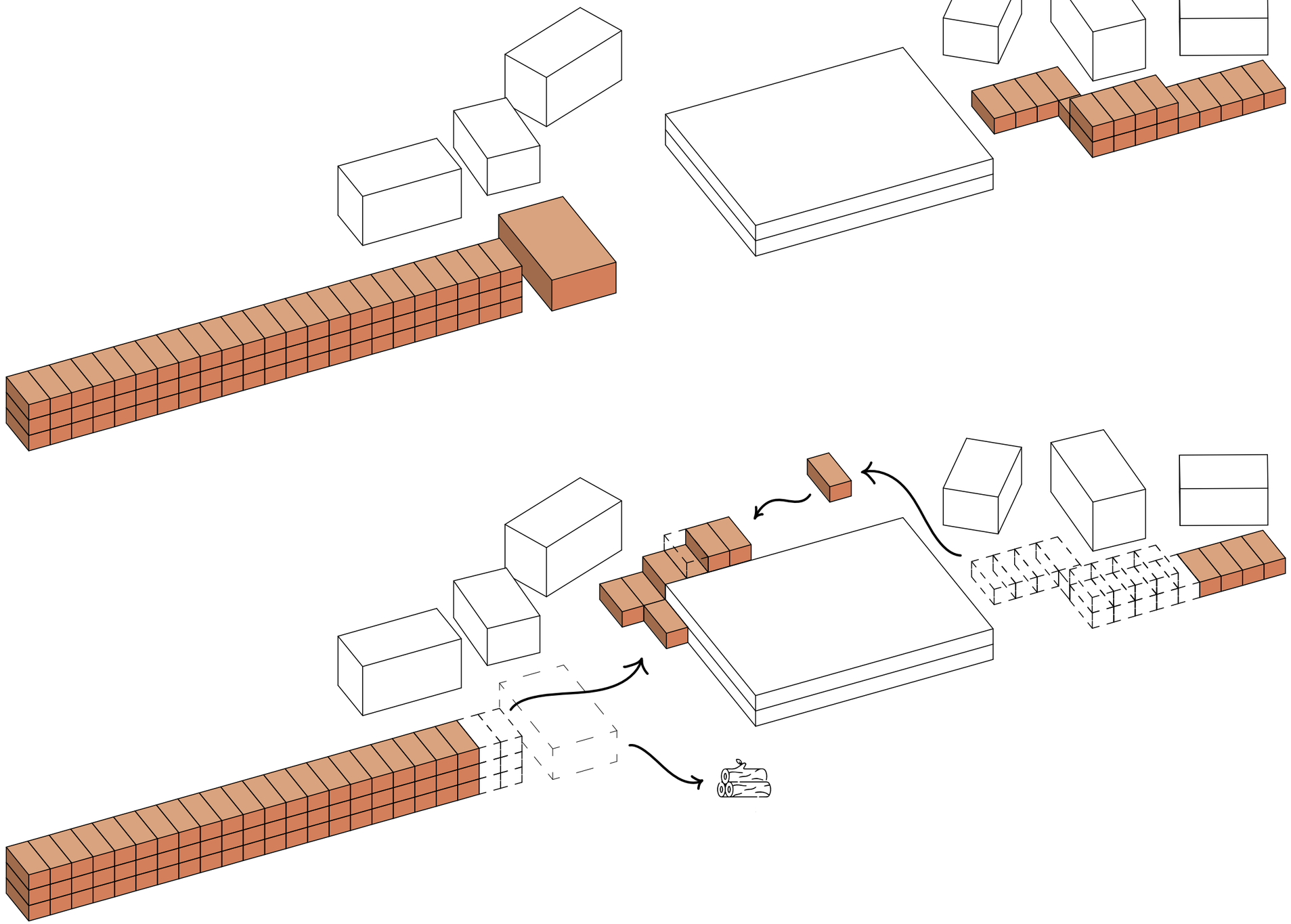
Sustainability

Reuse Strategy



Sustainability

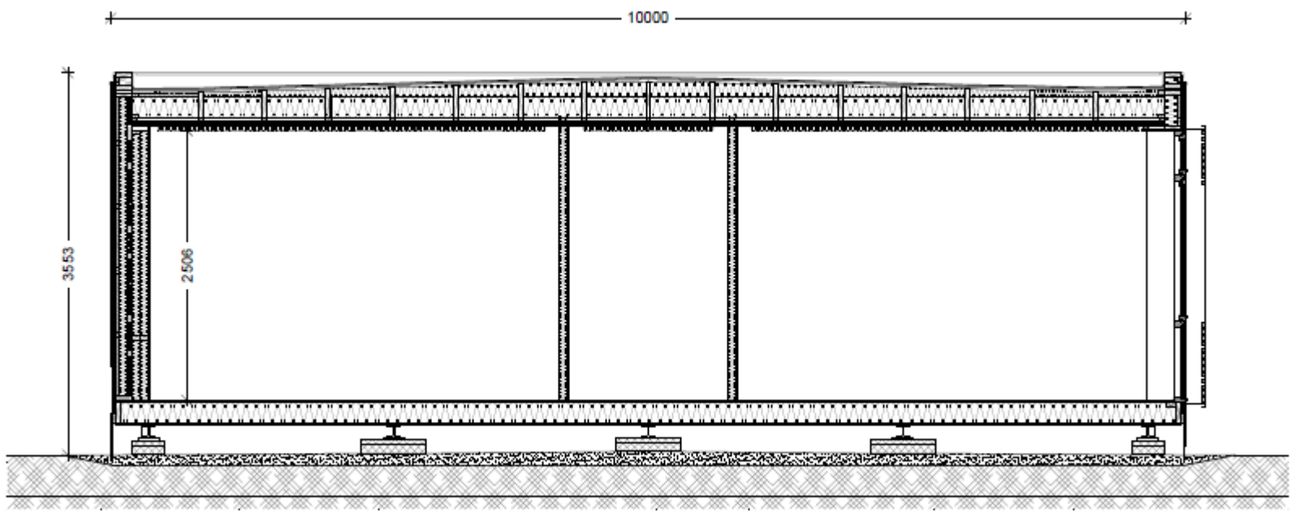
Assemble/ Reassemble



Sustainability

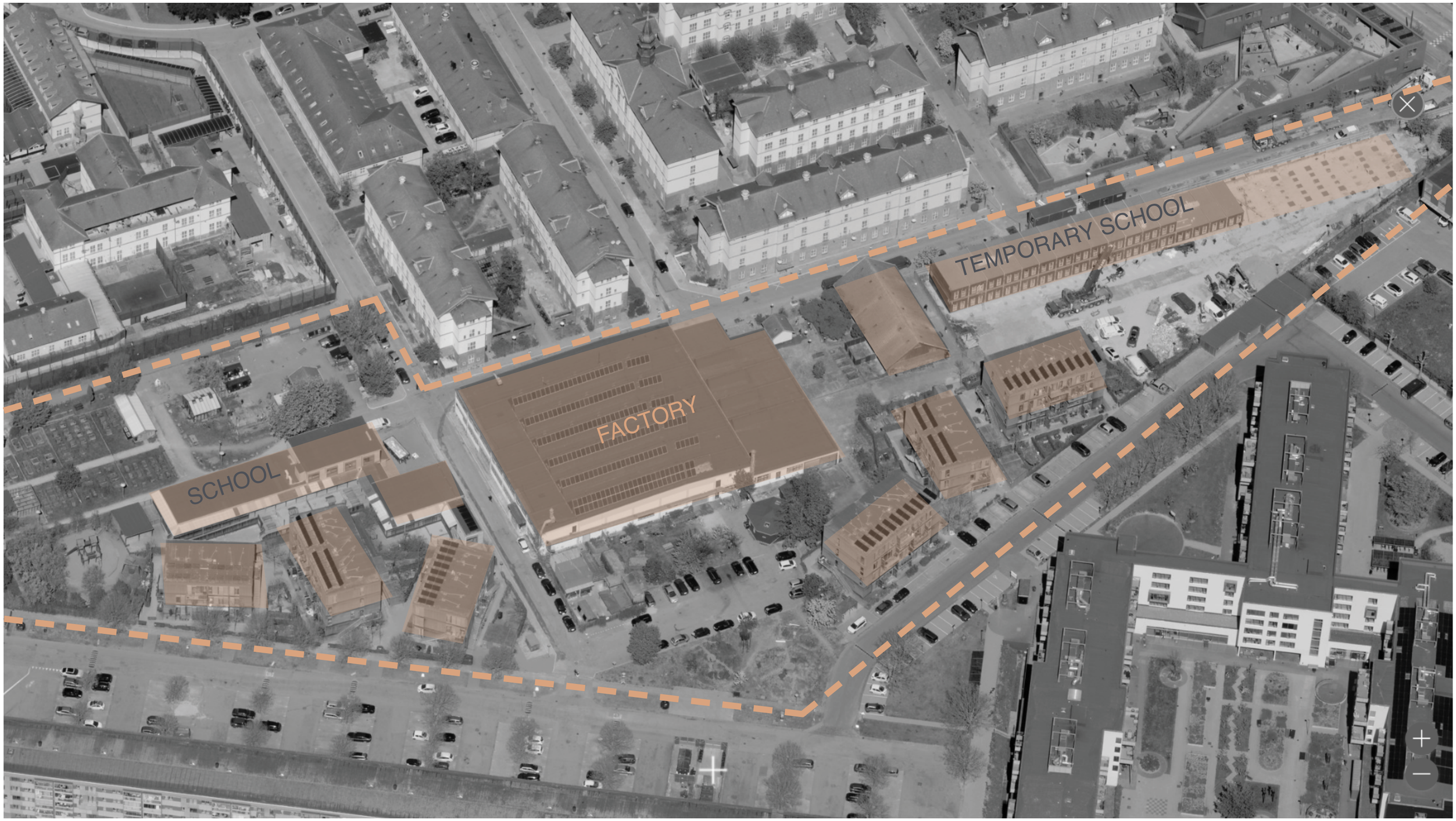
Assemble/ Reassemble

The sustainability strategy is to reuse the containers that are currently being used in the plot as a temporary school. Those containers are modular and can be easily assembled and reassembled. In the picture their current visualization is shown, which can always be readdapted. The dimensions of these containers are 4 meters by 10 meters. The containers would predominantly be taken from the school to the left of the factory, as shown on the map.



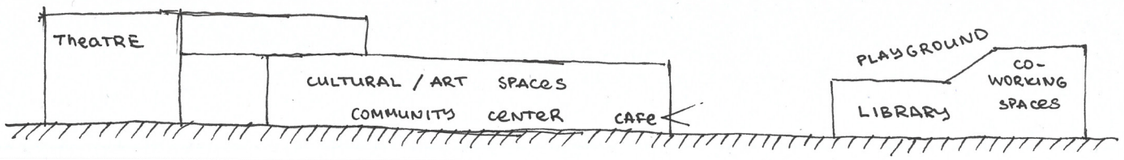
Analysis

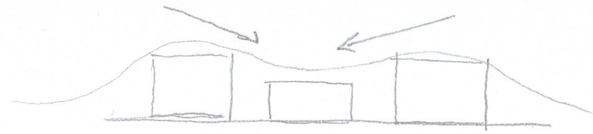
Current Situation

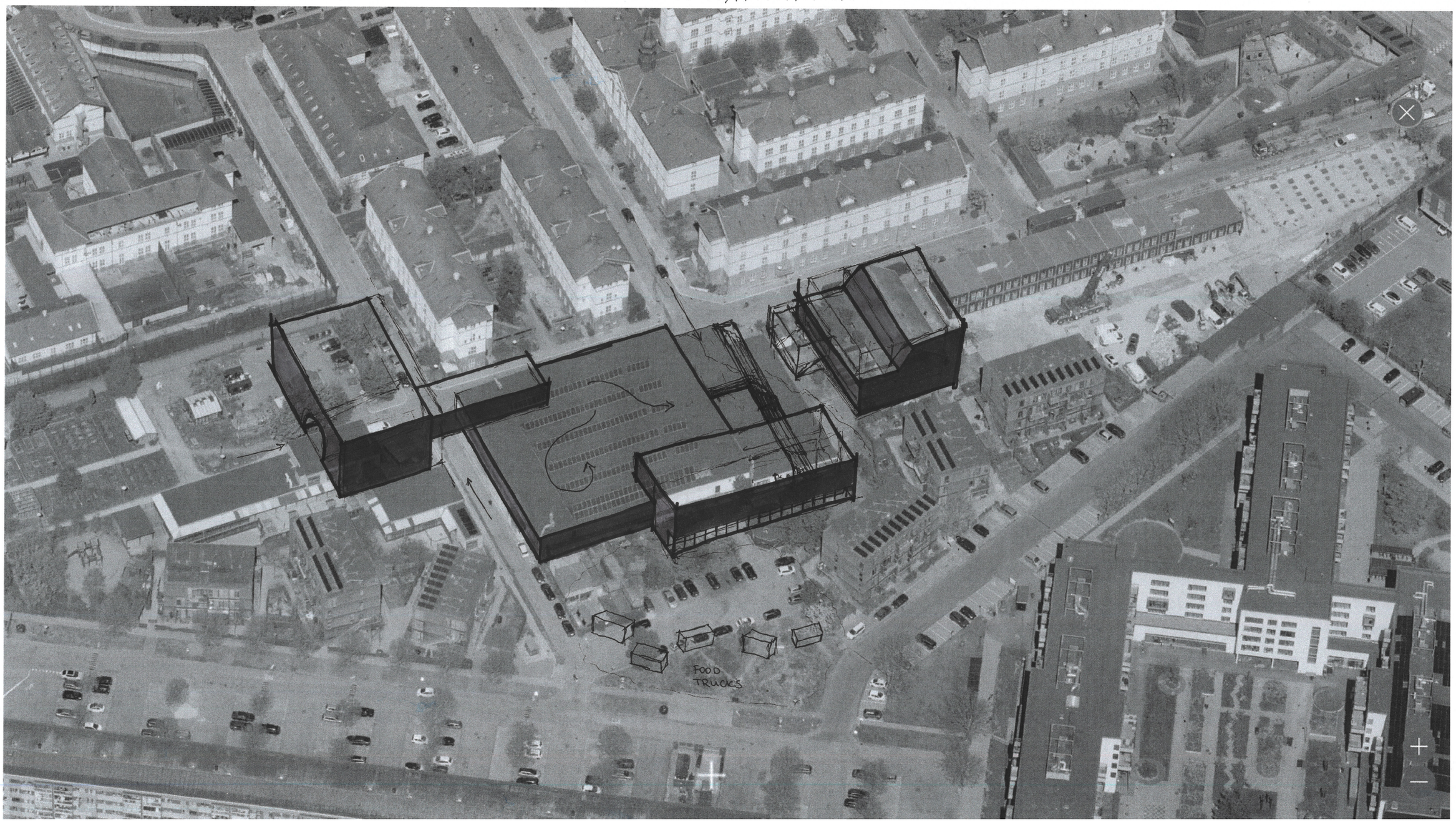


Design

3D Sketch

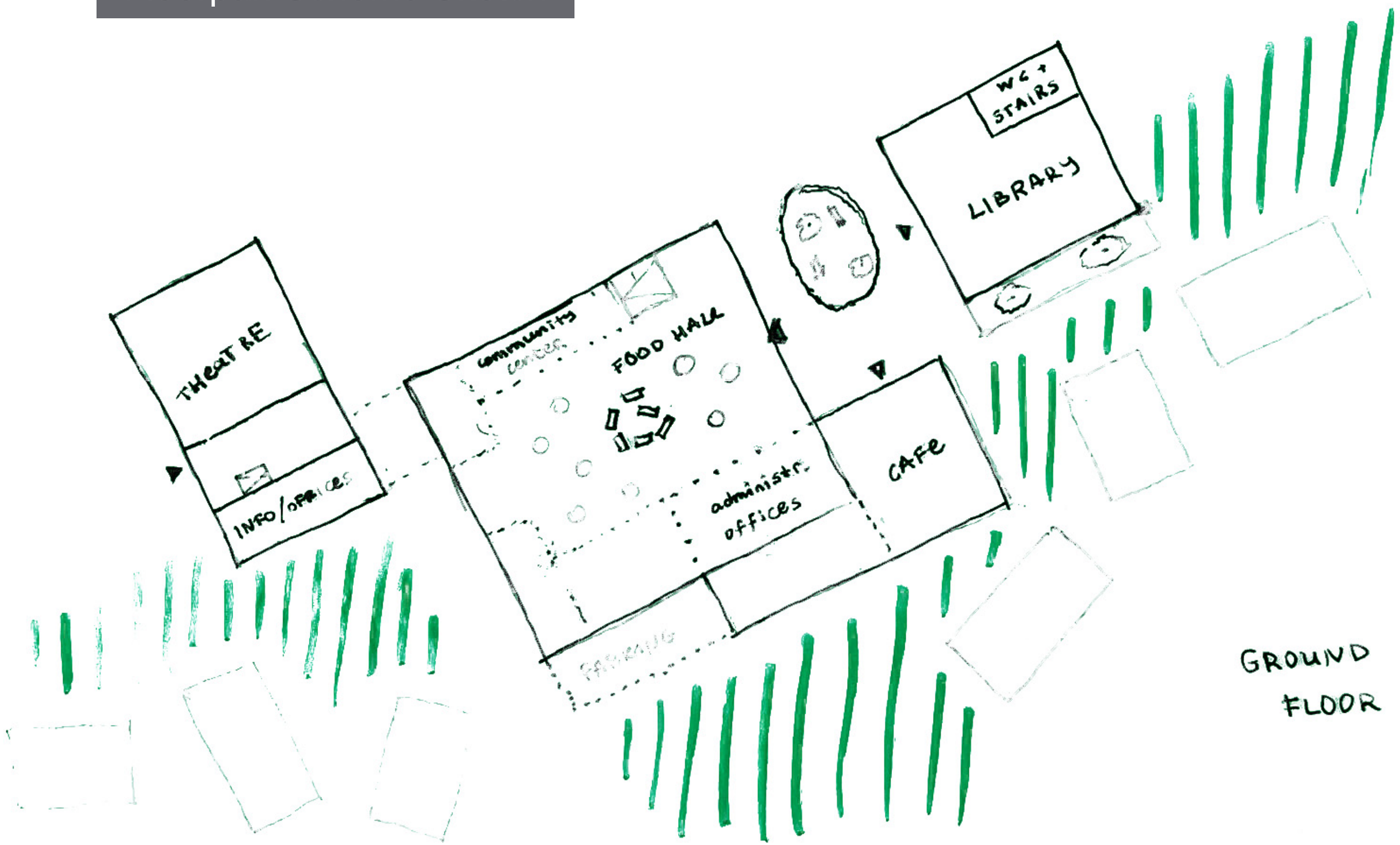






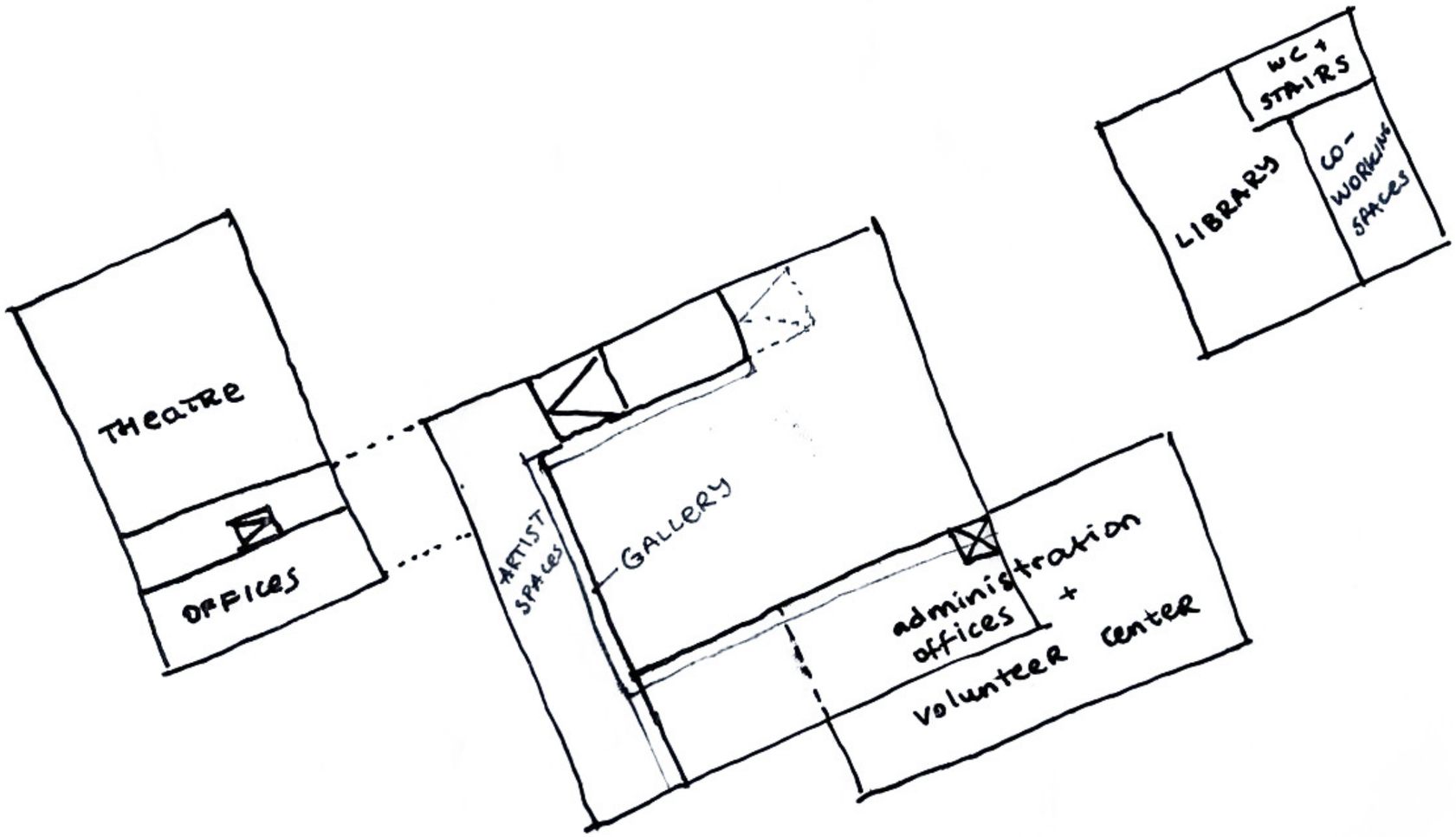
Design

Floorpan Scheme Sketch



Design

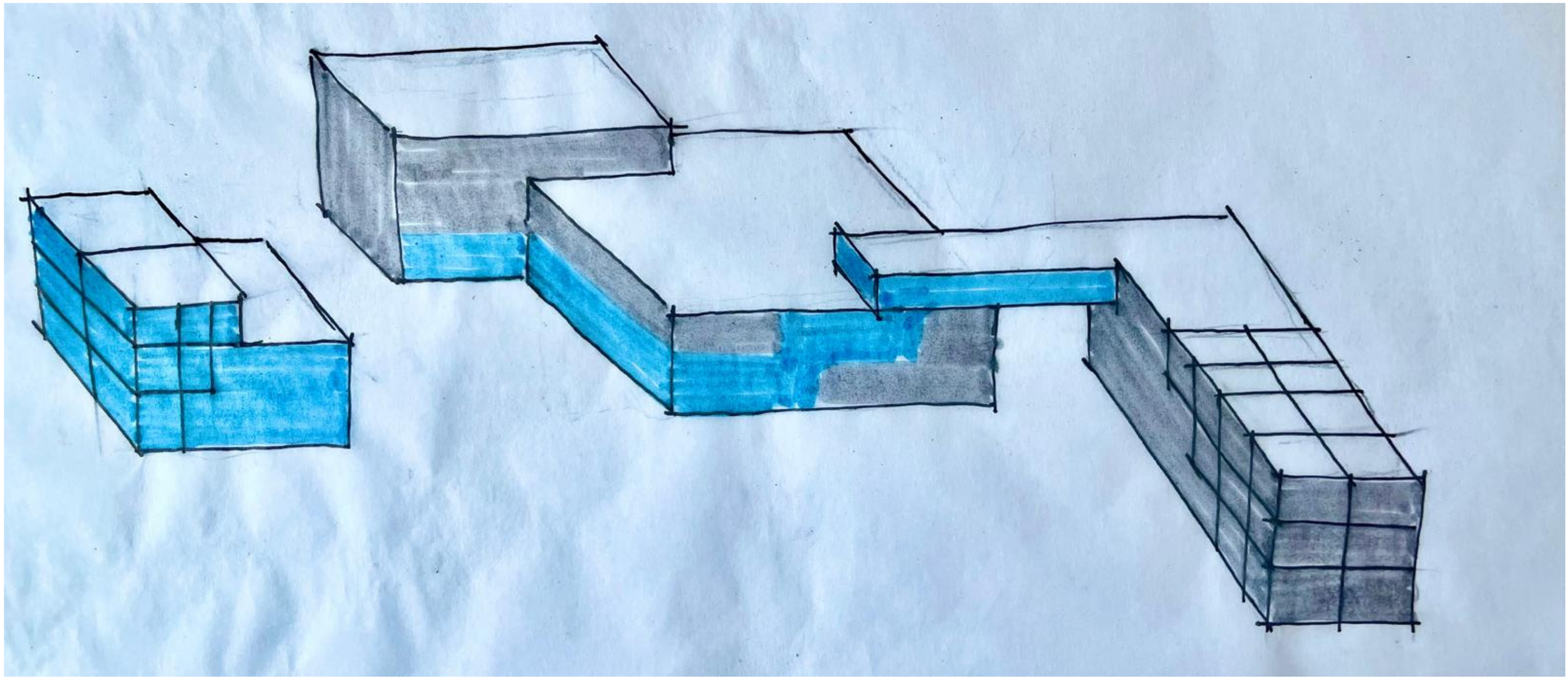
Floorpan Scheme Sketch



FIRST FLOOR

Design

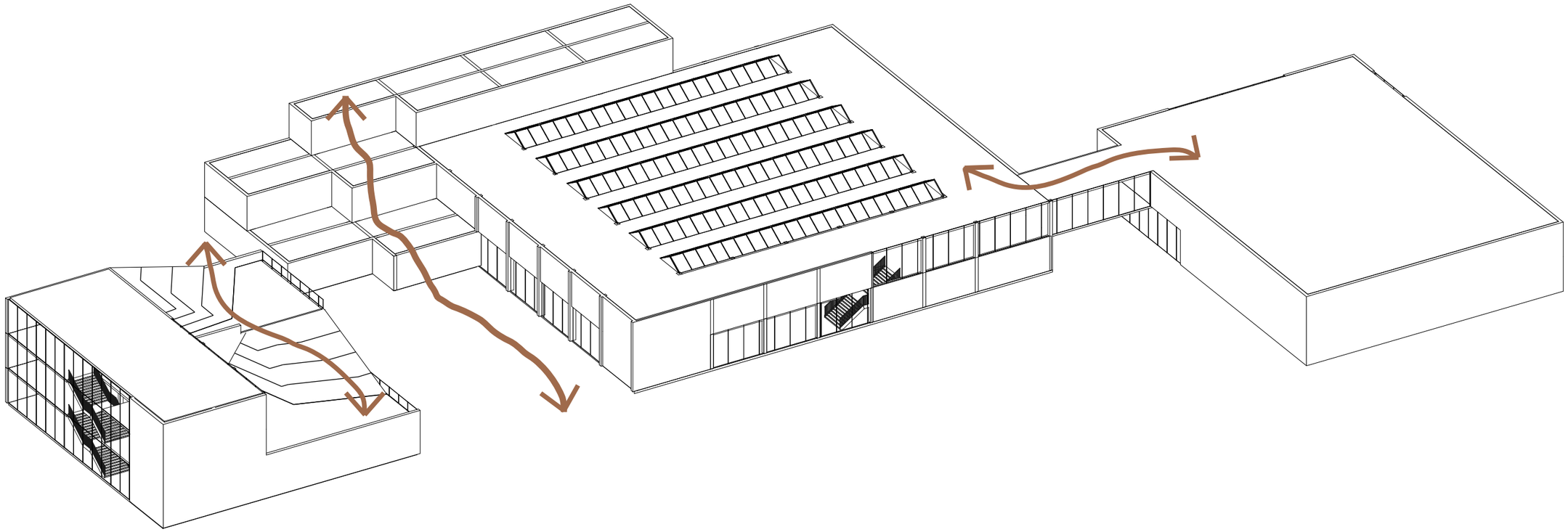
3D Sketch



Design Concept Of Open And Closed Spaces And Their Relation To Circularity

Design

3D View



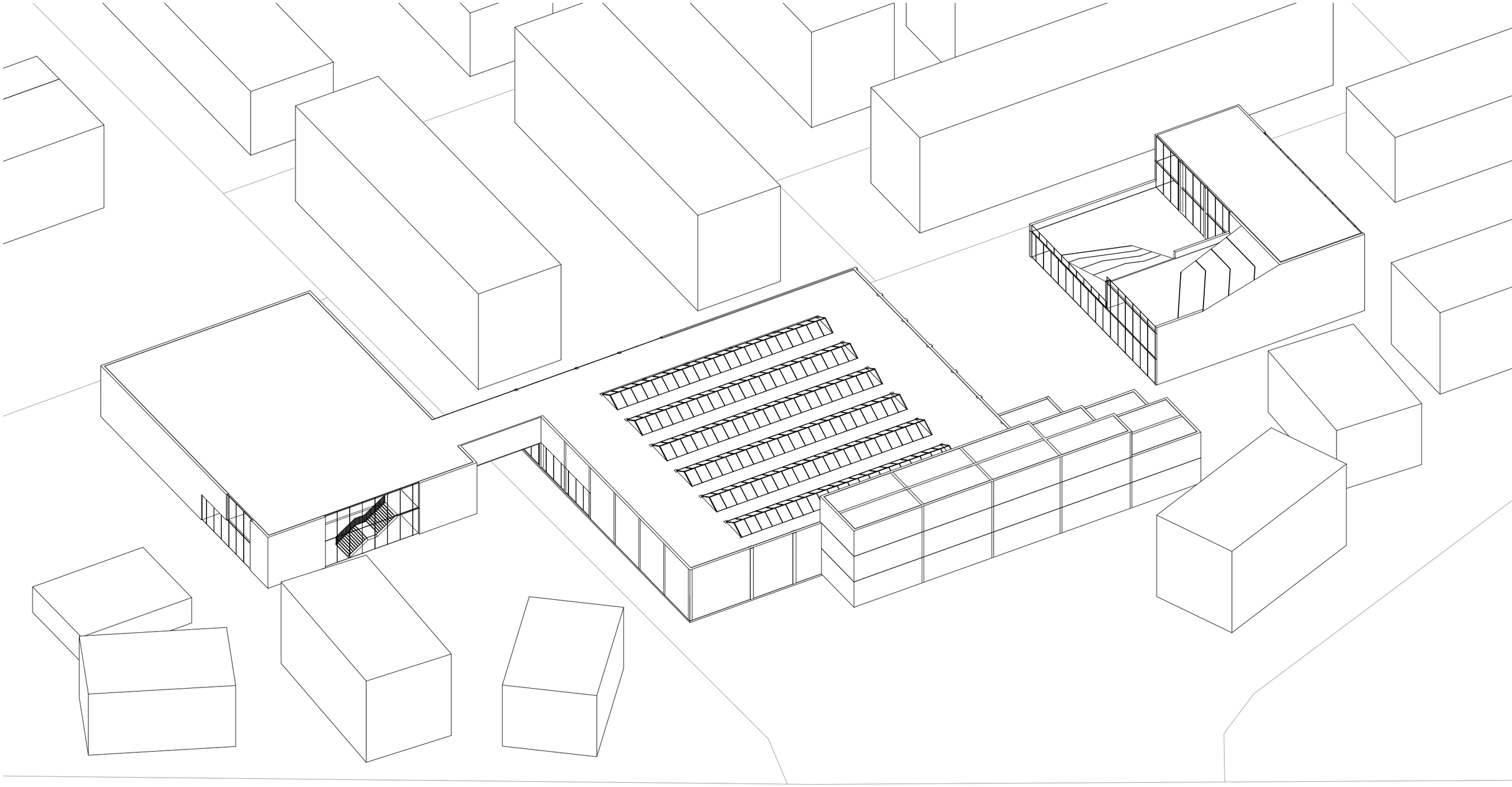
Connectivity Between the Buildings and Connection With the Ground Floor through the Steplike Structure Design

Axonometry View

Design

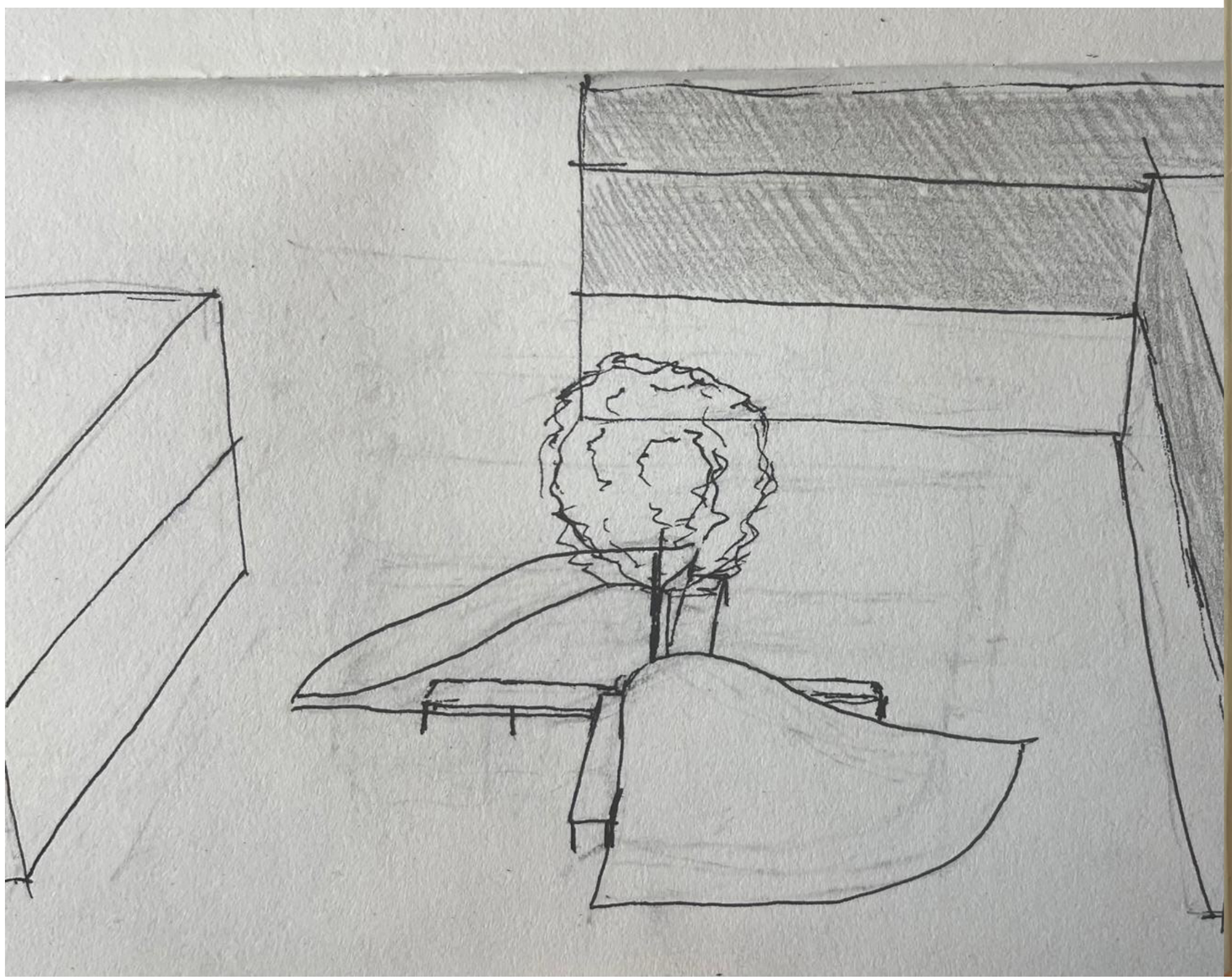
3D View

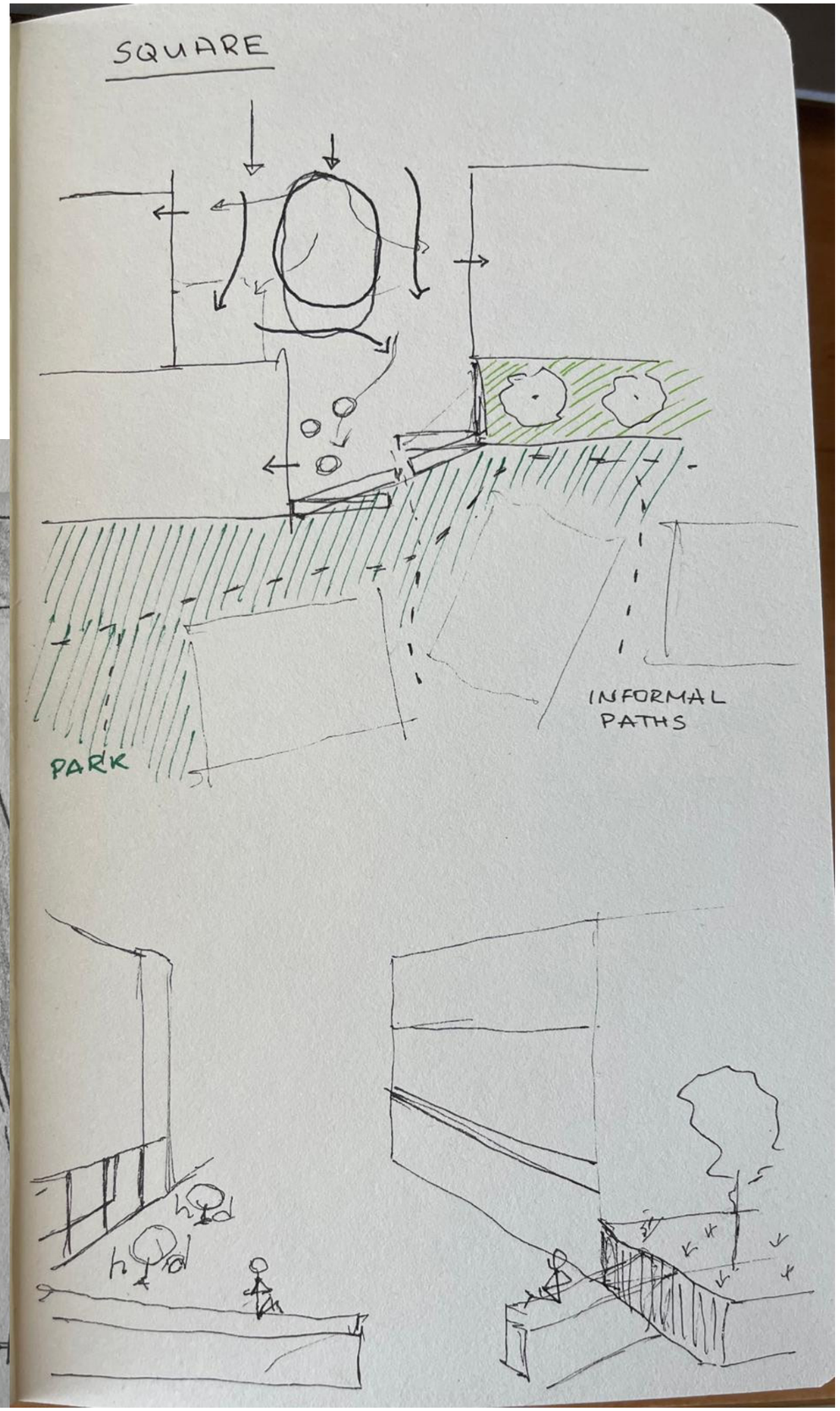
Axonometry View



Design

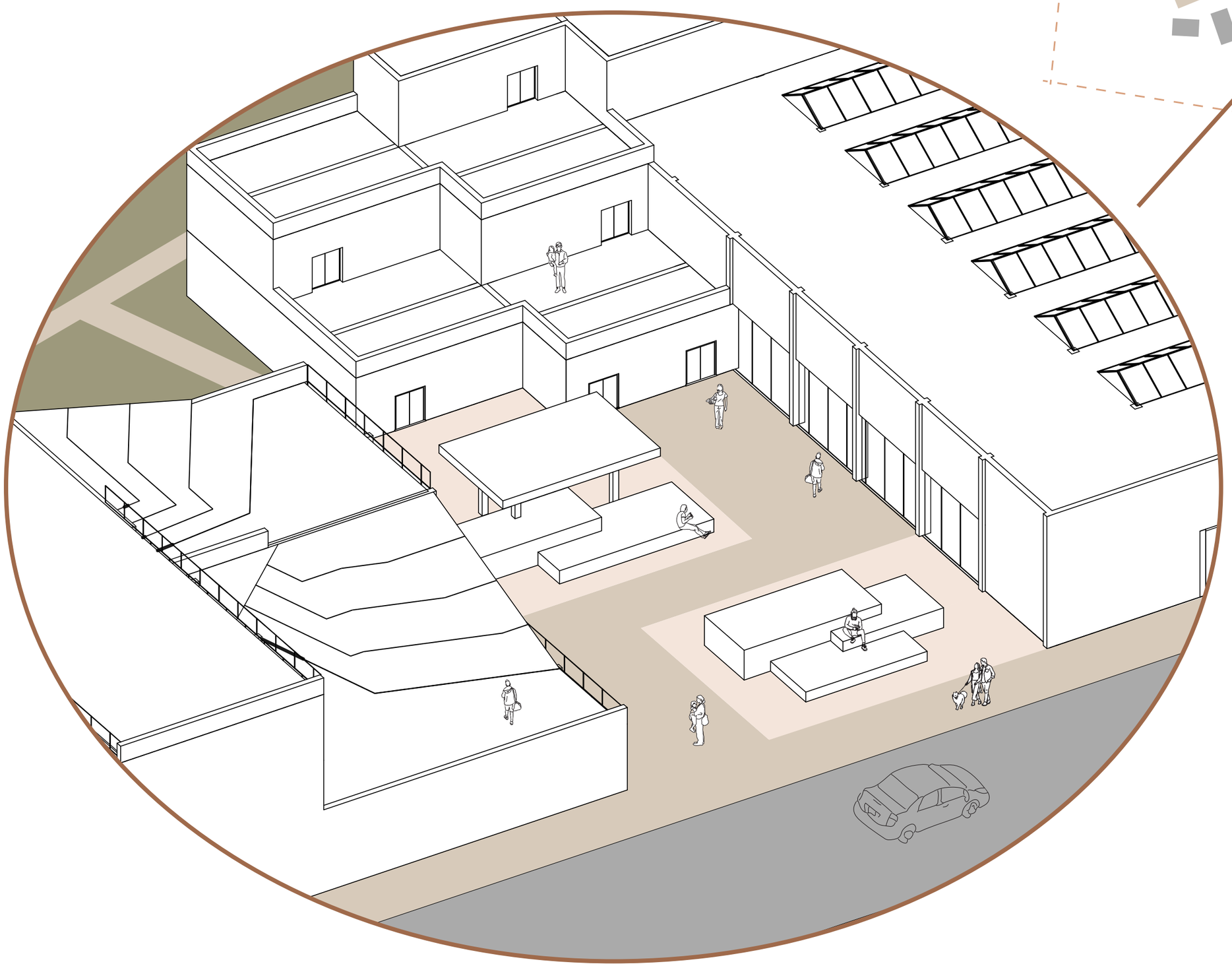
Square Proposal Sketch

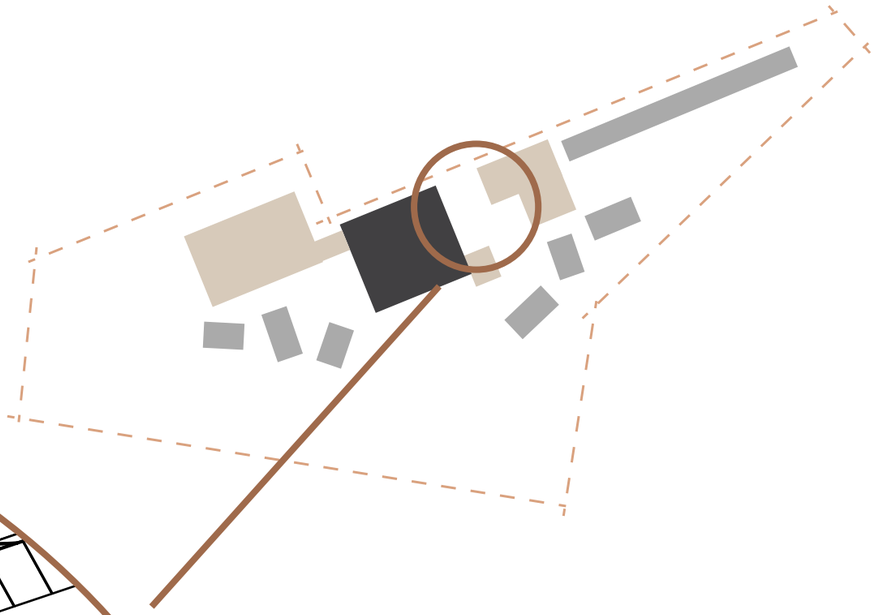




Design

Square Proposal



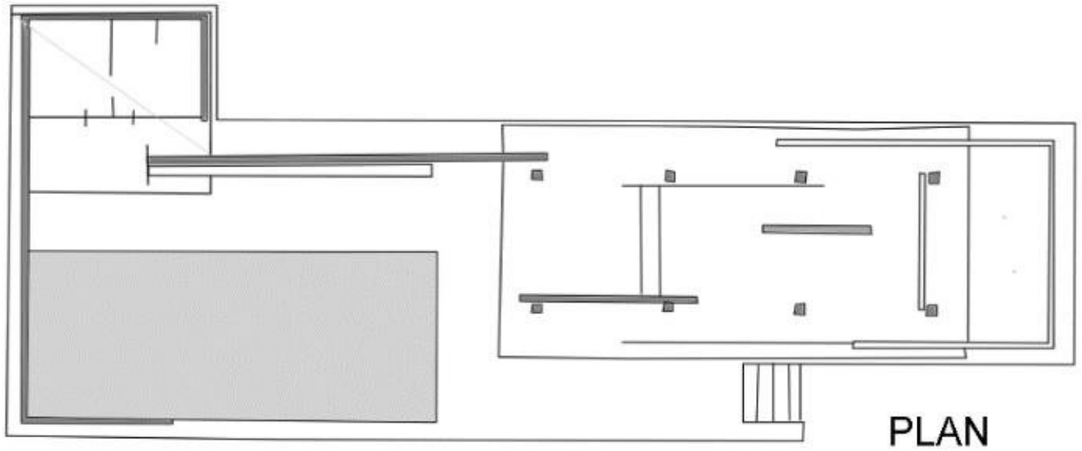


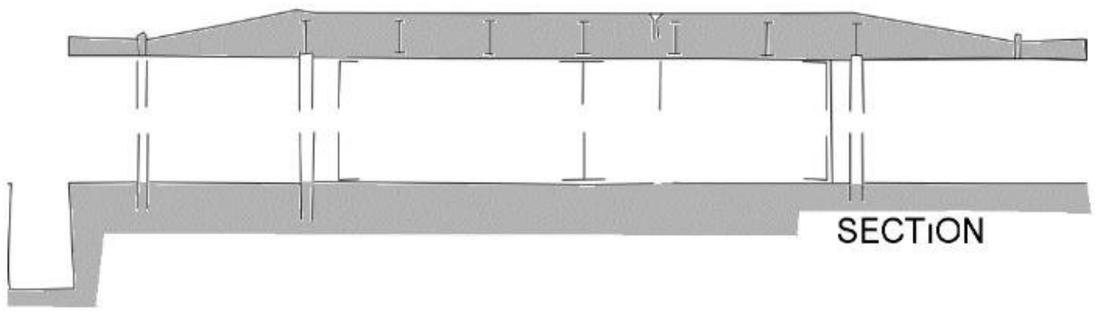
Design

Masterplan 1:1000

Reference Project

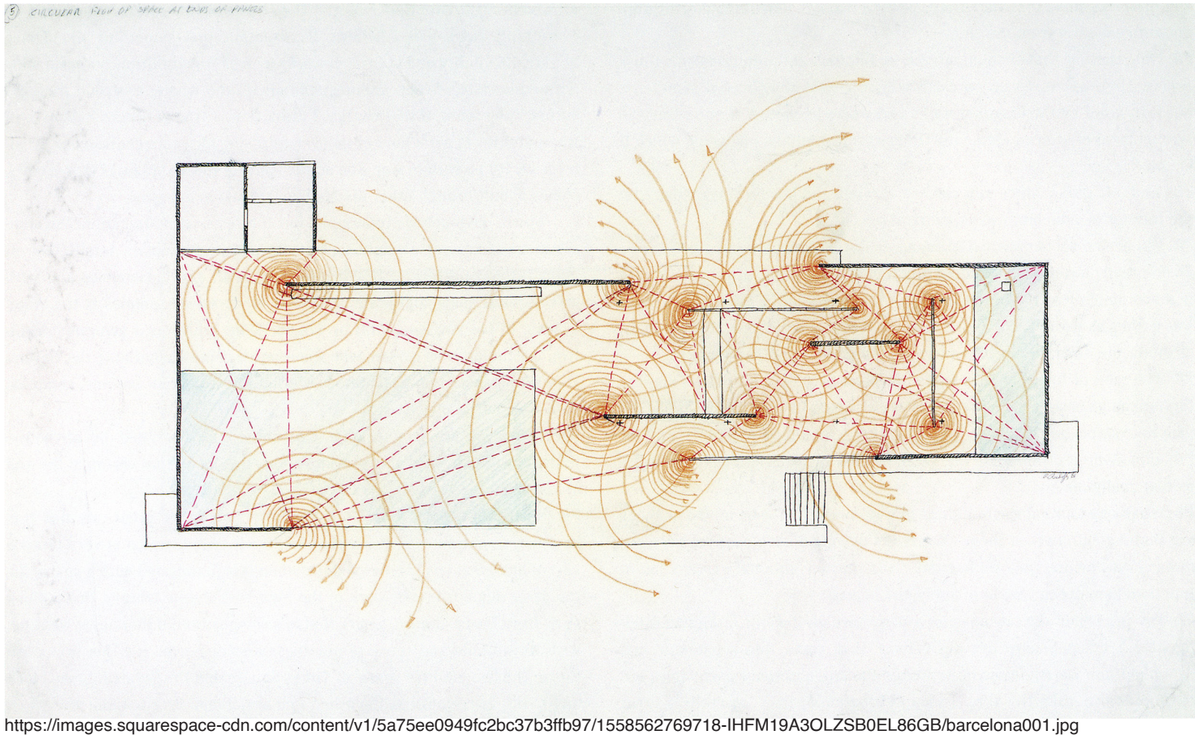
Pavilion Barcelona





https://www.researchgate.net/publication/282505112/figure/fig42/AS:911338377326604@1594291409768/A-sketch-of-Ludwig-Mies-van-der-Rohes-Barcelona-Pavilion-Barcelona-Spain-1928-1929.jpg

The open design allows a lot of free movement throughout the building plot. The interplay between the solid wall and curtain walls, creates an interesting visual connections.



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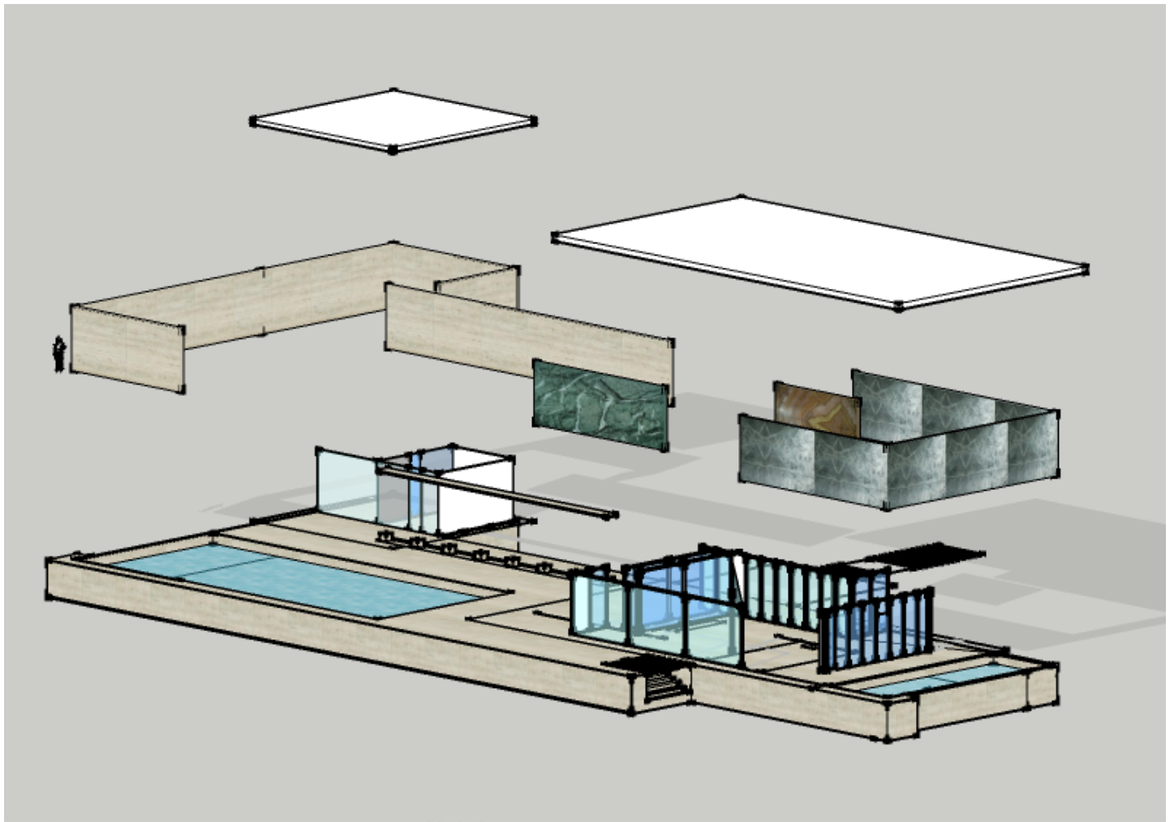


https://chloeveitch.wordpress.com/wp-content/uploads/2014/12/exploded.png

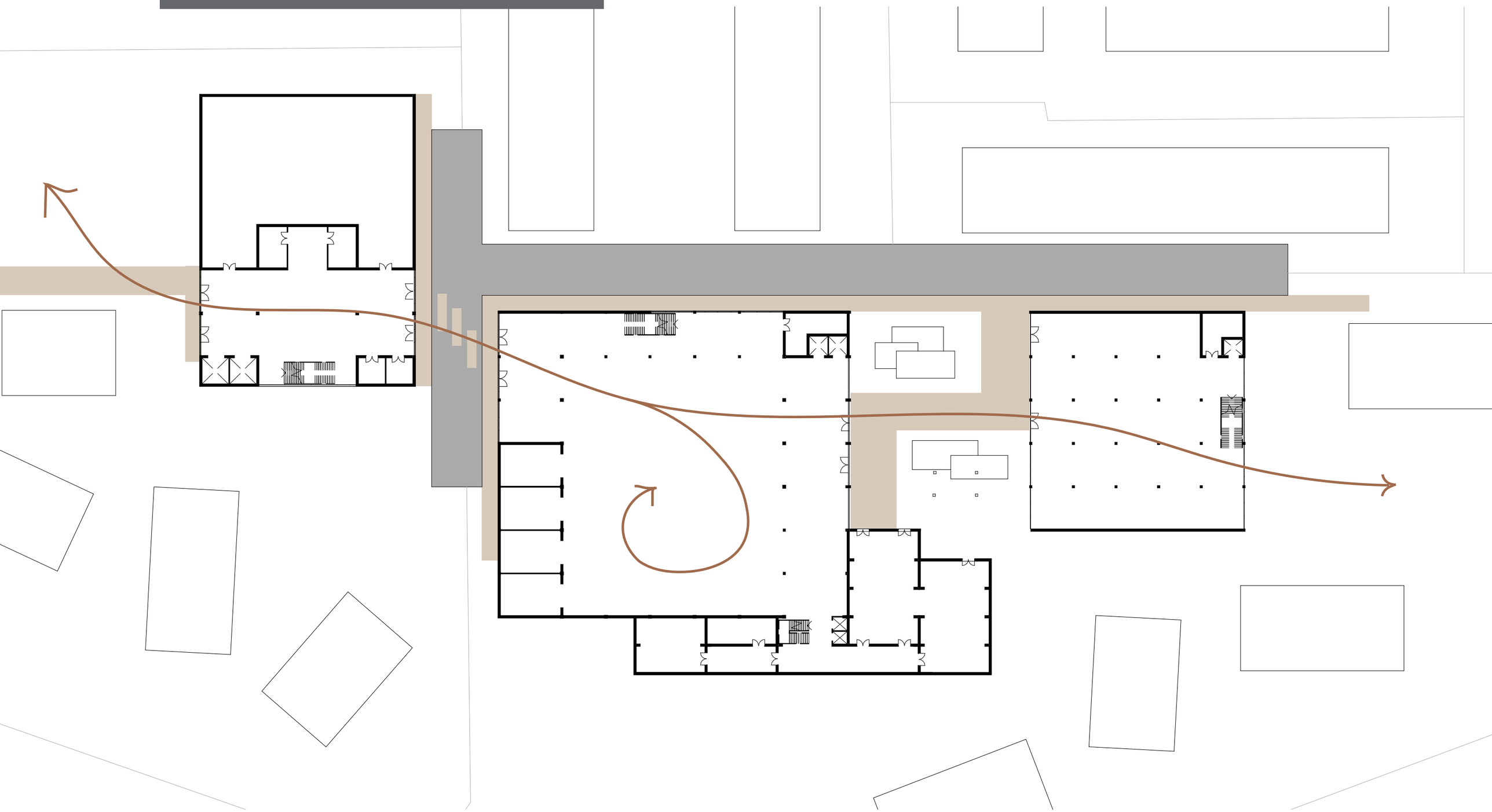
Design

Connectivity Horizontal

1 : 500

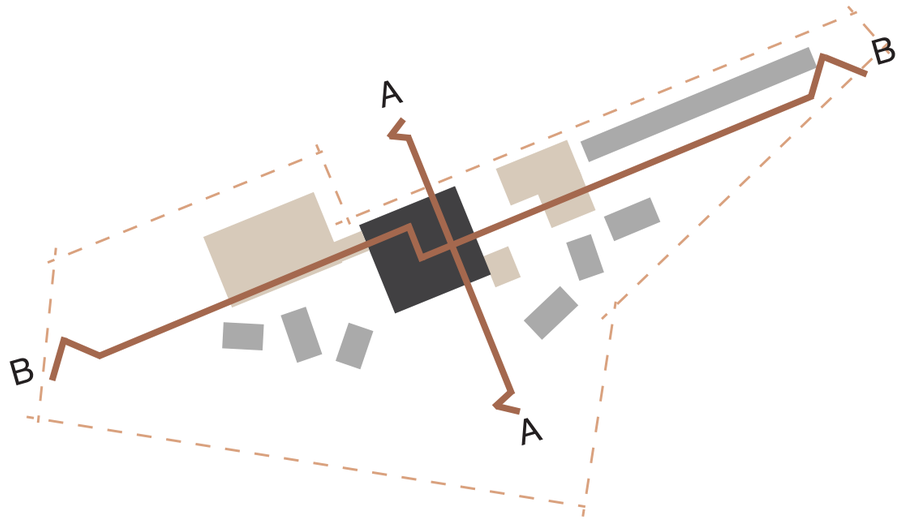
Ground Floor Plan

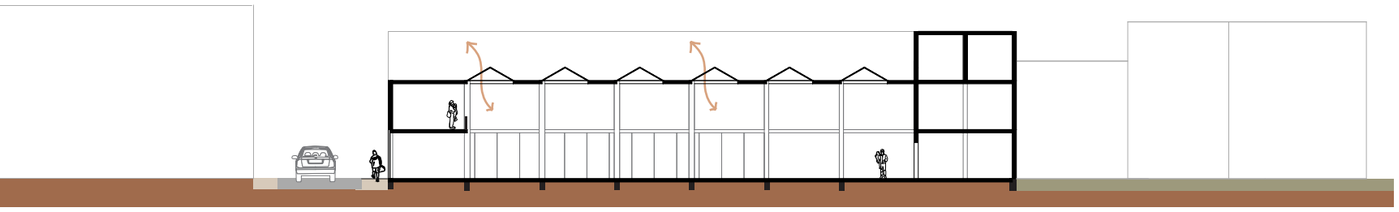
N



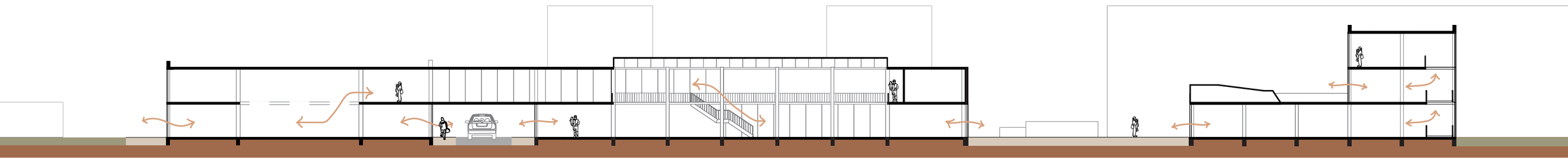
Design

Connectivity Vertical





Section A
1 : 500

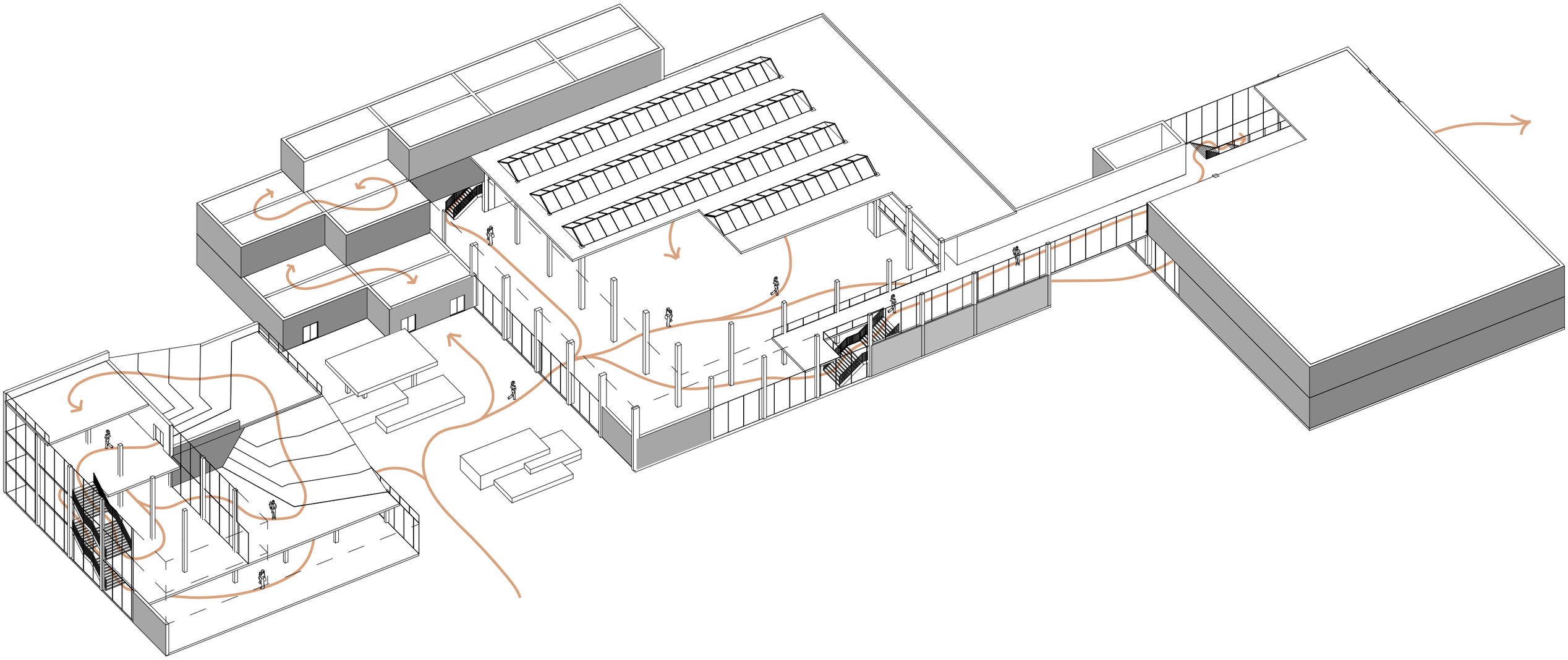


Section B
1 : 500

Design

Circulation

Axonometry Cutout View



Design

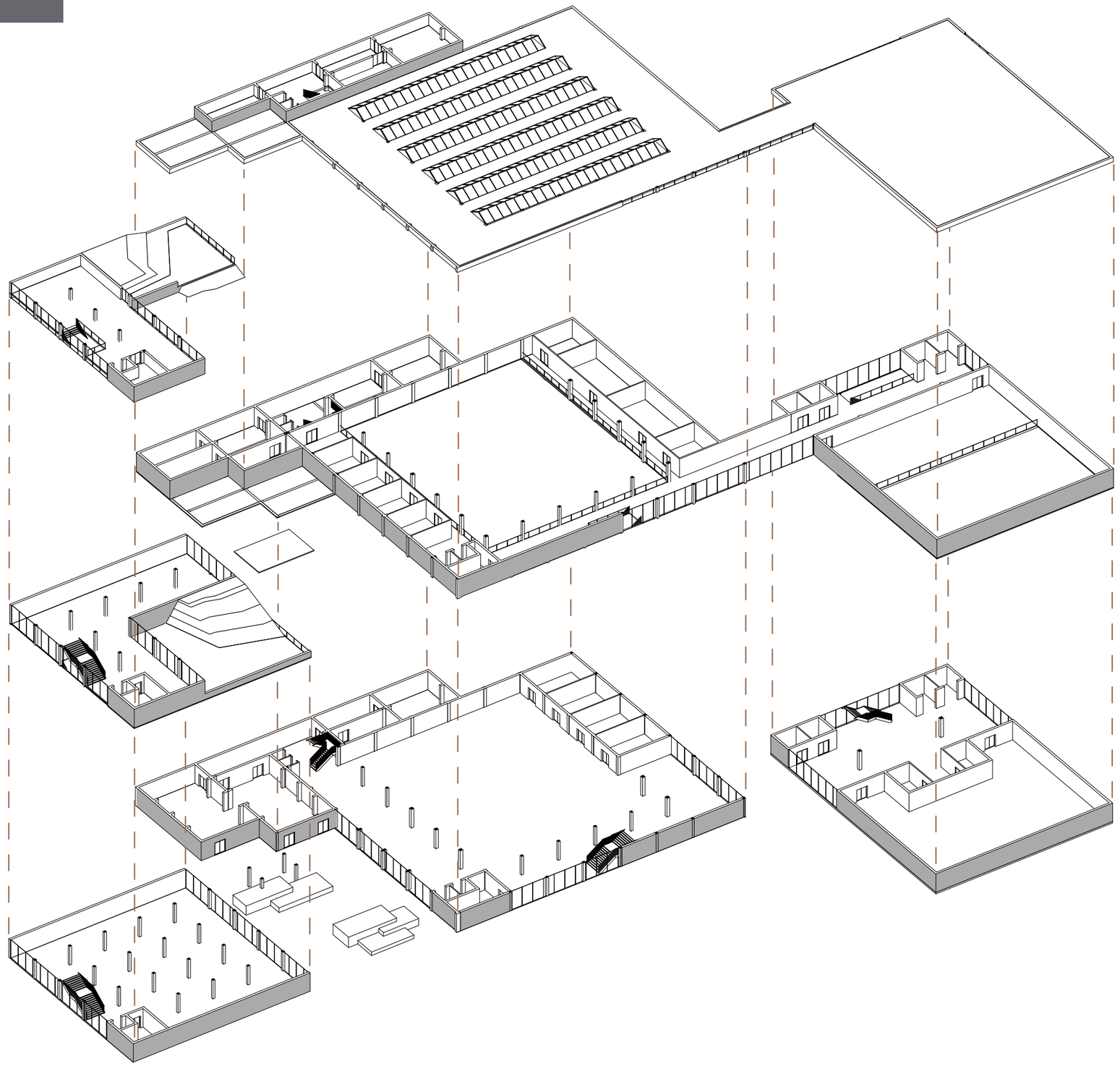
Multiplicity

CIRCULATION

/STAIRS/ WALKING ROUTES/

OPENNESS

/WINDOWS/ FACADE OPENINGS/ ATRIUMS



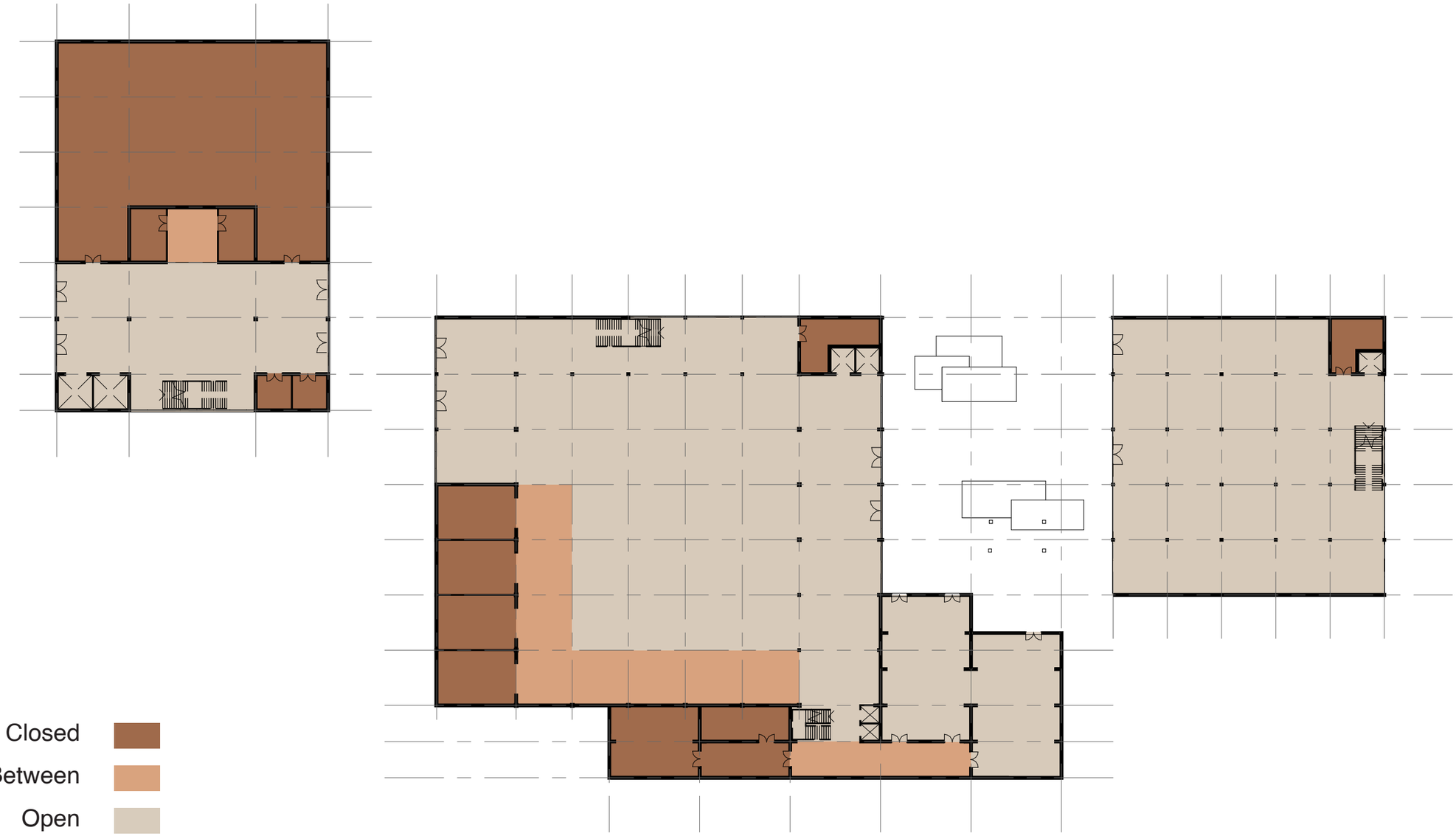
Design

Levels of Privacy

1 : 500

Ground Floor Plan

N



Closed

In-Between

Open

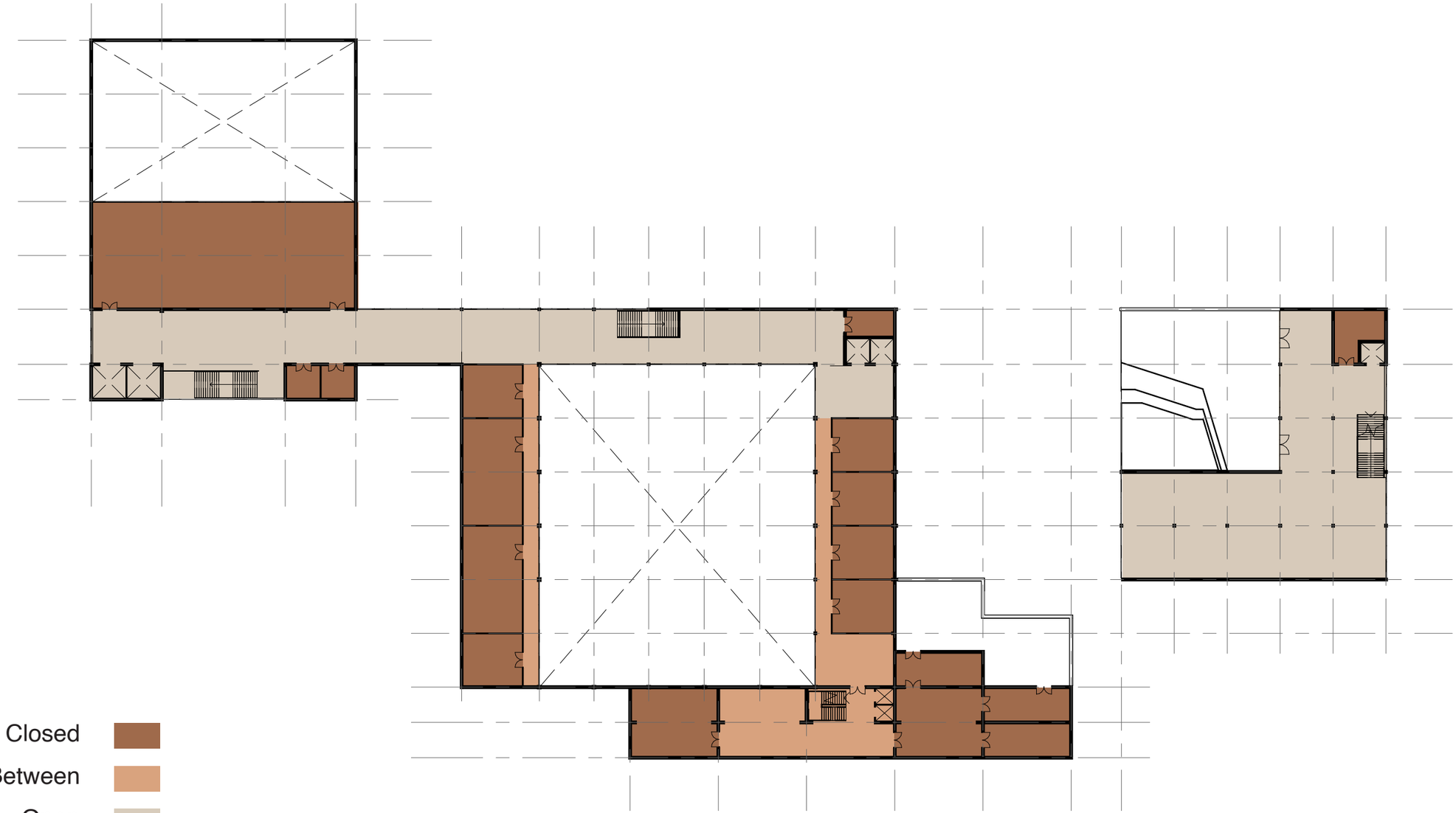
Design

Levels of Privacy

1 : 500

First Floor Plan

N



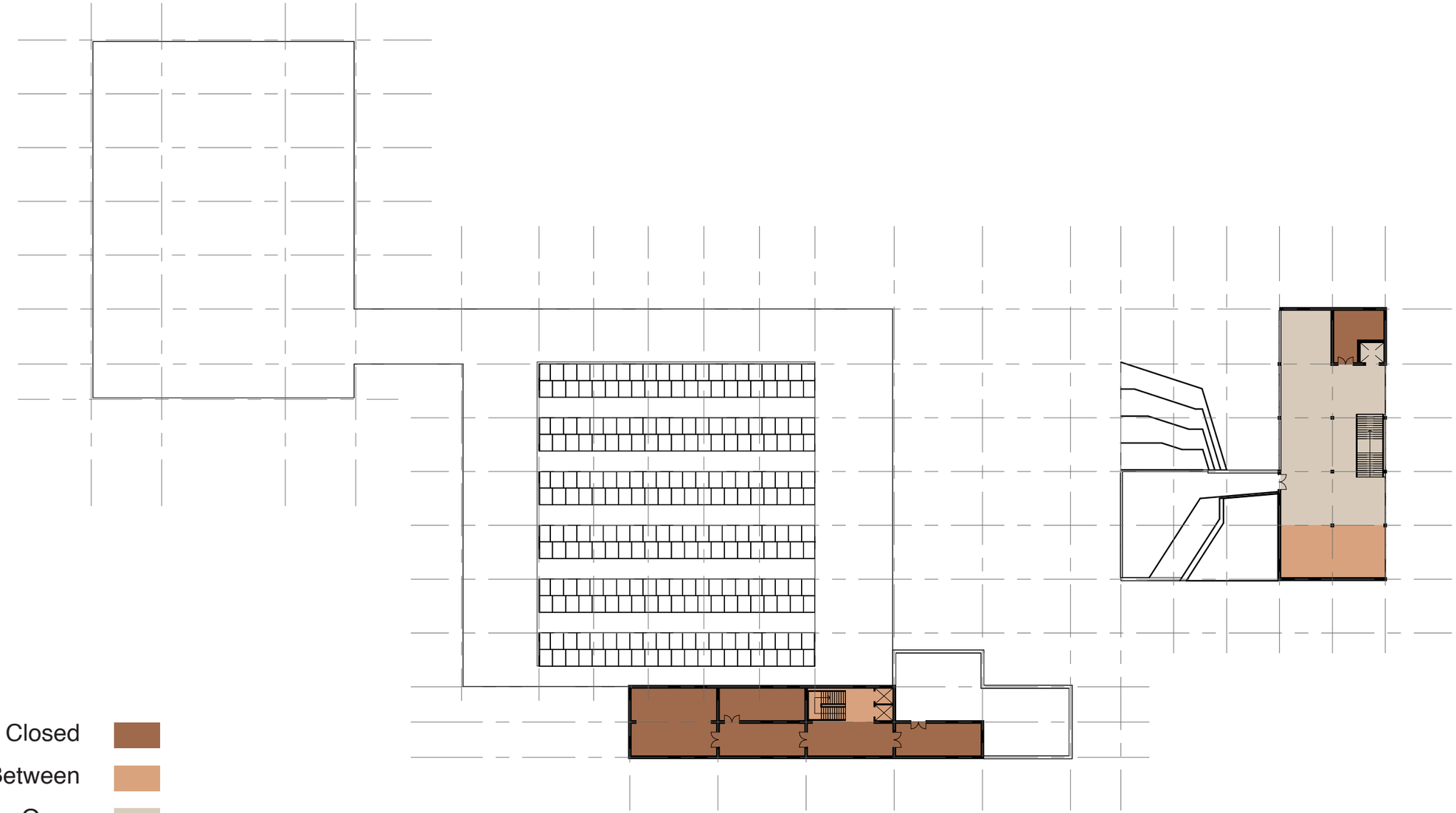
Design

Levels of Privacy

1 : 500

First Floor Plan

N



Closed

In-Between

Open

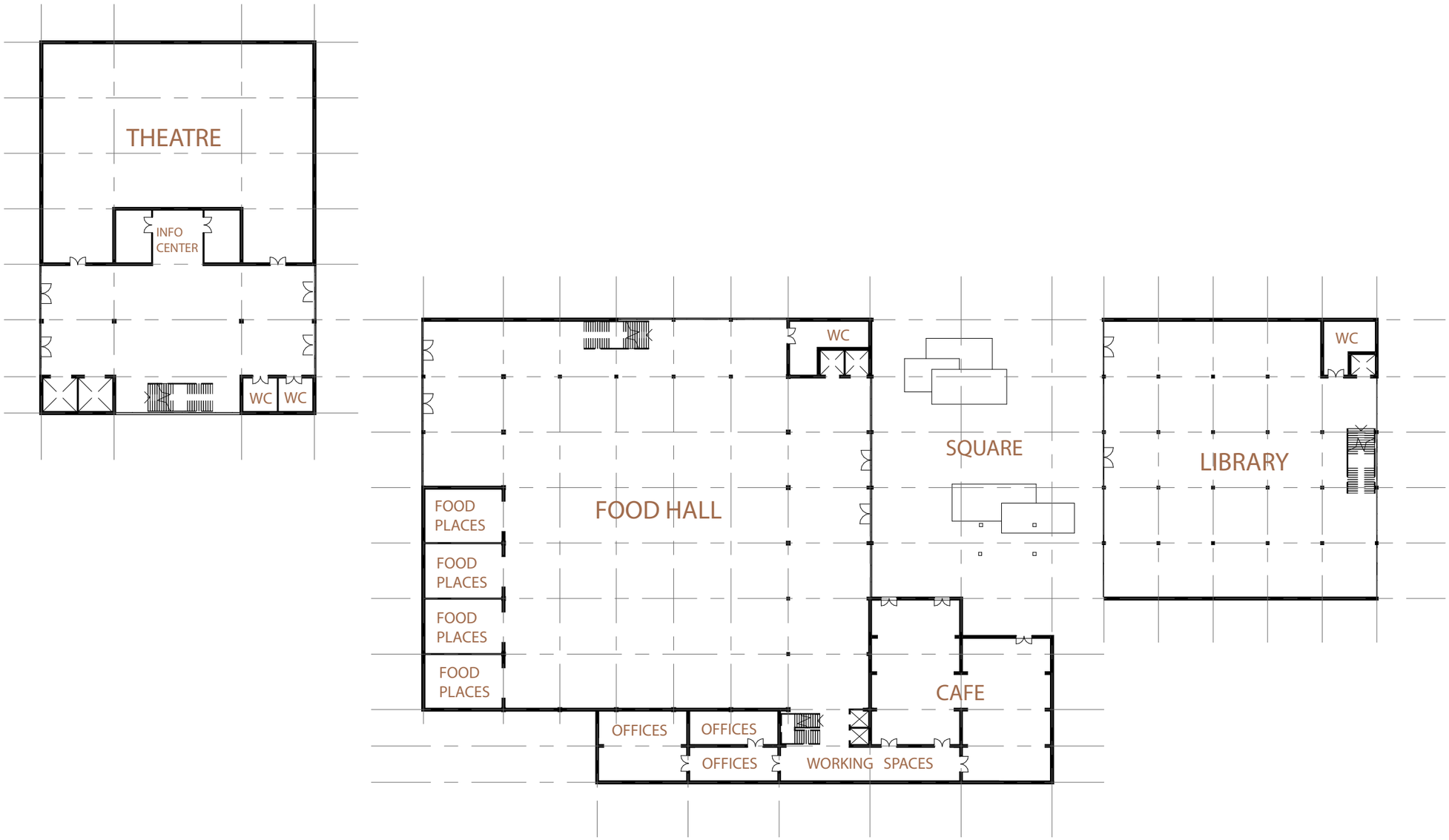
Design

Functions

1 : 500

Ground Floor Plan

N



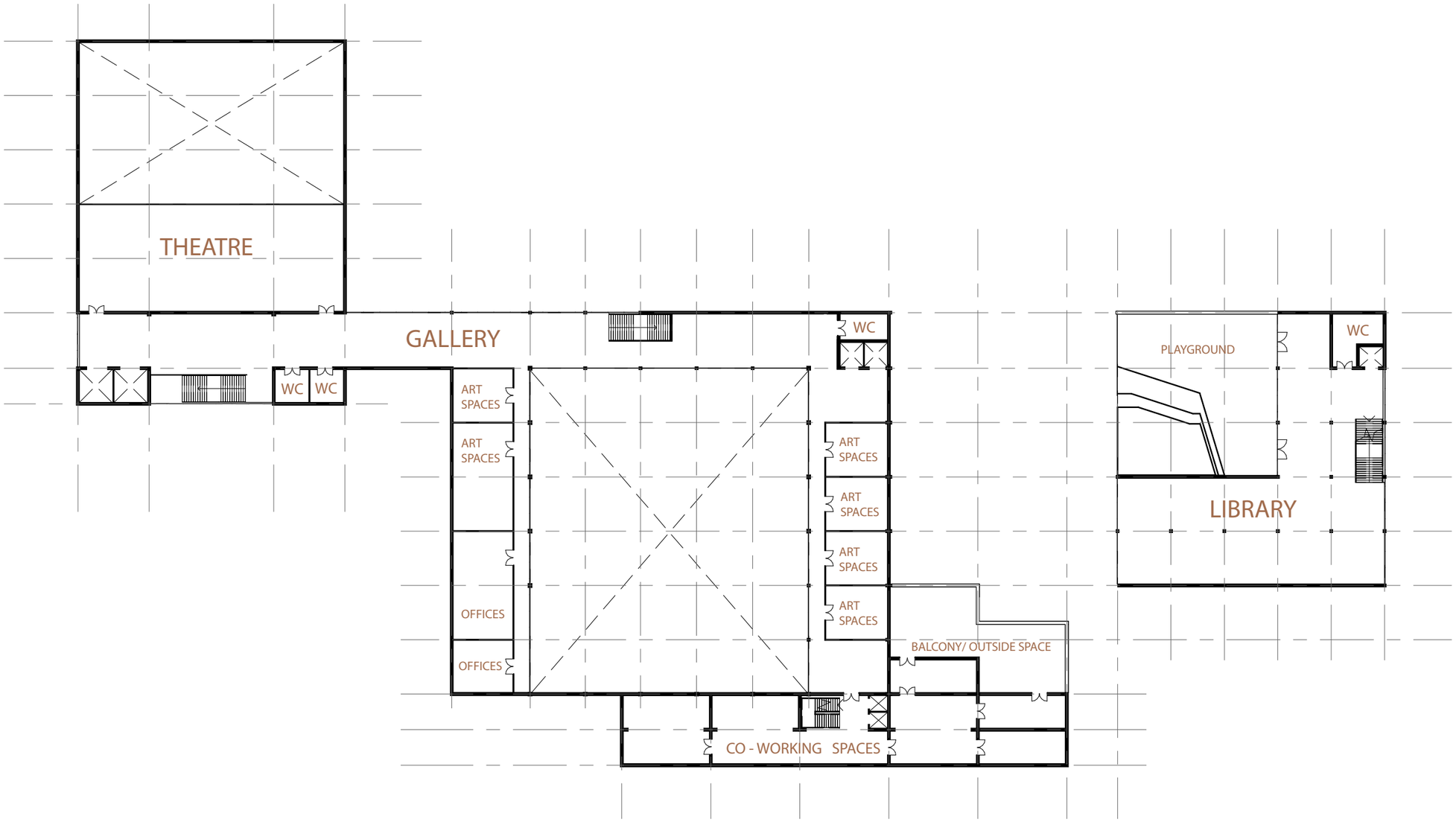
Design

Functions

1 : 500

First Floor Plan

N

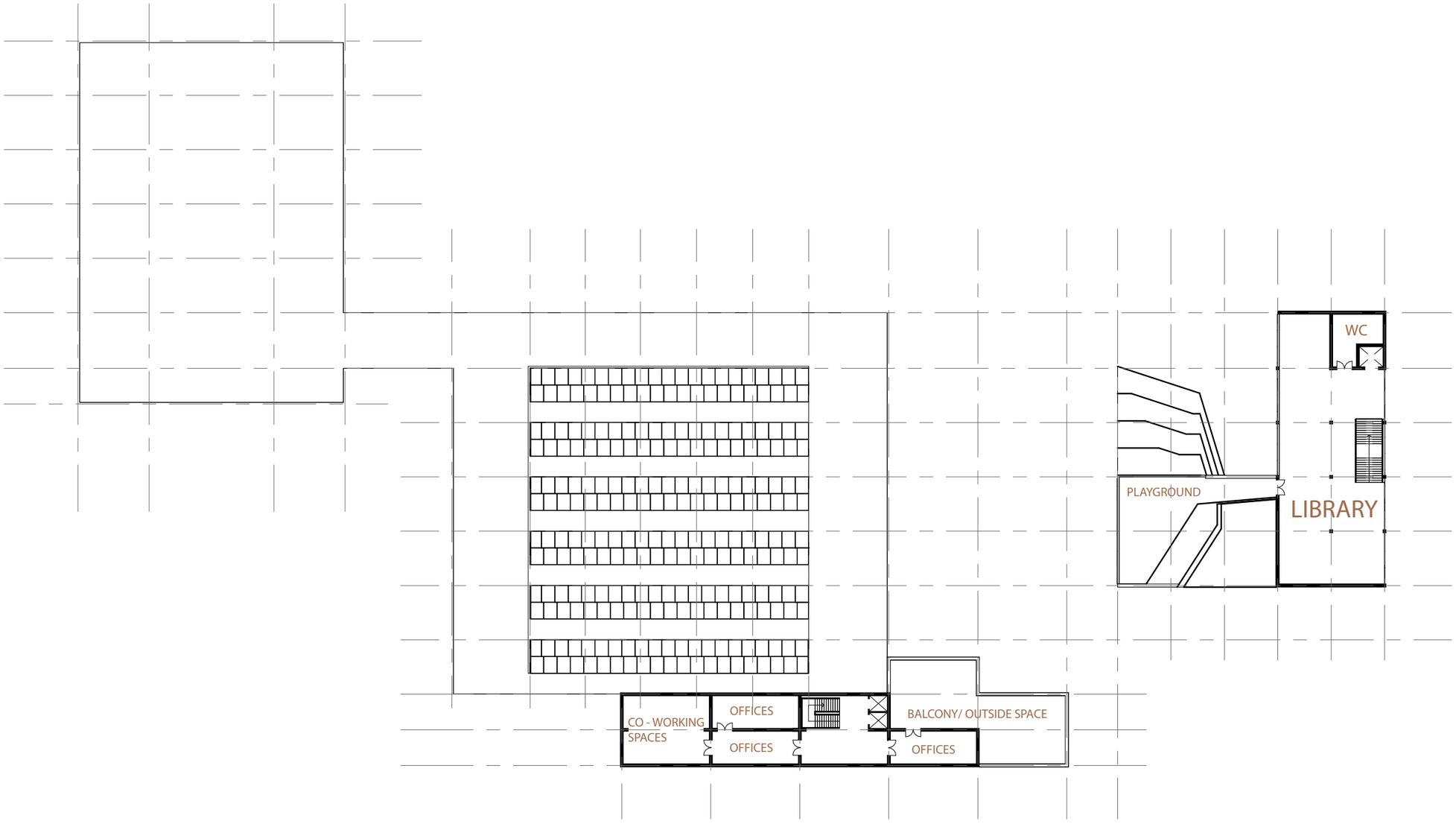


Design

Functions

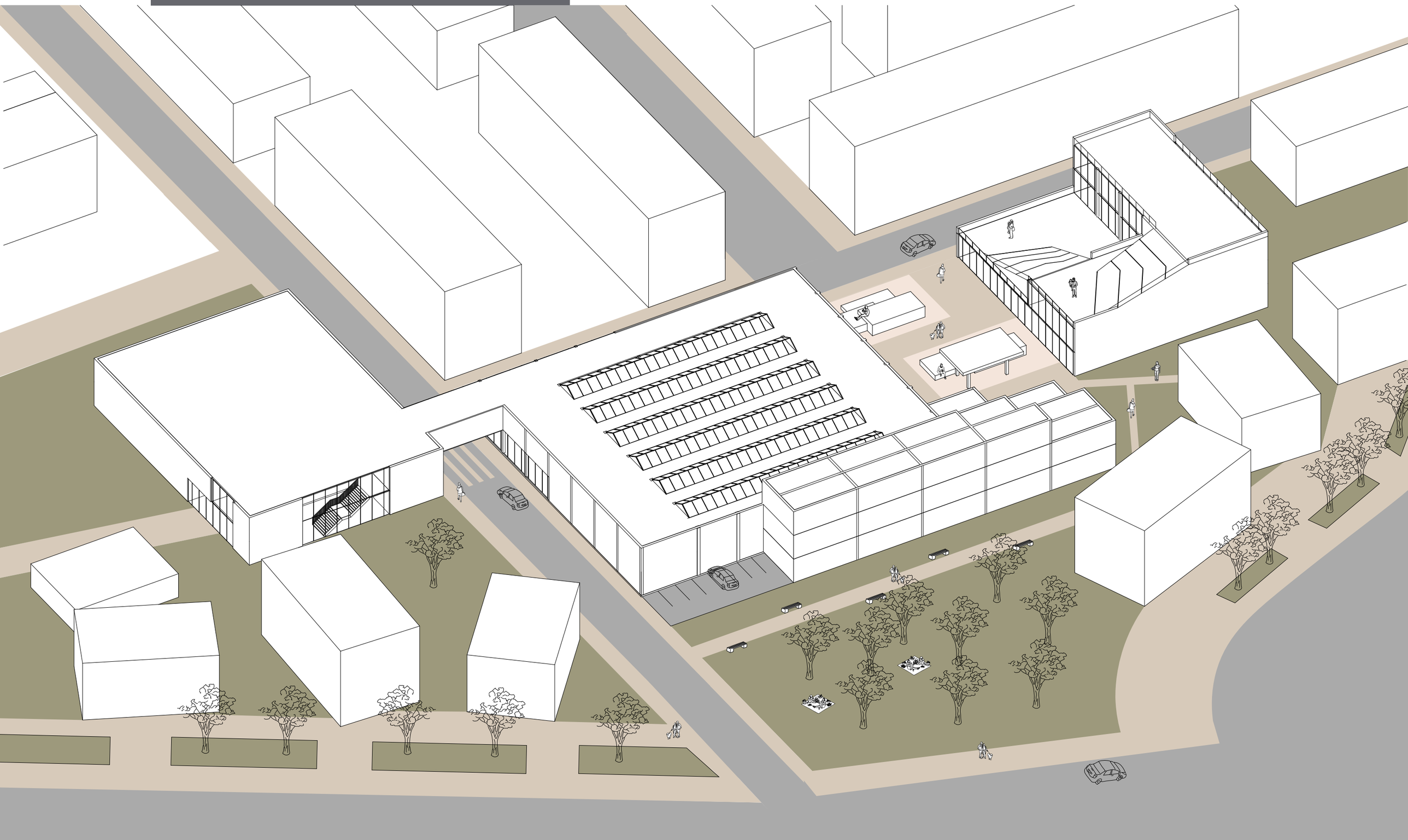
1 : 500

Second Floor Plan



Design

Building Proposal

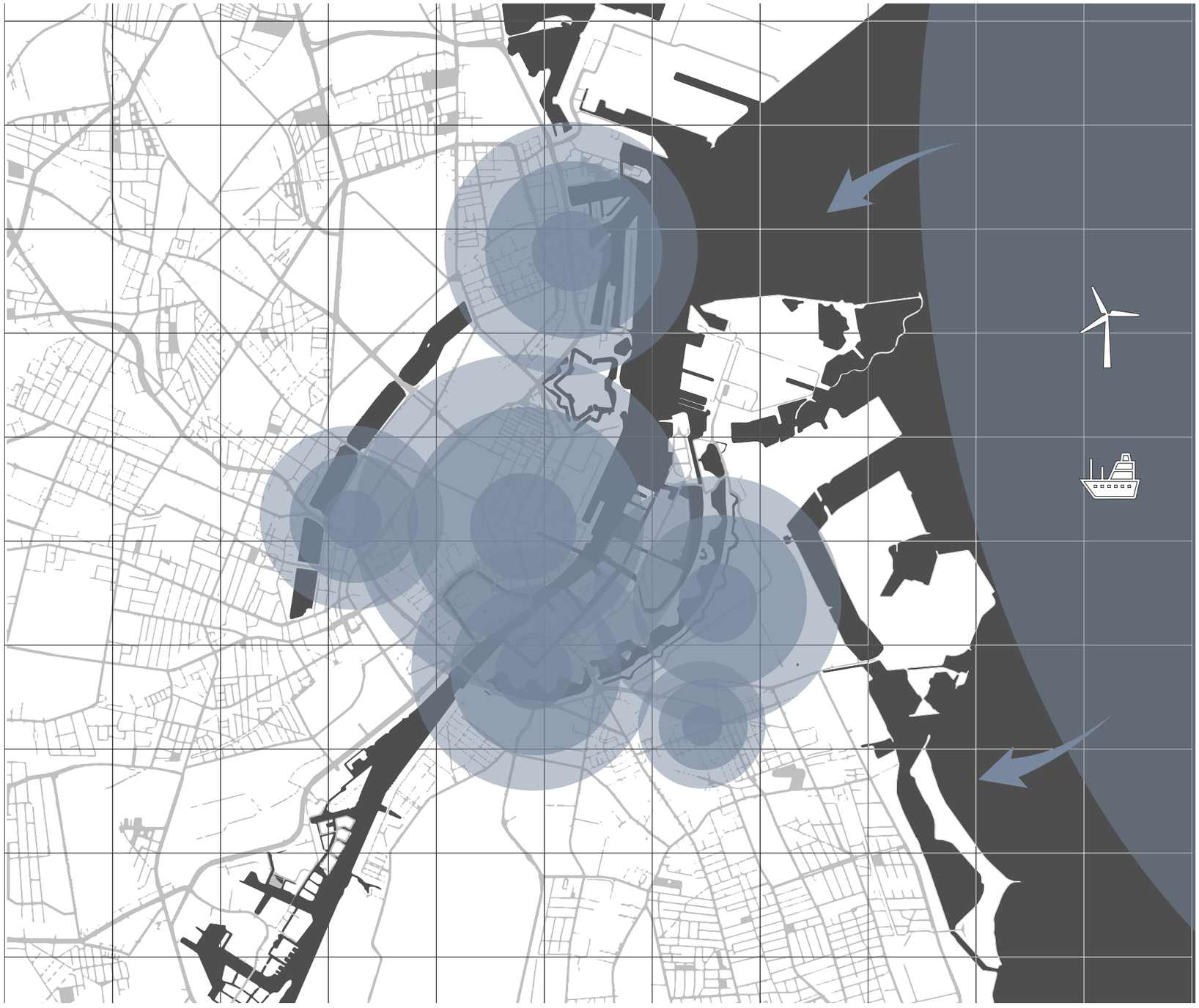


Theory & Delineation

Public Realm

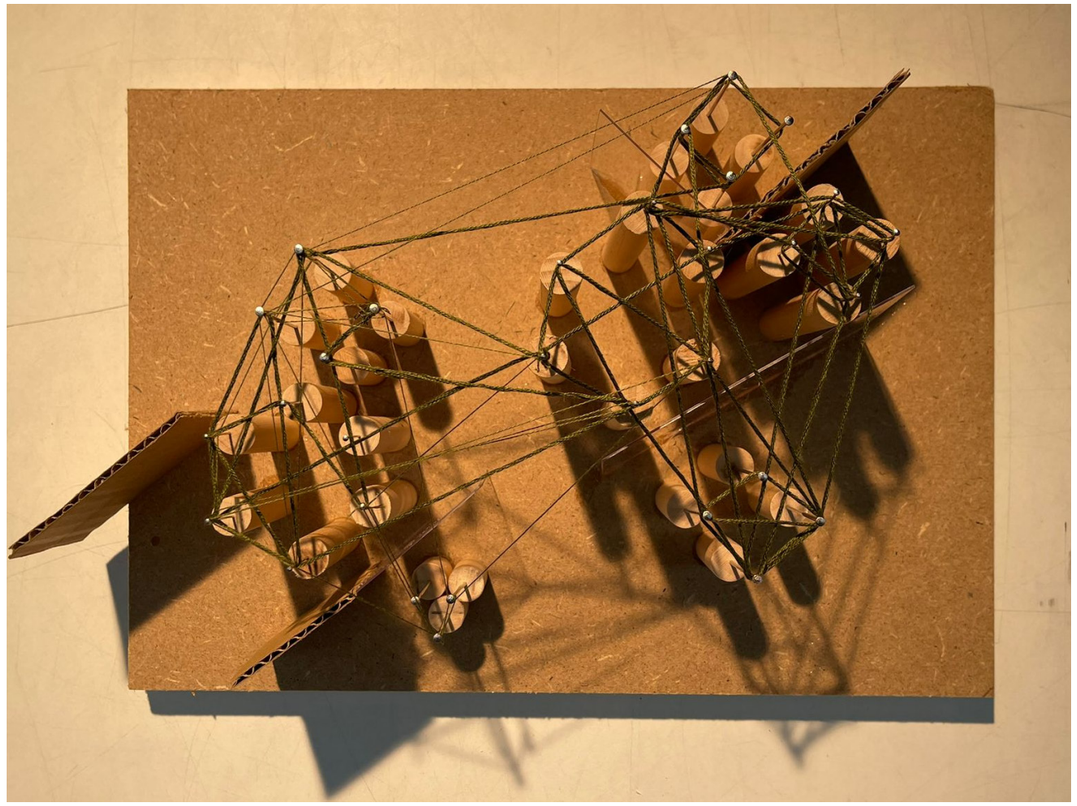
Theory & Delineation

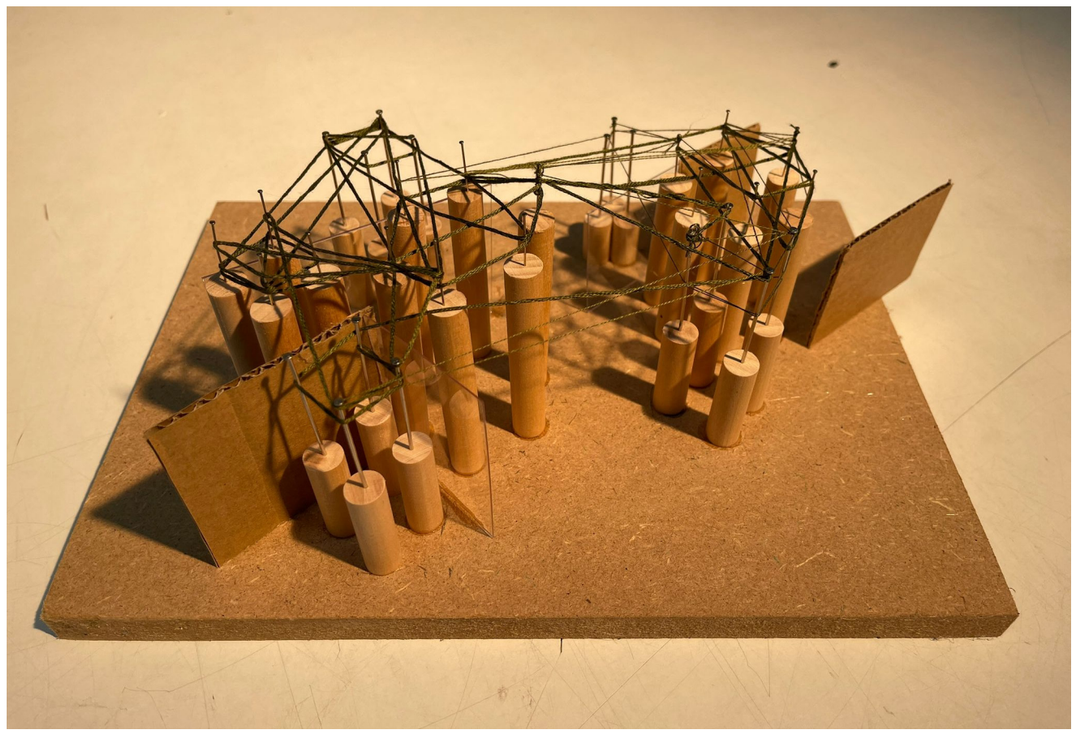
Economical Power



Theory & Delineation

Borders





Theory & Delineation

Hybridity

In the region of Amager West in Copenhagen and more specifically in the area of Sundholm, certain problems prevail, such as crime, safety concerns, mobility and most importantly social segregation of the community. Hence, a public condenser would be essential to be placed in the area that would combine many different functions and promote social interaction between the people of the community, as well as outside of it. A public building in the area should contain working, recreational and cultural facilities, which are also programs describing a hybrid building. Thus, the area would greatly benefit from a building that is a combination between a hybrid building and a social condenser. The area suffers from poor infrastructure and overall mobility, especially in the area of Sundholm, which people tend to avoid and circle around it. A public building that invites people to go to that area and connects the city, the streets and the building itself in a seamless connection and transition into one another, would be crucial. The functions in the condenser would vary, while also be interconnected, as they would flow into one another and contain similar spaces, however, would have a certain difference which would indicate the difference of functions. Thus, the functions would be simultaneously in juxtaposition and interrelation with each other. The connection between them would be both lateral and vertical, which is essential taking into account the size of the plot. The connections between the buildings would also be both on the ground floor, while also be elevated in certain areas, to account for safety and control of the building, especially in that area. Certain functions would also be elevated, such as a park for children. In the area people complained that all the parks and green spaces are mainly taken by people getting drunk, especially at night.

Hence, a solution to that problem could be an elevated green space/ playground for children, which would be accessible by everyone, but would still have a certain vertical separation with the rest of the city, which would add an element of safety to it. The building would have different functions on the different levels that interconnect through the different floors, while also be connected to the ground floor and the rest of the city. In that sense the hybrid building can be classified as a graft hybrid, through the individual expression of the different programs that are morphed together. However, this would be possible only through a well-established vertical connection, as mentioned in the reading of ‘This is Hybrid’ by S. Holl, a connection only through a small staircase and elevator is not going to be sufficient to connect the different levels. Thus, the condenser would have a lateral/ horizontal organization with the already mentioned elevated connection through the buildings, but also with interior streets in-between. Combining a social condenser with a hybrid building model would be most beneficial for the area due to improvement of mobility, agglomeration of social and cultural functions, and overall opportunities it opens to the area.

Theory & Delineation

Sustainability

Project Scenario:

Sustainability is an essential focal point in the built environment nowadays, as it is crucial to manage the resources used, and create durable, resilient and future-proof structures. Hence, in the project those topics would be central in the development of the design. The project site contains multiple existing structures, which make up the majority of the plot. Thus, in the redevelopment process it is essential to maintain and preserve the existing structure of the buildings to the greatest extent possible. Existing buildings hold significant amounts of embodied carbon. Demolishing them often results in the loss of materials that cannot be reused, necessitating the construction of new structures. This process wastes valuable resources and introduces additional embodied carbon, further amplifying environmental impacts. Hence, the core aspect of the projects' sustainability concept would be to maximize the reuse of materials and existing structures, which would reduce waste and environmental impact through the preservation of embodied carbon. Naturally, modification and redevelopments would be necessary to enhance adaptability and improve the functionality and usability of the buildings. Another aspect that should be considered is the natural opportunities provided by the site's location. Situated in Copenhagen, where significant amount of rainfall is expected, the project can take advantage of this by implementing water collecting systems on the roofs, which can then be repurposed.

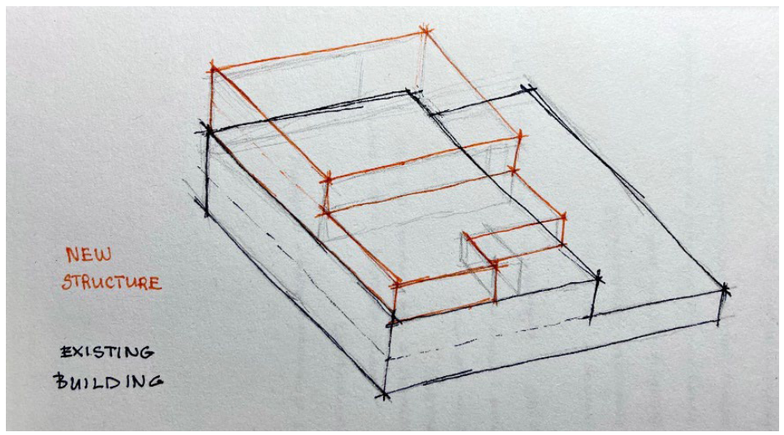


Diagram: Vertical Extension of the Existing Factory

Sustainability Scheme:

The main sphere to the project would be conservation, as mentioned above. This aspect best matches the necessities of the site area and presents opportunities for further developments. As shown in diagram 1, new structures would be added to the existing buildings. The main building on the plot – the factory, is made up of concrete and steel, hence taking in mind the function of the building and its structure, it provides many opportunities for modular and adaptable spaces to be introduced in the existing building. A vertical extension would be added to the building, which would be constructed with timber frames for easier application and modular opportunities. As the vertical extension would be of one or two levels, a timber construction would be most suitable, as it is a lightweight material that would not present problems with the existing structure, while also providing a certain level of versatility and modularity. Hence, the sphere of durability, especially the multiple usage concept, would also be of importance through the usage and choice of materials. Moreover, existing structures in the plot may also be reused if their structure allows it, such as the temporary school that was built on the plot. From observations it appears to be modular, hence the structure can be reused around the plot.

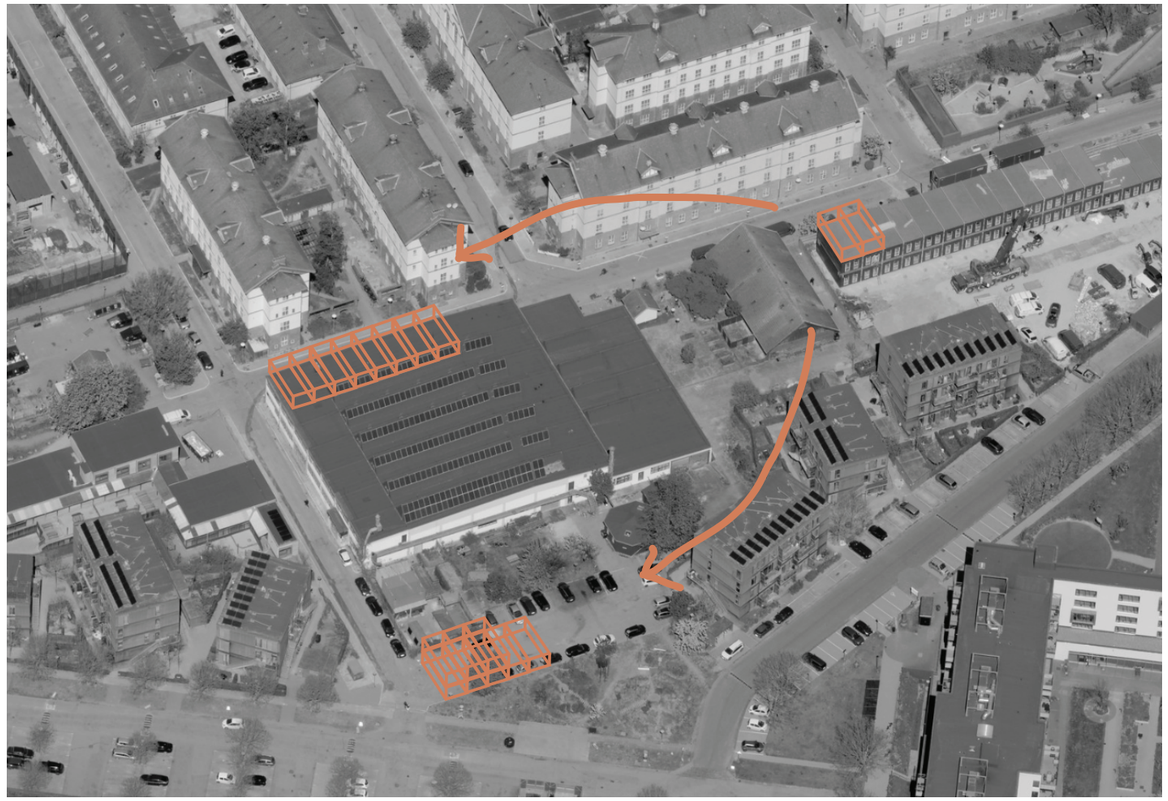
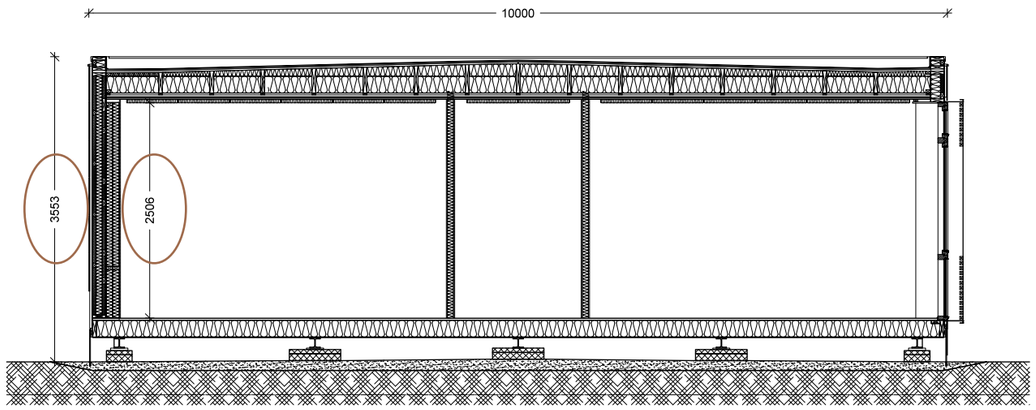


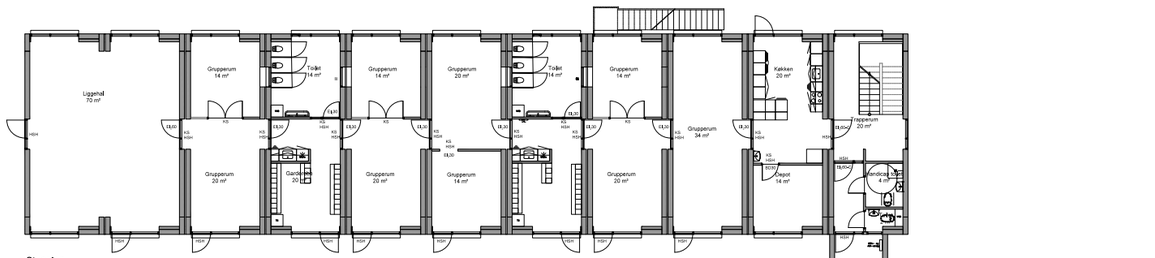
Diagram: School with Modular Structure – Reused around the Plot

P2 Retake

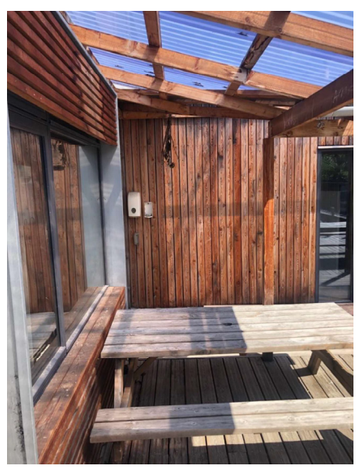
Container Reuse



Insufficient Height Dimensions for Reuse with the Design



Stueplan



Quality in Keeping the Containers Structure Together

Quality in Keeping the Containers Together

↓

Removal & Reuse -> Close to the Site
(Minimize Footprint)

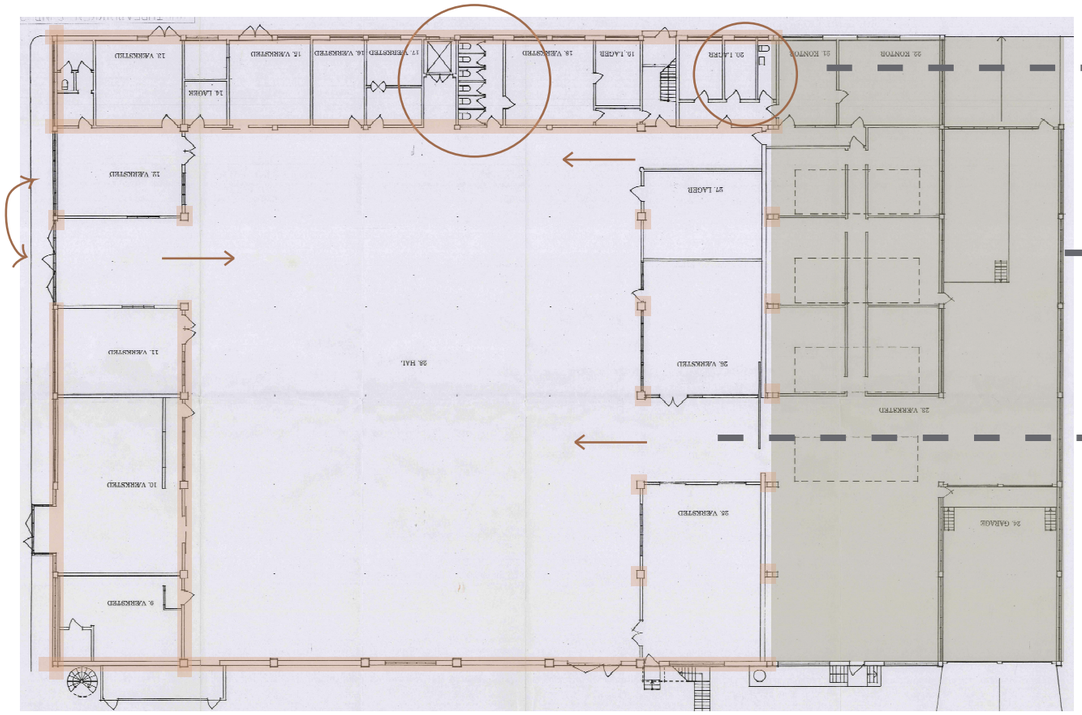
↓

Relocation Benefit (Part of the School Area)

Sonderbro Area

P2 Retake

Factory Reuse



Ground Floor Factory

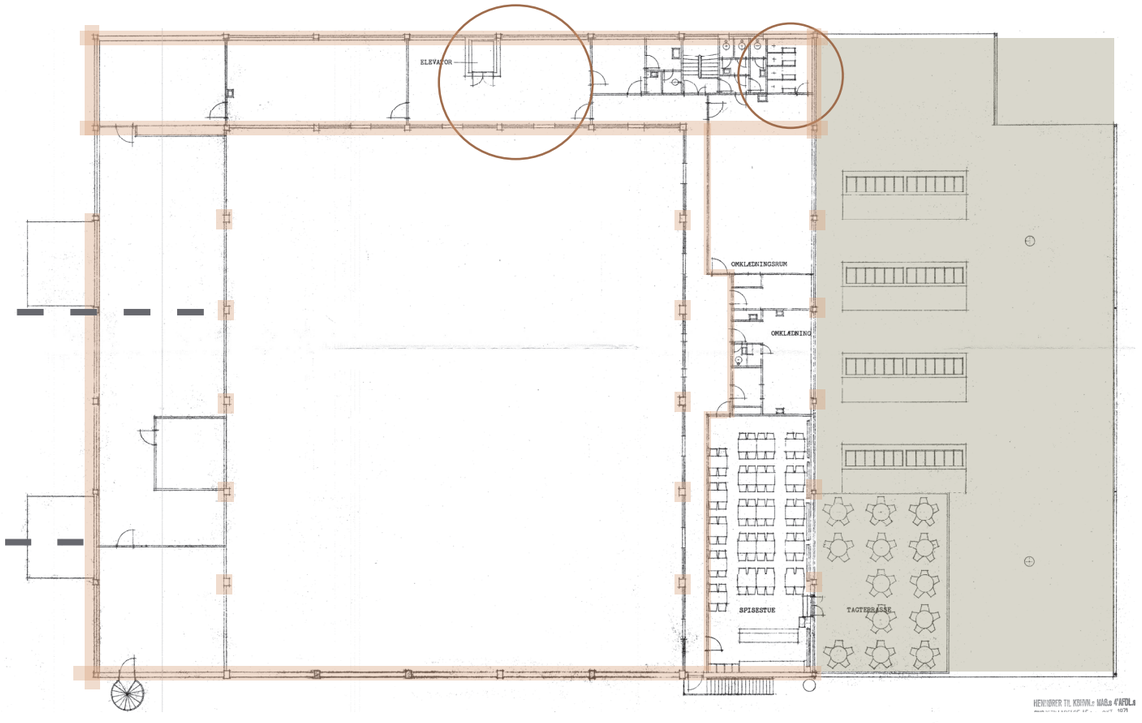
Reusing Existing Shafts - Elevator & Bathrooms

Removing Lower Part of Factory
(Lack of Quality)

Reusing Main Access Points

Maintaining Existing Structure

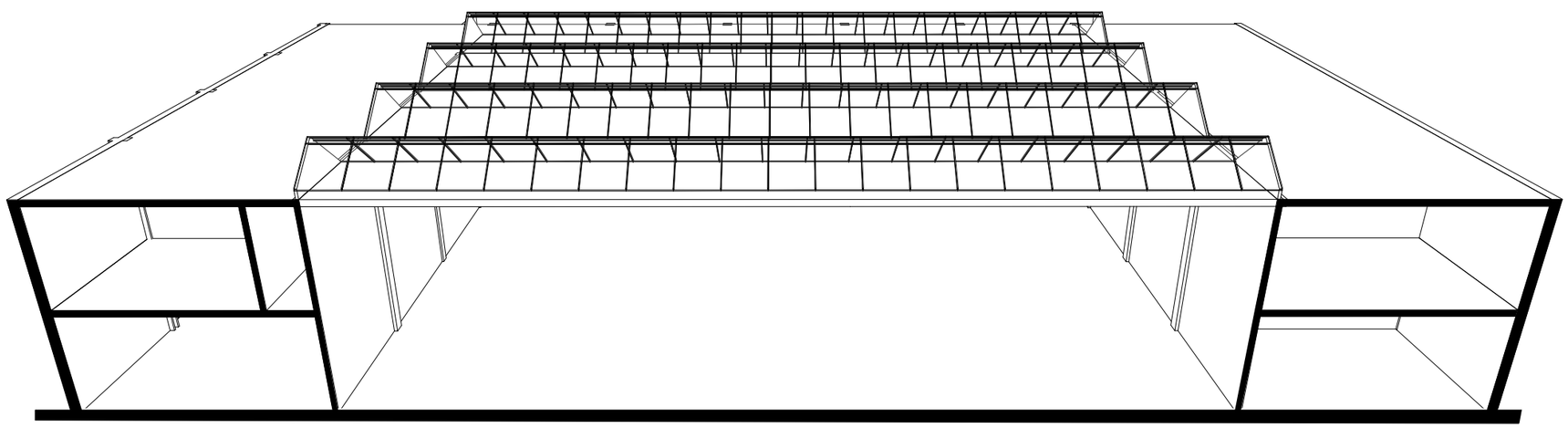
Reuse Majority of Facade



First Floor Factory

P2 Retake

Factory Reuse

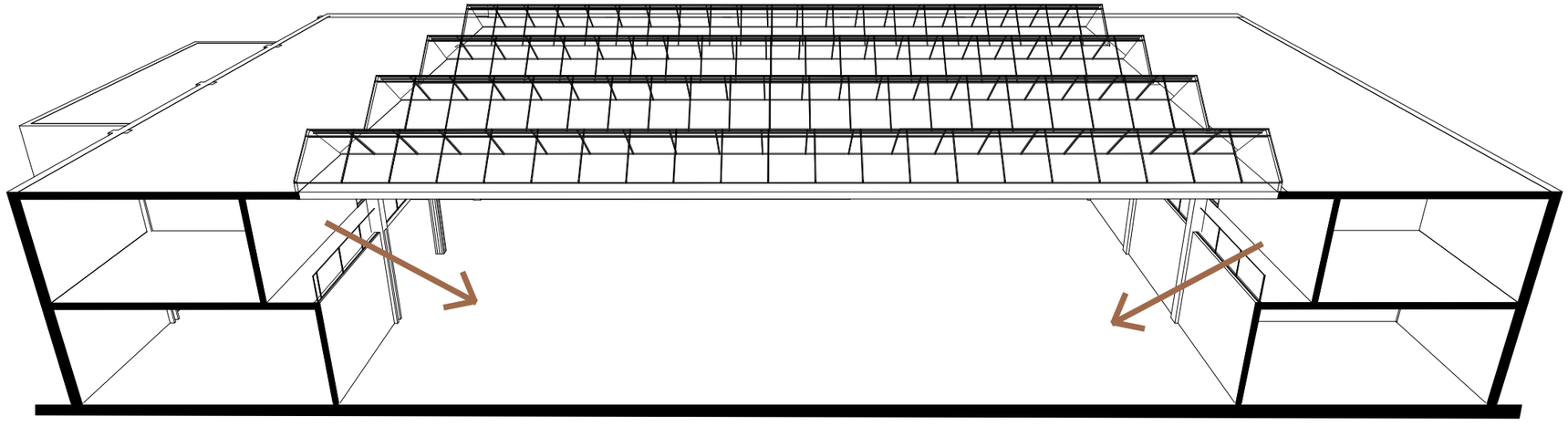


Existing Structure of the Factory

Closed Off Walls/

Closed Off Hallway/

Clear Separation of Main Hall and Adjacent Rooms



New Proposal Structure of the Factory

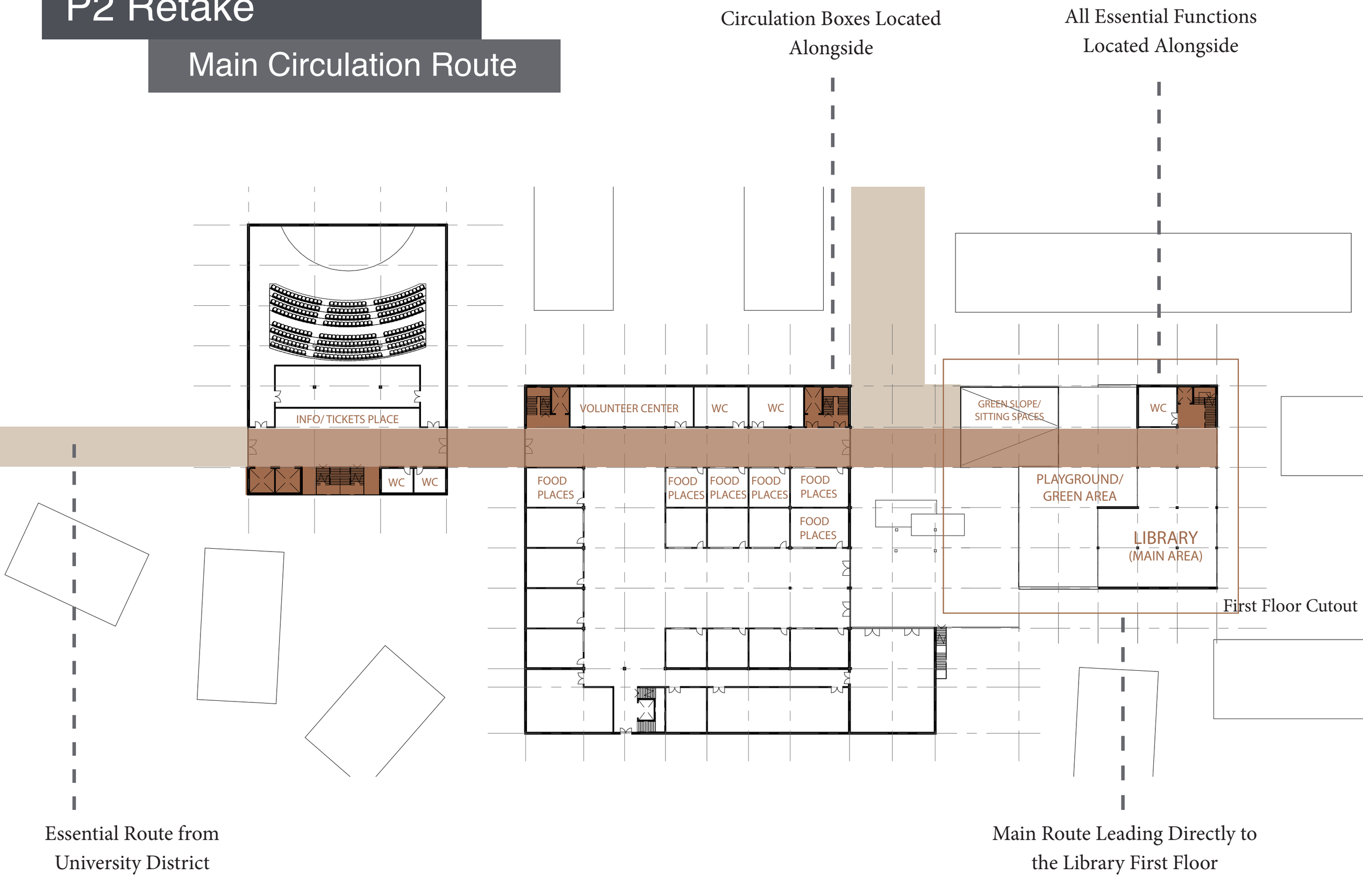
Opening First Floor Walls/

Better Connection/

More Natural Daylight to Adjacent Rooms

P2 Retake

Main Circulation Route



P2 Retake

Floorplan Design

1 : 500

Ground Floor Plan

N

Hybrid Space

Active Circulation Routes

THEATRE/
CINEMA

CHANGING ROOMS /
STORAGE

INFO/ TICKETS PLACE

WC

WC

VOLUNTEER CENTER

WC

WC

WC

FOOD
PLACES

FOOD
PLACES

FOOD
PLACES

FOOD
PLACES

FOOD
PLACES

FOOD
PLACES

FOOD
PLACES

SEATING AREAS

SQUARE

LIBRARY
(QUITE AREA)

CAFE

OFFICES

WC

CO-WORKING SPACES

Multiple Access Points/
Circulation Boxes

Modular Food Places
Food Hall <-> Event Space

Change of Main Acess Point -->
Allowing Different Atmosphere

P2 Retake

Food Hall Design

Collage - Main Hall of Factory -> Food Hall

Opportunity of Biophilic Design on Roofs

Modular Containers for Food Places/
Easily Removable for Event Spaces in the Hall

P2 Retake

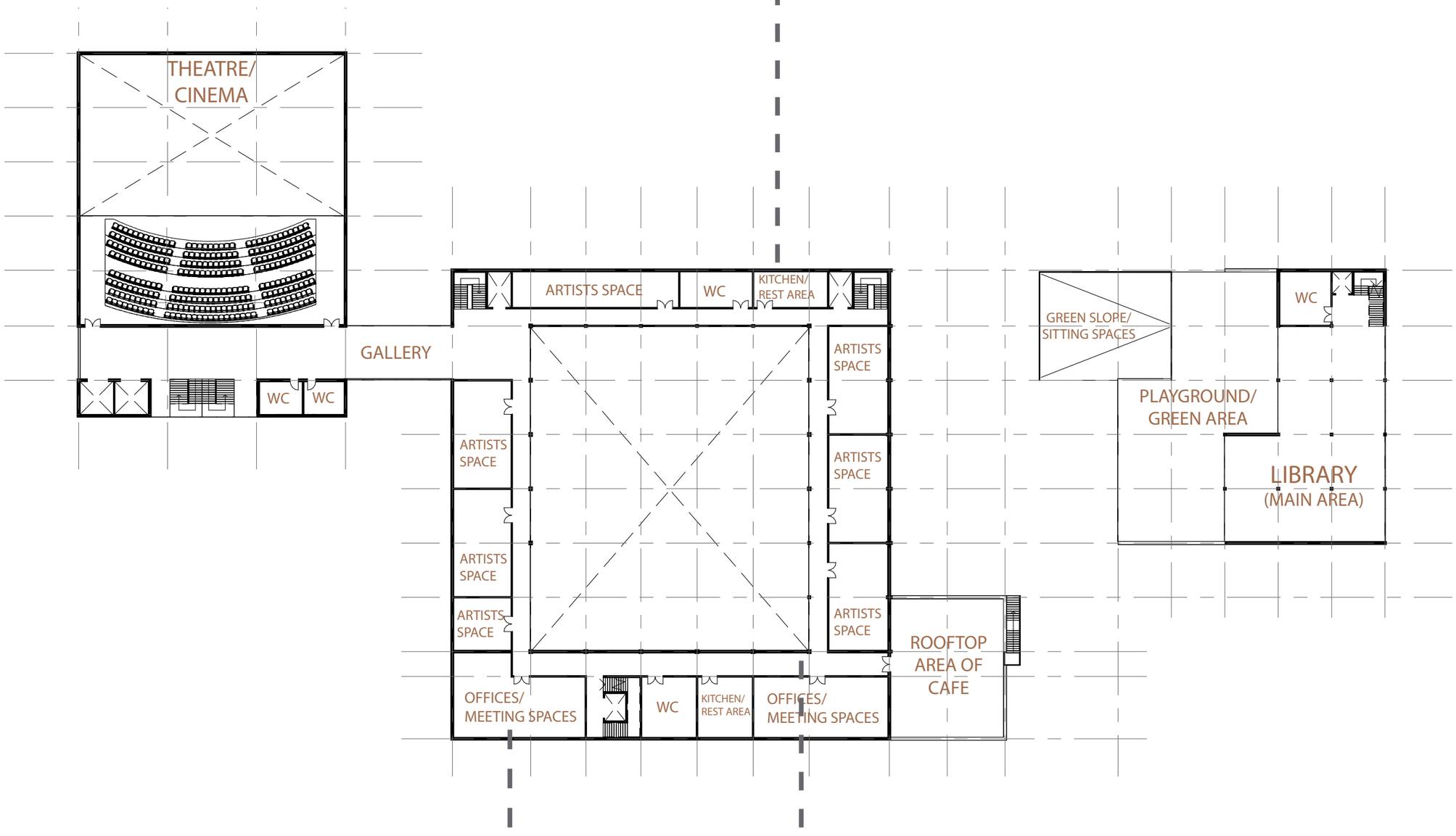
Floorplan Design

1 : 500

First Floor Plan

N

Communal Areas
for the Artists

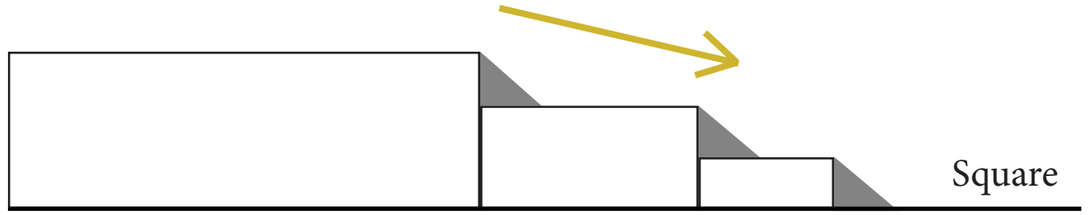


Hybrid Spaces

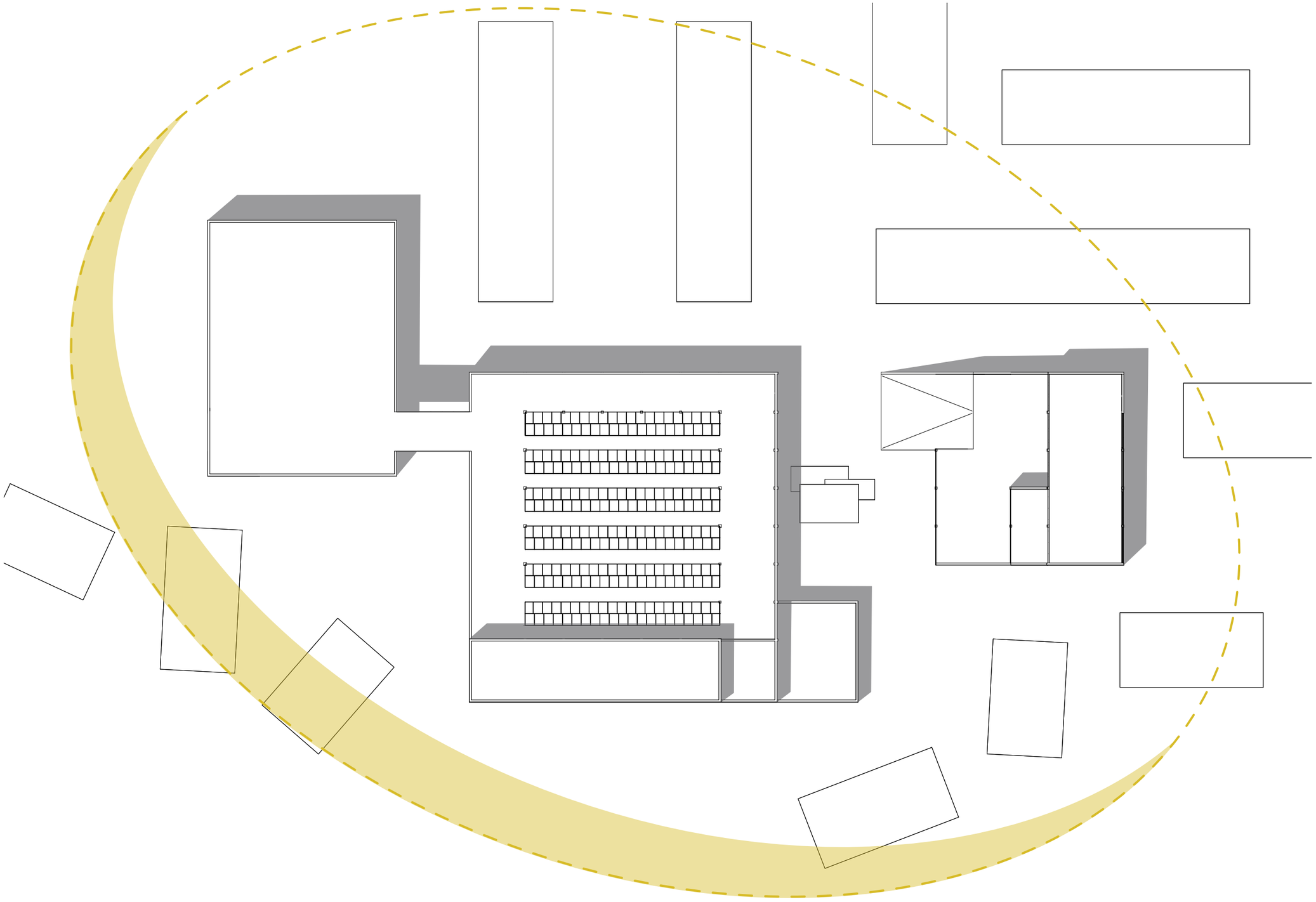
Closed Off Circulation
--> More Privacy

P2 Retake

Health Design



Section - Design Strategy Maximizing Direct Sunlight to the Square



P3

Points of Improvement:

- Better integration of surroundings
- Better interactivity and connection to the rest of the neighbourhood
- More developed cohesion and connectivity between the main circulation route and functions
- Development of the functions and spaces
- Vertical and horizontal circulation developed further
- Structure design
- Initial design of materiality

P3

Masterplan

Activation of ‘unsafe’ and avoided street between the Homeless Shelters

Horizontal Connection

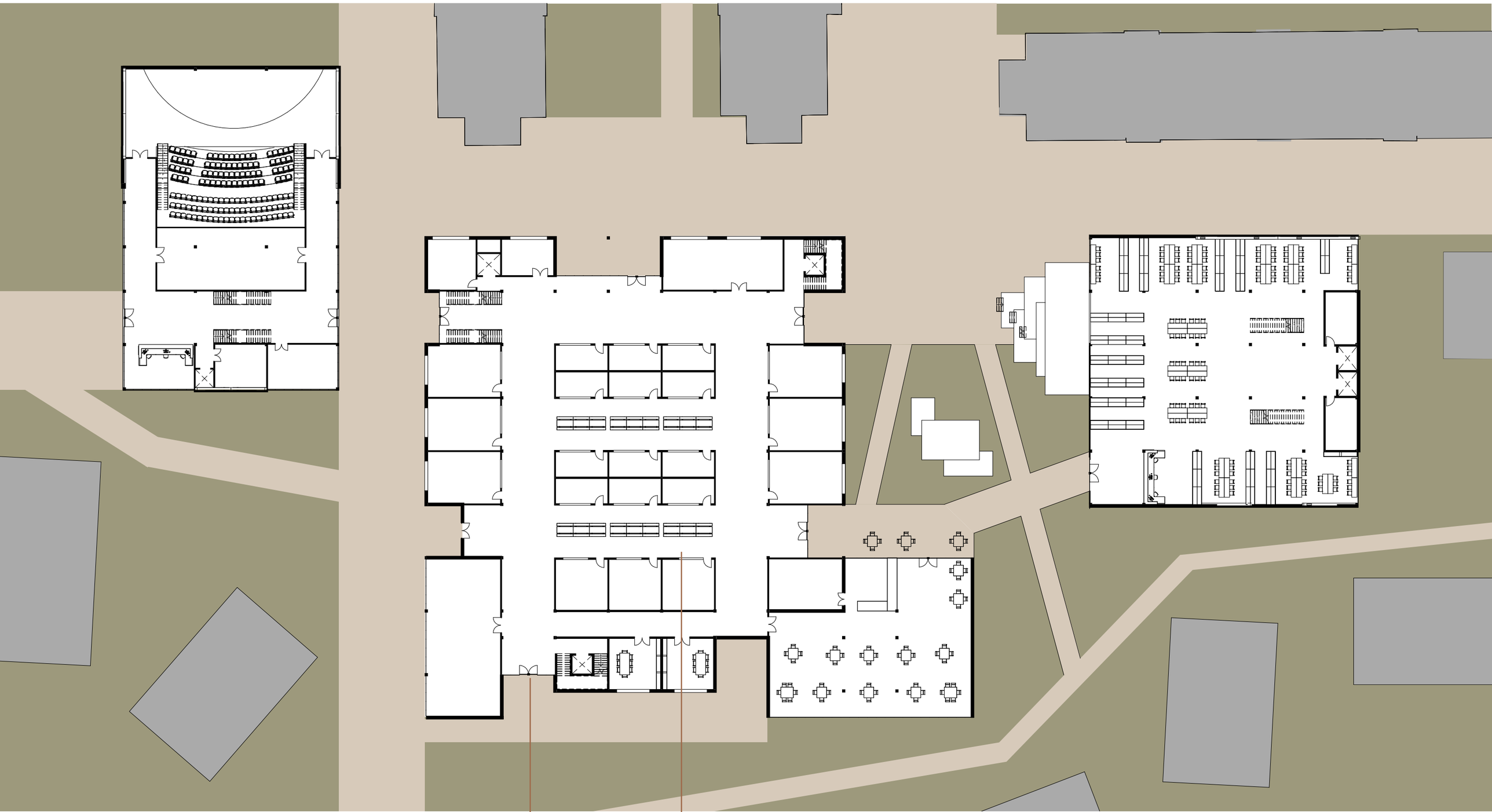
Masterplan

Green Buffer

Rooftop Activation

P3

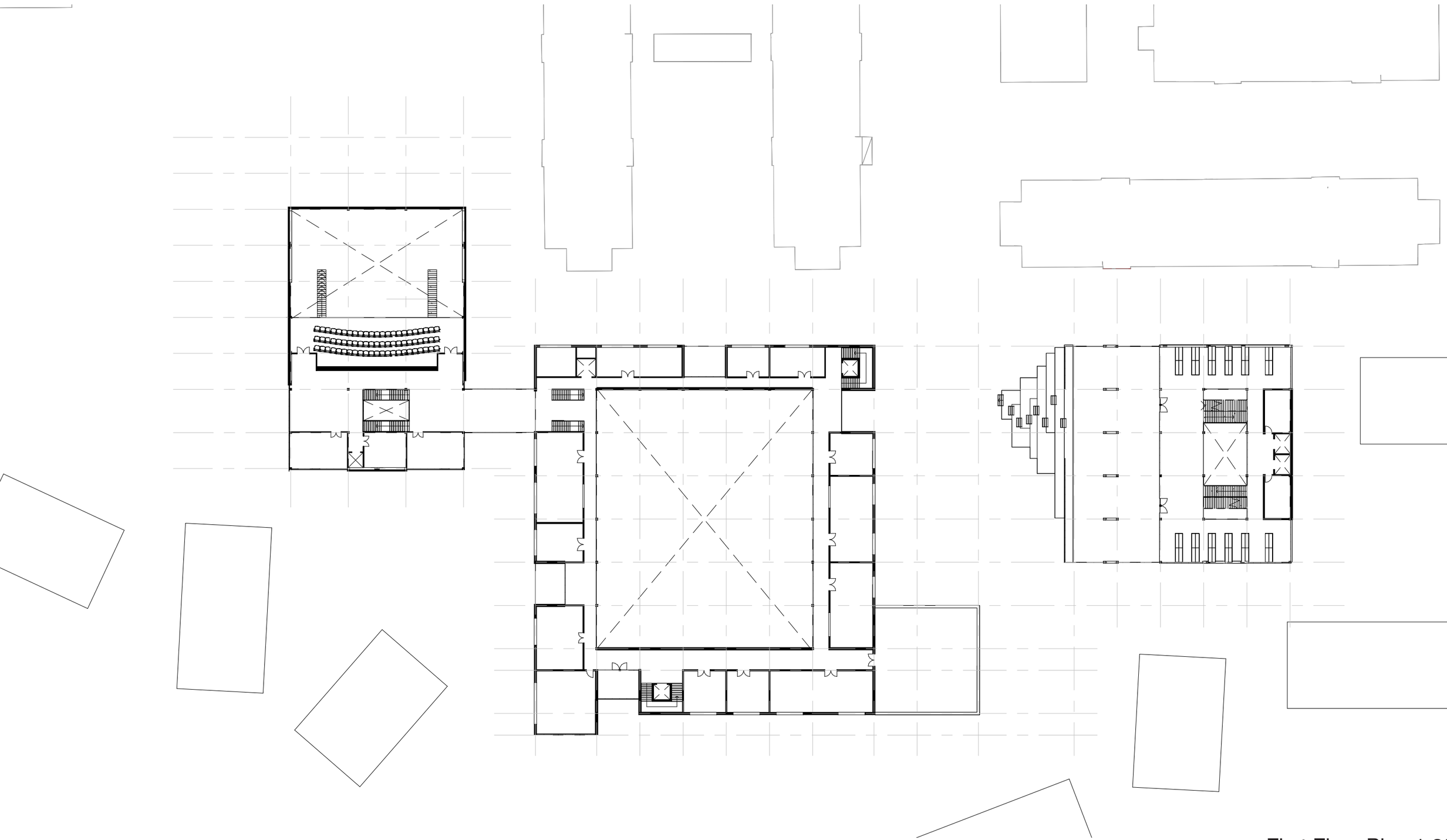
Floorplan Design



Ground Floor Plan 1:200

P3

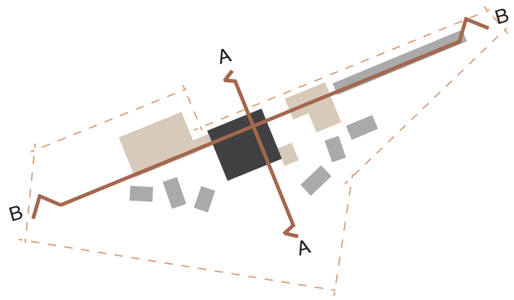
Floorplan Design



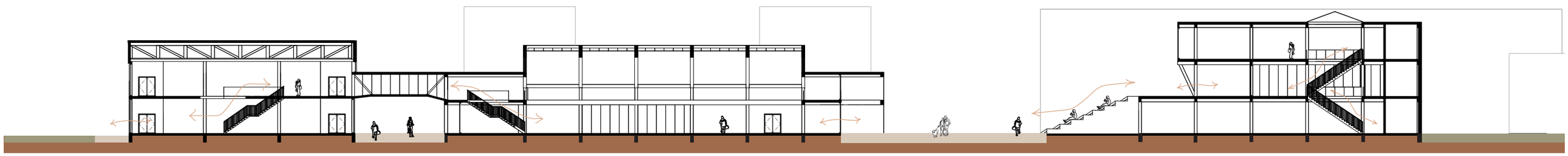
First Floor Plan 1:200

P3

Connectivity



Section A 1:200



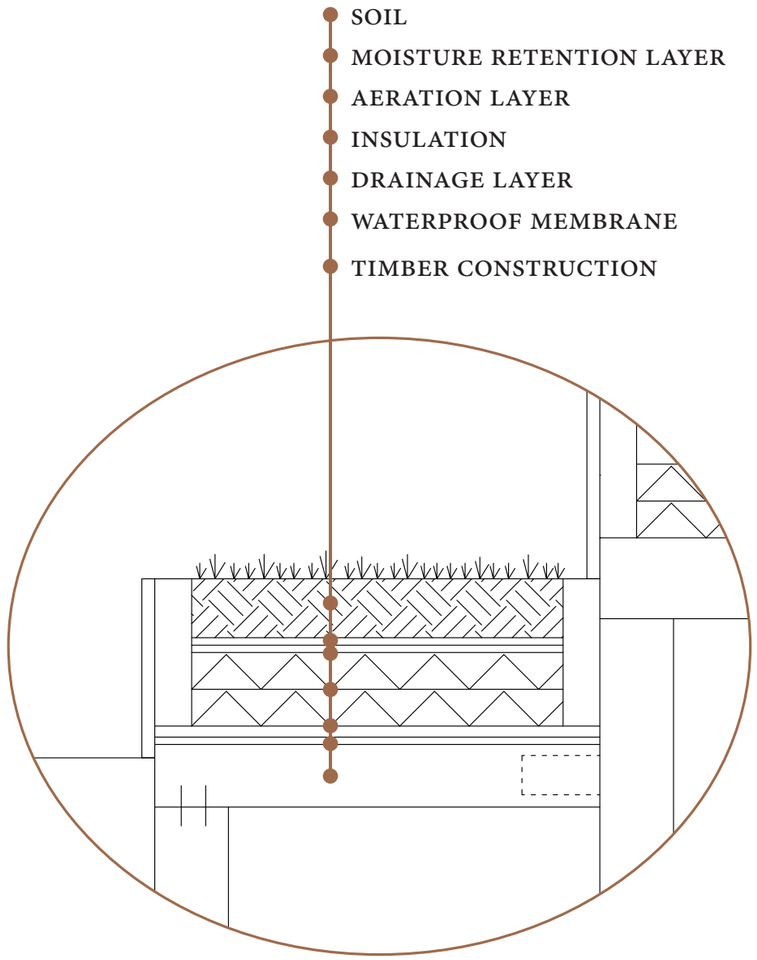
Section B 1:200

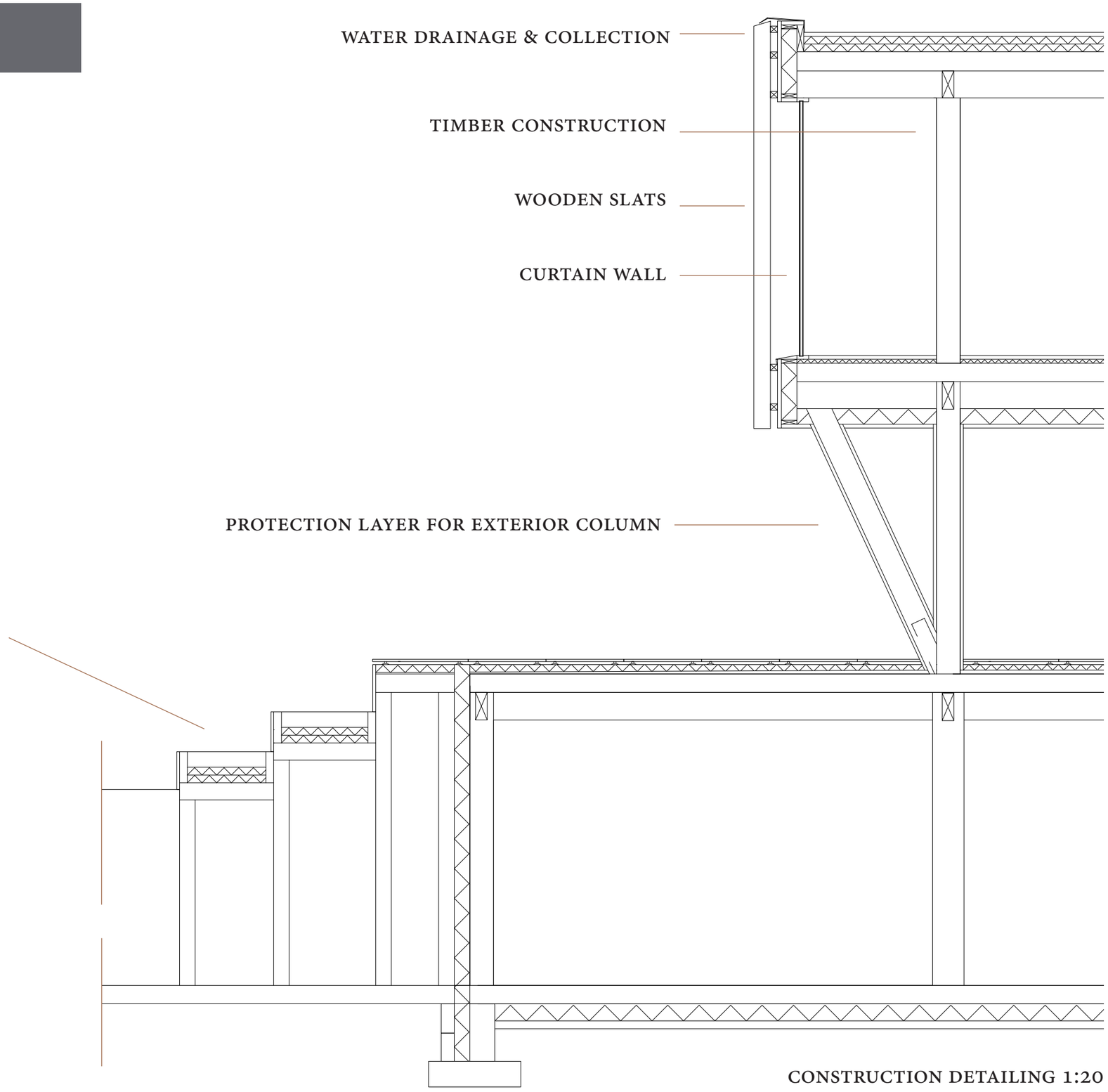
P3

Render Square Element

P3

Detailing





CONSTRUCTION DETAILING 1:20

P4

Points of Improvement:

- Better connection between surroundings and the public condenser
- Better connection of the roads and axiality to the condenser
- Green steps leading to first floor not feasible - possibility of having a lowered green square
- Stronger importance of the main circulation route
- Redesign of the library to improve the accessibility and natural light
- Turning the theatre’s entry for better connection with the surroundings and street
- Simplification of the design of the factory
- Better and more detailed design of the spaces
- Multiplicity of the unique element of the existing factory’s rooflights to the rest of the condenser
- Climate design

P4

‘Nolli’ Map 1:1000

P4

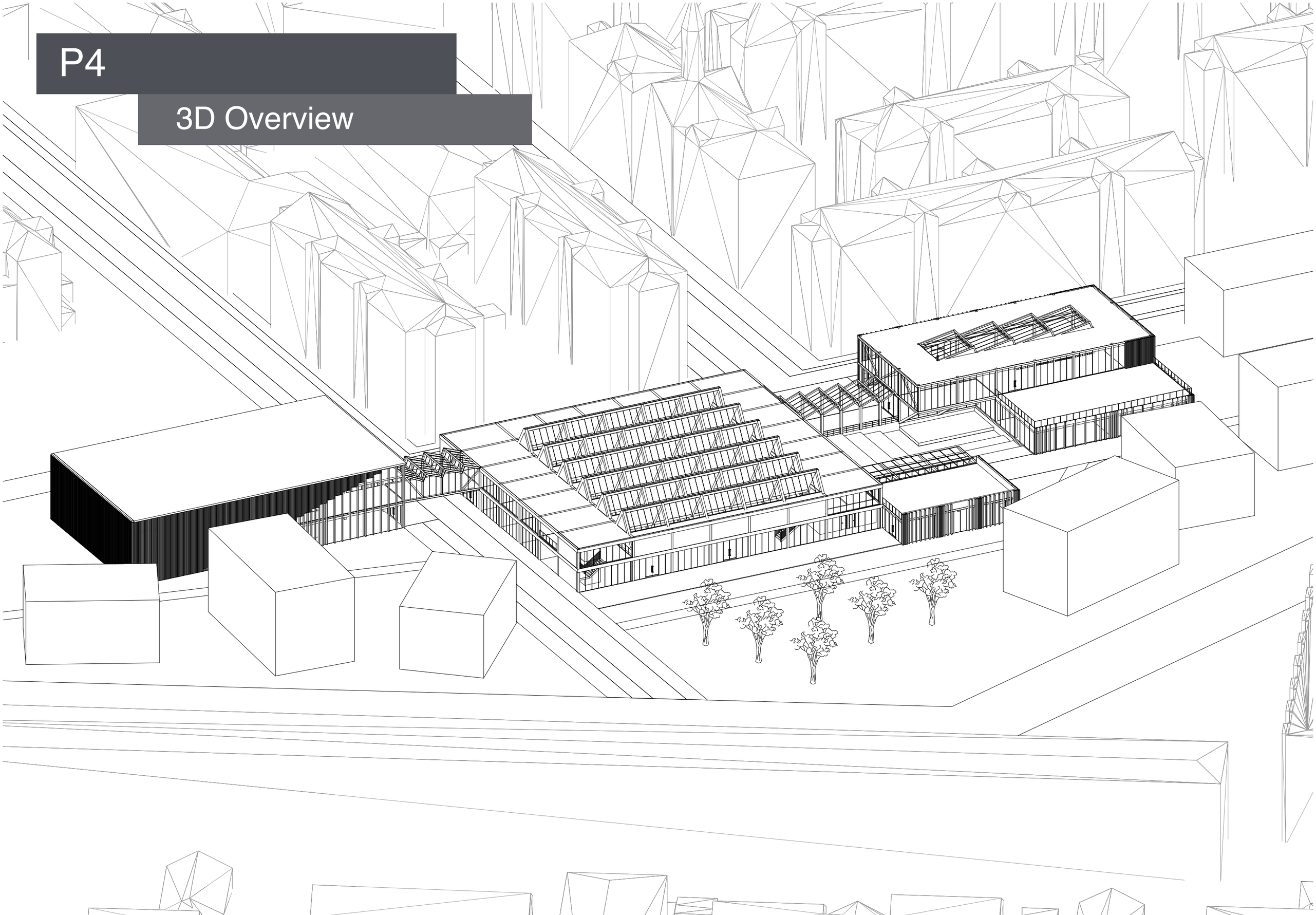
Masterplan

Existing Buildings
New Buildings
Pedestrian & Bicycle Streets
Green Buffer

Masterplan 1:1000

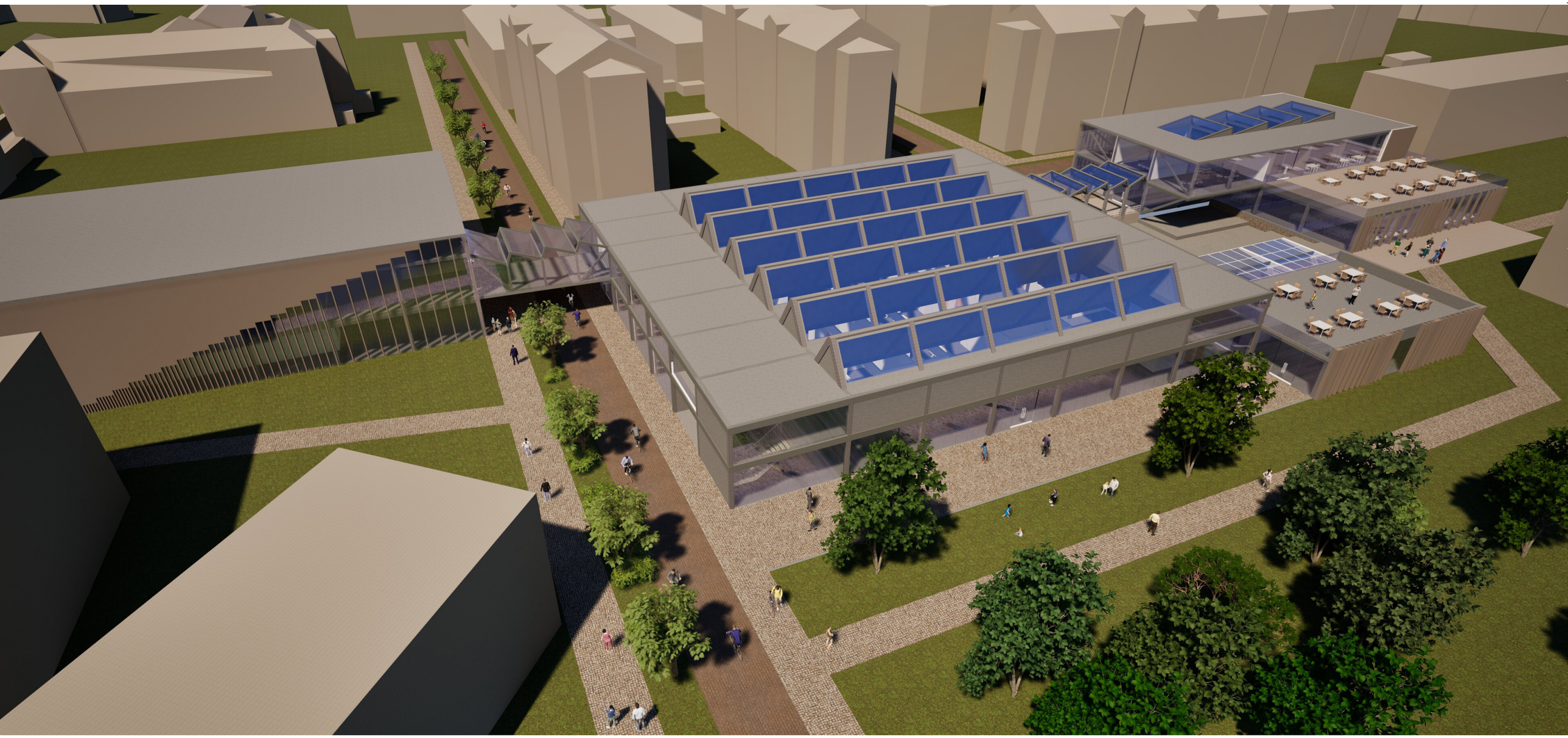
P4

3D Overview



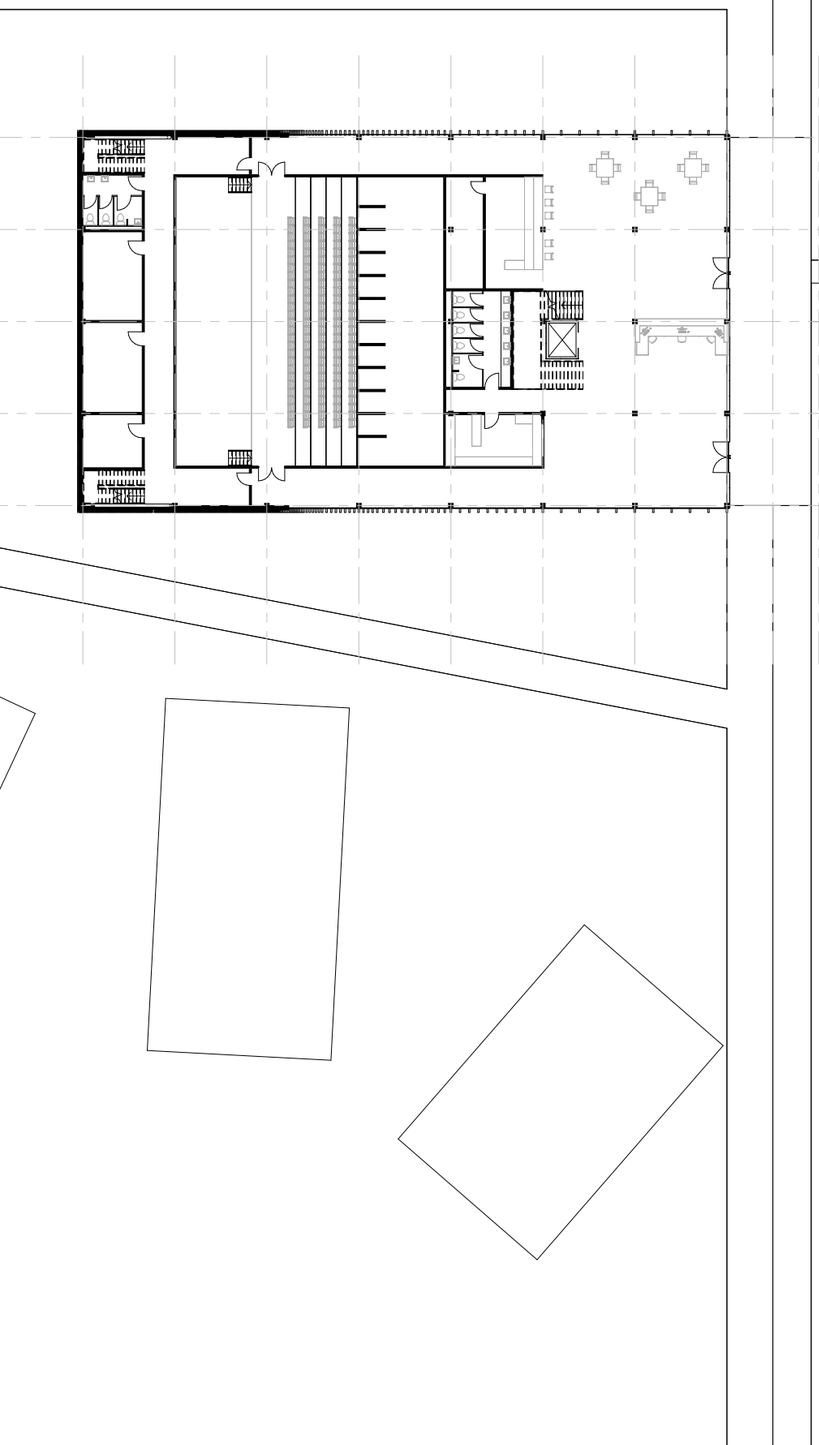
P4

Render 3D View



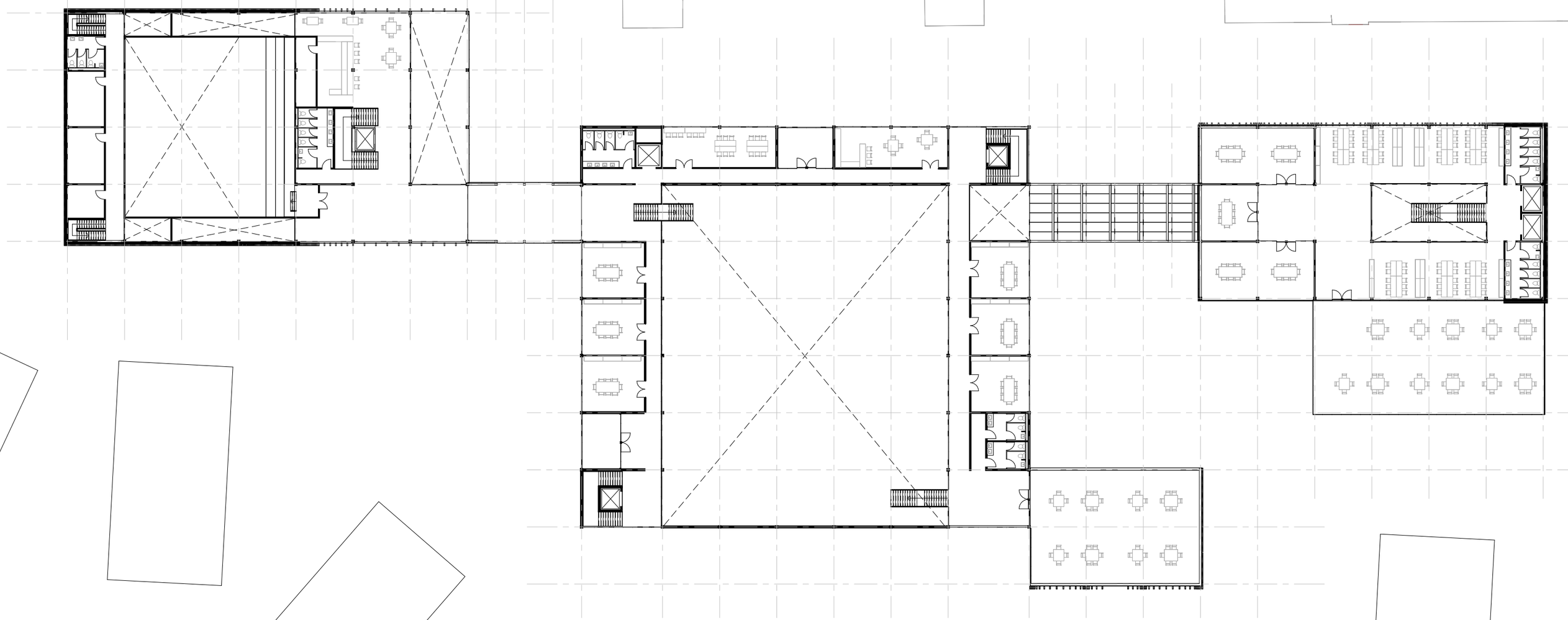
P4

Ground Floor



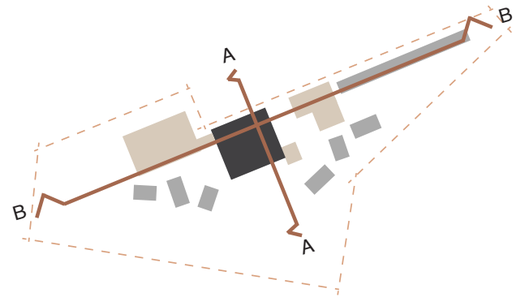
P4

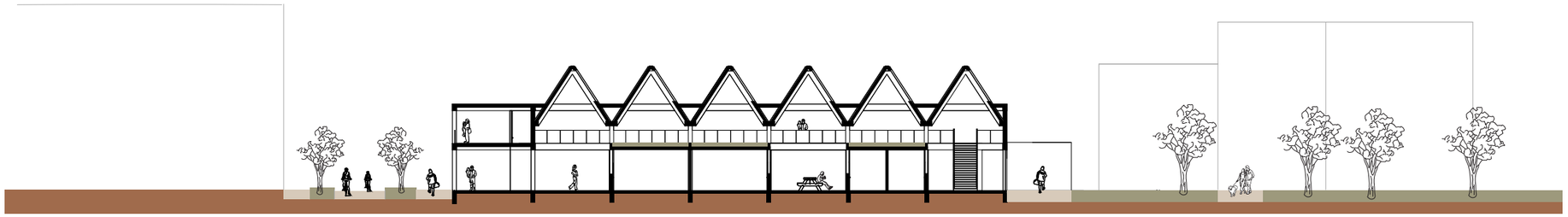
First Floor



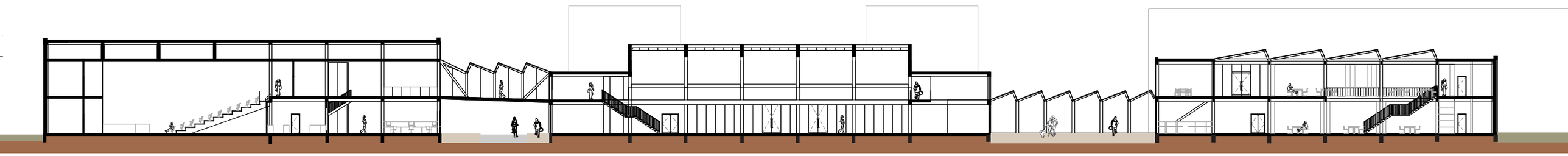
P4

Sections





Section A 1:200



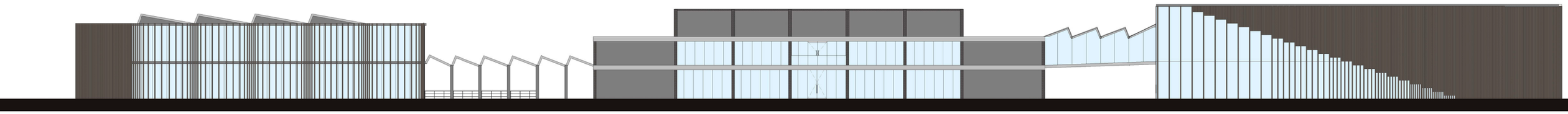
Section B 1:200

P4

Square Design

P4

Facades



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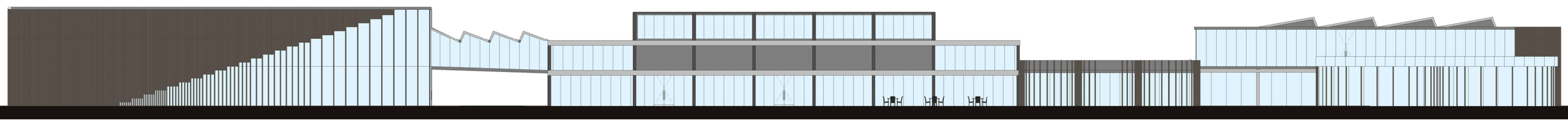
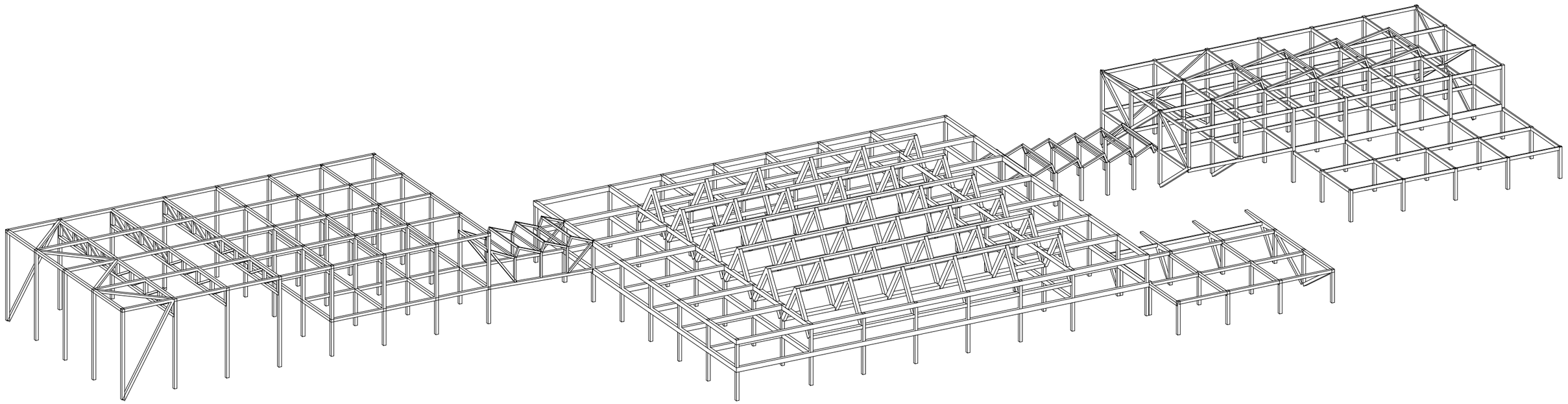
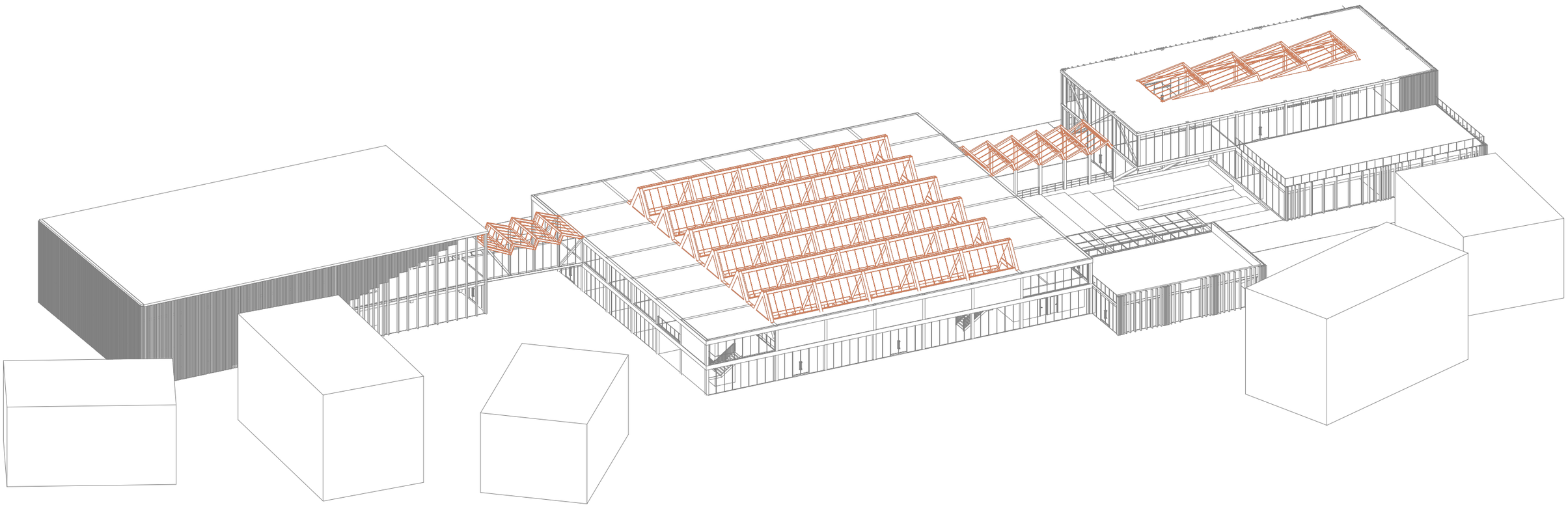


South Elevation 1:200

P4

Multiplicity





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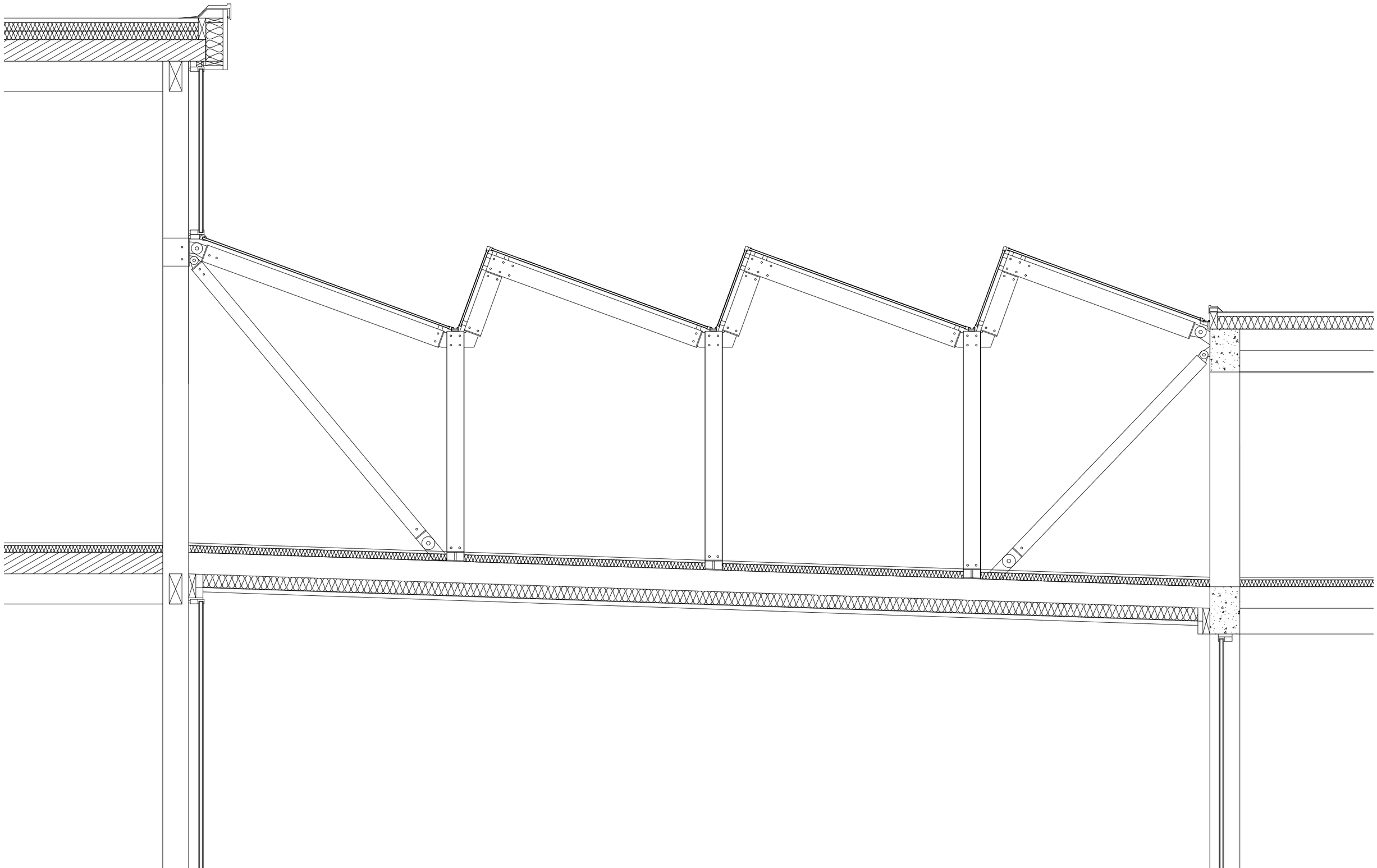
Bridge Zig-Zag Detail



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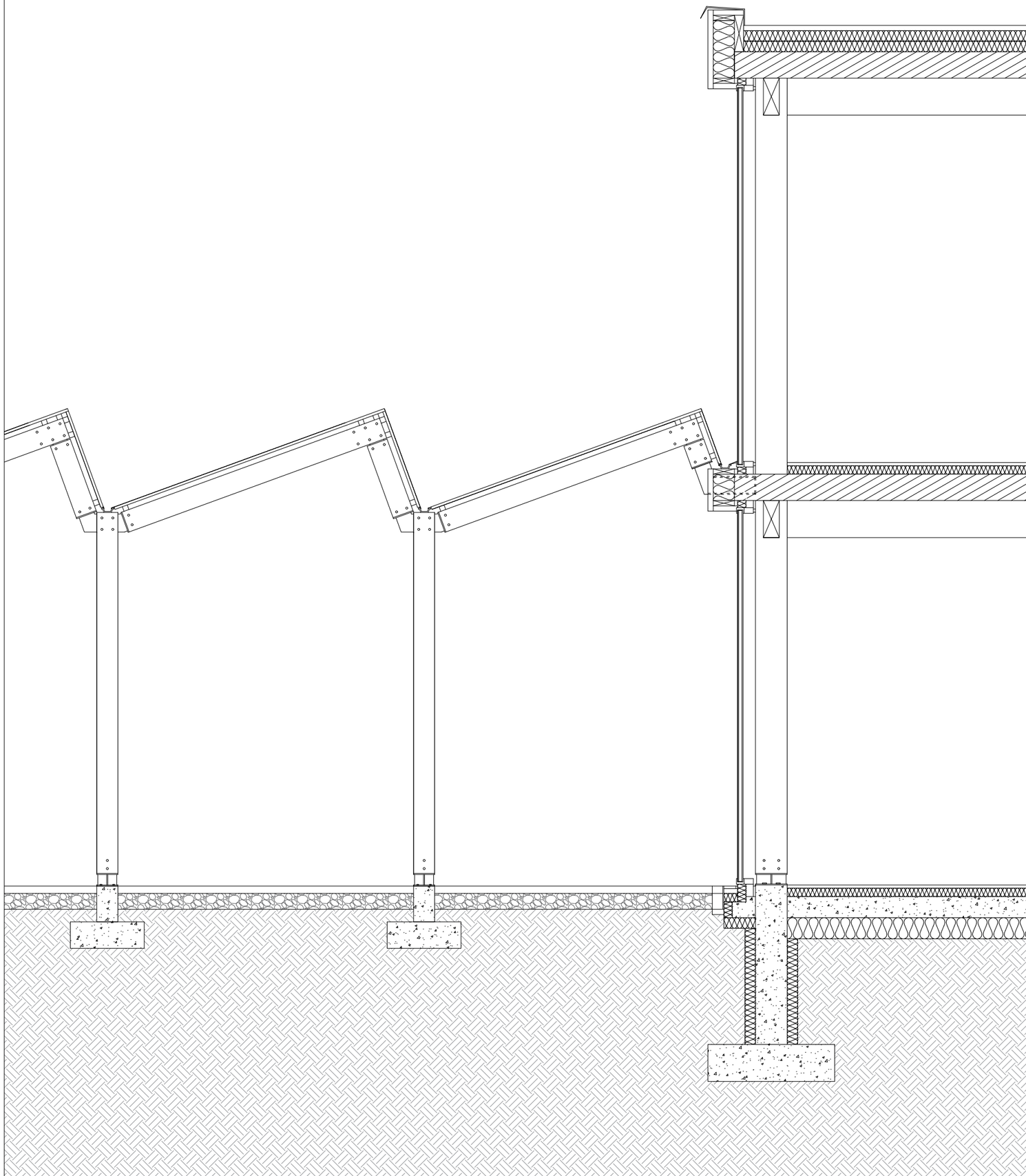
Detailing /zig-zag to library/



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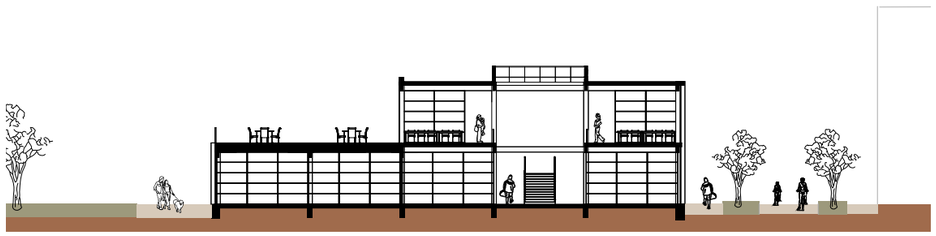

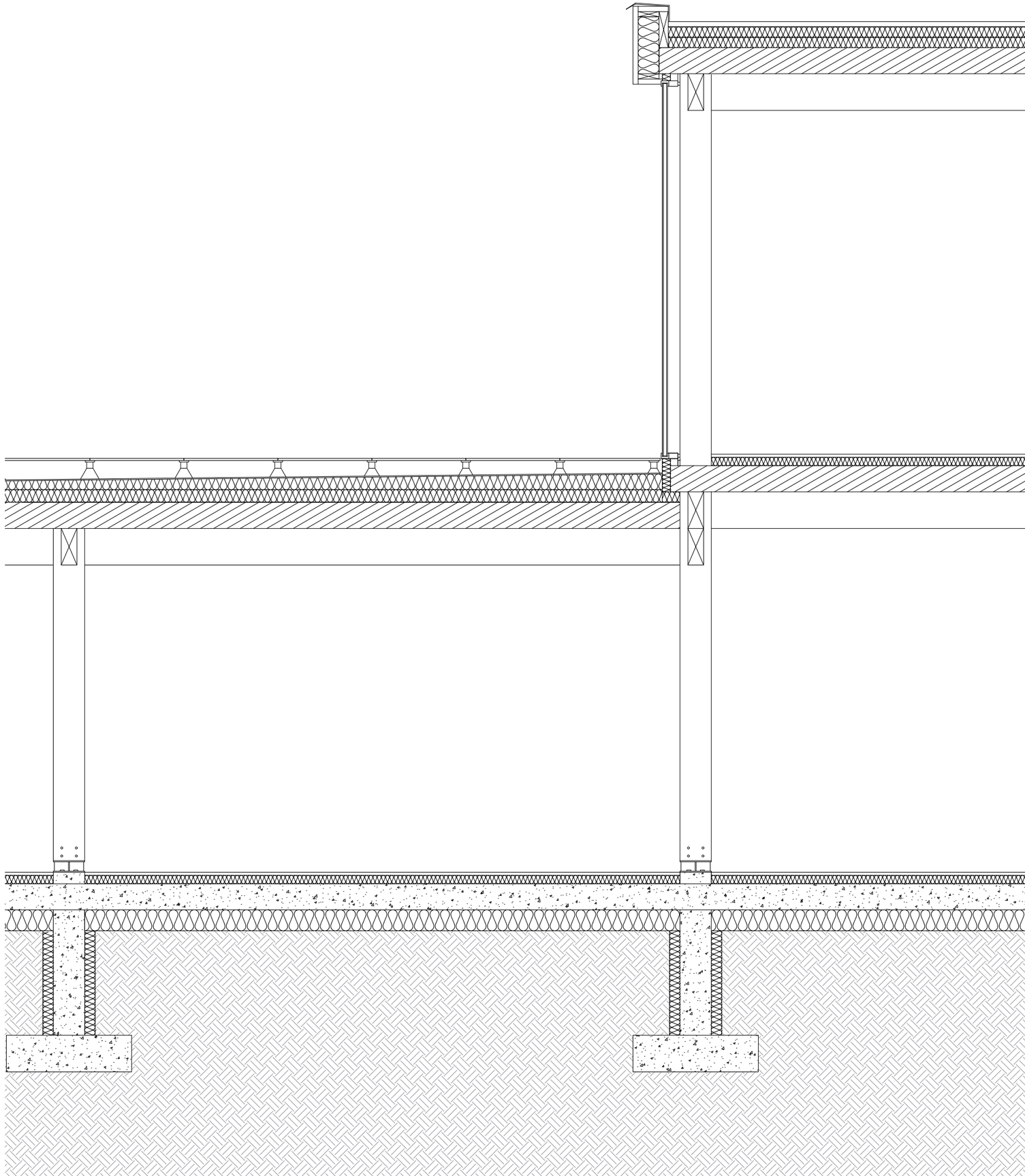

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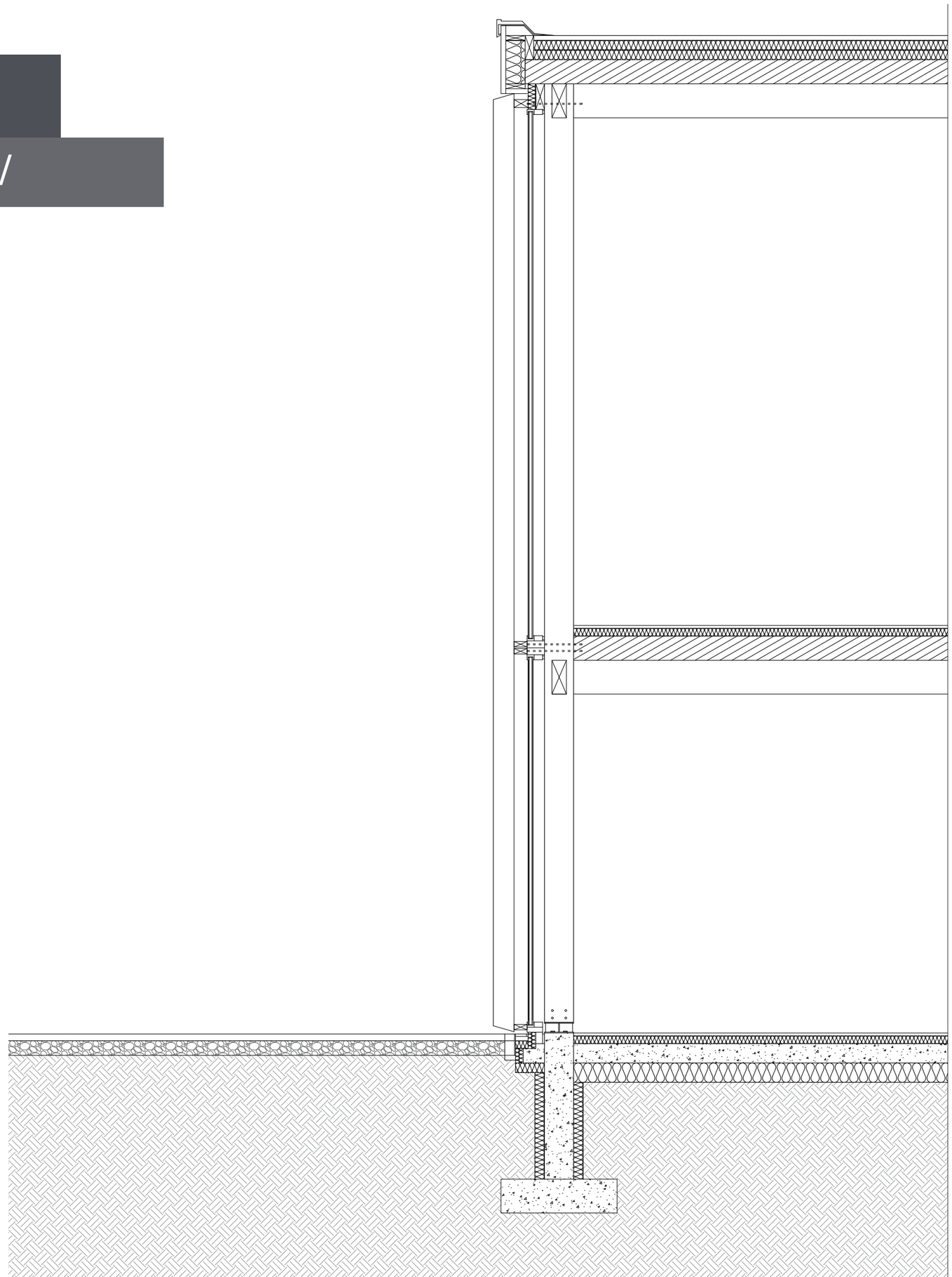
Detailing /theatre/



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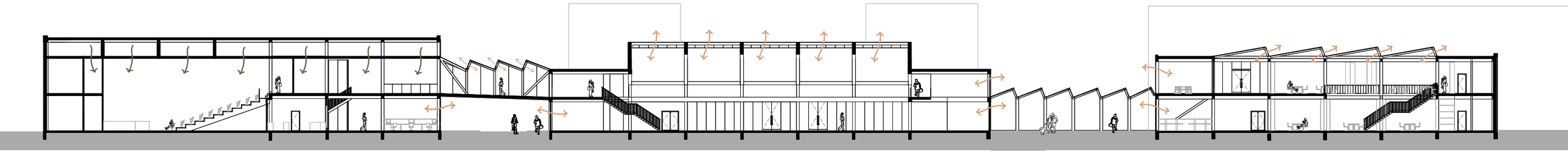
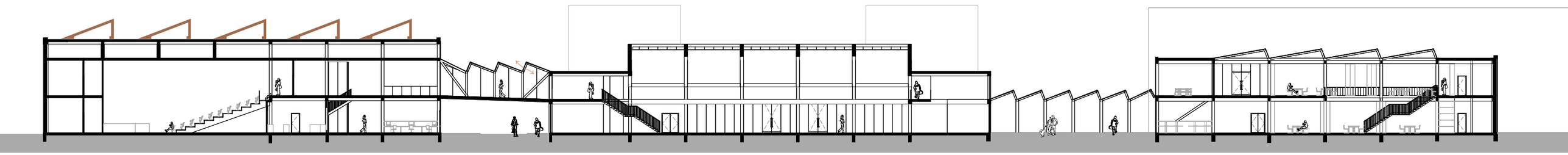
Climate Design



NATURAL VENTILATION

HVAC

OPPORTUNITY:
SOLAR PANELS



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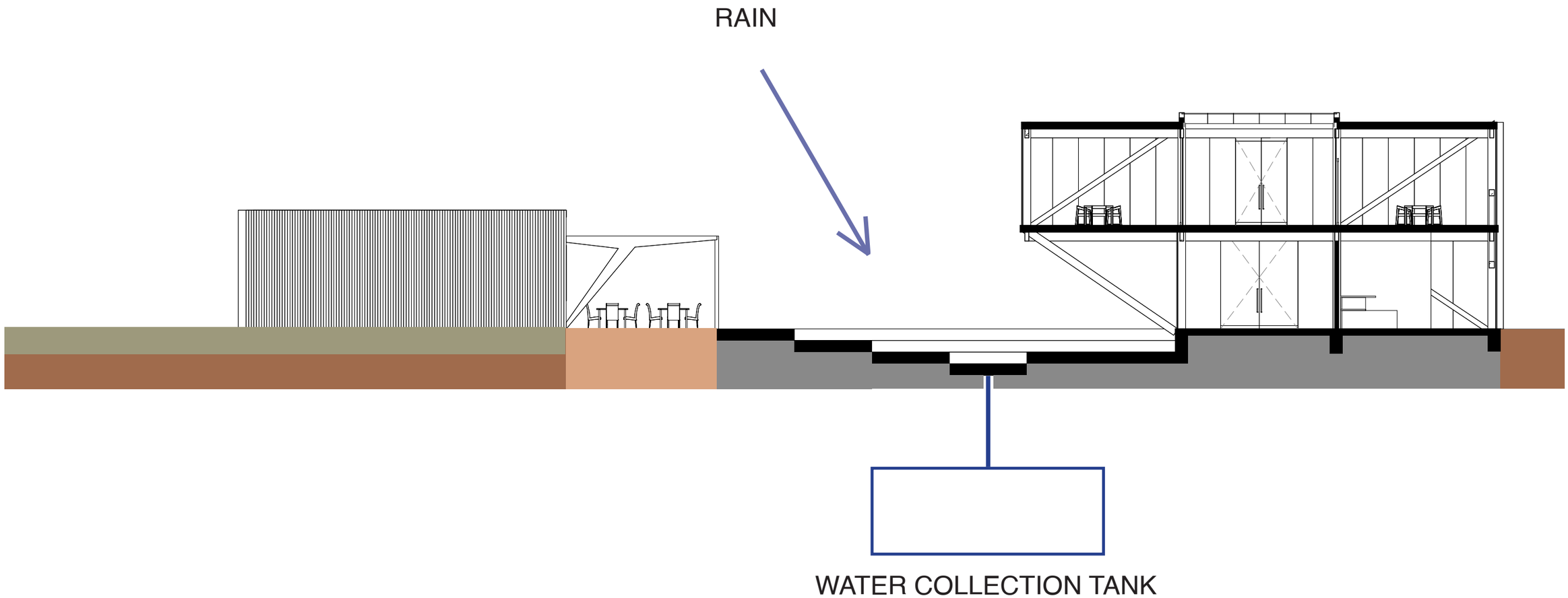
Climate Design



P5

Points of Improvement:

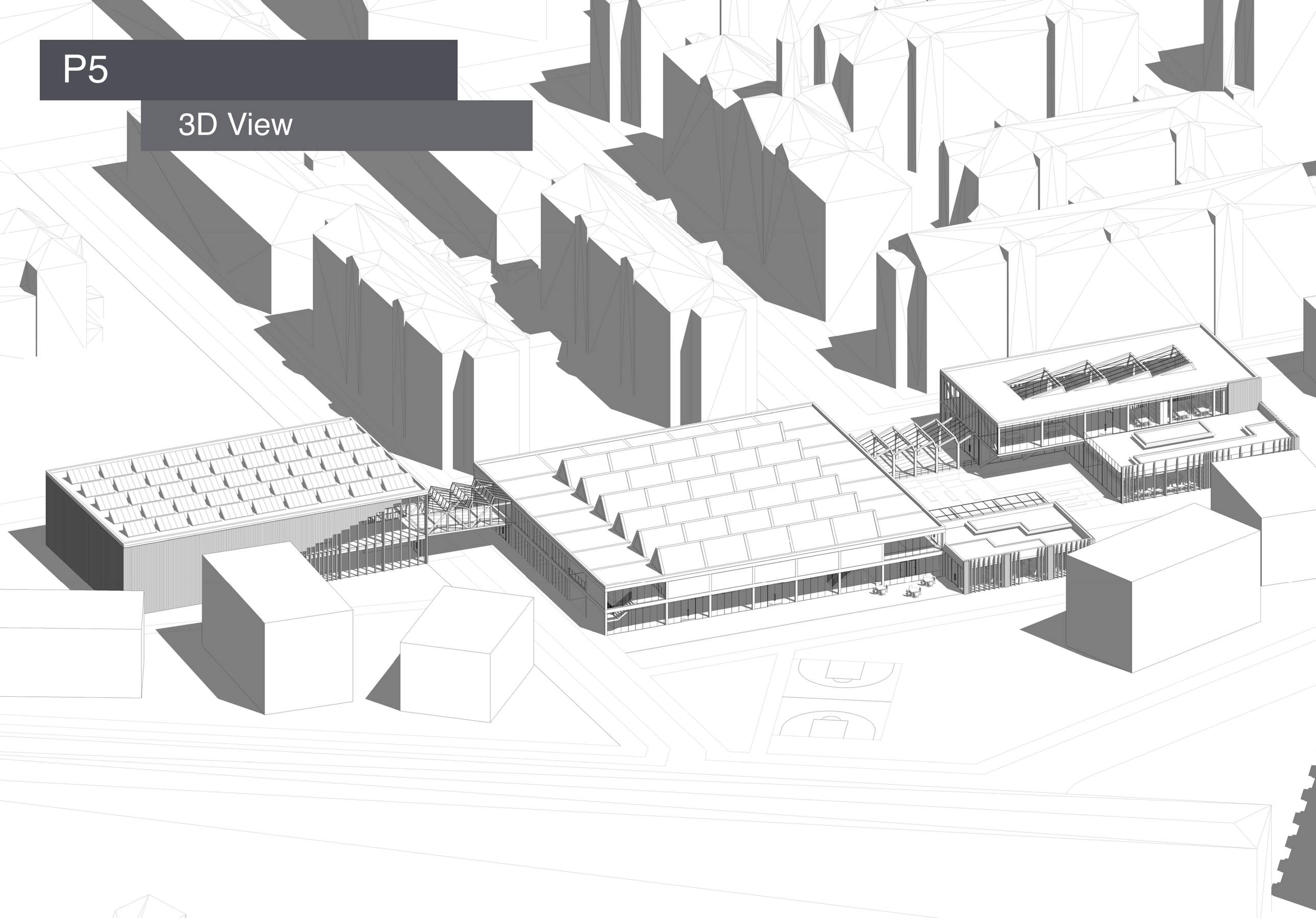
- Better integration of the greenery - throughout the buildings
- Interior views and atmosphere
- Materiality
- Connection between buildings through design choices - materiality, atmosphere
- Diagrams and sketches showing the process of the design
- Green buffer defined through tree positioning as well
- Activation of green area/ park through activities, such as a sports field
- Structure of bridge to become a truss structure

P5

Masterplan Re-design

P5

3D View

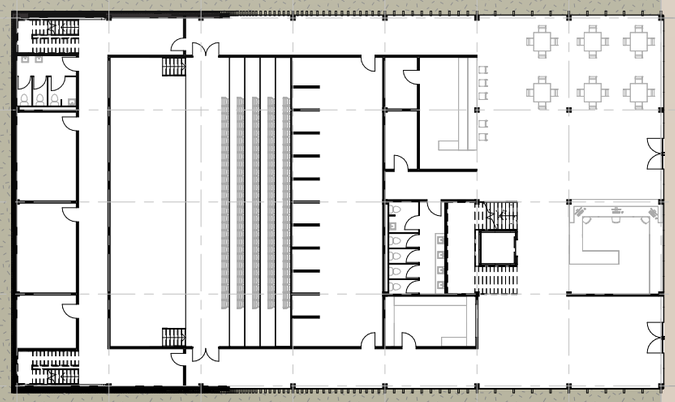


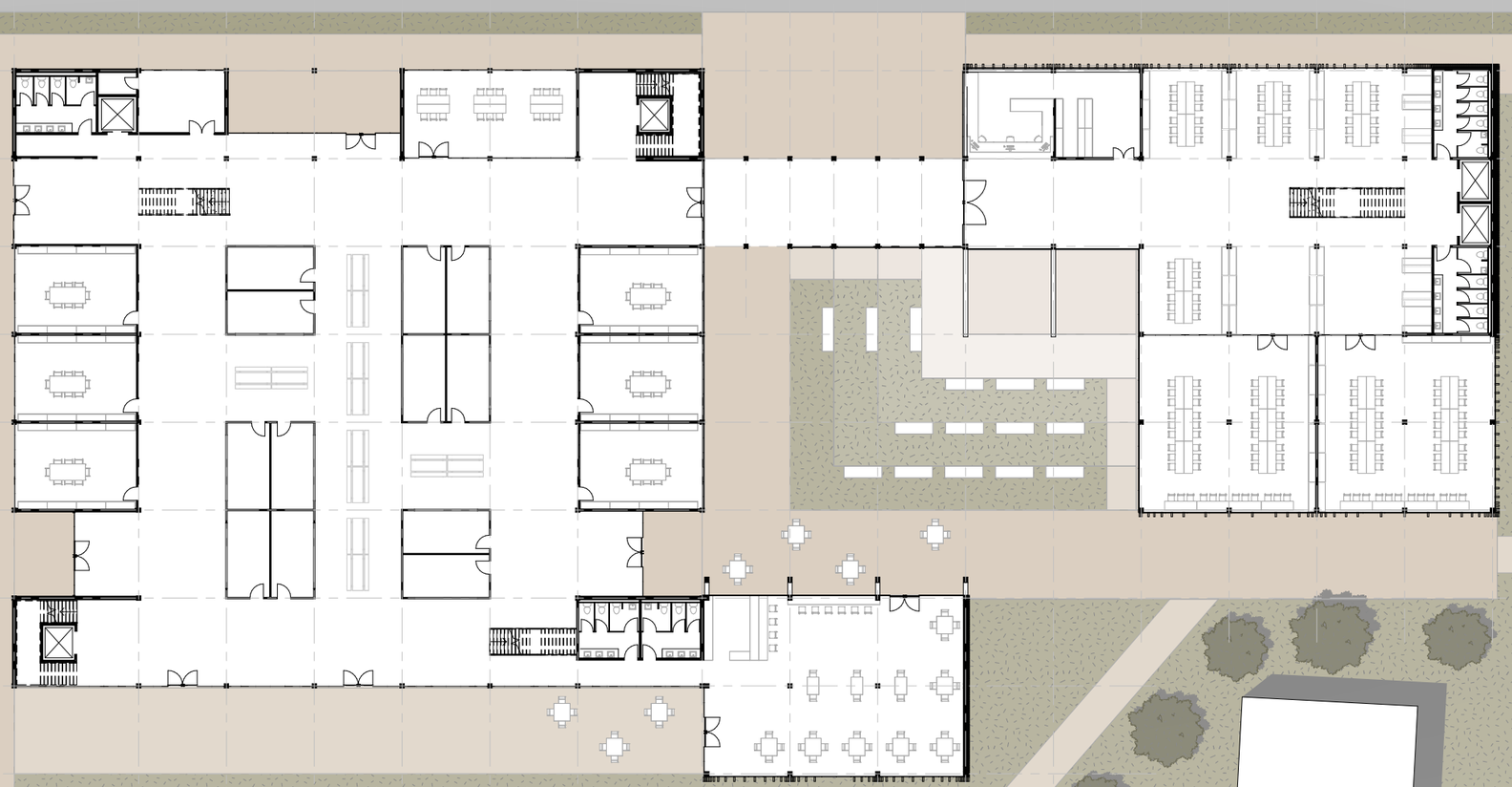
P5

Masterplan Re-design

P5

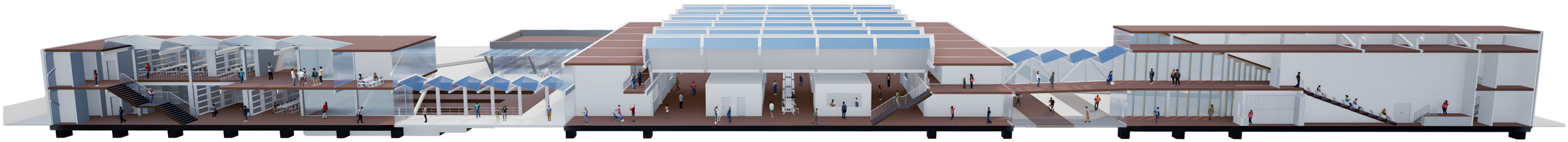
Situation Plan

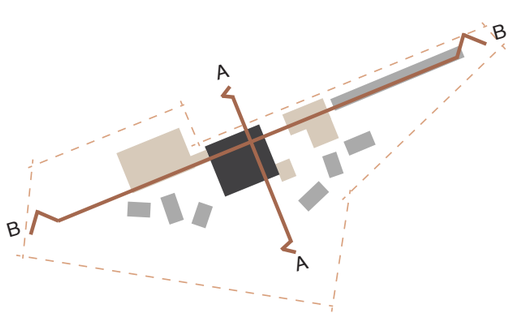


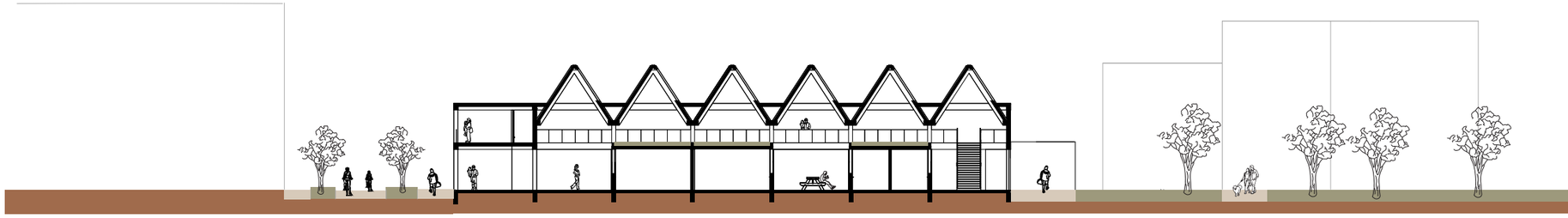


P5

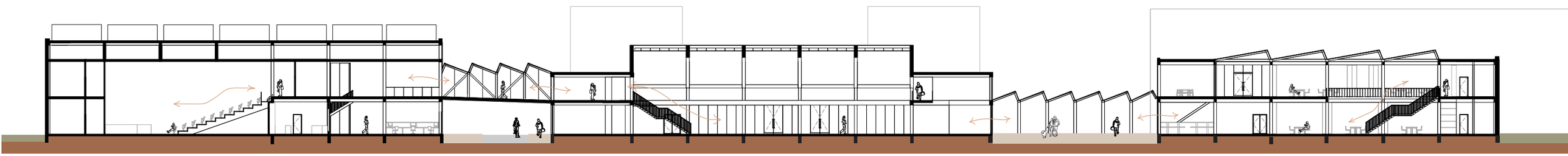
3D Section







Section A 1:200



Section B 1:200

P5

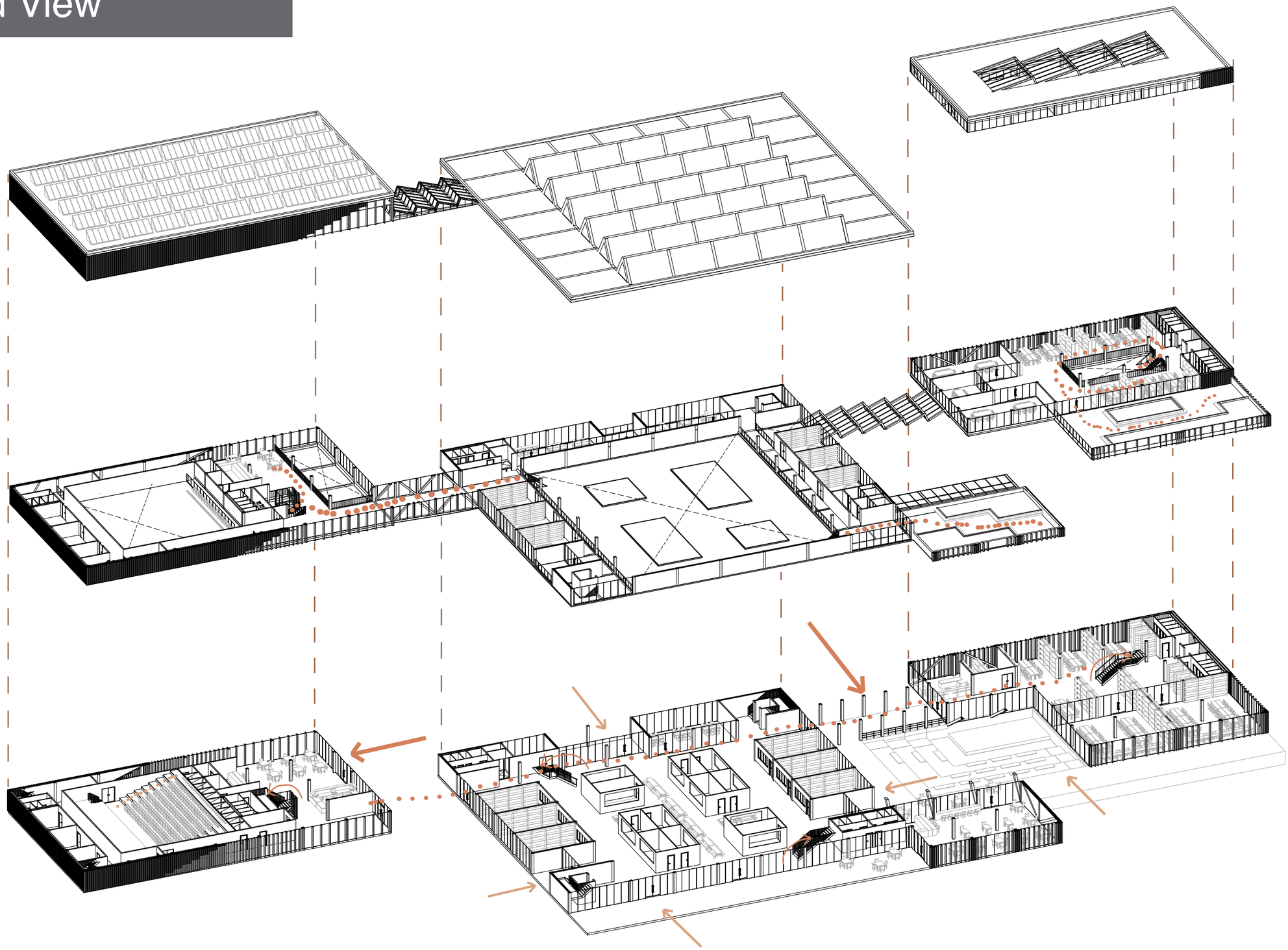
Exploded View

CIRCULATION

/STAIRS/ WALKING ROUTES/

OPENNESS

/WINDOWS/ FACADE OPENINGS/ ATRIUMS



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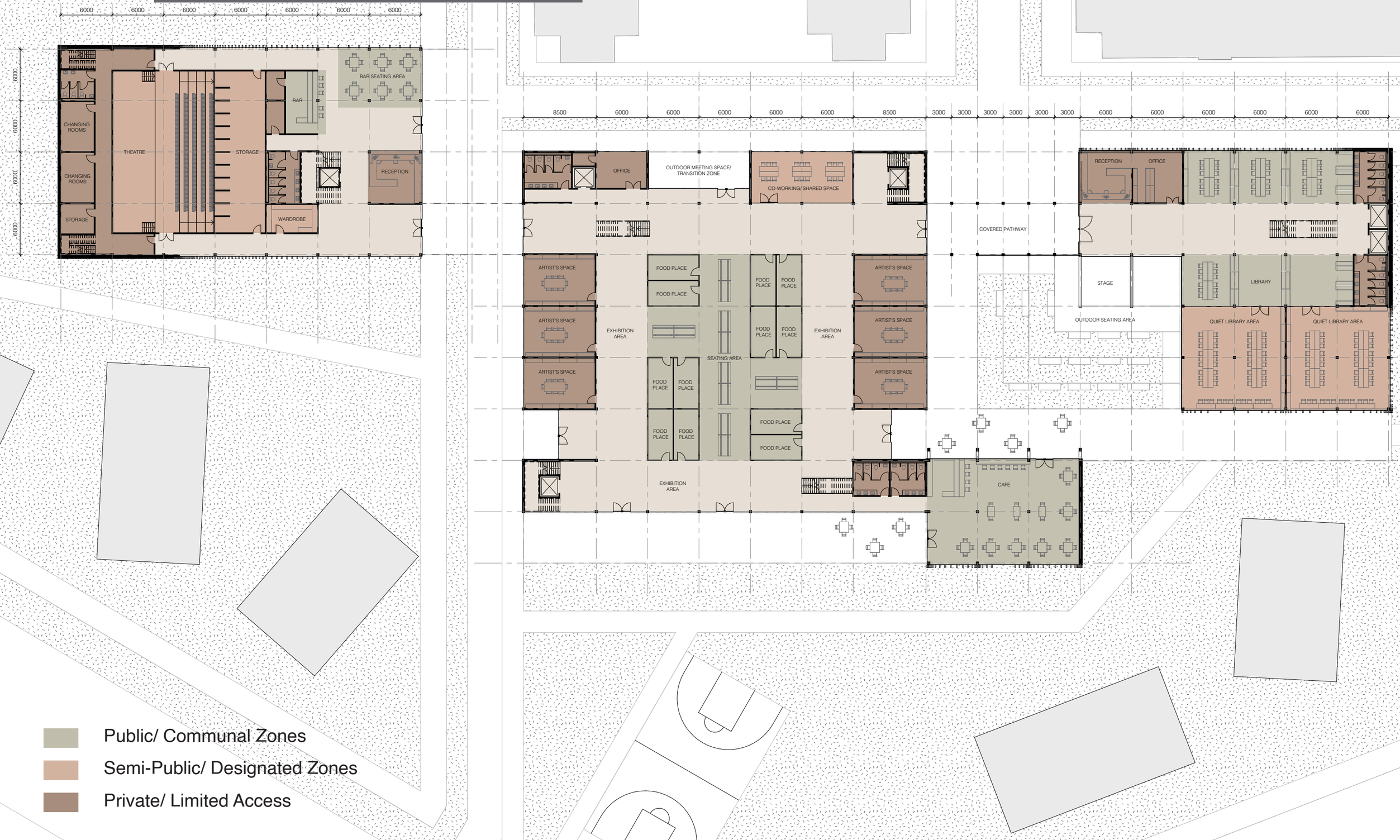
Functions



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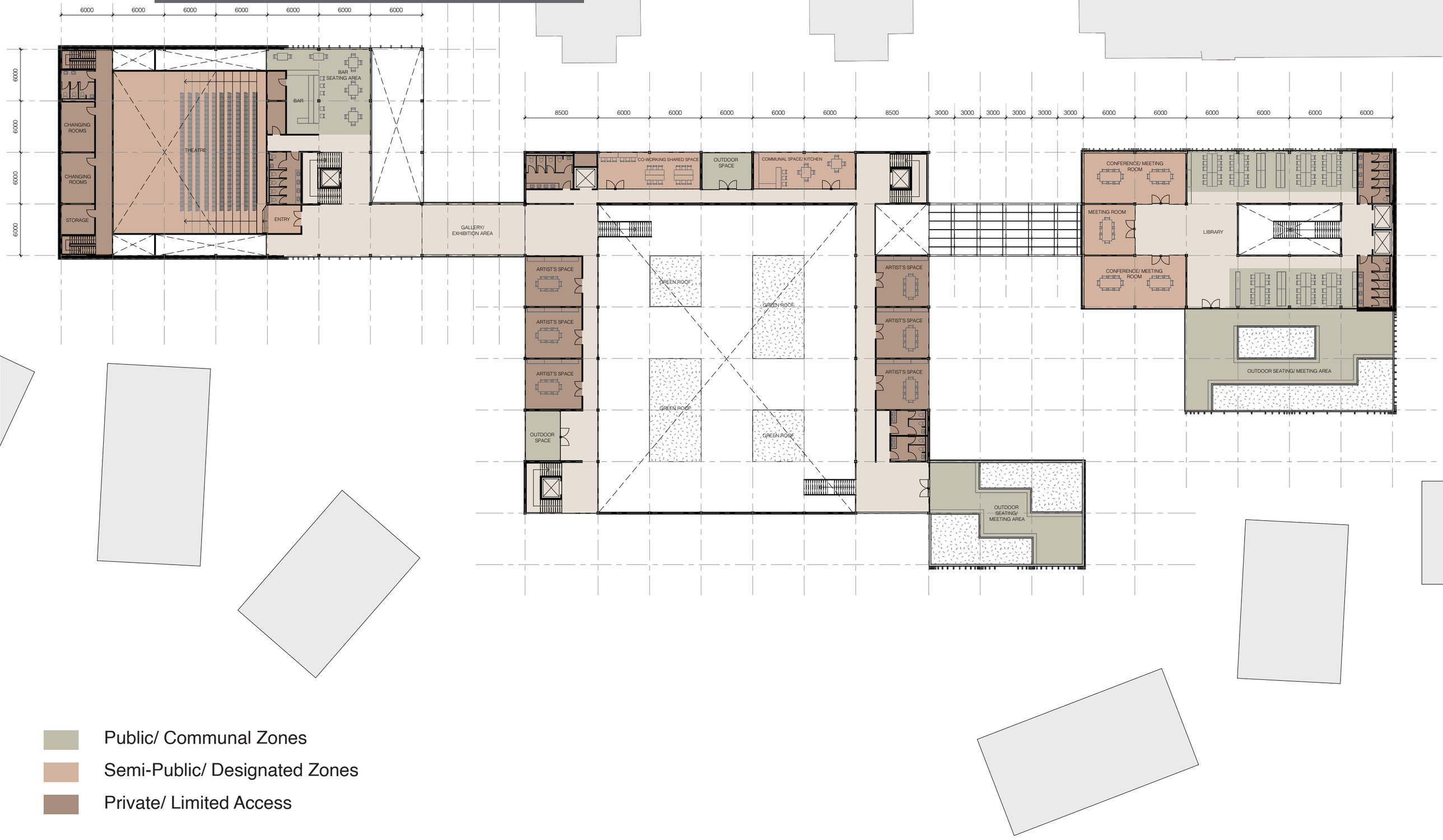
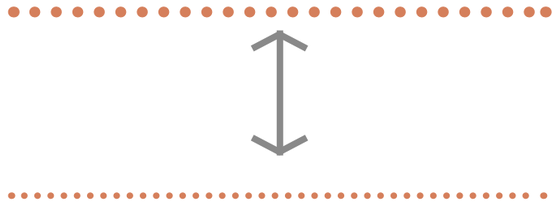
Functions

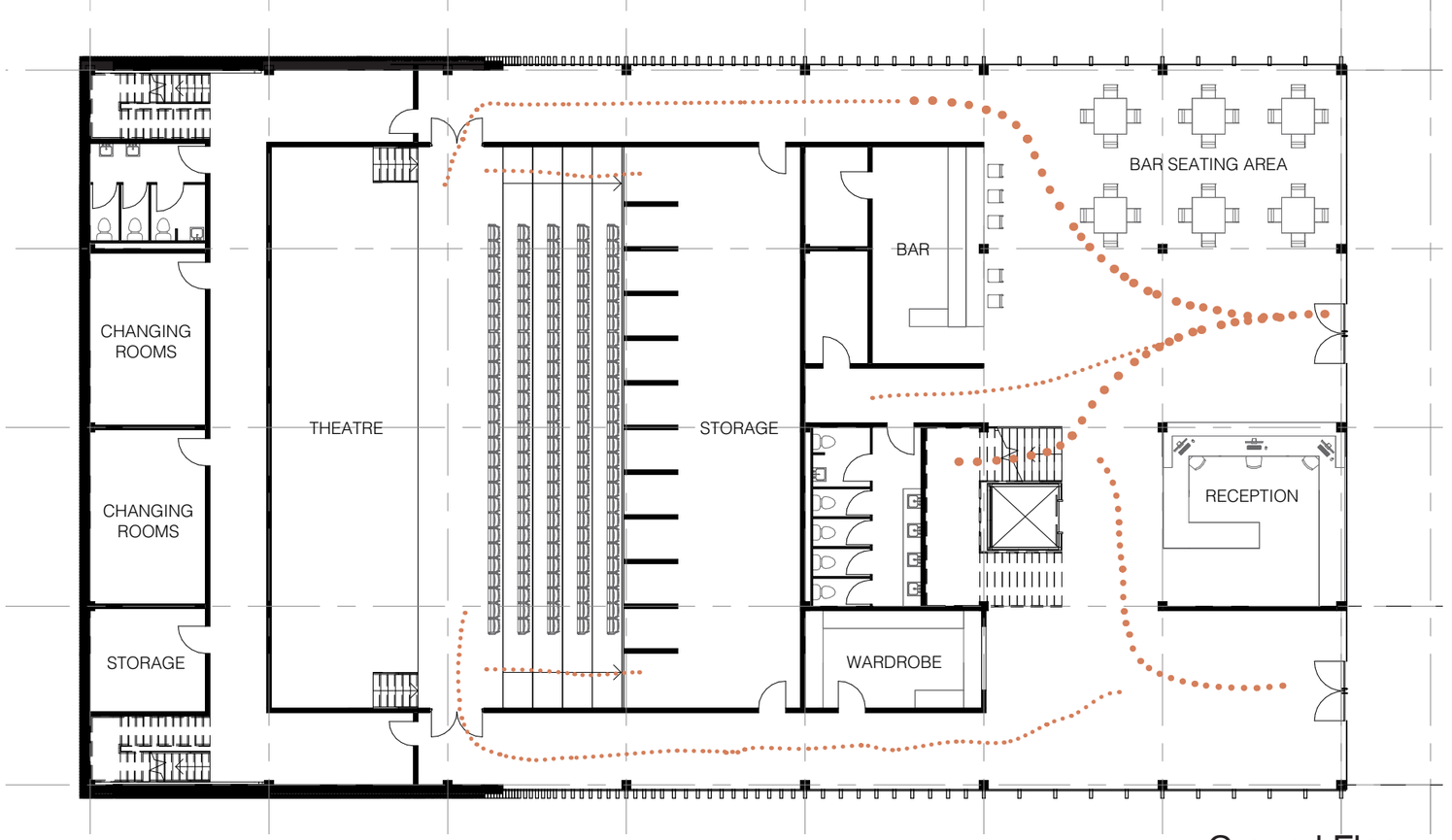


P5

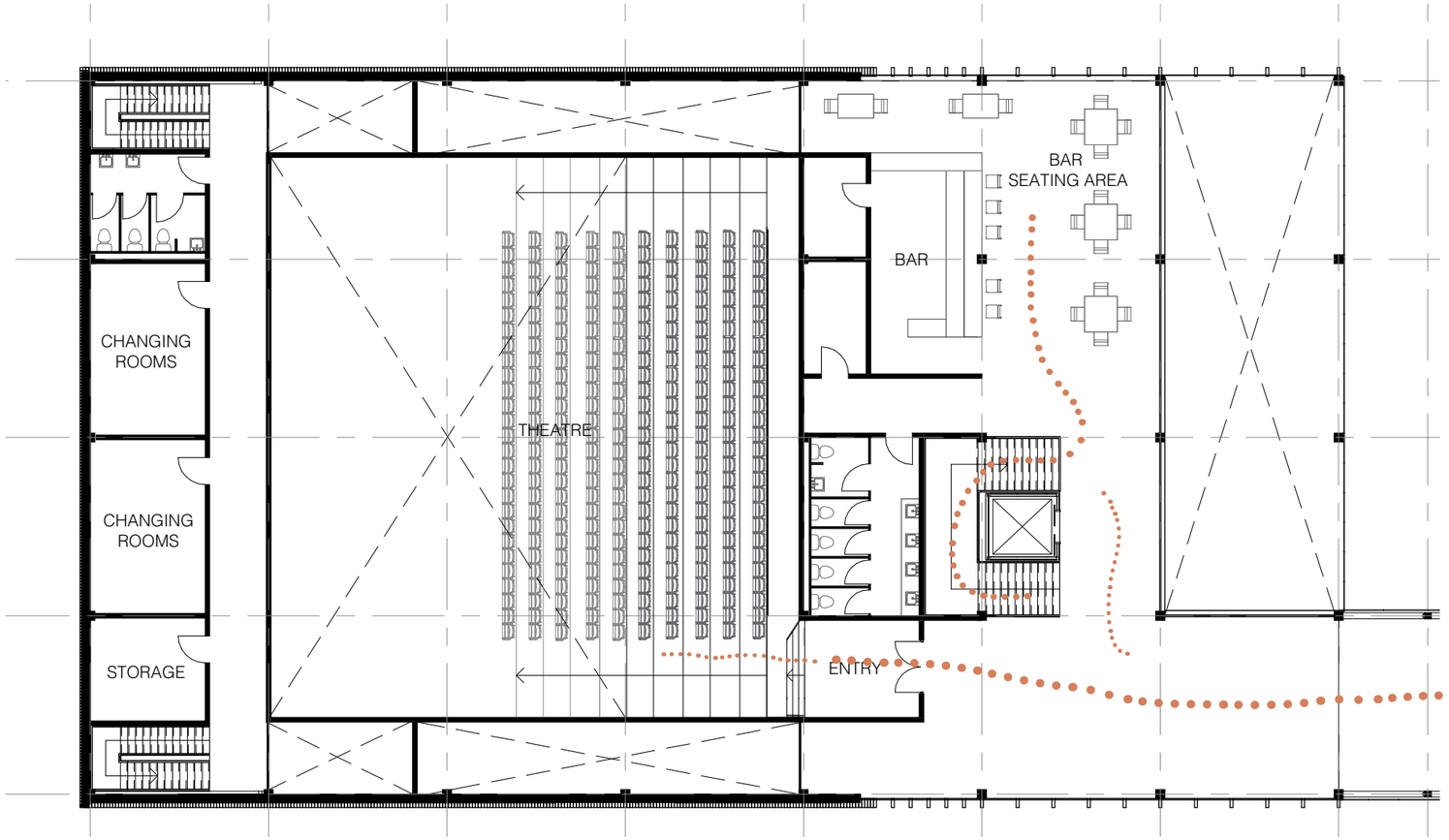
Functions /theatre/

ROUTE IMPORTANCE



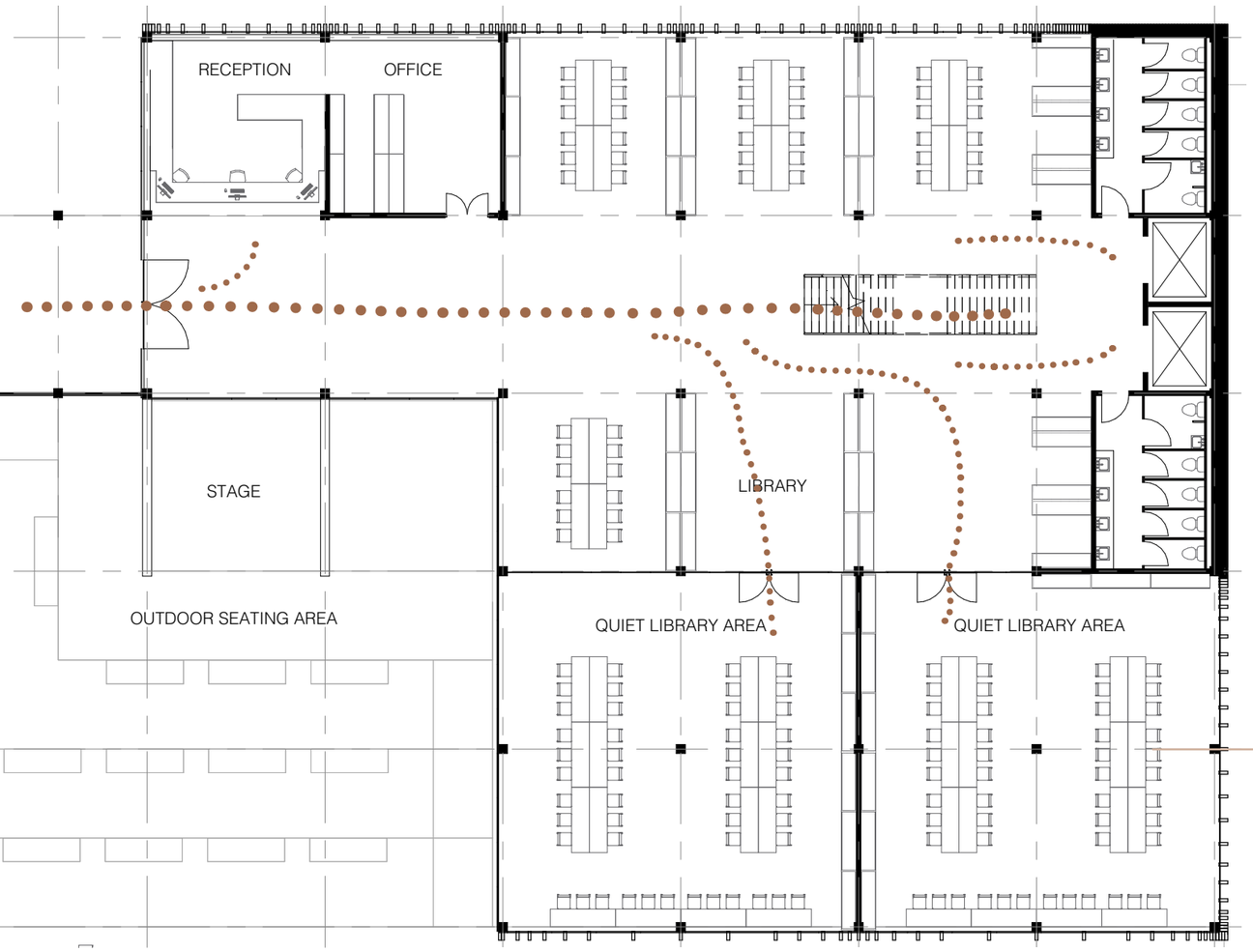


Ground Floor

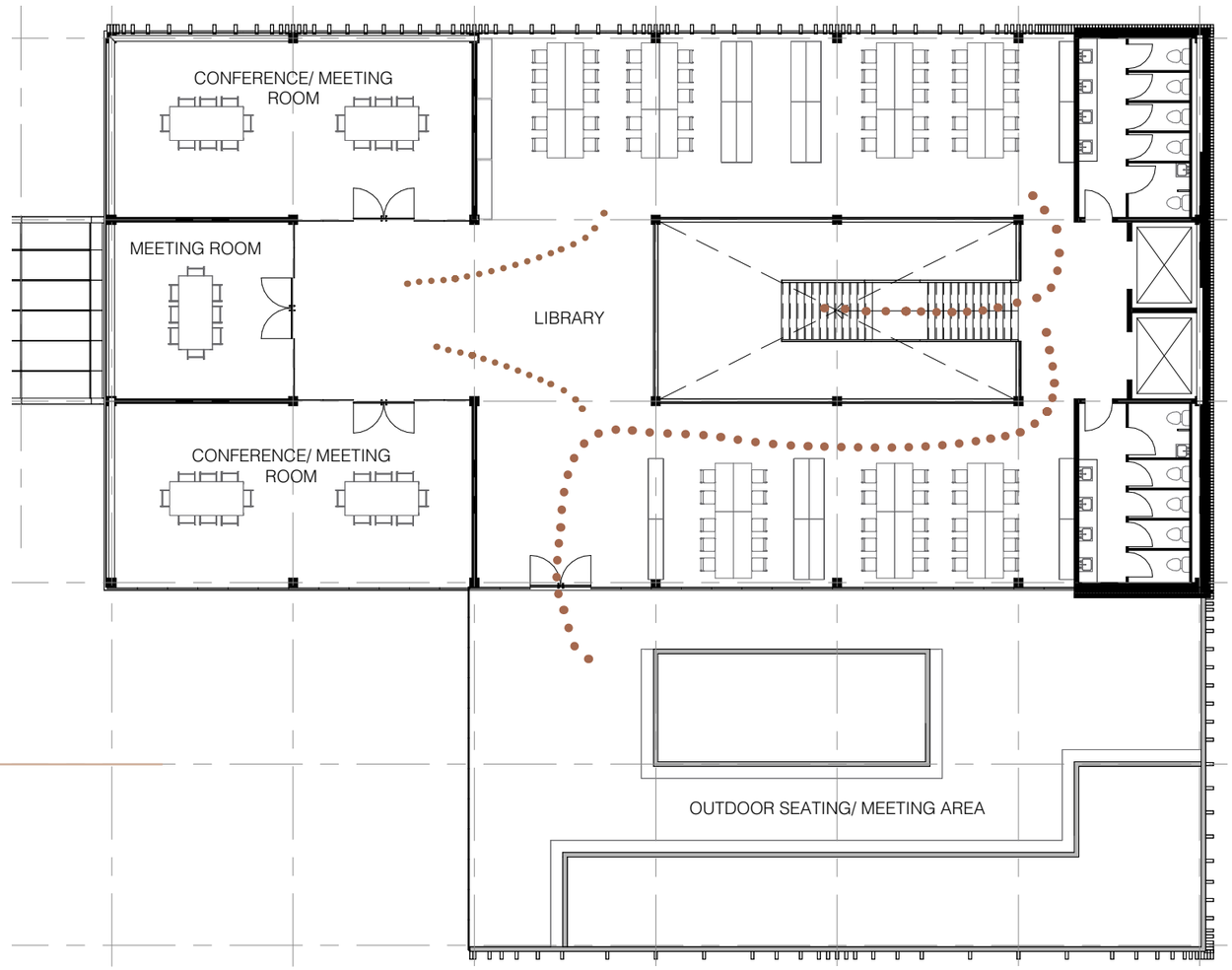


P5

Functions /library/



Ground Floor



First Floor

P5

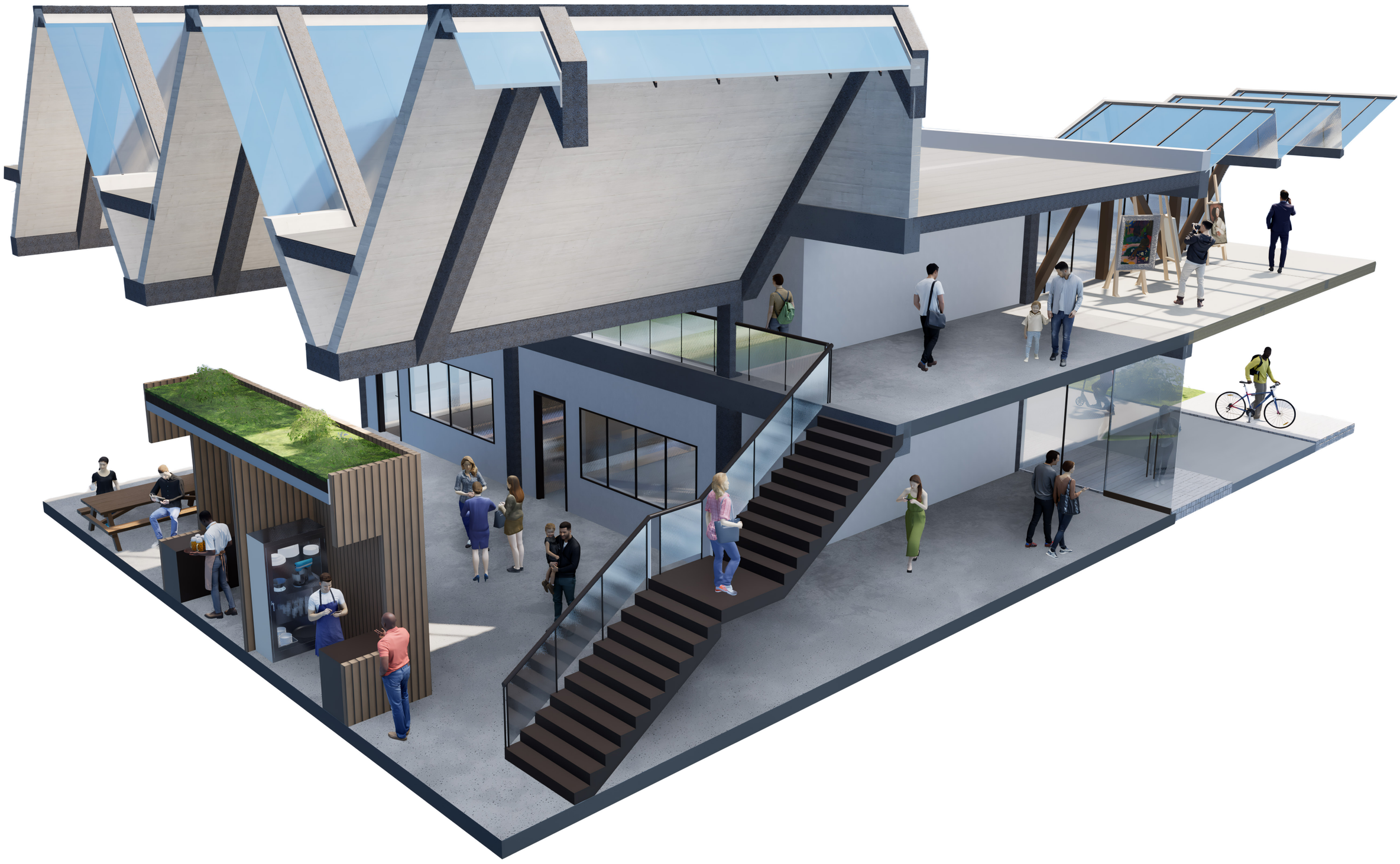
Square Redesign

P5

Fragment Design

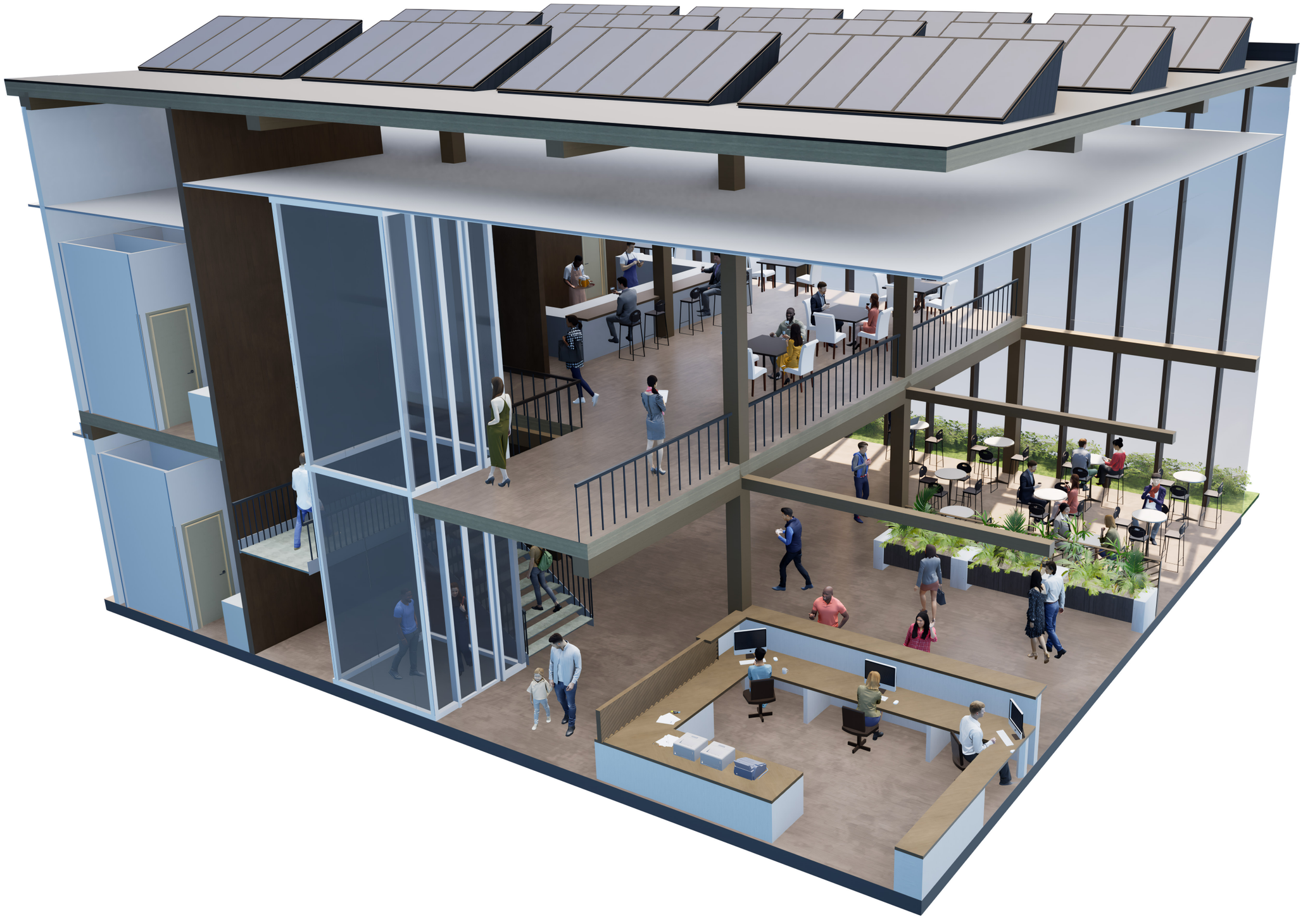
P5

Fragment Design



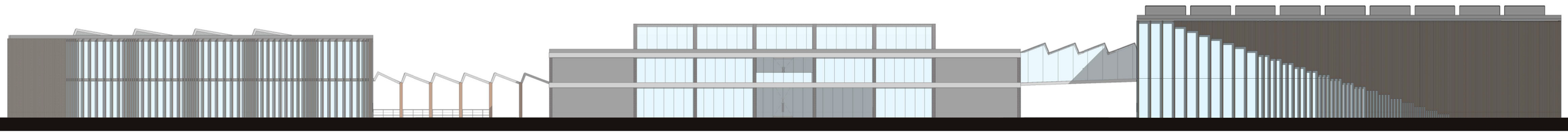
P5

Fragment Design

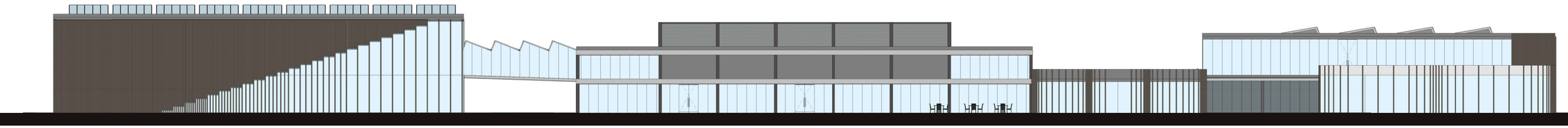


P5

Facade Design



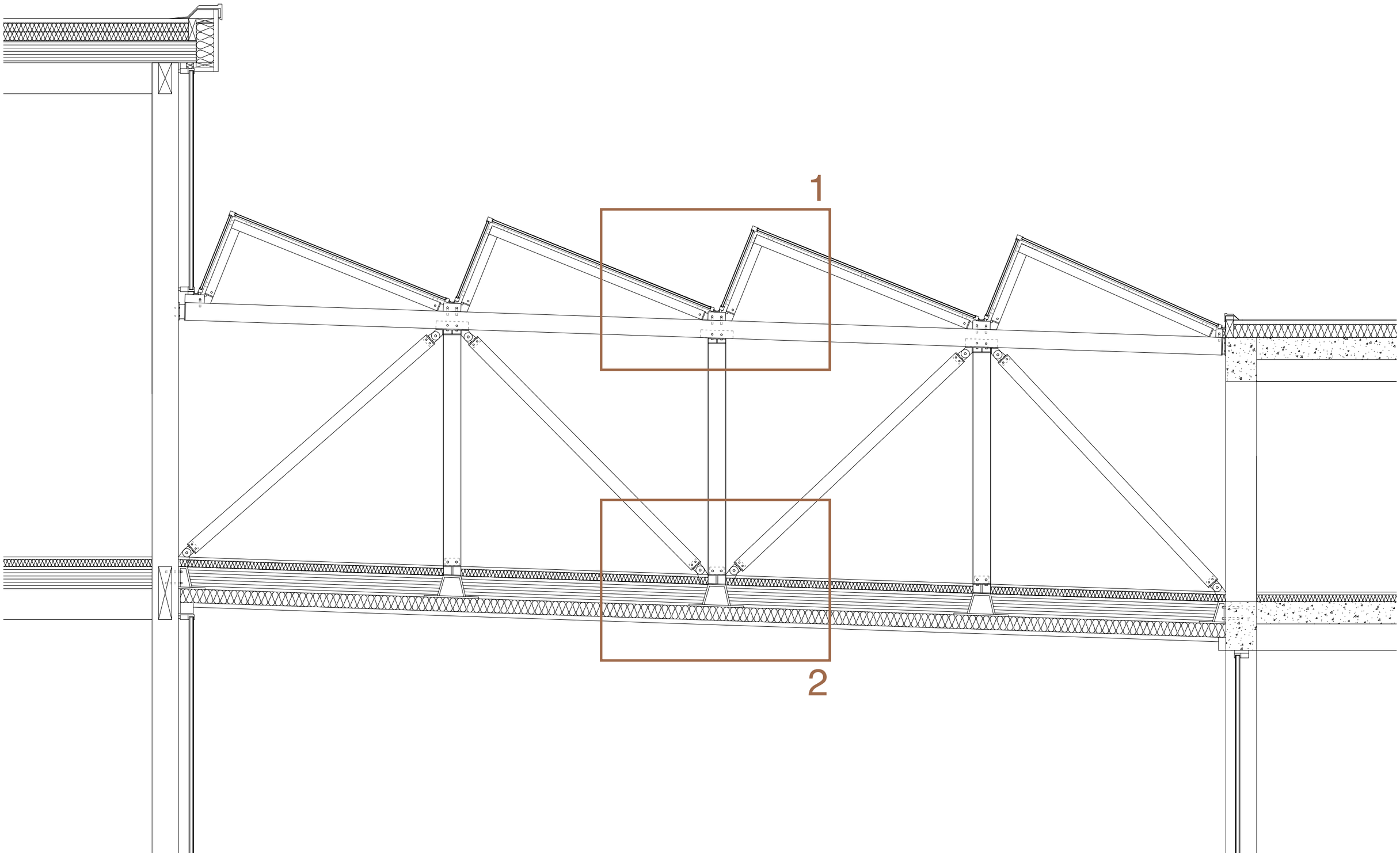
North Elevation 1:200



South Elevation 1:200

P5

Detailing /bridge/



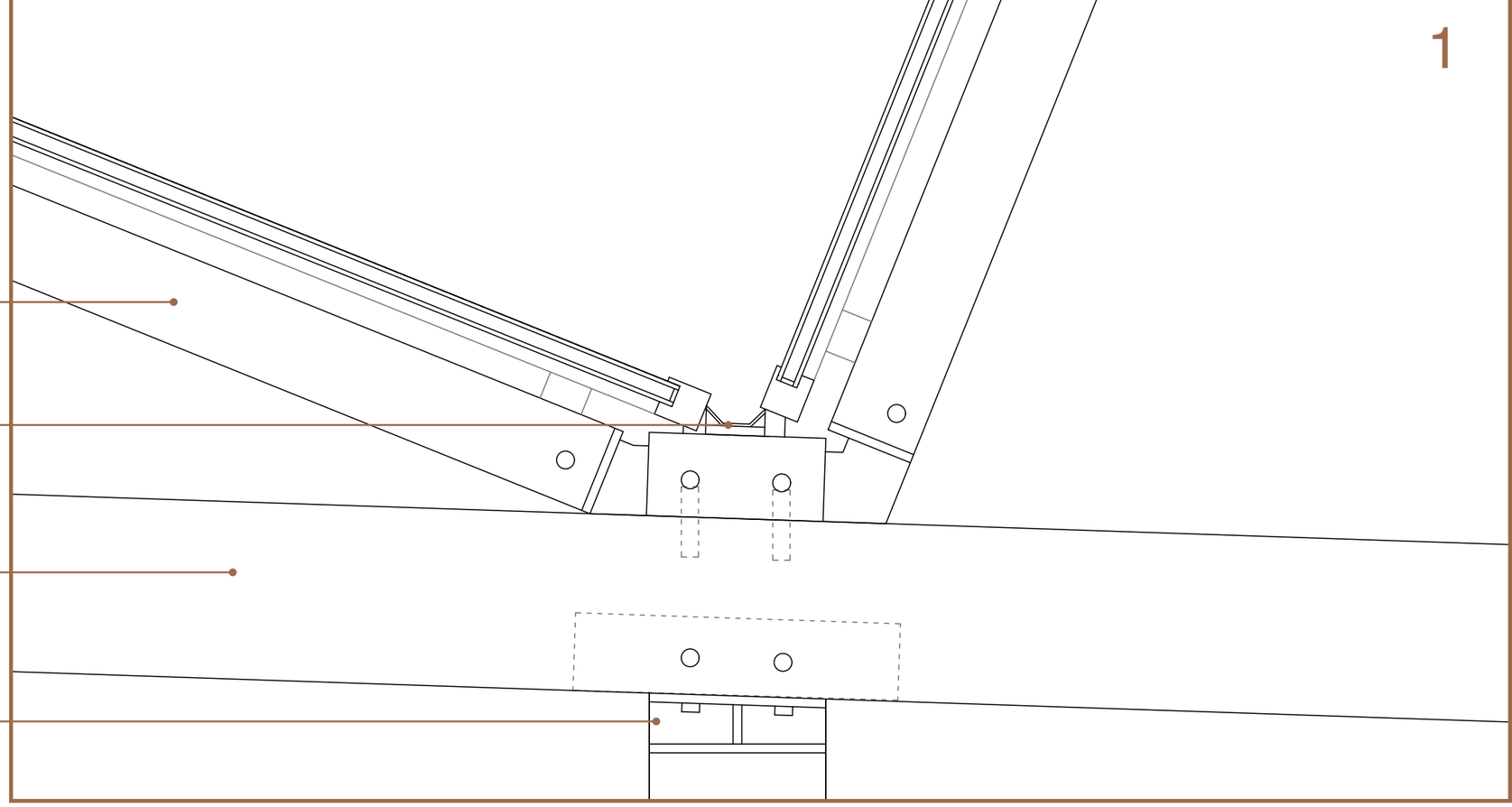
P5

Lightweight Skylight Roof Construction

Gutter

Timber Beam

Steel Connection Plate



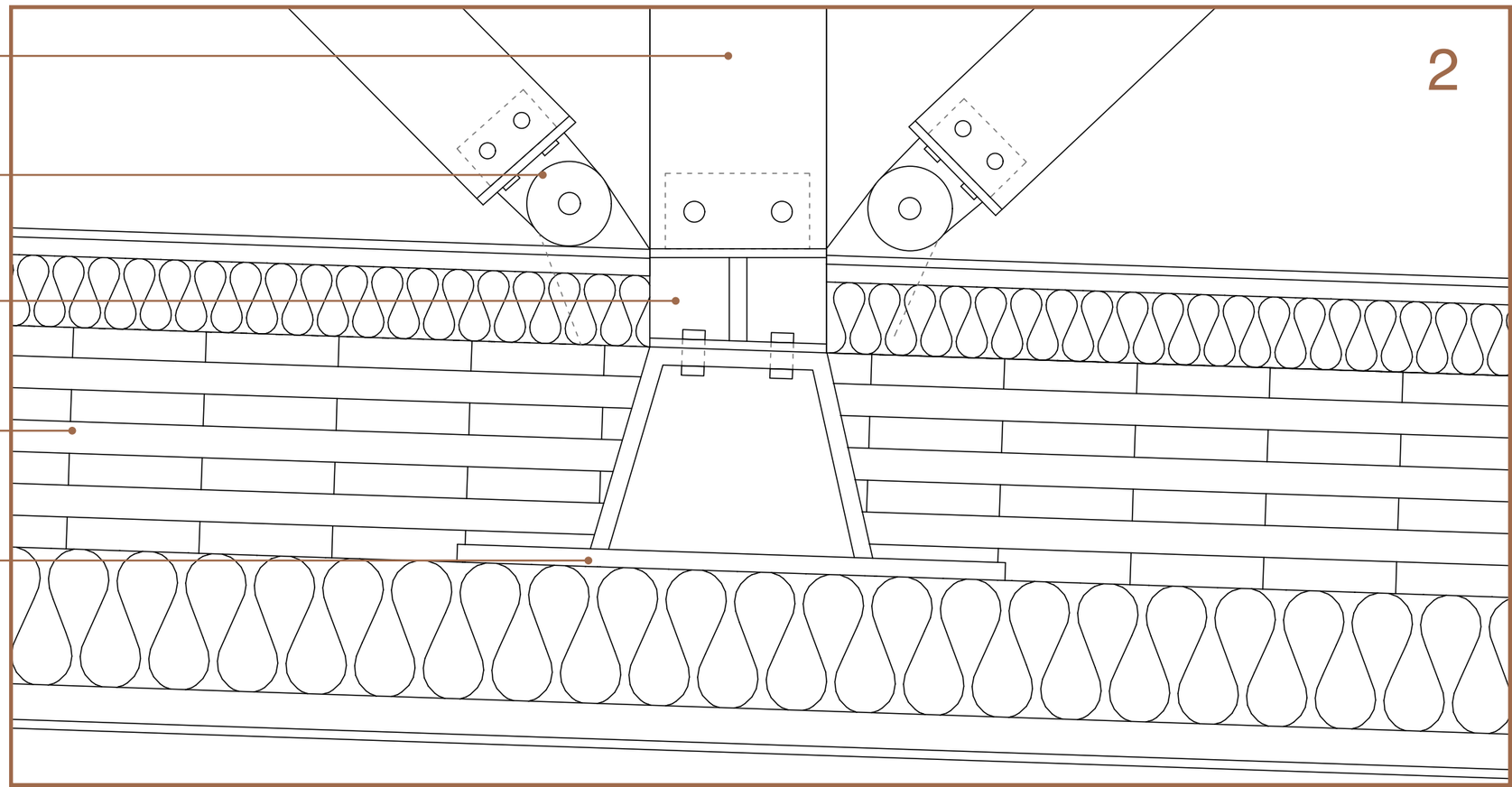
Timber Column

Hinge Connection

Steel Connection Plate

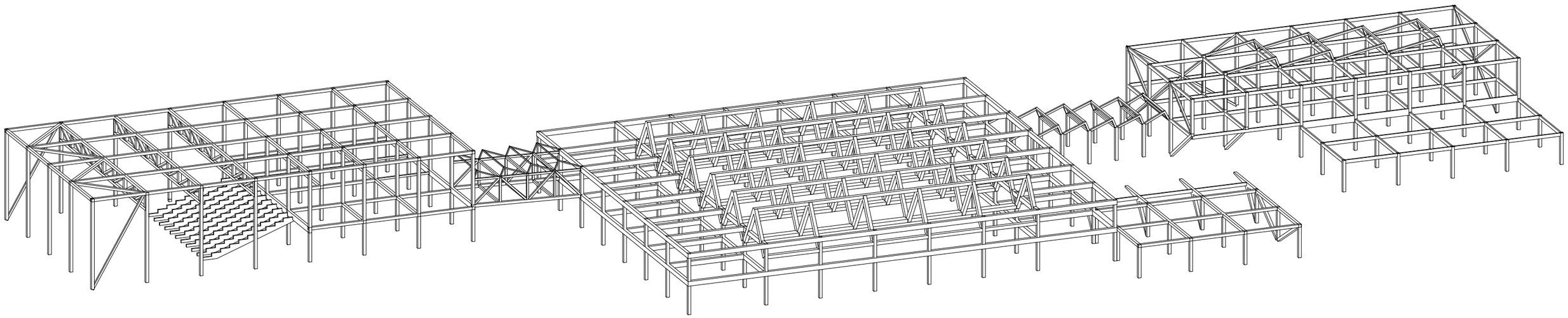
CLT Floor

Delta Beam



P5

Overall Structure



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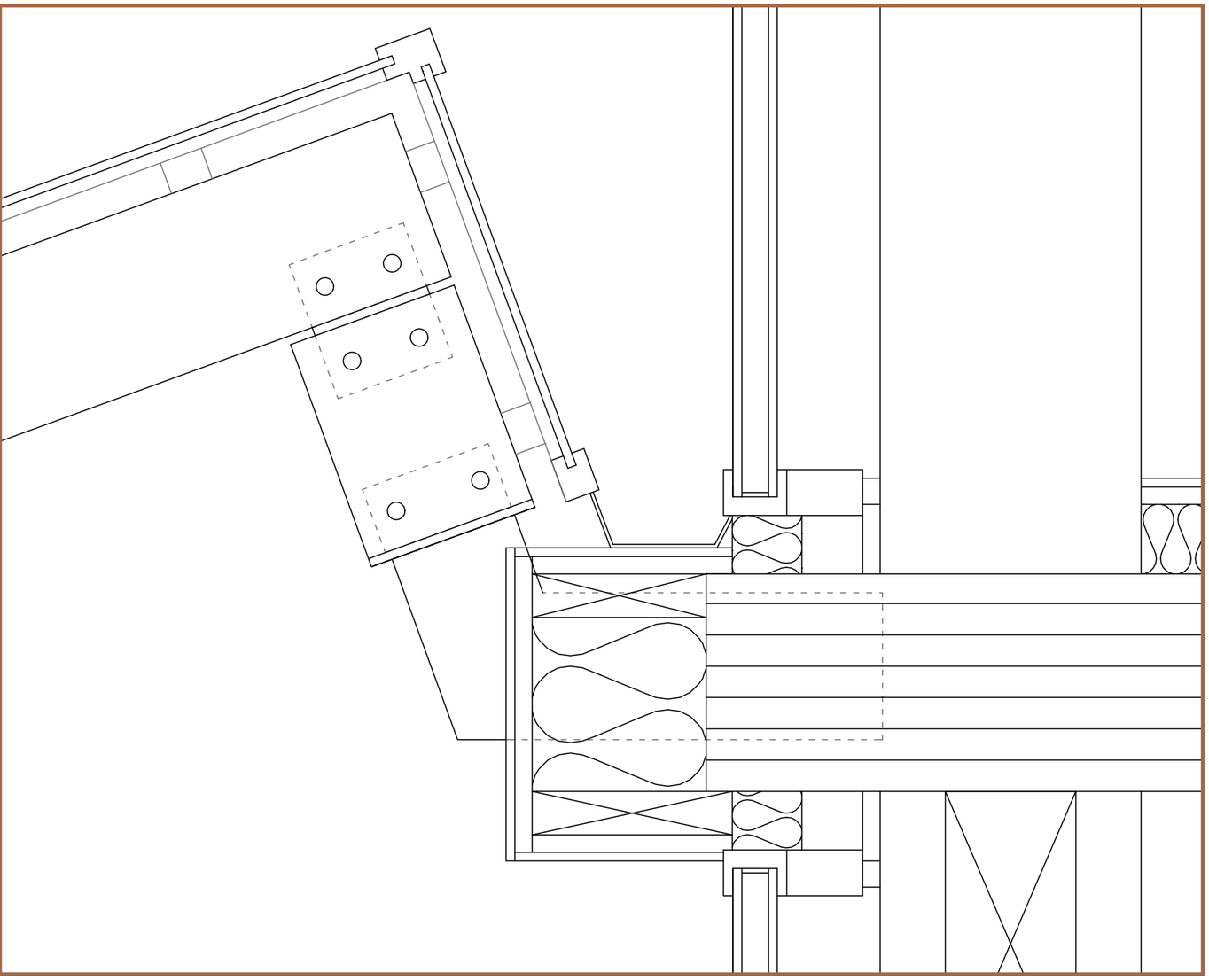
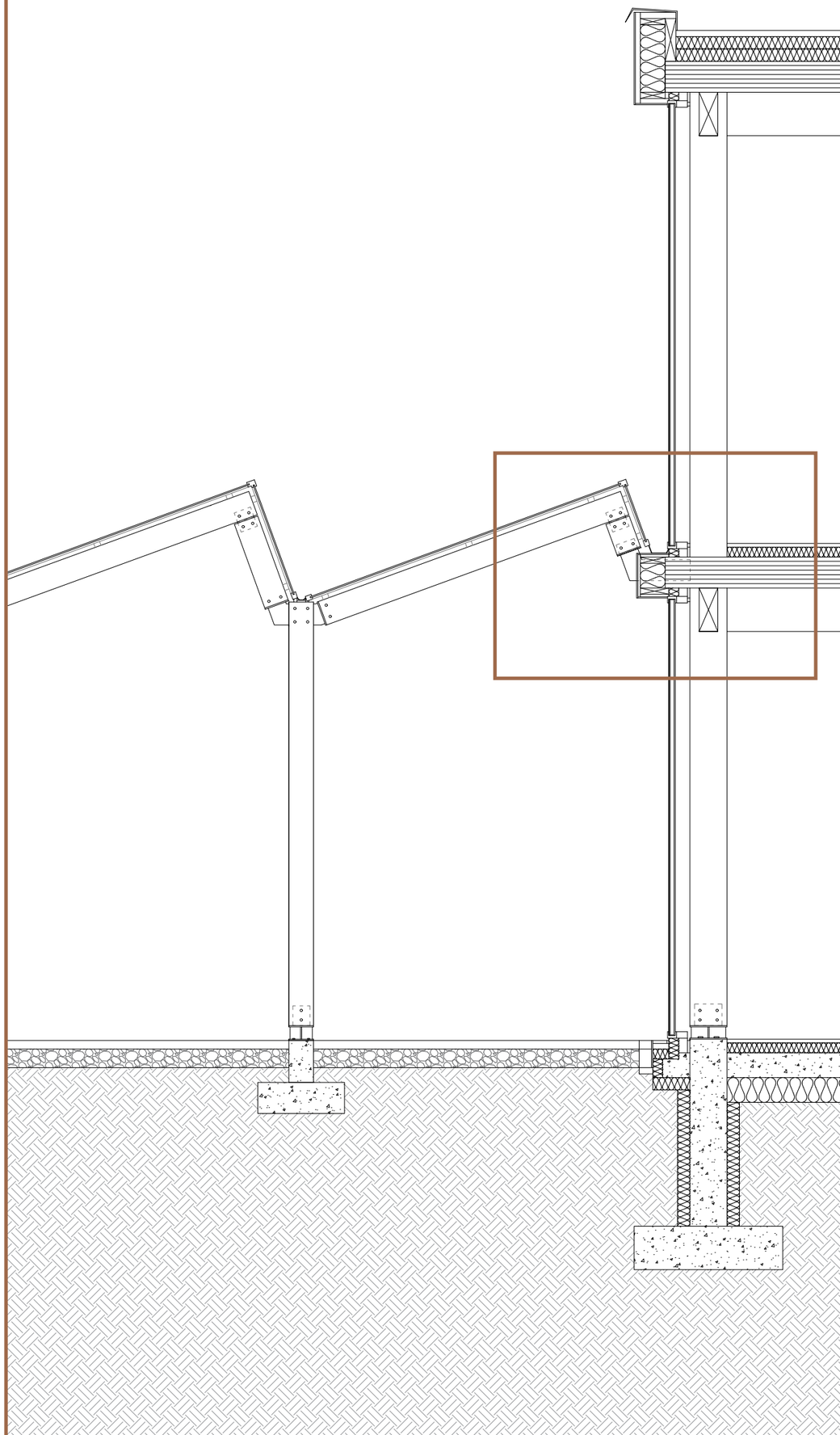
Detailing /roof to library/





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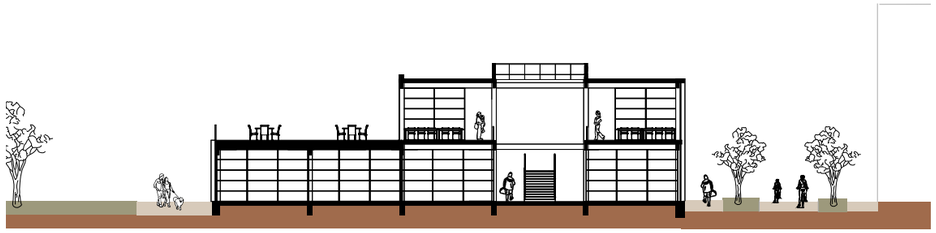

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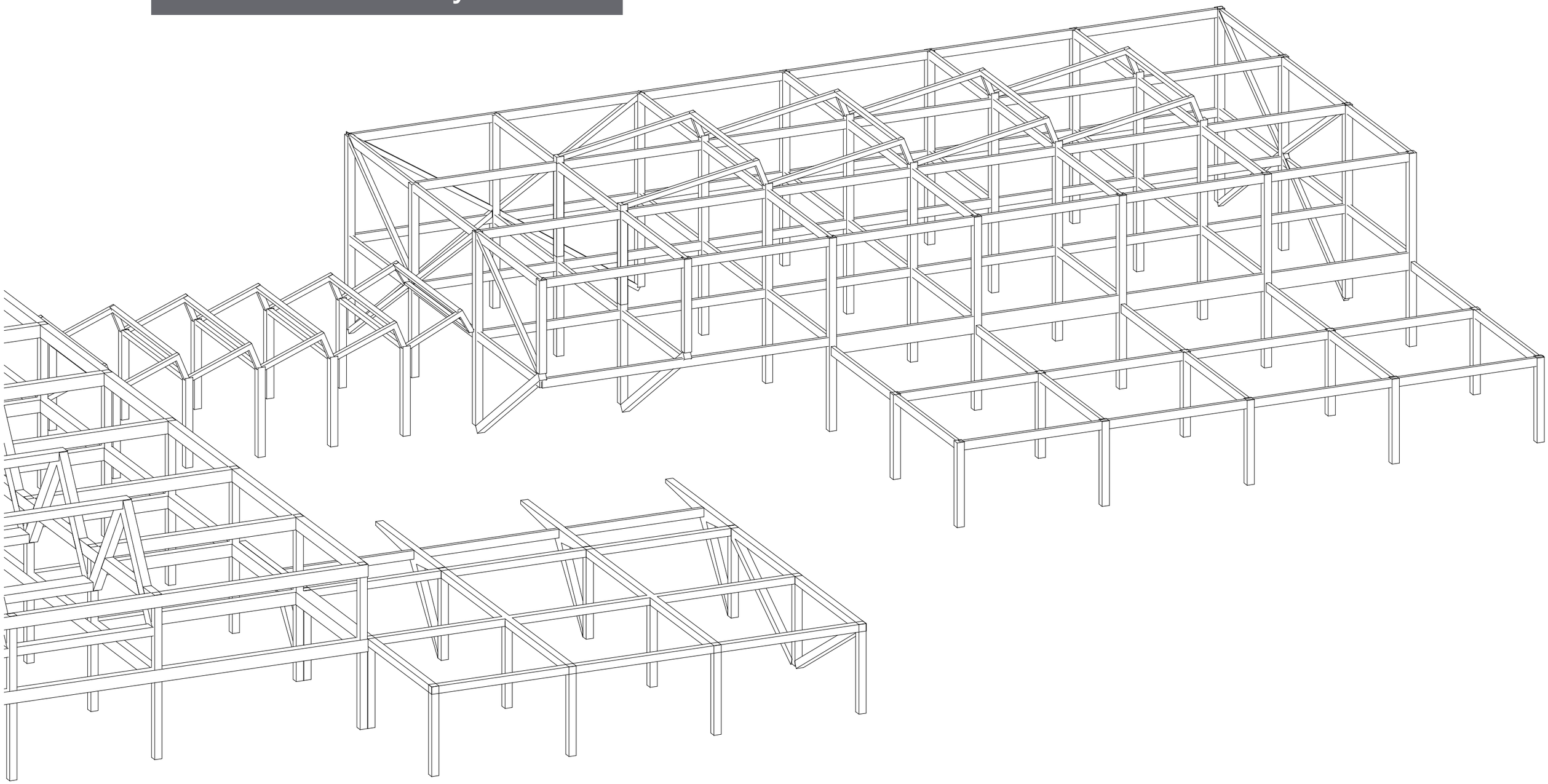
Structure /library/



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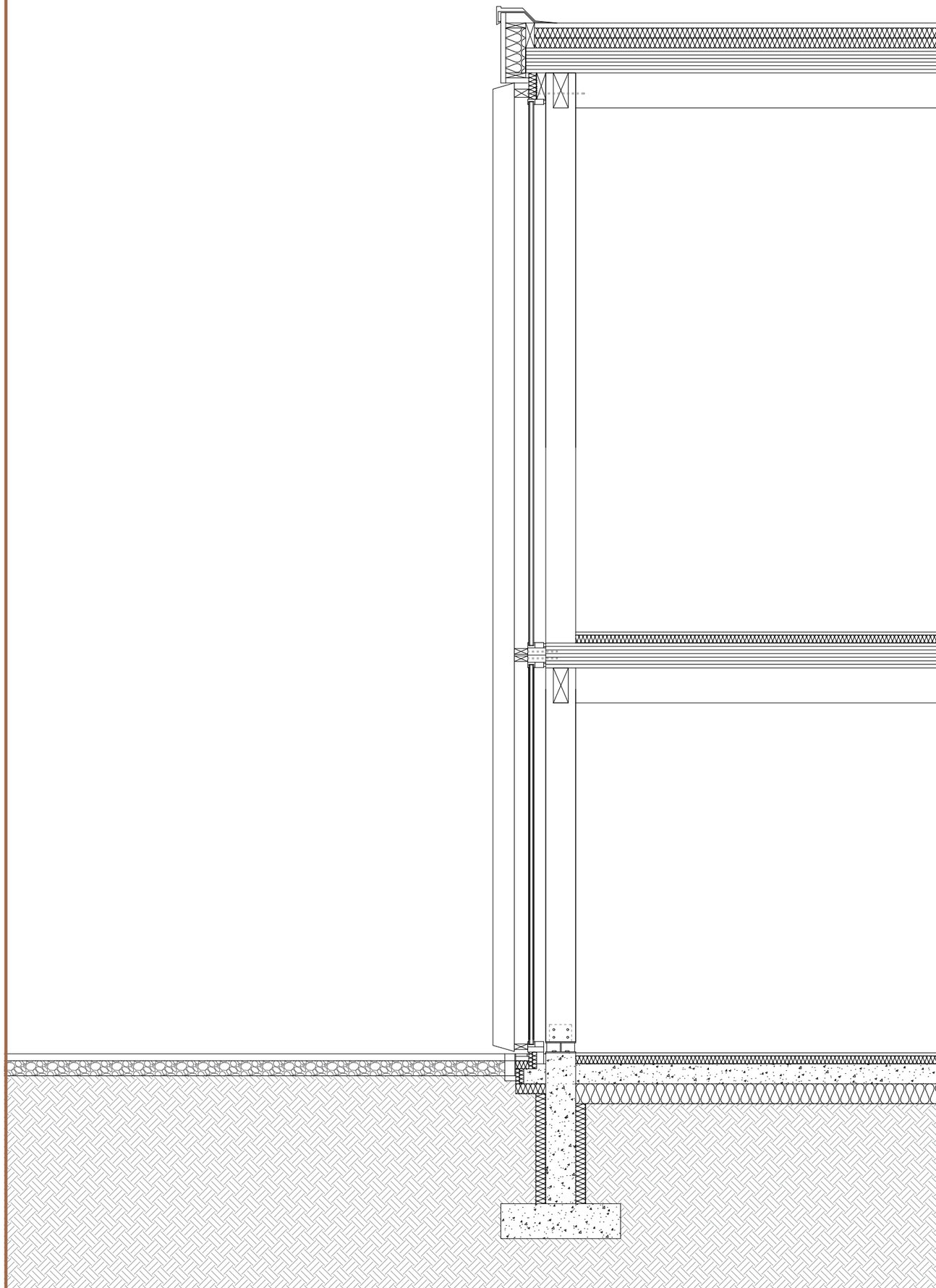
Detailing /theatre/



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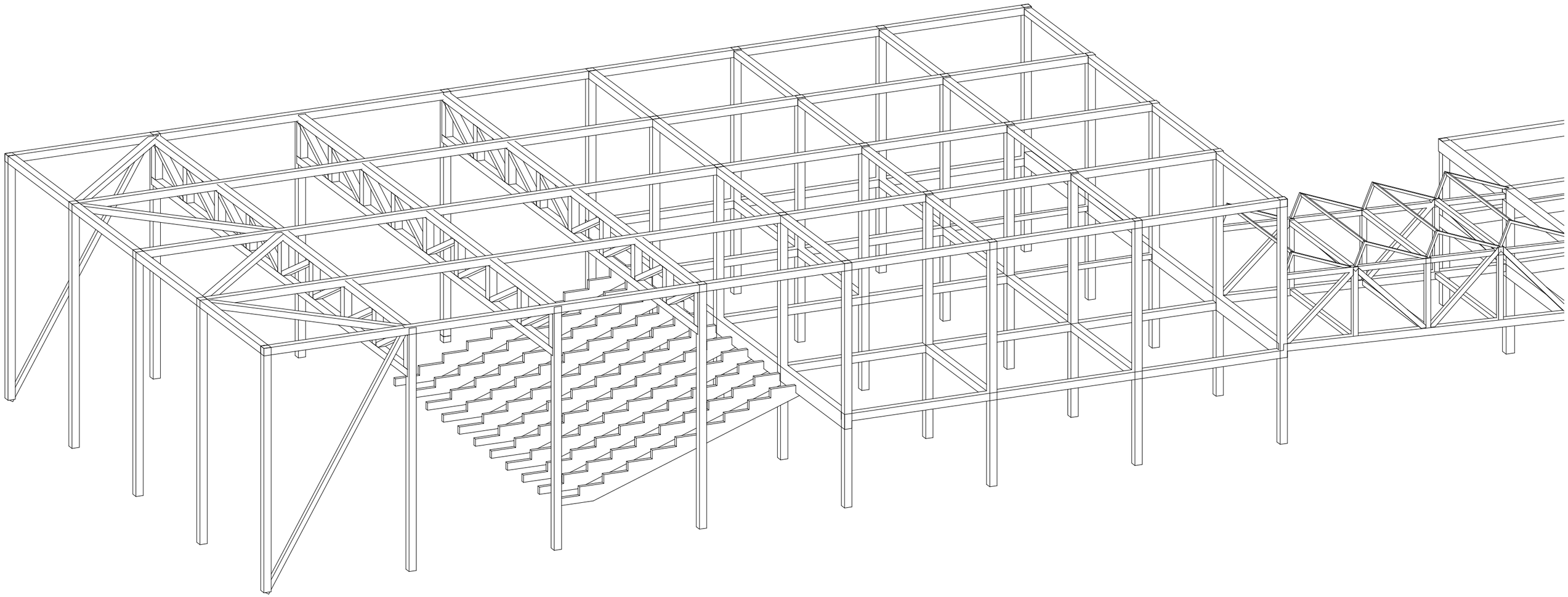
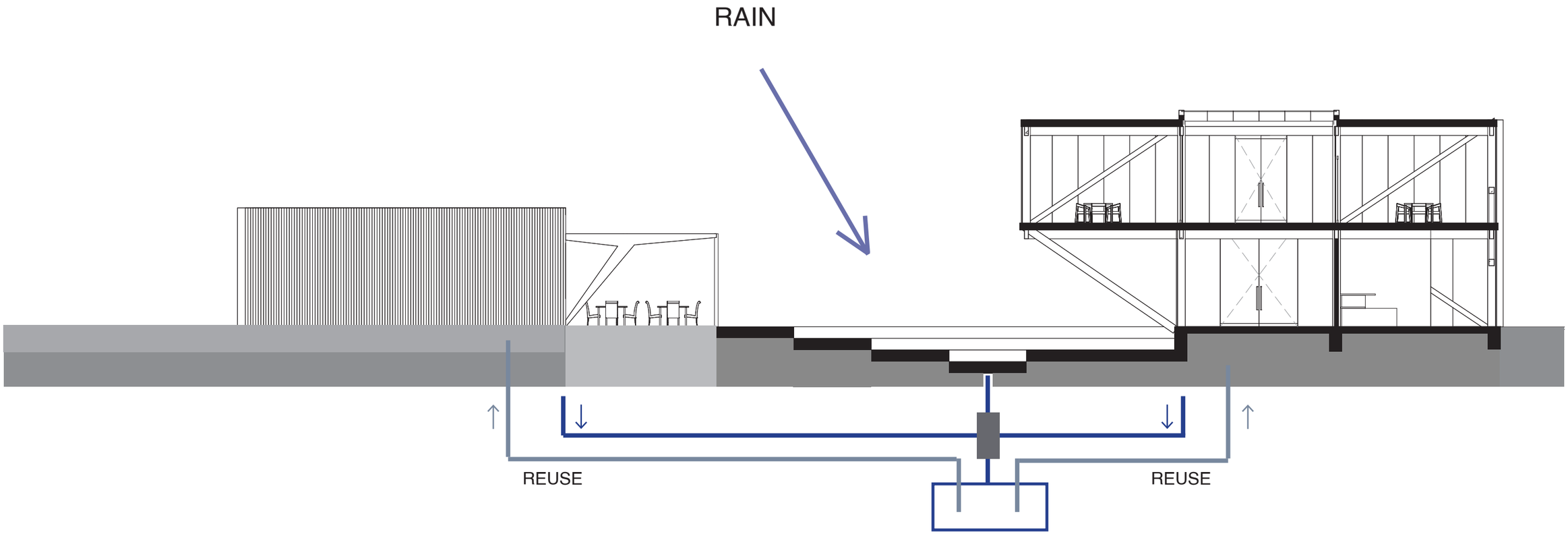
Structure /theatre/



P5

Climate Design



Reflection Paper

Fostering Social Inclusion

Copenhagen, Denmark

Reflection Paper
Public Building
Graduation Studio
AR3AP100 2024/2025
Ina Ilieva
6050875

Relation between graduation project, master track and master programme

The project presents the integral points and core principles of architecture, including sustainability, human-centered design, fostering healthy environments, and creating spaces that bring people together. Designing with sustainability in mind is one of the foundational pillars of the TU Delft's architectural philosophy, which is intricately translated into the design concept of the project. The university also pushes you to seek environmental and climate design solutions through the design to produce a resilient product. The master program of TU Delft is heavily reliant on the concept of design through research and vice versa, hence, shaping us to find solutions through reference projects or concepts. The previous followed studios were both regarding residential housing, which brought a unique perspective coming into MSc3/4. The MSc1 course "Fundamentals of Housing" presented the essential tools needed to design a housing project and a focus into the daily lives of people and their habits. While MSc2 course "Global Housing" gave a different perspective of what it is like to design a building in another country and how to tackle different societal challenges. The project of that studio took place in Argentina, where the students were challenged to revitalize a socially segregated and economically disadvantaged neighborhood. The project pushed the students to seek solutions beyond their preconceived notions of how a neighborhood should function and to explore innovative and context-specific solutions.

The MSc3/4 studio Public Building focuses on designing a social condenser, which is inherently different from the previous studios. Designing public architecture is essential in understanding the broader discipline of architecture. However, the underlying concepts of the studios remain the same, such as the social constructs of society, the behavior of the people and their habits. The public domain of architecture challenges designers to examine strategies that improve social inclusivity, while ensuring safe and accessible spaces.

Academic, societal and ethical values, scope and implication of the project

The studio and the graduation project address the essential issue of integrating vulnerable and marginalized neighbourhoods through the introduction of a public condenser. This presents us, as architects, with a significant responsibility of establishing ways to design inclusive and safe public spaces, where people can integrate into society and come together as a community.
Important part of the project is establishing a research framework, which analyses similar projects and identifies effective design strategies tackling similar issues. Incorporating design interventions within existing buildings is crucial in today's framework, as sustainability and reuse are focal. Hence, by combining sustainable strategies – such as adaptive design and incorporation of sustainable materials – the project presents the importance of environmentally conscious and socially inclusive architecture.

Value of working approach, methods and methodology

The beginning of the project started with group work focusing on analysis of the city of Copenhagen and the project area. The site location was analysed through a field study, photos and interviews with the local people. The population of that region seemed distant from one another and having little to no interaction with one another. More resources and data were then shared with us from a local team revitalizing the area, which helped us determine the underlying issue in the area – lack of meeting spaces. Further into the research, through literary reviews of books, qualities of the neighbourhood were recognized, such as embracing the differences of the people rather than disregarding them.

In the next phase, concepts were established in the individual work. An important part of the project is establishing a research framework. By analysing similar projects and identifying effective design strategies, similar issues could be tackled. The design of the public condenser aims at following five architectural pillars: multiplicity, hybridity, resilience, sustainability, and healthiness, while implementing the Danish principles of design. Moreover, the design ambition is to limit the resources used and provide sustainable and resilient solutions. The temporary school, which is made of modular containers, is intended to be reassembled in different places. Hence, certain parts of the site to be reused or readapted, such as the factory building.

Influence of research on design & influence of design on research

The design of the public condenser, conducted through research, aims at following the five architectural pillars: multiplicity, hybridity, resilience, sustainability, and healthiness, while implementing the Danish principles of design. The design approach would be to limit the resources used and provide sustainable and resilient solutions. Hence, certain parts of the site can be reused or readapted, such as the factory building, occupying a significant area of the plot, which would be reused. The temporary school, which is made of modular containers, can be reassembled in different places.

Through interviews conducted in the area it was established that the people of the area are very separated from one another. During the research conclusions were drawn that the majority of the residents of the area state that there is a lack of meeting spaces and greenery, which greatly influence the cohesion and collectiveness of the neighbourhood (Andersen 2023). The population of the neighbourhood was further analysed through an abstract study of the stakeholders of the area, their connectivity, the power each holds and their division.

Through an analysis of various projects and their themes, the Barcelona Pavilion by Mies van der Rohe emerges as a key reference for this research project. The design of the public condenser aims at reducing the boundary between exterior and interior, creating a more inclusive and inviting environment. This aligns closely with the pivotal themes of Rohe's project – transparency and fluid spatial connections (Mies van der Rohe 1929).

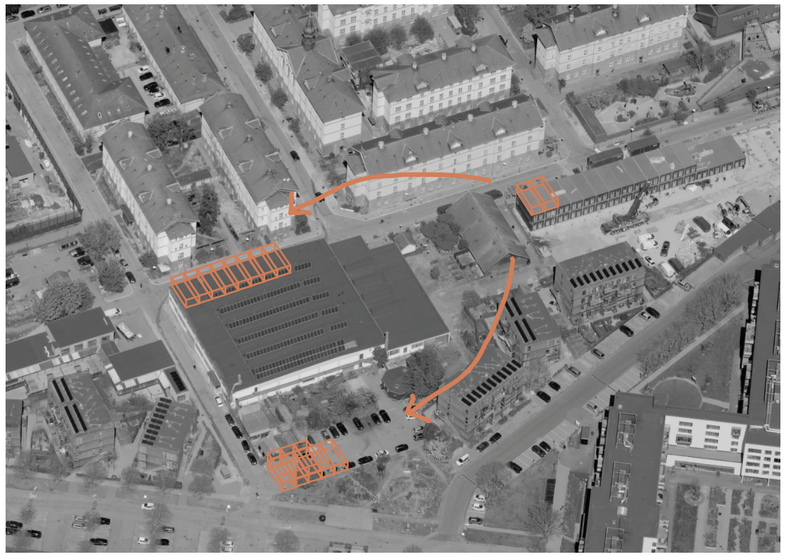


Fig. 1: Modular Study of Existing Containers and Design Proposal

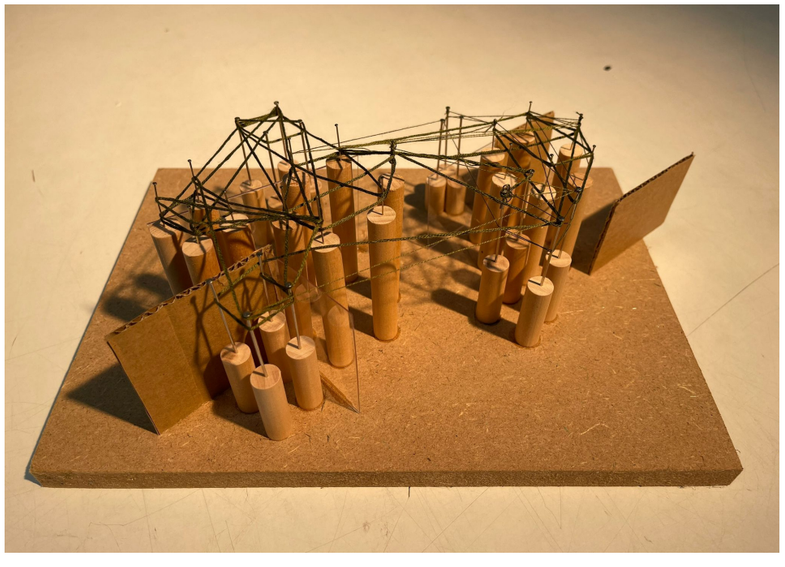


Fig. 2: Abstract Study on the Stakeholders of the Project Site Neighbourhood

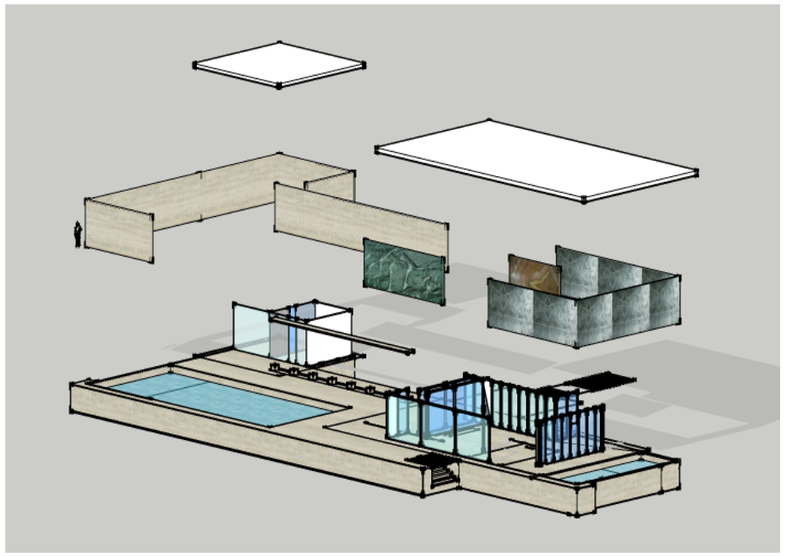


Fig. 3: Barcelona Pavilion Open & Close Analysis
(https://chloeveitch.wordpress.com/wp-content/uploads/2014/12/exploded.png)

Design interventions and implementation approaches

As the ground floor is the most interactive, it becomes a vital part of the inclusive design. The design of the plinth and the façade are intrinsically tied to the connectivity between the people and the building. Hence, the essential functions are placed on the ground floor to become the most effective. An interplay between the openness and enclosure across various parts of the building, including the façade, display both the inviting nature of the public buildings and the functions within. This creates a concept of ‘inside-out’, shaping how the public building is perceived from both exterior and interior perspective. Circulation and overall connectivity are key in public experience. In the design of three buildings, each employs a unique method of connecting to the main building.

Providing spaces where people can come together, feel safe and want to stay is essential for their comfort and, ultimately, their development. To achieve this, different levels of privacy would be introduced across different floors. Such approach aligns with the prospect-refuge theory, which emphasizes designing spaces that are inclusive and diverse, while also providing safety and quiet places where people could retreat (Dosen and Ostwald 2012). Another important design aspect is improving the overall infrastructure and greenery of the region. Essential walking paths need to be introduced in the area to improve the connectivity of the different parts of the neighbourhood, integrated with green spaces.

Value of transferability

Designing public architecture is essential in understanding the broader discipline of architecture. The domain of public architecture challenges designers to examine strategies that improve social inclusivity, while ensuring safe and accessible spaces. Moreover, it is crucial to limit resources and provide resilient solutions - such as adaptive design and incorporation of sustainable materials.

A transferability concept in the project would be reusability, such as the factory building, and re-adaptability, such as the temporary school, which is made of modular containers, that would be re-assembled in a different region of the neighbourhood, as shown in the diagram below. Hence, the project presents the importance and relevance of environmentally conscious and socially inclusive architecture.

Fig. 4: Diagram Showing the Deassemble and Reassemble of Containers in a Different Location

Value of connectivity

The concept of connectivity is especially vital in divided neighbourhoods, as it addresses a fundamental human need – connection with one another. A cohesive community fosters improved social interaction, communication, and overall mental health. Connectivity should be a focal point of every project, considered on every scale of the design – from urban level, through road networks, walkability and bike accessibility, to the architectural scale of public buildings, with clearly defined entrances, pathways and intuitive circularity. Hence, the concepts of connectivity and circularity are essential parts of architecture, as they enable inclusivity, encourage interactions, foster community and establish a human-centred design.

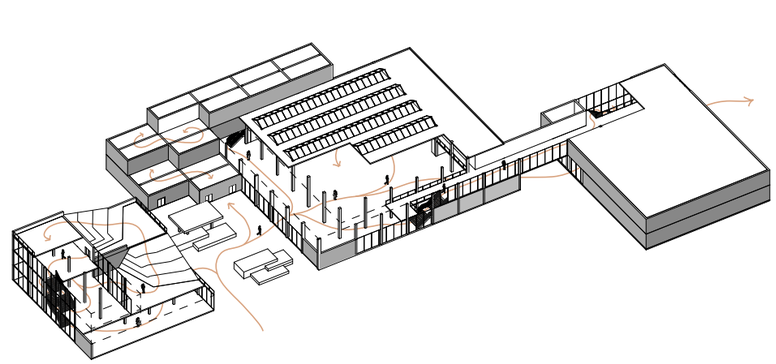


Fig. 5: Diagram from P2 Showing Connectivity Throughout the Public Condenser

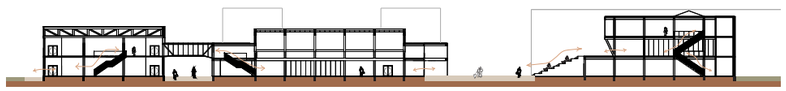


Fig. 6: Section from P3 Showing the Circularity Throughout the Three Buildings of the Condenser