

Public Building Graduation Studio - P5 Presentation

24-06-2025

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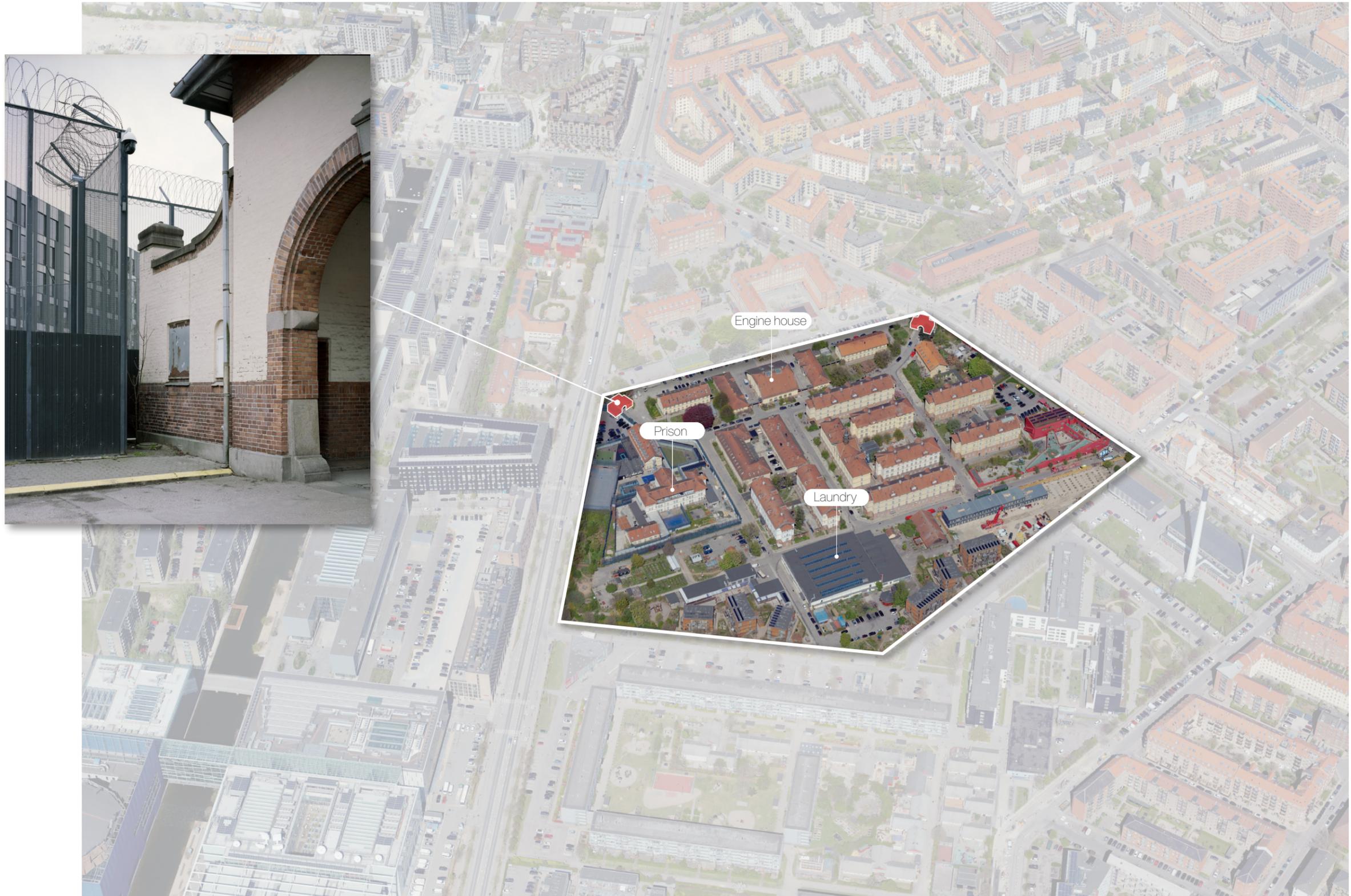
Sundholm, Amagerbro district Copenhagen



Sundholm history



Sundholm history



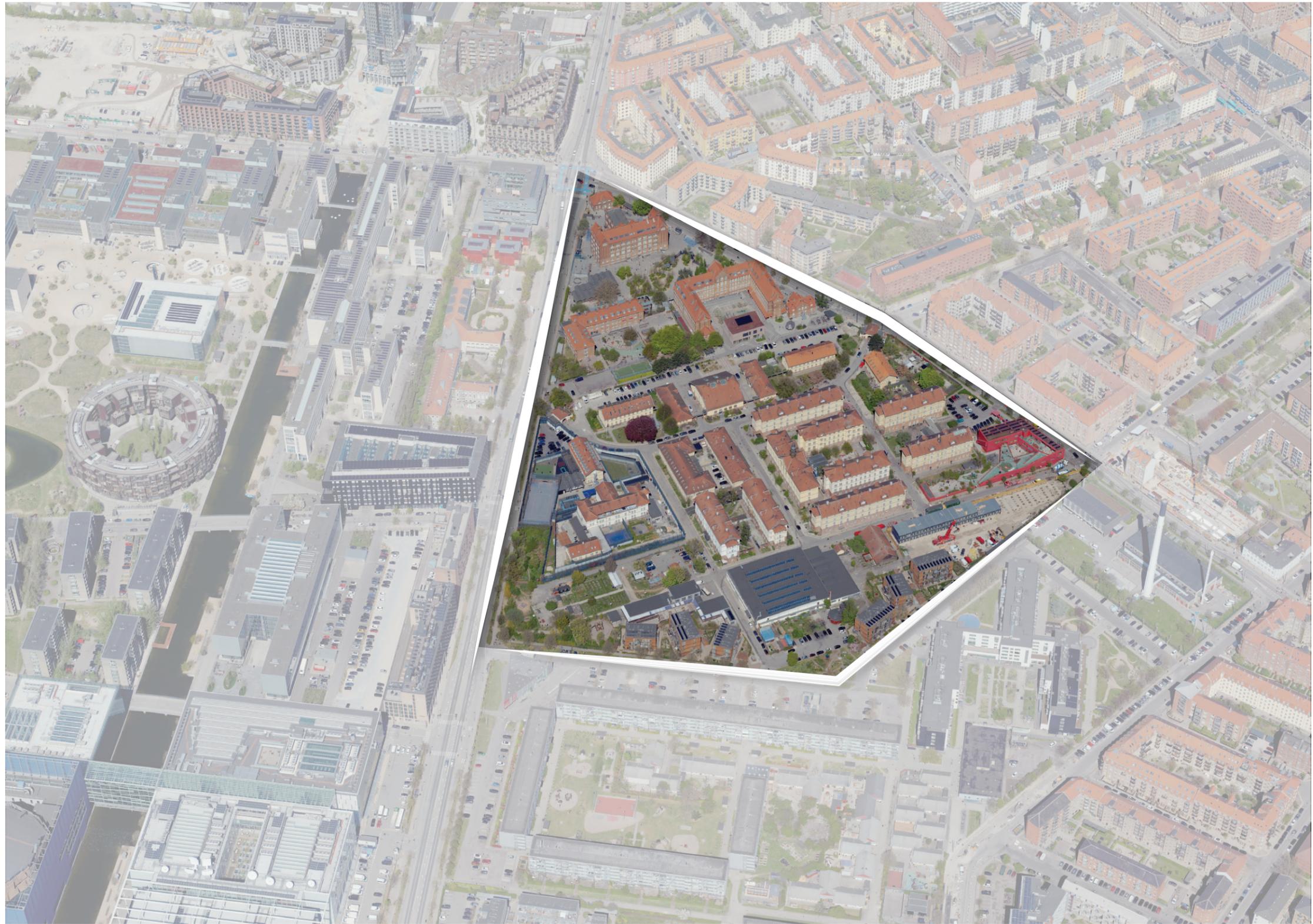
Current functions



Social problems



Spatial problems



Improvements - New & better connectivity



Improvements - Improve & connect existing assets



Improvements - New meeting space



Public condenser as a new meeting space

What is a public condenser?

- A mixed use public building that stimulates new social activity
- It is inclusive to provide a space for diverse groups to interact
- It responds to its contextual needs, programatically & spatially.

The public condenser in Sundholm - Program

What?

- A new meeting space between the Sundholm community and its surrounding neighbourhoods

For who?

- the homeless, families, kids, elderly, immigrants, artists



1. Homeless



2. Families



3. Elderly



4. Immigrants



5. Artists

The public condenser in Sundholm - Program

Main social problem

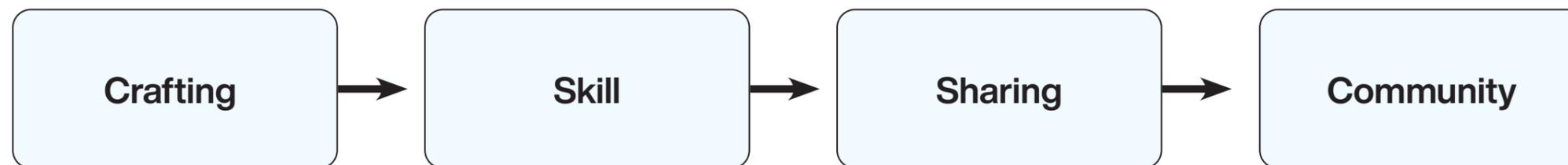
- Mental boundaries separate these diverse groups, causing a lack of social cohesion

Cause

- Lack of purpose and financial problems

Programatic response - From craft to community

Providing a space for people to work on a craft, develop new skills, share them, and earn some money. Through the process of making, sharing, and learning, people of different ages, backgrounds, and cultures can be brought together through their interests.



The public condenser in Sundholm - Program

Crafts:

- Music
- Art
- Gardening
- Cooking
- Pottery
- Woodworking

Events:

- Exhibitions
- Performances
- Markets



1. Homeless

Learning & income



2. Families

Kids: Explore crafts
Parents: Attend events



3. Elderly

Attend events



4. Immigrants

Learning & income



5. Artists

Create & teach

The public condenser in Sundholm - Programmatic flexibility

Crafts:

- Music
- Art
- Gardening
- Cooking
- Pottery
- Woodworking

Events:

- Exhibitions
- Performances
- Markets

Weekdays

The public condenser in Sundholm - Programmatic flexibility

Crafts:

- Music
- Art
- Gardening
- Cooking
- Pottery
- Woodworking

Events:

- Exhibitions
- Performances
- Markets

Weekends

Public condensers & resilience

What is a public condenser?

- A mixed use public building that stimulates new social activity
- It is inclusive to provide a space for diverse groups to interact
- It responds to its contextual needs, programatically & spatially.

A building is static, but its context is variable, so how do you make sure a public condenser stays relevant within its changing context?

Public condensers & resilience

What flexible design strategies can be used to improve the social and functional resilience of public buildings?

Social resilience = the capacity for the building to **adapt to changing user needs**, from societal shifts to individual preferences. It allows the building to become more inclusive by letting individuals shape its own function based on their needs.

Functional resilience = the capacity for the building to **adapt to changing environmental, temporal or programmatic conditions**. It allows buildings to optimize functionality and stay useful as external factors like weather, seasons, and time change.

Design strategies for resilience

Social resilience

Inspirations: Cedric Price & Lacaton & Vassal

Key principles:

- **Free space (non-programmed zones)**
- **Enable use through interactive elements**



Nantes School of Architecture, Lacaton & Vassal

Concepts: Fixed functionality & Free space. Openable facades, cheap construction.

Functional resilience

Key inspiration: The sliding house

Key principles:

- **Adaptive in/outdoor space**
- **Blurred boundaries: indoors - outdoors**



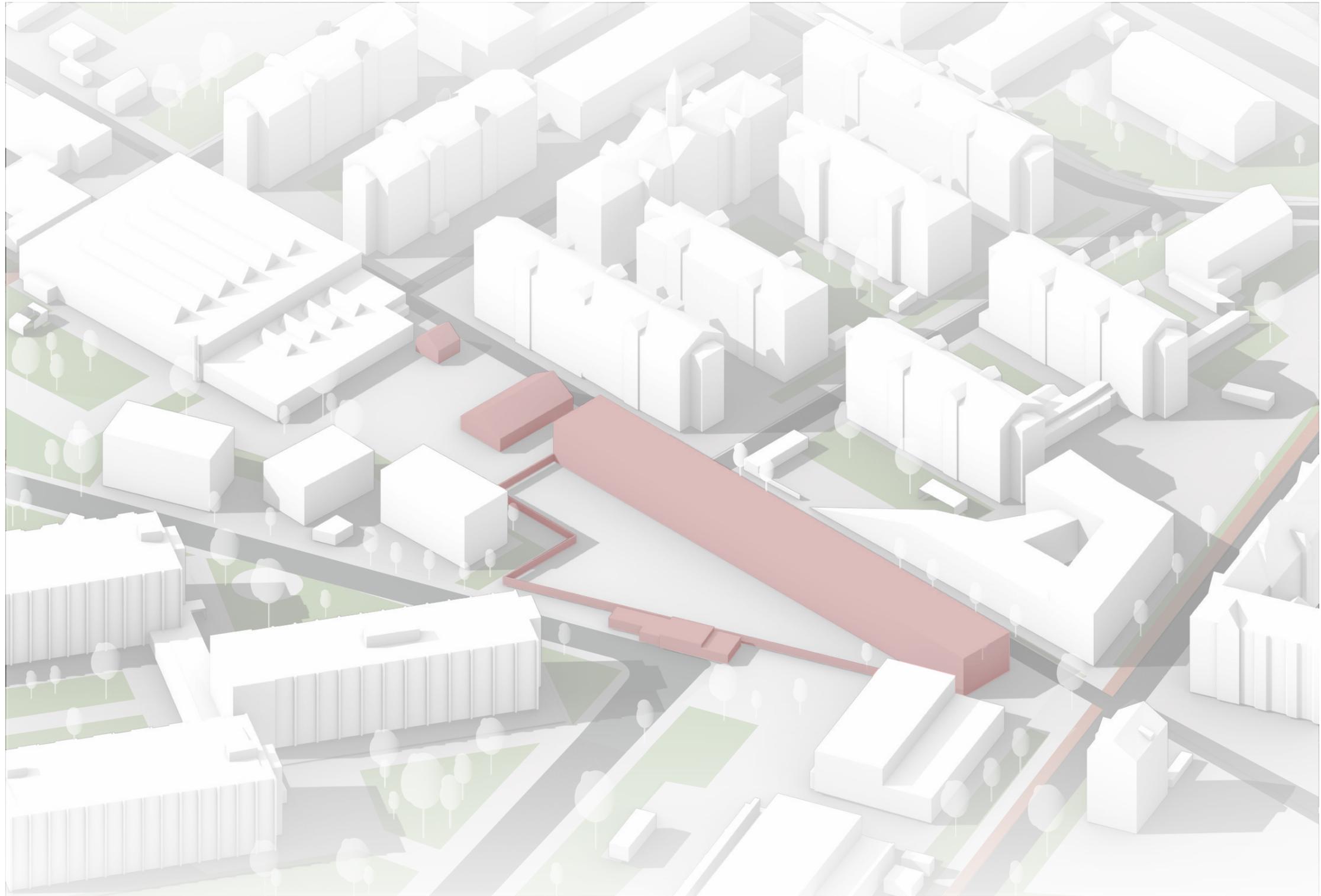
The Sliding House, DRMM Architects

Concepts: Sliding construction for changing indoor conditions & climate control

Spatial development - Current situation



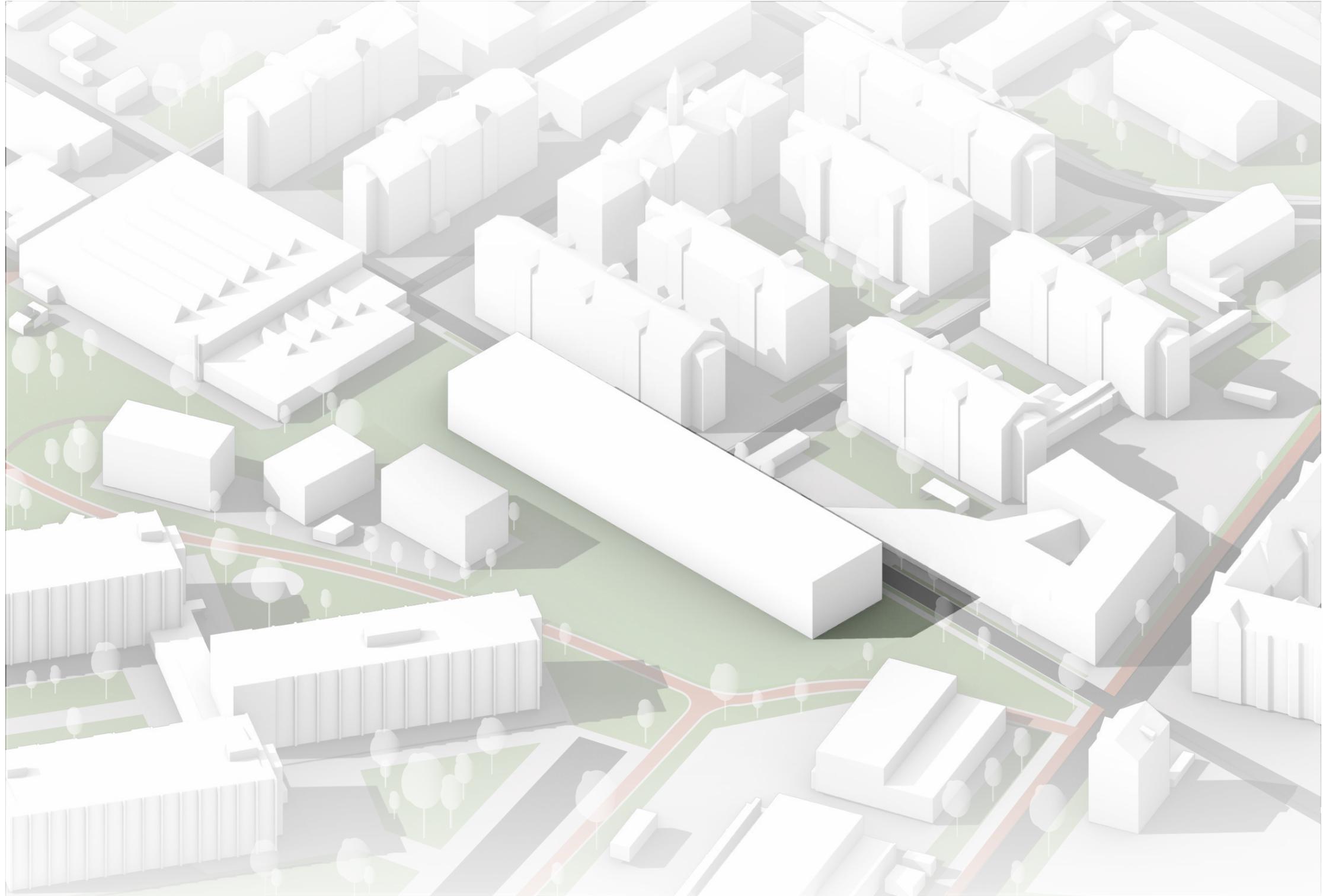
Spatial development - Remove buildings



Spatial development - Improved connectivity & outdoor space



Spatial development - New mass



Spatial development - Split mass



Spatial development - Add program



Spatial development - Extend program

Program

Craft (180m²)

- Woodworking space 54m²
- Pottery studio 36m²
- Storage 54m²

Music (253m²)

- Small practice rooms 8x 18m²
- Recording studios 2x 27m²
- Large rehearsal room 54m²

Toilets (90m²)

Art (286m²)

- Workshop space 70m²
- Art studios 6x 36m²

Cooking (108m²)

- Kitchen 72m²
- Bar 36m²

Free space (1600m²) + Greenhouse & Agricultural beds

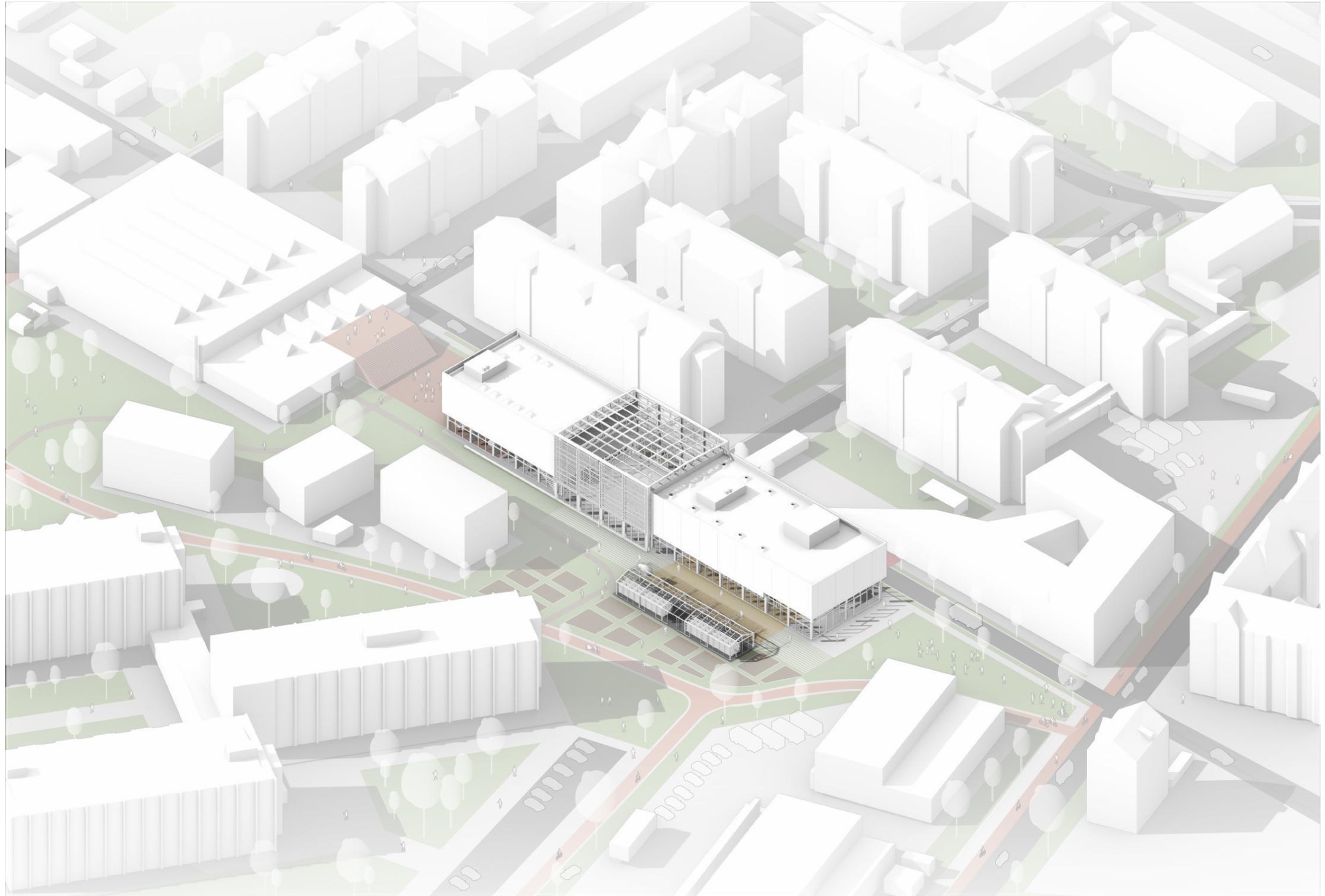
Functions for: entrance, circulation, exhibitions, performances, eating, events, meeting.



Spatial development - Building



Spatial development - Flexible out/indoor space



Spatial development - Urban integration



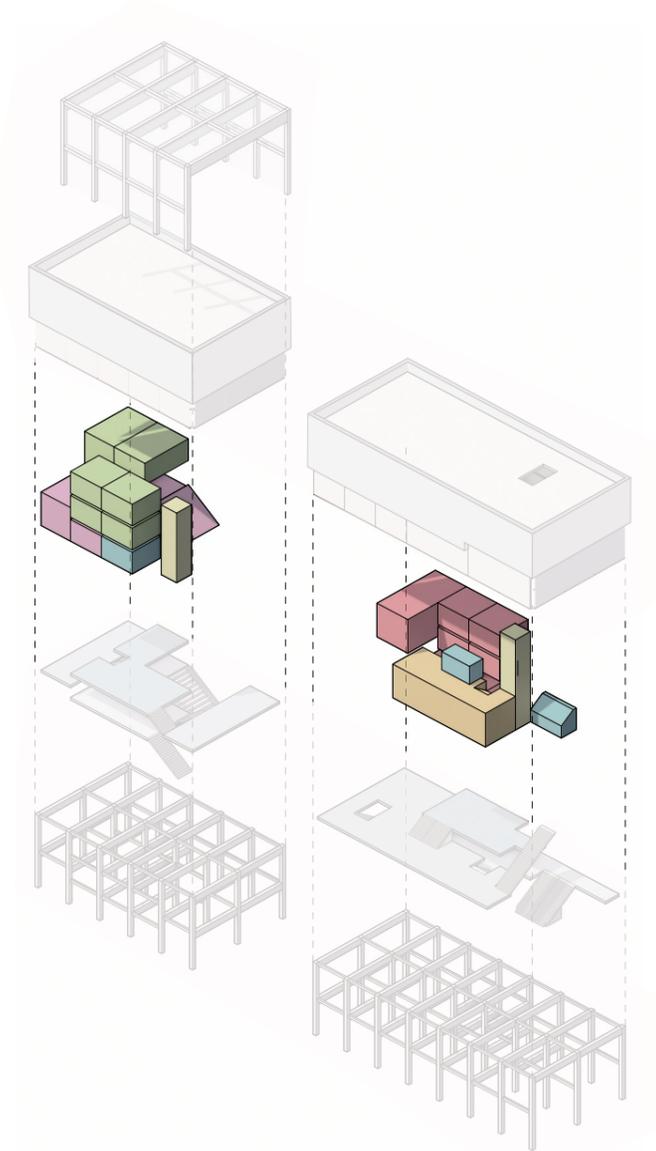
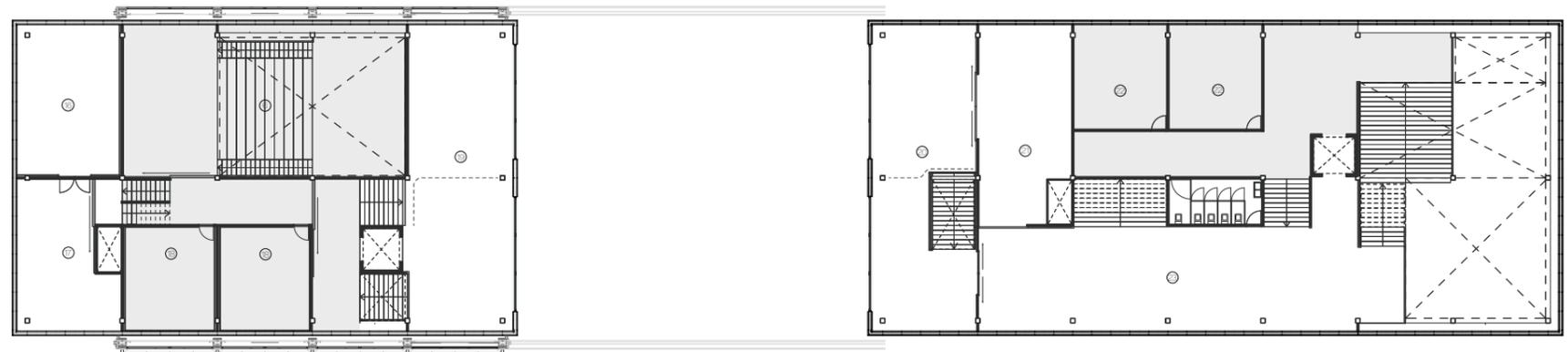
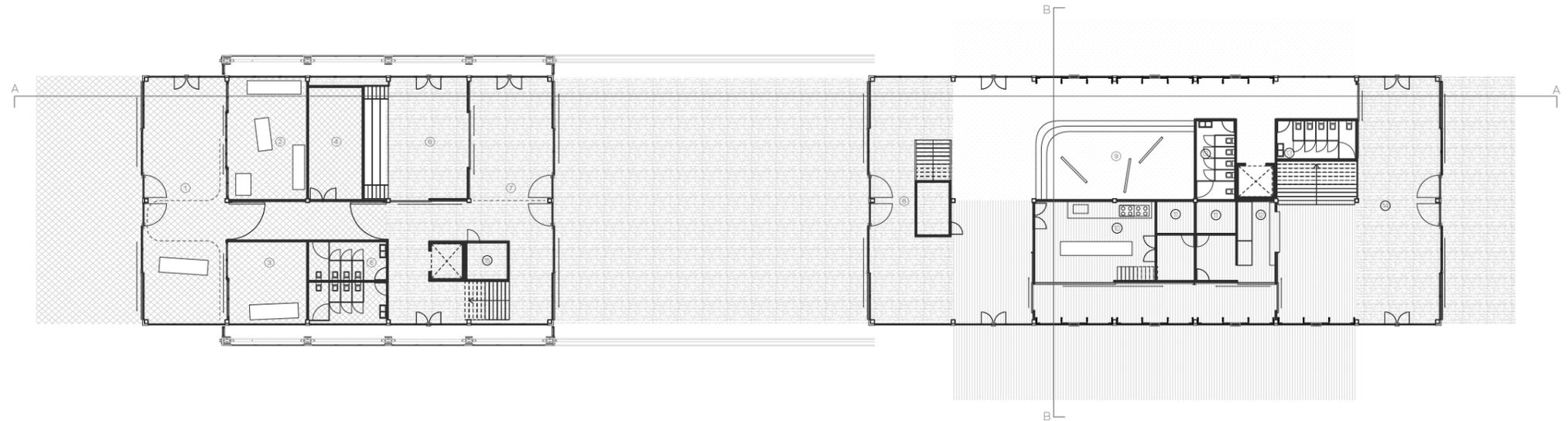
Building components - Indoor layout

Goal:

- Flexible spaces for workshops/ events
- Out- & Indoor programmatic relationships
- Adaptive zoning

Principles:

- Free space as programmatic buffer zone
- Sliding doors for climate zoning
- Soft adaptable boundaries for individual adaptation



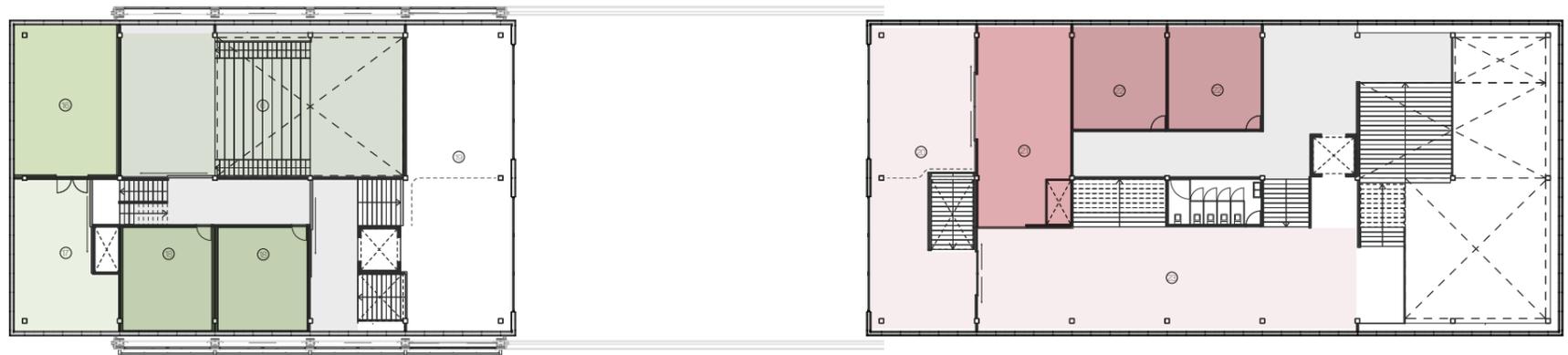
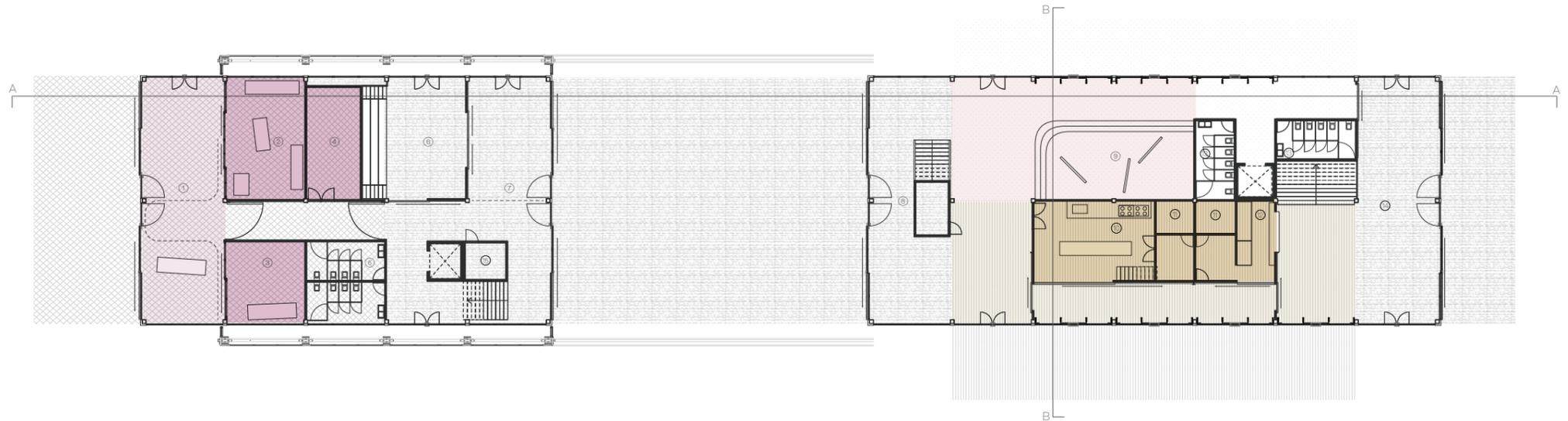
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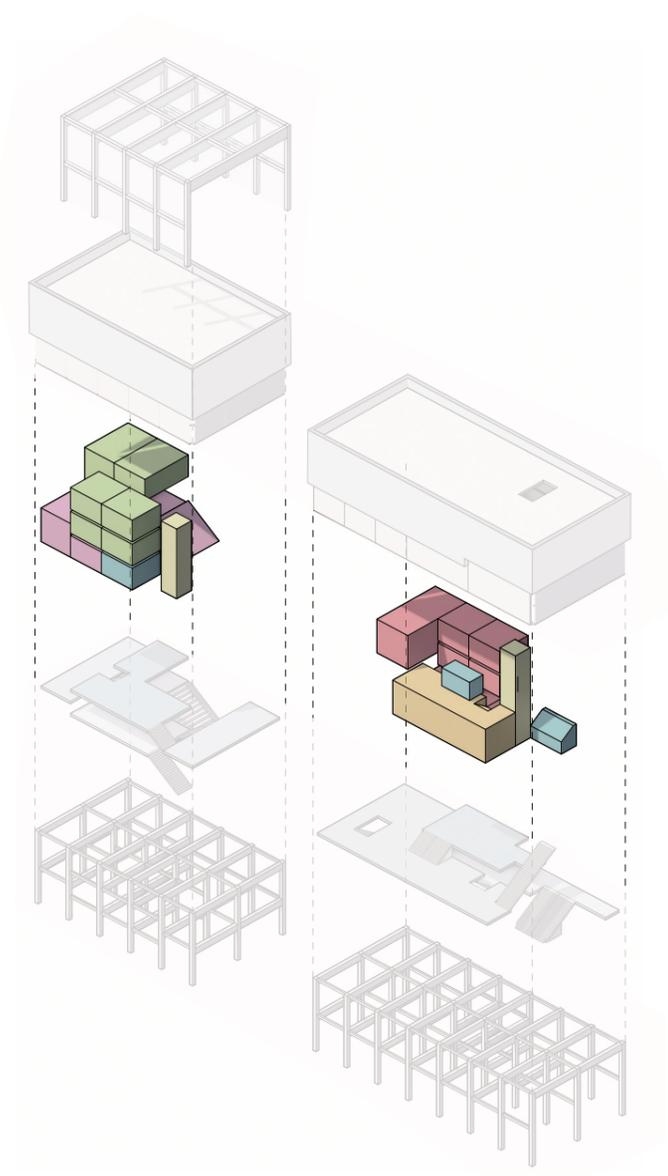
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Craft
Music

Kitchen & bar
Art



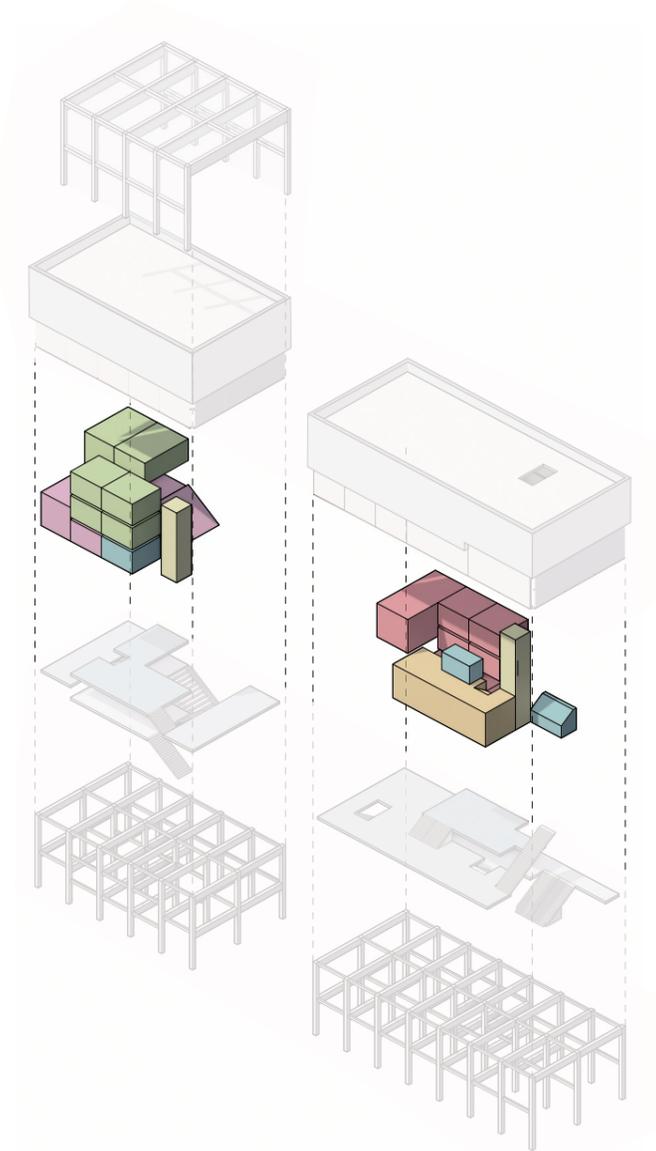
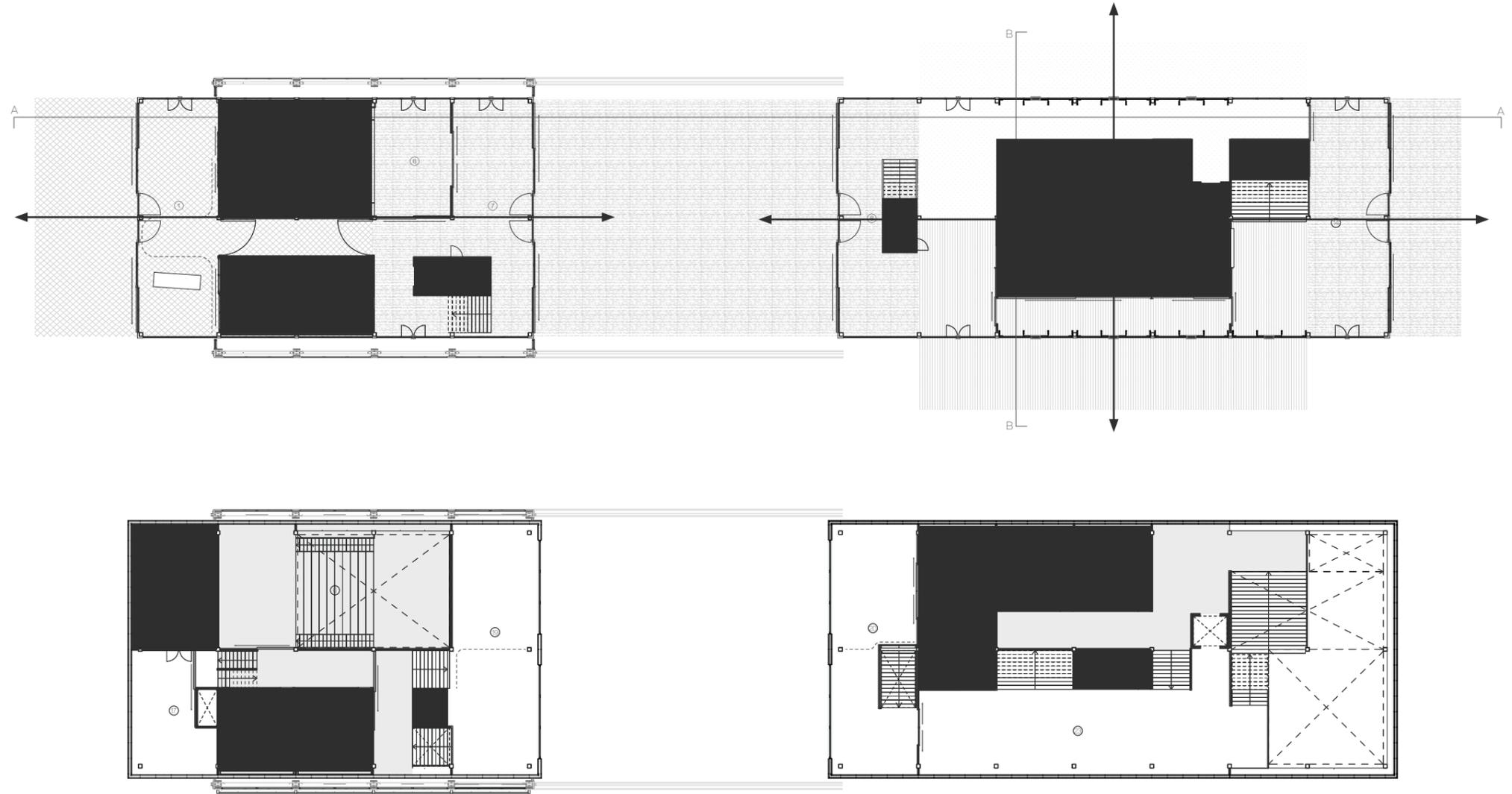
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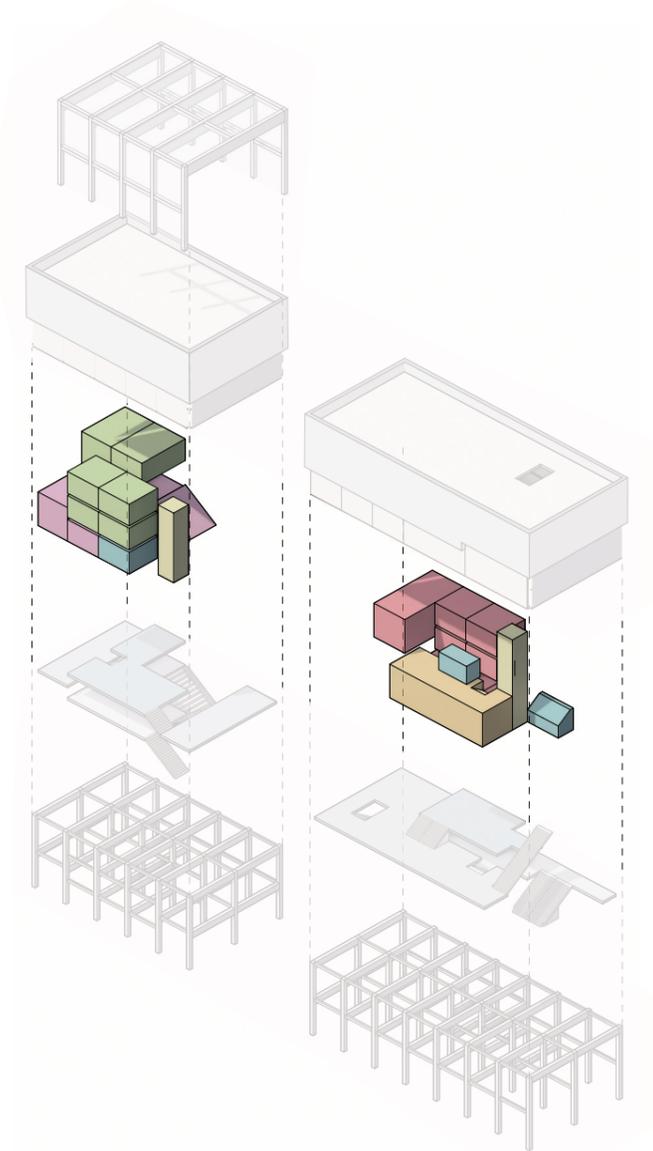
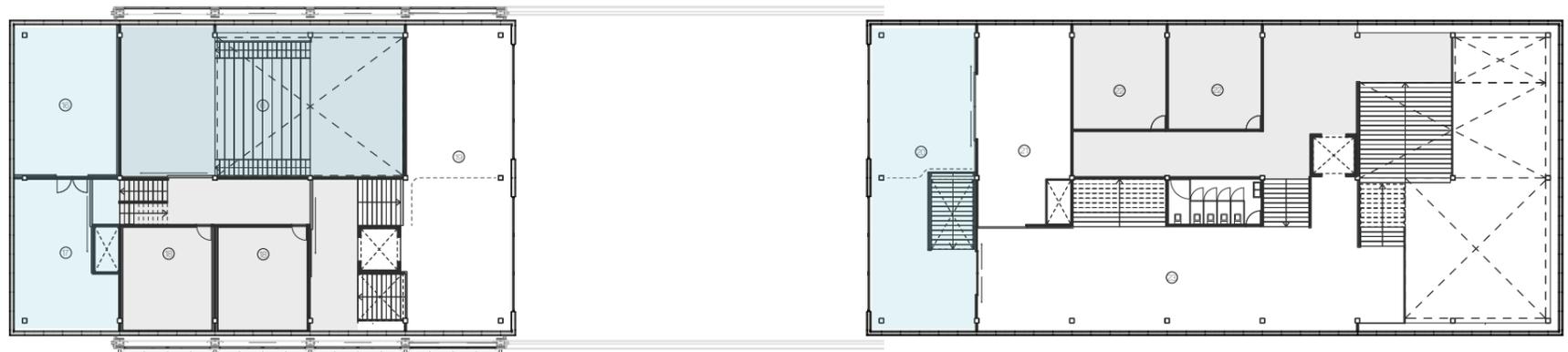
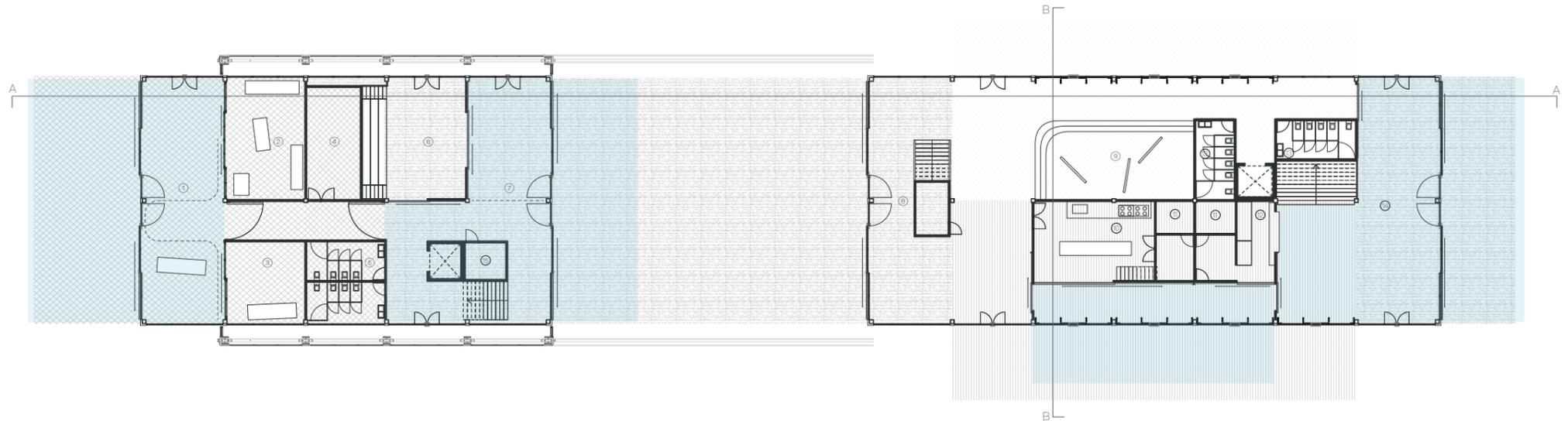
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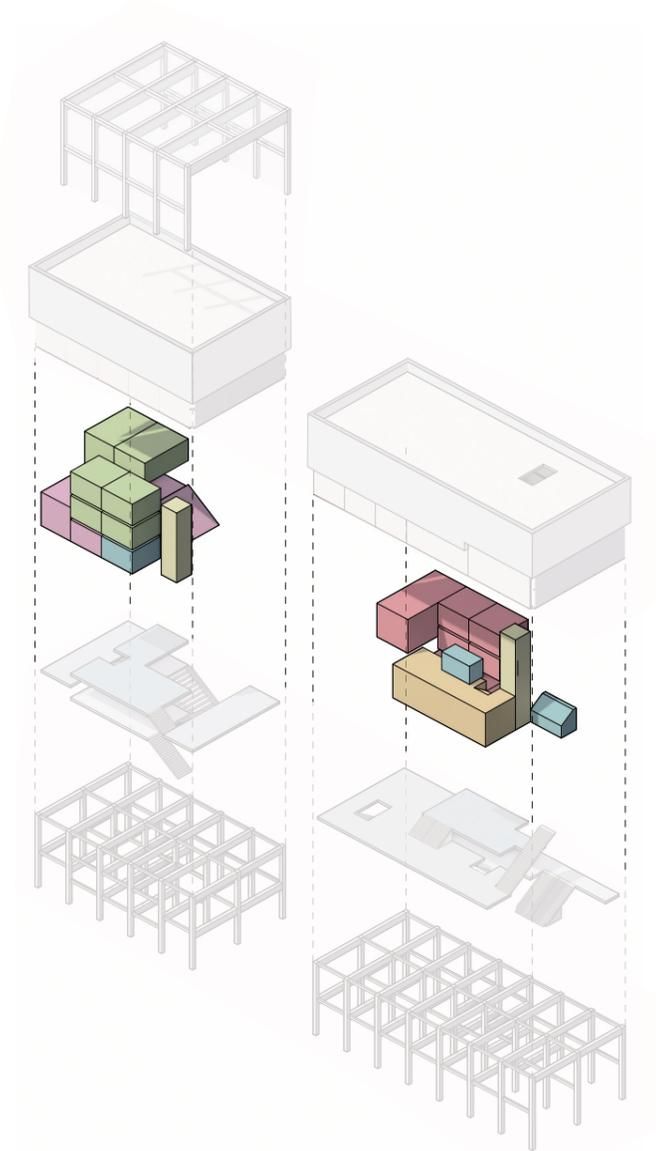
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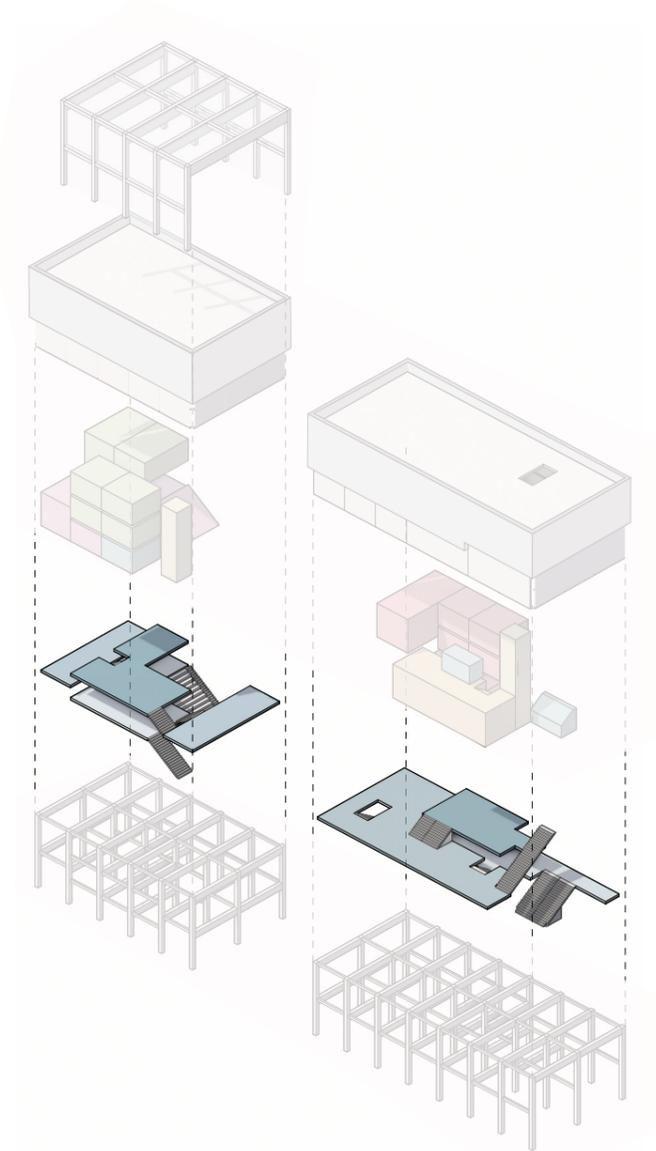
Building components - Floors & Stairs

Goal:

- Dynamic space & routing
- Multifunctional stairs

Principles:

- High free spaces (6m) vs low fixed spaces (4m)
- Stairs as informal seating for gatherings and events



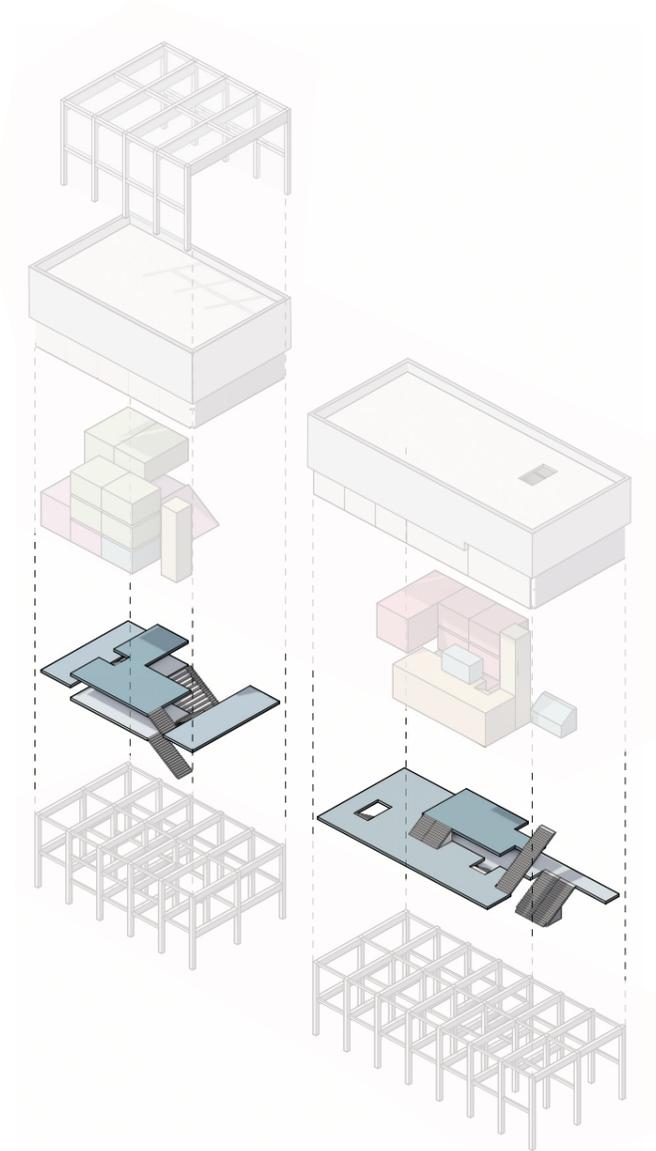
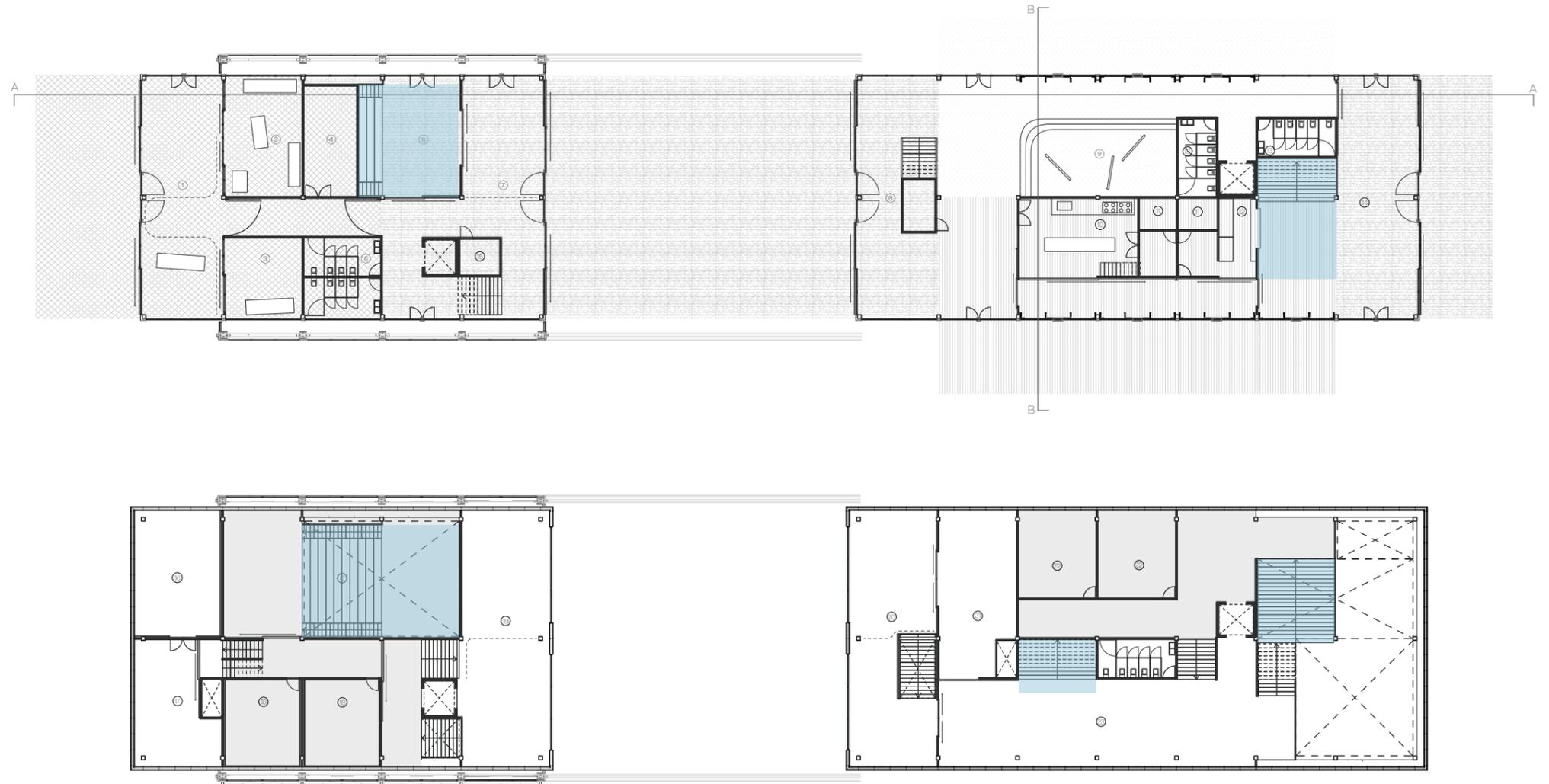
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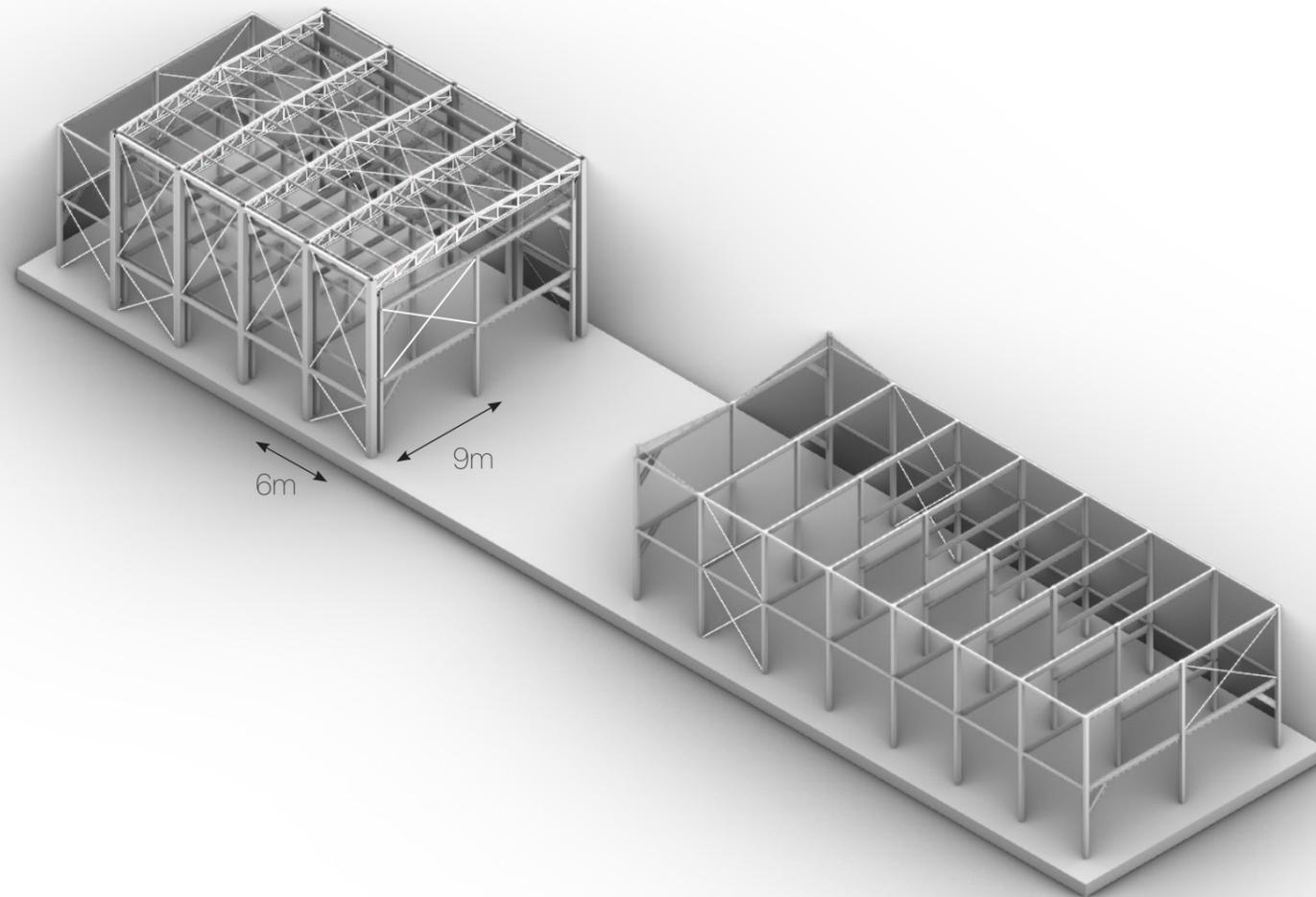
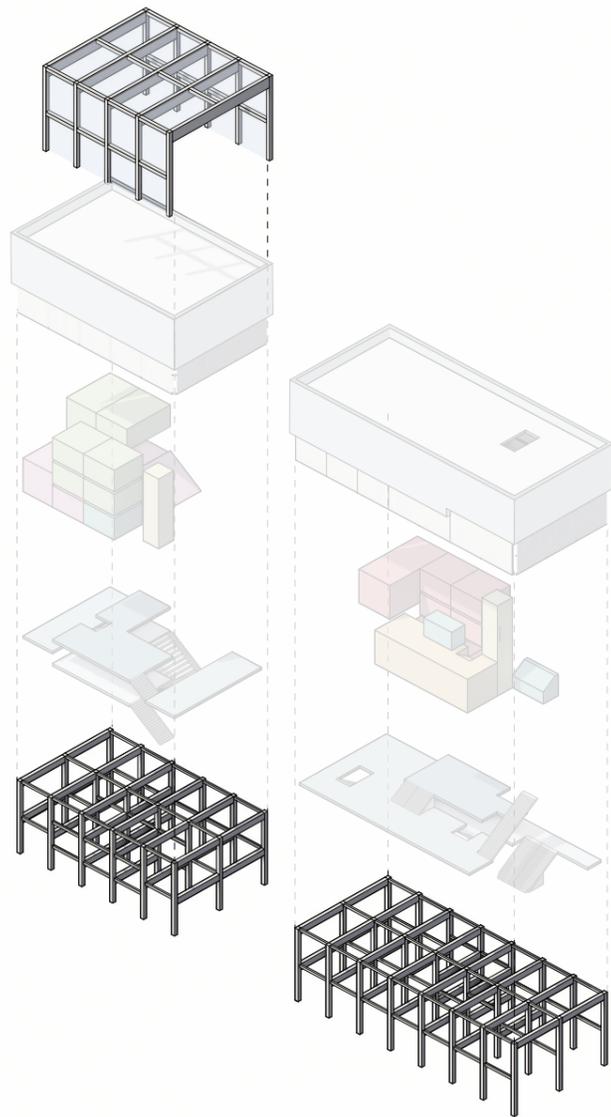
Building components - Structure

Goal:

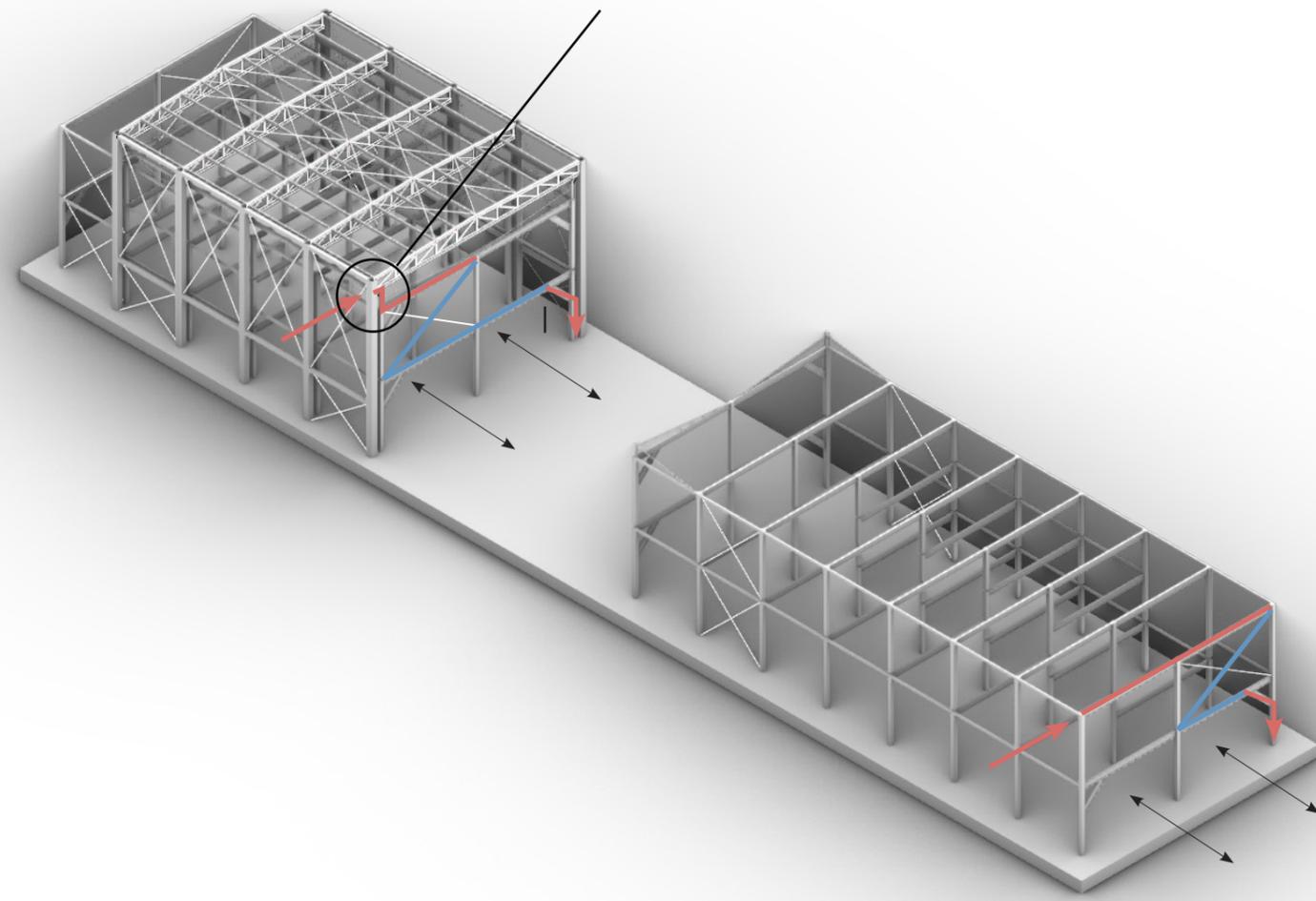
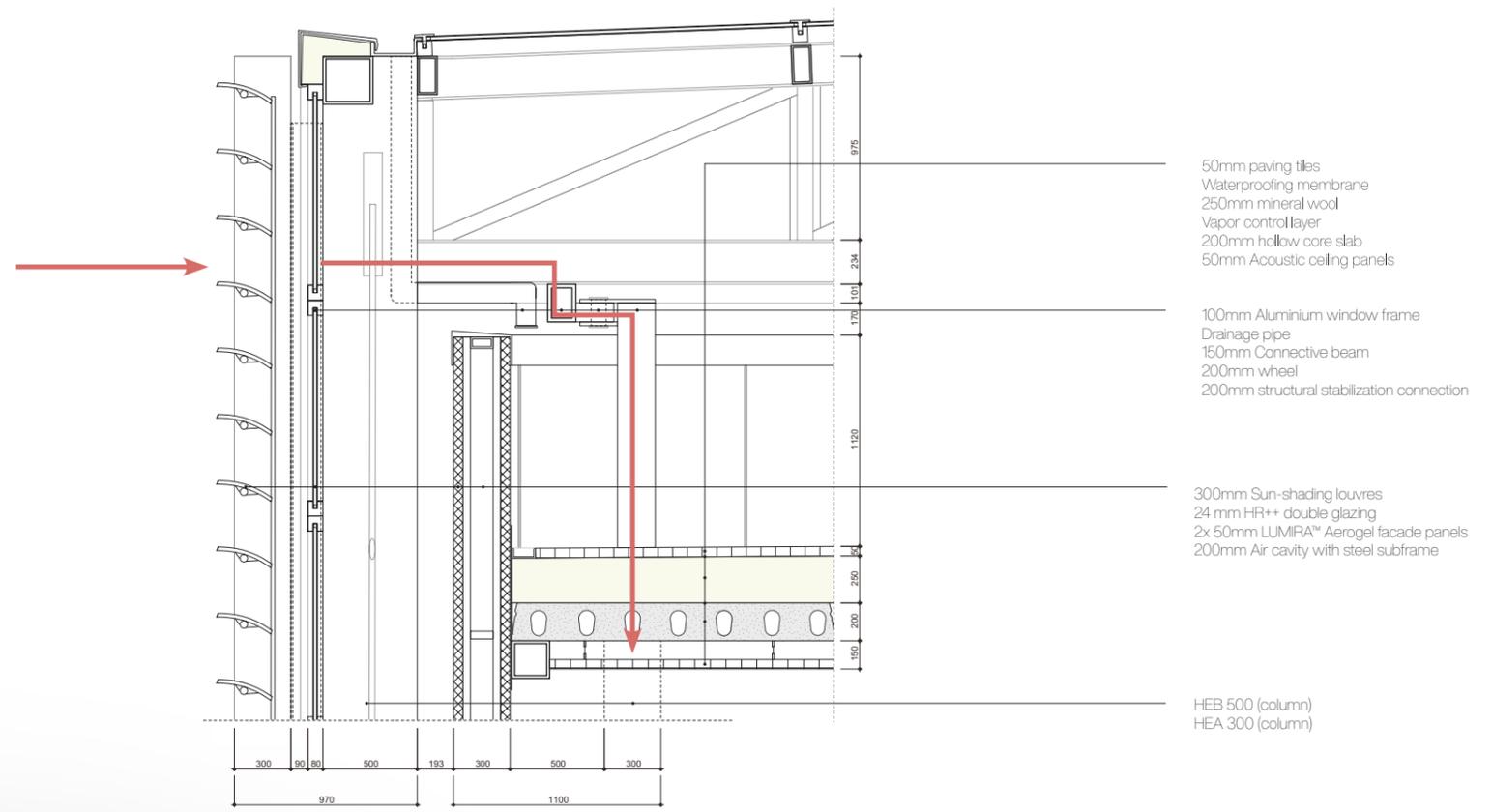
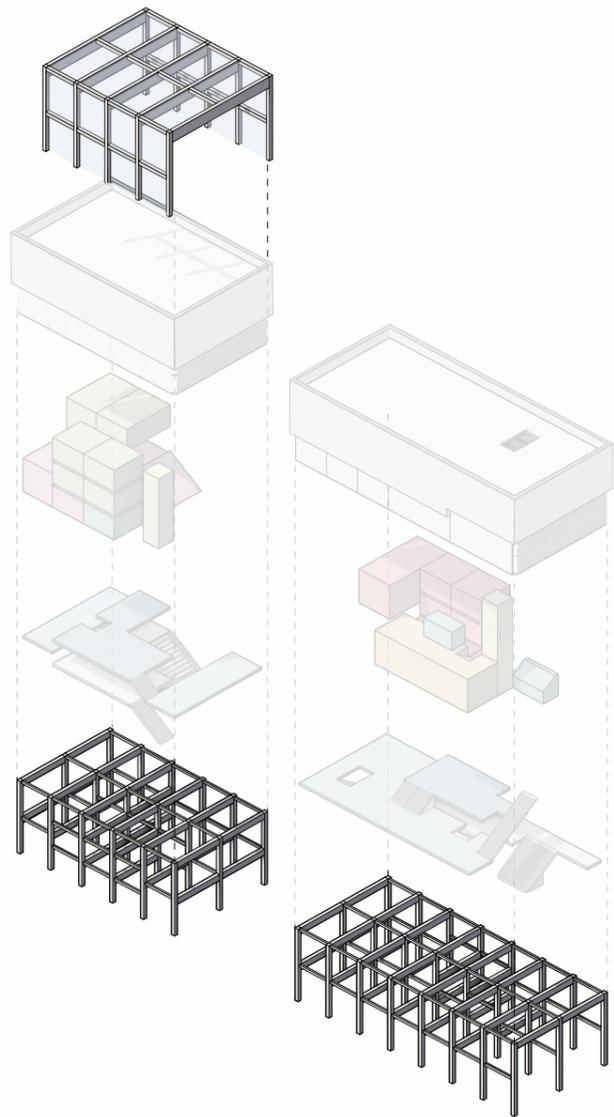
- Durable construction
- Future reconfiguration
- Openable facades
- Industrial expression

Principles:

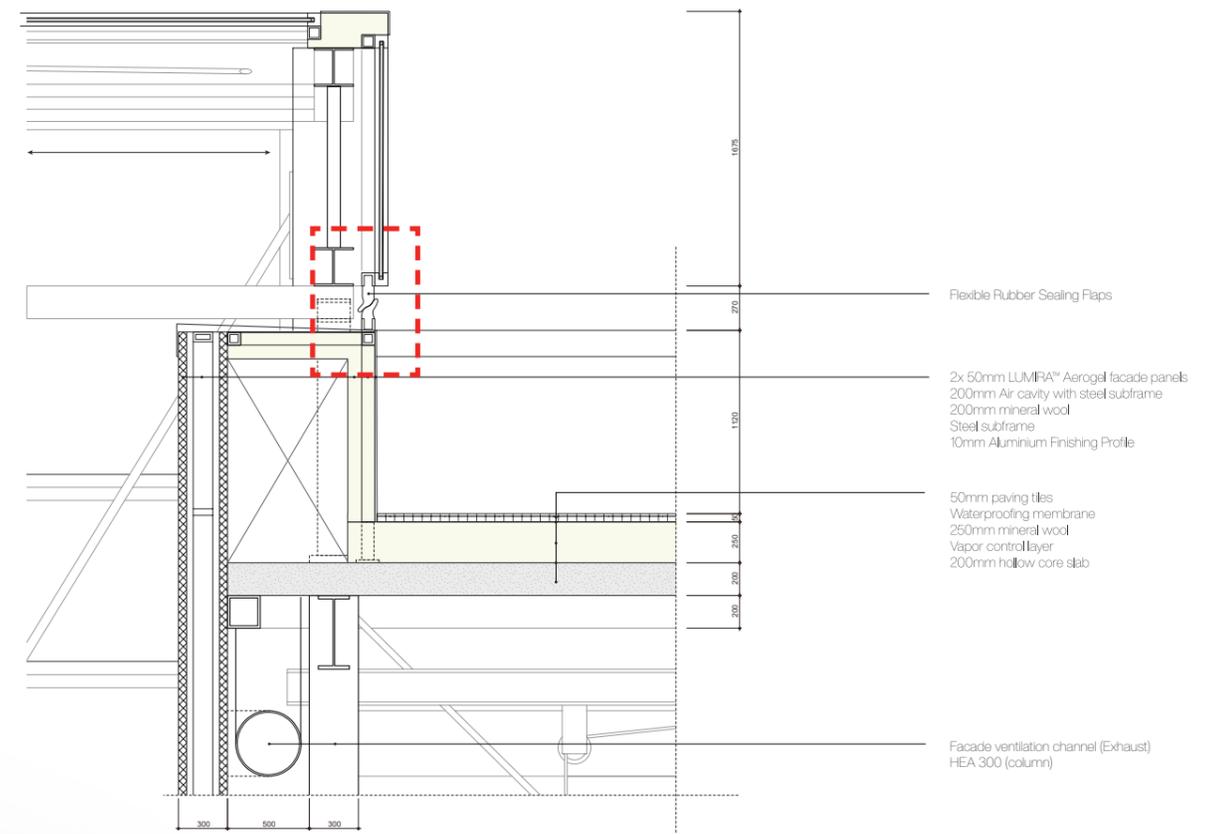
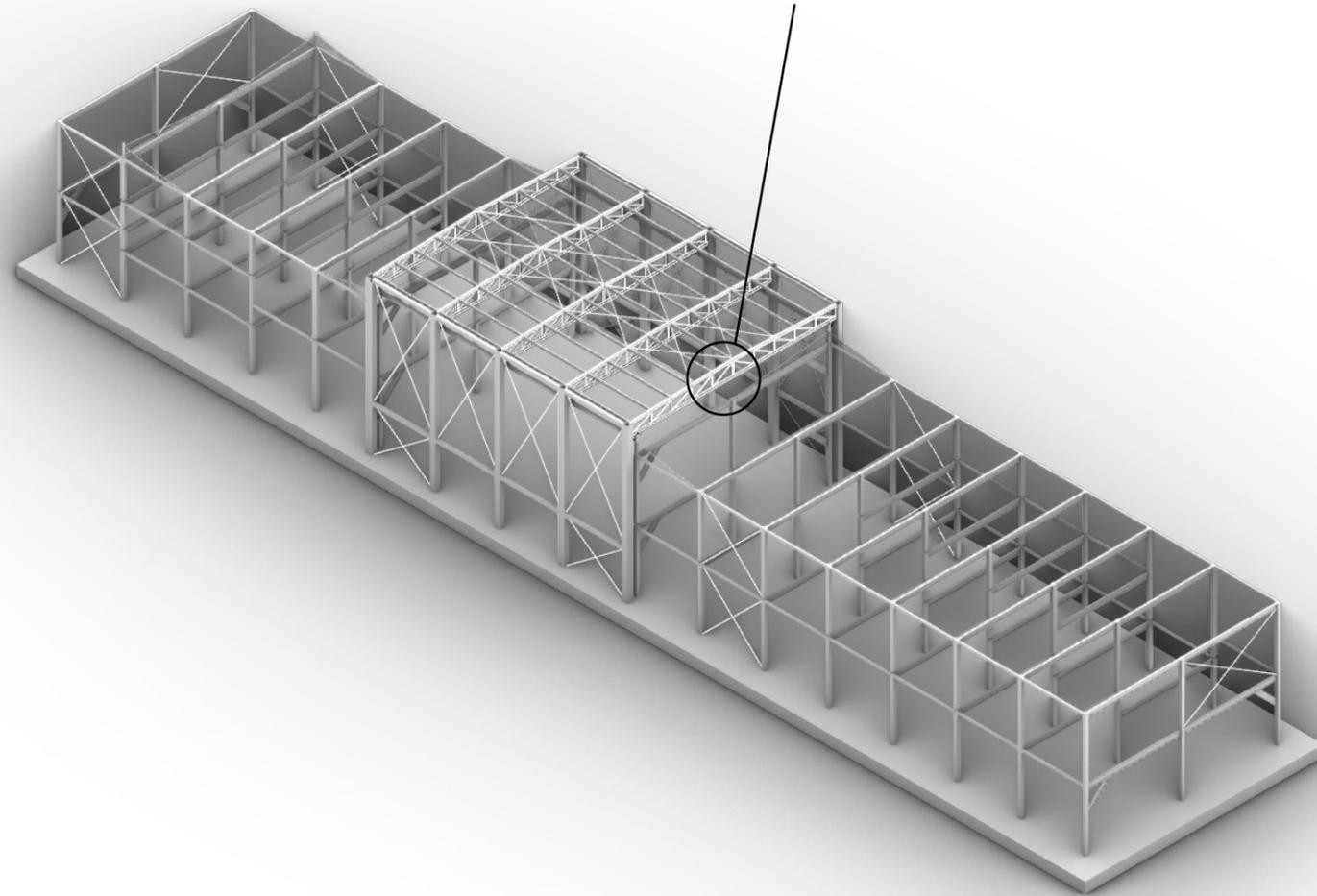
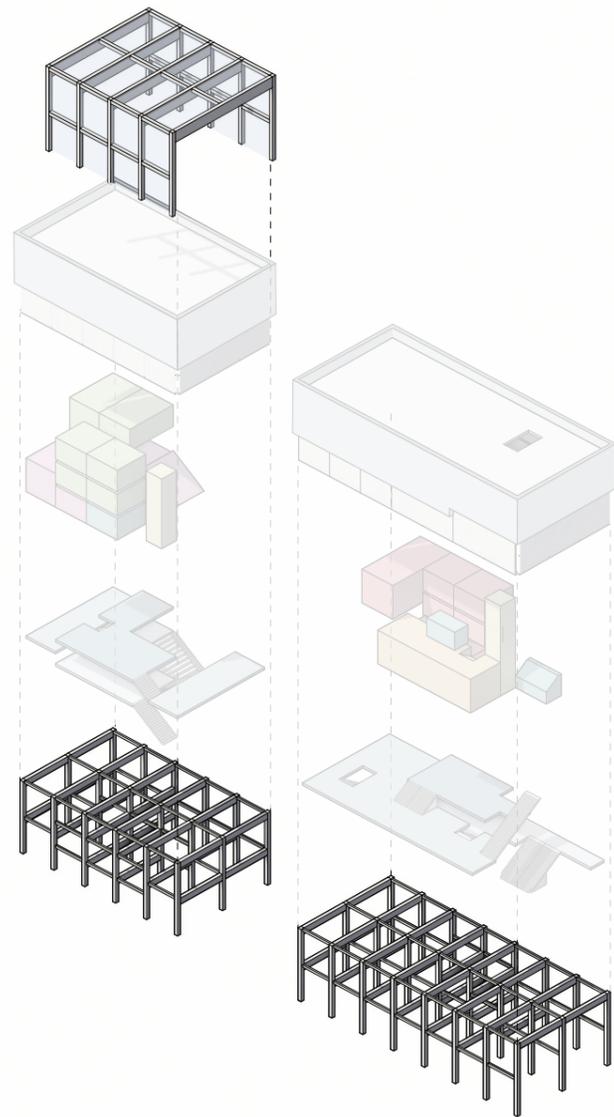
- Steel structural frame
- Hollow core slab floors
- 6x9 grid layout
- Stability using wind braces & corner braces



Building components - Structure



Building components - Structure



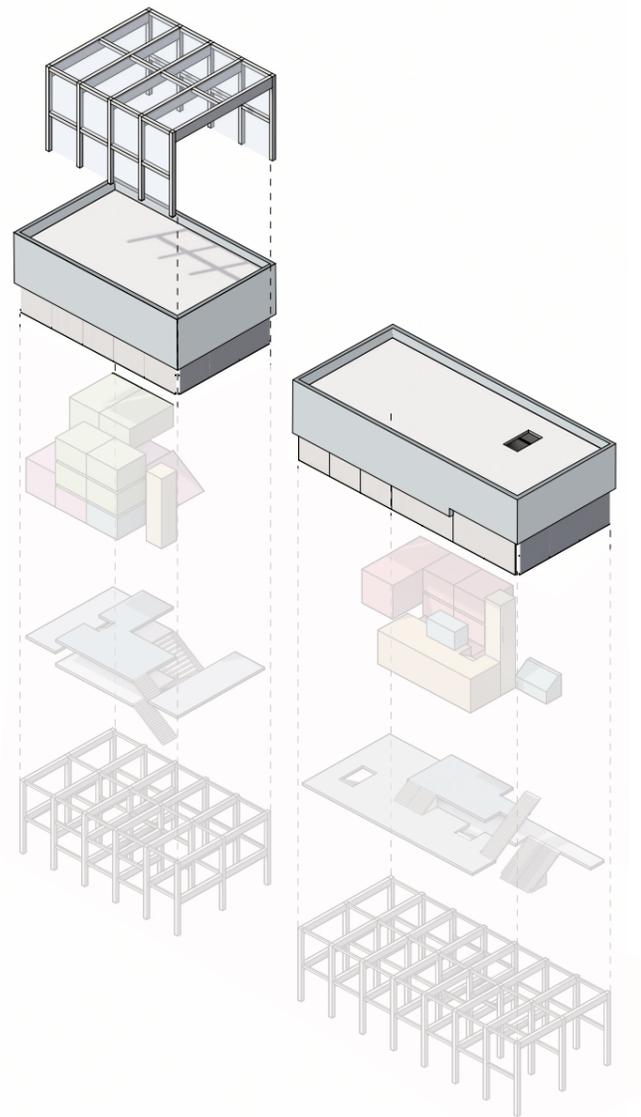
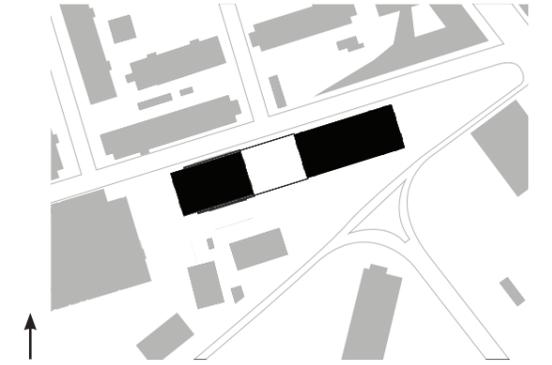
Building components - Skin & materiality

Goal:

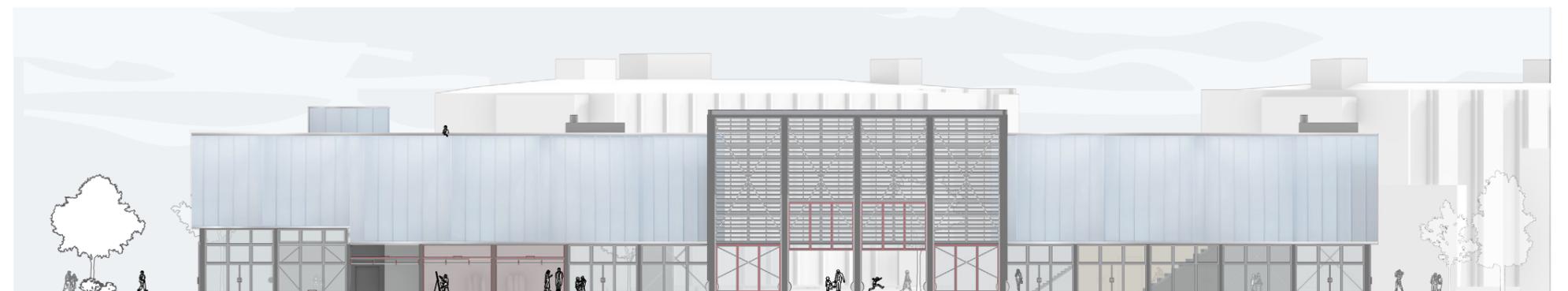
- Blur in- & outdoor boundaries
- Functional expression
- Visible activity & natural daylight
- Reflect sundholm's industrial history
- Thermal comfort
- Long term adaptability

Principles:

- Tilting & sliding facade
- Dark & visible steel structure
- Glass ground floor
- Semitranslucent polycarbonate panels
- Red as adaptable indicator
- Demountable facade system



South facade (open center)



North facade (closed center)

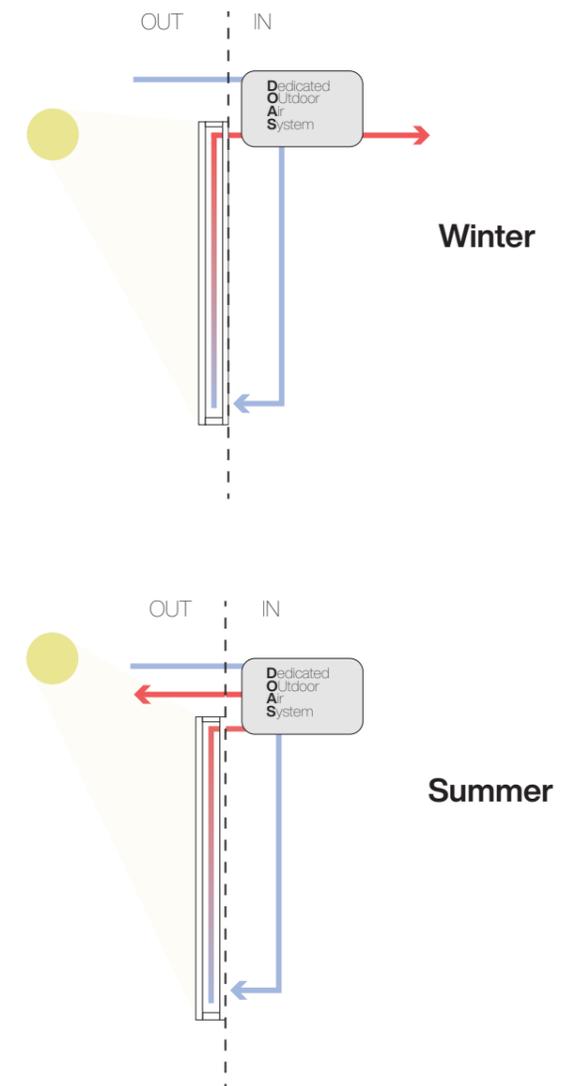
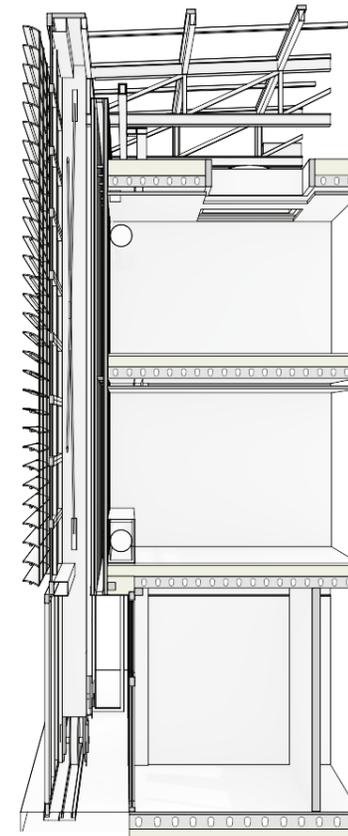
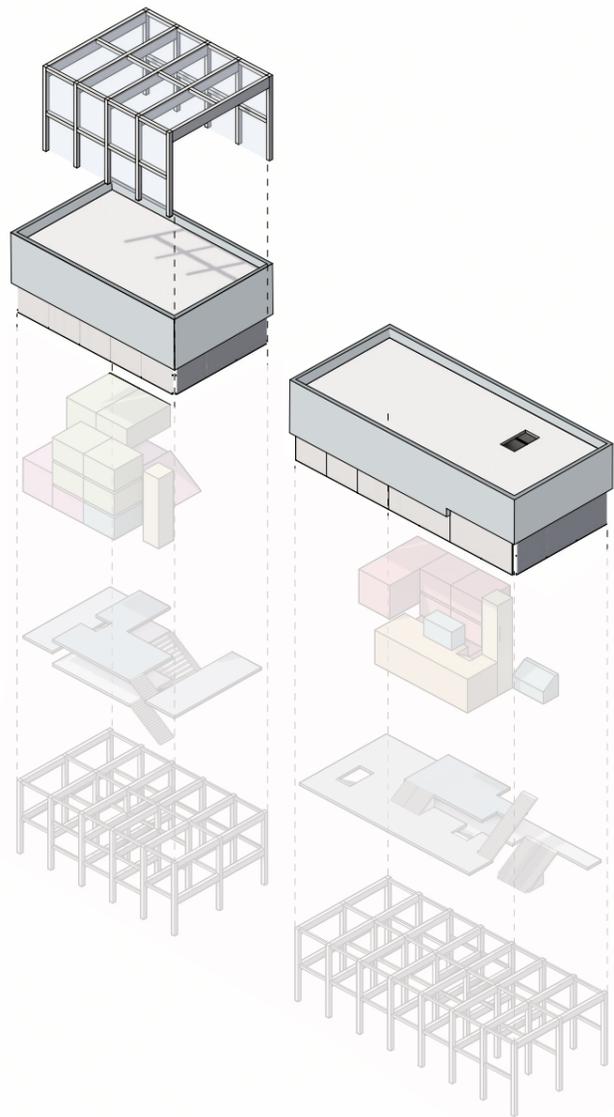
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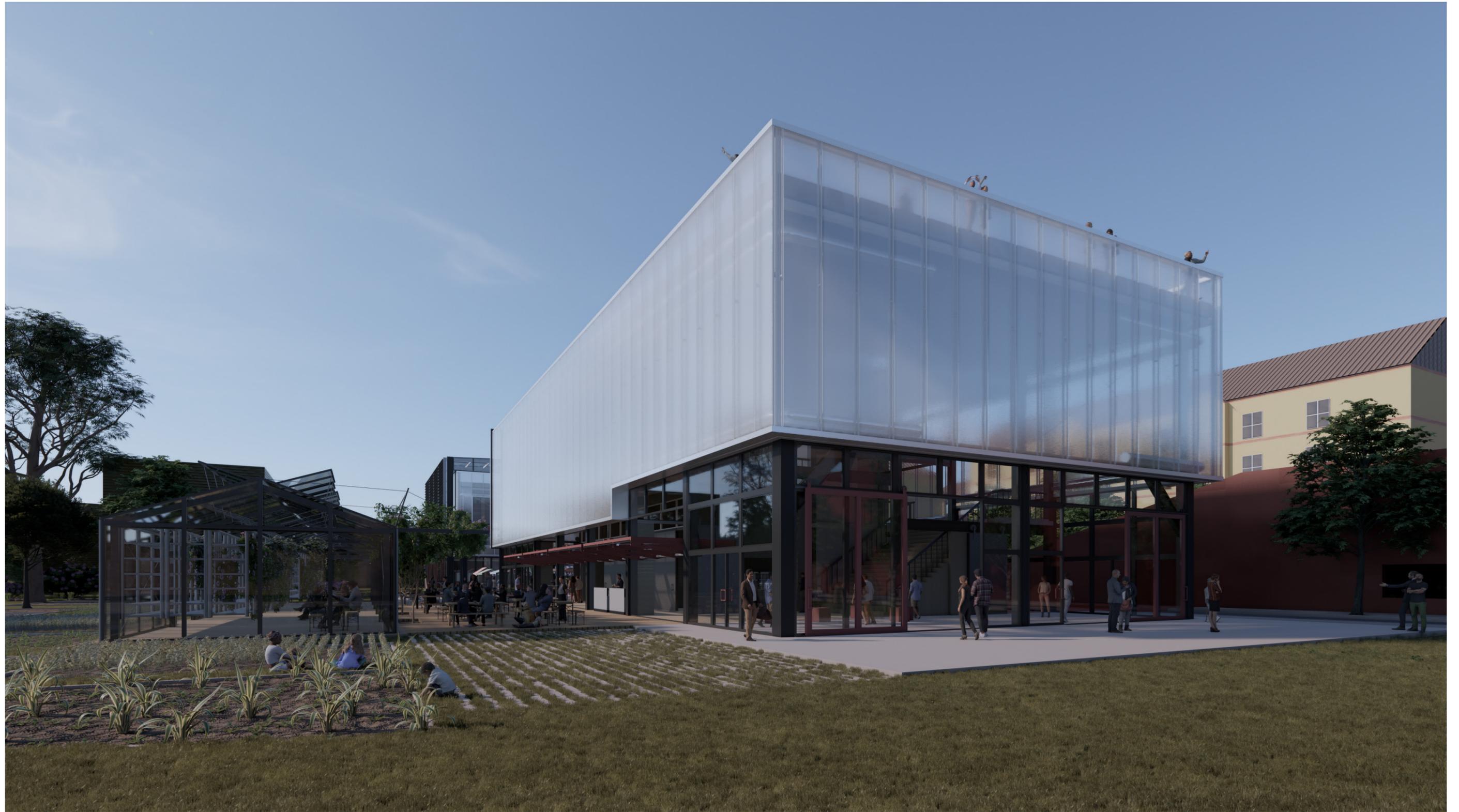
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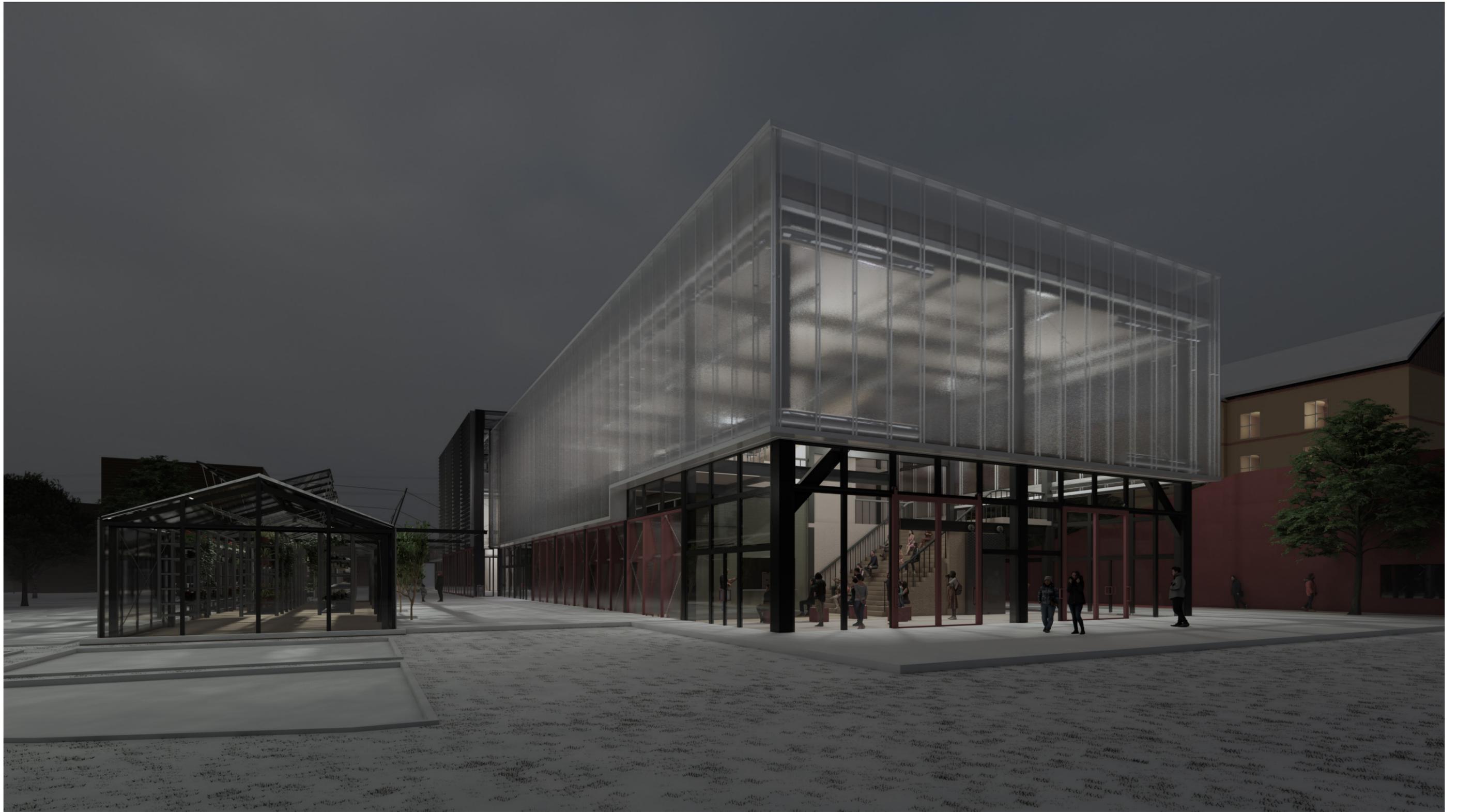
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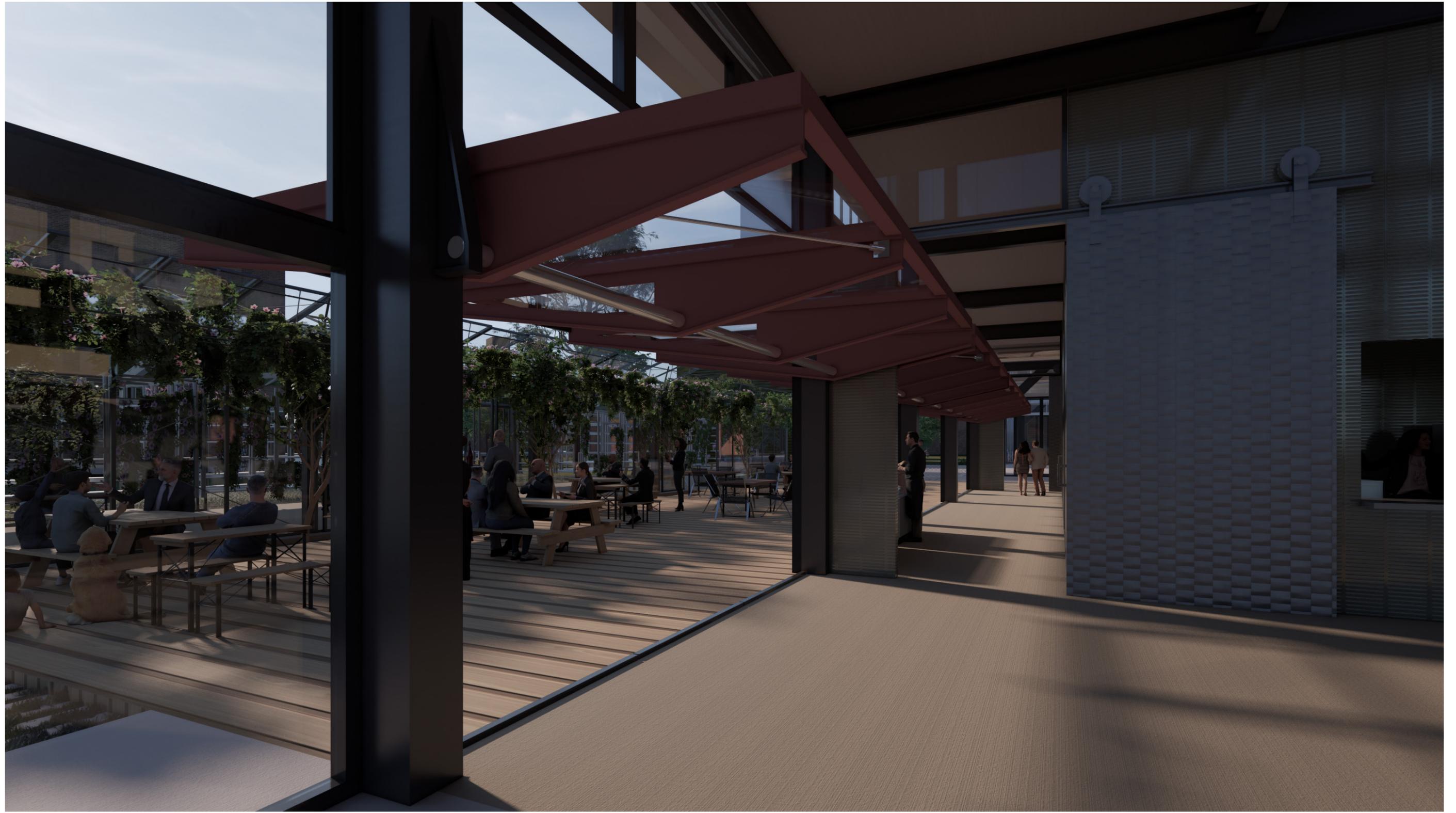
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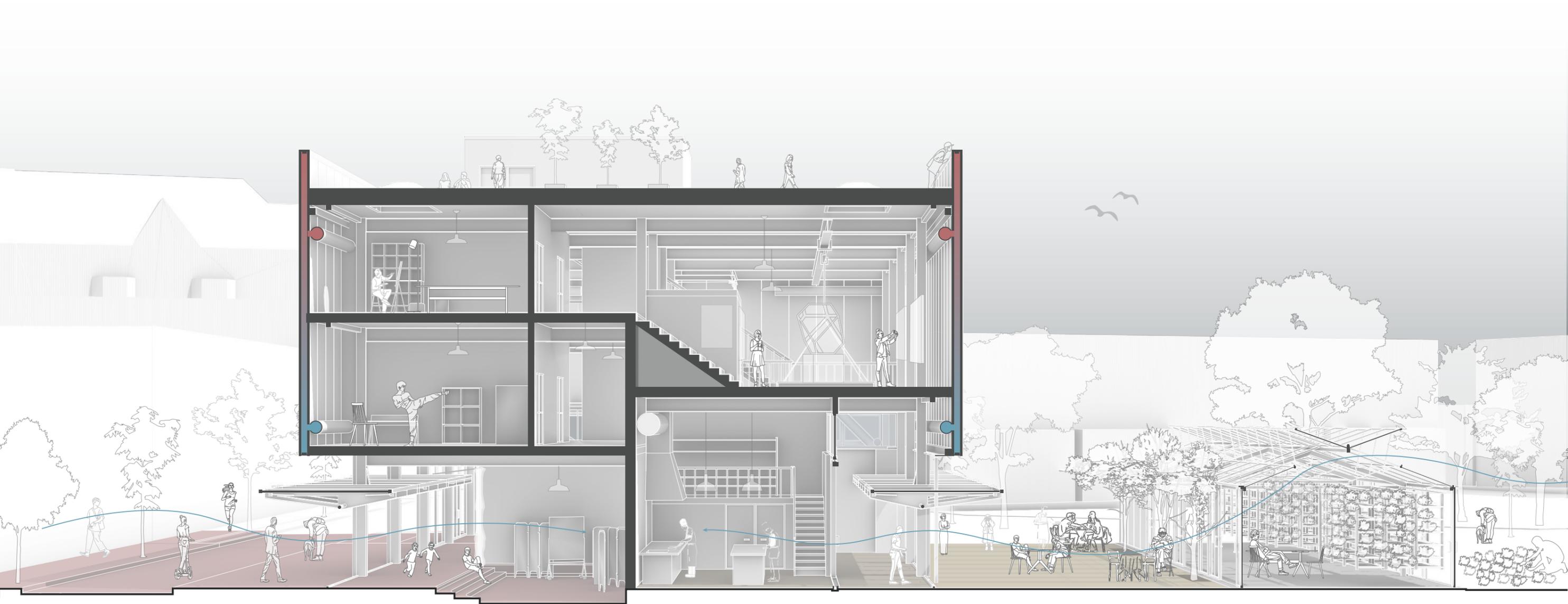
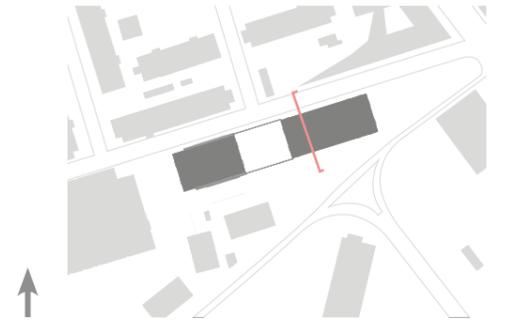




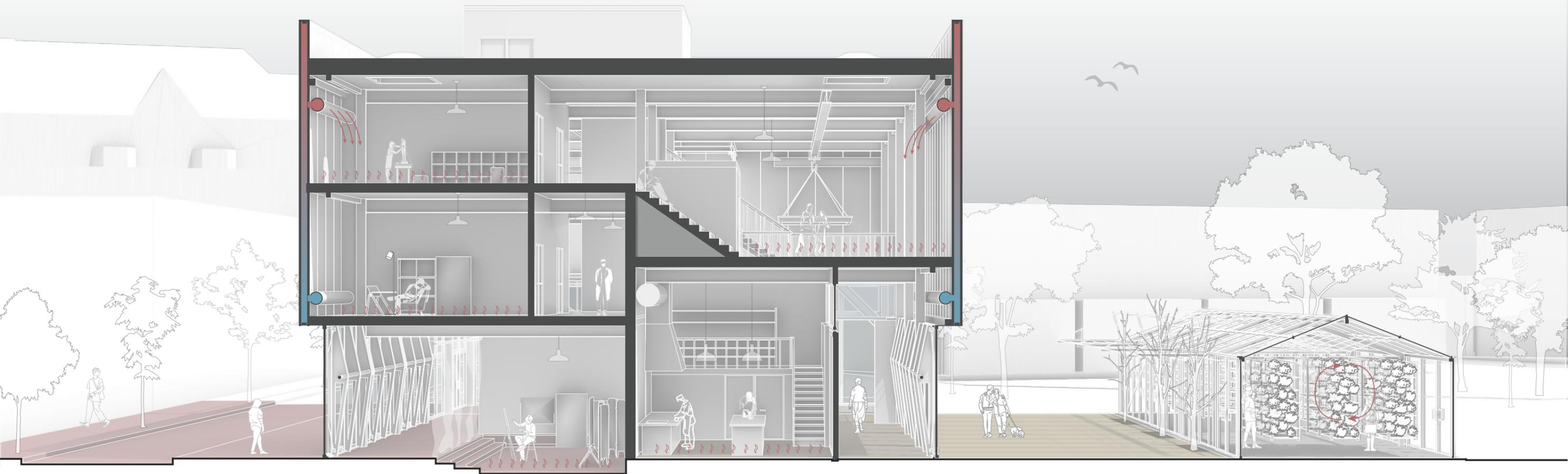
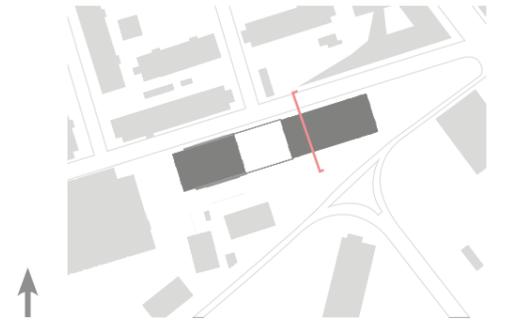


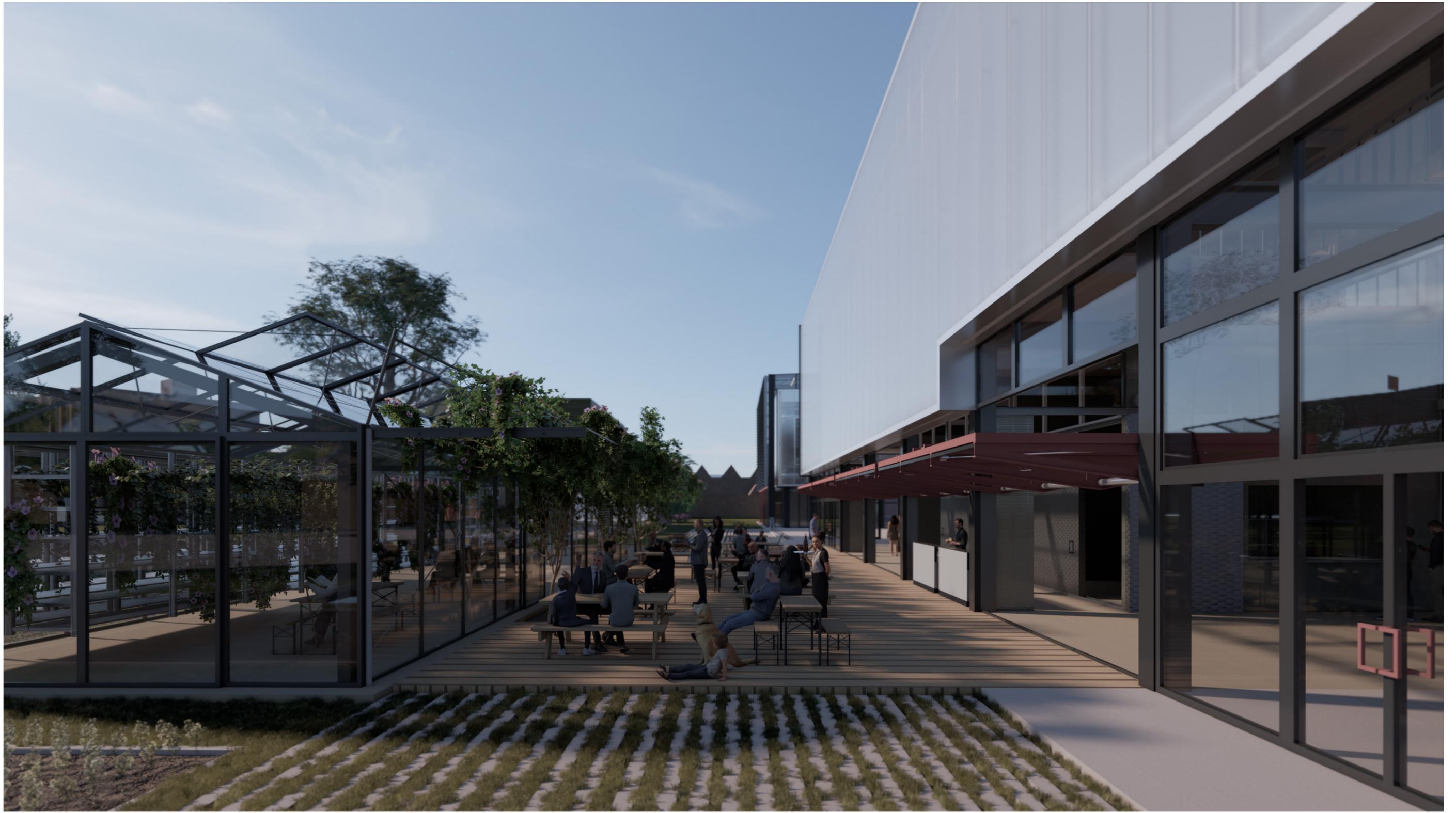


Section BB - Summer



Section BB - Winter





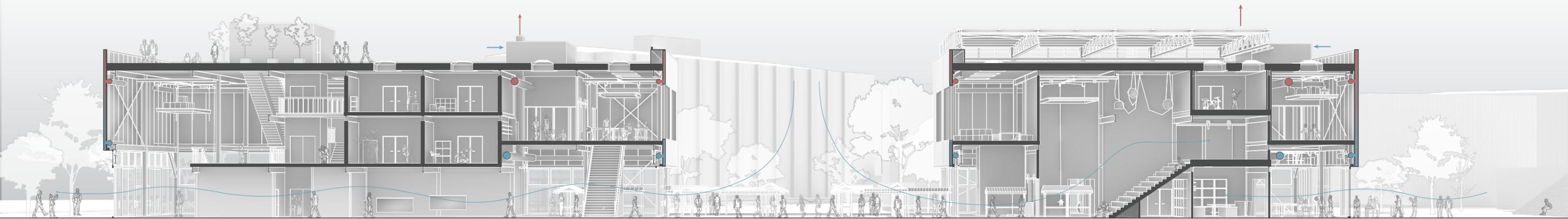
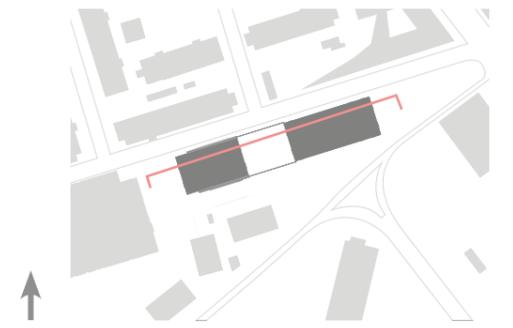








Section AA - Summer



Section AA - Winter

