

Factories (Re)public

When industrial heritages are reopened for everyday lives

Cyrus Chiu 6020437

Methods of Analysis and Imagination – A Matter of Scale



Problematization

Methodology

Site Analysis

Design Development

Technological Consideration

Proposed Design

Summary

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Redevelopment Trend of Former Industrial Land in Tallinn



Purpose of Major Redevelopments





Coca-Cola
plaza
APOLLO
KINO-CINEMA

National Theatre Live
Drama
Dilem
kuhnel

Pop & Contemporary Art Museum
poco
MAAILMA
POPKUNSTI
MUUSEUM
AVATUD IGA PÄEV
poco.art 90 m ↑

ignite

VIRU
HAMBACLINIK

WAM TT

WOKKL



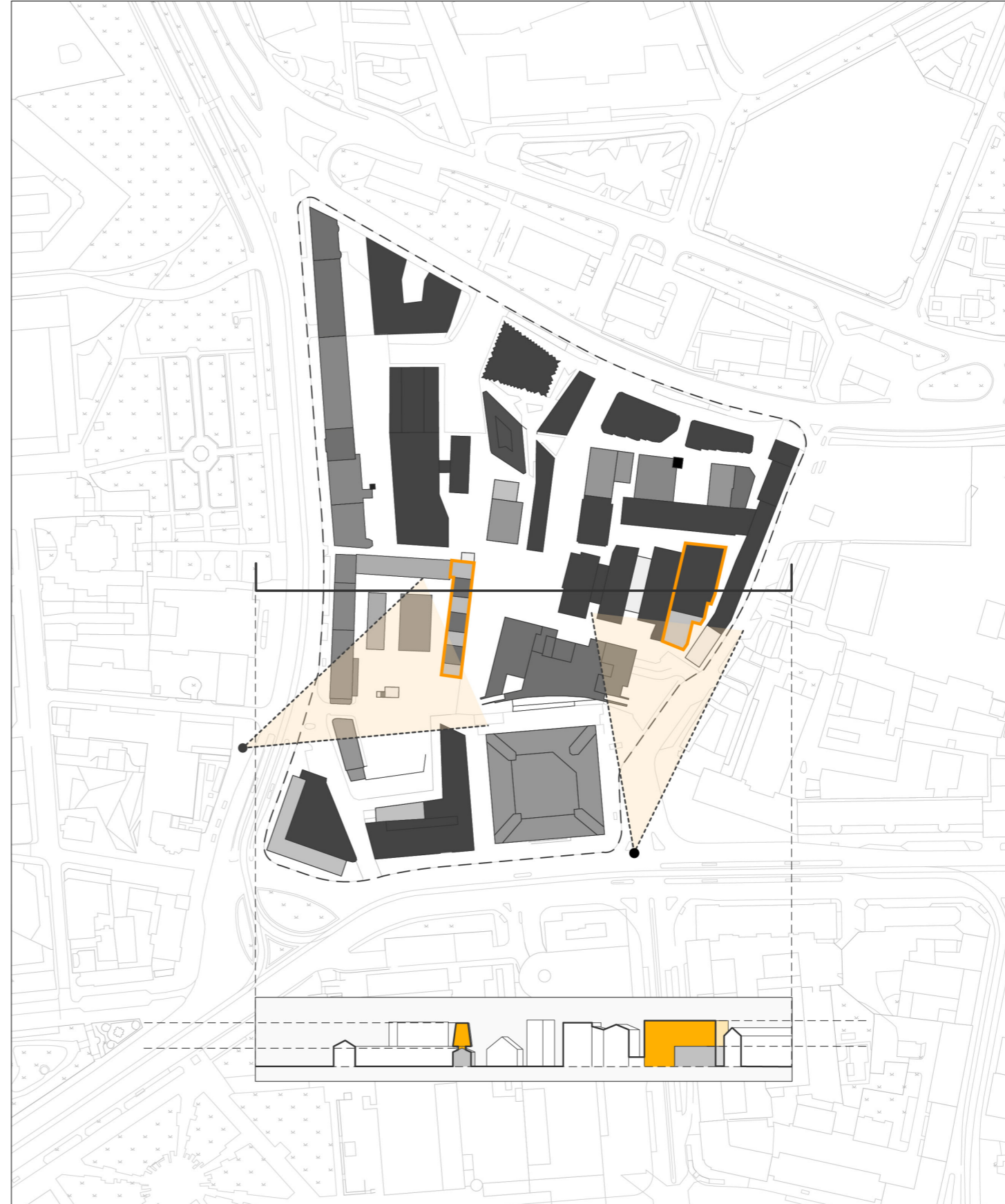
Rotermann - Addition



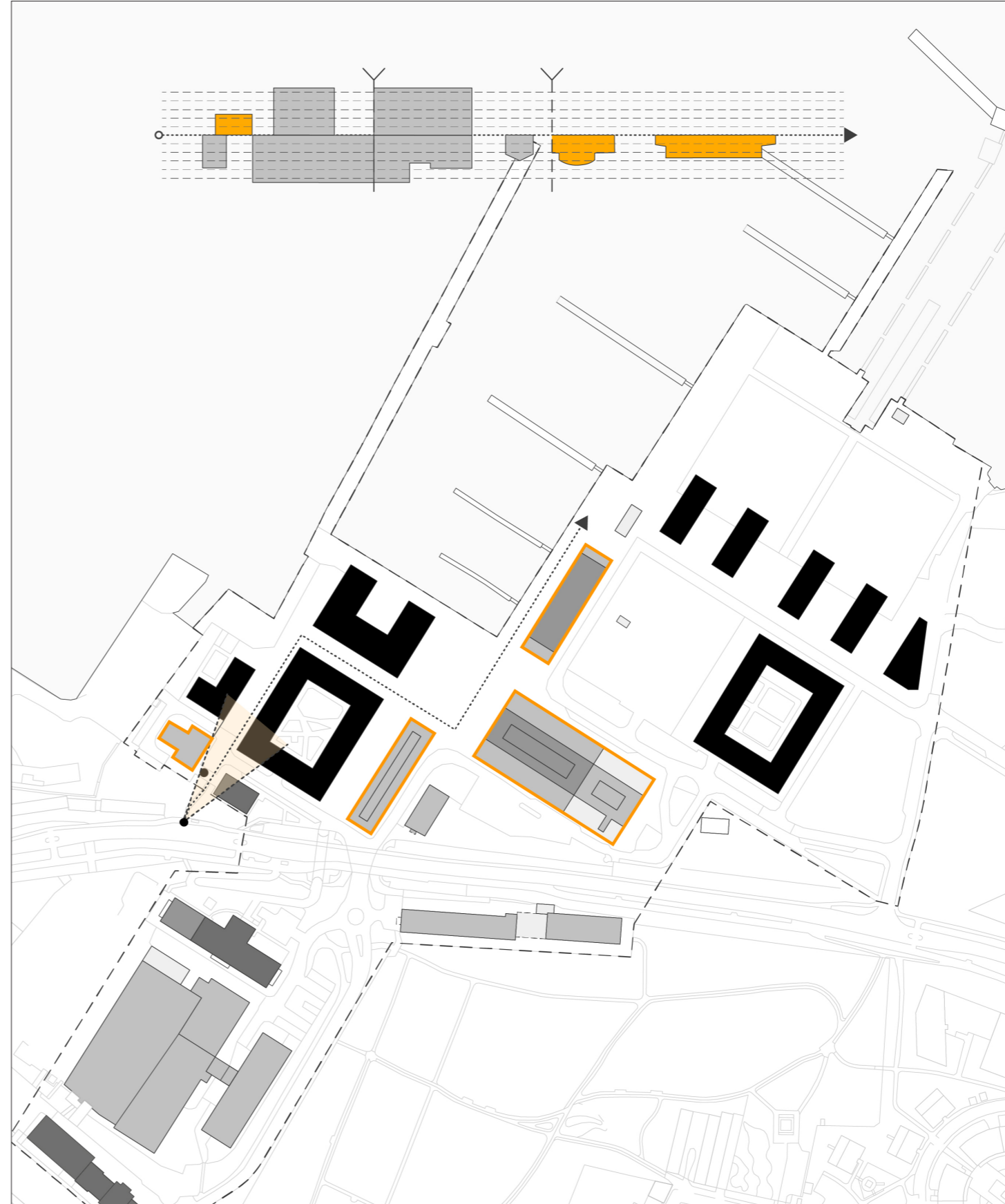
Noblessner - Reconfiguration



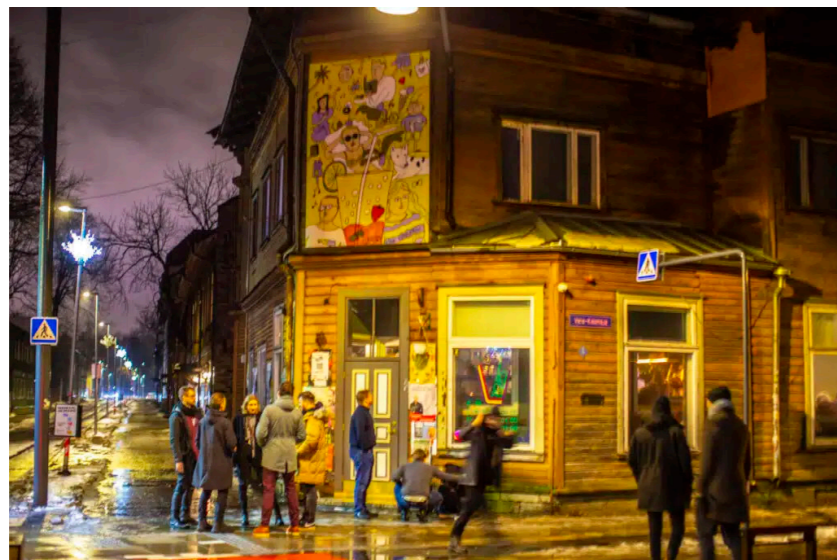
Põhjala Tehas - Imitation



Rotermann Quarter - Vibrant and High-Density Neighborhood



Noblesner Quarter - Empty and Introverted Building Blocks



A Place for Daily Lives - Kalamaja



Rotermann



Noblessner

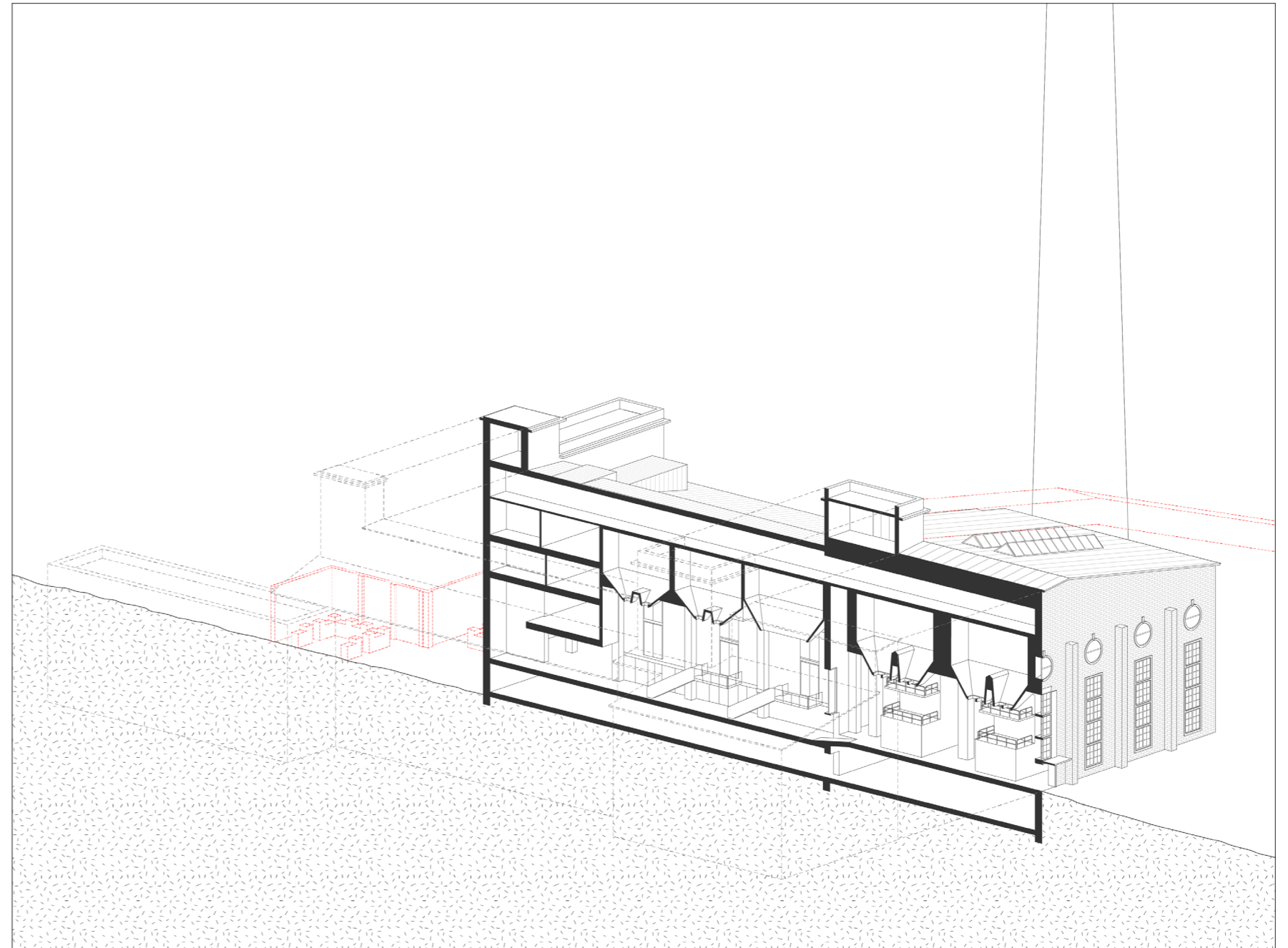
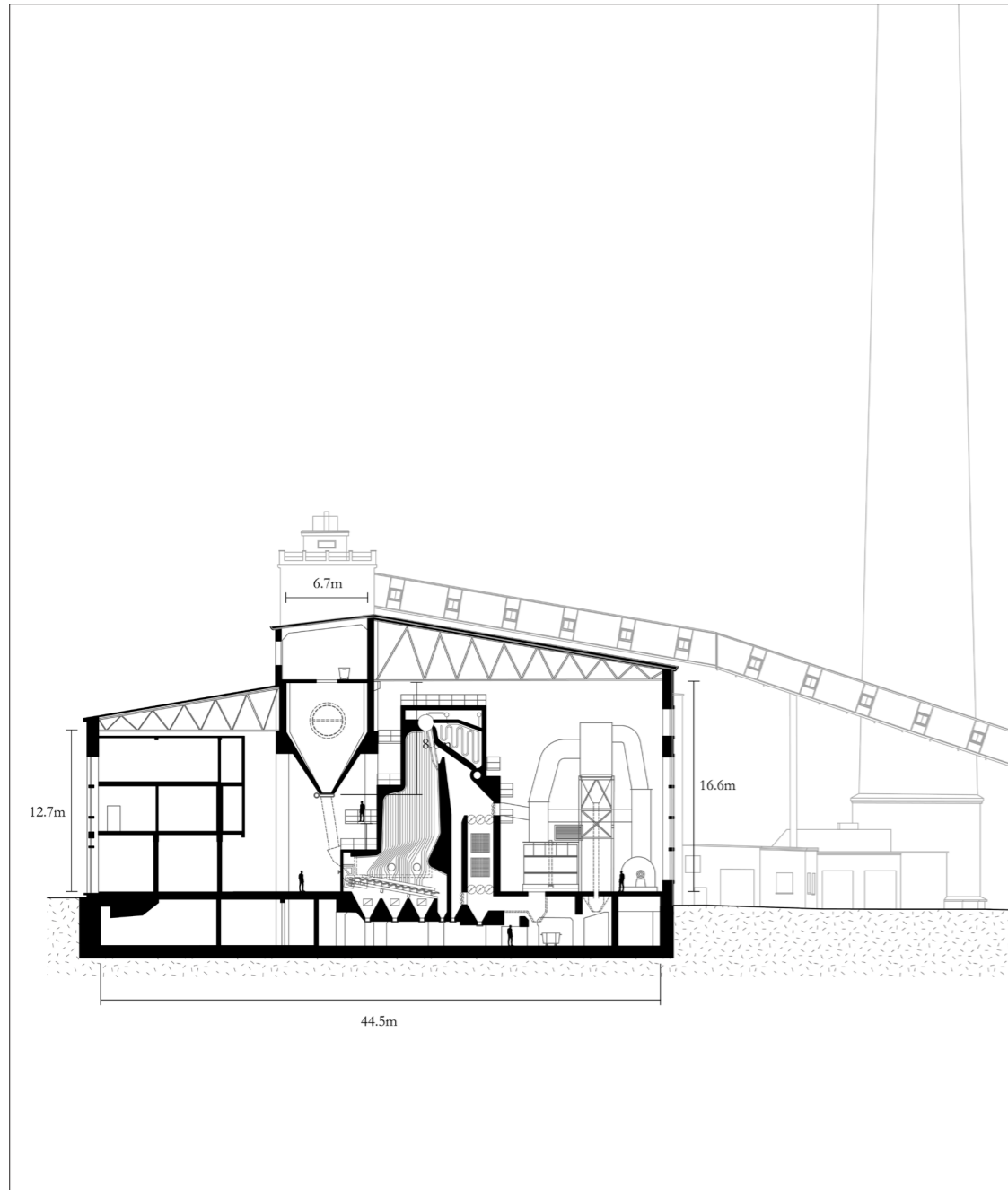


Kalamaja

Heritage being a Monument or Landmark
Inappropriate Consideration for Comfortness
Lack of Variety of Spatial and Visual Experience



Centre of Attraction / Limited Function
Inducing Short Period of Stay by Users
Limited Potential Users of the Space



How renovation amplified/overcame the potential/limitation of Industrial Heritage

How can industrial heritage be reconfigured to enhance the public inclusiveness of new urban redevelopments, with regard to its unique provision of spatial and visual experience?

Problematization

Methodology

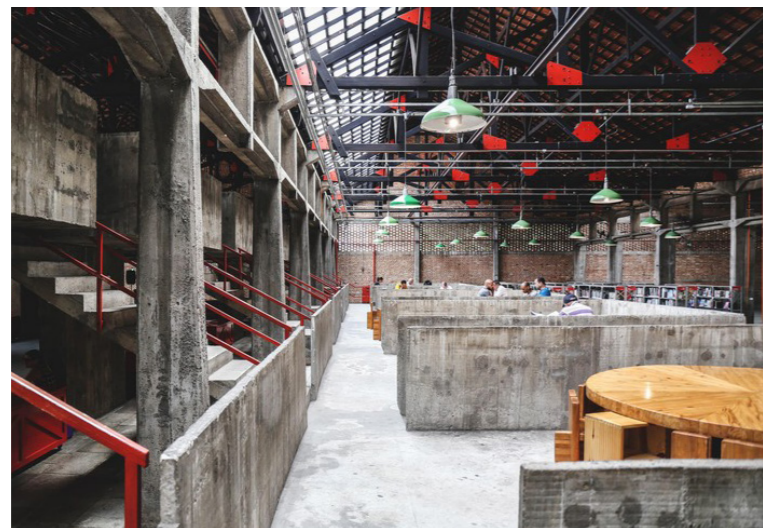
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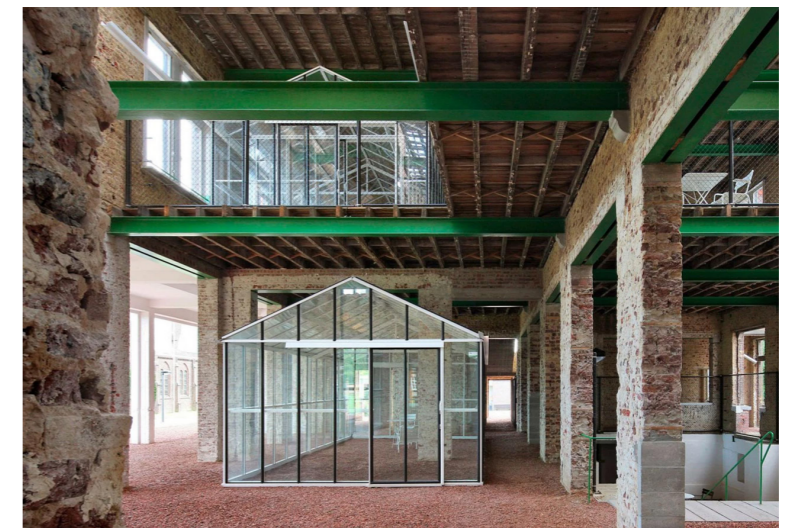
SESC Pompeia

Preserving Existing Activities
 Permeable Interior Space to Public
 Nuisance of Repetition to Division of Space
 Outdoor Space Design in the Cluster



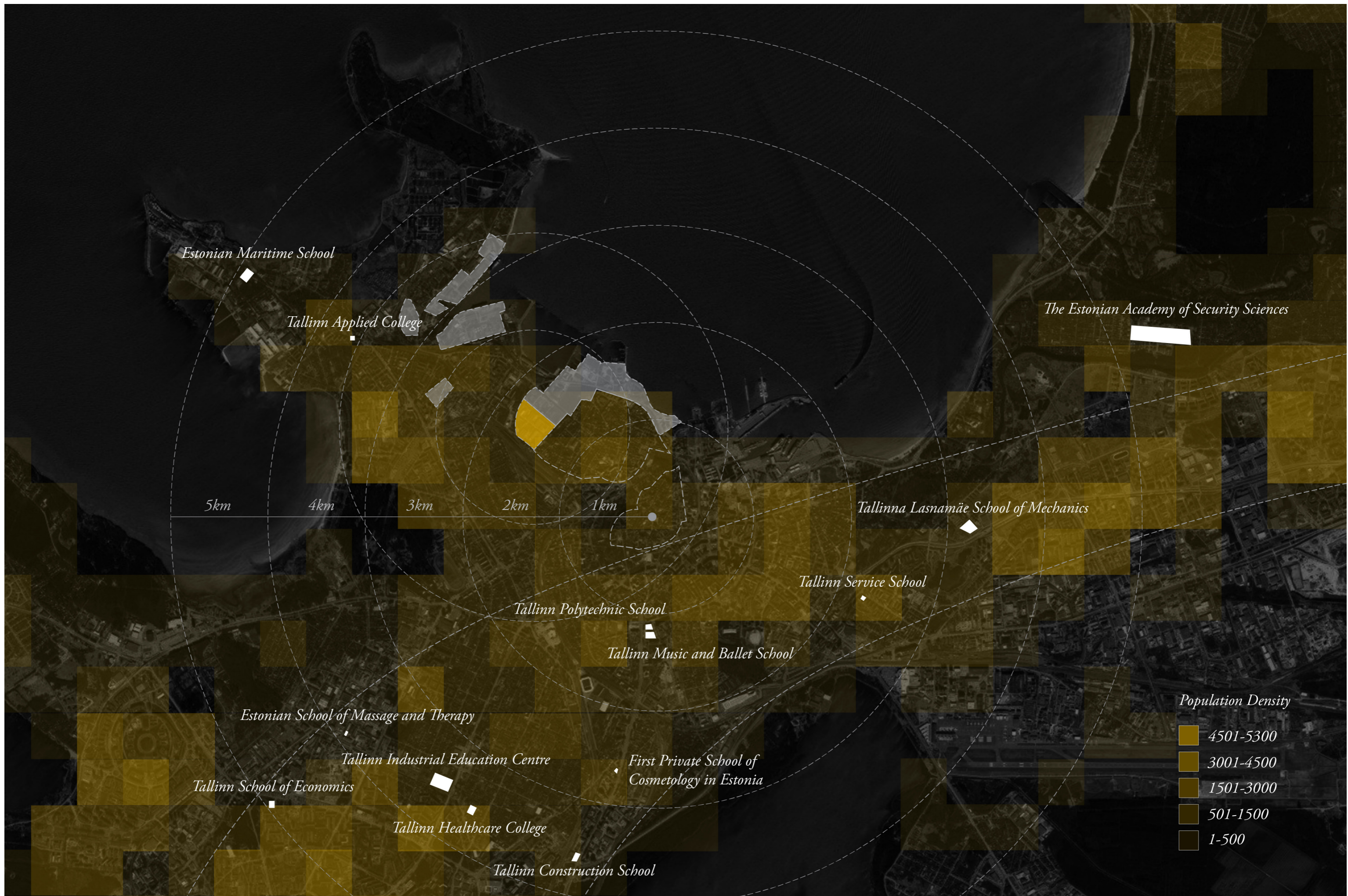
LocHal Library

Similar Original Program
 Expression of Industrial Elements
 Flexible Division of Space
 Degree of Privacy / Interaction by Level

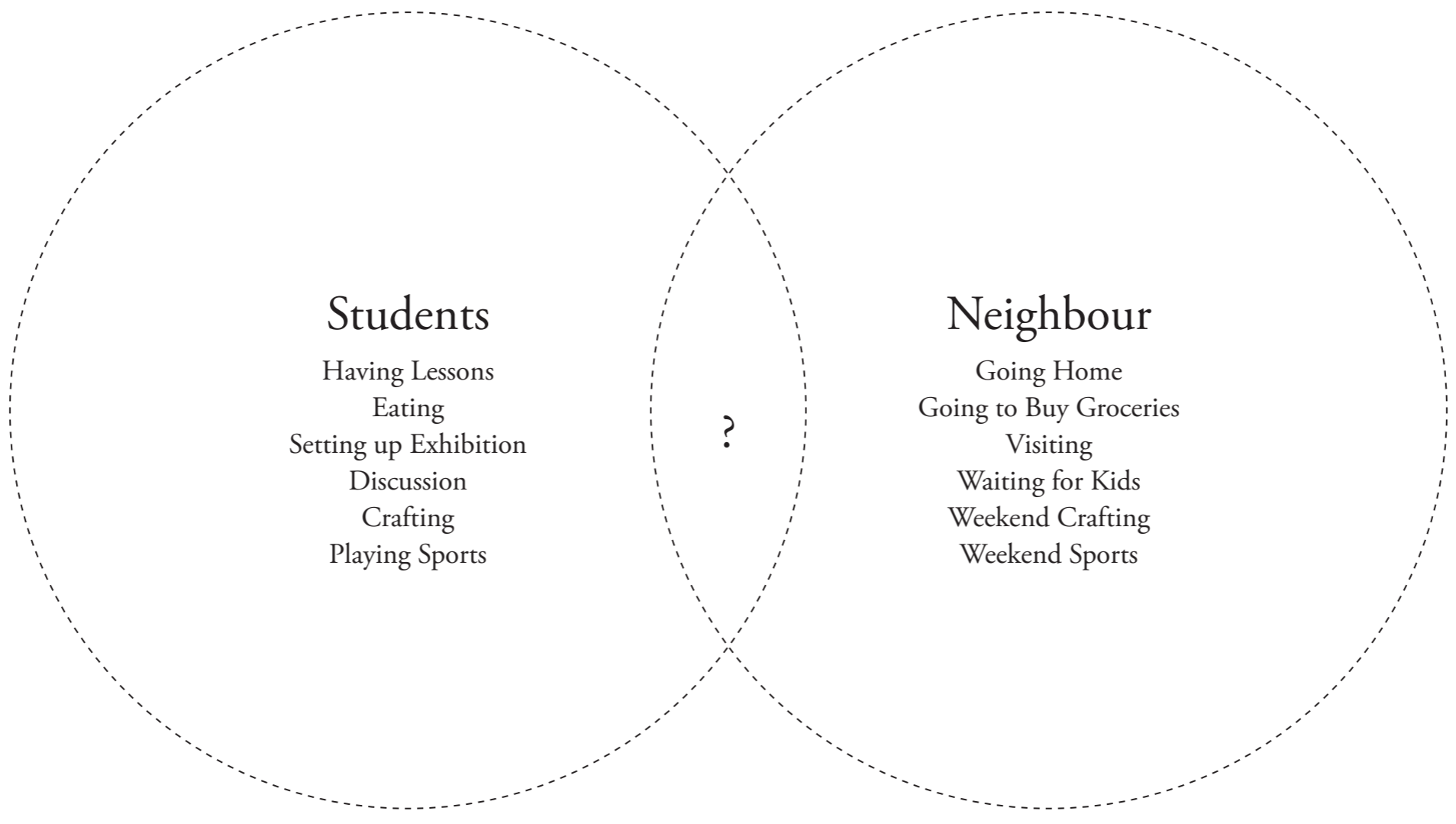


PC Caritas

Interplay between New Intervention and Existing
 Interplay between Indoor and Outdoor
 Building as Extension of Public Space
 The application of Steel Structure in Heritage



Vocational School in Tallinn



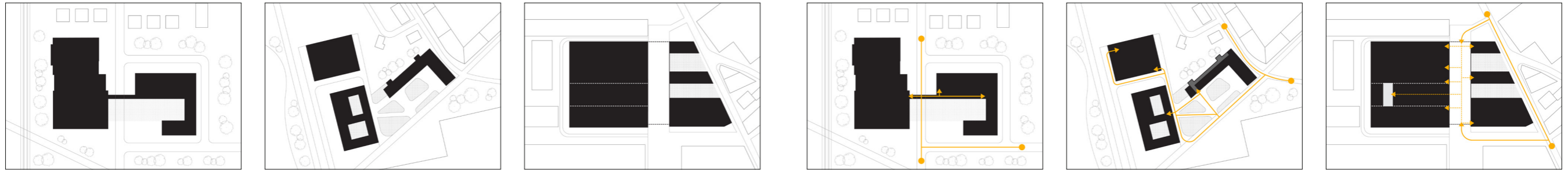
Students

- Having Lessons
- Eating
- Setting up Exhibition
- Discussion
- Crafting
- Playing Sports

Neighbour

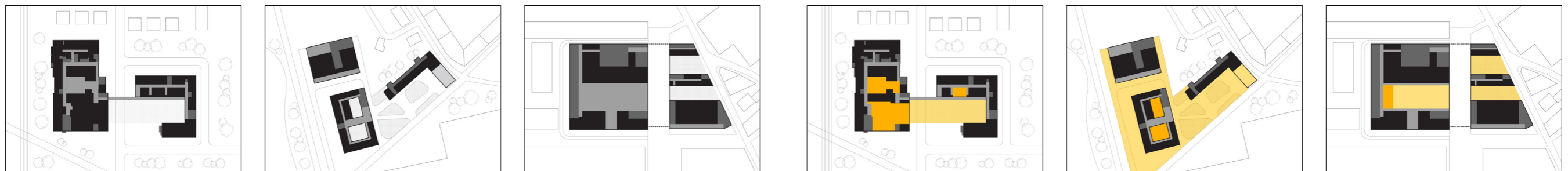
- Going Home
- Going to Buy Groceries
- Visiting
- Waiting for Kids
- Weekend Crafting
- Weekend Sports

?



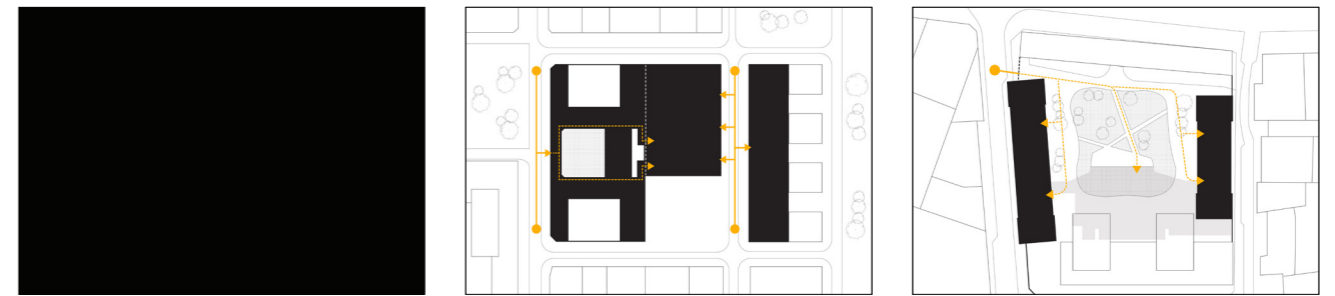
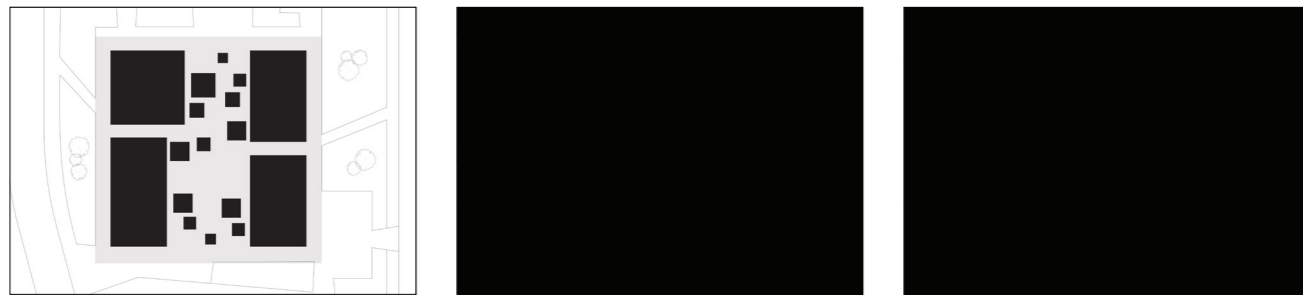
Implantation

Accessibility



Service and Circulation

Hierarchy of Space for Interaction

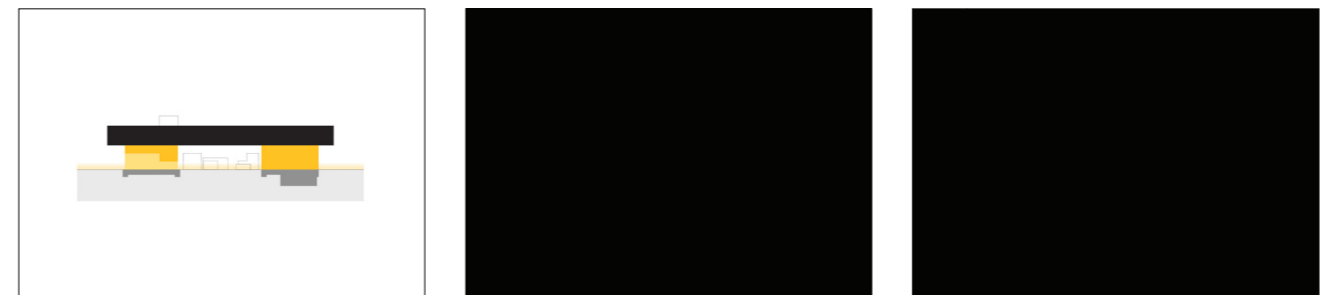
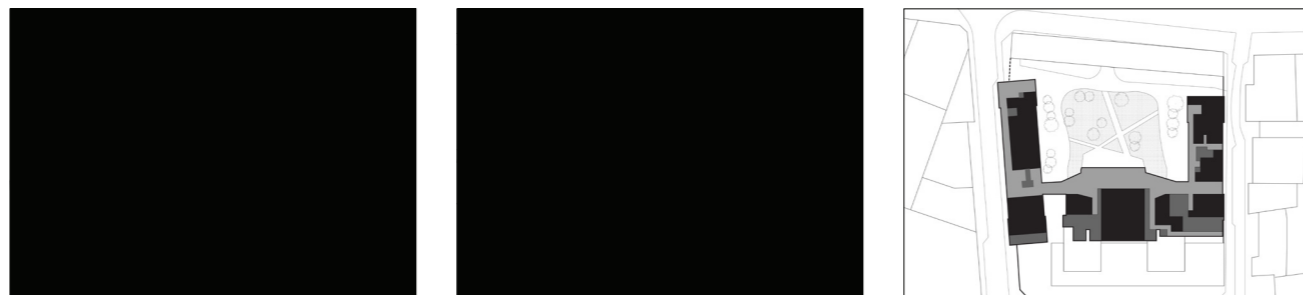
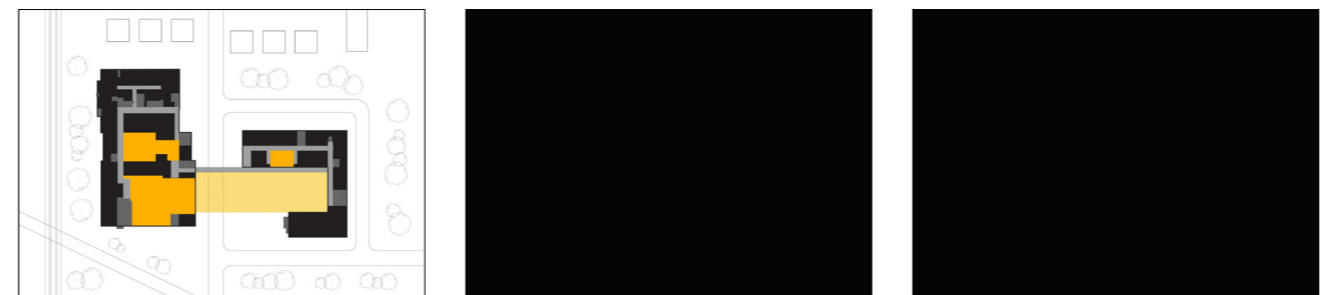
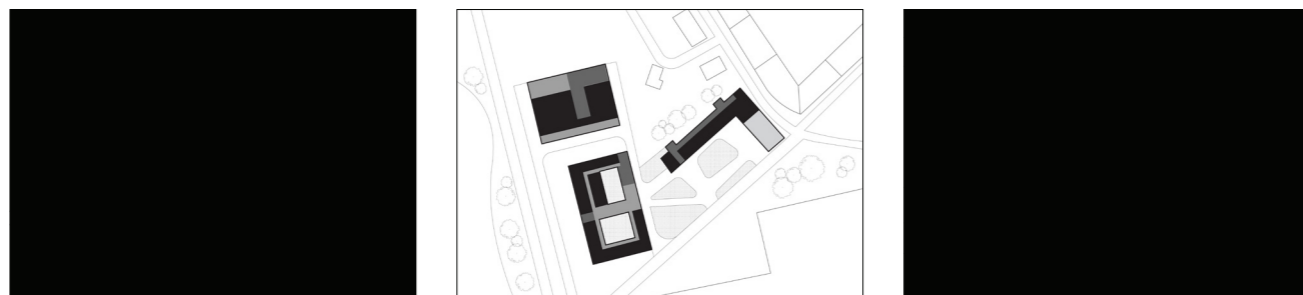


Implantation

Accessibility

Connected Block - Activate in-between space by public access, ensuring private circulation
 Fragmented Block - Bridge density difference between new buildings and old houses,

Separate Entrance for each Block - Allow separate operation and ensure convenience
 Central Main Entrance and Diversion - Create interaction through circulation

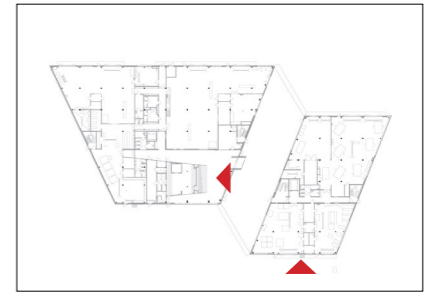
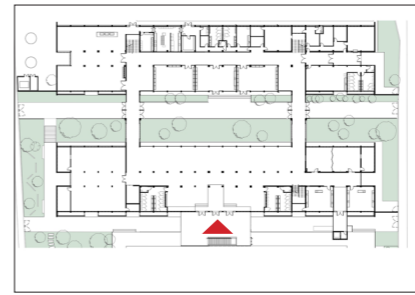
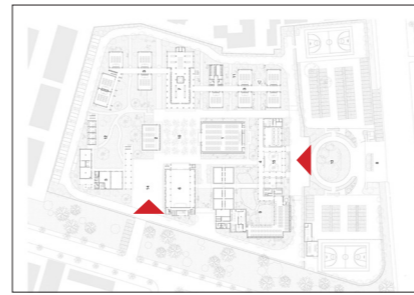


Service and Circulation

Hierarchy of Space for Interaction

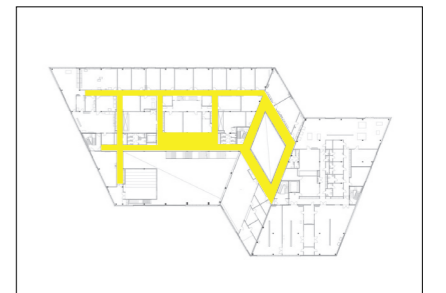
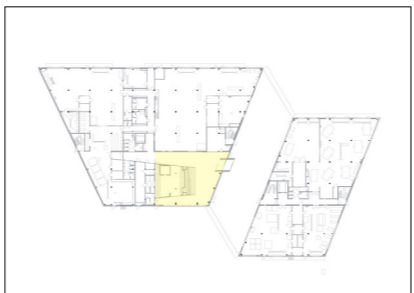
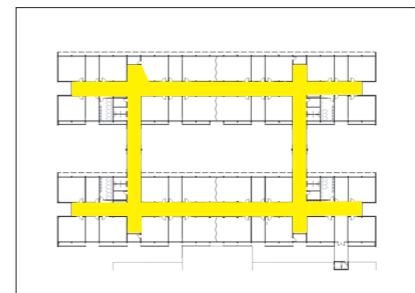
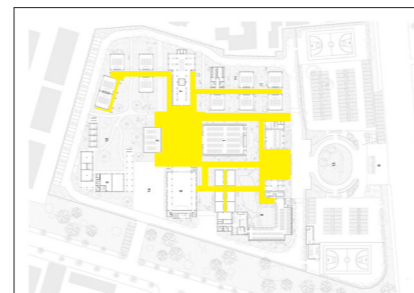
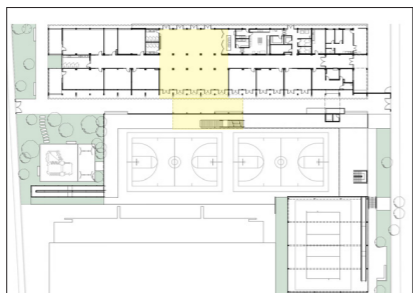
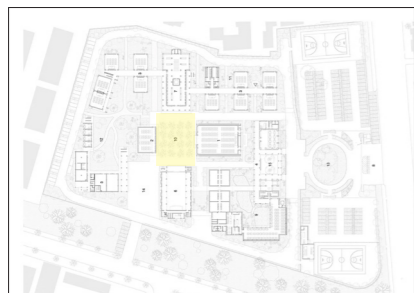
Extension of School - Arrange new block to house program with strict space requirements
 U Shaped Circulation w/ Central + Side cores - High efficiency on connected parallel buildings

Interaction Hierarchy in Sequence - User can have all levels of interaction in one movement
 Interaction Hierarchy in Section - By level difference to define the level of interaction / nuisance



Building Volumes

Campus and Entrance Composition



Location and Access of Central Space

Shape of Circulations and Classroom Arrangement



Building Volumes

Connected Volumes Advantage - Variety of Private Space and Outdoor Space
 Connected Volumes Disadvantage - Fewer Connection Between Blocks

Campus and Entrance Composition

Shared Campus - Make Use of the Variety of Teaching Space, Cater for more Target Users
 Separate Entrance - Favourable to Individual Operation of Volumes



Location and Access of Central Space

Foyer (Indoor+Covered) - Welcoming Gesture, Catering All Climate
 Indoor Atrium (Intersection) - Centre Point, Accessible from Every Part, Climate Protection

Shape of Circulations and Classroom Arrangement

Linear Ring Advantage - Variety of Experience, Multiple Centre Points
 Linear Ring Disadvantage - Repetition Causes Compression

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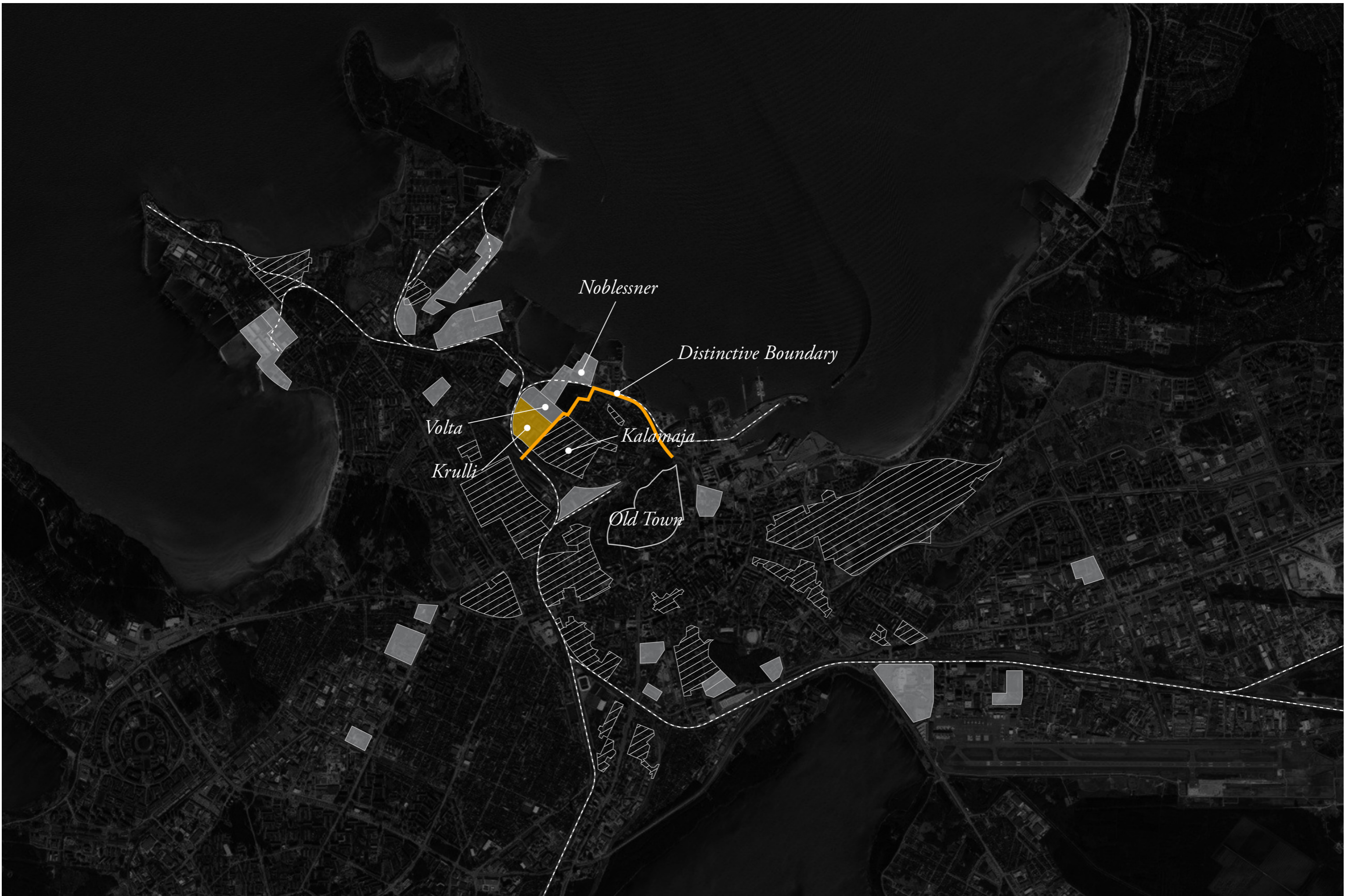
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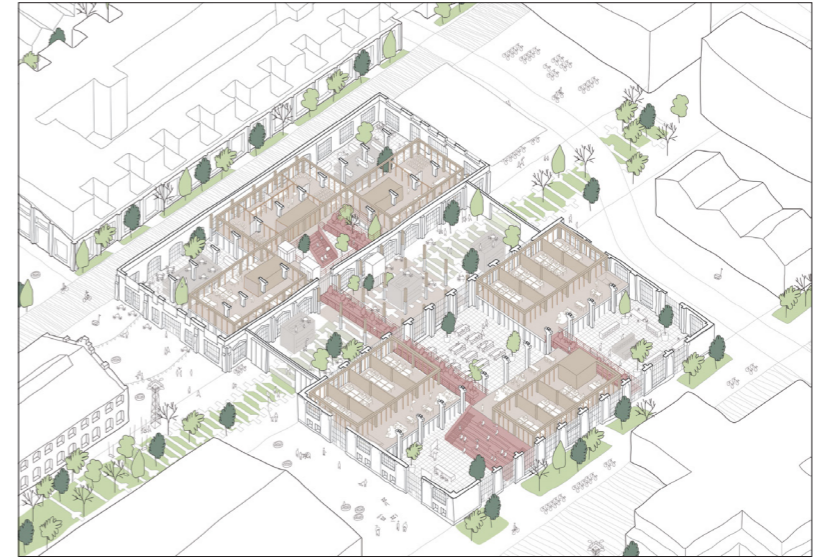
Milieu-Valued Areas in Tallinn



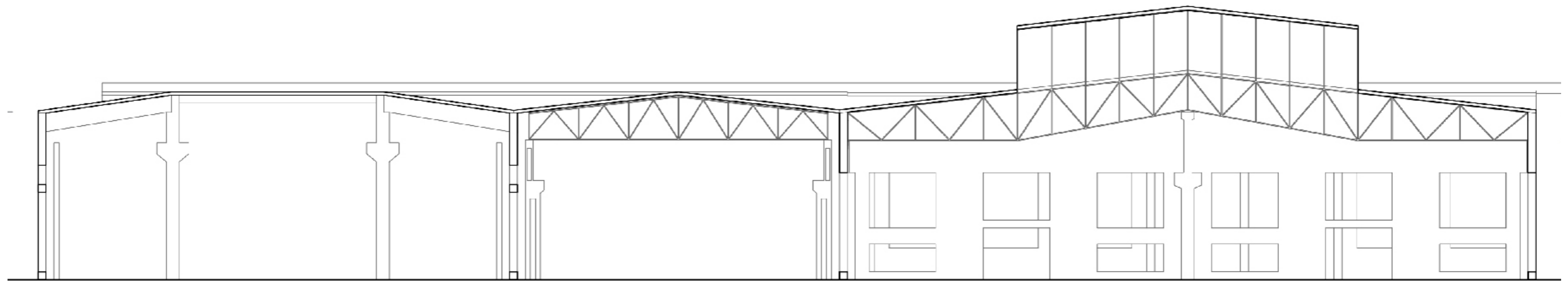
Krulli - Where Redevelopments intersect Milieu Site



Existing Site Condition



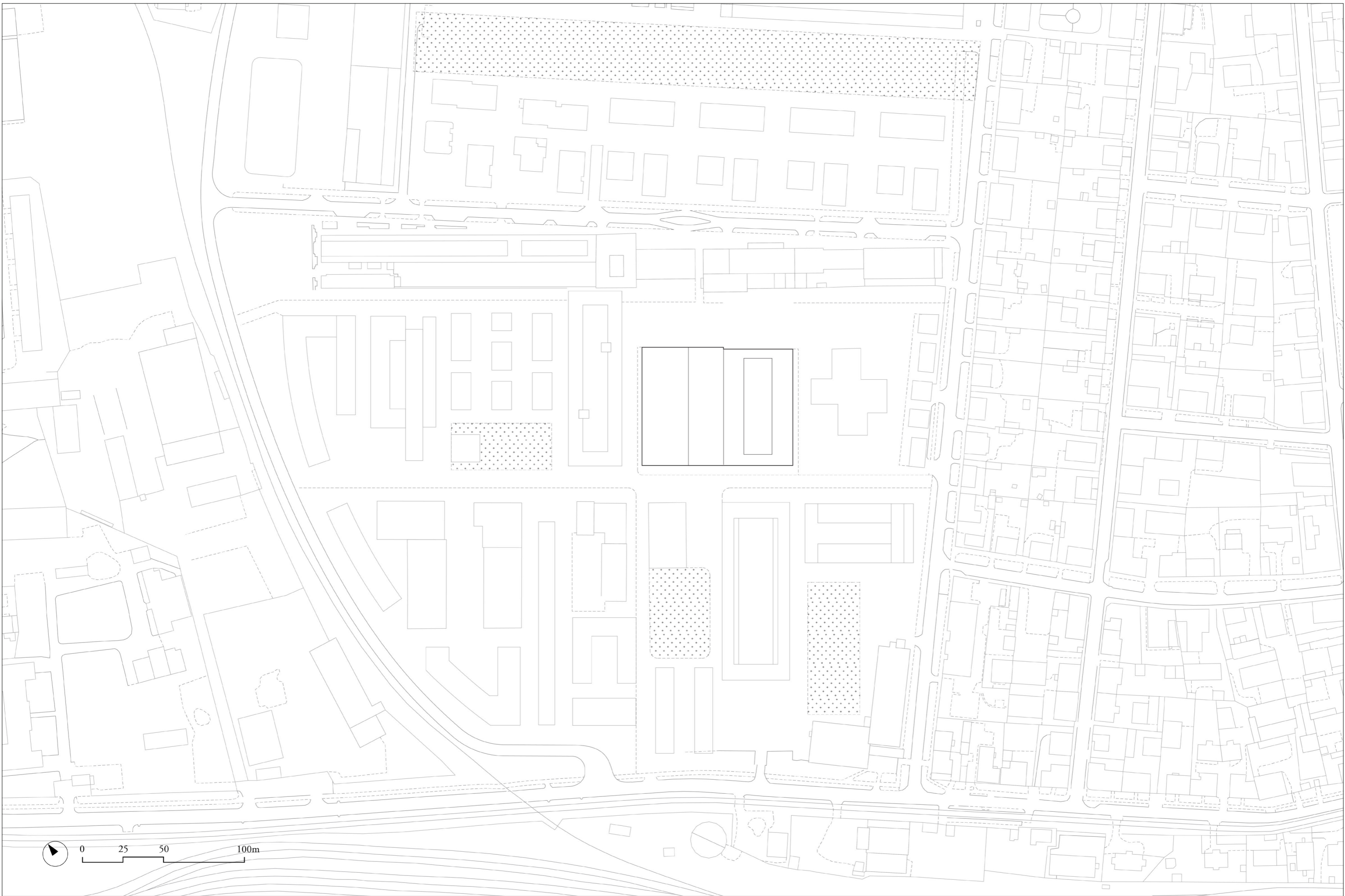
Proposed Scheme by Developer



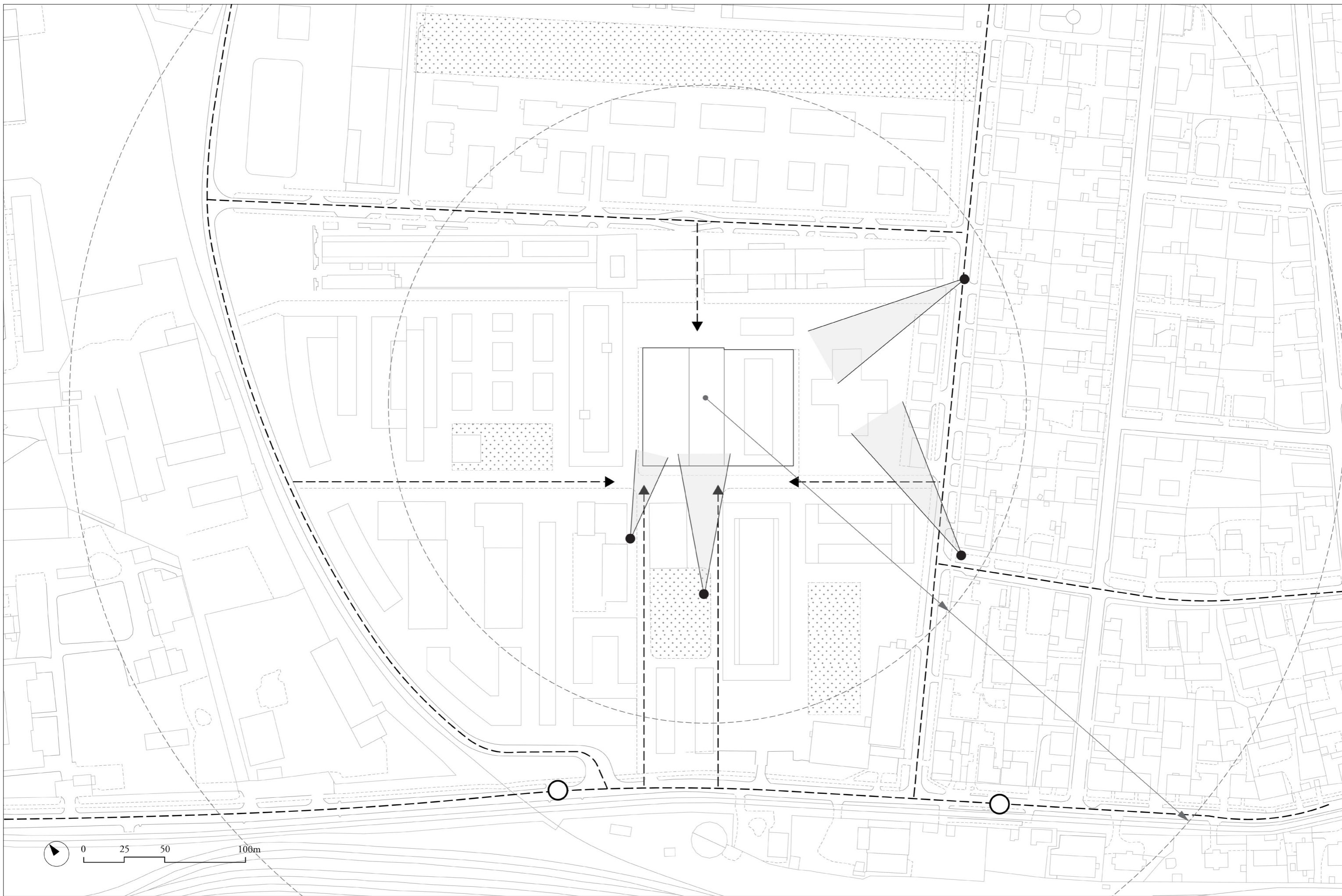
Building Existing Condition



Current Site Plan



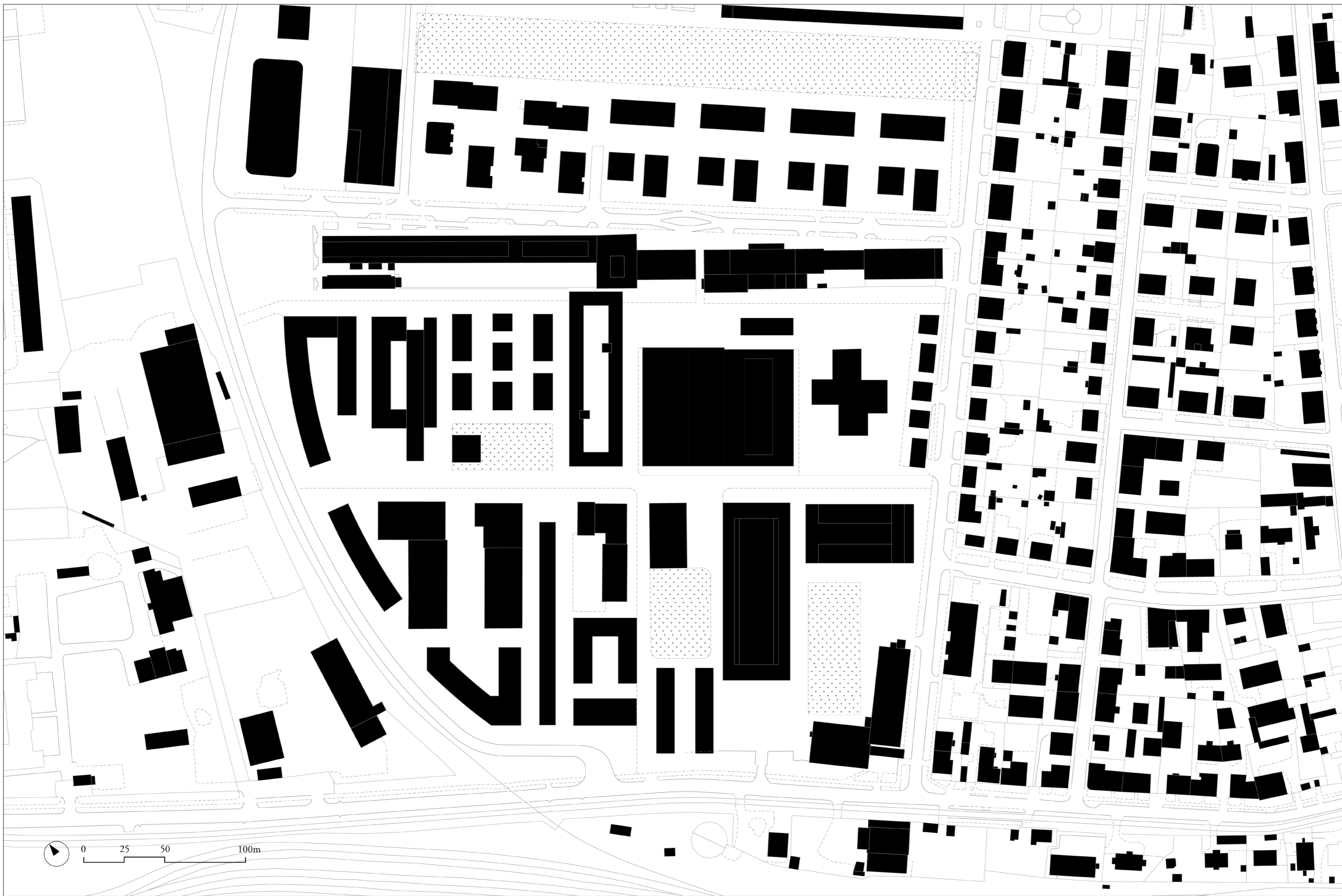
Developers' Proposal



Multiple Access from Outside



Relatively Flat Industrial Landscape



Contrast in Building Scale with Neighborhood Blocks



Regular Urban Grid

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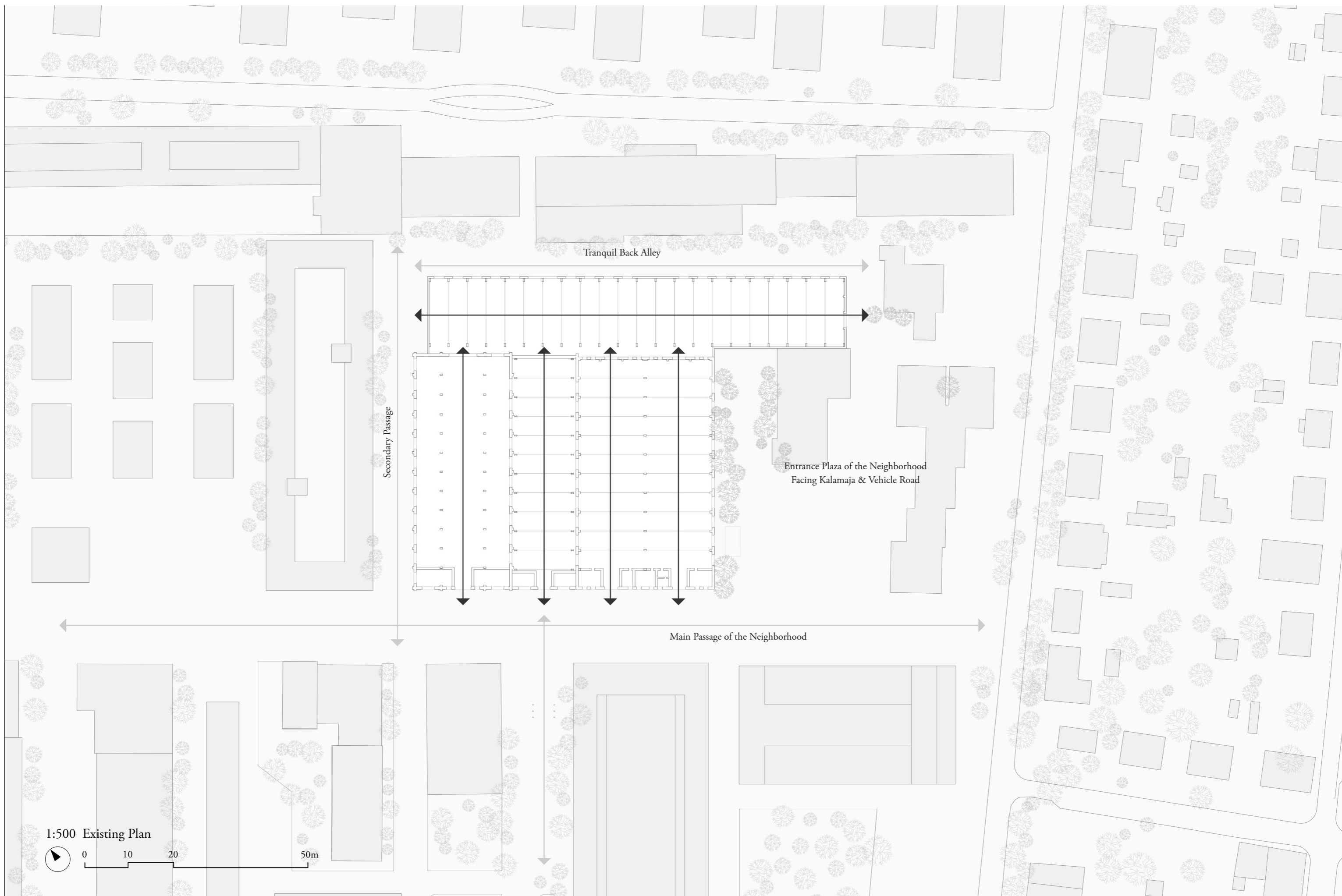


1:500 Existing Plan





Coherent Spatial and Building Grid, Blocked by Façade

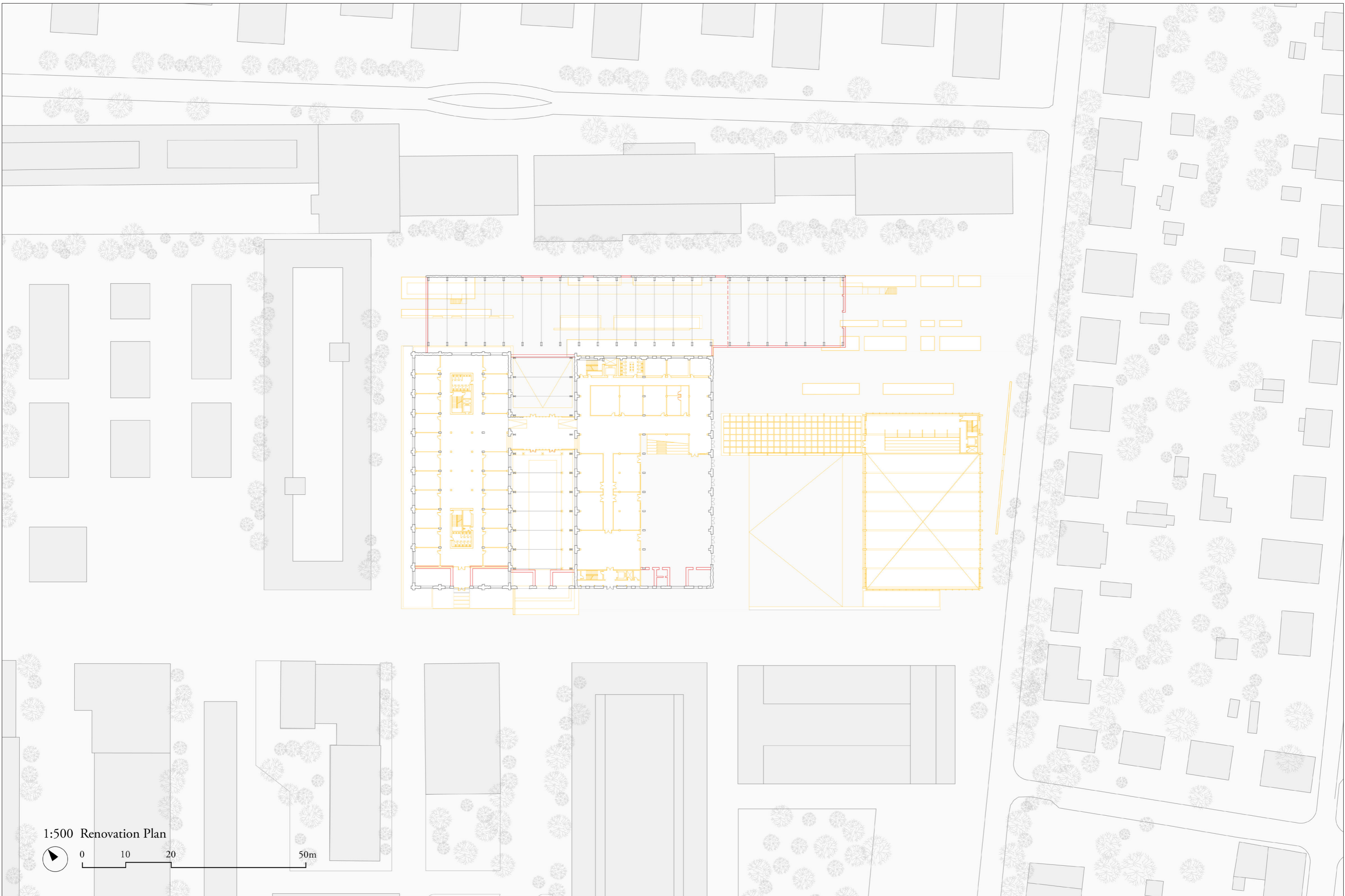


Strong Directionality of Building and Huge Footprint to Vicinity



1:500 Existing Plan





1:500 Renovation Plan



0

10

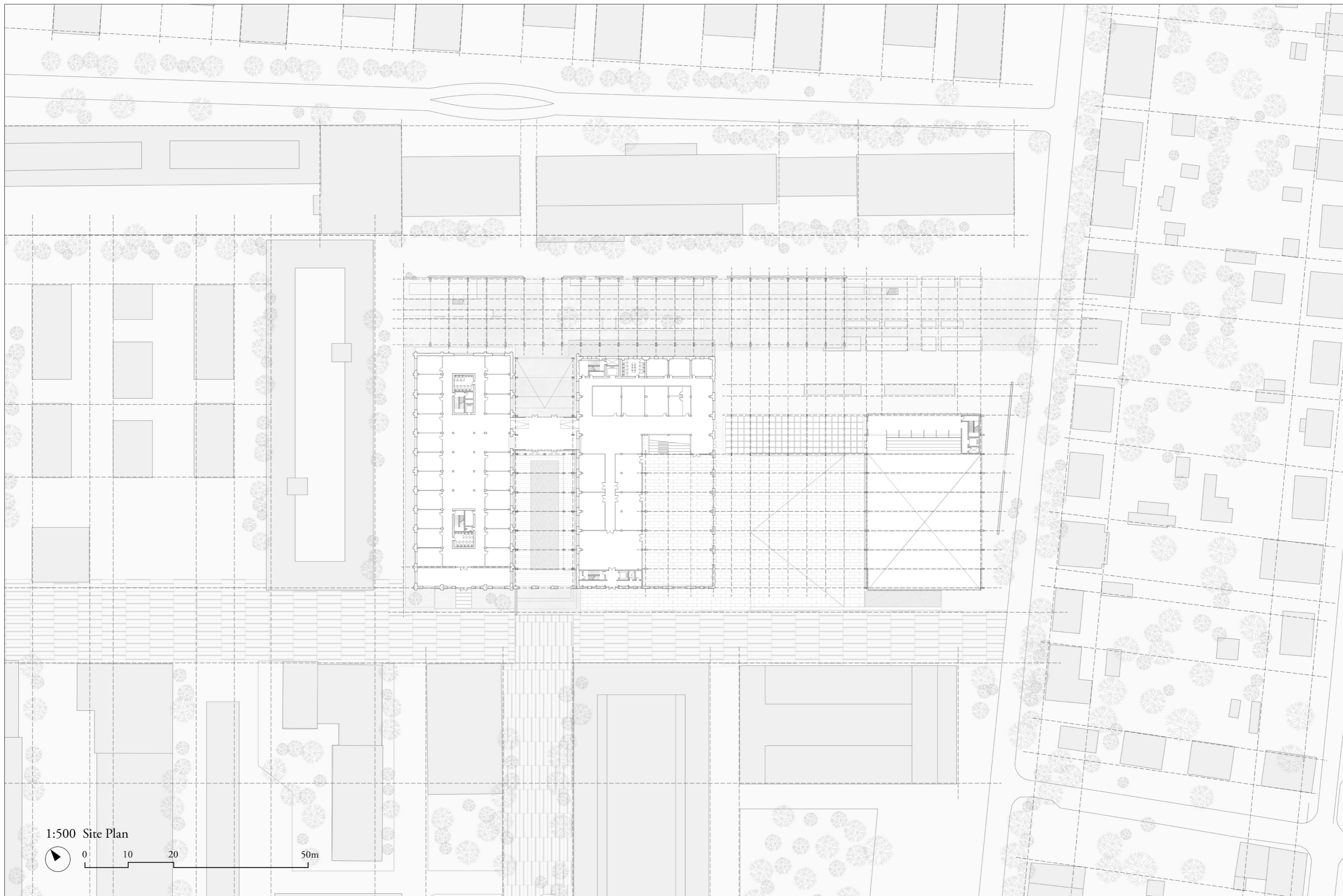
20

50m



1:500 Site Plan





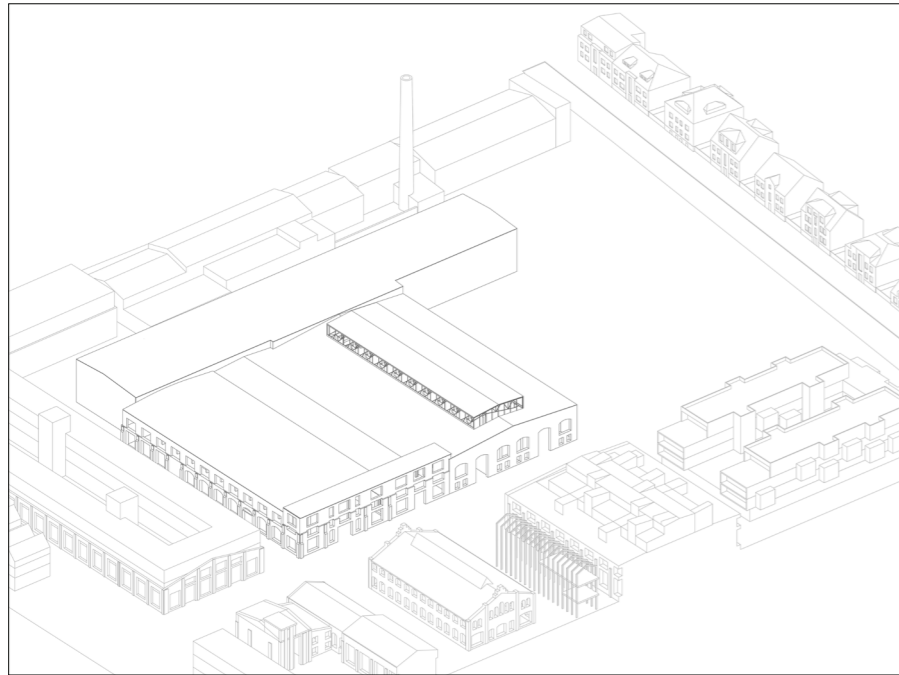
Comprehending and Bridging the Urban Grids



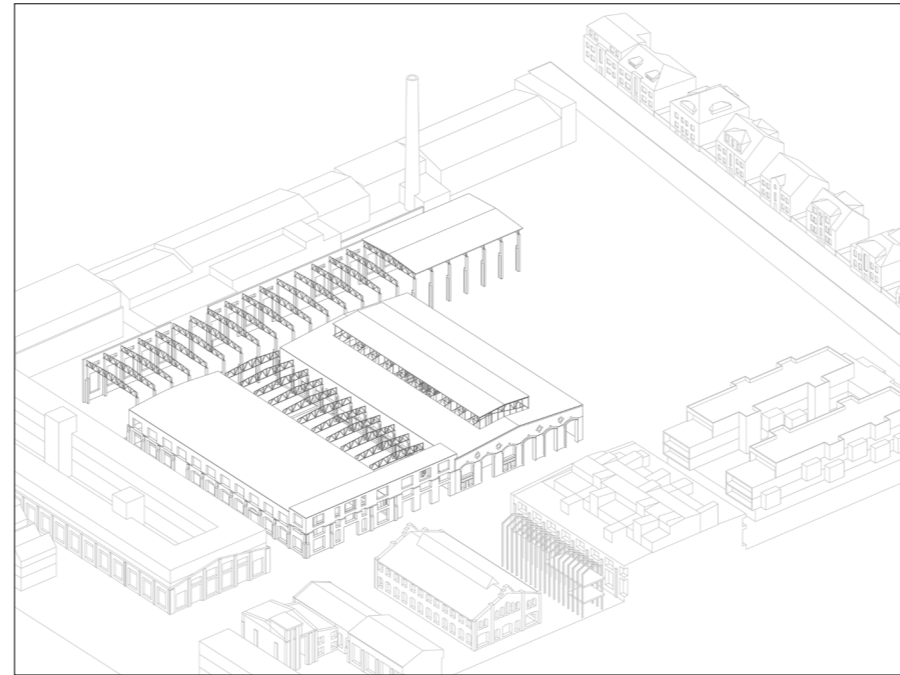
Division of Space with Respective Function



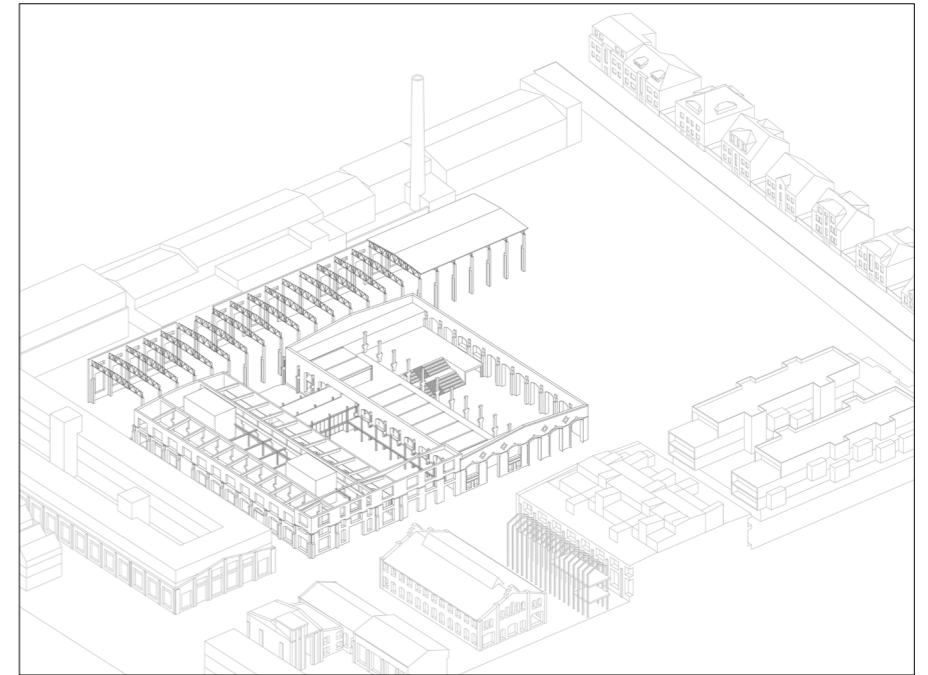
Public Accessible Areas and Circulation Pattern



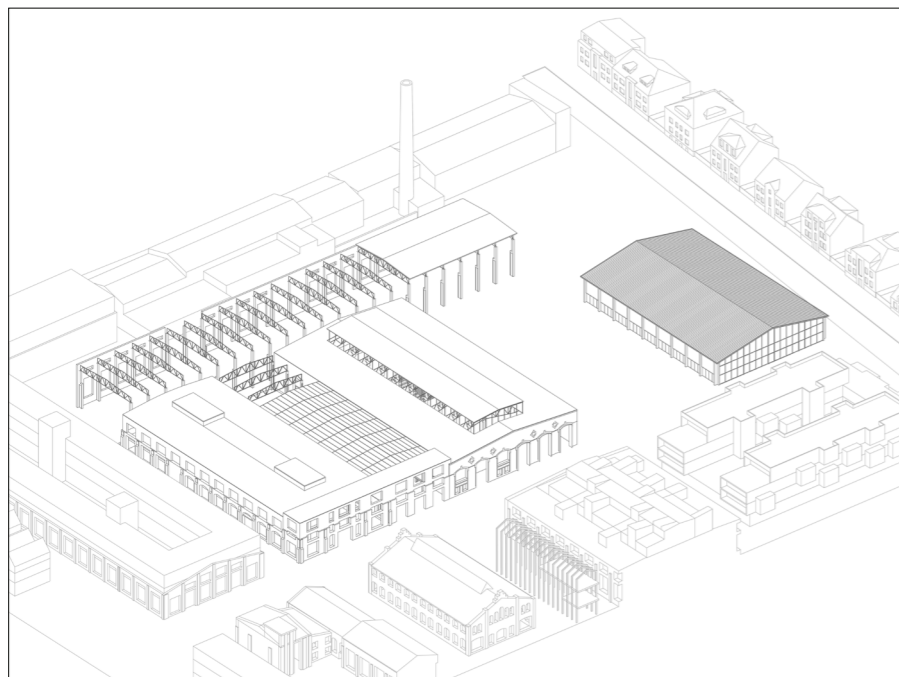
Original



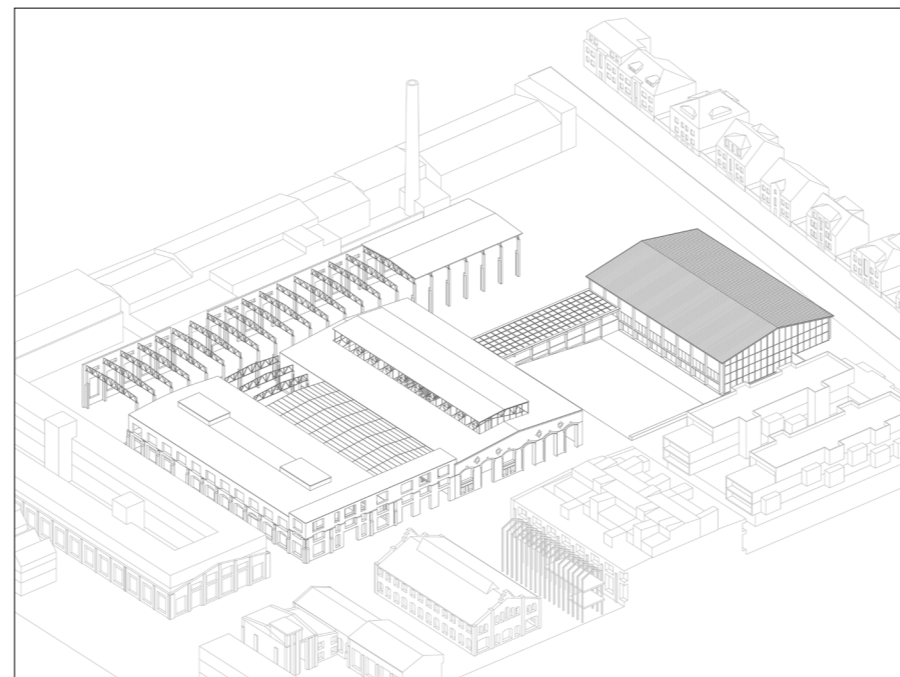
Removing Part of Structure / Façade



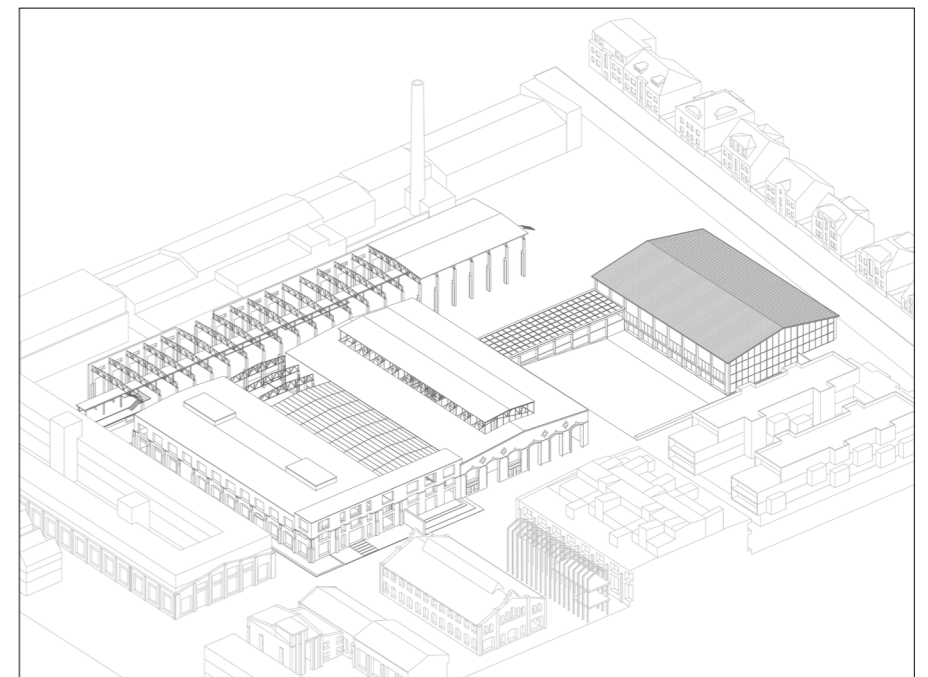
Employ New Structure Inside the Shell



School Gym Facing Kalamaja



Carve Inbetween Space > Ramp Plaza



Amplifying grid by Landscape Details

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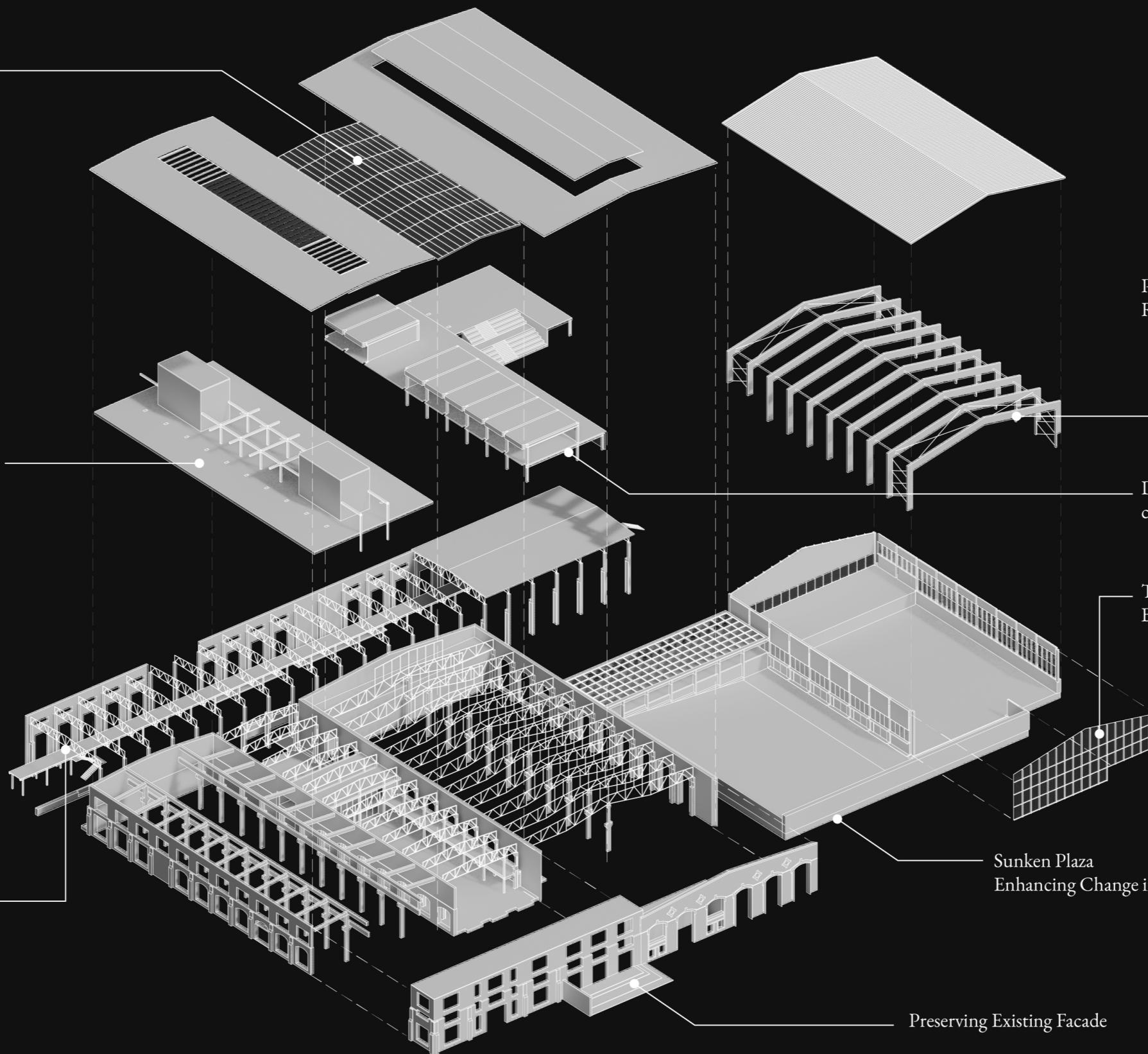
Proposed Design

Summary

Removing Existing Cover
New Glass Cover
Semi-Outdoor Atrium

Classroom Block
New Floor with Structural Core
New Structural Columns on G/F

Ruin Garden through
Removing Partial Roof
and Wall



Pitch Shaped Timber Beam Structure
Responding to Metal Truss Structure

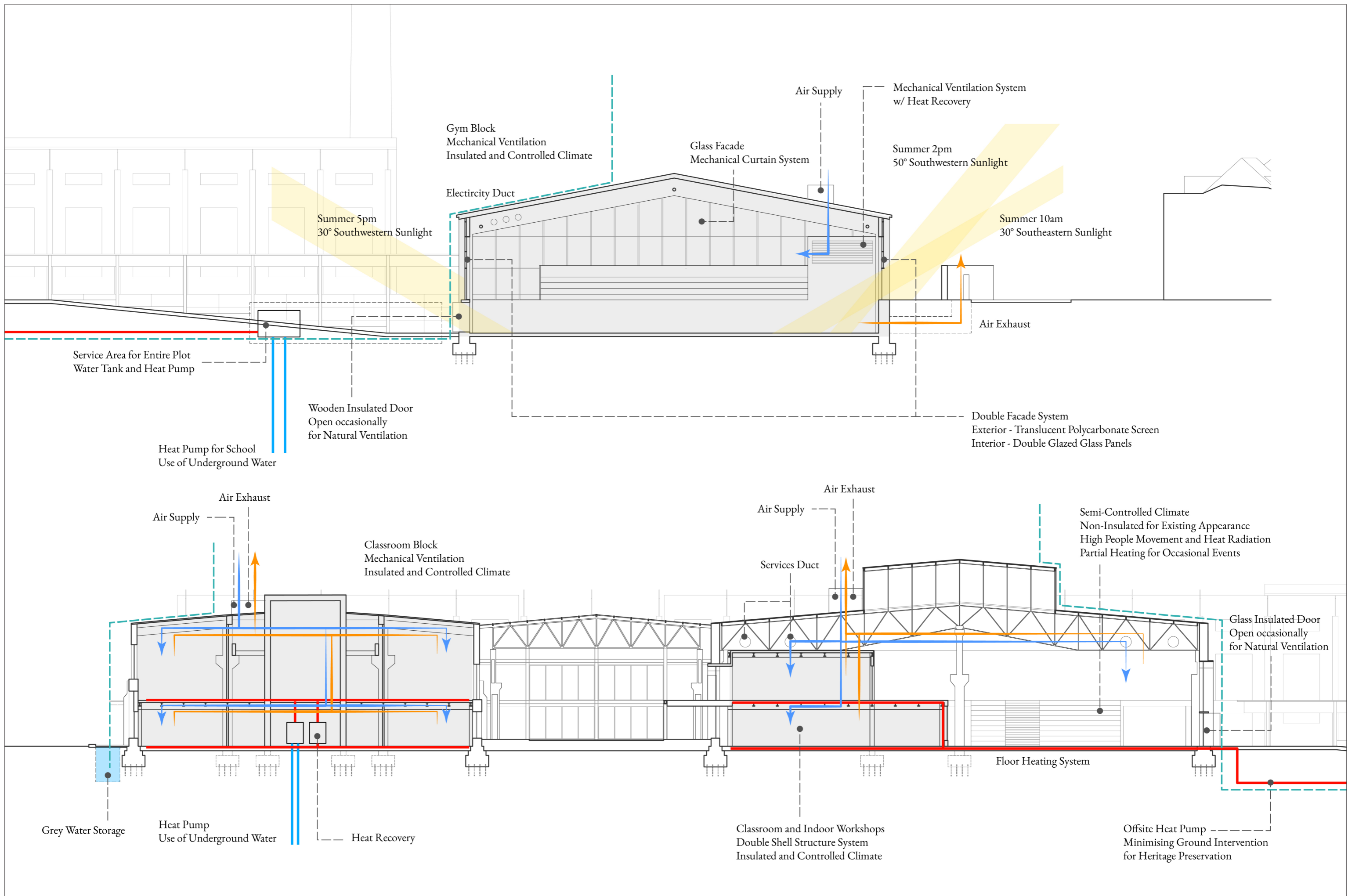
Double Shell Structure
creating Half Indoor Ruin Space

Transparency to Neighborhood
By Glass Facade w/ Curtain

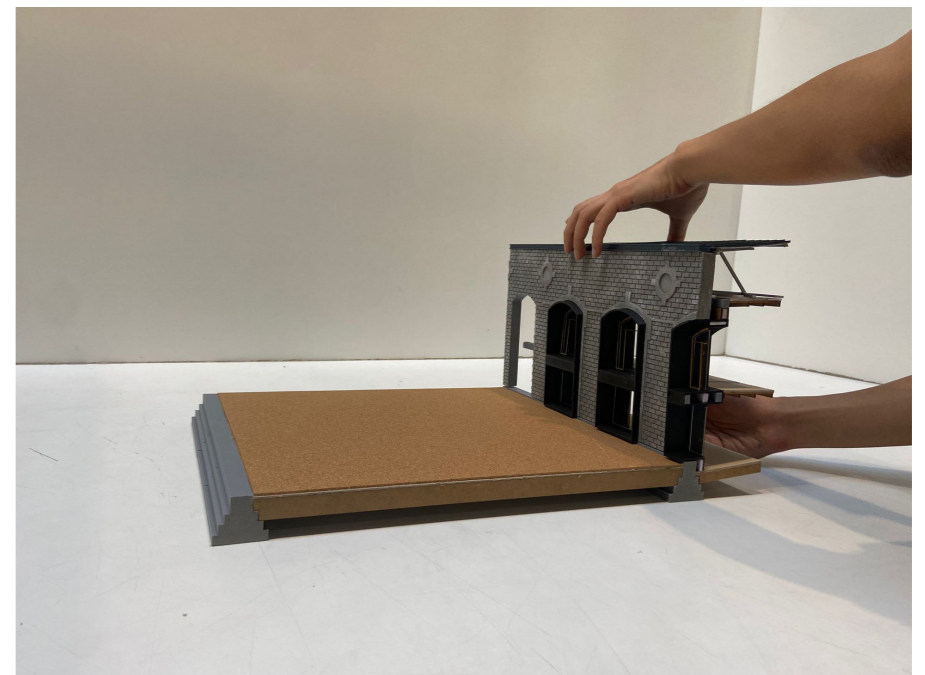
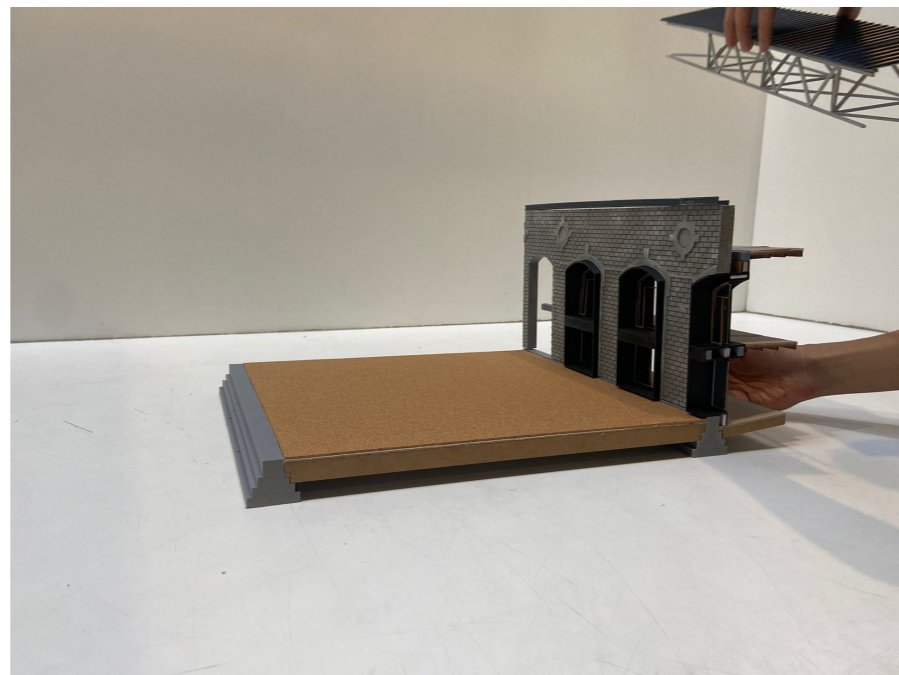
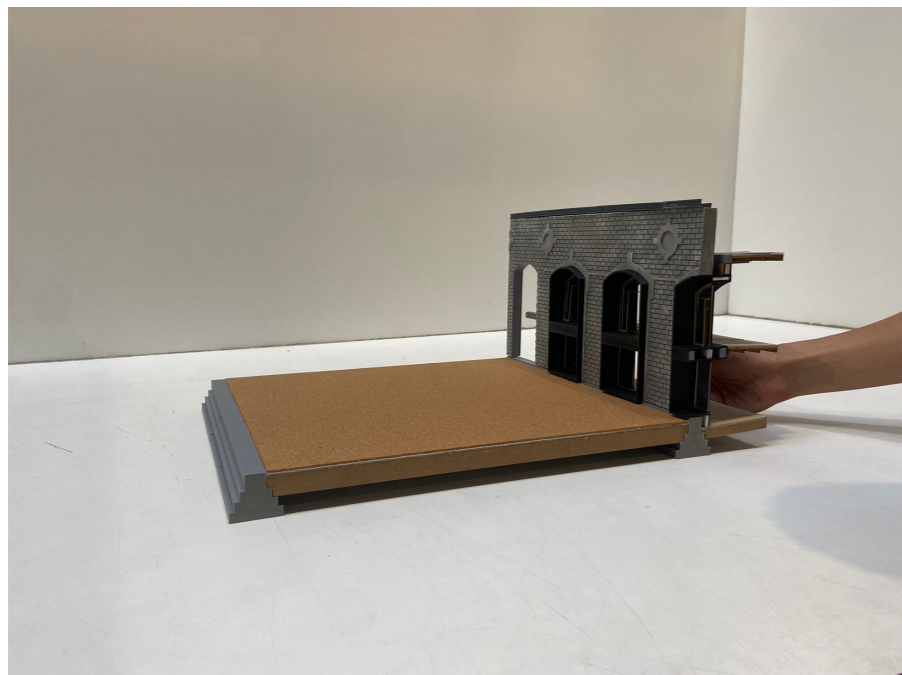
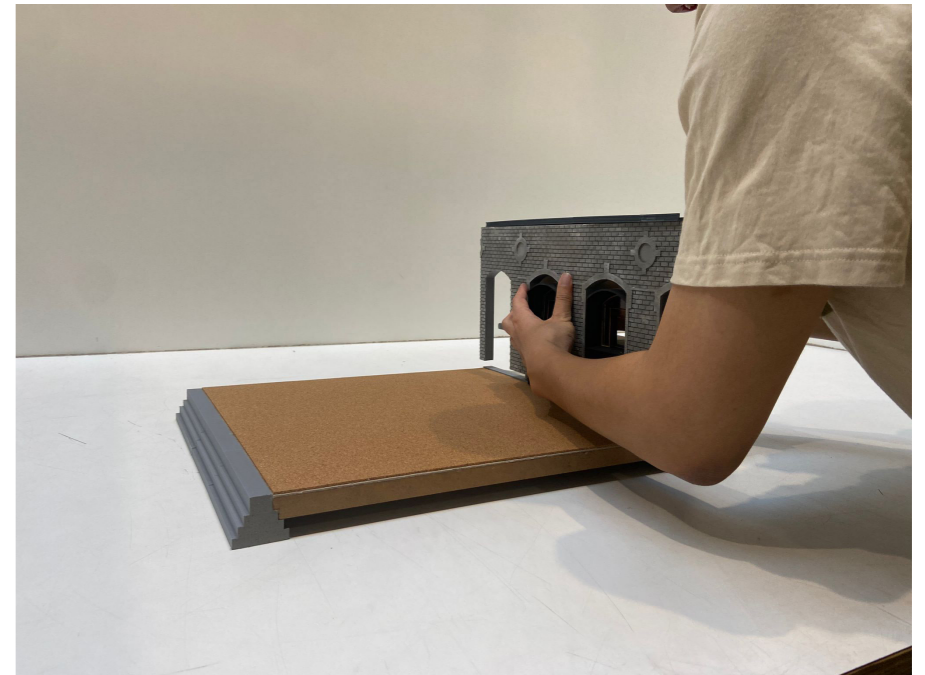
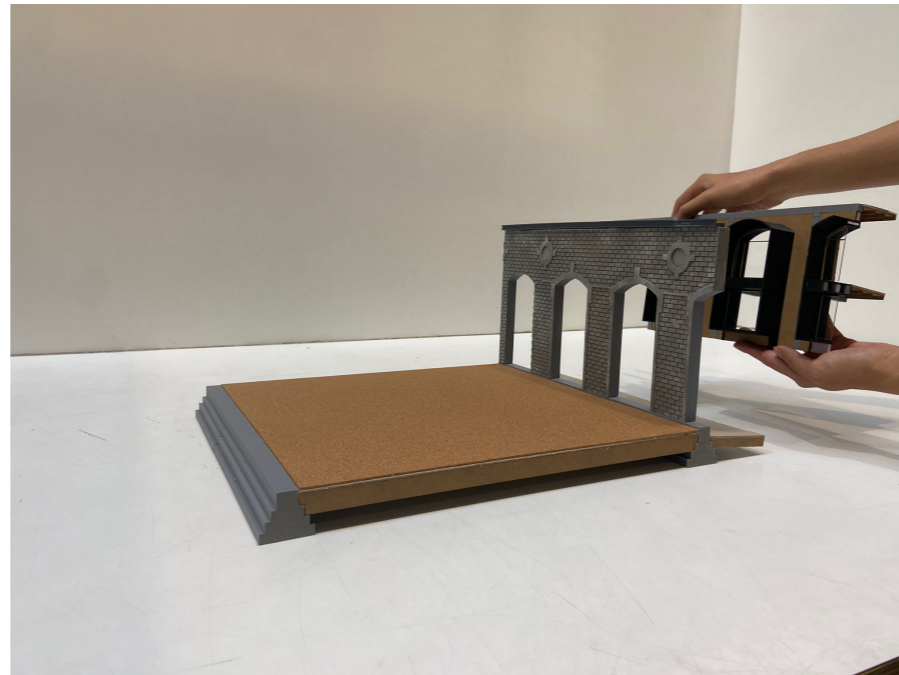
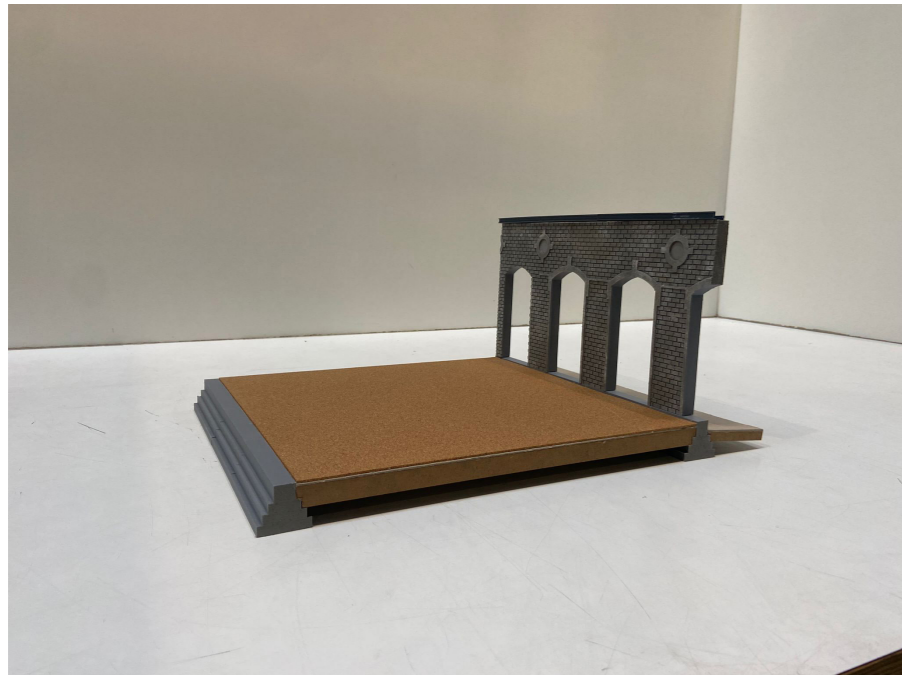
Sunken Plaza
Enhancing Change in Landscape

Preserving Existing Facade

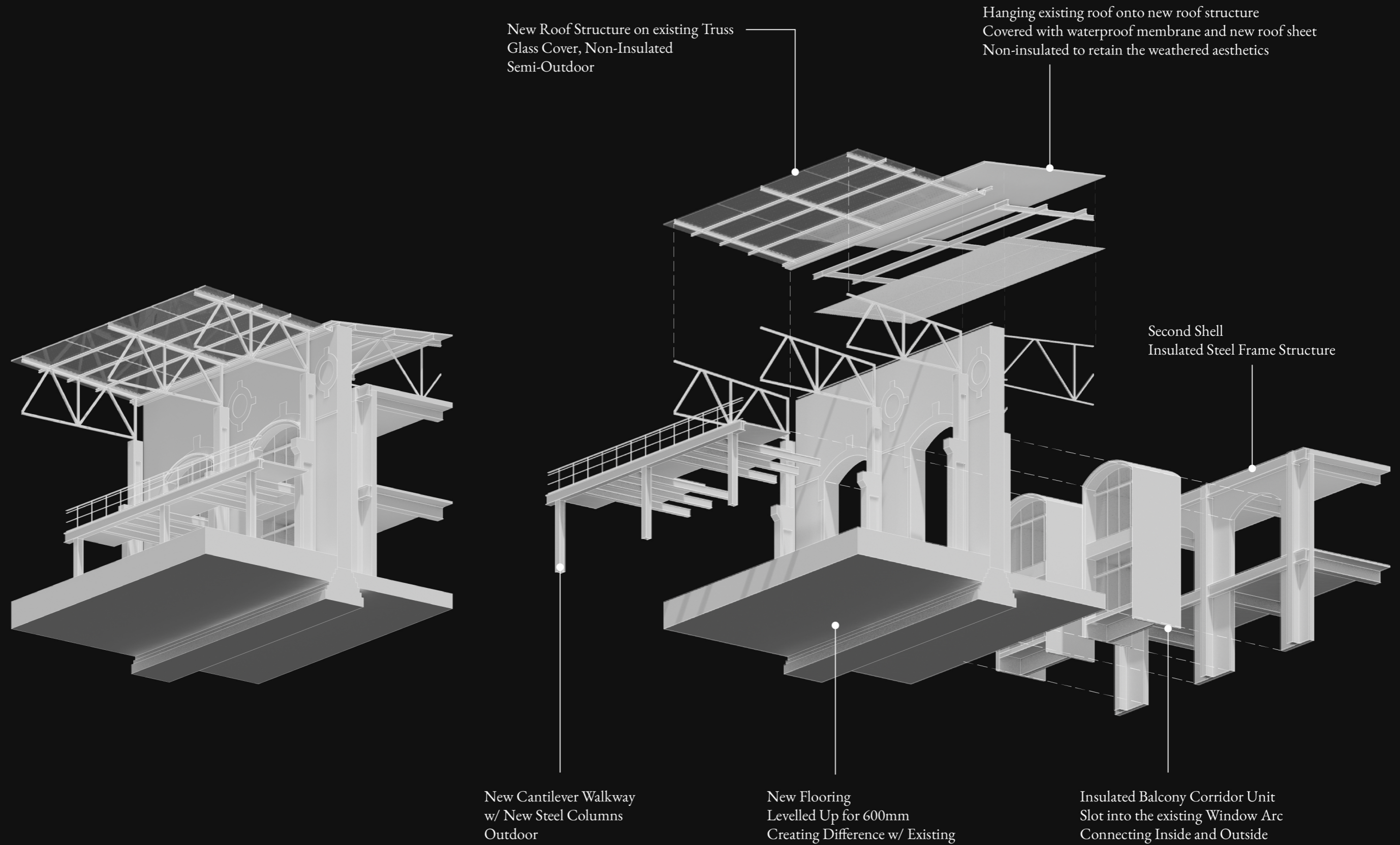
Main Structural System



Played with Insulation to diffuse In-Out Border



Physical Model demonstrating the Envelope Interface System



Envelope Interface System

Problematization

Methodology

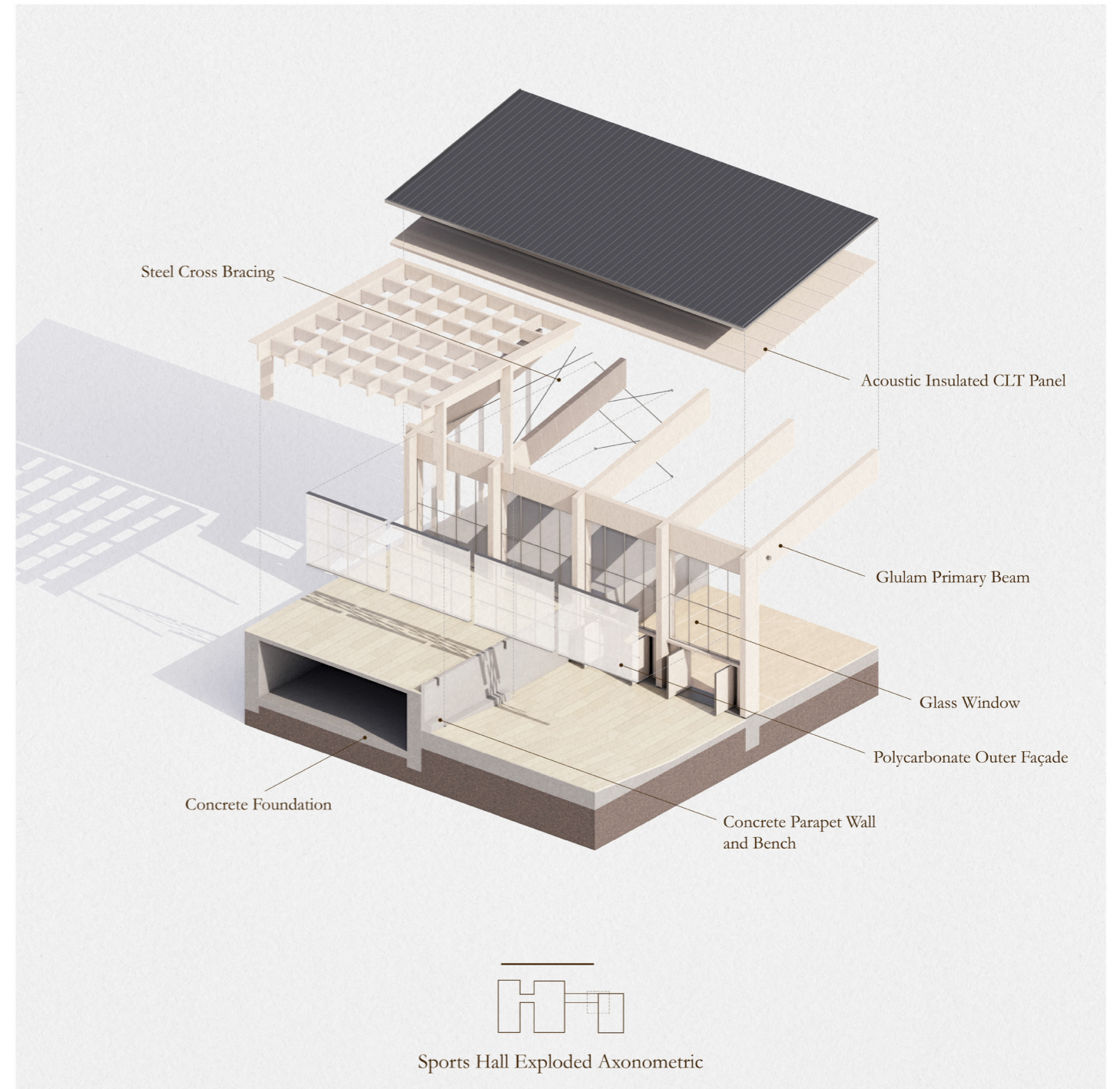
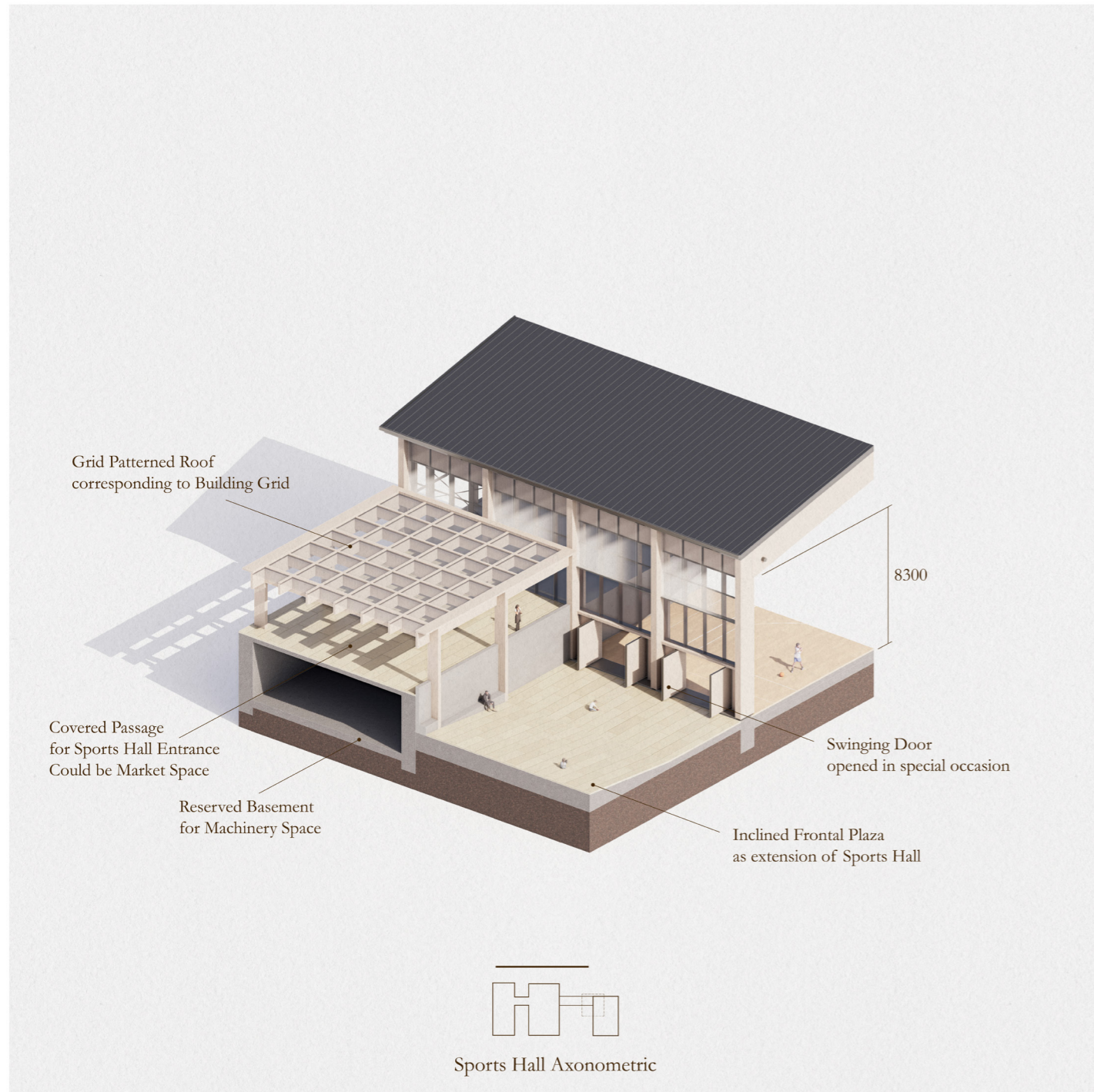
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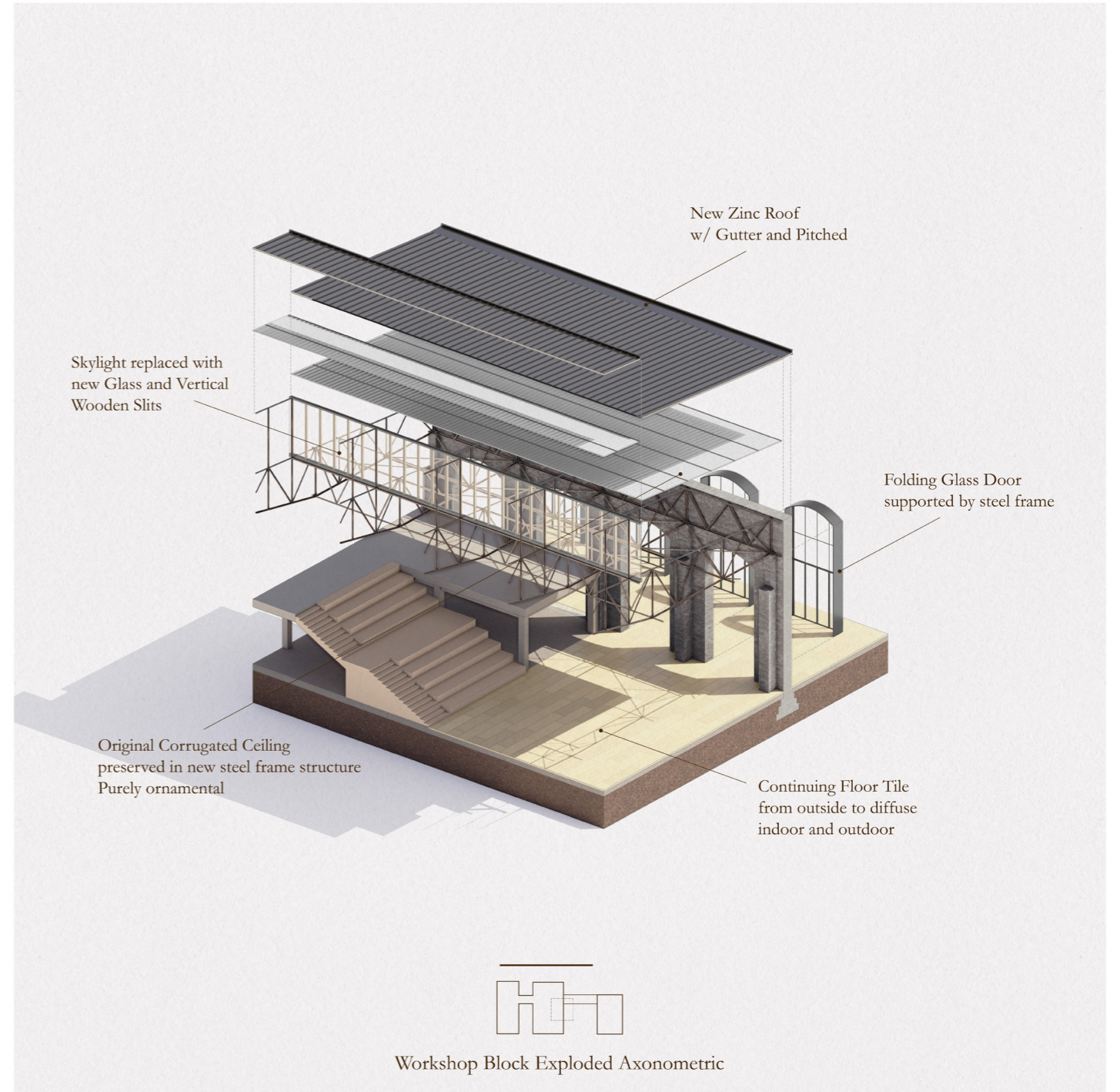
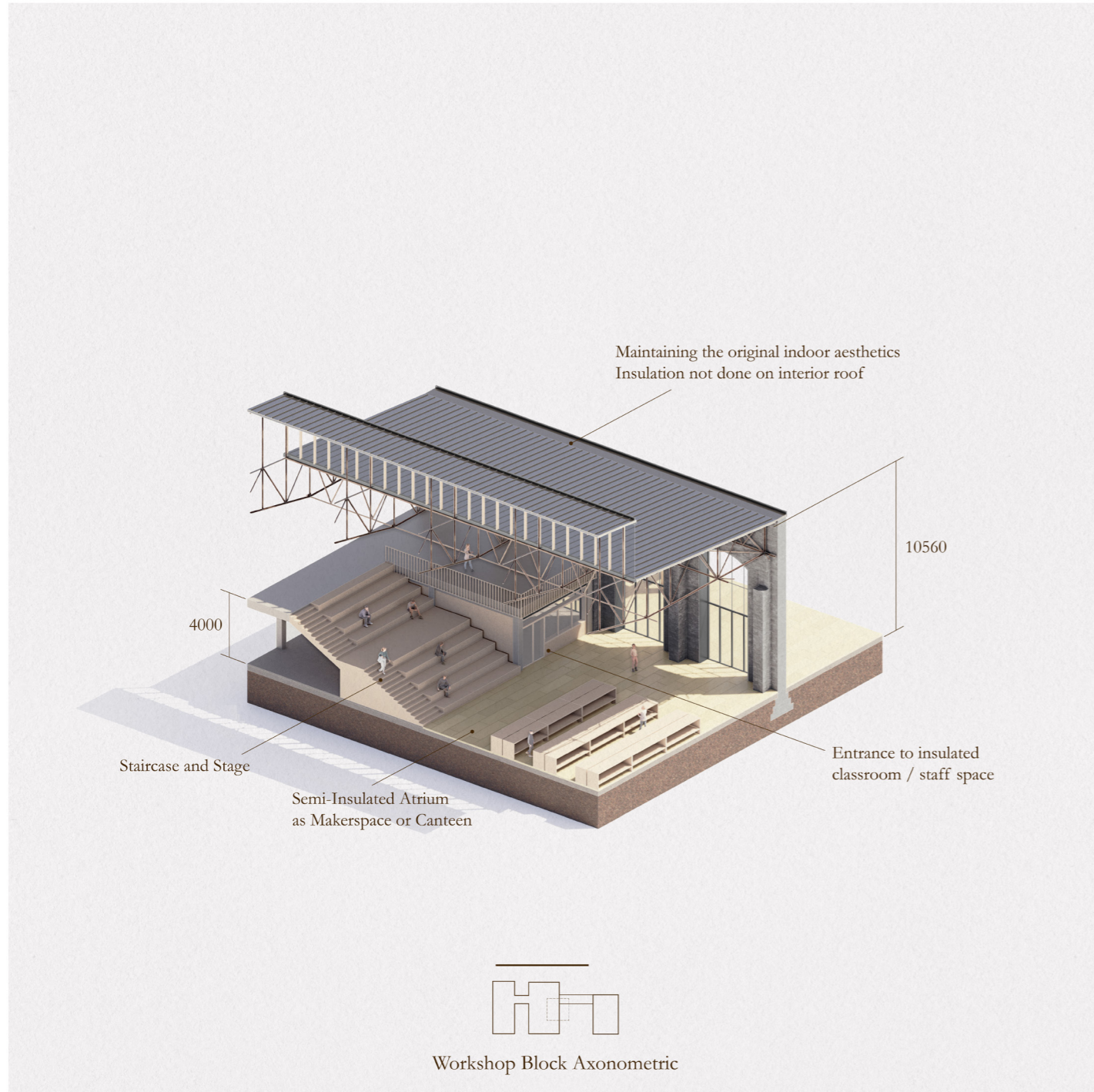
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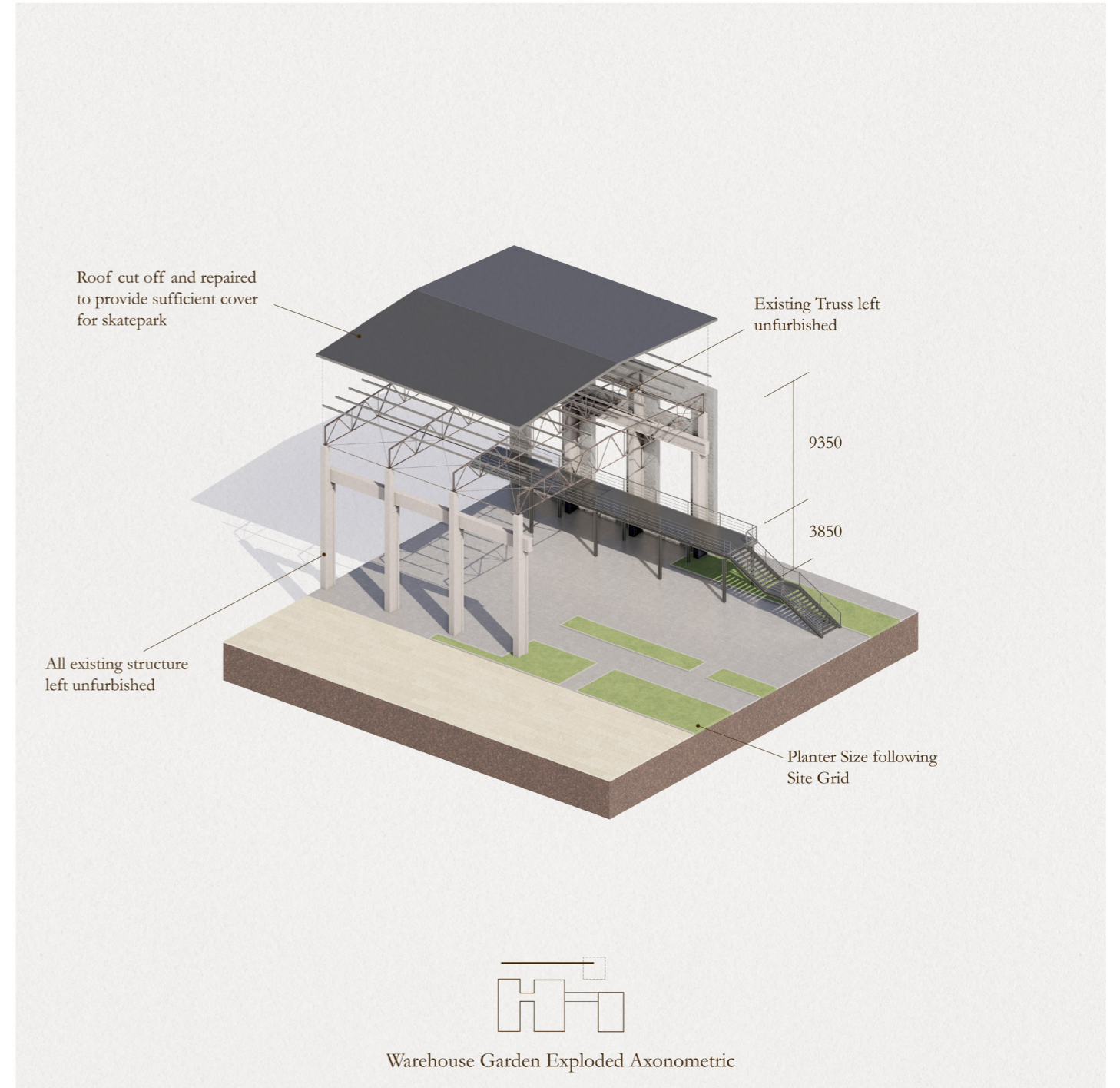
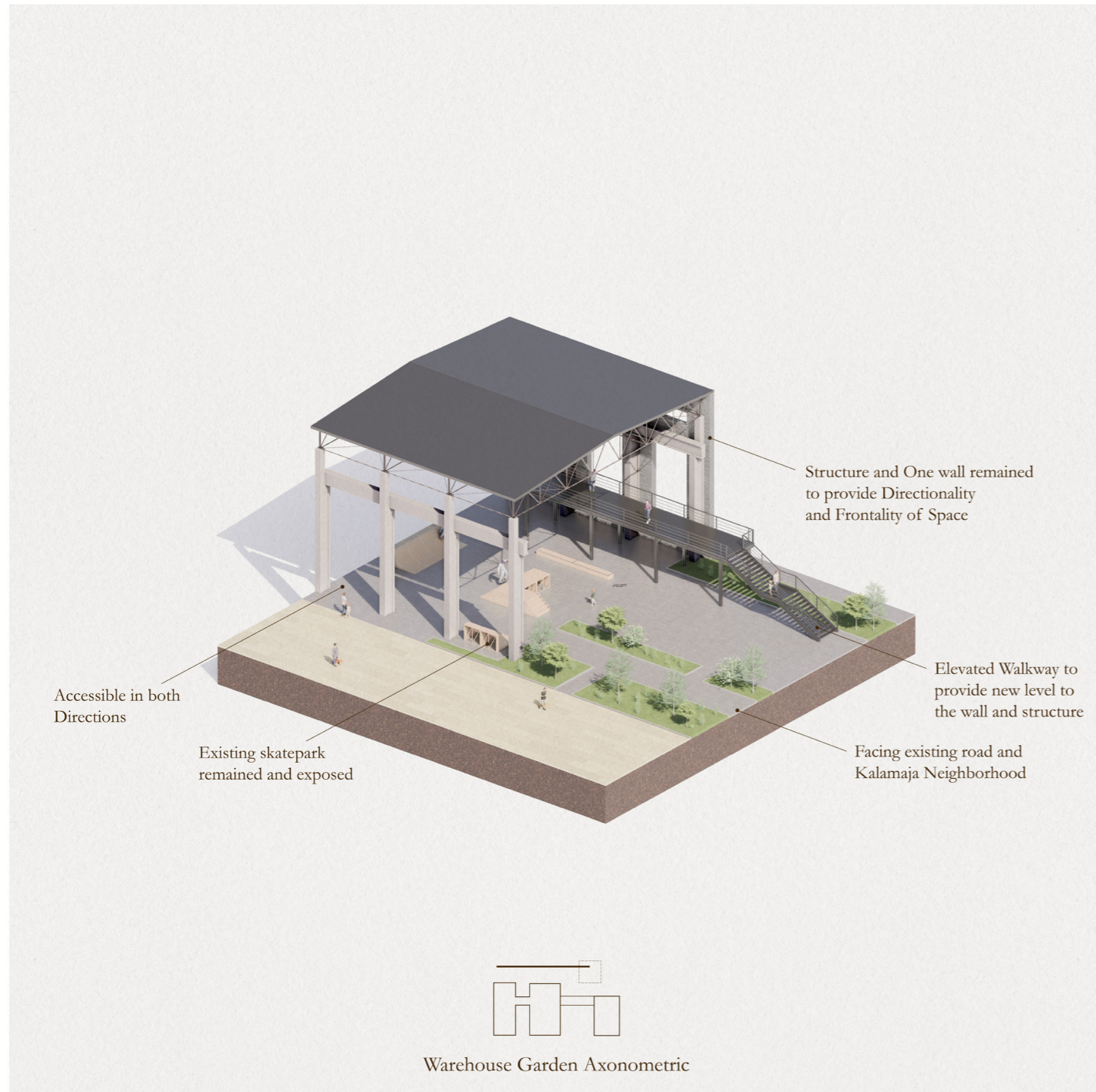
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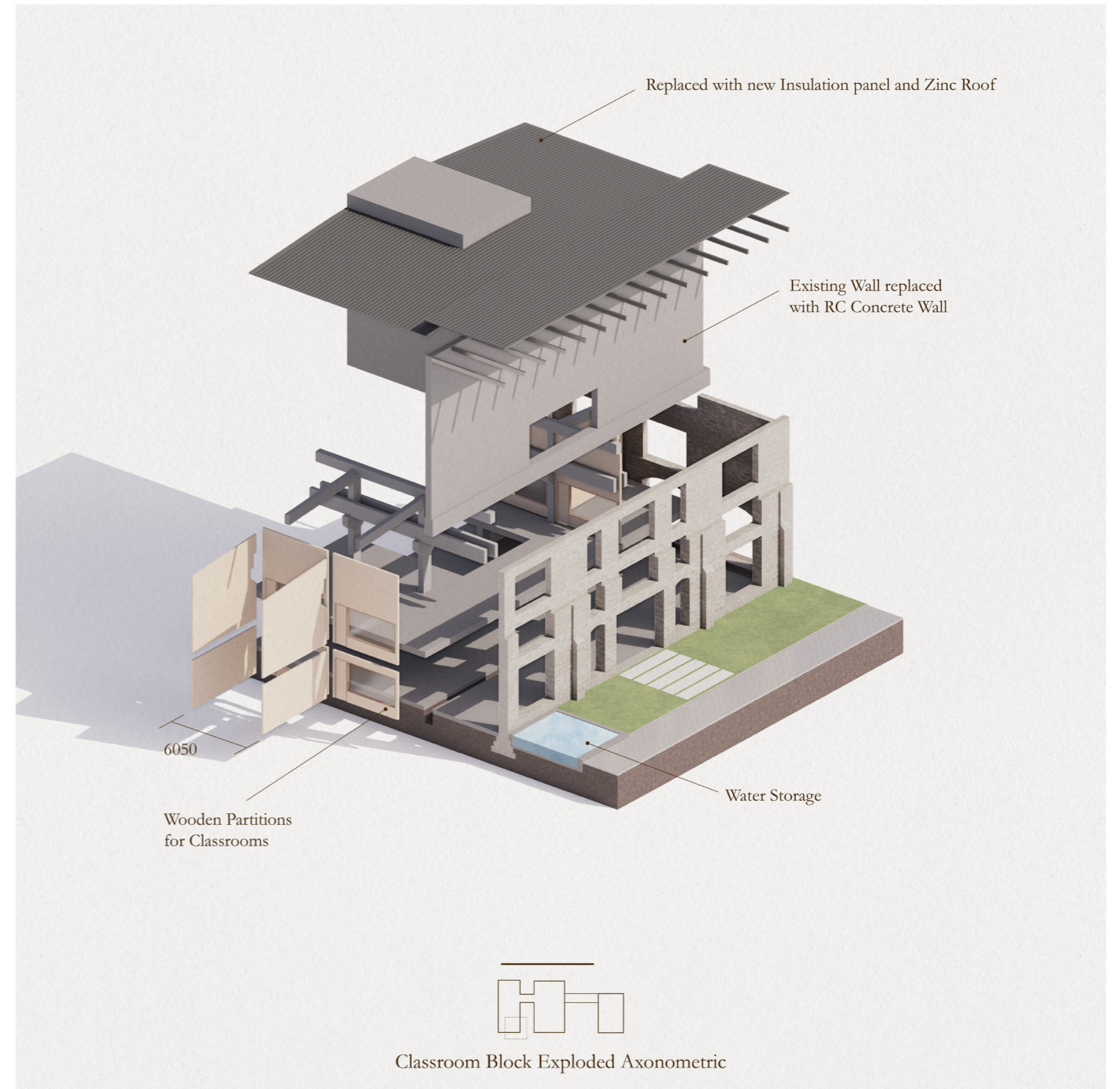
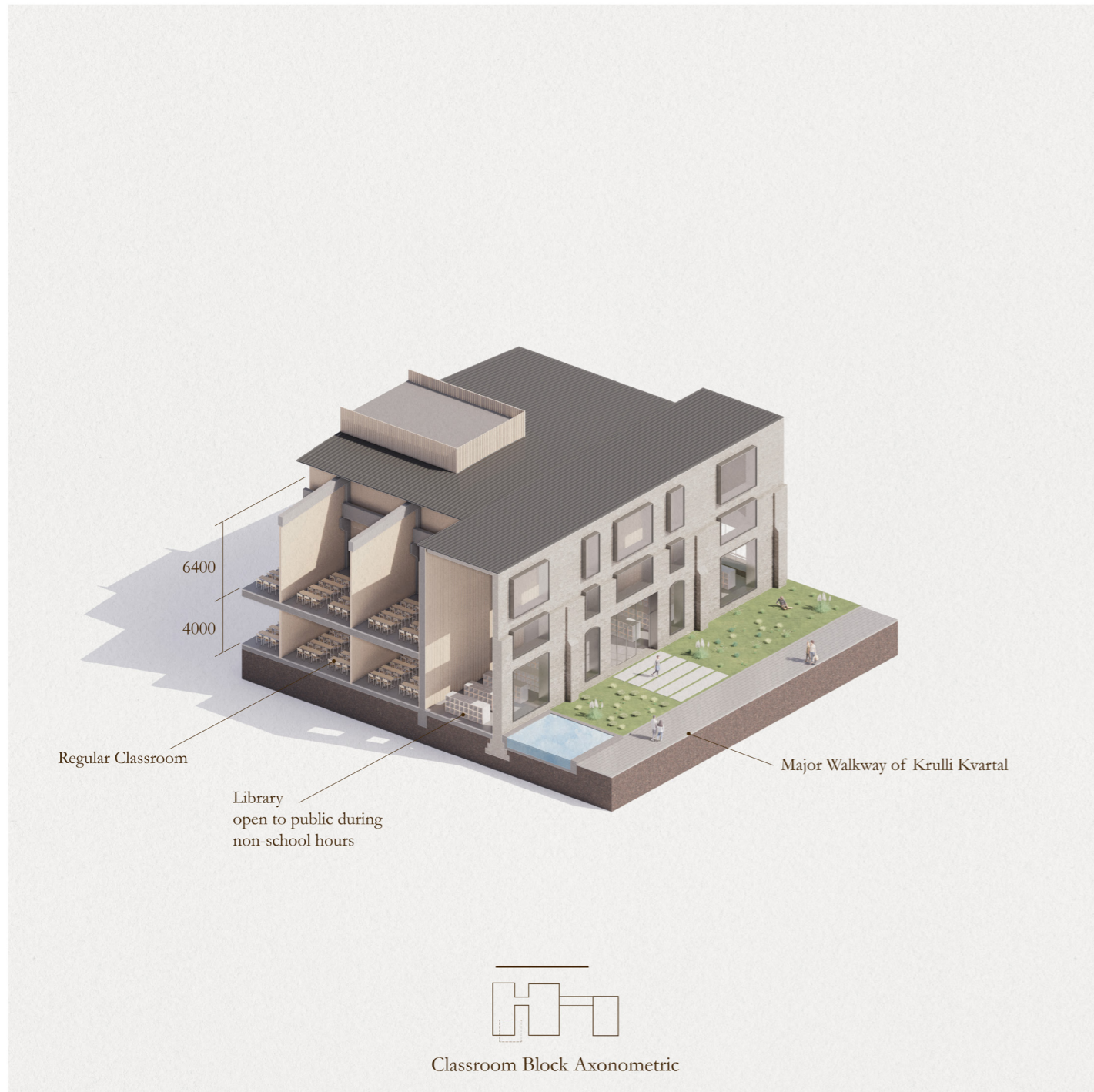
How Structural System defines Activity



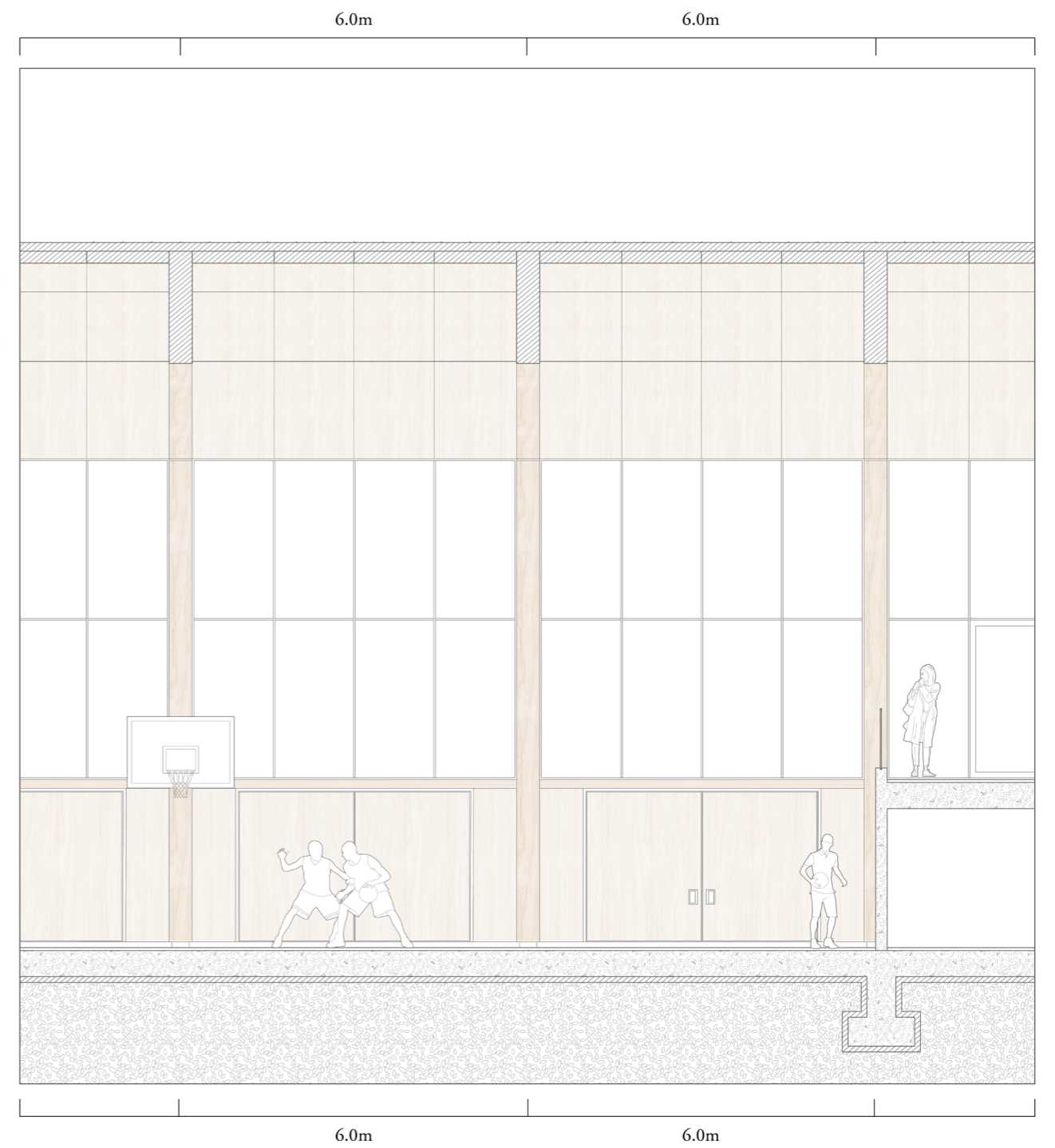
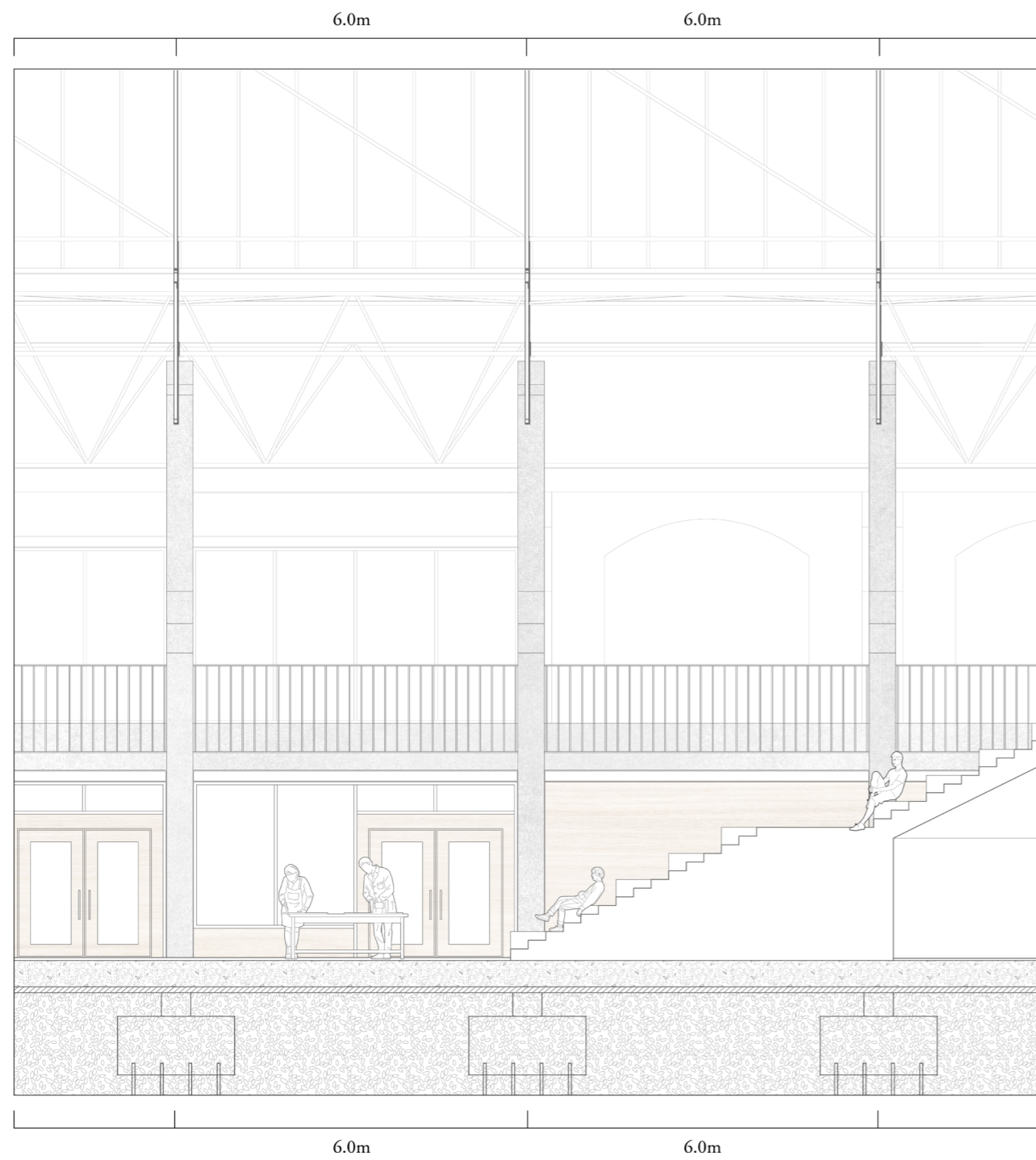
How Structural System defines Activity



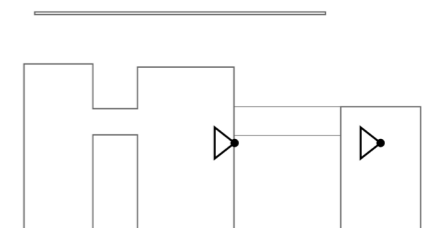
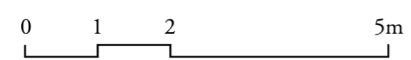
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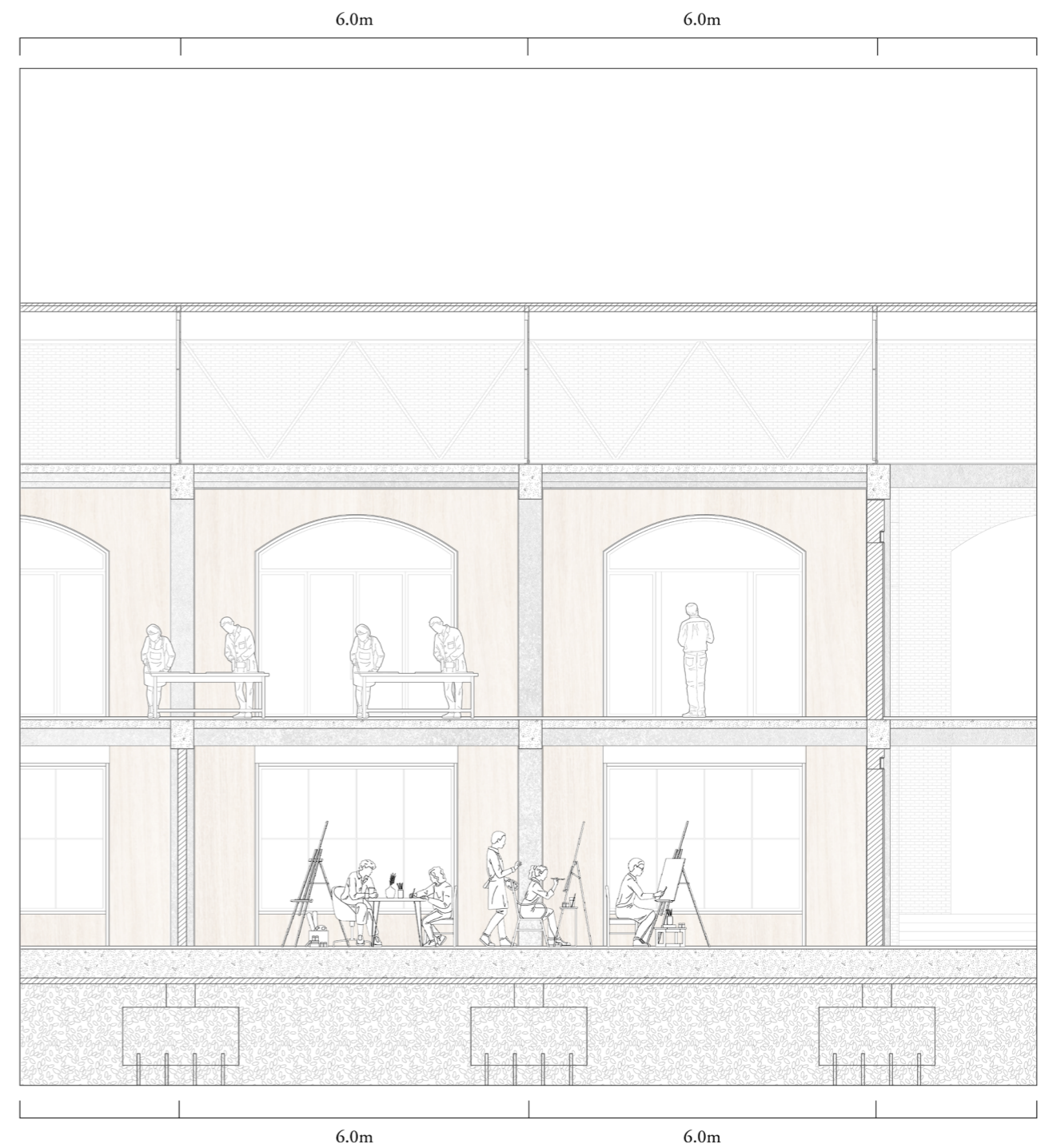
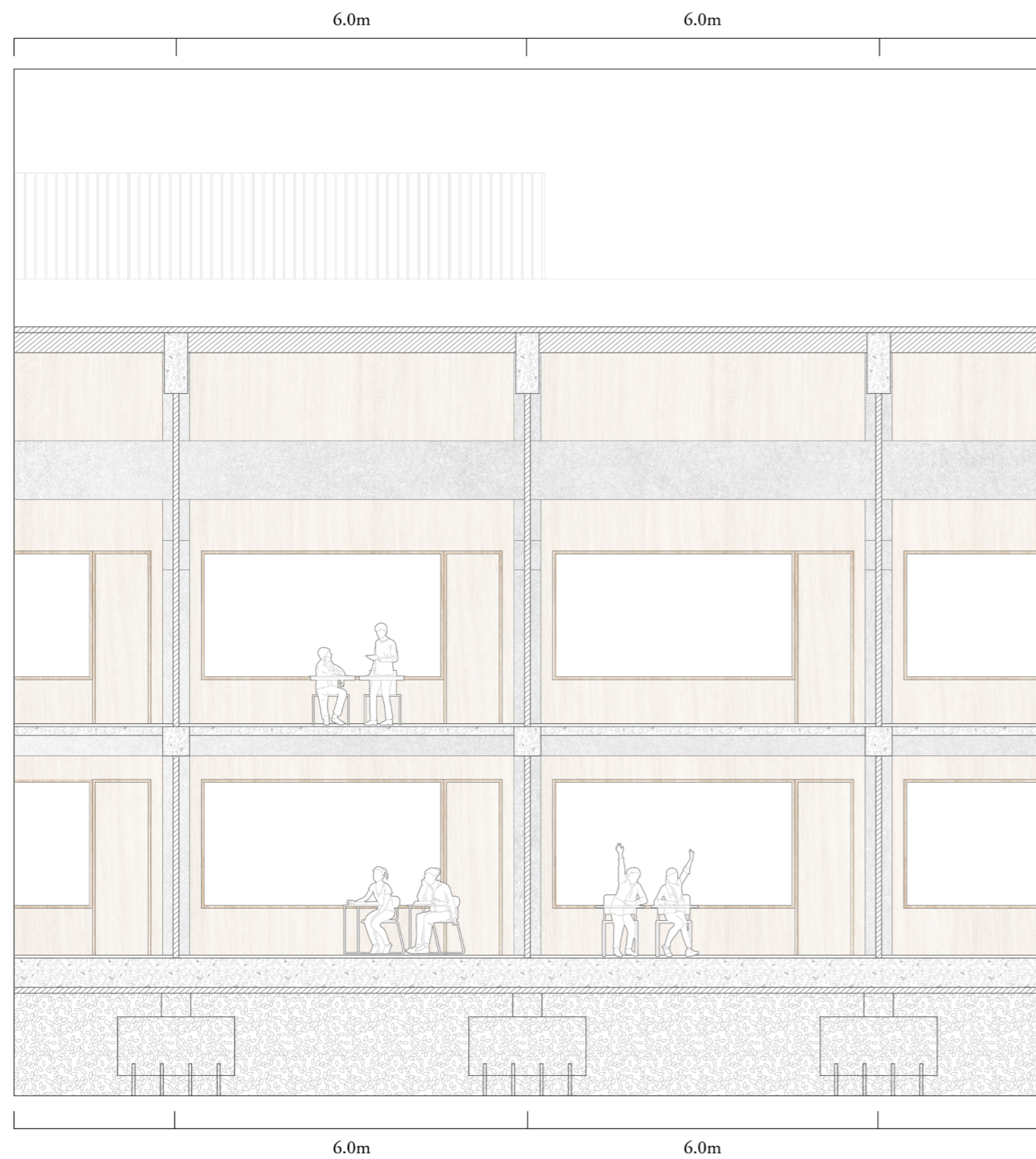
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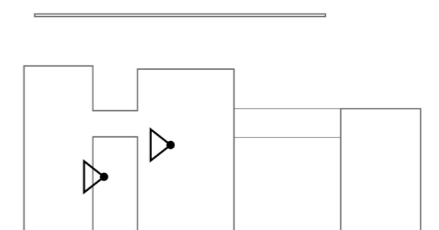
1:50 Partial Elevation Series



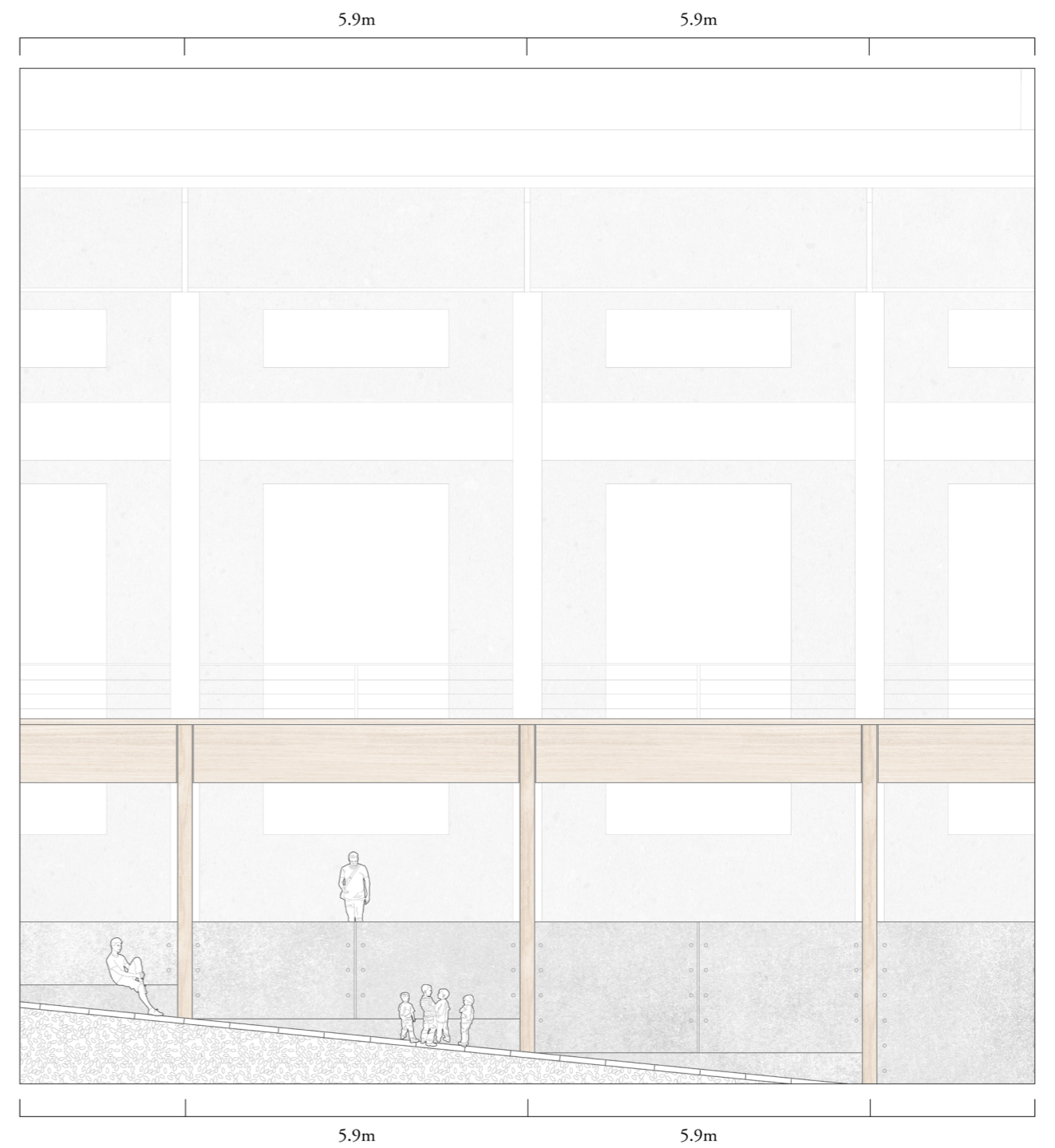
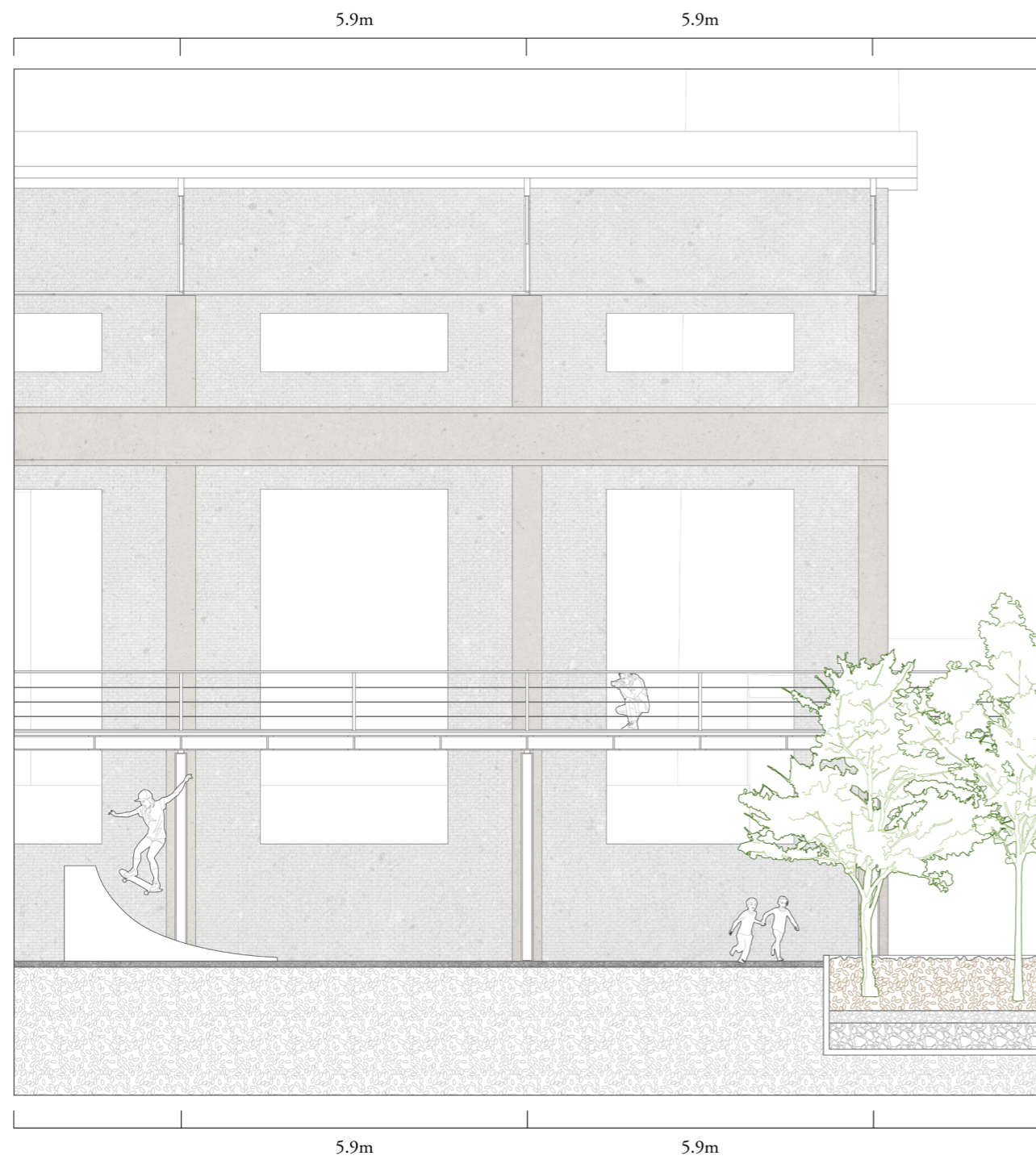
Regular Grid as Scale Reference of Activity



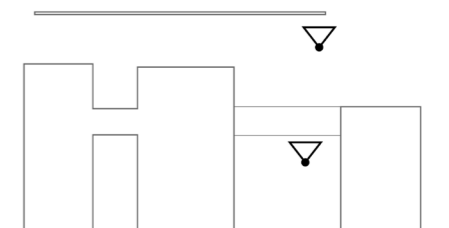
1:50 Partial Elevation Series
 0 1 2 5m



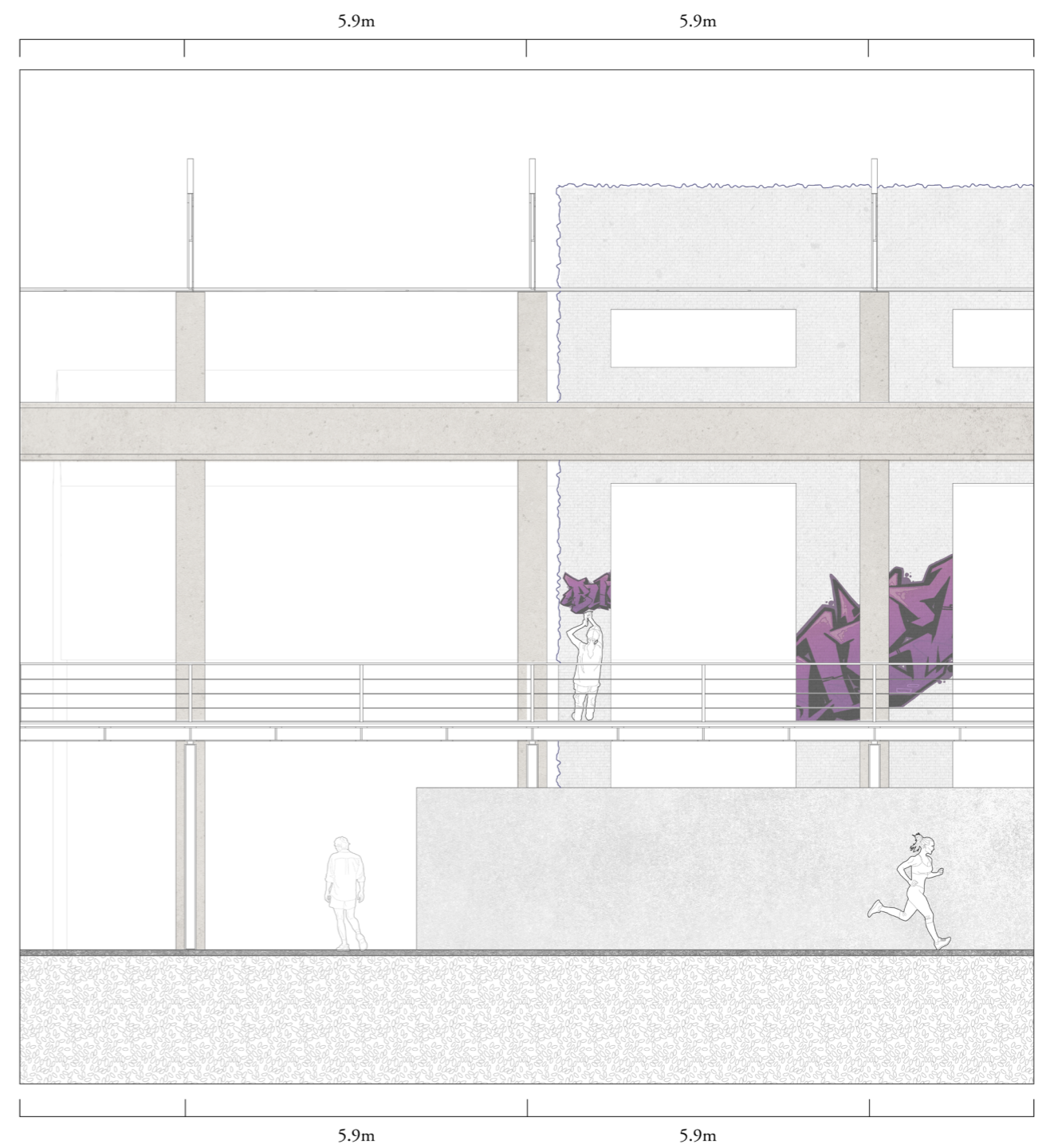
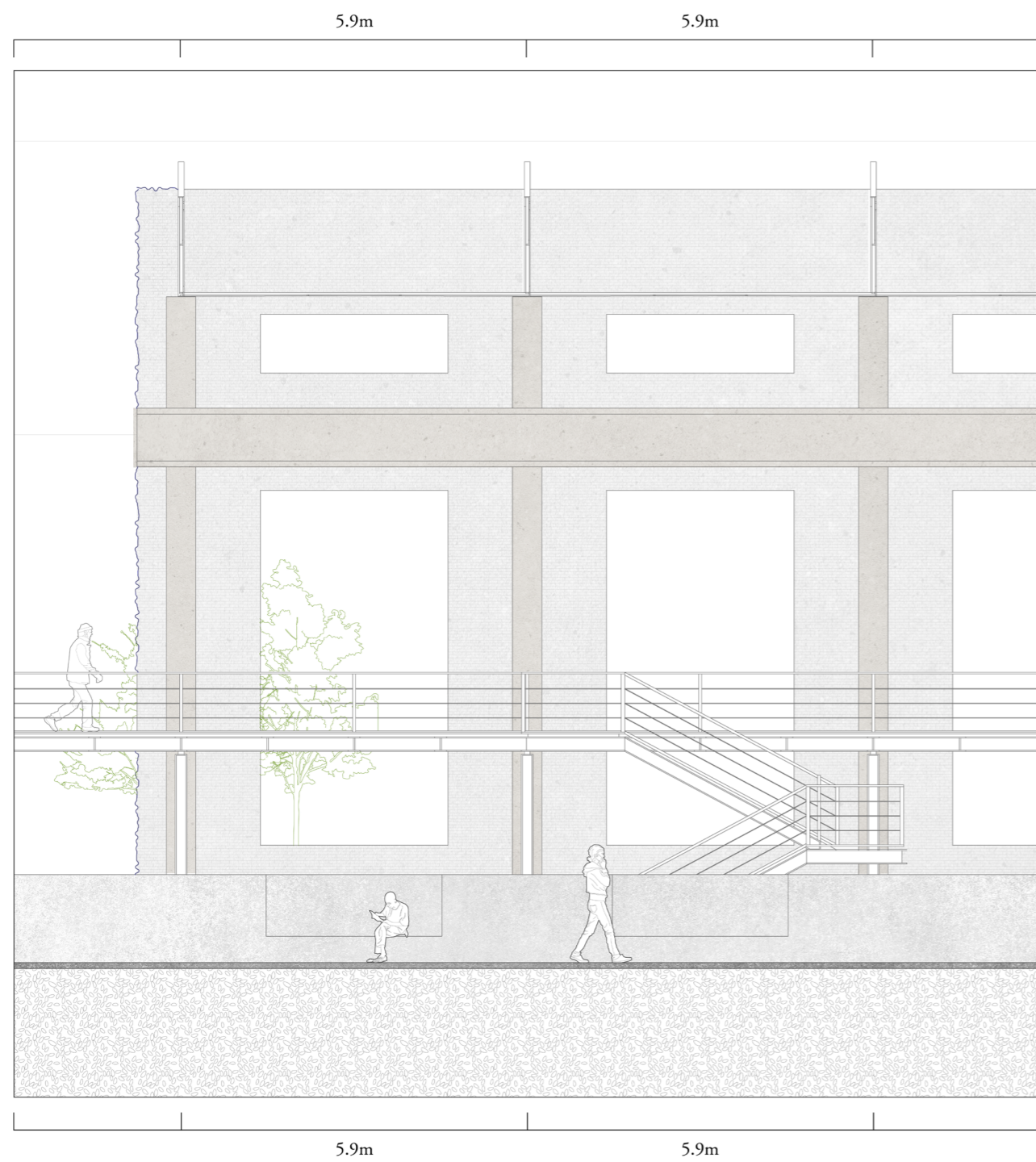
Regular Grid as Scale Reference of Activity



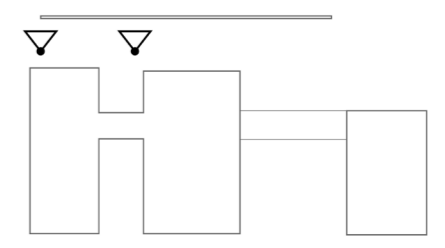
1:50 Partial Elevation Series
 0 1 2 5m



Regular Grid as Scale Reference of Activity



1:50 Partial Elevation Series
 0 1 2 5m



Regular Grid as Scale Reference of Activity



Henry didn't sleep for today's examination
Now it is over, he can finally take a nap here.

Matilda is already making holiday plans with her
friends after their graduation.

Ethan joined a teaching workshop Saturday,
during his visit to the school,
he found there was a repair cafe with all the
elderlies with their grandsons / granddaughters





This is Martin's favorite reading spot during summer time, but now it is getting more popular that he starts to be annoyed

Vivian just moved to the neighborhood, she found a really nice tranquil running path along the old warehouse

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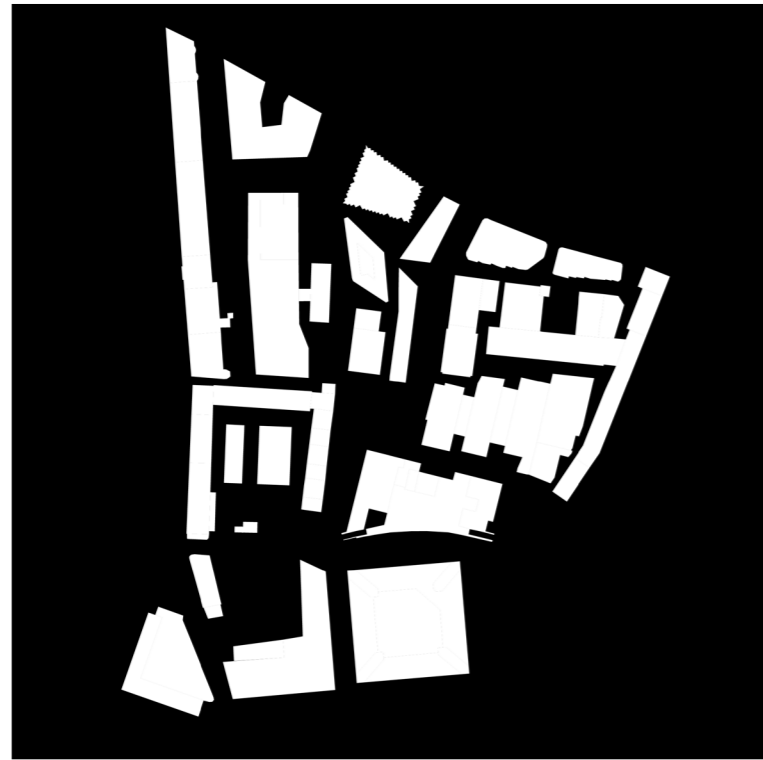
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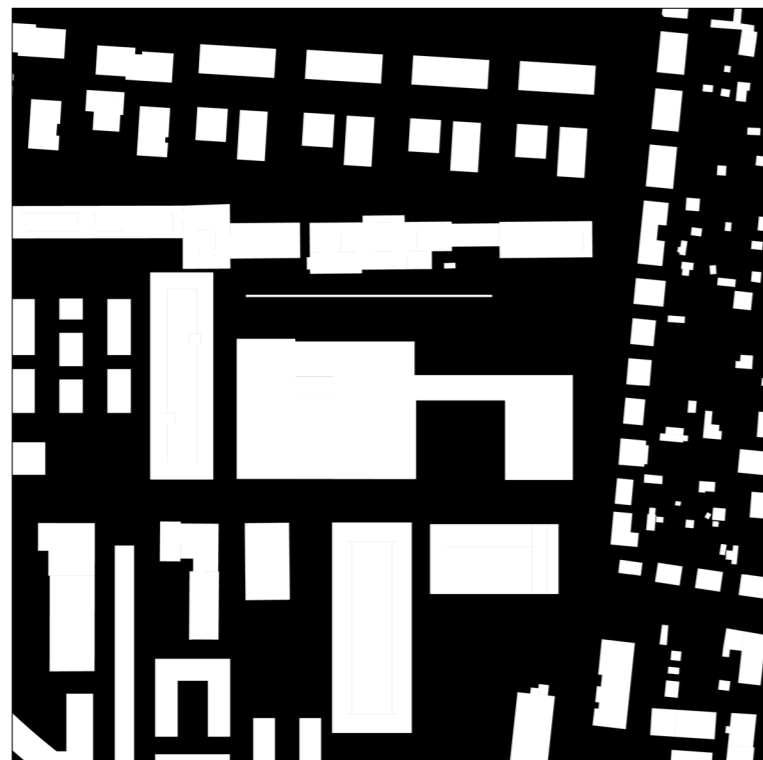
Rotermann



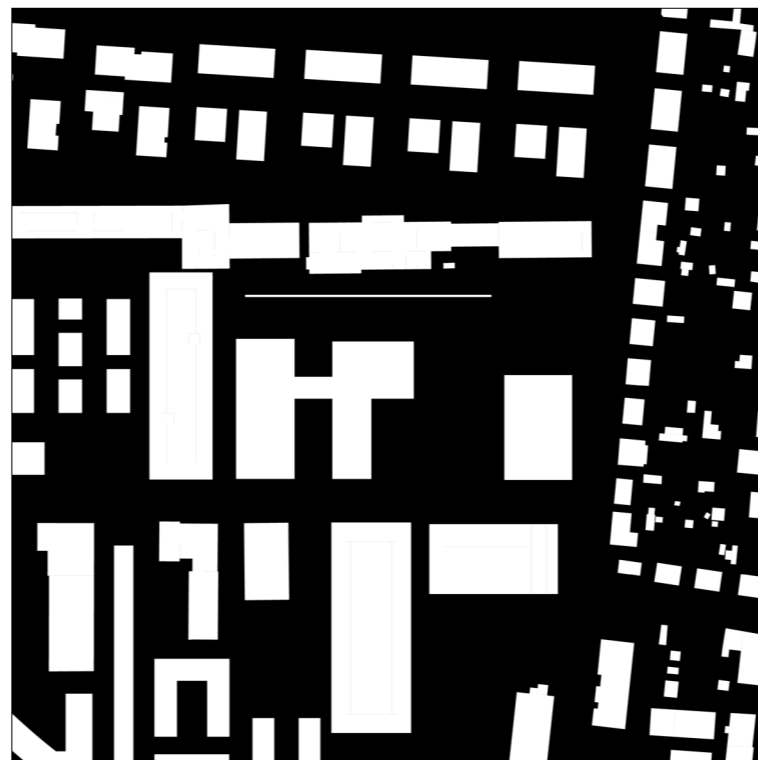
Noblessner



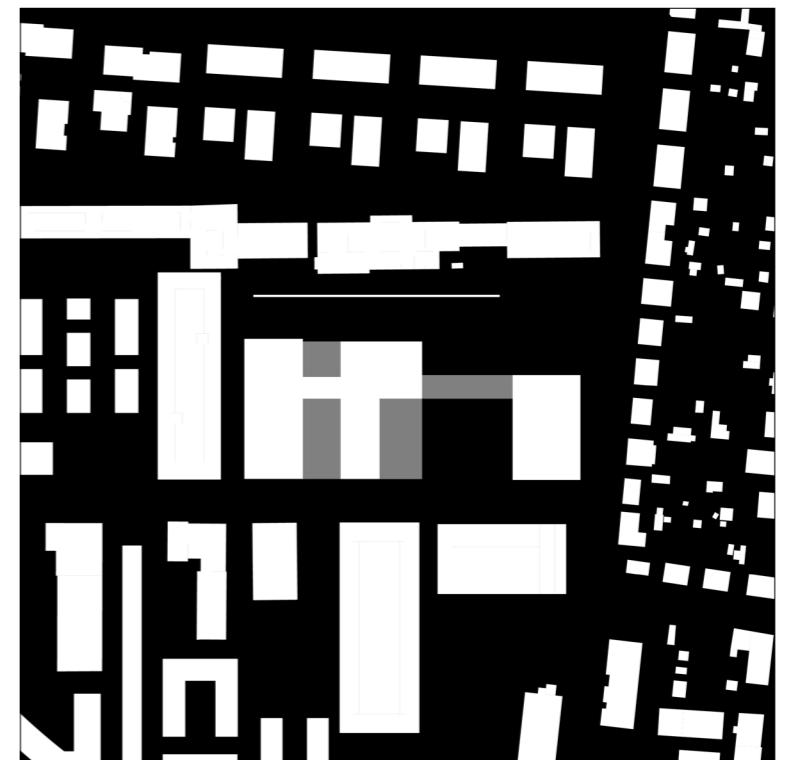
Kalamaja



Krulli



Krulli



Krulli

How can industrial heritage be reconfigured to enhance the public inclusiveness of new urban redevelopments, with regard to its unique provision of spatial and visual experience?

Factories (Re)public

(Re)veal

Exposing the initially inaccessible spatial and material quality into public realm

(Re)gularity

Providing a sense of coherence between building and redeveloped areas by the regular grids and use

(Re)ference

The grids offers spatial division as reference for various activities

(Re)silience

High adaptability and flexibility in future building operation



Thank You!