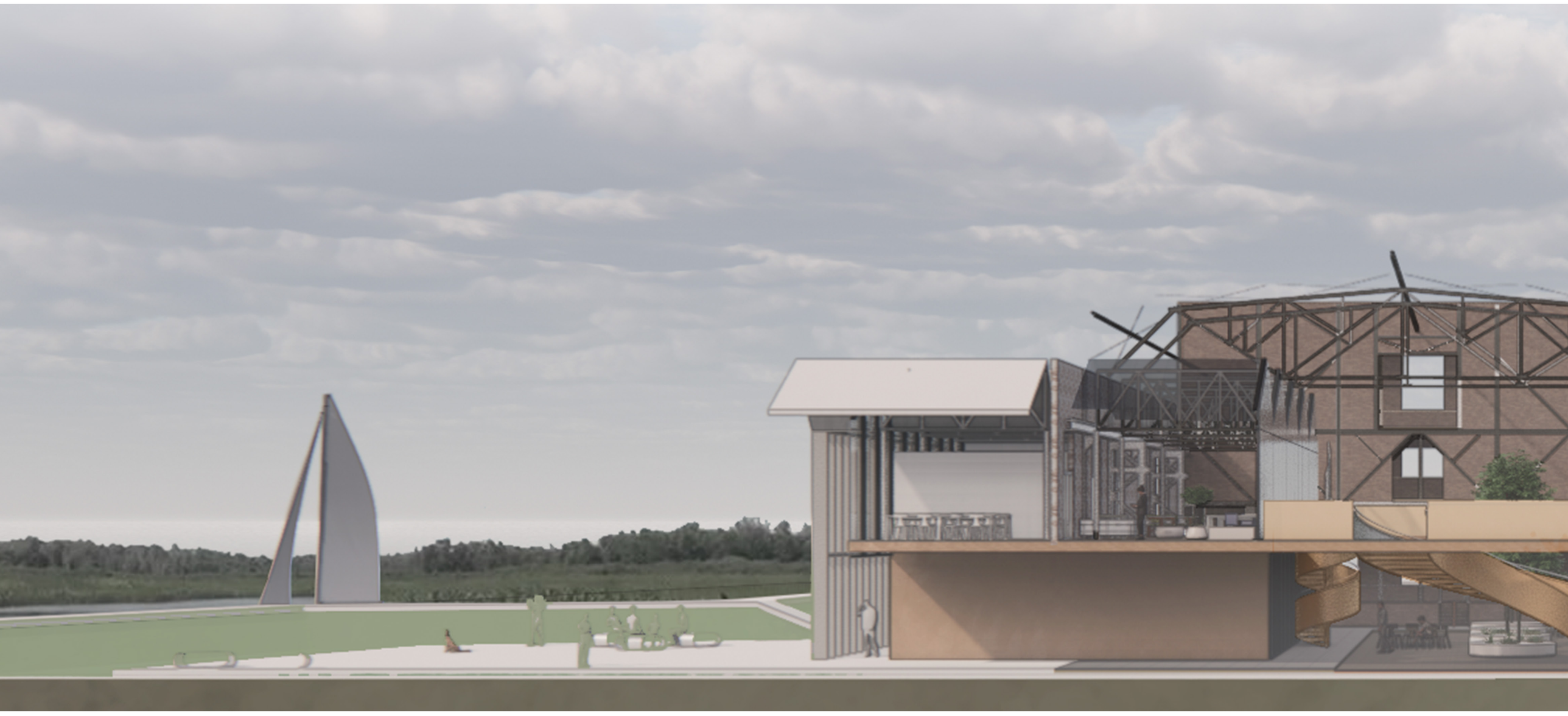
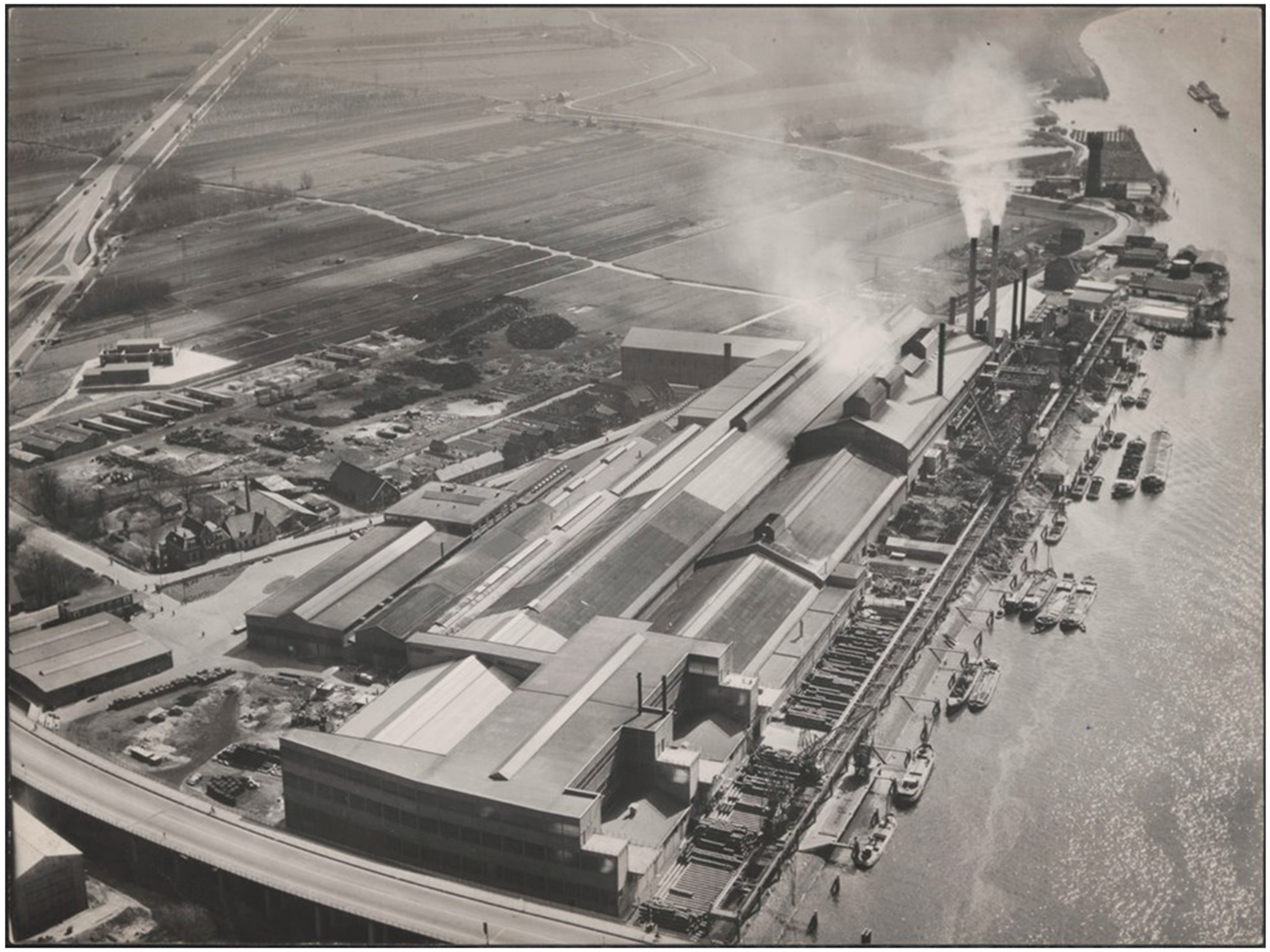
Kloos | A new phase

Graduation studio Revitalizing Heritage | Paul-Cristian Fucarev 5883784 | TU Delft 2024



What is outer dike Industrial Heritage?



Nedstaal cca 1950, photo from https://geschiedenisvanzuidholland.nl/

How did outer dike industries appear



Kloos factory, photo from https://geschiedenisvanzuidholland.nl/

Dawn of National Industries

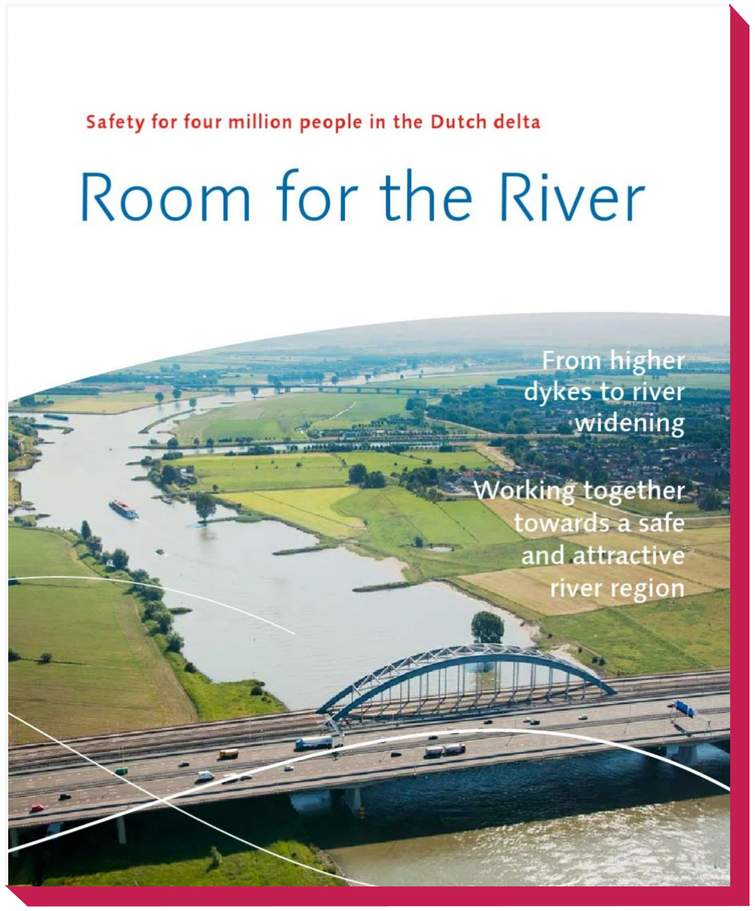


Kloos factory 2015, photo from https://geschiedenisvanzuidholland.nl/

Current challenges of otuer dike industries



Ossenwaard factory in Vianen, extracted from usine-utrecht.nl



Research motivation

Research Question:

How can architects integrate adaptability in the transformation process of dutch outer dike industrial heritage?

Progress and Heritage: Integrating Adaptability in the design process of outer dike Industrial Riverine site transformation

Paul-Cristian Fucarev
5883784
Heritage & Architecture
Maritime Heritage Studio

Methodology Diagram

Problem statement

Problem Fields:
Outer dike Industrial heritage;
Climate change; Adaptability;

Research question

How can architects integrate Adaptability in the transformation process of Dutch outer dike industrial heritage for?
&
Subquestions

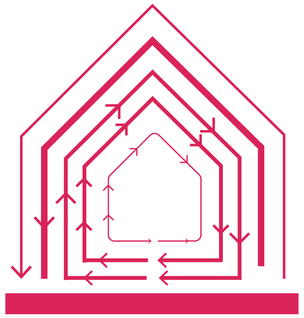
Adaptable architecture

Heritage value assessment

Results

Discussion

Methodology Diagram



Problem statement

Problem Fields:
Outer dike Industrial heritage;
Climate change; Adaptability;



Research question

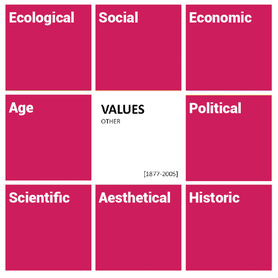
How can architects integrate Adaptability in the transformation process of Dutch outer dike industrial heritage for?
&
Subquestions



"I am a Monument", drawing by Robert Venturi, 1972, VB

Adaptable architecture

Heritage value assessment



Results

Discussion

Methodology | Adaptable architecture

Problem statement

Problem Fields:
Outer dike Industrial heritage;
Climate change; Adaptability;

Research question

How can architects integrate Adaptability in the transformation process of Dutch outer dike industrial heritage for?
&
Subquestions

Adaptable architecture

Heritage value assessment

Results

Discussion

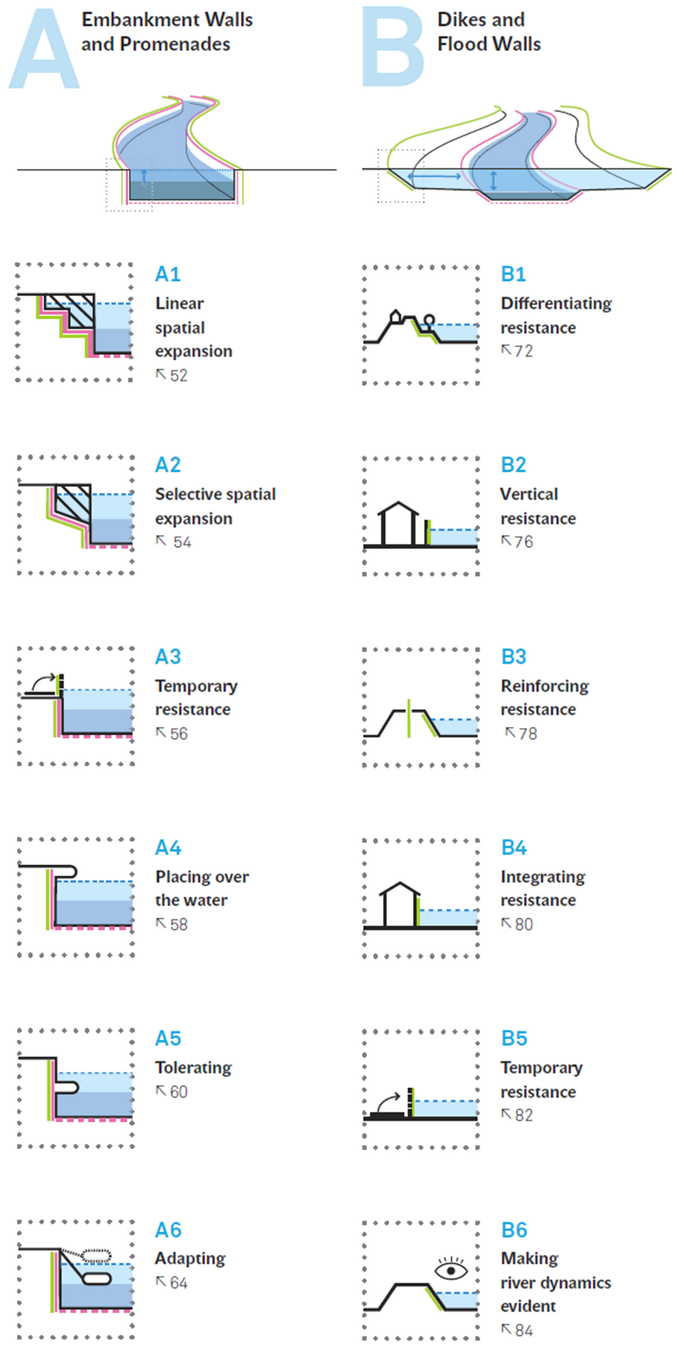
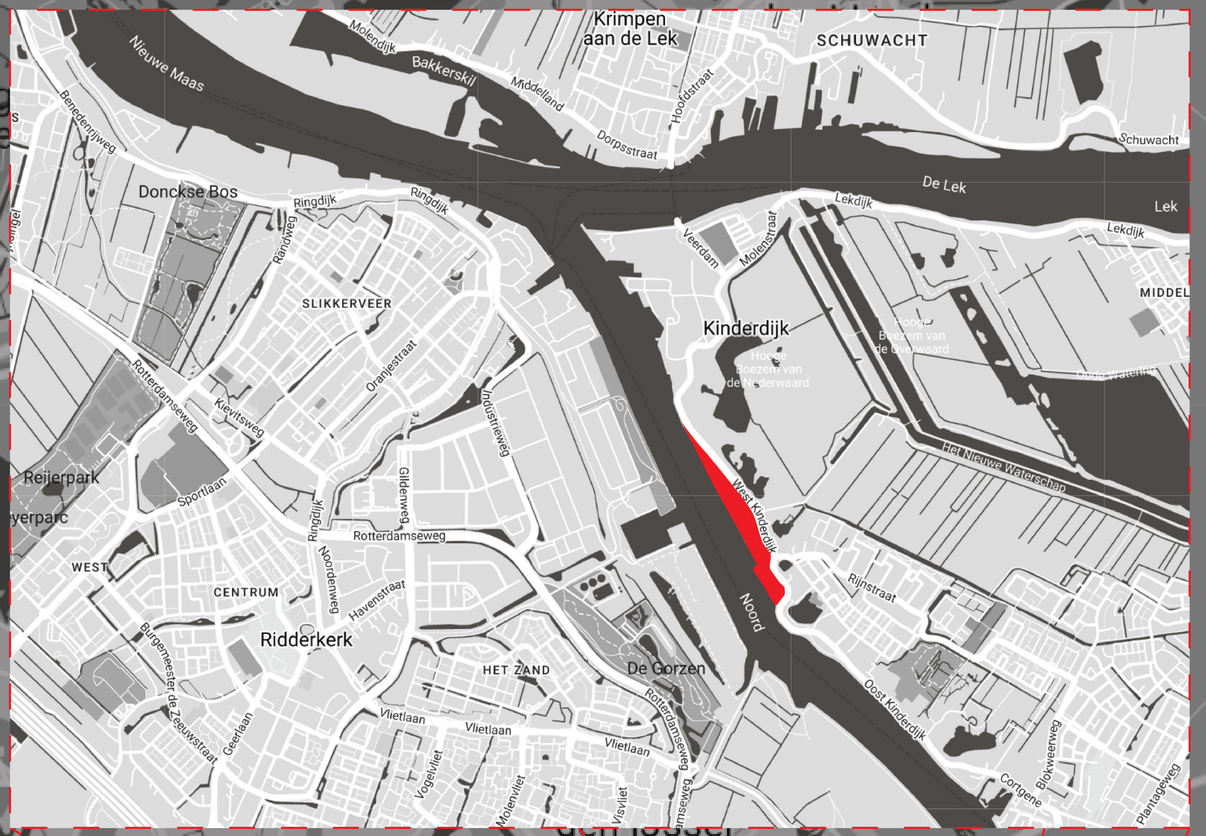


Image extracted from the book River.Space.Design by Prominski et al.

Case study Kloos

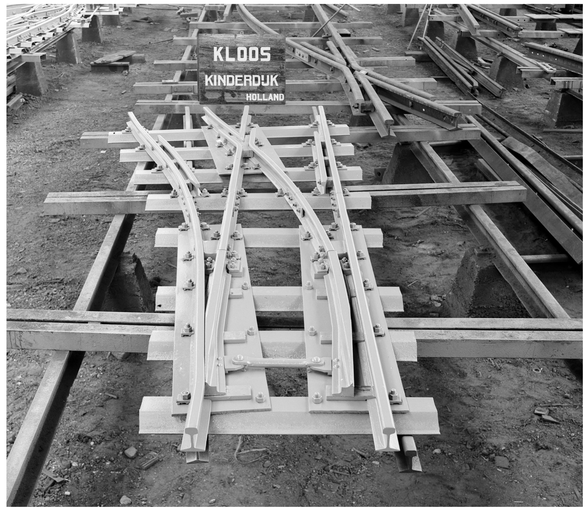


Photo by Arie M. Den Toen

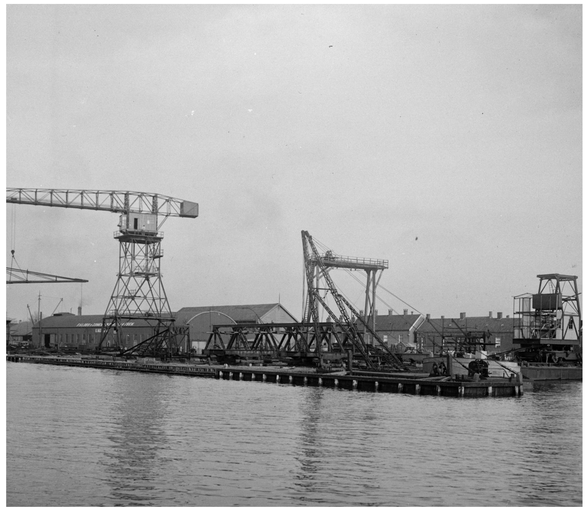

Nieuwerkerk
Krimpen aan de Lek
SCHUWACHT
Nieuwe Maas
Molendijk
Bakkerskil
Middeland
Hoofdstraat
Dorpsstraat
Schuwacht
De Lek
Lek
Lekdijk
Veerdam
Molenstraat
MIDDEL
Donckse Bos
Ringdijk
Randweg
SLIKKERVEER
Kinderdijk
Het Nieuwe Waterschap
Rotterdamseweg
Kievitsweg
Oranjestraat
Industrieweg
Reijerpark
Sportlaan
Gildenweg
Rijndijk
Noordenweg
Havenstraat
WEST
CENTRUM
Ridderkerk
HET ZAND
De Gorzen
Vlietlaan
Burgemeester de Zeeuwstraat
Geerlaan
Vogelvliet
Molenvliet
Visvliet
West Kinderdijk
Noord
Rijnstraat
Oost Kinderdijk
Cortgene
Blokweerweg
Plantagerweg

ZWETH
ZESTIENHOVEN
HILLEGERSBERG
SPALAND
KETHEL
OVERSCHIE
SPAANSE POLDER
BLIJDORP
CROOSWIJK
Rotterdam
ROTTERDAM CENTRUM
Schiedam
SCHIEDAM-WEST
DELFSHAVEN
Nieuwe Maas
STORMPOLDER
Krimpenerhout
FEIJENOORD
BEVERWAARD
Pernis
CHARLOIS
VREEWIJK
IJSSELMONDE
WAALHAVEN DISTRICT
ZUIDERPARK
LOMBARDIJEN
Poortugaal
Rhoon
VRIJENBURG
SMITSHOEK
PORTLAND
MEERWEDE
PADDEWEI
Barendrecht
Rijsoord
DRIEVLIET
Hendrik-Ido-Ambacht
Oude Maas

Kloos throughout the 20th century













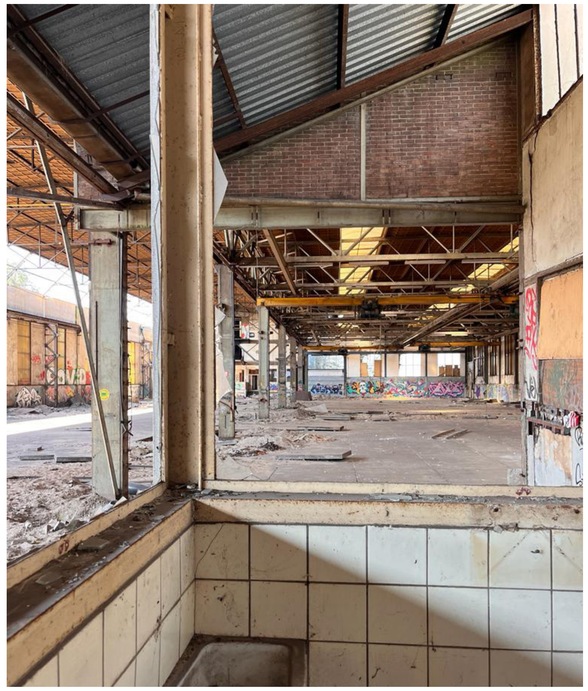
Kloos | current state



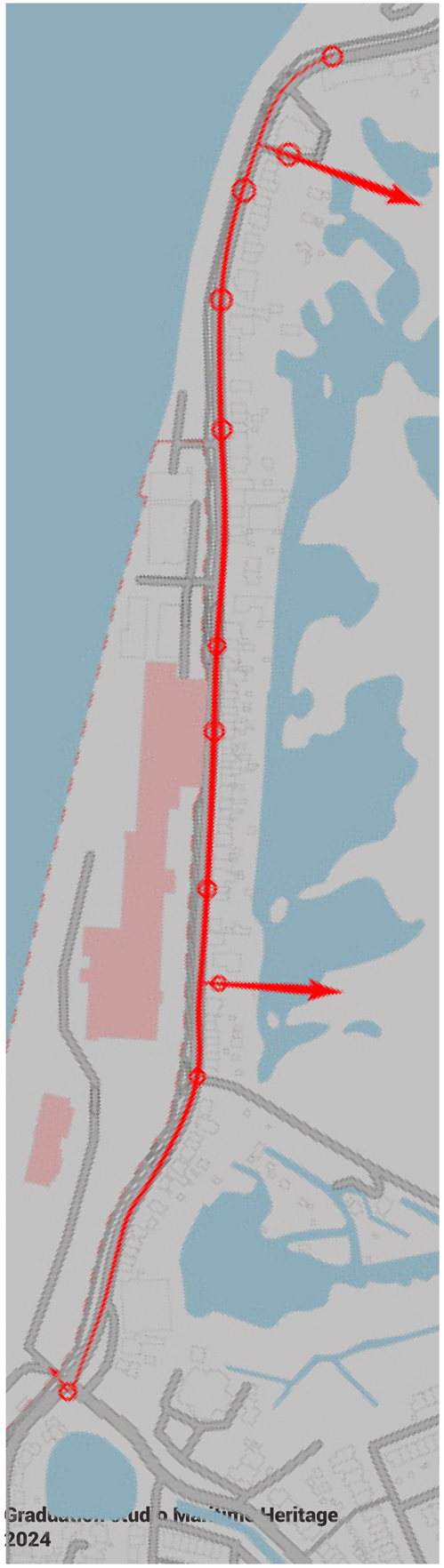




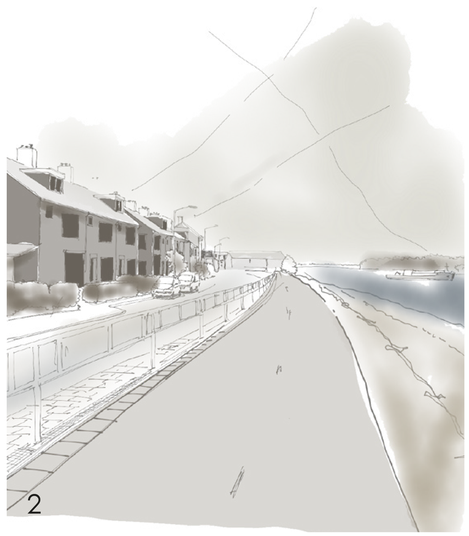


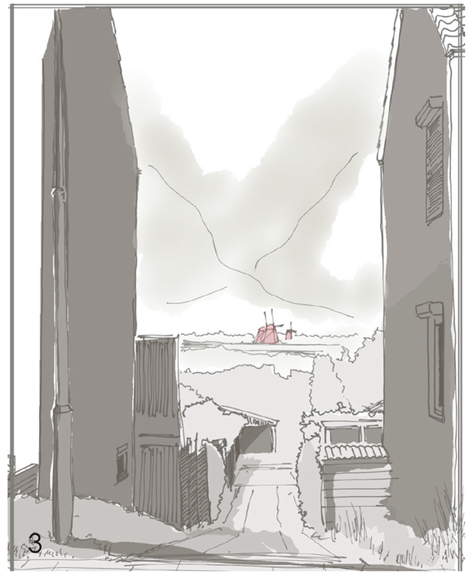







1


2

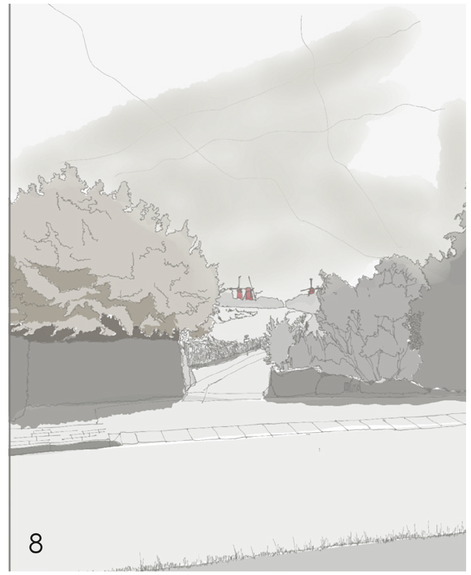

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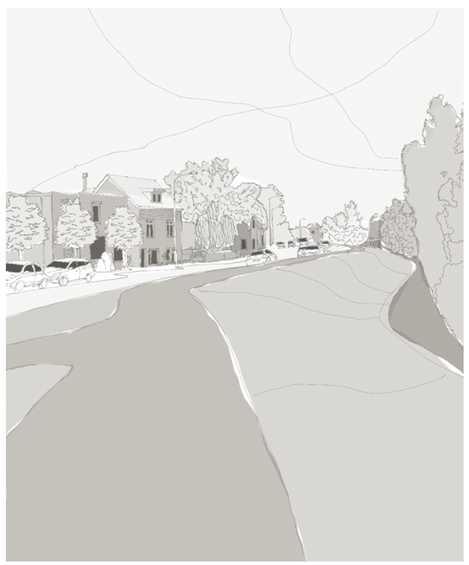

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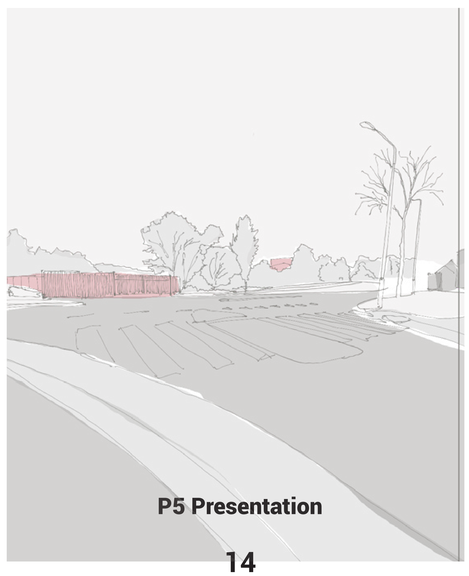

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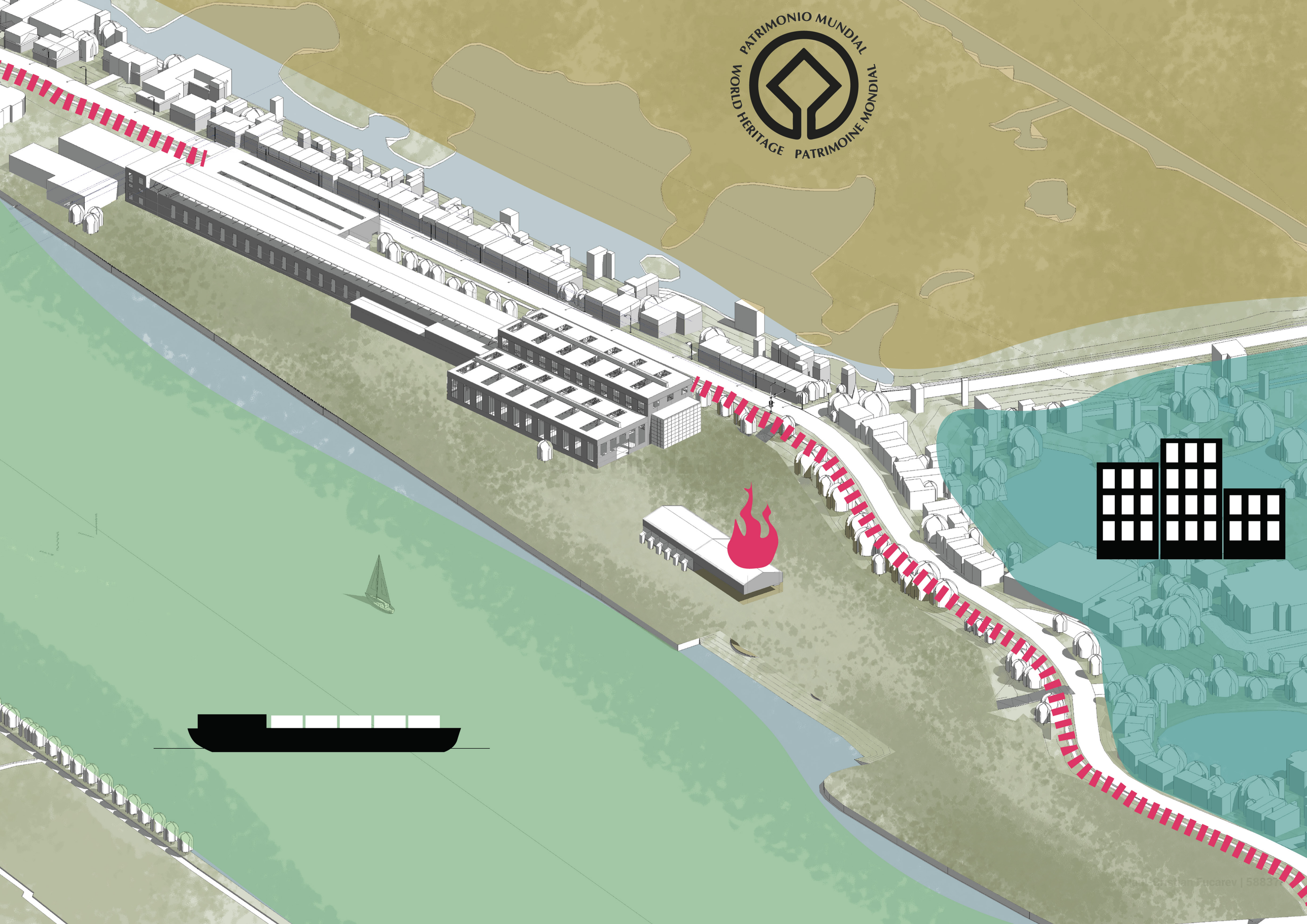

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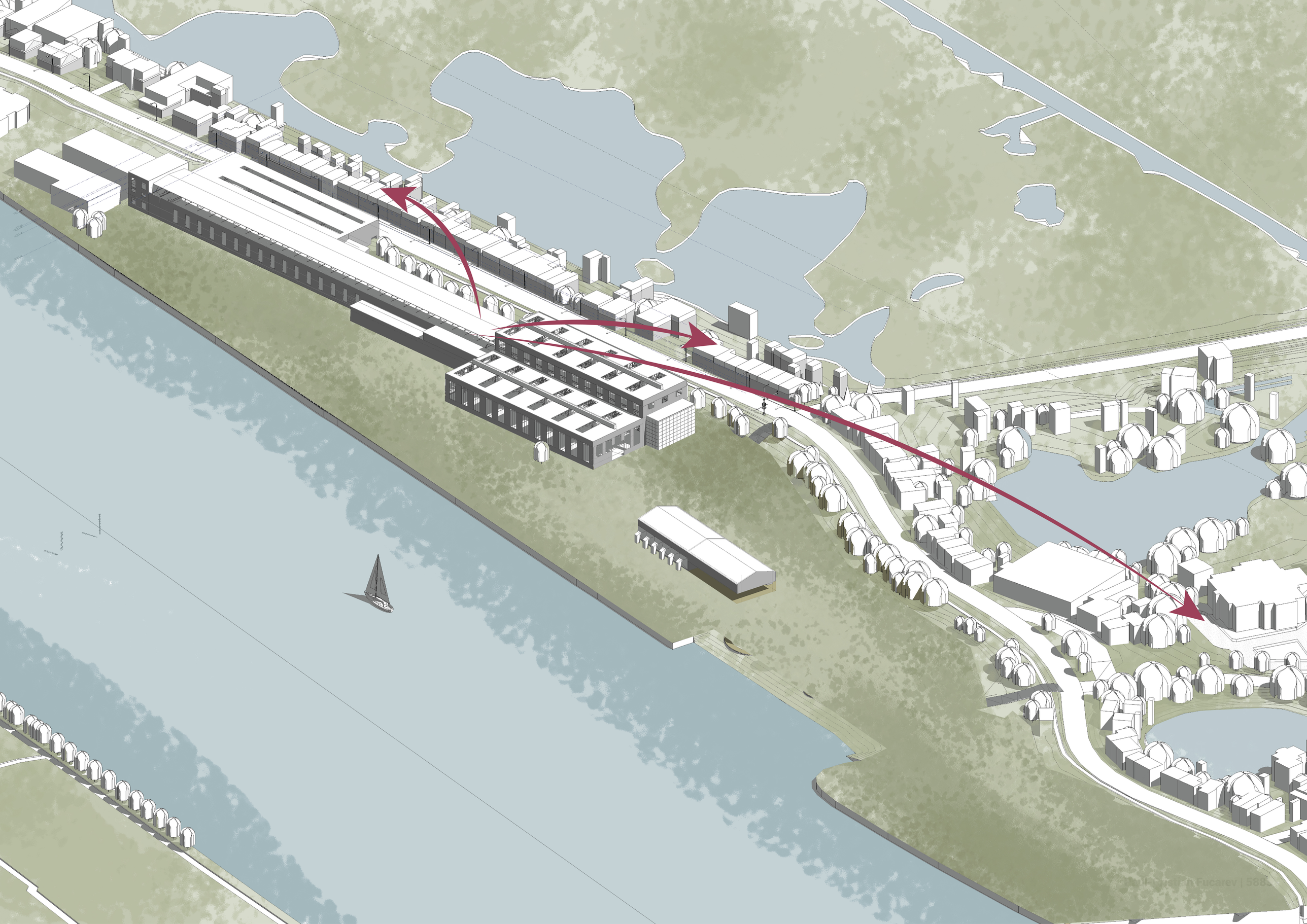

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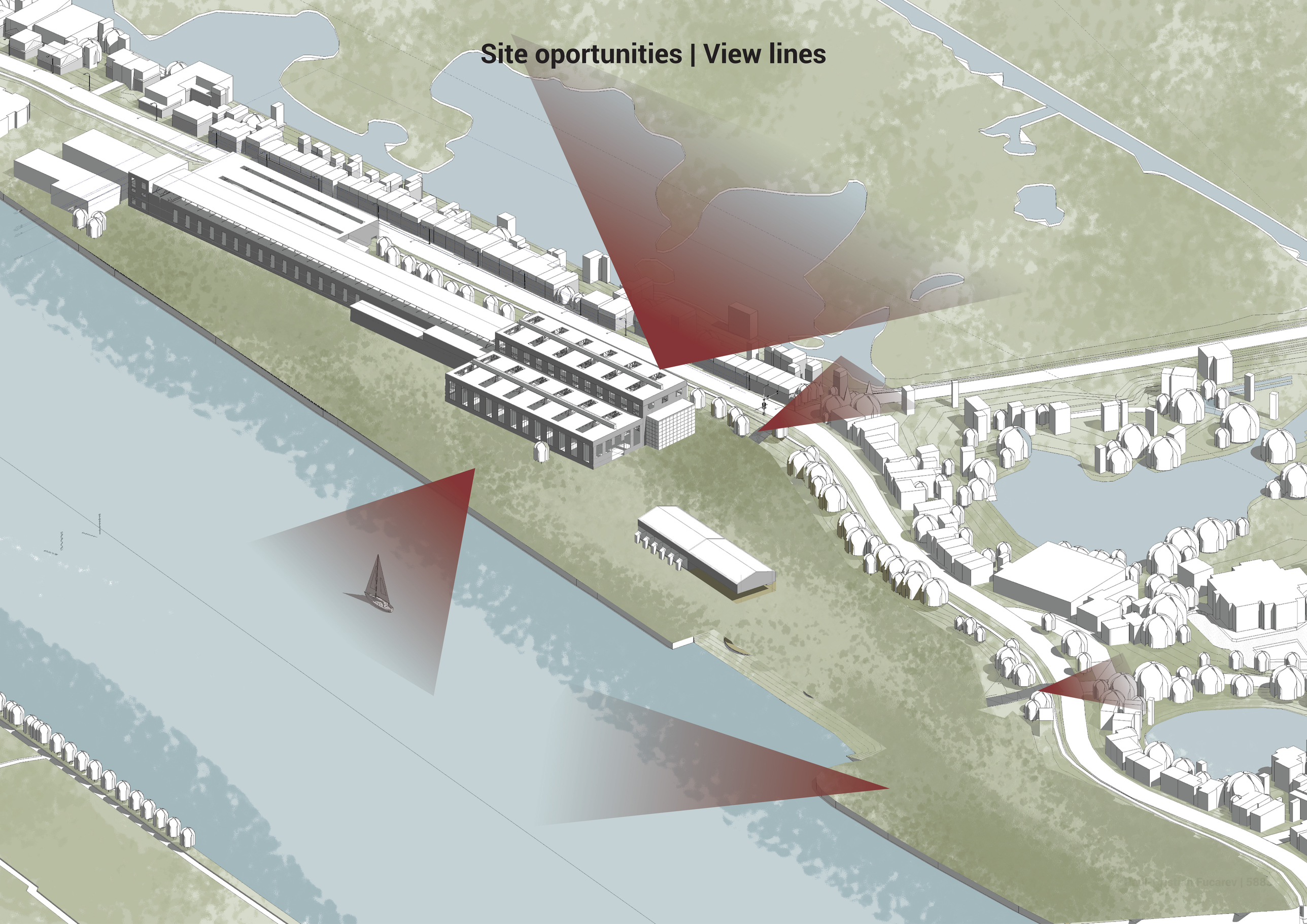


Kloos | current state

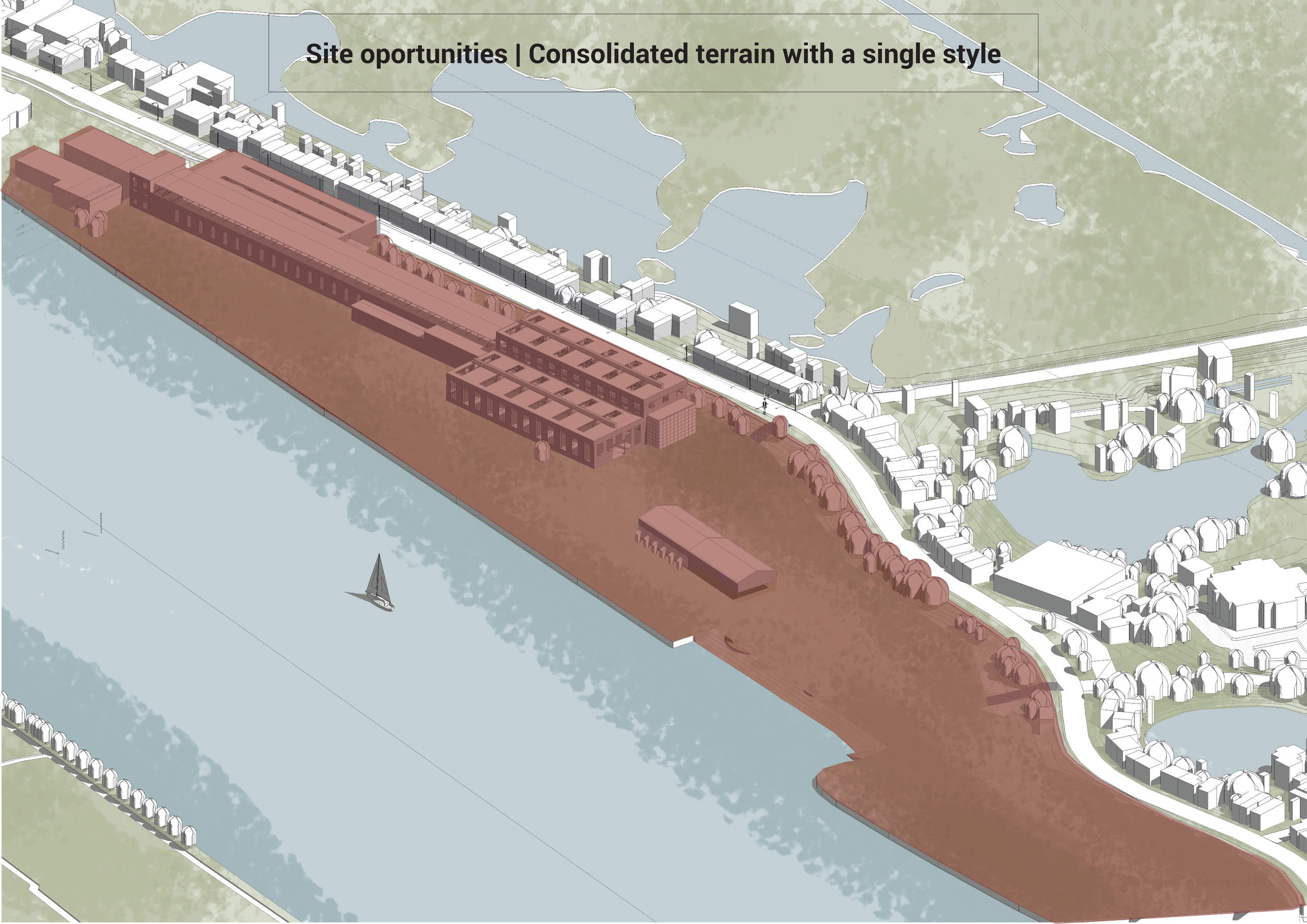

PATRIMONIO MUNDIAL
WORLD HERITAGE
PATRIMOINE MONDIAL



Site oportunities | View lines



Site oportunities | Consolidated terrain with a single style

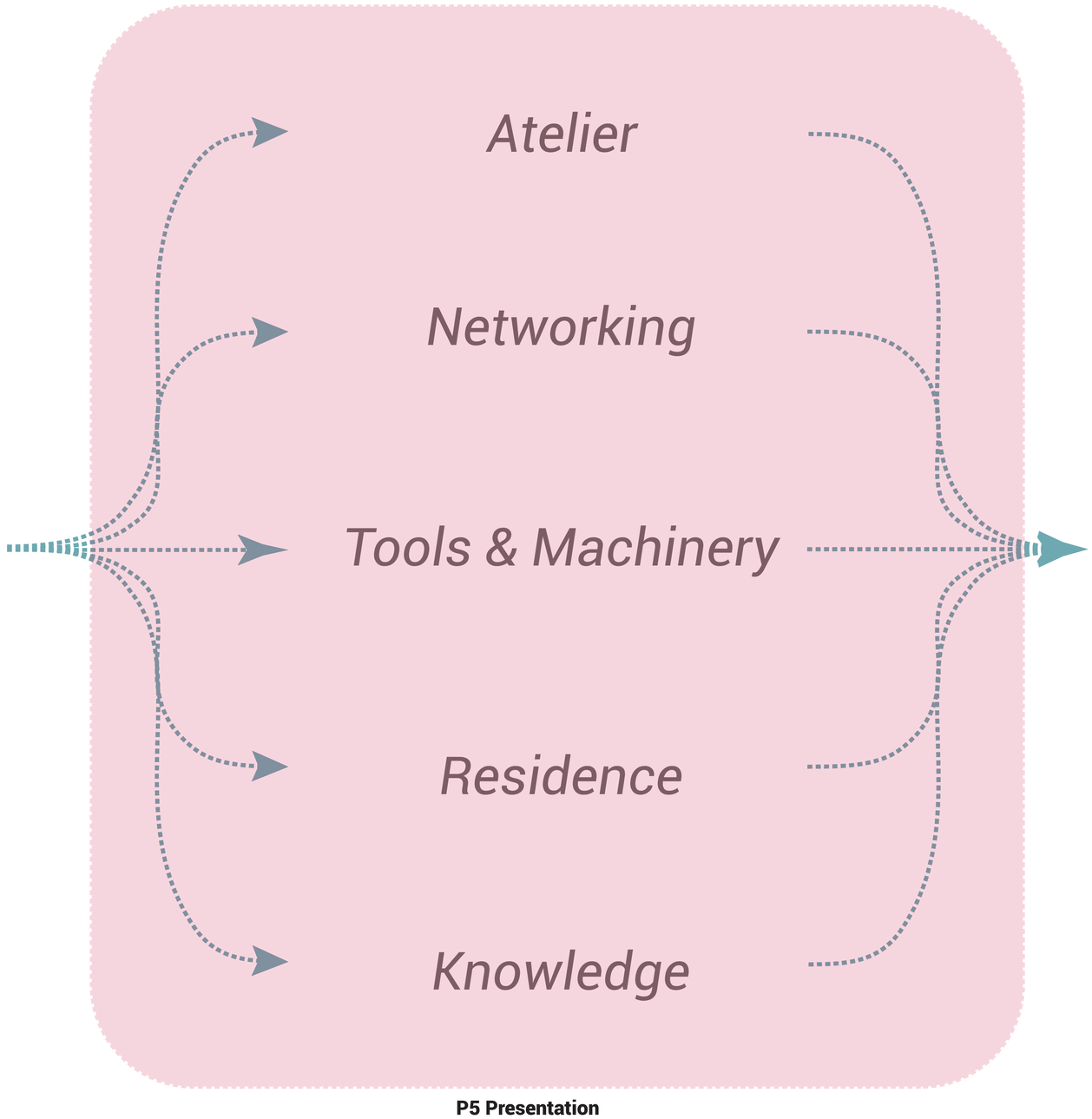


Project Goal

Create a space where every creator can receive help and achieve his goal or design

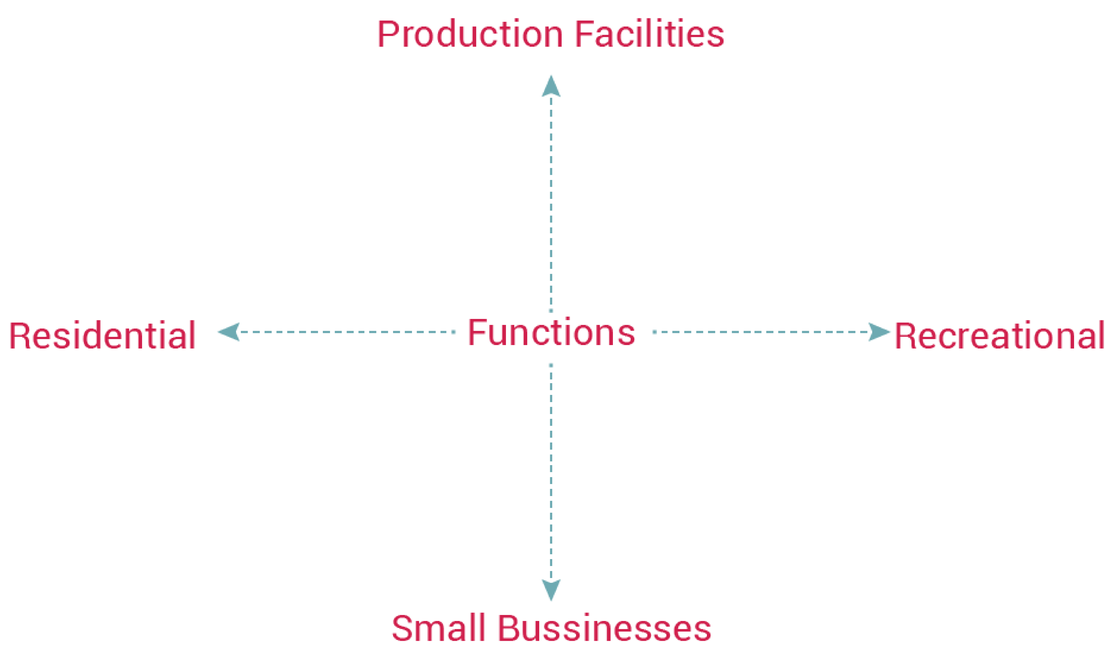


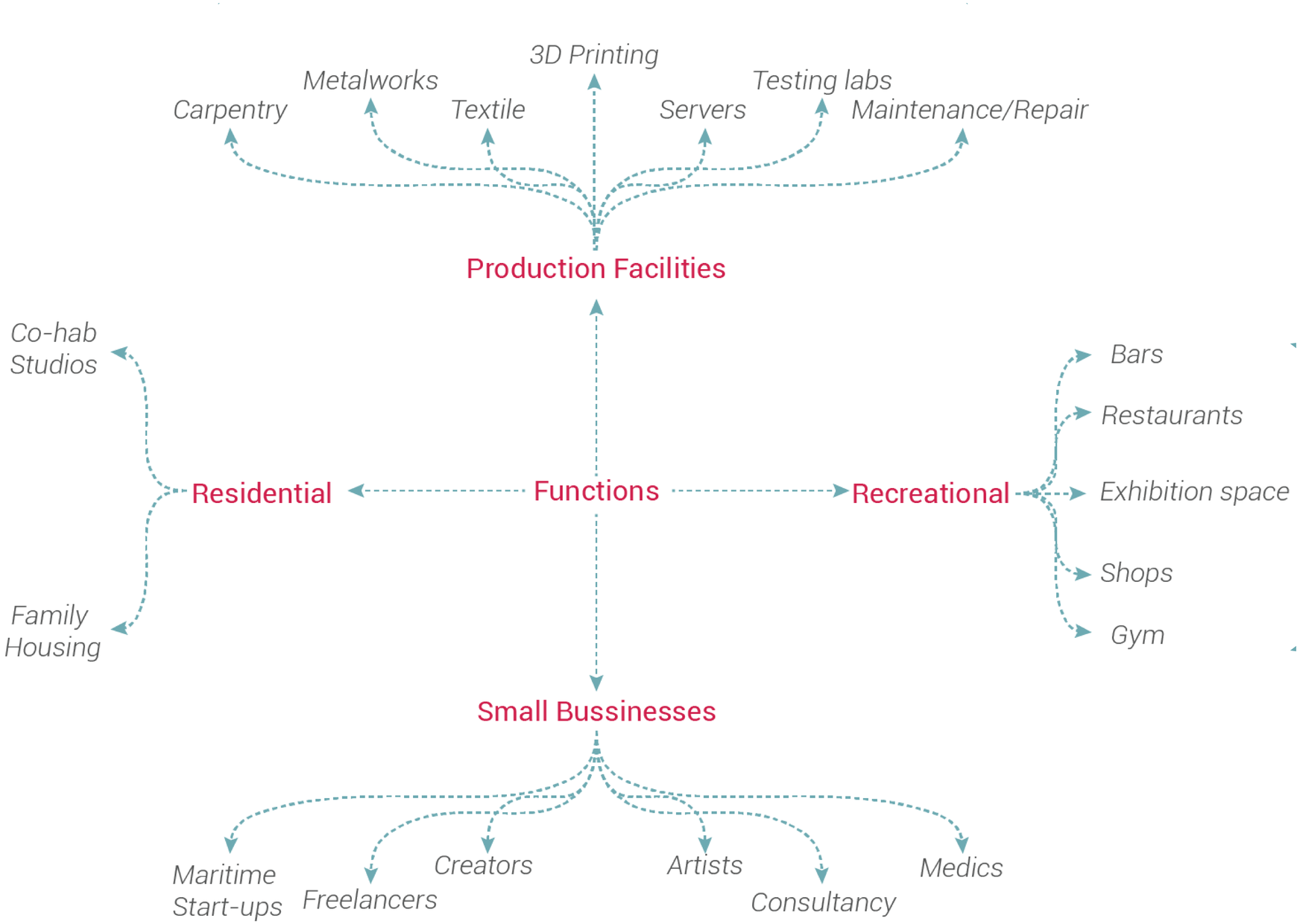
Creator with an idea

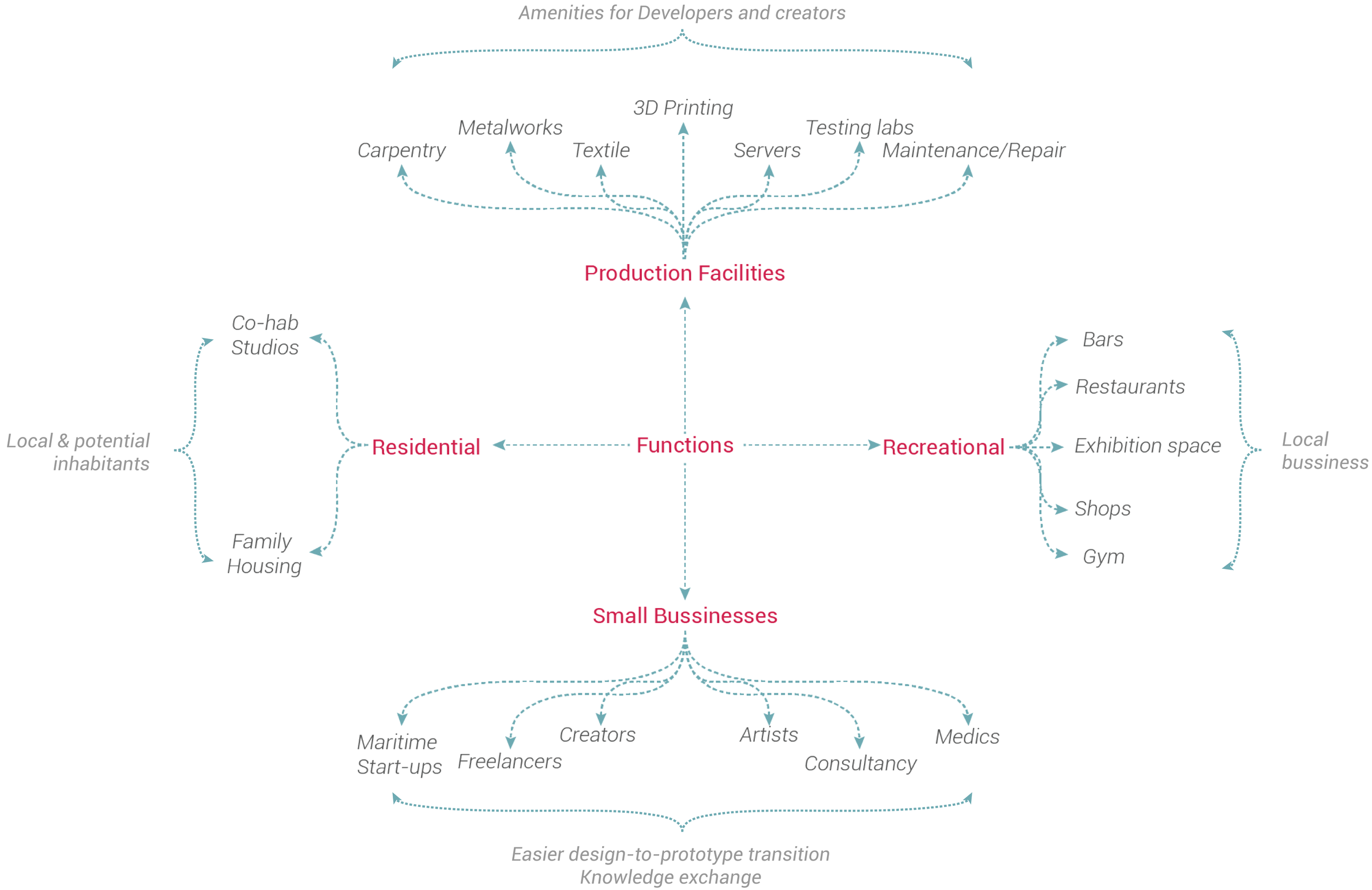




Creator with a plan


Production Facilities
Residential
Functions
Recreational
Small Bussinesses


3D Printing
Metalworks
Carpentry
Textile
Servers
Testing labs
Maintenance/Repair
Production Facilities
Co-hab
Studios
Bars
Restaurants
Residential
Functions
Recreational
Exhibition space
Shops
Family
Housing
Gym
Small Bussinesses
Maritime
Start-ups
Freelancers
Creators
Artists
Consultancy
Medics


Amenities for Developers and creators
Carpentry
Metalworks
Textile
3D Printing
Servers
Testing labs
Maintenance/Repair
Production Facilities
Local & potential inhabitants
Co-hab Studios
Family Housing
Residential
Functions
Recreational
Bars
Restaurants
Exhibition space
Shops
Gym
Local bussiness
Small Bussinesses
Maritime Start-ups
Freelancers
Creators
Artists
Consultancy
Medics
Easier design-to-prototype transition
Knowledge exchange



Building organization

Greenery

Build up area

Adaptable terrain & structures



Districts

District divisions

- Entrepreneurial
- Social/Entertainment
- Residential

Functions

Functions

- Entrepreneurial
- Supermarket
- Restaurant cluster
- Bars and Cafes
- Gym
- Residential

Infrastructure (1:1000)

Access

Pedestrian road

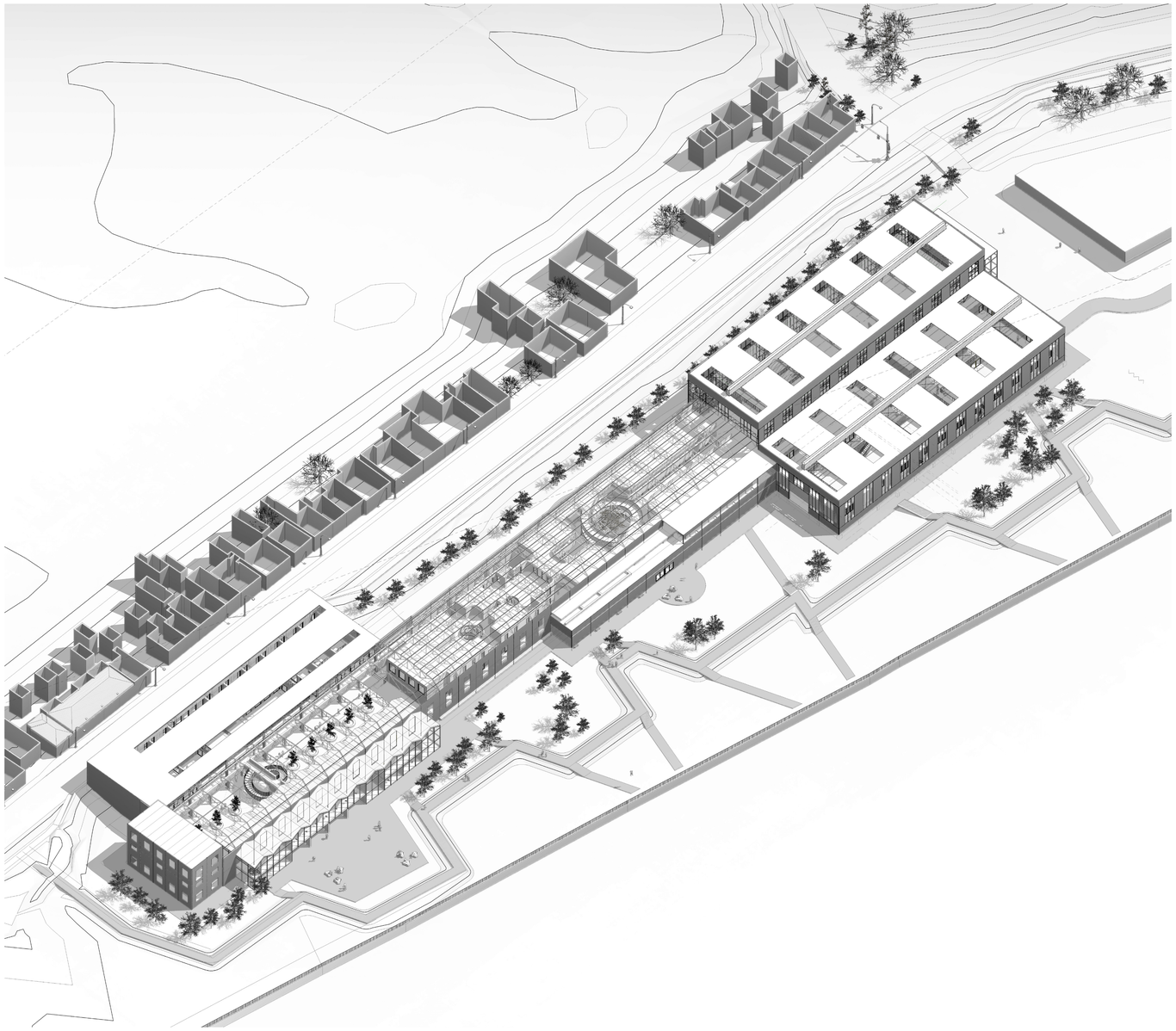
Car road

Energy generation

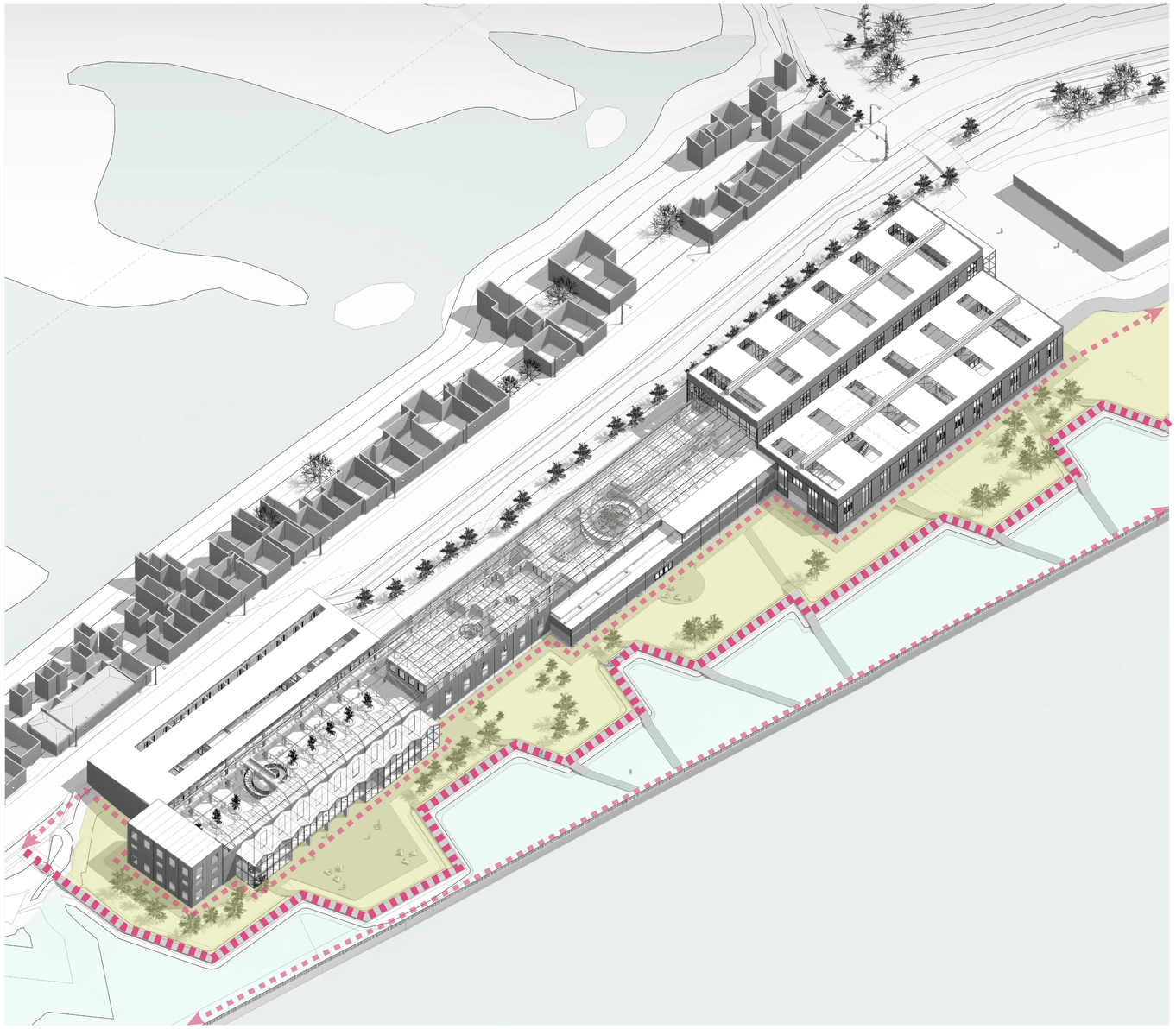
Energy generation

- Heat pump element
- PV cells
- Solar heaters

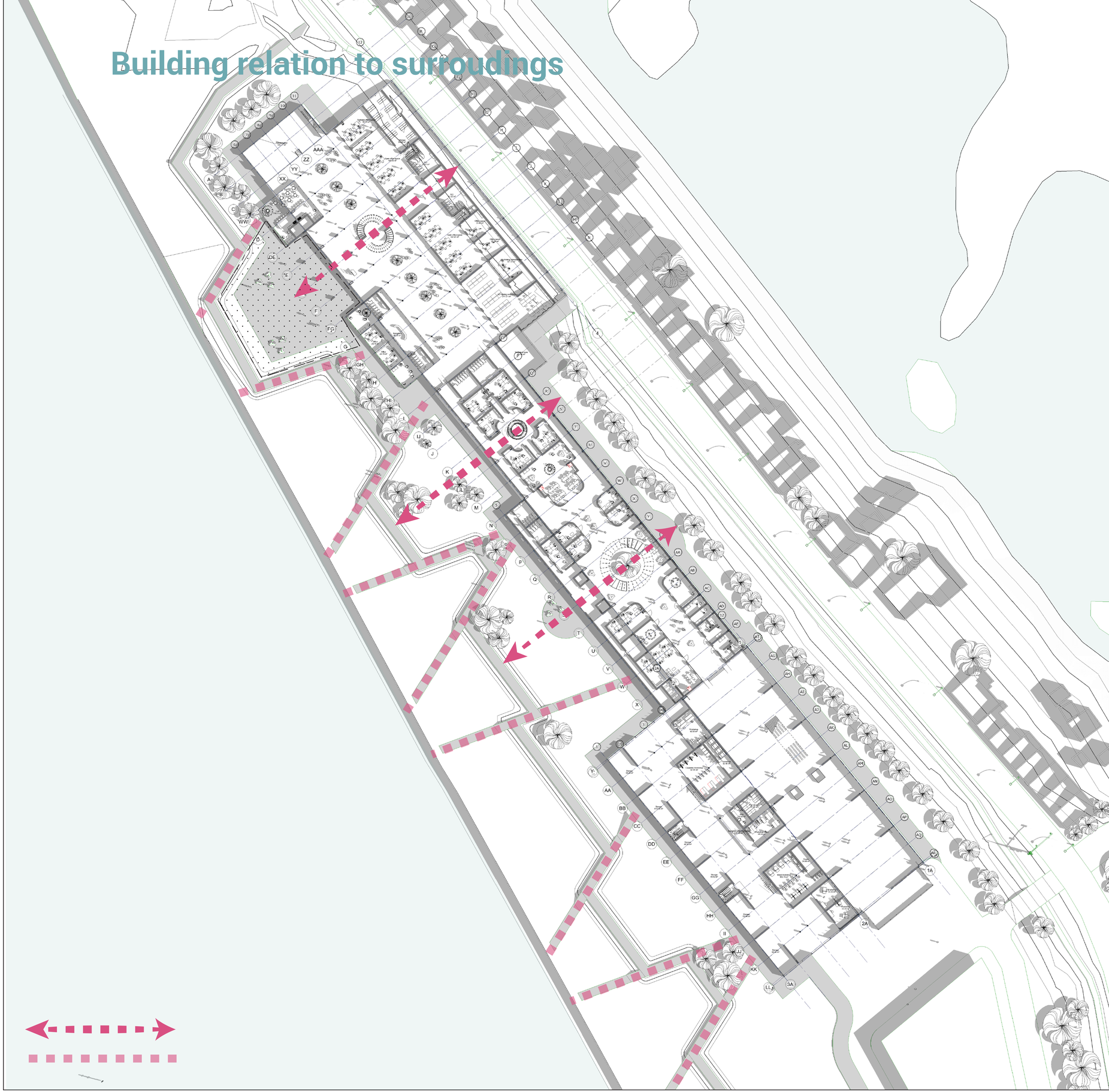
Kloos | close up



Kloos | Rivershore park



Building relation to surroudings



Graduation studio Maritime Heritage
2024

Creativity

Overarching concepts

Heritage awareness

Adaptive Phasing

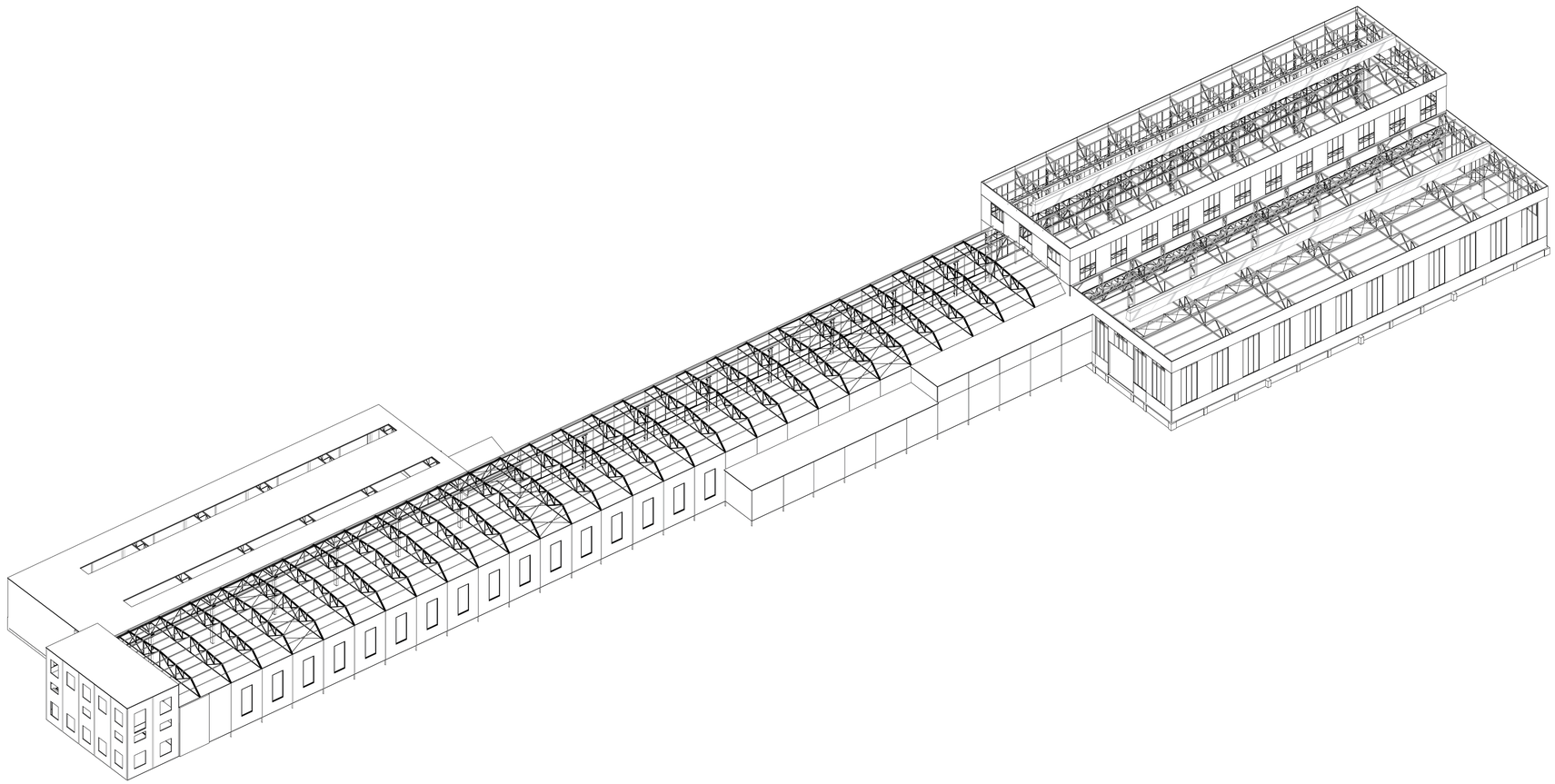
Creativity

Overarching concepts

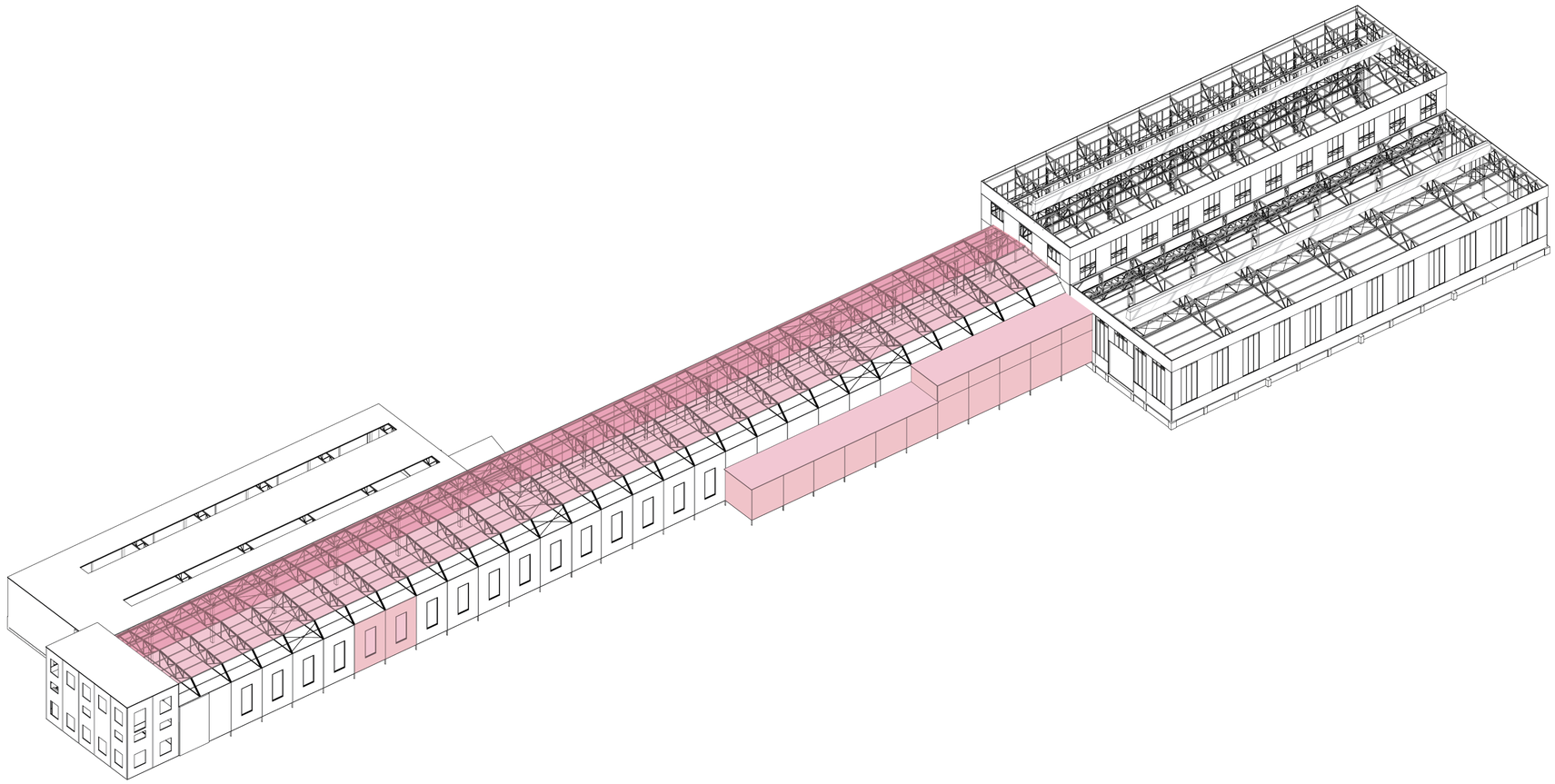
Heritage awareness

Adaptive Phasing

Concept 1 | Heritage Awareness

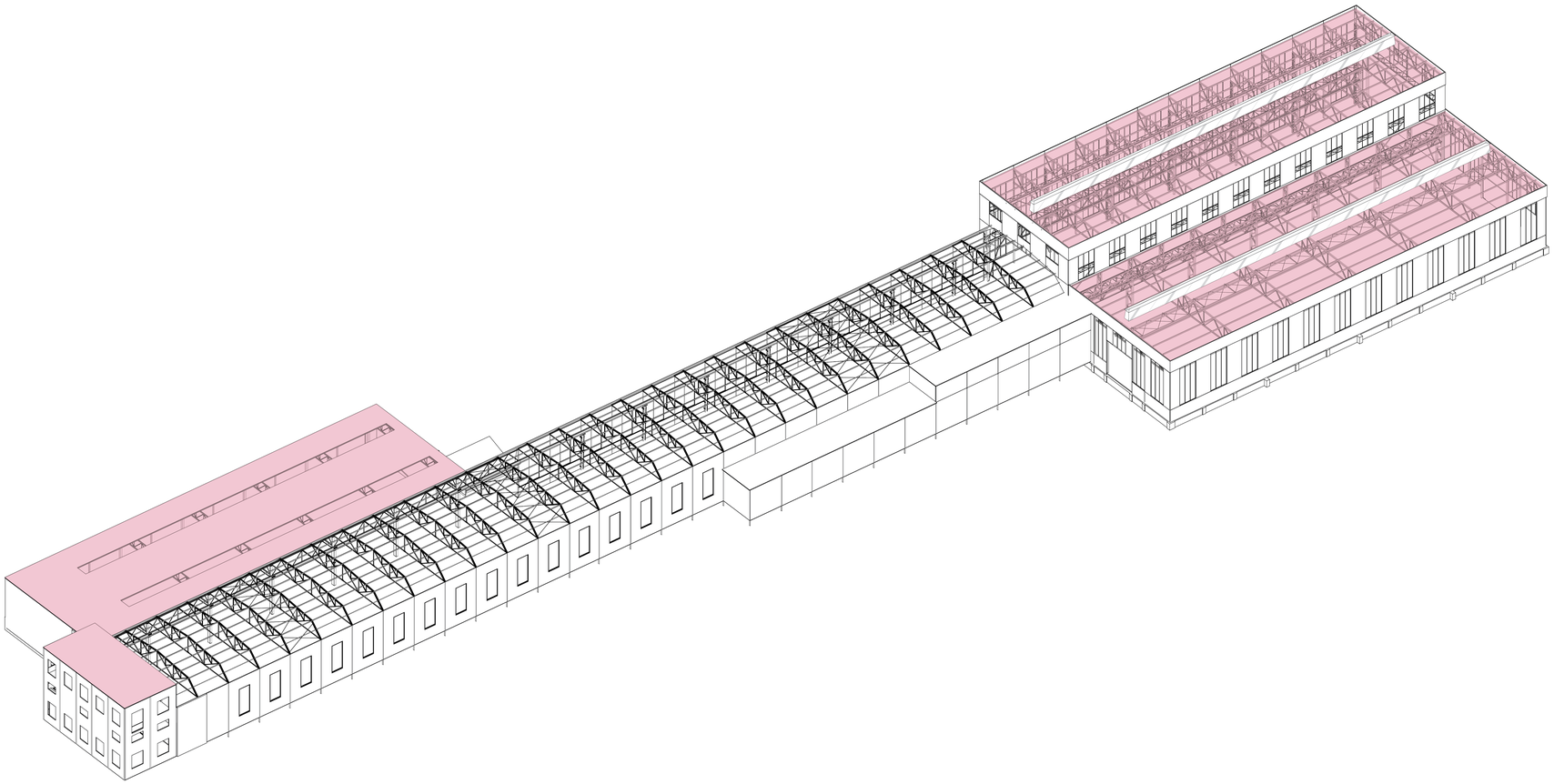


Concept 1 | Heritage Awareness



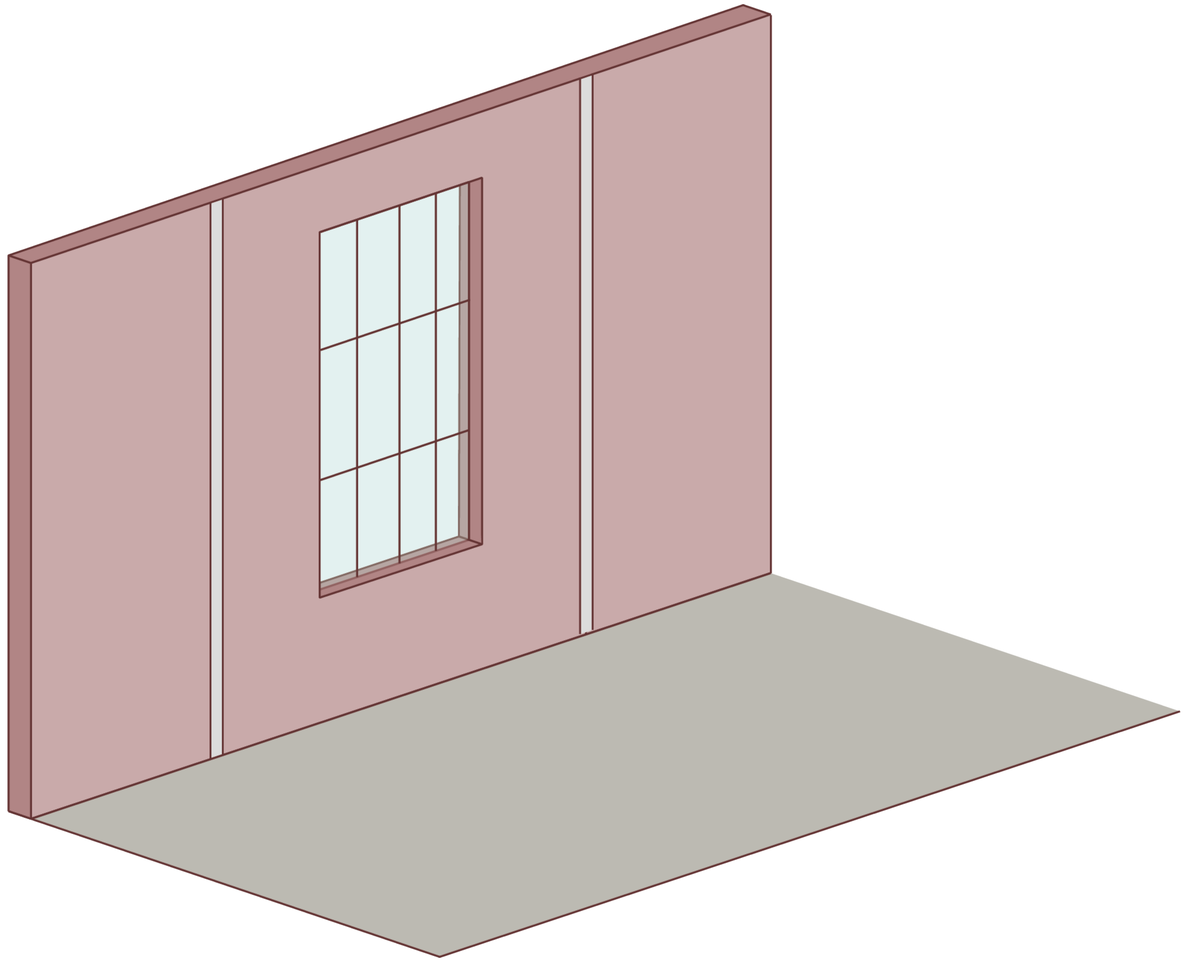
Demolished elements

Concept 1 | Heritage Awareness

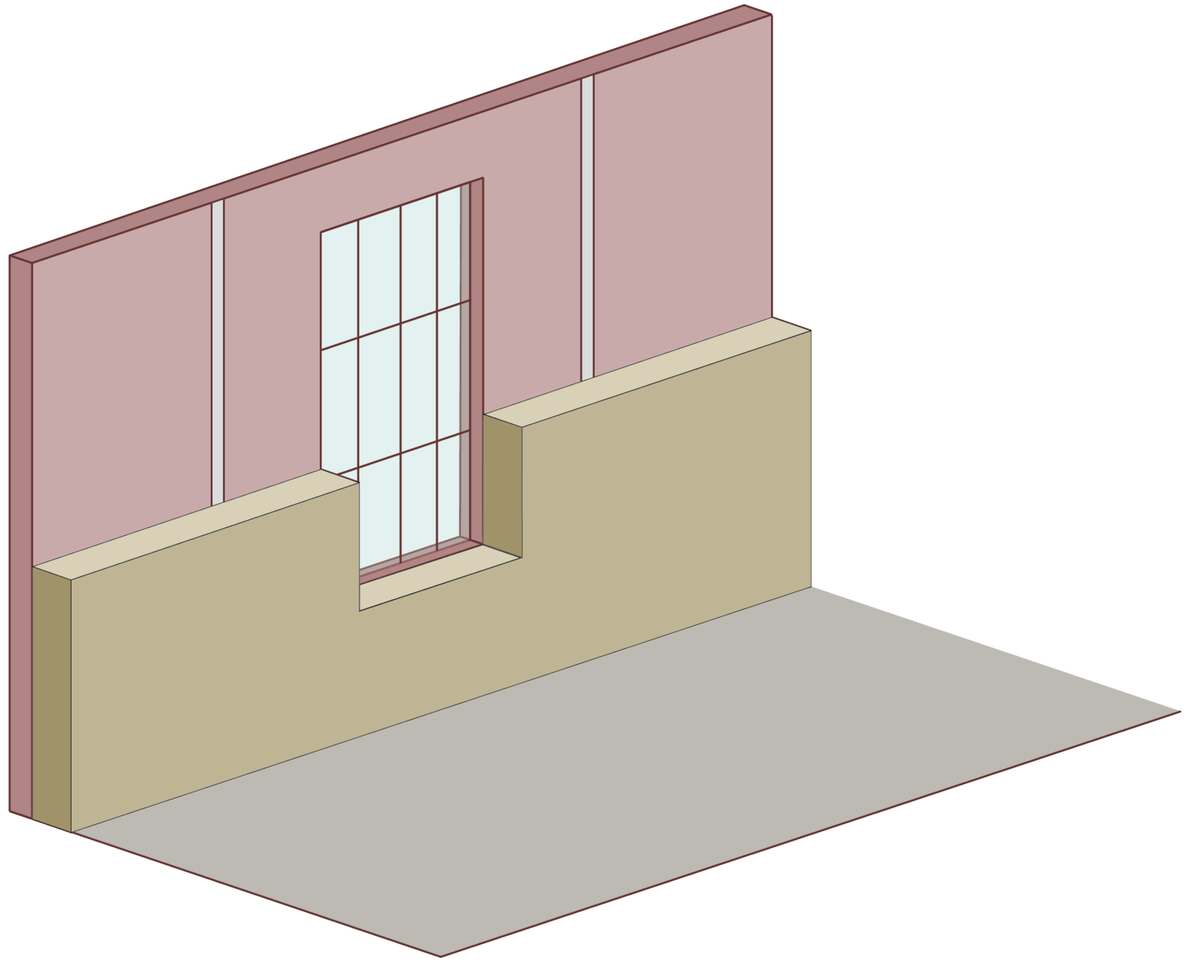


Repaired elements

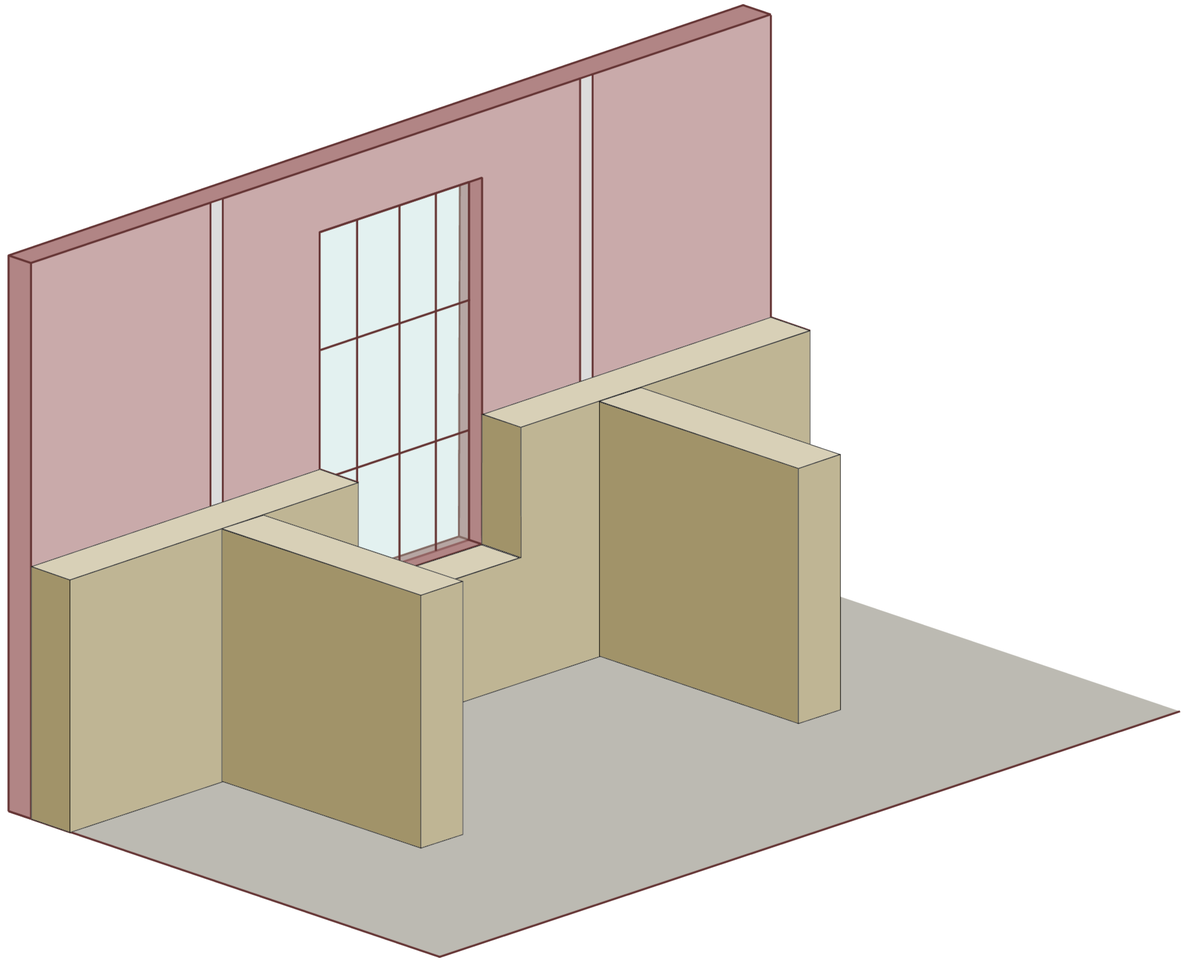
Concept 1 | Heritage Awareness



Concept 1 | Heritage Awareness



Concept 1 | Heritage Awareness



Creativity

Overarching concepts

Heritage awareness

Adaptive Phasing

Concept 2 | Creativity



Concept 2 | Creativity



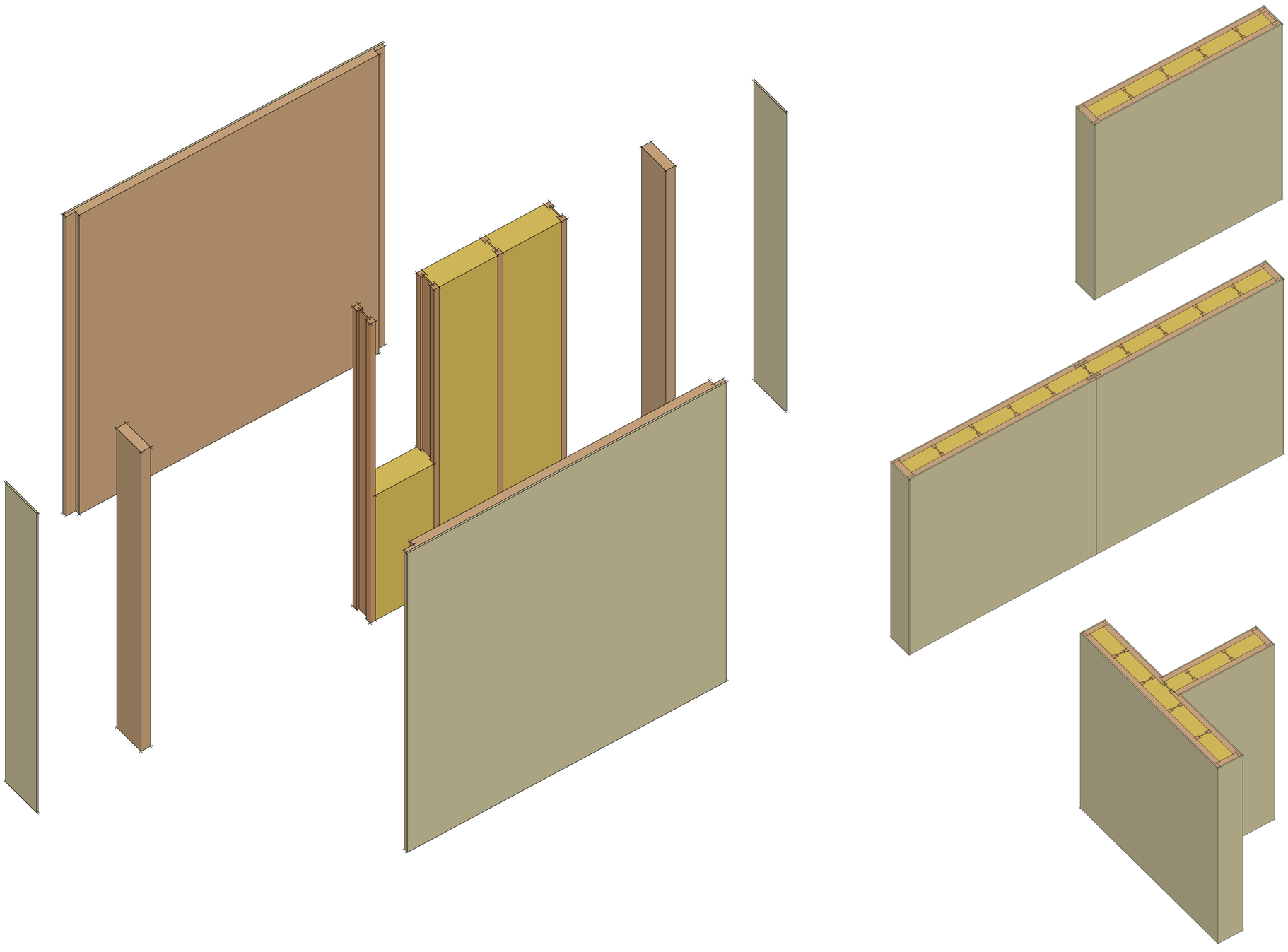
Creative space - Physical structures and elements at different scales that are deliberately designed to support creative work processes or to facilitate creativity

Concept 2 | Creativity

How to foster creativity?

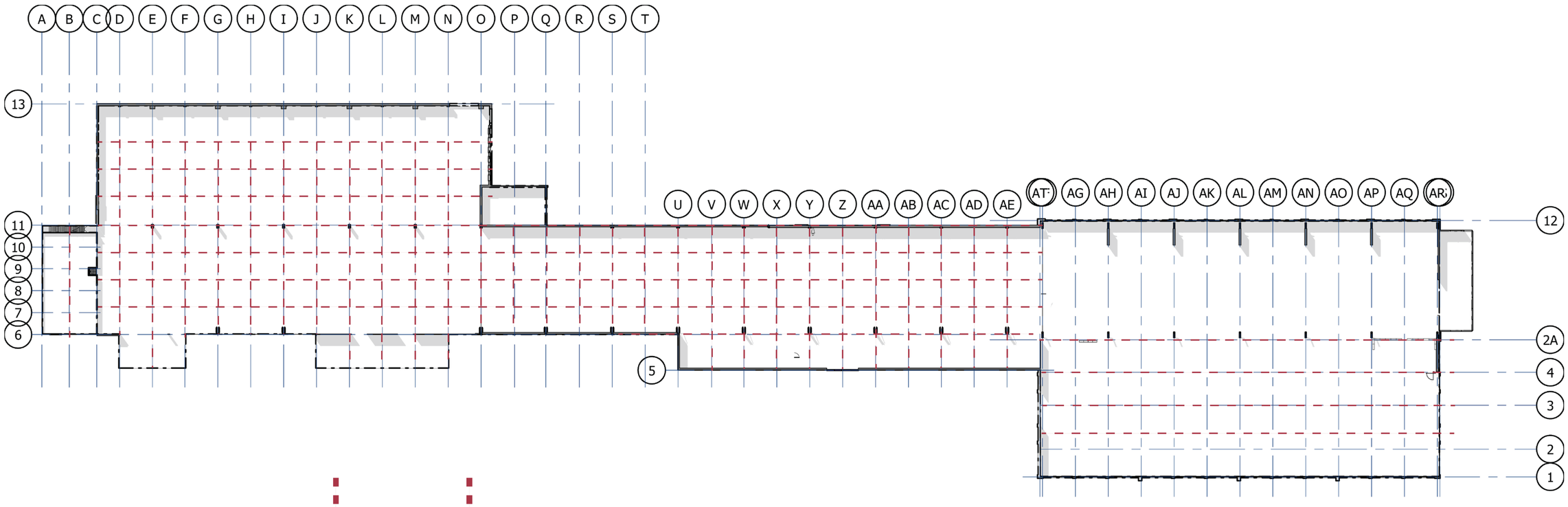
Concept 2 | Creativity

Step 1 | Modular wall systems



Concept 2 | Creativity

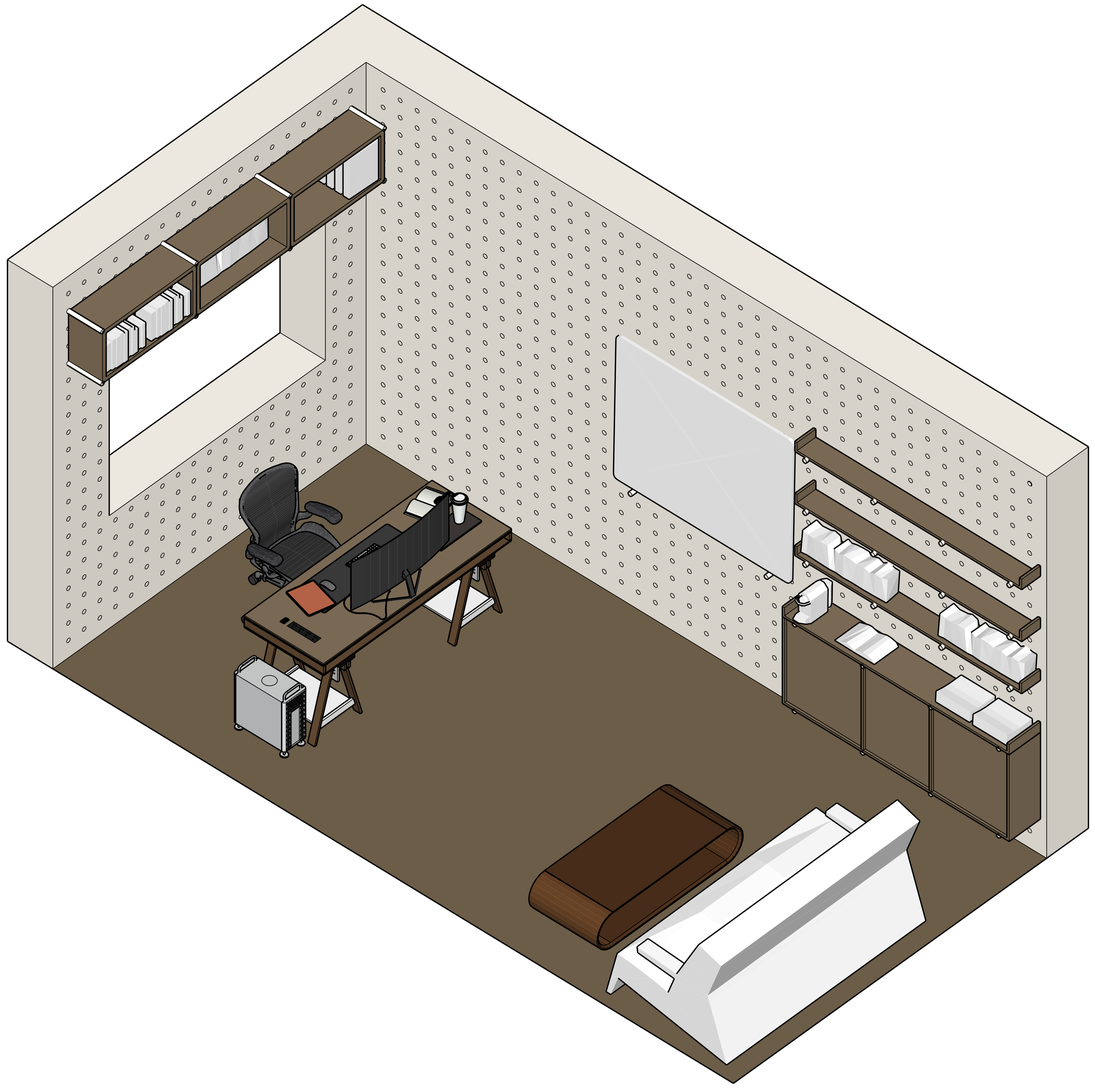
Step 2 | standard grid



6 x 6 GRID

Concept 2 | Creativity

Step 3 | Foster personalization





Concept 2 | Creativity

Step 4 | Accept growth



Concept 2 | Creativity

Step 4 | Accept growth



Concept 2 | Creativity

Step 4 | Accept growth



Creativity

Overarching concepts

Heritage awareness

Adaptive Phasing

Concept 3 | Adaptive phasing

Adaptive phasing - Dividing the project in completion phases with the possibility of future adaptation and economic safety.

Concept 3 | Adaptive phasing

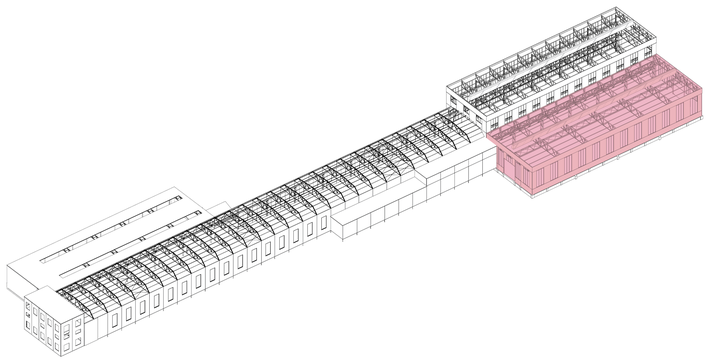
Advantages

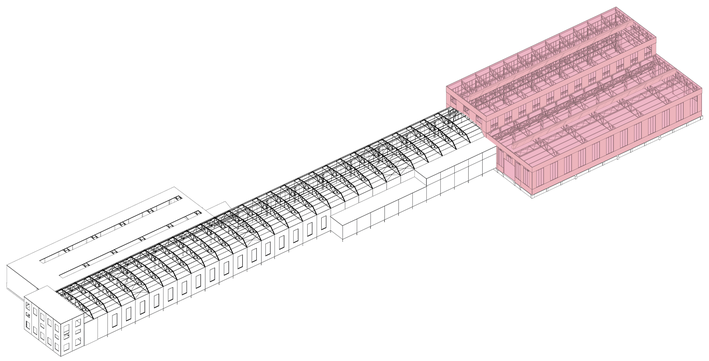
Decreased Economic risk

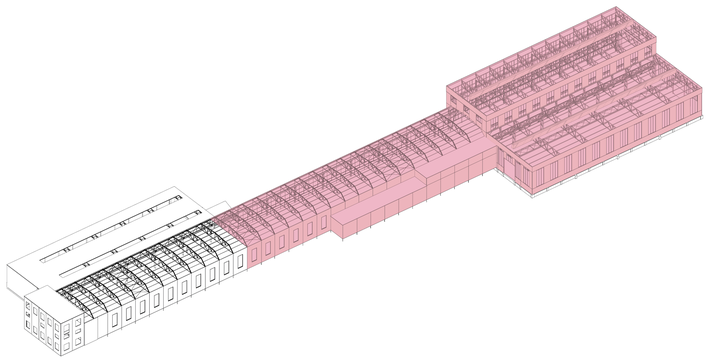
Open to adaptive solutions

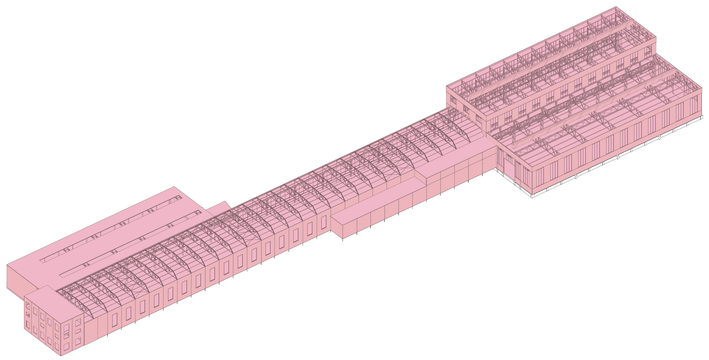
Increased sustainability

Concept 3 | Adaptive phasing





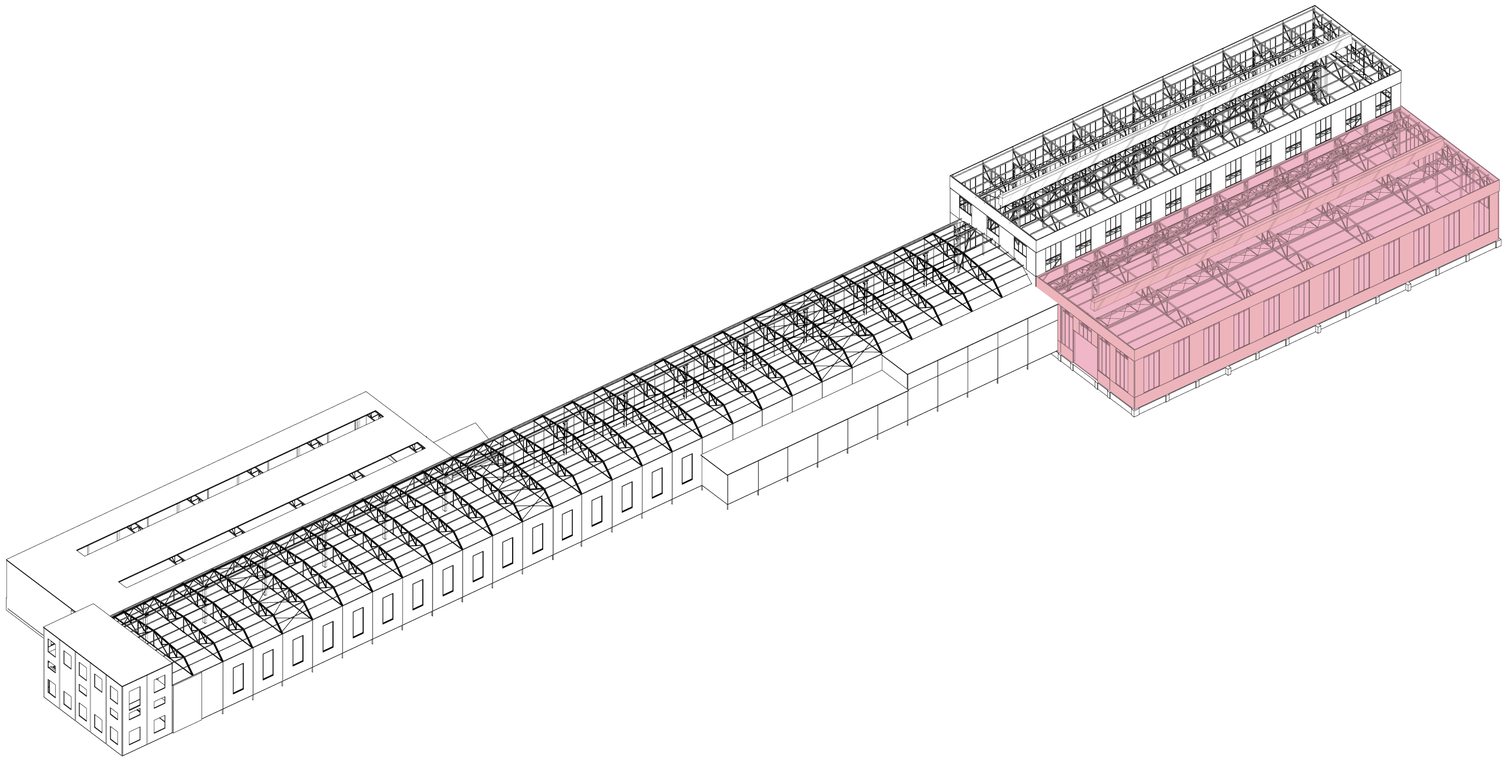




Concept 3 | Adaptive phasing

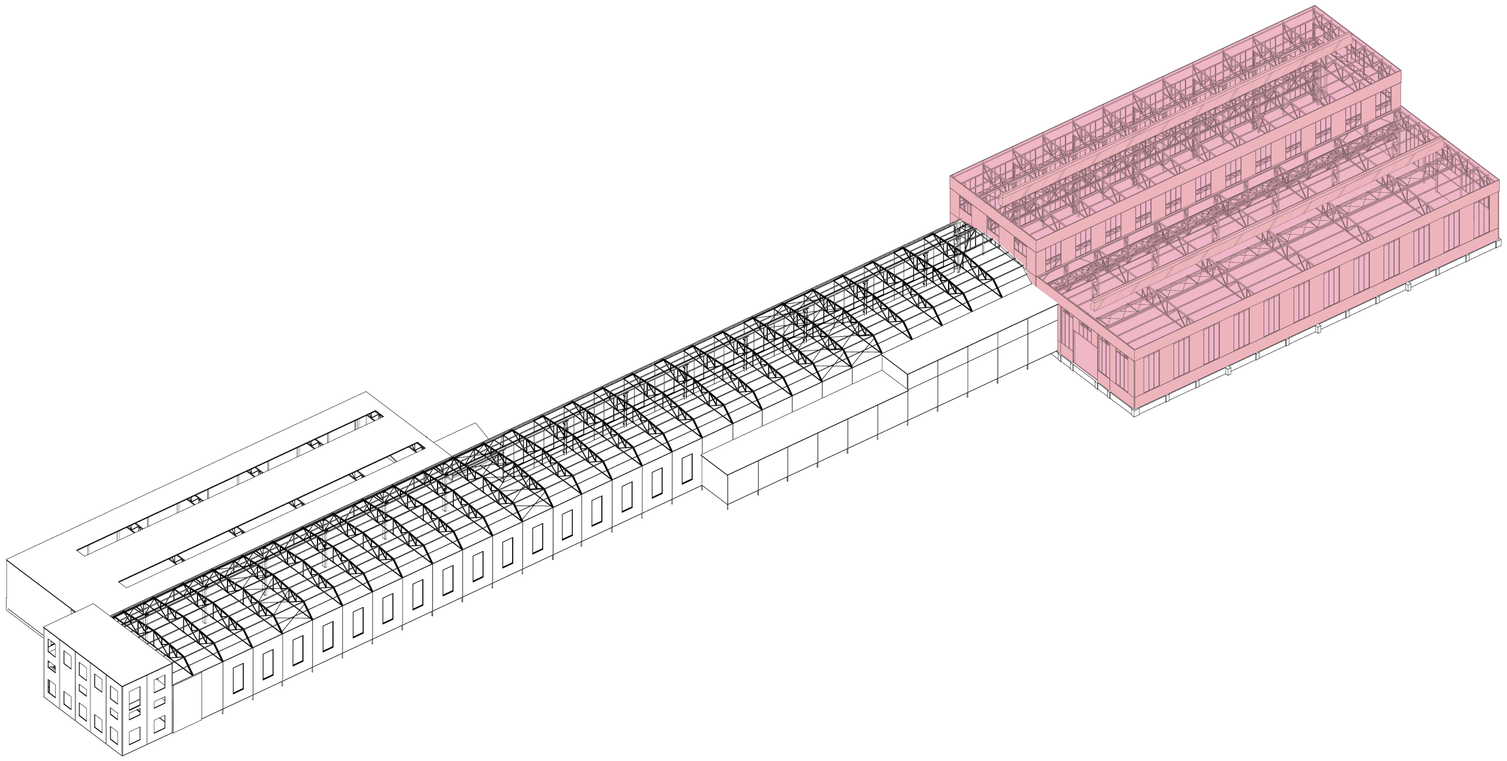
Phase 1 | Workshop

Small scale manufacturing
Tool rental & workshops
Repair services



Concept 3 | Adaptive phasing

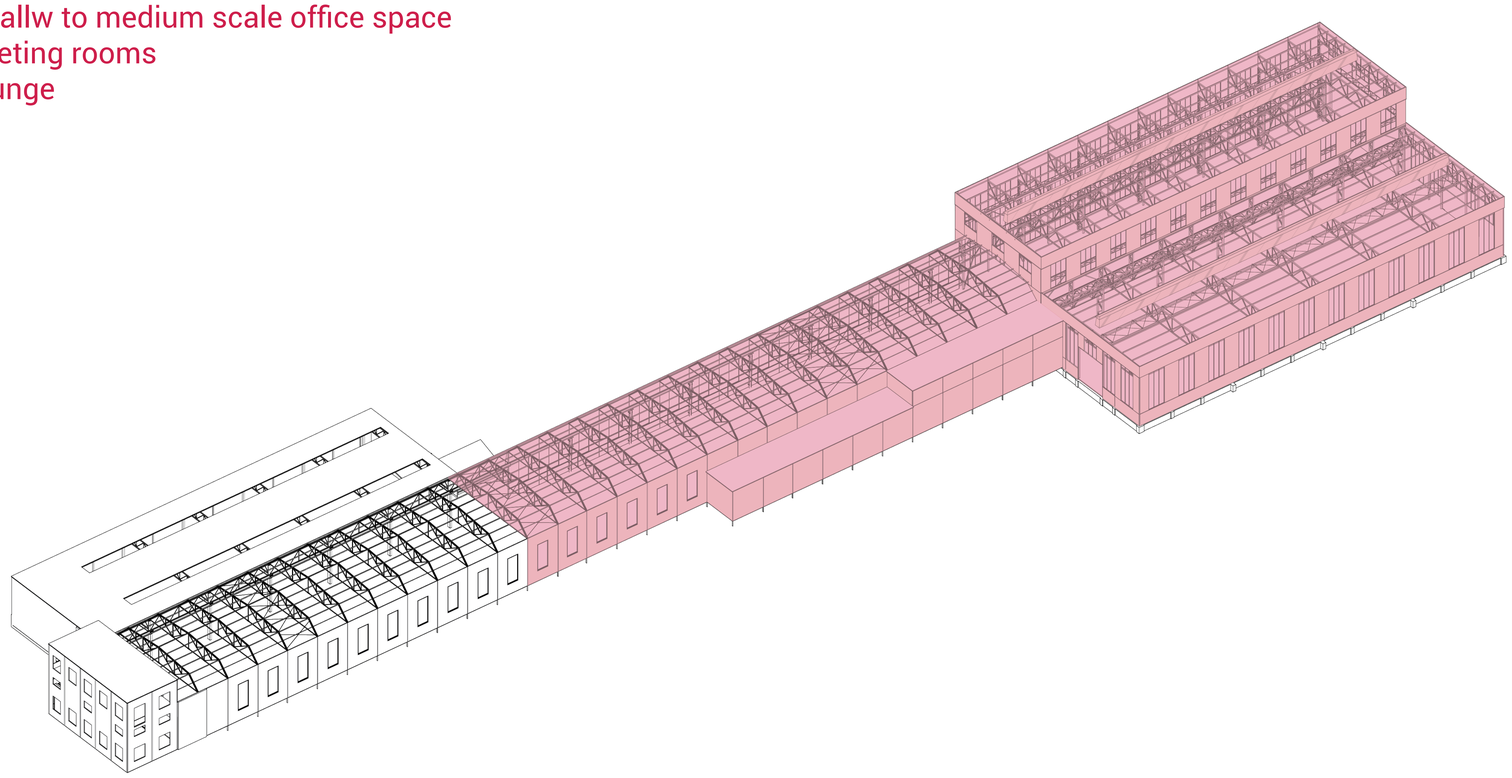
Phase 2 | Exhibition space
Small scale manufacturing
Tool rental & workshops
Repair services
Public events
Catering
Exhibition



Concept 3 | Adaptive phasing

Phase 3 | Offices, meeting rooms & lounge

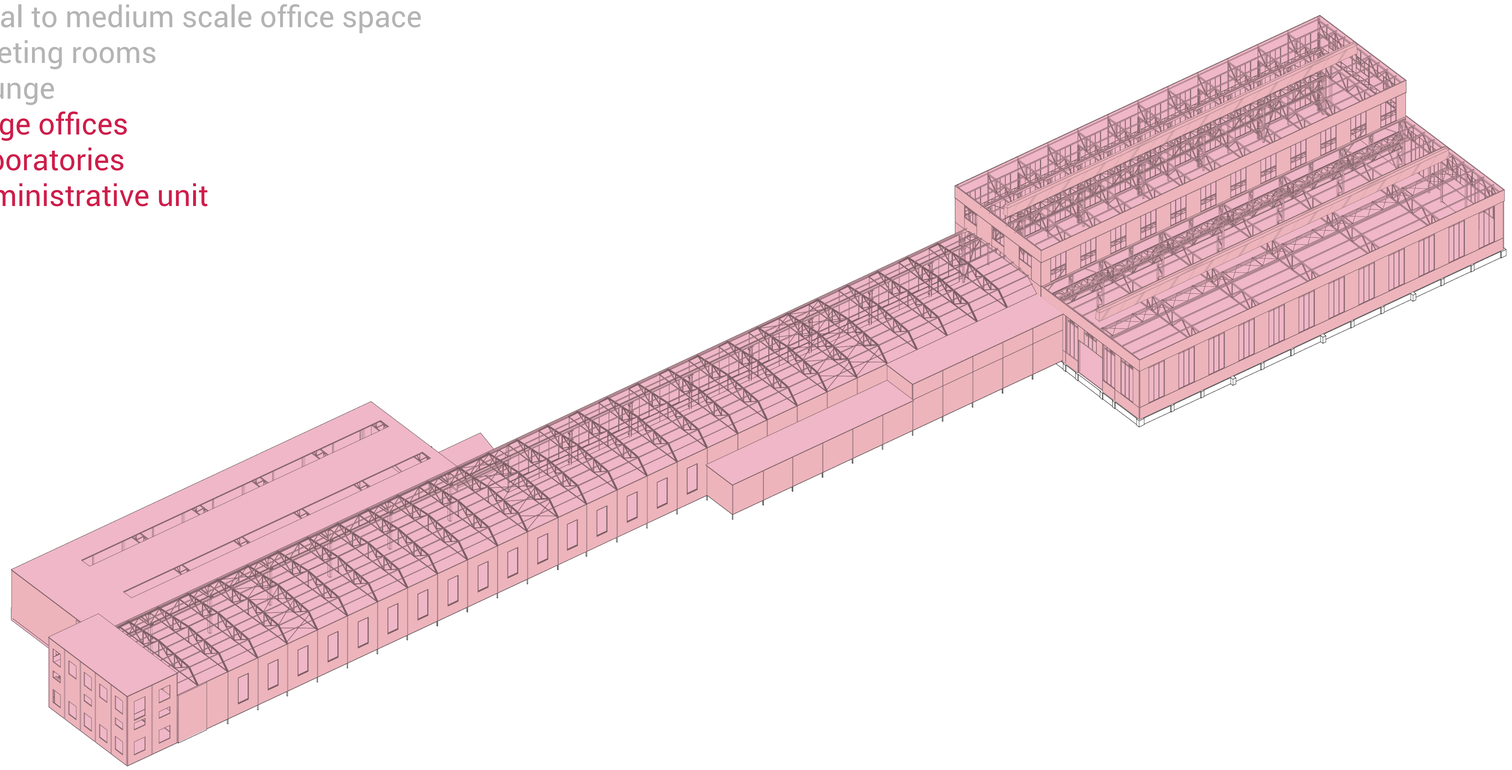
Small scale manufacturing
Tool rental & workshop
Repair services
Public events
Catering
Exhibition
Smallw to medium scale office space
Meeting rooms
Lounge



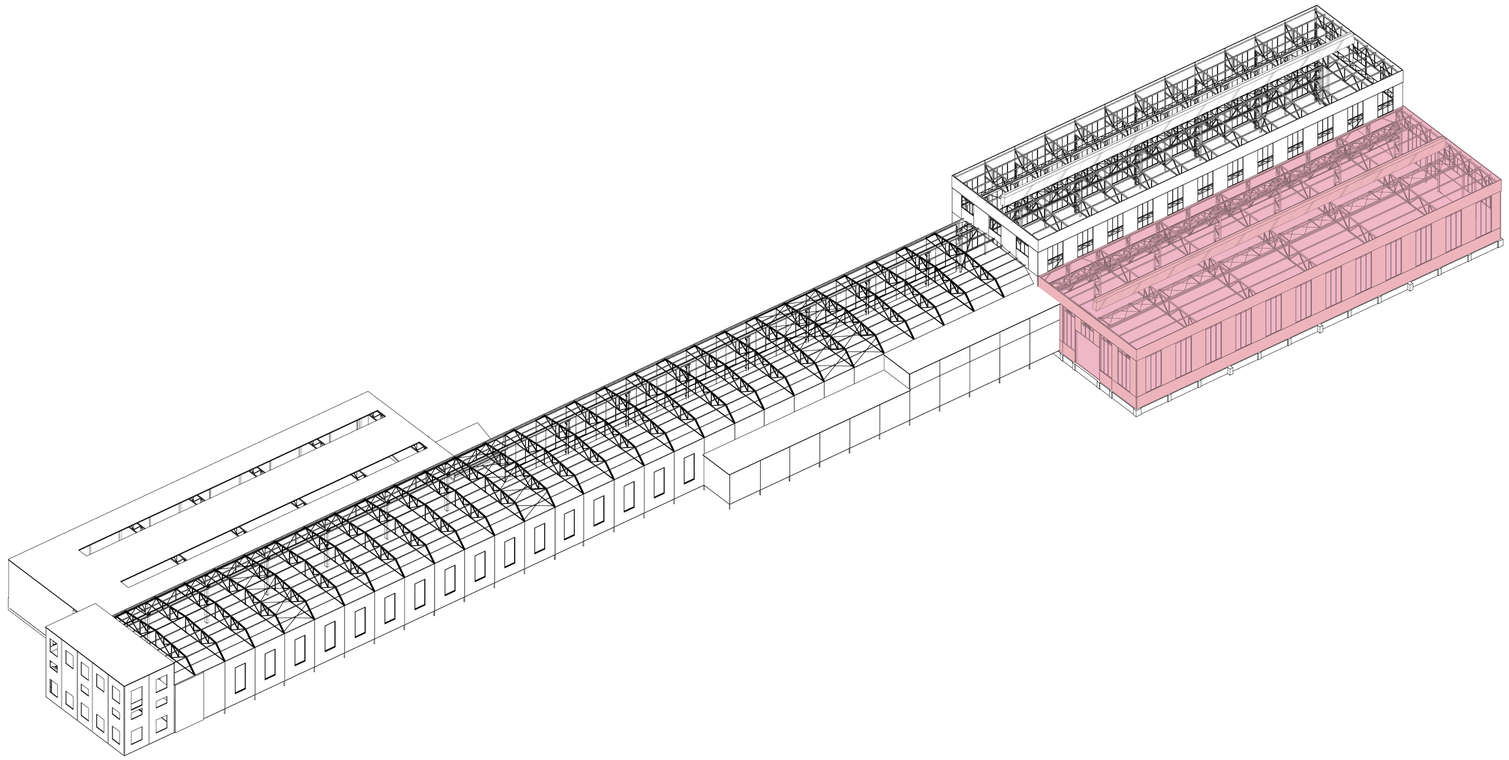
Concept 3 | Adaptive phasing

Phase 4 | Laboratories, big offices, administrative wing

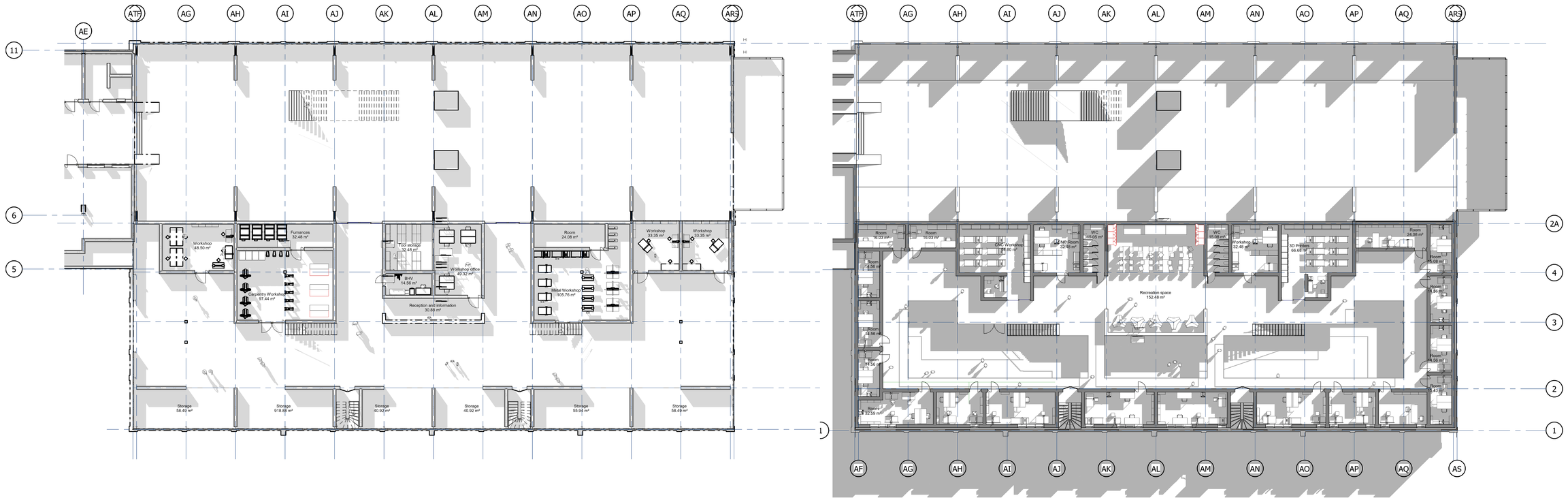
Small scale manufacturing
Tool rental & workshop
Repair services
Public events
Catering
Exhibition
Smal to medium scale office space
Meeting rooms
Lounge
Large offices
Laboratories
Administrative unit

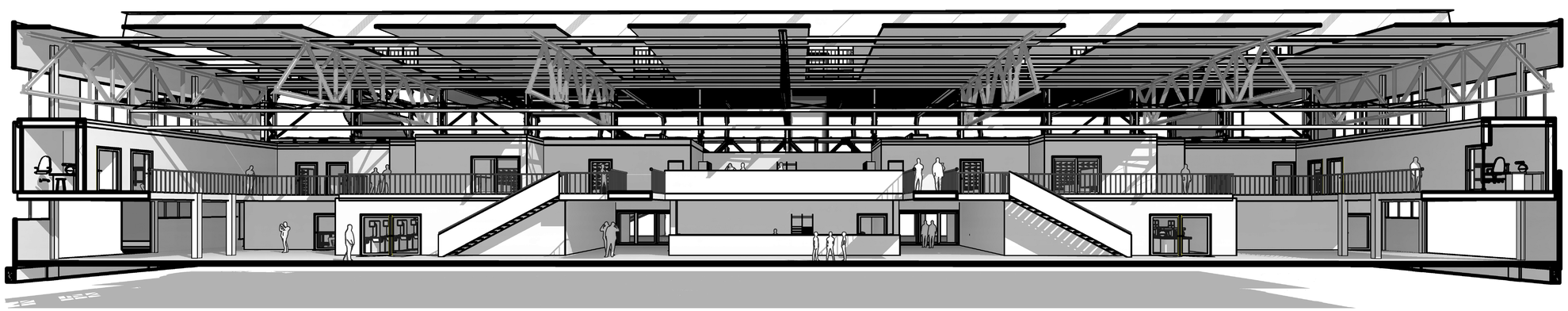


Phase 1 | Workshop

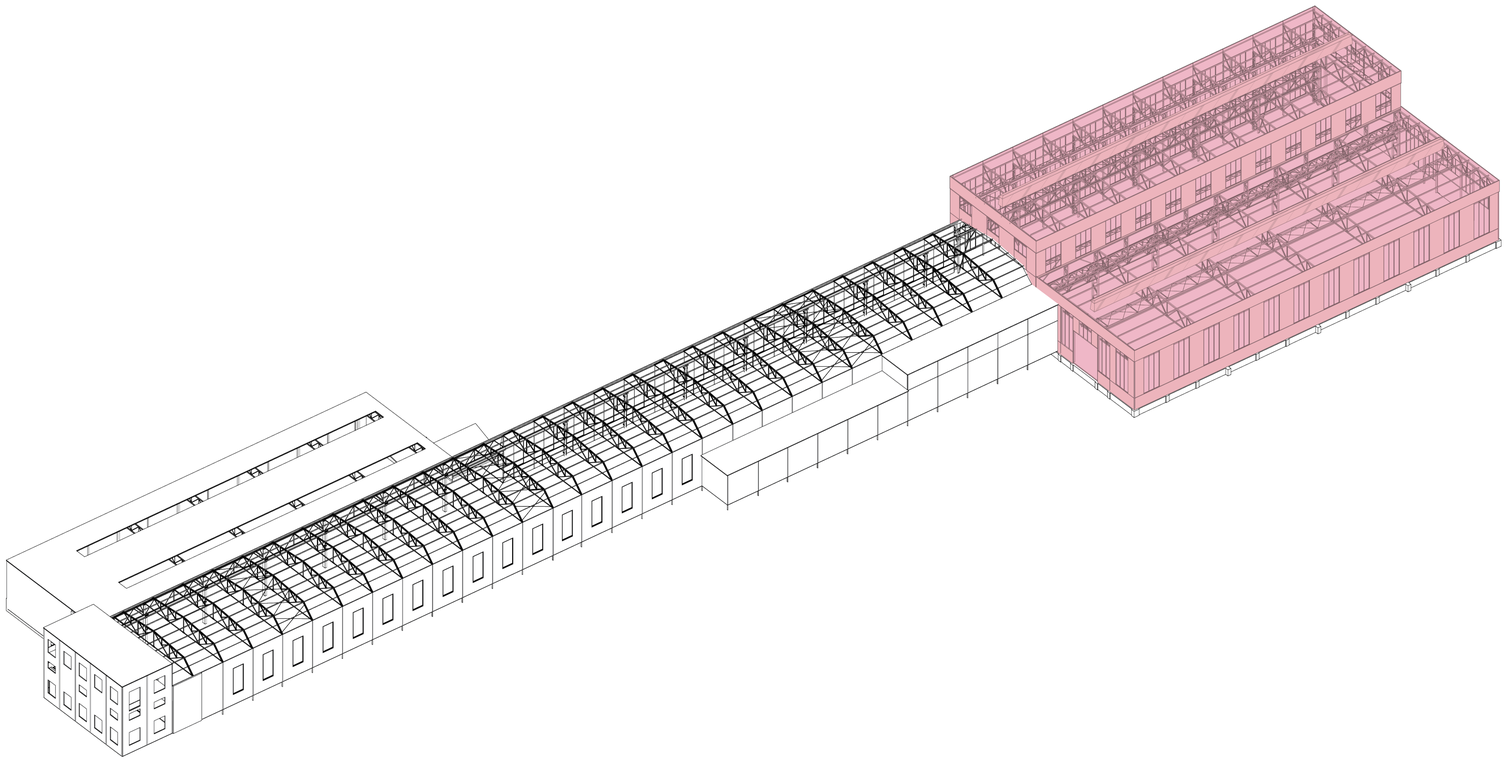


Phase 1 | Workshop

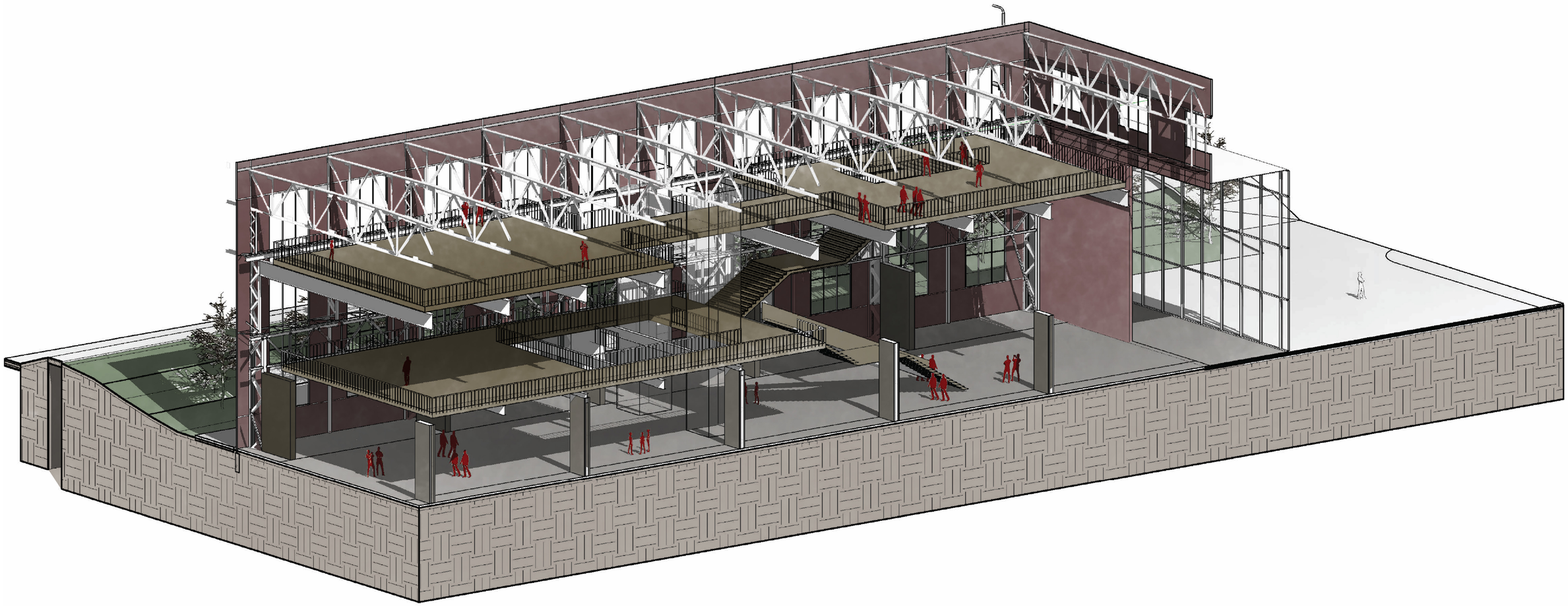




Phase 2 | Exhibition space



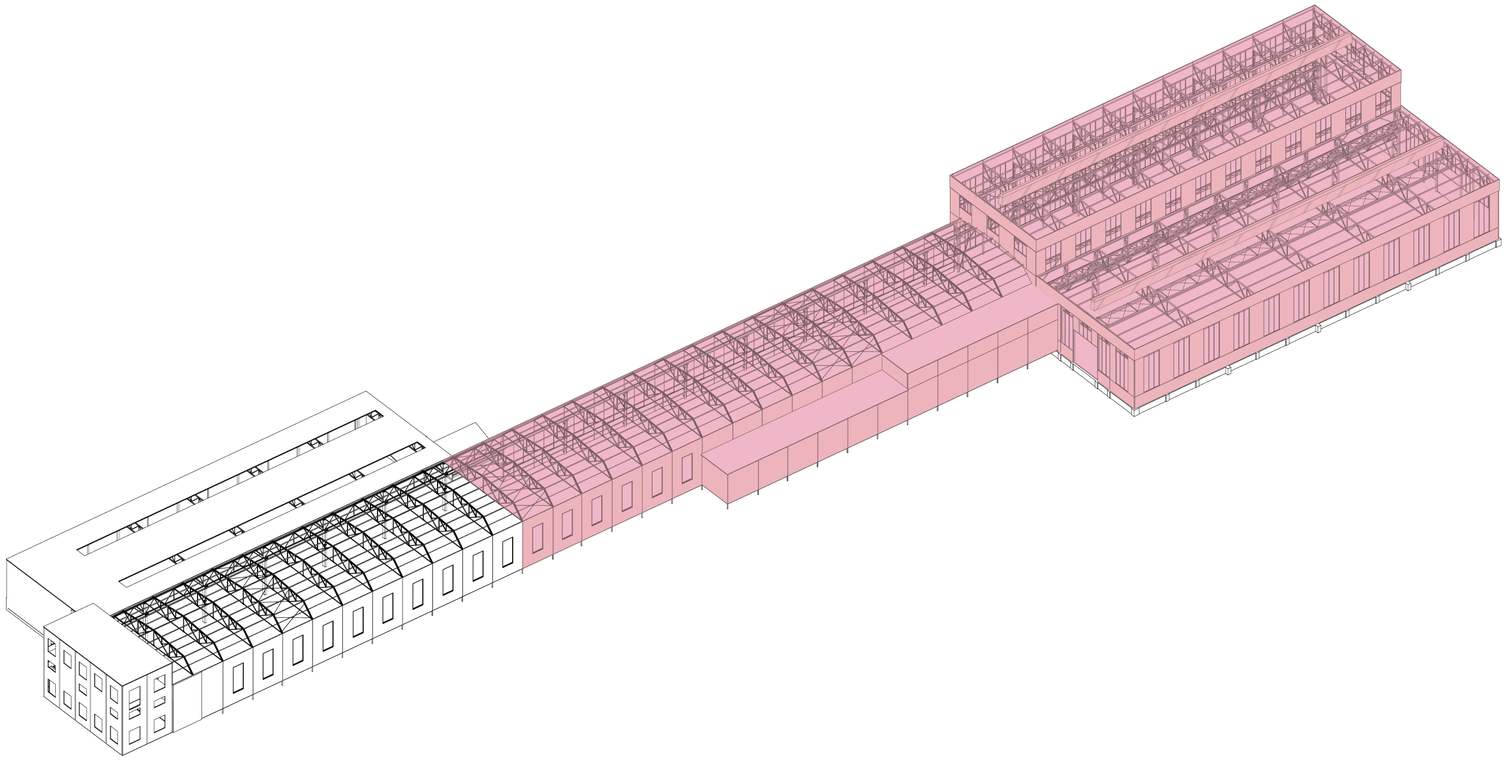
Phase 2 | Exhibition space



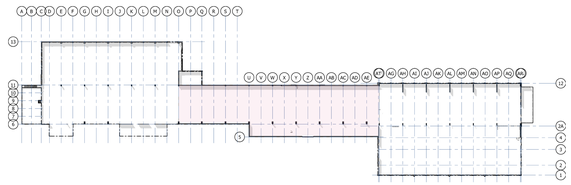
Phase 2| Exhibition space impression

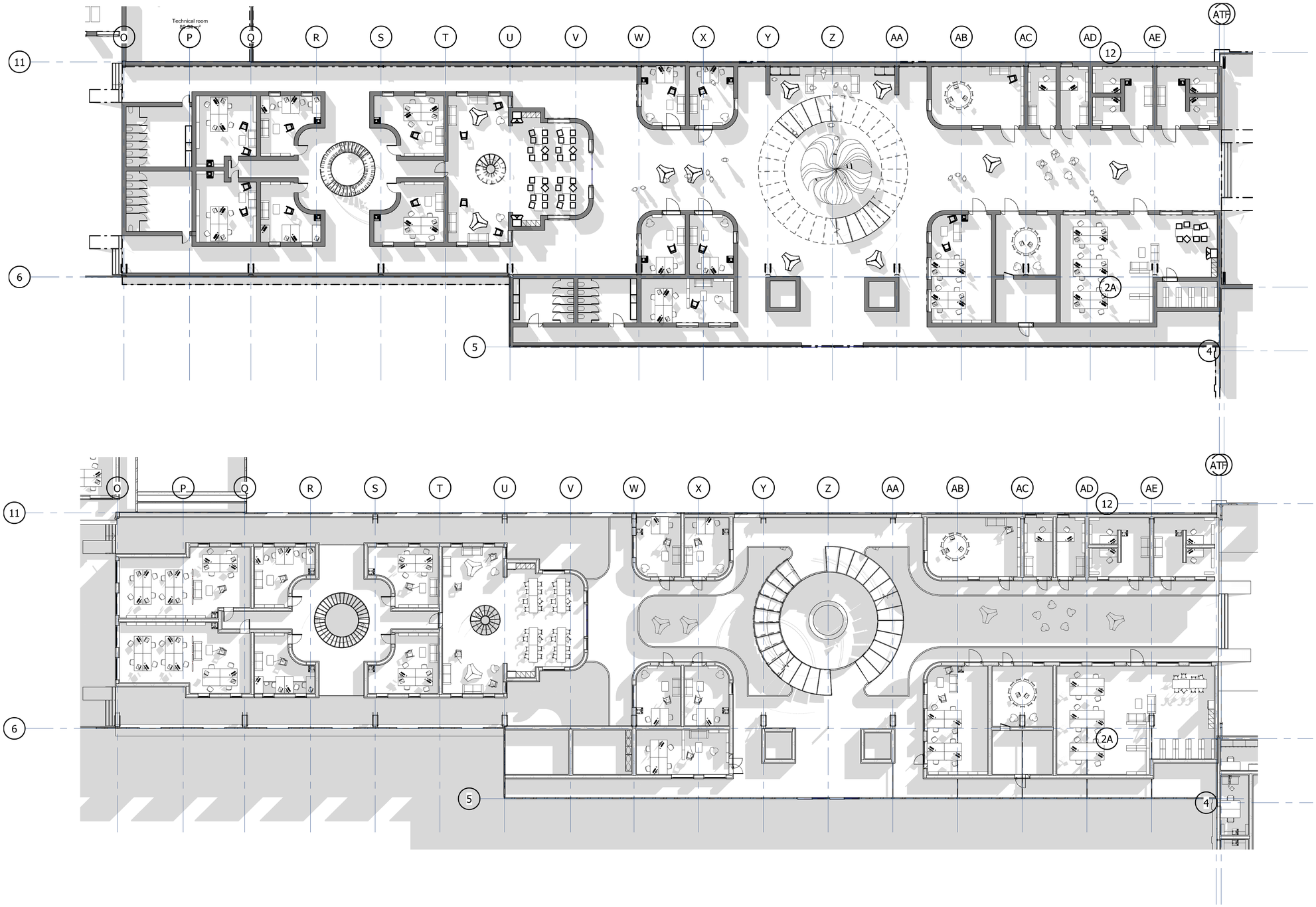


Phase 3 | Offices

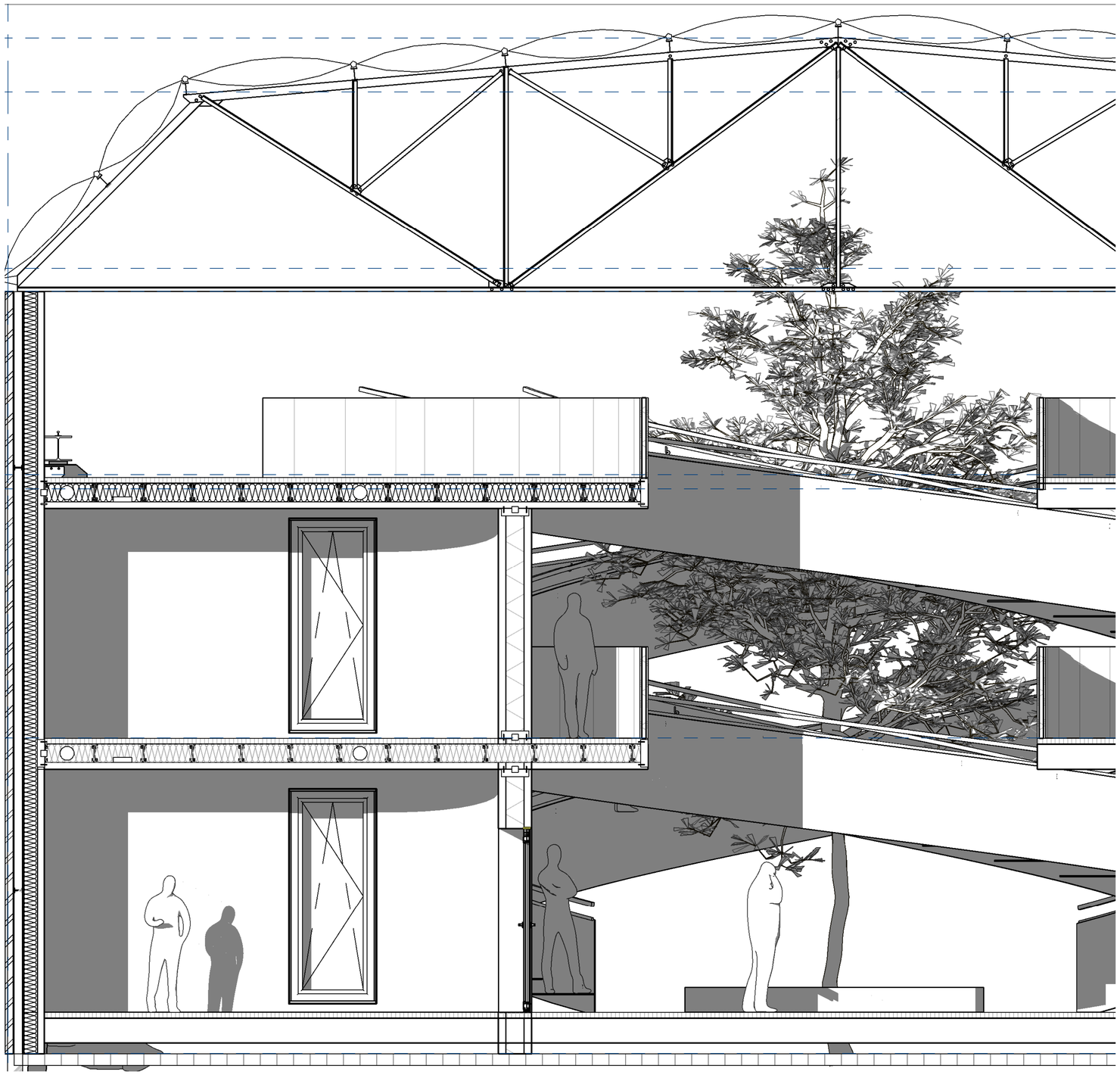


Phase 3 | Office plan



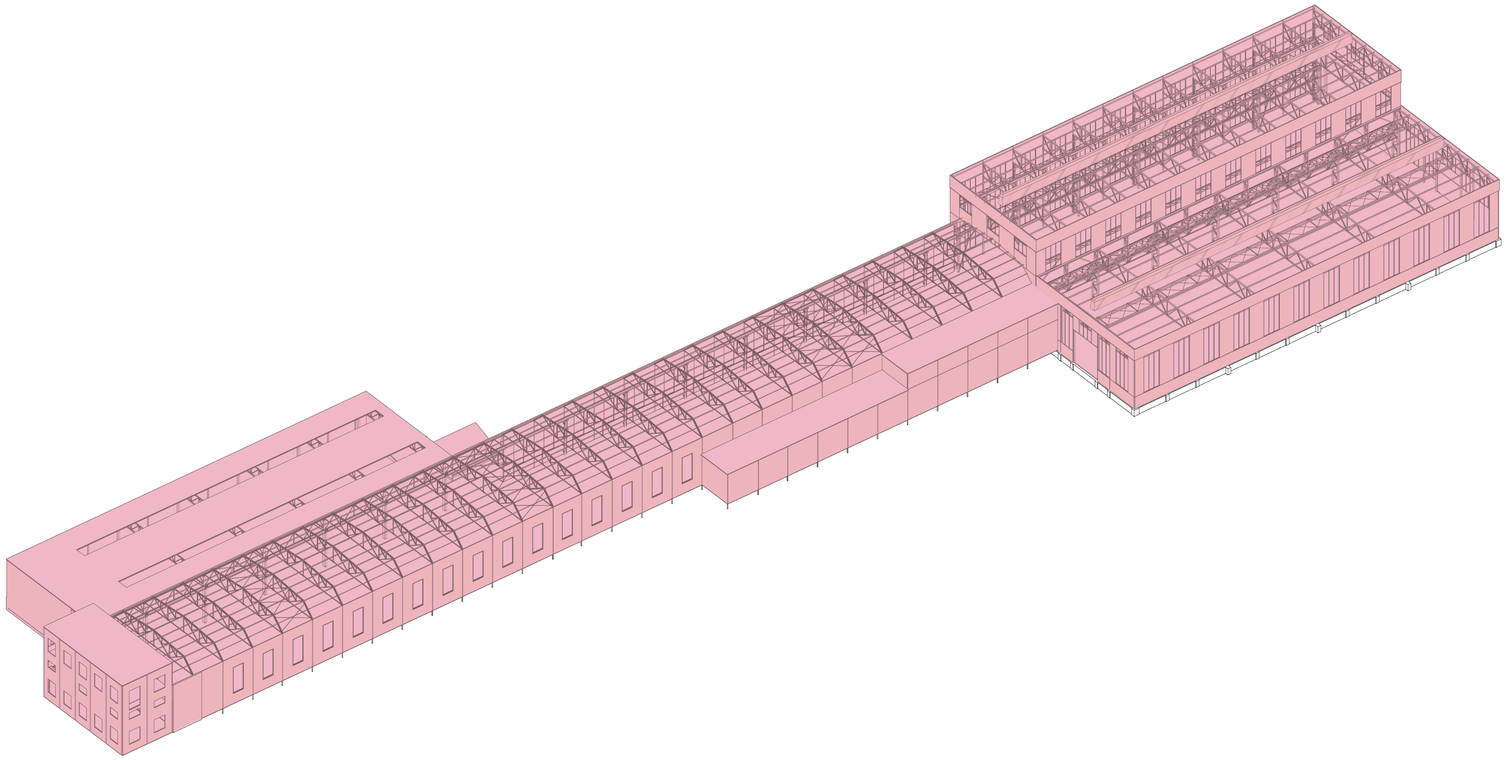


Phase 3 | Offices





Phase 4 | Aministration & Labs

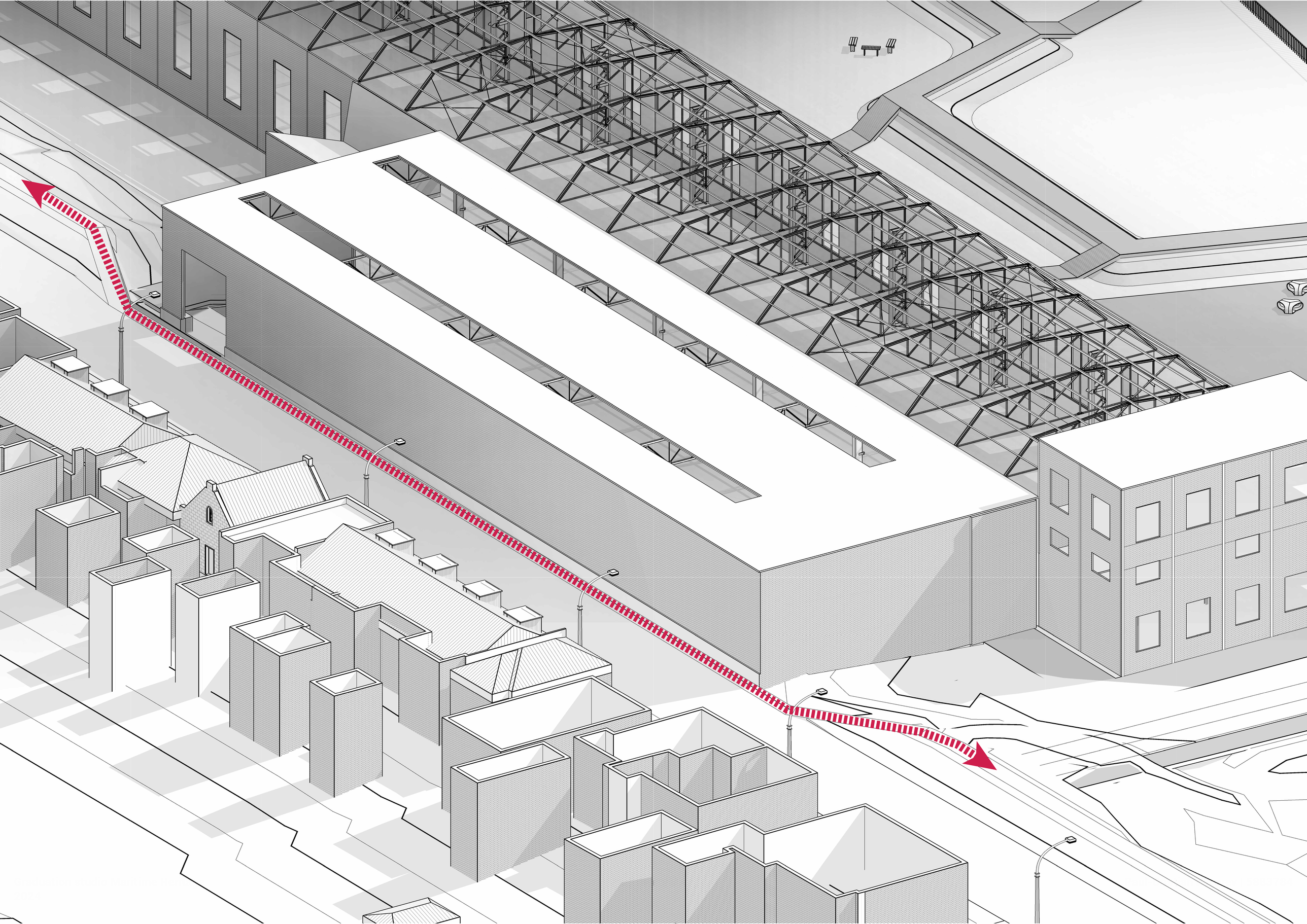


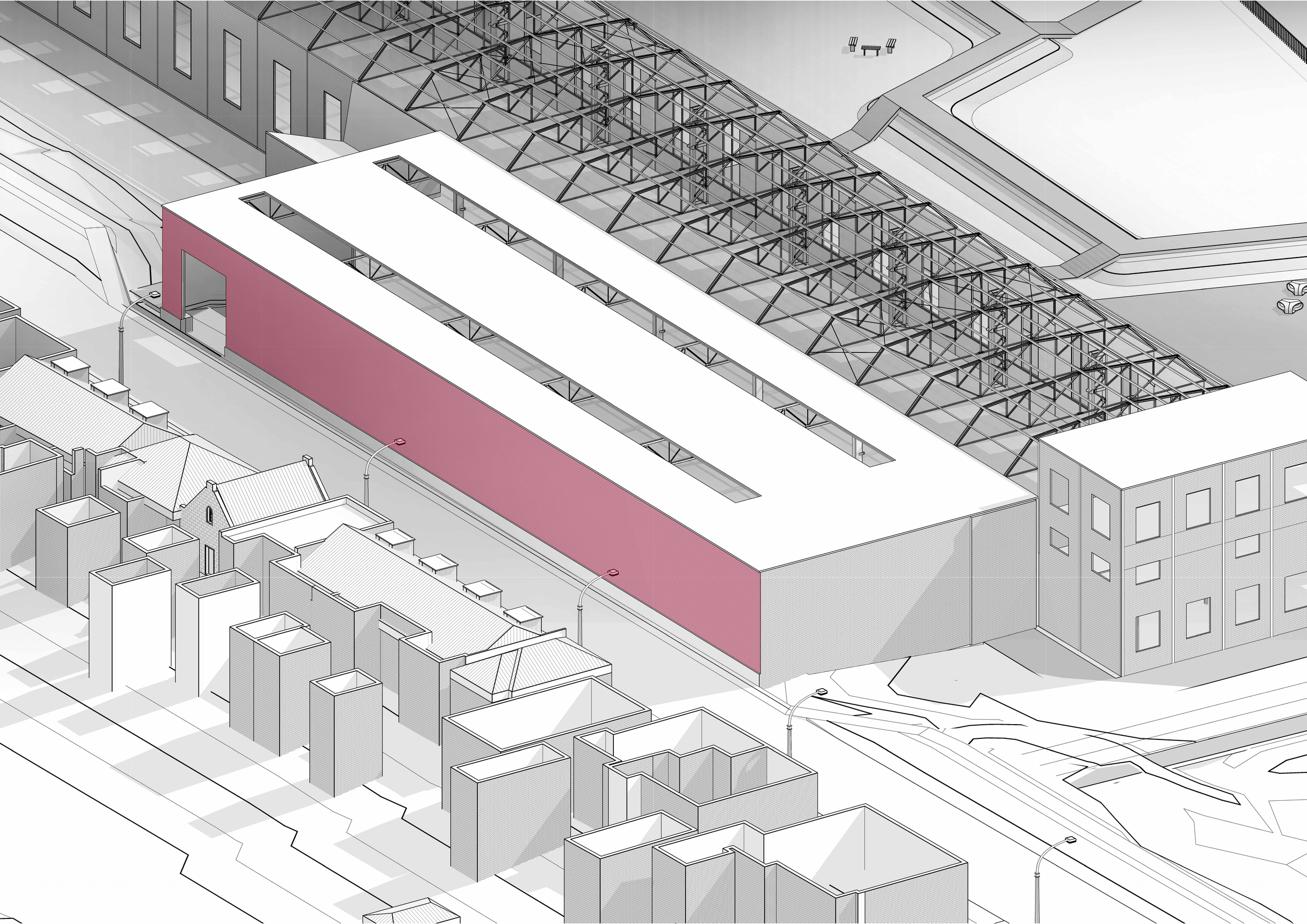
Phase 4 | Aministration & Labs

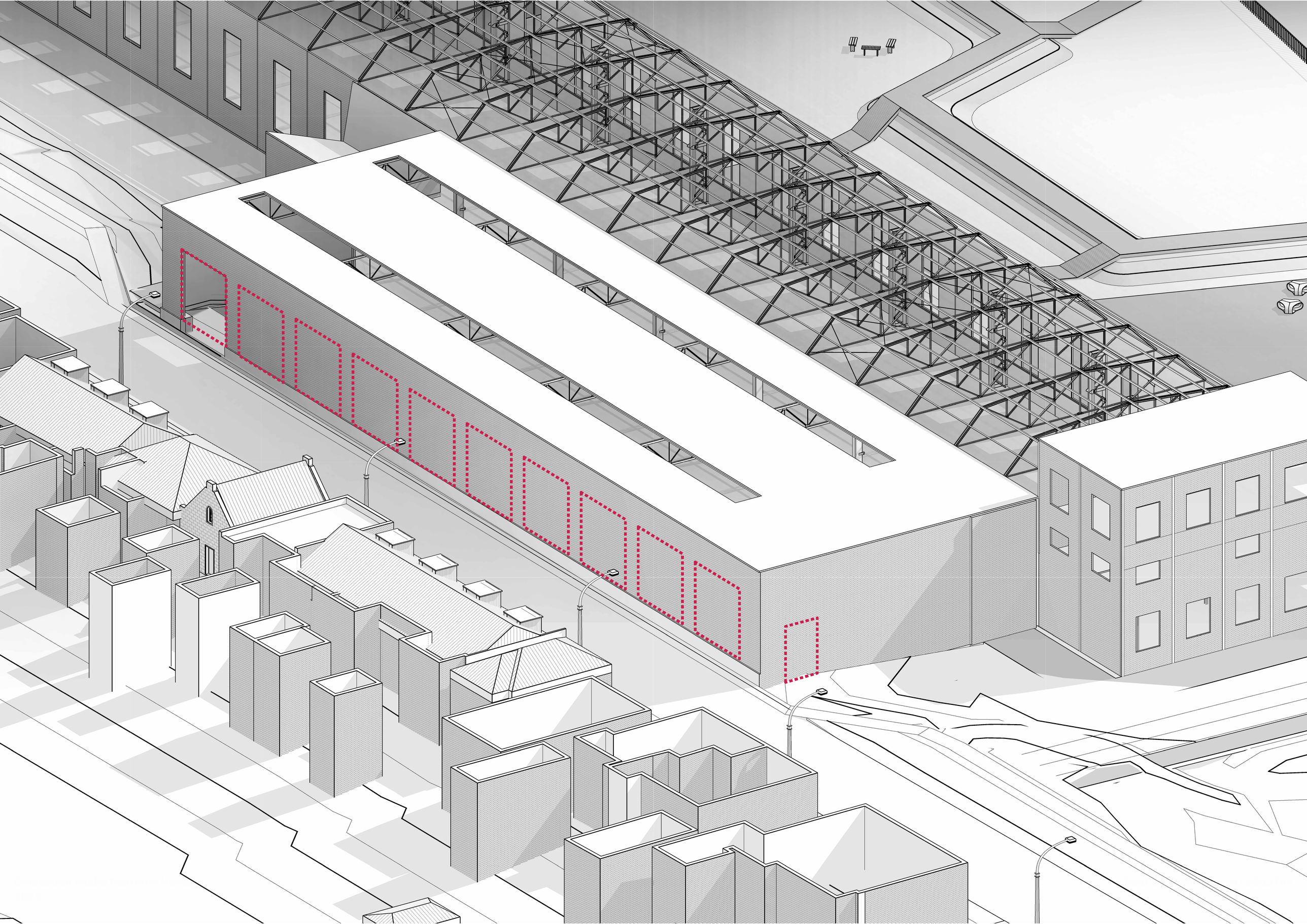


Phase 4 | Aministration & Labs



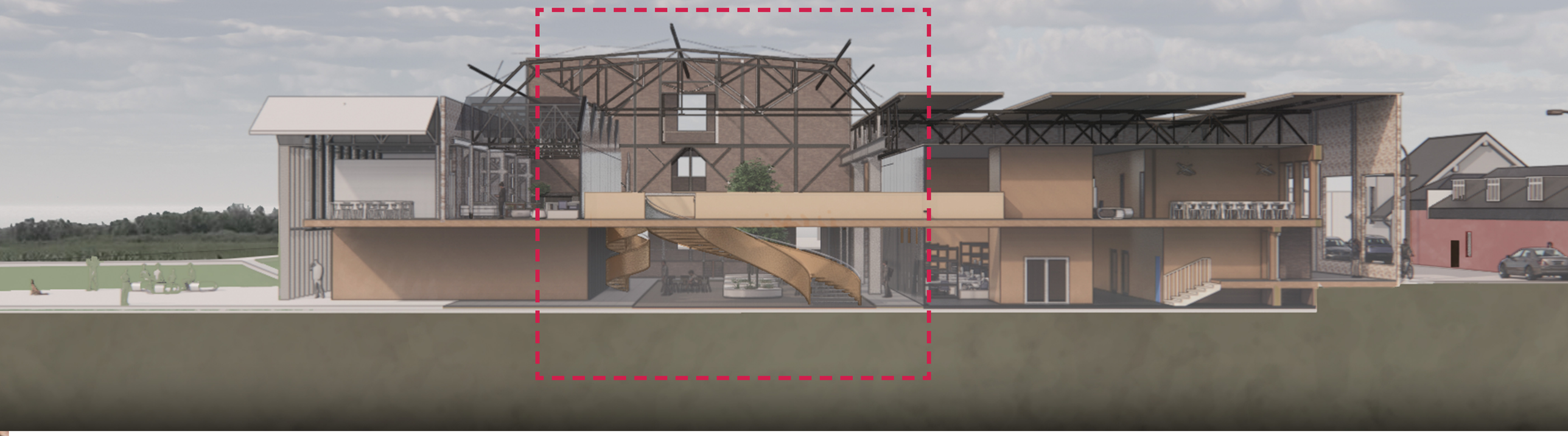


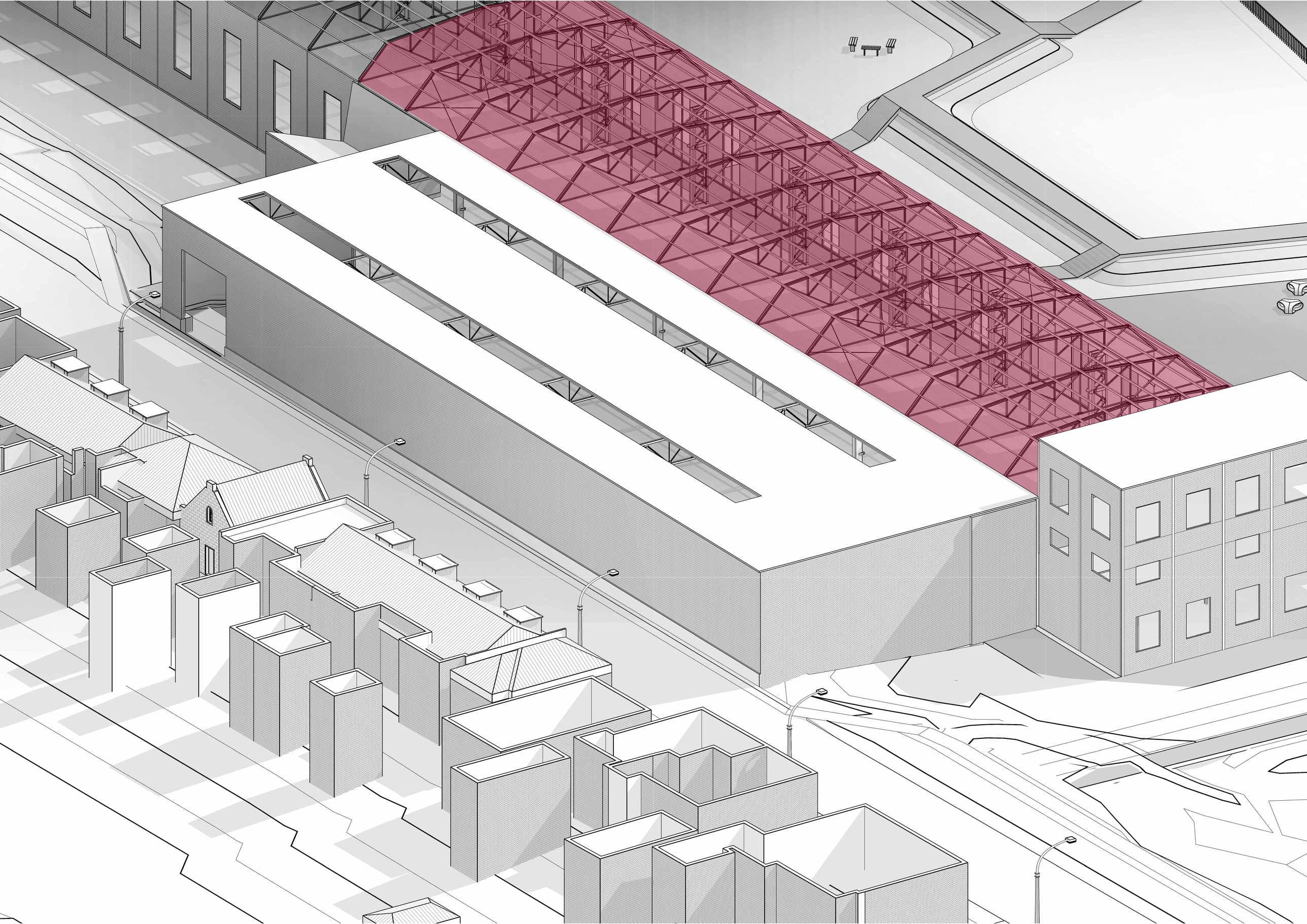






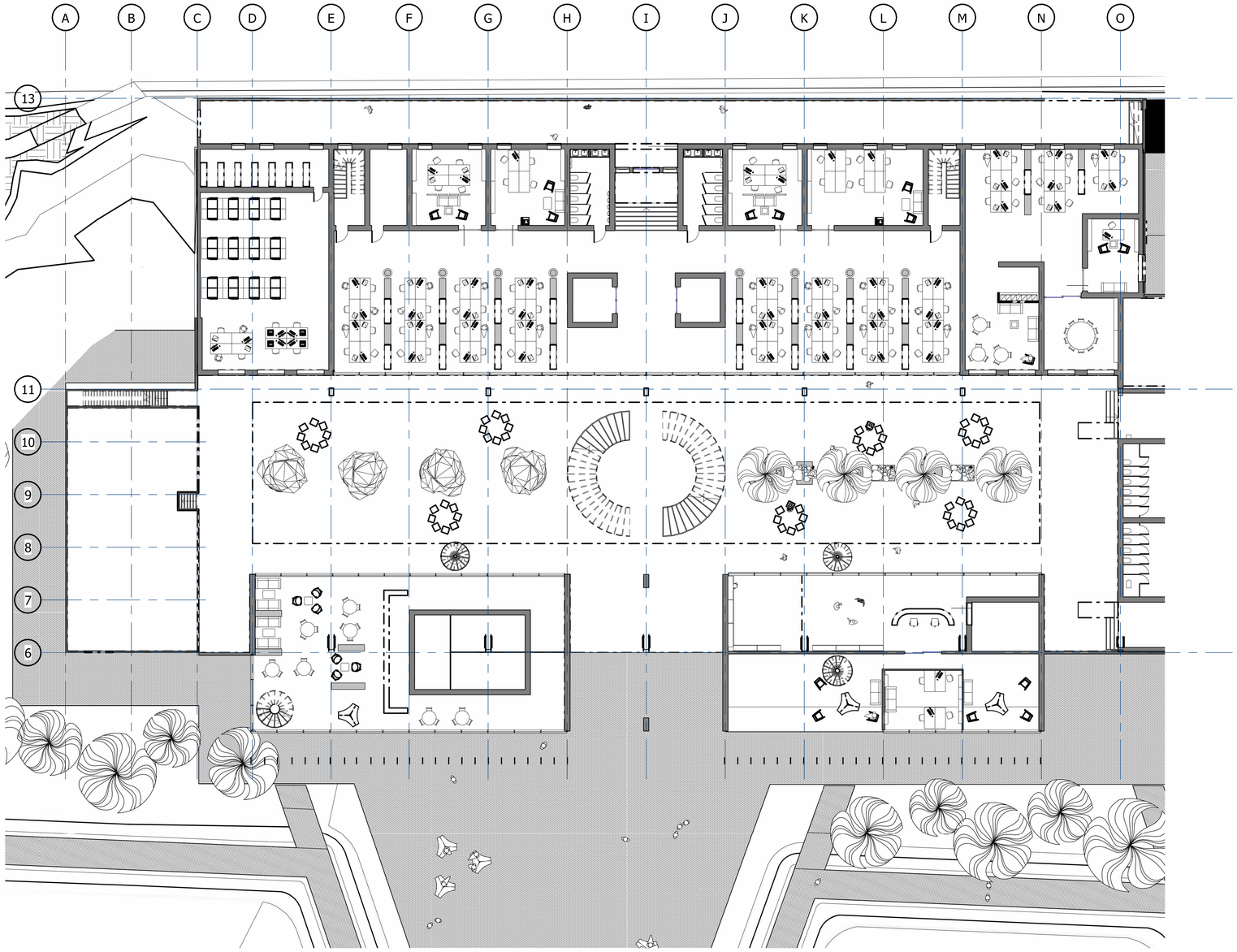
Phase 4 | Aministration & Labs



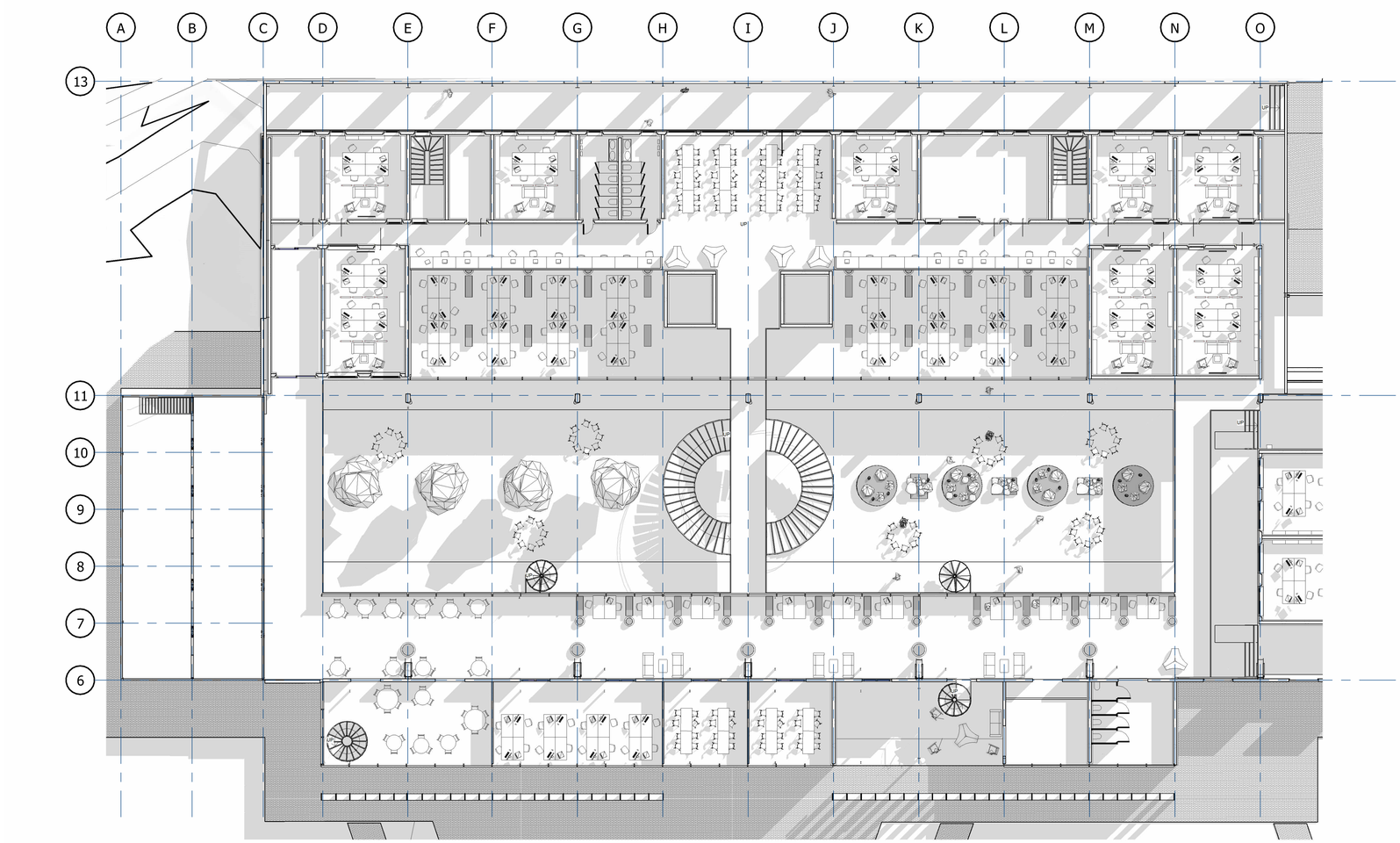




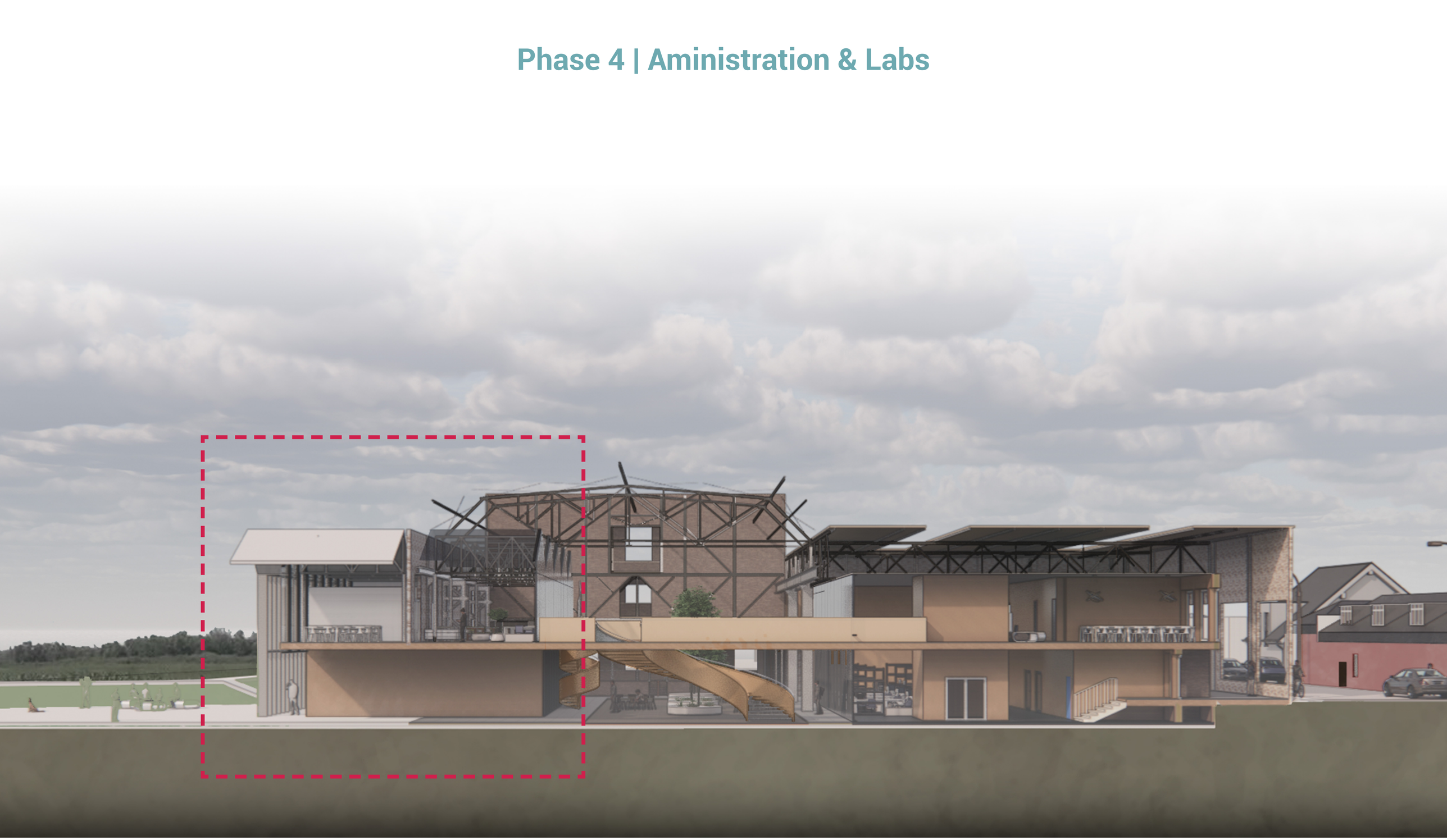
Phase 4 | Aministration & Labs



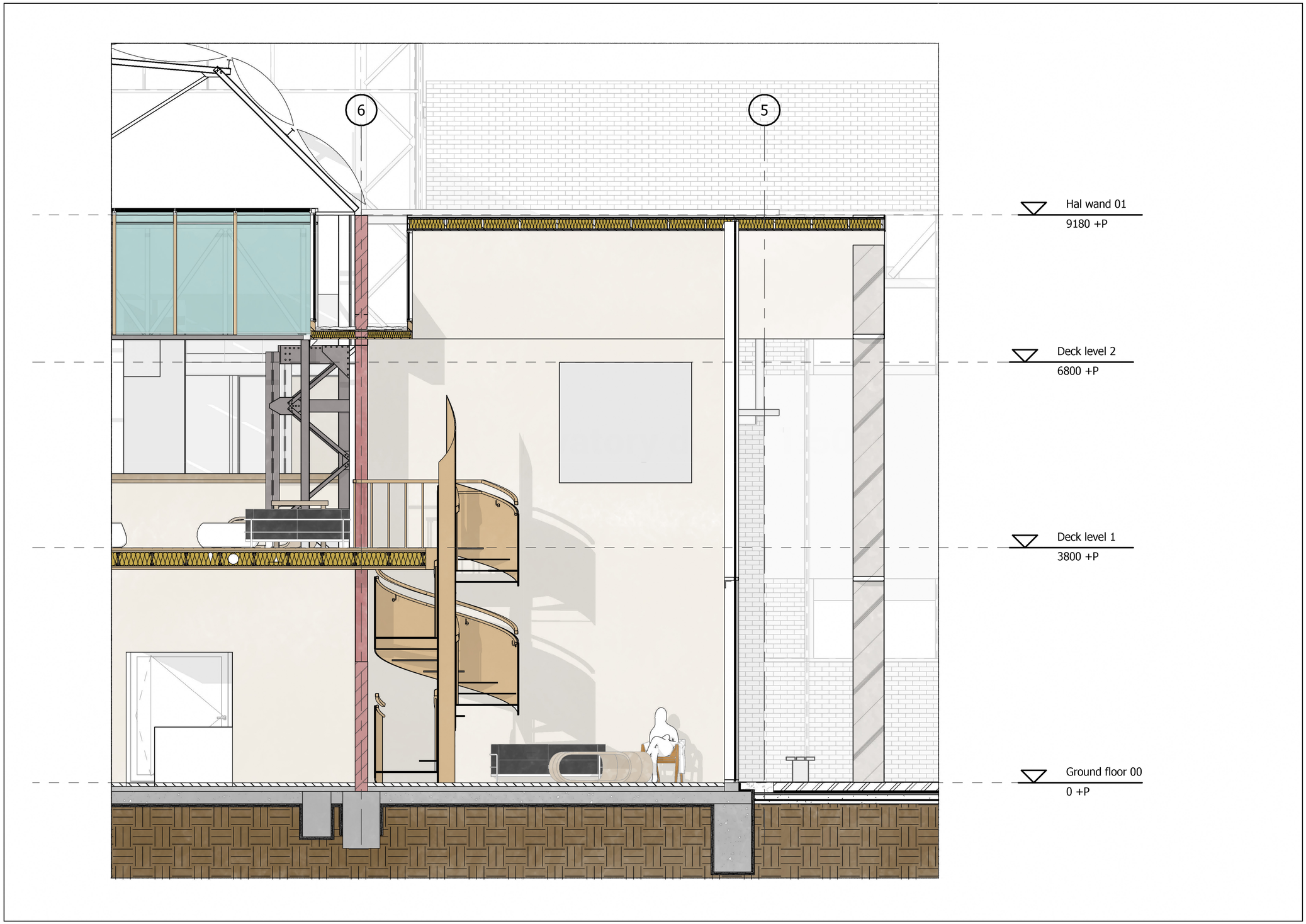
Phase 4 | Aministration & Labs



Phase 4 | Aministration & Labs

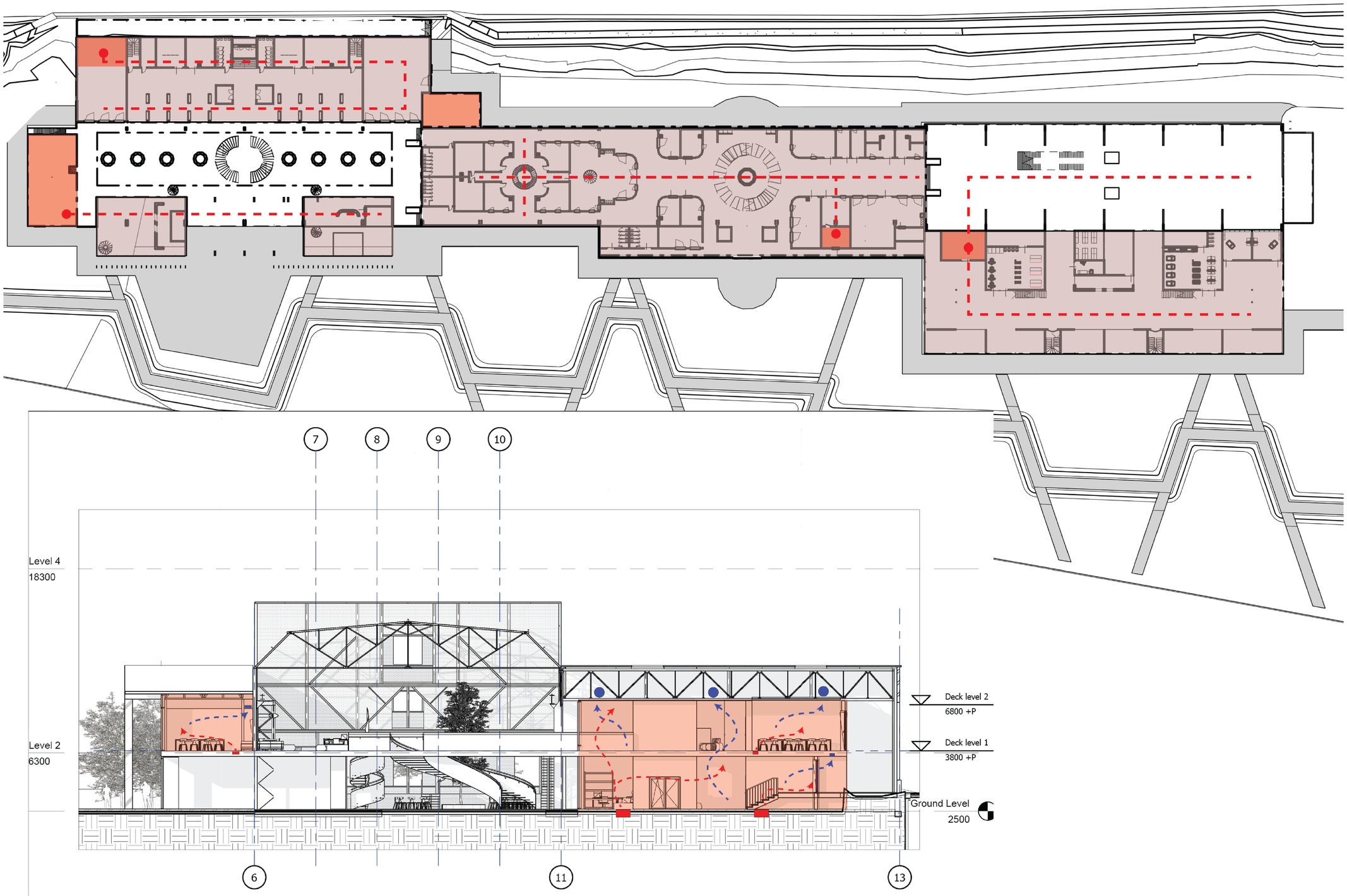


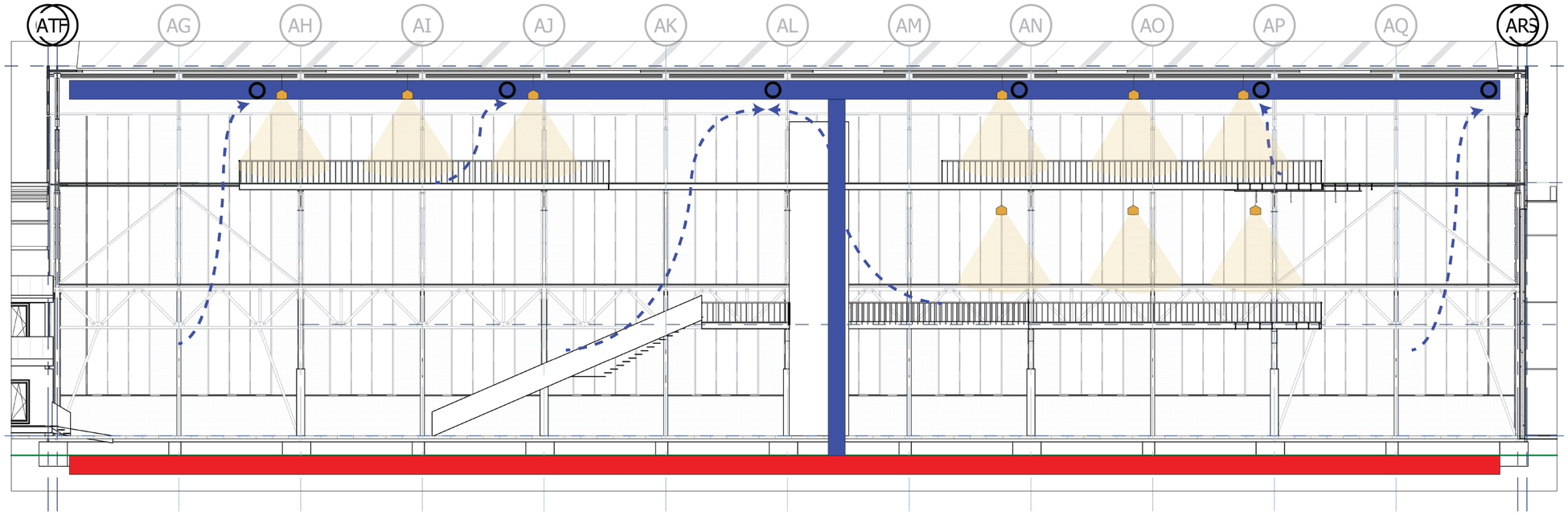
Phase 4 | Conservatory

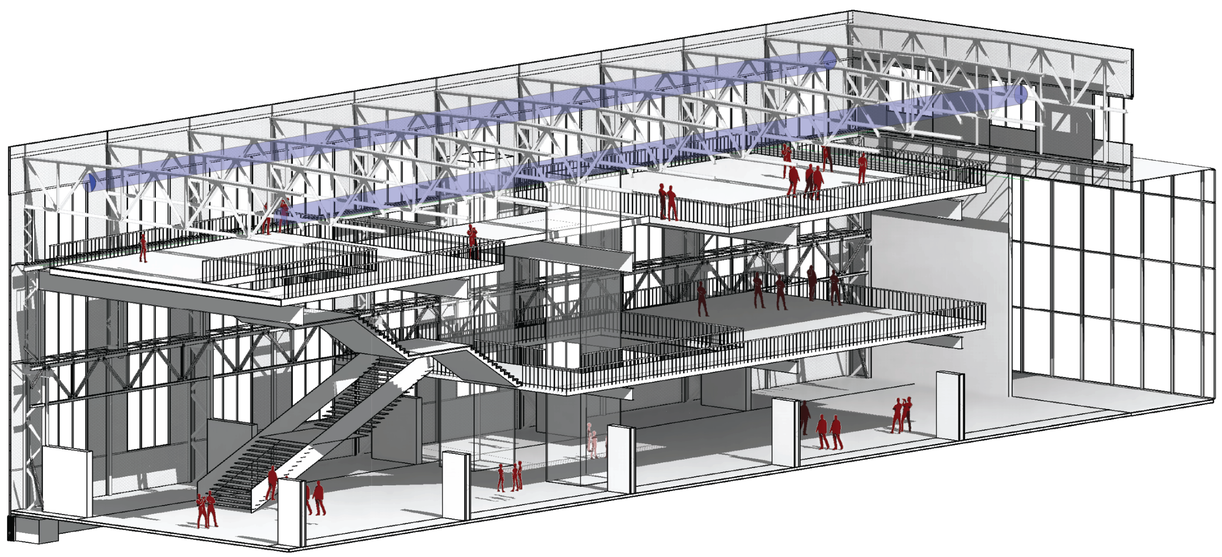



K
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Hal wand 01
9180 +P
Deck level 2
6800 +P
Deck level 1
3800 +P
Ground floor 0
0 +P

Climate concept




ATF
AG
AH
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AQ
ARS



Conclusion


Thank you!