

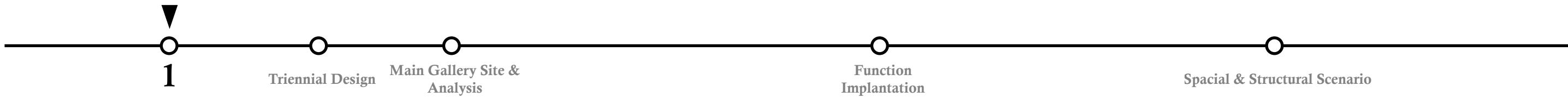


HERITAGE & ARCHITECTURE – MARITIME HERITAGE STUDIO
Social Tides In Post-Industrial Cultural Landscapes
A Water-Environment Art Destination & Local-benificial Complex In Waterdriehoek
Boyang Shen
01/16/2025 P5

BASIC RESEARCH

1. Water Heritage & Art Tourism

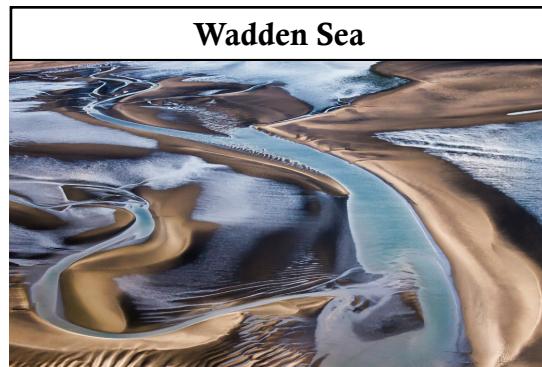
2. Existing Cases & Modes In Art Tourism



WATER(-RELATED) HERITAGE

In lowlands and mountains, wetlands and deserts, agricultural landscapes, urban networks, and on urban waterfronts; includes maritime cultural landscapes, canals, harbors, and waterfronts as well as local knowledge and skills and regional traditions in water engineering.

— The Netherlands Ministry of Foreign Affairs



HERITAGE TOURISM

Heritage tourism consists of visits to places that **embody the past** or/and to places related to **intangible heritage manifestations**.

— Encyclopedia of Archaeology (Second Edition), 2024

ECONOMIC BENEFITS

- Injection of additional money into the economy.
- Boost to businesses and tax revenues.
- The creation of new jobs helping to diversify the local economy.
- Promotion of active preservation and the protection of important local resources.
- Helping to build vital relationships among and within local communities.

SOCIAL BENEFITS

- Promotion of local traditions, customs, and culture.
- Improvement of the community's image and pride.
- Boost of local investments in heritage resources and amenities that support tourism services.

ENVIRONMENTAL BENEFITS

- Encouragement of a culture of preservation in a community.
- Boost in the awareness of the area's significance, resulting in local residents.
- Visitors being mindful about their impact on the natural and built environment.

“MICE” TOURISM

MICE tourism is a type of tourism where **large groups of people** come together in a **particular place** and for a **particular reason**, such as a mutual interest.

— The Netherlands Ministry of Foreign Affairs

M (Meetings)

I (Incentives)

C (Conferences)

E (Exhibitions)

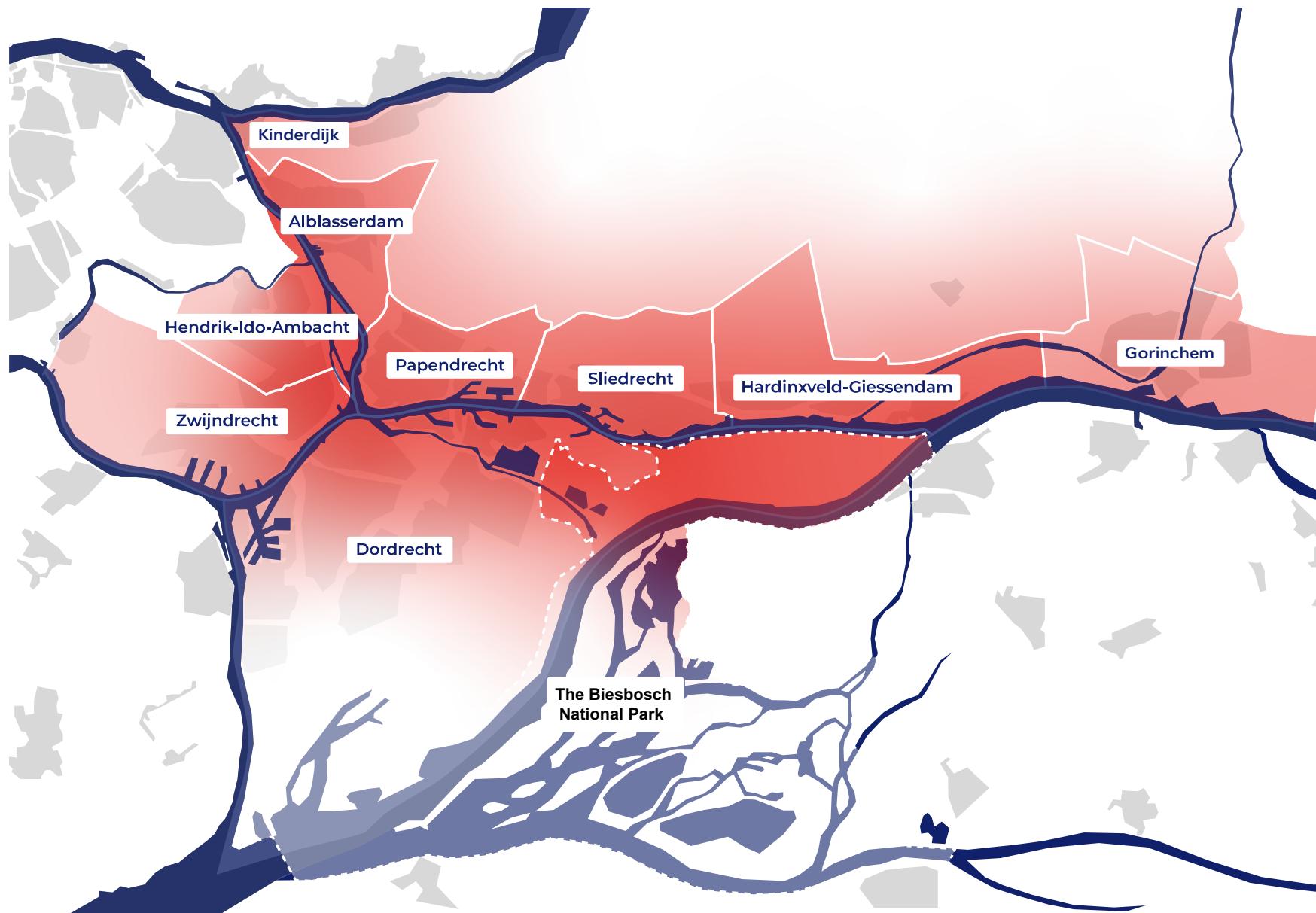
ART TOURISM

Artistic initiatives and interventions create **new interest in historical destinations** that might have otherwise been overlooked, forgotten or underfunded.

The central idea which underpins **contemporary art commissioning in heritage sites** is that the art will somehow offer a **new way of thinking** about the site and its contents.



WATERDRIEHOEK HERITAGE AREA

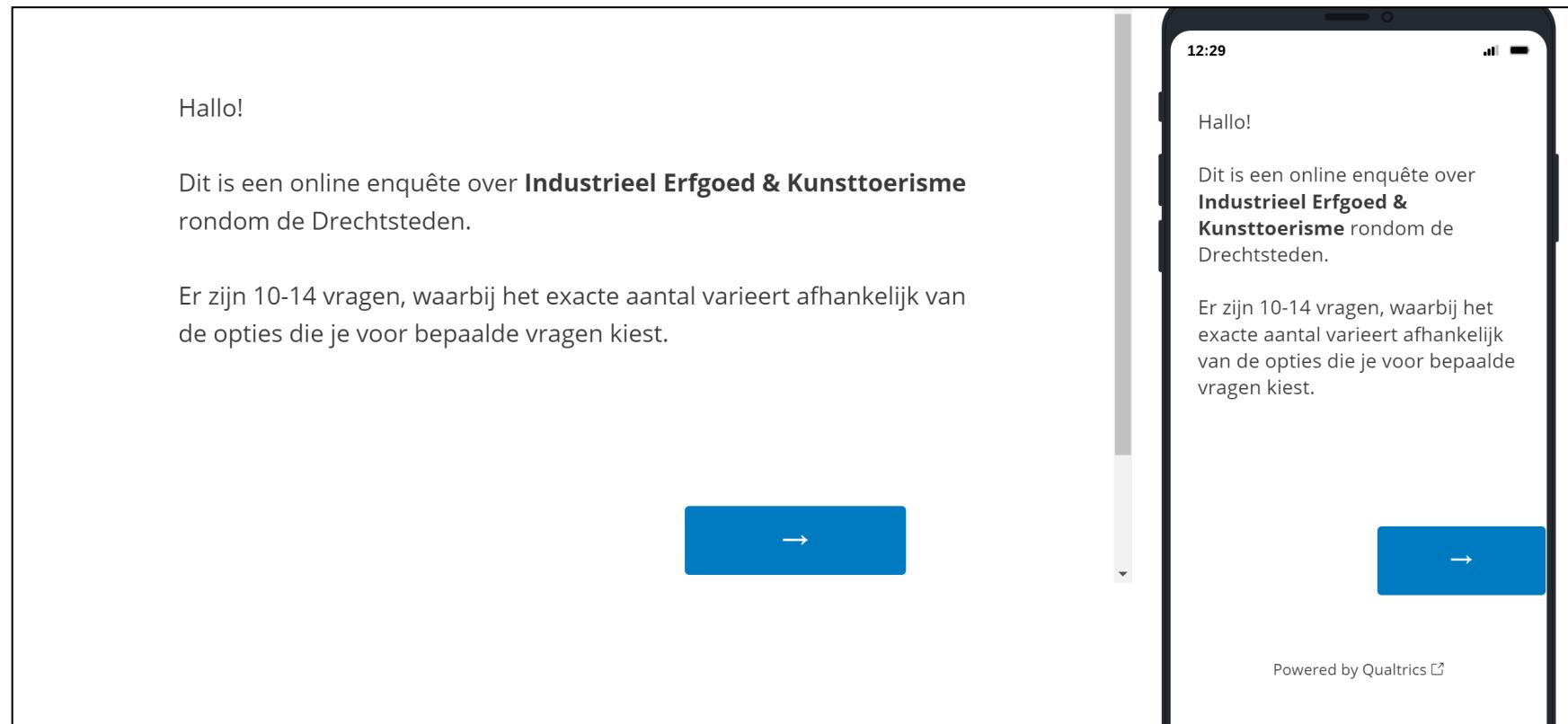




What an arts tourism that fits Waterdriehoek's heritage and local community could be like?



ON-SITE SURVEY: WHAT IS THE IDEAL ART ACTIVITIES



✗

Permanent Asset-heavy

✗

Permanent Asset-light

✓

Short-cycled Non-permanent

✓

Long-cycled Non-permanent

QUESTIONNAIRE

SURVEY RESULT - PEOPLE'S NEED



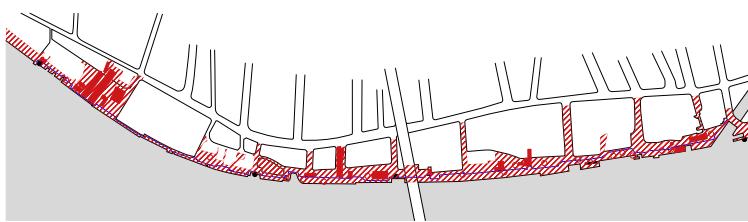
SURVEY RESULT - PEOPLE'S NEED

To maintain an appropriate distance from community life

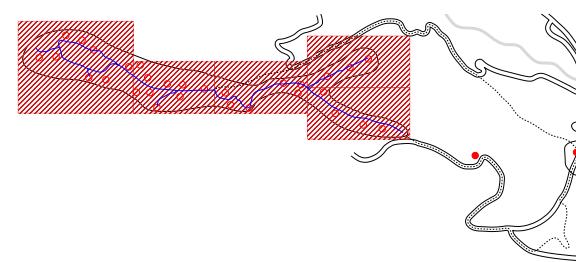
Ensure that tourism infrastructure benefits local residents

CYCLICAL NON-PERMANENT ART ACTIVITIES

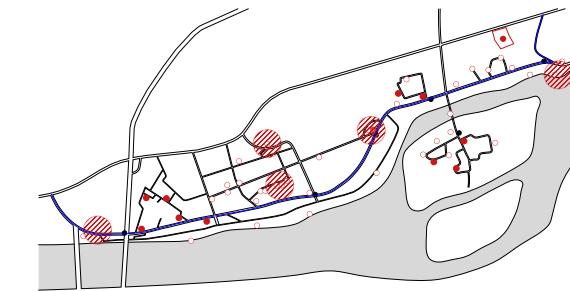
Shanghai Urban Space Art Season 2019



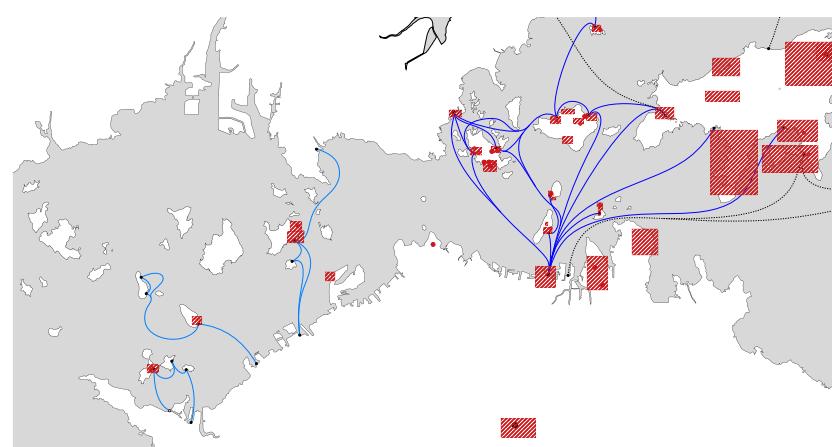
SMACH Art Biennale



Hu Shi Guang Art Eco Site



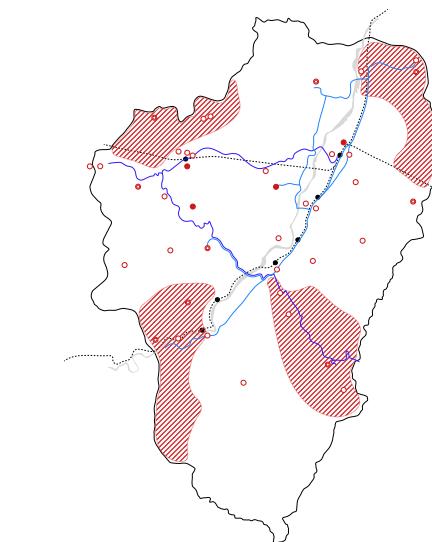
Setouchi Triennial



Venice Biennale

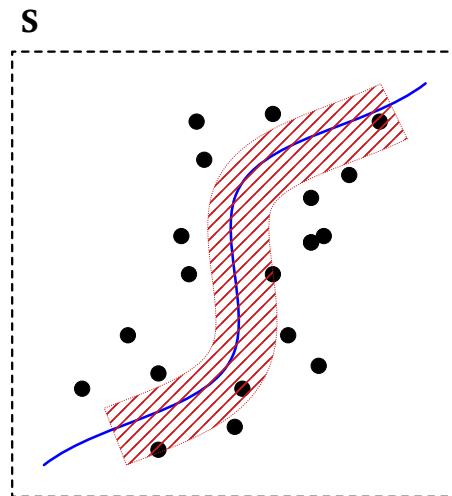


Echigo-Tsumari Art Triennial

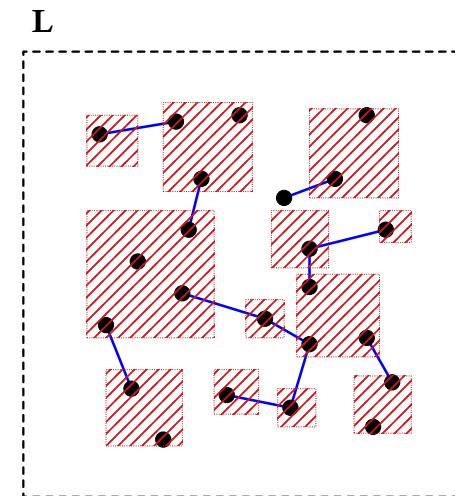


CONCLUSION

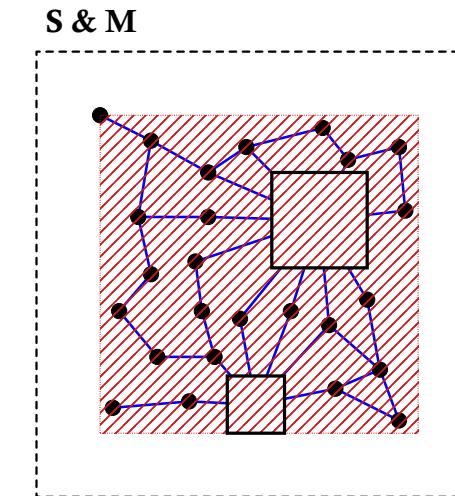
Types of Cyclical Non-permanent Arts Activities



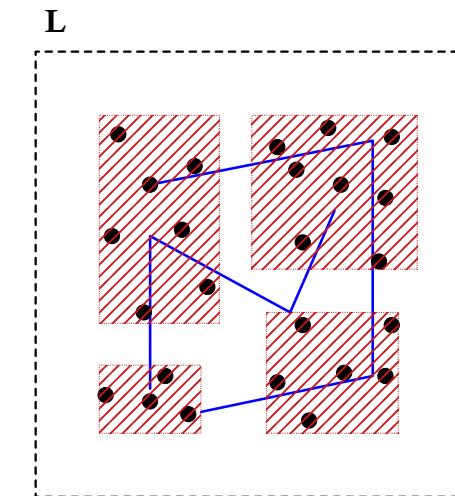
Path-centered pattern



Scattered pattern



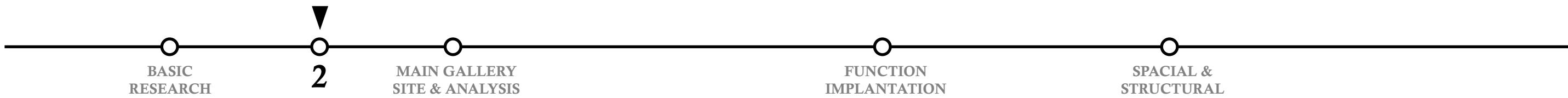
'Core + Scatter':
dualistic pattern



'Region + Path + Scatter':
composite pattern

TRIENNIAL DESIGN

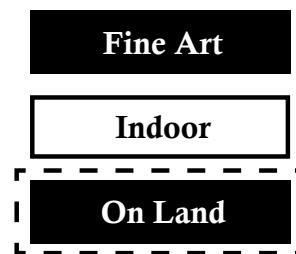
1. Character & Theme Of Art Tourism In Waterdriehoek
2. Potential heritage Resources & Type & Spot
3. Feasibility Triennial Planning And Routes



FROM IN & OUT ZUID-HOLLAND TO A NEW CHARACTER



1. Rotterdam Art Week



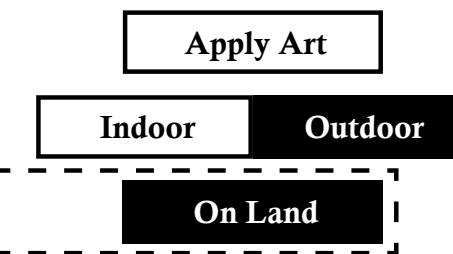
2. International Architecture Biennale Rotterdam (IABR)



3. Rotterdam Architecture Month



4. Dutch Design Week (DDW)



On Water

Fine Art

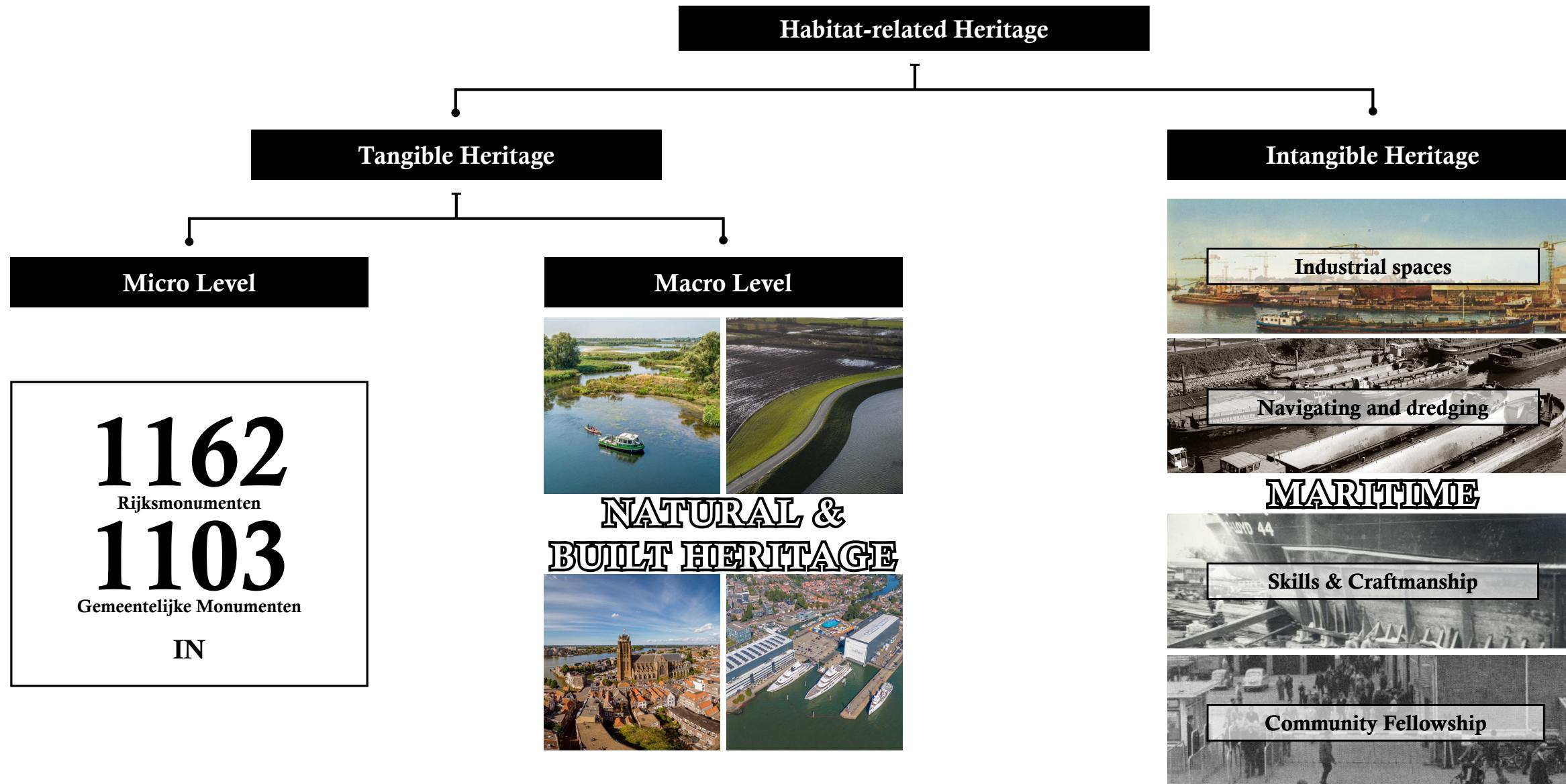
Indoor Outdoor

On Water

A NEW ART FESTIVAL

Waterdriehoek Water-environmental Art

HABITAT-RELATED HERITAGE CATEGORIES IN WATERDRIEHOEK



PROBLEMS & WEAKNESS OF TOURISM

Industrial heritage abandoned when unused.



Heritage buildings with reuse potential neglected.



Mediocre renewal of maritime communities.



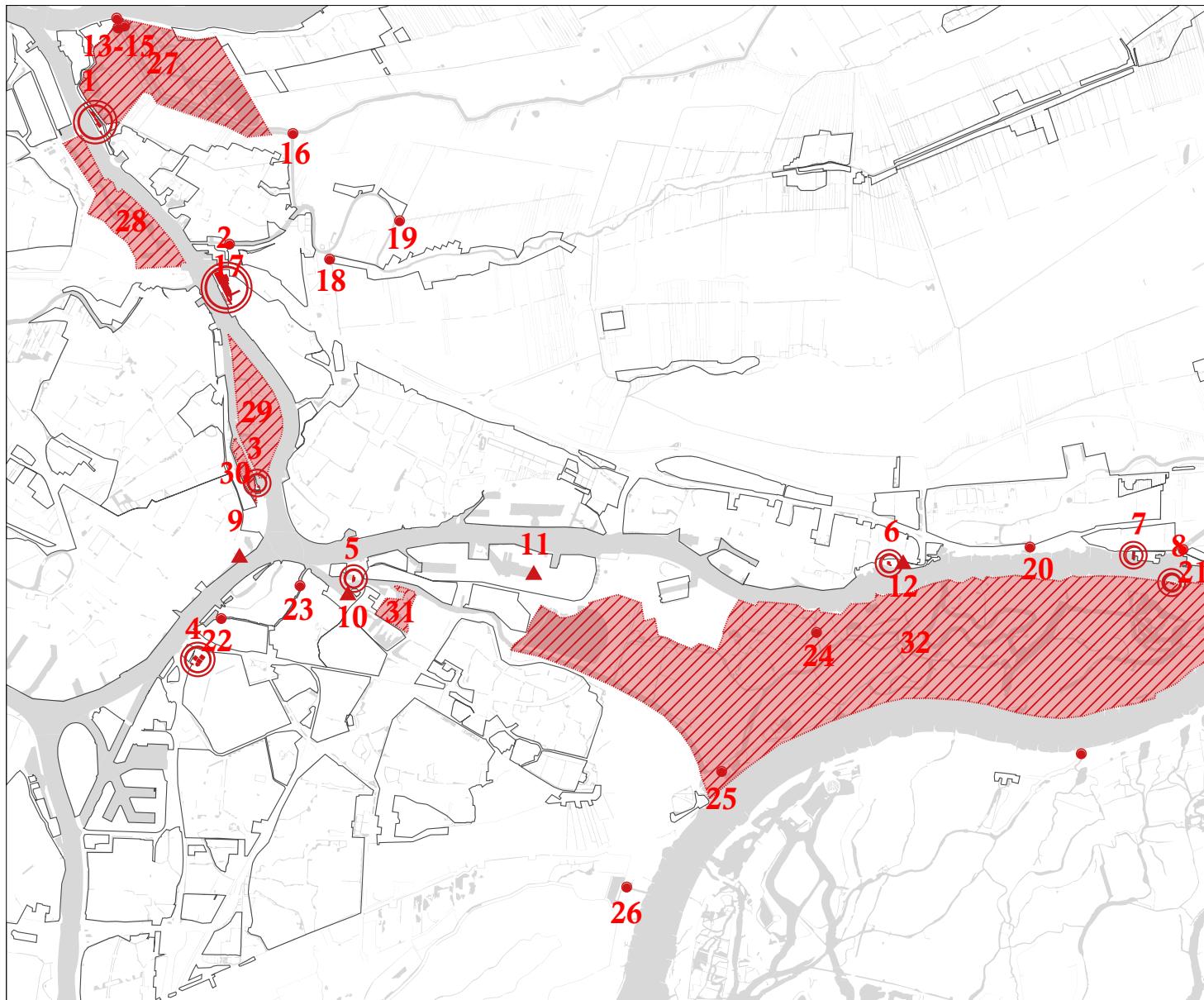
Tourism approach appears outdated and lacking in consolidation.



RELATIVE HERITAGE SPOTS FROM BUILDING TYPOLOGY RSEARCH



HERITAGE SPOTS



Abandoned Factories & Shipwharfs

- 01 Mercon Kloos, Alblasserdam
- 02 FN Steel, Alblasserdam
- 03 Niessen B.V. Shipyard, Zwijndrecht
- 04 Papegat, Dordrecht
- 05 Former Shipyard de Biesbosch, Dordrecht
- 06 De Zaai Shipyard, Sliedrecht
- 07 Dalm Metals Industrial Hall, Hardinxveld-Giessendam

Barns

- 08 Barn on the Aart Eloyenbosch Polder

Watertowers

- 09 Watertoren Zwijndrecht
- 10 Watertoren Dordrecht
- 11 Watertoren Dordrecht DuPont
- 12 Watertoren Sliedrecht

Canal Locks

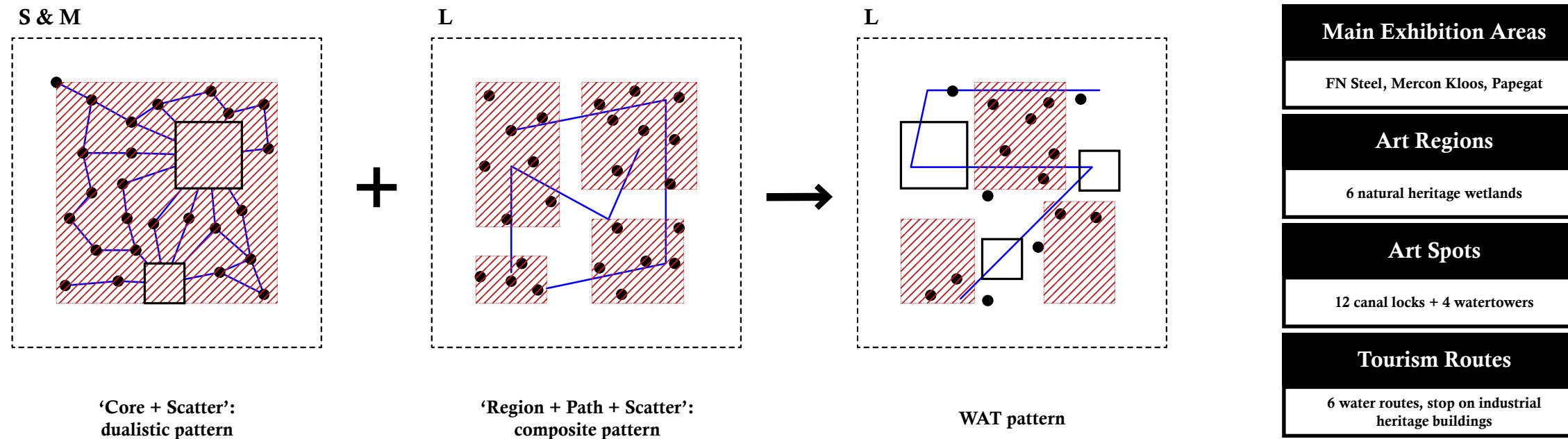
- 13-15 Canal locks of Kinderdijk, Alblasserdam
- 16 J.C. Smitsluis, Alblasserdam
- 17 Le Barrage Restaurant, Alblasserdam
- 18 Vinkenpolderweg 35a, Alblasserdam
- 19 Kooiwick 3a, Oud-Alblas
- 20 De Peulensluis, Hardinxveld-Giessendam
- 21 Mr. Dr. G. Kolff gemaal, Hardinxveld-Giessendam
- 22 Prinsenstraat lock, Dordrecht
- 23 Noordendijk lock, Dordrecht
- 24 Helsluis, Dordrecht

- 25 Rijkswaterstaat, Dordrecht
- 26 Hevel & Overtoom, Dordrecht

Natural & Artificial Wetlands

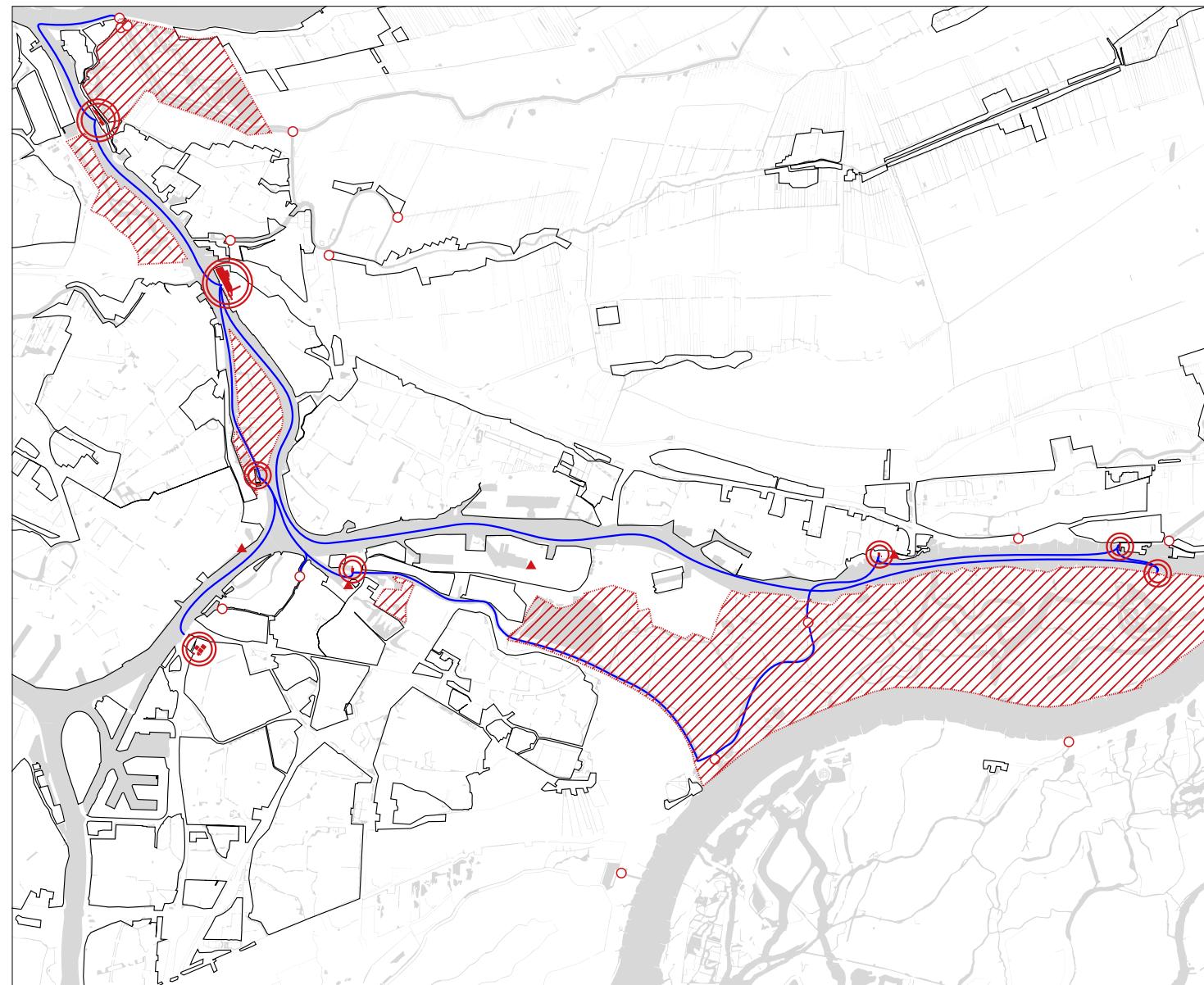
- 27 Boezems Kinderdijk
- 28 Crezéepolder
- 29 Natuureiland Sophiapolder
- 30 Galgeplaat
- 31 Speeltuin Wantijpark
- 32 Merwelanden

WAT PATTERNS OF SPATIAL ORGANIZATION



FEASIBILITY TRIENNIAL PLANNING AND ROUTES

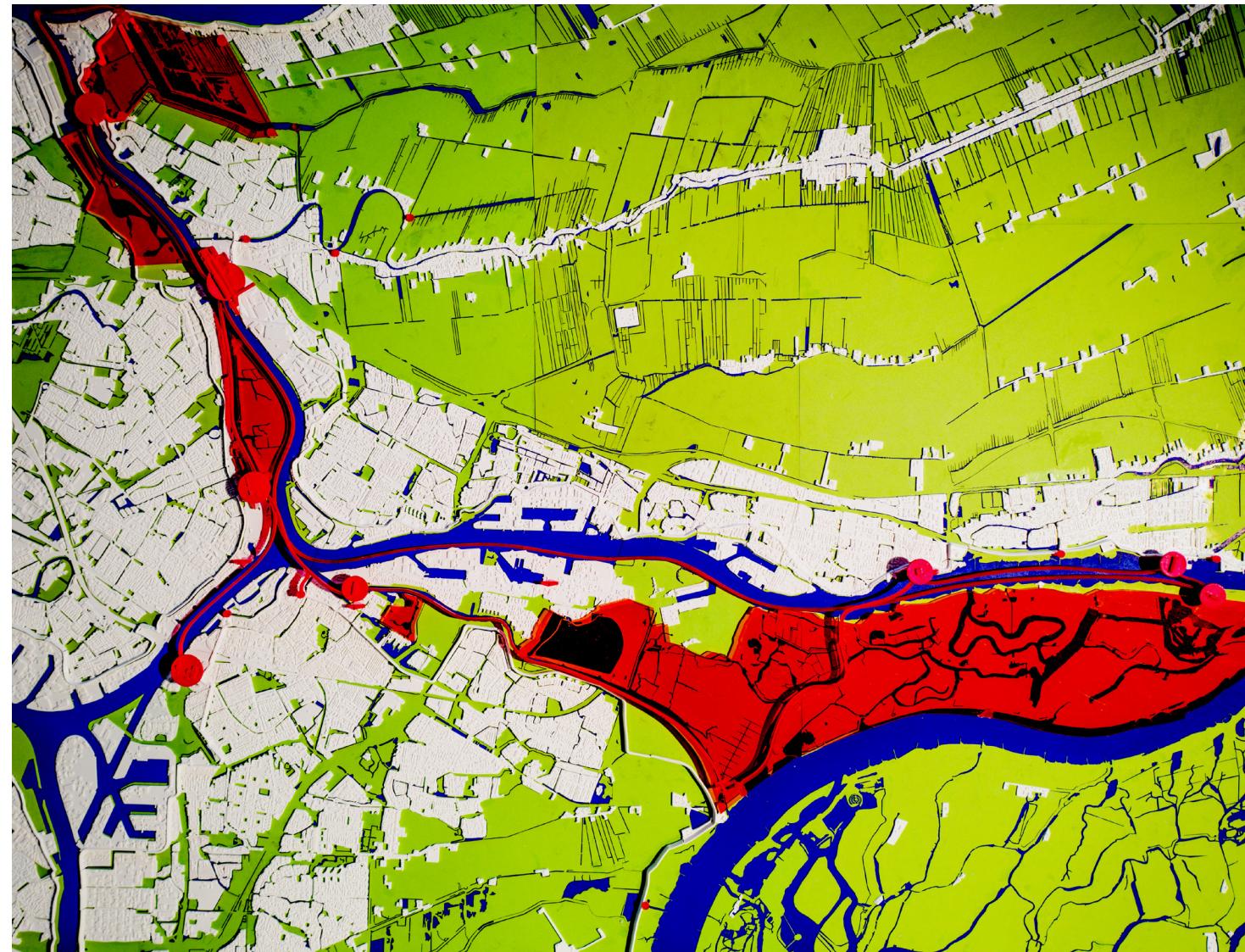
ART TRIENNIAL ROUTES



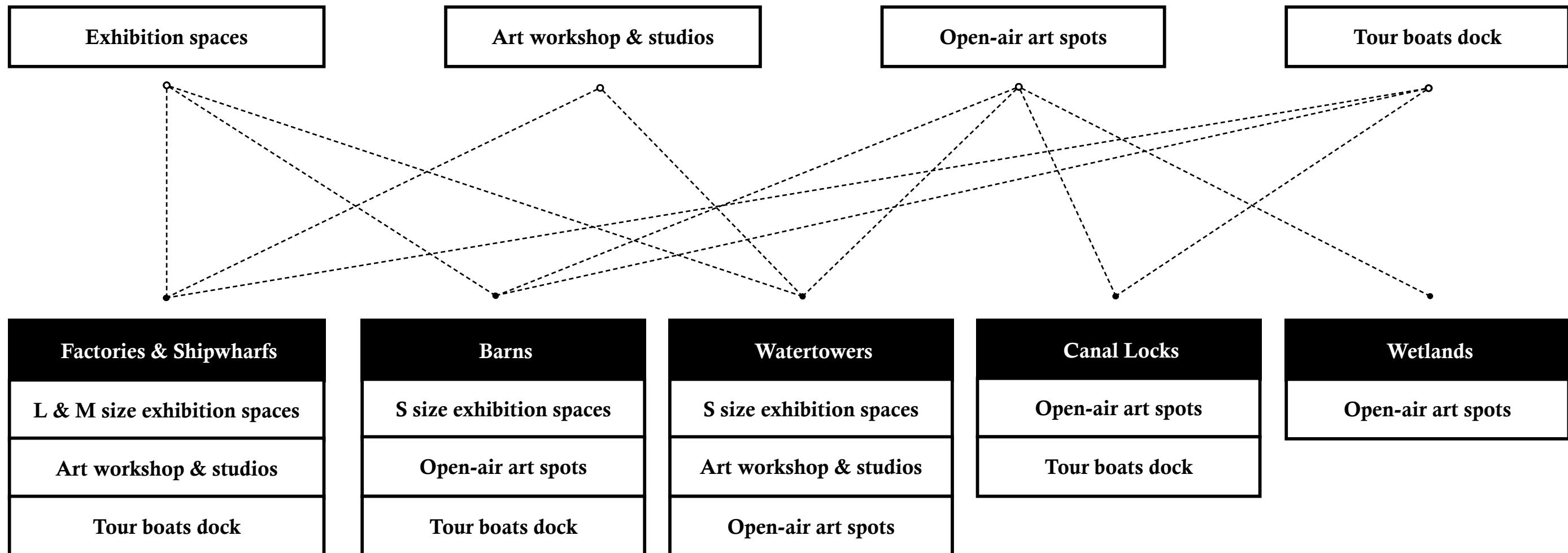
LEGEND

- Industrial Heritage Reuse
- ▲ Art Spot at Watertower
- Art Spot on Watergate
- ▨ Art Activity Area
- Tourism Route

ART TRIENNIAL ROUTES: MODEL

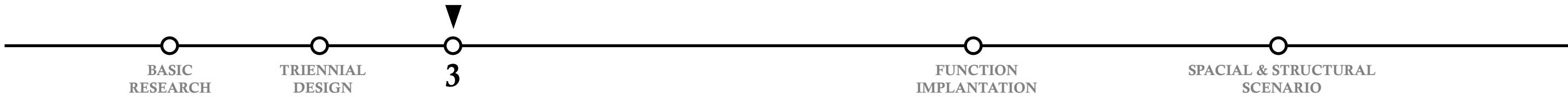


COLLECTIVE HERITAGE SPOTS & FIELDS: POTENTIAL ROLES



MAIN GALLERY SITE & ANALYSIS

1. Site Choice & History & Area
2. Value Assessment & Design Principle

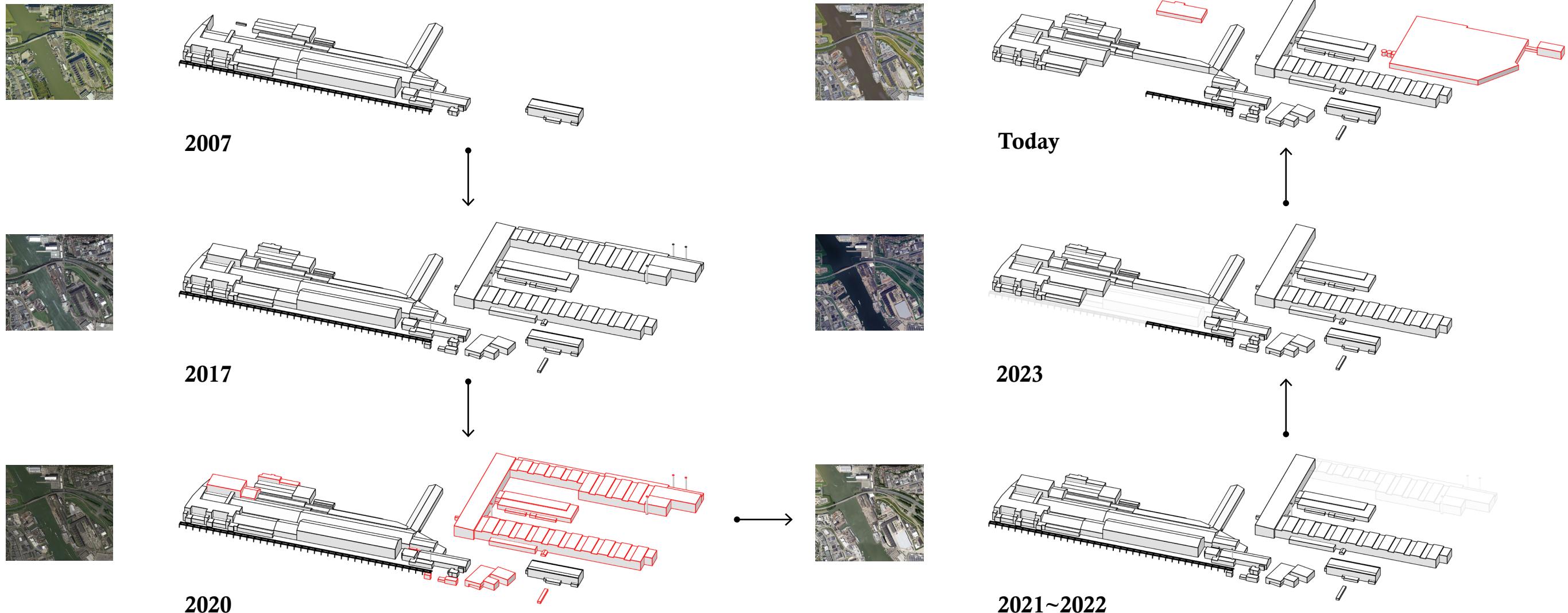


FN STEEL FACTORY BUILDINGS IN HISTORY: SINCE 1961

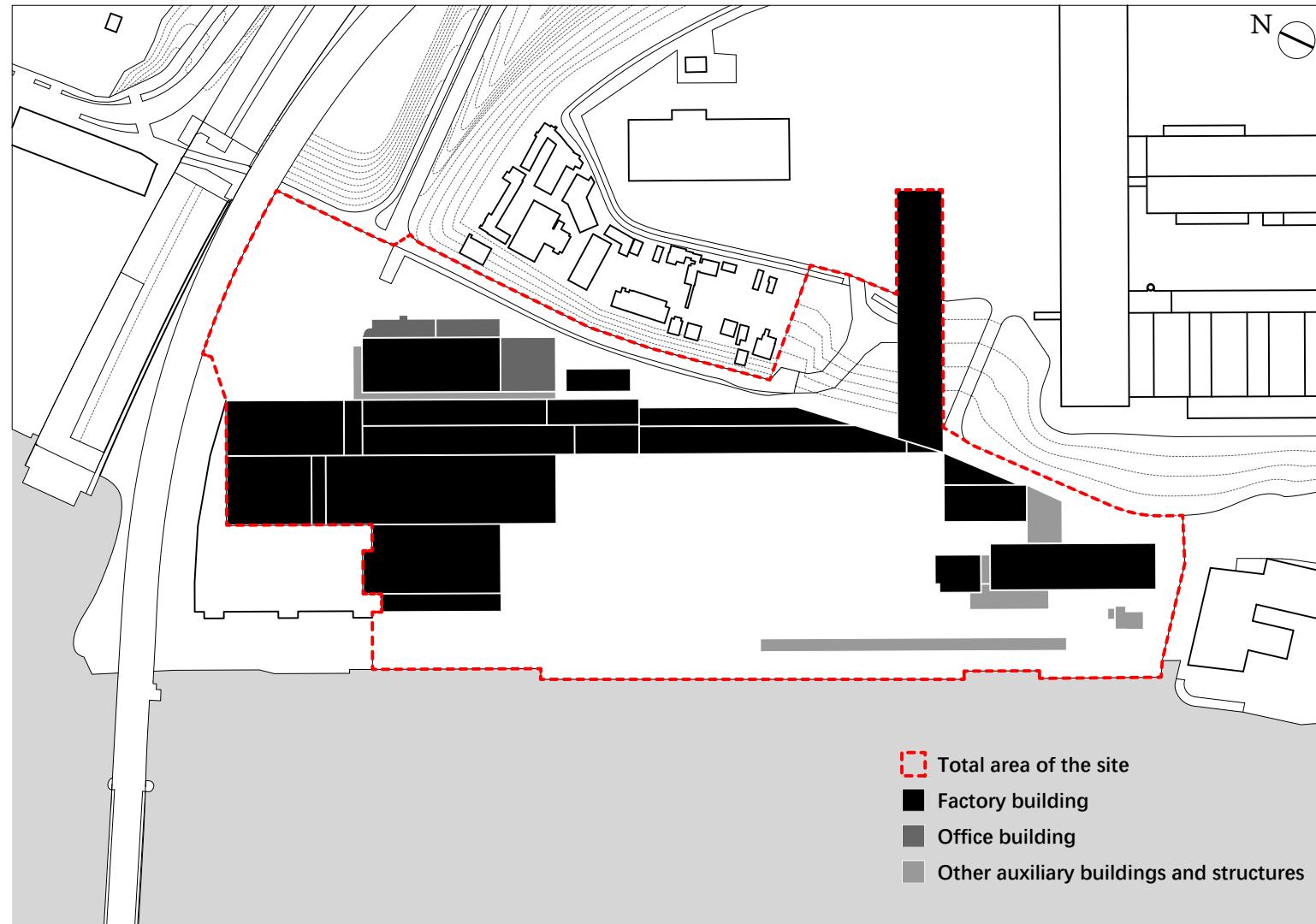


Belongs to Nedstaal BV from 1938 to 2017

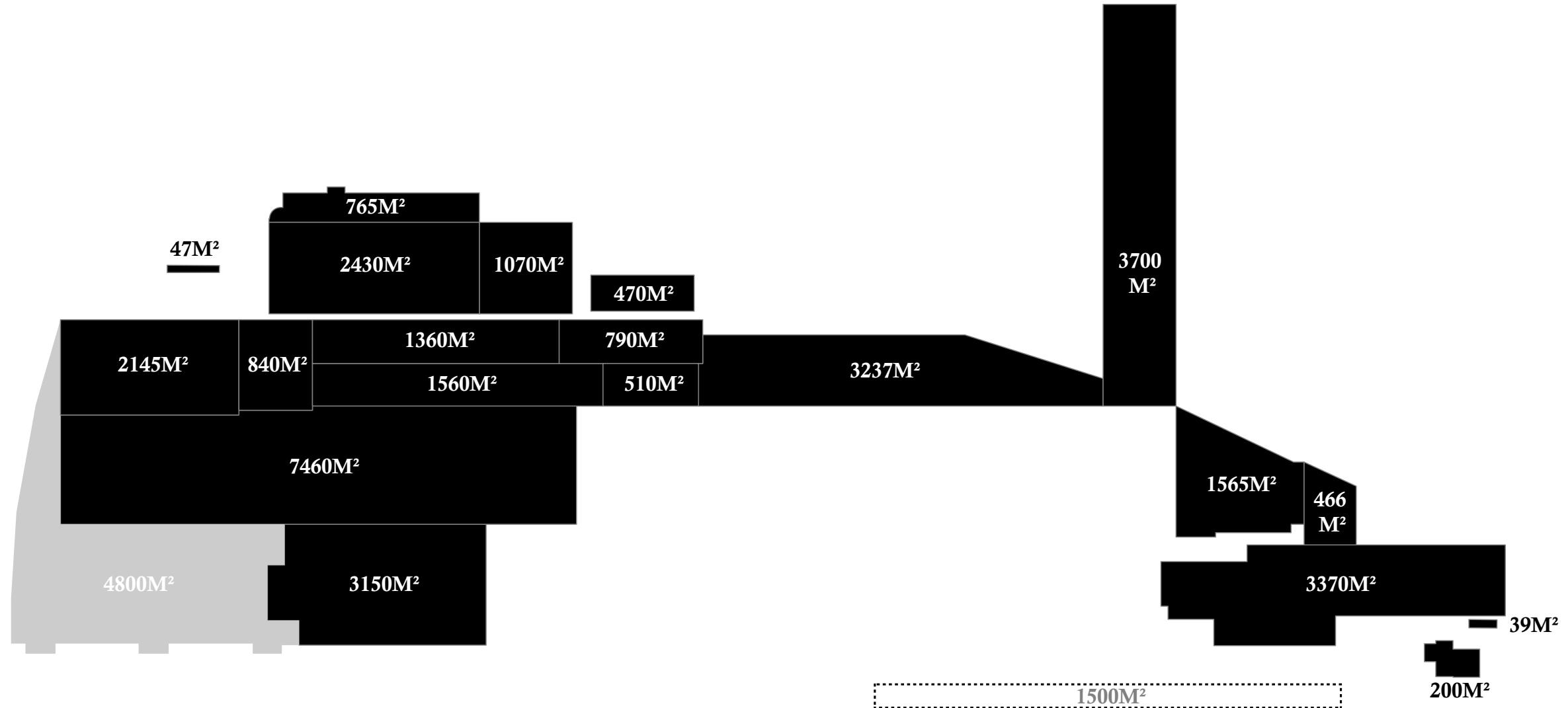
THE CHANGE OF FN STEEL FACTORY OVER TIME



FN STEEL EXISTING VOLUME TYPOLOGY



BREAKDOWN OF EXISTING FOOTPRINT AREAS



VALUE ASSESSMENT IN TOTAL

Main Structure: +++++

Has irreplaceable value in terms of historical significance, spatial uniqueness, and structural aesthetics, and should be fully preserved and improved

Order Of Volume Combinations: +++

Has time cascading value and responds to industrial logic, but the dismantling that has occurred has compromised integrity

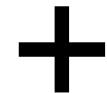
Material & Surface: ++

The color and texture combinations of the iron columns and brick walls are representative, but the cluttered tin facades and roofs are of low value

PRINCIPLE: TRANSFORMABLE

THE OLD: STRUCTURES STILL, ENVELOP CHANGE

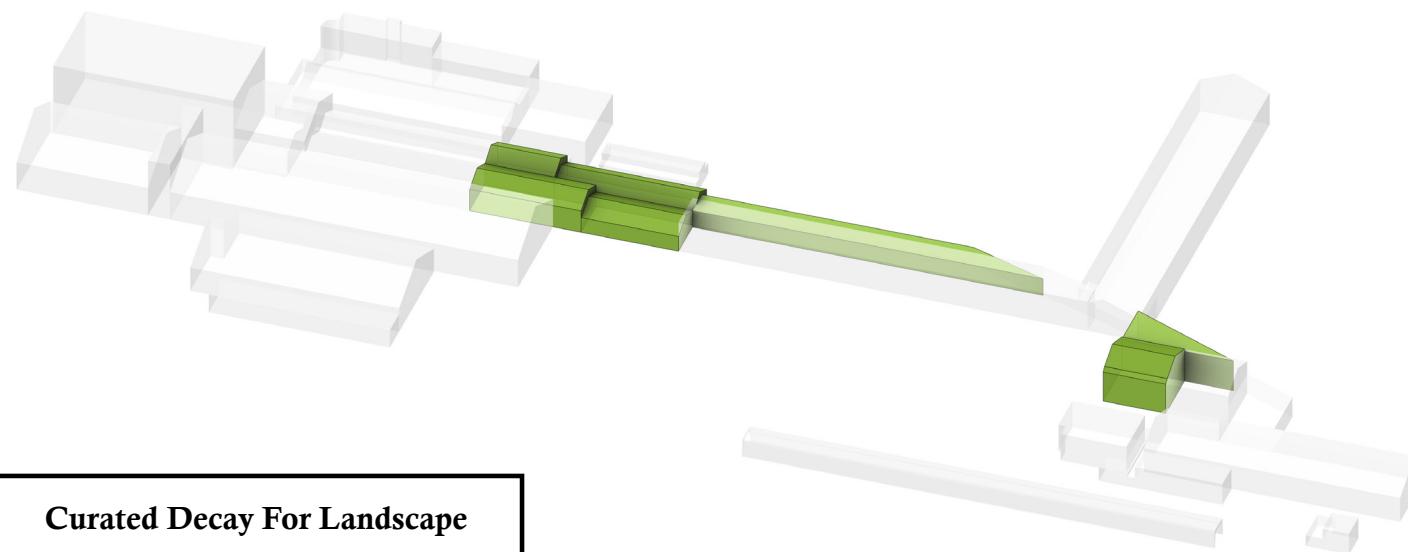
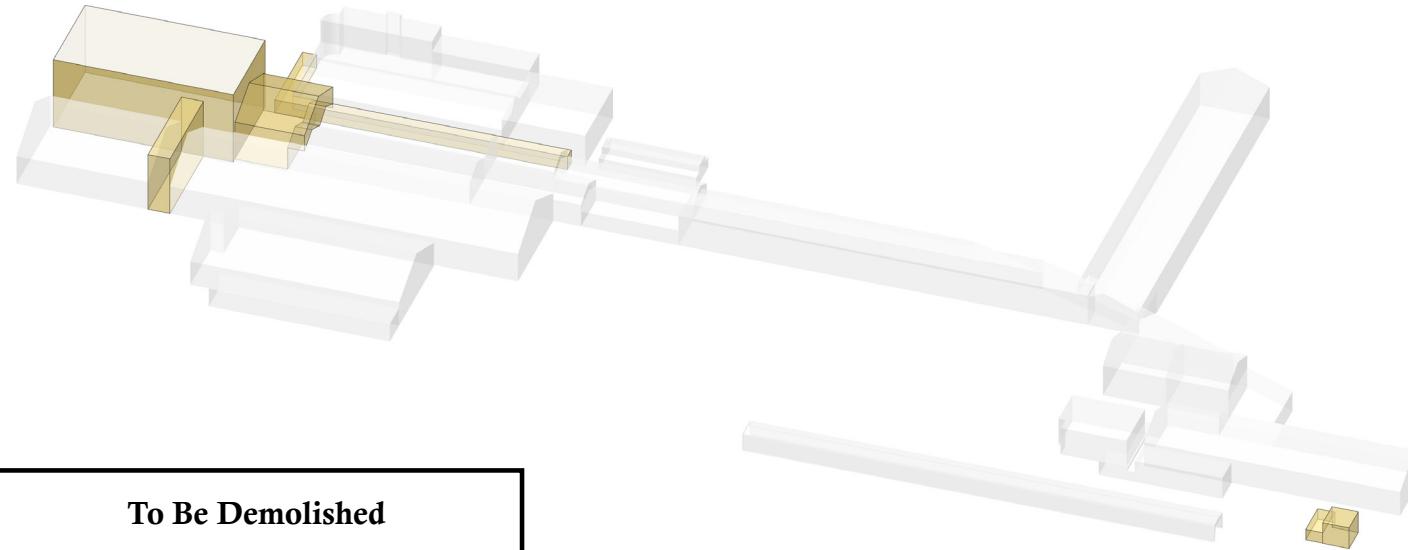
Transformable Shell For Transformable Sence Of Space



THE NEW: INTERCHANGEABLE CONSTRUCTION, MOVABLE SPACE

Transformable Structure For Transformable Function

CONCLUSION & TREATMENT

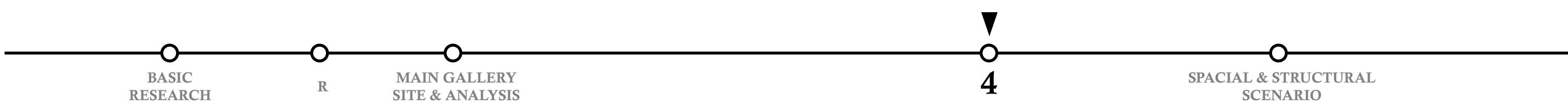


FUNCTION IMPLANTATION

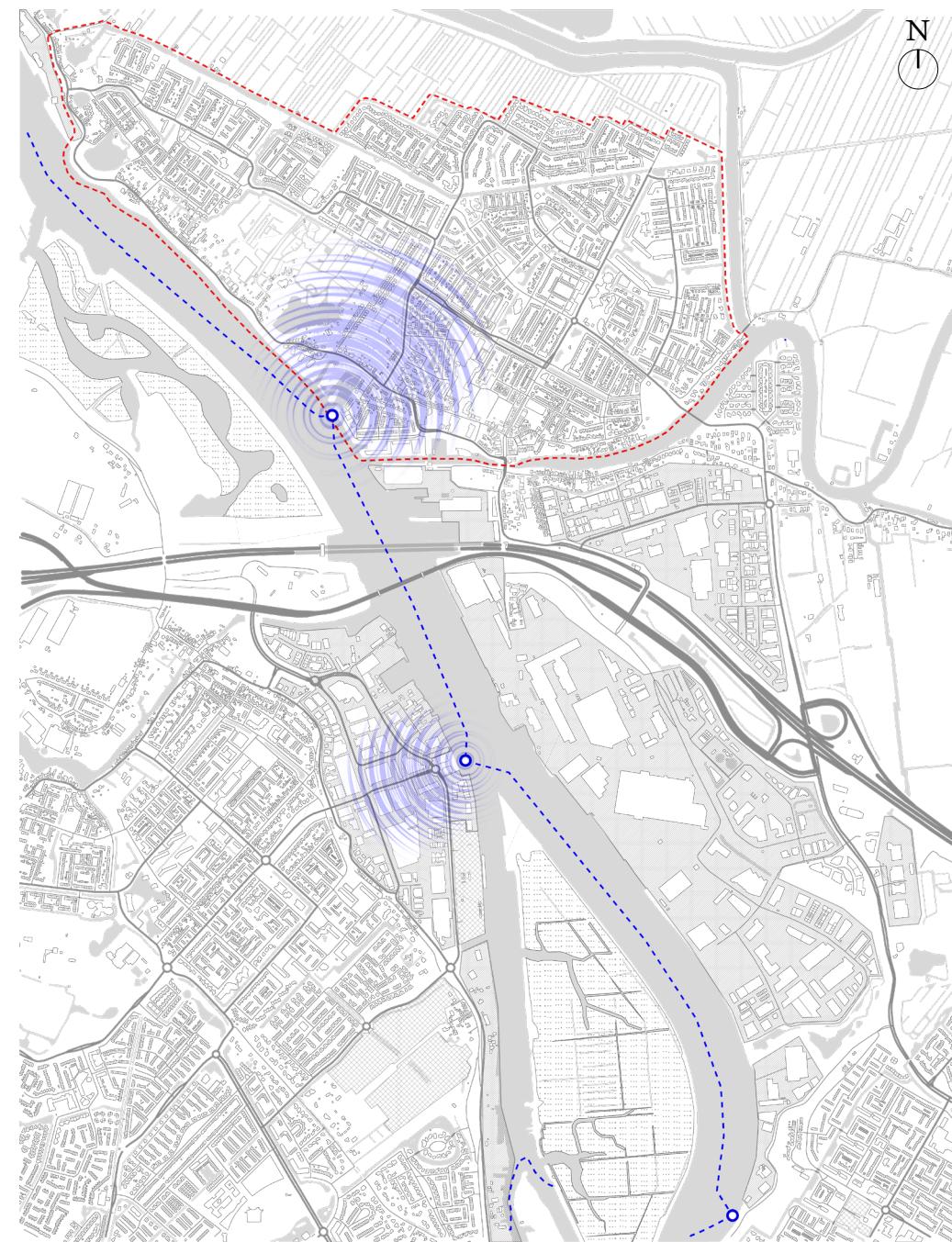
1. Infrastructure Role In The Urban Environment

2. Function Research

3. Program On Site



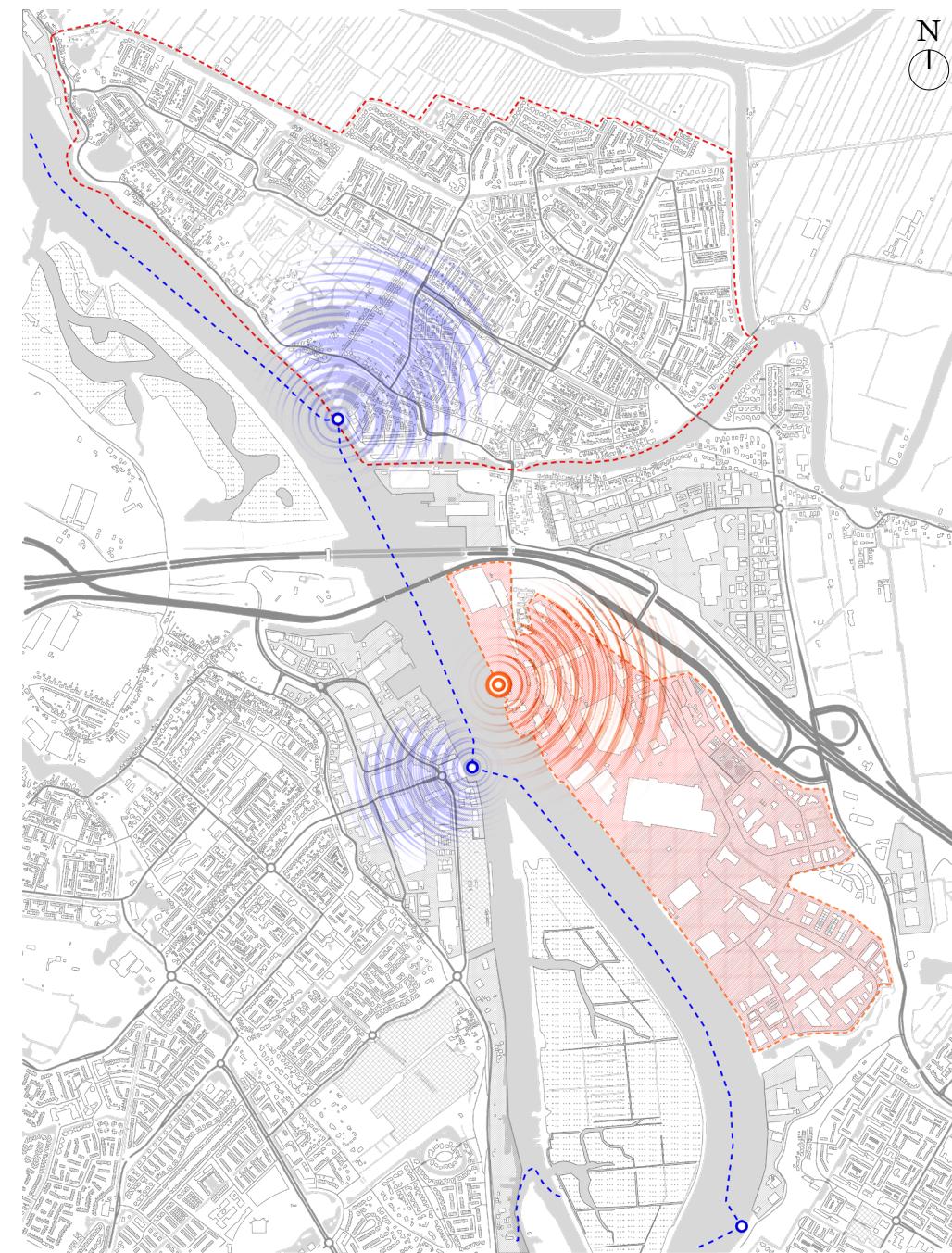
EXISTING WATER TRANSPORTATION



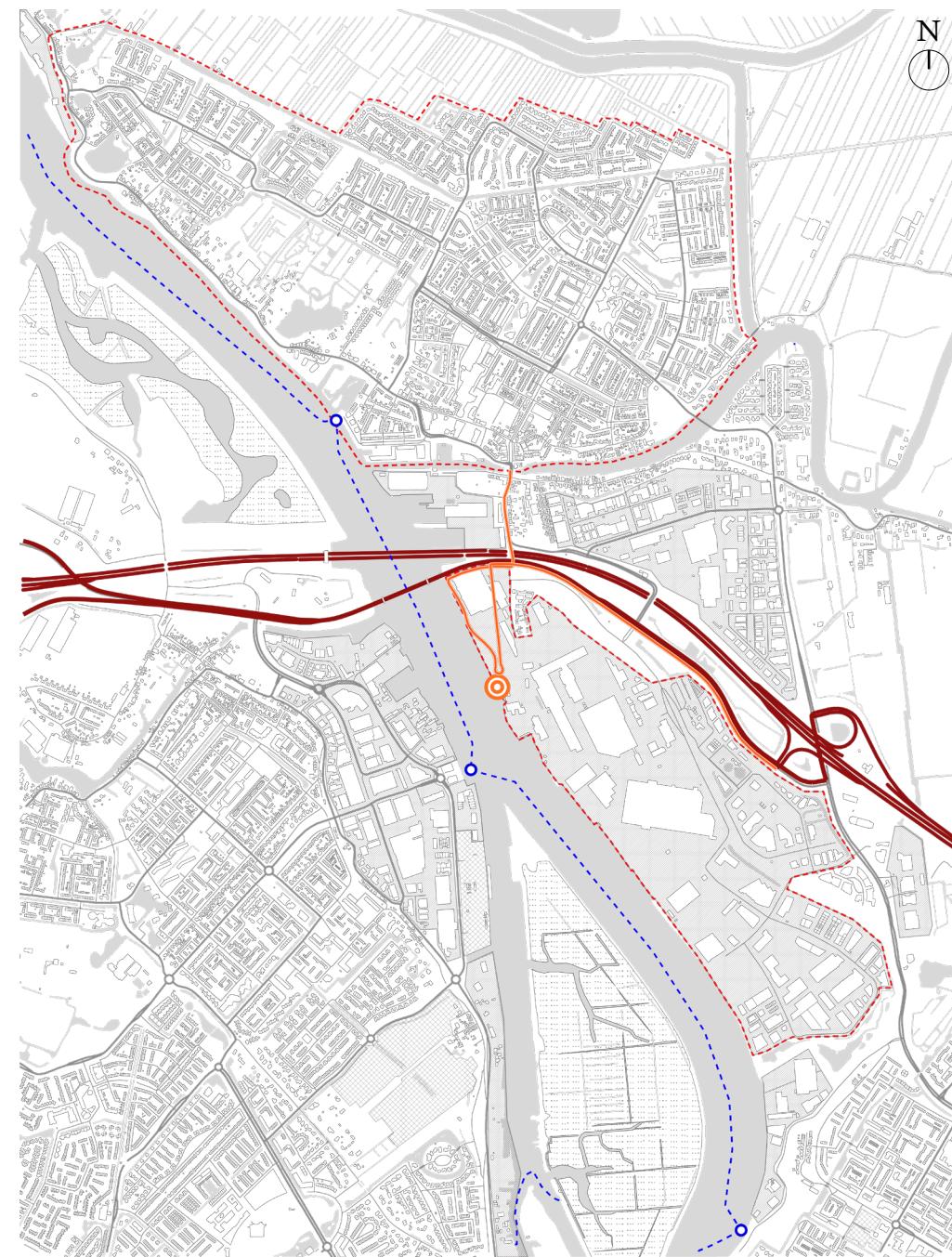
URBAN SEGREGATION & REGENERATION



A WATER BUS STOP TO SERVE NEW NEIGHBORHOODS



ELEVATED BIKE LANES: RAPID CONNECTIVITY & COMMUTING

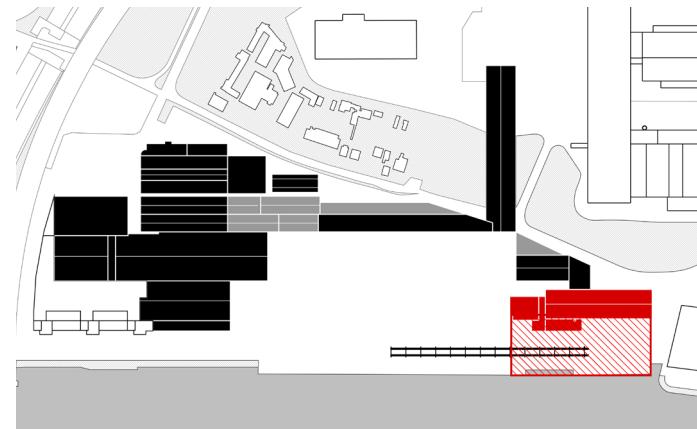


THE DUAL PURPOSE OF THE WATER BUS STOP

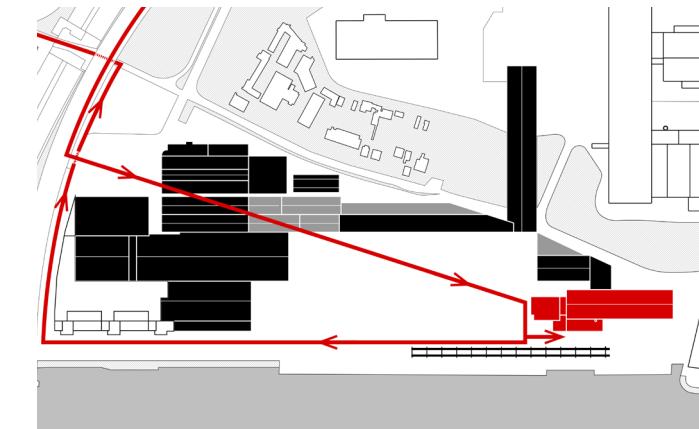


INFRASTRUCTURAL REQUIREMENTS

To convert the most water-neighboring blocks and racks into water terminals for water bus and tour ferry

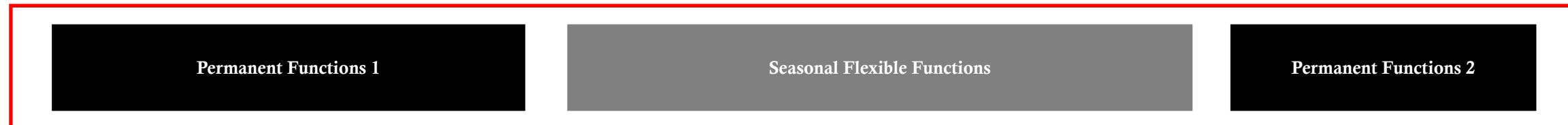


A skybridge bikeway should be installed using the existing approach bridge to bring the neighborhoods on both sides of the barrier to the terminals



SEASONAL CHANGE OF FUNCTIONS & SPACES

Retained Elements (shell)



Triennial Exhibition Period



Art Tourism

Local Benifit

Non-exhibition Period



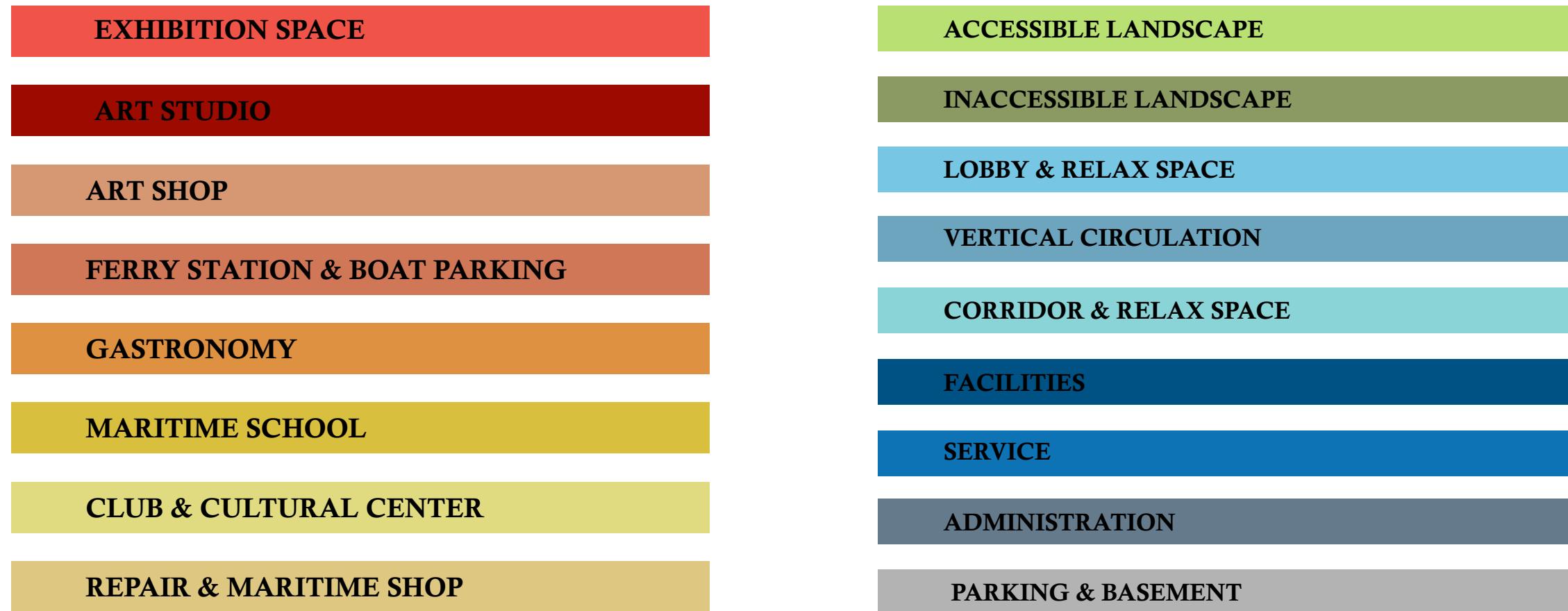
Art Tourism

Local Benifit

1. WAF Permanent Exhibition Space
2. WAF Temporary Exhibition Space
3. WAF Water Art Manufacturing Workshop
4. WAF Exhibition Boat Dock

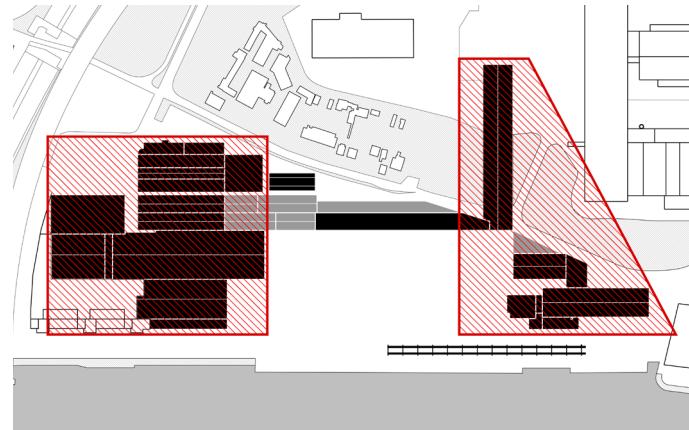
5. Small Boat Sale and Repair and Maintenance Center
6. Water Sports And Equipment Shop
7. Watercraft Driving & Maritime School
8. Community Cultural Clubs & Associations Center

PROGRAM BAR & RELATION SCHEME

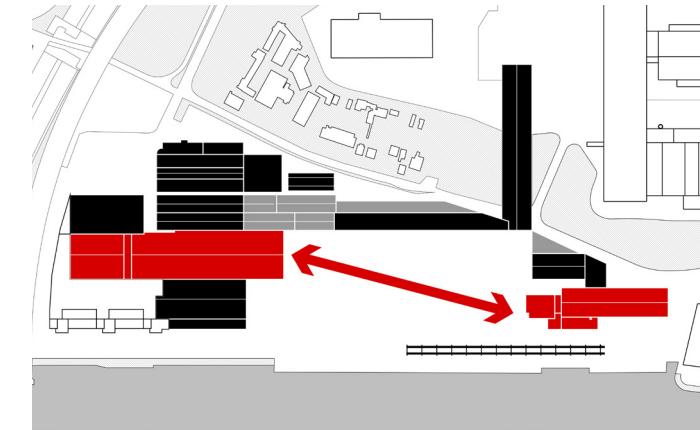


FUNCTIONAL DESIGN REQUIREMENTS

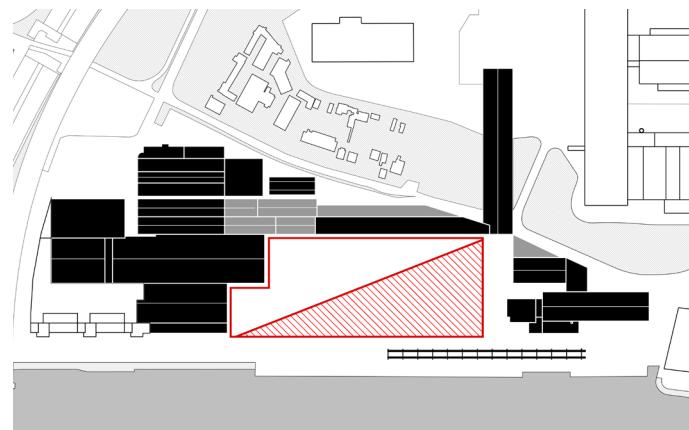
The two groups of volumes should be relatively independent during non-exhibition period



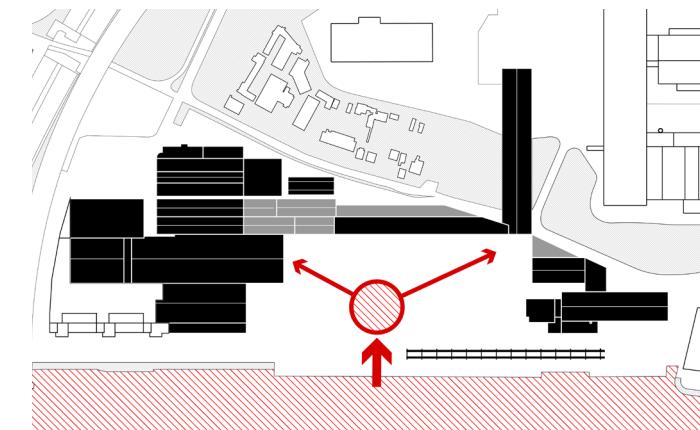
The axis of the main exhibition halls should be directly connected to the cruise pier during the exhibition period



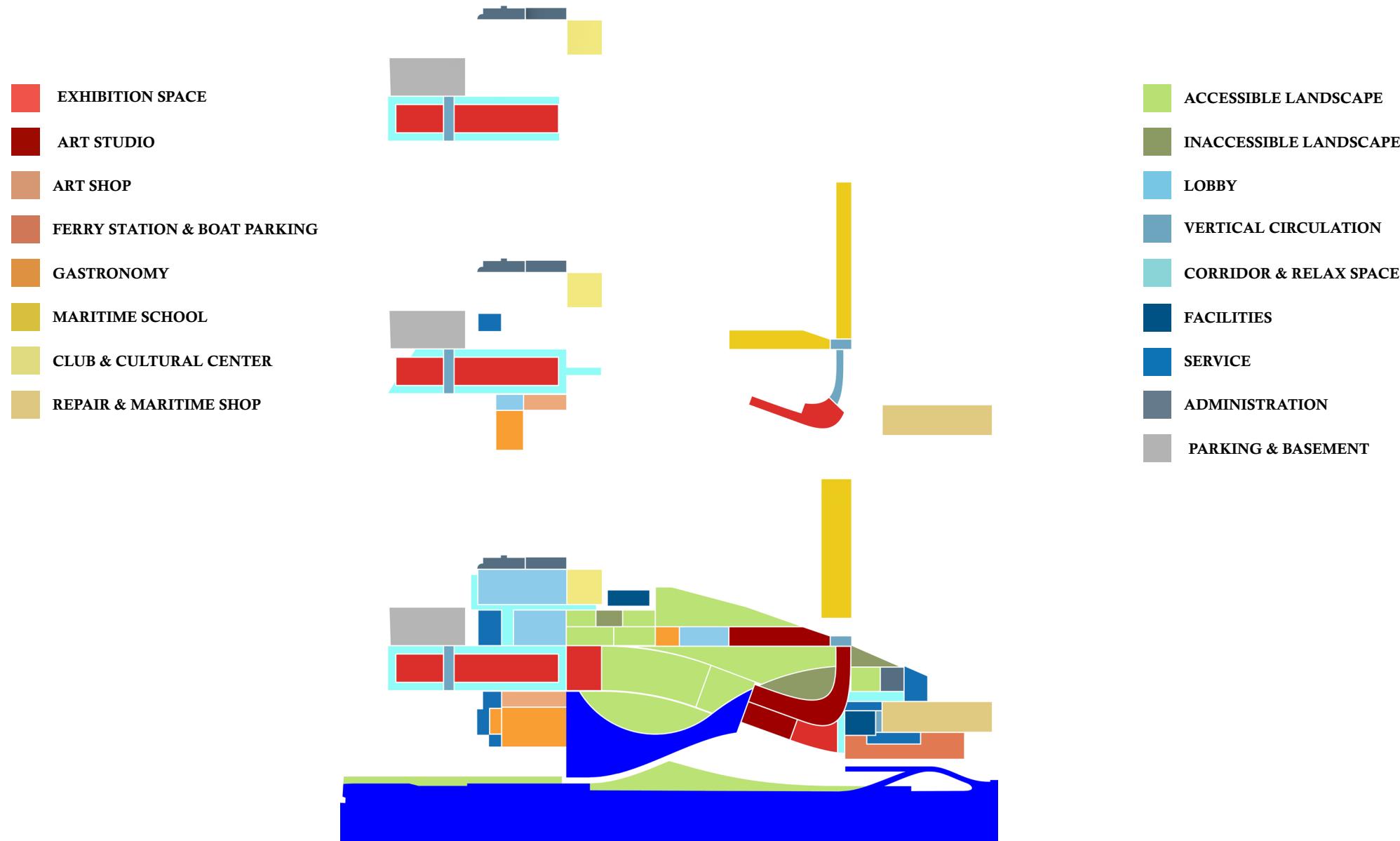
The open space after demolition on the site should be bisected into two parts, landscape and waterscape



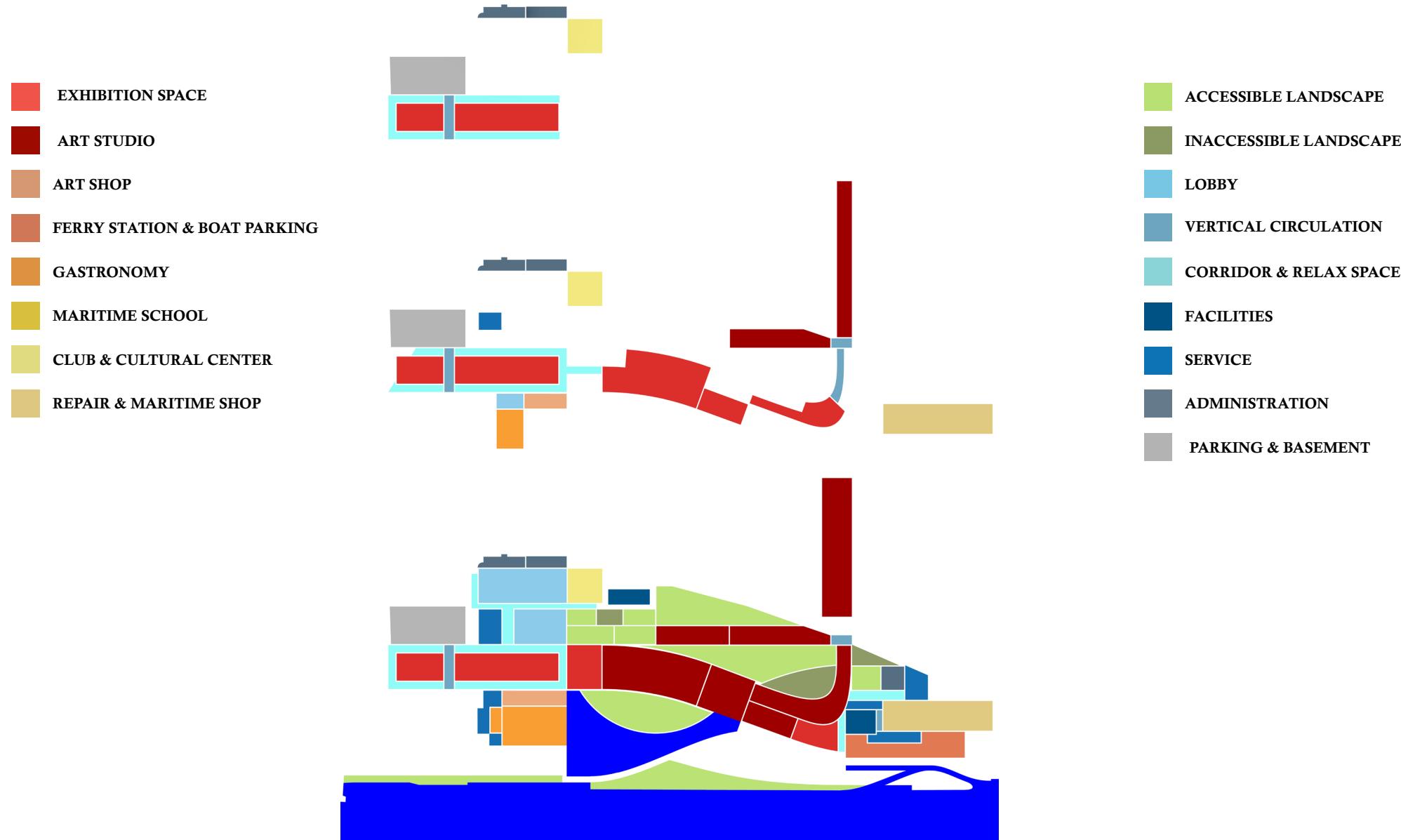
The waterscape of the open space should both connect the river and introduce into the main exhibition halls and workshop halls



NON-TRIENNIAL PERIOD FUNCTIONAL PLAN

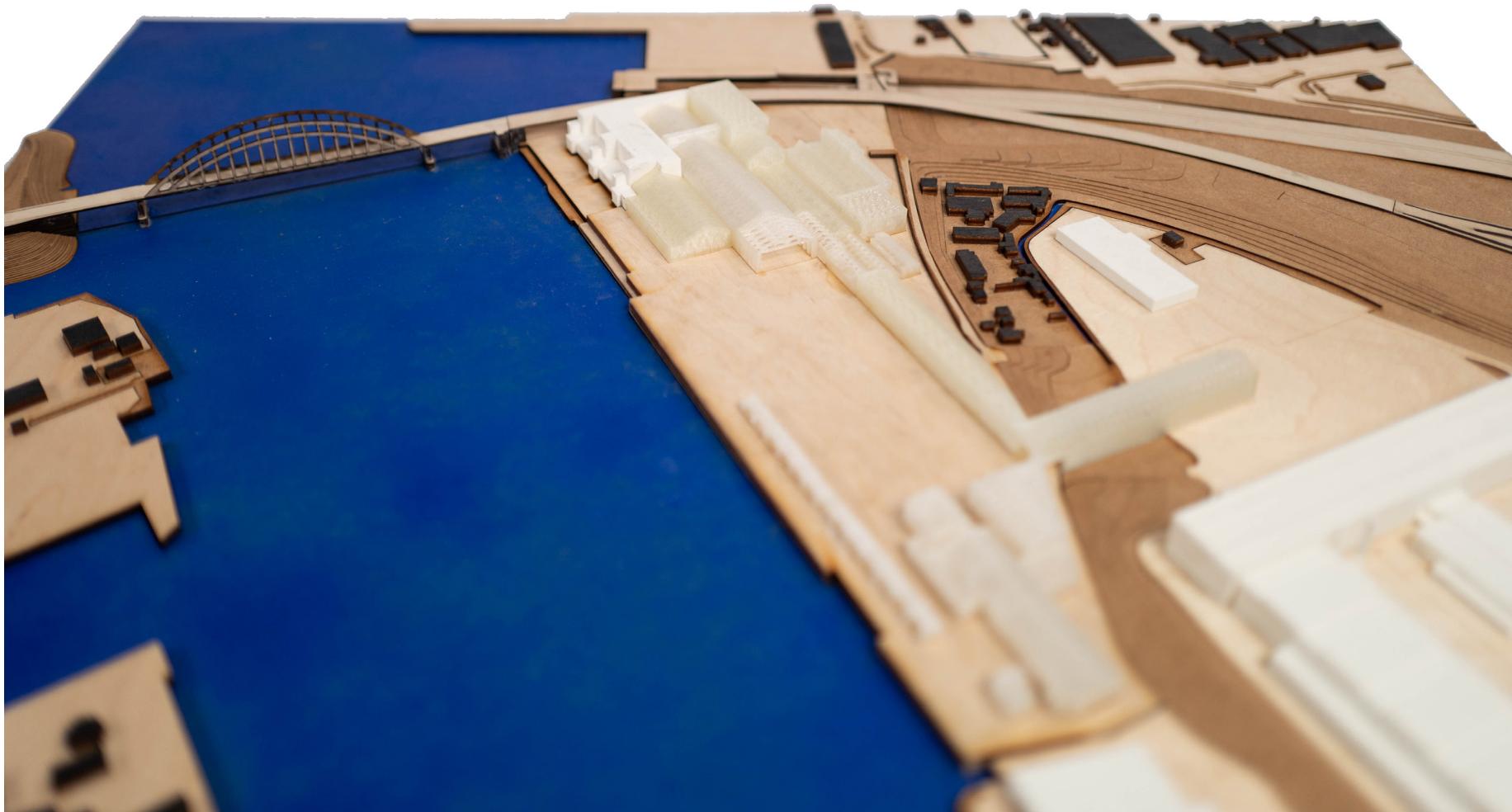


TRIENNIAL PERIOD FUNCTIONAL PLAN



PROGRAM ON SITE

FUNCTIONAL MODEL: ORIGINAL



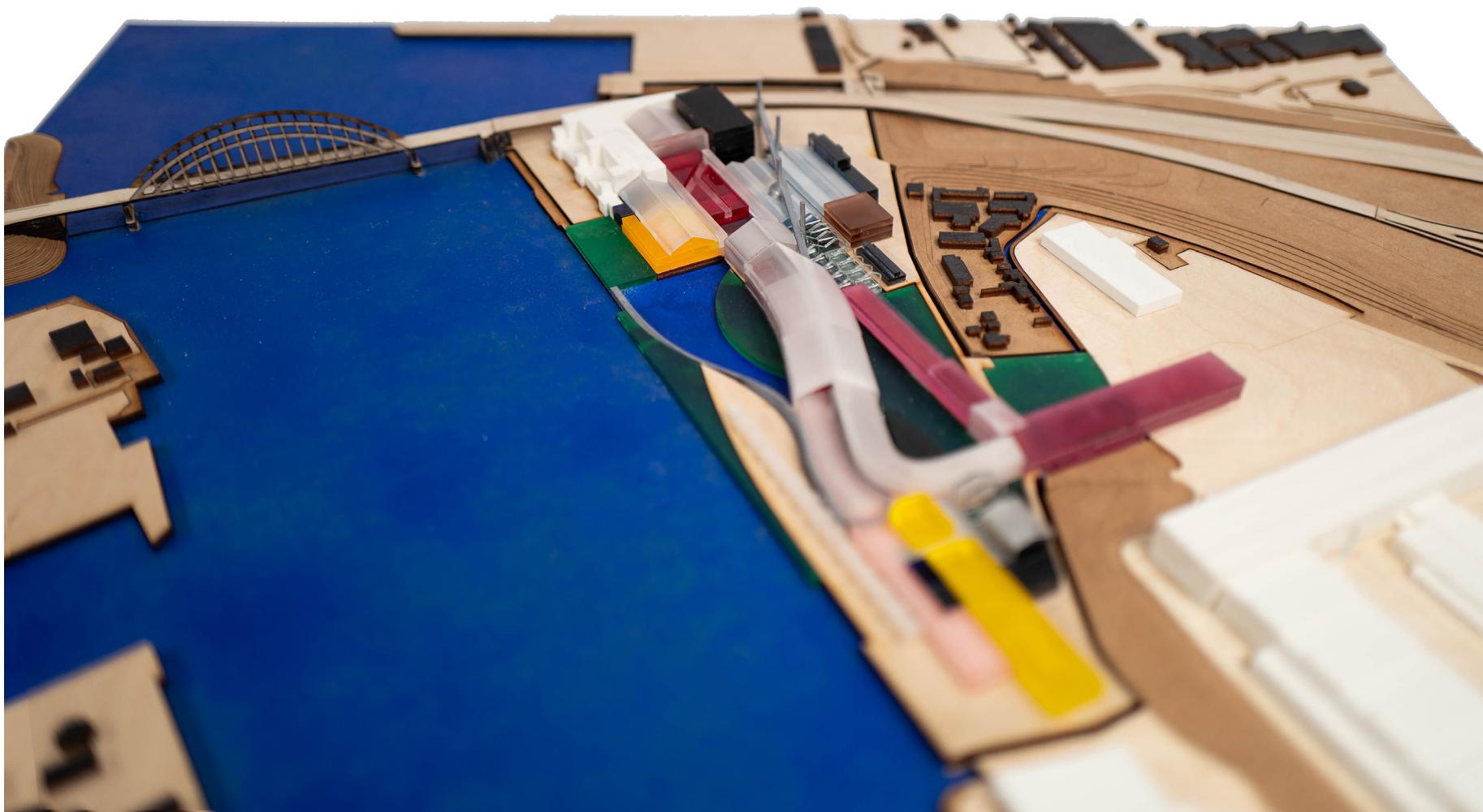
PROGRAM ON SITE

FUNCTIONAL MODEL: NON-TRIENNIAL PERIOD



PROGRAM ON SITE

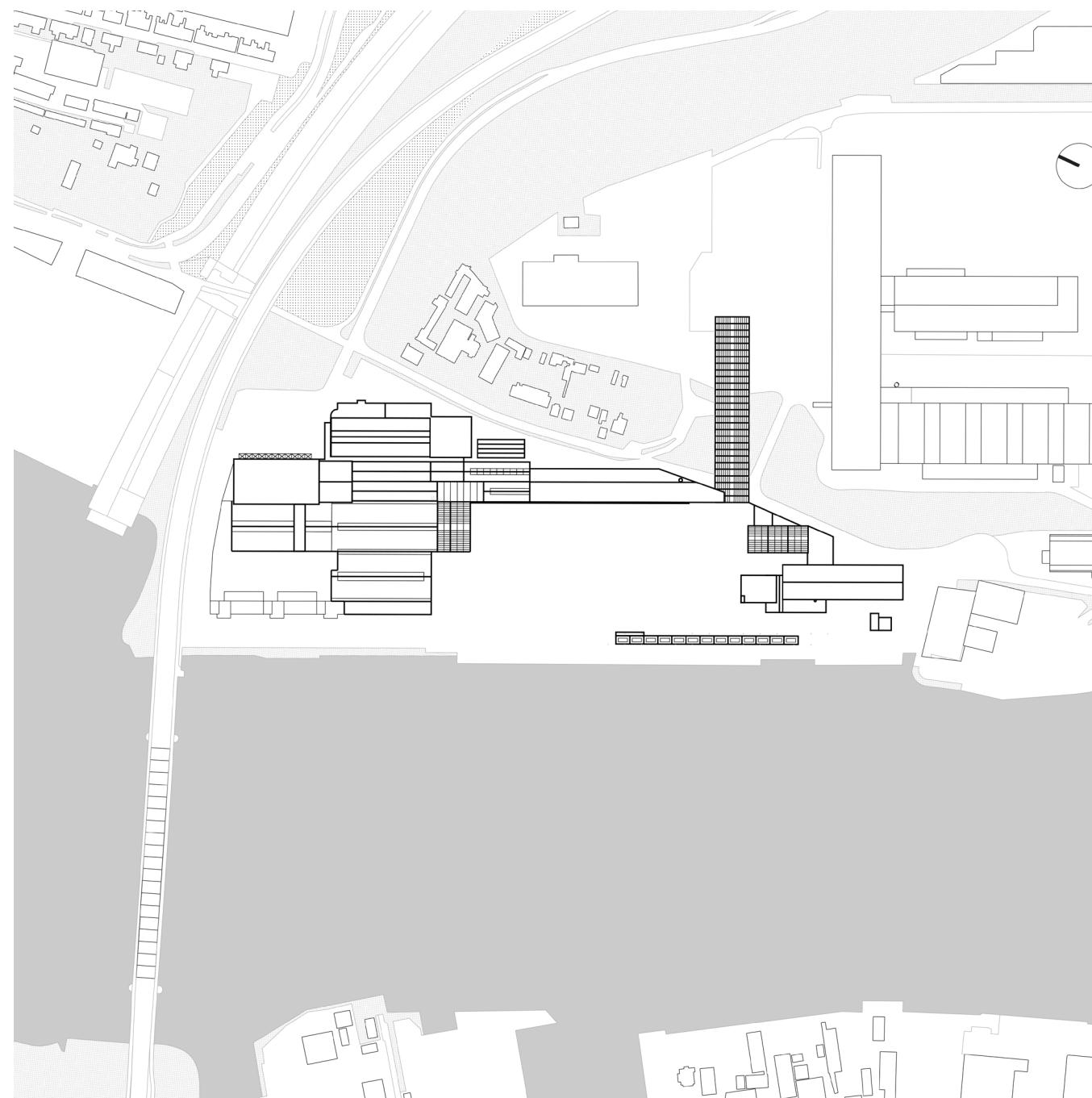
FUNCTIONAL MODEL: TRIENNIAL PERIOD



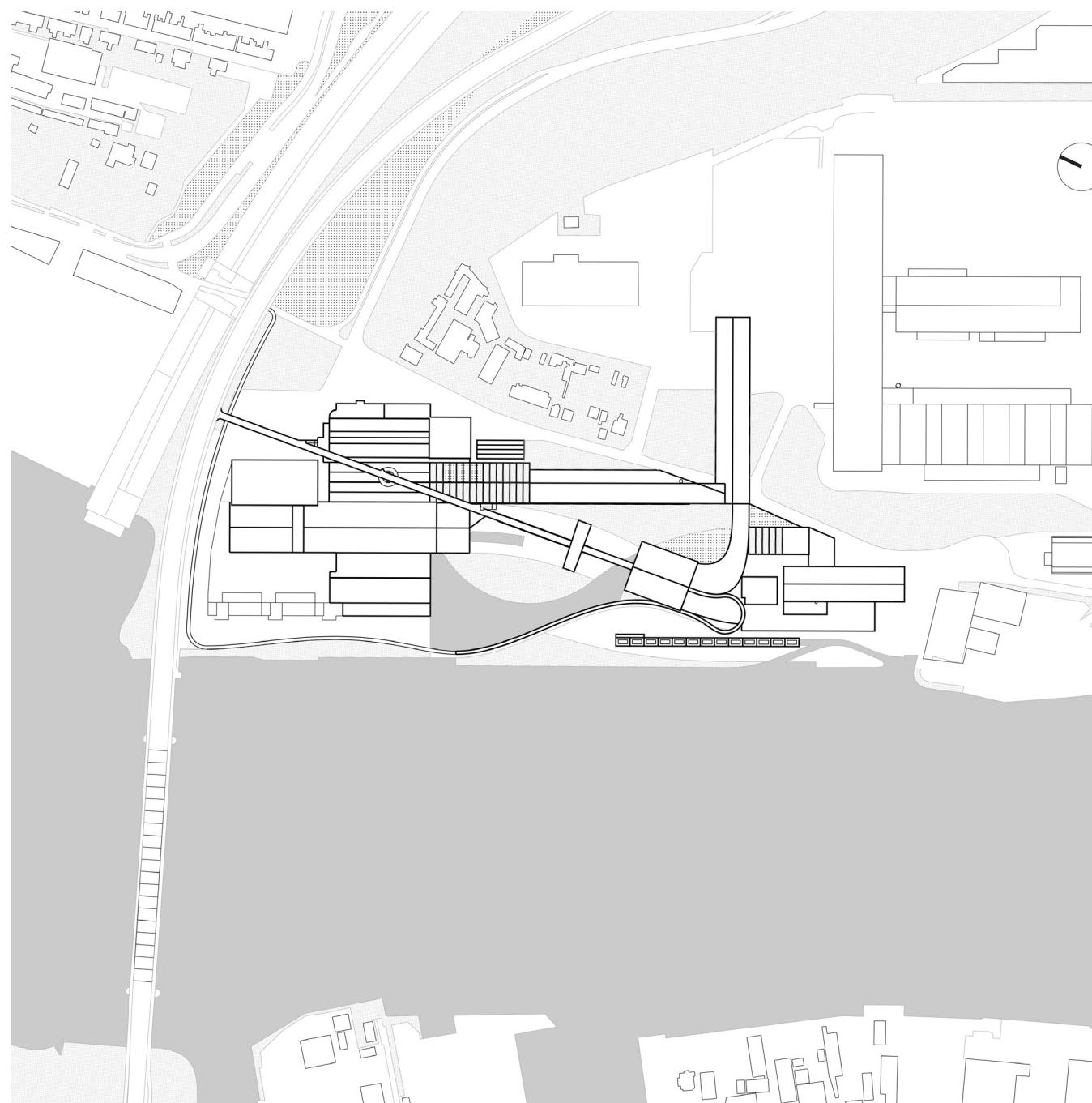
ARCHITECTURAL DESIGN & SPACIAL SCENARIO

1. Architectural Design Overview
2. Space Use & Function Scenario

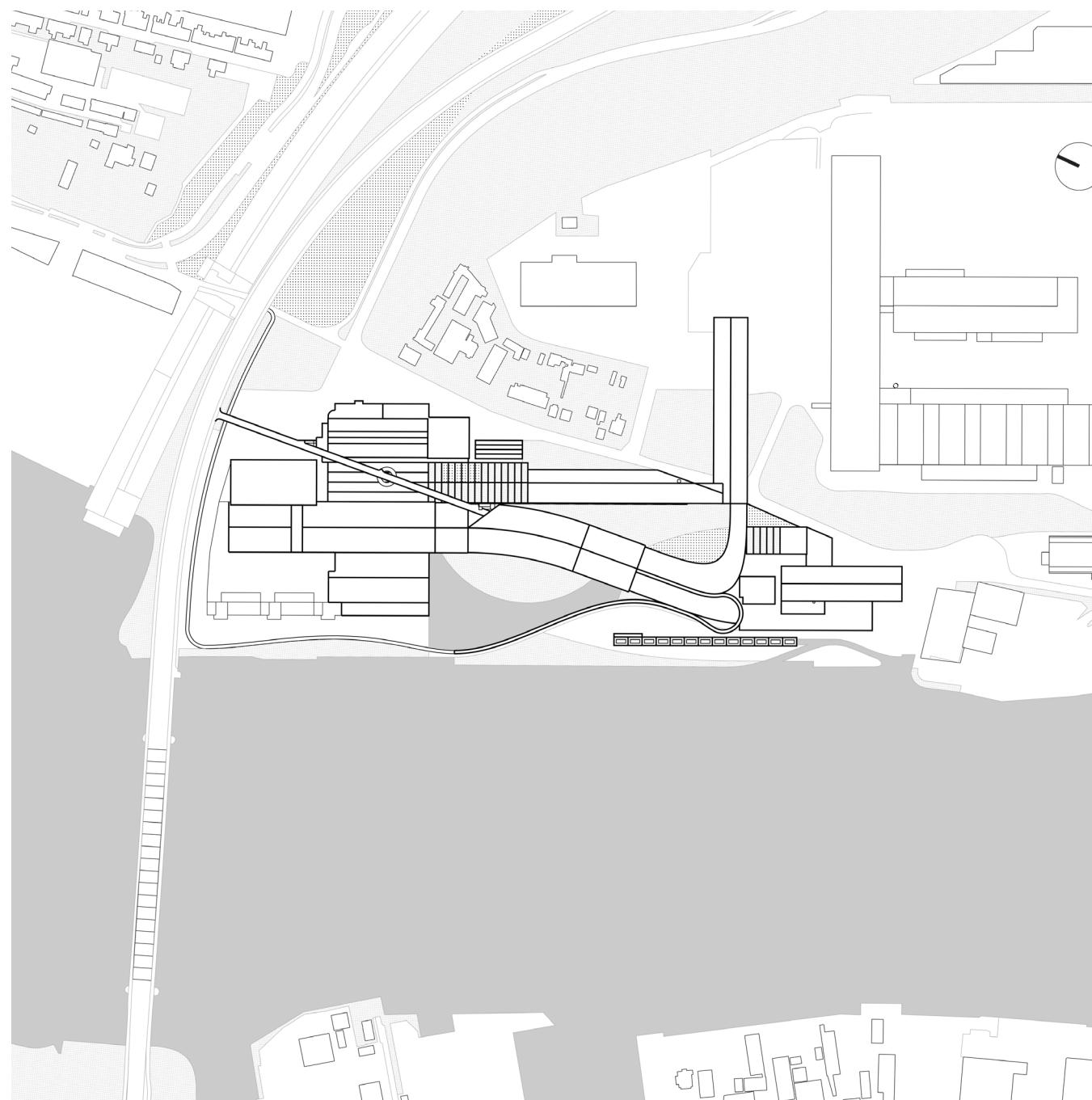
ORIGINAL SITE MASTERPLAN



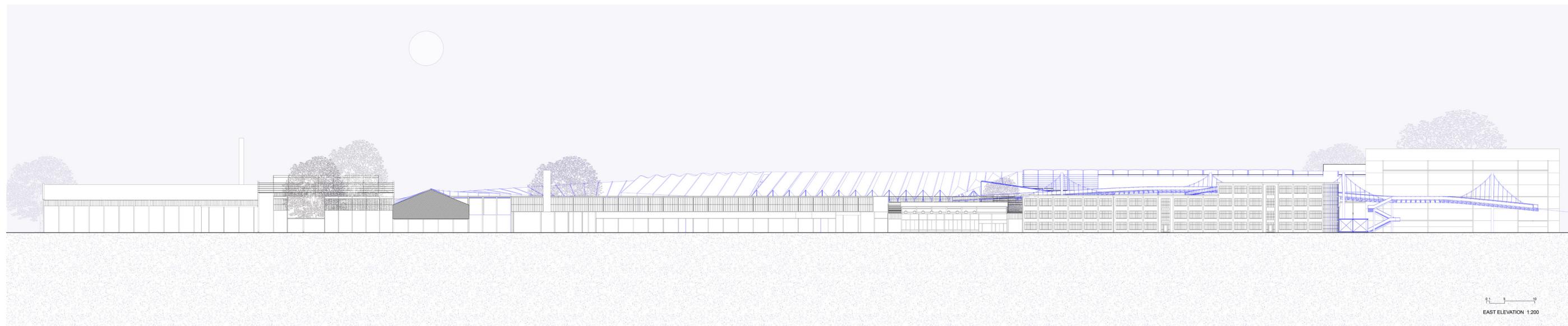
NEW SITE MASTERPLAN FOR NON-EXHIBITION PERIOD



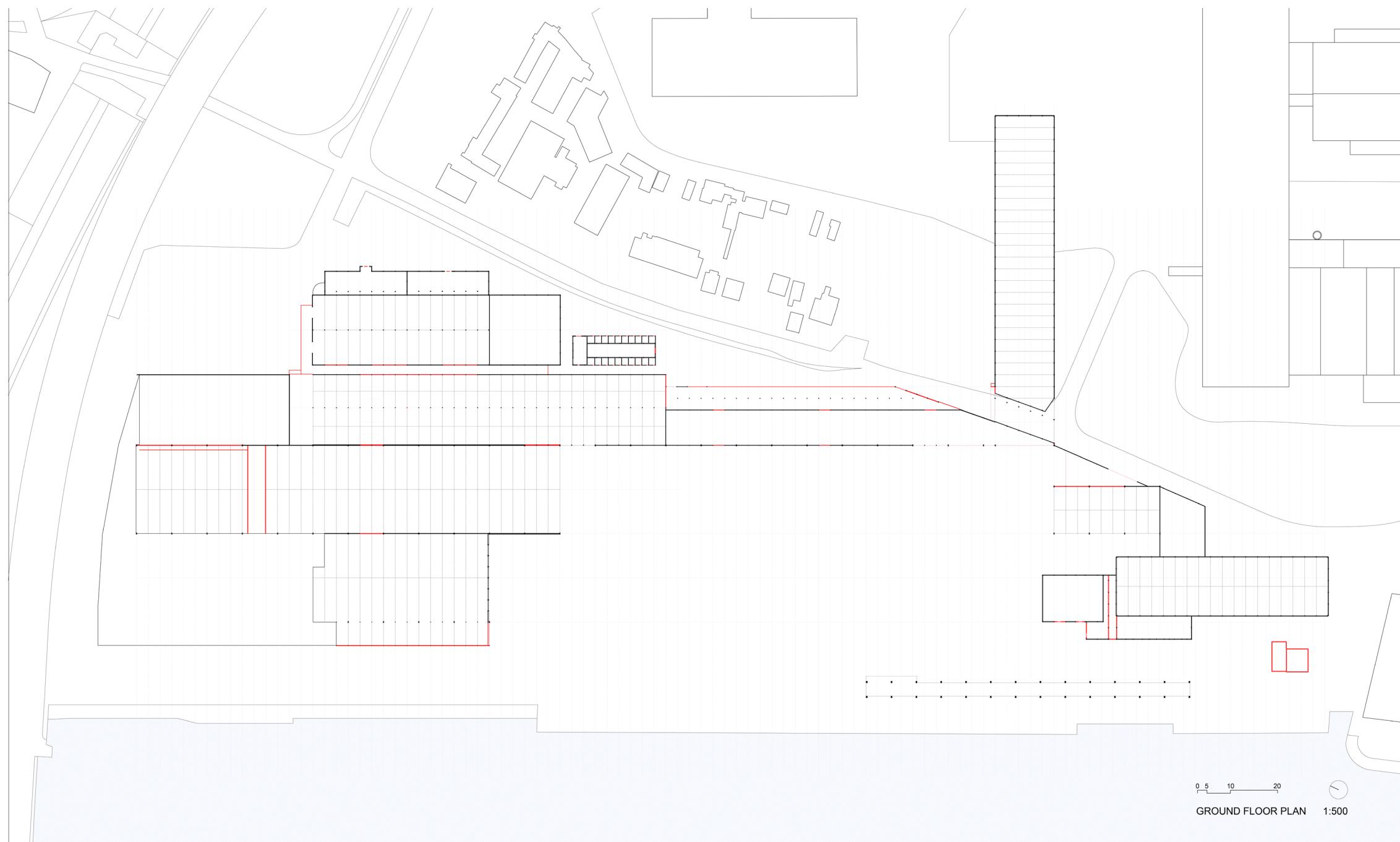
NEW SITE MASTERPLAN FOR EXHIBITION PERIOD



EAST ELEVATION: SURFACE OF OLD AND NEW

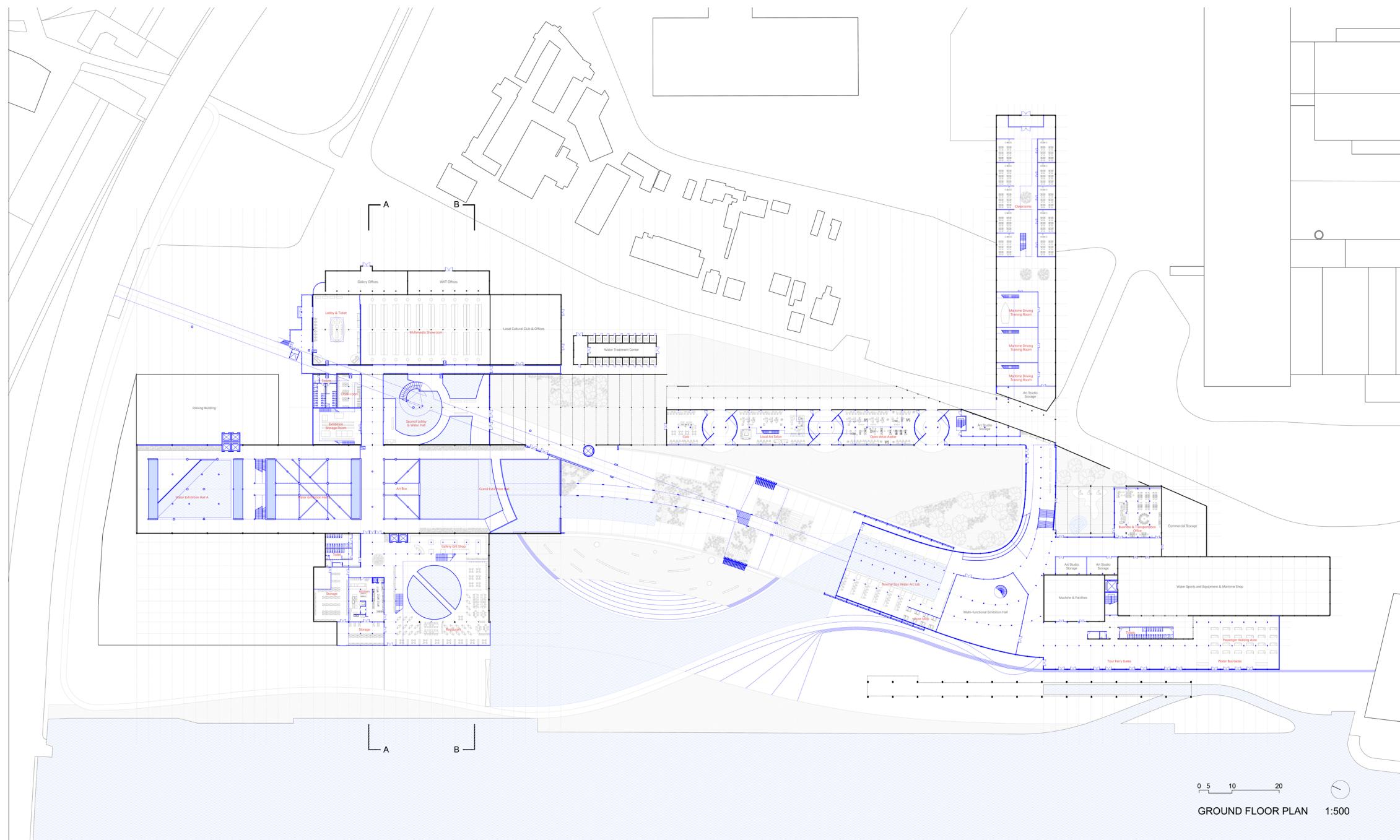


ORIGINAL GROUND FLOOR PLAN

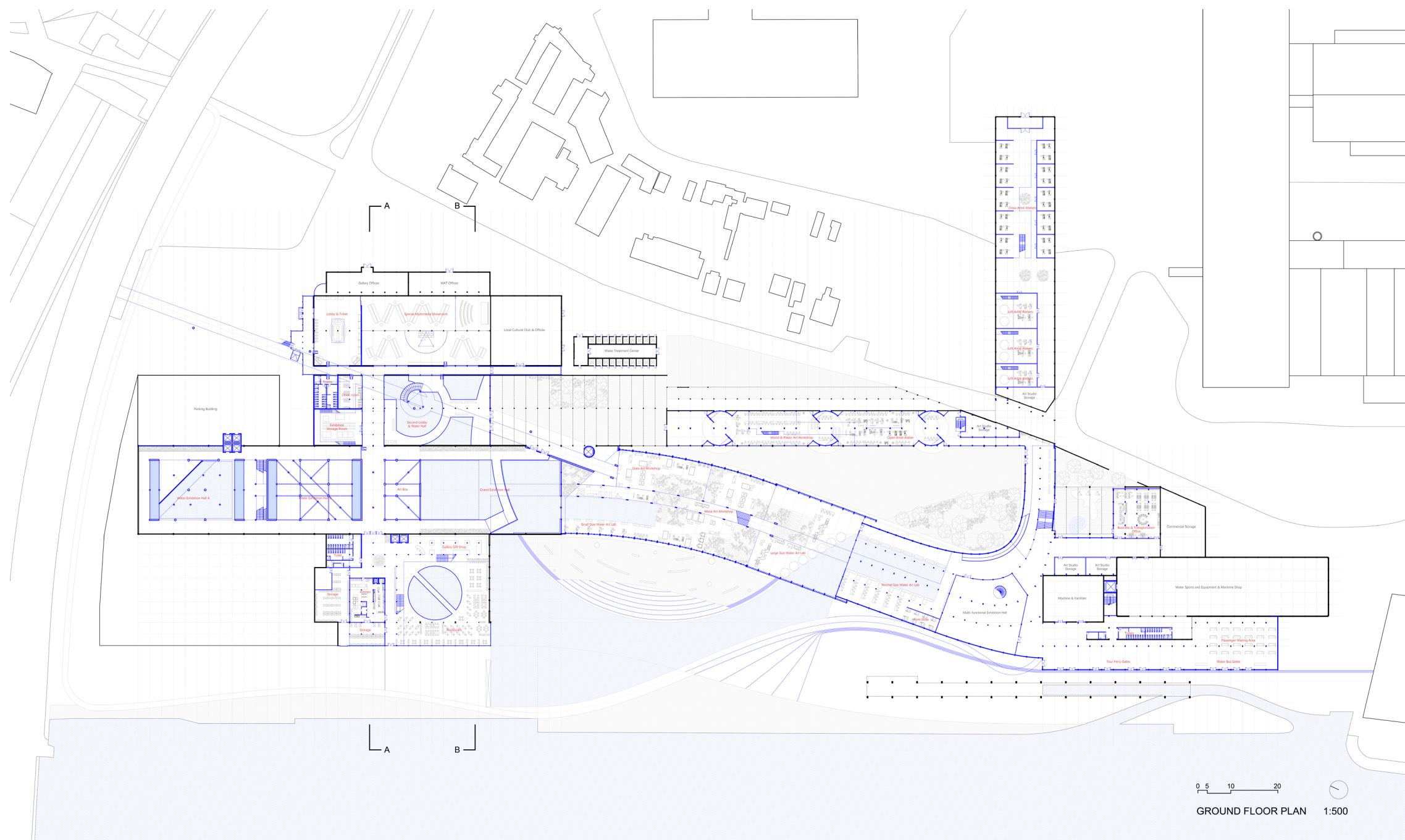


ARCHITECTURAL DESIGN OVERVIEW

NON-TRIENNIAL PERIOD GROUND FLOOR PLAN

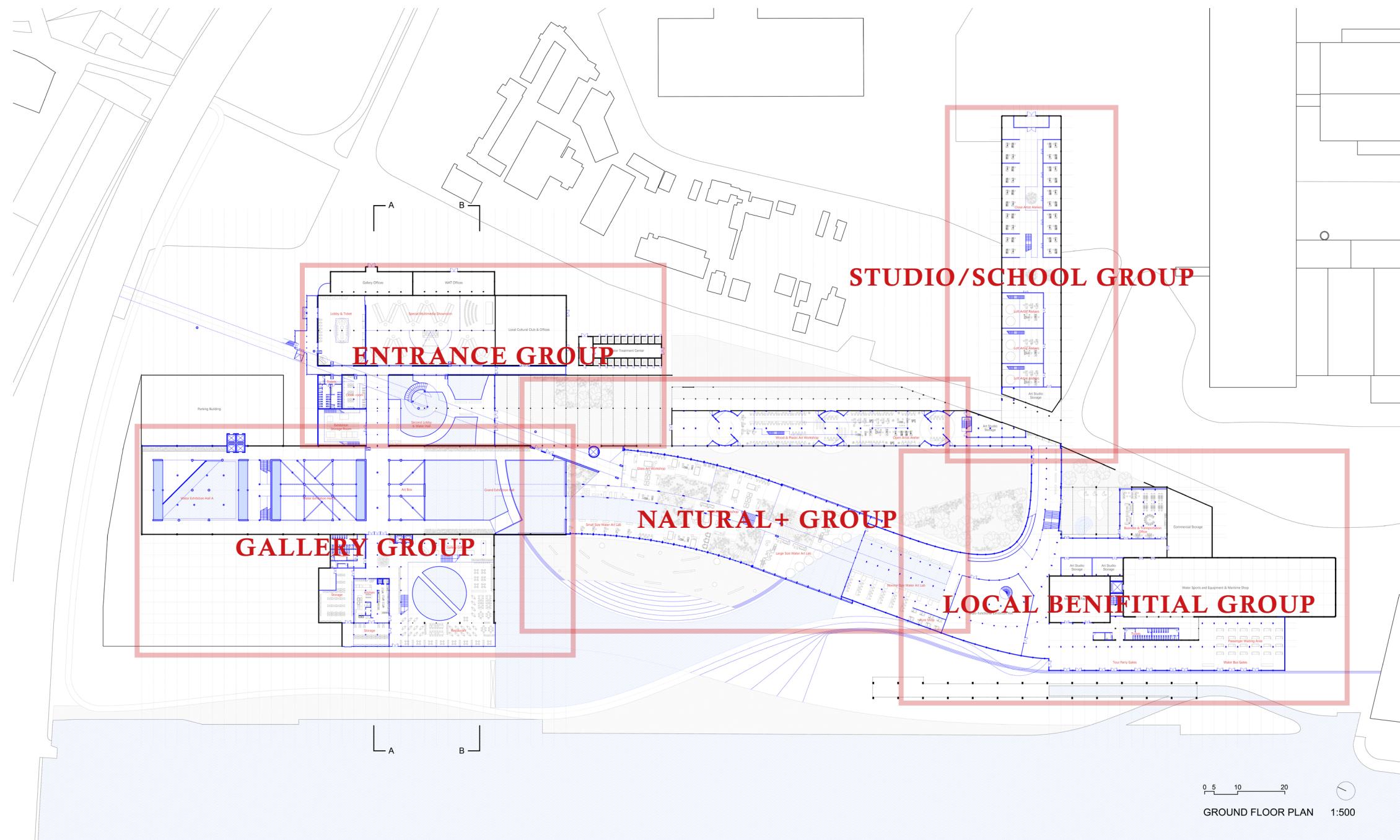


TRIENNIAL PERIOD GROUND FLOOR PLAN



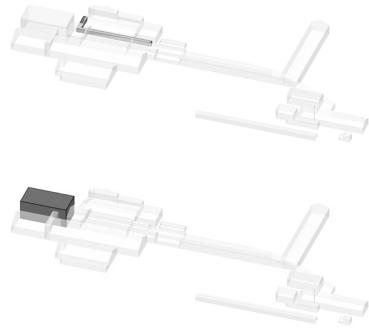
Space Use & Function Scenario

ZOOM IN FLOOR PLANS (VALUE ASSESSMENT RESPOND)

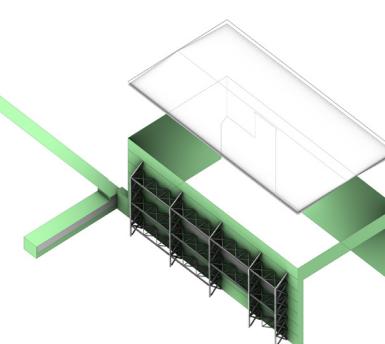


ENTRANCE GROUP VALUE ASSESSMENT

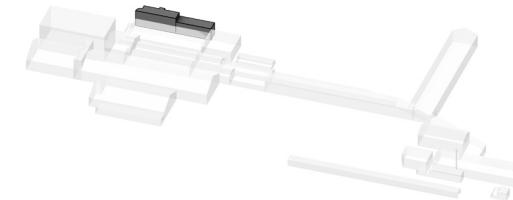
AUXILIARY BUILDING 04 06



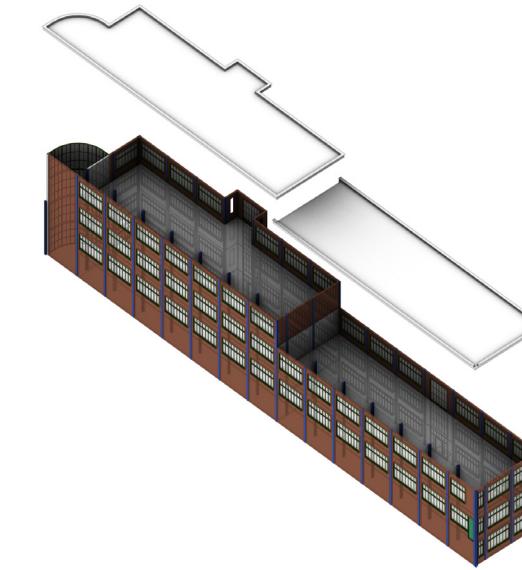
Historical Commemorative Value	+
Spatial Spirital Value	++
Structural Heritage Value	+
Material & Interface Value	++++
Functional Reuse Value	++++



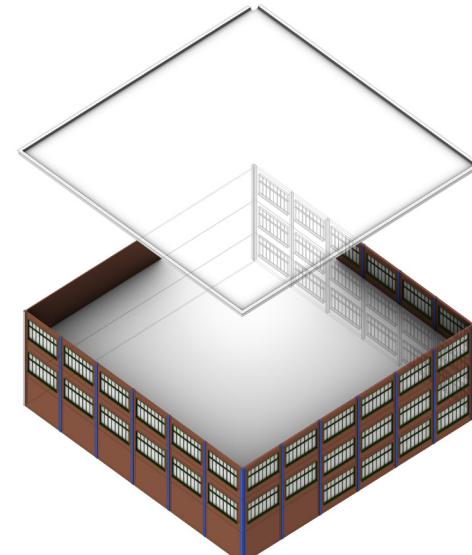
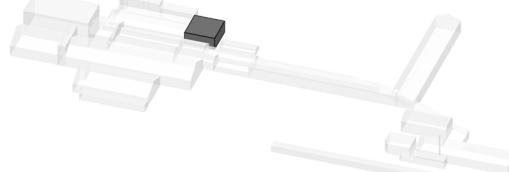
OFFICE BUILDING 01



Historical Commemorative Value	+++
Spatial Spirital Value	++
Structural Heritage Value	++++
Material & Interface Value	++++
Functional Reuse Value	+++++



OFFICE BUILDING 02

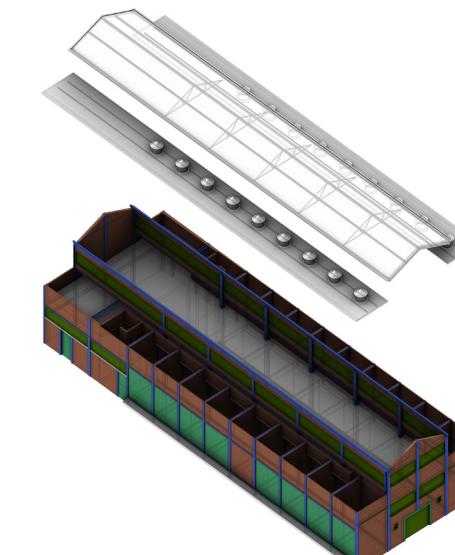


Historical Commemorative Value	+++
Spatial Spirital Value	++
Structural Heritage Value	++++
Material & Interface Value	++++
Functional Reuse Value	+++++

FACTORY BUILDING 05

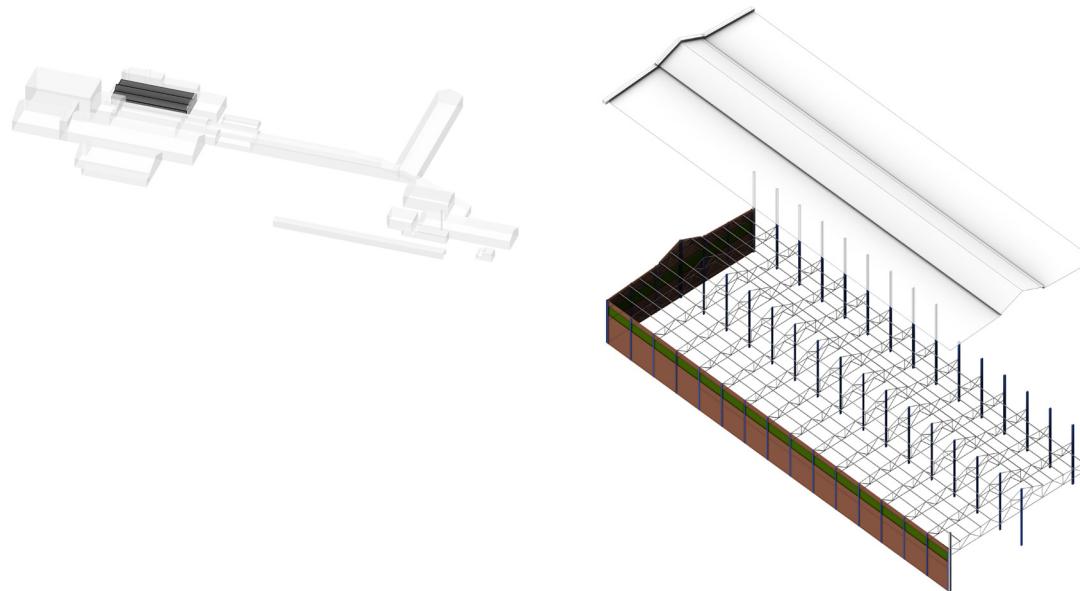


Historical Commemorative Value	++++
Spatial Spirital Value	+++
Structural Heritage Value	+++++
Material & Interface Value	++++
Functional Reuse Value	++++



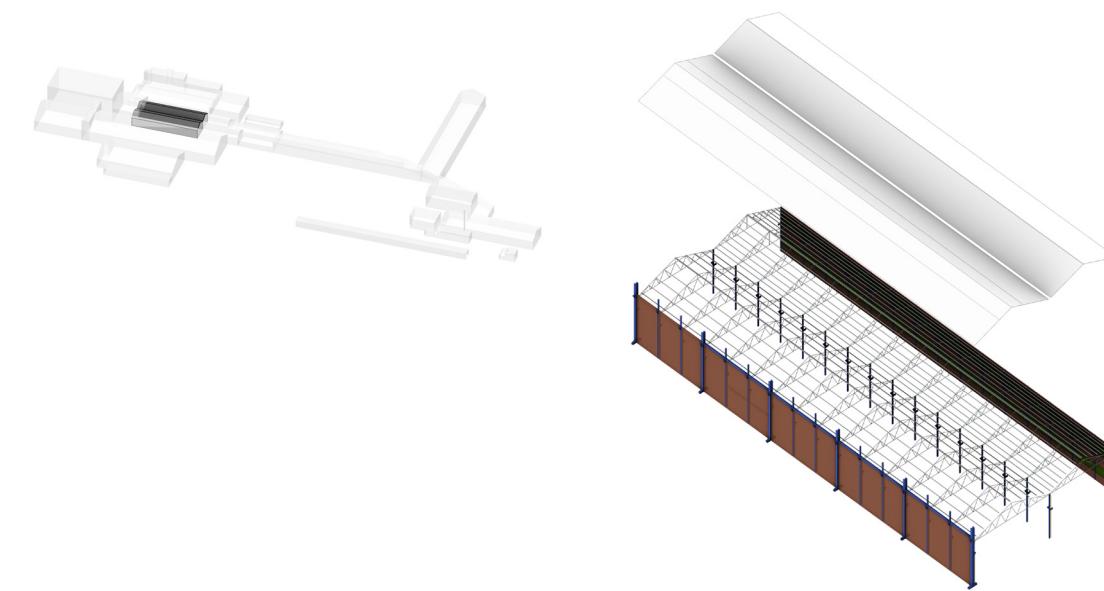
ENTRANCE GROUP VALUE ASSESSMENT

FACTORY BUILDING 03



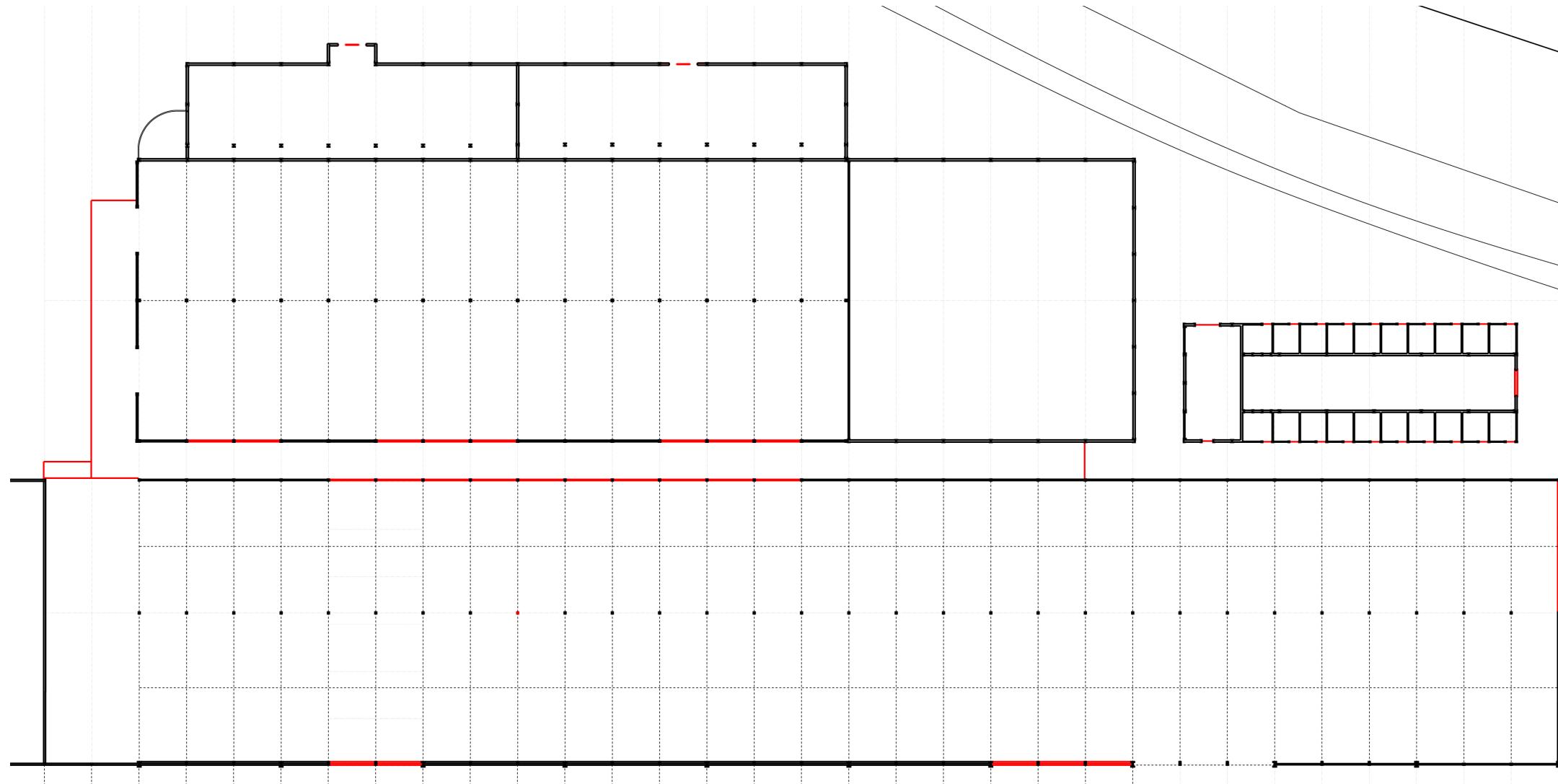
Historical Commemorative Value	+++++
Spatial Spirital Value	++++
Structural Heritage Value	+++++
Material & Interface Value	+++++
Functianal Reuse Value	+++++

FACTORY BUILDING 08

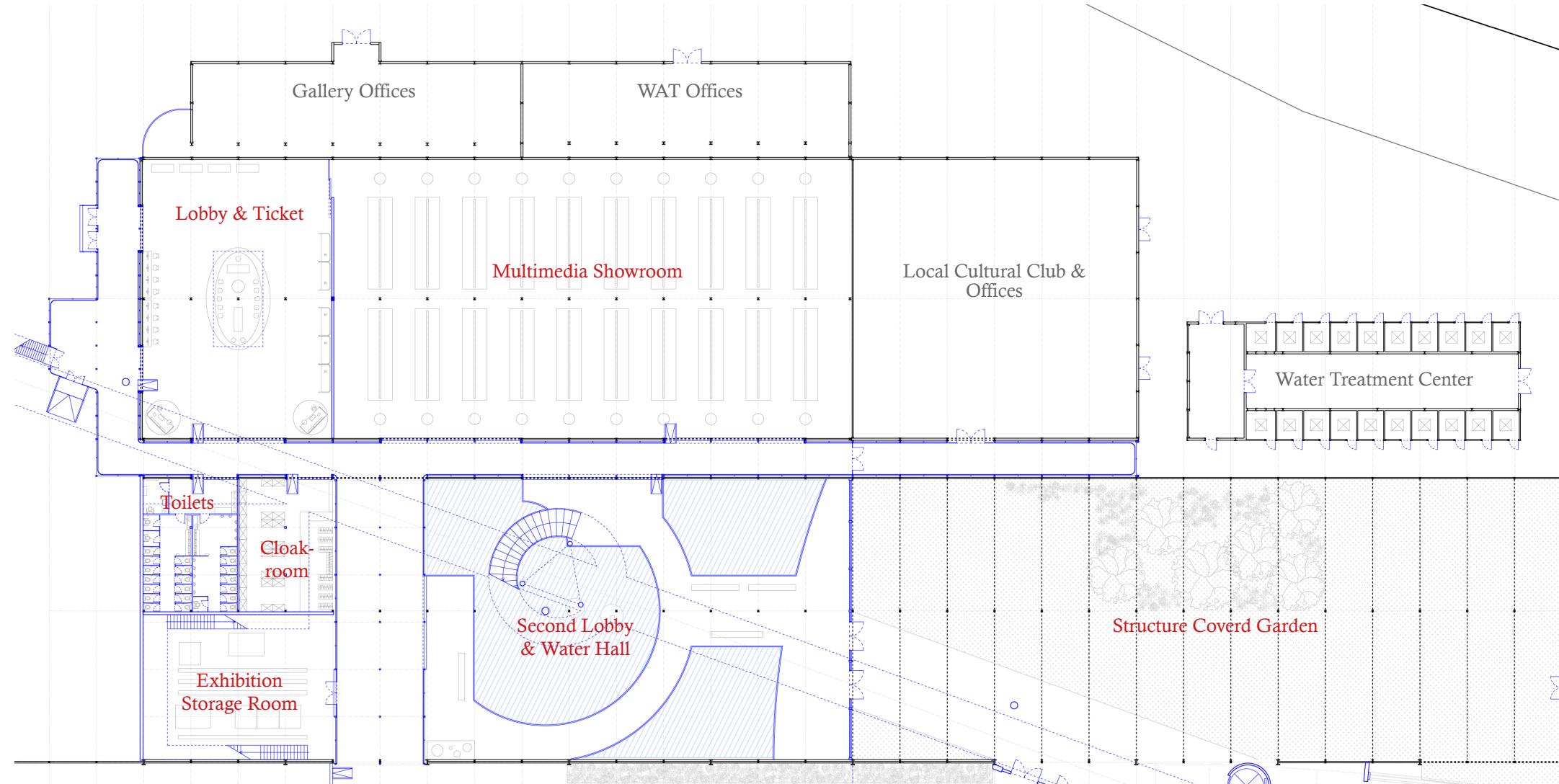


Historical Commemorative Value	+++++
Spatial Spirital Value	+++++
Structural Heritage Value	+++++
Material & Interface Value	+++++
Functianal Reuse Value	+++++

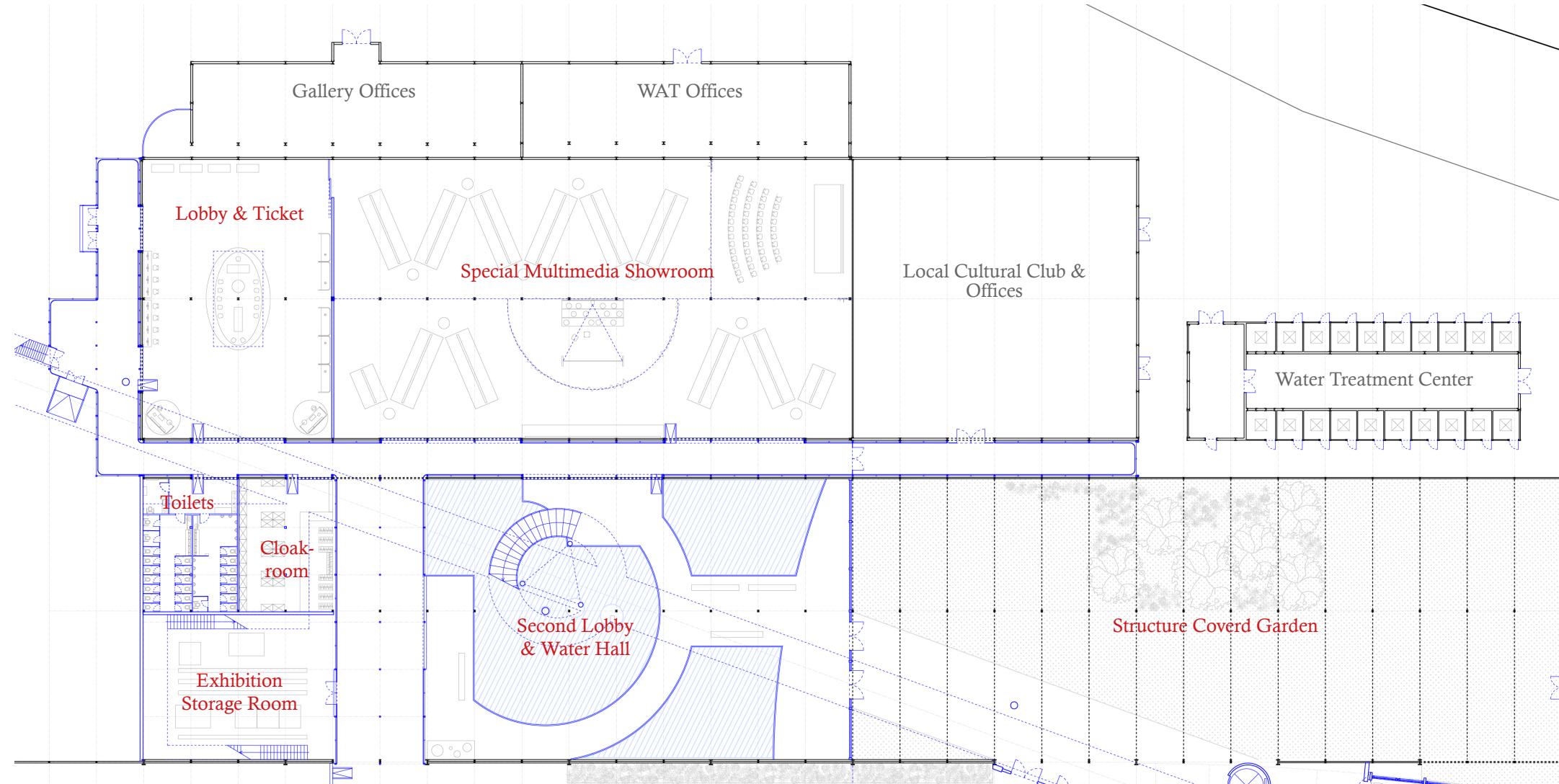
ZOOM IN FLOOR PLANS: ENTRANCE GROUP



Space Use & Function Scenario
ZOOM IN FLOOR PLANS: ENTRANCE GROUP



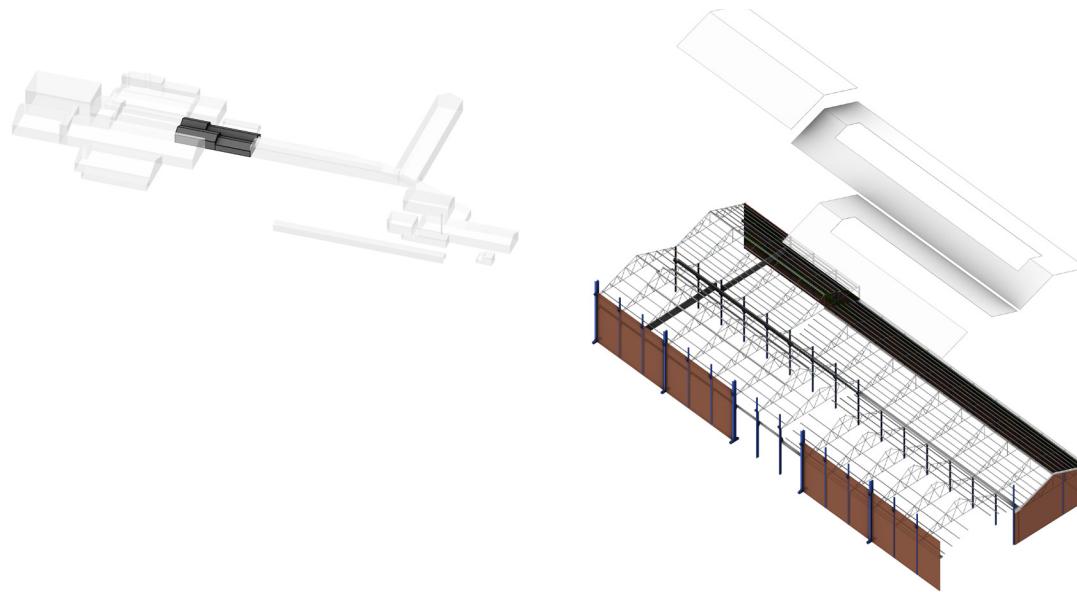
Space Use & Function Scenario
ZOOM IN FLOOR PLANS: ENTRANCE GROUP



Space Use & Function Scenario

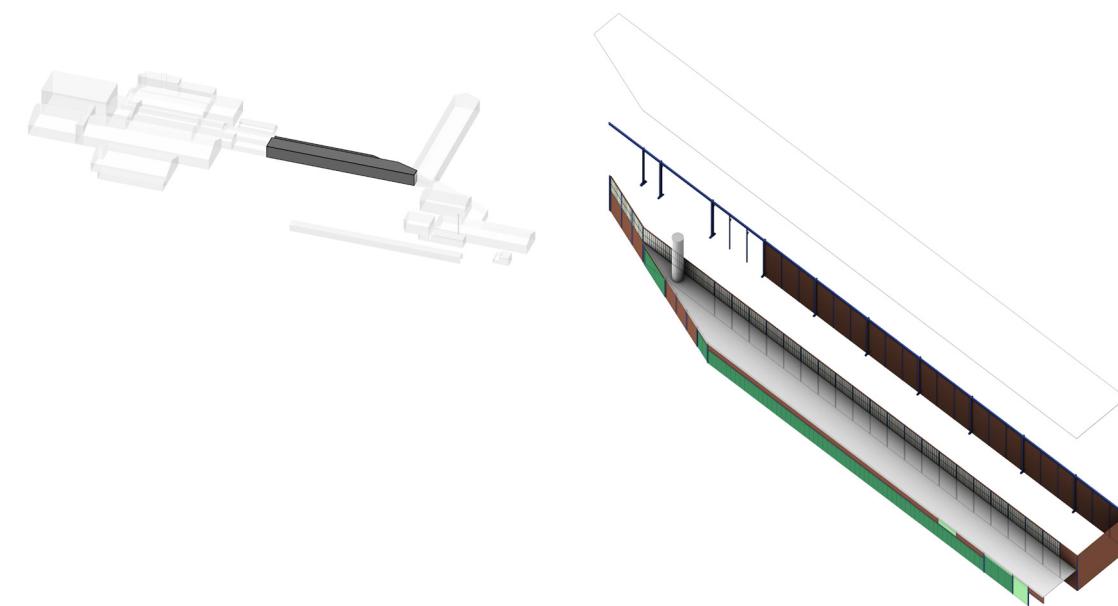
NATURAL+ GROUP VALUE ASSESSMENT

FACTORY BUILDING 09



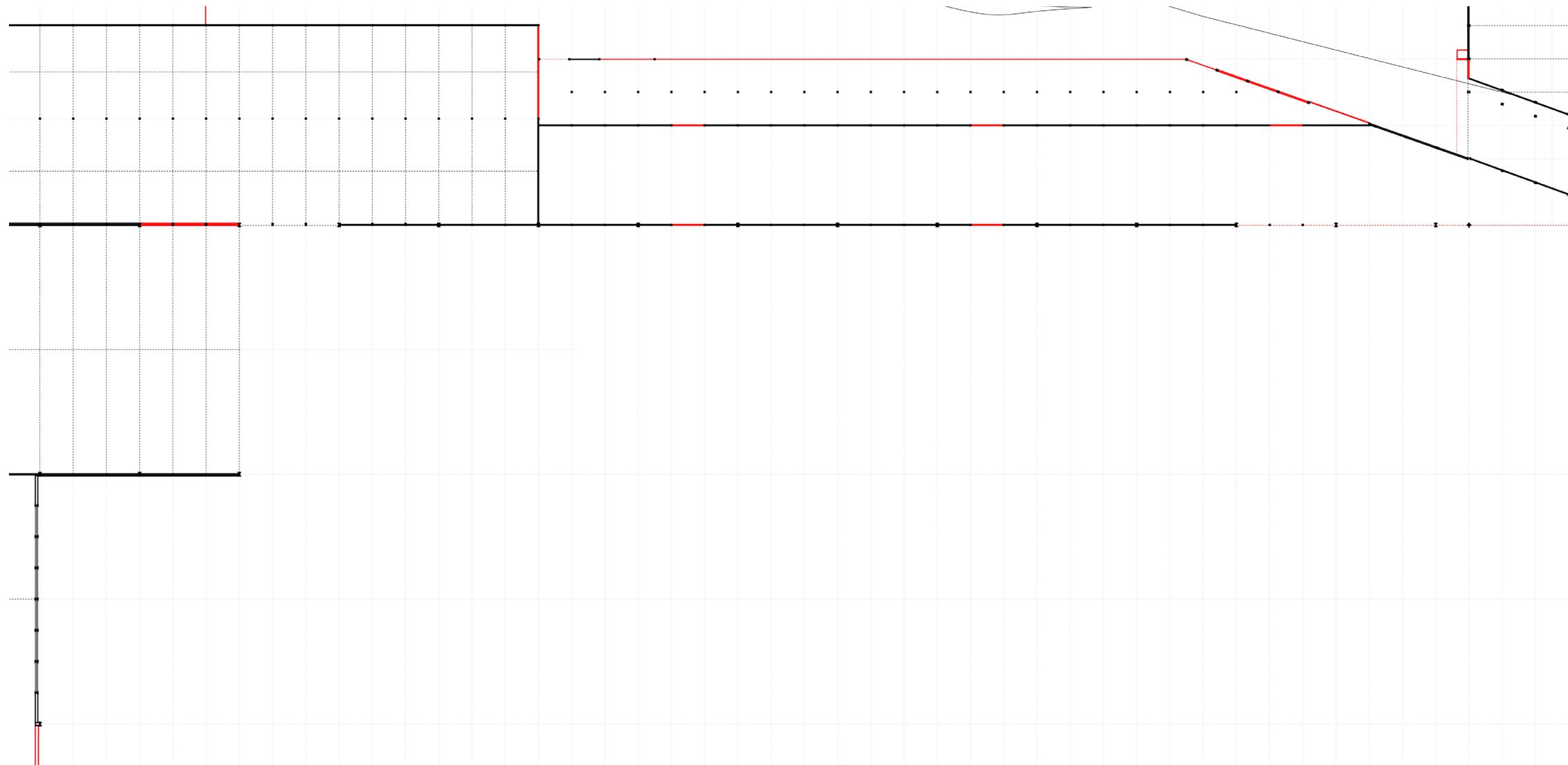
Historical Commemorative Value	+++++
Spatial Spirital Value	+++++
Structural Heritage Value	+++
Material & Interface Value	++++
Functianal Reuse Value	++++

FACTORY BUILDING 10



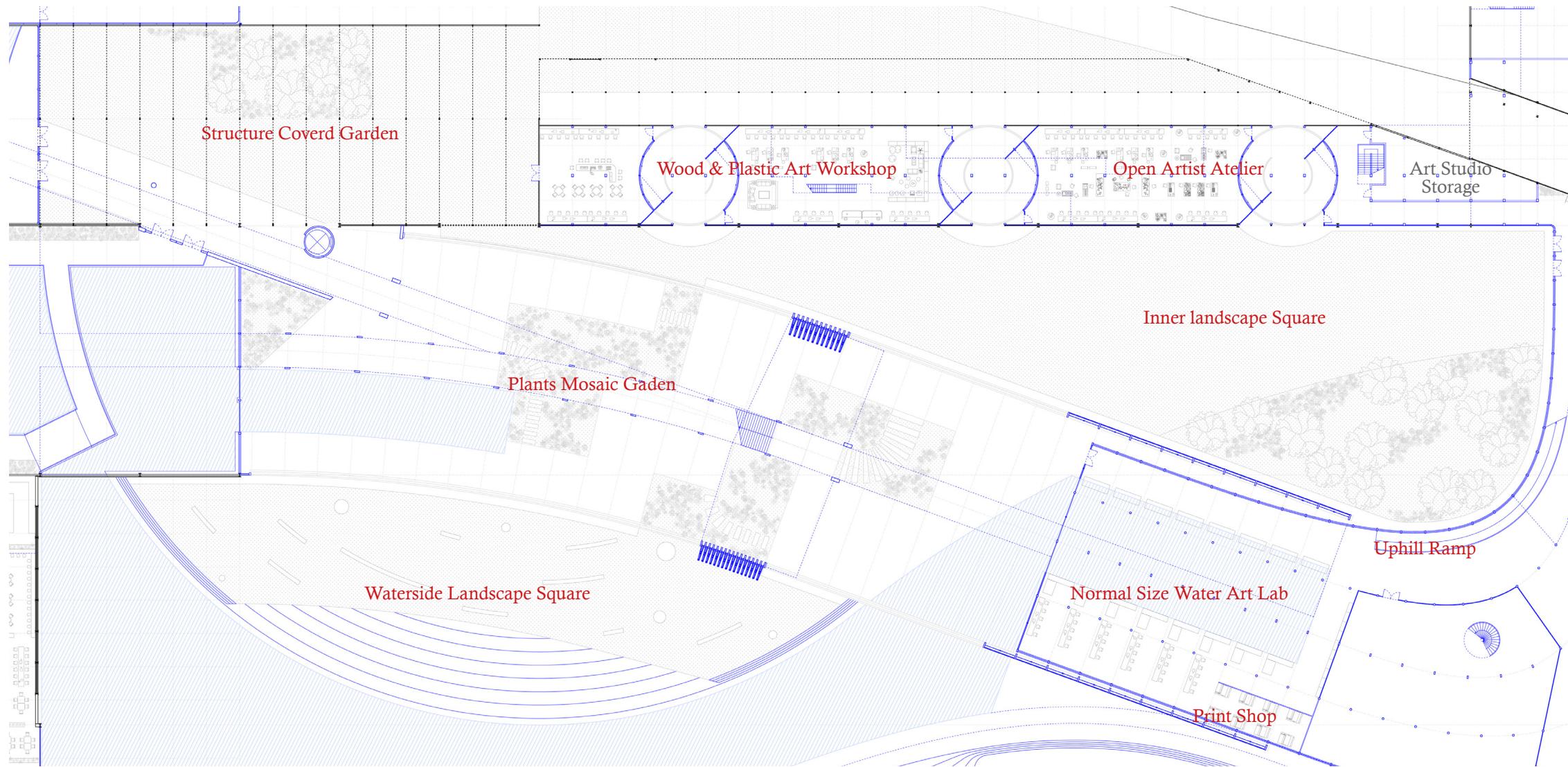
Historical Commemorative Value	++++
Spatial Spirital Value	+++++
Structural Heritage Value	++++
Material & Interface Value	++++
Functianal Reuse Value	++++

ZOOM IN FLOOR PLANS: NATURAL+ GROUP



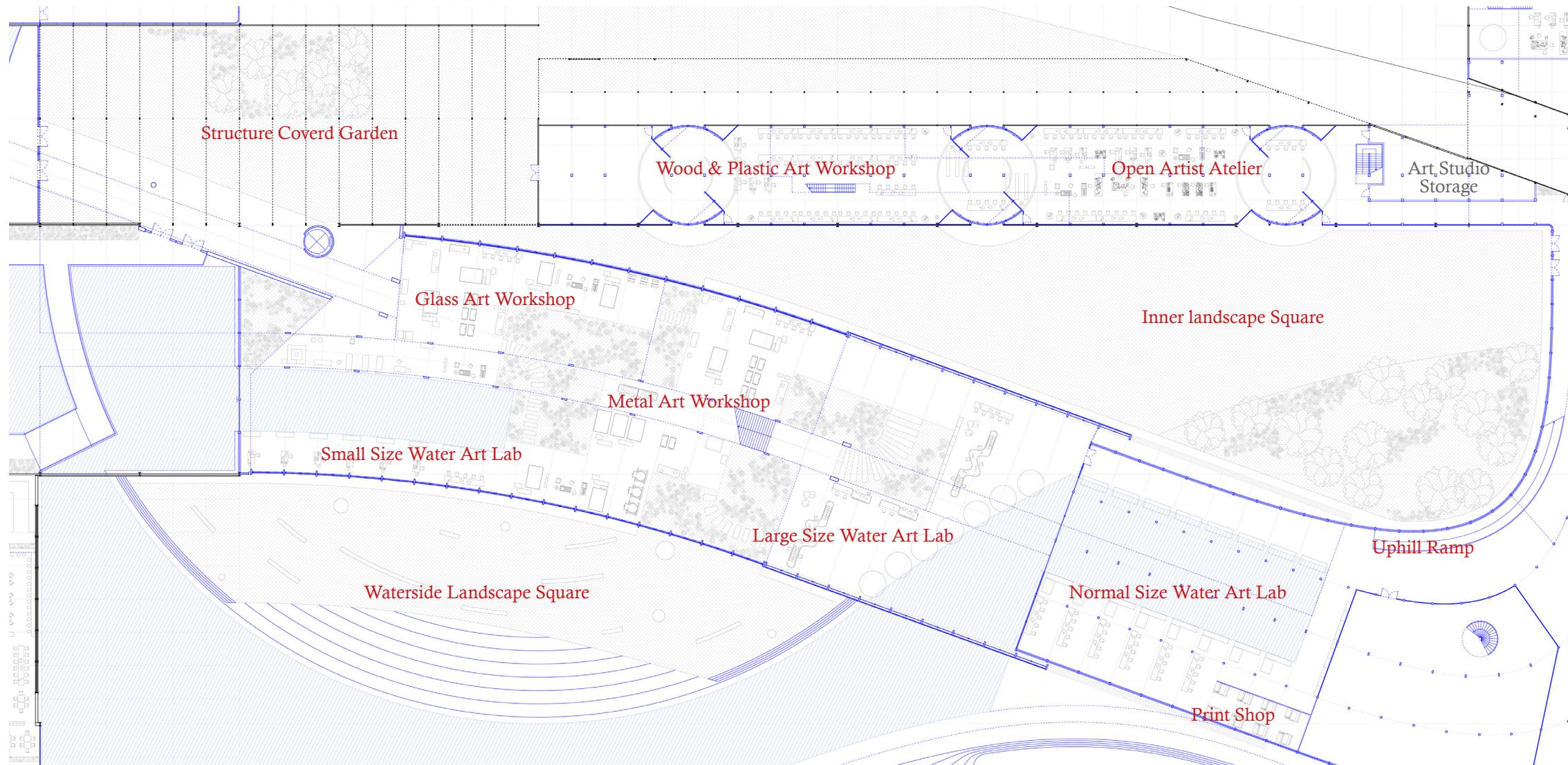
Space Use & Function Scenario

ZOOM IN FLOOR PLANS: NATURAL+ GROUP

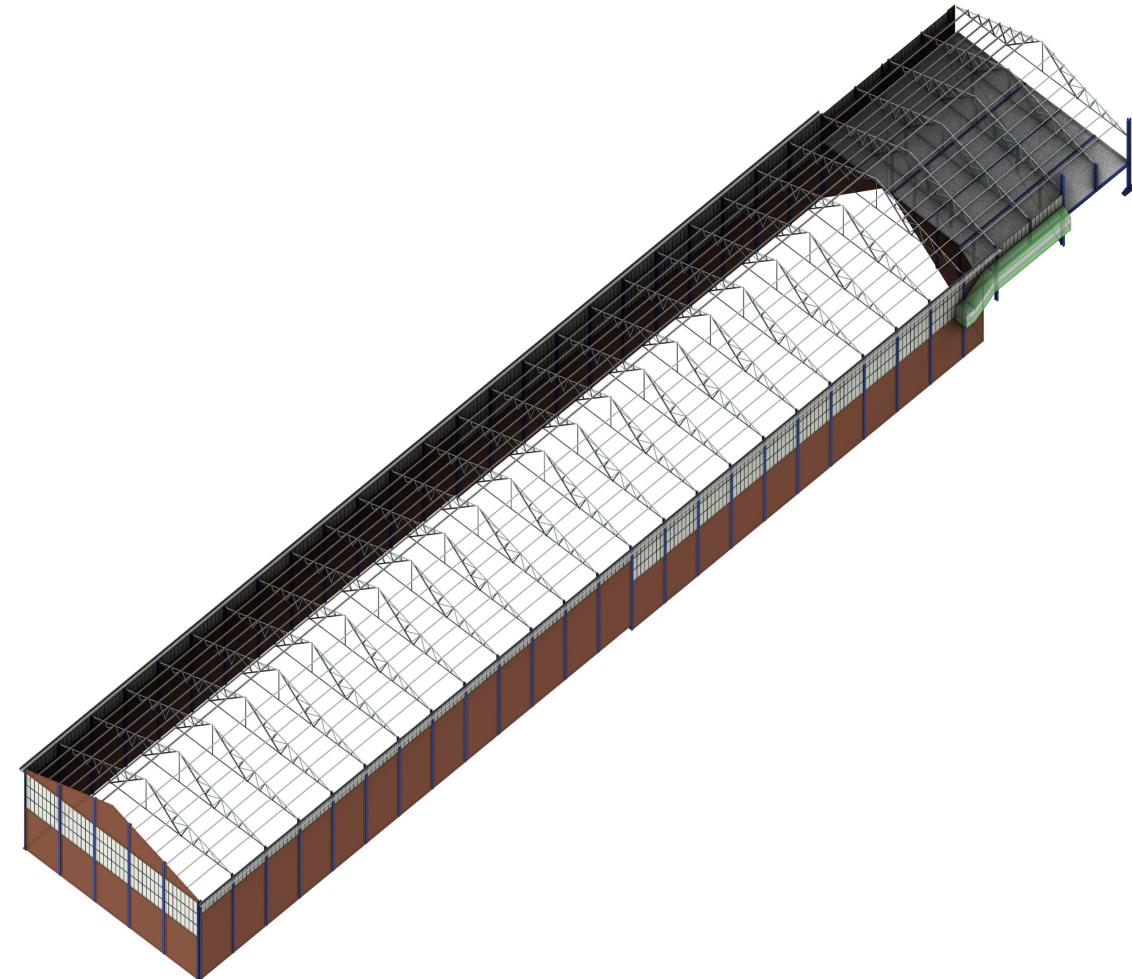
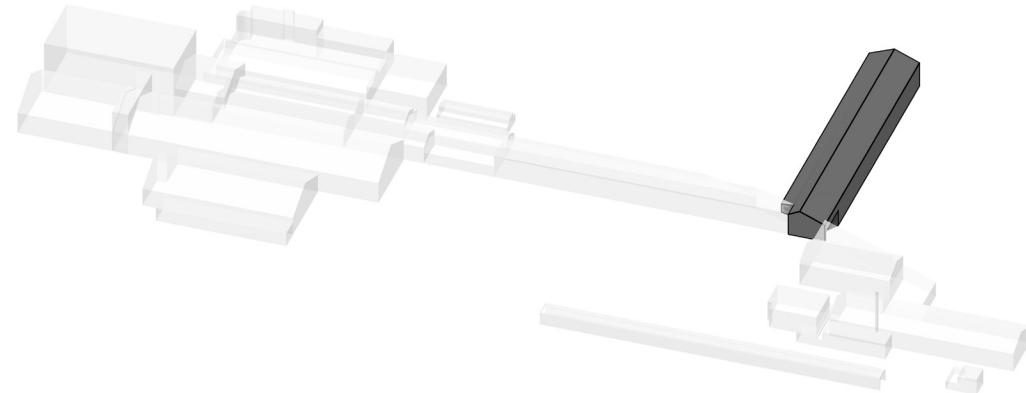


Space Use & Function Scenario

ZOOM IN FLOOR PLANS: NATURAL+ GROUP

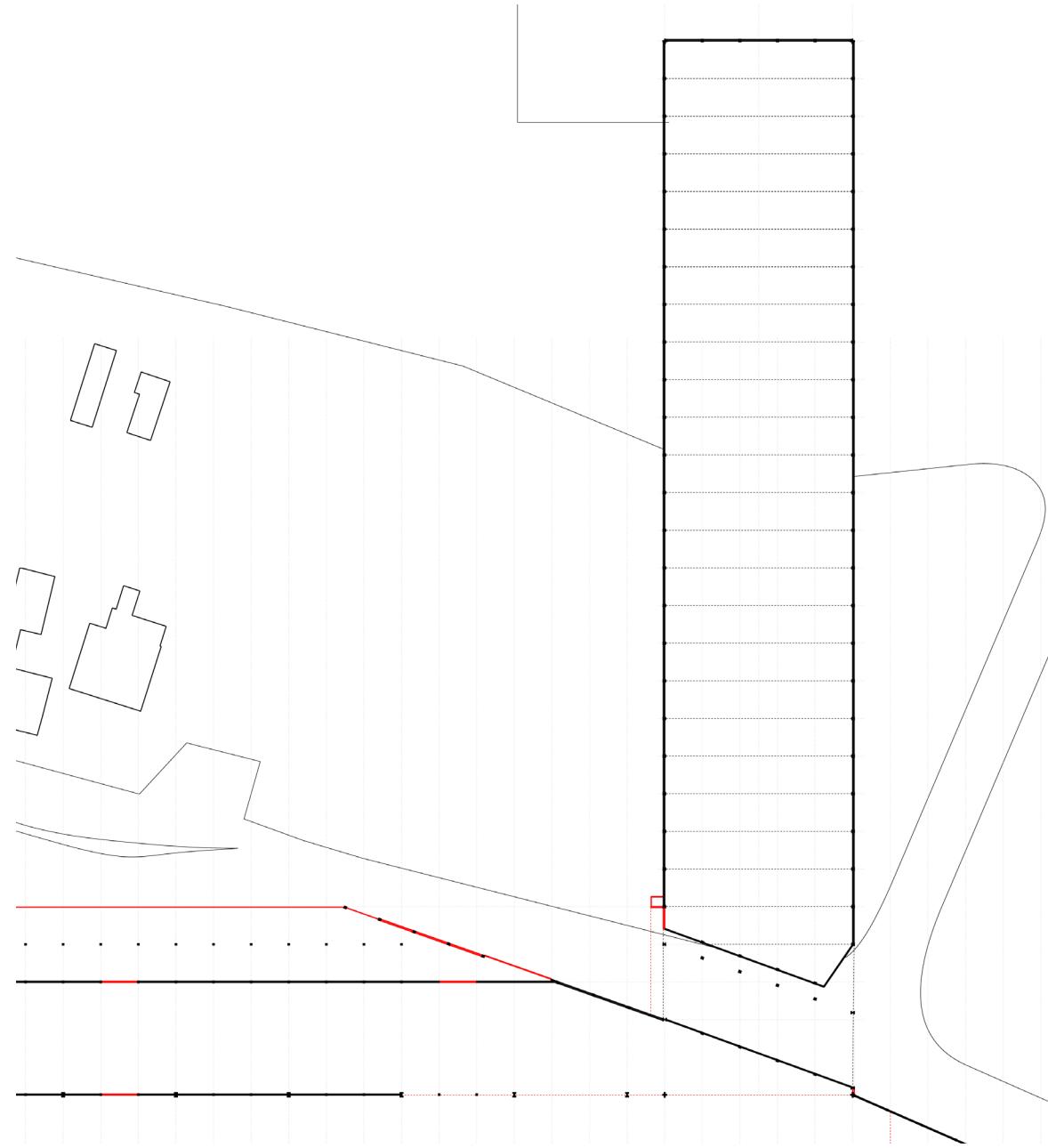


STUDIO/SCHOOL GROUP VALUE ASSESSMENT: FACTORY BUILDING 11

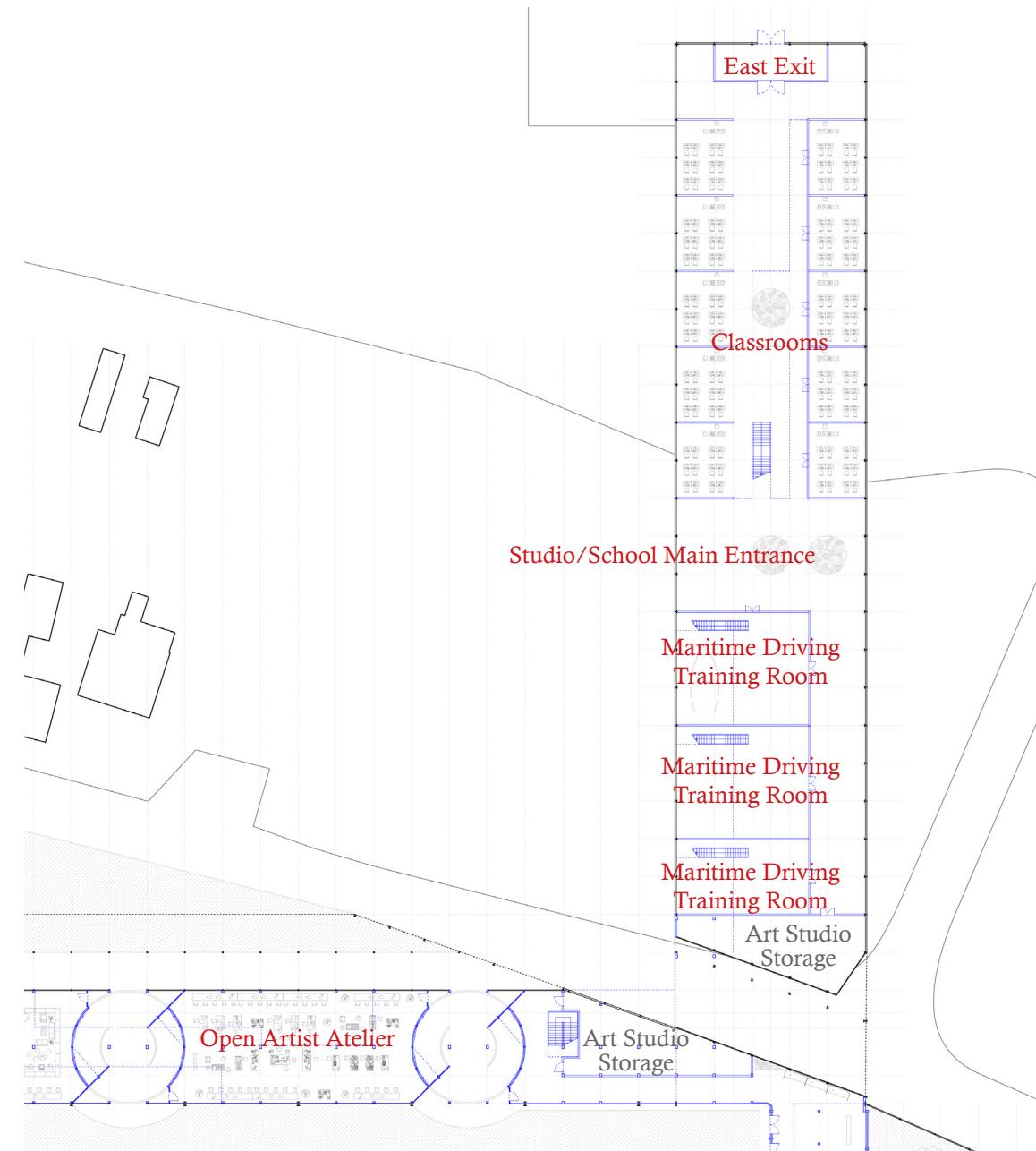


Historical Commemorative Value	++++
Spatial Spiritual Value	++++
Structural Heritage Value	+++
Material & Interface Value	+++
Functional Reuse Value	++++

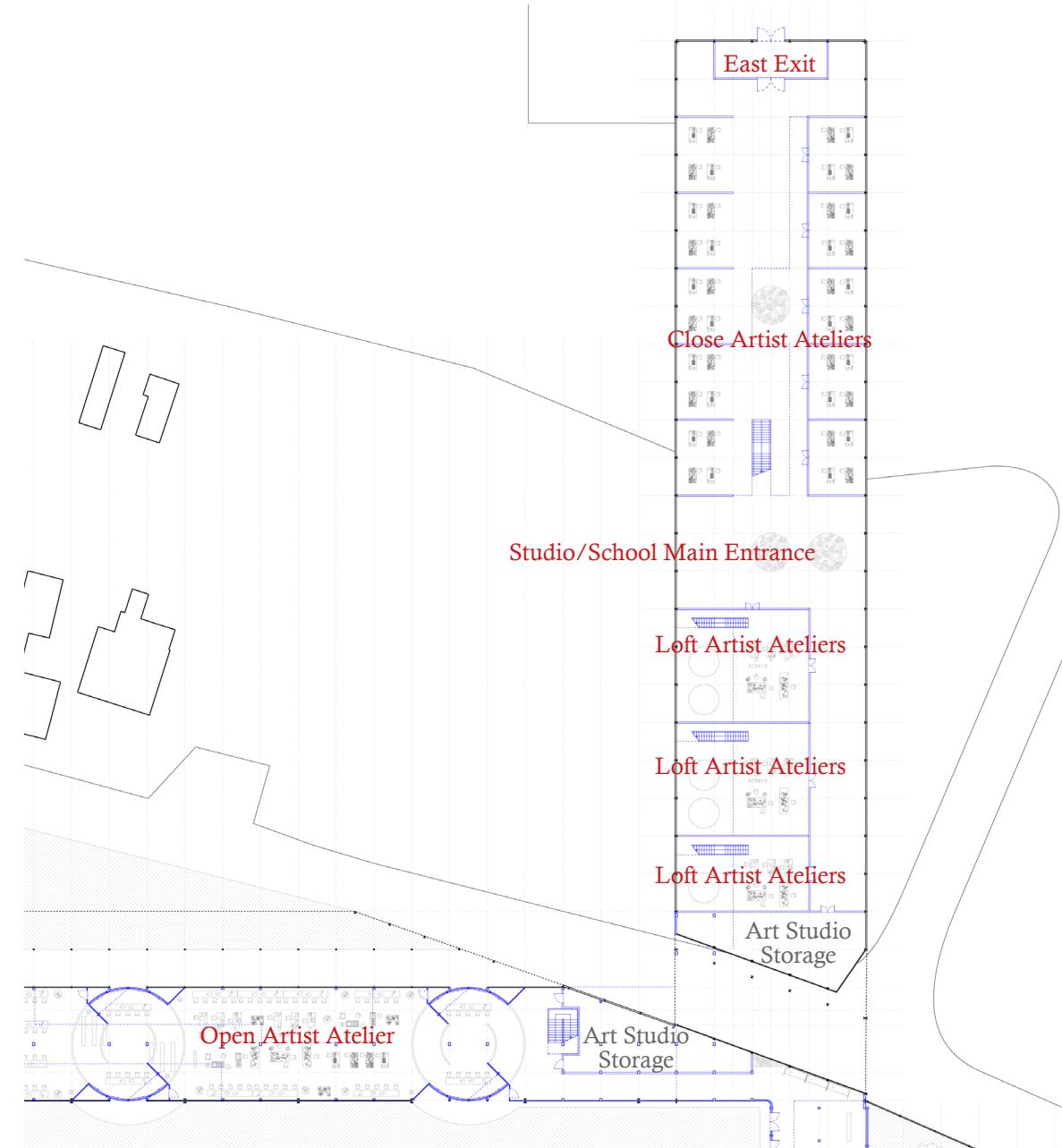
ZOOM IN FLOOR PLANS: STUDIO/SCHOOL GROUP



ZOOM IN FLOOR PLANS: STUDIO/SCHOOL GROUP

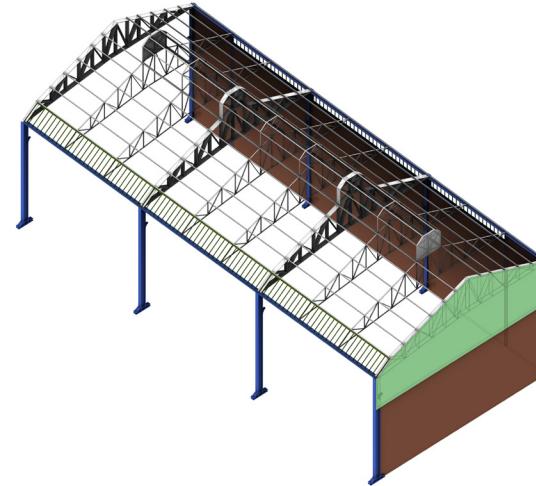
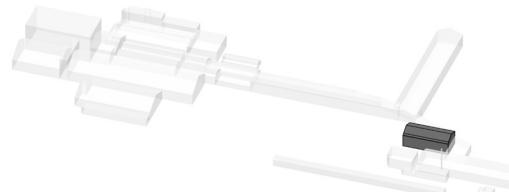


ZOOM IN FLOOR PLANS: STUDIO/SCHOOL GROUP

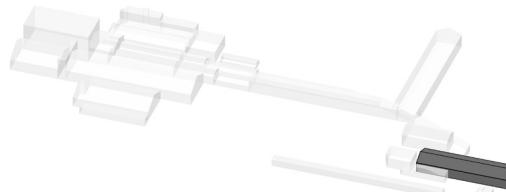


LOCAL BENIFITIAL GROUP VALUE ASSESSMENT

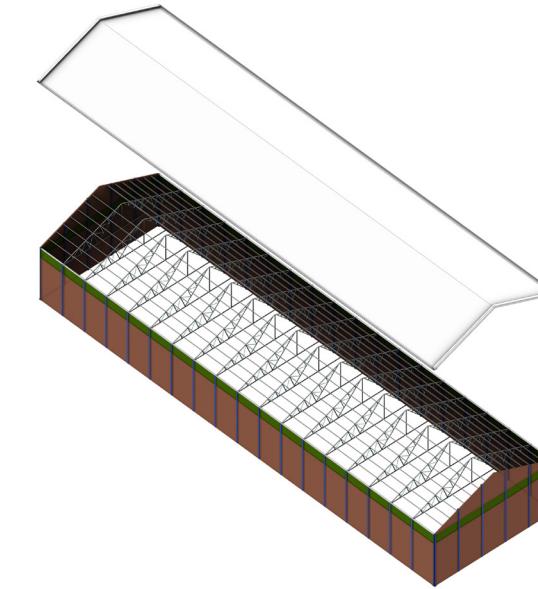
FACTORY BUILDING 17



Historical Commemorative Value	+++++
Spatial Spirital Value	+++++
Structural Heritage Value	+++
Material & Interface Value	+++
Functional Reuse Value	++++

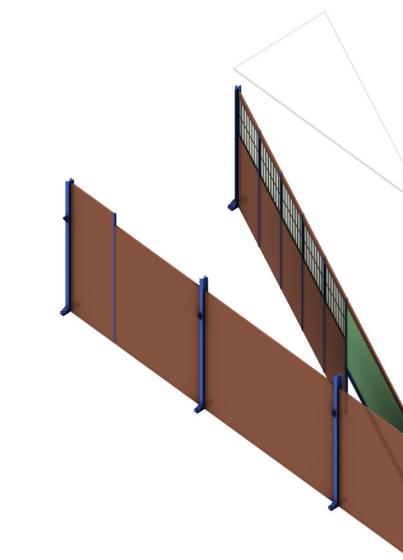
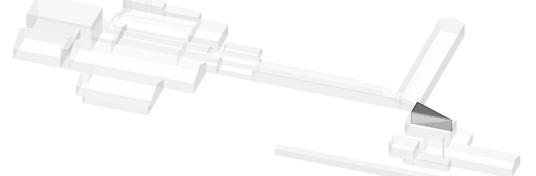


OFFICE BUILDING 19



Historical Commemorative Value	+++++
Spatial Spirital Value	+++++
Structural Heritage Value	+++++
Material & Interface Value	+++++
Functional Reuse Value	+++++

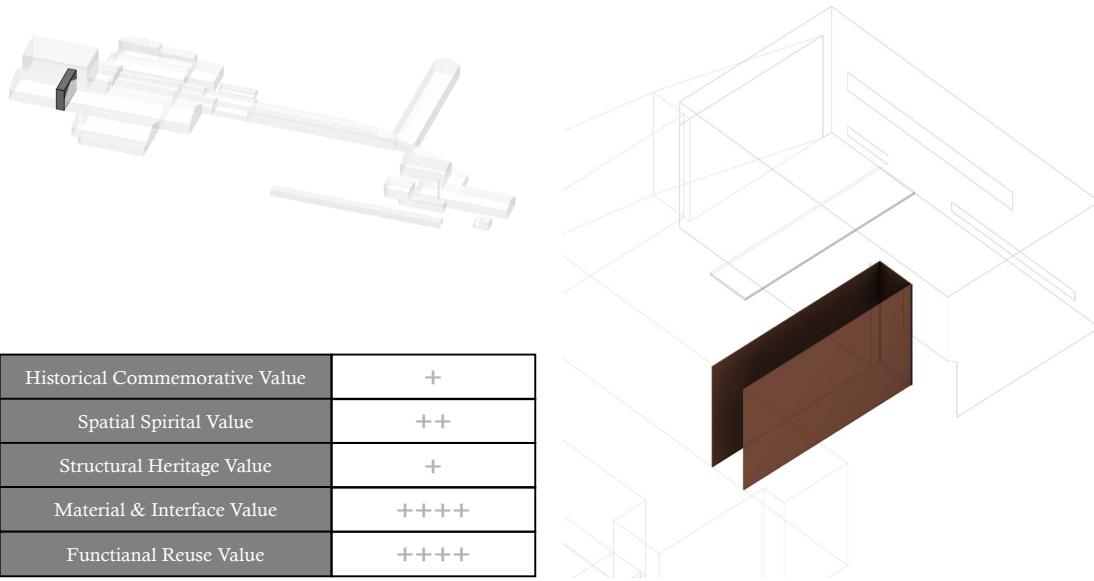
AUXILIARY BUILDING 16



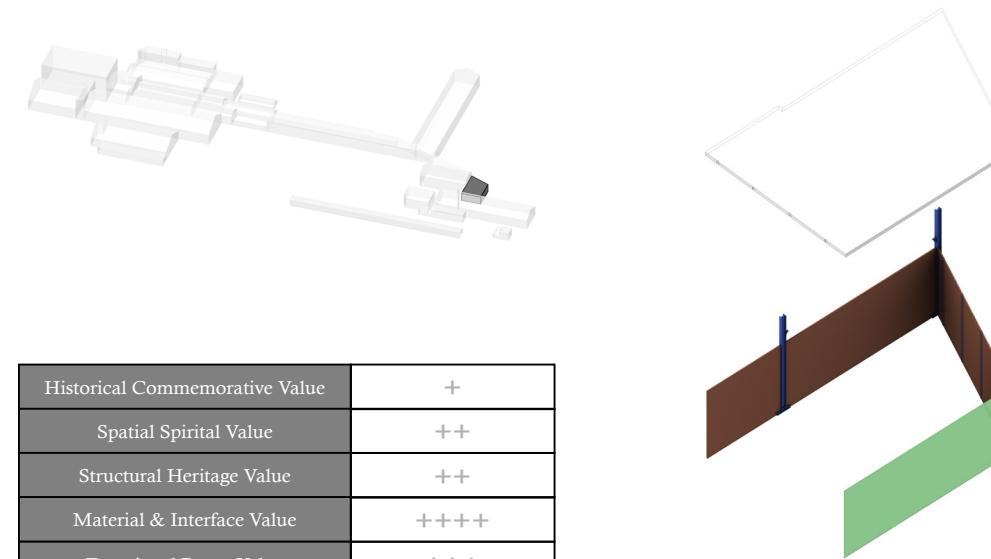
Historical Commemorative Value	++
Spatial Spirital Value	++++
Structural Heritage Value	++++
Material & Interface Value	+
Functional Reuse Value	++

LOCAL BENIFITIAL GROUP VALUE ASSESSMENT

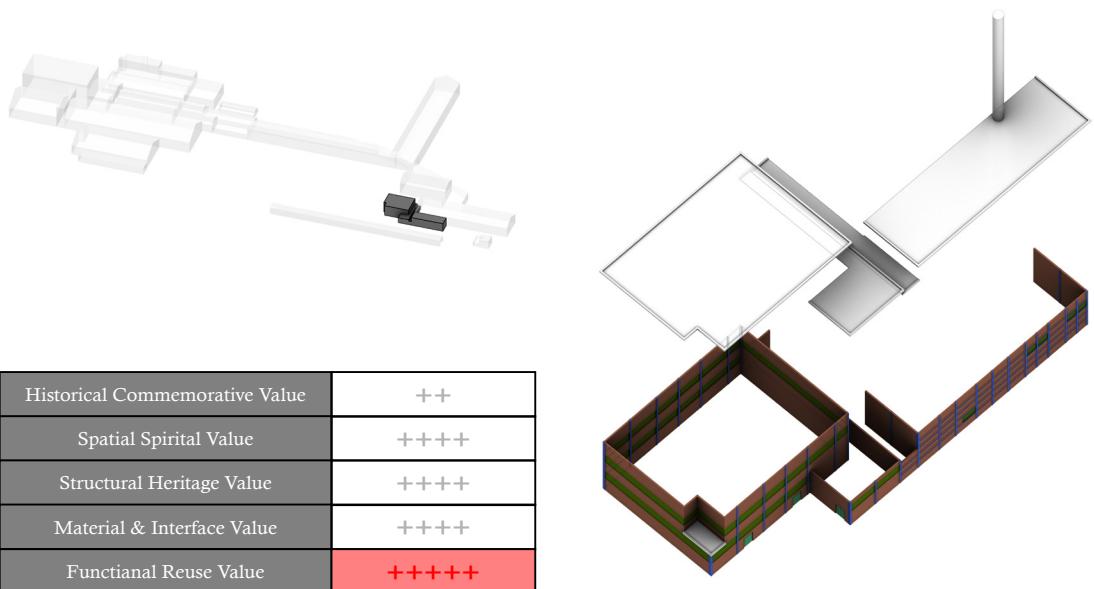
AUXILIARY BUILDING 13



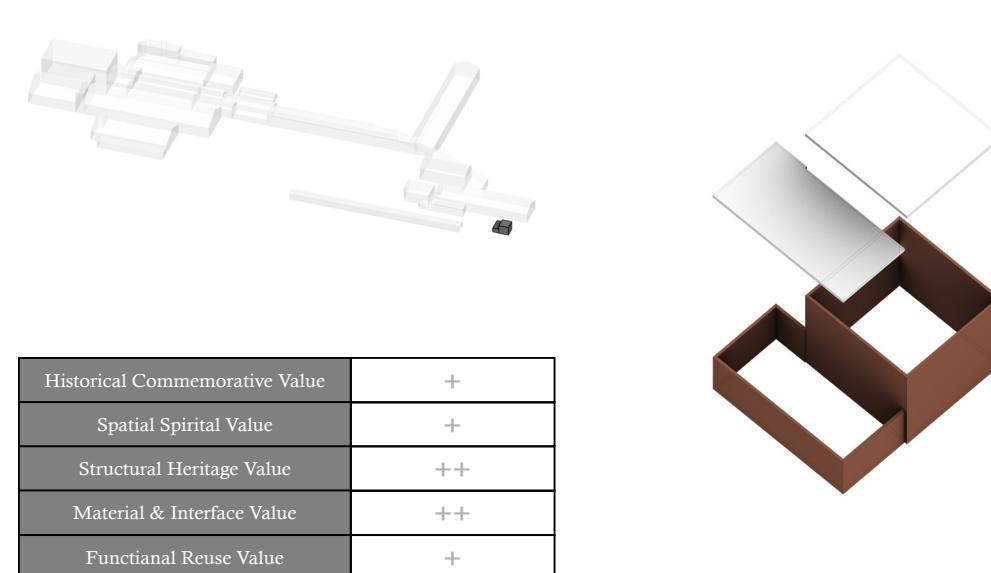
AUXILIARY BUILDING 18



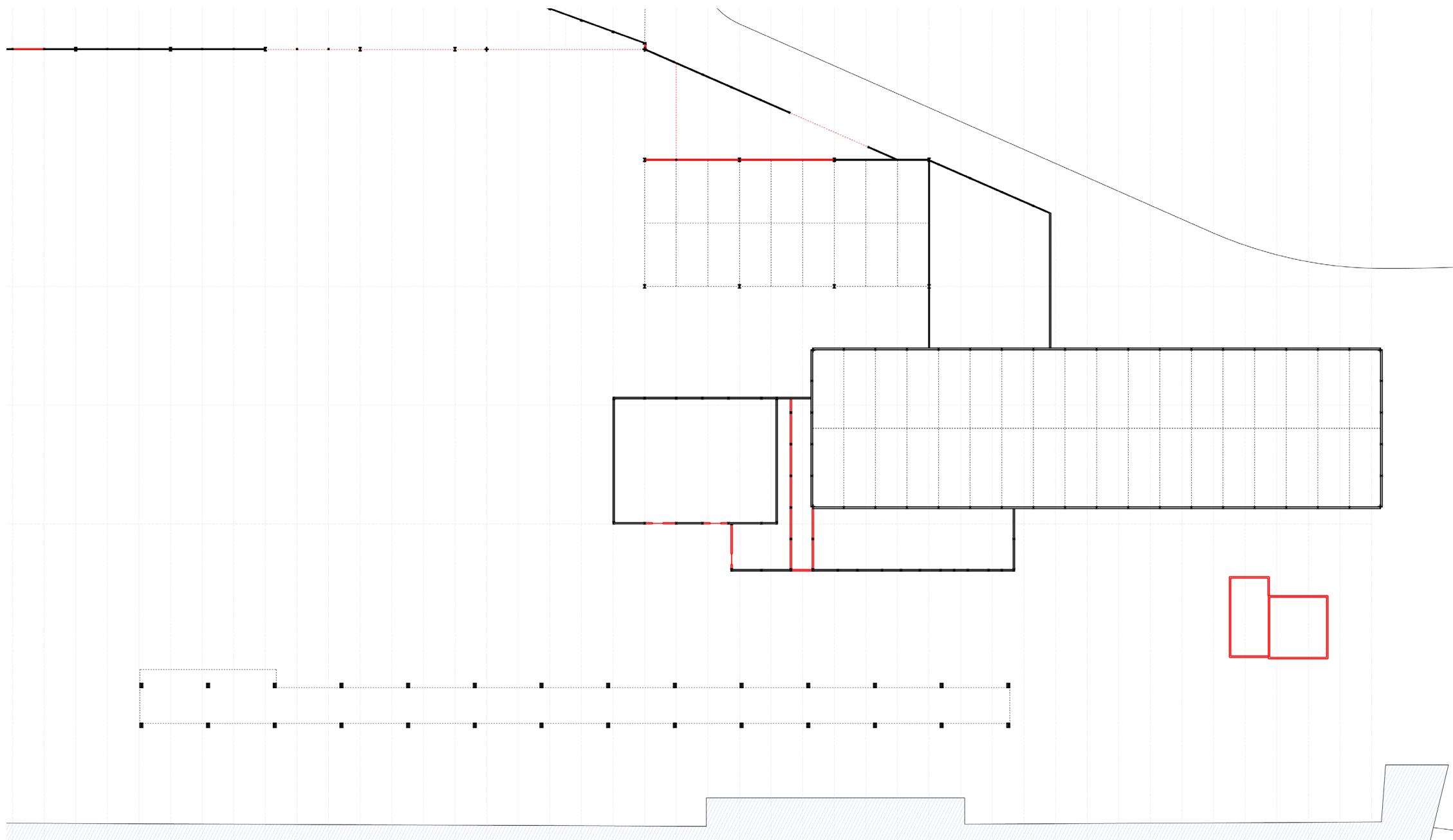
AUXILIARY BUILDING 20



AUXILIARY BUILDING 21

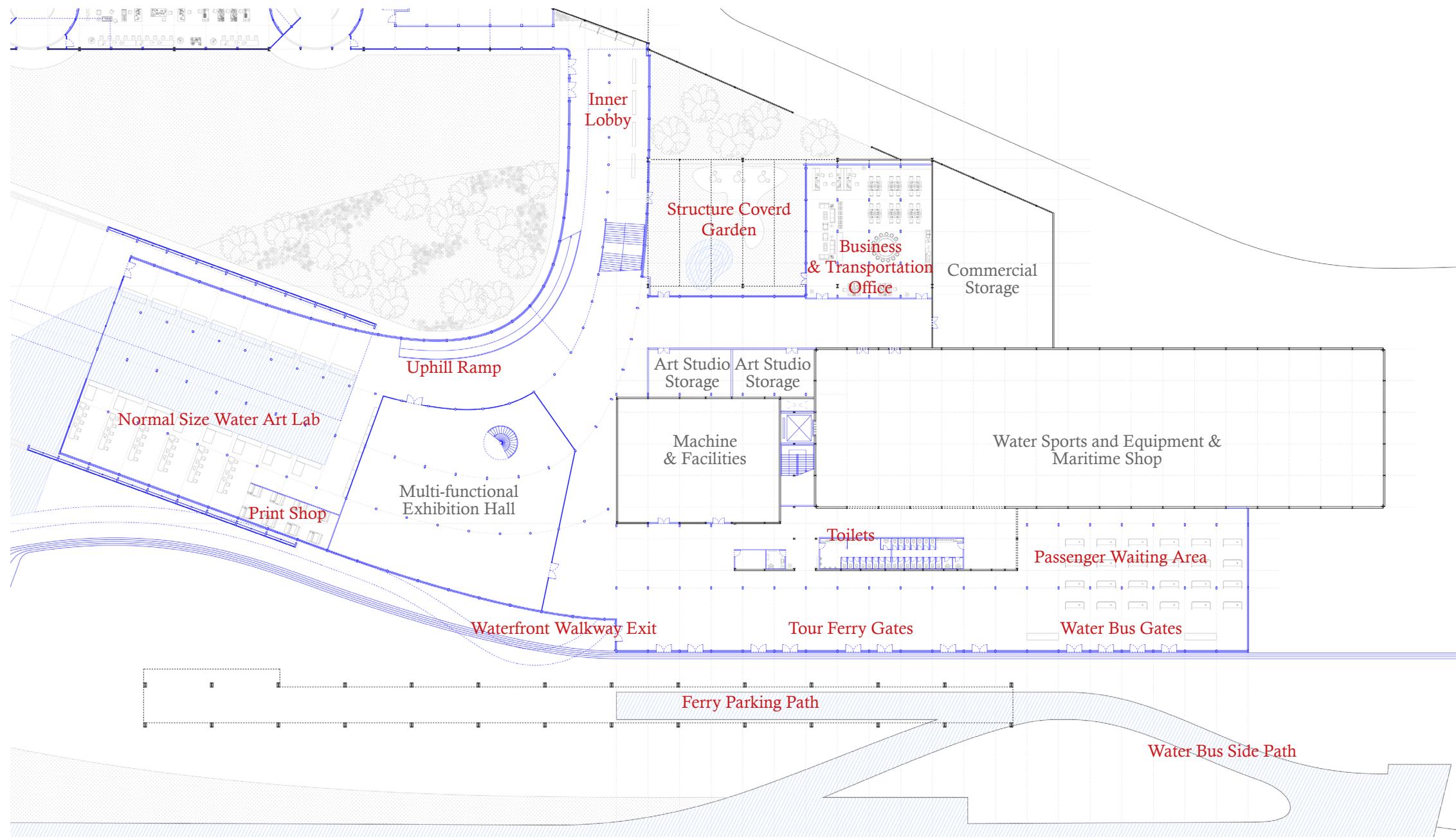


ZOOM IN FLOOR PLANS: LOCAL BENIFITIAL GROUP



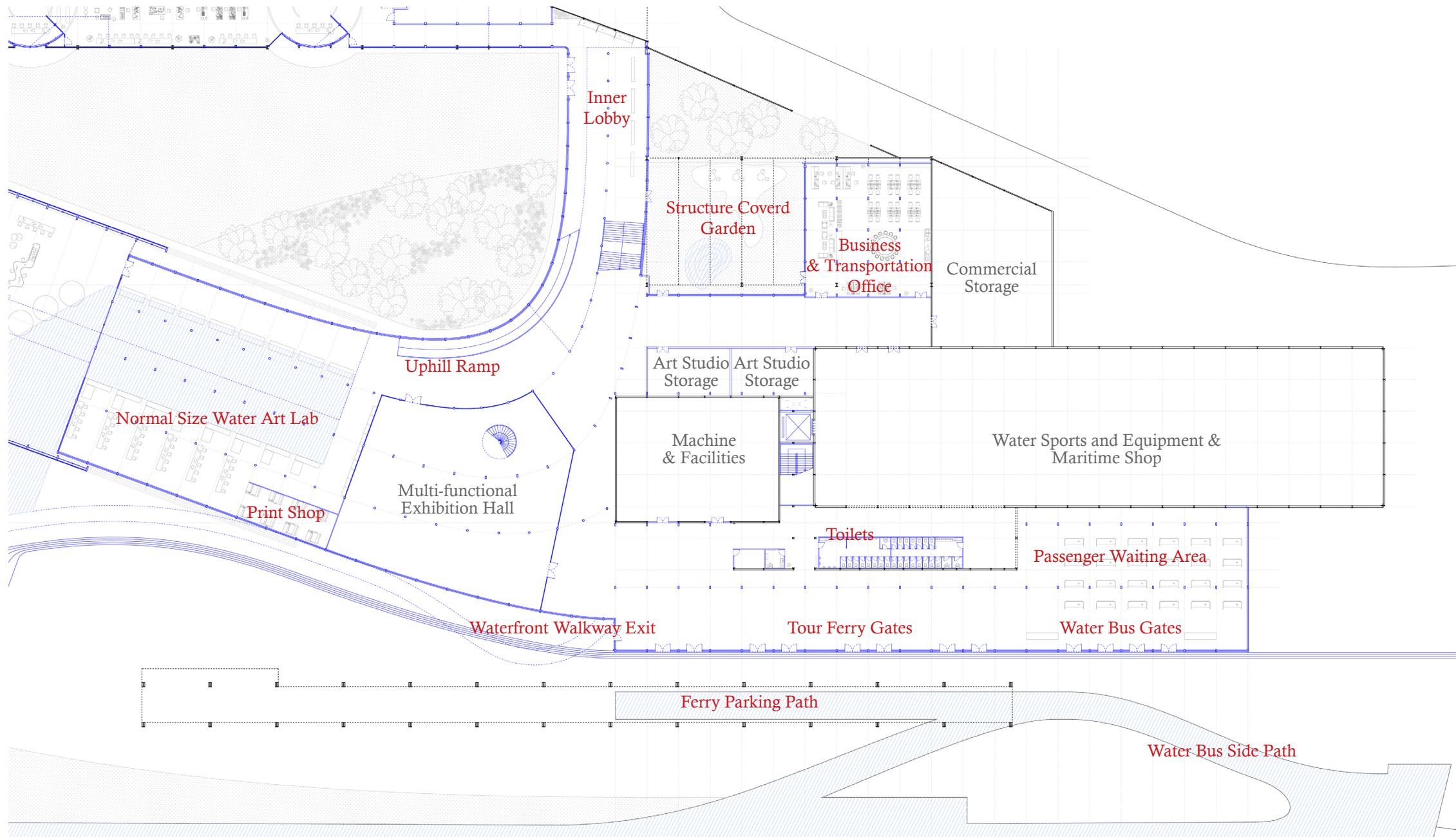
Space Use & Function Scenario

ZOOM IN FLOOR PLANS: LOCAL BENIFITIAL GROUP

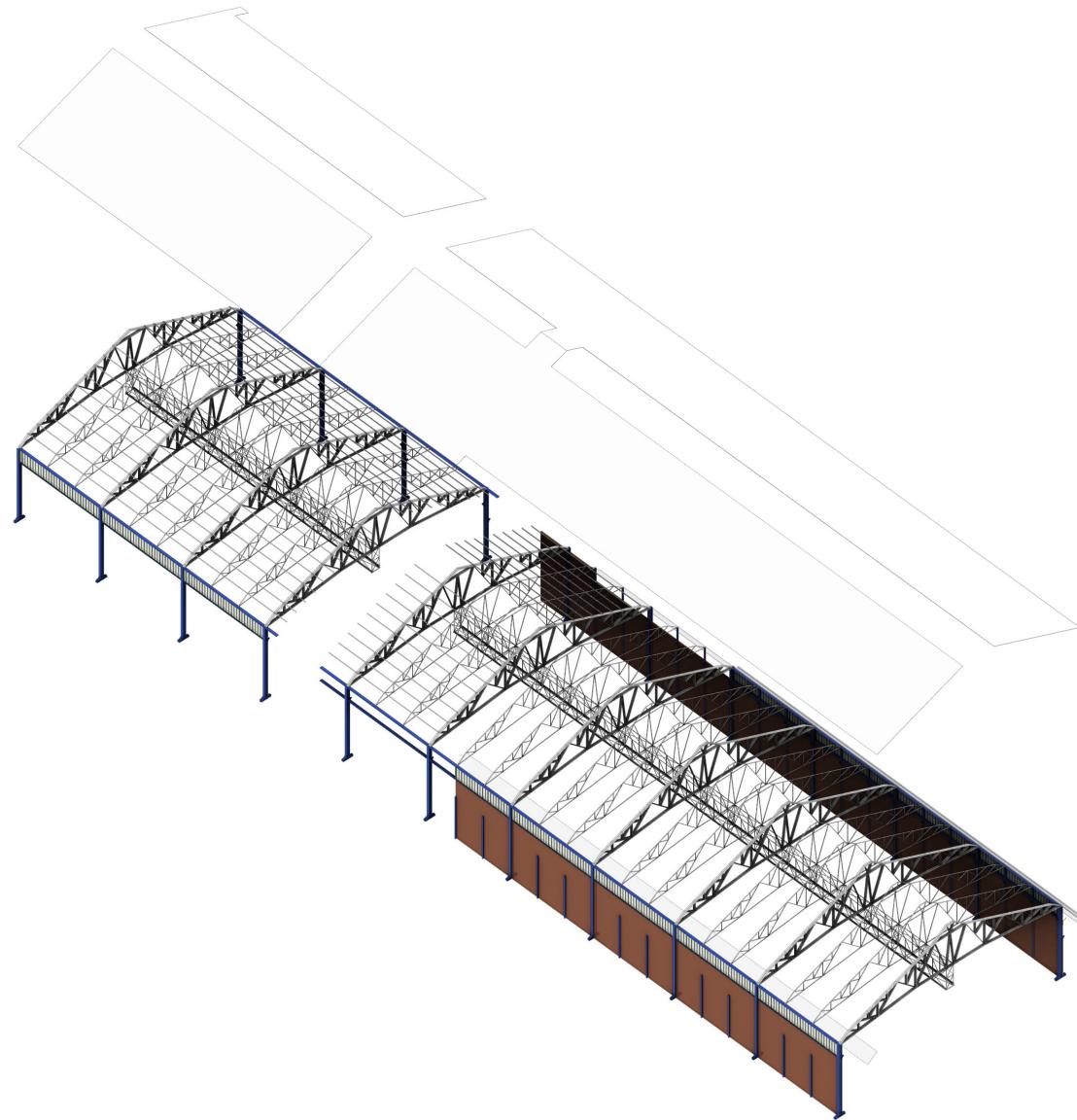
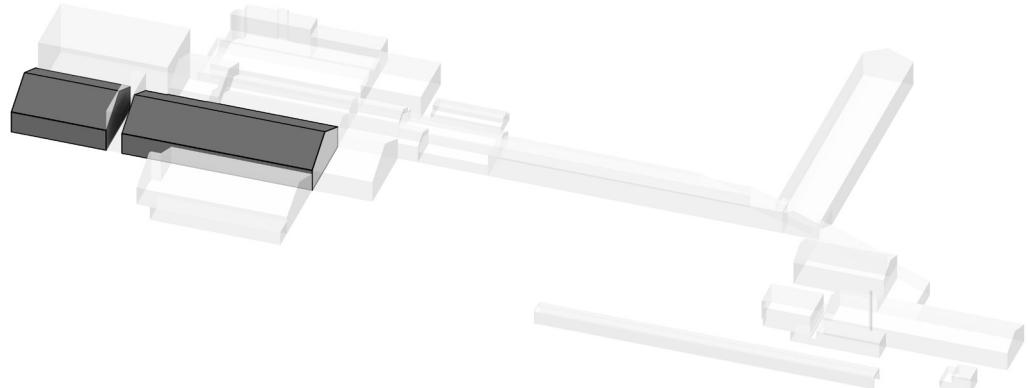


Space Use & Function Scenario

ZOOM IN FLOOR PLANS: LOCAL BENIFITIAL GROUP

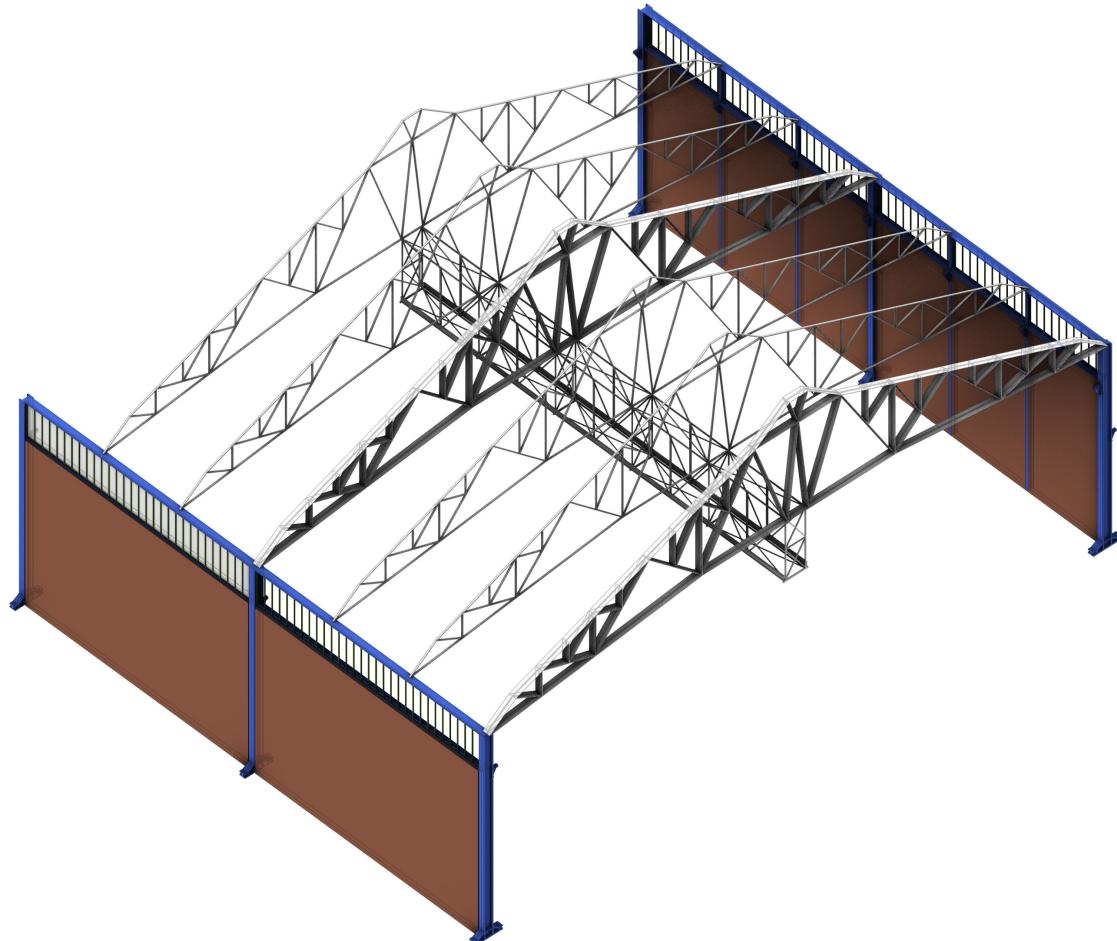
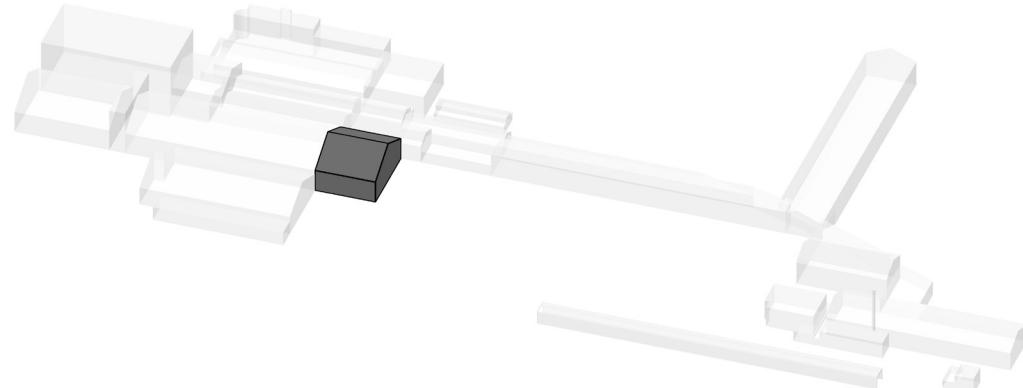


GALLERY GROUP VALUE ASSESSMENT: FACTORY BUILDING 12



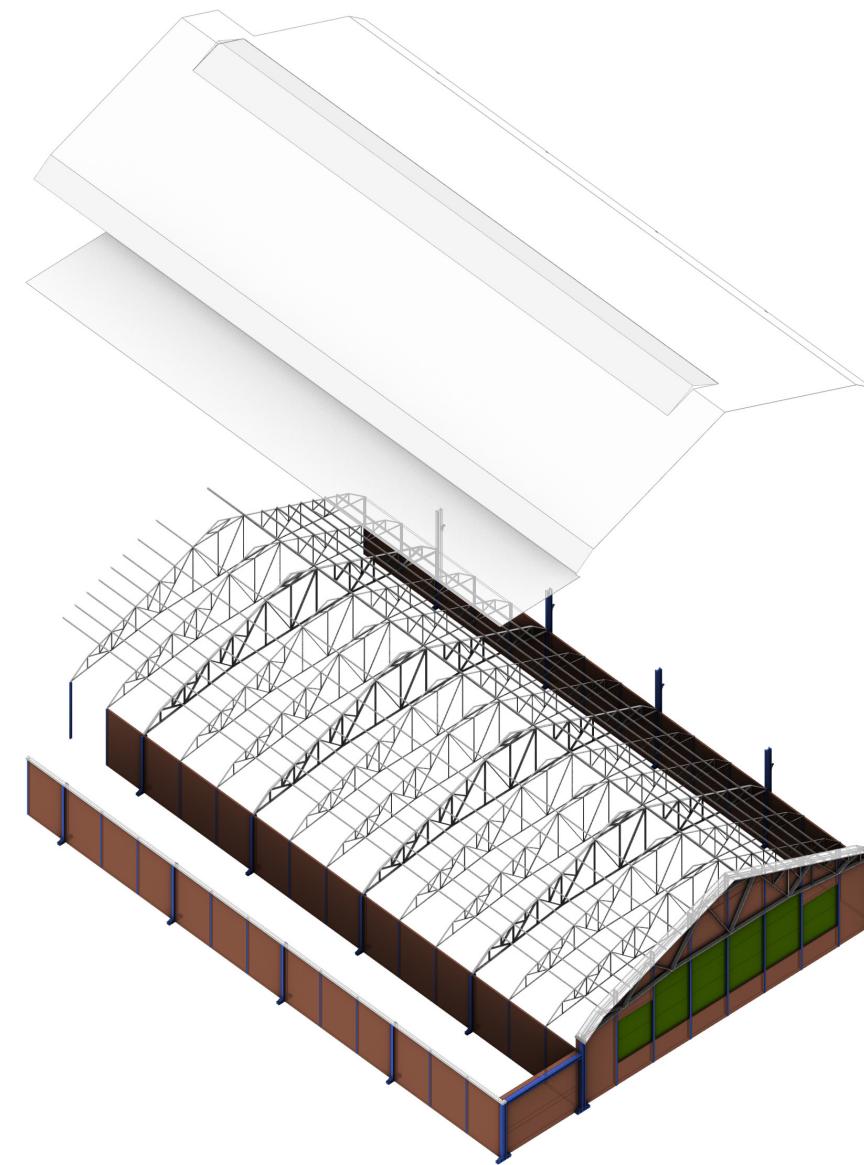
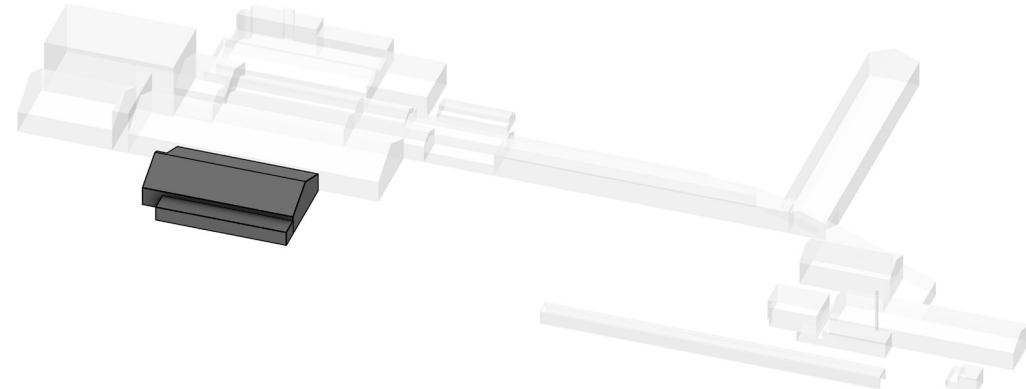
Historical Commemorative Value	++++
Spatial Spiritual Value	++++
Structural Heritage Value	++++
Material & Interface Value	++++
Functional Reuse Value	++++

GALLERY GROUP VALUE VALUE ASSESSMENT: FACTORY BUILDING 14



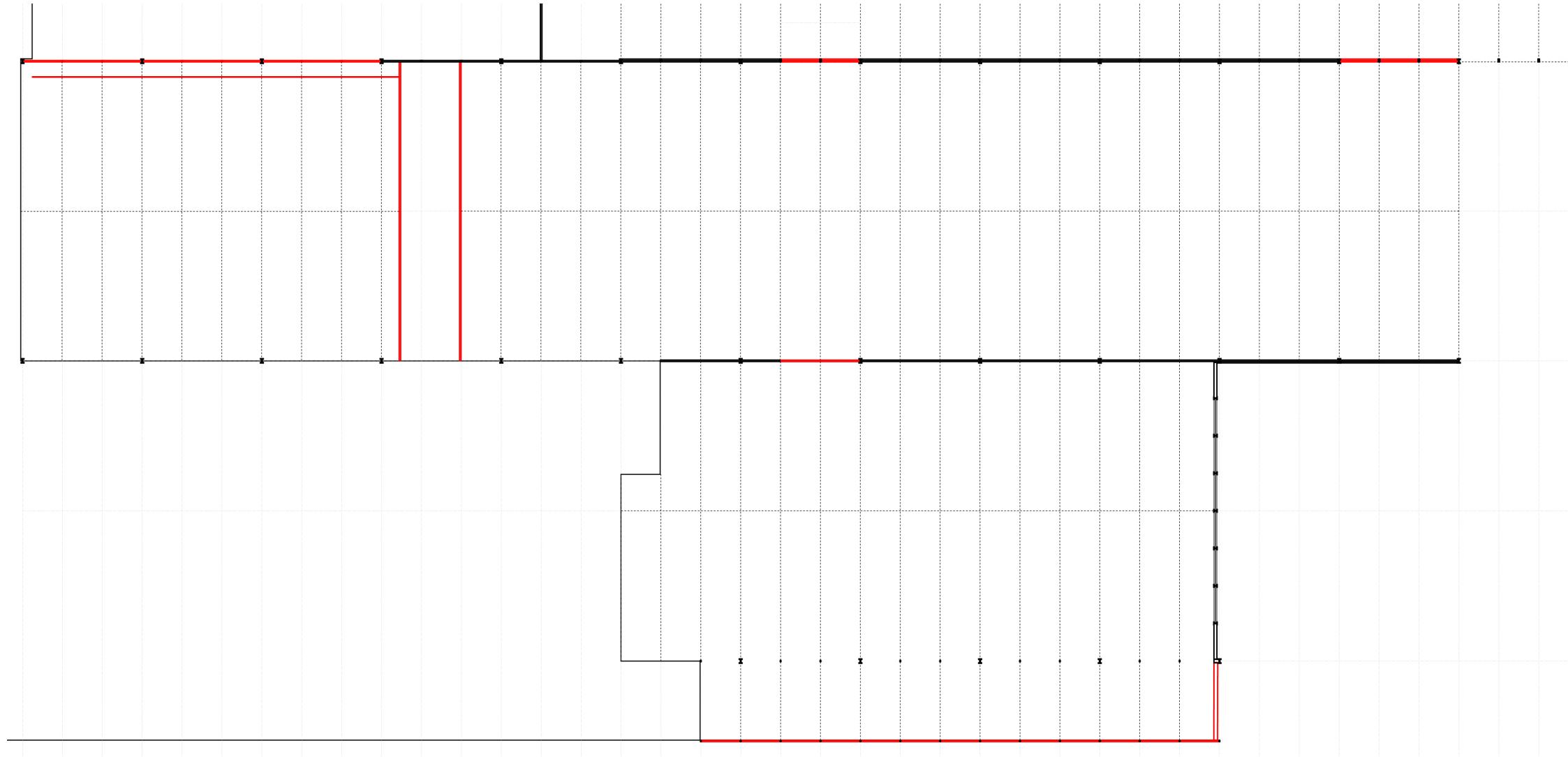
Historical Commemorative Value	++++
Spatial Spirital Value	++++
Structural Heritage Value	++++
Material & Interface Value	+++
Functional Reuse Value	++++

GALLERY GROUP VALUE VALUE ASSESSMENT: FACTORY BUILDING 15



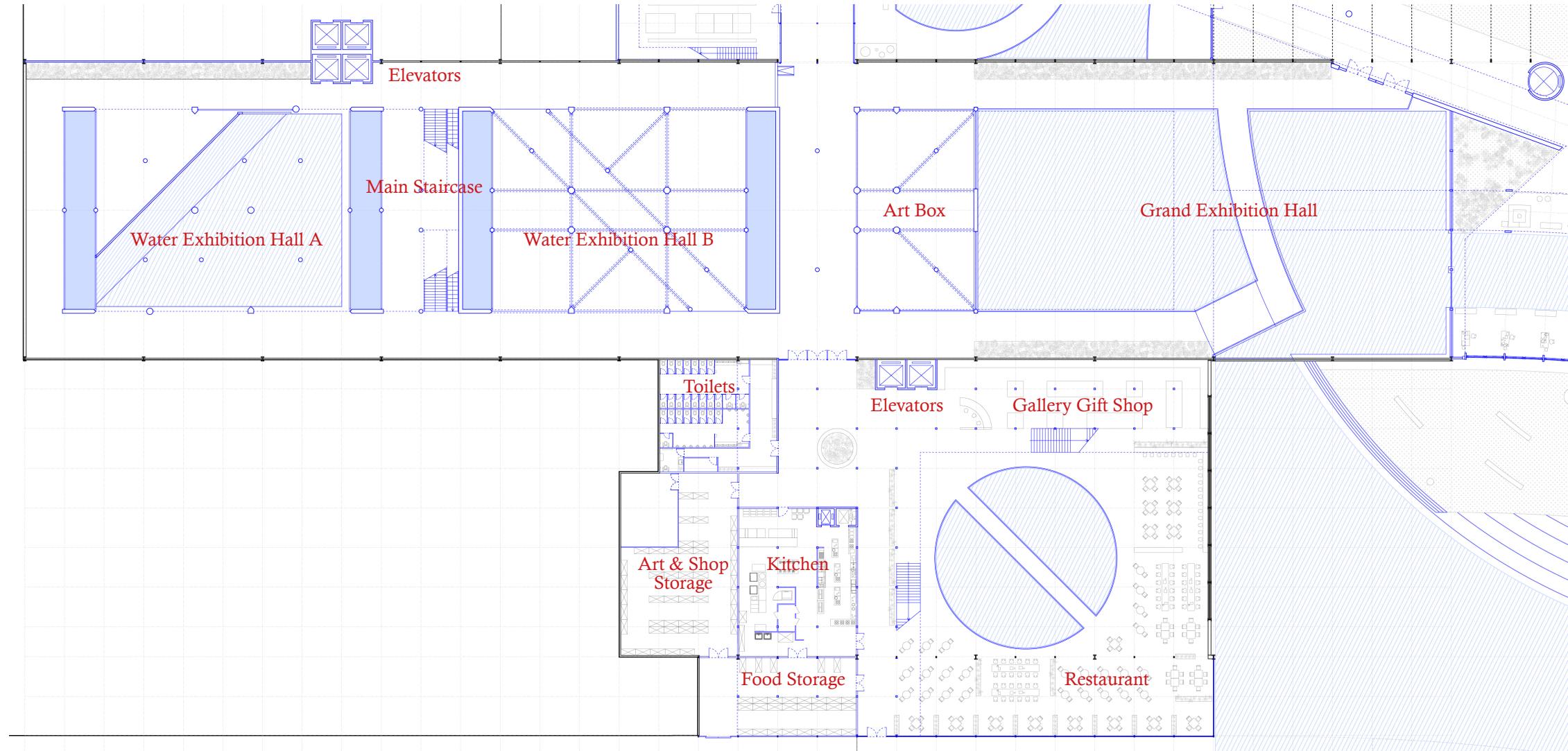
Historical Commemorative Value	+++++
Spatial Spiritual Value	+++++
Structural Heritage Value	+++++
Material & Interface Value	+++++
Functional Reuse Value	+++++

ZOOM IN FLOOR PLANS: GALLERY GROUP

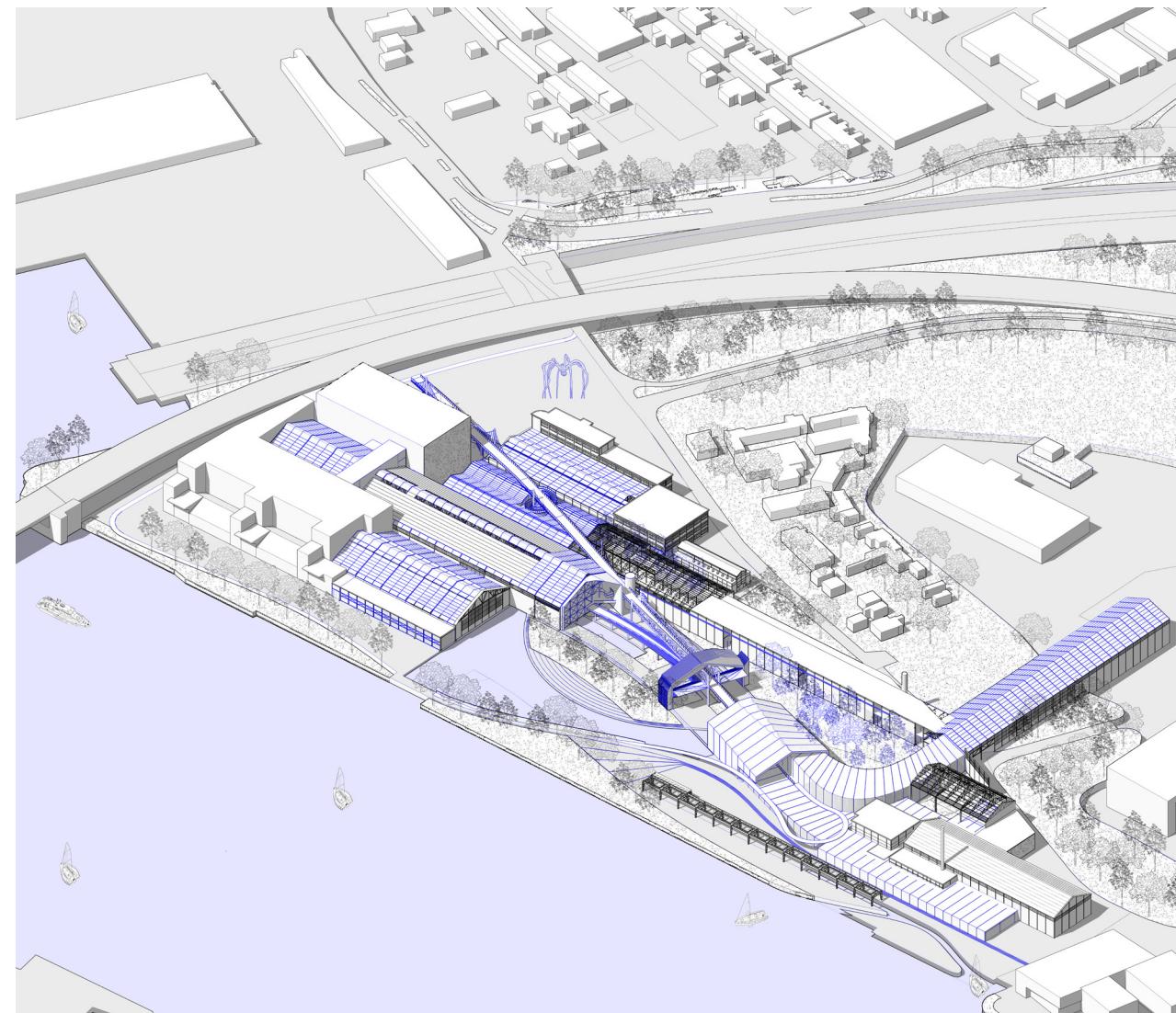


Space Use & Function Scenario

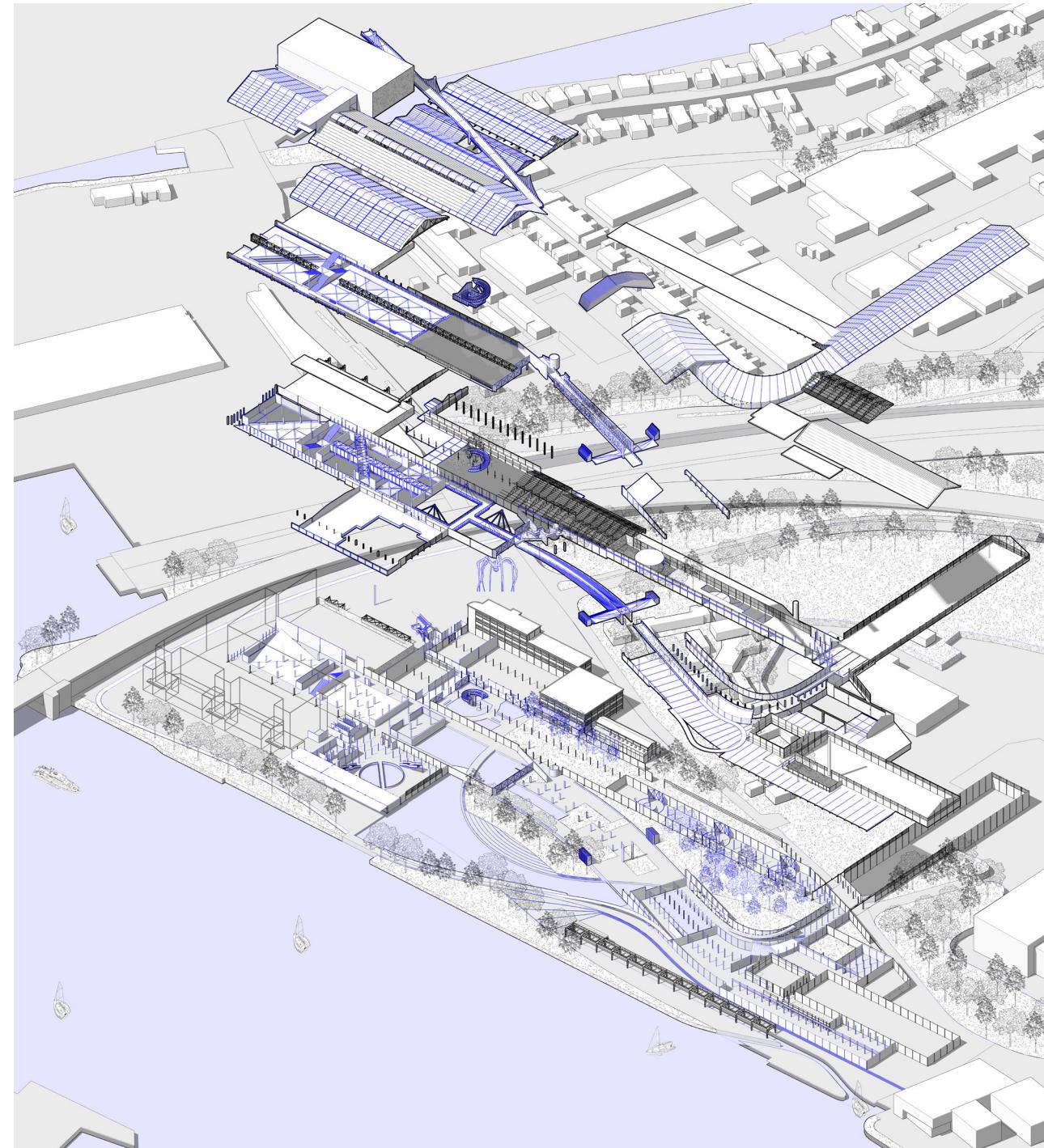
ZOOM IN FLOOR PLANS: GALLERY GROUP



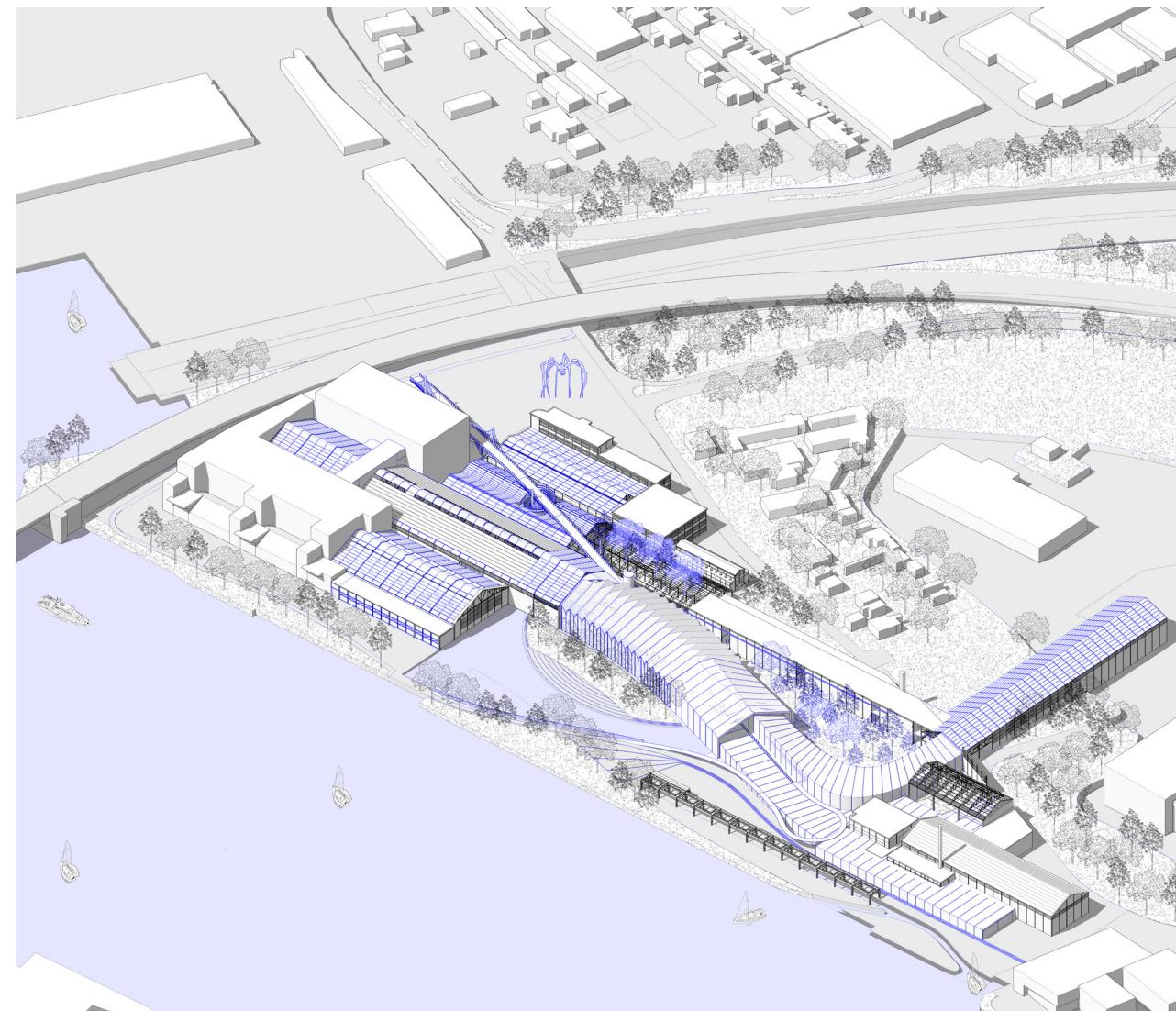
PANORAMIC BIRD'S-EYE VIEW: NON-TRIENNIAL PERIOD



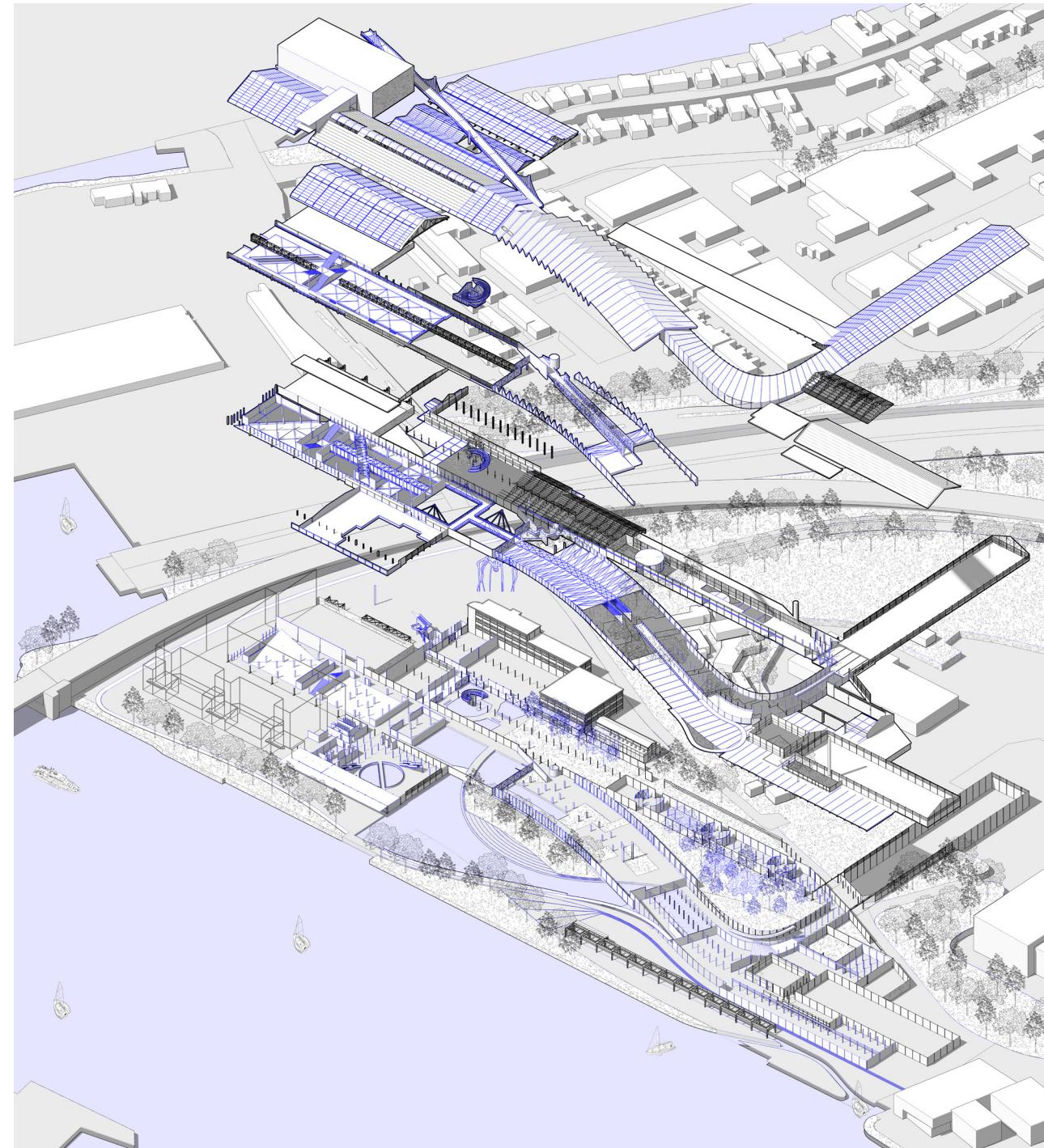
Space Use & Function Scenario



PANORAMIC BIRD'S-EYE VIEW: TRIENNIAL PERIOD



Space Use & Function Scenario

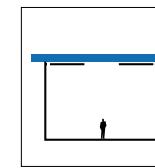
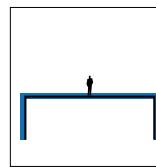
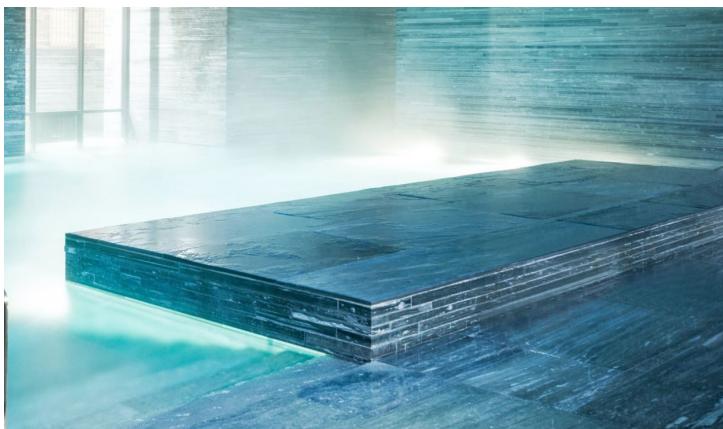
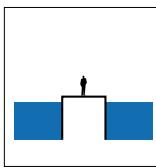
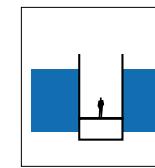
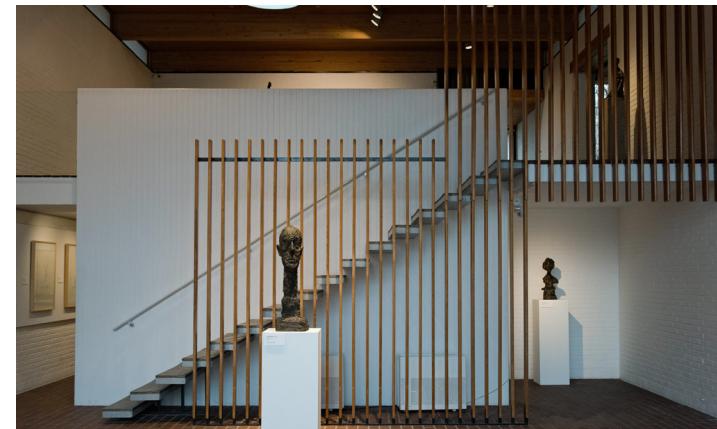
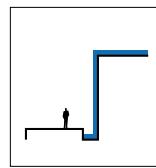
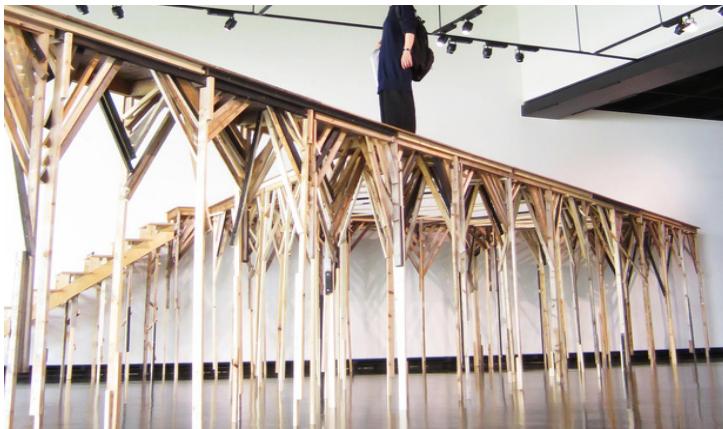
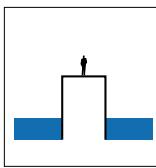


K EY S PACE D EEPENING D ESIGN

1. Key Space

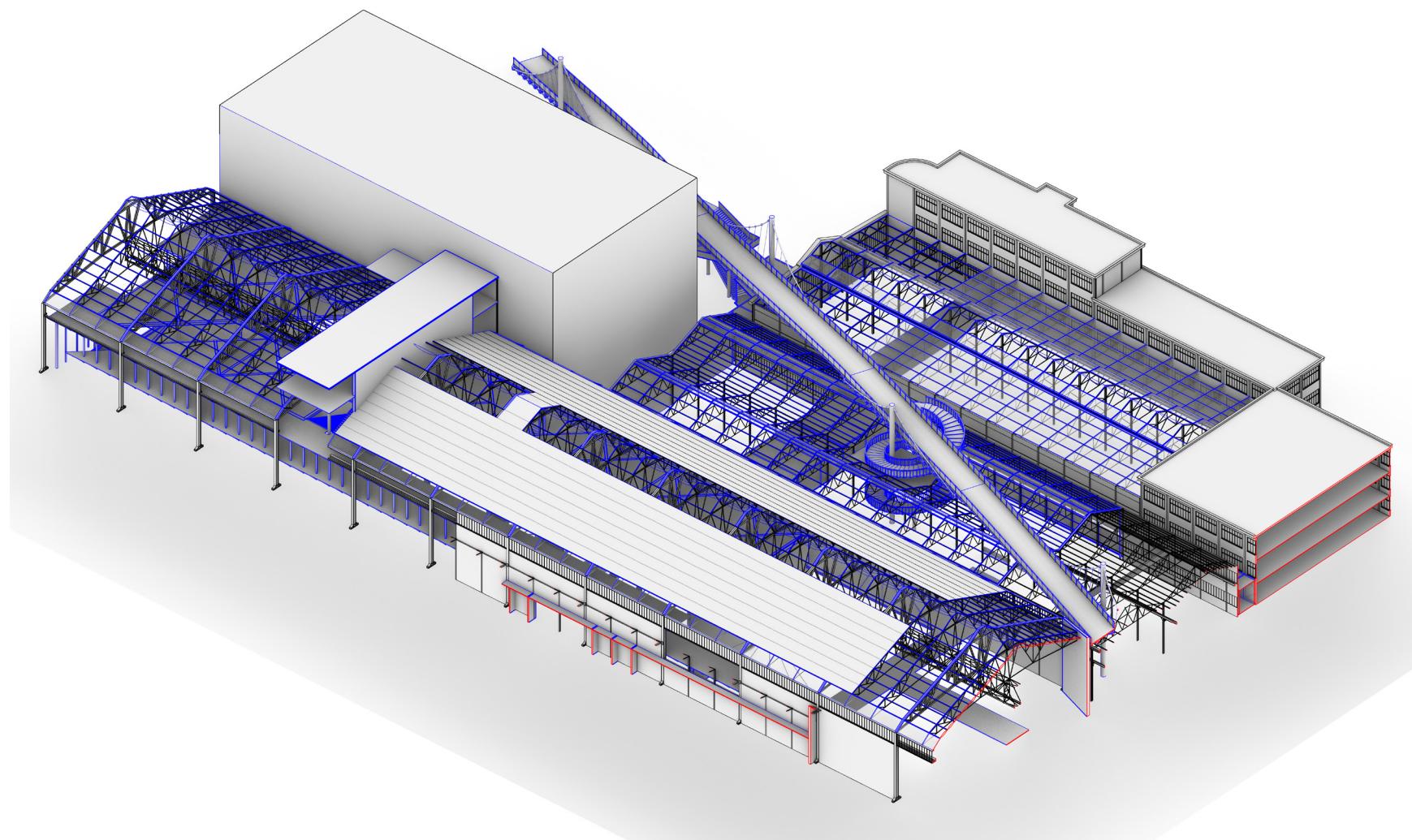
2. Building Technology & Material

TYPOLOGY OF WATER-ENVIRONMENT ART EXHIBITION SPACE



KEY SPACE

WATER-ENVIRONMENT ART EXHIBITION SPACE



WATER-ENVIRONMENT ART EXHIBITION SPACE

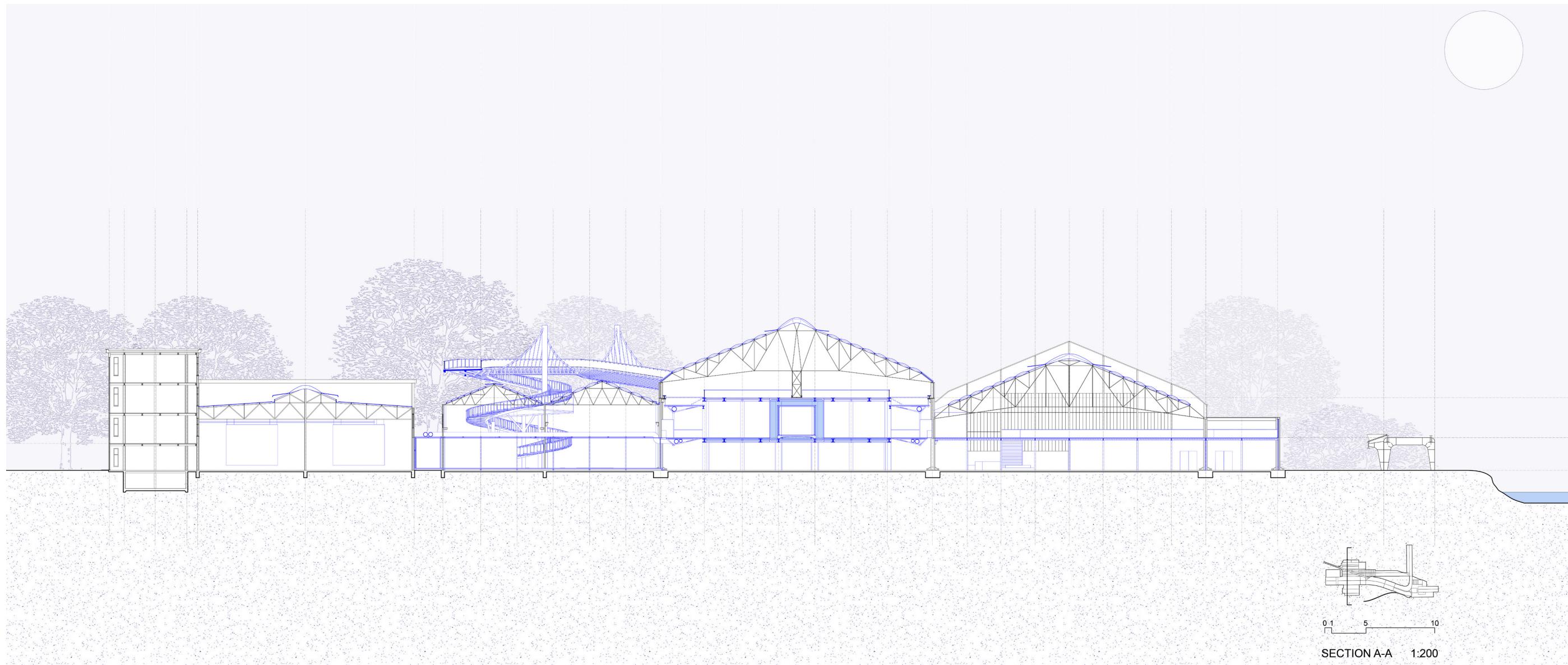


KEY SPACE

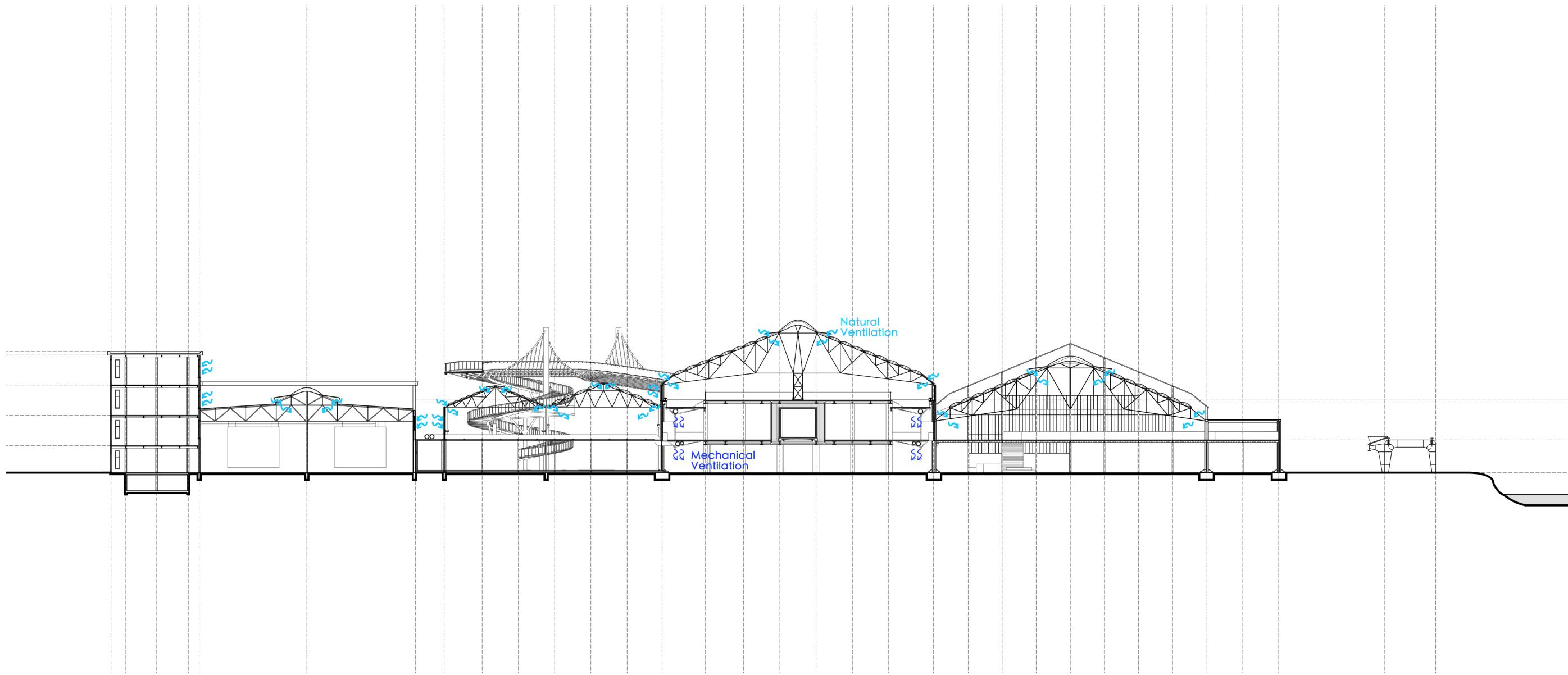
WATER-ENVIRONMENT ART EXHIBITION SPACE



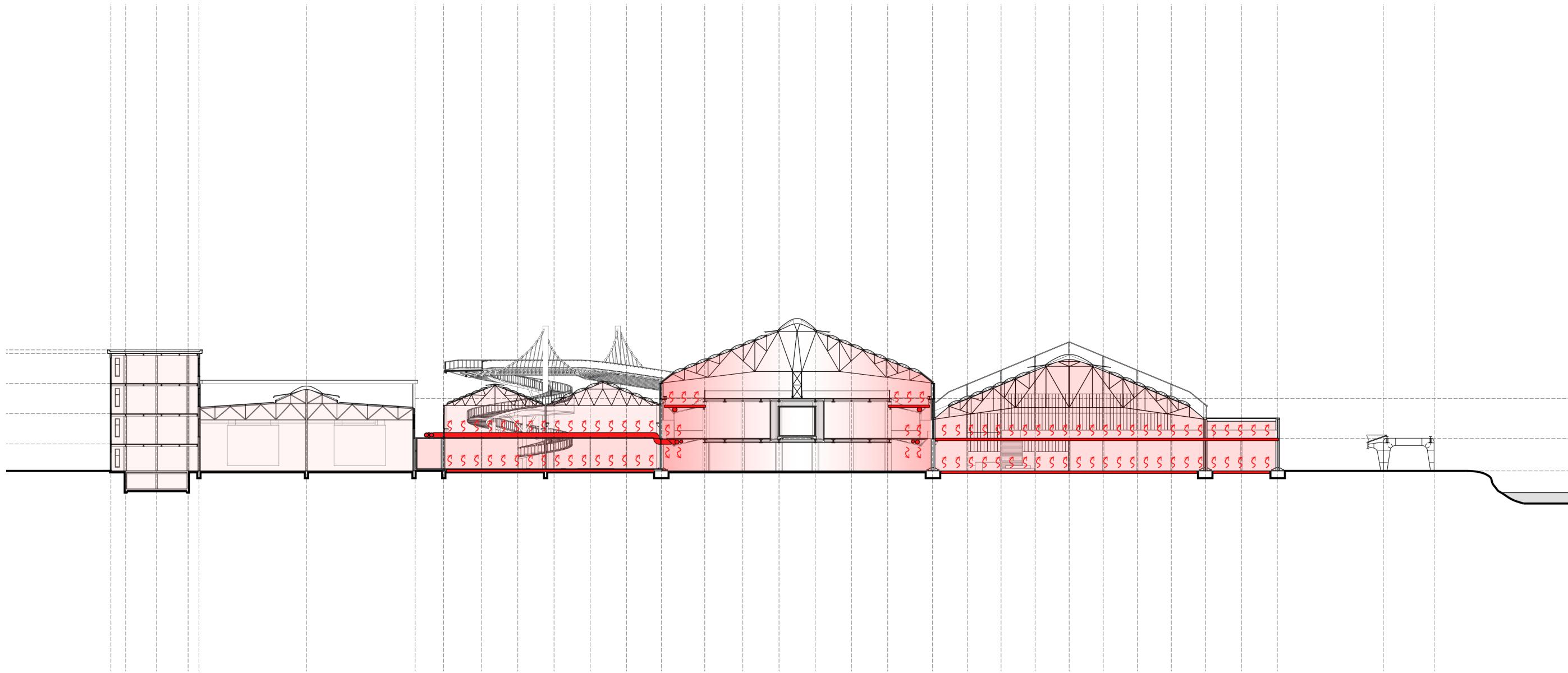
SECTION A-A



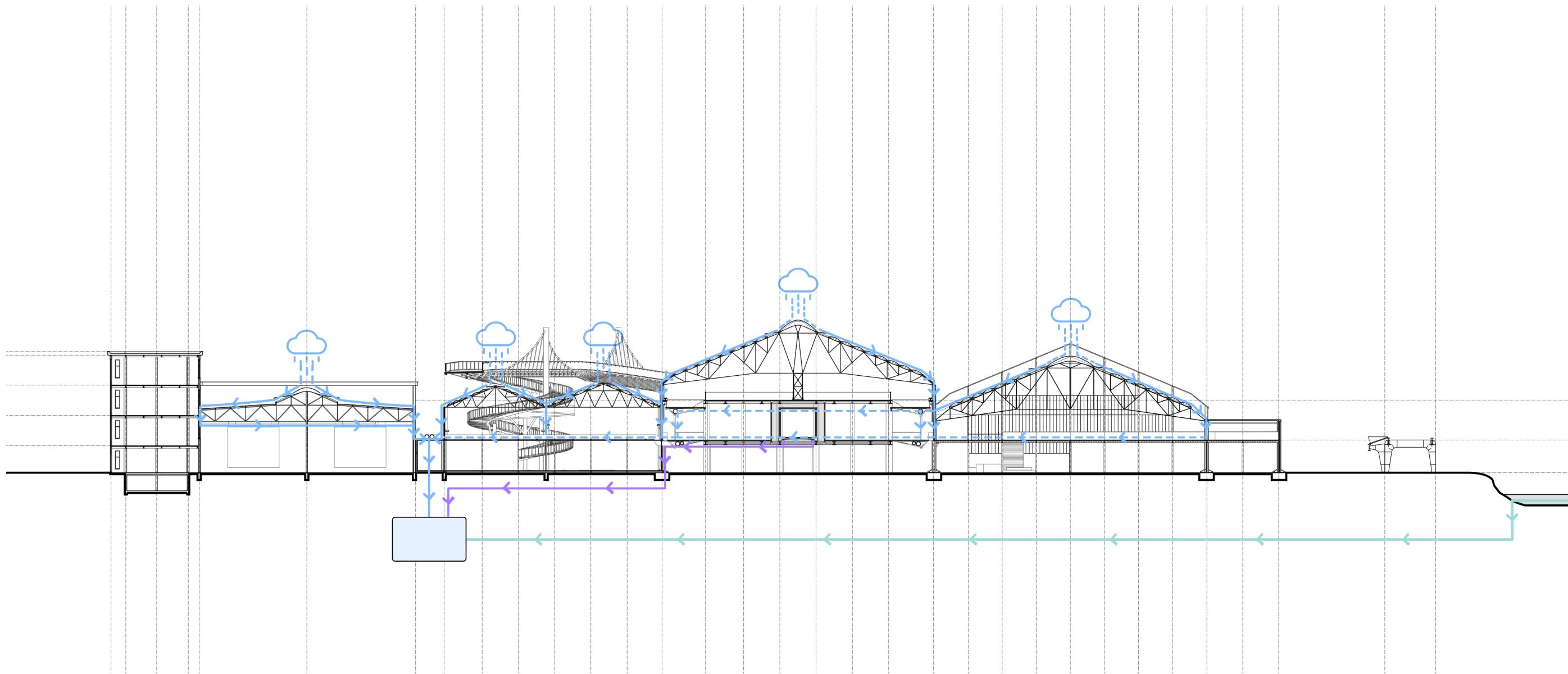
VENTILATION



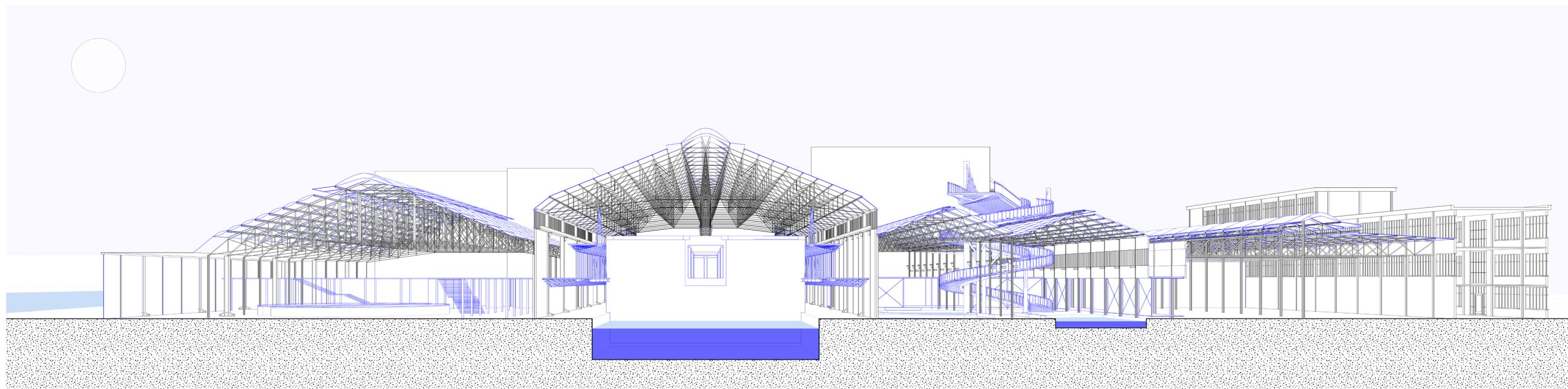
HEATING & INSULATION



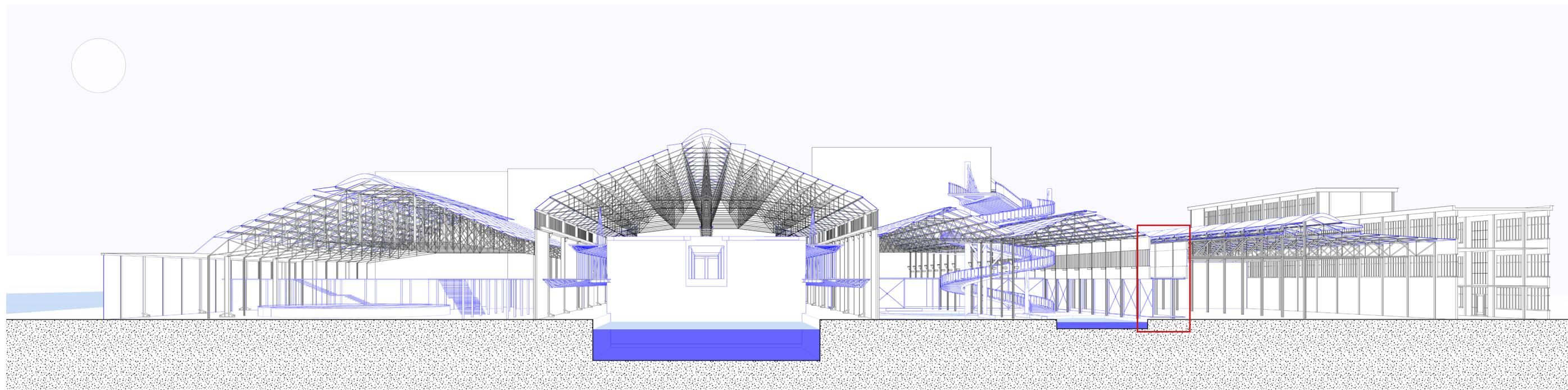
WATER CYCLE SYSTEM



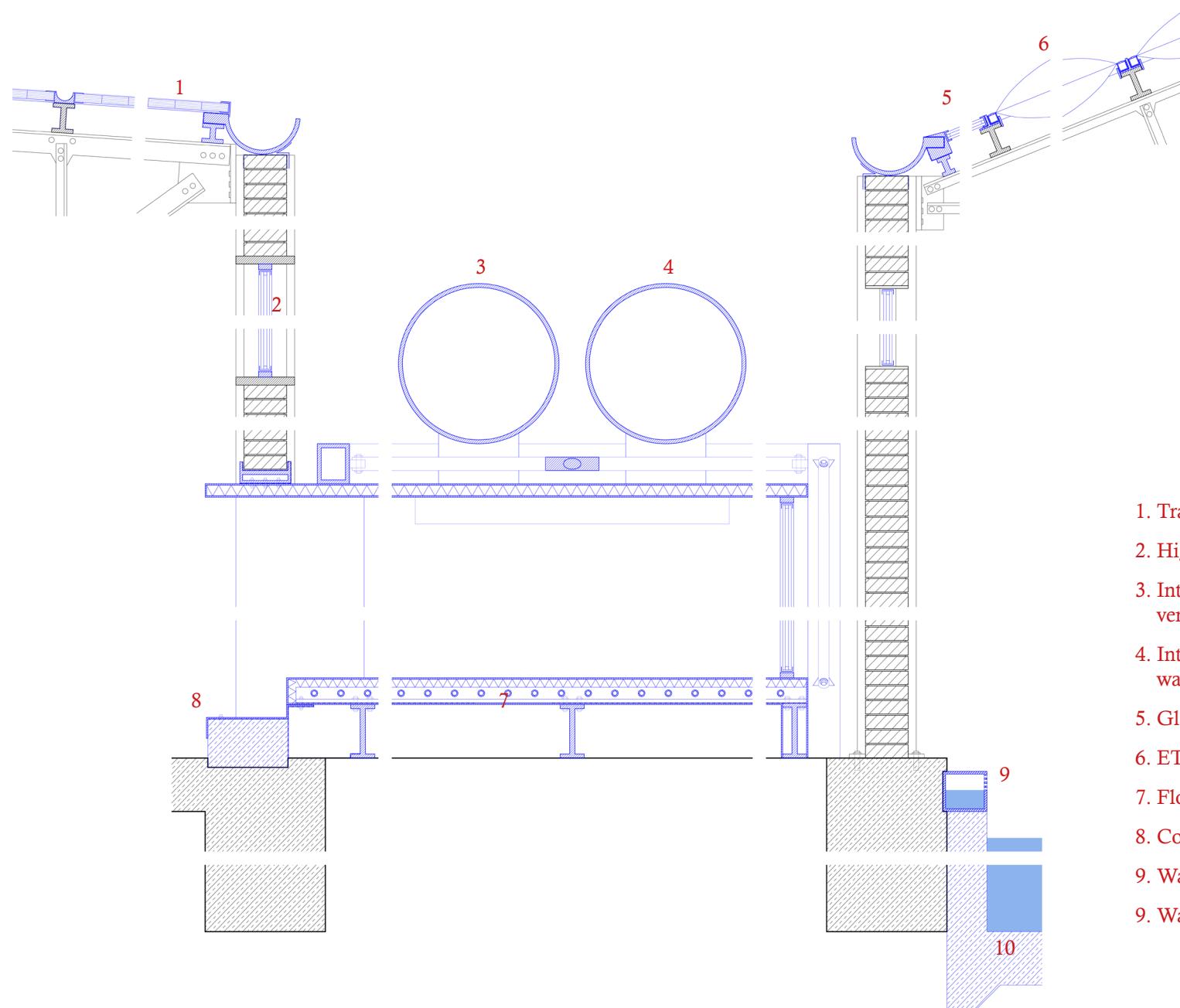
KEY SPACE SECTION PERSPECTIVE B-B



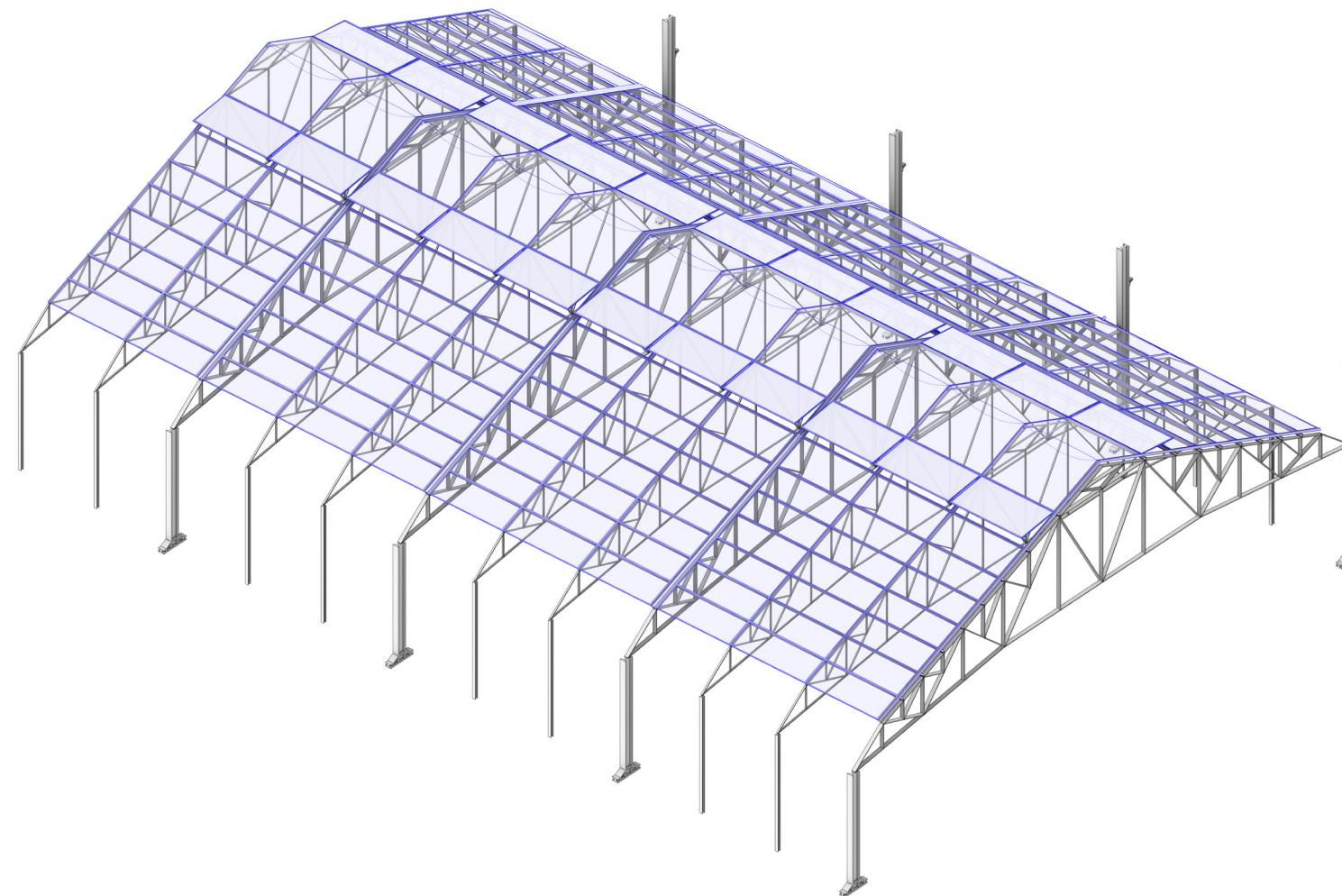
SECTION PERSPECTIVE & FAÇADE DETAIL



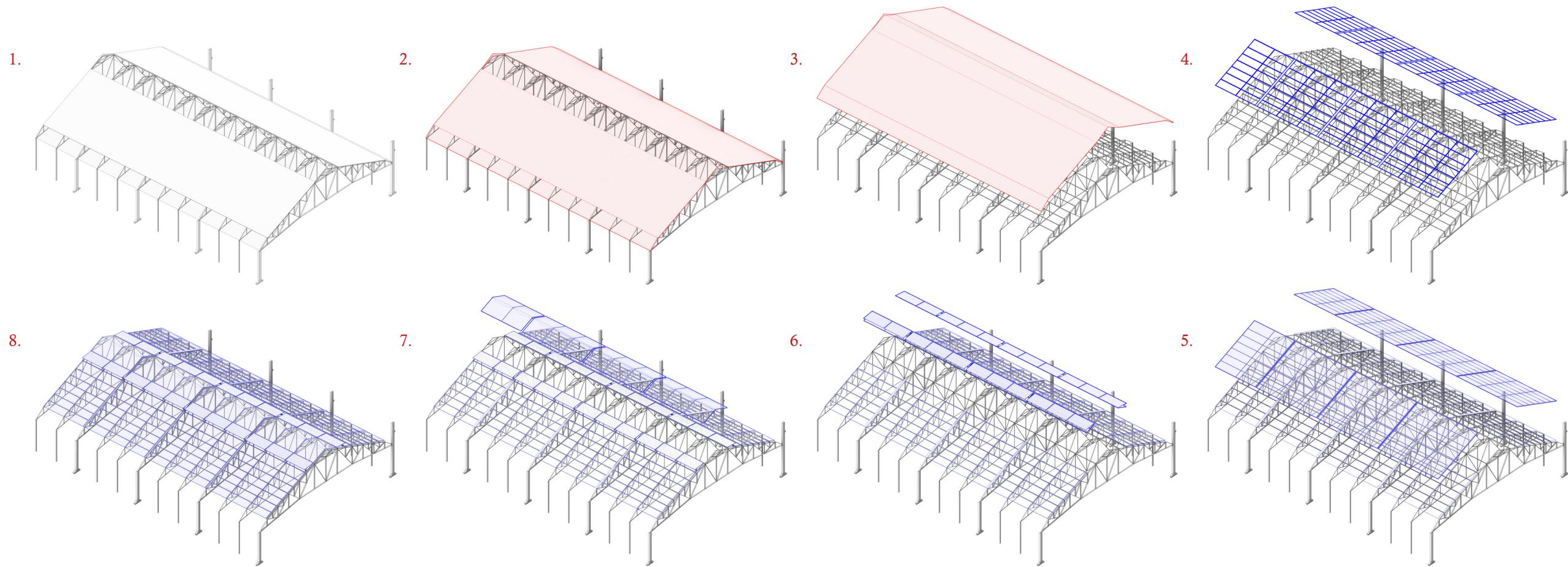
FACADE DETAIL



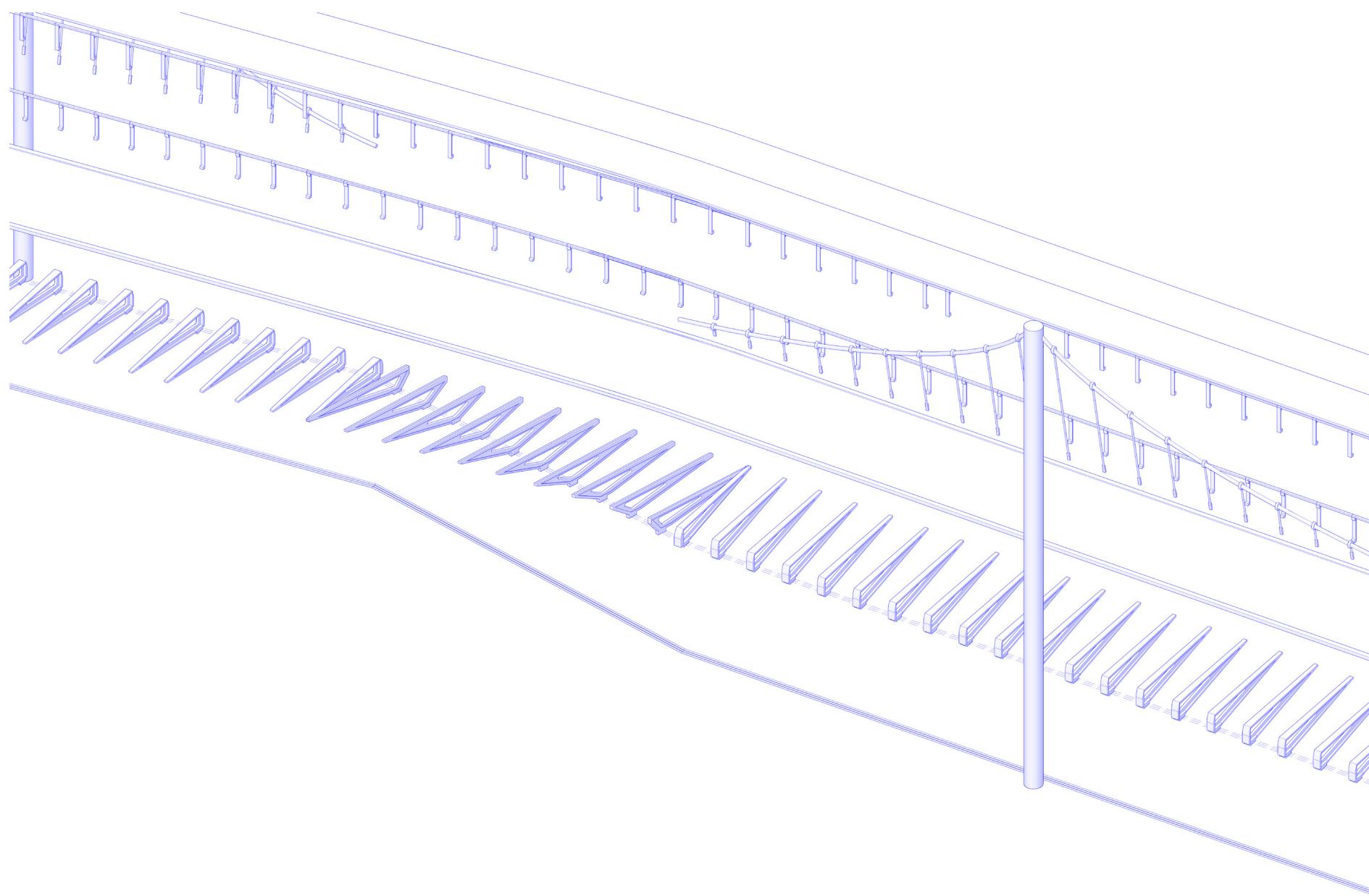
BIULDING TECHNOLOGY DETAIL - LIGHTWEIGHT ROOF



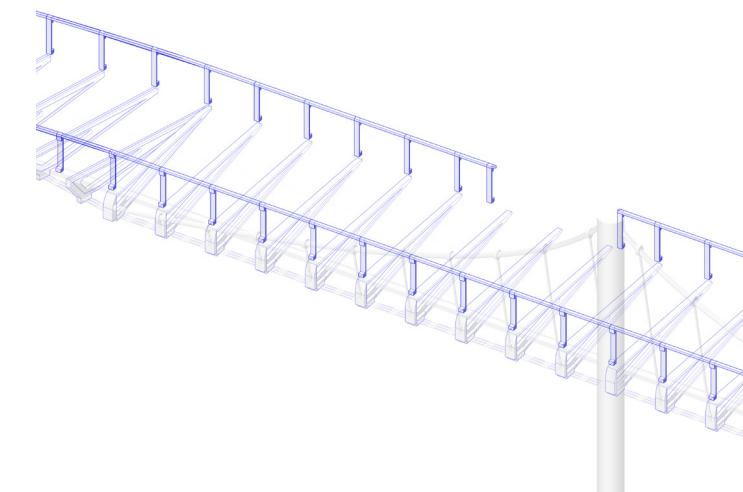
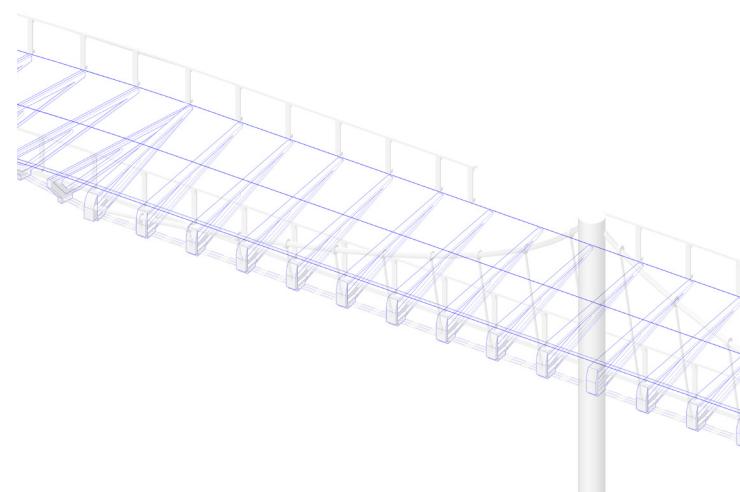
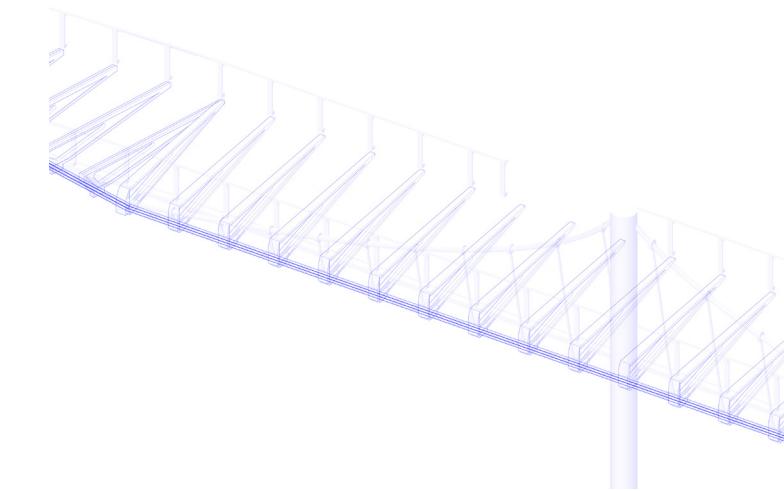
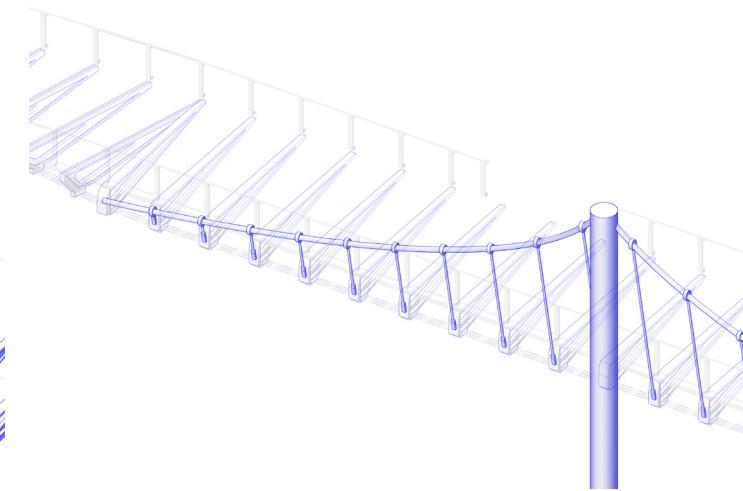
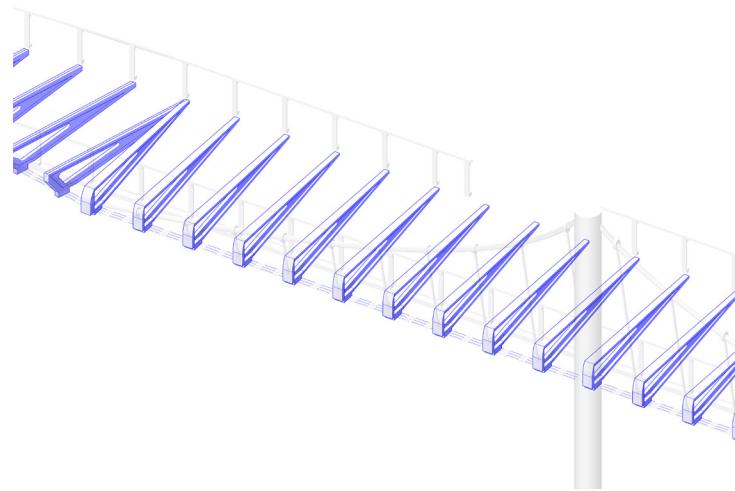
BIULDING TECHNOLOGY DETAIL - LIGHTWEIGHT ROOF



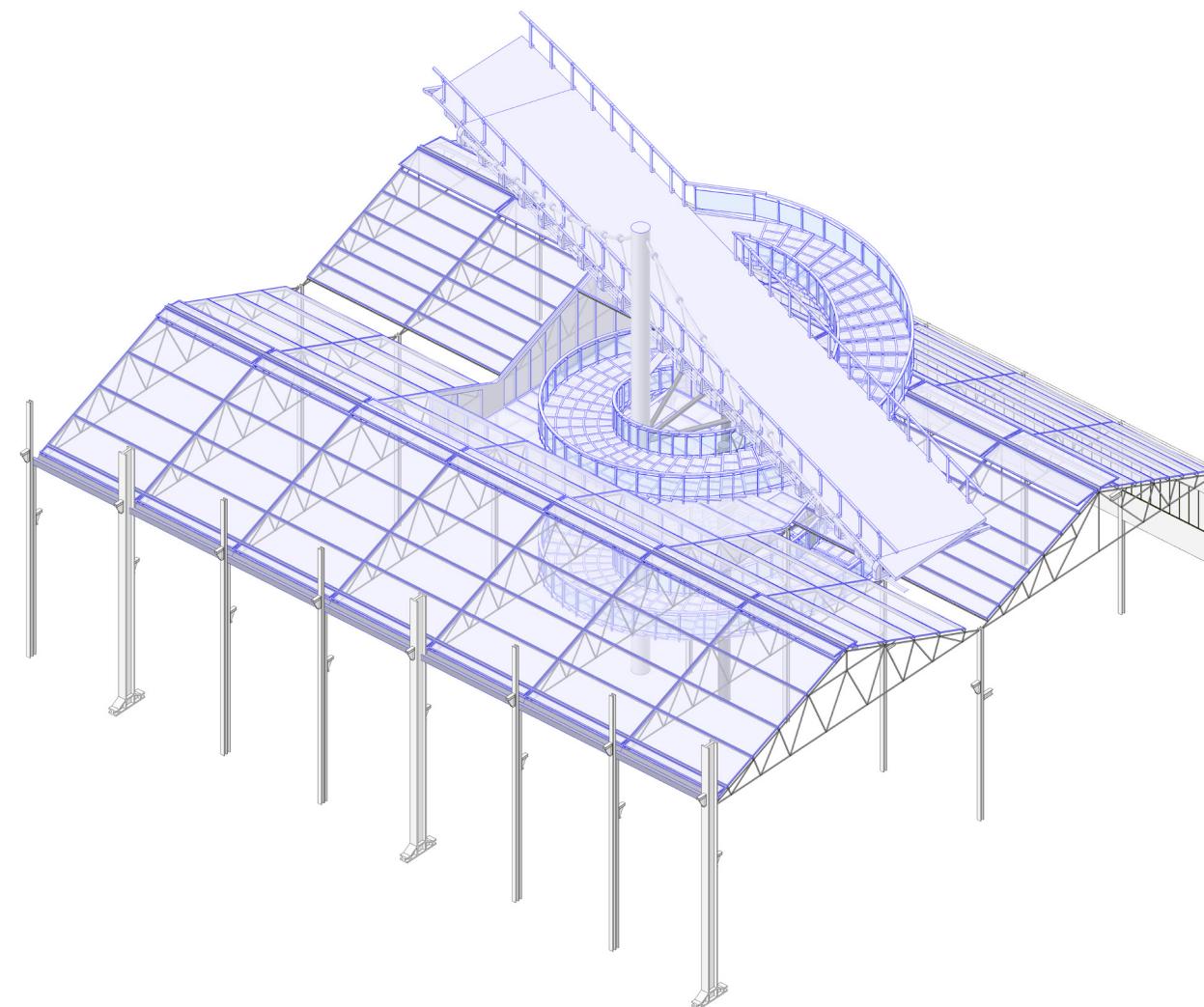
BIULDING TECHNOLOGY DETAIL - SKY BRIDGE



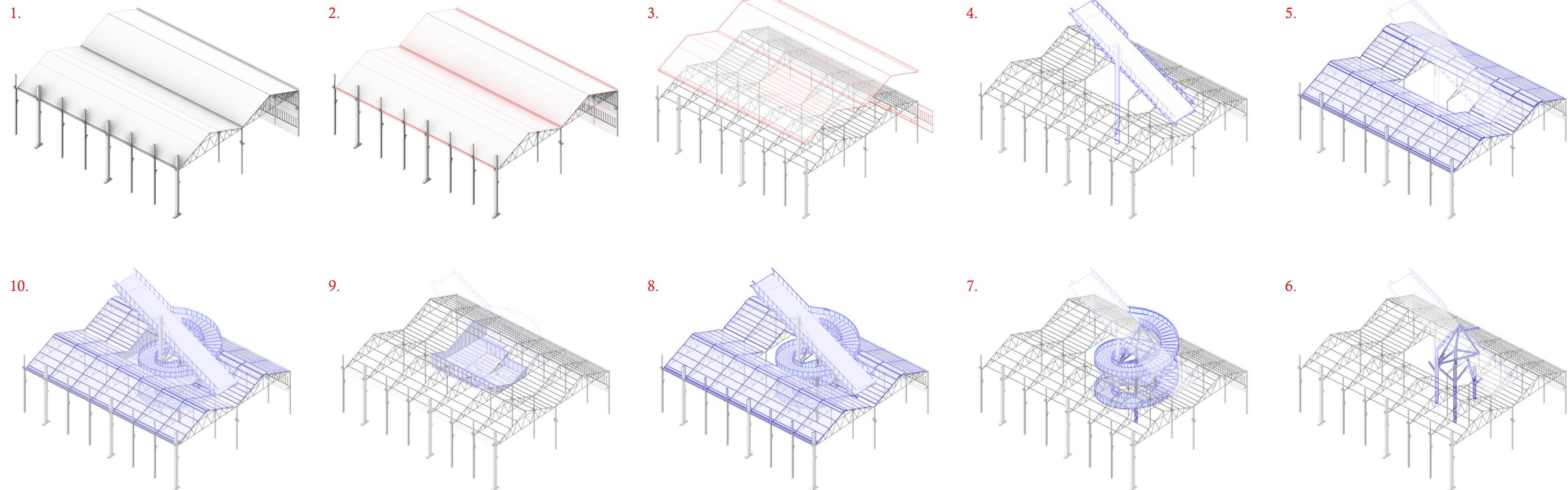
BIULDING TECHNOLOGY DETAIL - SKY BRIDGE



BUILDING TECHNOLOGY DETAIL - SPIRAL STAIRCASE



BUILDING TECHNOLOGY DETAIL - SPIRAL STAIRCASE

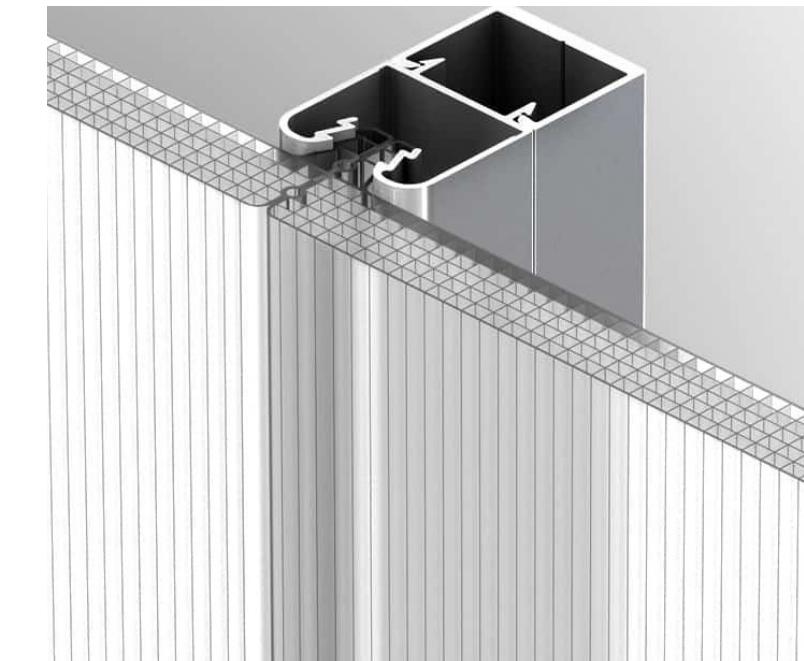
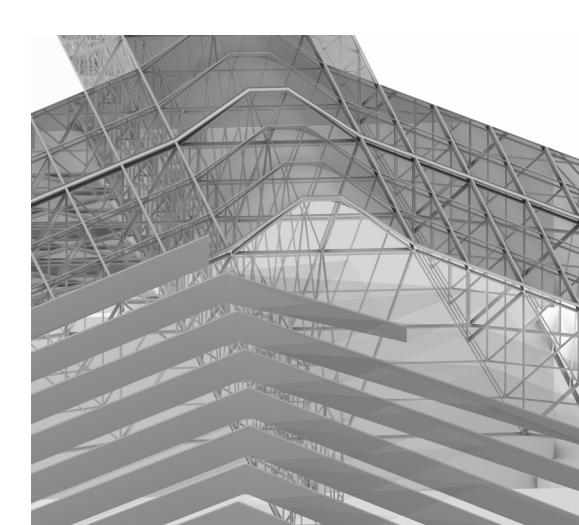


PRESENTATION OF NEW ADDED MATERIALS

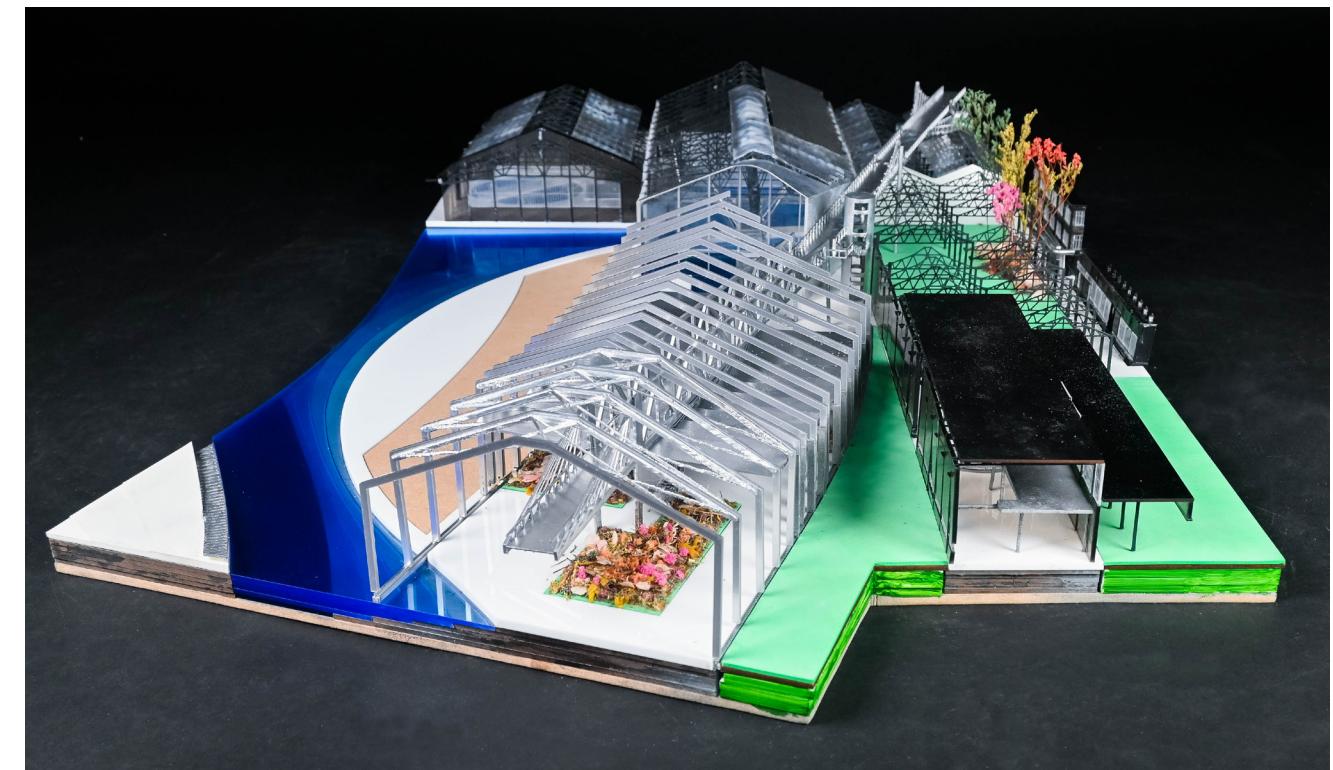
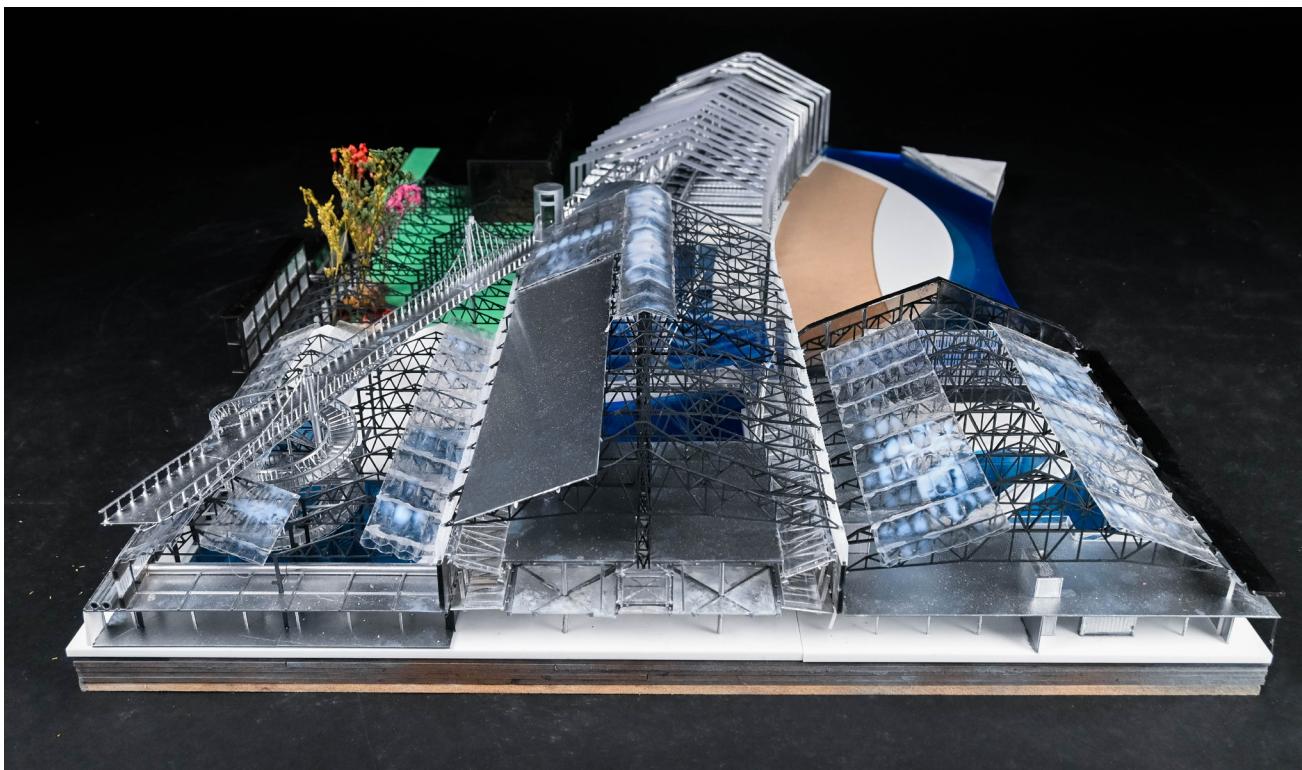
ETFE CUSHIONS



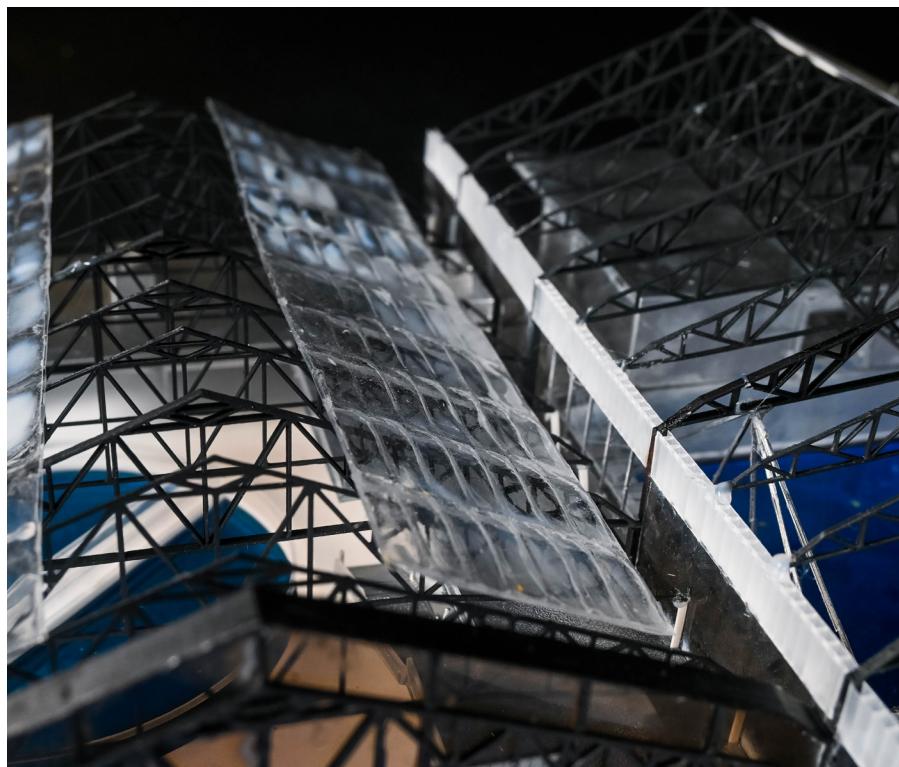
TRANSLUCENT POLYCARBONATE PANELS



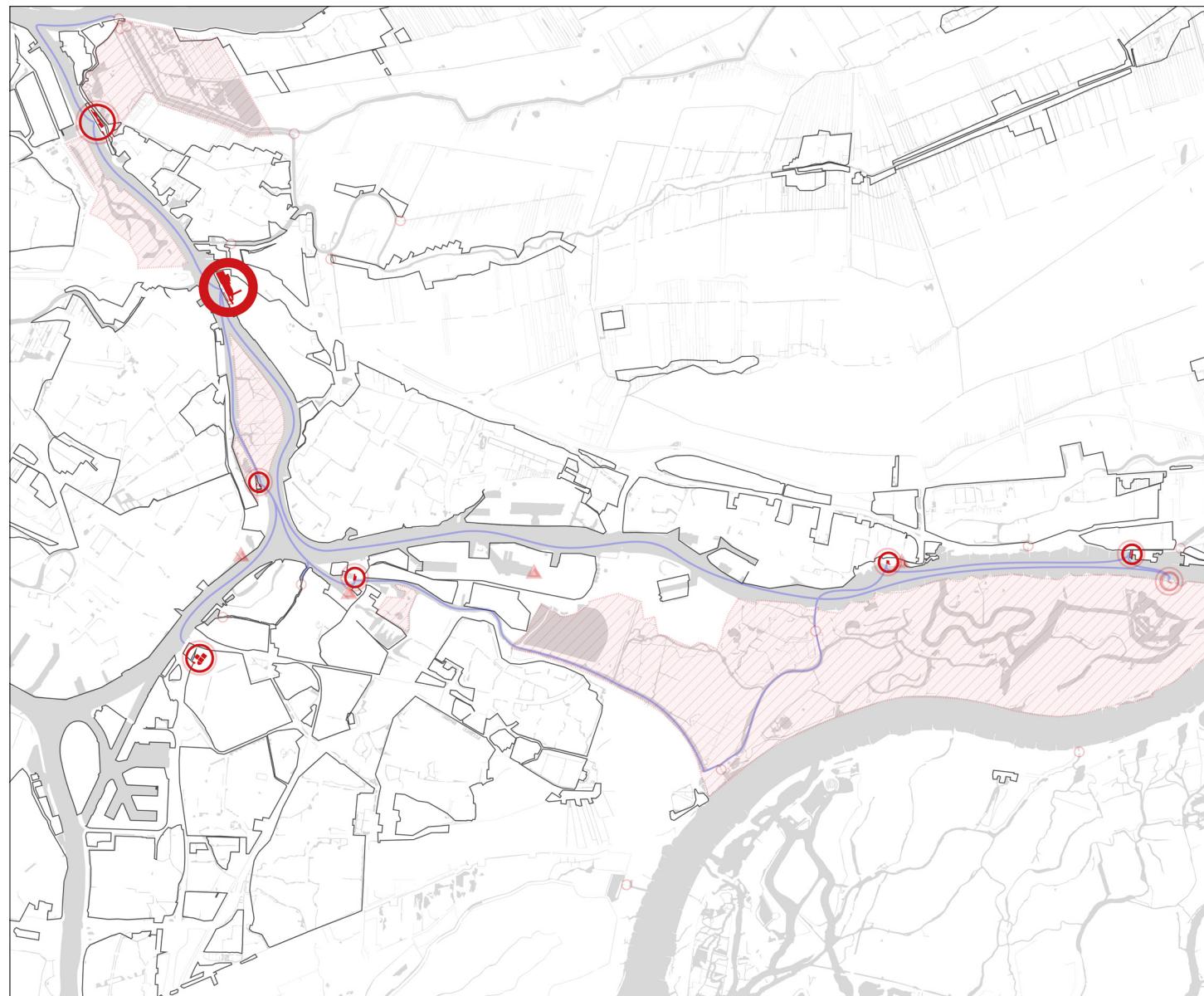
DETAIL MODEL



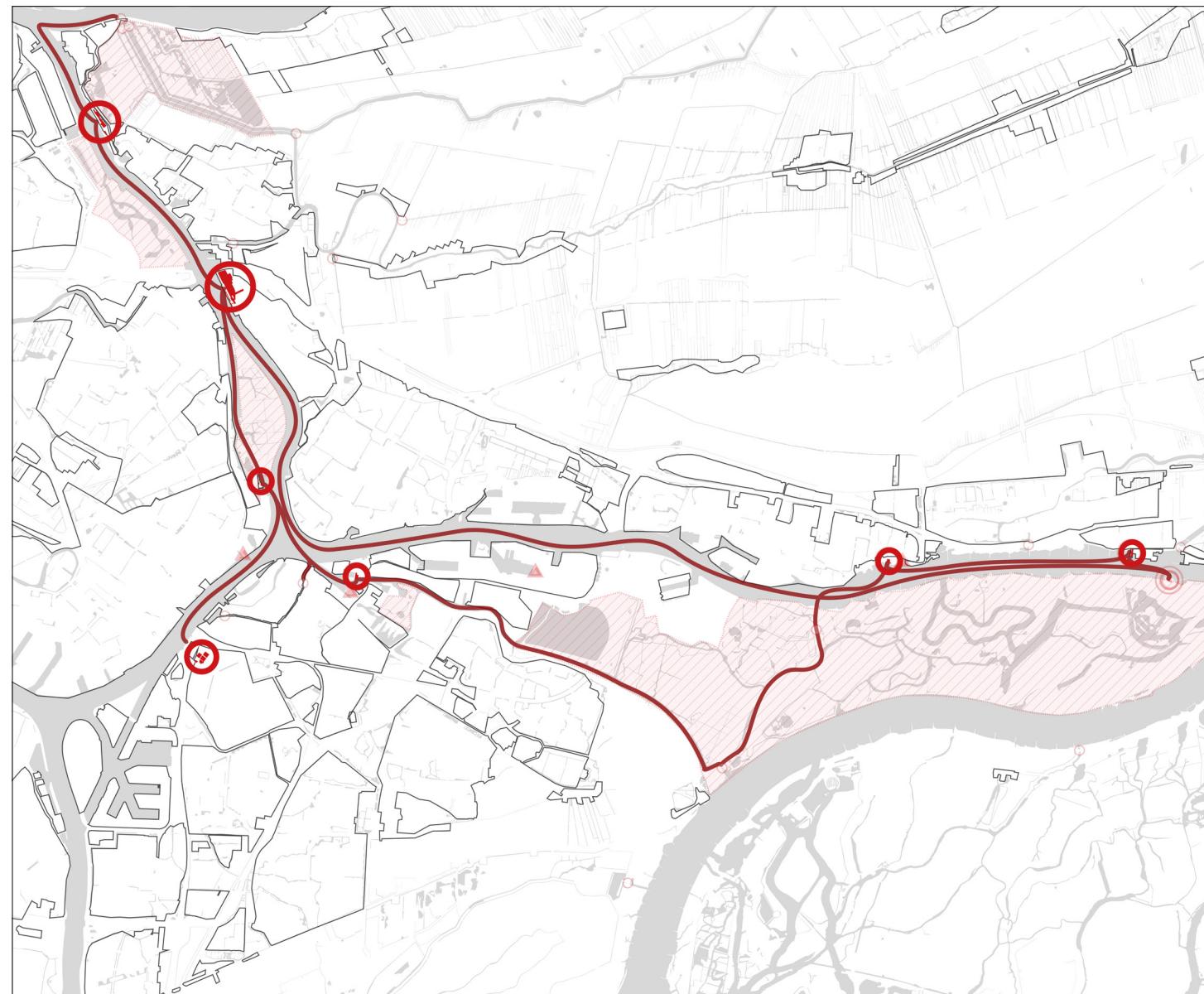
DETAIL MODEL



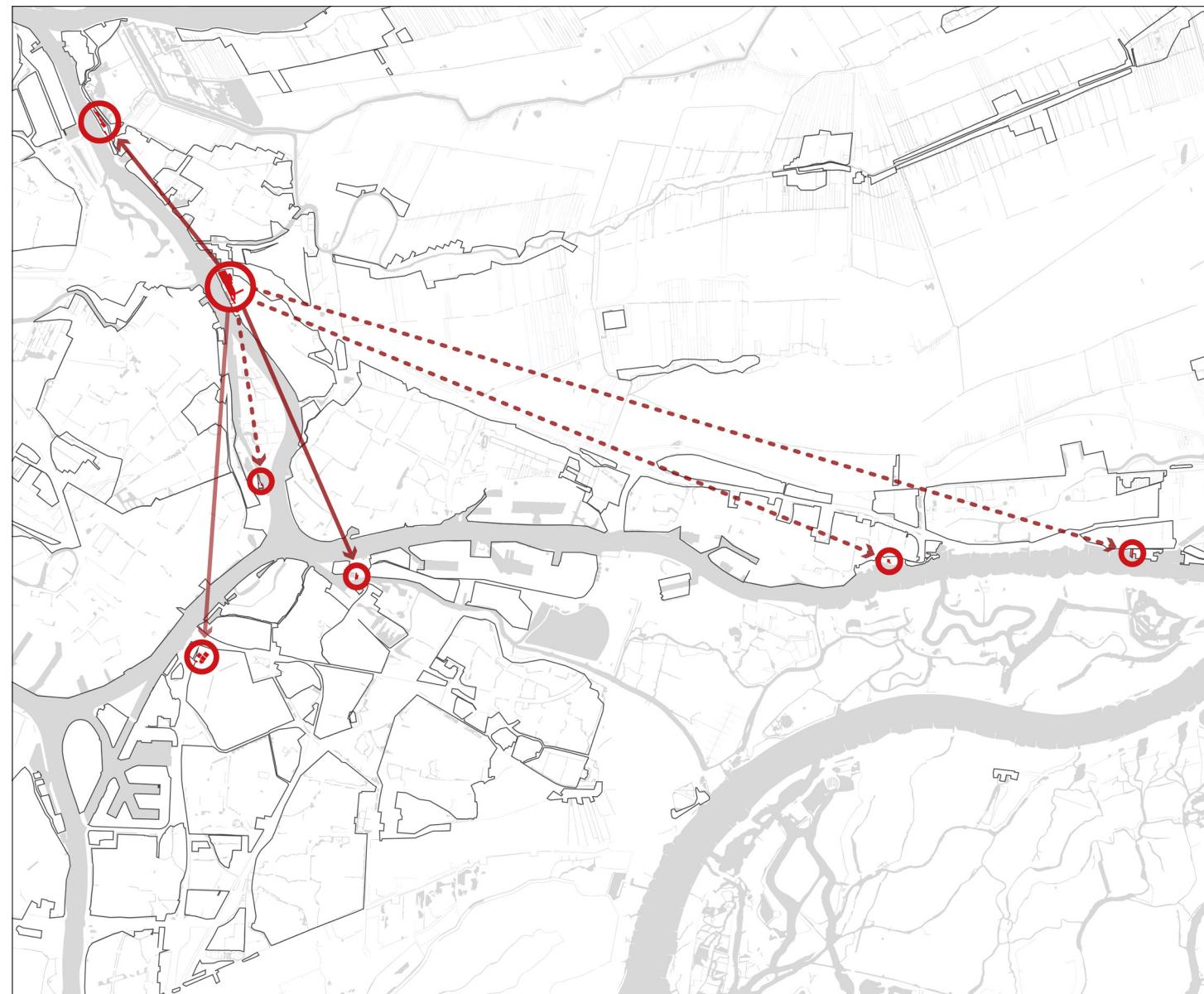
REASSESSMENT & REPOSITION & MULTI-POSSIBILITIES



REASSESSMENT & REPOSITION & MULTI-POSSIBILITIES



REASSESSMENT & REPOSITION & MULTI-POSSIBILITIES





HERITAGE & ARCHITECTURE – MARITIME HERITAGE STUDIO
Social Tides In Post-Industrial Cultural Landscapes
A Water-Environment Art Destination & Local-benificial Complex In Waterdriehoek
Boyang Shen
01/16/2025 P5