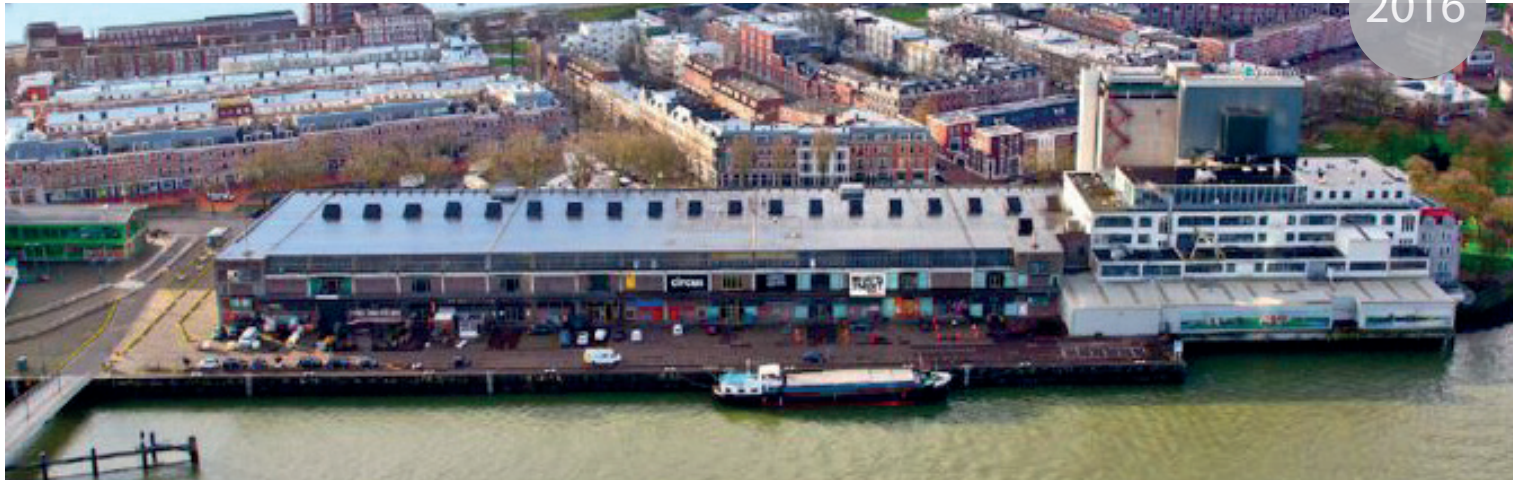


An energizing warehouse for the inhabitants of Katendrecht and the city of Rotterdam

Hester Stuivenberg | 4138813

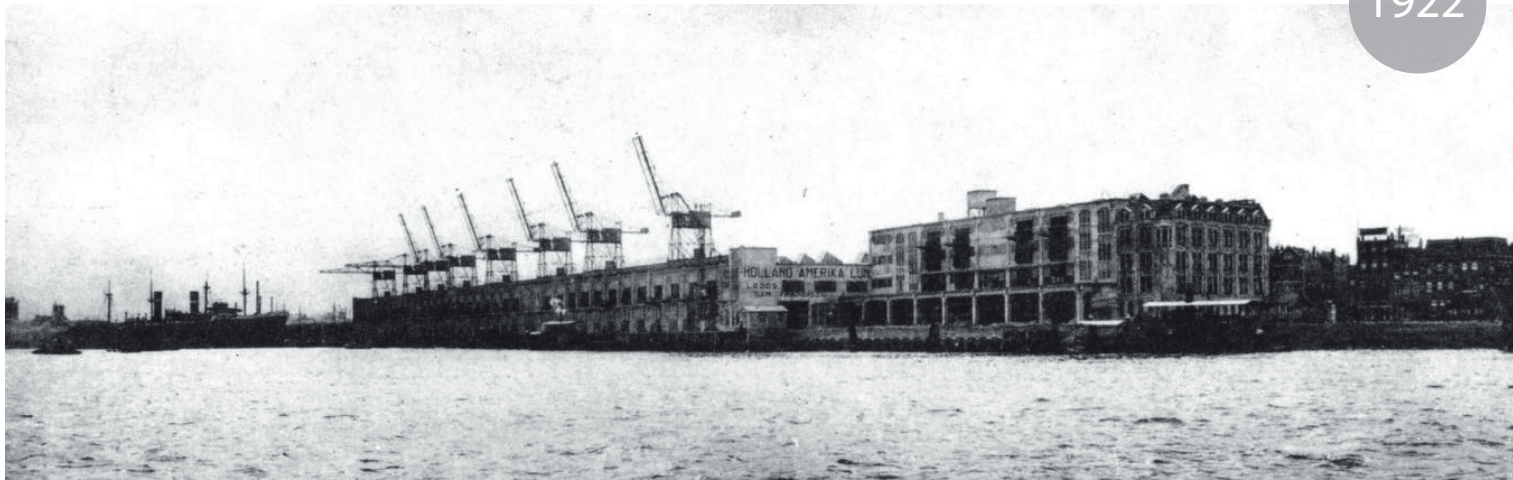
MSc Graduation Studio Heritage & Architecture, Delft University of Technology





2016

Fenix II, 2016 (IABR)



1922

San Francisco, 1922 (Holland-Amerika Lijn 1873-1923)

Content

Research

Problem statement

Research question

Sustainability

Analysis

Design

Starting points

Design question

Urban context

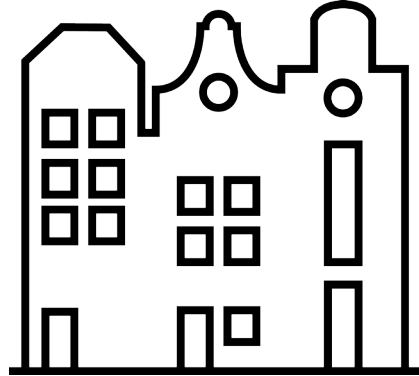
Appearance

Program

Technology

Problem statement

Transformation and sustainability are rarely being combined in contemporary architecture



Research question

How to transform the Fenix II into a sustainable building while conserving its characteristics?



Research question

How to transform the Fenix II into a **sustainable building** while conserving its characteristics?

What is the approach for designing a sustainable building?



Research question

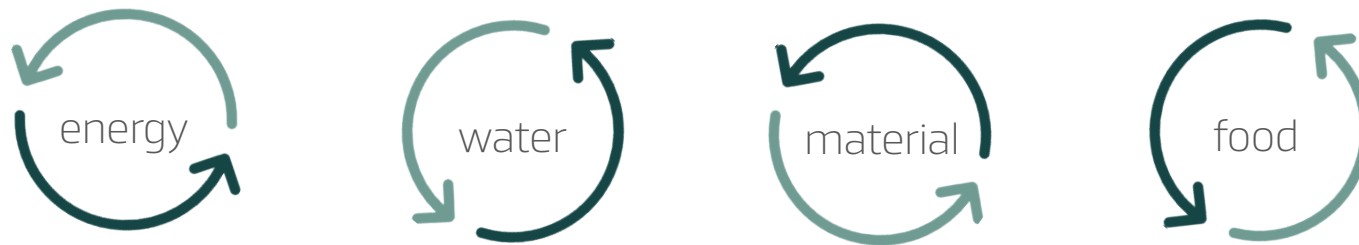
How to transform the Fenix II into a sustainable building while conserving its **characteristics**?

What have been and are the characteristics of the Fenix II and its surroundings?



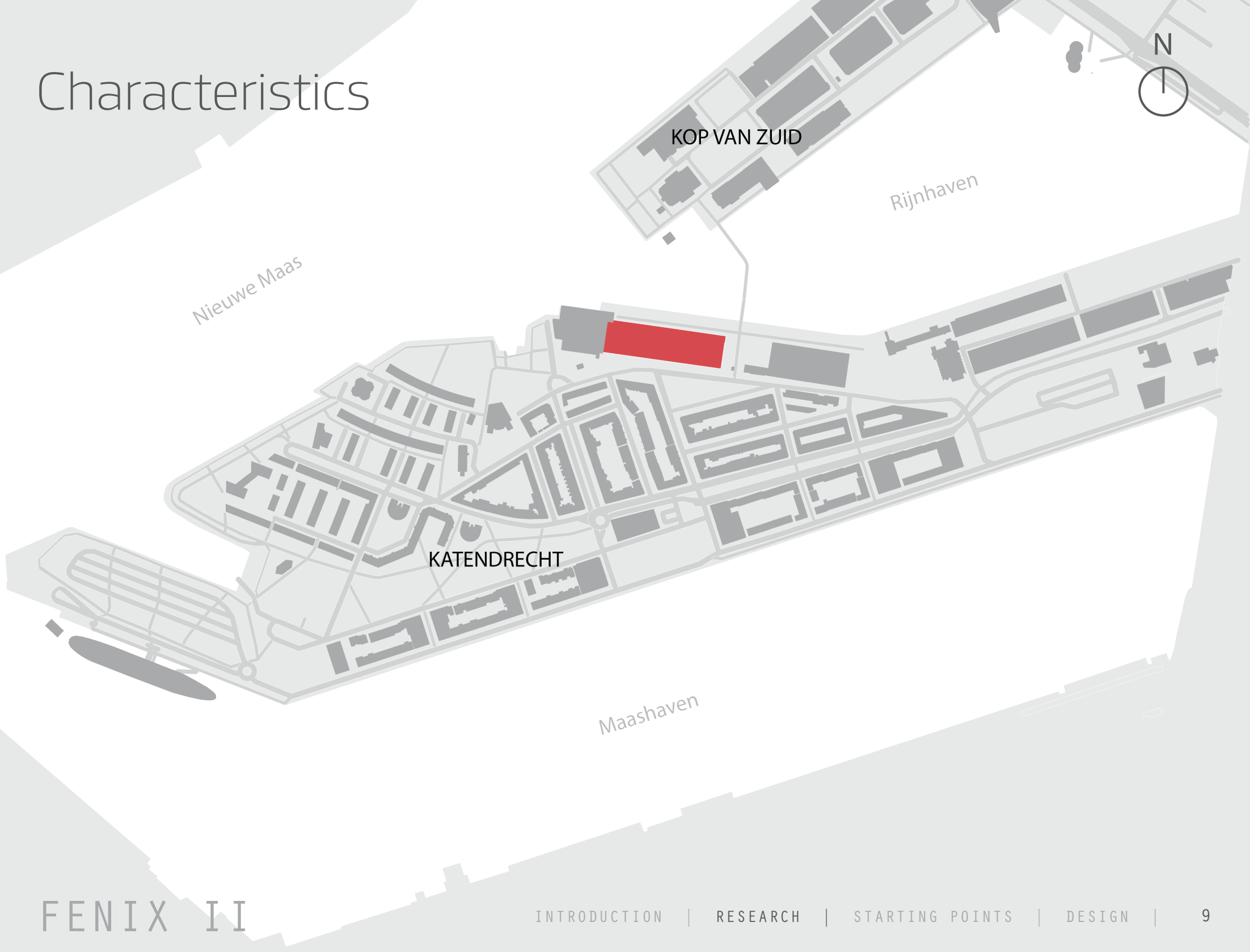
Sustainability

‘Close the four cycles within the scope of the project’

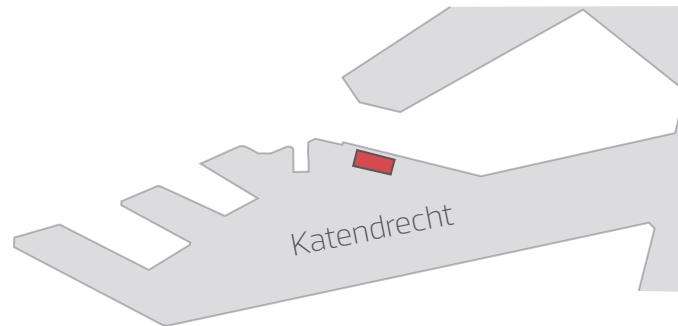


‘Sustainability must lead to an integrated design that interacts with its environment’

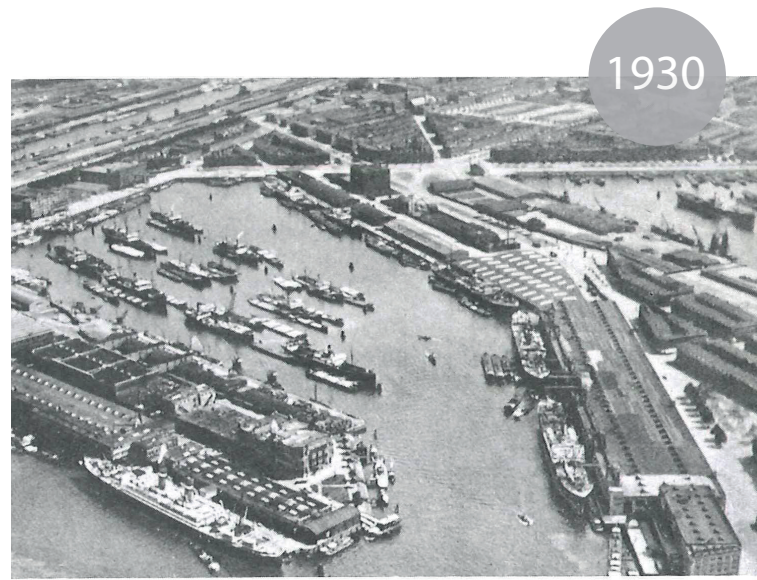
Characteristics



Katendrecht



Atjehstraat, J. Noest, 1927, Coll. Historisch Katendrecht



Kop van Zuid and Rijnhaven 1930

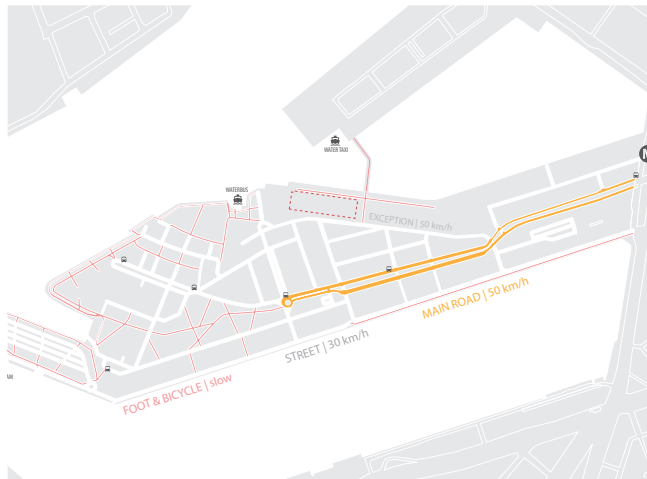


Deliplein, 2012, NRP Gulden Feniks

Katendrecht



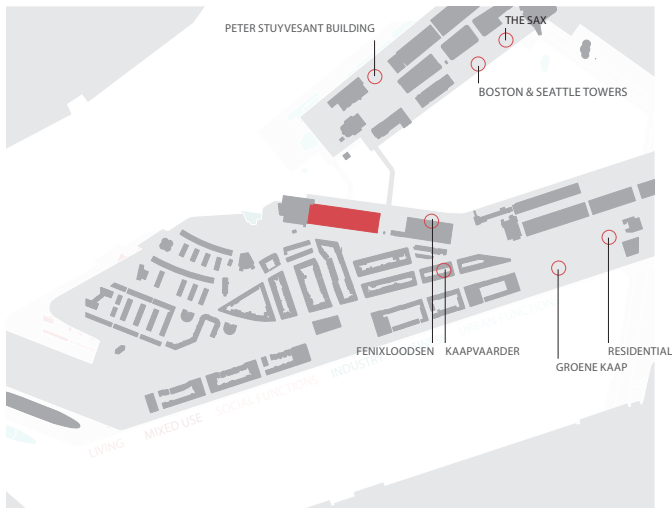
Katendrecht



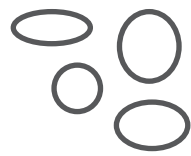
Katendrecht



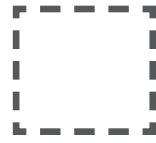
Katendrecht



Public space



variety



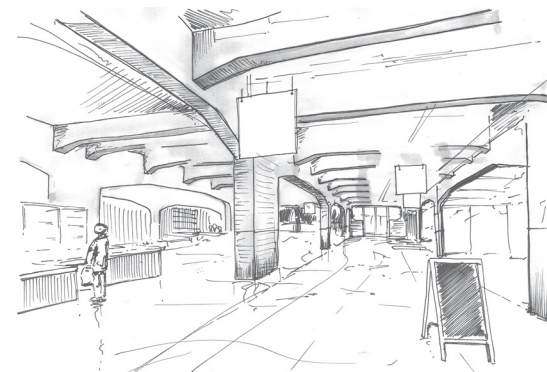
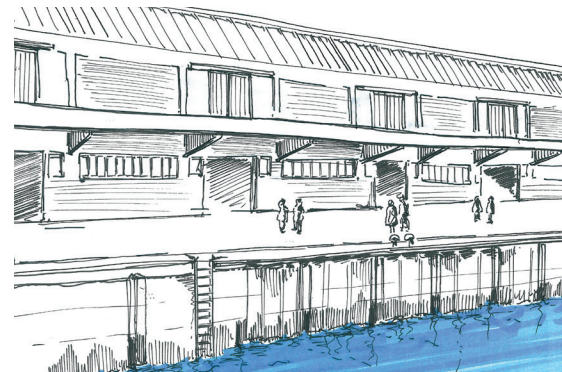
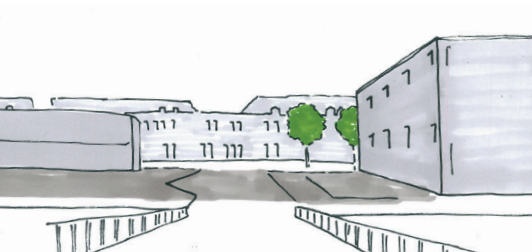
districts



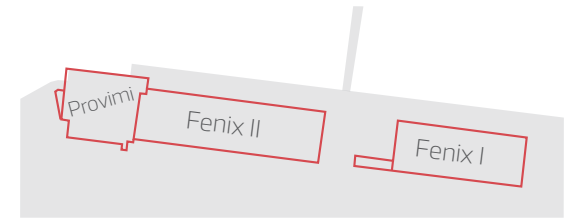
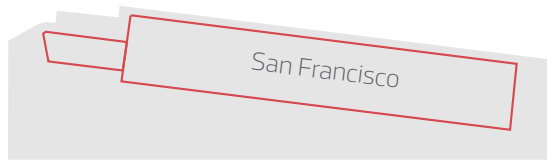
history



unique



San Francisco – Fenix II



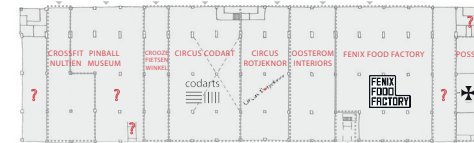
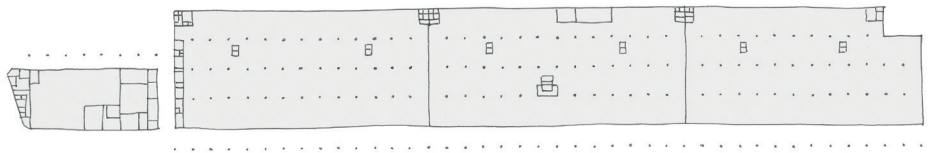
1980, KBO, coll. Historisch Katendrecht



2012, coll. Historisch Katendrecht

FENIX II

Port activities



1923



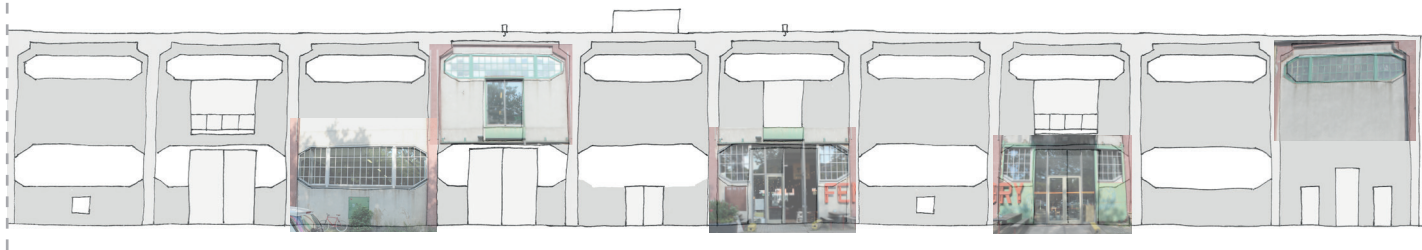
1980



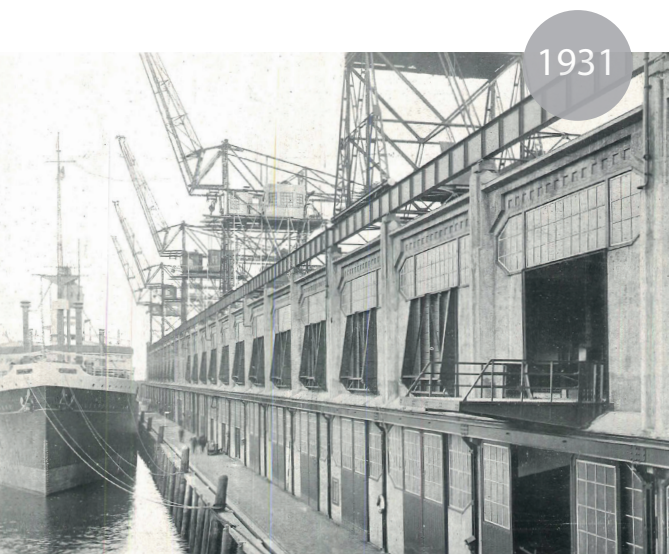
2016

FENIX II

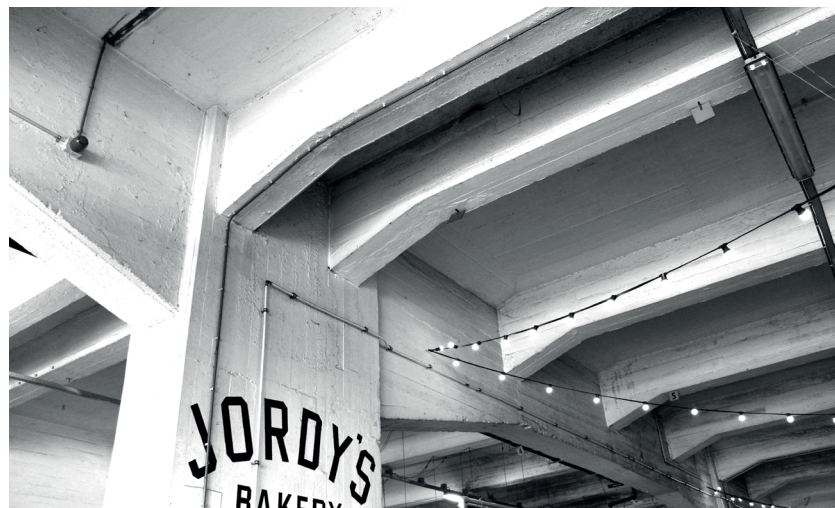
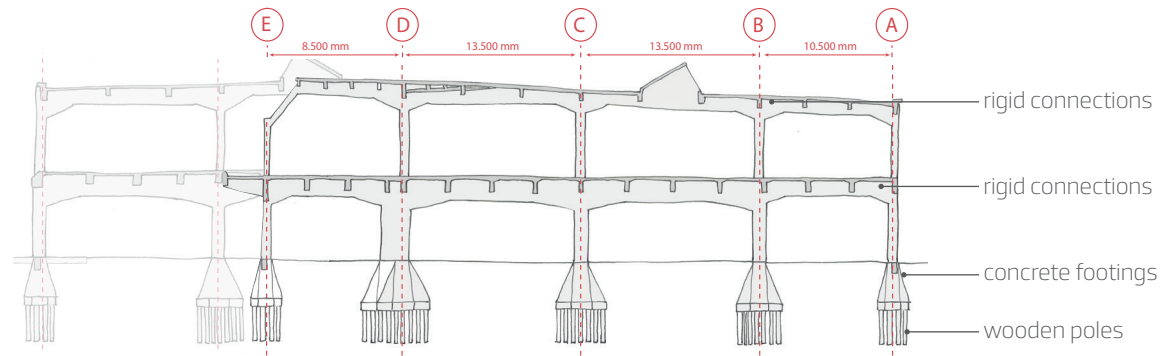
Facade street side



Facade water side



Load bearing structure



Cultural history



General value: port history, world's largest warehouse

Urban value: structure Katendrecht, new harbour type, connection

Architectural value: functional character, rhythm, high open space

Building history value: monolithic concrete structure

Use value: function as storage warehouse, current social initiatives

What is left?

Port activities are gone

Facades are closed

In the shadow of new projects





Energy



goods



cranes

History



ships

FENIX II

high rise



Location



hot spot



port city

electricity



water

Sustainability



food



material

FEL



sport



food

People



inspire

FENIX II

INTRODUCTION

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STARTING POINTS

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WELL Building Standard

COMFORT



AIR



LIGHT



WATER



FITNESS



NOURISHMENT



MIND



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Technology

Climate

Urban

Kop van Zuid

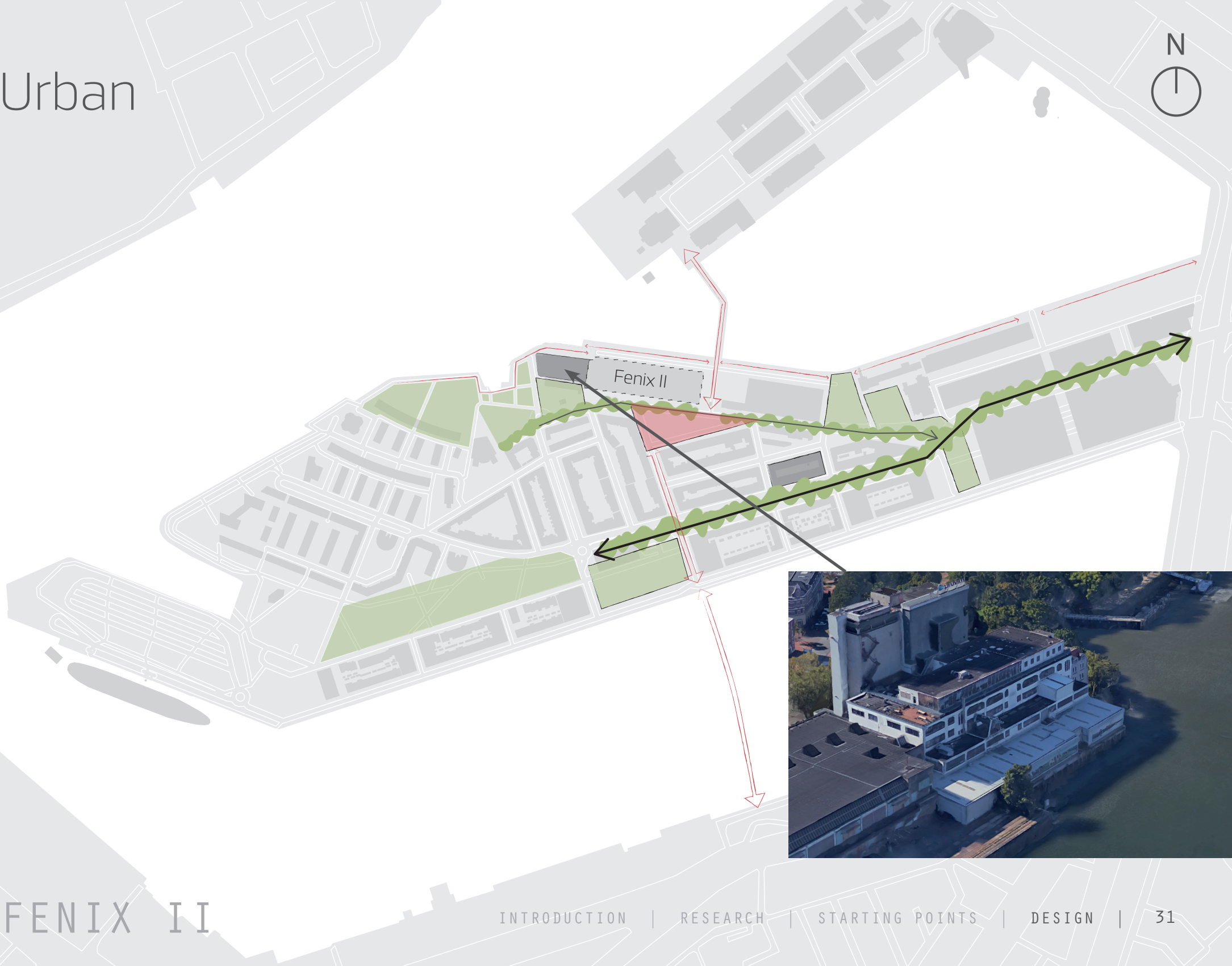


Katendrecht

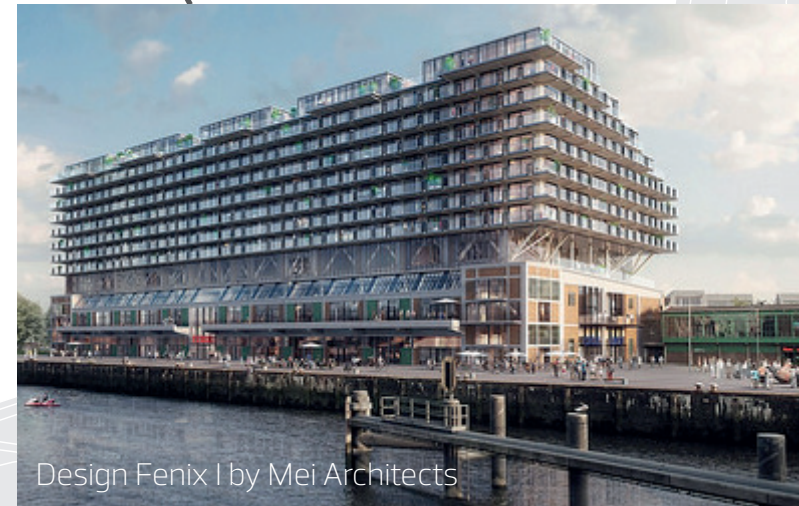
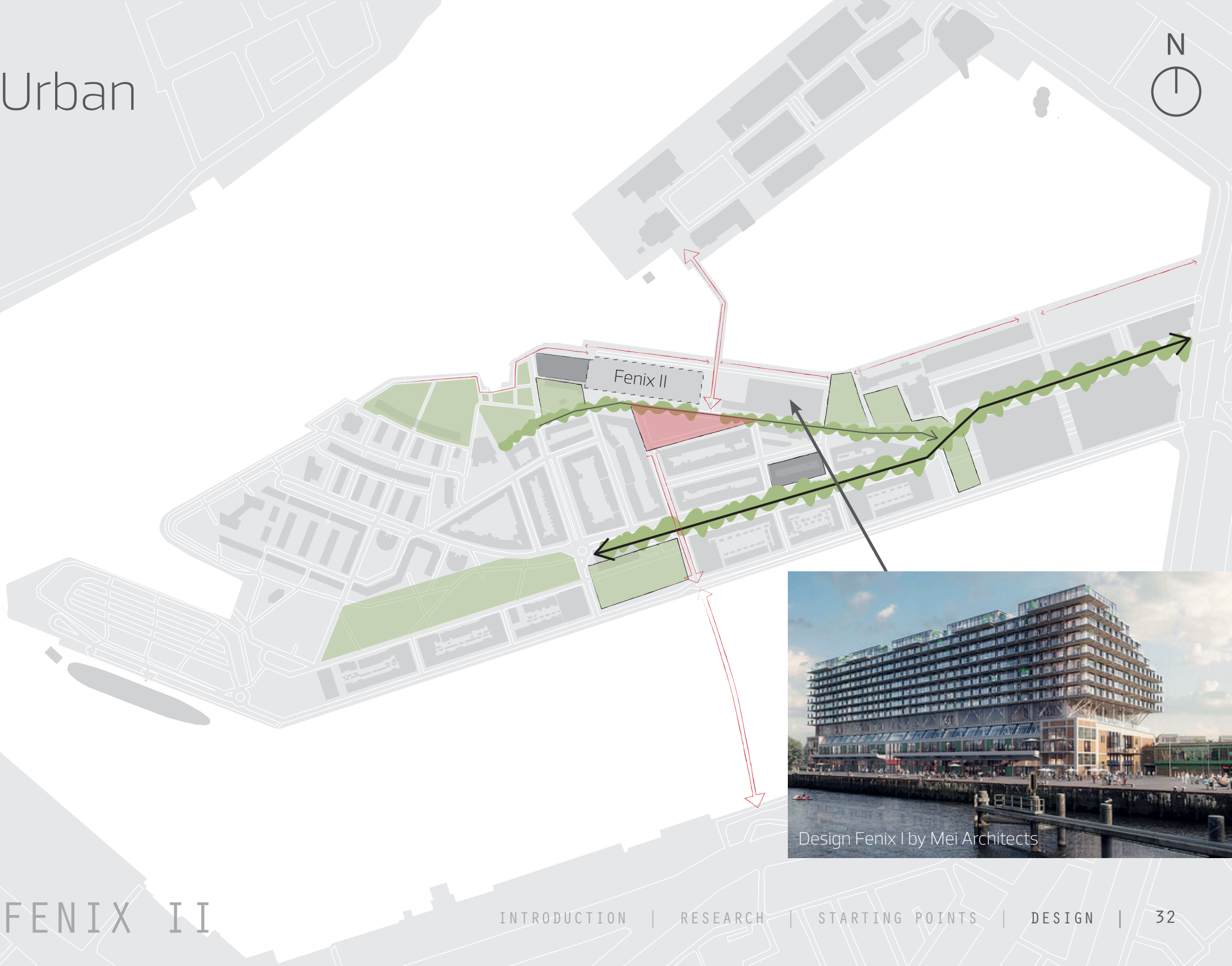
Fenix II

Rotterdam South

Urban



Urban



Design Fenix I by Mei Architects

Urban



Fenix boardwalk



Fenix II

FENIX II

INTRODUCTION

RESEARCH

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Urban



Fenix II

FENIX II

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| DESIGN

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Urban



Fenix II

FENIX II

INTRODUCTION

| RESEARCH

| STARTING POINTS

| DESIGN

| 35

Urban



Fenix II

FENIX II

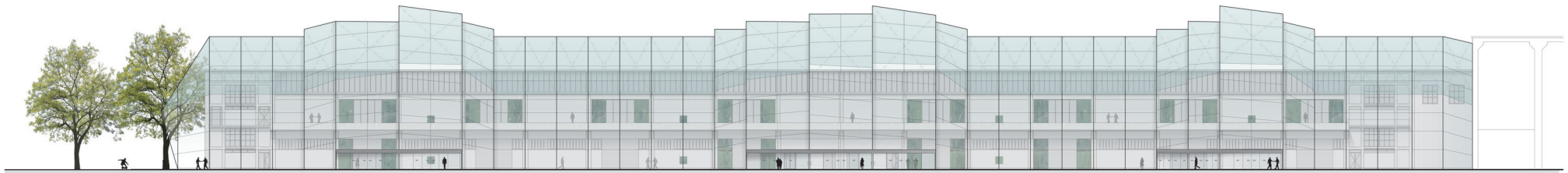
Water side



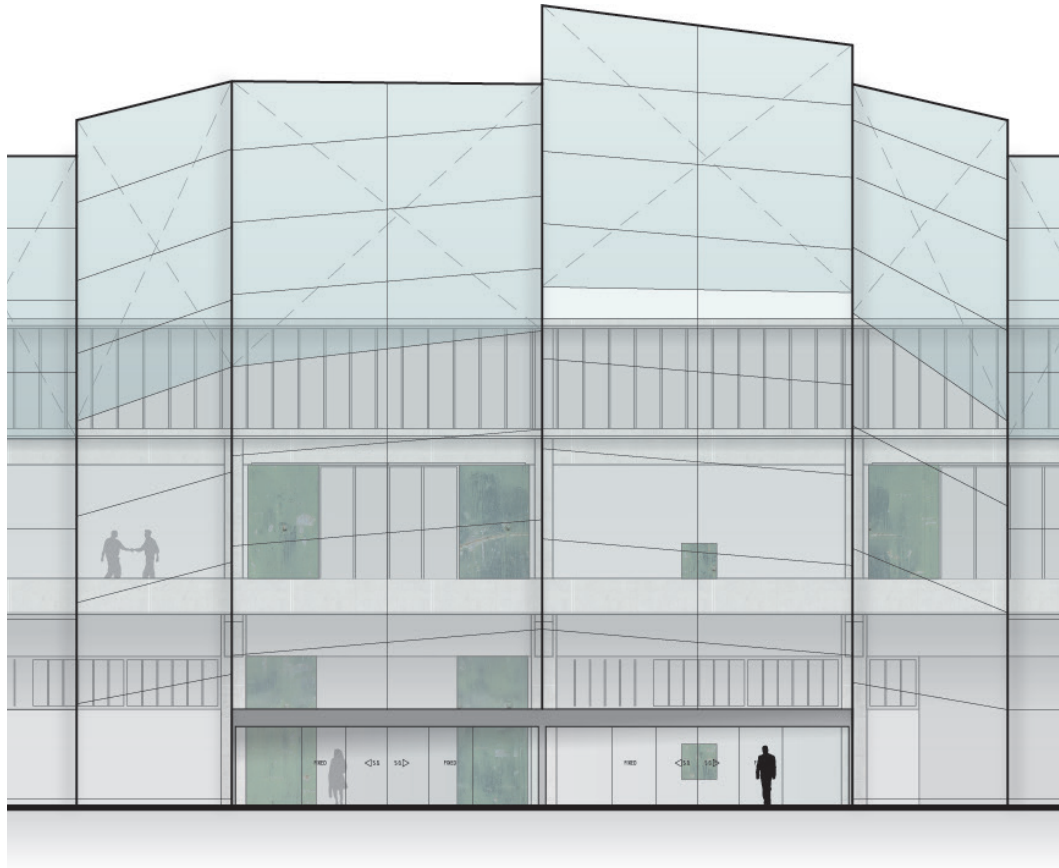
FENIX II

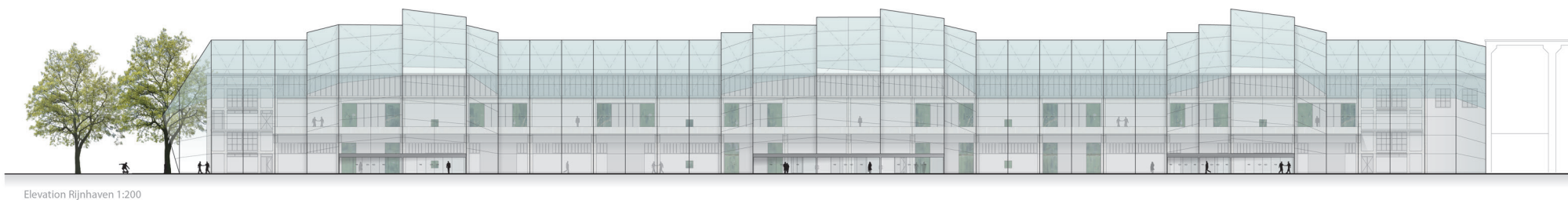
INTRODUCTION | RESEARCH | STARTING POINTS | DESIGN | 37

Water side

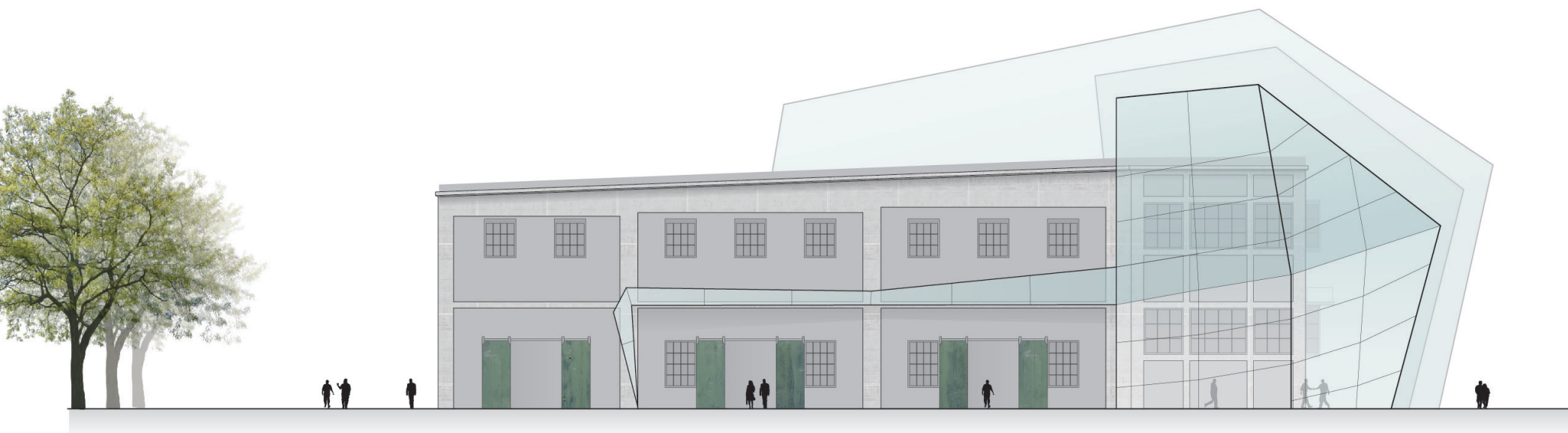


Elevation Rijnhaven 1:200





Elevation Rijnhaven 1:200

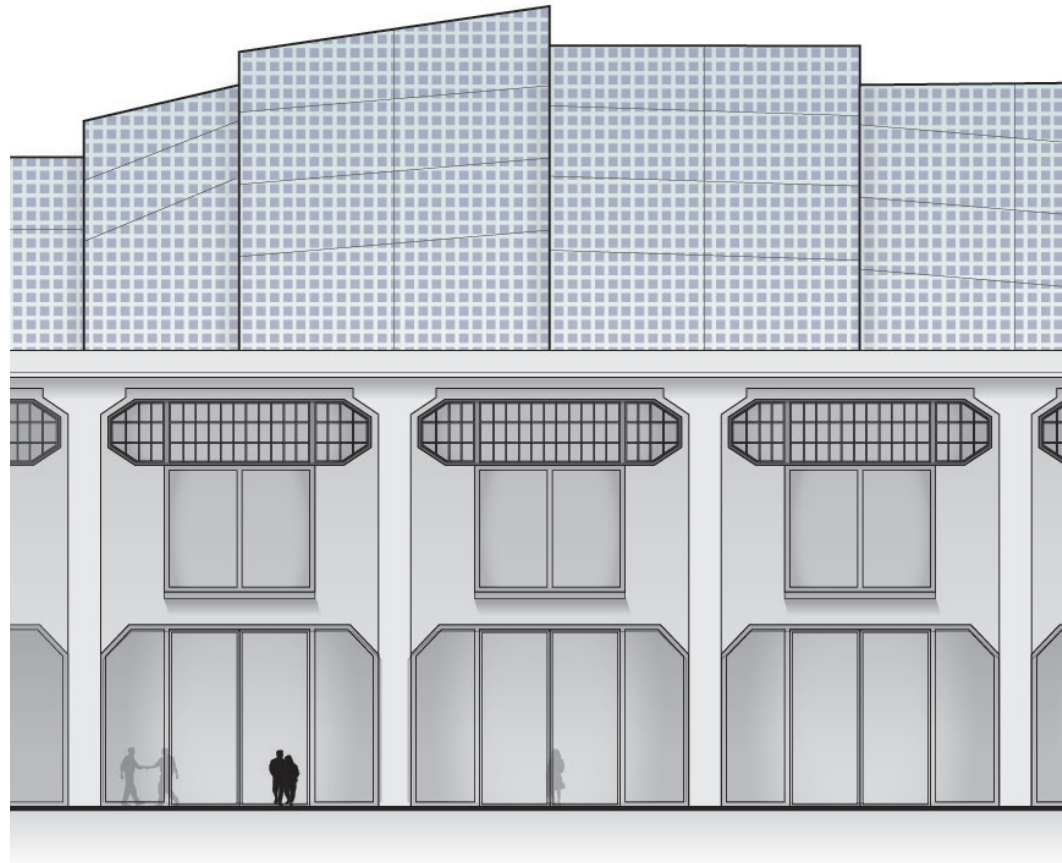
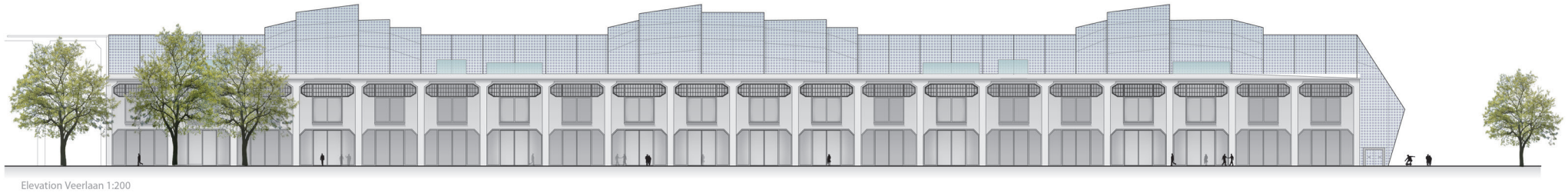


Elevation side 1:200

Street side



Street side



Roof



Entrance



Program

Art

|

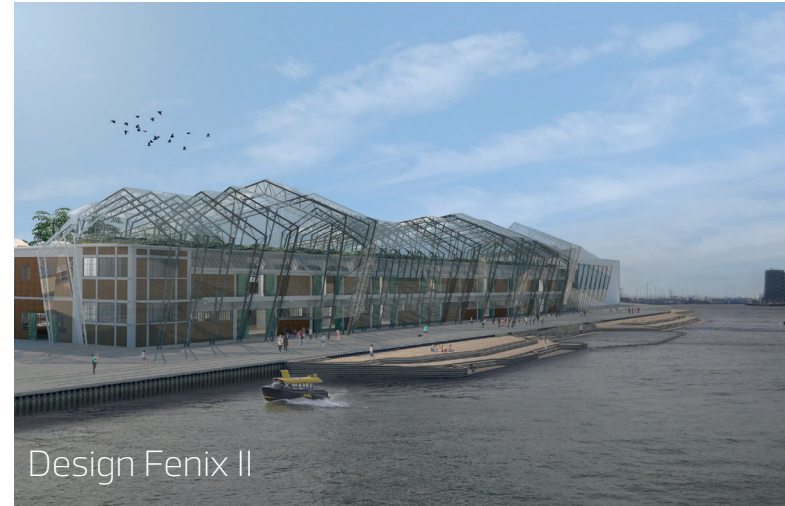
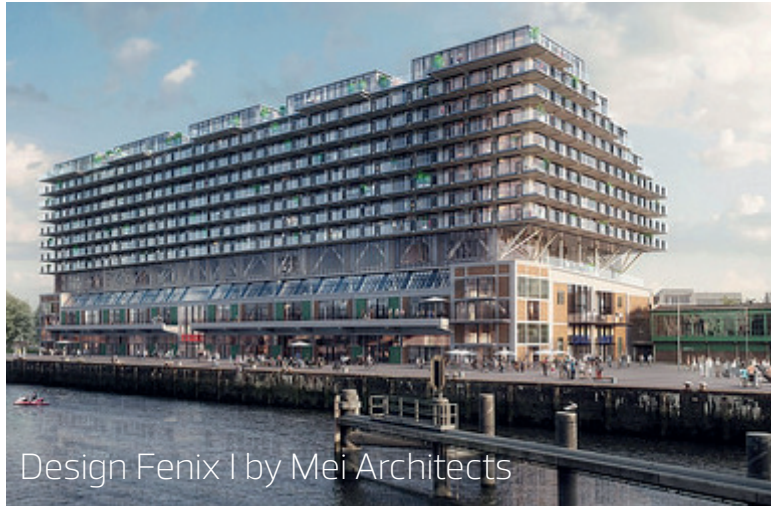
Sport

|

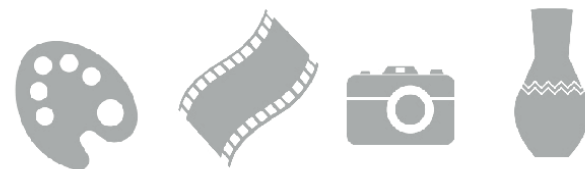
Food



Program



Performing art



Visual art



Art Centre
1a. Circulation
1b. Reception
1c. Exhibition
1d. Back office
1e. Workspace
1f. Lounge

Market
2a. Market square
2b. Fresh Market
2c. Coffee bar
2d. Kitchen
2e. Indoor terrace
2f. Outdoor terrace

Sport facilities
4a. Reception
4b. Sport square
4c. Studio S/M/L
4d. Fitness area
4e. Strength block
4f. Change rooms

5. Offices

6a. Toilets
6b. Technical room
6c. Stairs
6d. Elevators

Ground floor



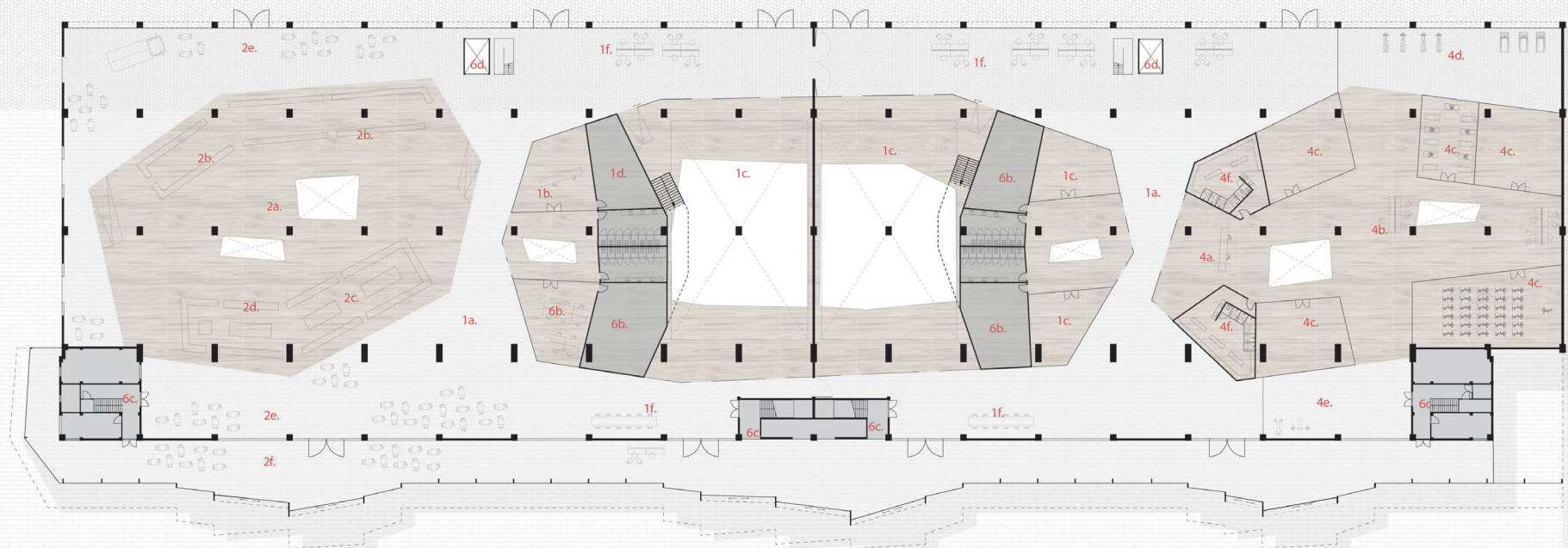
Art Centre
1a. Circulation
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Sport facilities
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4d. Fitness area
4e. Strength block
4f. Change rooms

5. Offices

6a. Toilets
6b. Technical room
6c. Stairs
6d. Elevator



First floor



1a. Hallway
1b. Exposition
1c. Workspace
1d. Balcony
1e. Coffee corner

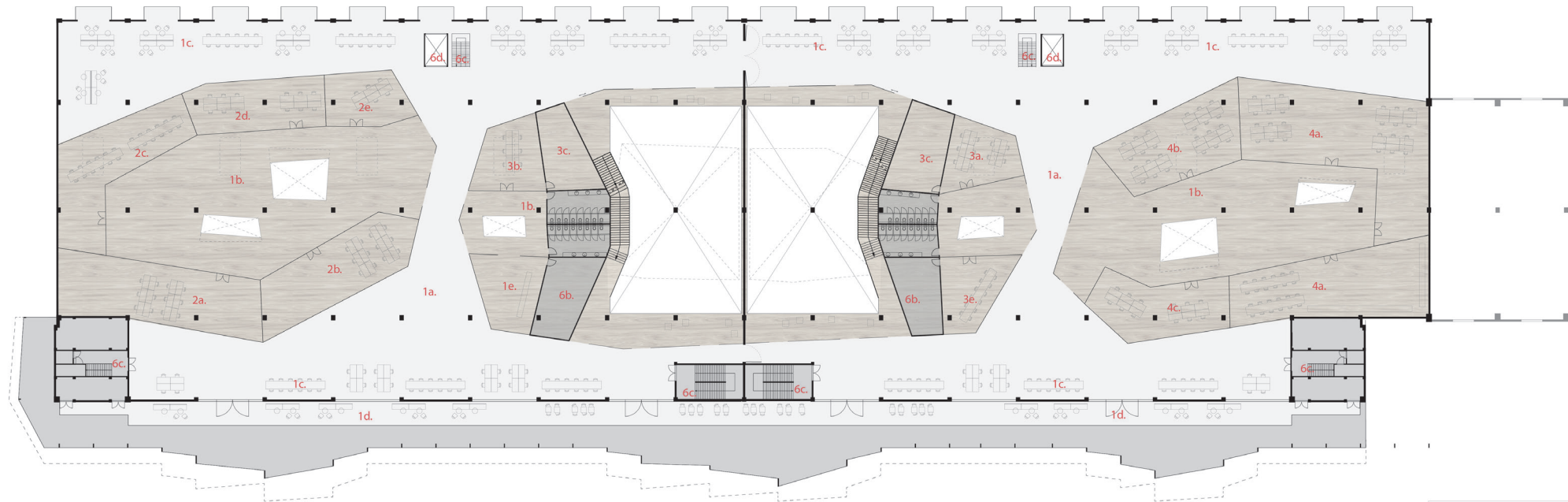
2a. Drawing room
2b. Painting room
2c. Graphic design
2d. Webdesign
2e. Theory room

3a. Screen printing
3b. Photography
3c. Dark room
3d. Theory room

4a. Ceramics / Pottery
4b. Sculpting
4c. Theory

5. Offices

6a. Toilets
6b. Technical room
6c. Stairs





Interior

FENIX II

Interior



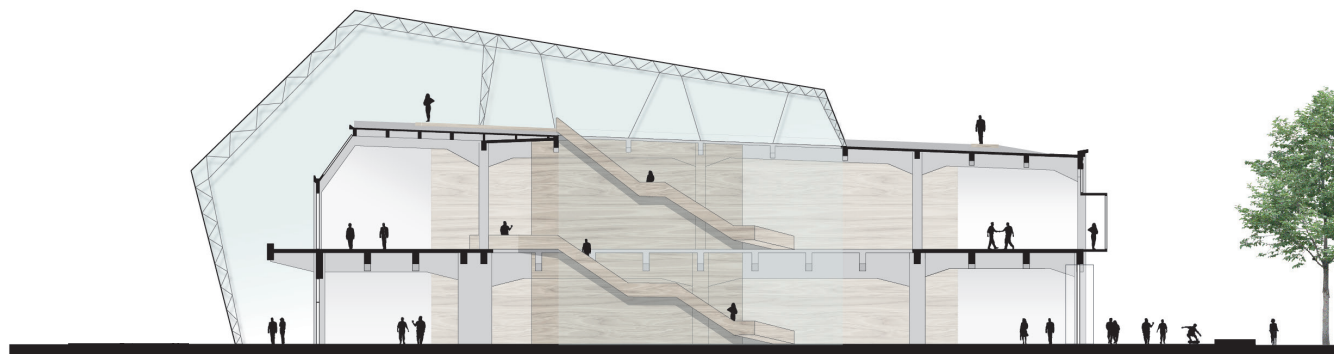
Interior



Vides



Vides



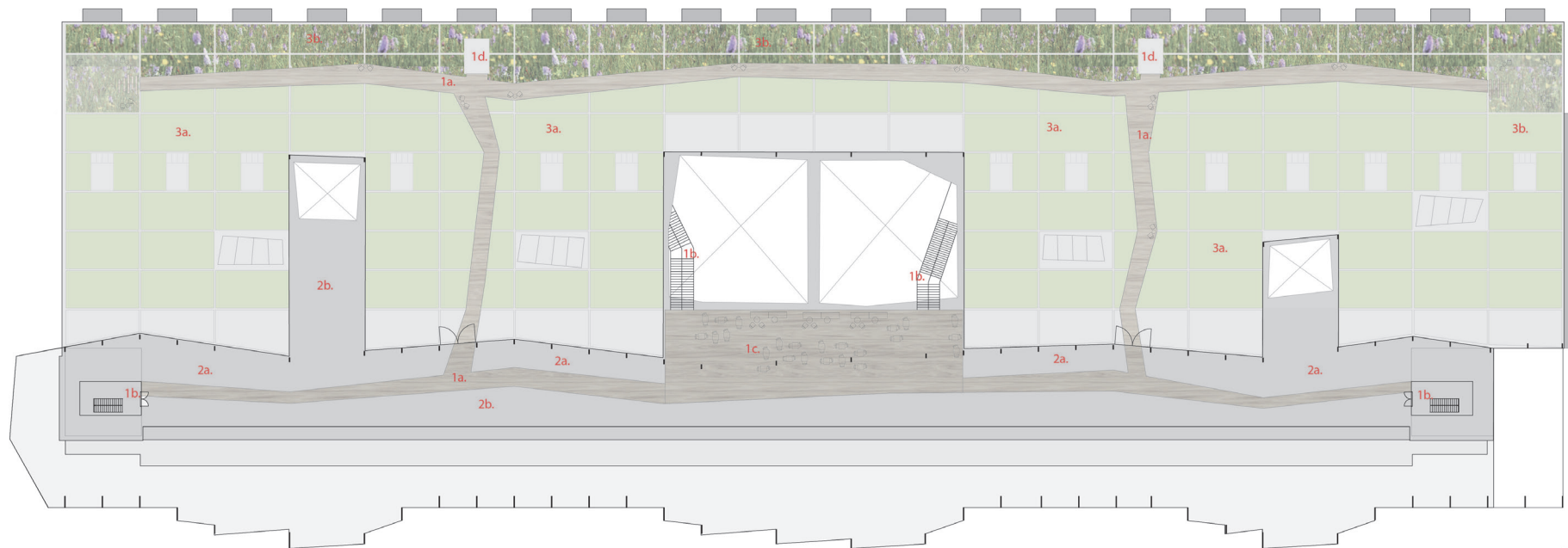
Roof



1a. Circulation
1b. Stairs
1c. Terrace
1d. Elevator

Greenhouse
2a. Hydroculture growth beds
2b. Fish tanks

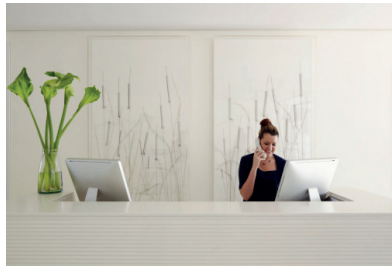
Roof garden
3a. Vegetable garden
3b. Wild garden



Building management



8.00
9.00



Information desk occupied
central point of contact



Entrepreneurs jointly responsible
for building management

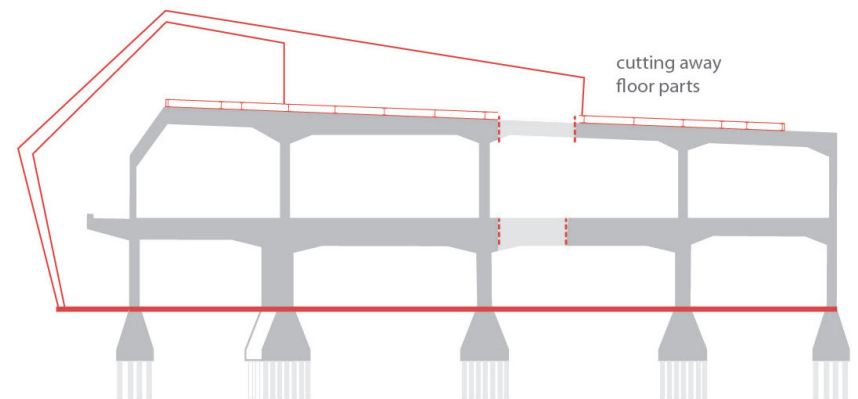
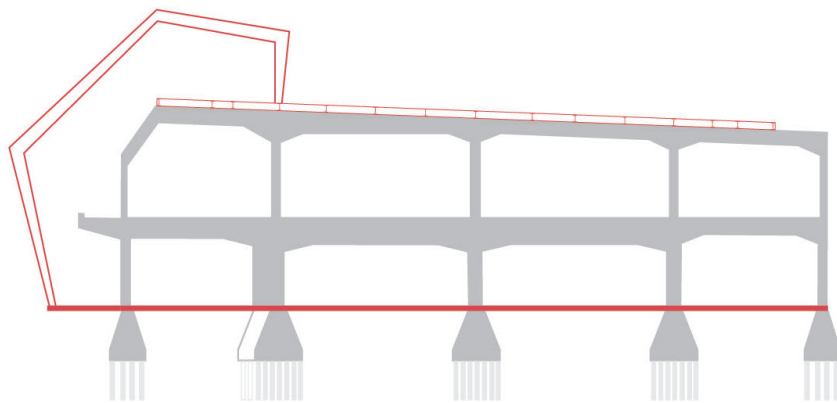
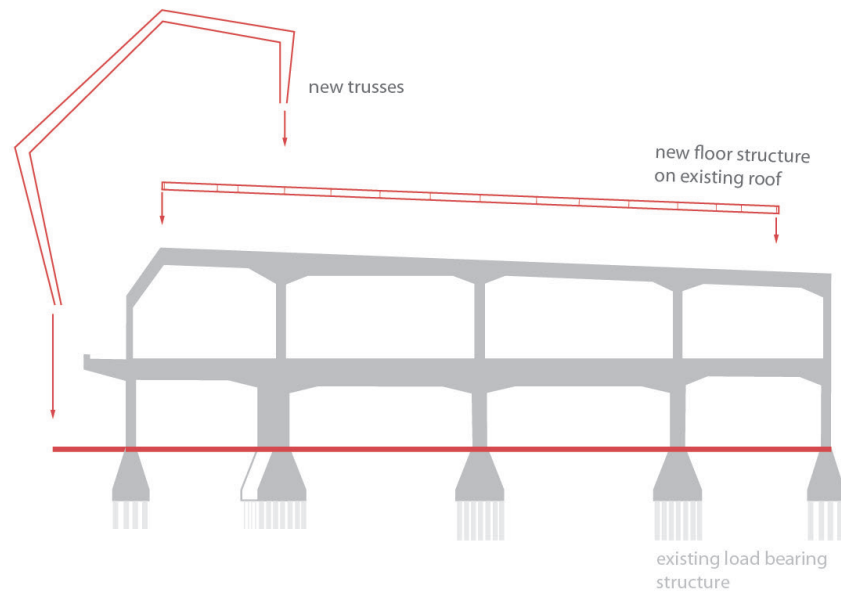


Main part of the building
open for the public

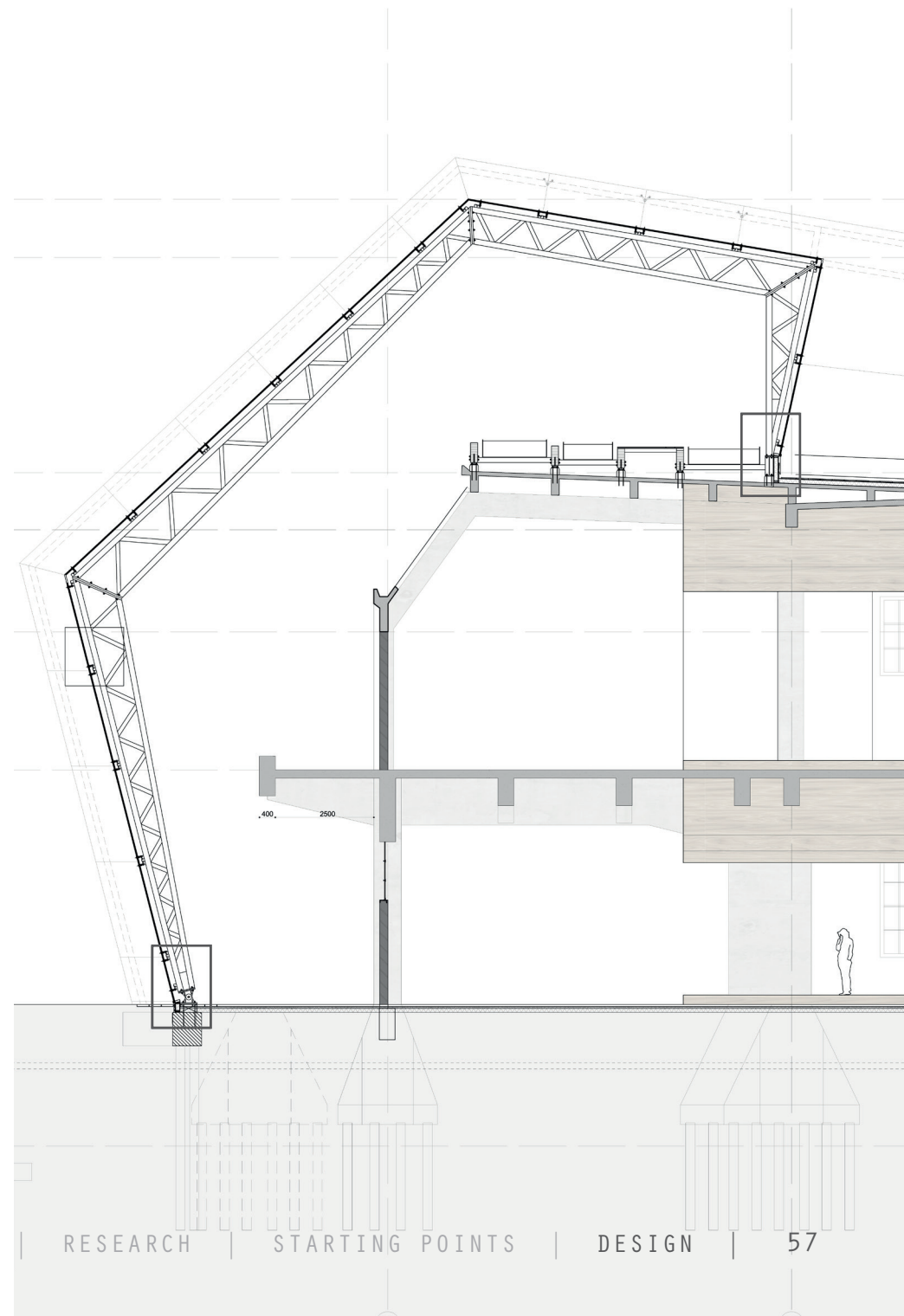
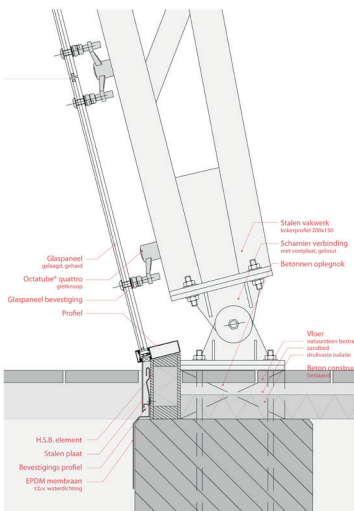
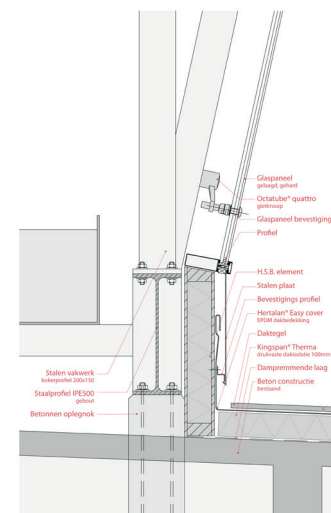
22.00
23.00



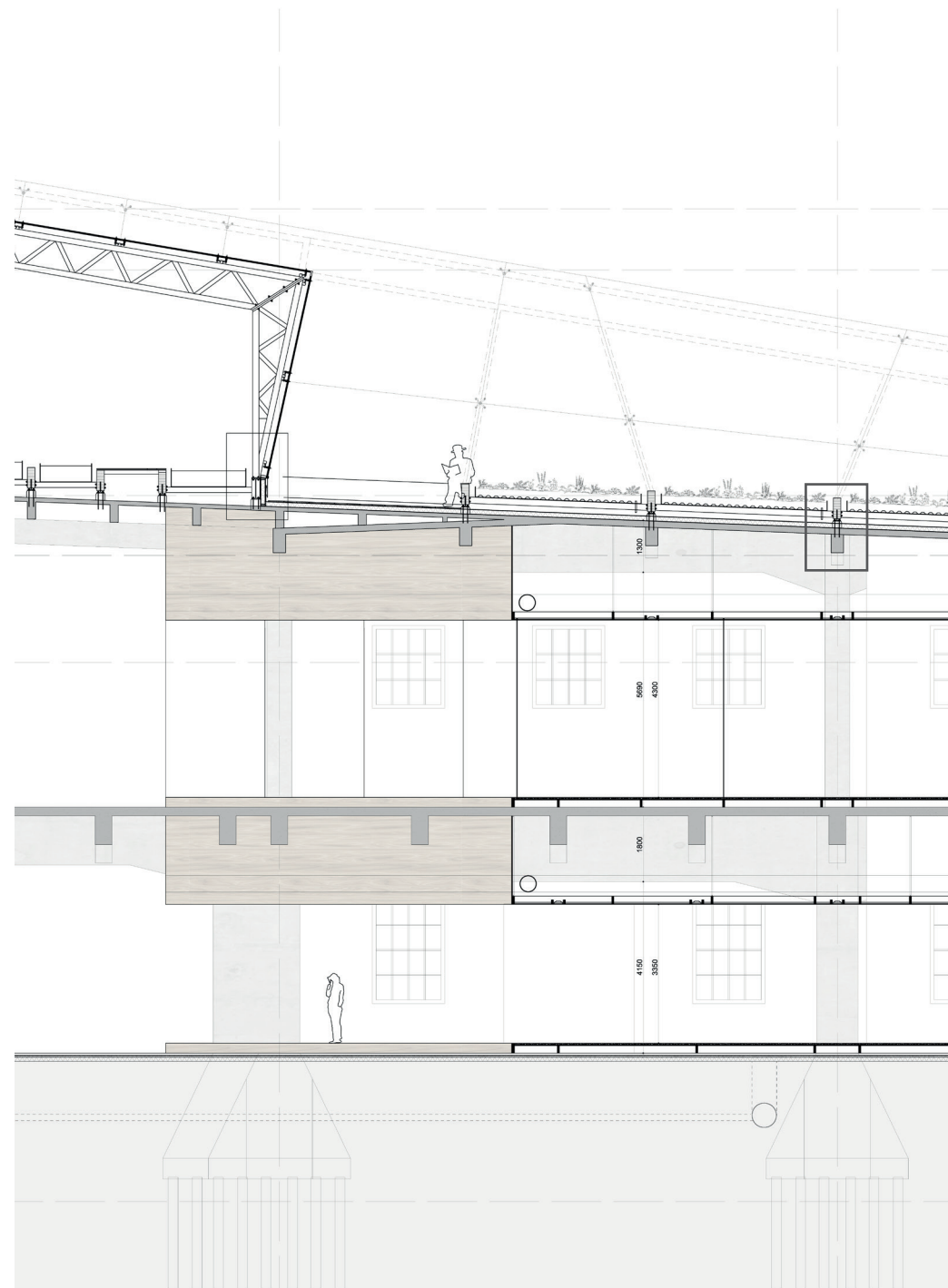
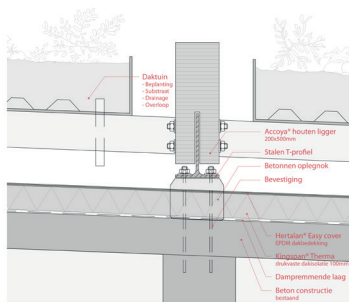
Technology



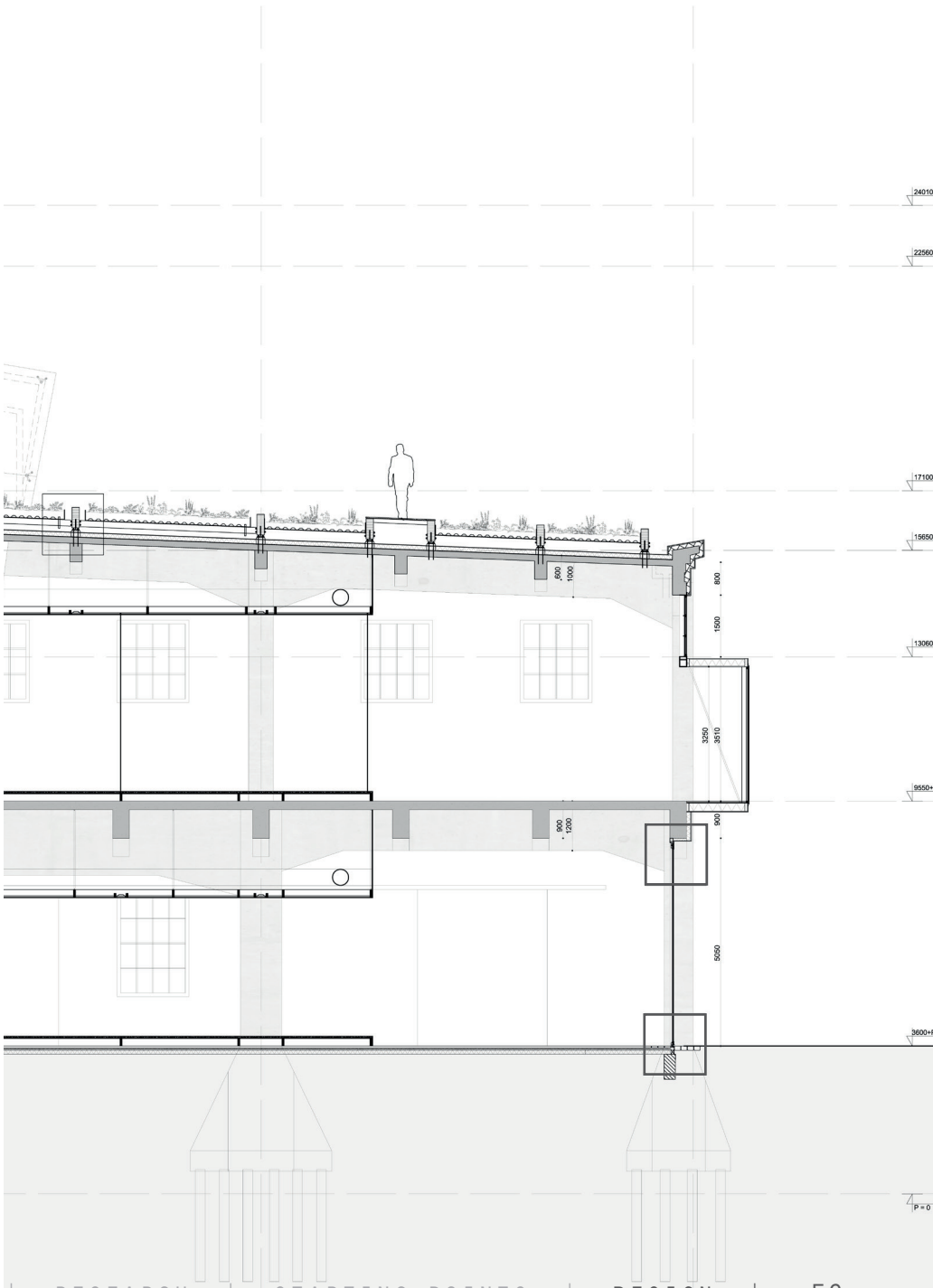
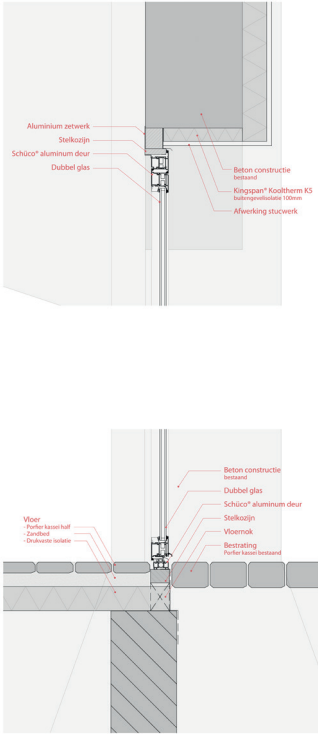
Technology



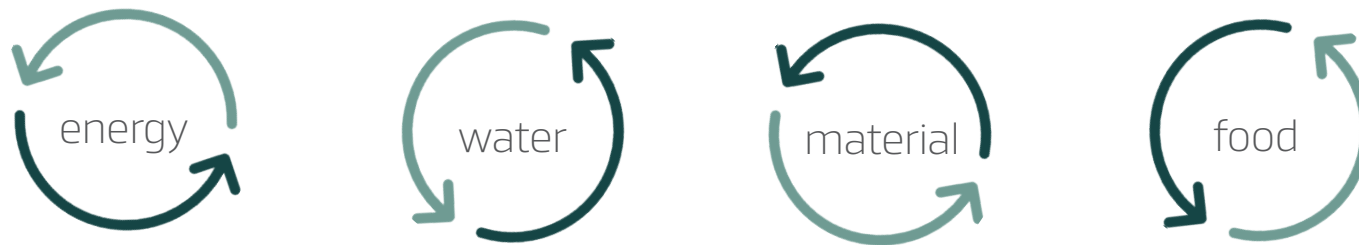
Technology



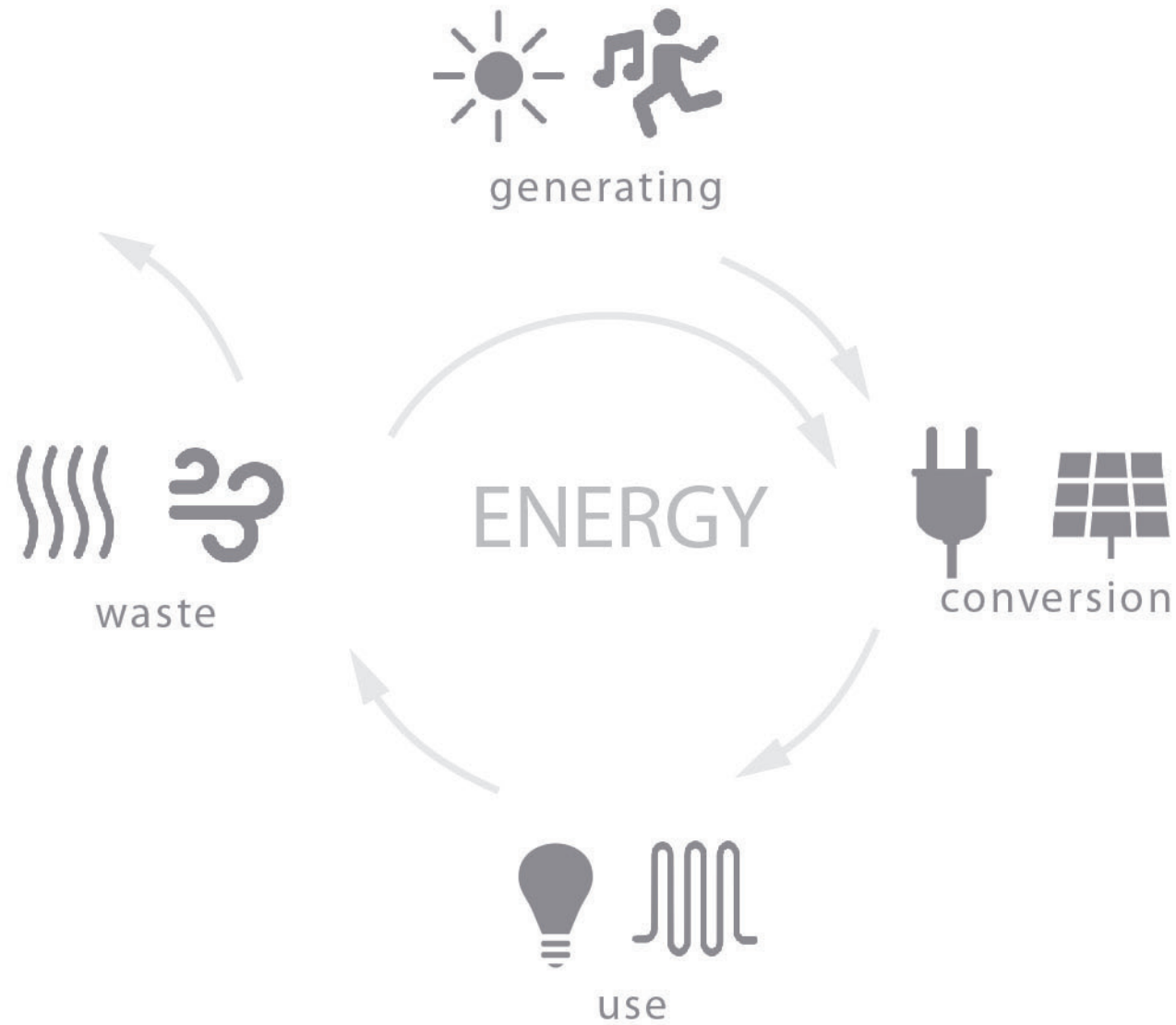
Technology



Sustainability

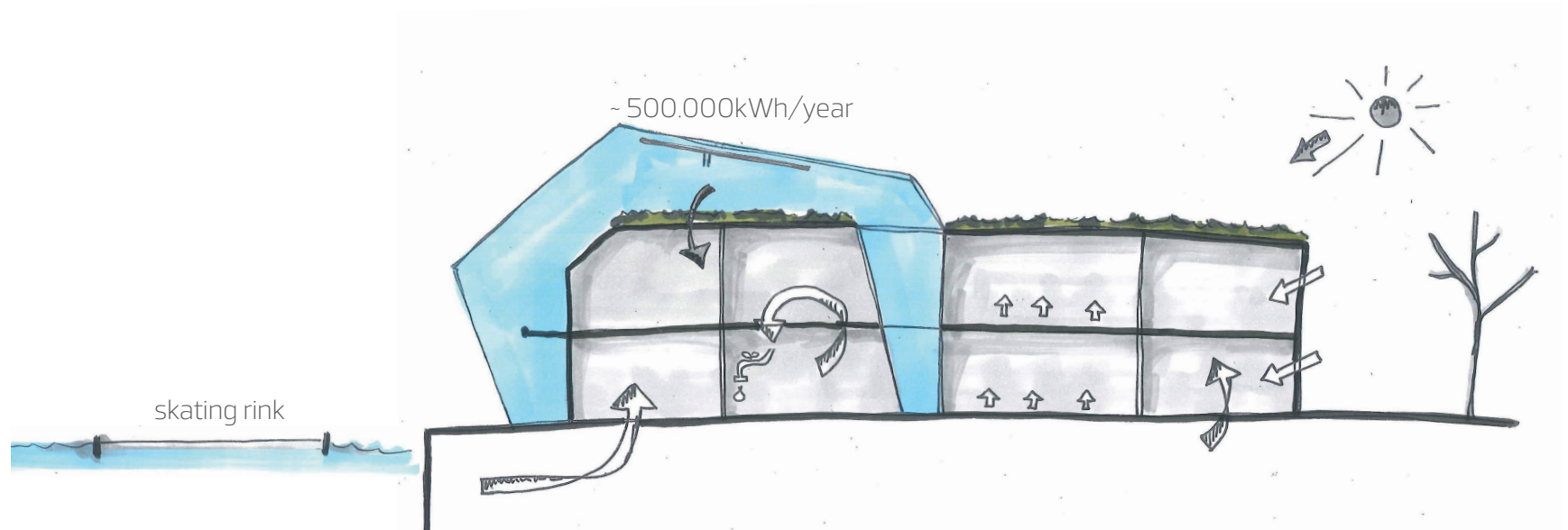


Sustainability

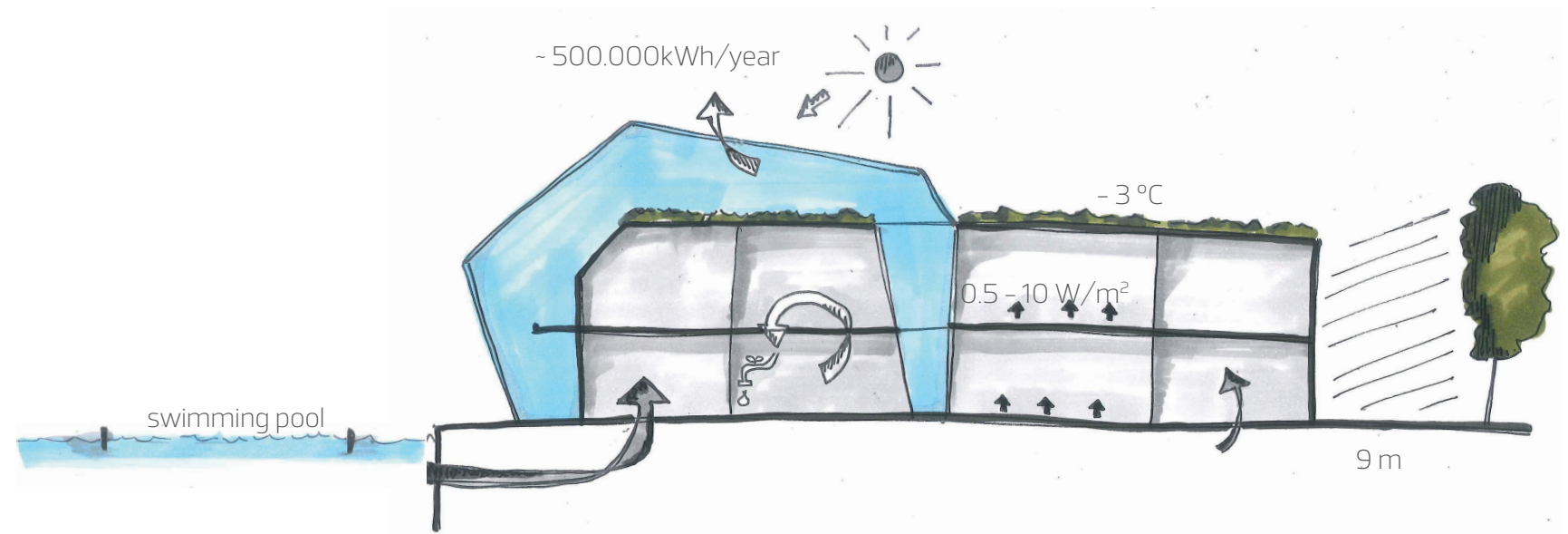


Energy

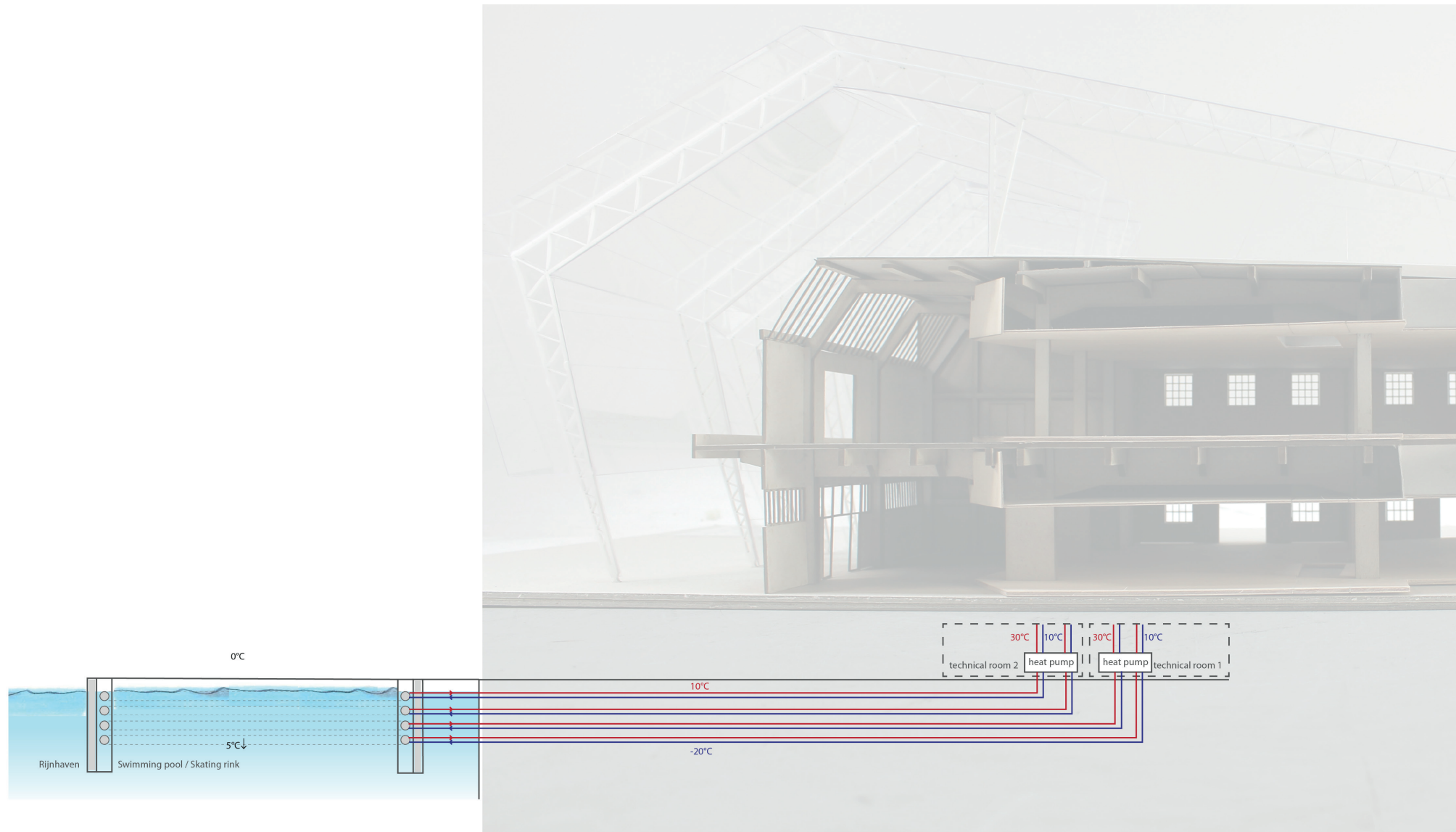
Winter



Summer

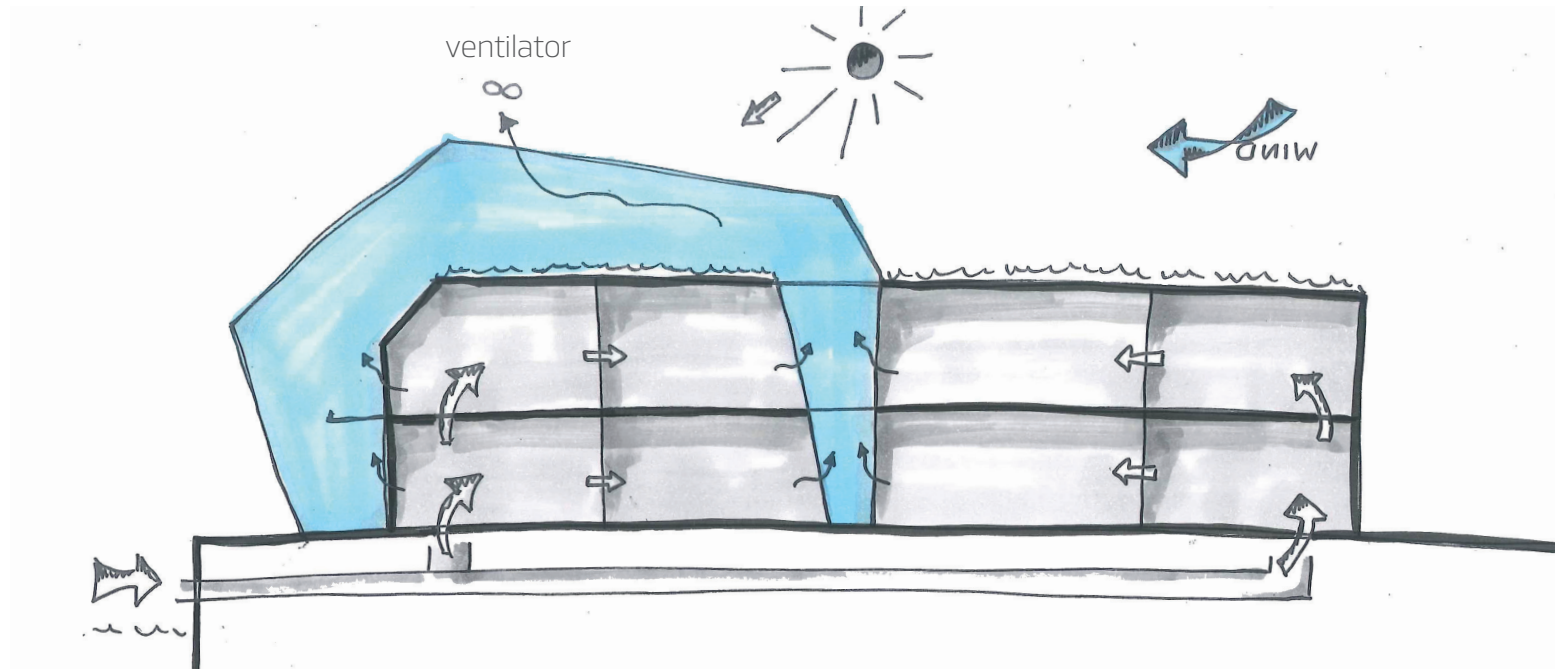


Energy

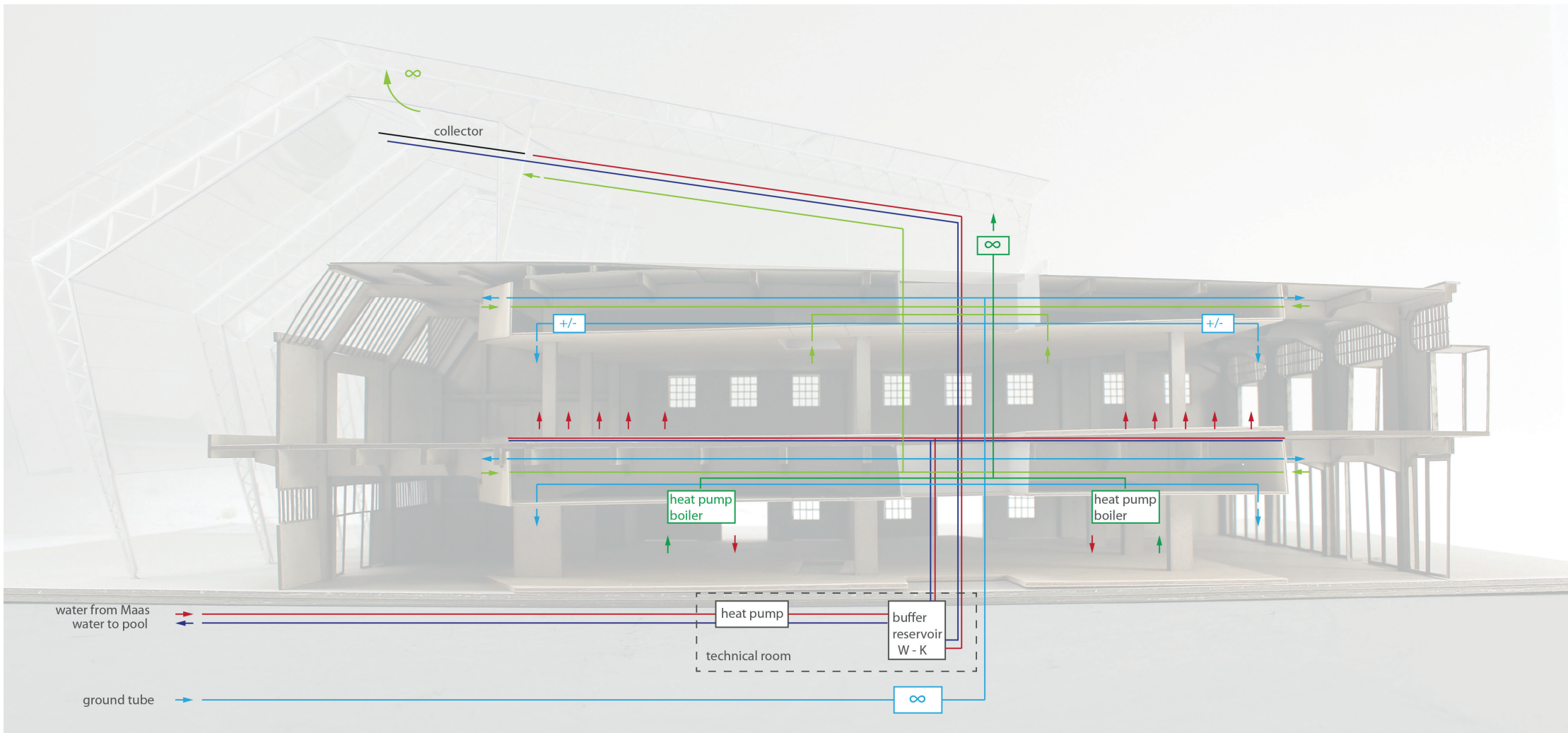


Energy

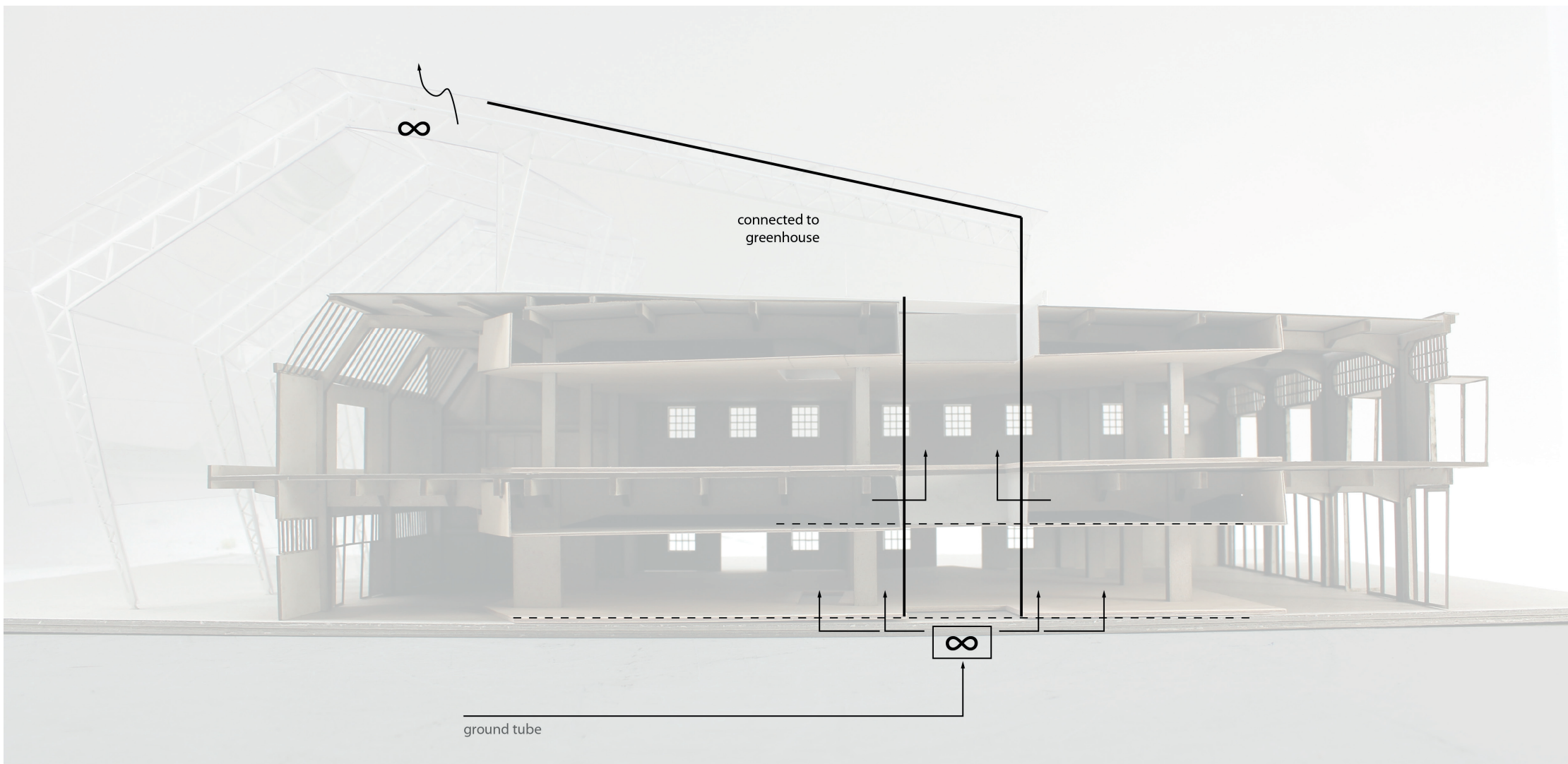
Ventilation



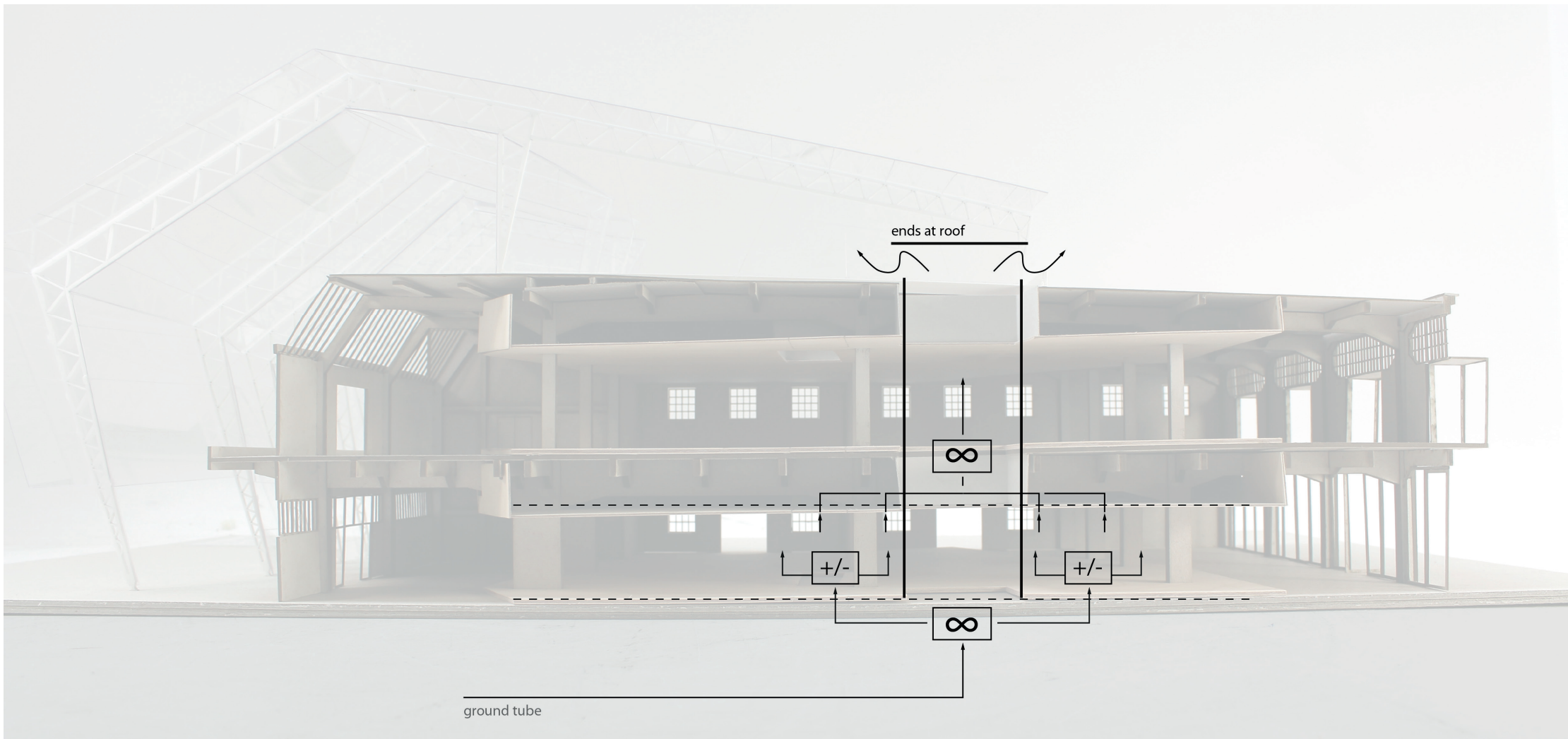
Energy



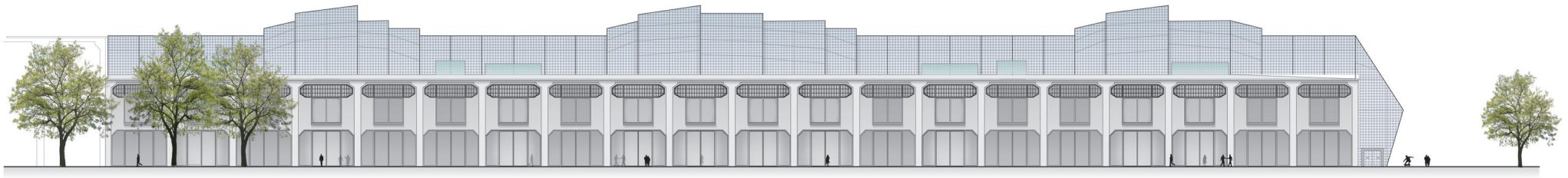
Energy



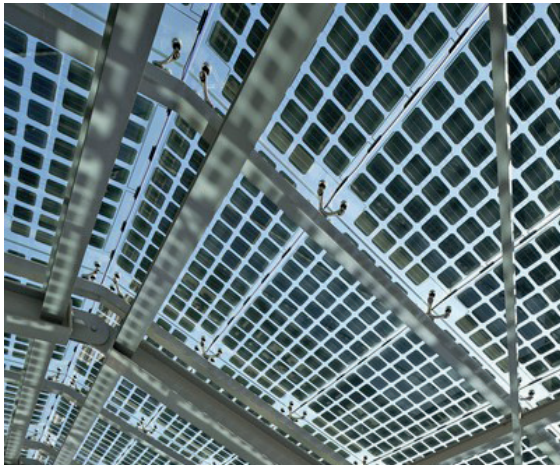
Energy



Energy



Elevation Veerlaan 1:200

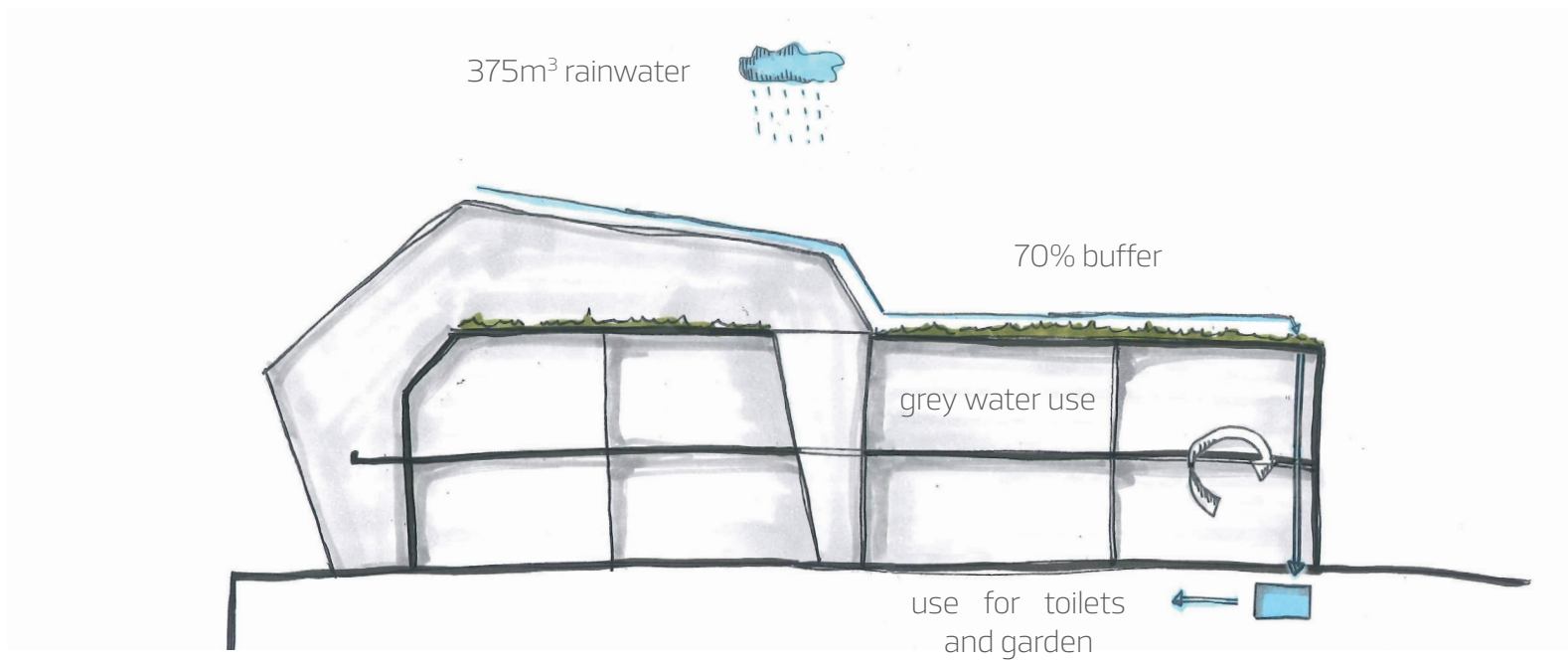


~ 500,000
kWh/year

Sustainability



Water



Sustainability



Material

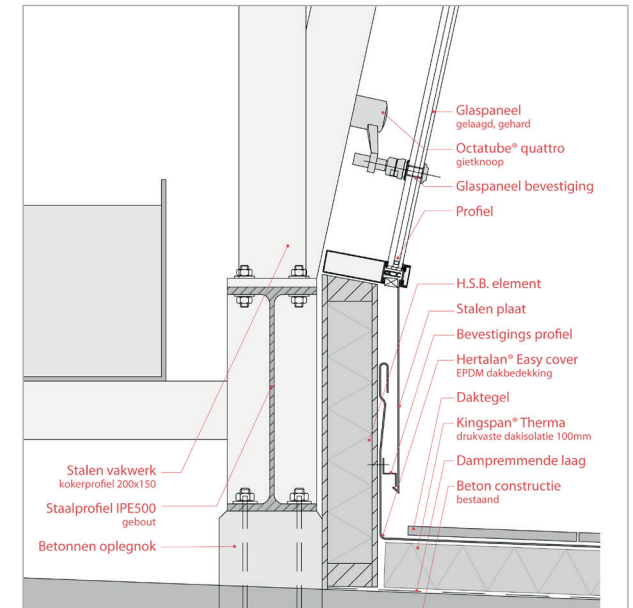
Existing



New



Construction

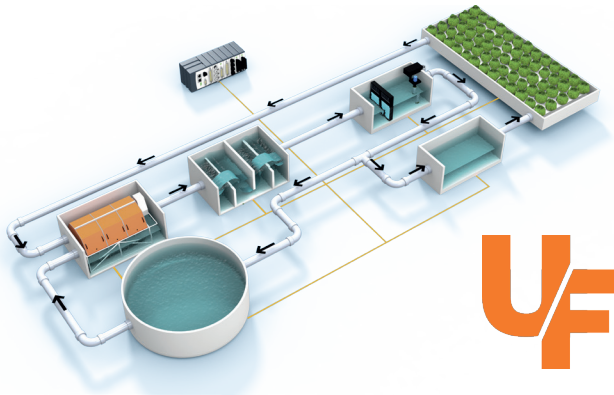


Sustainability

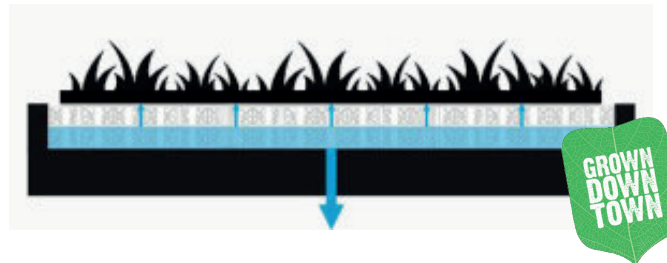


Food

Greenhouse



Roofgarden



Production

60 tons
vegetable

Research question

How to transform the Fenix II into a sustainable building while conserving its characteristics?



An energizing warehouse for the inhabitants of Katendrecht and the city of Rotterdam

Hester Stuivenberg | 4138813

MSc Graduation Studio Heritage & Architecture, Delft University of Technology



?

