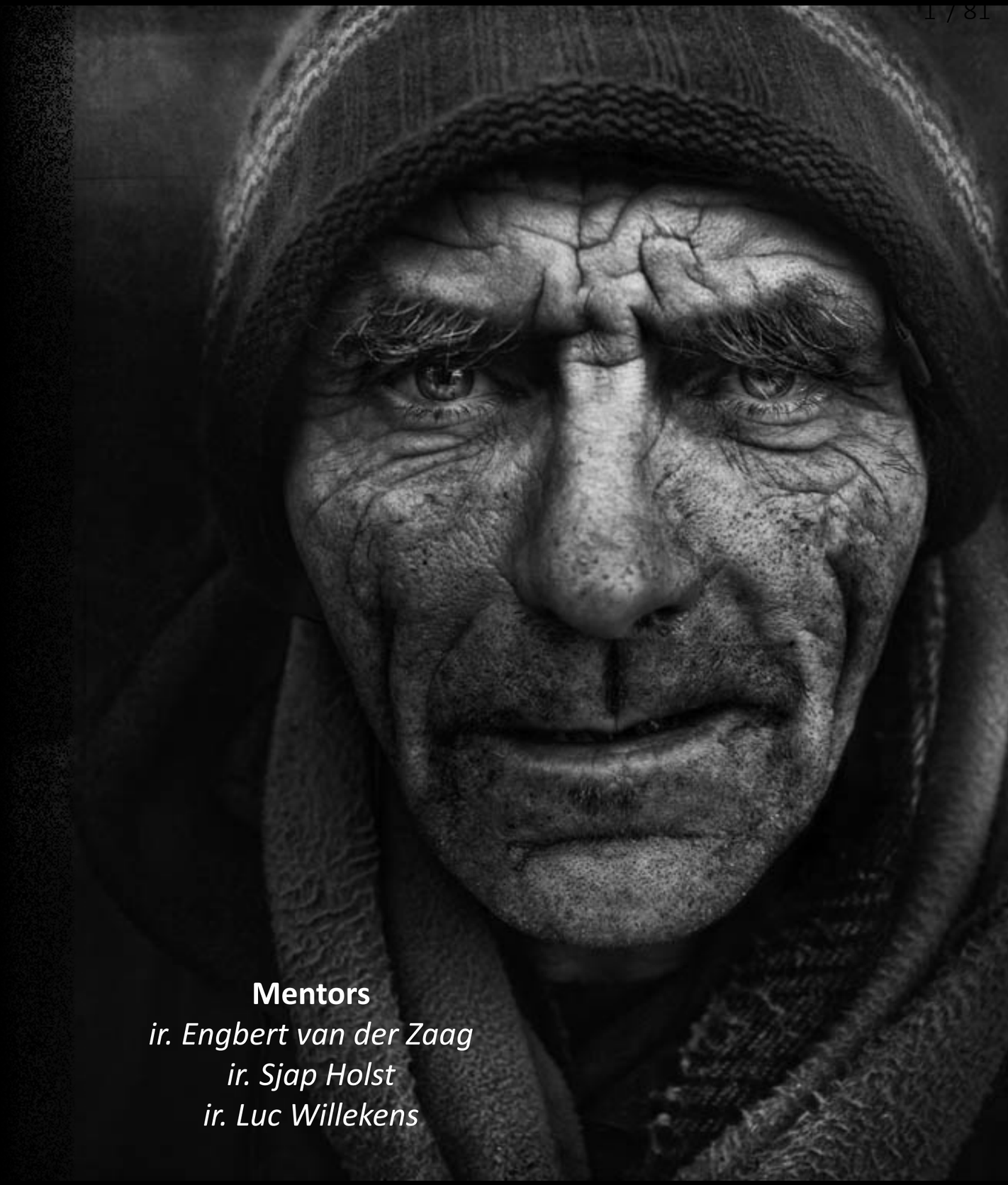
TO BE OR NOT TO BE

Housing for homeless terminal people

addressing Dutch healthcare provision and homelessness by redefining shelter design



Sigwela Augustin
Architecture, Urbanism and Building Sciences
Technical University of Delft
July 6, 2020

Mentors
ir. Engbert van der Zaag
ir. Sjap Holst
ir. Luc Willekens

Index

PART I. INTRODUCTION

PART II. RESEARCH

PART III. DESIGN

Index

PART I. INTRODUCTION

Fascination
Theme
Research question

PART II. RESEARCH

PART III. DESIGN

Index

PART I. INTRODUCTION

Fascination
Theme
Research question

PART II. RESEARCH

Methodology
Results
Design principles

PART III. DESIGN

Index

PART I. INTRODUCTION

Fascination
Theme
Research question

PART II. ANALYSIS

Methodology
Results
Design principles

PART III. DESIGN

Strategy + Location
Masterplan
Building design

Part I.

INTRODUCTION



Loss of my uncle due to an incurable disease

(Istock, 2019)

I wondered. . .

I wondered. . .

> How is palliative care arranged for homeless people?

I wondered. . .

How is palliative care arranged for homeless people?

> How can architecture help in mental pain relieve?

TO BE OR NOT TO BE

Housing for terminal homeless people



Of dying in a familiar home-environment



Shelters do not meet the complex care needs of the homeless



Redefine and transform homeless shelters

(Omroep West, 2018)

“Which elements in the care environment have a positive effect on the (mental) well-being of homeless terminal people?”

Part II.

RESEARCH

Frameworks

Theoretical Framework

Literature review

Theoretical principles

- Security Privacy
- Sensorial stimulation
- Stigma
- Environmental stress

Typological principles

- Urban context
- Spatial environment
- Program
- Tactility

Architectural Framework

Casestudy analysis
Fieldwork

EBD Design Toolkit

EBD Checklist

Spatial flexibility / moveable partitions / semi fixed furniture

Maximize windows for natural light

Access to nature and (indoor) healing planting

Small decentralized workstations

Ensure a domestic scale and ambience

Visual distinction of rooms

Create spatial hierarchy

Residential features in interior design (comforting furniture)

Use soft toned colors / reduce excessive noise and smell levels

Eliminate long corridors or align with building facades

Allow public amenities (shops, retail, arts&crafts) for social interactions

Dynamic routing and landmarks for wayfinding

Kessler stichting

The Hague - Soeters van Eldonk

Paulus kerk

Rotterdam- All design

CVD Havenzicht

Rotterdam- Weeda Architecten

Frameworks

Theoretical Framework

Literature review

Theoretical principles

Security
Privacy

Sensorial
stimulation

Stigma

Environmental
stress

Typological principles

Urban
context

Spatial
environment

Program

Tactility

Architectural Framework

Casestudy analysis
Fieldwork

EBD Design Toolkit

EBD Checklist

Spatial flexibility / moveable partitions / semi fixed furniture

Maximize windows for natural light

Access to nature and (indoor) healing planting

Small decentralized workstations

Ensure a domestic scale and ambience

Visual distinction of rooms

Create spatial hierarchy

Residential features in interior design (comforting furniture)

Use soft toned colors / reduce excessive noise and smell levels

Eliminate long corridors or align with building facades

Allow public amenities (shops, retail, arts&crafts) for social interactions

Dynamic routing and landmarks for wayfinding

Kessler stichting

The Hague - Soeters van Eldonk

Paulus kerk

Rotterdam- All design

CVD Havenzicht

Rotterdam- Weeda Architecten

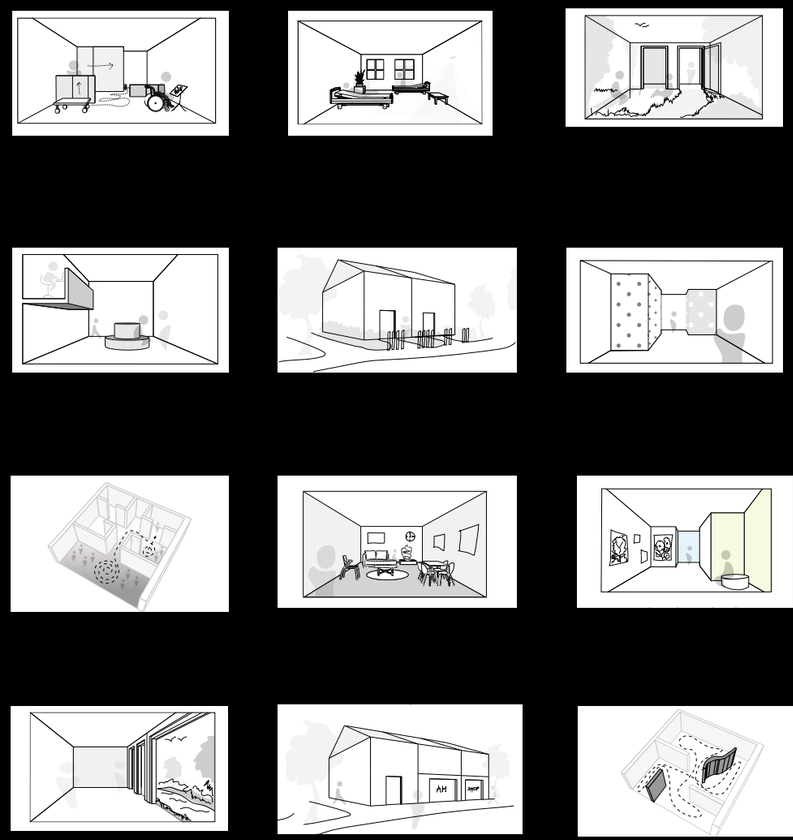
II. Methodology

Frameworks

Theoretical Framework

Literature review

Evidence-Based Design principles



Theoretical principles

Security
Privacy

Sensorial
stimulation

Stigma

Environmental
stress

Typological principles

Urban
context

Spatial
environment

Program

Tactility

Architectural Framework

Casestudy analysis
Fieldwork

EBD Design Toolkit

EBD Checklist

Kessler stichting

The Hague - Soeters van Eldonk

Paulus kerk

Rotterdam- All design

CVD Havenzicht

Rotterdam- Weeda Architecten

Frameworks

Theoretical principles

Typological principles

Theoretical Framework

Literature review

Security Privacy

Sensorial stimulation

Stigma

Environmental stress

Urban context

Spatial environment

Program

Tactility

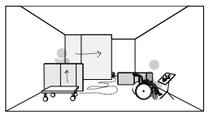
EBD Design Toolkit

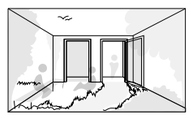
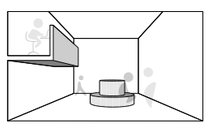
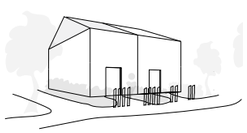
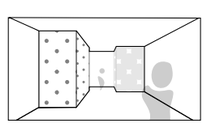
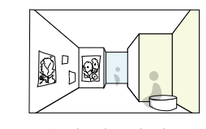
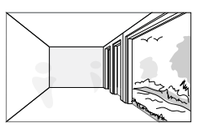
EBD Checklist

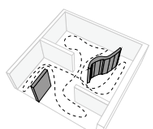
Architectural Framework

Casestudy analysis
Fieldwork

Evidence-Based Design principles





Kessler stichting

The Hague - Soeters van Eldonk



Paulus kerk

Rotterdam - All design



CVD Havenzicht

Rotterdam - Weeda Architecten



Frameworks

Theoretical Framework

Literature review

Theoretical principles

Security
Privacy

Sensorial
stimulation

Stigma

Environmental
stress

Typological principles

Urban
context

Spatial
environment

Program

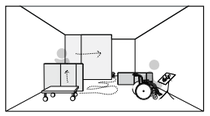
Tactility

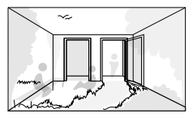
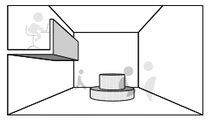
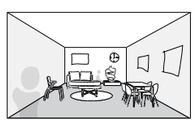
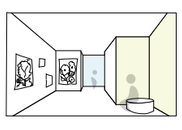
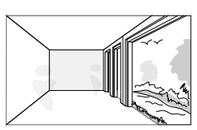
Architectural Framework

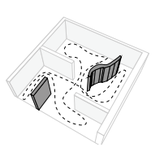
Casestudy analysis
Fieldwork

EBD Design Toolkit

EBD Checklist





Kessler stichting

The Hague - Soeters van Eldonk



Paulus kerk

Rotterdam - All design



CVD Havenzicht

Rotterdam - Weeda Architecten



Frameworks

Theoretical Framework

Literature review

Theoretical principles

Security
Privacy

Sensorial
stimulation

Stigma

Environmental
stress

Typological principles

Urban
context

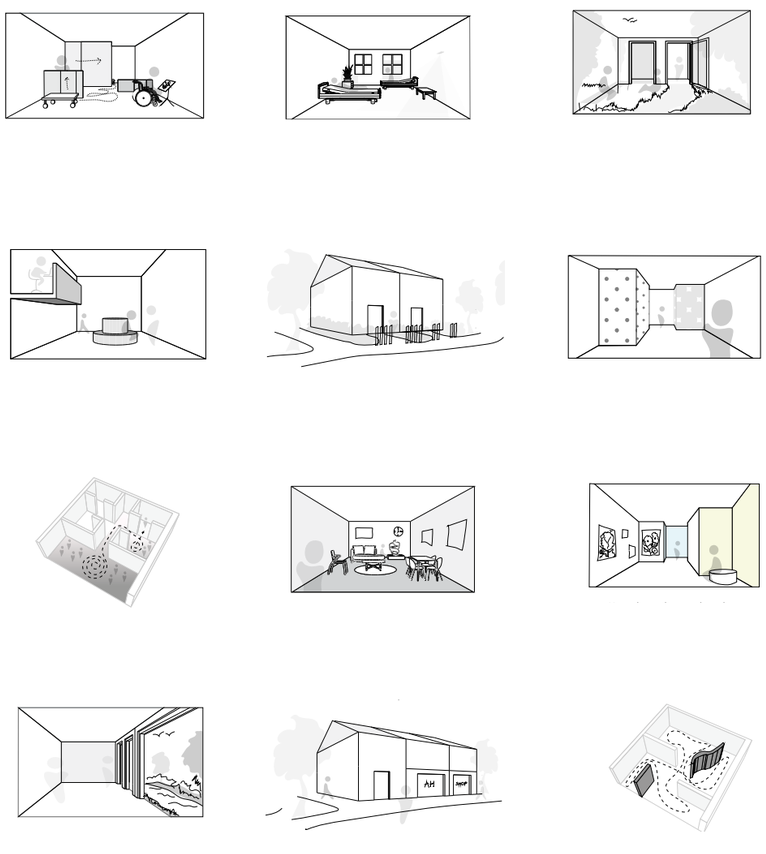
Spatial
environment

Program

Tactility

Architectural Framework

Casestudy analysis
Fieldwork



EBD Design Toolkit

EBD Checklist

Kessler stichting

The Hague - Soeters van Eldonk



7,1

Paulus kerk

Rotterdam- All design



5,8

CVD Havenzicht

Rotterdam - Weeda Architecten



5,2

I. II. III.

Evidence-Based Design Toolkit

Guideline 1

Ensure:
‘Safety, privacy and control’

Spatial flexibility / moveable partitions / semi fixed furniture

Small decentralized workstations

Guideline 2

Balance:
‘visual and acoustic stimulation’

Maximize windows for natural light

Access to nature and (indoor) healing planting

Visual distinction of rooms

Use soft toned colors / reduce excessive noise and smell levels

Residential features in interior design (comforting furniture)

Eliminate long corridors or align with building facades

Guideline 3

Reduce:
‘severe stigmatization and enhance positive social identities’

Dynamic routing and landmarks for wayfinding

Ensure a domestic scale and ambience

Create spatial hierarchy

Guideline 4

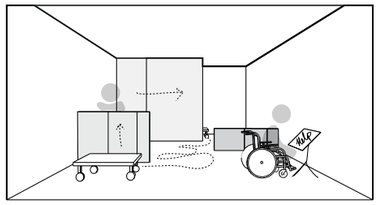
Provide:
‘an environment which help to stabilize mental health’

Allow public amenities (shops, retail, arts&crafts) for social interactions

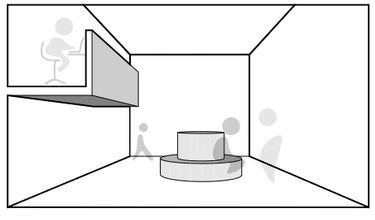
Evidence-Based Design Toolkit

Guideline 1

Ensure:
‘Safety, privacy and control’



Spatial flexibility / moveable partitions / semi fixed furniture



Small decentralized workstations

Guideline 2

Balance:
‘visual and acoustic stimulation’

Maximize windows for natural light

Access to nature and (indoor) healing planting

Guideline 3

Reduce:
‘severe stigmatization and enhance positive social identities’

Visual distinction of rooms

Use soft toned colors / reduce excessive noise and smell levels

Residential features in interior design (comforting furniture)

Eliminate long corridors or align with building facades

Guideline 4

Provide:
‘an environment which help to stabilize mental health’

Dynamic routing and landmarks for wayfinding

Ensure a domestic scale and ambience

Create spatial hierarchy

Allow public amenities (shops, retail, arts&crafts) for social interactions

Evidence-Based Design Toolkit

Guideline 1

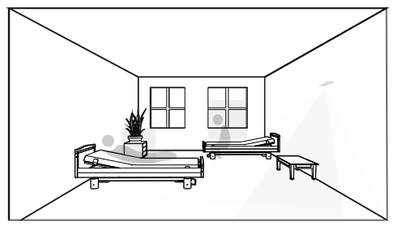
Ensure:
‘Safety, privacy and control’

Spatial flexibility / moveable partitions / semi fixed furniture

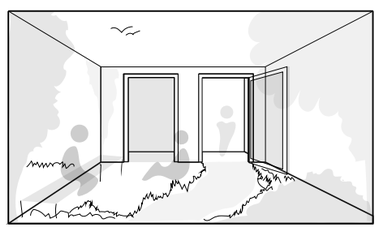
Small decentralized workstations

Guideline 2

Balance:
‘visual and acoustic stimulation’



Maximize windows for natural light



Access to nature and (indoor) healing planting

Guideline 3

Reduce:
‘severe stigmatization and enhance positive social identities’

Visual distinction of rooms

Use soft toned colors / reduce excessive noise and smell levels

Residential features in interior design (comforting furniture)

Eliminate long corridors or align with building facades

Guideline 4

Provide:
‘an environment which help to stabilize mental health’

Dynamic routing and landmarks for wayfinding

Ensure a domestic scale and ambience

Create spatial hierarchy

Allow public amenities (shops, retail, arts&crafts) for social interactions

Evidence-Based Design Toolkit

Guideline 1

Ensure:
‘Safety, privacy and control’

Spatial flexibility / moveable partitions / semi fixed furniture

Small decentralized workstations

Guideline 2

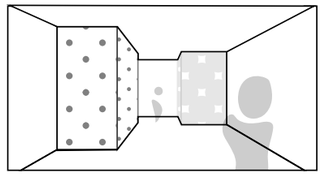
Balance:
‘visual and acoustic stimulation’

Maximize windows for natural light

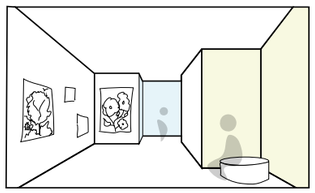
Access to nature and (indoor) healing planting

Guideline 3

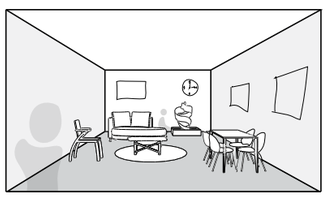
Reduce:
‘severe stigmatization and enhance positive social identities’



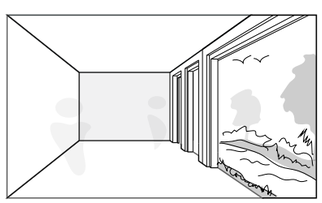
Visual distinction of rooms



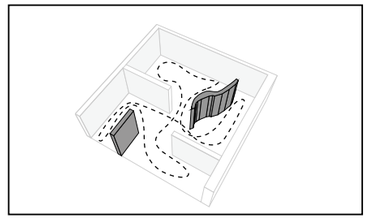
Use soft toned colors / reduce excessive noise and smell levels



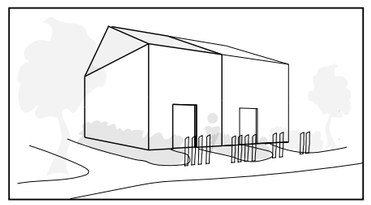
Residential features in interior design (comforting furniture)



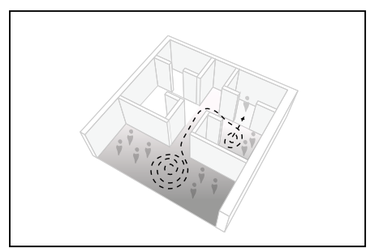
Eliminate long corridors or align with building facades



Dynamic routing and landmarks for wayfinding



Ensure a domestic scale and ambience



Create spatial hierarchy

Guideline 4

Provide:
‘an environment which help to stabilize mental health’

Allow public amenities (shops, retail, arts&crafts) for social interactions

I. II. III.

Evidence-Based Design Toolkit

Guideline 1

Ensure:
‘Safety, privacy and control’

Spatial flexibility / moveable partitions / semi fixed furniture

Small decentralized workstations

Guideline 2

Balance:
‘visual and acoustic stimulation’

Maximize windows for natural light

Access to nature and (indoor) healing planting

Visual distinction of rooms

Use soft toned colors / reduce excessive noise and smell levels

Residential features in interior design (comforting furniture)

Eliminate long corridors or align with building facades

Guideline 3

Reduce:
‘severe stigmatization and enhance positive social identities’

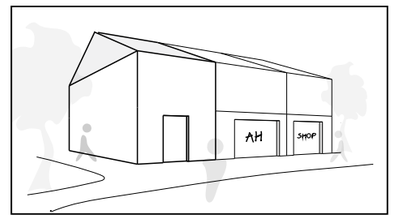
Dynamic routing and landmarks for wayfinding

Ensure a domestic scale and ambience

Create spatial hierarchy

Guideline 4

Provide:
‘an environment which help to stabilize mental health’



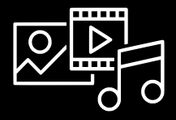
Allow public amenities (shops, retail, arts&crafts) for social interactions

RESEARCH

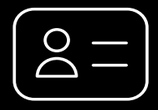
GUIDELINES



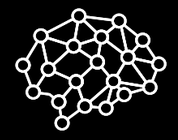
Ensure:
'Safety, privacy and control'



Balance:
'visual and acoustic stimulation'



Reduce:
'severe stigmatization and enhance positive social identities'



Provide:
'an environment which help to stabilize mental health'

DESIGN

FACTORS



Ensure:
Privacy



Maximize:
Daylight entrance and access to greenery



Provide:
Variety of spatial environments



Stimulate:
Social interaction

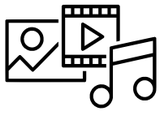
SCALES CONTEXT BUILDING INTERIOR

RESEARCH

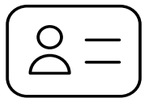
GUIDELINES



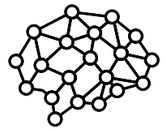
Ensure:
'Safety, privacy and control'



Balance:
'visual and acoustic stimulation'



Reduce:
'severe stigmatization and enhance positive social identities'



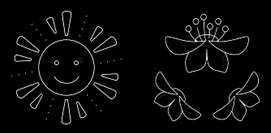
Provide:
'an environment which help to stabilize mental health'

DESIGN

FACTORS



Ensure:
Privacy



Maximize:
Daylight entrance and access to greenery



Provide:
Variety of spatial environments



Stimulate:
Social interaction

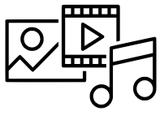
SCALES CONTEXT BUILDING INTERIOR

RESEARCH

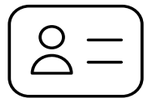
GUIDELINES



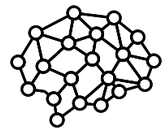
Ensure:
'Safety, privacy and control'



Balance:
'visual and acoustic stimulation'



Reduce:
'severe stigmatization and enhance positive social identities'



Provide:
'an environment which help to stabilize mental health'

DESIGN



FACTORS



Ensure:
Privacy



Maximize:
Daylight entrance and access to greenery



Provide:
Variety of spatial environments

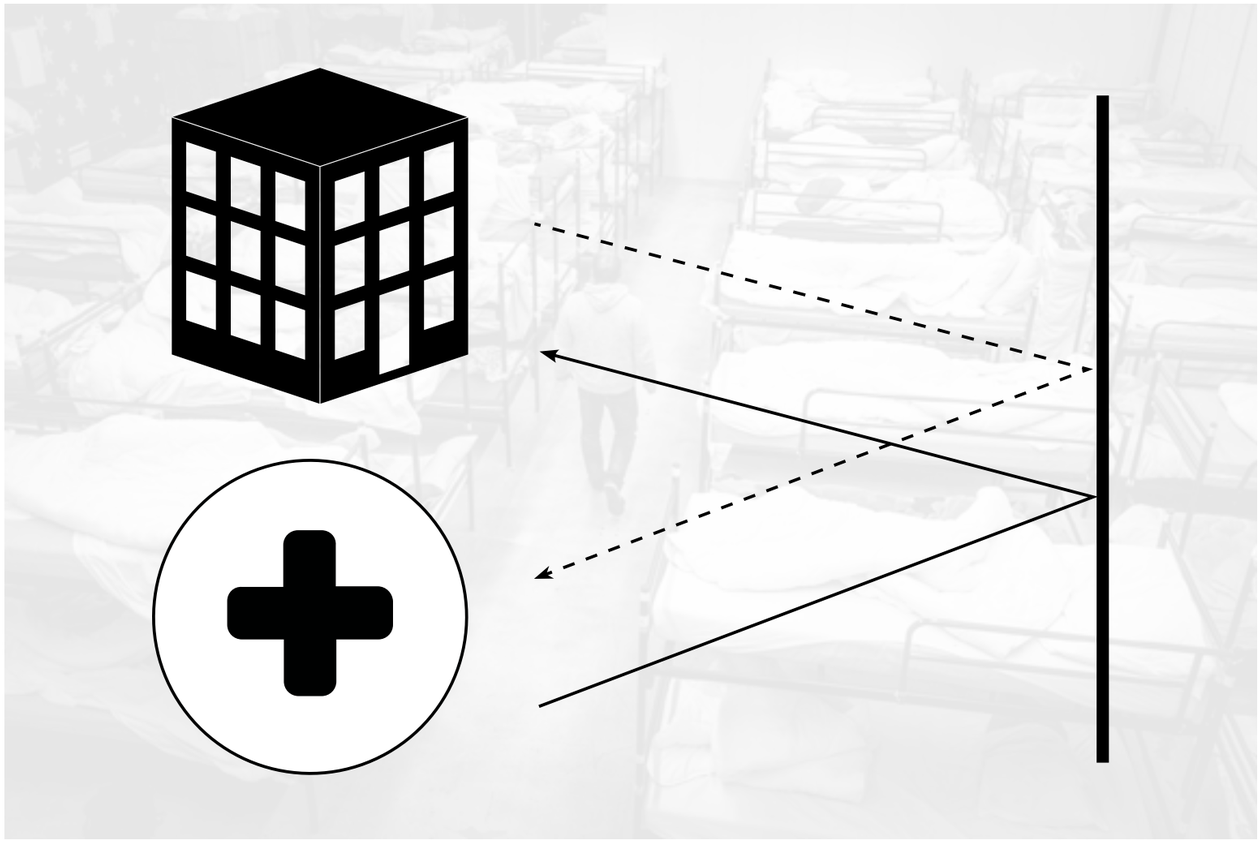


Stimulate:
Social interaction

SCALES CONTEXT BUILDING INTERIOR

Part III.

DESIGN



Architectural expression reflects the healthcare system





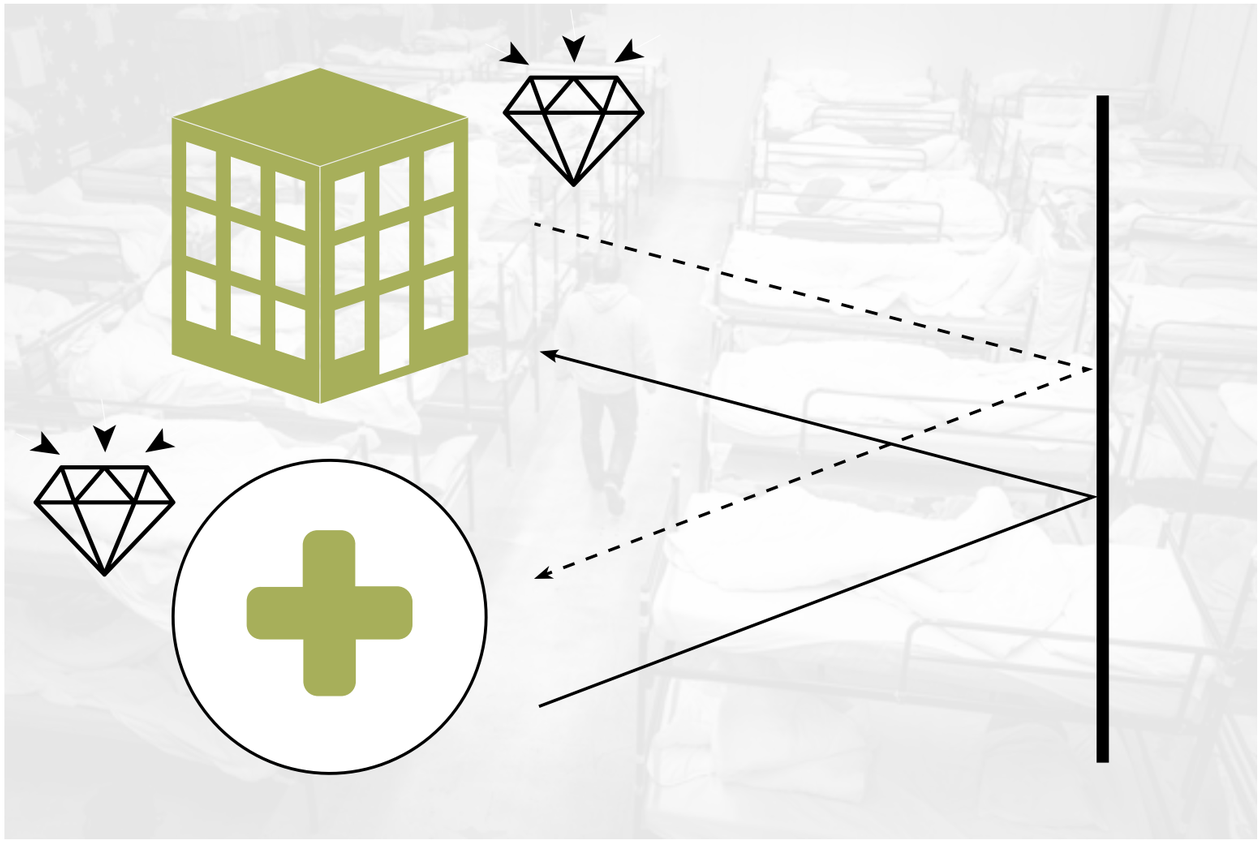
Iconic architecture reflects good healthcare for the general population

(Hedy d'Ancona, 2016 - Excellent healthcare architecture, Hospice Xenia, Leiden)



Institutional architecture reflects poor healthcare for marginalized sections of the population

(RTV Maastricht, 2020 - Leger des Heils, De Witte Flat, Maastricht)



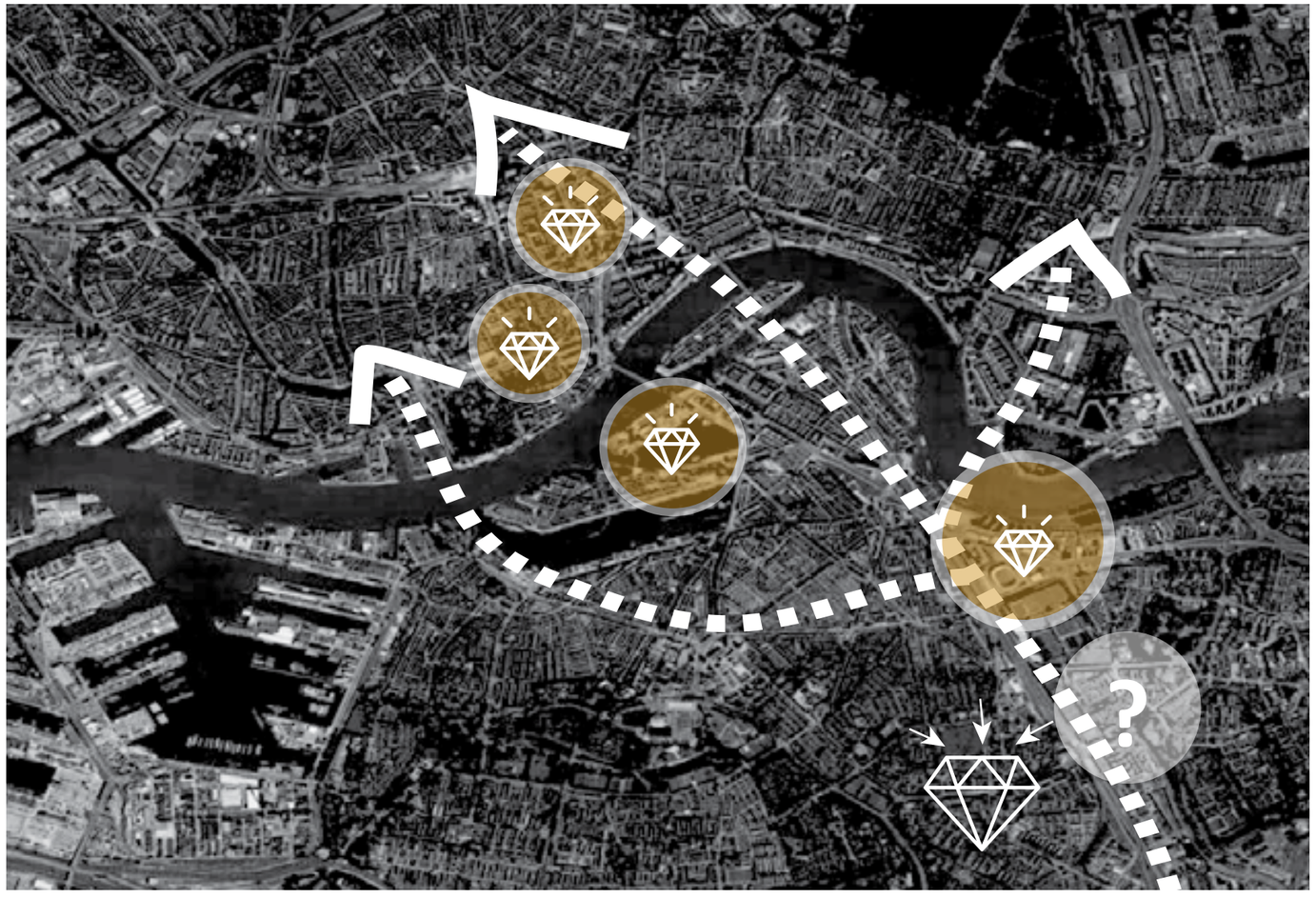
Intimate icon in the city



Depot Boijmans van Beuningen



Erasmus bridge / The Rotterdam



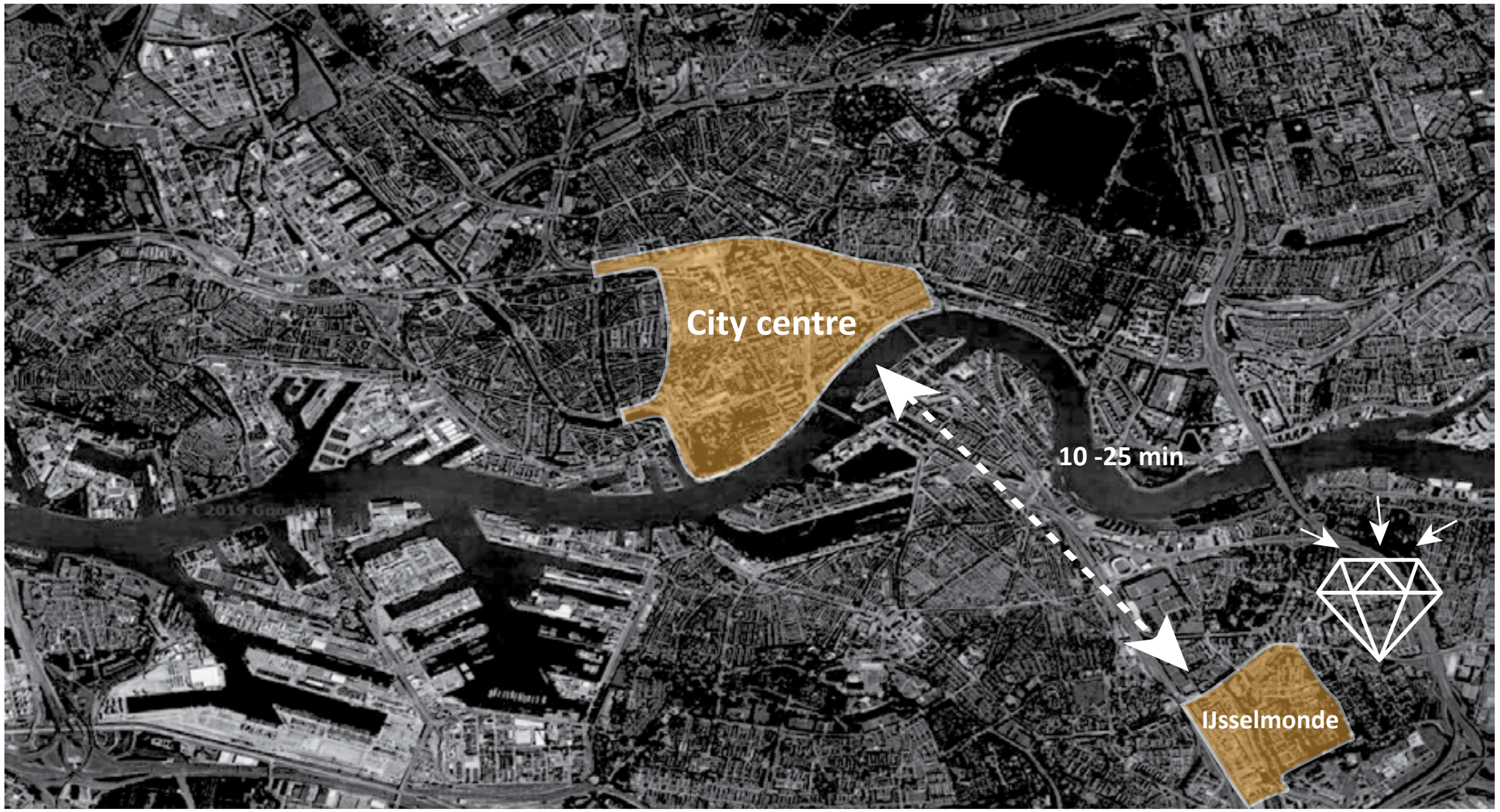
Opportunities for plan development along important inner city (train) connection



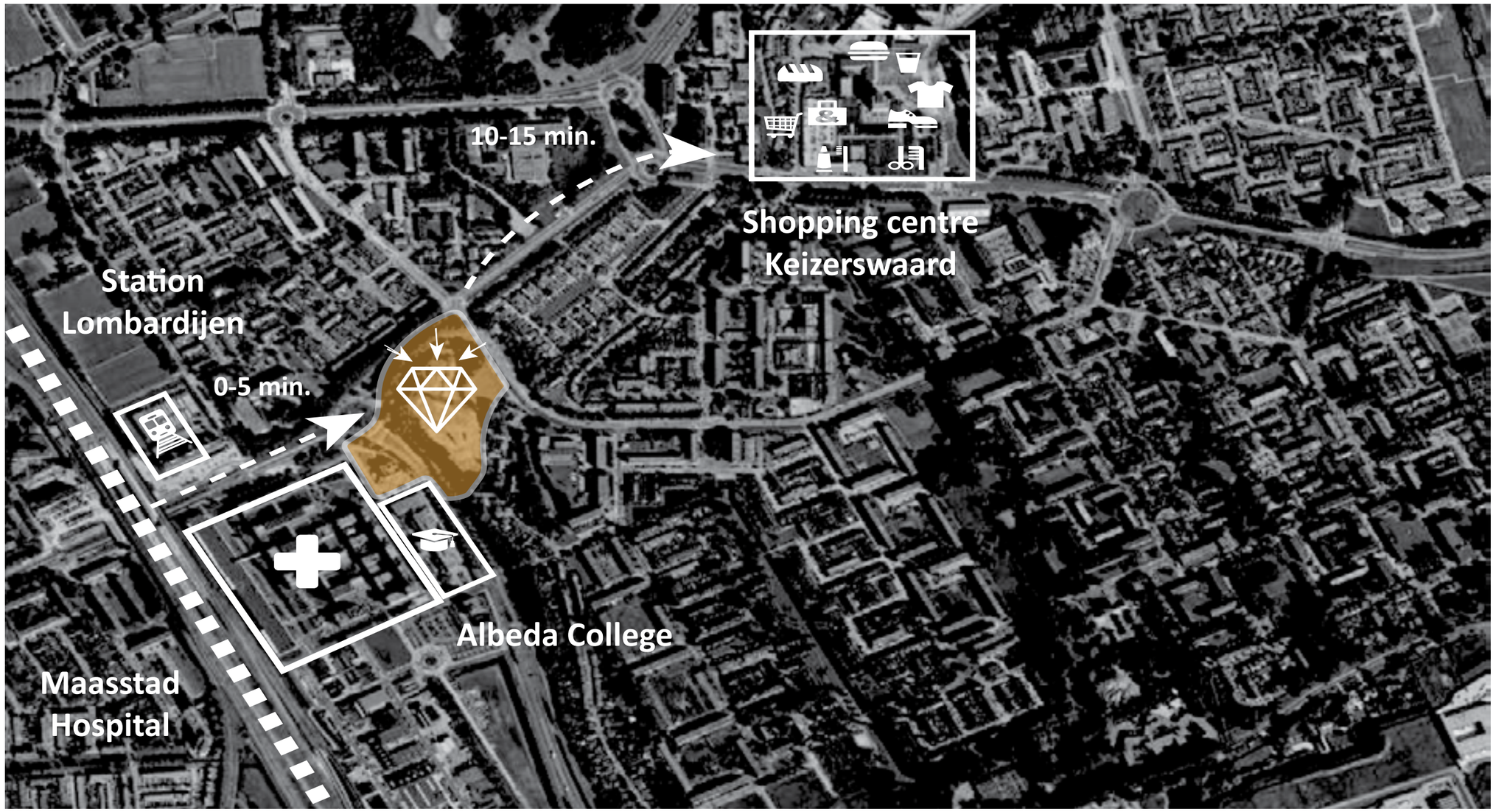
Markthal



Feyenoord City district



Temporal ‘get-away’ environment for rehabilitation and life completion



Closely located to important amenities



Testing ground for a new inclusive neighbourhood

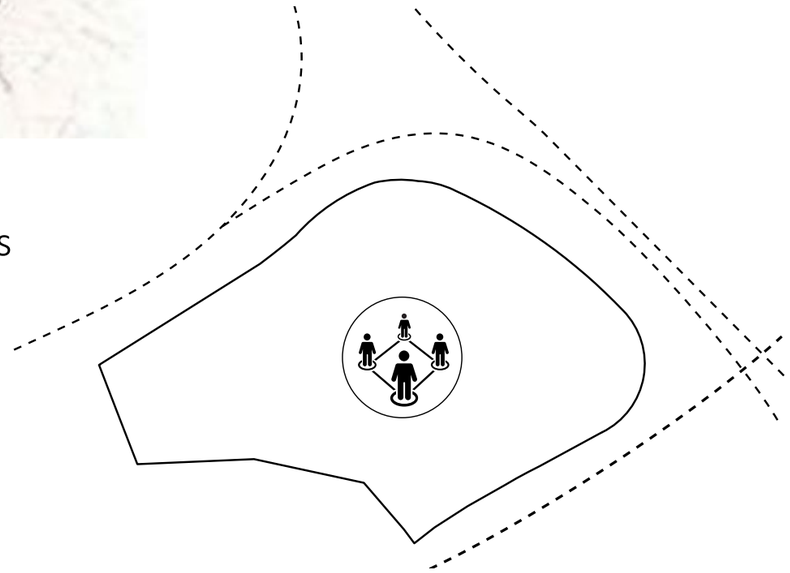
‘Towards inclusive neighbourhoods’ - IJSSELKWARTIER

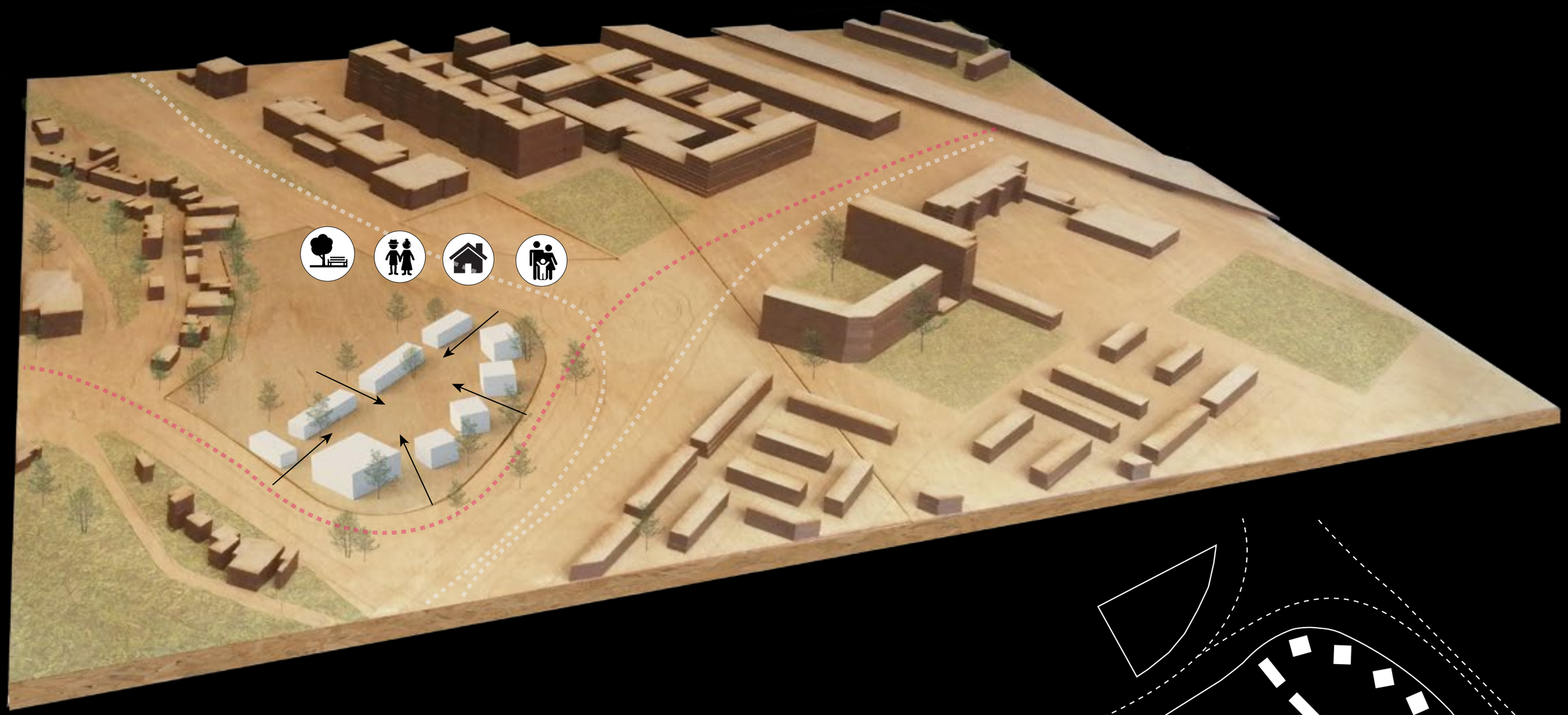
I. II. III.



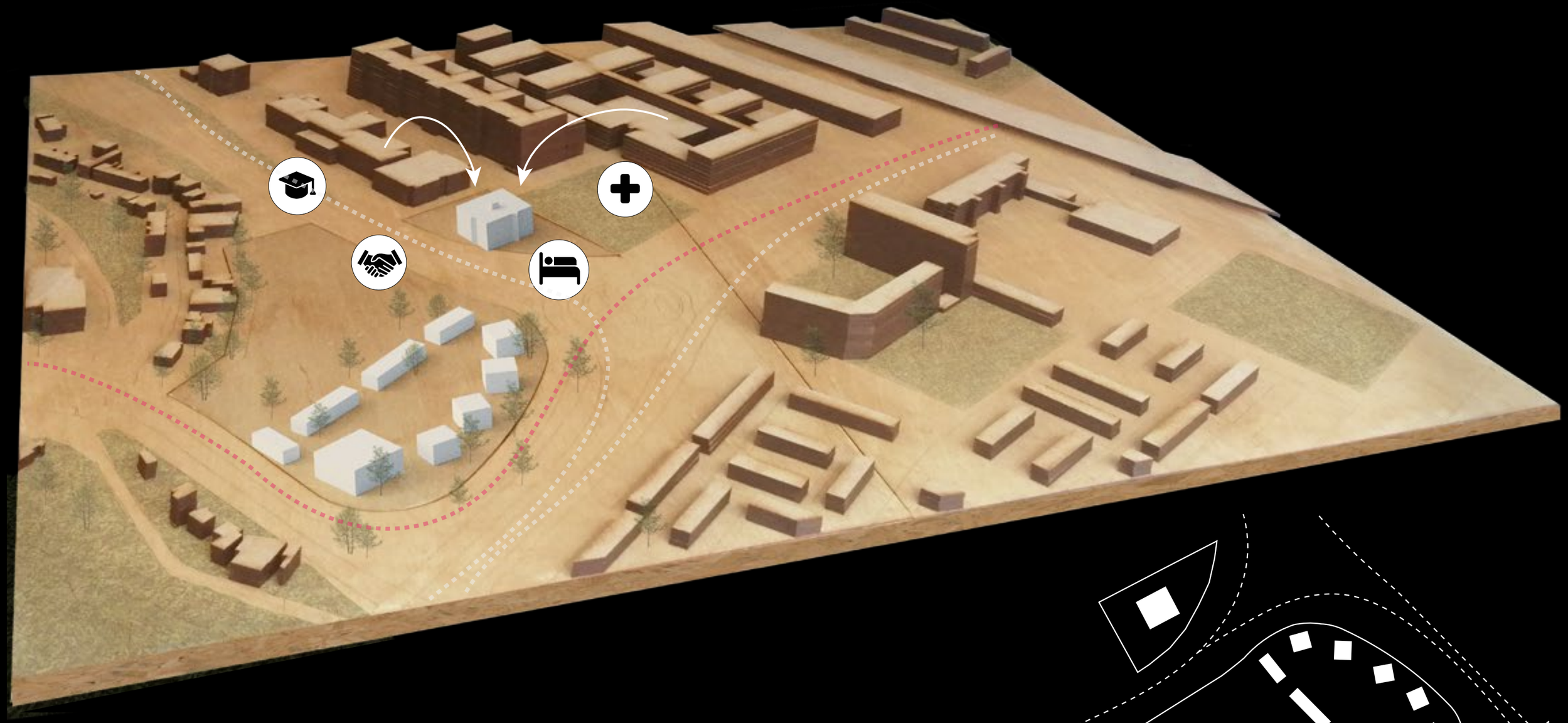
Inclusive neighbourhood developed on open plot with social historical roots

(IJsselmonde Nieuws, 2018)

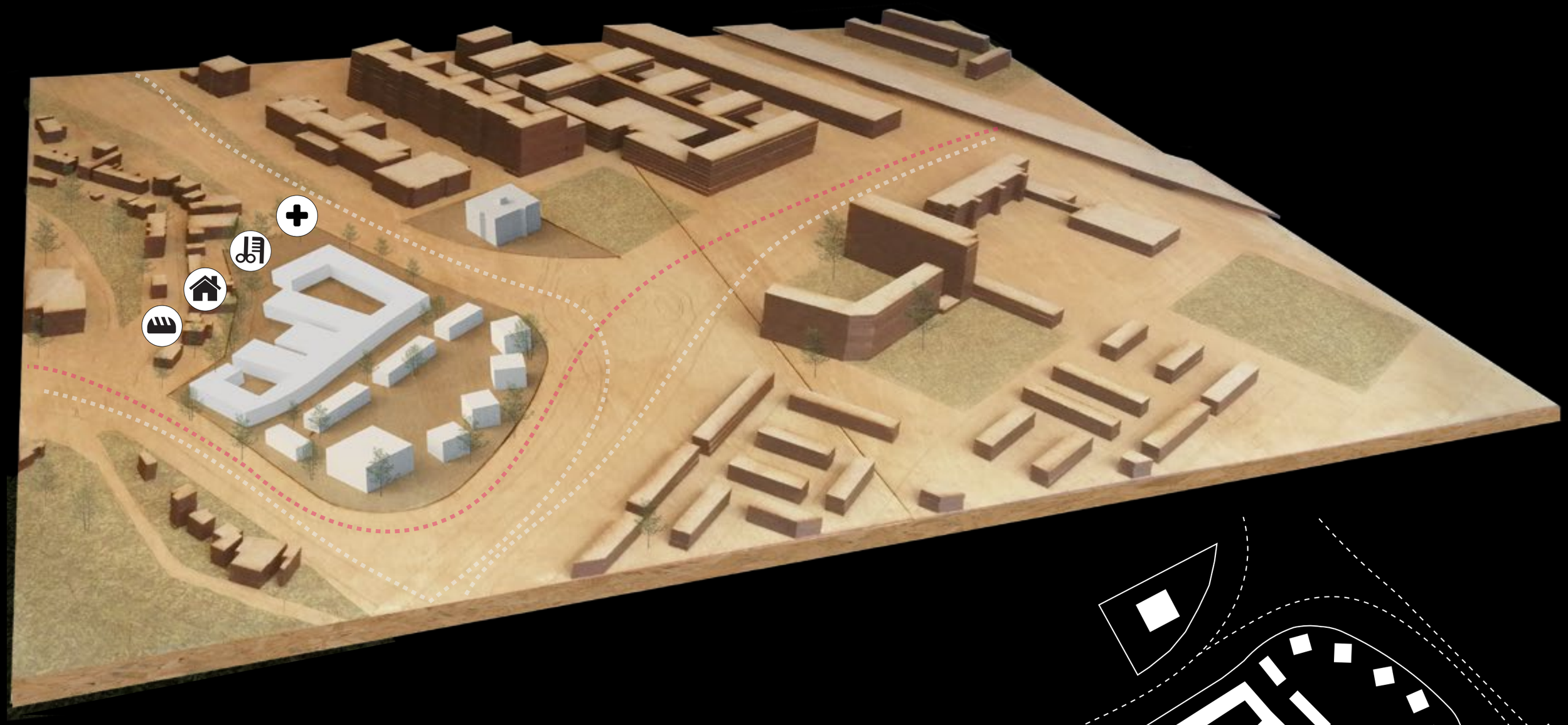




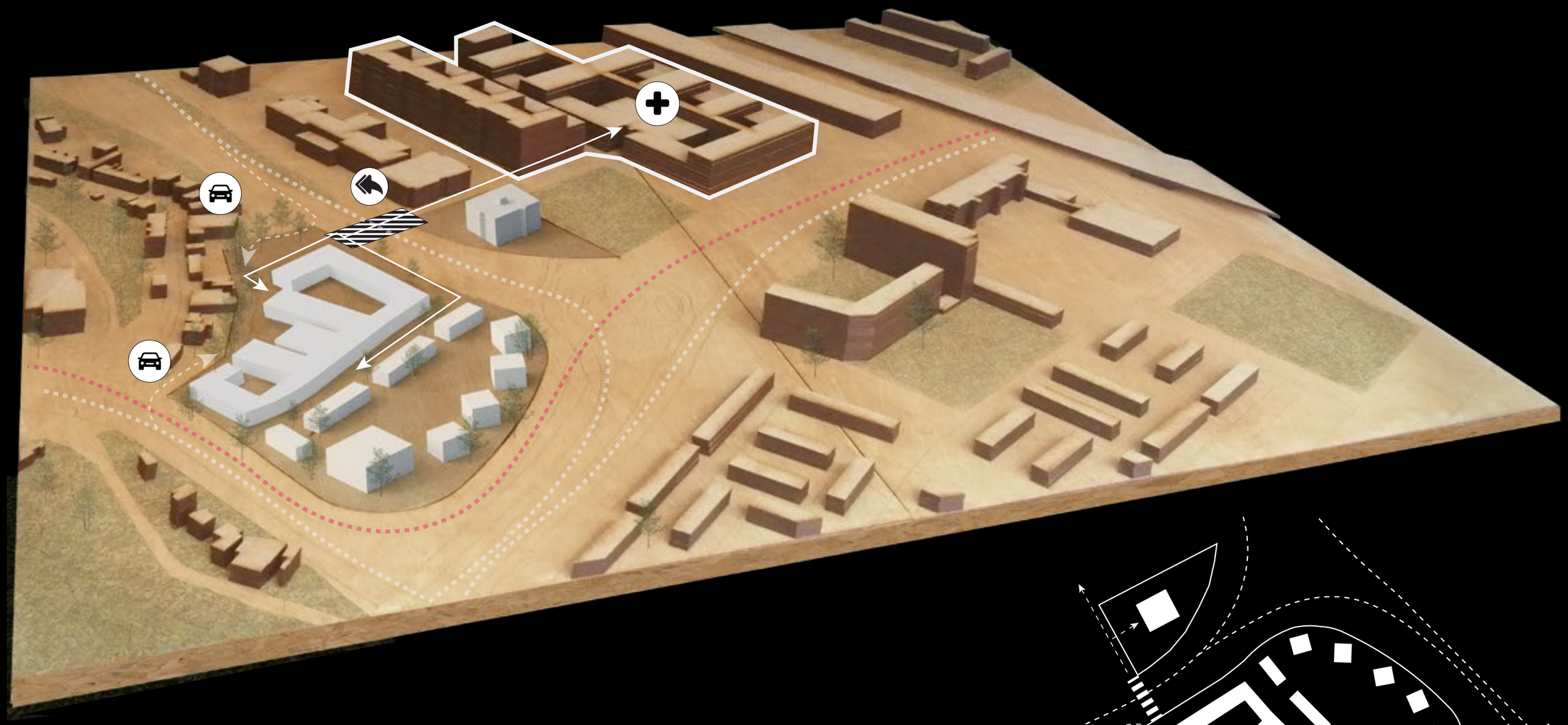
Enclave of urban villa’s situated around public park



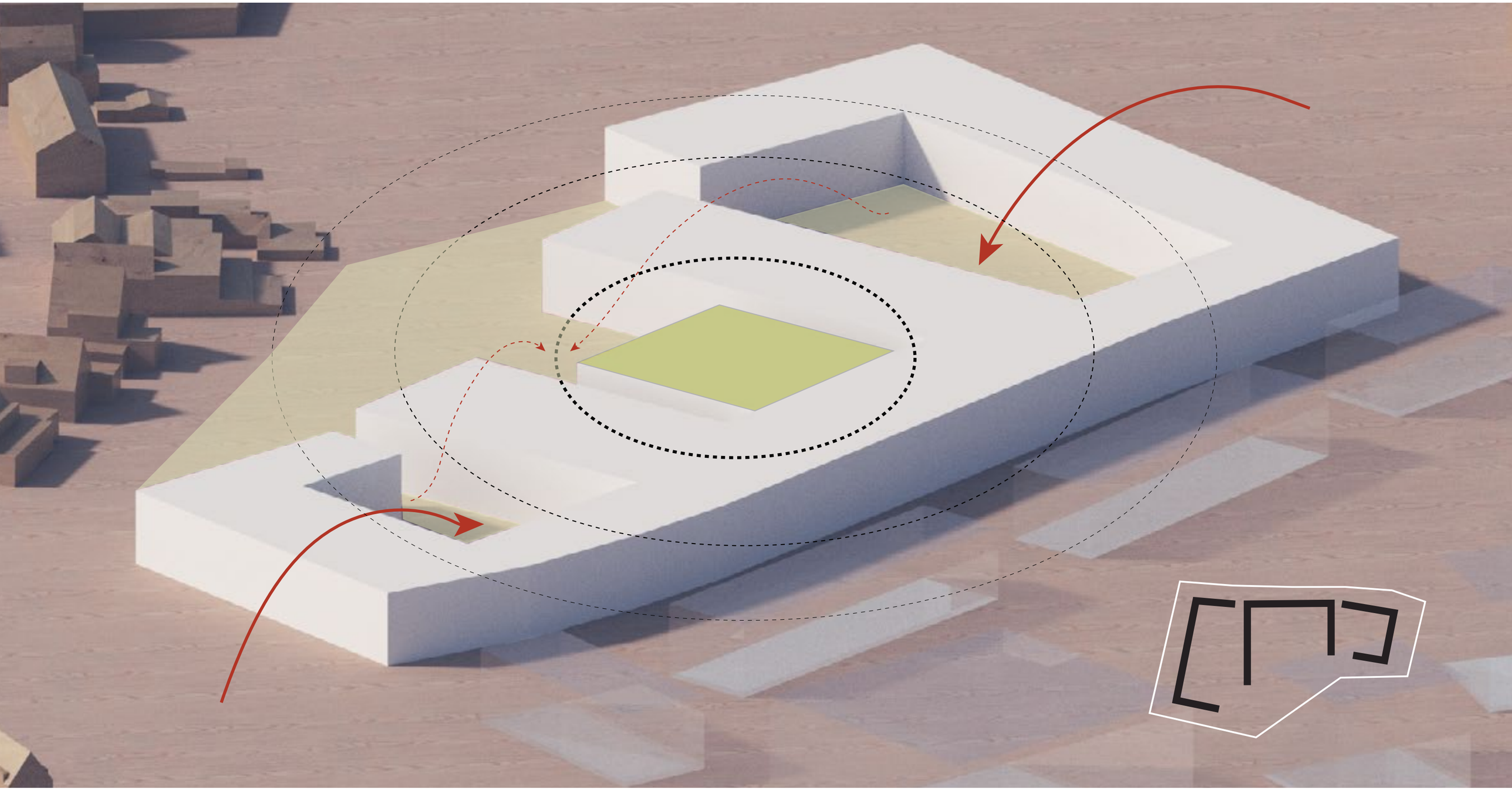
Multifunctional care building with daytime activities

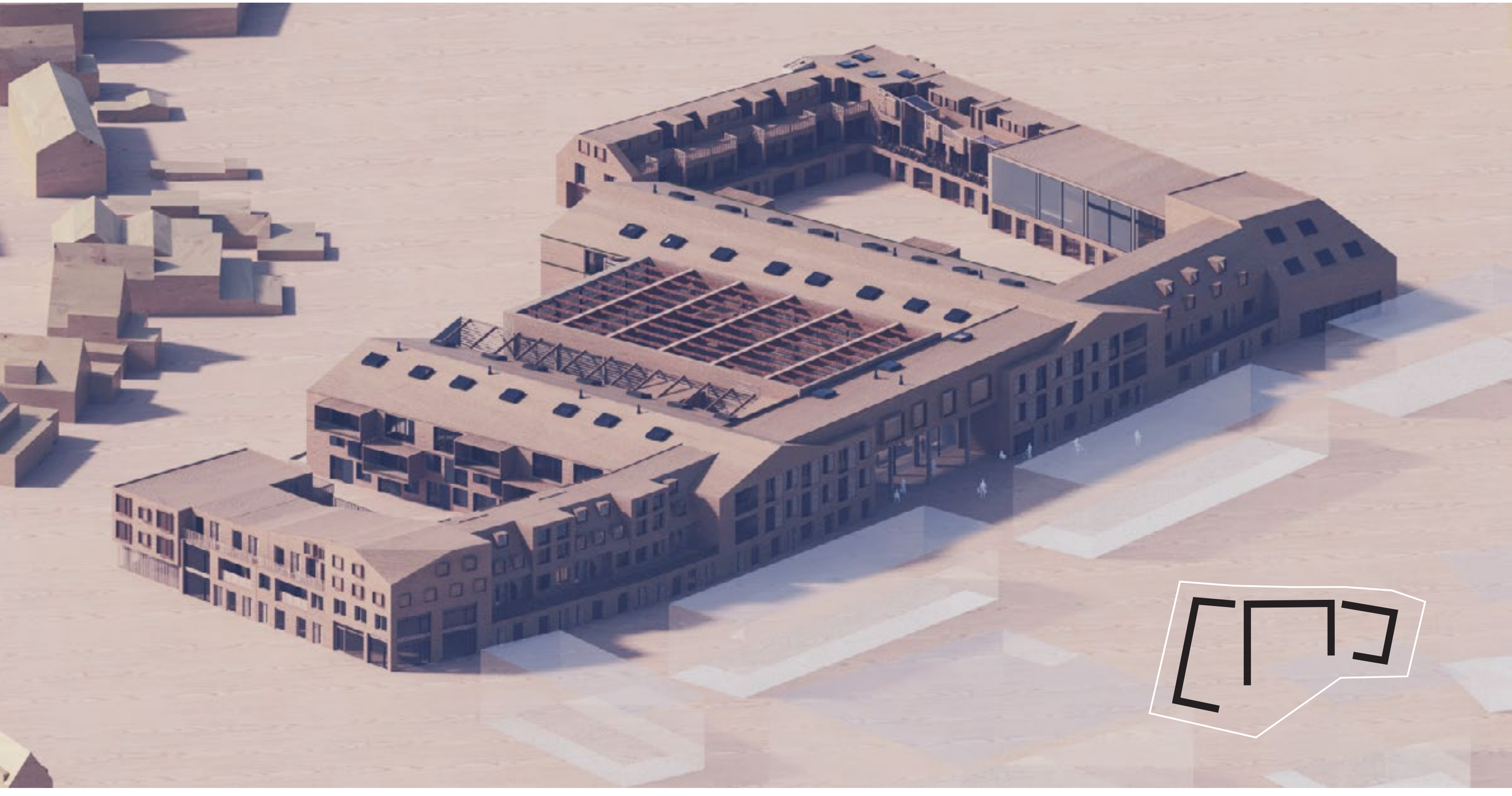


Intimate residential care block with neighbourhood amenities



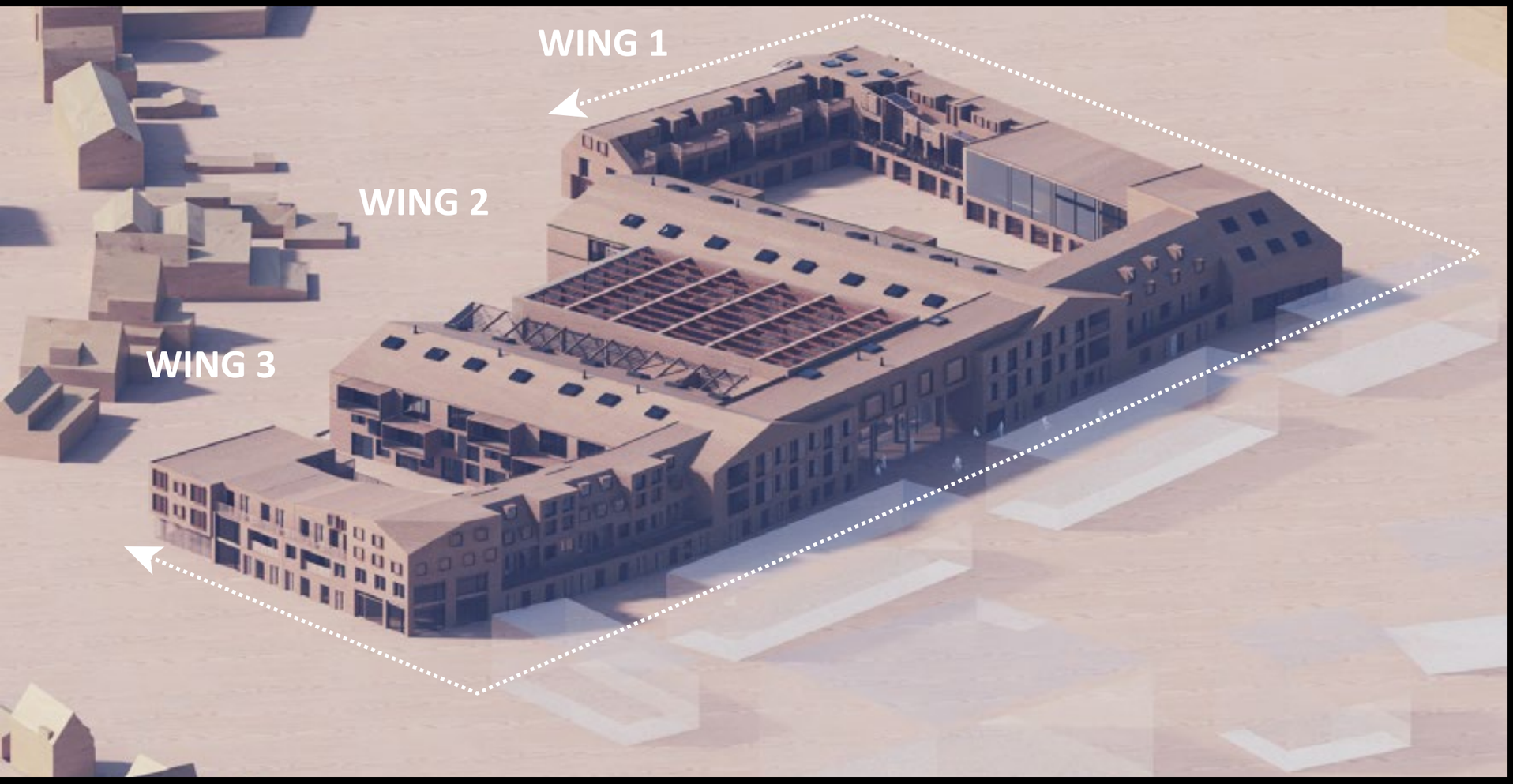
New physical connection between Maasstad boulevard and IJsselkwartier





III. Exterior design

Reflect residential features



Concept 1 - Modern interpretation of characteristic roofs and facades

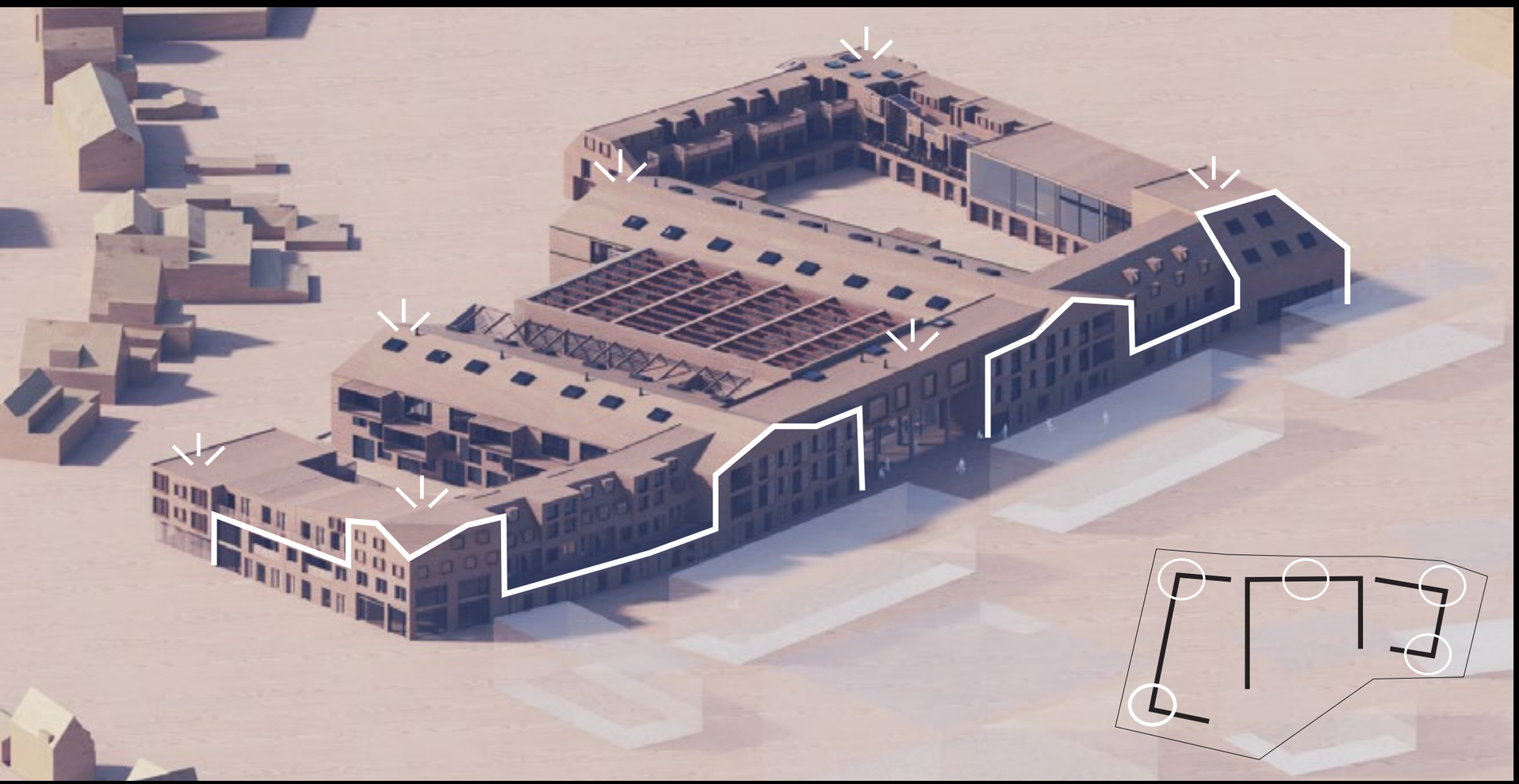






III. Exterior design

Unity in diversity



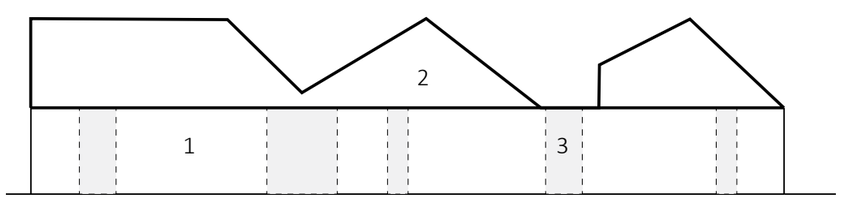
Concept 2 - Unifying plinth and three-way facade composition to ensure hierarchy

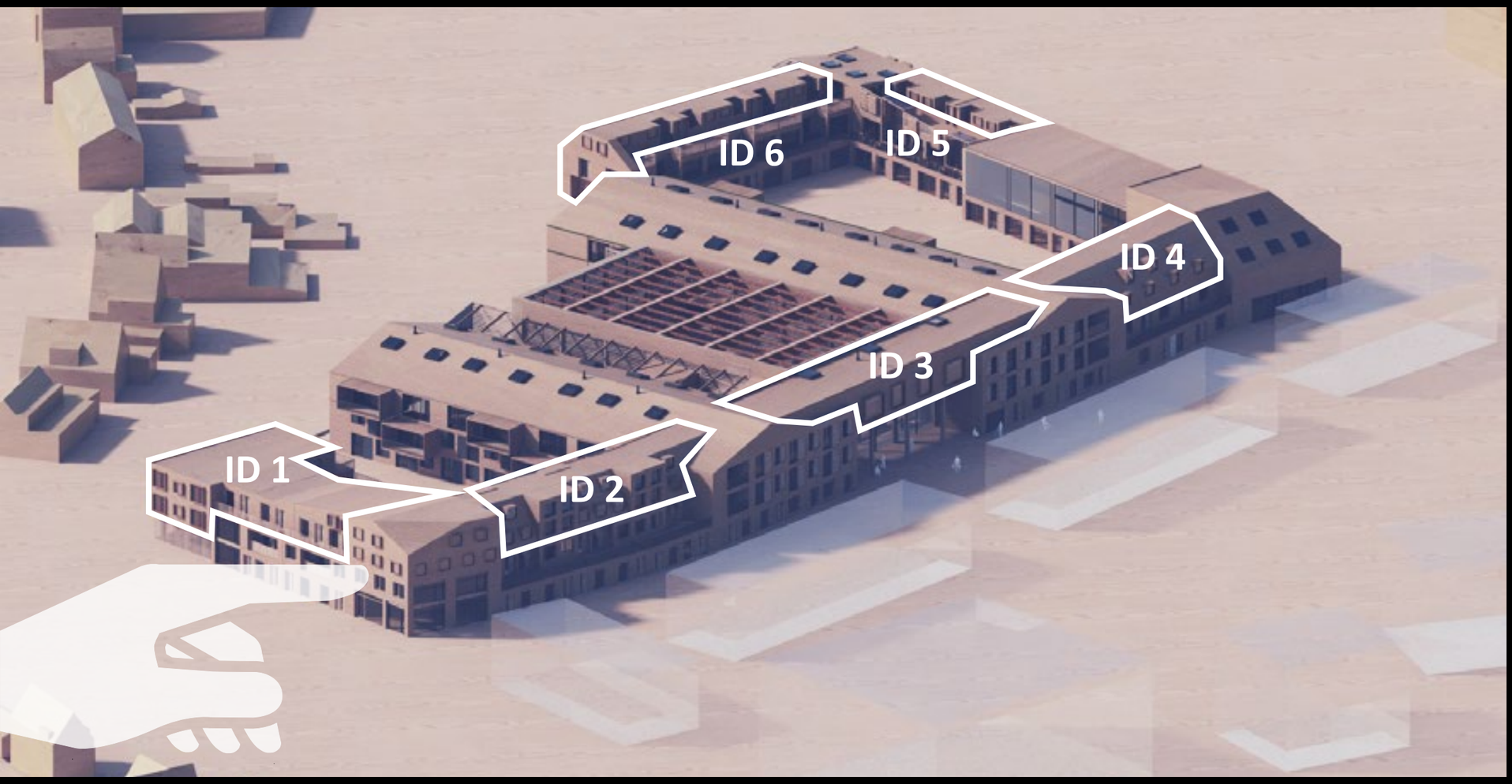




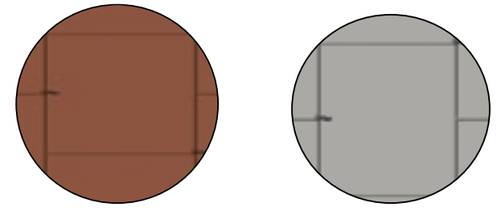






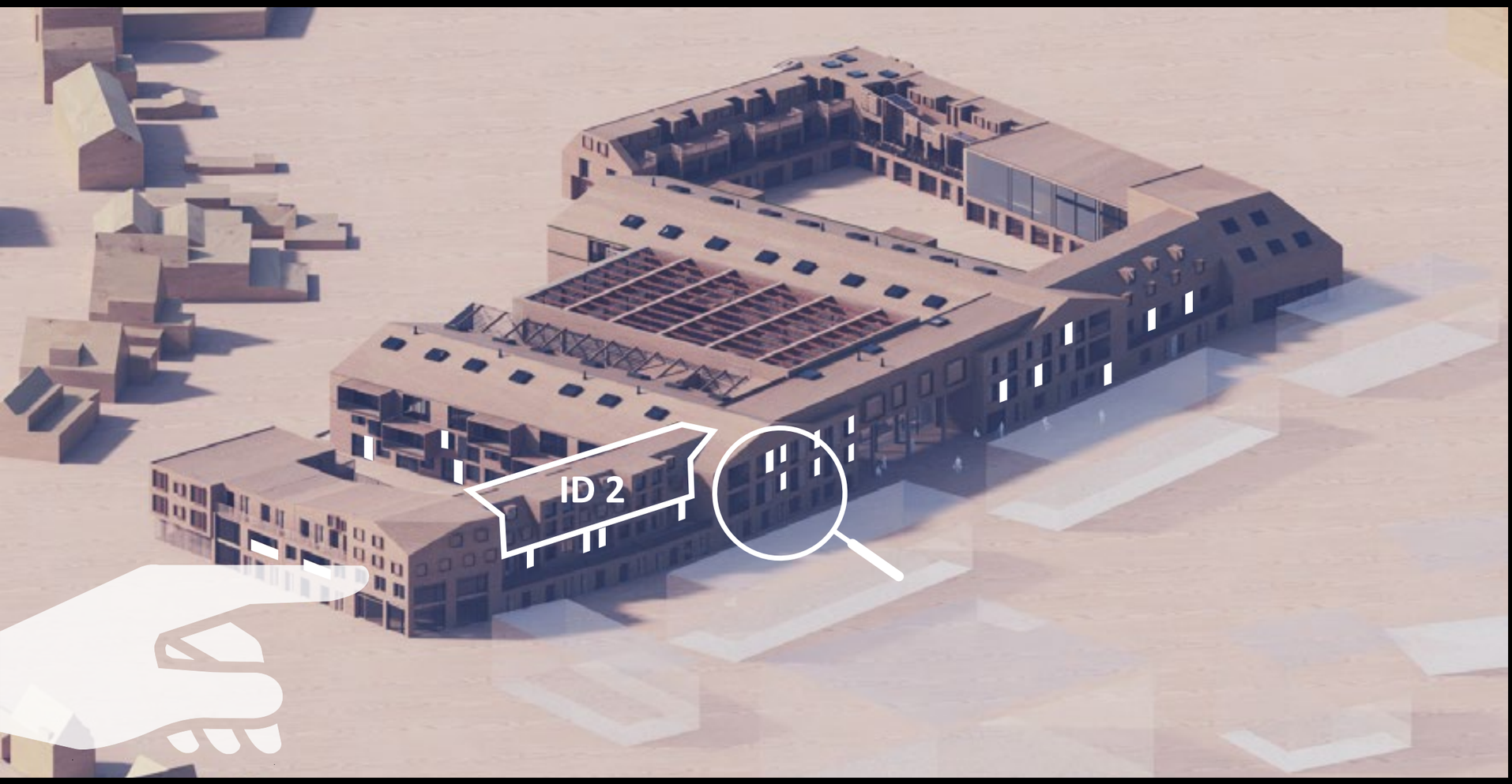


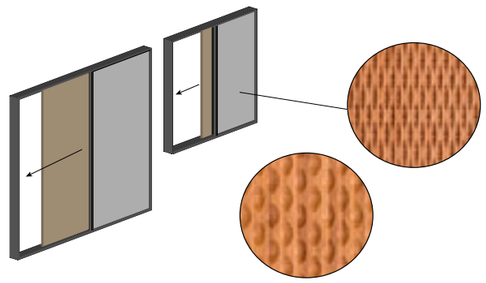
Concept 3 - Stimulation of positive identities by distinctive cap colors



III. Exterior design

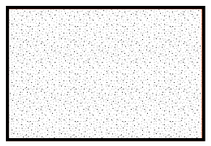
Personalisation



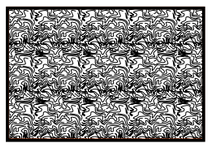




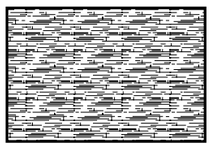
Concept 4 - Stimulation of positive identities by additional secondary facade elements with varying patterns



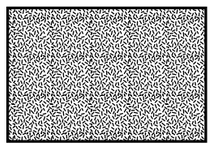
ID 1.2



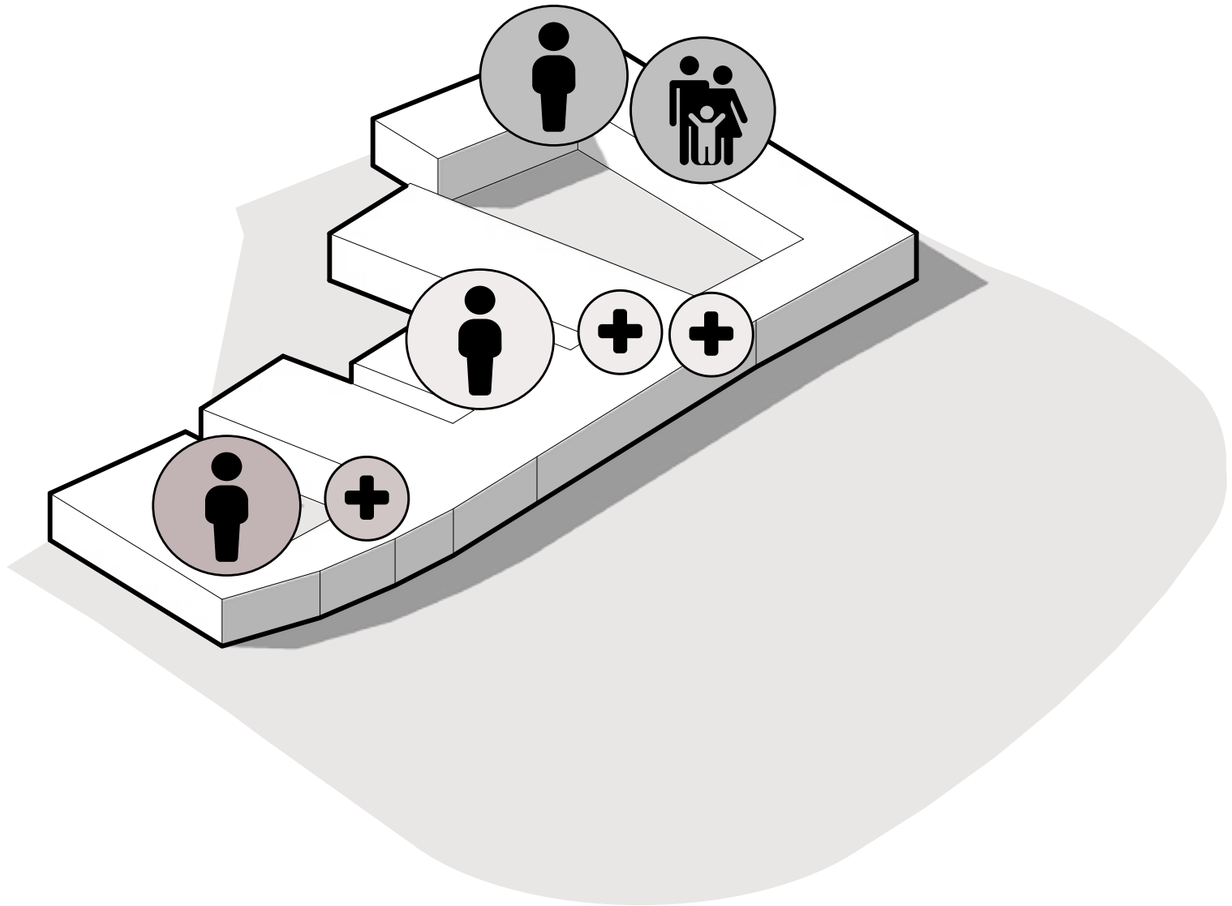
ID 6.3

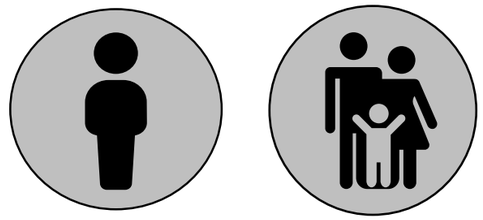


ID 2.1

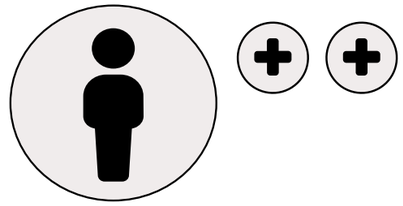


ID 5.4

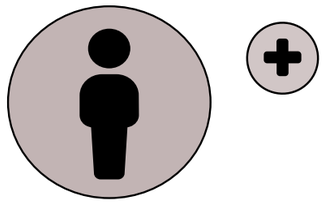




Group 1 - Homeless people without health indication



Group 2 - Homeless people with physical and mental health indication



Group 3 - Homeless people with mental health indication



WING 1 - EMERGENCY SHELTER (50+ sleeping bunks)



WING 1 - SHARED ASSISTED HOUSING (10 residents per dwelling block)

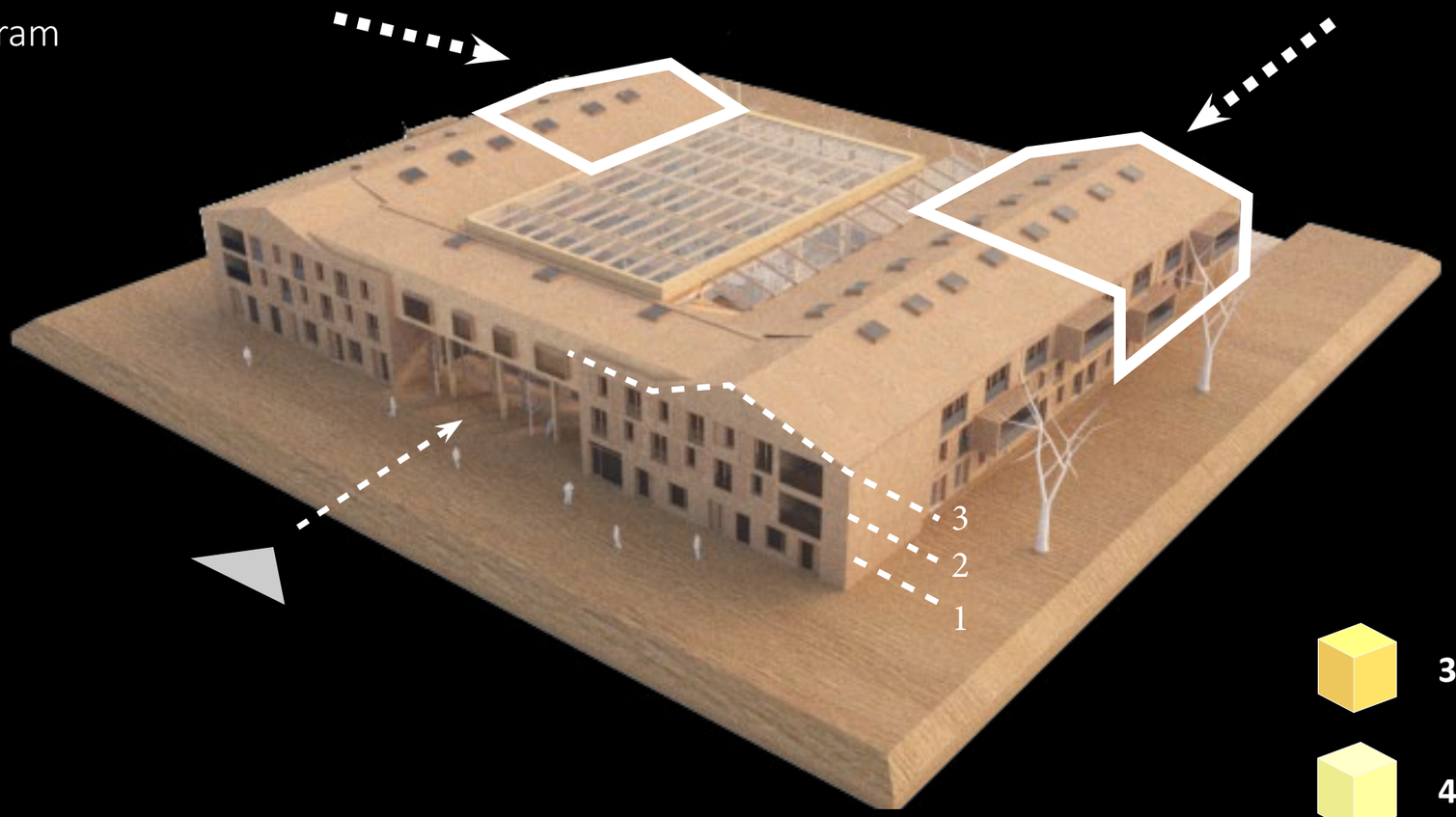
I. II. III.

WING 3 - MIXED LIVING (assisted housing; studio appartments; social housing)

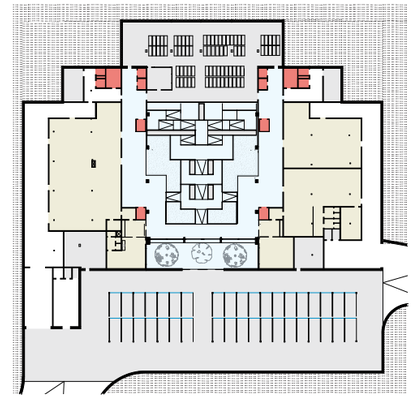
WING 2 - NURSING HOME + PUBLIC PAVILION

III. Building design

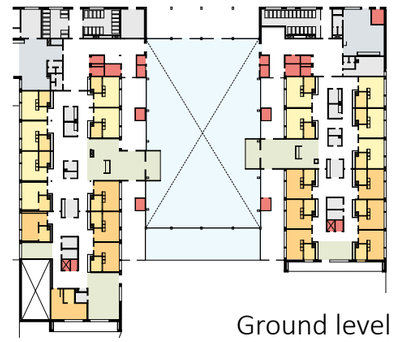
Program



Concept 5 - Reduction of environmental stress



Public area



Ground level

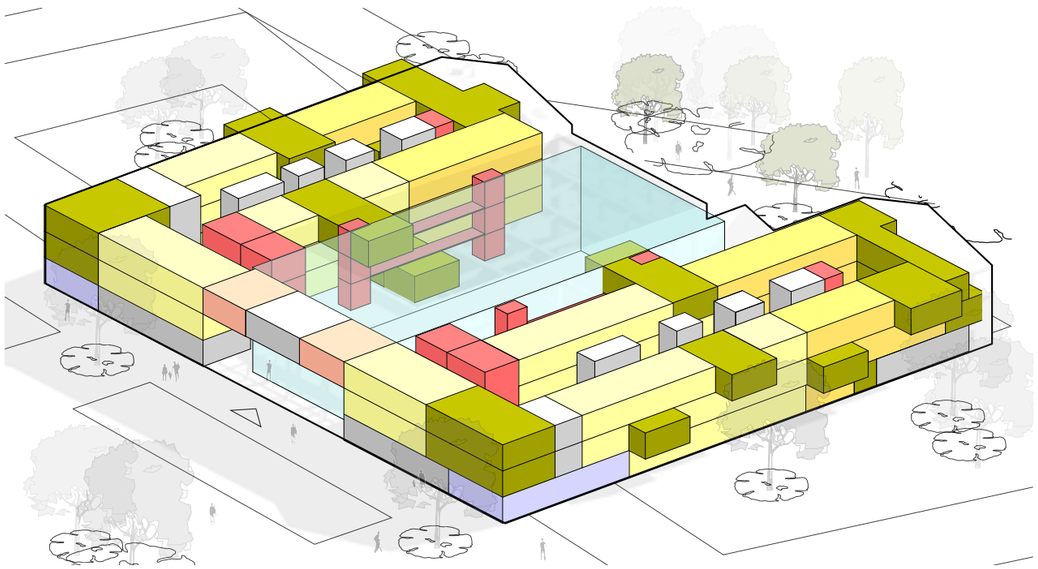


Level 1



Level 2

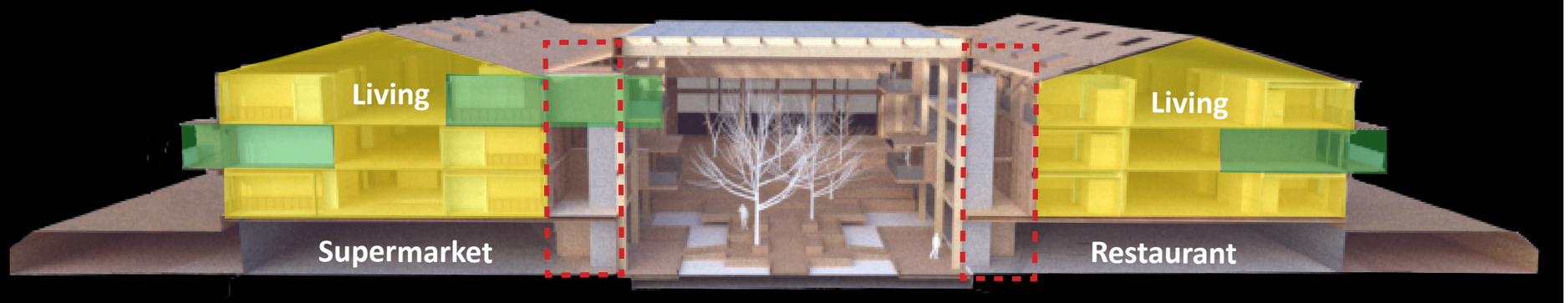
- Palliative care units
- multi disciplinary care stations
- Recreation areas
- Regular care units
- service areas (kitchen, washing areas)
- (public) multi-functional areas
- vertical circulation
- public pavilion with amenities

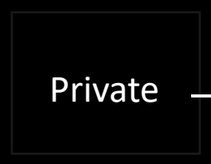


I. II. III.

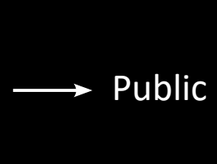
III. Building design

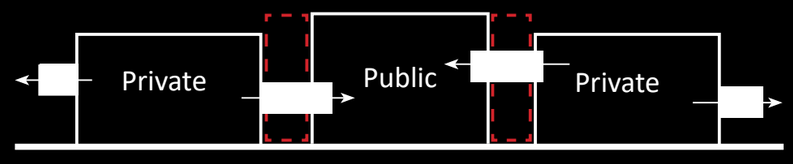
Spatial environments











Concept 6 - Dynamic routing to reduce spatial monotony



Palliative care units



multi disciplinary care stations



Recreation areas



Regular care units



service areas (kitchen, washing areas)



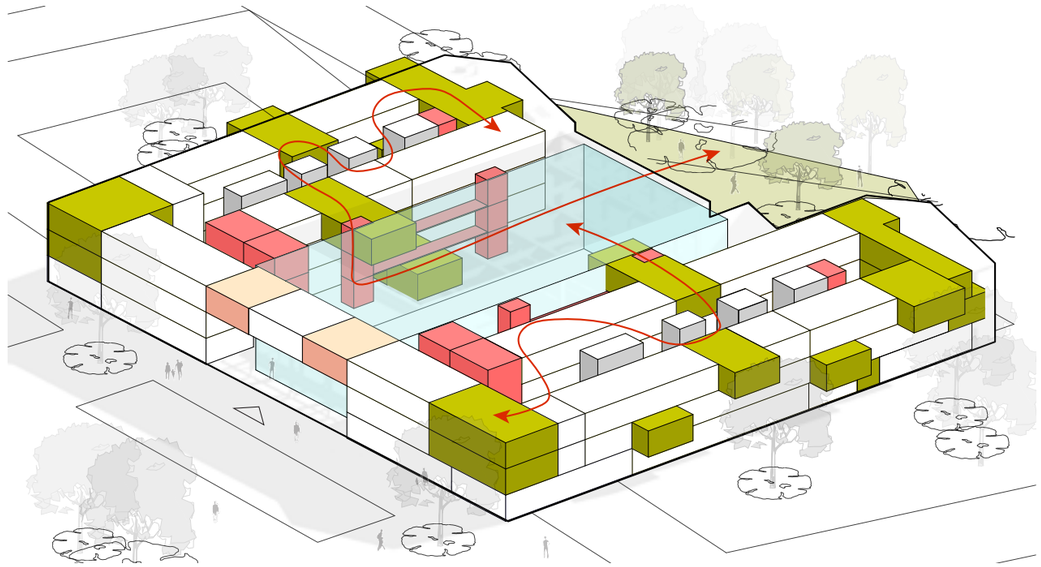
(public) multi-functional areas



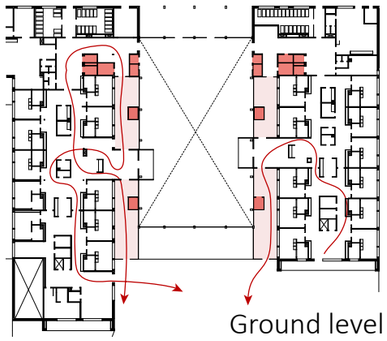
vertical circulation



public pavilion with amenities

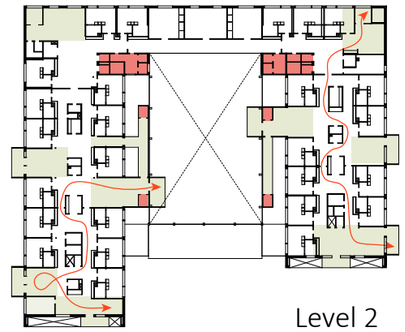


Public area



Ground level

Level 1



Level 2



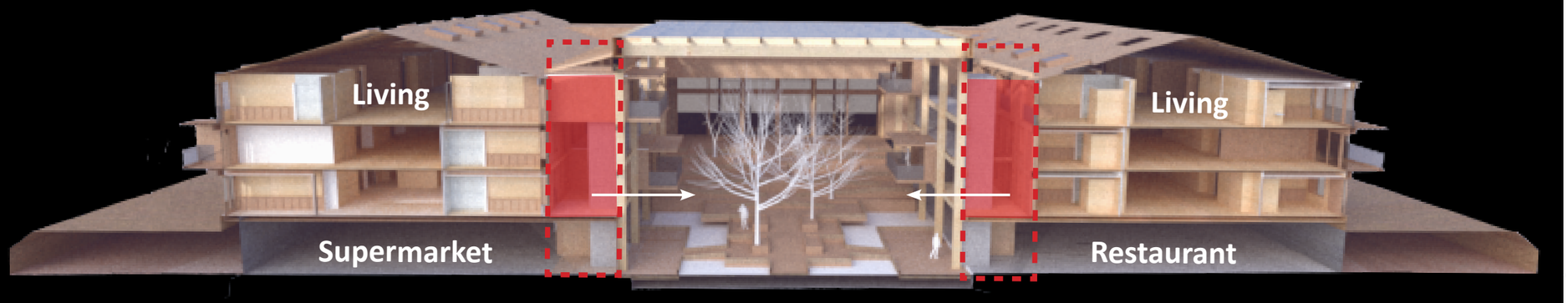


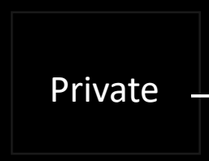




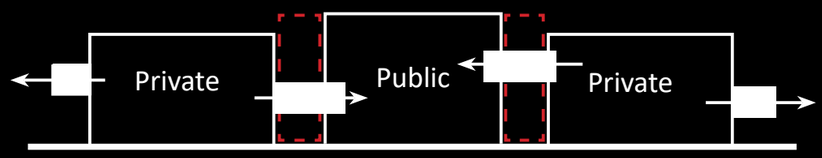
III. Building design

Spatial environments



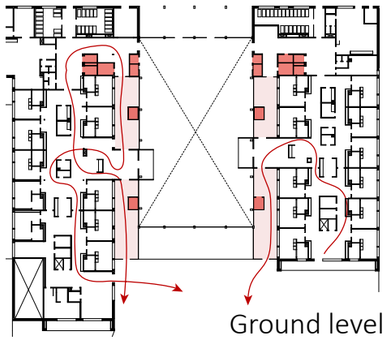






Concept 6 - Dynamic routing to reduce spatial monotony



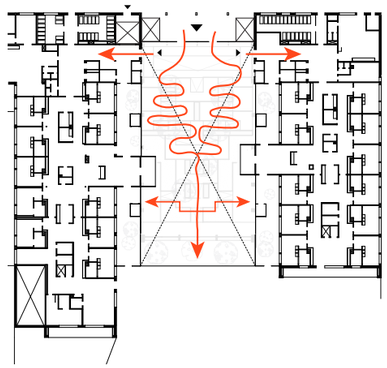




I. II. III.

III. Building design

Public pavilion

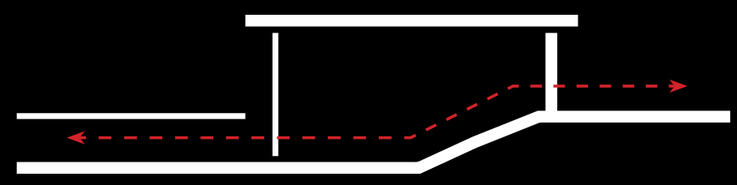


Ground level





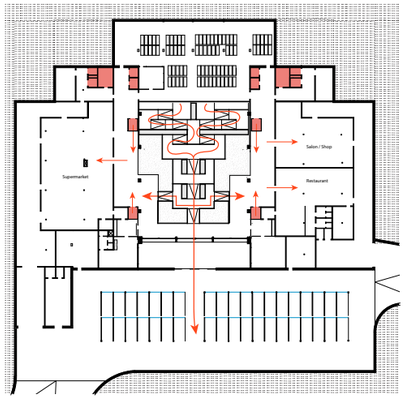




I. II. III.

III. Public pavilion

Social integration

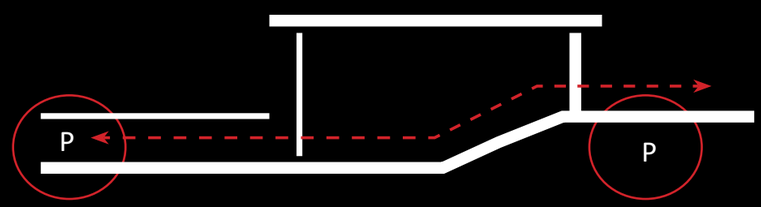


Level -1









I. II. III.

III. Public pavilion

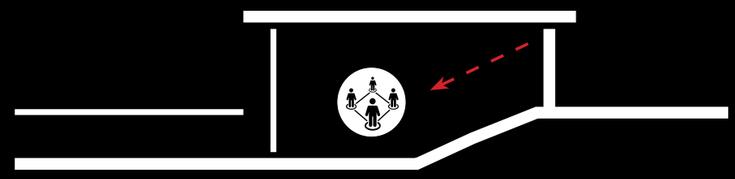
Multifunctional space



Level 2



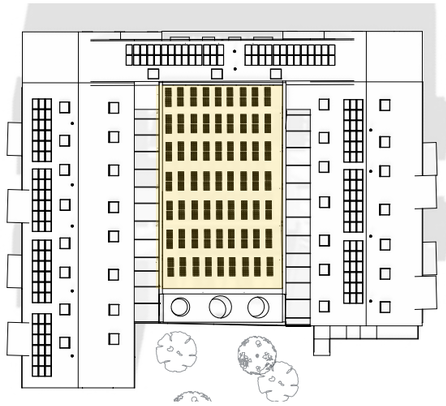




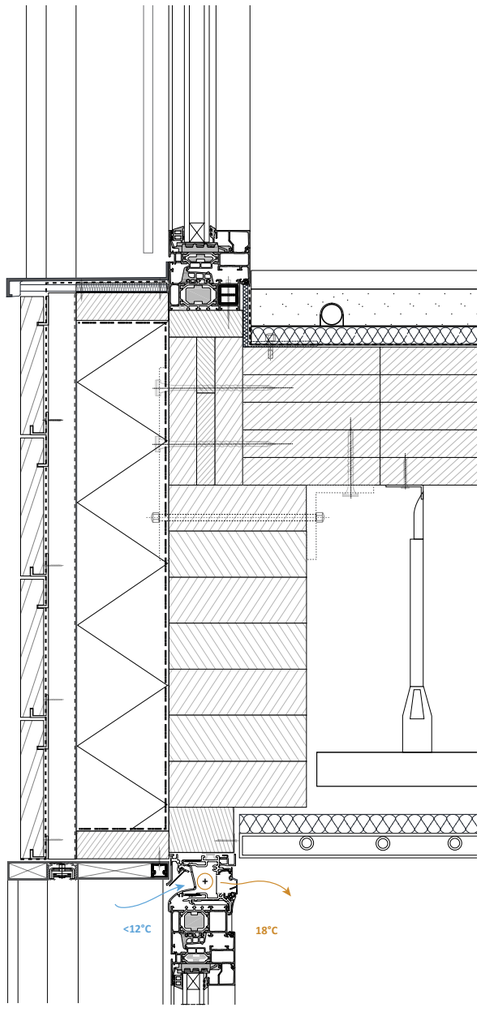
I. II. III.

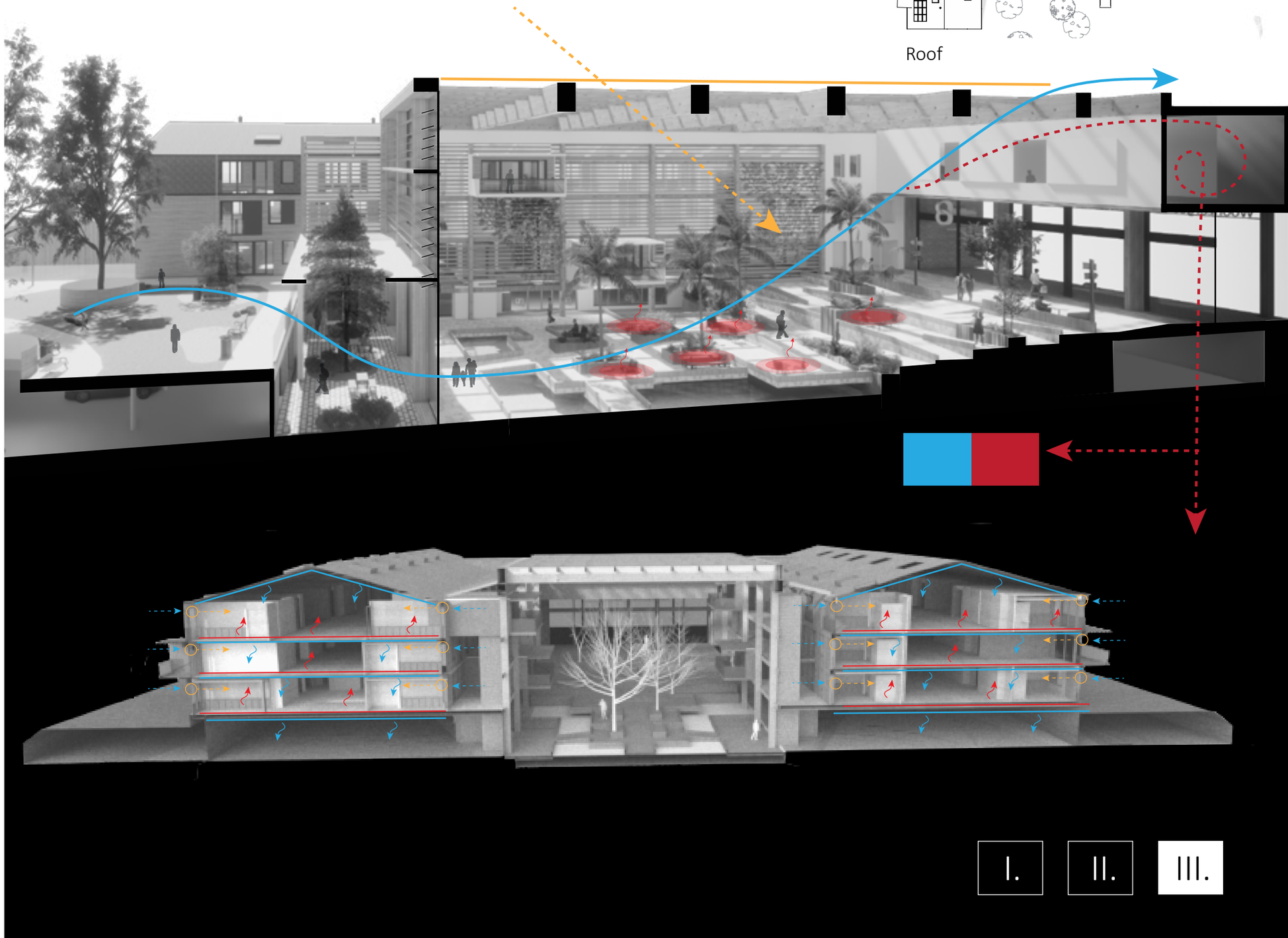
III. Public pavilion

Climate design



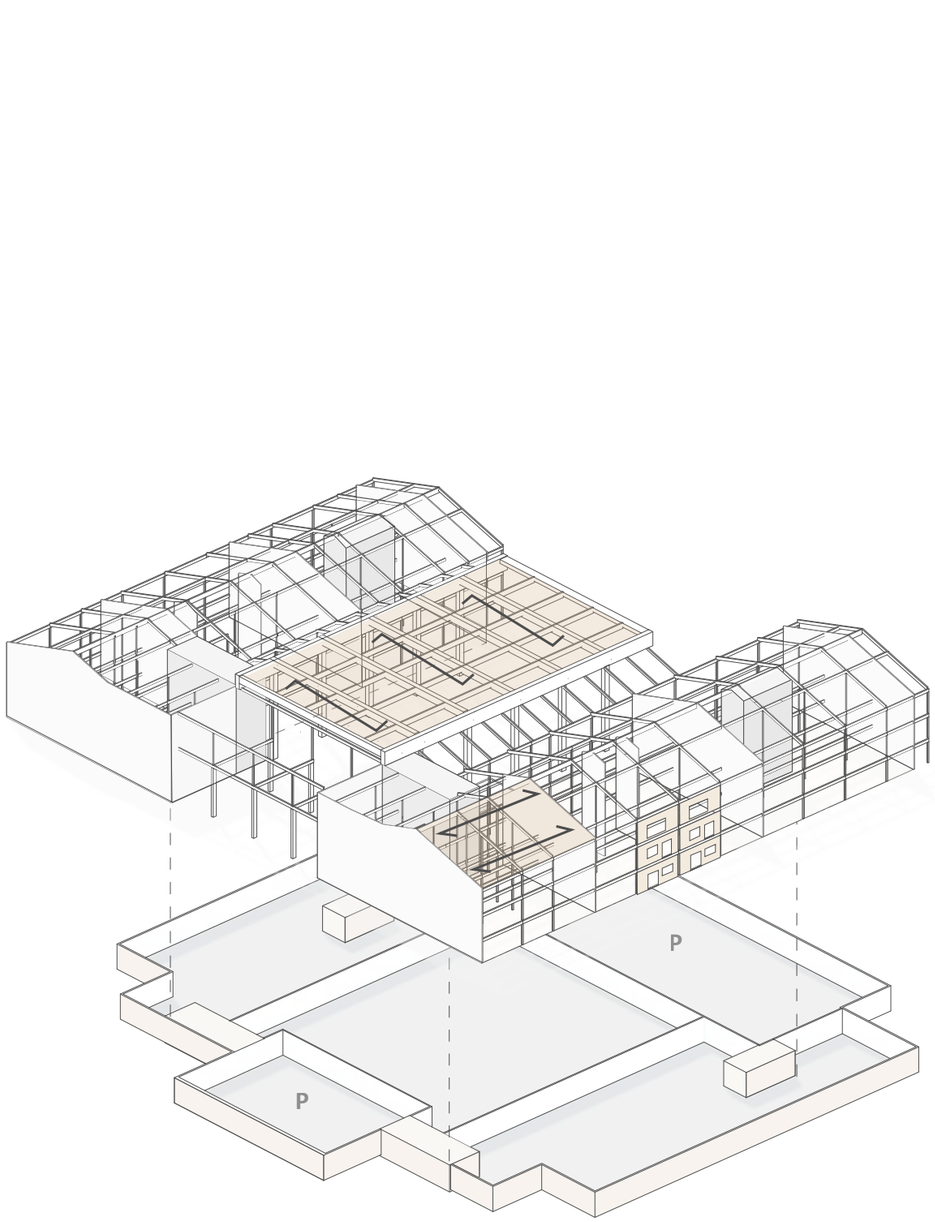
Roof

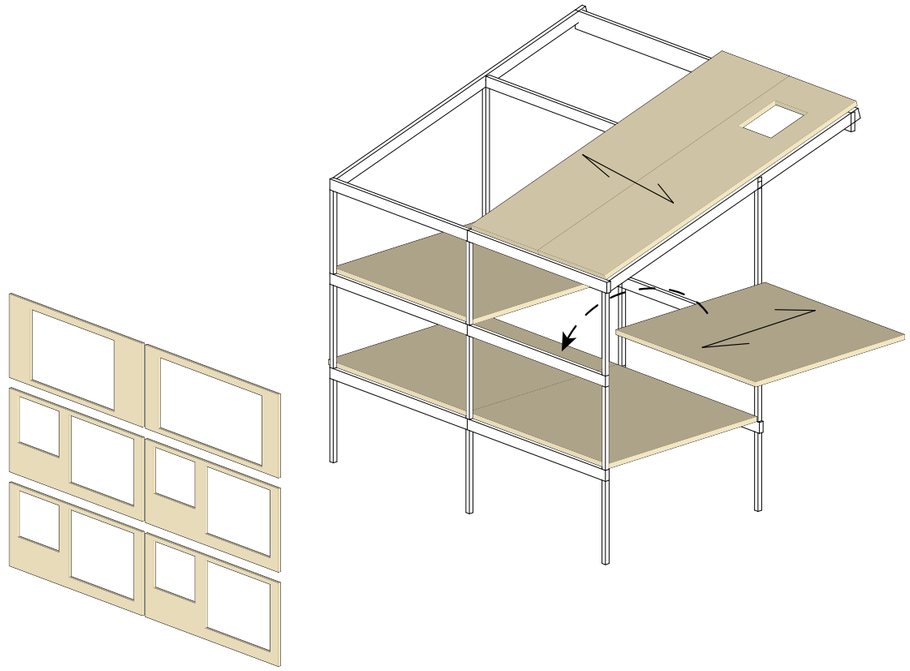




I. II. III.

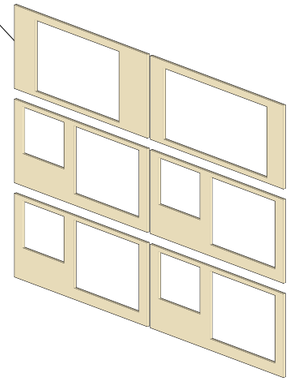
Prefabricated CLT elements

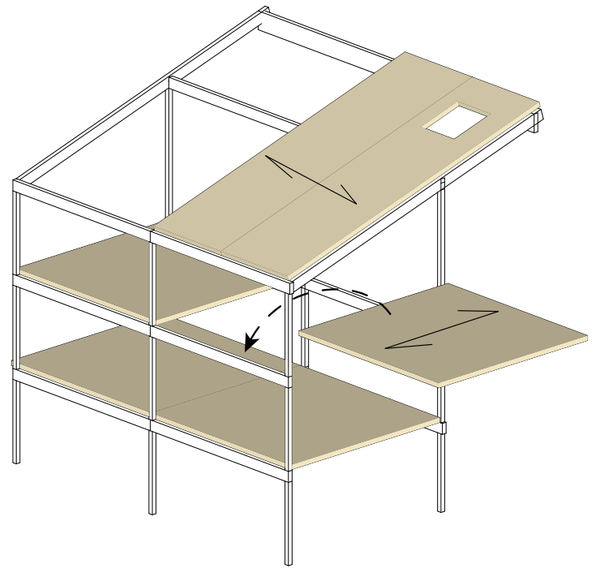


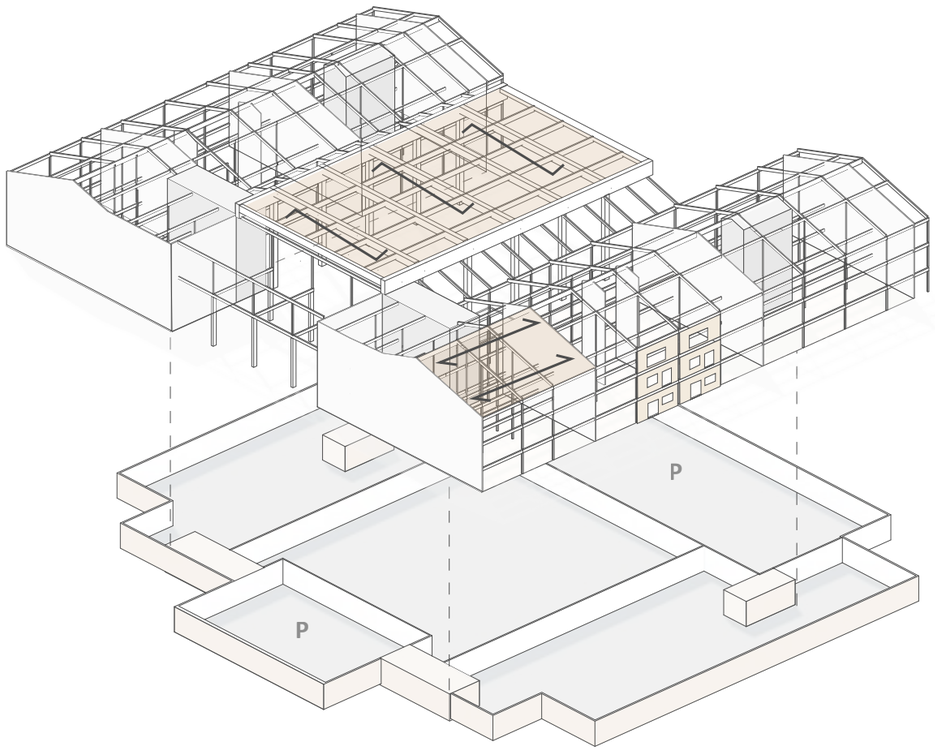


Prefabricated CLT elements

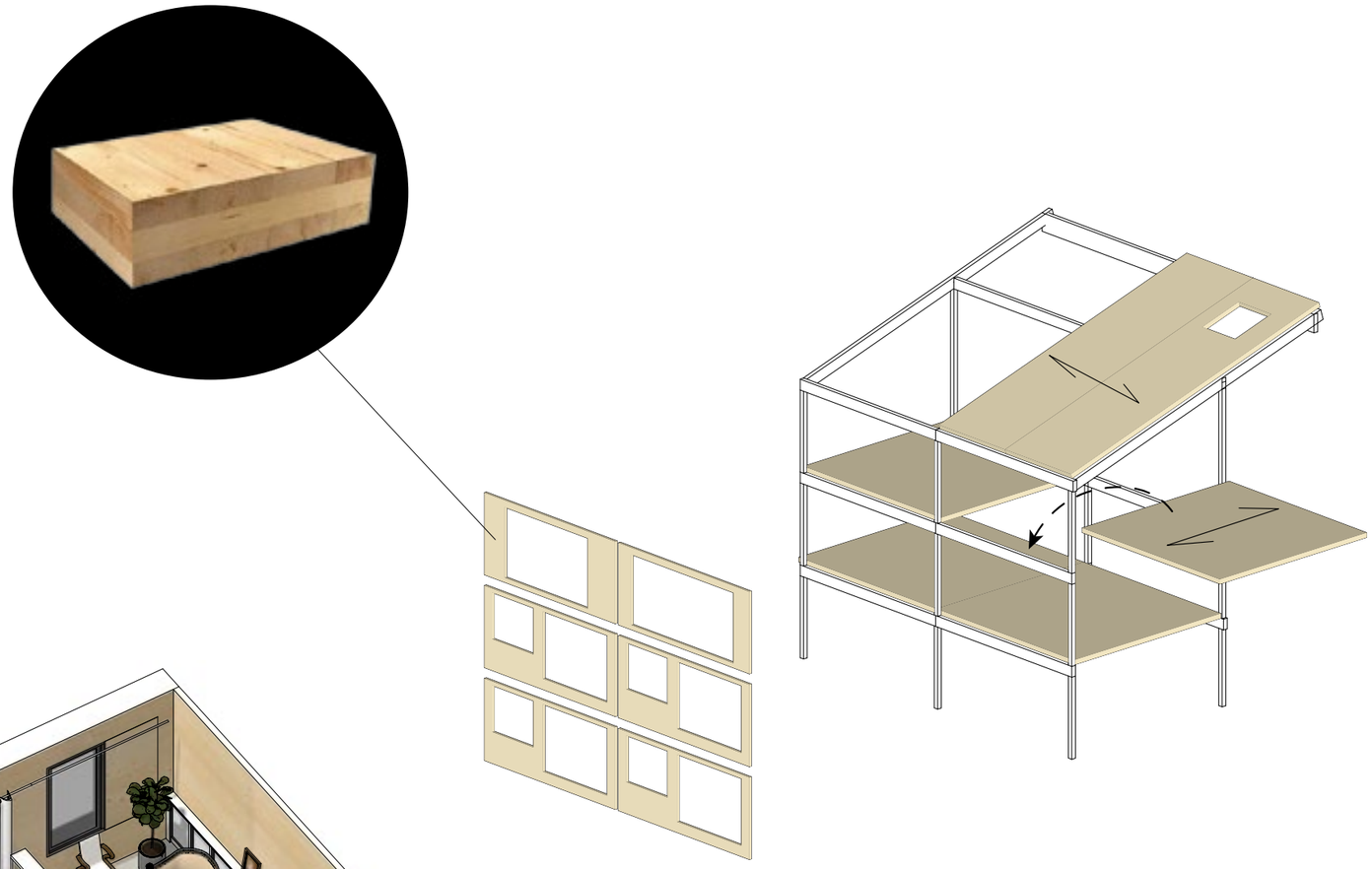








Unfinished interior walls

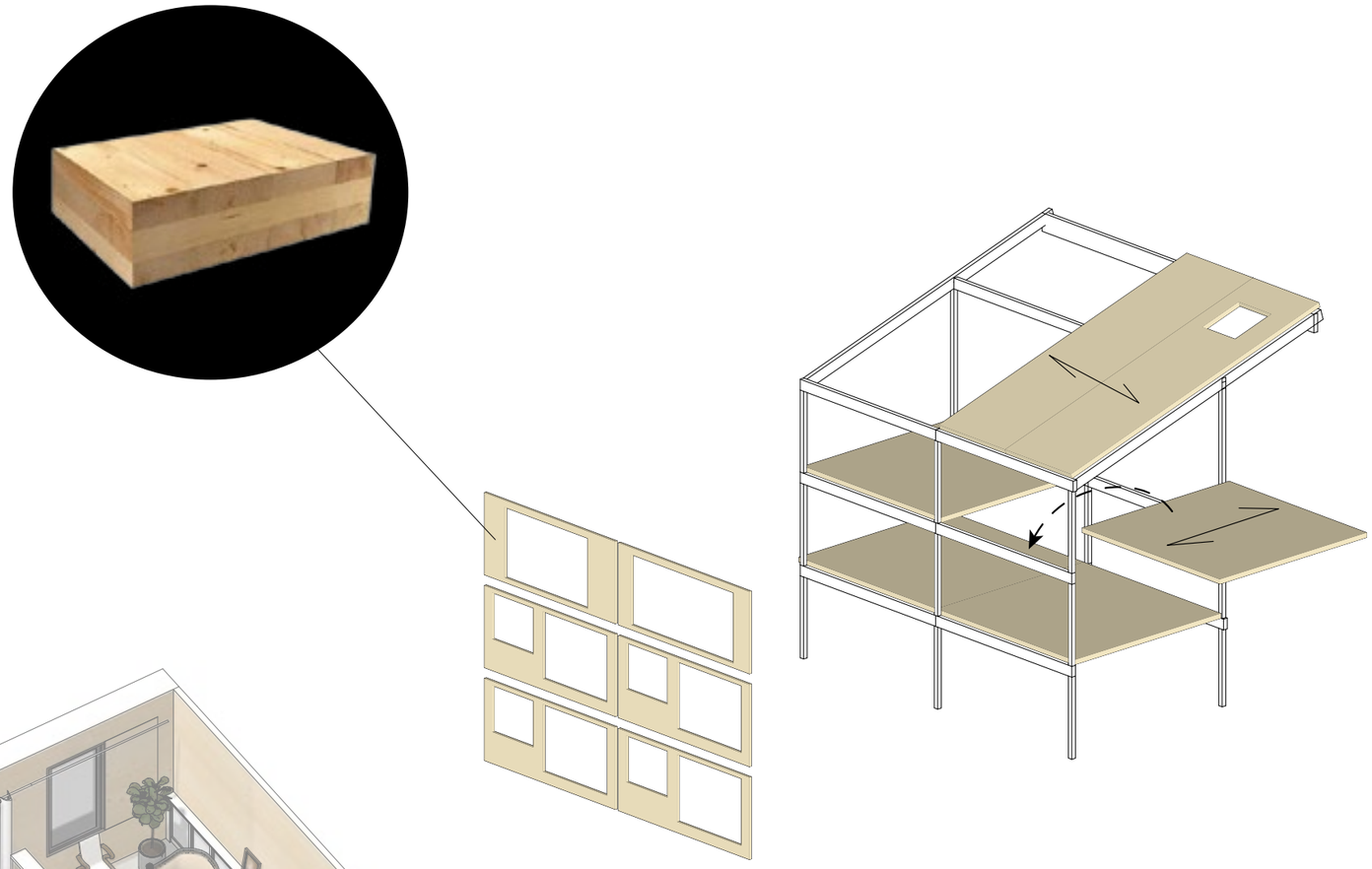


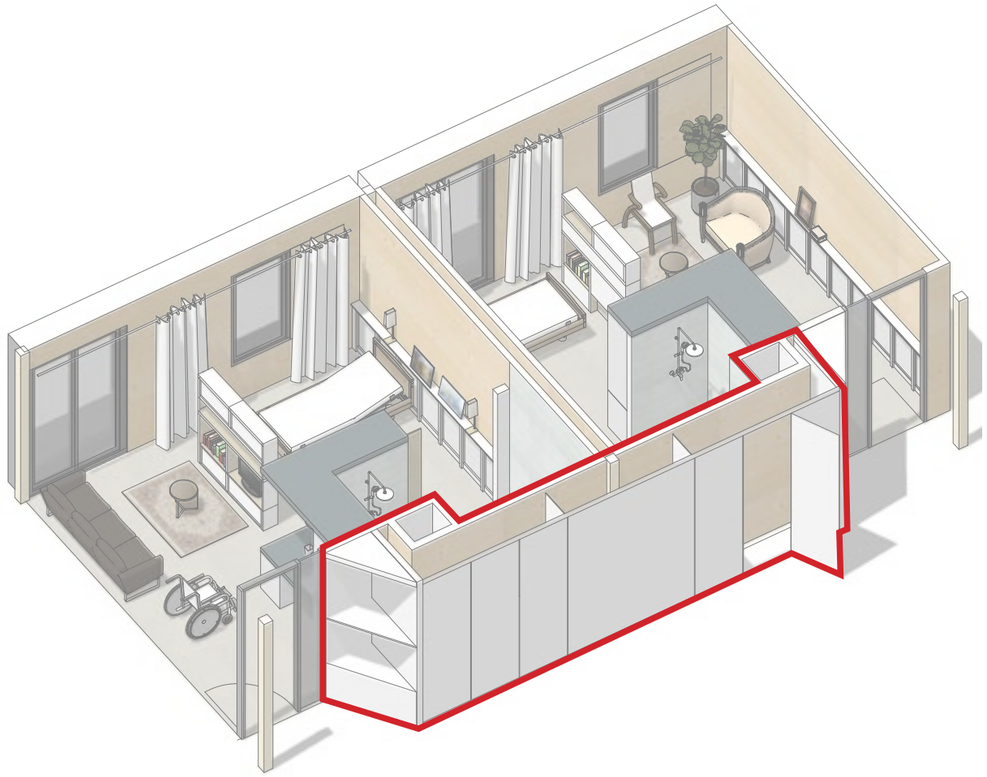


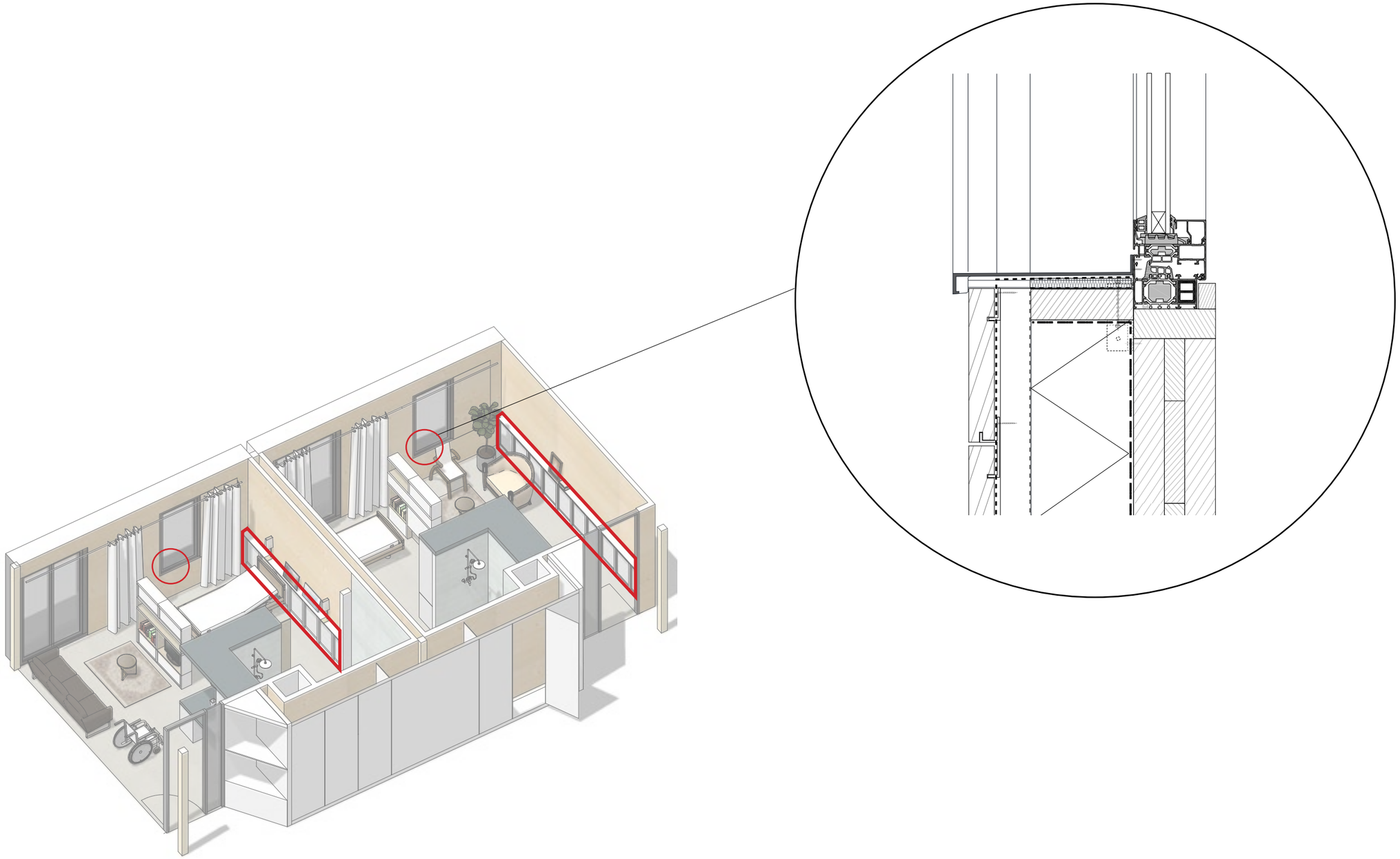


Casestudy - Kessler Stichting

(Common affairs, 2019)

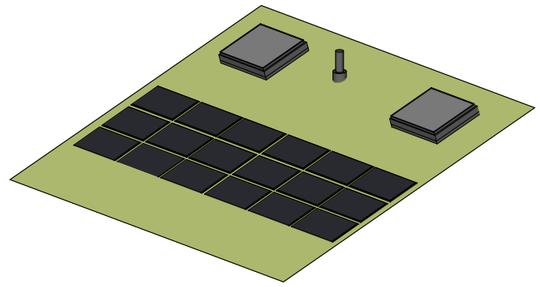


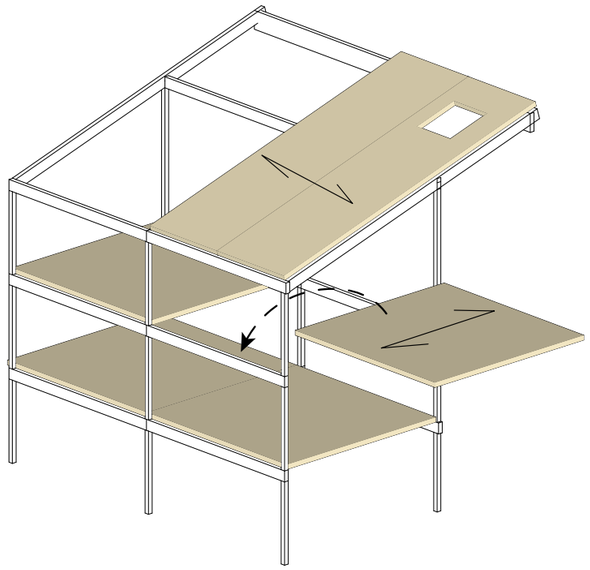


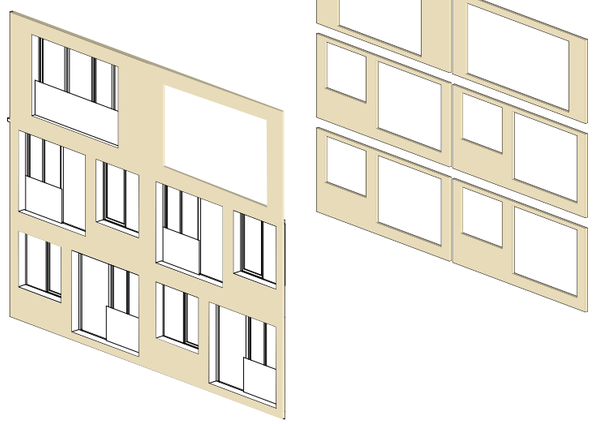


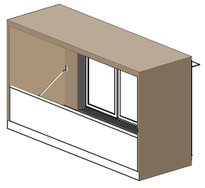
III. Facade design

Three-way composition reversed

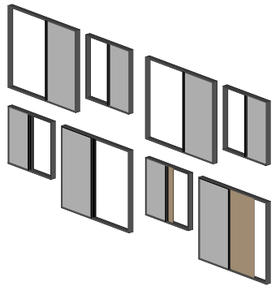


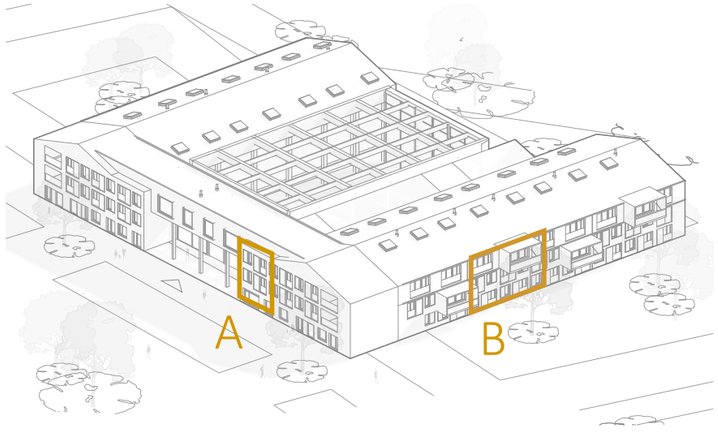












III. Facade design

Generic details

Architectural guidelines

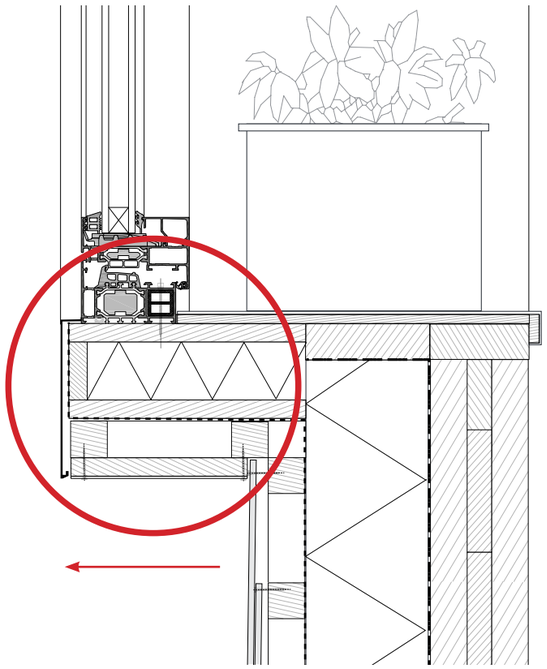
1. Recessing
2. Framing
3. Personalizing
4. Protecting

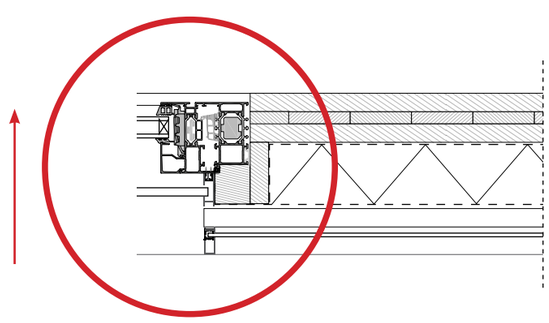


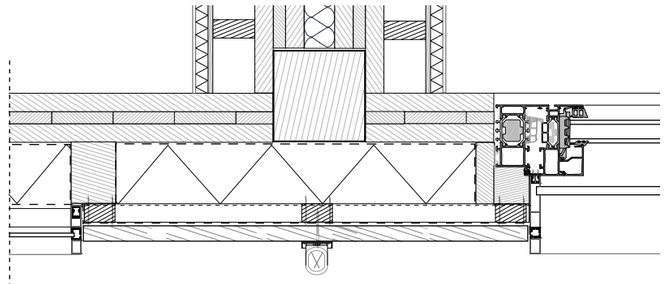
Architectural guidelines

1. Recessing
2. Framing
3. Personalizing
4. Protecting









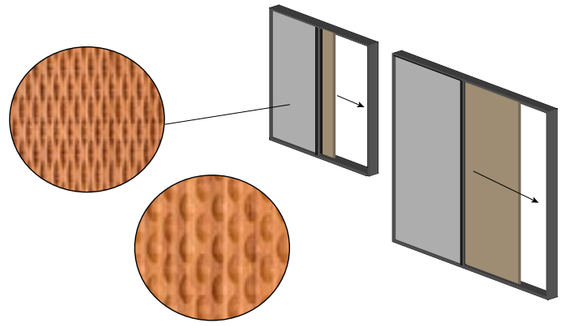
III. Facade design

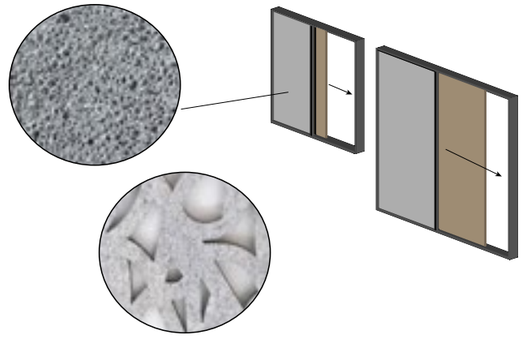
Generic details

Architectural guidelines

1. Recessing
2. Framing
3. Personalizing
4. Protecting

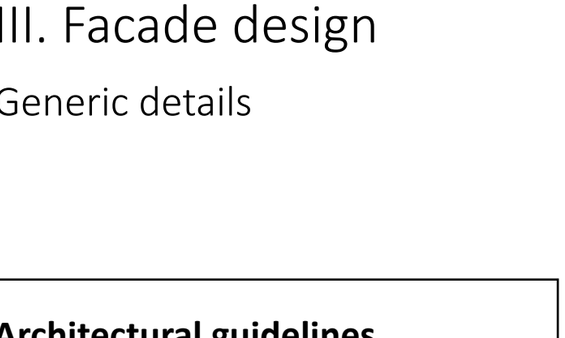


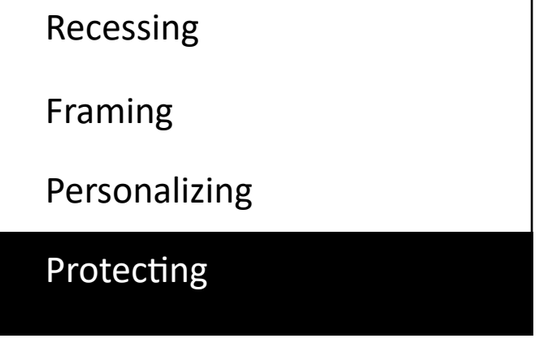


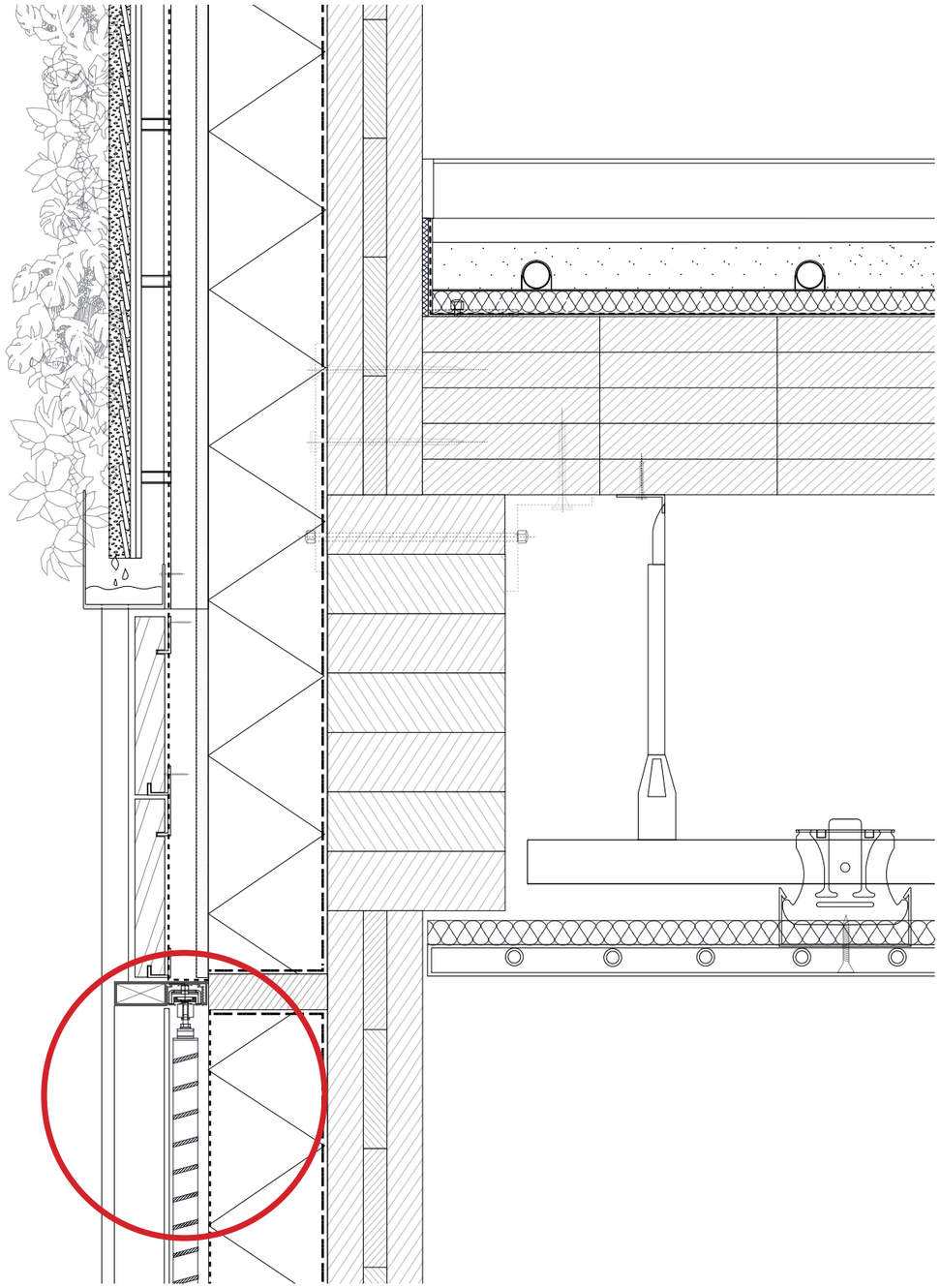


Architectural guidelines

1. Recessing
2. Framing
3. Personalizing
4. Protecting







III. Facade design

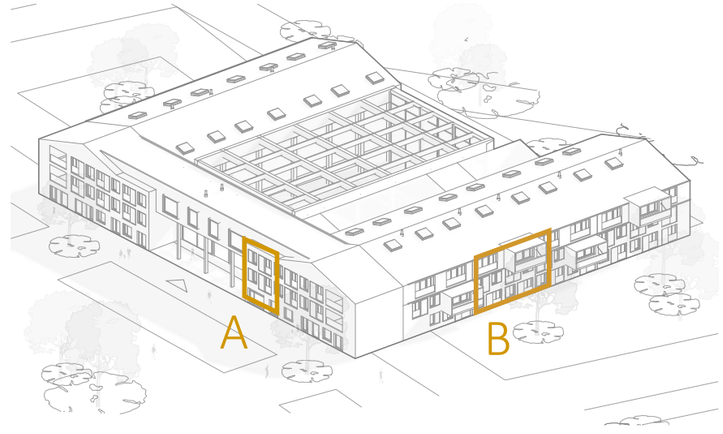
Three-way composition reversed



A. Hard exterior shell



B. Soft interior shell





Name: David Hanssen

Age: 48

City: Rotterdam

Addresse: Homeless

Causes: Seperation, Unemployment

TO BE OR NOT TO BE

Housing for terminal homeless people

III. Everyone could become homeless

Causes



Death of a spouse



Domestic violence



Divorce



Natural disasters

“Where do I want to live when I lose everything?”





Work towards integral clustered care and
psycho-supportive shelters



Thank you!