Reinterpreting the working-class neighbourhood

Urban Transformation Framework for Oud Crooswijk, Rotterdam

Rick Klootwijk (5944260) | Master thesis | TU Delft | Urbanism | Design of the urban fabric | 2024 - 2025

01 *Introduction*

02 *Problem Statement & Project urgency*

03 *Approach & Theory*

04 *Urban renewal urgency*

05 *Identity Analysis*

06 *Design Assignment*

07 *Design Vision*

08 *Design Principles*

09 *Potential masterplan & key interventions*

10 *A final statement*

Rotterdam Crooswijk: a victim of urban renewal

Introduction

01

(Rotterdam City archive)

Rotterdam

Crooswijk

- Working-class neighbourhood in Rotterdam
- One of the original neighbourhoods
- Known for it's social cohesion
- Strongly associated with the 'real' Rotterdammer and the Rotterdam dialect

(Rotterdam City archive)

(Google Earth)

Figure 1. Generic statistics Oud Crooswijk
(Oud Crooswijk Alleciffers, 2023 & Wijkprofiel Oud Crooswijk 2023)

RICK KLOOTWIJK (5914260) | REINTERPRETING THE WORKING-CLASS NEIGHBOURHOOD | MASTER THESIS | TU DELFT | 2024

However...

due to urban renewal

This association is starting to disappear

Woonproblemen

Wijken voor de yuppen in Rotterdam Crooswijk: "Het idee dat ik weg moet, vind ik heel akelig"

Dit is een nieuwsbericht van
Rijnmond

Zaterdag 11 september 2021, 09:00

Bewoners zijn verknocht aan 'k lotebuurt' Oud-Crooswijk: 'Vroeger lachte ik, nu heb ik een huilkoppie, maar ik laat me niet wegpesten uit mijn wijk'

REPORTAGE

Ooit de trots van een Rotterdamse volkswijk, nu verpauperd en onveilig – oudgediende moet Crooswijkseweg opknappen

19 JUNI 2024

HUURDERS CROOSWIJK VOEREN ACTIE VOOR BETERE WOONOMSTANDIGHEDEN

02

Dit is een nieuwsbericht van
Rijnmond

Vrijdag 10 september 2021, 08:10

Een diepgeworteld wantrouwen in plannen Oud-Crooswijk door sloopdrift in Rotterdam

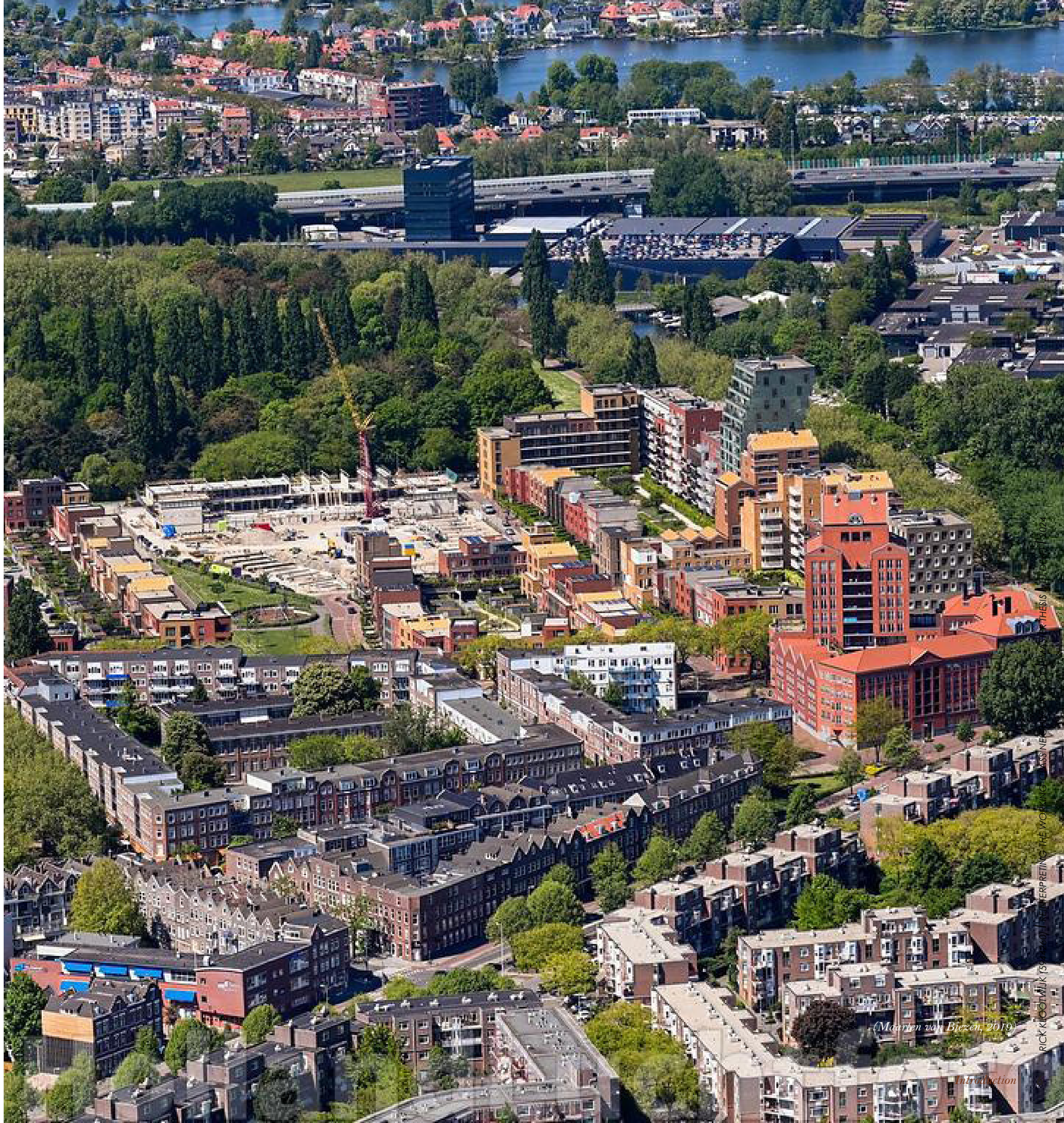
KRO-NCRV (2020) NOS and Rijnmond (2021), SP Rotterdam (2024) and Volkskrant (2024)

Urban renewal

Nieuw Crooswijk

- Early 2000s
- Urban renewal in Nieuw Crooswijk
- Leading to:

1. A completely altered physical appearance
2. Large demographic shift



(Maarten van Biezen, 2019)

Forcing current residents out

As a result of the urban renewal

- Attempt to make the city more attractive for higher incomes
- Makeover offered room for upper-class
- Disregarding the current working-class
- Leading to gentrification

"When they start demolishing, the only have room for 450 social houses.

Where do the rest of the Crooswijk-natives have to go?"

"To the next about to be demolished neighbourhood ofcourse!

That is what you call efficient demolition policy."

www.rotterdamwoont.nl

Spreading fear in Oud Crooswijk

- Currently in need of renewal
- First visible signs of gentrification
- Residents fear their area is next

'This is a working-class'' neighbourhood. But people want us out. The 'Yuppen' (upper-class) are going to kick me out''

''Crooswijk has been ruined, and I fear this cannot be fixed anymore...''

''It all started when they started renovating Nieuw Croosijk.''

''People are chased out. People had a rent of €350,-. They were promised to be able to return after the renovation. However, their rent increased to €720,- which they could not afford ofcourse.''

''Everyone helped each other, everyone knew and greeted each other. Nowadays, if you say hello to someone, they will not even look at you.''

(NPO, 2018)

Problem Statement

"Urban renewal threatens to ***push out the current inhabitants*** *and* ***alter the physical appearance*** *of the neighbourhood.*

As a result, Oud Crooswijk could become completely unrecognizable, ***removing the working-class character of the neighbourhood****."*

The importance of the working-class

- Working-class = DNA
- The DNA makes Rotterdam unique and attractive

Bold

Rotterdam is a city that's direct and unpolished. Rotterdammers say what they mean. Rotterdam is a city where anything is possible. Rotterdam is constantly changing and never finished. The city is young and unpolished. This means that anyone can contribute to the city and connect with it.

Forward

In Rotterdam it doesn't matter where you come from, it matters where you're going. Those who want to create something new can find what they want in Rotterdam. Rotterdam is the city of initiative and innovation.

Culture

Rotterdam is a world port city. The port is the largest and most modern of Europe and belongs to the top 10 ports globally. Additionally, the city knows a powerful skyline and modern architecture. 178 different nationalities live together in Rotterdam and the city has an international network. Rotterdam is the city with an open mind.

The DNA of Rotterdam
(Gemeente Rotterdam, N.D.)

(Rotterdam City archive)

(Rotterdam City archive)

(Rotterdam City archive)

Design Objective

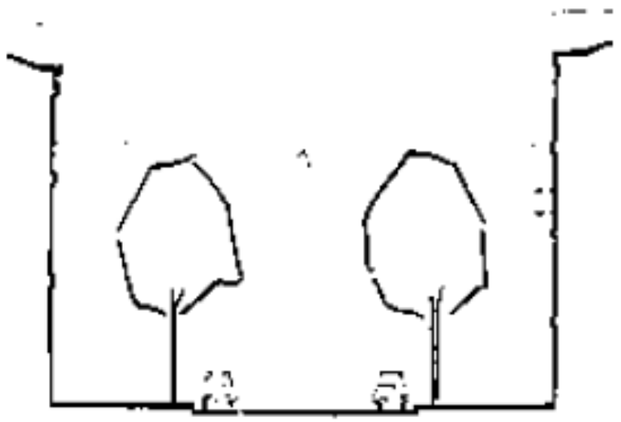
*"Creating a **transformation framework** that ensures Oud Crooswijk is still recognizable as a **working-class neighbourhood** after **urban renewal**"*

Keeping the working-class character recognizable

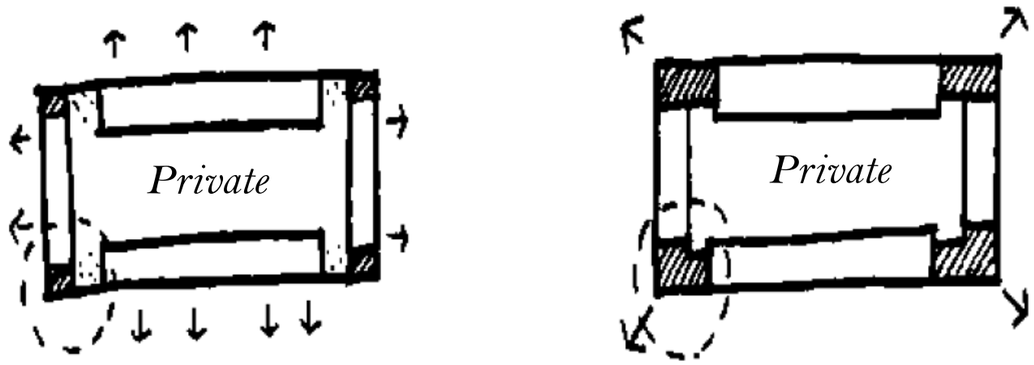
- Urban renewal requires spatial interventions

- Emphasis on original spatial characteristics

Street layout follows the old underlying polder structures



Compact public space



Closed building blocks

(Welstandsnota Rotterdam, 2012)

Ensuring the working-class character

Approach
&
Theory

03

NIET LULLEN MAAR POETSEN

Don't talk Just do it

(Rotterdam.info)

Main research question

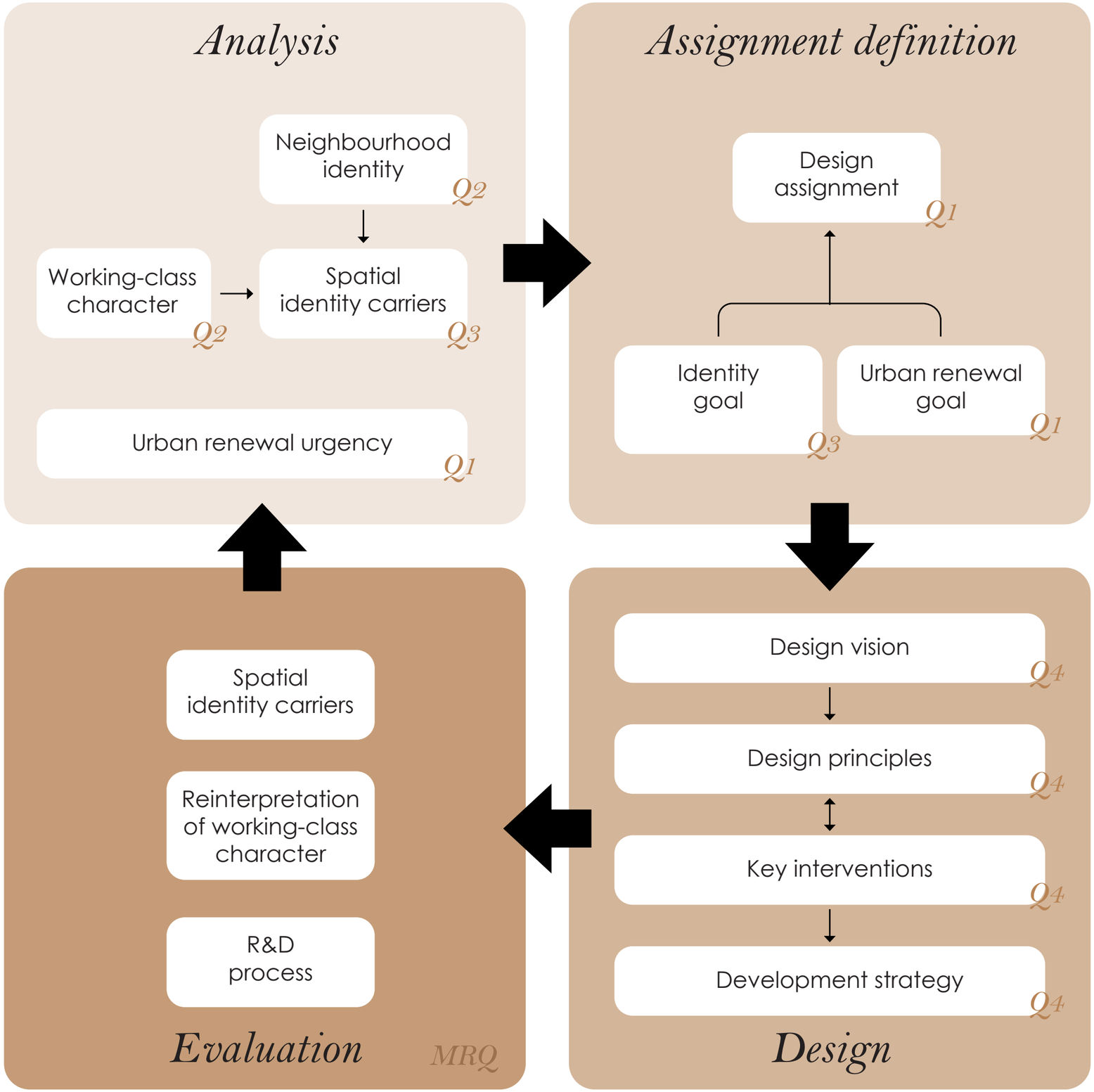
"'How to renew the urban fabric of Oud Crooswijk and reinterpret it's working-class character?''

Subquestions

1. *What is the urban renewal assignment of Oud Crooswijk?*
2. *What defines the modern-day working-class character of Oud Crooswijk?*
3. *What are the spatial elements that carry the neighbourhood's identity?*
4. *How to embed the spatial identity-carrying elements into the urban fabric?*

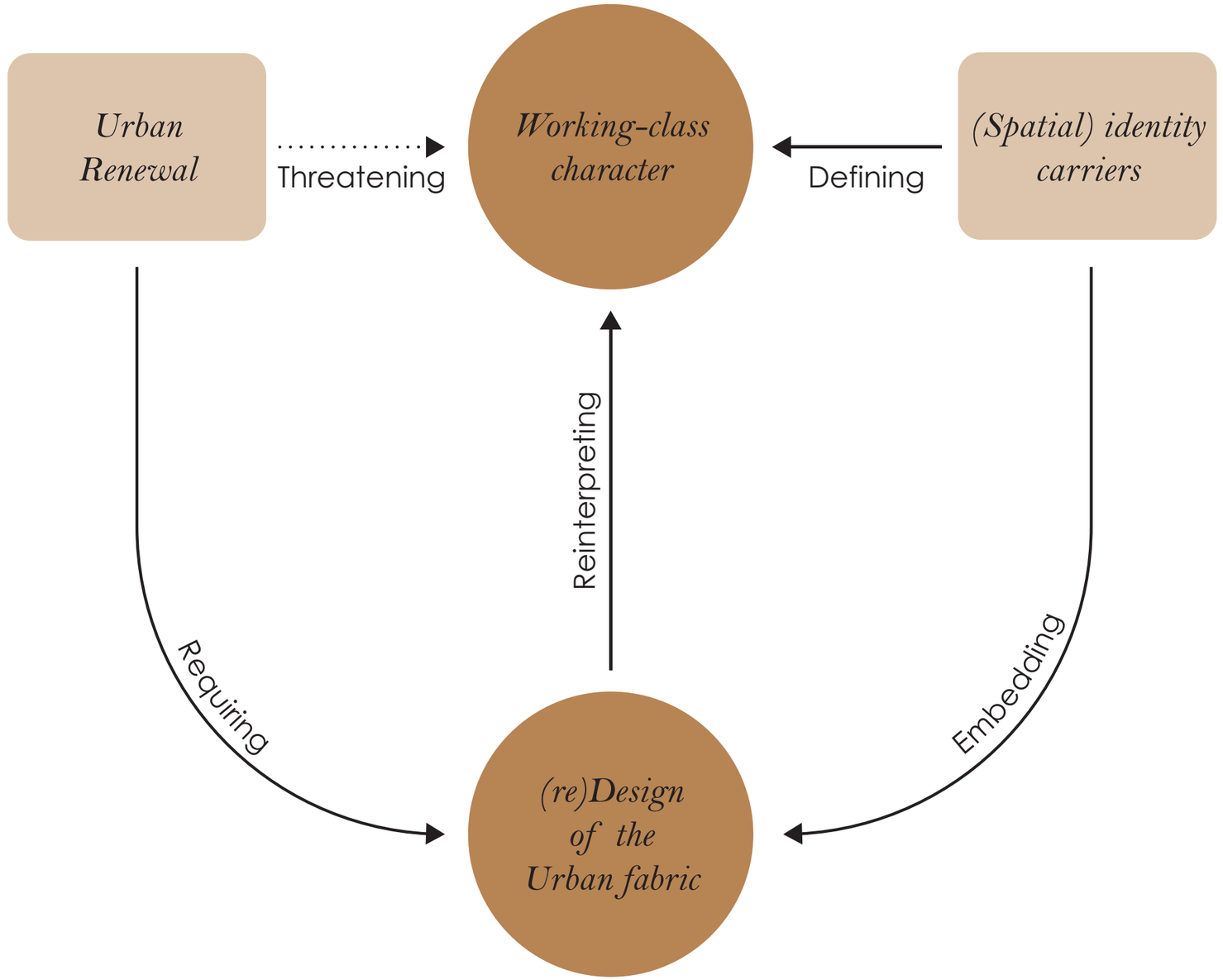
Transformation framework

Approach



Transformation framework

Scope



Analysis Pt. 1

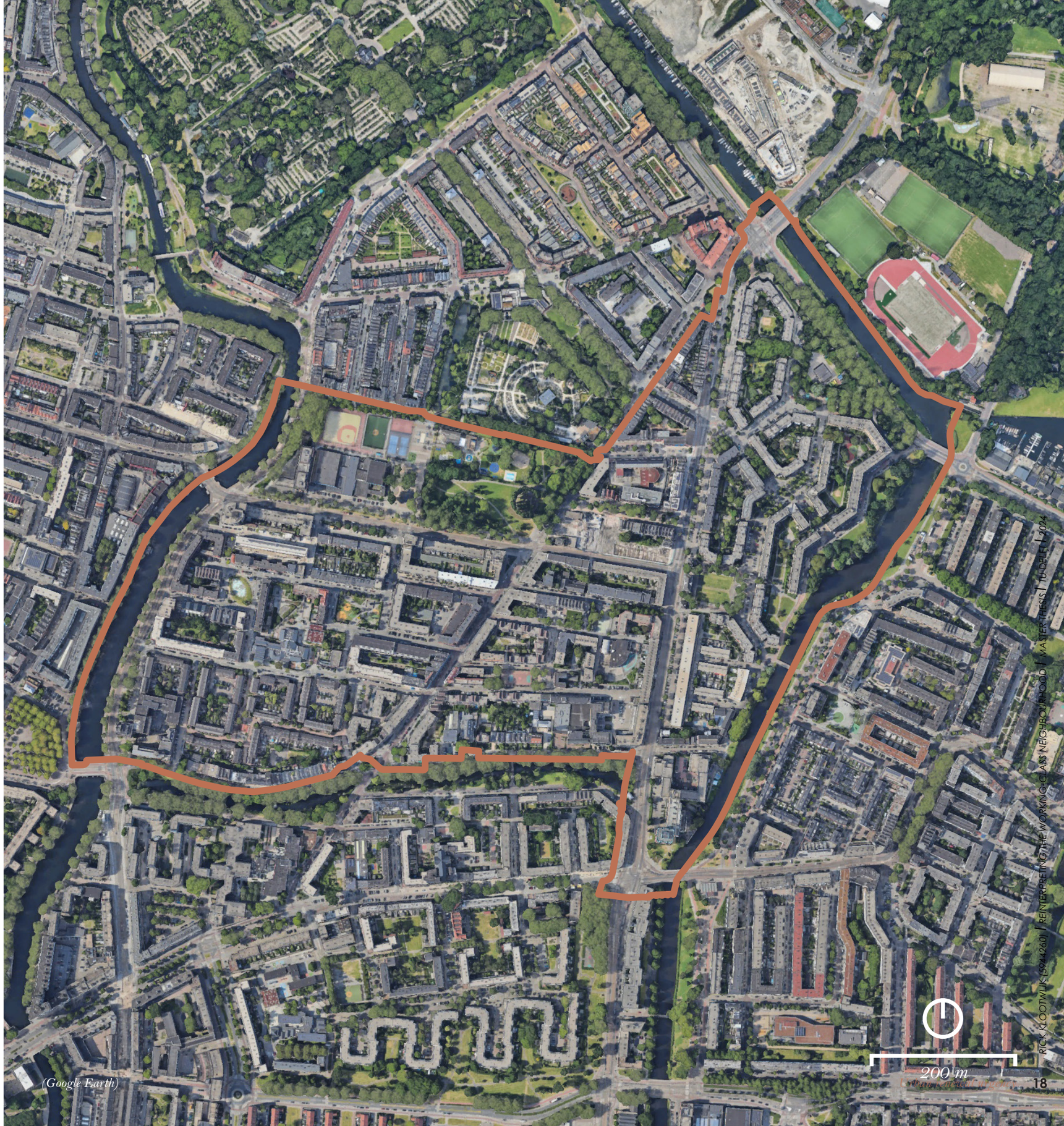
Urgency for urban renewal

04

Urgency

For urban renewal

- Spatial and social urgency
- In the area of Oud Crooswijk



(Google Earth)

Spatial urgency

For urban renewal

- Impoverished neighbourhood heart

"Ooit de Trots van een Rotterdamse volkswijk, nu verpauperd en onveilig - oudgediende moet Crooswijkseweg opknappen"

(Volkskrant, 2024)

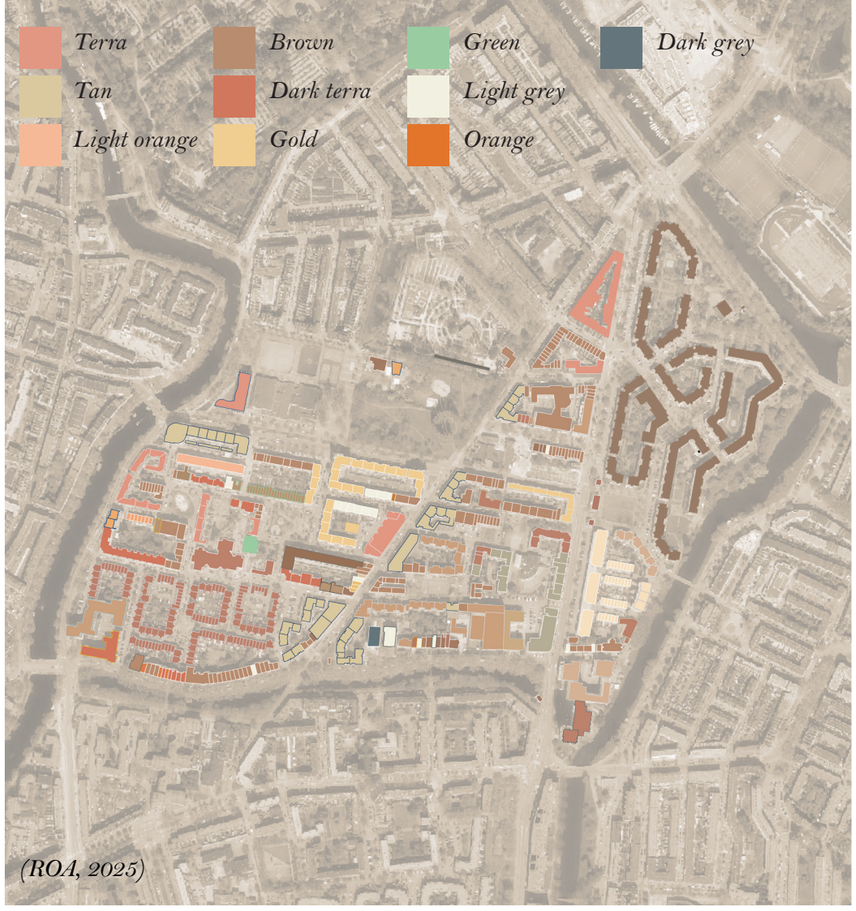
"Als buurtbewoners door de Crooswijkseweg in Rotterdam moeten, gaan ze soms liever een blokje om. 'Malafide ondernemers trekken onguur volk aan.' "

RICK KLOOTWIJK | 4.2.2024 | ENTERPRISING THE WORLD OF CLASSIC NEIGHBOURHOOD | MASTER THESIS | TU DELFT | 2024

Spatial urgency

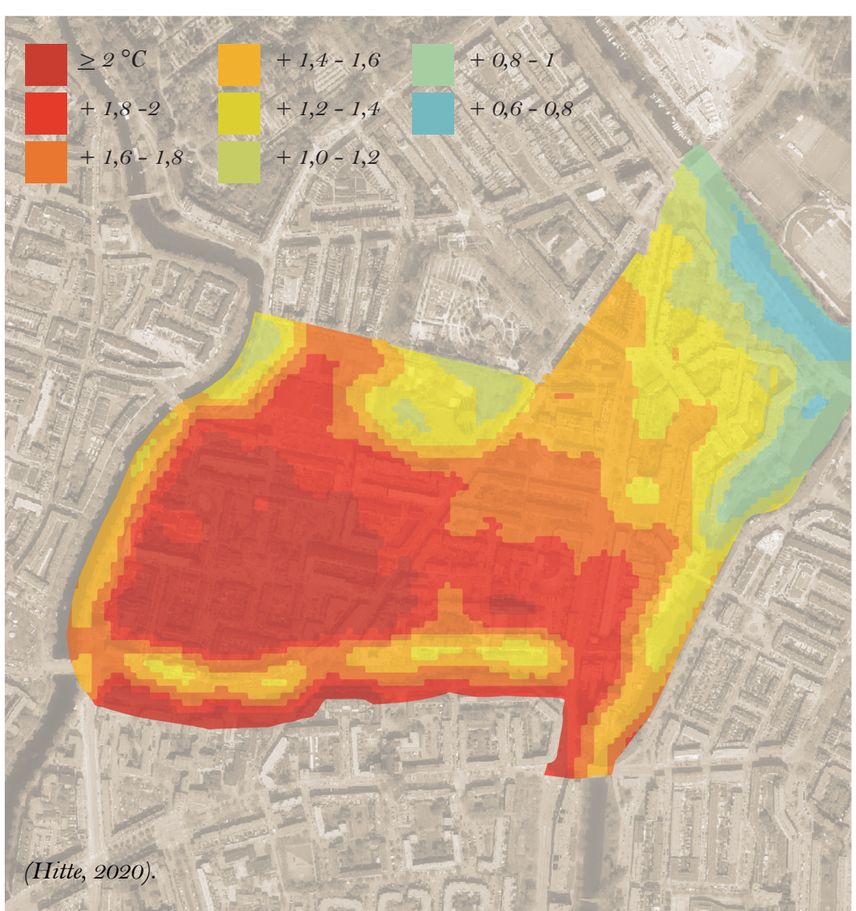
For urban renewal

- Fragmentation
- Poor housing condition
- Heat stress
- Lack of green



(ROA, 2025)

(Energielabels Van Gebouwen, n.d.)



(Hitte, 2020).

(GiSWeb 2.2 - Gisweb, n.d.)

Social urgency

For urban renewal

- Unaffordable homes
- Poverty
- Poor liveability

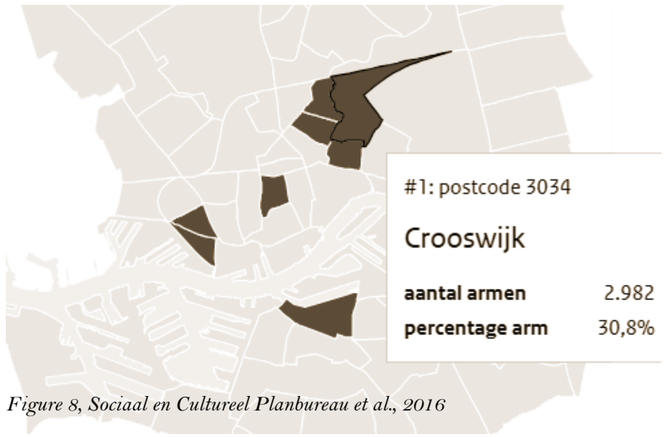


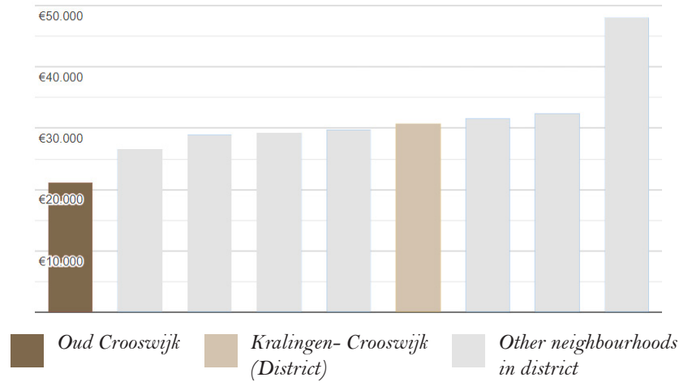
Figure 8, Sociaal en Cultureel Planbureau et al., 2016

		% of household living around or below social norm	*% of people receiving welfare benefits*
Oud Crooswijk	Buurt	25%	11%
Nederland	Land	6%	2%
Rotterdam	Gemeente	13%	5%

(Buurt Oud Crooswijk AlleCijfers.nl, 2025)

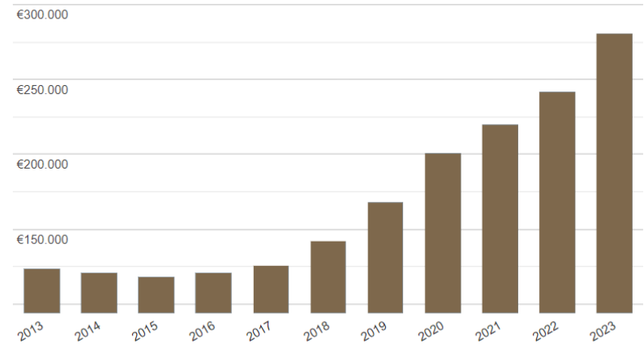
Average annual income per person

€22.900,-



Average housing price

€294.900,-



Average housing price:	*€294.000*
Average annual income:	*€22.900*

Maximum mortgage
- *2x € 22.900*
- *No (student) debts*

ING:	*€193.638*
Rabo Bank:	*€194.123*
ABN AMRO:	*€192.433*
Independer:	*€ 206.081*

Buurt Oud Crooswijk AlleCijfers.nl, 2025 and ING, Rabo Bank, ABN AMRO, & Independer, 2024)

Urban renewal goal

*"Creating a **coherent** and **sustainable urban fabric**, designed from the **public space perspective**"*

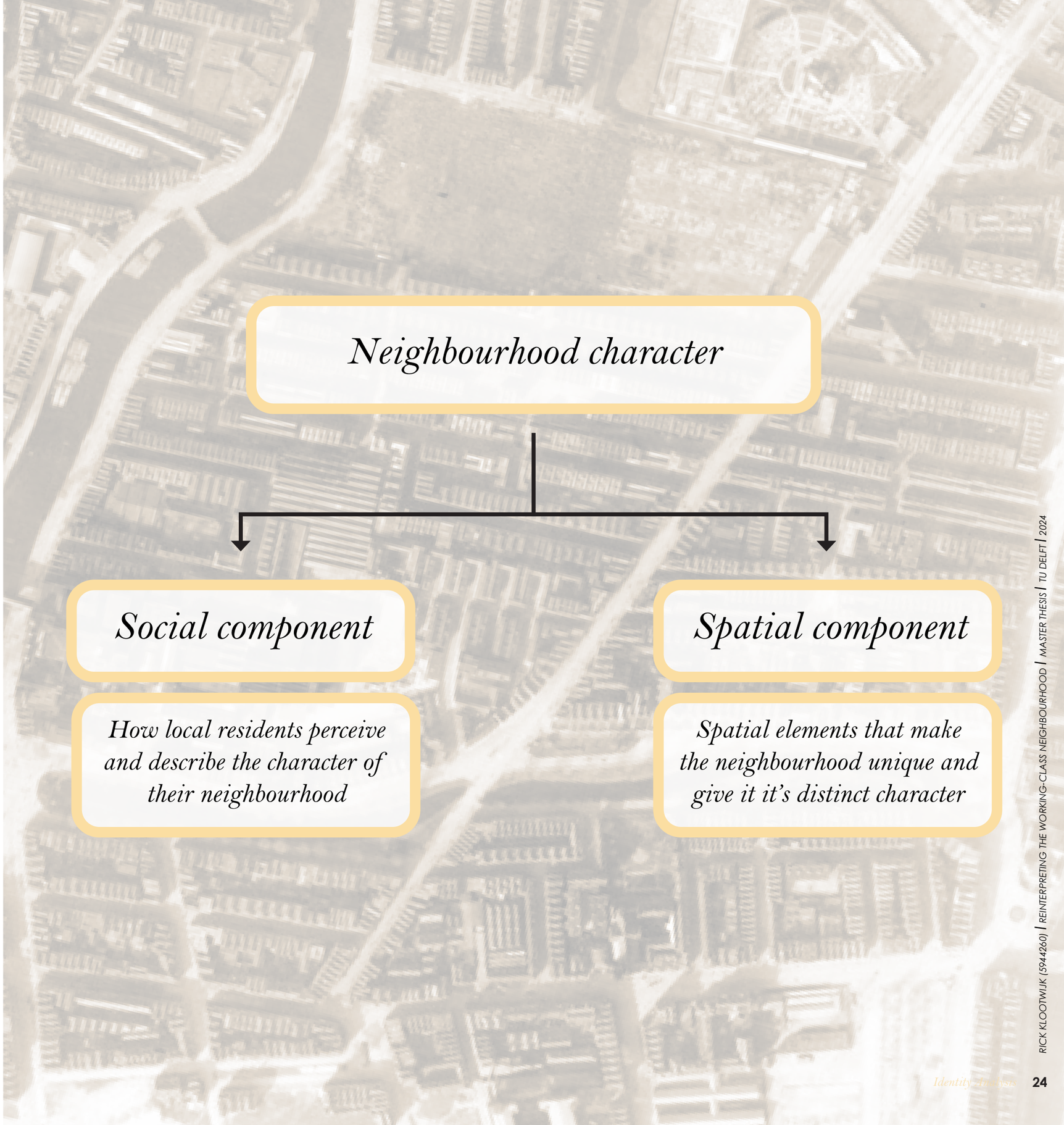
Analysis Pt. 2

Defining the modern-day working-class character

05

Statue of famous Oud Croeswijk native and boxer Bep van Klaveren

Defining the character of a neighbourhood



Character of Oud Crooswijk

Past

- Working-class

- Defined by
  - Manual labour professions

(Rotterdam city archive)

(Inthesetimes.com)

Character of Oud Crooswijk

Present

- Working-class
- Due to economic shift
- Concept has strongly diffused
- Present:
  - Poverty
  - Limited access to goods & technology
  - Social housing
  - Manual labour professions

(Pilgrim-Brown, 2023)

"Conceptualising what it means to have a working-class identity in 2023 is complicated, complex, and consistently under debate."

(Pilgrim - Brown, 2023)

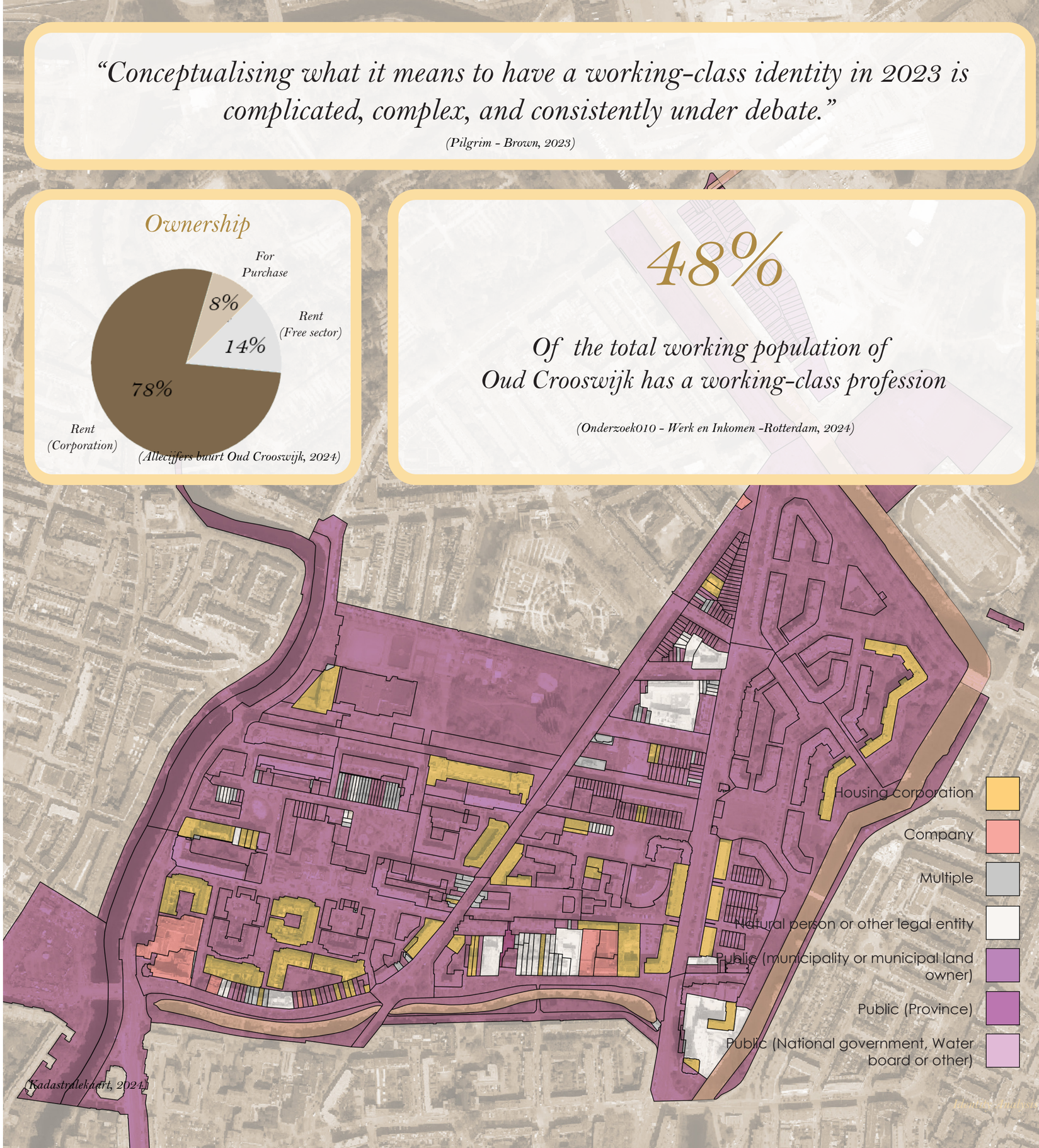
Ownership

(Allecijfers buurt Oud Crooswijk, 2024)

48%

Of the total working population of Oud Crooswijk has a working-class profession

(Onderzoek010 - Werk en Inkomen -Rotterdam, 2024)



(Kadastralekaart, 2024)

Defining the spatial character of Oud Crooswijk

Working-class character of Oud Crooswijk

Social component

How local residents perceive and describe the character of their neighbourhood

Spatial component

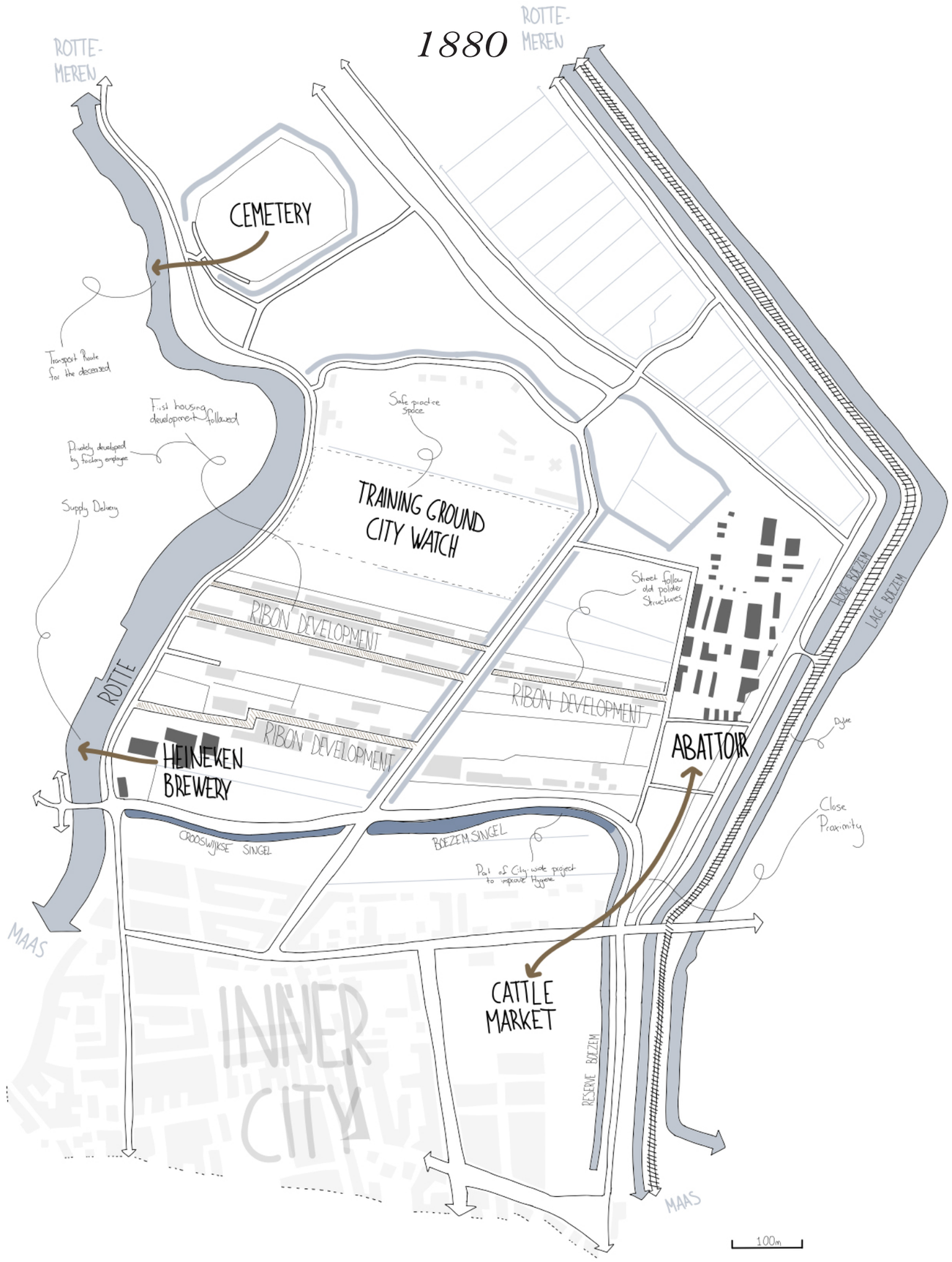
Spatial elements that make the neighbourhood unique and give it it's distinct character

((photo) Gemeente Rotterdam, n.d.)

Crooswijk

Early development

- Originated in the late 1800s
- Non-planned city-expansion
- Unwanted industries for the inner-city
- Urbanization of local polders



Crooswijk
Densification

- Speculative development
- Following old waterways
- Heavy densification
- Compact public space as a result
- Expensive houses along the singels

Crooswijk

Birth of Nieuw Crooswijk

- Further expansion of Rotterdam
- Planned development

Crooswijk

Large scale urban renewal

- Oud Crooswijk was not hit during the bombings of WWII
- Focus was on rebuilding the city
- Crooswijk was neglected in the years following WWII

Comparing the urban layout

Then vs Now

- Old waterway parcellation
- Closed building blocks
- Compact public space

(Photo: Municipality of Rotterdam)

(Photo: Google Earth)

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Urban Identity Analysis 32

Defining the spatial character of Oud Crooswijk

Working-class character of Oud Crooswijk

Social component

How local residents perceive and describe the character of their neighbourhood

Spatial component

Spatial elements that make the neighbourhood unique and give it it's distinct character

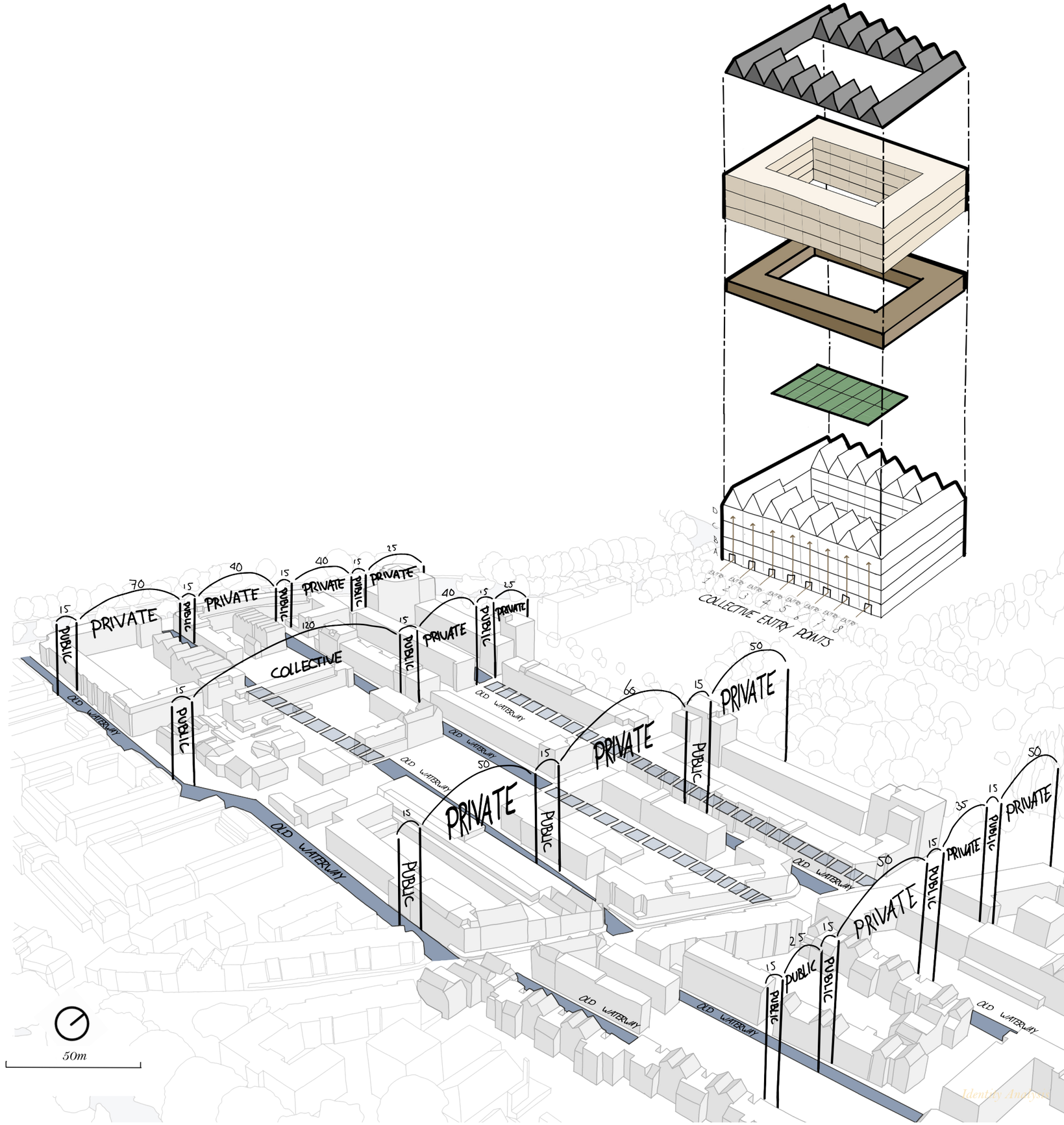
((photo) Gemeente Rotterdam, n.d.)

Characterizing elements

Spatial identity-carriers

Original spatial characteristics

1. Old waterway parcellation
2. Compact public space
3. Closed building blocks with tenement housing

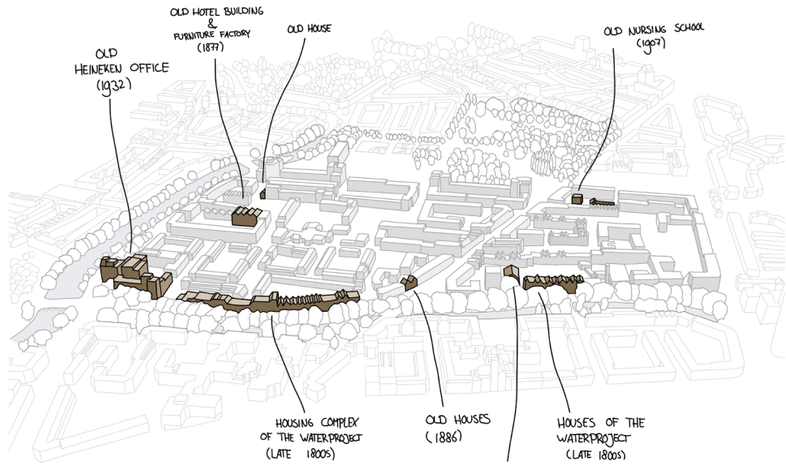


Characterizing elements

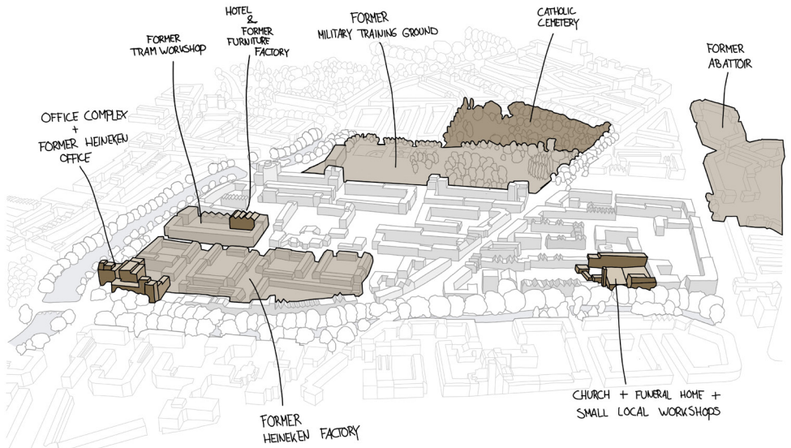
Other spatial identity-carriers

4. Social housing
5. Urban ensemble
6. Historical objects
7. Enclosing green structures
8. Open spaces & courtyards
9. Low urban density
10. Car dedicated public space
11. Working in the neighbourhood
12. Cozy neighbourhood heart

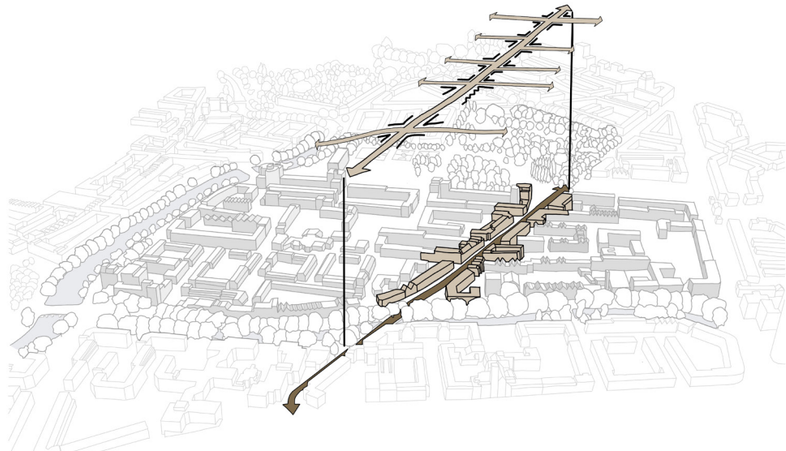
Urban ensemble



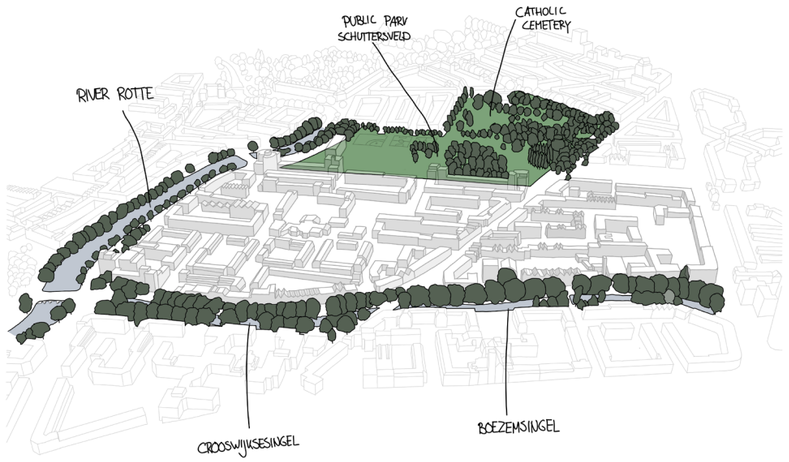
Historical objects



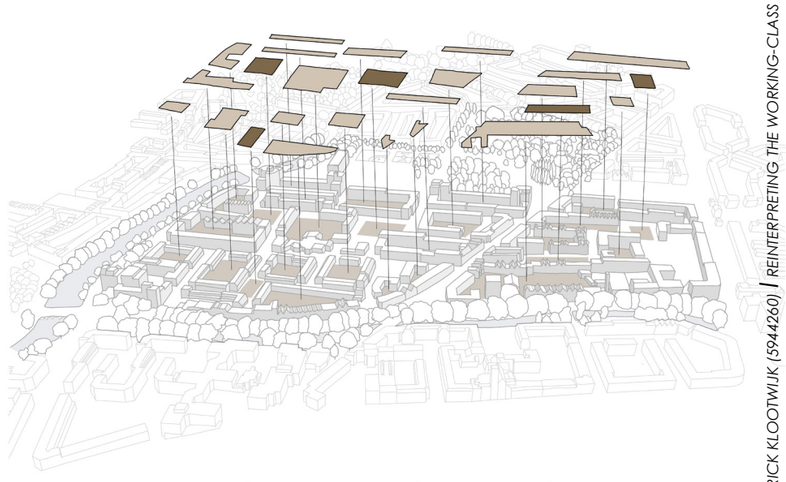
Working in the neighbourhood



Cozy neighbourhood heart



Enclosing green structures



Open spaces & courtyards

Working class character of Oud Crooswijk in the 21st century

The tangible characterizing elements and remnants that have derived from the industrial history of the neighbourhood'

Identity goal

*"**Preserving** the spatial identity-carriers of the **present** and **anticipating** on potential carriers for the **future**"*

Reinterpreting the working-class neighbourhood

Design assignment

06

(Rotterdam City archive)

Design assignment

"Oud Crooswijk as a ***reinterpretation*** *of the traditional* ***working-class neighbourhood****"*

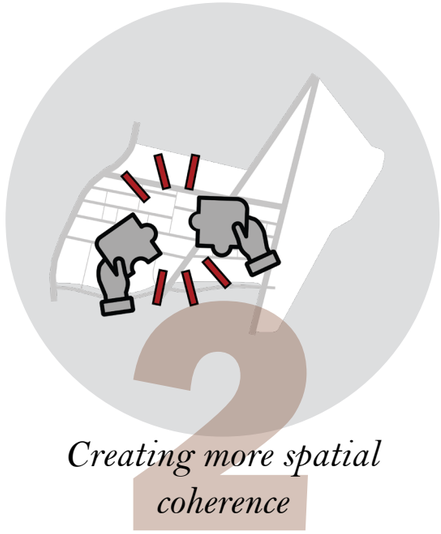
Reinterpreting the working-class character

- Urban renewal goal
  +
- Identity goal

5 subassignments

1

Revitalizing the neighbourhood heart



2

Creating more spatial coherence

3

Improving the liveability

4

Finding a place for the car

5

Offering a place to work

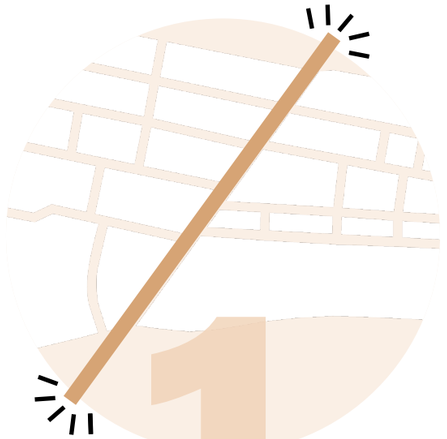
Een dorp in de stad

Design vision

07

Een dorp in een stad

5 Pillars

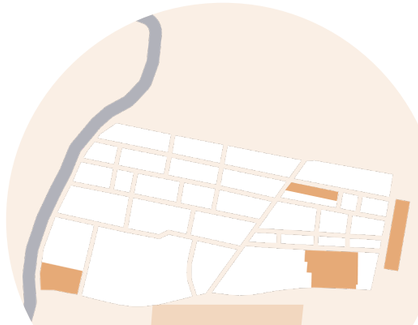


De Crooswijkseweg as the main street

Old waterways as green image carriers

Neighbourhood gardens & renovated building blocks

A pedestrian friendly neighbourhood with room for the car



Neighbourhood workshops

Translating the vision to Design

Design principles

08

0 Overarching

0A: Preserving the enclosing green structures

0B: Preserving the current spatial density

0C: Renovation over demolition & reconstruction

0D: Greening and cooling the neighbourhood

0E: Tree lines connecting the enclosing green structures

0F: Romanticizing the industrial past through materialization

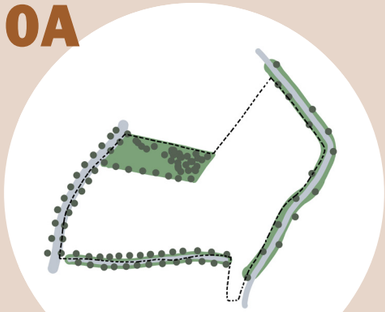
0G: The toolkit Rotterdamse Stijl as base for materialization of the public space

0H: Enhancing the quality of public and collective spaces

0I: Phasing out personal vehicles

0J: More room for cyclists & pedestrians

0A



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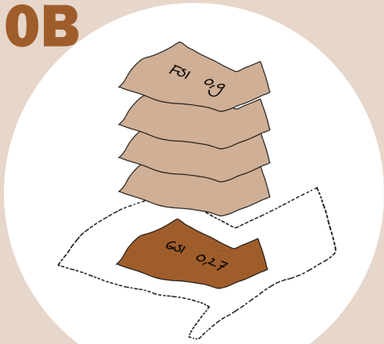

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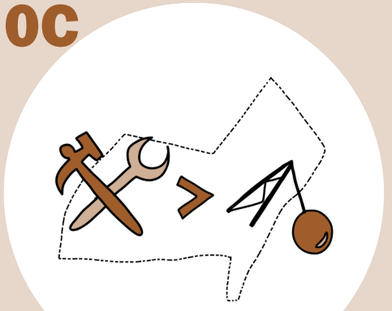

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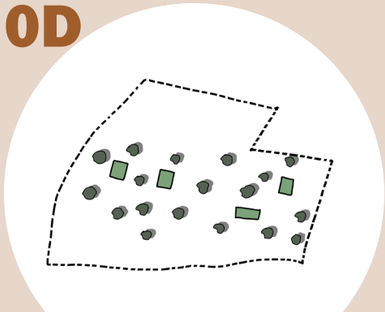

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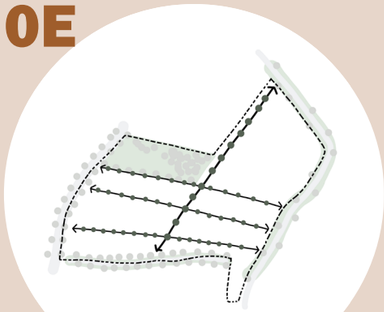

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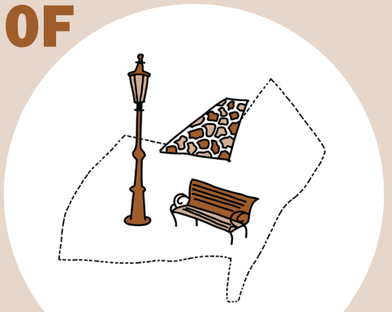

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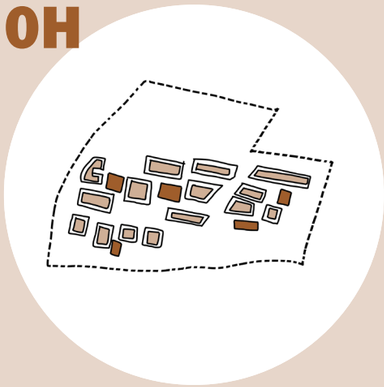

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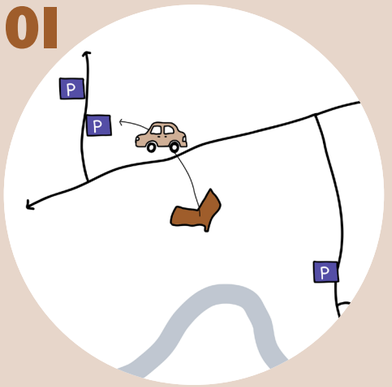

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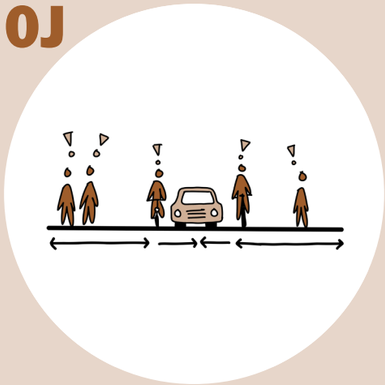


1 *Crooswijkseweg as the main street*

1A: Street profile proportions of at least 1:1

1B: Activating plinths

1C: Creating more space to stay

1D: Greening by adding trees

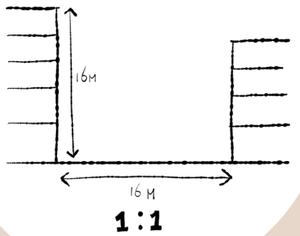
1E: Clustering local services and amenities

1F: No car parking space

1G: Dedicated supply and delivery zones

1H: Preserving characteristic parcel- and building corners

1A



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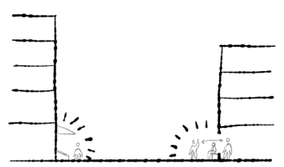

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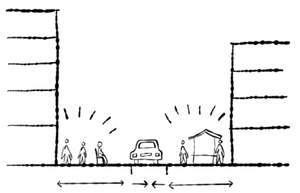

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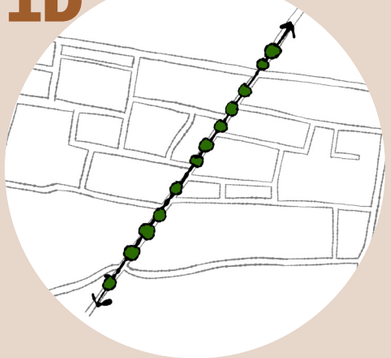

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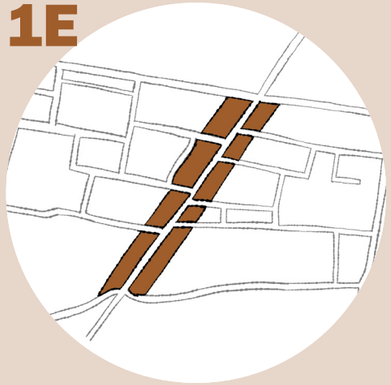

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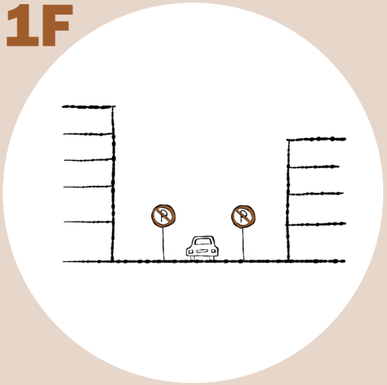

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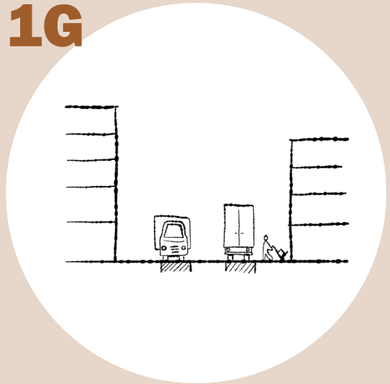
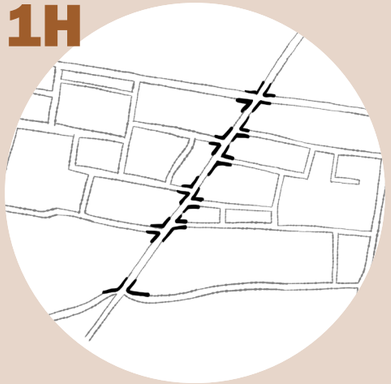


1H



2

Old waterways as image carriers

2A: Adding trees on the old waterways

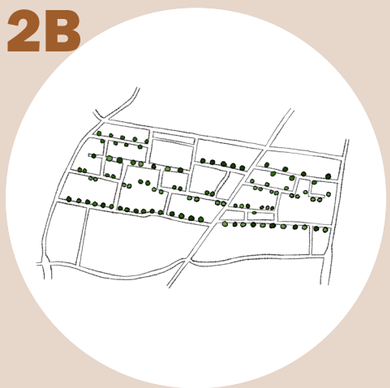
2B: Each waterway it's own character

2C: Fully integrating street furniture into street profile

2D: No car parking space

2A

2B



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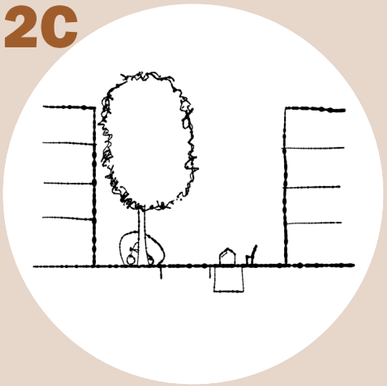

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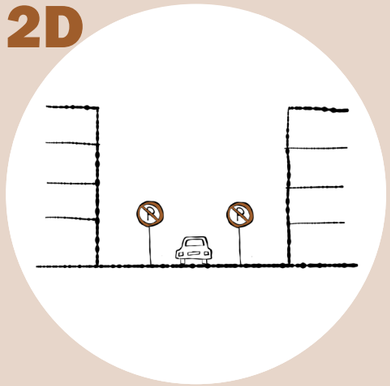


3 *Neighbourhood gardens & renovated building blocks*

3A: Preserving the spatial characteristics of a not-planned expansion neighbourhood

3B: Medium sized apartment houses

3C: Tenement building entries

3D: Many facade openings

3E: Three-way split facades

3F: Flat or pitched roofs

3G: Interwoven horizontal and vertical facade elements

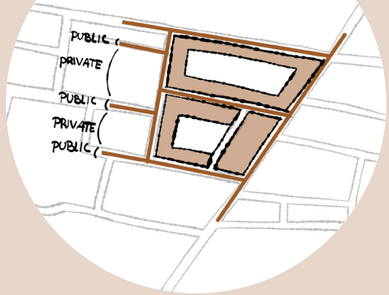
3H: Maximum building height of 5 layers and 16 meters

3I: Straigh building lines

3J: Preservation of historic and monumental elements

3K: Presence of open spaces

3A



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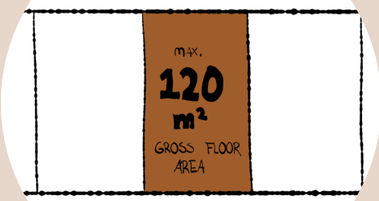

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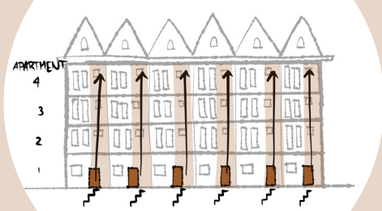

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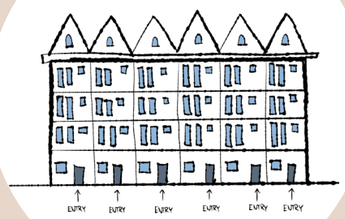

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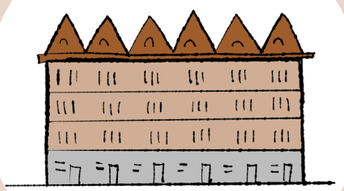

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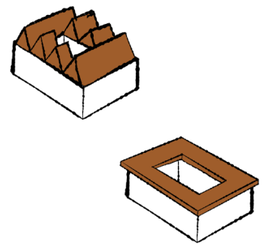
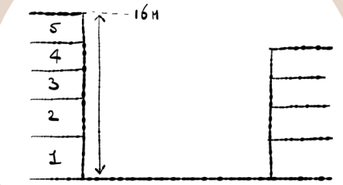


3G

3H



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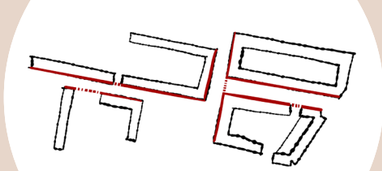

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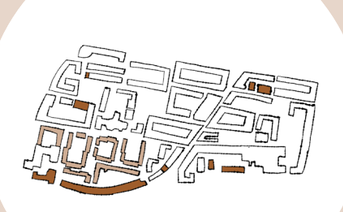


4

A pedestrian friendly neighbourhood

4A: *No (personal) car parking space*

4B: *Clustered parking facilities for commercial vehicles*

4C: *Creating more bicycle parking facilities*

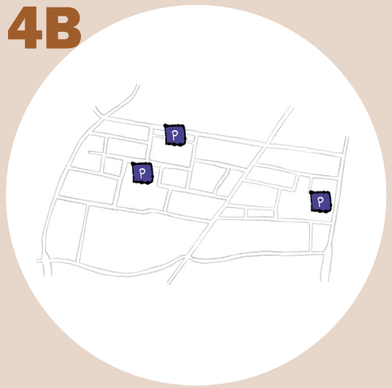
4D: *Preserving and enhancing accessibility by public transit*

4E: *Neighbourhood remains accessible by cars*

4F: *One-way streets*

4A

4B



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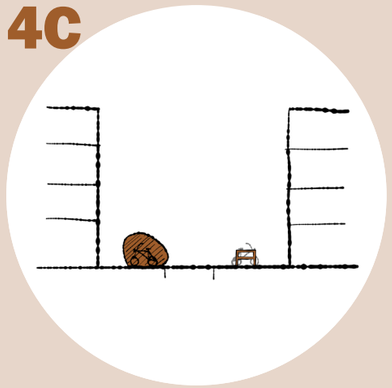

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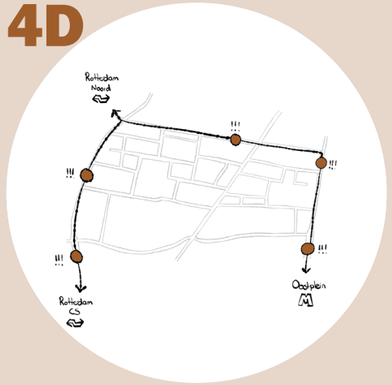

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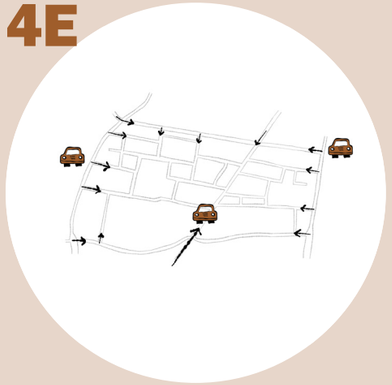

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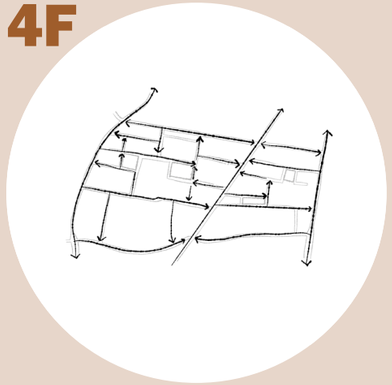


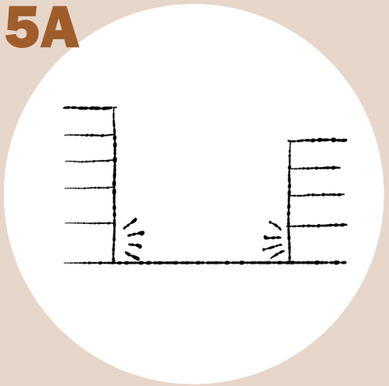
5 *Neighbourhood workshops*

5A: Activating plinths

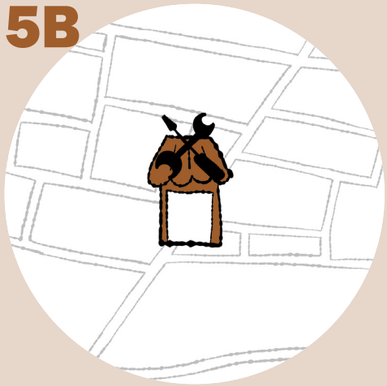
5B: Local "working-class" stores

5C: Collective storage units for tools and equipment

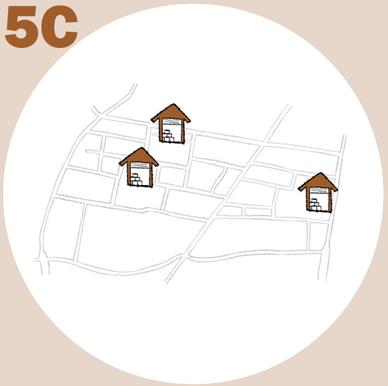
5A



5B



5C



The Design

Potential masterplan & key interventions

09

Current situation

Oud Crooswijk

100 m

Proposed masterplan

Oud Crooswijk: Een dorp in de stad

Design principle

100 m

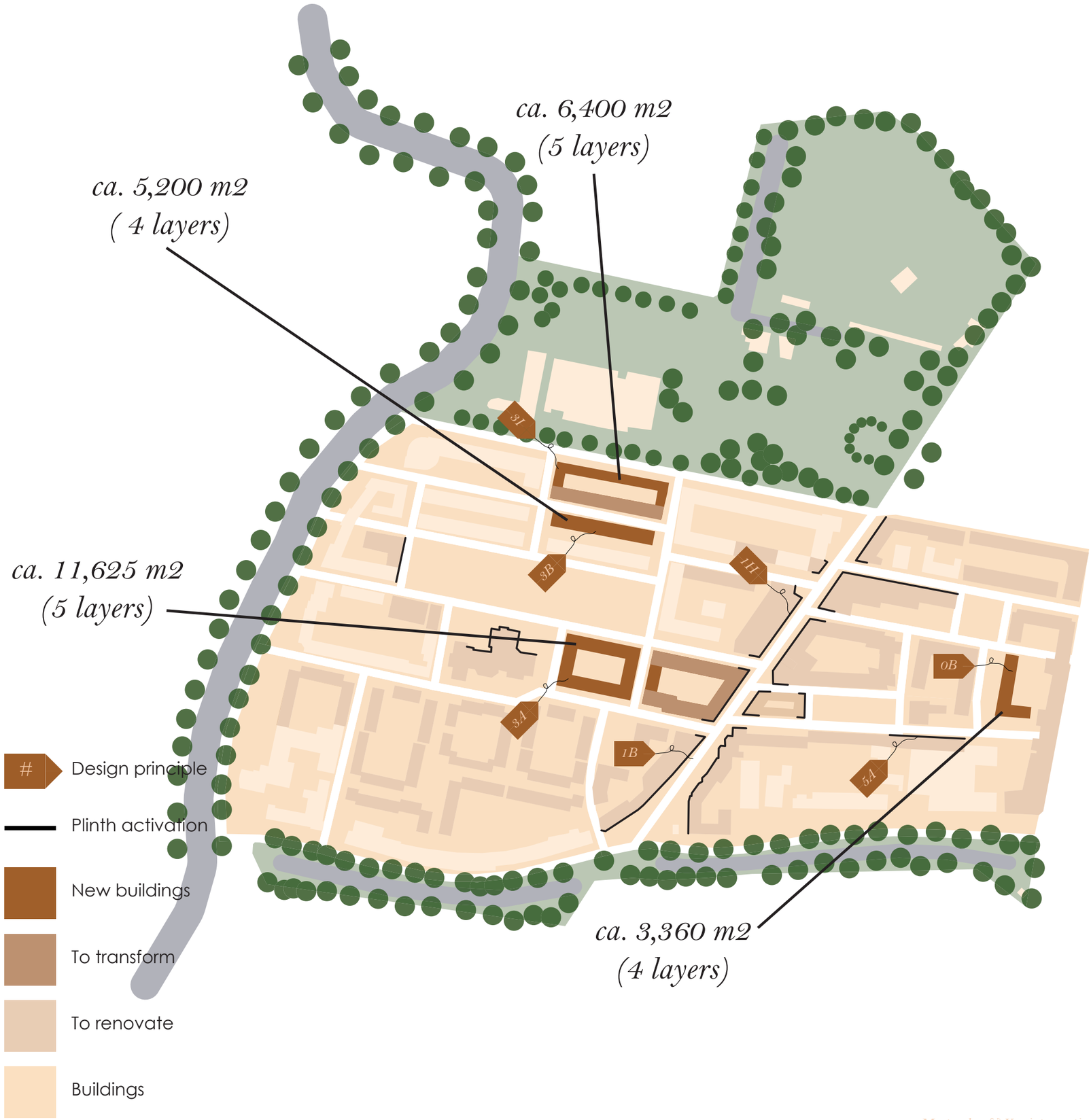
To demolish & Transform

- Minimal demolition

- Functions to be removed
  - 186 houses
  - 1 school gym
  - 1 kindergarten

To build & renovate

- Full compensation
- Total new floor space:
  26,585 m²
- Newly developed
  - 1 Schools (840 m²)
  - 1 Kindergarten (750 m²)
  - 1 School gym (375 m²)
  - 205 (120 m² each)
- Similar urban density



Programme

- Crooswijkeweg as cluster of amenities
- Local workshop areas
- Communal green spaces
- 2 schools

Accessibility

- Creating room for green and slow traffic users
- Clustered parking for commercial vehicles only
- Mostly one-way roads

Materialization

Subtitle

Pavement & Surface

Pavement

Pedestrian pavement

Pedestrian pavement

Turf (play areas)

Trees & Green

Trees (old waterways)

Trees (old waterways)

Trees (old waterways)

Trees (community gardens)

Hedges (front)

Furniture

Street lanterns

Lamp posts

Seating

Planters

Underground container

Trash cans

Bicycle storage

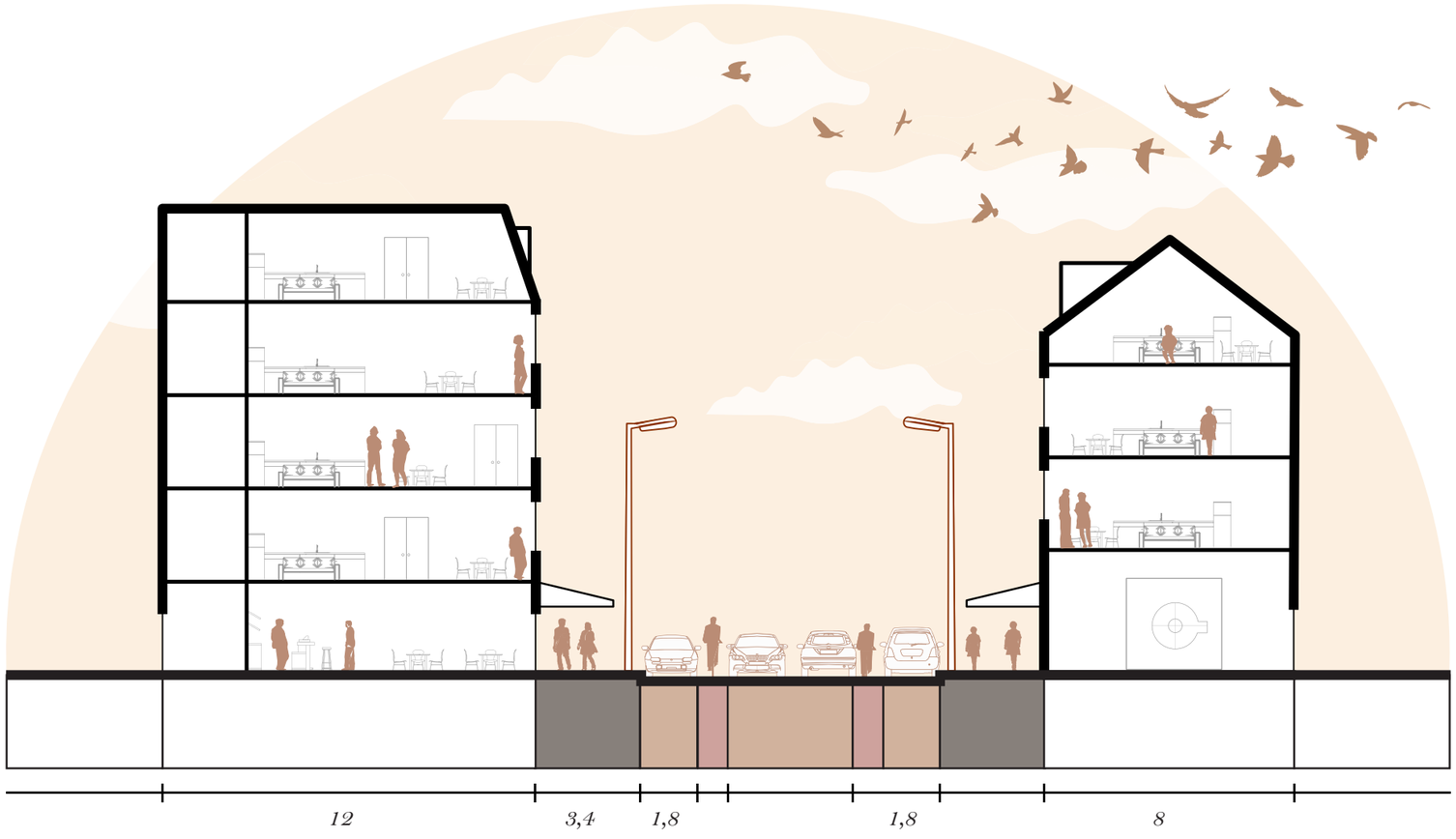
Bicycle parking

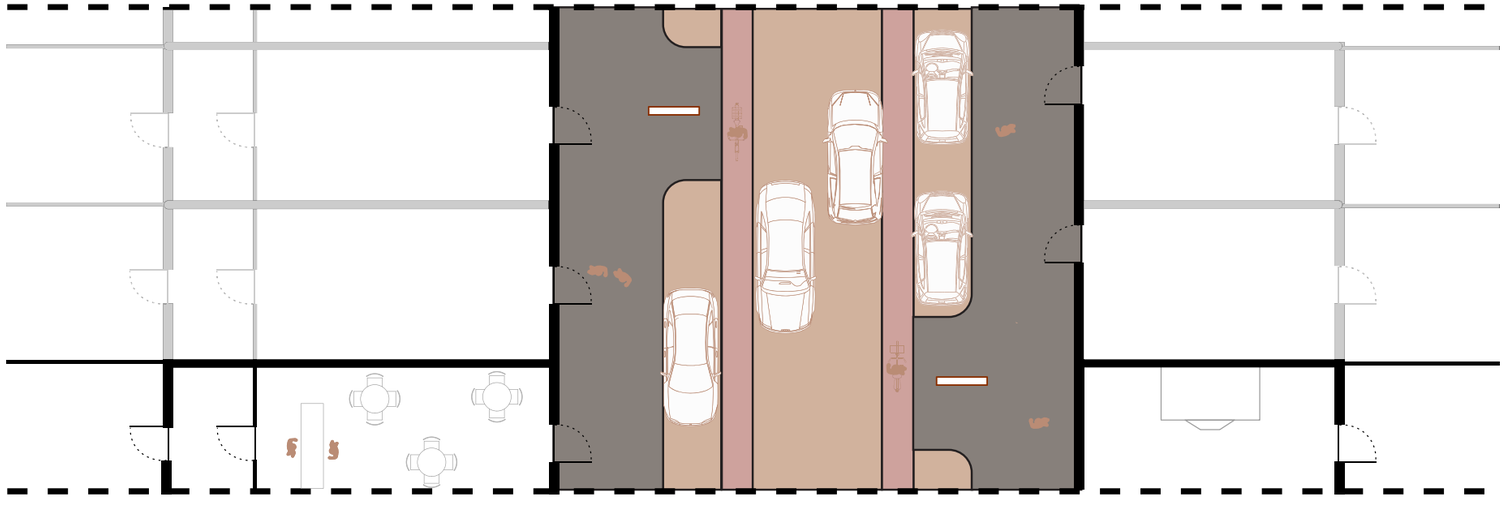
Fencing (play area)

Design principle

Crooswijkseweg

Current situation



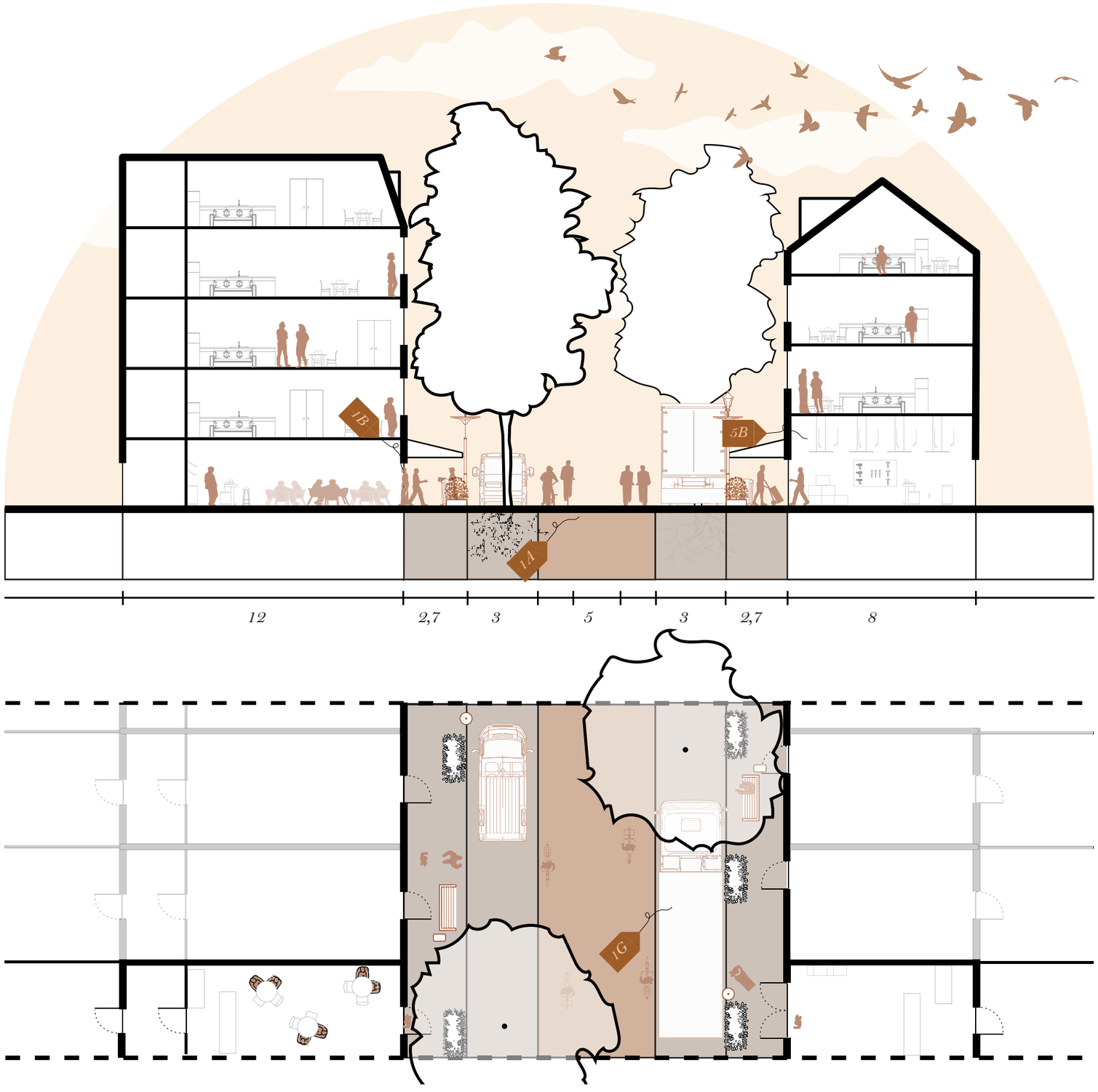


Design principle

10m

Crooswijkseweg

Proposed situation (between delivery hours)



Design principle

10m

Crooswijkseweg

Proposed situation (between delivery hours)

Design principle

Crooswijkseweg

Atmoshpheric impression

Crooswijkseweg

Atmoshpheric impression

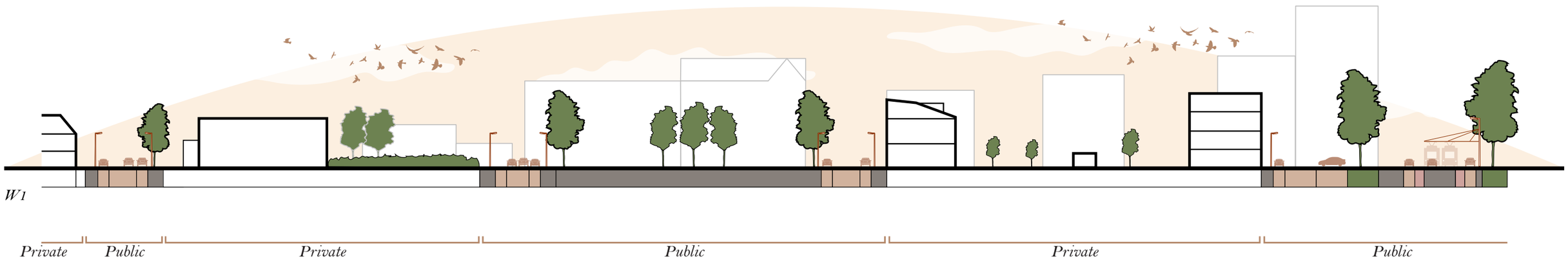
Crooswijkseweg

Atmoshpheric impression

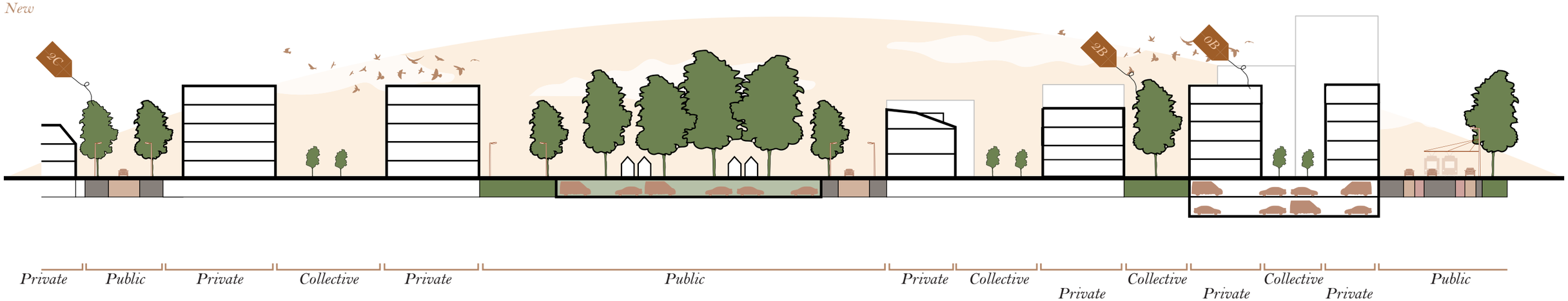
Western old waterways

Proposed situation

Current



New

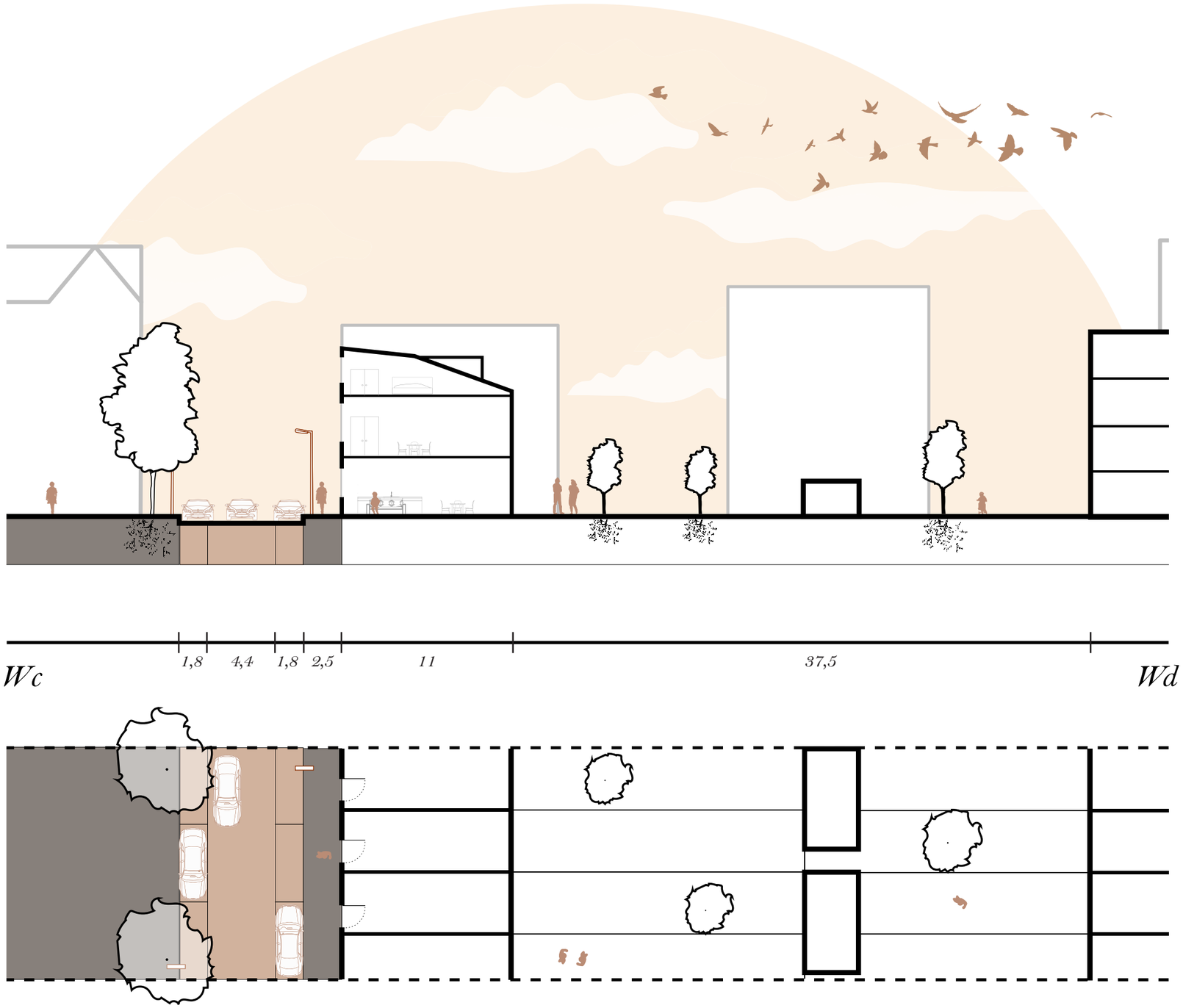


Design principle

25m

Frederikstraat

Current situation

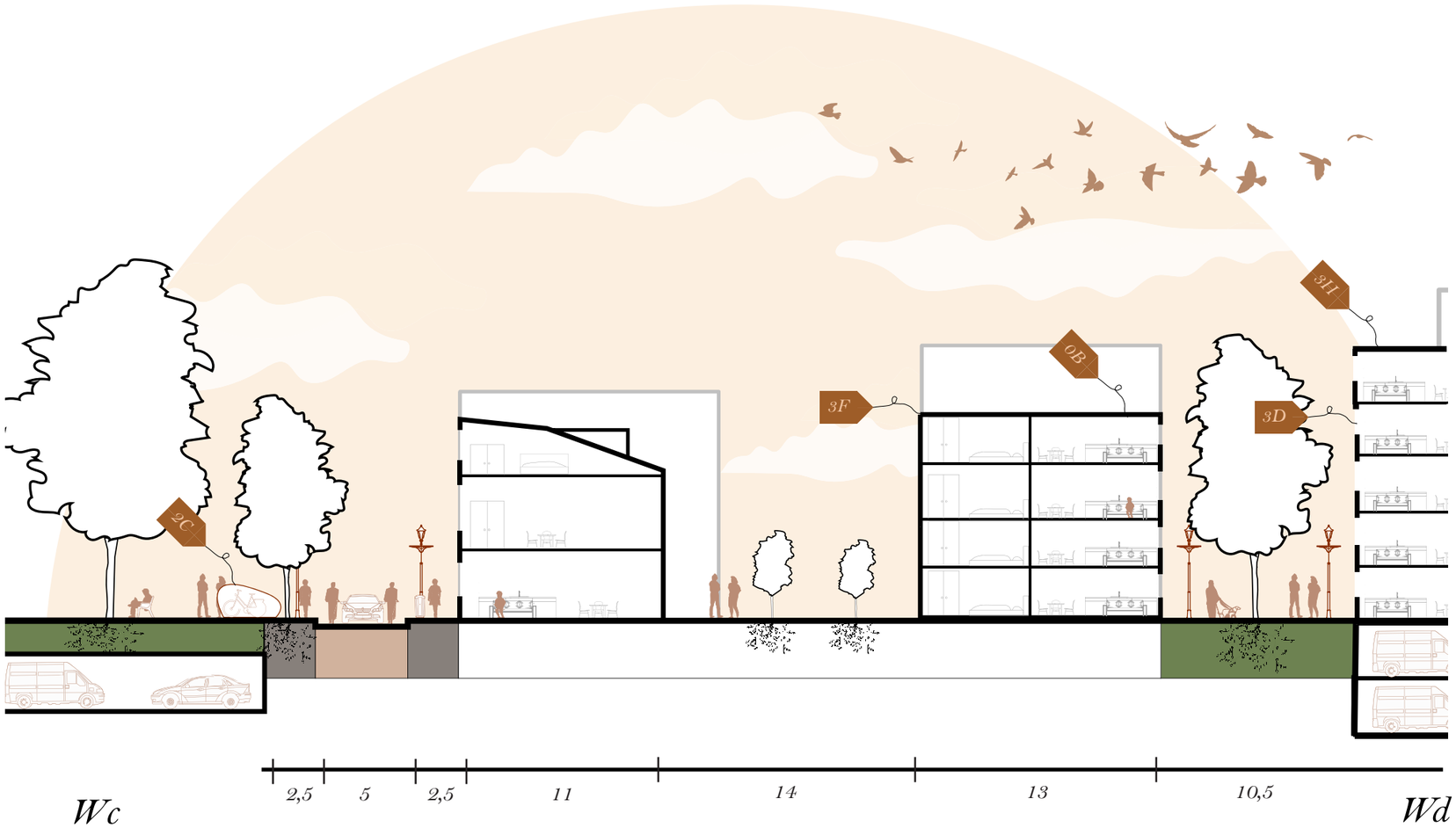


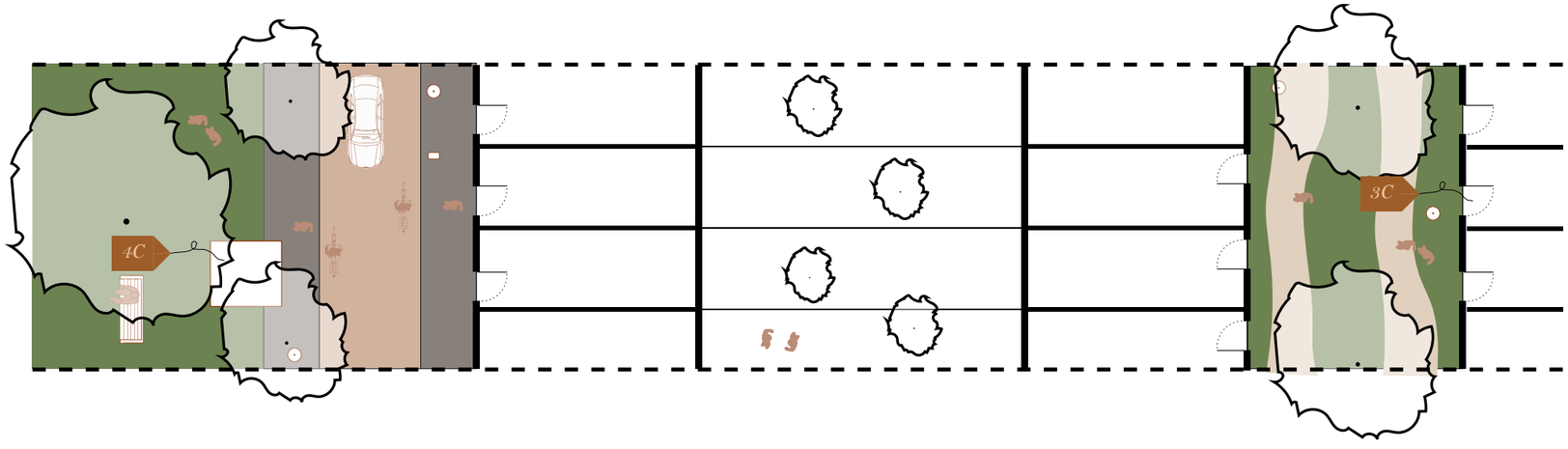
Design principle

10m

Frederikstraat

Proposed situation





Design principle

10m

Hendrikstraat

Atmoshpheric impression

Hendrikstraat

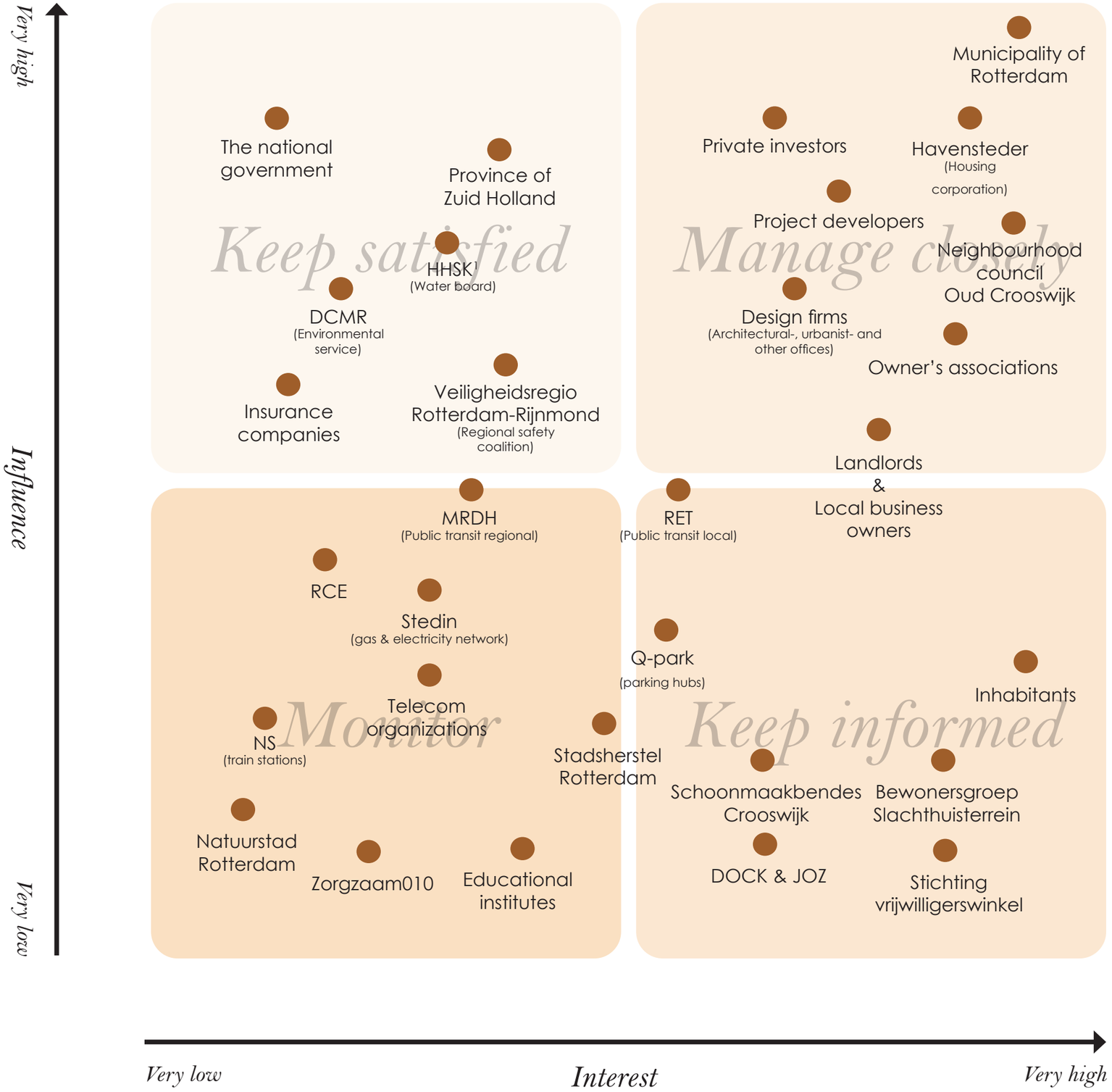
Atmoshpheric impression

Hendrikstraat

Atmoshpheric impression

Stakeholder overiew

Power - interest matrix



Development strategy

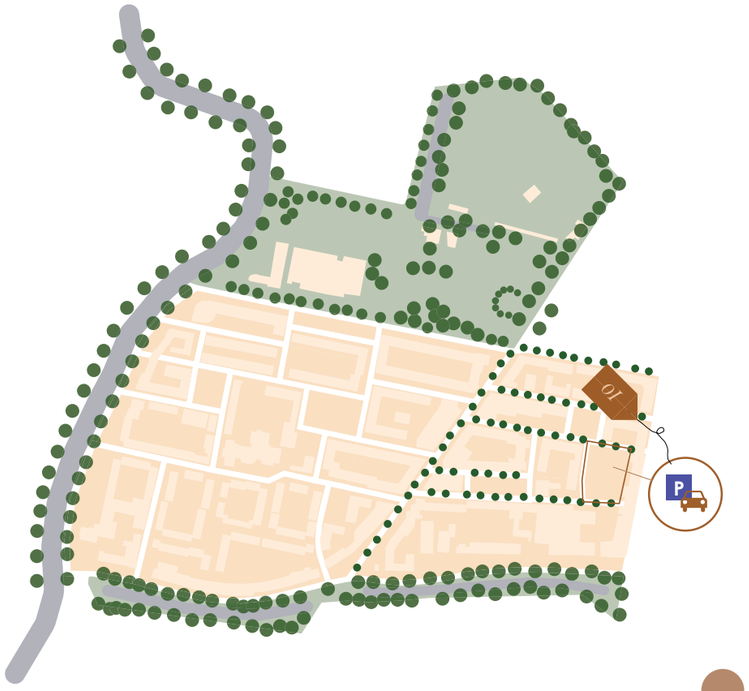
Of the ideal scenario

Phase 1

Revitalizing the heart

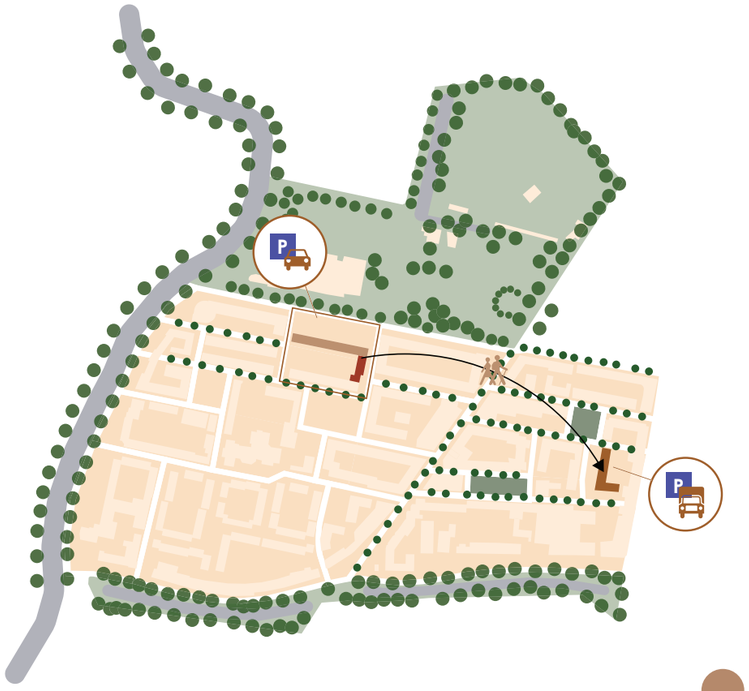
Phase 2

Enhancing recognition of the working-class character



Phase 3

Realization of first new working-class homes



Now — *2030* — *2035* — *2040*

\# Design principle

Development strategy

Of the ideal scenario

Phase 4

Creating a central communal area

Phase 5

Monitoring and anticipating on future needs

2045 *2050*

Design principle

Risk-assesment
Matrix

High

Possibility

Low

Average

5. *Non-Functional Pavement Material*

1. *Community Resistance*

High

11. *Illegal Parking*

Extremely high

13. *Neglect of Public Space*

Low

10. *Nuisance in Public Spaces*

6. *Insufficient Greenery*

Average

4. *Non-Alignment with Broader Municipal Policies*

2. *Financial Feasibility of the Parking Strategy*

High

9. *Retail Vacancy*

Disposable

7. *Obstruction of Daylight*

Low

12. *Inadequate Law Enforcement*

8. *Bird Nuisance*

3. *Misalignment with Municipal Parking Vision*

Average

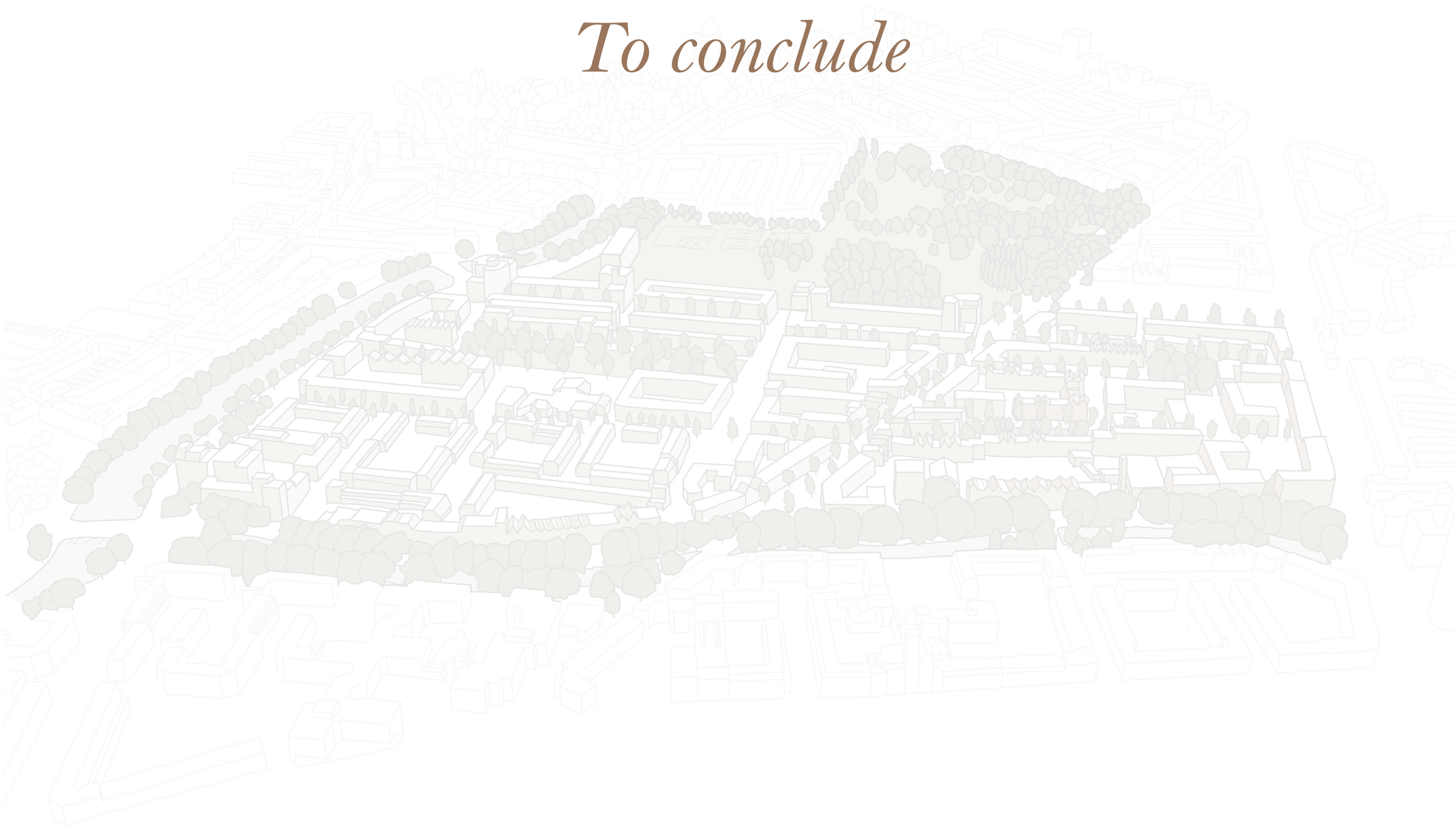
14. *Buildings lose their character after renovation*

Small — *Consequences* — *Large*

A final statement

10

To conclude



To conclude

"Conceptualising what it means to have a ***working-class identity*** *in the* ***21st century*** *is* ***complicated***, ***complex***, *and* ***consistently under debate****."*

To conclude

"Conceptualising what it means to have a ***working-class identity*** *in the* ***21st century*** *is* ***complicated****,* ***complex****, and* ***consistently under debate****."*

"Therefore, keeping Oud Crooswijk ***recognizable*** *as a working-class neighbourhood after urban renewal,* ***requires anticipation*** *on what this character will embody in the* ***future"***

To conclude

"Conceptualising what it means to have a ***working-class identity*** *in the* ***21st century*** *is* ***complicated****,* ***complex****, and* ***consistently under debate****."*

"Therefore, keeping Oud Crooswijk ***recognizable*** *as a working-class neighbourhood after urban renewal,* ***requires anticipation*** *on what this character will embody in the* ***future"***

"To anticipate on this, this thesis provides a ***transformation framework*** *that* ***reinterprets*** *the concept of a* ***working-class neighbourhood****"*

To conclude

*"Conceptualising what it means to have a **working-class identity** in the **21st century** is **complicated**, **complex**, and **consistently under debate**."*

*"Therefore, keeping Oud Crooswijk **recognizable** as a working-class neighbourhood after urban renewal, **requires anticipation** on what this character will embody in the **future**"*

*"To anticipate on this, this thesis provides a **transformation framework** that **reinterprets** the concept of a **working-class neighbourhood**"*

*And while the findings are promising, this framework is only **limited** to Oud Crooswijk.*

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*And while the findings are promising, this framework is only **limited** to Oud Crooswijk.*

*Therefore, to test its true **validity** and **transferrability,** I would like to **invite** the audience to **apply** this framework and let me know **your results!***

Thank you!

Figure 2. Aerial view of Oud Crooswijk in 1967 (Rotterdam City Archives)