

The South of Rotterdam

The Inclusive city:


The public space of the public

P5 Presentation

By Petros Christou

Cross Domain City of the Future

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1.

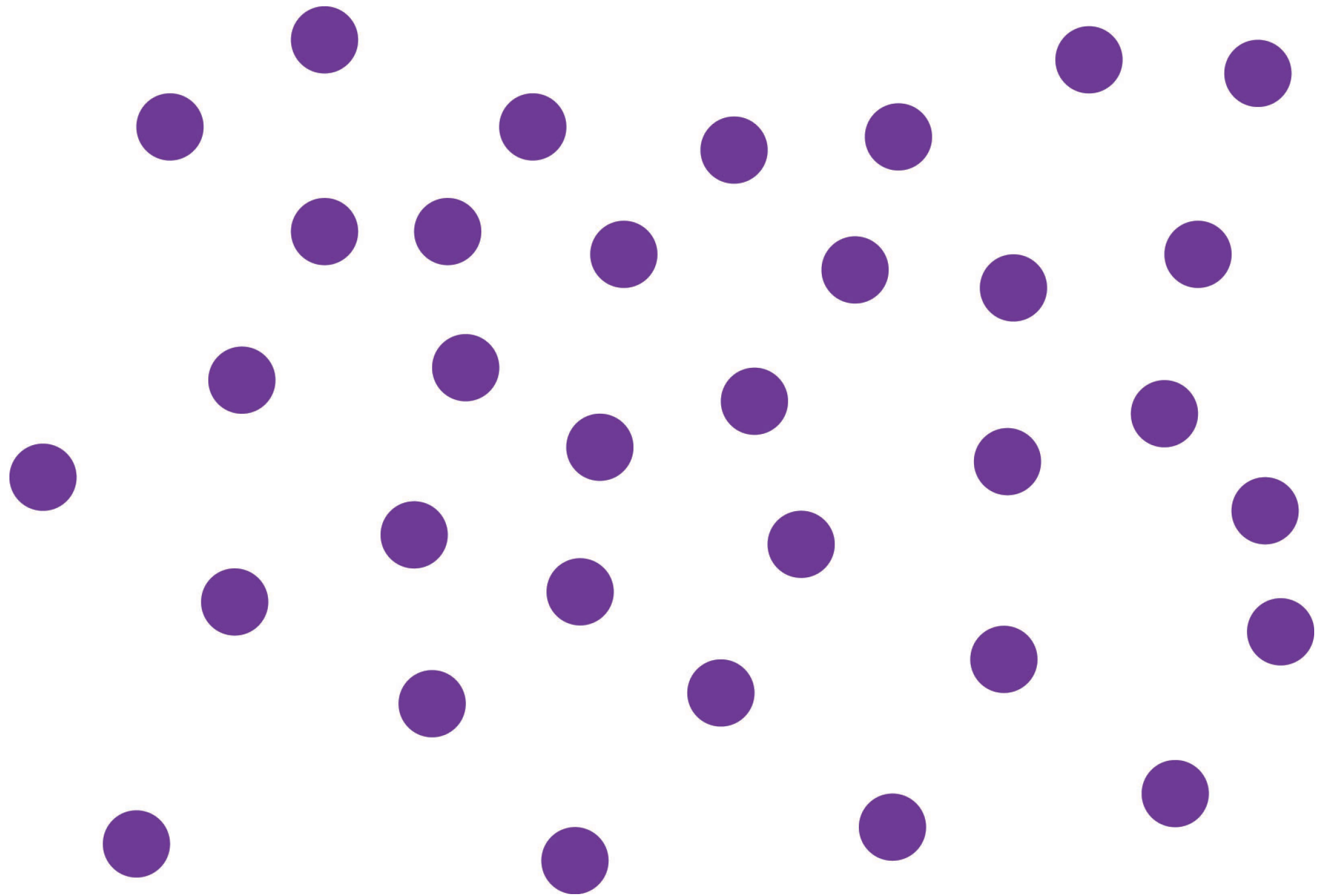
Defining The Inclusive City



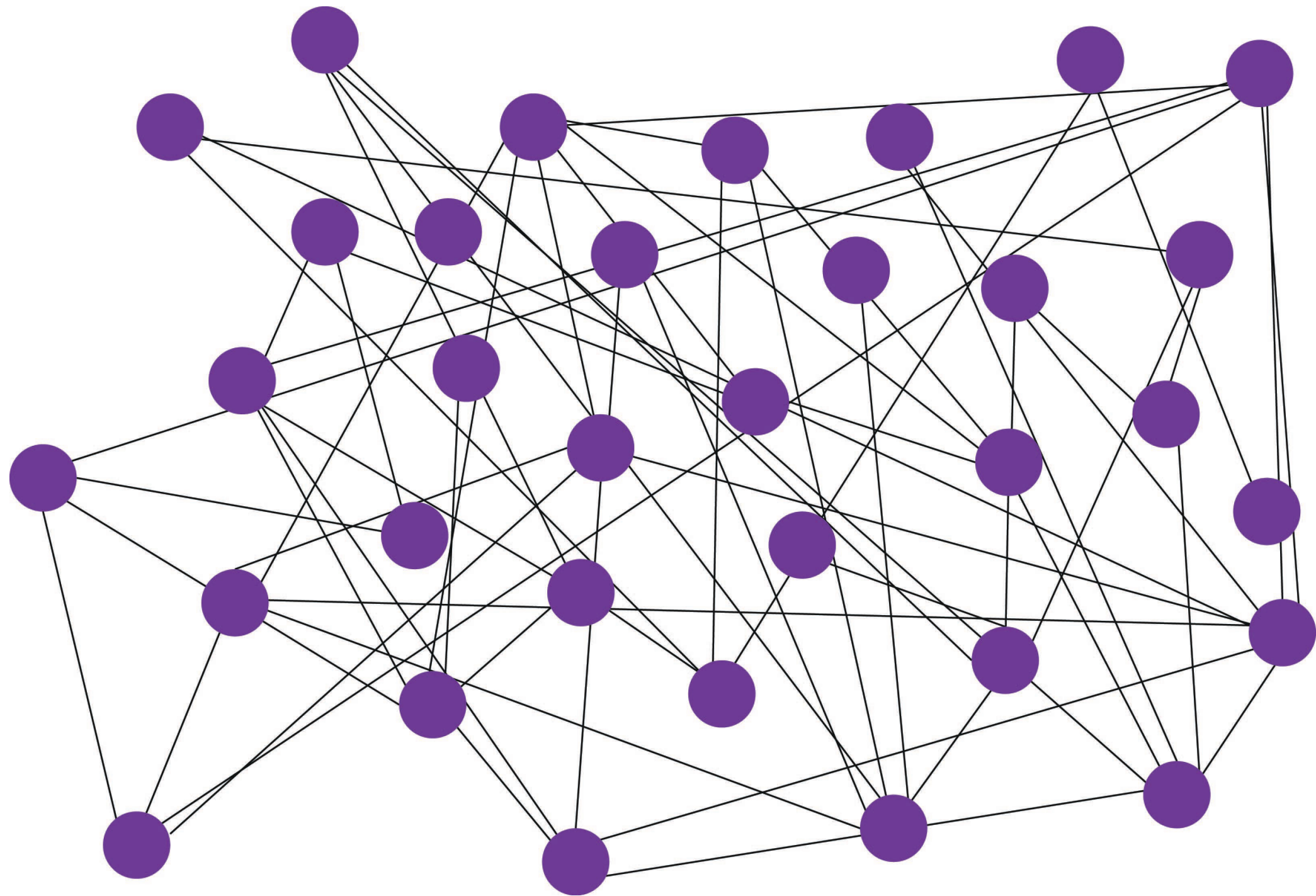
The recovery will happen in public space - Project for public spaces 2020



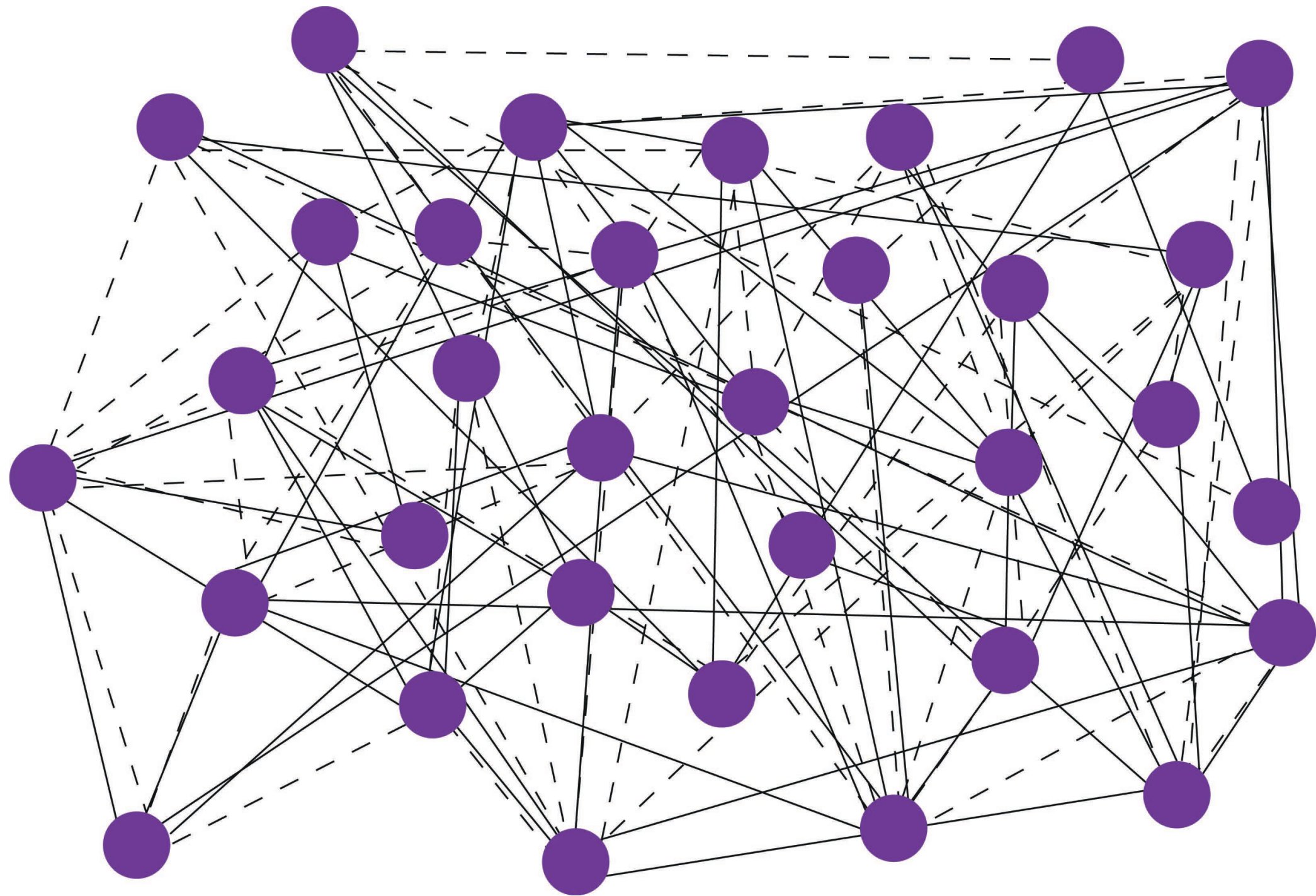
The power of placemaking through Corporate Social Responsibility - Project for public spaces 2020



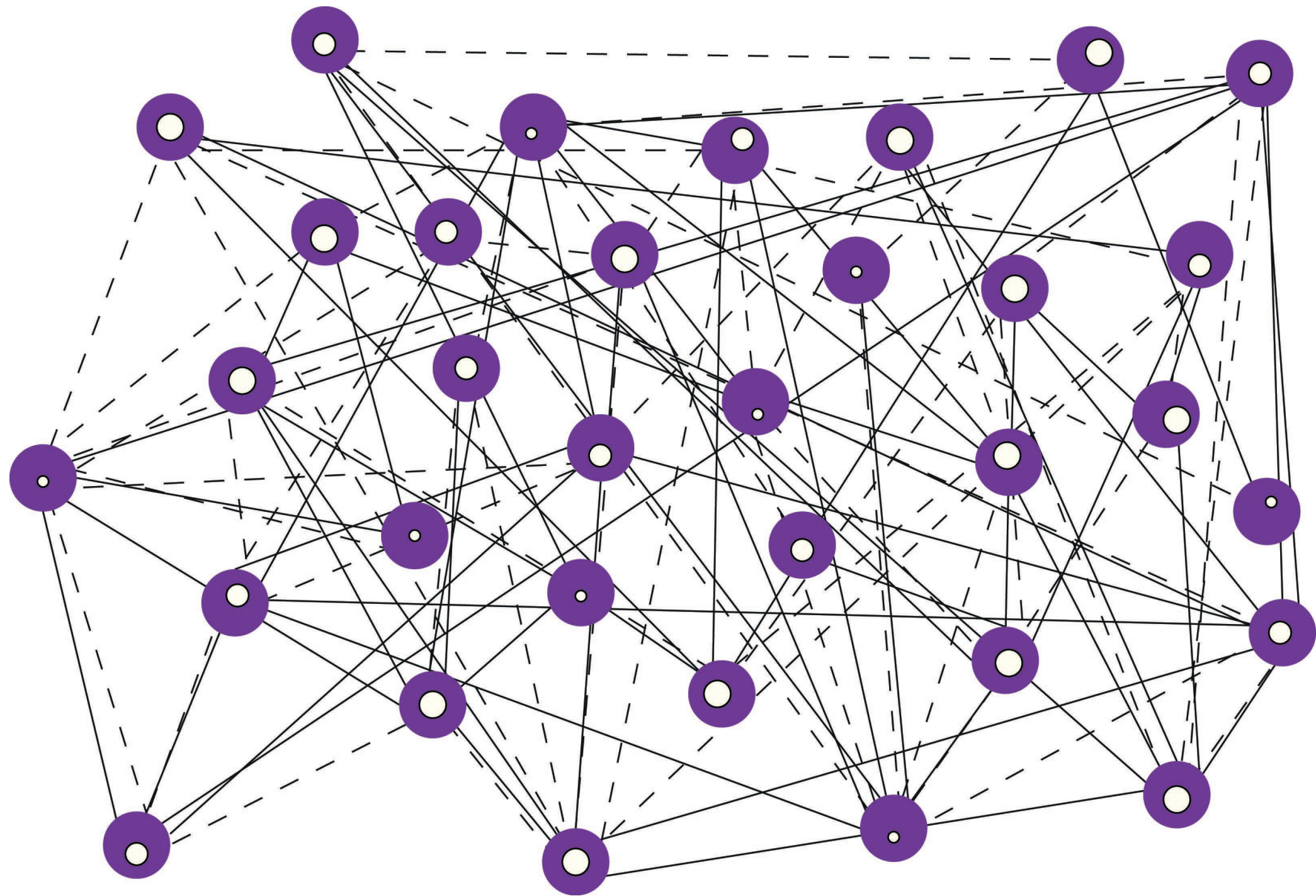
The people in space



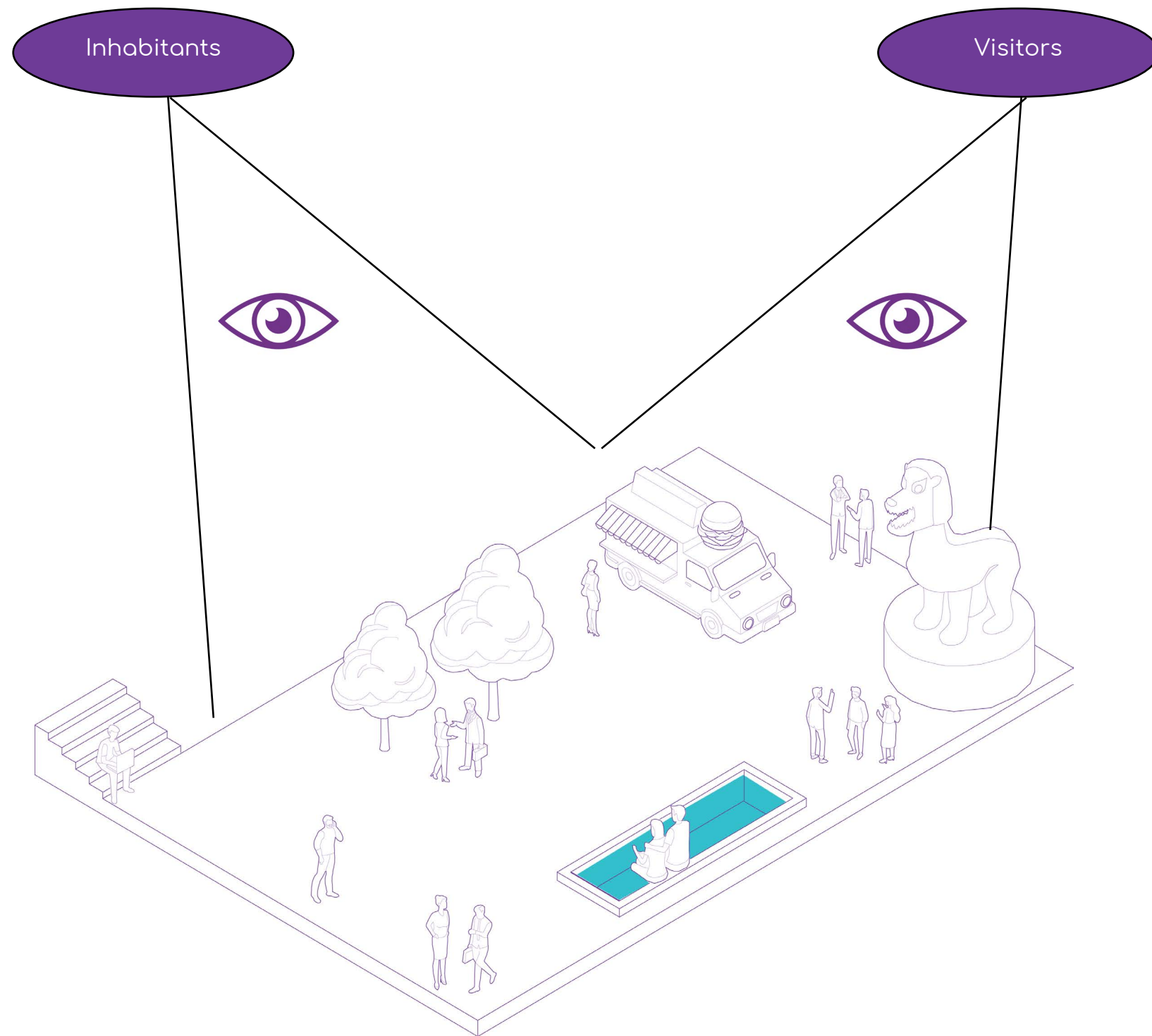
The people in space



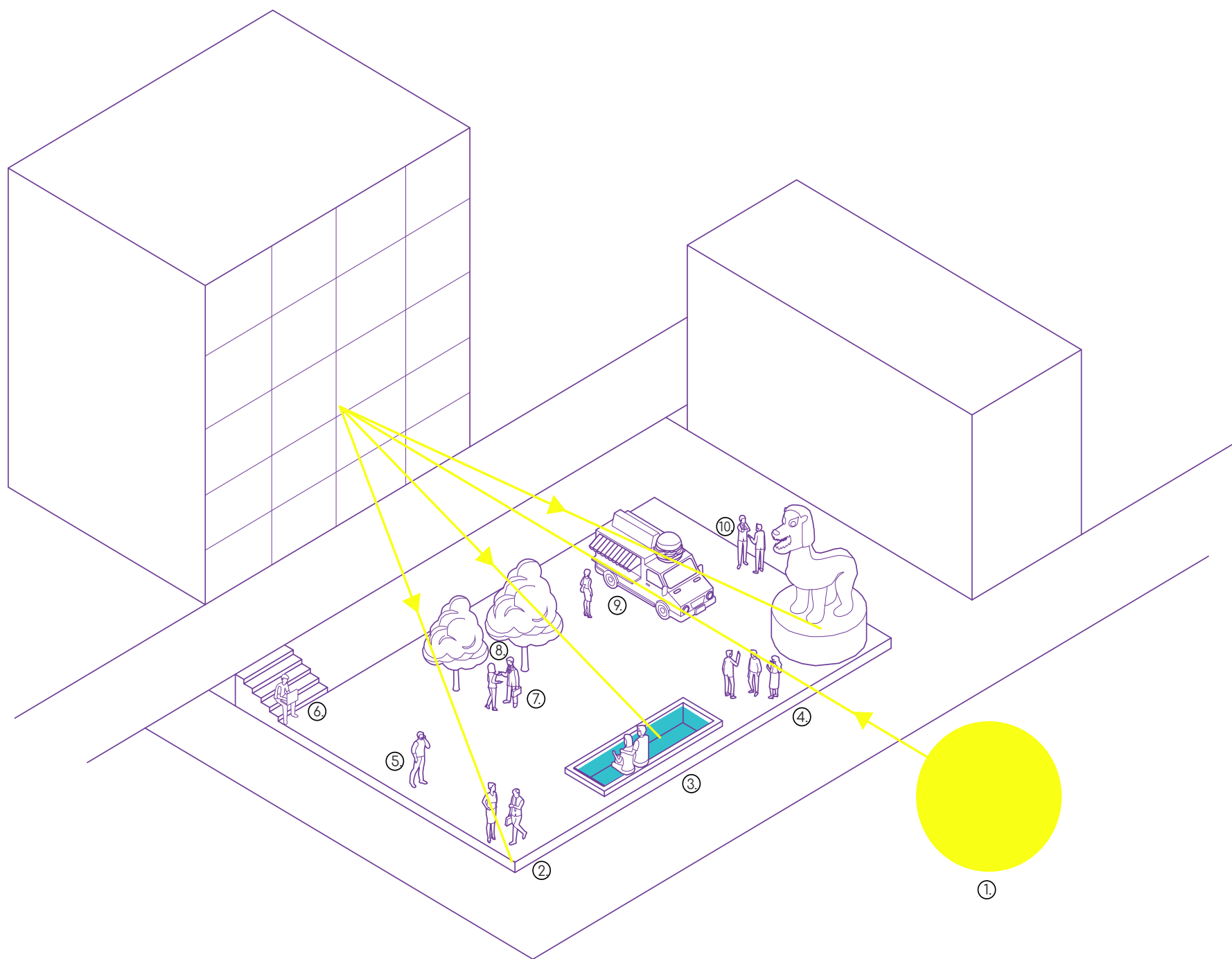
The people in space



The people in space

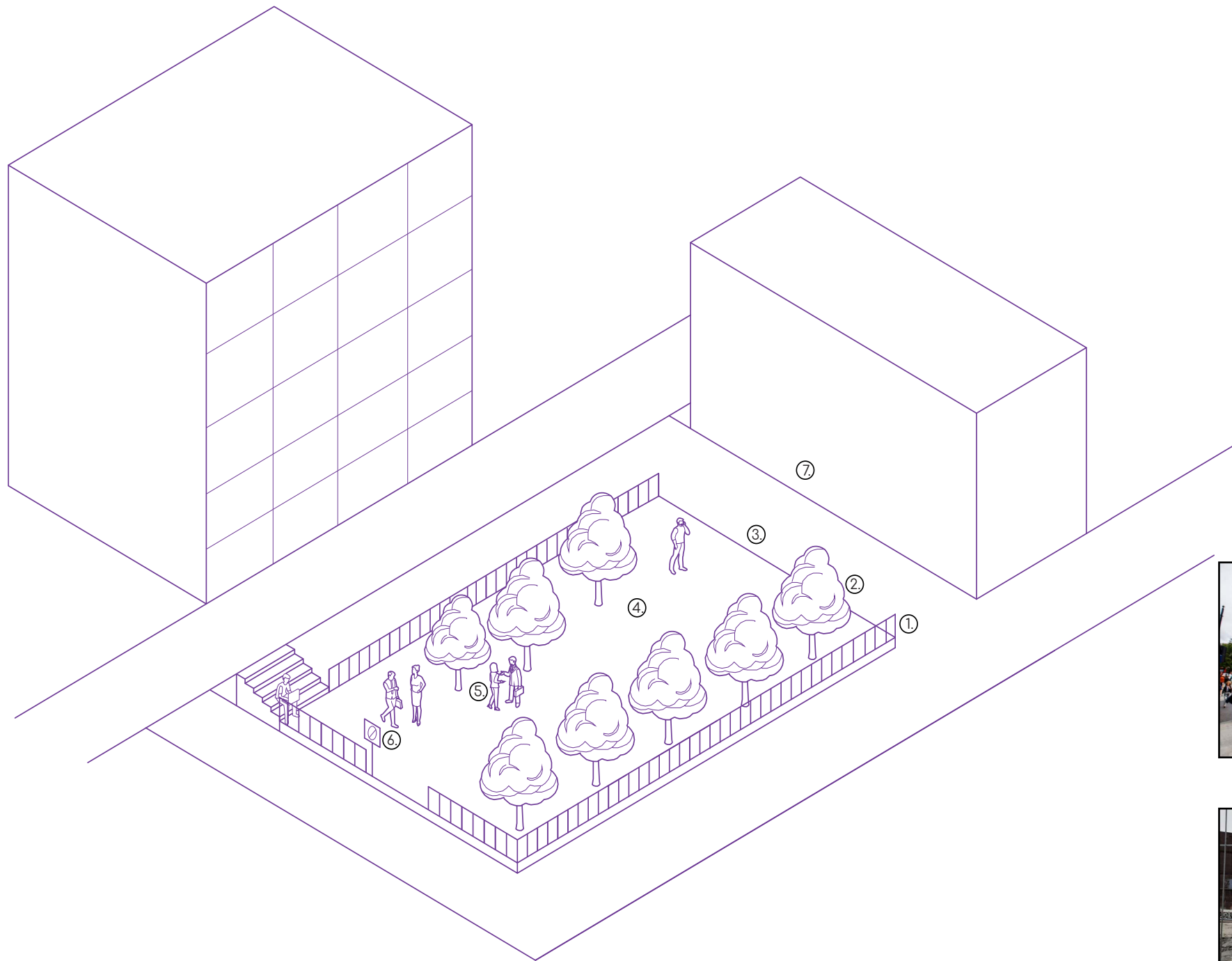


Reflection throwback



1. People prefer indirect sunlight, usually created by a reflective building close to the public space.
2. Corners are places of arrivals and departures and hence hellos and goodbyes.
3. Water, the look the sound and the sittability around it are elements needed for a good public space
4. Triangulation (people gather around an important object or person).
5. People like looking at other people.
6. Sittability, specifically or either moving objects or stairs, benches create awkwardness.
7. People seek objects in the middle (trees, flagpoles etc.) to have a conversation under.
8. Trees should be in the middle of spaces, other wise the spaces are hidden and might be misused.
9. Food, people like to eat and will prefer public spaces with food over that don't.
10. People prefer to stick to corners close to the streets unless they gather around other objects (see numbers 4, 7)

Placemaking



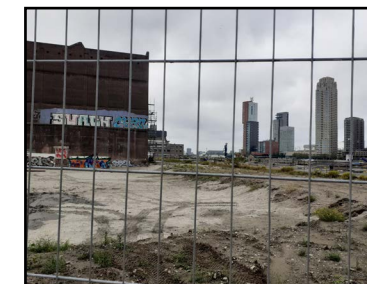
1. Fence suggests disconnection from the street.
2. Trees although promote greenness also create a visual barrier from people passing by.
3. Perceived openness is kept only at one side of the public space implying that the space could be private even though its not.
4. Lack of activities in the space limit the people visiting too.
5. Exclusivity of people in the space could limit other people visiting.
6. Street signs excluding people from the public space.
7. Openness of only one side tends to associate space with a building hence making visitors hesitant to visit.



Surveillance



Signs excluding people



Gates or fences



Partial exclusivity

Placemaking/ Exclusivity

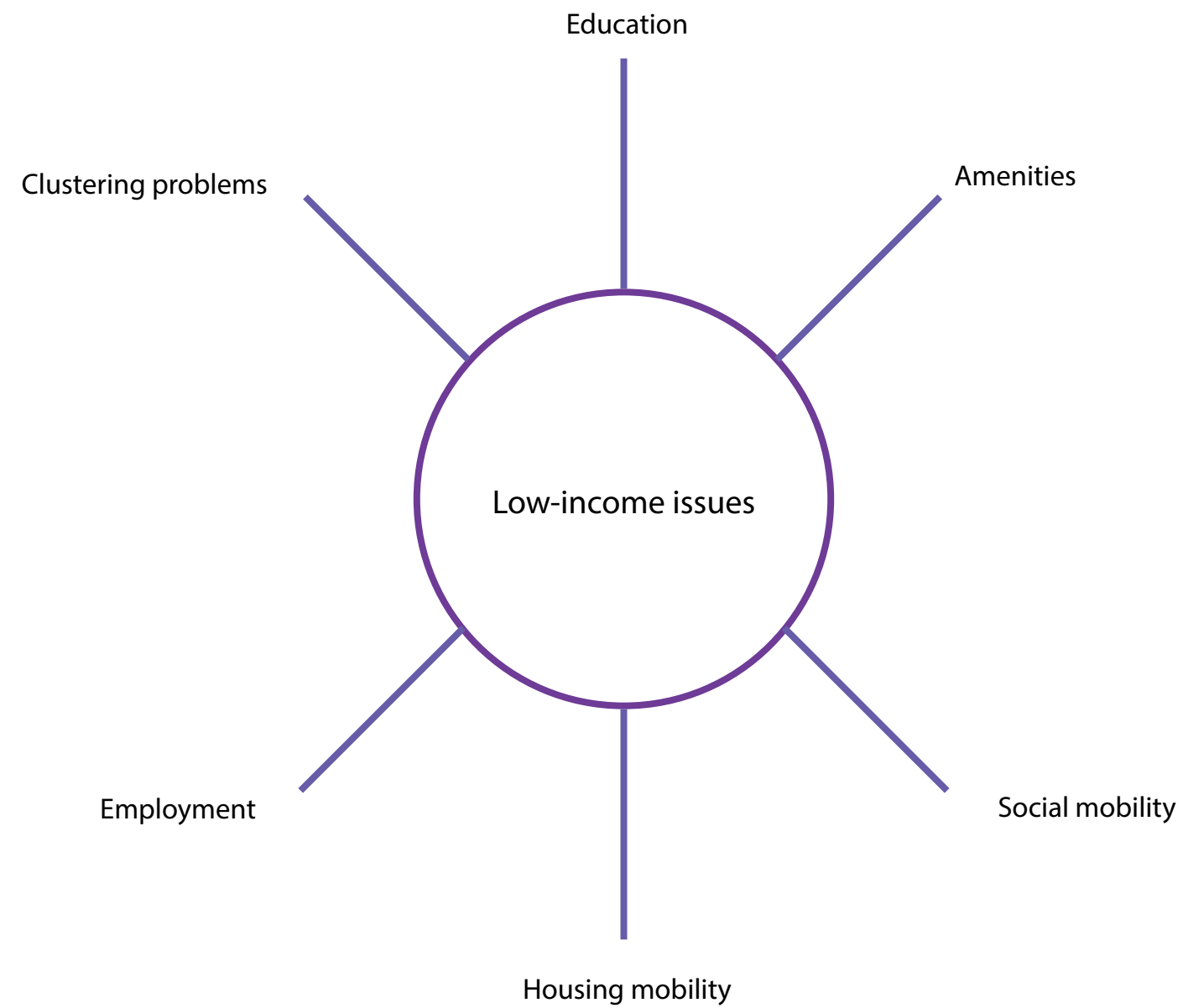
Image 1: (Olson, 2019)

Image 2: (Tenants Access Only Tenants Cars Only Stock Photo (Edit Now) 356413559, n.d.

Image 3: Author's own

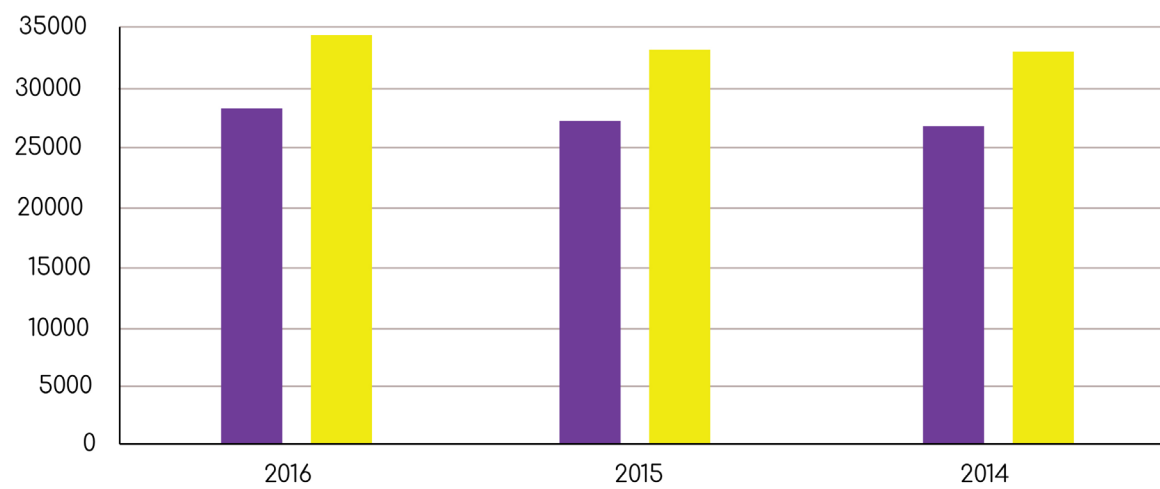
Image 4: Google.com/maps

Whyte (1979)
Mehta (2013)

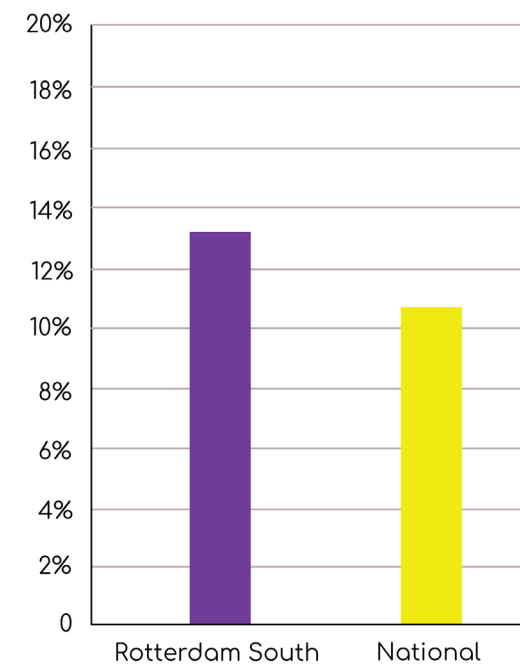


Issues faced by low-income people

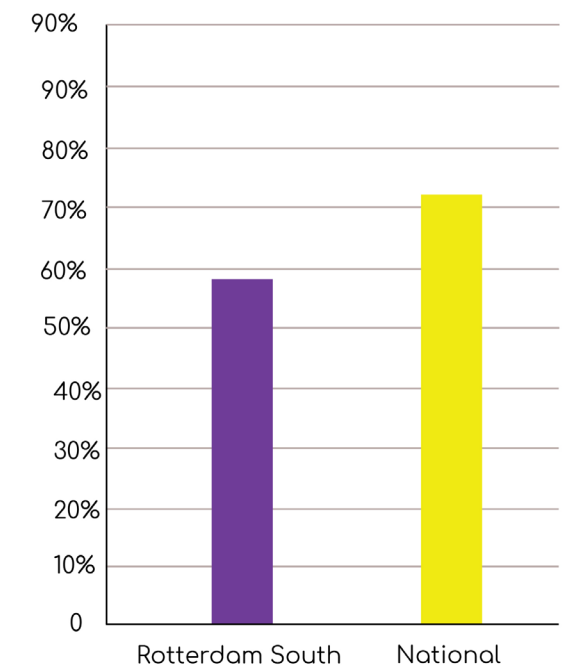
Disposable income among households



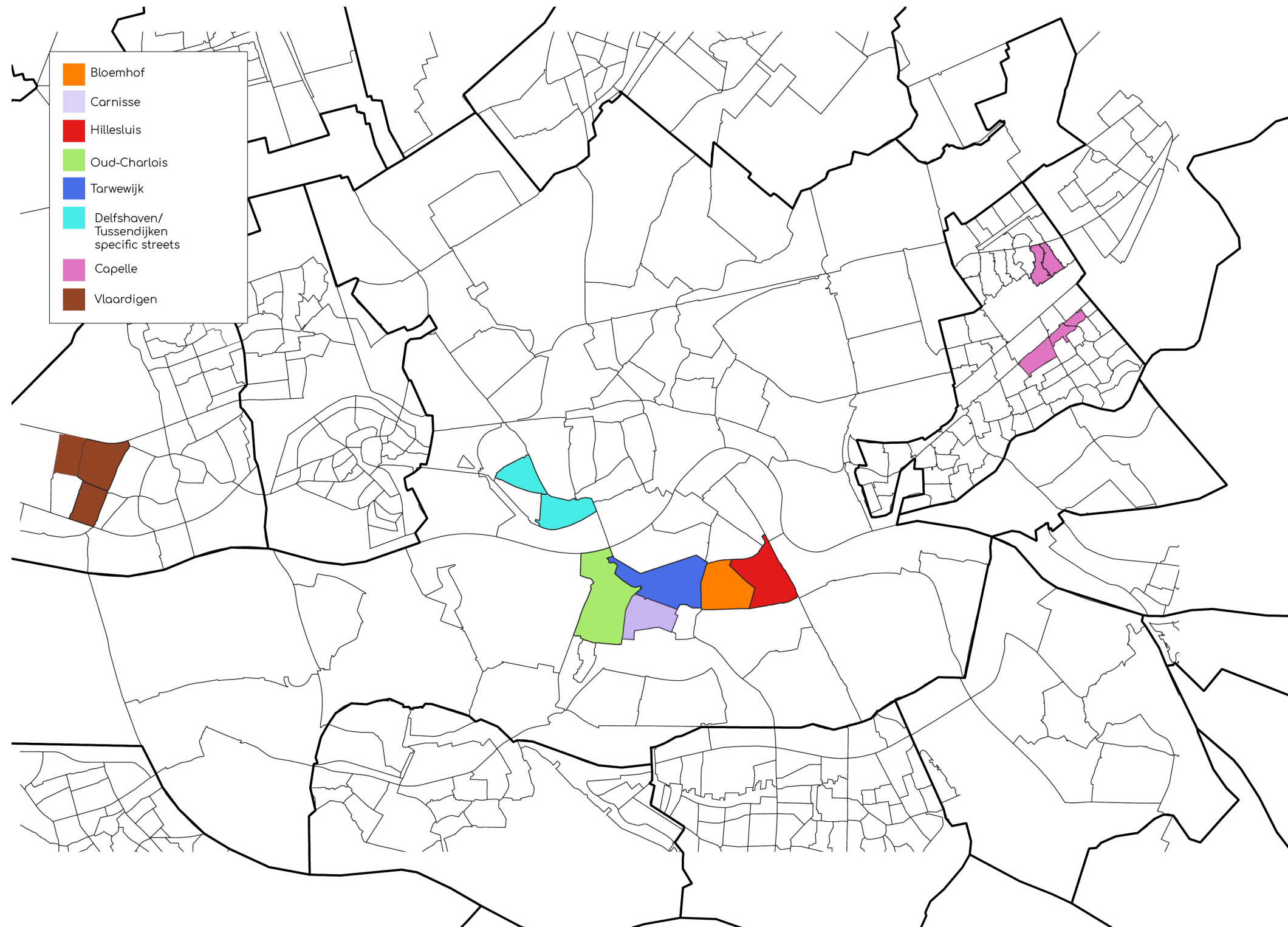
Percentage of households with a PW-AO or unemployment benefit



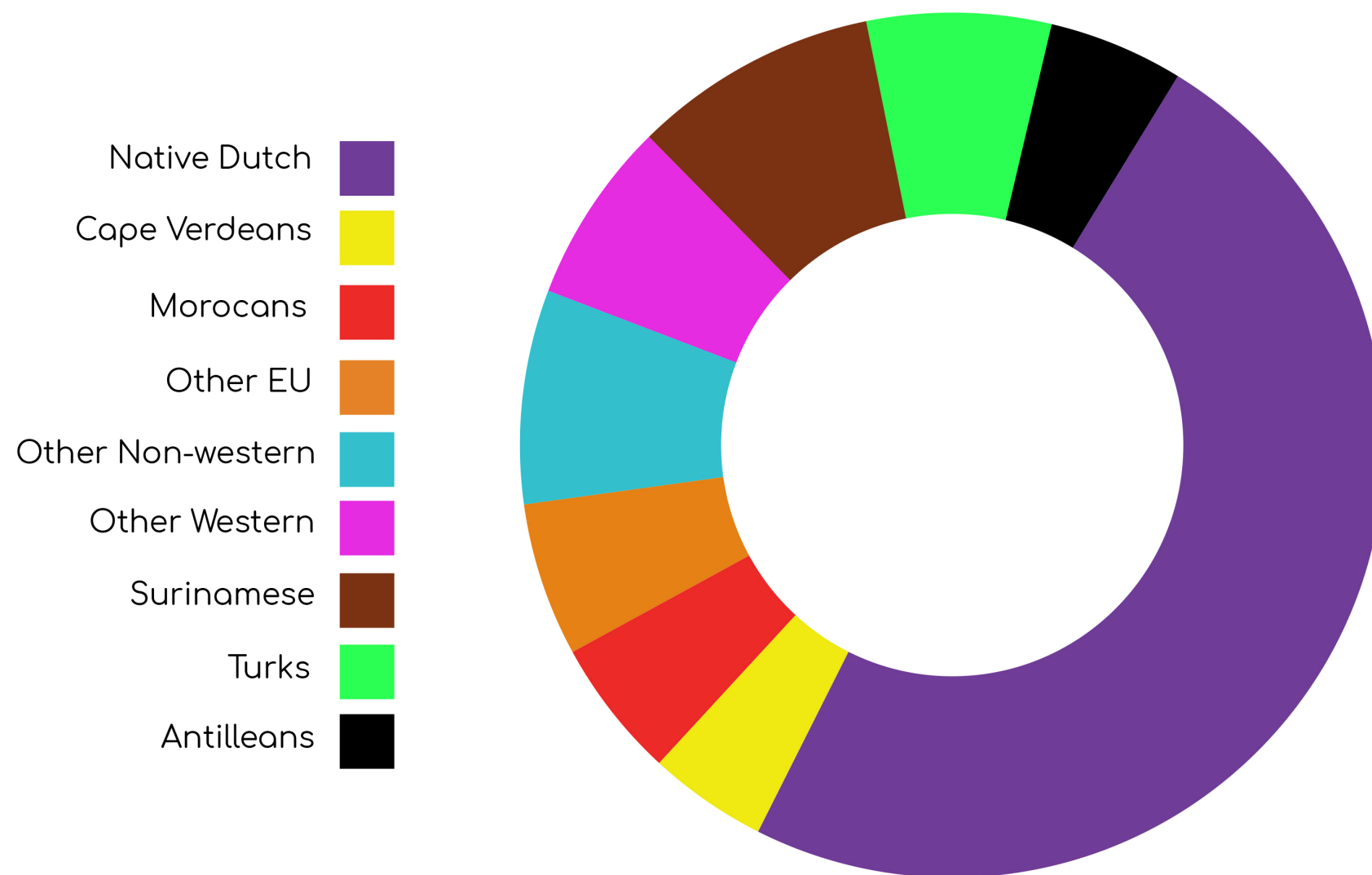
Percentage of intermediate or highly educated, 15-74 years



Demographics - South of Rotterdam



The Rotterdam Act Neighbourhoods



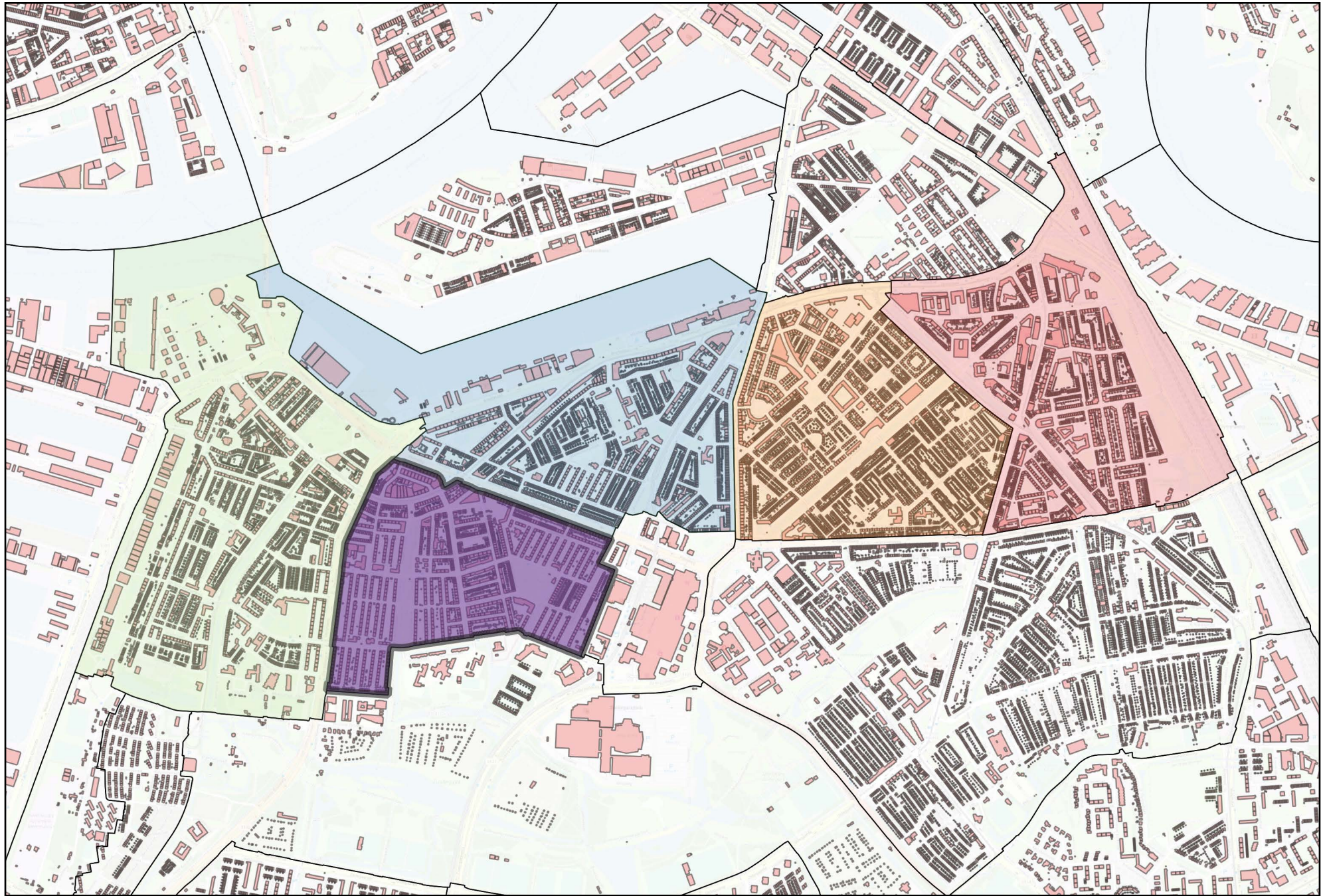
Demographics - South of Rotterdam

2.

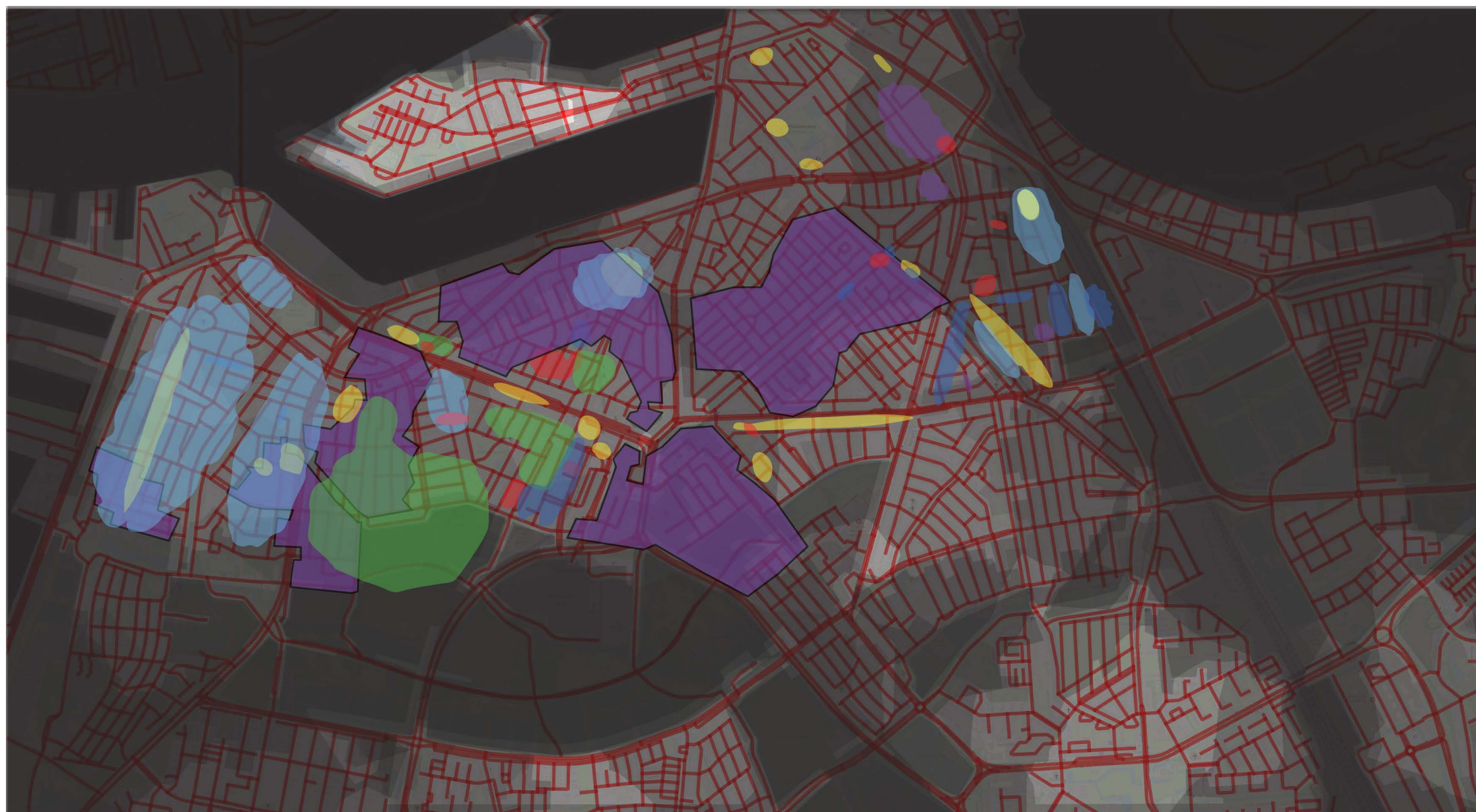
How can public spaces be addressed to help implement inclusivity for the people in the SouWth of Rotterdam?

3.

Choosing A Site



Choosing Carnisse



Amenity mapping and NPRZ plans



Main public spaces of Carnisse



The Amelandseplein



The linear park

Main public spaces of Carnisse



The Amelandseplein



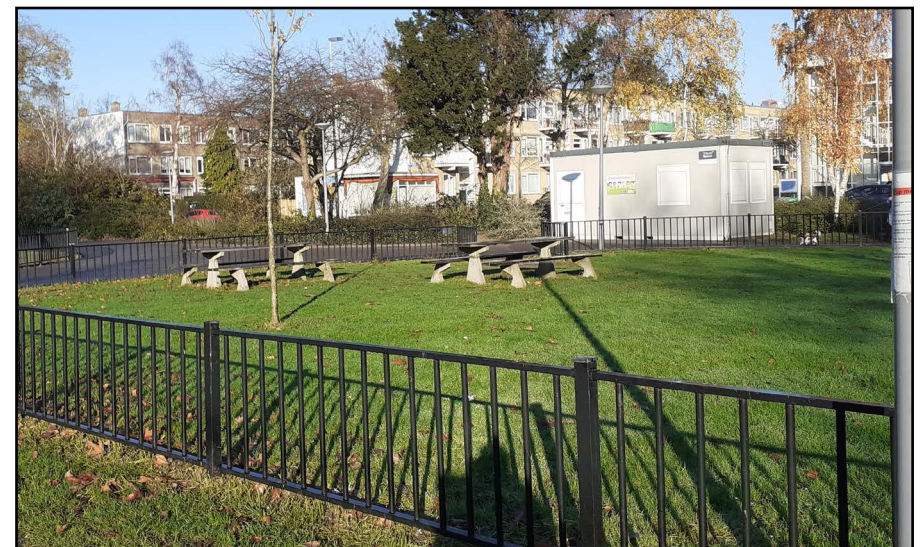
Small fence preventing bikes and the disable to enter



Trees at the edge disassociating the park with the street



Isolated sitting spaces



Isolated Gemeente water building space inside the park

Exclusivity in the Amelandseplein



The Amelandseplein

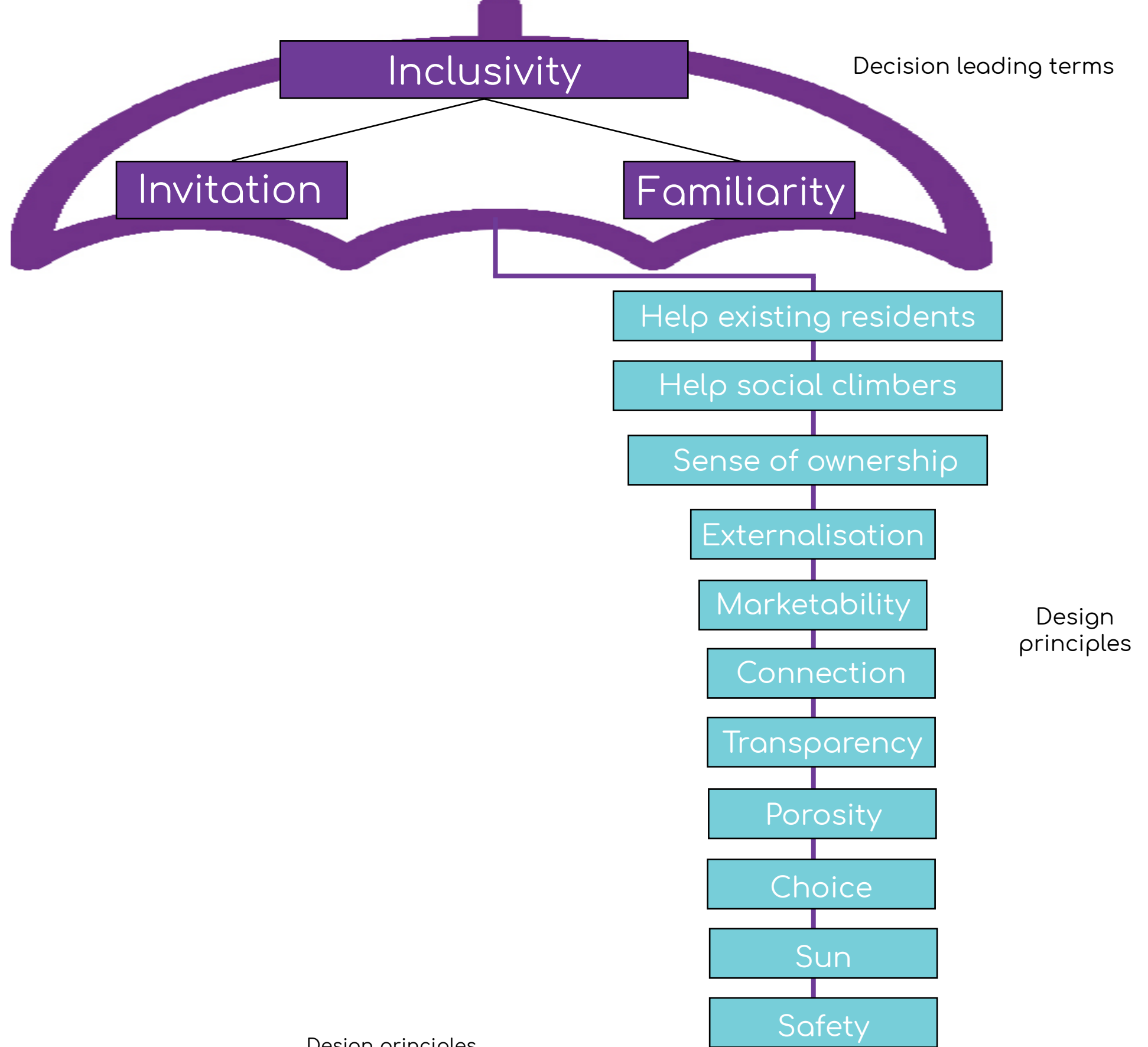


The Amelandseplein

4.

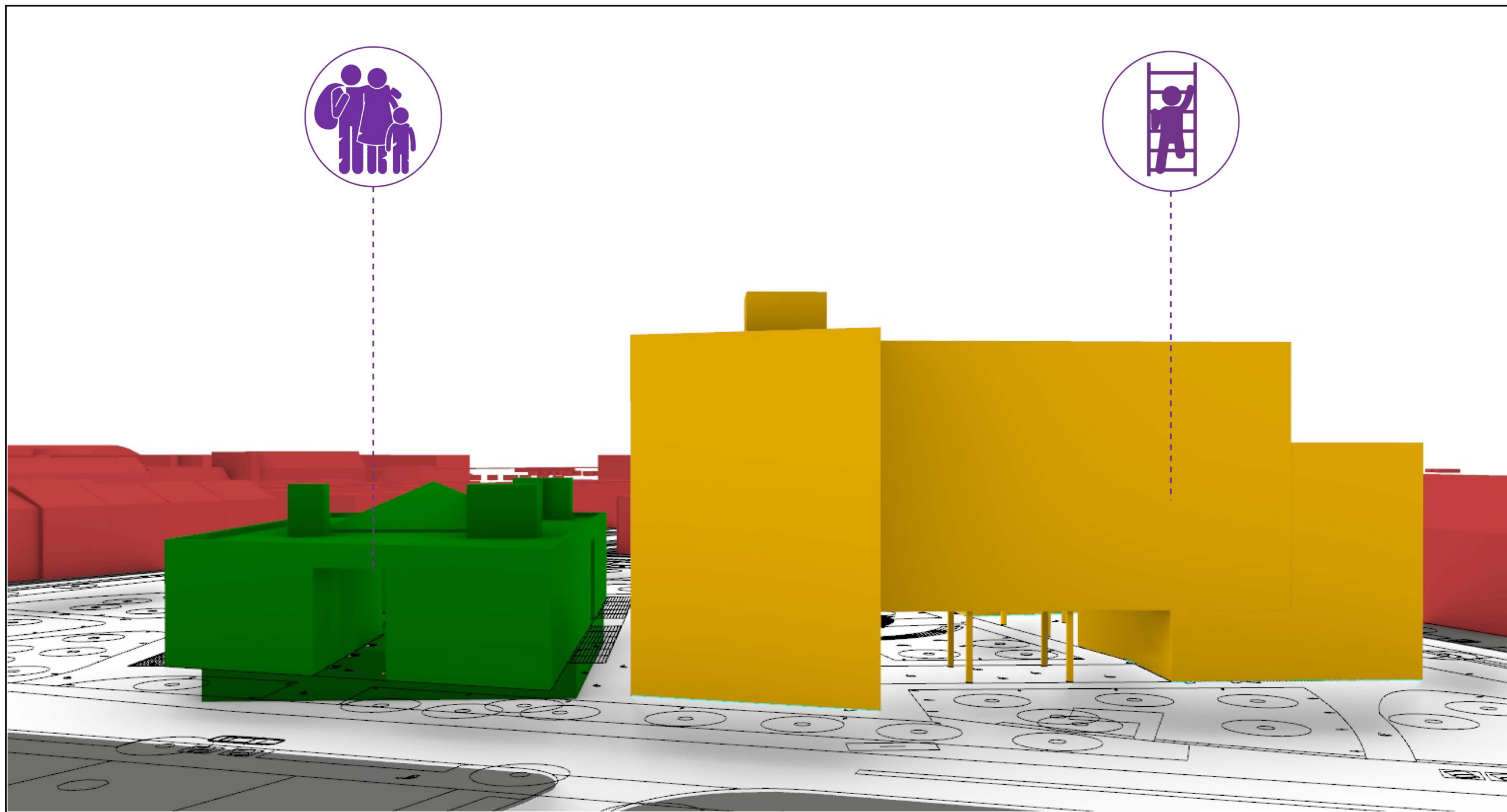
Design principles

Universal



5.

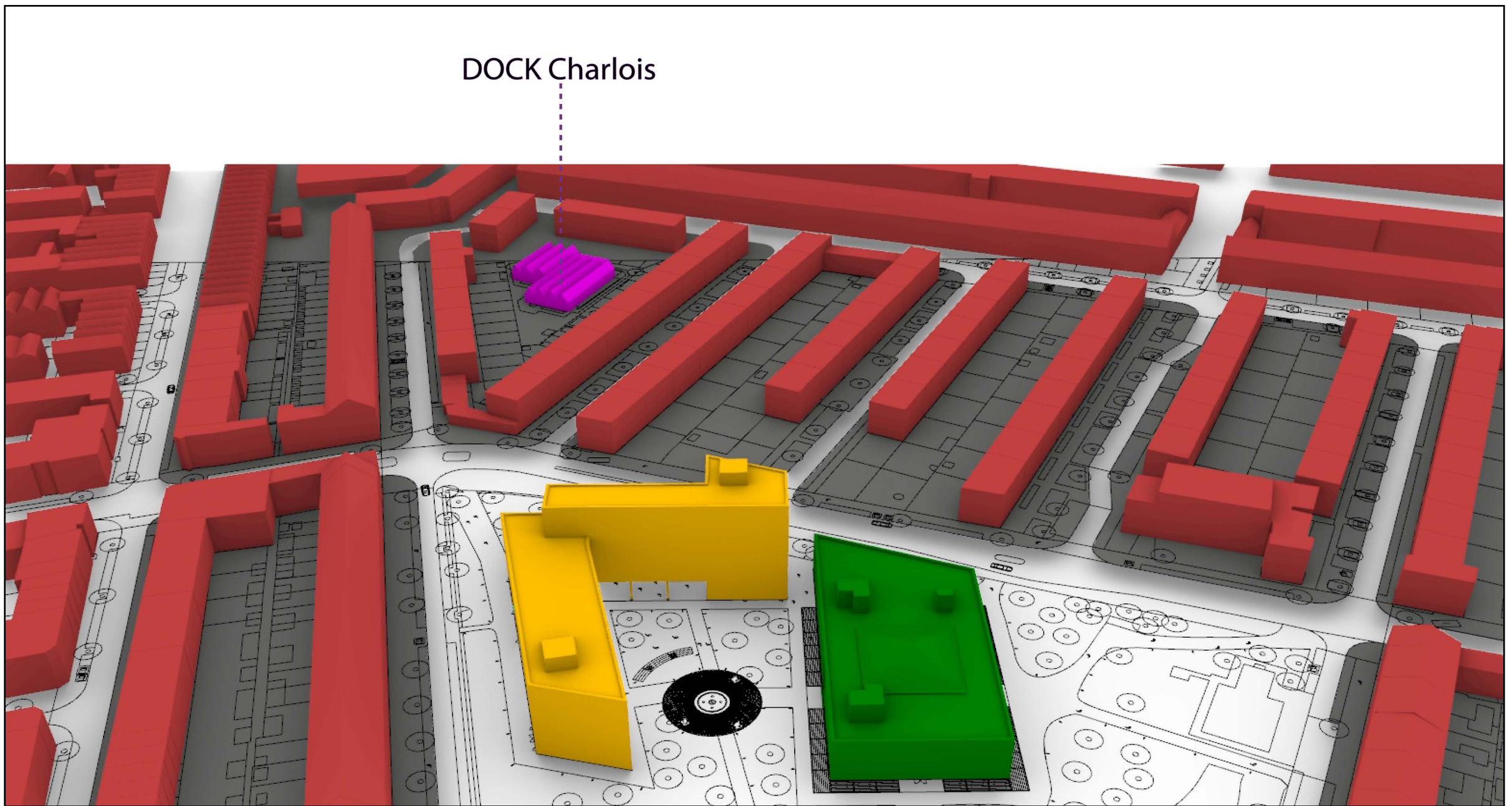
The New Development



The programme of the two buildings

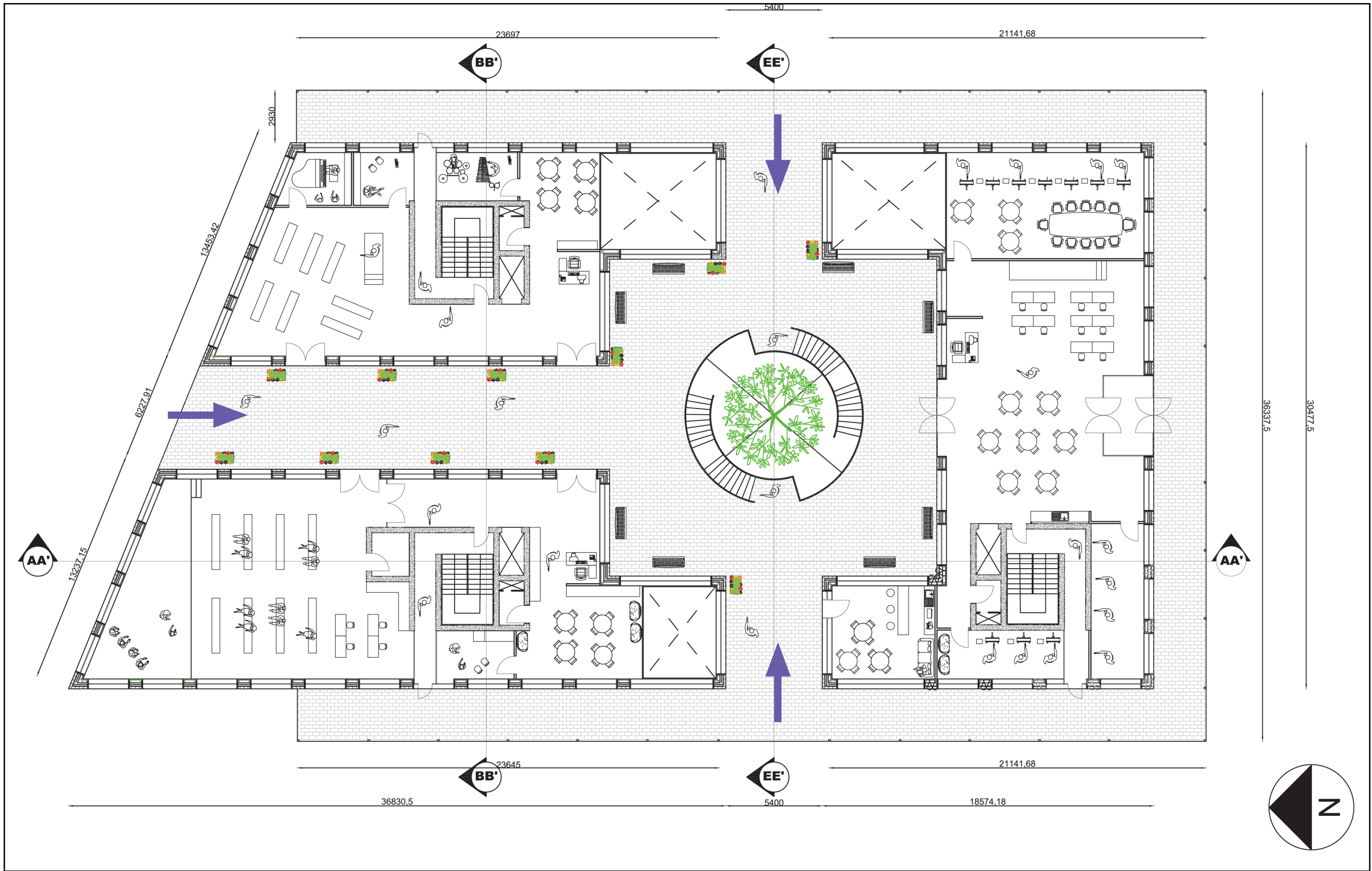


The programme of the two buildings



DOCK Charlois

Proximity to DOCK Charlois



The Architecture of the Buurthuis

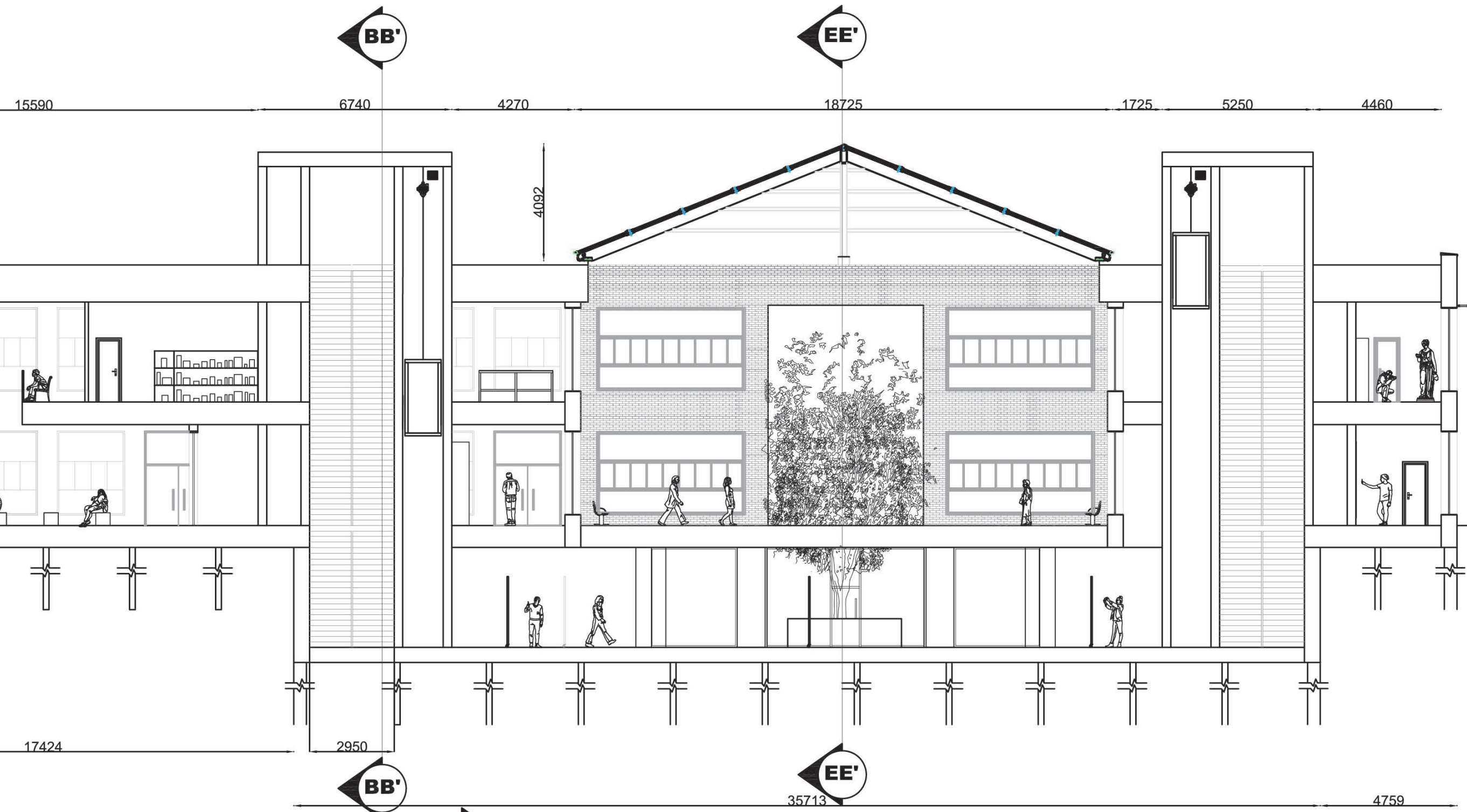


Theatre space/ Panopticon



Exterior of the buurthuis

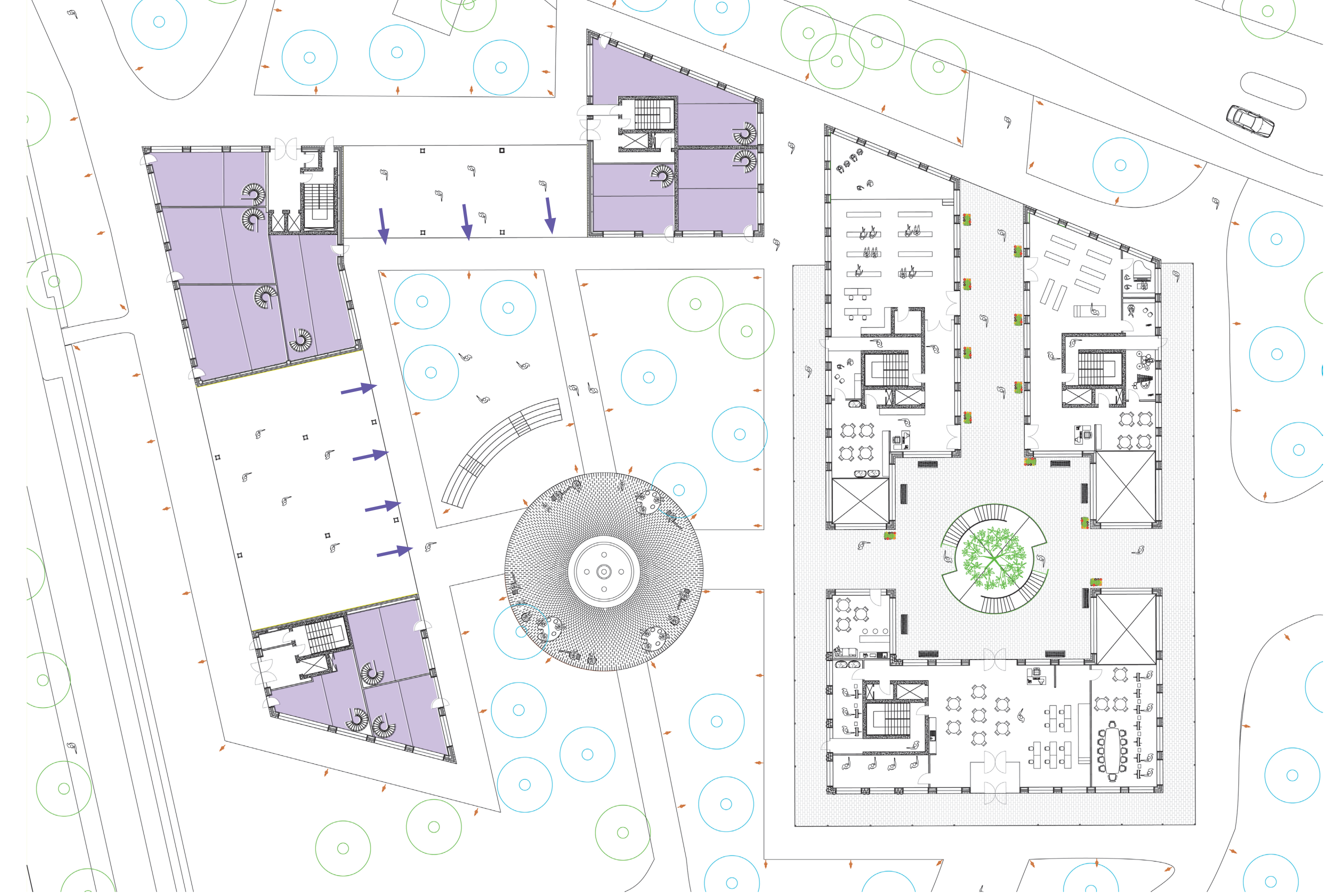
The Architecture of the Buurthuis



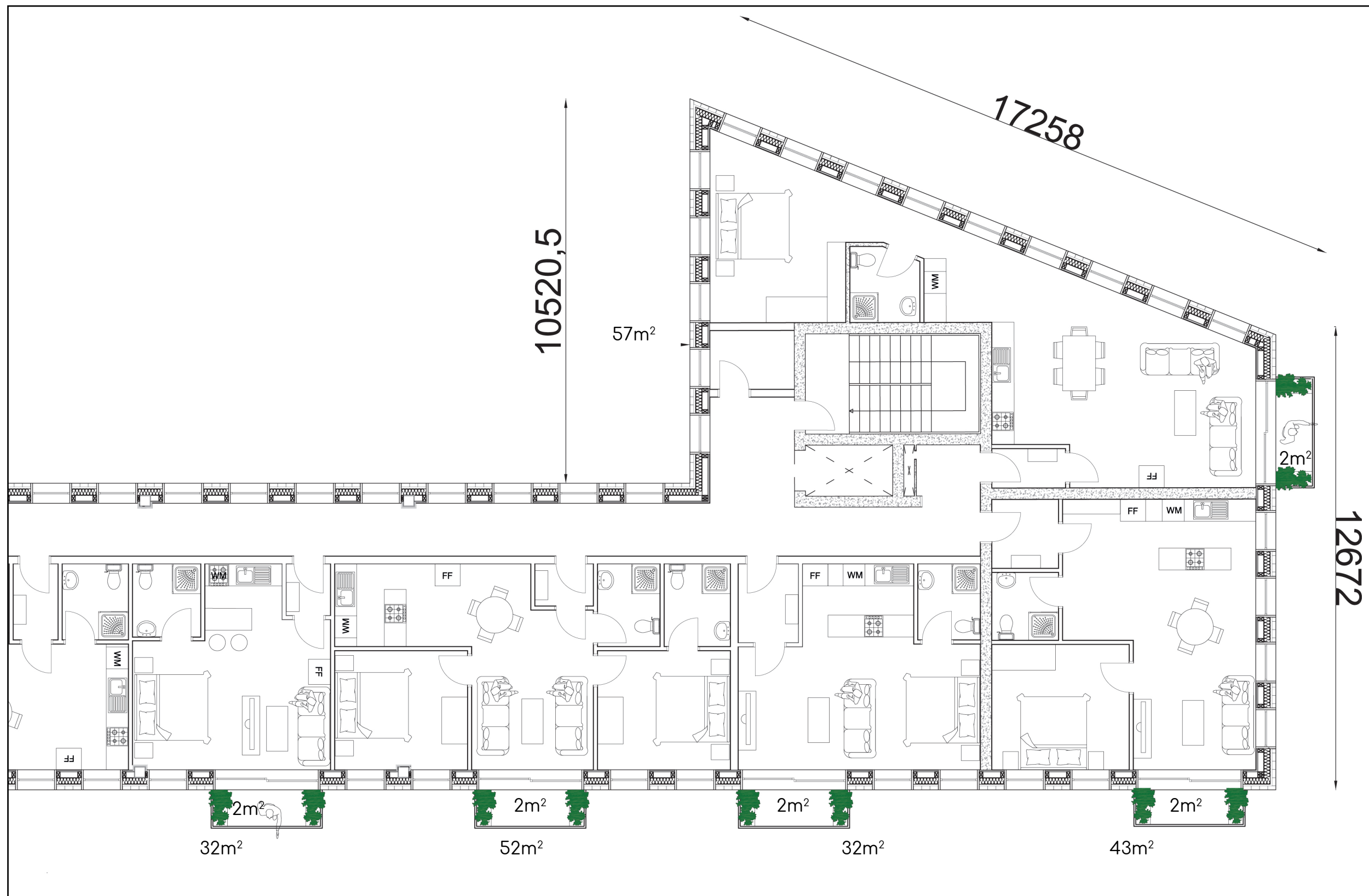
Interior choices of the Buurthuis



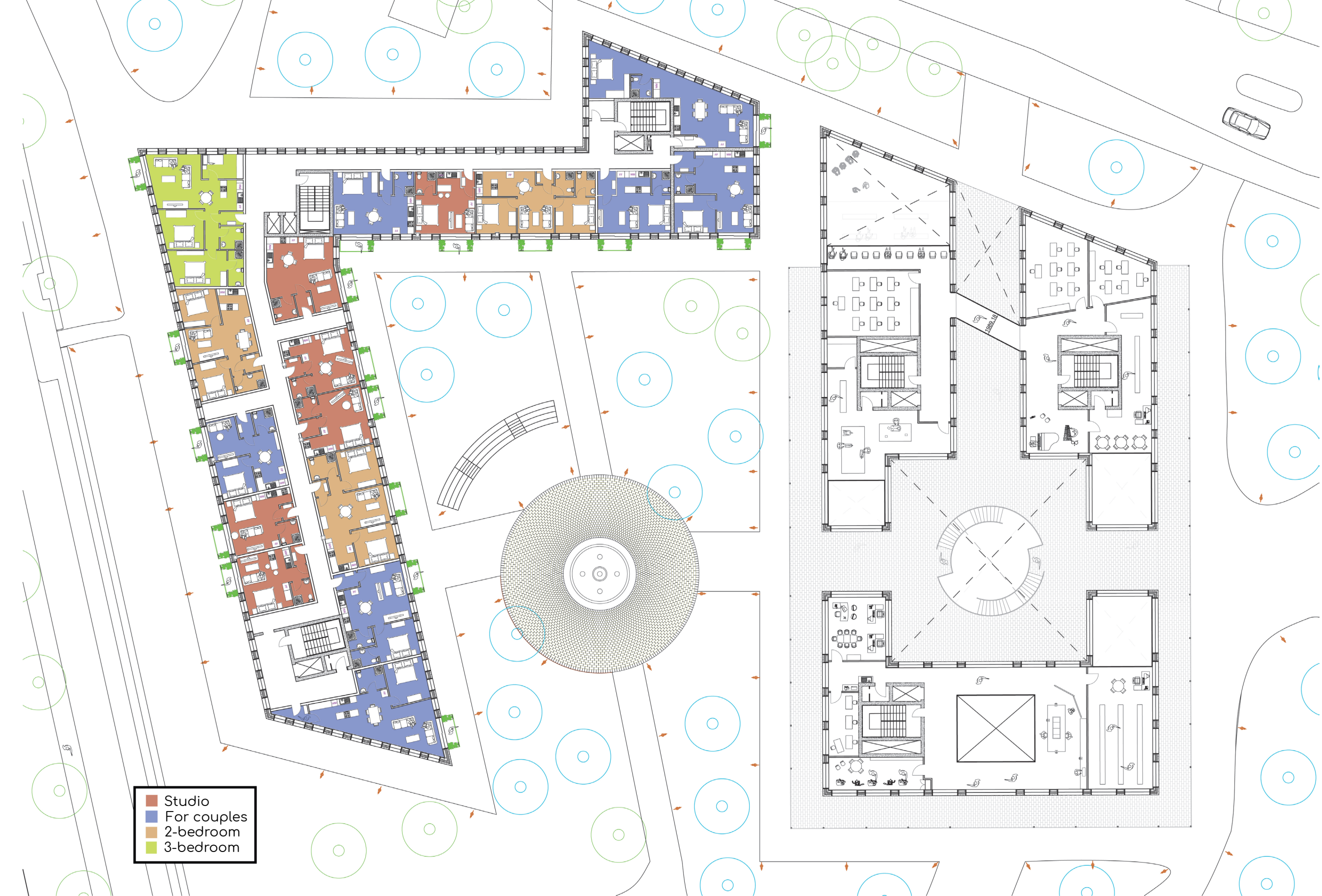
Interior choices of the Buurthuis



The housing ground floor porosity



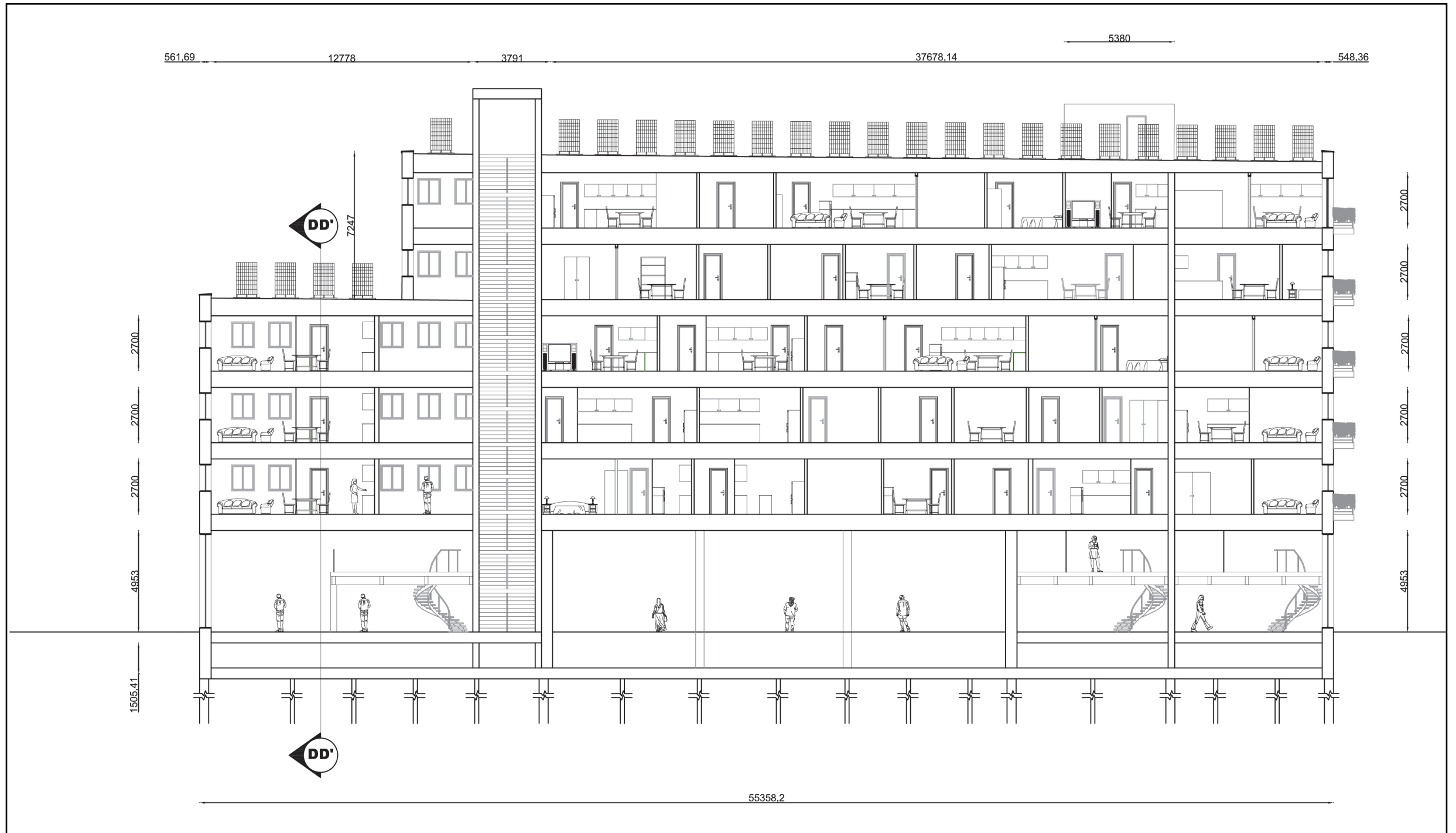
Marketability of the apartments



Types of apartments



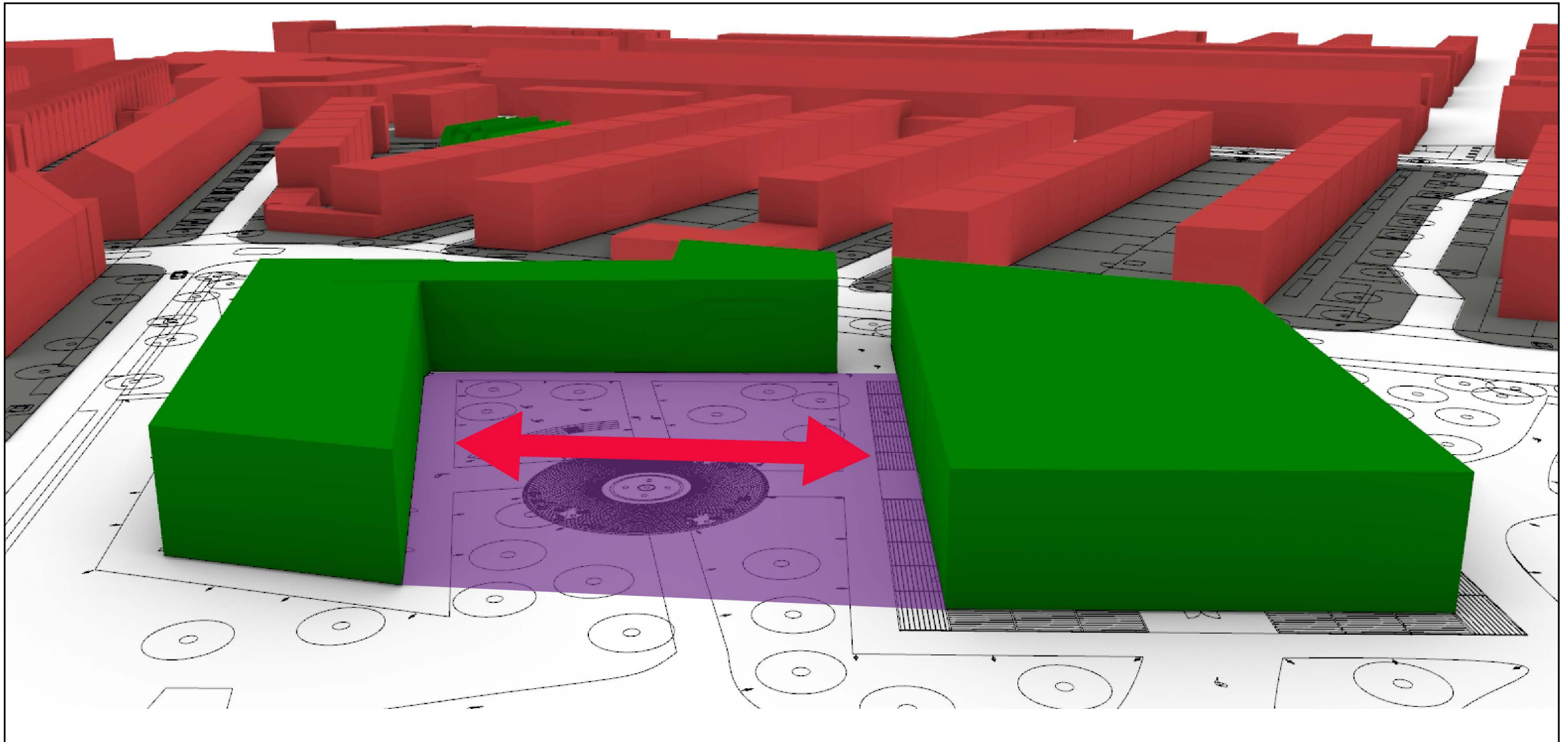
The Architecture of the Housing Block



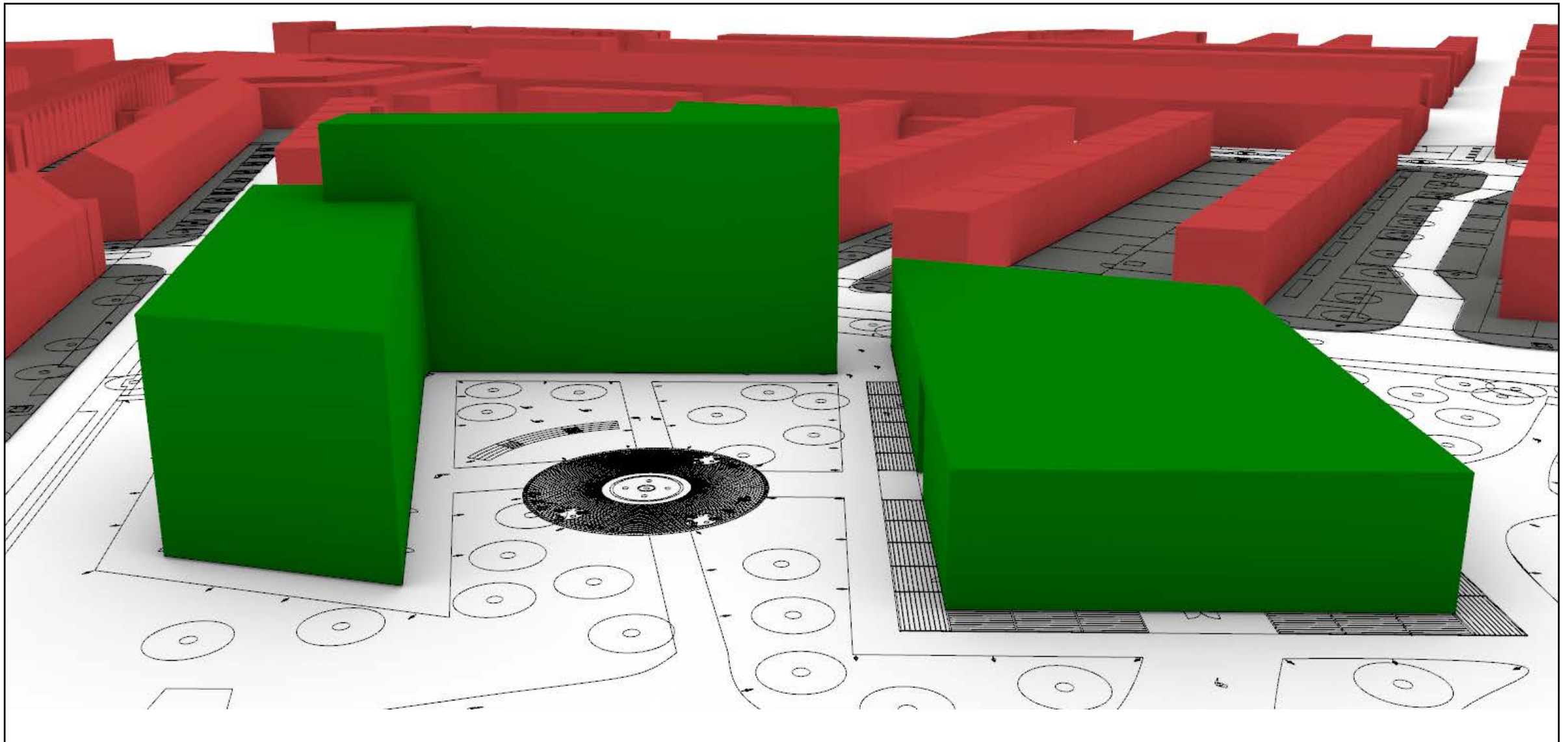
The Architecture of the Housing Block

6.

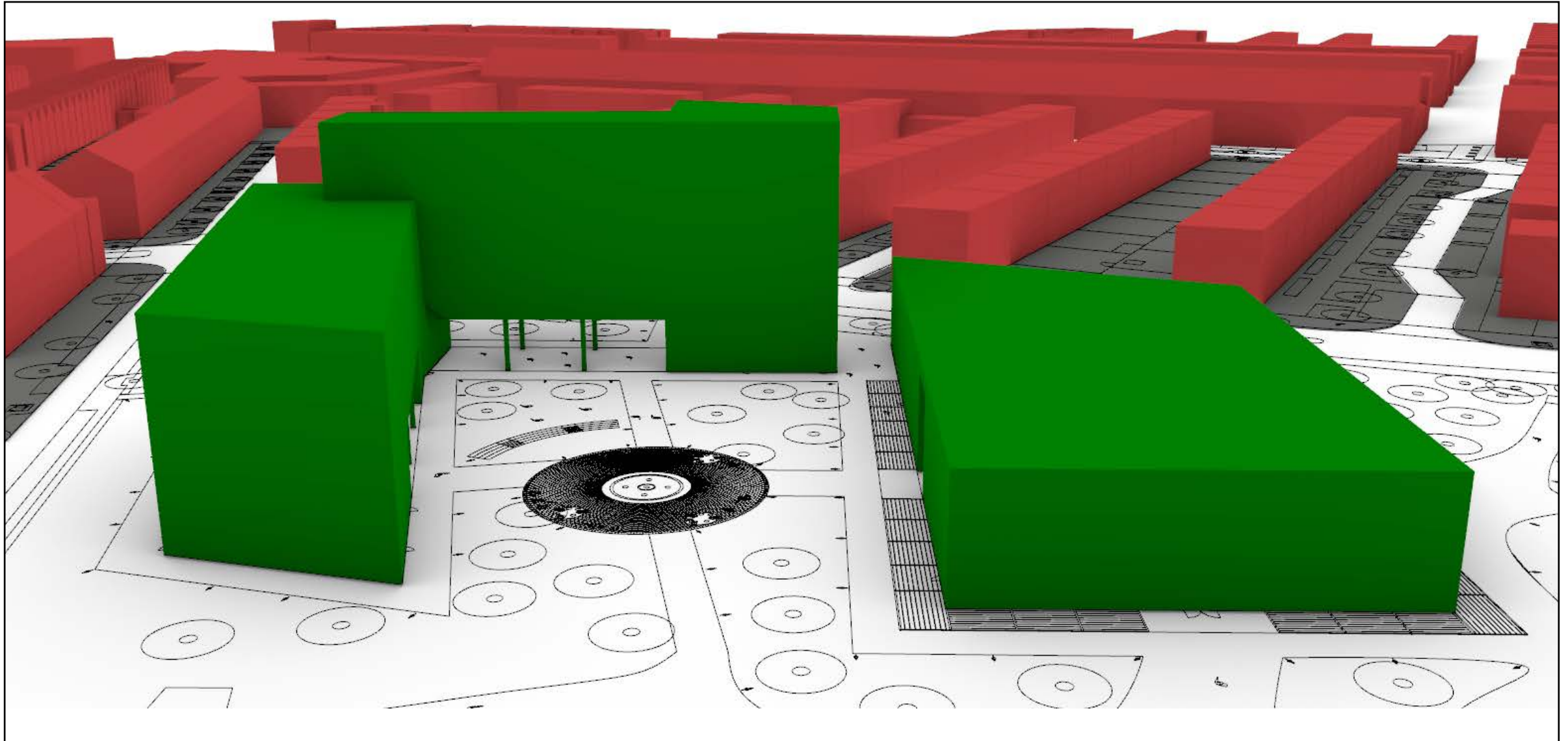
The Shape of the New Development



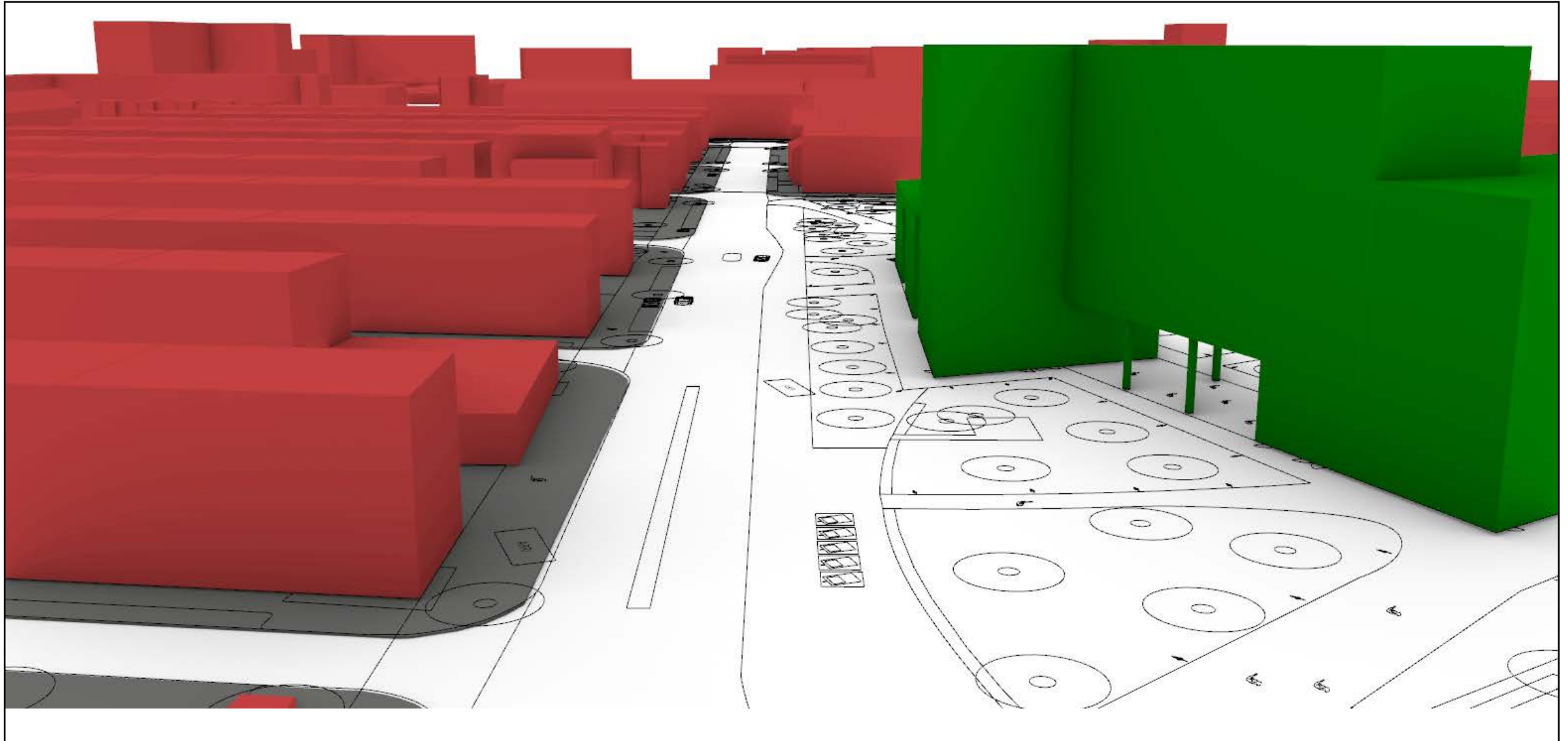
Creation of the public space



Extrusion of the housing for marketability



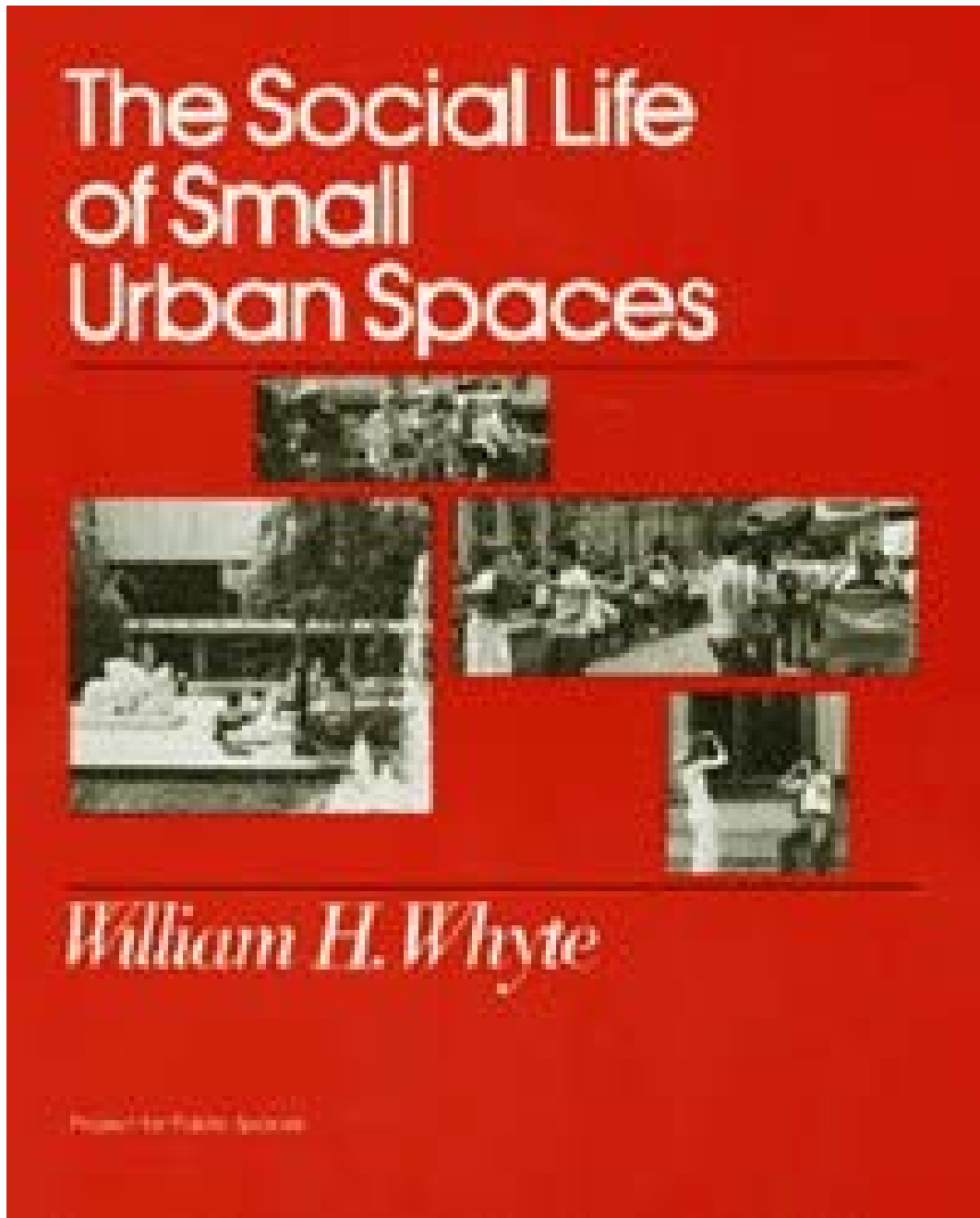
Porosity for invitation



Entrances facing the neighbourhood

7.

The Public Space



The social life of small urban spaces, William Whyte

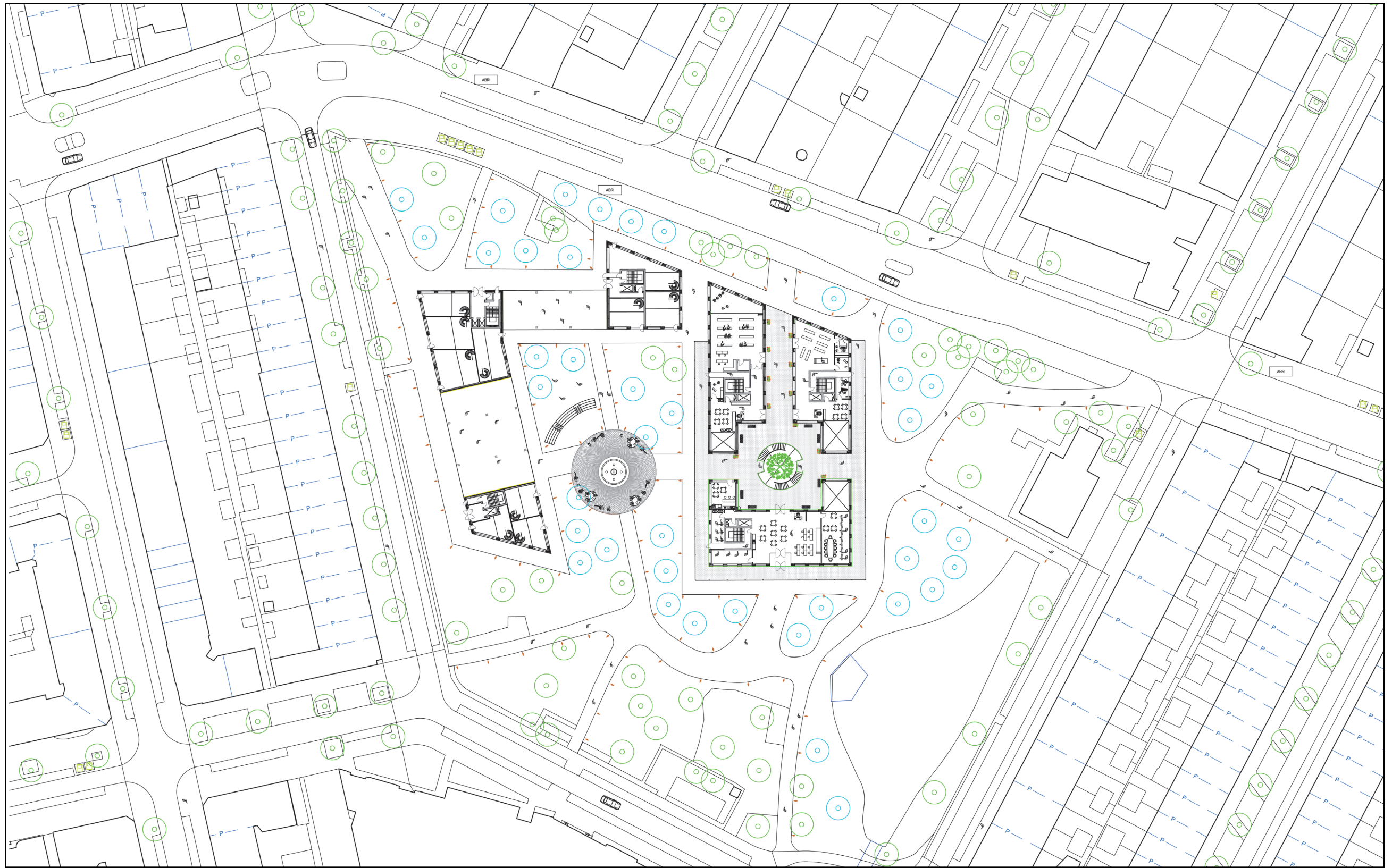


William "Holly" Whyte, self-proclaimed people observer

The element of choice in Sittability



St' Marcus Plaza,Venice, Sittability



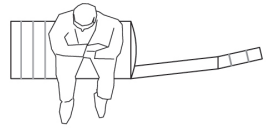
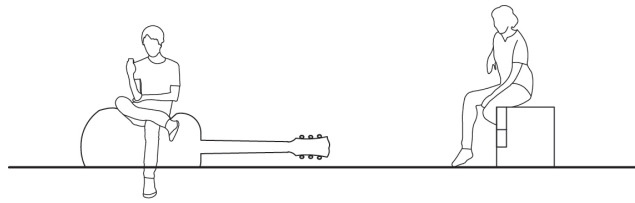
The new public space with the new developments



Introduction to the art



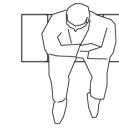
Introduction to the art



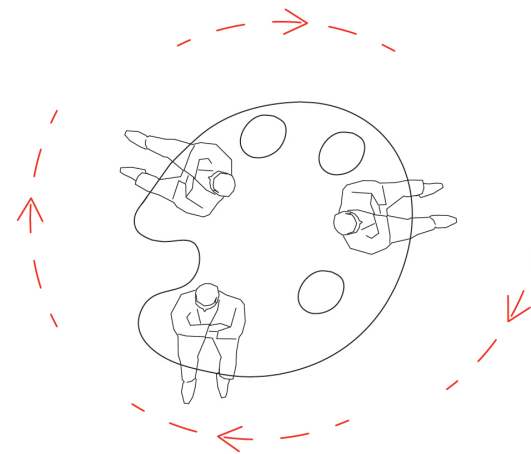
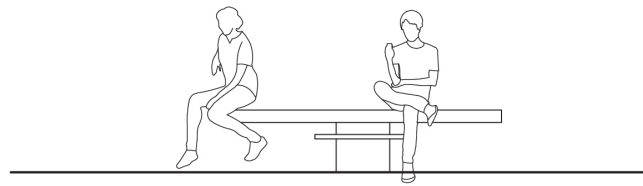
Guitar



Drum/ Bongo

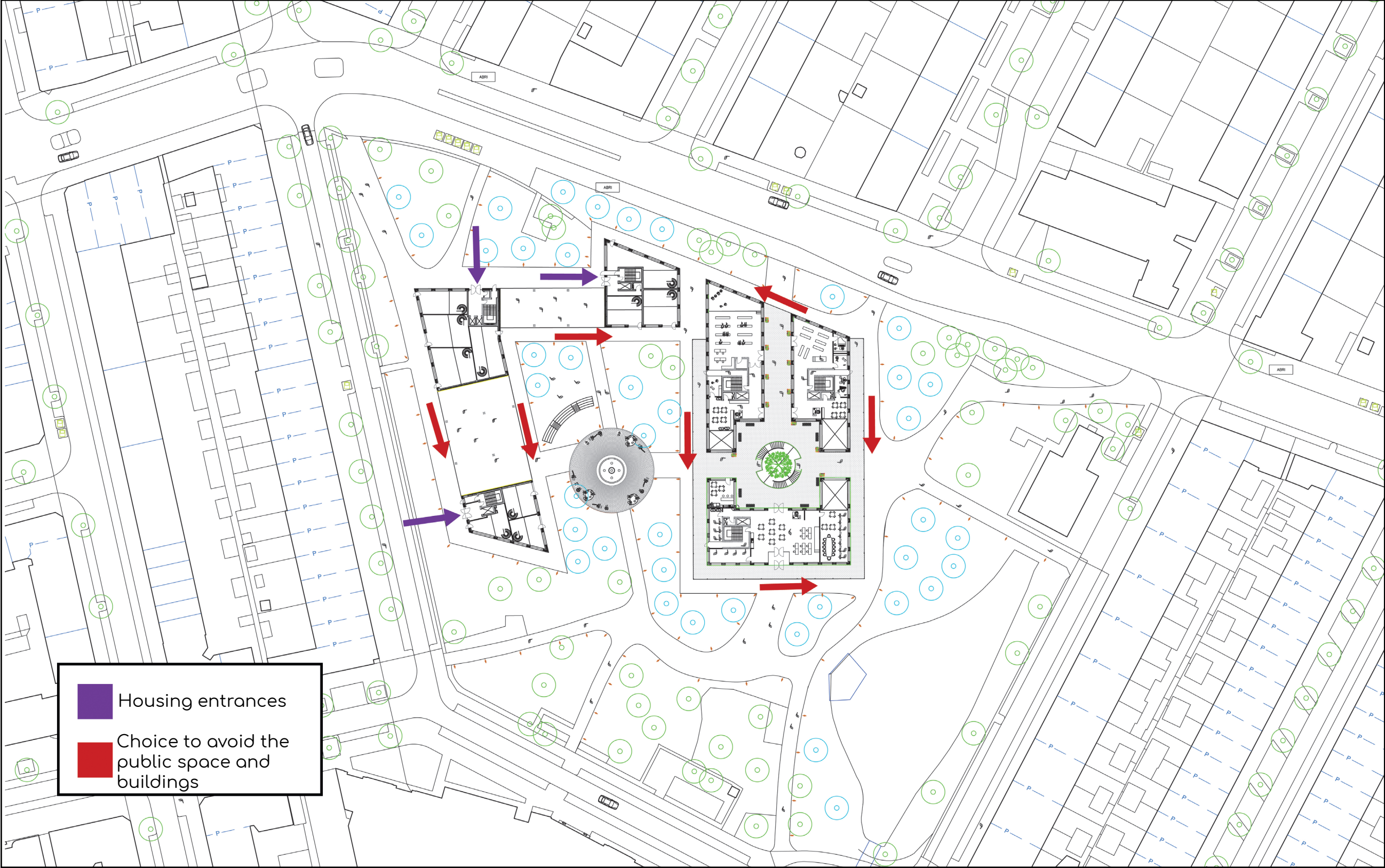


Sharpener

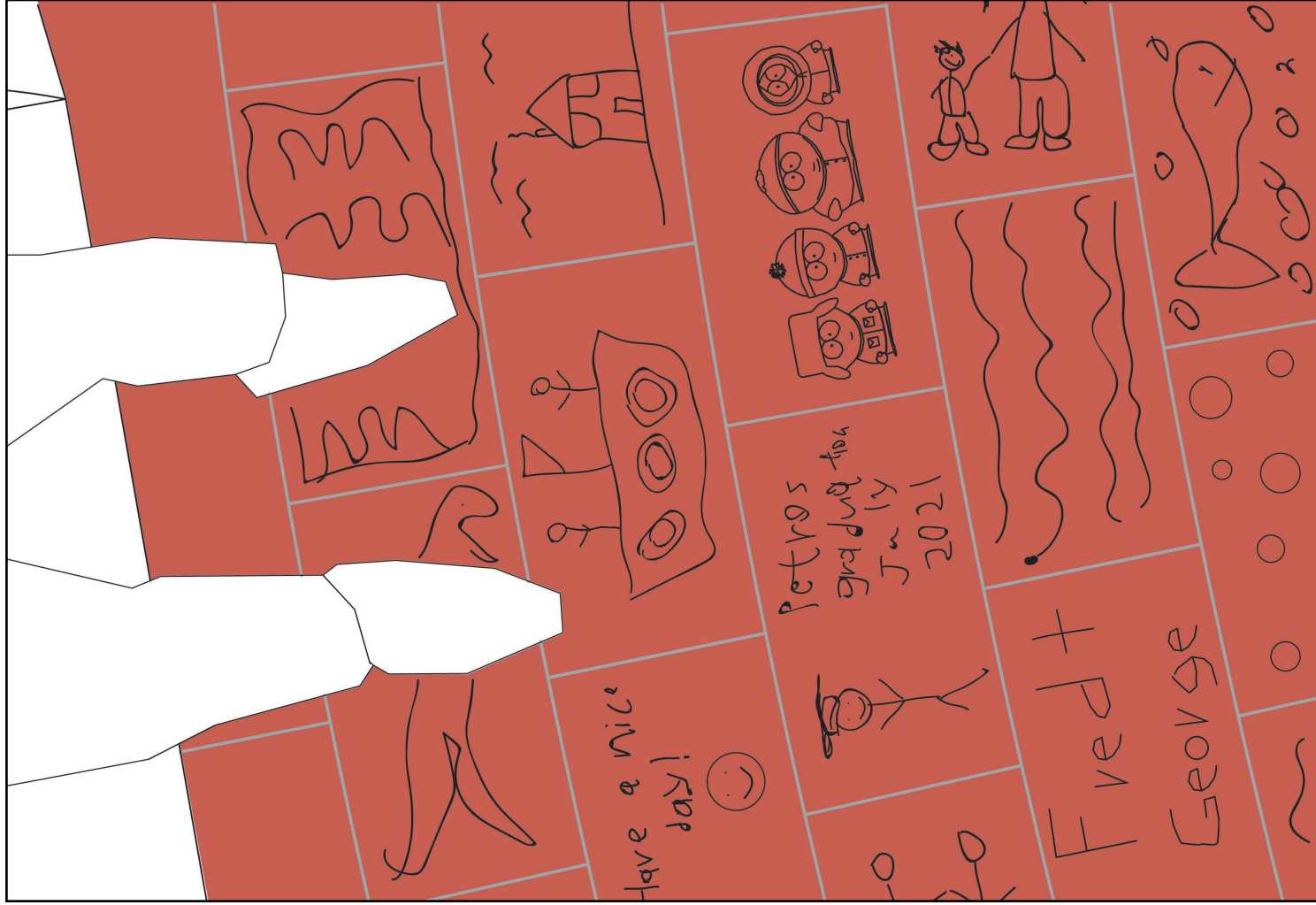


Rotating palette

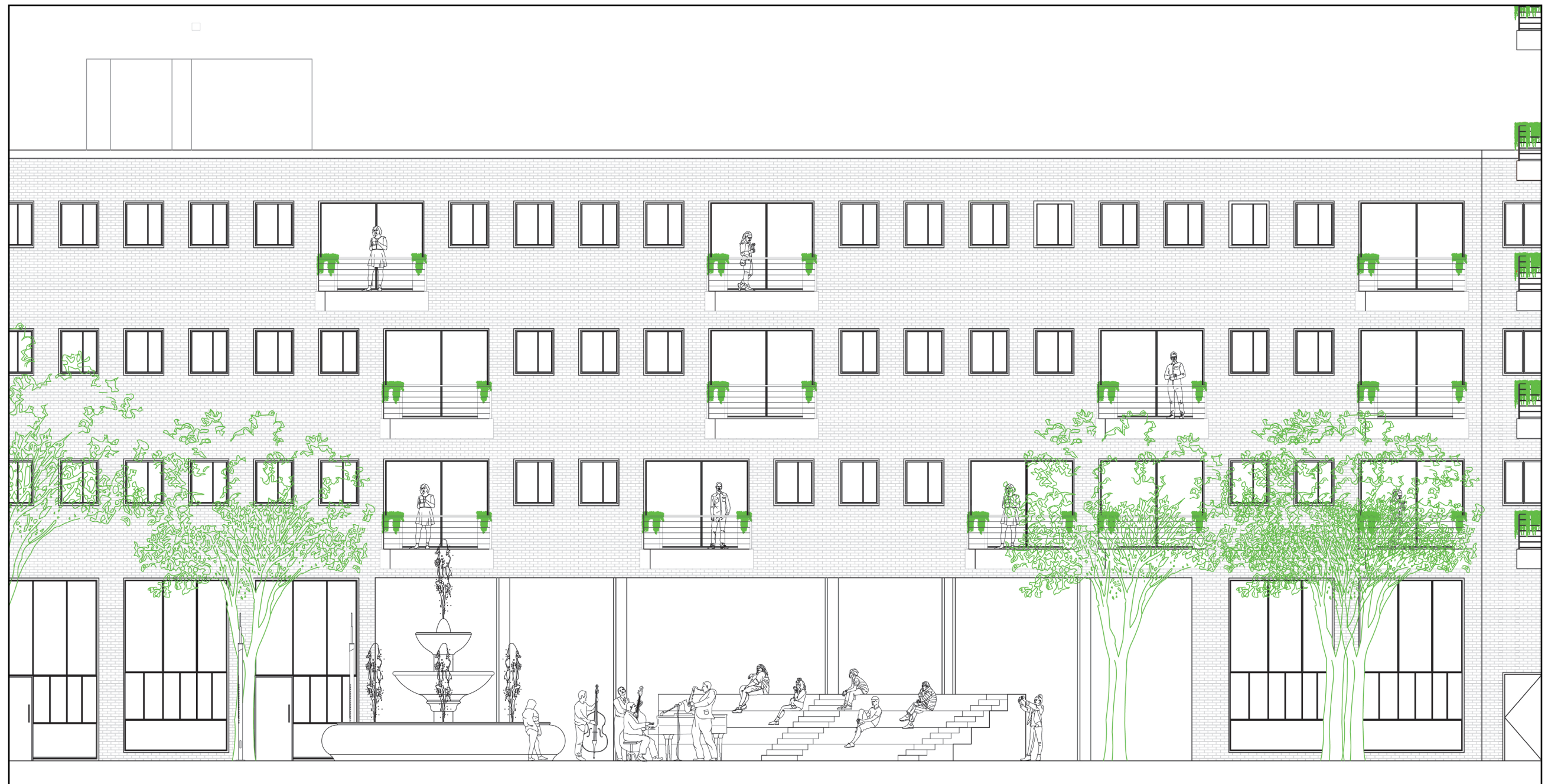
Sittable/ Art statues



Choice in the routes



Sense of ownership



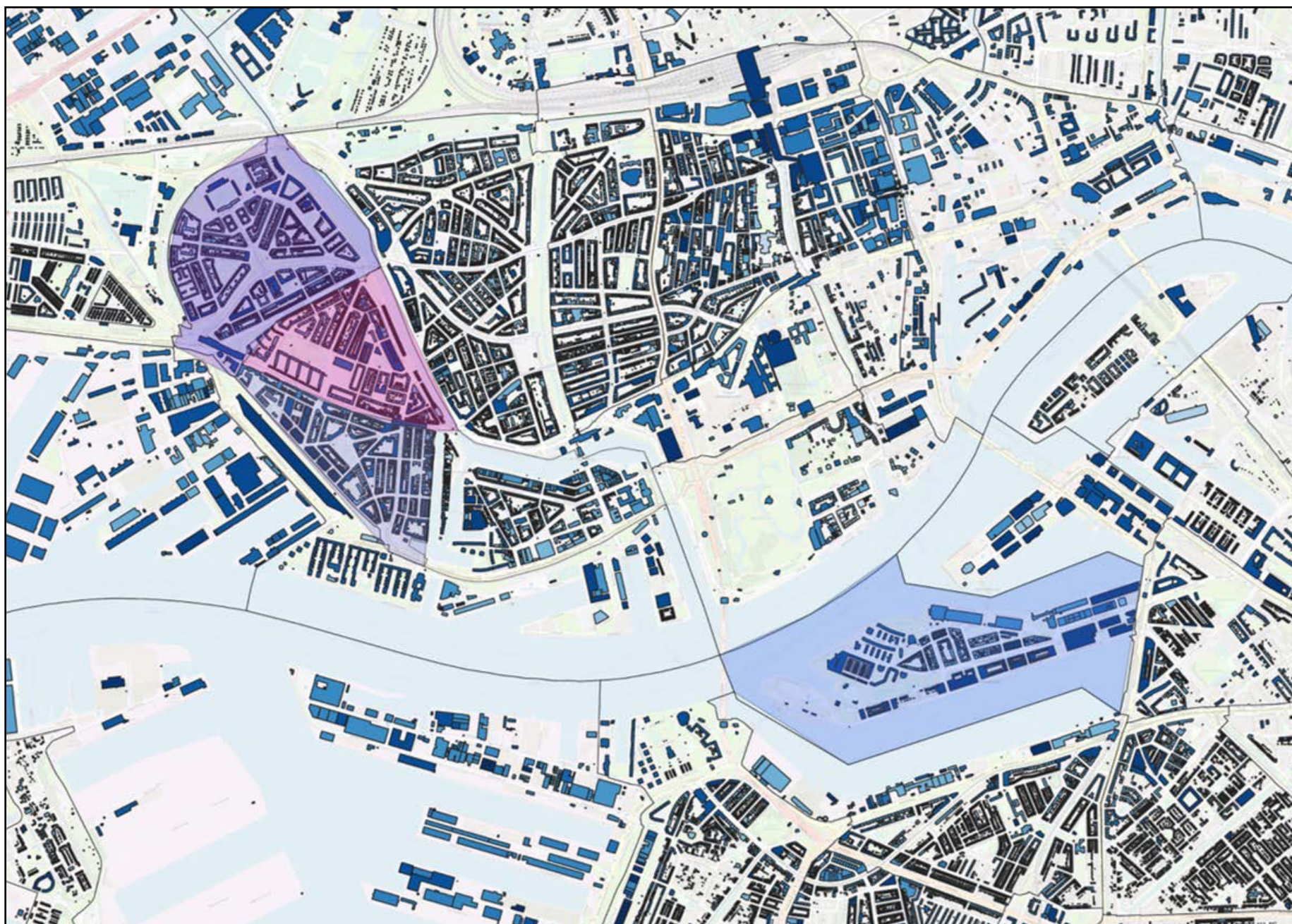
The Public Space of The Neighbourhood



The Public Space of The Neighbourhood

8.

Development assessment



Developed areas of the South: Bospolder/Tussendijken, Katendrecht and Spangen



150 Apartments
 14 Shed houses (temporary?)
 36 Single family houses
 Commercial functions
 Parking spaces

Tollhuislaan, Brede Hilledijk, Rotterdam, Katendrecht

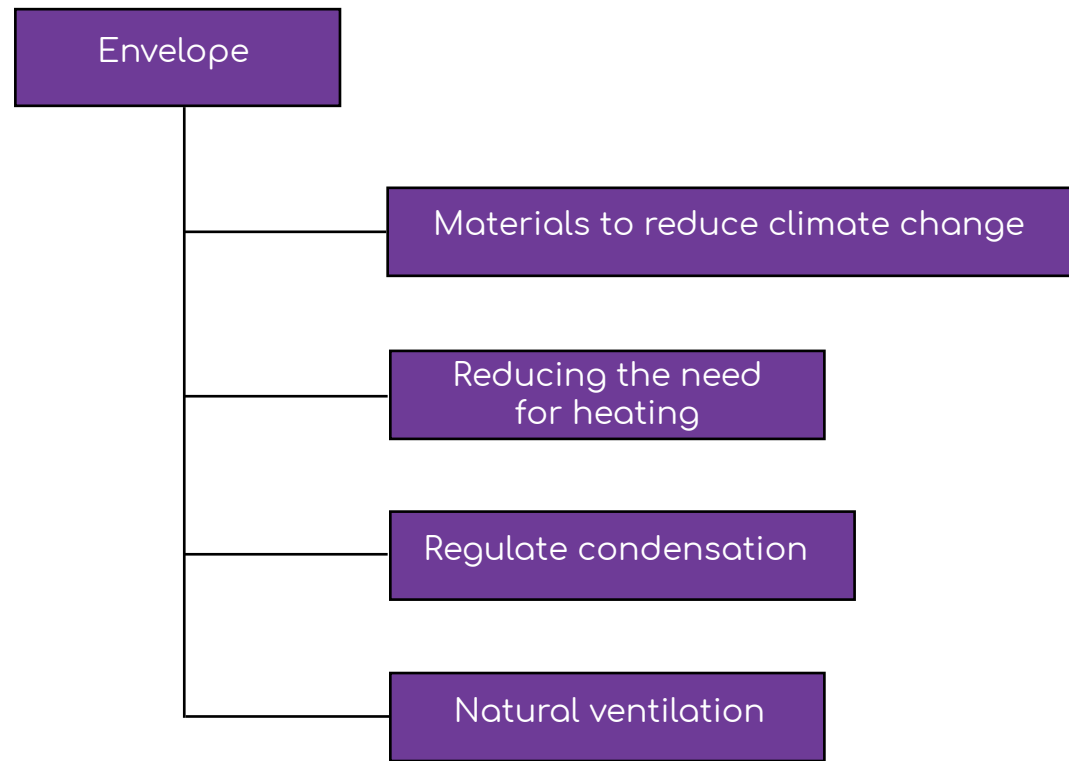


Neighbourhood based approach

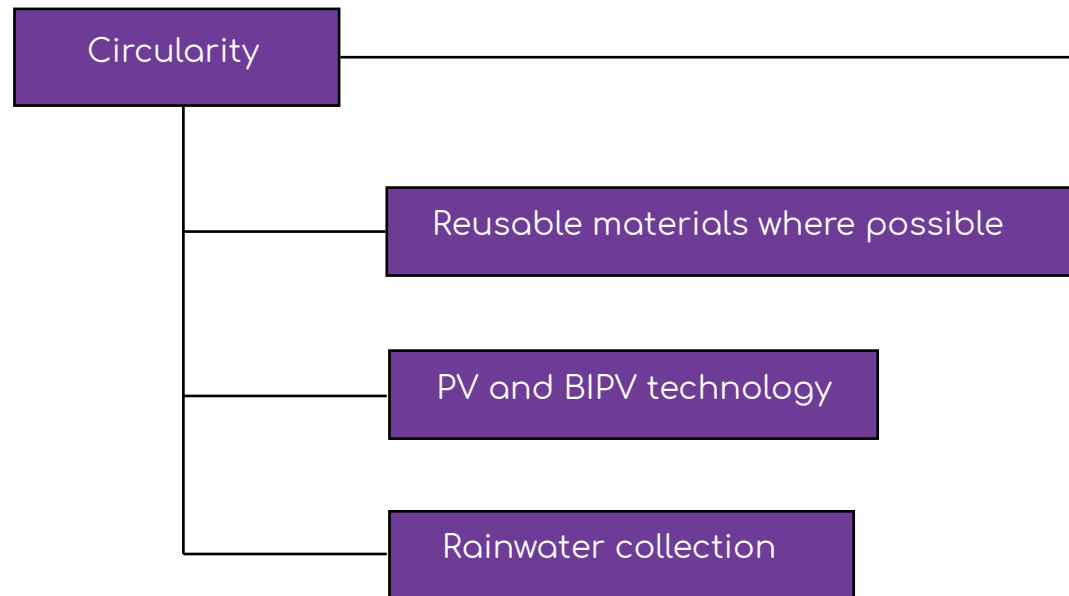
9.

Building Technology

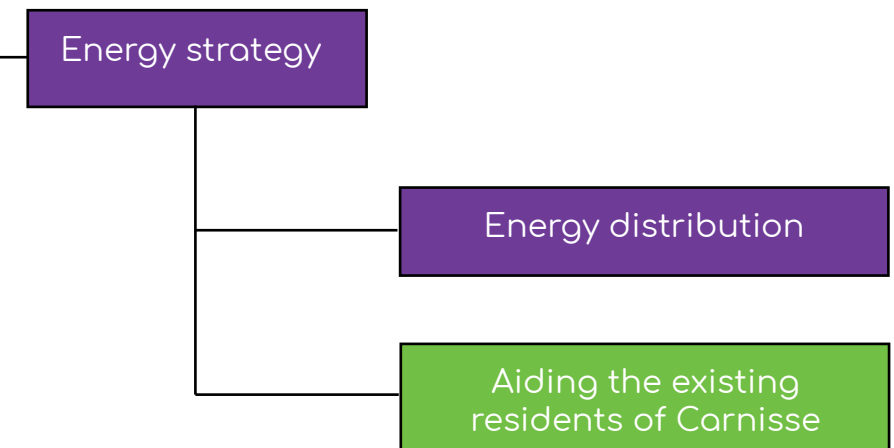
1.



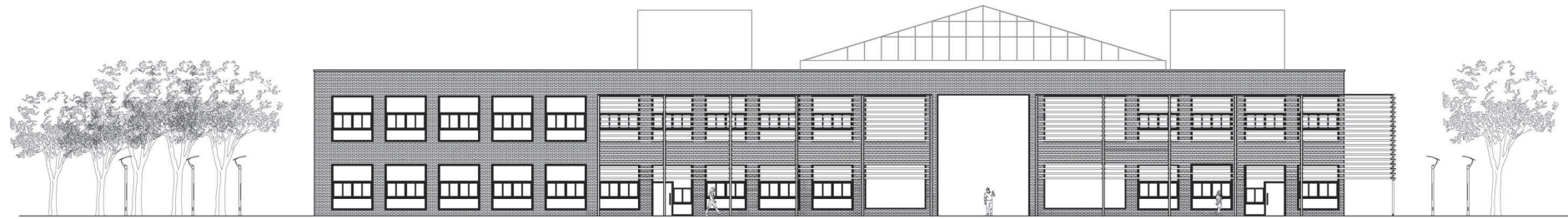
2.



3.



Technology strategy

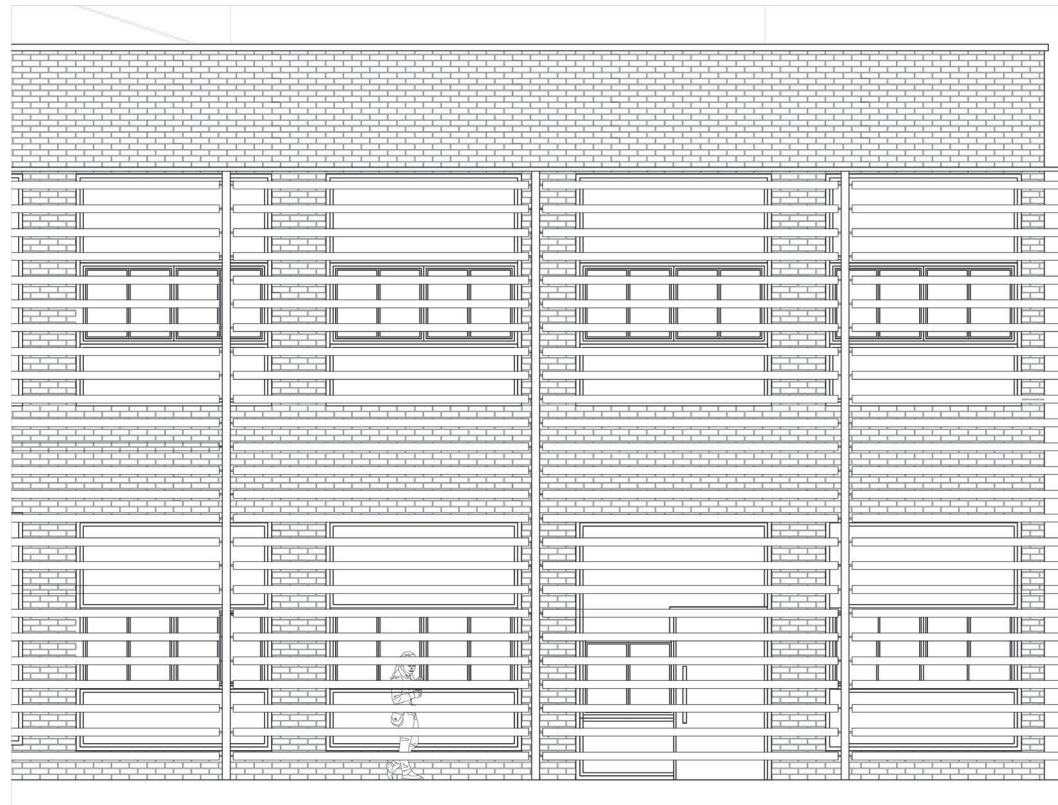


Proposed elevations

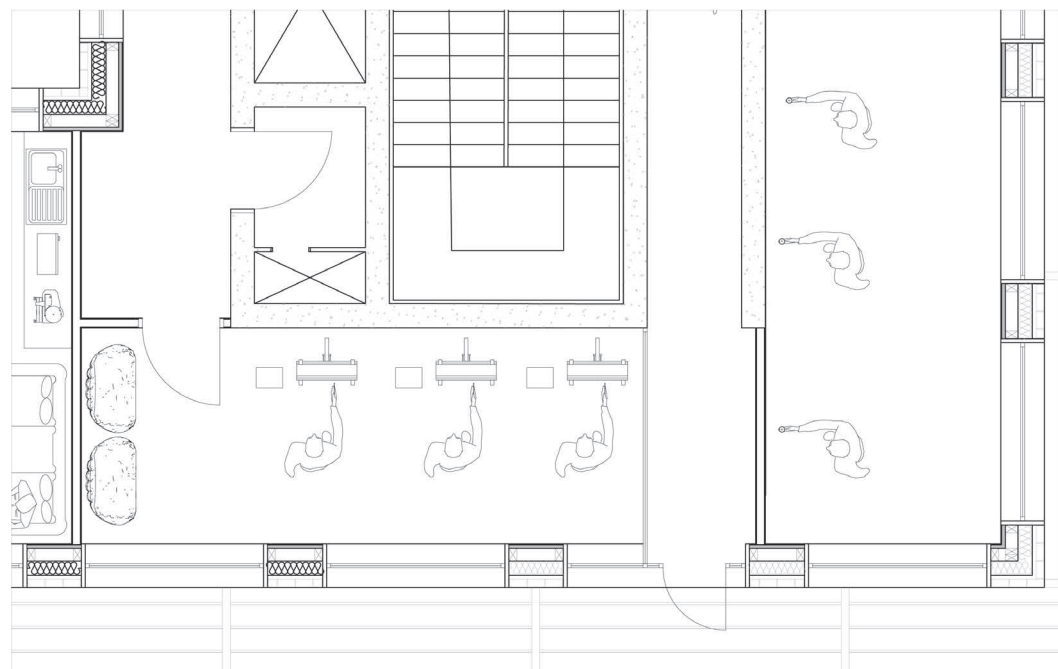


Existing elevations around the Amelandseplein

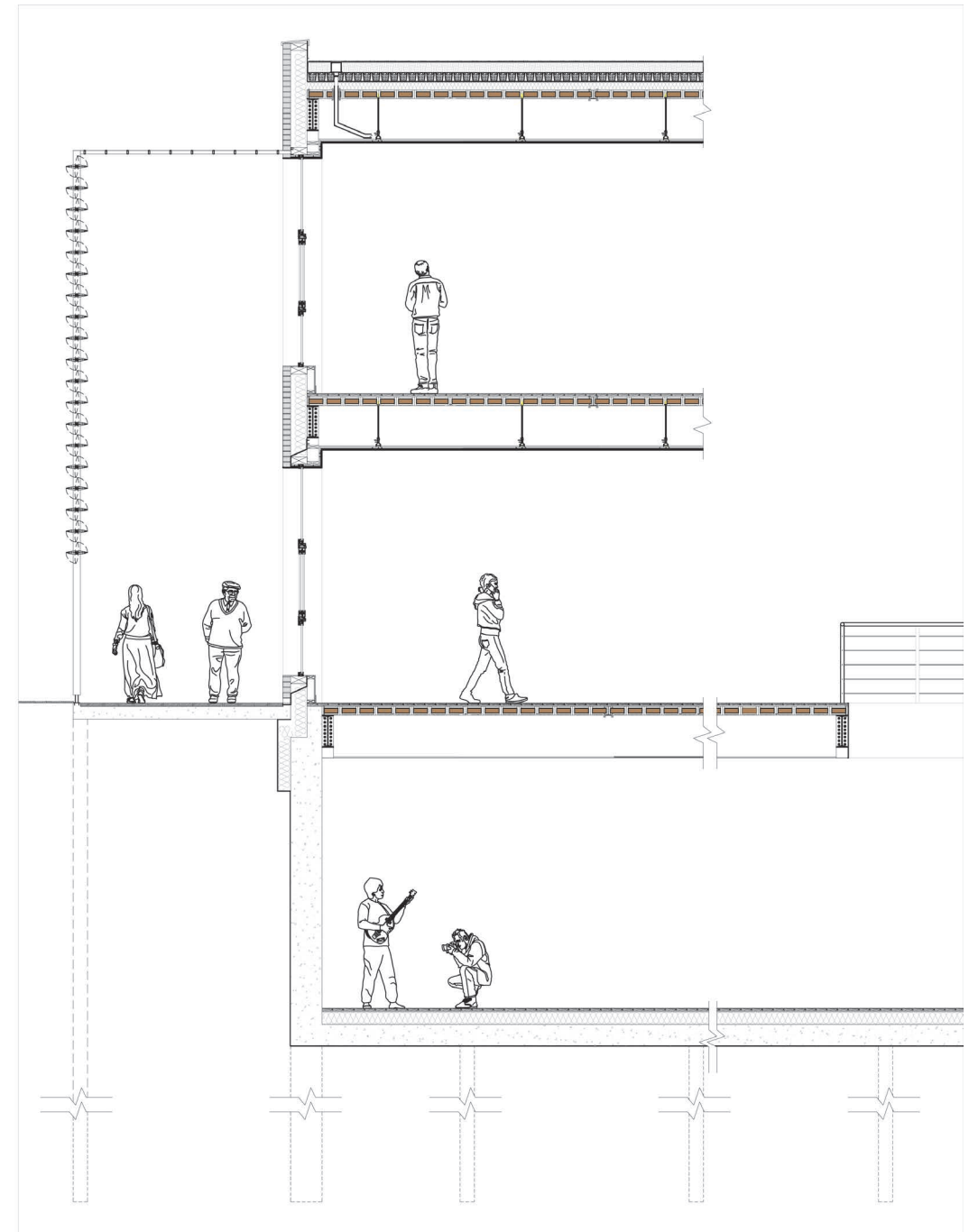
Envelope



West Facade/Buurthuis



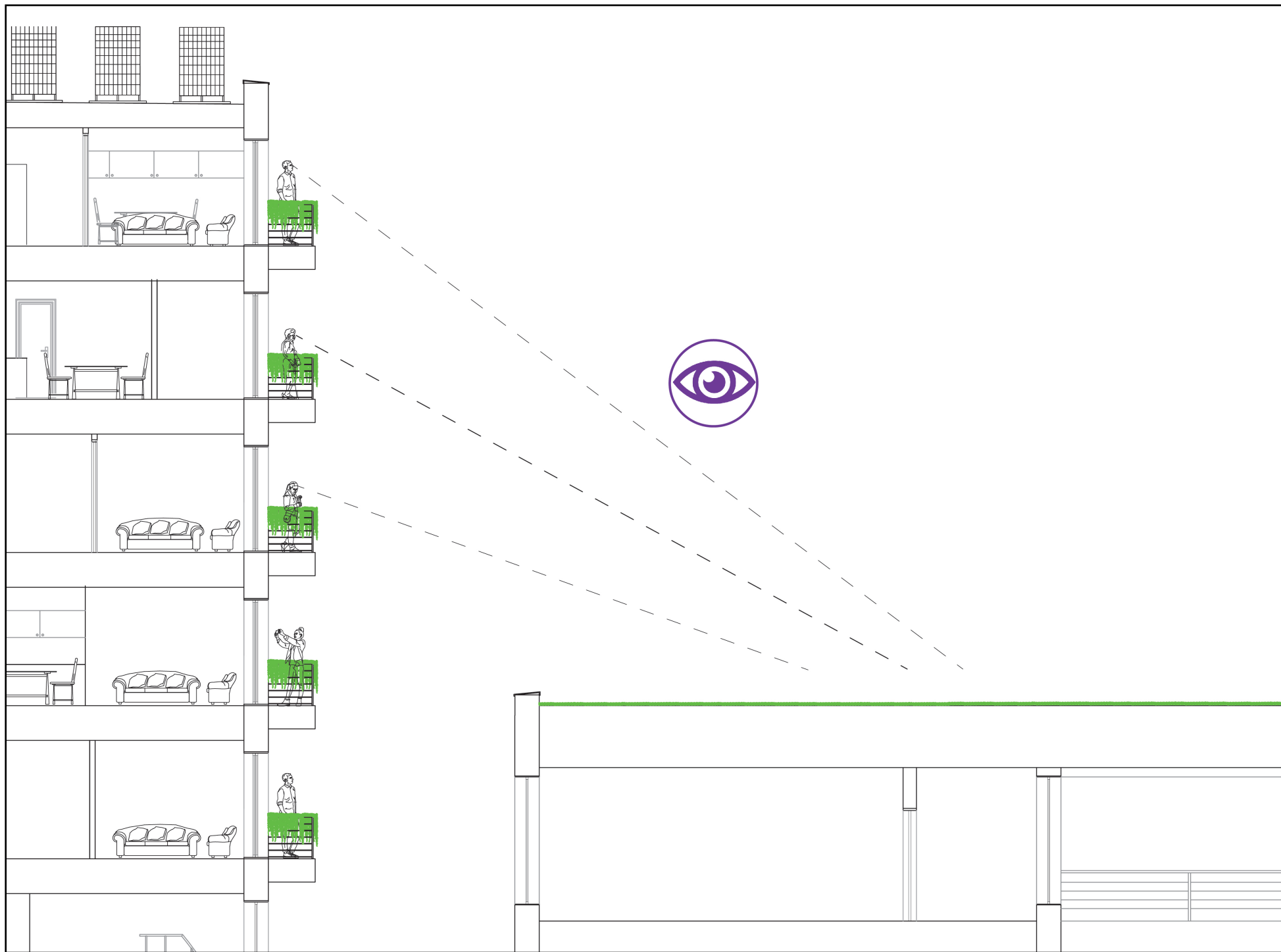
Floor plan/Buurthuis



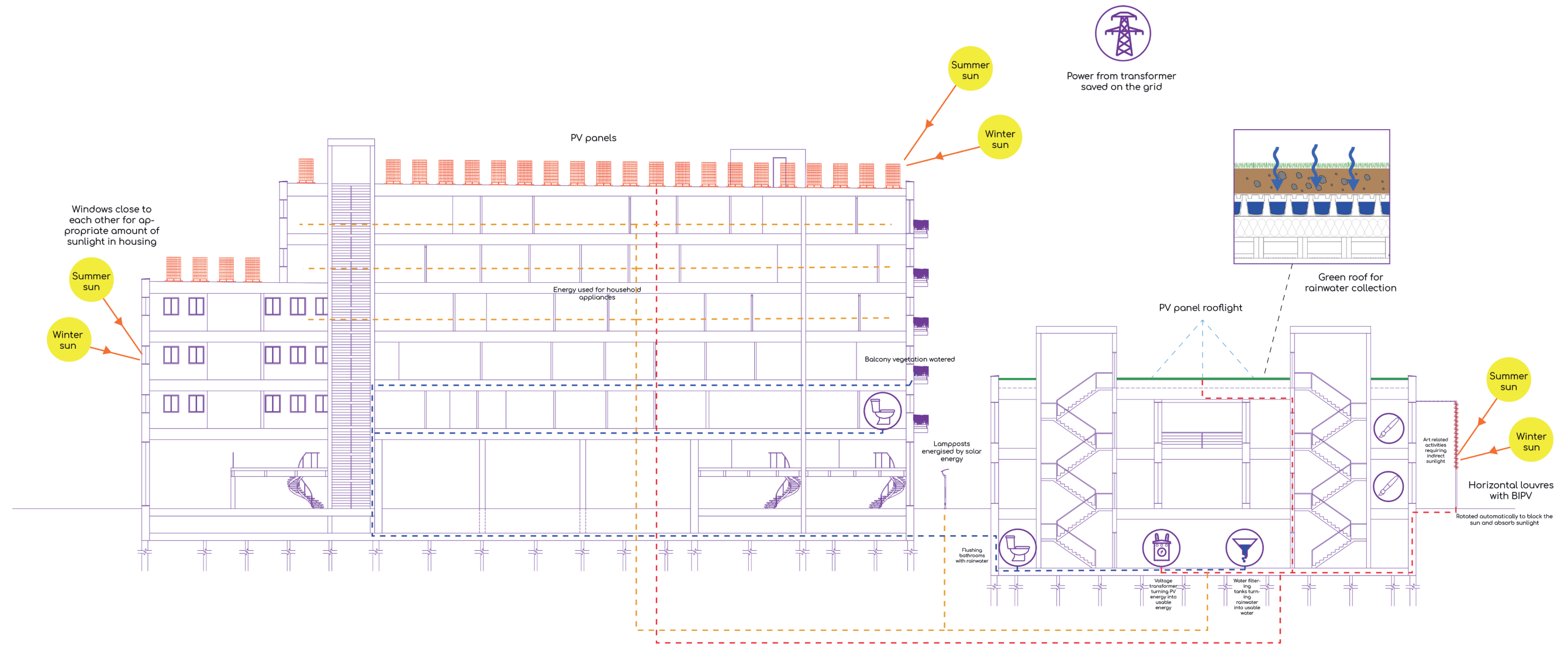
Detailed section

*1:50 on A2

Envelope



Visually appealing

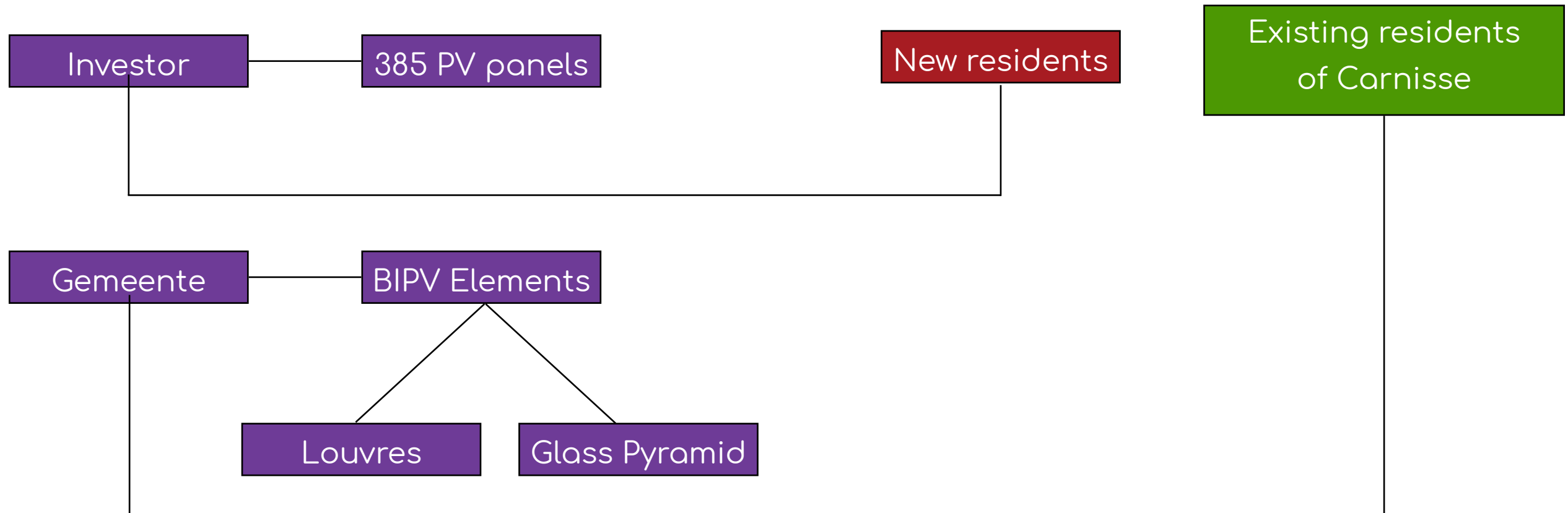


Climate

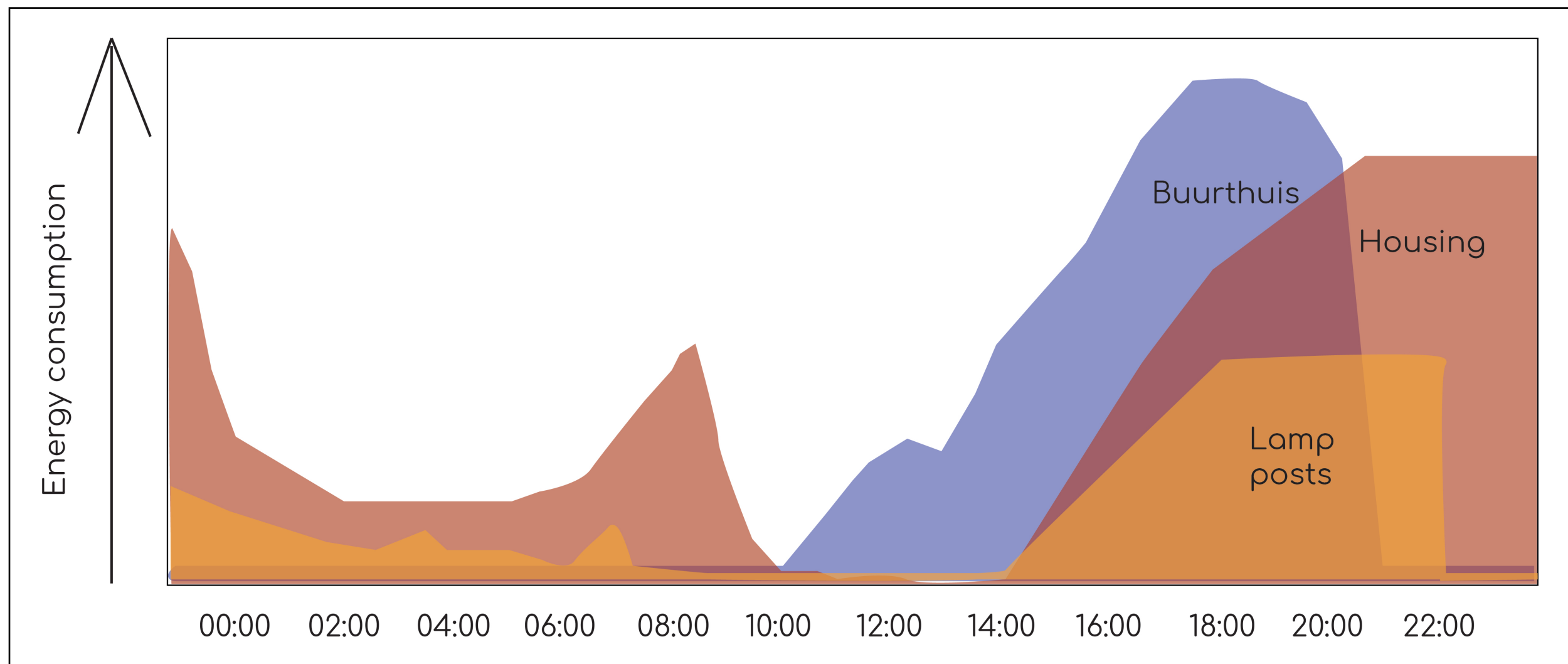
Energy strategy

Benefactors

Hierarchy of offers

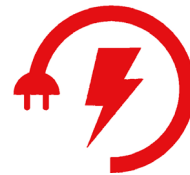
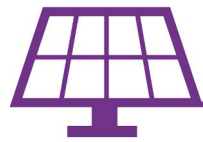


Energy distribution



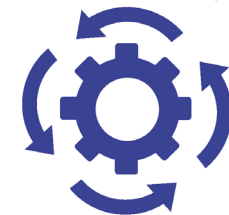
Energy consumption

Equation followed



Note: 4.5 hours in Rotterdam

Number of panels x Size of Panels x Nominal Power x Average amount of sunlight/day
x 30 days per month x 12 months per year / 1000 (to equate to Kwp) x Efficiency



Products used



Sunpower® PV panels
E-Series E20-435-COM

Pv yield: 13.45KWp/hour
(all panels)



Polysolar® Transparent
PS-CT panel

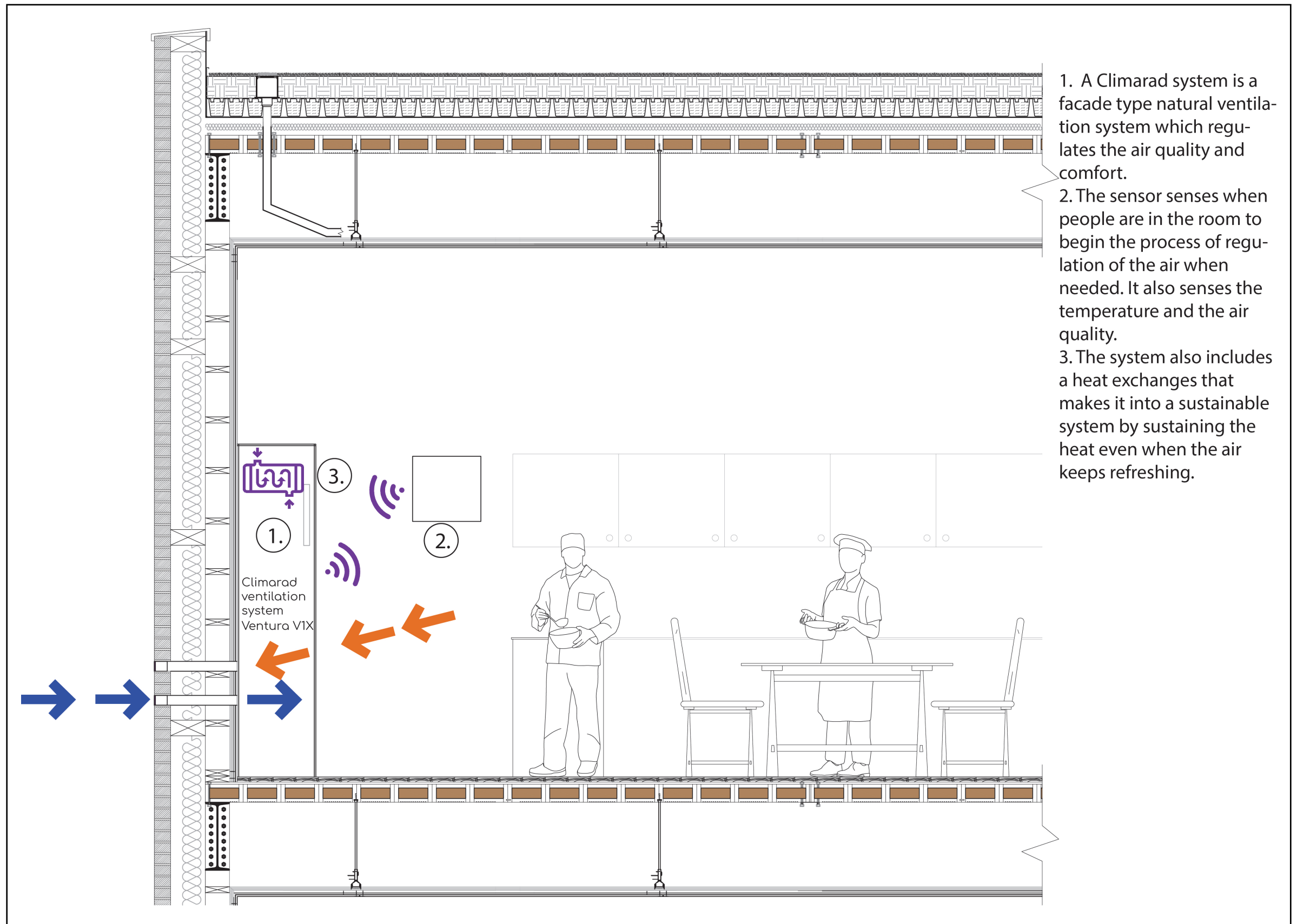
Pv yield: 30.02 KWp/hour
(whole glass pyramid)



Flextron® Peel and
Stick

Pv yield: 6.9 KWp/hour
(all elements on louvres)

PV yield

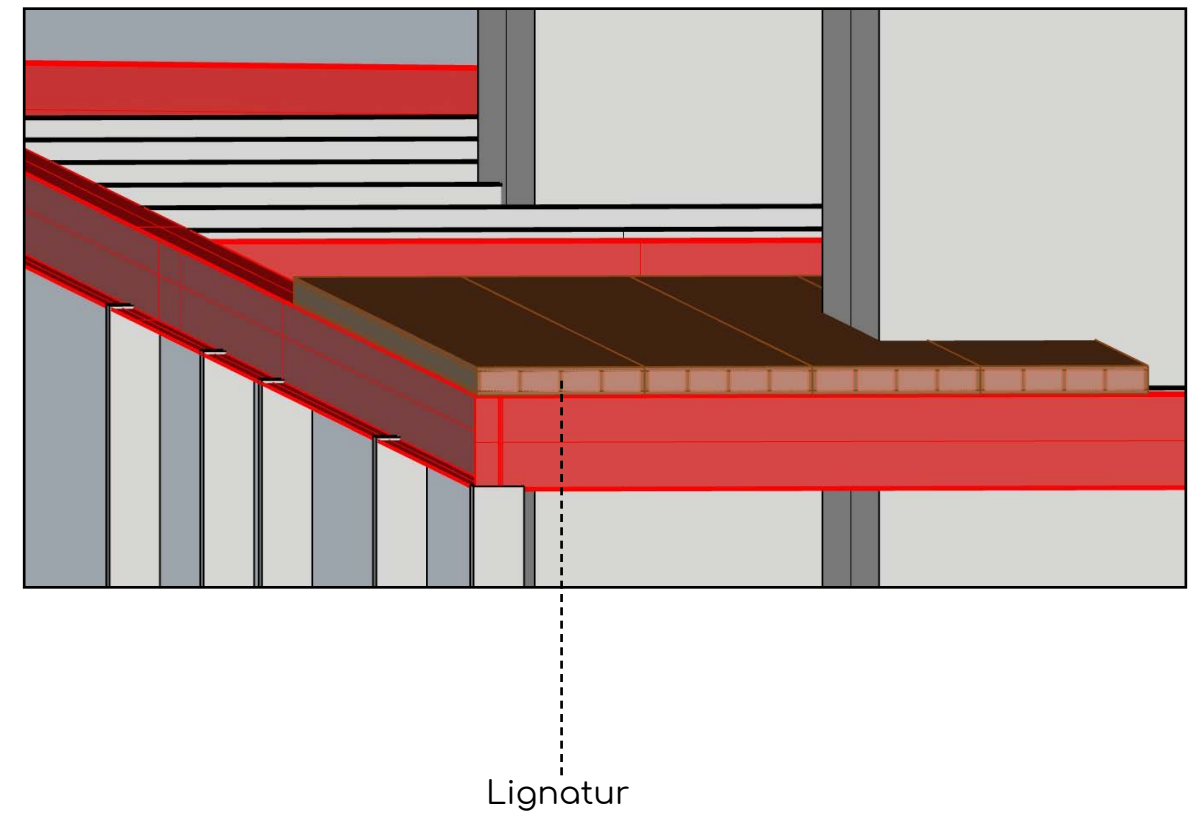
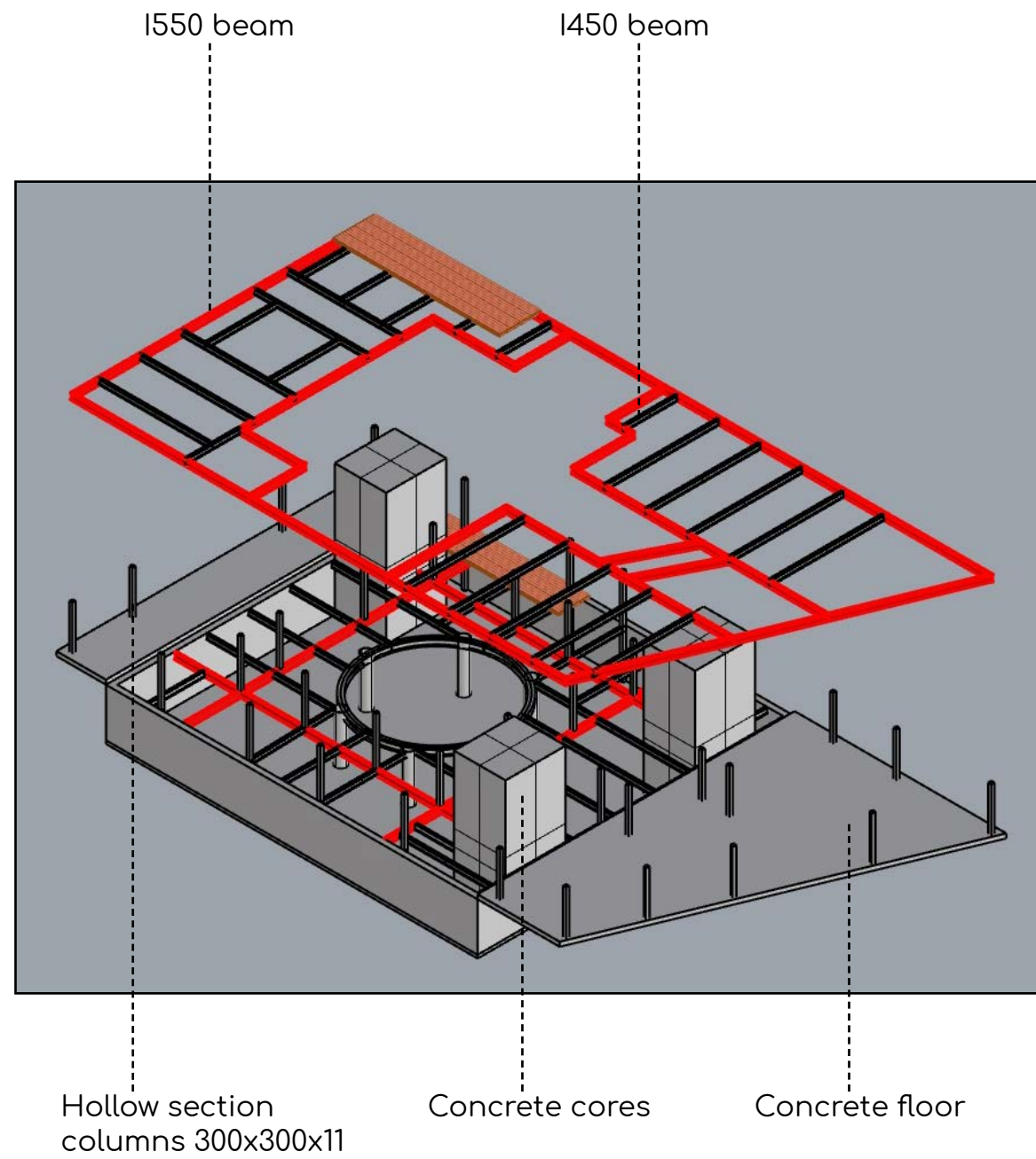


1. A Climarad system is a facade type natural ventilation system which regulates the air quality and comfort.

2. The sensor senses when people are in the room to begin the process of regulation of the air when needed. It also senses the temperature and the air quality.

3. The system also includes a heat exchanges that makes it into a sustainable system by sustaining the heat even when the air keeps refreshing.

Ventilation



Structure

Intangible elements

PV panels

BIPV Elements

Collection of rainwater

Increased number of trees

Materials used

Bricks

Pavatherm Insulation

Construction timber

Steel structure

Lignatur

Knauf drywall

Metallic water holders

Knauf hanged ceiling tiles

Concrete cores

Metallic lintels

Wooden/ Glass doors

Aluminium windows

Process

Put together with limestone mortar to be able to be taken apart for reuse.

Simply reuse as it's bolted.

Simply reuse as it's bolted.

Simply reuse as it's bolted.

Simply reuse as it's bolted.

Simply reuse.

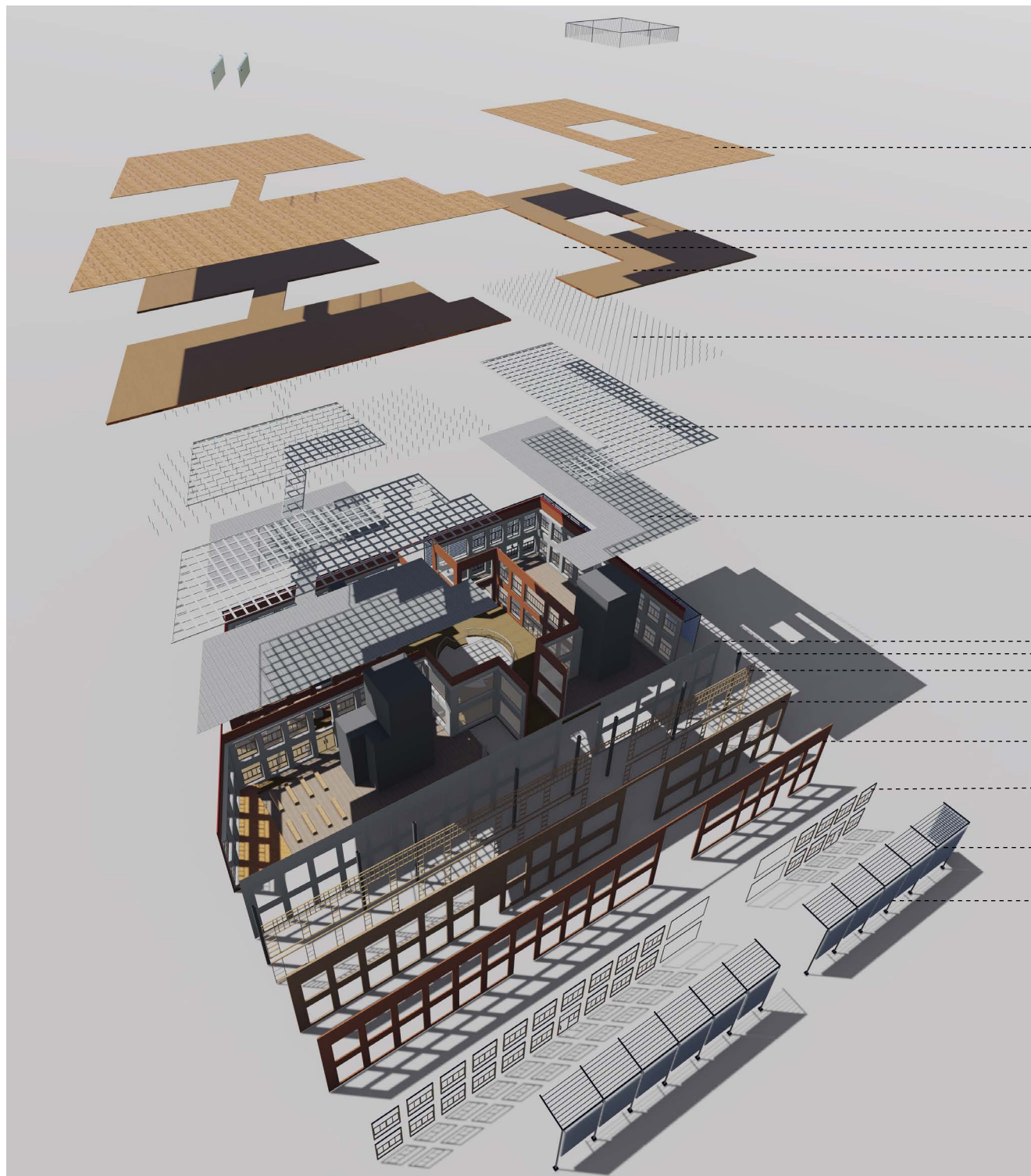
Simply reuse.

Break down for aggregate

Recycle

Take apart for materials or reuse

Take apart for raw materials or reuse



Parquet floor bolted

Lignatur structural floor

Ceiling hangers

Ceiling structure

Ceiling panels

Drywall

Timber frame

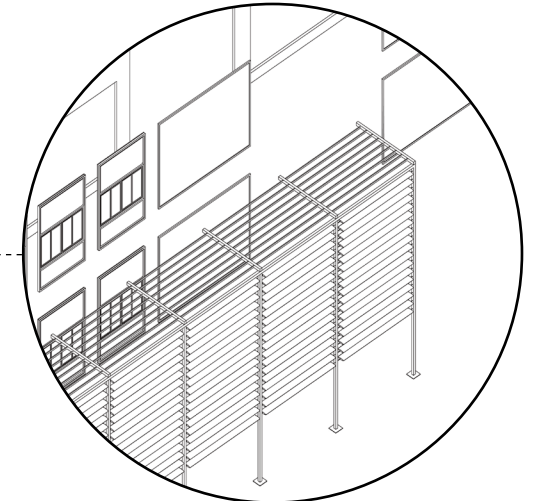
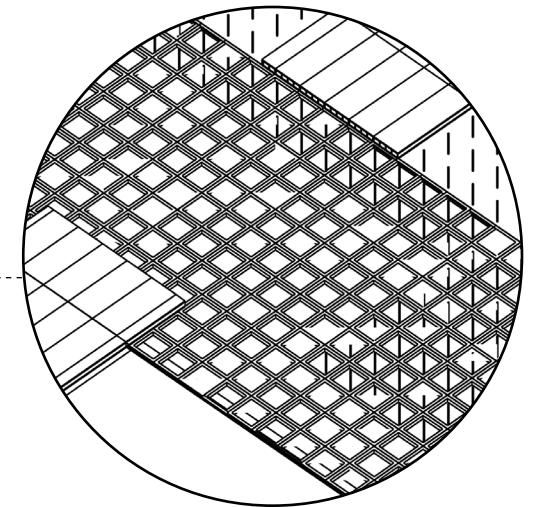
Pavatherm insulation 180mm

Standard 215x107x65mm bricks

Aluminium windows

BIPV Embedded Louvres

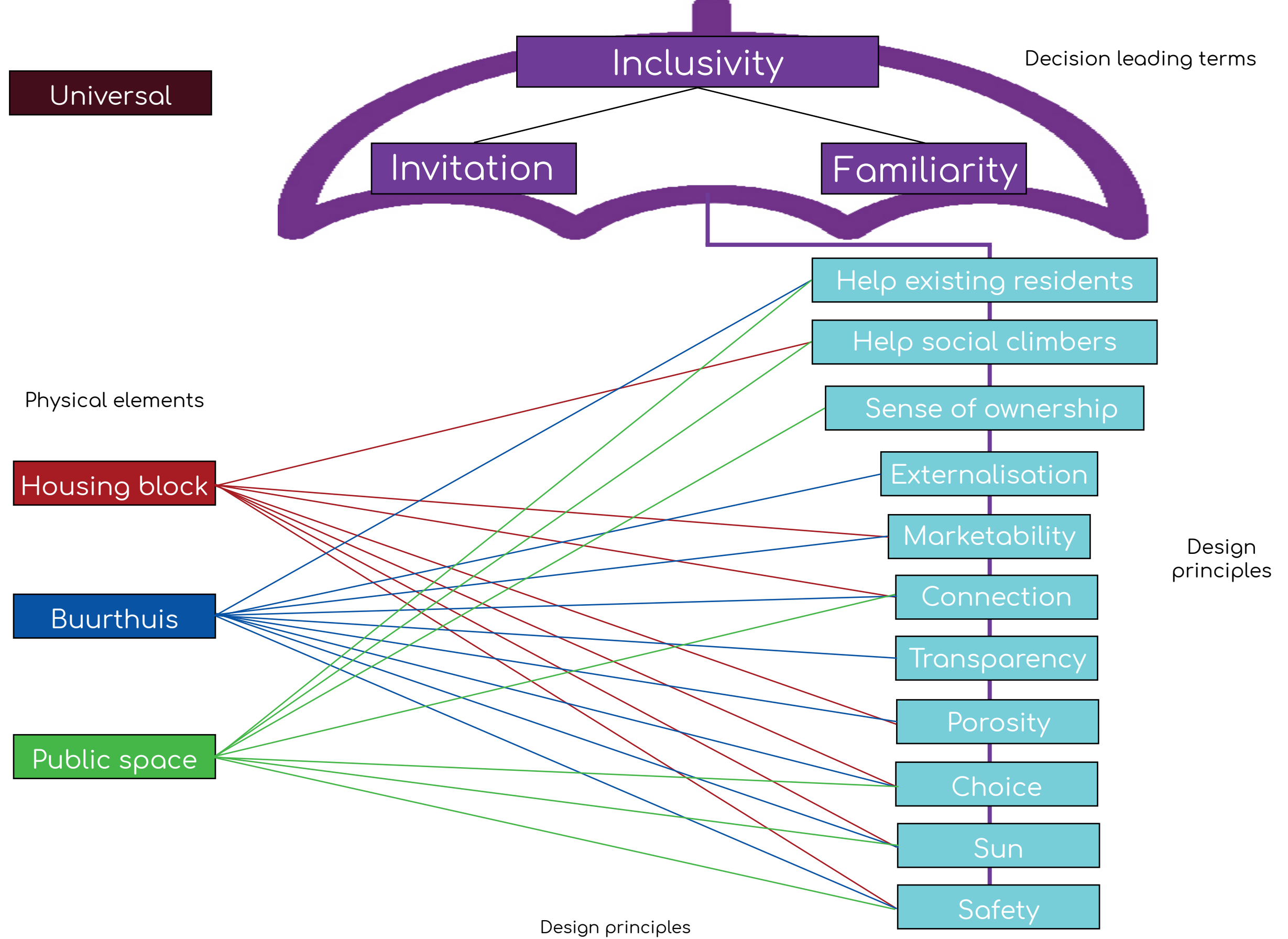
Hollow-section columns 300x300mm



Construction diagram

10.

Reflection

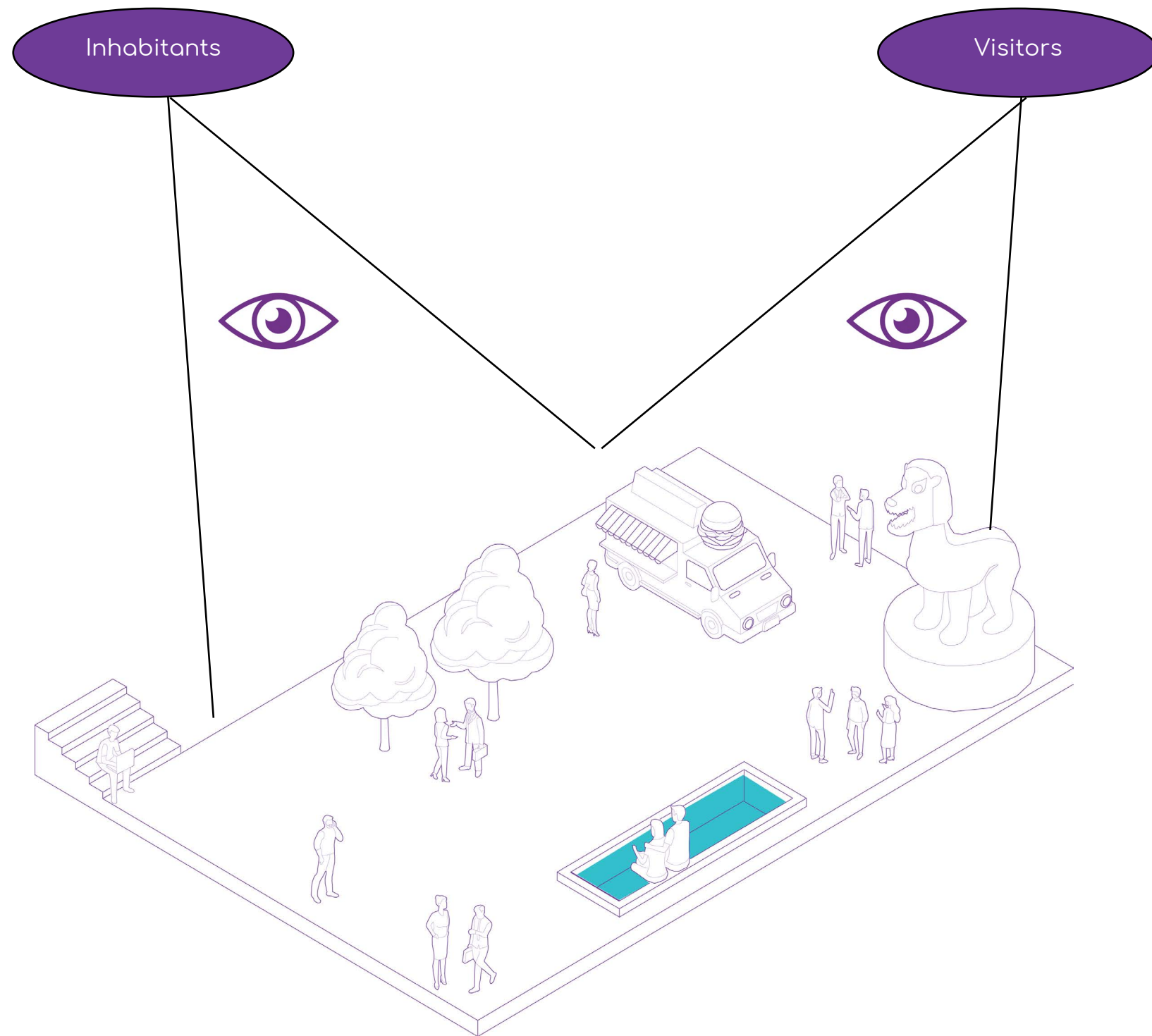


Reflections on the project

-This development is about inclusivity in public spaces and public buildings. However, this specific project is context related and linked to the South of Rotterdam. This includes the materials used, the connection of the development to the people and the choice of the programme like part of the project, being a buurthuis. However some principles like familiarity and sense of ownership, are universal.

-This project relates to the studio by having lots of disciplines involved like management to understand how the building would be built, and even non architectural ones like sociology, used to understand low-income people and their problems. As a city of the future the project becomes relatable simply because it is a project that attempts to secure the future of Carnisse.

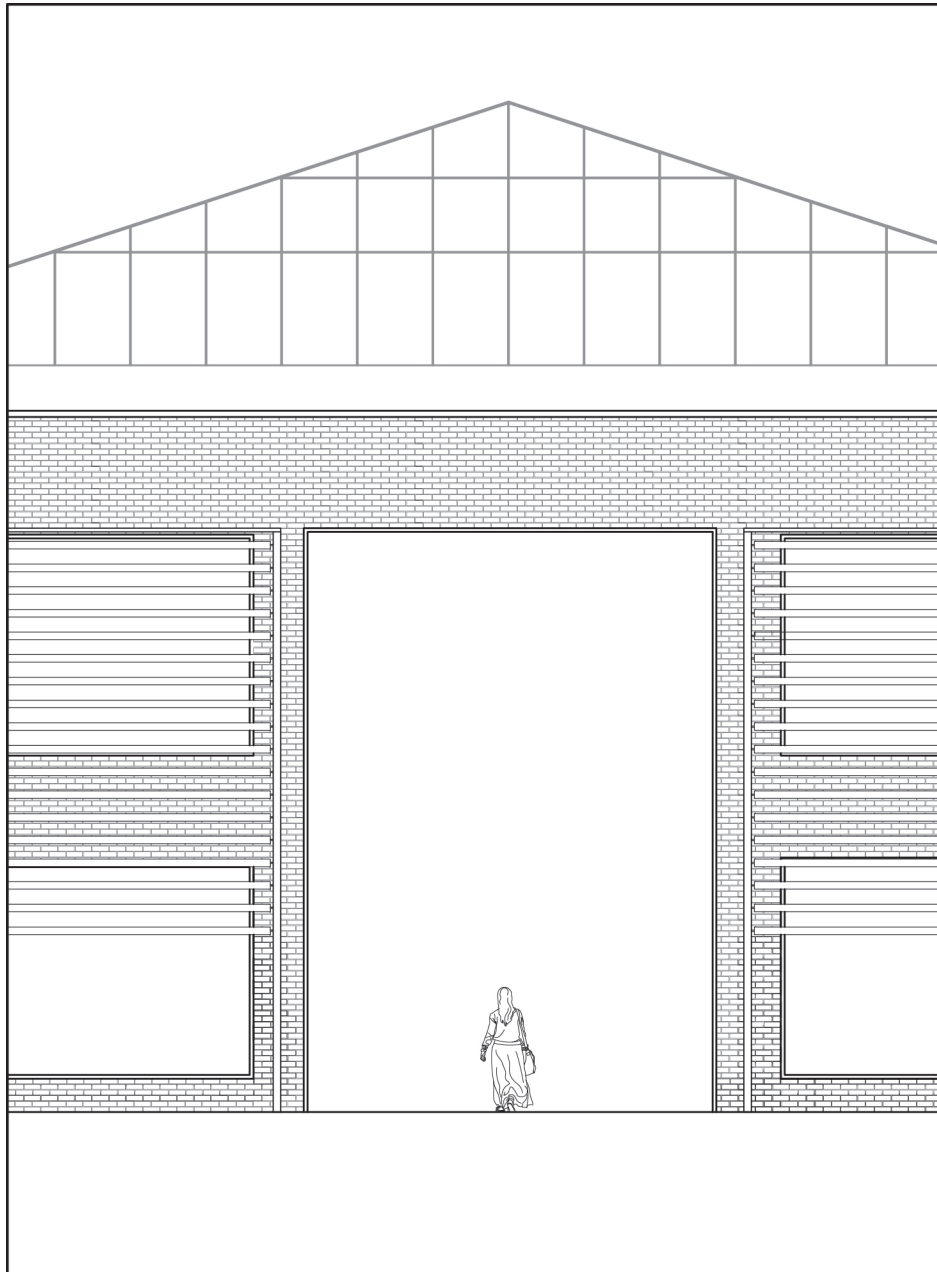




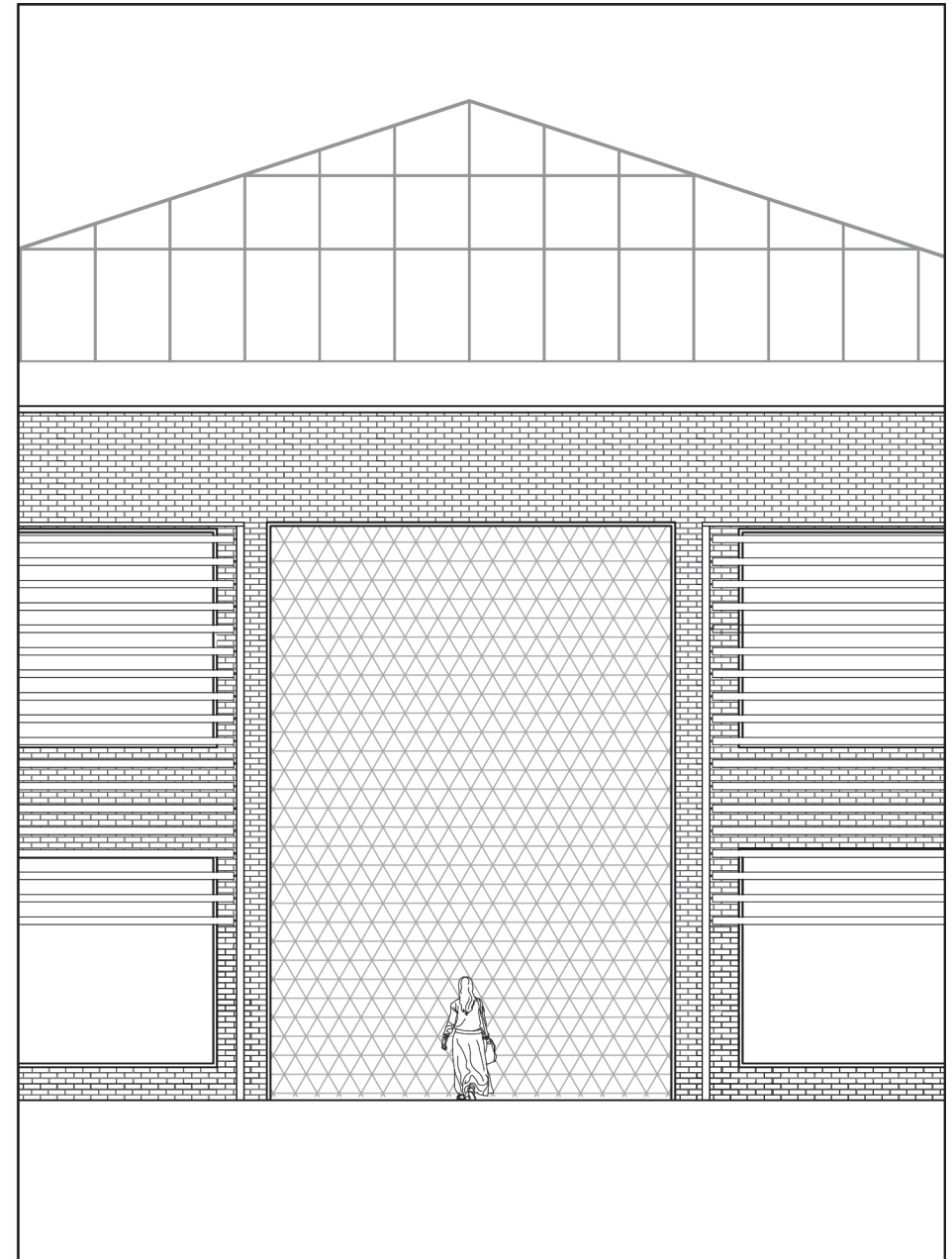
Reflection throwback

1. Peter Scholten, P., Crul, M. and van de Laar, P. Coming To Terms With Superdiversity: The Case Of Rotterdam. IMISCOE Research Series: Springer Open, p.11 and 12.
2. Snel, E., Aussen, S., Berkhof, F. and Renlo, Q. (2011). The struggle to belong: Dealing with diversity in 21st century urban settings: Views of gentrification from below: how Rotterdam local residents experience gentrification?. Erasmus University Rotterdam, RC21 conference 2011 Session 2 "Social Consequences of Gentrification..".
3. Project for Public Spaces and Metropolitan Planning Council. 2008. "A Guide To Placemaking In Chicago". New York.
4. The Social Life of Small Urban Spaces. (1979). [film] Directed by W. Whyte Jr. USA.
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7. NPRZ (2019). National Programma Rotterdam Zuid Implementation plan 2019-2022. Rotterdam
8. Kleinhans, Reinout. 2019. "Neighbourhood Change: Theory, Concepts, Mechanisms And Outcomes". Presentation, Tu Delft, , 2019.
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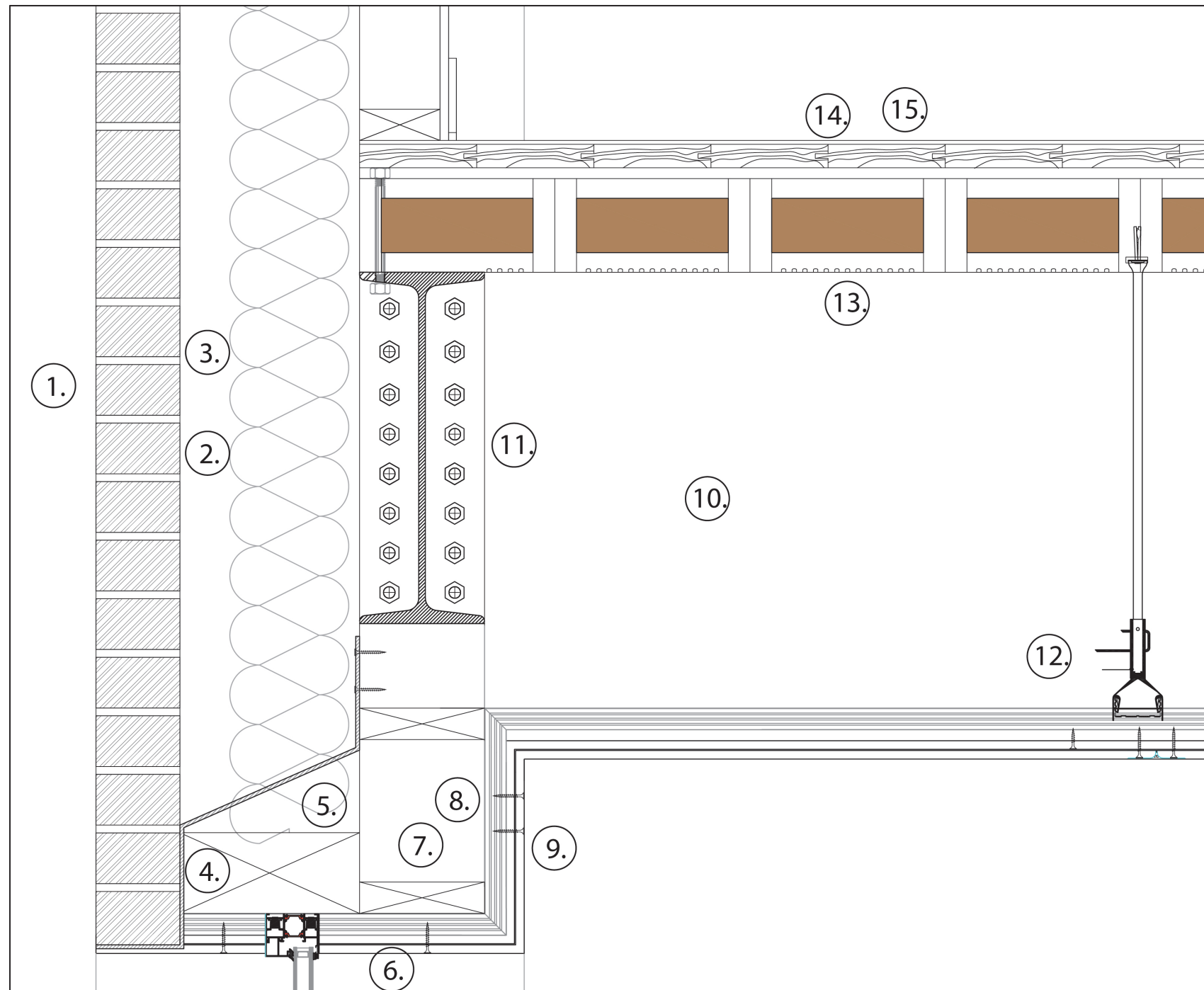


During the daytime



During the nighttime

Buurthuis with open and closed doors



1. Standardised clay bricks 215x107.5x65mm
2. Air gap to avoid moisture behind bricks
3. Pavatherm insulation 180mm
4. Structural timber lintel
5. Metallic sheet for brick rest double bolted.
6. Double glazed window with thermal rest.
7. Timber frame structure
8. Steel frame structure for interior drywall
9. Interior drywall.
10. H-beam I550.
11. H-beam I450.
12. Knauf Suspended ceiling system.
13. Lignatur structural floor with heating and sound-proofing elements.
14. Parquet floor self-contained.
15. Lamination resin.

*1:5 on A3

1:5 Detail showing materials



Exceptions in the scale of the neighbourhood