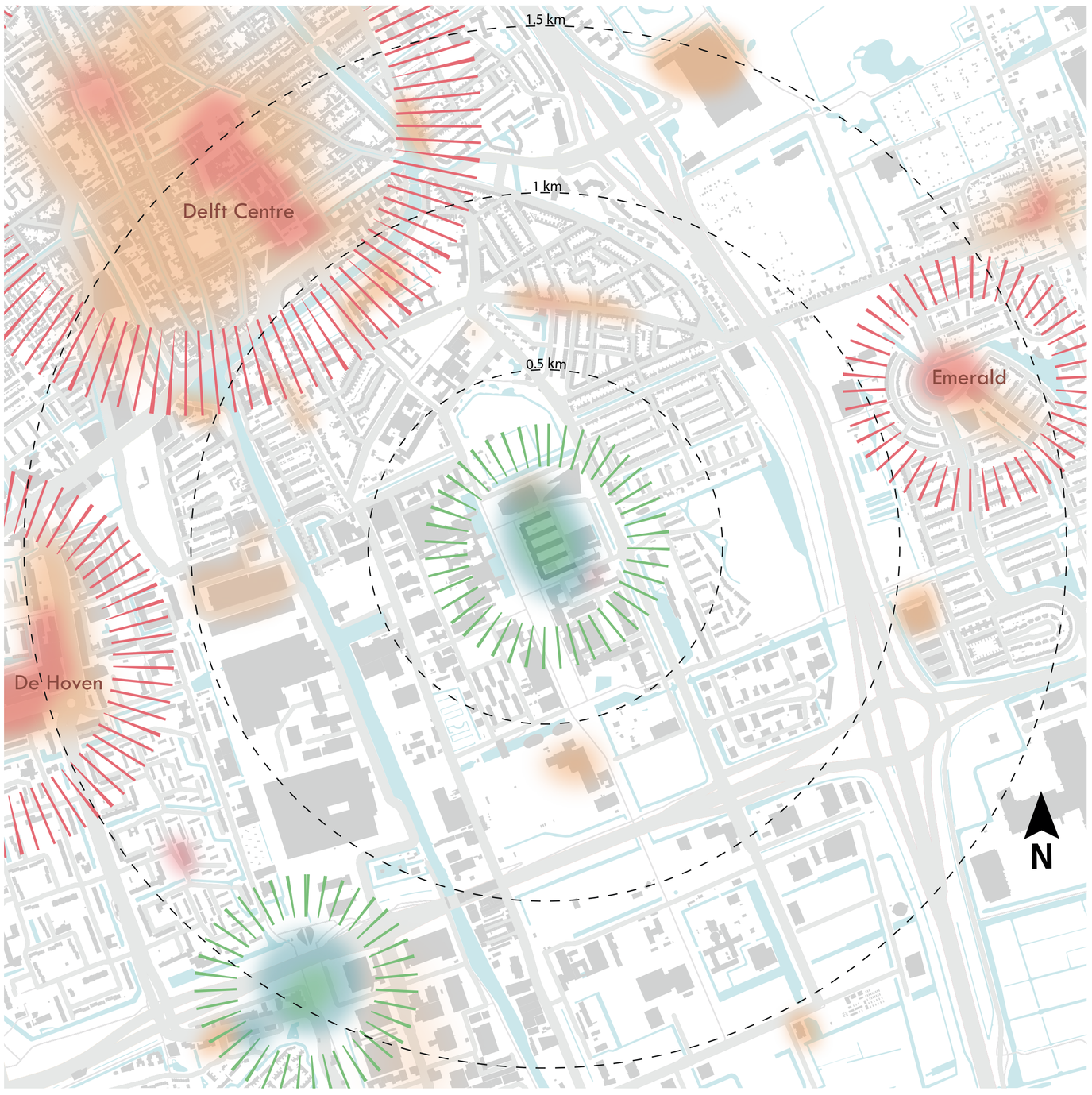
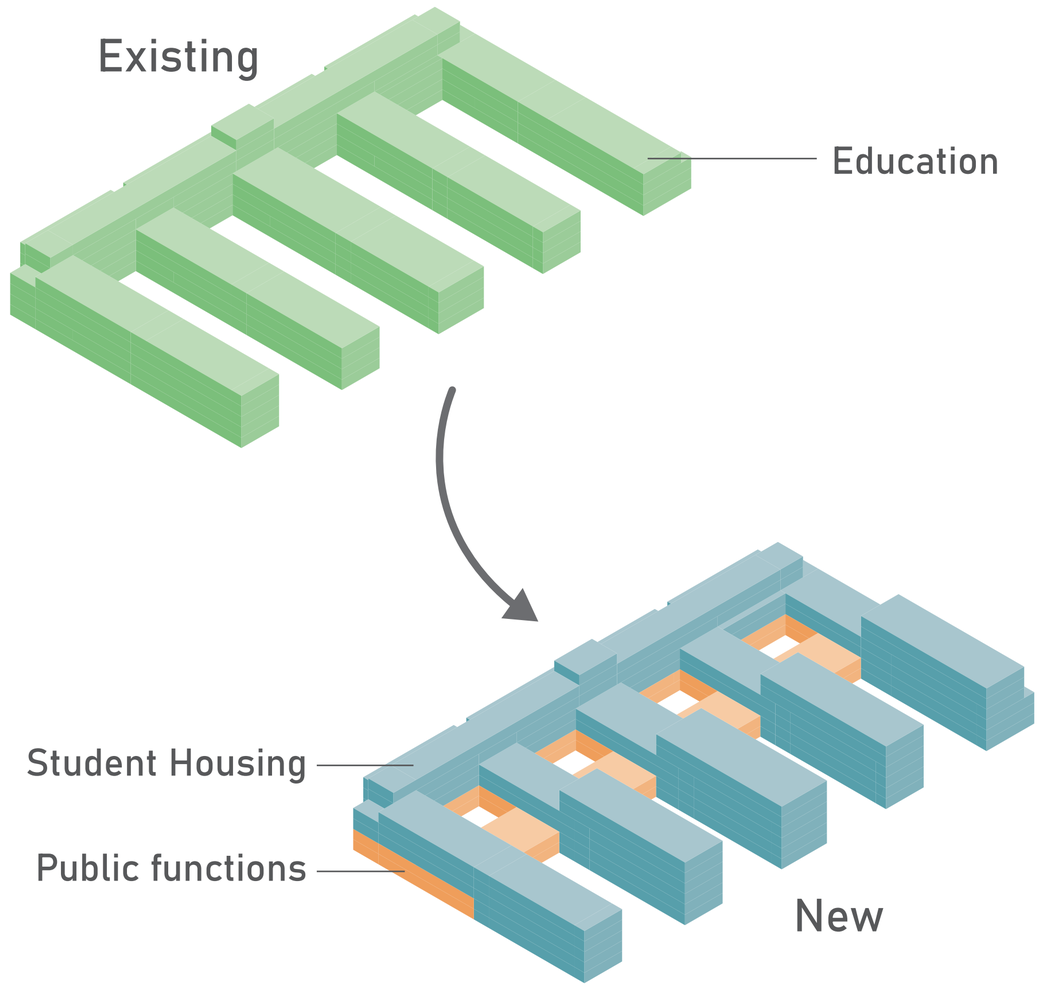
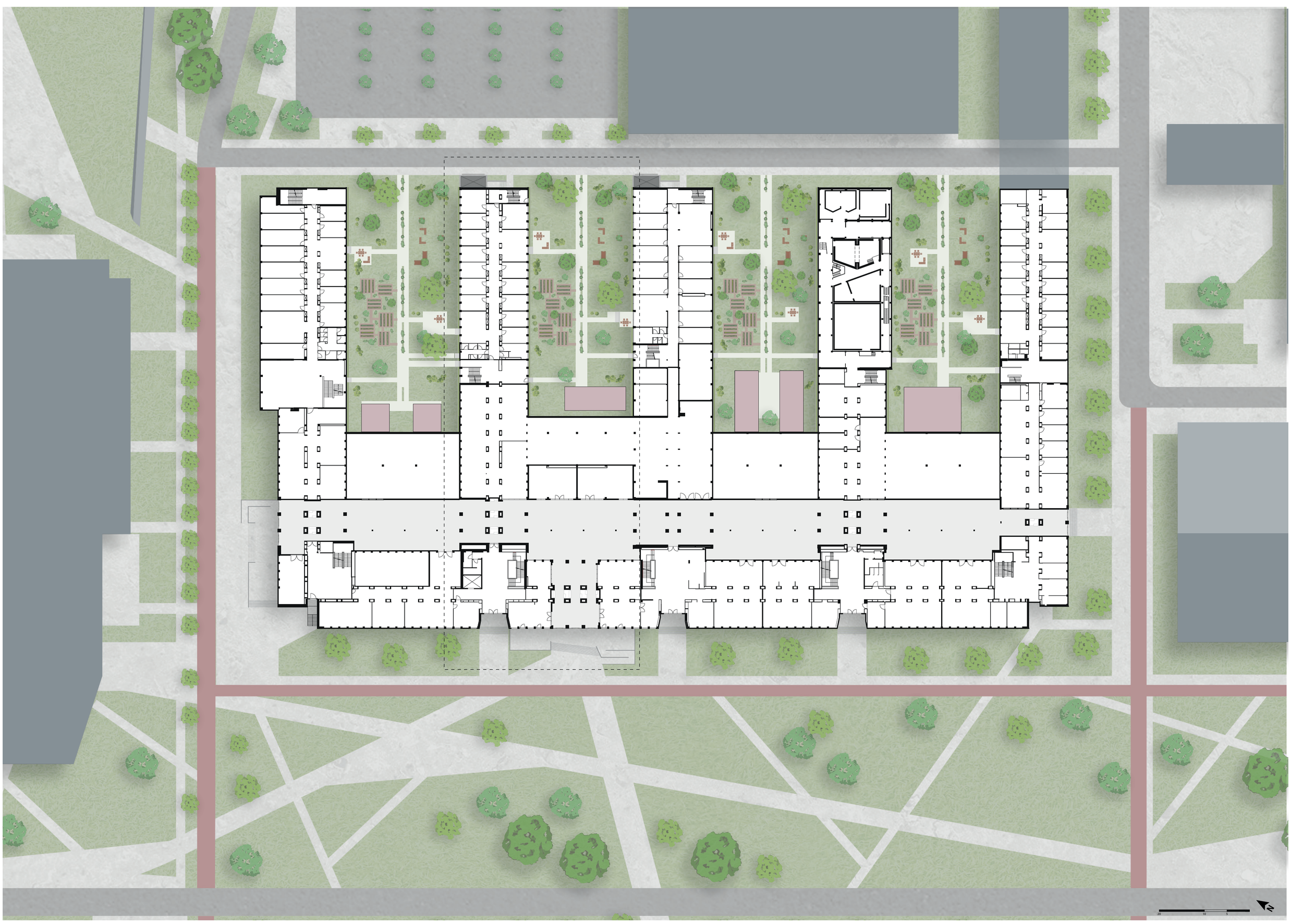
Situation (1:10.000)



Functions

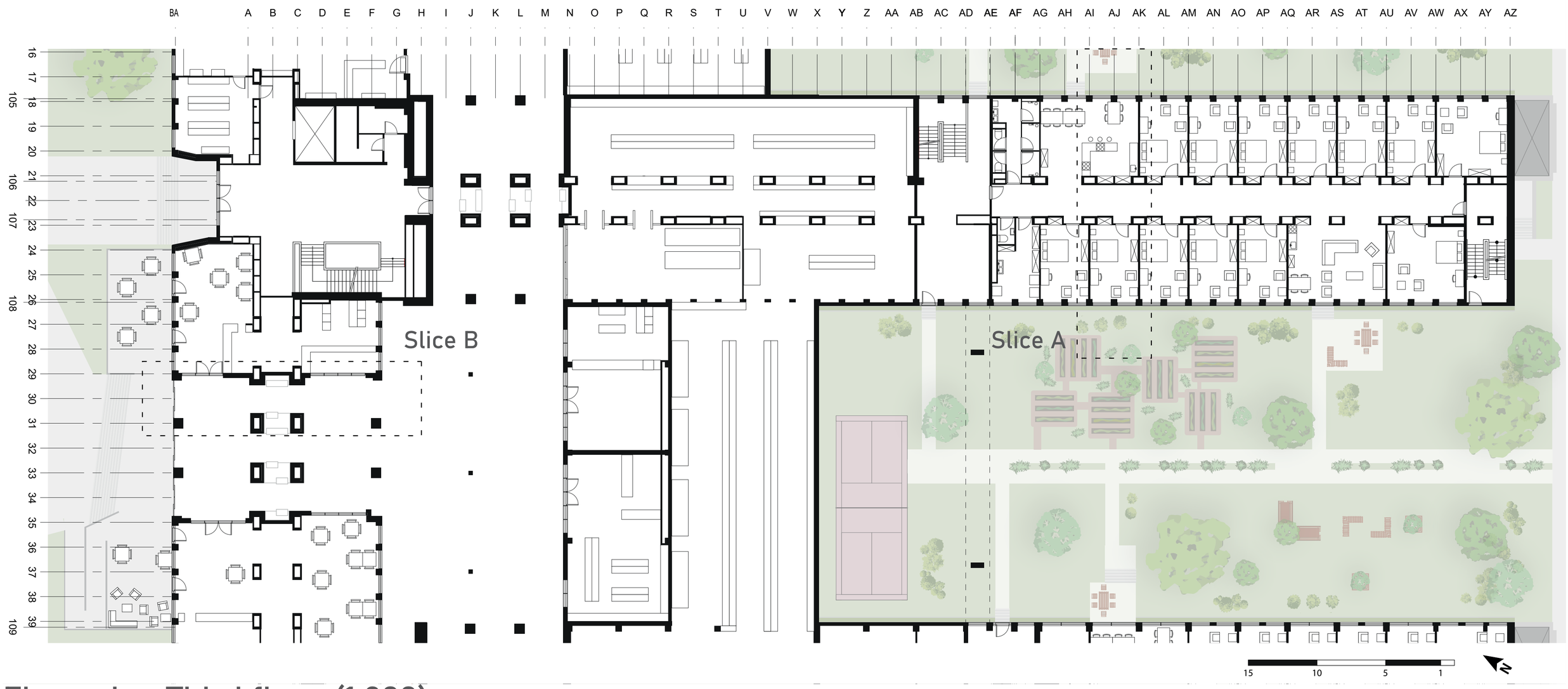


Site Plan (1:500)





Floor plan Ground floor (1:200)

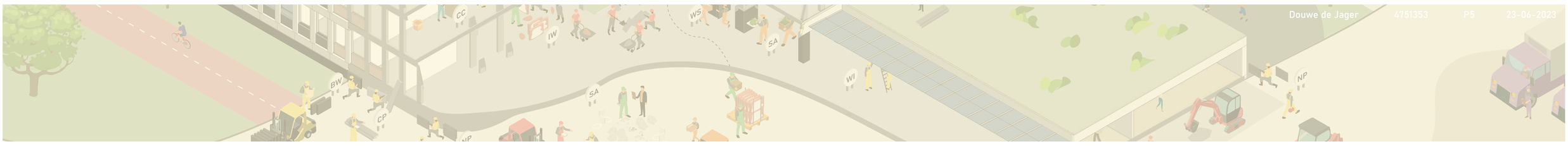


Floor plan Third floor (1:200)

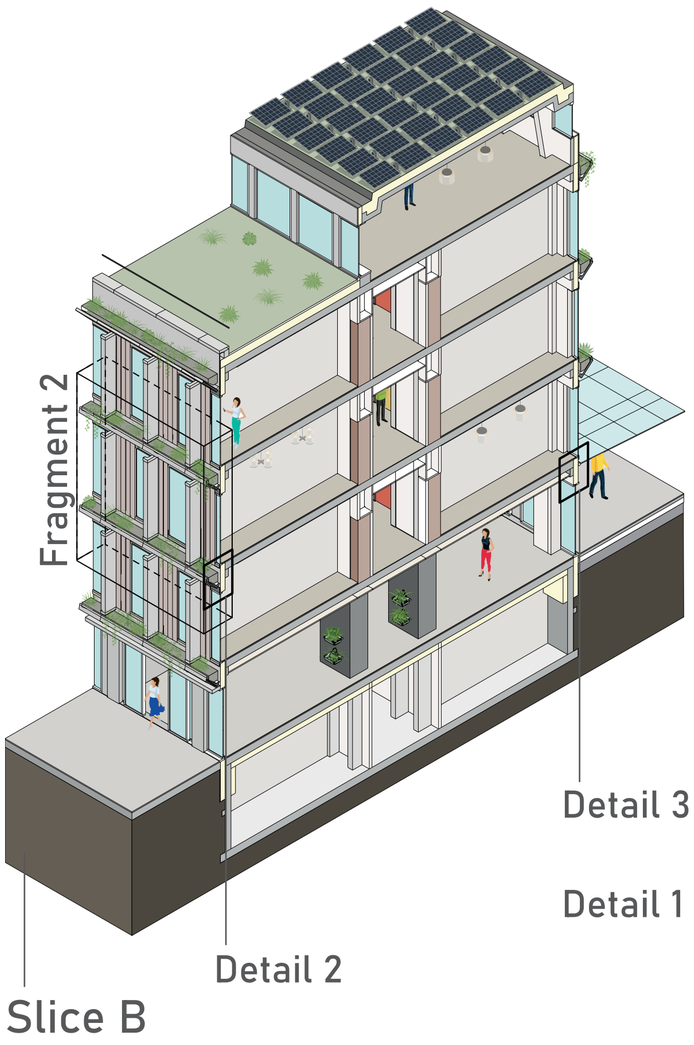


Section and Façade (1:200)

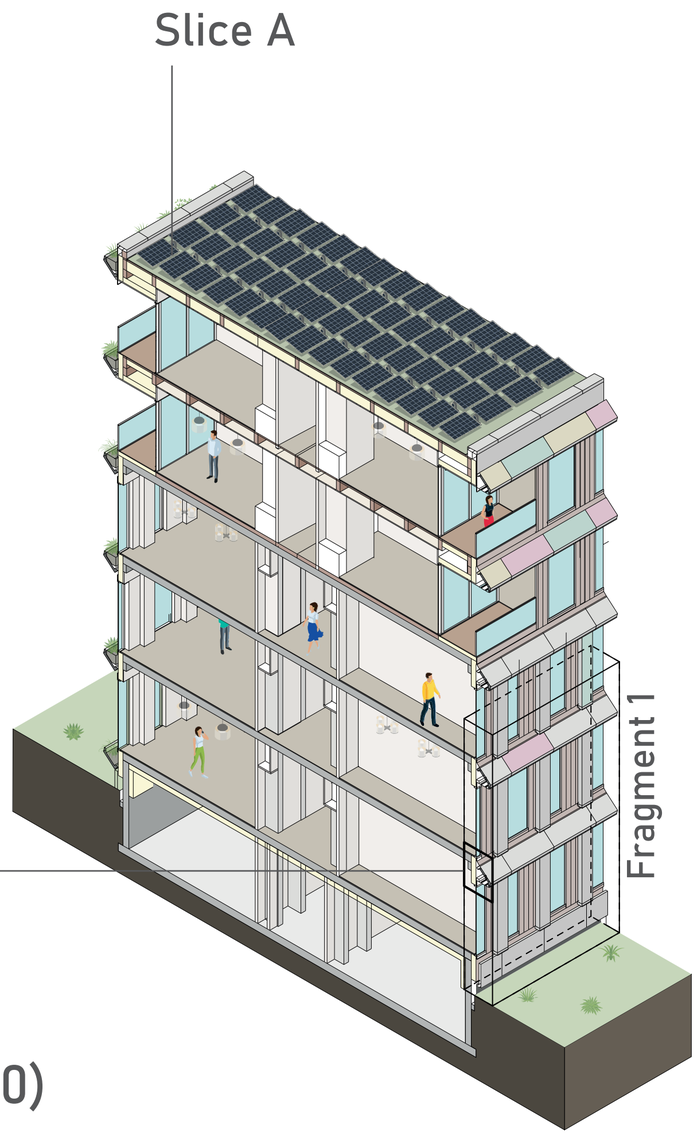




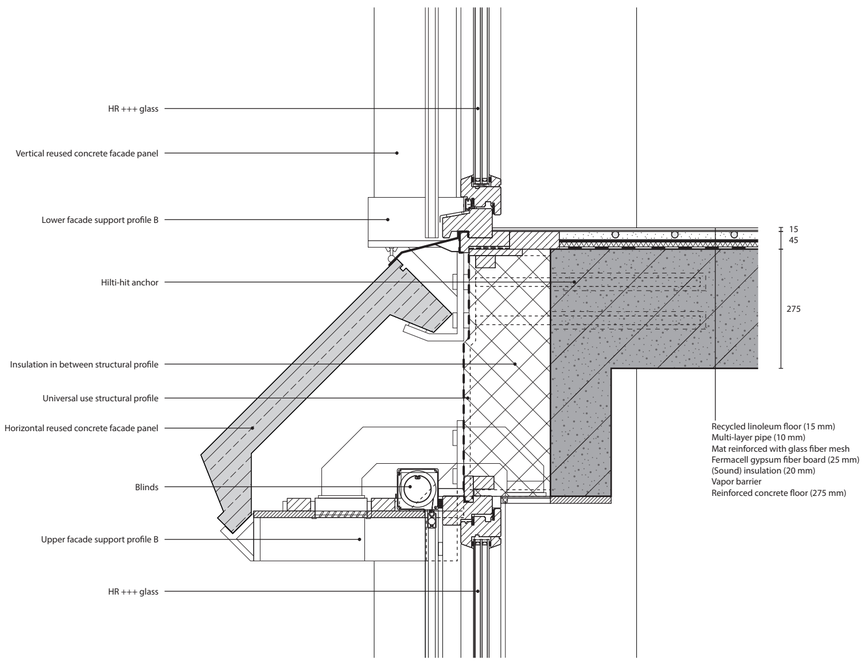
Isometric Slices



Slice A

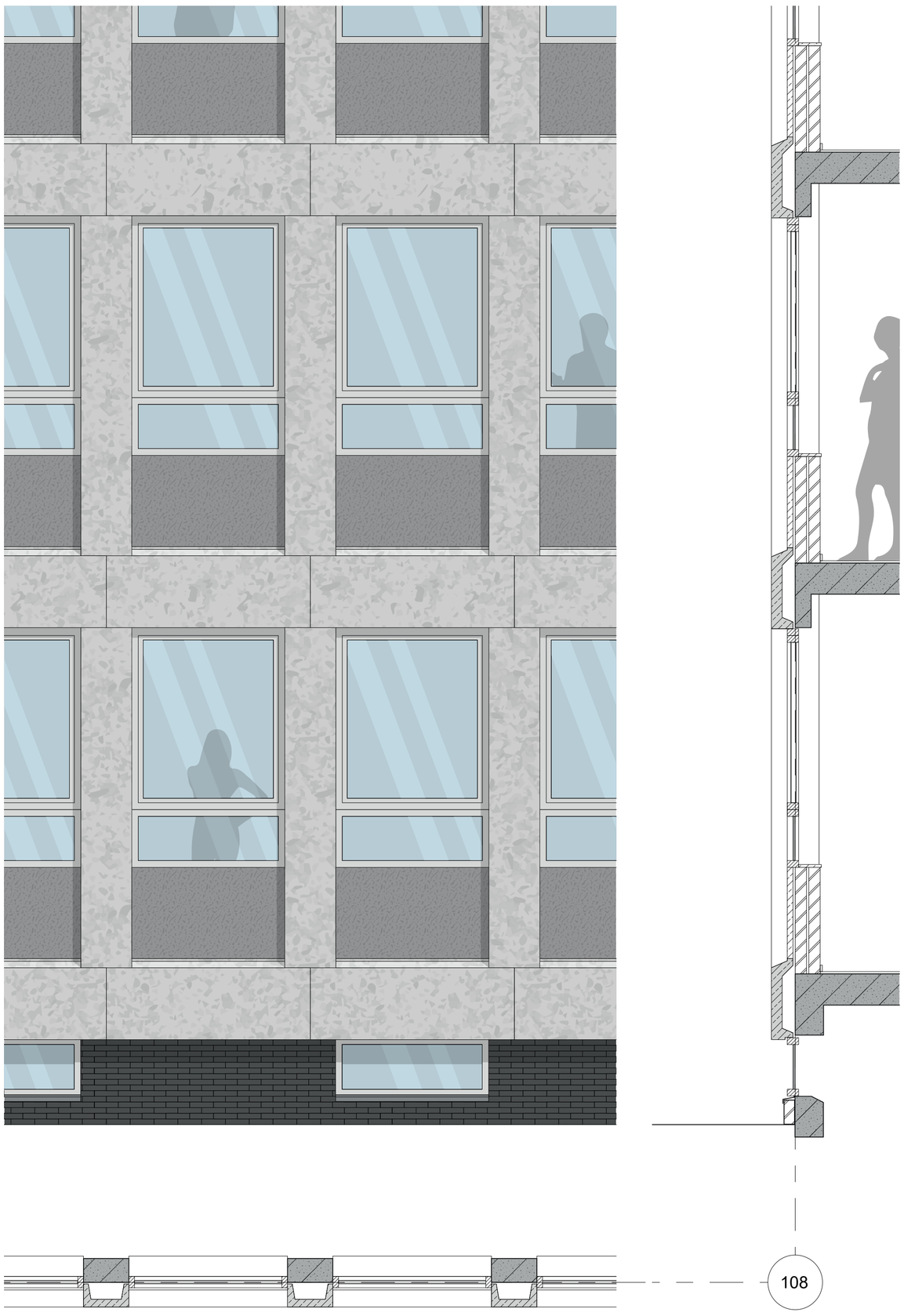


Detail 1 (1:10)



Facade fragment 1 - Slice A (1:30)

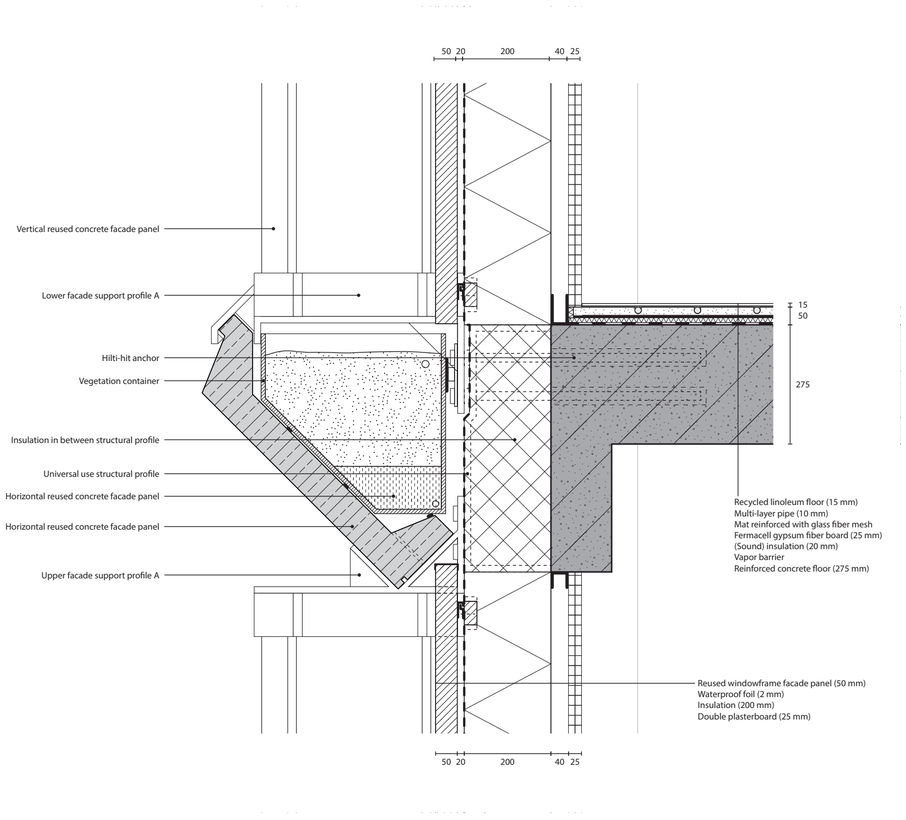
Existing



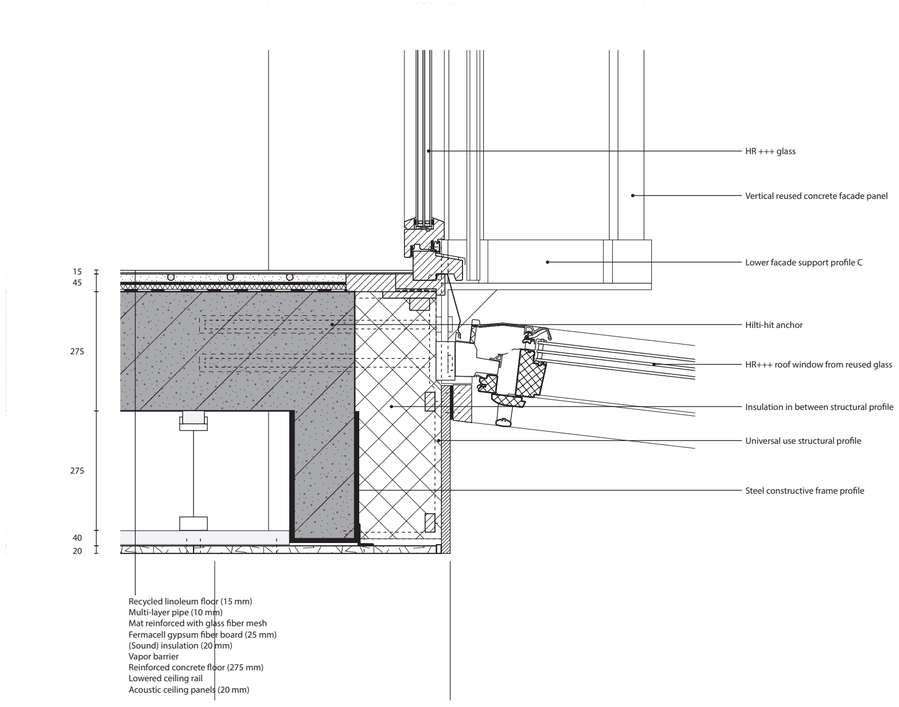
New



Detail 2 (1:10)

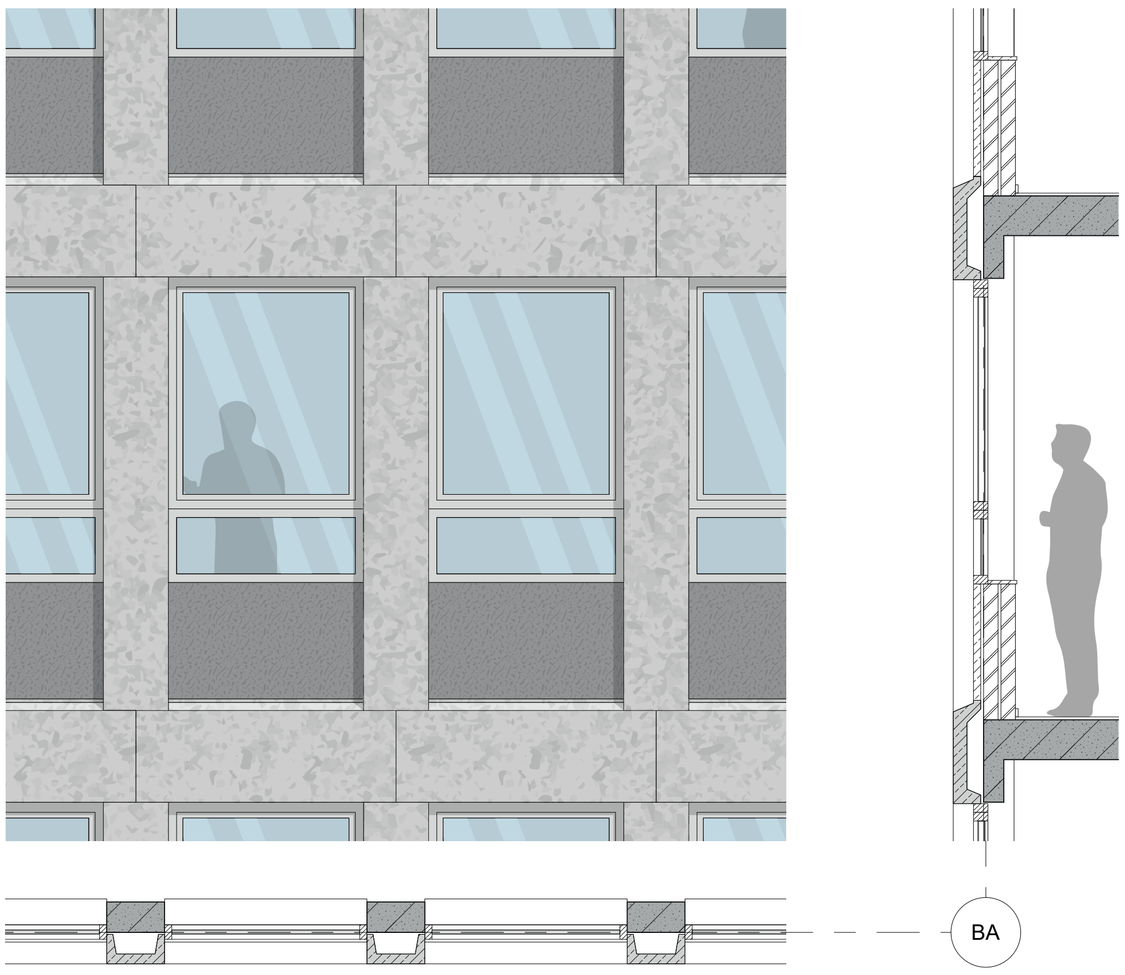


Detail 3 (1:10)



Facade fragment 2 - Slice B (1:30)

Existing

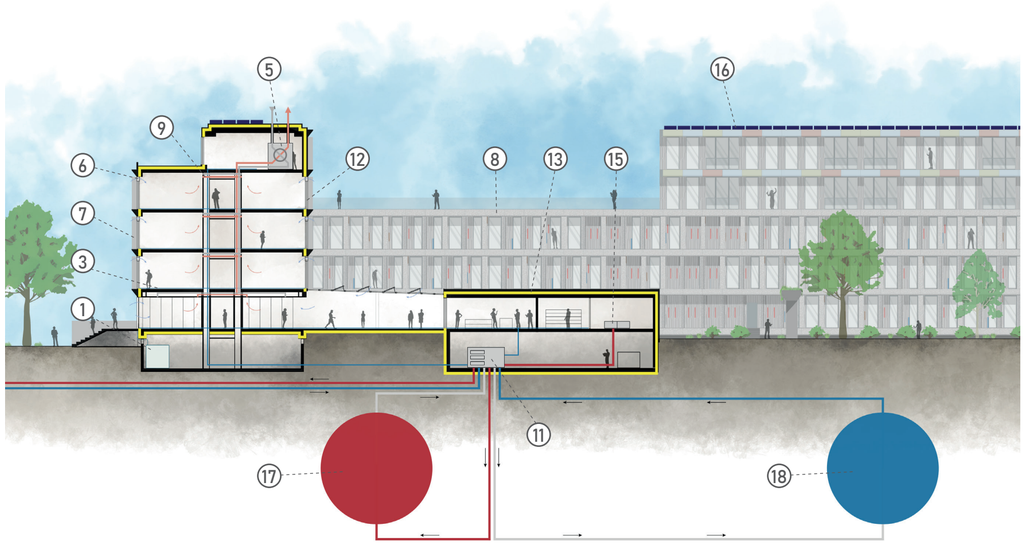


New



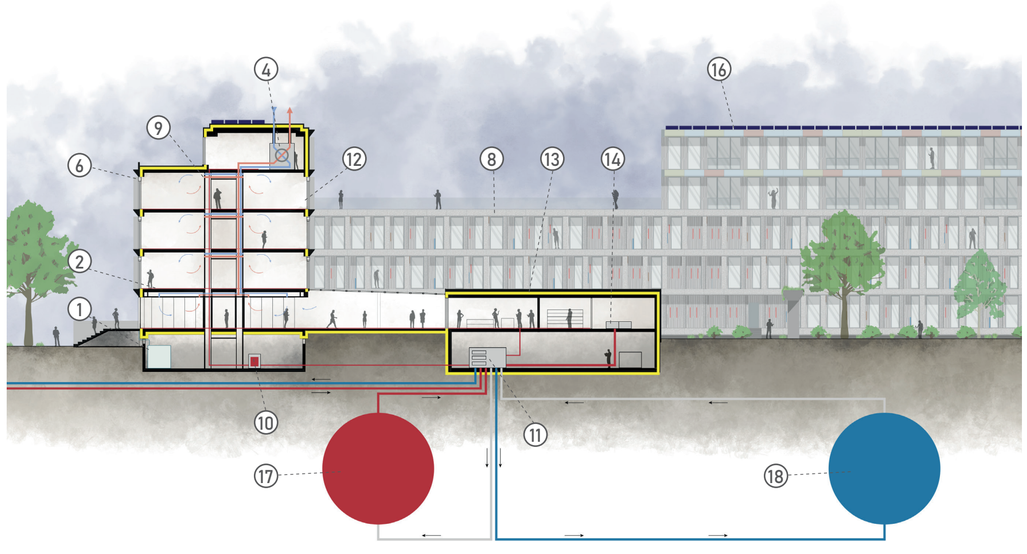
Climate control

Summer situation

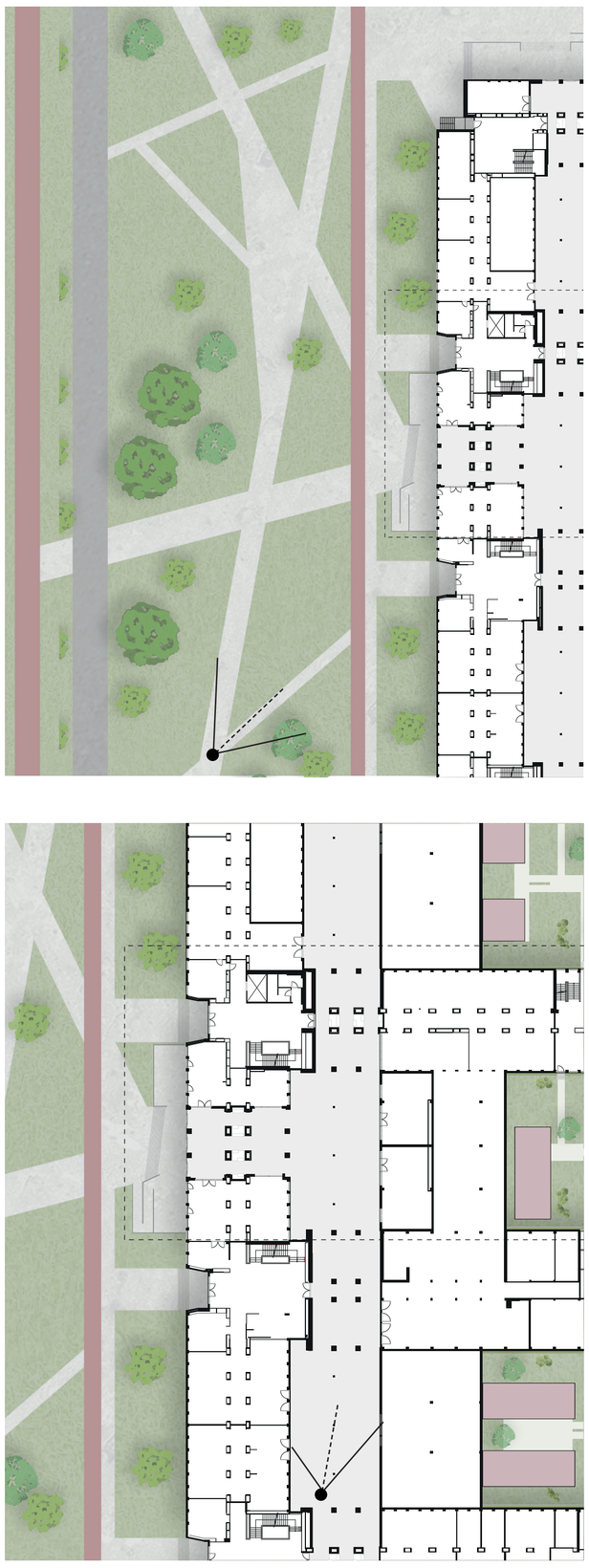


1 Rainwater storage
2 Floor heating
3 Floor cooling
4 Mechanical ventilation (in and out)
5 Mechanical ventilation (out)
6 Natural ventilation (in)
7 Vertical facade elements for shading
8 Horizontal facade elements for shading
9 Lowered ceiling and shafts for pipes
10 Distribution storage warm water
11 Heat exchanger
12 HR+++ glass
13 Insulation for entire building envelope
14 Use heat from supermarket cooling system
15 Store heat from supermarket cooling system
16 Energy from PV Panels
17 Heat storage
18 Cold storage

Winter situation

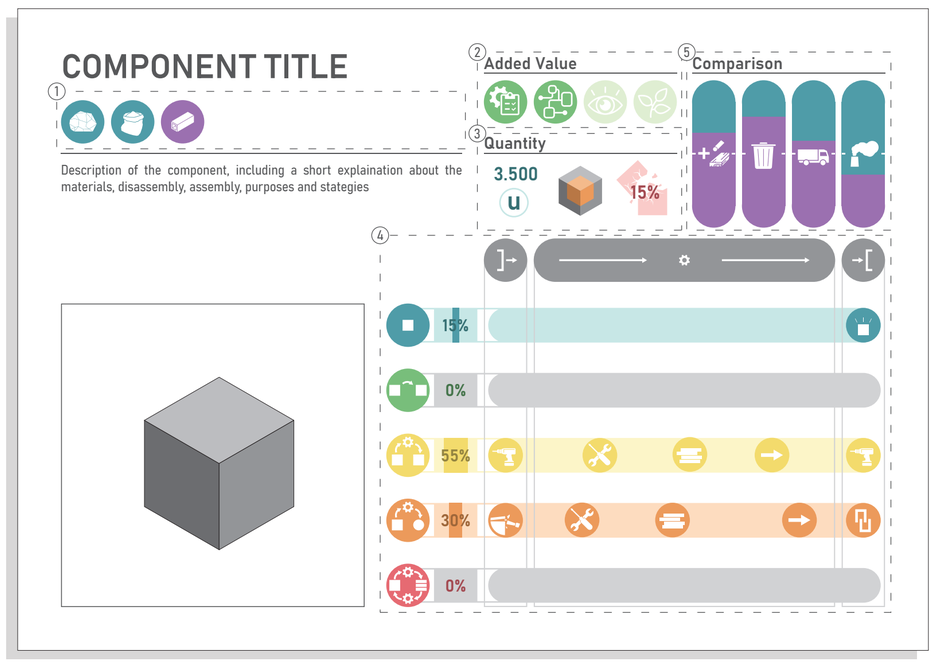


Now and Then





Component Passports



1 Materials

Every component consists of different materials listed below. In some cases, new materials are introduced, in order to apply the chosen R-strategy.

- Originally in component
- New introduced material
- Plastics
- Glass
- Wood
- Concrete and mortar
- Ceramics
- Rosin
- Natural stone
- Oils
- Heavy metals (i.e. steel)
- Hazardous substances
- Light metals (i.e. alumnium)

2 Added Value

By applying one or more strategies, the component can be used in the building again. By doing so, the component can become more valuable to the project in different ways. To show that the components are not only brought back to the building, these icons show their added value to the project.

Aspects

- Technical Properties
- Building Layout
- Aesthetics
- Biodiversity

Applicability

- Applies
- Does not apply

3 Quantity

To give overview of the quantities in which the componants appear, the card includes three indicators. The precise count of components is expressed in units, meters, square meters or cubic meters. The relative proportion to the entire building is shown in volume. The components can break and become unusable, depending on the way of disassembly and treatment. Therefore an estimated percentage of broken components is given.

Counts

- Units
- Square meters
- Meters
- Cubic meters

Proportion

- Total volume
- Component volume

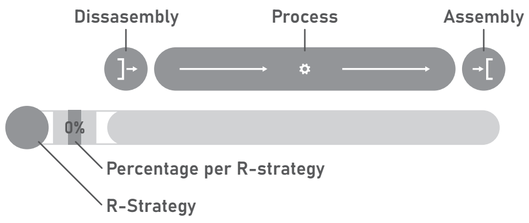
Breaking index

- 15% Percentage of total

4 Processes

All components are processed according to one or more R-strategies. The diagram shows the distribution across the five strategies Refuse, Reuse, Repair, Repurpose and Recycle.

- Refuse (Keeps same place and current purpose)
- Reuse (Serves same purpose in another place)
- Repair (Modified to serve same purpose)
- Repurpose (Modified to serve other purpose)
- Recycle (Demolished to create new components)



- Demolish
- Cut or saw
- Remove adhesives or pry loose
- Scrape loose
- (De)mount with screw or nail
- Crush to grit
- Modify component properties
- Seperate materials
- Transport to facility
- Add flora
- Collect and store
- Move
- Stays the same
- click or hang
- Mason or glue
- Dig or shovel
- Recycle into other materials or components

5 Comparison

For every component, a comparison is shown. It is compared with a new build project in which the existing building would be removed and replaced by a new building similar to the R-strategies based project. Since R-strategies and building with local materials is the core of this project, the following four aspects are of essence: New materials, waste, transport and CO_2 emissions. The larger the proportion on the bar, the worse it scores on the aspect.

- Introduction of new materials in kg.
- Production of waste by demolishing and destruction in kg.
- Distance of transport in km
- CO_2 emissions in kg

