

Towards Adaptable Post-War Housing

An architecture that uses change for greater significance.

Design Report



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An architecture that uses change for greater significance.

Design Report

Research Report

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Heritage and Architecture
Adapting 20C Heritage: Resourceful Housing

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1. Sketch Design

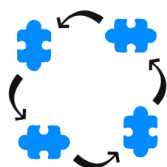
The sketch design started while the research report was in its final stage. The exact starting point was the problem statement in which the negative reputation and/or lack of recognition received by these typologies of housing was mentioned.

Potential obsolescence, changed demographics, and rapidly growing demands for energy efficiency, as well as new living standards, all threaten these buildings with demolition or modification before their historic or artistic values can be recognised and protected.



Rafels de Vries (z.d.)

The solution for these problems can be found in adaptable architecture. Adaptable architecture is capable of accommodating the evolving demands of its context, and therefore maximising its value through life. More concrete, Adaptable Architecture allows changes in spatial, functional, and technological elements without any major building disruptions.

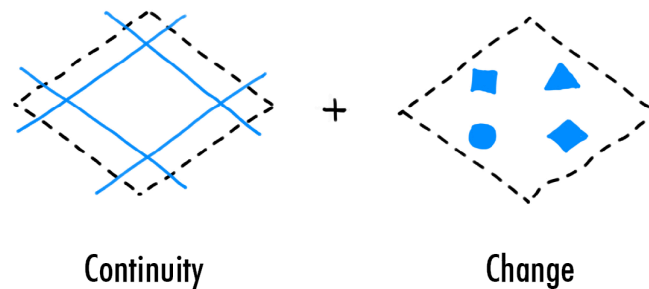


**Accommodating Evolving
Demands of Context**



**Maximising Value
Through Life**

During my design process this developed into a guiding theme (figure 1) that defines on the one hand, what continuity is and on the other hand what can be changed.



1.1. Design Assignment

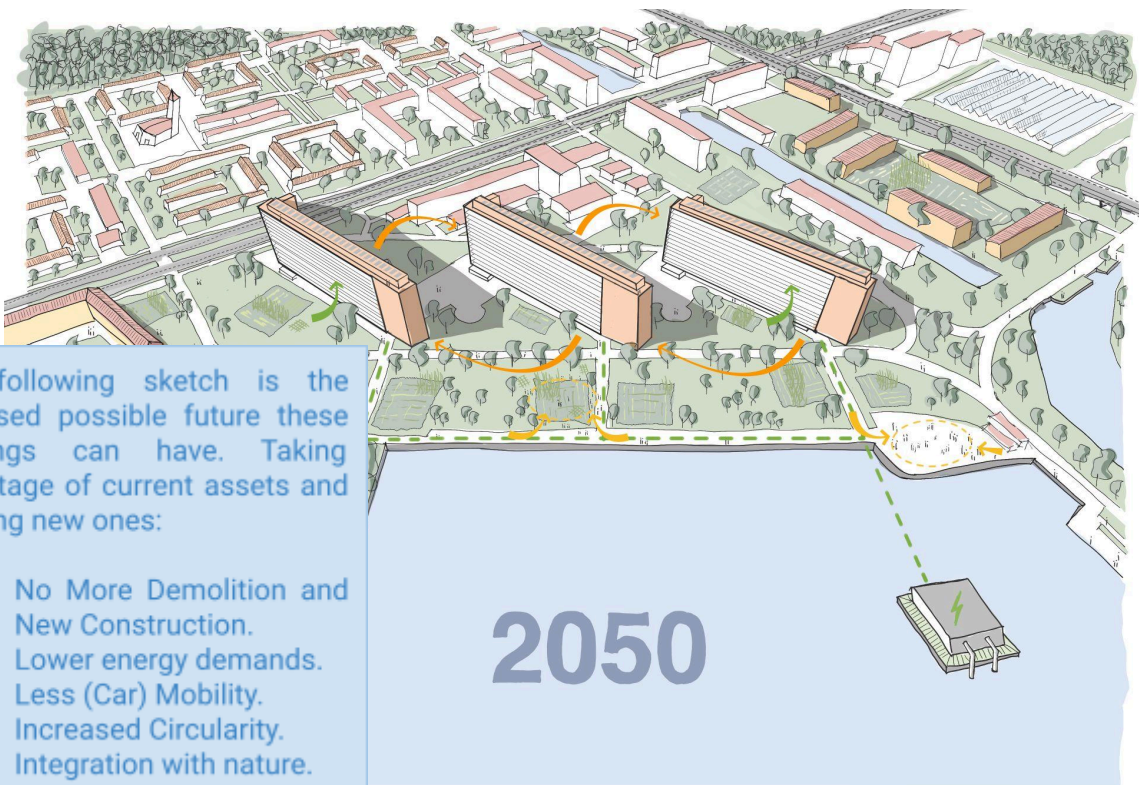
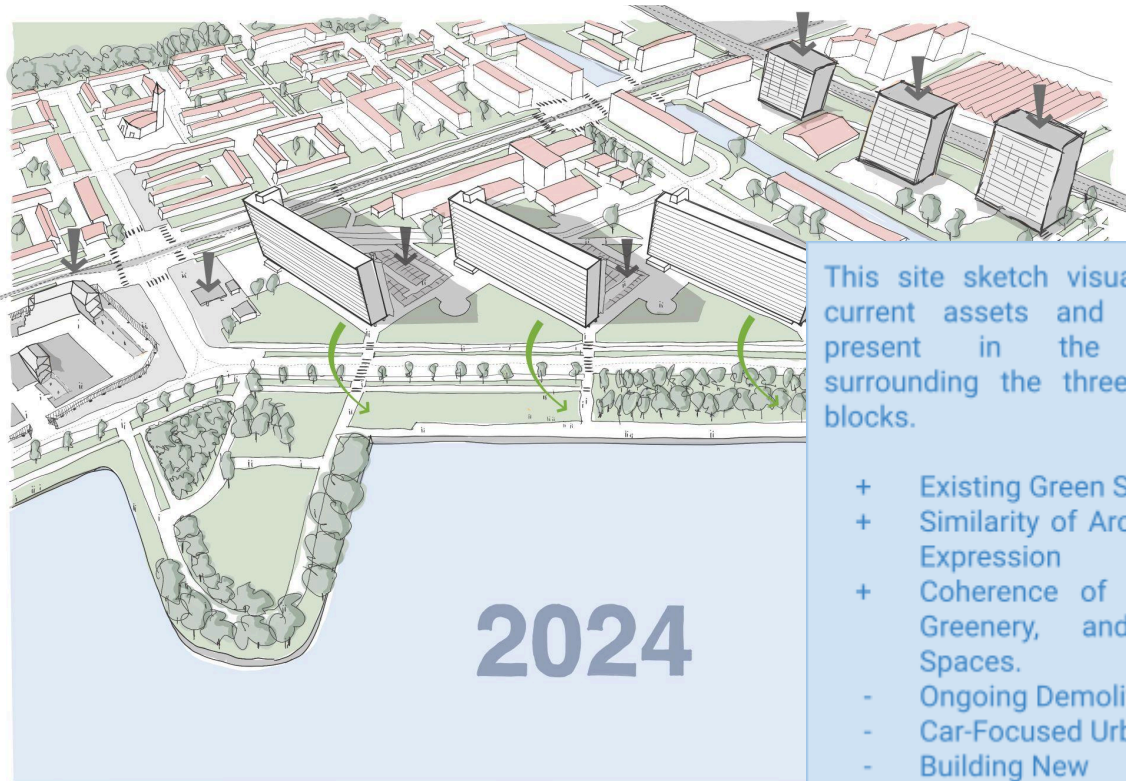
The design assignment involves the redesign of the three flats located on the north bank of the Sloterpas, and reads as following:

Redesigning the three flats in Amsterdam Nieuw-West to be more adaptable, considering the various defining attributes to create a further developed architecture that uses change to achieve greater significance.

Design-question 1: How can the adaptability of post-war housing be improved, and how does this affect its attributes?

Design-question 2: How can the current and future needs of society be addressed in the redesign?

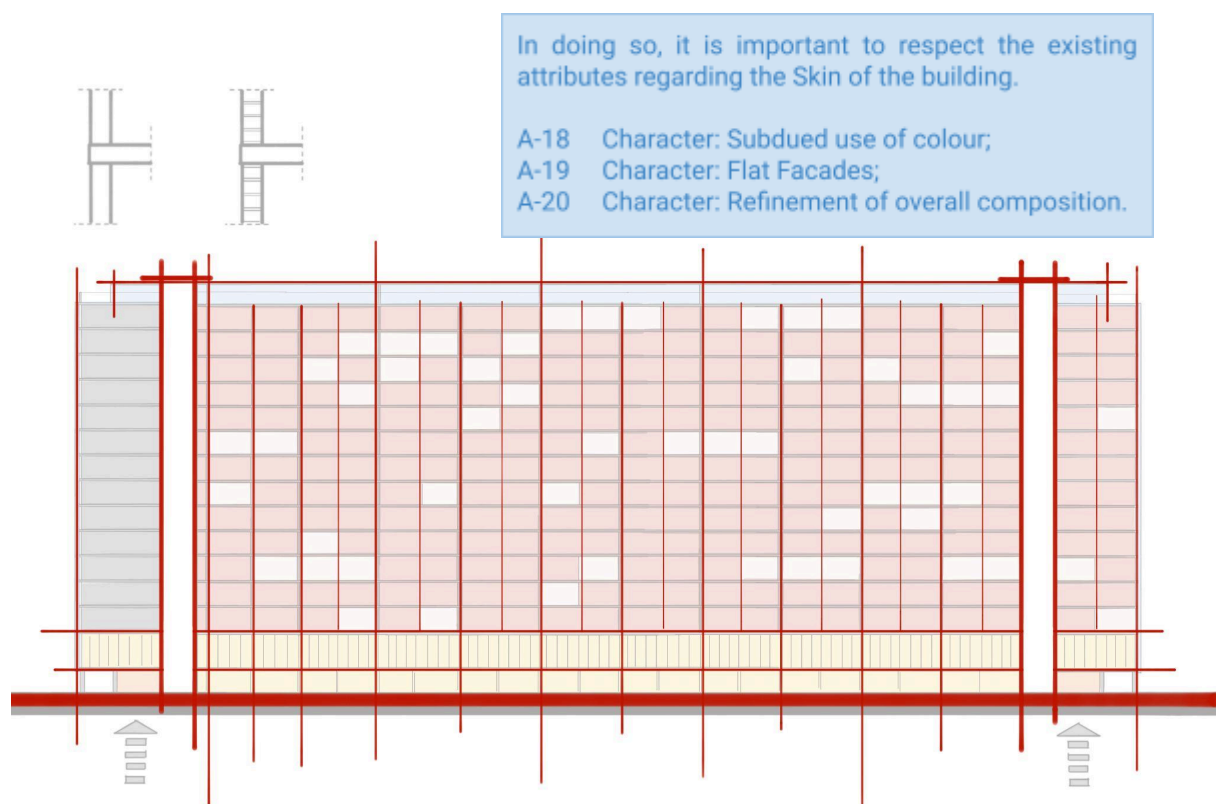
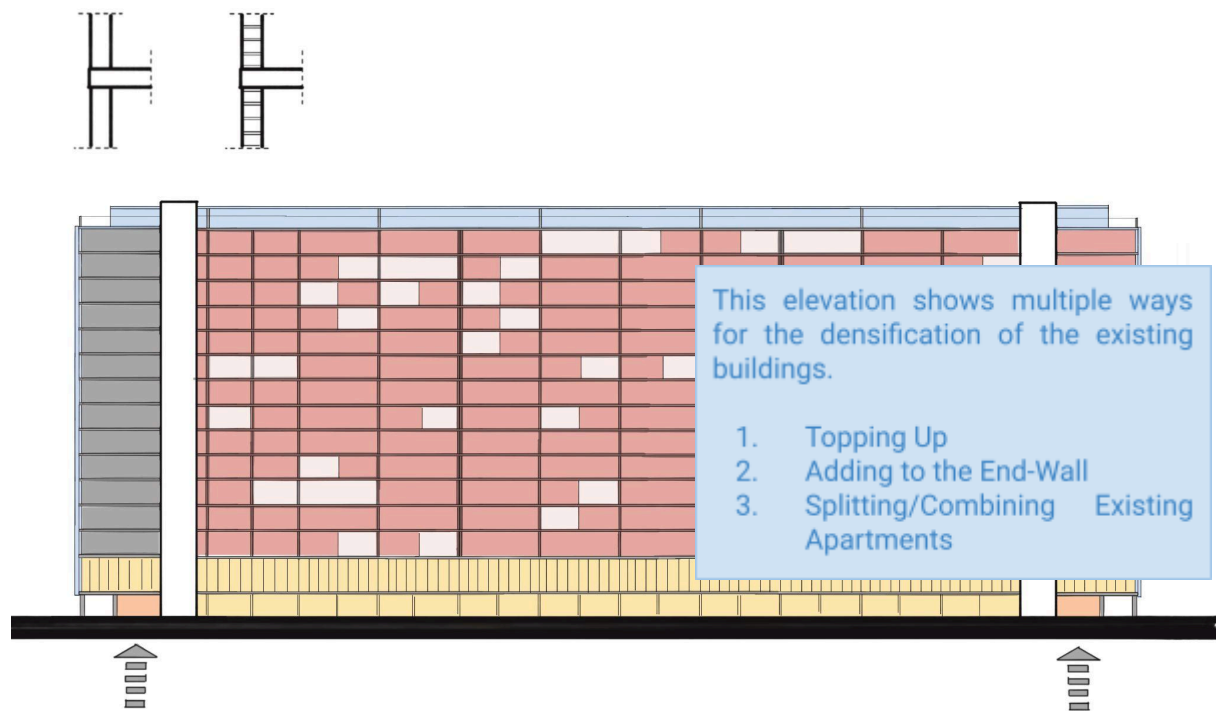
1.2. Process



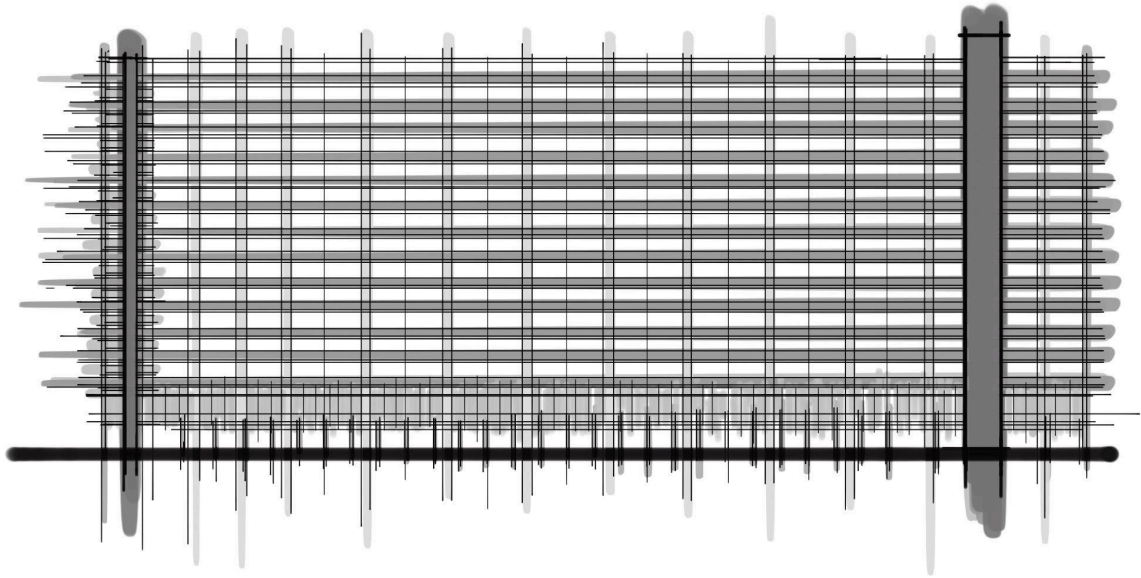


This section shows how these changes in context can affect the three housing blocks and changes that can be made to the existing program and negative attribute (A-01) of the buildings.

A-21 (-) Closed-off plinth & Relationship with the Street.



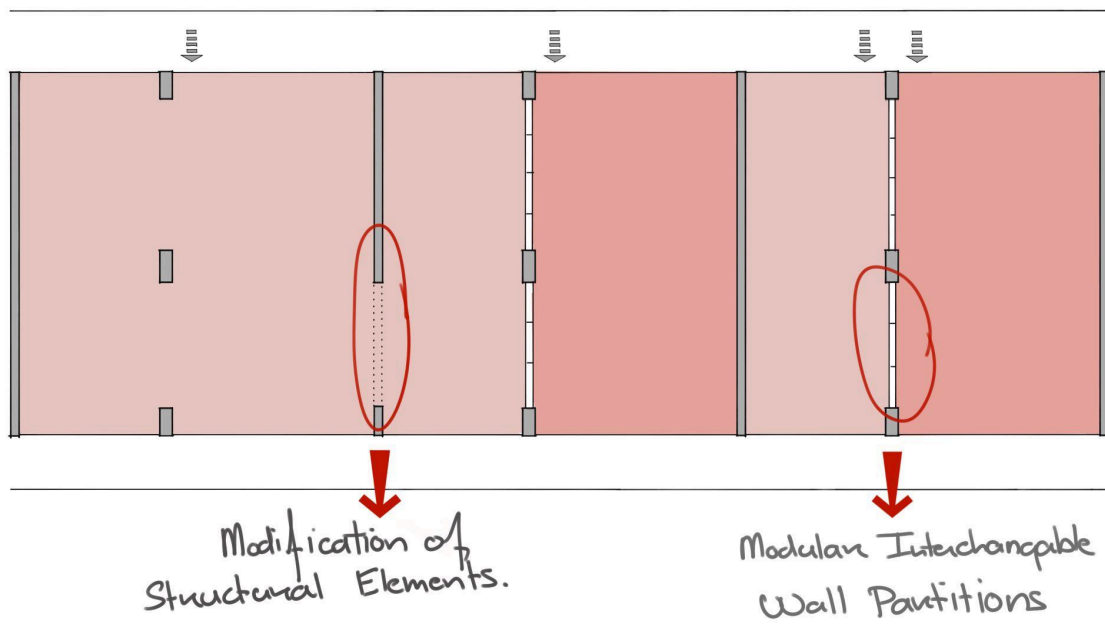
Articulation, Interplay and Rhythm



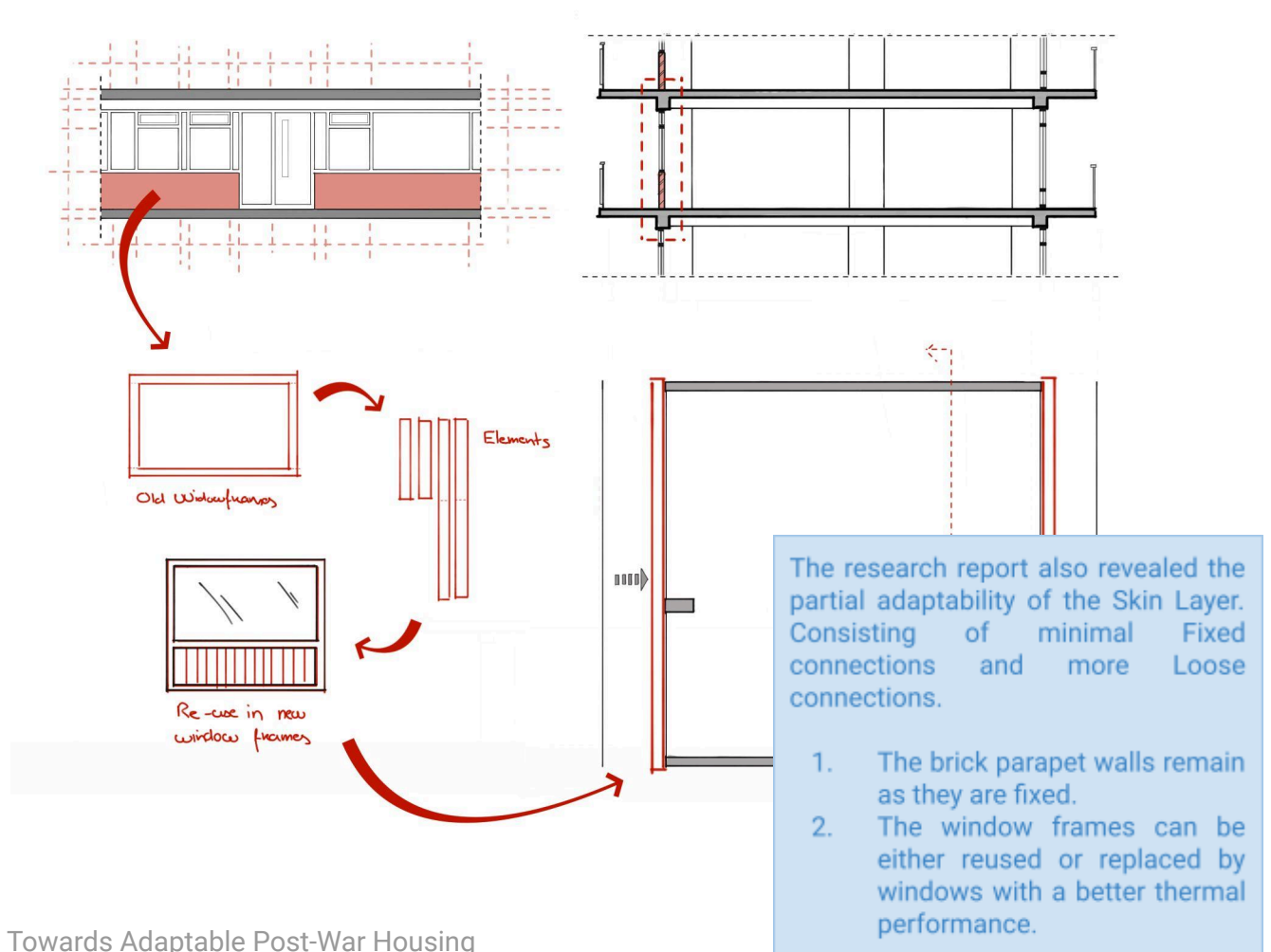
This can be done through a visual analysis of the facade which provides the designer with a better understanding of existing the form language and attributes like:

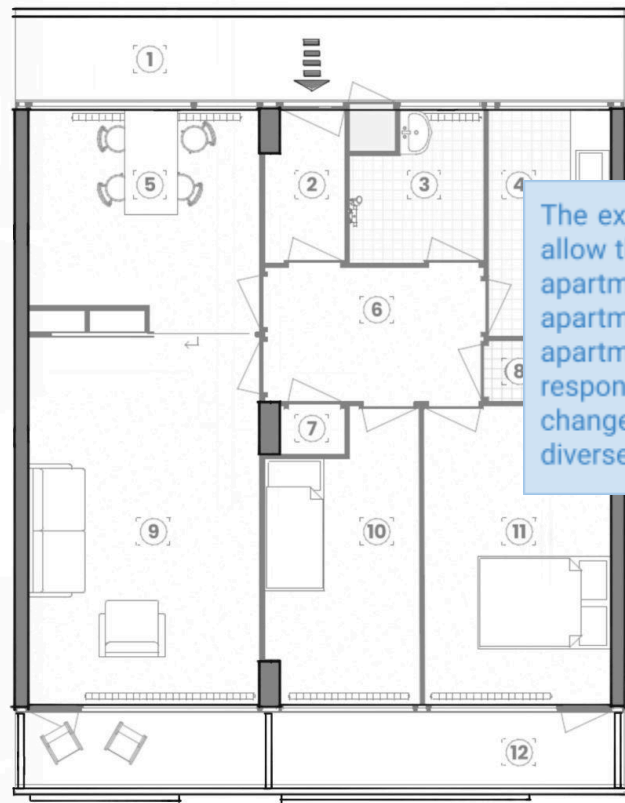
A-16 Character: Articulation, Interplay, and Rhythm;

A-17 Character: colour, texture, and detailing to support the façade rhythm.



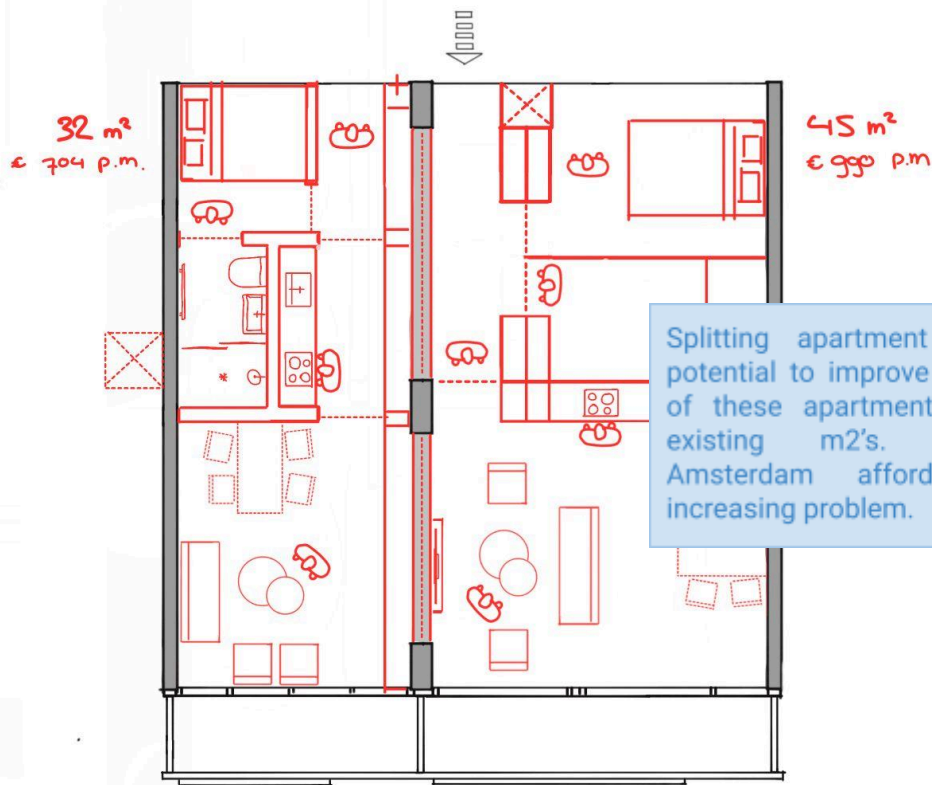
The Research Report revealed the adaptability of the Space Plan Layer, which fully consists of Loose connections. Research by Design revealed a adaptable grid with a natural rhythm that can be utilised to divide or combine apartments. Which in turn allows for the densification of these housing blocks.



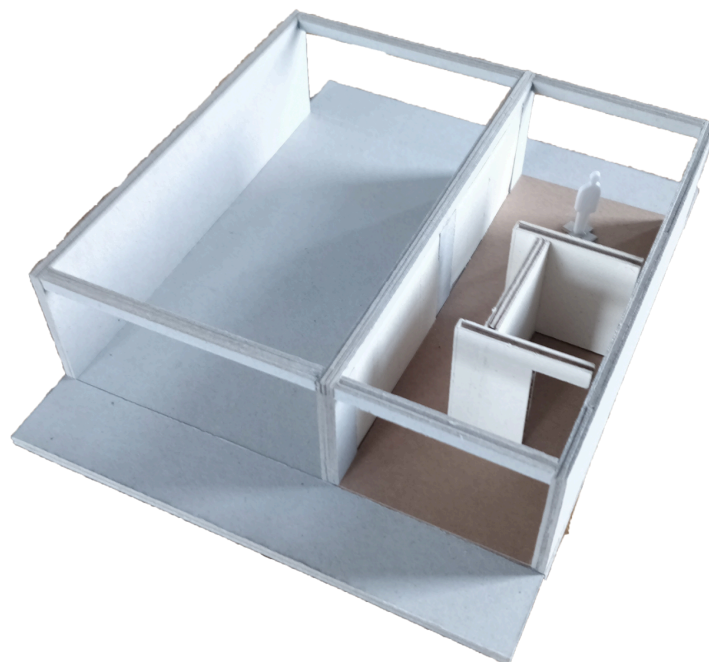
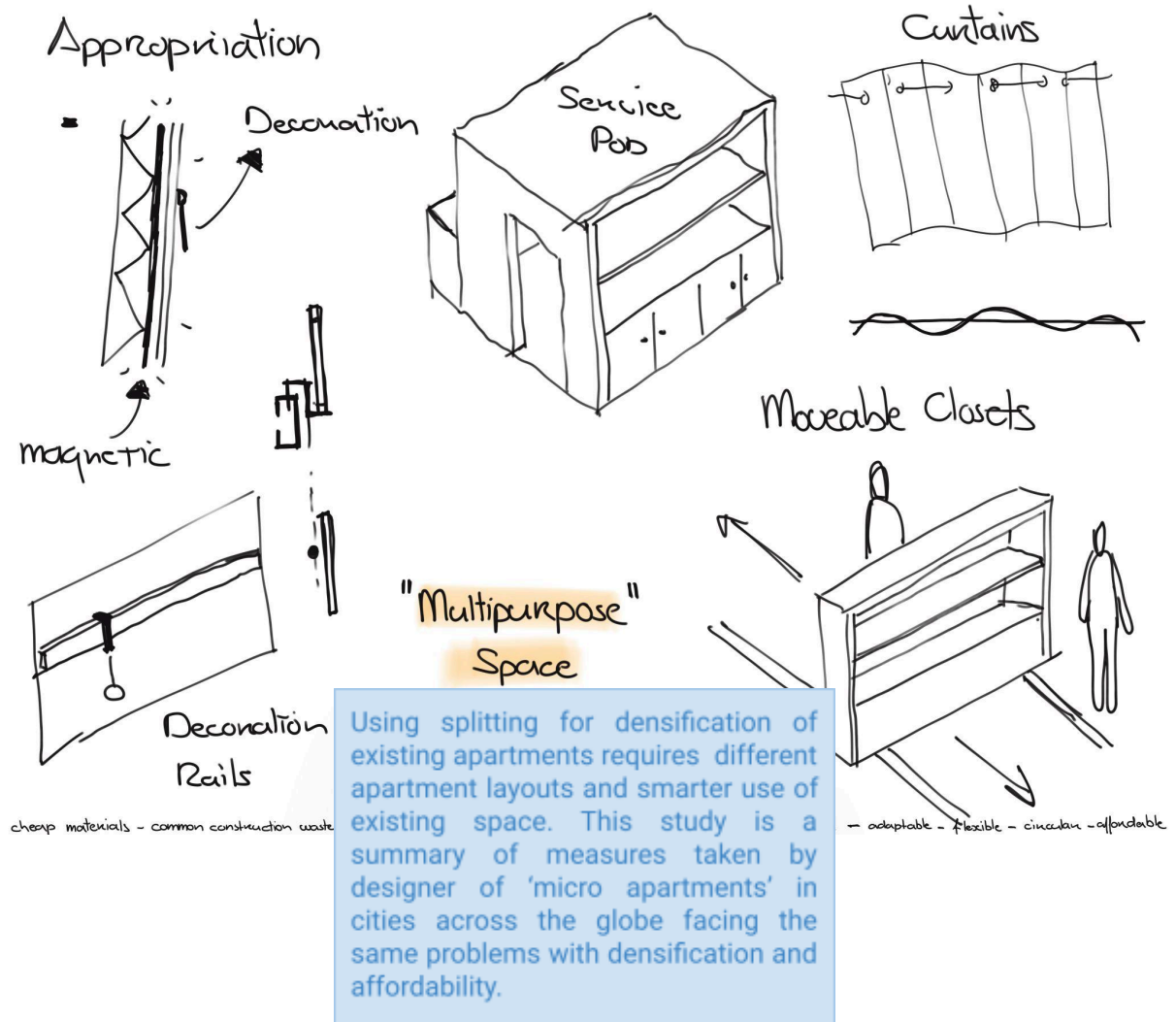


The existing locations of the Services allow the Splitting of one Family Sized apartment into two smaller apartments: a Studio and Couple apartment. These new typologies can respond to ongoing demographic changes and the demand for more diverse typologies.

€ 22/m² !



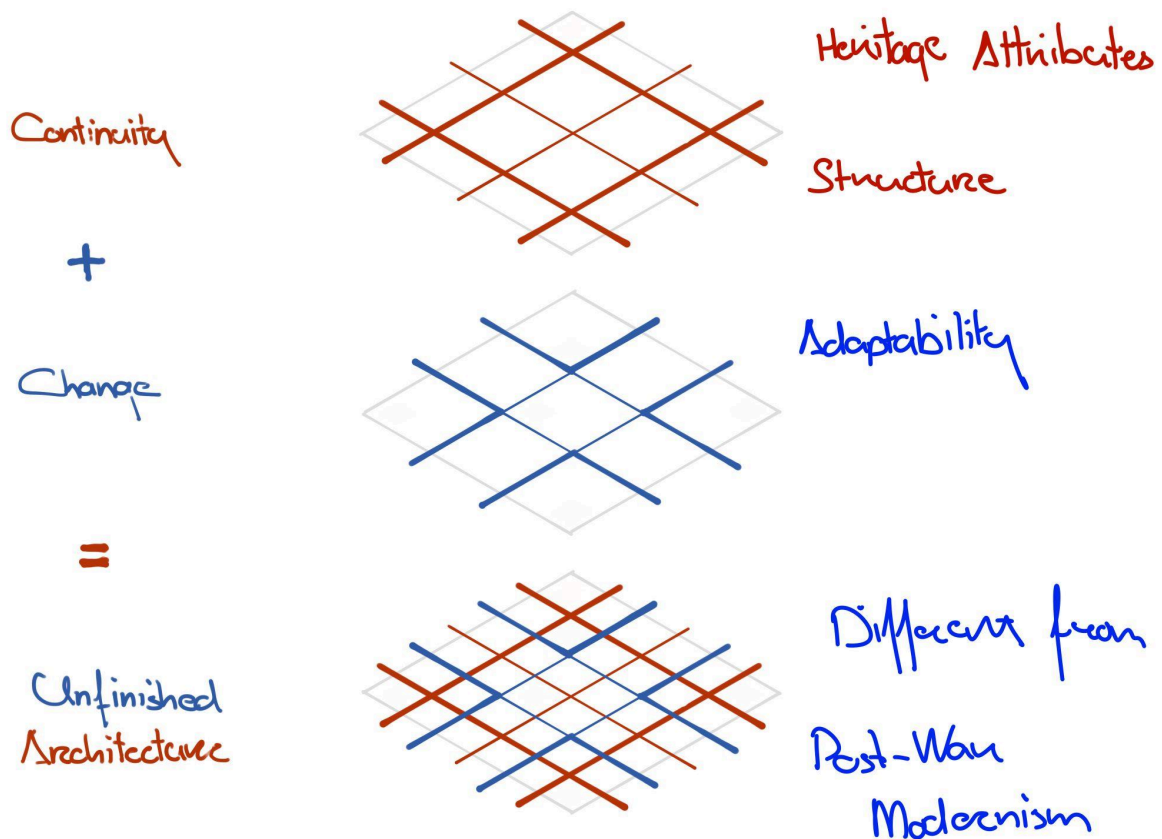
Splitting apartment also has the potential to improve the affordability of these apartments by densifying existing m2's. Especially in Amsterdam affordability is an increasing problem.





The final sketch of the Sketch Design show a interior perspective of the smallest apartment (25 m²). The compact space still conforms the the attribute (A-9) Concept: Het Nieuwe Bouwen (light, space and air).

2. Preliminary Design (P3)



For the P3 presentation a concept was developed based on continuity and change. The attributes and non adaptable building elements are considered as continuous through time. The adaptable building elements are able to change, while respecting the current attributes.

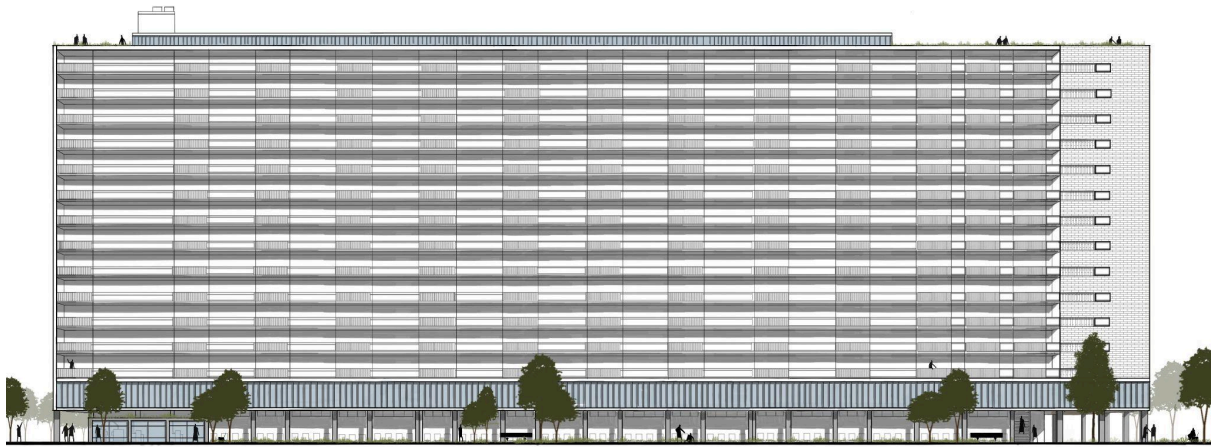
This results in an architecture that an architecture that is essentially unfinished, and therefore constantly changing.



This section perspective of the site showcases the attributes on the larger urban scale. These attributes are part of the protected cityscape regarding the urban design of the Western Garden Cities. The following attributes are respected in the redesign:

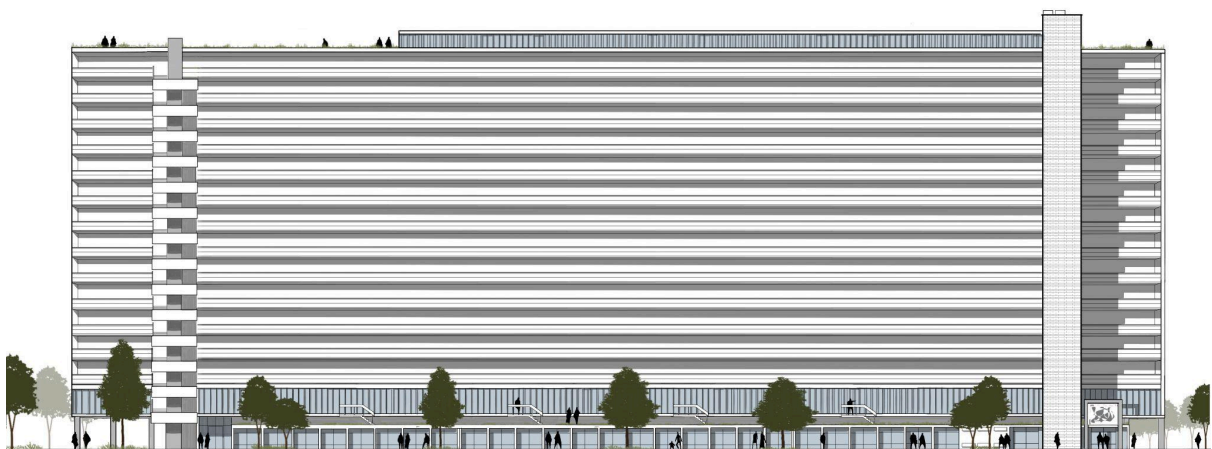
- A-4 Ensemble: Similarity of architectural expression between the three buildings
- A-7 Relation: Coherence between buildings, greenery, and public spaces
- A-8 Relation: Ensemble functions as a Noticeable Landmark





These elevations show a transformed facade which includes the various additions on the top floor and the end-wall.

These elevation are all about adaptive form language: reusing existing design principles/rules/laws to design new additions.

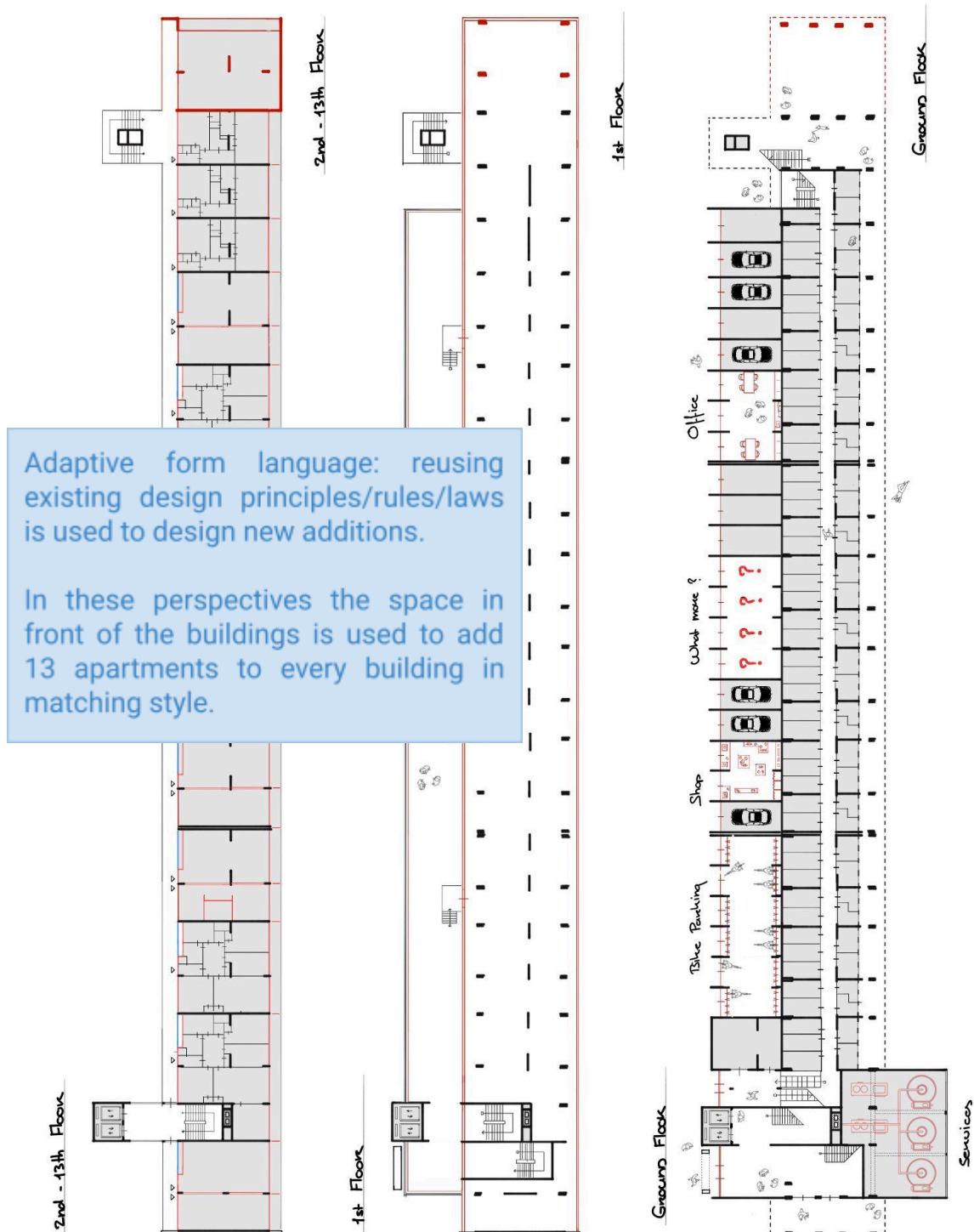


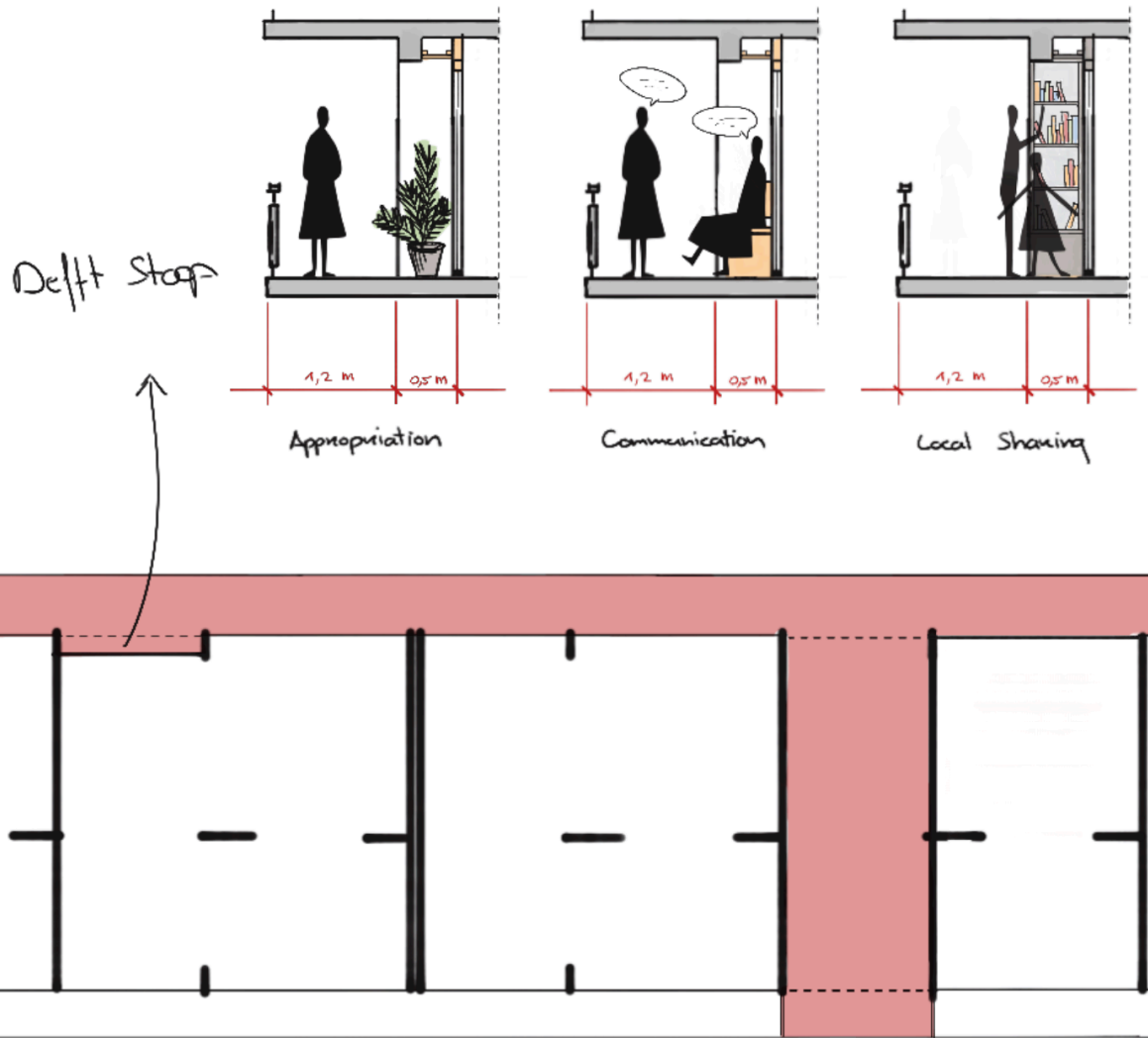


Adaptive form language: reusing existing design principles/rules/laws is used to design new additions.

In these perspectives the space in front of the buildings is used to add 13 apartments to every building in matching style.

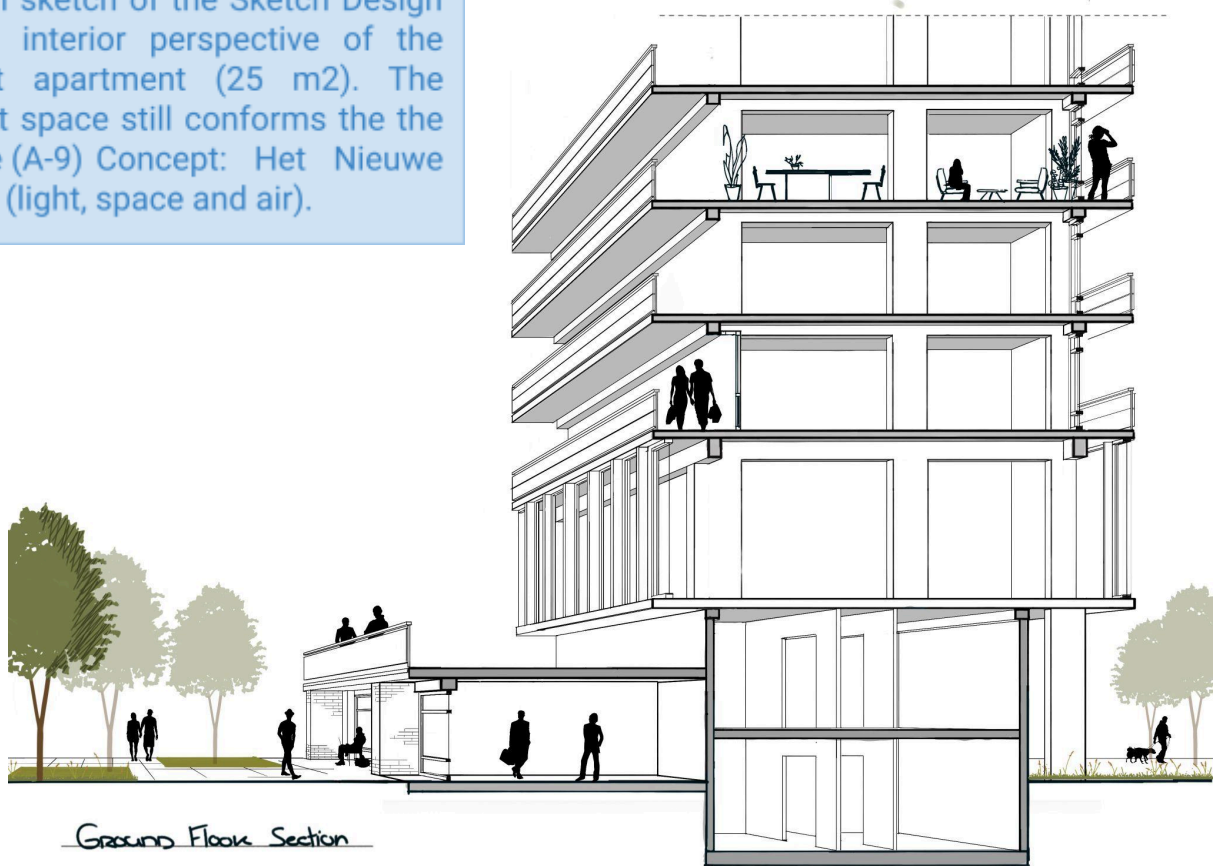


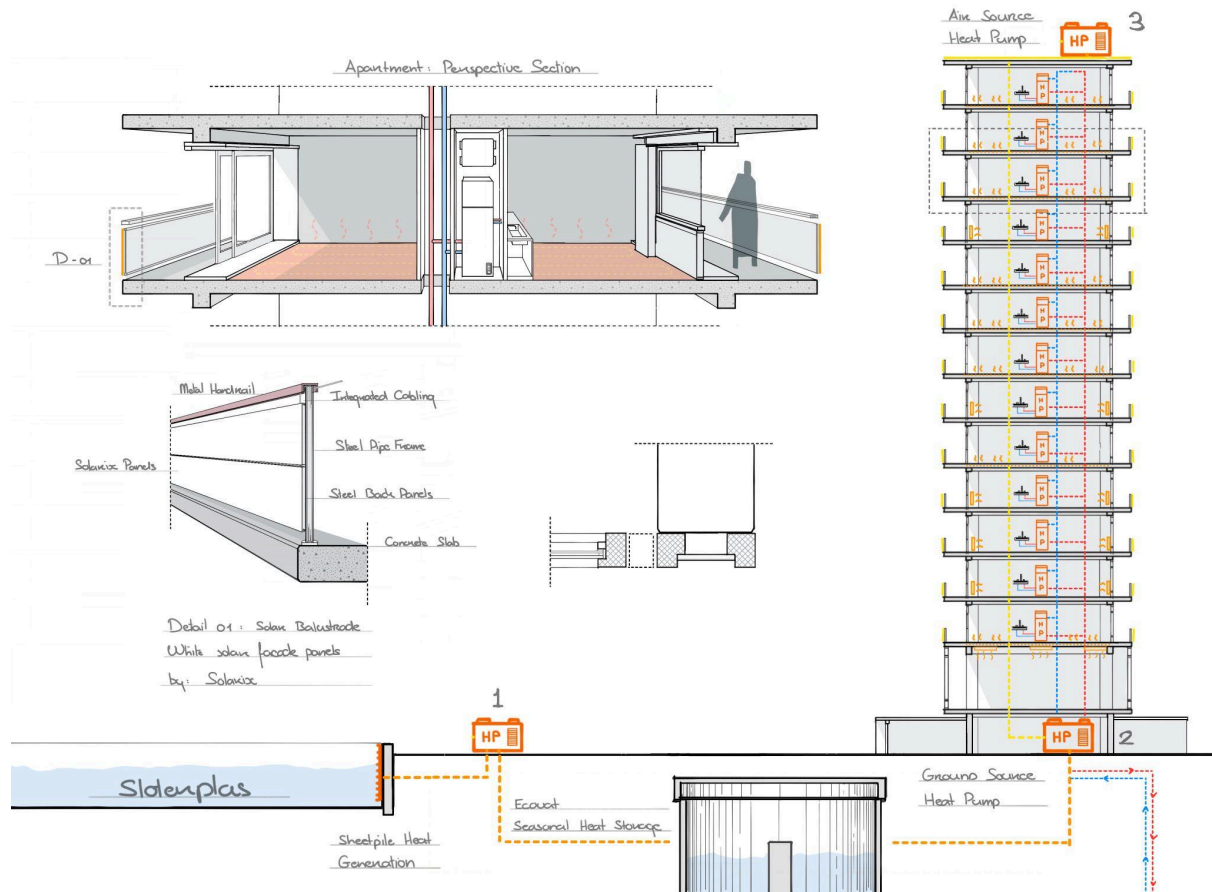




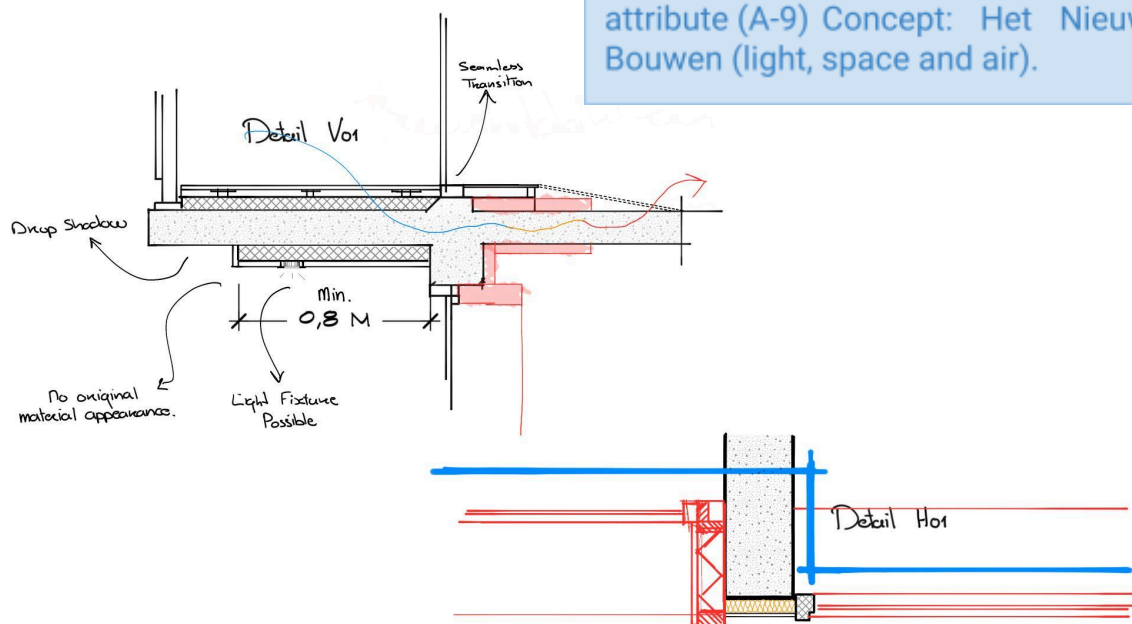


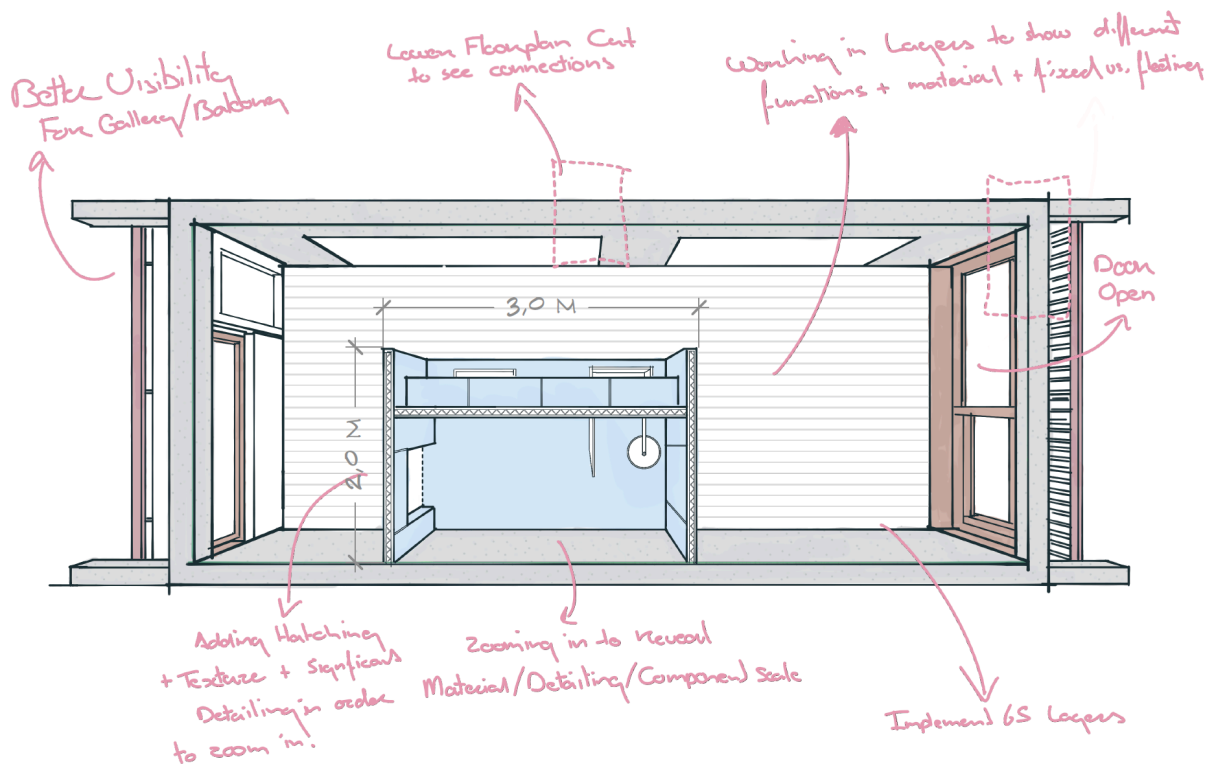
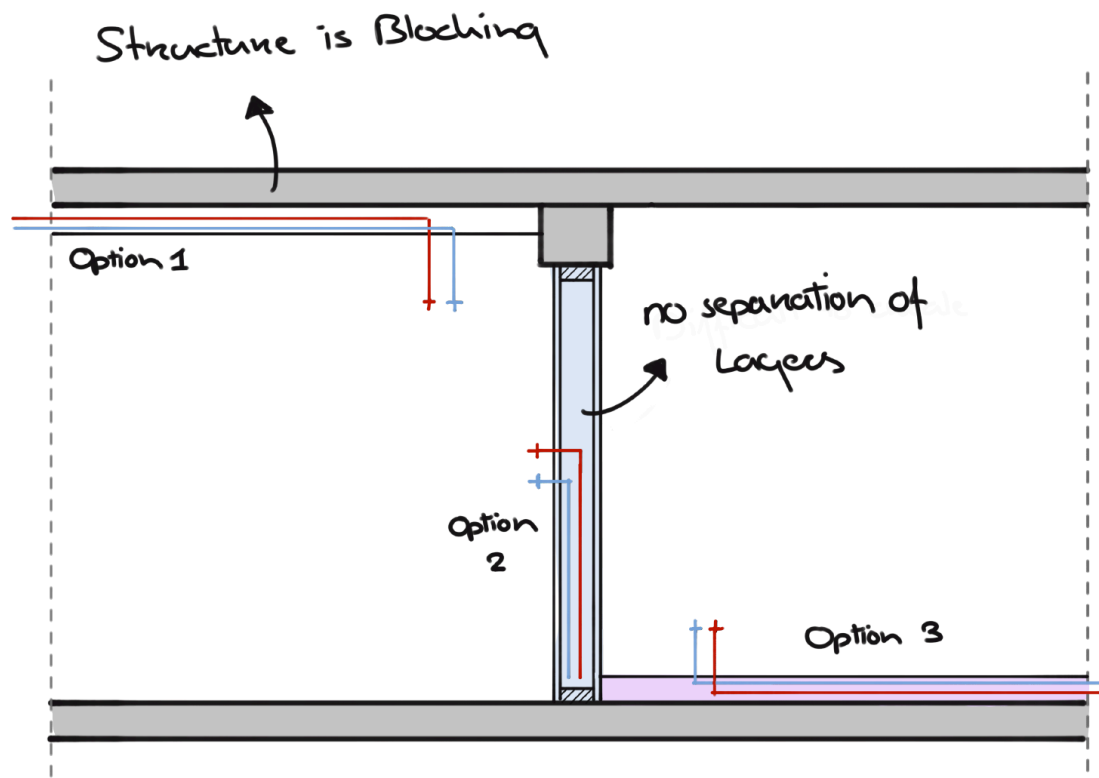
The final sketch of the Sketch Design show a interior perspective of the smallest apartment (25 m²). The compact space still conforms the the attribute (A-9) Concept: Het Nieuwe Bouwen (light, space and air).



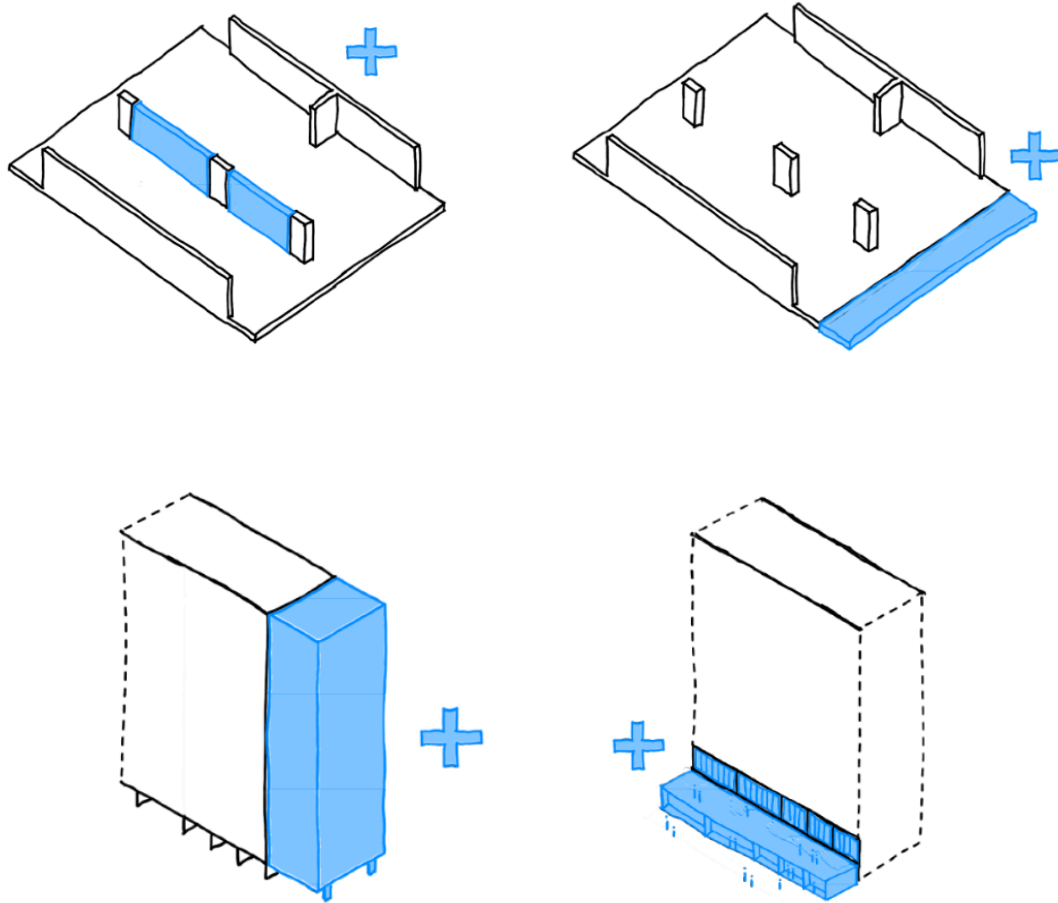


The final sketch of the Sketch Design show a interior perspective of the smallest apartment (25 m2). The compact space still conforms the the attribute (A-9) Concept: Het Nieuwe Bouwen (light, space and air).



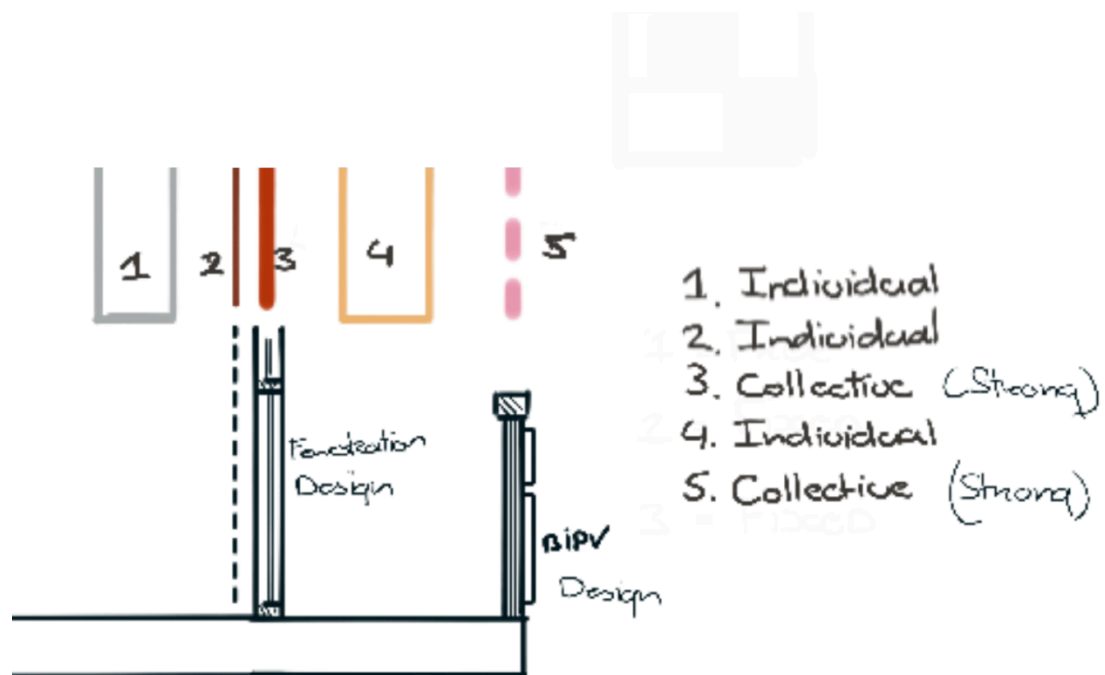
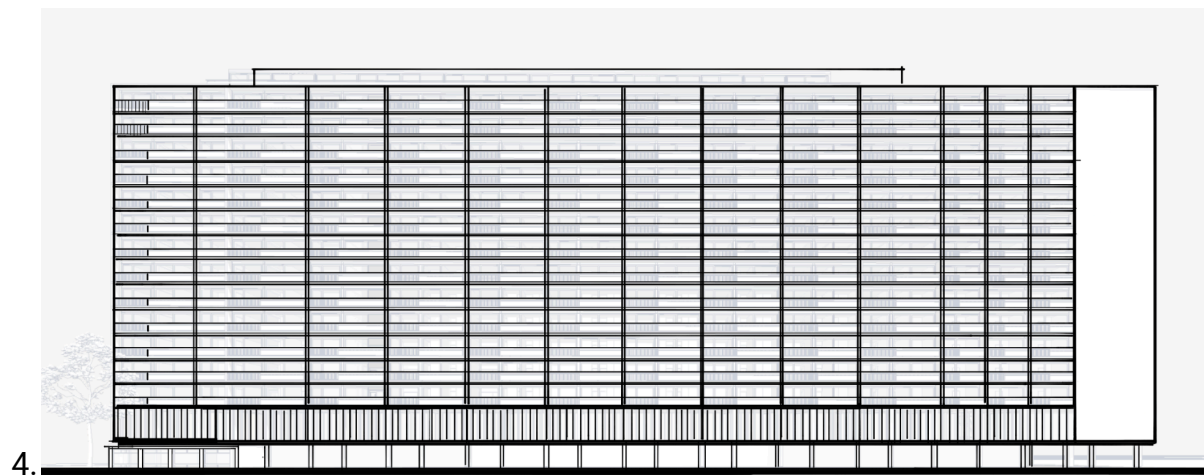


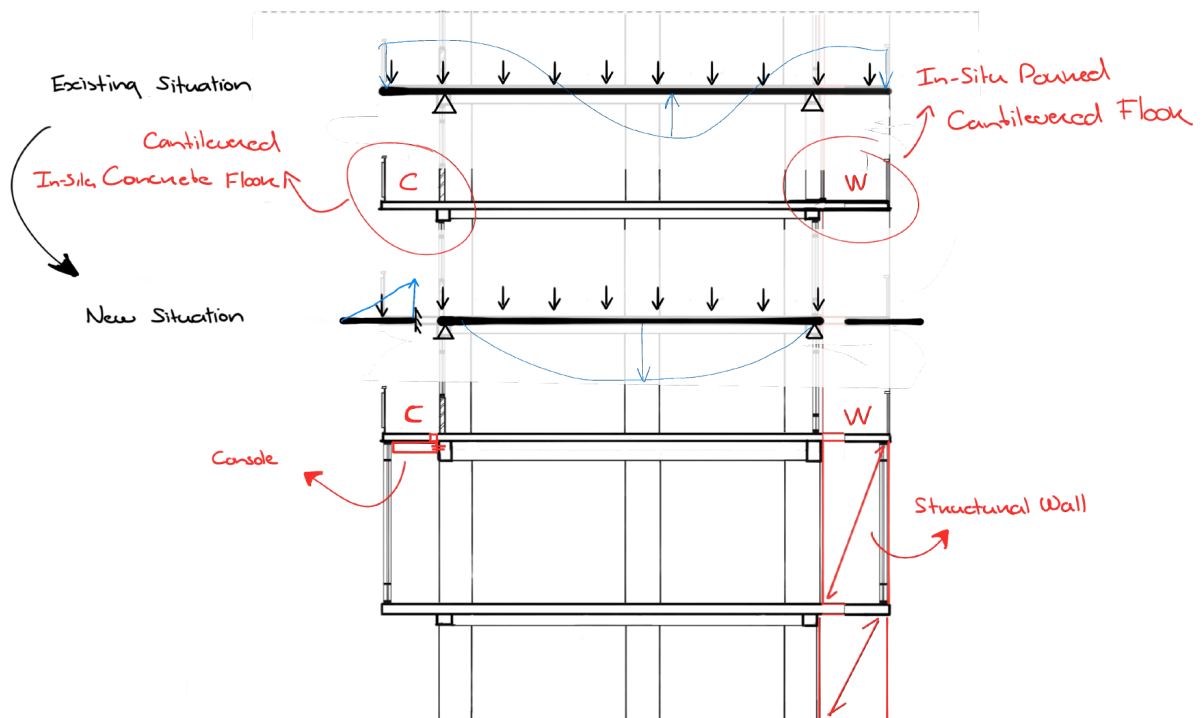
3. Preliminary Design + (P4)



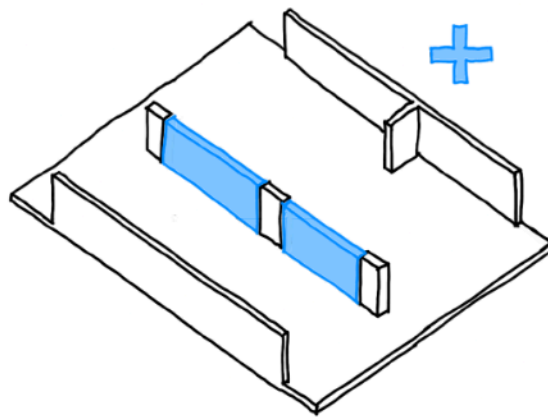
For the preparation of the P4 presentation four intervention strategies were developed and used to present the potential redesign. Presenting the redesign in this form makes it possible to apply the strategies to other case studies involving similar construction typologies.

1. Splitting
2. Addition
3. Extending
4. Inviting

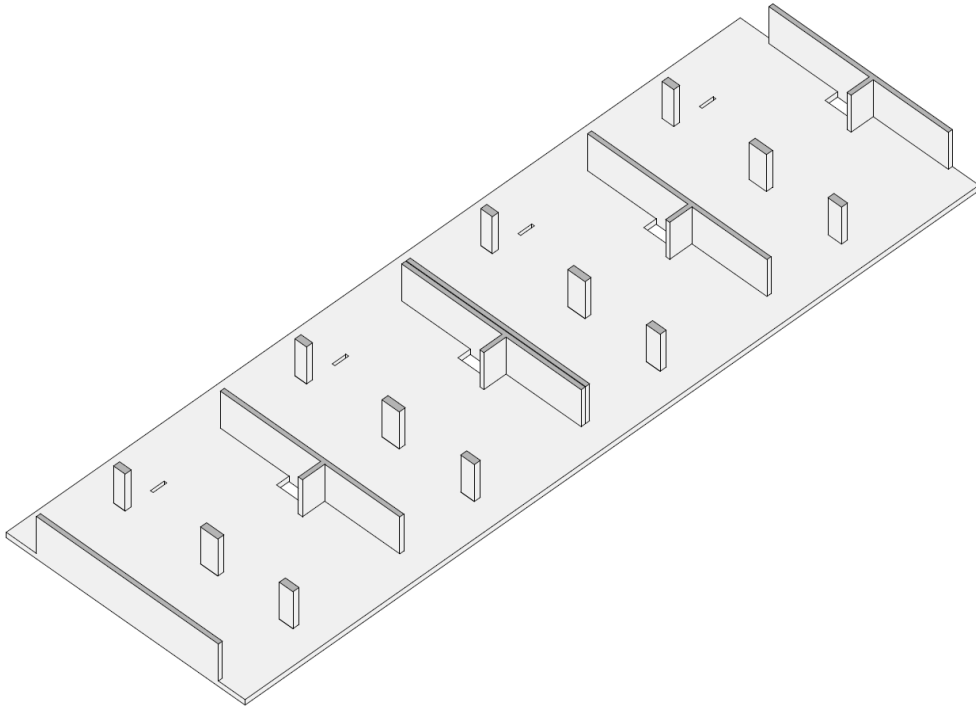




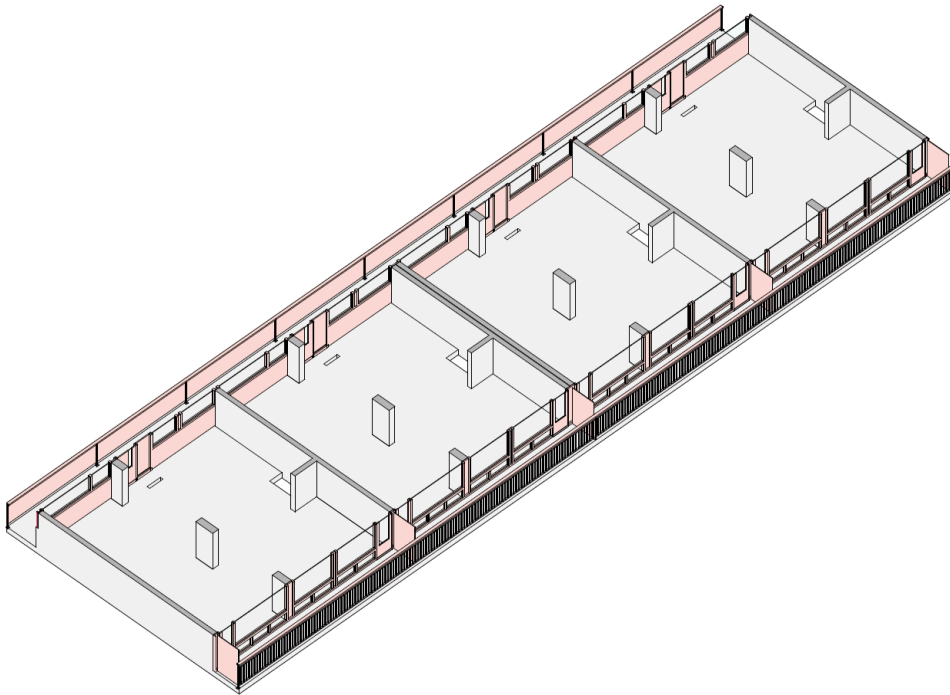
5. Preliminary Design ++ (P5)



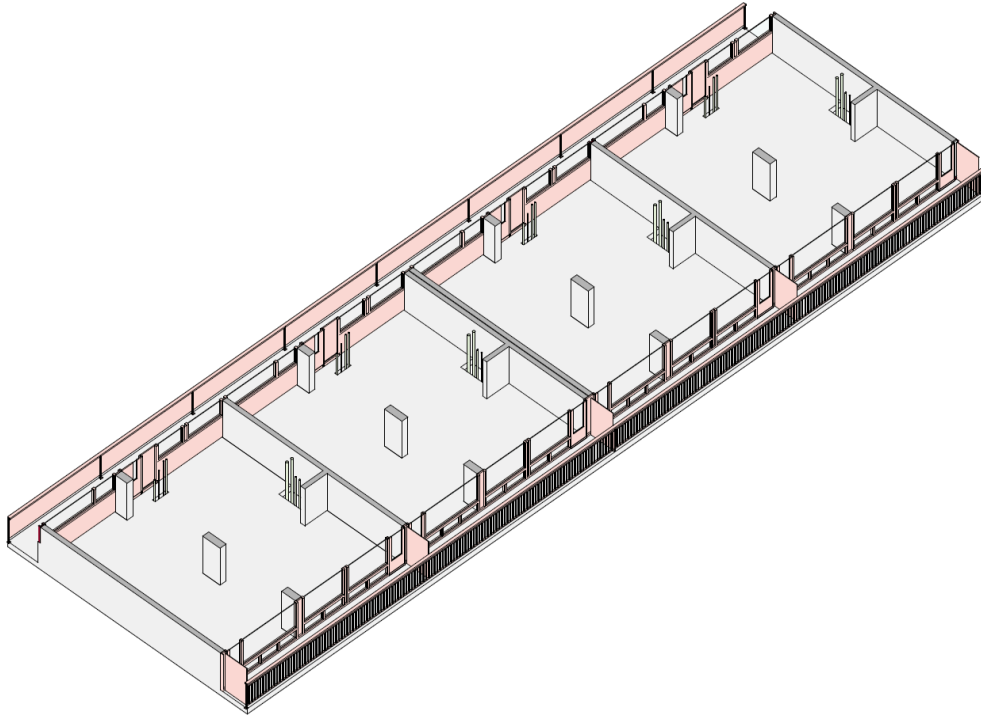
Structure



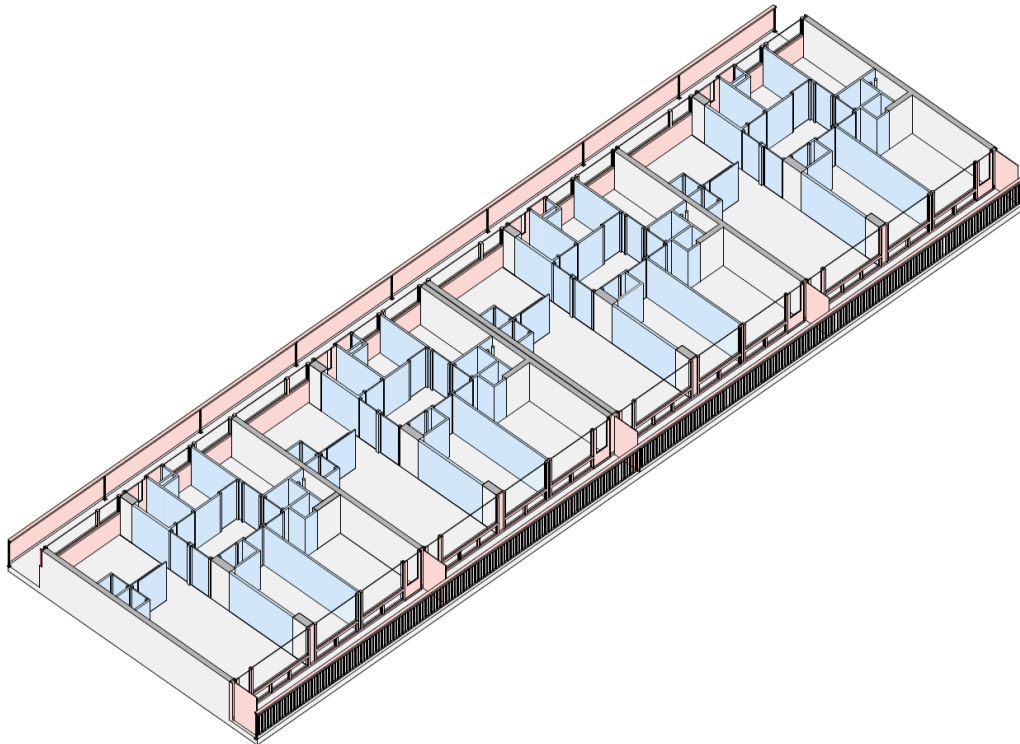
+ Skin



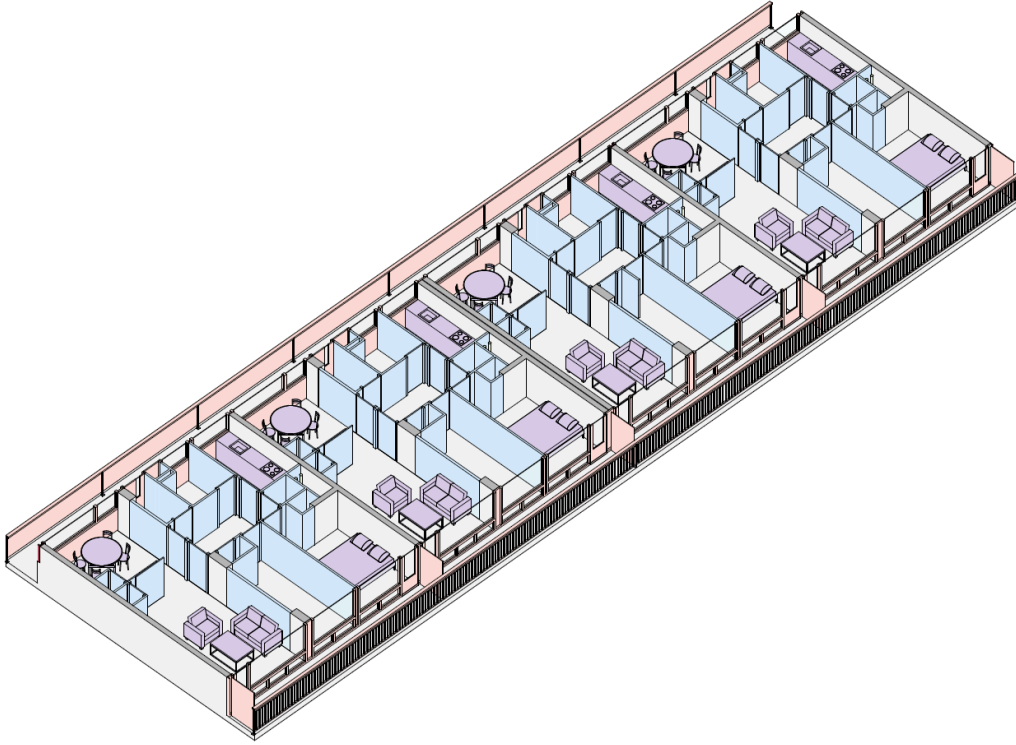
+ Services



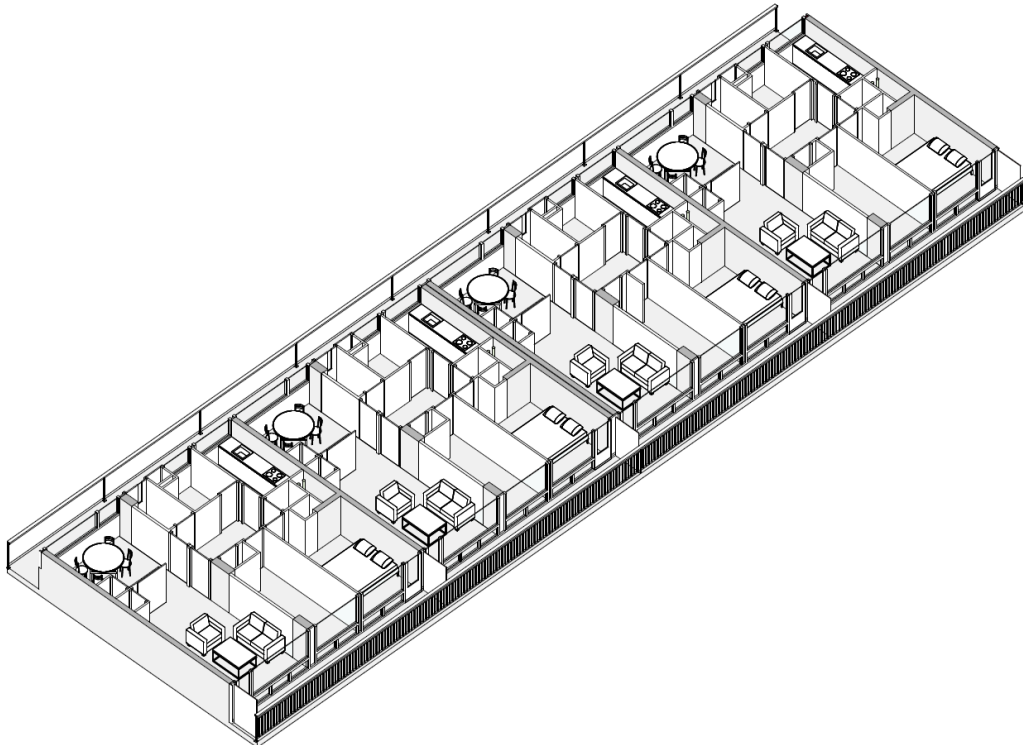
+ Space Plan



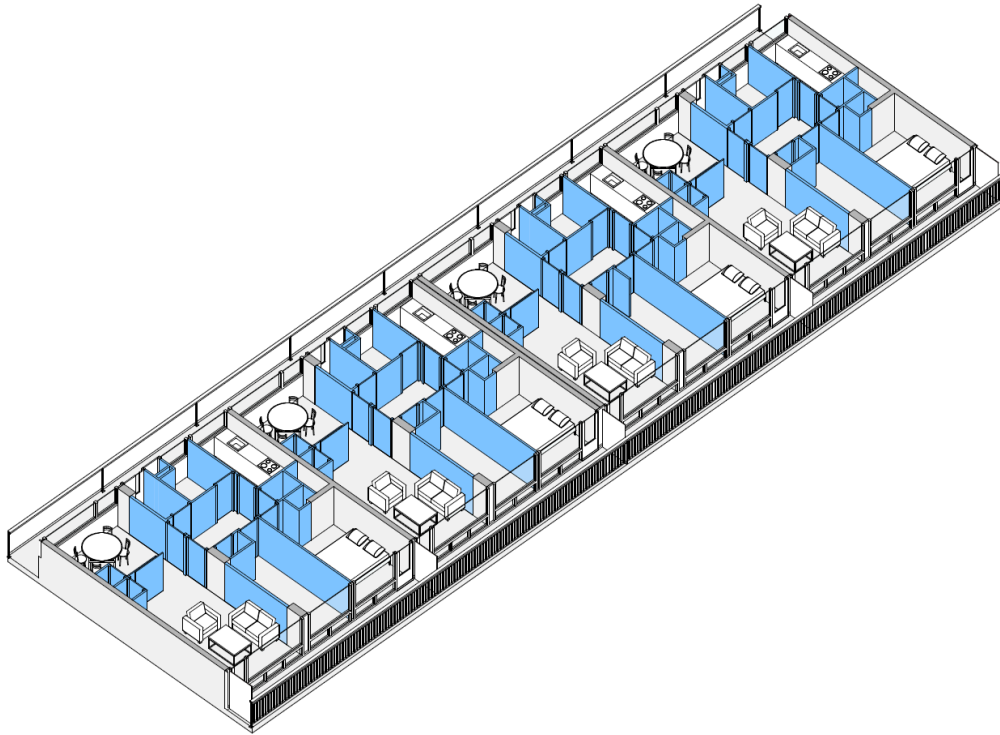
+ Stuff



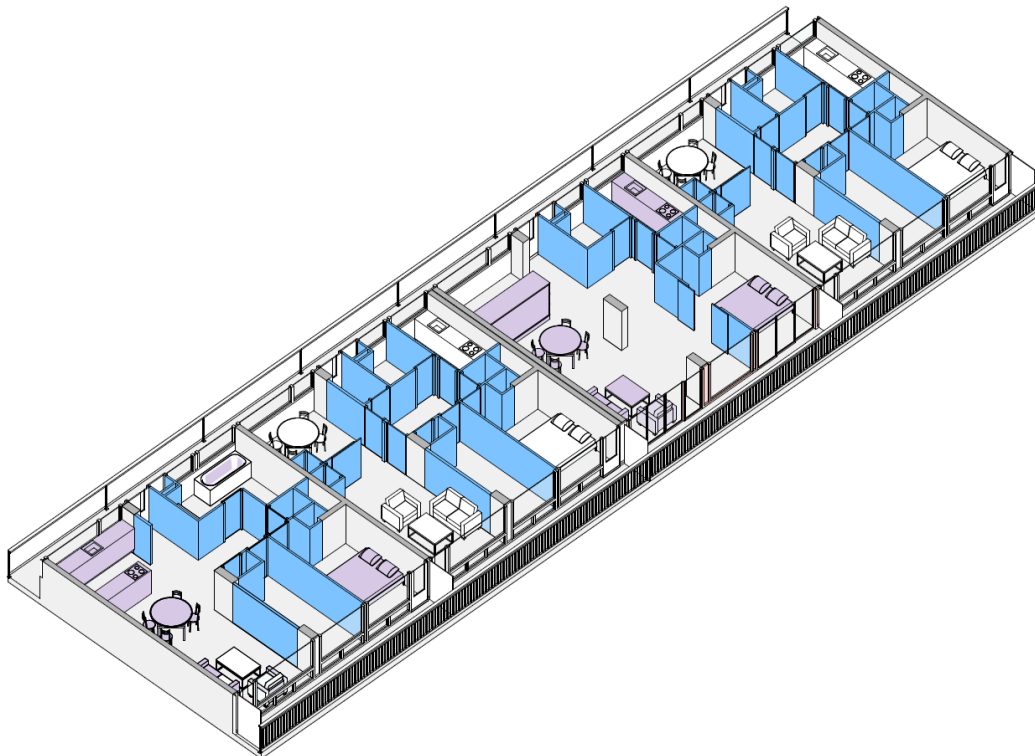
Original Plan (1965)



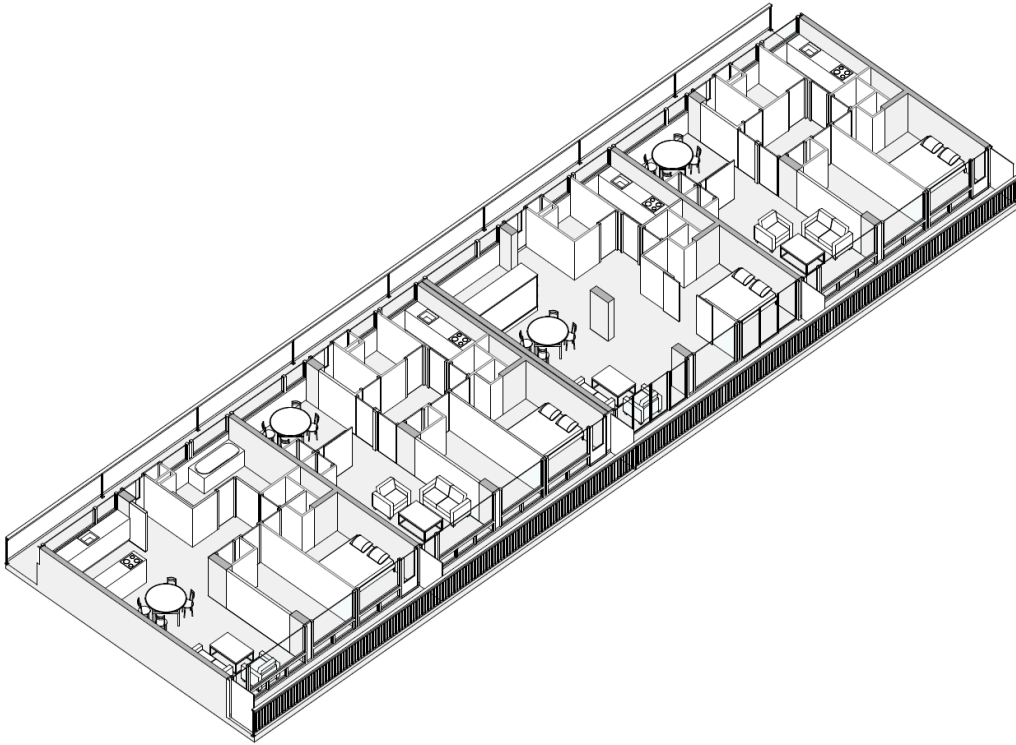
1965



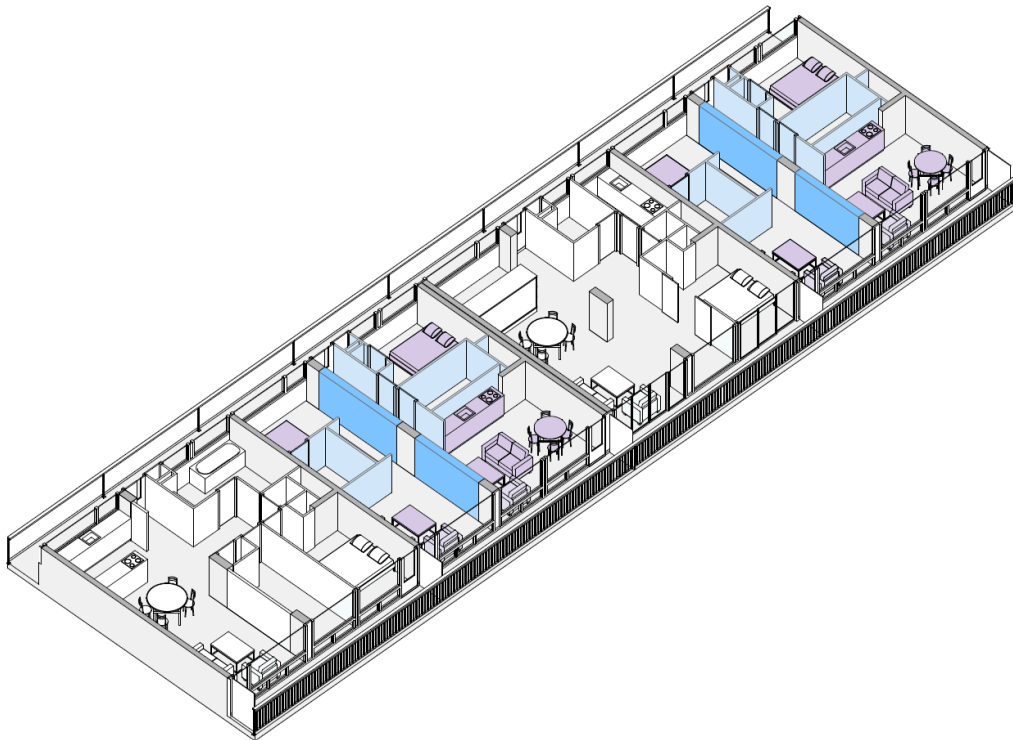
2024



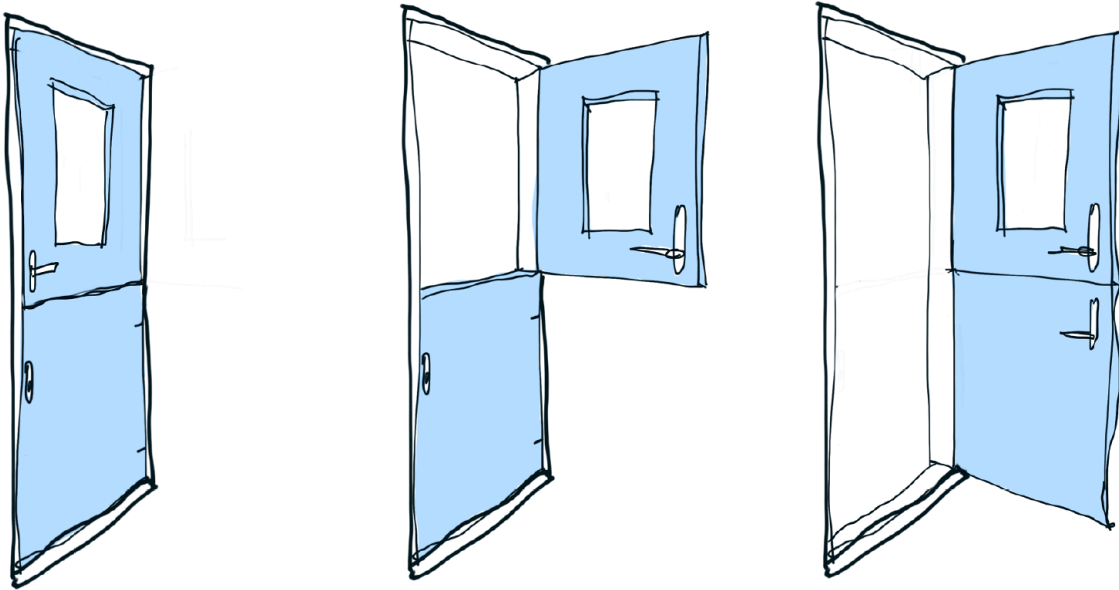
Current Apartment Layout (Funda, 2024)



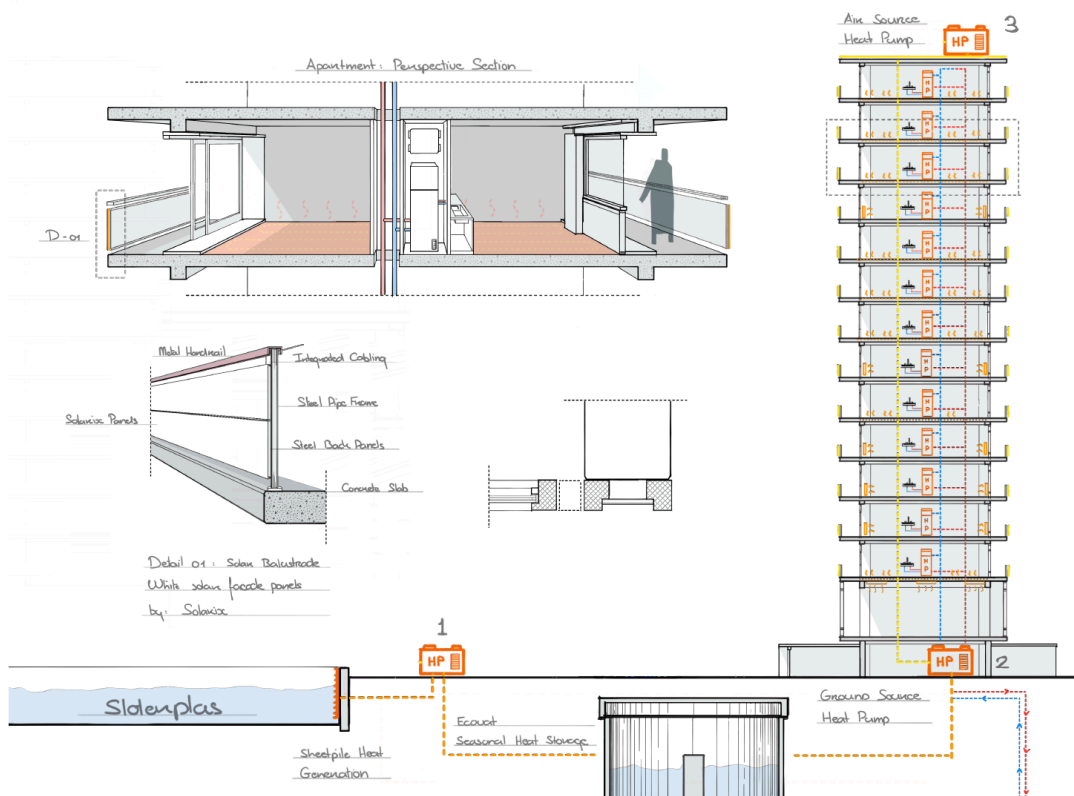
Splitting Apartments

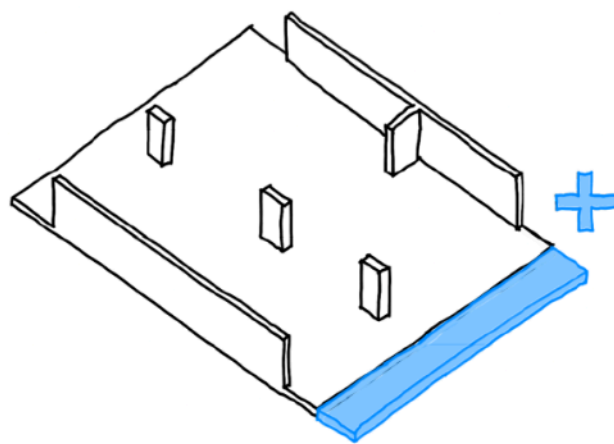


Introducing, the Dutch Door!

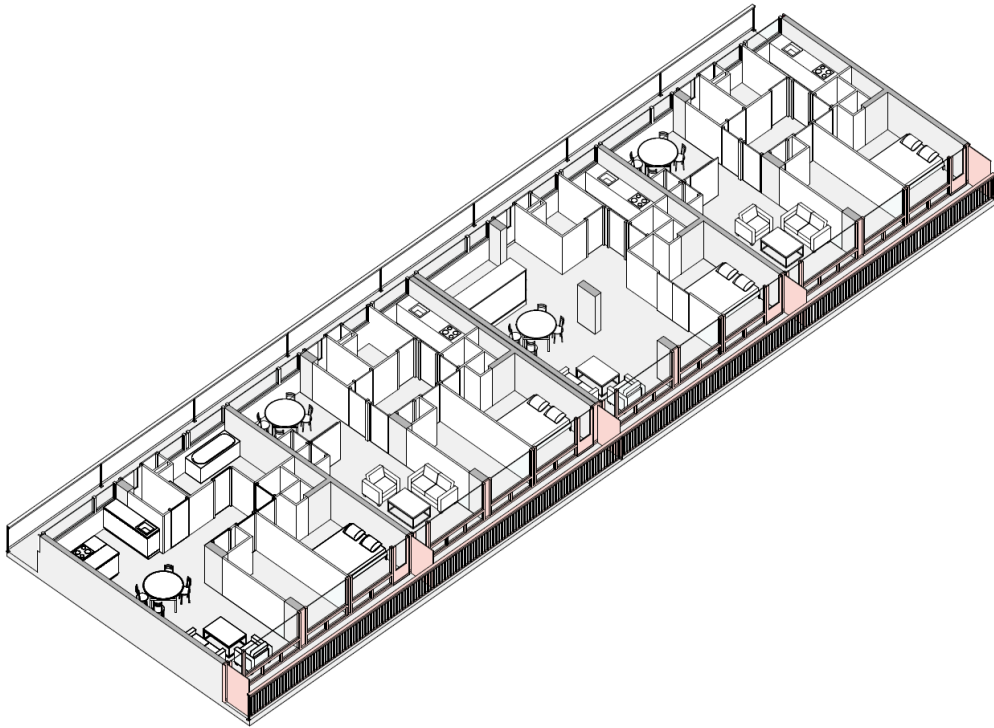


Climate Concept

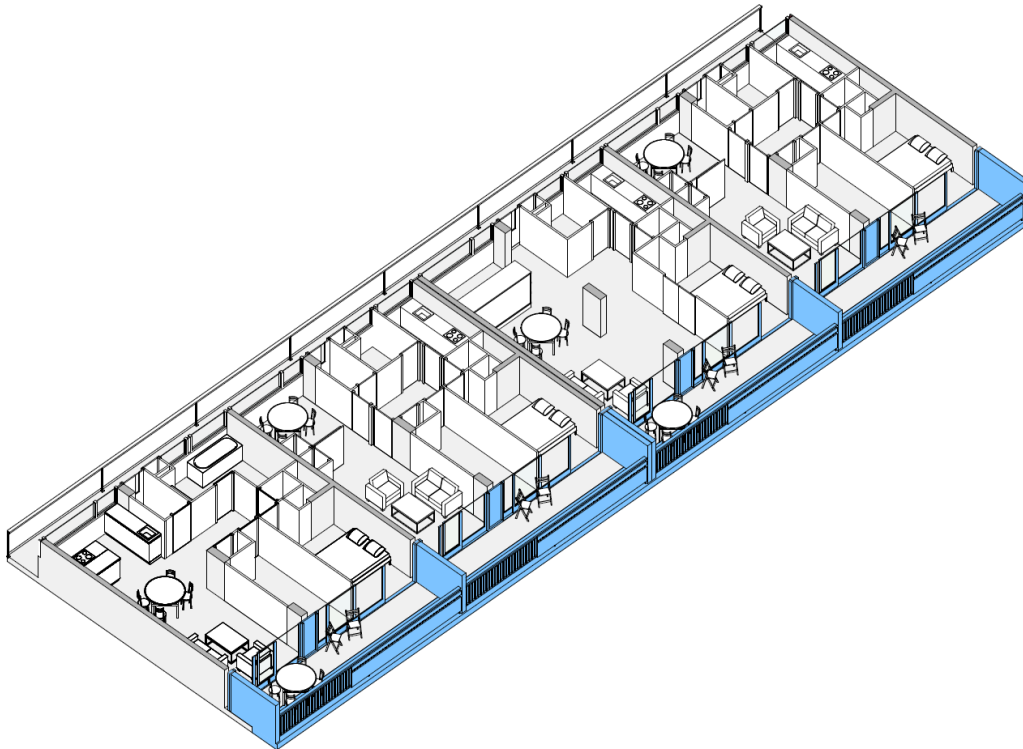


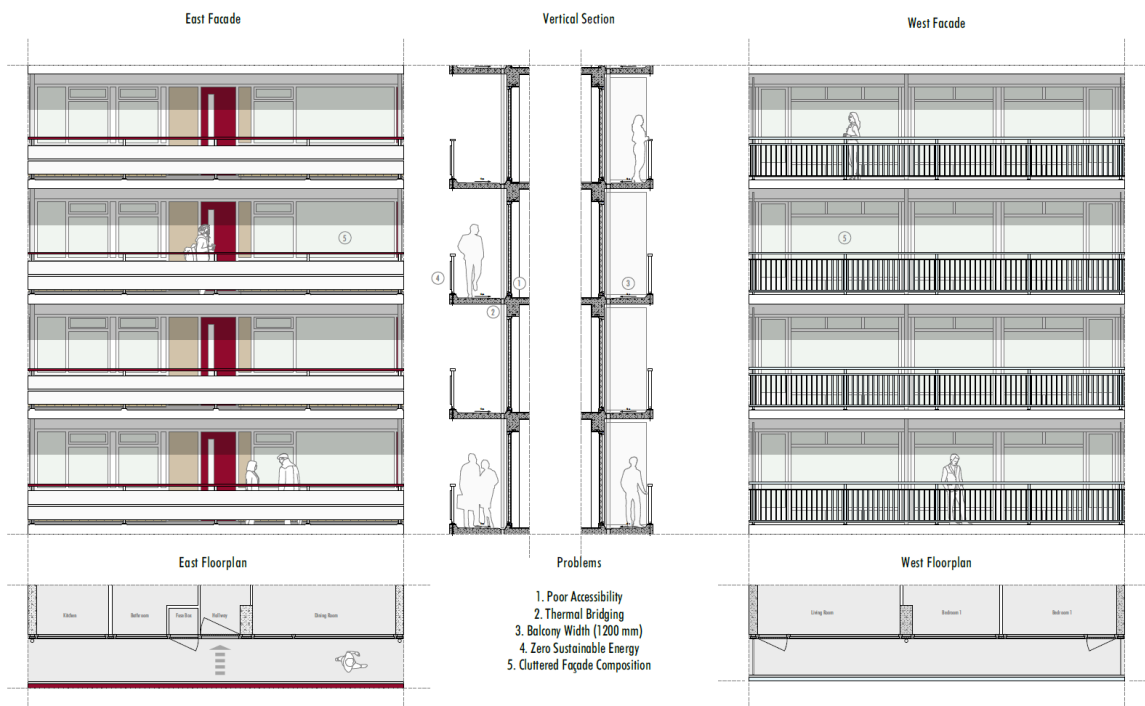


- West Facing Windows + Balcony

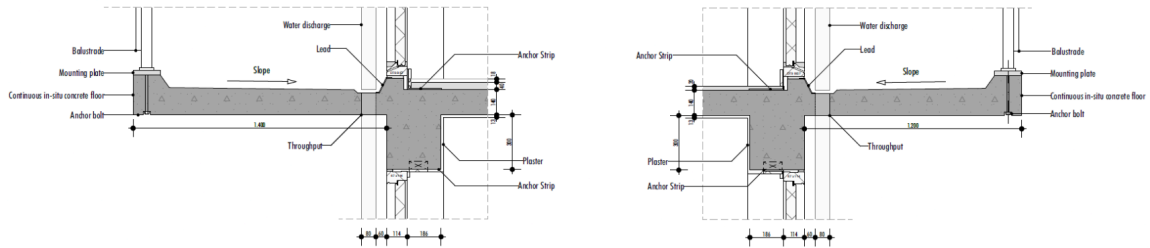


+ New Windows & Balconies

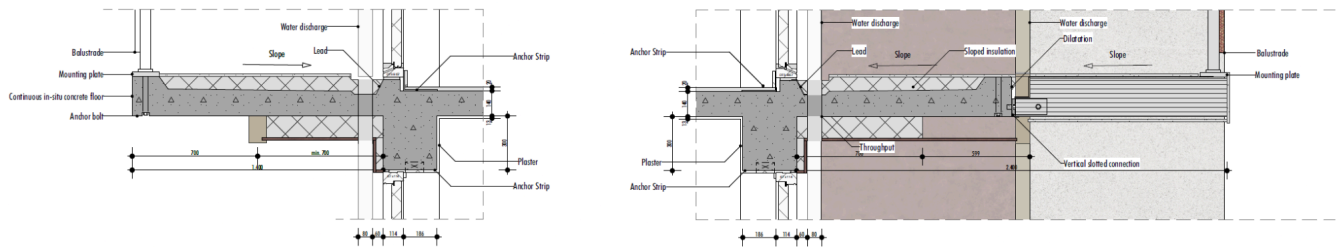




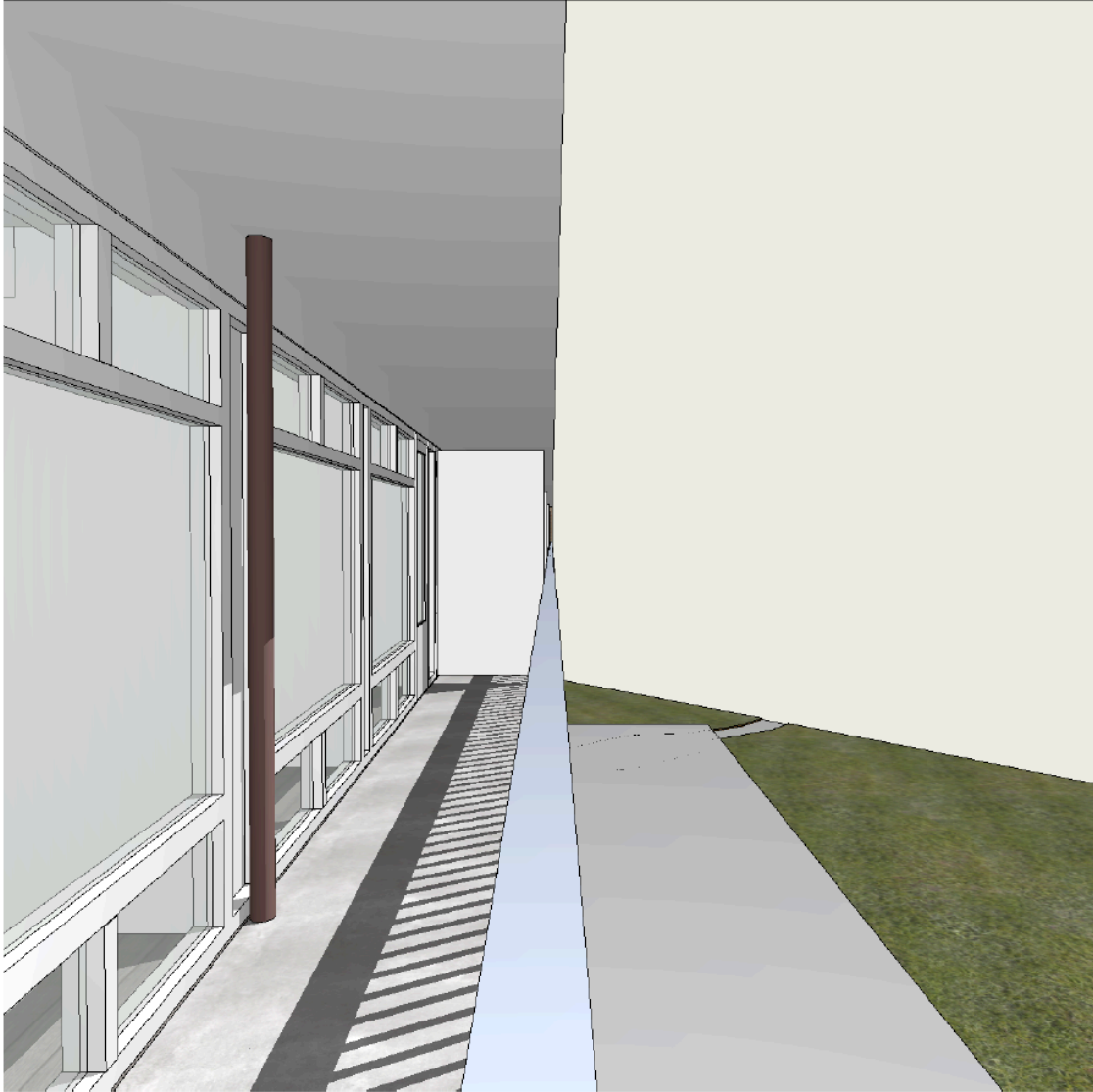
Detailing (before)

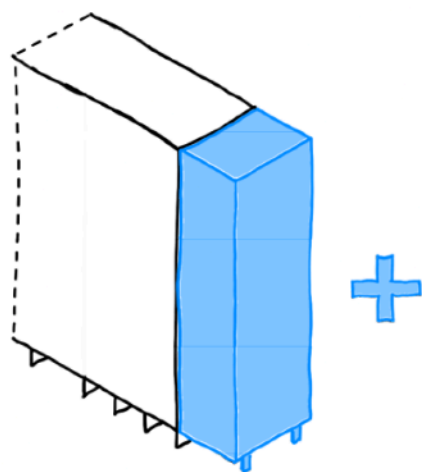


Detailing (after)

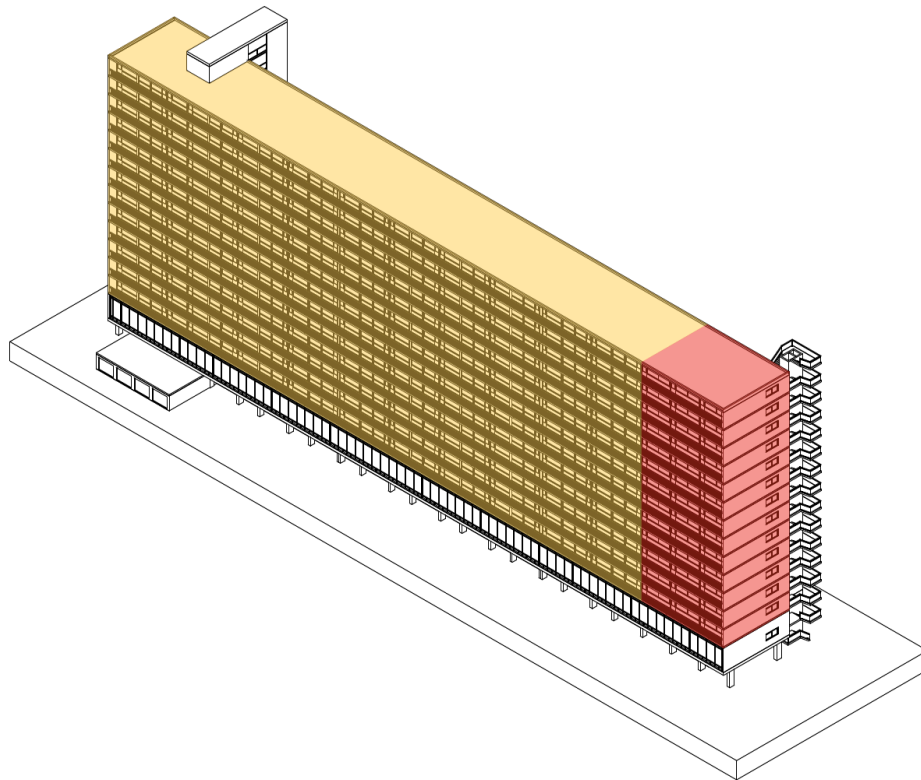


Impression (before)

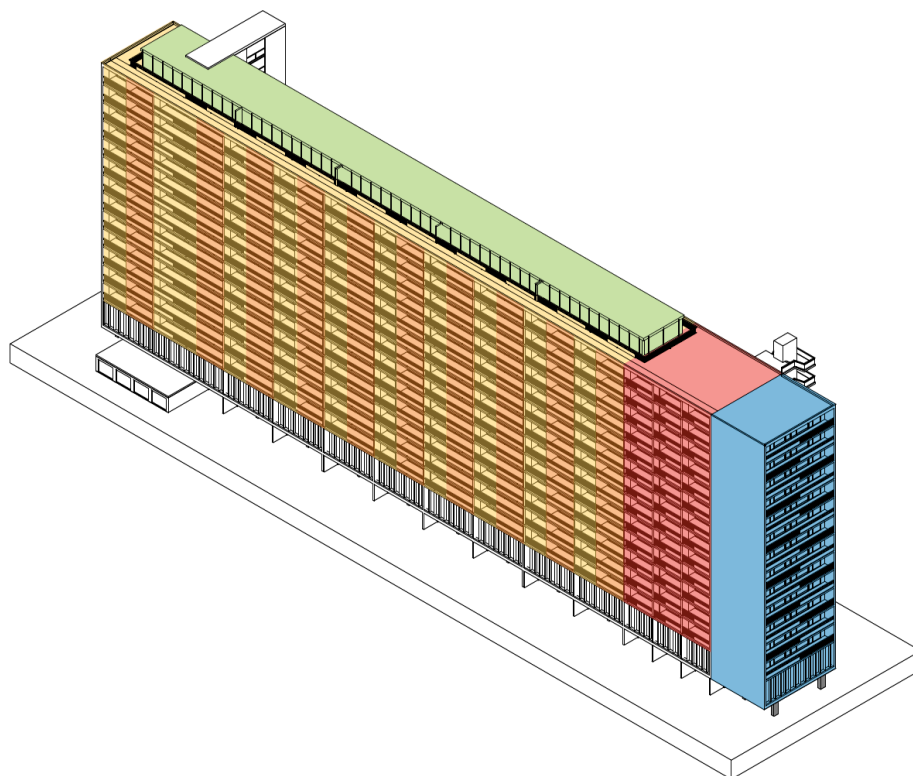




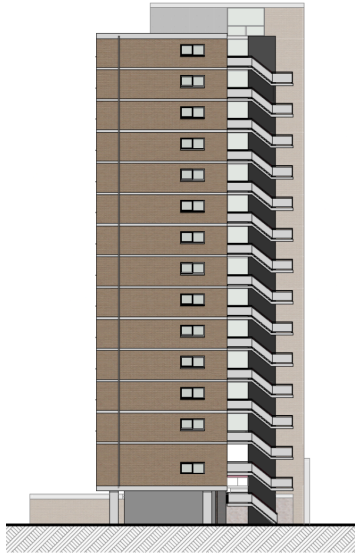
2 Apartment Typologies



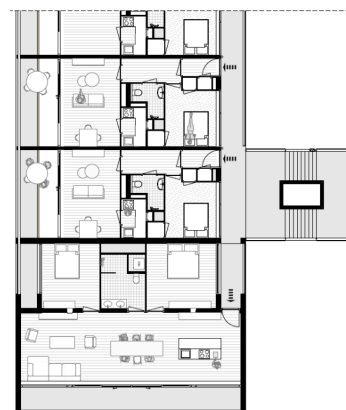
5 Apartment Typologies



Facades Before.



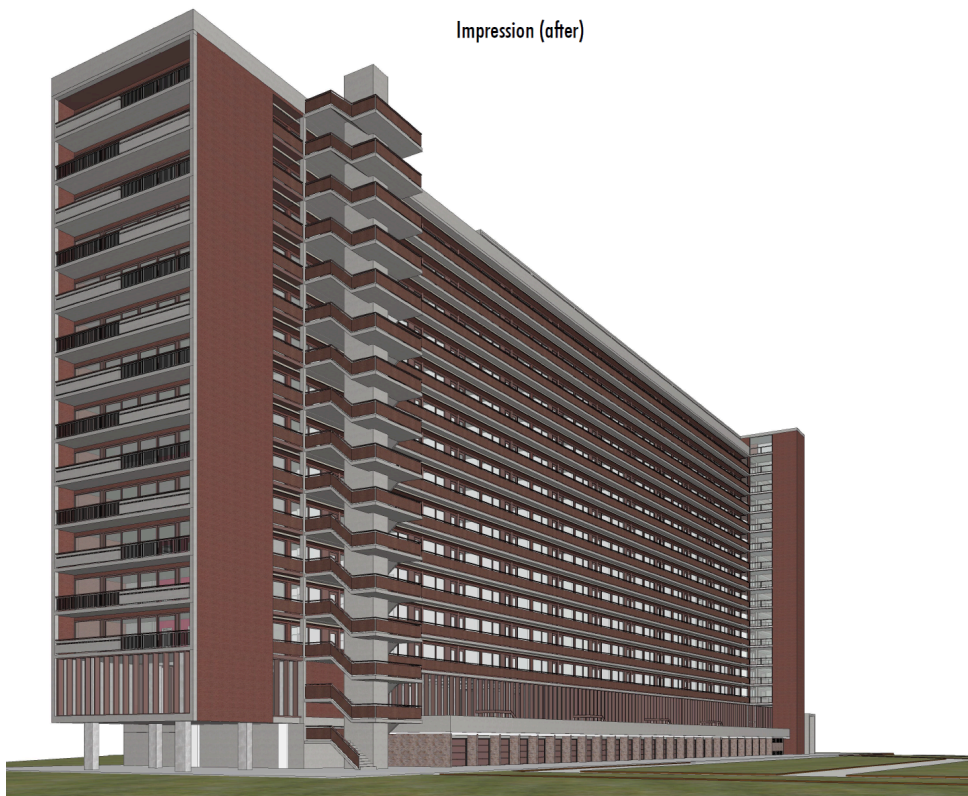
Facades After



Impression (before)



Impression (after)

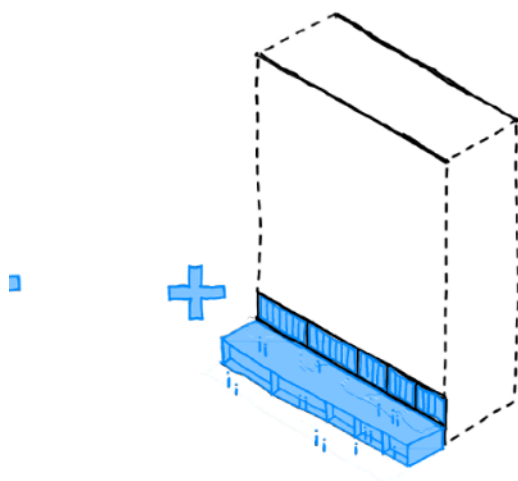


Impression (before)

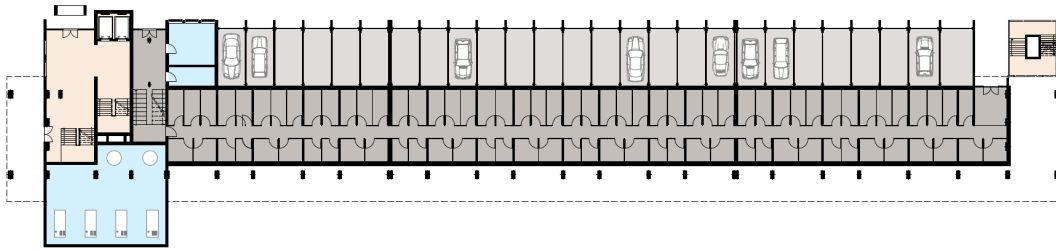


Impression (after)

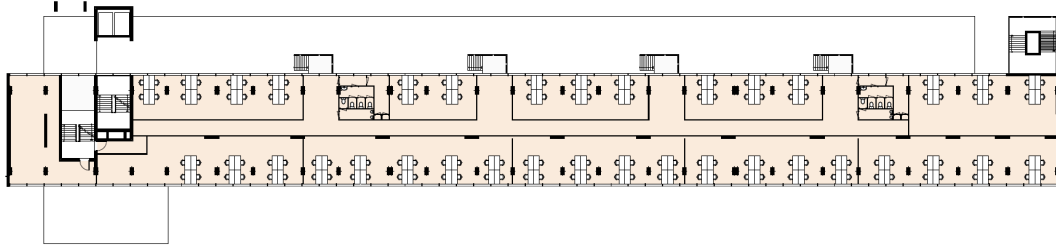




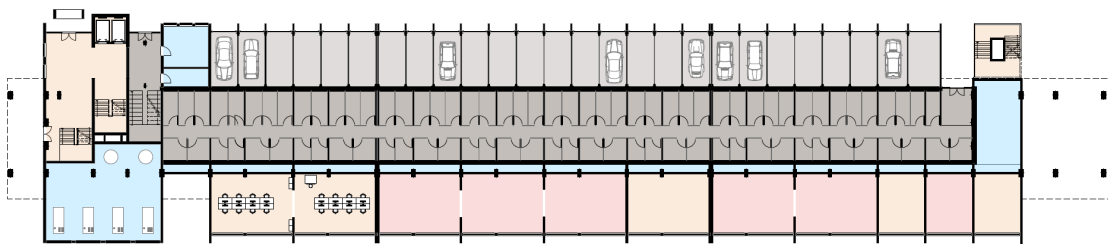
Ground Floor (before)



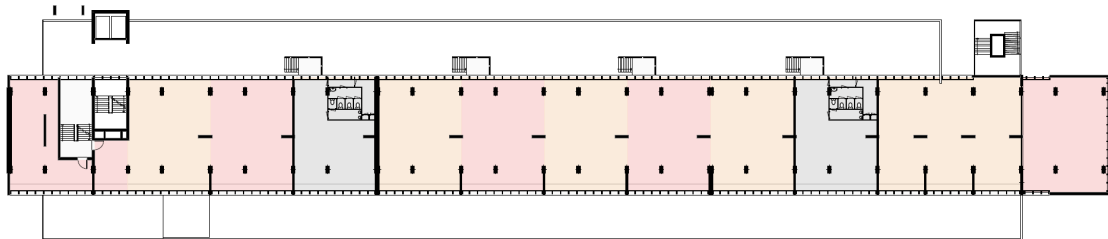
First Floor (before)



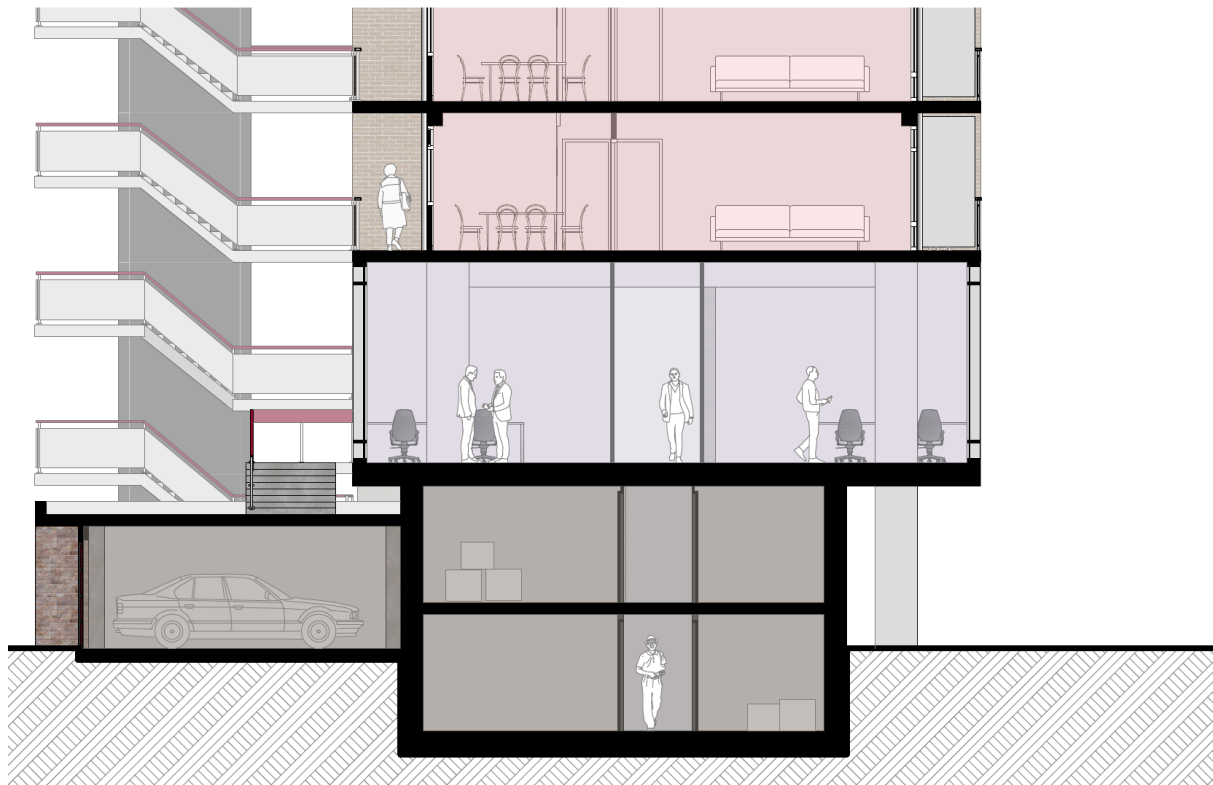
Ground Floor (after)



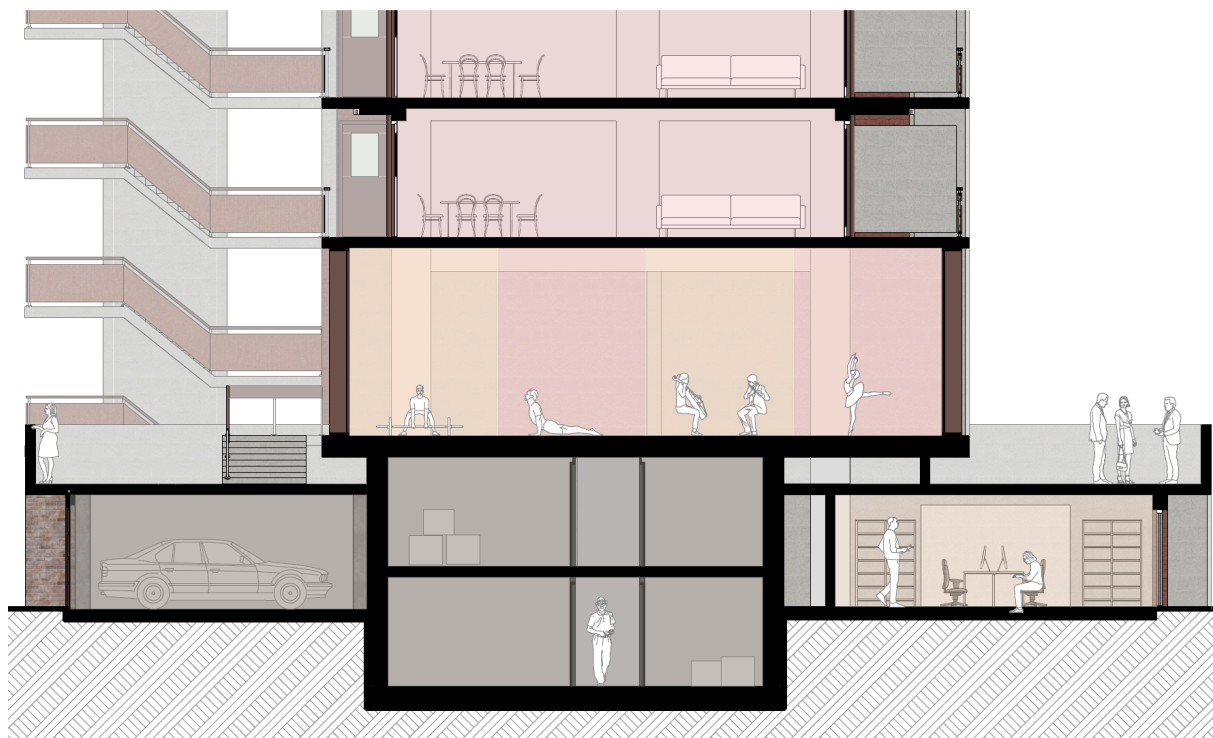
First Floor (after)



Section (before)



Section (after)



Impression (before)

