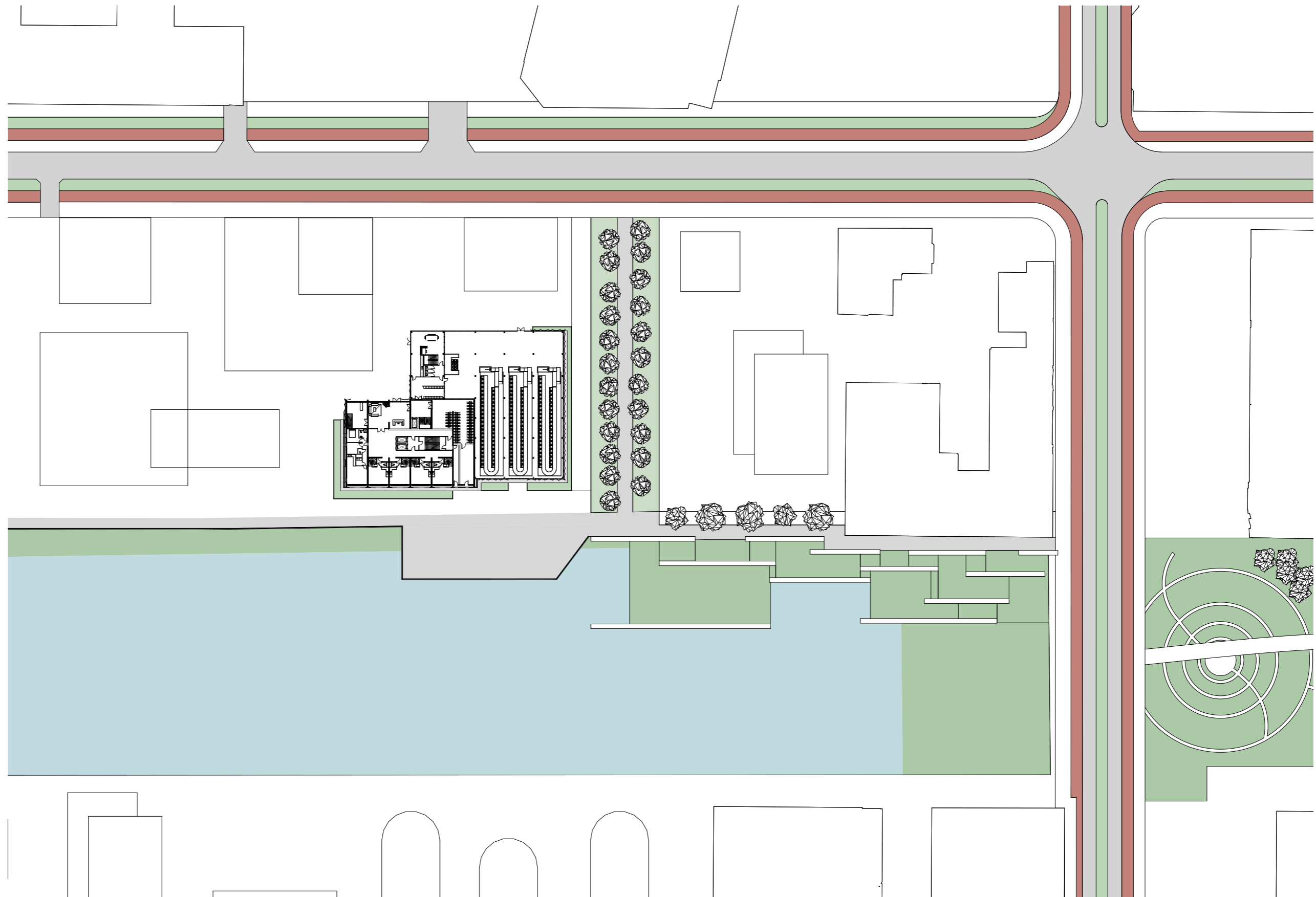


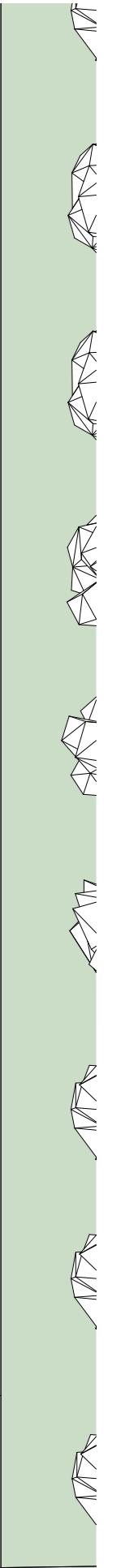
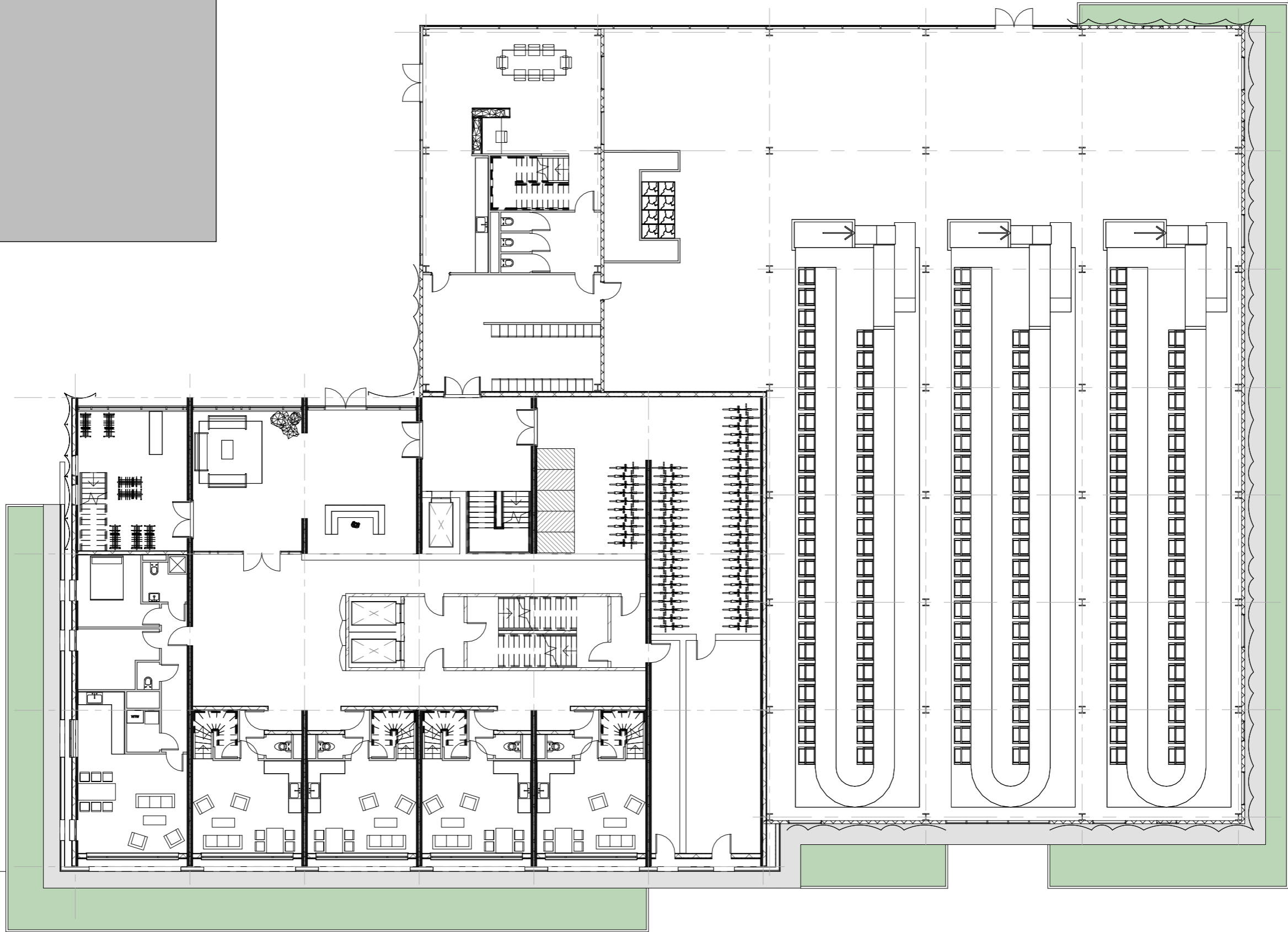
Hannah Griffioen

Advanced housing design

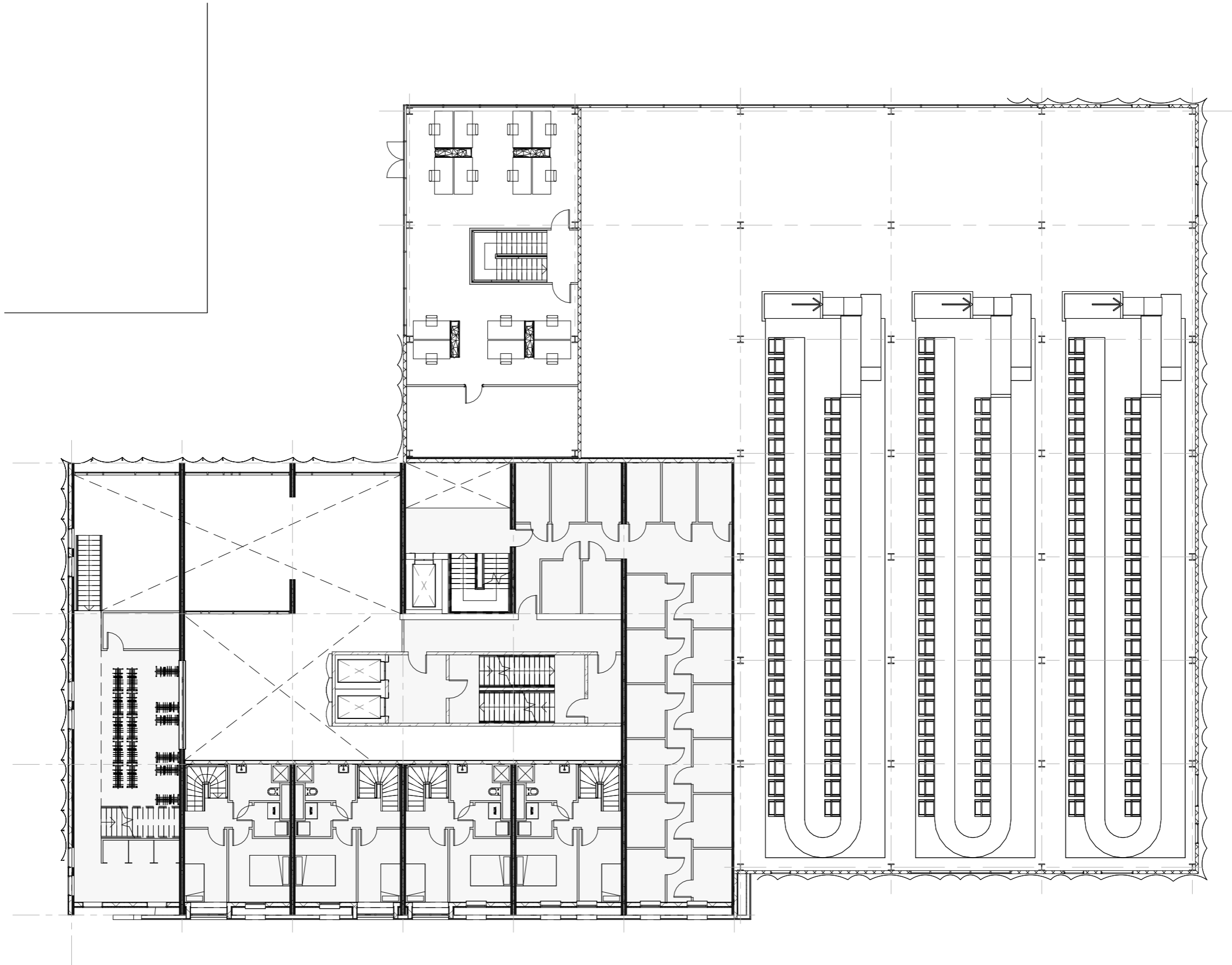
Site | 1:1000



Ground floor | 1:200



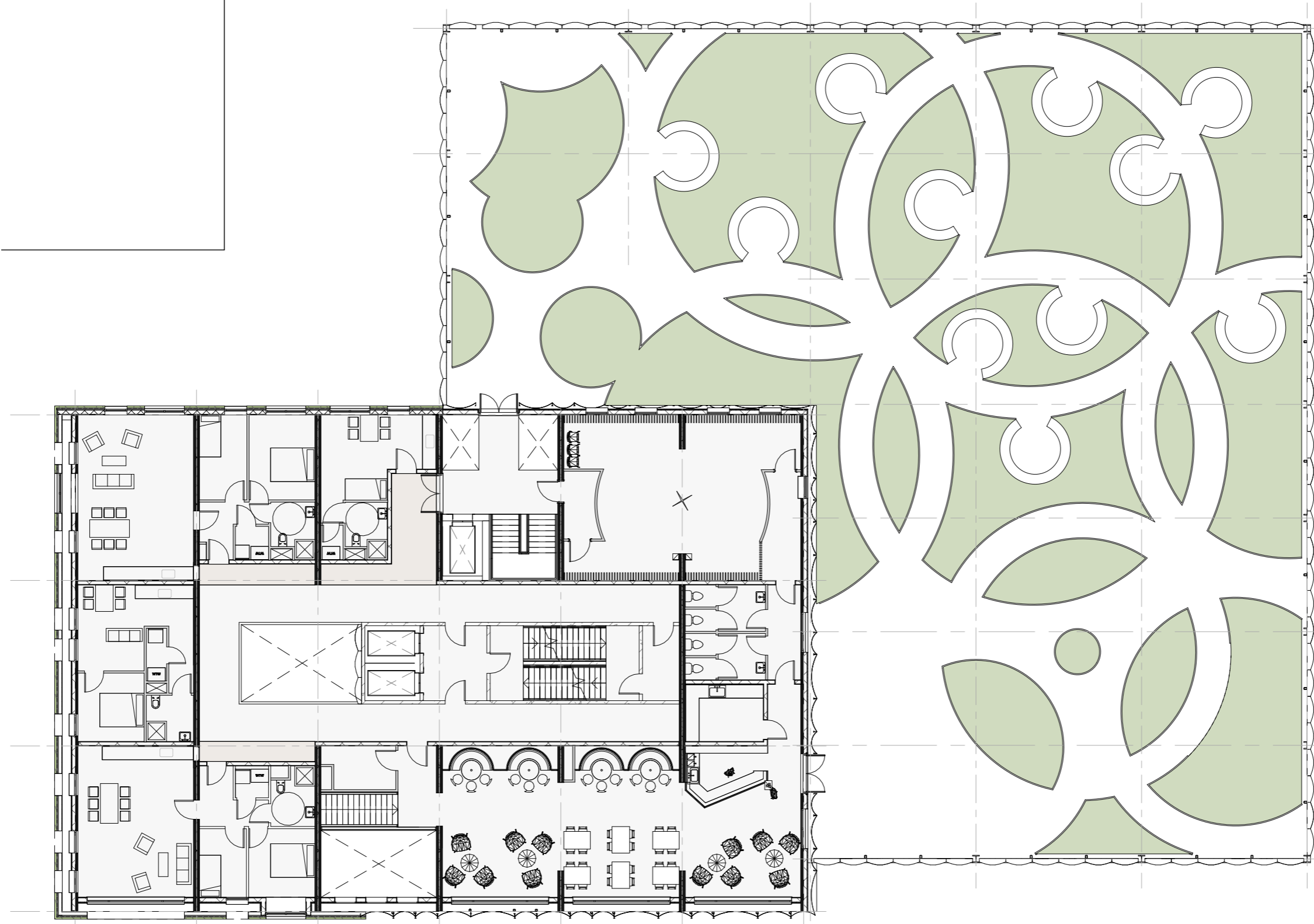
First floor | 1:200



Second floor | 1:200



Third floor | 1:200



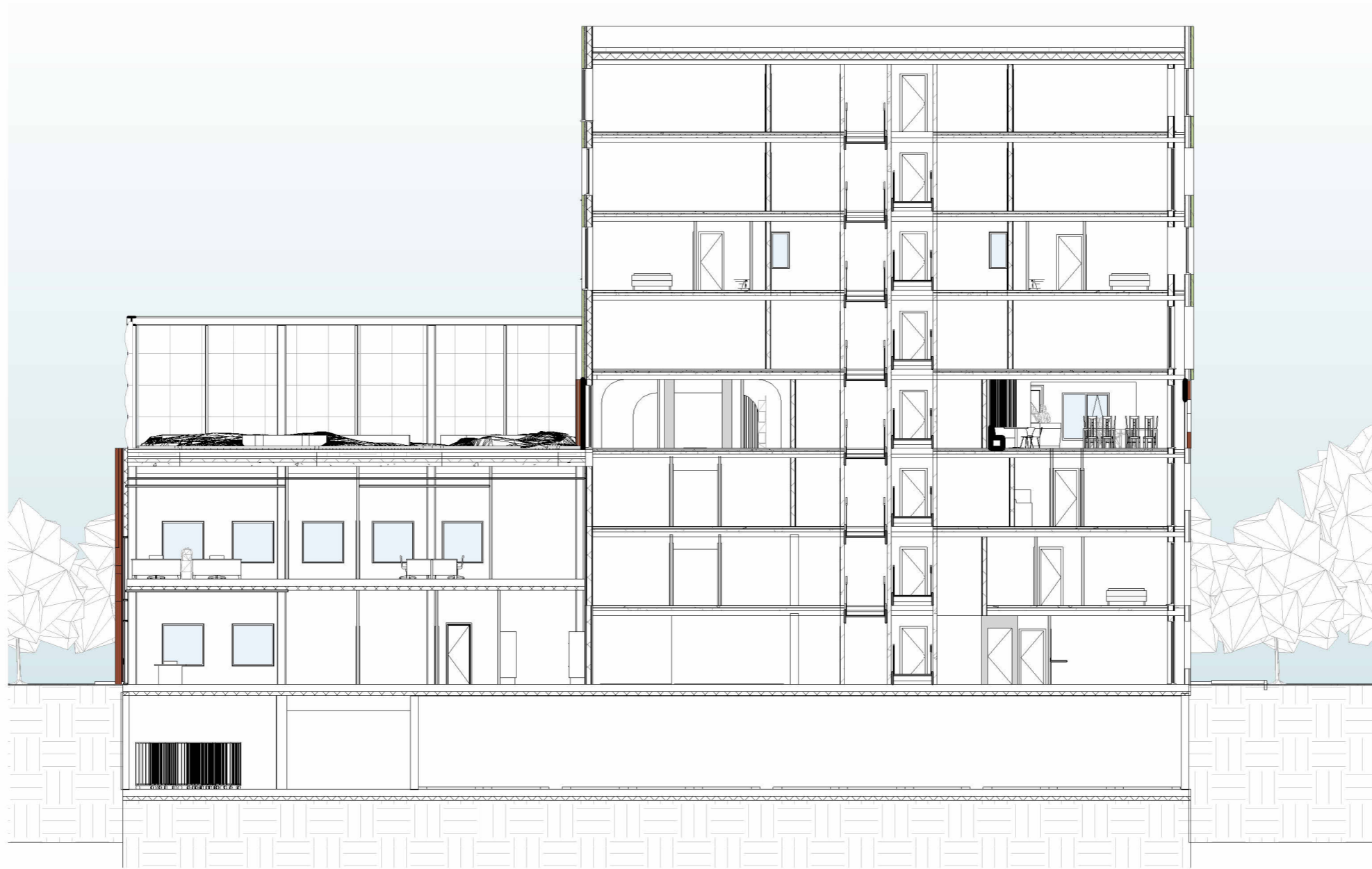
Fourth - seventh floor | 1:200



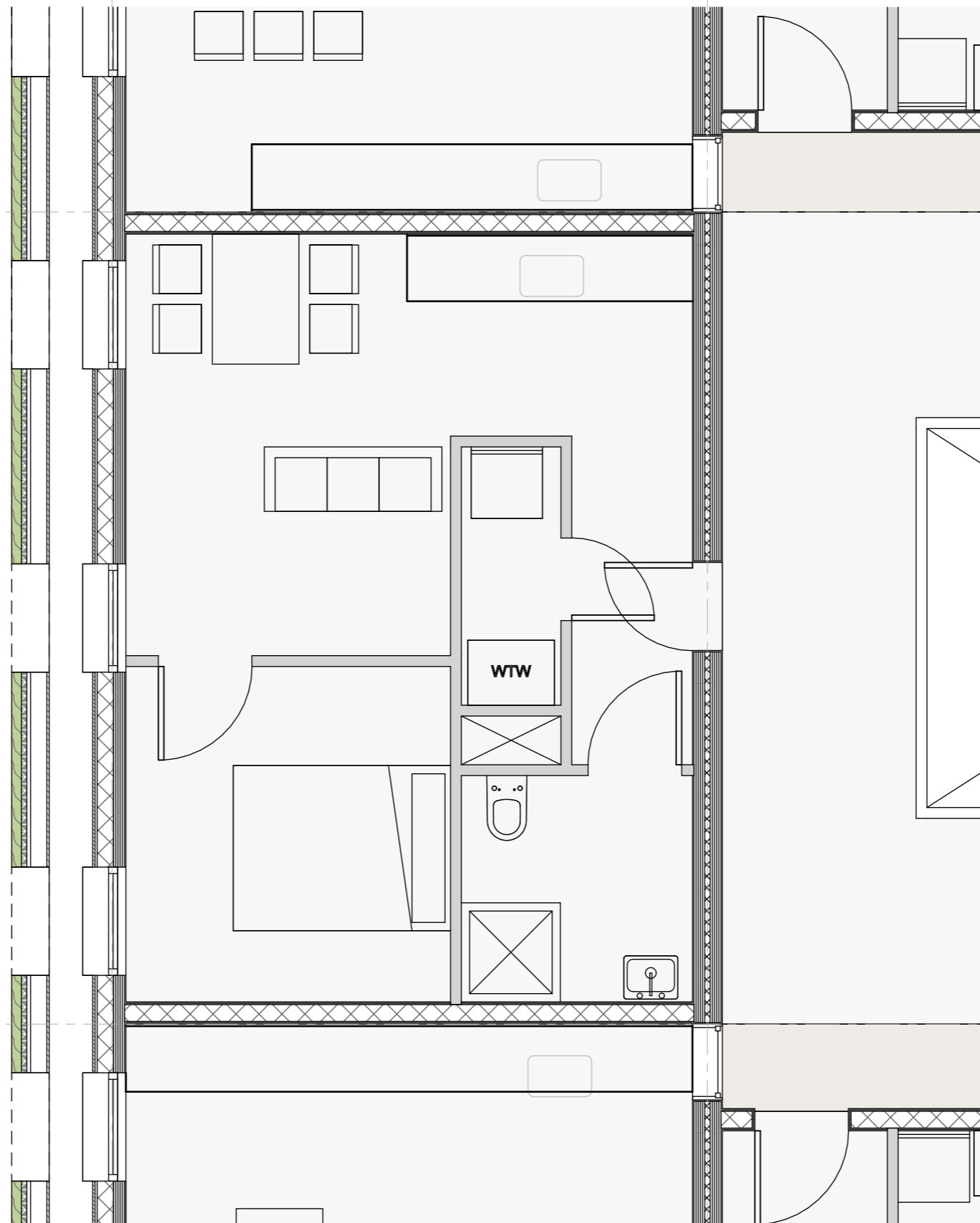
Section 1 | 1:200



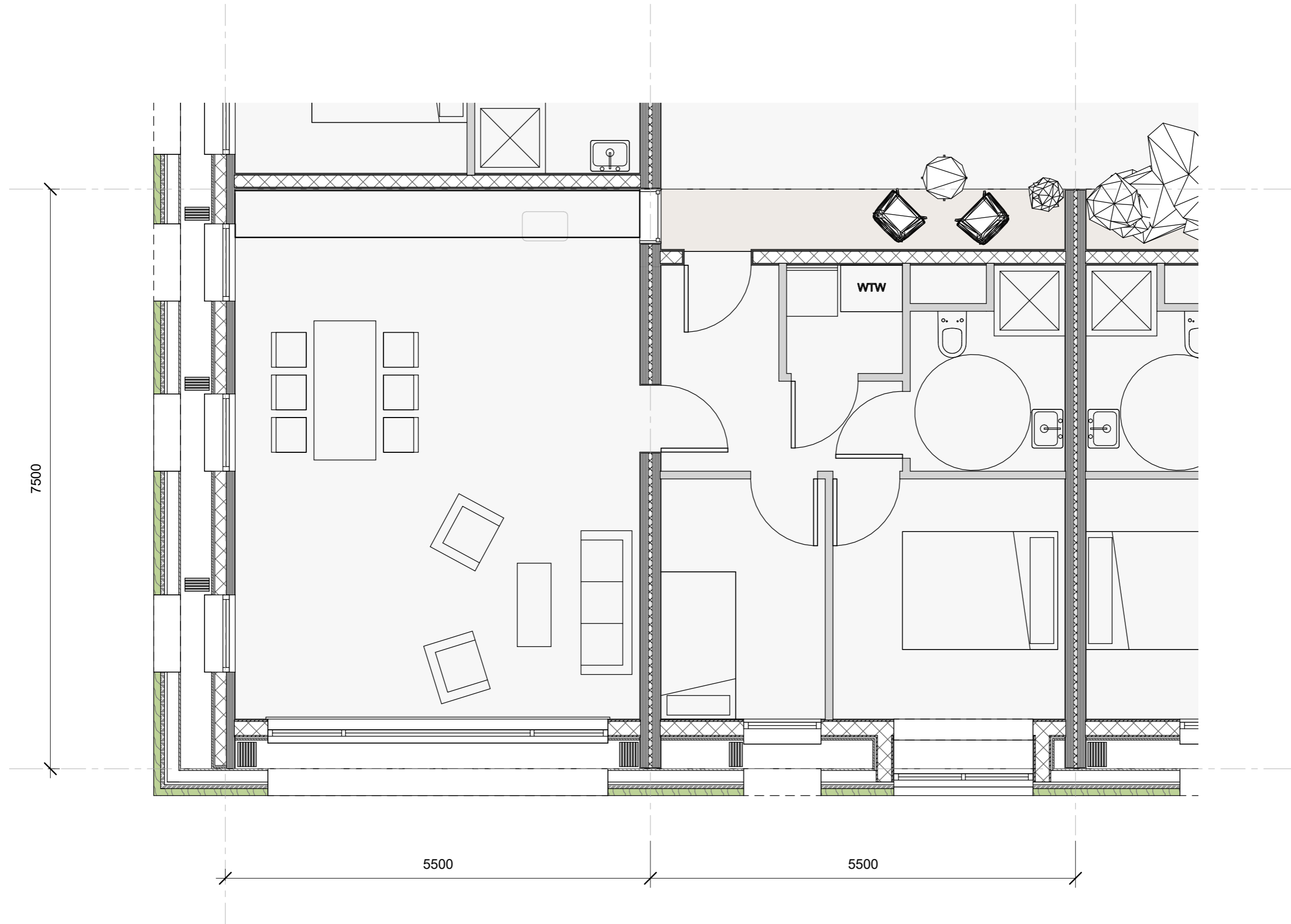
Section 2 | 1:200



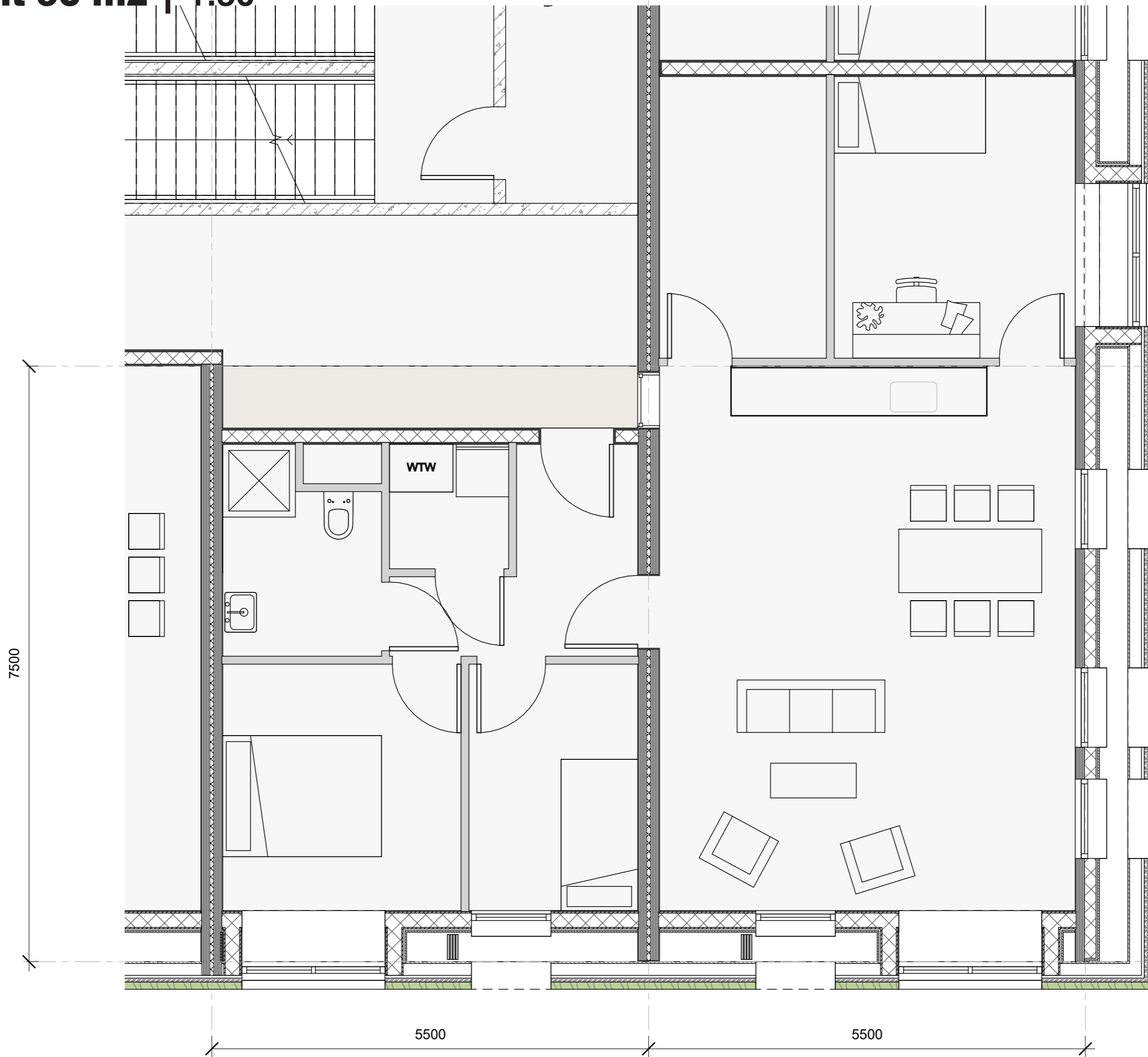
Apartment 40 m2 | 1:50



Apartment 70 m2 | 1:50

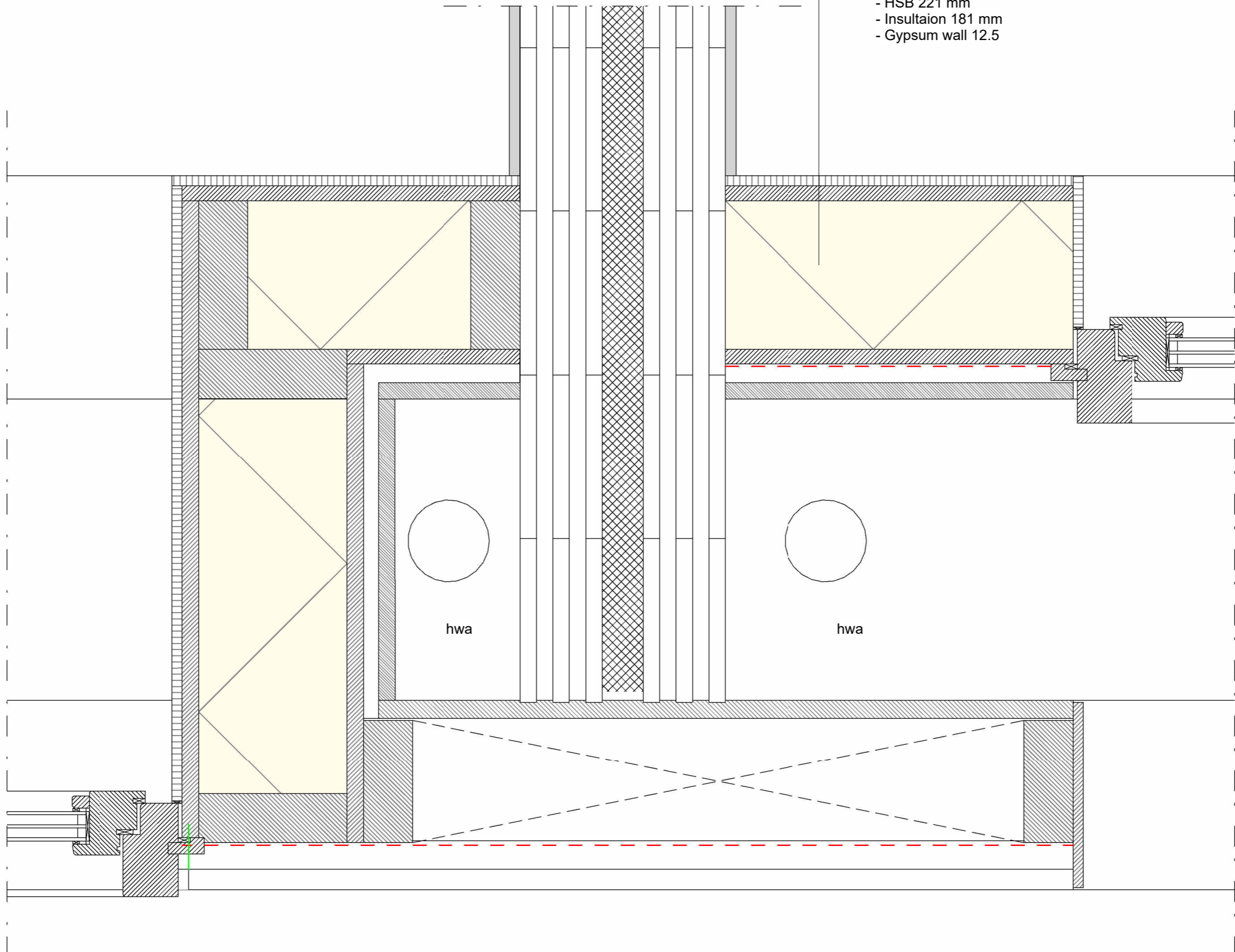


Apartment 90 m2 | 1:50

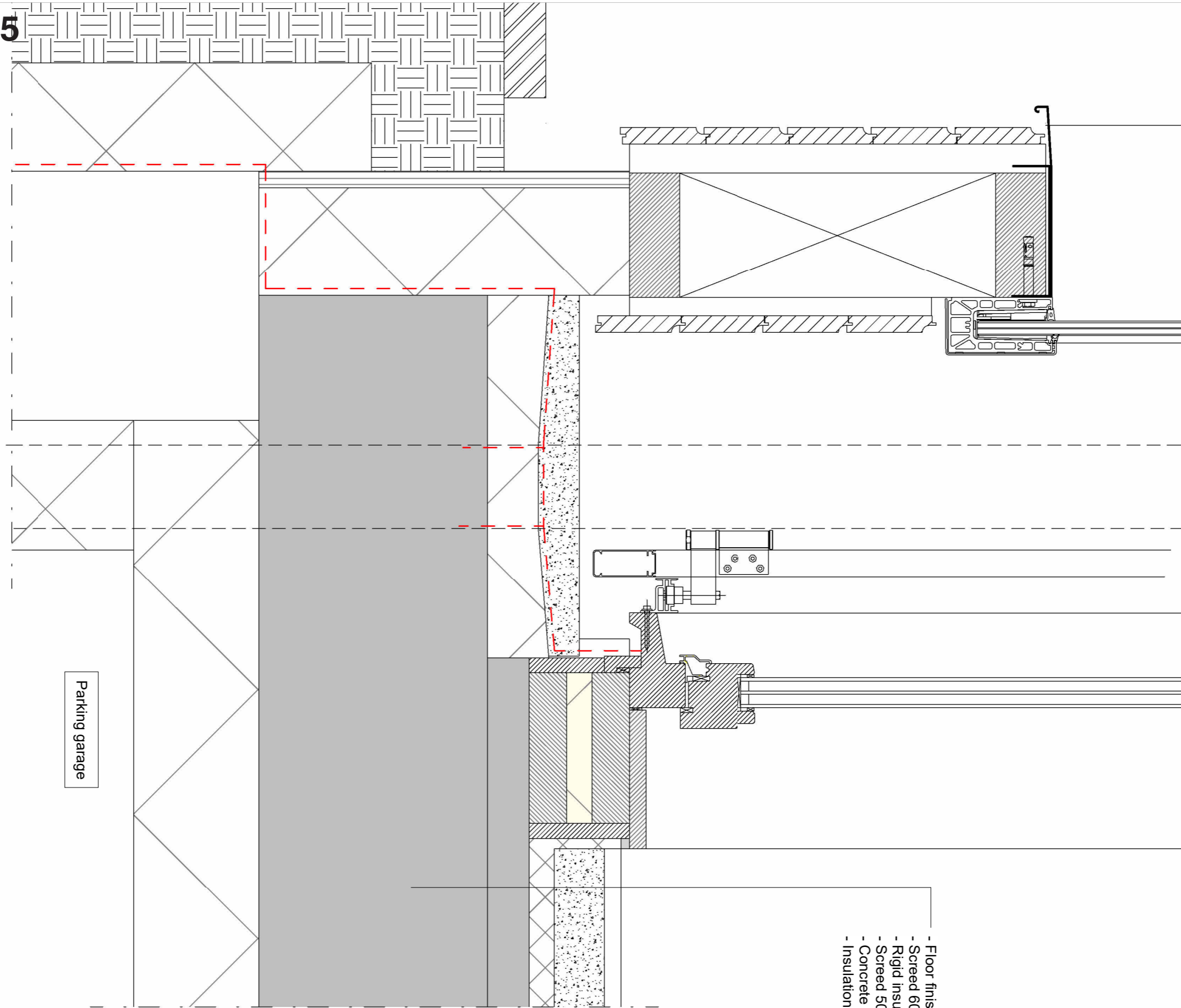


Detail H01 | 1:5

- Wood planks 20 mm
- Framework 20 mm
- HSB 221 mm
- Insulation 181 mm
- Gypsum wall 12.5



Detail V01 | 1:5

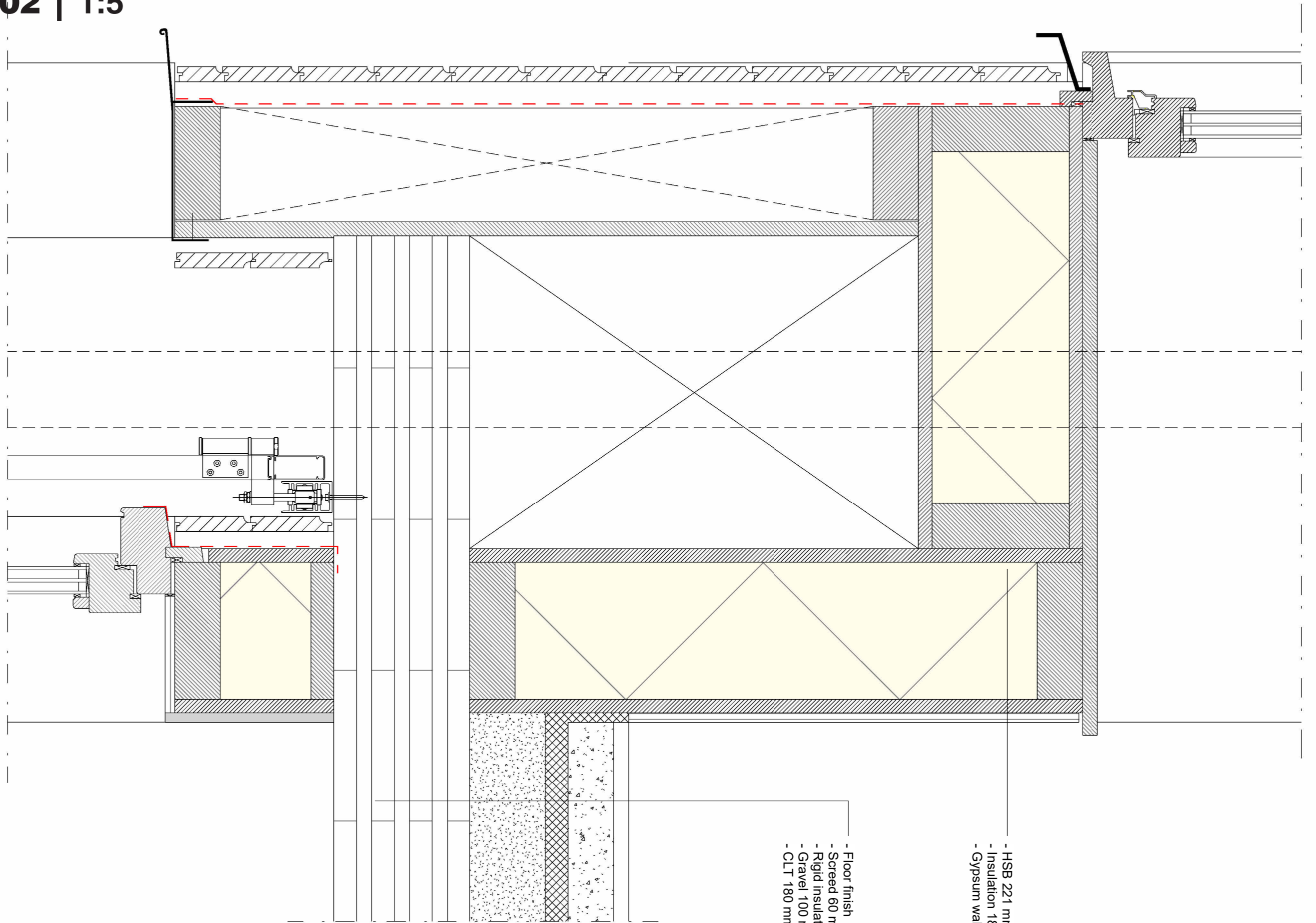


Parking garage

- Floor finish
- Screed 60 mm
- Rigid insulation 30 mm
- Screed 50 mm
- Concrete floor 275 mm
- Insulation 150 mm



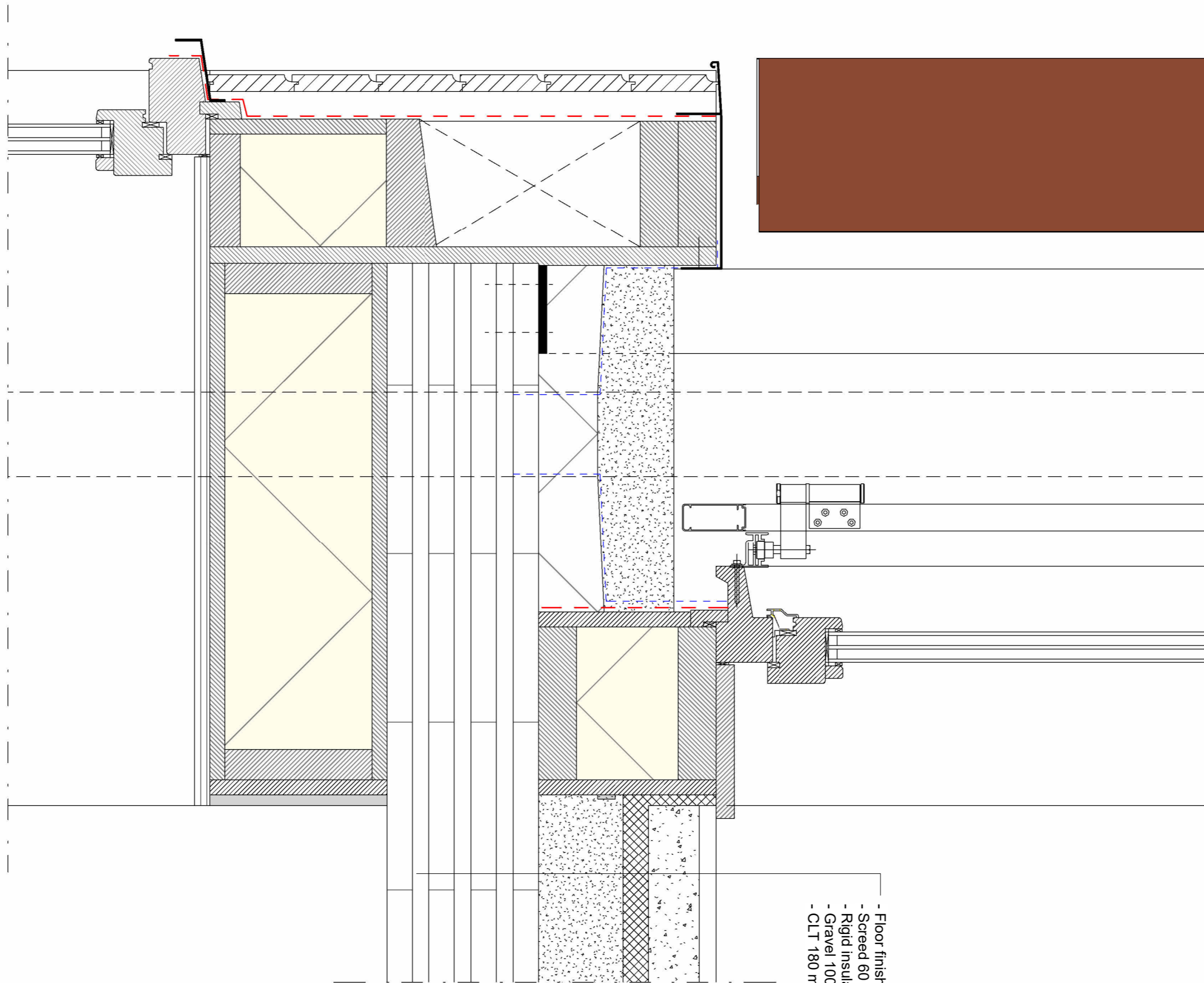
Detail V02 | 1:5



- Floor finish
- Screed 60 mm
- Rigid insulation 30 mm
- Gravel 100 mm
- CLT 180 mm

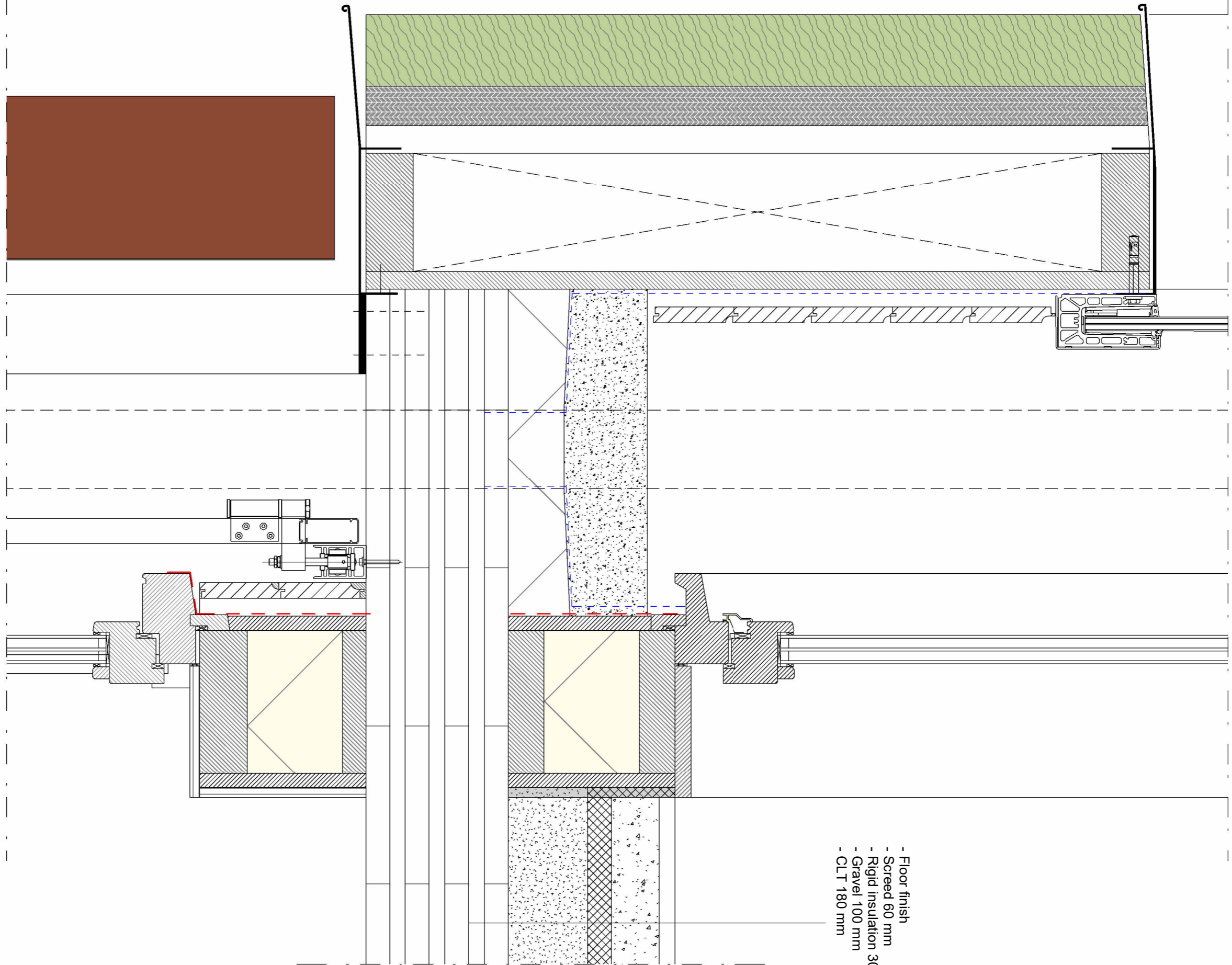
- HSB 221 mm
- Insulation 181 mm
- Gypsum wall 12.5 mm

Detail V03 | 1:5



- Floor finish
- Screed 60 mm
- Rigid insulation 30 mm
- Gravel 100 mm
- CLT 180 mm

Detail V04 | 1:5

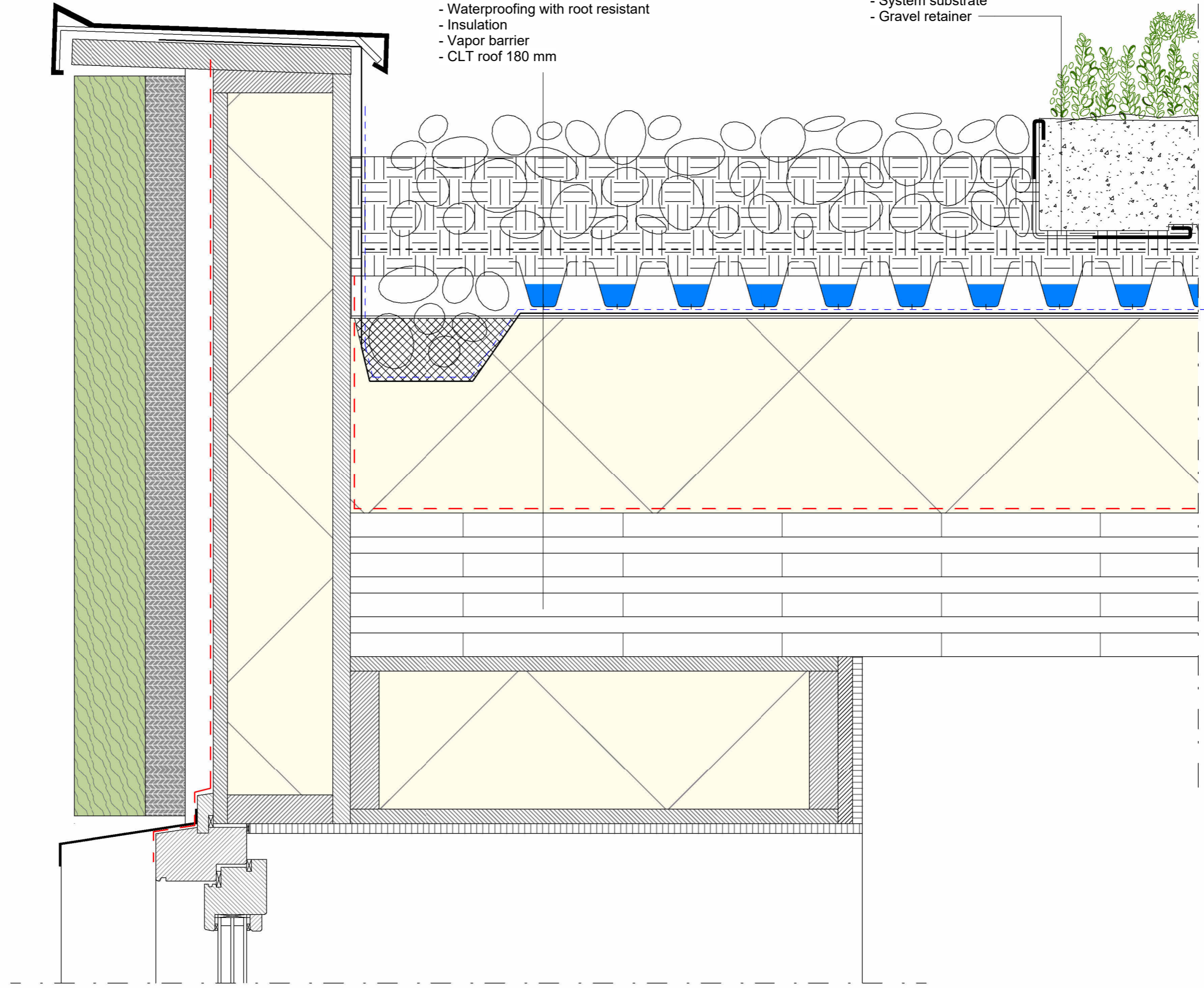


- Floor finish
- Screed 60 mm
- Rigid insulation 30 mm
- Gravel 100 mm
- CLT 180 mm

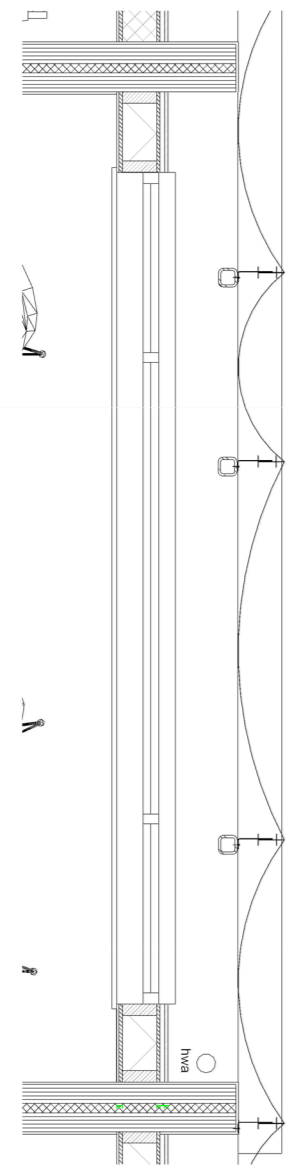
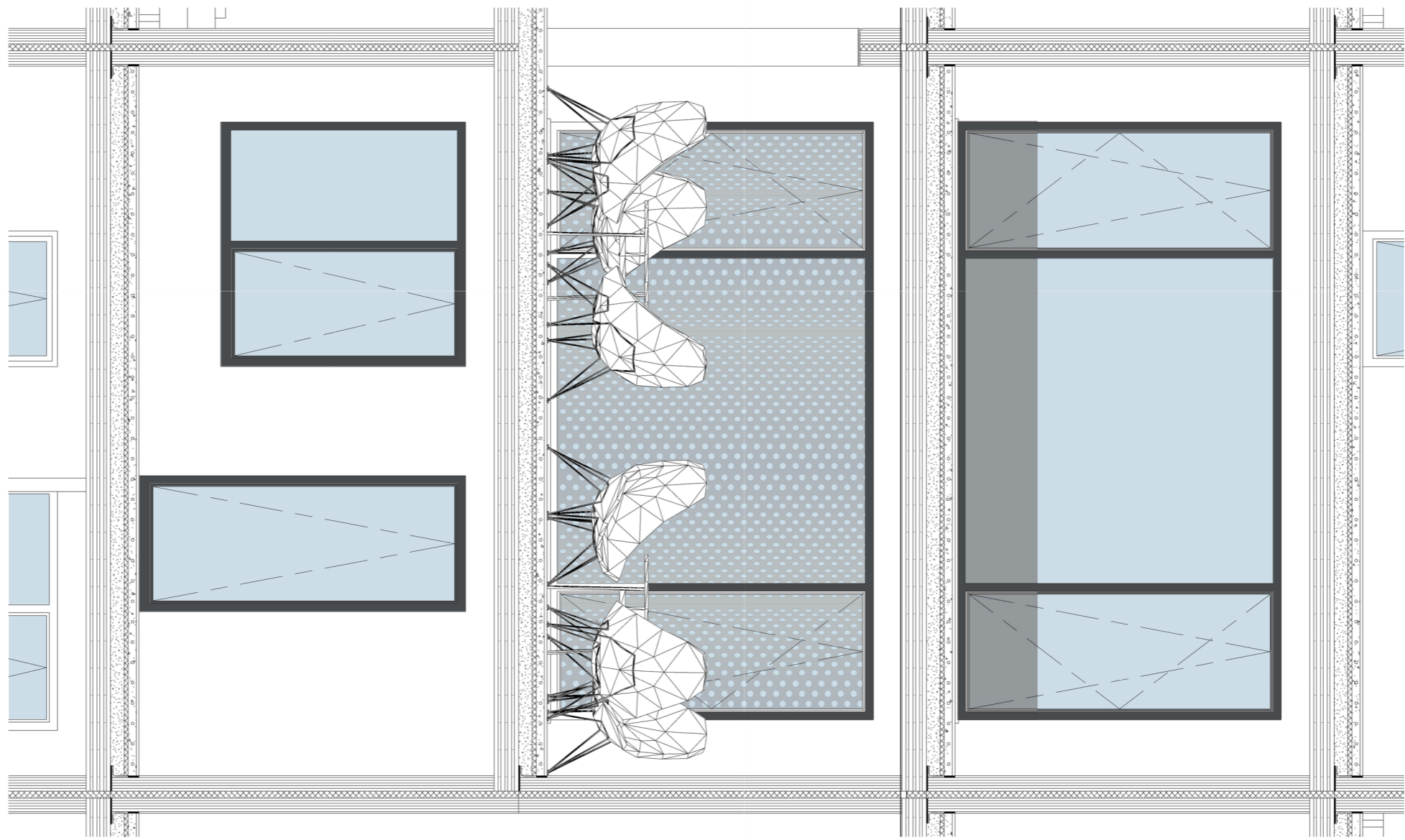
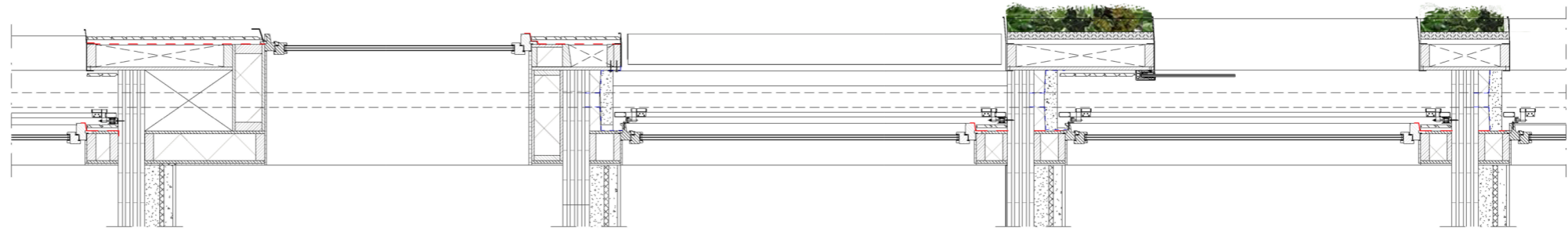
Detail V05 | 1:5

- Gravel strip
- Filter sheet SF
- Floradrain FD 25-E
- Protection Mat SSm 45
- Waterproofing with root resistant
- Insulation
- Vapor barrier
- CLT roof 180 mm

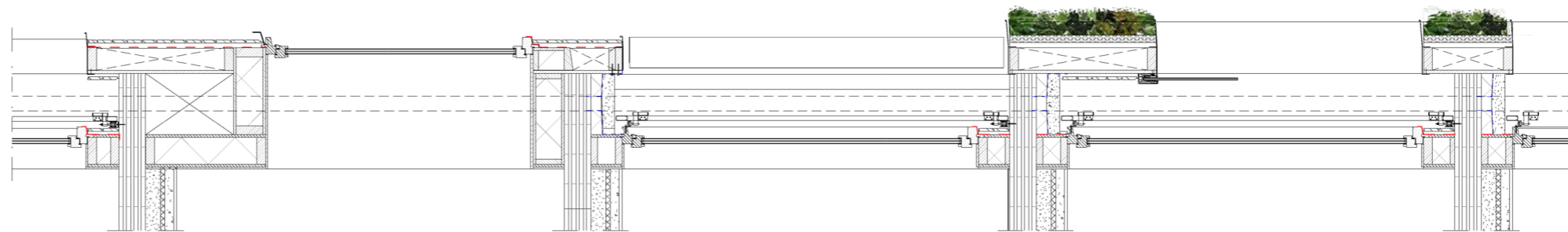
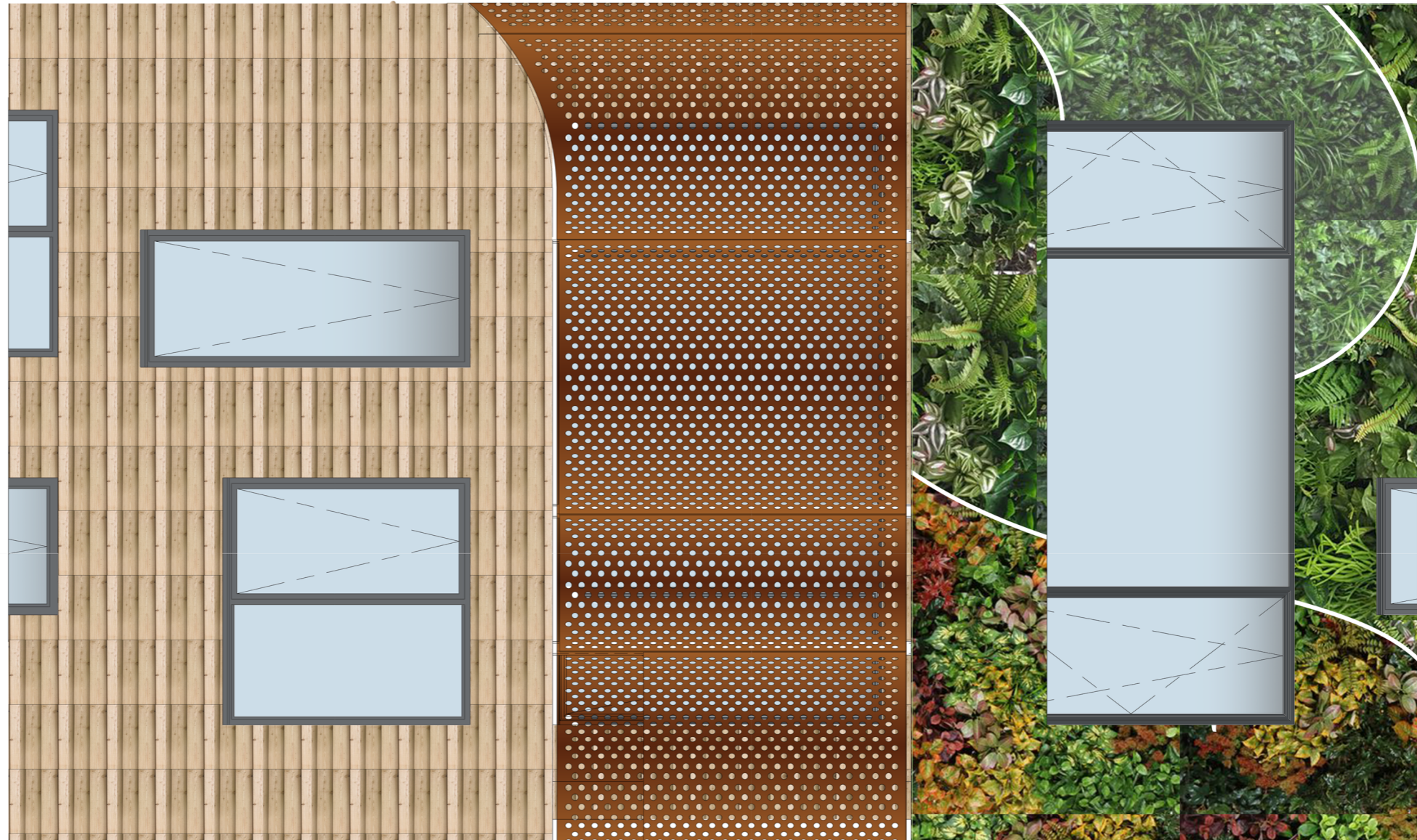
- Plants
- System substrate
- Gravel retainer



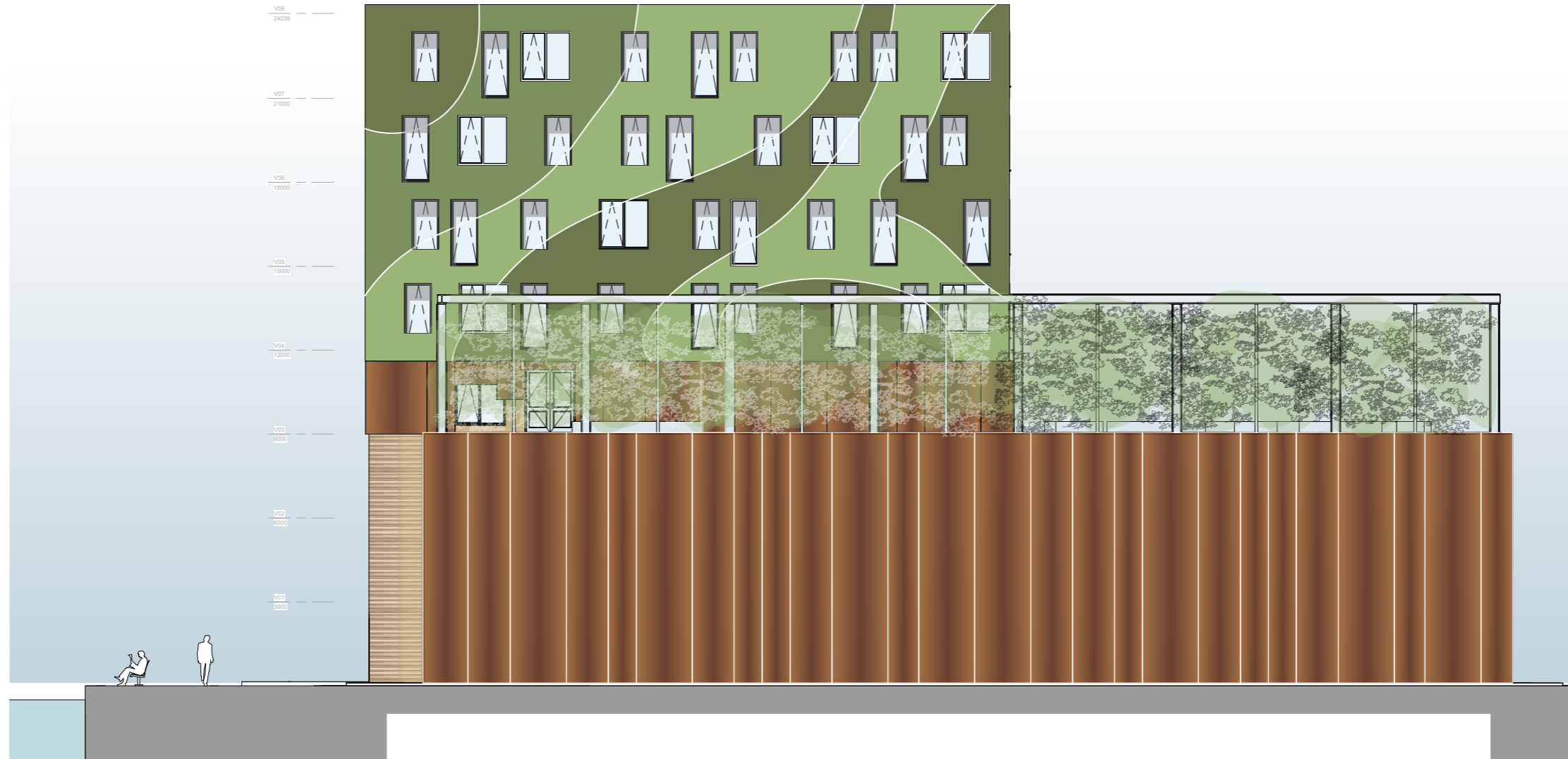
Facade detail | 1:40



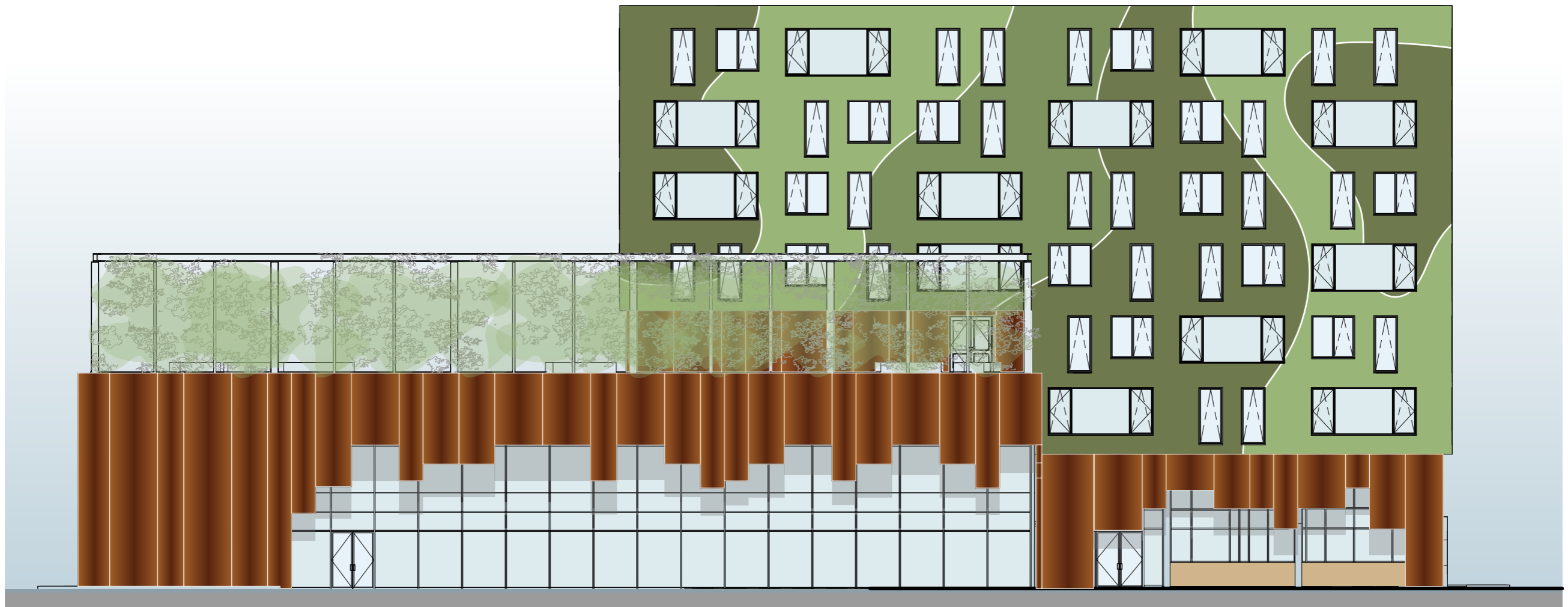
Facade detail | 1:40



Facade east | 1:200



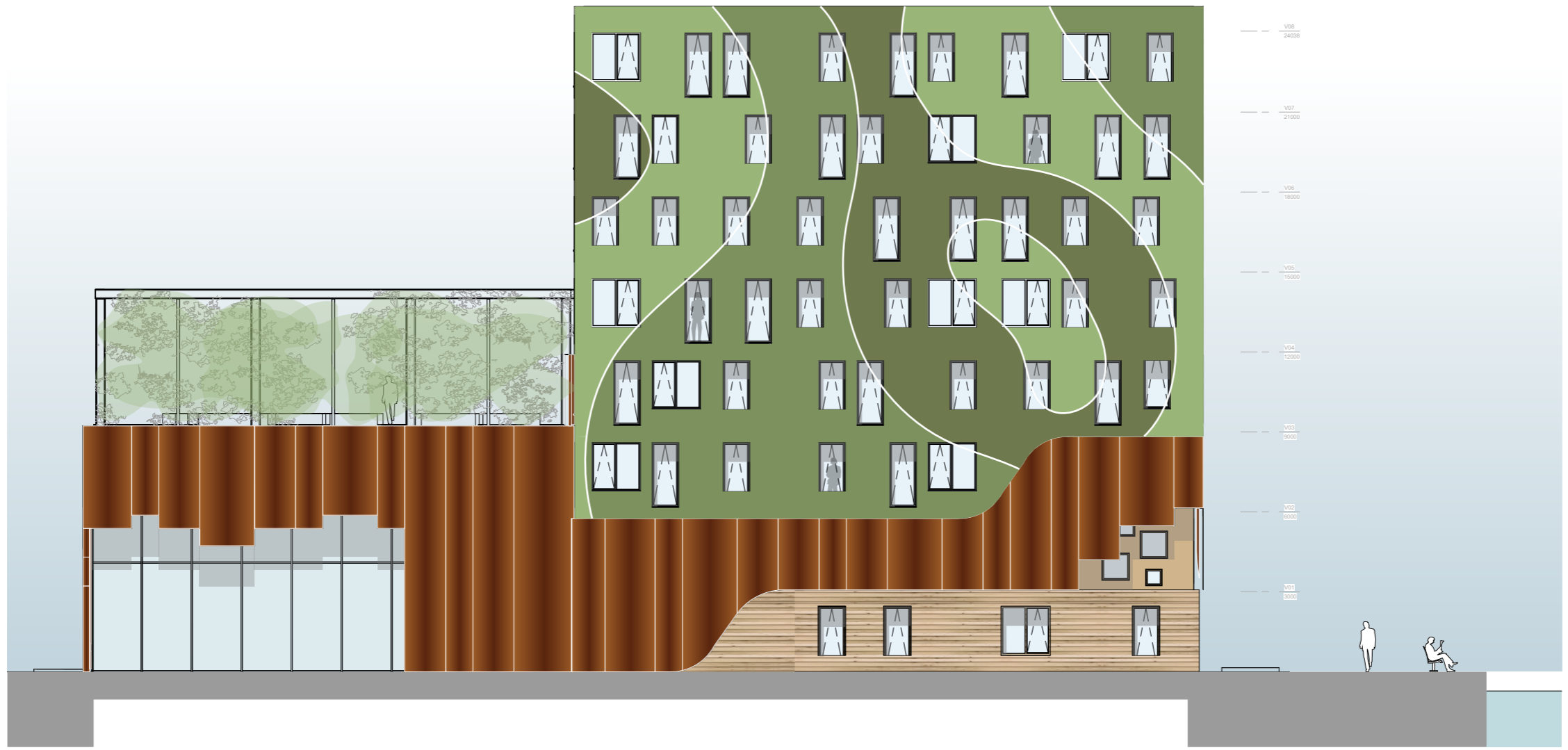
Facade north | 1:200



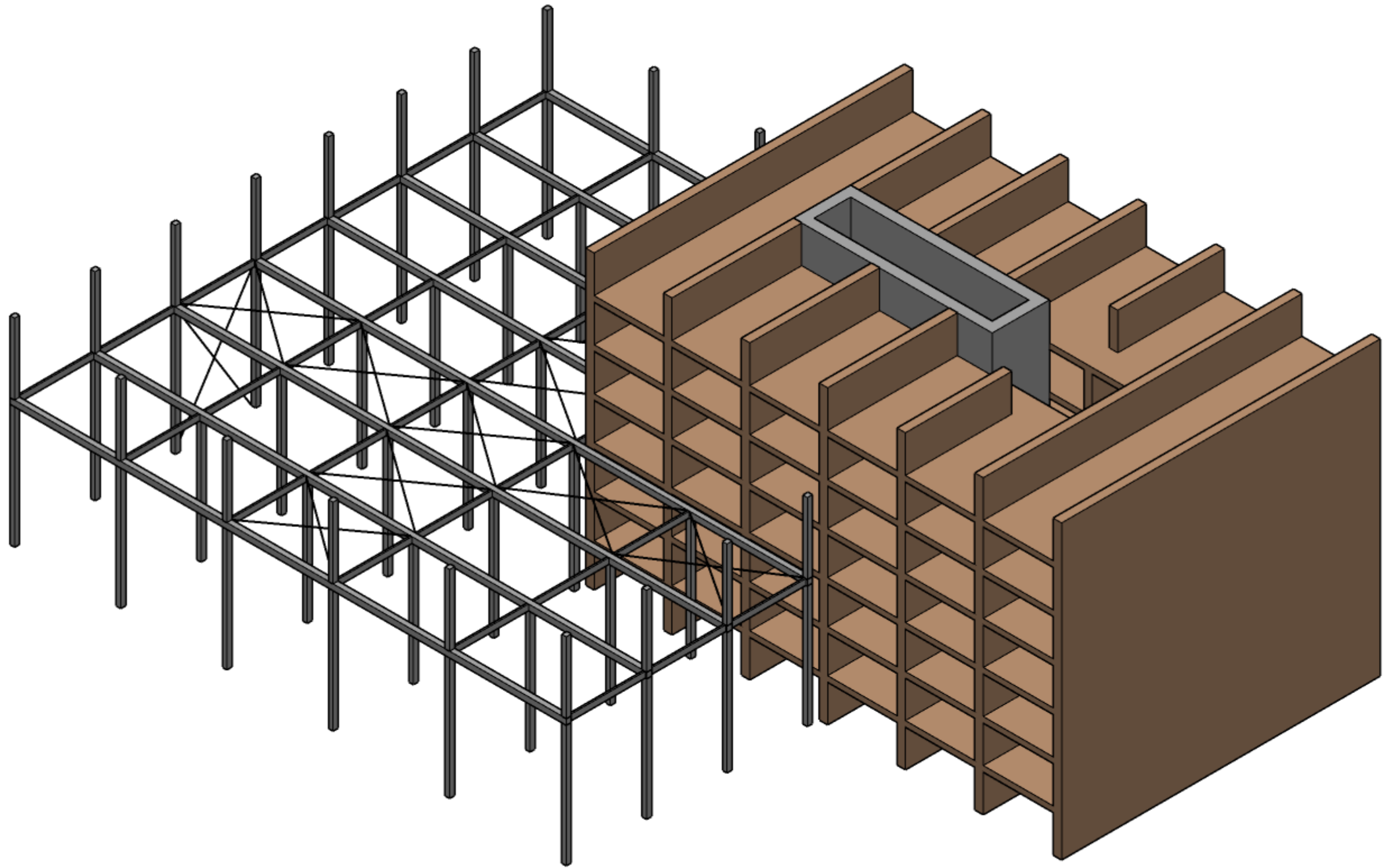
Facade south | 1:200



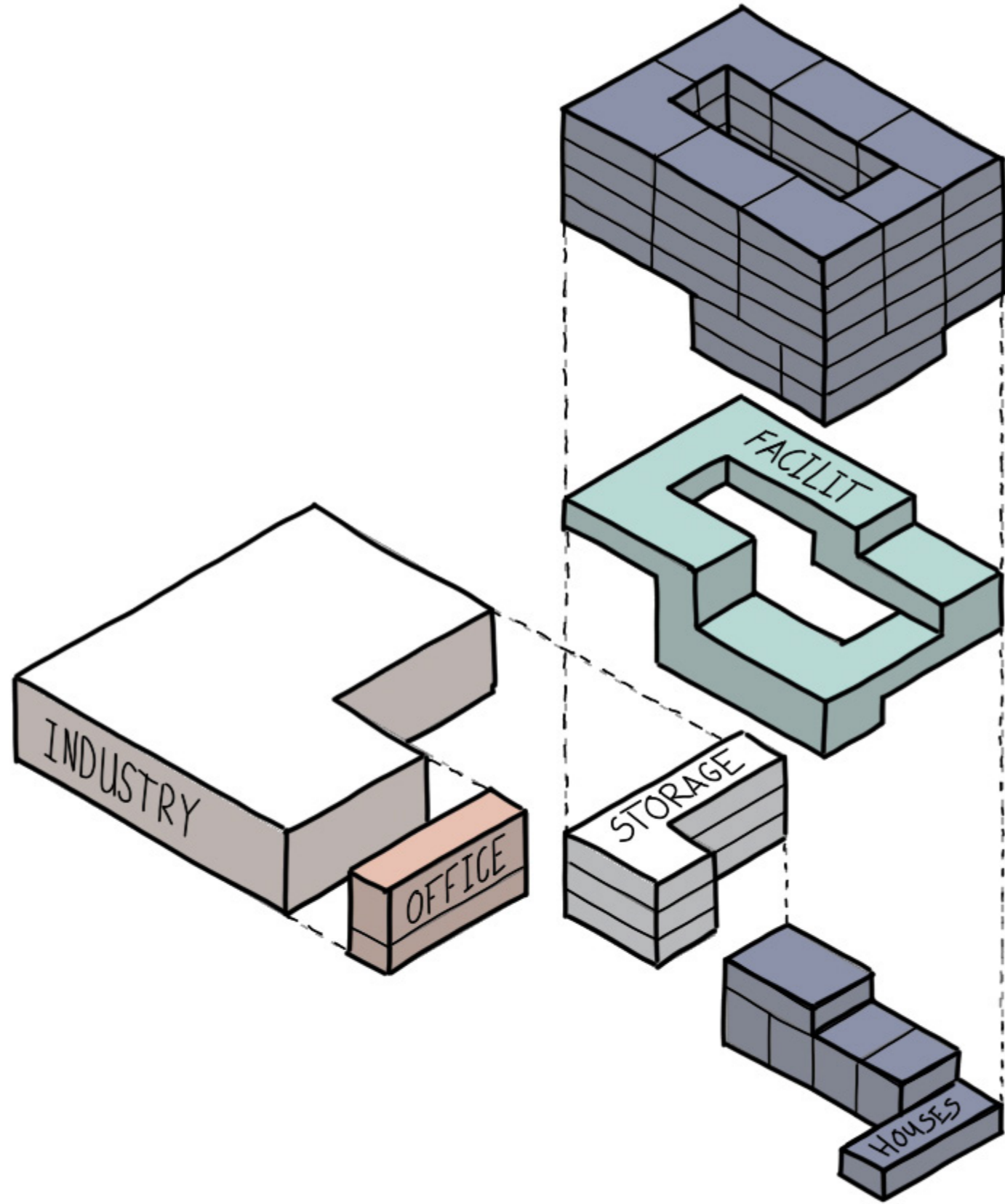
Facade west | 1:200



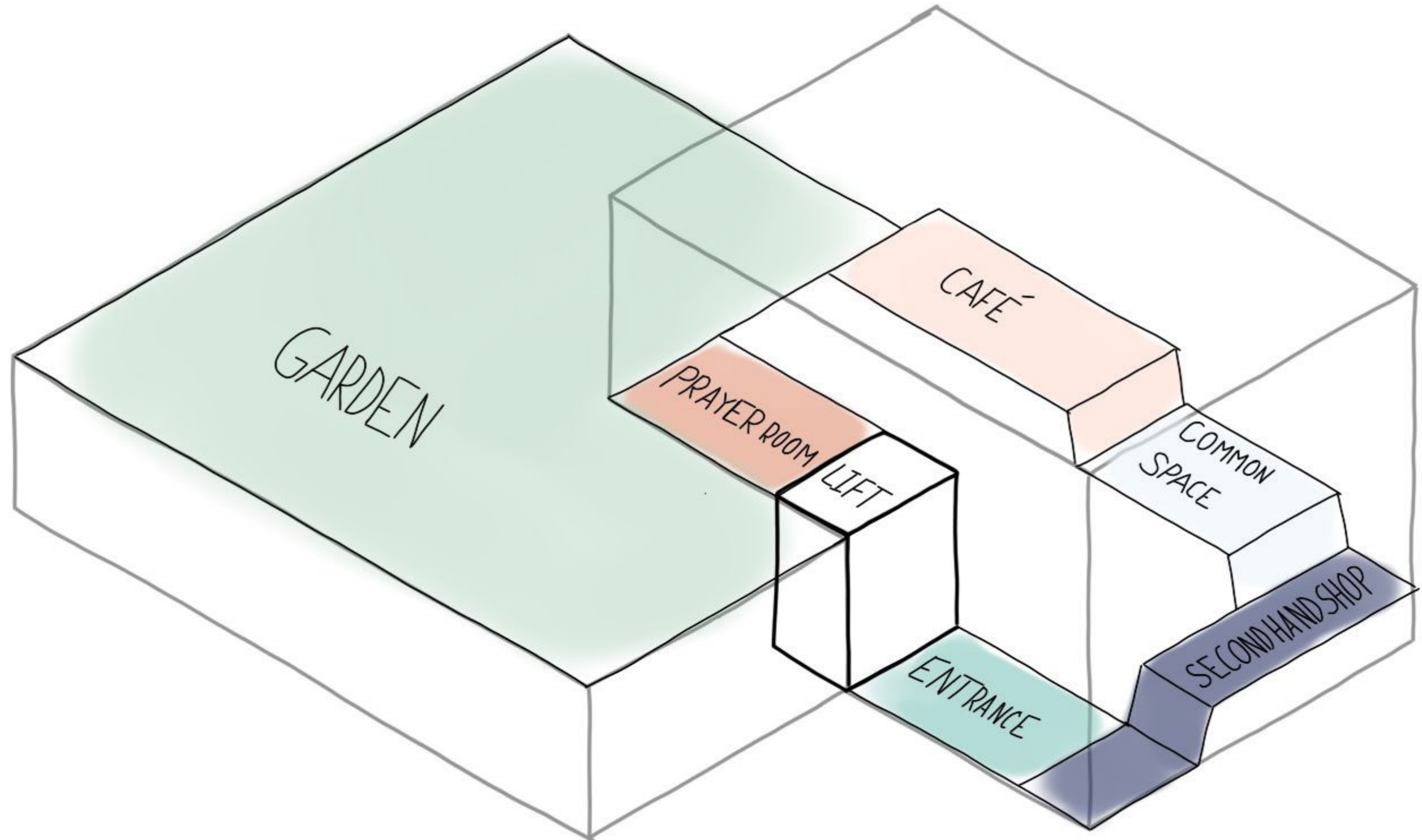
Axo construction |



Program | Exploded



Program | Public route



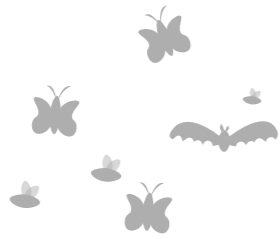
Climate concept |

PVT panels orientated EW -> 10% less output per panel
But more panels are able to be placed on the roof.
Peaks of the output are more spread out over the day

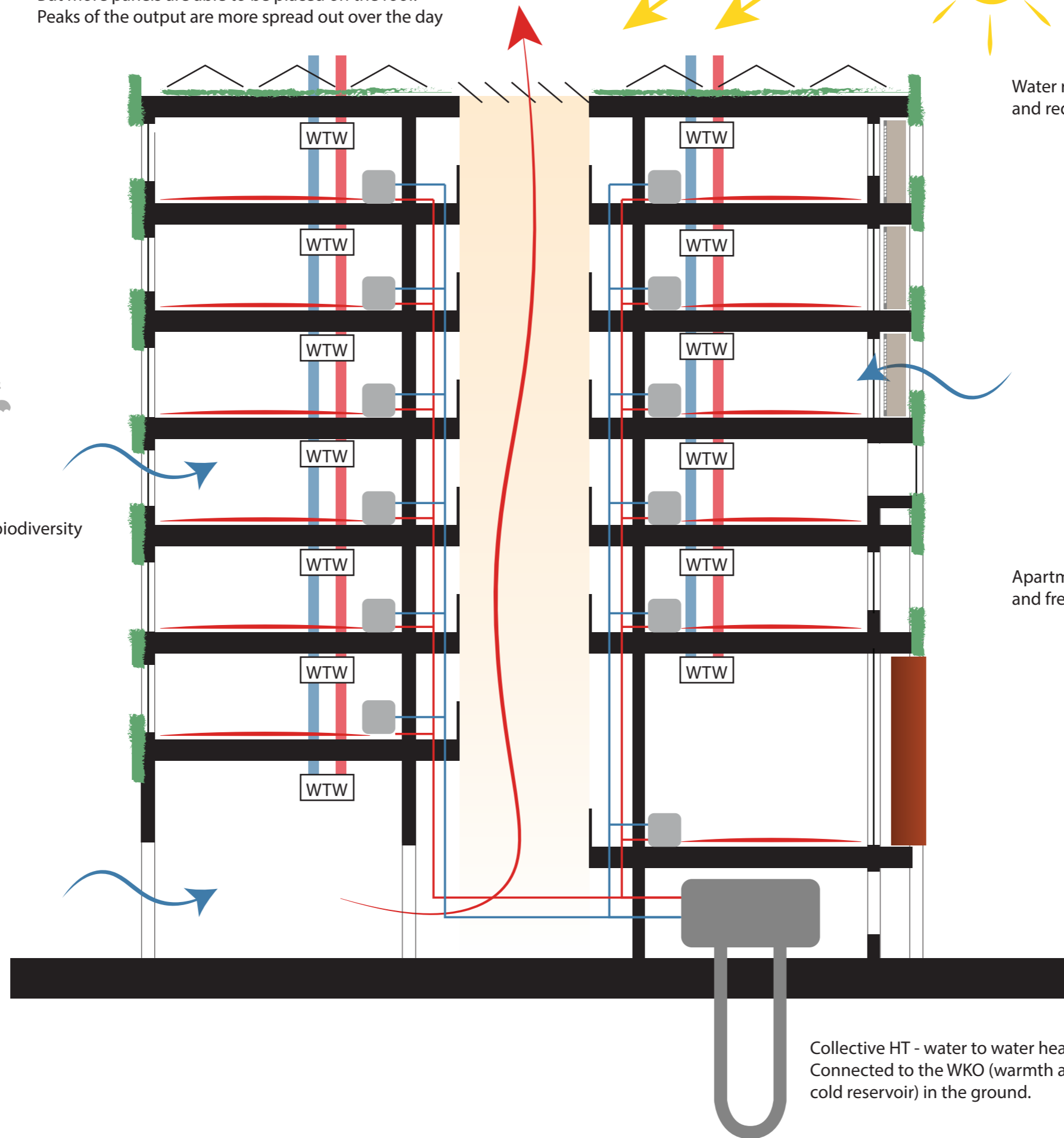


Water retention roof --> Collects the water and reduces the heating of the building

North facade had no double facade
-> more space inside
-> more light inside



Plants on the facade enhances biodiversity



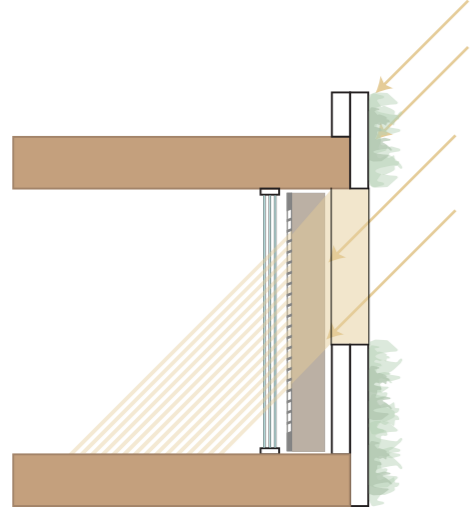
Collective HT - water to water heat pump.
Connected to the WKO (warmth and cold reservoir) in the ground.

Apartments are heated with floor heating and fresh air is let in with individual WTW units

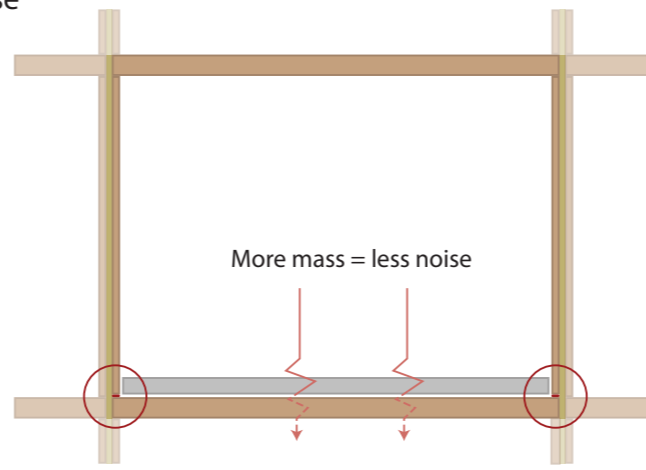
North

South

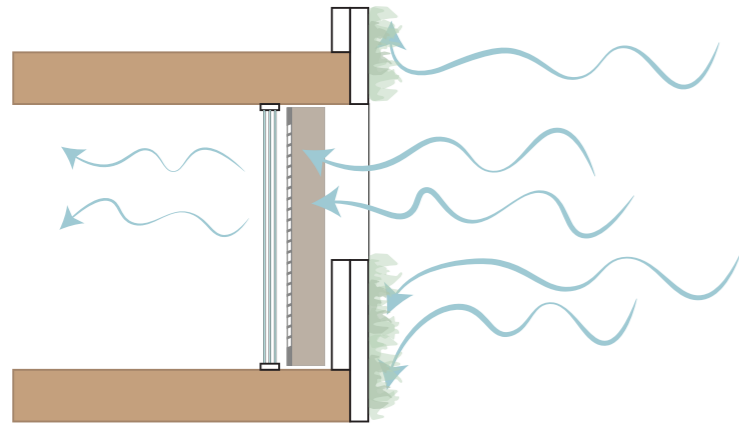
Shade



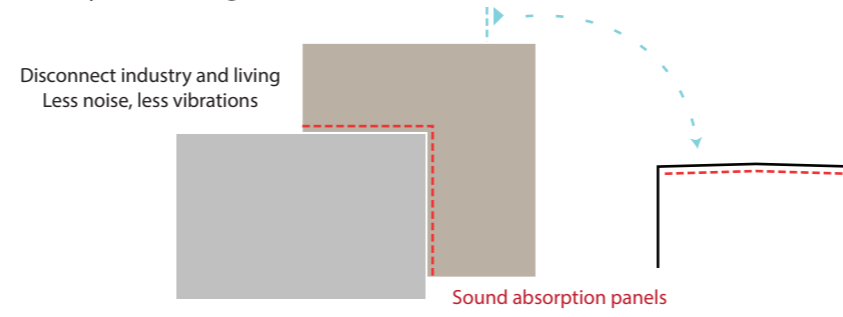
Noise



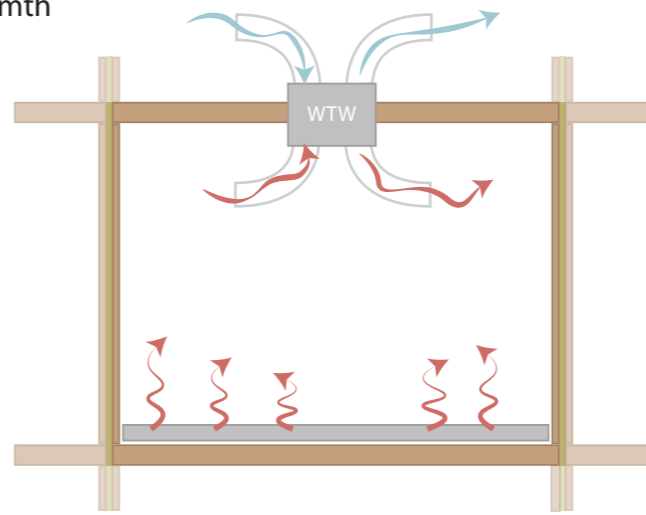
Wind



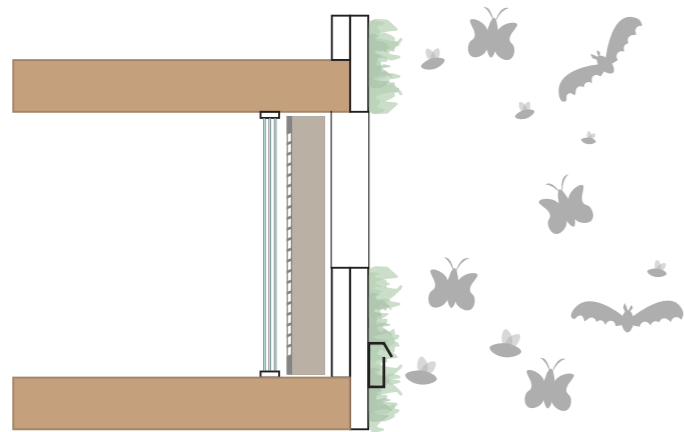
Industry and living



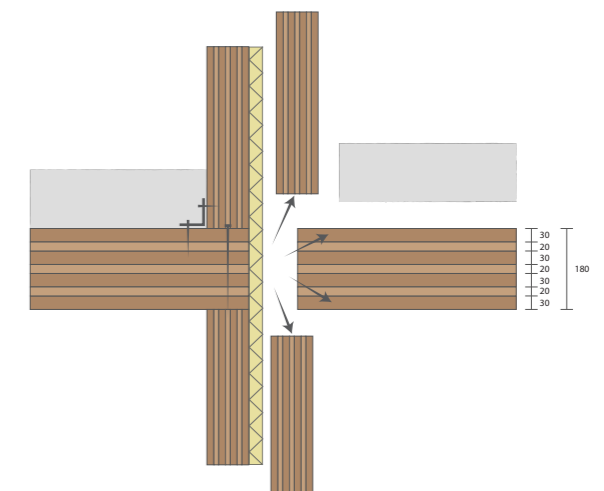
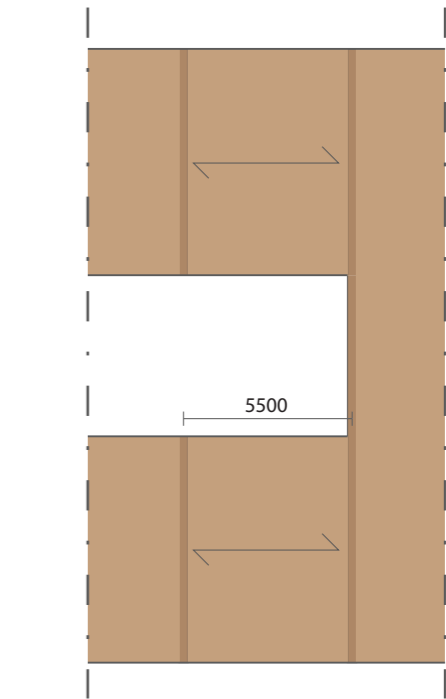
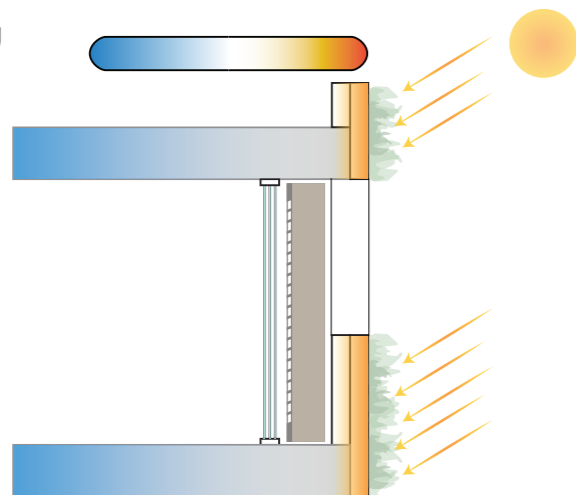
Warmth



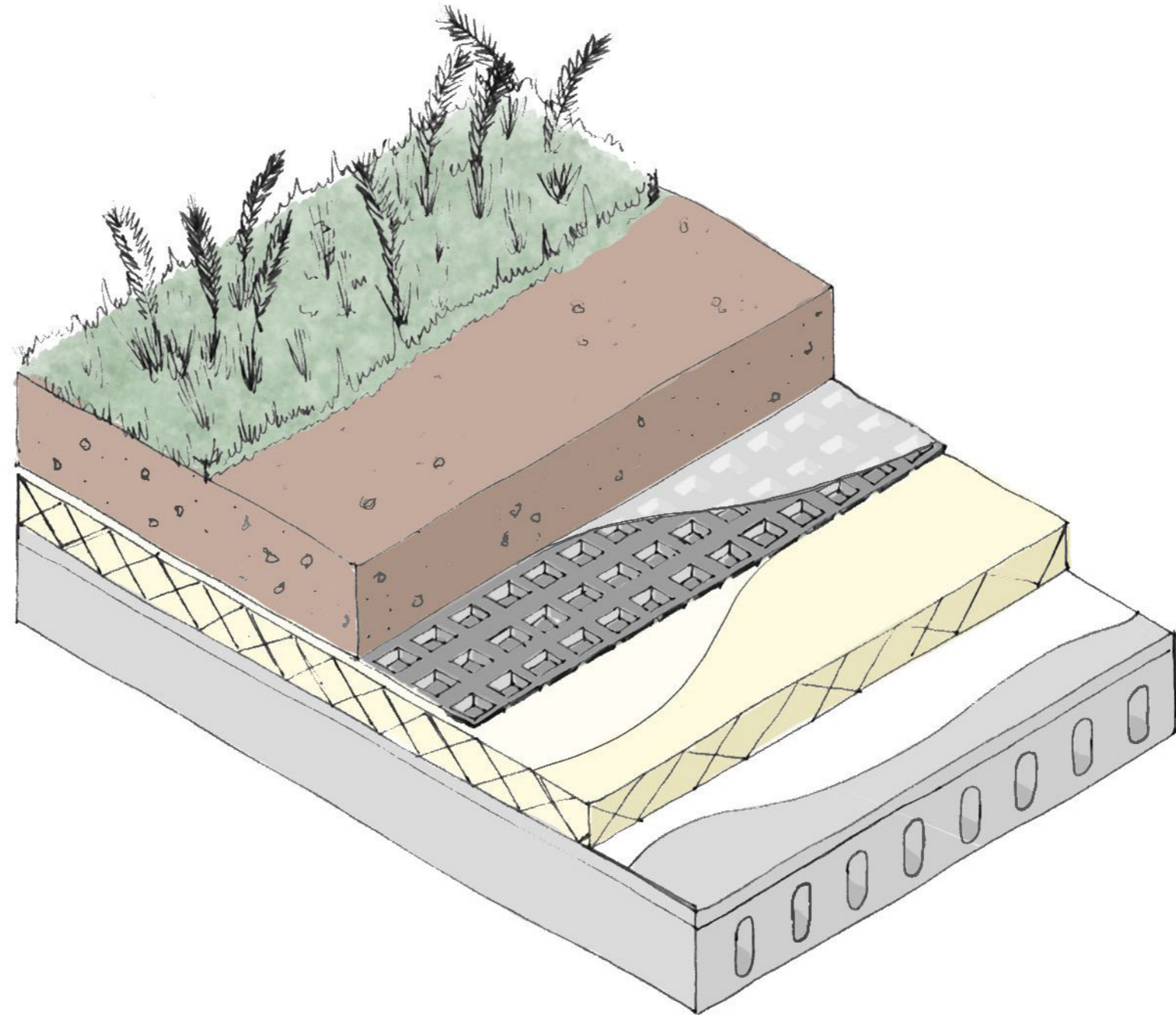
Biodiversity



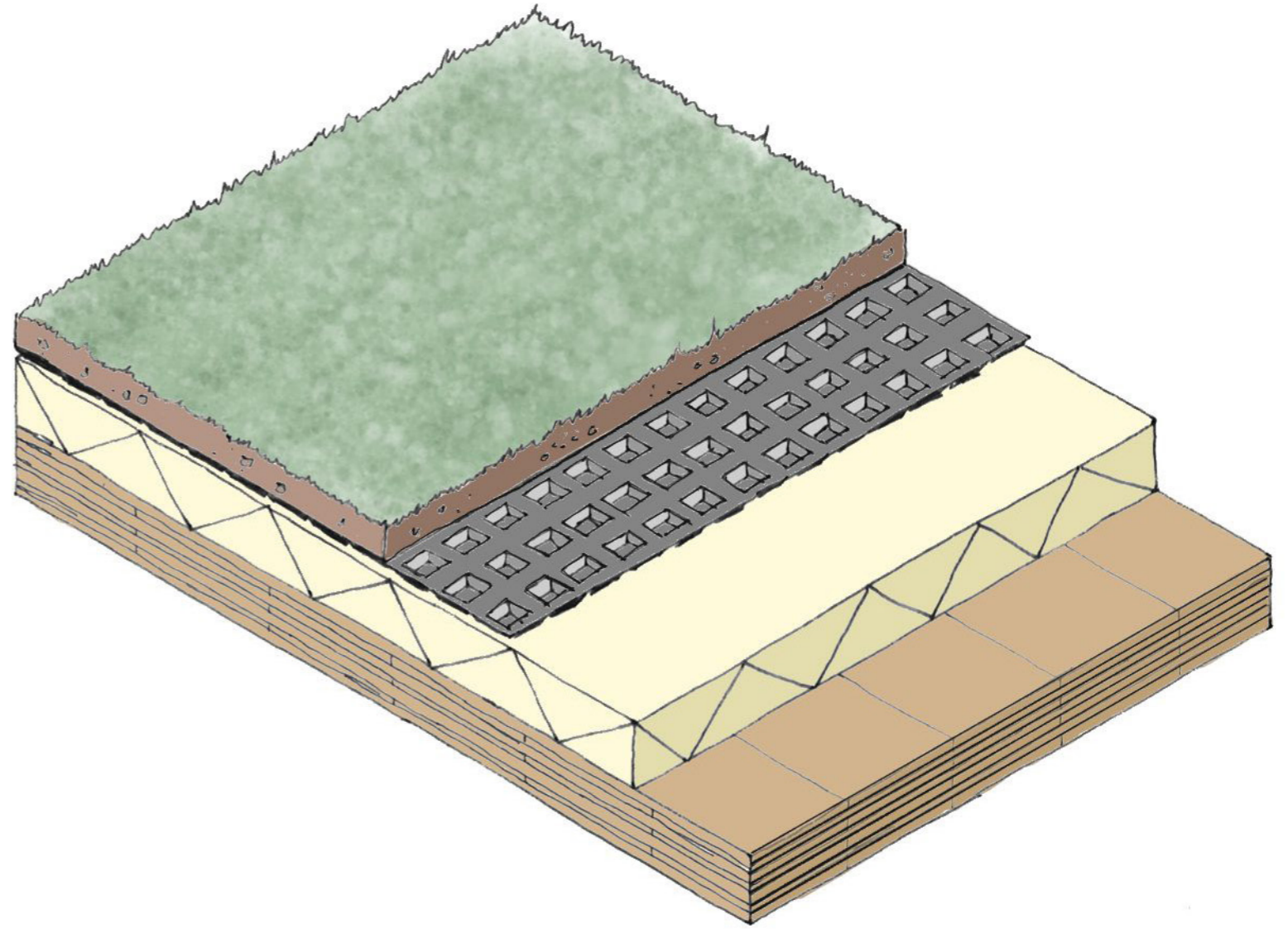
Cooling



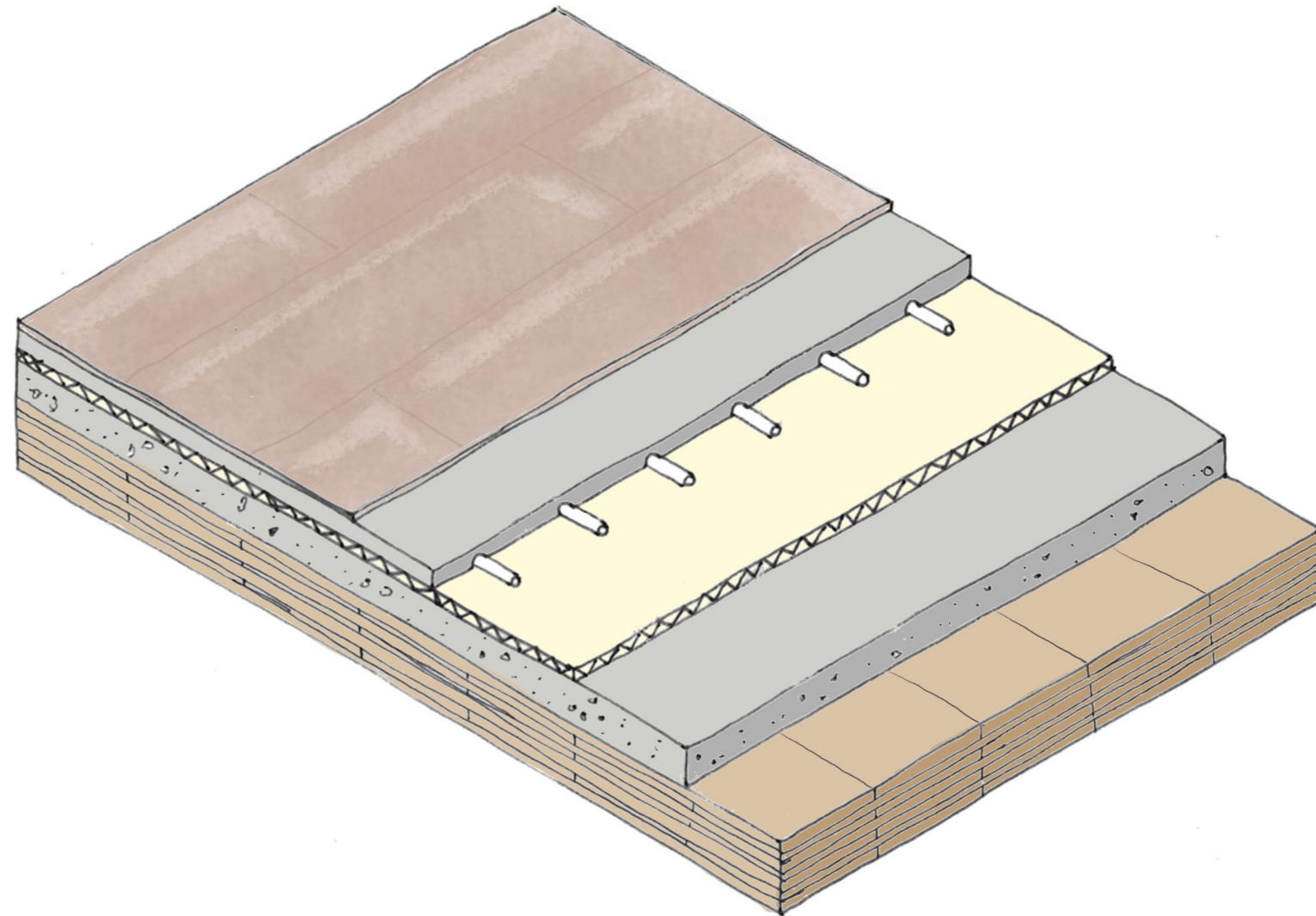
Materialization | Roof - Industry



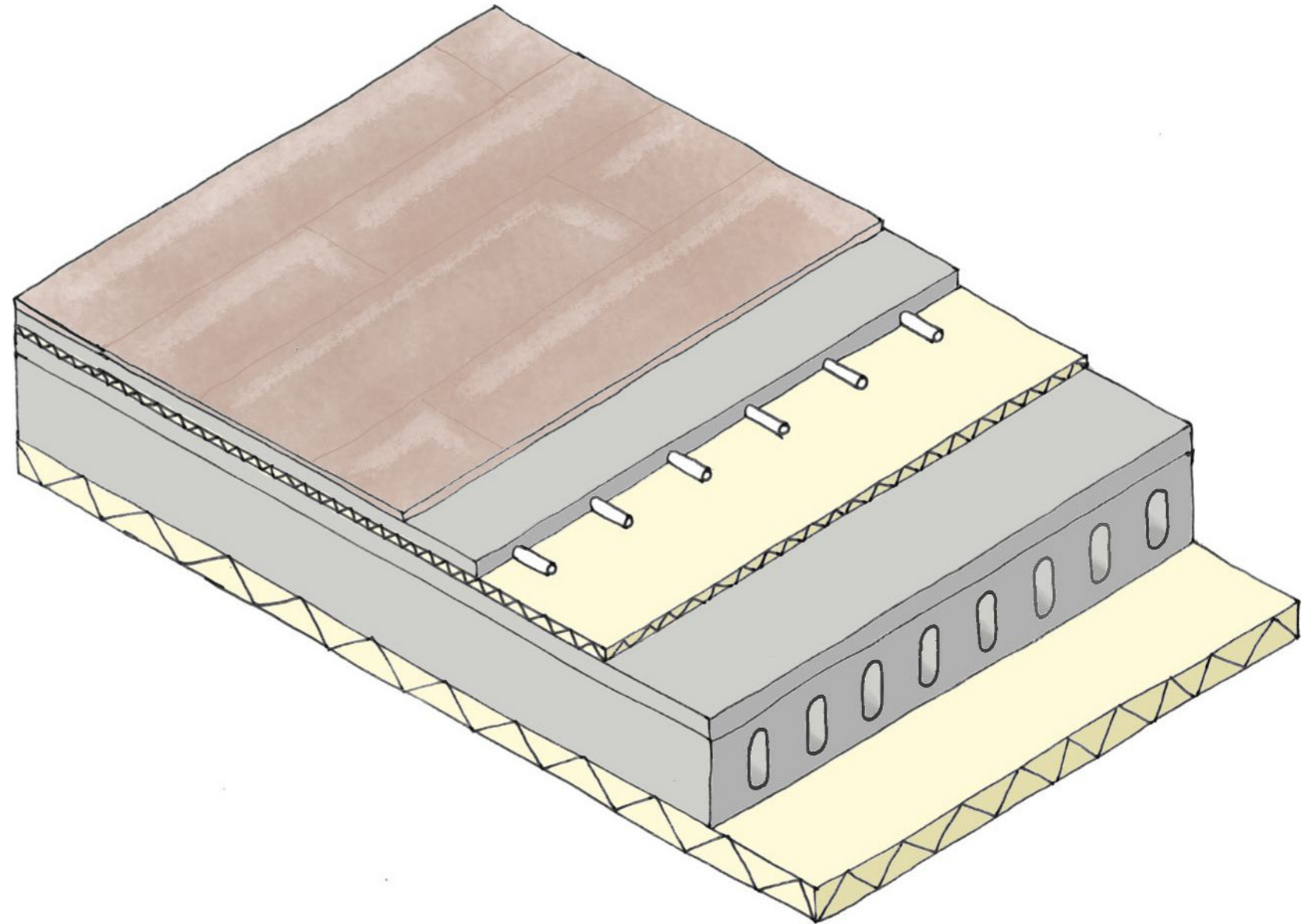
Materialization | Roof - Living



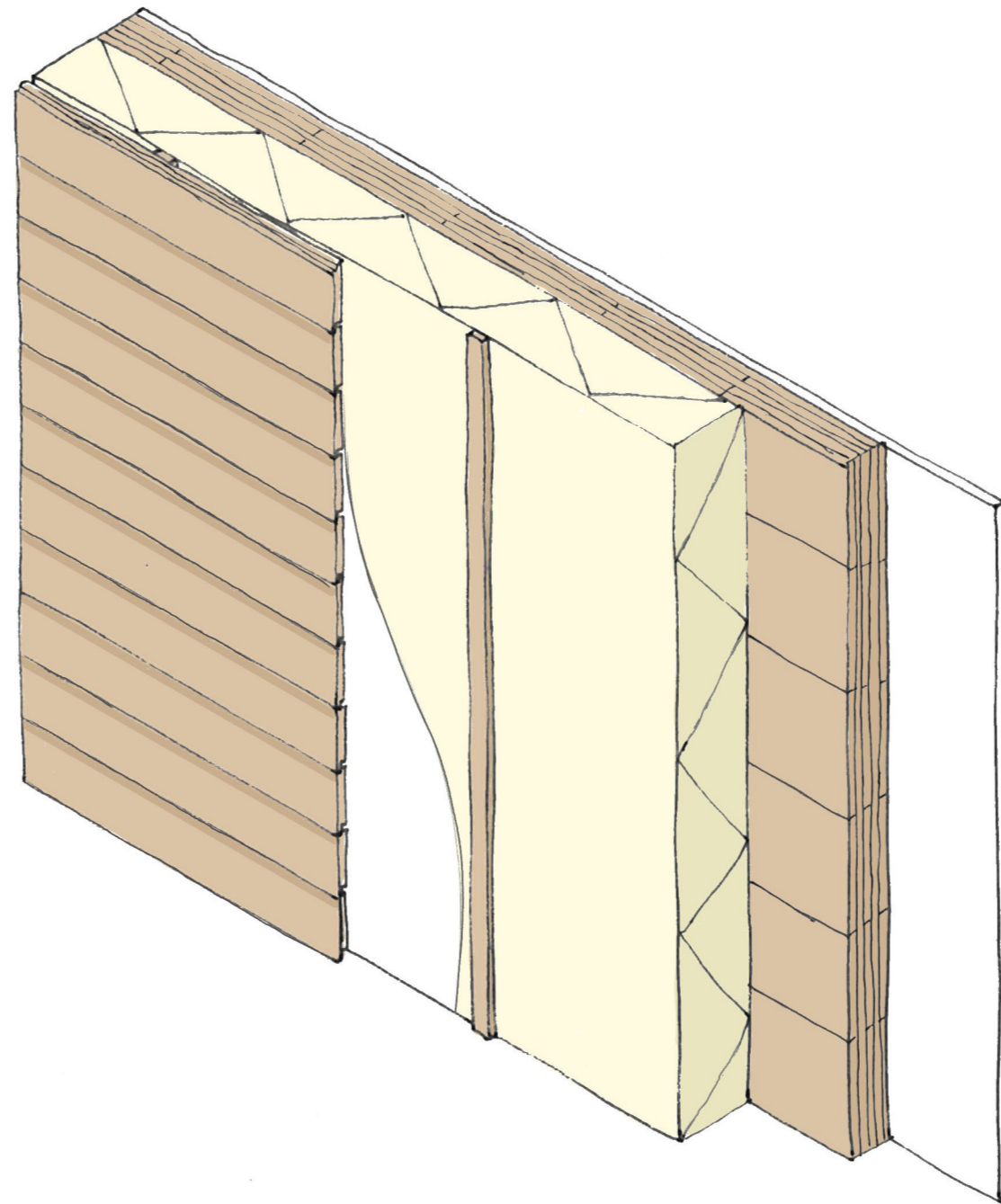
Materialization | Floor- stories



Materialization | Floor - ground floor



Materialization | Wall



Materialization | Facade

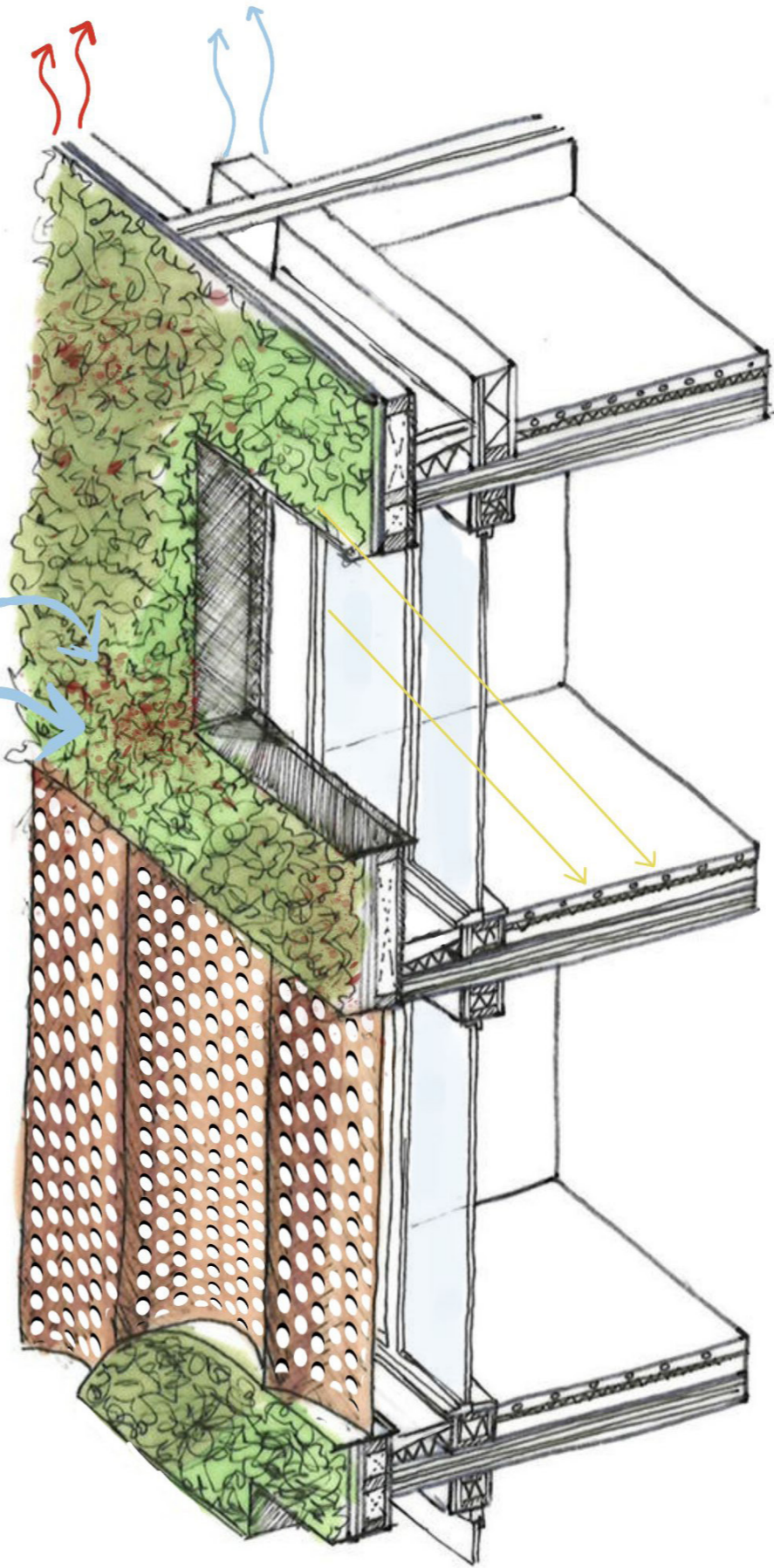


Plants clean the air and cool down environment

Plants slow down wind

Plants attract different insects and animals

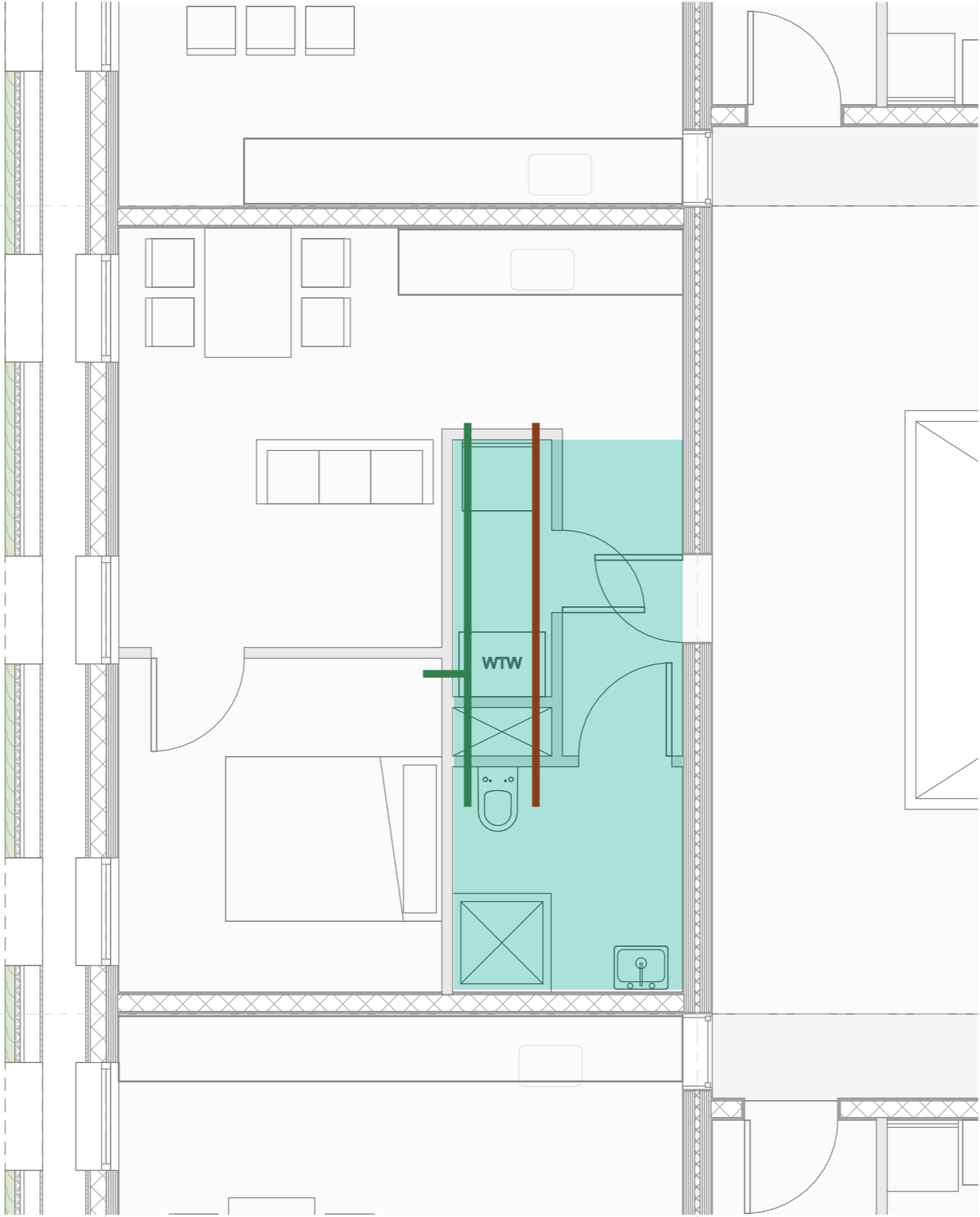
Double facade heats up first



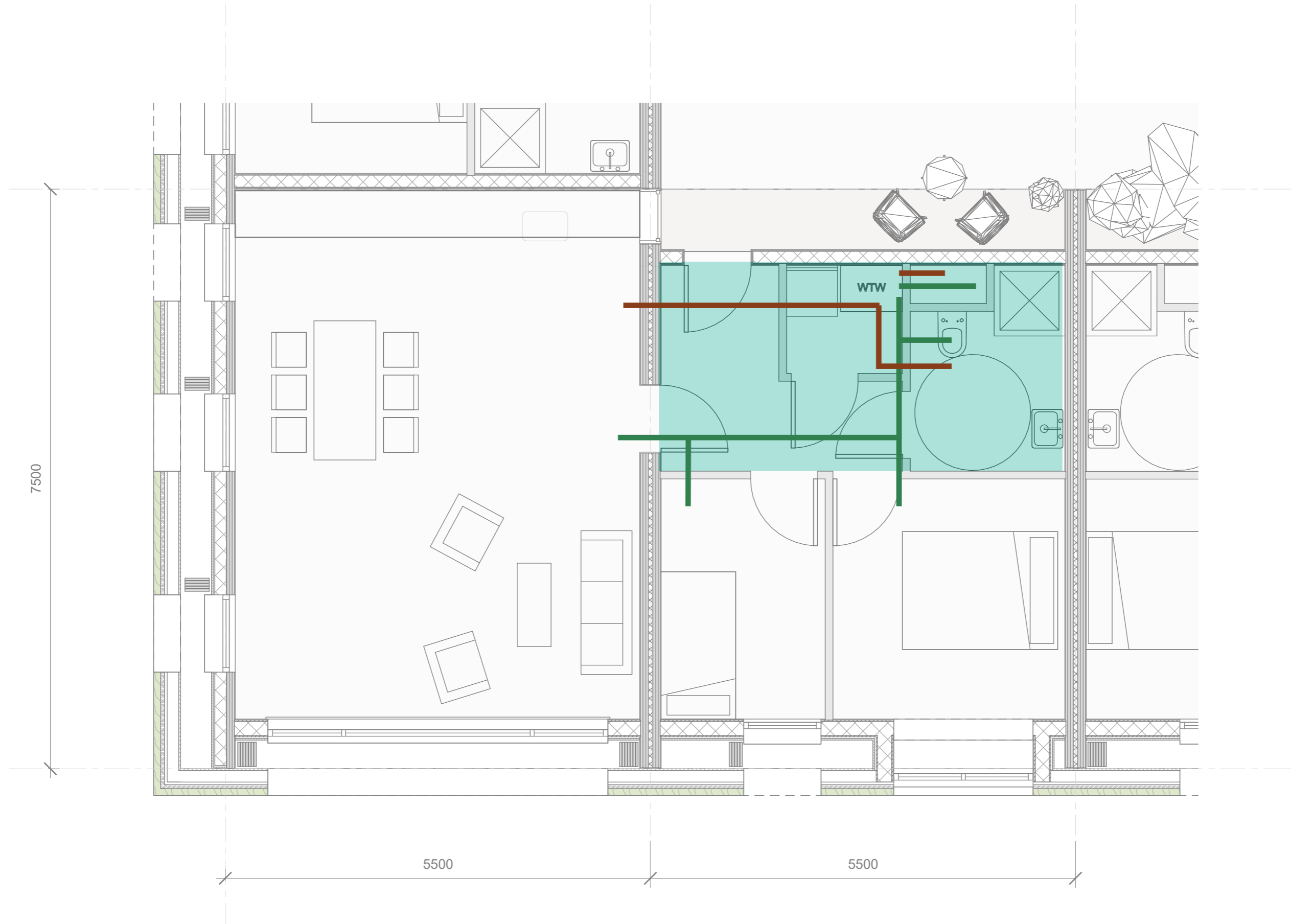
Overhang limits the amount of sun that enters the apartments

Perforated panels for sunshade and wind blocking

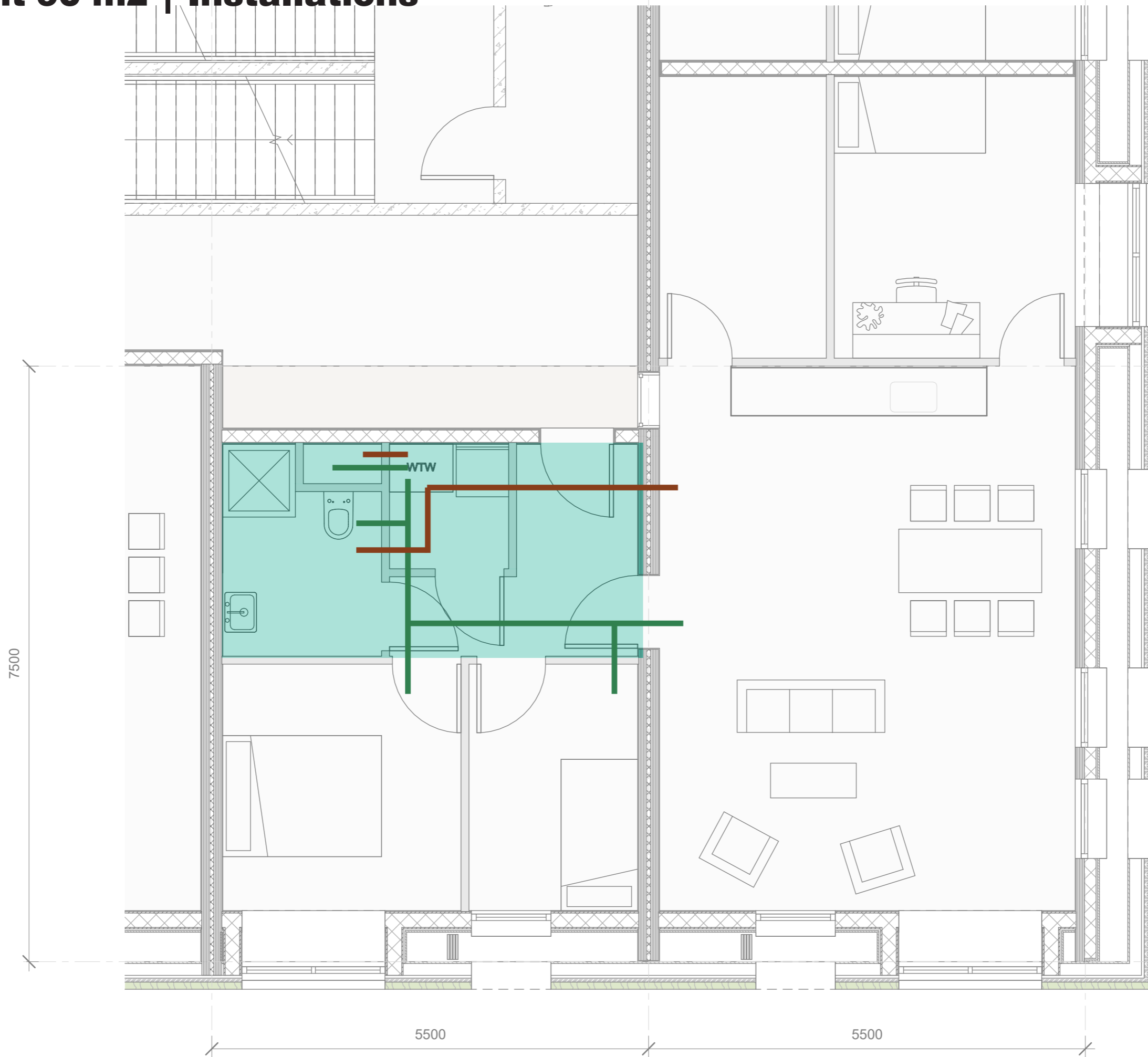
Apartment 40 m2 | Installations

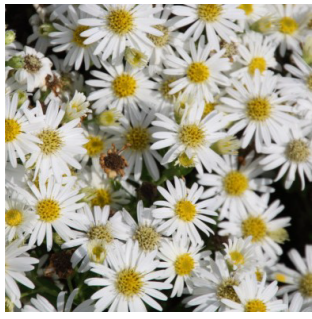


Apartment 70 m2 | Installations



Apartment 90 m2 | Installations





Aster dumosus
Apollo

Aug - Sep AA



Echinacea
Virgin

Jul - Sep EV



Selinum
Wallichianum

Jul - Sep SW



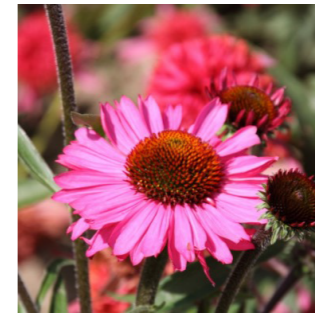
Veronica
Lila Karinka

Jul - Aug VL



Astilbe
Drum and bass

Jul - Sep AS



Echinacea
Pink passion

Jul - Sep EP



Filipendula Rubra
Venusta Magnifica

Jul - Aug FI



Geranium
Rose Clair

Jun - Aug GE



Buddleja
Miss Ruby

Jul - Okt B



Duizendknoop
Persicaria

Jun - Okt DP



Lythrum
Happiness

Jul - Aug LY



Aconitum
Napellus

Jul - Sep AN



Iris Germanica
Empress of India

Mei - Juni I



Allium
Globemaster

Mei - Jun A



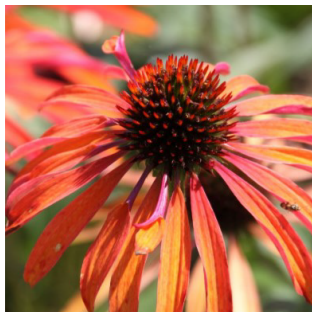
Lavendula
Angustifolia

Jun - Sep L



Limonium
Latifolium

Jul - Aug LL



Echinacea
Summer sun

Jul - Okt ES



Helenium
Moerheim beauty

Jul - Sep HE



Heliopsis
Helianthoides

Jun - Sep HH



Molinia
Swirl

Jun - Okt MS



Pennisetum
Viridescens

Jun - Okt P



Sporobolus
Heterolepis

Jun - Okt SH



