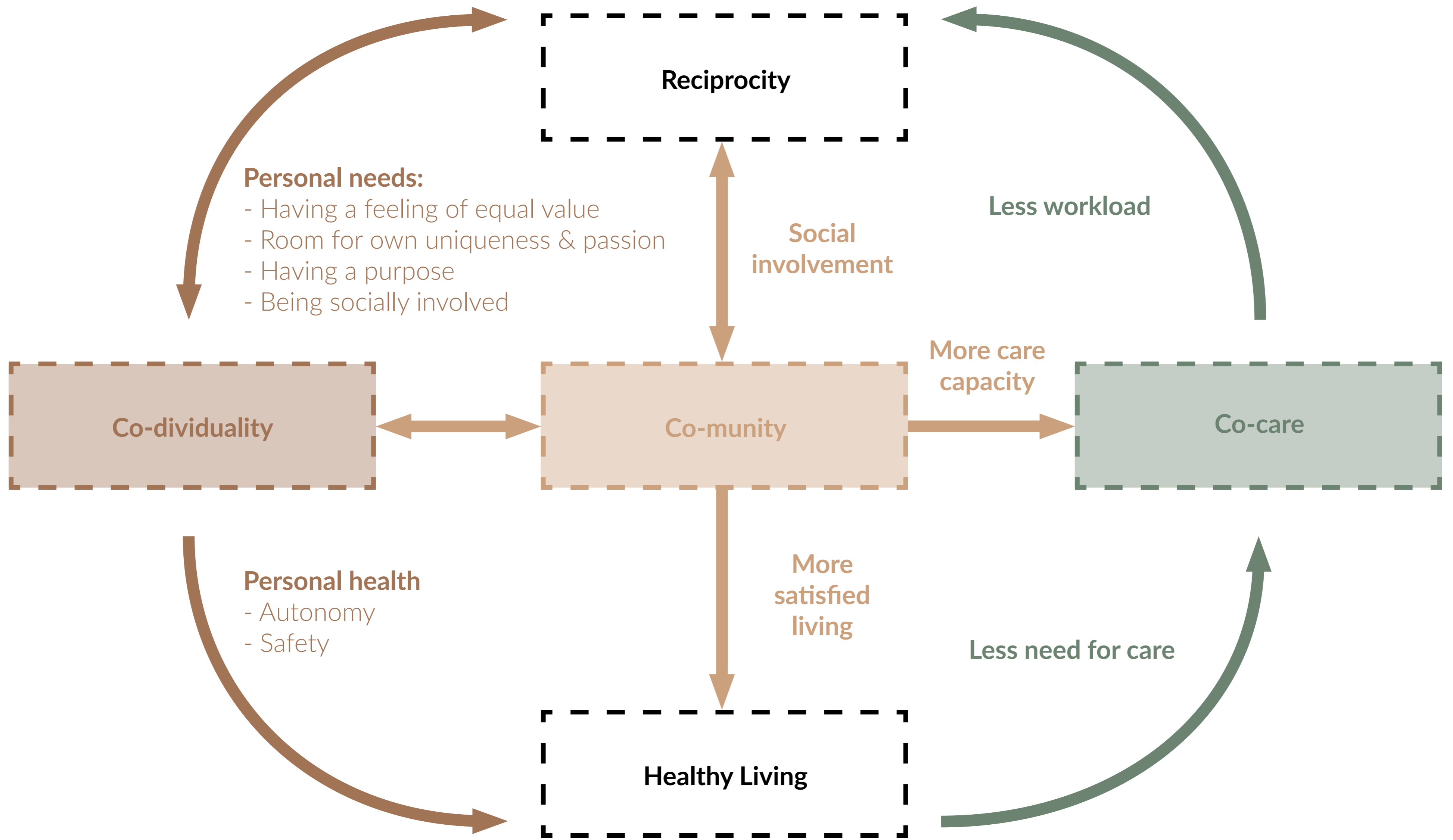
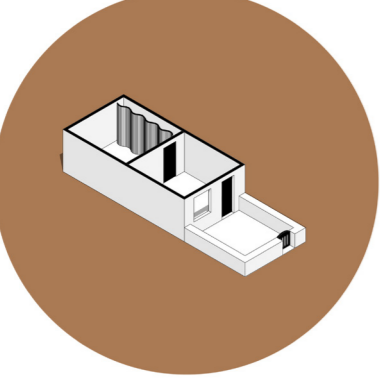

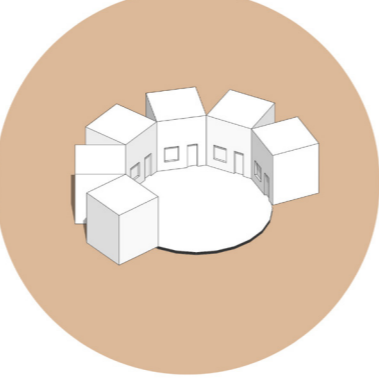
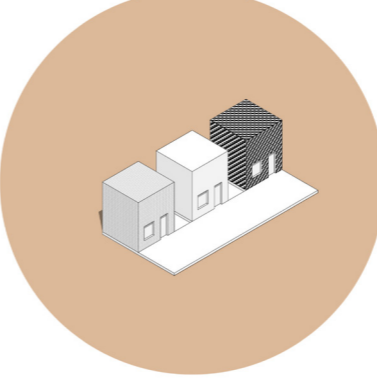
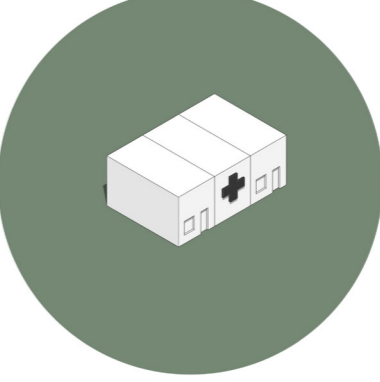

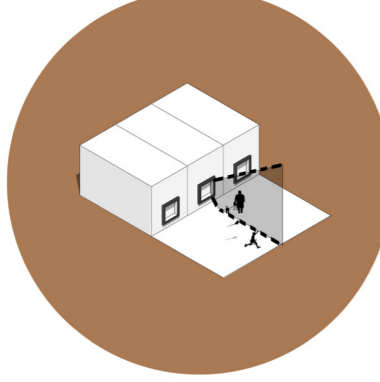
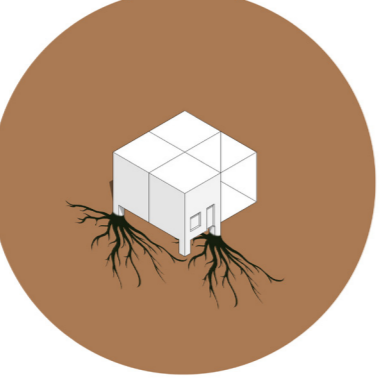
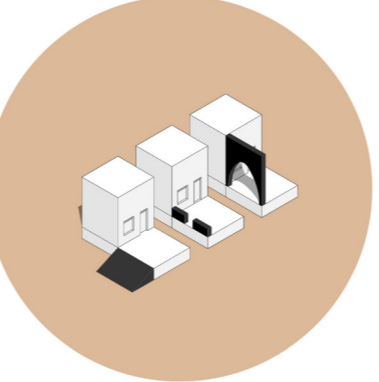

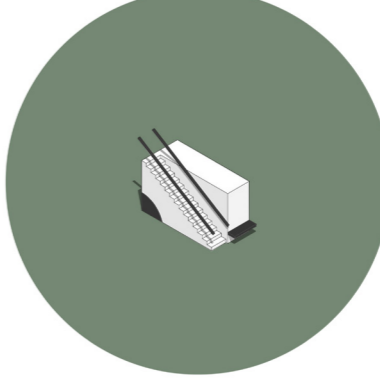
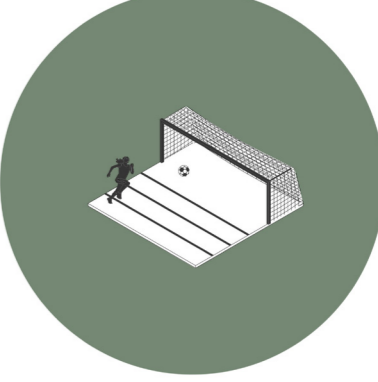
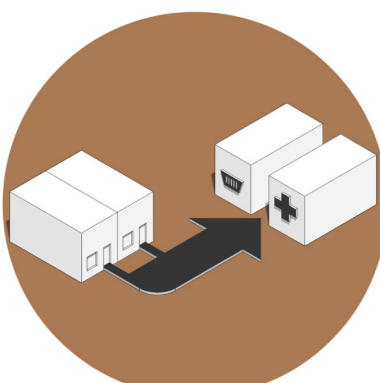
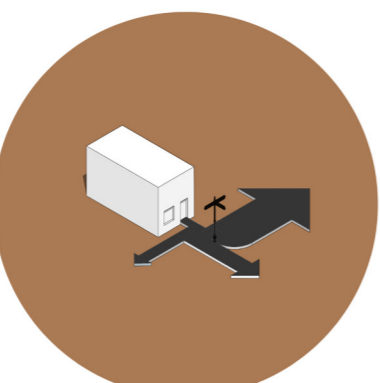
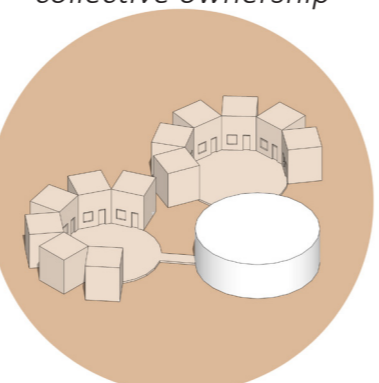
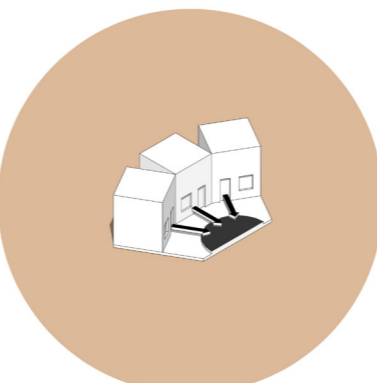

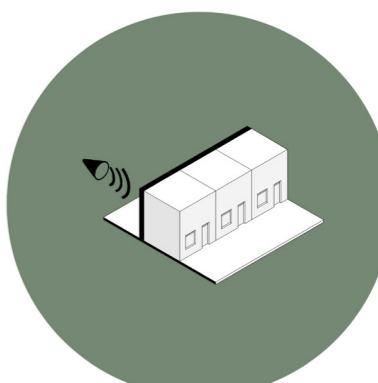
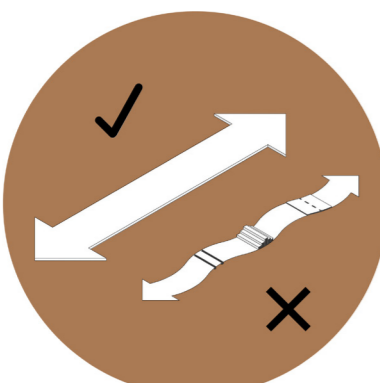
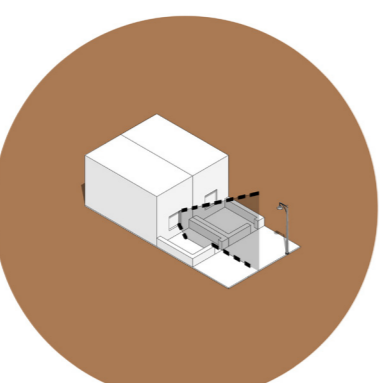

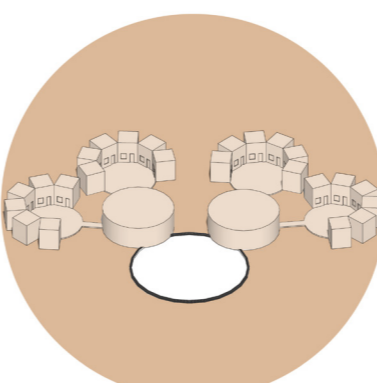
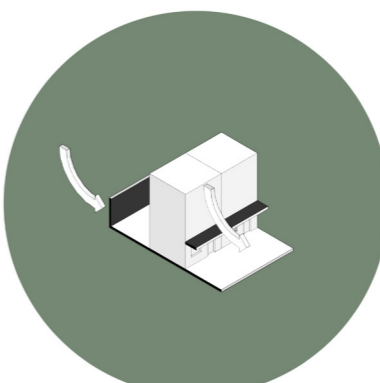
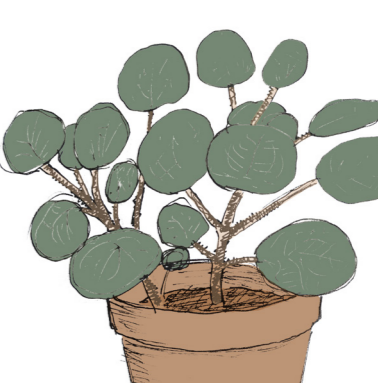


Research

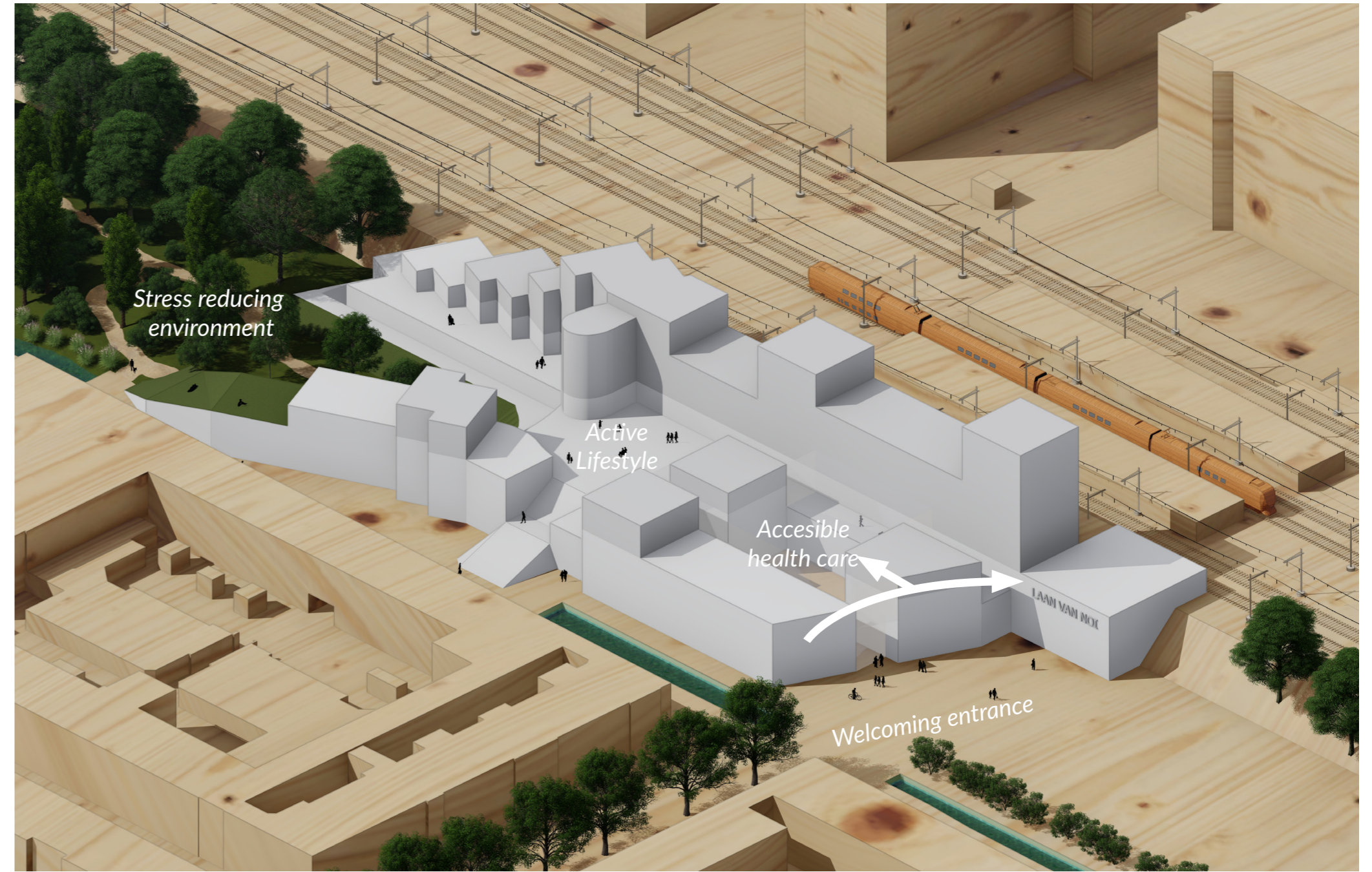
Intergenerational Reciprocity



Design Tools

 <p><i>Co-dividuality 1: A feeling of autonomy is supported by a divide between private and public zones that can open up by choice</i></p>	 <p><i>Co-dividuality 2: Facilitate personal uniqueness to stimulate a feeling of equality</i></p>	 <p><i>Co-munity 1: Conceptual model for social involvement: A clustering of eight to twelve houses with a common space</i></p>	 <p><i>Co-munity 2: Different materials and colours can be used to have something in common with neighbours.</i></p>	 <p><i>Co-care 1: A healthhub can provide efficient local care and reduce workload</i></p>	 <p><i>Co-care 2: A health promotive environment reduces workload in care</i></p>
 <p><i>Co-dividuality 3: A view on liveliness stimulates social involvement</i></p>	 <p><i>Co-dividuality 4: Life cycle proof living increases social involvement</i></p>	 <p><i>Co-munity 3: Different spatial strategies can be used to increase a sense of collective identity and stimulate collective ownership</i></p>	 <p><i>Co-munity 4: Adding themes to clusters increase a sense of collective identity</i></p>	 <p><i>Co-care 3: Making physical movement in routing possible for elderly to increase health</i></p>	 <p><i>Co-care 4: Facilitate public sporting areas</i></p>
 <p><i>Co-dividuality 5: Nearby resources increase autonomy</i></p>	 <p><i>Co-dividuality 6: Choice in daily activities increase autonomy</i></p>	 <p><i>Co-munity 5: A second layer in the conceptual social model facilitates 'bridging'</i></p>	 <p><i>Co-munity 6: Facilitating sense of responsibility is important for reciprocity and bridging</i></p>	 <p><i>Co-care 5: Outside routing increases mental health</i></p>	 <p><i>Co-care 6: Reducing noise-levels to prevent stress and increase health</i></p>
 <p><i>Co-dividuality 7: Elderly proof routing and interior increase autonomy</i></p>	 <p><i>Co-dividuality 8: Increased safety by eyes on the street improves quality of living</i></p>	 <p><i>Co-munity 7: Designing routing that overlaps with other functions stimulates unplanned interaction</i></p>	 <p><i>Co-munity 8: Facilitate linking by combining regular needs with social ones</i></p>	 <p><i>Co-care 7: Reducing wind-levels to prevent stress and increase health</i></p>	

Co-Care



Installations:

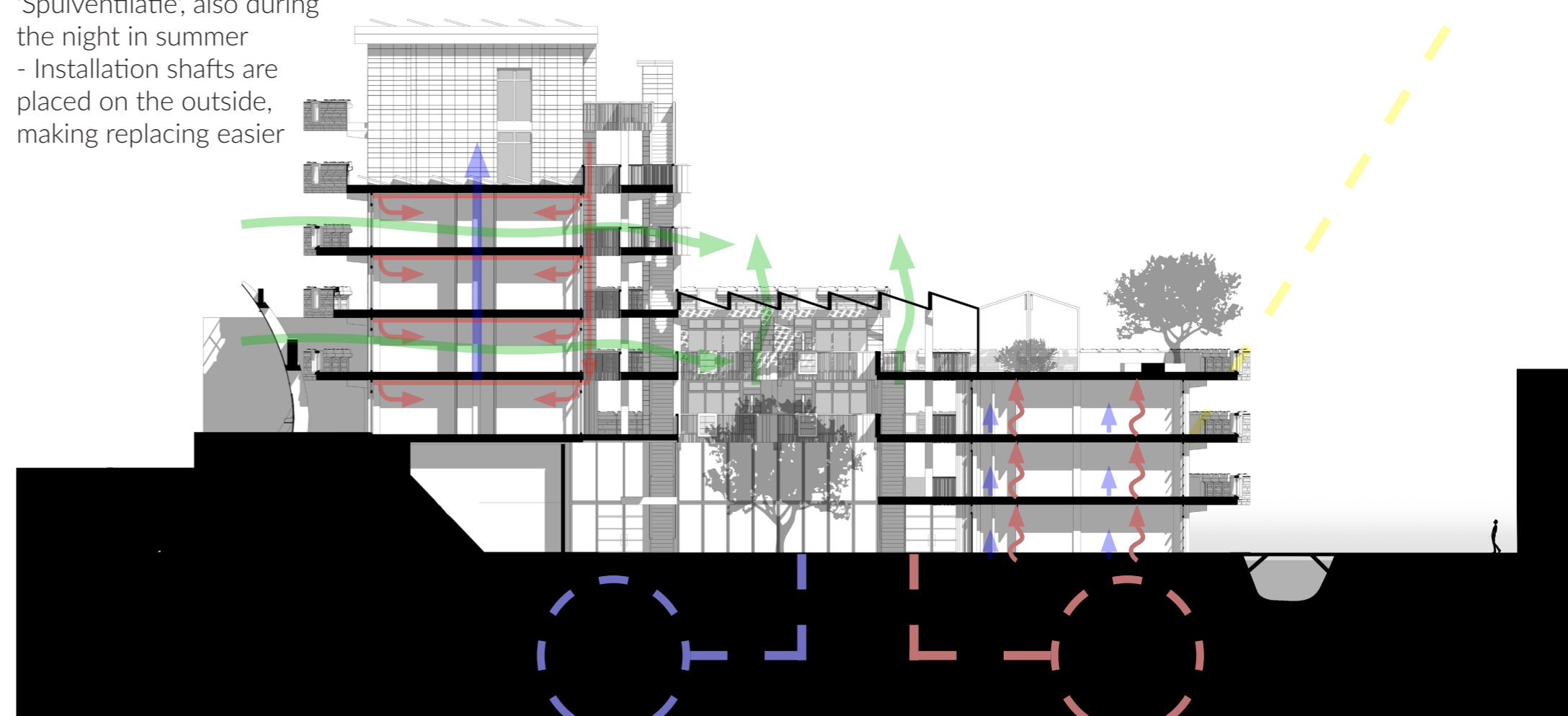
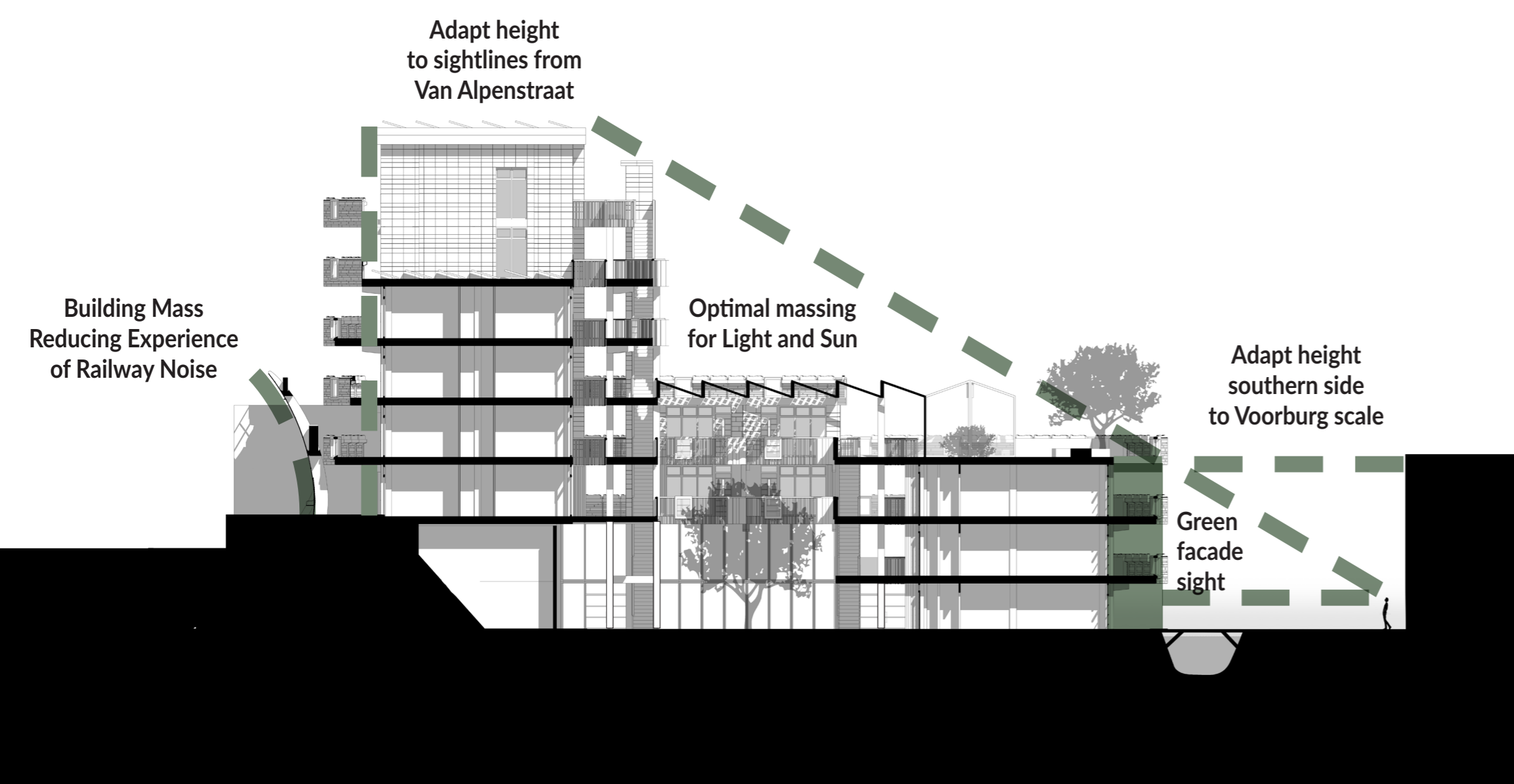
- Mechanical ventilation, based on CO2, always option to be overridden by user. This system also allows for keeping the interior cool in summer
- Possibility of 'Spui ventilatie', also during the night in summer
- Installation shafts are placed on the outside, making replacing easier

Heating:

- Atrium allows for compact mass, less surface area -> less heat loss
- Cold and Heat storage (WKO)
- Heatpump (input from water)
- Low temperature Floor Heating
- Small amount of Floor Cooling possible

Sun Heating

- Balcony overhang prevents overheating by sun in summer
- Optional sunscreening



Sustainable and Healthy

Green facade and roof design:

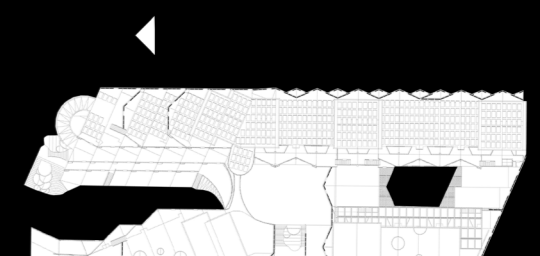
- Water retention
- Stress reduction (Health promotive environment)
- Preventing Urban heat
- Increasing Biodiversity
- Increasing User value

Integrated irrigation system

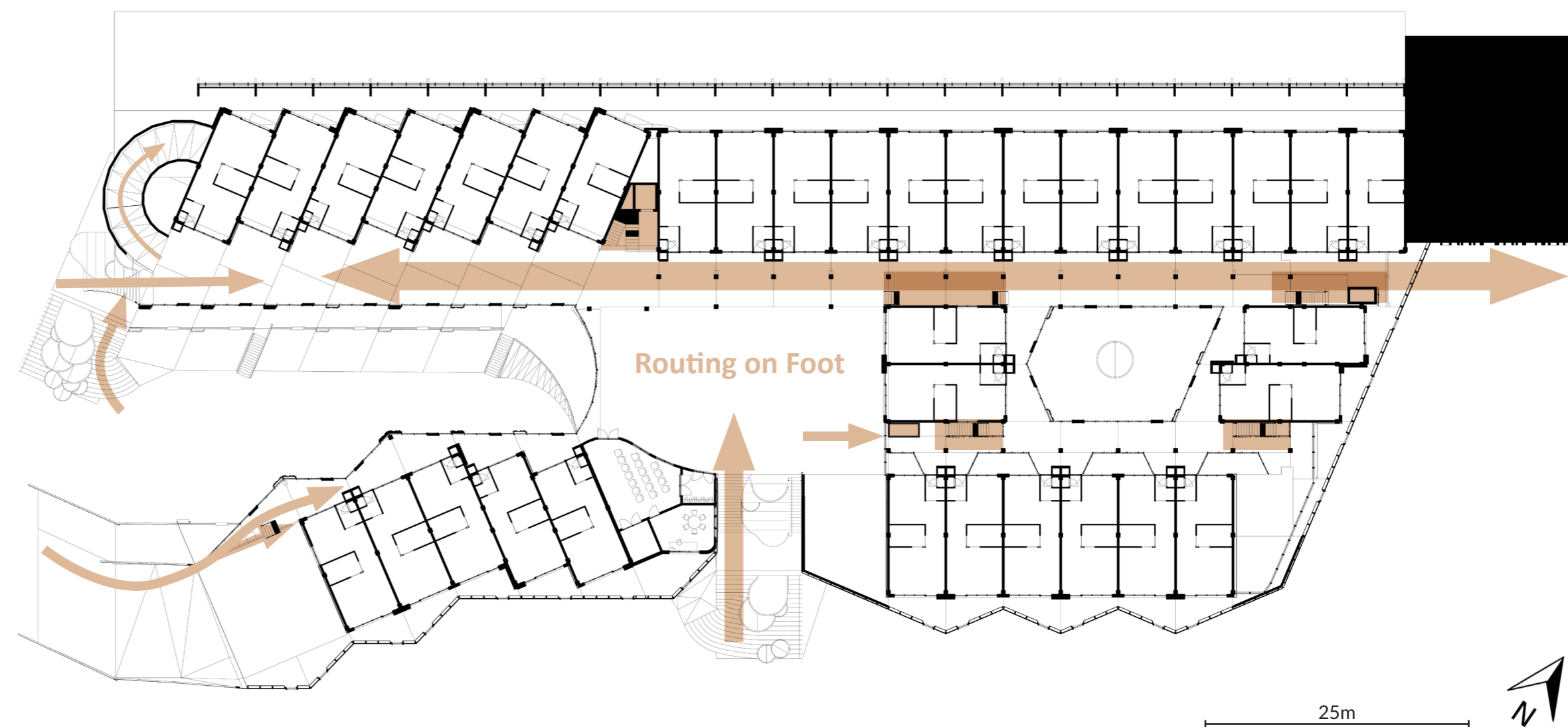
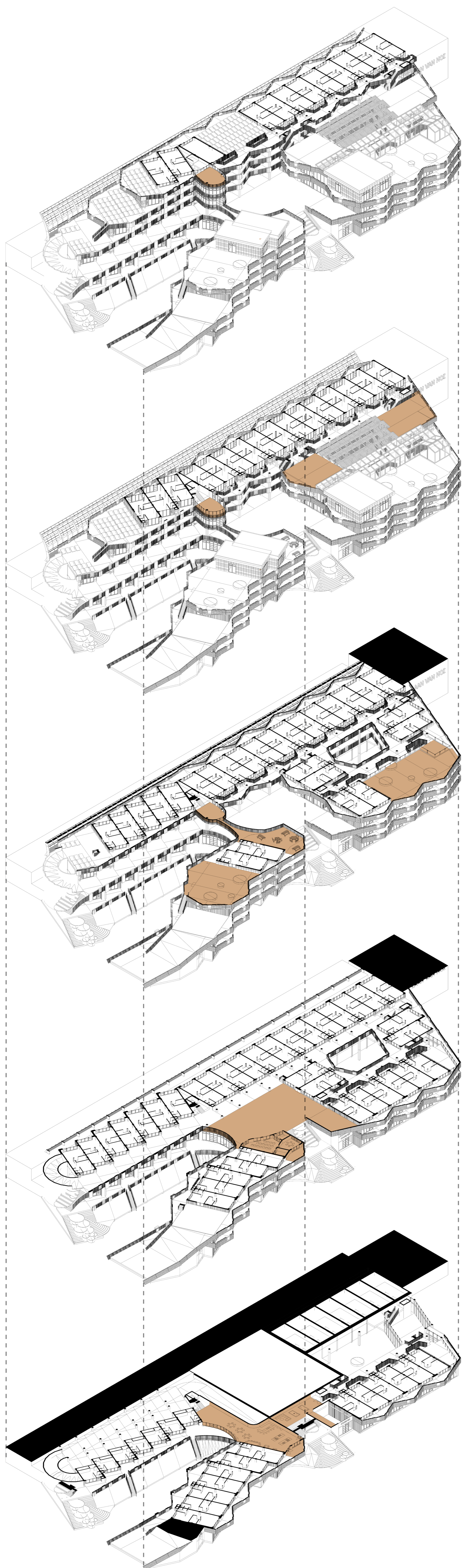
- Makes use of rain water

Energy:

- Combination of PV & PVT panels
- Circadian Interior (LED) Lighting (Changing warmth of light which impacts biological clock and thus sleep quality)



Co-munity



Antwoord	Aantal	Percentage
Supermarkt	166	51.39 %
Horeca	192	59.44 %
Zorg (huisarts, tandarts, fysiotherapeut etc.)	134	41.49 %
Buurthuis	88	27.24 %
Buitensport	139	43.03 %
Werkplekken voor ZZP'ers	76	23.53 %
Scholen	81	25.08 %

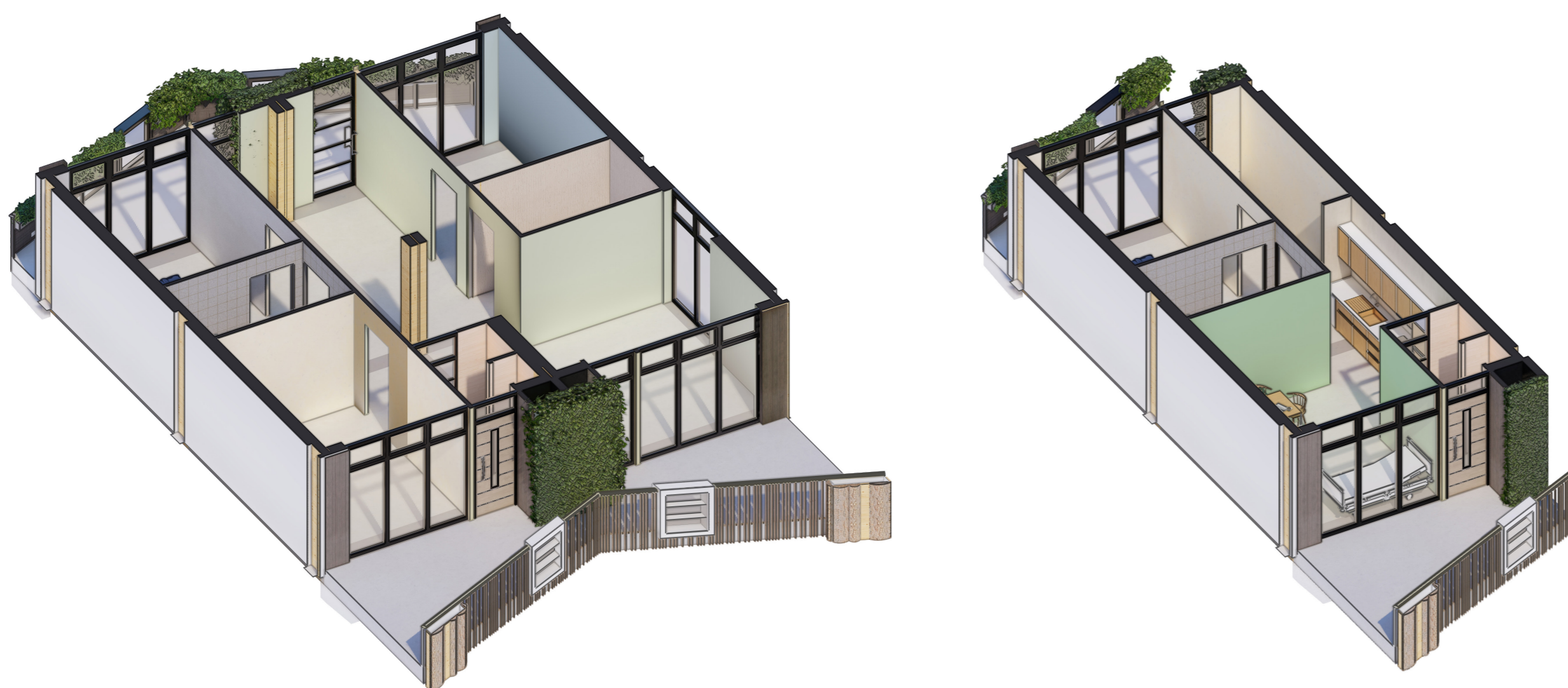
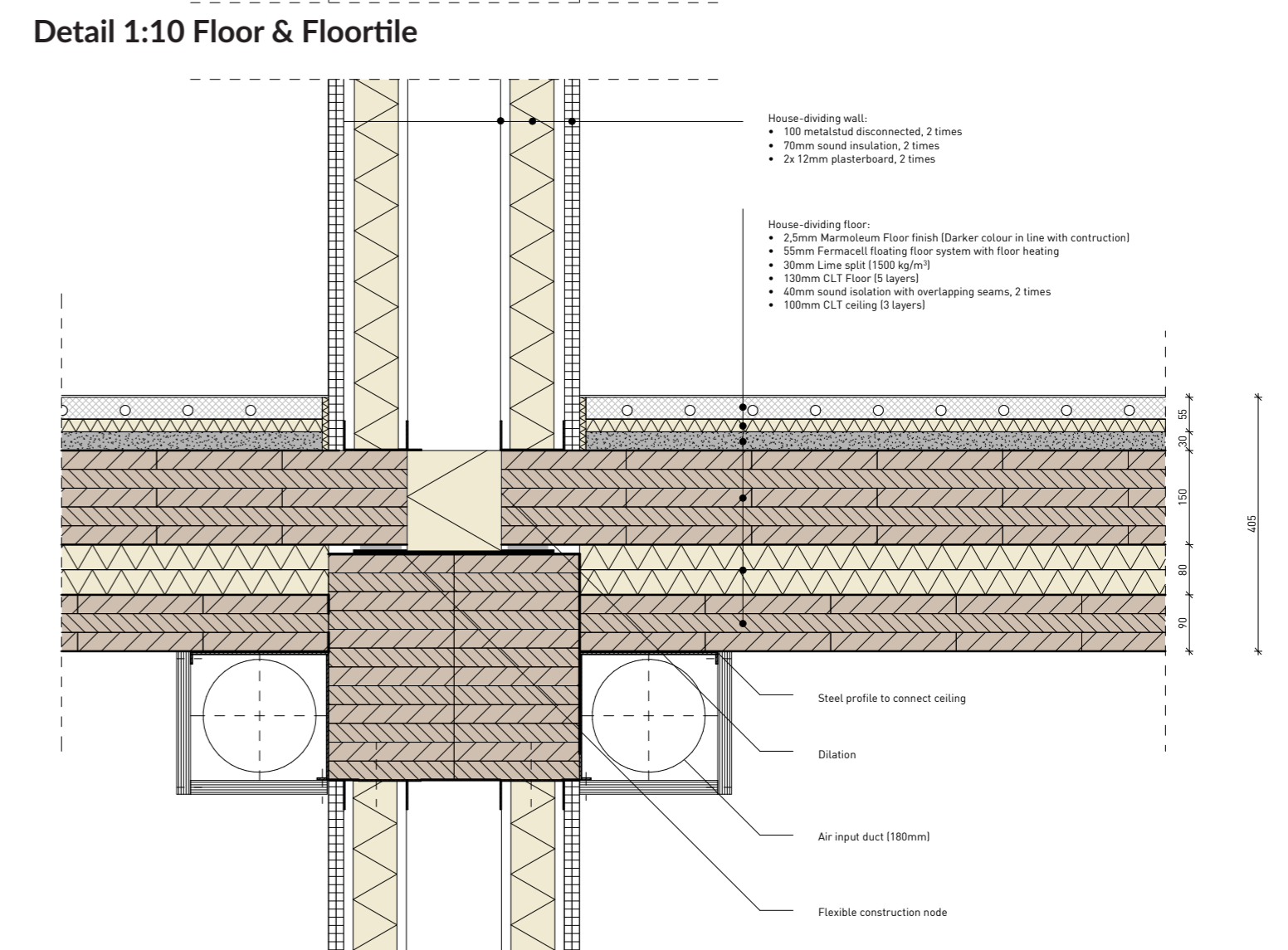
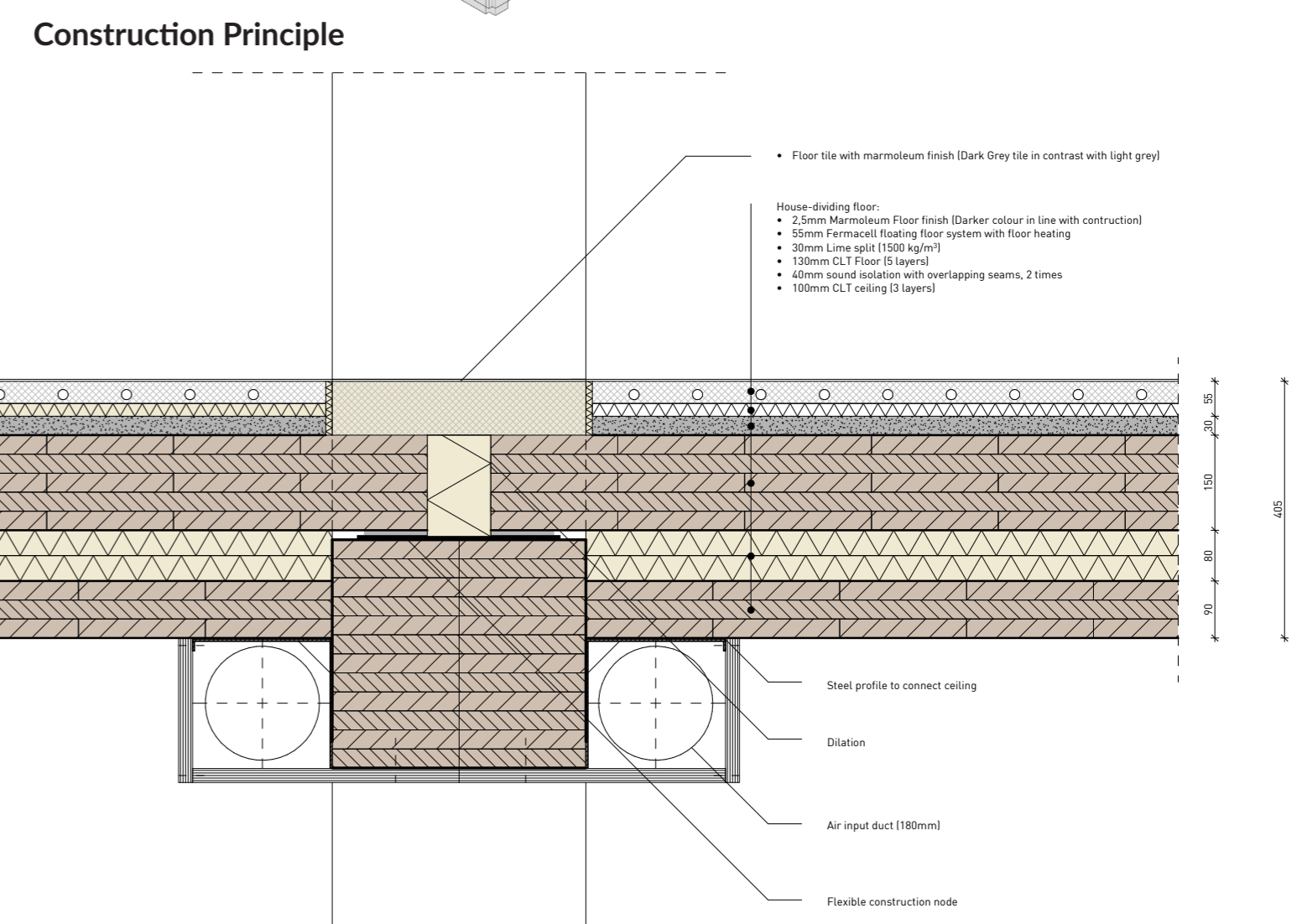
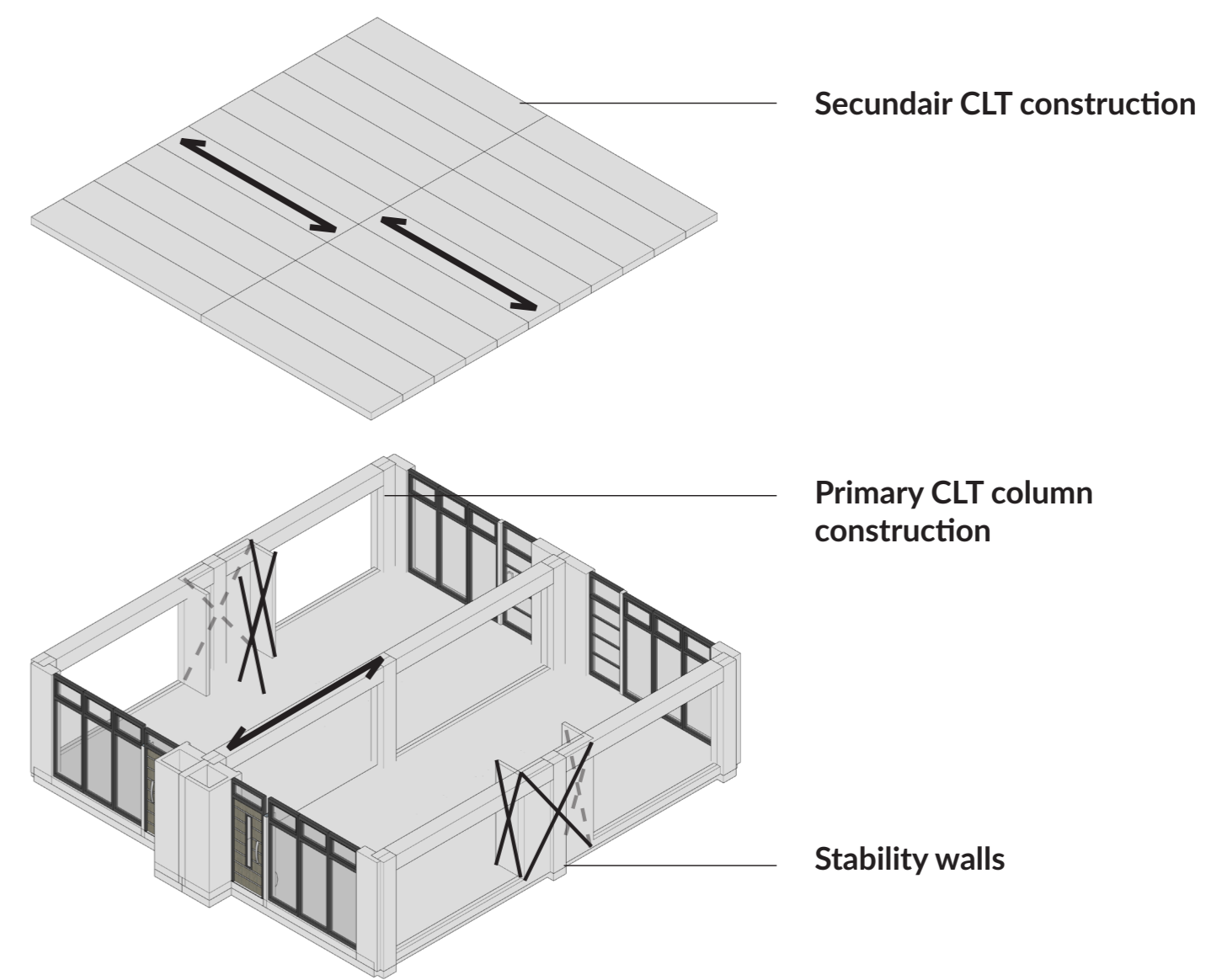
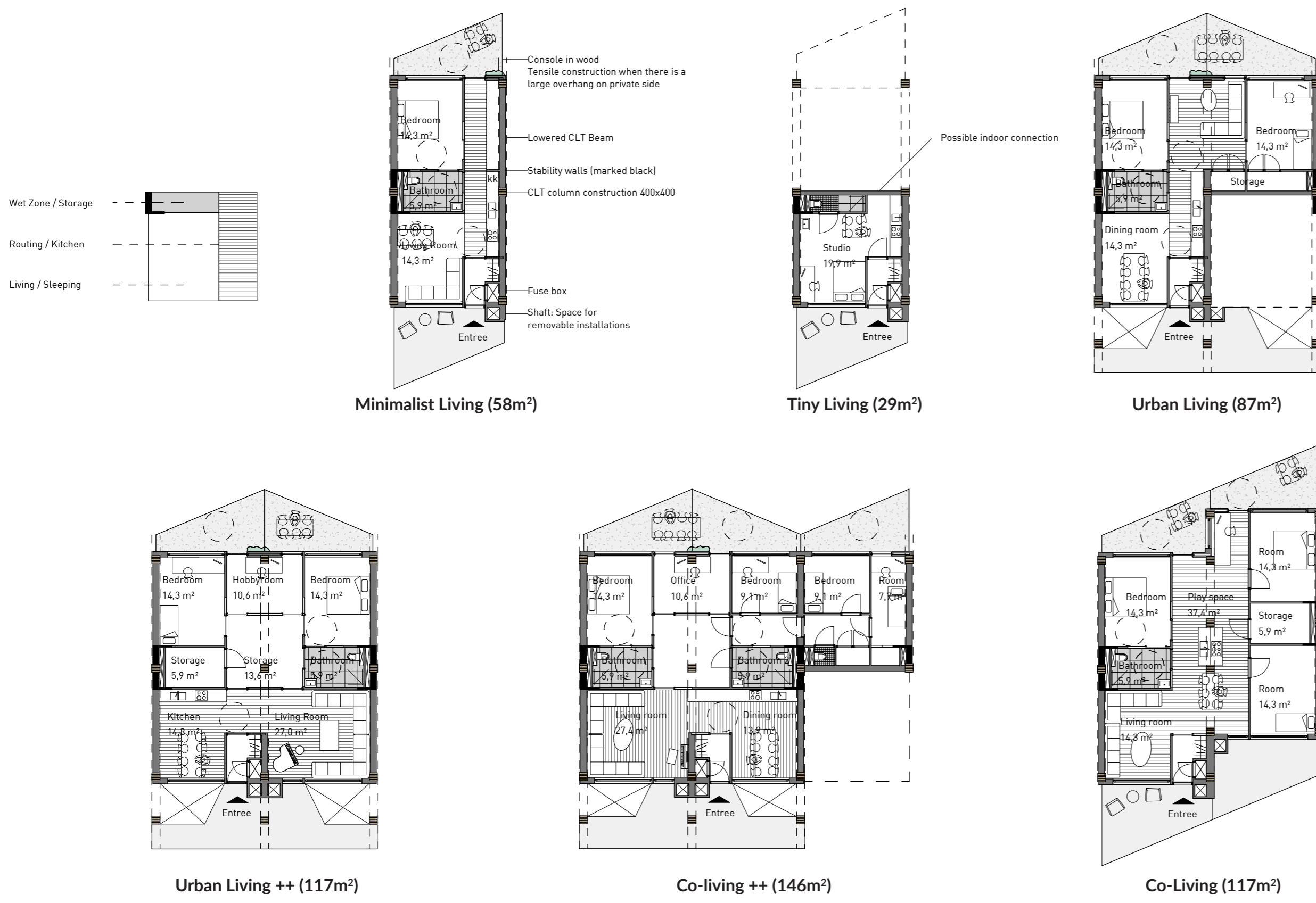
A survey done among residents of Voorburg & The Hague (Tertium, 2021)

Evaluatie interesse activiteiten		nw act.	meedoen
activiteit	bestaand	jeu de boule	10
klaverjassen	8	biljarten	2
handwerkclub	7	bridgen	2
kookclub	11	Kippen houden	9
bingoclub	16	lezingen	20
borrelmiddag	21	muziekavonden	30
moestuin	4	filmavonden	28
spelletjesmiddag	10	bqg	28
schilderen	5	feestavond	28
		uitjes	27

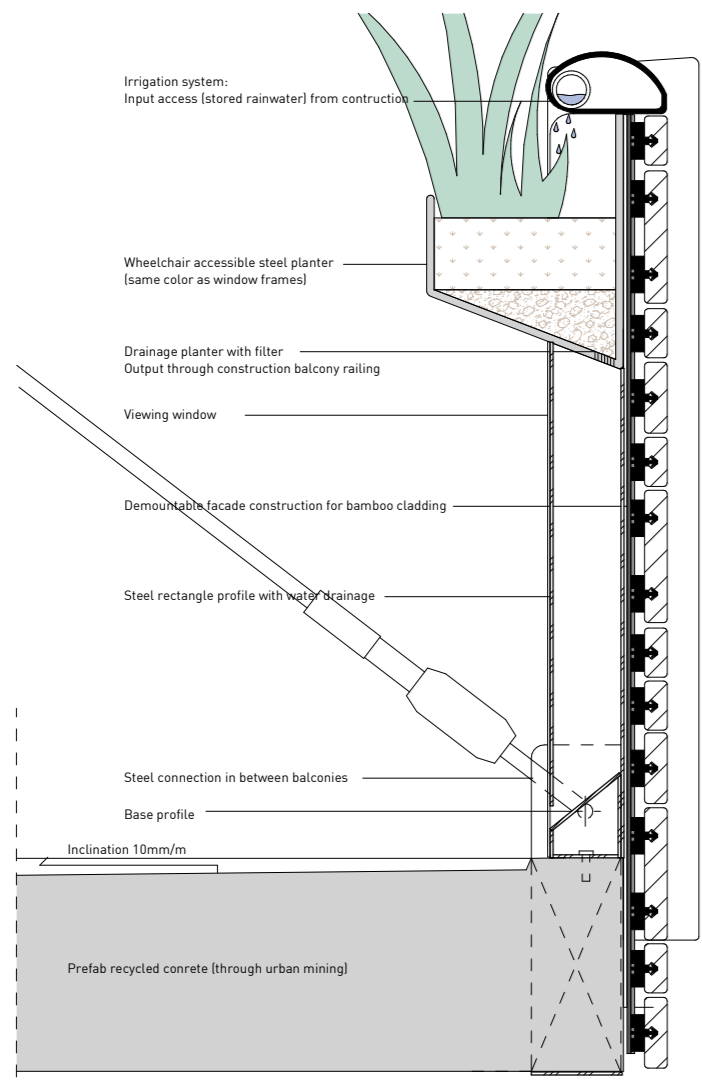
A survey done in Huis Assendorp in Zwolle



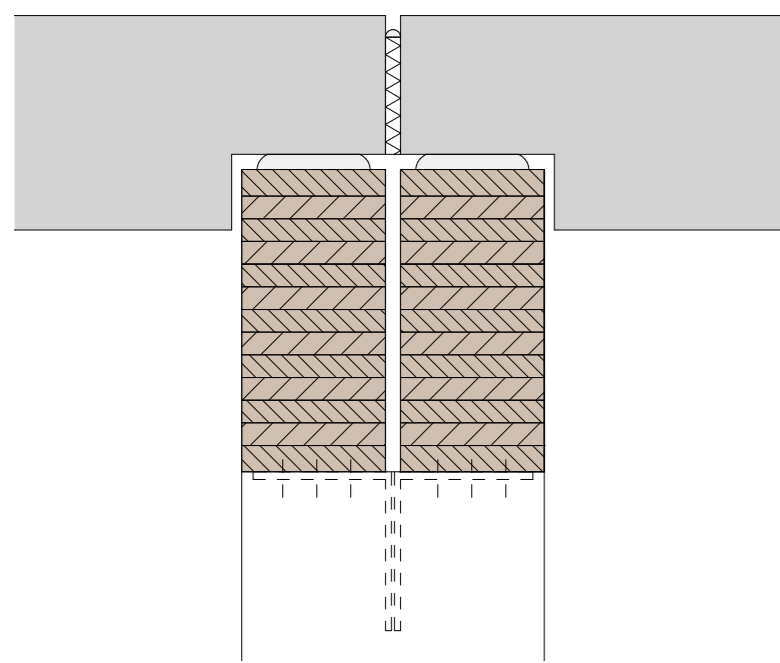
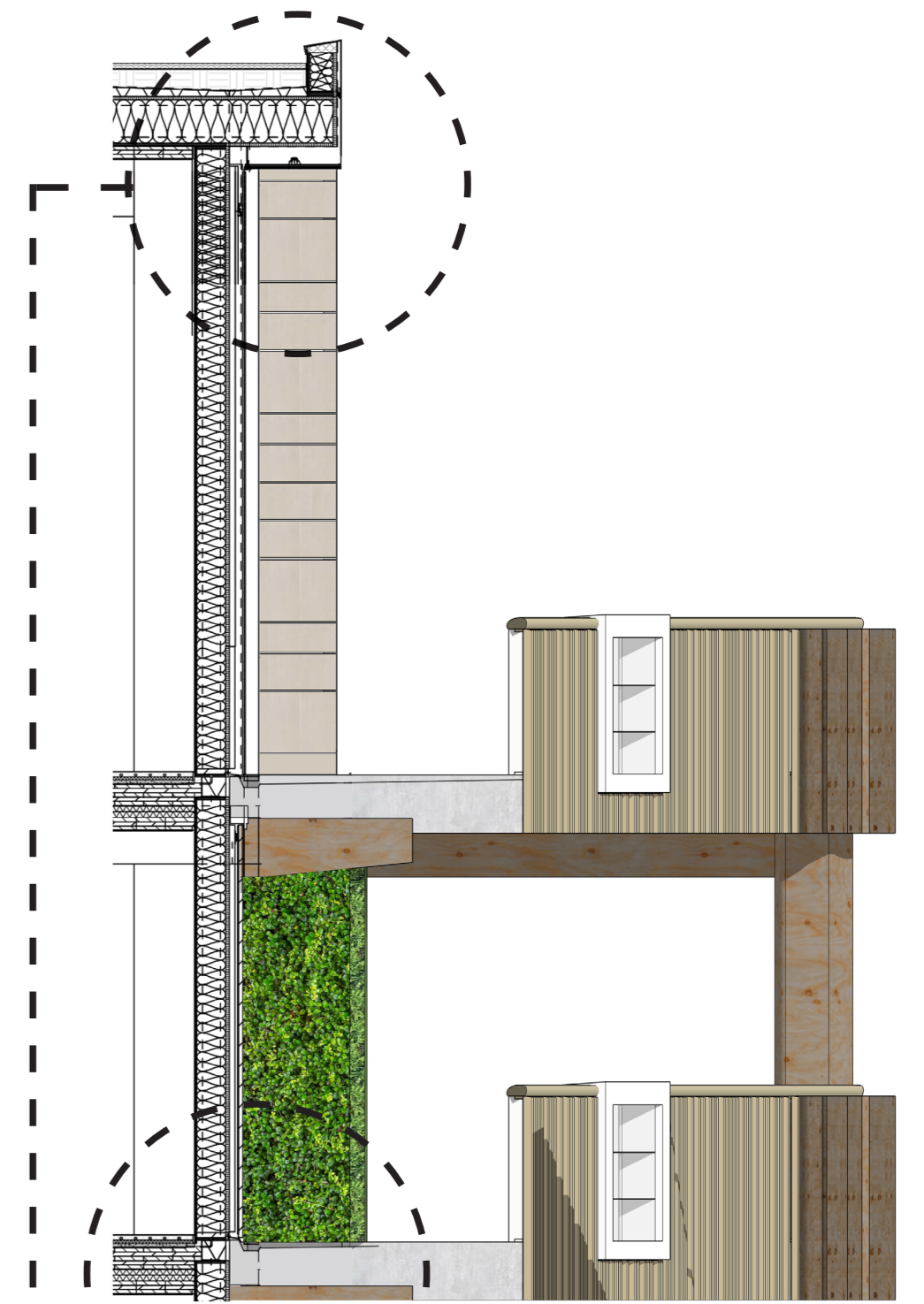
Co-Dividuality



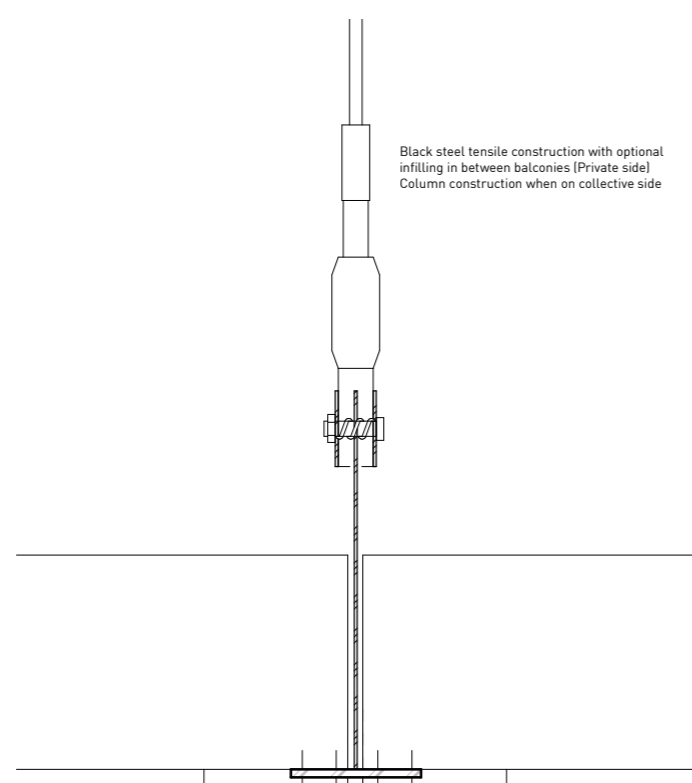
Materiality



Detail 1:5 Balcony Railing
Wheelchair accessible planter & irrigation

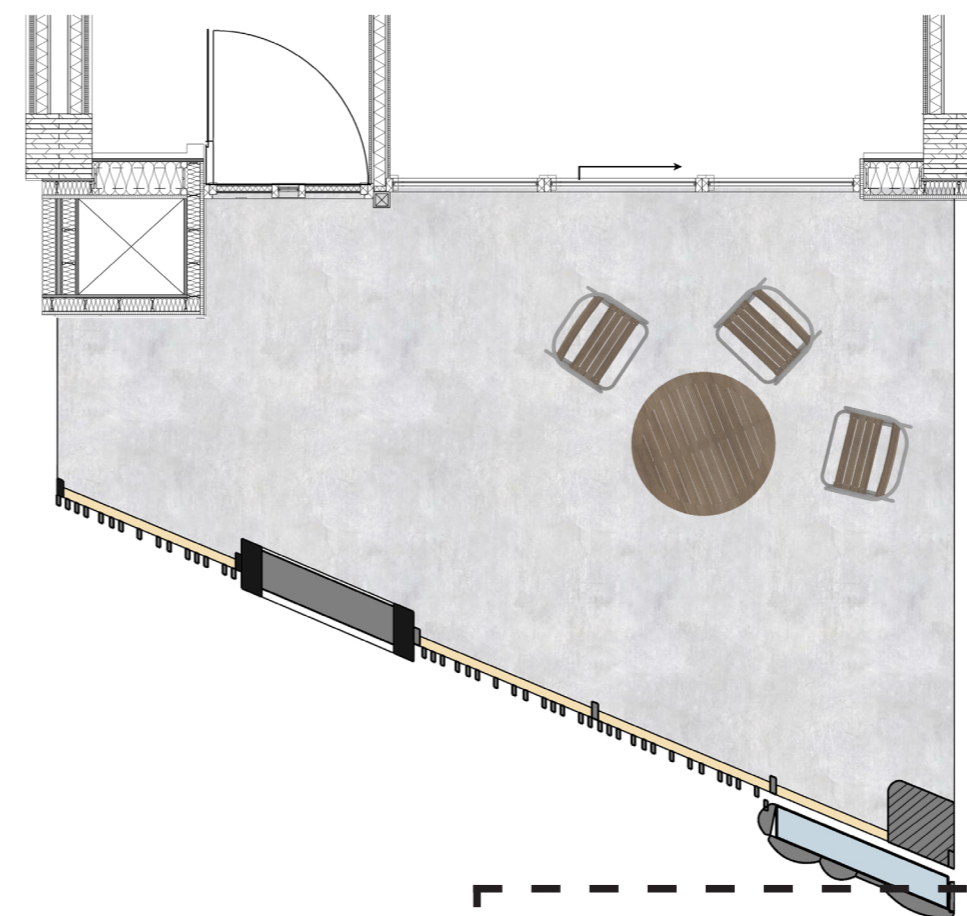


Detail 1:5 Balcony construction:
Separated construction for acoustic reasons



Detail 1:5 Balcony Slab Tensile Construction
Keeping possible connections between balconies open

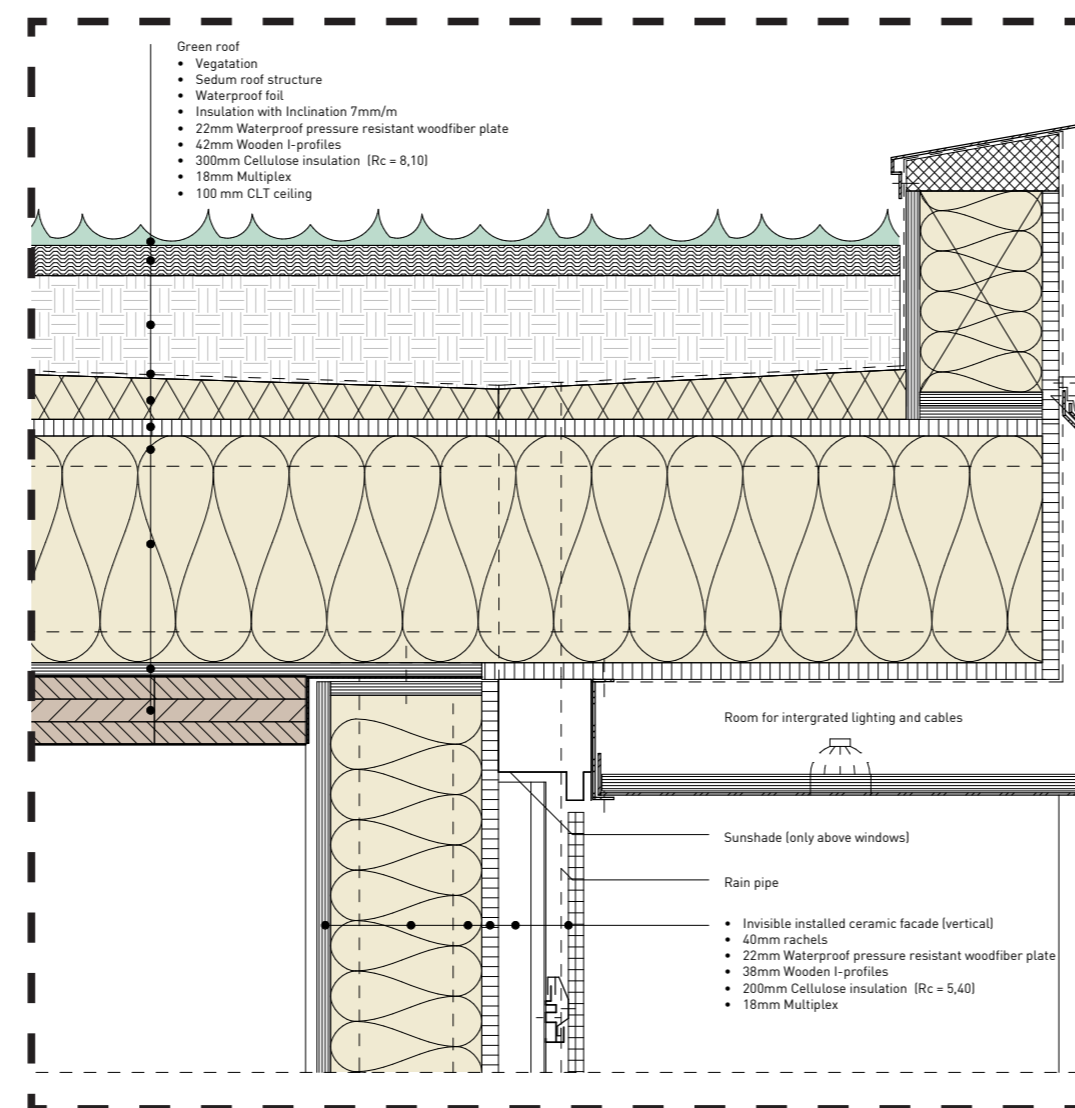
Bamboo & Green facade:
Ground floor - 3th floor



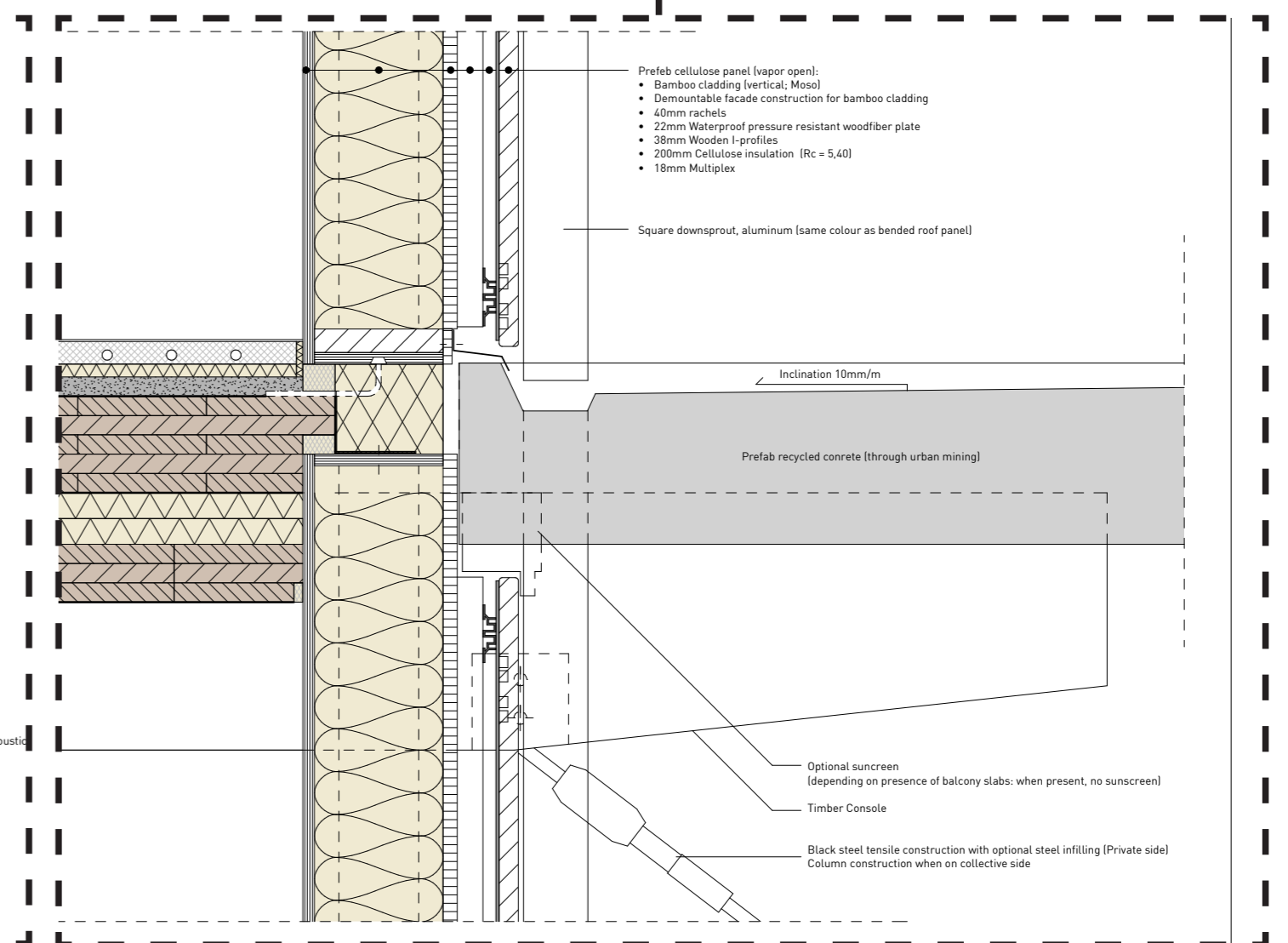
Ceramic facade:
3th - 7th floor



Framing Life



Detail 1:10 Roof



Detail 1:10 Balcony Slab

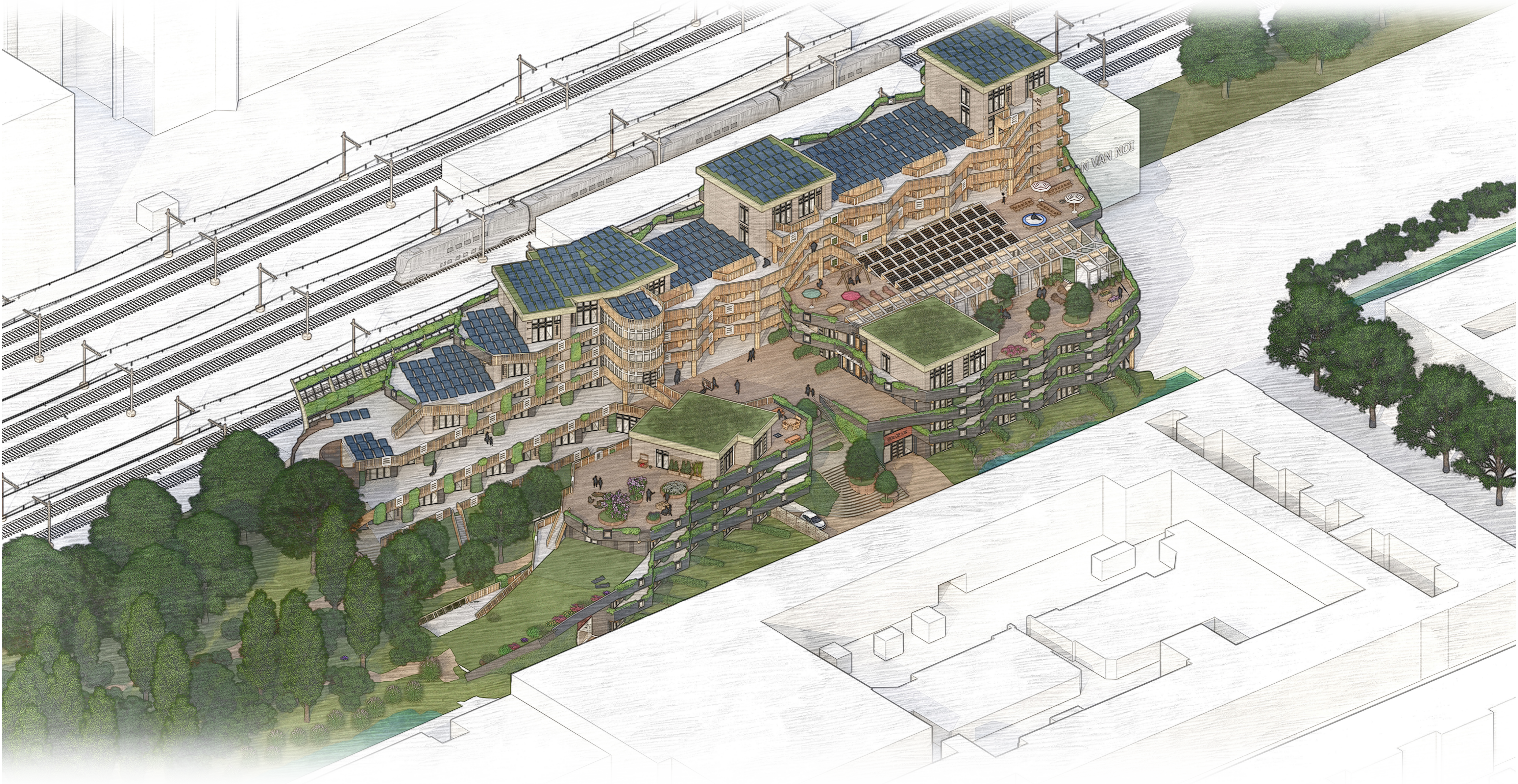


Section East-West



Southern Facade - Connection to Voorburg

Context



West facade

East facade



Northern facade - Railway station



Atrium Section



Under the Sun

