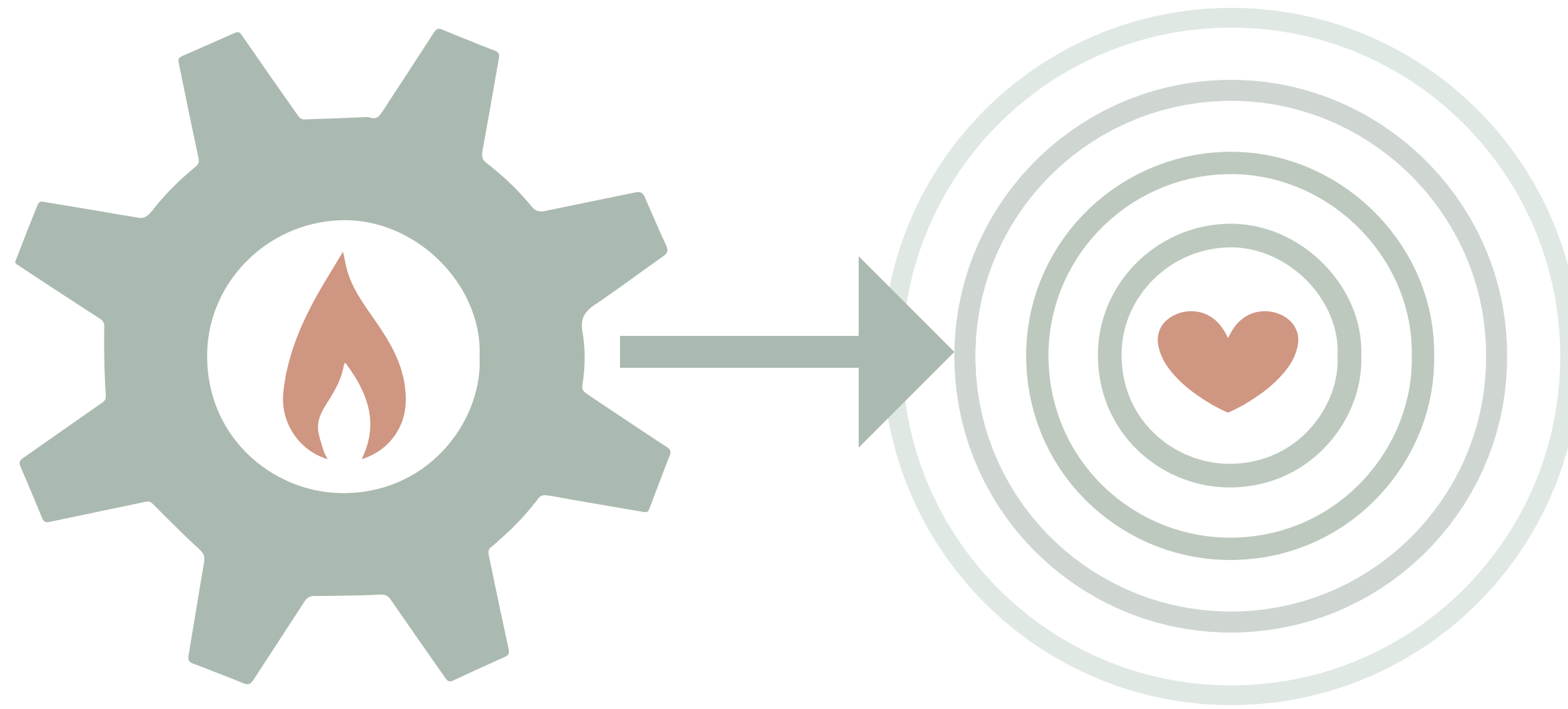


# Turning heat into warmth

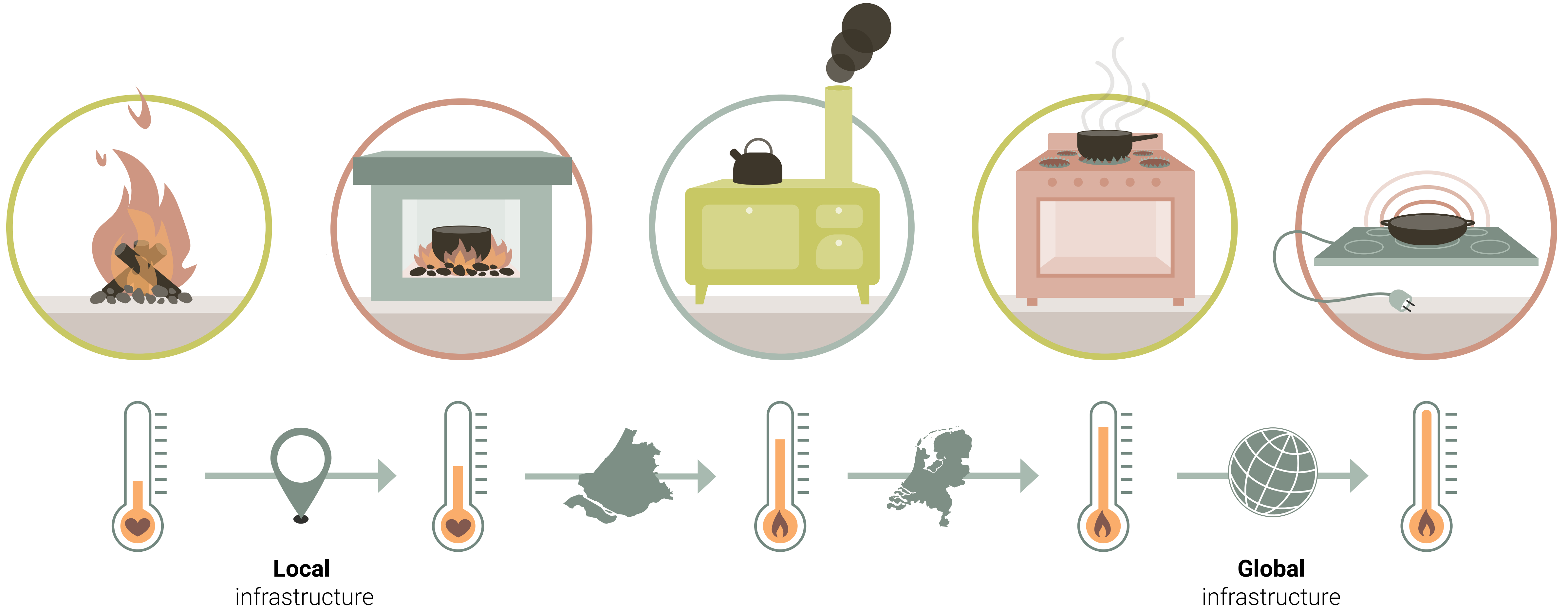
Re-inserting warmth in the social and sustainable infrastructures of post-war neighbourhoods





# Evolution of technology

Technology has become indirect and stripped down.



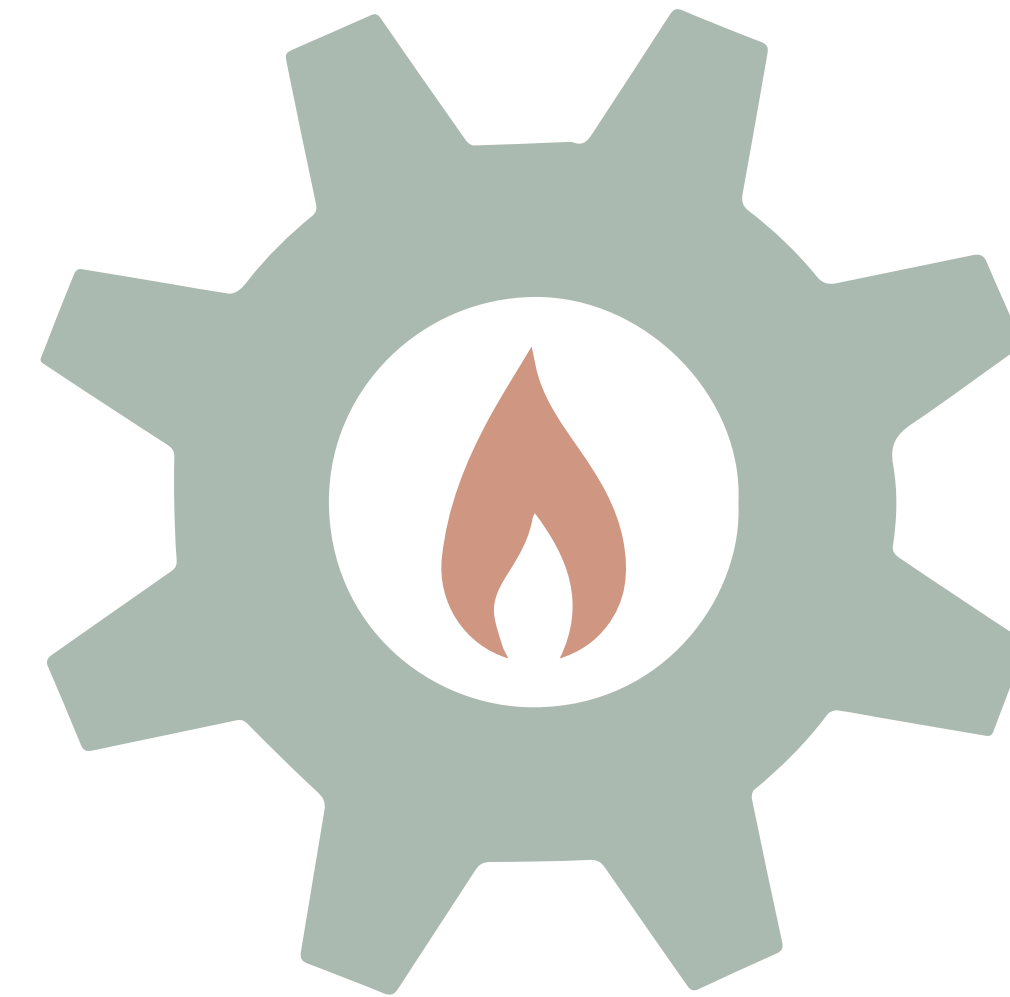
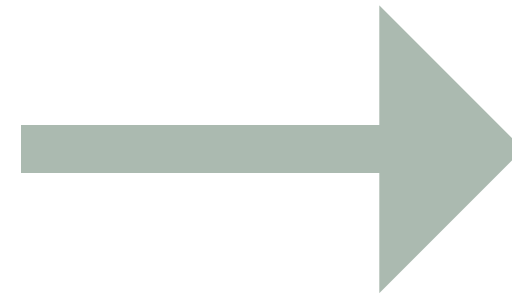
## Warmth has turned into heat

The warmth of technology, embedded in experience and relating to social activities has become heat: removed from experience and unrelating to humans and their social life.



### Warmth

The **human** and **social** qualities of technology and infrastructure



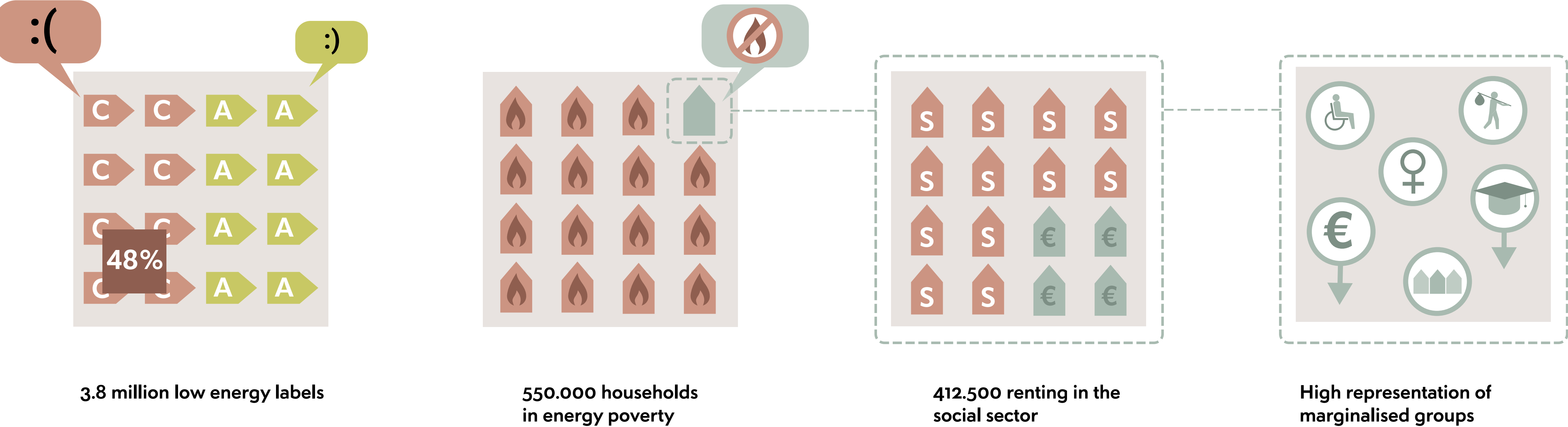
### Heat

The **technical** and **performative** qualities of technology and infrastructure

# The 'us' in sustainable

Marginalized groups in society have unequally distributed access to sustainable infrastructure, driven by a lack of agency and poverty

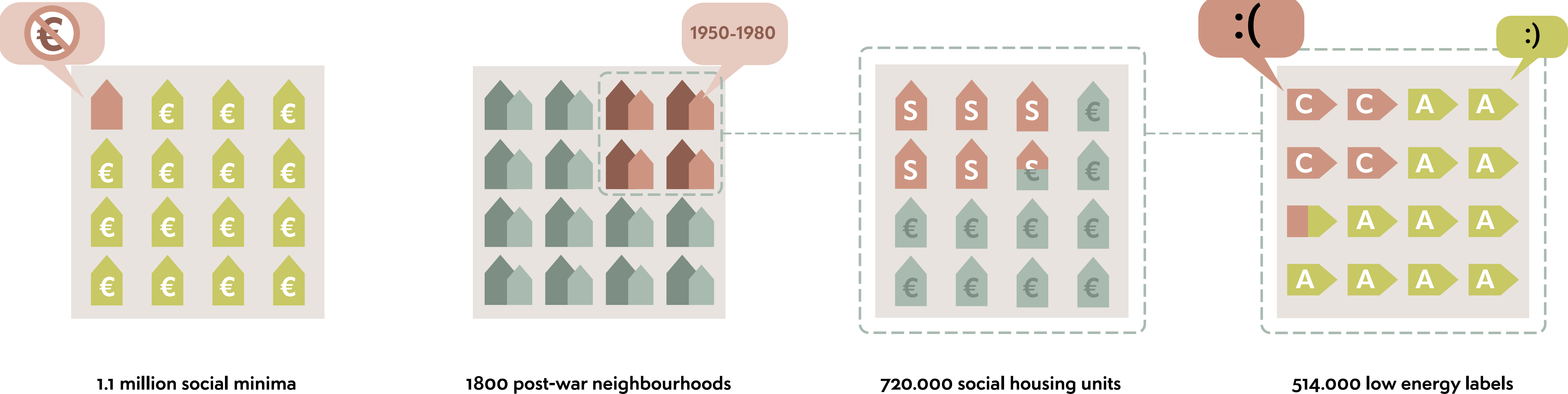
# The Netherlands



# The 'our' in neighbourhood

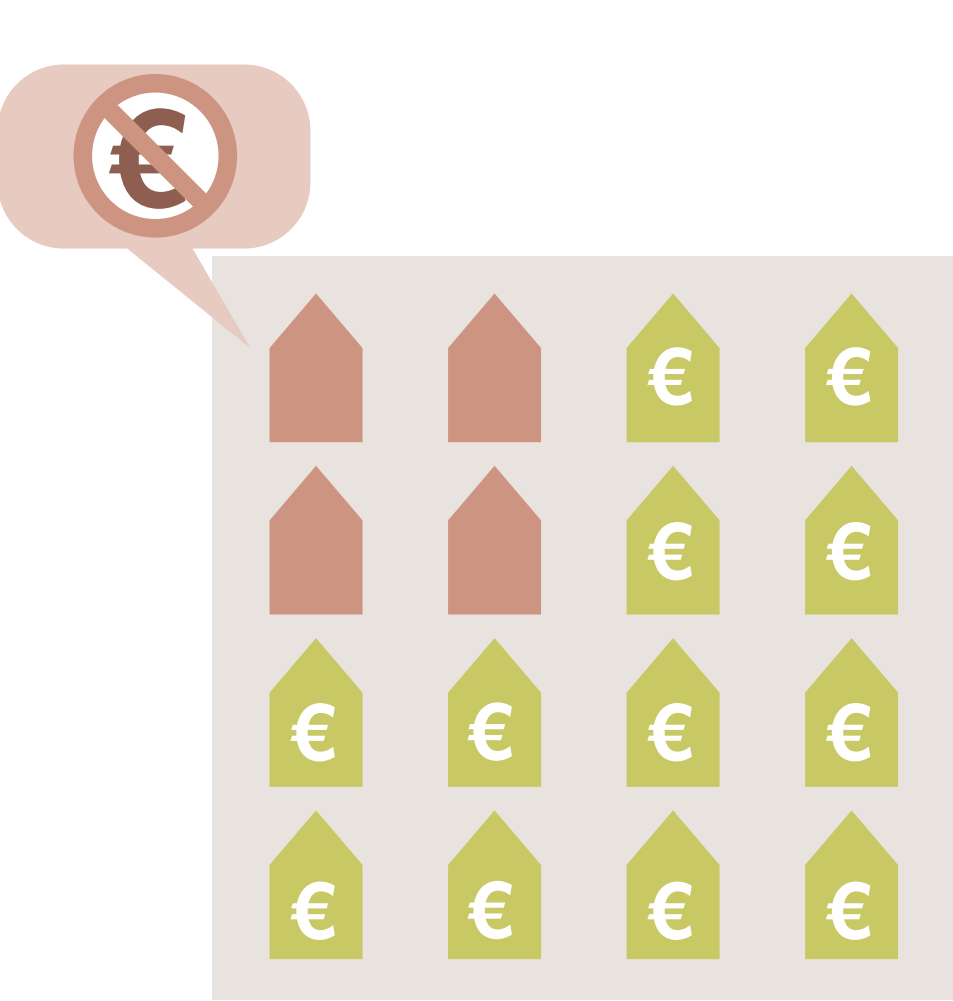
Post-war neighbourhoods are clusters where inaccessability to sustainable infrastructure, a lack of agency and poverty concentrate

# Post-war neighbourhoods

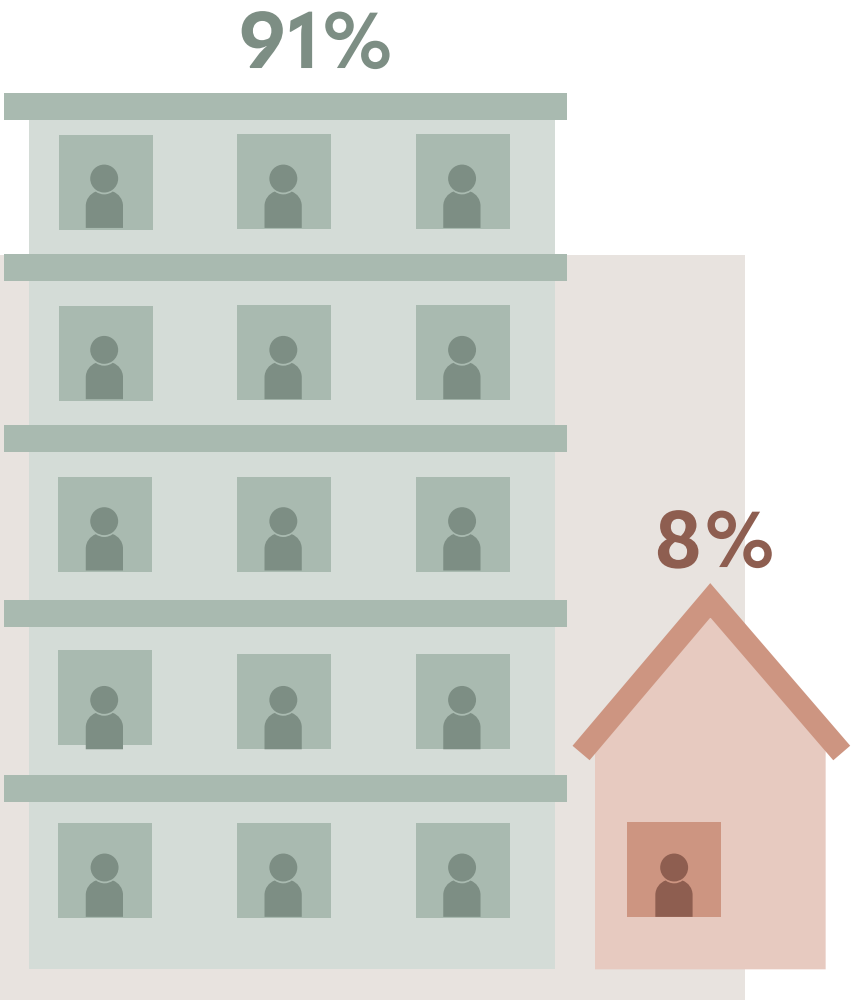


# The 'wij' in Moerwijk

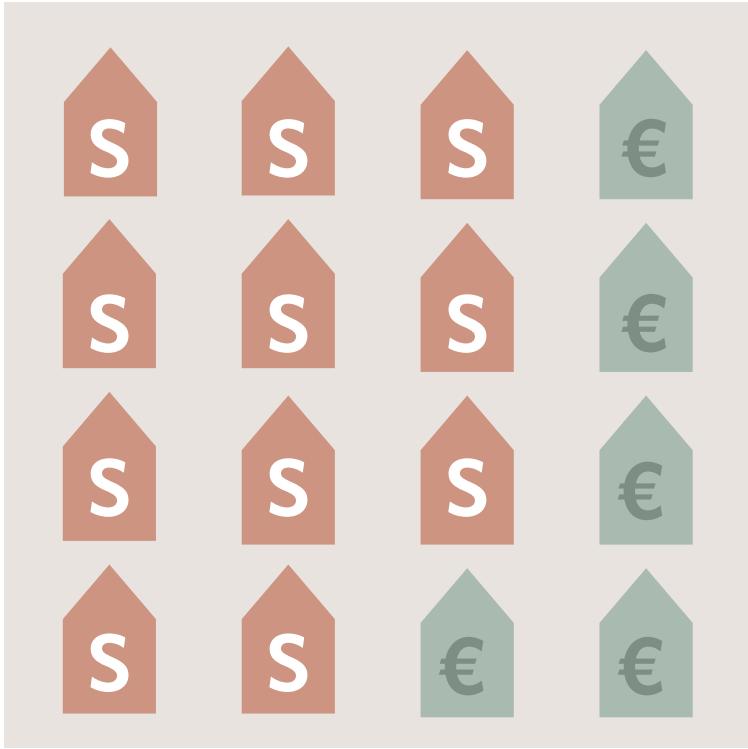
Moerwijk shows a higher concentration of these problems than the average post-war neighbourhood



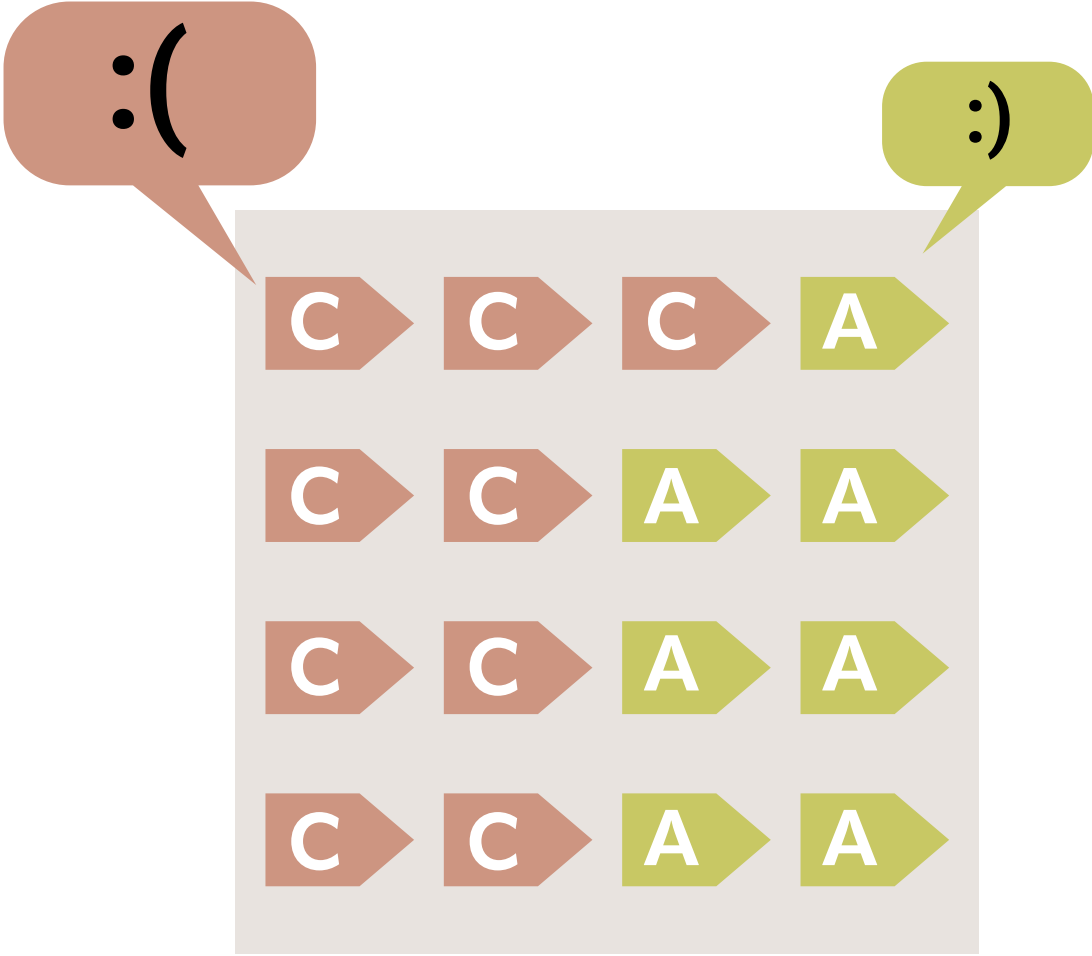
2336 social minima



10.670 apartments



7819 social housing units

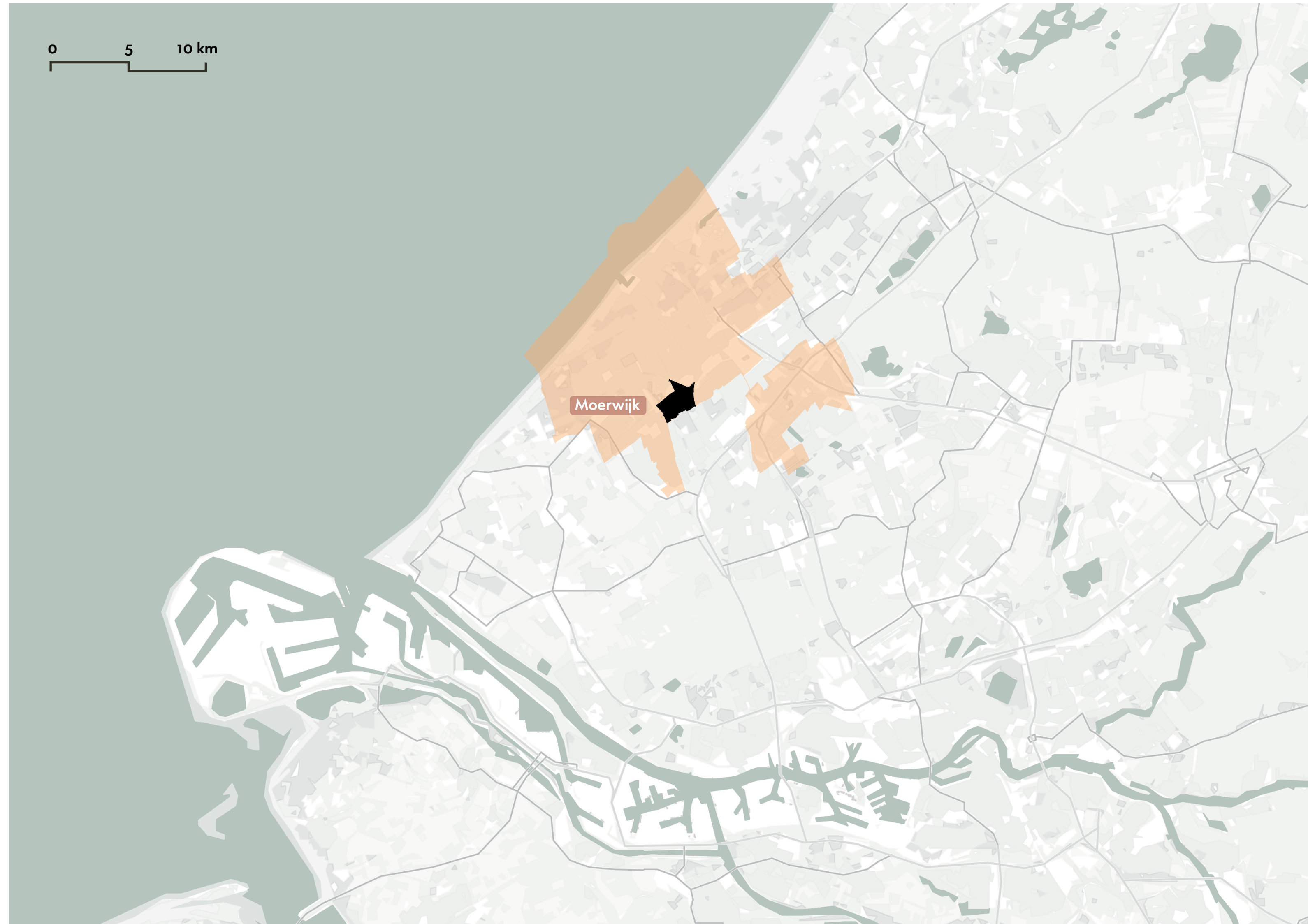


6151 low energy labels

# Moerwijk, The Hague



# Provincial plans








# Provincial plans





Local consequences

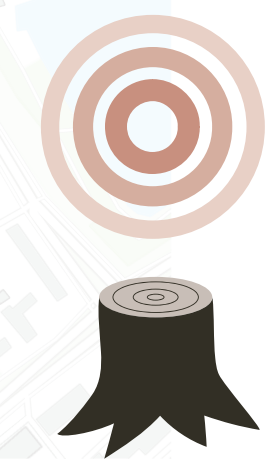
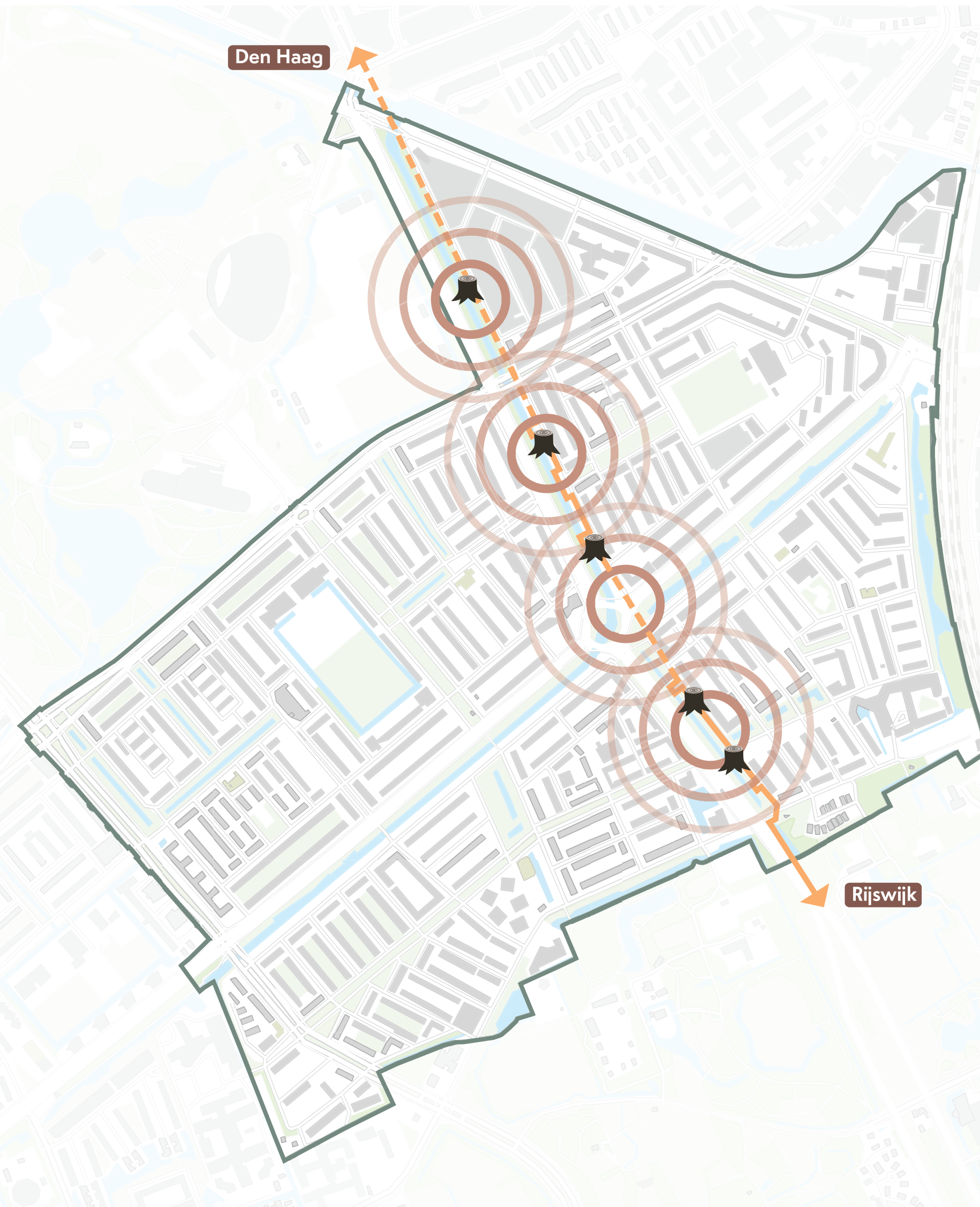
-  Heat distribution point
-  Open excavation
-  Directed ground drilling





## Local consequences

- ⊘ Max. pipe diameter = 800 mm
- ⌵ Min. pipe depth = 1500 mm
- ⌵ Min. excavation depth = 2500 mm
- ↔ Working width = 15 m



Nuisance

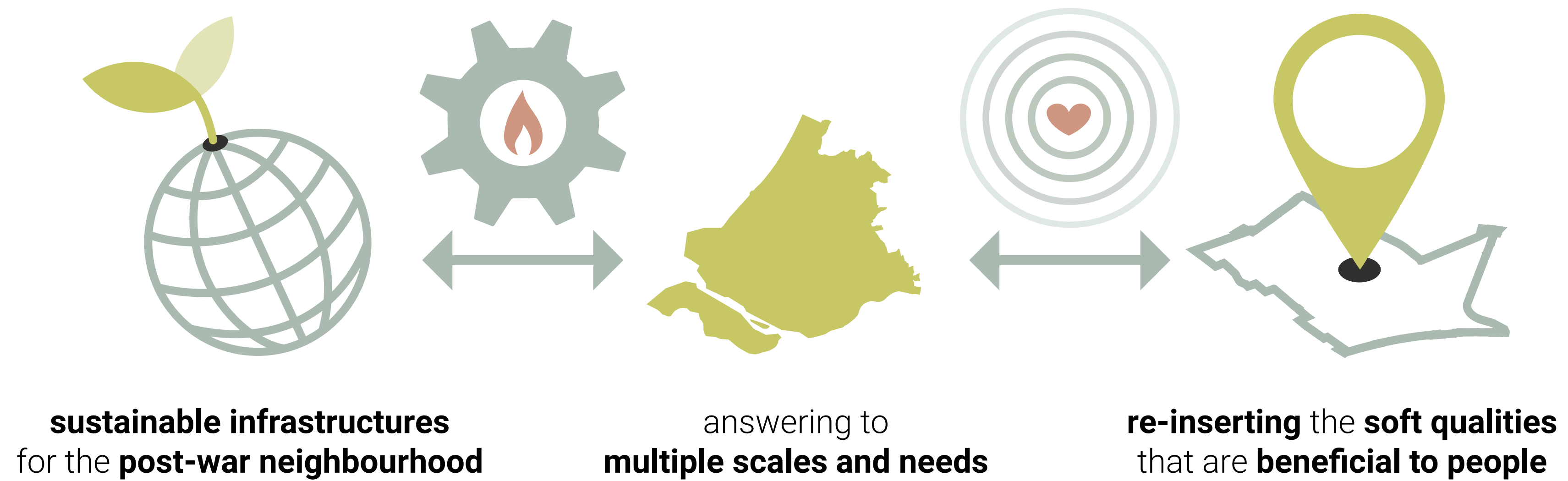
Tree removal

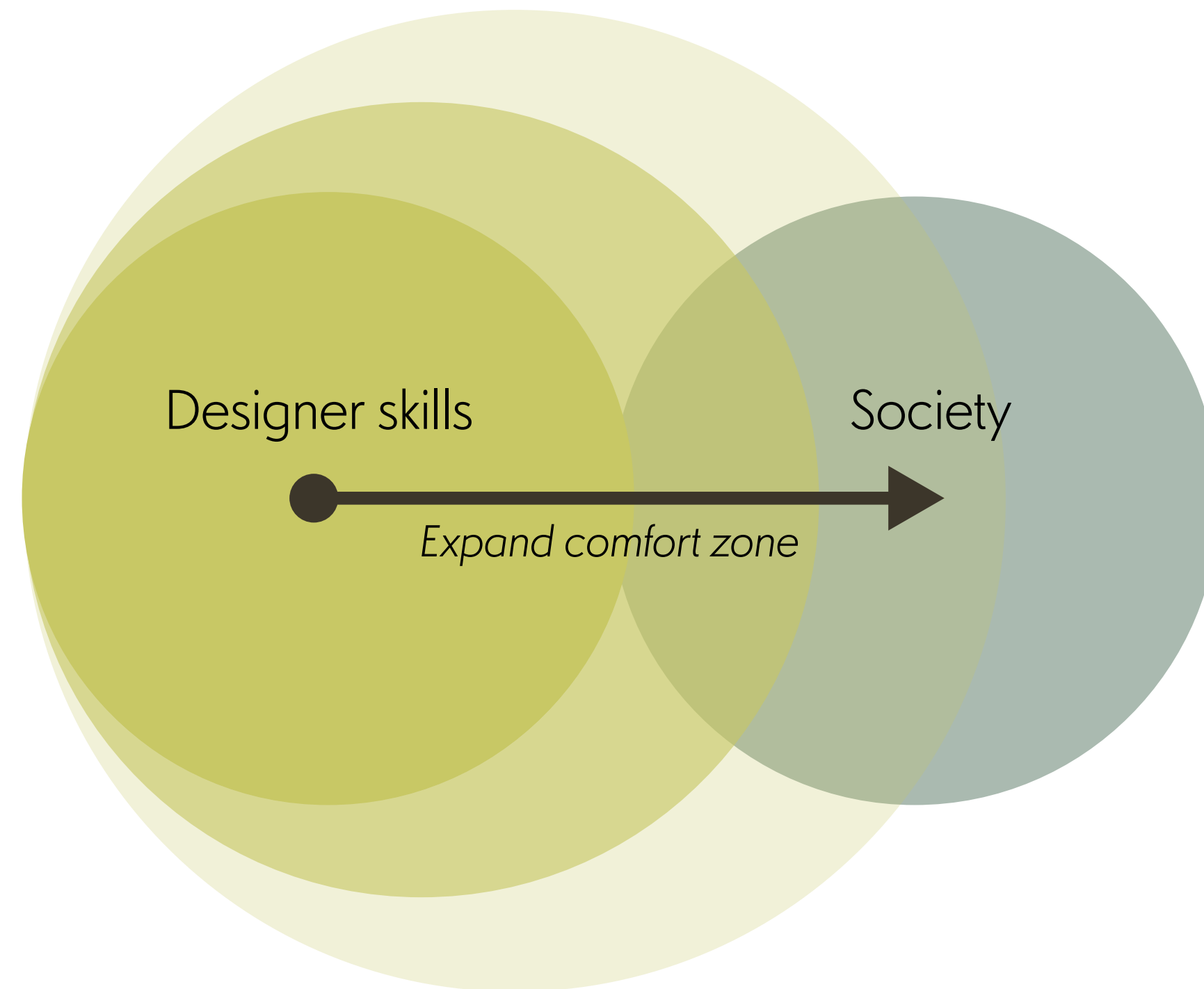


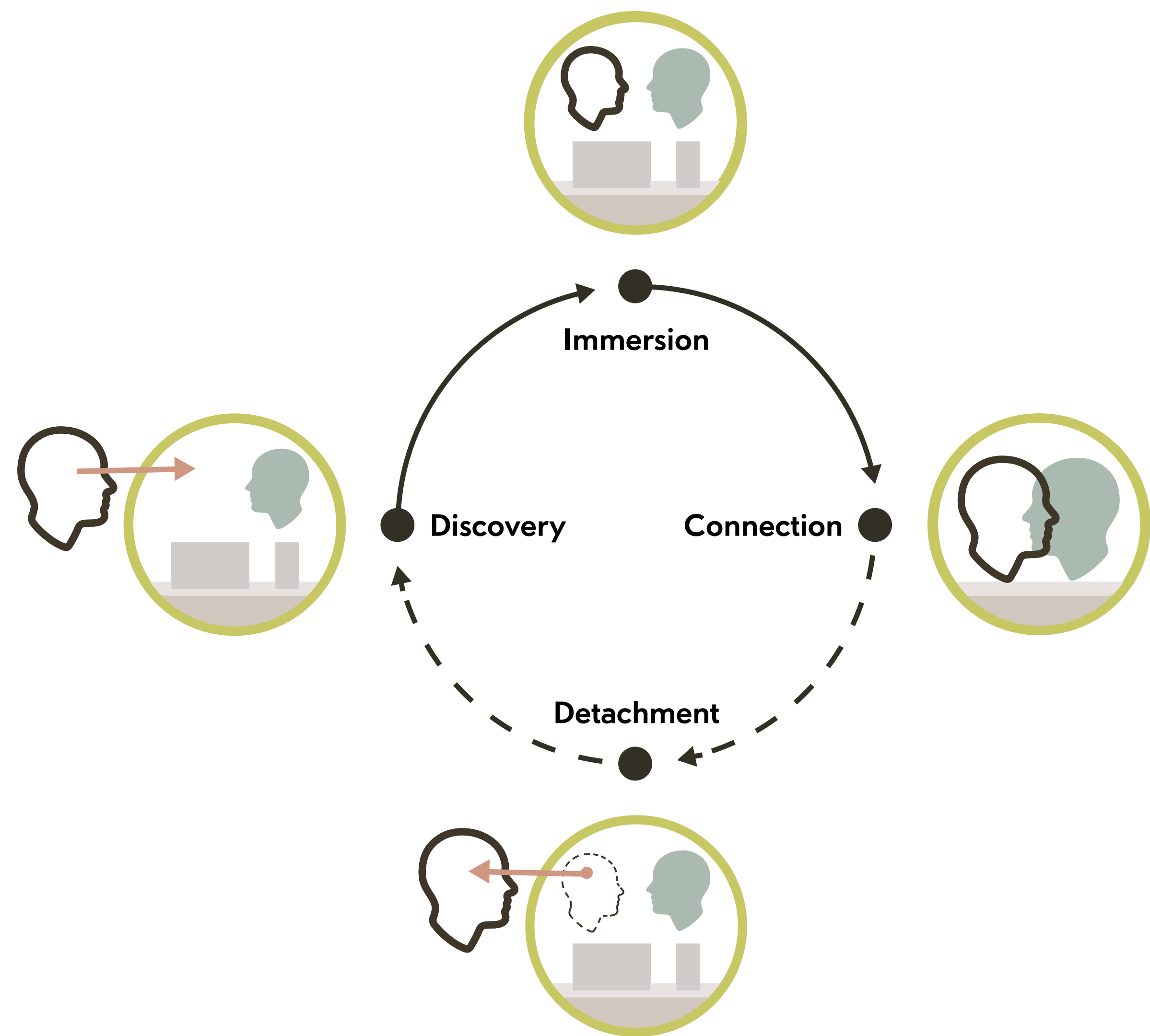
Local potential



## Turning heat back into warmth







Ref: Adapted from Merlijn Kouprie & Froukje Sleeswijk Visser (2009) A framework for empathy in design: stepping into and out of the user's life, Journal of Engineering Design.



# Thesis Hub / Testing

Scriptiewerkplaats Den Haag Zuidwest  
Leiden-Delft-Erasmus Universities



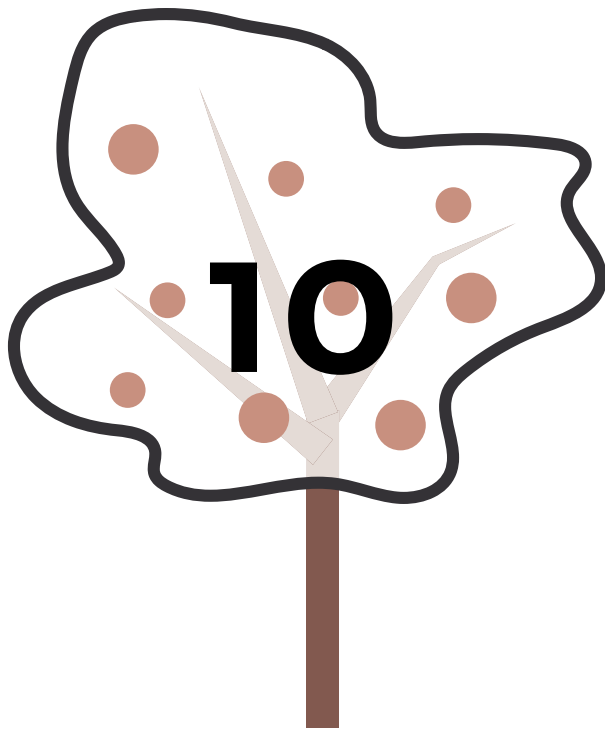
**Ethics workshop** - dr. Rodrigo Mena Fluhmann & Nanneke Winters



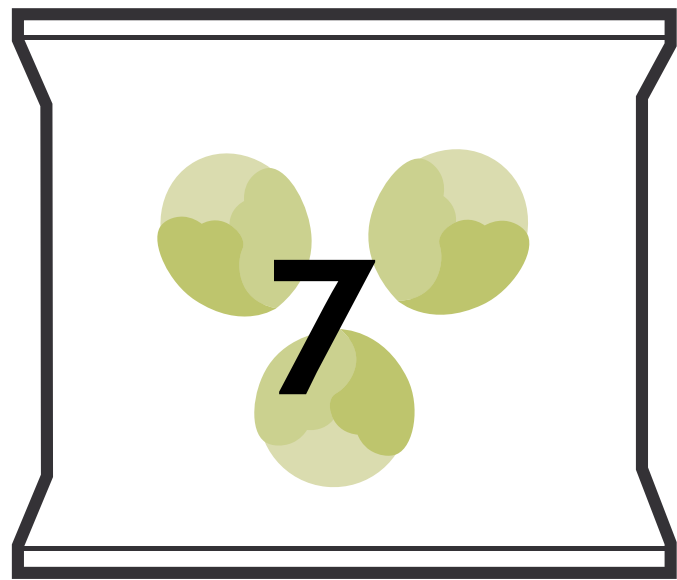
**Winning analysis** - praktijkdag WijWest Delft



Ten days in Moerwijk



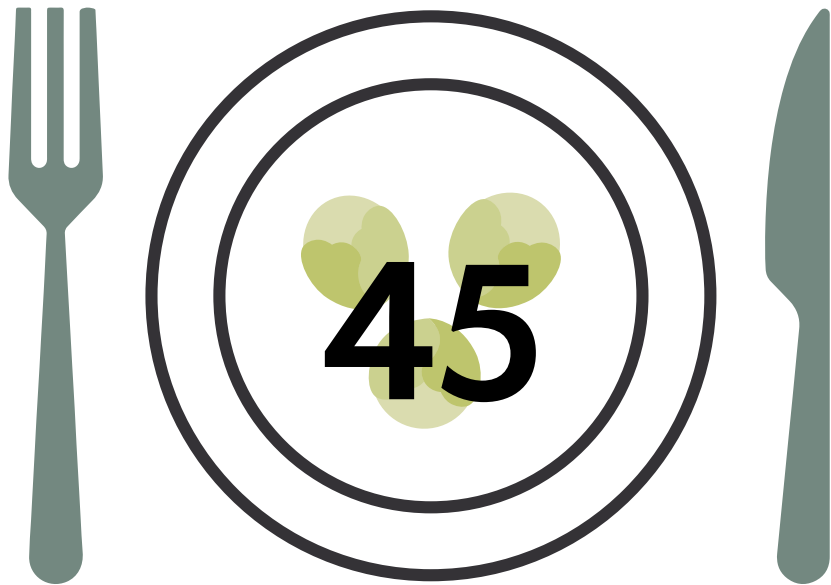
Fruit trees



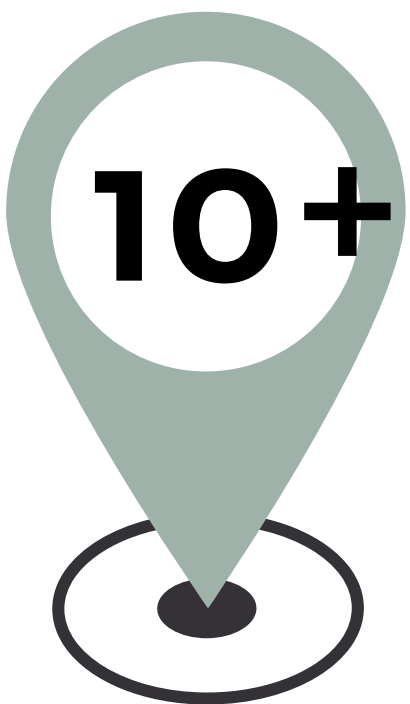
Bags of brussel sprouts



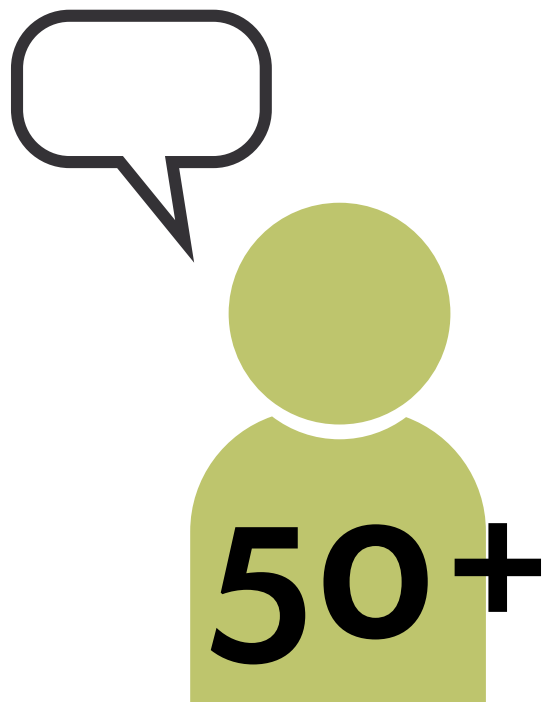
Elderly helped



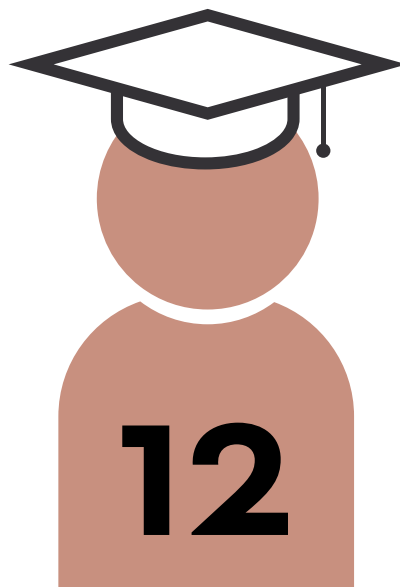
Affordable meals



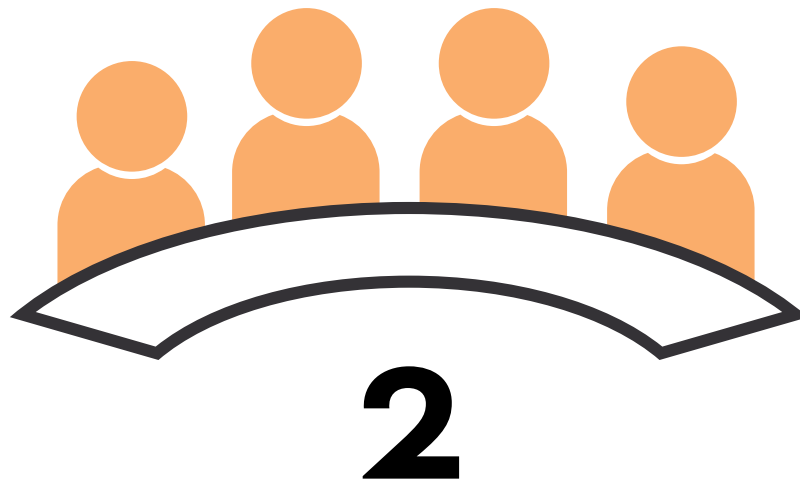
Local organisations



People spoken to



Social work interns



Council meetings



# Participatiekeuken



Serving affordable meals



Helping in the kitchen



# Buurttuin Moerwijk



Michel's Shed



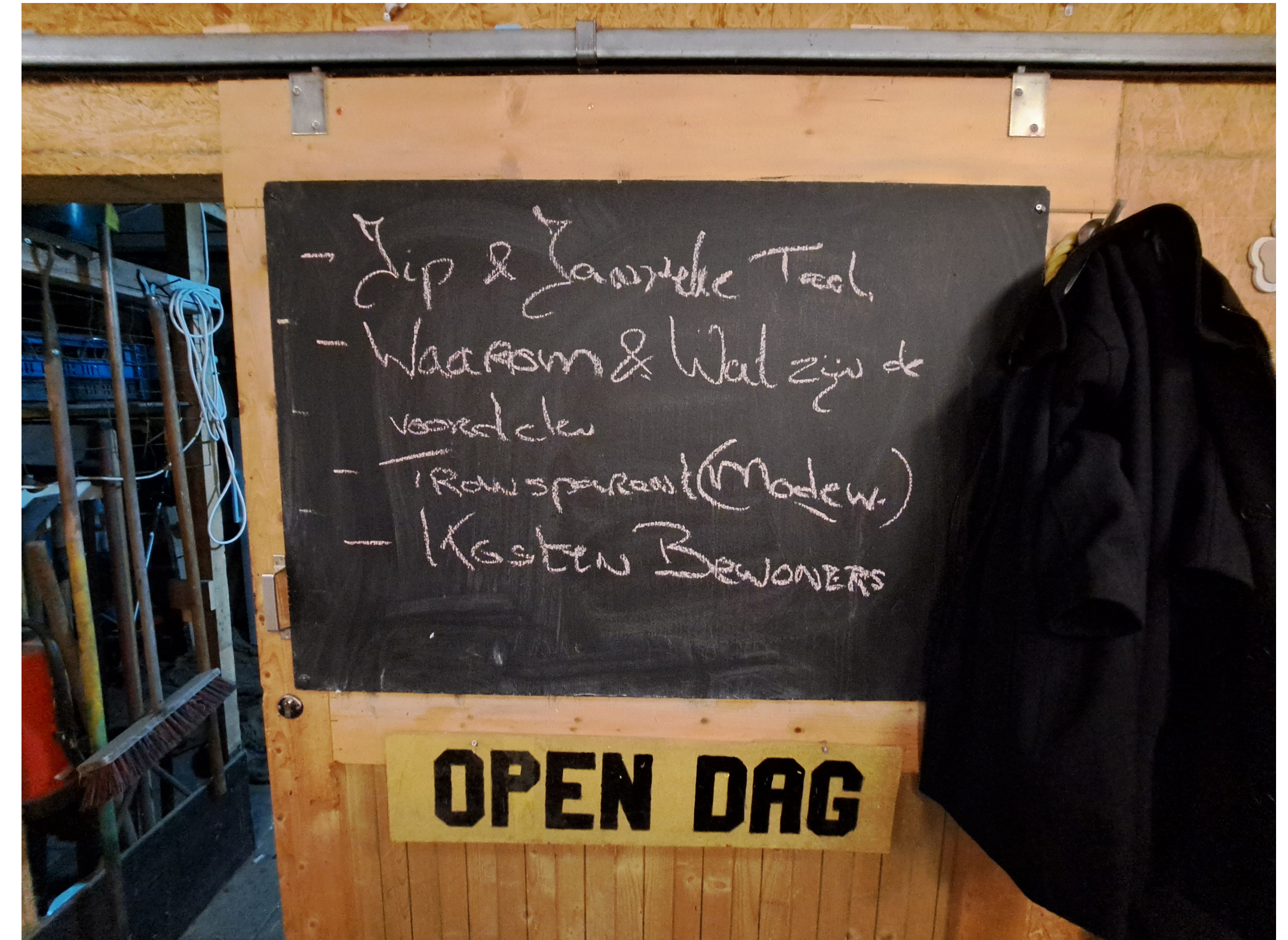
Planting Fruit trees



## Buurttuin Moerwijk



Michel's shed



Points of attention



## Marcuskerk / Food bank



Handing out food packages



Brick mozaïque



## Marcuskerk / Community garden



Community garden



Oven for pizza parties



## Block 33 / Bondgenoten



Youth-hub Block-33



Meeting buurtagenda bondgenoten



# Openbare bibliotheek Moerwijk



Public library in care complex



Klik & tik digital skill workshop



# Buurtkamer de Luyk



Neighbourhood living room



**Gezonde lunch elke dinsdag  
van 11:00 tot 13:00**

Kosten € 2

**Gezonde Wereldkeuken elke  
woensdag van 17:00 tot 20:00**

Kosten €3

*Locatie: Buurtkamer de luyk  
Jan luykenlaan 119  
2513JM Den haag*

Reserveren kan via Tel:0613511587

Healthy lunches



# Al-Hikmah Mosque



Geloven in groen / faith in green



Solar panels on the mosque



# Beauty & Friction



Green axes along the erasmusweg



Rules and signs



# Beauty & Friction



Car-centrism



Clutter





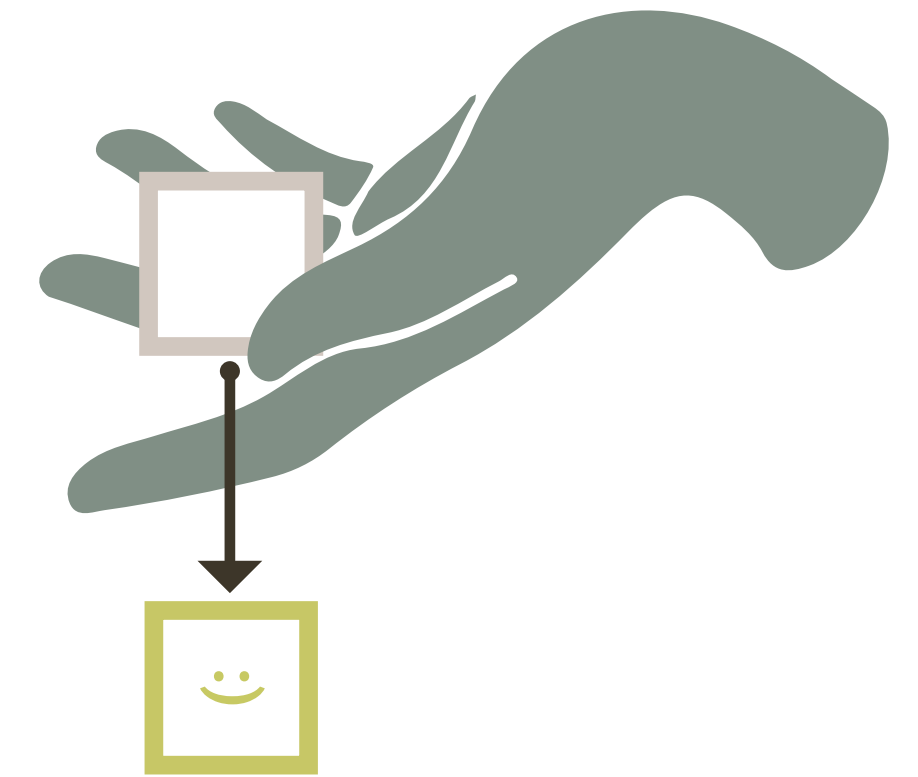
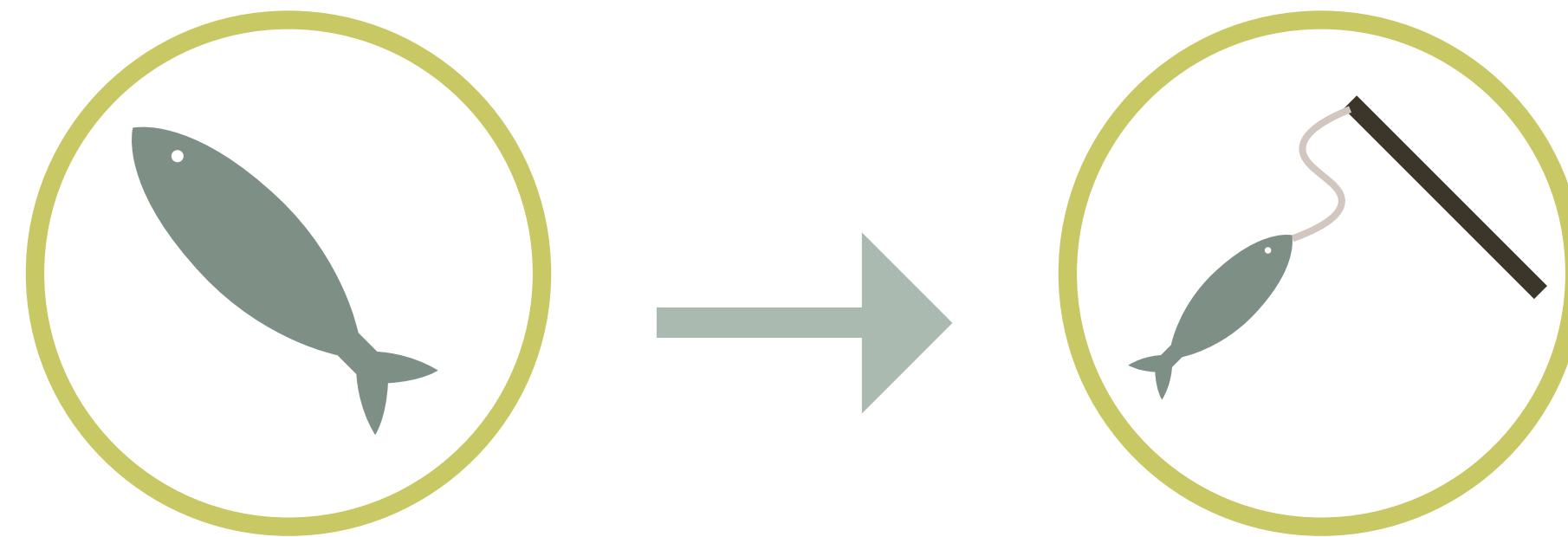
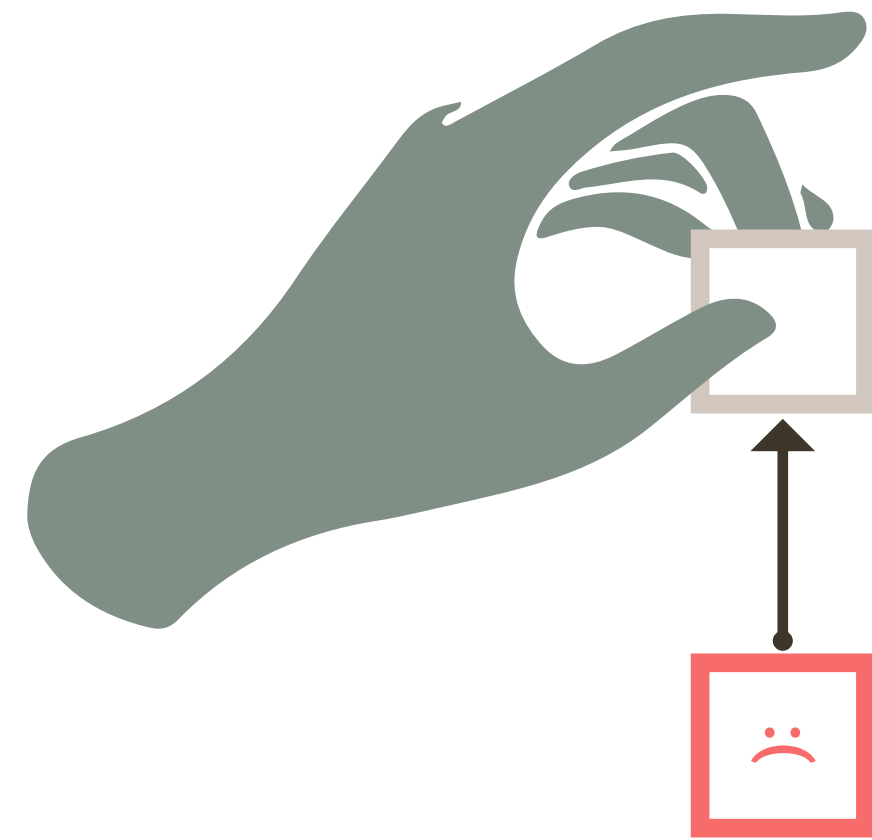
*“The people here are poor, they can’t even spell ‘energy-transition’”*



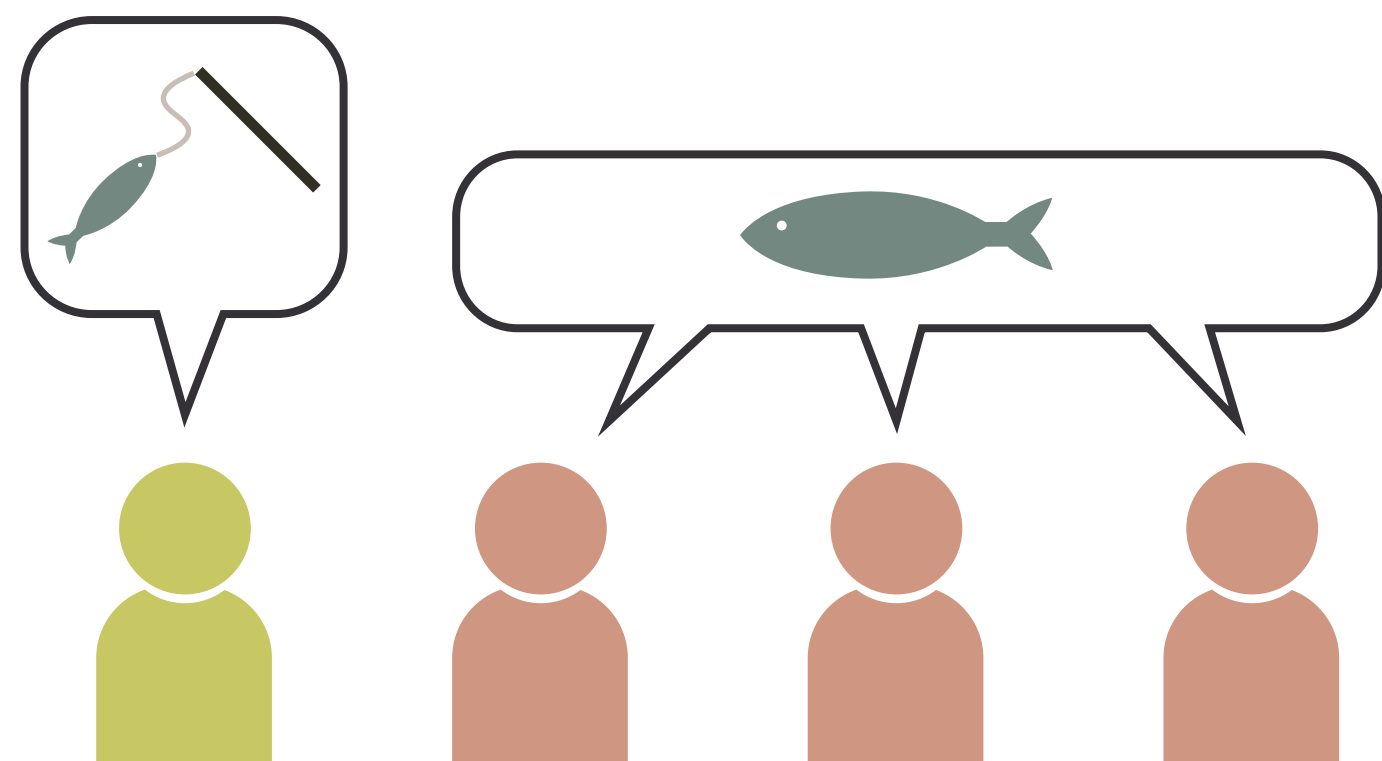




# Teaching people how to fish

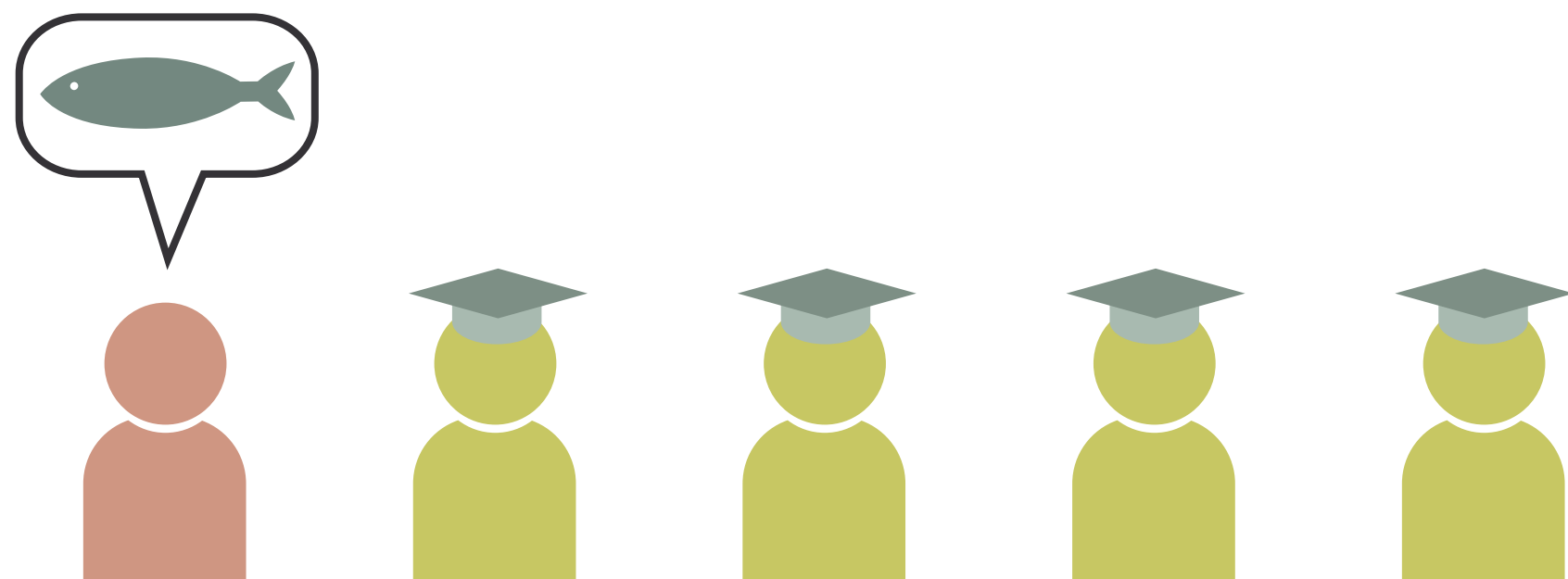


*“I wish to be the instrument of my own, not of other men’s acts of will.  
(...) to be moved by reasons, by conscious purposes, which are my own,  
not by causes which affect me, as it were, from outside.”*



Age 15-75 without a job

11.530 unemployed

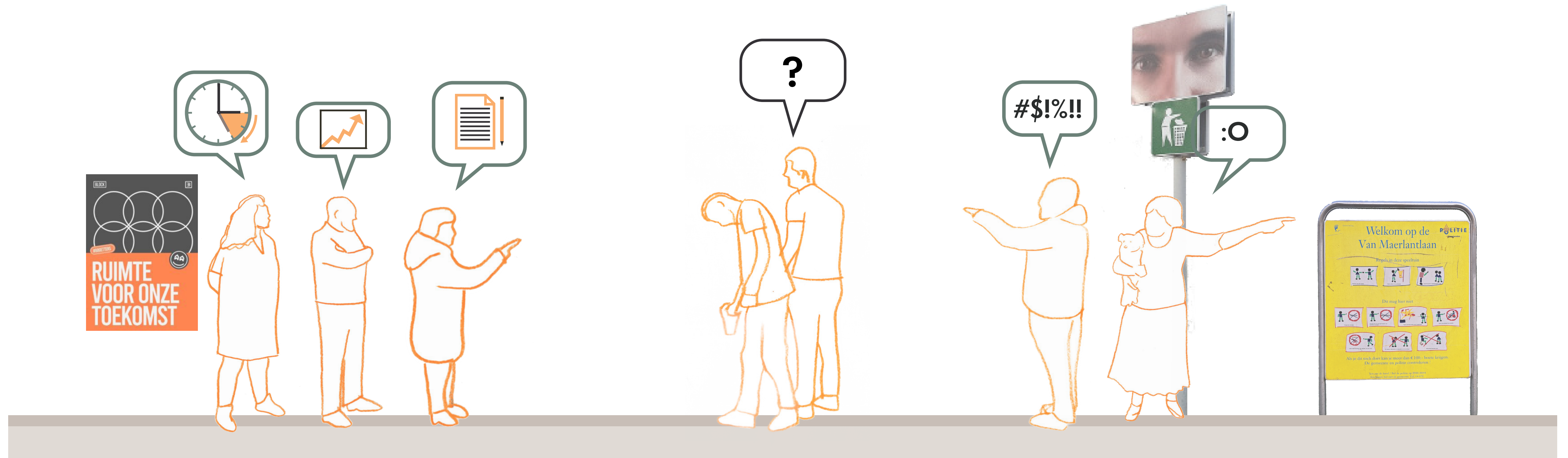


Age 18-30 without start qualification

920 drop-outs

Gemeente Den Haag. (n.d.). Zuidwest in Cijfers. [https://denhaag.raadsinformatie.nl/document/10214966/1/RIS308973\\_Bijlage\\_2\\_FactsheetsZW](https://denhaag.raadsinformatie.nl/document/10214966/1/RIS308973_Bijlage_2_FactsheetsZW)

# A place for the youth

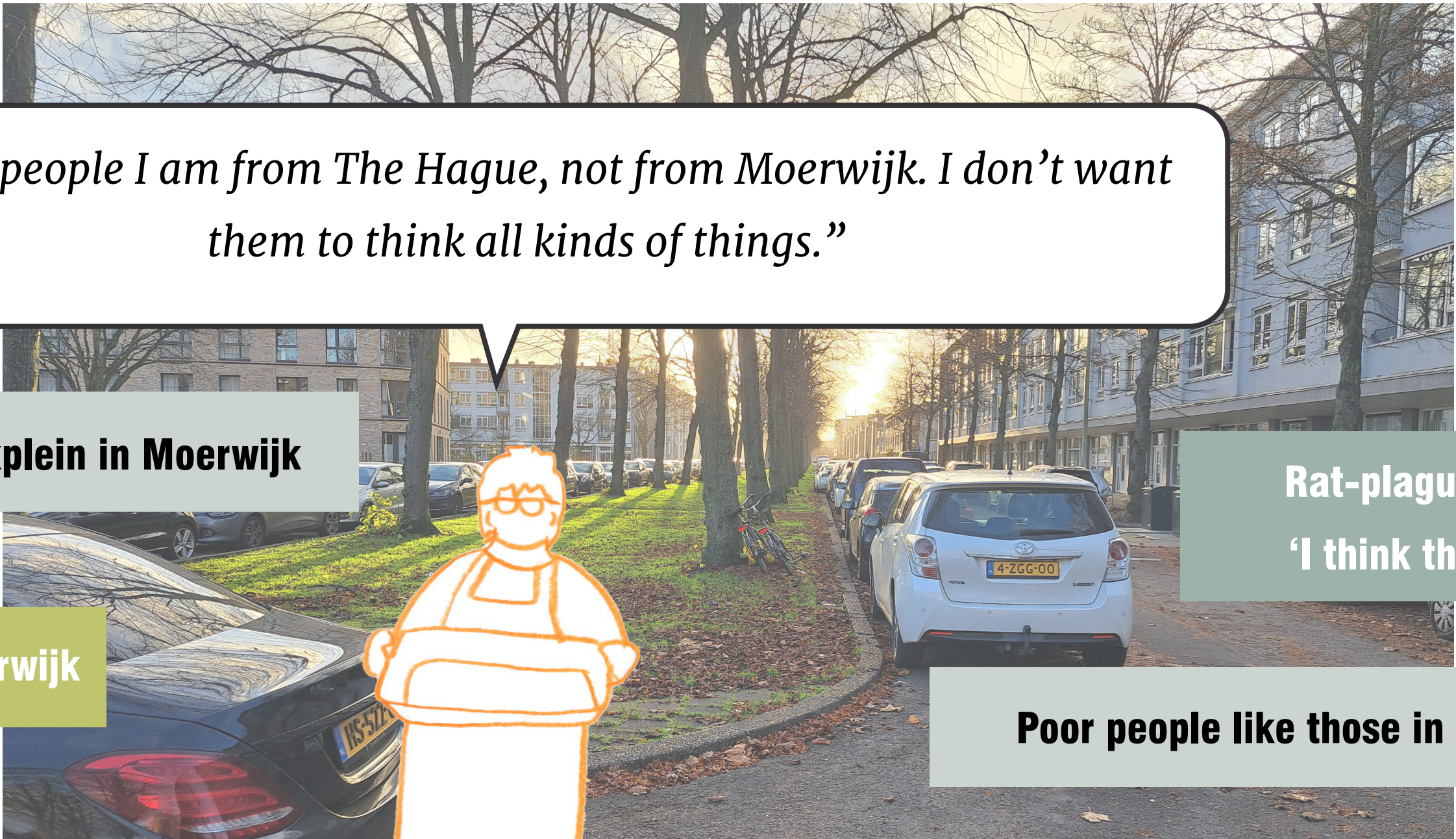


*Organised youth places*

*Public space*



# Stigma



*“I tell people I am from The Hague, not from Moerwijk. I don’t want them to think all kinds of things.”*

**Seven suspects of drug-trafficking arrested at Heeswijkplein in Moerwijk**

**Man died in stabbing incident at portico in Moerwijk**

**Rat-plague haunts Moerwijk:  
‘I think there are 1500 rats!’**

**Poor people like those in Moerwijk die 6 years earlier**

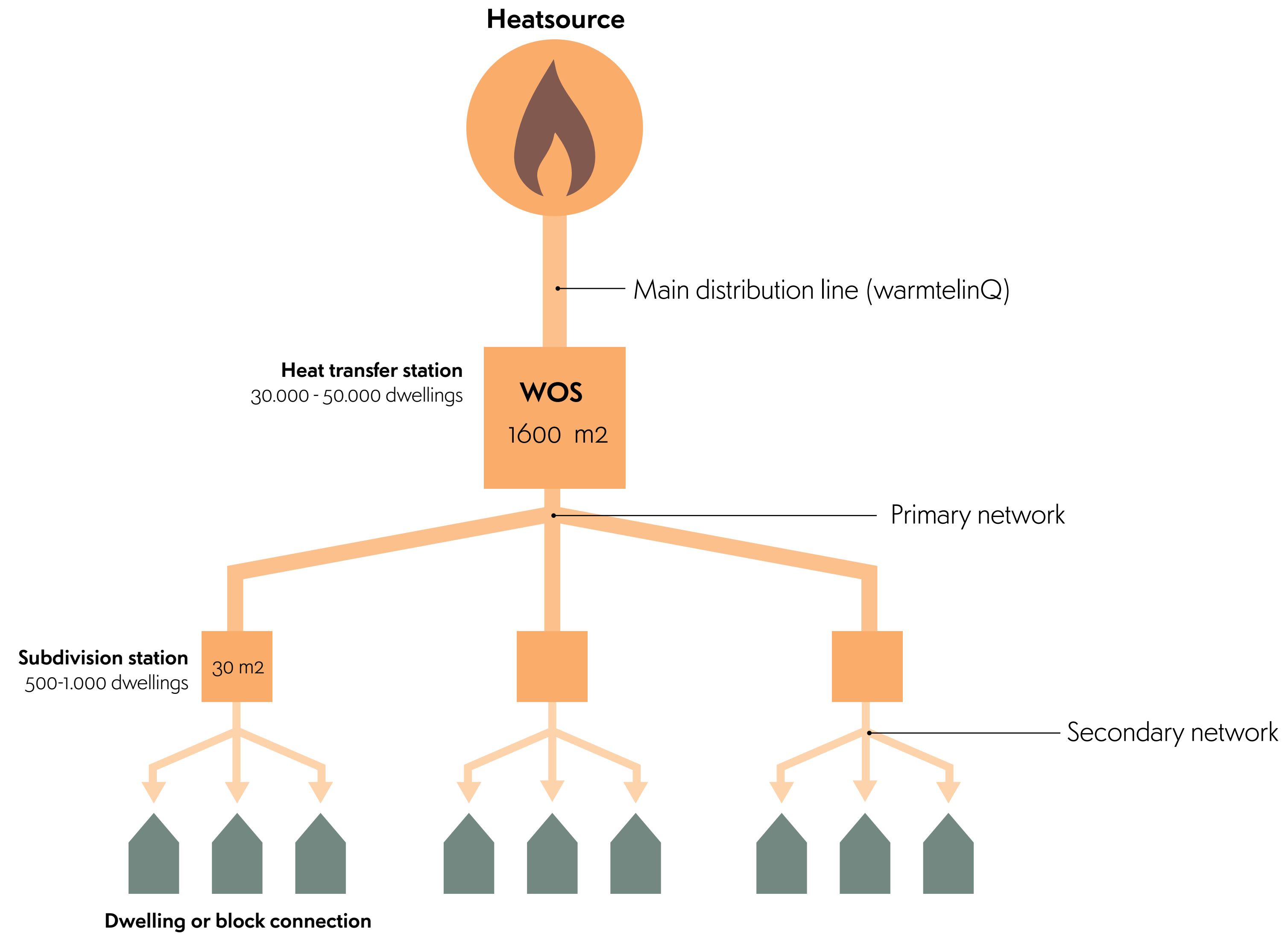
 *moerwijk the hague criminality*

 *moerwijk poorest neighbourhood*

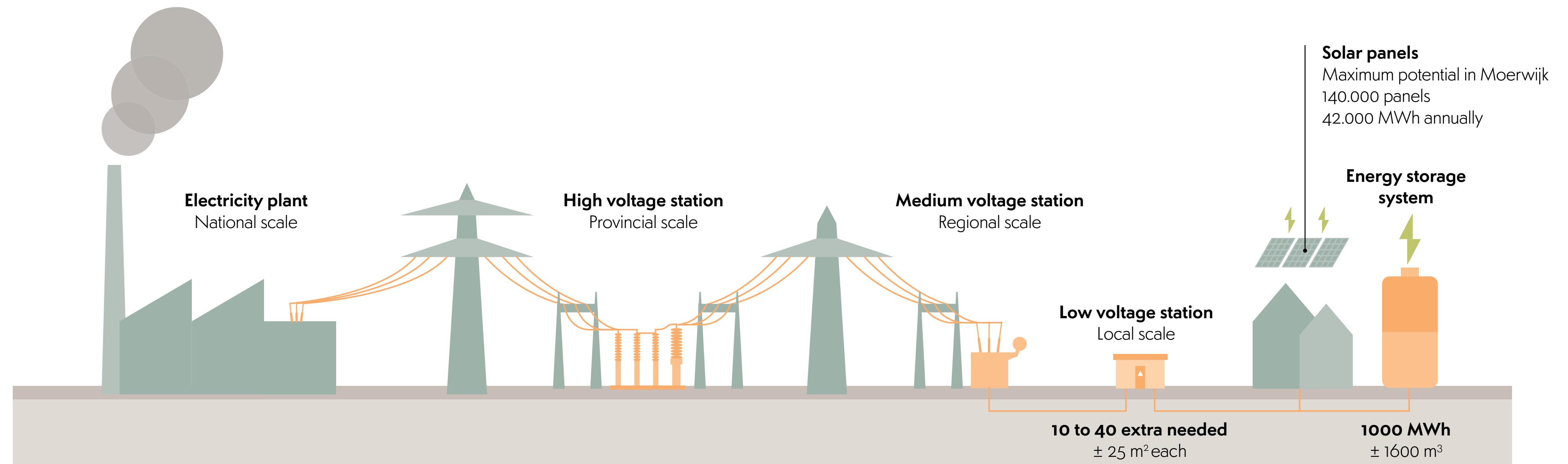
 *moerwijk deprived area*



# Infrastructure for district heating

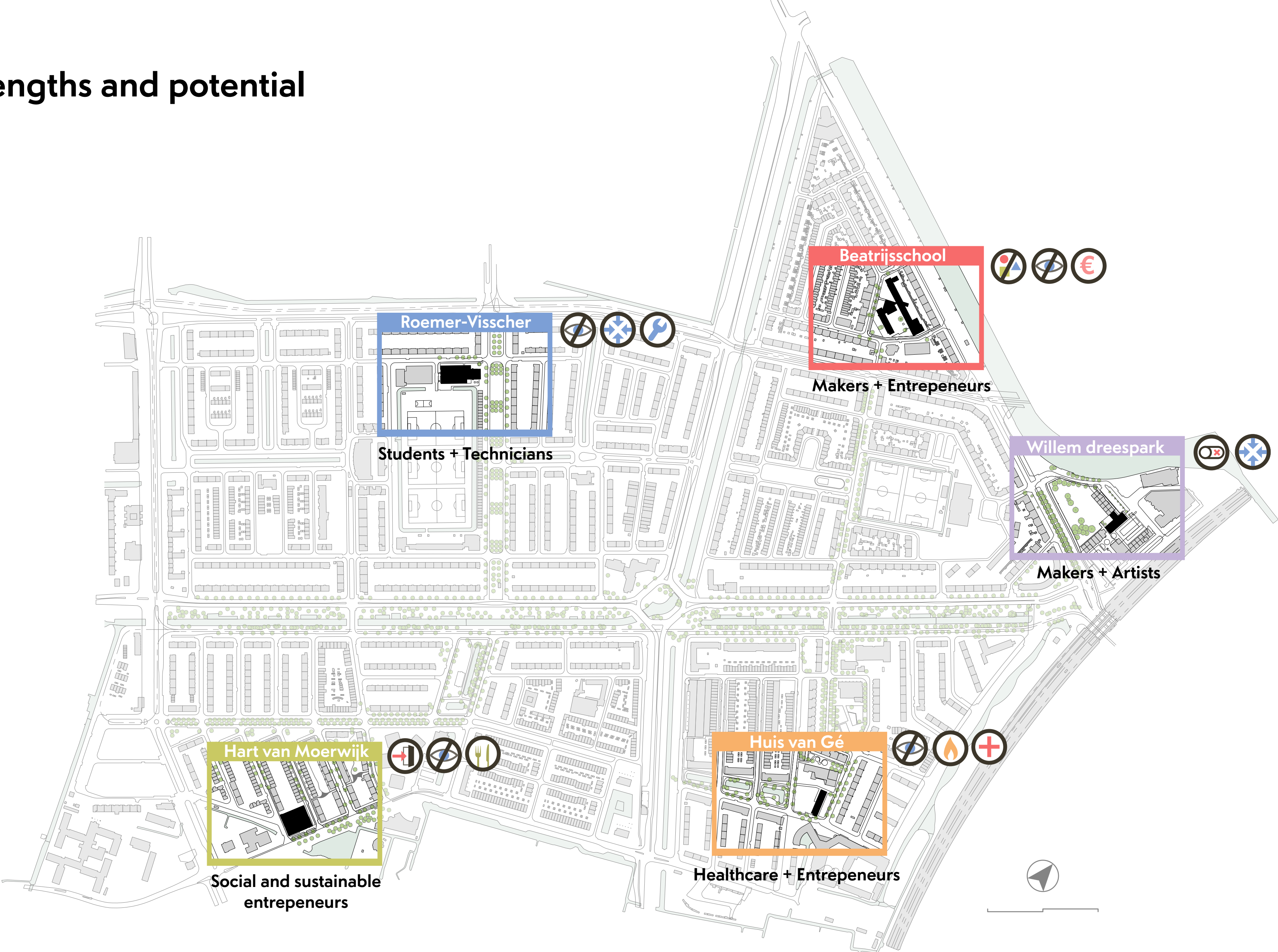


# Infrastructure for electricity





# Existing strengths and potential

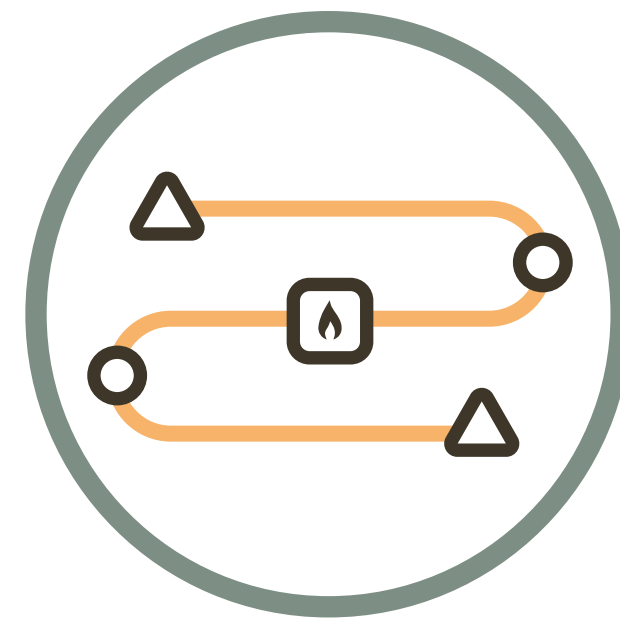




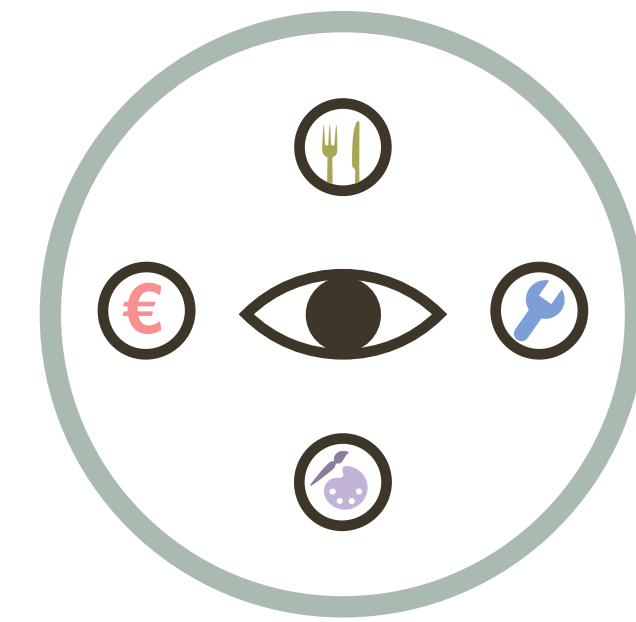
## Research conclusions



**Improving the soft qualities in  
the neighbourhood**



**Along stations and  
infrastructural axes**



**building from existing  
strengths and challenges**



A simple formula

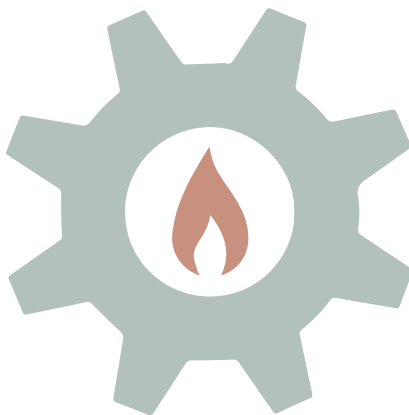
**Sensitive understanding**



Urban

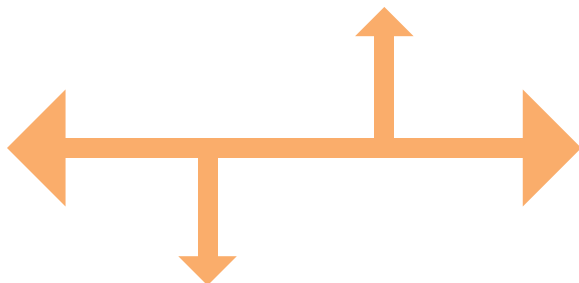


Community

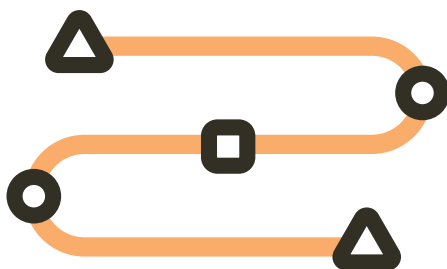


Technical

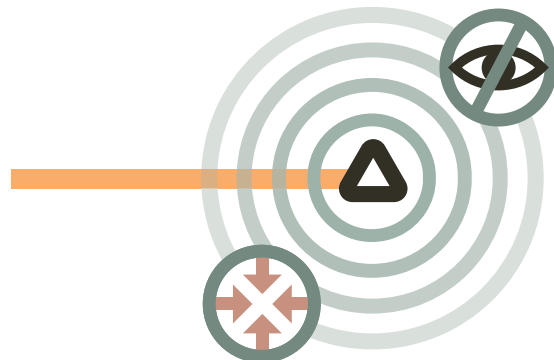
**Network of pipes**



Visible distribution along axes

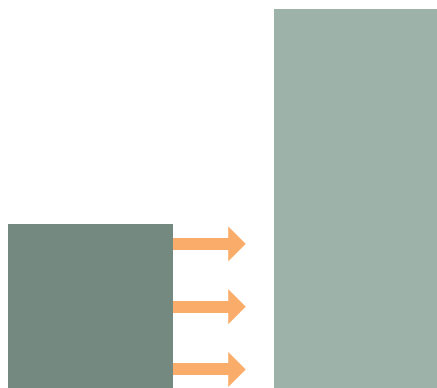


Intervention nodes

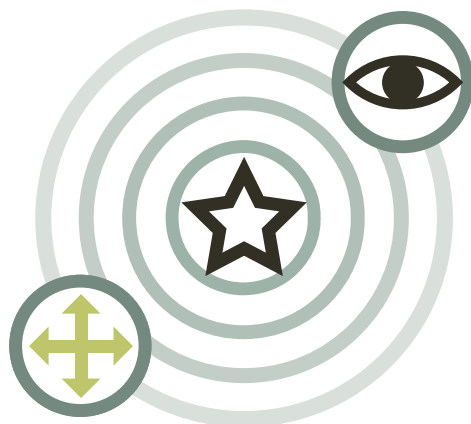


Strategic endpoints

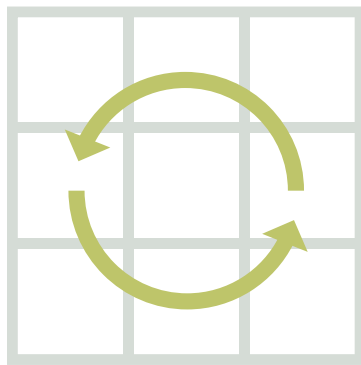
**Upgraded endpoints**



Attach / Infill



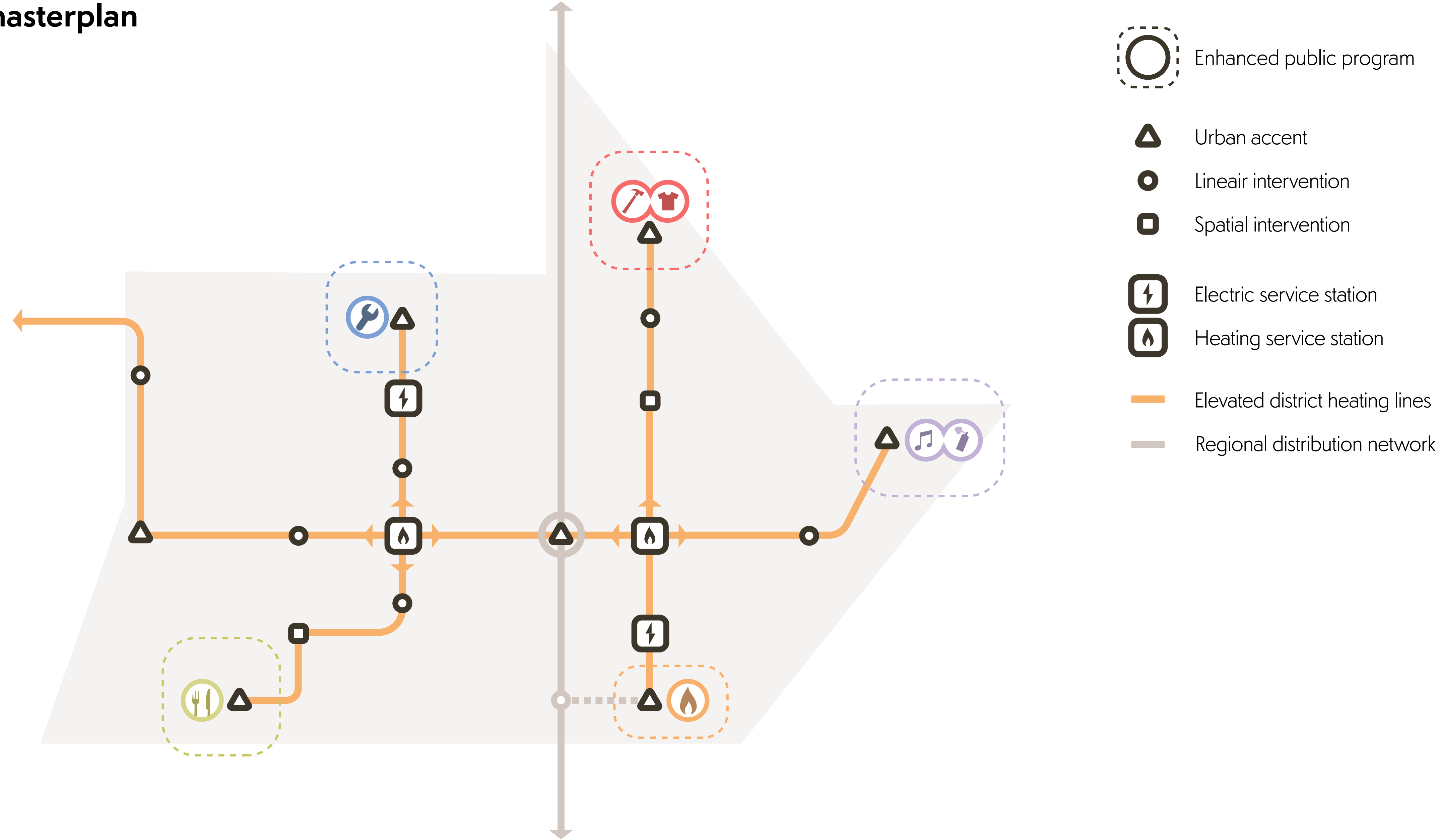
Landmark / contrast



Reuse / Material logic



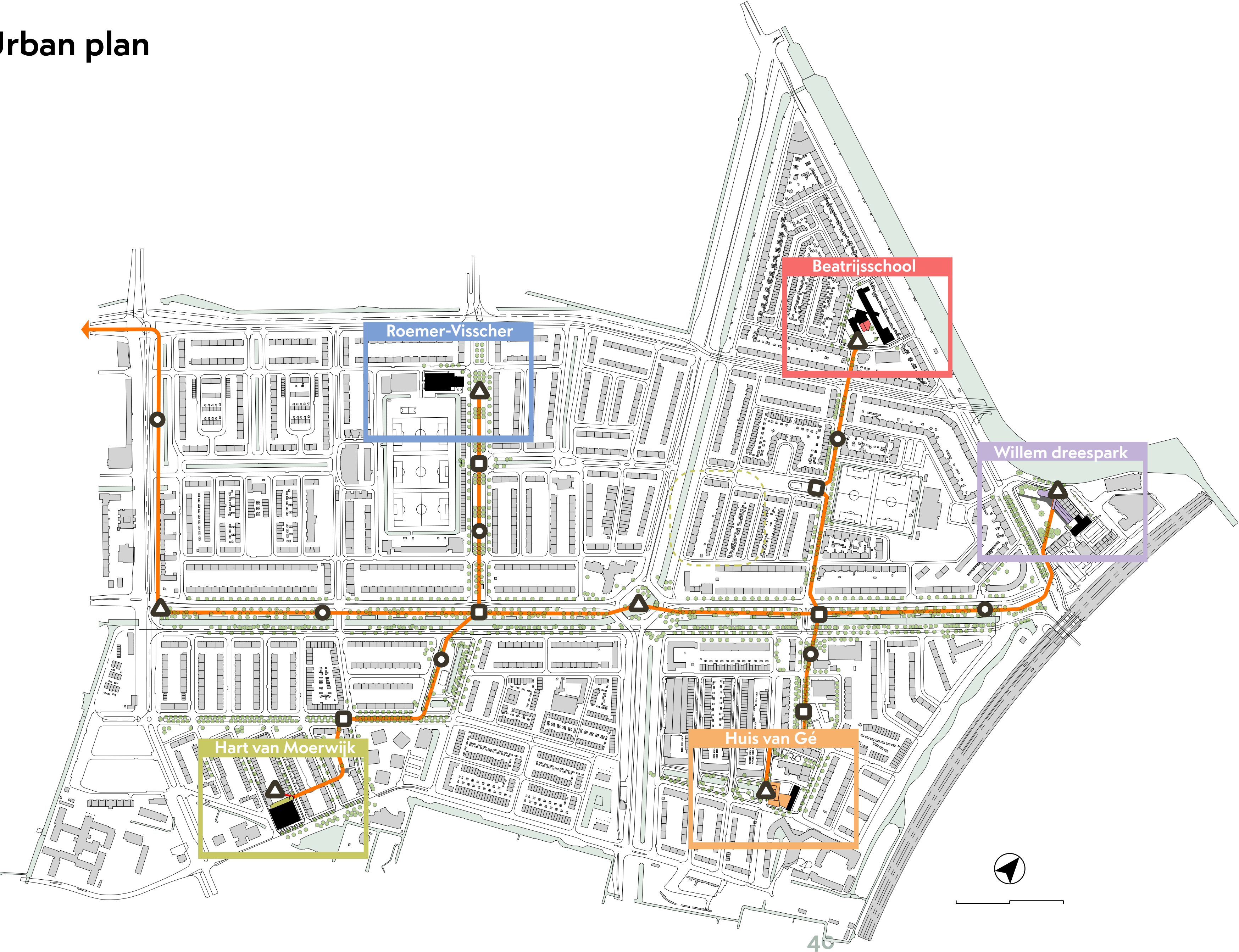
# The masterplan





Urban plan

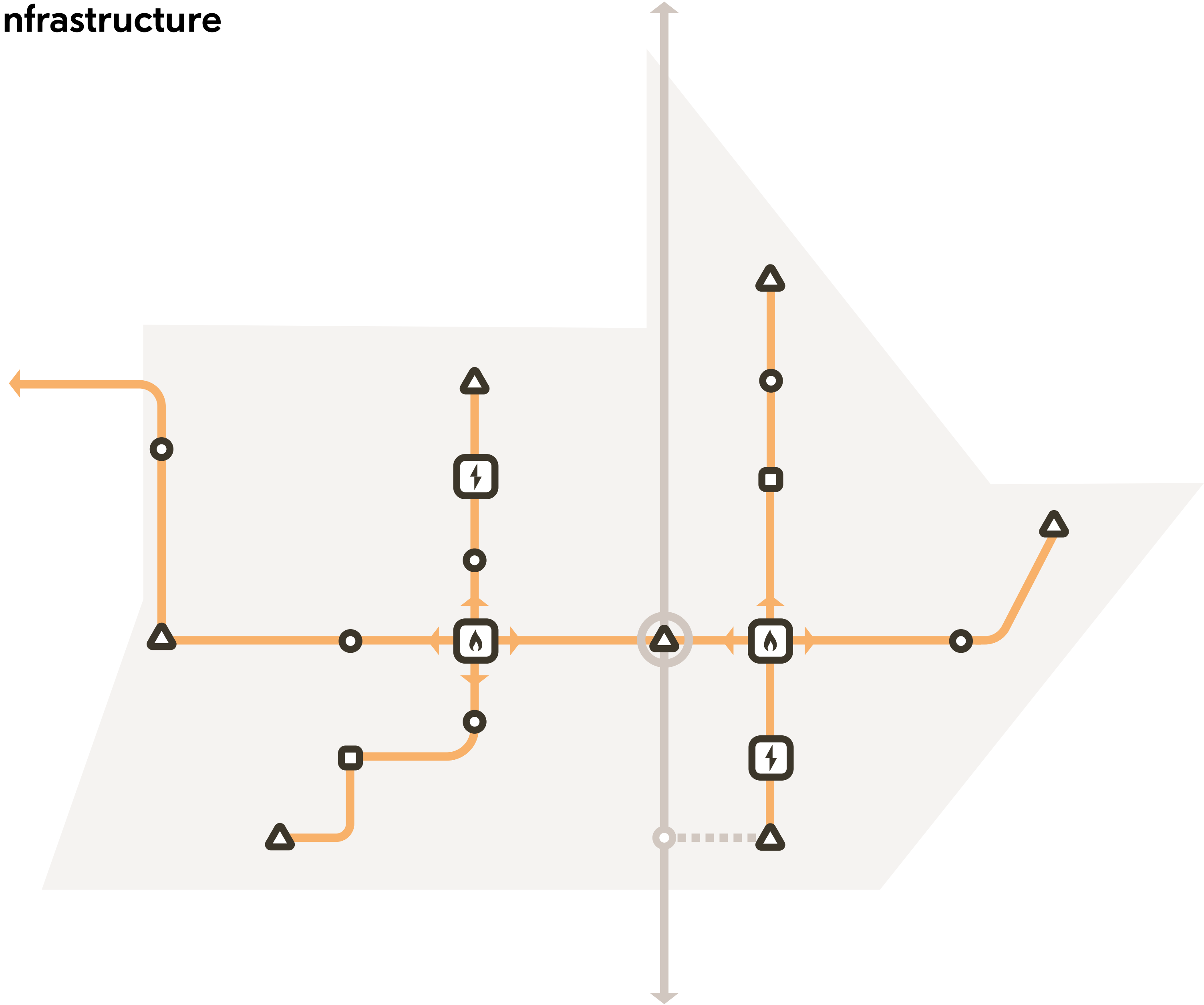
- Enhanced public program
- Urban accent
- Lineair intervention
- Spatial intervention
- Elevated district heating lines





# Hard infrastructure

- Urban accent
- Lineair intervention
- Spatial intervention
- Electric service station
- Heating service station
- Elevated district heating lines
- Regional distribution network





## The pink pipes of Berlin

Pollems GmbH



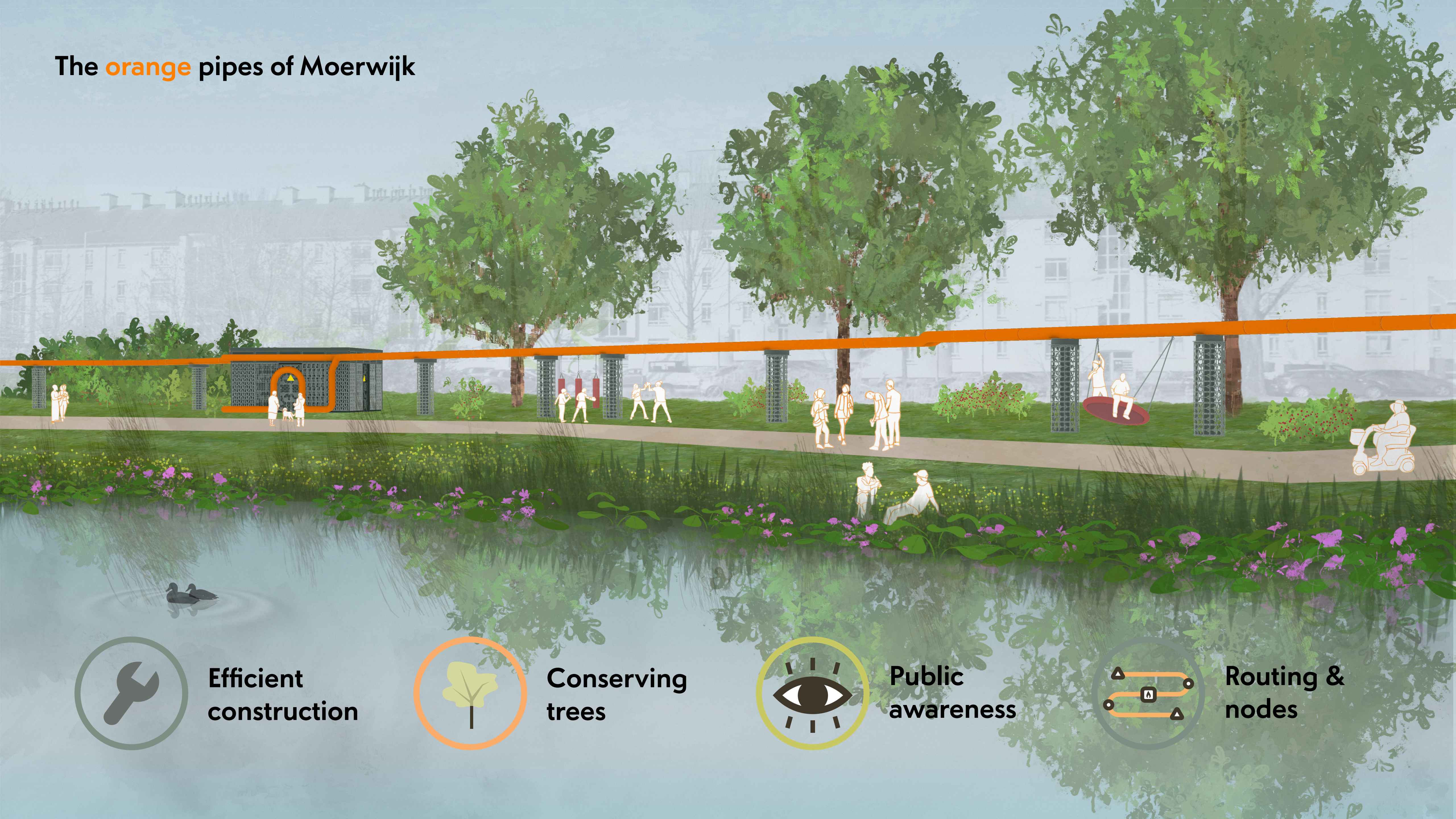
Bends and streetscapes



Contrast and flexibility



# The orange pipes of Moerwijk



**Efficient  
construction**



**Conserving  
trees**



**Public  
awareness**

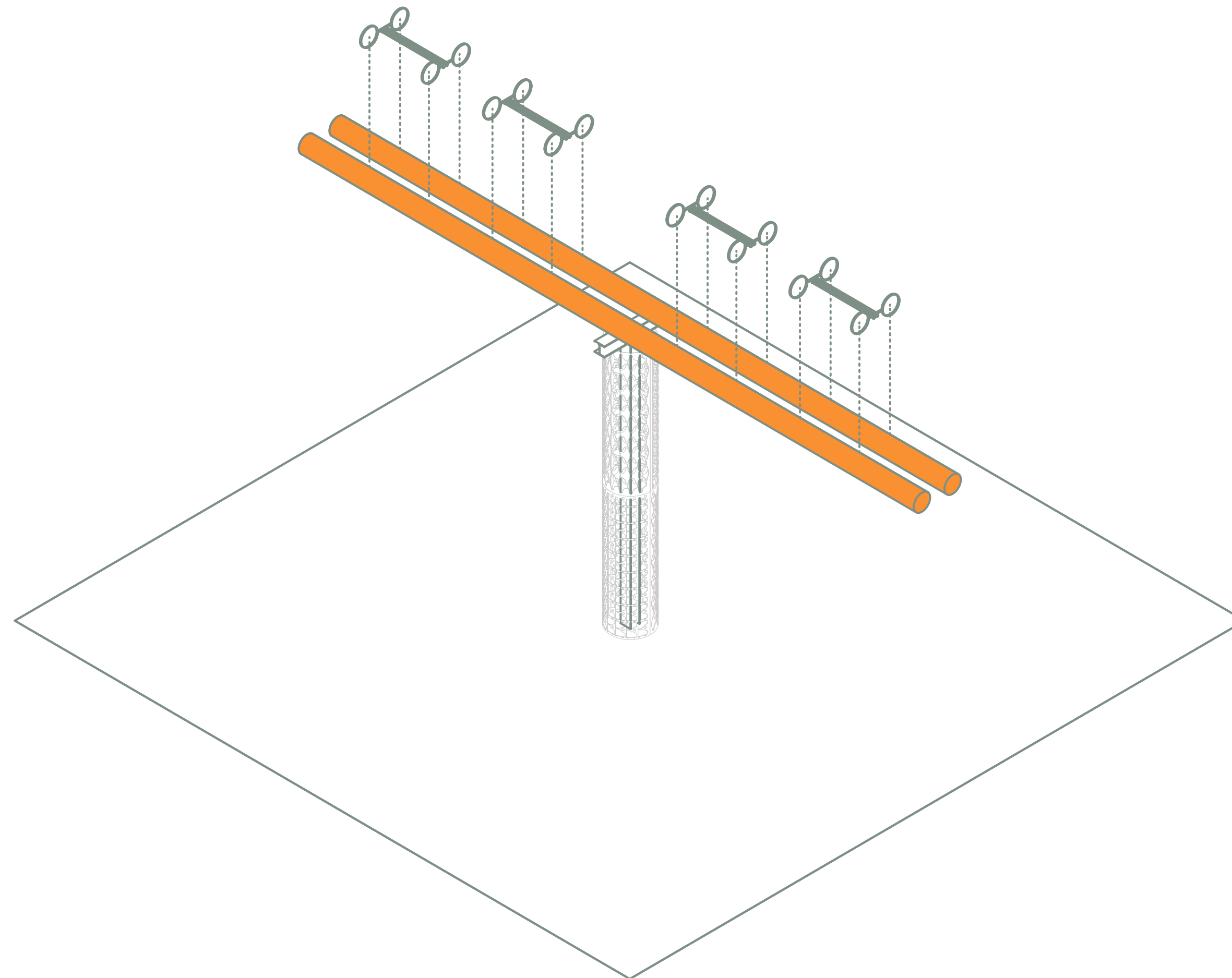
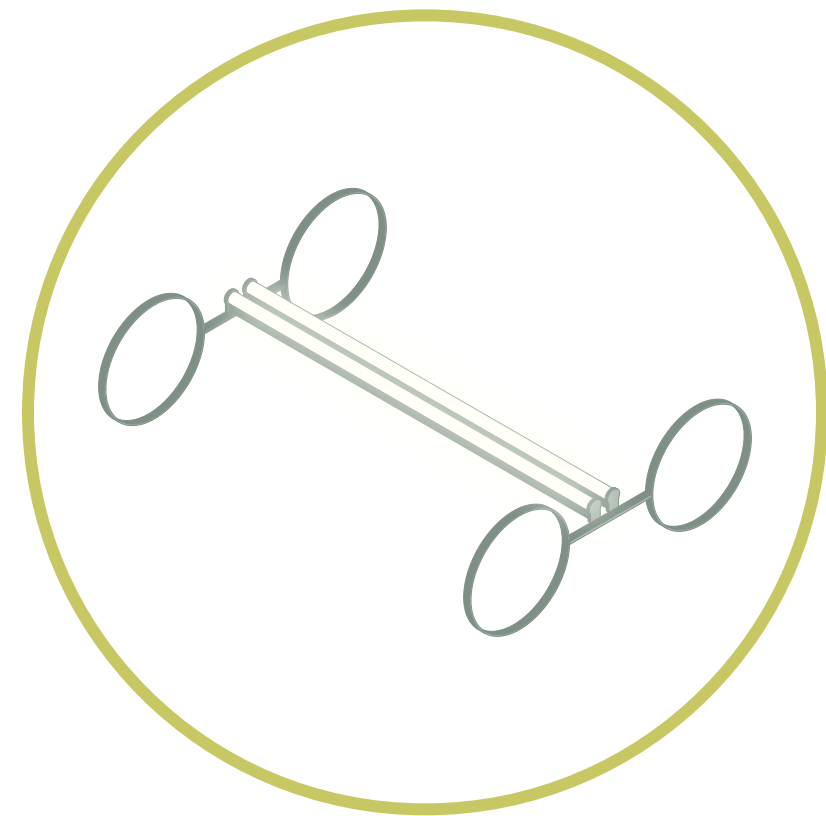


**Routing &  
nodes**

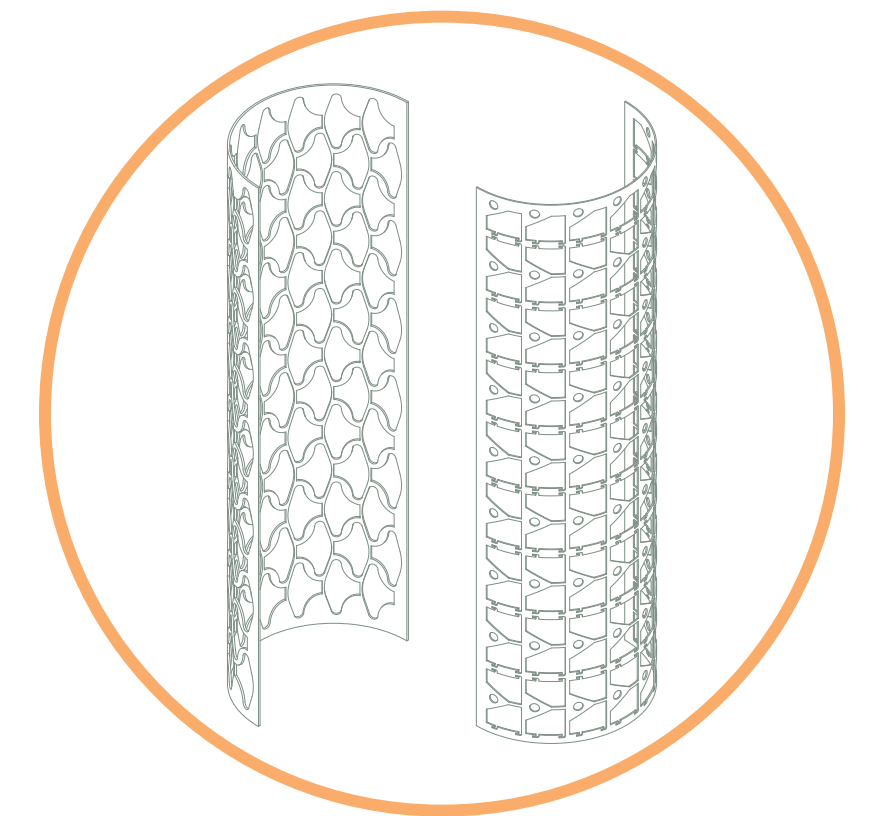


# The basic column

Lighting fixtures

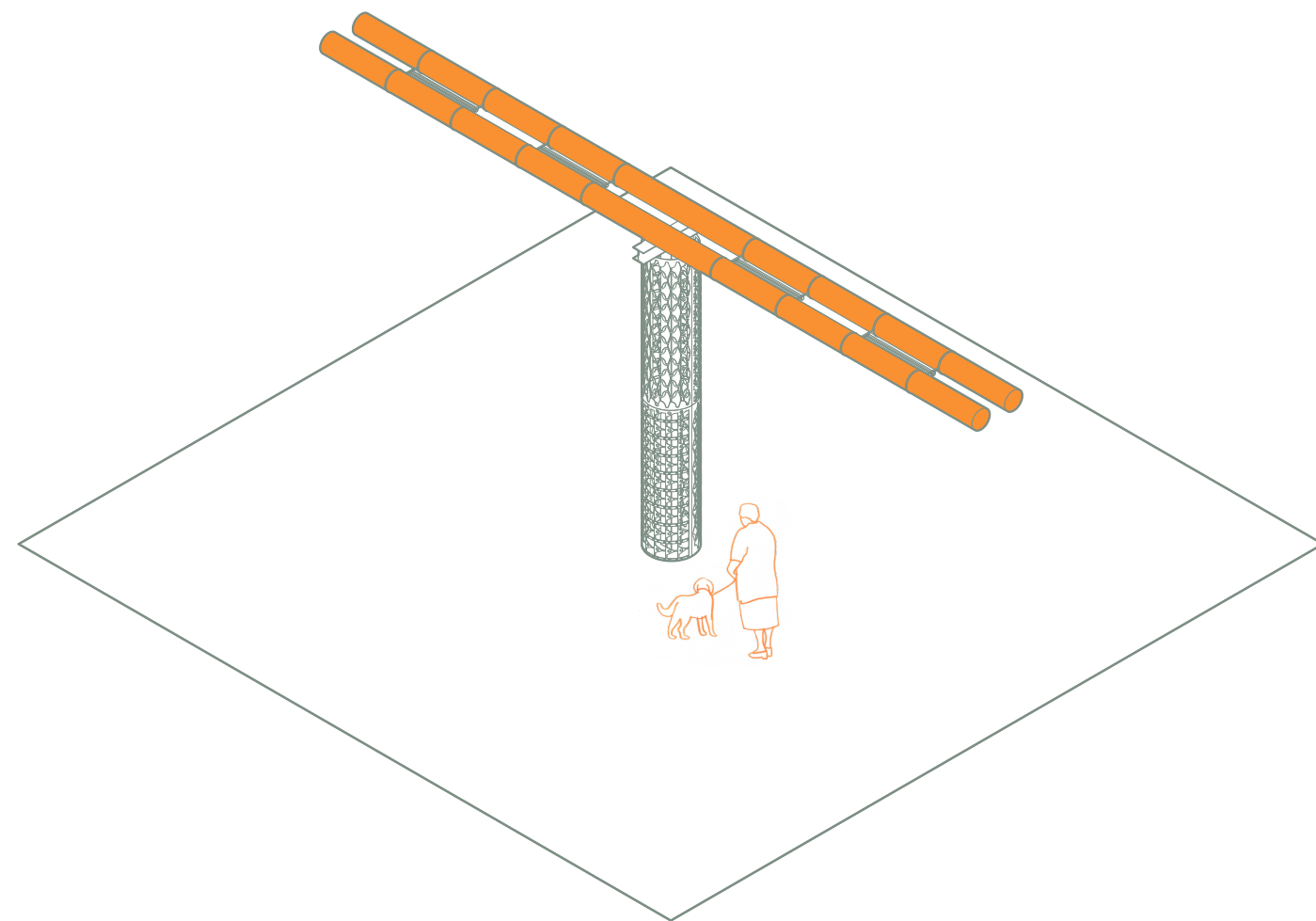


Bended contour sheets

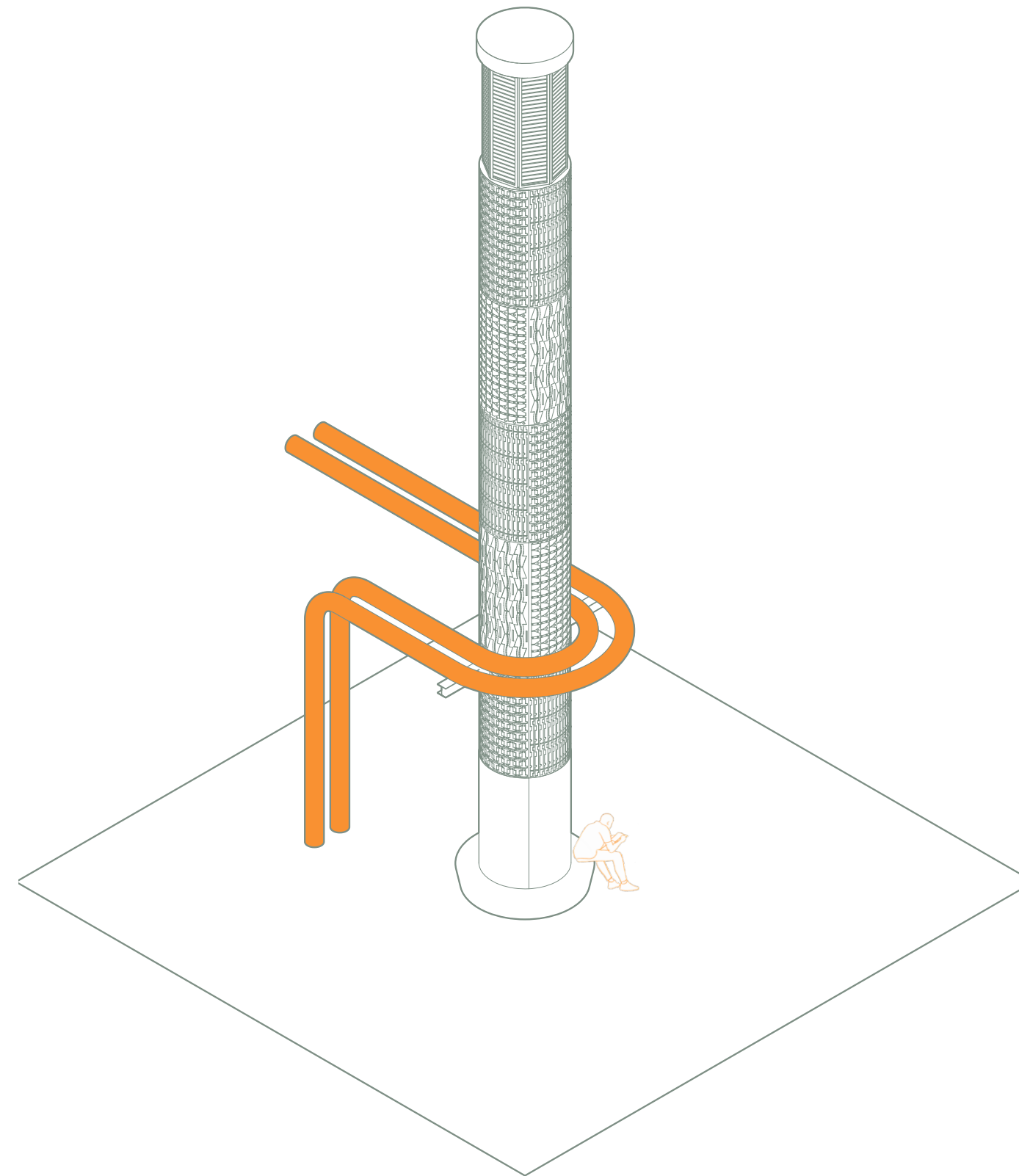




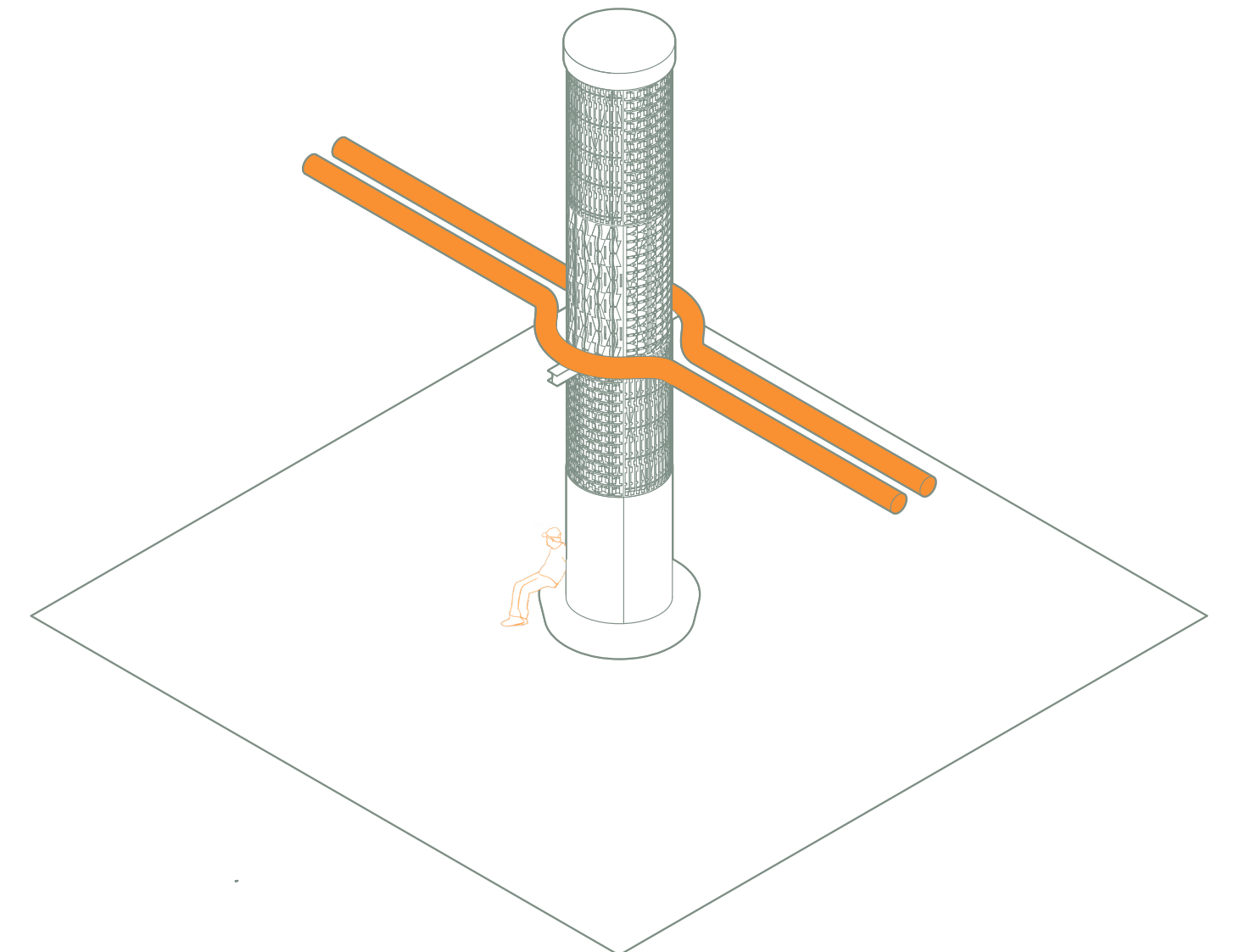
# Accents



Column



Solar chimney

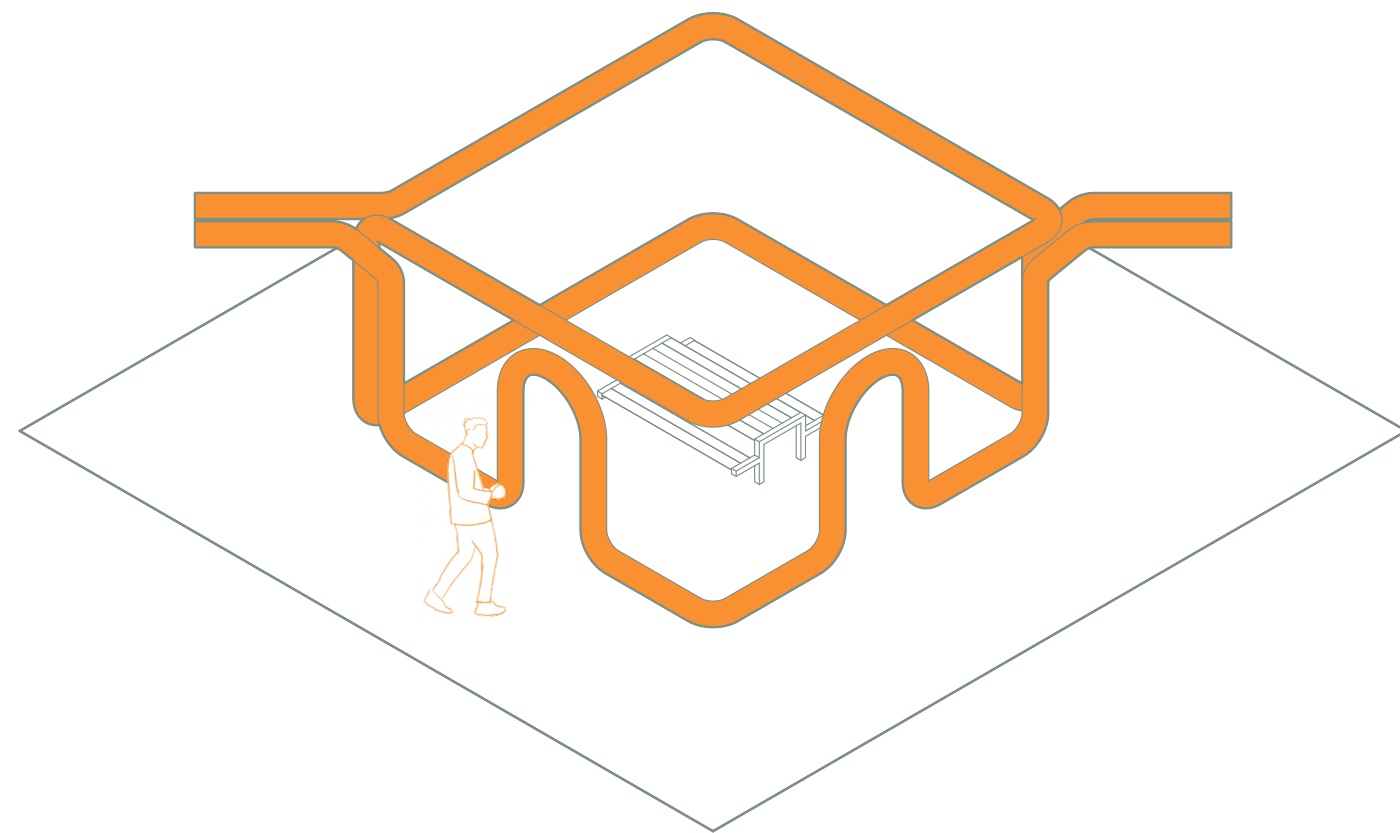


Tower

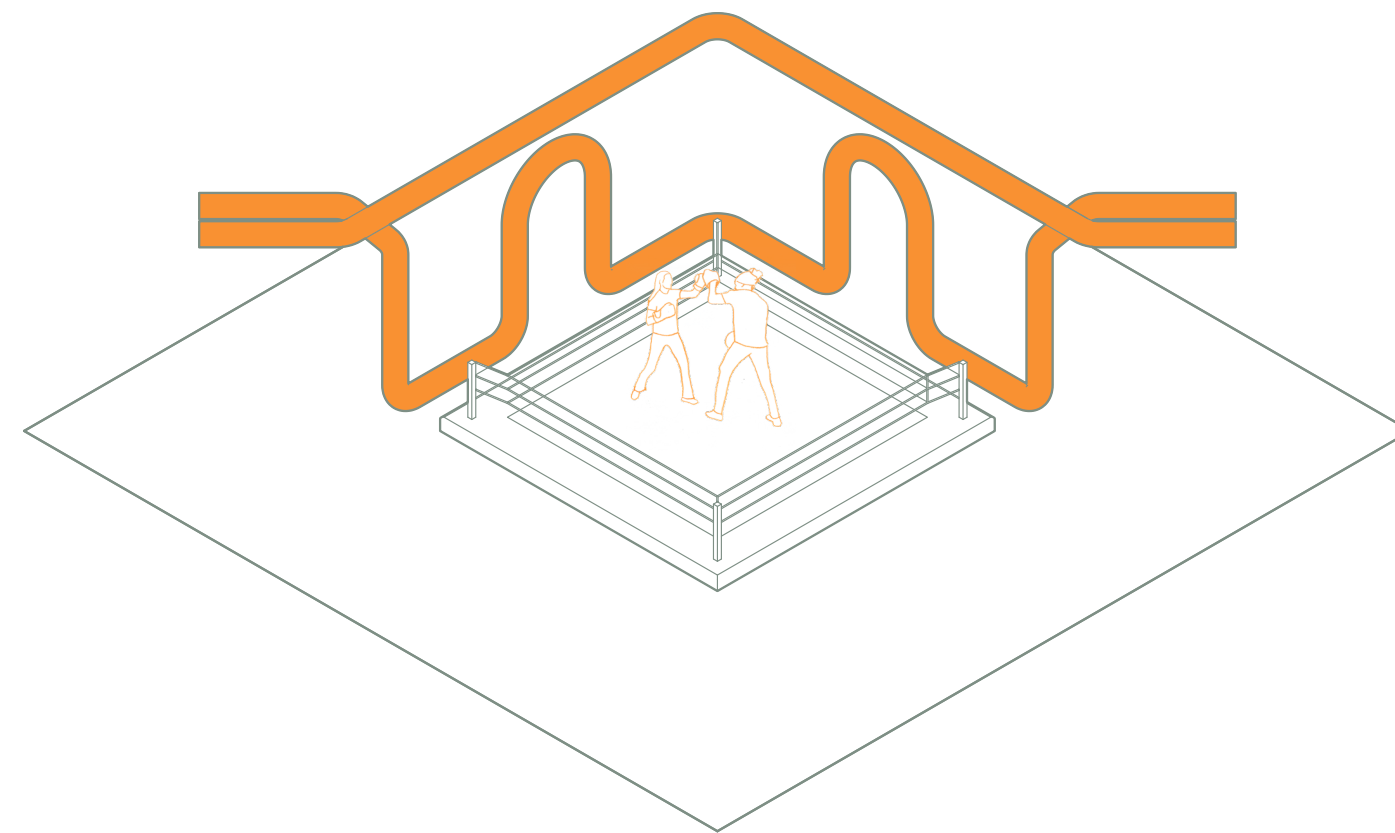




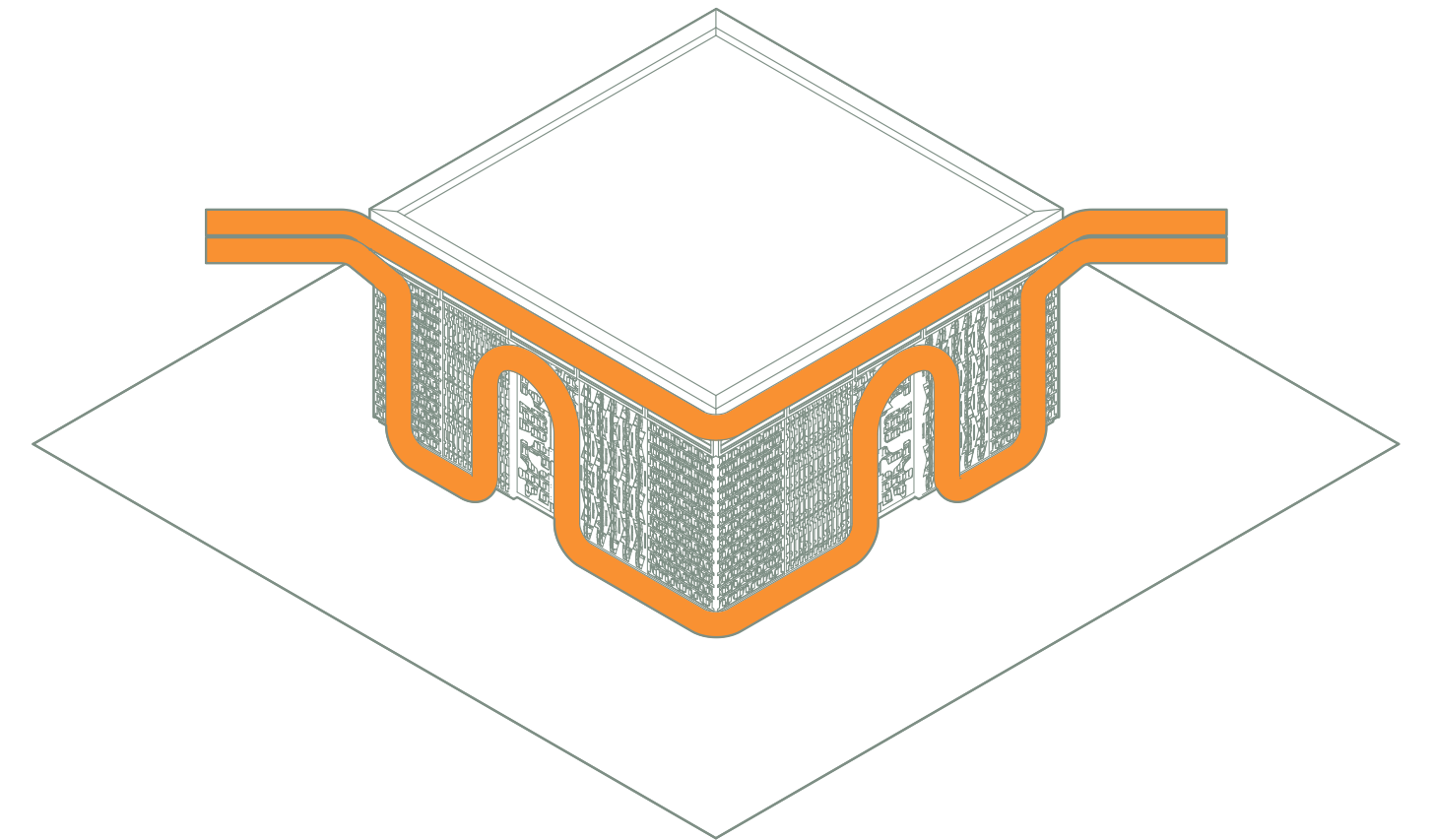
# Spaces



House



1/2 house

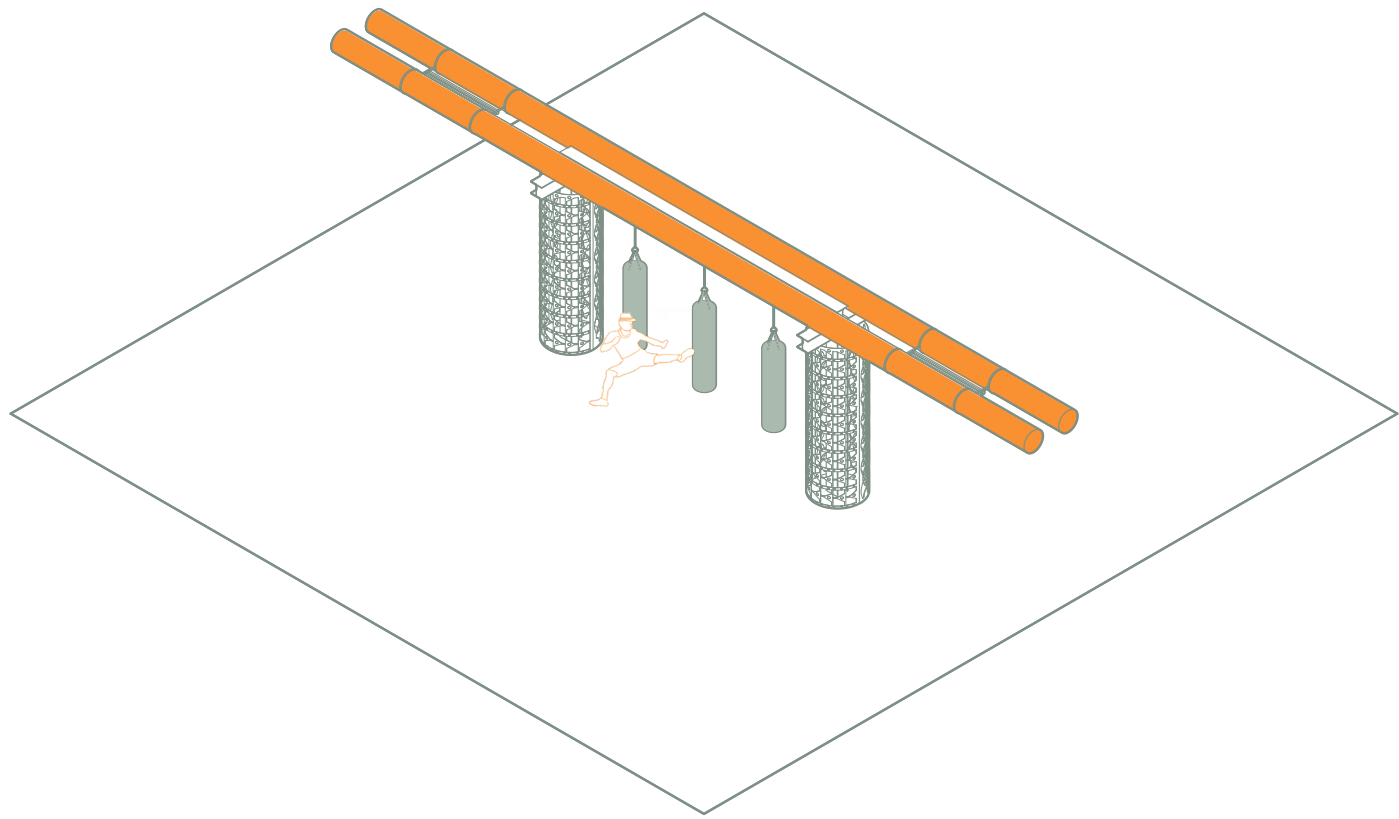


Service station

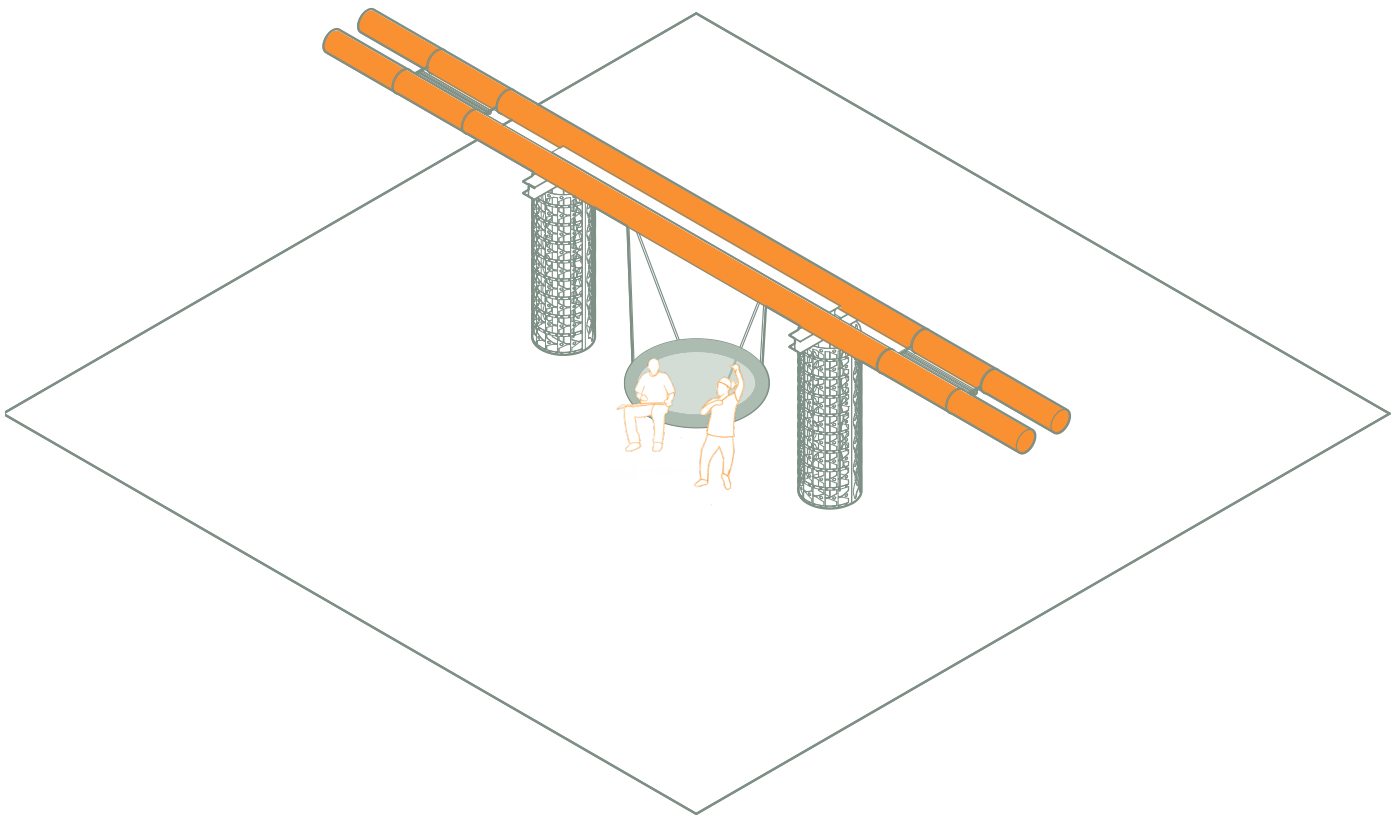




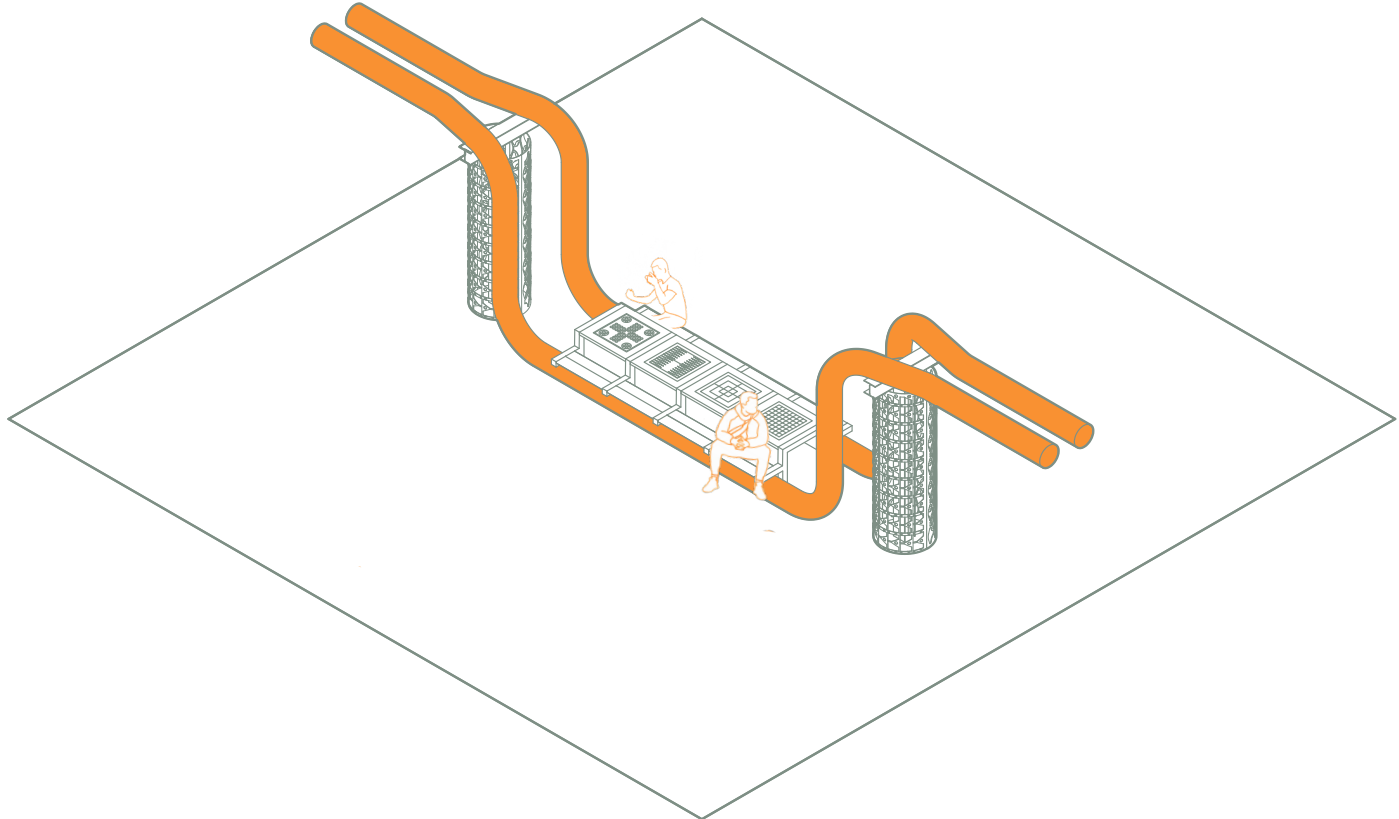
Lines



Boxing



Swing

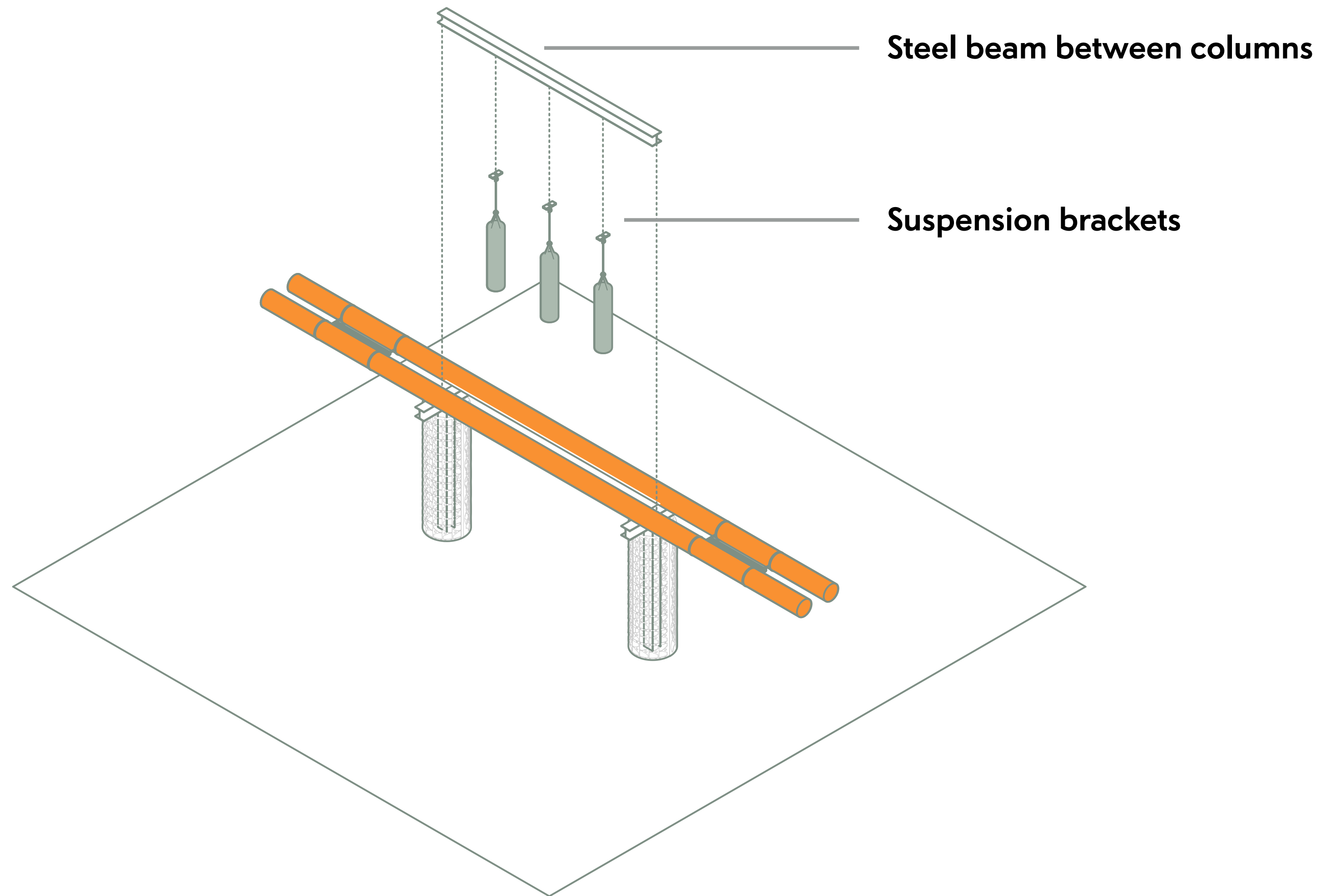


Games



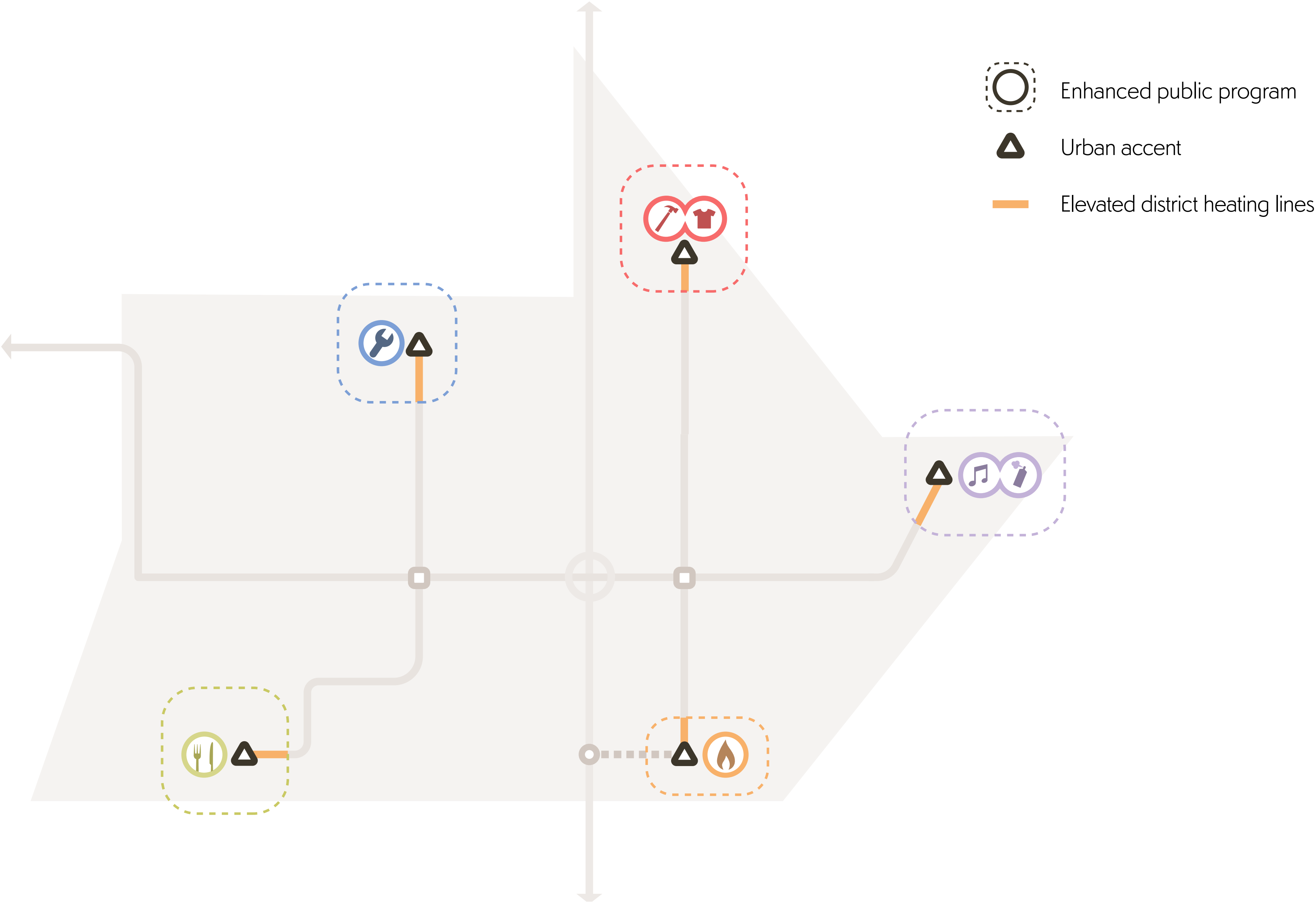


# Suspension element



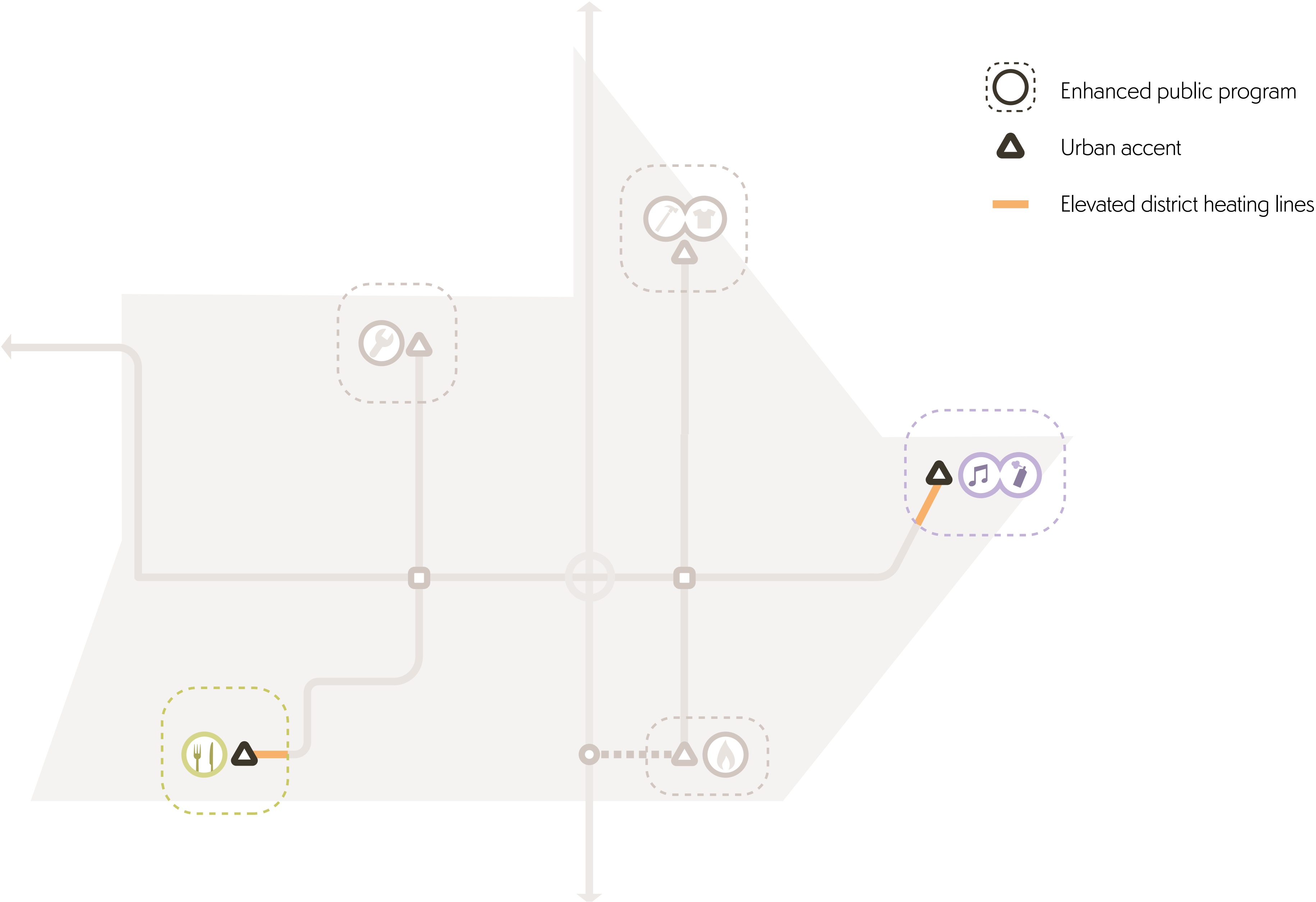


Soft infrastructure





Soft infrastructure





# Hart van Moerwijk





## Backstreet restaurant



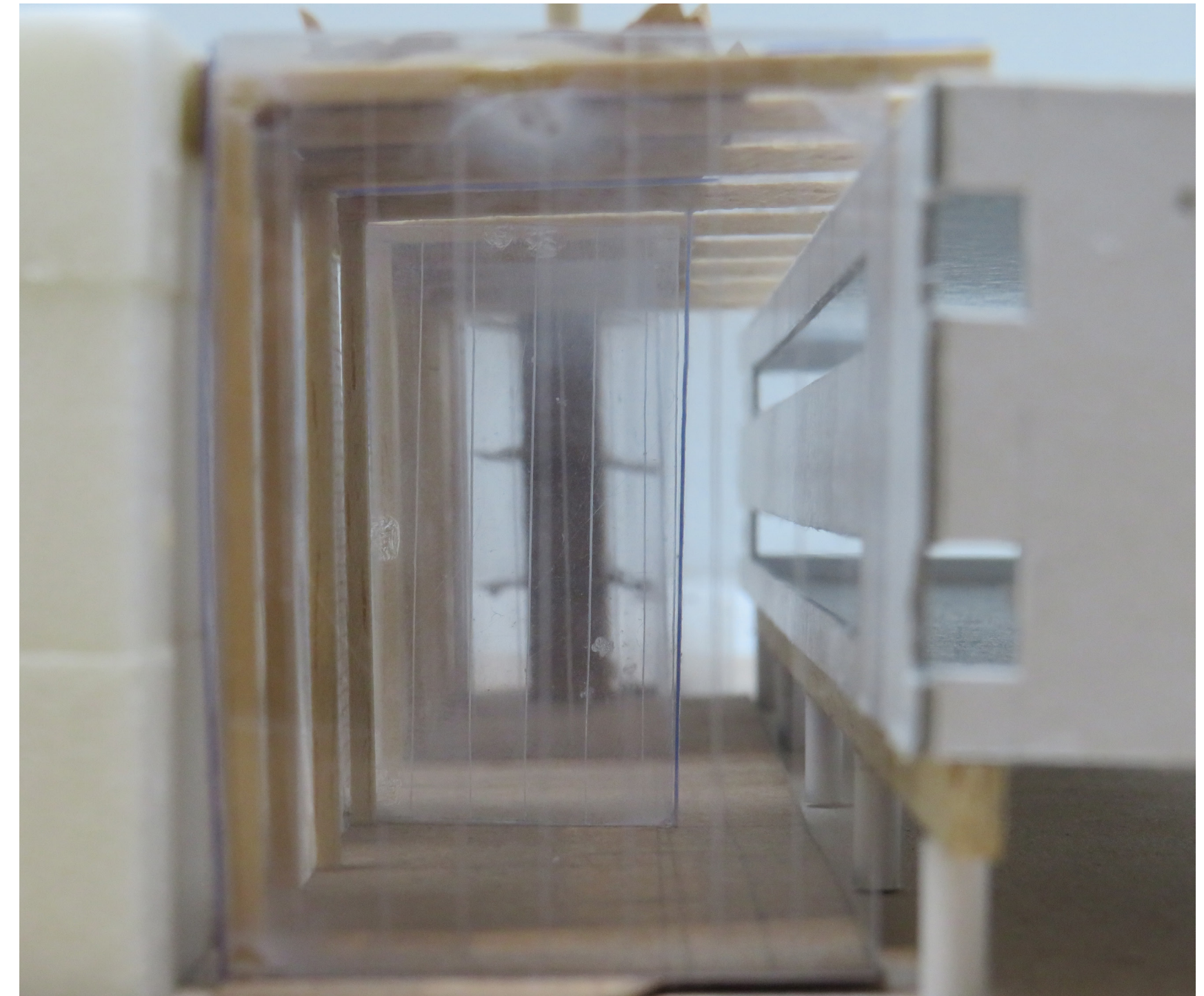
Unworthy entrance



Lack of light and windows



# Lightstreet



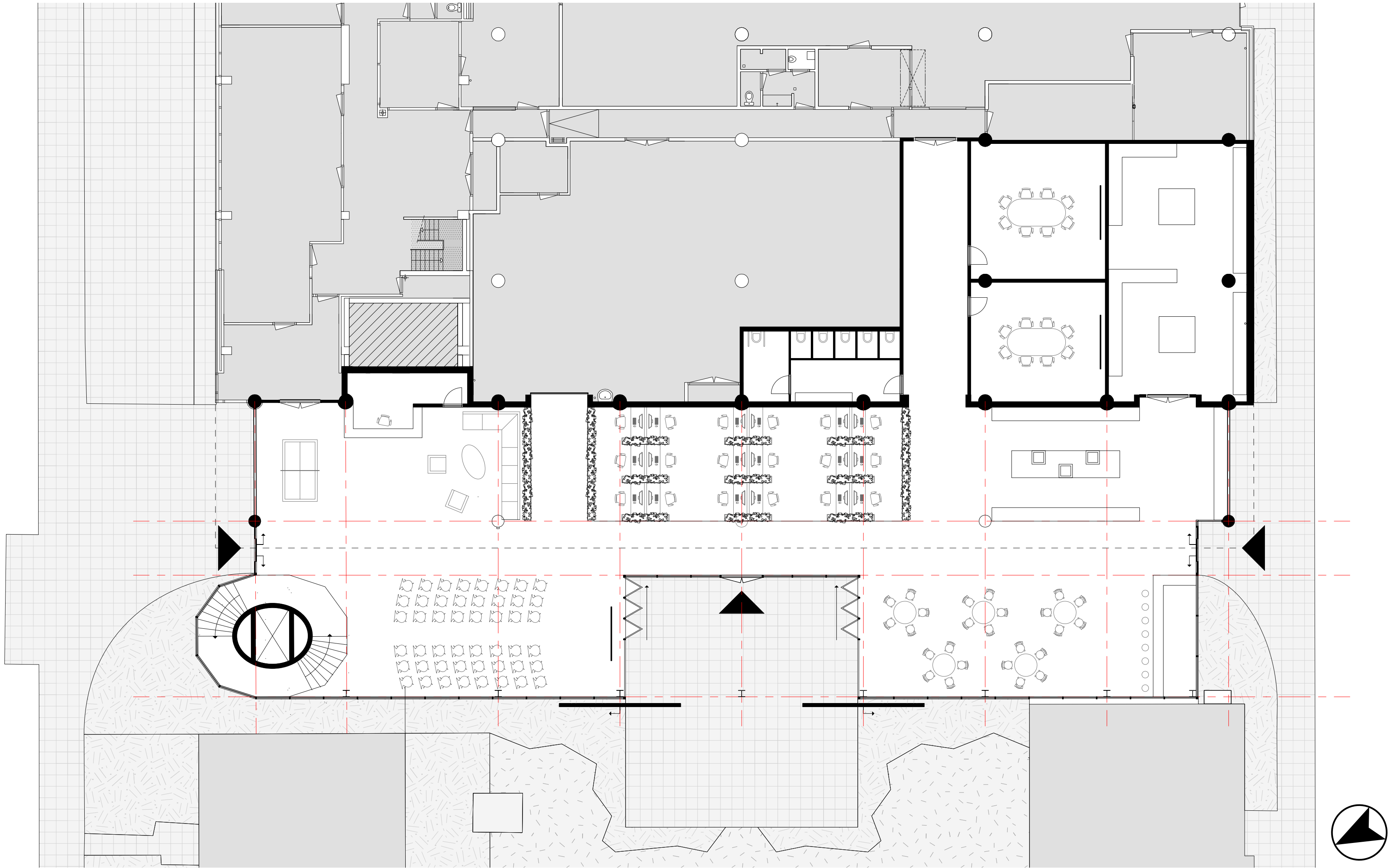


Situation





Floorplan













# Willem Dreepark



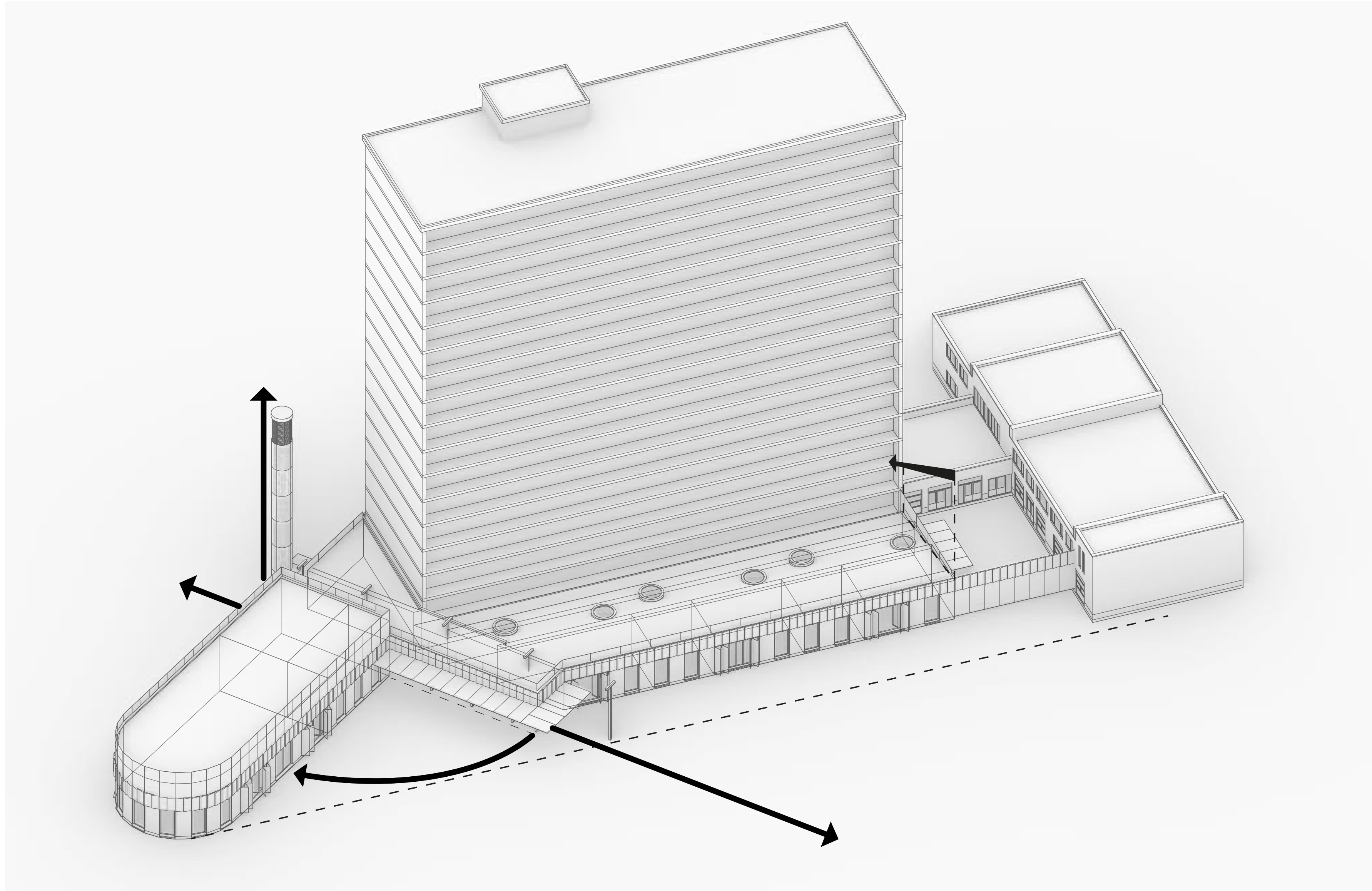


# Willem Dreepark



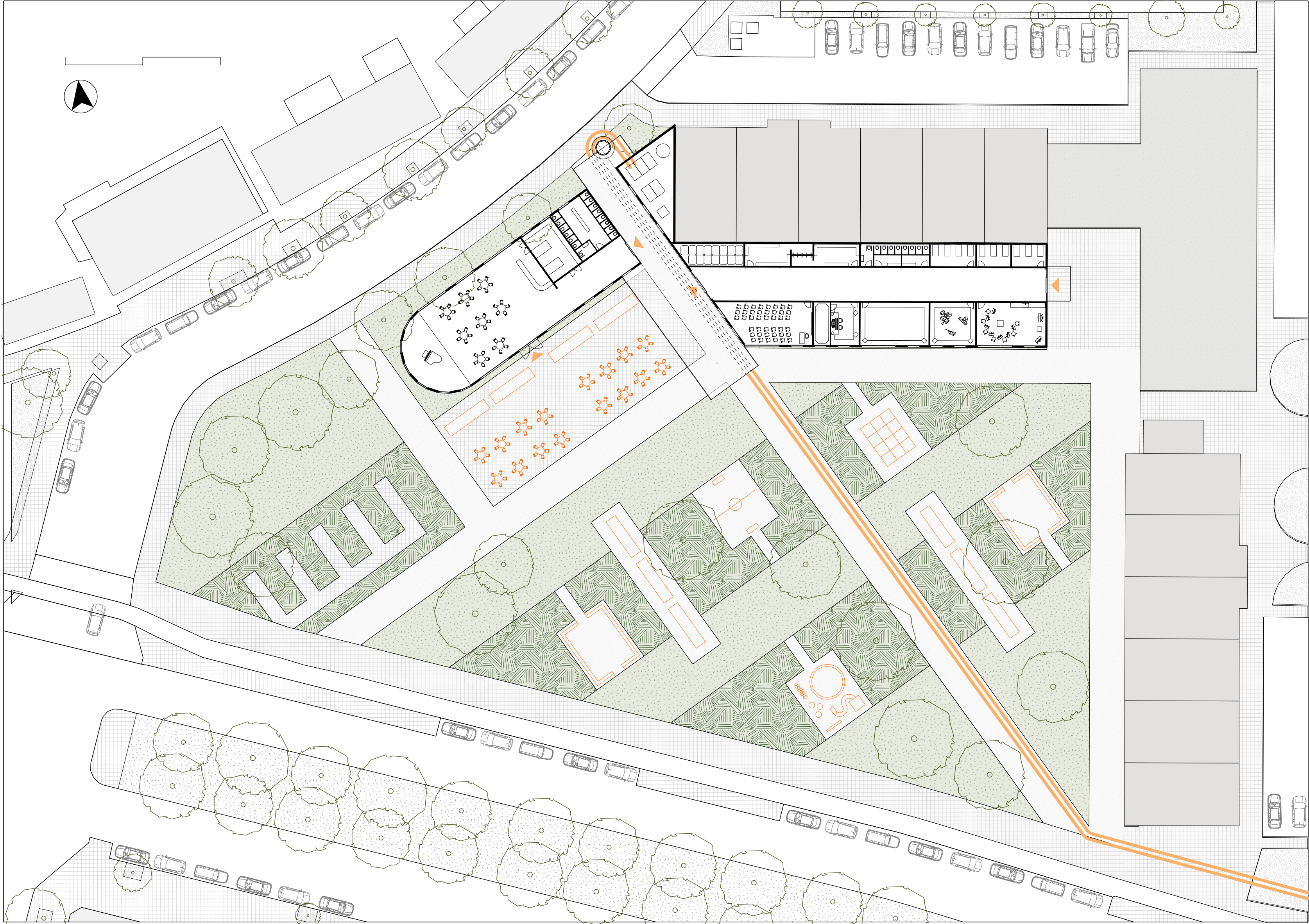


# Form





Plan





















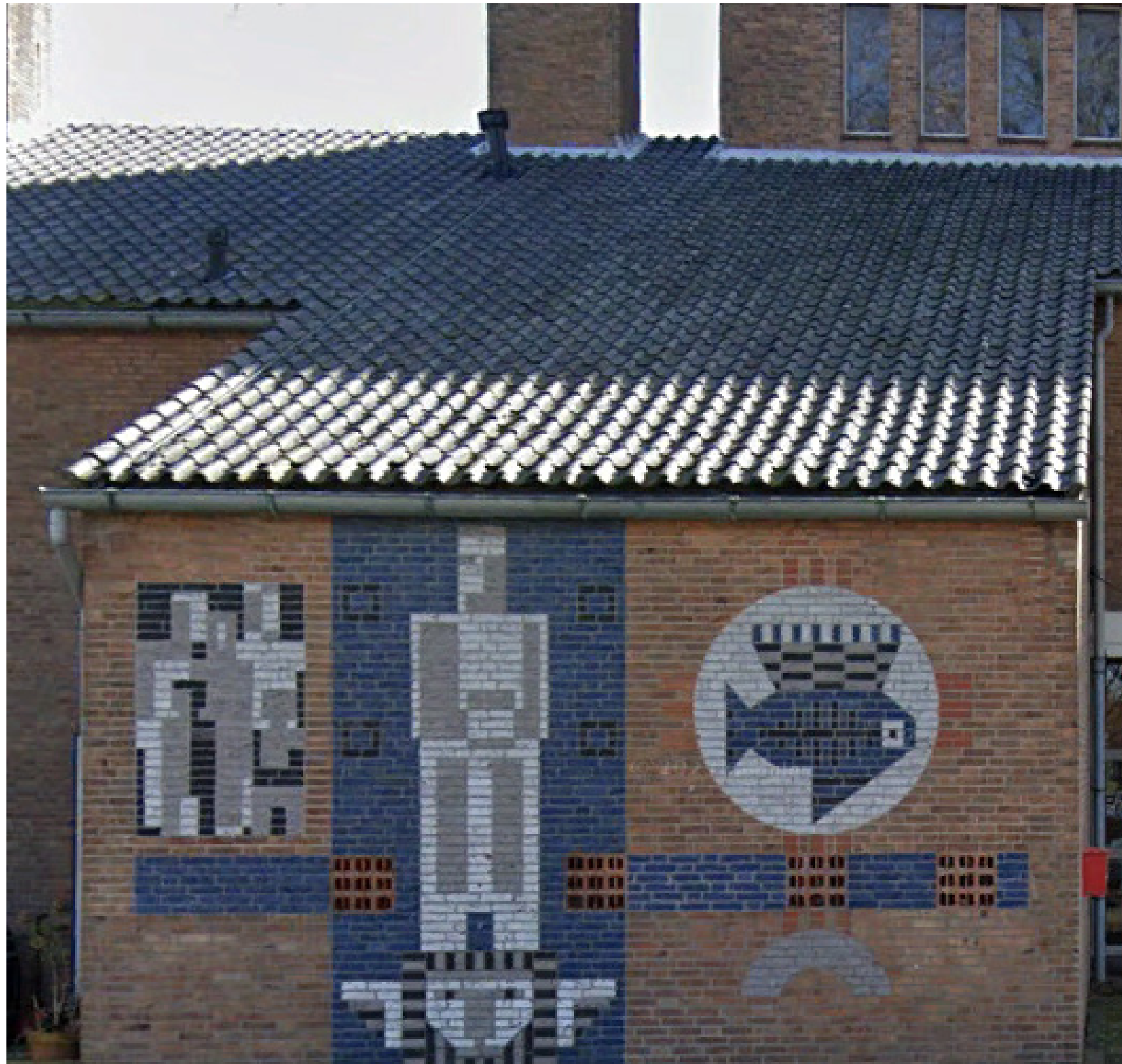








## Facade inspiration



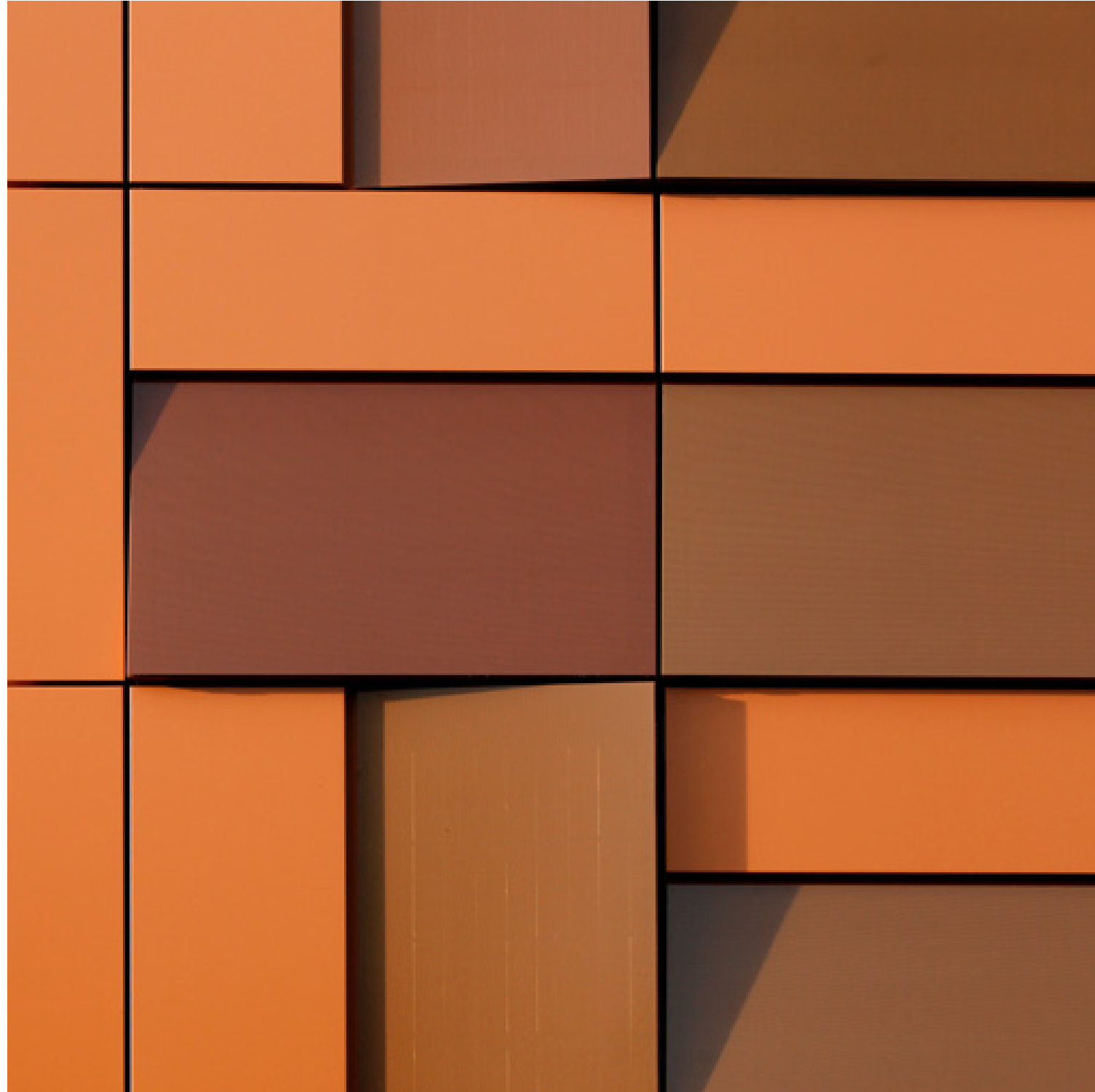
Marcus church



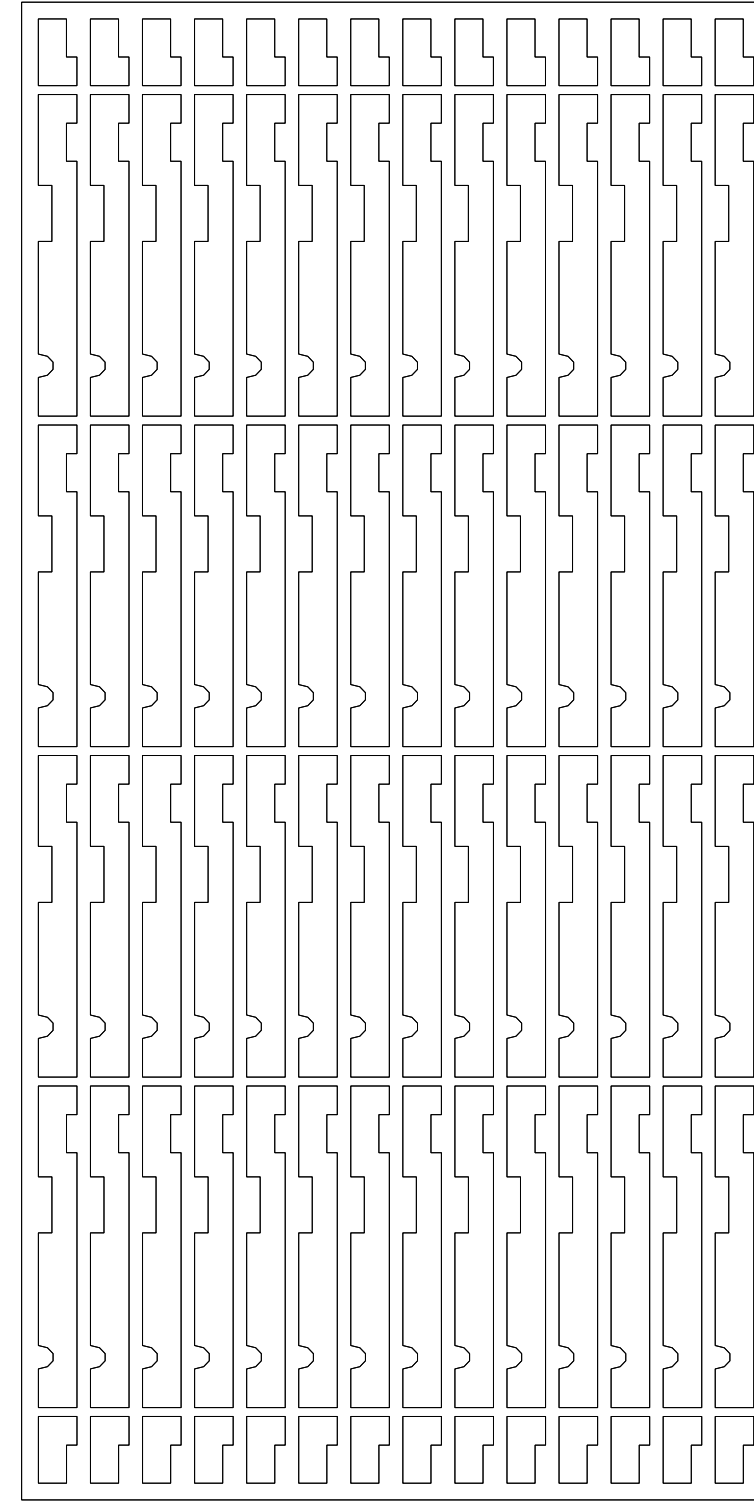
Al-massid Mosque



## Facade materials



Solar facade



1500 x 3000 mm



Contoursheets



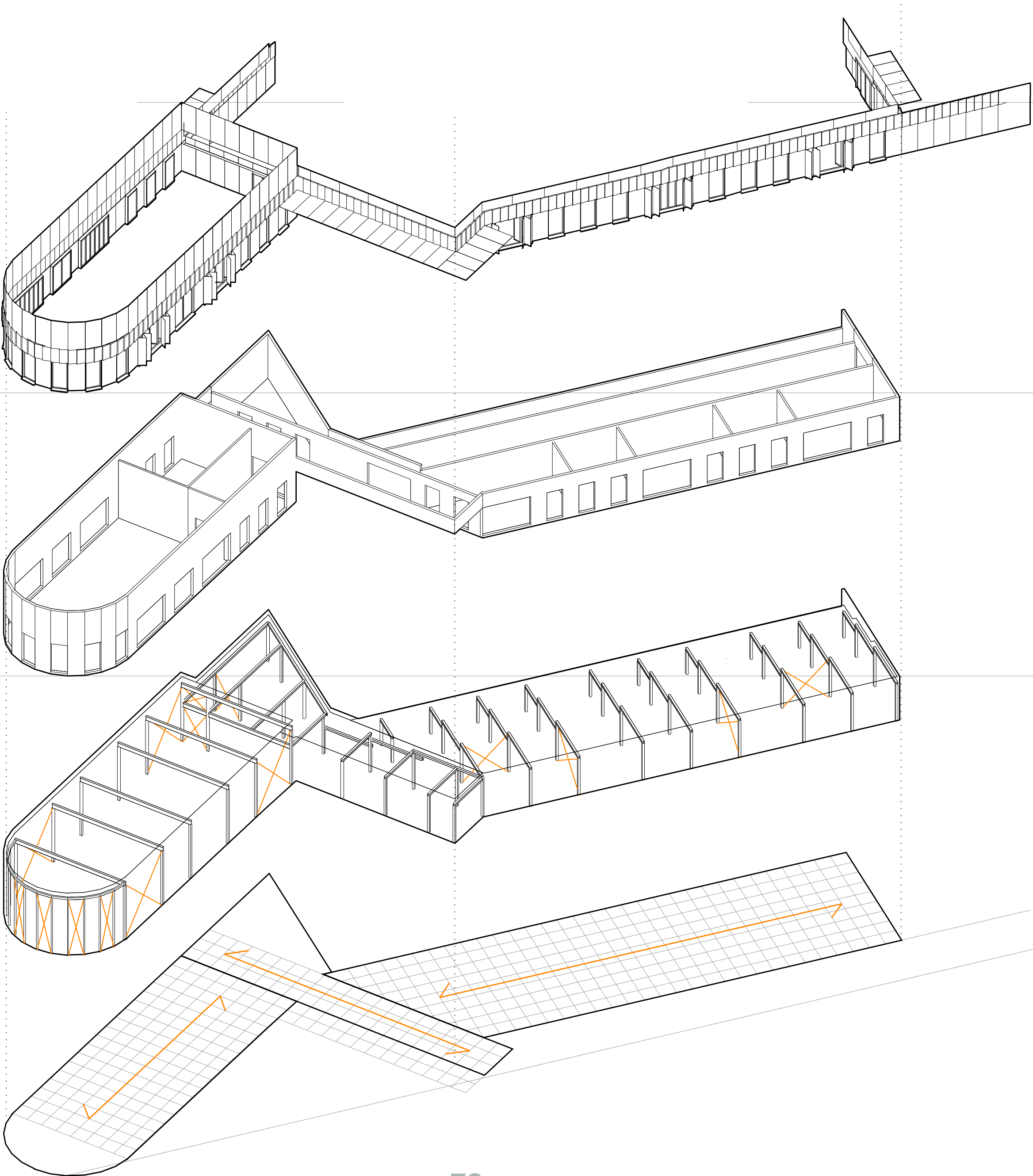
# Construction / Materials

Facade of metal contour sheets and solar elements

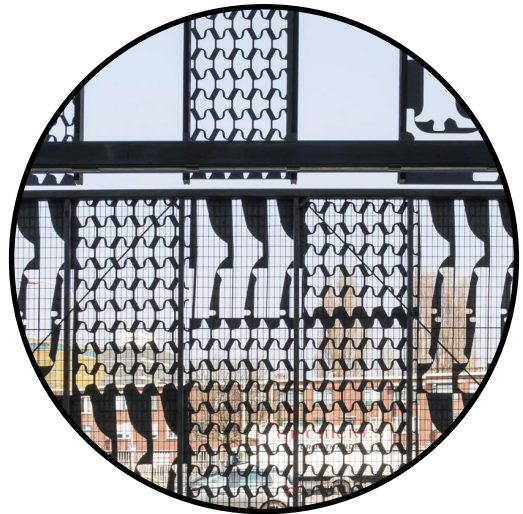
Timber structure walls chalk-hemp insulated

Reclaimed steel structure

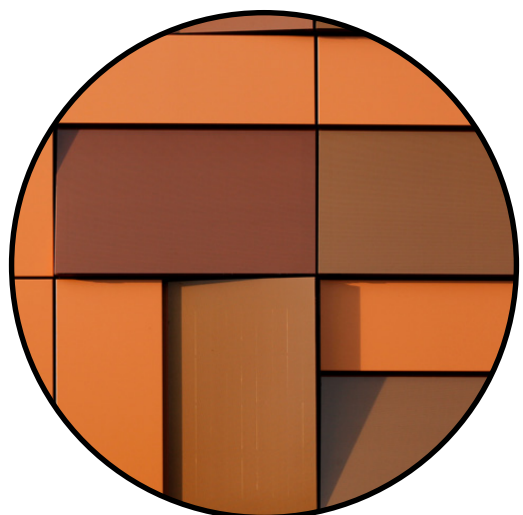
1.5 meter grid to fit facade elements



Metal contour sheets 1500 x 3000 mm



Solarlab PV facade panels 1500x750 mm



Chalk-hemp insulation fibres



Reclaimed steel various sizes



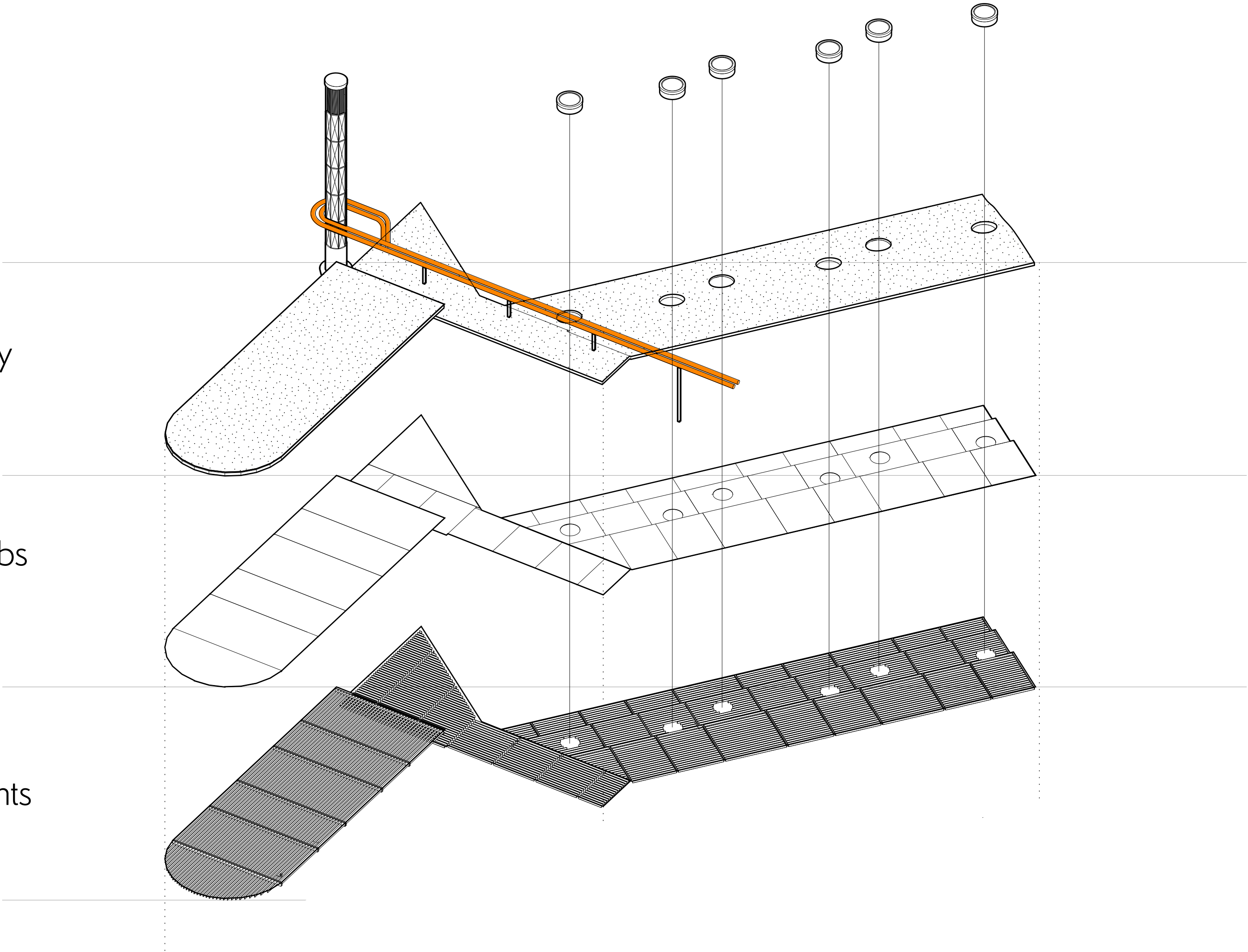


# Construction / Materials

Green roof and solar chimney

Screw-mounted concrete slabs

Reclaimed scaffolding elements



**Green roof** 250 mm substrate



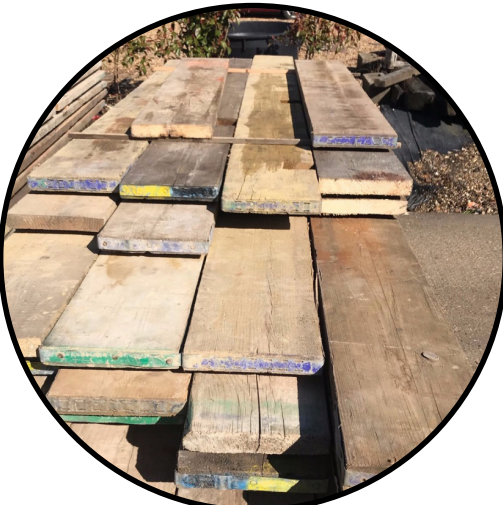
**Rooflights** Ø 1600 mm



**Screw-mounted concrete** 75 mm

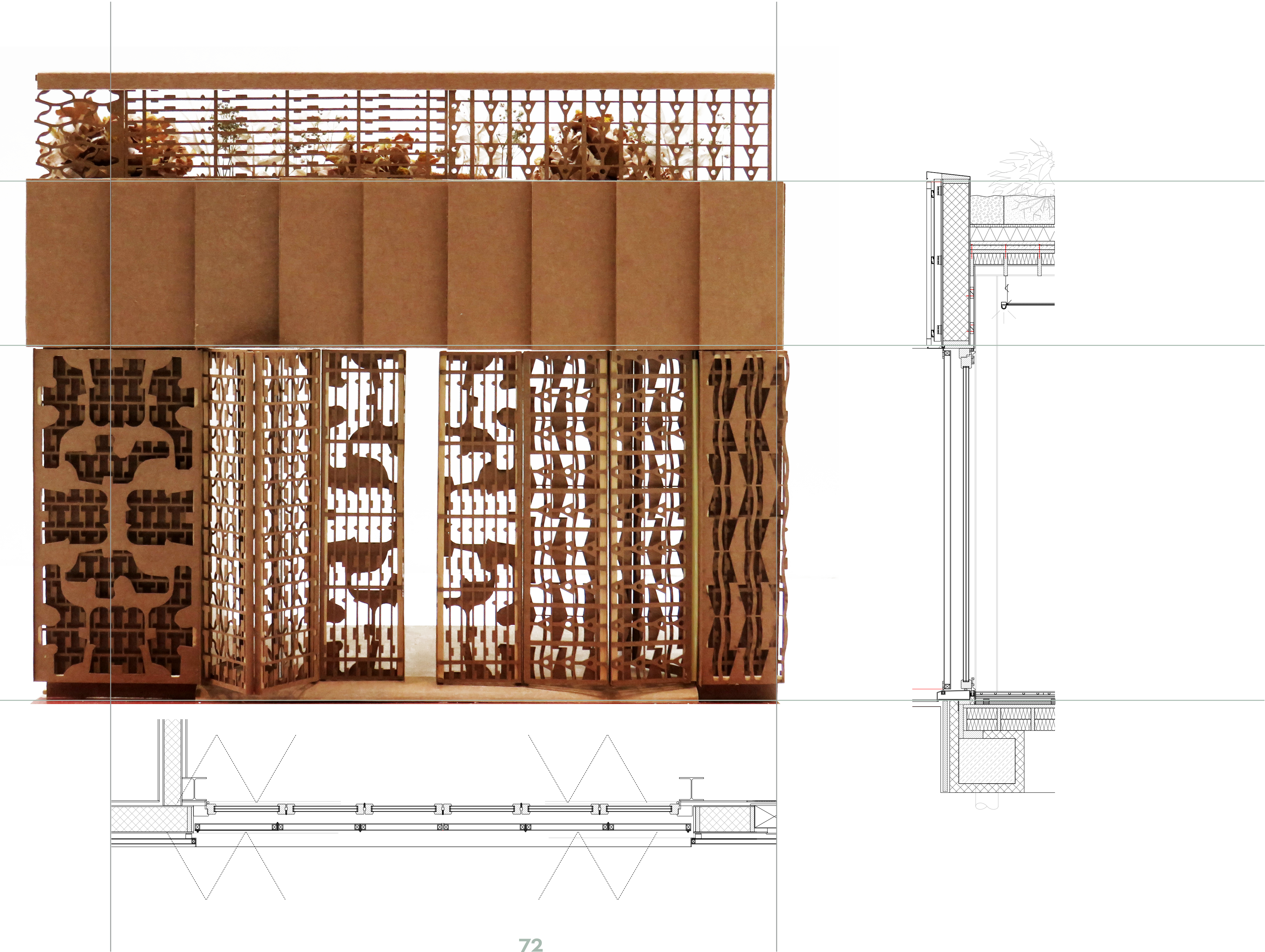


**Reclaimed scaffolding** 32x200 mm





Facade





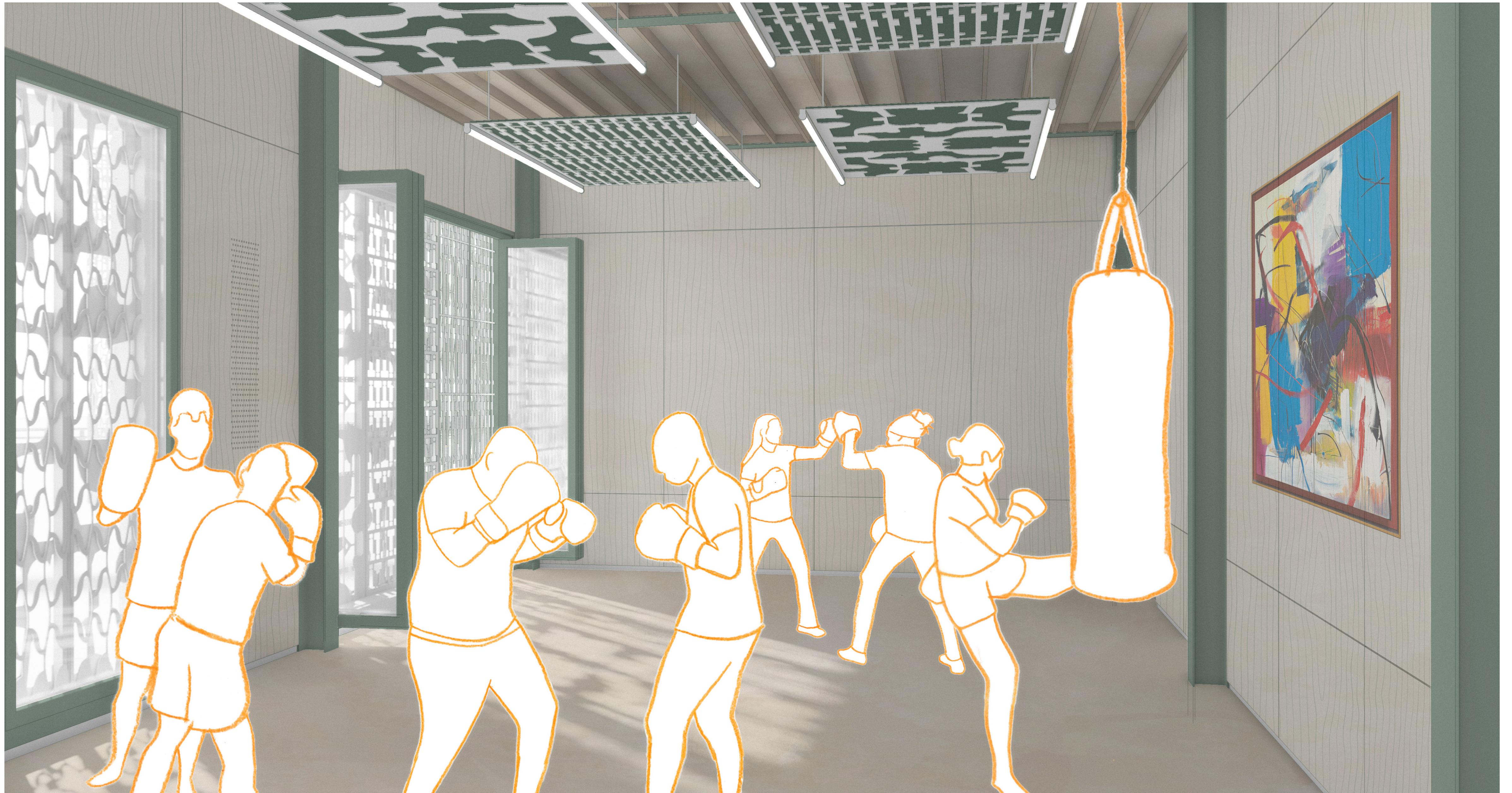




**Fresh-r unit**

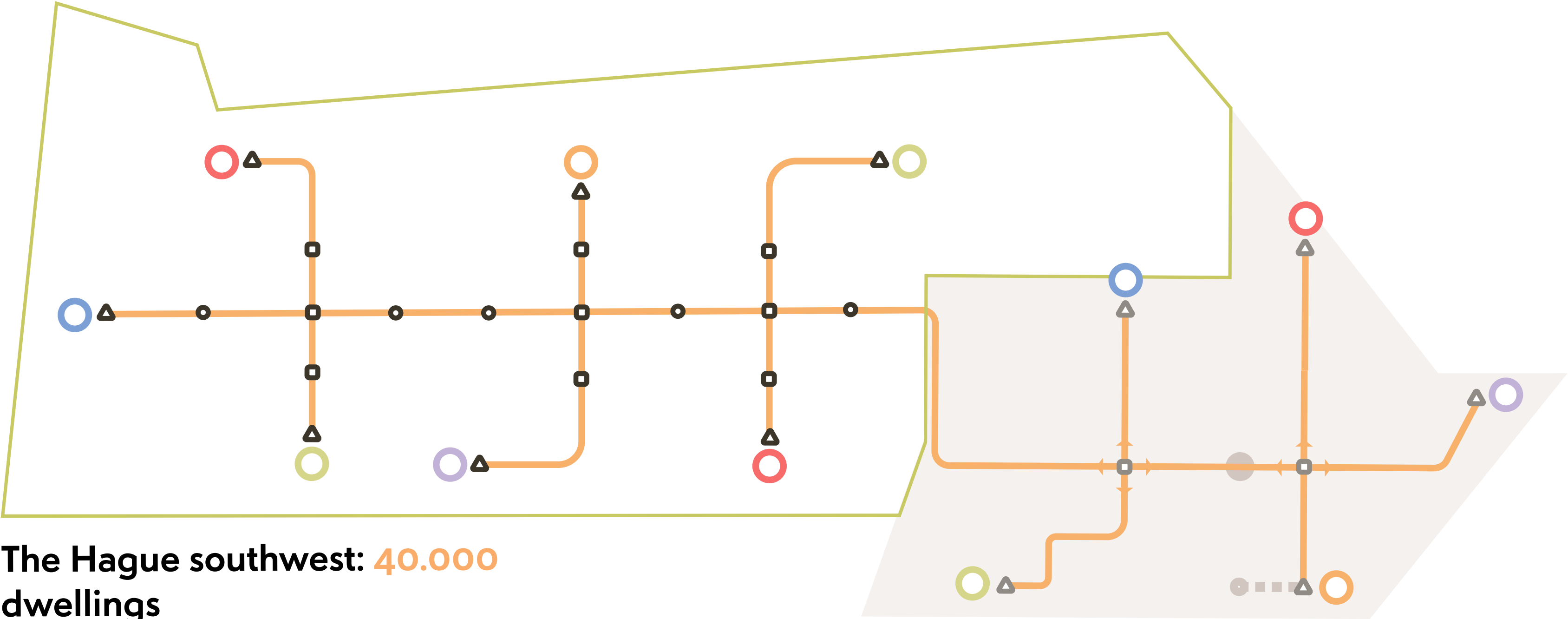








Expansion



1800 post-war neighbourhoods  
25% of total housing stock







## Coming full circle

## Scriptiewerkplaats Den Haag Zuidwest

Leiden-Delft-Erasmus Universities

## Slotbijeenkoms

Start date: Wednesday 10 July 2024 - 10:00

End date: Wednesday 10 July 2024 - 13:00

Location: BLOCK 33, Van Baerlestraat, Moerwijk

Op het event gaan we in gesprek met elkaar over de onderzoeksresultaten en communicatieproducten van de studenten. Het doel is om de vertaalslag van onderzoek naar beleid/praktijk concreet en zichtbaar te maken, en integraal kennis te delen.

Wilt u bij de slotbijeenkomst zijn? Aanmelden kan [hier](#).



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Leiden



Erasmus  
University  
Rotterdam

