

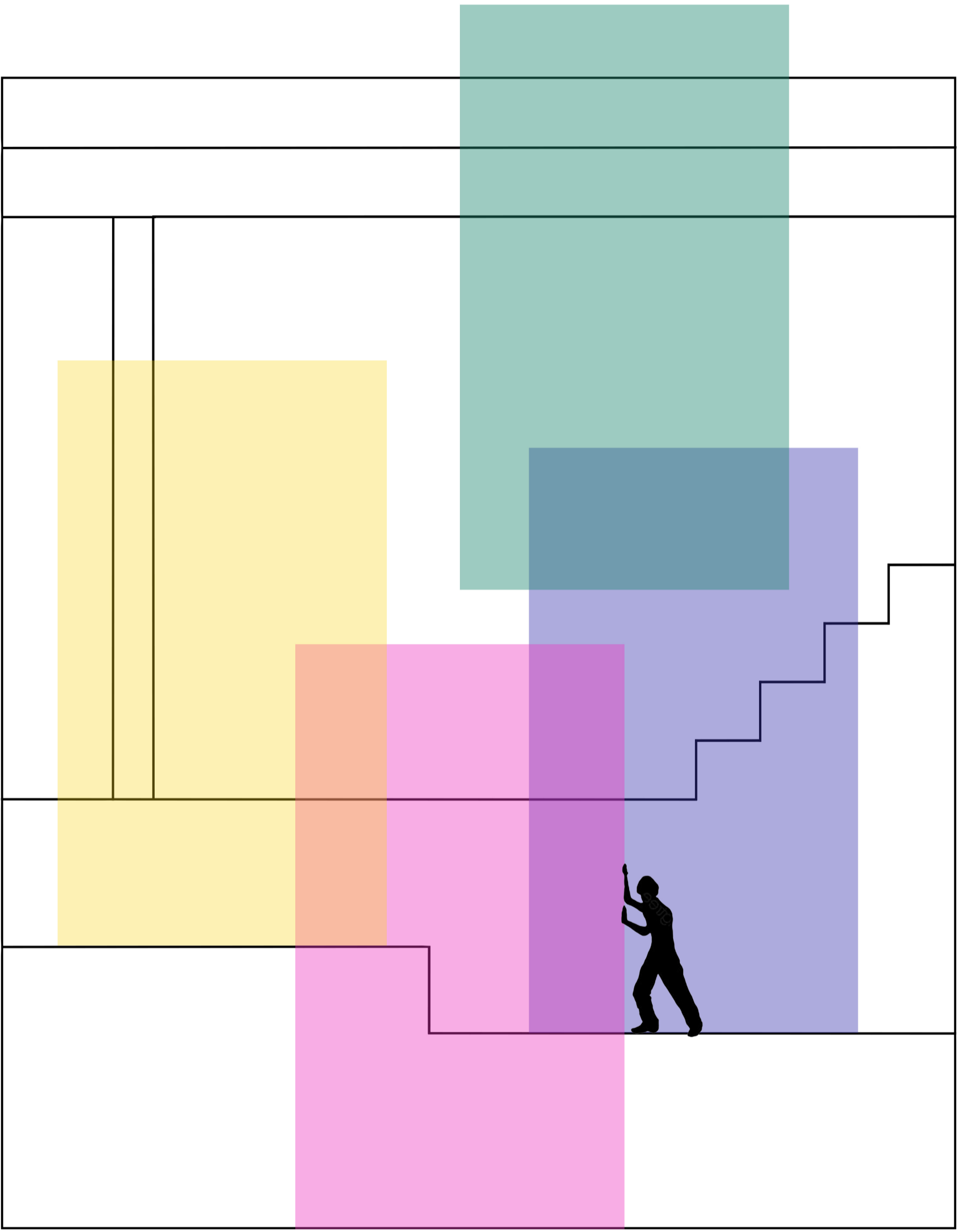
# EXPLORING THE GAS STATION



Einar Helander  
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BINDER I - The project

Supervisors:  
Andrea Pinochet  
Erik Langdalen  
Nick Coates  
Alena Rieger  
Kim Pløhn  
Mari Lending  
Petter Kveseth



# EXPLORING THE GAS STATION

## ABSTRACT

The number of gas stations in Norway is in rapid decline. In central Oslo, only 17 are remaining. Considering the trend of the last decades, it is safe to say that these buildings are well under the risk of being demolished. If so, 17 unique buildings that are deeply attached to a specific epoch of human history will be erased from the cityscape.

Is there a way for these stations to survive the death of the gasoline era? On what grounds could a preservation then be based? What are the potentials that exist in the architectural, spatial, and social aspects of these buildings, and how could these be explored as well as valued through a transformation?

Gas stations are unique buildings. Not only do they possess distinguishable and highly functionalist architecture, but they have become symbols of modernity and the era of petroleum, that now possibly is stepping into its final phase. In Norway, they arguably also carry a particular value as representations of the economic affluence the industry has created during last centuries. From planning, extraction and shipping, gas stations become the last stage of the process where the prosperity is handed over to the people. Almost synonymous with the era of petroleum, they have a very particular place in time and are important architectural representations of the age of oil.

I have located what I saw as fairly unique key aspects of the gas station: its layers of social culture surrounding it, its colourful expressions, its constant flow and motion, and its difficult relation to the soil. When preserving a gas station, how could these be used through architecture and new programs?

As a way of testing out interventions, I focused on an "archetypal" gas station located in Vinderen in north-western Oslo. While Shell still is both owning and operating it, I created a scenario that could take place when or if they choose to move out, where Oslo Municipality steps in as the new owner.

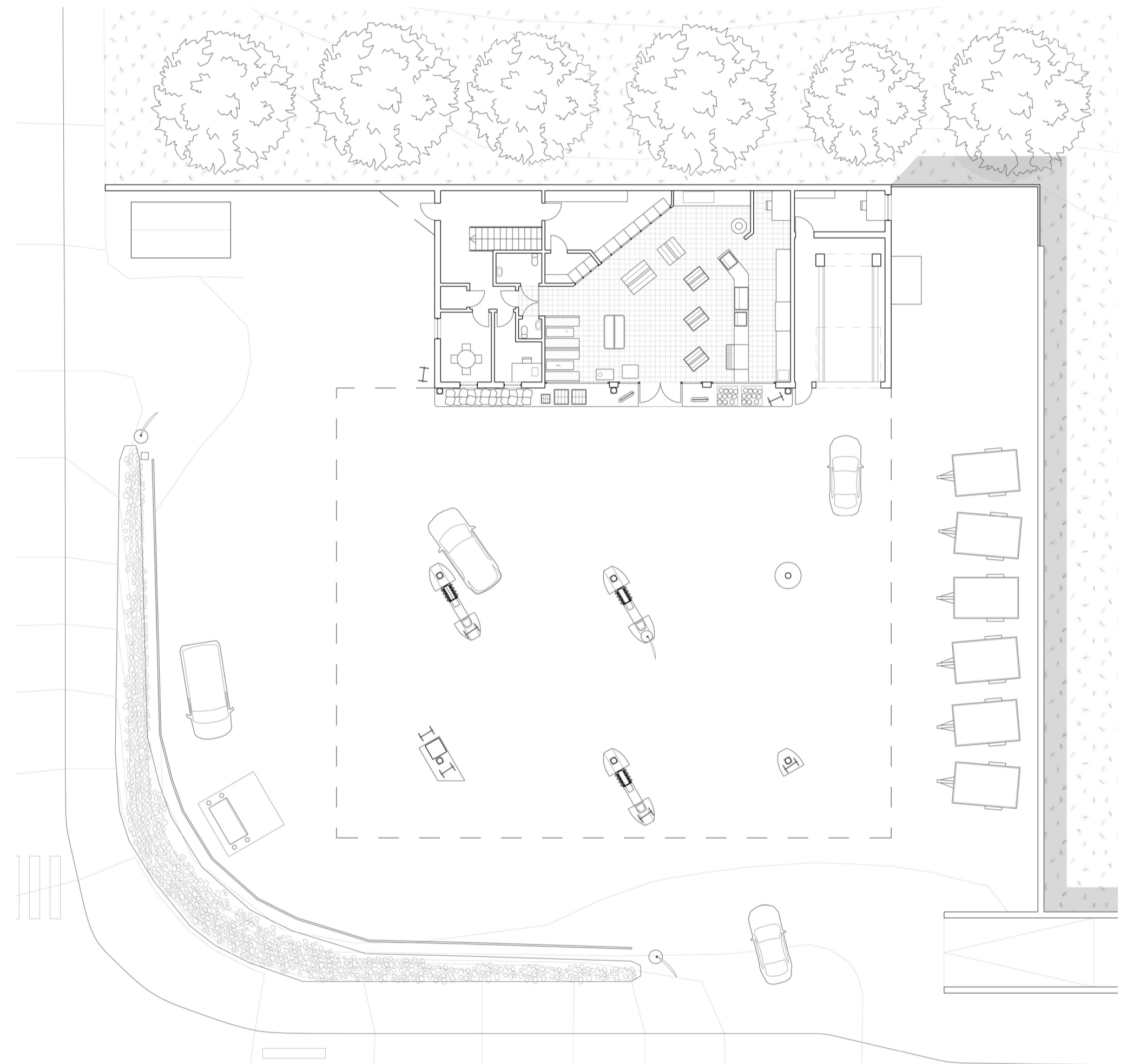
Although this project is focusing on one station in particular, it should be seen as a test for the gas station in general. The purpose has been to explore how the key aspects could be translated into architecture and program and still have the possibility to be adapted to other stations.

Through working with soil remediation, movement, and colour, I have proposed a strategy that is rooted in community engagement and social activity. How could the local community be a part of the shaping of what the post-petroleum era looks like? By providing small architectural tools, the project aims at creating conditions for the site to be in constant motion and change, while remaining accessible, social, and constantly reactivated by colour.

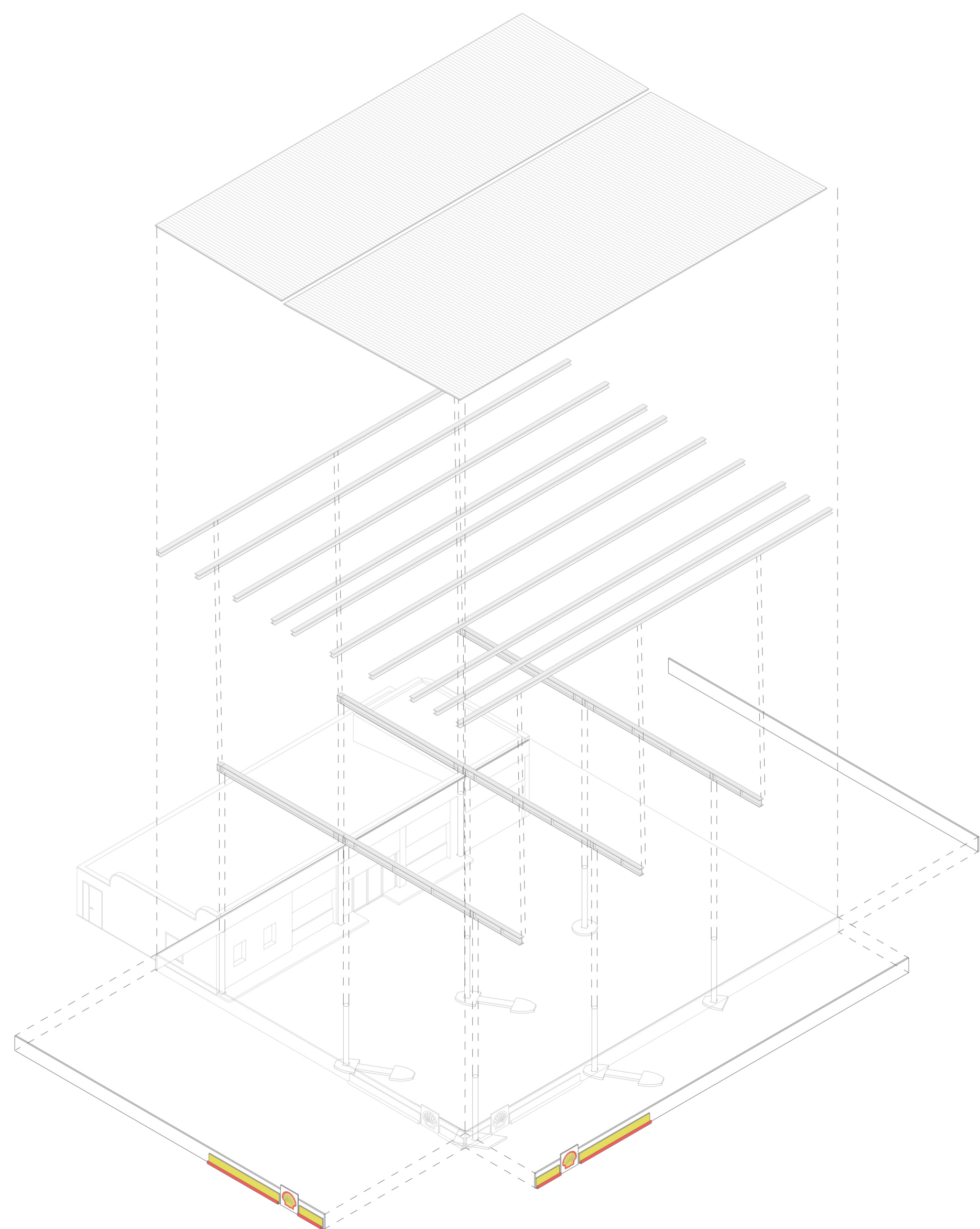


The 17 gas stations remaining in Oslo, case study at Vinderen in red.

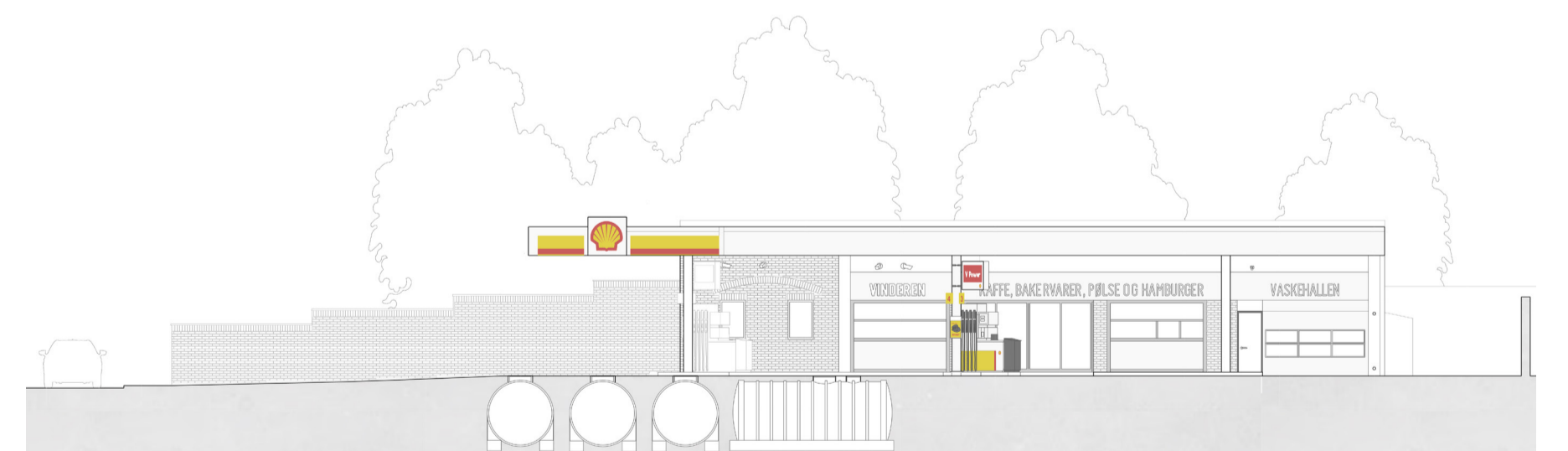
## SHELL AT VINDEREN - EXISTING SITUATION



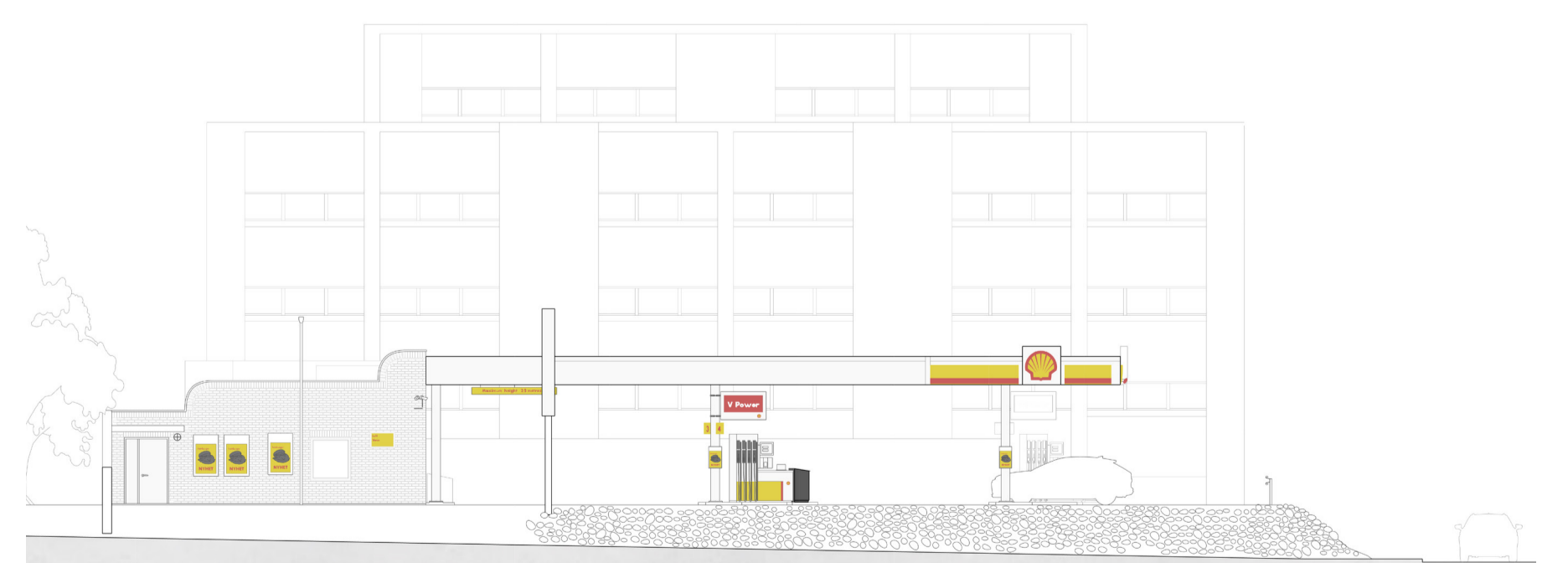
Existing plan 1:100



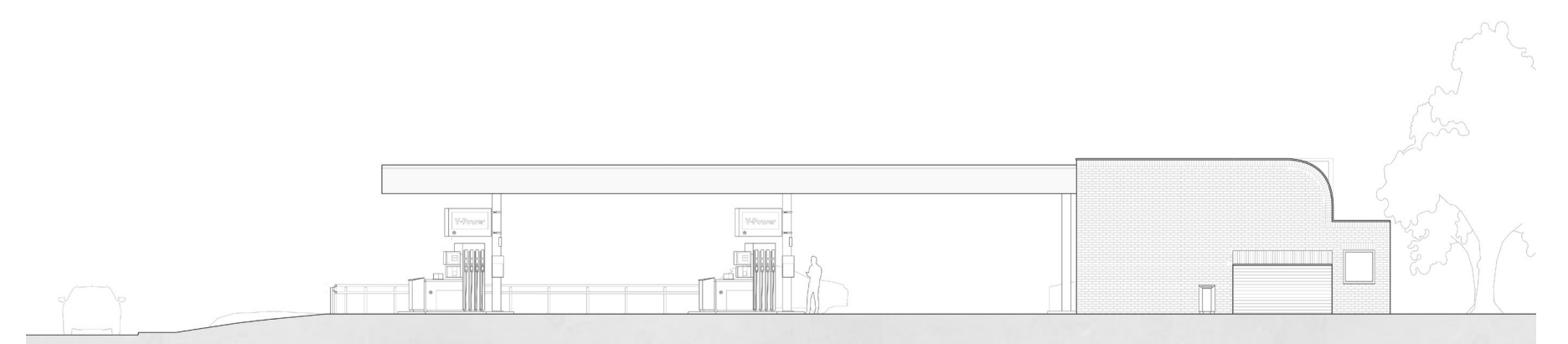
Structural axonometry 1:200



Elevation 1:100, south



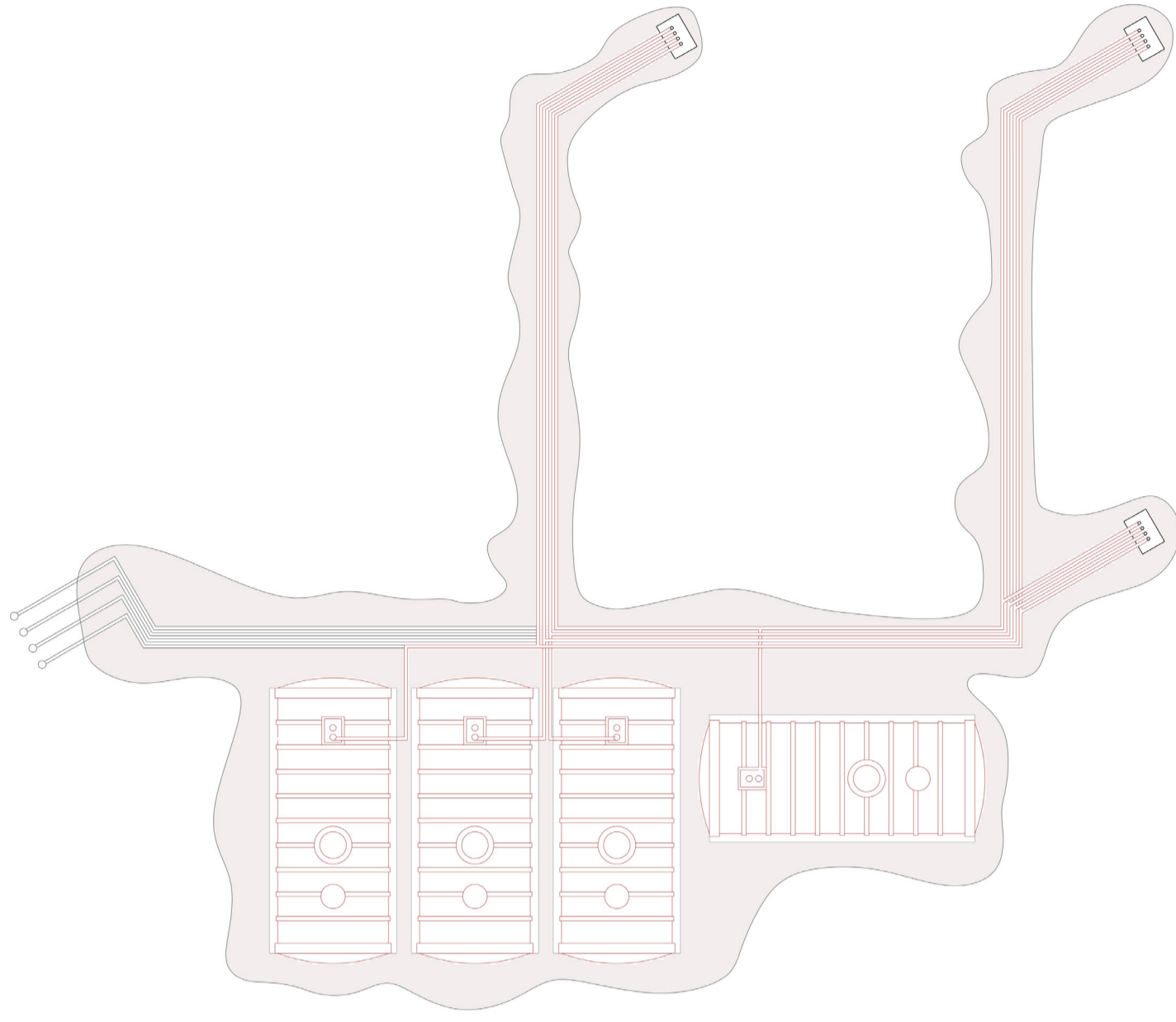
Elevation 1:100, west



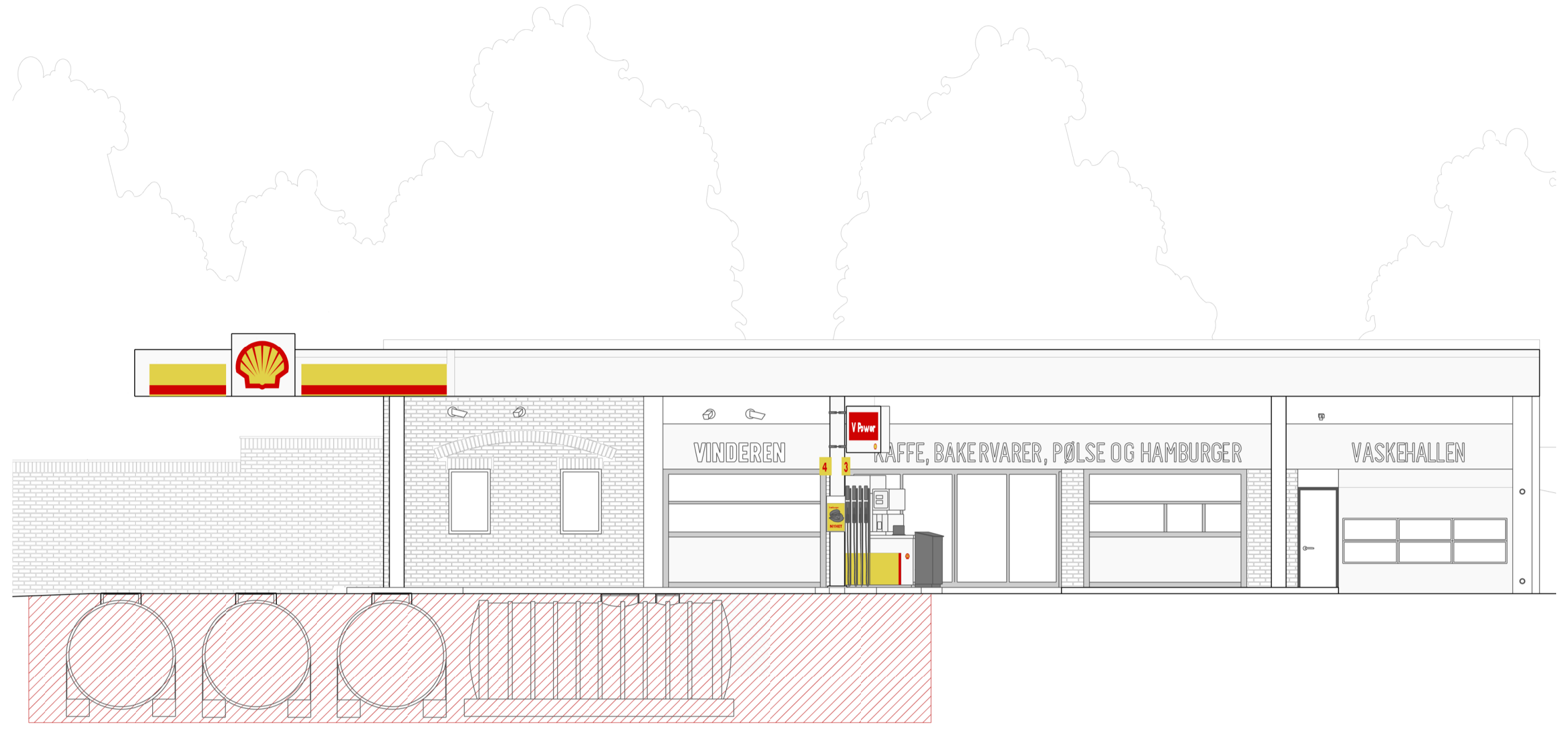
Elevation 1:100, east

# REMEDIATION STRATEGY

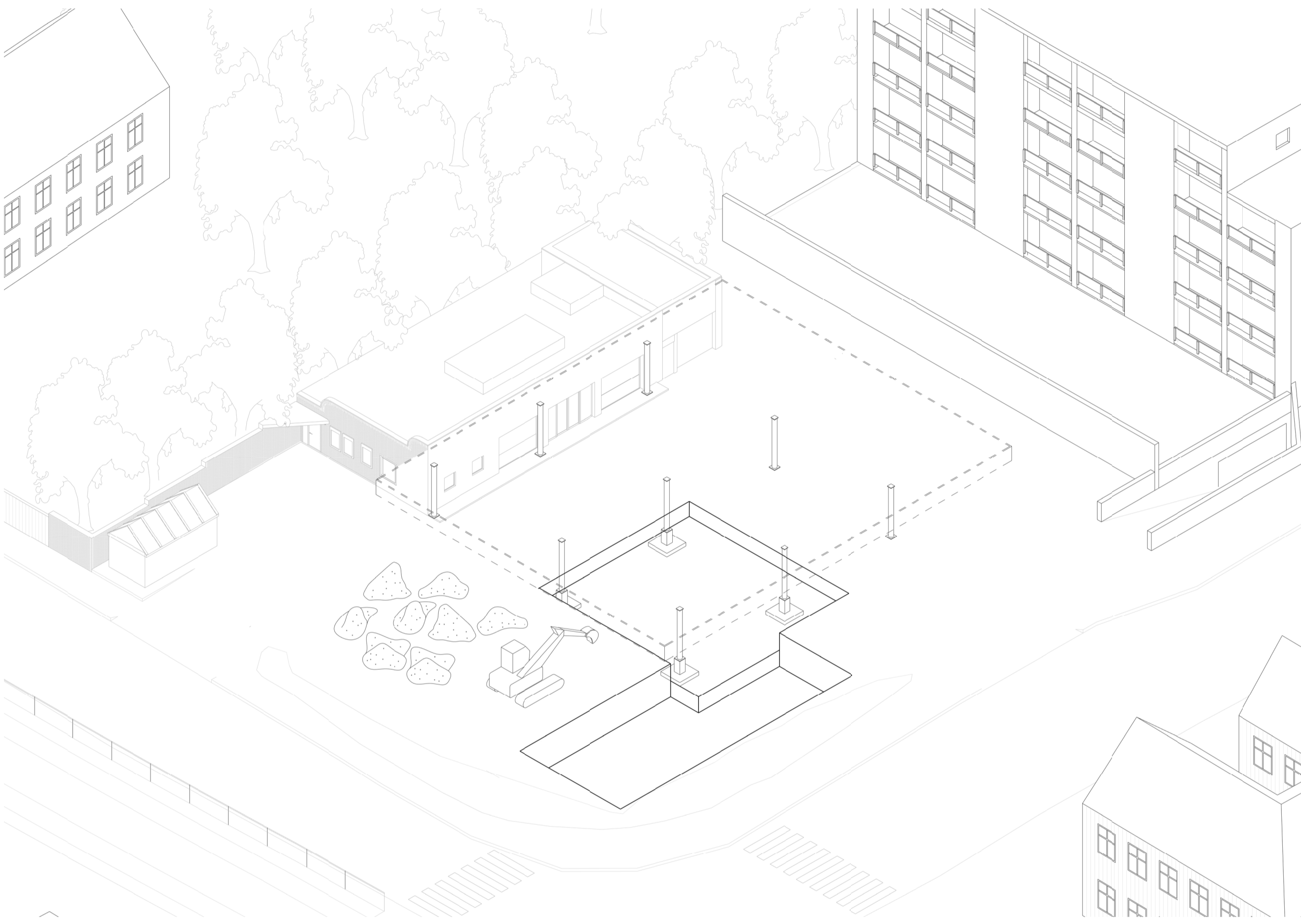
Remediating the soil is almost always necessary when a gas station is reused. By working with this process, a new room and anew entrance to the site could be established.



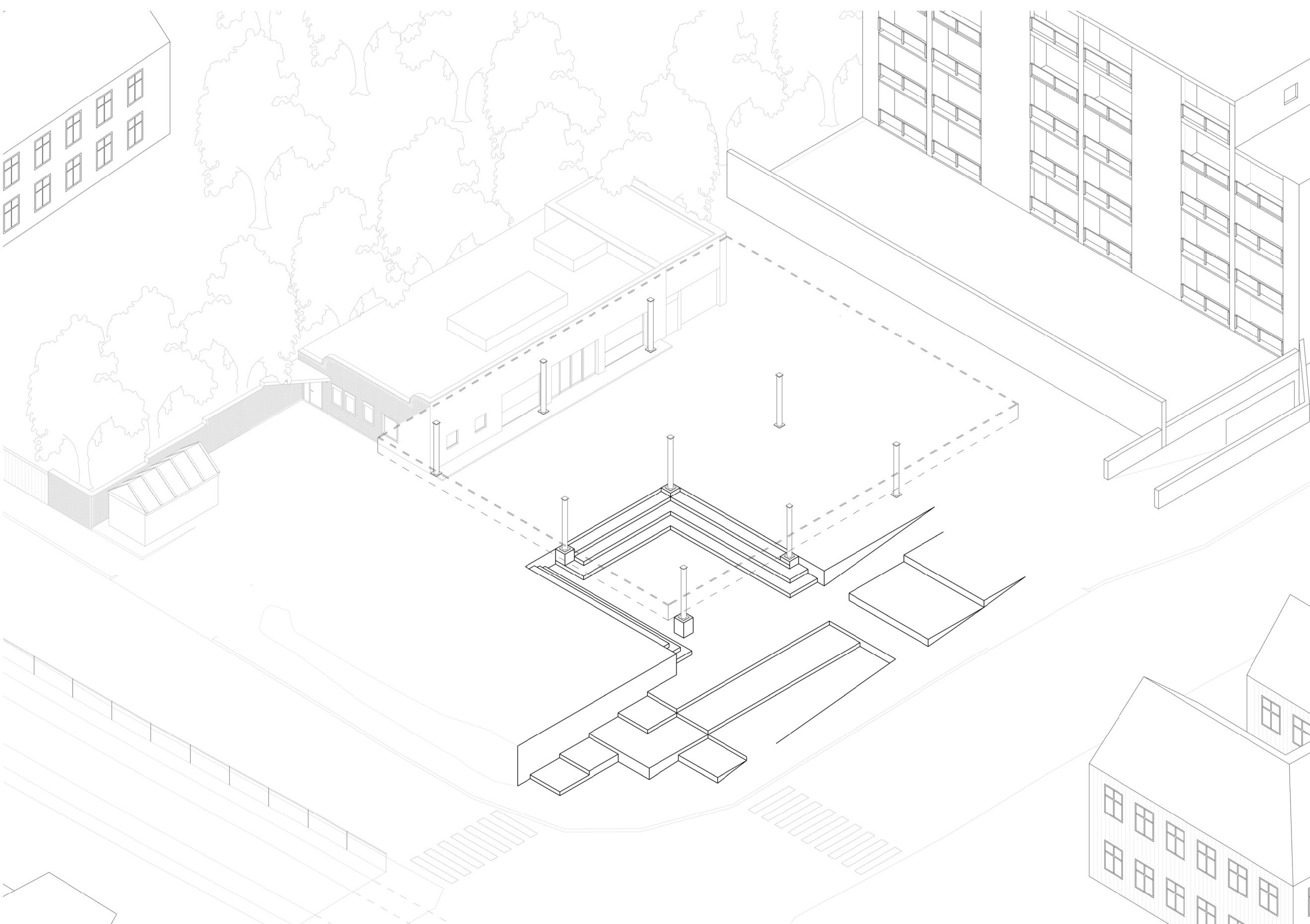
The soil surrounding the underground storage tanks, the pumps, and the pipes in between them is usually the contaminated area.



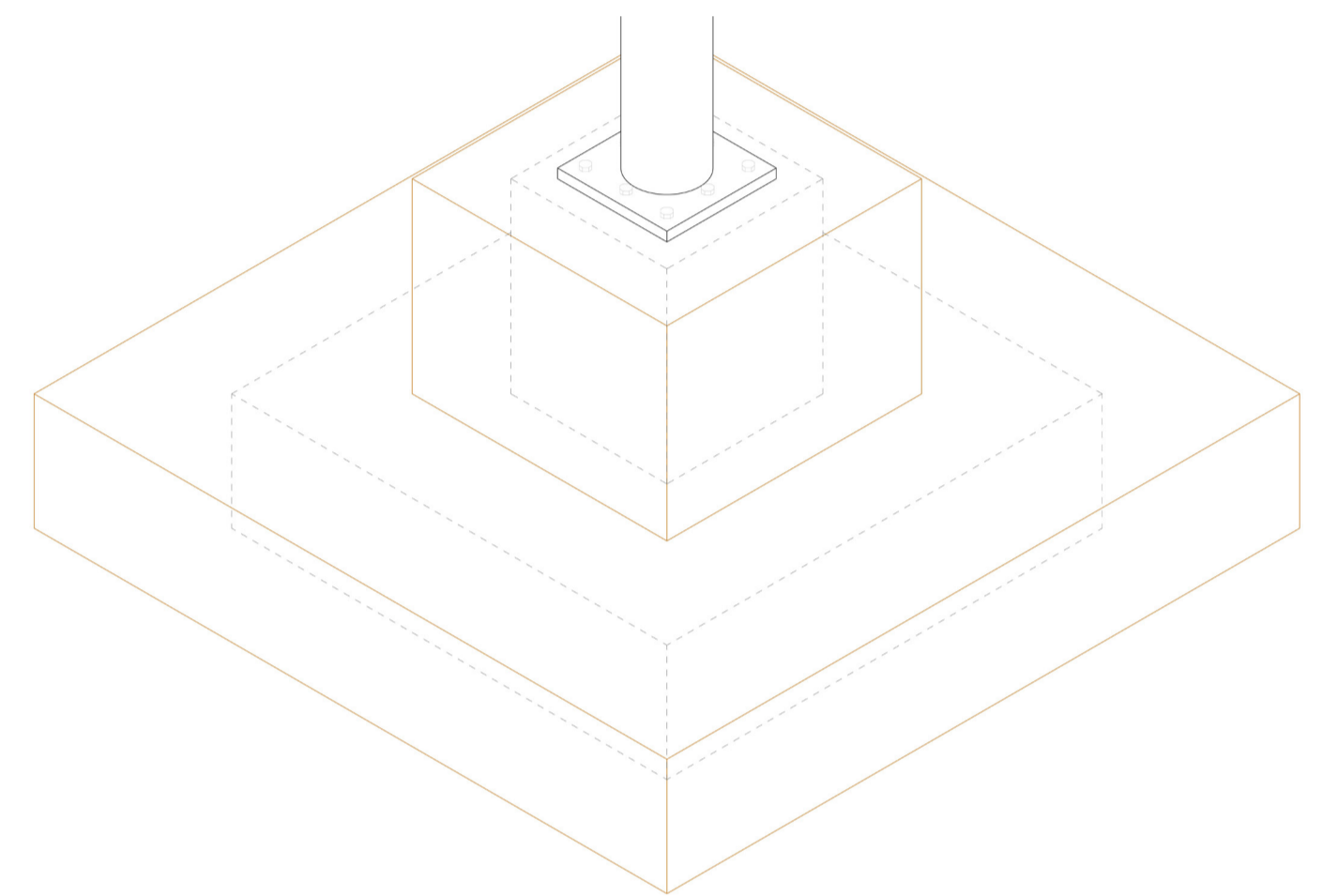
The underground storage tanks are ca 2m below ground, but at the same ground level as Vinderenkrysset.



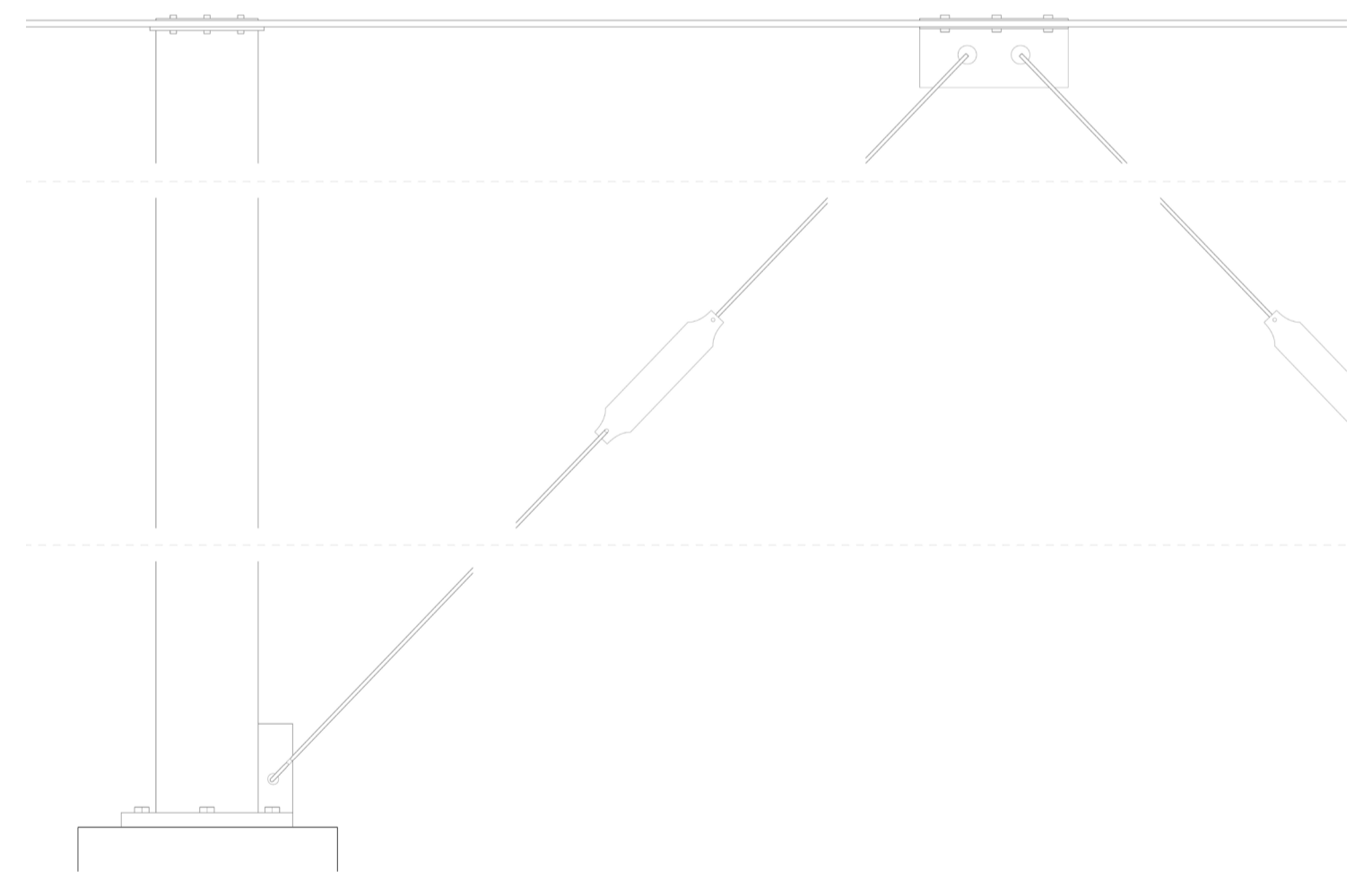
The contaminated zone is excavated and removed off site. All the while the structure is kept.



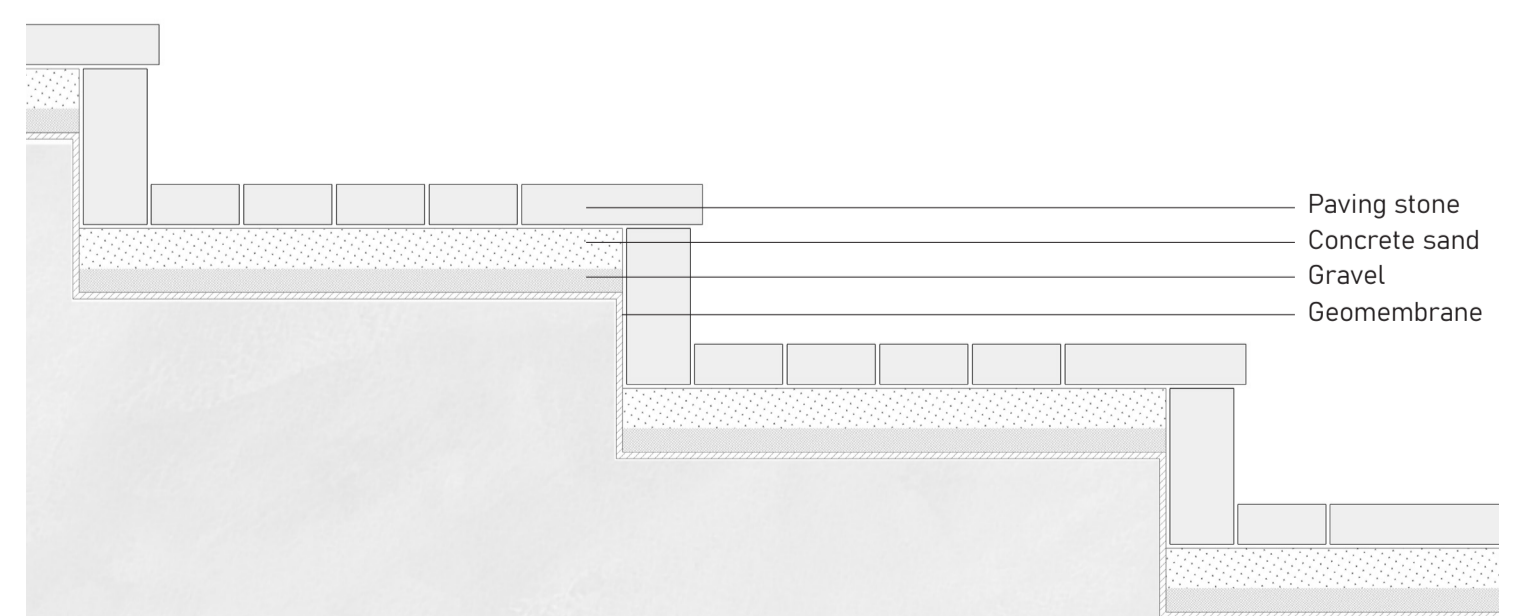
A new landscape is created from the remaining soil.



The foundations on the four affected columns would be strengthened with a new layer of concrete.

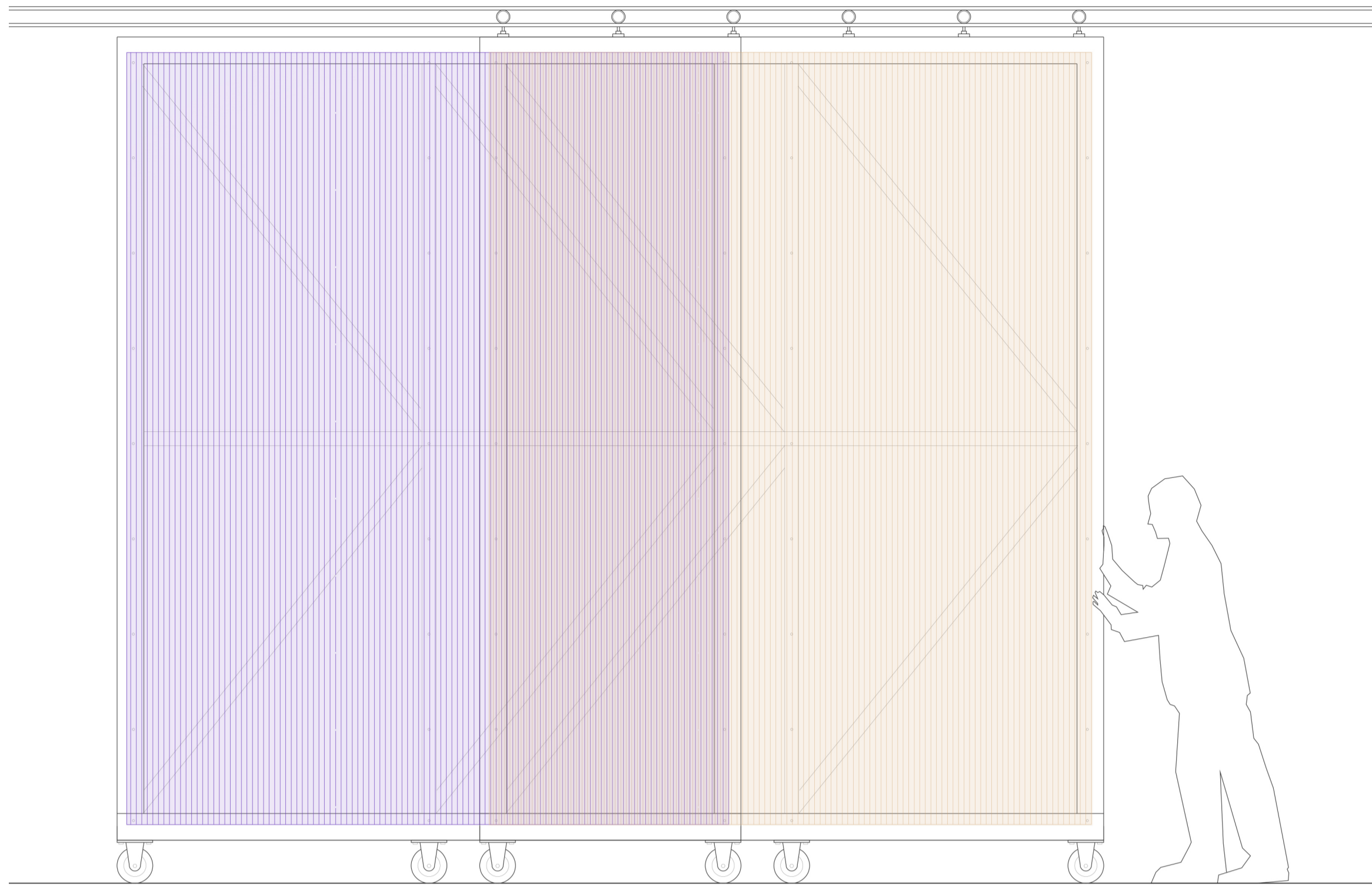


Three of the columns are cross braced with a steel wire.

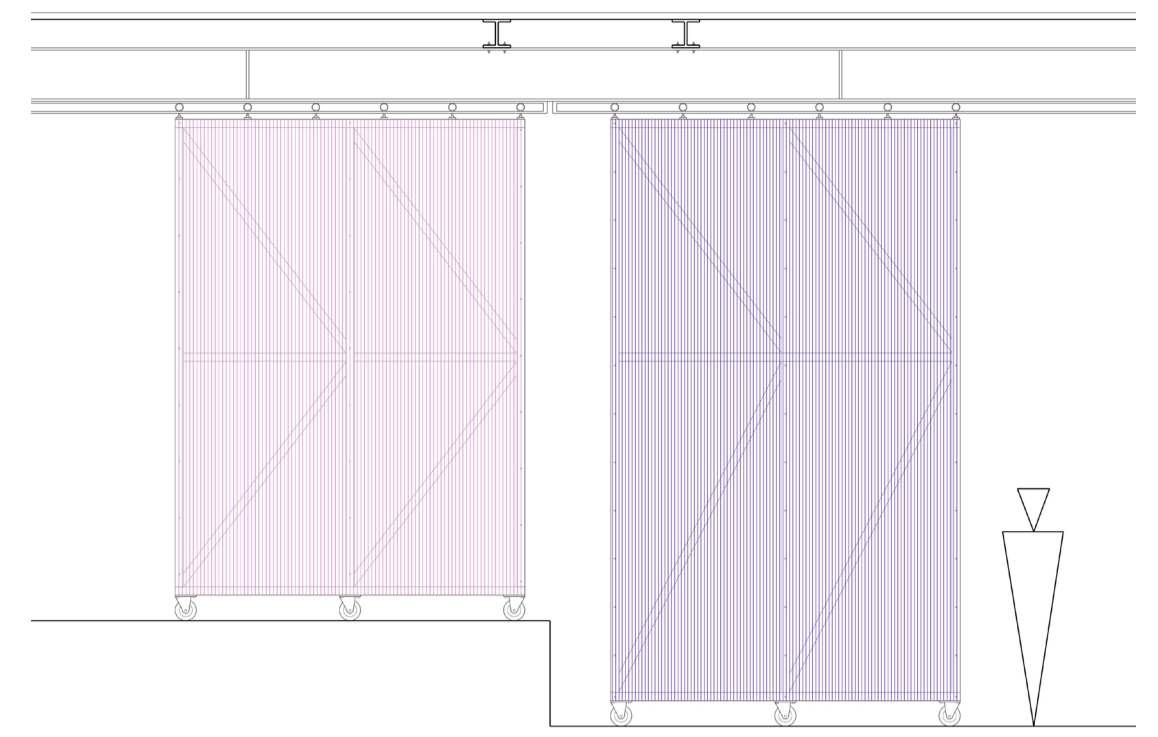


The stage is paved around the hole. Cross section and plan 1:10.

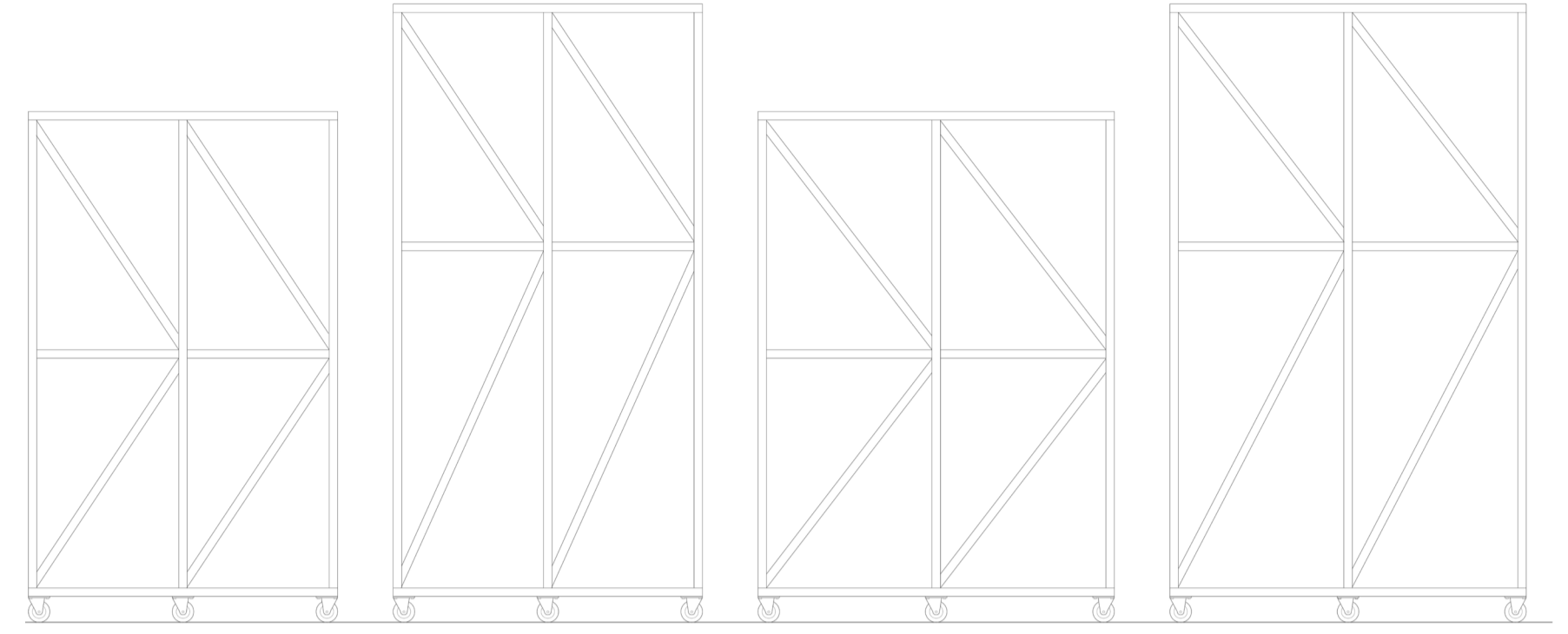
# MOVING WALLS



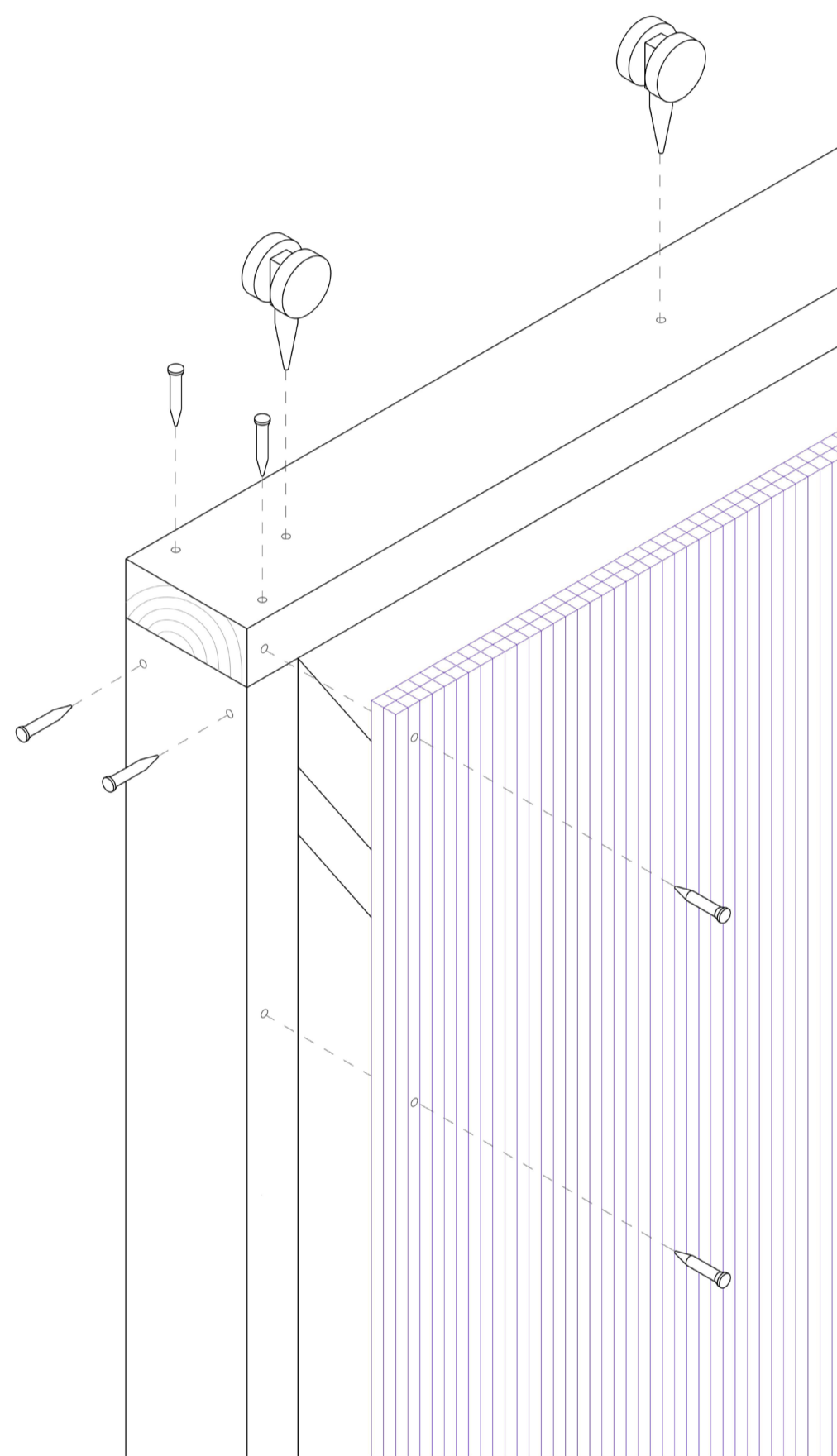
The walls are attached to two layers of tracks and transport wheels, and are movable in two directions. Depending on their position, they create a new colour.



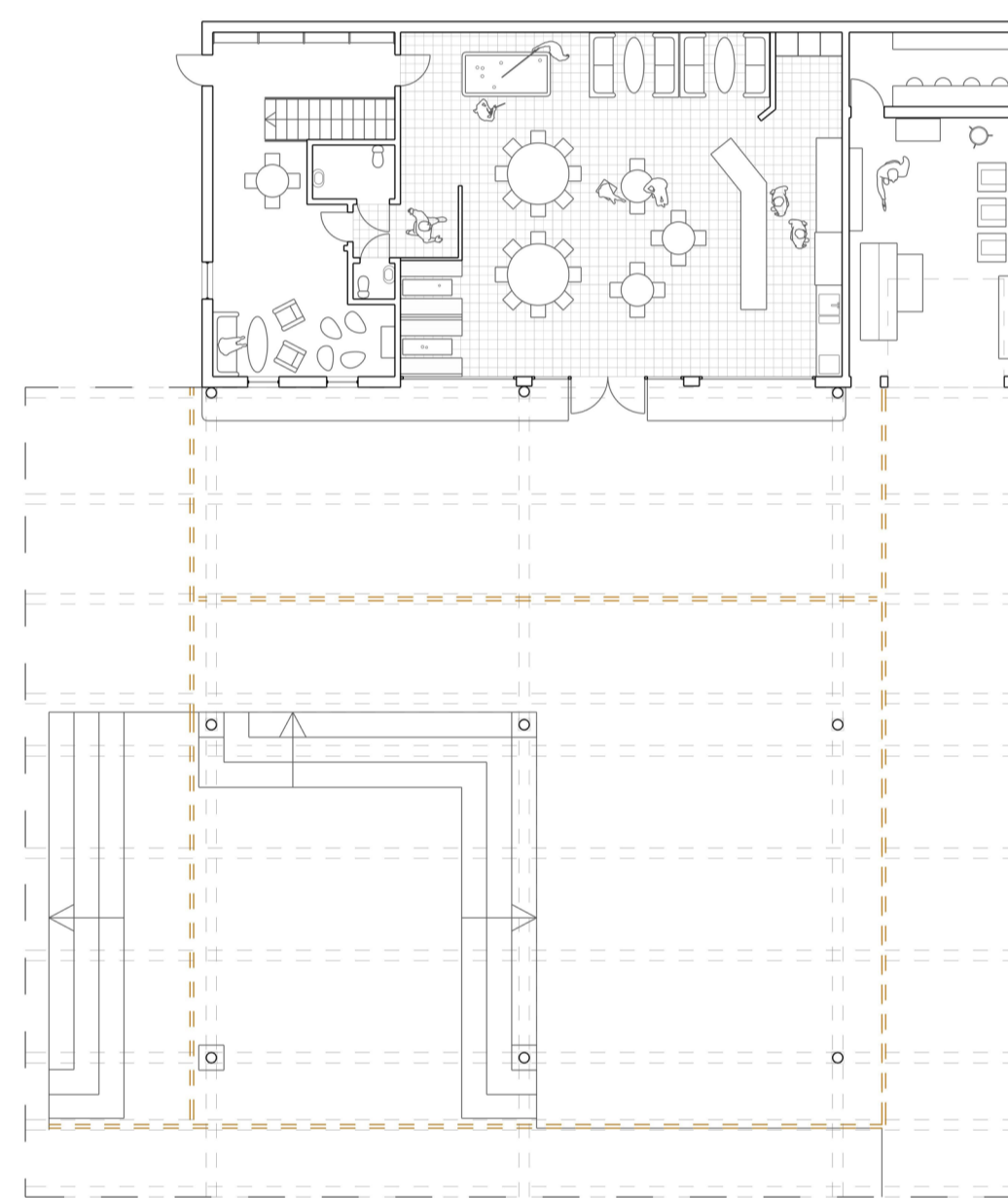
Size A      Size B      Size C      Size D



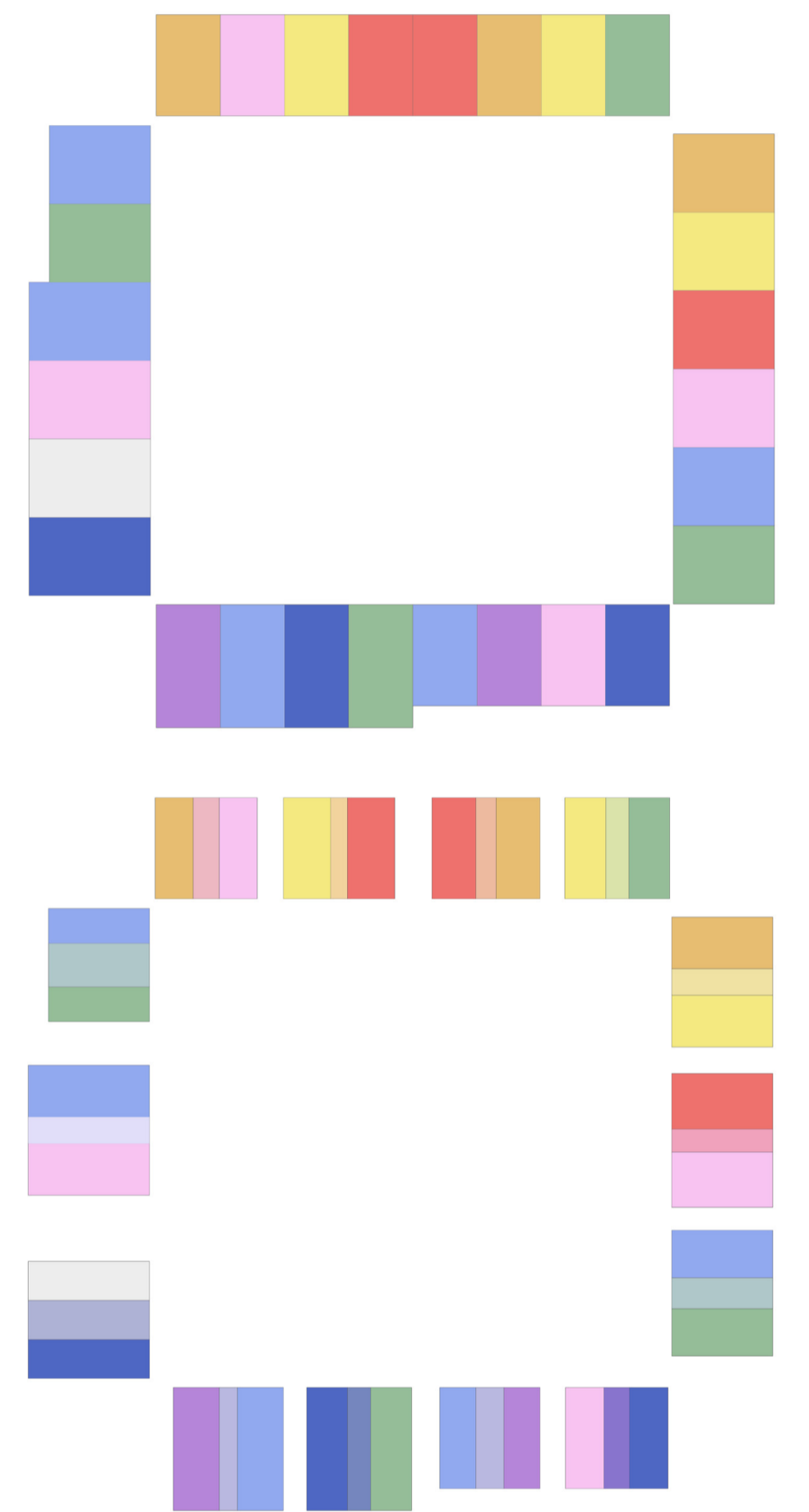
Four sizes of frames: 2300x3600mm, 2300x4400mm, 2600x3600mm, 2600x4400mm. Depending on the track they are attached to.



The wooden frames are clad with polycarbonate plates in varying transparency and colour.

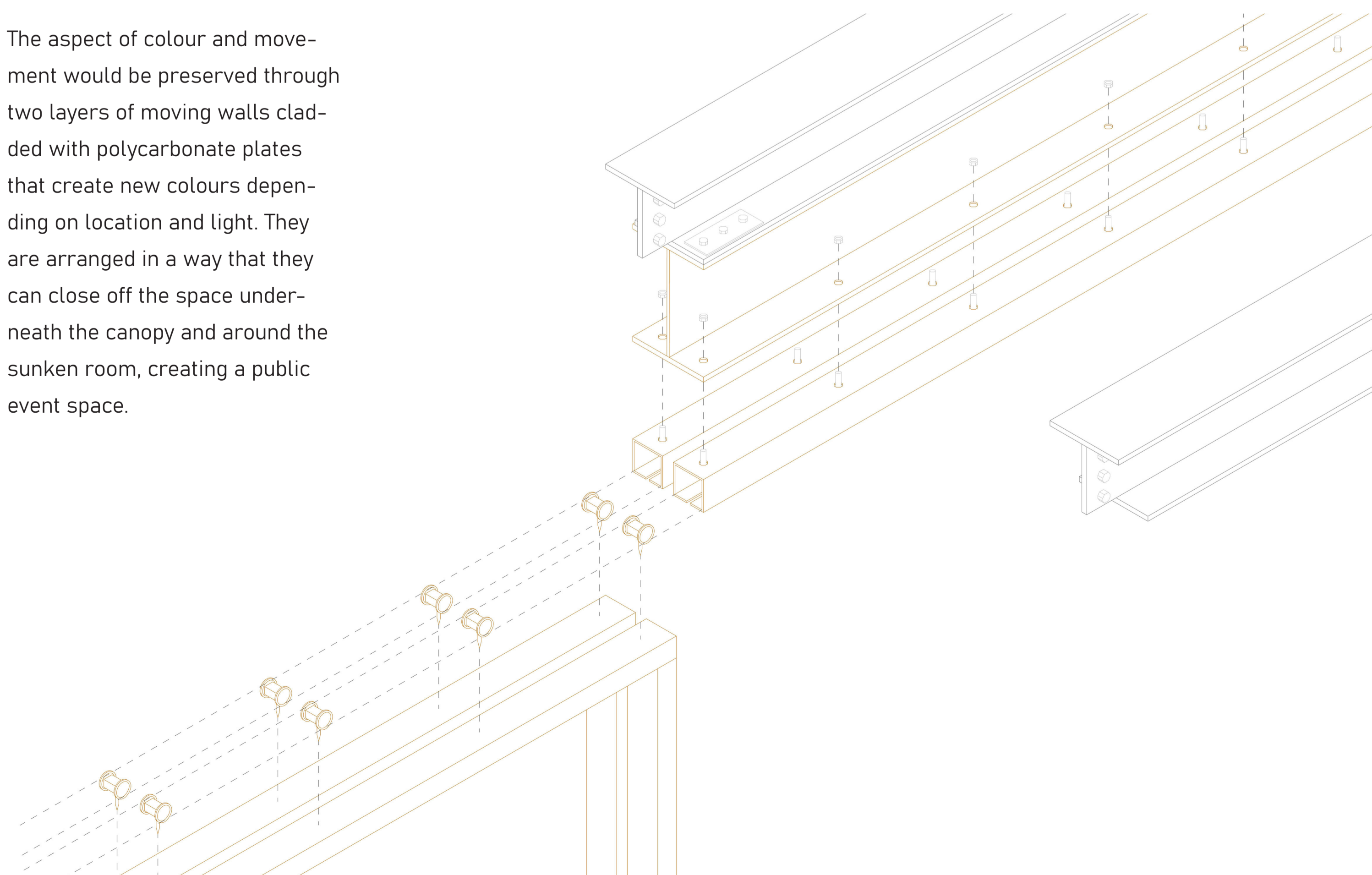


The arrangement of shins in orange.

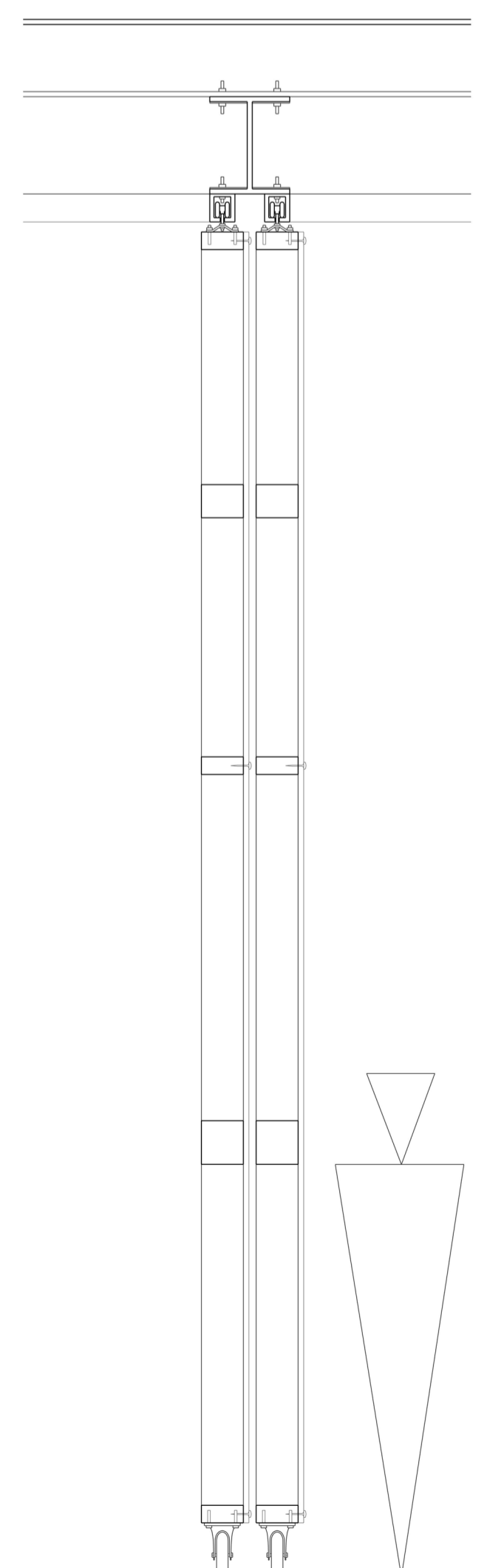


The colour scheme of the walls is changing depending on use.

The aspect of colour and movement would be preserved through two layers of moving walls clad with polycarbonate plates that create new colours depending on location and light. They are arranged in a way that they can close off the space underneath the canopy and around the sunken room, creating a public event space.



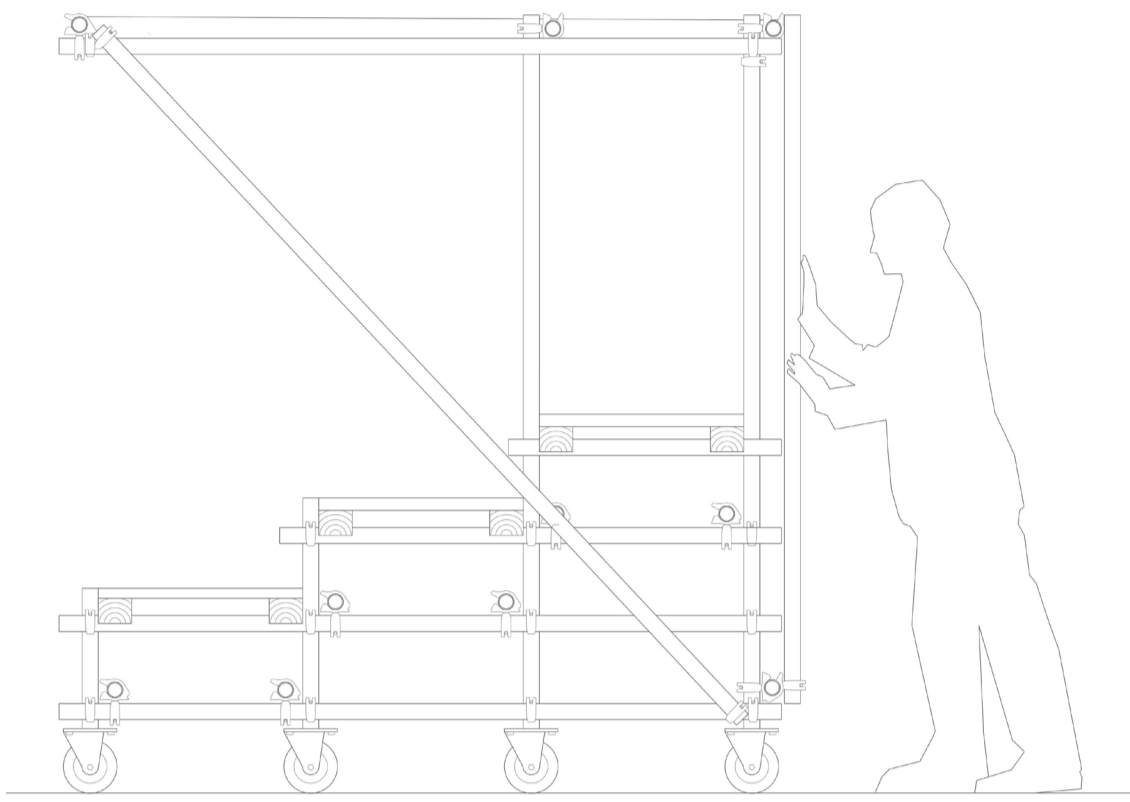
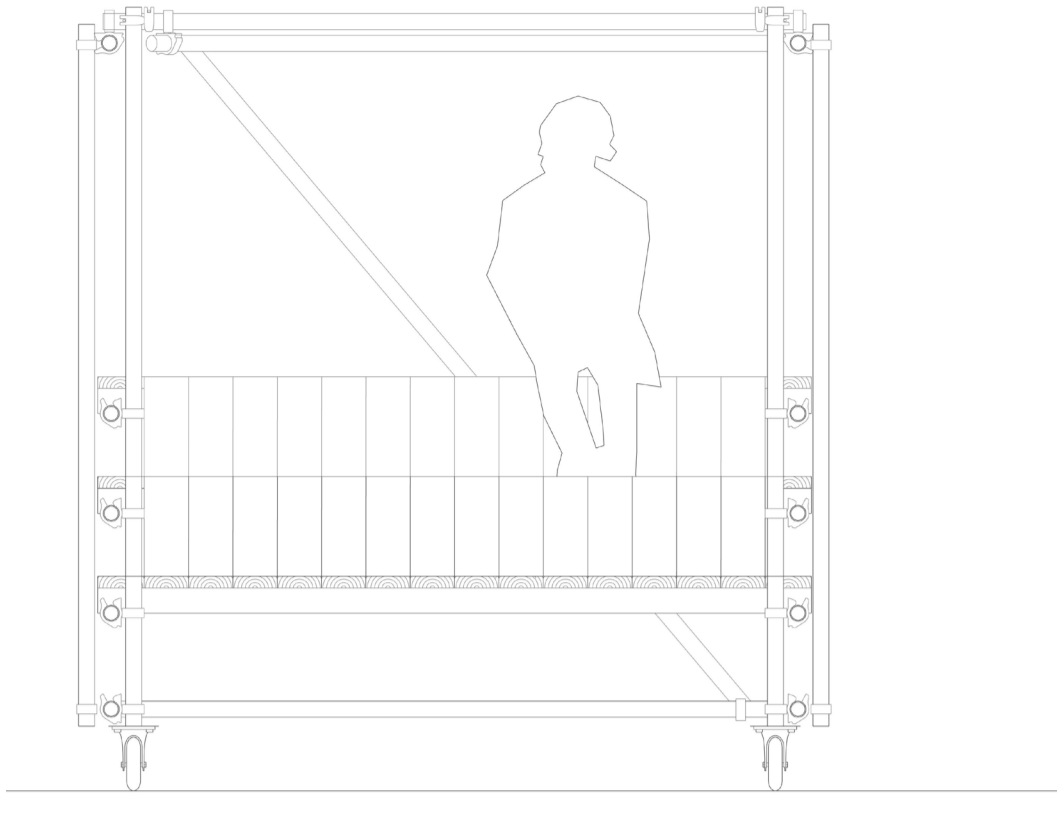
The shins are attached to an added I-beam, that is attached to the existing structure.



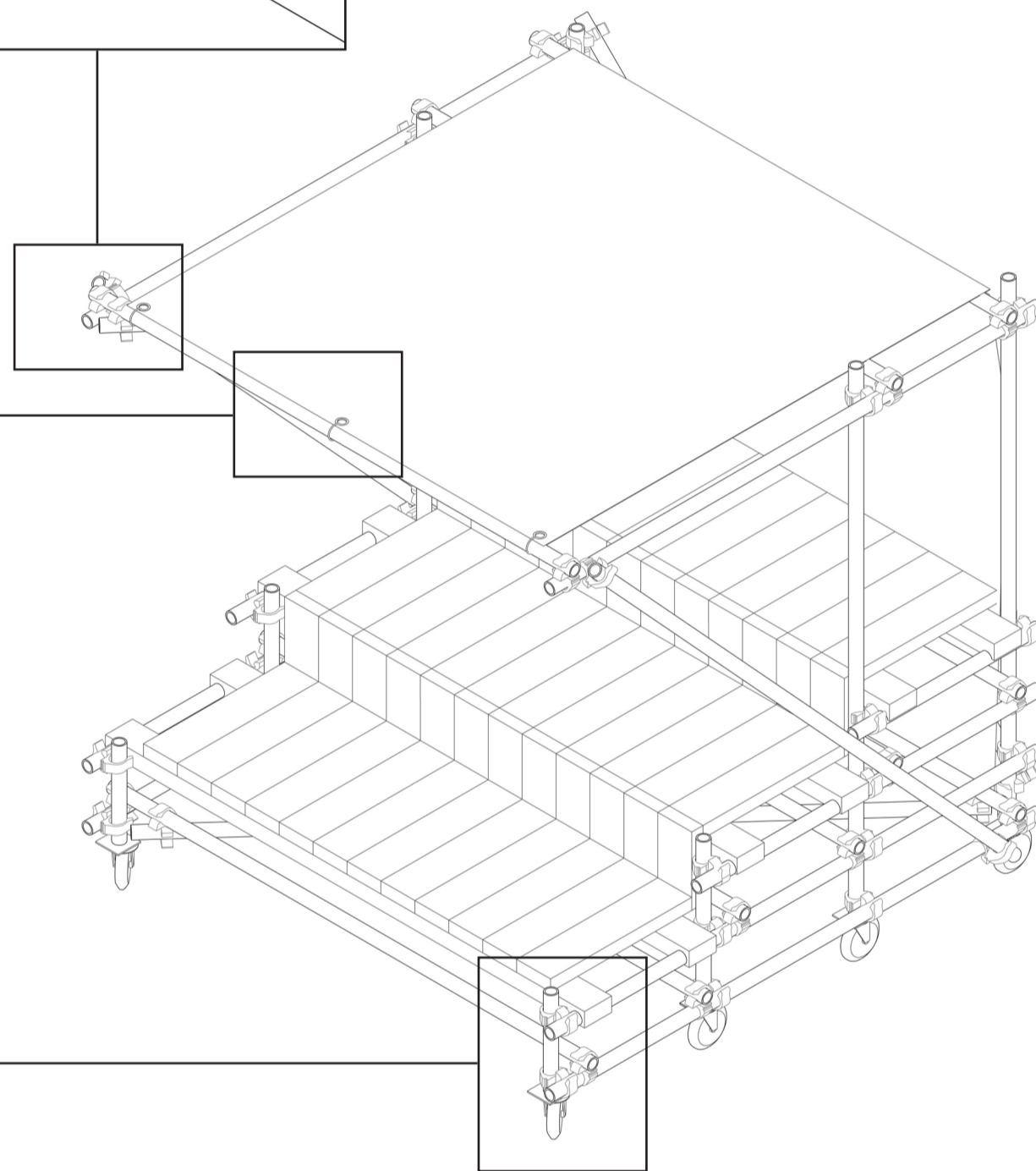
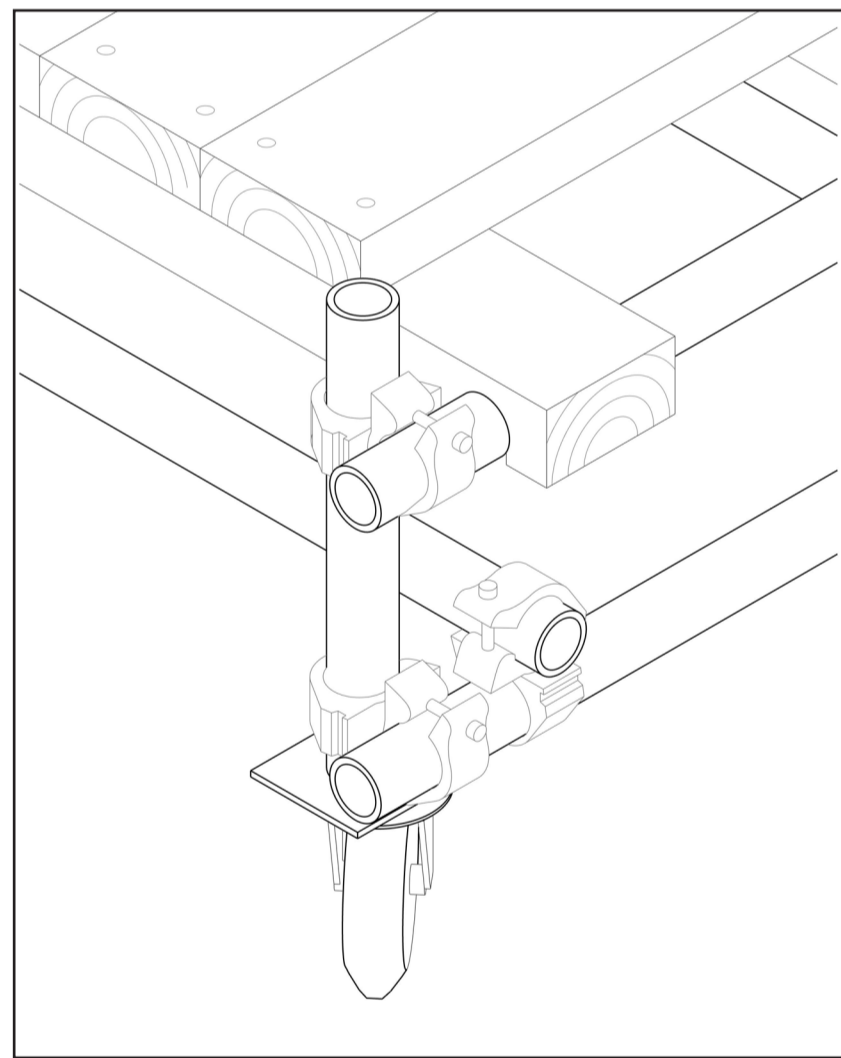
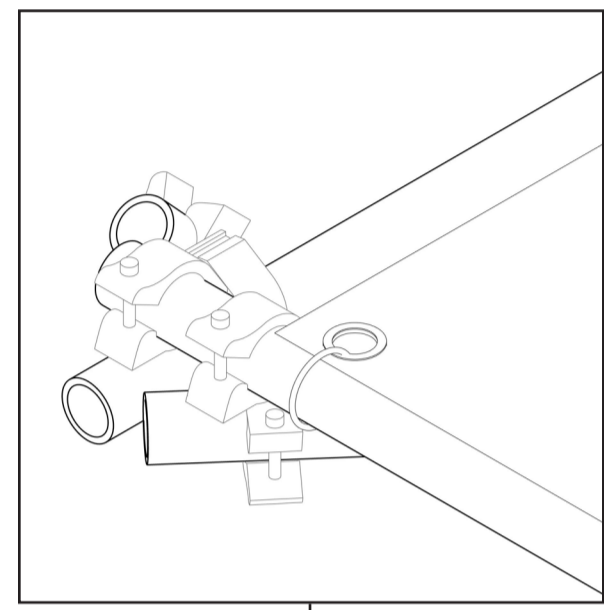
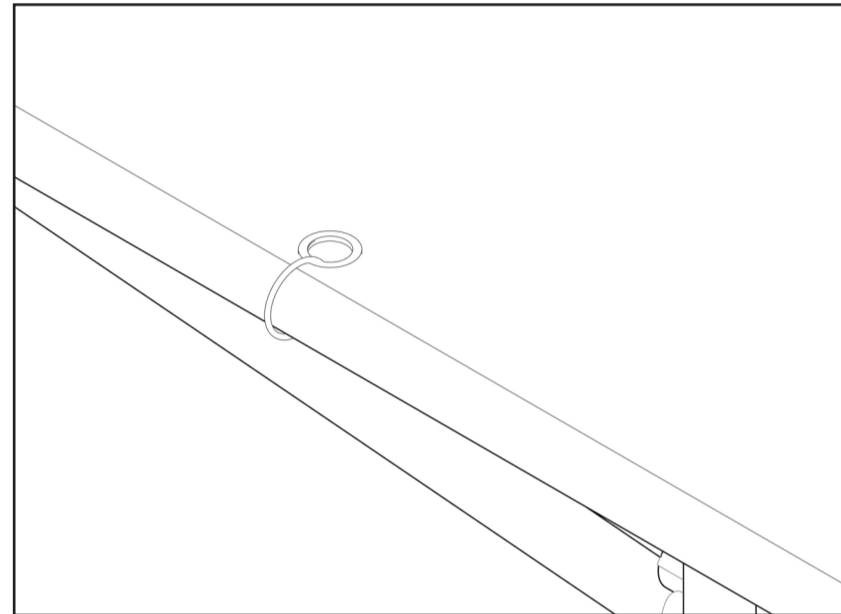
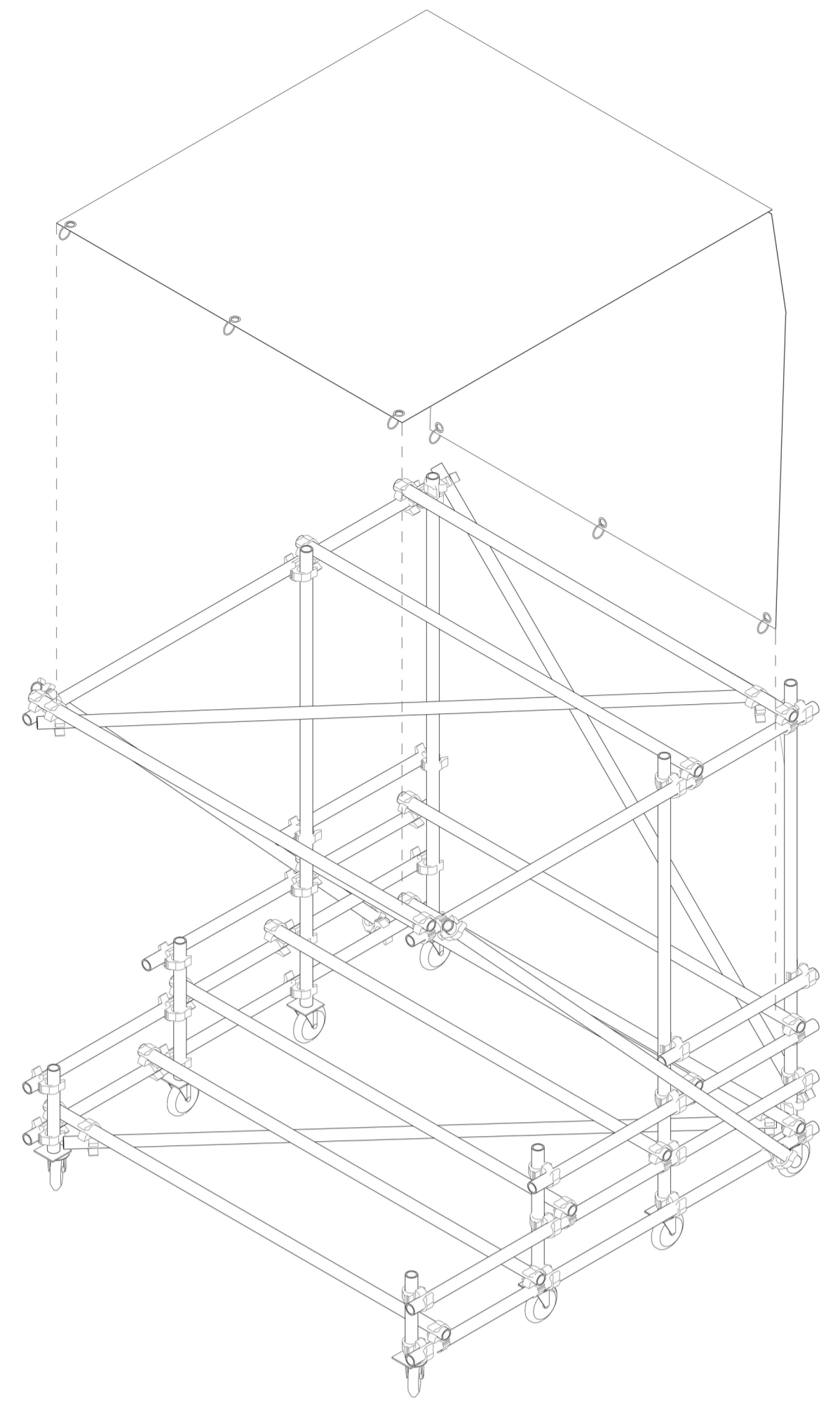
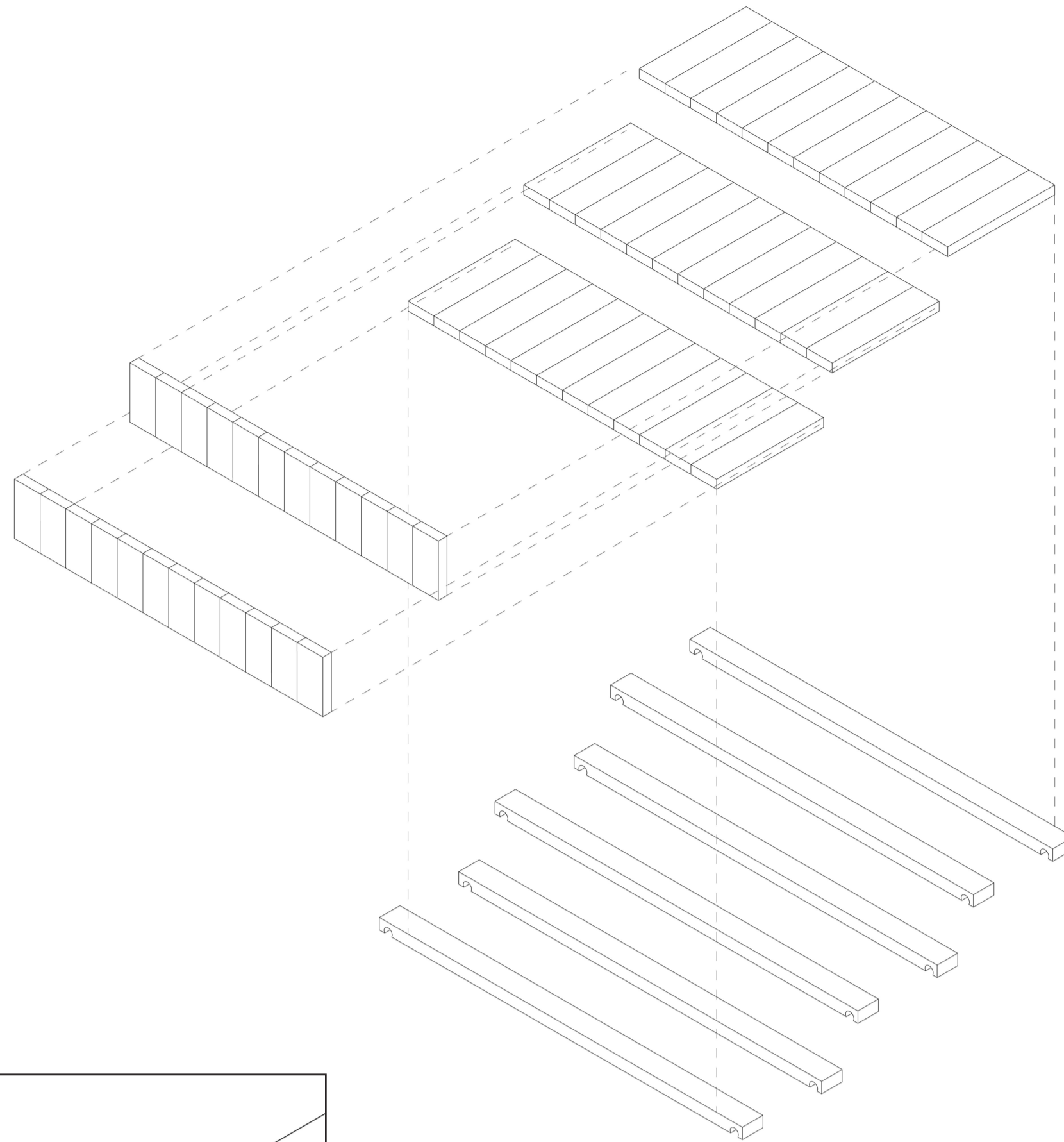
1:20 cross section of wall B.

## MOBILE MODULES

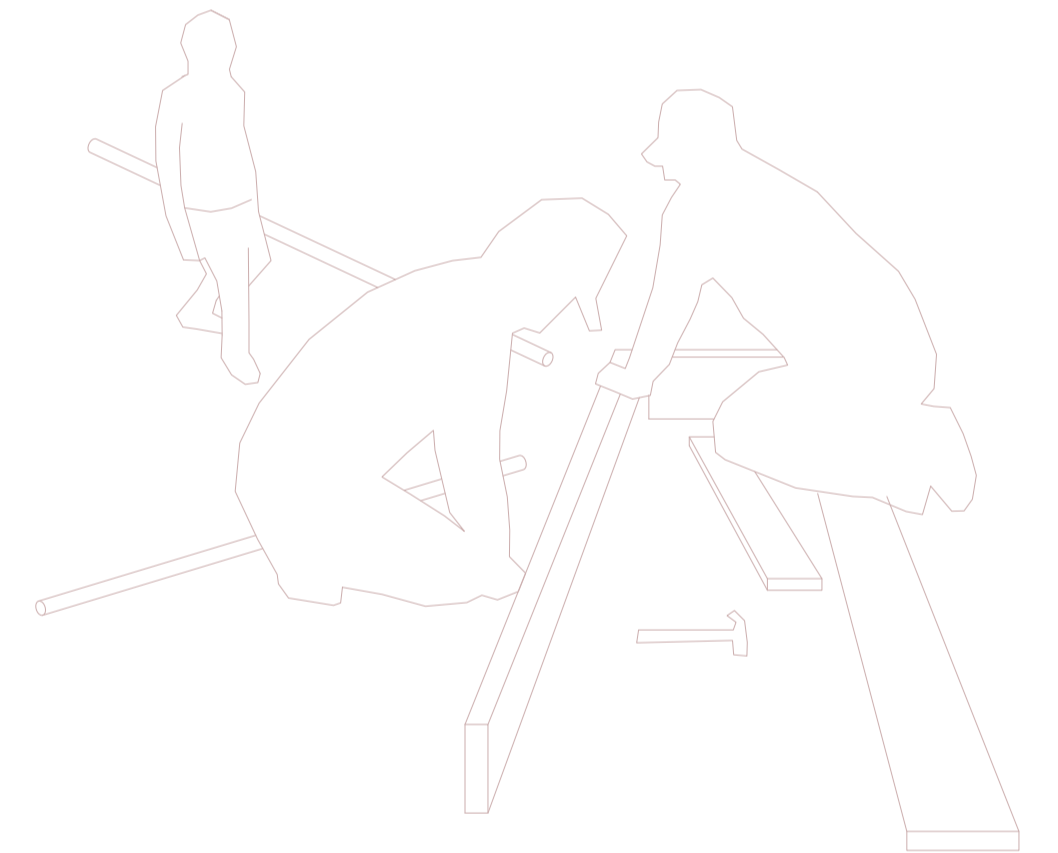
Axonometric view 1:20. Wooden planks are functioning as bracing as well as seating. Tarp is added for weather protection.



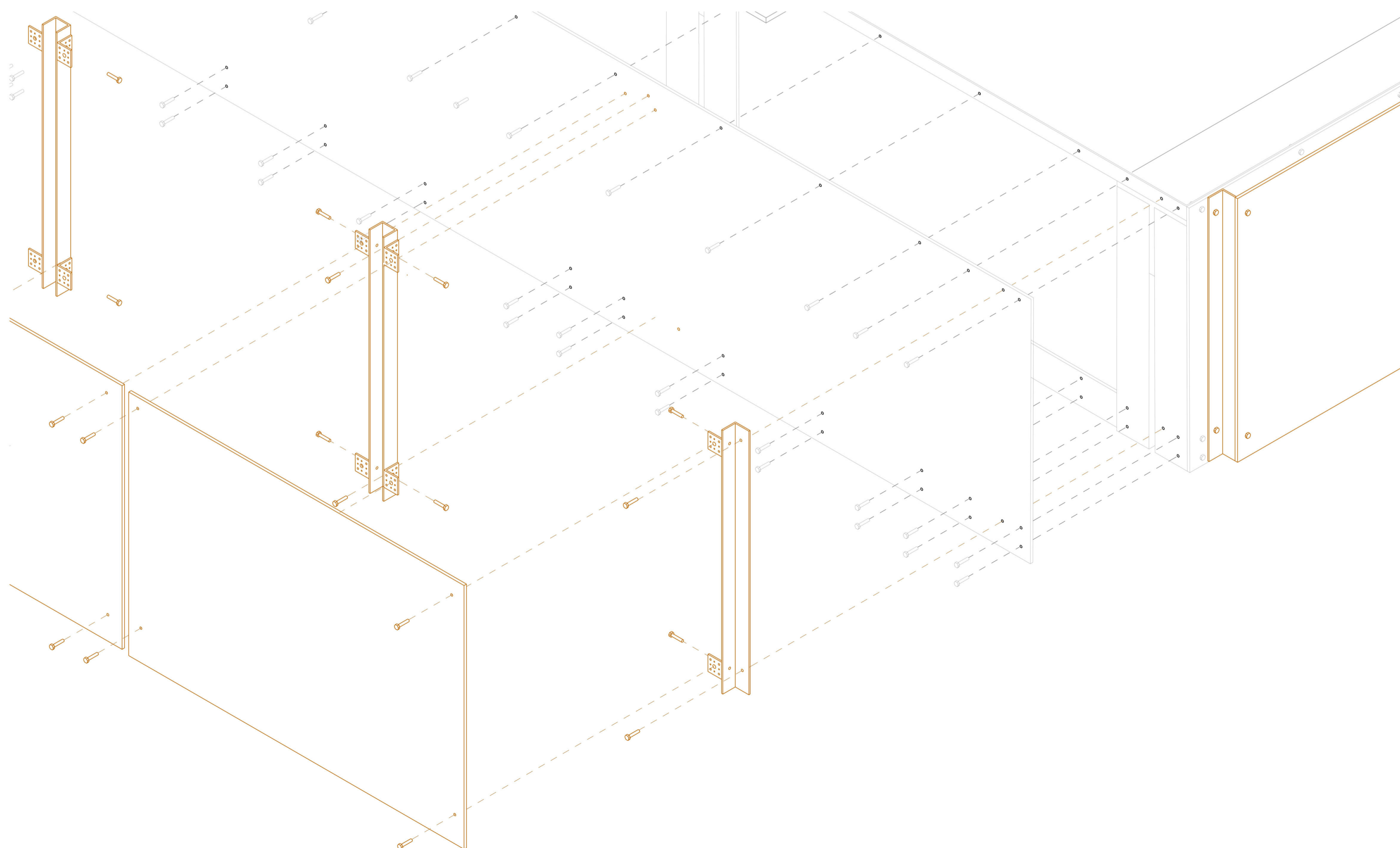
Elevations 1:20. Put on swivel wheels, they can be moved anywhere on the site.



To keep the site changing, flexible and in motion, easily assembled mobile modules of aluminium scaffolding, wood, and tarp would be possible to construct collectively in the workshop in the old car wash.



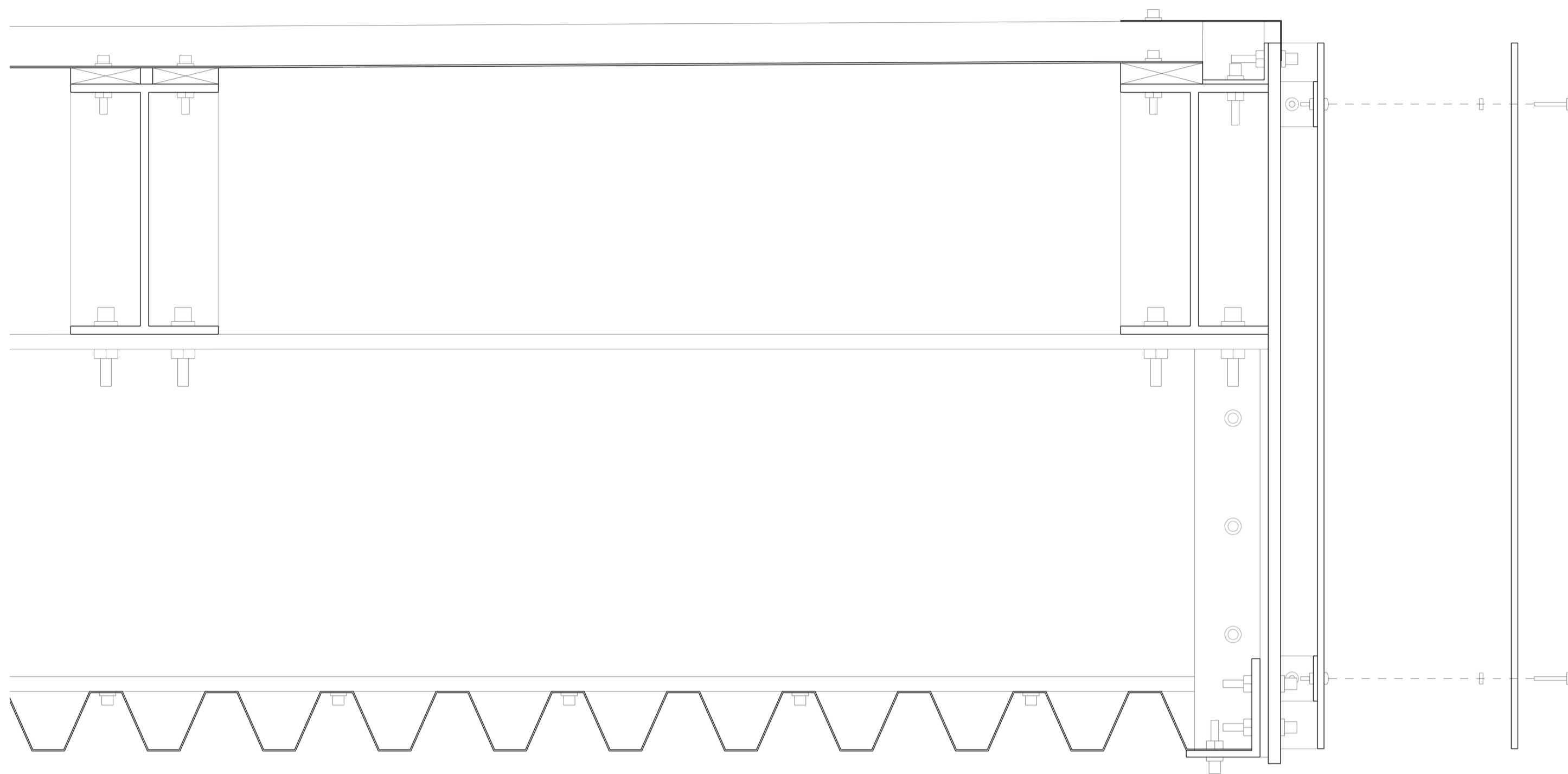
## CANOPY GALLERY



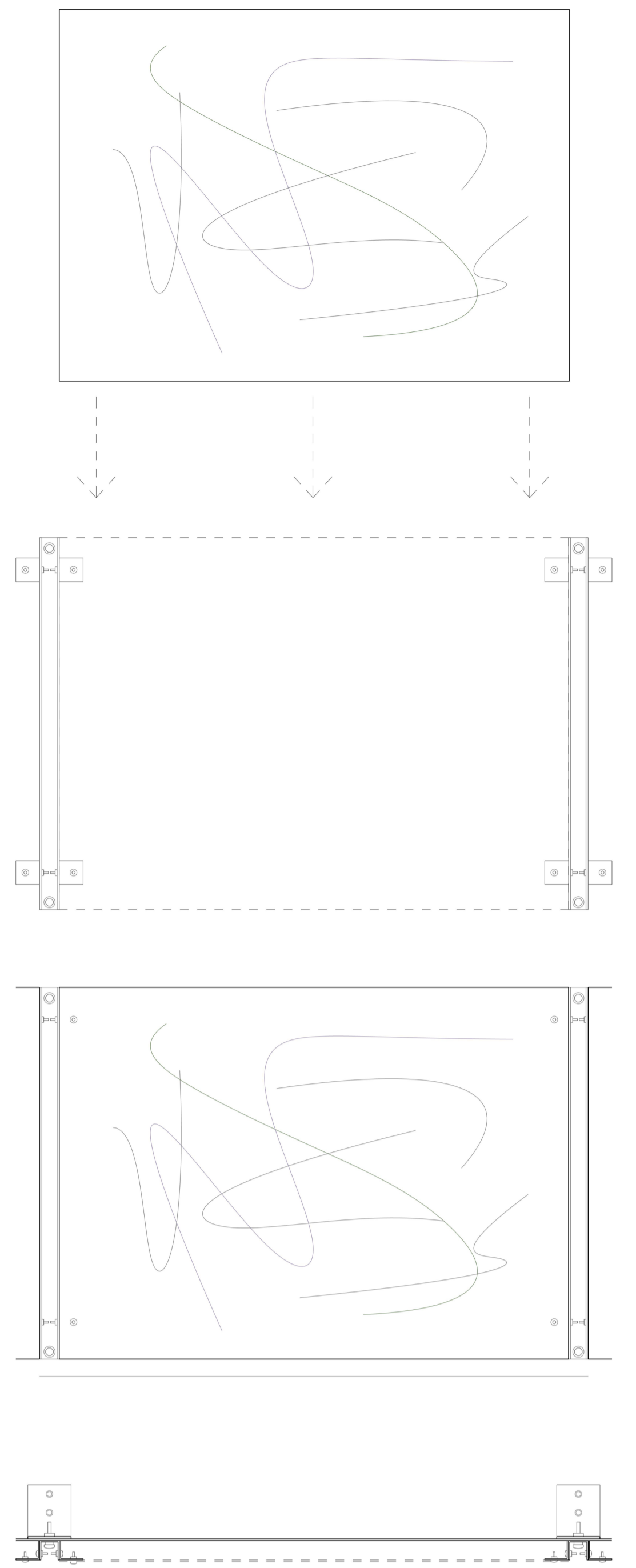
Aluminium U-profiles and angle brackets are joining the plates with the canopy structure.

What is the logo of the post petroleum era?

By arranging the canopy sides, that used to carry the sign of the operating oil company, into a public gallery/canvas, Vinderen is free to create their own ever-changing logo. Varnished steel plates of 1300x850mm would be used as canvases for the local community and attached along the edges of the canopy. These are easily removable and replaced with new art, making the site in constant change.

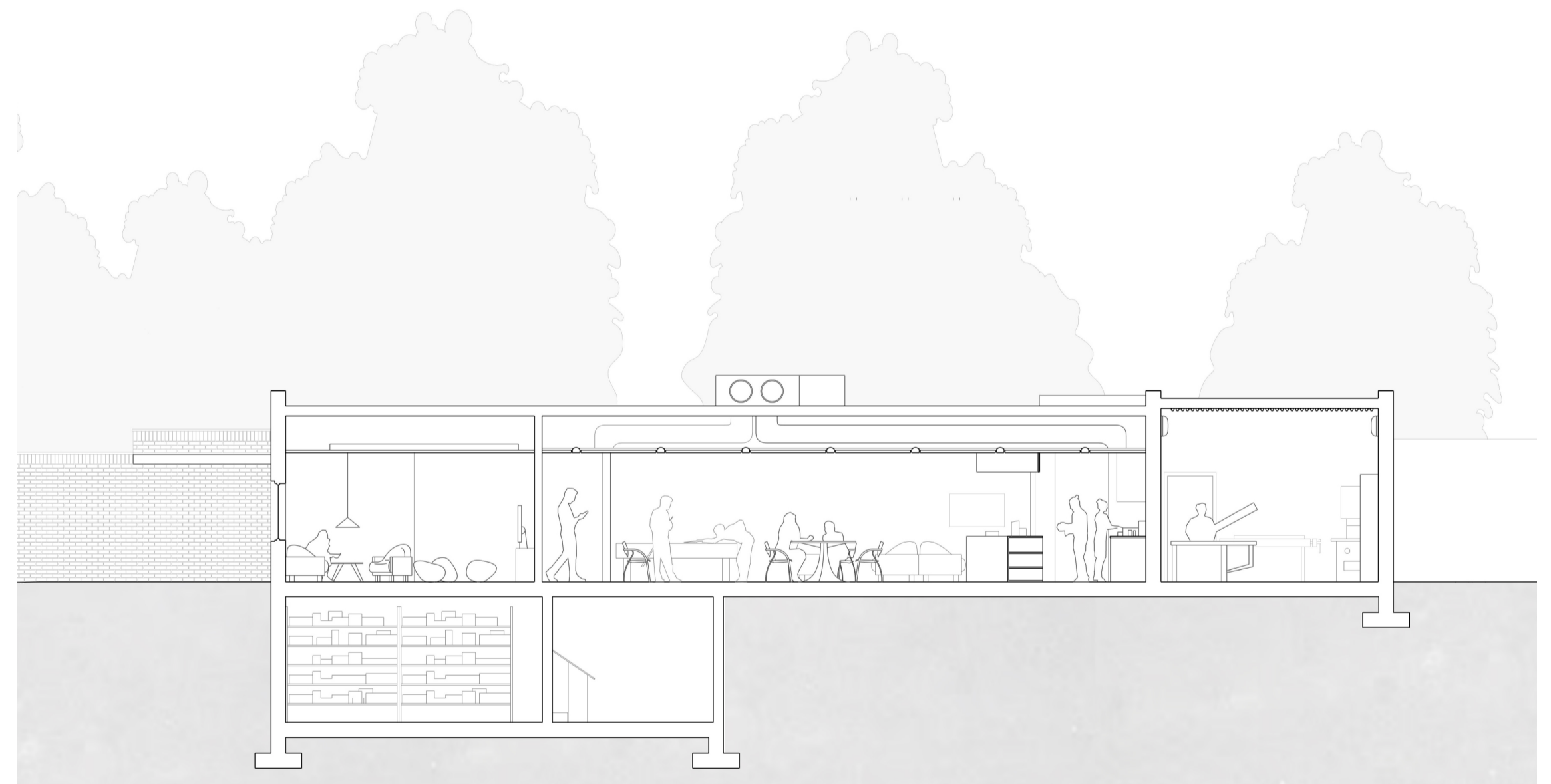
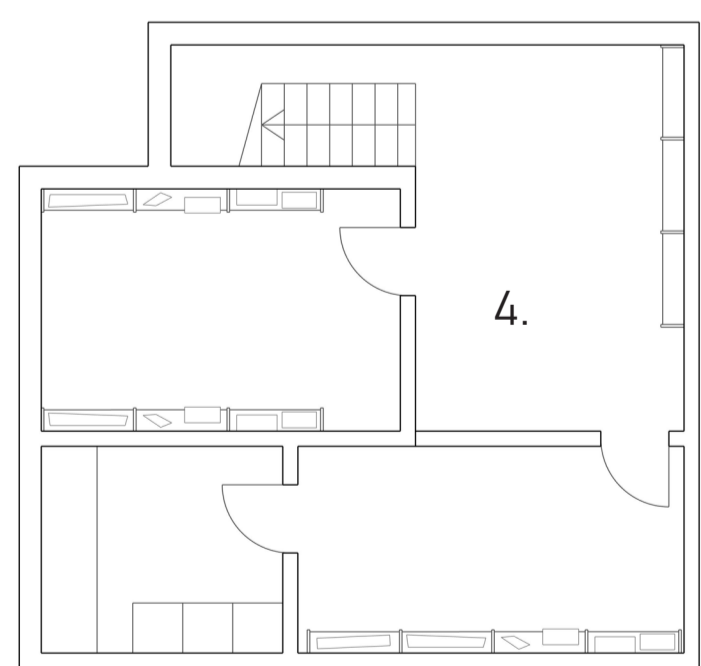
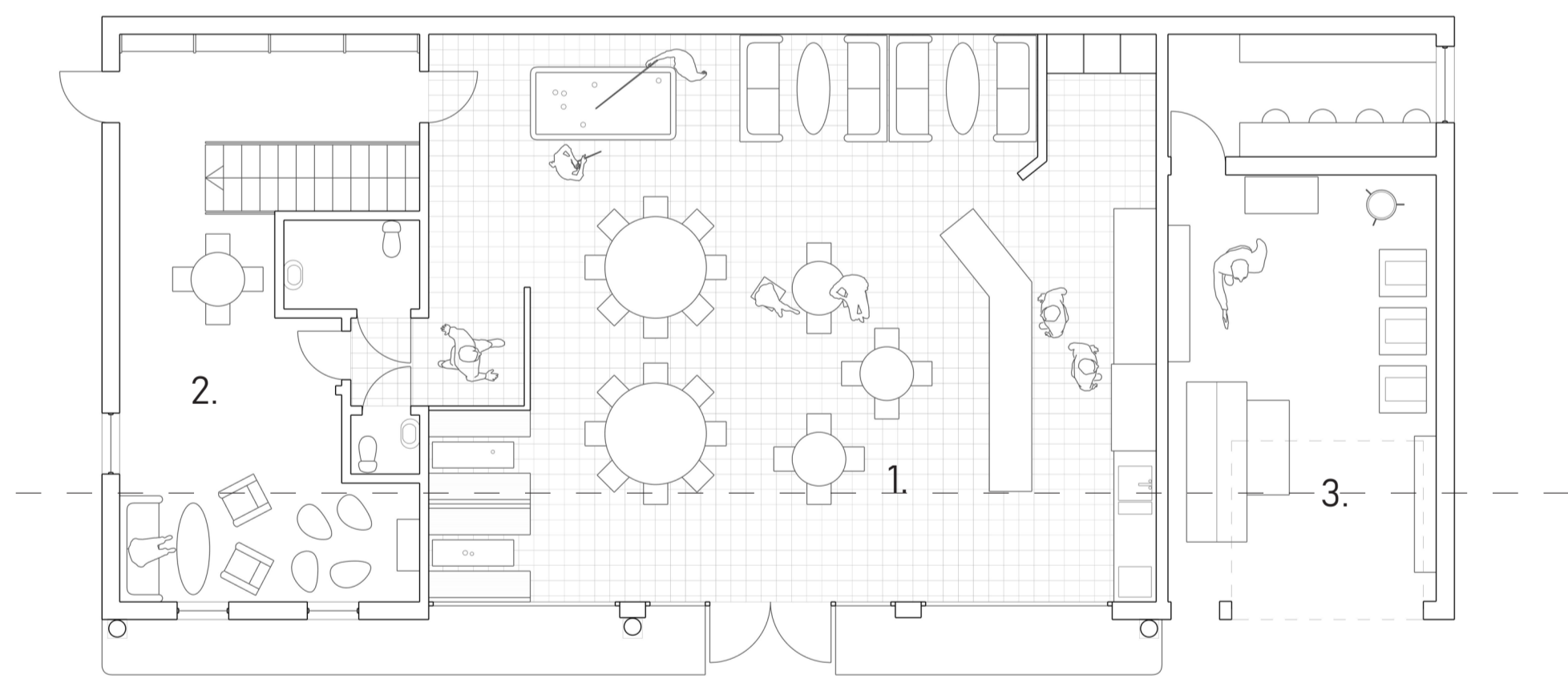


Section through canopy edge 1:5



Elevation and section 1:10

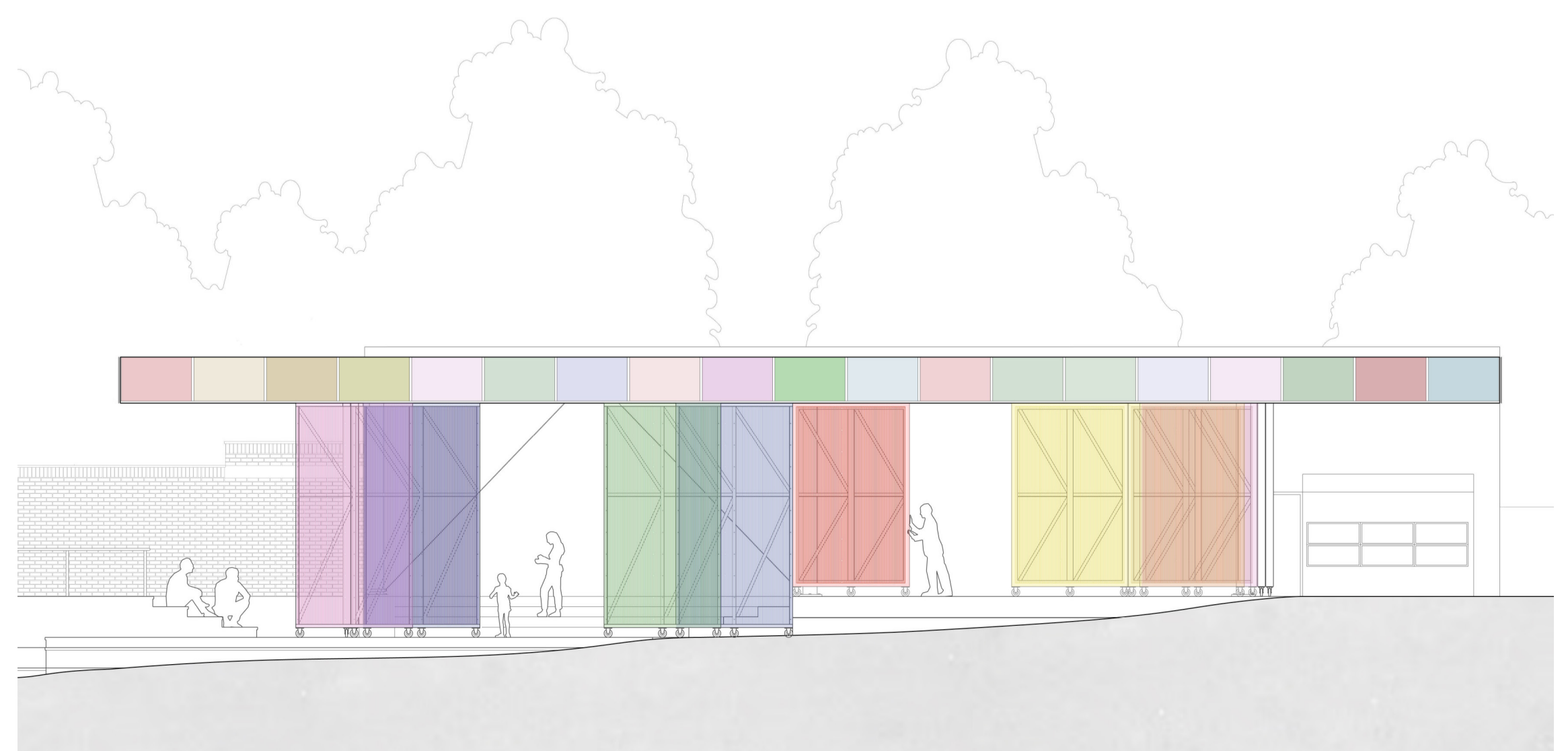
## PROGRAMS



Section 1:100

The old convenience store turns into a community centre. The old cold room is removed and more space is added. Kitchen and toilet facilities are kept, as well as the old furniture. Two walls are removed in the old office, creating a public living room.

1. Community space with kitchen
2. Public living room
3. Public workshop
4. Storage

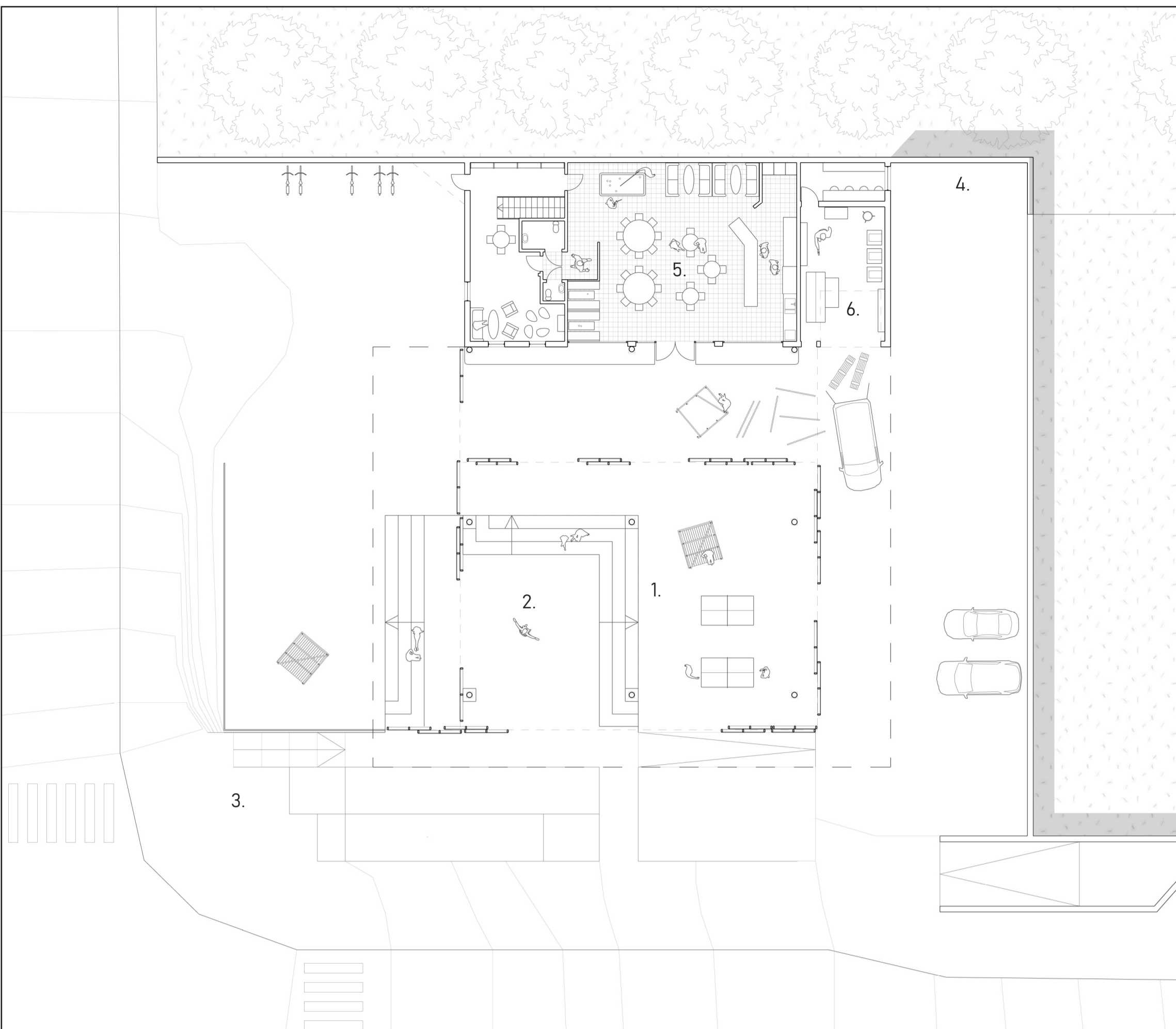


Elevation south 1:100

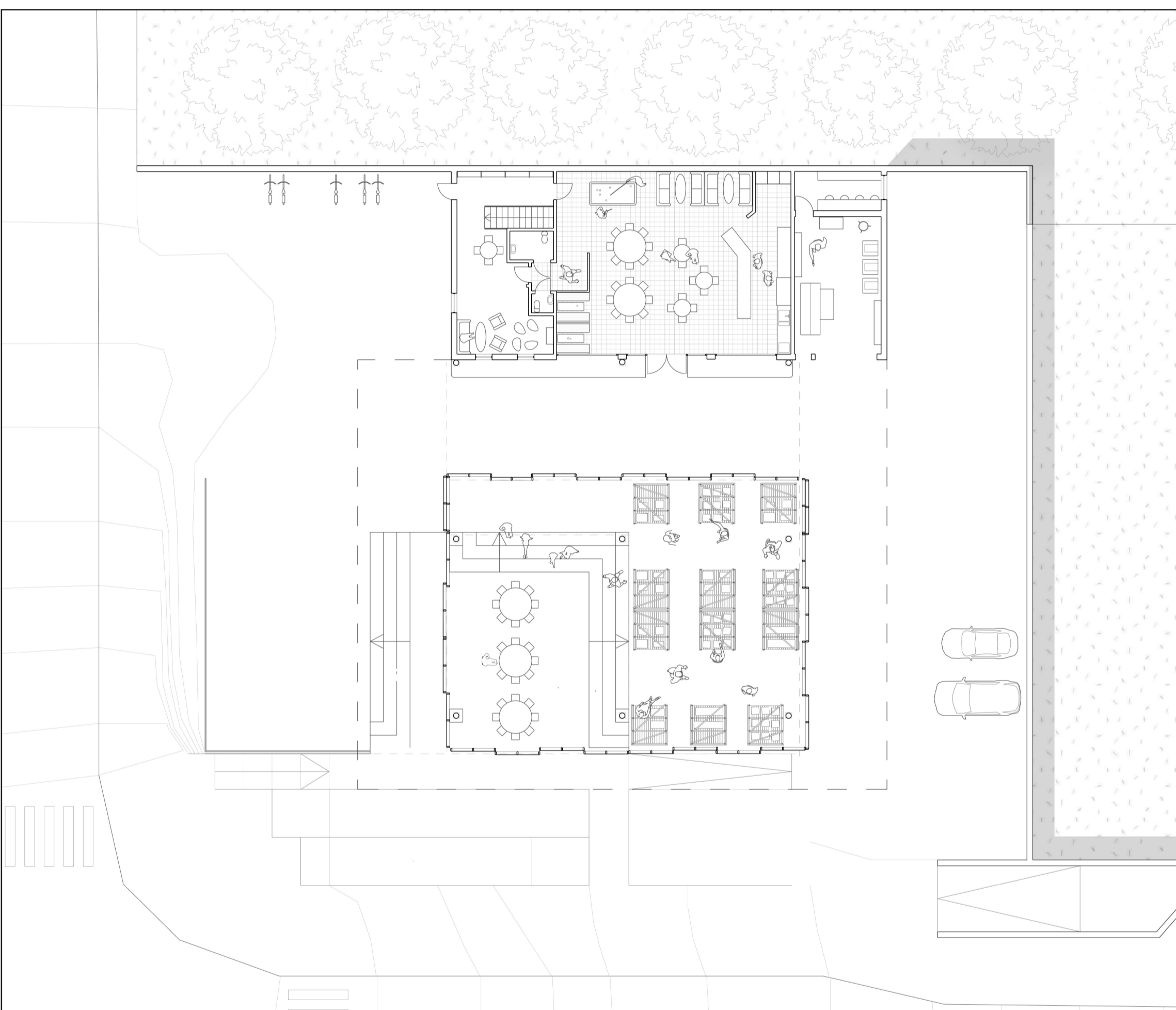
## PROGRAMS

The added elements are possible to be arranged, created and modified in the workshop. The community space can be rented for events, meetings or workshops. The space underneath the canopy is public when it is open, but can be enclosed and used for private events.

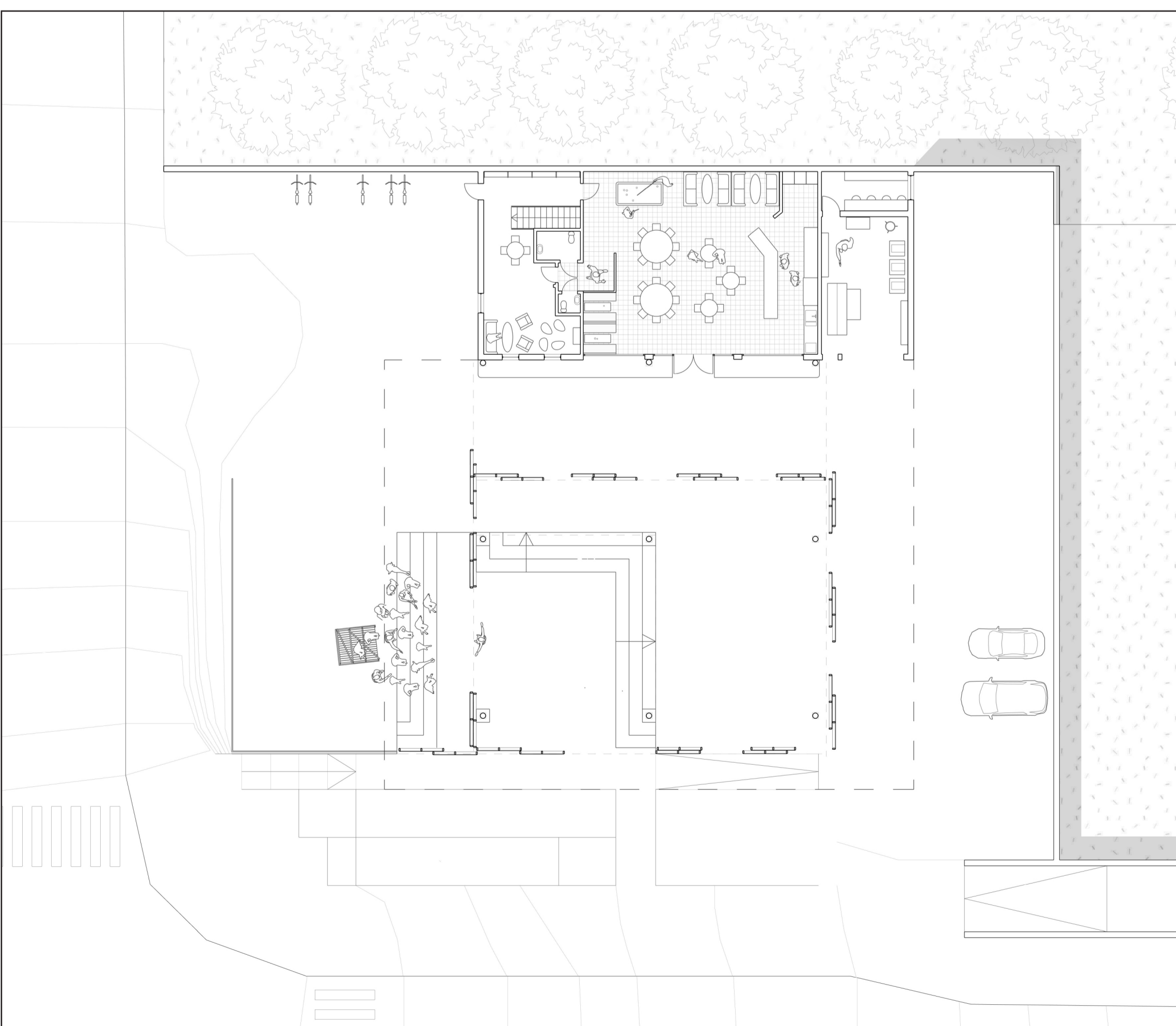
1. Enclosable event space
2. Stage
3. Pedestrian entrance
4. Graffiti wall
5. Community centre
6. Public workshop



Plan 1:200



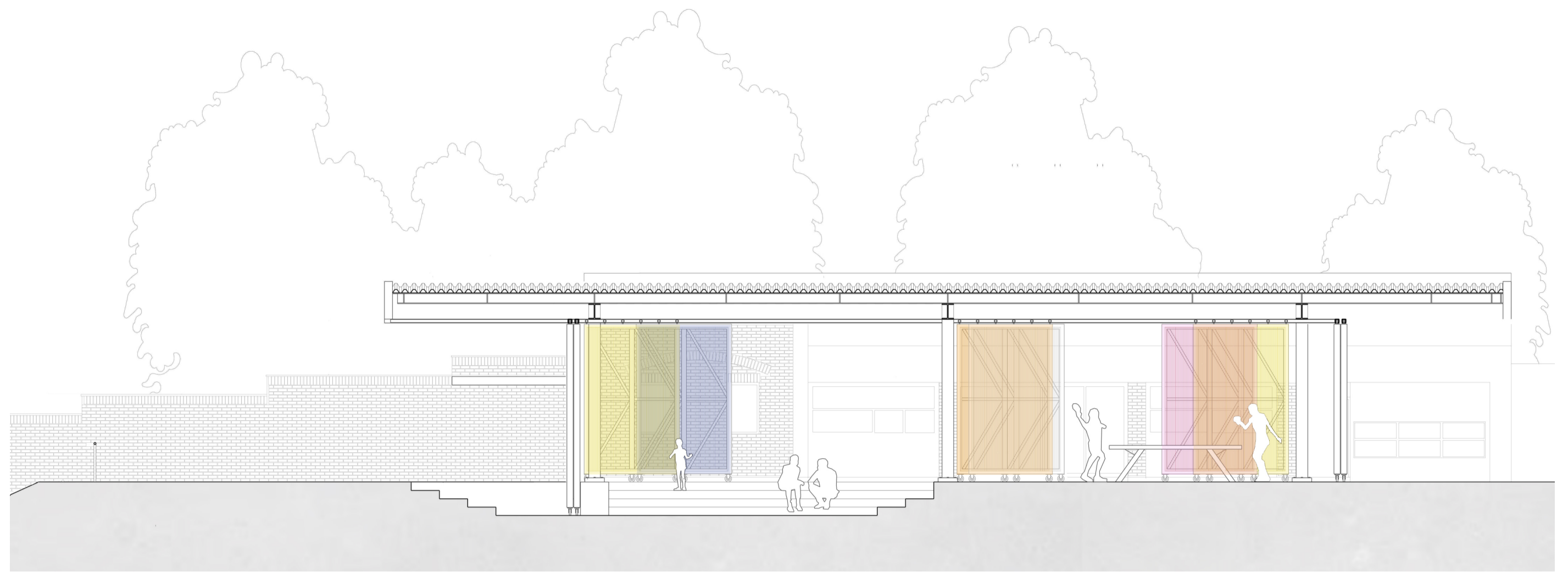
Plan 1:200. The moving walls can create a closed space that can be used for events.



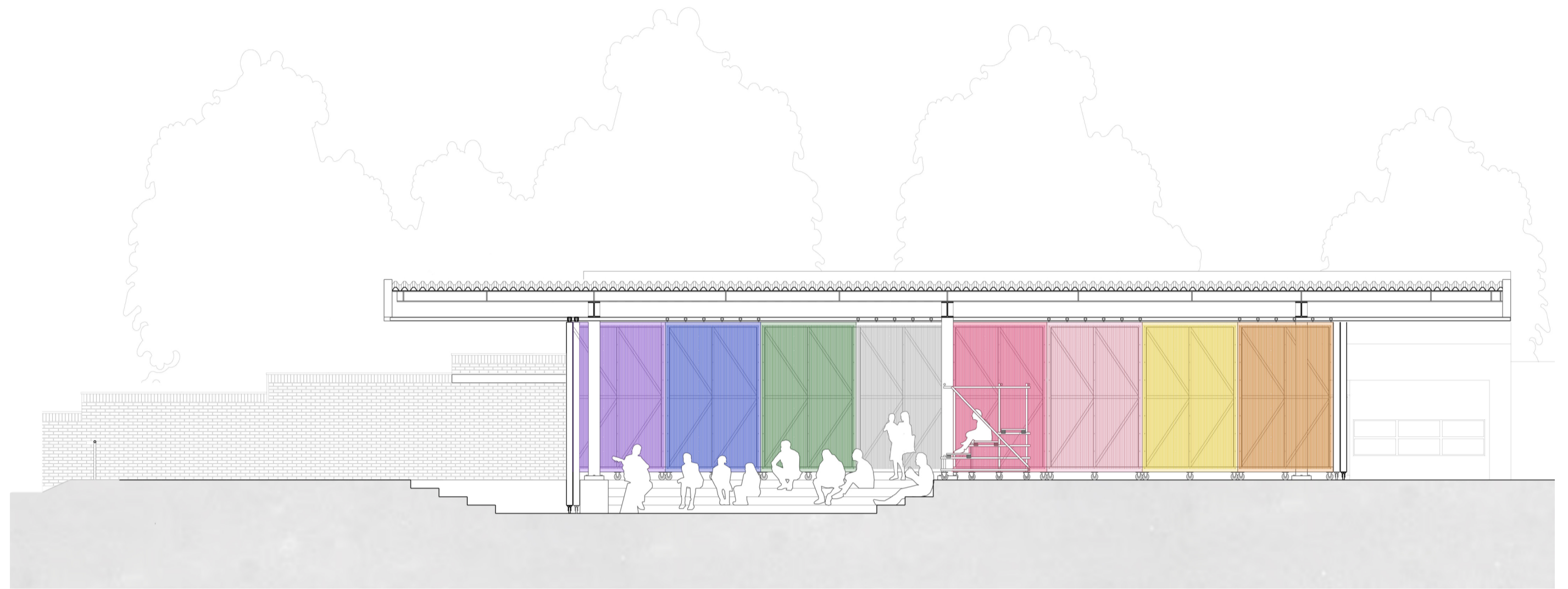
Plan 1:200. When opened, the stage can work in two directions.



# SECTIONS



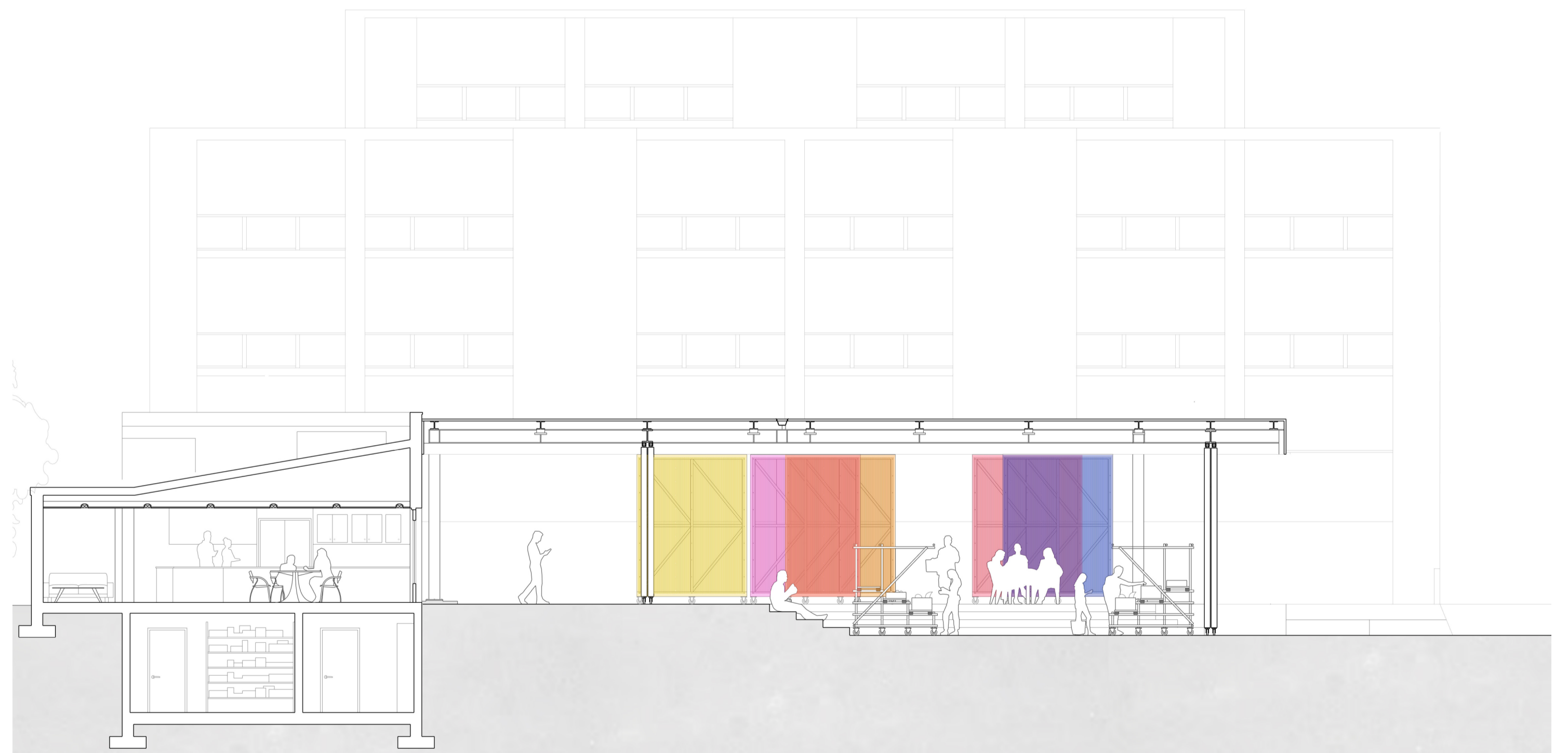
Section 1:100 east-west through the canopy.



Section 1:100 east-west through the canopy. The sunken room can be used as a stage.



Western elevation 1:100. The canopy sides are clad with removable steel plate canvases, constantly renewing the site.



Section 1:100 north-south through the canopy. The modules that are built can be used as public furniture or elements for markets.



Eastern elevation 1:100.



MODEL PHOTOS

