

# HYBRID

discussion





# HYBRID discussion

0\_thesis

1\_case studies

2\_discussion

3\_design

Should be read as vertical A4-spreads

Master Thesis,  
Faculty of Architecture and Design,  
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## MIXING EXERCISES

Components extracted from the case studies were mixed further in what we have called the *mixing exercise*. The aim is to create more hybrids and generate ideas as a warm-up for the subsequent design phase. The mixes have no specific place on earth and are only given a minimum of context. Each hybrid can therefore be seen as a little utopia. When all the solitary utopias are put together, they get to make up each other's context – resembling a city, or a neighbourhood of little of utopias.

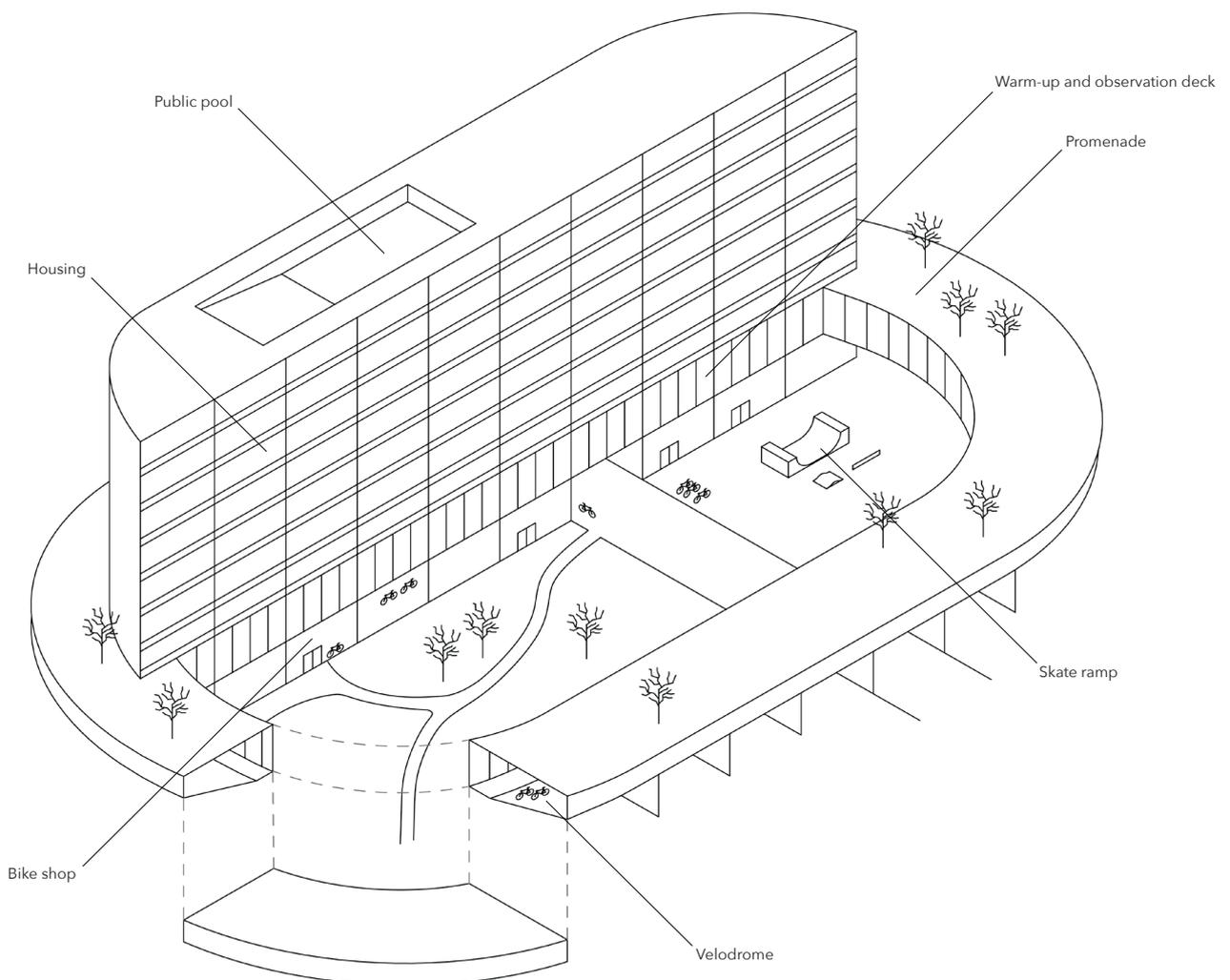
### Game rules

To compensate the lack of context for each project, a programmatic mix and typologies were drawn from a hat. Each mix has a major proportion of housing, at least two public services and some spaces and facilities shared among the residents. Each project is drawn at a certain level of abstraction, enough to convey the composition of typologies, ideas of circulation and outdoor spaces – whether private, public, or shared. Apartment types are partly described in drawing and partly in text.



## 01 Housing slab with velodrome and shared facilities

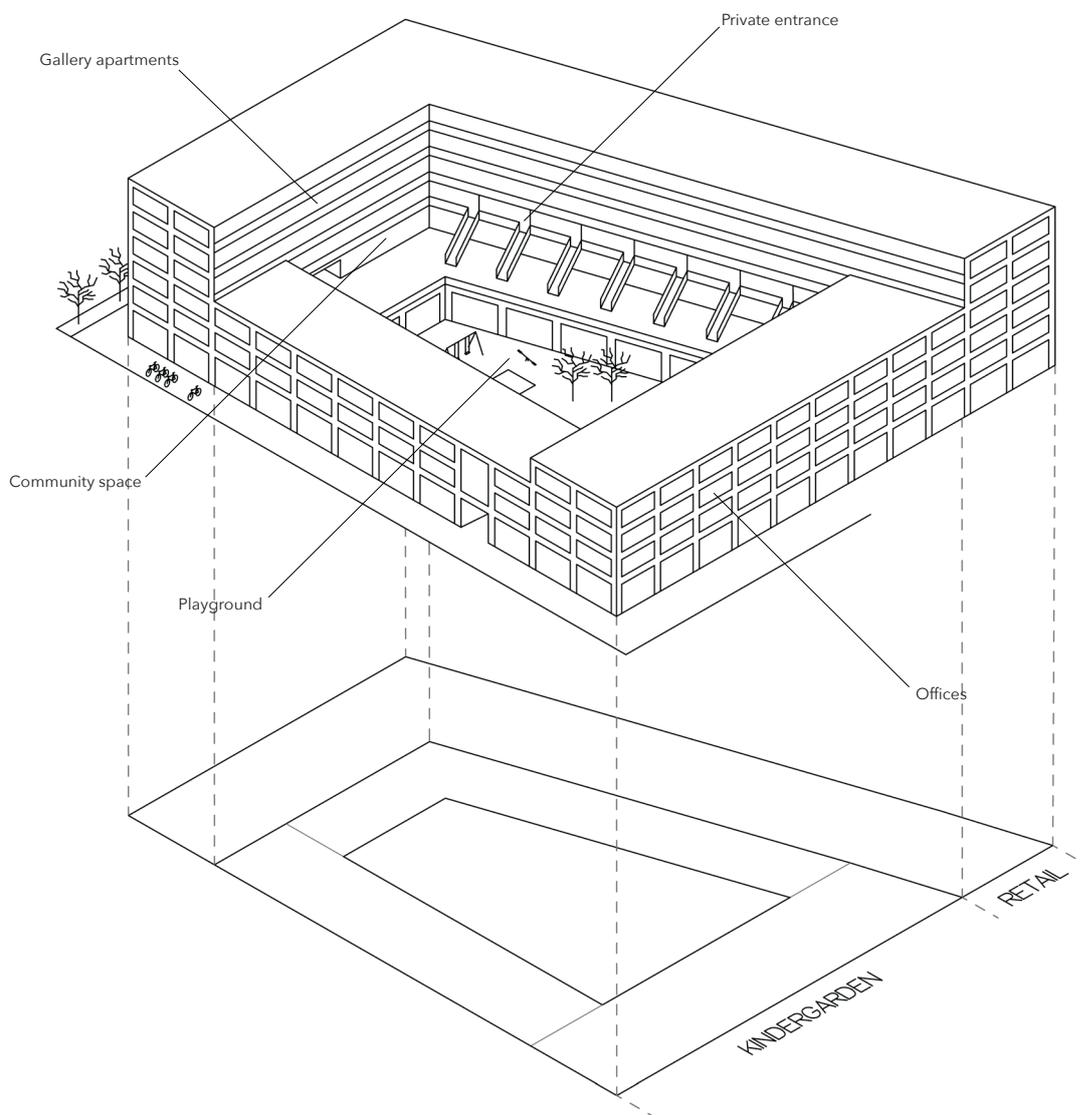
The velodrome is hovering over a park in front of a housing slab. It allows pedestrians and park goers to pass underneath. On the top it offers a more secluded garden-promenade for the inhabitants of the slab. The apartments are two-sided and stretches throughout the building, accessed via double loaded stairwells. In the transition between the two volumes, the velodrome has its observation deck, visually connected with the entire track. The two-sided retail spaces on ground floor holds premises for a bike shop or "isenkram-store".



Public area: 5750 m<sup>2</sup>  
 Housing area: 8900 m<sup>2</sup>  
 Typo: Slab; Velodrome  
 Themes: Space defining infrastructure; anything goes

## 02 Overlapping blocks containing kindergarden, housing mix and commercial spaces

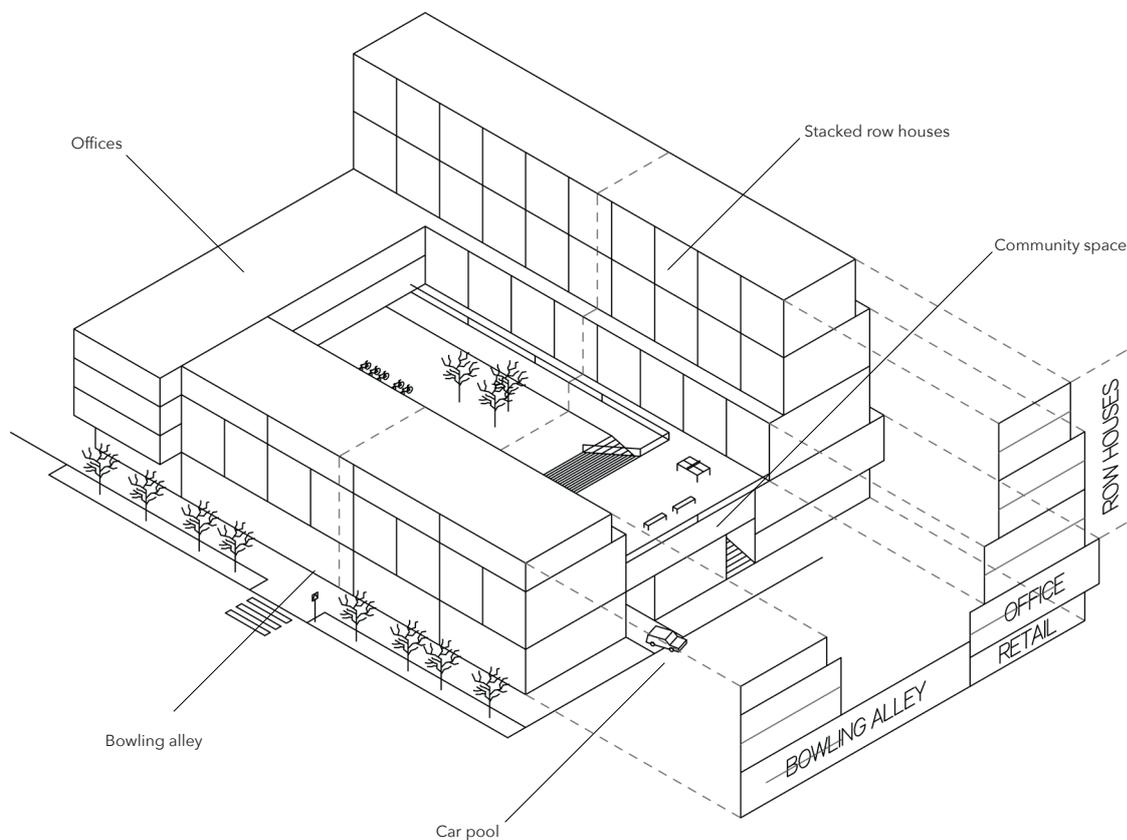
By overlapping two adjacent block types, the possibility of a double set of programs on ground level arise. The outer one faces the street, while the inner faces the courtyard. In this case the inner block is a kindergarden. The kindergarden roof becomes a shared outdoor area for the apartments, functioning as entryway for the apartments on the lower floors. The upper circulation system is gathered from the Piraeus housing block in Amsterdam, with separated verticals and covered galleries.



Public area: 5300 m<sup>2</sup>  
Housing area: 5100 m<sup>2</sup>  
Typo: Block; Block  
Themes: Programmed courtyard; ground floor; calm / busy faces

03 Transversely stacked row houses around a raised courtyard

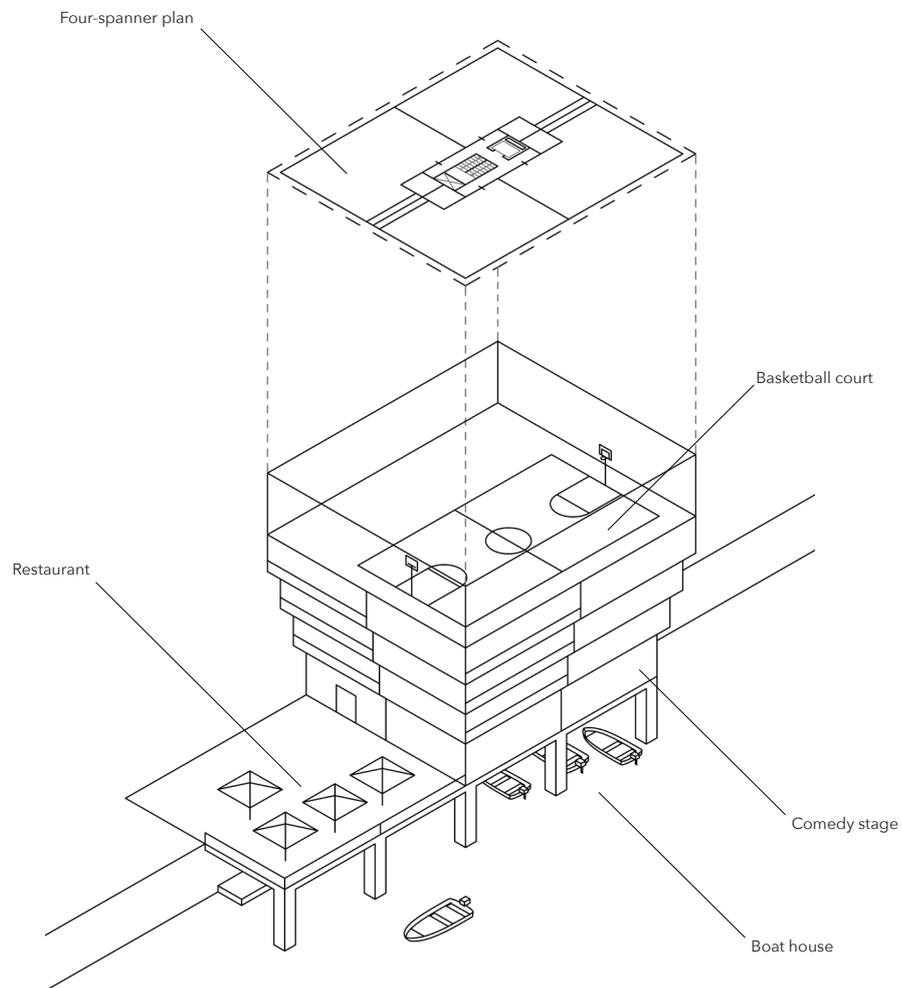
In this half-open urban figure, typologies and programmes are arranged to correspond with the adjacent streets calm or busy pulse. The number of people working and people living is about 50/50, supporting all-day activity in the area and outdoor spaces. Stacked row houses are entered directly from courtyard or via galleries. Community spaces for the residents are located on the courtyard level. The depth of the podium allows large public programmes and car pooling arrangements, handy for both workers and residents.



Public area: 4600 m<sup>2</sup>  
 Housing area: 6000 m<sup>2</sup>  
 Typo: Row houses; Office slab; Box  
 Themes: Calm and busy faces; Semi-private courtyard, galleries

## 04 Urban villa with cultural and maritime amenities

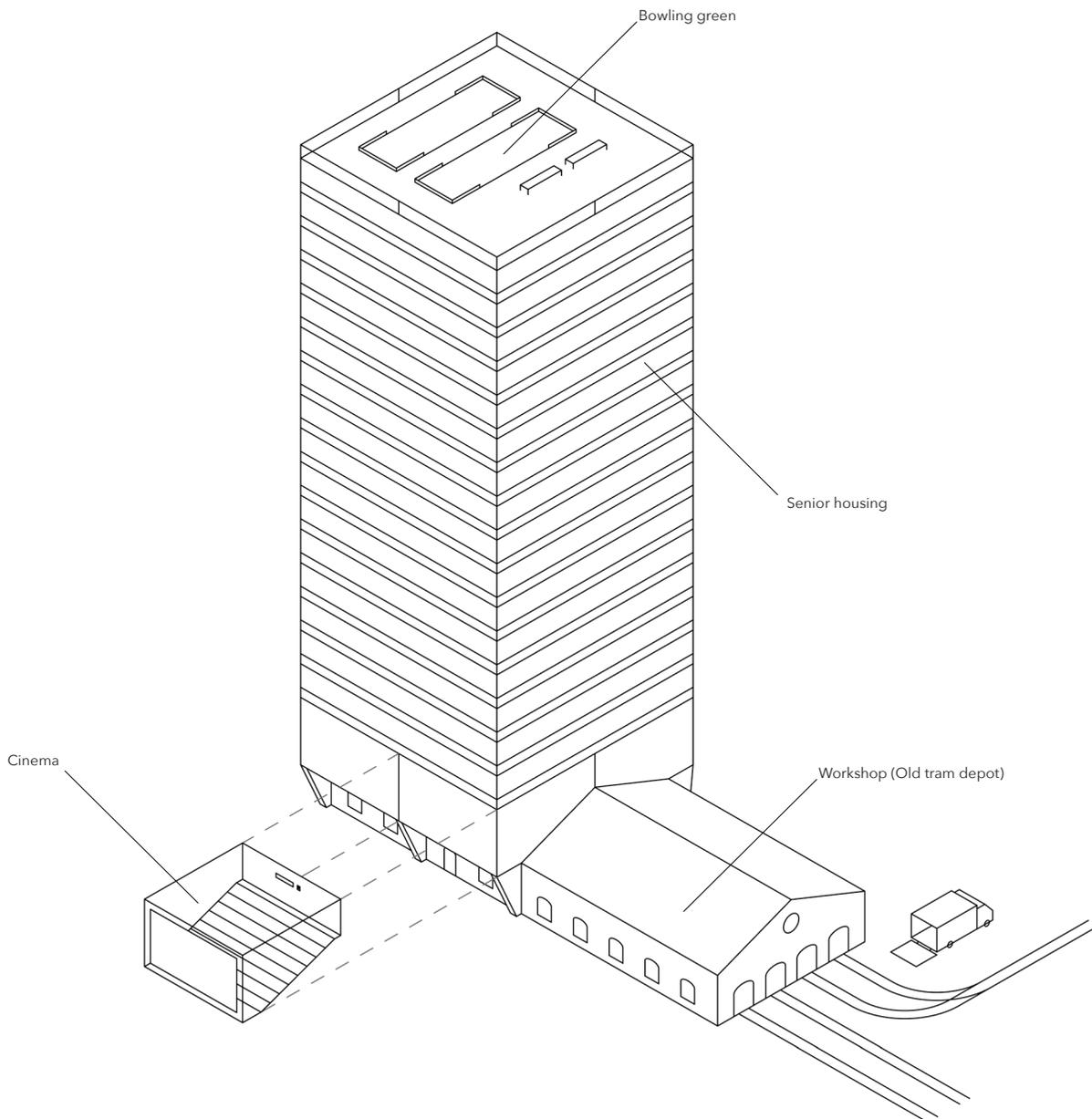
This compact urban villa is placed directly on the edge between the city and the canal. As a high pier it makes room for a marina for the building's inhabitants. Apartments are organized around a central gallery and vertical circulation. For every floor, the plan is extended 1 m in all directions, to give subtle variations in the apartment layouts. The waterfront is a popular place and the restaurant with its outdoor serving thrives in the fresh air. It also serves the audience at the local, edgy comedy stage located on ground floor.



Public area: 550 m<sup>2</sup>  
Housing area: 1000 m<sup>2</sup>  
Typo: Urban villa  
Themes: Compactness; urban villas and publicity

05 Senior housing on a cinema on a workshop

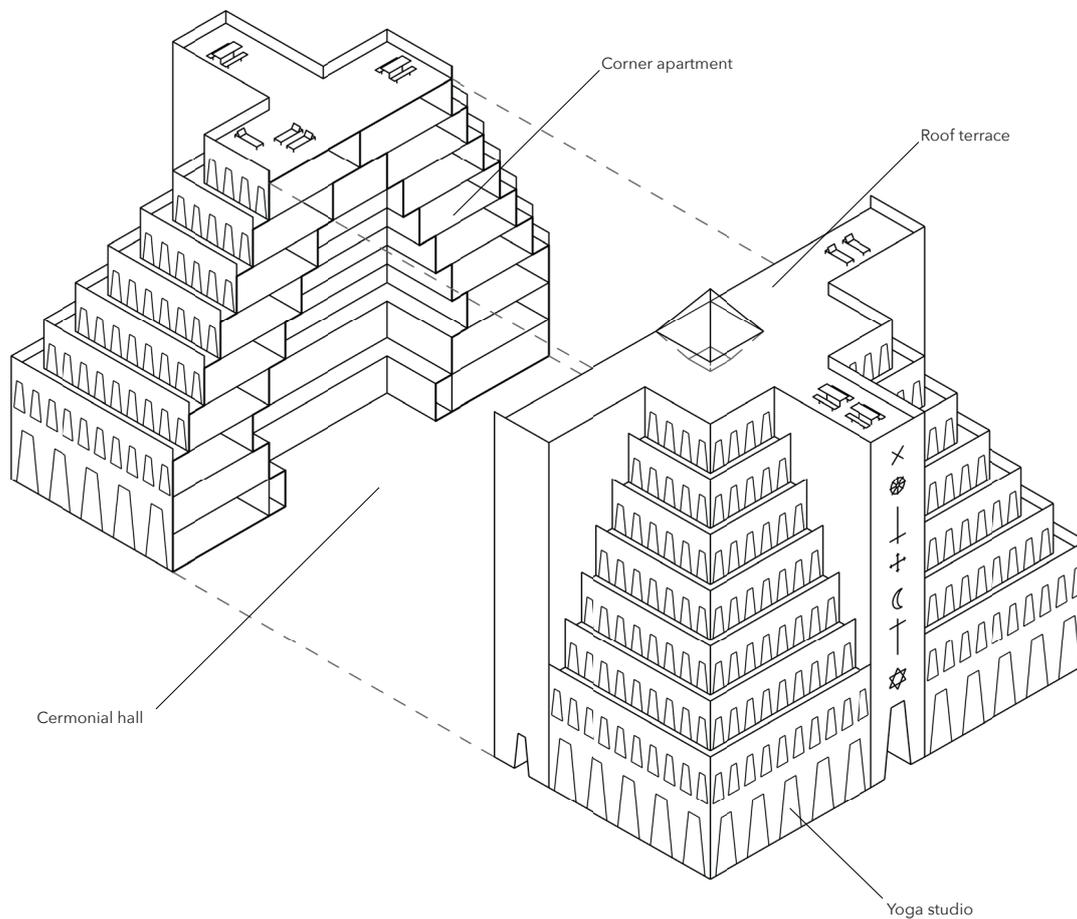
When the old tram depot was transformed into a co-work workshop the municipality decided to build a vertical extension covering the need for more senior housing in the dense city center. In addition to elderly residences, the tower contains four movie theatres in the pitched transition between the old and the new. The Boccia club soon acquired the roof to create the city's airiest bowling greens.



Public area: 1000 m<sup>2</sup>  
 Housing area: 6400 m<sup>2</sup>  
 Typo: Tower; Box  
 Themes: Mix of old and new; Transition

## 06 Terraced apartment block and ceremonial hall

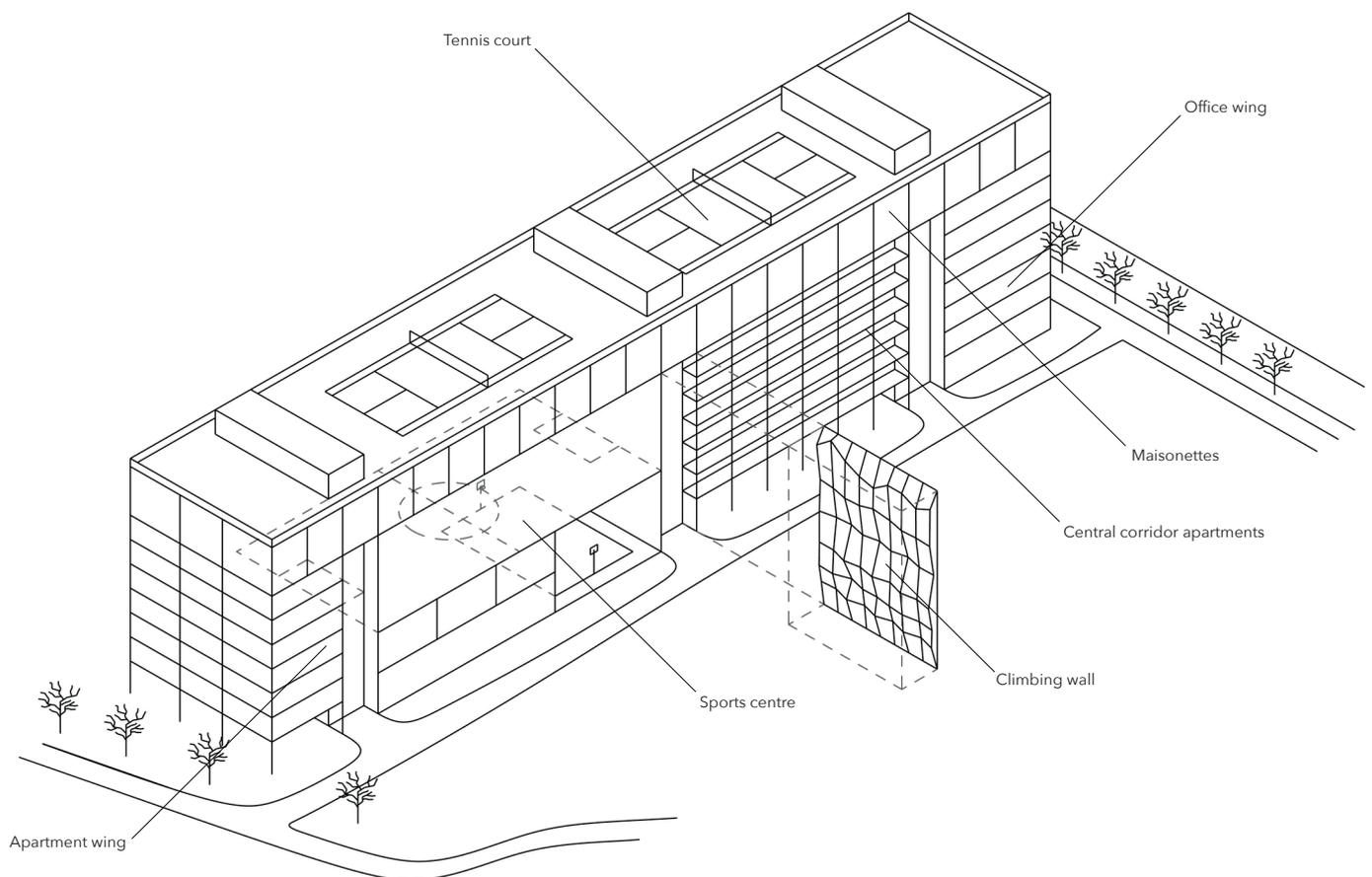
This compact housing siggurate takes advantage of the space left between symmetrically arranged terraced apartments. The ceremony participants will move through the large mastaba entrance in south. The entrance is followed by a 6 meter passage, an architectural event to reset the mind before entering the sublime, or before re-entering the world. The inner hall is a spatial inverse of the exterior, perceived as being separated by 6 meter thick walls. Residents enter through the 3 remaining vertical towers. All apartments are two-sided, ranging from 36m<sup>2</sup> on top, to 140m<sup>2</sup> on 3rd floor.



Public area: 3150 m<sup>2</sup>  
Housing area: 4500 m<sup>2</sup>  
Typo: Box; Terraces  
Themes: Utilizing left-over space; Hierachies

## 07 Composite slab of sports centre, housing-mix and office wing

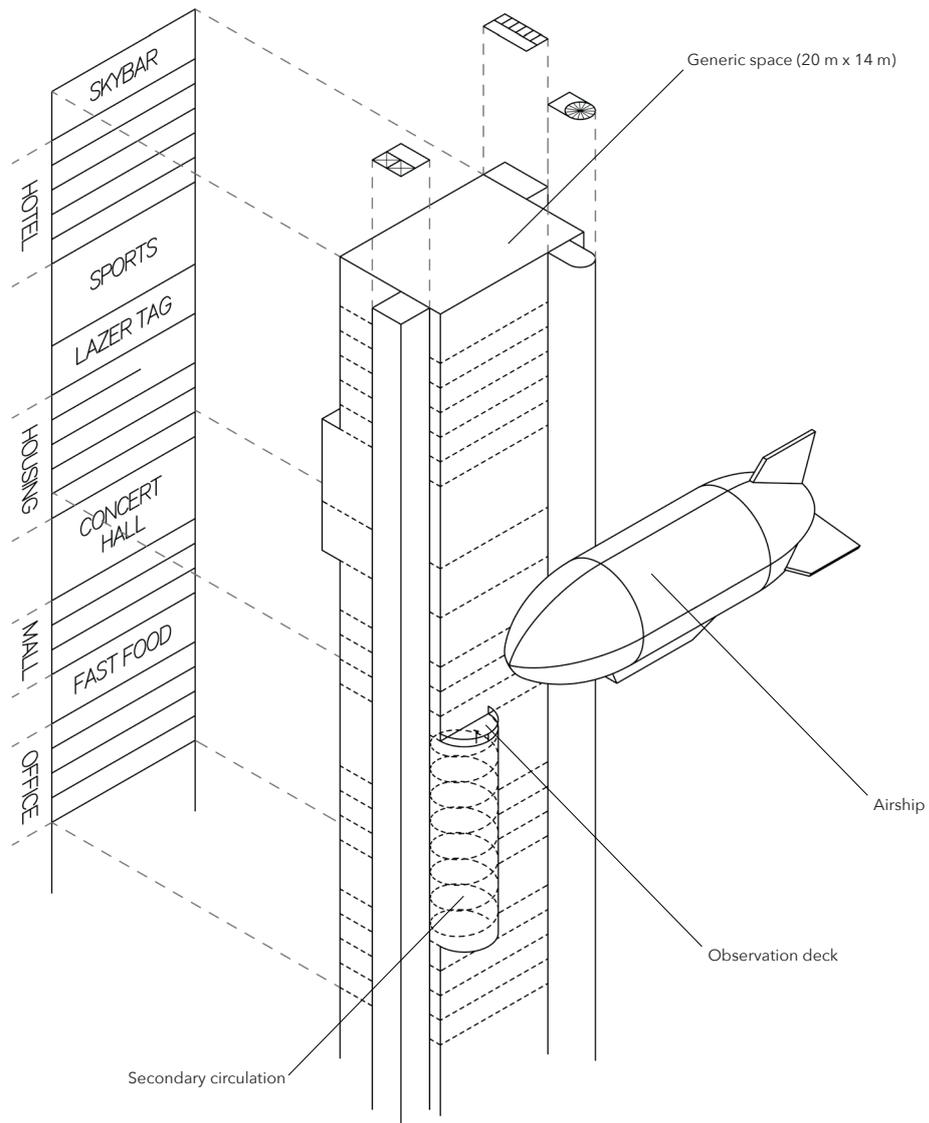
Large apartments, a sports centre, office wing and an upper cover of maisonettes makes up this 20m wide slab. It borrows its typology and ambitions from Unité, but brings it down to earth by public approach. Vertical movement is partly shared by the adjacent departments, blurring the public and private spheres. Verticals can thereafter be properly thematised, as the highlighted climbing wall exemplifies. All though it is acting down-to-earth compared to it's french cousin, the large roof still welcomes the residents up for airy activities and leisure.



Public area: 6400 m<sup>2</sup>  
 Housing area: 5400 m<sup>2</sup>  
 Typo: Slab  
 Themes: Slab as urban member; Vertical programmes

08 "The strip" flipped vertically

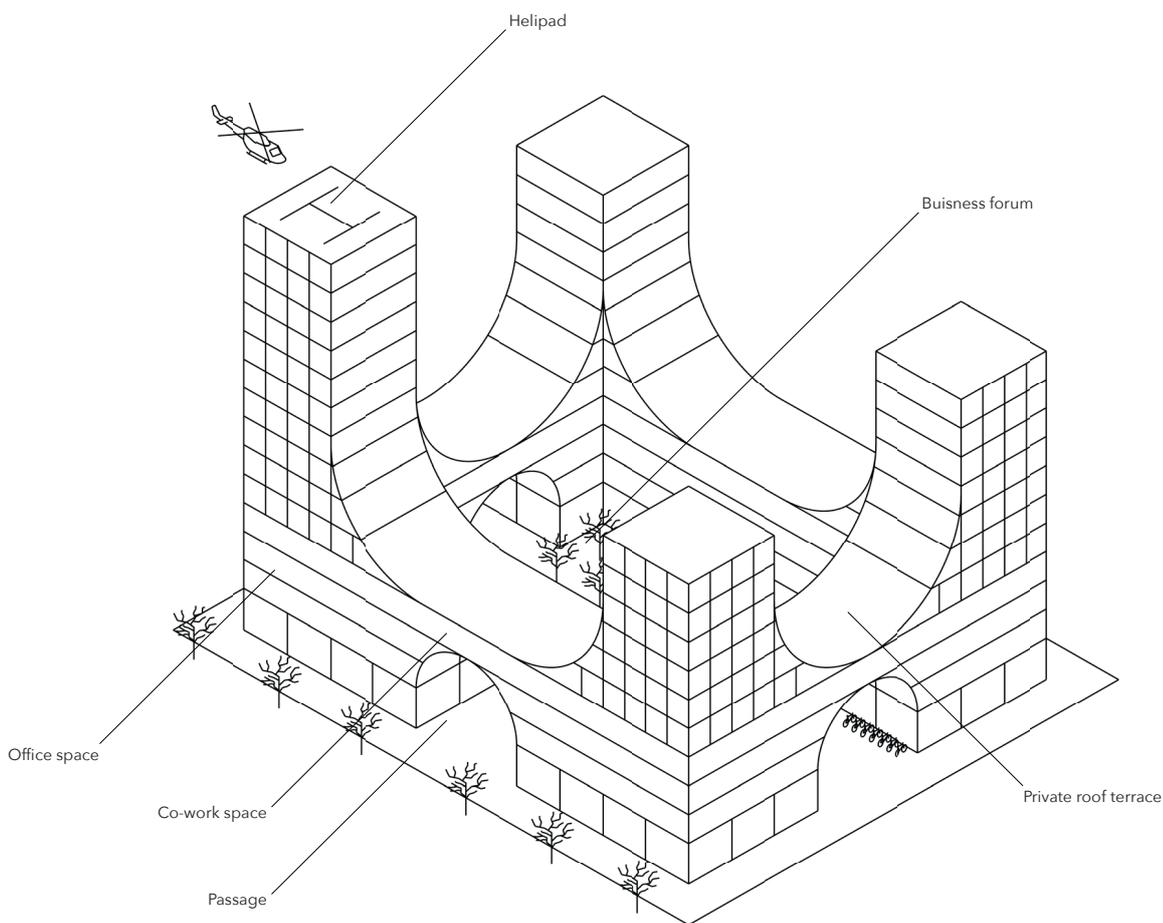
This tower studies the idea of vertical flexibility. "The Strip" offers a fixed, generic space for every floor. Vertical circulation and shafts are placed outside the tower perimeter to clear every floor of obstacles, preserving the highest possible amount of opportunities. Related program is arranged in close proximity to each other and given their own secondary circulation. Moving through the high-rise is like driving along the strip, be it Las Vegas, Miami Beach or Lade, with temptations at each junction.



Public area: X m<sup>2</sup>  
 Housing area: X m<sup>2</sup>  
 Typo: Tower  
 Themes: Fixed footprint; Vertical movement; Stacking

## 09 Gründer-quarter of towers on block

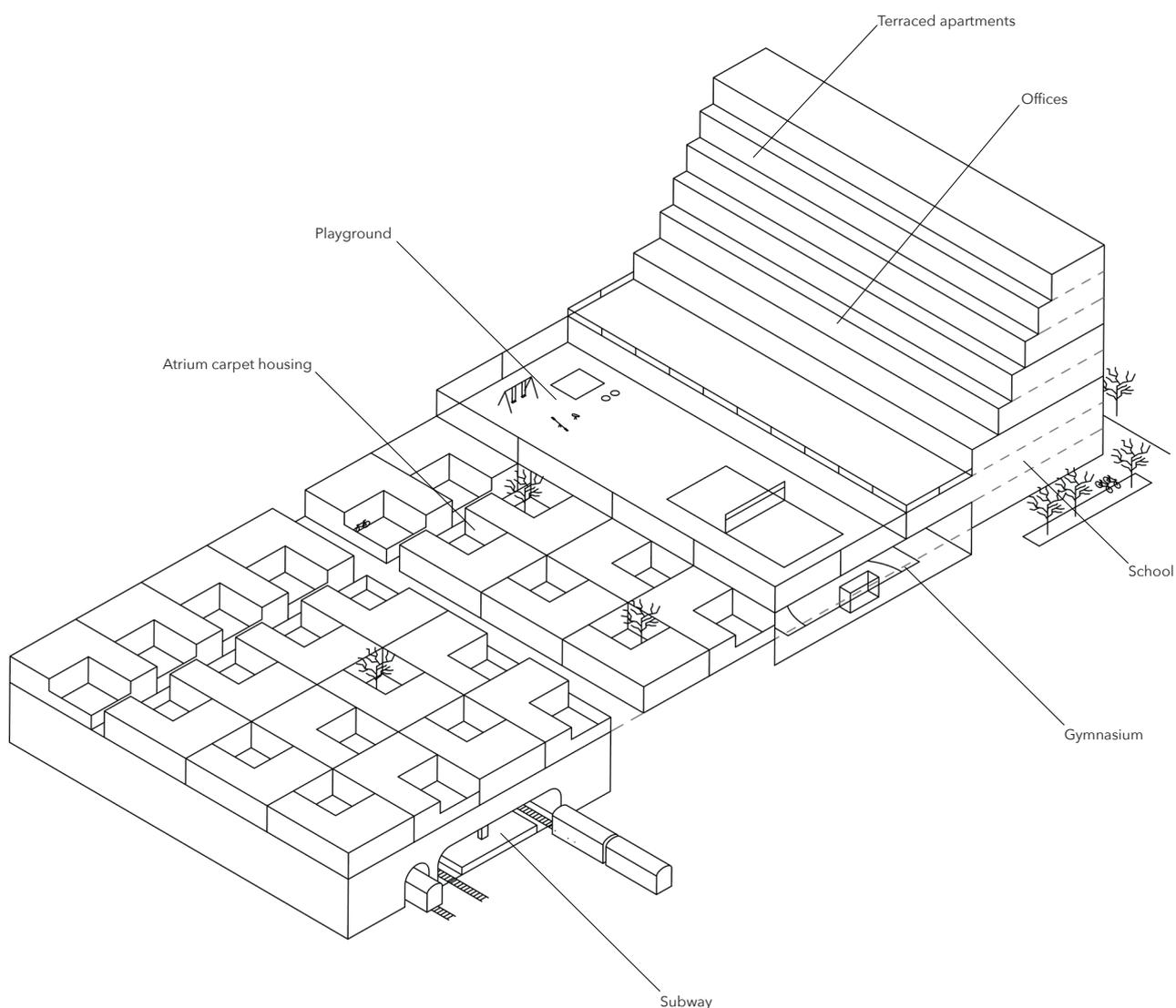
The mix of towers and block offers high density and good light conditions for a public courtyard. Towers contain housing units, while the surrounding block contains work spaces. The public functions on ground floor serve both the inner and outer public spheres. Outdoor areas on the lower roof terraces are of private character. The public courtyard works as a forum and meeting place for the quarter's workers and residents, and, of course, their respective business connections.



Public area: 8000 m<sup>2</sup>  
 Housing area: 4350 m<sup>2</sup>  
 Typo: Block; Tower  
 Themes: Density; Public courtyard

## 10 Stepped transition from school to atrium neighbourhood

In the outskirts of the city, a terraced slab absorbs the transition into suburbia. From its highest point, facing the street, the slab evenly stretches out into a carpet of atrium houses. The school faces the street in the east. Sport halls and auditoriums are found on the deep ground floor, making up rooftop playgrounds and outdoor areas. The building also encompasses a walkway leading to the proximate underground metro station.



Public area: 5750 m<sup>2</sup>  
Housing area: 3250 m<sup>2</sup>  
Typo: Carpet; Terraced slab  
Themes: Directions; Low-rise-high-density, Transitions

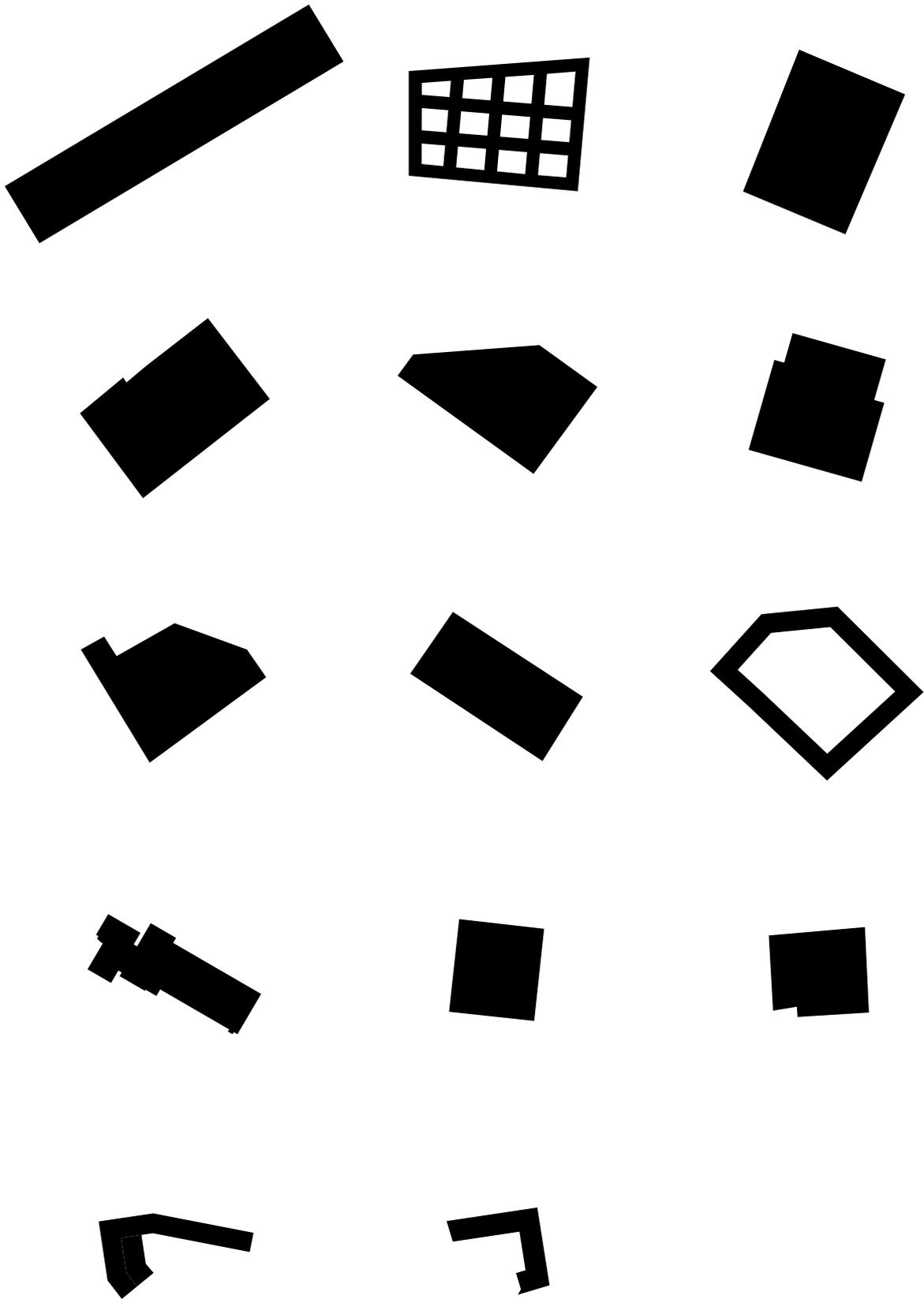
## POTENTIAL SITES

After drawing the 10 detached hybrids, it was time to add context to the scene. To increase level of complexity, realism and to circle in a potential site for the design project. The 14 sites in Trondheim and Oslo considered relevant for a hybrid complex were sorted in two categories. As a subject of densification within an existing urban structure, or as a subject of extension outside the urban perimeter.

These two categories of context were established in the case studies phase. The Dutch role models of Silodam, Piraeus and Solid 18, are good examples of the city extension category, being people-intensive catalysts in the early establishment of a new district. Kalkbreite, Piscine des Amiraux and Torre Velasca are on the other side examples of densifiers, contributing to an existing environment with both people and public content.

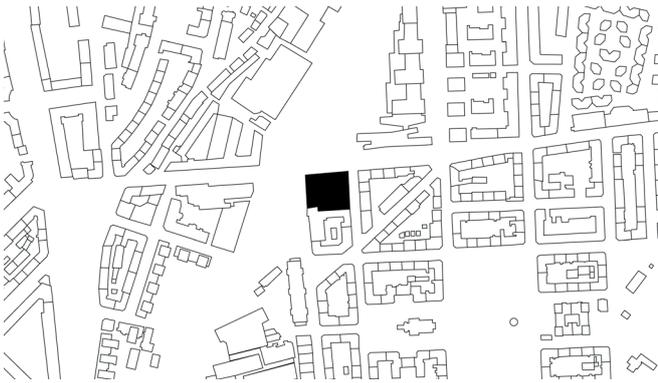
The contexts of the case-study buildings gave relevant input for finding the right experimental ground for our own hybrid proposal. The most interesting cases were hybrids acting as urban problem solvers in some sort of morphologic junction.

During the search, eyes were set on sites with obvious difficulties. On borders, edges and clashing areas with a prevailing architectonic conflict of interest. To make it more problematic, a potential site for our design task could also include an existing structure, adding another hybrid layer of old and new.









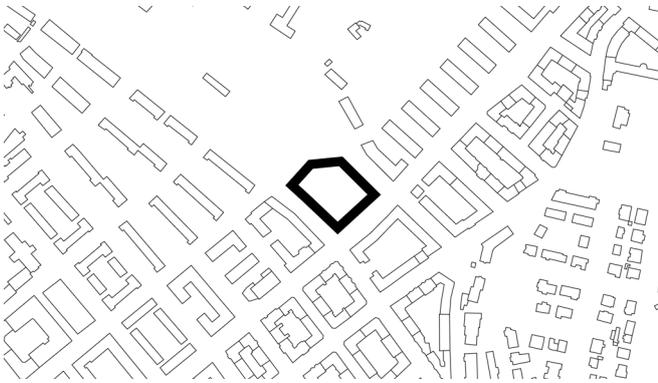
### SANNERGATA

Address: Sannergata 3, 0557 Oslo  
 Footprint: 2600 m<sup>2</sup>  
 Current use: Grocery store, antique shop  
 Potential: Park, views  
 Typo: Box, block, tower



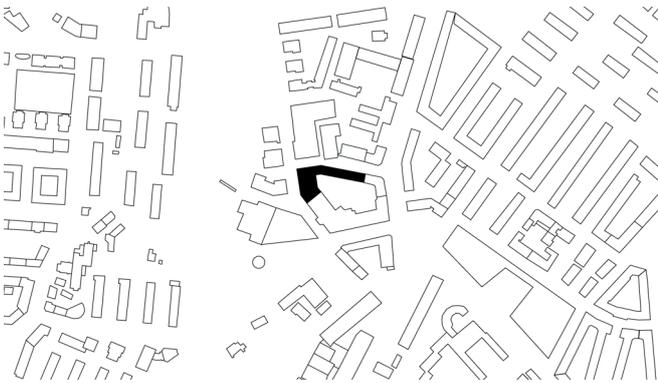
### DÆLEENGA

Address: Seilduksgata 30, 0553 Oslo  
 Footprint: 5500 m<sup>2</sup> (3000 m<sup>2</sup> existing)  
 Current use: Ice hockey hall  
 Potential: Sport, central  
 Typo: Box, block



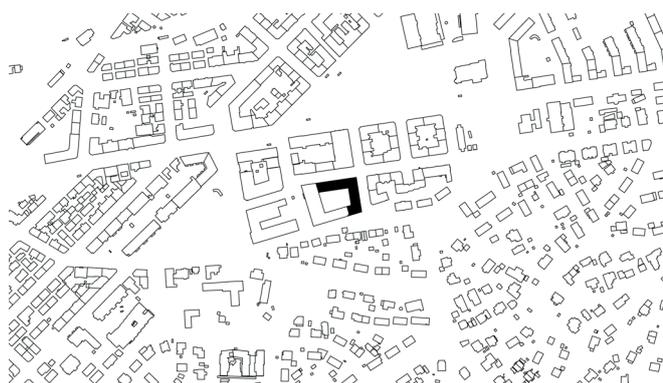
### MARIENLYST

Address: Kirkeveien 92, 0361 Oslo  
 Footprint: 8750 m<sup>2</sup>  
 Current use: Petrol station, mini-golf court  
 Potential: Park, urban structure  
 Typo: Block, slab



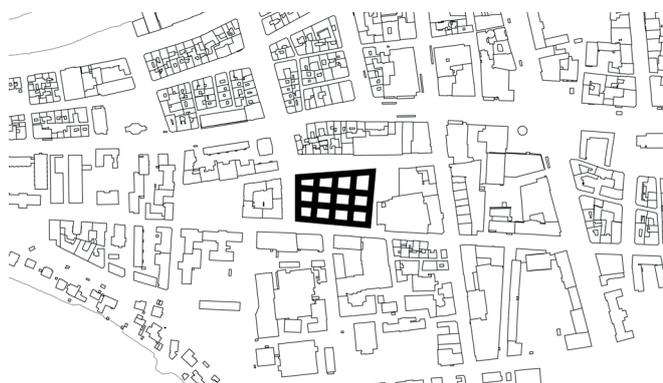
### SANDAKER

Address: Sandakerveien 64, 0484 Oslo  
 Footprint: 7000 m<sup>2</sup> (4800 m<sup>2</sup> existing)  
 Current use: Car mechanic, patent office, parking  
 Potential: Workshop, basement  
 Typo: Box, block



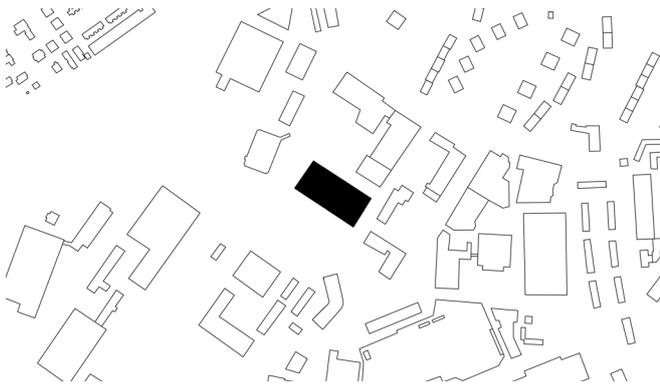
## BURAN

Address: Frostaveien 3, 7043  
Trondheim  
Footprint: 3350 m2 (1350 m2 existing)  
Current use: Housing, parking  
Potential: Old neighbour, edge  
Typo: Block

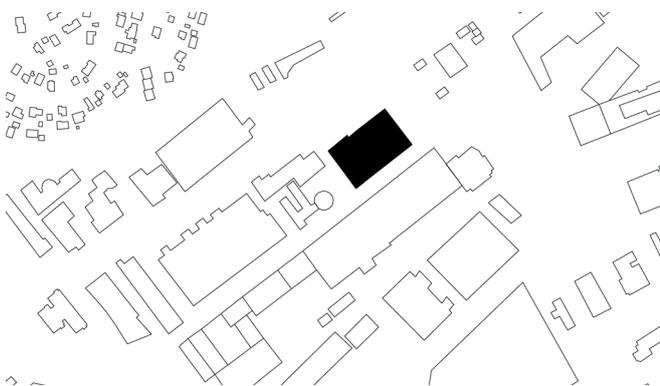


## LEÜTHENHAVEN

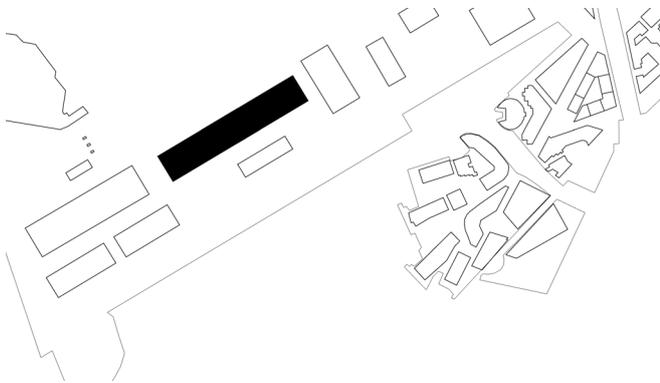
Address: Erling Skakkes gate 42,  
7012 Trondheim  
Footprint: 7200 m2  
Current use: Parking  
Potential: Central, theater, basement  
Typo: Box, block, slab

**ENSJØ**

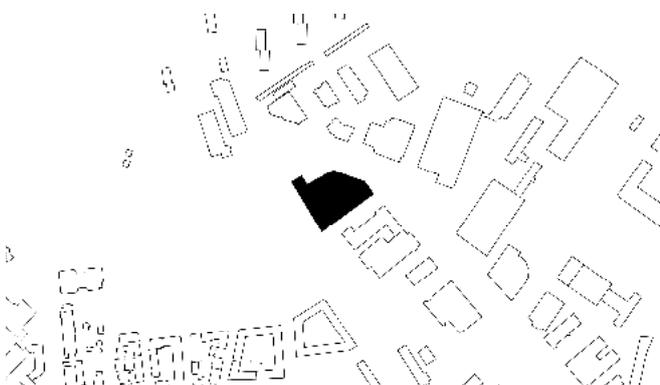
Address: Gladengveien 17, 0661 Oslo  
 Footprint: 4680 m2 existing  
 Current use: Big retail, storage  
 Potential: Old structure  
 Typo: Tower, slab

**ØKERN**

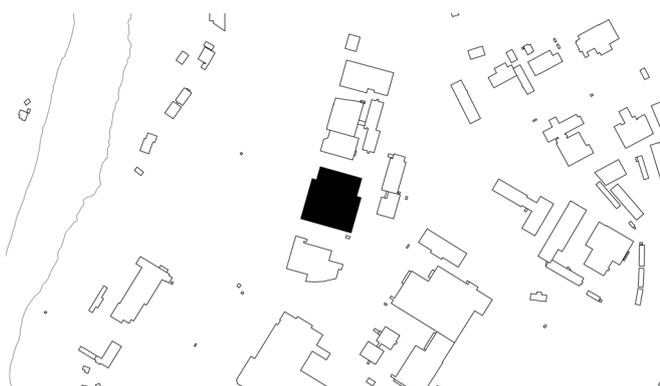
Address: Kabelgata, 0513 Oslo  
 Footprint: X m2  
 Current use: Big retail, storage, construction products, seafood center  
 Potential: Freedom, open space  
 Typo: Box, block, tower, slab

**FILIPSTAD**

Address: Filipstadkaia, 0250 Oslo  
 Footprint: 8250 m2 existing  
 Current use: Ferry port, shipping, storage  
 Potential: Freestanding, object  
 Typo: Box, block, tower, slab

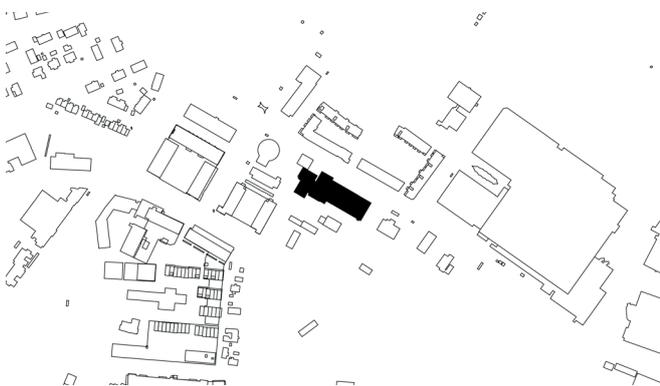
**ENSJØ / TØYEN**

Address: Ensjøveien 3, 0655 Oslo  
 Footprint: 5000 m2 (1700+1000 m2 existing)  
 Current use: Car workshop, offices  
 Potential: Iconic corner, park, views, NRK.  
 Typo: Box, block, tower, slab



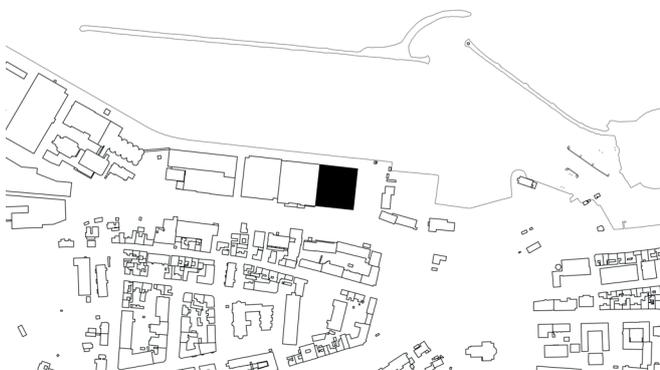
### SLUPPEN

Address: Sluppen, 7037 Trondheim  
 Footprint: X m<sup>2</sup>  
 Current use: Big retail, storage, construction products, offices  
 Potential: Freedom, open space  
 Typo: Box, block, tower, slab



### LADE

Address: Håkon Magnussons gate 5, 7041 Trondheim  
 Footprint: 6150 m<sup>2</sup> (2800 m<sup>2</sup> existing)  
 Current use: School, petrol station  
 Potential: Old structure  
 Typo: Tower, slab



### ILA

Address: Nedre Ila 66, 7018 Trondheim  
 Footprint: 4700 m<sup>2</sup>  
 Current use: Storage, Parking  
 Potential: Water sports, swimming pool, public terraces, scale-acceptance, workspace  
 Typo: Box, block, tower, slab



### NYHAVNA

Address: Nyhavna, 7042 Trondheim  
 Footprint: X m<sup>2</sup>  
 Current use: Big retail, storage, construction products, offices  
 Potential: Waterfront, production, relevant discussion  
 Typo: Box, block, tower, slab

## SKETCH PROJECTS

Out of the 14 sites, 4 were selected to be further developed. Simple sketch projects were drawn in axonometries and programmatic sections for each site. The aim for this last exercise was to do another round of hybrid mixes, this time under influence of real context. Hopefully, the sketch-projects would help selecting the best site for the design proposal.

A digital tool was developed to do initial analyses of each site. Using data sets from *openstreetmaps.org*, we were able to generate comparative models, visualizing mobility and density of services. This gave an immediate understanding of the local urban activities and urban fabric. The maps were useful when making decisions on relevant composition of program and footprint.

The map-models also stated the obvious. We observed that the density of services in the traditional block structures were high, and that the fine urban mesh made a greater area reachable by foot, enhancing the broad offer of services and amenities. For the suburban models, the cases were opposite - low density of services were coupled with low scores on soft mobility.

OSLO

TRONDHEIM

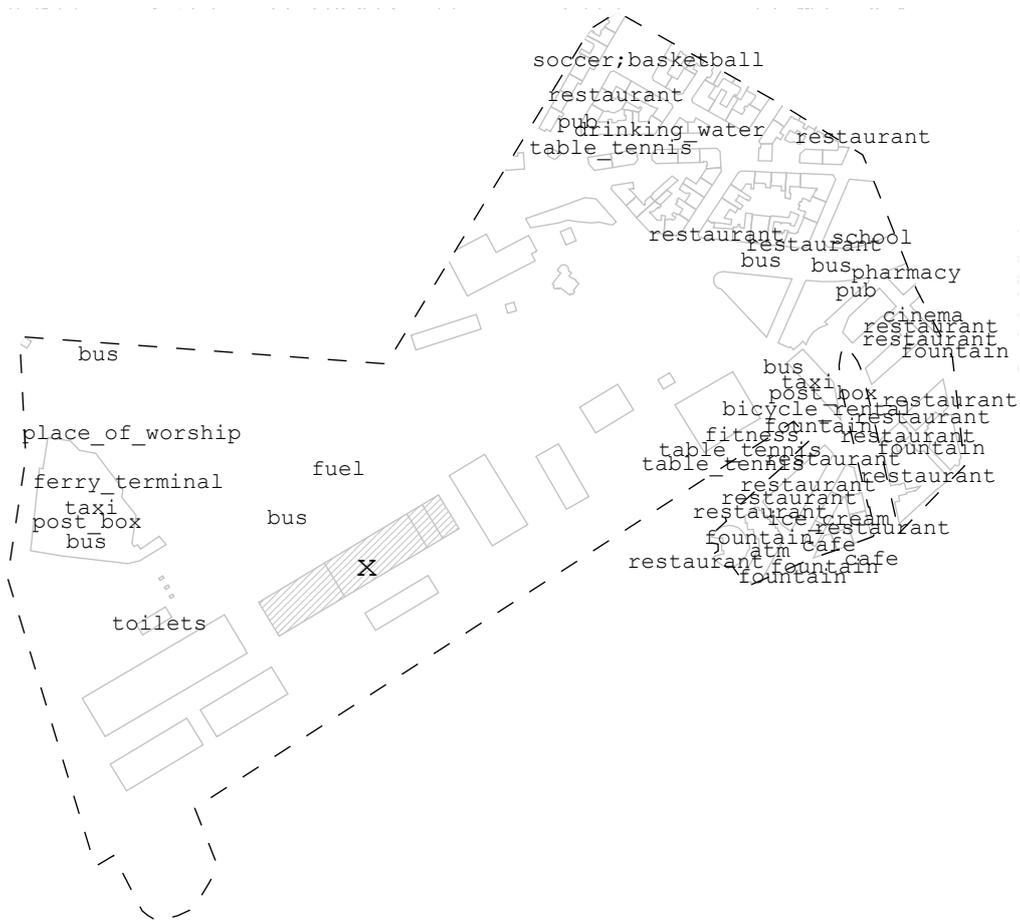
DENSIFICATION



EXTENSION











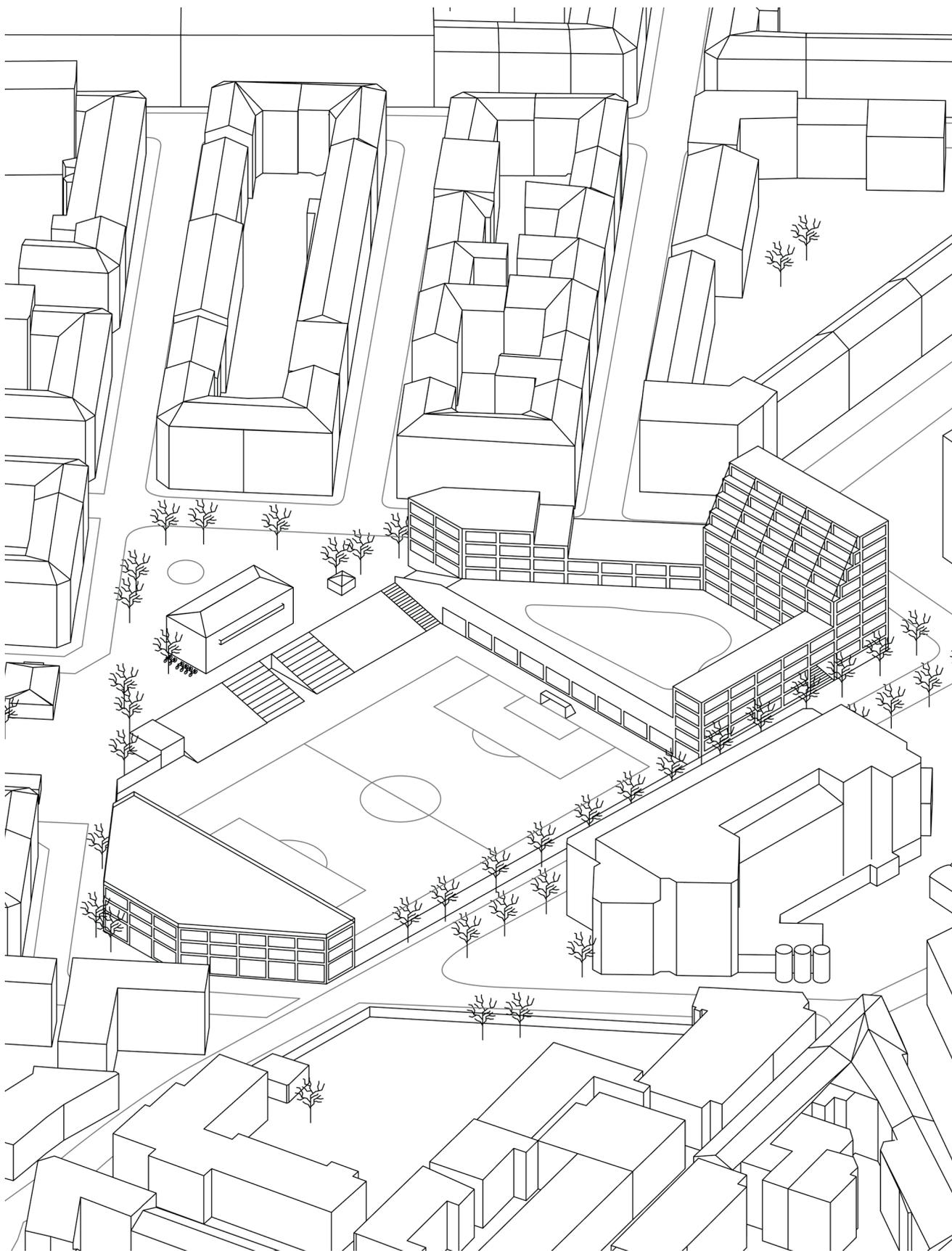
## Sports quarter

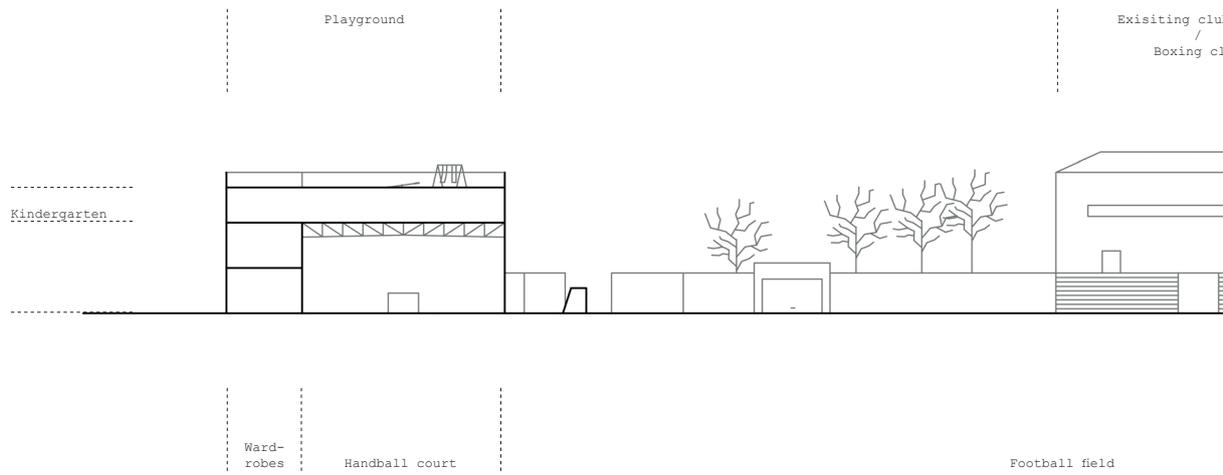
To make room for an indoor handball court, the historical club house at Dælenenga is facing demolition. We examined an alternative solution.

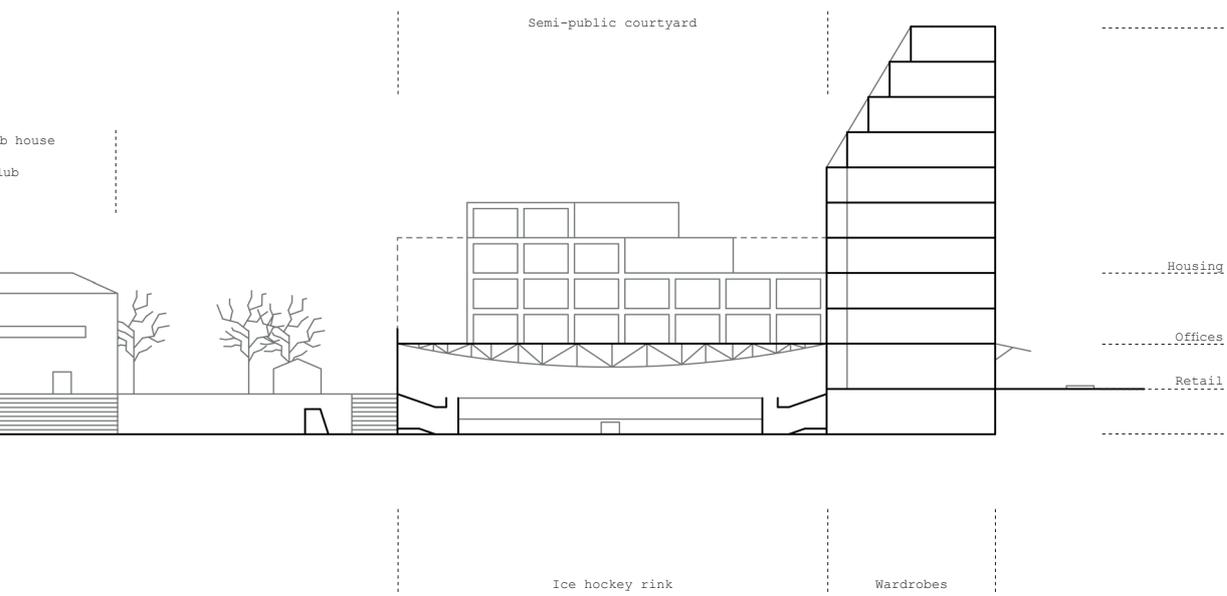
The latest addition to the sports field is a gigantic black freezer, containing a rare inner-city ice hockey rink. The sketch project is wrapped around this closed container, providing an active facade towards the street. Turning the roof of the existing hall into an open, south-facing square, a second ground floor is created. An attractive outdoor area for office workers and sporty spectators. On top of the offices is a terraced apartment tower.

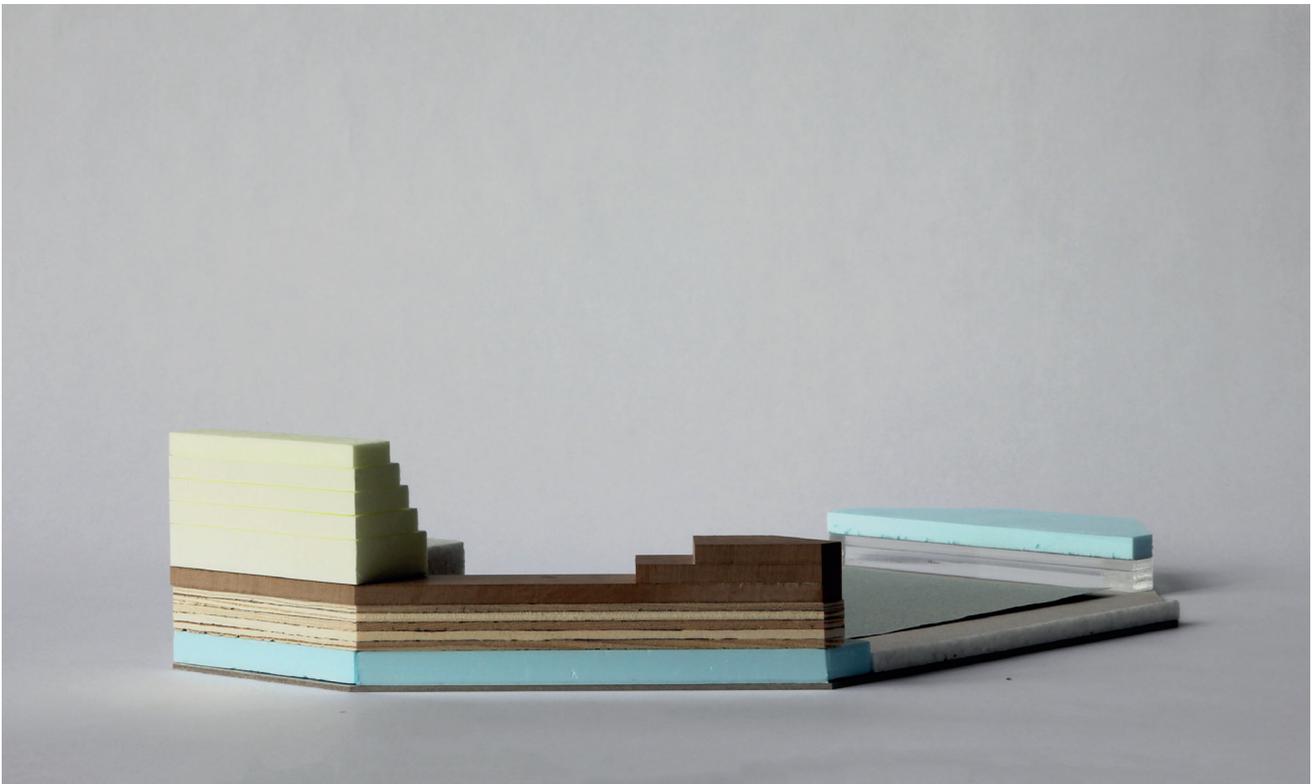
The new sports hall, which the local community has been longing for, is placed south of the soccer field. Accompanied by new longitudinal tribunes integrated with the terrain (in fact the remains of a former velodrome), the sports field is now a closed urban figure.









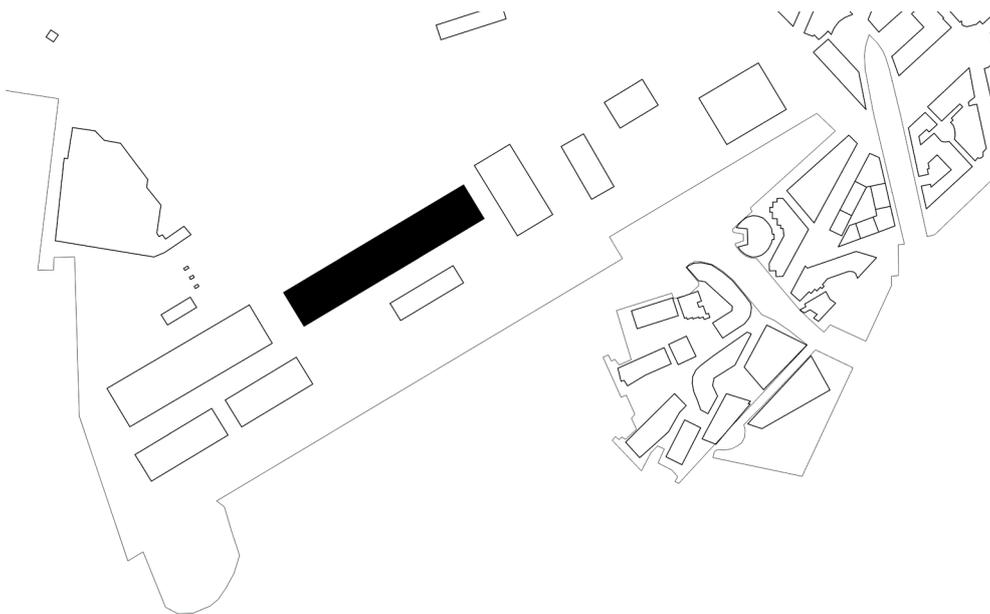


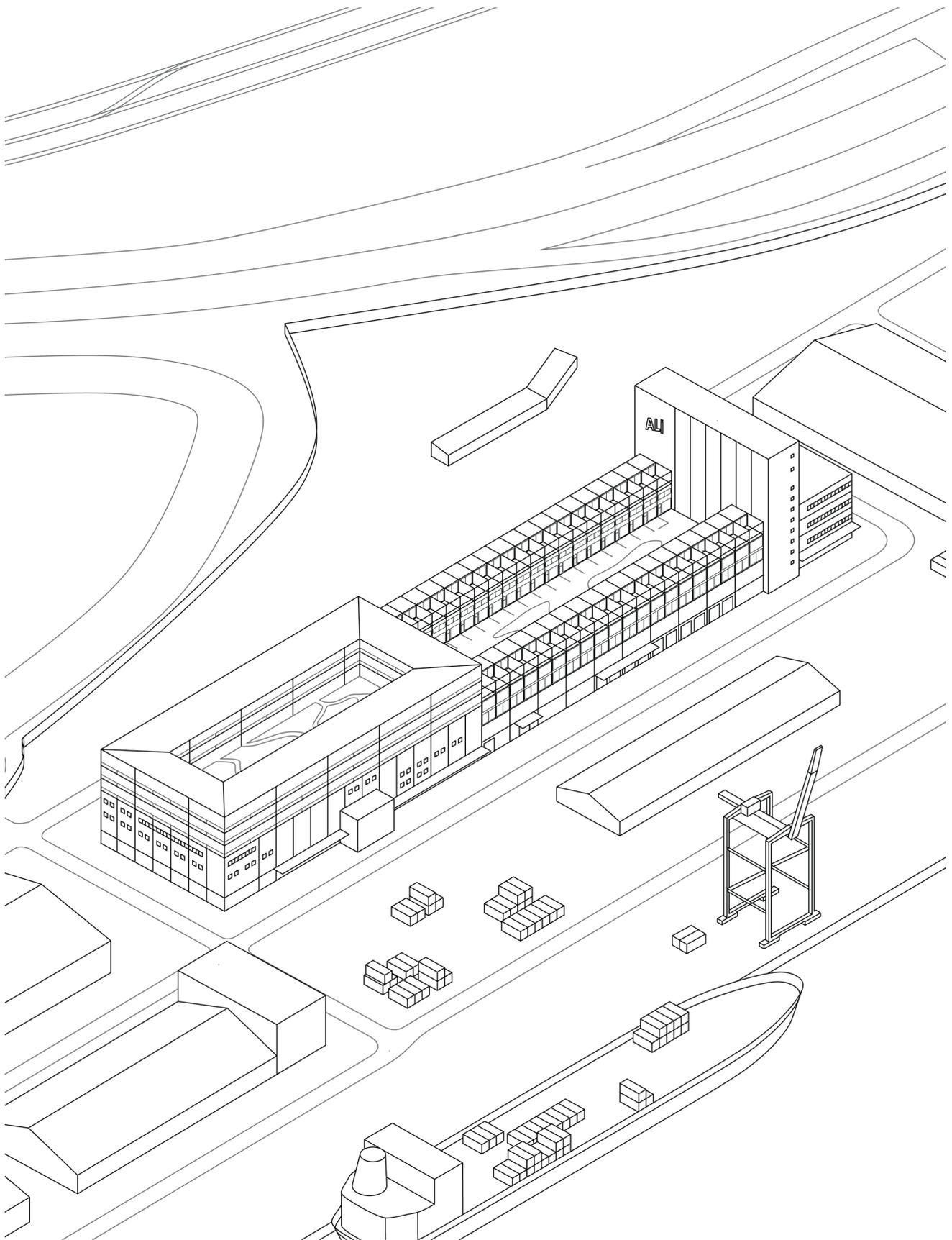


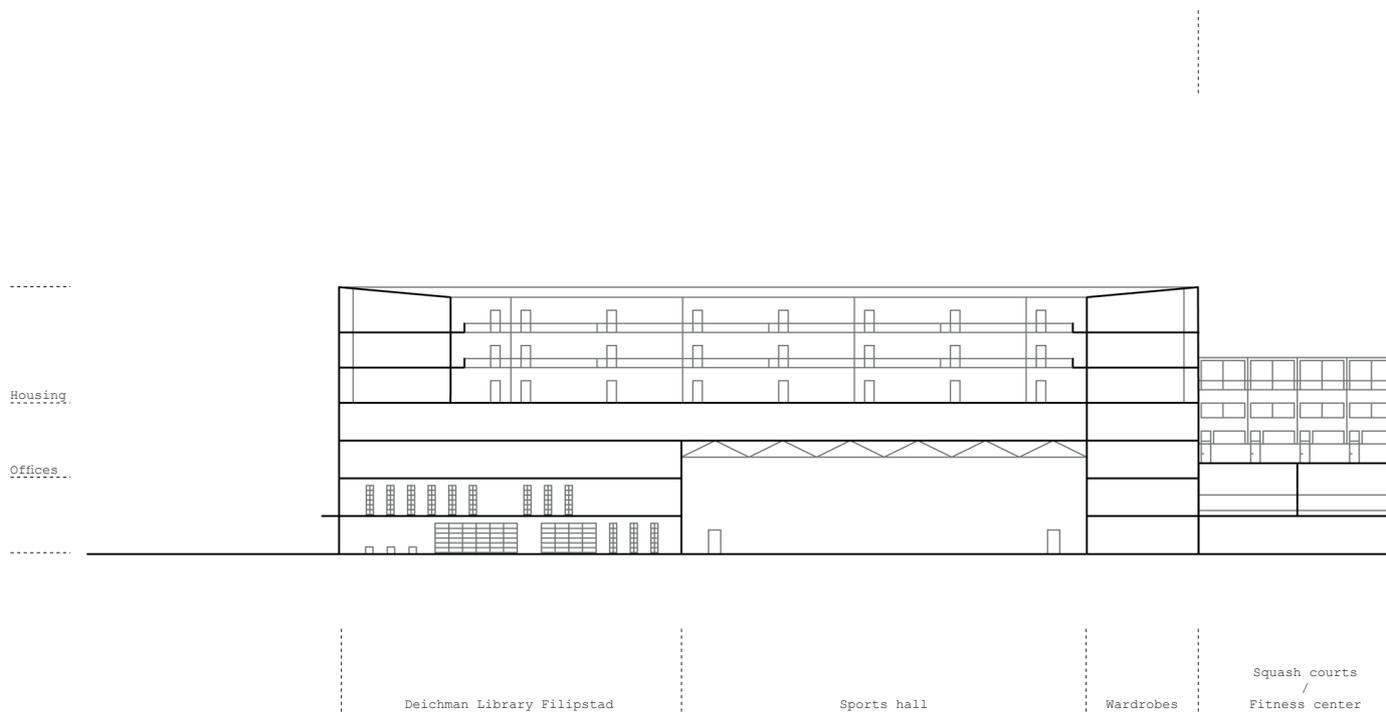
## Power-bar

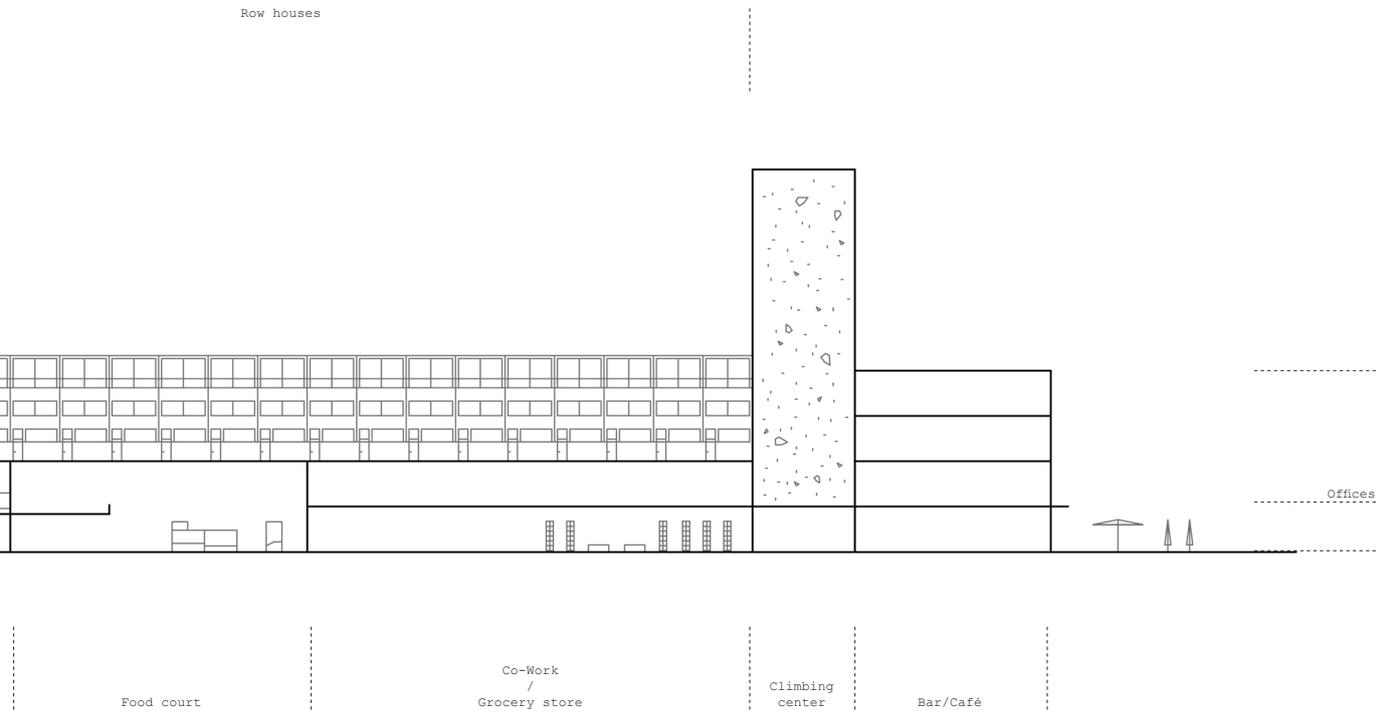
The power bar takes all the ingredients of a city and arranges them inside- and on top of an existing coffee roastery plan. It will be a starter kit for the imminent development of the new Filipstad district. The generic storage spaces are ideal for big public amenities, like a local library branch, fitness centre, grocery store and more. The old silos are naturally turned into a climbing centre. New structures are added on to the existing concrete structure, forming small residential quarters of different scale and typology.

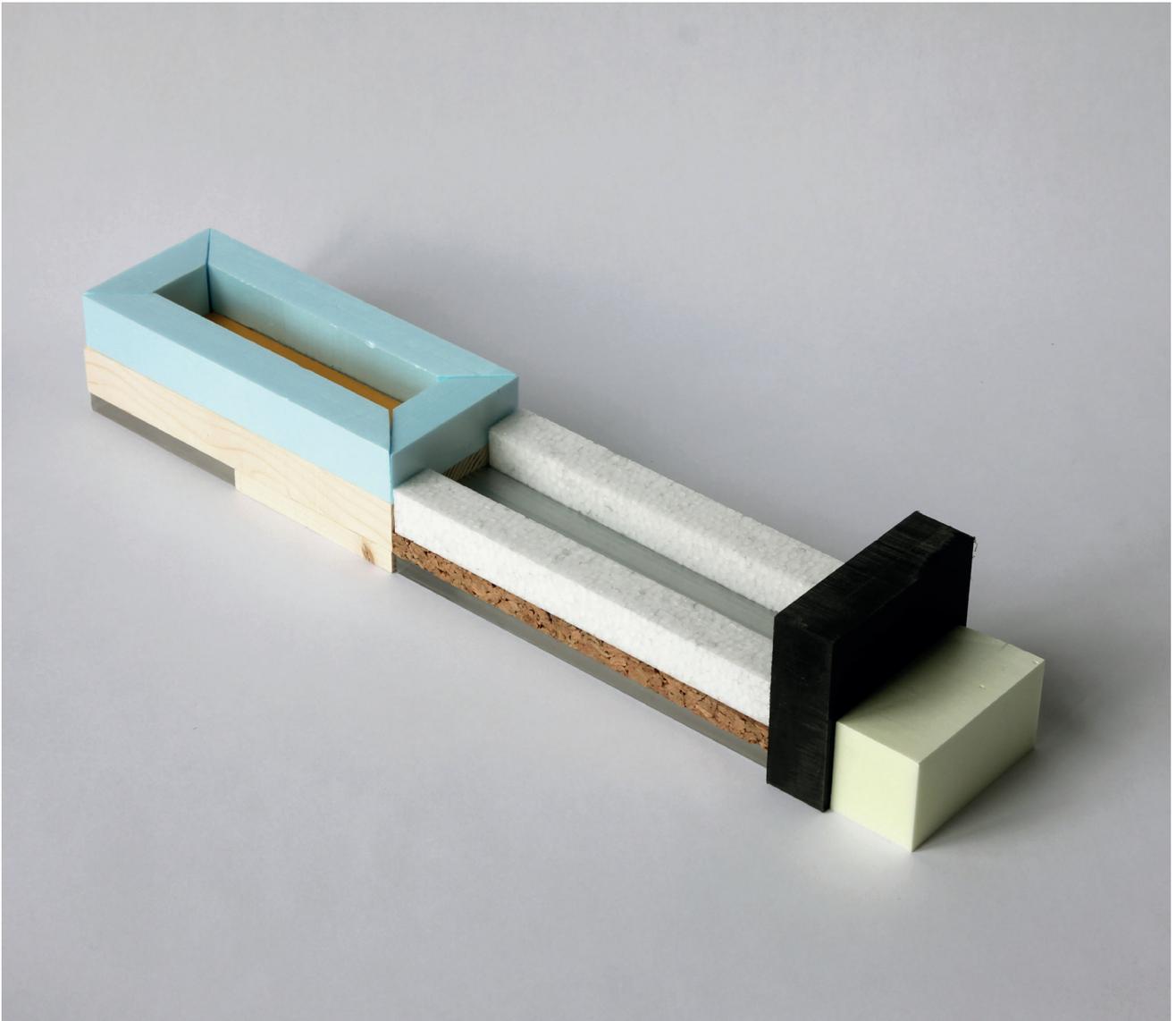
The idea is for the power bar to be the first step in the upcoming development. Providing both people and program, it is a self-sufficient town centre. It should have the ability to co-exist with the surrounding container terminal and ferry slip, and bring buzz to the area while waiting for the rest of the area to be built.

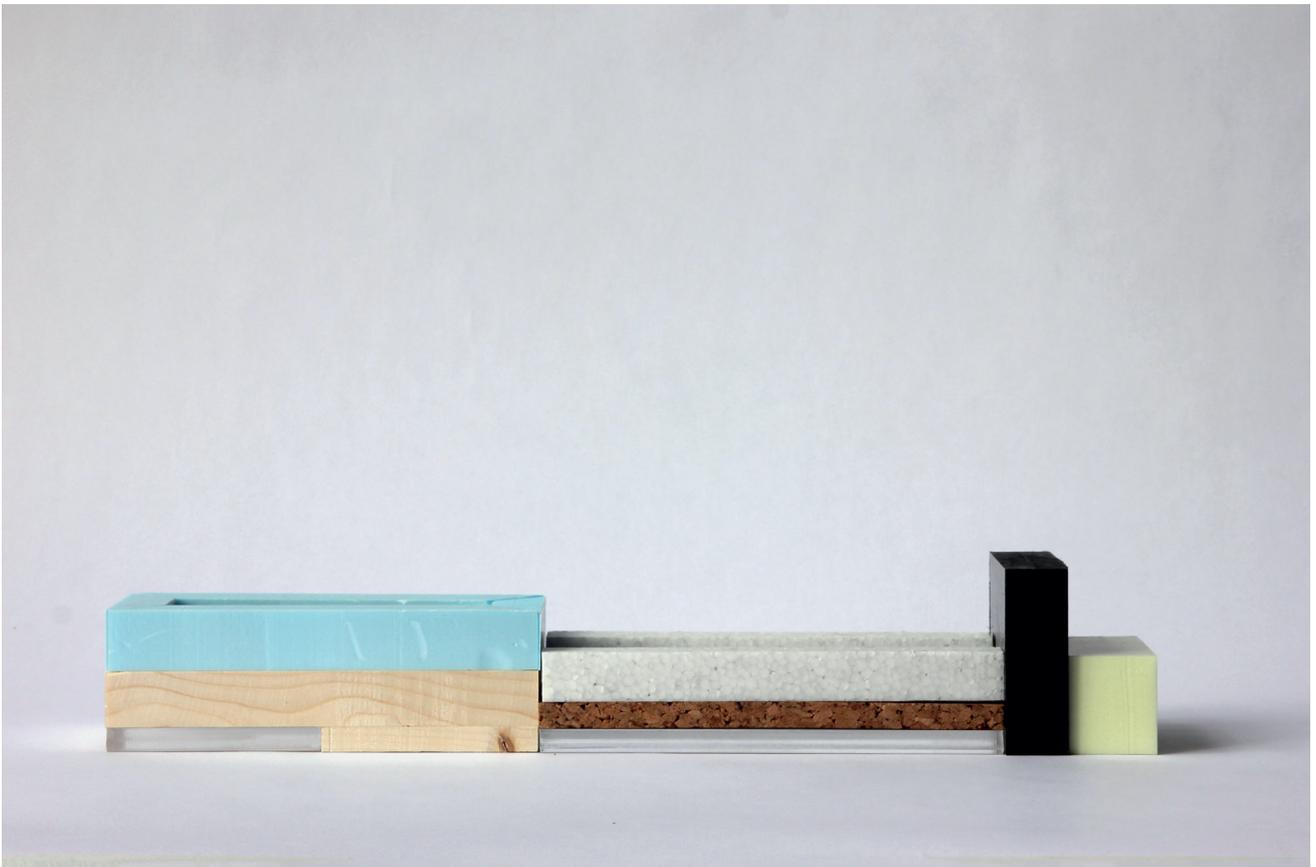










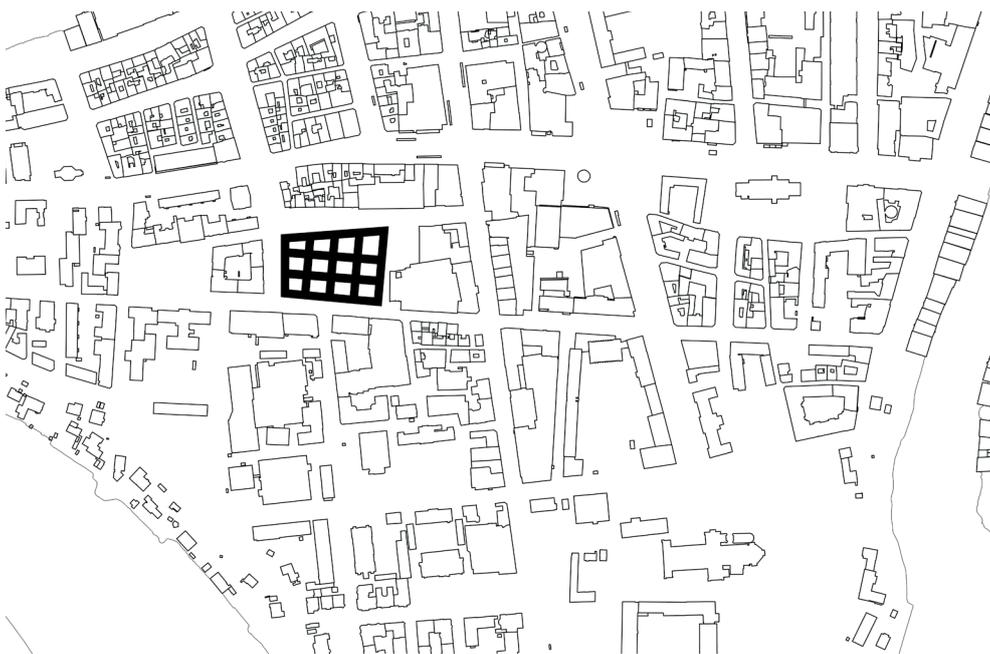


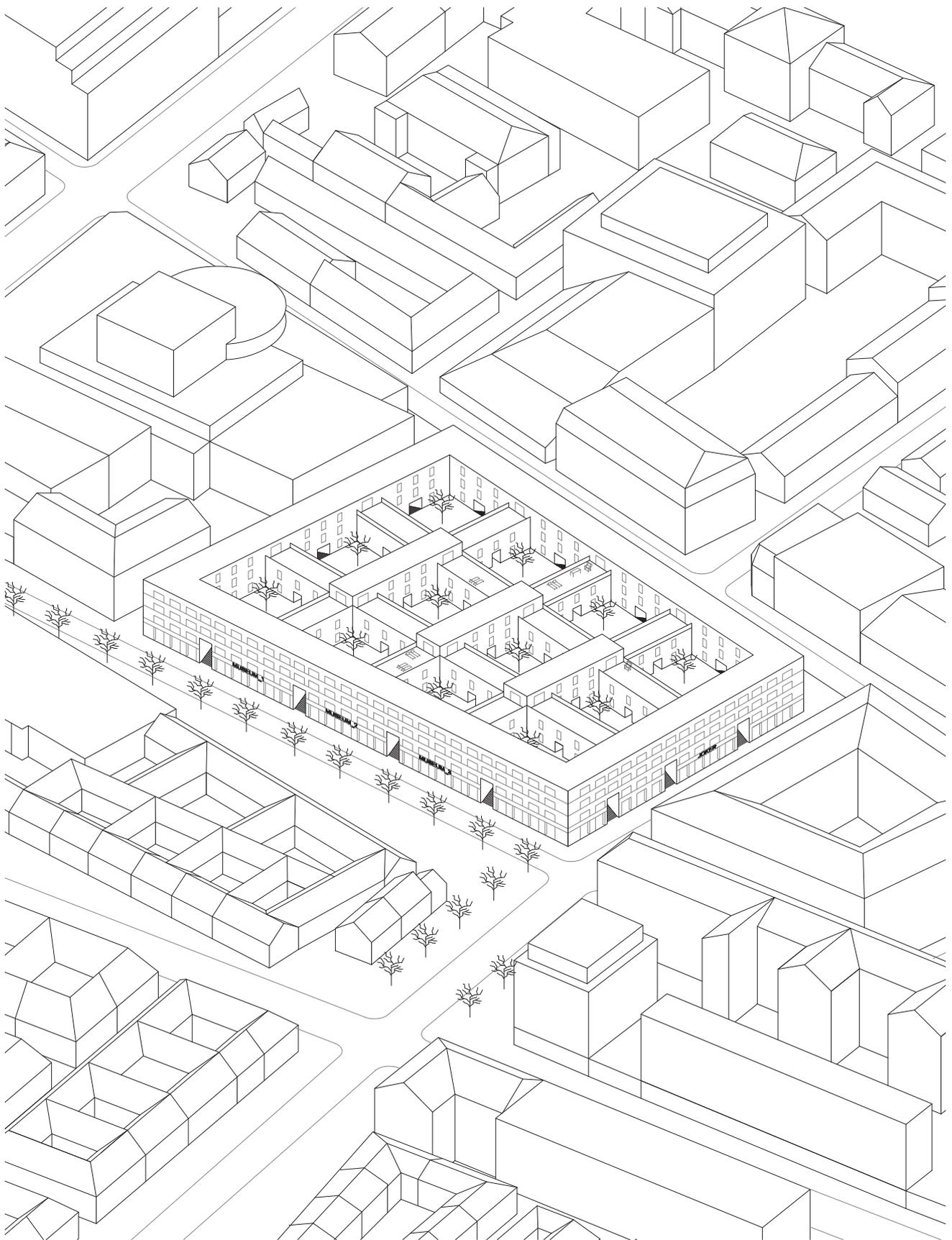
## Unforbidden city

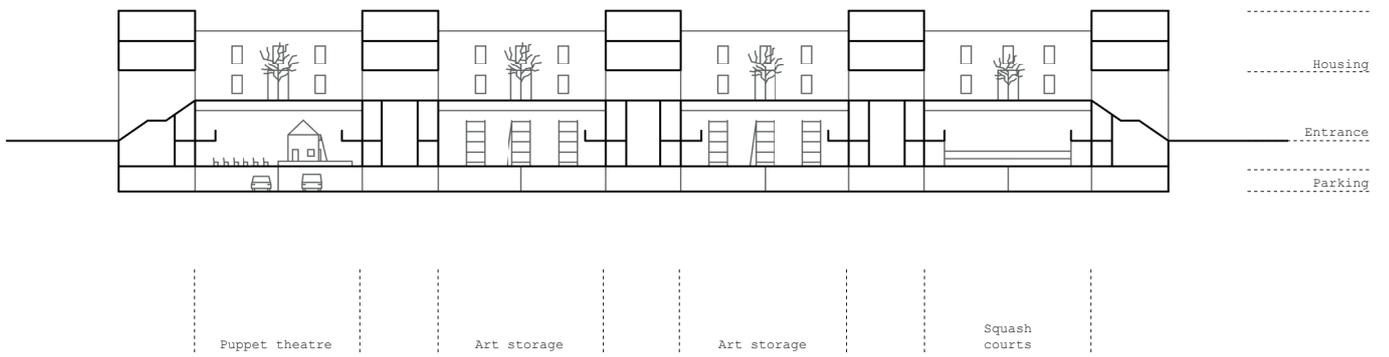
A porously fortified mixed-use complex built on an existing deep parking facility in central Trondheim. The different sized halls for large public functions set on the level -1, are reflected as a series of courtyards above. The low-rise-high-density courtyards of 7 m deep housing blocks, imitates the format of the traditional wooden city houses nearby.

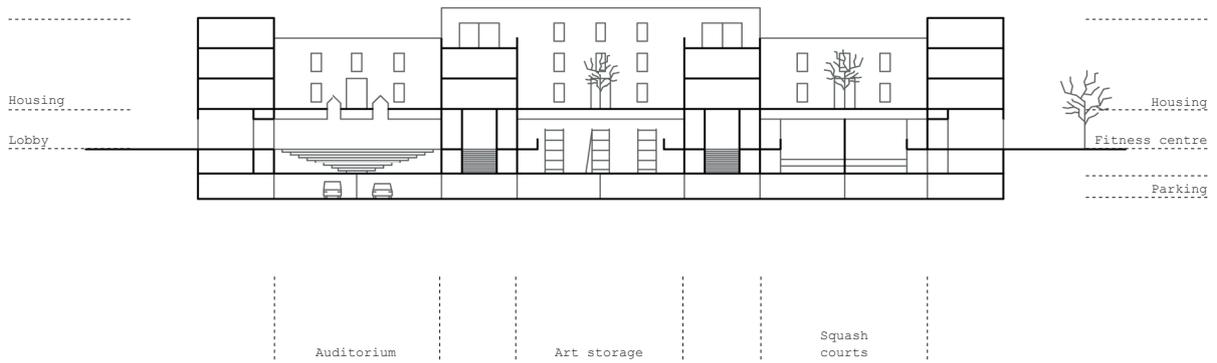
The content of the Cité is a product of the neighbouring theatre and university-cluster. The institutions targets a certain group of inhabitants for the housing above, and is reflected in the public programme below: A puppet theatre, auditoriums, and medium-sized sports facilities and a grocery shop with extended opening hours.

The 12 courtyards are open for all. The staired entyways are working as soft thresholds, regulating the flow of outsiders into the semi-private community.

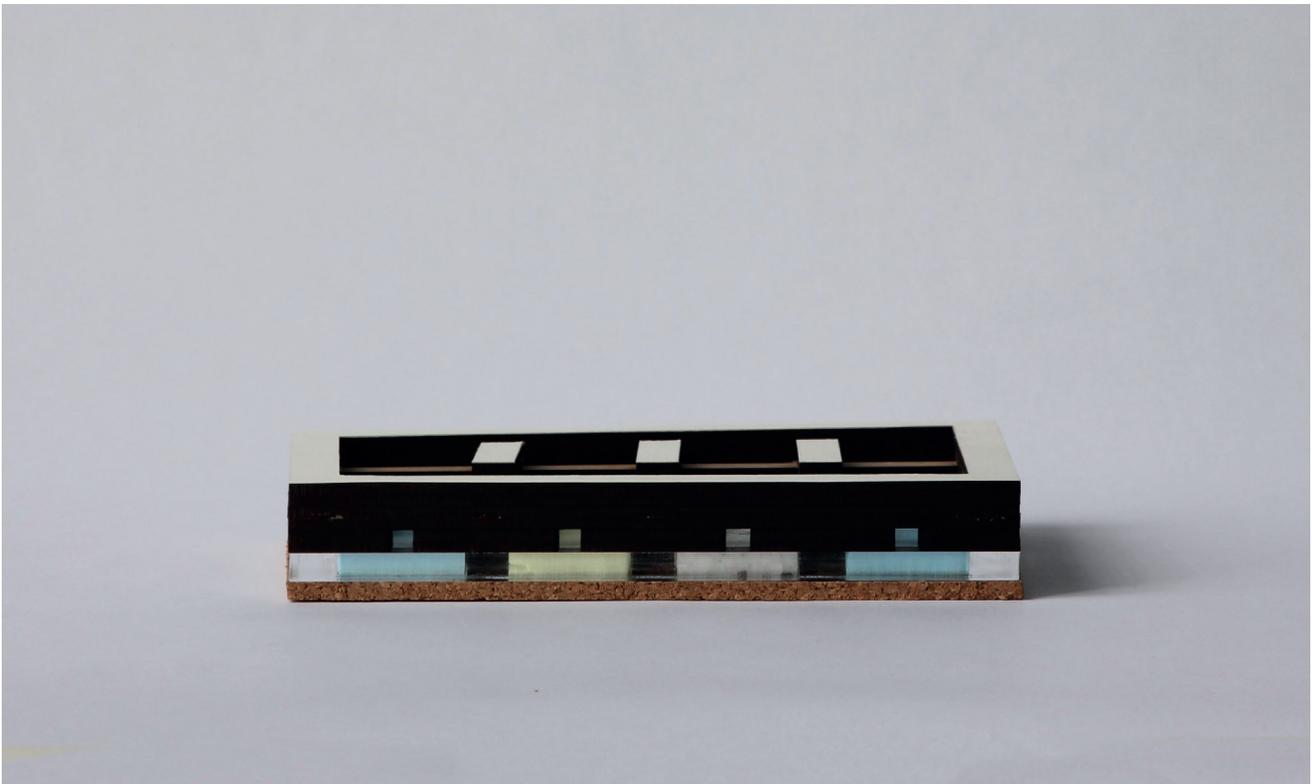












## Sailing club, public pool, and machine for living

Stage is set at Ila harbour in Trondheim and its characteristic skyline of towery grain silos, animal feed factory, salt-, steel and fish reception. In an urban perspective, this diverse and original part of central Trondheim represents a dead end for the city centre.

The sketch project sits on top of an existing storage building dating back from the late 1940's, and which already has been rebuilt a number of times. The car ramp, today used for the roof parking deck, is kept as an essential part of the building's own urban structuring, forming a public ambulatory with entrances to both public and private parts of the complex. The box-block-slab-composite attributes the existing culture of free adding and stacking of buildings and functions.

The maritime clubs next door are characterizing Skansen area for better or worse. By their activity, but also lack of storage space. The clubs are therefore welcomed into the lower parts of the existing warehouse, still with immediate access to the water.



