Interruptions

Fragile infrastructural network 1.

Fragile interventions 2.

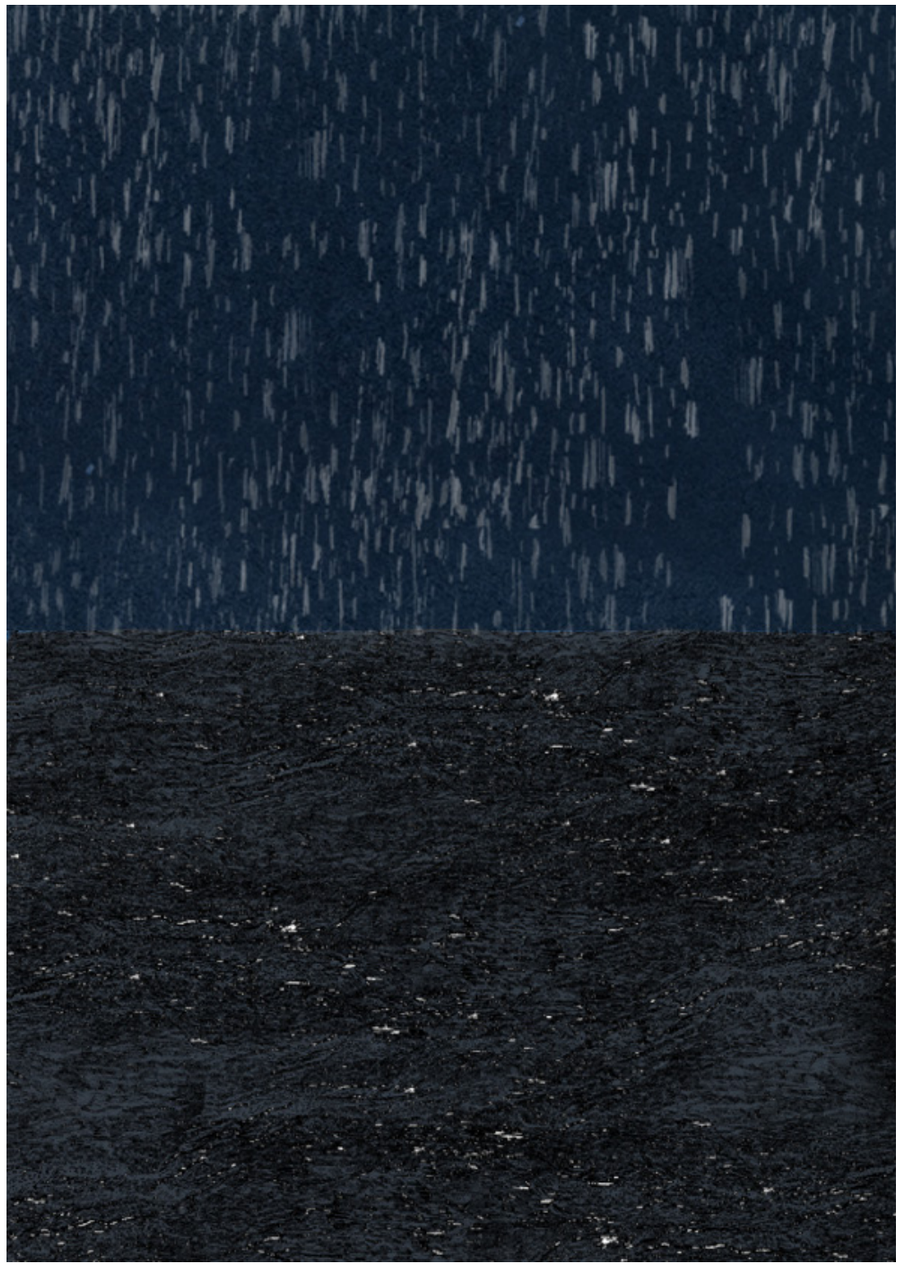
Detailed fragile state(s) 3.

Fragile edges and landscapes 4.

Bibliography 5.

1. Fragile infrastructural network

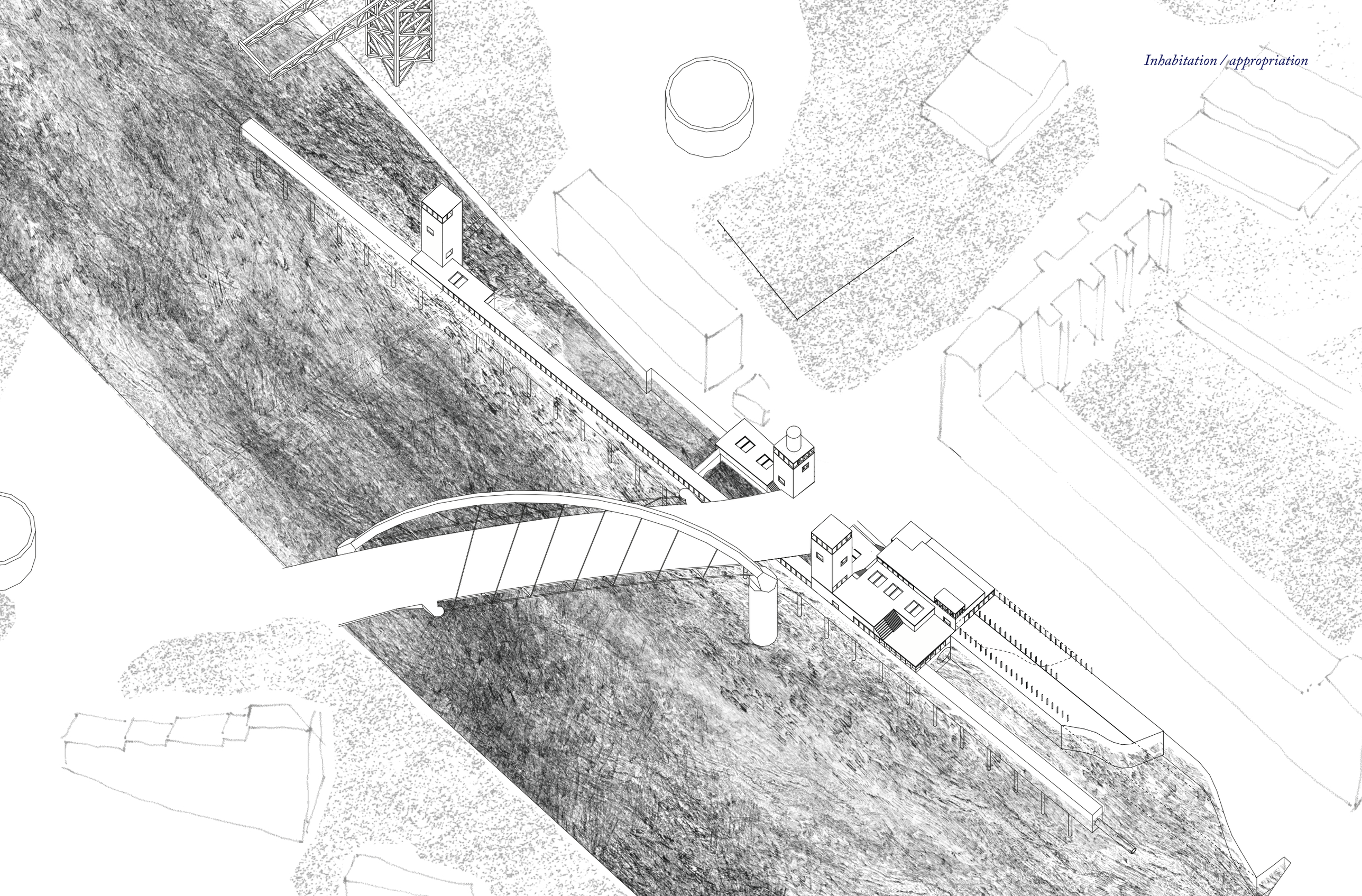
MAKE GLASGOW



WET AGAIN

Evolving network of negotiations: inhabitance, edges, landscapes and relations

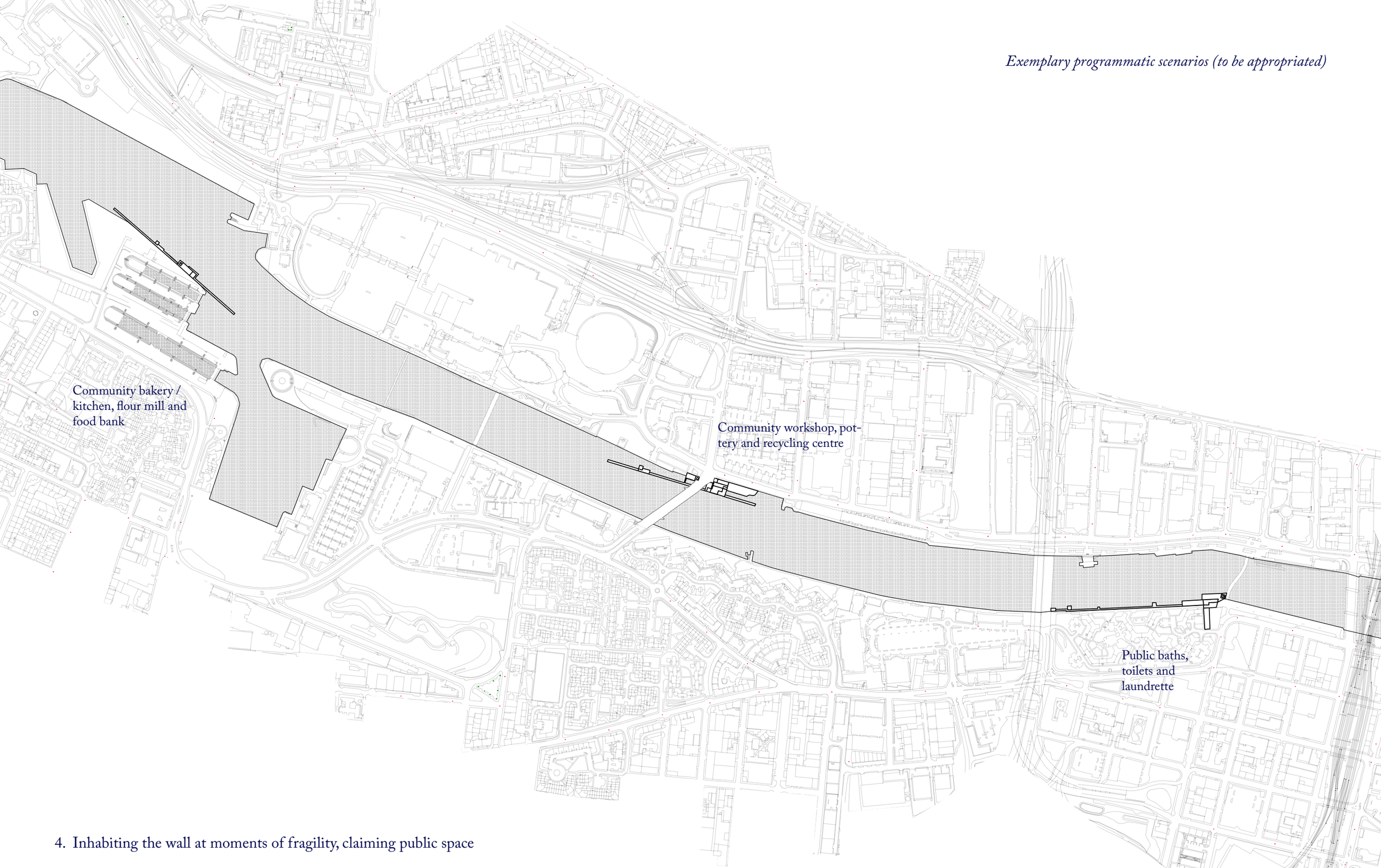
The project explores three to four transient states that have potential to deter market speculation: inhabitation / appropriation, deterioration and collapse. The temporary inhabitation the proposal investigates, creates an allusion of regeneration / fixedness, acting from within processes of gentrification, in order to take subversive action against violent political processes of financial development. The embedded uncertainties that allow for spaces to be appropriated, deteriorate or collapse, deters market speculation.



Deterioration

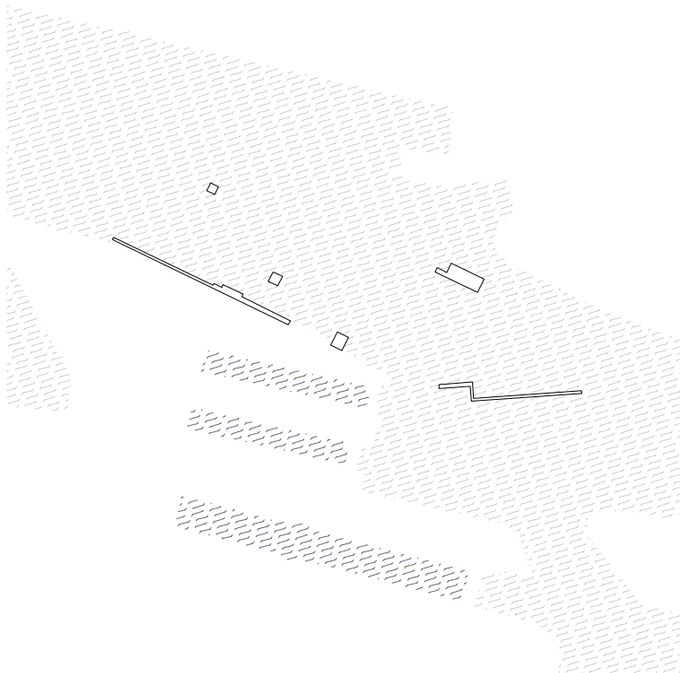
Collapse

2. Fragile interventions



4. Inhabiting the wall at moments of fragility, claiming public space

Fragile floor plans



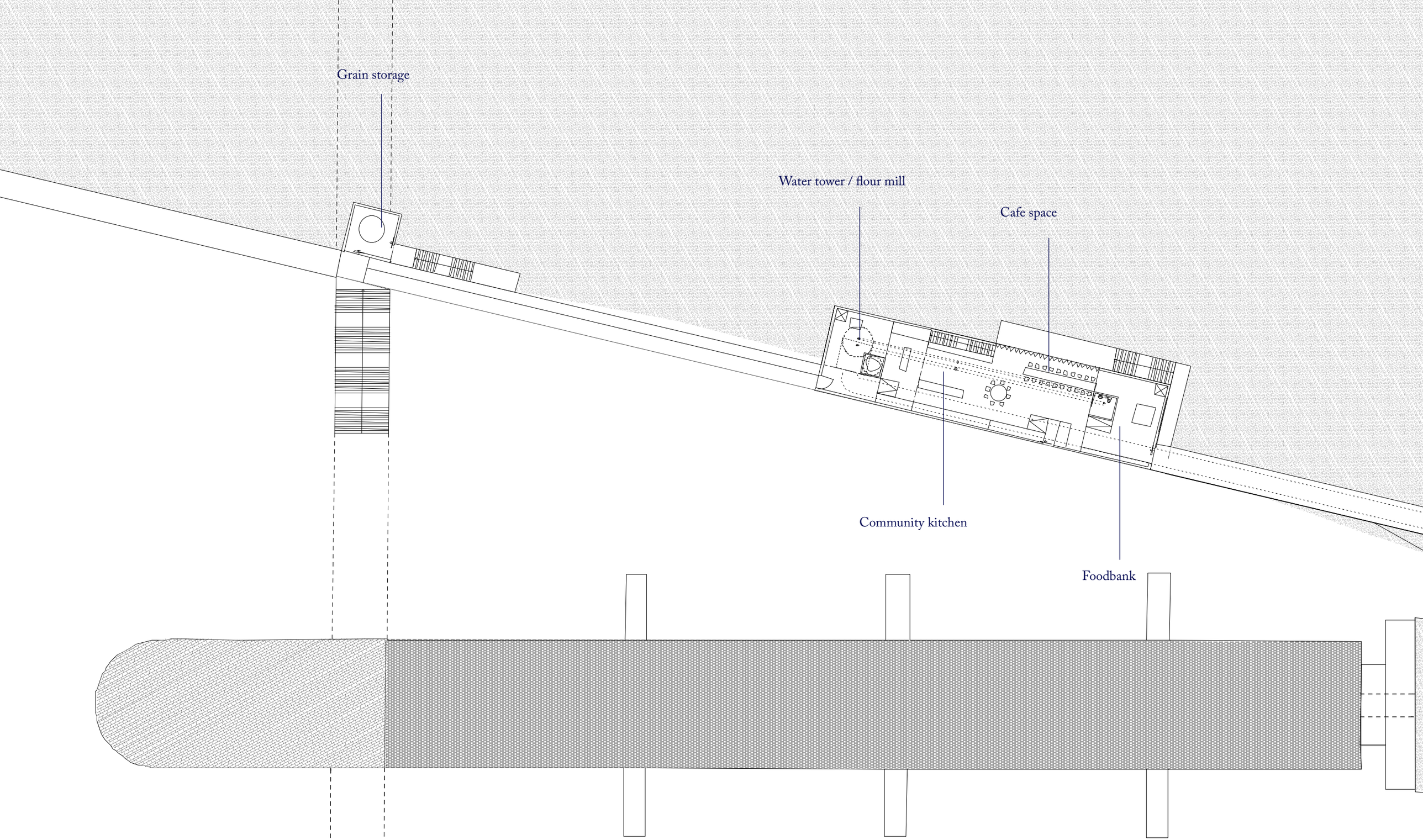
At the point in which the interventions could increase in scale, i.e accumulate and become swallowed up by capital, they collapse. Each intervention is designed to be as fragile as the walls they inhabit and to become increasingly unstable as a result of the water cycle they are sustained / organised / enhanced by. The historical analysis alongside the design process, together curate the facade of a conventional architectural project, contextualising proposals locally, confusing neoliberalism forms of governance with regards to the specificity of how they are situated.

Fragility is firstly designed through the organisation of the individual floor plans. Each plan is choreographed by the fragmentation of the stages within the processes they facilitate. The stages in each process is realised as its own space or volume, becoming its own component that could be removed from the sequence at any point. The intentions are that the floor plan could still function to a certain extent, when missing a component as a result of a collapse.

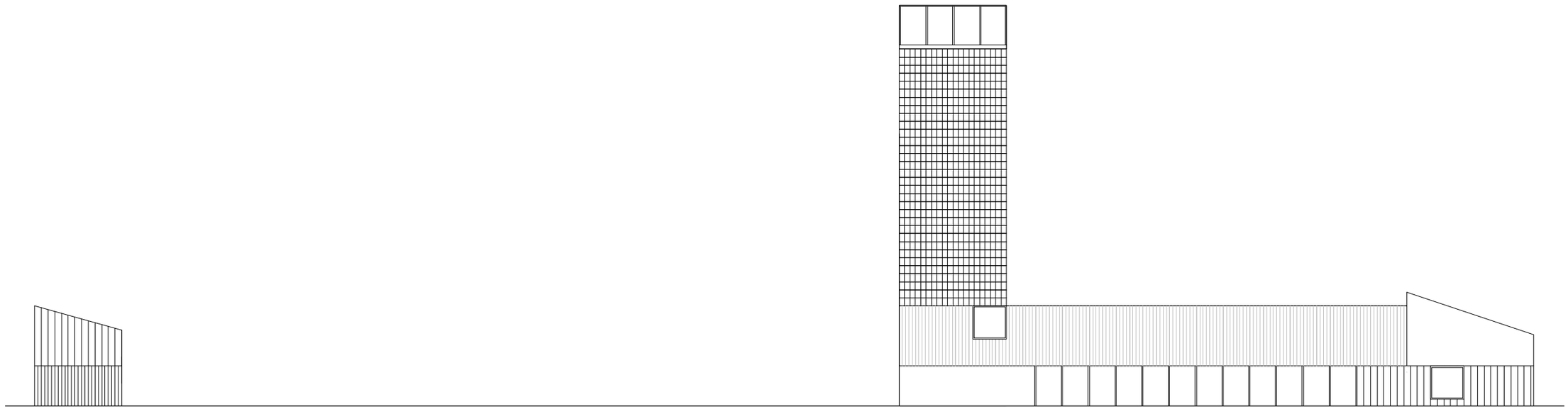
Adaptability is a notion within 'fragility' that characterises each floor plan - as long as use can evolve and change in relation to the needs of a place, spaces can avoid commercialisation and homogenisation. The exemplary social spaces explored in the project periodically support local communities, creating spaces that share the relational characteristics of collectivity, productivity and intimacy in emerging ways. Their illusion of certainty draws public funding, expressing a facade of regeneration, but then their embedded uncertainties / fragilities / curated life span ensures that they will not grow beyond their locality, become attractive to market forces and privatised. This process of collapse has been elaborated on in terms of deteriorating materiality, facilitating a critique of the limits of material and form. Unfixing its function, dismantles its quantifiable certainty that would otherwise attract market forces. Rory Hyde discusses how this concerns: 'people committed to producing social space in tandem with the capacity of architecture to create the platform for it'[1].

At the point in which this temporary inhabitance has changed / the materiality of the inhabitance has collapsed, concrete plinths containing a water system that uses the flows of the river to generate electricity and facilitate use, poses the opportunity to become appropriated once again.

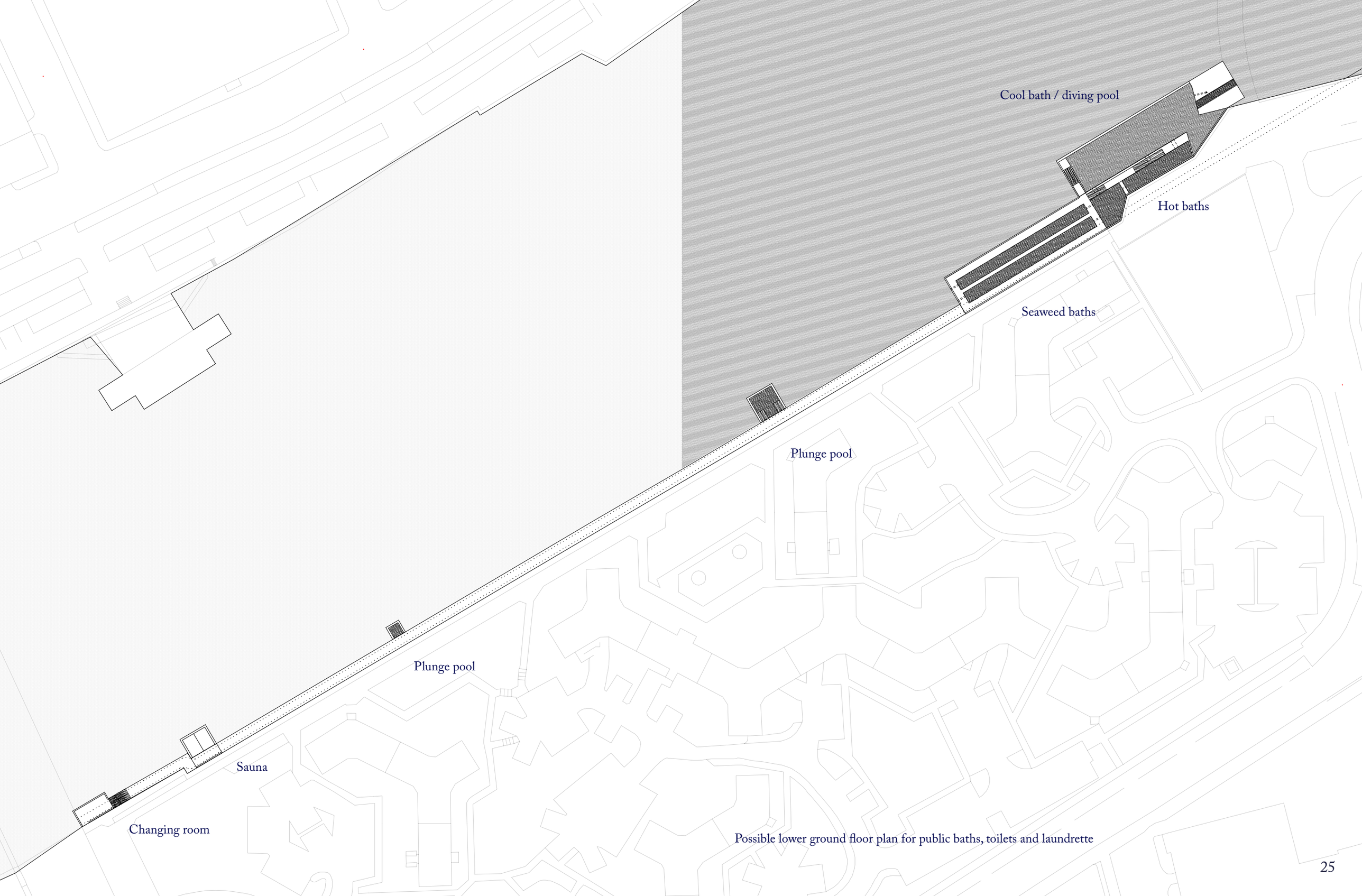
1 Petrescu, Doina, and Kim Trogal. The Social (re)production of Architecture: Politics, Values and Actions in Contemporary Practice. London: Routledge, Taylor & Francis Group, 2017, 304.



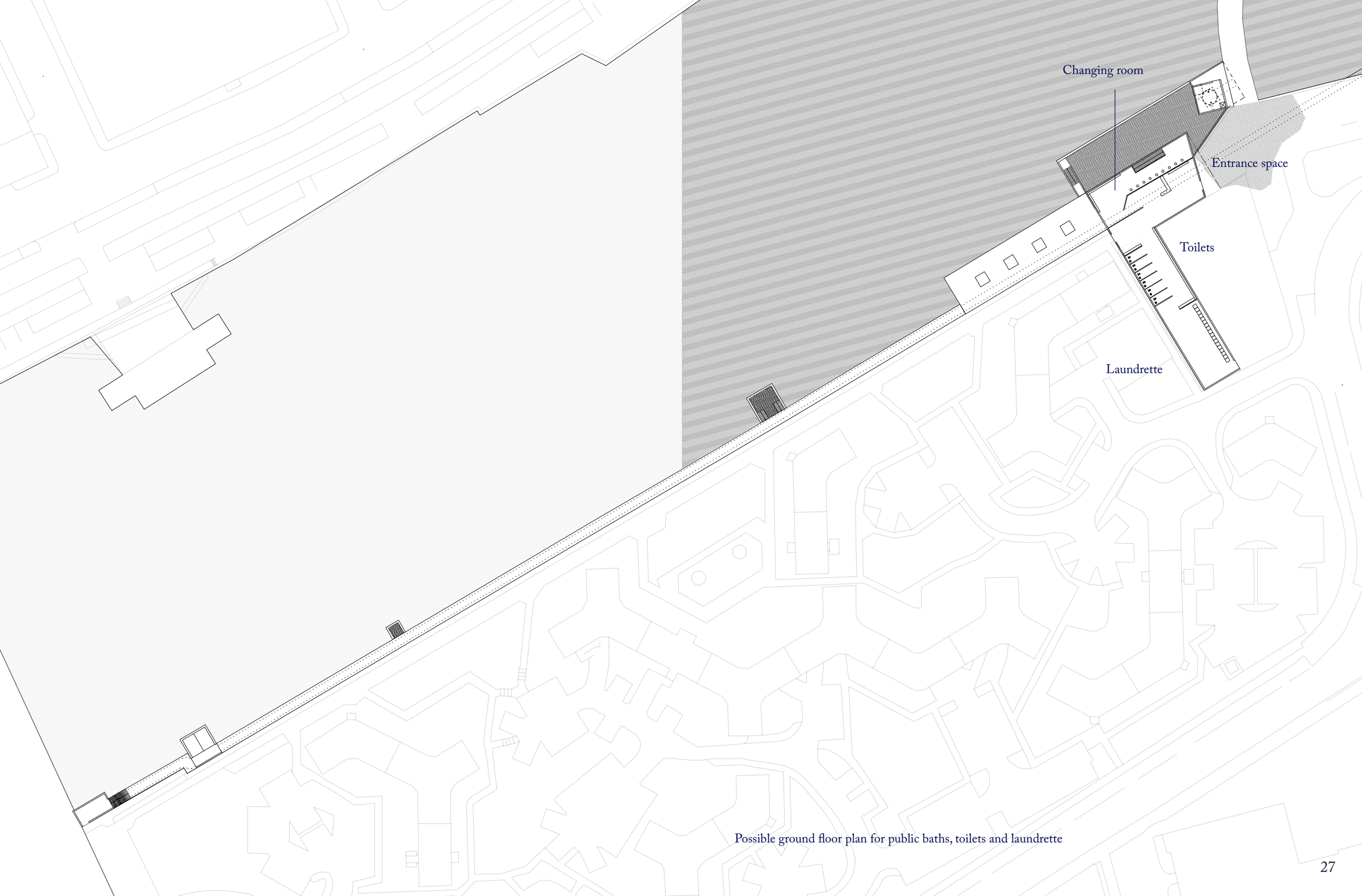
Possible plan for community bakery / kitchen, flour mill and food bank



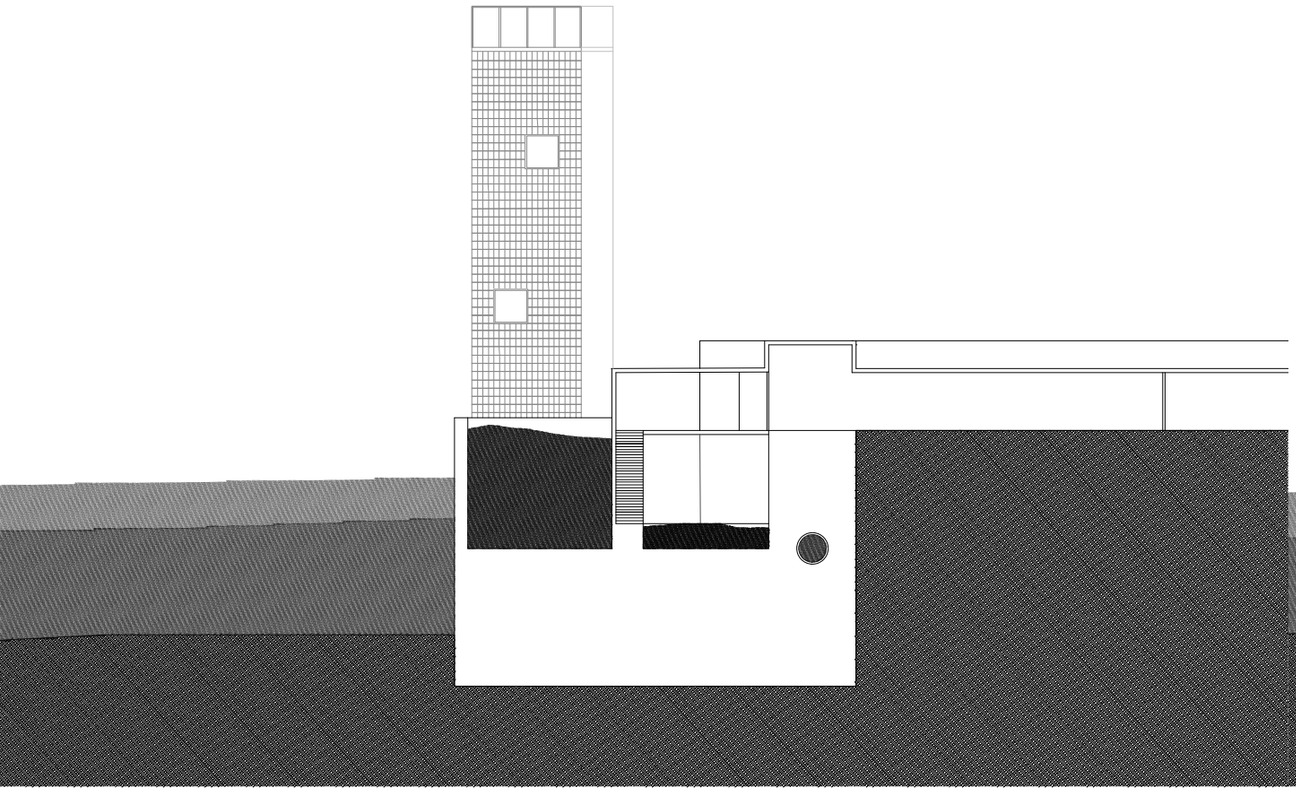
Possible elevation for community grain storage, bakery / kitchen, flour mill and food bank



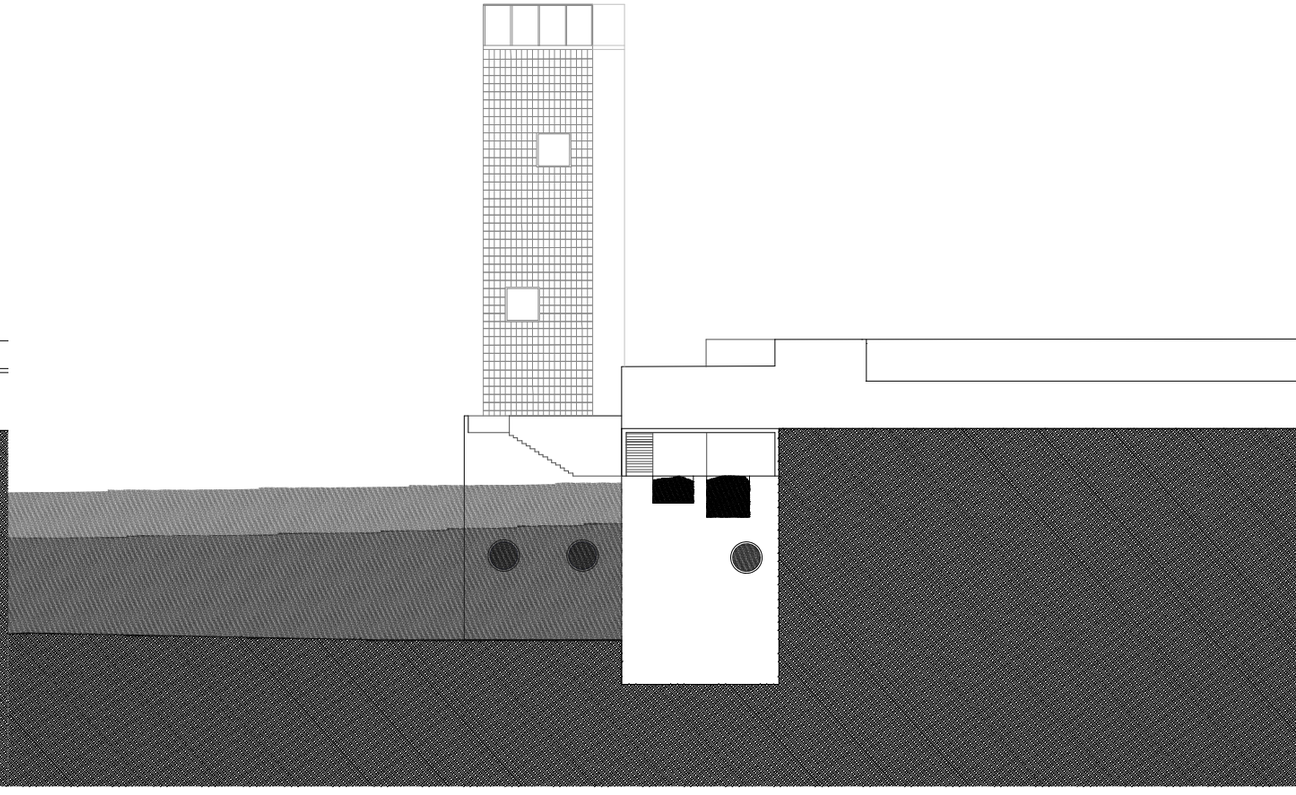
Possible lower ground floor plan for public baths, toilets and laundrette



Possible ground floor plan for public baths, toilets and laundrette

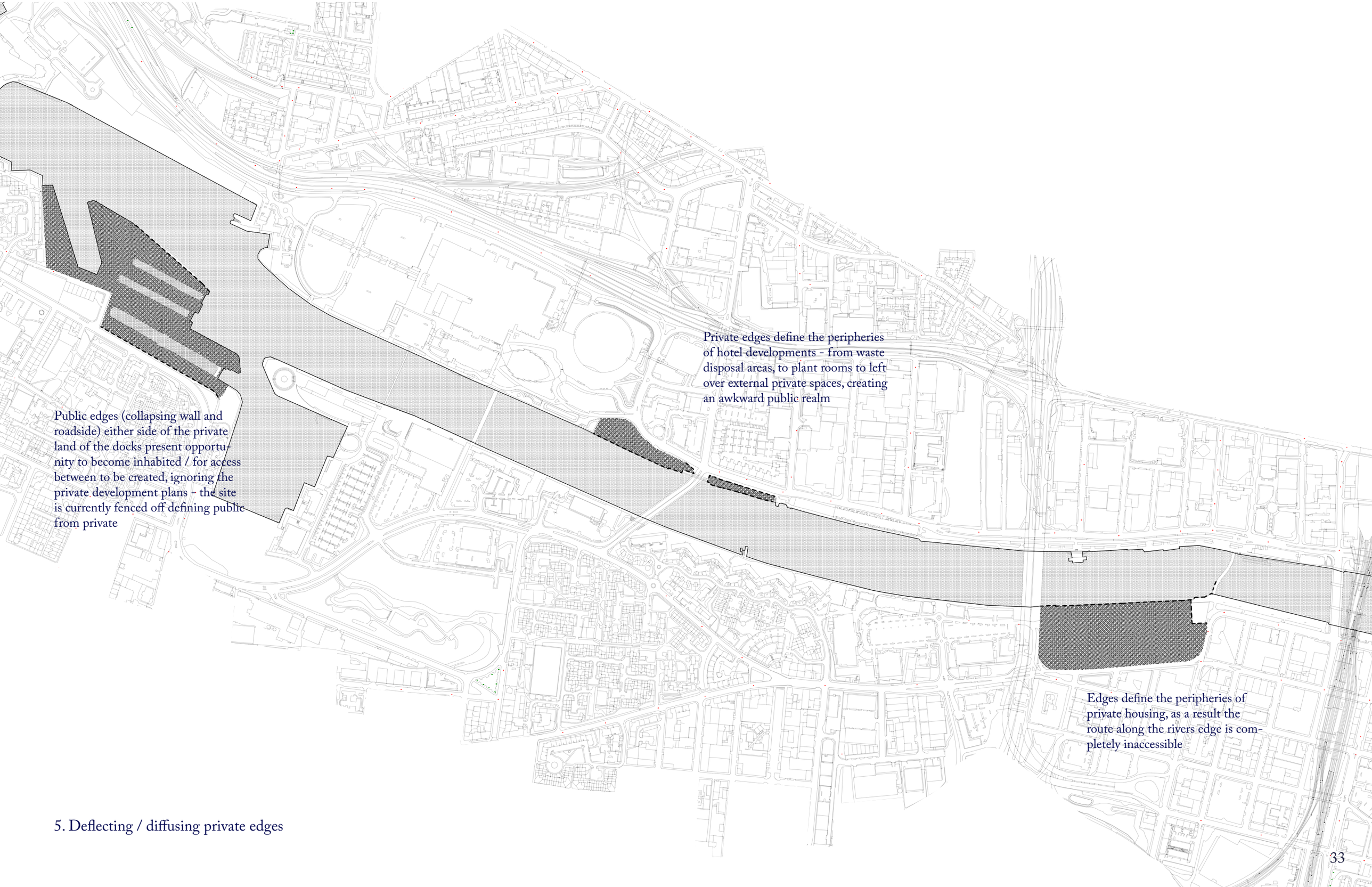


13.30pm, high tide, vertical section through overflowing volume



13.40pm, hight tide, vertical section through seaweed baths

Collapse



5. Deflecting / diffusing private edges

By maintaining a condition of wetness, edges and their associated landscapes are protected from privatisation. Damp, soggy, soaking, fragile, unstable, uncertain edges challenge prospects for development.

These fragile edges in turn allow for practiced and (re)productive landscapes to emerge, catering for a fluidity of inhabitance, as opposed to constructed, static land that only facilitates economic activity.

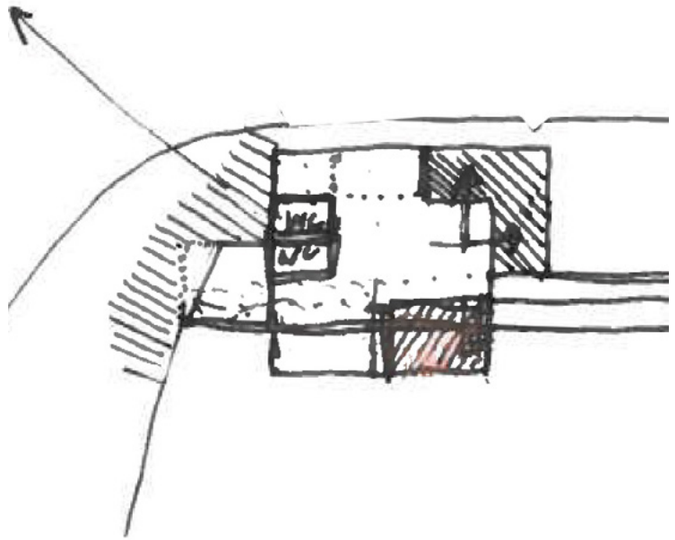
In terms of the existing edges that each interventions deals with, becomes a negotiation between public and private - mediating, challenging, refusing, confusing, diffusing, lines.

By turning around from, confronting, building up to private edges, the definitive line that distinguishes public from private becomes altered (at different intensities) or characterised by public activity. The public intervention that develops an alternative edge, purposefully ignores or interrogates the private development behind, instead orienting a dialogue with the river, activating the waters edge and creating access around the private lines so to allow for the city to engage with the water in a more direct way.

By rejecting definitive edges, exclusion empowers the inclusive, open, dynamic, public spaces that can emerge and become enriched spatially and politically by the boundaries that they loosen and in turn re-choreograph.

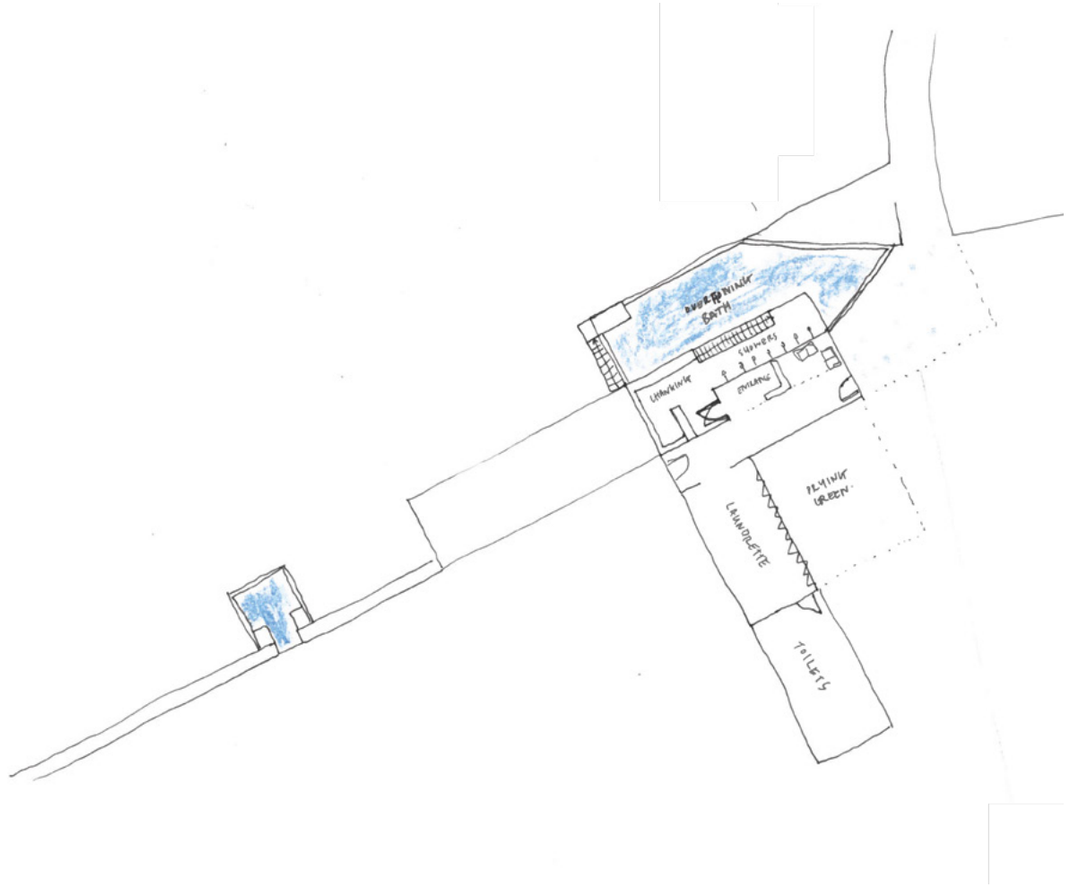
Fences define periphery of private site

Waste disposal and plant rooms creating hostile private edges on water's edge

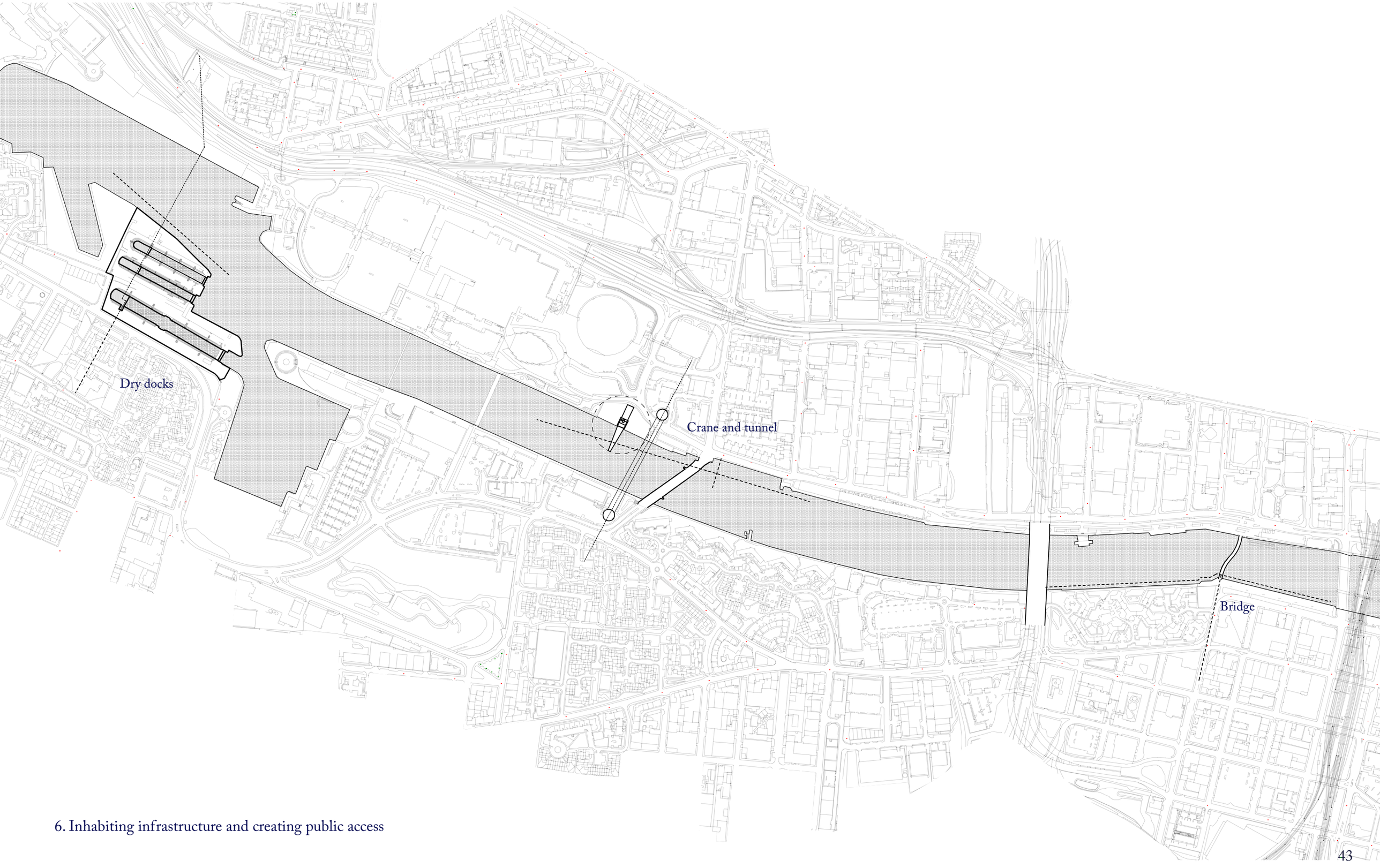


Open corners engage directly with the public realm while new social inhabitation turns around from and ignores the private edges of the hotel and waste disposal space

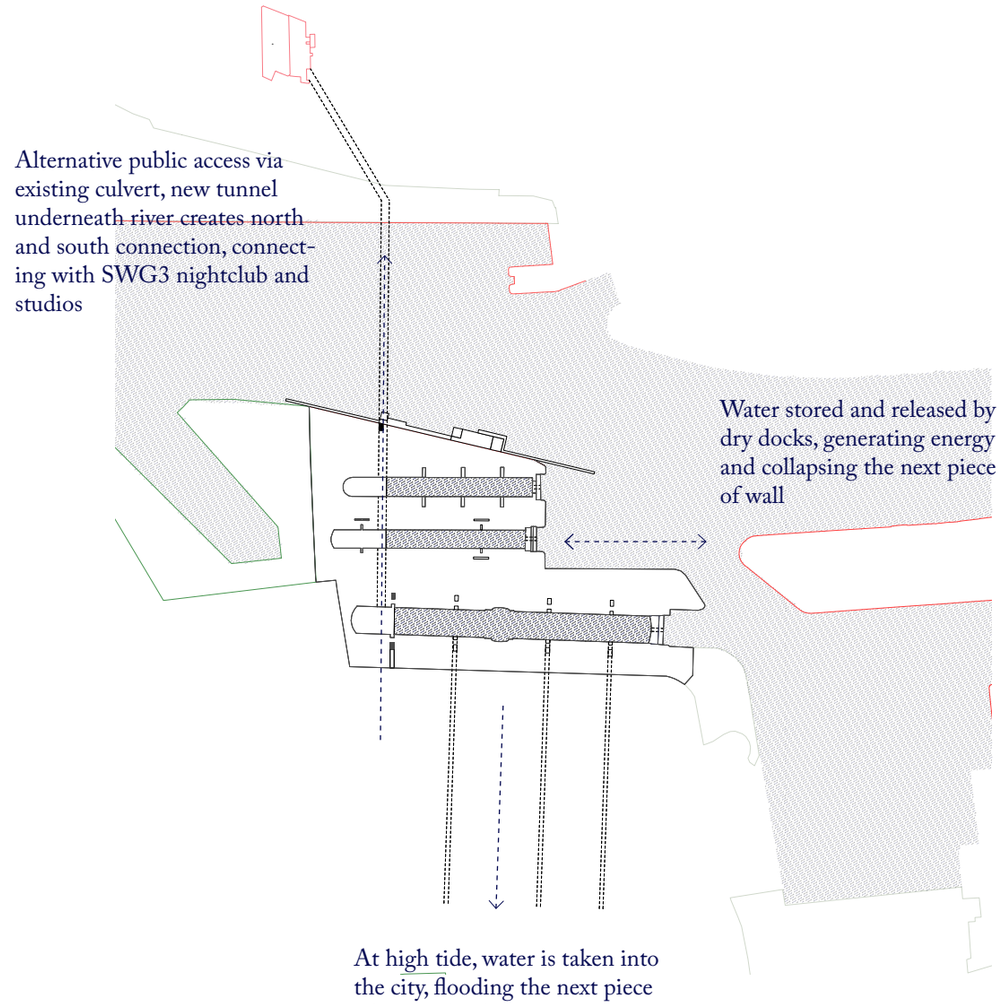
Fences and walls defining public from private



Inhabiting the wall, mediating the boundary between public and private on the two axes of the private development

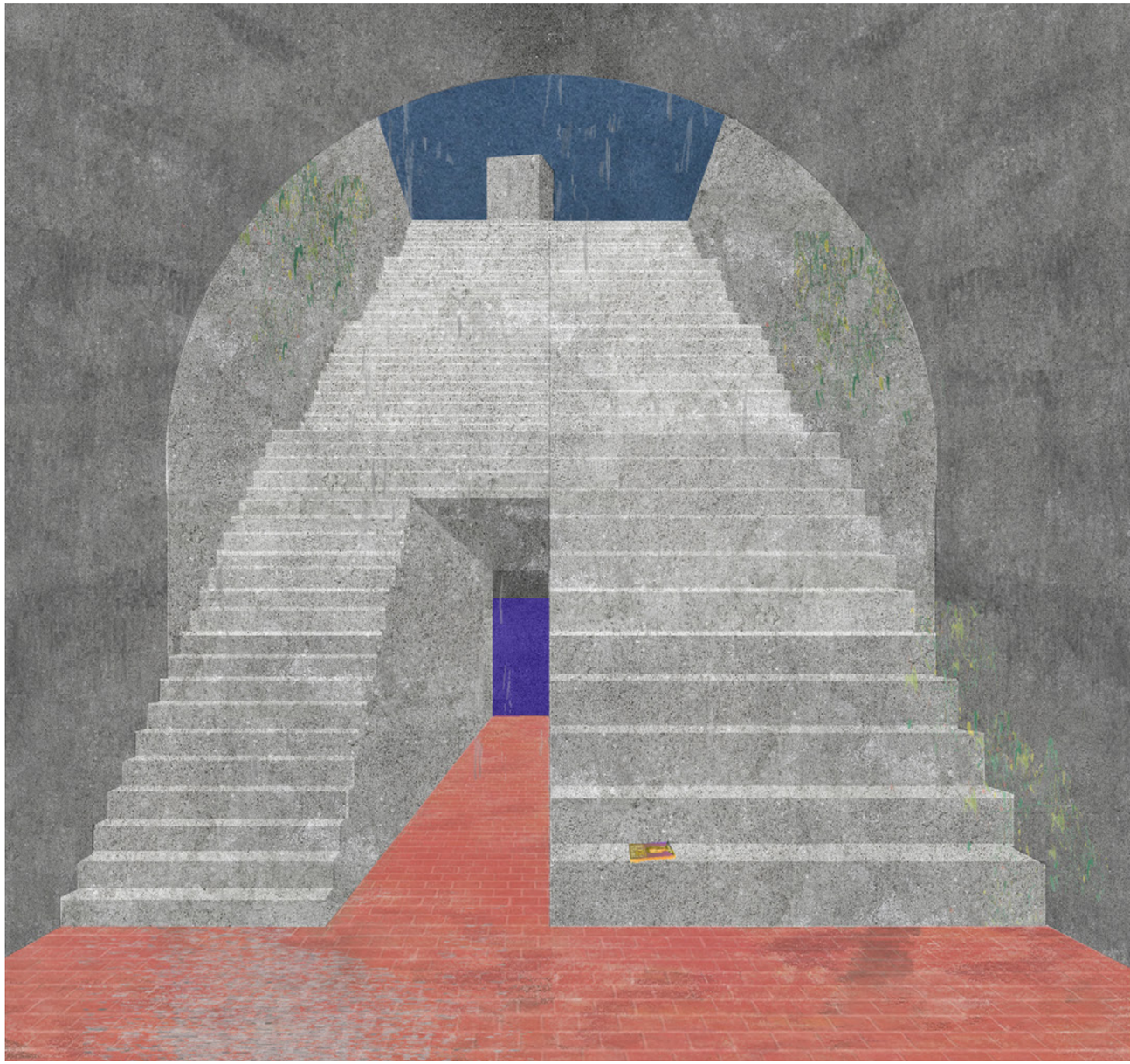

Dry docks
Crane and tunnel
Bridge

Dry docks

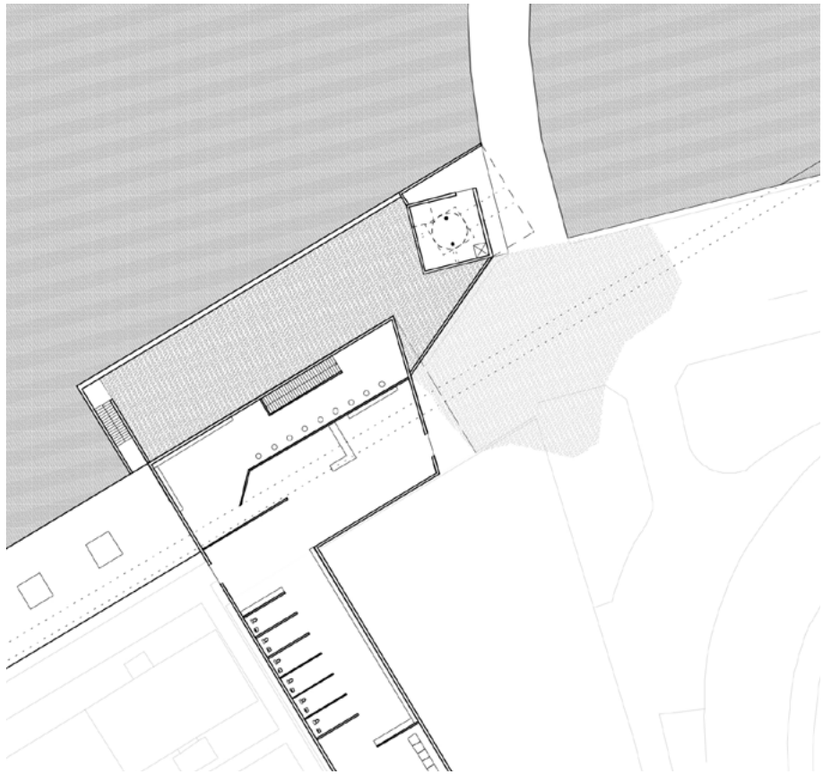


Horizontal section of functioning of reactivated dry docks

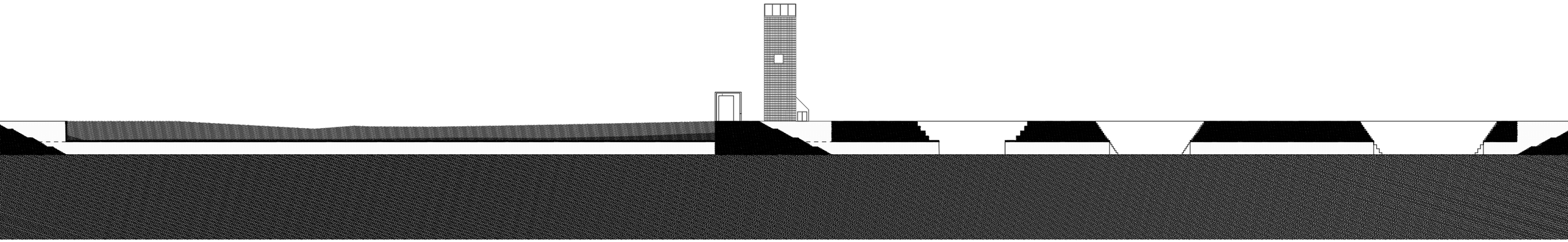
Public access through the dry docks up to a new public edge



Arc bridge

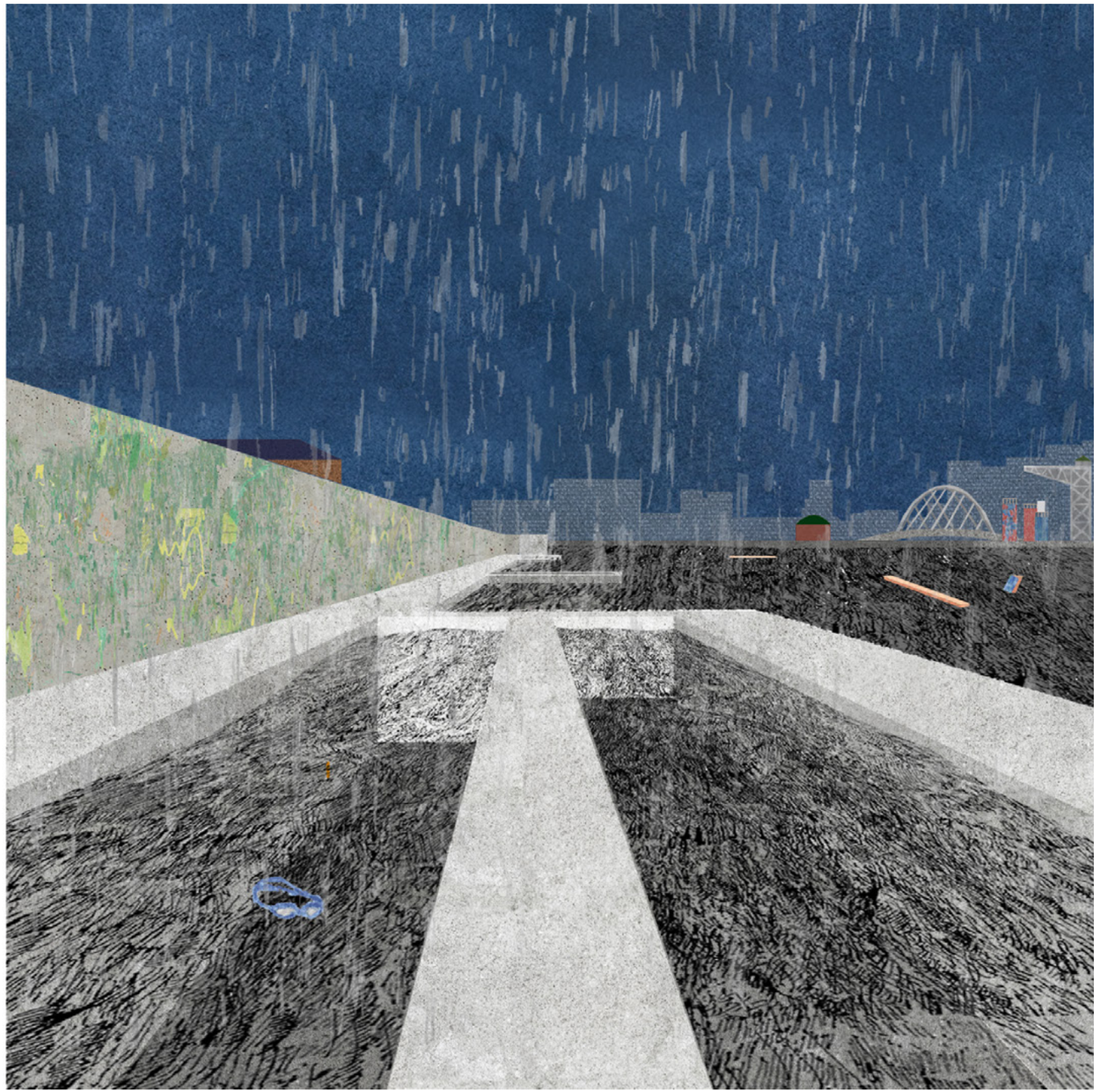


Intervention activates bridge and confused edges / access as a public landing - characterised by wetness that occurs as a result of the overflowing volume



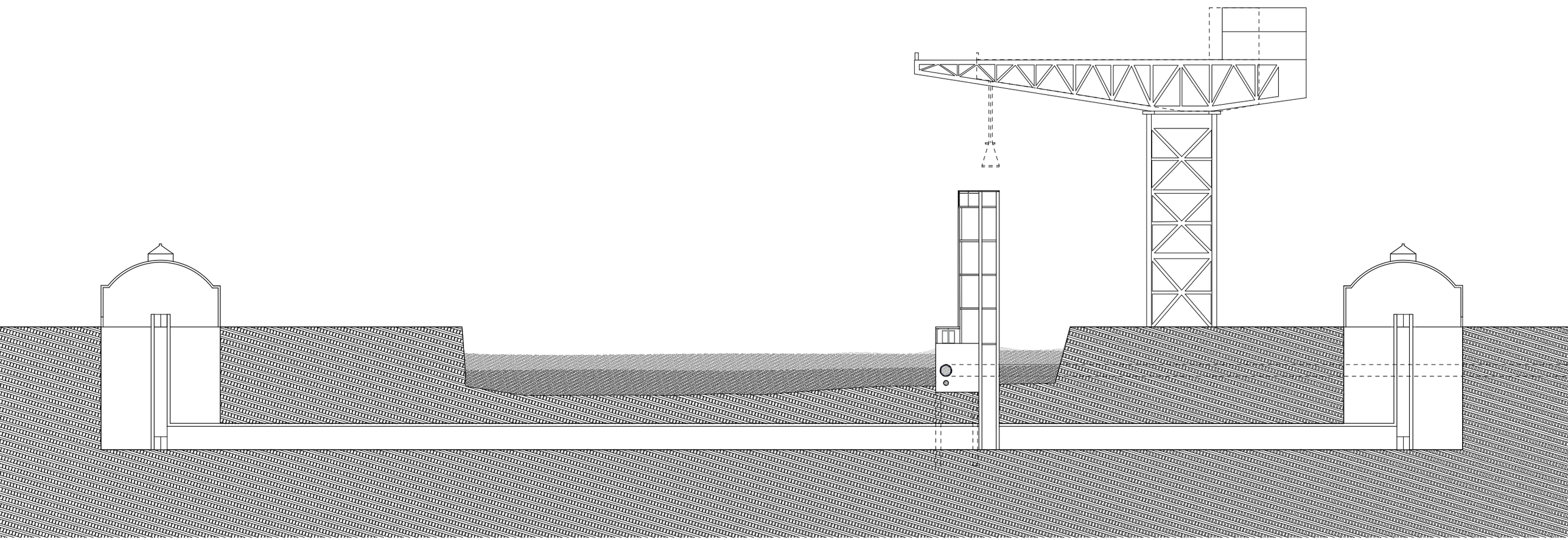
Section through dry docks and community grain storage, creating an alternative public route beneath the proposed private development

Public access along the edge of the quay walls, when inhabited as public baths, the movement of public (exposed) bodies characterise the edge



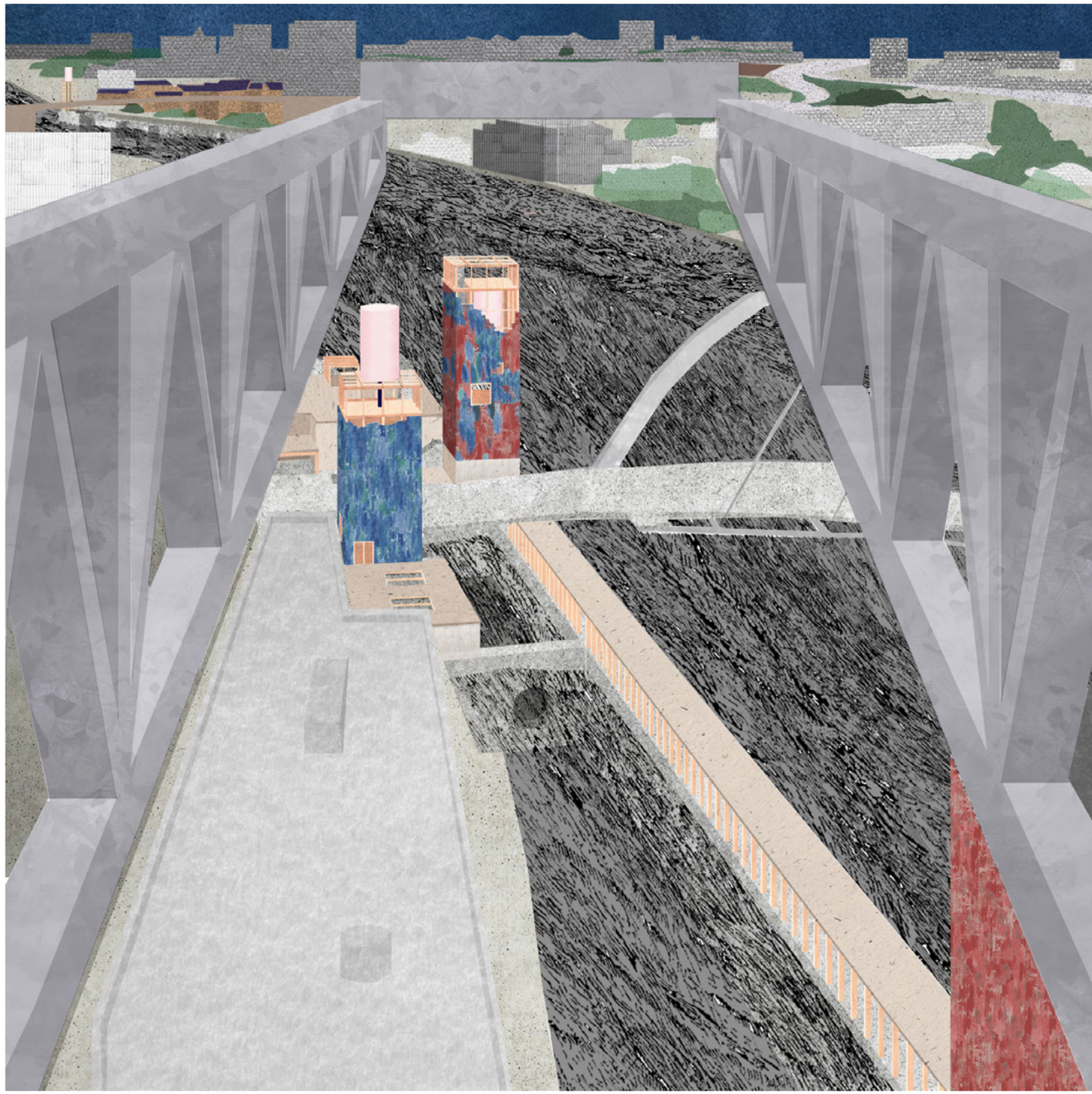
Finnieston crane, 1954

Tunnel



Section of reactivated crane and rotunda tunnel: materials transported north to south, new public access beneath the river

View from the reactivated and inhabited Finnieston crane, overlooking the alternative public walkway toward the deteriorating water towers of the community workshop and recycling centre



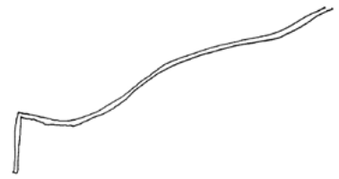
Each piece of infrastructure redirects water into the city and floods the next vacant piece of land, creating connections between the river edges and other social spaces whilst allowing for processes of unprivatisation to extend. This has been explored in the three scenarios in relation to underground, overground and ground surface water flows:

- Pipes (underground), allow for water to be pumped into the city from the docks at high tide, emerging above surface in locations that are threatened by land development prospects

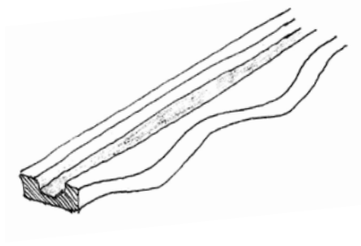
- A hand rail (overground), could alter widths of pedestrian walkways, claiming back public access that is dominated by cars. The hand rail functions as a pipe that deposits water on the next vacant piece of land.

- A curb that facilitates ground surface drainage could choreograph a cycle path for instance, carrying the water visibly through the city to flood the next vacant plot of land.

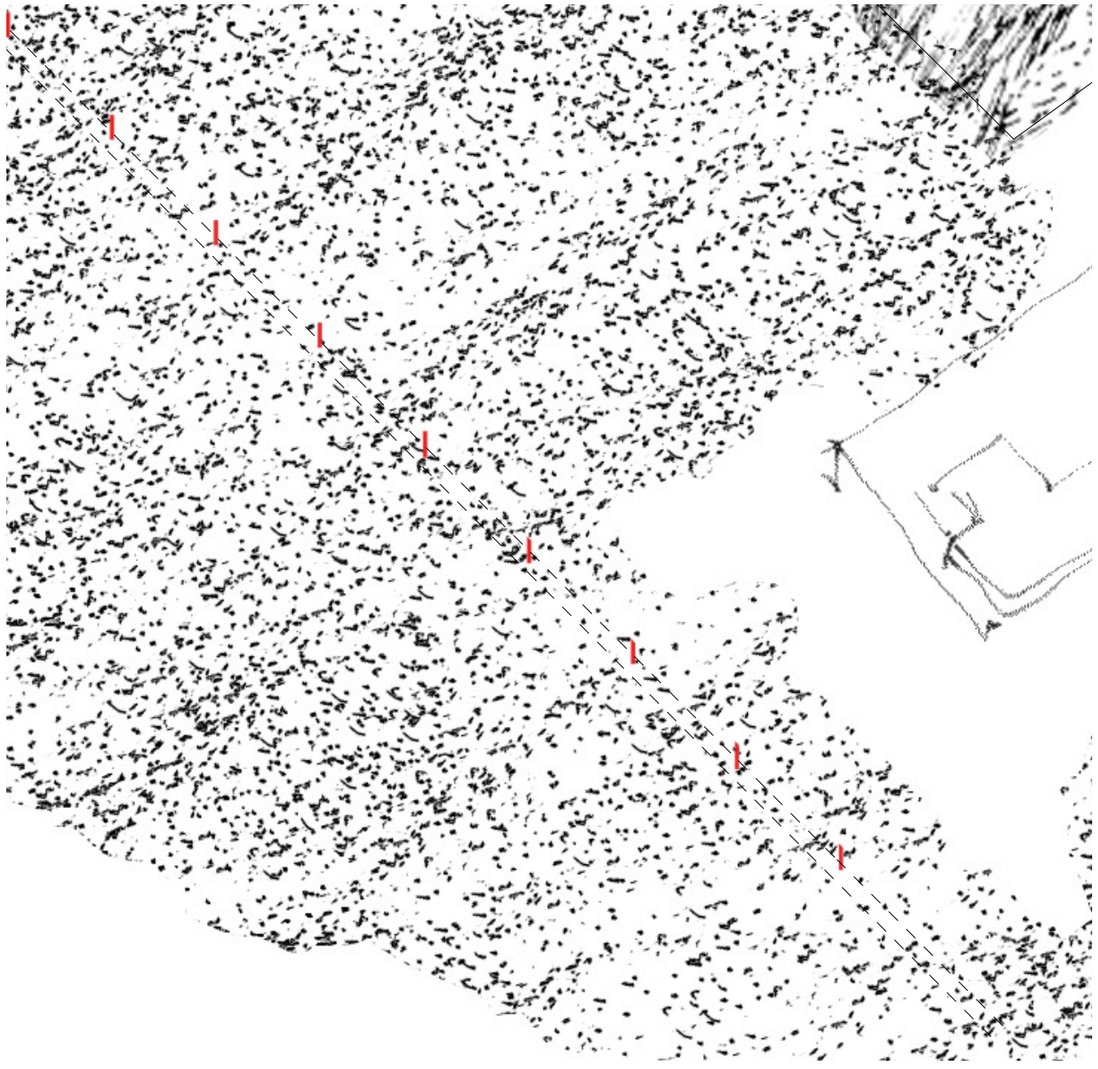
Pipe: underground



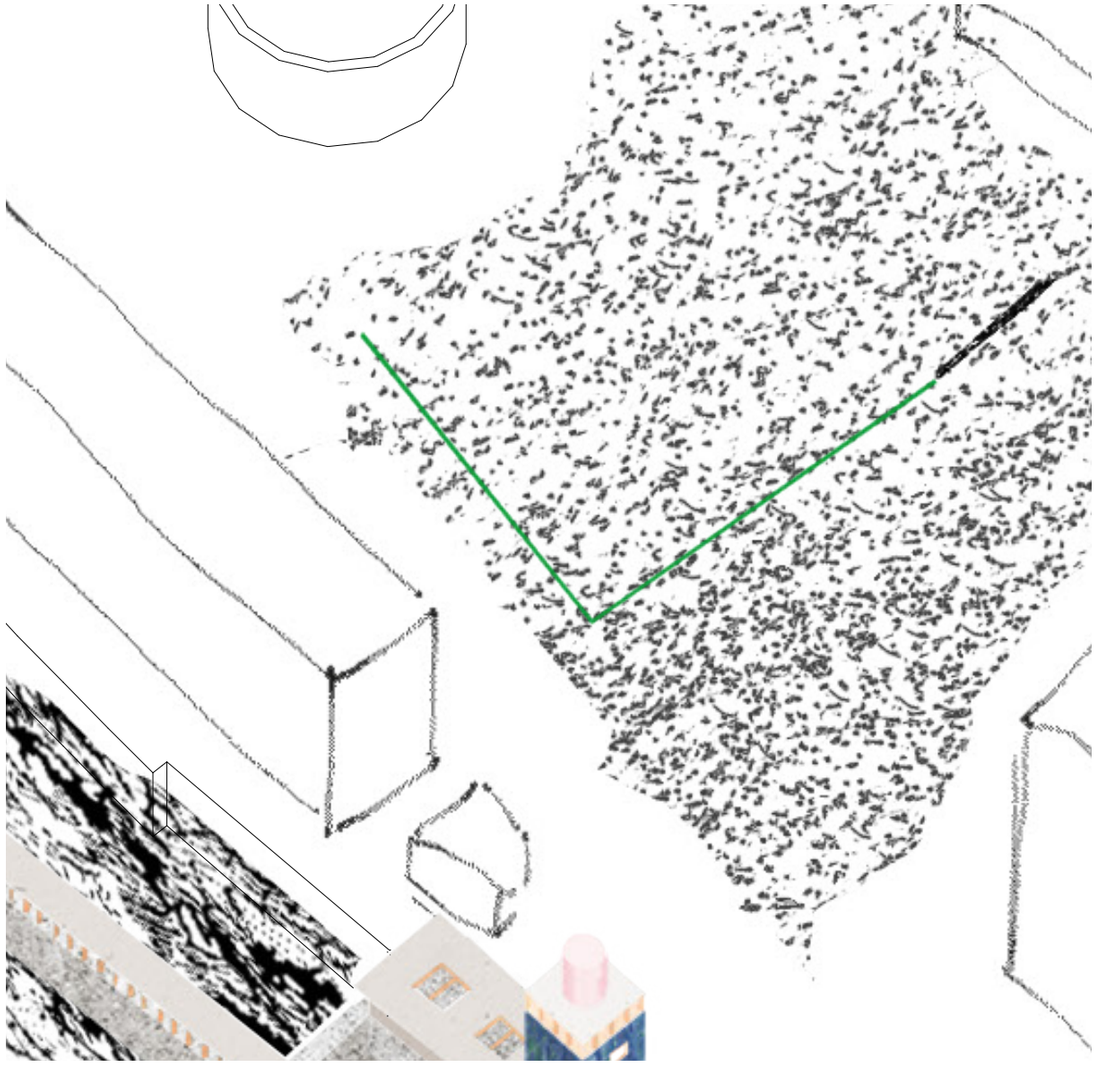
Handrail: overgound



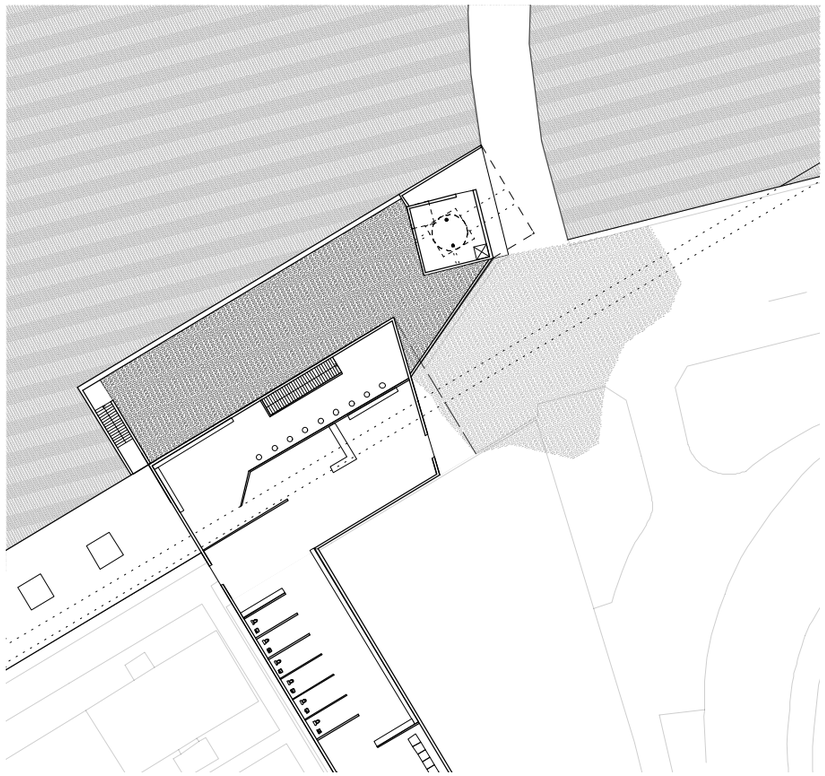
Curb / ground surface drainage: ground

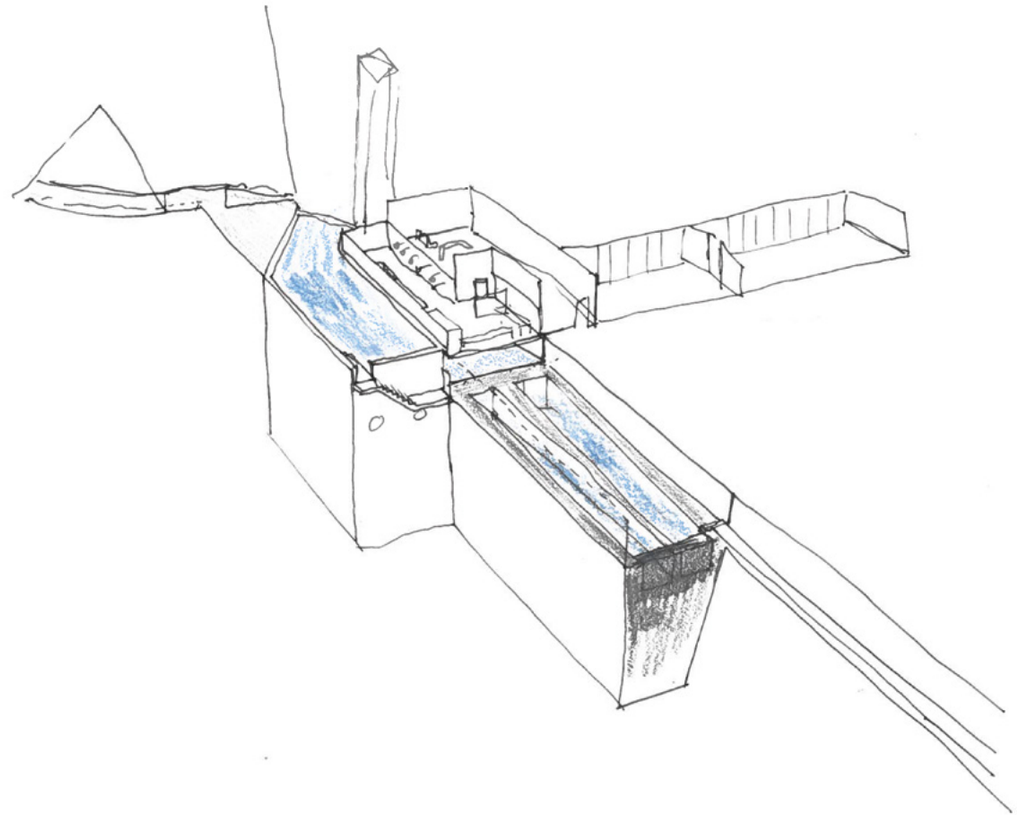


Pipes

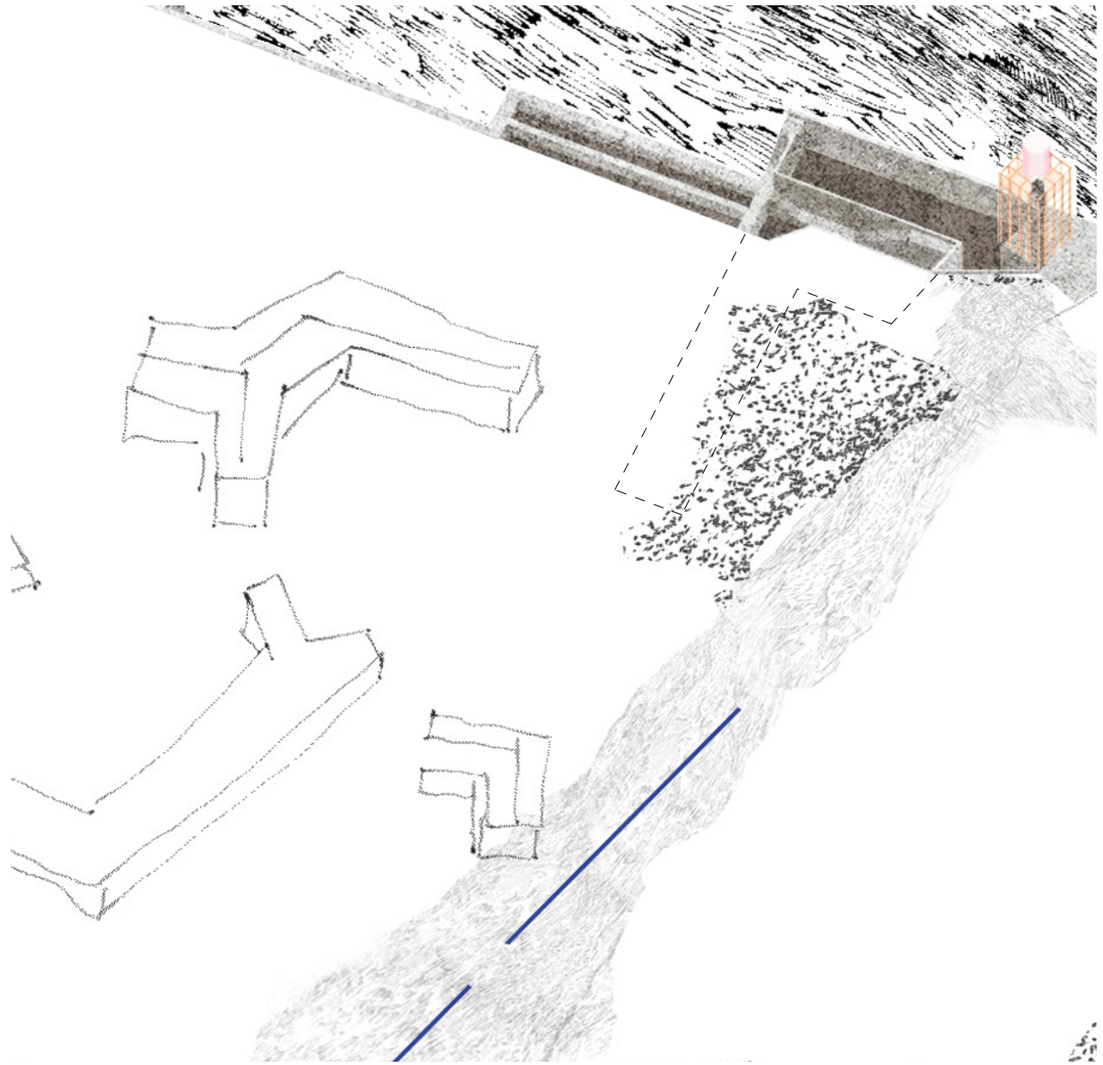


Handrail





Overflowing volume that uses the gradient of the city to move water south, carried by a curb



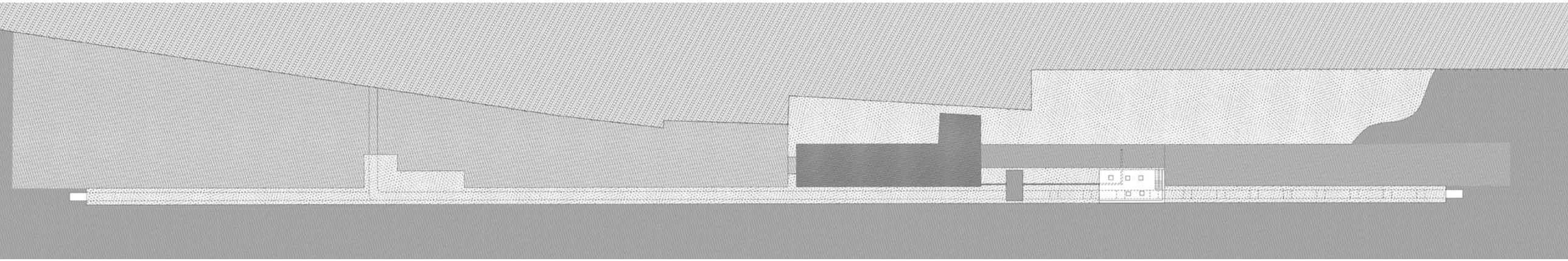
Curb

3. Detailed fragile state(s)

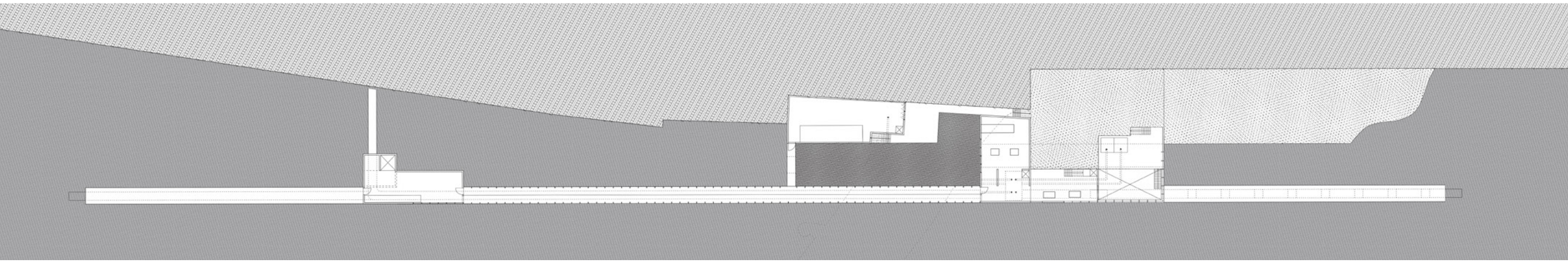
The community workshop, recycling centre and saw mill has been investigated in more detail, as the most complex infrastructural system of flows out of three scenarios.

It has also been elaborated on in terms of its fluctuating state(s). The (re)productive nature of a workshop, that offers opportunity to evolve and/or rebuild itself, presents a scope of uncertainties that the community baths and bakery less directly deal with.

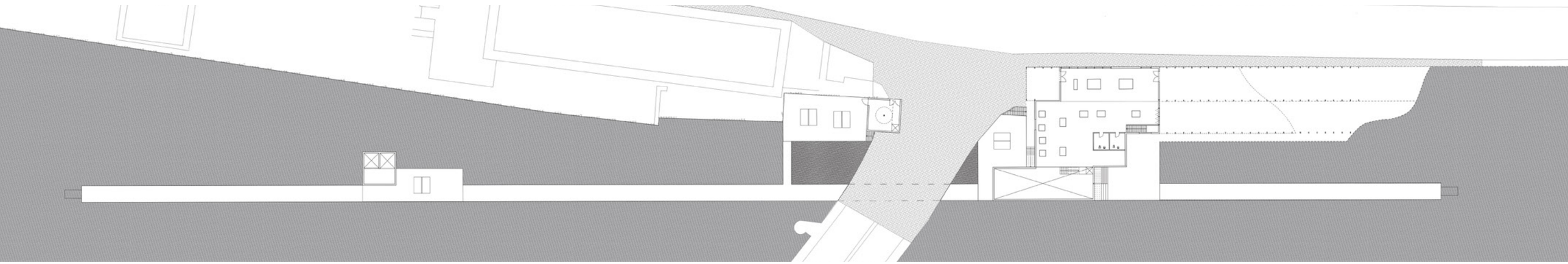
Inhabitation



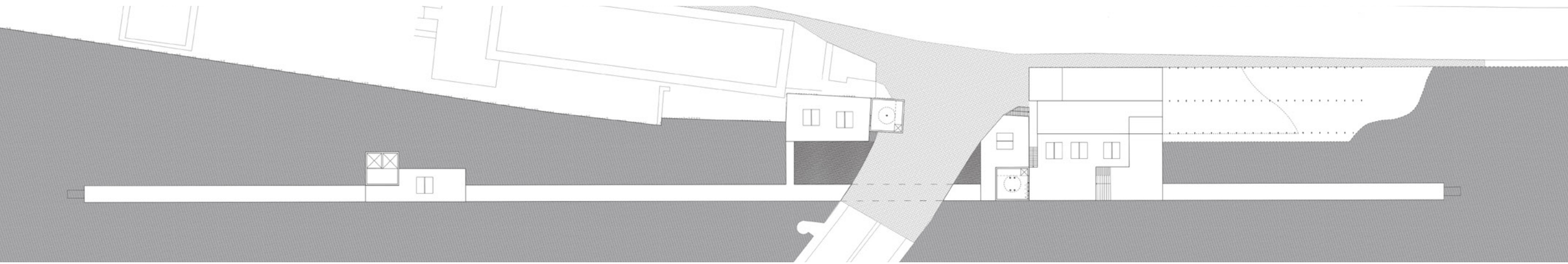
7.30am, low tide, horizontal section



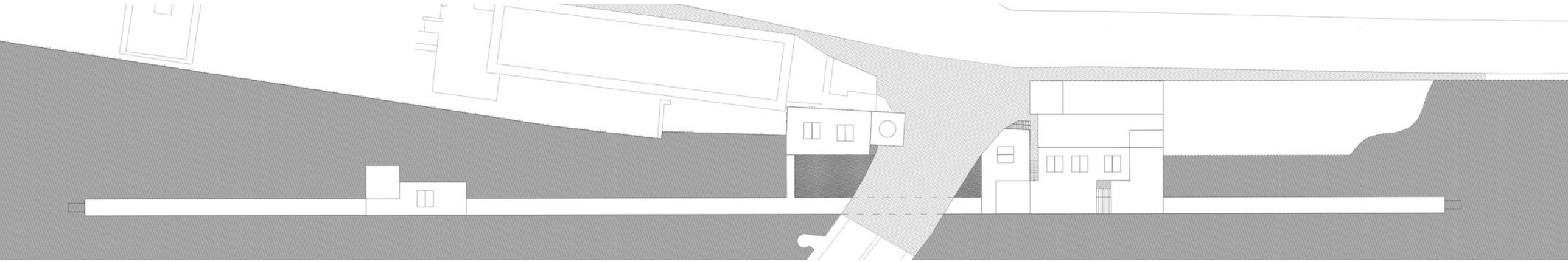
13.45pm, high tide



18.45pm, low tide



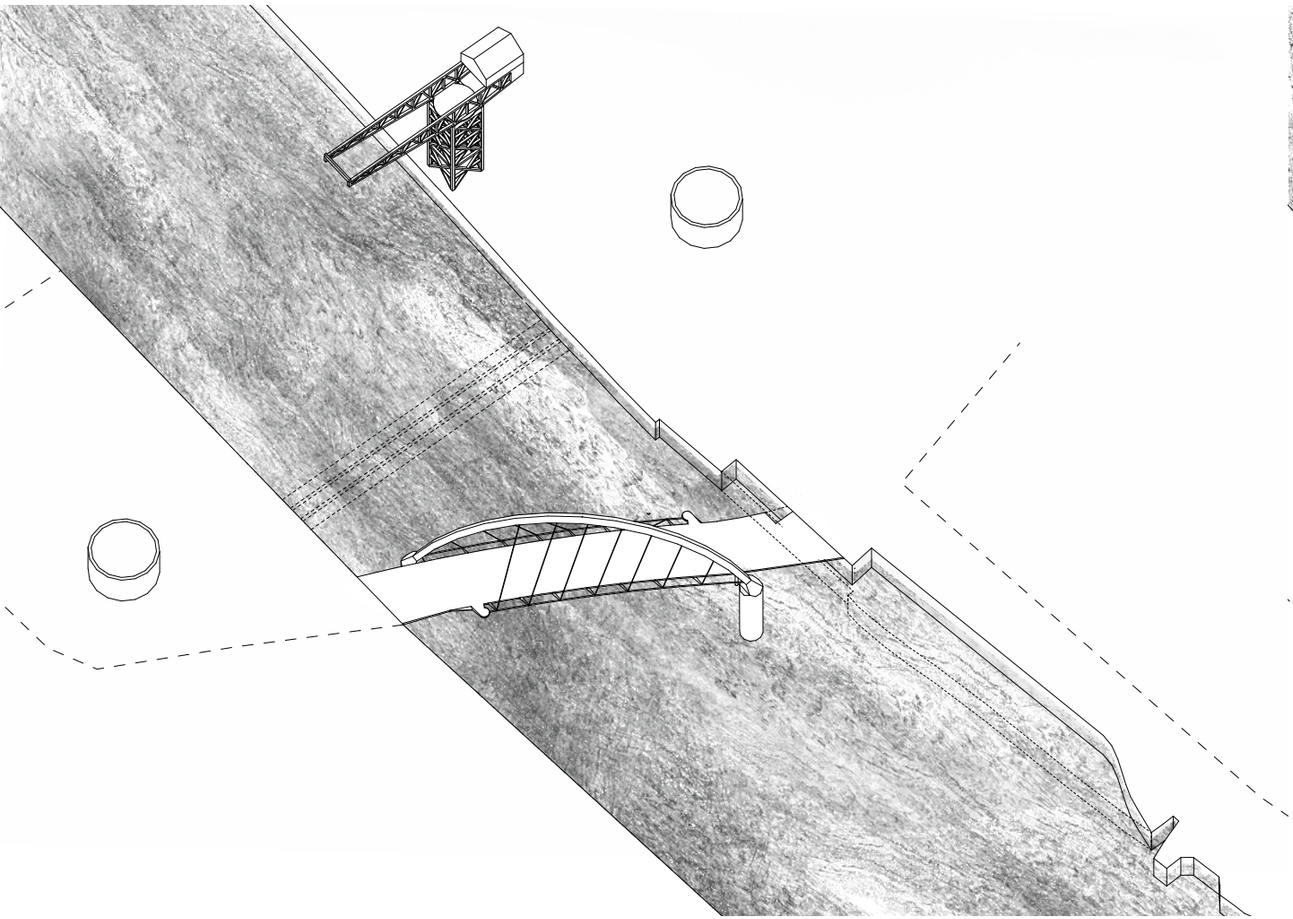
12.30am, high tide

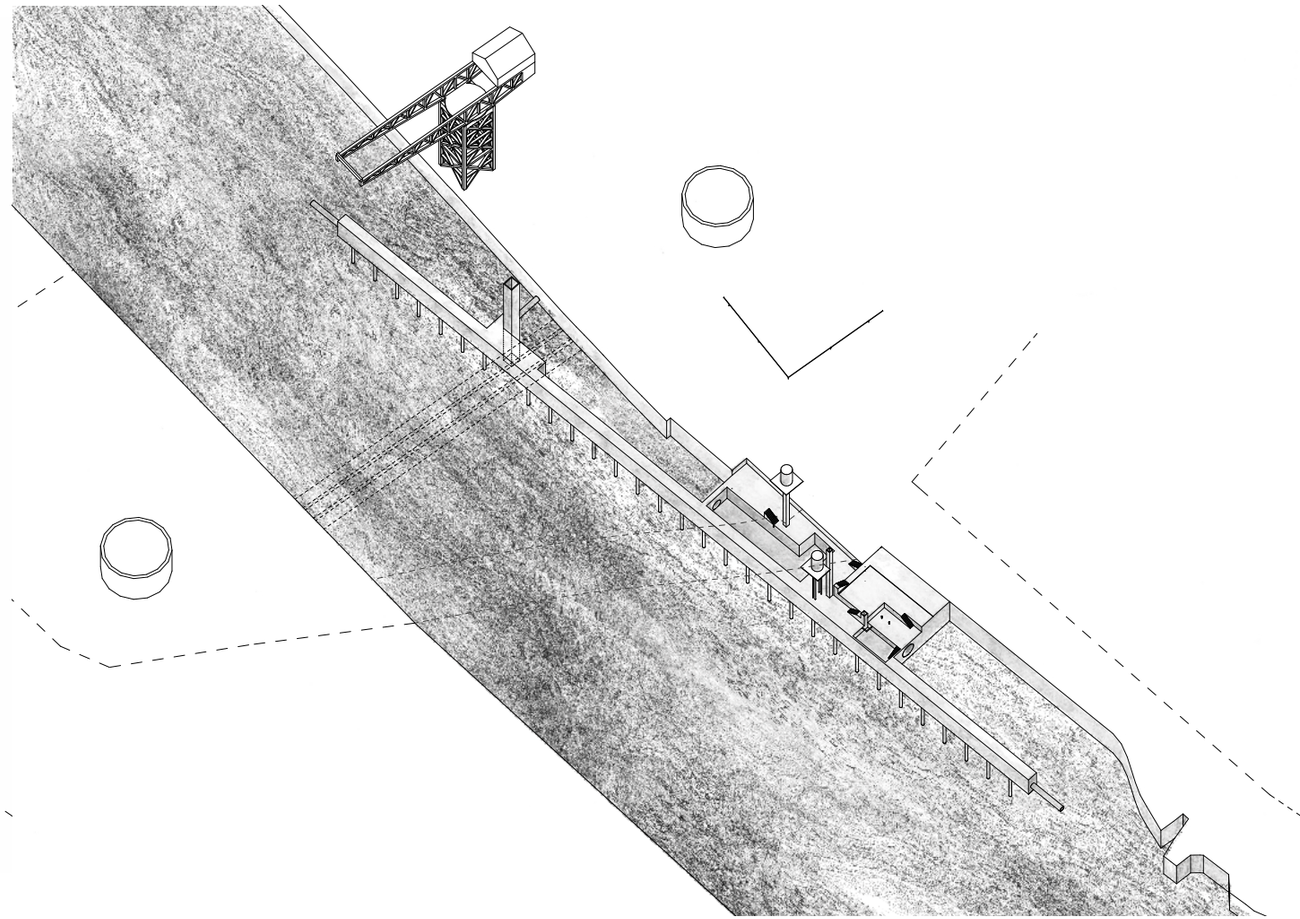


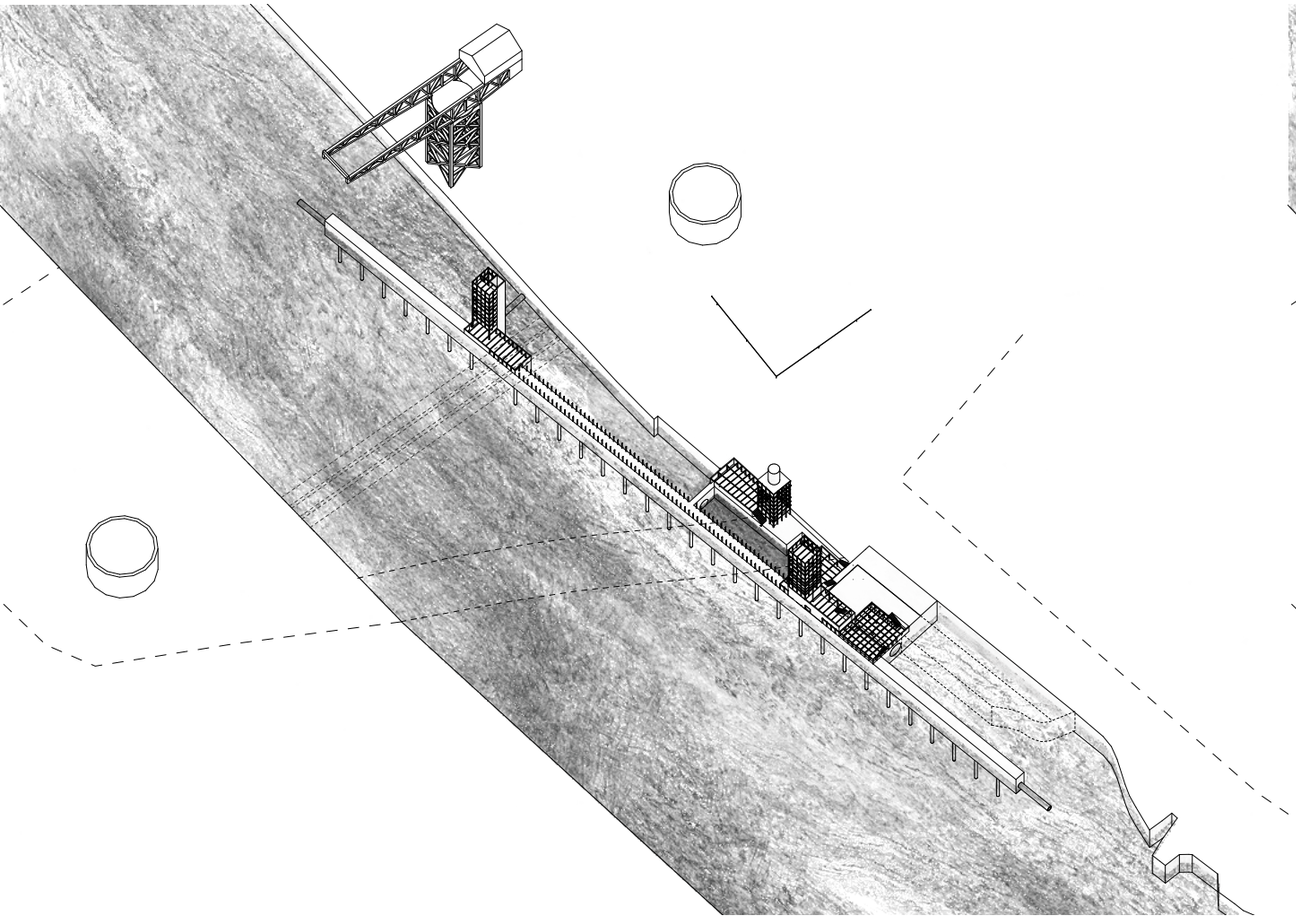
19.15pm low tide

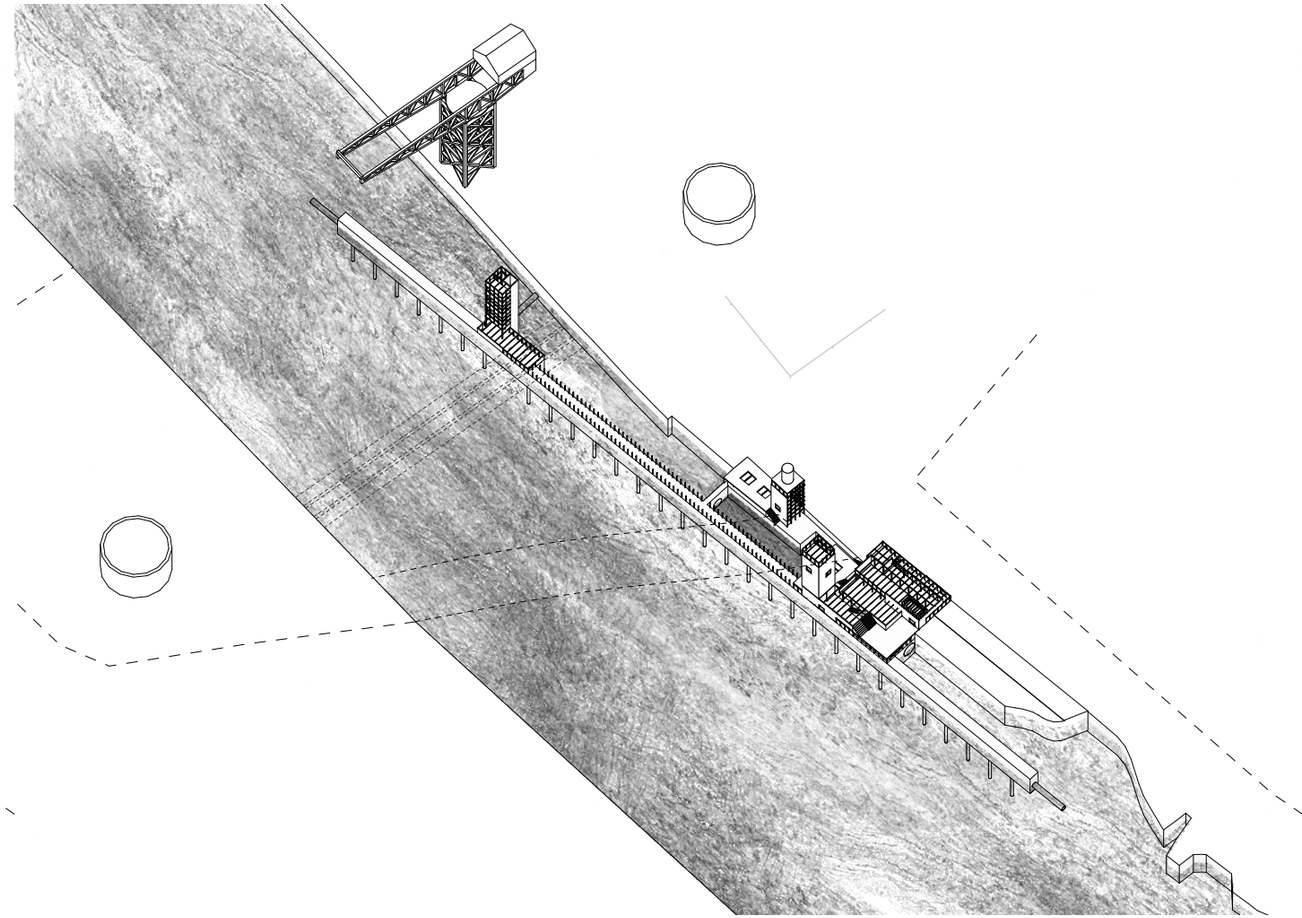
Inhabited possible wood workshop space

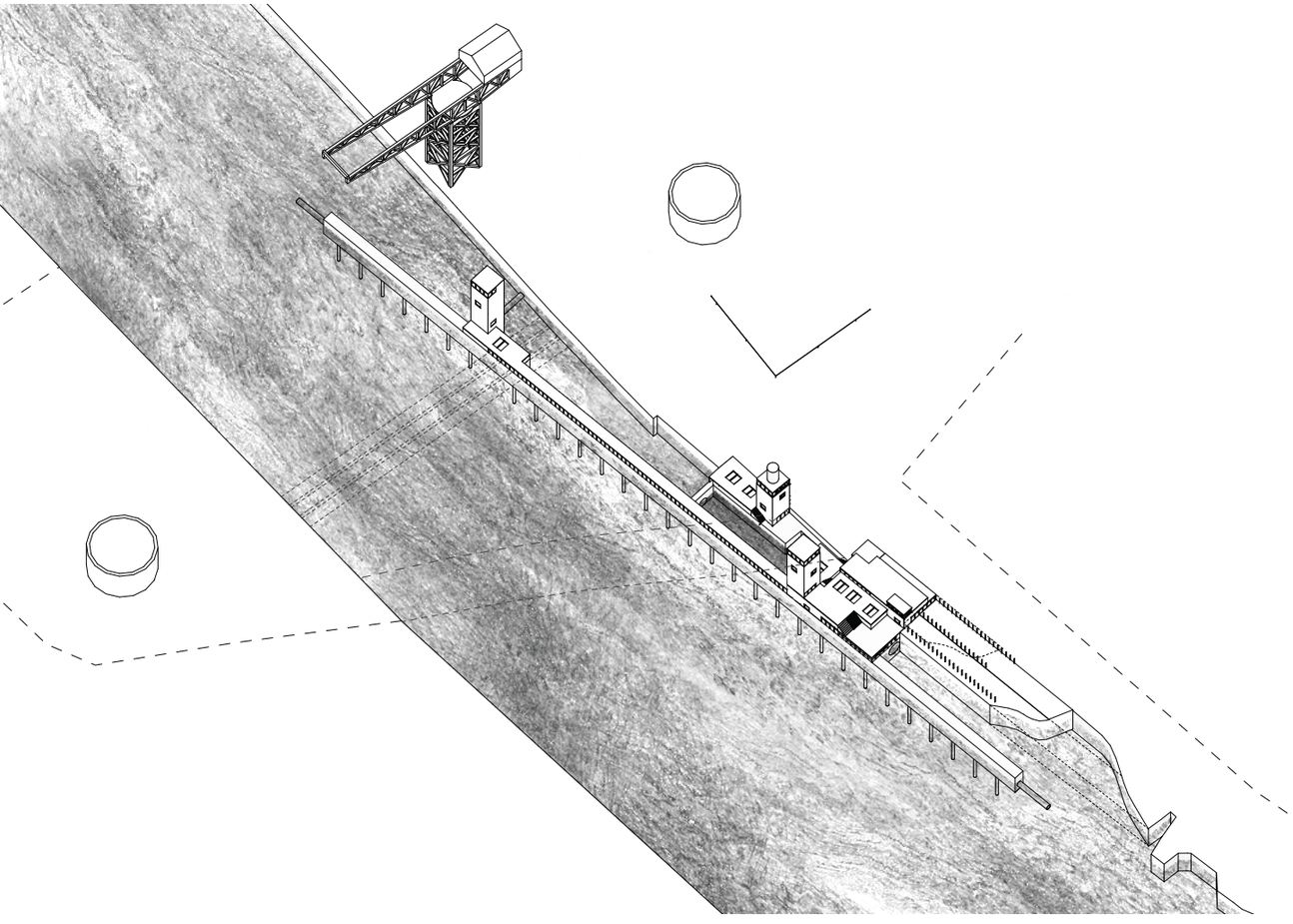
Appropriation

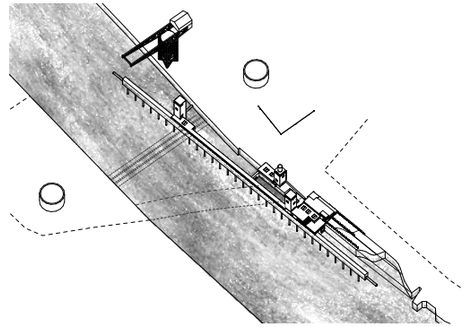


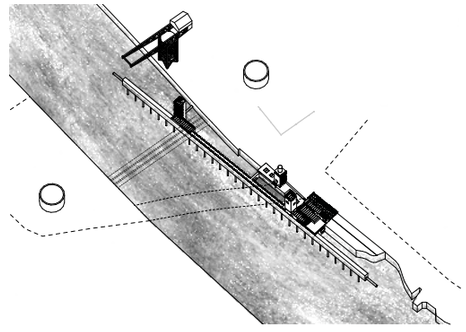


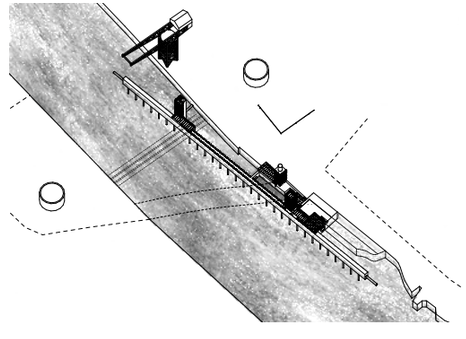


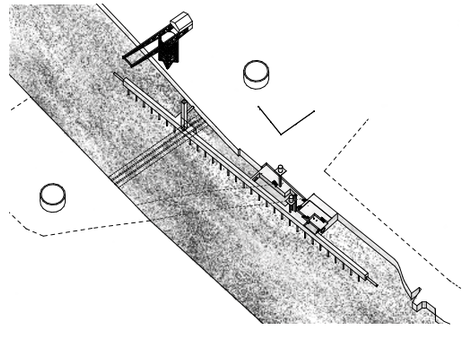








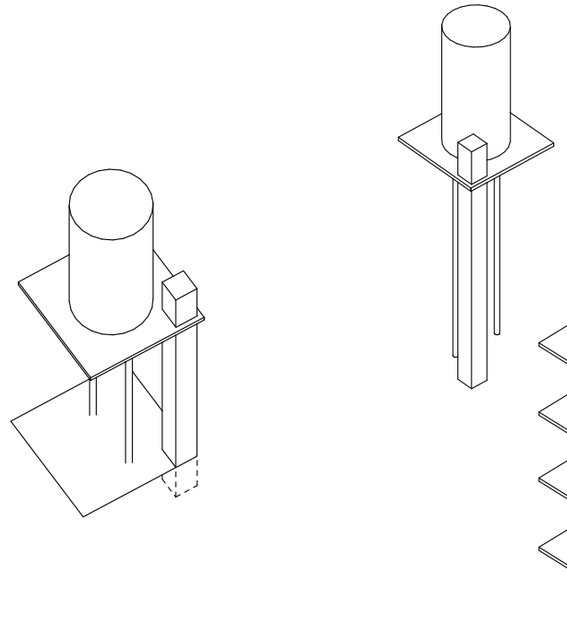


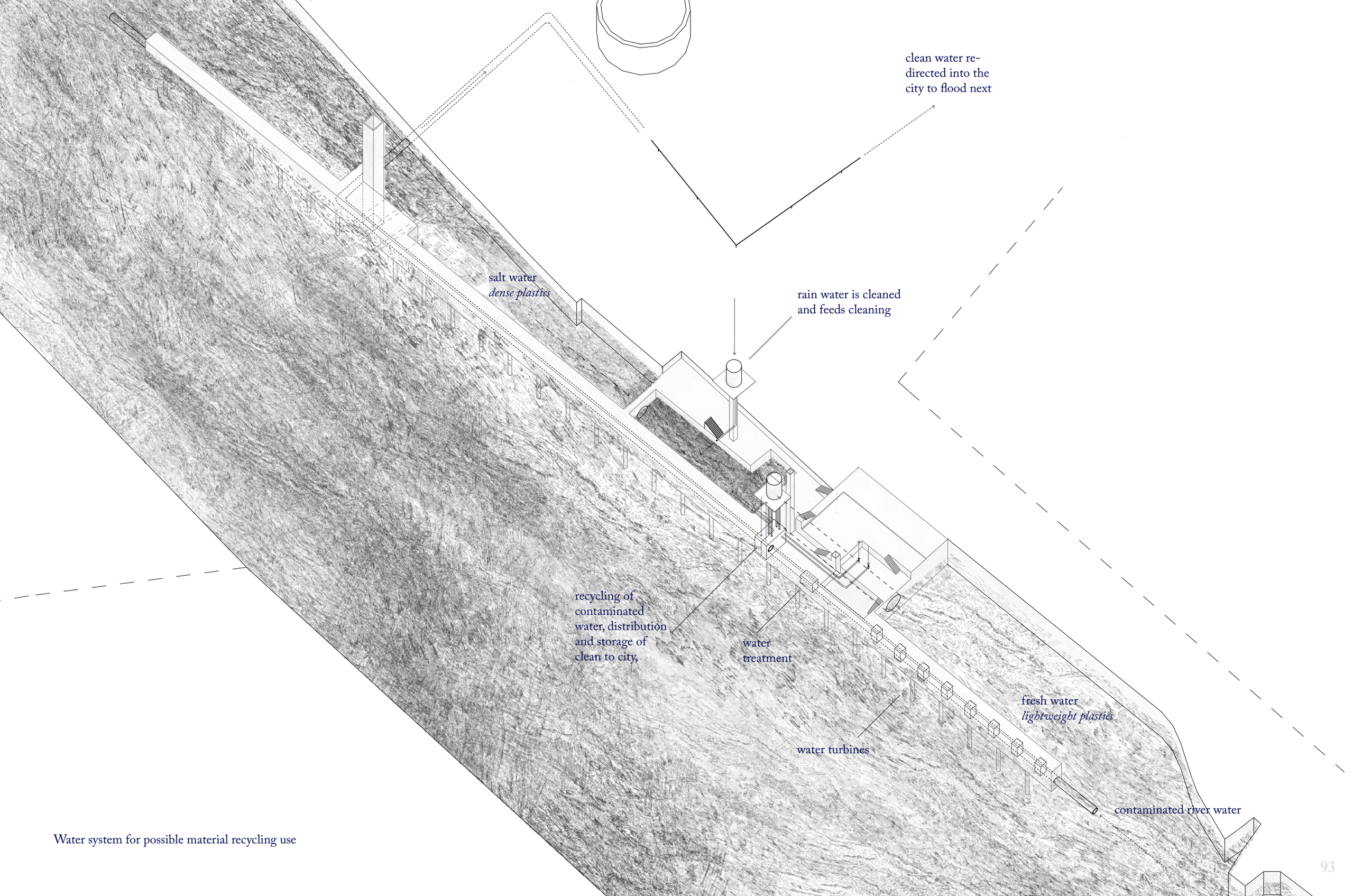


Water towers are also inhabited space (extending the exploration of inhabiting infrastructure) and in each scenario propose a function that supports the rest of the programme whilst becoming landmarks along the rivers edge that create a visual dialogue with the city. For example:

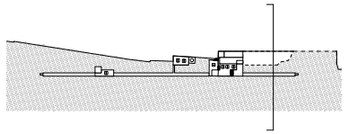
1. Bakery water tower: flour storage (silo) and workspaces
2. Workshop and recycling centre towers: observation tower / plastic storage / work spaces for plastic production (3D printers etc)
3. Baths tower: diving boards

Post-collapse, water towers remain, as a public space that instigates new social activity, appropriation, relations and unprivatisation.

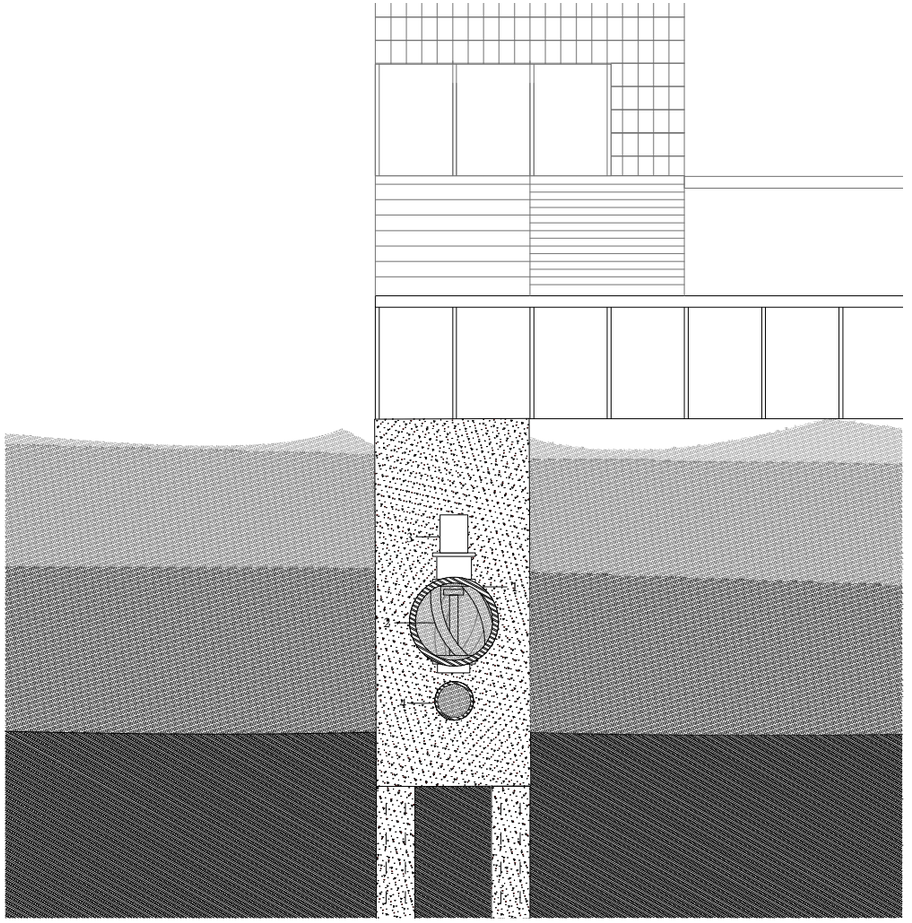




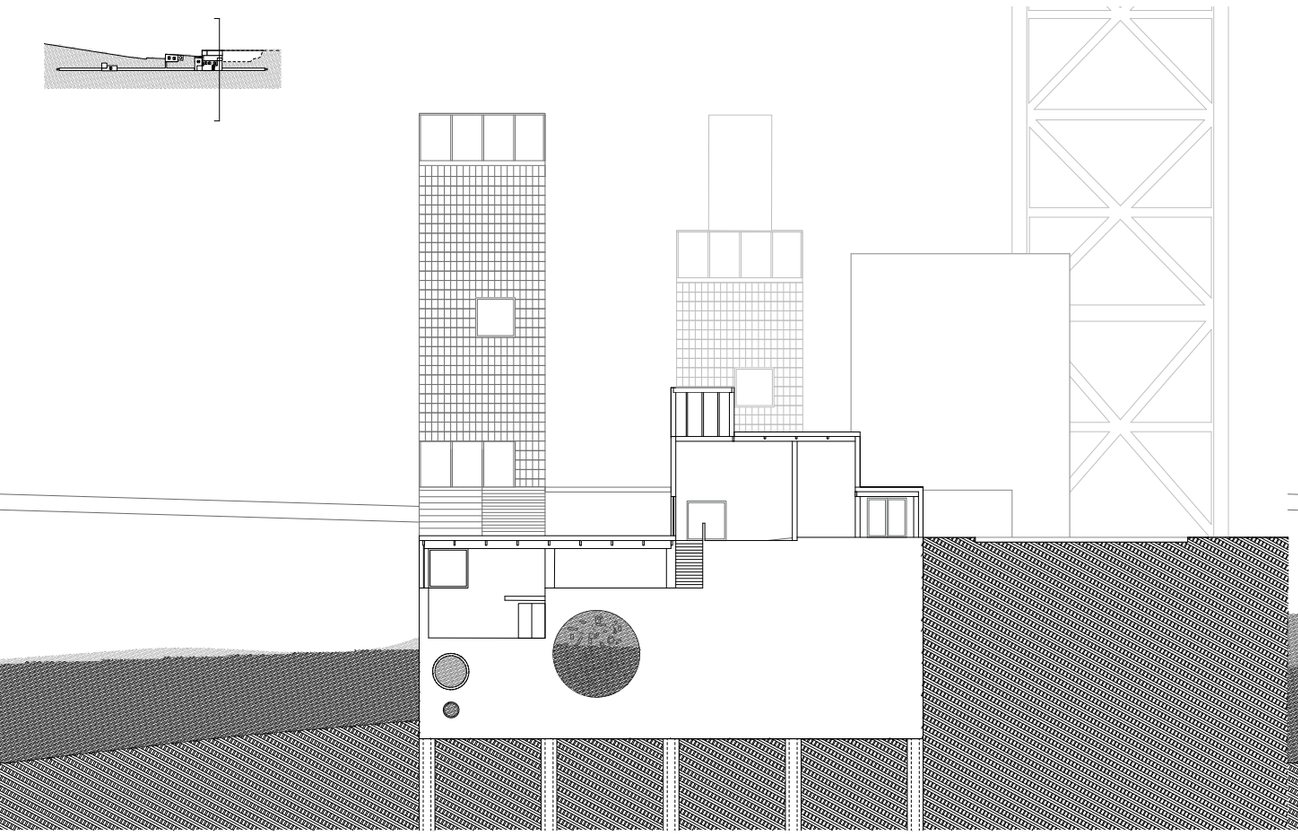
Water system for possible material recycling use



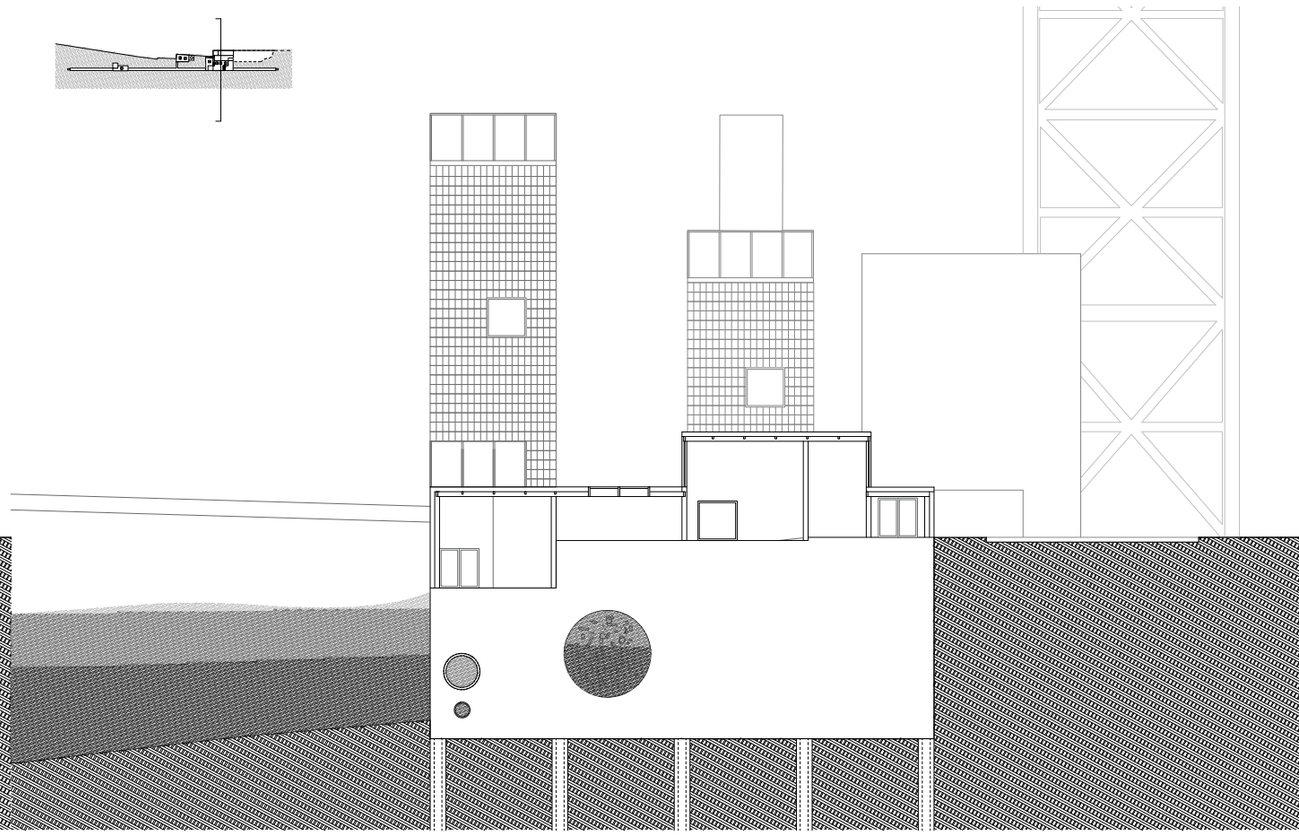
1. 2000mm diameter pipe
2. Turbine
3. Generator
4. 1000mm diameter bypass pipe



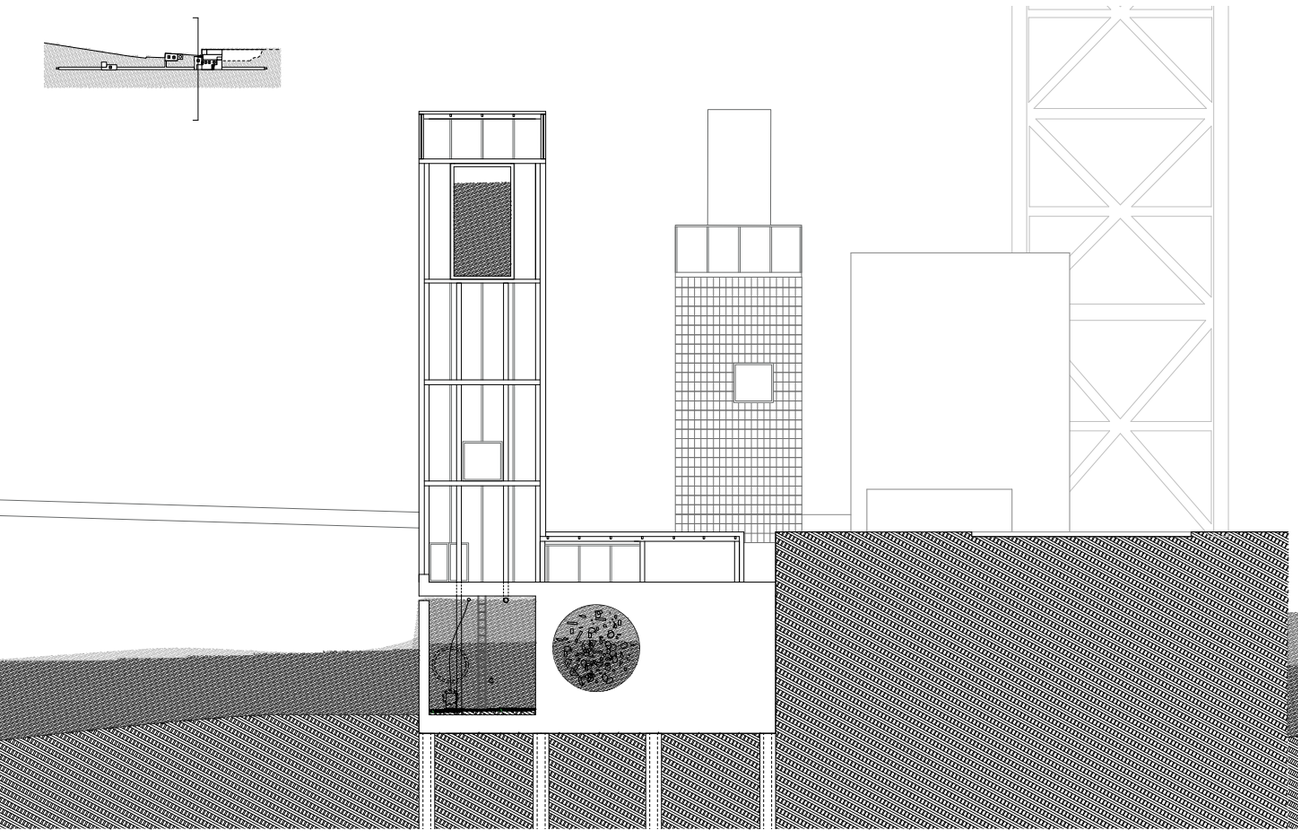
Section through river water pipe containing turbine that generates electricity



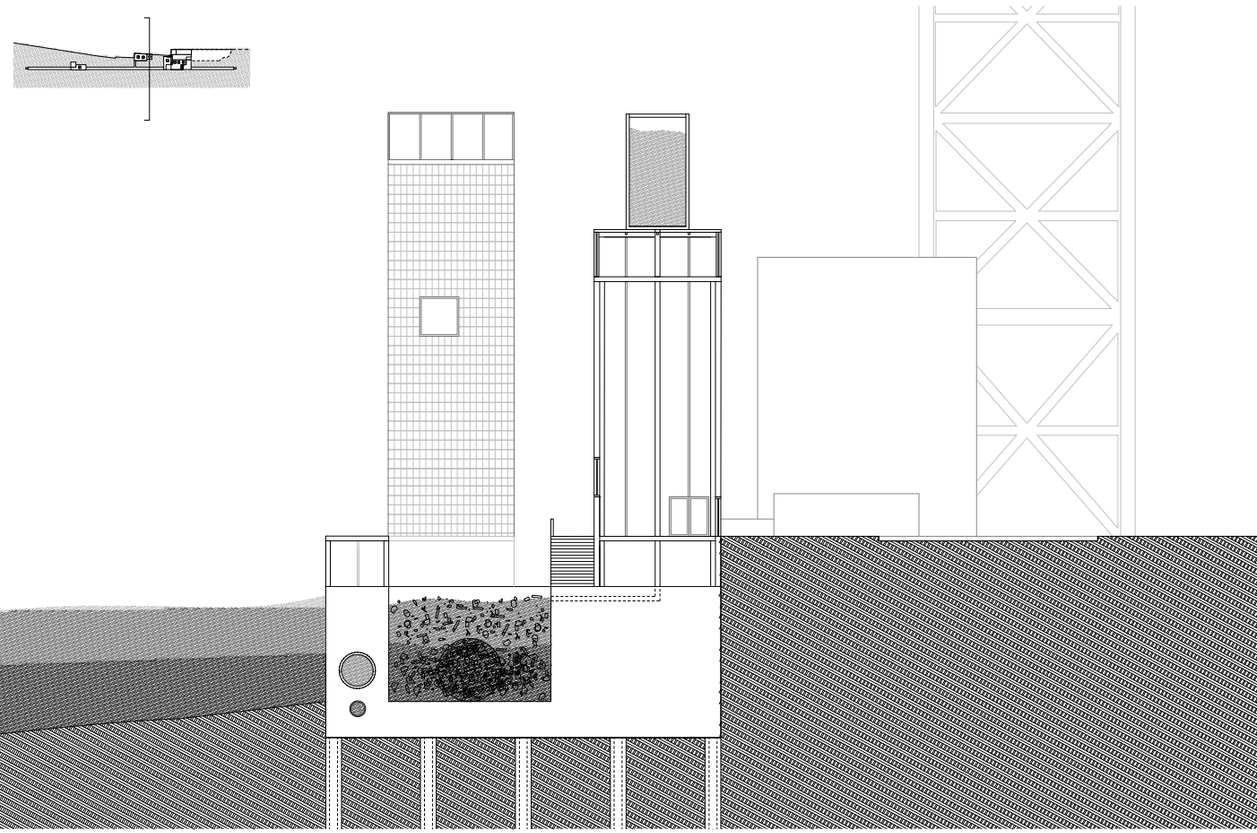
Section through possible pottery / ceramics workspace at 6.30am, low tide



Section through possible wood workshop space at 13.20pm, high tide

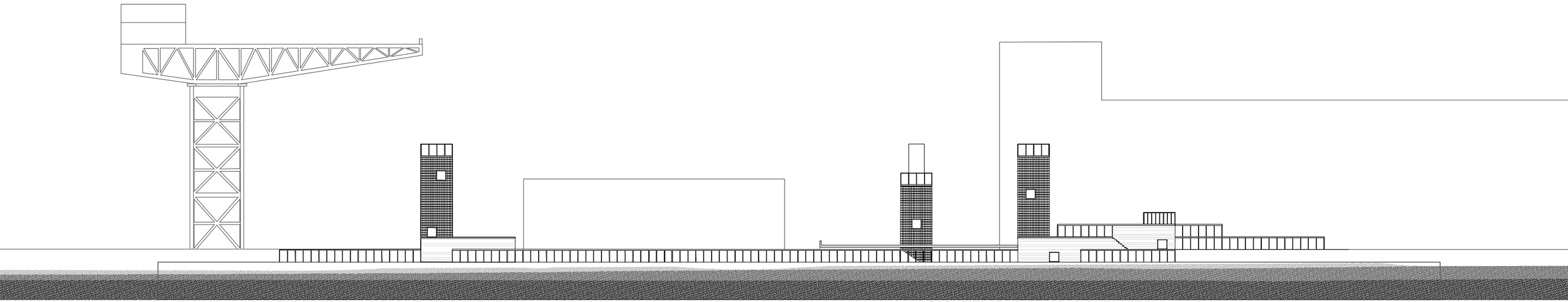


Section through water recycling tower and possible plastic design studios at 19.10pm, low tide

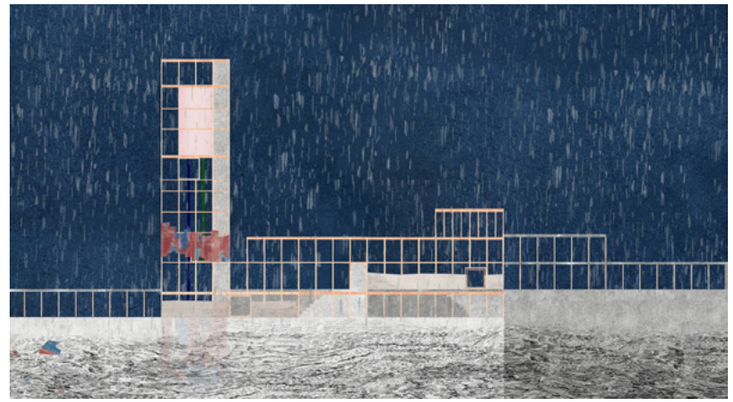


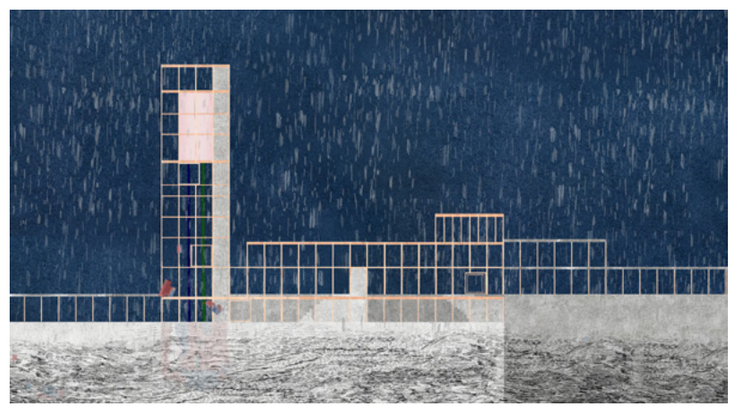
Section through rain water tower and recycling centre at 01.00am, high tide

Deterioration



Fragile elevation

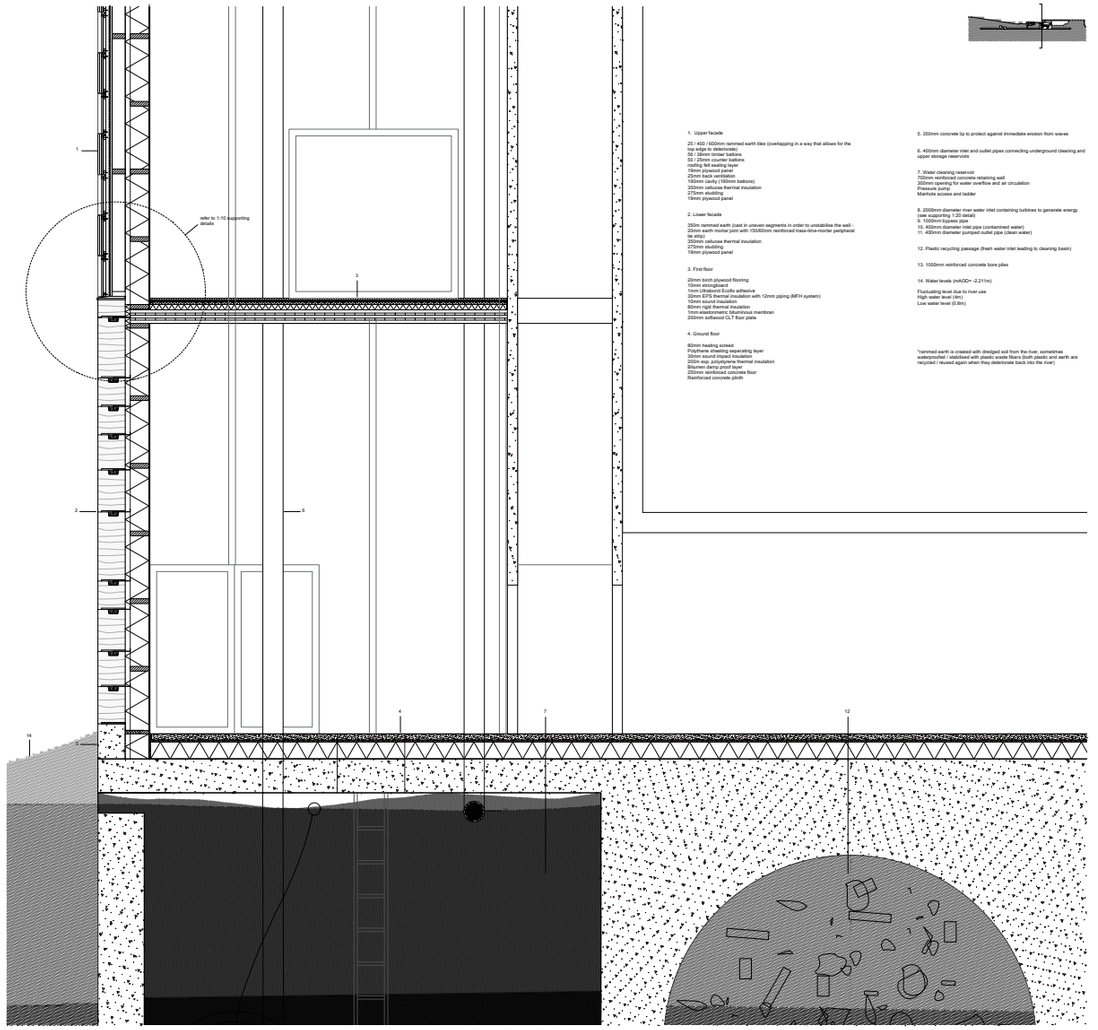




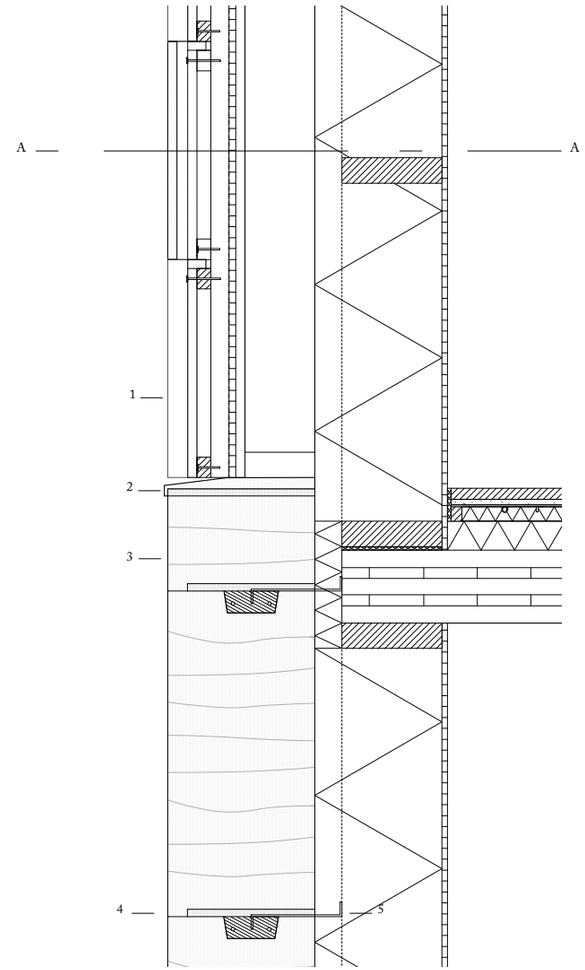
The walls of the temporal inhabitance that occurs on top of the concrete plinths that contain a system of pipes that can be plugged in and out of, is constructed from uneven layers of rammed earth.

Cast in uneven segments ensures that the walls will have a limited life span. Rammed earth is also normally stabilised with aggregates such as cement, which has been purposefully left out in order to maintain a state of fragility.

Rammed earth tiles clad the upper section of the facade, gradually washing away with the rain, revealing a timber structure that can be appropriated in different ways.



Vertical section through water tower



1. Rammed earth tile facade

25 / 400 / 600mm rammed earth tiles (overlapping in a way that allows for the top edge to deteriorate)
56 / 38mm timber battons
50 / 25mm counter battons
roofing felt sealing layer
19mm plywood panel
25mm back ventilation
190mm cavity (190mm battons)
350mm celluose thermal insulation
275mm studding
19mm plywood panel

2. Rammed earth cast flashing - preventing water penetrating the facade temporarily (deteriorates at a similar rate to the tiles)

3. Rammed earth block facade

50mm rammed earth facing that washes away before sections of the facade begin breaking down
350mm rammed earth (cast in uneven segments in order to unstabilise the wall)
350mm celluose thermal insulation
275mm studding
19mm plywood panel

4. 20mm earth mortar joint with 150/60mm reinforced trass-lime-mortar peripheral tie strip that allows for the wall to deteriorate in sections

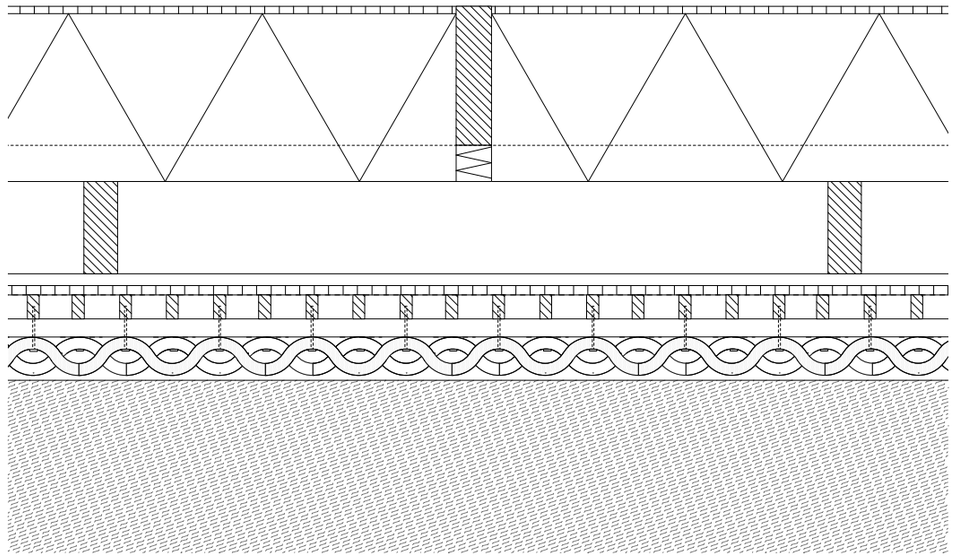
5. Point fixing to studding

Vertical section (junction between rammed earth block facade and rammed earth tile facade)

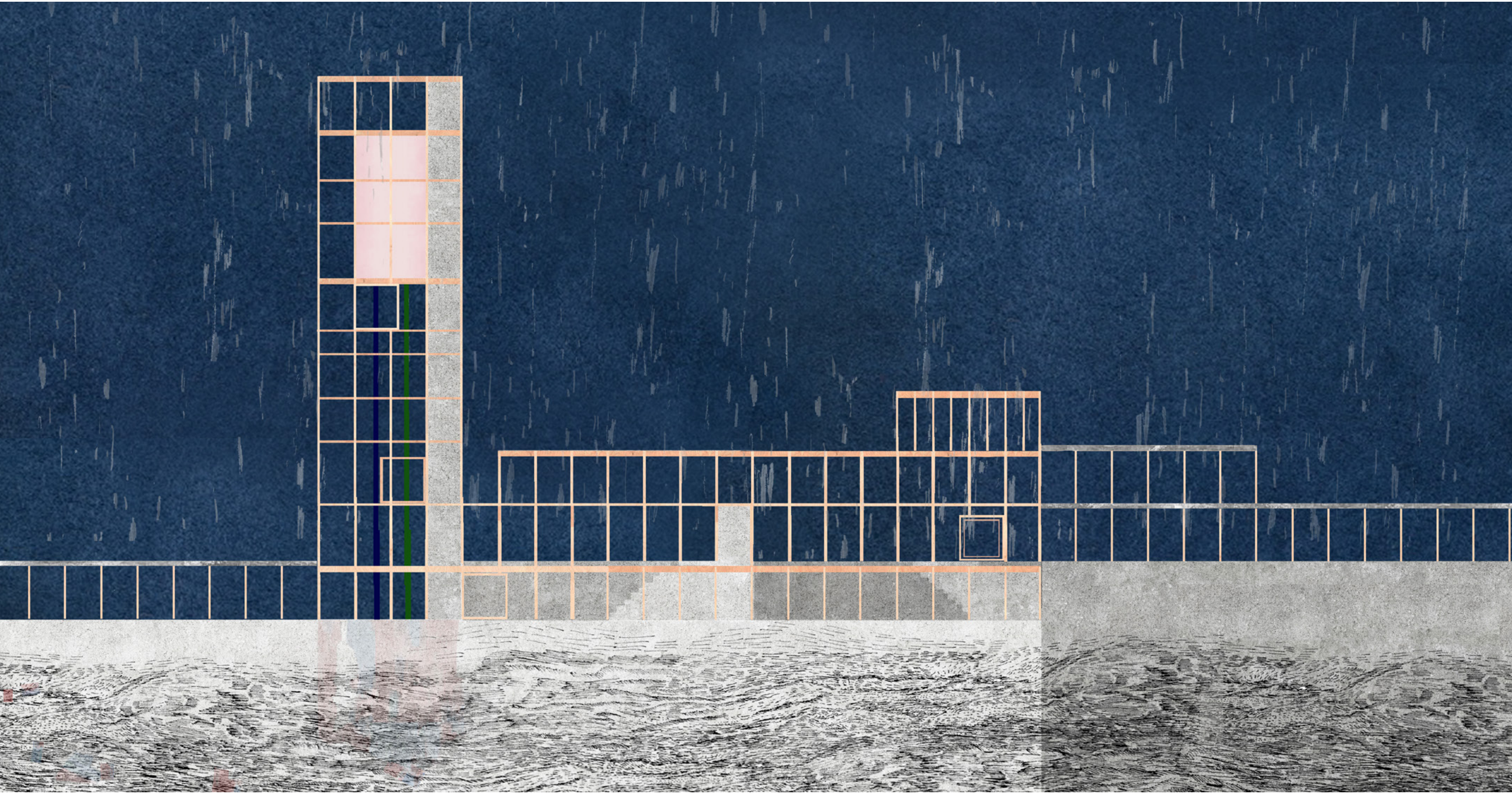
The rammed earth tiles are of a curved form so to ensure that the top edge of each layer of tiles is constantly exposed to rainfall, allowing for a deterioration process in which the facade slowly washes away.

1.

19mm plywood panel
275mm studding
350mm celluose thermal insulation
190mm cavity (190mm battons)
25mm back ventilation
19mm plywood panel
roofing felt sealing layer
50 / 25mm counter battons
56 / 38mm timber battons
25 / 400 / 600mm rammed earth tiles (overlapping in a way that allows for the top edge to deteriorate)

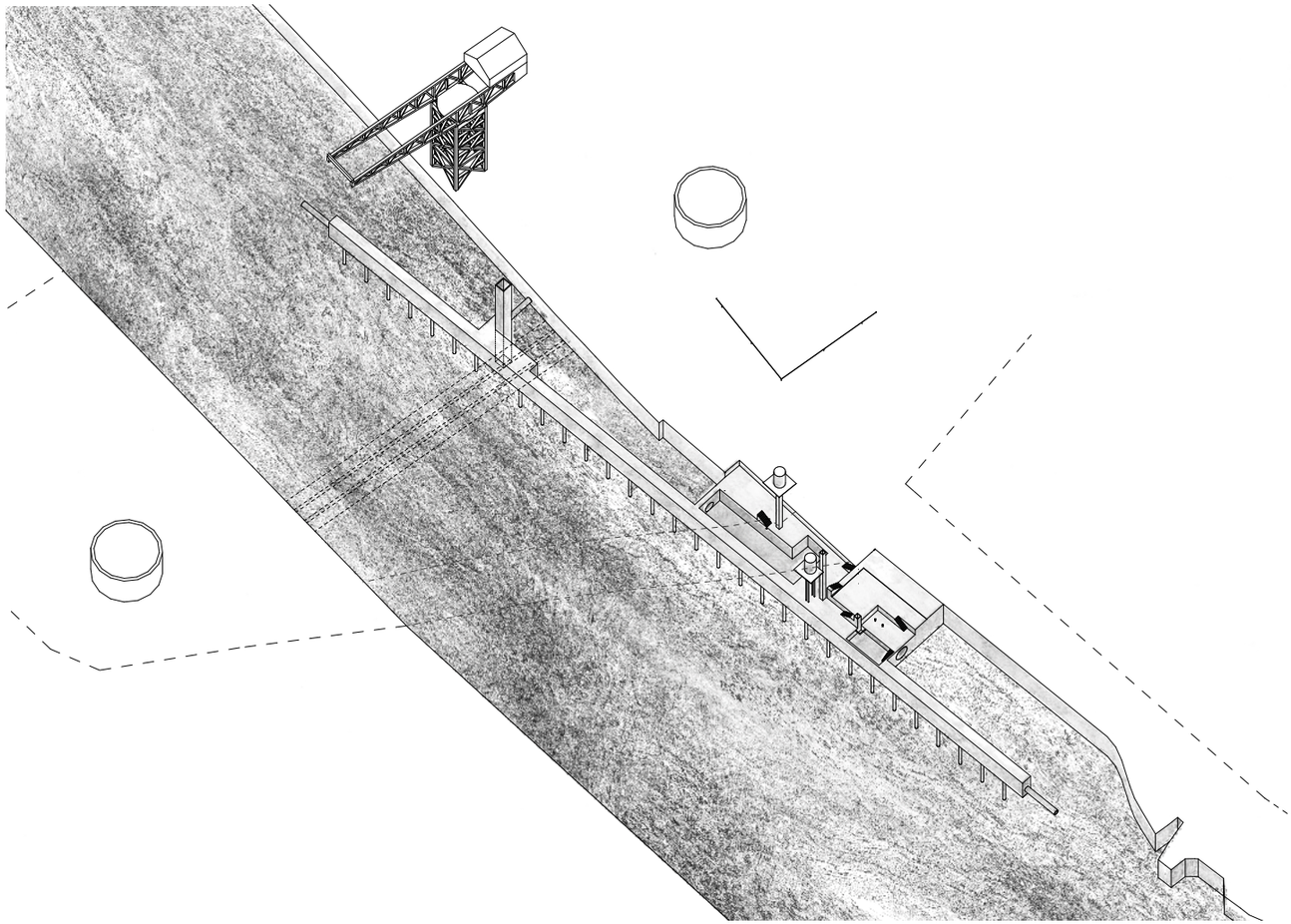


Horizontal section A-A (tile fixing detail)



A timber skeleton structure remains, on top of a concrete plinth to become appropriated / to deteriorate further
(the concrete plinth will always withstand water)

Water towers and plinths allow for the emergence of new forms of inhabitation



4. Fragile landscapes and edges

8. Emerging fragile edges and landscapes

Fragility is also applied to how the series of interventions operate as an infrastructural network that plugs into the city, disrupting regeneration processes at a larger scale. Each intervention maintains an infrastructural role by inhabiting / reactivating an existing piece of infrastructure: a wall, pipe, tunnel, dry dock and/or bridge. In different ways, at the same time as producing energy and using water to facilitate the evolution and transformation of social activity, each infrastructural intervention redirects water into the city with the intention of flooding the next piece of vacant land that is subject to speculation and redevelopment.

By flooding these disused landscapes, they become wet and uncertain, and unappealing to market forces. As long as these landscapes remain soaking wet, they delay or disrupt the process of redevelopment - its state of wetness will have to change (be drained), in order for it to promise the certainties that attracts investment interest. By becoming increasingly wet, they also allow for a network of (re)productive landscapes to evolve.

Flooding becomes a means of unprivatisation and land protection, claiming back public space in the city. The cycle of water allows for the evolution of identity, self sustaining landscapes, social spaces that can evolve in relation to changing functions and movement of people subversive to that of the homogenisation and privatisation that capital drives and is sustained by. Petrescu and Trogal explain: 'in times of austerity politics and the loss of waged work globally, in times of unprecedented migration flows and resources wars, it is reproduction, namely, how we sustain ourselves and our world that has become a 'political battleground"[1]. While Rory Hyde elaborates that: 'the unchallenged value of producing space is production itself"[2].

Each (re)productive landscape concerns the curation and enabling of economies of scale, manipulating what already exists (flows and walls) while facilitating a slowness, incrementality in terms of progressive, socio-spatial changes. Supporting the emergence of social, ecological, economic and political networks simultaneously, in support of one another.

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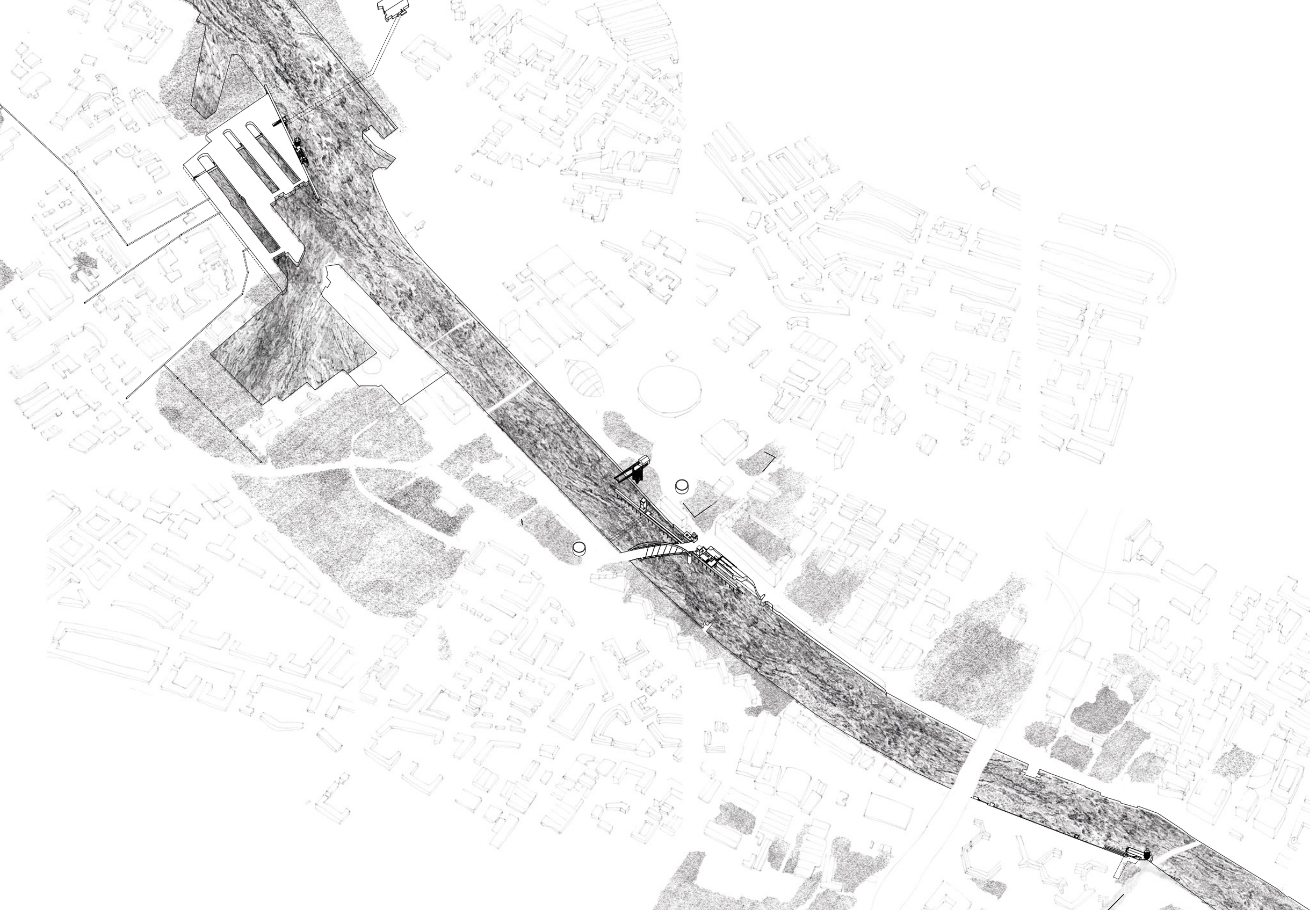
1 *The Social (Re)Production of Architecture: Politics, Values and Actions in Contemporary Practice, Ed. Doina Petreschu and Kim Trogal, 1.*

2 *Petrescu, Doina, and Kim Trogal. The Social (re)production of Architecture: Politics, Values and Actions in Contemporary Practice. London: Routledge, Taylor & Francis Group, 2017, 308.*



At the point in which the infrastructural system has fully collapsed again, a multiplicity of unstable and unprivatised spaces throughout the city will have evolved, allowing for the subversive cycle of socially (re)productive spaces to continue. The temporal inhabitance of the wall is a process whereby infrastructure is reactivated and extended as a means through which the city can be kept as wet as possible. By engaging with and then facilitating the continuous collapse of the quay walls will in turn allow for wetness to subvert market forces and support the natural evolution of public space, that will exist for as long as it can support local communities before private investment becomes a threat once again. Social spaces not only periodically support local communities but also act as a facade of regeneration, in order to attract the distribution of public funds (disguised private investment). The illusion of certainty draws public funding, but then the embedded uncertainty / fragility / curated life span ensures that they will not grow beyond their locality, become attractive to market forces and privatised.

As the quay walls collapse, the global city post-Brexit expands: public land can be claimed back, lines become unfixed, identities and place can emerge and evolve, north, south, east and west become more connected and our relationships with people and place can continue to evolve.

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