### UA300 EUROPAN 18 VÄHÄHEIKKILÄ, TURKU

**RE\_HYDRATION** 

#### What happens when water shapes a neighbourhood?

Proposed transformation for the Vähäheikkilä area aims to strengthen the area's identity while establishing a new urban node that supports both residents and visitors. The existing small-scale urban fabric is retained and integrated as a foundational element of the proposal.

The masterplan focuses on two different areas: the redevelopment of the former industrial area and infill construction of uninhabited land in between thr existing residential neighborhood. A central element is the new Vähäheikkilänraitti, a diverse landscape corridor arranged around stormwater management. This green axis connects the residential zones in the east with the denser western edge, forming a cohesive and walkable environment where water, vegetation and housing are interrelated components of the spatial structure.



### INFILL DEVELOPMENT

Infill development in the residential core is based on the existing urban structure, introducing a new layer that complements local characteristics. The approach emphasizes compact but well-considered building placement, maintaining space for green courtyards, park areas and continuous ecological connections.

# UA300

A diverse range of housing typologies — including small-scale apartment buildings, townhouses, semi-detached housess and urban villas — supports a mixed community. Proposed building heights increases from west to east in response to the topography and reinforces the urban presence at the intersection of Vähäheikkiläntie and Ispoisten puistotie.

The design references the existing small-scale urban fabric through scale, roof forms and materiality. Building positionings frame semi-private green courtyards that open toward the stormwater corridor, enhancing both ecological and visual connections. Along Vähäheikkiläntie, the northern buildings function as noise buffers while maintaining permeability. Stormwater is collected from roof surfaces and yards, then conveyed to the central corridor via bioswales and permeable surfaces.



Each block is complemented by a communal wooden pavilion that can be used as greenhouses, workshops or studios. Materiality emphasizes natural finishes, with muted wooden façades and pitched roofs suitable for PV panels and rainwater harvesting.



## UA300 INDUSTRIAL AREA RENEWAL

The former industrial area is redeveloped into a mixed-use neighborhood structured around sustainability, circular economy and layered urban character. The proposal introduces varied housing types, commercial services and open public spaces with a focus on inclusivity and green infrastructure.



Existing industrial buildings are retained and reused for workspaces, food production, housing and diverse public functions. The building at Vähäheikkiläntie 56 is proposed as a mixed-use building, with the ground floor opened toward the stormwater route to accommodate public-facing functions such as retail, events, and co-working. Residential units on the upper floors bring a continuous presence to the area.

New structures are introduced with attention to context and scale. The built environment is integrated with a network of public spaces — squares, gardens, and green corridors — that link the site to broader ecological and urban systems.

### UA300 STORMWATER LANDSCAPE AS URBAN INFRASTRUCTURE

The new stormwater management contributes to biodiversity, climate adaptation and serves as an intersection of human and non-human species.

Water is collected from roofs and surfaces and directed into the landscape corridor through a system of open swales and drains. Bioswales promote infiltration and support planting schemes adapted to variable moisture conditions. Above-ground storage systems allow water reuse for gardening.

Along the corridor, sedimentation basins and wetland purification zones (helophyte filters) treat runoff through natural processes. Vegetation includes native wetland species such as iris, cattail and marsh marigold, supporting habitat diversity and contributing to a resilient landscape structure. Aquatic and submerged plants further enhance environmental performance and visual character.



- 1. The shape and placement of the environment and buildings are not based on a predetermined system, but rather emerge as a response shaped organically by the conditions set by nature.
- **2.** Storm water wells are set to a height where they collect overflowing water In flood situations
- 3. Recycling rainwater in urban areas is important and a great way to start is by disconnecting downpipes from the stormwater system. The water can be used for watering plants or slowly absorbed into the ground through a bioswale. This creates a new type of zone in the garden, ideal for plants that thrive in moist conditions. Water is the foundation of all life. It serves as a breeding ground for many insects and amphibians, offers a source of drinking water and shelter for animals, and inspires wonder in people.
- 4. Lightweight structures make it possible to allocate functions in direct proximity to nature and water.
- **5.** Rainwater is collected in tanks for irrigating edible gardens and maintaining the yard.
- 6. Collecting rainwater helps reduce the load on the stormwater system. The stored water can also be gradually infiltrated into the ground in a controlled manner, for example during heavy rainfall. Placing vegetation that tolerates varying moisture levels supports biodiversity throughout the year.
- Using damns to regulate the flow of water and collecting it to pools. Cleaning pools allow debris to sunk to the bottom cleaning the storm water.
- Old storm water pipe as a foundation for connecting bridges. Rebar mesh as the bridge floor.
- 3. The pool houses a helophyte filter which supports a rich assortment of native shoreline plants. These plants, along with the diverse aquatic life growing in the water, work in harmony to naturally cleanse the water. Within the pool, both floating and underwater plants thrive in the specific water depth.
- **4.** Retaining wall acts as a resting bench while protecting the surrounding ground material from erosion.

Storm water management principles

