

## Pop-up park design in Gåsebäck industrial area: A strategic and proactive approach to an urban transformation project

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transformation project

Pop-up park gestaltning i industriområdet Gåsebäck:  
En strategisk och proaktiv metod för ett kommande  
stadsomvandlingsprojekt

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## Abstract

The post-industrial area Gåsebäck in Helsingborg will undergo an urban transformation. When and how this will happen is uncertain, but the objective is to create a mixed-use district in which culture, businesses and residents will coexist. As there is a sense of stagnation in the area today, both locals and the municipality want something to happen in the short term. The municipality would like to introduce more vegetation to the area, but as the area consists mostly of hard surfaces or contaminated soil, this is a challenge.

This thesis investigates how urban developers can work strategically and proactively toward placemaking through prototyping and temporary installations, in a context characterised by great uncertainty. By understanding ‘place’ through a framework of temporality, heritage, memory, and assemblage theory, the values and impact of temporary design have been explored in the context of Gåsebäck. To enrich the discussion on transforming post-industrial areas, this thesis draws parallels with Norra Sorgenfri in Malmö, a comparable industrial district characterised by fragmented land ownership, in which the municipality has had difficulties in realising its urban development vision.

Through insights from literature, site visits, site analyses, and reference projects, two design proposals have been developed. These proposals aim to increase vegetation in the area, highlighting Gåsebäck's industrial heritage, partly through incorporating upcycled materials, and in minor ways enhancing a sense of connection between Gåsebäck and the rest of Helsingborg.

## Sammandrag

Det postindustriella området Gåsebäck i Helsingborg står inför en stadsomvandling. När och hur detta kommer att ske är osäkert, men målet är att skapa en blandad stadsdel där kulturella verksamheter, företag och invånare kan samexistera. Då området idag präglas av en känsla av stagnation, vill både kommunen och aktörer som verkar på platsen att något ska hända på kort sikt. Kommunen vill introducera mer grönska i området, men eftersom Gåsebäck i stor utsträckning består av hårdtor och förorenad mark, är detta en utmaning.

Denna uppsats undersöker hur stadsutvecklare kan arbeta strategiskt och proaktivt med platsskapande genom prototyper och temporära lösningar, i en kontext präglad av stor osäkerhet. Genom att förstå begreppet ’plats’ med hjälp av ett teoretiskt ramverk bestående av temporalitet, arv, minne och ’assemblage theory’ har värdet och effekterna av temporär design utforskats utifrån Gåsebäck som sammanhang. För att berika diskussionen om omvandling av postindustriella områden drar arbetet paralleller till Norra Sorgenfri i Malmö, ett jämförbart industriområde med fragmenterat markäggande, där kommunen haft svårigheter att förverkliga sin vision.

Genom insikter från litteratur, platsbesök, platsanalyser och referensprojekt har två designförslag utvecklats. Dessa förslag syftar till att öka grönskan i området, lyfta fram Gåsebäcks industriella arv, delvis genom användandet av återbrukade material, samt bidra till att stärka kopplingen mellan Gåsebäck och övriga Helsingborg.



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## 1. Introduction

Gåseback is one of the main industrial areas of Helsingborg. It used to house a variety of companies and industries, ranging from carpentry to coffee, from satin manufacturing to banana importation and distribution (Helsingborgs stad 2024). The city is planning to convert the area into a residential district and a cultural centre.

Today Gåseback is still the home of several businesses, stretching from automobile repair shops, to secondhand stores, and advertising agencies. The site also houses an addiction center, as well as a homeless shelter. It is not uncommon to see homeless people in the area. The pentecostal church is present in the area, with both a church and a secondhand store. Furthermore, many artists, bands and other creatives reside in Gåseback, which is something that the city seeks to promote and support.

There is not yet a plan for how Gåseback will be developed, but it will be done gradually over time. However, both the city and the people active within the area want something to happen now. The city is especially interested in how more vegetation can be introduced to the site, which consists mostly of hard surfaces and is severely contaminated.

The objective of this thesis is to better understand how an old small-scale industrial area can be developed without losing all of its existing values, in circumstances of uncertain implementation.

### Aim

The aim of this study is to develop a set of strategies and proposals for urban planners in Helsingborg to proactively, in a short to medium term, increase biodiversity, enhance the sense of connection to the city, and make visible the site's industrial heritage, before the urban transformation of Gåseback begins.

A permanent park can only be constructed in Gåseback after the urban transformation of the area has begun. Since it is unclear when said urban transformation will take place, planting modules containing the plant material for a future park have been designed. These modules make it possible to promote biodiversity and synergise place values like materiality and character, through temporality. Furthermore, the plant material in the modules, like shrubs and trees, are able to grow and create a biologically functioning soil. This soil can potentially be

valuable in replacing parts of the contaminated soil in Gåseback. As the city's resources are limited, the plantings should be as low maintenance as possible, and consist of mainly reliable plants that are likely to survive for a long time. The project is a way for city developers to get a head start in park construction, adding much-needed vegetation to an industrial area with an abundance of hard surfaces.

### Sustainability

The city of Helsingborg is working toward the UN's sustainable development goals (SDGs) with the aim of becoming sustainable by 2035. The three pillars of sustainable development are environmental, social, and economic sustainability (Helsingborgs stad 2024b). Gåseback is part of the city renewal project H+, which seeks to densify and develop the central parts of Helsingborg into a sustainable city (Helsingborgs stad 2023, p. 5). This thesis focuses on the environmental and social aspects of sustainability, specifically SDG 11: Sustainable Cities and Communities. SDG 11 calls for resilient cities with green and culturally inspiring living conditions (The Global Goals n.d.).

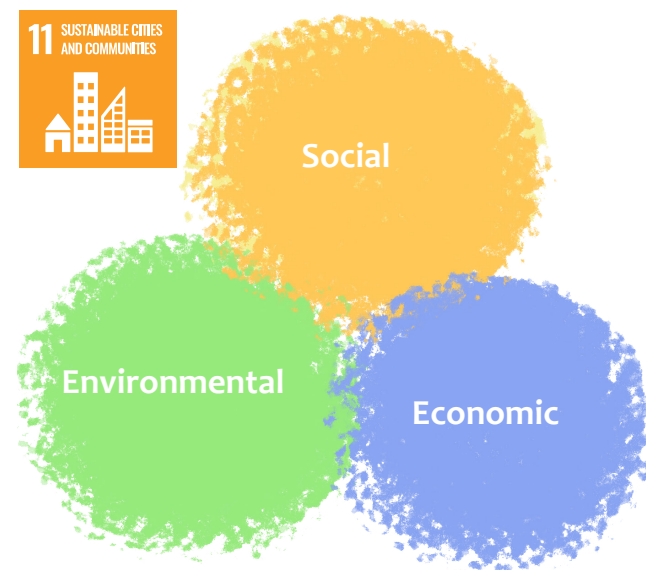


Figure. 1. The three pillars of sustainability.

### Research question

- How can city developers work strategically and proactively towards placemaking, in preparation for an upcoming urban transformation project?

## Limitations

The study has been carried out during 20 weeks. The scope of this study is limited to biodiversity and industrial heritage. There will not be a major focus on the technicalities of the design.

There are many effects derived from urban transformation projects, like gentrification and the pushing away of marginalised groups. While these are important considerations, they are beyond the scope of this study.

The target audience for this thesis includes students, urban planners, landscape architects, municipalities, and other stakeholders involved in developing industrial areas.

## 2. Theoretical framework

### Place according to J.B. Jackson

According to J.B. Jackson (1995), sense of place in its modern definition is used to describe the atmosphere of a place. Certain places have an attraction which gives visitors an indefinable sense of well-being. It is this feeling that makes us want to return to those localities. Jackson believes that it is not so much the architecture that creates a sense of place, rather it is the daily, weekly or seasonal occurrences and events related to a site. In turn it is the ritual repetition and the sense of fellowship with other people that develops the sense of place. In actuality what we share is the sense of time. Through repetition of certain rituals on certain days or seasons, we commemorate the passing of time and produce spaces and structures (Jackson 1995).

### Assembling place

One way to define ‘place’ is as places of gathering. Places have a relation to their surroundings. Places gather things, people, emotions, memories, etc., and create an ‘assemblage’. An organic structure could be defined as an assemblage, but there is a key difference between the two. In an organic structure, the different parts are required for the structure to function. In an assemblage, parts can be replaced or removed. The pieces are not structurally necessary, but together they create a unique ‘whole’ (Cresswell 2015, pp. 52-53). Dovey (2009) illustrates this point well, using a street as an example. According to assemblage theory, a street is not just a street; it includes its surroundings, like the buildings, trees, cars, sidewalk, and people. All these elements, and the connection between them, is what makes a place or an assemblage. The connections that exist there is what distinguishes it from other assemblages, like parks, squares, malls or freeways. Furthermore, assemblages are dynamic. The trees and people will eventually die, buildings may be demolished, and these events may change the character of the street, but it will still be a street. These flows of life and change is what gives the street its sense of place (Dovey 2009, p. 16).

### Design in accordance to assemblage theory

Design is often thought of as a solution to a particular problem. In assemblage theory, flows of desire is that which dictates design. A design is situated within a larger perspective, where the outcome is subject to multiple and changing desires over time. Whatever

the initial purpose, an object or environment has the capacity to adapt to alternate needs. For example, a set of stairs is not a thing, but a set of relations. It can be the relation between the steps, the relation between stairs and people, or something else. The flows of desires in relation to the stairs can be to climb the stairs, to sit, to dance, etc. (Stevens et al. 2024, p. 98), and so the assemblage of the stairs has changed its initial purpose, in accordance with flows of desire.

Stevens et al. (2024) explain assemblage as a realist philosophy, but one which encompasses possibilities that may or may not occur. The authors understand the city as a space of possibilities, through the concept of ‘capacity’. The capacity of a public space can both be the material capacity to accommodate activity, and the capacity of the users to attain their desires (Stevens et al. 2024, p. 97).

### Place and memory

Memory and places are intertwined. One of the main ways in which memories are formed, and preserved, is through the creation of places. The materiality of a place helps in keeping a public memory. In a place, we are taking in the surroundings through our senses. The complicated nature of place, i.e. of all our senses responding to a place, helps in the production and reproduction of memories. Places can have the ability to make the past come to life in the now (Hayden 1995 see Cresswell 2004, pp. 85-86).

### Past

The past is embodied in the landscapes we create. There is something comforting about products which evoke a sense of the past. Hindsight and overview let us understand the past in a way which is more comprehensible than understanding the ever shifting present (Lowenthal 1975, pp. 6-7). Lowenthal (1975:11-12) states that “the relics we see need not be historically true or accurate; they need only convince us that we are connected with something that really did happen in the past” (Lowenthal 1975, pp. 11-12).

### Heritage

Heritage is a concept which can be moulded to serve different purposes (Riesto & Tietjen 2019, p. 246). Landscape architecture can contribute to heritage-making by developing a collective narrative, integrate natural and cultural heritage values, or make conflicting heritage interests visible (Riesto & Tietjen 2019, p. 256).

### Temporality

In a world where the future is uncertain, and societal and technological innovations rapidly change the way we live, I claim that temporal efforts will be an important measure to achieve sustainability. Bishop (2012) suggests that temporary initiatives can be assumed to be non-sustainable, and imply a ‘throw-away’ attitude. However, many temporary installations embrace principles of sustainable development, e.g., through the re-use of materials. Temporary activities may make visible a more effective use of land and buildings (Bishop 2012, pp. 213-214). Temporal efforts can both have an intrinsic value, and fit into long-term strategies of urban renewal. Further, they can shape long-term strategies in unanticipated and interesting ways, and ultimately lead to a richer urban ecosystem (Ibid., pp. 215-216). If designers, architects, urban planners, and policy makers adopt iterative strategies for urban change, both the desire for a better future and a better present can be met (Ibid., p. 220).

Temporary activities seem to work best in the inner city, in places where there are voids or free space. They thrive in areas where the ownership of space is more ambiguous, and where there is less regulation. In cities where the urban form is corporate and suburban, and where the streets are catered toward motor cars rather than pedestrians, the possibility for temporary activities to occur is less likely (Ibid., p. 214).

### Prototyping

Due to the future being uncertain and global challenges looking greater than ever, planning is becoming increasingly experimental in Swedish municipalities. This newfound interest comes in part from insights about the ways in which places are unique, in the sense of their qualities, history, context, challenges, etc. (Dahl & Helsing 2023, p. 6).

The place development process used by the city of Gothenburg is based upon three strategies. Temporary prototypes, the places existing values and the people who are active in the area, and thirdly working with the time which exist between the now and the planned future. To achieve a positive result, it is essential to work with all three strategies. Prototypes enable projects to begin at a smaller scale, and realise parts of what is promised early in a development project, rather than making big plans which are not followed through (Dahl & Helsing 2023, p. 8).

Having people participate in the prototyping can develop a relation between citizens and the place that

is being developed. In turn, this can create a sense of ownership, which makes the citizens care about the place, and want to participate in its development (Dahl & Helsing 2023, p. 8).

It can be difficult to see the values of prototyping, precisely because they are temporary. However, all places change, and different parts of the development process can exist in parallel, while having differing timespans. This way of thinking allows for prototyping as a method in place development. By adopting prototyping, Swedish municipalities can contribute to society developing more dynamically (Dahl & Helsing 2023, pp. 10, 13).

### How prototyping is done

A prototyping process begins through an initiative. Either a place is in need of development, or there is a need which requires a place. To understand a potential need it is necessary to converse with the target group or, in the absence of such a group, with somebody who has worked with accommodating said need. The place development method of ‘prototyping’ is most effective in the context of an area which is about to be developed, where there is a set time for when the development will start and end (Finlöf 2023, p. 45). When the prototype is built it is necessary to maintain it, and potentially adjust it to make it function better. It is necessary to save some funds for this part of the prototyping process. Finally, to activate the prototype, it may be necessary to inform people of its existence. When it is time to disassemble the prototype, it is essential to document and discuss how it was received with everyone involved (Ibid., p. 49).



### 3. Method

This research project utilises a constructivist research through designing (RTD) method, as defined by Lenzholzer et al. (2013). Constructivist research is about addressing the situational and complex interplay between humans and their environment, identifying problems and generating new insights or constructs to address said problems. The central research questions of this method aim to discover what concepts related to a place can be conceived, and how these concepts relate to the social and physical context. Additionally, the research explores how the conceptual ideas can be communicated through design, and the expected reactions to the design. The strength of constructivist RTD is its flexibility, allowing for solutions aimed at particular contexts (Lenzholzer et al. 2013, pp. 123-124).

Design has been used as the primary method for answering the research question. The design process consisted of site analyses, reading relevant literature concerning temporary initiatives, the heritage of the site, making decisions on what type of vegetation to introduce, and continuous sketching. To enrich the discussion, insights were drawn from the Norra Sorgenfri project in Malmö; an area with a similar context to Gåsebäck.

#### Context

To develop an understanding of Gåsebäck and provide the context for this thesis, site visits and site analyses were conducted. Additionally, the report Gåsebäcks själ has been an important cornerstone of the thesis, for understanding the needs and opinions of the people active within Gåsebäck, and the city's vision for Gåsebäck. The document contains visions, development principles, interviews and more. Exploring Gåsebäck's history and reviewing at historical photographs has been an important source of inspiration for the design process.

Two site visits to Gåsebäck were performed to gather photographic material and analyse the site with regard to its historical and ecological values. Complementary site visits were done virtually through Google street view.

Maps of Gåsebäck and its surroundings have been used as analytical tools, placing Gåsebäck in a wider context.

#### Reference projects

Two types of reference projects were utilised: one which concerns the transformation of an industrial area, and another dealing with temporary installations. Norra Sorgenfri served as the reference project for the transformation of an industrial area. Davidshallstorg in Malmö and Botulfsplatsen in Lund inspired the design of my temporary planting modules. Both sites are undergoing a transformation process, where Davidshallstorg being converted from a parking lot into a park, and Botulfsplatsen, from a bus stop, to a public square. To create interest before the transformation begins, temporary planting modules have been installed at the site, making them suitable reference projects for this thesis.

By visiting and studying the planting modules, I could estimate how large the modules needed to be to contain a certain amount of vegetation. Through email correspondence with the city of Malmö, I received information about the technicalities of the planting modules in Davidshallstorg, including their construction and maintenance needs. I also got a general sense of the impact that temporary installations can have on a site, completely changing its impression.

#### Sketching process

Continuous sketching was conducted throughout the process. As new information was acquired, concepts were developed, changed or scrapped. The sketching was done by hand, in combination with digital tools such as the Adobe programmes Photoshop and Illustrator. Sketching became very valuable for understanding the plants used in the design, and their effect on the two sites.

#### Photography

Photography has been an important tool to show where ideas have come from. Hopefully, it has helped create a red thread throughout the project. Photography also became a part of the sketching process, as photographs from the site were used in collages and as backgrounds to sketch on, helping to reimagine the site.

#### Plant choices

The choices of plants were done based on knowledge from previous courses at SLU, like Advanced planting design and Dynamic vegetation design and through discussion with my supervisor. Some inspiration was drawn from Nigel Dunnet's book 'Naturalistic planting design', and Peter Korn's book 'Peter Korn's Trädgård'.

#### Introspection

Through an evaluative discussion of the design proposal, I have both sought to understand how the proposals address the research question, and what insights have been derived from the design process, relating to creating sustainable urban transformation. Furthermore, I have analysed the proposals through the lens of the theoretical framework, to understand the designs in relation to Gåsebäck.



4. Analysis

Location

Gåsebäck is a centrally located industrial district, just two minutes away by bus from Helsingborg’s central station. The area is surrounded by a diverse mix of zones, including residential neighbourhoods, commercial establishments, and green spaces. However, Gåsebäck is cut off from these areas by two barriers, the E4 motorway and the railroad, as illustrated in figure 3.

History

Gåsebäck used to be one of the main industrial centres of Helsingborg. The area housed a variety of companies and industries, ranging from carpentry to coffee, from satin manufacturing to banana importation and distribution (Helsingborgs stad 2024). It also used to accomodate the city’s fire department.

The fire station

The fire station in Gåsebäck stood abandoned for a few years, after the fire department had relocated to new facilities. The functionalistic building was set for demolishing but was saved in the wake of the migrant crisis of 2015, when Helsingborg suddenly needed accommodation for refugees. Plans for demolition were put on hold, and a city representative, together with individuals active in the area, began discussing the future potential of Gåsebäck. Recog-

nising the shortage of spaces for creative activities in Helsingborg, the city agreed to lease the fire station to the creative community in Gåsebäck for 10 years. Today it serves as a hub for creative endeavours in Helsingborg (Lindman n.d.).

Contaminated soil and hard surfaces

Gåsebäck is predominantly covered with paved surfaces, leaving limited space for planting new vegetation. Moreover, many of the existing grass-surfaces are contaminated. When the fire department was still based in Gåsebäck, the football field was used for fire extinguishing exercises. This has left the site heavily polluted with PFAS.

In a report from SGU (Statens geotekniska institut) Pettersson et al. (2022) explain that PFAS substances are a considerable environmental and health hazard. Therefore, the amounts of PFAS considered acceptable in soil are very low. Cleaning soil from PFAS contamination is a complicated endeavour that is costly and rarely fully successful. Methods that are relatively effective, like thermal treatment and soil washing, often involve a high cost or significant energy consumption, resulting in a large CO2 footprint. Depositing the soil in a landfill is another option, but essentially moves the problem to another place. Furthermore, the guideline values for acceptable PFAS levels in soil may change in the future (Pettersson et al. 2022). This could complicate park development if vegetation is established on a soil which turns out to be unacceptably toxic.



Figure 2. The old fire station is the first building that greets you when arriving to Gåsebäck by bus. Today it goes by the name Vagnhall 16.



Figure 3. (© Lantmäteriet 2024).



Connection to the city

Today, the E4 motorway and the railroad act as barriers, isolating Gåsebäck from the rest of Helsingborg. Currently, pedestrians can only access Gåsebäck through underpasses. However, this was not always the case. In the 1960's, four roads connected Gåsebäck to the district of Söder. While this did not necessarily mean there were four pedestrian crossings, the area was less isolated than it is now.

It can be argued that underpasses are safer than pedestrian crossings, as traffic and pedestrians are separated. However, underpasses can be perceived as unsafe, especially during the later hours. Furthermore, underpass A is shared between pedestrians and cyclists, which can result in dangerous situations.

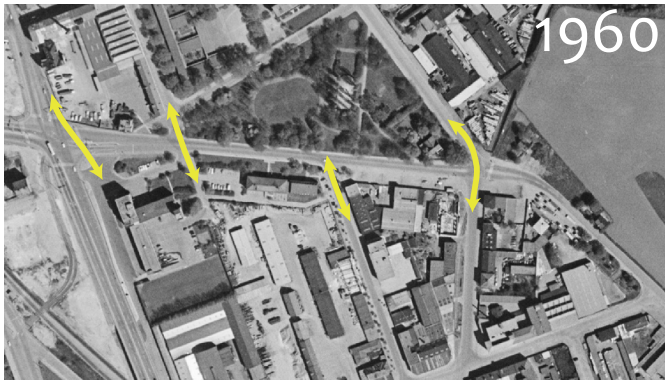


Figure 4. Aerial photograph showing how the roads used to connect to Gåsebäck in the 1960's (© Lantmäteriet 2024).



Figure 6. One the paths to Gåsebäck. Colourful lights are a nice addition, but a feeling of unsafeness remains.

If the aim is to attract more visitors and residents to Gåsebäck, creating a safer and more welcoming pedestrian pathway would be meaningful step.

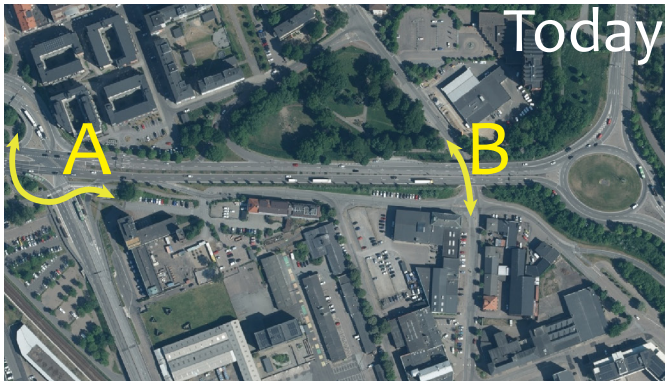


Figure 5. Aerial photograph showing where the current pedestrian paths to Gåsebäck are located (© Lantmäteriet 2024).



Figure 7. Underpass B has been nicely painted, making it more pleasant to pass through.

Surrounding green areas

There are a few green areas in close proximity to Gåsebäck, but these are on the other side of the barriers. Sturzen-Beckers park is located just north of Gåsebäck. The park contains many large oaks, and a dog park. However, according to municipal employees, the park is not very used due to noise from the road.

When standing in Gåsebäck and looking north toward 'Söder', one gets the impression that there used to be a road connecting the two areas, as seen in fig. 8, and illustrated in fig. 10.



Figure 8. View from Gåsebäck



Figure 9. Analysis showing the major green areas surrounding Gåsebäck (© Lantmäteriet 2025).



Figure 10. Orthophoto of Gåsebäck and Söder, highlighting where there once was a road. Bringing a path back for pedestrians could connect three parks (© Lantmäteriet 2024).



## Gåsebäck's soul

‘Gåsebäcks soul’ is a report by Helsingborgs municipality and the company Spacescape, which highlights the existing values and potential of Gåsebäck. The visions and principles that it puts forward are the product of dialogue, in the shape of workshops and interviews, held with citizens active within the area (Helsingborgs stad 2023, p. 2).

Gåsebäck is described as Helsingborg's cultural city district. The city wants to enable and promote cultural and creative activities within the area. Gåsebäck should contain scenes, spaces where associations can gather. It could house cultural institutions in the shape of museums, higher education, large events, etc. Gåsebäck could become something that is missing from Helsingborg today, and become a reason to both attract people and make them want to stay in Helsingborg. This industrial area also has the potential to become an inspirational project for other industrial areas in Sweden and abroad, through upcycling of existing materials and the reuse of industrial buildings (Helsingborgs stad 2023, p. 6).

To achieve the vision for Gåsebäck, Helsingborgs stad (2023) has produced guidelines in the shape of four principles, that are to aid and guide future projects in the area. The names of the principles have been roughly translated from Swedish to English.

The four principles:

- **Clusters of life and passion for creation:**

Gåsebäck is an area which is continuously changing. The types of businesses and activities that exist here depend on who the resides and works here. There are flexible facilities that facilitate different types of activities, for different types of target groups. Gåsebäck should also contain different types of housing, to meet the needs of a variety of citizens.

- **Quilt of old and new materials:**

Re-use in different forms. Changing an over dimensioned parking space into a park. Reusing existing buildings for new purposes. Local crafters and restaurants could make use of materials from the site's industrial past. The industrial past of Gåsebäck should be communicated with public artwork, and preservation of the names of buildings and sites. The new and the old should come together and create interesting contrasts, with diversity and mixed enterprises and activities.

- **Open and welcoming environment:**

Gåsebäck should be designated as a “kulturljudzon”, meaning a zone in which noise from cultural activities and events is tolerated. It should be easy to reach the area by public transport, by foot, and by bicycle. Within the area, car traffic should be limited to

increase traffic safety. Outdoor environments should be available for temporary events. To encourage small businesses, their rent should be kept low. Furthermore, the area should be a zone for innovative architecture and planning processes.

- **Everyday life and colourful rooms:**

Gåsebäcken, i.e. the stream which the Gåsebäck derives its name from, has been restored. A large park and additions of new vegetation create a “string of pearls” through Gåsebäck, to improve the biodiversity, micro climate and people's well-being. The area should contain public art that is continuously changing, and colourful walls provide the backdrop for many of the rooms in the area. Local knowledge of graffiti, street art, shows, and temporary skate ramps is capitalised/used upon. While longer building projects are ongoing, the large open spaces in Gåsebäck can be used for short term creative projects. Beside all the events, normal day to day life is present. A sense of safety in the area is to be promoted, and Gåsebäck should contain meeting places for different groups of people from different walks of life (Helsingborgs stad 2023, pp. 20-24).

What I have condensed from these principles is the possibility and need to use the vast empty areas of Gåsebäck to increase vegetation to the area, improving the microclimate, showcasing the history of the site, and upcycling unused materials.

## The urban heat island effect

The urban heat island effect (UHI) is the phenomenon that makes urban areas warmer, compared to surrounding natural landscapes. Due to the amount of hard surfaces that absorb heat from the sun, the exhausts from cars, buildings, etc., and the lack of vegetation which has a cooling effect, the temperature in cities can be several degrees warmer than in surrounding landscapes (Stewart & Mills 2021).

### Gåsebäck: an urban heat island

The existing vegetation in Gåsebäck is sparse. There are a few birches and Swedish whitebeams scattered around the area. There is also a row of horse chestnut, planted sometime around the 1960's. However, these have contracted bleeding canker, and it is unclear whether they will be cut down or not.

In the analysis in fig. 12, trees within and surrounding Gåsebäck have been marked out. There are relatively few trees in Gåsebäck compared to its surroundings to the north and east.

In a study by Tan et al. (2022), three scenarios of vegetation combinations were compared to evaluate the cooling effect in an urban area. The most effective combination consisted of trees and grass, followed by a mix of trees, shrubs, and grass, where some trees were replaced with shrubs. The final combination had only shrubs and grass, and was the least effective. Despite placing second, the authors recommend the combination of trees, shrubs and grasses, as this reduces the cost of not having to plant as many trees. Furthermore, the cooling effect of planting trees is not linear. After a certain point, the cooling benefits diminish as the shadows begin to overlap (Tan et al. 2022, pp. 1132-1134).

In a study by Rahman et al. (2020), the scientists found that grass surfaces absorb less than half of the heat in comparison to asphalt. Furthermore, trees growing over grass provided 10 times more transpiration than trees growing in pits in the asphalt. This is due to the water availability being lower in tree pits surrounded by paved surfaces, combined with the increased heat load which that brings. In paved areas the use of trees with a dense shade should be prioritized. Coniferous trees with a high crown density or a pyramidal shape can also be considered suitable depending on the context. Dark green leaves have a more effective shading and transpiration cooling (Rahman et al. 2020).

Through evapotranspiration trees cool the temperature around them, especially underneath the canopy, where the air temperature can be between 1°C and

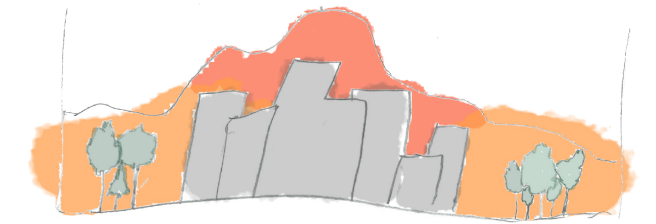


Figure 11. illustration of the urban heat island effect. Urban areas get warmer compared to the countryside, in part because of the low albedo in cities.

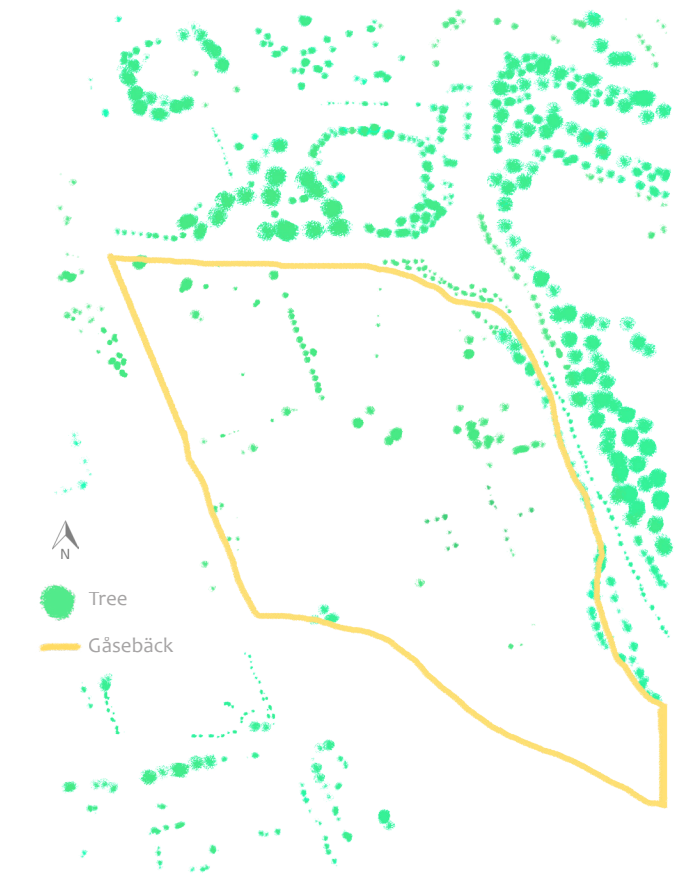


Figure 12. Analysis of tree canopies present within Gåsebäck and in its surroundings.

8°C lower than in the surroundings. The effectiveness varies between different climates, tree species and other environmental conditions (Rahman et al. 2020).

Larger trees with a higher growth rate allow a higher transpiration cooling. The anatomy of a tree also affects their air-cooling capabilities. Trees with thin and simple leaf shapes like *Tilia cordata* and *Acer platanoides* can provide the cooling equal to seven trees with slightly thicker compound leaves, like *Gleditsia triacanthos* or *Fraxinus excelsior*. However, higher transpiration also means a higher water consumption (Rahman et al. 2020).

According to a study by Zhao et al. (2023) in which recent afforestation projects in large cities around the world was analysed, the average cooling effect received from trees in urban environments was 1.5°C,



while in some cities where large tree planting campaigns were conducted, the cooling was above 3°C. The data was collected between the years 2000-2015. The study also showed that planting trees in urban areas with a low amount of tree cover has a greater effect on decreasing temperature, compared to planting in areas with a lot of trees (Zhao et al. 2023).

### The future climate of Gåsebäck

In the figures below, the average day temperature in Gåsebäck for normal years and extreme years are displayed. In the extreme year 2018, the average day radiant temperature in some parts of Gåsebäck 36-39°C. If Gåsebäck was to remain as it is today, the extreme year 2018 would be equivalent to a normal year in 2100. In an extreme year in 2100, the temperatures in almost all of Gåsebäck would average around

36-42°C. However, in the areas where there are trees, illustrated on the previous page in fig. 12, the temperature is significantly cooler.

As there is little vegetation in Gåsebäck, introducing more trees would likely have a significant cooling effect.

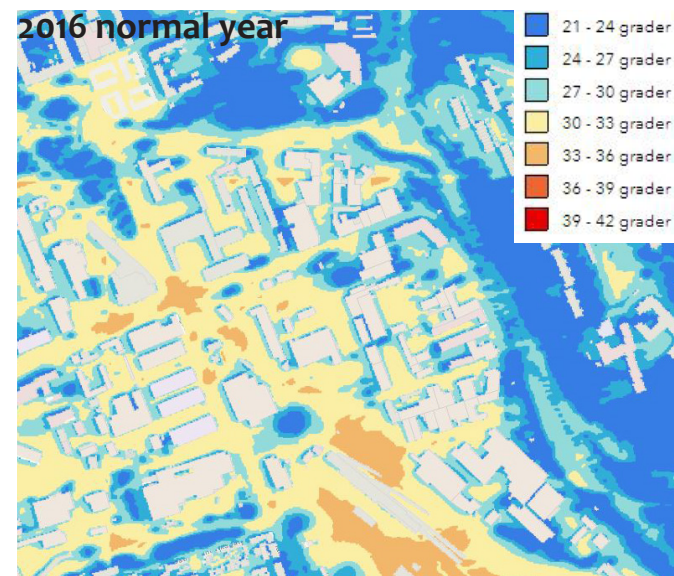


Figure 13. Average day radiant temperature, normal year 2016 (© Helsingborgs stad).

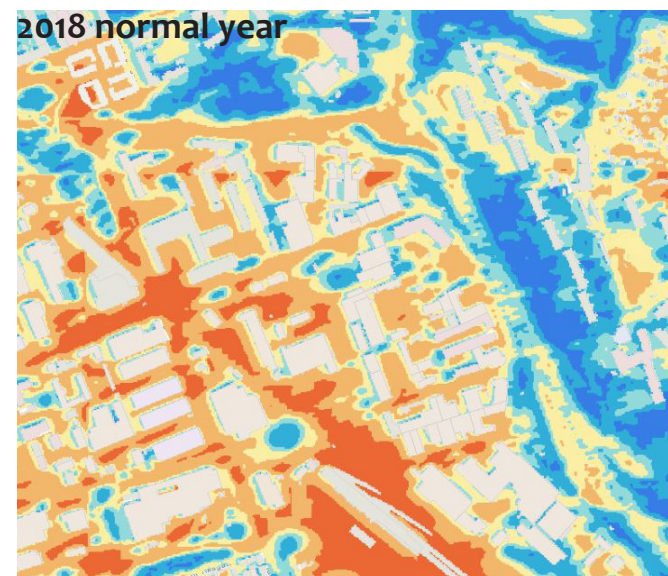


Figure 14. Average day radiant temperature extreme year, 2018 (© Helsingborgs stad).

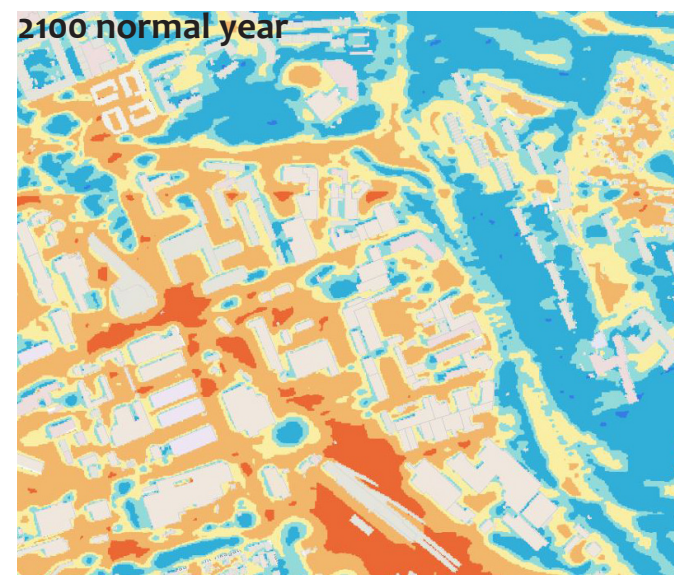


Figure 15. Average day radiant temperature, normal year, 2100 (© Helsingborgs stad).

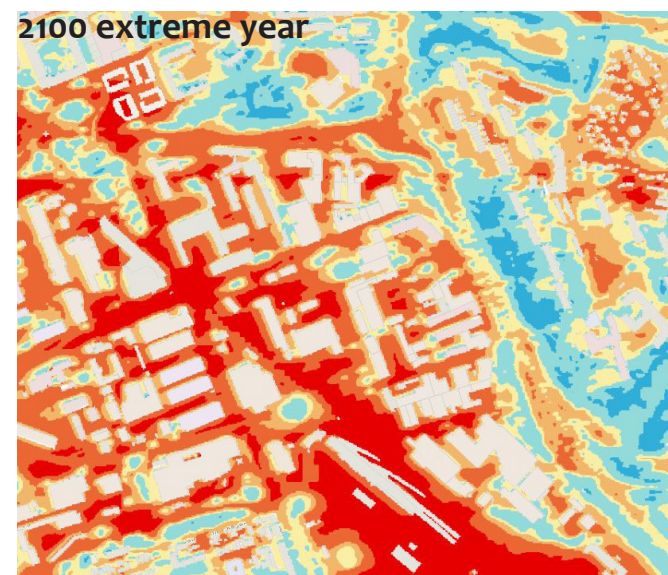


Figure 16. Average day radiant temperature, extreme year, 2100 (© Helsingborgs stad).

## 5. Reference projects

Two types of reference projects have been explored in this thesis. The first examines the values of old industrial areas and the process of transforming such areas into residential districts. This type of reference project aims to inform the discussion about the challenges of redeveloping an area, highlighting what to avoid and identifying local values that city developers should promote, utilise, and integrate into their work.

The second type explores the phenomenon of 'pops', prototypes and temporary plantings. These have provided insights into how temporary plantings can be constructed and inspired the design proposals, for example regarding the size of vegetation that can be expected.

### Malmö

Many green areas in Malmö have been influenced by the industrial past (Qviström 2024, p. 78). Not long ago, abandoned industrial grounds by railroad tracks were a characteristic of Malmö, and a green resource. Over time, these brownfields have been removed. In recent years, however, these types of 'post-industrial' areas have begun to be appreciated for their inherent value. This post-industrial nature is intimately connected to three dimensions: daily use, cultural heritage and ecological values (Qviström 2024, p. 85).

Nature in our everyday surroundings, cultural heritage, and 'new nature' are important for the city's social sustainability. They provide space for everything from play and physical activity, to biodiversity, to informal meeting places and preserving the city's identity. With this said, all post-industrial nature is not equal in value, and need not be preserved forever. Temporary places can have a value as well (Qviström 2024, pp. 87-88).

In the literature about the history of Malmö's urban planning, nature is depicted in terms of particular places with valuable flora and fauna, or as the creation of landscape architects. Nature is deemed as devoid of history. However, this is inaccurate. An example is how changes in military needs has provided green space in cities. Defensive fortifications have become part of parks and green areas, exemplifying a type of reuse. By understanding green areas through terms of reuse, we can more easily understand the heritage and history of urban green areas. This is untapped potential, which is often failed to be

considered in today's urban planning (Qviström 2024, pp. 90-91).

### Norra Sorgenfri

Norra Sorgenfri, Malmö's oldest industrial area, used to be a hub for artists and other creatives. However, the redevelopment of the area has led to the departure of the artistic community. In an interview from the journal Arkitekten, Erik Jönsson, researcher in the field of cultural geography, lifts what went wrong with the project. The original vision for Sorgenfri was to be a forerunner in creating a socially sustainable city district. Realising the vision has been a challenge, partly because the municipality does not own all the land (Frändberg 2023).

The urban regeneration project of Norra Sorgenfri had a multitude of commendable ambitions, that were gradually watered down. This was due to a few different factors. Firstly, private actors who own part of the land were hesitant to pioneer the residential development projects that the city of Malmö had in mind. According to Baeten (2023), there are two contradictions that are part of the watering down of the initial ambition. The first issue is that the redevelopment of the area is overwhelmingly dependent on the property owners. Private developers use business models which estimate future revenues and whether the investment will be economically prosperous. The visioning of social sustainability by the urban planners, and the private companies' 'property led development' which seeks to physically renew the urban fabric and get returns on investment, are two paths that clash. The second issue is that physical regeneration cannot create social sustainability on its own. It can be a part of a strategy to establish a socially sustainable environment, but it needs to be complemented by other elements to be effective (Baeten 2023).

According to Qviström (2024) The planning of green space is usually less prioritized than the planning of infrastructure and buildings (Qviström 2024, p. 78). However, adding vegetation to Norra Sorgenfri has been an ambition for the municipality from the beginning. In the guiding documents for Norra Sorgenfri, it has been stated how green areas should be plenty and easily accessible in the district. Moreover, creating substantial park development in Norra Sorgenfri has proven challenging, as large parts are owned privately, while only a small portion is owned by the municipality. This means that many different actors have a variety of visions for the future of the district (Jönsson 2024, p. 194).

In the light of climate change and all that it encom-



passes, urban green space is often stated as obviously good. However, there is a danger in uncritically view green space as positive. Park development can and has functioned as a driver of gentrification. However, in planning documents parks are generally viewed as positive. Despite this, it is not obvious that park development comes to fruition (Jönsson 2024, p. 195).

Parks have historically emerged at the outskirts of cities, on land that was not of interest for housing and enterprises. As cities expanded, the parks became more centrally located. As parks require significant amounts of space, they are at odds with other interests, either businesses' will to expand, or the cities' will to build housing. The closer to the inner city one gets, the more competing visions intensify, making it challenging to create an inner city that blends the appeals of urban life and nature (Jönsson 2024, pp. 209-210).

The main strategy for urban expansion in Malmö is the densification of the city. Among the areas considered ready for densification, is Norra Sorgenfri. What this means for the planning of parks and preservation of urban nature is unclear (Jönsson 2024, p. 196). In a study of densification plans for Rosengård in Malmö, researchers Zalar and Pries, show how green areas have been redefined as exploitable space in the planning documents (Zalar & Pries 2022 see Jönsson 2024, p. 197). This shows how densification is not evidently a sustainable solution for expanding cities. Densification can be both a problem and a solution (Jönsson 2024, p. 197).

Despite a strong ambition to preserve culture in Norra Sorgenfri, competing political priorities have created obstacles. As the municipality is required to fulfil certain legislated responsibilities, such as providing education, these duties often take precedence over culture, which lacks legislative backing. As the planning process has advanced toward implementation, conflicting interests have become increasingly apparent (Örman 2024, p. 179).

The transformation of Norra Sorgenfri has dispersed groups that previously used the area, not least the artists and cultural life. If there are no places for culture to take shape, like art studios and rehearsal rooms, a sprawling cultural scene cannot exist. Many of these spaces emerged during the deindustrialisation that took place in Malmö during the 1970's. Such a historical shift cannot be replicated by a municipality; however, strategic urban planning can ensure that such spaces remain. A first step is to preserve the existing infrastructure used by the cultural

sector. Despite many creatives leaving Norra Sorgenfri, some, like Ateljékollektivet Sulfur, remain. Furthermore, urban planners in Malmö are working to ensure that usable spaces remain available in Norra Sorgenfri. Planners and politicians must collaborate with local actors, to ensure that creative meeting places for the public remain a part of Norra Sorgenfri (Pries et al. 2024, pp. 258-260).

As large parts of Norra Sorgenfri have not yet been transformed, the project as a whole cannot yet be evaluated. Nonetheless, the experiences from Norra Sorgenfri provide insights into the challenges that can arise in urban transformation projects.

### The power of 'pop-up' parks

'Pop-up' parks have become a popular temporary installation. They are often installed to reclaim streets from cars to people. These temporary parks provide people with space to interact, walk, relax, and can be used to introduce vegetation to spaces where there otherwise is none. Furthermore, pop-up parks can have environmental benefits like increasing urban biodiversity, reducing the urban heat island effect, etc. Pop-up parks can create public space where it is needed, and eventually create permanent changes to a site. There are many examples where temporary installation have become permanent (Stevens et al. 2024).

One challenge with Gåsebäck is the lack of people moving in the area, which makes the effectiveness of a pop-up park as a social gathering point less certain. However, introducing a pop-up park could be a measure to increase vegetation and biodiversity in the area. Additionally, with people working in the area, good weather could encourage more activity around such a space. If done right, a pop-up park might even become an attraction that draws more visitors to Gåsebäck.

### Temporary plant nursery

In fig. 18, trees with red tree supports can be seen. These were part of a project named the movable park, in which the city purchased trees proactively, to replace the disease-ridden horse chestnuts in the city. The trees were placed temporarily in areas

which normally are had few or no trees. This way, the trees could grow and provide value in the city, rather than stand at a plant nursery. Eventually, the trees were planted in their planned location (Innovation Helsingborg n.d.). The movable trees in Helsingborg is an example of prototyping (Dahl & Helsing 2023, p. 9).

### Flower shop in a shipping container

This temporary flower shop has 'popped up' in Lund's botanical garden. An example of a small addition that can add a function to a site.

With Gåsebäck's proximity to both a rail yard and a harbour, shipping containers a recurring feature. Perhaps it could serve a different purpose, such as functioning as a pop-up in Gåsebäck.



Figure 17. A 'pop-up' flower shop in Lund.



Figure 18. Photograph of Gåsebäck overlooking the firestation and its surroundings. Trees with red supports can be seen in the center and to the right (© Helsingborgs stad 2024).



## Davidshallstorg

Davidshallstorg in Malmö has long been used as a parking lot. However, from April to October, during the summers of 2024, 2025, and 2026, it will transform into a 'summer square'. During this time, the square will be free from cars and become a green oasis (Malmö stad 2024).

The site contains a variety of planting modules, in different shapes and sizes. Through email-contact with Charlotta Gard, landscape architect at Malmö stad, I got information about how the modules are constructed.

The containers or urns range in size, with the round ones being roughly 1,7 m in diameter and 1 m high. The larger containers range between 12 and 25 m<sup>2</sup> and are 60 cm high. They are constructed with corten steel, without a bottom. In the container, there is a strong ground cloth which keeps the substrate in place. There is reinforcement in the bottom of the container to anchor the largest trees.

The size of the containers is important to provide a sufficient amount of substrate. To maximise the substrate volume, the planting bed is mounded. This is also done to redirect water away from the base of the trees. After planting, a layer of bark mulch is put on the soil, to prevent weeds from establishing. The mulch also helps to keep moisture in the soil.

In terms of maintenance, watering is the most intensive part. The containers are installed with drip irrigation, but they have also been watered by hand. This is especially important throughout the first growing season, and during dry periods. Irrigation is crucial in container plantings, as they are cut off from moisture that exists in the ground. As for the maintenance for the trees, newly planted trees require pruning, weeding, and watering during the establishment period.

The plan is for the vegetation to remain in place for 3-4 years. The use of the plant material after this period is not determined yet, and needs to be evaluated based on the assessed vitality after a few years.



Figure 19. A temporary planting container constructed with corten steel. Located in Davidshallstorg, Malmö.



Figure 20. A smaller planting container constructed with corten steel. Located in Davidshallstorg, Malmö.

## Botulfsplatsen

Botulfsplatsen in Lund is undergoing a transformation from bus stop to a public square, with the construction planned to commence in late 2025. In the meantime, Botulfsplatsen has become a temporary testing ground for a variety of activities. Throughout the year, the site will house a range of events and 'pop-ups', ranging from outdoor cinema to Christmas markets (Lunds kommun 2024). Colours and lights have effectively been used here.

The planting containers on Botulfsplatsen are smaller than the ones used on Davidshallstorg, and contain more shrub-like trees. There are two types used here, one made out of wood, the other made from corten steel. Some of these planting containers have seating mounted on top or on the side.



Figure 22. Seating, hidden by grass. Photo from Botulfsplatsen.



Figure 21. A temporary planting container constructed with corten steel. Photo from Botulfsplatsen.



Figure 23. A temporary planting module constructed with wood. Photo from Botulfsplatsen.



Figure 24. Photograph displaying Botulfsplatsen.



## 6. Vegetation suitable for Gåsebäck

Gåsebäck is an area relatively close to the sea, containing mostly hard surfaces. This means it is subject to sea spray, wind, and drought, as it can get very warm in the summer. Plants living here will need to be able to contend with these tough conditions.

The vegetation introduced to Gåsebäck through this temporary design, is meant to be re-used for a park in the future. As trees and will have the most lasting impact, this section begins with presenting the tree choices, along with the reasons for their selection.

### Quercus: The city tree

With *Quercus robur* having been designated as Helsingborg's city tree in 2016 (Helsingborgs stad 2023a), along with the incredible biodiversity oaks bring, their longevity, and general hardiness when established, makes oak a good candidate to plant in Gåsebäck. There are also several oaks present in the park north of Malmöleden. Adding oaks to Gåsebäck could enhance a sense of connection to the rest of Helsingborg.

The question is what species would be suitable for an industrial area with harsh conditions, such as Gåsebäck.

### Native oaks

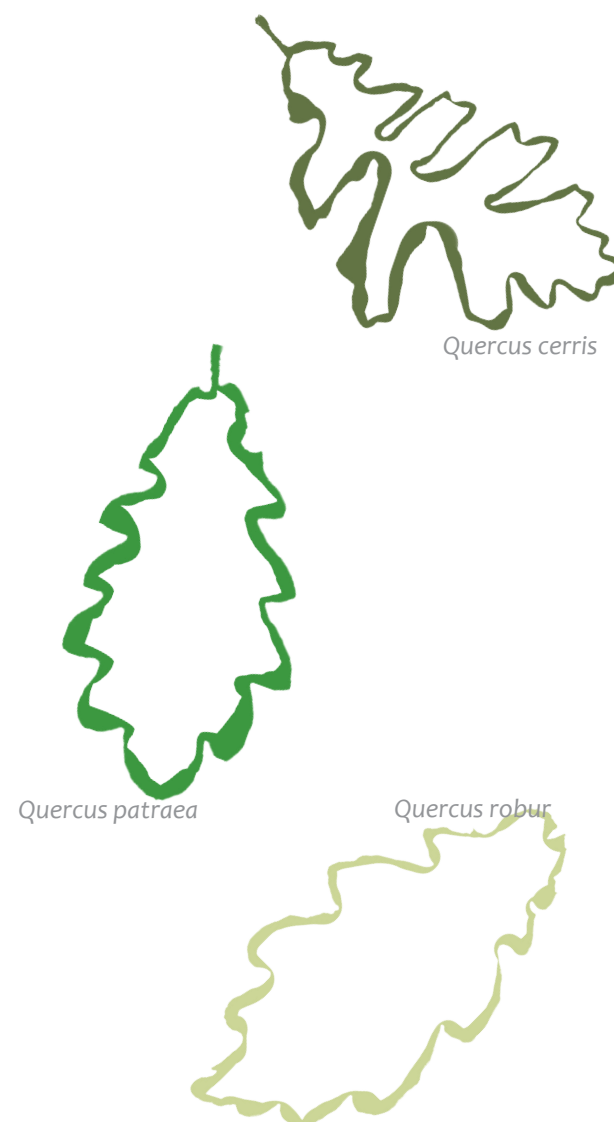
In Scandinavia there are two native oaks, *Quercus robur* and *Quercus petraea*. Both are species have a good plasticity, being able to stand quite varied conditions. *Quercus petraea* is more common in southern Scandinavia, and does not grow in the Stockholm area or above. It usually grows in poorer and shallower soils than *Quercus robur*. However, as there are very variable conditions in southern Sweden, both *Quercus robur* and *Quercus petraea* tend to be found in the same areas anyhow. As a result of this, pure stands of *Quercus petraea* are uncommon (Jonsson 1996, pp. 32-33).

### Exotic alternative

*Quercus cerris* is most commonly found in the Balkans and in Turkey, but is hardy in Sweden. It is easier to establish than the native oaks, due to its deep roots. *Quercus cerris* is also resistant to strong winds and is relatively mesophytic, meaning it prefers soils that are neither too dry or too wet. It is more short-lived compared to our native oaks, as it only becomes about 200 years old (Jonsson 1996, p. 34). *Quercus cerris* is favoured by heat and high pH, making it suitable for cities. Young specimen in Malmö have been

noted to grow one meter per year (Sjöman 2015, pp. 609-610).

In a study by Móricz et al. (2021), the drought tolerance of *Quercus petraea* and *Quercus cerris* in south-western Hungary was investigated. The species differed in their respective growth response during periods of drought. *Quercus petraea* sustained its amount of growth even in periods of drought, likely using its water reserves to keep growing. This might make *Quercus petraea* more vulnerable, as it is not able recover between successive droughts. *Quercus cerris* responded more dynamically to reduced water availability, by reducing its growth in periods of drought, presumably saving its reserves for recovery after the drought (Móricz et al. 2021).



### The choice between native and exotic

As an exotic species can be invasive it is important to consider the conditions in which they are to be planted. Exotic species can be divided into three groups: a) generally safe species; b) species that can be invasive in some contexts, but safe to use in others; c) species which are highly invasive and should be avoided (Sjöman et al. 2016).

As urban environments are usually far from natural. Therefore, it is often the case that exotic species perform better in these situations than native species. It seems that native trees usually have a greater function in providing shelter and nutrition for other species. However, there are many other ecosystem services that are provided by trees, which are important in urban environments (Sjöman et al. 2016).

In Sweden, out of the 30 native tree species 16 are at risk of being subject to disease outbreak. The four species that are deemed to be well-suited for urban plantings are *Carpinus betulus*, *Juniperus communis*, *Prunus avium*, and *Sorbus intermedia*. Out of these, only *Carpinus betulus* provides a significant amount of shade. Restricting the choice of species to native only can be risky. Having a diverse population of trees in cities is a good measure to prevent a catastrophic loss of trees, to pests and diseases, or shifts in the environment due to climate change (Sjöman et al. 2016). Therefore, it is advisable to use a variety of tree species in cities.

In regions where the amount of native species is low, like Scandinavia, it is especially important to have the option to include non-native tree species in urban environments, to secure sustainable urban development (Sjöman et al. 2016).

In urban environments, using only native tree is not to be advised. In some regions the native trees suitable for urban situations are too few the create a resilient ecosystem. If one of the species would be subject to a disease, one could lose a significant number of urban trees. While there are good reasons to promote the use of native species in urban habitats, it is also necessary to include exotic trees in urban environments, especially in urban areas with extreme conditions (Sjöman et al. 2016).

### Other suitable trees

*Sorbus intermedia*, the Swedish whitebeam, can grow to become 100 – 150 years (Sjöman 2015, pp. 691-692), but in urban environments it only tends to become 50 – 60 years (Sjöman et al. 2016). It has a high wind tolerance, is well adapted to dry environ-

ments, and can resist both road salt and salt spray, making it very well suited for urban environments. Proper establishment is essential for its stress tolerance to develop (Sjöman 2015, pp. 691-692).

For urban areas *Pinus nigra* is better suited than the native *Pinus sylvestris*, as the latter is sensitive to air pollutants, which make the tree look unwell. *Pinus nigra* develops optimally in rich soils with a good amount of water, but can stand much tougher conditions. As it is favoured by warmth and high pH, and tolerates road salt and salt spray, it is well suited for urban environments and coastal areas (Sjöman 2015, pp. 497-498).

*Gleditsia triacanthos* is a pioneer species from the USA, suitable for urban environments. It is a tree which lets a lot of light through its canopy. Its leaves emerge in late spring or early summer, turning yellow in late autumn. The tree produces long seed pods that decorate it into the winter months. It can be sensitive to wind before it is established on the site. Once established, it can handle dry and poor conditions, as well as high pH levels. As the tree is nitrogen fixating, it is able withstand warm and dry summers without getting burned leaves. 'Shademaster' is a variant which does not have the thorns. It has a screen-like canopy, grows to about 20 meters tall (Sjöman 2015, pp. 305-309).

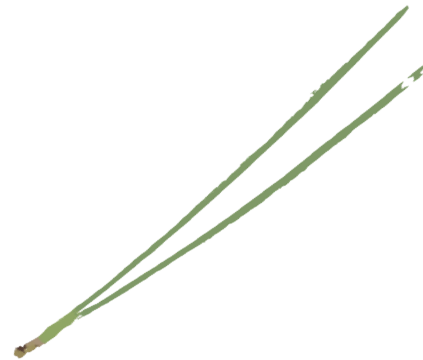
*Crataegus orientalis* - A small tree which grows to be 6 m tall. It tolerates warm, dry environments, and is thereby suitable for urban conditions. It needs a lot of light to develop properly. When it matures, the canopy is flattened, resembling a tree from the savannah. It has pretty white flowers and orange fruits (Sjöman 2015, pp. 247-248).

*Juniperus communis* is a shrub or tiny tree. It is an important part of the Swedish cultural landscape. It needs a lot of sunlight, is tolerant to soils with poor nutritious value, and can withstand both warm and dry conditions. However, it needs a good planting bed and a fair amount of maintenance to become tough and establish well. It should be kept away from road salts (Sjöman 2015, p. 334-336). The genus 'Vemboö' E is a variant collected in southern Småland, and was cultivated at Ramlösa nursery outside Helsingborg. It is a narrow pillar juniper, which become 3-5 m high and 0.5 m wide (Sjöman 2015, p. 337).



### Risk of invasiveness

As Helsingborg is surrounded by fields and large roads that function as barriers, and Gåsebäck is located in such a harsh environment, also with barriers around it, the risk of exotic trees becoming invasive is quite low.



*Pinus nigra*



*Crataegus orientalis*



*Sorbus intermedia*

## 6.1 Spontaneous vegetation

Another source of inspiration is the wild and spontaneous vegetation that thrives on brownfields. At Lokstallarna in Malmö, unused railroads and stretches of asphalt create a frame for wild vegetation to grow in. Old industrial buildings can provide a nice backdrop, offering contrast to the vegetation.

Spontaneous vegetation is often found on urban brownfields, like abandoned industrial grounds. These sites are often valuable in the perspective of nature conservation, as they contribute with biodiversity. However, residents view on brownfields tend to vary from very positive to extremely negative. This is in part due to the general ideas of orderliness that people are used to. Traditional parks conform to such ideas. If spontaneous vegetation is to be included in a design, the preferred sense of orderliness must be taken into consideration. Furthermore, taking into account the tight budget of most municipalities, brownfields with spontaneous vegetation can be a valuable contribution for green space in cities (Mathey et al. 2018).



Figure 25. In this overgrown landscape, the railroad provides a frame for the wild vegetation. Photo taken at Lokstallarna in Malmö.



Figure 26. Spontaneous vegetation can be diverse and given structure by its surroundings. In this case, the asphalt provides a frame. The brick building enhances the scene by providing a nice backdrop. Photo taken at Lokstallarna in Malmö.



# 7. Design proposal

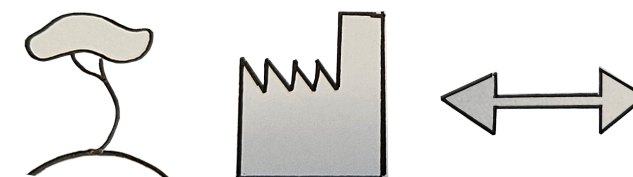
## 7. Design proposal

Due to the absence of community input through interviews, discussions or workshops, vegetation design became one of the primary focuses of the following design proposals.

The design process involved visiting and inventorying prototypes and temporary plantings, as well as ensuring the availability of seeds and plants for the selected species on the market. Full plants have been illustrated, with roots included, to get a sense of how they would coexist. Additionally, careful consideration has been given to the value of each species, both in terms of aesthetic qualities and their impact on pollinators, insects, and birdlife. To emphasise the importance of working with a bottom-up approach, the perspective in the sections has purposefully been set close to the ground.

A bottom-up approach is important to, if not completely avoid gentrification, at least mitigate its effects. It is also essential for preserving the cultural scene, which is regarded as a vital part of Gåsebäck.

### Design principles



Increased vegetation    Industrial heritage    Connection to the city

The symbols above represent the general design principles that have shaped the design proposals. The increased vegetation principle is focused on increasing biodiversity, mitigating the urban heat island effect, and improving the area's appeal for locals and visitors. The industrial heritage principle seeks to preserve the existing values of the area by reflecting its industrial past in the design. Lastly, the connection to the city principle aims to increase a sense of connection with the rest of the city, despite the barriers that isolate Gåsebäck.

### Project sites

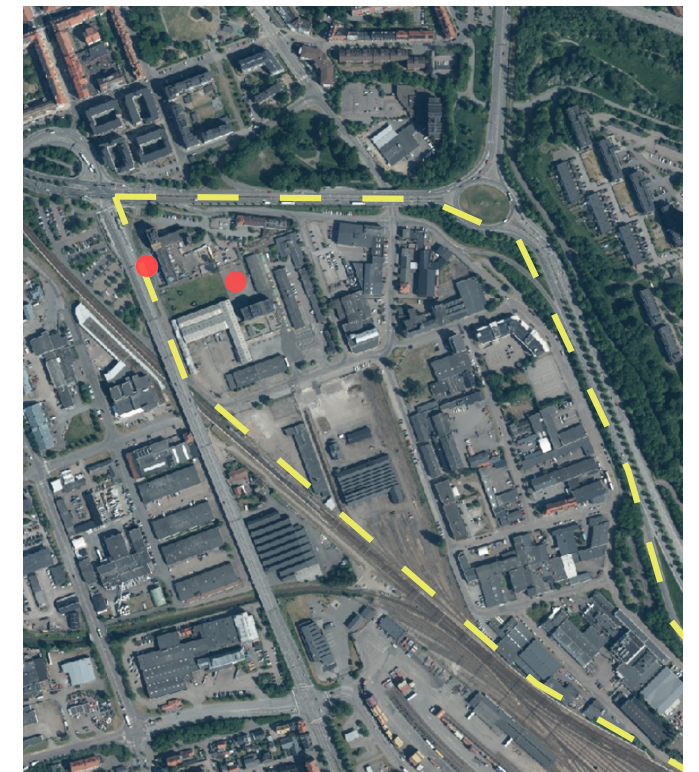


Figure 27. The image shows the location of the proposed designs (© Lantmäteriet 2025).

### Legend

- Project site
- Outline of Gåsebäck



The design proposals in their  
respective locations

The Banana Box Park

The Perennial Railroad

1:500





7. 1 The Perennial Railroad

The Perennial Railroad is a continuation of the perennial grass planting by the fire station. The concept emerged through a combination of site visits to Gåsebäck, reading about the site, and inspiration from the previously presented Lokstallarna in Malmö. The photographs on this page illustrate the thought process.



Figure 28. Old rails in Gåsebäck that could be upcycled for something.



Figure 29. Perennial grasses planted outside of the firestation.



Figure 30. Historical photograph of the the tram which used to stop by the fire station in Gåsebäck (© Helsingborgs stad).





## Section 1 A-a

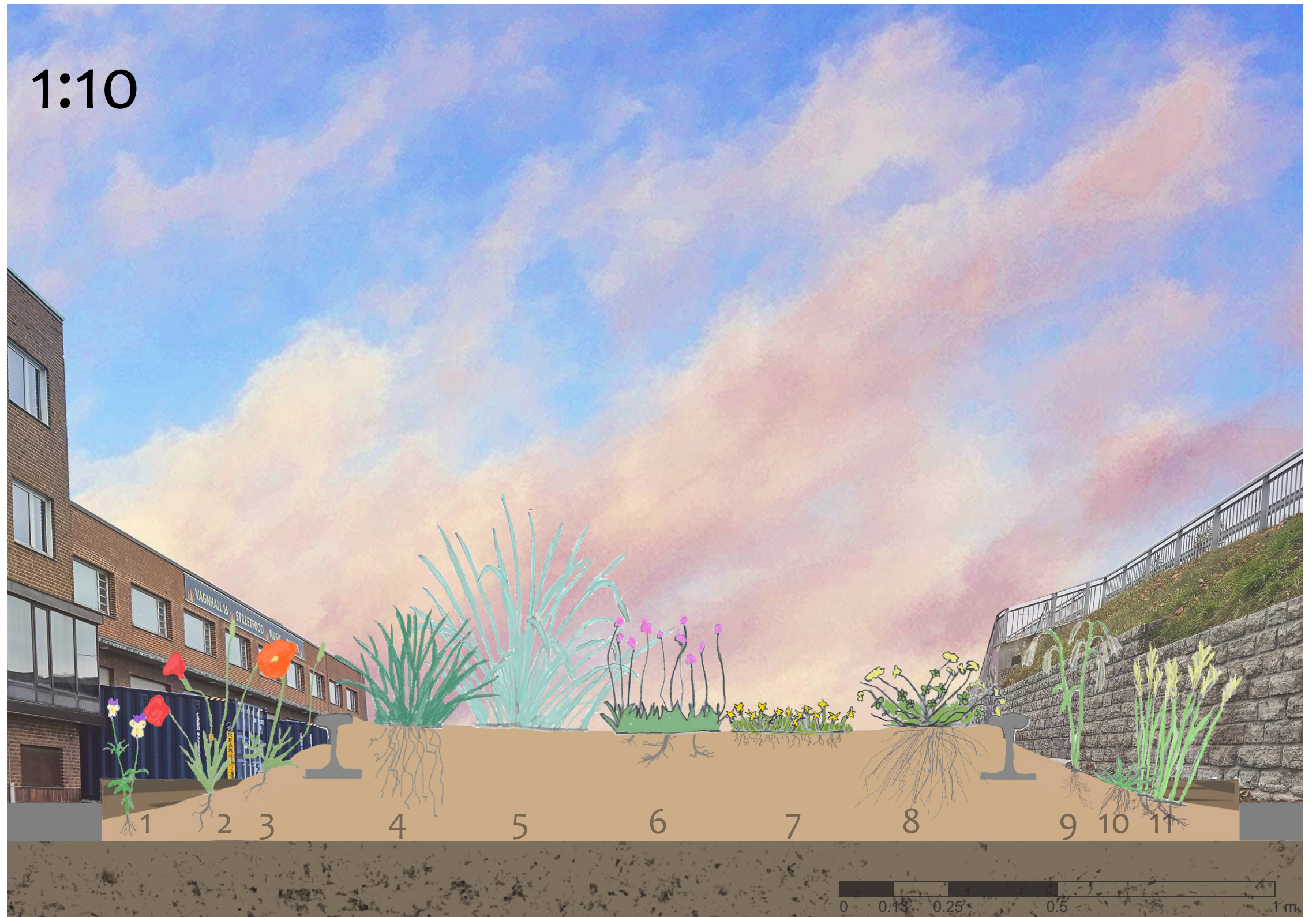
1:10

The Perennial Railroad. Between the rails, the perennials are planted. On the sides, space is left for annuals.

The plants are planted in sandy soil, which is 30 cm deep at its deepest point. The asphalt has been cut to expose the ground underneath. This serves two functions: (1) to allow for drainage and (2) to enable plant roots to grow deeper. Additionally, the edge of the cut asphalt, along with the roots of the plants, helps keep the sand in place.

Species from left to right:

1. *Viola tricolor*
2. *Papaver rhoeas*
3. *Papaver dubium*
4. *Koeleria glauca*
5. *Elymus magellanicus* (unable to find information about the root system)
6. *Armeria maritima*
7. *Sedum acre* 'Yellow Queen'
8. *Lotus corniculatus*
9. *Bromus sterilis*
10. *Poa annua*
11. *Hordeum murnium*



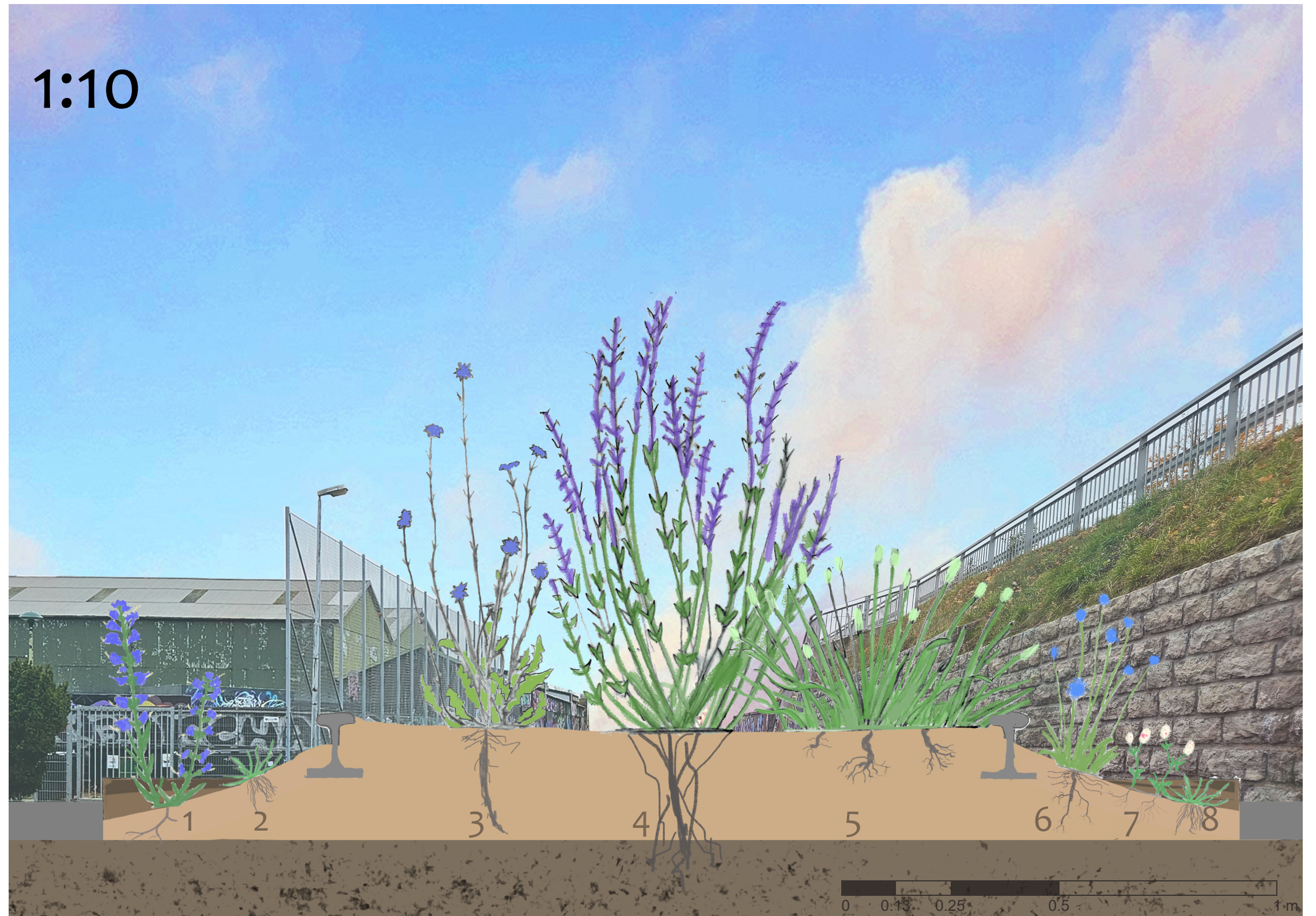


## Section 2 B-b

1:10

Species from left to right:

1. *Echium vulgare*
2. *Poa annua*
3. *Cichorium intybus*
4. *Perovskia atriplicifolia* 'Blue Spire'
5. *Sesleria nitida*
6. *Jasione montana*
7. *Trifolium arvense*
8. *Poa annua*





This section displays the planting from a side view, showing the plants arranged in layers, increasing in height.

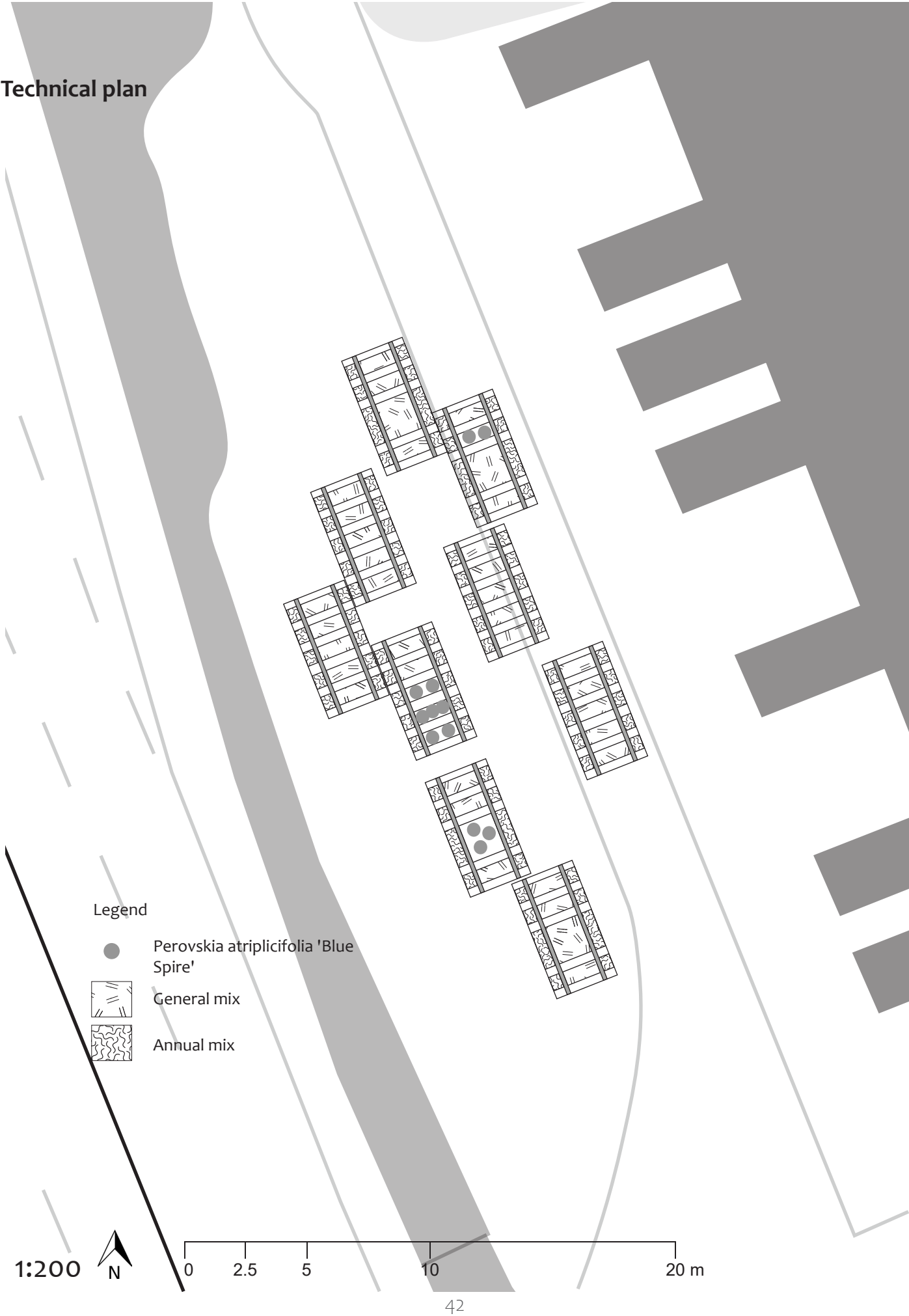
Note: All the plants do not flower simultaneously. These illustrations display the plants when they are at their best.

### Section 3 C-c



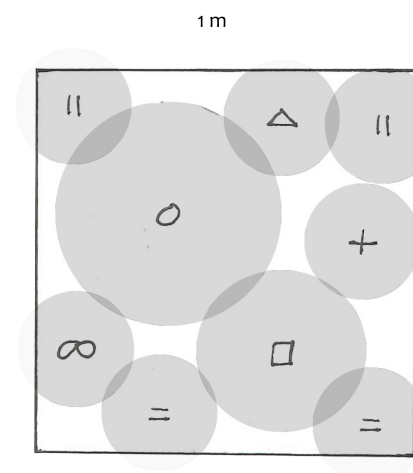


Technical plan



General mix

Rotate 90 degrees for variety. The grey circles show the circumference that the plants will occupy.



| Legend |                                  | Amount    |
|--------|----------------------------------|-----------|
|        | <i>Elymus magellanicus</i>       | 1         |
|        | <i>Koeleria glauca</i>           | 1         |
|        | <i>Sesleria nitida</i>           | 1         |
|        | <i>Armeria maritima</i>          | 1         |
|        | <i>Cichorium intybus</i>         | 1         |
|        | <i>Lotus corniculatus</i>        | 2         |
|        | <i>Sedum acre</i> 'Yellow Queen' | 2         |
|        |                                  | Total = 9 |

Plant list

| Scientific name                              | Feature/Quality | Amount |
|----------------------------------------------|-----------------|--------|
| Perennial plants                             |                 |        |
| <i>Armeria maritima</i>                      | p9              | 39     |
| <i>Cichorium intybus</i>                     | p9              | 39     |
| <i>Elymus magellanicus</i>                   | p9              | 39     |
| <i>Koeleria glauca</i>                       | p9              | 39     |
| <i>Lotus corniculatus</i>                    | p9              | 78     |
| <i>Perovskia atriplicifolia</i> 'Blue Spire' | 1L              | 12     |
| <i>Sedum acre</i> 'Yellow Queen'             | p9              | 78     |
| <i>Sesleria nitida</i>                       | p9              | 39     |

| Scientific name          | Percentage | Comment                    |
|--------------------------|------------|----------------------------|
| Seed mix                 |            |                            |
| <i>Bromus hordeaceus</i> | 10%        |                            |
| <i>Bromus sterilis</i>   | 10%        | Not commercially available |
| <i>Echium vulgare</i>    | 10%        |                            |
| <i>Hordeum murnium</i>   | 10%        | Not commercially available |
| <i>Jasione montana</i>   | 10%        |                            |
| <i>Papaver dubium</i>    | 10%        |                            |
| <i>Papaver rhoeas</i>    | 5%         |                            |
| <i>Poa annua</i>         | 10%        | Not commercially available |
| <i>Trifolium arvense</i> | 10%        |                            |
| <i>Viola tricolor</i>    | 15%        |                            |



## 7.2 The Banana Box Park

This design proposal consists of three differently sized planting modules, containing trees, shrubs perennial plants. The placement of the modules is meant to create rooms that feel relatively open. In the eastern part benches have been placed slightly surrounded with vegetation, so that one can sit and contemplate or relax, without needing to be concerned with what is going on behind you.

The blue container functions as climbable lookout point, allowing to see part of Gåsebäck from above. Alternatively, the container could serve as a summer café, or something different entirely.



Types of modules

This pop-up park consists of 'planting modules', designed as oversized versions of old-fashioned wooden shipping boxes, used for transporting bananas and other goods. The sides of the modules have been designed to reference Banankompaniet and Kärnkaffe, two major companies that once operated in Gåsebäck. Some of the modules have information signs detailing the site's industrial history, companies that existed here, and the plants contained within the boxes.

Three sizes of planting module have been developed. The smallest modules are 1 metre high and 1,7 metres in diameter, and contain trees or shrubs along with perennial grasses. The other two sizes are 3x4 metres, and 3x8 metres. Both modules are 70 cm high. This is 10 cm higher than the modules in Davids-hallstorg, Malmö. This decision was made to allow for a greater soil volume. which hopefully will allow the plants to stay in the module for longer period of time. The idea is for the shrubs and plants to be able to stay on the site for 4-5 years. Furthermore, the height of the containers make the shrubs and trees appear larger, adding to the sense of scale.

The shipping container

Using a container as a lookout point provides a view of the surroundings, and toward both Helsingborg. The container is placed on the sightline presented in the analysis. The idea is to create a subtle visual connection between Gåsebäck and Helsingborg.

- Species from left to right:
- 1. Juniperus communis 'Vemboö' E
  - 2. Hippophae rhamnoides
  - 3. Pinus mugo var. pumilio
  - 4. Dasiphora fruticosa 'Månelys'
  - 5. Salix lanata 'Hjeltnes'
  - 6. Arctostaphylos uva-ursi 'Massachusetts'
  - 7. Rhamnus cathartica FK TOPPMYRA E
  - 8. Salix elaeagnos 'Angustifolia'
  - 9. Rosa rubiginosa FK HOBURGEN E



Figure 31. A conceptual image of what the plant boxes could look like. The plants are not the same as the ones used in the actual design.



Figure 32. Using a container as a lookout point, allowing visitors to see the surroundings. Pallets function as stairs. The container itself could become a surface for Graffiti.

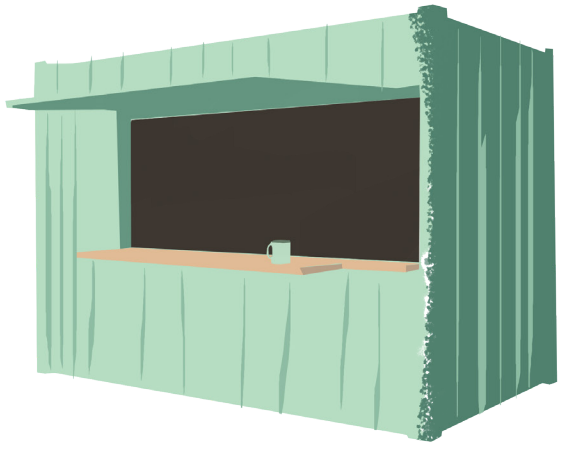


Figure 33. Alternative use for a container. A café, flowershop or something else, can introduce a new function to the site. Perhaps to activate it in the summer.

Shrubs of the design proposal





## Sections 1:200

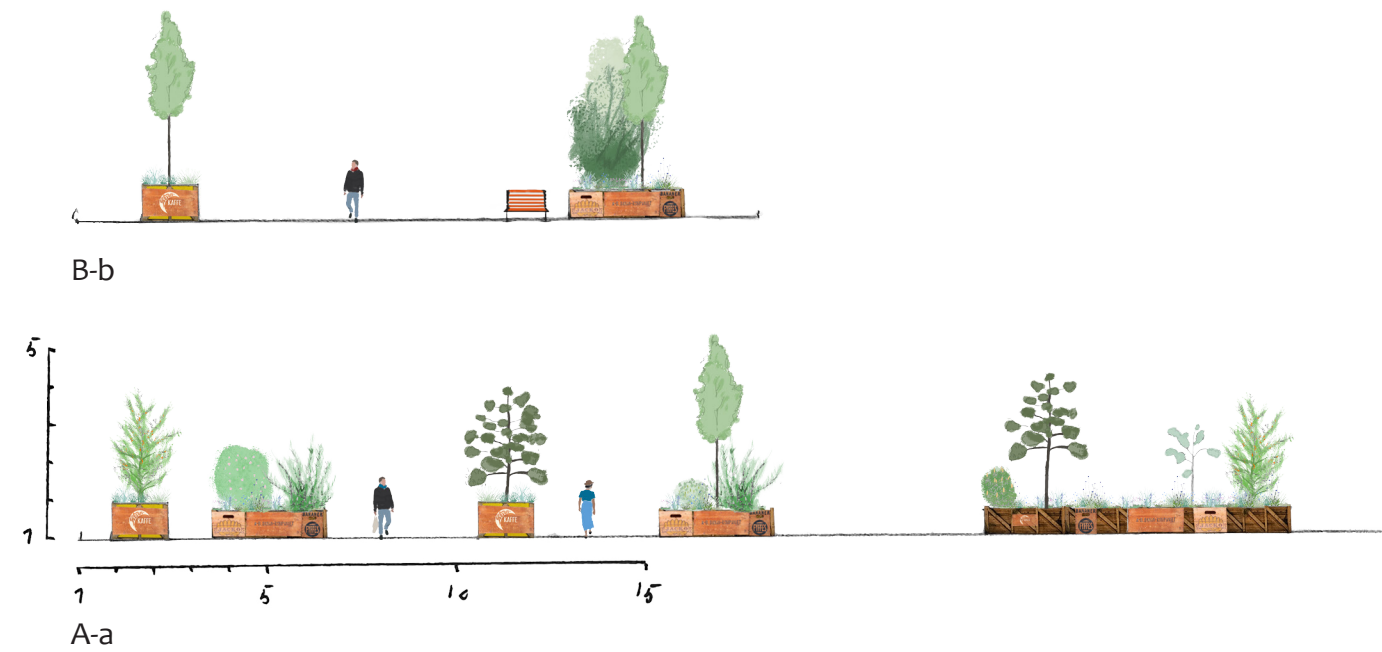


Figure 34. Location of the sections

## Trees of the design proposal

In this design proposal, *Quercus cerris* was decided on to represent the oak species, due to its suitability for urban conditions. At later stage, when a permanent park is constructed, native oaks could be planted to further enhance the biodiversity.

Species from left to right:

1. *Gleditsia triacanthos* 'Shademaster'
2. *Crataegus orientalis* STRAPATS® E ('Ep Crast')
3. *Pinus nigra* ssp. *nigra*
4. *Quercus cerris*
5. *Sorbus intermedia*





Technical plan

Legend

Trees

- + Co Crataegus orientalis STRAPATS® E ('Ep Crast')
- + Gt Gleditsia triacanthos 'Shademaster'
- + Pn Pinus nigra ssp. nigra
- + Qc Quercus cerris
- + Si Sorbus intermedia

Large shrubs

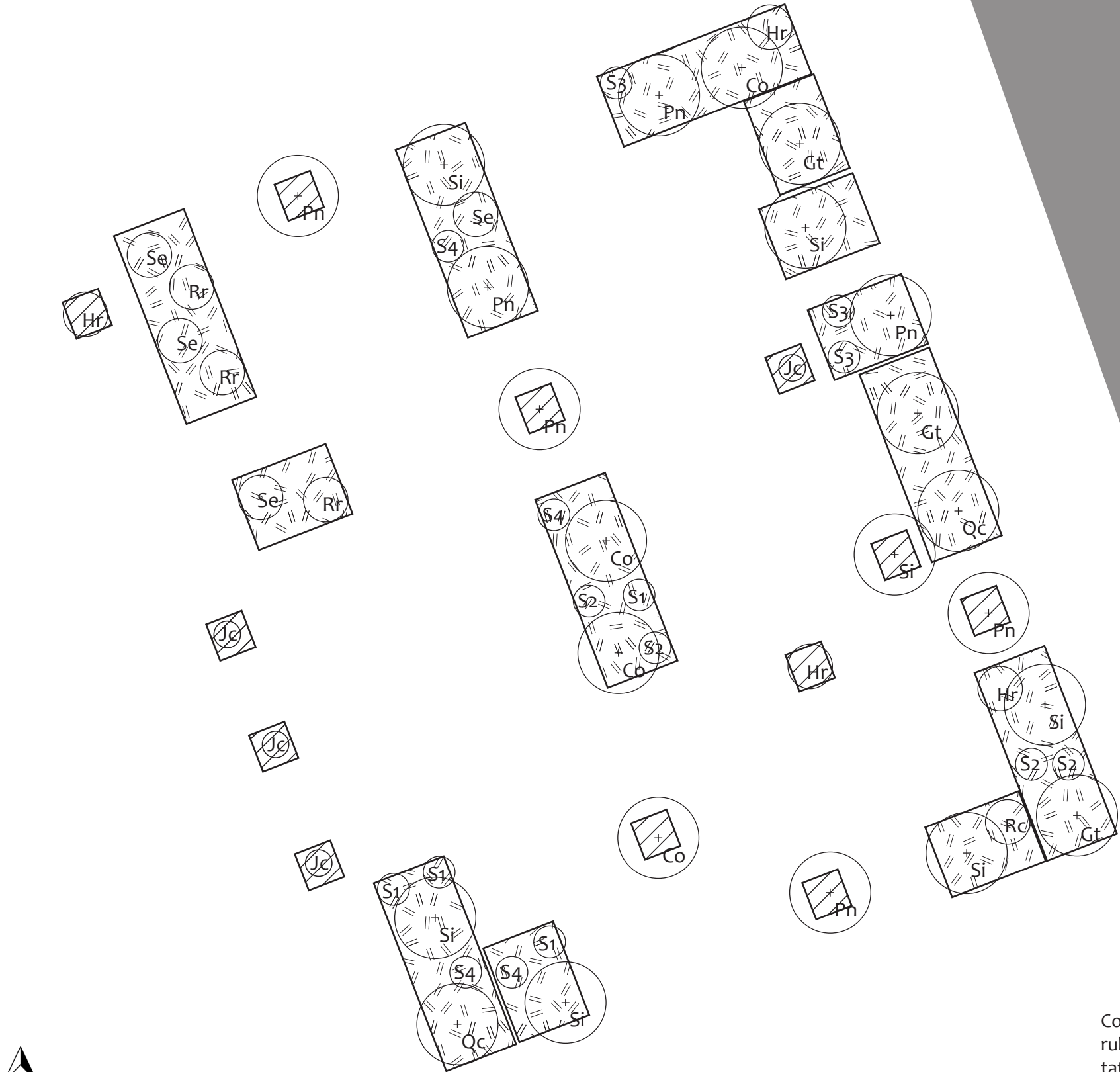
- Hr Hippophae rhamnoides
- Jc Juniperus communis 'Vemboö' E
- Rc Rhamnus cathartica FK TOPPMYRA E
- Rr Rosa rubiginosa FK HOBURGEN E
- Se Salix elaeagnos 'Angustifolia'

Solitaires

- S1 Arctostaphylos uva-ursi 'Massachusetts'
- S2 Dasiphora fruticosa 'Månelys'
- S3 Pinus mugo var. pumilio
- S4 Salix lanata 'Hjeltnes'

Mixes

- General mix
- Grass mix



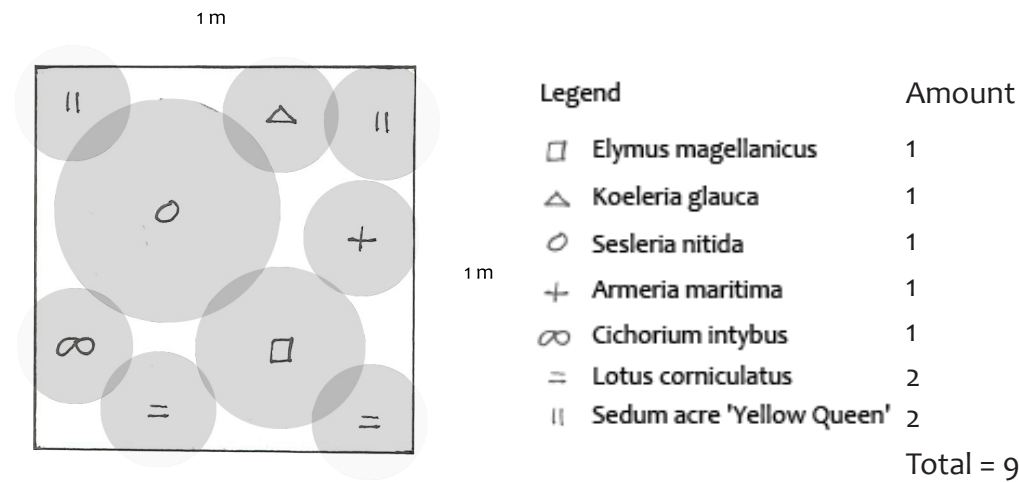
Comment: as Salix elaeagnos 'Angustifolia' and Rosa rubiginosa FK HOBURGEN E are both highly competitive species, they have been placed in the same container.



Perennial plant matrices

General mix

Rotate 90 degrees for variety



Grass mix

Rotate 90 degrees for variety



Plant list

| Scientific name                                      | Feature/Quality | Amount | Comment                                             |
|------------------------------------------------------|-----------------|--------|-----------------------------------------------------|
| Stemmed tree                                         |                 |        |                                                     |
| <i>Crataegus orientalis</i> STRAPATS® E ('Ep Crast') | Hst 8-10        | 4      |                                                     |
| <i>Gleditsia triacanthos</i> 'Shademaster'           | Hst 16-18       | 3      |                                                     |
| <i>Pinus nigra</i> ssp. <i>nigra</i>                 | sol 150-175     | 4      |                                                     |
| <i>Pinus nigra</i> ssp. <i>nigra</i>                 | sol 200-225     | 2      |                                                     |
| <i>Quercus cerris</i>                                | Hst 14-16       | 2      |                                                     |
| <i>Sorbus intermedia</i> E                           | Hst 16-18       | 3      |                                                     |
| <i>Sorbus intermedia</i> E                           | Hst 12-14       | 4      |                                                     |
| Large shrubs/small trees                             |                 |        |                                                     |
| <i>Hippophae rhamnoides</i>                          | sol 125-150     | 4      | Purchase both male and female plants to get berries |
| <i>Juniperus communis</i> 'Vemboö' E                 | sol 80-100      | 4      |                                                     |
| <i>Rhamnus cathartica</i> FK TOPPMYRA E              | busk 50-80      | 1      |                                                     |
| <i>Rosa rubiginosa</i> FK HOBURGEN E                 | busk 80-100     | 3      |                                                     |
| <i>Salix elaeagnos</i> 'Angustifolia'                | busk 30-50      | 3      |                                                     |
| Small shrubs                                         |                 |        |                                                     |
| <i>Arctostaphylos uva-ursi</i> 'Massachusetts'       | busk            | 4      |                                                     |
| <i>Dasiphora fruticosa</i> 'Månelys'                 | busk 30-50      | 4      |                                                     |
| <i>Pinus mugo</i> var. <i>pumilio</i>                | busk 25-30      | 3      |                                                     |
| <i>Salix lanata</i> 'Hjeltnes'                       | busk            | 4      |                                                     |
| Perennial plants                                     |                 |        |                                                     |
| <i>Armeria maritima</i>                              | p9              | 240    |                                                     |
| <i>Cichorium intybus</i>                             | p9              | 240    |                                                     |
| <i>Elymus magellanicus</i>                           | p9              | 275    |                                                     |
| <i>Koeleria glauca</i>                               | p9              | 380    |                                                     |
| <i>Lotus corniculatus</i>                            | p9              | 480    |                                                     |
| <i>Sedum acre</i> 'Yellow Queen'                     | p9              | 480    |                                                     |
| <i>Sesleria nitida</i>                               | p9              | 275    |                                                     |



|                                               | Height/width          | Spring                                                                              | Early summer                                                                         | Mid-summer                                                                            | Late summer                                                                           | Autumn                                                                                | Winter | Special traits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Source  |
|-----------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Trees                                         |                       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
| Crataegus orientalis STRAPATS® E ('Ep Crast') | 5-7 m / 4-5 m         |    |                                                                                      |                                                                                       |                                                                                       |    |        |       | 1.      |
| Gleditsia triacanthos 'Shademaster'           | 10-15 (20) m / 8-12 m |                                                                                     |                                                                                      |                                                                                       |                                                                                       |    |        |       | 1.      |
| Pinus nigra ssp. nigra                        | 15-30 m / 7-10 m      |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                   | 1.      |
| Quercus cerris                                | 20-25 m / 10-18 m     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |    |        |                                                                                                                                                                                                                                                                | 1.      |
| Sorbus intermedia                             | 12-15 m / 6-8 m       |    |    |                                                                                       |                                                                                       |    |        |                                                                                                                                                                             | 1.      |
| Large shrubs/small trees                      |                       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
| Hippophae rhamnoides                          | 3-5 m / 2-5 m         |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                   | 1.      |
| Juniperus communis 'Vemboö' E                 | 3-5 m / 0,5-1 m       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.      |
| Rhamnus cathartica FK TOPPMYRA E              | 4-6 m / 4 m           |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                             | 1.      |
| Rosa rubiginosa FK HOBURGEN E                 | 3-4 m / 3 m           |                                                                                     |    |    |                                                                                       |                                                                                       |        |                                                                                                                                                                             | 1.      |
| Salix elaeagnos 'Angustifolia'                | 1,5-3 m / 1,5-3 m     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |    |        |                                                                                                                                                                                                                                                                | 1.      |
| Small shrubs                                  |                       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
| Arctostaphylos uva-ursi 'Massachusetts'       | 0,1-0,25 m / 1-1,5 m  |    |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.      |
| Dasiphora fruticosa 'Månelys'                 | 1-1,5 m / 0,8 - 1,4 m |                                                                                     |   |   |   |   |        |                                                                                                                                                                                                                                                             | 1.      |
| Pinus mugo var. pumilio                       | 1-1,8 m / 2-3 m       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                          | 1.      |
| Salix lanata 'Hjeltnes'                       | 0,8-1 m / 1 m         |  |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                          | 1.      |
| Perennial grasses                             |                       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
| Elymus magellanicus                           | 40-50 cm / 45-60 cm   |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.      |
| Koeleria glauca                               | 30 cm / 25-30 cm      |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.      |
| Sesleria nitida                               | 40 cm / 60 cm         |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.      |
| Flowering perennials                          |                       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
| Armeria maritima                              | 10-25 cm / 15-30cm    |  |  |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                          | 1. & 2. |
| Cichorium intybus                             | 30-80 cm / 30-60 cm   |                                                                                     |                                                                                      |  |  |  |        |                                                                                                                                                                                                                                                          | 1. & 2. |
| Lotus corniculatus                            | 10-15 cm / 30 - 60 cm |                                                                                     |  |  |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.      |
| Perovskia atriplicifolia 'Blue Spire'         | 100 cm / 60-90 m      |                                                                                     |                                                                                      |                                                                                       |  |  |        |                                                                                                                                                                                                                                                          | 1.      |
| Sedum acre 'Yellow Queen'                     | 5 cm / 20-35 cm       |                                                                                     |  |  |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                          | 1.      |
| Annual grasses                                |                       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
| Bromus hordeaceus                             | 5-60 cm               |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3.      |
| Bromus sterilis                               | 35-100 cm             |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 4.      |
| Hordeum murnium                               | 30 cm                 |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5.      |
| Poa annua                                     | 5-30 cm               |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3.      |
| Flowering annuals/biannuals                   |                       |                                                                                     |                                                                                      |                                                                                       |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |
| Viola tricolor                                | 8-25 cm               |  |  |  |  |  |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6.      |
| Echium vulgare                                | 30-90 cm              |                                                                                     |  |  |  |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6.      |
| Trifolium arvense                             | 10–30 cm              |                                                                                     |  |  |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6.      |
| Jasione montana                               | 10–50 cm              |                                                                                     |                                                                                      |  |  |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6.      |
| Papaver dubium                                | 30–60 cm              |                                                                                     |  |  |                                                                                       |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6.      |
| Papaver rhoeas                                | 30-60 cm              |                                                                                     |                                                                                      |  |  |                                                                                       |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6.      |

The table shows the special interests of each species, when they bloom, their autumn colours, etc. Since vegetation design has played a central role in this thesis, careful consideration has been given to ensuring that the design offers points of interest throughout all seasons.

Legend

 Autumn colours

 Flowering interest

 Bee friendly

 Insect friendly

 Butterfly friendly

 Bird friendly

 Decorative seed pods

 Decorative berries

This section has shifted away from the Harvard system, in favour of an original reference system inspired by Axelsson & Eriksson (2020). The purpose is to make it easier to trace the origins of the information.

Litterature used in the phenology list

1. (Planter n.d.) [Search word: Species name]

2. (Vegtech n.d.) [Search word: Species name]

3. (Laji.fi n.d.) [Search word: Species name]

4. (Open Herbarium n.d.)

5. (Wikipedia 2025).

6. (Luontoportti n.d.) [Search word: Species name]



## 8. Discussion & conclusions

### Gåseback as an assemblage

Gåseback as a whole can be understood as an assemblage. It is an assemblage of an industrial past and a present containing businesses, crafts and arts. Despite not containing much industry today, Gåseback still retains the sense of an old industrial area. In the assemblage that is Gåseback, parts have been replaced and changed. For example, the fire station no longer houses firefighters; instead, it serves as a cultural hub. The football field is no longer used for football and fire drills but for graffiti. Part of this assemblage are also some social challenges, including homelessness and people struggling with addiction.

The city's ambitions for Gåseback will change this assemblage further, accentuating some aspects of the current Gåseback while reducing or removing others. The industrial heritage, artistry, and bohemian side of Gåseback are to be preserved, while new housing will add new dimensions. As seen in Norra Sorgenfri, these are interests that do not necessarily intermingle, and serious effort is needed to preserve Gåseback as a hub for creativity. Given that space for culture is something that specifically wants to be preserved in the area, it will likely take subventioning or other political decisions to make sure it can remain.

With the transformation of Gåseback, some businesses will inevitably disappear, and be replaced with businesses that meet new demands of a residential area. By becoming a residential area, increased safety concerns will likely push marginalised groups like addicts and the homeless further away. These marginalised groups need somewhere to be, and the risk is that the challenges are merely relocated to another location.

The two design proposals presented in this thesis are temporary by nature, meaning that they would only be part of Gåseback's assemblage for a limited time. Some aspects of the designs may influence the assemblage in the long term, as parts of the vegetation will hopefully be planted in a permanent spot.

The temporality of plants adds another interesting aspect to the assemblage. They vary in lifespan, giving the place different characteristics over time. Throughout the seasons, the plants will give the site different features, whether it is summer flowers or interesting structures in winter. They also provide various services and foodsources for wildlife, like nectar for insects, and berries and seeds for birds.

Some plants will inevitably be more successful than others, and eventually the plant composition will look different compared to when it was first planted.

In accordance with Stevens et al. (2024) the material capacity of the site has been increased, perhaps enabling more activity than was previously possible, or at least changing its use. The railroads make the area more interesting to walk through, and give priority to pedestrians. The design offers a variety of plants to observe, and the railways provide something to balance on or to sit on. Children may enjoy jumping from one railroad sleeper to the next.

The Banana Box Park offers something different. Through the signs placed on the planting modules, park becomes a tiny outdoor museum. These signs provide the space with an educational layer, that informs visitors about the local history. Additionally, the larger vegetation changes the spatiality of the site, and creates a place out of the space. While it could make the site more interesting during the day, it may increase the sense of unsafety at night, as visibility is reduced. A measure against this could be the use of lighting, but that could affect wildlife, like birds, negatively.

Due to its relatively secluded location, the pop-up park could face risks like vandalism. Considering the area's active street art culture, the boxes may become surfaces for graffiti. That could be positive, as it would allow the design to become more integrated with the site.

Both proposals are purposefully not designed with a particular activity in mind. They are meant to be a first step toward an environmentally sustainable Gåseback.

### The design proposals and UHI

According to both Rahman et al. (2020) & Tan et al. (2022), trees do seem to be the most effective in reducing UHI (Rahman et al. 2020; Tan et al. 2022). However, Tan et al. (2022) argue that it can be more cost-efficient to use a combination of shrubs and trees (Tan et al. 2022). This design is unlikely to reduce the UHI effect a great deal in the short term. But if it would be possible to eventually plant the trees in the ground, allowing them to grow large, there could be a positive impact on mitigating UHI. What the design proposals do convey, is the importance of reducing the number of grey surfaces in our cities, and specifically Gåseback.

While there may be tree species more suitable for reducing the UHI effect, that were not used in this

project, there is value in having a variety of species. Biodiversity helps prevent widespread tree loss due to diseases and pests. Furthermore, planting trees with varying life spans ensures continuous renewal of the urban canopy, thereby providing consistent shade.

### The design process

The considerable amount of open space available in Gåseback is an asset that should be taken advantage of. Planning for a proper park is essential in this stage, before development of the area begins. Once buildings are put in place there will be no more space for vegetation.

As a designer without personal connection to Gåseback, my approach to understanding the site was through reading, visiting, and conversing with municipality personnel. However, people who actively engage with the area in various ways, and by spending a lot of time there, get a different kind of attachment. Discussions with actors within Gåseback would likely have resulted in vastly different designs, that could potentially have suited the needs of the place even better. As Gåseback is a place where many creatives reside, harnessing their creativity and input could have been a good way to engage the community in prototyping. On the other hand, that would have been another thesis. My approach led me to focus more on the vegetation, as this was something I had some knowledge and experience in, and was something I could control more.

A weakness of the proposal is that it focuses on a very specific aspect of the heritage of Gåseback. With more time, and a larger surface area, it could have been possible to encompass more of Gåseback's heritage, perhaps relating more to the fire station, as the design proposals are both surrounding it. The advantage of working with temporal design is that banana and coffee-themed freight boxes could only be a starting point. The containers could be modified over time. While the vegetation is more permanent, the panels on the containers can be changed to whatever is deemed fitting. This approach could also invite local involvement through workshops where residents can create the signs decorating the boxes, whether based on a theme, or allowing graffiti artists to use the boxes.

A limitation of the Perennial Railroad is that as it involves cutting up asphalt, and putting heavy railroad in place. This places it in a grey area between temporary and permanent.

The constraints and uncertainties of Gåseback, such

as the contaminated soil, hard surfaces, little to no funding, and the absence of definitive plans for the area's development, proved to be very challenging parameters to work with, that affected the design process. As a result, the process focused on solutions to counteract the budget constraints, such as framing the plants as an investment, an expense that would eventually be necessary for future park development. Moreover, focus shifted toward identifying materials already available within the city's inventory, that could be creatively repurposed. This is how the ideas for upcycling the railroad and repurposing shipping containers were developed.

In the early stages of the project, the ideas revolved around creating a more permanent design on the football field by the fire station. However, developing something permanent in an area that would have to be decontaminated later was deemed a misdirected effort. This led to a shift in focus toward temporary solutions on hard surfaces, which, arguably, are the areas most in need of vegetation. The advantage of temporality is the flexibility it offers. When development begins in one area of Gåseback, the installations can be moved to another part of Gåseback. In the event of delays in the development process, the plants could be planted elsewhere in the city of Helsingborg. Additionally, if events or activities were to be held in Gåseback, the pop-up park could be relatively easily moved.

It remains unclear if a proposed project such as this would draw people to Gåseback. If the objective is to activate Gåseback more, it would have likely have been more effective to host workshops, inviting citizens to participate in a project. Like Dahl & Helsing (2023) describe, involving citizens in prototyping, can result in an increased sense of ownership, making citizens care about the site (Dahl & Helsing 2023, p. 8). A design proposal developed this way resulted in a design more aligned with the preferences of the local communities. However, organizing such workshops would likely require more resources and time. Due to time constraints, I used the document 'Gåseback's själ' as a starting point for the design. While it contains thoughts and opinions on Gåseback's development, by both citizens and the municipality, it does not equate to actively working with locals in person.

In hindsight, conducting more site visits, particularly during different seasons, would have been valuable. Visiting the area during warmer months could have provided insights into how the site functions and feels during that time. Such observations might have helped determine whether the area becomes more active in the summer.



## Conclusion

To work strategically and proactively towards place-making in the preparation for the urban transformation of Gåsebäck, it is essential for city developers to adopt a bottom-up mindset. This approach can be time consuming, but is important for ensuring long term sustainability.

Temporary installations alone are not enough to create good conditions for an urban transformation project. But given the many constraint and uncertainties that still revolve around Gåsebäck, they can complement the process by cultivating a sense of progress, providing a means to test ideas in the short term, which may influence long-term outcomes. Engaging in discussions with locals can help identify what additions might be most welcomed at the site. Through prototyping as a method, ideas can be continuously refined to create a successful outcome.

Ultimately, urban transformation needs to include — and perhaps begin at — the grass-roots level, both literally and metaphorically, to create an environmentally and socially sustainable city district.

## Method discussion

The weaknesses of constructivist RTD, is that the generated knowledge is embedded in a physical and social context, and a particular timeframe. This can make it difficult to generalize the insights, and apply them on other contexts, even if there is some room for generalizability. Furthermore, the generated designs are often lacking in the technical aspects, as this is not a focus of constructivist RTD (Lenzholzer et al. 2013, pp. 123-124). The method was chosen as it was suitable for answering the research question, and as my knowledge of the technical parts of designing is limited.

Furthermore, the project could have benefited from having interviews or workshops with the local artists. On the other hand, preparing these would likely have been time consuming and taken time away from other parts of the thesis.

## Recommendations for future research

Throughought this project, unanswered questions have surfaced. The following are my recommendations for future research.

1. Studying the gentrification caused by the transformation of post-industrial areas. Such a study would provide valuable insight for city developers, highlighting the potential impact and considerations

2. Exploring how spontaneous vegetation can be used in designing post-industrial areas, and contribute to ecological and aesthetic aspects of urban space.



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