

Södra Munksjön - Jönköping

ideas competition

PROLOGUE

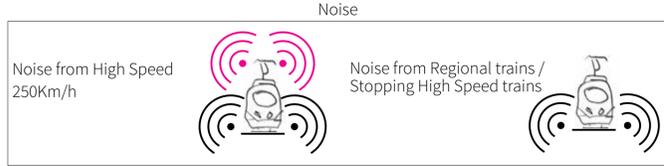
Establishing a new piece of infrastructure in an existing city is a very substantial intervention. Establishing a High Speed Railway Station in an urban fabric of residential housing and with commercial and retail buildings situated amongst leisure and sports centres is an even bigger and more complex intervention. Such an intervention has an extreme impact on the urban environment and therefore for the people living and working in the area of Jönköping.

“Strange, when you ask anyone’s advice you see yourself what is right”

Selma Lagerlof

The core of this assignment is the importance of designing a positive environment, and connecting people in a way that will make it possible for them to enrich their lives.

The single biggest obstacle for people living near a High Speed station with trains running at 250km/h is noise.



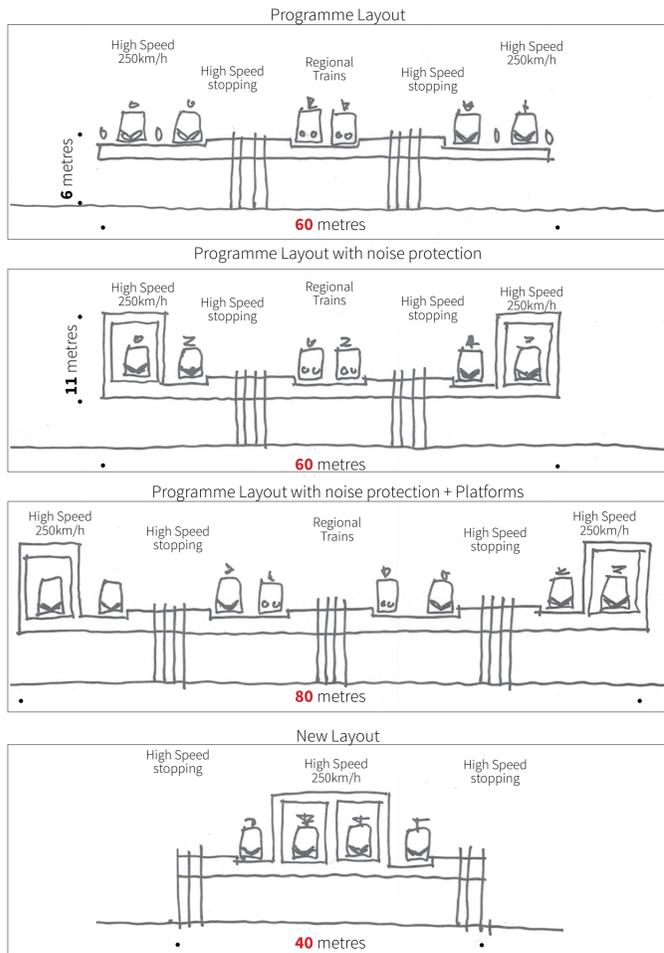
Protecting the competition area from the noise will also cause a huge visual barrier. It jeopardises all the good intentions in the vision for Jönköping. Unfortunately this is not addressed in the competition program neither in the visions for the city.

Due to the high impact of noise levels we have taken the decision of moving the station to the surface of the Munksjön.

This leaves the competition site available for enriching city life, and for people to work, live and play. Södra Munksjön will be connected to the existing city centre via a bridge for pedestrians and bicycles.

The upper part of the station and the tracks will form an east-west corridor accessible for pedestrians and bicycles, and suitable for leisure activities, which means a brand new roof garden for the citizens of Jönköping.

To support the decision taken, diagrams show the sizing of the station based on the competition program including adding of the sufficient noise protection. Our research shows that there could be a potential problem fulfilling the operational plans for the High Speed link with just two platforms as indicated in the competition program. We have therefore sketched a solution with four tracks of stopping trains. This solution can easily be incorporated in our scheme.



TRACK LAYOUT

Based on our knowledge and research on the track alignment, capacity of trains per hour, functions of the station combined with our visions and ideas for shaping a better life for people, we suggest changes of the layout of station and track alignment from the competition program.

We moved the crossovers to the land west of Munksjön where we find the needed space to create a better construction for those. By doing so the branching out tracks are configured smarter obtaining the right speed for trains to get back on to the main line. We have designed a station with two platforms servicing the two stopping tracks as indicated in the competition program.

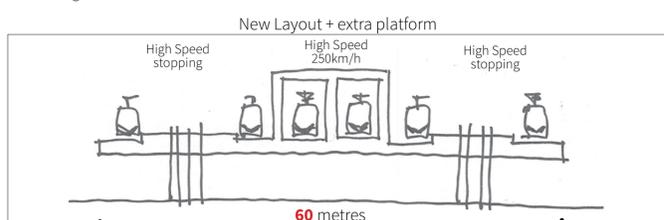
The desired capacity from Trafikverket clearly indicates that two platforms are missing in the competition layout.

We have added a diagram showing that our scheme can be reconfigured with very small consequences to the general layout, obtaining the extra platforms to secure the right capacity.

We have relocated the Regional Rail line using part of the existing track to let the Regional Rail go beneath the High Speed Station where it will have a large island platform.

In a future study we believe we can relocate the existing stabling facilities to the east in order to let this area be available for new developments.

We have changed the southern Rail Line towards Hovslätt with a Tram/LRT line. This will be a better service for passengers to and from the south of Jönköping and connection to the remaining infrastructure.

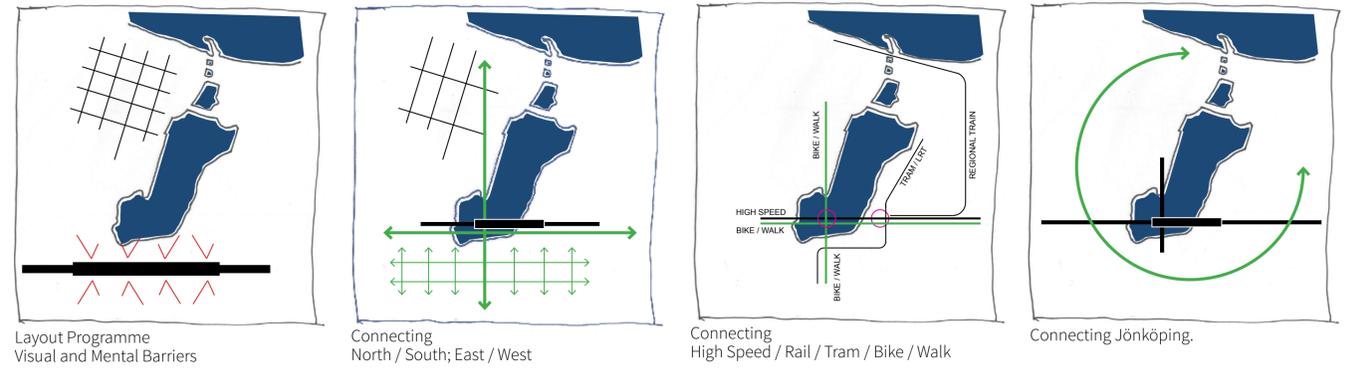
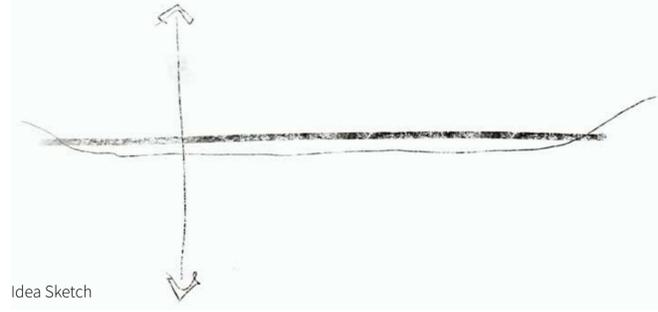


CONNECTING LIFE

The new High Speed Station in Munksjön is situated with a bridge head on the east side connecting the High Speed services with regional rail, tram/LRT and buses. This will connect Jönköping with Stockholm in the north and Madrid in the south. We propose a bicycle/pedestrian bridge extending north-south while connecting both the station and Södra Munksjön Development with the city centre.

This gives the Södra Munksjön Development opportunities to integrate with the city without any visually or physically constraints and at the same time possibilities of further development towards the E4 freeway.

The area can develop over the years in terms of the additional real-estate for housing, retail and commercial buildings, not compromising the good intentions of the municipality of Jönköping.



“CONNECTING”



Night Time Artistic Render

ARCHITECTURE / LANDSCAPE

The station will be placed as a structure floating eight meters above the lake. The appearance of the building will respond to the Nordic atmosphere and to the local context.

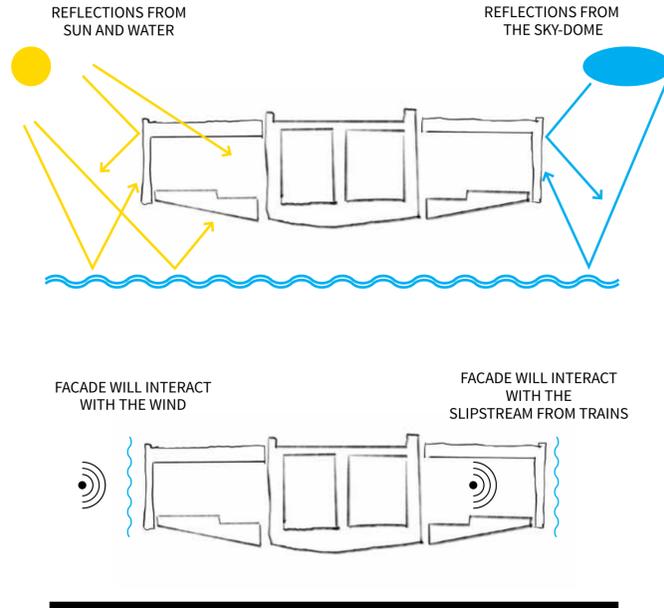
The Nordic light is an inherent feature of the Nordic spirit, and a distinguished characteristic of the Nordic region.

Light is fundamental to the appearance of the surroundings and for the spatial perception, and is crucial for the understanding of the Nordic world.

The light in the Nordic countries is dominated by light from the sky, an airglow. The primary light source is the large illuminated surface, the sky-dome, enclosing the entire Nordic world. The airglow from the sky comes from all sides and angles, in terms of light and light-shadows. This is a light that hints and suggests rather than marks. A light that softens the surroundings by making the surroundings appear bright and poetic with great variations of shades, colours and nuances.

A special light creating a very special mood and ambience.

We are searching the Nordic values of minimalism and simplicity like close and spontaneous encounters with nature. Perception of something quiet, dedicated, accurate, harsh or rough. We use grey, white, black or hazy rather than bright colours obtaining a clean and clear aesthetic. Somewhat isolated, deserted and modest and reflecting a feeling of open spaces.



The panels are top-hinged, and will move as a quiet wave when the wind hits them, giving a ripple effect all over the 400-meter-long façade. Reflections will be different depending of the direction of the wind and the angle of the panels. The panels can move 10-15mm.

The trains running into the platforms will also activate the façade. The slipstream from the trains will give another ripple effect, and one can as such read the arriving and departing trains.

The 'tube' containing the trains running at 250km/h will have glass built into the concrete. When trains pass by one can see the movement as stars in the sky lighting up as the train moves east-west.

The station and the tracks reflect the Nordic light and blend into the fantastic milieu due to this variety of appearances. Sometimes you will see the building clearly and at other times it will be part of reflections from the sky or the water due to the wind and movements.

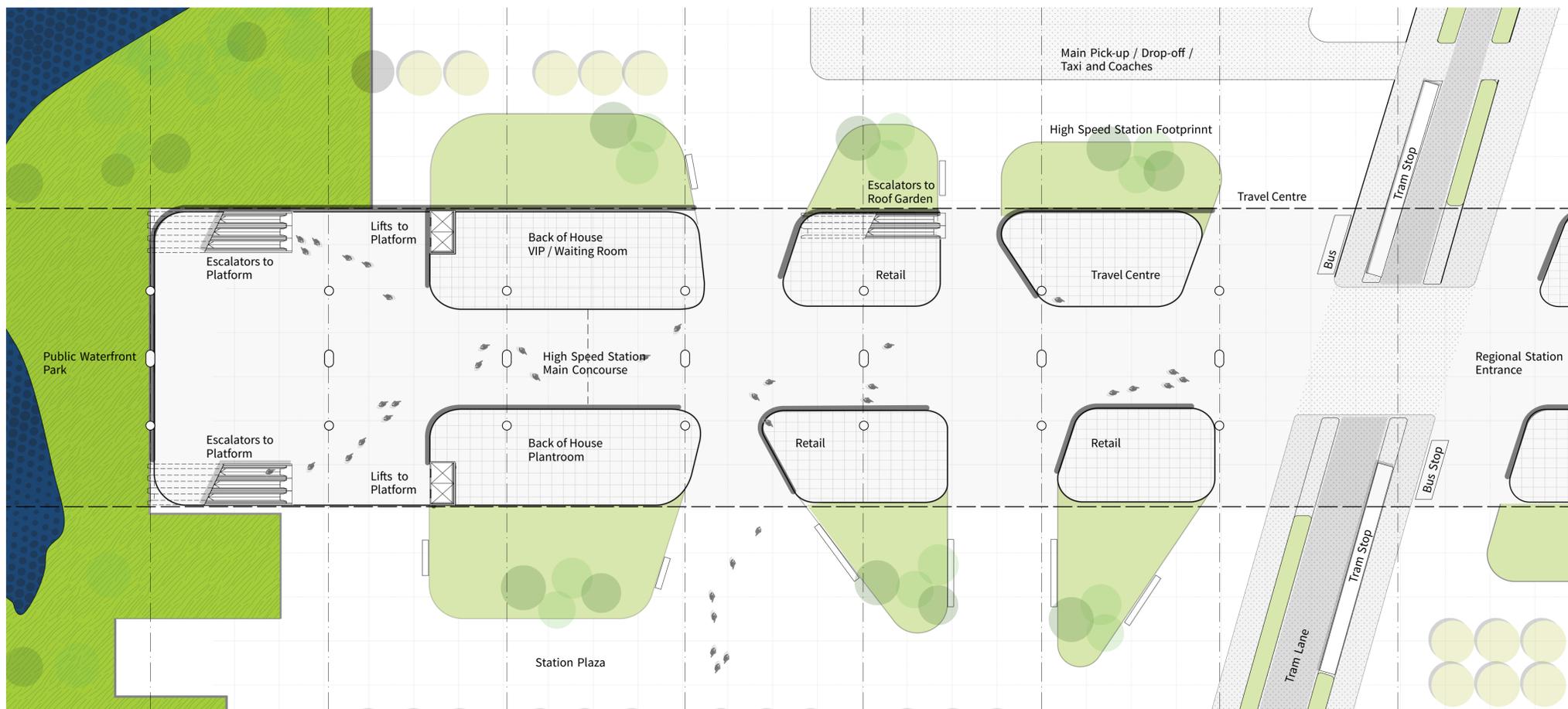
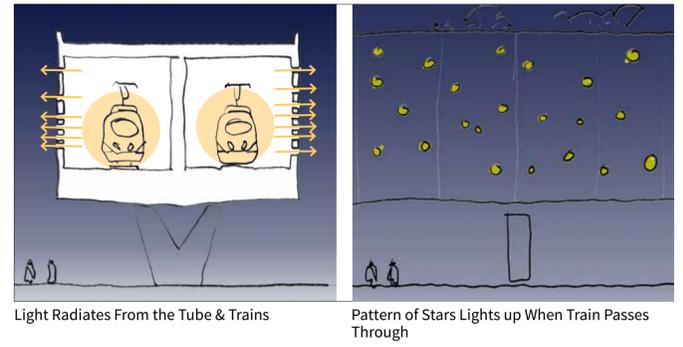
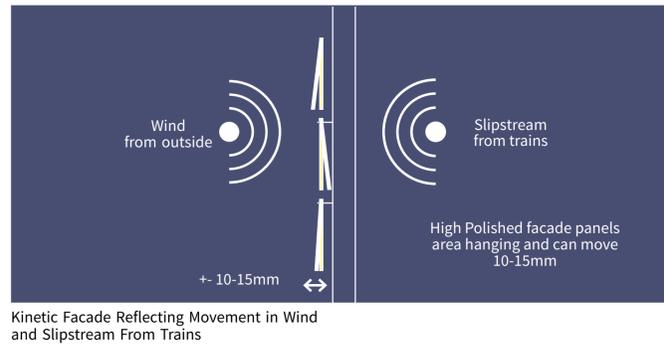
The architectural appearance of this very large station will by this design become a natural part of the surroundings and the environment. It appears minimalistic and will act as an element of the landscape reflecting the Nordic site, the time of day and the season of the year and finally the movements of the trains. This is the new lifeline to the region.

... När det klara och det enkla, får råda som det vill

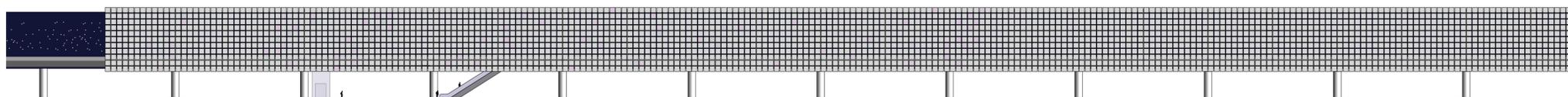
Ulf Lundell; Öppna Landskab/ Open landscapes
(.....When clear and simple things are let alone to do their job.....)

The design of the station building is incorporating all these aspects of the Nordic world in order to make it a token for Jönköping and to Munksjön. The station serves as a visible representation of a simple connector between the symphony of light and the people living in the area.

We are working with a kinetic façade for the station, which makes the façade change slightly during the day, reflecting both its movements and also the surroundings. The building is clad with high reflecting steel panels creating a mirror-effect. The façade will mirror the ever changing sky and the reflections from the water.



Station Ground Level Plan 1:400



Station - Diagrammatic Elevation

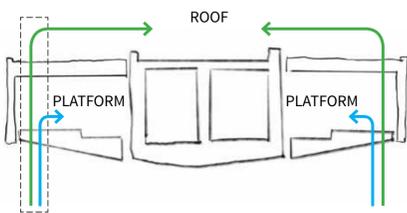


STATION LAYOUT

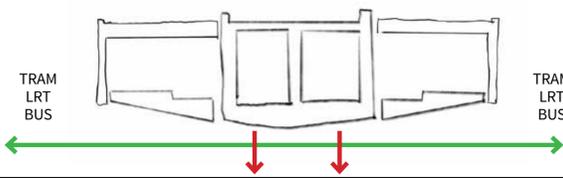
The station has its anchor point on the east side of Munksjön. We are proposing a large urban space connecting all the different traffic modes.

The access to the High Speed platforms is from the main Station Plaza where all the different modes of transport intersect. There will be tickets offices, travel agencies, shops and restaurants. The Regional Rail is diverted from its existing alignment to pass under the High Speed tracks with an island platform. North-south we will have the tram/LRT and busses. This will be a most efficient traffic node dealing with all passengers in a very simple way. There will be drop-off access for taxis and private cars, and a bike-parking garage also. At the rear end of the High Speed platforms there will be access to the pier connecting Södra Munksjön and the city centre. This provides easy access for passengers coming from the city centre, and creates easy connection for pedestrians and bikers travelling back and forth on a daily basis.

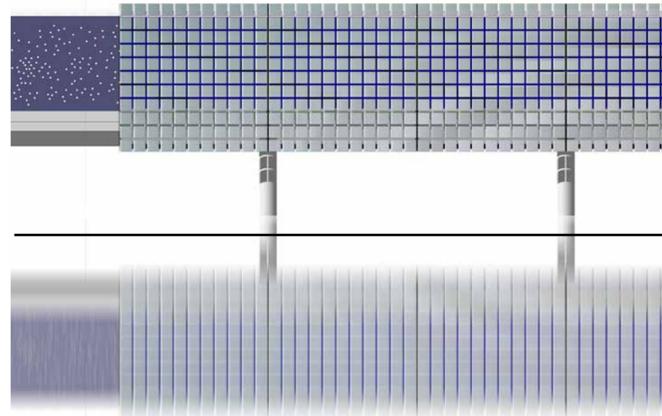
All back-of-house activities for regional and High Speed rail are placed below the High Speed tracks.



Vertical Circulation Diagram



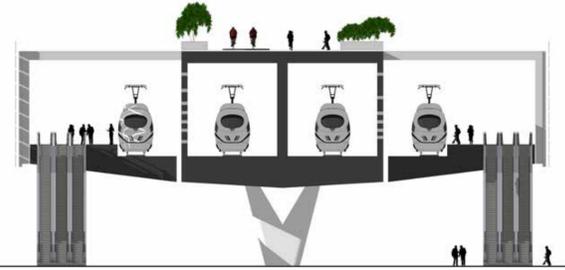
Interchange Movement Diagram



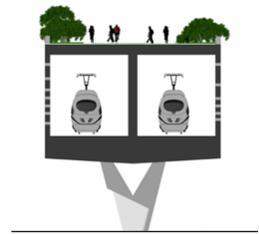
Station - High Speed Tunnels and Station Facade Diagrammatic Elevation



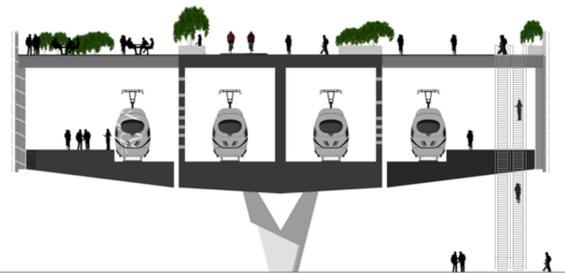
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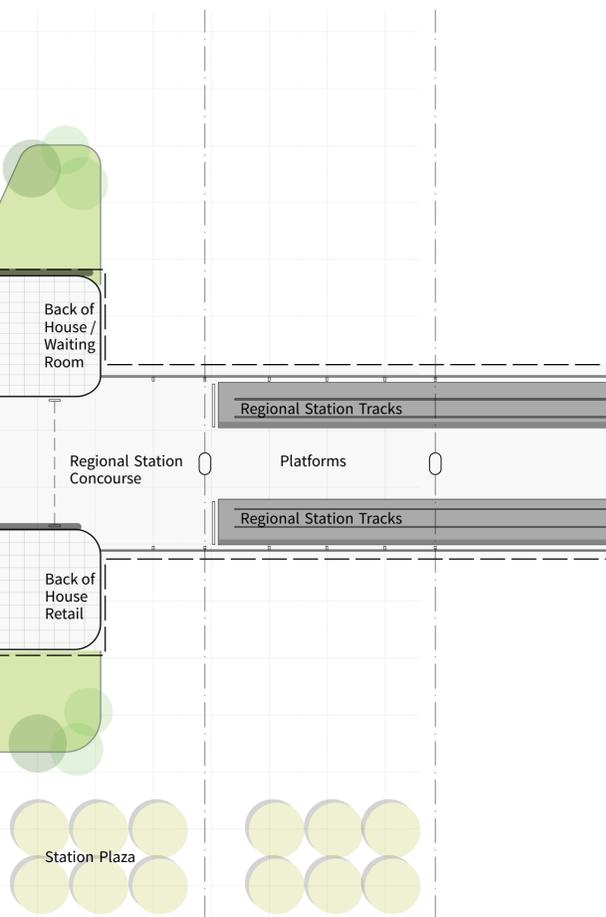
Station - Access to Platforms Diagrammatic Section



Running Trains Tunnel Diagrammatic Section



Station - Access to Roof Garden Diagrammatic Section

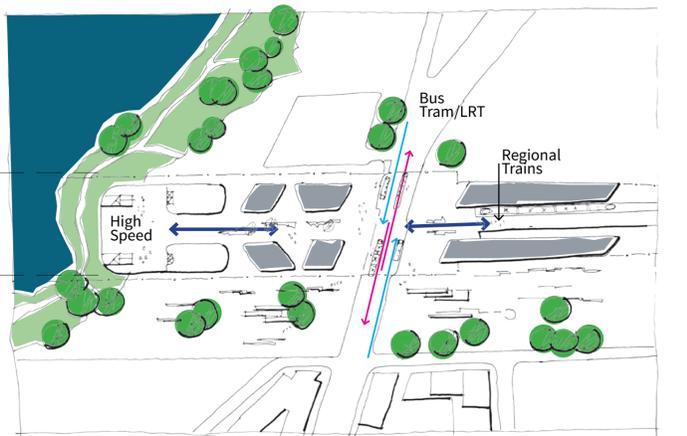
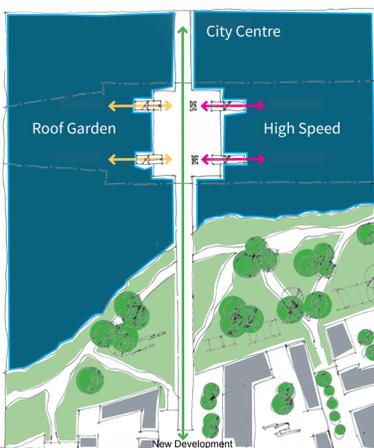


High Speed Main Entrance Diagrammatic Plan

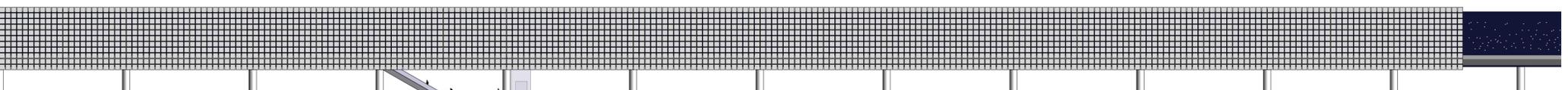


Ground Level Permeability Diagrammatic Plan

Secondary Entrance/ Access to Roof Top Garden Diagrammatic Plan



High Speed Station Main Entrance - Interchange Plaza Diagrammatic Plan





Winter Artistic Render

GARDEN OF THE SKY

The way we have configured the track layout, encapsulating the High Speed tracks, gives the city a roof garden stretching from the portal in the east to the portal in the west. One can get access to the roof at the station plaza and from the bridge on the water. It is an intention to establish a series of access points along the route as well.

The roof will serve as a space for activities, cafés and leisure. From the station building there are platforms as access to the perimeter of the roof. From the roof you can view the city centre and Vätteren, and to the south you are overlooking the new development. The roof garden connects the city east-west.

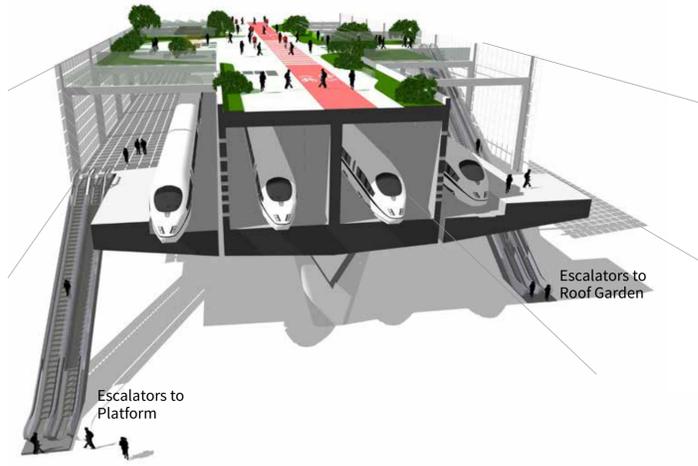
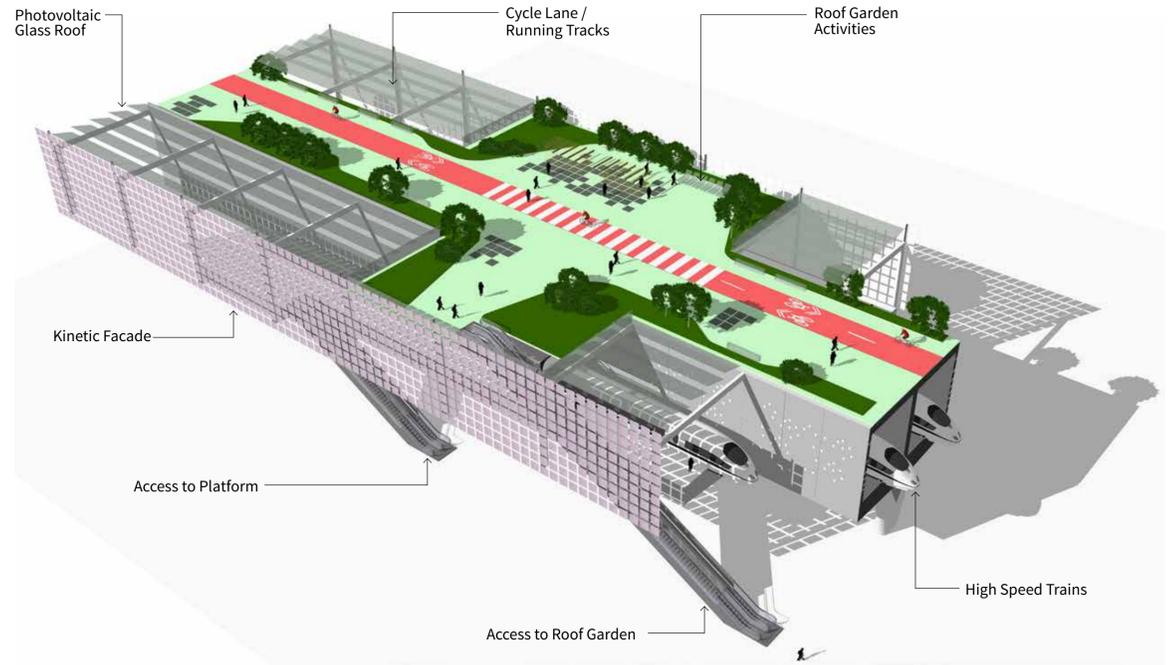
The Station Roof Top is to be opened and populated to allow for both the movement and enjoyment of the residents – a spaces to be claimed as their own and supplement the provision of traditional at ground public realm and lake side walkways.

The movement will echo that of the High Speed route beneath, with dedicated running and cycle lanes, supplementing a promenade.

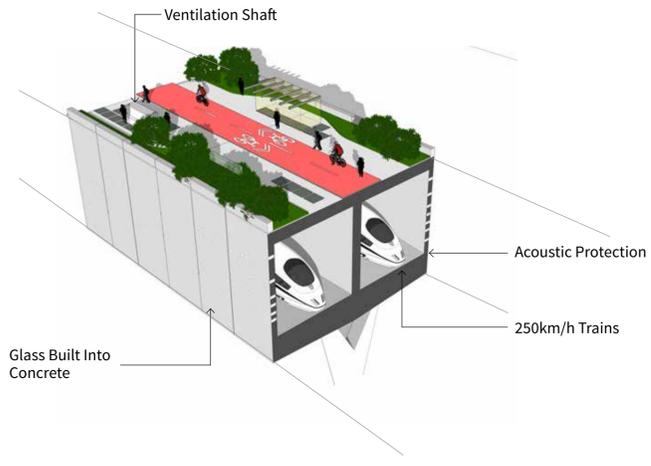
From this promenade, pockets of landscape will be situated above the High Speed platforms to all users to pull in and at various destinations along the station to discovering large tables equipped with power points, consistent Wi-Fi access, study pods, an outdoor gym, an amphitheater for performances, pockets of play for children, structured seating acting as viewpoints across the lake, ping-pong tables, productive gardens, bio swales, green/brown roofs and quieter nooks for seating and relaxation under clusters of whitebeams.

Small kiosks and cafes will operate focused around the station lifts - linking street to station to roof – providing the opportunity for residents to relax and take in the changing Nordic light across the skyline of the City, Södra Munksjön new development and the Lakes.

Openings and roof lights above the train lines will expose its function and will allow users to glimpse and connect with the functioning infrastructure.



Station Diagrammatic 3d Section



Linear Park Along the Viaduct

References:



The Goods Line © Florian Groehn



The Goods Line © Florian Groehn



The Goods Line © Florian Groehn



The Goods Line © Florian Groehn



Narrabeen Lagoon © Simon Wood



Jim Stynes Bridge Project © Claire Takacs



The Waterfront Promenade at Aker Brygge © Tomasz Majewski



Bondi to Bronte Coast Walk © Florian Groehn



The Infinite Bridge © Aarhus | Billeder



Pedestrian Wooden Bridge Green Connector from Jönköping City Centre to Södra Munksjön

SOCIAL-ECONOMICS OF MOVING THE STATION

Our proposal will give Jönköping future possibilities to develop the new area south and east of Munksjön in a holistic manner. Phasing and new ideas for development can be incorporated over the years with very little impact to the infrastructure.

The quality of living and working in the area will be very positive and by placing new cultural initiatives in the area, this development can be a main driver for deliver a significant quantum of new residential, whilst also helping to deliver employment and opportunities for a finer grain of offices / studios and ateliers, alongside the big employers like Ikea and Husqvarna and Electrolux.

The new site for the High Speed Station will give better accessibility for larger development of Jönköping, and it will all be connected by an array of transportation modes.

Placing the High Speed Station in Munksjön has minor cost implications, which must be seen in the context of a more humane and liveable city.

The business plan and revenue from being able to develop the new part of the city without the constraints of an enormous High-Speed station is significant.

We have estimated an extra gross area of new development to be in the order of 250.000 to 300.000 m² divided on housing, retail, offices and commercial.

A possible future relocation of the existing stabling and rail facilities north of Solåsvägen will add a potential extra 30.000 to 50.000m².

Placing the station with a bridge head on the east of Munksjön will potentially give access to develop the north area effectively, and add value to the development plan for the future of Jönköping.

The new High-Speed Station will be the connector for Jönköping.

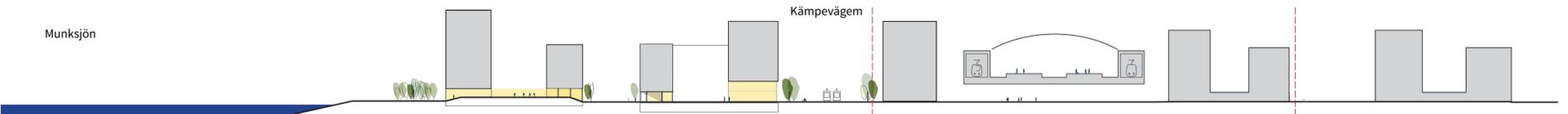


City Green Network Diagram



Station and Competition Area Plan
1:2500

Munksjön



Diagrammatic Section Showing the Station - Programme Layout

Munksjön



Diagrammatic Section Showing the Station New Layout

“CONNECTING”

Södra Munksjön - Jönköping

ideas competition

MUNKSJÖEN SOUTH DEVELOPMENT: A DISTINCTIVE NEW QUARTER FOR JÖNKÖPING



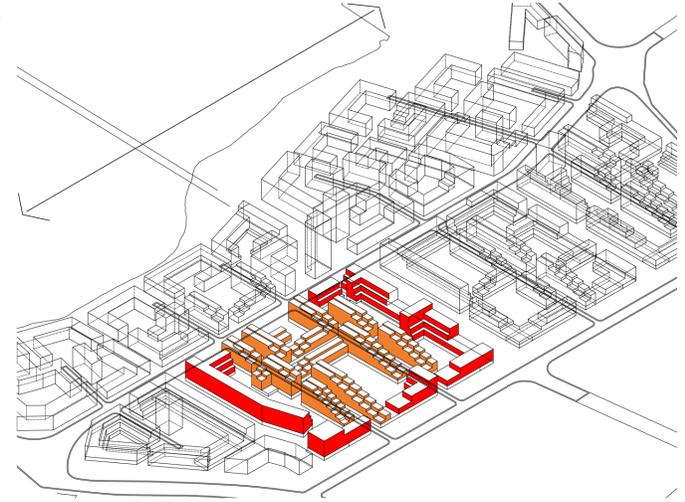
Street

By situating the station on the lake, this proposal provides the opportunity to rethink the scale and character of a development at the southern shore. We are increasing the capacity of the site to deliver new homes, employment space and community facilities for the city, whilst not compromising the existing development sites with the constraints associated with living and working in close proximity to an elevated High Speed railway.

Through this simple move, we imagine the creation of a distinctive new mixed-use community that extends the character of the lake back into the growing city. With this increase of space at its heart, and with the simpler connections to the big sites further back from the lakefront, this area has all the ingredients to become a distinctive new quarter for the city of Jönköping.

To accomplish this we have kept the broad principles of the development planned by the municipality with streets running down to a lakeshore, although we imagine these being extended towards south. These streets form a ladder of generous green connections that help to bring the landscape quality of the lake back deeper into the new development. We think of these as shared spaces, with vehicle routes serving the blocks although with a pedestrian and cycle priority. The simple streets will integrate public realm and cycling infrastructure, play spaces, beautiful trees, and sunny places with a view to the lake.

Ground floor:
The block is organized to produce a calm interior:
Retail on the periphery creates an active frontage.
This performs as a buffer between a lively public space and a residential core.



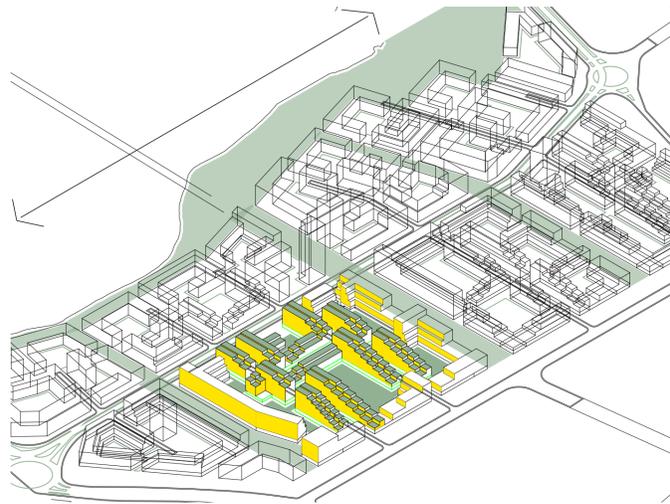
At the lake edge we propose a new park with a view to the new rail station, and with easy access to the elevated walkways, which are connecting towards the old match factory. The park connects to the south by the new fingers of shared spaces, which provide a circular walk alongside the lake through a distinctive native landscape, with platforms and places to sit and watch the remarkable new structure as it changes colours against the sky.

The north-south and east-west axes set out in the Södra Munksjön plan are retained, with connections to the east and west following broadly the alignment of Kämpvågen and routes south of Industrigatan. They connect from the logistics and distribution areas through to the lake. By adding into this existing structure with the new set of public streets, the development will naturally adapt to mesh itself together with the existing context.

In The Yards living and working converge. It is a vibrant, mixed-use community with a variety of building scales and applications with a familiar Jönköping style. These buildings, together with the smaller scale connections that run between them, are important to help define the character of the place. A looser configuration of mixed-use blocks defines a finer grain of routes, connections and intimate spaces in the cluster of yards; some of which are more private in nature as residential housing, and other yards that are more openly accessible.

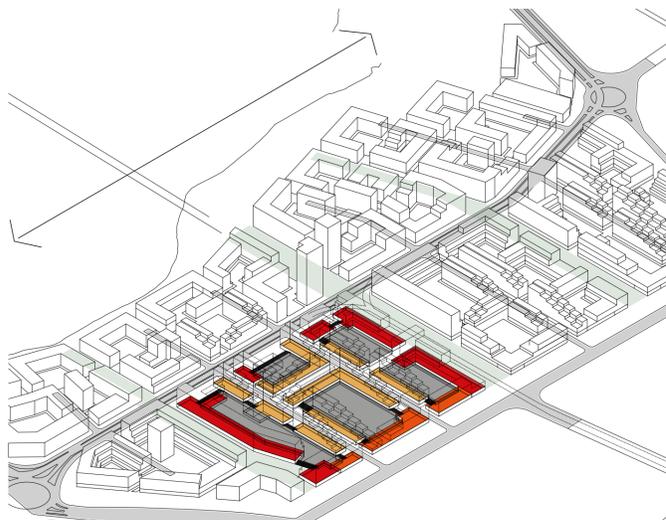
We imagine a layered landscape formed by varied massing and articulation combined with buildings of different heights and with different use of roof terraces. This contributes to the informality and adds to the area's distinct character. The human proportions give a sense of conviviality and encouraging interaction at street level.

Green infrastructure:
The masterplan is structure around three distinctive green fingers.
In order to maximize day light into the dwellings and in the yards, the roof is terraced.
This allows roof gardens.



Water Front

Grain:
The grain is constructed to have a robust exterior and a more robust yard.
With offices on the periphery and residential in the interior.



Yard

The sequence of courtyards delivers diverse and well-connected spaces for living, playing and gathering. These courtyards also provide spaces for businesses, and for the creative community to spill out and connect. We imagine a set of new applications and activities within the new development providing space for both living and working.

We feel there is a great potential to diversify the range of employment spaces that are currently predominantly provided by the big logistics sheds. We therefore propose a more integrated idea of living and working in terms of yards reflecting a typology where the perimeter block is active on both the street front, with retail and social programs, but also on the inner face, with workspace, cafés, community functions and residential amenity.

- Key
- Car Parking
- Green Areas
- Retail
- Workshops
- Residential
- Sun Exposure
- Offices



Masterplan Massing Diagram