





### **Dear competitor**

The municipality of Trelleborg welcomes you to participate and engage in our unique area in Sweden's southernmost city, where 5 km quay and more than 90 hectares of coastal land will be made accessible to the public.

You can influence how this area will be designed by suggesting a proposal that strengthens Trelleborg's center during the coming four decades. The character in the new harbour front area, named "Sjöstaden", will be influensed by innovative thinking about the interaction between living and production.

We look forward to many good proposals- and to work with some of you already in 2018. Be inspired and challenged by our competition program and film that introduces the area, and welcome to Trelleborg on Friday, April 21 for our scheduled site visit that start at 12.00 with a lunch.

# EUROPAN 14 TRELLEBORG SWEDEN Productive Cities



Arial of the site looking west.



### **GENERAL INFORMATION**

Site representative Charlotte Hägg Reader / Charlotte Lindström, Municipality of Trelleborg

Actor(s) involved Municipality of Trelleborg, Trelleborg Port

Team representative architect, urban planner or landscaper

**Expected Skills with regard to the site's Issues and Characteristics** Architectural, urban and landscape skills.

**Communication** Anonymous publication –online and in an exhibition– after the 1<sup>st</sup> jury round.

**Communication after the competition:** Public price ceremony

Catalogue of results - digital publication

Publication on the web site of Sveriges Arkitekter

Jury – 1<sup>st</sup> Evaluation with the participation of the site representatives.

Jury – Prize Selection Ranked Selection: with Winner (€12,000), Runnerup (€6,000) and Special Mention (no reward)

Extra compensation for expenses (€1,000) for Winner and Runner-up for participation in price ceremony and Forum.

**Post-competition intermediate Procedure** Meeting to present the rewarded teams to the site representative(s), followed by a discussion.

The ambition of the municipality is to select one of the winning teams for an implementation process. Detailed time schedule according to the full site program.

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# Why Trelleborg joined Europan 14 and assignments for the winners

# Why Trelleborg joined Europan 14 and assignments for the winners

Trelleborg is in the midst of reformulating its identity from "port city" to "coastal town", and to become a more important regional player.

This process is triggered mainly by two events:

- The relocation of the port that makes more than 90 ha first-class waterfront land available for urban development.
- 2. Rerouting of road traffic to a new ring road which means that today's barrier between the inner city and the sea can be removed.

The way that this opportunity is handled will define Trelleborg for a long time to come and consequently for future generations.

The port area has been closed to the public for many years which has lead to the general public having a distant relationship to the place. The whole area is a kind of terra incognita that must establish itself in the minds of the cities residents.

A driving factor is that Trelleborg is growing and needs to meet increased building pressure and demand for housing in the region.

The competition program is based on solid work that Trelleborg worked with for many years, in Swedish called Fördjupning av översiktsplanen (FÖP). FÖP is a strategic document that charts, analyzes the city and points out a vision for the future. The document provides valuable insights on the current expansion area.

This is topped with the Europan theme - productive cities. How can the legacy of the already very productive city of Trelleborg be interpreted and developed further on the competition site?

### **Political decisions:**

- 2010 Decision on the development of the harbour and its expansion east of the centre.
- 2014 Adoption of FÖP for Trelleborg 2025.
- 2015 Opening of Trelleborg Central station. Trains to Malmö and the region.
- 2016 Decision about eastern ringroad and connection to the eastern harbour including strategy for development of the Harbour front and "Sjöstaden," the competition area.

### Assignments for the winners

- During the jury work, the city will discuss the proposals with the public and developers.
- After the competition, in 2018 a structural plan will be developen and in 2019 the the planning program will be finished.
- The city intends to develop cooperation with the winning team(s) in a form that is suitable for the proposals. Start meeting is set to March 2018.

The urban identity of Trelleborg is diverse and tolerant and there is opportunity to create an unique architecture. Considering the size of the site, the intention is to work with more than just one awarded team. See time schedule for an overview of the coming process.

Elaboration of the Masterplan = Fördjupning av översiktsplan in Swe, is mentioned as FÖP in the following text.

BILAGA 1 Time schedule Time schedule for the development of the strategic site 2017-2024



### Planning conditions in 2010

Expansion of the city as annual rings, on agricultural land. This way of expanding is no longer valid.



Expansion through densification of the city on already paved ground and the use of areas near public transport.

The port in the east is complete. Western Ring Road as well.

But the port area and the traffic still separates the the city from the Baltic Sea.



# THE REAL PROPERTY OF THE REAL

### Vision of the Future - the target!

The port moves and the city reaches down to the water, with new neighborhoods, parks and beaches!

# The city's vision for the project site



# The city's vision for the project site - to become a coastal city!

The FÖP of Trelleborg identifies the city's strengths and characteristics and defines projects in the city's development in the form of five target images concentrating on attractiveness and recreation.

- Harbour city meets Coastal city
- Diverse city meets Community city
- Southern city meets Regional city
- Everyday life city meets Experience city
- Historical city meets the city of the Future

The five targets are to be realized through 30 strategies. Those that are linked to the project site and the strategic site are summarized in the chart on the next pages. You are invited to be inspired by or react on the strategies in your proposals.

The FÖP is a politically approved document 2014-05-26.



### TARGETS

### STRATEGIES



### Harbor city meets Coastal city:

Trelleborg is a harbour city and wishes to reinforce its coastal city identity.



K1. Move the harbour (Ongoing process)

play and recreation.



K4. Protect from flooding
 Illustrate a strategy to meet the expected climate changes.

G1. Build dense mixed city near existing services, infrastructure and public transport.
 Illustrate dense mixed city with the inclusion of production of the future to create specific character for the site and common areas for



**Diverse city meets Community city:** Trelleborg is a mixed and tolerant city and wishes to

reinforce its public spaces

**G4** 

G4. Profit from the stunning sea views
 Illustrate lines of sight between the buildings but also from the appartments.



**Southern city meets Regional city:** Trelleborg is Sweden's southernmost cit

Trelleborg is Sweden's southernmost city and wants to stregthen its role in the region.



**Everyday life meets Experience city:** Trelleborg is a convenient city and wishes to encourage the zest of movement in the city.



R1. Prioritize train transports
 Illustrate clear paths for pedestrian and cyclists to the train station



 R4. Prioritize between modes of traffic
 Illustrate hierarchies between different modes of transport where walking, cycling and public transport are prioritized.



 U1. Plan for attractive destinations and landmarks on accessible links
 Illustrate links to and add new destinations



 U4. Make available and protect the riverbanks and dispose of water
 Make the riverbanks of Ståstorpsån accessible and develop the area.

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Historical city meets Future city:

Trelleborg is a historical city and wishes to support places for future enterprises.



F1. Strengthen the cultural heritage
Illustrate how the traces of the port's history is visible in the area.



 F4. Connect destinations and profit from sea contact for tourism
 Illustrate seaside attractions which are linked to the to the cultural walk in the city.

### STRATEGIES



### K2. Remove barriers in the center

Illustrate new connections to the urban structure in the north. What kind of structure Replaces Highway E6 and Route 9 in the eastwest direction?



### K5. Make a continuous promenade from port to port

Illustrate the design of public quay promenade.



K3. Create contact to the coast and sea Identify sight lines from the city



K6. Improve existing and construct new beaches / places to swim. Design new places for taking a swim



**G2.** Densify on industrial ground (ongoing process).



G3. Plan moving chains for high risk activities (ongoing process).



G5. Design in the human scale and with high architectural ambitions Illustrate different community characters within the site.



G6. Plan the city's sound environments for activity and noise. Think of the ferries' *low-frequency noise that are not governed by* 



R2. Concentrate public transport stops and time optimize public transport Illustrate the public transport routes.



**R5.** Concentrate and co-use parking spaces Illustrate parking integrated into the urban fabric in a space-efficient manner.



U2. Connect and reveal the city's green spaces in green corridors

Illustrate paths linking Ståstorpsån to the western pier and west towards Albäcksskogen.



### U5. Value biodiversity and develop eco-system services

Illustrate strategies for enhancing biological values and how ecosystem services can be developed in the area



F2. Strengthen the city center's shopping Illustrate how the streets in the site are linked to the city center.

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F5. Build educational environments and create conditions for higher education Illustrate strategically selected areas for educational environments



Illustrate where there are quiet rooms / room guidelines.

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R3. Connect to the traffic network Illustrate how the new street structure connects to and utilizes the existing road network in the city.



R6. Develop strong identity entrances and clear city limits Identify and clearify the boundaries of the city, the city centre, neighbourhoods ..



U3. Design a continous green boulevard (ongoing process).



U6. Save landscape wedges in the city (Not applicable strategy in this area.)



F3. Create an accessible large goods trade area within the city. (Not applicable strategy in this area.)

### F6. Plan for skilled jobs, innovation and research



Illustrate how production of the future becomes part of the development and helps offering work near housing.







View over site, 2016 Credit Janssen Herr

# The competition brief

### **Objectives for the project site**

An "exotic" city quarter in Sweden's southernmost city from which every resident can enjoy the sea and the surroundings. A destination for visitors and tourists alike.

A neighborhood at the forefront of sustainable thinking, ecological solutions and technical innovation regarding:

- Lifestyle possibilities and the everyday pleasures.
- Climate consciousness
- Energy, production, transport and refuse etc..
- Possibilities for future production\* combined with housing and recreation.

A district that grows strategically and incrementally through early establishment of production services, culture and recreation which in turn creates a framework for later development.

A neighborhood with housing in varying forms of tenure, heights, densities, and three-dimensional property division to enable and simplify non residential/productive, use on ground floors.

A neighborhood characterized by thoughtful architectural detailing and composition in the public spaces. Places which inspire to play - even for grown ups.

\*Future Production - a term used in the program to describe the elements of production that relate to the theme Productive Cities.

### **Competition task**

There are of course several factors to take into account in this program. Trelleborg really intends to develop this area in the coming decades, so the proposal must be realistic.

Three aspects which shall be judged, also for their inventiveness are:

### ONE – Time lines

- How can growth be designed?
- Is it possible to benefit from periods of vacancy?
- What happens if growth stalls?

TWO - Productive cities

- How can the element of production enhance living and residential qualities?
- How can production relate to the heritage of the historically productive city of Trelleborg?
- How can we benefit from the production when thinking in development stages?

### THREE – Water, wind and sun

Regardless of how alluring a coastal region is, contestants should be aware that during much of the year, chilly winds needs to be dealt with and the effects of future climate changes with increased precipitation and rising sea levels.

- How can the competition site be a part of the region's response to climate change?
- How can this district animate a bleak November day when the sun barely rises above the trees?



### Structural plan

Illustrate how the proposal relates to the strategies in FÖP.

Design a structural plan with different characteristics in different areas that complement and link the area to the city.

The proposal shall illustrate the important connections, illustrate volumes and communications but no floor plans are required.

Important to show is how the city north of Route 9 is connected with the new area.

How to design the quay? Existing quay and land can be removed and new parts added. All of this within reasonable bounds.

Kindergartens, schools and campuses can be planned as a natural part of the apartment blocks. Spaces can be used for various purposes as needs change over time.

- Space for a future school 3200 sqm floor area of eg two levels ie 6400 sqm total plus sports hall, area about 2800 square meters.

- Location of kindergartens shall be integrated (Each unit with space for 72 children in four departments with 40 sqm outdoor space, school yard etc. per child).

- The city is discussing the possibility of creating a campus for vocational training for 1,000 students. This is still not yet decided.

- Marina and a harbour for pleasure boats.

### Fysisk Strukturplan - Structural plan

It is not a official planning term but still a concept used to describe a plan that defines the structure of the development, i.e. defines the links (roads / paths / railways etc) and also the footprint of the houses.

The structural plan was a precondition for Trelleborg's



### **APPENDIX 2 Framework for program** Framework for Europan decided by the steering committee 2016-11-09.



### **Competition task 1 - Time lines**

The area is gigantic and the time horizon staggering!



### 5-YEAR PERSPECTIVE 2018-2023 - STAGE 0

What can happen on the project site with a port in operation next to it? The western edge of the western pier is accesible today and will be available for interventions. An effort is needed to establish the site as a part of the city in the minds of the citizens of Trelleborg. The sea is accessible for those who want.

### SITUATION

At this stage, the ISPS\* fence will be a barrier to the port. This fence will be removed in Stage 1.

Port traffic will reach the harbor from the west via the E6/ E22 and will be routed on a road south of Route 9 (parallel to it). This road runs along the northern edge of the site and reaches the eastern harbor south of the train station. Both the old (western) and new harbor (eastern) are used during this stage.

### COMING CHANGES

- A pedestrian zebra crossing on the E6 with a path along the Ståstorp creek could be completed in 2017.
- A jetty for swimming is planned to be built summer 2017. Testing underway to determine water quality. The first test in September 2016 showed good values at the tip and worse at Ståstorpsåns estuary and in the Western marina.
- The Port of Trelleborg is building a new check-in station (that will operate until the port has moved) and will tear the old one down.

\* ISPS International Ship and Port Facility Security Code, regulates maritime security in the fight against terrorism in ports.

### 10 YEAR PERSPECTIVE 2024-2028 - STAGE 1

How can the project site begin to build on its structure? How does this relate to developments neighboring the competition site (the "Harbour Front" by the city center close to the central station as well as to the area west of the competition site)?

Green (park etc.) and blue (water or related to it) structures, climate change adaptations, production units and recreation can give life and structure to the area.

When ISPS fence is taken down, some empty warehouses and offices, a giant "plain of asphalt" and 5 km quay and harbor basins will be made available for intervention.

### SITUATION

All Port of Trelleborg AB's activities have moved to the newly built harbor east of the central train station. The ring road around the Trelleborg is completed and port traffic now approaches the new, eastern harbor from the east.

The border to the port of Trelleborg (ISPS fence) has moved to coincide with the station area to the east.

At this stage it is possible to change the east-west structure of movement through the area, as well as north-south between the old port area and the city.

APPENDIX 3 Overview of existing buildings Existing buildings within the project site, status and surfaces.



### 20 YEAR PERSPECTIVE 2029-2035 STAGE 2A

How will development of a mixed city with housing and other programs procede in the area? What is the interaction between housing and production?

### SITUATION

Expansion of the harbor front in the center at the two central docks (not part of the procet site) and the area west of the project site is complete with about 700 housing units, services and commercial activities.

### THIS SHOULD BE CONSIDERED

Within the project site the city plans for 3,000 homes. Nearby, within strategic site another 600 homes in the east and 100 homes west of the project site is planned for.

The new areas will generate a total of 8325 people (3000 + 700 dwellings) x 2.25 people / housing). That is a 40% increase in the population of the city (2016).

Project site will be a mixed city with the services that 6,750 people (3,000 homes) generates. Shopping and restaurant streets are proposed mainly in the eastern part of the strategic site to strengthen the center. The ground floor towards the main streets within the project site can accommodate production, service and recreation.

View from the south, Janssen Herr 2016

30+ YEAR PERSPECTIVE 2036-2045 STAGE 2B, C, D ..

Completed development of the area.

### SITUATION

The rate of expansion is again typical for Trelleborg - we are a small city that aims high but do it at a moderate pace.

We expect an expansion rate of about 100 -150 dwellings / year within the project site.

THIS SHOULD BE CONSIDERED Overall structure, volume, function and character.

### **Competition task 2 - Productive cities**

### **PRODUCTION 2.0 - CHARACTERISTICS**

Production 2.0 is the future of production - clean, quiet production that does not require much heavy transports. One purpose is to add character to the area. The production will add quality to the street level with transparent façades and human scale.

### **BACKGROUND - A PROUD MIX**

Trelleborg city has more people in work and fewer people with higher education than the rest of the region.

Most cities in the Western world are trying to redefine themselves as knowledge cities as a response to deindustrialisation and outsourcing of production. New green development with quiet, clean production provides opportunities to try reintroducing production within the urban context.

Production in Trelleborg can for example take the starting point in the ocean (fish, algae, boat service, etc.), maritime farms, logistics and component production.

Trelleborg is proud of its mix of people, building typologies, functions, and its town center with shopping malls in the middle of the city's pedestrian zone. In several parts of the city the production and residential areas are neighbors.

By trying a new form of production 2.0 the new neighborhood by the sea can become an arena where the city's identity is stretched and reformulated.

The project site will complement Trelleborg city and support the trade in the city center. Production could fill the ground floors at street level to add a dynamic where there is little or no opportunity for local business or service.

### THREE-DIMENSIONAL PROPERTY DIVISION

By proposing a three-dimensional property division the municipality would be able to influence rental levels for parts of the ground floor and control the possibility of establishing a real mixed city with both daytime and nighttime activity in Trelleborg's best location.

### **TO CONSIDER**

- Production 2.0 must coexist with future housing
- Production 2.0 must contribute to the streetscape with, for example, transparent facades.
- Production 2.0 may generate visitors in the area.
- Production 2.0 may be a driving force of development and create an early structure that generates communication in the area.



Fish production can enrich the cityscape.



Production & housing inTrelleborg today, Johan Kocks gata. Photo: Charlotte Hägg Reader



The local newspaper gives attention to small-scale local production; seamstress with embroidery machine, the production of sound insulating boards etc. Photo: Trelleborgs Allehanda

### **Competition task 3 - Climate Changes**

### TARGETS IN 2100

The site will be defined by different actions to respond to / protect against rising sea levels, storms and downpours. Since Skåne is in the part of Sweden where the land drops in contrast to the rest of Sweden where it rises, the question is particularly important.

The development of the project site is expected to begin in 2028 and will be completed around 2045. Given the minimum building life envisioned, the planning for the project site must span until the year 2100.

### CLIMATE STRATEGY

Climate stategies discussed globally are:

- Retreat Strategy Withdraw from the coastal area
- Defense strategy- Walls and barriers

-Attacking Strategy - Adapation of electrical and sewage infrastructure to variable water levels, construction on pillars or watertight structures.

Trelleborg realises that the prospect of developing Trelleborg to a coastal city is so valuable that defensive and attacking strategies must be used in the development of the strategic site. In addition, the neigboring city quarters will benefit from the site's function as climate regulator and storm protection.

### **RISING SEA LEVEL**

Proposals should be based on recommendations from "Swedish Water"; normal water level for year 2100 and a strategy for managing flood scenarios (+100 cm).

Storm waves should be considered, that the water is able to "move" over / against a surface and back again.

A 100-years scenario means that there is a 1% probability each year that this situation occurs. A 10-years scenario 10% probability of each year and a 2-years scenario 50% probability that it will occur each year. See chart adjacent page.

### SUB SOIL WATER / GROUND WATER

Note that the area consists of reclaimed land, which means that the ground water is level and fluctuates with the sea water. High ground water means poor conditions for infiltration. Storm-water systems can be assumed to be closed with pipes to the sea.

### PROPOSALS FOR THE PROJECT SITE

- Lowest finished floor level +3.0 meters above sea level for functions with human activities.
- Lowest ground level for city blocks + 2.65.
  - Main road network / rescue roads lowest level of + 2.7 meters above sea level.
  - Public spaces can be lower, and include wave protection / storm-water solutions.

### CITY'S STORM WATER SYSTEM & CAPACITY

The capacity of storm water systems in the city above the site may be exceeded during extreme rainfalls. Particular areas within the site may be reserved for delaying or creating a bypass for this water. See section Technical support p.34.

### RAIN

The capacity of the expanded storm-water systems within the strategic site must be dimensioned to deal with 30 years scenario of rain with the climate factor, that is, a 30-years scenario rainfall year by 2100.

### Scenario 30 years rain (10 min)

Handle with open storm water management and used as a resource in the design of public spaces.

Because of high ground water, infiltration can not be used. The water needs to be taken care of in its entirety.

Scenario 30-years rain: 410 l / s /ha (25 mm) i.e. 250 m3 of surface water / ha

### Scenario 100 years rain (10 min)

Handled where public spaces are used temporarily.

Scenario 100 years rain: 611 l / s / ha (37 mm) i.e. 370 m3 of surface water / ha

- How does climate adaptation affect public spaces?
- Show how resilient the proposal is regarding flooding.

surface water / storm water = dagvatten



Flooding map - Map from FÖP



Section at the Fish Quay, project site





View from the west 2016 Janssen Herr

# Introducing Trelleborg

### EXOTIC TRELLEBORG

Trelleborg is Sweden's southernmost city with 28000 inhabitants. Fig trees and sunflowers grow here and there are two vinyards within the municipality. Trelleborg is also known as the City of palms (which in a local context is fairly exotic).

Today the sea is treated as a utility rather than an ameity. The southern facing waterfront represents unrealized opportunitis to attract residents and visitors to the cities quays and beaches.

### TRELLEBORG IS LIKE A HIDDEN PLACE

"It is a well kept secret. Much like a mushroom picking place. But there is a place where all things meet. A place where the endless plains of Northern Europe's best farmland meets 32 km of sandy beach. And then: The sea and the horizon. A place where 42 villages and 32 churches meets a bustling city life, dot-coms and Sweden's second largest port. A place where people meet. For real. Face to face. Over generations. Over limits. It is a well kept secret. But there is a place where the sea meets the plains, and where it is close to everything. "

### TRELLEBORG'S CORE VALUES:

### SECURITY - CURIOSITY - LOVE

Why Security? Trelleborg were themselves describe their city as calm and confident, and confidence is something that many seek. The personal security, yes. But also secure that everything works as it should: schools, care, infrastructure and everything else that practical everyday life requires. Things Trelleborg can offer. Why Curious? The southernmost point in Sweden. Could you be anything but curious when you are in the place where Sweden starts and ends? And the world opens up? Trelleborg is and always has been a curious place. Curious about new cultures, new trends, new people, new companies, new solutions, new possibilites.

Why Love? Many parents would agree that for a child to feel safe but also curious it needs a firm foundation to stand on: love. With love comes warmth, intimacy, welcomness, encouragement and empathy. You'll find love here: the welcoming small-town, the village community, the joy of the voluntary sector and encouragement.

### TRELLEBORG'S "PERSONALITY" WHO ARE WE?

"Trelleborg is calm and safe but not traditional. Trelleborg fells like a friend even if it is the first time you've met.

Trelleborg is open welcoming, warm and charming. Trelleborg will gladly help you and contribute to making your day a little better.

Now and again, Trelleborg surprises you with its thoughts or actions.

You would like to meet Trelleborg again. "



The statue Böst = bad weather in local dialect, at Algatan.



Rape fields in bloom in late May.



Palm trees along Hamngatan.



Hamngatan



Fountain "Sjöormen" (The sea snake) Stortorget Photos: Trelleborg

# Strategic site - current situation

### IN TRANSFORMATION

95 ha strategic site consists of a harbor area that stretches from the former leisure marina in the west to the main train station in the east.

The port of Trelleborg is today active in most of the site. The harbour fencing (ISPS), is a barrier which prevent the general public from reaching the seafront and the whole area can be seen as the city's back side.

North of the fence there are parking lots, a fuel station, an east - western park stretch with a bike path and Route 9.

The area will be available once the city has built a new ring road that approaches the new eastern harbor from the east. After this, the E6/E22 and Route 9 can be converted and the west-east road structure can be rebuilt as a city street.

The area is large and expected to have different characters.

### EXISTING HOUSES

There are only two buildings north of the fence plus a fuel station. The steam-mill houses a modern popular hotel and "Apelsinhuset" just west of the train station houses offices. There is no housing in the area.

### LANDSCAPE

The horizon is wide in Trelleborg. The landscape is flat and open. The entire strategic site is reclaimed land.

### AVAILABILITY & CITY ENTRANCES

The train station is the most important city entrance in the east. From here, Malmö is reached in 34 minutes, 49 minutes to Lund, Helsingborg 1 hour and 33 minutes and Copenhagen with a change at Hyllie at 1 hour and 3 minutes.

The city's main east-west cycle route runs through the area and will be linked to a bicycle network connecting the entire coast of Skåne.

The city is working with a parking strategy that says that the city center should only have street parking and other parking in multi-story car parks in strategic locations, initially at the center's four corners. Co-usage of parking spaces will be encouraged between living, working and visiting and commuter parking.

The study site will include two city entrances; one from the west and another from Trelleborg train station. The area's role is to welcome visitors and residents and to house the majority of the city's expansion over the next 40 years.

### **EXPECTATIONS & VIEWS**

A higher percentage of offices and shops is foreseen close to the train station, but each new building is expected to contain apartments. There are excellent locations for restaurants with outdoor terraces along the central harbor basins facing south and major public attractions. C. B.-Friisståket, Trelleborg's north-south walking and cycling path from the hospital and Stortorget down to the water, is an important link which today is the city's restaurant area.



The inner harbor basins with the steam-mill and the town's water tower in the background. Photo: Anna Lundin Trotzig



Orthoimagery 2014, the port expansion underway



# Project site - current situation

### REASONS FOR THE LIMITS OF THE PROJECT SITE

The area is the development area that the municipality knows the least about but also where there is the greatest potential and time to develop innovative solutions. Within the project site there is the opportunity to test how the theme Productive Cities can contribute to the townscape and push development over time.

There is the opportunity to explore the time factor because the area contains both areas available today and areas that will be available in the future.

### BUILDINGS

Within the port area there are offices and warehouses, and port equipment. At the fishing quay are a few booths in front of a large ware house with glass wall facing the quay and storage tanks for oil and gas. Fuel stations for trucks in the west. Outside the port area the only building is a fuel station. See Appendix 3 for the description of the existing buildings in the harbor. It is for the competitor to evaluate these buildings in relation to the time line of development.

### LANDSCAPE

Flat reclaimed land between + 1.8 - + 3.65 m. above sea level. Asphalt dominates the surface. "Trelleberget," which consist of dredge masses, extends to +17 m. The horizon is present - 180 degrees ocean. To the west Skåre mounds is seen, a historic defense plant, and the golf course, in the east of the new port. The city is perceived to be delimited by the facade wall north of Hamngatan.

The quay varies from stoning in the west to traditional stone quay along the basins.

### WATER

Project site contains water in the form of the western basin and the seafront at western pier.

### VEGETATION

There are two green zones within the site. A park with mature mixed deciduous trees along the E6 / E22. Along the promenade at the western pier are whitebeam, linden and rose hips. "Trelleberget" is partly grassy.

### TRAFFIC

Today, the E6/E22 and route 9 forms a barrier between the city and the harbor. Route 9 has different names along its stretch past the city; Strandgatan, Hamngatan and Järnvägsgatan. There are no crossings at any point along the long stretch between Västra ringvägen and Klostergatan. Port traffic from the west is led by down to Travemündealléen just after the intersection with Ståstorpsån. Port traffic runs on Travemündealléen parallel to route 9.

The nearest public transport stop is the train Station. Regional Buses run on Hansagatan down to Hamngatan to stop at the train Station.

A bicycle route is located in the park strip along the E6/ E22. Connections to the city are missing. The only crossing point is at the Klostergatan.

Parking spaces for rent are in the Northeast.

### LAND OWNERSHIP

The former polystyrene factory, containing offices and production spaces, was bought by the municipality in 2015. It is empty and decontamination is underway. All other land owned by the Port of Trelleborg, a municipally owned company. See facts.

APPENDIX 4 Photos Photos from stategic site 2016 APPENDIX 5 Film Film from stategic site 2016



Project site is characterized by land fill surfaces



Credit 2016: Janssen Herr 29

### Notes from the project site

1. Along the E6 / E22, there is communication along a green stretch that has the potential to contain other functions.

2. The entrance to the "Kuststråket" (a path along the coast) lacks definition and it is not clear where the road leads. There are currently no points where one can cross over E6. Bicycle and pedestrian paths continue south along Ståstorpsån, but it is not clear to users that these go on out to the western pier. The creek is dominated by thickets. Industry and motor vehicles dominates the site. 3. "Kuststråket" continues on to a marina for pleasure boats.

4. Lots of seaweed is gathered in the area around the river mouth and the smell is often bad. The water in the river is turbid. On the open grass area east of the river there is a horseshoe-shaped clump of large trees and low vegetation. The clump is a nice eye-catcher from the footpath leading to the south of the pier. The noise of the road is present.

5. The promenade that leads out to the southern tip of the area. Butterflies, birds and wild flowers are found along the trail. Between the buildings is a line of sight towards the city and the St. Nicolai Church, that is worth to take advantage of in the future. Here is a opportunity to stand and fish along the coast.

From the train station, it takes 11 minutes by bike 6. out to the southernmost part of Sjöstaden. The water gurgles guietly, and the traffic noise from the E6 is heard faintly. The site consists of an open area where different varieties of grasses and small whitebeams grow. Some trees are in poor condition, others are dead. The ground cover is light crushed stone with darker elements. Larger blocks line the entire coastline. The water appears clear and there is no seaweed. There is a large hill which is made up of dredged material from the harbor. The path now leads up the hill is quite steep and uneven. The vegetation is barren with few bushes. On top of the hill you have a view over the city and the sea, and you hear a constant buzzing from the port. Today, there are tables and benches placed here, and there's even a pair of stationary binoculars. Part of this area has no public access.

7. The breakwater/jetty extends far into the sea and is today inacessible to the public.

8. A large open area currently used for parking for trucks. The fence around can be removed.

9. This basin is used for storage of ferries undergoing repair. Fishing boats are moored along the dock and those who own a recreational boat are able to bring it out of the water here. There are no permanent spaces for recreational boats in the harbor.

10. With its small fishing huts and alleys that run between these fishing huts and the glass façade of the warehouse behind, this area stands in contrast to the large-scale harbor around it.

11. Large spaces for the parking of vehicles. Buildings of different quality are scattered over the surface. Several of the city's landmarks are visible from here. Railway tracks in the ground leading into the area from the west. These tracks are used to transport goods to the logistics center four times / day.

12. Along the quay there are several structures belonging to port operations and some smaller sheds are also located here. In the middle of the quay is a protruding part that is accessible.

13. At this point, there is a concrete structure from which you have a view over Sjöstaden, towards the city, the new port and all basins.

14. Open area where cars and trucks arrive after they have checked in to the ferry, waiting to embark. From here, several of the city's landmarks can be seen, for example, the train station, S.T. Nikolai church, water tower and the steam-mill. Many tall lamp-posts fill the space.





Entrance to the area from the E6. The road leads to the right but the western port promenade is straight ahead on the left. (No.2)



West pier harbor walk that leads to the southernmost point. Former polysterenfabriken left. (No 5)



View from Trelleberget, coming down from the hill, facing the waiting area for trucks and former Polystyrenfabriken. (No. 6 & 8)



Quay for small fishing boats and sheds. (No 10)



*View of the entrance to the basin for fishing boats (No.9) .To the left parking of vehicles (No.14) In the background, larger ferries* 



Large spaces for vehicles to queue while waiting for the ferry after they are checked in. (No. 14) Credit 2016: Anna Lundin Trotzig **31** 

# Facts

### **Historical Maps**

Note the structure, the coastline, Ståstorpsån (creek) and bathhouse Solfjädern.



Trelleborg 1960



Trelleborg 1940

### Land and Environment



Coast lines 1820, 1940, 2010 and 2016

## HINTS ABOUT GEOTECHNICAL CONDITIONS AND SOIL POLLUTION

The area shall undergo a geotechnical survey and a plan for dealing with the soil pollution will thereafter be produced.

Until then we will have to draw conclusions from a few initial soil contamination surveys. Since the entire area is reclaimed land, we can assume that foundation reinforcement is needed, for example with piling.

Area 1 is highly contaminated with extensive excavation required, in some cases down to at least 4.5 m. Assumed piling foundations.

Area 2 has contaminated areas that probably can be delineated. The surface layer (asphalt) is contaminated. Boulder clay in the highest stratum, +0 to -1.0 m. Possibility for foundation without piling if loads from buildings can be brought down to boulder clay, eg have a basement construction. Note: waterproof basement construction required because of ground water. Piling can be used as well.

Area 3 has more polluted points that are not defined in plan or depth. The upper stratum of the boulder clay has not been found. Assumed piling foundations.



Soil contamination surveys

### **Technical supply**

Development of this area is a substantial public investment that will require a review of the technical supply within the area.

The main pipes that cross the area east-west, and supplies the rest of the city is expected to remain, for example, the main pipe for waste water.

Stormwater: A main surface water from the catchment area to the east of Ståstorpsån cross the area to the west and connects to Ståstorpsån.

Stormwater system within the project site needs to be rethought. One can not expect to connect to existing systems. See the section on climate change.

### TO CONSIDER

Main pipes for waste water are important to consider since you are not allowed to build anything above these pipes. This, in contrast to E6 / E22, route 9 and Travemündeallen where construction of new structures are possible.

### Land ownership

Trelleborg municipality owns the local port operator: Trelleborg Hamn AB. To the west are the industries and ICA Maxi in private ownership.

Land owned ny the municipality Port operator Private owner: Pergo AB Private owner: ICA Fastigheter Sverige AB	
Kommunalägda fastigheter = land owned	$\sim$
by the municipality	
Trelleborg hamn = port operator	
Other two = private owners	

Land ownership map



The statue Böst = bad weather in local dialect, at Algatan.

### **Communication and parking**

Trelleborg is working actively to change the perception of car travel and encourage walking, cycling and public transport. Today, Trelleborg is one of four cities in the region where the car is the chosen mode of transportation for short trips up to 5 km, so it requires both physical and behavioral interventions to change this pattern.

The best time to change transport habits is when you start a new job with new commuter routes or when you move to a new house and create entirely new ways in everything from pick-up and drop off at kindergarten, to school, hobbies and jobs.

In the development of the site, there is an opportunity to show how to live a life where you use the mode of transport that is best suited for the need of each trip.

### **BICYCLE PARKING**

According to Trelleborg's parking standards, in 2015, there shall be 1 bicycle parking / bedroom. Bicycle parking should be arranged as close to the entrance as possible to increase attractiveness.

### **CO-USAGE & DISTANCES**

To co-use car parking so that commuters and workers can use the same parking lot as residents is one of the city targets. Parking standard for work places is currently being reviewed.

The distance between residence and parking can be up to 300 meters, the distance between the workplace and parking up to 400 meters.

### FLEXIBLE PARKING STANDARD

The parking standards for housing in Trelleborg is divided into three different zones, where the Project site will belong to zone 1 and 2.

You are encouraged to create conditions for the use of flexible parking standards, which means departing from the parking norm if you expect a lower car ownership because of good public transportation, carpool, or other measures promoting other modes of transport than the car.



Parkering zones

Parkeringsnorm CYKLAR			YKLAR Parking sta	indard for bicycles			
Bostäder och besÖk Housing (B) residents and visitors (Ö)							
Per sovrum	Per bedroom	Norm B	Norm Ö	Norm total			
Bostäder	Appartments	1	1,0	2-5			

		Parkering	snorm BILAR	Parking standard for cars
	Housing (B) residents and visitors (Ö)			
Per lägenhet	Norm B	Norm Ö	Norm total	Flexibel (-30%)
Bostäder zon 1	0,5	0,1	0,6	0,42
Bostäder zon 2	0,7	0,1	0,8	0,56
Bostäder zon 3	0,9	0,1	1,0	0,70
## Climate and weather conditions in Trelleborg

The climate in Trelleborg is a typical coastal climate with small temperature variations, strong and regular winds and relatively high rainfall. Temperatures during the year have a span of 25 degree range and the number of days with precipitation is 10-15 per month.

Over the whole year, the wind is predominantly westerly to southwesterly in Trelleborg. Simple analysis shows that the measured wind speeds generally contributes to periodically low wind comfort in open and unprotected places. In the older part of the city, the streets at intersections shift slightly, to stop the wind.

On the Swedish south coast water from salty golf stream is mixed with the fresh water from the Baltic Sea. In the summer water temperatures are 18-25°C. The sea is usually calm with moderate waves, tides are barely noticeable and nothing that people think of.

High water levels and waves are more common in the winter months from October to April when the air is cooler and it usually rains less. Heavier rains are more common during the summer months.

The climate is expected to become gradually warmer in the future, and in Skåne, the average temperature will rise with 2-4 degrees by 2100. Variations in temperature creates high and low air pressure, which in turn affects both wind and precipitation. At higher temperatures, the air can absorb and retain larger amounts of water, and this leads to that at higher average temperatures, we can also expect greater precipitation. Annual precipitation is expected to increase by 15% by 2100 and the number of days with heavy precipitation will increase. Skåne is expected in the future to get a warmer climate, higher wind speeds and more rain that often comes as torrential rain. See the section on climate.

The sun's position in the Nordic countries is high during summer and low in winter. In December, the sun rises at 8:30 am and sets at 15:30. The shadows are long! In the summer, in June, the sun rises at 4:30 and sets 22:00.



Wind direction and strength vary during the year Illustration: Tyréns



## TRELLEBORG FACTS

Region Skåne has identified Trelleborg as one of eight regional centers in Skåne, together with Malmö, Lund, Helsingborg, Kristianstad, Hässleholm, Landskrona and Ystad.

A regional center is a city of central importance to its hinterland, and can act as a driver to the surrounding municipalities. In addition to its role as a regional center, Trelleborg also has a great importance for the whole county of Skåne and the country in its role as freight and logistics centre. Trelleborg has great potential to develop a leading role in its area of influence.

With its geographical location in Skåne, with close proximity to the metropolitan region Malmö-Lund-Copenhagen-Berlin there are great opportunities for the town of Trelleborg to develop into a strong regional center. It can also develop the role as an attractive housing, labor, and trade city with high accessibility to regional labor market and for education, while population growth can help develop business in Trelleborg.

A planned relocation of the harbor (Sweden's second largest cargo port and one of the five core ports in Sweden) enables development of a new logistics center, housing, services, trade and activities in the best seaside location.

Trelleborg is historically an agricultural and industrial municipality. Industries are still important, but its importance for jobs has declined. Other sectors of activity has grown, but not to the same extent as industrial jobs have decreased. The development has led to that a increasing number of Trelleborg citizens commute to work in another municipalities. Population growth has been positive every year since 1985.

The municipality of Trelleborg consists of Trelleborg city, three towns with 1000-2000 residents and a relatively large countryside. The population is getting close to 44,000 inhabitants of which about 28,500 live in the city of Trelleborg. Trelleborg has a target of 50 000 inhabitants in 2028, where 75 percent of the increase is planned within the city.

The level of education is lower than in Trelleborg than in Skåne and Sweden as a whole. Employment rate is at the same level as Sweden and higher than Skåne. Mean and median income is lower than the national average, but higher than Skåne.

The proportion of foreign-born citizens in Trelleborg is 16 percent.

## POPULATION DEVELOPMENT

In recent years the population has increased by about one percent per year from 39,830 inhabitants 2005, to 43359 inhabitants in 2015. Until 30 September 2016, the population has increased by 419 to 43,778 inhabitants, a greater increase than the municipality anticipated.

Trelleborg's population structure is slightly different from Sweden as a whole. Up to 19 years, it is about the same, between 20-36 years, Trelleborg has a clearly lower percentage of the population in this age group, and between 42 and 82 years, the proportion is higher in Trelleborg than in Sweden. The age distribution is probably an effect of studies in other locations and proximity to major cities.

The difference in the age composition is small between urban and rural areas when comparing the proportion of children, working age and older. Difference is to be found in the working age, 19-64 years. This city has a larger proportion of the younger age groups, while rural areas have a greater percentage of the population 35-64 years.

The central parts of the Trelleborg city has the youngest age structure in the city. Here are over 20 per cent between 20 and 29 years.

## ETHNIC DIVERSITY

Sixteen percent of the residents in Trelleborg have a foreign background. The largest group have Yugoslavia as country of birth and came to Trelleborg from Bitola in Macedonia as labor in the 60s and early 70s. Many rooted in Trelleborg and Bitola is now one of Trelleborg's twin cities. Many also came from Finland for work but a large part returned when jobs became fewer in Sweden. Many Bosnians who fled the war there in the early 90s have settled in Trelleborg.

Other major countries of birth for Trelleborg citizens are Denmark, Poland, Lebanon, Syria, Iraq and Germany.

## 50 000 INHABITANTS IN 2028

Trelleborg has as a target 50 000 inhabitants in 2028. This represents an increase of 6 000 people, or 500 people per year on average, until 2028. An important prerequisite for this to be achieved is the creation of nearly 3000 homes. Opportunities exist to build this number of housing primarily through densification of the city and the construction of Sjöstaden (strategic site).



Trelleborg's main street, Algatan during festival



Trelleborg's main street, "Gågatan"



The Skåre marina is the nearest marina to Trelleborg



Calm fishing water at the western pier



Winter



Summer

The demographic trend in Sweden is towards an increasing proportion of elderly in the population. This also applies to Trelleborg but if population growth can take place in accordance with the target population, the proportion of older people will be less in Trelleborg due to increased migration of people in working age.

## HOUSING

The proportion of one family houses in the housing stock is 57 percent. In the 1990s, more housing units were built in apartment buildings, while in the 2000s primarily one family houses were built. Distributed on forms of tenure : 53 percent is ownership, 27 percent is rented and 20 percent is tenant-owned apartments.

## CURRENT HOUSING STOCK

The majority of small houses in Trelleborg are built before 1930 and between 1961 and 1990, while housing in apartment buildings are mostly built between 1941 and 1980. A large proportion of the dwellings have thus relatively low housing costs. Upcoming renovations of apartment buildings built in the 60s and 70s will bring increased rental levels.

## THE HOUSING MARKET IN TRELLEBORG

The housing market in Trelleborg is to some extent dependent on, and shared with southwestern Skåne. The market for rental units is more local than the market for private properties. Since both have a favorable cost structure in Trelleborg, related to the rest of south west Skåne, the search area is limited for those who primarily seek a home in Trelleborg. Conversely, Trelleborg has become an attractive alternative for those planning to settle in Skåne.

There is a deficit of housing in Trelleborg city and it is mainly smaller affordable rental units that are in demand. This demand is expressed mainly by young people and the elderly, with the latter also asking for access to an elevator. In other parts of the municipality the housing market is in balance.

Acceptance of rents in newly built rental apartments has increased but still many believe that the levels are too high which is probably because the rents in Trelleborg are generally lower than in comparable municipalities.

Demand is high for tenant-owned apartments. Home buyers prefer a higher down payment and lower rent rather then the opposite. The market for new tenantowned apartments are assessed by the brokers to be positive. The market for single family houses has recovered after banks tightened lending conditions introduced in 2012. The market is good for houses around two million SEK but for houses that costs 2.5 million or more, it is more difficult. The market for new houses is still uncertain. Two recent developments have changed to build terrased houses as tenant-owned apartments, and units sold well. Migration to Trelleborg occurs primarily from nearby municipalities where the main reason is probably the living environment. Trelleborg's role as a municipality of residence has been strengthened over the past 10-15 years, as the number of jobs become fewer in proportion to its population. During these years, commuting increased so that the amount of people living in Trelleborg that currently works in another municipality is closer to 50 percent.

## JOB OPPORTUNITIES

Trelleborg has large areas of farmland with high-quality agricultural land, but few are working in this industry now, about three percent of the municipality's jobs are in this sector.

Trelleborg has a rich history of industrial production, but this industry has reduced its role in Trelleborg, as in many other cities. In the early 2000s, there were 26 percent of the jobs in manufacturing and mining, 15 years later, it is 12 percent.

Most jobs are in health and social care with 21 percent of the total number of jobs. The percentage is the same as 15 years ago. Trading of 11 percent has increased slightly while education remains at 13 percent of the number of jobs compared to 2000.

During the past five years, the knowledge-intensive service activities; information technology, business services and real estate services, accounted for the strongest growth. The employment rate in the 20-64 age group is 77 percent in Trelleborg. It is the same level as in Sweden but higher than Skåne (72 percent).

## EDUCATION AND INCOME LEVELS

The level of education in the Trelleborg is lower than in Skåne and Sweden. 29 percent have post-secondary education, compared with 41 percent in Skåne and 40 percent in Sweden.

The average income of the municipality in 2014 was 274 000 SEK per year. It is higher than Skåne, 271 000 kronor, but below national average, 295 000 SEK. The median income is slightly better in comparison. In Trelleborg it was 276 000 SEK, in Skåne 265 000 and in Sweden 286 000 per year.

## PUBLIC TRANSPORT

Trelleborg was connected to the regional passenger train system, commuter trains, in December 2015. In connection with this, improvements were made to the city bus and region bus.

The trainservice "Pågatågen" connects Trelleborg to Malmö, Lund, Landskrona and Helsingborg and arrive and depart every half hour between the hours 5 AM to midnight.

City bus services have a frequency of 15 minutes in the mornings and afternoons and 30 minutes at other times. The regional buses have a frequency of 30 or 60 minutes. The time tables of city buses and regional buses are synchronized with the timetable of the commuter trains (Pågatåg).

Travel has performed well in 2016, both for commuter trains as for city and regional buses.

## SUSTAINABLE TRAVEL

Trelleborg is working to increase travel for short distances, 0-5 km, by public transport, by bike and on foot.

The objective is to increase sustainable travel from 46 to 56 percent of those short trips. Work is conducted in cooperation with several actors.

A bicycle strategy has been developed which aims to put Trelleborg as the third-best bike municipality in Skåne. Measures to achieve this is concretised in the bicycle plan adopted in June, 2016.



Cargo-bikers enjoy the flat landscape

## **Ongoing projects**

Trygghetens hus Emergency services Start of construction 2017/2018 Illustration: Liljewalls Architects



Forensic psychiatry 150 hospital beds and 52 workplaces Scandinavia's largest passive building Opened 2015 BSK Architects Photo: Region Skåne







Hercules 16-storey buildings with residences, retirement homes. Public activities in ground floor. Start of construction 2018 Illustration: Lloyd's architectural office



Centralstationen (main train station) Opened 2015 Urban price 2016 Sweco and Arén Architects



Bävern 60 apartments Public activities in the ground floor Start of construction 2017 Illustration: Arkitektlaget

## Presentation

The proposer shall comply with Europan rules with additions according to below. The reason is to make the proposals comparable.

## Panel 1 - content

1. Structure Plan with time dimension (building stages illustrated), scale 1: 5000 of the strategic site in a specified manner:

Building blocks color code (RGB): Stage 0: R 200, G 200, B 200 Stage 1: R 150, G 150, B 150 Stage 2: R 100, G 100, B 100

Buildings	color code: R 0, G 0, B 0
Green spaces	color code: R 176, G 208, B 234
Blue surface	color code: R 172, G 204, B 152



2. Cross Section, scale 1: 1000 grayscale

3. Diagram / section, any scale showing how the structure adapts to climate change.

## **RULES OF THE EUROPAN 14**

**DISCLAIMER:** Since rules are still subject to change as of the publication of this document, please see the complete and up to date rules for Europan 14 on the *Europan Europe* website: www.europan-europe.eu/en/session/europan-14/rules

The most relevant sections from "EUROPAN 14 -RULES OF THE EUROPAN 14 COMPETITION" have been included below with clarifications regarding the Swedish context (gray text boxes).

#### **1. ENTRY CONDITIONS**

#### 1.1. Entrants

Europan 14 is open to any team consisting of one architect in partnership or not with one or more professionals of the same or other disciplines of the urban-architectural field (architects, urban planners, landscapers, engineers, artists...)

Every team member, whatever his/her profession, must be under the age of 40 years old on the closing date for submission of entries.

#### 1.2. Composition of the Teams

There is no limit to the number of participants per team. Multidisciplinarity is strongly recommended with regards to the sites issues.

A registered team can modify its composition on the European website until the closing date for submissions. No further change shall be accepted after this date.

Each team member (associate and collaborator) shall be registered as such on the European website before the closing date for submissions.

One team can submit a project on different sites and one person can be part of different teams provided that that the projects are not submitted in the same country.

#### Associates

Associates are considered to be authors of the project and are credited as such in all national and European publications and exhibitions. They are young professionals with a university degree recognised by the Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications, in any of the relevant disciplines and regardless of nationality. The compulsory requirement is to hold such a degree.

Membership in a European professional body is optional, except for associates without a European degree.

#### Contributors

Teams may include additional members, called contributors. Contributors may be qualified or not but none of them shall be considered as an author of the project. Just like the associates, the contributors must be under the age of 40 years old on the closing date for submission of entries.

#### **Team Representative**

Each team names one Team Representative among the associates. The Team Representative is the sole contact with the national and European secretariats during the whole competition. Furthermore, every communication shall be done with one email address, which shall remain the same during the whole competition.

The Team Representative must be an architect or must have the

architect status under the laws of a European country. In specific cases and when mentioned on the site definition (see Synthetic Site File), the Team Representative can be an architecture, urban or landscape professional (architect, landscaper, urban planner, architect-engineer). In this case the team shall necessarily include at least one architect among the associates.

#### 1.3. Non-Eligibility

No competition organizer and/or member of their families are eligible to take part in the competition on a site where he/she is involved. Still, he/she can participate on another site in which he/she is not involved.

Are considered as organizers: members of the Europan structures; employees and contractors working for partners with sites proposed in the current session, members of technical

The tendency in Sweden is that the sites are getting bigger and bigger, and also that the main task is more about planning strategies (and not house design) Europan Sweden therefore encourages the formation of inter disciplinary teams. The team representative can be an architecture, urban or landscape professional (architect, landscaper or urban planner). The team shall necessarily

committees; observers; jury members and their employees.

## 2. REGISTRATION

Registration is done through the European website (www.europaneurope.eu) and implies the acceptance of the competition rules.

In compliance with French Act #78-17 of Jan. 6th, 1978, on Information Technology, Data Files and Civil Liberties the protection of personal data communicated during registration is guaranteed.

#### 2.1. Europan 14 Website

The European website for the fourteenth session of the competition is available online from the opening date of the competition, at the following url: www.europan-europe.eu

It includes: the complete European rules for the Europan 14 competition; the session topic; the synthetic and complete site files grouped geographically or by themes; the juries compositions; and an organisational chart of all the Europan structures.

The website also offers the possibility to register to the competition and submit the complete proposals.

#### 2.2. Team Registration

Registration to the competition is done through the European website (Registration section) and implies the payment of a €150 fee. There shall be no refund of the registration fee.

This fee includes one Complete Site Folder and the printing –necessary for the evaluation– of the panels on a rigid support by the national secretariats.

Payment is automatically confirmed on the website. The team can then access its personal area and the digital entry area and download the Complete Site Folder for the selected site.

An additional Complete Site Folders cost €50 per site.

## **4. SUBMISSION OF ENTRIES**

#### 4.1. Digital Submission

Digital submission is compulsory. It includes the 3 A1 panels, documents proving the eligibility of the team members and documents for the communication of the project.

## The complete submissions shall be submitted **by midnight (Paris time) on June 30th, 2017**, on the European website (Entry section).

Failure to comply with the hereunder-mentioned requirements on board presentation may result in the disqualification of the team.

The number of entries per site is available on the European website on the European map of the sites (column on the right).

#### 4.2. Anonymity and Compulsory Content

The site name and the project title must be displayed on every document.

A specific code is automatically attributed to each project upon upload. The teams do not know this code, through which the jury members take note of the project. The teams' identities are revealed via an automatic link between the code and the team on the online projects database.

#### 4.3. Language

The panels shall be either written in English or bilingual (English + the site language).

#### 4.4. Items to Submit

Submissions include documents divided as follows:

- 3 vertical A1 project panels;
- Documents proving the eligibility of the team members;
- Documents for communication (3 images + a short text)

## A1 Panels

CONTENT:

The 3 panels must:

• explain the urban ideas developed in the project with regards to the site issues and the thematic orientations of the session;

• develop the project as a whole, highlighting the architecture of the project, and particularly the relationship between the new developments and the site's existing context, including three-dimensional representations of the project;

develop the method foreseen for

the implementation process.

All graphic and descriptive documents must have a graphic scale.

#### TECHNICAL SPECIFICATIONS:

- PDF format
- Vertical A1 (L 594 mm x H 841 mm)
- Maximum 20 Mb

• One box (L 60 mm x H 40 mm) is left blank in the upper left corner for the automatic insertion of the code; the name of the city appears next to it

- Panels numbered from 1 to 3 in the upper right corner
- The team is free to decide on the positioning of the proposal title

The Jury for the Swedish sites will not consider any submitted documents in addition to the 3 A1 panels. More detailed descriptions of proposals in an A3 format will not be read and are not required as part of a proposal.

**Documents to prove the eligibility of the team members** Documents for the disclosure of names and verification of the validity of the proposals shall be uploaded as PDF's on the European website.

#### Personal information include:

1. For the team: the TEAM FORM and the DECLARATION OF AUTHOR- AND PARTNERSHIP AND OF ACCEPTANCE OF THE COMPETITION RULES available online on the team's personal area; to be filled out and signed;

#### 2. For each team member:

• A copy of an ID DOCUMENT with a picture, providing evidence that they are under the age of 40 at the closing date for submission of entries (see calendar.)

• A copy of their European DEGREE as an architectural, urban or landscape professional (architect, landscaper, urban planner...) or proof of such a status under the law of a European country.

No other document than the ones above-listed is necessary.

Attention: The personal documents must be uploaded individually for each team member. Only team members that correctly registered and submitted their eligibility documents separately shall be considered within the team final composition.

The upload of one sole document with all the required information (copies of the ID's and degrees) will not be accepted.

#### **Documents for communication**

Each project must be summered up as follows:

- One short text of 2,500 signs (spaces included, to be typed in during submission) developing the project ideas;
- 3 separate PDF images that symbolize the project (max. 1Mb per image).

#### 4.5. Control of the Submissions

Each team can check the upload of their projects on their online personal area. They can also –if needed– modify these documents until the deadline for submissions.



# A **period of 7 days** is left open **after the deadline for submissions** (see <u>Calendar</u>) for the European secretariat to control the upload of each submission sent before the expiry of the deadline, as well as to correct the potential problems that might have appeared during the upload of the documents.

#### 5. RESULTS AND PRIZES

## 5.1.Results

All the results for Europan 13 are available online from December **4th**, **2015**, on the European website (Results section).

#### 5.2. Winners

Winners receive a reward of the equivalent of  $\pounds$ 12,000 (all taxes included) in the currency of the site's country (at the exchange rate on the date of the announcement of the results). The organizers undertake to abide by the decisions of the national juries and to pay the reward within 90 days of the announcement of the results.

## 5.3. Runners-Up

Runners-up receive a reward of the equivalent of €6,000 (all taxes included) in the currency of site's country (at the exchange rate on the date of the announcement of the results). The organizers undertake to abide by the decisions of the national juries and to pay the reward within 90 days of the announcement of the results.

## 5.4. Special Mentions

A Special Mention can be awarded to a project considered innovative although not completely adapted to the site. The authors of such proposals do not receive a reward.

In addition to the price money offered to winners and runnersup, Europan Sweden offers a travel grant of  $\notin$ 500 (all taxes included) to for winning teams so that these can attend the prize ceremony and initial meeting with site representatives.

## 7. RIGHTS AND OBLIGATIONS

#### 7.1. Ownership

All material submitted to the organizers becomes their property, including reproduction rights. The intellectual property rights remain the exclusive property of their author(s).

## 7.2. Exhibition and Publication Rights

#### **Moratorium on Publication**

Teams may not publish the documents submitted to the competition or disclose their names by using their project for any communication before the official announcement of the results. Any such publication may result in the disqualification of the team.

## Publications

The organisers reserve the right to publish all the projects submitted to them after the official announcement of results. Projects are exhibited or published under the names of their authors.

## 7.3. Disputes

The Council of the Europan European Association, which is empowered to arbitrate, shall hear any dispute.

## 8. LIST OF EUROPAN 13 COMPETITIONS

The <u>Contact</u> section of the European website shows the detailed national competition conditions country by country (number of sites and prizes, conditions of construction rights, etc.) as well as the details of the national and European structures, with the names of the people working for them.

The <u>Jury</u> section of the European website lists the members of the national juries.

## JURY PROCEDURES - HOW DOES IT WORK?

The jury's decisions are final in compliance with the Europan rules. Before beginning to work the jury receives recommendations from the European Association. The jury meets in 2 separate sessions at different times:

## **First session**

At the beginning of this session, the jury appoints one of its members as chairman and agrees on its working method. Sites representatives can be integrated to this jury level and, in some countries, may participate to the selection of the shortlisted projects.

The jury then studies the projects that do not comply with the rules and decide whether or not to disqualify them.

It later on assesses the projects on their conceptual content and the degree of innovation according to the Europan 14 topic and shortlists 10 to 20% maximum of the submitted projects.

## Second session

During the second round, the jury examines –on its own and independently– the shortlisted projects and points out the winners, runners-up and special mentions. The jury could assess the projects on basis of: the relationship between concept and site; the relevance to the questions raised by the topic and in particular to the issues of sustainable development and adaptability; the relevance of their programme to the general brief for their specific site; the potential for integration into a complex urban process; the innovative nature of the proposed public spaces; the consideration given to the connection between different functions; the architectural and technical qualities.

The jury finally writes a report giving the reasons for the choice made in relation to the requirements of the competition and the concerned sites.

Each country budget includes the equivalent of a Winner's and a Runner-Up's prize per site. Still, each entry is judged on its sole merits and the winning teams are not chosen on basis of an equal distribution between sites – the jury can therefore distribute prizes among entries up to its will or decide not to award all the prizes. In this case, the reasons shall be made public.

The jury may single out projects for Special Mention. These projects are recognised by the jury as presenting innovative ideas or insights, yet not sufficiently suitable for the site. The authors of such projects do not receive any reward.

If disqualified after validation of participation a prize-winning project may be replaced by another project if the quality is satisfactory.

## JURY PROCEDURES IN SWEDEN

The Jury work in Europan Sweden is characterized by certain particular procedures. Site representatives are welcome to both jury sessions. This is essential for the processes following the competition. However, the site representatives only retain the right to vote (two votes) during the first jury session.

## DISCLOSURE OF NAMES

The projects assessed by the experts and juries are anonymous.

Once the decision of results is taken, the jury reveals the names of the winners, runners-up and special mentions. This operation is done through the European database, which automatically links the codes of the projects and composition of teams.

## ANNOUNCEMENT OF RESULTS

After disclosure of the names of the winning teams and following any adjustments to rankings that may prove necessary, the national secretariats ratify the decisions and disclose the names of all the participants.

The European secretariat publishes the complete list of results online on December 4th, 2017

## PUBLICATION OF PROPOSALS

Europan Sweden may publish the proposals anonymously both in physical exhibitions and on the web during the evaluation time, but only after the first jury meeting.

## THE JURY MEMBERS

#### **Anders Olausson**

(chairman of jury), Architect Senior lead architect at Wingårdhs architects

Henrietta Palmer, Architect Professor at Chalmers University of Technology Mistra Urban Futures

Sam Jacob, Architect Professor of Architecture at UIC in Chicago Director, Sam Jacob Studio Itd

**Fredrik Drotte,** Architect Head of City Development in Upplands Väsby











**Iñaqui Carnicero,** Architect Principal at Inaqui Carnicero Architects

Sabina Richter, Landscape Architect Co-founder of 02 Landskap





Substitutes Tinna Harling, Architect City planner at the municipality of Tjörn

Karl Zetterholm, Architect Winner E13 in Nacka

## **MORE DATA / INFORMATION:**

There is a lot of open data available online. Some data is only available in Swedish and other in English as well. Most databases are navigable by non Swedish speakers through the graphical user interface alone.

## NATIONAL DATABASES:

SCB (Swedish equivalent to Eurostat, very comprehensive) (swe/eng) <u>SCB.se</u>

Mapping and graph tool

Hitta.se Maps with e.g. social and property information

## Lantmäteriet (Swedish equivalent of

e.g. The UK Ordnance Survey) <u>Open map service</u> <u>Open data (GIS)</u> <u>Historical maps - Explore online (Buy high</u> <u>resulotion digital files or prints)</u>

Naturvårdsverket (Swedish Environmental Protection Agency) Map of areas with special environmental status/protection.

SGU (The Geological Survey of Sweden) Map showing geological data.

SMHI (Swedish Meteorological and Hydrological Institute) Climate and weather data presented on maps. Data catalog

Resrobot Nation wide travel planner.

## LOCAL DATABASES:

GIS/Geodata etc. for all of the counties of Sweden (swe)

Public maps provided by the municipality of Trelleborg (swe)

Public GIS database for Trelleborg (swe)

<u>FÖP</u>

#### CALENDAR

Please follow the European web page <u>http://europan-europe.eu</u>

## **RULES OF THE EUROPAN 14 COMPETITION**

Please follow the European webpage <u>http://europan-europe.eu</u>

## **UPDATES OF MATERIAL & QUESTIONS**

Please check regularly the online platform for questions and answers, and uploaded material.

## SITE VISIT

Most parts of the Project Site is a restricted area with no public access so the date below will be the only chance to get inside.

## Date: April 21 12.00

Meeting point: Later to be announced at our web site. Registration: please registrer with name(s) to info@europan.se at the latest April 15. Send a mail with "Site visit Trelleborg" in the subject field

Please follow the European and National web page for changes. http://europan-europe.eu http://www.europan.se

> EUROPAN SWEDEN C/O Unit Arkitektur AB Första Långgatan 12B SE-41303, Göteborg Sweden

www.europan.se info@europan.se Tel. +46 31 60 41 60

S	2016	2017	2018	2019	2020	20	21	2022	2023	2024
J Ö	The m	unicipality and its agreemen	residents are in t	County adr authorities pa	ministrative bo articipate in th	oard and e planning!		Realizat	tion phase	
OSTADEN TIMESCHEDULE	A str	ategic vision is ormulated	Design proposal	Plan program & Quality program	Consul- tation in planning	Detailed development plan(s)	Land alloca- tion agre- ement	Building permis- sions/ Sche- matic designs	Construction phase	Moving in to the new area!



Date 7 November 2016 Rev. 14 November 2015 Steering committee for Coastal Town 2025

Project manager Charlotte Lindström +46 (0)733 511381 charlotte.lindstrom2@trelleborg.se

# Framework for the Europan Seaside Town competition programme

## Background

Trelleborg Municipality has agreed with Architects Sweden to take part in the 2017 Europan architect competition.

Europan is the world's biggest recurring competition for architects and is aimed at architects aged under 40. Local authorities across Europe launch their areas at the same time in an open, international competition. A jury judges the results against pre-defined criteria.

The competition programme must be drawn up in autumn 2016 and submitted to the Europan committee on 16 December. On 30 November the draft plan programme, which is based on existing frameworks, will be presented to the steering committee.

## Objective

An exotic town district in Sweden's most southerly town which enables all the people of Trelleborg to enjoy the sea and the horizon. A destination that makes Trelleborg unique to visitors and tourists.

A town district at the forefront of sustainability, climate adaptation and ecological and technically innovative solutions when it comes to:

- Lifestyle opportunities for everyday enjoyment
- Energy, production, waste and transport etc.
- Opportunities for production 2.0 in interaction with accommodation and leisure

A town district that is growing strategically with early establishment of companies, services, culture and leisure that provide structure and life.

A town district with accommodation in various forms with different building heights, density and three-dimensional property division to allow businesses/services on the ground floor.

A town district with a distinctive, precise architecture and formation – aesthetic experiences in shared spaces. Places that encourage people to stay and promote play – even for adults.

Kommunledningskontoret	Postal address: SE-231 21 Trelleborg, Sweden	Phone: +46 (0)410- 73 30 00
www.trelleborg.se	Visiting address: Algatan 13	Fax: +46 (0)410-441 90
E-mail: trelleborgs.kommun@trelleborg.se	Invoicing address: Box 173, SE-231 23 Trelleborg, Sweden	Org. reg. no.: 212000-1199

## Goals

- Long-term taxation capacity.
- Positive population trend and immigration.
- Attractive town district socially, ecologically and financially.
- Attractive town district which people want to move to, good environment, pleasant meeting places, areas for recreation, leisure and culture.
- Mixed housing and forms of housing.
- Mixed town with job opportunities and production 2.0.

## **Attractive Trelleborg**

The goal is for Trelleborg to continue to develop as an attractive town with a positive population trend. Another goal is to have the tax capacity in the long run to provide good services. By planning, building and developing the old port area into an attractive new town district with accommodation, businesses, services and experiences, people from the rest of the region can be encouraged to move to Trelleborg.

Trelleborg can offer the advantages of a small town with good schools and services as well as good access to everything the big cities have to offer and a diversified labour market. Capitalising on Trelleborg's location close to the sea and making the sea accessible in the town centre are other goals, as is taking advantage of the good public transport in establishing personnel and visit-intensive operations that can help make the town more attractive.

## **Regional hub**

The goal is to develop Trelleborg as a regional hub. The lack of housing in the Malmö-Lund region means that Trelleborg can fulfil the role of being a good place to live with attractive housing in the best locations close to the sea and to public transport. Developing Trelleborg as a regional hub in Skåne can strengthen the division of roles and functions between Trelleborg, Malmö-Lund and other neighbouring municipalities to benefit all of the players.

## **Business community**

People moving into the new town district and a more competitive port operation can revitalise the business community. Businesses connected to the port's functions and needs, logistics and development can also generate knowledge-intensive operations. Demand resulting from new people moving into the area will lead to new businesses and a wider range of services.

## The town meets the sea

The goal is for the town to meet the sea and for the town and port to develop side by side. This can be made possible through a new easterly entrance to the port via a new ring road in the same transport corridor as the existing railway. The new easterly entrance will remove the current barrier between the town and sea and will relieve the town centre of heavy goods transport. This will bring about significant environmental improvements in terms of emissions and noise, and the existing town can be merged with the new town district.

## Assignment

Participants in the competition must produce a **physical structure plan** for the whole area, taking into account the link to existing structures in the sphere of influence.

## Factors that must be considered

Focus on social, ecological and economic sustainability.

The town district must be adapted to expected climate changes and rising sea levels.

The seaside town is a meeting place for everyone in Trelleborg and for visitors/tourists.

The locations for the small boat port, marina, bathing huts, bathing jetties and windsurfing etc. are an asset.

It is important that north of road 9 the town is linked to the new town district. Heavy goods traffic for the port bypasses the town on an easterly ring road.

Pre-schools, school and campus can be planned as a natural part of apartment blocks. Premises will be able to be used for different purposes as needs vary with time.

The green town district is a window to the continent with vibrancy and movement, and views of the sea and horizon, as well as calm oases.

The area will be developed for a period of 20-40 years or more.

## Functions that must be included:

- Development structure, degree of development, heights of buildings taking into account the climate (wind, sun etc.), sea views and other qualities.
- Sustainable transport infrastructure for different modes of transport (car, public transport, bicycle etc.); alternatives to cars must be prioritised.
- Zones and areas for recreation, meeting places, culture and experiences.
- Green and blue structure, including surface-water solutions.
- Zones and areas suitable for services, businesses and retail etc.
- Proposals and visions regarding what production 2.0 may be/entail in a mixed town.
- The area must have space for at least 3,000 homes.
- Site for future school with a gross total area of 3,200 m<sup>2</sup> with e.g. two floors, i.e. 6,400 m<sup>2</sup> in total, plus a sports hall of approximately 2,800 m<sup>2</sup>.
- Locations for pre-schools must be included (each unit 4 departments with 72 children).
- Future campus/college for approximately 1,000 students.
- Parking solutions, reporting of parking numbers in relation to current parking norm. Surface car parking is avoided where possible.
- Gradual expansion, including operations or measures that can initially improve the attractiveness of the area.

CAA Renner

Charlotte Lindström Project Manager for Coastal Town 2025 Charlotte Hägg Reader

Sub-project Manager for Seaside Town

## **Status of buildings**





## Bredfocken (1)

1. 4,618  $m^2$  of heated area.

2. Current use: Workshop, staff, changing rooms, workspaces.

3. Year of construction: 1964

4. Date of last reconstruction/renovation: 2002/2004/2014/2016

Asphalt-impregnated paper changed, windows replaced, facades blasted and surface treated in 2004.

5. Number of storeys: 1

6. Construction, framework, roof/ceiling, external wall: Lightweight concrete facade on a framework of concrete columns. Asphalt-impregnated paper on lightweight concrete.

7. Gauge: has an expected lifespan with its current use of 20+ years.



Comments from tour: Workshop hub of the port. Office section with windows to the south, otherwise few windows. Inside the building there are a forge, electric shop, carpentry shop, truck centre and garage, and customs has one section. There is also a staff gym here with views over the sea. The small building to the north west is a vehicle wash.

## Kompassen NV (3)

- 1. Total area:  $17,638 \text{ m}^2$  (3,000 m<sup>2</sup> heated and 14,638 m<sup>2</sup> unheated).
- 2. Current use: Storage with changing rooms, small office space.
- 3. Date of construction: 1959
- 4. Date of last reconstruction/renovation: renovation of roof in 2006.
- 5. Number of storeys: 1

6. Construction, framework, roof/ceiling, external wall: Framework of concrete columns, the long sides have wooden columns. Fire-barrier walls between each unit. Wooden roof truss.

7. Gauge: has an expected lifespan with its current use of 10+ years.



Comments from tour:

Former tyre store. Units with two gables  $3,000 \text{ m}^2$ , hired out for various operations; quality vintage cars, boats and caravans in winter storage, palm trees, benches and an engineering workshop. A part of the port operation: grain store.

Insulation and heating in units 2 and 3, seen from the north. WC and changing facilities in part of building.

## **Former polystyrene factory (4)** 1. Current use: offices with 15 workspaces.



Comments from tour:

Good condition. Office section in the north. Approximately 15-20 office workspaces. Fine conference room on level 3 with sea views. Heated production premises. A great shame if demolished. Access for loading from street.

## **Building header (4) (small storage premises)**

- 1. Current use: Storage
- 2. Number of storeys: 1



Comments from tour: The port should hire this for storage.

## Logistics centre (7)

1. 10,000  $\text{m}^2$  of heated and 3,000  $\text{m}^2$  of unheated area.

- 2. Current use: Storage facilities and storage offices.
- 3. Year of construction: 2004-05
- 4. Number of storeys: 1 + 2
- 5. Construction, framework, roof/ceiling, external wall: Concrete element

1.80 over which sheet metal panels. Roof: asphalt-impregnated paper on insulation on sheet metal.

6. Gauge: has an expected lifespan with its current use of 30+ years.



Comments from tour:

Offices with changing rooms on the upper level in the part facing Strandridaregatan.

Heated storage, 3 ranges of columns, approximately 25 x 25 m between the columns.

Unheated storage with access from track to the north.

Large doors to the grain store in the north-east part.

## Grain store (8)

- 1. 2,325  $m^2$  + 3,700  $m^2$ , of which 1,700  $m^2$  heated.
- 2. Current use: Storage
- 3. Year of construction: Moved there in 1997 + built in 2003.
- 4. Number of storeys: 1
- 5. Construction, framework, roof, external wall: Concrete element.

Roof/ceiling: insulating board, concrete coffers.

6. Gauge: has an expected lifespan with its current use of 20+ years.



Comments from tour: Sheet metal section in the north. Large halls for storage. Vellinge Spannmål owns the building in the south east but it stands on the port's land.

## Klyvaren (5)

- 1. 370 m<sup>2</sup> office space + 12,000 m<sup>2</sup> of heated area.
- 2. Current use: Storage
- 3. Date of construction: 1959
- 4. Date of last reconstruction/renovation: 2000
- 5. Number of storeys: 1

6. Construction, framework, roof/ceiling, external wall: Painted lightweight concrete. Windows: wood and metal. Roof: asphalt-impregnated paper.

7. Renovation need/Status: Big!!

8. Gauge: has an expected lifespan with its current use of 5+ years.



North office section not been used for 10 years. Currently used as the rehearsal hall for port workers, among other things.

Facing the fishing quay, glass facade, heating possible, internally 3 heating pipes in roof/ceiling.

Southern side used frequently. Has an open hall with track here where trains can be driven in for loading and unloading approximately once a day.

- **Building header (oil tanks)** 1. 1,700 m<sup>3</sup> + 1,700 m<sup>3</sup> + 3,000 m<sup>3</sup>
- 2. Current use: Storage of oil
- 3. Year of construction: 1958
- 4. Date of last reconstruction/renovation: 2000
- 5. Construction, framework, roof/ceiling, external wall: Steel
- 6. Gauge: has an expected lifespan with its current use of 20+

years.



## Building header (fish stalls) 5020

- 1.  $100 \text{ m}^2$  of unheated area.
- 2. Current use: storage
- 3. Year of construction: 1985
- 4. Number of storeys: 1
- 5. Renovation need/Status: Poor condition

6. Gauge: has an expected lifespan with its current use of 5+



## Port offices

- 1. 868  $m^2$  of heated area.
- 2. Current use: port offices and the police service's staff area.
- 3. Year of construction: 1983
- 4. Date of last reconstruction/renovation: 1995 + 1998 + 2005
- 5. Number of storeys: 3
- 6. Construction, framework, roof/ceiling, external wall: Prefab stone

material. Low-profile corrugated sheet metal, roof with asphalt-impregnated paper.

7. Gauge: has an expected lifespan with its current use of 30+ years.

## **Building header (customs house)**

- 1. 678  $\text{m}^2$  of heated area.
- 2. Current use: offices
- 3. Year of construction: 1986
- 4. Date of last reconstruction/renovation: 2000 + 2002
- 5. Number of storeys: 2

6. Construction, framework, roof/ceiling, external wall: Main building made

of brick. Sheet metal garage, concrete roofing tiles, strong wooden base of

the roof. The garage roof has asphalt-impregnated paper.

7. Gauge: has an expected lifespan with its current use of 30+ years.

## Appendix A - Traffic noise and planning

## Traffic Noise

If noise generated from traffic exceeds 55 dBA for residential housing a set of rules must be employed. This is generally called "Silent side planning" in swedish context. If noise levels exceed 55 dBA, then this is mentioned in the brief.

## Planning with noise levels exceeding 55 dBA

New residential buildings are allowed on condition that it is possible to arrange a quiet side for every flat / housing unit.

Within every flat, at least half of the rooms (living room and bedroom) must face the silent side and also have a window to this side.

Also, one balcony / terrass / out-door-area-at-ground-level must face the silent side.

Example:

For a 3-room flat, at least 2 of the rooms (eg one bedroom + living room) must face the silent side.

This means that no apartment can locate all rooms towards streets exceeding 55 dBA.

Thus all new residential buildings have to be designed in order to protect and screen one side (for example in a garden or courtyard) from the street noise.

General practice show that it is difficult to obtain a silent side using the typology of the tower block, with more than 3 flats / floor.

A quiet side is defined as maximum 45 dBA.

## APPENDIX B – BBR 19 Accessibility

The following pages are chapter 3 from the Swedish building regulations. BBR 19.

# 3 Accessibility, dwelling design, room height, and utility rooms

# 3:1 Accessibility and usability for people with impaired mobility or orientation capacity

This section contains the mandatory provisions and general recommendations for Chapter 8, Articles 1, 4 and 9 of PBL and Chapter 3, Articles 4 and 18 of PBF. Section 3:5 also contains mandatory provisions and general recommendations for Chapter 8 Article 7 of PBL and Chapter 3 Article 23 of PBF.

## 3:11 General

## **3:111 Definitions and terms**

When the terms "accessible" and "usable" or "accessibility" and "usability" are used in this section, they mean "accessibility and usability for people with impaired mobility or orientation capacity".

*General recommendation* Examples of impaired mobility are impaired movement of the upper limbs, torso and legs and poor balance. People with impaired mobility may need to use a wheelchair, walking frame or cane.

Examples of impaired orientation capacity are impaired vision, hearing or cognitive ability (mental retardation, brain damage).

## 3:112 Design dimensions for wheelchairs

Where it states in the statute that sites, buildings or parts of buildings shall be accessible and usable, the dimensions for electrically-driven wheelchairs for limited outdoor use (small outdoor wheelchairs) shall be adequately sized with room for manoeuvring. However, the dimensions for manual or small electricallydriven wheelchairs for indoor use (indoor wheelchairs) may be calculated according to individual dwellings.

General recommendation

The calculated turning dimensions that are appropriate for assessing accessibility and usability for a smaller outdoor wheelchair is a circle with a diameter of 1.50 m and for an indoor wheelchair a circle with a diameter of 1.30 m.

3:12 Accessibility and usability on sites

## 3:121 Scope of application

## General recommendation

Chapter 8, Article 9 of PBL states that the rules apply to a vacant site that is to be built on if it is not unreasonable in view of the terrain and general conditions.

## 3:122 Accessible and usable walkways, lay-bys and parking spaces, etc.

There shall be at least one accessible and usable walkway between the accessible entrances to buildings and

- supplementary housing facilities in other buildings,
- parking spaces,
- lay-bys for cars,
- open spaces, and
- public footpaths adjacent to the site.

Accessible and usable walkways shall where possible be designed without level differences. Where a level difference is unavoidable, this shall be evened out using ramps.

Accessible and usable walkways shall

- be easy to follow,
- be distinguishable from furnished areas, and
- be used as a coherent, tactile and visual guide path.

## General recommendation

Examples of open spaces are playgrounds, playing fields and common outdoor areas.

An accessible and usable walkway should

- be as horizontal as possible,

- not slope more than 1:50 laterally,

 have a clear width of 1.5 m, or at least 1.0 m and then have turning zones no more than 10 m apart,

 $-\,$  for openings in fences, hedges and the like, have a minimum clear width of 0.90 m,

- be free from obstacles, and

- be levelled out with a 0.9 to 1.0 m wide ramp to 0-level if there are differences in level at the transition between different types of walking surfaces and locations.

Natural guiding surfaces such as grass edges, walls, fences, curbs and façades can be supplemented by artificial guiding surfaces to form a coherent guide path.

Fixed seating with back and arm rests in connection to accessible and usable walkways and entrances will improve accessibility and usability for people with impaired mobility.

Mandatory provisions for contrast and markings on sites are contained in Section 3:1223, and rules on accessible and usable entrances are contained in Section 3:132.

A lay-by for cars shall be available and a parking space for the disabled shall be established within 25 m walking distance from an accessible and usable entrance to public buildings, workplaces and residential buildings. The surfacing of lay-bys of this kind and parking spaces shall be compact, level and slip resistant.

## General recommendation

The longitudinal and lateral slope for lay-bys and parking spaces for the disabled should not exceed 1:50.

## 3:1221 Walking surfaces on sites

Walking surfaces shall be designed to ensure people with impaired mobility or orientation capacity can get around and ensure that wheelchair users can move around without help.

The surfacing of walkways shall be compact, even and slip resistant.

## General recommendation

Walking surfaces can, for example, be on walkways, in playgrounds and ramps and in staircases.

Concrete paving flags, plain stone slabs, compact and smooth gravel surfaces and asphalt are all examples of suitable surface materials. Rules on contrast and warning signs on walking surfaces are contained in Section 3:1223 and Section 8:91.

## 3:1222 Ramps on sites

Ramps shall be able to be used by people with impaired mobility. The maximum slope shall be no more than 1:12.

General recommendation

Ramps should be supplemented by stairs whenever possible.

For people with impaired mobility it may be difficult to cope with several ramps in a row with a total height of more than 1.0 m.

- A ramp should
- have at least a 2 m long landing,
- have a height difference of up to 0.5 m between landings,
- have a clear width of 1.3 m,
- be free from obstacles, and

- have run-off protection at least 40 mm high if there are level differences in relation to the surroundings.

A ramp must not slope by more than 1:12 in order to minimise the risk of someone overbalancing. A ramp will be safer to use if it does not slope more than 1:20.

Provisions for stairs and handrails are contained in Section 8:91.

## 3:1223 Contrasts and markings on sites

Parking spaces, lay-bys for cars and open spaces, as well as walking surfaces, stairs, ramps and artificial guide paths and control devices shall easy to identify.

## General recommendation

Contrast to the surroundings can be achieved by using different materials and brightness.

Artificial guide paths can be composed of materials with different structures and brightness that are recessed into the surfacing, such as clearly perceptible slabs in a smooth surface.

A lightness contrast of at least 0.40 NCS (Natural Color System) between the contrast marks and the surrounding area can significantly enhance the ability of the visually impaired to perceive the marking. Rules for contrast marking of stairs are contained in Section 8:91.

## *3:1224 Lighting for orientation on sites*

Lighting along the accessible and usable walkways and at parking spaces, lay-bys for cars and open spaces, shall be designed to ensure that people with impaired mobility or orientation capacity can find their way around.

*General recommendation* For accessible and usable walkways, the surface area should be sufficiently and evenly illuminated. Permanent lighting should not give off glare.

## 3:1225 Orientation signs on sites

Orientation signs shall be accessible and usable.

## General recommendation

Orientation signs should be easily understood and easy to read, have a light contrast and be positioned at a suitable height to ensure that they can be

read/heard by both wheelchair users and standing people with impaired vision. They should be placed where you expect them to be, and that allows you to be right beside them.

The text size should be selected according to reading distance and the surface should not generate reflections. Signs should be supplemented with letters in raised relief and in some cases with Braille and spoken information along with clear, easily understood and easy to recognise picture symbols.

## 3:13 Accessible and usable entrances to buildings

## **3:131 Scope of application**

#### General recommendation

Chapter 8, Article 6 of PBL states that the rules do not apply to work premises if it is unjustified due to the nature of the occupancy that the premises are designed for, or for a single-family house if it is unreasonable to meet the requirements when taking the terrain into consideration.

## 3:132 General

The main entrances to public buildings, work premises and residential buildings shall be located and designed to ensure they are accessible and usable. Other entrances to public buildings, work premises and residential buildings shall also be accessible and usable if they need to meet the requirements for accessibility and usability. Accessible entrances shall be easy to identify.

For single-family houses, accessibility to the building is satisfied if it is possible to subsequently arrange a ramp to the entrance on the site using simple measures.

> *General recommendation* In addition to the main entrance, other entrances might need to be made accessible and usable, for instance in situations where the terrain or location of supplementary housing facilities would make the distance be too long, see also Section 3:23.

In order for an entrance to be easy to identify, it should be contrast marked and well lit, see Sections 3:1223 and 3:1224. Orientation signs should be designed in accordance with Section 3:1225. Rules on ramps are contained in Section 3:1422.

## 3:14 Accessibility and usability in buildings

## 3:141 Scope of application

## General recommendation

Chapter 8 Article 6 of PBL states that the rules do not apply to work premises if it is unjustified due to the nature of the occupancy that the premises are designed for.

## **3:142** Entrances and circulation spaces

Entrances and circulation spaces shall be accessible and usable by people with impaired mobility or orientation capacity and where possible, be designed without any level differences. Entrances and circulation spaces shall have enough room to manoeuvre a wheelchair and be designed to ensure that people who use wheelchairs can move around without needing help.

## **BBR 19**

Where different levels cannot be avoided in the circulation spaces, the differences shall be evened out with ramps, lifts or other lifting devices and staircases.

It shall be possible to carry a person on a stretcher from individual dwellings.

## General recommendation

A circulation space should

- have a clear width of 1.30 m, although this does not apply to stairs

 $-\,$  where there are limited obstructions such as columns, have a clear width of at least 0.80 m, and

- in public buildings, be separated from furnished areas with, for example, lighting or different materials.

An appropriate size for the entrance and circulation spaces in dwellings are included in SS 91 42 21 (normal level).

Rules about when transport by stretcher needs to be possible by lift are in Section 3:144.

Rules for the safe transport by stretcher are contained in Section 8:232.

## 3:1421 Walking surfaces in buildings

Walking surfaces in the entrance and circulation spaces shall be firm and smooth.

## General recommendation

Rules for designing accessible and usable walking surfaces and guide paths for people with impaired orientation capacity are included in 3:1423–3:1425.

Rules for protection against slipping are contained in Section 8:22. Rules for protection against falling down stairs are contained in Section 8:232.

## 3:1422 Ramps in buildings

Ramps shall be able to be used by people with impaired mobility. The maximum slope shall be no more than 1:12.

General recommendation

A ramp should

- have at least a 2 m long landing,
- have a height difference of up to 0.5 m between landings,
- have a total height difference of at most 1.0 m,
- have a clear width of 1.3 m,
- be free from obstacles, and
- have a minimum of 40 mm run-off protection.

A ramp must not slope by more than 1:12 in order to minimise the risk of someone overbalancing. A ramp will be safer to use if it does not slope more than 1:20.

Rules on lifts are contained in Section 3:144.

Provisions for stairs, balustrades and handrails are contained in Section 8:232.

## 3:1423 Contrasts and markings in buildings

Important destinations in buildings and walkways, stairs and ramps, as well as control devices shall be easy to identify and find even for people with impaired orientation capacity.

General recommendation

Examples of important destinations in buildings are entrance doors and lift doors, and, in public buildings, reception counters, toilet doors, doors in and to escape routes, and information points.

In public buildings there should be logical guide paths that guide you between selected destinations. In open spaces in, for example, station buildings (terminals), reception areas and foyers, there should be a coherent, tactile and visual guide path in place. Guide paths in the floor can be arranged with different materials and with a lightness contrast.

Contrast to the surroundings can be achieved by using different materials and brightness. A lightness contrast of at least 0.40 NCS (Natural Color System) between the contrast marks and the surrounding area can significantly enhance the ability of the visually impaired to perceive the marking.

A logical colour scheme facilitates the orientation of people with mental retardation or other orientation difficulties.

Rules for contrast marking of stairs are contained in Section 8:232. Rules for protection against impacts and crushing are contained in Section 8:3.

## 3:1424 Lighting for orientation in buildings

The lighting of entrances and circulation spaces shall be designed to ensure people with impaired mobility or orientation capacity are able to navigate.

## General recommendation

Floors in circulation spaces should be adequately and evenly illuminated. The light source should be shielded and the contrast in brightness between adjacent spaces, and between the outside and inside should not be too great.

Rules for lighting conditions are contained in Section 6:32. Rules for lighting and glare to protect against falls are contained in Section 8:21.

## 3:1425 Orientation signs on buildings

Orientation signs shall be accessible and usable.

## General recommendation

Orientation signs should be easily understood and easy to read, have a light contrast and be positioned at a suitable height to ensure that they can be read/heard by both wheelchair users and standing people with impaired vision. They should be placed where you expect them to be, and that allows you to be right beside them.

The text size should be selected according to reading distance and the surface should not generate reflections. Signs should be supplemented with letters in raised relief and in some cases with Braille and spoken information along with clear, easily understood and easy to recognise picture symbols.

Electronic signage should be designed to ensure people with impaired orientation capacity are able to perceive and understand it.

## 3:143 Doors and gates

Accessible and usable doors and gates shall be designed to ensure they can be easily opened by people with impaired mobility, allow passage by wheelchair and ensure that there is sufficient space for opening and closing the door or gate from a wheelchair. Other openings in the passageways shall also be designed to allow passage by wheelchair. Handles, control devices and locks shall be located and designed to ensure they can be used both by people with impaired mobility and people with impaired orientation capacity.
Revolving doors shall be supplemented with a door that can be used by people with impaired mobility or orientation capacity.

General recommendation

The clear passage dimension should be at least 0.80 m, when the door is opened at 90°, for

- entrance doors,
- lift doors,

- corridor doors that are positioned perpendicular to the corridor's longitudinal direction,

- openings in passageways,

- doors to sanitary rooms in public buildings that are to be usable for people with impaired mobility,

- doors to places of assembly, and

- doors to supplementary housing facilities.

Rules on widths for escape routes are contained in Section 5:334.

The Swedish Work Environment Authority issues rules on doors in work premises.

For doors in dwellings, there are suitable passage dimensions and appropriate dimensions for service areas in SS 91 42 21 (normal level).

Doors that shall be accessible and useful should be fitted with automatic door openers if they have door closers or are heavy.

For doors with automatic door openers, it is important to indicate the space where the door opens, or to fit the doors with security sensors or the like.

Control devices for door openers should be placed with their centre 0.80 m from the floor or ground and at least 0.70 m, but preferably 1.0 m from the corner or the front edge of the door leaf in the most adverse position.

Figure 3:143 Placement of control devices for door openers



Control devices should also be able to be handled by people with reduced strength or reduced grip or precision capability.

Rules on the appropriate design of thresholds are contained in Section 8:22.

Examples of how the doors can be designed in respects other than those that have been addressed in this general recommendation can be found in Handisam's *Riv hindren – Riktlinjer för tillgänglighet. (Break the Barriers – Guidelines for accessibility.)* 

#### 3:144 Lifts and other lifting devices

When lifts or other lifting devices are required to make dwellings, workplaces and public buildings accessible and usable, at least one of them shall accommodate a person using a wheelchair and a helper. A lift or other lifting device of this type shall also be designed to ensure that people with impaired mobility or orientation capacity are able to use it unaided.

Lifts and other lifting devices shall be designed to ensure that people with impaired mobility or orientation capacity can see when the car has stopped at a landing for entering and leaving.

Transport by stretcher in a lift shall be possible in residential buildings with more than four storeys.

An additional passenger lift shall be installed in buildings with more than ten storeys. (BFS 2011:26).

General recommendation

The lifts and other lifting devices that are to be accessible and usable are regulated in Chapter 3, Articles 4 and 18 of PBF.

Lifts complying with the requirements are included in SS-EN 81-70. Type 2 (1.1 x 1.4 m) and 3 (2.0 x 1.4 m) in SS-EN 81-70 meet the requirements for accessible and usable spaces in lifts. SS-EN 81-70 also includes appropriate control and signal devices, where Annex G should be used for lifts in public buildings.

Additional requirements for lifts used to transport people with impaired mobility or orientation capacity are contained in Boverket's provisions and general recommendations for lifts and other motorised devices (BFS 2011:12), H, Annex 5:1, Sections 1.2 and 1.6.1.

Lifts complying with space requirements for accommodating a stretcher are contained in SS 763520 (1.1 x 2.1 m).

There are also harmonized standards for platform lifts, SS-EN 81-40 and SS-EN 81-41.

## 3:145 Accessibility and usability in public buildings

Where there are toilets for the public, at least one toilet shall be accessible and usable.

General recommendation

In public buildings that have more than one storey with toilets for the public, at least one toilet on each such storey should be accessible and usable.

The accessible and usable toilet should have

- minimum dimensions 2.2 x 2.2 m,
- properly designed and installed fittings and equipment;
- contrast markings, and
- security alarm. (BFS 2011:26).

Restricted sections of cinemas, theatres, sports facilities and other similar large places of assembly do not need to be fully accessible and usable for people with impaired mobility. However, podiums and stages shall always be accessible and usable.

#### General recommendation

Permanent locations for people who use wheelchairs should be integrated with other locations and provide the same opportunity to see and hear as other spectators.

# Places of assembly and reception areas shall be equipped with induction loops, infra-red systems or any other technical solution to ensure they are accessible and usable by people with impaired hearing.

*General recommendation* Examples of places of assembly are auditoriums, theatres, churches and large conference rooms that can accommodate at least 50 people.

#### 3:146 Accessibility and usability in individual dwellings on a single storey

Rooms, balconies, terraces and patios shall be accessible to and usable by people with impaired mobility. For terraces that supplement accessible and usable and well positioned balconies, accessibility and usability are ensured if it is possible to subsequently install a ramp in a simple way.

At least one sanitary room shall be accessible and usable for people with impaired mobility and be designed to ensure there is adequate room for a helper. It shall also be possible to install a separate shower area if this has not been catered for from the start.

The door to the main entrance and at least one door to each room (including room for cooking and a sanitary room), balcony, terrace and patio shall allow passage by wheelchair. There shall be enough room to open and close doors from a wheelchair.

#### General recommendation

Design dimensions that are appropriate to accessibility and usability of rooms are contained in SS 91 42 21 (normal level).

Room for helper and separate shower can be arranged by removing a bathtub, for example.

Rules on the appropriate design of thresholds are contained in Section 8:22.

## 3:147 Accessibility and usability in individual dwellings on multiple storeys

The requirements in Section 3:146 shall be met for the entire ground storey.

*General recommendation* Rules on the design of dwellings on multiple storeys are contained in Section 3:221.

#### 3:148 Accessible and usable supplementary housing facilities

Storage spaces in Section 3:23, mailboxes, laundry rooms, waste storage areas, waste chutes and other supplementary housing facilities shall be accessible and usable.

## 3:2 The design of dwellings

This section contains mandatory provisions and general recommendations pursuant to Chapter 3, Articles 1 and 17 of PBF. Section 3:5 also contains mandatory provisions and general recommendations for Chapter 8 Articel 7 of PBL. (BFS 2011:26).

3:21 General

## 3:211 Definitions

Cooking:

Food preparation, cooking and food storage

## 3:22 General on the design of dwellings

Dwellings shall be sized, laid out, fitted out and equipped, with consideration taken to their long-term use.

The dwelling shall include

- at least one room with fittings and equipment for personal hygiene,
- room or a separable part of the room for everyday social contact,
- room or a separable part of the room for sleep and rest;

- room or a separable part of the room with fittings and equipment for cooking,

- area for dining in or near the room with fittings and equipment for cooking,
- space for home working,
- space near the entrance with space for outdoor clothes etc.,

- space for washing and drying laundry in machines if there is no communal laundry room, and

- space and fittings for storage.

A separable part of the room shall have windows facing the open. A separable part of a room shall be designed in such a way that, with its function retained, it can be separated by walls from the rest of the room.

#### General recommendation

A balcony, patio or a similar space should be provided adjacent to the dwelling.

The design dimensions that are suitable for the design of the dwellings are contained in SS 91 42 21 (normal level).

Rules for supplementary housing facilities are contained in Section 3:23. Rules on waste storage areas in dwellings are contained in Section 3:4. Rules for ventilation and daylight are contained in Sections 6:2 and 6:3.

## **3:221** Dwellings on multiple storeys

In dwellings with multiple storeys the entrance storey shall at least accommodate

- a sanitary room according to Section 3:146,
- separable space for a bed (alcove),
- facilities for cooking
- dining space,
- place for asofa suite and armchairs,
- entrance area,
- space for storage, and

- area for washing and drying laundry in machines if there is no communal laundry room.(BFS 2011:26).

General recommendation

Rules for accessibility and usability in individual dwellings on multiple storeys are contained in Section 3:147. (BFS 2011:26).

## **3:222** Dwellings larger than 55 m<sup>2</sup>

Dwellings with a residential area  $(BOA)^6$  greater than 55 m<sup>2</sup> shall be designed to suit the number of people for which they are intended. However, they shall always have room for a double bed in at least one room or a separable part of a room for sleep and rest.

<sup>&</sup>lt;sup>6</sup> BOA = Residential area. Definition in Svensk Standard SS 02 10 53

## 3:223 Dwellings not larger than 55 m<sup>2</sup>

Dwellings with a BOA of not larger than 55  $m^2$  shall be designed in accordance with their size. However, in these dwellings it is sufficient that either the room for sleep and rest, or the room with fittings and equipment for cooking is separable. They do not need to have space for a double bed.

General recommendation

SS 91 42 21 includes design dimensions and interior lengths for cooking that are suitable for homes with a BOA of not larger than 55  $\rm m^2$  and 40  $\rm m^2$  respectively.

#### **3:224 Dwellings for a group of residents**

For a group of residents, the individual dwelling rooms with fittings and equipment for cooking and for everyday social contact and space for meals are partially grouped into communal spaces.

The communal spaces shall be large enough and adequately equipped to ensure they can fully compensate for the limitations in the individual dwellings.

Section 3:224 does not apply to dwellings for people with disabilities specified in Article 9 Point 9 of the Act (1993:387) for Support and Service for people with Certain Functional Impairments, LSS, and Chapter 5, Article 7 of the Social Services Act (2001:453), SoL.

General recommendation

For special forms of dwelling for the elderly and dwellings for students and youths, see Sections 3:225–3:226.

#### 3:225 Special forms of dwelling for the elderly

For a small group of residents, in special forms of dwelling for the elderly, the regulations in the first and second paragraphs of Section 3:224 apply. The communal spaces shall lie adjacent to the individual dwelling.

Group dwellings intended for senile people, do need not to be equipped with fittings and equipment for cooking in the individual dwelling. In such cases, however, provision shall be made for the necessary installations for this purpose.

General recommendation

The term special forms of dwelling for the elderly refers to dwellings in accordance with Chapter 5, Article 5, second paragraph of the Social Services Act (2001:453), SoL.

Special forms of dwelling for the elderly are often also workplaces. Arbetsmiljöverket issues rules on workplace design.

#### 3:226 Forms of dwelling for students and young people

In individual dwellings for students or young people with a BOA of not larger than  $35 \text{ m}^2$ , the room for everyday social contact, the room for sleep and rest, or the room with fittings and equipment for cooking do not need to be separable.

If dwellings for students have separable parts of rooms for cooking, the separable parts do not need to have windows facing the open.

For a group of students or young people, the individual dwelling with fittings and equipment for cooking and for everyday social contact and space for meals, or parts thereof, may be grouped into communal spaces.

In cases where the room with fittings and equipment for cooking is shared, no more than 12 dwellings may share it.

The communal spaces shall be large enough and adequately equipped to ensure they provide reasonable compensation for the limitations in the individual dwelling.

> *General recommendation* The interior length for cooking that is suitable for dwellings for only one student is contained in SS 91 42 21. Rules on requirements for ventilation and daylight are contained in Sections 6:2 and 6:3.

3:23 Supplementary housing facilities

In the vicinity of dwellings there shall be a common laundry room with the option of washing and drying by machine, if there is no room to wash and dry by machine in the individual dwelling (see Section 3:22).

In the dwelling or in its vicinity there shall be a lockable space for storage of seasonal equipment and the like.

In the vicinity of the dwelling, there shall be a room for the storage of prams, bicycles, outdoor wheelchairs, walking frames and the like, as well as space for post boxes.

General recommendation

Storage space and common laundry rooms should be within 25 m walking distance from an entrance of this type as referred to in Section 3:132. SS 91 42 21 contains suitable dimensions for storage. Rules for accessible and usable supplementary housing facilities are

contained in Section 3:148.

Rules on waste storage areas are contained in Section 3:4.

## 3:3 Room height

This Section contains mandatory provisions and general recommendations pursuant to Chapter 3, Article 9 of PBF. Section 3:5 also contains mandatory provisions and general recommendations for Chapter 8 Article 7 of PBL.

## 3:31 General

The height of rooms in buildings shall be sufficient to avoid problems to human health.

*General recommendation* Rules for ventilation are contained in Section 6:25. Rules on clear height are contained in Section 8:34.

#### 3:311 Rooms intended for accomodation other than on temporary basis

## 3:3111 Dwellings

The room height of dwellings shall be not less than 2.40 m. In one or two family houses, however, the room height in attics, semi-basements and basements must be no lower than 2.30 m. In restricted sections of rooms, these room heights may be lower. In sections of the room where standing height is needed, the room height must not be less than 2.10 m under horizontal sections of roofs or 1.90 m under sloping roofs.

General recommendation

Examples of rooms or separable parts of rooms intended for the accommodation of people other than occasionally are contained in Section 1:6.

## 3:3112 Public premises

The ceiling height in public premises shall be at least 2.70 m. In rooms designed for a small number of people, this room height may be lower. However, the room height must not be less than 2.40 m.

*General recommendation* Examples of rooms designed for a small number of people are rooms with space for 16 people at the most.

## 3:3113 Work premises

The room height of workrooms shall be not less than 2.40 m. In restricted sections of rooms, these room heights may be lower. In sections of the room where standing height is needed, the room height must not be less than 2.10 m under horizontal sections of roofs or 1.90 m under sloping roofs.

In educational premises and other premises intended for a large number of people, the room height shall be not less than 2.70 m.

*General recommendation* Arbetsmiljöverket also issues rules on room heights in work premises.

#### 3:312 Rooms intended for accomodation on a temporary basis

In rooms or separable parts of rooms in dwellings and public premises for people to accomodate on a temporary basis, the room height shall be not less than 2.10 m.

General recommendation Section 1:6 contains examples of rooms or separable parts of rooms intended for the accommodation of people on a temporary basis. Arbetsmiljöverket issues rules on ceiling heights in work premises.

## 3:4 Utility rooms

This section contains mandatory provisions and general recommendations for Chapter 8, Article 4 first paragraph 9 and Article 9 of PBL and Chapter 3, Articles 9 and 10 of PBF. Section 3:5 also contains regulations and general recommendations to Chapter 8, 7 § PBL. (BFS 2011:26).

#### 3:41 General

#### 3:411 Definitions

Utility rooms:	Rooms used primarily for the operation and maintenance of buildings, such as rooms for fans, cleaning equipment, lift machines, waste storage areas, substations and boiler rooms.
Waste handling installations:	Fixed facilities for management of waste, such as vacuum systems and mechanically handled skips(recessed or placed on the surface).

## 3:42 Layout of utility rooms

Utility rooms shall be located and designed to ensure that the risk for accidents during usage, inspection and maintenance of the rooms and their installations are limited. Utility rooms and their installations shall also be located and designed to limit any risk to hygiene or health of users or neighbours is limited.

In the room there shall be adequate space for materials and equipment and for operation and maintenance work.

#### General recommendation

In utility rooms, there should be lighting and electrical outlets, and where appropriate waterproof flooring, hot water installation, floor gulley with evaporation protection, emergency lighting and permanent devices for handling of heavy installations.

If there is any risk of personal injuries, utility rooms should be lockable. Doors to fan rooms should be hung to ensure they can be opened in the event of any excess pressure, i.e. at excess pressure in to the room and the under-pressure out from the room.

Rules for water and drainage installations are contained in Section 6:6. Rules on areas requiring waterproof or water-repellent layers are contained in Section 6:533.

Rules on the design of lift areas and lift installations are also included in Boverket's mandatory provisions and general recommendations on lifts and other motorised devices (BFS 2011:12), H.

Rules on the design of utility rooms are also issued by Arbetsmiljöverket Examples of how the utility rooms can be designed are included in the

HVAC installer's guidelines *Rätt arbetsmiljö för montörer och driftpersonal* Rules for manual handling and ergonomics are issued by Arbetsmiljöverket.

#### 3:421 Access routes to utility rooms

Utility rooms shall be located and designed in such a way that limits the risk of accidents is limited when accessing and transporting. Access routes shall be designed with sufficient room for the transportation of large and heavy parts and equipment. Access routes via a residential unit may only occur to installations intended for the particular residence only.

General recommendation Access to utility rooms via ladders, external staircases and over roofs should be avoided. Rules on access routes to roofs are contained in Section 8:2421. Arbetsmiljöverket also issues regulations on transport routes and manual handling.

#### 3:422 Waste storage areas and waste facilities

In, or adjacent to a building, there shall be spaces or facilities for the handling of waste that can be used by all users of the building. For single-family houses separate waste containers may be used. The rooms shall be designed and dimensioned to ensure they facilitate the recycling of waste, in addition to what is specified in Section 3:42.

#### General recommendation

Household waste, such as food waste, that for reasons of hygiene needs to be taken out frequently, should be as close to the dwelling as possible. The distance between the building's entrances and rooms and facilities for waste should not exceed 50 m for multi-dwelling blocks.

Section 3:1 states that waste storage areas and waste facilities shall be accessible and usable.

Rules on the design of utility rooms are also issued by the Swedish Work Environment Authority.

Rules for manual handling and load ergonomics are issued by the Swedish Work Environment Authority.

Rooms or facilities for waste management shall be adapted according to – pick-up frequency and amount of waste,

- the type and composition of waste,
- the need for cleaning,
- the need to be used in a way that ensures the risk of accidents is limited, and
- local rules for waste disposal on how the waste is sorted, stored and picked

up.

#### General recommendation

For larger quantities of food waste, such as waste from supermarkets, there should be a refrigerated waste room, if, from a hygienic point of view, this cannot be arranged in any other way.

The refuse chute should have a circular cross section and a larger internal diameter than the largest lateral dimension of the waste inlet opening. An inlet opening with a cross section larger than 0.3 m should be fitted with a safety device. The pipe inside the inlet should be designed to ensure the waste does not jam.

Rules for local waste disposal are contained in the municipal sanitation regulations.

Bulky waste shall be disposed of separately.

It shall be possible for waste inlets and pneumatic tube conveyors to be locked from the associated collection spaces.

Rooms or facilities for the handling of waste must not be placed

- to ensure the transport of refuse must take place through spaces where people are present other than occasionally or where food is stored, and

– to ensure food waste has to be transported through circulation spaces adjacent to rooms where people are present other than occasionally, or where food is stored.

#### 3:423 Waste disposal in dwellings

In dwellings there shall be space for waste separation at source.

## 3:5 Requirements for accessibility, dwelling design, ceiling height, and utility rooms for alterations of buildings

This section contains, in addition to what is specified in Sections 3:1, 3:2, 3:3 and 3:4, provisions and general recommendations to Chapter 8, Article 7 of PBL. (*BFS 2011:26*).

3:51 Accessibility and usability for people with impaired mobility or orientation capacity (

#### 3:511 Accessibility and usability in buildings

Buildings shall, following alteration, comply with the accessibility and usability requirements in Section 3:1. The requirements may be satisfied in a way other than that specified where the corresponding level of accessibility and usability is still achieved.

However, deviations from the level may be made if there are exceptional circumstances relating to the scope of the alteration and the building's conditions. Rules on this are contained in this section and in Section 1:22.

Rules on requirements for alterations of lifts are contained in Section 3:513. (*BFS 2011:26*).

#### General recommendation

That one of the requirements in Section 3:1 cannot be met in full cannot be taken as a way of waiving other requirements in Section 3:1.

The entrances to multi-dwelling blocks, work premises and facilities to which the general public has access that have different levels inside the main entrance door, a ramp, lift or other lifting device should be installed. A precondition is that there is enough space and that the installation is performed to ensure the building's cultural values can be retained.

Level differences between sanitary rooms and the area outside the door should be evened out. The floor level for sanitary rooms should not be raised if this compromises accessibility and usability. Where floors in sanitary rooms need to be raised locally to slope towards the floor gulley, you may deviate from the requirement for accessibility and usability if there are exceptional circumstances.

Important destinations in buildings such as walkways, stairs and ramps, as well as control devices should be easy to identify and navigate for people with impaired orientation capacity. This may involve contrast marking, for example.

Doors that shall be accessible and usable, and that do not meet the requirements in Section 3:143, should be made wider if there are no exceptional circumstances to deviate from this requirement.

If a public building has one or more toilets for the general public, at least one toilet should be accessible and usable.

Places of assembly and reception areas should be fitted with induction loops, infra-red systems or another technical solution to ensure they are accessible and usable by people with impaired hearing.

Sanitary rooms in dwellings should be made as accessible and usable as possible. If it is not possible to move the walls, you should at least place the toilet, sink, shower and bathtub in relation to each other as specified in Annex A in SS 91 42 21 (normal level).

Waste storage areas should be accessible and usable.

Exceptional circumstances to deviate from this could, for example, be that

- the measure could lead to an alteration of a particularly historic building in accordance with Chapter 8, Article 13 of PBL,

- the floor needs to be raised locally in a sanitary room to ensure a slope to the floor gulley, and

- there is no room to widen the doors in dwellings.

Additional rules on accessibility and usability are contained in Boverket's provisions and general recommendations on the removal of easily remedied obstacles, to which and in premises where the public has access and in public places (BFS 2011:13), HIN. (*BFS 2011:26*).

#### **3:512** Accessible and usable entrances to buildings

Differences in level to the main entrances shall be bridged if there are exceptional circumstances to deviate.

However, for single-family houses, the requirement for accessibility and usability is satisfied if it is possible to subsequently arrange a ramp for the entrance to the site in a simple way. (*BFS 2011:26*).

#### General recommendation

Differences in level at the main entrances can be bridged, for example, with ground build-up, ramps, lifts or other lifting devices.

Exceptional circumstances to deviate from this could, for example, be that

- soil conditions do not permit this, for example, because the site cannot accommodate a ramp, lift or other lifting device,

- the measure could lead to an alteration of a particularly historic building in accordance with Chapter 8, Article 13 of PBL,

- accessibility and usability, despite the measures, still cannot be improved, for example, if there is a difference immediately inside the entrance that cannot be bridged,

 $-\,$  a building already has an equivalent accessible and usable entrance, and

- the measure could reduce accessibility in general, for example, if a ramp to an entrance obstructs accessibility to and usability of a pavement. (*BFS 2011:26*).

#### 3:513 Accessible and usable lift or other lifting device

For substantial alterations to multi-dwelling blocks with more than two storeys, work premises and public buildings shall have an accessible and usable lift or other lifting device installed, if there is none. Where there is a housing or main part of a housing in the attic, the attic is equivalent to a storeyDeviations from this provision may only be made if there are exceptional circumstances for doing so. (*BFS 2011:26*).

General recommendation

Extensive alterations to multi-dwelling blocks may involve major work in stairways, major changes to floor layouts or significant changes to the building's frame.

One way of satisfying the requirement for lifts may be to install a lift in an extension adjacent to the stairwell.

When an attic is converted into new dwellings in multi-dwelling blocks with more than two floors, a lift or other lifting device should be installed if there is none. If there is a lift, you must assess in each case if the lift needs to be run up to the new dwellings.

Exceptional circumstances to deviate from this could, for example, be that

- the measure leads to a particularly valuable building as specified in Chapter 8, Article 13 of PBL being altered,

 it is not possible to produce adequate space for both the lift and safe evacuation via the stairway and space for carrying stretchers down the stairs if the lift does not accommodate a stretcher,

- a lift installation in itself would entail changes to the building frame, in addition to the alterations needed for the actual lift installation, and

- essential living qualities would be lost, such as the essential qualities of living contained in Section 1:2231.

Requirements for the design of accessible and usable lifts and other lifting devices are contained in Section 3:144 and in Boverket's provisions and recommendations on lifts and other motorised devices (BFS 2011:12) Chapter 2. (*BFS 2011:26*).

#### 3:514 Accessibility and usability on sites

#### General recommendation

Chapter 8, Article 11 of PBL states that when alterations are made to a building that require planning permission or that requires notification to the authorities, the site shall be organised to ensure it meets the requirements in Article 9 to the extent that is reasonable considering the cost of the work and the special characteristics of the site.

To be more usable, the following should be ensured on the site

 level differences at the transition between different types of walking surfaces and locations, such as at pedestrian crossings, should be evened out to 0-level with a 0.9 to 1.0 m wide surface that has an incline of no more than 1:12,

the surfacing on the walking surfaces should normally be firm, smooth and non-slip,

parking spaces, lay-bys for cars, open spaces, walkways, stairs and ramps have markings and contrasts in relation to their surroundings, and
the requirement levels for sites specified in Section 3:12 are otherwise pursued. (*BFS 2011:26*).

## 3:52 The design of dwellings

Dwellings shall be designed, utilised, fitted out and equipped, with consideration taken to their long-term use. The requirement levels specified in Section 3:2 shall be pursued. Rules for alterations of buildings are also given in Section 1:22. (*BFS 2011:26*).

#### General recommendation

When all or parts of buildings gain a new function, higher requirements should normally be met compared to when retaining the existing function.

For example, when attics, offices, schools or health care facilities are converted into dwellings, the requirements in Section 3:2 should be applied. The same applies when dwellings in Sections 3:224–3:226 or other special dwellings are converted into regular dwellings. If the alteration is made to a historically valuable building so that it has a new function, however, there may be greater reason to deviate from the requirements.

Floor plans and interiors in existing dwellings should not be altered simply because they do not fully meet all the requirements for construction of new housing, unless they apply to the availability and usability of the sanitary rooms, see Section 3:511 eighth paragraph in the general recommendation. (*BFS 2011:26*).

## 3: 53 Ceiling height

Ceilings in buildings shall be sufficiently high to avoid problems to human health. Rules for alterations of buildings are also given in Section 1:22. (*BFS 2011:26*).

#### General recommendation

The ceiling height of existing dwellings can usually be accepted even if it is lower than the ceiling heights specified in Section 3:3, and should be retained if it is higher.

For example, when attics, offices, schools and health care facilities are converted into dwellings, the ceiling heights in Section 3:3 should be applied.

Rules on clear height are contained in Section 8:34. The Swedish Work Environment Authority issues rules on ceiling heights in work premises. (*BFS 2011:26*).

#### 3:54 Waste storage areas and waste facilities

In, or adjacent to a building, there shall be spaces or facilities for the handling of waste that can be used by all users of the building. The corresponding requirement levels specified in Sections 3:422–3:423 shall be pursued. (*BFS 2011:26*).

#### General recommendation

Household waste, such as food waste, that for reasons of hygiene needs to be taken out frequently, should be as close to the dwelling as possible. The distance between the building's entrances and rooms and facilities for waste should not exceed 50 m for multi-dwelling blocks.

Requirements for accessibility and usability are contained in Section 3:51.

Rules for local waste disposal are contained in the municipal sanitation regulations.

Rules on the design of utility rooms are also issued by Arbetsmiljöverket.

Rules for manual handling and load ergonomics are issued by Arbetsmiljöverket. (*BFS 2011:26*).