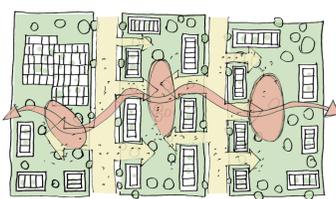
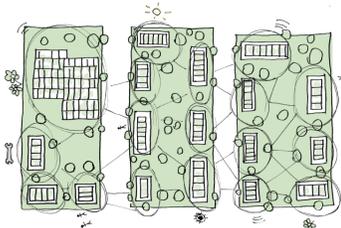


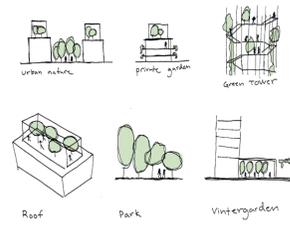
A green route that relates to nature and promotes recreational activities and social interaction.



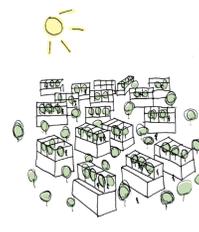
Open and inviting gardens for interaction between the blocks.



Smart systems and coherent architecture provide networks and visual connection.



Integrated nature on all levels.



Sunlight is absorbed and harvested during the day.



Energy is released and utilized during the evening creating a vibrant city throughout the whole day.

CONCEPT PART 3 / GREEN SPACES

GREEN VARIETY

In the area in the future, in contrast to the current situation, there will be a lot of greenery and a large amount of defined green spaces. These green spaces will be in different shapes, sizes and with different functions. The spaces between buildings, green roofs, parks and playgrounds, greenhouses, private and public gardens on and near buildings, are all examples of how this increased feature of greenery will take place in the area.

INSIDE – OUTSIDE

The cold climate in Sweden creates a relatively short vegetation period - the period when it is sufficiently hot and humid for plants to grow. In the central parts of Sweden, this period is on average six months long. This period can also be seen as the period during the year when we humans generally consider it pleasant to stay outdoors. Along the green routes that are planned in the area and adjacent to and on top of new and existing buildings, new spaces are proposed to extend this period of time. These weather-protected green spaces, that most easily can be described as glazed greenhouses, should act as a crossing between indoor and outdoor.

URBAN FARMING

In the global world we live in today, there is a connection between plant-based diet and healthy lifestyle. Very simply put, one can say that what is good for the environment is also good for man. Spending time in nature or environments with features of greenery also has documented positive effects on people's well-being. Health and sustainability thus go hand in hand with each other. The urban planning interpretation of this is to create spaces in the city for both cultivation of plants and recreation among them. Many of the new green spaces that will be constructed in the area will offer exactly these functions. These green spaces will allow for an extended period, or year-round period, for plants to grow while promoting ecosystem services and human well-being.

SHINING LANTERNS

The greenhouses that will be scattered in the area will daytime be green oases filled with plants where people can stay all year round. Evening hours, these units, which in many cases will be raised and placed on the roof of buildings, will function as shining lanterns. The elevated position does not only offer views of the area for the users, but they also create an interesting silhouette and characteristic architecture for everyone to see. These shining lanterns will effectively advertise their content and be symbols for a vibrant, sustainable city and productive city.

CONCEPT PART 4 / SMART SYSTEMS

GENERAL

The developed and transformed area, characterized by sustainable brick facades, green routes and shining lanterns, will be connected to a coherent system of smart energy production; clean waste management; and digital infrastructure solutions that create good conditions for a sustainable city. These systems are of equal importance as the other three concept parts, even though they will to a larger extent be less visible and rather work in the background - like clockwork in a clock. These system solutions are general and will in the longer term be implemented throughout the whole area.

ENERGY

The energy coming from the sun is renewable and can be used to produce heat and electricity. In winter, the need for heat will be greater and in the summer the need is greatest for cooling. For the glazed greenhouses that will be placed on the roofs and thus closest to the sun, there will be a need for sun screening to avoid excessive heat loads. By using semi-transparent glass panels with a thin film of solar cells a sun shade is accomplished while at the same time solar energy can be utilized for the production of electricity. The degree of transparency is directly related to the effect that can be extracted. Less transparency means more solar shading, which in turn means more solar energy. Thus, different types of glass can be used in different parts of the glazed units depending on the need for solar shading. The solar energy collected can then be used as electricity in the building.

WASTE

As our cities become more and more densely populated, the amount of garbage also increases. In order to cope with long-term waste management in a clean and environmentally friendly manner, an automatic waste disposal system is proposed in the area. This is an investment that is worth doing in new developed areas and it contributes to a cleaner and more resistant society. The garbage chutes are color-coded for various types of waste such as plastic, food waste and newspapers. The implementation of such a system means that the heavy traffic required for traditional waste disposal does not have to take place. This reduces both the amount of noise and emissions in the area.

DIGITAL INFRASTRUCTURE

The goal is to give all residents, workers and visitors the best conditions for a sustainable, healthy and stimulating life in the area. In addition to the green and cultural layers proposed in the area, there should therefore also be a layer of digital infrastructure that provides everybody (and everything) the possibility to connect to the internet through an open Wi-Fi network. This would for example on a larger scale make it possible for things, appliances and machines (The Internet of Things) to be constantly connected and thus able to communicate with their respective owners. Possible future applications of this include connected irrigation systems that will contribute to a smarter agriculture. A comprehensive and accessible Wi-Fi network also provides for a good foundation for the use and applications of augmented reality (AR) that may arise in the future.

AREA CALCULATION / PRIORITIZED AREA 1 - 1A, 1B, 1C

| | |
|--|-------------|
| AREA 1 - GROSS FLOOR AREA | |
| ■ Total, retail, small industry, offices, hotel, housing | 100 000 Sqm |
| AREA 1A - GROSS FLOOR AREA | |
| ■ Small industry, offices | 27 000 Sqm |
| ■ Greenhouses | 21 000 Sqm |
| AREA 1B - GROSS FLOOR AREA | |
| ■ Housing | 25 000 Sqm |
| ■ Office, hotel | 13 000 Sqm |
| ■ Office, hotel, retail | 30 000 Sqm |
| ■ Greenhouses | 13 000 Sqm |
| AREA 1C - GROSS FLOOR AREA | |
| ■ Retail | 7 000 Sqm |
| ■ Greenhouses | 1 000 Sqm |

AREA CALCULATION / AREA 2

| | |
|--|-------------|
| AREA 2 - GROSS FLOOR AREA | |
| ■ Total, retail, small industry, offices, hotel, housing | 100 000 Sqm |
| ■ Housing | 65 000 Sqm |
| ■ Offices | 15 000 Sqm |
| ■ Retail, small industry | 20 000 Sqm |
| ■ Greenhouses | 30 000 Sqm |

AREA CALCULATION / TOTAL GROSS FLOOR AREA

| | |
|--|-------------|
| ■ Total, retail, small industry, offices, hotel, housing | 200 000 Sqm |
| ■ Total, greenhouses | 65 000 Sqm |
| ■ Housing | |
| ■ Offices, hotel | |
| ■ Retail, small industry | |
| ■ Greenhouses | |