



PARKSIDE INDUSTRY

MUIDEPORT - URBAN

Climate Design &
Sustainability

KULeuven - Departement Architecture
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TEAM AND DATA

1. Team members

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2. General information

MUIDEPORT

The Muide today is known for its former industrial character at the port of Ghent.

Located at the north of Ghent, Muide is a working-class area. Lately, the area also attracts students and younger couples, or people who have just graduated because of its low housing costs. Meanwhile, the city of Ghent is also investing to make the area more appealing for its inhabitants by placing dog run meadows, hiring old harbor infrastructure to young entrepreneurs, placing playgrounds for children, organizing shared gardens, and so on.

In our project, we want to reinforce this movement in a positive, greenway. Making the Muide self-sufficient, and sustainable, with a combination of re-identifying the old and the new and create a cohesion between the inhabitants.

BASIC DATA



The Muide is a growing city it will go from 4071 inhabitants today, to 8810 inhabitants in 2040. The Village is 221.212 m². The renewing of the village will also supply us with 934 extra jobs.



Today the Muide is based on fast traffic, so they have 2.858 cars, but in 2040 it will be a Car-Free zone so no cars are allowed in the Muide. This means the amount of bikes will rise from 5.976 today to 11.952 bikes in 2040. To have enough parking for these bikes, 304 bike plots are provided to store the bikes.



The Muide become a greener Muide, with lots of eatable plants. We will plant +- 467 eatable trees throughout the site.



For 9000 inhabitants 18 Mega Watt of energy production each year.



For the water usage in the village, we aim the water usage to 104 liter for every inhabitant for every day.



The Muide will be built with reused bricks from the demolished building as they see the city as a material bank. But they will also produce new bricks and import wood.

A POSITIVE PROJECT

Muide, a climate positive project

Our ambition for 2050 for the Muideport is to be a climate *positive* project. This means we have to work out a positive impact on the city of Ghent and most importantly our village itself. This can only be made possible if all sectors work together when using, reusing and recycling each others sources.

Urban

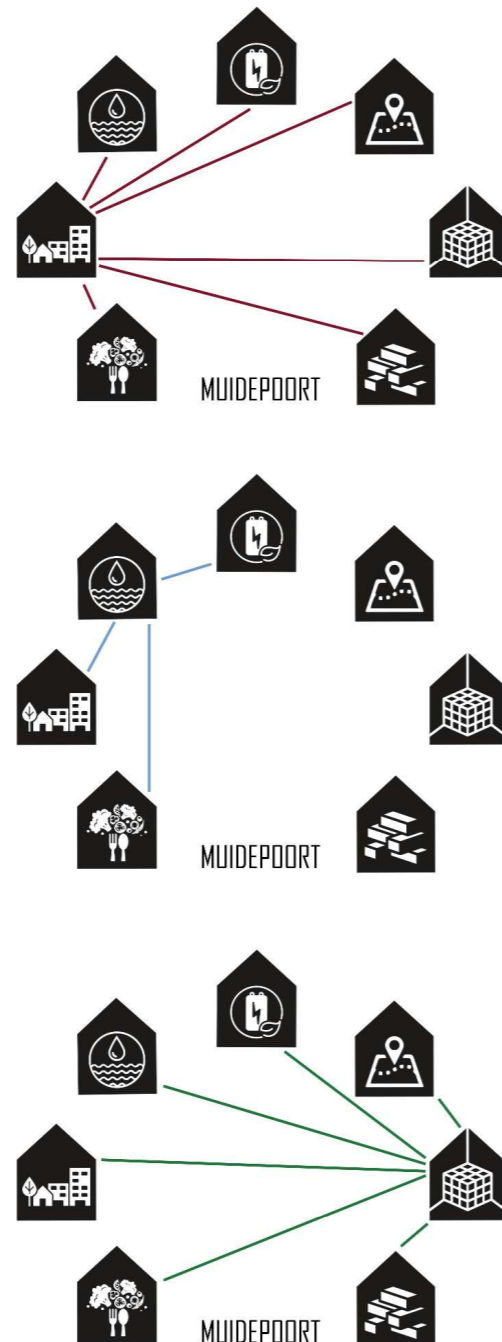
The Urban team connects all the other teams as one whole. Therefore it has a connection with each team. Water has a big influence on the new identity of the Muide where the whole village works together to collect, transport, filter, store, and then re-distribute rainwater. Also food connects with the urban scale because it spreads the food production over the village as a common, this enhances the social interaction between the inhabitants. To reduce the energy several adaptations will be made. For example: the lighting of the city will be adapted and existing houses will be renovated so they would consume less energy. Then the Material group sees the city as a material bank. In the process of renewing the city, some buildings will be demolished, the materials should be re-used, recycled or upcycled. The soil that comes free by excavating the canals will be used to produce bricks. The whole city will be made out of a grid to create flexible and sustainable buildings. All the new additions follow the grid, still there can be variations but the grid gives a guideline, this way the grid can be felt all over the village without being boring. The mobility Mobility Enhances the public transport and make a slow traffic plan possible for de Muide.

Water

Water is in a direct link with the urban team with their watertower as a huge landmark, at the same time the presence of water on several ways by the canals, wadi's and water collection elements on the facades creates a huge identity. They are also connected with the energy team that uses the water of the canals to generate energy and with the food team that uses the water to maintain the food production all over the Muide. Then the main goal on the bigger scale is to make a green-blue connection with the city of Ghent to boost biodiversity, improve the water housekeeping, fight air pollution, and so on.

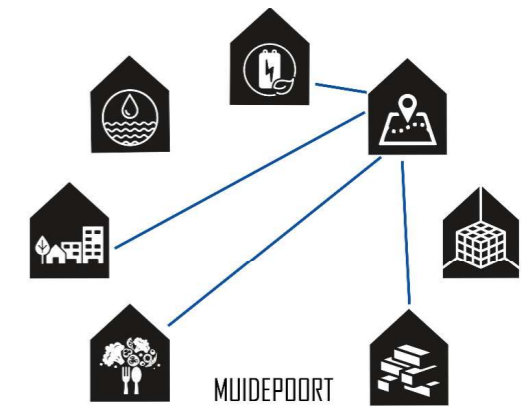
Space

Space they provide each team with a way to be sustainable in the future through the grid. When you use the grid it is much more easy to work on a sustainable system that is based on using and re-using (against the typical waste society where we live in today) This grid can be 6x6m, 9x9m or 12x12m.



Mobility

Mobility provides an adapted tramline that connects the Muide to the city of Ghent. The mobility on the site will be mainly slow traffic and public transport. The industry is also connected with Ghent by the big canal, so they can use this as transport as well. The new tramline will not only provide public transport but also transport for goods. The tramline makes a loop around the Muide where it makes a first stop at the city center, in the way back it then passes the big industries of materials, energy and food where it stops 2 times. This way the big industry can use this tram for the transport of goods.



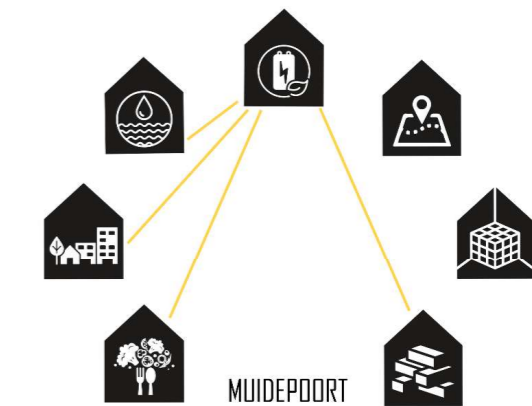
Food

There will be food production all over the Muide, this can happen on unused surfaces. The urban group uses food tables in the city center with eatable plants for example. Also, a huge part of the trees and plants in the Muide will be edible or medicinal. Because the food production can be more than the Muide locally needs they are connected to mobility to bring the food supply that they don't need to the city of Ghent. Food collects their food waste so the energy can use it to generate energy out of biogas.



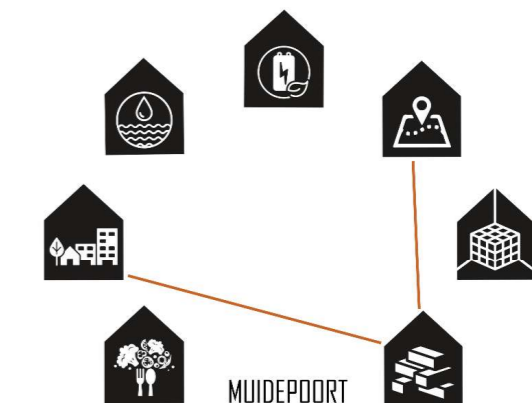
Energy

The urban team decided to bring water canals into the Muide to create an identity, the water team also agreed because of the multiple benefits the canals could have. This made it possible for the energy group to make use of this canal and generate energy out of the water. The energy group is also in connection with food because they use the food waste of the to generate biogas. Further there are implementations to generate energy on all over the Muide, for example the 'microalgae panels' and photovoltaic panels.

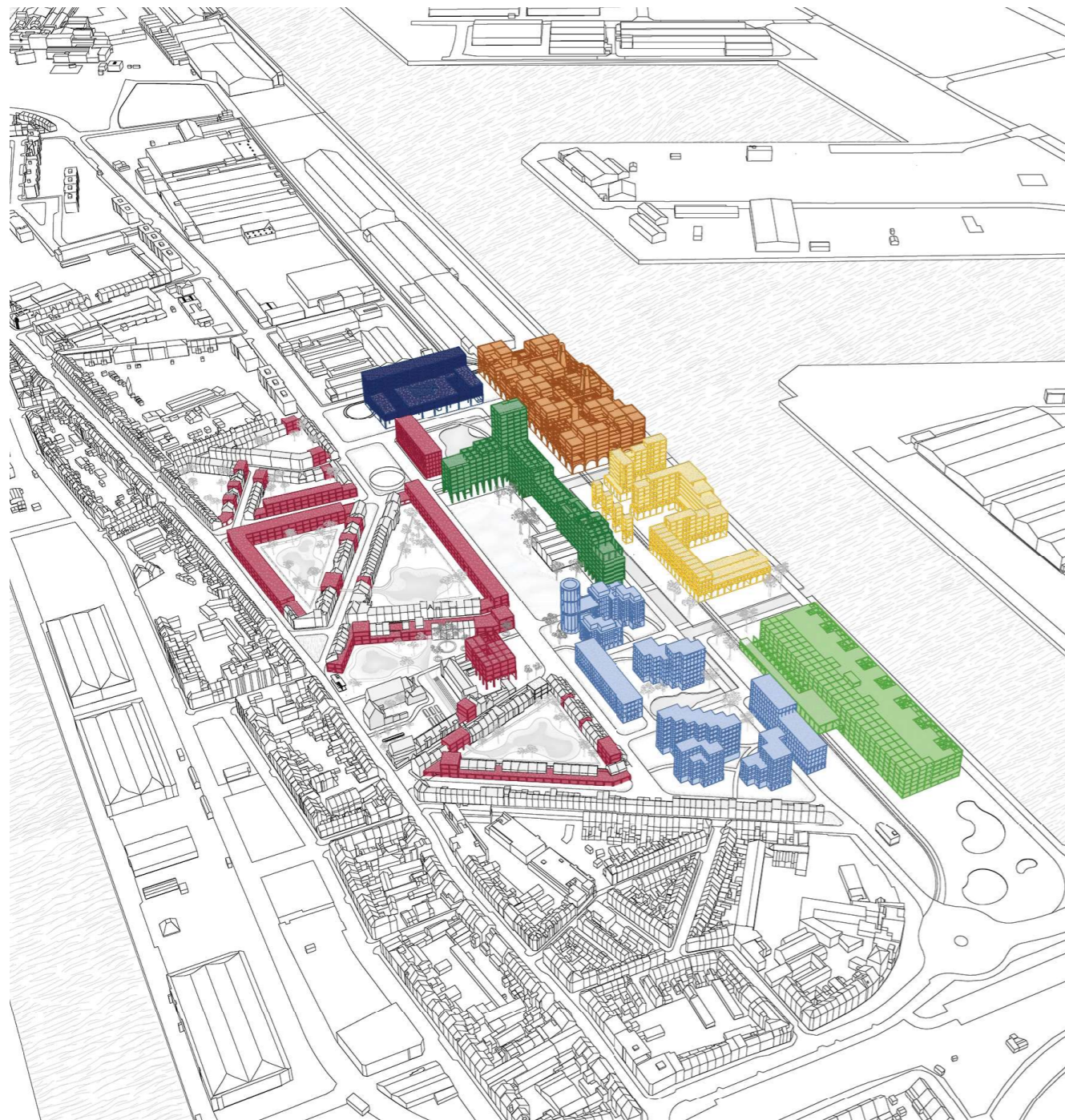


Materials

The material group generates materials on the site, these are mainly bricks. They stand in connection with the urban group because they can use the soil that will become free by making new canals into the Muide. Also, the materials of the demolished buildings will be reused, as they see the city as a "material bank". The material group is also connected with mobility because they make it possible to import and export the goods that the factory requires and produces to the city of Ghent.



LOCATION OF THE NEW BUILDINGS



Urban Water Space Mobility Food Energy Materials



TEAMS AND RULES

TEAM URBAN

- 1** A coherent site is made by connections, **each group has to apply all rules** and have to have a **direct link with at least two groups.**
- 2** Every unit should be connected **with minimum 1 common social space** + there should be a **maximum interaction between interior & exterior.**
- 3** All the green- and blue surfaces (these are bigger open spaces like parks or ponds ect.) Should be connected by a **natural network.**
- 4** There should be a **combination of private gardens and public green** in order to **optimize biodiversity.** 70 percent of the remaining open space should stay open, the other 30 percent should be an interesting mix with housing for minimum 9500 inhabitants spread over the site.
- 5** **16 -20 percent** of all housing projects should be for **social housing.**
- 6** **No private cars are allowed.** The site is based on slow traffic, therefore it's a car-free zone.
- 7** There should be **social interaction between living area and industry** where needed/ possible.
- 8** **The identity of the site must be respected.** (Heritage should be maintained for example.)
- 9** **The canal zone is safeguarded for large-scale industry** that can be linked to water, on the one hand for transport and on the other for the production of goods.

TEAM WATER

- 1** **70%** of your site must have **permeable ground surface**
- 2** **No home is allowed a laundry machine**
- 3** All homes have to be fitted with **eco showers and toilets** (we will provide specification of these)
- 4** 100% of the South, West, or **South-western facade must be available for collecting rainwater** (This will effectively look like a green facade, and it will be modular so can be configured around windows)
- 5** **50% of the roof** will need to be **available for water collection.**
- 6** All inhabitants need to **lower their water-use to a maximum of 104L per person per day.**

TEAM SPACE

- 1** Roof Heights: All floor to **floor heights either 4 or 8 meters**. In order to have flexible interior.
- 2** **Grid lines: 6x6 meters**. To create unified, modular plans.
- 3** Accessibility: Every part and section of **buildings should be accessible by all groups of people**.
- 4** Flexibility: By placing **vertical circulations (Stairs and Elevators) in the facade**, an open space in the building will be created.
- 5** Modularity: By following the rules for the grid lines, Flexibility and roof heights, modular spaces will be created. **These spaces will have the potential to have different usages based on citizens' demands.**
- 6** Meeting Zones: Dedicate public spaces for people to gather around and spend time together. **Ground floor should be semi - public / public spaces.**
- 7** Adaptability: **Light and reusable interior walls. Easy to reconfigure.**
- 8** No demolishing, every existing building should be kept. **Re-use and repair as much as possible.** Existing structures will be reused.

TEAM MOBILITY

- 1** **All buildings must provide weather-protected bike parking facilities** according to the specified numbers. Buildings are encourage to provide adaptable space to accommodate different types of bicycles.
- 2** **The entire site must be barrier-free for disabled and bike access.** This includes streets and public spaces in within buildings.
- 3** **For buildings with integrated tram track, a clearance of 6m on ground floor must be provided** for tram facilities.
- 4** **Only vehicles with special permit (disabled people, delivery of oversized items, moving etc.), shared vehicles, public transport and emergency vehicles are allowed to enter the village.**

TEAM FOOD

- 1** The **minimum amount of space needed for food production** on each site, must be **at least 340m²** (this can be stackend on top of eachother).
- 2** **The projected roof surface of your entire building is the amount of m² food you need to produce.**

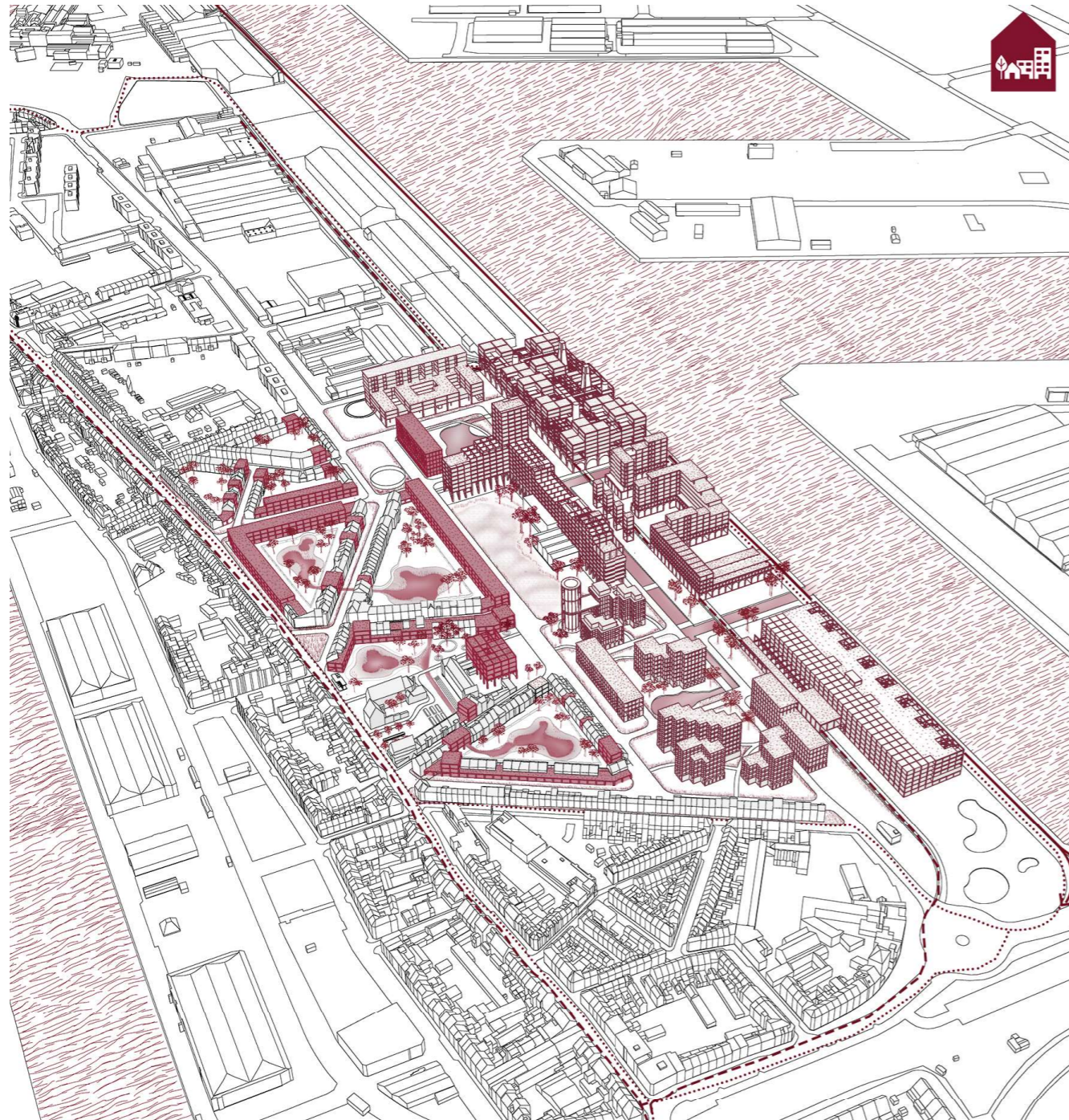
TEAM ENERGY

- 1** Use the principle of a **double skin facade** (to gain and use the heating). Accessible or not, with possible outdoor or indoor balconies.
- 2** **The overall average primary energy usage of a citizen needs to achieve 2000 watts per year.**
- 3** All buildings need to assure the light energy **production through solar transparent photovoltaic windows and roof photovoltaic solar panels.** (m2 to be confirmed)
- 4** All buildings need to **assure the heat production with microalgae photobioreactor panels in facade** (m2 to be confirmed)
- 5** **All solid waste has to be collected and transferred to the energy hub.**

TEAM MATERIALS

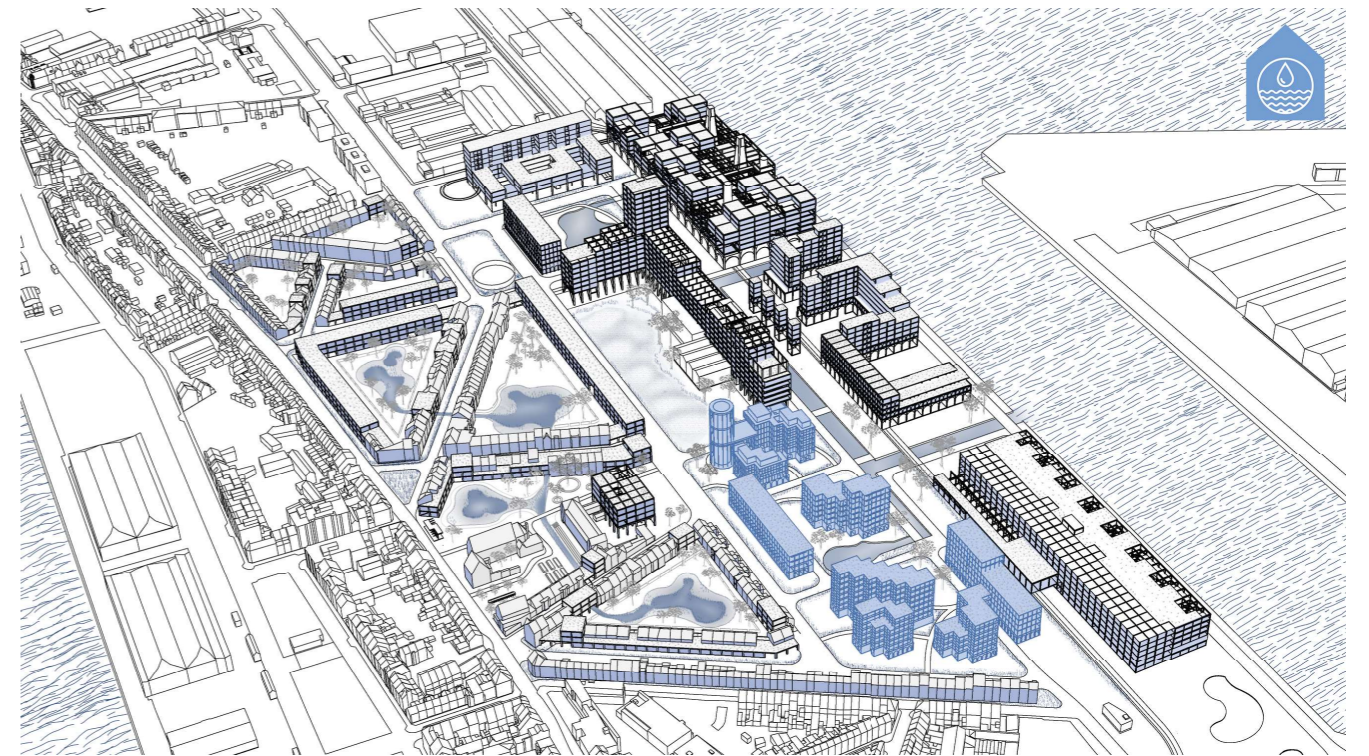
- 1** Ground floor, **First levels** and elevator/staircase shafts of the building **must be built in masonry**. In order to preserve the city identity; **the rest must be built in a modular system made in wood**; you must design for disassembly.
- 2** Calculate the CO2 of your building with the Excel file we will provide. **Try to achieve a 0 CO2 emission.**

IMPACT OF THE TEAMS ON THE MUIDE



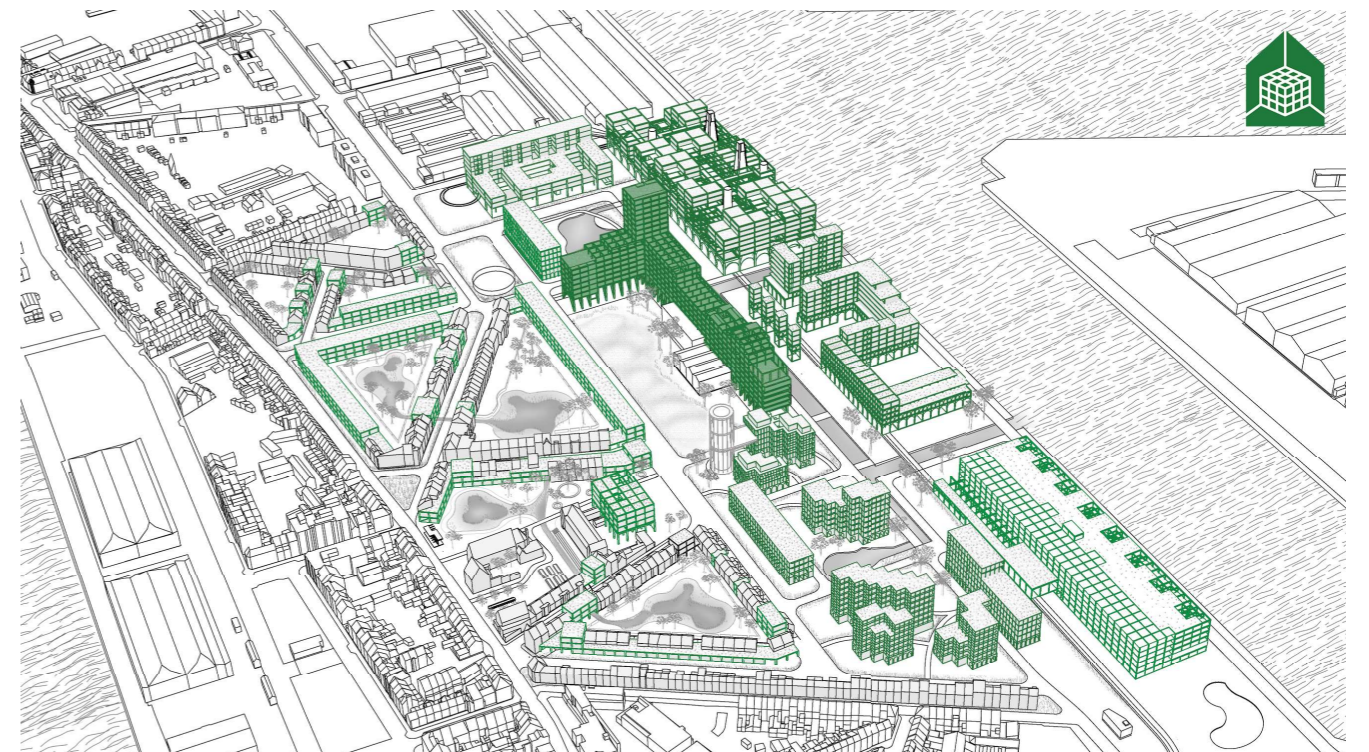
General plan

All the teams are combined in 1 general plan, in the following pages the contribution of each team will be explained so it is clear how every aspect will be integrated in 'De Muide'.



Water

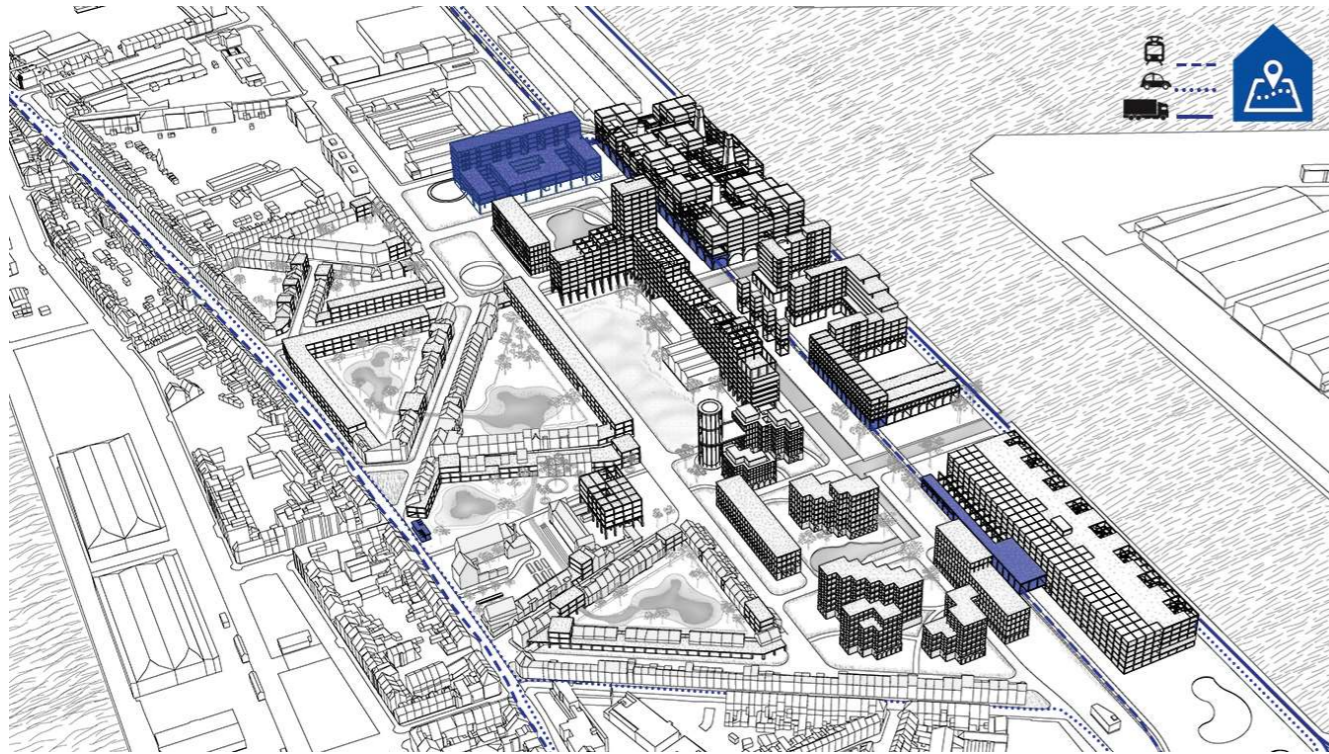
The village will collect, transport, filter, store, and then re-distribute rainwater. The system relies on the collection of rainwater from every south-western facade, and the transference of this water to the storage reservoirs via reed channels. Therefore, it is not only water that has a very visual presence in our village, but also the systems which are used to contain and clean it. We think this will give all the inhabitants a closer connection with the way humans interact with water.



Space

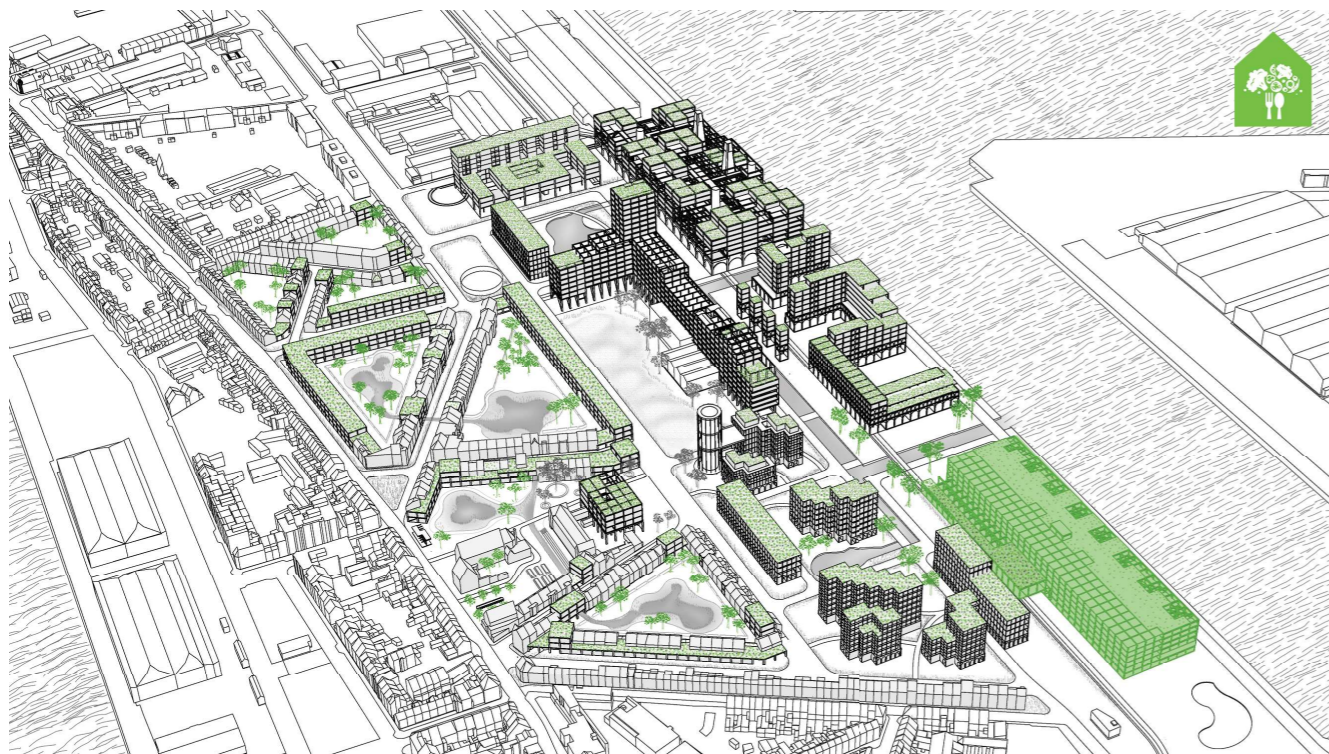
There is a grid for all the new buildings in order of a flexible and sustainable system:

- Roof Heights: All floor to floor heights either 4 or 8 meters.
- Grid lines: 6x6m, 9x9m or 12x12m. To create unified, modular plans.



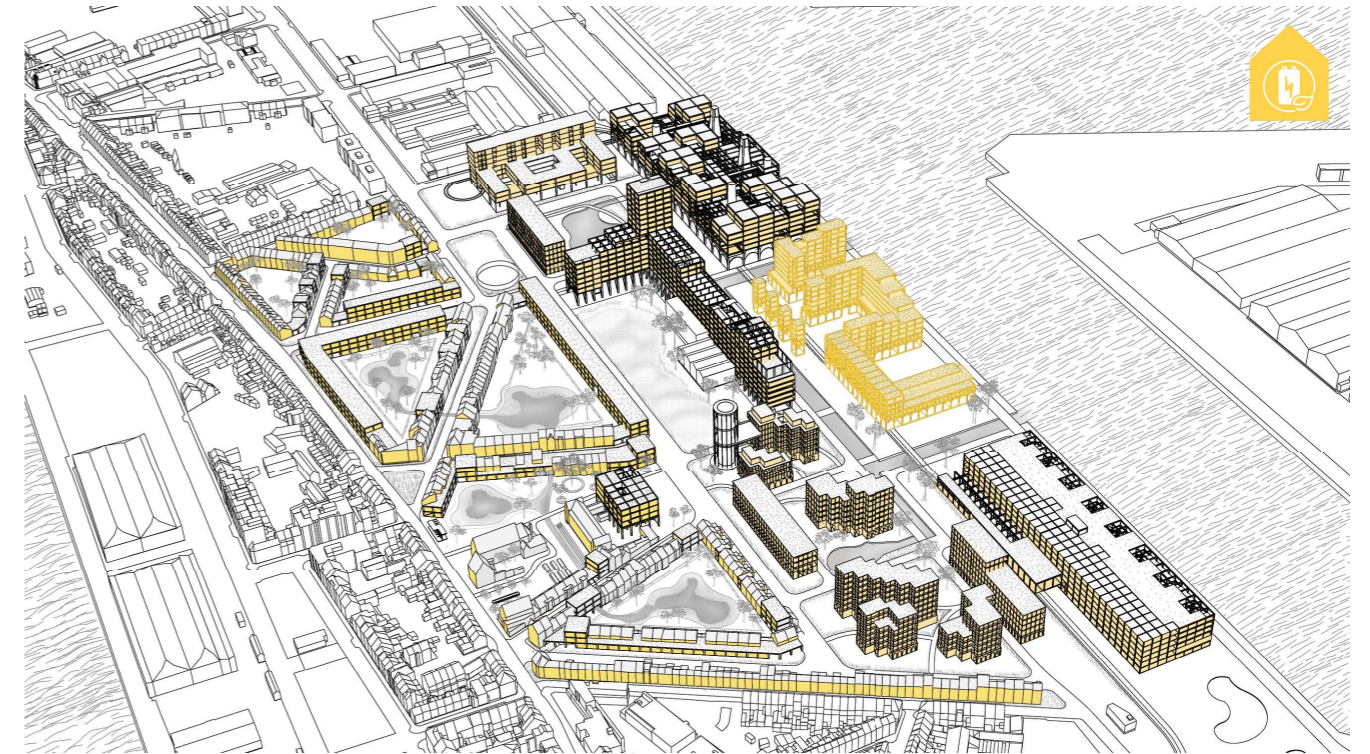
Mobility

In the site itself slow traffic is combined with public transport. For this public transport a tramline would go in a loop around the Muide and connects the site to Ghent. The tramline is also adapted so it can also be used for the transport of goods from the industries. Fast traffic will only be located on the borders. Also trucks will be separated from other traffic, but will have access to the large-scale industry.



Food

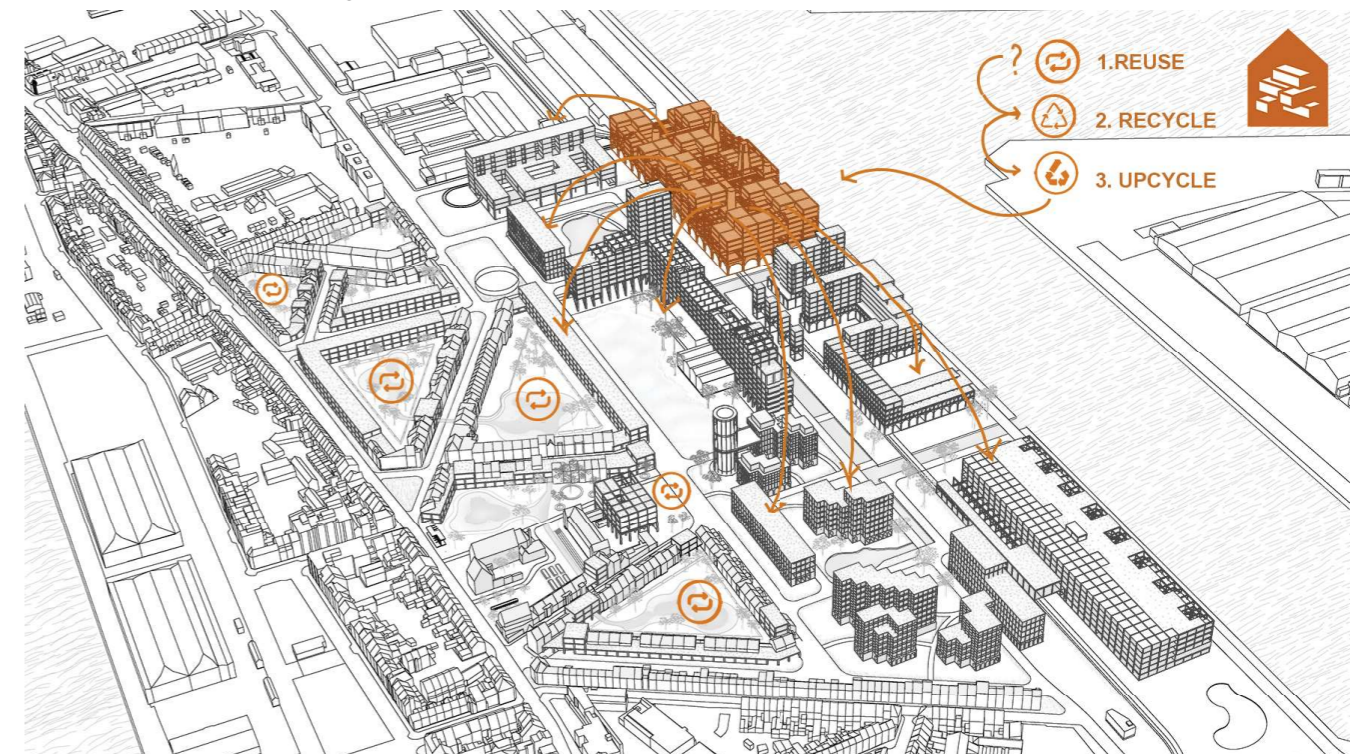
Available surfaces throughout the village are used for plants like roofs of tram stops. To spread the food production over the whole site there are parasitic elements for individual production of food. These 'parasites' are placed in the urban village in between, on top or next to building. A huge part of the trees, flowers, plants in the parks and communal gardens are edible or medicinal. Free roaming chickens will maintain the parks and communal gardens and produce eggs.



Energy

The energy hub, will provide 70% of the energy in the village. The rest of the Muide be used for energy in several ways:

- Double skin facades (to gain and use the heating).
- Providing a minimum of 10% on facade of natural light to lower the energy use for lights.
- Solar transparent photovoltaic windows and roof photovoltaic solar panels.
- Heat production with microalgae photobioreactor panels in facade



Materials

The first 2 levels in the village will be made out of bricks and the other levels out of a wooden structure. The bricks from the demolished buildings will be re-used or recycled or as last option go to the brick factory to produce new bricks for the village. (1. RE-USE, 2. RECYCLE, 3. UPCYCLE).

This factory also uses the excavated soil that comes free by digging the new canals.

GHENT AND THE MUIDE

GENERAL OVERVIEW

The Muide today is an island located next to the center of Ghent. To make this site and the Ghent center more connected, some concepts will come into play. For example, expanding public transport around the island. Or making extra green spaces to enhance the green lines in Ghent. But also with water lines. Ghent can be identified by the multiple water streets. So how can we reidentify the Muide by water as well?

PARKSIDE INDUSTRY

The site today is mostly used for bigscale industry with next to it row houses, where you kind of feel the negative effect of the industry. Because today this is seen as a grey and negative architecture that often is closed off from the outside world. It is even visible in the name, industry park.

But how can we combine industry with a city landscape? Industry needs to transform from a negative to a positive, we can do this by reidentifying the industry. Making it something that the inhabitants want to go to. This is partly done by commons, making the industry available for people is a way of making it a recreational object. Involving the inhabitants in the process of making is a way to make the Muide a common city, where the social aspects make the industry more appealing.

Industry on three scales is also a way to combine the Muide and industry. Industry is not just one big scale, you have small scale and entrepreneurs as well. We see the benefits of a big-scale next to the canal, so this will stay located at the sides. But the two other scales can happen throughout the whole site. A small woodshop space, somebody who makes chocolates, an office space,... The industry will collaborate with the city and will now be placed under the heading, mixing of functions.

A second word in the vision is parkside. The industry will be combined with green spaces. Degreying and unpaving the city is key. A 100% water-permeable city. The green spaces will be present around the whole site and are connected by an analog walk. The green spaces are not only good for the climate, but also the identity of the city.

Reidentifying the city will be done concerning the heritage that is already present today. Those will be kept as city monuments or landmarks and will be combined with new landmarks like the water tower. Most of the row houses also remain on the site to keep the identity of today, but enhance it with new architecture in the form of the grid. It is a play between the old and the new, where the old can teach us about the past architecture and the new enhances and gives the old renewable attention, making the Muide a new way of living.



PARKSIDE INDUSTRY



“Heritage as monuments in the city landscape”

The heritage must be preserved as the monuments from the past as they can teach us about the present architecture and give the city an identity. Here for example, under the building of space, the “Cotton Warehouse of agence Maritime” is preserved and is combined with a new architecture.



“New industrial identity on 3 scales”

Big scale industry is located at the canal side, while smaller-scale industries and entrepreneurs can be located all throughout the site.



“Social parkside residential and industrial city”

Industry will be placed under the heading mixing of functions, so it will take place in different places in the Muide. Therefore it will be combined with the residential zones. A mix of functions will enhance the site and will make the site a multifunctional city, where the different functions work together. For example, somebody can live in the same building as they work or go to a restaurant,... Buildings and open spaces are more than one function, they are a mix and therefore the Muide becomes a collaboration of functions. This will all take place in a green area, that focusses on make greenery a social common for all the inhabitants.



“The Muide as a social machine”

As mentioned before, the Muide is a place where social aspects will be present throughout the whole site, this means it will also be present in the industrial buildings at the canal zone. Industry can be common if they reinvent the way it works. You can invite the inhabitants and organize workshops or open industry day,...



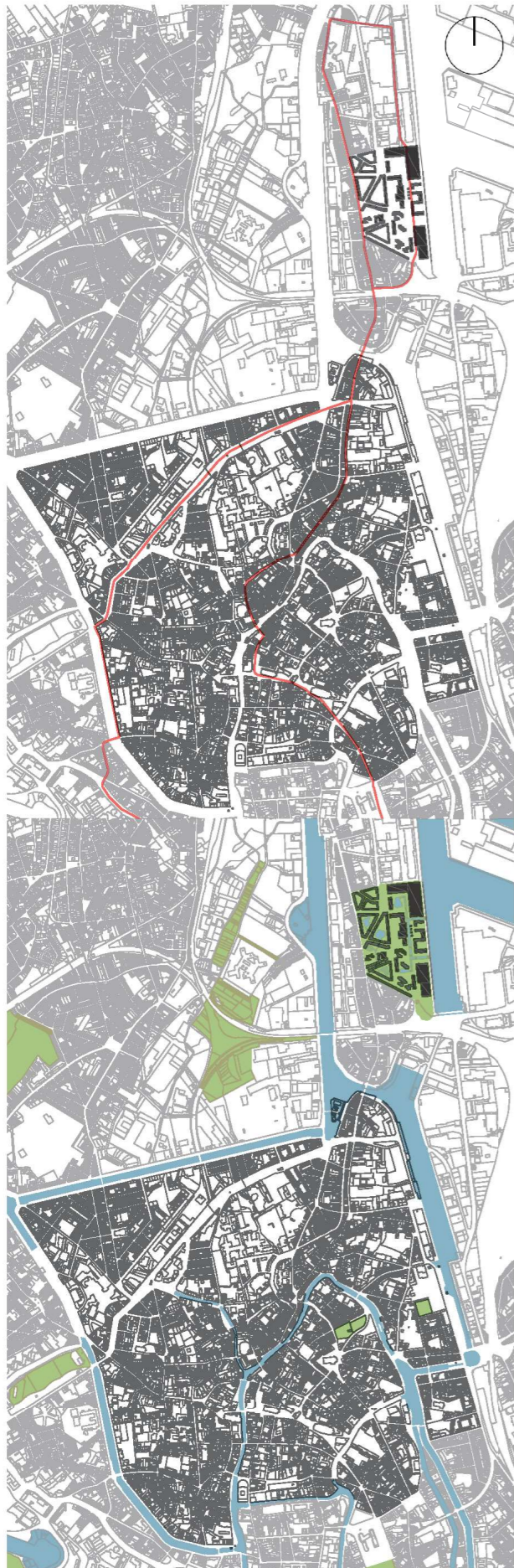
“Improving the blue and green lines”

All the concepts will stand in close relation to the base idea, enhancing the blue and green lines. The mission it to degrey and depave the city, by improving the green and blue lines and by reinventing the streets for example.



“Slow traffic Muide”

In the Muide the focus is put on slow traffic combined with public transport. To make the Muide a safe environment, cars are no longer present inside the site. They are now only present on the borders. Inside the site, the focus is put on bicycle lanes, if you would like to go fast from one side to another, then you can use the bigger lanes that connect the two sides in a straight line. If you would like to have a recreational bicycle ride, then you can use the smaller paths that go to the more green areas, and that connects the green zones by an analog route.



1. Public transport

Tramline 4

Since the Muide is carfree, where slow traffic is one of the main ideas in the concept, we decided to use and extend the existing infrastructure, tram 4.

Nowadays tram 4 goes from UZ to Ledeborg with a central changing point at the Muide. We want to share a general vision where not only tram 4 but also the other existing tramlines of the city of Ghent get extended to future blooming neighborhoods outside of the city.

This will make a carefree Ghent possible where public transport and bicycle options, will connect the whole city and its surroundings in 2040.

2. Green and blue connections

The water and the harbour

Muideport is known for its industrial waterside location in the North of the city of Ghent. Muide, being an island, surrounded by water, made us think about using the benefits of water in the identity of the Muideport, but also for the social-economic level. It's important to maintain this role and to boost the local industry at the same time. Therefore, we will reinvest in the harbor of Ghent, by giving it a more local-focused role, as well as import and export of goods, that will play an important role for our site, for our own production and our own export by boats.

Muideport, a parkside village

Nowadays Ghent has some bigger recreative parks and green areas around the city. These areas are not connected to each other, creating a shredded green map. Our goal for the future is to turn the villages of Ghent into green zones, as you can see Muideport will become one of these places. Planning to turn other villages around into such a place, the green areas on the map will be reconnected, as the city of Ghent turns green. This will boost biodiversity, have a positive effect on the water housekeeping, will fight air pollution, and so on. Furthermore, it will have a positive effect on its inhabitants, giving them a green city to live in, as nature should be available for everyone.

THE MUIDE

1. Nolli map of Muide

On these nollies, you will see how the site will change over the next 20 years. Today, the site we exists out of a combination of row houses, big storage units, garages, industry,...



■ WATER
■ EXISTING HOUSES
■ SURROUNDING HOUSES



■ WATER
■ EXISTING HOUSES
■ SURROUNDING HOUSES



■ WATER
■ SURROUNDING HOUSES
■ ADDED HOUSES
■ EXISTING HOUSES

We will start by demolishing the buildings that have no architectural qualities, like the container looking-storagebuildings, abandoned buildings, garages,... (The materials of the demolished buildings will be reused by the material team)

Once these buildings are demolished, there is a lot of open space, these will be reused for new architectural projects.



- WATER
- HERITAGE

2. Heritage of Muideport

Remaining the identity

Heritage on the site will be preserved as the monuments from the past. These monuments teach us about the past architectural language and therefore we will preserve them in their original state.



Parochiekerk Sint-Theresia van Avilla
© Vlaamse Gemeenschap, 01-05-1980



Elektriciteitscentrale, designed by J.A. De Bondt
© Verhelst, Julie, 10-07-2014



Katoenmagazijn van Agence Maritime Minne
© Vlaamse Gemeenschap, 01-05-1980



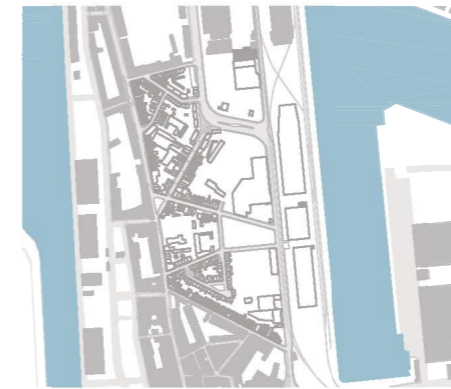
Directeurswoning klooster der Kindsheid Jesu
© Verhelst, Julie, 10-07-2014



Burgerhuis
© Vlaamse Gemeenschap, 14-09-1977



Katholieke jongensschool
© Verhelst, Julie op 10-07-2014



- WATER
- EXISTING BUILDINGS
- EXISTING ROADS



- WATER
- ROAD FOR TRUCKS
- NEW BUILDINGS
- CARFREE ROADS
- TRAMLINE
- SIDEWALKS
- EXISTING BUILDINGS
- EXISTING ROADS

3. The village explained

Slow traffic

Today the mobility in the Muide is based on fast traffic with cars, trucks,... In the streetside, you see how the car is present by all the parking spots that take in the space of the pedestrians. For 2040 we create a Car-Free-Muide, a Muide based on slow traffic with fast traffic at the borders so that the site itself becomes a walkable and bicycle able site. This slow traffic is combined with a new tramline that now connects our site with the city center of Ghent.



- WATER



- WATER
- WADIS
- ADDED CHANNEL
- BRIDGES

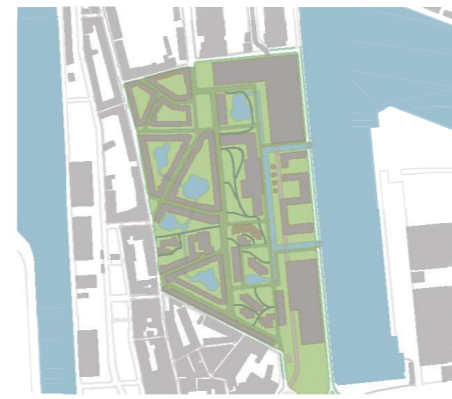
Water at the Muide

On the site today you only see the big canal, so no water is present in the site itself. In the future, we will create waterways in the Muide. This will have two forms, either the canal pulled inside the site and on the other hand, we have added wadi's inside the building blocks.

We have seen that water has lots of positive qualities for the climate, but also for the identity of the Muide.



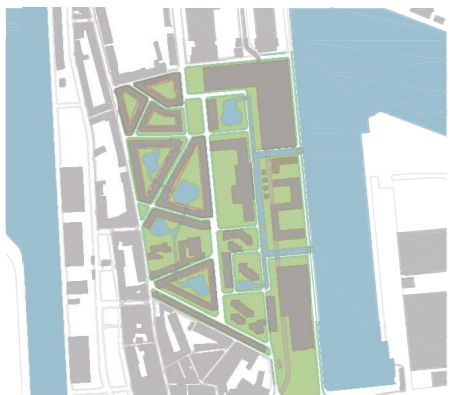
- WATER
- GREEN AREA



- WATER
- GREEN AREA
- PATHS THROUGH THE GREEN AREA
- CARFREE ROADS
- NEW BUILDINGS

Greenery

The site is now a grey area with not that much qualitative green zones. In the future, we will focus on unpaving and degreying the city. So the slow traffic streets will be water permeable and throughout the city, there will be an analog route of green zones. We will strive for a 100% water-permeable Muide with qualitative green areas.



- WATER
- GREEN AREA
- PRIVATE GARDENS

Public space

Creating one open parkside area, we are giving back a lot of space to the people. Whilst right now the area is, for a large amount, made private by bigger companies at the waterside. Breaking the industry open, making it visible for our inhabitants as one big walk through the park, and at the water, Muide becomes a much more public and open space where people are invited to enjoy the greenery throughout the whole village.

GREEN SPACES

Five typologies of green spaces

In the Muide five typologies of green spaces are included in the masterplan. These different typologies exist out of different kinds of vegetation. This vegetation defines the green spaces and offers room for smaller animals in much more dense parts of our parkside city.

Four types of green spaces are defined:

1. The city center
2. Vegetation in the streets
3. At the parkside
4. Collective gardens
5. Recreational gardens

Selection of futureproof trees

Due to global warming, our climate will definitely change. Trees will have to be planted in the order they will survive 2040's weather conditions, meaning a warmer temperature in the summer and less humidity in the air.

All new vegetation must be chosen for their ability to stay alive in changing climate. So, therefore, we have chosen future proof trees, combined with eatable trees.



Acer capillipes
"Veldesdoorn"



Acer capillipes
"snakeskin maple"



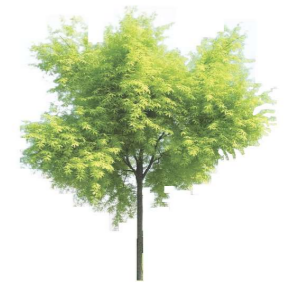
Malus floribunda
"Japanse wilde appel"



Nyssa sylvatica
"Black tupelo tree"

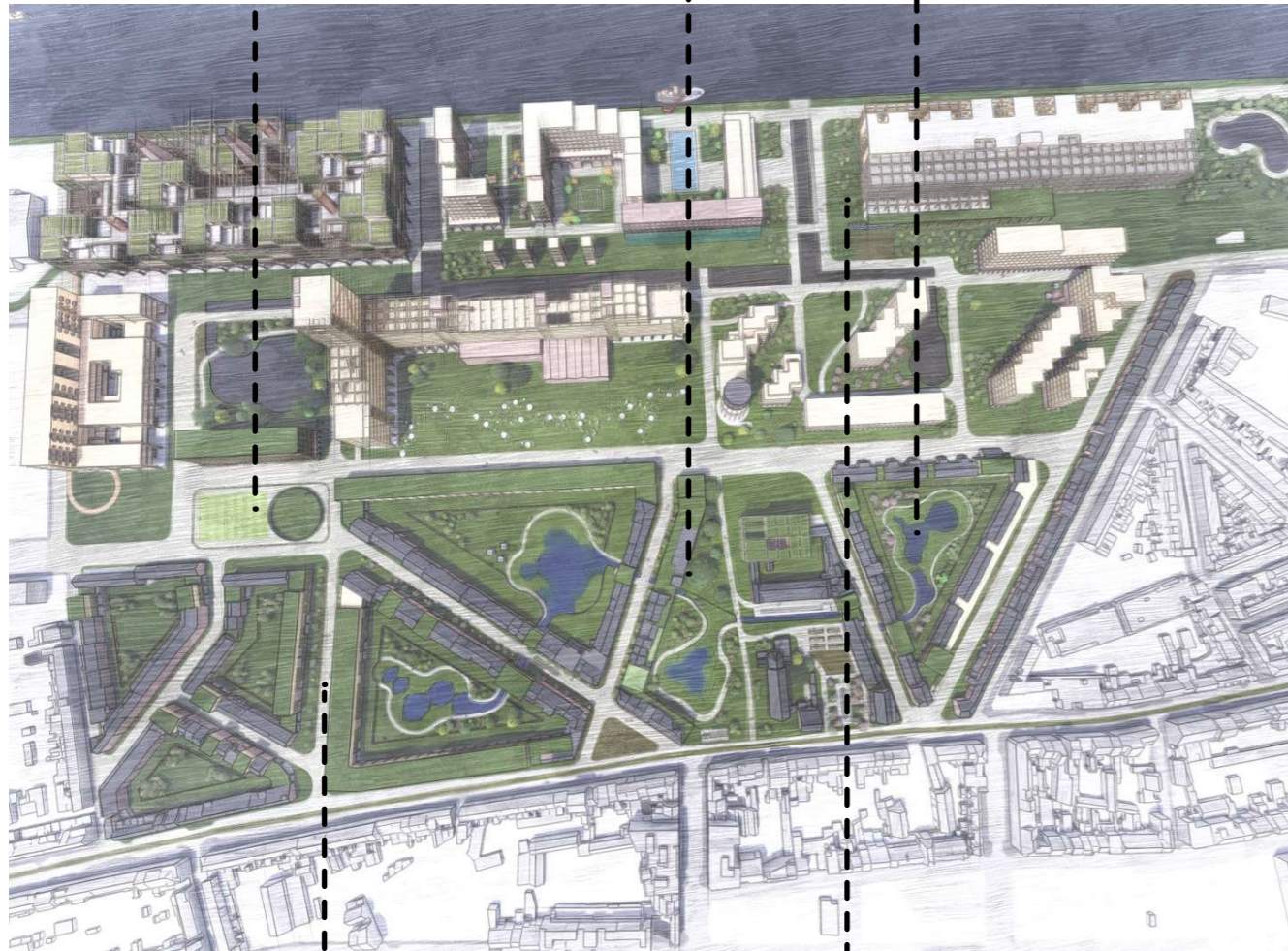


Alnus cordata
"heart-leaved alder"



Gleditsia triacanthos
"Valse christusdoorn"

5. Recreational gardens



2. Vegetation in the streets

Unpaving the streets and planting medium-sized trees and fruit-trees at both sides, creating a much more pleasing area in front of the houses in between the row houses.

1. Green space at the village center

A green environment with one central, bigger tree as a landmark and symbol for the center of our green village

4. Collective gardens

Collective gardens can be found inside the building blocks in the shared green space. Also in the center of our village, a collective garden takes place, encouraging our inhabitants not only for ecological purposes but also for reinforcing social cohesion in Muide.

3. The parkside

Much more dense areas of vegetation where biodiversity is boosted by the big variety of trees, smaller trees, bushes, and even flowerbulbmeadows to attract bees and other insects, smaller animals.



1. Green space at the village center

One big center tree

In our historic and social city center, we have chosen to place one big central tree surrounded by several smaller ones. This tree will indicate a meeting place for all inhabitants in the center and will serve as a natural shelter. Smaller trees are placed all-around our unpaved city center.

As our center tree, we have chosen a heart leaved alder tree. This tree is not only futureproofed but has also a medium-high growth rate and has an open treetop which will preserve a lot of coverage.



2. Vegetation in the streets

Mediumsized-futureproof trees

Important for these trees is that they are shadow resistant so that they can have a stable growth between the building blocks. We can choose a Japanese wild apple because of its futureproof qualities and aesthetically pleasing looks.

Fruit trees

Turning our streets into playful areas and planting fruit trees at the front facades, gives a very nice turn to the idea of picking your fruits in front of your door. You can leave for work and pick an apple to go.



3. Parkside

The importance of variety

At the parkside, it is very important to have a big variety of vegetation. This way we will boost the biodiversity on the site and attract more animals. A lot of variety meaning variety in height, type of plant, but also a lot of native trees as well as future proof types. This in combination with eatable trees and plants. This is super important for a healthy, green environment. We will also support the presence of flower bulb meadows which will attract bees and other insects.



4. Collective gardens

Edible flowers and fruit trees

Certain areas in the parkside will be open for collective gardens, also in between the building blocks, people will be able to grow, pick, and eat their food. This will be a combination of eatable trees, plants, and flowers.



5.1 Recreational gardens

Example 1: Playground

Throughout the site, certain areas will be transformed into recreational areas, here we have an example of how these areas can work. As a kind of playful, colorful area, that attracts children and has accommodations for the parents to also have a nice place to sit and watch their children.



5.2 Recreational garden

Example 2: Sport facilities

Another example is the football field and basketball terrain, these are sport facilities that are part of the open space of the parkside and free to use by everyone. This way the companies or industry nearby can use it for teambuilding's or in their breaks but also children can go there after school to do some sports.

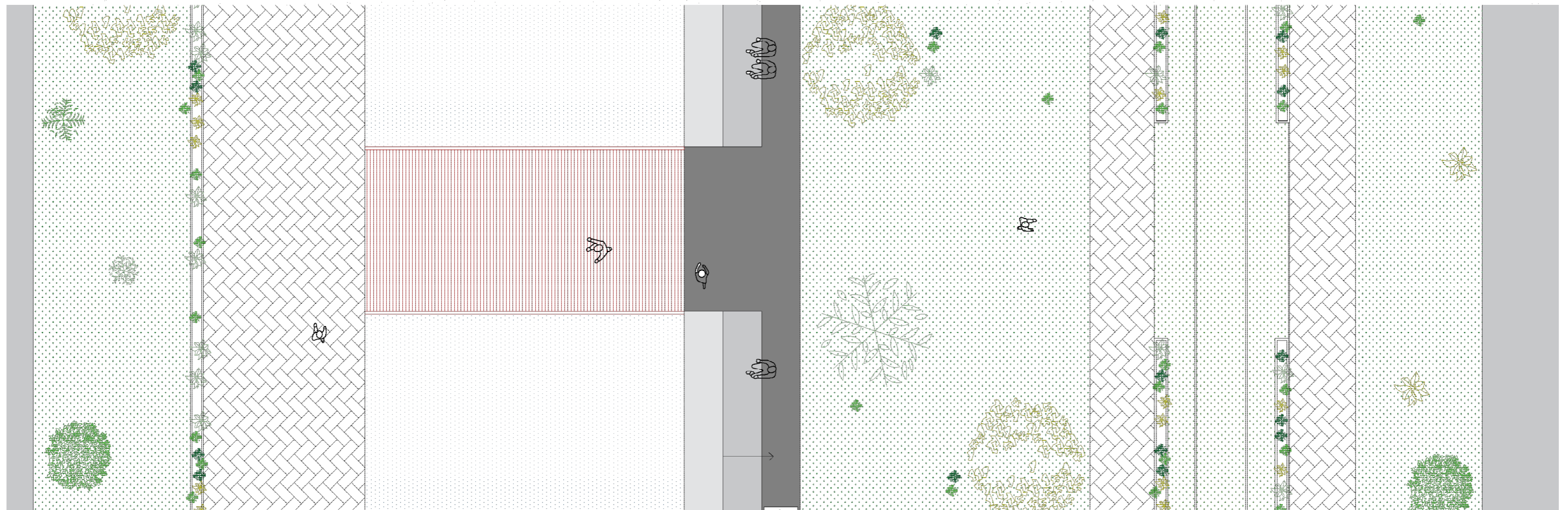
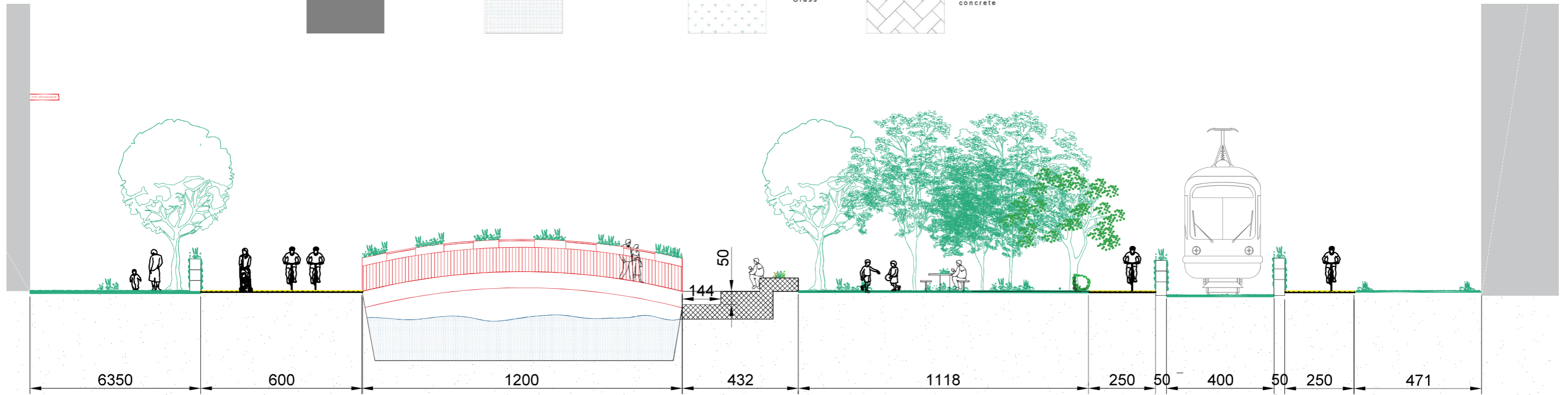
THE MUIDE STREETS

GENERAL OVERVIEW

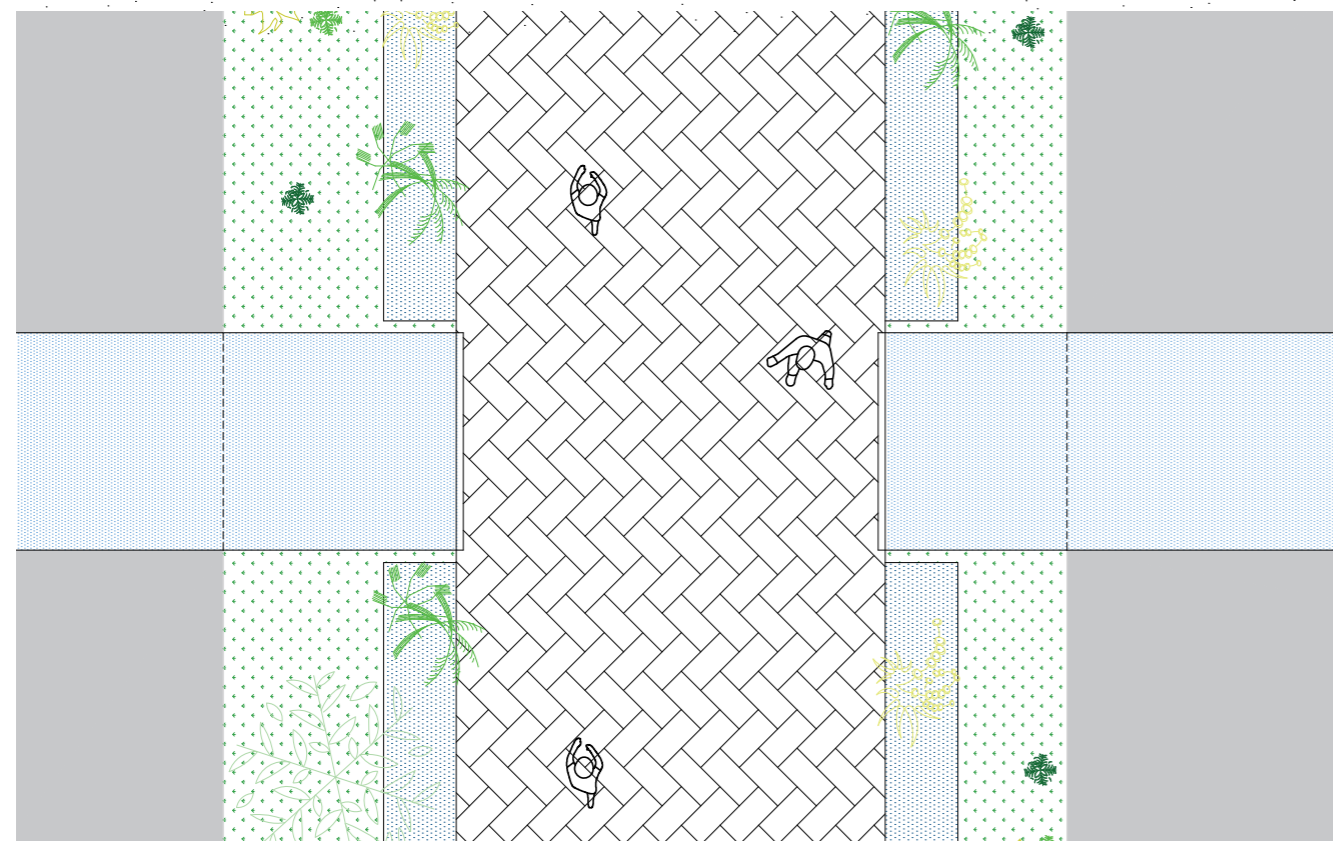
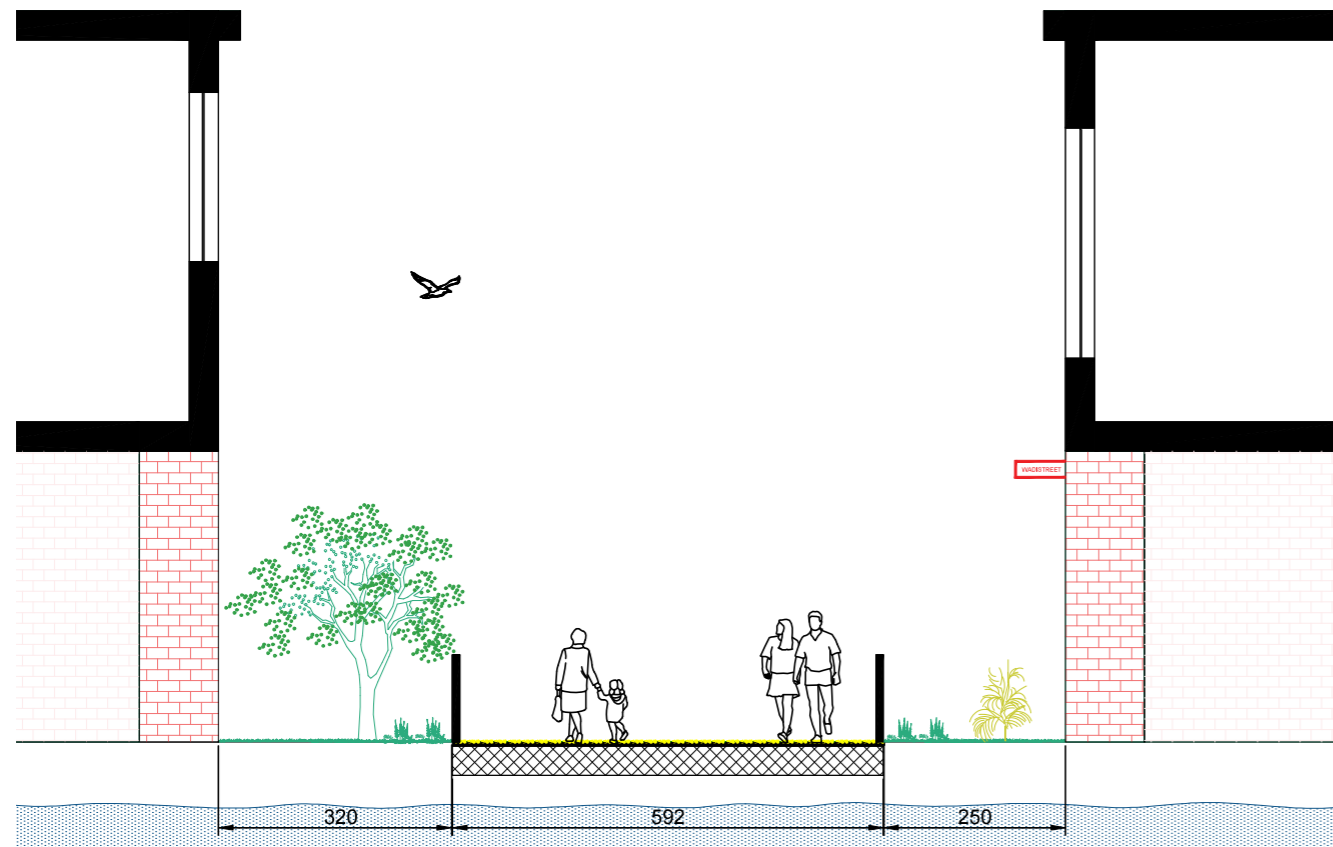
In the village different types of streets are present. We have for example the harbor street, this is located next to the canal. There are multiple playstreets. Then there are also bigger bicycle lanes like the Port Arthuravenue. Streets where the wadis cross. Smaller pedestrian streets, and so on. The different kinds will always focus on being water permeable.



1. The Port Arthuravenue



2. The wadistreet



The wadistreet

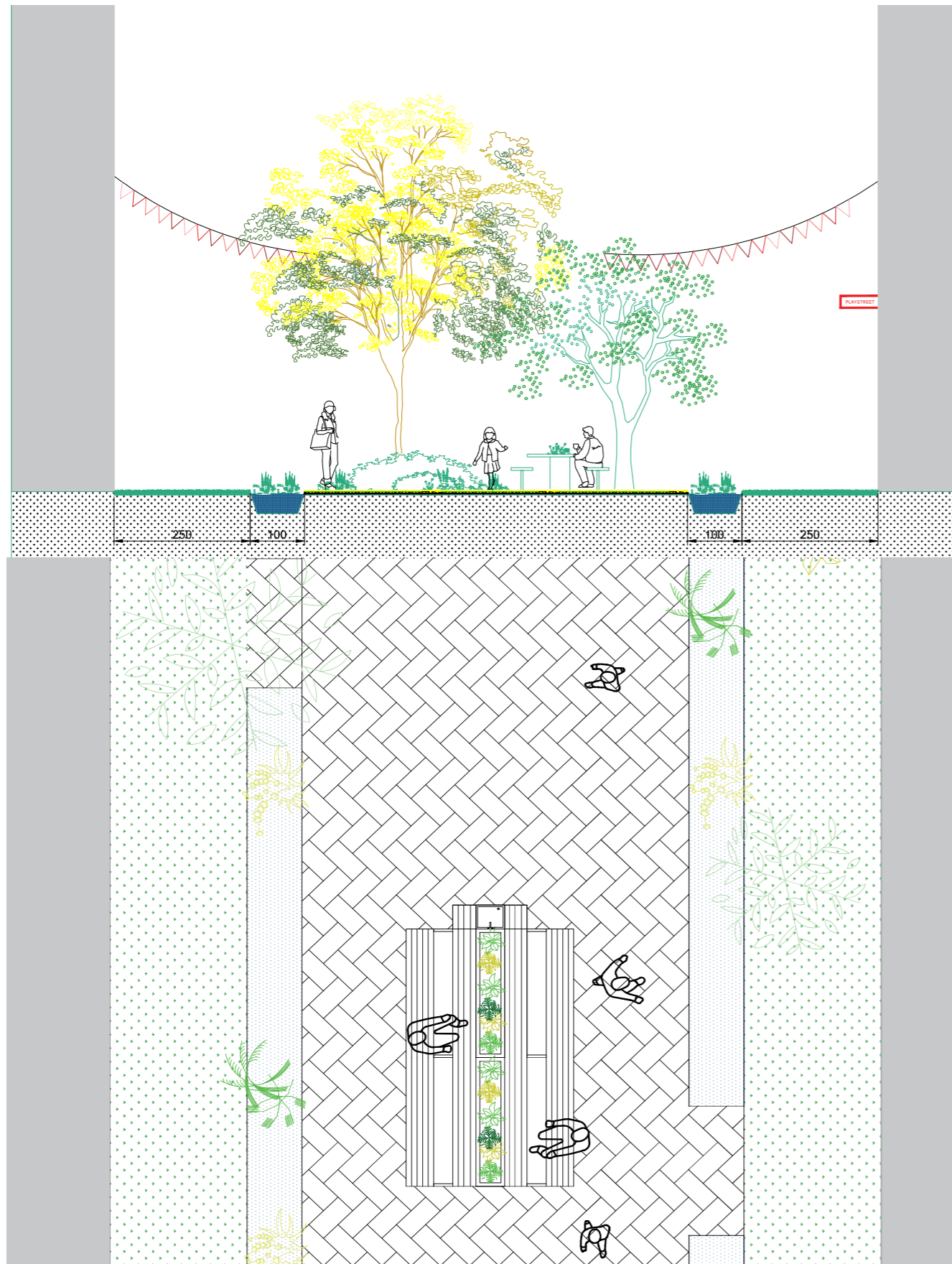
This is a street getting crossed by a wadi. A bridge is provided to walk over. This is a flat bridge to ensure accessibility. As you can see here, in the street we use water-permeable walkways. White porous stone that also lets the water through.



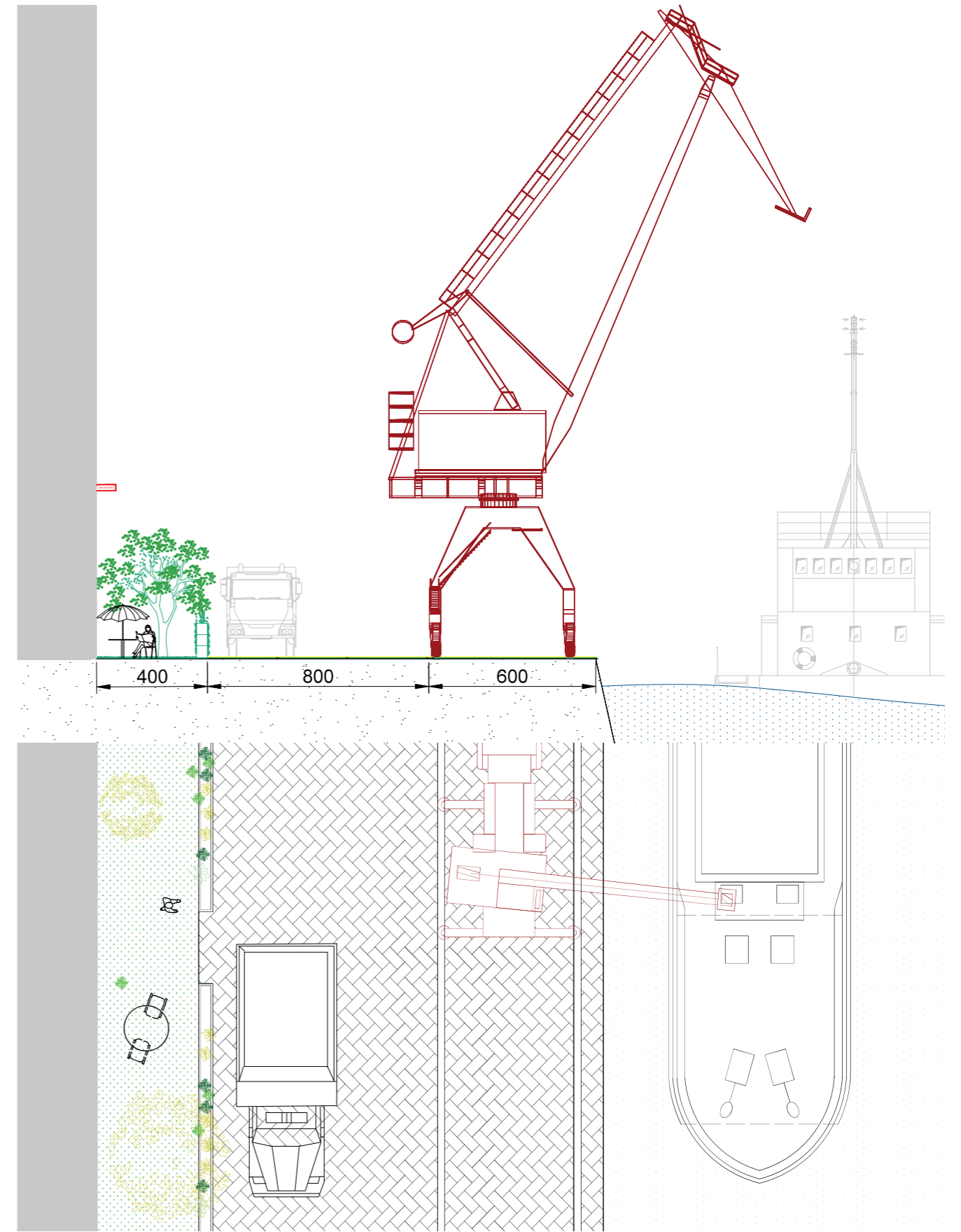
The Port Arthuravenue

This bicycle lane is located next to the tramline. This is one of the main streets of the city as it connects one side to another in one straight line. In the streets, we again see some urban seating as well as greenery.

3. The playstreet



4. The harbourstreet





The playstreet

A street filled with nature, picnic tables, and playground activities. This is a recreational street here the inhabitants can come together and enjoy the social benefits of these kinds of streets.



The Harborstreet

The containers are loaded off the ships by the crane, this is a self-sufficient crane as it produces energy by movement. The 8m street is there for trucks that supply the industry. This street is separated from the open areas by a buffer of 4m.

THE MUIDE CENTER

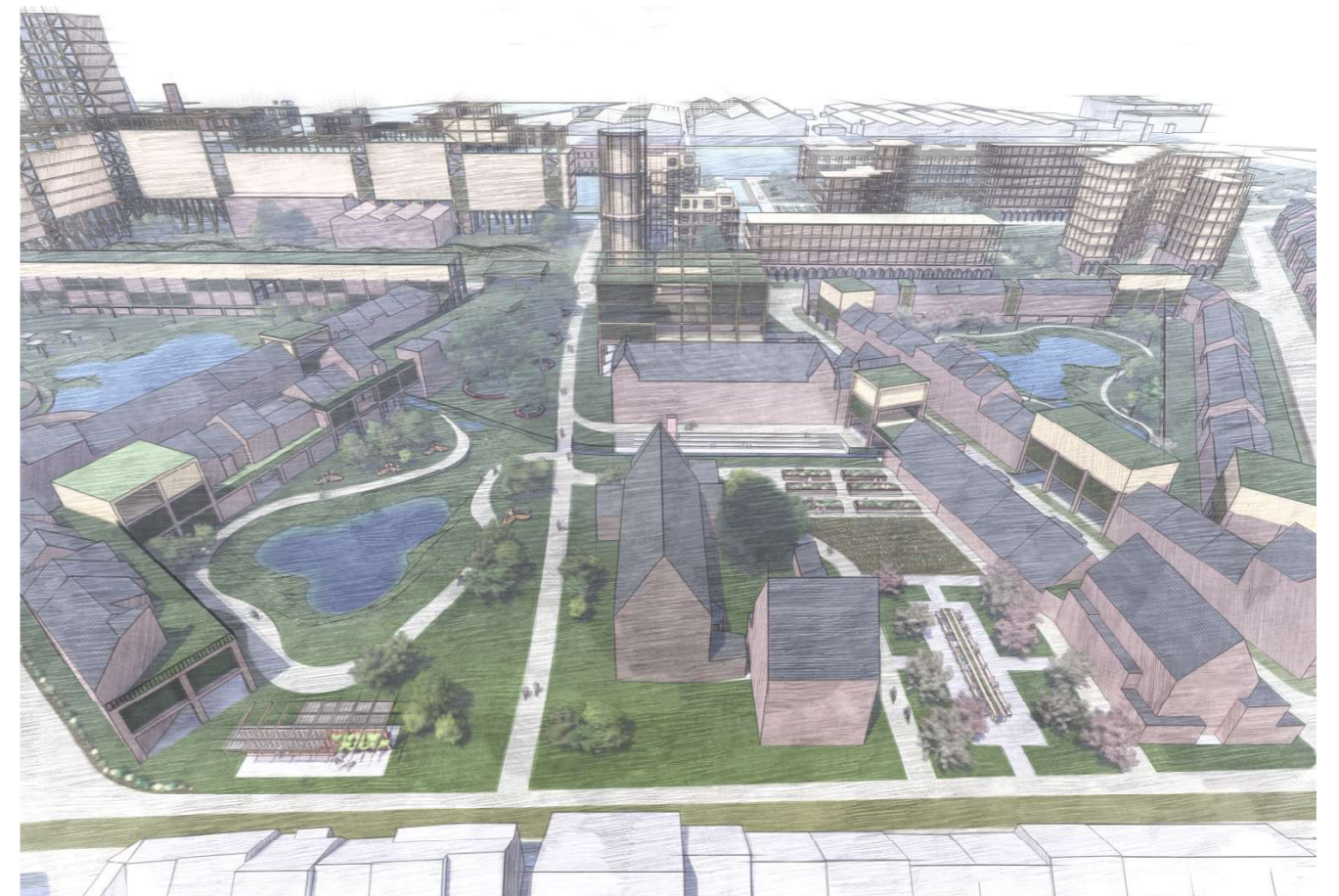
GENERAL OVERVIEW

The city center will become an interactive, social, urban, green environment. Where different kinds of typologies come together and for a city center.

The center is connected to the tramline by a tramstop, but is also connected to the bicycle lanes, and therefore it is easily connected with the whole Muide and Ghent center.

In the center we use a combination of concepts, to form a multifunctional space. For example, we have a wadi with some urban seating, but also a garden connected to a picnic table. We have a reused church, but also a house for chickens.

Therefore, we have multiple functions, that work together on a common social, economic, ecological, spatial goal to become the new center of the Muide.



1. The muide church

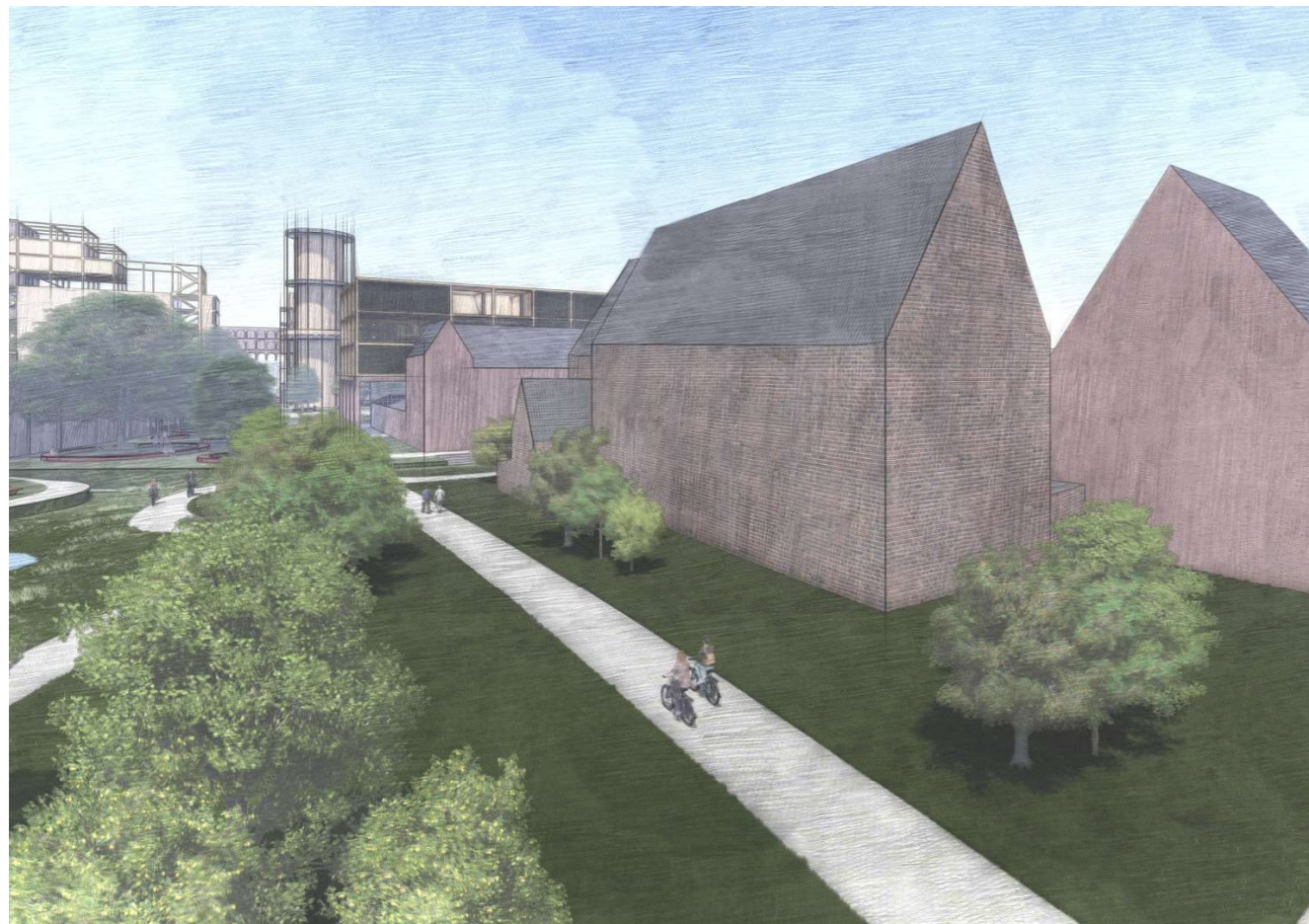
More than a historical building

The old church of Muide will not only be an indicator of Muide center and its heritage but will also have an important role in the vision for the center.

As a promoter of social, economic, recreational, and spatial activities, there will be an organization of pop-up events, artists exhibition, or social projects, of course, all small-scaled and directed to the inhabitants of Muide.

Many examples can be given, but think about the Parnassus at the Oude Houtlei, being a social project, giving access to easy jobs but also serving cheap and good food which brings together all kinds of people. This is what a building like a church should do.

So in the Muide we want to translate this idea to the church and give it renewable attention by giving it a new function and landmark feel for the city.



2. Muides school

Whilst the old church of Muide gets a new function, we will also expand the old school buildings in the center to provide a local school for younger kids.

With its central position close to the tramstop towards the city of Ghent and its easy biking and walking access for all inhabitants of Muideport, parents will be able to easily drop off their kids. Furthermore, the school is surrounded by a green and safe environment with a playful wadi, a chickenhouse, collective gardens,... This could all have educational purposes, where then can learn about the plants or the animals. The school is more than just the building it is collaborating with the context, to become a learning environment.



3. Center wadi

Giving the water back to the people

In building the identity of Muideport, we noticed the important role of water in the site and how we can reinforce a new vision for the future.

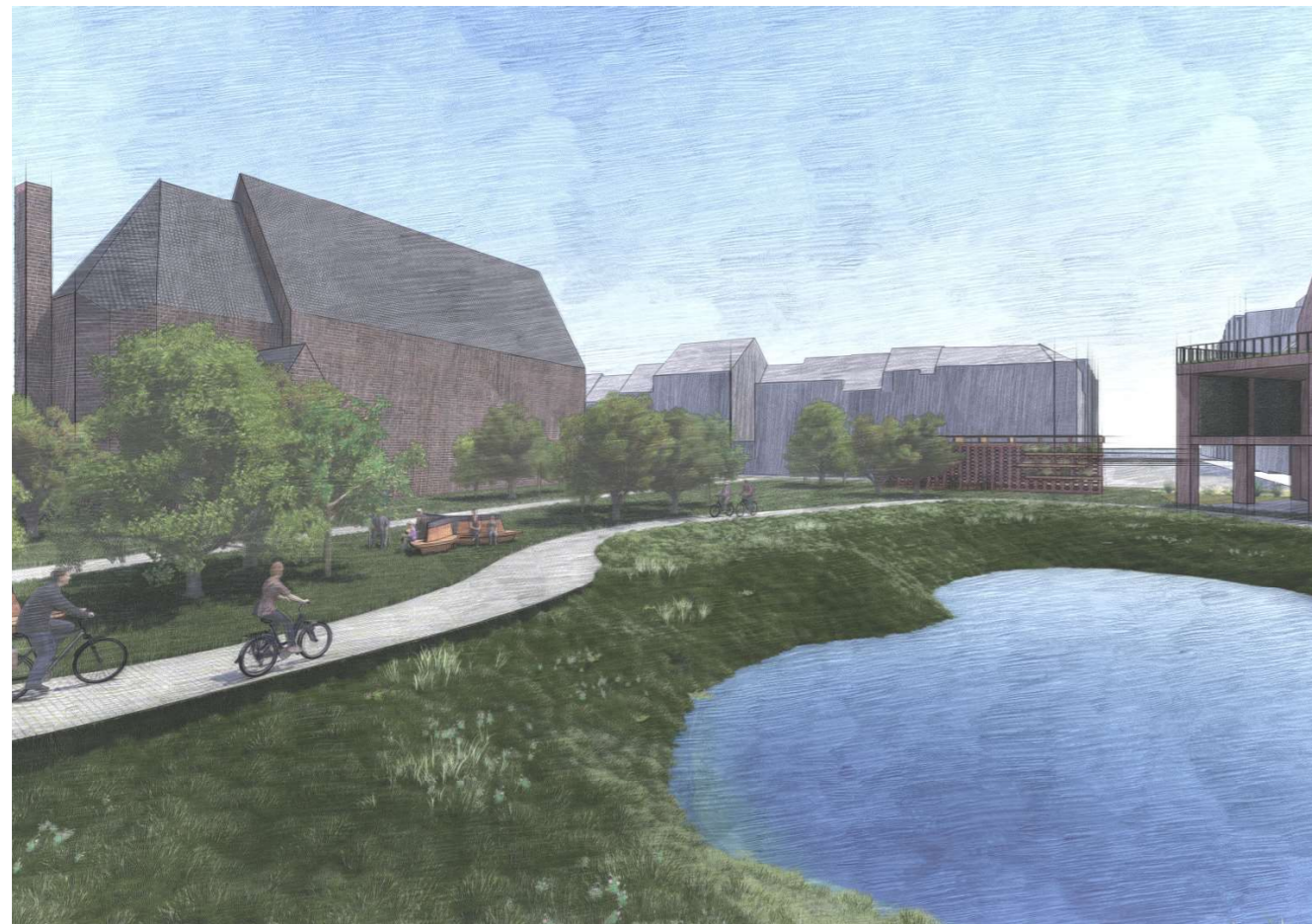
Not only do we want to reinforce the industrial power of water but also feel the need to give it back to the people and bring it in the village, making it more present.

The wadi's in the village will not only be aesthetically pleasing but also boost biodiversity, capture overflowing rainwater, play an important social role, and serve for educational or recreational purposes.

Around the wadi's in between the building blocks, walking and bicycle lanes will be present to wander around the beautiful water ponds.

Changing throughout the seasons

The presence of water in these wadis will be dependent on the amount of rainfall during the seasons- being a more dry period or not. This will change the overall view and look of our center throughout the seasons. Sometimes water will be more present and other times it will be dryer making the greenery more present.



4. The chicken house

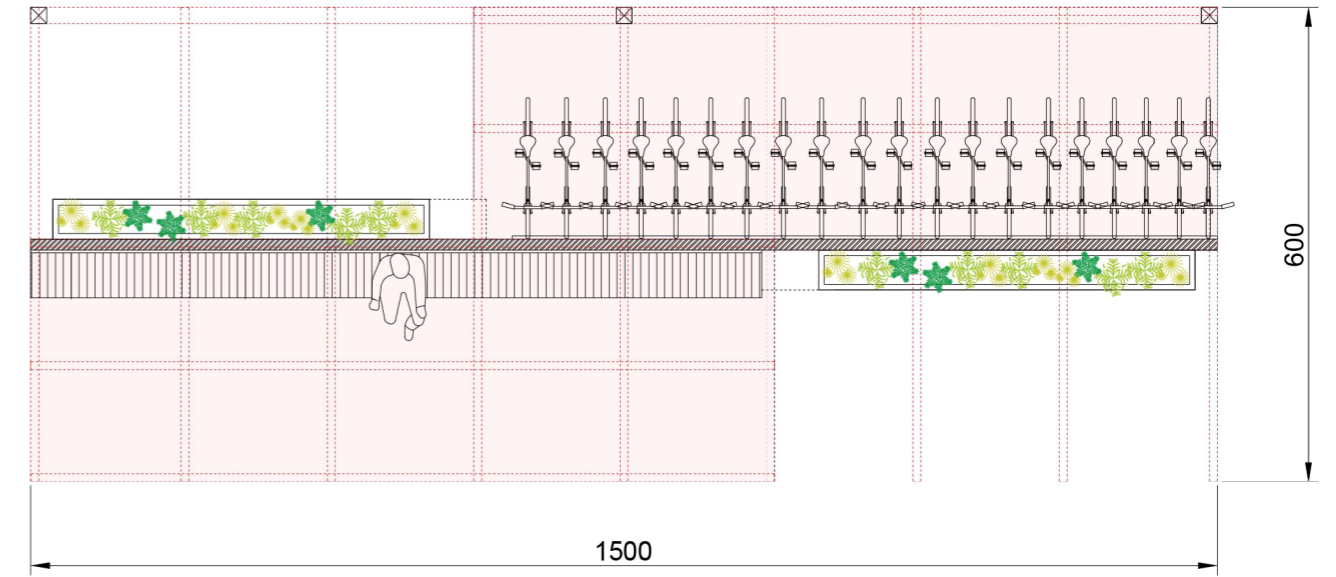
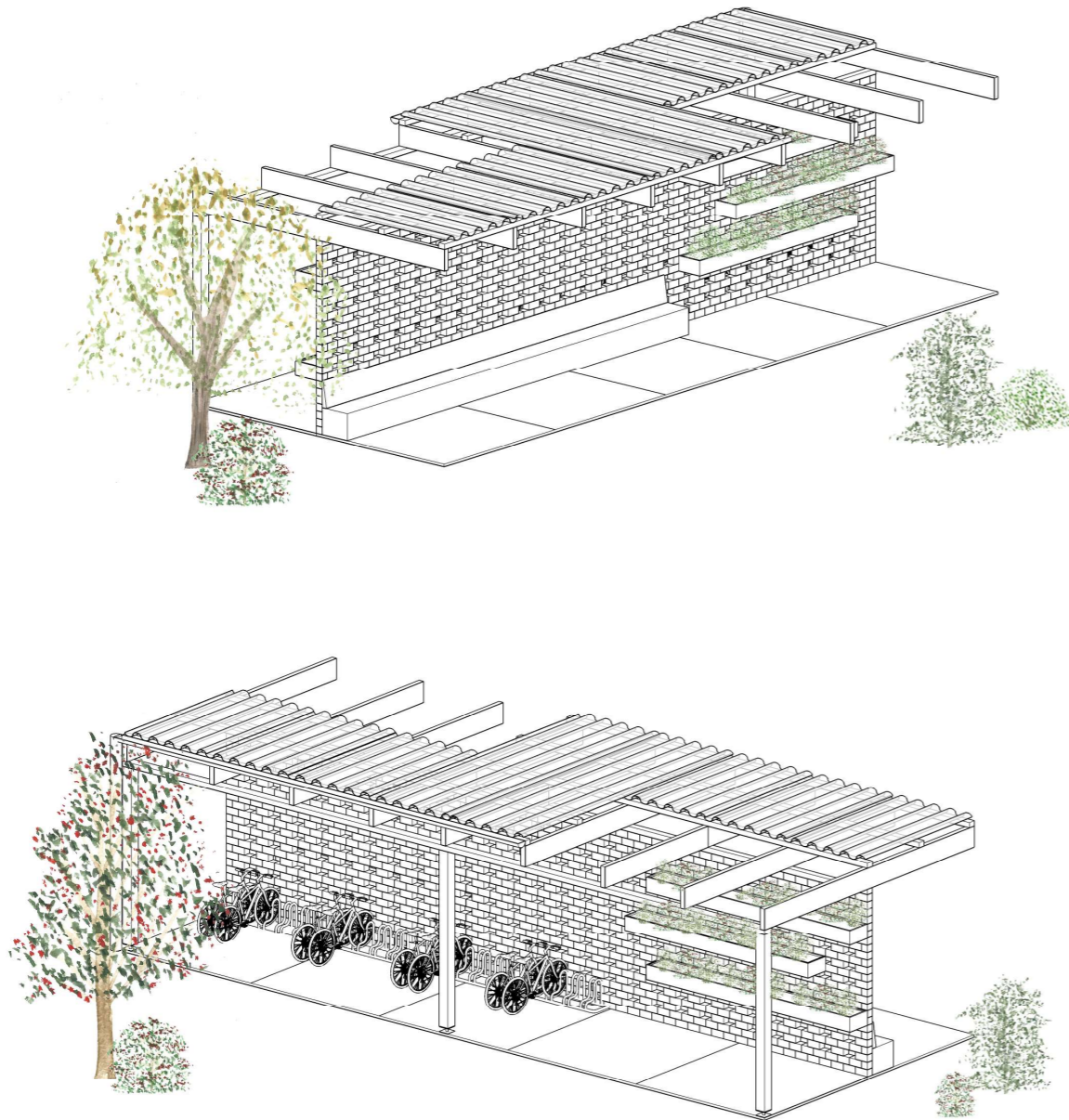
In the center, a public chickenhouse will take place next to the expanded new school. This will be an open "house" where chickens are able to run freely. Eggs can be collected and used for common purposes. Just as the collective gardens this is a shared property of the inhabitants of the Muide.



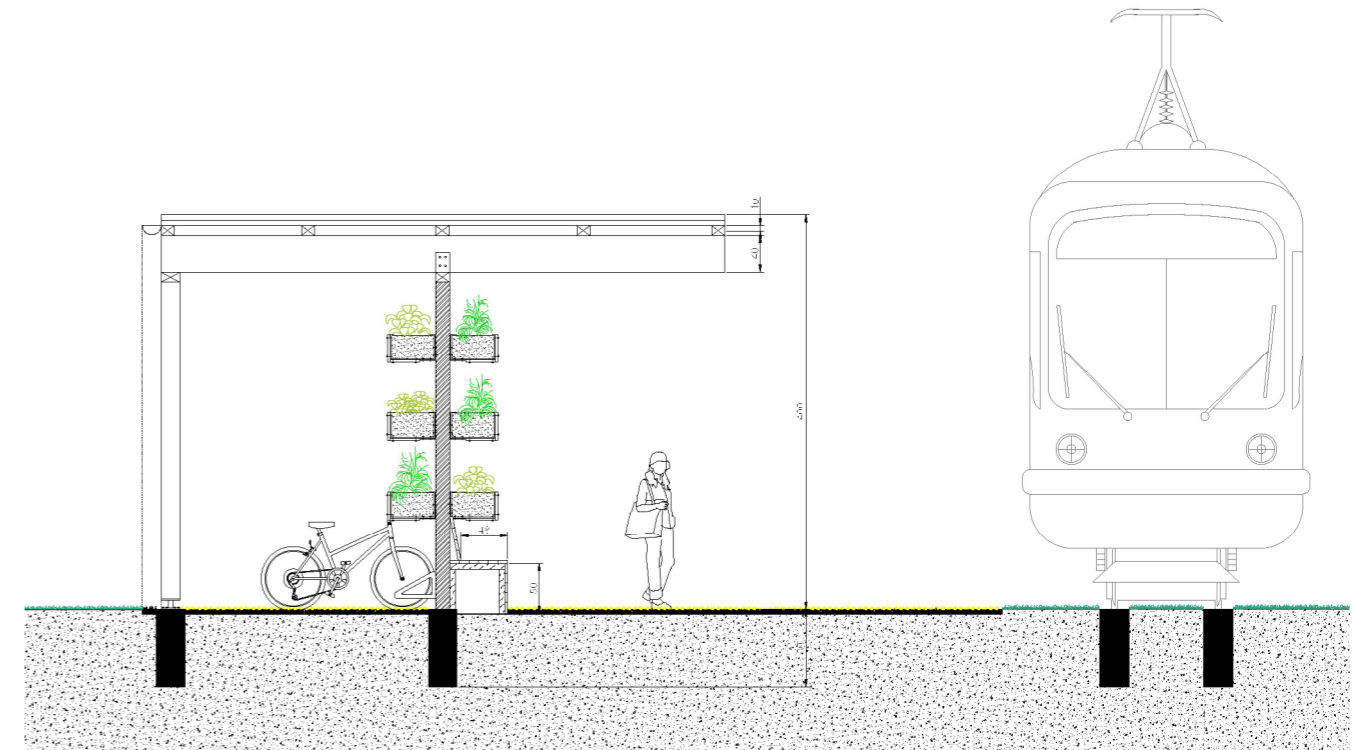
5. Public infrastructure

The tramstop

The tramstop will be a combination of urban benches with a place for bicycle storage in the center of Muidepoort. With the flower boxes hanging on the brick wall, the tramstop will be connected to the green of the city.



Plan



Section



Wall: brick



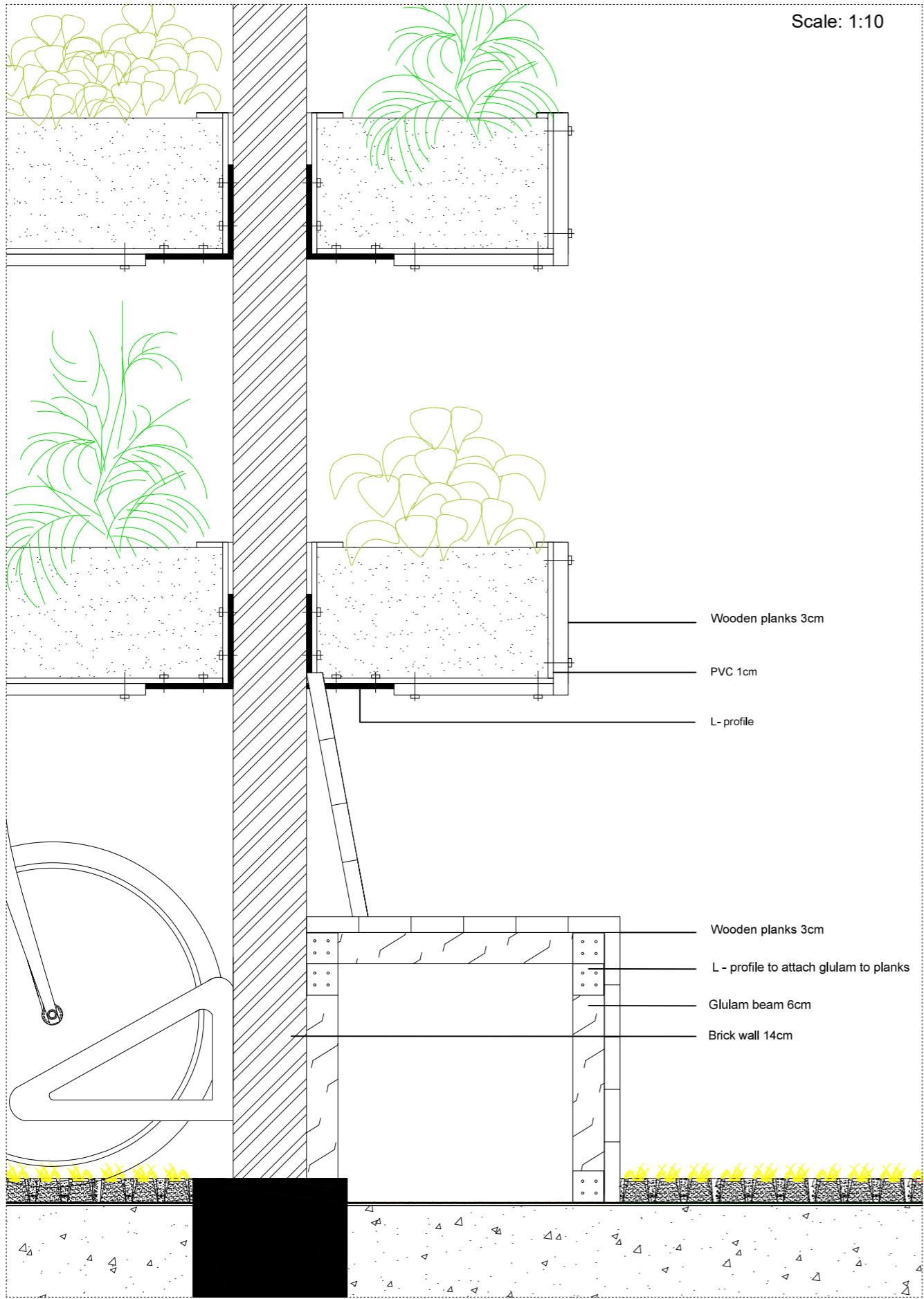
Beams: Glulam



Roof: corrugated transparent sheet

Materials

Scale: 1:10



6. Bicycle lane through the center

We encourage the inhabitants to use their bicycles throughout the site, by making different kinds of bicycle lanes that connect the whole city. We have the faster lanes that connect the one side of the site to the other in a straight line, while we also have smaller in-between paths like the one in the center. Here we have a smaller path surrounded by lots of greenery making it a pleasant way to travel through the center.

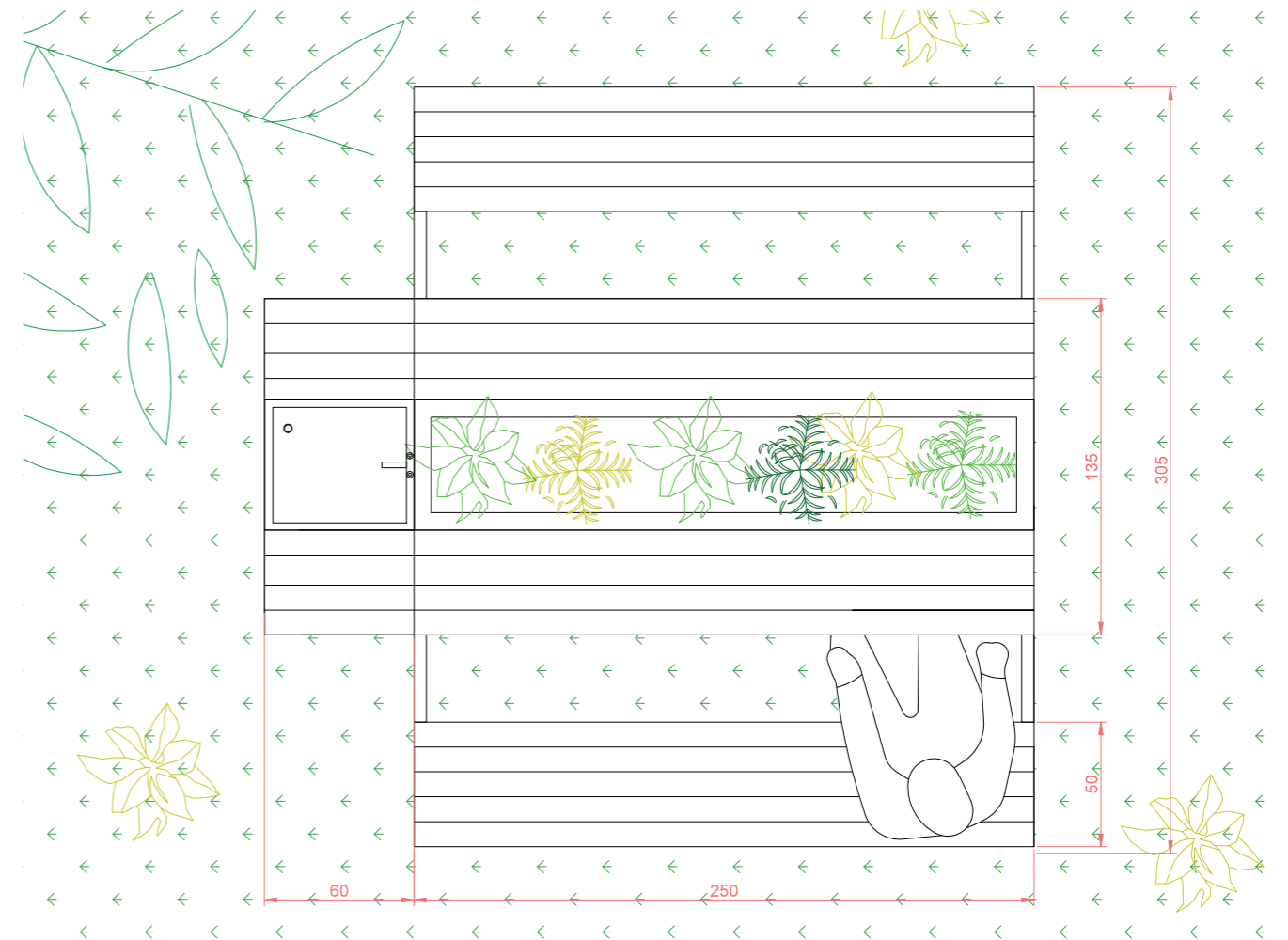


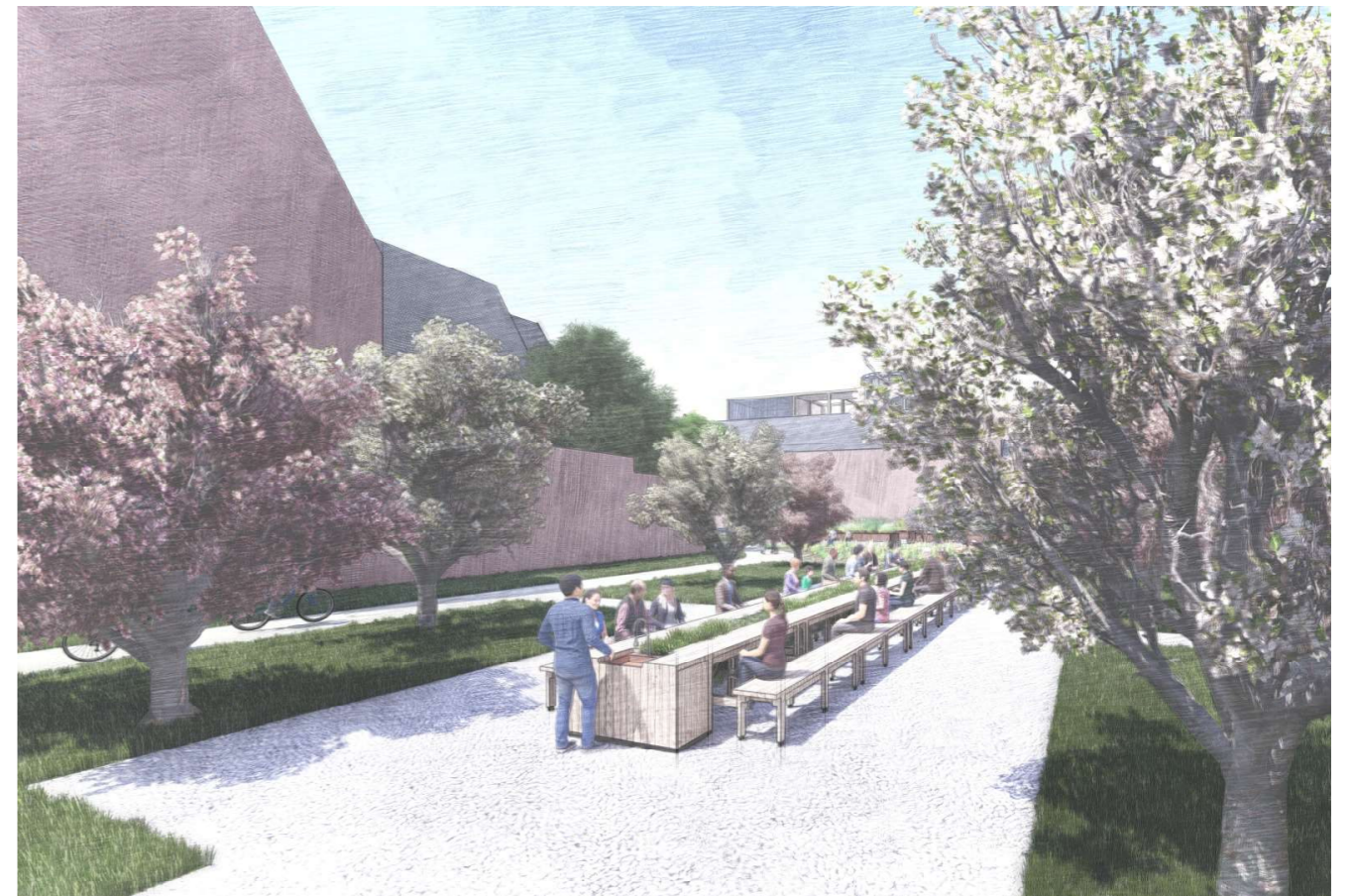
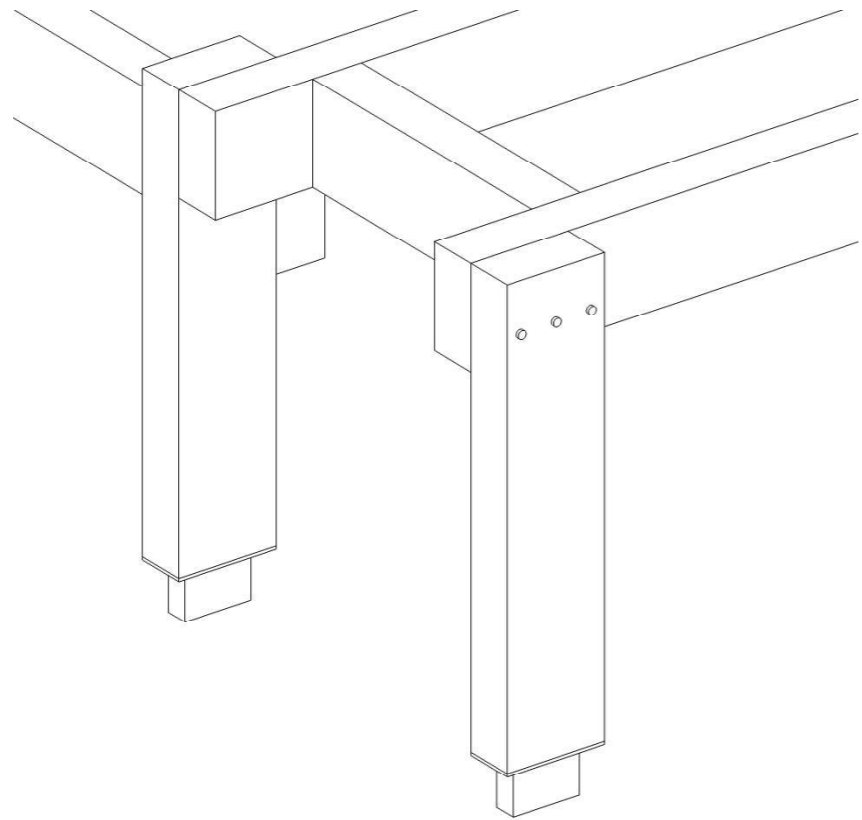
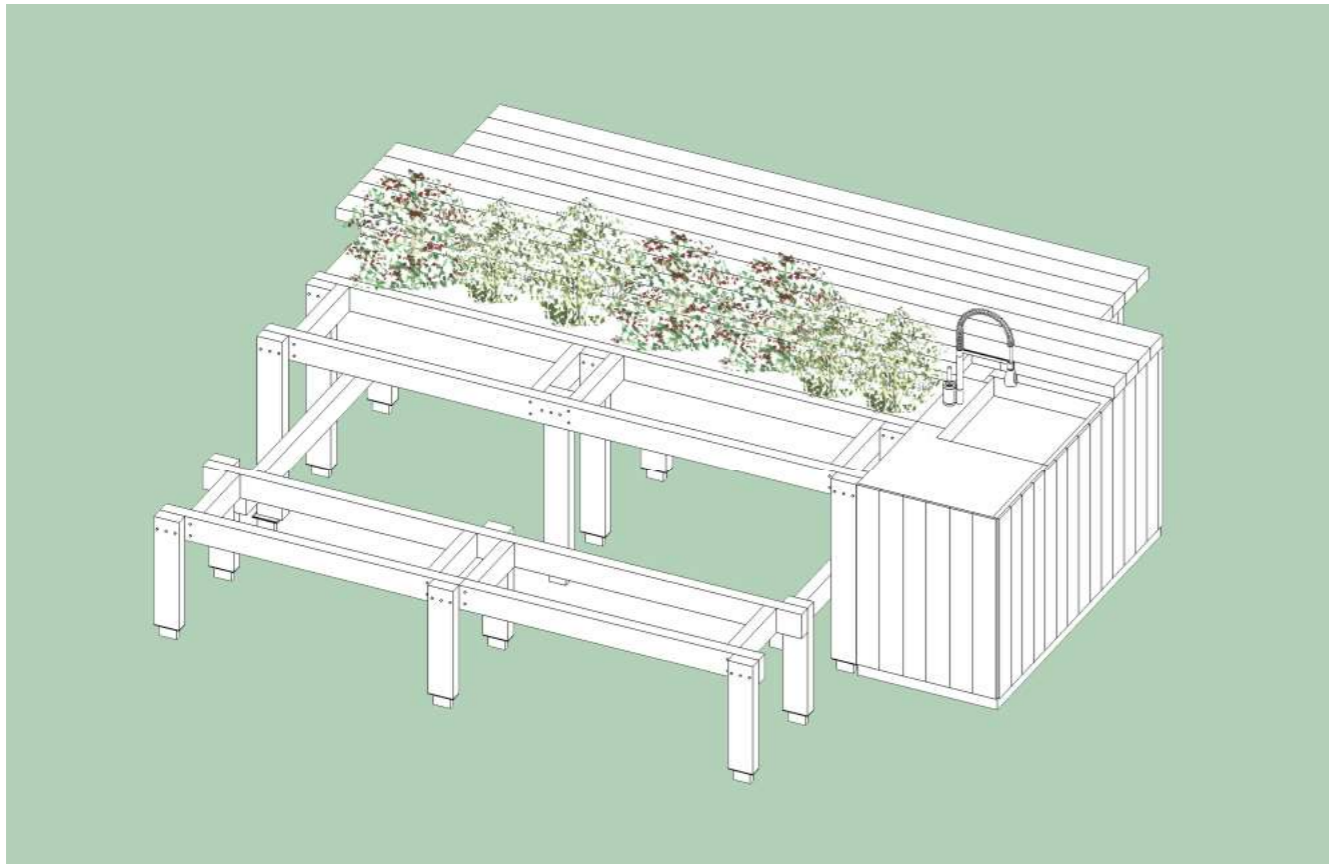
THE DETAIL

Picknicktables

Picnic tables are provided in the village to encourage the cohesion between the inhabitants and supporting local gardening.

The table is one of the elements in the village that brings people together. You can enjoy a picnic here, while using one of the herbs, such as basil, rosemary, mint & chives, which are located in the center of the table. The table is fully made out of wood. There is also a sink provided to wash the herbs or prepare your food.





SUMMARY

Muideport, a parkside industry

The identity of Muideport is multilateral. It is known for its connection with the harbor of Ghent and is, in these times, mostly occupied by its industry. As an urban group, we questioned how to make use of this industrial site, but also: how can we introduce more green into the site of Muideport? And how do we see this site develop in 20 years, with requirements of giving housing to almost 10 000 people and to make a completely self-sufficient village?

By reusing its former identity but then using all those elements in a climate positive way, we were able to create more space for businesses, new housing, our energy production, a new mobility plan, food for the village, industry on different scales,... and so on.

With Muideport, being located at the harbor of Ghent, we decided to let the water lead an important role in our climate positive project, by not only exploiting the harborside but also by giving it back to the inhabitants as a recreative and functional organ of the city.

The locating next to the canal helped us develop large scale industry that makes use of this canal. But this is not the only kind of industry in the Muide. The focus is also put on small scale industry and entrepreneurs that can be located throughout the site. Making the industry possible on three scales, gives the industry a place in the mixing of functions all over the Muide. The mix of functions helped to create a multifunctional space, that focuses on being a social, economical and ecological space.

The Muideport as a multifunctional space, gives benefits life of the inhabitants by being a sustainable, climate-positive village. But also by the social and spatial functions. Muideport is climate positive, but it is also a livable city, where common and green spaces are key. Therefore we have chosen the project name: "Parkside Industry".

On the one hand, we reclaim the industry identity and give it new meaning and on the other hand, we transform the city into a park, where living and a mix of functions come together in one coherent story.

