Between city and river tells the story of the master plan and











#### 3 **PREFACE**

#### **5 INTRODUCTION**

Why a redevelopment? The quays in perspective A shared future Drawing up the general framework

#### 13 THE CITIZEN'S CONTRIBUTION

Preliminary phase On track Subsequent phase

## BETWEEN CITY AND RIVER

## 25 MASTER PLAN SCHELDT QUAYS

How, what and why Role of the Sigmaplan Design vision General framework and zones Exploratory design

#### 53 A LOOK AHEAD

Design of Sint-Andries and Zuid Towards implementation





#### Dear reader

Welcome to Antwerp's Scheldt quays! For decades this was a secluded area on the border of city and river. In the near future, the quays will become a prominent spot in the Antwerp cityscape again. The planned transformation is one of the strategic projects that will considerably enhance the livability and the appeal of the city on the river in the 21st century.

The history of this spot reads like a fascinating chronicle. This is where the city was born; from its humble beginnings it grew into a maritime metropolis. The more recent history of the Scheldt quays is one of neglect and decay, while this area is Antwerp's largest public space.

The responsible authorities recognised the necessity of protecting the city against the risk of flooding in accordance with the standards of the updated Sigmaplan, and decided to make the Scheldt quays an attractive urban area again. This transformation will take many years and will probably be one of Antwerp's most high-profile urban renewal projects of the century.

Since the city of Antwerp and the Flemish government signed an agreement of intent in 2005 for the redevelopment of the quays, an impressive team of specialists from the most diverse fields under the direction of AG Stadsplanning Antwerpen and Waterwegen en Zeekanaal NV has worked on the preparation of this project.

An important milestone in the preliminary phase was the completion of the Master Plan Scheldt Quays, which determines the general framework for the future redevelopment. Although the operations on site have not started yet, this master plan can already be called memorable. After all, it resulted from a high degree of participation by the population of Antwerp.

Consequently, this publication reflects the views of numerous people in many respects. First of all, it reflects the views of the authors of the master plan, who drew up an inventive and flexible document that will continue to prove its added value for many years. But it also reflects the views of the authorities involved and over 800 inhabitants of Antwerp, who contributed to the master plan in a creative and constructive manner. Their opinions are voiced throughout this brochure.

Between city and river tells the story of the master plan and its genesis. It provides an outline of the structure and the ideas that lie behind this complex project, which lays the foundations for the future redevelopment works.

Enjoy the read!







#### **COVERING THE WATERFRONT**

On summer evenings you can watch the sunset from a bollard. On cold winter afternoons the place can make you feel like you're all alone in the world. And yet, the biggest city in Flanders was born on this very spot.

Antwerp's Scheldt quays are a world of their own. An abandoned harbour landscape, a gigantic car park, an illegal party spot, a refuge and a shelter. A wasteland with a pretty eventful past and an undefined present. And from now on with a promising future as well.

The city and the port of Antwerp developed from the centre of this 6.8 kilometre long strip. This connection was lost over the centuries. The intense interaction gradually decreased until all ties were severed. Nowadays, Antwerp's largest public space lies abandoned. This master plan aims to turn the Scheldt quays into Antwerp's beating heart again.



#### WHY A REDEVELOPMENT?

If you stroll along the Scheldt quays today, you get a feeling of desolation and dilapidation. This place is clearly in need of renovation. However, the planned redevelopment is much more than mere beautification; there are various urgent reasons that make this intervention a rescue operation as well.

To start with the most obvious one: the 19th-century quay wall – better known to the inhabitants of Antwerp as '**the blue stone**' – shows stability defects in several places. This problem needs to be tackled for safety reasons.

A second reason for redevelopment is the **danger of flooding**. The 1976 storm surge proved how vulnerable Antwerp is to flooding due to its location at the mouth of the Scheldt river. Global warming makes the city more vulnerable than ever to the river's fluctuations. A rising sea level and an increasing number of storms from the North Sea may have disastrous consequences extending far inland.

In response to the 1976 flood disaster, the Flemish government developed the Sigmaplan, which aims to protect the Scheldt estuary against similar floods. Within this scope, the current flood protection wall was built along the Antwerp Scheldt quays, the embankments were raised and flood control areas were created.

In 2005 new insights resulted in an update of the original Sigmaplan. According to recent calculations, the current 1.35-metre-high flood protection wall in Antwerp should be raised by 90 centimetres to protect the city against storm surges in the future. This would raise it 2.25 metres above the current 'blue stone'. A logical step would be to raise the existing concrete flood protection wall. But this would create an impassable physical barrier between the city and the river.



"Our current Scheldt quays are the most beautiful car park in Europe."

The Flemish government and the waterway management agency *Waterwegen en Zeekanaal NV*, which is responsible for the implementation of the Sigmaplan, therefore sought alternatives that restore the safety, yet also reestablish the connection between the city and the river. The raised flood protection needs to be integrated with the quay landscape so that the area is reconnected to the city and becomes an appealing place to relax and get a breath of fresh air.

This brings us to the third reason for the redevelopment: the creation of an **attractive public space**. The city of

Antwerp saw the necessary infrastructure works as an opportunity to renew the neglected quay area. This was indeed a compelling issue. In their current state the quays are an undefined interstitial space, a zone which has lost its original function and is now used as an oversized car and bus park. The harbour activities for which this area was originally created moved northward, away from the city. The warehouses, railway tracks, bollards and cranes stayed behind as witnesses of this past. Between them appeared car parks, motorhomes and a handful of restaurants. And a lot of empty space.

Ironically, it is this empty space which attracts ever more city dwellers to the quays to relax after a stressful day or to walk the dog. We want to foster this character so that the quays remain an inviting refuge where we can daydream on the waterfront.



#### THE QUAYS IN PERSPECTIVE

To gain a clear insight into the plans for the future of the quays we need to look back for a moment. How did this area decay into a no man's land? And what does it mean to us today?

Put in the wider context of the history of the city of Antwerp, the current quays on the right bank of the river Scheldt are in fact not very old. They were created, in two major stages, in the 19<sup>th</sup> century.

If we go further back in time, the port of Antwerp's wharf developed from a rugged riverbank with four inner harbours or inlets penetrating deep into the city and a series of piers projecting into the river. Picturesque, but they had one major disadvantage: the harbour activities depended completely on the tides. When the tide was out, all vessels were stuck in the mud.

Until the 19<sup>th</sup> century, a spit of land called *de Werf* extended far into the Scheldt river near Steen castle. This was the very origin of the port of Antwerp: in the Middle Ages a trading settlement was founded here which grew into an international port in the 16<sup>th</sup> century. However, religious and political unrest, the secession of the northern Netherlands and the blockade of the river Scheldt brought this growth to a standstill. Antwerp would never again experience such a golden age.

Unless perhaps in the 19<sup>th</sup> century... Napoleon Bonaparte's visit to Antwerp in 1803 had far-reaching consequences. Bonaparte was aware of the port's strategic importance for his expansionist plans and he ordered the construction of two docks in the north, outside the city boundaries: *le petit bassin* and *le grand bassin*, the current Bonaparte and Willem docks. The docks are connected to the Scheldt river by means of a lock. This laid the foundation of the modern port of Antwerp: a network of docks that do not depend on the tides thanks to a system of locks. This northward movement of the harbour also initiated an evolution that would eventually result in the actual separation of the harbour and the city.

During the rule of Napoleon Bonaparte the quays were also straightened for the first time. The vestiges of the 14<sup>th</sup>-century city walls along the wharf were demolished and all inlets were bridged, so that a promenade was



created on the waterfront where the bourgeoisie liked to parade. At the same time, city architect Pierre Bourla had a bluestone quay wall constructed to fence off the soggy riverbank: the 'blue stone'. During the 19th century Antwerp experienced an economic boom and a population explosion. This development was driven by the dynamics of the industrial revolution and the abolition of the toll levied on ships navigating the Scheldt river, which had constituted a considerable obstacle to the expansion of the harbour since the secession of the northern Netherlands in 1585. By the end of the century the harbour facilities no longer met the needs of the increasing maritime traffic. A government-appointed research committee then gave the go-ahead for the second straightening of the quays. The width of the river Scheldt became 350 metres, all inlets were filled in and a quay strip of 3.5 kilometres long and 100 metres wide was cleared. A guay wall was built along this strip. However, the whole operation came at a high social cost: de Werf – where the Antwerp harbour had come into being – was completely dug up, and the Burchtwijk area, the mediaeval town centre, was razed to the ground. Only Steen castle was spared. Moreover, the entire guay area was closed off hermetically due to customs regulations, as a result of which the inhabitants of Antwerp could no longer get to the river. By way of compensation they got two lovely raised terraces, which became their window onto the world. Every time a ship from some distant land moored, the whole city flocked together to watch the loading and unloading of the most exotic cargoes.

In the 20th century, the disconnection between the city and the harbour continued. The Antwerp metropolis kept on growing away from the river, while new docks were constructed further and further to the north of the city. Especially after the Second World War, the modern port of Antwerp experienced a huge expansion, partly thanks to the Marshall Plan – a United States programme to rebuild Western Europe through economic aid. Thanks to the Ten-Year Plan, which sacrificed a number of polder villages to a large-scale port extension up to the Dutch border, Antwerp ranked among the world's largest container and petrochemical ports. This also was the final blow for the Scheldt guays as a harbour area. Ocean-going vessels reached the quays less and less, and the activity in and

between the warehouses came to a standstill. Eventually the guays became a wasteland, structurally cut off from the inner city by a 19th-century harbour fence and a 20thcentury concrete flood protection wall. The northern harbour districts of Het Eilandje and Het Zuid, the area around the Zuiderdokken docks which had been filled in in 1969, were impacted as well.

As from the late 1970s the tide seemed to be turning. The post-war urban flight gradually came to an end. Creative entrepreneurs and property developers discovered the unoccupied buildings along the guay road. The Antwerp waterfront once again became very popular among new inhabitants. Nowadays, the façades along the Scheldt guays can be read as a sampling of the architectural trends of the last decades. Yet the area across the road still lies abandoned.

Any historical account of the Scheldt quays would be incomplete without mention of Stad aan de Stroom (i.e. The City and the River), a think tank that, around 1990, launched an international urban development competition concerning the areas of Het Eilandje, the guays and Nieuw Zuid. This resulted in promising visions of the future, but in the absence of a broad political base the plans came to nothing. However, the ideas of Stad aan de Stroom continued to mature. Nowadays, the development of Nieuw Zuid again receives attention and the renewal of Het Eilandje is on track. What remains is the strip connecting these two new centres of growth: the Scheldt quays.

"Make sure you can drop hints about the history in the design, make room for a 'story of Antwerp's past'."

#### A SHARED FUTURE

The Scheldt quays are quite a complex matter if you take into account property right, the numerous programme claims and the broader urban development context of Antwerp. This complexity cannot be brushed aside just like that, since it is rooted in history.

The land is owned by the **Flemish Region**. The stabilisation of the quay wall and the works relating to the flood protection are a regional matter that falls within the competence of **Waterwegen en Zeekanaal NV**, the external agency responsible for managing the Flemish navigable waterways and their adjacent grounds in central and western Flanders.

As concessionaire, the **city of Antwerp** is the owner of all infrastructure and installations located on the quays. It is the competent authority for the area's spatial planning and it is also responsible for the design of the public domain. The city has entrusted the direction of the planning and execution of the works concerning the quays to the autonomous city planning agency **Autonoom Gemeentebedrijf Stadsplanning Antwerpen**, which is responsible for an area-specific approach within a number of strategic urban areas.

In addition, there's **the population of Antwerp** itself to consider. As has already been mentioned, this spot has always been closely connected with the fortunes of the inhabitants of the city. They still feel closely associated with the fate of 'their' quays – even the newcomers. Consequently, the Scheldt quays are much more than a geographically delineated area; they evoke emotions: an irrational connection with water and clear skies, with history and roots.

The master plan that is currently tabled is therefore the result of a particular synergy between these three parties – the Flemish government, the city of Antwerp and the inhabitants of Antwerp. They all have contributed to the success of this participation project, which in turn has resulted in a broad basis for the master plan to redevelop the quays.

## DRAWING UP THE GENERAL FRAMEWORK

The design of the master plan was entrusted to a partnership between the Portuguese landscape architects of PROAP, the Flemish architects of WIT Architecten and the Italian consulting firms d-recta and Idroesse. This team was selected in consultation with the Flemish Government Architect on the basis of an international design competition. The upcoming renewal operation will be based on the master plan they designed. It determines the general framework for everything that will be done on and around the quays over the coming decades. The plan offers an overall vision that will take shape in concrete subplans later on.

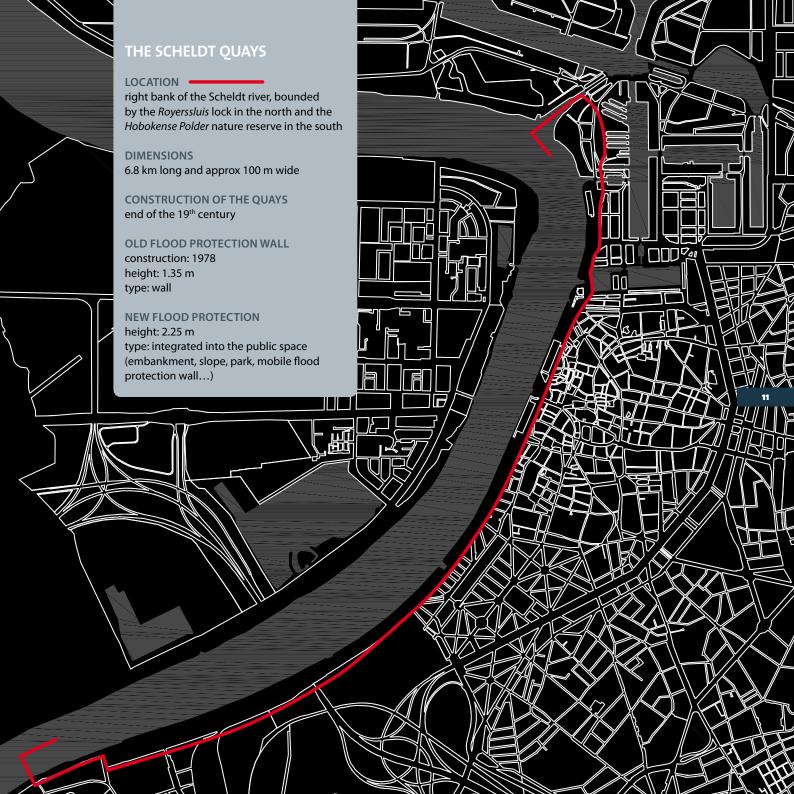
The development of the master plan is a good example of transparent collaboration and communication between the commissioning authorities, the designers and the population of Antwerp. Thanks to the participation and communication process that accompanied the design of the master plan, the people of Antwerp were involved in the entire process at an early stage. They got the opportunity to provide feedback with regard to the draft master plan. The designers took into account the dreams and complaints of the citizens of Antwerp when drawing up the final version of the plan, which was presented at the start of 2010. Later on we will return in detail to this close collaboration between the government, designers and citizens, which met with a great deal of public recognition as a successful participation initiative.

Yet for the most part this publication deals with the master plan itself. What is a master plan? What is it not? How should you read such a plan? And what will be the next step? It is a complex story in which numerous and diverse elements come together, such as history and cohesion, safety, environmental management, spatial planning, figures, mobility and communication. As the sum of all these elements, the master plan for the Scheldt quays lays the foundations for a varied yet focused plan that will be implemented over the coming decades.

"Keep the quays public and open.

Don't turn them into

a theme park."





### 'THE QUAYS WILL BE OURS AGAIN'

The importance of the redevelopment of the quay area for a city such as Antwerp cannot be overrated. This operation not only plays a crucial part in the climatically determined safety aspect, but also in the overall spatial development of Antwerp. After all, the renewal of the Scheldt quays is one of the priority projects that should result in the implementation of the strategic Spatial Structure Plan for Antwerp.

To bring such a complex and long-term key project to a favourable conclusion, an optimum collaboration between the various government partners is not the only basic requirement. In addition, it needs to be widely supported by the population, who will be confronted with works on and around the quays nearly every day over the next decades.



It was therefore decided already at an early stage to link the design of the master plan to a communication and participation process which was to involve local inhabitants and quay users in the redevelopment plans in a variety of ways. This was not self-evident, but as it turned out it did produce the desired positive results. The people of Antwerp indicated that they want to be involved in the renewal, reflected, debated about the master plan and are now looking forward to the next steps in the process.

The participation process which has thus far been completed in connection with the redevelopment of the Scheldt quays is generally accredited as an outstanding practical example of inspiring communication between the government and the population. It is therefore worthwhile to dwell upon the making of this successful 'contract' between a city and its citizens.





#### **CONNECTED TO THE OUAYS**

In 2007 the responsible authorities created a steering committee on the Scheldt quays project. This committee decided to work out a three-track communication plan:

- provision of information
- consultation and participation
- inspiring actions

The aim of the plan was to bring the inhabitants of Antwerp and other quay users into contact with the designers of the master plan, the firms responsible for the supporting studies and the authorities involved, at different times and in different ways. The participation process culminated in the completion of the draft master plan during the spring of 2009, and with the feedback and the presentation of the final master plan in early 2010 as a concluding highlight.

In addition, collaboration was established with residents' associations and organisations from civil society which could act as intermediaries with the local population. These external partners are network movement *Antwerpen aan 't Woord*, the organisation for the self-employed and SMEs *UNIZO Antwerpen Stad* and the workers' organisation *ACW Antwerpen*. On the end of the city, *Autonoom Gemeentebedrijf Stadsplanning Antwerpen* took on the role of director. It was assisted in its task by the city departments *Stedelijk Wijkoverleg* and *Marketing & Communicatie. Waterwegen en Zeekanaal NV* was also involved in the process as a partner for the Flemish government.

For the partners from civil society it was obvious from the start that the population had to be involved in the future development of the quay area. An internet survey entitled *Hoe groot is uw Scheldegevoel?* (How closely are you connected to the Scheldt?) was carried out in early 2008, in which *Antwerpen aan 't Woord, ACW Antwerpen* and *UNIZO Antwerpen Stad* asked over 3,000 inhabitants of Antwerp about their connection to the Scheldt. The survey showed that 62 percent of the residents polled felt connected to the area and therefore wished to be involved in the planned redevelopment.

#### **AMBASSADORS OF THE QUAYS**

The results of the survey convinced those responsible to organise a broad public debate. They also gave rise to the idea of a communication and participation charter between the organising authorities and the partners from civil society.

This was realised in December 2008: the city of Antwerp, *Waterwegen en Zeekanaal NV* and the various external partners signed *Participatiecharter Masterplan Scheldekaaien* (the Scheldt Quays Master Plan Participation Charter). Arrangements were made in the charter as to the communication and participation actions with regard to the Master Plan Scheldt Quays.

Meanwhile, the communication process had been started. At an *interaction session* in October 2008, the designers presented a draft master plan to residents' associations, organisations from civil society and interest groups. They were given the opportunity to discuss the results with a panel of representatives of the authorities involved and the firms responsible for the preliminary supporting studies. This created support from all intermediaries who were to play an important part in involving the population in the communication process.

The interaction session was immediately followed by two **information sessions** on the master plan to which the rank and file of the external partners, all local residents and all people concerned were invited. During these sessions, particular explanation was given on what a master plan is exactly and what it is *not*, and how it should be read and interpreted. The 150 or so present were thus trained to be 'ambassadors of the quays' and future moderators at debates. Afterwards, they were responsible for verbal communication regarding the entire project as well. Additionally, a first information leaflet, entitled *Scheldekaaien*. *Op weg naar een masterplan voor de kaaien* (Scheldt Quays. Towards a master plan for the quays), was published especially for this occasion.

#### A TRIP DOWN MEMORY LANE

While these interaction and participation sessions took place, an initiative of the 'inspiring actions' category was launched on the Scheldt quays. **Kant & Wal**, a walking and exhibition project organised by the city department *Programma voor Stad in Verandering*, drew inhabitants of Antwerp to the Scheldt from October to the end of December 2008.

The initiative was intended to stimulate the 'connection to the Scheldt' among residents and passers-by as much as possible, and for that purpose it chiefly appealed to their memories and imagination. The exhibition component consisted of a kilometres-long timeline of stickers affixed to the quay's edge containing key dates from the history of the port of Antwerp and ten thematically structured information columns spread all over the area. The columns brought the past, present and future of the quays to life by means of historical facts, poetry and pictures.

The project also encompassed a walking guide that enabled people to explore the quays individually. In the course of the project the city of Antwerp gave the public the opportunity to go on a free guided tour on Sundays. During the tour, participants were encouraged to share their memories and experiences with the rest of the group. The concept caught on. Over a period of ten Sundays, about 1,200 walkers took part in these outings.

Simultaneous use of these different communication options ensured that the future master plan was constantly in the news long before its completion. The quays became a popular topic of conversation among residents.

"The Scheldt quays should continue to belong to the people, so they should be as accessible as possible to everyone."

#### THE PREPARATION

In the build-up to the presentation of the draft master plan, the collaboration between the various partners was intensified at the beginning of 2009. A "Week of Dialogue" was organised with a series of round-table discussions for citizens, associations and interest groups which took place under the name of *De Kaaien op Tafel* (The Quays on the table) from 1 to 7 March 2009.

The first invitation flyers were sent out at the end of January. In the course of February advertisements were published and the city website and newspaper were used to promote the round-table discussions.





#### ON TRACK (2009)

#### A CITY-WIDE CAMPAIGN

To support the round-table discussions and subsequent initiatives, the city of Antwerp developed an extensive umbrella campaign in cooperation with *Waterwegen en Zeekanaal NV*. For this purpose a whole range of municipal and non-municipal communication means were employed. An external advertising agency ensured the creation of a campaign slogan and image.

In February and March 2009 the quays and the master plan were all over Antwerp's street scene. The cheerful and catchy slogan *De Kaaien worden weer van ons* (The quays will be ours again) appeared everywhere in Antwerp: in newspapers and magazines, on regional television channels, on websites, banners, tram shelters, flags and in radio spots.





















#### BUILDING DREAMS ON THE INTERNET

In January 2009 the website www.onzekaaien.be was launched. This website enables people to find information on the redevelopment of the Scheldt quays and to sign up for De Kaaien op Tafel or for the digital newsletter. Through the **Droom je Kaai** (Dream your quay) application you could post ideas online on an aerial photograph of the project area. This way, the guays literally came within everyone's reach.

In March 2009, when the application was shut down, the number of posts totalled 297. These are collected in a booklet together with the suggestions from the De Kaaien op Tafel round-table discussions.

"There should be a pedestrian bridge across the Scheldt river."

#### TABLE DISCUSSIONS IN THE DISTRICTS

All the above initiatives contributed to the publicity of the first large-scale participation session organised in all Antwerp districts: **De Kaaien op Tafel** (1-7 March 2009). The aim of these round-table discussions was to start a debate concerning the themes covered by the master plan, to collect the resulting ideas and remarks and to pass them on to the designers of the master plan.

A total of 97 round-table discussions were organised in the city in one week's time. The main themes covered by the master plan were broached during the discussions. These themes include: mobility, connection to the water, use and importance of the Scheldt guays and historic heritage.



# By way of preparation, all moderators for the round-table discussions were accurately briefed during the above-mentioned information sessions by the project leaders of the two governments concerned, in collaboration with the external partners.

Two types of round-table discussions were organised: open ones and closed ones. At the 'closed discussions' associations or organisations invited their own members. The 'open discussions' were organised by the city department Stedelijk Wijkoverleg and were open to all those interested. The participants turned out to be very diverse. For instance, there was a round-table discussion at the non-profit association for the visually impaired Blindenzorg Licht & Liefde as well as a round-table discussion for youngsters at the municipal office Jeugd and for immigrants at the workers' organisation ACW. A few 'specialist' round-table discussions took place with people from the catering industry, nature guides and entrepreneurs. The final result was a mix of all possible quay users.

The round-table discussions were a success. Making people talk and think together in an informal setting – around a kitchen table, as it were – started off a collective process, which is quite exceptional in government communication. In any case, *De Kaaien op Tafel* bridged the archetypal gap between a patronising government, who decides *ex cathedra*, and suspicious citizens who feel unheard. The fact that the latter were already involved in this project at a very early stage – even before the draft master plan was completed – ensured their commitment. The relative small scale and good accessibility of the whole campaign had a positive impact as well.

During the 97 round-table discussions that week, approximately 800 people were allowed to speak and 49 moderators presided over the debates. The 543 recommendations for the redevelopment that resulted from the discussions were classified thematically in 18 clusters so as to pass them on to the policy makers and the design team later on together with the results of the *Droom je Kaai* campaign.

#### THE GENERAL PUBLIC IN DEBATE

There was a great deal of anticipation in the air in March 2009. The *De Kaaien op Tafel* discussions were concluded with a three-day conference: *De dagen van de Kaaien* (Quay Days) (19-21 March 2009). Both the draft master plan and the results of *De Kaaien op Tafel* and *Droom je Kaai* were presented during this event organised for experts, representatives from civil society, interest groups and the general public. Everyone was able to voice their opinions and suggestions as to the proposed designs in a series of panel discussions and workshops.

The conference meant a step forward in the participation process since it was not just aimed at professionals and experts but opened up the technical discussion concerning the redevelopment to a broader public. Of course, this implied a difficult balancing act: the development of the master plan was presented as clearly as possible without disregarding the complexity of the matter.

To make the result of this meeting tangible, a booklet containing all recommendations resulting from *De Kaaien op Tafel* and *Droom je Kaai* was presented to the designers, who were to incorporate them in the final design of the master plan.

"Will I see you at noon, my darling, in the secret tidal garden? Then we can... eat our sandwiches together."

#### A FESTIVAL ON AND AROUND THE QUAYS

At the same time, the conference kicked off the next event. The KAAILAND festival (19 March – 21 June 2009) took up the entire guay area for three months with a series of cultural events.

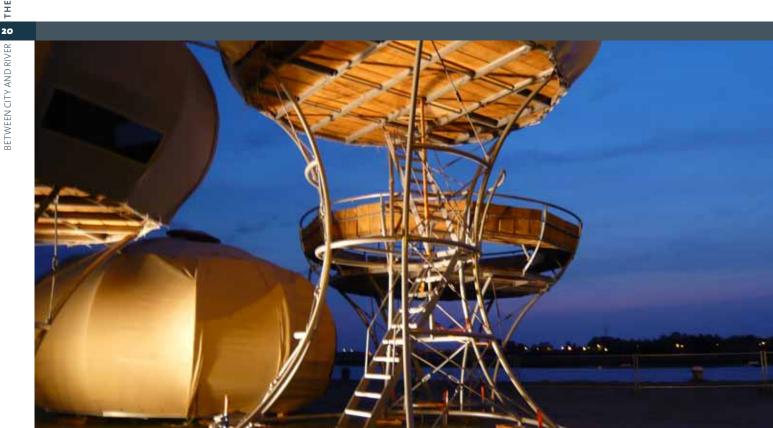
The target audience consisted of passers-by, tourists, inhabitants of Antwerp and local residents. To put it briefly, everyone who wished to participate. Consequently, the programme was very diverse and included both very easily accessible events and less self-evident, artistically innovative events.

The organisation of the festival was entrusted to the nonprofit organisation Antwerpen Open vzw.

The focus of the whole event was the free exhibition KAAi-LAND Expo in the Cruise Terminal, where the general public could become acquainted with the draft master plan. The exhibition told the story of the Scheldt guays, shed light on the redevelopment of the area and explained the link between cities with a similar history and development.

Throughout the spring all kinds of events took place on the quays focussing on the link between the city and the river:

- short one-hour guided tours of the guays and the city which explained the connection between the separate districts and the adjoining guay area;
- full-day, thematic 'city republics', i.e. more extensive thematic quay walks during which small groups of participants explored the quays in detail guided by experts while exchanging ideas;
- boat trips on the river Scheldt aboard the Kaailandia, a ship owned by the Flandria shipping company that was renamed specially for this occasion. During the trip, an actor/quide told the story of the quays' past and future to passengers in an entertaining way;
- KAAiLAND Zuid: a site with mobile architectural residential installations and catering facilities;
- theatre performances, concerts and movie shows about cities, water and parks.



#### INPUT FOR THE DESIGN TEAM

To provide added value to the festival, a book was published as well. The book entitled *Kaailand: langs de kade van Antwerpen* (Quay land: along the Antwerp quays) relates the history of the city and its quays, outlines a visual state of affairs by means of artistic contributions by four photographers and introduces the master plan for the redevelopment.

Thanks to this cultural component the slogan *De Kaaien worden weer van ons* was realised for a moment. In a few months' time, over 51,000 visitors took possession of the no man's land by the river. The initiative not only boosted the involvement of the residents, it also met with response outside Antwerp and thus strikingly illustrated one of the master plan's aims: to turn the Antwerp Scheldt quays into an international showpiece again.

While the KAAiLAND festival was in full swing on the quays, the city's view on the draft master plan was approved in Antwerp's city hall at the end of May 2009. The view was drawn up on the basis of all reactions, proposals and suggestions collected at different stages in the communication and participation process.

Together with the recommendations of *Waterwegen en Zeekanaal NV* and other Flemish public bodies and the report of all previous participation sessions, the city's view was passed on to the designers of the master plan. The designers resumed their work on the basis of this information and the deadline for the completion of the final master plan was set at the beginning of 2010.



22

#### 'APPROVED BY THE PEOPLE'

In March 2010 the final draft of the *Kaaienplan* (Quay Plan) – as the master plan was to be called from then on – was completed and presented to the public. This took place in the *Arenbergschouwburg* theatre on 28 March 2010 during the final conference which had been announced the previous year during *De dagen van de Kaaien* and which constituted the final piece of the participation charter regarding the master plan. This day's programme included the official presentation of the final plan, the alignment of the plan with the recommendations passed on, and the formulation of well-founded answers to the question whether these recommendations were followed or not.

The conference was announced by means of municipal and non-municipal communication channels. It goes without saying that everyone who had been involved in one of the previous participation sessions was personally invited.

Although De dagen van de Kaaien had already shown in 2009 that the preliminary design for the redevelopment largely complied with the wishes and complaints of residents and quay users, this was a crucial moment in the entire participation process. To ensure strong support and permanent collaboration from the population, the presentation of the final design demonstrated in what way the designers followed the recommendations of the general public. For instance, the call for a promenade and bicycle track extending over the entire length of the guays had been brought up several times during the round-table discussions. Many participants had suggested reinforcing the maritime character through the presence of more ships along the guays. Another element was the manifest attention to the cultural and historic value of the area. These suggestions and points of interest were included by the designers in the final version of the Kaaienplan, and it was therefore approved by the population at the end of the conference.





#### **DELIBERATIONS ON THE SUBPROJECTS**

However, the *Kaaienplan* was not the only item that was presented to the public in the *Arenbergschouwburg* theatre on 28 March 2010. In December 2009 the designers had also completed a rough draft of the first subproject of the redevelopment: the renewal of the quay strip near the districts of *Sint-Andries* and *Zuid*. This rough draft is the first of a whole series, since the reconstruction of the entire quay area will be carried out in phases.

The scenario for the communication and participation regarding this first subproject was similar to the one for the *Kaaienplan* as a whole. From 15 February to 5 March 2010, ten participation sessions were organised in the neighbourhoods concerned. Approximately 400 people participated in 39 **round-table discussions** during these meetings. After an explanation for the plenary meeting, the participants were able to discuss the preliminary design in greater detail in groups of up to 15 persons, debate with one another and make suggestions.

## "We don't need a second Barcelona, but a better Antwerp."

The *Droom je Kaai* web application was used again, but this time the dreams and suggestions were left on the digital rough draft for the zones of *Sint-Andries* and *Zuid*.

The reactions of participants in the round-table discussions were mainly positive, and after these reactions had been collected, they were presented to the team of designers during the final conference, so that the team could adjust the rough draft.

## TALL TALES AND OBSERVATION PLATFORMS

The participation sessions for this first subproject were accompanied by a number of inspiring actions on the quays themselves in 2010 as well.

For example, storytelling walks entitled '**Teute Gerard**' were organised on the quays along the *Sint-Andries* and *Zuid* neighbourhoods on Sundays during the summer months. A guide/storyteller dished up all sorts of anecdotes and 'tall tales' about the visited area and also referred to the quays' future.

At the *Sint-Andries* quay zone, two small bunkers which coincidentally have about the same height as the future flood protection were converted into **observation platforms** overlooking the area. One platform offered a view of the past, the history and the archaeological excavations that had been carried out in preparation for the works. The other platform provided visitors with information on the plans for the redevelopment of the area.

Thanks to these initiatives, a first step was taken towards the next phase of the participation process, which will accompany the various subprojects over the coming years.

#### A PRIZE-WINNING CAMPAIGN

The outlined communication and participation process concerning the Master Plan Scheldt Quays achieved its goal. What's more, the ongoing collaboration with external partners from civil society, the active involvement of the population from the very start and the well-balanced, multidisciplinary approach to communication made this process a unique and inspiring story that did not go by unnoticed.

For instance, the *De Kaaien worden weer van ons* campaign won the annual *Thuis in de Stad* award in 2009 in the category'an initiative by residents, neighbourhoods or districts recognised and stimulated by the city'. The Flemish government intends to reward innovative municipal accomplishments with this award. Moreover, the prize money connected to this award will be spent in the participation process to follow on initiatives in recognition of the efforts of the numerous participants.

The website www.onzekaaien.be was also awarded. In September 2010 the website was acclaimed as the most innovative municipal Internet initiative. The jury selected *Onze Kaaien* because the website was actively used in a participatory project and makes use of the numerous facilities the Internet has to offer.



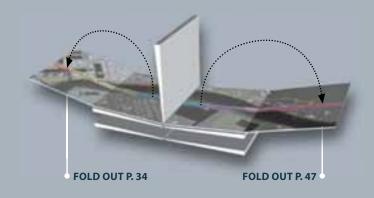


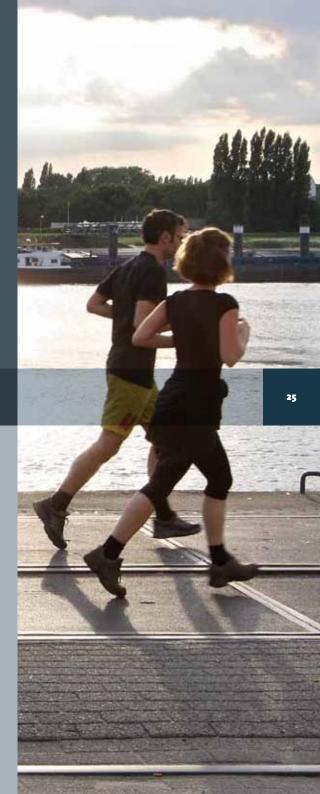
As has already been mentioned, there are three reasons for the redevelopment of the Scheldt quays: the entire flood protection wall needs to be raised due to climate change, the historic quay wall needs urgent stabilisation and restoration, and this neglected site urgently needs to be redeveloped into an attractive public space.

In 2005 the city of Antwerp and the Flemish government decided to start up a joint planning process for the redevelopment of the quays. Drawing up a master plan developing an overall vision for this area was the first step in this process. In 2007 this assignment was entrusted to a partnership between the Portuguese landscape architects of PROAP, the Flemish architects of WIT Architecten and the Italian consulting firms d-recta and Idroesse. The master plan is the result of years of study and intense consultation. The draft master plan was presented in March 2009. Afterwards, it was updated on the basis of the communication and participation process and different supporting studies. The final master plan was completed in March 2010.

## **MASTER PLAN SCHELDT QUAYS**

The next chapter outlines the essence of the master plan. A fold-out plan is included on pages 34 and 47. Fold out the plan according to the example below and explore the city and the river.





#### THE MASTER PLAN IS NOT ISOLATED

Several supporting studies that require expert knowledge were used to draw up the Master Plan Scheldt Quays:

- a technical study, which focussed on the preconditions for raising the flood protection and stabilising the quay wall;
- a mobility study, which formulated advice as to the future mobility scenarios for the Scheldt quays;
- a financial and functional study, which mapped all financial aspects of the redevelopment and investigated possible functional developments of the area;
- a cultural and historical study, which mapped everything that has any cultural or historical significance on and below the quays, and formulated recommendations as to the possible integration of relics and heritage into a contemporary design.

The master plan was drawn up in several stages, and in each stage the knowledge amassed in the supporting studies was integrated into the spatial plan. This allowed to test the financial, technical and traffic engineering feasibility of the preliminary designs.

#### WHY A MASTER PLAN?

The redevelopment of the Scheldt quays is a highly complex operation. After all, it concerns an area of over six kilometres in length which constitutes the backbone of the city.

It is a necessary operation too. The project's safety component comprises the construction of the new flood protection and the stabilisation of the quay wall. Furthermore, the city is changing significantly, e.g. due to developments on the neighbourhood of *Het Eilandje* and plans for *Nieuw Zuid* and *Petroleum Zuid*, projects which are connected to a greater or lesser extent with the decisions concerning the Scheldt quays.

Rash ad hoc and partial decisions without any overall spatial vision could pose a threat to the unique character of the quays as a whole, however. Consequently, a coordinating framework setting out the future ambitions for the entire area was urgently needed. This integral vision especially had to highlight the quality of the public space constituted by the guays in the future.

## THE MASTER PLAN - HOW, WHAT AND WHY



26

## WHAT IS A MASTER PLAN? AND WHAT IS IT NOT?

The redevelopment of the Scheldt quays will not take place in one go, but through the implementation of various well-defined subprojects over a period of more than ten years. The project's many uncertainties and indefinable factors make it impossible to paint a detailed final picture of the quays. The master plan is not a blueprint but a long-term strategy. It is not a detailed action plan but a spatial framework that allows for a variety of solutions.

At the same time the master plan does take inevitable, fundamental decisions as to the quay's future spatial planning. For example, the question "Which type of flood protection should be built where?" is an urgent matter with far-reaching consequences for the further development of the area and is explained in great detail in this plan.

A few essential guidelines, such as the location of the flood protection and mobility schemes, are thereby set out in the master plan. The designers of the plan compare this to a melodic line produced by striking various piano keys. This melodic line may then be supplemented and ornamented with all sorts of chords. This occurs in subsequent subprojects, which are to form a polyphonic harmony together.

The master plan offers us a bird's-eye view of the quays. And if necessary, we can zoom in from this panoramic overview to more small-scale elements. The plan includes a long-term vision which needs to provide coherence between the different subprojects. That is why it is limited to the basic ideas. The designers of subsequent subprojects need to be able to establish the details.

In this long-term strategy the plan serves as an arbitrator between the various claims which are made to the quay area. It aims to reconcile these claims in an open-ended process.

Finally, the master plan indicates seven coherent zones and determines where and within what margins the subprojects can be implemented. It also provides support when determining the strategic projects that can be initiated in the short term.

"The Scheldt quays should primarily be an island of calm."

## HOW SHOULD ONE READ THE MASTER PLAN?

Due to the complexity of the redevelopment, the master plan contains guidelines at different levels. Broadly speaking: the more concrete the level, the more hypothetical the formulated proposals are.

At a conceptual level, several compelling, generally applicable ambitions are formulated for the area. These are grouped under the category conceptual attitude, which corresponds to the **vision** of the designers supported by the participation process.

These ambitions are then converted into more concrete spatial decisions that constitute the six components of the **general framework** of the plan. At the same time, a typological profile is developed for several coherent quay zones. The seven **zones** that are to play an important structuring part are described, but considerable room for interpretation has been left at this level. Possible development directions of projects within the zones are examined in the master plan and illustrated by means of **exploratory design**. This is the most detailed level as well as the most open-ended one. It basically remains 'research': its result shows what is possible and thus points the way for subsequent designers of subprojects.

In this chapter we will further examine the vision, the general framework, the zones and the exploratory design of the master plan. But first we will deal with a very different plan on which the reconstruction of the Scheldt quays is based: the updated Sigmaplan.

The river Scheldt is not just the reason Antwerp exists, it occasionally poses a serious threat as well. The 1976 storm surge, for instance, showed that the city was insufficiently protected against storm tides coming from the Scheldt estuary. As a result, the Flemish Government included the Antwerp Scheldt quays in the Sigmaplan (the 'S' stands for Scheldt) which – by analogy with the Dutch Delta Plan – is intended to protect the Flemish part of the Scheldt estuary against flooding far inland. In 1978 this resulted in the construction of the current concrete flood protection wall on Antwerp's Scheldt quays.

Several decades have passed since then. Parallel to worldwide evolutions, global climate change and rising sea levels have an impact in Flanders as well. Nowadays, this region has a high risk of flooding. But our understanding of water management has also changed a great deal since then. It is now widely accepted that merely constructing and raising embankments is not a sustainable solution. Rivers should also be given enough space.

This evolution necessitated an update of the original Sigmaplan. A team of scientists mapped the watercourses and their flood risks, assessed the biodiversity along the river Scheldt and looked into the economic possibilities of the river and the land use on the banks. In 2005 this resulted in an update of the Sigmaplan which needs to protect against future natural disasters through additional embankment works and the creation of controlled flood areas, as well as increase the ecological value in Flanders.

## THE MASTER PLAN - ROLE OF THE SIGMAPLAN



The updated Sigmaplan plays different roles: ranging from flood protection to nature conservation and economic catalyst. The activities of *Waterwegen en Zeekanaal NV*, the agency responsible for the management of navigable waterways in central and western Flanders, therefore rest on four pillars:

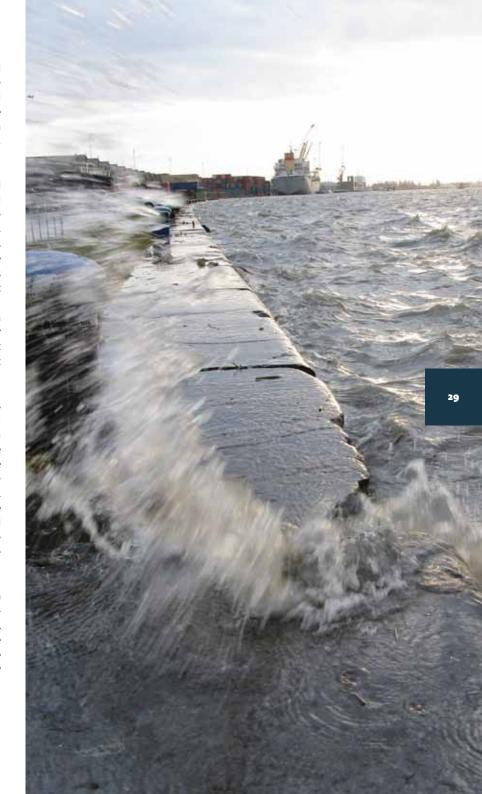
- security: reduction of flood risks by local dike improvements and relocations and the creation of flood control areas;
- ecological value: restoration of the natural environment of rivers, resulting in a healthy ecosystem, improved water quality and opportunities for unique plants and wildlife;
- economy: deepening the river Scheldt gives inland navigation a boost; this way Antwerp and other ports can still be accessed by loaded freighters independently of the tides;
- recreation: the new embankments are extremely suitable for recreational activities, and the new nature reserves will attract people and wildlife alike.

So far, 512 kilometres of embankment works and twelve flood control areas have been finished. The creation of the Kruibeke-Bazel-Rupelmonde flood control area will complete the original Sigmaplan. The entire implementation of the updated Sigmaplan, which includes raising the current Antwerp flood protection, continues until 2030.

Back to Antwerp: what is the impact of the updated Sigmaplan on the city? Firstly, the historic quay wall needs to be stabilised. Secondly, the flood protection wall needs to be raised by 90 centimetres. This means it is to be raised to a height of 9.25 metres above sea level (TAW) or 2.25 metres above the 'blue stone'. 'TAW' is the reference for height measurements in Belgium, 0m TAW being the average sea level at low tide in Ostend. As raising the current quay wall is not advisable for scenic reasons – there would be a 2.25-metre-high wall between the city and the river Scheldt – creative and flexible solutions were sought to integrate the new flood protection into the public space in the best possible way.

Several types of flood protection will be used, such as dike bodies, mobile flood protection walls and even buildings. Even though this would be advisable from a spatial point of view, it is impossible to build mobile flood protection walls over the entire length of the Scheldt quays. Statistically these have a higher probability of failure than fixed flood protection solutions. After in-depth studies over the entire length of the Scheldt quays it was decided to install mobile flood protection walls only near the city centre so as to be able to restore the historical connection between the city and the river.

In addition, the embankments will be much more than the traditional green dikes that are common in Flanders thanks to their varying slope and orientation. Footpaths will be constructed on and along the dike bodies. This way, everyone will be able to escape the hustle and bustle of the city for a moment and enjoy a wonderful view of the river Scheldt.



The following is an explanation of the design vision of the master plan in the words of the designers. This vision is expressed by means of several comprehensive key words and preliminary images of the quays. They reflect the designers' views on the matter and the importance of the quays for the inhabitants of Antwerp, visitors and quay users.

At this level, viewpoints have a rather abstract meaning and few specific guidelines are set out. Nevertheless, the basic concepts are explained here and clear principles are stated as to the direction the Scheldt quays need to take.

The general principles formulated in the vision constitute a basis for defining the general framework and the zones.



#### THE QUAYS ARE A DYNAMIC URBAN LANDSCAPE

The quays are a unique setting for life on the border between the city and the river. They hold a mirror up to the city that clearly reflects its many shapes. The wharf as a whole determines the character of the city. We need to cherish this sense of one territorial and urban landscape and, wherever possible, even reinforce it.

This landscape's dynamic nature is noticeable in the tides of the river, the movement on the water, the changing seasons... This presents a beautiful sight to residents and tourists, who can also find openness and space for contemplation there.

#### THE OUAYS BELONG TO NO-ONE AND TO EVERYONE

The quays are like a hyphen: an autonomous yet connecting interspace between the city and the river. If you enter them, you leave the city and become overwhelmed by the majestic view of the Scheldt. In this respect, the quays actually are the city's balcony – a balcony from which you can see the various colours and characters of Antwerp.

Both the river and the city constitute a background to the quays, which in turn act as a sounding board for the changing moods of the city and the river.

The time people spend there is often a break, an escape from everyday life. The quays could be called a decompression room for city dwellers. They are also a refuge where anything is possible. Contrary to most public spaces in Antwerp, the quays are not programmed and they do not have a well-defined function. Consequently, they are a 'wasteland', a transit zone, a place that belongs to no-one and to everyone.

#### THE OUAYS ARE THE CITY'S PORTAL TO THE RIVER

The fact that the quays are a transition zone between the city and the water is due to the current flood protection wall. The flood risk and the limited accessibility have protected the unique character of this site up to now. The adaptation of the flood protection wall will protect the city against flooding while the ambiguous and valuable status of the quays as an 'interspace' is established once and for all. After all, the quays should in no case merge with the city just like that. So the function of the flood protection is twofold: protection against floods as well as a border between the city and its 'refuge'.

In transverse direction to the river, the flood protection will regulate the transition between the city and the river. Lengthwise, the quays constitute the connection between the adjoining polder landscape in the south, the city centre and the seaport in the north.

#### THE OUAYS ARE THE MOST IMPORTANT PUBLIC SPACE IN ANTWERP

The quays fell into the city's lap when the harbour moved north. Where in the world can you still find a city with such an unused public space?

The master plan wants to ensure that this status of public domain, transition space and decompression chamber is preserved. Hence, most investments are made in managing the landscape, which is highly varied as to type and use.

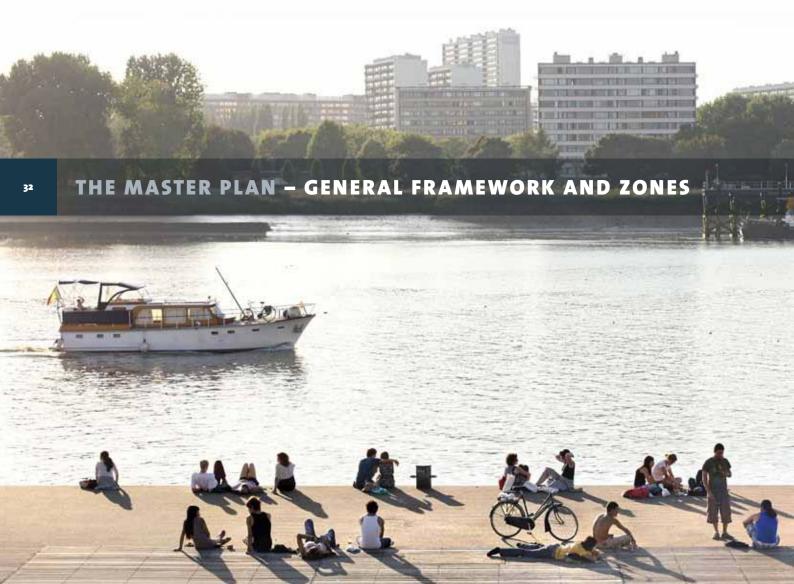
#### THE QUAYS ARE A YARDSTICK AND SHOWCASE FOR THE CITY

The quays combine two different qualities.

The Antwerp skyline can be seen from the left bank or from the far ends of the quays. As such, the wharf is a unique yardstick for the scale of the city.

On the right bank, the quays are a cross section of the city; they display the fascinating diversity of the various city neighbourhoods. Over the entire length of the quays, the master plan will take great care to balance the continuity of the wharf and the individuality of the adjoining neighbourhoods.

Once the vision has been determined and the ambitions have been formulated, more specific spatial decisions can be taken. Broadly speaking, they can be divided into two complementary categories. On the one hand, some decisions ensure the coherence of the quay area over its entire length – the designers call these the general **framework**. On the other, several design principles ensure the connection of the quays with their adjoining neighbourhoods. This way, different **zones** are distinguished. The general framework and design principles per zone collectively form the starting point for subsequent detailed designs.



#### **GENERAL FRAMEWORK**

The general framework is set out for the entire project area and is a first translation of the conceptual framework outlined in the vision. It comprises six components and each one is clearly defined:

ACTIVE HARBOUR
HISTORICAL HERITAGE AND ARCHAEOLOGY
NEW FLOOD PROTECTION
MOBILITY
PUBLIC SPACE AND IMAGE QUALITY
QUAY PROGRAMMES

The titles already show that numerous aspects come together here. The different components of the general framework are not separate but should be seen in relation to each other, as an integrated whole, as indicated in the synthesis plan further on in this publication. Accordingly, this level is rather abstract and hard to explain in very concrete terms. Yet this is where the master plan is most clearly a directive framework that establishes global decisions for the entire area.

#### **ZONES**

The different zones – which together constitute a 'kaleidoscope of the quay universe', a diverse, fragmented collection of living environments that define the character of Antwerp's quays – are characterised in the Scheldt quays master plan starting from the same vision and within the common general framework.

DROOGDOKKEN
KATTENDIJKSLUIS AND RIJNKAAI
BONAPARTEDOK AND LOODSWEZEN
SCHIPPERSKWARTIER AND CENTRUM
SINT-ANDRIES AND ZUID
NIEUW ZUID
PETROLEUM ZUID

A concise definition for each of the zones reflects the essential ambition for the location concerned. The chosen flood protection solutions and the related basic design of the public space are presented for each zone.







# **ACTIVE HARBOUR**

Throughout its history, the Antwerp wharf has changed constantly, which also impacted the relationship between the city and the river. Nowadays the extensive cobbled surface, the quay wall and the 'blue stone', the warehouses, the harbour cranes and their rails are still pervaded with the spirit of the harbour and its wharf of ca 1900.

The remaining harbour infrastructure is now made available to the city again. The infrastructure needs to be preserved as much as possible and be converted for urban use.

First the quay wall is to be restored. Bollards, cranes and the cobbled surface remain in place wherever possible. As the quay profile is left virtually intact, a new function may be defined for sites such as *Bonapartesluis* lock, the slipway of *Margueriedok*, the pontoon near Steen castle and the former lock of *Zuiderdokken*. *Royerssluis* lock, the mooring posts at *Droogdokkeneiland*, the Belvedere at the reopened site of *Kattendijksluis* and the jetty at *Petroleum Zuid* are part of the maritime heritage as well.

The old harbour fence, by contrast, is a vestige of the strict separation between the city and the harbour, and it is therefore not desirable anymore in many places. It would be too great an obstacle to the redevelopment of the quays as a public domain and the intended relationship between the city and its river, especially in the central part of the quays.

The quays will remain a mooring zone that can be used by the city and that features various facilities over the entire length of the wharf. This enables special vessels or floating constructions to moor temporarily.

"Permanent berths for cruise ships, freighters, warships... with sailors!"



# HISTORICAL HERITAGE AND ARCHAEOLOGY

The quays are like a palimpsest; a parchment that has been written on more than once by scraping off the earlier writing without completely erasing the traces of the previous texts. The quays contain several layers from the history of Antwerp, and new layers may be added in the future.

The current character of the quays is determined to a large extent by several 19<sup>th</sup> and 20<sup>th</sup>-century monuments such as the lockkeeper's house at *Royerssluis*, the *Loodswezen* politage office, the *Boeienloods* shed, the warehouses and the raised terraces. Most of these monuments are not actively used anymore and deserve a new function, preferably connected to the water.

Conservation of the harbour fence may be considered in places where it will keep its function as a fence.

There are other historical layers on and below the quays, such as remnants of the Napoleonic era, the mediaeval city, the Spanish

ramparts and the old quarter of *Burchtwijk* – all elements that might be revealed again thanks to archaeological excavations.

Some points of particular interest are Steen castle, the bulwarks of *Sint-Michiels* and *Sint-Laureis*, the inlets and canals, *Bonapartesluis* lock and the basins, the former lock and docks of *Zuiderdokken*, the Napoleonic quay wall and the wharf. If need be, these archaeological sites may be integrated into underground constructions such as car parks. Finally, appropriate attention also needs to be paid to the heritage of the interwar and post-war periods.

"Create a connection to the past by finding a new use for a few warehouses and cranes, but provide a good mix of old and new; the Quays are not a museum."

The nature and location of the new flood protection will consequently be determined according to the adjoining city parts. A location of the flood protection near the water increases the urban space, while a location near the city results in a large, periodically

"A safe flood protection that provides complete protection against floods, yet allows us to maintain the view of the water."

inundated surface. By combining fixed and mobile constructions, under certain conditions such as safety and cost, the flood protection will also determine the views of the river. Mobile flood protection walls largely preserve a clear view of the river Scheldt and increase the quays' accessibility, while fixed 2.25-metre-high flood protection solutions emphasise the open space next to the city by screening off the area. This alternation of fixed and mobile flood protection solutions will be designed with great care.

**SINT-ANDRIES AND ZUID** 

## **MOBILITY**

It is useless to stress the intended connective character of the new flood protection if pedestrians are not able to cross the quays easily. After all, the Scheldt quays need to remain accessible at all times. This will be easier in some places, e.g. in the city centre, than in other places. Other locations on the quays may preserve their desolate character precisely because they are more difficult to access.

The quay road collects, similar to *De Leien*, all traffic in the inner city and gives access to the northern and southern underground car parks at the quays. Through traffic will be kept out of the quays as much as possible by making the section between *Scheldestraat* and *Sint-Pietersvliet* a low-traffic area. The section between *Sint-Jansvliet* and *Suikerrui* will become a pedestrian zone. At the far ends, north of *Londen-Amsterdamstraat* and south of *Namenstraat*, the quay road will become a route for local traffic.

The car parks on the inner city's edge, which receive traffic from the motorway exits, are to be connected to the tram network. In the future, a new tram line on the quays will connect these car parks to the inner city. Circulation of traffic south of *Scheldestraat* and north of *Sint-Pietersvliet* is ensured through the construction of a dedicated tramway. In the central and quieter section, the tramway will be sharing the road with other traffic modes.

The plan provides for a separate regional bicycle track over the entire length of the quays which links up with the bicycle route network outside the city via the Scheldt dikes.

Finally, the master plan also advocates the development of various forms of public transport by water. Some examples are ferries, water buses and water taxis. They breathe new life into the quays and can make use of sheltered areas where mooring is possible such as *Bonapartesluis lock*, *Margueriedok*, a new pontoon near the *Schipperskwartier district*, *Steenponton* and *Zuidersluis* lock.

38

The master plan opts for the quays as a public space, a place that belongs to no-one and to everyone. A place whose image should not just be local but regional and international as well.

The Antwerp neighbourhoods adjoining the quays also need to forge their own unique relationship with the river. At the same time, the continuity and coherence of the historic wharf remain an important point of interest in this diversity. So as to prevent the coherence from being lost during the phased execution of the works, arrangements need to be made during the renovation of the quays regarding the use of materials and the image quality. These arrangements take into account three spheres:

Harbour. The quay area between the Scheldt and the flood protection is a cobbled surface that can be inundated. Consequently, the materials, equipments and vegetation need to be adapted to these conditions. This also implies that the use of this area is

temporary by definition. The quay can be used by everyone and has no specific function.

- City. The urban space between the flood protection and the city is different because it is protected against flooding. It fits in better with the urban setting so that its design can be adjusted more easily to the character of the adjacent neighbourhood. Within this context, the flood protection's boundaries should not be interpreted as a clear line between two worlds but as a filter.
- **Nature.** The muddy, ecological bank defines the Scheldt as a tidal river with convex and concave curves and offers an exceptional panorama of the Antwerp wharf.

In addition, the public space on the right bank is extended with two large parks: *Droogdokkenpark* and a linear park strip stretching from *Sint-Jansvliet* over *Nieuw Zuid* and *Petroleum Zuid* to *Hobokense Polder*.

NIEUW ZUID PETROLEUM ZUID

# **QUAY PROGRAMMES**

Numerous valuable buildings on the quays await a new function. By definition, this function has to be open to the public, easily accessible and preferably water-related. Of course, it should add value to the heritage concerned and be compatible with the spatial characteristics and historic architecture.

New buildings can also be constructed as architectural landmarks at a few well-chosen places. They add a new layer to the rich palimpsest of the quay area and provide an interesting 'quay line'. The additions may strengthen the urban landscape's character as did their centuries-old predecessors. However, this needs to be done with due care and restraint so that not all potential space is taken up by new buildings.

Finally, the new neighbourhood of *Montevideowijk* on *Het Eilandje* and the future residential quarter of *Nieuw Zuid* may be extended to the Scheldt quays. For that purpose, building envelopes are presented that allow additional constructions on the quays to a limited extent. For these extensions as well, it is advisable to consider private functions carefully.

"Provide a permanent market in the warehouses."



# **DROOGDOKKEN**

## METROPOLITAN PARK AND A PLACE TO WANDER

Droogdokkeneiland is a pivotal link between the city and the harbour. The Royerssluis lock gives access to the seaport and the Albert Canal, and Kattendijksluis lock gives access to the old docks on Het Eilandje. However, Droogdokkeneiland is at least equally determined by its special place in the curve of the river Scheldt, from which you have an excellent view of the city and the river.

This site has all assets to become an impressive metropolitan park which links up with the green area of Noordkasteel at the other side of Royerssluis. It can become a meeting place for the city during special events. At other times it will be an empty space where residents can come to get a breath of fresh air. In the future there may be room for a particular function, but this should certainly not be decided in a hurry.

- The Belvedere near Kattendijksluis is made of concrete and sheet piling, and can be easily raised without impacting the quay wall.
- The natural riverbank in this zone is raised to Sigma height by means of a **natural embankment with a gentle downward slope** towards the water. This flood protection solution emphasises the boundaries and transitions between three spheres: the ever changing experience of a tidal riverbank, the atmosphere of a metropolitan park and the cultural discovery of the harbour's history.





# KATTENDIJKSLUIS AND RIJNKAAI

## **NEW CITY FRONT FOR HET EILANDJE**

This area, located exactly along the curve of the river Scheldt, extends between the locks at *Kattendijksluis* and *Bonapartesluis*. Het Eilandje, a former port area, is currently being transformed into a new city quarter. The old docks now function as oversized water squares and are characterised by low-density development. New building envelopes on the Scheldt quays can provide more structural coherence with *Het Eilandje*. The additional buildings on the quays are to constitute a new city front which needs to remain low, however, so that the new landmarks of the *Museum aan de Stroom* (MAS) and the *Westkaai* tower blocks stand out well.

As this neighbourhood is primarily oriented towards the inner docks, the flood protection will be located close to the river. The space behind the flood protection will be raised slightly in order to form an urban balcony offering a panoramic view of the river. At the other side of the flood protection, the quay's edge will be restored with cobblestones, bollards, rails and cranes.

- Integrated flood protection wall in buildings. The buildings from the new building envelopes constitute a uniform front emphasising the elegant line of *Rijnkaai*.
- Mobile flood protection wall with gently sloping surface. This type is suitable for the connecting roads between the city and the quays. The sloping surface towards the city provides the greater part of the elevation while the mobile flood protection wall, which is closed only in case of danger of flooding, provides additional height. This way, the visual connection with the river Scheldt is preserved.





# **BONAPARTEDOK AND LOODSWEZEN**

# AN INTIMATE TIDAL GARDEN AND A STOP FOR WATER TRANSPORT

The surroundings of Bonapartedok and the Loodswezen pilotage office are a clear pivotal link between the central quay area and Het Eilandje. Different roads and neighbourhoods converge here, and the city opens up to the east. The closed Bonapartesluis lock, Bonapartedok and the MAS museum break the continuity of the 100-metre-wide quay strip. Consequently, the surroundings of Loodswezen, which requires a new function after the announced move of the pilotage staff, are almost cut off from the city and constitute an intimate spot on the quays closely connected to the river. The former Bonapartesluis lock presents itself as a perfect stop for water transport.

The addition of a new building with a specific public function located at right angles to the river could reinforce this urban pivot.

- A mobile flood protection wall not blocking the view of the quays from the city. This way, the line of sight from the MAS museum between *Hangar 26* and *Loodswezen* will not be obstructed.
- Integrated flood protection wall in buildings. The flood protection wall can be integrated into historic buildings such as *Loodswezen* in a concealed manner so as to conserve the openness of the quay area.



## SCHIPPERSKWARTIER AND CENTRUM

#### A PERMEABLE URBAN INFRASTRUCTURE

While the historic city centre is faced with a lack of space, a huge, unused quay area is situated between *Sint-Pietersvliet* and *Sint-Jansvliet*. So it is logical that this area near the centre will be added to the city as a multipurpose platform. Relocation of the flood protection to the waterside ensures that the whole area can be used for all sorts of activities which the city centre cannot accommodate, both outdoors and indoors (e.g. in the warehouses). The paved quay platform makes it an ideal location for large-scale urban activities. This urban infrastructure will be accessible from the city up to the waterfront.

It is not advisable to maintain a barrier such as the old harbour fence here. The essence of the design of this zone is that all superfluous obstacles between the city and the river are removed.



#### **FLOOD PROTECTION**

- A mobile flood protection wall located close to the waterfront and, when in open position, entirely concealed beneath the quay surface, apart from the fixed barrier. This relatively expensive solution is justified because this way the city and the river are safely reunited at the very site where Antwerp was born.
- An integrated flood protection wall in buildings so as to limit the visual impact at the outside to a minimum.

NIEUW ZUID

# **SINT-ANDRIES AND ZUID**

## **OPEN SPACE AND REFUGE**

In case of the centuries-old, densely developed *Sint-Andries* neighbourhood and the more recent, fashionable and spacious *Zuid* area, the quays are envisaged as a refuge: a vast, non-programmed open space where anything is possible. The construction of an embankment close to the city ensures that the quay area can still be inundated in exceptional circumstances. As a result, it is only suitable for temporary activities. The embankment also hides the quays from view from the city to a large extent and thus underlines the emptiness. The former *Zuidersluis* lock, made accessible by means of a ramp, expresses a new physical connection between the city and the river Scheldt.

On the city side, the embankment functions as the beginning of a green strip stretching out as far as *Nieuw Zuid* and forming a green corridor towards *Hobokense Polder* via *Petroleum Zuid*. This green strip is both a boundary and a transition zone between the city and the quays. An underground car park near *Scheldestraat* clears the public space on the quays from cars.

## **FLOOD PROTECTION**

**PETROLEUM ZUID** 

- An embankment with a variety of slopes. The construction of an embankment close to the city ensures that an extensive river-oriented area is created near the water. The gentle slopes of the embankment are also suitable for concerts, exhibitions and other festivities in the summer.
- A combination of slopes and walls. On two specific spots, the embankment changes into a flood protection wall behind which various functions can be accommodated. These can include an open gallery, a restaurant or another low-rise building.



43



# **NIEUW ZUID**

## A PARK STRIP WELL CONNECTED WITH THE WATER

Anything is still possible at *Nieuw Zuid*. This area's unique location needs to be upgraded by improving the connection with the water, but the historical continuity of the wharf needs to be left intact. In the medium term, a mixed urban expansion will be created on this former shunting yard of the *Zuidstation* railway station. Architect Toyo Ito drew up a design proposal during the 1992 *Stad aan de Stroom* design contest with large vistas perpendicular to the river. The Master Plan Scheldt Quays continues along this line by gradually raising the level of the terrain from *Nieuw Zuid* towards the river. The flood protection will not be higher than a parapet so that residents and visitors to *Nieuw Zuid* are able to enjoy a beautiful view of the river Scheldt.

The green dike body near *Sint-Andries* and *Zuid* becomes a real park strip with possibly a limited number of indoor functions. As a result, the new urban expansion will be better integrated into the inner city.

#### FLOOD PROTECTION

■ An embankment near the river and a gentle slope, slightly descending towards the city. This allows for the expansion of the new residential area over the quay surface almost up to the river Scheldt.





# **PETROLEUM ZUID**

# WATER-RELATED ACTIVITY AND A GREEN CORRIDOR TOWARDS HOBOKENSE POLDER

Not all economic activity is banned from the quay area. At *Petroleum Zuid*, a new logistic transshipment platform with a regional water-related distribution centre reorientates the former seaport activities in this area towards inland navigation.

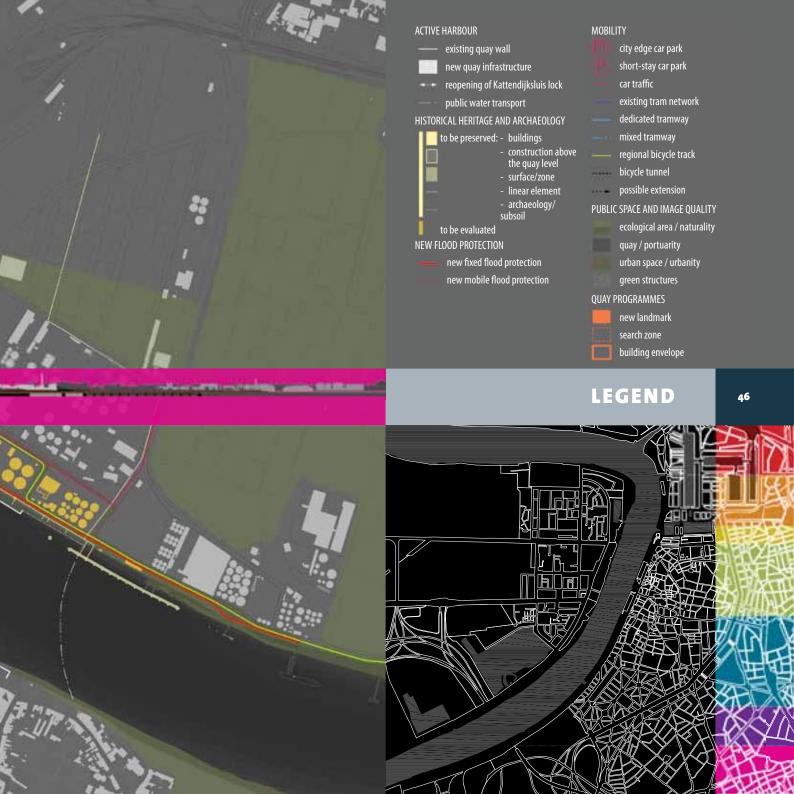
The green corridor across the industrial estate connects the *Nieuw Zuid* park and *Groene Singel* green area with the *Hobokense Polder* nature reserve.

The envisioned new football stadium at the tip of *Petroleum Zuid* will preferably be built at right angles to the river.

Although the relocation of the oil industry, which is still active, will not take place in the near future, the *Petroleumpier* jetty with its splendid view of Antwerp should be given appropriate attention. In the long run, this site could become a stately end point of the quays as a pole of attraction and an outpost of the city.

- A mooring strip at Sigma height. Water-related activities are possible on the quay section for the new logistics platform. The difference in height is virtually imperceptibly overcome by means of a slope that gently descends from the quay surface towards the hinterland.
- An embankment sloping down to the water can be created by raising the existing embankment to the required level or by constructing a new one. The tides will be perceptible in this green zone.







## **DETAILED DESIGNS AS A SPATIAL EXERCISE**

The master plan also aims to implement the design vision and general principles, and illustrates them by means of several detailed designs spread over the quay area.

The exploratory design includes material which paints a clear and detailed picture of what the Scheldt quays may look like in the future. This part of the master plan might be interpreted incorrectly, namely as an elaborate plan ready to be implemented. Yet this is not the intention. The exploratory design in the master plan is essentially an investigation. It is intended to be an example and therefore does not establish a final design. It investigates possible concrete developments of subprojects within the scope of the general framework and ambitions concerning the zones. Later on, these can be adopted by future designers as suggestions, when the final subplans are drawn up. At the same time, the exploratory design specifies the interpretation of the master plan's general framework as well as the degrees of freedom. As 'research' the detailed designs demonstrate that the proposals in the master plan are realistic and achievable in practice. The detailed plans,

cross sections, sketches and perspectives show the consequences of the proposals from the master plan very concretely.

This exploratory design is a logical step in a thought process starting from abstract concepts for a kilometres-long area and resulting in detailed guidelines for the choice of materials etc. It would be wrong to assume that the designers always started from an abstract mental framework to eventually arrive at concrete details. The process was far more complex. There was continuous interaction between both, characterised by simultaneous thinking and working at all levels of scale. For instance, the general framework directed the exploratory design while, conversely, the detailed spatial exercises from the exploratory design often functioned as a feasibility test and basis for the general framework and the development of the zones.

The exploratory design explores all sorts of possibilities from north to south. In some cases it concerns an investigation covering an entire zone, e.g. the quay area of *Sint-Andries* and *Zuid*, while in other

# THE MASTER PLAN - EXPLORATORY DESIGN





cases the transition between two zones is investigated. In some cases it concerns a specific building on the quays, while in other cases it concerns building envelopes for future developments or the design of the public space.

As a result, the visual material in the 'exploratory design' component of the master plan is highly varied. For example, a three-dimensional model is suitable for an investigation into building volumes, in which case materials are not the first concern, while the choice of materials and formal principles are dealt with to a great extent in an investigation into the renovation of the public space.

To give an idea of the diversity of the research materials used, several themes dealt with in the exploratory design are listed below, each with their accompanying visual research techniques.

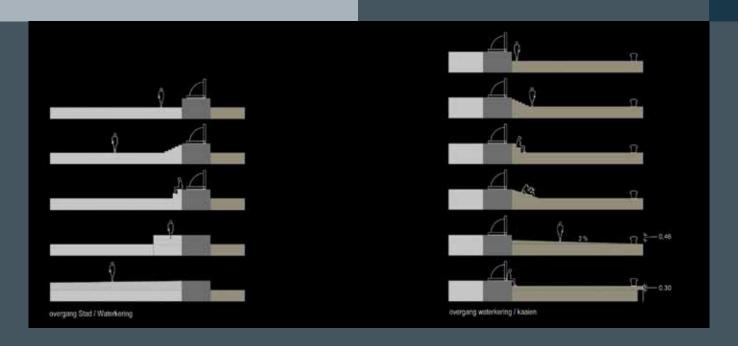
#### INTEGRATION OF THE FLOOD PROTECTION

A good integration of the new flood protection into the urban landscape is a point of particular interest in the master plan.

Cross sections are chiefly used to investigate this issue. They are an excellent tool to visualise the barrier effect of the flood protection as well as all possible solutions.

Exploratory design provides various solutions for different zones, such as mobile or fixed, or integrated into an embankment or building. The specific context in the field determines the eventual choice. The **urban platform** at **Londen-Amsterdamstraat** in the bottom left-hand corner is such an example. The problem there was: how should the flood protection be integrated into an urban balcony and into the adjacent buildings so as to preserve the view of the harbour cranes, moored ships and marina?

Near the **Schipperskwartier** neighbourhood, the problem of possible transitions between the city and the flood protection and between the flood protection and the quays presented itself, as well as the question how the fixed barrier of the mobile flood protection wall could be integrated into elements such as street furniture or observation platforms. The image below illustrates this.









## INTERSPACE BETWEEN THE CITY AND THE RIVER

In the case of certain areas in the quay strip, an appropriate character was sought for the space that constitutes the transition zone between the city and the river.

Droogdokkeneiland is an interesting example in this respect. The specific research question for this area was: how do we combine three different spheres in one park, namely harbour (the industrial/archaeological site of the dry docks), city (layout of an urban park) and nature (making the tides perceptible by the riverside)?

Mainly maps and atmospheric images are used for this type of research. In the case of the metropolitan Droogdokkenpark, the map shows three distinct areas: an urbanised area suitable for intensive use, an intermediate area with park layout and a tidal area with raised footpaths between small natural and artificial islands. The atmospheric images illustrate the urban park and the intermediate area.

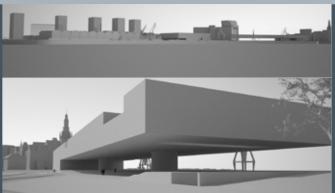
# **LOCATION OF NEW BUILDINGS**

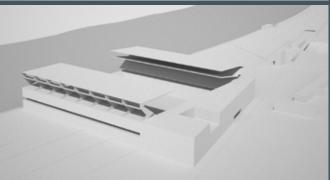
As far as new building volumes on the quays are concerned, the exploratory design focuses on issues such as the optimal position within the area, the preservation of views or vistas, guidelines as to construction height, building lines and the delineation of certain perspectives or walking routes.

Especially 3D simulations are used within this context. This technique is an excellent tool for investigating volume effects and the impact of new buildings on the surroundings.

The two 3D sketches above explore the connection between possible new constructions on the quays and the existing urban tissue in *Montevideowijk*, once with preservation of the existing buildings of *Waagnatie* and *Hangar 26*, once without. The investigation checks whether any new constructions may block the view of the MAS museum, the *Westkaai* tower blocks or *Loodswezen*.

The 3D sketch below shows the possible location of a new football stadium in *Petroleum Zuid*, leaving out one of the stands for an optimum connection to the river.







#### CHOICE OF MATERIALS FOR THE PUBLIC SPACE

Reference images are a useful instrument for the exploratory design concerning the choice of materials, image quality and the layout of the public space on the quays. They are often used as a source of inspiration to specify a desired look and feel.

An additional advantage is that reference images enable the reader (policy maker, citizen or designer) to visualise certain elements in the master plan without the need for designers of the master plan to design this in detail.

By way of illustration, we refer to the above-mentioned example of *Droogdokkenpark* with its three distinct spheres (harbour, city, nature). These are translated into a wide spectrum of materials ranging from industrial and urban to natural.

# THE MASTER PLAN, AN OPERATIONAL PLAN

It is inevitable that the realisation of this large-scale city project will be phased in space and time. On that account, the appendix of the master plan is an operational framework which indicates logical units for the implementation as well as the spatial preconditions under which certain subprojects can be developed. It is thereby possible to define a phasing strategy according to which subprojects can be specified that take priority and that can begin in the short term.

For each zone, a file has been prepared that collects the principal figures, the zone-specific preconditions per general guideline and the ambition regarding each subproject, and that, whenever possible or desired, indicates guiding principles as to maximum building envelopes, building lines etc.

#### **SYNTHESIS IMAGE**

Finally, all exploratory design conducted per zone is collected into one clear synthesis image. This results in seven digital pictures of the future, one per zone. These 3D cross sections provide the answers to all important design questions that were asked in the master plan, e.g. as to the flood protection, the relationship between the city and the water, buildings, materials and atmosphere.

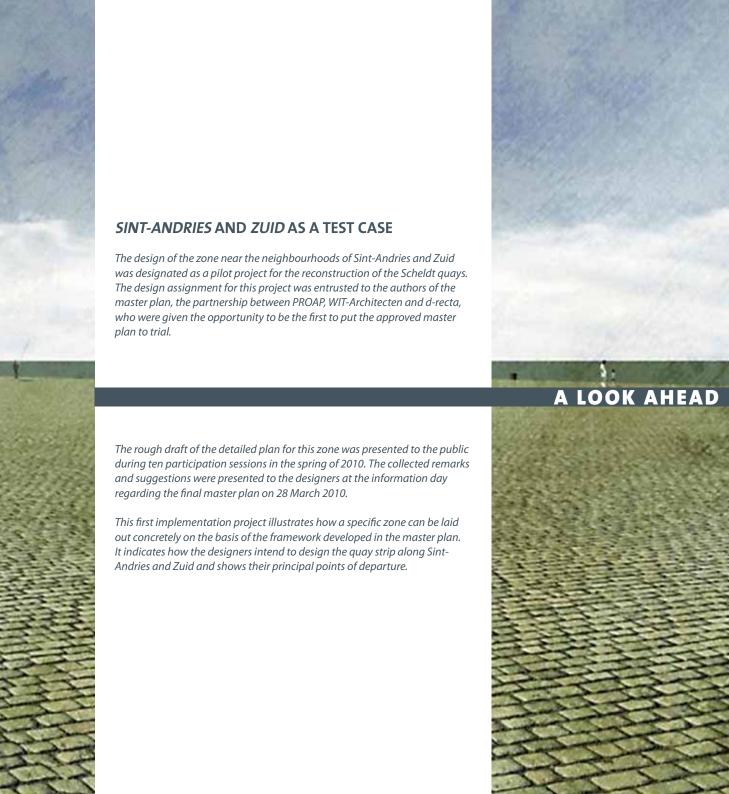
By way of illustration, you can see an isometric perspective of the zone *Nieuw Zuid*.



Nevertheless, the operational framework only establishes what is really necessary. After all, the master plan provides for a certain degree of flexibility as to future needs, demands and opportunities. Of course, the various pieces of the puzzle need to fit so that the coherence of the whole is ensured. This operational component therefore offers a framework to preserve the continuity and the spatial quality of the quay area within an indefinite and phased process. For instance, the fixed axes for road, tramway, bicycle track and flood protection, together with the road cross sections and the schematic cross sections of the flood protection constitute the necessary framework to ensure that the different subprojects link up with each other perfectly.

As a result, the Master Plan Scheldt Quays is an implementationoriented plan that can be used as a guideline for a long period, even under unpredictable and changing insights and conditions.





## A SLOPING DIKE LANDSCAPE

As set out in the master plan, the flood protection near *Sint-Andries* and *Zuid* will be shaped like an embankment close to the city side. During the participation process, many people expressed their concern as to the direct view of the river being blocked. For safety reasons it is impossible, however, to provide mobile flood protection solutions over the entire length of the Scheldt quays. Logically, the decision was made to use the available length of mobile flood protection mainly in the zones *Schipperskwartier* and *Centrum*, where the connection between the river Scheldt and the historic centre of the city is being restored.

The proposed dike construction near *Sint-Andries* and *Zuid* creates a new and improved relationship with the river Scheldt. A panoramic view of the city and the river unfolds from a gently sloping embankment. The footpath does not follow a straight line but runs along various places such as green play and sitting areas near the *Sint-Andries* neighbourhood, stands overlooking the river Scheldt, and an observation platform close to the river.

Obvious connections lead from the neighbourhood to the embankment and subsequently to the river Scheldt; this is currently impossible due to the position of the old harbour fence and the concrete flood protection wall.

# THE QUAY AREA AS A REFUGE

The design of the embankment integrates the public space in front of and behind the flood protection. The location of the dike close to the city ensures that a large open space is created near the water. This space preserves its maritime character and an atmosphere of solitude which was highly valued during the participation sessions. The existing cobblestones will be reused as paving material. The existing crane rails will be preserved, and it will remain possible for large vessels to moor at the bollards along the 'blue stone'. As the area can still be inundated, only temporary activities can be programmed here, such as cultural and sports events. It goes without saying that anyone may use this open space as they see fit, and this at all times.







"You should be able to say:
'I'm going to the Quays
for a day'..."

# **CONTACT WITH THE WATER**

At the former Zuidersluis lock a sloping surface is designed where people can come close to the water and even touch it. Since the quay wall is preserved over the entire length of the Scheldt quays, such physical contact is only possible on spots where the wall is interrupted. In this respect Zuidersluis is a unique site along the Scheldt quays. At this location, the embankment transforms into a wall to which a low-rise building strip with urban functions is linked. Space is also reserved here for an architectural landmark: a construction on pillars at the beginning of the sloping surface with room for a cultural function in the future.

# PARKING UNDER A GREEN ROAD PROFILE

The current road in the area between the dike body and the building façades is to be reshaped so that traffic and living can be better combined. A future tram connection between north and south is to be taken into account when the road profile is widened.

A wide bicycle track and promenade run between the dike body and the road and tramway. The interconnected embankment slopes are laid out as stretches of grass with scattered trees. These recreational areas are to be fitted with benches and playground equipment.

The new southern car park is situated under the dike body and the quay area. The main pedestrian exit is located near the archaeological remains of the bulwark of *Sint-Michiels*, excavated during a preliminary archaeological investigation in the summer of 2010. These remains are proposed to be integrated as relics into the car park.







## TOWARDS IMPLEMENTATION

The development of the design for the quays along Sint-Andries and Zuid is the first step towards the implementation of the ambition set out in the master plan with regard to the Scheldt quays.

As soon as the Flemish government and the city of Antwerp have come to a concrete arrangement as to the implementation of the master plan, the preparation of detailed designs per zone can start. In view of the current progress of the process, the final design for the zone along Sint-Andries and Zuid is expected to be completed in 2012.

Separate design competitions are to be organised for every other subproject. The master plan for the Scheldt quays should always be used as a guideline and fundamental touchstone by the subsequent designers. The layout of Droogdokkenpark is the second implementation-oriented subproject to be started up after Sint-Andries and Zuid. A design competition was organised for that purpose in 2011. In all, the entire reconstruction of the quays will take over ten years, comprising the implementation of various subprojects.

As has been indicated above, the reconstruction is a particularly complex operation that will take place in different phases. In addition, the implementation process of these phased works is connected with other planned large-scale works in Antwerp such as the redevelopment of Petroleum Zuid, the construction of the new Antwerp football stadium, phase two of the development at Het Eilandje, the mobility issue and the development of a new mixed urban expansion at Nieuw Zuid.

"A promenade and bicycle track lined with nice trees like a Spanish sea front."







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<u>COLOPHON</u>

contact

You can find more information on the reconstruction of the

Scheldt quays in Antwerp at www.onzekaaien.be, www.agstadsplanning.be and www.sigmaplan.be.

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