







(Photo: Bina Engel)

Dr Andreas Kleinau CEO, HafenCity Hamburg GmbH

"Welcome to Grasbrook. A new district that will change our view of Hamburg long-term is emerging in a central location in the midst of the city. Grasbrook is a connector. It connects the inner-city with this Elbe island and so makes a contribution to the "Leap across the Elbe". It also connects the neighborhoods on the Elbe island with one another. Veddel will get the neighbors and the integration it needs. Grasbrook also connects our and your ideas of the way we want to live and work in tomorrow's world – in a livable city."

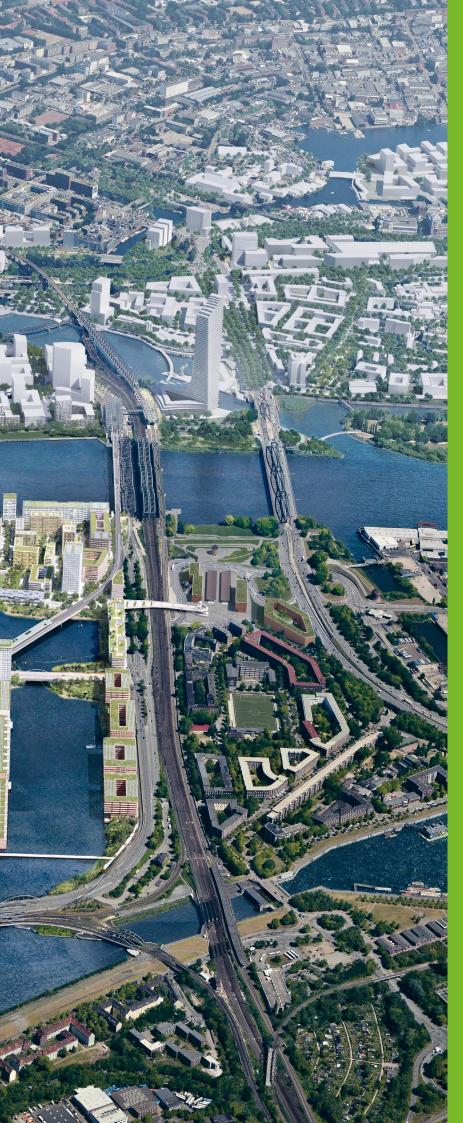
Grasbrook is being created in a spectacular waterside location, with a mix of diverse housing, new worlds of work, sport and leisure options, and places for social interaction. It will be a place where people will be happy to live and work and that will open

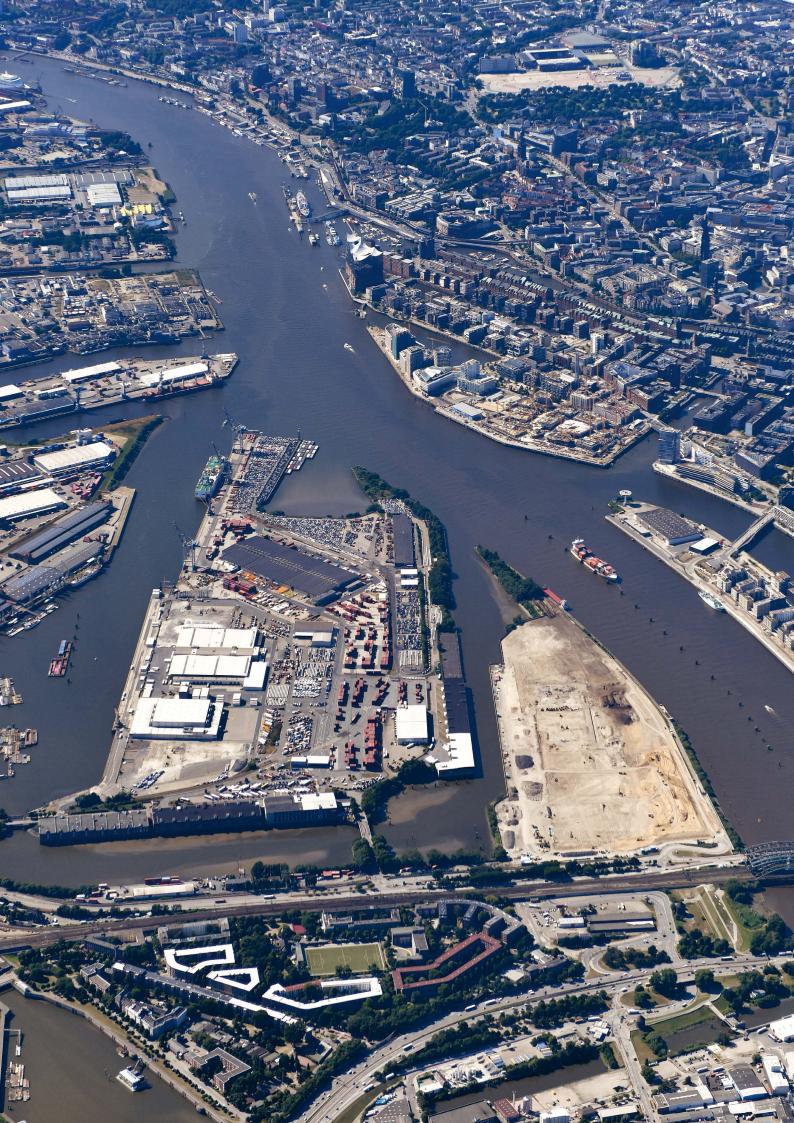
up opportunities for a wide variety of perspectives. Designed to be a neighborhood of short distances, Grasbrook offers an invitation to become part of a living mobility revolution. Attractive open spaces, parks and promenades will inspire people to experience the neighborhood on foot or by bike. Through intelligent mobility facilities in the neighborhoods, combined with a carefully considered integration with higher-level transportation systems, we are making ourselves future-proof and easily reachable by people who live and work in Grasbrook or simply want to visit it and experience all that it has to offer.

This brochure is an invitation to join in the discovery of this place for the future and become part of its development.



The new Grasbrook district





The new Grasbrook district

A new green city district on the waterfront is emerging in Hamburg: Grasbrook. It will provide space for 6,000 people to live and 16,000 to work. Situated opposite the city center and right next to the port, Grasbrook offers the unique opportunity to build a piece of the future while meeting the major challenges of our age – from tackling climate change and conserving resources to social cohesion and new worlds of work.

Hamburg has been growing for years, both at its fringes and within its borders. The repurposing of former port, railroad or industrial sites enables urban growth without the need to seal new areas. In this way, potential for sustainable urban development close to the center and offering mixed neighborhoods for working and living is being exploited. Short distances make a contribution to the urban mobility revolution and conserve the valuable soil resource.

HafenCity is the best known example of such conversion projects in Hamburg, but reconstruction has begun too in the neighboring districts dominated by major industrial and traffic complexes. In the area around the Elbe Bridges, Hamburg is changing its

appearance unmistakably. Grasbrook, a further port area, plays a decisive role here. Together with its immediate neighbor, Veddel, Grasbrook is the final missing component in the "Leap across the Elbe", an urban development strategy whose goal is to better integrate the Elbe islands and the neighborhoods to the south of the River Elbe into the city as a whole.

For years urban developers have had their eye on the Elbe island of Kleiner Grasbrook, where Grasbrook district is now to be built. In 2008 there was a proposal to move parts of Hamburg University here. In 2015, discussions centered on staging the 2024 Olympics here and relocating port operations. Then, in 2017, the idea of a new Grasbrook district was unveiled, to be a combination of urban neighborhoods and port uses compatible with city life.











The route to the best concept

Building on these first ideas, there was a so-called "competitive dialog" in 2019 and 2020. It was a special competition process with strong public participation in which twelve respected planning firms from Germany and Europe initially participated - six urban design and six landscape design specialists.

For the second competition phase, three firms from each category were chosen and formed into mixed teams. That ensured that both urban and landscape design were thought through in tandem from the outset, with open space being an equal component of the concepts, and not just what

was "left over" after the urban design was complete. At the end of the competition, the joint design by the team of Herzog & de Meuron from Basle and VOGT Landschaftsarchitekten from Zurich won through.

Another central task for all the participating firms was to knit the Grasbrook and Veddel neighborhoods into a common urban space with close connections with the surrounding area. To achieve this, numerous public planning workshops were conducted with residents and stakeholders from Veddel, Wilhelmsburg, Rothenburgsort, Hammerbrook and HafenCity.

Many ideas from the public were worked up in the detail phase of the planning from the retention of local landmarks that define identity, to the creation of attractive connections, to neighborhood meeting places and shared services. The result for Grasbrook is a concept that is not just the basis for the development plan and the implementation process but also lays the firm foundations for climatefriendly urban living in the district.





Impressions of Veddel neighborhood (Photos: Thomas Hampel)



Demolition work at Überseezentrum 2022 (Photo: Thomas Hampel)



Holthusenufer (Photo: Thomas Hampel)

Panorama of Saale harbor basin with Warehouses G and F (Photo: Jean-Baptiste Höppner)

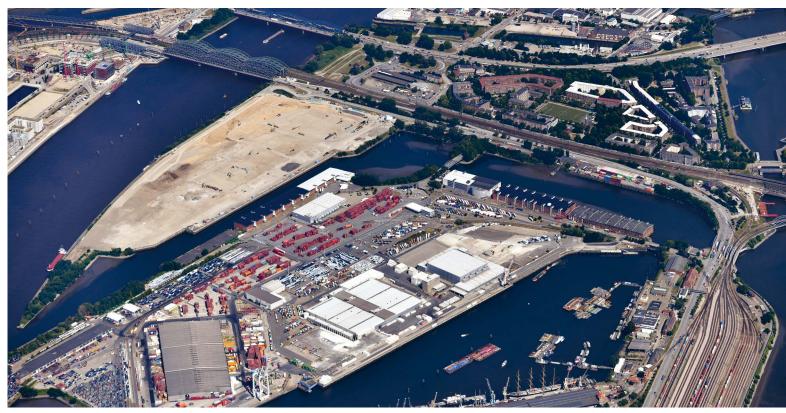




Tip of Veddelhöft promontory (Photo: Thomas Hampel)



View from Holthusenufer towards the Freihafenelbbrücke (Photo: Thomas Hampel)



2022 aerial photo (Photo: Photofrizz)

HafenCity Run 2022 (Photo: Witters GmbH)





Goals and concepts

What makes Grasbrook special



Goals and concepts

New out of the traditional: Grasbrook is a new city district emerging on the south bank of the Elbe that will have its own unique character while blending in with Hamburg's cityscape. Grasbrook develops the architectural identity of this green waterfront metropolis further and demonstrates new ways to transform port and industrial sites into urban neighborhoods. In an area close to the city center where goods used to be transshipped and large areas were off limits to the people of Hamburg, 6,000 people will live and 16,000 will work in a few years' time and enjoy what a modern piece of Hamburg has to offer.

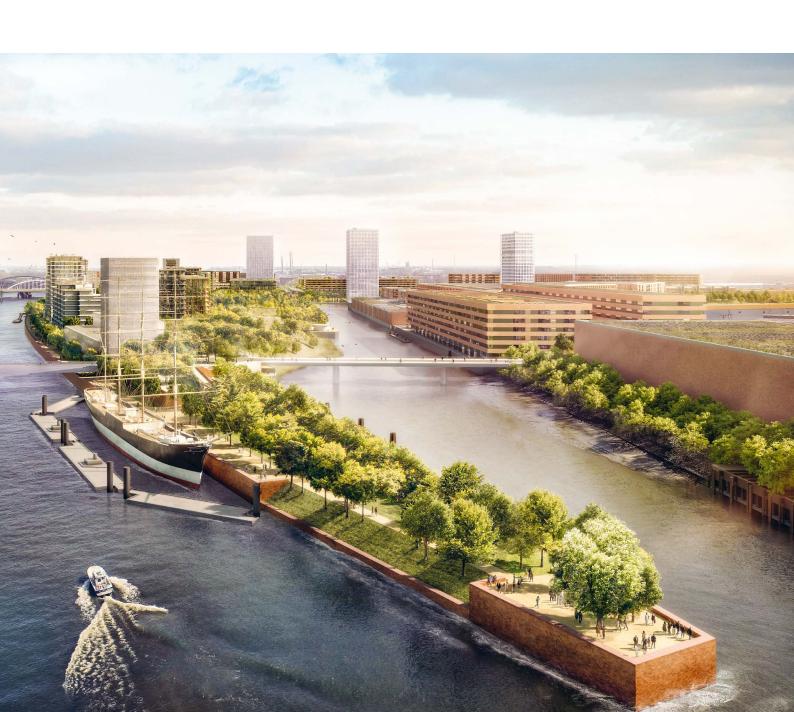
With its generously proportioned parks, green corridors and waterfront promenades, coupled with numerous sports grounds and play areas, Grasbrook will also provide many attractive sports, leisure and meeting places.

An unusual attraction will be the sheltered open space under the large "roof". The roof, in future a district landmark, is reminiscent of the former cargo distribution center "Überseezentrum" at the same location. Further special features of the district are the warehouses, some of them heritage listed, historic quaysides and other witnesses to its maritime past that will now go towards defining the future of the new neighborhood.



In the immediate vicinity of the port with its dynamic businesses, Grasbrook is intended to show how port use and city life can function side by side. At the same time Grasbrook demonstrates what the future of a climate-friendly, future-oriented city of short distances can look like – a city where innovations in building technology, ecology and urban society are developed side by side.

Its special location between the city and the port, the challenges of its surroundings, and the overarching concepts of Hamburg's urban development result in five different goals and concepts for Grasbrook:



URBAN DESIGN CONCEPT: NEIGHBORHOODS GROW TOGETHER

In a close interplay with neighboring Veddel, Grasbrook will act as an important hinge for Hamburg's "Leap across the Elbe". Two quarters will be developed within Grasbrook -Moldauhafenquartier as a mixed neighborhood with a residential focus, and Hafentorquartier as a new commercial location. They will complement one another and will be connected to neighboring areas by new bridges spanning waterways and roads.



LANDSCAPE CONCEPT: **GREEN CITY BY THE WATER**

The landscape and urban design concepts were planned and developed together from the outset. Thus the landscape areas will act as a basic framework for the new district; green corridors will cross the quarters, roads will become green city spaces, and the water areas of the Elbe and harbor basins will be brought to life. In the pursuit of increased biodiversity, the urban natural world will become a habitat for people, animals and plants.



USE CONCEPT: A CITY FOR ALL

Planning for accessibility and a variety of residential and employment provision will make Grasbrook into an inclusive neighborhood for people of all income levels and age groups. People with a variety of backgrounds and living patterns will live and work here and find numerous places to come together.



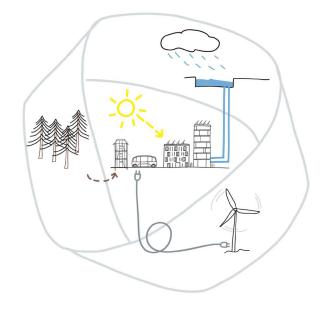
MOBILITY CONCEPT: THE TEN-MINUTE NEIGHBORHOOD

Whether it is schools, shopping facilities, sports grounds and play areas, doctors' practices or cafes, in the low-car Grasbrook neighborhood everything will be close at hand and easily and safely reached in no more than ten minutes on foot or by bicycle. The subway stop right at the heart of the district means transport connections will be excellent.



SUSTAINABILITY CONCEPT: THE RESILIENT CITY

Green architecture, a climate-friendly energy supply, future-proofed infrastructure, and the use of water cycles while at the same time providing consistent flood defenses will all go to make Grasbrook a resilient district. Simultaneously, the area will be greatly improved ecologically through many new green spaces.



Illustrations: Katharina Cordsen







Neighborhoods grow together



Urban design concept

The port is making space for the new Grasbrook district. At the same time, it is continuing to develop and open up as a universal port to further modern port-related commercial activities. Thus in future, the city and the port will be adjacent to one another. This proximity will be exploited as a mutual asset and starting point for a new neighborhood, while also providing crucial impetus for new urban commerce.

The other immediate neighborhoods also mean Grasbrook faces a special situation: Broad roads, the channel of the River Elbe and several harbor basins represent barriers that separate the new district from the neighboring areas of Veddel, Rothenburgsort and HafenCity.

And yet it is not only the physical barriers that separate some of the neighborhoods. In contrast to the newly-built and well-equipped HafenCity, the long-neglected areas of Veddel, Rothenburgsort and northern Wilhelmsburg lack many services. And so Grasbrook is being planned in

such a way that the surrounding area will also benefit from the new facilities.

For example, Grasbrook will provide many jobs for people with a whole variety of qualifications. The aim is to generate goods and knowledge, services and culture. Combined with urban logistics solutions, there will be opportunities and synergies for companies at the interface between the urban and port-related economies. Residents of Grasbrook, Veddel and the neighboring areas will find the workplaces provided to be easily reachable on foot, by bicycle or by public transport.



Building typologies in Grasbrook (Graphic: büro luchterhandt & partner)

Flood defense

The Elbe and the Port of Hamburg are subject to the changing tides, with a tidal range of about 3.7 meters. In addition, Grasbrook is in the part of the Elbe basin at risk from storm surges. The tried and tested raised "warft" concept used in HafenCity will also form the basis of flood defenses in Grasbrook: the new buildings will be constructed on compacted, raised plinths whose basement levels provide space for

parking and mobility services.
In addition, almost the whole of the area will be raised by five meters in comparison to the current ground level.
Only the promenades will remain at the old level. The new flood-protected level in the area will then be 9.7 meters above mean sea level and takes into account forecasts for rising sea levels and the increased risks of flooding for the next 120 years.

One district - two quarters

The beating heart of the new Grasbrook district will be at its center. This is where the new stop on the U4 subway will be, and the "Stadtplatz" (town square) with central facilities such as a primary school, stores, and bars and restaurants. A broad new bridge for pedestrians and cyclists will span the main highway, linking Veddel with the Stadtplatz and the subway.

The subway stop will be suspended above the water and the surrounding Hafenbeckenpark. This unusual park will connect the two quarters of the new urban district: the northern Moldauhafenquartier with its residential focus and the commercial Hafentorquartier in the south. Common to both neighborhoods will be the many waterfront areas and green spaces.

Residential island in Moldauhafenquartier

The "residential islands" are located between Grasbrook Boulevard and the park. In contrast to traditional perimeter block building, the residential island blocks will be partially open. A characteristic will be their green inner courtyards, roofs and facades.

The large central park

The park fronts the water to the south and west and will catch the sun all day long. The various park lawns will offer varied opportunities for play, sport and other activities.

German Port Museum and the "Peking"

The conspicuous "Veddelhöft" promontory in the far west of Moldauhafenquartier will be home to the German Port Museum and the four-masted barque "Peking". The new Moldauhafenbrücke will form a link with Hafentorquartier.

Worlds of work in Hafentorquartier

Various building typologies will offer space for new worlds of work, from manufacturing and processing of products to research and development, or management and marketing.

Stadtplatz with U4 subway stop

The center of the neighborhood will be Stadtplatz, where all the important services to meet daily needs are concentrated. Access to the U4 subway will be here too. The large roof will create a link with the park, the sports areas and the school.

Veddel Bridge

A large, broad bridge will form an important connection between Veddel and the new Grasbrook district. The bridge will span the approx. 110-meter wide barrier of the multi-lane highway and the rail tracks.



The heritage-listed Warehouses F and G will be distinctive features due to their historic charm and imposing size alone. Green spaces and sports facilities will be integrated into the Dessauer Straße green corridor.

Illustrations: Katharina Cordsen

Moldauhafenquartier

Moldauhafenquartier occupies a peninsula between the Elbe and the Moldau harbor basin. Directly adjacent to Veddel, it will form the new district's residential quarter, and plans are for it to develop the same kind of lively, urban character as the popular, central old quarter, but also to have varied large green spaces, squares and waterfront areas.



Impressions of the northern boundary of the park with the Elbphilharmonie in HafenCity in the background (Sketch: Herzog & de Meuron)

In addition to housing, Moldauhafenquartier is set to have a colorful mix of cafes, stores, services, offices, cultural amenities, social infrastructure, sports facilities and much more.

Urban planning foresees the creation of differing subspaces that will be easily recognizable. Thus, at the gateway to the district near the Elbe Bridges, a suitably metropolitan entrance with a variety of uses is under construction. Here, or at the nearby Stadtplatz, is where the majority of the residents, workers and visitors will arrive in Moldauhafenquartier often on foot or by bicycle via the new Veddel Bridge or by subway.

As a place of arrival, the Stadtplatz will become a lively center for Grasbrook and Veddel. On the south side of the square, a broad set of steps will lead down to the tidal Moldau harbor.

The architectural axis continues straight ahead from the Veddel market square across the Veddel Bridge and the Stadtplatz to the large "roof" and through the central park to the western promontory at Veddelhöft. The most eye-catching point along this axis will be the striking "roof" - reminiscent of the imposing monopitch roof of the former Überseezentrum. As a covered open space between the city square and the park, it will form the entrance to the park and constitute a special public space whose effect will radiate to the neighboring Veddel and beyond.

This will also be true of the central park, which at five hectares seems particularly expansive on the narrow peninsula. Its size and central position underscore the importance of open spaces for the whole of the new district - and result in building being concentrated on the bank of the Elbe and at the entrance to the district. Grouped to the north of the park are the five so-called "residential islands": 7 to 12-story residential blocks in an open perimeter block format. The residential islands vary in size depending on their sites and they will present a

wide variety of building typologies. The goal here, as in the whole of Grasbrook, is to pursue an ecological construction method, with large green residential courtyards that open up to the park and green neighborhood paths between the "islands".

The second residential focus is the "Nordkante", a long row of residential development on the waterfront of the Elbe's northern arm. With its alternation of high-rises and long blocks, the Nordkante will develop a striking vertical silhouette along the Elbe and when seen from HafenCity opposite.

Between the Nordkante and the residential islands lies Grasbrook Boulevard, to be laid out as a cycleway shared with public transport. Like the orientation of the buildings and the promenades along the Elbe bank and Moldau harbor basin, it follows the east-west direction of the Elbe. Green corridors will cross the boulevard in a north-south direction, thus creating connecting routes from bank to bank, from the Elbe to Moldau harbor basin.

At the gateway to the district in the northeast of the neighborhood, construction is planned primarily for office use due to the traffic noise from the Elbe Bridges. The combination of long blocks and up to eleven-story high-rises will create both a noise shield for the residential area behind and a striking curtain raiser for the new district. Also incorporated into the construction will be the entrance ramps to the underground delivery areas and neighborhood parking garages that enable Moldauhafenquartier to be largely car-free.





Hafentorquartier

To the south and west of the Moldau and Saale harbor basins lies Hafentorquartier. In a central location, directly next to the O'Swaldkai terminal at Hansahafen, which will continue to be used for cargo handling operations, a future-oriented commercial location is being created at the interface of the city and the port, excellently connected, very green and with a variety of building typologies for research and development, digital companies, services and urban production, from small-scale manufacturing to large-scale enterprise. Most of the 16,000 jobs envisaged for Grasbrook will be created here.



Hafentorquartier is divided into a northern part, the area along Dessauer Straße, and the construction by the eastern part of Saale harbor basin. Residential development will not be possible in the area because it will remain within the perimeter of the port. However, the green spaces with access to water and the sports facilities will be available to residents of Veddel and from Moldauhafenquartier as well as to the people working here.

The best ways to reach Hafentorquartier for work or leisure will be by subway, by bicycle or on foot, using the elevated U4 rail bridge crossing the harbor basin diagonally or the Moldauhafensteg in the western part of Moldauhafen. Many people will also come by bicycle via the redesigned Sachsenbrücke bridge, which will continue to carry motorized vehicles. The neighborhood square at the end of the elevated bridge will combine these streams of visitors. Efficient access for commercial and freight traffic will also be ensured.

A 20-story high-rise with a large forecourt area will signal this traffic intersection and, with two further highrises by the harbor basin, will form an ensemble that defines Grasbrook and its center. Together with the neighborhood square, the high-rise will form the entrance to the Dessauer Straße area. This will be characterized both by a mixture of heritage listed, historical warehouses and newbuilds as well as a park-like green corridor that will run along Dessauer Straße all the way to Hansabrücke.

Three listed warehouses at Moldau harbor basin (the so-called "banana ripening plant") and at Saale harbor basin (warehouses F & G) are models for the new buildings in the quarter in terms of their typology, size and construction density. Common to all of the buildings is their large volume, permitting a high degree of flexibility inside the building or by subdivision of the large building plots.

Given the predominantly commercial use in the quarter, the street-level uses and offerings in the public areas will assume a special importance, so that the area remains a lively and safe environment in the evenings and at weekends. The street levels are thus set aside for functions that will give the companies located here visibility in the urban space - such as showrooms, exhibition and sales areas, or canteens.

Along the eastern side of Saale harbor basin (Hallesches Ufer and Dresdener Ufer) a row of buildings will face the historical warehouses opposite. Four office blocks and a residential building will be constructed on a narrow strip between the waterfront and the busy road to the rear, which is heavily used by port traffic. A promenade will run right by the waterfront, connecting this part of the quarter with Hafenbeckenpark.



Saale harbor basin in Hafentorquartier. In the background, the U4 subway station (Visualization: moka-studio GbR)

Grasbrook and Veddel grow together

Veddel and Kleiner Grasbrook are islands in the Elbe surrounded by water and major roads. These separate the neighborhoods not only from the rest of Hamburg but also from one another. The 110-meter-wide transport corridor comprising rail tracks and a multilane highway forms a massive barrier between Veddel and the new Grasbrook district. Long-distance ICE trains, rapid transit services and goods trains run on six tracks, with heavy goods traffic to and from the port on the adjacent multilane highway.

The logistics companies that have so far been based at Grasbrook have enjoyed good transport connections and will continue to do so. Veddel, on the other hand, is not so easy for its residents to reach. Here the transport corridor acts as an obstacle to personal mobility and as a limit to urban development. At the Grasbrook planning workshops, Veddel residents made it clear that for many years they have been without basic facilities in their neighborhood – services such as shopping opportunities and good transport connections.

Rail tracks and the Am Saalehafen multi-lane highway today still form a barrier between Veddel and Grasbrook (Photo: Multivision)



Therefore Grasbrook has now been designed so as to form a common urban space with Veddel. Several new bridges and the existing pedestrian underpass will overcome the divide between the two neighborhoods and help Veddel and Grasbrook grow together and complement each other.

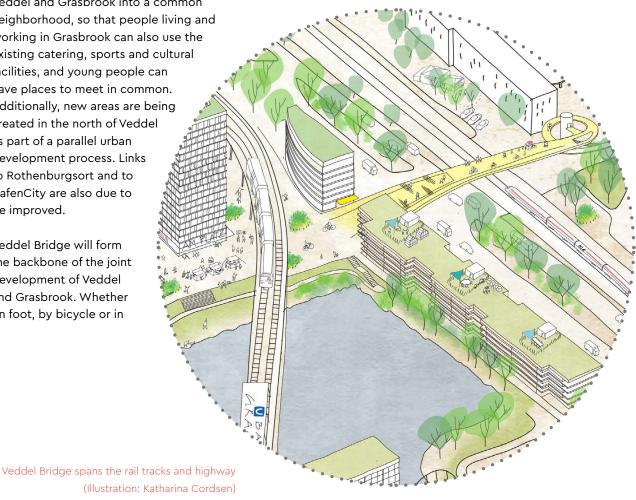
The most important link between the two neighborhoods will be the Veddel Bridge from Veddel market square to the new Stadtplatz on the Grasbrook side. The Stadtplatz will become the common center, the "new heart" of both neighborhoods, with a common primary school, shopping and leisure opportunities, and neighborhood facilities. There will also be a new stop on the U4 subway here.

Veddel will thus profit from the new facilities at Grasbrook and vice versa, while in spatially constrained Veddel there will be new opportunities for the local traders, restaurateurs and other players. The goal is to develop Veddel and Grasbrook into a common neighborhood, so that people living and working in Grasbrook can also use the existing catering, sports and cultural facilities, and young people can have places to meet in common. Additionally, new areas are being created in the north of Veddel as part of a parallel urban development process. Links to Rothenburgsort and to HafenCity are also due to be improved.

Veddel Bridge will form the backbone of the joint development of Veddel and Grasbrook. Whether on foot, by bicycle or in

a wheelchair, people will be able to cross between Veddel and Grasbrook safely and without barriers. A first, non-binding idea from the competitive dialog envisages a broad bridge that rises gently from Grasbrook to span the road and rail tracks. An attractive design would encourage people to use the bridge and even linger there. Cyclists would be restricted to the designated cycle lane to avoid conflicts with pedestrians.

It is only a short distance from Veddel Bridge to the new U4 subway stop, which will be constructed above the Moldau harbor basin. This will give Veddel a joint subway connection with Grasbrook. The architectural design of Veddel Bridge will be further refined through a competitive dialog.







/iew of the large park by Moldau harbor basin. On the right are the residential islands Visualization: Herzog & de Meuron)

Green city by the water



The new district is intended to be a model of how buildings and open spaces can complement one another, even in the inner city. For that reason, the

For many city-dwellers, the quality of life in their neighborhood is dependent not least on the attractiveness of the parks, squares and other open spaces in the area: The higher the quality of the open spaces, the higher the quality of life in the neighborhood is felt to be. In densely-built inner-city neighborhoods, in particular, there is often a lack of high-quality open spaces. In Grasbrook, things are going to be different.

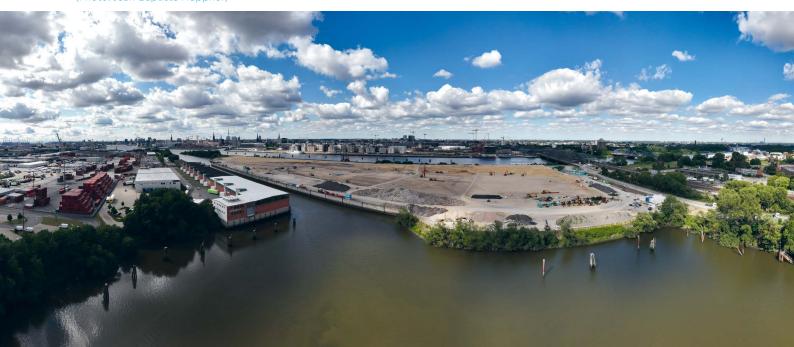
landscape concept was not planned only after the urban design had been agreed, but was thought through and developed as an integral part of the planning from the outset. Open spaces thus form the basic framework of the new district. Streets here will become green urban environments that have a high amenity value in addition to their function as routes, and in some cases they will also

be part of the innovative stormwater management system. In the design and use of ecologically valuable riparian areas, an intact urban environment and human use will be developed on an equal footing. Despite the limited space on the long peninsula between the Elbe waterfront and Moldau harbor basin, it was clear from the planners' first sketches what importance they wanted to attach to the open spaces. Indeed, a whole series of small and large parks and green spaces will now characterize the district, designed in completely different ways and with different uses.

As well as the large, central park in Moldauhafenquartier, small parks, and green areas throughout the district, there will also be green squares, courtyards, promenades, and street areas with many trees – all linked by broad green corridors. A particular attractive part of the varied system of green spaces will be the existing areas of urban natural environment, such as the freshwater tidal mudflats in the Moldau and Saale harbor basins, "wild" green riparian areas, and spinneys where nature has reclaimed areas no longer in use by the port.

The varied open spaces will encourage recreation, sport and interaction among residents, visitors and the workforce. They are also important from an urban climate and ecological perspective and, with their large proportion of unsealed surfaces, represent an essential component of stormwater management.

Überseezentrum panorama with HafenCity in the background (Photo: Jean-Baptiste Höppner)





Green corridors, squares and promenades in Grasbrook (Graphic: būro luchterhandt & partner)



New squares for Grasbrook

The new district will have four squares.
They will serve as hubs, meeting points
and recreation areas.

The most important and largest of them will be the central Stadtplatz at the gateway to the district, with its subway stop, many urban facilities, and a high amenity value. The others will be the forecourt of the German Port Museum, the waterfront

area by the ferry jetty and a large neighborhood square in Hafentorquartier at the other entrance to the U4 subway.

The four large squares will be complemented by a multitude of smaller neighborhood squares. They will all be either greener or more urban in character depending on their location and intended use and will therefore look different close to the Elbe or the parks than they will in the area of the port and the historical warehouses. Through their differing characters and functions, the squares will assume an important role in urban open space provision and connectivity.



Waterfront paths and promenades by the Elbe and harbor basins

Supplementing the squares, parks and green corridors will be a system of promenades and waterfront paths.

In Moldauhafenquartier, the promenades along the bank of the Elbe and the Moldau harbor basin will become attractive waterside paths, often with views of the Elbphilharmonie and the urban skyline by the port. The promenades will also be important for pedestrian and cycle traffic in a city of short distances as well as offering

space for sporting activities.

A specialty of the district will be the new embankments: Where in the past high walls blocked the view of the water and hard rock riprap or sheet pile walls characterized the banks, new "soft" embankments will be created, with waterside paths or – such as at Stadtplatz – with steps giving access. This will enable people to experience the changing water levels of the Elbe and the tidal mudflats

Impression of the Elbe waterfront promenade in front of Nordkante (Sketch: Herzog & de Meuron)





Western park shoreline by Moldau harbor basin (Sketch: Herzog & de Meuron)

Between water and the residential islands – cross-section of the park (Plan view: VOGT Landschaftsarchitekten)



Parks and green corridors

The largest green area in Grasbrook will be the five-hectare central park, stretching from the gateway to the district in the east, right across the north of the peninsula between the Elbe's northern arm and Moldau harbor basin, and on to the promontory at Veddelhöft. This park will have a landscape character and, with its various sub-areas, meadows and groups of trees, waterfront areas, play and sports facilities, offer plenty of scope for users to make it their own.

The Hafenbeckenpark is not intended to be a "park" in the usual sense: Its center will be the changing water and tidal mudflat landscape of the rectangular harbor basin by the Stadtplatz. While valuable vegetation has developed over the years on its southern side, parts of the north shore will be designed as a green waterside recreation area.

Dessauer Straße, today used exclusively as a through road by freight traffic, will be converted into a broad green corridor with integrated sports areas - a kind of linear park in other words. The other green corridors will also be characterized

by extensive planting. They will be open spaces within the neighborhoods and link parks, squares and residential courtyards to form an overarching open space system. In Moldauhafenquartier, the north-south green corridors will form five green fingers, creating routes from shore to shore, from the Elbe to Moldau harbor basin.

Play, sports and leisure facilities

The system of open spaces in the district will be complemented by a varied system of sports and play areas, some integrated into the green corridors, paths, courtyards and park areas or adding to the attraction of the large park.



They will thus contribute to the quality of public open spaces and offer residents, workers and visitors opportunities for interaction and exercise.

There are plenty of playgrounds in public open spaces, and free play opportunities in the park, in the green corridors, along the promenades, under the large roof or in the so-called "urban activity belt" that connects both neighborhoods and integrates sports areas for different target groups (see below).

There will be additional areas such as the primary school yard and the outdoor play areas of the many child daycare centers, but also playgrounds in the courtyards of the residential islands or in the immediate surroundings of the residential building by the Elbe. These areas will serve as play areas for school and daycare children and for residents. The school yard will be able to open outside school hours as an additional public playground area.

Sports areas will also be distributed across the whole of Grasbrook. Many different elements will create a dense network of sports facilities and areas. Altogether over a hectare of sports areas are planned for public areas. They include the large sports ground in the park, smaller sports fields here and there, and localized or linear sports facilities such as fitness equipment and jogging routes. A sports hall at the primary school and a sports center are also planned and will be available for sports clubs to use.

A special feature will be the urban activity belt, a linear public open space that will link Moldauhafenquartier and Hafentorquartier and have a connection to Veddel Bridge. In the north there will be a skate park and a street ball pitch below the railway viaduct, and in the park by Dessauer Straße there will be beach volleyball courts, concrete table tennis tables, a basketball court and a kick-around soccer pitch.

An example of leisure activities in the urban activity belt: the Mainufer Skatepark in Frankfurt am Main (Photo: Nikolai Brenner)





Überseezentrum with its large monopitch roof. In the background, HafenCity and Hamburg city center (Photo: André Dekker)

The roof

For decades the "Überseezentrum" occupied the northern peninsula between the Elbe and Moldau harbor basin. Opened in 1967, it was a large storage and distribution shed with a monopitch roof that also provided shelter for goods handling on the waterfront.

The striking roof continued to characterize the area for many years and was clearly visible from neighboring Veddel or from the rapid transit trains. Many members of the public wanted to see the roof retained.

However, for reasons of flood defense and to provide more space for housing, the Überseezentrum with its roof had to go. A new roof construction, reminiscent of this special place, will be created and will have an impressive landmark character in terms of urban design.

The roof will also provide the primary school and adjacent sports field with an

additional open space for play, sport and school events that is sheltered from the elements. Street markets, flea markets and cultural events will also be able to take place here.

At just under 200 meters in length and almost 20 meters' width, the roof will become a central meeting place in the district that not only links Veddel and Grasbrook but also acts as an important link for uses in Moldauhafenquartier and Hafentorquartier. At the western end of the roof, Moldauhafensteg will lead across into Hafentorquartier.



The large monopitch roof of Überseezentrum before demolition (Photo: Thomas Hampel)

The roof – cross-section in south-north direction (Cross-section: VOGT Landschaftsarchitekten)







A city for all

Use concept

The goal is for Grasbrook to become a city for all regardless of income, age and background. More than a third of the housing will be subsidized, thus enabling social mixing. A mix of uses and options for living and working will ensure lively diversity and an urban flair.

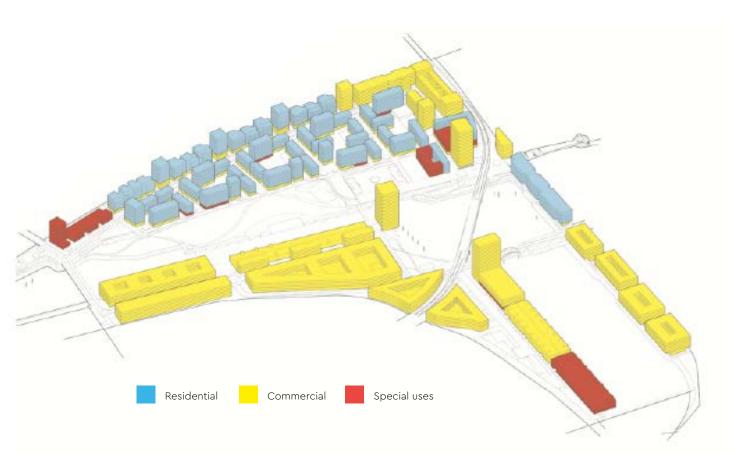
As well as housing and job opportunities, Grasbrook will provide restaurants and bars, cultural, sports and leisure options and shopping facilities. There will also be a primary school, child daycare provision, medical care and much more. The diversity of workplaces is also designed

to enable people with a variety of professional qualifications to find work in Grasbrook.

Urban design and landscape planning will encourage this lively mix. Thus, the

desired diversity in the neighborhood is reflected in very different open spaces that facilitate interaction, in different building and plot sizes that allow for a wide range of uses, and in mobility options for all user groups. It is this mix of uses and functions that will make Grasbrook into a livable urban space for all people and into a heterogeneous and colorful city.

So that it can become an attractive place to live, one that also makes daily life easier for families or people with special assistance needs, for instance, Grasbrook will be equipped with good social infrastructure and educational facilities. Child daycare and school provision, opportunities for young people, as well as community services and neighborhood facilities will play a central role in the district and should be easy to reach.



Infographics: büro luchterhandt & partner

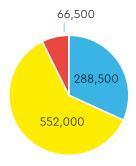
Lively street-level areas

Lively streets and squares will play a leading role in creating Grasbrook's urban character.

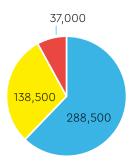
Cafes, stores, child daycare, and cultural, social and other facilities are all among the uses that will front onto the streets and the green spaces. Local services, retailing, catering, medical care and services such as hairdressing salons will be located in the center of the district. Just as easy to reach on foot will be the primary school by the central Stadtplatz or the local community center, a public space that could house a library and will offer a neighborhood canteen and rooms for a range of advisory services and events.

In the two residential focal points, the "residential islands" and the "Nordkante" buildings, the apartments will also be fundamentally restricted to the upper stories. Depending on the location and expected visitor footfall, these could be cafes or galleries - for example on the Elbe promenade or in the central park. In less busy areas, small offices, community care or advisory services and community centers would be more likely uses. But there will also be opportunities in the district for activities that contribute to making the public spaces lively.

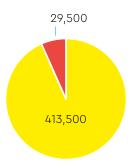
In the Hafentorquartier commercial location, the goal is for street-level zones to be occupied by company or public canteens, showrooms, showcase production facilities and the like, thus helping to avoid closed building frontages. Together with short distances and a variety of leisure and recreational opportunities in the open spaces, the ordering of uses should result in a lively and socially regulated urban environment.



Grasbrook district total: 907,000



Moldauhafenguartier total: 464,000



Hafentorquartier total: 443,000



(All figures rounded: above-ground GFA)



View of the inner courtyard of a residential island (Visualization: moka-studio GbR)

The urban and landscape design structure for Grasbrook (Moldauhafenquartier section) (Plan view: VOGT Landschaftsarchitekten)



Diversity of housing

A socially just city depends on the coexistence of population groups with different financial resources.

Of the approximately 3,000 housing units to be built in Grasbrook, at least 35 percent are to be publicly subsidized apartments

for rent and for those in acute housing need, as well as for cooperatively organized joint building ventures with long leases.

To strengthen the social mix further, rentcontrolled apartments are also to make up a significant segment of the housing supply.

The different building typologies in the "residential islands" and at the "Nordkante" in Moldauhafenguartier enable great flexibility in the number of apartments, their sizes and their floor plan concepts. This also lays the groundwork for different developer models: independent housing companies, cooperative joint building ventures, social welfare organizations, foundations or cooperatives. In addition to ensuring a diversity of future residents, this will also help deliver a wide variety of architecture.

Irrespective of the form of housing in question, consistently high building standards and sustainable construction methods will be just as binding as convenient, barrier-free access for all residents to the green courtyards or roofs. Like the open spaces in the district, common areas in the interior of buildings, in the courtyards or on the roofs are designed to promote interaction and encourage social inclusion.

The diversity of housing provision will appeal to different groups of residents: families, singles and couples, students, apprentices and also older people and those with disabilities. New residential models, such as communal housing concepts, are also conceivable in Grasbrook. The housing on offer is also intended to supplement existing housing stock in the neighboring areas, for example giving people from Veddel, where apartments are predominantly small, new housing opportunities.

New worlds of work in Grasbrook

Hafentorquartier will be developed as a forward-looking commercial and office location for low-emission port-related uses as well as research and development, manufacturing and modern forms of office work.

Craft businesses, small-scale manufacturing, service providers and startups are welcome here, but also major companies or research institutes. The possibility of establishing or expanding (small) businesses, for example in vertically stacked commercial and crafts courtyards, is as much an option as the construction of company headquarters.

The three heritage-listed warehouses in Hafentorquartier will be retained and are to be opened for pioneer uses, such as from the cultural and creative economy, ahead of the completion of the first new developments. Given appropriate redevelopment and conversion concepts, the spaces can be redesigned to allow for smaller-scale use and flexible capacity for expansion to meet the growing space requirements of young companies.





The striking high-rises by
Hafenbeckenpark – a group of three
individual buildings of equal height –
mark the center of Grasbrook. With
versatile options for subdivision or
vertical stacking, they will offer excellent
conditions in a prominent waterfront
location for attracting anything from
small offices to large companies.

Numerous workplaces will also be created in the street-level areas in Moldauhafenquartier, where supermarkets, child daycare centers, and household-related services will be located. There will also be additional local jobs in the cultural field, for example in the German Port Museum.

The overall target is 16,000 jobs in the district – considerably more than the number of residents. This will create potential for people living in the surrounding areas of Veddel, Wilhelmsburg, Rothenburgsort and HafenCity to work locally. A conscious effort is being made to create a variety of jobs – from low-tech to high-tech – for people with a range of different qualifications, so as to pick up on the heterogeneous socio-economic structure of the households in the area and to encourage a social and functional interconnection with the neighboring areas.

Worlds of work in Hafentorquartier (Visualization: moka-studio GbR)





Clear room
height
3.5 to 3.7 m

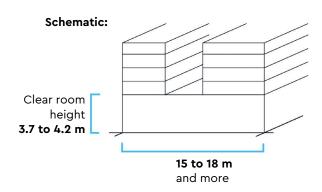
12 to 14 m
and more

Type A Traditional office structure

Structuring of use: 400 m² fire compartments

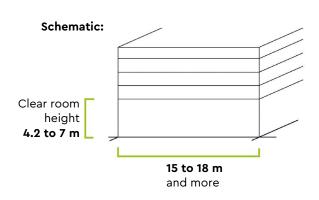
Logistical requirements: nothing particular





Type B Multi-space buildings and special areas
Structuring of use: 40% workplaces, 60% special areas
Logistical requirements: specialized





Range of possible commercial uses in Grasbrook (Graphics: büro luchterhandt & partner)

Heritage-listed warehouses

Hafentorguartier is home to three heritage-listed historical warehouses from various epochs: warehouses D, F and G. They will be largely preserved and will be repurposed.

Warehouse G

The oldest building in the district is Warehouse G, dating from 1903, on Dessauer Straße in the south of Hafentorquartier. Due to its exposed position by Saale harbor basin, the historic building and the adjacent Warehouse F form an impressive backdrop to the Saale harbor basin waterfront and define the skyline of the district from the south. The striking brick building is a multi-story warehouse that was used to store tobacco and cocoa among other goods.

From June 1944 to April 1945, the building was used as a subcamp of the Neuengamme concentration camp and, like the adjoining buildings, as a forced labor camp for prisoners of war who had to perform clearance work in the harbor. Traces of the prisoners are still visible in Warehouse G after all these years - and today plaques commemorate this time.

Warehouse F

Warehouse F stands immediately to the north of Warehouse G. It was partially identical with it in construction but was destroyed during the war and rebuilt in 1957 -1961 on the old foundations. In addition to the original footings, older parts of the structure, e.g. the crane portals, were also reused in some cases.

Like its predecessor, Warehouse F forms an architectural unit with Warehouse G and the (non-listed) Warehouse E, used as a multi-story car park. The buildings are arranged in a row along Dessauer Ufer. Diagonally projecting winch houses vertically divide the east and west facades at regular intervals. They were used for loading the goods. On the riverward side, goods were hoisted from the barges into the warehouse via winches or revolving cranes, and on the landward side, they were loaded onto trains or trucks via winches.

Warehouse D ("banana ripening house")

Warehouse D (built 1958) at the eastern end of Melniker Ufer by Moldau harbor basin is an architectural monument. It is a single-story hall construction with a clear height of about 10 meters and was rebuilt on the old footings of a previous building dating from 1914 that was destroyed during the war. The exterior of the red-brick building with its projecting winch houses is similar to the contemporary Warehouse F. The single-story building will continue to be used for a few years as a "banana ripening house" for ripening tropical fruit and storing nuts before it is cleared once a new building is constructed elsewhere in the port.



Warehouse G from landward side (Photo: Thomas Hampel)



Warehouses F and G by Saale harbor basin (Photo: Thomas Hampel)

Impression of Dessauer Straße near Warehouse F (Sketch: Herzog & de Meuron)



The three heritage-listed warehouses in Hafentorquartier (Graphic: büro luchterhandt & partner)



Education, neighborhoods and culture

Grasbrook will be a family-friendly neighborhood. Numerous facilities will be created to this end. For education provision, a primary school with up to five parallel classes is envisaged.

It will be built right on Stadtplatz at the transition to neighboring Veddel and will thus be safely reachable on foot by primary school children from both areas. The schoolyard opens into an adjacent sports field, with the park immediately behind it. In front of it will be the sheltered open space under the "roof". All these areas in the center of the neighborhood will give schoolchildren plenty of room to move in addition to the schoolyard.

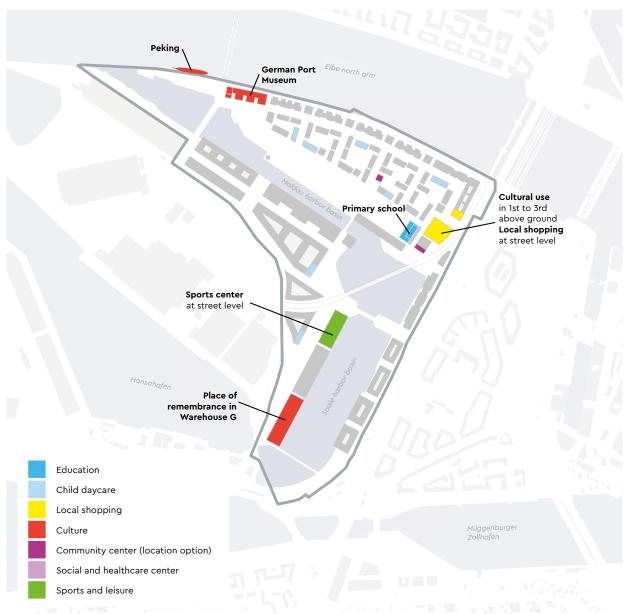
Seven child daycare centers with about 750 places are planned throughout the neighborhood – five of them in the central residential area of Moldauhafenquartier, the remaining two in Hafentorquartier. All of the centers will have directly connected and easily usable outdoor play areas situated in the sheltered inner courtyards of the block structures.

A community center is planned as a central neighborhood meeting point – either at Stadtplatz or in the central residential area of Moldauhafenquartier. The street levels of the residential buildings can house communal areas for residents, as mentioned above. These communal areas will enjoy direct access to the green areas and courtyards.

The neighborhood will also gain several cultural locations. In Hafentorquartier, for instance, a place of remembrance will be developed in Warehouse G. As well as the probable community center, Moldauhafenquartier could have a small live event venue or alternative cultural use at Stadtplatz.



The four-masted barque "Peking" (Photo: Stefan Groenveld)



Education, neighborhood, culture and local shopping in Grasbrook (Graphic: büro luchterhandt & partner)

In the far northwest at Veddelhöft, the German Port Museum is planned as a unique cultural building. One of the most important contemporary museum projects in Germany, it will address the importance that ports have had over the centuries for the worldwide trade in goods and services. As well as its new premises on the bank of the Elbe, the museum's future second home will be the historic shed "Schuppen 50A" at Hansahafen. The four-masted barque "Peking" currently moored there will then move to its new mooring at the quay in front of the new main building, where it will be open to visitors.



The ten-minute neighborhood





Everything on the doorstep

In urban planning today, talk is of the "15-minute city" as an ideal. What is meant by that is a city of short distances, where people can find everything of importance more or less on their doorstep or within a 15-minute walk (or by bicycle). Grasbrook is intended to be a ten-minute city even. From the central Stadtplatz almost the whole of Grasbrook and much of Veddel will be reachable in five to ten minutes on foot.

As a completely newly-planned district, Grasbrook presents a good opportunity to develop climate-friendly urban mobility as a significant element of a livable city. Neighborhood pedestrian and cycle traffic is at the forefront of this. Public transport will provide the link to other districts and innovative logistics concepts will complete the range of services.

The goal is for future residents, workers and visitors to make almost 90 percent of their journeys using the environmental alliance of walking, cycling and public transport. Grasbrook can set new standards with this ambitious modal split. To this end, the district will be planned and implemented to meet the needs of pedestrians and cyclists and make the use of private cars unnecessary. In addition to attractive infrastructure for pedestrian and cycle traffic, and the high-quality connections to public transport (U4), this aim will require continuing innovation.

The basic precondition is to locate services that meet daily needs, among other things, so that they can be reached by the shortest route possible. In the ongoing planning process, mobility provision and use mixes need to be organized, integrated and implemented so that they suit and appeal to users in their daily lives. In the course of this, Grasbrook with become a test bed for the urban mobility revolution.



Grasbrook will be oriented towards people

For Grasbrook, people will be the consistent yardstick for planning. For instance, urban spaces need to be created that put people with the widest range of needs at their ease and that invite people to walk and spend time there. Functions such as living, working and supply services will be closely meshed and the distances between them shorter than in many other parts of the city. The proportion of everyday journeys shorter than one kilometer that can be made comfortably on foot or by bicycle will be increased by the deliberately planned mix and location of uses in the urban area.

The accessibility of shopping facilities, child daycare and the primary school will play a key role here, since journeys for shopping are mainly combined with other reasons for travel. Street-level areas are thus of great importance not only for creating lively urban neighborhoods. They are also a central element of the mobility revolution.

Well-developed public transport

Good access to the district using public transport is important so that people living or working here are not reliant on a car of their own. An important public transport building block is the extension to Grasbrook of the U4 subway from the current end of the line at Elbbrücken.

The subway station will be built centrally in the new district and - uniquely in Hamburg - will be supported on stilts above Moldau harbor basin. Exits to Stadtplatz in Moldauhafenquartier and to the neighborhood square in Hafentorquartier will connect both neighborhoods excellently to the rapid transport network. Veddel will also benefit through direct access from Veddel Bridge to the U4. A further extension of the U4 southwards towards

Wilhelmsburg is on the cards. The existing Elbbrücken and Veddel rapid transit stops are also easily reached on foot from Grasbrook.

A new ferry jetty will be built on the Elbe waterfront halfway between the German Port Museum in the west of the district and the Elbe Bridges, enabling the river to be quickly crossed. A new bus route and stops will link Grasbrook and Veddel better with Rothenburgsort, HafenCity and Wilhelmsburg. Within the new district there is to be a shuttle bus service - possibly using autonomous vehicles. These will be an everyday help to people with limited mobility, in particular.

It is currently being explored whether an additional new bridge can be built to provide a direct link with HafenCity. Should it be implemented, this would be primarily for pedestrian and cycle traffic but would also enable the shuttle service to be extended to cross the Elbe.

In addition, the scheduled public transport system of subway, rapid transit, bus and ferry will be supplemented by a range of ride-sharing services and taxis. It would be possible for these mobility service providers to drive along Grasbrook Boulevard (see below). Naturally there will also be a range of vehicle-sharing services in Grasbrook such as carsharing or rental bikes. These will make it possible to switch between different mobility options depending on occasion and need, contributing to the functioning of this low-car district.

Grasbrook Boulevard

Grasbrook Boulevard runs right across northern Moldauhafenquartier from east to west, from the gateway to the district to the German Port Museum.

While its eastern end with its underground parking garage ramps and loading areas for deliveries to the two supermarkets will be reminiscent of a typical neighborhood street, the larger part of the street will have a character all of its own: Here, Grasbrook Boulevard will be a mobility area and a linear open space at the same time.

Along a length of about 600 meters, the boulevard will become a cycleway where motorized traffic will play only a subordinate role. Moreover, access to it will be limited by retractable bollards so that only regular bus services, shuttle services and individual delivery and removal journeys will be possible. The roadway will be lined on both sides by four-meter-wide sidewalks.

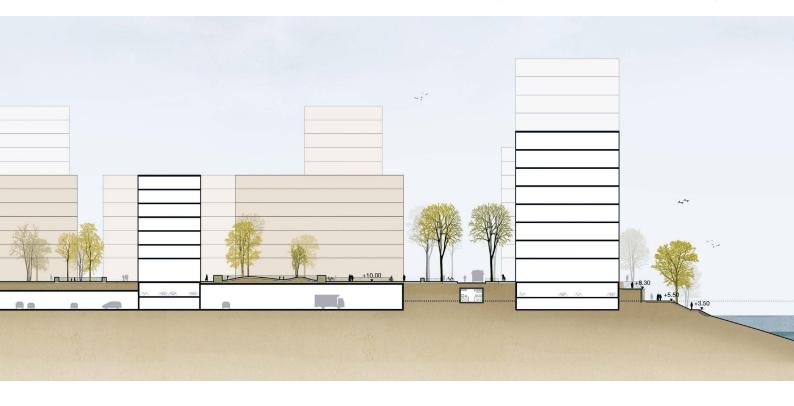
In the center of the roadway, four green islands, each planted with a variety of trees and shrubs, will structure the boulevard. In addition to their urban planning function, the green islands will make it easier for pedestrians to cross the roadway.

At some points, the buildings will be set back somewhat to the left and the right, thus creating a square-like broadening where there can be room to sit and where public-related uses - such as for outside catering or smaller sales stalls can be established.

Since Grasbrook Boulevard also serves other (reimagined) traffic in addition to bicycle and pedestrian traffic, a strip between the roadway and sidewalk will be used to accommodate, among other things, stopping points for shuttle buses, smart loading zones, or mobility services such as HVV switch and StadtRad and other rental stations. Above-ground car parking will only be provided for people with limited mobility. In addition there will be public street parking for 600 bicycles. Mobility foyers will be implemented at street level in the adjacent residential buildings.



Northern Grasbrook Boulevard in cross-section (Cross-section: VOGT Landschaftsarchitekten)



Grasbrook Boulevard is more a green urban area than a street (Illustration: Katharina Cordsen)



Low-car Grasbrook

New districts like Grasbrook can play an important role in the urban mobility revolution. Unlike in established neighborhoods, here the built (infra-)structure and uses are only now being created. opportunity is being grasped, and a concept for a livable street space is being developed. The "street" will become a social space – in other words, a space for interaction

In Grasbrook,

this

and to spend time, and thus be designed as a shared green space and no longer just a functional traffic and pedestrian area.

In line with the aim of making the pedestrian and cycle paths in the district as attractive and safe as possible and giving public space plenty of amenity value, cars will largely be kept out of Grasbrook. In particular, Moldauhafenquartier will become a low-car, urban residential neighborhood. The main access road there, Grasbrook Boulevard, will also remain largely free of moving and parked cars. To this end,

parking spaces will only be provided in three underground neighborhood garages at the "warft" levels. With 0.2 parking spaces per apartment, the parking space ratio has been deliberately chosen to be very low.

The entrance ramps to these central underground parking garages will be in the eastern section of Grasbrook Boulevard at the gateway to the district where the supermarkets are also situated. The larger part of the boulevard, on the other hand, will be designed as a traffic-calmed, very green cycleway with expansive pedestrian areas. Delivery traffic for the residents of the neighborhood and for the offices, stores and cafes there will also be handled either by cargo bike or underground in the specially designated loading zones at the "warft" levels.

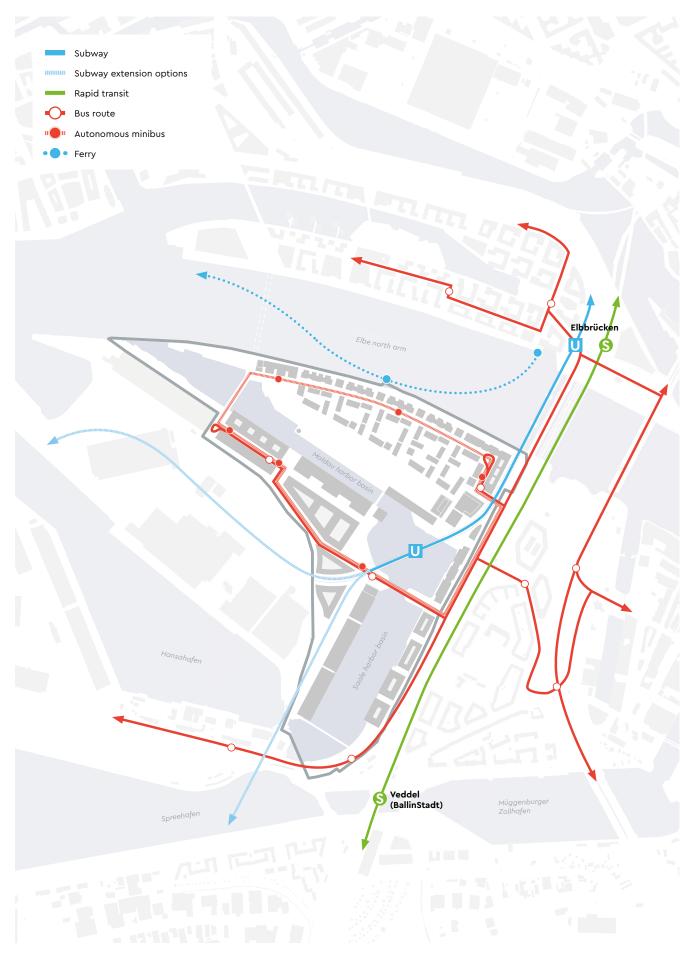
In Hafentorquartier, with its commercial character, things will be a bit different. Here a large proportion of the neighborhood will be accessible by car or truck, but through traffic – such as from the northern entrance at Sachsenbrücke to the southern entrance at Dessauer Straße or across the Moldauhafenbrücke in the residential neighborhood – is not envisaged.

The automated minibus "HEAT" – a Hamburger Hochbahn research project. (Photo: Thomas Hampel)



Elbbrücken subway and rapid transit station (Photo: Thomas Hampel)





The future public transport network in Grasbrook (Graphic: büro luchterhandt & partner)

Most of Dessauer Straße will become a linear park, with sports or leisure facilities. Workers, deliveries and clients who use their own vehicles to reach Hafentorquartier rather than by public transport, by bicycle or on foot will find a limited number of parking spaces in the eleven local parking garages ("warft" levels) in the individual buildings. Facilities for deliveries and logistics, including truck loading yards and turning spaces, will be built on individual company premises, so that the street spaces can be designed to have a high amenity value.

Pedestrian and cycle network

Grasbrook will become a district for pedestrians and cyclists. Alongside public transport, pedestrian and cycle traffic will play an important role in achieving mobility compatible with the urban neighborhood. Therefore, high demands will be made on the quality of the pedestrian and bicycle paths and bridges over the harbor basins and highways. Short distances are essential in this low-car neighborhood.

The most important cycle routes in Grasbrook run in Moldauhafenguartier along Grasbrook Boulevard and in Hafentorquartier across Sachsenbrücke, along the port boundary (O'Swaldkai Terminal) and across Moldauhafenbrücke towards the possible new Elbe crossing which could provide a direct connection to HafenCity and the city center. For cyclists, the connection to the regional cycle network (e.g. Veloroute 10) is via the Elbe Bridges between Veddel and Rothenburgsort.

These main routes for cyclists will be complemented by a local network along the Elbe promenade, through the central park and along the green corridor in Dessauer Straße. To minimize conflict between pedestrians and cyclists, pedestrians will have priority there. Pedestrians will also have paths that are

just for them - such as along the park, in Hafenbeckenpark, the promenade by Moldau harbor basin, or in the green corridors between the residential islands.

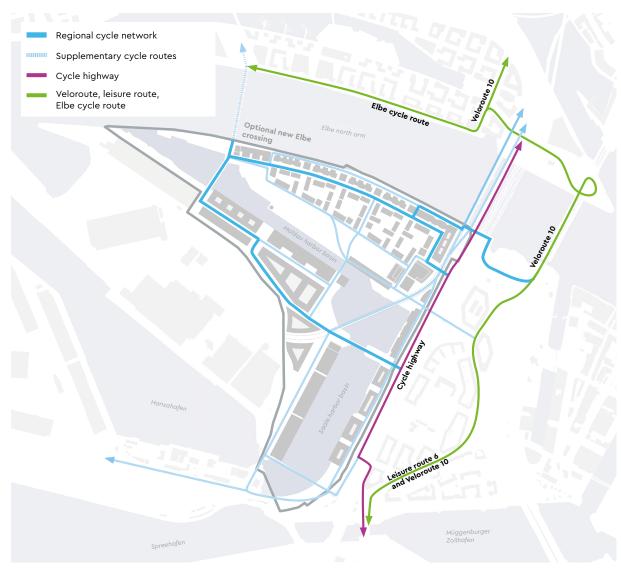
Mobility foyers for Grasbrook

In Moldauhafenquartier, "mobility foyers" will assume an important function in the mobility concept. They will serve as a central contact point for everyday logistics and mobility needs. Housed at street level in the "residential islands" and the "Nordkante" development, they will also be a visible symbol of the mobility revolution in Grasbrook.

The size and design of the foyers will vary depending on the location and the needs there. As well as a parcels pickup point, rental stations for cargo bikes and e-scooters, and swap racks, other services could be offered, such as cycle repair stations. This is also where the access will be to the carsharing parking spaces, delivery zones and parking for small vans on the "warft" levels below the residential buildings.

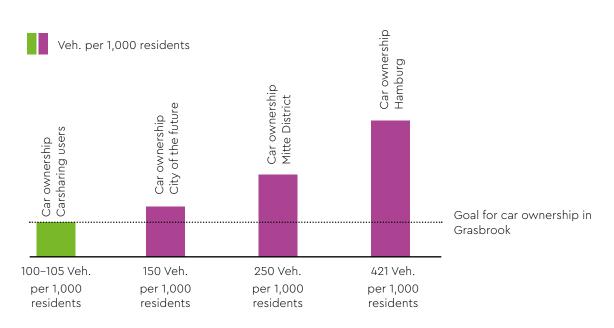
StadtRad hire point at Lohsepark in HafenCity (Photo: Thomas Hampel)





The close-knit cycle network in Grasbrook (Graphic: büro luchterhandt & partner)

In Grasbrook district it is assumed that private car ownership will be very low (Graphic: ARGUS Stadt und Verkehr)









The resilient city

69

Resilience, conservation of resources, and mitigating and adapting to climate change play a key role in Grasbrook, not least because of its location on an island in the Elbe. In addition to flood defense and intelligent stormwater management, "green" architecture and energy supply have been factored into planning early, as have future-proof infrastructure and communications technology.

> Local heating and cooling networks based on renewable energy will supply the buildings, which will be highly energy efficient. The buildings will become "prosumers", not only consuming energy, but also producing it.

Reducing emissions and the need for resources

Grasbrook is set to become a model district for reducing resource consumption and carbon emissions. This will require the new buildings and also the new open spaces, the infrastructure and mobility to be as low-carbon as possible in their design and construction and to be climate neutral in their later operation.

For the new buildings in particular, resource efficiency is to be achieved by following circular design and construction principles. In addition to the buildings, the carbon balance of constructions such as bridges, waterfronts, promenades and roads will also be kept in focus. A transparent carbon and resource management system will help identify potential for optimization and for improving carbon emissions.

Just as important is minimizing carbon emissions from energy supply and mobility. For this reason, Grasbrook will be a consistently low-car district where the environmental alliance of public transport, and cycle and pedestrian traffic will play the central role in the mobility concept (see chapter 6).

Energy supply

Grasbrook will be expected to contribute to the climate goals of the energy transition and in Hamburg's climate plan. To this end, an intelligent and secure energy supply will be developed that relies on carbon-neutral energy. As large a proportion as possible is to be generated locally - such as through ambient heat and photovoltaics on house roofs and on the large "roof". Additional energy demand will be met through public networks.

To make as efficient use as possible of valuable renewable energy sources, the buildings will have very low heating and cooling requirements thanks to their high energy standards. They will be connected by a heating and cooling network and will be supplied, for instance, with waste heat or ambient heat.

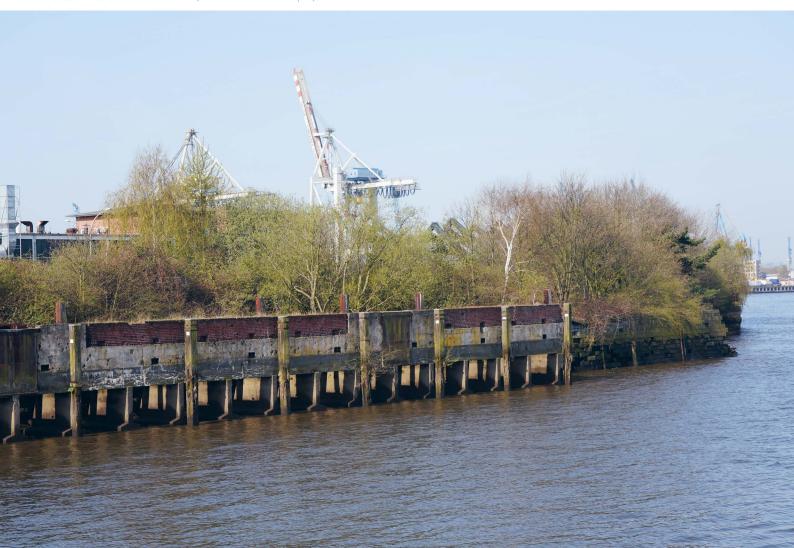
The energy concept is intended to create the preconditions for the future application of intelligent energy management systems so that more efficient use can be made in particular of renewable energy. For example, it should be possible to network private and commercial consumers via the Internet of Things (IoT) so that consumption and generation in the district can be best coordinated.

Biodiversity

Grasbrook is being created on an area that in decades gone by was adapted to meet the needs of port operations. For this, areas of open water were filled in to create large, almost completely sealed areas for logistics that were bounded by quay walls and rock riprap. The gradual retreat of port-related uses meant that nature could recolonize partial areas. On disused freight tracks and siltedup areas in Moldau and Saale harbor basins, with their valuable freshwater mudflats, riparian fringes developed, with scrubland and various forms of spontaneous vegetation.



Urban nature at Melniker Ufer (Photo: Thomas Hampel)



The new Grasbrook will build on what is already there, unsealing large areas, creating new parks and green spaces, leaving the areas of water intact and enabling a new relationship with the water through partial removal of quay walls. Existing ecological qualities will be retained and enhanced to encourage improved biodiversity in the urban area. The greened street areas and the buildings with their green roofs and facades will also make a contribution. A further focus will be on an ecologically improved treatment of the riparian areas.

Water cycles

Grasbrook also has to face the consequences of climate change, such as extreme weather and heavy rainfall events. A decentralized, semi-natural stormwater management seeks to ensure the long-term development of vegetation with sufficient water supply, improve the microclimate in the city, and retain, store, and use rainwater as a resource to conserve valuable drinking water.

Thanks to its unusual location between the double waterfronts of the Elbe and the adjacent Moldau and Saale harbor basins, Grasbrook has no fundamental difficulty with responding to heavy rainfall events. However, for the roadside trees and the large parks and green areas, it is important for rainwater to remain within the Grasbrook water cycle as much as possible rather than being discharged into the Elbe.

As well as the green roofs and facades of the buildings, the green residential courtyards will also contribute to the decentralized stormwater management. Here rainwater will be retained above the "warft" level, stored and used to irrigate the plots. Stormwater retention will contribute to the irrigation of vegetation in the district via rainwater percolation and storage, and enhance the microclimate via evaporative cooling. Drainage of public street areas, especially on Grasbrook Boulevard, will be done without traditional storm drains. The rainwater will be diverted into the tree-planted green strips, seep into the ground and be retained in the overlying soil layers to supply the trees with moisture.

The concept of urban stormwater management thus follows the principle of the city as a sponge: precipitation is collected, stored and released again as it is needed. This enables storm drain systems, with their pipes, manholes and discharge structures, to be dispensed with. Additionally, an effort is being made to reuse gray water in building systems in order to conserve drinking water.

Digitalization and communications technology

The potential for digitalization is to be used intelligently: as a methodological aid in planning and realization, as well as for the subsequent operation of urban functions and infrastructure for example, in the interlinking of the electricity, heating and transport sectors.

From the user's point of view, digitalization has also been one of the defining issues for years. Due to changes in the world of work, social networks and entertainment media, the demand for bandwidth will increase steadily. Well-developed, secure and expandable information and communications technology with high bandwidth and speed is thus of particular importance in an innovative and future-oriented district.



Facts & figures

Area

→ 47 ha

New housing

 3,000
 (publicly subsidized housing, joint building ventures, housing cooperatives, privately financed housing)

New jobs

→ 16 000

Mobility

- → New subway station
- → Neighborhood carsharing
- → Bike & Ride

Profile

- → carbon-neutral district
- sustainable building concepts
- holistic approach to water cycles and urban climate
- → social infrastructure and cultural uses
- → intensive social mix

Visualization: moka-studio Gh

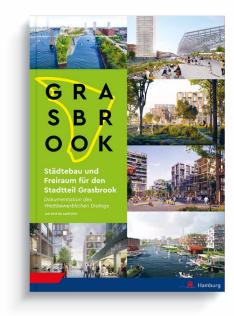






Ideen für den neuen Stadtteil Grasbrook

German documentation of the participatory process in preparation for the competitive dialog





Städtebau und Freiraum für den Stadtteil Grasbrook German documentation of the competitive dialog

The new Grasbrook district **75**

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