

GRASBROOK

Competitive Dialogue Grasbrook District

*Competitive Dialogue Brief
compliant to § 18 VgV*

*for an urban design parameter plan
("Funktionsplan") and a landscape
design scheme ("Freiraumplanung")*

Brief for a Competitive Dialogue compliant to Article 18 VgV
for an urban design parameter plan ("Funktionsplan") and a
landscape design scheme ("Freiraumplanung")

GRASBROOK DISTRICT

in Hamburg

initiated by

HafenCity Hamburg GmbH
Osakaallee 11
20457 Hamburg

in consultation with the

Free and Hanseatic City of Hamburg

represented by the

**Ministry of Urban Development and Housing
Ministry of the Environment and Energy**

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Part A

Existing situation



Part A

Existing situation

On 12 September 2017, Olaf Scholz, then First Mayor of Hamburg, launched a concept for a new innovation district on Grasbrook in the presence of many political decision-makers and representatives of the port industry. The objective was and still is to further strengthen Hamburg's inner city development (city within the city) in view of rising population and employment figures, now that the development in HafenCity is entering its final phase and the modified plans for the Billebogen have been driving this development approach along the Bille since 2015. Grasbrook continues this urban development on the southern bank of the Norderelbe and connects it with Hamburg's urban development the "leap across the Elbe" on Veddel and in Wilhelmsburg (see overview on the following spread).

with some modifications, the competition site for this procedure.



Fig. 2 | View towards the Elbphilharmonie from Moldauhafen



Fig. 1 | Grasbrook – City and port in close proximity

In 2017, a letter of intent was issued by the Behörde für Wirtschaft, Verkehr und Innovation (Ministry of Economic Affairs, Transport and Innovation) and the port industries in order to implement the development in concordance. This letter determined the allocation of the land on Kleiner Grasbrook into areas that will continue to be used by the industrial port and areas for a dense, mixed-use urban area that is exceptionally viable – the new Grasbrook district. The preparatory analyses and preliminary considerations for the development formed the basis of the public presentation in 2017. This area is,

The future Grasbrook district is situated at the heart of Hamburg and has the potential to define its own distinctive character. Its special location opposite HafenCity on the Norderelbe in the immediate vicinity of Veddel, and its characteristic three harbour basins, its transport corridors and its spatial possibilities offer the potential to create inner-city qualities on the southern banks of the Elbe and to connect them spatially and conceptually with the Veddel district. At the same time, it offers opportunities to implement an innovative district that will set an impetus for sustainable environment-related, social and economic development in Hamburg. This includes the objective of accomplishing at least CO2 neutrality in the district, basing the planning and implementation on the concept of a circular economy and achieving social sustainability and justice by means of a qualitative economic development.

The Grasbrook district is to become a mixed-use urban area with commercial, office and residential development as well as public open spaces. Current plans envisage the construction of approximately 3,000 apartments (one third of which will be subsidised) for approximately 6,000 inhabitants, including social infrastructure

(primary school, day-care centres for children, sports facilities) and shops as well as areas for approximately 16,000 jobs and attractive public open spaces. This number of apartments and residents is considered to be the necessary critical mass for a good social infrastructure. Additionally, the main site for the German Port Museum (Deutsches Hafenumuseum), one of Germany's leading new museum projects, is to be developed in the western area of Grasbrook. The "Peking", a four-masted barque which is currently being renovated, will be one of the museum's exhibits in the immediate vicinity of Holthusenkaai.

A total of approximately 880,000 sqm gross floor area can be created with high-quality buildings in a development of appropriate densities. The aim is to achieve a high urban density and a fine-grained mix with urban and functional links to the neighbouring districts, above all Veddel. New access to local public rail transport, probably an extension of the U4 underground line with a stop in the Moldauhafen/Saalehafen area, will create excellent conditions for sustainably, meeting the mobility demands of employees, residents and visitors in the Grasbrook district and the neighbouring (northern) Veddel.

The development of Grasbrook is flanked by the extended Elbe island landscape axis, which provides an important network of open spaces for recreation, mobility and the ecosystem. Saalehafen, Moldauhafen and Segelschiffhafen form the southern extension of Spreehafen and, as the backbone of the landscape axis they are of great urban significance. They also are of spatial importance both for the parks and playgrounds close to residential areas and for the higher-level green spaces and parks. The aim is to develop Grasbrook as a (green) resource in the Norderelbe landscape axis and as a mobility axis for pedestrians and cyclists as well as an area that provides a blue-green experience for residents and people working in the district. The banks of Moldauhafen, designed as green or urban spaces, define the identity of the cityscape, as do the Elbe River and the harbour basins. Similarly, the

visual experience of the water landscape, the harbour basins and the view of the city from the water (canoeing and boat trips) are of great value and importance for tourism. The quality of the infrastructure and open spaces in the Grasbrook district will be based on the high quality standards in HafenCity, while shifting the focus on topics such as biodiversity, green river banks and water margins, green streets and buildings.

Around four years ago, Hamburg submitted plans for a new residential and office location covering the entire Kleiner Grasbrook as part of a bid to host the 2024 Olympic and Paralympic Summer Games. These plans were abandoned in November 2015 after a negative referendum. Even though the boundary of the competition site has changed compared to the Olympic site, which included the O'Swaldkaai terminal whose southern and central sections will continue to be part of the port, the comprehensive preliminary analysis of the site forms the basis of this procedure.

The Grasbrook district will play a central role in Hamburg's development in the coming decades: It continues the development of the urban HafenCity, particularly that of the eastern HafenCity, as well as the southward development of the adjacent Billebogen in the east, thus accomplishing the leap directly to the southern bank of the Norderelbe.

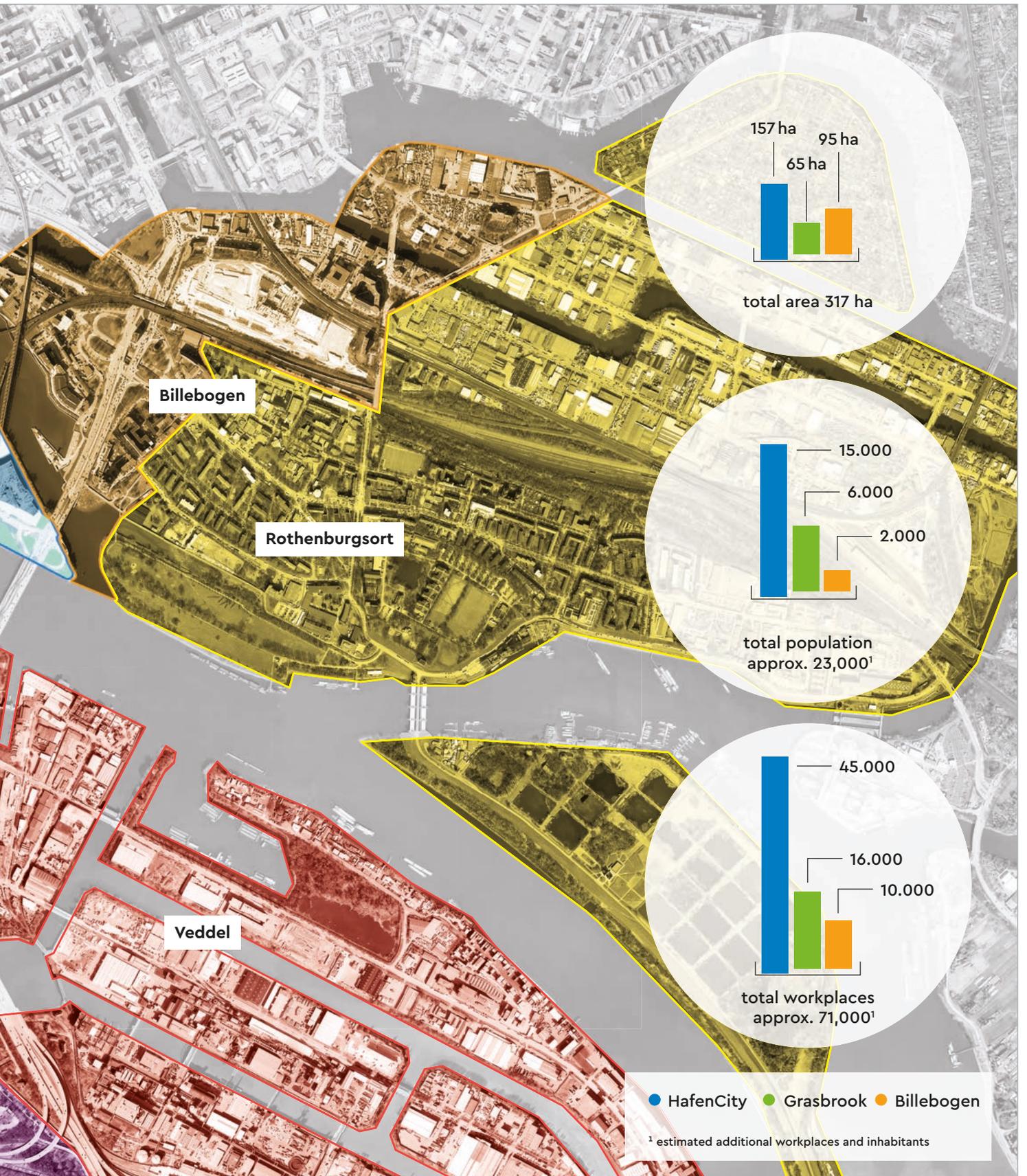


HafenCity

Grasbrook

Wilhelmsburg

Fig. 3 | Hamburg's urban development areas at the Elbbrücken gateway to the city: HafenCity, Billebogen, Rothernungsort, Veddel, Peute and Wilhelmsburg Nord



An attractive work and residential development of a maritime character is being created in the immediate vicinity of Grasbrook in the eastern HafenCity, where the 245-metre-high "Elbtower" will set an endpoint. The Elbbrücken underground and urban railway station is a new modern transport hub that will serve Grasbrook and Veddel with a planned southerly extension of the underground line and a station above Moldauhafen/Saalehafen.



Fig. 4 | Proposal for Elbtower, David Chipperfield Architects

The Grasbrook district will be a part of the eastern gateway to the city and share a common urban and social environment with the eastern HafenCity, Rothenburgsort and Veddel as well as the north of Wilhelmsburg. The area around the gateway to the city at Elbbrücken is currently subject to an urban design and landscape design test design procedure, which is to make proposals for the northern Veddel, among other things. The results of the procedure will provide important context information that will be made available to this competition. It should be taken into consideration regarding the important linkage between the districts of Grasbrook and Veddel.

People on Veddel will benefit from the developments in the adjacent Grasbrook area, as public transport connections will improve and new pedestrian and cycle routes to the city centre

will be created. Additionally, new public open spaces will provide local recreation facilities, which are currently lacking in the Veddel district. The planned schools, sports grounds, leisure facilities and retail areas in the district will also benefit residents in the Veddel district. The proposals for sports and leisure, local supplies, gastronomy, social and cultural facilities are not only to be determined by the demands of future residents of Grasbrook, but should also serve the needs and socio-economic structure of the residents on Veddel. It is important that both Grasbrook and Veddel will receive socio-cultural and local amenities such as meeting places for their inhabitants which will link them into the heterogeneous socio-economic structure of the neighbouring districts. This will allow the social and functional integration of the Grasbrook district with the neighbouring districts, in particular Veddel, and increase the amount of potential social meeting places. The inhabitants of Grasbrook and the surrounding districts will have a job market that is easy to reach. Thus the Grasbrook district will not only be of central importance for Hamburg, but also a significant step in the implementation of the "leap across the Elbe" and consequently for the connection of Veddel and Wilhelmsburg with the city on the northern banks of the Elbe, which has not yet been achieved despite myriad investments and measures.

This kind of positive effect presupposes that the physical connection between Veddel and Grasbrook is successful despite a massive barrier effect of transport corridors and noise and an economic, use-related and social connection is achieved.

Despite the fact that Veddel is not part of the competition site, proposals must take care to pay special attention to the functional and social interactions with this neighbouring district. The spatial and functional connection between Veddel and the development on Grasbrook is to be considered in the design.



Fig. 5 | Separated neighbours – Veddel and Grasbrook

This qualification seeks an urban design parameter plan (städtebaulicher Funktionsplan) and a landscape design scheme (Freiraumplanung) of a high standard. The procedure will be conducted as a Competitive Dialogue because this involves a continuous dialogue and public participation. A particularly innovative element of the Competitive Dialogue is that landscape architecture is not reduced to "subsequent greening" as an afterthought, but is an equal component that is addressed in the competition simultaneously with urban planning issues. This competition brief incorporates the results of preliminary work, containing a comprehensive site analysis (see Appendix 1.13 Standortanalyse Grasbrook), the results of the preceding public consultation and information processes (see Chapter B.3) as well as initial approaches to the strategic innovation topics (see Chapters B.1 and B.2). A series of public events will be held in the course of the competition at which the concepts are presented and discussed. The objective of this multi-phase procedure is to prepare the way for the subsequent preparation of a parameter plan as well as a scheme for the landscape design in the district.

The procedure is intended to create conditions that make Grasbrook an innovation district, not for the sake of innovation, but as a contribution to the environmental as well as the economic transformation of urban society. Grasbrook is an inner-city district with completely new infrastructures and open spaces that are to be designed for resilience and quality in the context

of Hamburg. At the same time, urban locations are particularly suitable for creating quality in tomorrow's city for as many people and businesses as possible.

The Grasbrook district will be developed by HafenCity Hamburg GmbH, the Hamburg-based urban development company that has been responsible for developing HafenCity Hamburg since 1997. To this end, the plots of land on the competition site will be transferred to "Sondervermögen Stadt und Hafen" (City and Port Special Fund), which is managed by HafenCity Hamburg and provides the basis for financing site development, ranging from site clearance, infrastructure building and acquisition of clients/developers to the establishment of social networks and institutions. This requires an economic balance to be achieved between expenditure, the intensity of land use and the qualities of urban development (the development of the urban site should not generate a monetary surplus for measures outside Grasbrook).

Based on the experience gained in the eastern HafenCity, where new standards have already been set (e.g. mobility, buildings, combined with e.g. a material passport), innovation approaches are being pursued experimentally for individual projects or area-wide. These standards are to be further adapted to the special conditions on Grasbrook and new standards are to be calibrated for urban development.



Part B

Innovation in the new district of the future



Part B

Innovation in the new district of the future

Cities are now being faced with new development contexts and thus changing design challenges. In the last century, the manifold and far-reaching impact of humans and their economic activities on the sustainability of the Earth have led to the fact that in terms of the planet's history we not only speak of the Anthropocene, but also expedite an analysis of the so-called planetary boundaries. This shows that climate change and global warming are one of the major development issues, but by no means the only one. The loss of biodiversity has progressed much too far to be stopped, phosphorus and nitrogen cycles have exceeded critical limits. In all of these areas, humans have gone beyond a tolerable level of consumption. Therefore, urban growth in Hamburg and urbanisation worldwide must be decoupled from qualitative growth and the consumption of resources and nature in general must be reduced. Because the new urban development site offers myriad opportunities in comparison to existing city areas, particular aspirations with regard to sustainability are called for here.

Against this backdrop, it is not only a matter of producing urban design and landscape design concepts that make aesthetically and functionally compelling cities, but also of establishing experimental approaches to new transformations and creating spaces for urban activities and opportunities. The transformative quality of the development of Grasbrook relies on new basic qualities (e.g. infrastructure, density and mix (e.g. in connection with the possibility of solar heat generation and a reduction of heat islands) of buildings or open spaces), which define an overall standard from the outset, as location-related solutions and, in the further design process, as experimental individual standards.

A step-by-step innovation process is to take place in the Grasbrook district, based on a spatial hierarchy (district, neighbourhood, block, building), which starts with the essential stipulations in this competition brief. To this end, social, civil society and economic issues have to be introduced into a single dynamic system with

environmental issues regarding sustainability and resilience. The cost-related gap between transformative and fair urban development and "normal" good planning must also be mastered in practice. Competitions are a means to this end and must strive for feasible, functional solutions rather than being a canon of wishes and demands. Therefore, the task is to contemplate the design brief in depth and with detailed reasoning. This also applies to the innovation district of Grasbrook.

Developing a neighbourhood like the Grasbrook district offers great opportunities to find viable solutions for future innovative urban development and to make intelligent use of the possibilities provided by digitalisation, even if it is only a tool aiding the process. Against this backdrop, the design brief first outlines the main, predominantly technological target perspectives for the development of Grasbrook as context information for the Competitive Dialogue (see Part D), even though they are not of equal relevance for the design tasks.

Innovations are to be initiated at various levels in the Grasbrook district. At a physical technical level (see Chapter B.1) the questions are: How can we succeed in designing a low car and yet highly mobile district, since a significant part of our energy is consumed in the mobility sector? What could a resource-saving energy supply for the district look like and how could a district be created that is at least CO₂-neutral?

And how could the concept of biodiversity be incorporated into the design of public and private open spaces and "green buildings"? How can we succeed in creating a compatible and innovative coexistence of homes and workplaces to promote a productive city and short routes? How can the immediate neighbourhood of the port be designed that takes into account the needs of all people involved, not only in terms of negative differentiation, but also in terms of reciprocity? How can environmental sustainability issues be linked to open spaces via streets, roofs and facades in such a way that a special

quality of sustainability is created that meets future requirements of climate change and climate resilience?

It is just as important to think about the social innovation issues of cities (see Chapter B.2), including the questions: Which housing and work models are viable and what is important for a community that is as diverse as possible?

How can institutional diversity be created, since urban development can only be viable if it is socially fair, inclusive and culturally diverse? The development of the Grasbrook district has the goal of providing promising answers to these questions in the course of the design and implementation of the urban development task.

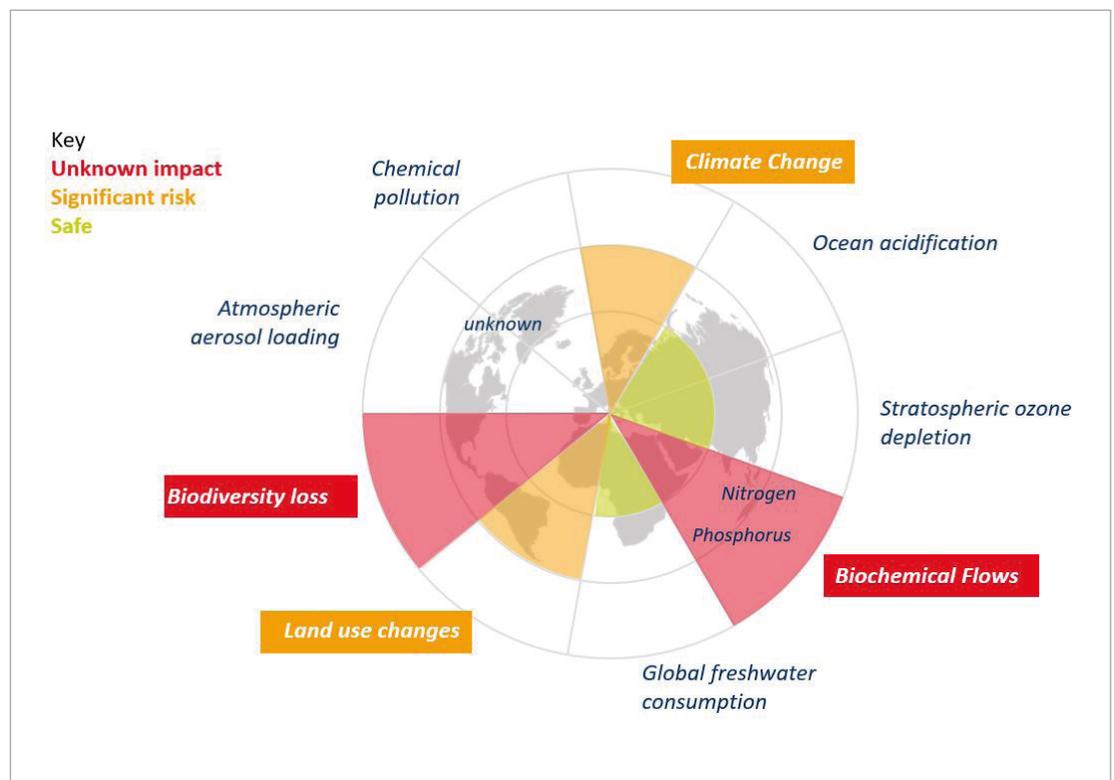


Fig. 6 | The nine planetary boundaries after Rockström et. al. (2009)

Chapter B.1

Physical innovation topics

B.1.1 Flood protection

Hamburg's port is tidal with a tidal range of approximately 3.70 m. The site is situated within the flood risk zone on the tidal Elbe. There is a risk of severe storm surges between September and April.

Against the backdrop of storm surges, the flood protection concept for the Grasbrook district is based on the plinth concept (Warftkonzept). This is a proven concept in Hafencity, as it not only enables a step-by-step development of the district, but also allows for the low-lying banks to retain their special association with the water, creates spaces for car parking in the plinths beneath the buildings and raises the infrastructure on a flood-protected level.

For sustainability reasons, the flood-proof level was determined for an extended forecast horizon of 120 years because, unlike public flood defence measures such as dykes, plinths cannot be adapted, or can only be insignificantly adapted to increasing flood risk caused by rising global sea levels or changes in local conditions (e.g. river construction measures). The required height of the plinths was specifically calculated for the competition site on the basis of a long-term risk assessment and in consideration of the wave run-up heights in the event of a design storm surge (see Appendix 1.22 Planungshinweise Hochwasserschutz). This resulted in a height that exceeds legal requirements. Moreover, additional measures for the design of water-related open spaces are to increase flood-related resilience, enhance existing environmental conditions and create a multi-coded infrastructure for leisure uses.

B.1.2 Infrastructure provision/Central supply and disposal via a utility corridor

Of particular relevance for the sustainability and future viability of the Grasbrook district are its intelligent infrastructure and its supply of energy, information and goods, as well as the disposal, i.e. the removal of waste water and waste, and the recovery of recyclables and energy. This includes infrastructure provisions for charging electrically powered vehicles (chiefly with battery storage or fuel cells), local public transport (electric buses, taxis) and private transport (e-mobiles, e-bikes, e-scooters).

Hence, the Grasbrook district should ensure the economic and environmental viability of all supply and disposal facilities, taking into account the life cycle costs of all buildings and infrastructures. Sustainability, proof of economic life cycle costs and openness to innovation are the central requirements defined by the key parameters, which form the basis for the design and development concepts of the utility infrastructure. In all phases and spheres of planning and development (particularly in residential, working, educational and recreational built environments, transport and access areas), the implementation of the central requirements for the supply and disposal infrastructure will be decisive for the success of the Grasbrook district and its exemplary character for comparable future projects in Hamburg and beyond.

After completion of the main axes for the underground grid-bound infrastructure, any conventional engineering works in open construction to carry out extension, maintenance and repair works on the installed cables and pipes would have a considerable negative effect on the quality and usability of the road spaces.

The central infrastructure for all plots or all plots located on the central infrastructure axes in the Grasbrook district and the supply and disposal infrastructure for all properties is provided in walk-through infrastructure tunnels, or utility corridors, which are accessible at any time over

their entire length – subject to authorisations, security and access controls (see Fig. 7).



Fig. 7 | Example of a utility corridor (under construction)

The physical casing of the utility corridor protects the pipes from the effects of the subsoil, traffic and nearby construction activities, allows repairs and expansion measures as well as maintenance work to be carried out without disrupting the surface. Utility corridors have particular potential for innovation, especially for urban sites with a high density of utility services, as they provide flexibility to accommodate all possible changes due to future requirements for the utility infrastructure. This needs the development of a long-term cost model and an appropriate agency for neighbourhood management.

B.1.3 Energy supply

The target for the energy supply in the Grasbrook district is to achieve at least a neutral overall CO₂ balance, but preferably a balance that is as positive as possible. The basic requirement for this is buildings to a very high energy standard, which reduce the energy demand by such an extent that it can be covered with regenerative energy. The aim is to accomplish at least HafenCity's "platinum eco-label". The district's energy supply is to be planned without fossil fuels and delivering a system that has sufficient flexibility to meet the long-term demands of an

urban neighbourhood where people live and work. The basic requirements for commercial uses are to consider both the total and the variable energy demands caused by dynamic changes (e.g. demand for cooling intensively used IT infrastructure).

The supply of energy for buildings (electricity, heating and cooling) and energy required for mobility will be investigated in parallel to the urban design and landscape design competition in a process that is yet to be determined. This should take into account all locally available renewable energy sources as well as unavoidable waste heat.

B.1.4 Mobility

The transformation towards multimodal mobility of people, goods and services is to promote the incorporation of intelligent, sustainable and integrated mobility solutions. Efficient land use, resource conservation and energy savings are to be increased without physical restrictions on mobility. Future mobility concepts should consider the different and changing mobility needs of residents, visitors, employees and companies and hence increase the attractiveness and quality of life in the Grasbrook district. The "street" should be more than just a thoroughfare; it should be designed as a social space, i.e. a place for social interaction, a place for exploration and play. The mobility concept should be able to accommodate possible changes anticipated in the coming years. It should integrate autonomous vehicles in the future and allow for the implementation of the necessary digitalisation of transport systems in the district. Grasbrook, unlike the eastern HafenCity, can be designed as a totally autonomous district because it has no through traffic. The transformation towards multimodal mobility of people, goods and services is to promote the incorporation of intelligent, sustainable and integrated mobility solutions. Efficient land use, resource conservation and energy savings are to be increased without physical restrictions on mobility. Future mobility concepts should consider the different and

changing mobility needs of residents, visitors, employees and companies and hence increase the attractiveness and quality of life in the Grasbrook district. The "street" should be more than just a thoroughfare; it should be designed as a social space, i.e. a place for social interaction, a place for exploration and play. The mobility concept should be able to accommodate possible changes anticipated in the coming years. It should integrate autonomous vehicles in the future and allow for the implementation of the necessary digitalisation of transport systems in the district. Grasbrook, unlike the eastern Hafencity, can be designed as a totally autonomous district because it has no through traffic.

The main objectives of the mobility concept for the Grasbrook district include an increase in transport options, extensive strengthening of active, health-promoting modes of transport (walking, cycling, e.g. by providing attractive routes and high-quality bicycle parking facilities as well as the creation of charging facilities for pedelecs and electric scooters, etc.) and, overall, a reduction in motorised transport, particularly motorised private transport (see Chapter E.5). Furthermore, the mobility concept pursues the goal of establishing high-standard connections to the neighbouring districts and thus linking the district into the wider network of routes. The construction of good local public transport connections (including the extension of the U4 underground line with a stop at Mol-dauhafen, bus routes and integration into the network of port ferries) is an essential prerequisite.

The number of vehicles parked in the streets and a reduction in the amount of traffic in residential areas and the public realm should be achieved by combining the plinth concept (Warftkonzept) with concentrated access points to the underground car parks in the flood-protected plinths. This will be supported by alternative vehicle technology (e.g. hydrogen and electric mobility) and the establishment of a wide range of sharing systems (bicycles, cars, motor scooters, scooters, etc.). Additional importance

is attributed to other mobility services and aspects such as sustainable and innovative delivery concepts (mobility and logistics hubs, alternative delivery options, automated charging zone management), increased use of very small electric vehicles (e.g. to travel the last mile) and IT-supported integrated mobility services.

B.1.5 Circular resource economics, sustainable buildings and biodiverse cities

Circular resource economics are to help achieve a continuous and consistent circular economy in the Grasbrook district over the entire life cycle of buildings and urban utilisation processes. The focus is on a resource-saving, recyclable and thus a most sustainable design of the built environment and on increasing the use of secondary raw materials. In this sense, building construction is to use the lowest possible amount of "grey energy". The fundamental components of the energy supply concept are the promotion of a high standard of building sustainability and very low CO₂ emission factors – in addition to a very high building energy efficiency.

Households and businesses in conurbations use significantly more groundwater than can be replenished by natural infiltration. The careful use of water as a resource is an important goal. The use of innovative environmental technologies in building concepts harbours great potential for reducing operating costs and thus is gaining importance as a location and export factor. The aim is to operate process water plants as a type of rainwater management or for grey water recycling.

The waste disposal concept for the Grasbrook district is another contribution to the circular economy, which focuses on increasing the efficiency of disposal processes as well as setting incentives to avoid waste and return waste and recyclables into the material cycles. Digital and sensor technology are used to optimise material flows and disposal logistics. Billing users individually for the amount of waste they produce motivates sustainable behaviour by separating

recyclables. Fill level sensors on the waste bins and at collection points facilitate collection on demand, which, in conjunction with intelligent route planning, minimises the journeys of collection vehicles.

B.1.6 Recreation, exercise, urban nature

The focus for the design of open spaces and their function and the planning of buildings is placed on promoting biodiversity and adapting to climate change. Nature-based solutions and animal-aided design (see Appendices 1.34 and 1.35) are applied to provide sustainable solutions to environmental, social and economic challenges by utilising certain properties and the diversity of nature. Depending on the local conditions, the focus will be, for example, on enhancing water margins of valuable freshwater tidal flats. The integration of roof areas and, most importantly, interior facades into the planning strategy and adopting "blue-green" solutions places the hydrology-related functions of urban design and landscape design in the field of infrastructure. This offers opportunities to enhance the local climate and increase climate-related resilience and biodiversity.

High densities and scarce land reserves require new open space strategies. Roof landscapes with shared usable spaces offer considerable potential for providing additional open spaces while creating exceptional outdoor environments. Various solutions are conceivable in the new district.

Since the beginning of the 2000s, the implementation of the "leap across the Elbe" has seen the development of residential neighbourhoods which are planned in conjunction with the activation and redevelopment of public open spaces – comprising the Inseipark, neighbourhood parks, networks of local green links and waterfront experiences with access to the water's edge. Like a string of pearls, these urban and landscape areas are intended to link Hafencity's new districts on the Norderelbe with the corresponding built development at

Harburg inland port on the Süderelbe. The components of the Green Network, in particular the landscape axes and the Green Rings provide a "green framework". It structures the urban area and ensures that open spaces are connected, which is an important aspect for recreation and the ecosystem. The proposed development of the new Grasbrook district is the missing link that completes the Elbe island landscape axis.

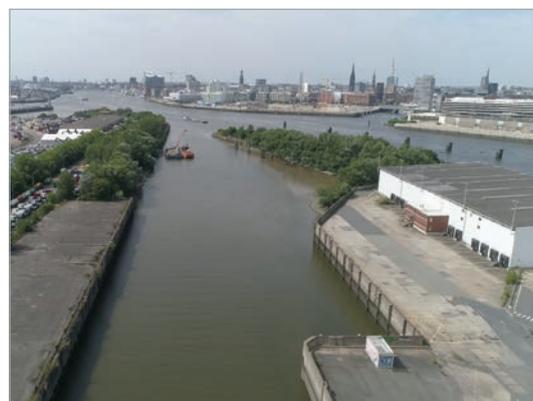


Fig. 8 | Integration of historical structures into attractive open spaces

The development of the site should make its transformation processes visible, both with regard to the rudiments of port activity and urban nature, e.g. at the tip of the island, which are to be integrated as a reminder of the history of Grasbrook. The process of the site's transformation for temporary public uses should also be visible. Grasbrook should be perceived as an innovative and livable place that provides high amenity value. The multifunctional parks, green spaces and river banks promote communication and neighbourly exchanges between visitors to the Port Museum, people working in the area and residents, and make its uniqueness tangible for all. The new public green spaces offer dense, vibrant vitality in some areas and relaxation and recreation in others.

Chapter B.2

Social and socio-economic innovation topics

B.2.1 Housing and inclusion in the district

The Grasbrook district is to be developed according to the principle of a three-thirds mix, comprising one third each of publicly subsidised rental apartments, privately funded rental apartments and owner-occupied apartments. This should include various ownership models such as joint building ventures, (micro) cooperatives, foundations and social institutions. The ownership structure should favour owners that are interested in keeping the property in their portfolio in the long term (patient capital). Reduced rent housing should cover a significant segment of apartments in order to strengthen the social mix. This is intended to address a diverse range of residents: Families, people living alone and couples, students, trainees and older people should be welcome in the new neighbourhood. Another objective for the district is to establish new forms of living, such as co-living.

A fine-grained mix of different forms of ownership is sought as well as the implementation of tenant-blind housing, i.e. the quality of the buildings does not allow conclusions to be drawn about the socio-economic structure of the households, and their outside appearance does not offer clues as to which apartments are publicly subsidised and which are in the higher-priced segment or privately owned.

The Grasbrook district is to become an attractive place for families too. Based on the experience of recent demographic structural changes in districts close to the city centre (e.g. Hafencity), it can be assumed that the proportion of households with children will be above Hamburg's average in the Grasbrook district (e.g. in 2017 almost 24% of households in Hafencity had children under the age of 18, the average for Hamburg was 18%). A correspondingly enticing educational infrastructure will be created with schools and childcare facilities, including a proposed primary school with five classes in one year and several kindergartens.

An integral aspect of housing is the living environment (a place to spend time, a place to meet and a place to purchase supplies locally). Hence, all private spaces associated with the home and the public realm should have potential for co-designing or appropriation by the district's community of residents, as well as spaces where nature can be experienced. Good accessibility and spatial distribution of local amenities and educational infrastructure in the district for all groups of citizens form the basis for a city with short routes that is attractive for pedestrians and cyclists.

The design concept of the district and the homes should ensure accessibility, resilience towards demographic change and promote self-determined living up to an old age. This means that spatial resources for social services, such as round-the-clock outpatient care, meeting places for the community and places for communication that are open to all must be provided in the neighbourhood. It is equally important that the design for the new district is child-friendly. Infrastructure, places and urban spaces for children are to be created in the same way that the involvement of children in the co-design of their everyday urban environment is a matter of course.



Fig. 9 | Urban environment with appropriation opportunities

The public realm should offer diverse possibilities for the social interaction of all (cross-generational) inhabitants of Grasbrook and the neighbouring districts, while providing areas for sports and trend sports (e.g. kickabout area, skateboarding, parkour or streetball), recreation, nature experience or shared meeting places (e.g. pocket parks). Another important component of viable urban design is the inclusion of places for meeting and retreats (i.e. places with a more intimate character) for young people, which allow cliques to be formed and the pursuit of shared interests and activities.

B.2.2 Work

Due to the site's numerous waterfront areas and related high visibility, the excellent views of Hamburg's striking skyline and good access to an underground station, it has potential for establishing a large number of diverse work opportunities. The differentiated locations on the competition site can accommodate a variety of building typologies for modern forms of office work, knowledge-based future technologies linking research and production as well as vertically stacked commercial production. The district is suited to a wide variety of employment, ranging from jobs in the manufacturing industry or the low-tech sector (e.g. workshops, clothing manufacture, food processing and production) to high-tech uses (e.g. (3D) printing, production of optical instruments, manufacture of electronic and medical equipment, film and television production, technical services such as architecture and engineering). Additional jobs will be created by local shopping areas, social and educational services and cultural facilities. The concept of a vertical mix of uses contains an extended spectrum of small-scale ground floor zones which will provide specific opportunities for the settlement and start-up of commercial enterprises.

The aim is to exploit the district's local job potential for the employment and training of people from the surrounding districts of Veddel, Wilhelmsburg, Rothenburgsort and HafenCity.

The focus on diverse places of employment requires a workforce with different backgrounds and a wide range of qualifications from people working in a trade, master craftspersons to university graduates offers the opportunity to link up with the heterogeneous socio-economic structure of households in the neighbouring districts, which will assist the social and functional integration of the Grasbrook district with the neighbouring districts, above all Veddel. Early networking of schools in the neighbouring districts with companies and employers in the new district, and the integration of vocational training opportunities generate both added value for local companies (recruitment of local skilled workers and trainees) as well as development opportunities. This makes a positive contribution to the identification with the growing district.



Fig. 10 | Vertical production in a new type of commercial building

This can only succeed if innovative solutions are found for the development of plots adjacent to areas with a different degree of emission sensitivity. These may include the spatial arrangement of buildings, the reduction of noise pollution in residential areas and the control of delivery and customer traffic as part of transport planning.

B.2.3 Urban ground floor utilisation

Ground floor zones with attractive mixes are an important factor in the creation of a vibrant urban realm. The Grasbrook district will have a population of approximately 6,000 and 16,000 employees, which will result in a relatively low number of visitors compared to core inner-city locations. Strategic parameters need to address the issue of how and with what emphases public, commercial and social uses in ground floor zones can make a lasting contribution to revitalise the district and enrich the neighbouring districts. Approaches such as a spatial focus on strategically important locations and refining existing utilisation concepts for the ground floor zones are required. Initial ideas include new forms of work with areas for urban production, small workshops, maker spaces/fab labs and coworking spaces as well as social and medical services in addition to sports and community facilities.

create incentives for people and offices to settle there. Possible strategies for the consideration of these aspects in the design and implementation processes of buildings could be the (temporary/long-term) stipulations of favourable rental terms (to allow for non-commercial, social and neighbourhood-related concepts or for business start-ups), which in turn is dependent on the choice of client/developer. Provision of spaces in buildings that are a bare shell or have a low standard of building services could also be influenced (e.g. for makerspaces or workshops) by the type of building owners chosen. Strategies such as active space management in central shopping areas and the inclusion of "joker spaces" offer opportunities to react to changed framework conditions.



Fig. 11 | Development of an attractive urban mix

The location and distribution of the different proposals and uses within the urban realm is decisive for the way urban life will develop in it. The demand for uses like shopping and gastronomy will only establish over time. Nevertheless, it is important to include such uses from the start of the development in order to link the district into the network of neighbours and to

B.2.4 Tools for long-term self-organisation

The emergence of a new urban district raises the question of what the available tools for long-term self-organisation are that will foster self-supporting, sustainable social networks. The establishment of civil society's capacity for self-organisation and voluntary commitment in emerging neighbourhoods requires not only social infrastructure resources (neighbourhood centre, community spaces, appropriation opportunities for spatial activities in the neighbourhood) but a number of additional parameter conditions. It requires the financing of the activities and a coordination agency (neighbourhood management) which brings together emerging interests and the potentials of local stakeholders. Pleasant spaces where people can meet should be created and serve as places for the organisation of neighbourly cooperation and initiatives, or as places where local associations can work (neighbourhood offices or coworking spaces, e.g. in a library, a neighbourhood centre or in conjunction with a school).

These spaces also include other neighbourhood infrastructure projects that set an important and sustainable impetus for a completely new urban district: a library, a sports centre, spaces for spiritual or religious activities, pubs/bars/cafes, a community centre or a neighbourhood centre for activities by neighbourhood associations, initiatives or institutions (with a meeting room, stage, theatre or cinema). These spaces are a core component of the district's social infrastructure, as they act as crystallisation points for the development of relations in civil society, the creation of projects and initiatives, and voluntary work, thus increasing the formation of social capital and consequently the resilience of a neighbourhood.

Digital networking in the neighbourhood opens up new possibilities for the promotion and intensification of civil society participation and neighbourhood networking, for example in the form of digital neighbourhood management or an online platform as a part of the sharing

economy (e.g. for shared spaces, cargo bikes or shared bikes, roof areas, temporary use of shops/ground floor zones, establishment of time banks/time swaps, neighbourhood DIY bicycle repair workshops).



Fig. 12 | Activation of ground floor zones for a variety of uses

Preceding participation and information process

The launch of a participation and information process in summer 2018 made sure that citizens and important stakeholders were involved at an early stage. The opportunities for information and involvement are to be continued and refined in an ongoing process – particularly in the context of the Competitive Dialogue procedure and thus make an important contribution to the development of a viable urban district.

B.3.1 Overview

Grasbrook is an urban transformation district that is to be developed economically, socially and environmentally within the context of the surrounding urban realm and in an intensive dialogue with Hamburg's citizens and especially people in the neighbouring districts. This is a challenge that expressly formulates and interprets an urban district, generates important stimuli for the neighbourhood whilst receiving impulses from the neighbourhood. Consequently, the integration of the site into the neighbouring districts, particularly Veddel, but also Rothenburgsort, Wilhelmsburg and HafenCity, is an important issue that must be taken into consideration and fed into the urban design and landscape design Competitive Dialogue.

Grasbrook has the great opportunity to become an innovation district, a "progress laboratory" for Hamburg's urban development with immense significance for the whole the city. The invitation to join the thinking process is directed at Hamburg's public at large as well as experts in the field of science, economics and politics. A public workshop held on 1 June 2018 served as a prelude to public information and discussion on the future development of the district. HafenCity Hamburg GmbH presented its preliminary concepts for the new district at a neighbourhood festival on Veddel on 1 and 2 September 2018, and discussed the project with many local people.

Visitors at the information event had the opportunity to note down their ideas, suggestions and fears. Additional opportunities for participation are planned at the Veddel neighbourhood festival on 31 August and 1 September 2019.

Between December 2018 and February 2019, four "Grasbrook workshops" were held with the Promoters, experts, stakeholders from the neighbourhood and interested citizens. Neighbourhood and housing, work and innovation, urban development and open space as well as sustainability and mobility were the intensively discussed topics. The Promoters and experts gave talks, and subsequently the various topics were discussed in groups to explore different perspectives. Additionally, online participation was an option at www.hamburg.de/grasbrook from 30 November 2018 to 24 February 2019. The results of the entire discussion process to date, which consists of the experts' and citizens' perspectives as well as the online contributions, were documented, evaluated and included in this brief for a Competitive Dialogue (see Appendix 1.14 Dokumentation vorlaufende Beteiligung and Part D).

There will also be a series of public events during the competition phase at which the concepts will be presented and discussed. After a kick-off event in September 2019, the work will be presented to the public at the end of the qualification phase, and a jury will select the three most promising contributions by the urban designers and landscape architects. Teams of urban designers and landscape architects will then be formed and continue their work on the project. The second competition phase is for in-depth exploration in which the dialogue between the Competitors' teams with the Promoter and the public will remain an important aspect in the procedure. After a public workshop, the final schemes will be shown in a public presentation (see Part F).

Overview of events held

URBAN WORKSHOP

Kick-off event for the Grasbrook district

DATE: Friday, 1 June 2018, 6.00pm to 9.00pm

PLACE: Event tent on Baakenhöft

(with a view of the development site at Grasbrook)

approx. 250 guests

NEIGHBOURHOOD FESTIVAL – Veddel is 250 years old

DATE: Saturday/Sunday, 1 and 2 September 2018

PLACE: Veddeler Brückenstraße;

Info tent for the new Grasbrook district including a survey of passers-by/questionnaires

WORKSHOP 1

"The new district and its neighbours"

DATE: Wednesday, 5 December 2018, 6.00pm to 9.00pm

PLACE: Immanuelkirche Veddel with Café Nova

approx. 180 guests

WORKSHOP 2

"The future of work and innovation"

DATE: Monday, 21 January 2019, 6.30pm to 9.30 pm

PLACE: Bürgerhaus Wilhelmsburg

approx. 200 guests

WORKSHOP 3

"Building Grasbrook – Creating open spaces"

DATE: Thursday, 7 February 2019, 6.00pm to 9.00pm

PLACE: Patriotische Gesellschaft, Hamburg

approx. 200 guests

WORKSHOP 4

"A sustainable and mobile Grasbrook district"

DATE: Wednesday, 20 February 2019, 6.00pm to 9.00pm

PLACE: Hamburg Cruise Center HafenCity

approx. 220 guests

B.3.2 Results of the first consultation phase

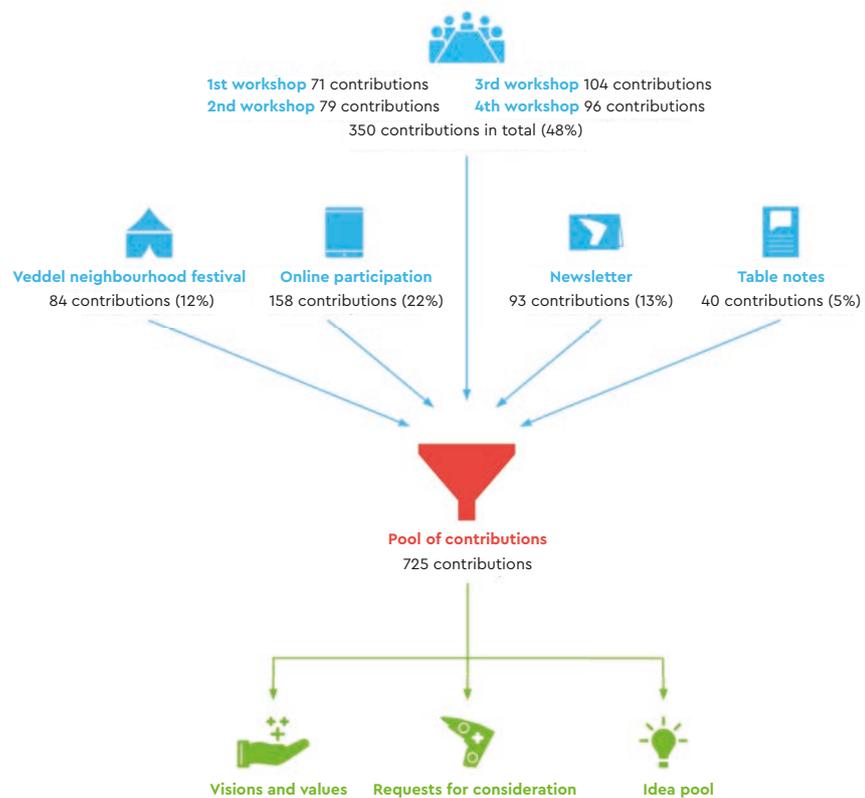
The workshops and events held so far provided an intensive and successful start to the preceding process collecting ideas for the development of the Grasbrook district. A close dialogue between the Promoters, experts from various disciplines and Hamburg's citizens highlighted special opportunities and future themes. However, potential conflicts, specific challenges and urgent matters of interaction with Grasbrook's neighbourhood were also brought to light. Above all, an initial impulse was set for the question of what will make Grasbrook a livable and innovative district in the future. This first phase of participation has resulted in a considerable wealth of ideas and suggestions, but not an overall picture.

Some general guidelines and core messages for development have emerged from the contributions by citizens, stakeholders and experts. These highlight what the participants have found to

be of particularly importance in previous consultations and formulate "**visions and values for Grasbrook**" that incorporate local knowledge and the district's innovation topics. Additionally, countless ideas on specific uses and on the future planning procedure and the implementation of Grasbrook were collected. This "**pool of ideas**" is sorted by topics and is intended to serve as a source of inspiration for designers and developers of Grasbrook (see Appendix 1.14 Dokumentation der vorlaufenden Beteiligung). Furthermore, spatial requirements and special tasks for the site and its surroundings were identified in the form of "**requests for consideration**" and the relevant areas marked on a plan.

The competition and planning process will build on the results of the preliminary participation phase.

Methodology of assessment



Vision and values for Grasbrook

1 ISLAND OF OPPORTUNITIES – NEW NETWORKS

Grasbrook is in the fortunate position of being able to develop its own urban scenario on the banks of the Elbe and in the centre of Hamburg. The advantages of open waterfront locations provide the district with a special character and an independent identity. Innovations in urban design and landscape, mobility and infrastructure and in social institutions offer the opportunity to become a "place for experimentation" as regards sustainability and a viable urban development. Nevertheless, the "opening up of the island" in close proximity to the surrounding city is of great importance: existing physical barriers have to be overcome or kept to a minimum and new footpaths and cycle ways, crossings and transitions to Hafencity, Rothenburgsort, Wilhelmsburg and, above all, to Veddel have to be created in the first physical planning phase. In order to connect Grasbrook and in northern areas of Veddel, the extension of the U4 underground line to Grasbrook is essential; an extension to Wilhelmsburg should be anticipated and communicated as far as possible. New public ferry services can provide attractive connections between the district and surrounding districts.

2 A FINE GRAINED-MIX

The Grasbrook district is characterised by diverse and mixed neighbourhoods. Differentiated urban design and flexible building typologies allow not only a broad spectrum of housing types for different lifestyles and needs, but also a (relatively) dense coexistence of living and working, taking into consideration the noise buffering function of the workplaces. Family-friendly housing and intergenerational living are important concepts for the mix. The structure of commercial uses ranges from small to large, allowing a mix of high-tech and low-tech. Different working environments, ranging from large companies, research institutions to small start-ups, are mixed in with local trades, manufac-

turers, urban production as well as culture and creative industries.

3 VIBRANT NEIGHBOURHOODS

Grasbrook and Veddel together form a larger unit. Both will benefit from the social and cultural proposals, new educational facilities, supply centres and public open spaces. Community spaces, meeting places and social infrastructure such as schools, medical centres, shops and cultural and sports facilities will be considered from the onset. Central spaces for social interaction promote neighbourly exchanges and cultural diversity in the district. Grasbrook's immediate vicinity to the city and the port, on the other hand, requires innovative and exemplary ideas for a compatible coexistence that resolve problems like noise, vibrations and other emissions.

4 TRANSFORMATION – ACTIVATION AND USE OF EXISTING BUILDINGS

Existing buildings and open spaces lend the district its special identity and will – if possible – be incorporated in the gradual transformation process by making temporary uses accessible to the public. Consideration should be given to (partially) retaining the Überseezentrum warehouse. Particularly the historically significant listed warehouse G and the neighbouring listed buildings F and D should be considered. Grasbrook is made an experience at an early stage. Interim uses form an integral part of its development stages and make an important contribution to the activation of special places such as the river banks and the listed buildings at Saalehafen.

5 OPEN SPACES AND ACCES TO THE WATER'S EDGE

A public park with promenades, several areas with access to the water's edge and water-related sports and leisure activities can make Grasbrook a city-wide attraction. The unspoilt "wild urban nature" is an existing asset in the district, which should be integrated into the open spaces and enhanced as far as possible (increase in biodiversity). Diverse open areas for a diverse neighbourhood. Multifunctional designs of parks, green spaces and river banks to serve different user groups and their needs for recreation, interaction and various sports facilities. In the same way, partly flexible open spaces without defined uses are created for appropriation. The Elbuferpark is of particular value to the people of Hamburg and will be developed early on in the process.

6 LOCAL CYCLES AND SELF SUFFICIENCY

Grasbrook becomes a laboratory for the environmentally sustainable city. Opportunities for sustainable development are offered in comprehensive concepts for local material cycles such as recycled building materials, a high energy efficiency of buildings and the production and efficient use of renewable energies and sustainable consumption through local value chains (direct marketing of regional products and promotion of urban agriculture). The activation and use of local energy sources e.g. water from the Elbe (tidal power plants and cold/heat pumps), geothermal energy, photovoltaics, solar thermal energy, unavoidable waste heat, etc. could contribute to long-term decentralised energy production and a self-sufficient energy supply for Grasbrook. Neighbouring districts like Veddel also benefit from new energy concepts in the integrated network.

7 STRONG MOBILITY

Grasbrook becomes a trailblazer for post-fossil mobility. The focus is on the design and organisation of a low-car neighbourhood and the promotion of alternative mobility providers. Attractive footpaths and cycle ways, the expansion of local public transport, alternative means of transport, mobility providers, rental systems and sharing concepts promote sustainable multimodality.

Grasbrook will not only offer land-based mobility but also extend water-based public transportation. Intelligent logistics concepts may use water as a transport route and organise delivery to central delivery and distribution points this will greatly reduce delivery traffic on the roads in the neighbourhoods.

8 COOPERATIVE DEVELOPMENT

Grasbrook can only become innovative and unique if it offers participation opportunities in the development process for the broadest possible spectrum of stakeholders. The experience and ideas of various, also local institutions and initiatives will be integrated into the process. The allocation of building plots is based on the guiding principle of addressing as many different clients/ developers as possible and promoting new concepts for mixed residential and commercial areas as well as a sufficient amount of affordable housing. It supports various cooperative development models for joint building ventures, communal housing and the establishment of commercial premises.

Request for consideration in the participation process

In the course of the preceding participation process, participants identified specific planning issues which can either be spatially located on the competition site or which concern spatial requirements, design approaches and special issues related to the site and in connection with the environment. All relevant statements by the participants were translated into "planners' language" and as far as possible defined on a plan for their incorporation in the urban design and landscape design proposals. The following requests for consideration are to be processed as part of this competition brief (see Part D).



Fig. 13 - 15 | Community consultation



PORPOSALS SHARED BY GRASBROOK AND VEDDEL

This is where the right choreography is needed: Where will the future education, leisure, culture, shopping and shared open spaces be located to serve both the people on Grasbrook AND the people on Veddel and how can these be coordinated in the utilisation concept?



DIVERSITY IN URBAN DESIGN

How can a differentiated urban design image for living and working be accomplished on Grasbrook? Which urban design structures (height, density and parcelling of land) and building typologies guarantee a high degree of flexibility, mix and diversity of living and commercial areas?



OPEN SPACES ARE MULTIPLE ACHIEVERS

How are open spaces and parks designed to meet diverse needs and requirements? Where are the meeting places and communal areas for appropriation? How can the traces of "wild urban nature" be incorporated and biodiversity (flora and fauna) be enhanced?



DESIGN OF LOW CAR NEIGHBOURHOODS

How can Grasbrook become a highly mobile district with a focus on alternative mobility? How can local public transport, footpaths and cycle ways be extended and incorporate innovative mobility concepts like sharing and rental systems and local mobility hubs?



DEVELOPMENT STAGES

Grasbrook won't be built in a day. What are the first kick starters of a step-by-step transformation? Which areas, existing buildings and open spaces on the waterfront can be activated with temporary uses at an early stage? Where and how is a public park created? At what stage are the urban design and landscape proposals implemented on Grasbrook?



CLIMATE ADAPTION AND BIODIVERSITY

How can urban design and landscape design proposals help create favourable climatic conditions in the city with sufficient protection from sun and wind, drainage management, green buildings, among others? Where are synergies created between climate adaption and measures to enhance the diversity of species? How are buildings designed to provide habitats for animals and plants?



EMBEDDED FLOOD PROTECTION

How can flood protection be guaranteed in the long term and how can it be incorporated in the design of embankments and the urban realm?



Fig. 16 | Requests for considerations located on the site

Requests for consideration on the site

1 GRASBROOK-VEDEL CROSSING

Overcoming the wide barrier formed by railway and roads between the two sub-areas has a high priority. How can attractive crossings for pedestrians and cyclists be created?

2 PROPOSALS FOR THE FUTURE USE OF WAREHOUSES D, F AND G

What uses are feasible for the listed buildings? How can the existing listed buildings be incorporated in the flood protection conditions?

3 SOLUTIONS FOR NOISE EMISSIONS

What urban design measures are there to face noise pollution from traffic and port activities? How can the development of Grasbrook avoid conflicts with the surrounding port?

4 ACCESS TO THE WATER'S EDGE AND WATER-RELATED USES

How can access be provided to areas of water and which uses will create a water experience? Which opportunities are there for local public transport (ferry services) on Grasbrook and for logistics that use the river as a transport route?

5 PUBLICLY ACCESSIBLE AND DIFFERENTIATED DESIGN AND DEVELOPMENT OF RIVER BANKS

How can the river banks be used, designed for variety and made attractive for the people of Hamburg by providing access to the water's edge? How can valuable green spaces and vegetation zones (habitats) be protected and extended to become a distinctive part of the river banks?

6 EXISTING WAREHOUSES

Can the warehouses be retained or partly retained as a valuable resource for temporary uses and permanent future uses and incorporated in compliance with flood protection conditions? How can the "critical mass" of housing be accomplished then?

7 NEIGHBOURING VEDDEL-NORD

Which urban design and landscape design proposals and uses can, in the context of realising north Veddel's development potential, act as a valuable hinge between Grasbrook and Veddel? To what extent can a new use for the existing customs buildings contribute to connecting Veddel with the new Grasbrook district?



Site



Buildings



Design and development of embankments



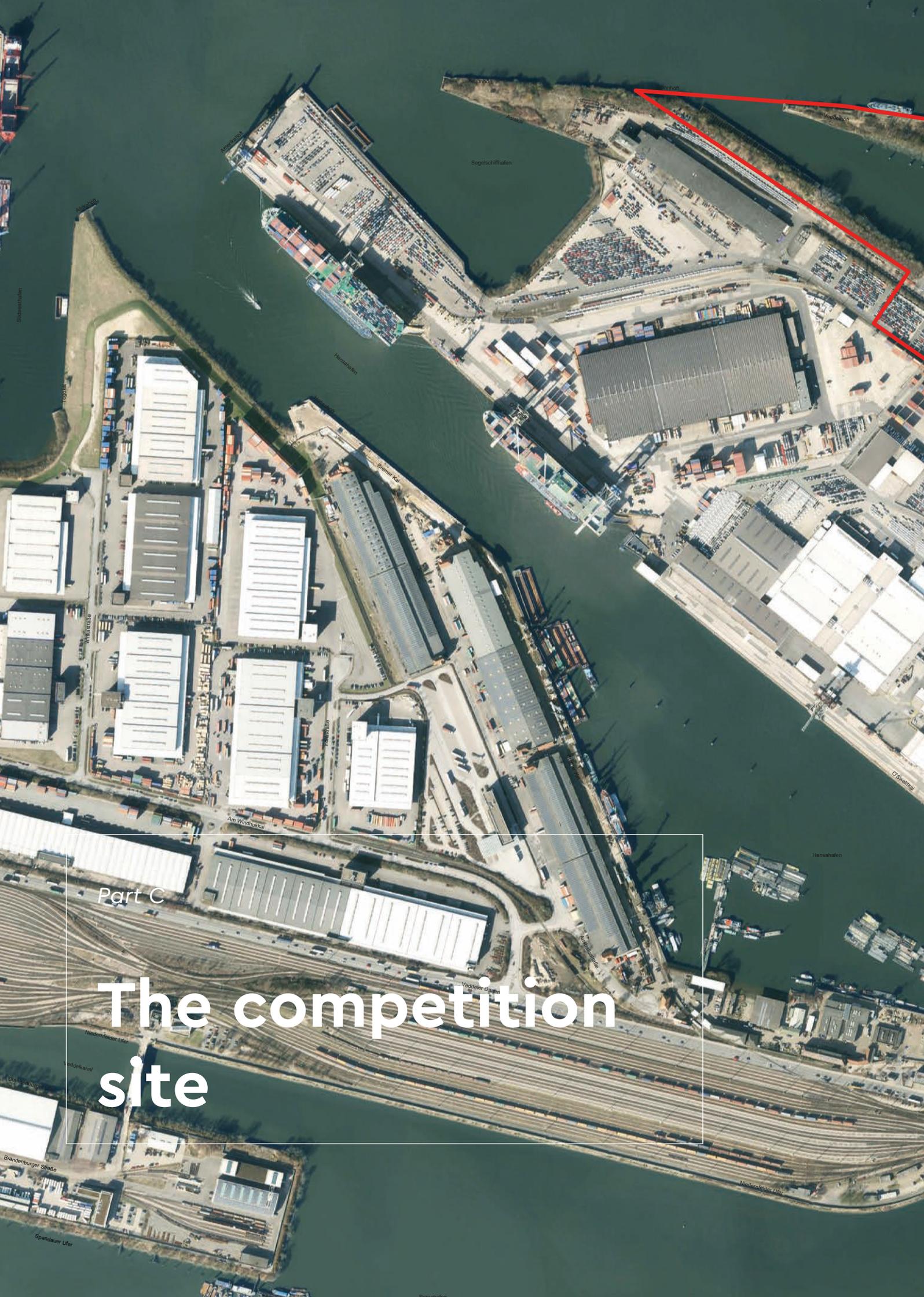
Water-related uses



Noise emissions



Crossings



Part C

The competition site

Part C

The competition site

The competition site in the Grasbrook district is characterised by its spectacular waterfront location on two sides, between the Elbe and the waterfront at Moldauhafen and Saalehafen and opposite the urban area of the eastern Hafencity. It is bounded in the east by the main roads Am Moldauhafen and Am Saalehafen and the parallel railway (Deutsche Bahn, long-distance, regional and freight traffic, S-Bahn (urban railway)), to the south and west by port areas at the O'Swaldkai terminal and to the north by the Norderelbe. In total, the competition site covers an area of approximately 68 ha (see Appendix 1.04 Plan Bearbeitungsgebiet and Appendix 1.27 Fotodokumentation). Approximately 31 ha of the total land area of approximately 50 ha are located north and east of Moldauhafen and Saalehafen (former Überseezentrum and the area used by the Czech Republic) and approximately 19 ha in the area of Hafentorquartier. The water areas of Moldauhafen and Saalehafen cover approximately 18 ha.

Due to its exposure to the adjacent transport arteries and the proximity of port activities, the Grasbrook district is expected to comprise three sub-areas (see Fig. 17): the Moldauhafenquartier for residential development between

the two waterfronts on the Norderelbe and Moldauhafen, the mixed-use Freihafenelbequartier in the east and the Hafentorquartier that remains within the scope of the Hafentwicklungs-gesetz (Port Development Act) (including the areas currently used by the Czech Republic). Hafentorquartier borders Saalehafen and forms the southern area of Moldauhafen and is reserved exclusively for multiple commercial uses with a mixture of new and old buildings. Hafentorquartier also forms the transition to the port uses at the O'Swaldkai terminal, which will continue to occupy the southern areas of Kleiner Grasbrook in the future.

All the sites are owned by the Free and Hanseatic City of Hamburg and will be transferred to Hafencity Hamburg GmbH as a wholly-owned municipal subsidiary.

A comprehensive technical survey was carried out for the competition site (Appendix 1.13 Standortanalyse Grasbrook), which is an essential baseline document that addresses a large number of topics in detail and is to be taken into account for the work in the Competitive Dialogue.

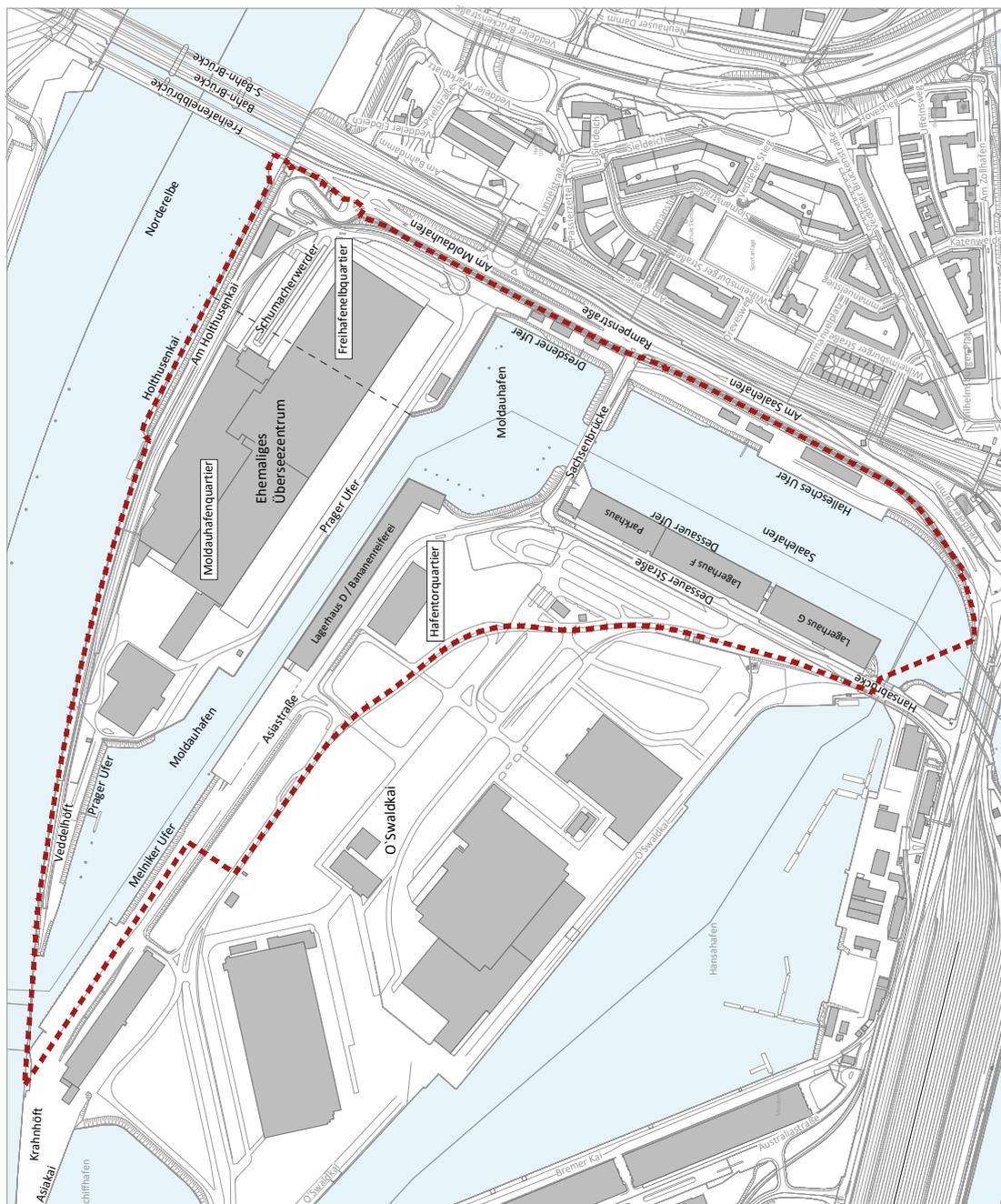


Fig. 17 | The neighbourhoods within the Grasbrook competition site

© Christian Terstegge



An illustration of Hamburg and Altona in 1833. There are **no detectable harbour activities** on the southern banks of the Norderelbe.

1833

© Hamburg Port Authority (HPA)



The **development** of port and industry on Kleiner Grasbrook starts in 1850. Narrow quays and warehouses are built for the transshipment of general cargo. The first workers' housing is built on Veddel.

1850

1868

The **first bridge** between Hamburg and Harburg (railway bridge) is constructed from 1868 to 1872 and the first road bridge from 1884 to 1888 (Neue Elbbrücke).

Fig. 18 | History timeline

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The **brick buildings** on Veddel are constructed to the designs of Fritz Schumacher. Today's Grasbrook area is characterised by Moldauhafen, Segelschiffhafen and Saalehafen.

1932

© O+P Geotechnik GmbH



Large areas of Moldauhafen are filled in from 1962 for the construction of the **Überseezentrum**. The Überseezentrum, the world's largest consolidation and distribution warehouse, opens in 1967.

1964

There have been no significant changes since 1990. HHLA closes the Überseezentrum in 2016 due to its **economic inefficiency**. Current port activities are limited to O'Swaldkai and the area currently used by the Czech Republic.

1990

1920

1945

Immediately after its destruction in the Second World War **reconstruction** of the port begins.

Segelschiffhafen around 1920.



© hlla.de / hamburger-fotoarchiv.de

1975

1975 to 1978 **large areas** of Segelschiffhafen are **filled** in. The narrow quays for direct transshipment make room for extensive logistics areas and warehouses.



© Hamburg Port Authority (HPA)

2017

The then First Mayor Olaf Scholz introduces the Grasbrook district at a **regional press conference** on 12 September 2017.



Chapter C.1

Urban context

In former times, the land on the competition site was used as pasture that lay outside the town gates. It was not until 1850 that the development of Kleiner Grasbrook began as the first port development on the southern banks of the Norderelbe. The Elbbrücken (Elbe bridges) were built to connect Hamburg and Harburg. From the 19th century onwards, the constant expansion of sea-going cargo handling shaped the area. In the 1960s, docks were gradually filled in, first parts of Moldauhafen for the construction of the Überseezentrum, and from the 1970s onwards, large areas of Segelschiffhafen to create further logistics and storage areas. In 2016, the Überseezentrum was abandoned due to insufficient profitability.

The competition site covers a part of the gateway to the city at the Elbbrücken, an important feature for the whole city. Together with Hafencity's eastern districts, the Elbtower and the Billebogen, this area is the current focal point of Hamburg's urban development (see Part A).

The Am Saalehafen/Am Moldauhafen traffic axis abutting the site in the east and Rampenstrasse are part of the main port route used by the port-related HGV traffic and through traffic. Together with the long-distance, regional and urban railway lines running parallel to these roads, they form a distinctive boundary to the competition site (see Fig. 17 and Chapter E.5).

Veddel, located immediately to the east of the site, was initially developed as a garden city for dock workers (Sloman Estate) at the end of the 19th century. After 1928, this estate was replaced by brick blocks of flats designed by Schumacher, which still characterise the neighbourhood of four- to six-storey perimeter blocks today.

The railway line and the Am Saalehafen and Am Moldauhafen roads form major barriers between Veddel and Grasbrook. Currently, (partial) connections exist through three underpasses, which are located at Veddeler Damm, Tunnelstrasse and a pedestrian underpass in the area of

the Veddel S-Bahn station (urban railway station). The Veddel district was conceived as a residential district for dock-workers' families in the 1920s. An underpass provided a link for cars and people between Veddel where people lived and the free port where they worked.

Kleiner Grasbrook has been the subject of public debate in recent years as a potential area for urban development, including a possible university campus for natural sciences (2008) and later the venue for the 2024 Olympic Games. In September 2017, the idea of a new Grasbrook district, which combined existing port areas with new urban uses, was presented to the public for the first time.

On 1 August 2017, the Unternehmensverband Hafen Hamburg (Port of Hamburg Business Association), the Industrieverband Hamburg (Hamburg Industry Association) and the Behörde für Wirtschaft, Verkehr und Innovation (Ministry of Economic Affairs, Transport and Innovation) signed a letter of intent regarding the Überseezentrum between the Norderelbe and Moldauhafen and adjacent areas. The area of the former Überseezentrum (Moldauhafenquartier and Freihafenelbquartier) will be transformed into a mixed-use area for living and working and will be successively removed from the port. The Hafentorquartier south and west of Moldauhafen and Saalehafen will be gradually freed of the existing port uses and developed as a commercial urban area (excluding residential use) and will remain within the scope of the Hafentwicklungs-gesetz (Port Development Act).

The former Überseezentrum was abandoned in 2016 for reasons of inefficiency. Negotiations are currently underway on a possible relocation of the Czech Republic's existing rights of use, derived from the Versailles Agreements of 28 June 1919, to areas on the eastern bank of Saalehafen (see Fig. 19).

However, proposals for the Grasbrook district must consider the current contractual right of use, which lasts until the end of 2028.

Conventional general cargo handling and the handling of heavy-lift cargo (UNIKAI Lagerei- und Speditionsgesellschaft mbH) occupy the areas still used by the port. They border the competition site to the south and west (O'Swaldkai

terminal). Other companies in the transshipment business are also located there. These include Frucht- und Kühl-Zentrum GmbH of the Hamburger Hafen und Logistik AG and EDEKA AG.

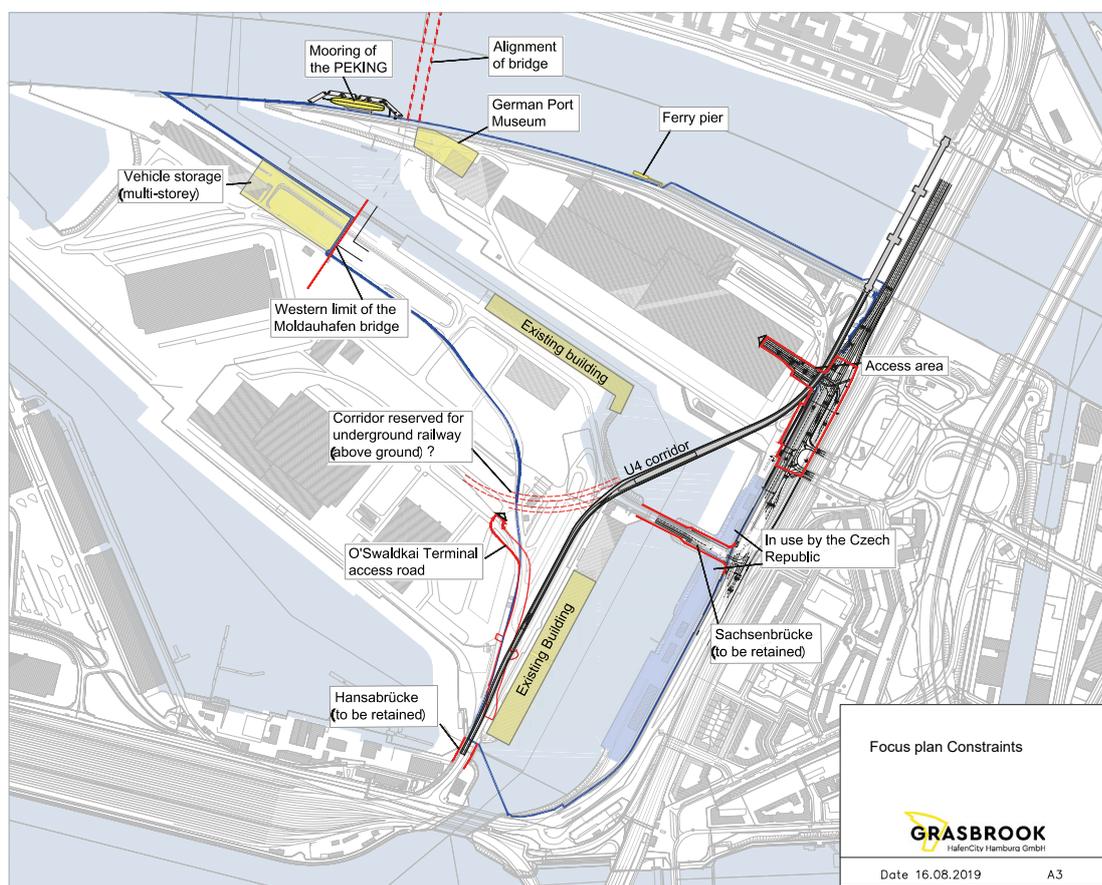


Fig. 19 | Constraints

UNIKAI is preparing the relocation of its handling and storage of hazardous goods (incident operations area) within the area of the O'Swaldkai terminal, so that only a small area of the northern Hafentorquartier is affected, but has no effect on the use of the competition site (see Chapter E.9).

EDEKA is currently using warehouse D as a banana ripening shed and another building for logistics purposes. Since the current buildings will not meet the company's future demands, a new building is being planned as part of the relocation to another site on O'Swaldkai terminal. As part of the intensification of uses at the O'Swaldkai terminal, a new multi-storey vehicle storage building for car handling and as a car park for employees is being planned adjacent to the northern area of the future Hafentorquartier and the planned bridge above Moldauhafen (see Appendix 1.09 Fokusplan Restriktionshinweise).

The development period for the Grasbrook district will be around 20 years. The site clearance and the development of the infrastructure are to begin immediately after the essential development and utilisation-related framework conditions have been defined on the basis of the results of this competition. The first construction measures to kick off the district will be for the German Port Museum and housing development in the west of the Moldauhafenquartier.

Concepts for the important area at the eastern gateway to Hamburg's city centre in the urban area bordering on the Norderelbe and Bille to the east of the competition site, will have been developed by the end of September 2019 in an urban design and landscape design test design process (see Fig. 20).

The aim is to further develop the neighbourhoods in the north of Veddel, the area at Haken in Rothenburgsort and the area from Billhafen to the flood basin in Hammerbrook, and to embed them in the guiding concept for urban design and landscape design for a striking gateway to Hamburg's city centre.

The guiding concept is intended to set development impulses that will radiate into the adjoining neighbourhoods and thus define the relevant parameters for the development of the Grasbrook district. Once available, the results of the test design procedure will be fed into the Competitive Dialogue (expected at the end of September 2019).

The northern part of Wilhelmsburg borders the competition site in the south of Veddel and along Spreehafen/Harburger Chaussee. After the relocation of Wilhelmsburger Reichsstrasse, a central part of the framework plan for "Hamburg's leap across the Elbe - vision for 2013+" will be implemented. It is contained within the central axis comprising Spreehafen, the Elbinselquartier project area and the Wilhelmsburger Rathaus quarter, which extends from Wilhelmsburger Inselfpark in the south to Spreehafen in the north.

The local development plan procedures for the area, which covers a total area of around 100 ha, are being prepared or implemented and show considerable potential for the new development of residential areas (approx. 5000,000 sqm GFA residential) and work places (approx. 80,000 sqm GFA commerce). At Hafentorquartier, immediately west of Veddel S-Bahn station and Harburger Chaussee, a residential development for 350 homes is being planned.

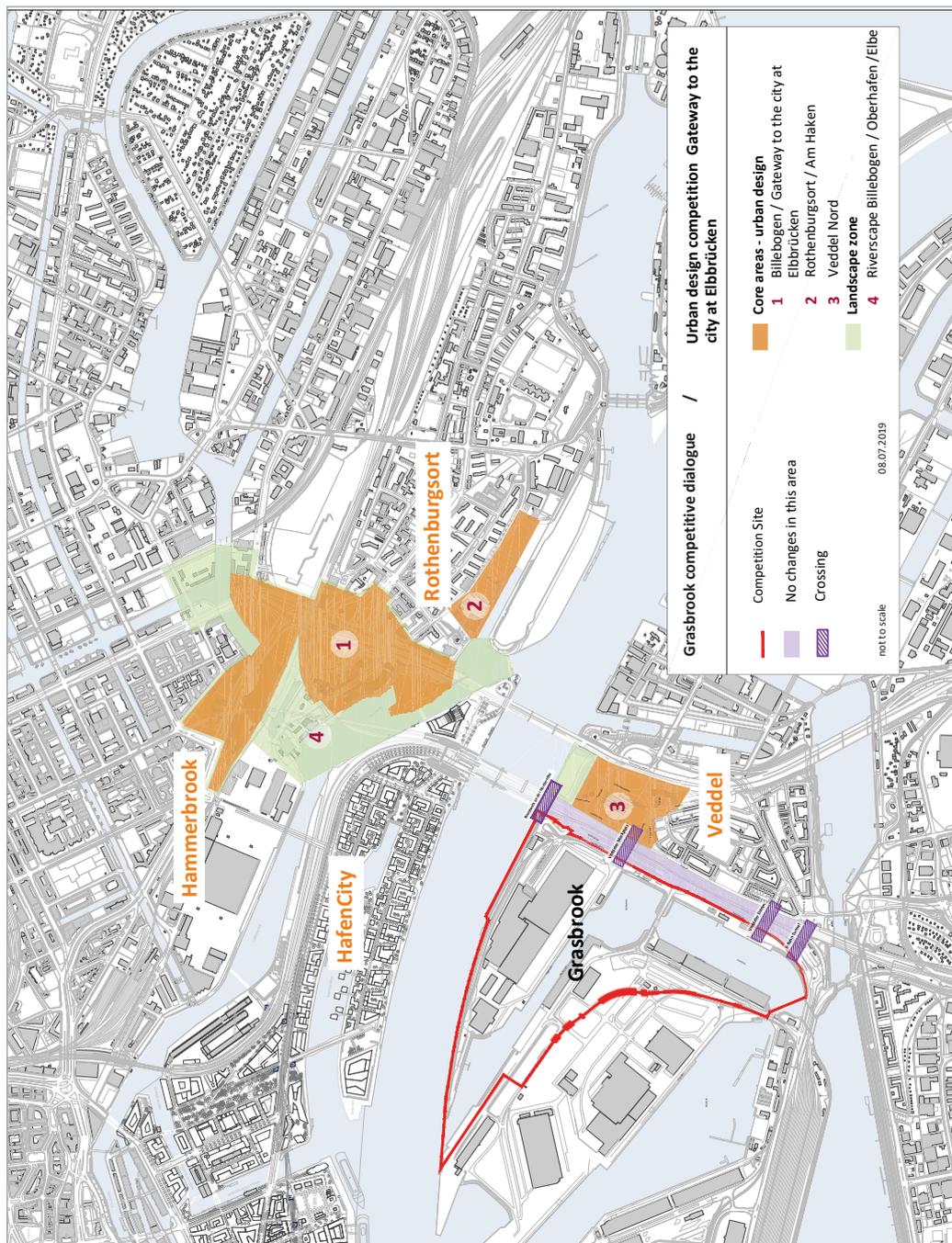


Fig. 20 | Competition area in the context of the city gateway urban design competition

Chapter C.2

Landscape context

The competition site forms a significant part of Hamburg's Green Network, the "Grünes Netz Hamburg". The map of Hamburg's landscape programme (Appendix 1.38 Grünes Netz Hamburg or see Fig. 21) shows Grasbrook to border on two major landscape axes. The northern boundary of the competition site is adjacent to the important Norderelbe landscape axis and the southern boundary is adjacent to the proposed Elbinsel landscape axis.

The landscape axes are significant components of Hamburg's Green Network. In conjunction with the "Grüne Ringe" (Green Rings), they provide a basic framework of open spaces that structures the urban realm and secures a green network for recreation and the ecosystem. The Grasbrook district is a missing link in the proposed Elbinsel landscape axis, which closes the Green Ring extending from Wallring (first Green Ring), to Wilhelmsburg (Inselpark) and Harburg.

The harbour basins at Moldauhafen and Saalehafen have great landscape potential and are a significant component. Their location at the fork in the Elbe River gives them a special identity that is characteristic of the historic marsh landscape and its transformation in the course of 20th century port development.

Their river banks and water areas offer potential both for urban uses including links into the promenade network and for semi-natural areas that conserve and enhance biodiversity in the city. Across the Elbe and via the Lohsepark axis in Hafencity, they link directly into the Wallring open space; in the south, they are connected to the green spaces on the Elbe island of Wilhelmsburg via Spreehafen. This axis is to be strengthened in the long term by a pedestrian and bicycle bridge over the Norderelbe.

In addition to its natural and biodiverse character, the Elbinsel landscape axis, together with Moldauhafen and Saalehafen, fulfils a similarly important role as a mobility axis for pedestrians and cyclists in the direction of Spreehafen and Wilhelmsburg. Furthermore, the Elbinsel land-

scape axis connects important cultural institutions, such as the Port Museum on Grasbrook, the Emigration Museum on Veddel as well as the community centre and the Inselpark in Wilhelmsburg.

The banks of the Elbe form the northern boundary of the competition site and offer a great opportunity to establish a high standard of biodiversity on the Elbufer-Norderelbe landscape axis on Grasbrook. The existing vegetation and river banks have much potential to be extended inland into a large continuous park along the Elbe by means of tidal reed beds, riparian softwood woodlands and connecting green spaces.

This park offers the opportunity to shape the district's identity and ultimately give it a distinct visual character, especially when seen from the north and from Hafencity. Combined with the 30-metre-wide green promenade along Kirchenpauerkai in Hafencity on the northern shore of the Elbe, the Elbufer-Norderelbe landscape axis can be developed into a strong green link, whose impact extends across the river.

In 2018, a comprehensive vegetation and wildlife survey was conducted in the district (see Appendix 1.13 Standortanalyse Grasbrook, p. 47 ff.). The survey covers both land and water areas. The existing trees in the area of Sachsenbrücke (Dresdner Ufer and Melniker Ufer-Ost) and on the headland of Veddelhöft and Prager Ufer are noteworthy.

The competition site contains important water areas. They are becoming increasingly silted up due to a successive decline in water-related port activities. The silted up areas (9 ha) have developed into tidal flats, which provide valuable landscape elements and are partly protected by nature conservation legislation (Article 30 of the Federal Nature Conservation Act (§ 30 BNatSchG) and Article 28 of the Hamburg Act for Implementing the Federal Nature Conservation Act (§ 28 HmbB-NatSchAG)). The development of the site, and most importantly any required building activity near the tidal mudflats, must

be done in compliance with the legally required compensation measures for protected habitats. This is to be accomplished by environmental en-

hancement of river banks, including the creation of similar areas of tidal mudflats.

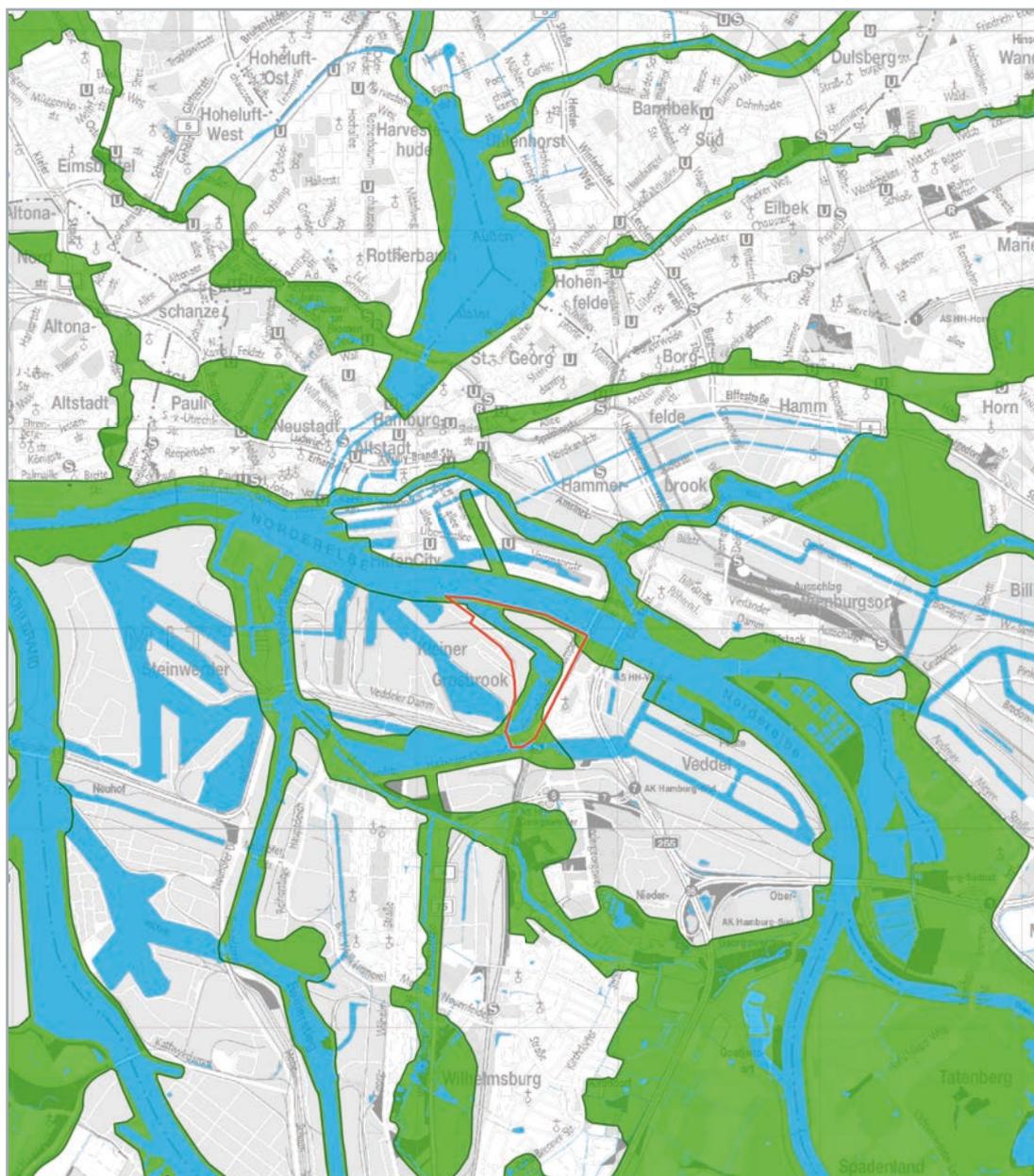


Fig. 21 | Landscape axes: river banks on the Norderelbe and Elbinsel

An aerial photograph of a wide river, likely the River Tyne in Newcastle, UK. The river flows from the top right towards the bottom left. On the left bank, there is a large industrial area with several buildings under construction, cranes, and a road. On the right bank, there are large, modern industrial buildings with flat roofs, some with parking lots filled with cars. In the background, several bridges span the river, including a prominent double-arch bridge. The water is dark and reflects the sky. The overall scene depicts a major urban and industrial waterfront area.

Part D

The design brief

The aim of this Competitive Dialogue is to develop an overall urban design and landscape concept for Grasbrook, giving the new Grasbrook district a distinctive identity, while taking into consideration the environmental, economic and socio-cultural requirements for its transformation and integration. The Promoter expects integrated concepts that facilitate a high degree of complexity in the socio-technical fundamentals of building development, open spaces and infrastructure and viable utilisation. The innovation topics for the district of the future and the values developed for the Grasbrook district during the preceding participation and information process can be found in Part B of this brief. They form the basis for the conceptual work and should offer opportunities to create an international location for integrated and transformation-oriented urban development. The following design brief is based on shared, overarching objectives in the sense of the described procedure, which apply equally to the urban design and the landscape design proposals (see Chapter D.1). Further tasks are to be addressed in the detailed work on the landscape design (see Chapter D.2).



Chapter D.1

Shared objectives for urban design and landscape

D 1.1 Urban design and landscape design target values



Fig. 22 | Total area of competition site

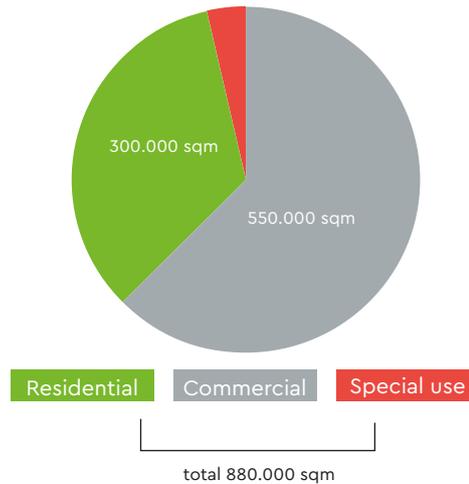


Fig. 23 | Target values – Urban design

The competition site

The competition site comprises a total area of approximately 68 ha of which approximately 50 ha are land and approximately 18 ha are water areas.

Urban design targets

The urban design target value contains approximately 880,000 sqm GFA of which approximately 550,000 sqm GFA should be for commercial use. Approximately 3,000 new homes are to be built on 300,000 sqm GFA, of which one third each is for publicly subsidised housing, rental apartments and owner-occupied apartments (three-thirds mix). Approximately 20 % is to be implemented by joint building ventures. Special uses occupy approximately 30,000 sqm GFA (primary school, social infrastructure, culture and sports).

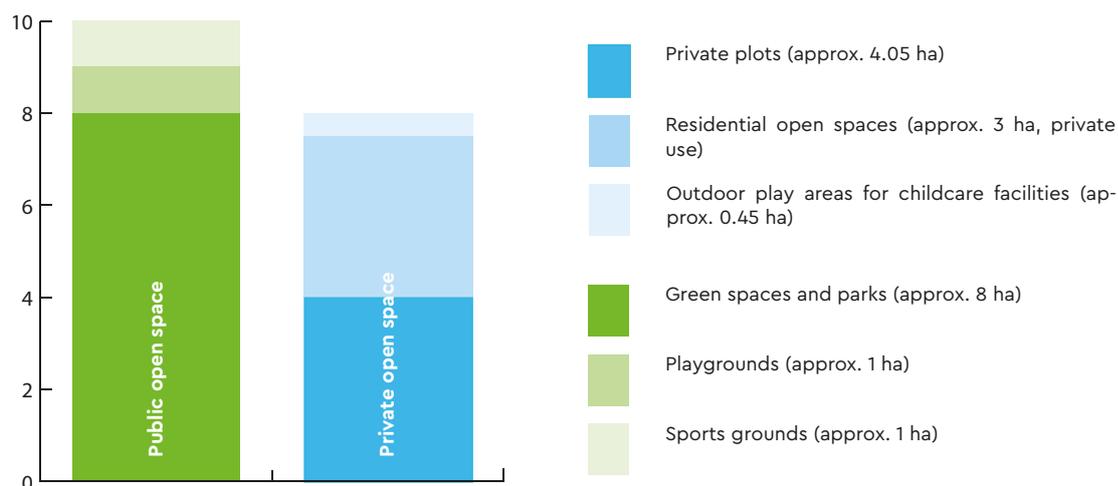


Fig. 24 | Target values – Landscape design

Open space targets

The public open spaces should cover a total of 10 ha. This divides up into approximately 8 ha for public parks and green spaces, approximately 1 ha for playgrounds and approximately 1 ha for sports grounds. This includes the following uses:

- league standard football pitch (approx. 68 x 105 m)
- basketball court (approx. 28 x 15 m)
- streetball court (approx. 15 x 10-15 m)
- kick about area (approx. 20 x 30 m)
- beach volleyball court (approx. 16 x 8 m)

Alongside the public open spaces there are private open spaces of approximately 7.5 ha to be designed. Approximately 4.05 ha of these are for private areas with public access, approximately 3 ha for residential open space (recreation and play areas in compliance with Article 10 Hamburg Building Code (HBauO)) and approximately 0.45 ha for private childcare outdoor play areas.

D.1.2 Utilisation concepts and requirements (urban design/landscape design)

Education and social institutions (location near underground station / Veddel crossing)

Primary school (5 classes in one year) (location near underground station/Veddel crossing)	
School building	5,750 m ² GFA (fitted into surrounding built up area, minimum 3 storeys) Plot: approx. 6,000 m ²
Sports hall (3 courts)	approx. 3,000 m ² GFA (27 m x 44 m court dimension)
Schoolyard	2,875 m ² (5 m ² for each pupil within the plot)

NB: It is currently being investigated whether another school can be accommodated on the site. Information regarding this issue will be made available in the running procedure.

Childcare facilities (located south of the east-west access road, good accessibility, parks)	
approx. 8 daycare centres (each with 80 to 120 places)	Spread across a total of 750 childcare places
For each children's daycare centre site	approx. 700-1,000 m ² GFA
Outdoor play area requirement	6 m ² private outdoor play area for each childcare place*

* On private property with separate proof, not part of the 8 ha public parks and green spaces (category: private open spaces, no public access)

Culture, sports and neighbourhood

Culture, sports and neighbourhood	
German Port Museum	approx. 10,500 m ² GFA (plot size: 5,650m ²)
Large-scale artwork in public space	approx. 3,700 m ² (outside plot)
Neighbourhood centre/community centre integrated into ground floor location and school	approx. 600 m ² GFA
Sports centre	approx. 3,000 m ² GFA

Local shopping area (location near underground station)

Local shopping area (location near underground station)	
Fresh foods	2,000 m ² retail space
Additional shops (chemist, bakery, special shops for supplies)	approx. 1,500 m ²
Pharmacy/medical centre	depending on specifics of design proposal

Supply and waste disposal

Supply and waste disposal	
District recycling centre Area and location requirements	approx. 250 m ² plus manoeuvring area part integration by building over area is possible
Bottle banks, underground	2 to 3 sites, decentral, in suitable locations in the street space

D.1.3 Identity creation in sub-areas/neighbourhoods

The Grasbrook district will completely reshape the view from the northern bank of the Elbe. Hence, a special place should be created with a variety of building heights that are appropriate for their urban uses and display strong urban design elements and characteristic building structures in connection with a characteristic landscape design proposal. The arrangement of buildings and open spaces should respond to the topography, the sunlight, the wind conditions, the emissions of the adjacent transport routes, the commercial and port uses and thus pursue the creation of a compelling overall concept. Areas with different building heights and landscape topography should be connected spatially and in terms of their utilisation. The maritime character of the site is to be incorporated and enhanced. Links to the neighbouring districts are to be strengthened through identity-creation, physical connections and views.

The sub-areas should reflect heterogeneous utilisation and translate this into suitable building typologies. Typical floor plans for different building typologies for commercial buildings, office buildings and residential buildings are to demonstrate that the requirements regarding functional qualities, the exposure to sunlight and integrated noise control measures are met. For residential units in multi-storey residential buildings, the requirements of innovative types of housing with a high proportion of communal spaces, outside areas for integrated uses (outside areas for daycare centres for children) must be taken into account when determining building plot sizes, building depths, cubature and building shapes.

The Grasbrook district is expected to comprise three sub-areas (see below), for which independent identities are to be established on the basis of their typological and spatial-structural characteristics. Linking the sub-areas with each other as well as with the adjacent districts – especially Veddel – is an important prerequisite for

the development of the new district. The spatial and functional connection should be contemplated and actually integrated into the design, and special attention paid to the functional and social interactions with the directly neighbouring district of Veddel.

The competition site will be developed in several stages. The development of the new Grasbrook district will extend over a period of about 20 years. The aim is to start with the construction of housing in the west, relatively separate from the traffic noise issue, and to gradually implement commercial development at various locations to create a continuous noise buffer. The step-by-step implementation of the Grasbrook district requires well thought-out proposals for the development in viable construction stages. The functionality and attractiveness of the areas to be developed first must not be impaired by unfinished areas or sub-areas that have not been adapted to the concept yet and it must be guaranteed that the first structural projects (including the German Port Museum) can be completed by 2025.

The sub-area of the Moldauhafenquartier is to be a (mixed) residential development between two waterfronts on the Elbe and Moldauhafen. An adequate location for housing in the Moldauhafenquartier with high-quality open spaces is to be defined within the overall concept. The organisation and layout of the residential areas and the open spaces needs to be designed with noise protection requirements in mind. The possibility of increasing the proportion of housing (while maintaining the GFA for commercial areas) should be examined. The location for the German Port Museum (see Chapter E.1.2) is to be specified in the context of the overall urban design and landscape design concept. The walking distance to the mooring of the four-masted barque "Peking" at Holthusen kai is a point for consideration. Conceptual statements on the integration of large museum exhibits of the Port Museum into the surrounding public open spaces are sought. Ecological enhancement of the open spaces and river banks must also be

considered, particularly regarding typical Elbe river habitats which could add the natural experience and complement the museum experience.

The sub-area at the Freihafenelbquartier is to be developed as a mixed-use neighbourhood for living and working. Commercial areas adjacent to the transport corridor in the east will be predominantly urban office and service typologies and possibly (private) science buildings. Particularly in the areas exposed to severe noise pollution in the east of the Freihafenelbquartier, additional commercial uses are conceivable to make optimum use of the area. For example, vertically (stacked) production plants or a combination of office buildings with ground floors that are less disturbed by noise, vibration and traffic (see Chapters B.2.2, B.2.3 and D.1.5). An adequate building concept is to be devised for the transition to the adjoining more residential areas in the west. Development at a later stage of the areas bound by the right of use by the Czech Republic (until end of 2028) must be taken into account.

The sub-area of the Hafentorquartier forms an important part of the urban development of the new Grasbrook district. This is where the urban design and functional coexistence of port activities and a mixed neighbourhood at Moldauhafenquartier and Freihafenelbquartier are to be organised. A variety of interactions between the port and the mixed district (including housing) are to be demonstrated. Particular care must be taken to guarantee emission protection and the difficult transition in urban typology, density, building size and aesthetics with the necessary freedom for an area exclusively for port-related uses. The Hafentorquartier should be seen as a part of the new Grasbrook district, but also as a buffer sheltering the area from the port and to avoid complaints by prospective residents. In order to accomplish an effective protection against emission, a high building density must be achieved with the greatest possible building heights and with uses from which no additional pollution is emitted and which are unaffected by

pollution from the port. This will only succeed if an attractive location with an attractive public realm on the waterfront is created. This excludes housing, but a broad mix is indispensable for a successful development. Land uses involving large crowds and public events are excluded within the safety distance to operational areas of hazardous incident plants. However, traditional commercial development is not wanted, but an area with a "science city" atmosphere. This is to augment the Hafentorquartier's intended role as a new location for research and development.

D.1.4 Density and intensity of use

Competitors are expected to submit an urban design and landscape design proposal for a new district that optimises urban density and high-standard open spaces. The objective is to create an urban residential and commercial location with high densities and a fine-grained horizontal and vertical mix. In spite of the great intensity of use, the design proposals should have high aspirations for the integration of nature into the open spaces.

The density requirements for different uses in the sub-areas must be translated into spatial configurations and building typologies of a high standard. Consideration of the special noise protection requirements in the east and the south (for Moldauhafenquartier and Freihafenelbquartier) is a binding prerequisite. The effects of wind and shading must also be considered in this context.

The integration of housing requires a balance between a public character of the urban realm and sufficient privacy for high-standard housing. Competitors are expected to formulate a suitable transition between the different uses in the buildings, chiefly the ground floor zones, and the adjoining urban realm. Requirements arising from the use of the building on the public realm must be considered integrally for both spheres, and viable solutions identified to help their interlocking in the transitional areas. By means

of an integrated approach, a vibrant district with a social and functional mix and good networks is to provide a high standard of livability in the city. The potential of the location should be incorporated and developed into innovative solutions for a viable coexistence of housing, commerce, education and leisure. This must be based on the target values for urban design and landscape design described in Chapter D.1.1.

The future urban district is to be accessible and inclusive. This means that private and public open spaces as well as buildings must be constructed without physical barriers to meet the different requirements of future residents. Flood protection must be integrated.

D.1.5 Urbanity through mixed-use development

The mixed-use "city of short routes" is the basis of sustainable urban development and is to be implemented in the Grasbrook district. With this objective, horizontally and vertically integrated mixed-use solutions are to be developed for an attractive, vibrant urban neighbourhood.

The design of mixed-use areas requires appropriate locations to be identified for schools and social and sports infrastructure, while taking into account the target groups' different needs regarding the length of routes. The space for the primary school should be connected to the central sports facilities and easily accessible for the schoolchildren and residents from the neighbouring district Veddel.

On the horizontal level, particularly attractive ground floor uses in connection with an attractive public realm contribute to a high-quality mix of uses. In order to create a vibrant urban district, ground floors zones with chiefly public, commercial and social functions should be proposed. A meaningful differentiation between the different utilisation categories is required:

- **Category I: Public uses with a high visitor frequency** ("typical" public uses which generate a high visitor frequency, for example: retail, gastronomy, public services (e.g. bakery, pharmacy, hairdressing salon, etc.), social (e.g. neighbourhood meeting places) and cultural uses as well as sports uses, such as sports halls with one court that are not integrated into a sports centre ,i.e. decentral units)
- **Category II: Public uses with a low visitor frequency** (public uses with a lower visitor frequency than category I, e.g. live and work units, small offices and service providers as well as services with a focus on health or medical care)
- **Category III: (New) types of work** (areas for urban production, makerspaces/fab-labs, small trade and coworking spaces. Very low visitor frequency, but also allowing new types of work in the district)
- **Category IV: Attractive functions in office buildings** (aktive, zur Straße gewandte Funktionen, z.B. Kantinen, Besprechungs- und Präsentationsräume, Ausstellungen und Lobbys)
- **Category V: Housing or regular offices on ground floors** (in secondary areas with fewer passers-by and in intimate locations (e.g. courtyards))

The strategic positioning of the different categories of ground floor uses and in particular the public-related uses with a high visitor frequency is to be carried out with the provision of a "shopping axis" in mind. A local shopping centre is to be strategically placed in the vicinity of the proposed underground station in the centre of the axis, taking advantage of the good local public transport connections. It is also to serve as a central link between the Grasbrook district and the northern part of Veddel.

At the heart of the local shopping centre, a fresh food retailer with approximately 2,000 sqm retail space should be established, which will be

complemented by additional shops such as a chemist, bakery and specialist shops in the supply sector.

A medical centre (and a pharmacy) is also conceivable. A special focus is placed on the design of the public spaces around the local shopping centre, which will have to accommodate deliveries to the shops.

Being a central element for the residential neighbourhood in the Grasbrook district, the local shopping centre should be implemented as early as possible. A strategic pole of the shopping axis is the German Port Museum in the west of the Grasbrook district. In order to create a vibrant axis between two poles, the opposite pole in the north of Veddel should be theoretically kept in mind. The aim should be to establish additional social and cultural facilities that are relevant to the district and the neighbourhood at the end points or along the axis.

The ground floors of the adjoining office buildings offer opportunities for modern working environments and small businesses. They should be used to establish urban production, maker-spaces, small trades or coworking. Central squares in the urban district and on the riverside promenades (selectively also in connection with the plinth storeys) are predestined for gastronomic uses. Residential areas, on the other hand, are characterised by visitor-related uses with a lower visitor frequency and live work units. Secondary areas in more intimate locations such as courtyards can also be used exclusively for residential purposes.

In the Hafentorquartier, the functional and urban transition between existing port operations and the more "sensitive" uses in the new Moldauhafenquartier should be organised. A high building density must be created with the greatest possible continuous building heights, from which no additional disturbances can be expected. Residential use in the Hafentorquartier is excluded, but the aim should be to achieve the widest possible mix, which is an important

component of successful development. A large proportion (around 50 %) of the 16,000 jobs is to be established here. However, the buildings must be designed in such a way that they can accommodate the long-term requirements for public use, which is currently not possible.

The Hafentorquartier will be characterised by offices, research and development and production. Accordingly, the ground floors of office buildings could accommodate functions such as reception areas or canteens. Gastronomic uses and a kiosk (corner shop) to supply the neighbourhood are conceivable. In the northern Hafentorquartier public-related uses are to be excluded in the areas within the safety distance of the UNIKAI hazardous substances warehouse (see Chapter E.9).

All ground floor spaces, especially those with a high visitor frequency, should be as transparent as possible towards the public realm. Ground floor zones in and around the local shopping centre and along the shopping axis should have a storey height of 5.50 metres. Storey heights of 5.50 metres should also be designed for ground floors in office buildings, which contain spaces for new working environments, and in the office buildings in the Hafentorquartier. In predominantly residential areas, storey heights of 4.00 metres seem to be sufficient.

D.1.6 Noise protection

The overall urban design and landscape design concept must consider the requirements for noise protection. These must be observed both in the urban design concept and the configuration/orientation of buildings as well as in the design of open spaces. Urban typologies for building configurations are to be developed, which react to the noise problem by the design of an appropriate distribution of uses and a suitable configuration of buildings. Housing areas must have a sufficient number of facades that face away from the source of noise and ensure that noise protected residential outdoor areas are generated. The design concepts should ex-

mine whether a large continuous park along the banks of the Elbe can be adequately organised to meet noise protection requirements within an overall urban and landscape structure, especially in the east. Alternatively, it should be examined whether it would be beneficial to distribute the park area and buildings in a different way. Reflection of the noise from the buildings towards the open spaces is to be avoided in the context of the building and landscape proposals. The above also applies to the design of the park (see Chapter D.2.1.).

D.1.7 Existing buildings and spatial structures and heritage conservation

The warehouses D (banana ripening shed), G and F as well as the structure of the Freihaufelbrücke bridge are listed for preservation (see Chapter E.8). Integrating the listed buildings into the overall urban design and landscape design concept, opens opportunities to develop Grasbrook within its historical setting, not only in terms of its built environment but also in terms of context, as a mediator for the surrounding districts.

The listed ensemble of warehouses G and F is to be retained. Conceptual considerations for the use of the ensemble as a public place as well as for cultural and creative industries are to be developed. In the context of their design work, Competitors are expected to integrate and address the special historical significance of warehouse G, which was a former outpost of the Neuengamme Concentration Camp. Due to the particularly dilapidated state of the listed warehouse D, alternative concepts must be submitted for this building. The building should be retained with alterations/additions, and alternatively a new building is to be developed.

One request from the preceding participation and information process was to consider whether it would make sense to retain parts of the Überseezentrum shed and whether it could be integrated into a new development.

In this respect, the decisive factor is the implementation of the critical mass of housing (target 3,000 units), optimum conditions for the desired mix of housing and commerce (target 16,000 jobs), no impact on the flood protection concept and no deterioration of the noise protection conditions.

The existing multi-storey car park on Dessauer Strasse could be retained temporarily in order to accommodate the district's mobility requirements during the construction phase, and for the time until the extension of the underground line is completed. However, a new building must be designed.

Moreover, care must be taken with the port's heritage. The spatial structures typical of the port (materiality, special places) must be identified and considered in the context of the overall urban design and landscape concept design. This includes proposals for the north-western tip of Grasbrook, the Veddelhöft, which is a special place and important vantage point. It should be examined how the special character of Veddelhöft, or certain elements of it, can be preserved as a relic of environmental and industrial history without any, or with only minor changes. It should be noted that the embankment is in a poor structural condition (see Appendix 1.21 Planungshinweise Uferzonen, p. 6 f.). In the course of developing the overall landscape design concept, it should be examined whether this area can be retained by rejuvenation or whether it should be planted with tidal reeds and become part of the landscape concept.

D.1.8 Urban climate and water cycles

Urban climate

A new structure and development for the Grasbrook district must consider the requirements for climate-change-adapted urban development and nature-based design concepts (see Appendix 1.34 Paper Nature-based Solutions) as an integral part of resilient urban development that generates greater biodiversity. The concept contains this issue and is based on approa-

ches of urban densification combined with the development of urban green spaces and green infrastructures that are designed around quality and usability. Dense ecological tree planting is an important characteristic of quality.

The concept must take into account urban ventilation corridors. It must make provisions for permeable areas that retain moisture and allow evaporate in the area, for sufficient vegetation on the buildings and on the site, and for a network of green and unbuilt areas. Green facades and roofs offering usable open spaces in accordance with Hamburg's Green Roof Strategy, which is to be further developed, are an important aspect of urban densification for the environment and human ecology and must be considered in the design of the roof landscapes (see Appendix 1.37 Gründachstrategie Hamburg). Furthermore, roofs and facades should be designed in conjunction with solar energy (photovoltaic or solar thermal systems). Sustainable development consists of an appropriate balance of green spaces and technology or better still, the multiple use of areas to create synergy effects. The cooling effect of evaporation from vegetation improves the efficiency of solar energy. Proposals should be made for construction materials that have low thermal conductivity properties.

In this way, a network of green and permeable areas should be created within the competition site, which generates and disperses cooling by evaporation at night and provides shaded areas during the day for the recreation of residents and employees. Additionally, green facades and roofs as well as shaded evaporation areas in the neighbourhood counteract overheating on warm and windless summer days and thus make a contribution to the climate-adapted city of the future.

Urban water cycle

Within the scope of the design brief, the topic of water cycles should not be understood as a mere exercise of collecting and transporting water. Instead, an integrated concept for the environmentally sensible use of the resource

water is to be proposed. Water is differentiated according to its degree of contamination:

1. Unpolluted water: rainwater
2. Slightly polluted water: stormwater from road drainage (public roads) and greywater
3. Heavily polluted water: waste water (black water from buildings) and waste water from production.

The systematic management of all water accumulating on the site is to be shown. The aim is to accomplish a system that exploits the topography without requiring a regular network of drains and that makes the potential energy of rainwater available to the vegetation. Only waste water must be transported in drains. The treatment of slightly contaminated water should be carried out in biological treatment plants. The basic concept must consider heavy rain events with the current values for maximum rainfall, as well as values for future increased maximum rainfall, and ensure that water can be discharged safely and without causing damage, and/or be retained temporarily in infiltration basins without causing damage. In the event of heavy rainfall and flooding, multi-coded land uses can be useful. The topic of balancing ponds (or detention basins) is to be developed conceptually. As a rule, but also in the event of heavy rainfall, the impact on surrounding water bodies should be minimised by suitable attenuation measures. Infiltration potentials can be exploited under certain circumstances. However, it should be noted that only a small number of areas are available for infiltration (see Appendix 1.13 Standortanalyse Grasbrook, p. 124 ff.). The proposals must consider flood defence measures.

Surface water from the circulation areas and roads with a relatively low traffic load is only slightly contaminated. This should not be discharged directly into the water bodies. Technical treatment plants (lamella filters, etc.) should not be used. Ecological cleansing should be integrated into the overall landscape concept as part of a sustainable operating system. Uncontrolled discharge of water into tree pits is not permissible (pollution load, salt). Tree pits

in the road spaces do not serve as rainwater infiltration areas. Instead, the roadside vegetation should be technically, ecologically and economically incorporated. The operating costs must be described.

The maintenance of parks and other public areas impose considerable operating expenses for irrigation. The overall concept for water cycles should include suitable solutions for attenuation, storage and use of water for the maintenance of green spaces in order to minimise operating costs. If possible, an overall concept should be designed with solely the average annual hydrograph and not relying on additional water supplies.

In the context of the adaptation to climate change in urban areas, green roofs and facades (particularly green courtyards) should also be considered. The design for the water cycles should also contain the (future) private buildings in the overall concept.

As a result, an integrated model for water cycles is to be designed on the basis of the degree of contamination, topography of the terrain, the existing subsoil and site contamination and proposed buildings as well as the existing connection points, taking into account future water volumes and water demand on the site.

D.1.9 River banks and water areas

The river banks in the Grasbrook district extend over a length of more than 5 km and are thus the key feature of the site's maritime character. The river banks were laid out to serve former port uses and are now to be given a new perspective. In spite of their typical harbour character, existing ecological qualities on land, and above all in the water, are to be retained and enhanced. The conservation and creation of as many semi-natural river banks and sheltered shallow water zones as possible should make an important contribution to the enhancement of flora and fauna. Proposals should include all ecologically sensible and economically feasible measures as important components of a livable

city. They should be based on the technical and ecological baseline as well as the recommendations for an environmentally optimised design of riparian zones (see Chapter E.3).

With regard to the sustainable urban design and landscape design proposals, any modifications to the river banks should be based on an overall concept that addresses the ecological enhancement as well as the economic feasibility and the social added value of accessible waterfronts for local recreation. River banks with a short residual lifespan, which have to be renewed or upgraded anyway, as well as river banks in a good condition can be considered for ecological enhancement measures.

The ecological enhancement of the riparian zones and thus the task of preserving protected natural green spaces and vegetation (habitats) and the task of making them distinctive parts of the banks, as well as the topic of creating public access to the water's edge, are requirements for consideration that have been explicitly emphasised during the public participation and information process.

In consideration of the technical and environmental framework conditions, Competitors are to propose a distinctive urban design and landscape concept for the river banks and in particular the banks of the Elbe. The water areas of Moldauhafen and Saalehafen are to be retained and made into a visual experience. This includes the continued navigability of the shipping lanes by ferries, but also the creation of access to the water for water-related recreation in technically suitable locations (see Chapter D 2.2).

Any unavoidable adjustments to the shoreline (see Chapter E.3) should be implemented in consideration of the planning notes (Appendices) as well as environmental and economic aspects. The impact on the ecosystem should be minimised as far as possible and the loss of protected habitats should be compensated to the largest possible degree within the site.

An access and circulation concept for the river banks and quay zones should consider the transport requirements of different user groups (pedestrians and cyclists, maintenance access and supply). In addition to the quay zones themselves, this also includes links to the surrounding network of roads, cycle ways and footpaths. Connections should be designed closely together (approx. 150 m) for the convenience of pedestrians and cyclists. The difference in level between the quay zone and the surrounding flood-protected area must be overcome with ramps to ensure accessibility.

D.1.10 Mobility and transport

As part of the urban design and landscape design concept, Competitors are to develop a resilient, space-efficient, effective and economic access and circulation concept. This should integrate the innovative mobility approaches described in Chapter B.1.4 with the functional requirements of a sustainable building development and consider the framework conditions and requirements described in Chapter E.5 (see also Appendices 1.18 and 1.19 Planungshinweise Mobilität and Smart-Mobility-Konzept HafenCity).

The access and circulation concept must differentiate between the concepts for internal and external access and circulation. The internal access and circulation concept includes all development functions within the competition site. The external access and circulation concept includes the connections of the competition site to the surrounding areas (basic principle of access and circulation in HafenCity).

It is of special importance that the external access and circulation concept achieves the integration of Grasbrook's former "island location" with the adjacent urban areas, in particular Veddel. Attractive footpath and cycle way connections between Grasbrook and Veddel should be given special attention as the quality of their design is elementary for socio-spatial links, the reciprocal use of educational infrastructure

(schools, day-care centres), local amenities and cultural facilities, and access for Veddel's population to the emerging leisure and sports areas in the Grasbrook district. Links are the "Elbsteg Veddel" (taking into account the existing protected habitats), the Veddeleer Marktplatz connection (tunnel/bridge) and the areas of the two existing railway underpasses (Veddeleer Damm and a pedestrian tunnel to the Veddel S-Bahn station on the S3/S31 line) (see Fig. 20 and see Chapter E.5). These must be functionally designed and integrated into the overall route concept. In the areas abutting the district, suitable proposals for overcoming the existing level changes must be shown. If necessary, additional crossings of the road to the west of the railway (Am Moldauhafen, Rampenstrasse, Am Saalehafen) can be proposed. However, it cannot be assumed that Veddel's existing flood protection wall will be opened up towards the present port area. In the context of the overall urban design and landscape design concept, the underground railway line and the location of a new underground station must be sensibly integrated and meet flood protection requirements. The architecture of the underground station has not yet been designed. A footbridge and bicycle bridge underneath the underground railway line in the southern area of Moldauhafen can be proposed at the level of the promenade (not flood-protected) to improve the network of paths within the site.

In the area of Dessauer Strasse, the redesign of the access road serving the remaining port areas at the O'Swaldkai terminal should be considered and sensibly integrated into a concept for the transition between the existing low-lying road in front of the listed warehouses F and G and the new flood-protected road level. Additionally, the delivery and customer traffic to the commercial buildings in Freihafenbquartier and Hafentorquartier must be appropriately considered and located.

Innovative solutions for access and circulation

The internal access and circulation proposals in the urban design and landscape design concept are to develop an innovative design approach to the integration of all functions of the future public roads. The requirements for access and circulation and the diverse, competing space requirements (e.g. amenity value and transit traffic) are to be co-ordinated in a harmonious comprehensible concept. The concept is to be designed in terms of both urban and landscape design in the context of the entire urban district. The areas are to be understood as multi-coded, environmentally enhanced urban spaces for a high quality of life.

The road types listed in Chapter E.5, which were derived in consideration of the basic requirements for the cross-sections of roads (e.g. rescue vehicles, clearance spaces, trees), offer exemplary approaches to a hierarchy of roads.

The aim is to link all construction sites via a central access road (collector road) in order to pool vehicular traffic on one main axis. An estimation of the spatial distribution of traffic volumes (cars and HGVs) can be found in Appendix 1.13 Standortanalyse Grasbrook (p. 119 ff.).

The hierarchy of roads should make a contribution to residential areas in particular by decongesting them or freeing them of vehicular traffic. This allows them to be designed as linear spaces for paths and landscape areas which provide a pleasant environment. For this purpose, the streets in the neighbourhood are to be generally conceived without car parking (with the exception of special user groups, e.g. persons with reduced mobility) by pooling parking spaces for residents, customers and visitors. Collective underground car parks are distributed over the district and form part of the flood concept (plinth concept). The required number of car parking spaces can be assumed to be lower than 0.4 parking spaces per residential unit and correspondingly reduced for commercial use (at least to the level of low-car use). The principle of "neighbourhood car parks" is to be applied by routing all traffic on the central main

road axis and by exploiting the buildings' plinth design to accommodate parked cars on the underground floors. Underground car parks should have a maximum of two underground storeys.

The competition entries should take into account flexible city logistics concepts for a future-oriented district and contain suggestions on how and where the resulting space requirements should be integrated (e.g. mobility and logistics hubs, delivery/city logistics processing including the neighbourhood/underground car parks).

The strong mix of residential and commercial uses in the Grasbrook district is to be augmented by a high-standard, fine-meshed network of paths, supported by bridges and possibly board walks. Active mobility (of walking and cycling) should be promoted by designing a plan for the city that meets the needs of pedestrians who generally have a low tolerance to detours. In order to increase the attractiveness of the footpath network, high-standard, sufficiently dimensioned amenity spaces, if possible with interesting views, must be created. Footpaths should be given a greater proportion of space as provided in typical cross-sections of roads, which offers both the appropriate quantity and quality to meet the objective of promoting pedestrian traffic. Cyclists have their own network, which is to allow comfortable, rapid and, as far as possible, intersection-free or unhindered travel. In addition, cyclists have their own advisory lanes and cycle ways on the roads. The different site levels must be taken into account. Links to the surrounding cycle path network must be established. Of particular importance is a well thought-out system of bicycle parking, both in the public realm in front of local shopping centres and other public facilities on private properties and in combination with live and work units.

It is expected that the space requirements for micromobility and rental systems, for example for parking rental vehicles (city bikes, pedal scooters, cargo bikes, etc.) or for avoiding con-

flicts with other road users, will be reflected in the overall concept. The space requirements in public spaces for the collection of recyclable materials in a "bring system" (chiefly glass) should also be taken into account (see Chapter E.4).

A sustainable drainage concept that takes into account climate change (heavy rain events) must be integrated into the access and circulation concept (see Chapter D.1.8).

The internal road network in the neighbourhood must be differentiated into different road types by the use of design elements. In this context, a major role is attributed to the development of a tree masterplan (should contain tree species, habit and position, as shown in the example in Appendix 1.28 Baummasterplan HafenCity), a maximum of green areas within the street spaces (see Chapter D.2.3) and an extensive reduction of parked cars (no private cars) in the public realm. The interaction between buildings in the urban space has an impact on the spaces between the buildings. Sufficiently large spaces between buildings, with possible narrowing and widening in response to the urban context, determine the dimensioning of public pathways and should be presented in the overall concept. A robust, accessible access and circulation concept that tolerates simple repairs and is designed with suitable materials is sought.

In order to create different types of streets that support long-lived, vigorous street trees, it is preferable to have continuous planting trenches with a recommended standard width of 3.00 m and a depth of 1.50 m, rather than individual planting pits (3 m x 3 m x 1.5 m). This means that the choice of species/varieties is only restricted by minor constraints.

In places where a width of 3.00 m is impossible, planting trenches are all the more necessary in order to ensure the vitality of plants through sufficient soil aeration and water holding capacity over the entire construction depth. If the width of the trench is reduced to 2.00 m, this effect

is decreased, especially as the foundations of kerbs further reduce the room available for the root systems. The choice of species/varieties must also meet visual criteria in the context of the generally massive buildings; however, the road space and headroom must not be reduced. This is also important with regard to road safety obligations and ongoing maintenance.

D.1.11 Supply and waste disposal

Energy:

The energy supply of the Grasbrook district (see Chapter B.1.3) is primarily based on a CO₂-neutral energy generation and distribution infrastructure, which is to be linked to local energy production (solar energy and energy from waste heat, etc.). The areas necessary for an energy hub for heating, cooling and electricity generation and distribution, which are to be integrated in each neighbourhood or across the districts, are to be considered in the concept options by way of examples (see Chapter E.4). This also applies to the areas intended for storing possible excess energy (e.g. ice storage).

Utility corridor:

In the context of the urban design and landscape design proposals, it is necessary to incorporate the utility corridor with its corresponding requirements for size and location (see Chapter E.4), so that its location is shown on both the plans and on the digital model. The location of the utility corridor should be determined so that all plots can be connected over a maximum distance of 50 metres. The commercial requirements arising from the intended mix of uses must also be adequately considered.

With regard to public lighting, a sustainable concept is sought, which also includes considerations for multiple uses (charging facilities, Wi-Fi, power supply for events) and takes into account the impact of lighting on human health and biodiversity (see Appendix 1.41 Vogel-freundliches Bauen).

Waste disposal:

The required waste disposal facilities are described in the general conditions in Chapter E.4. They include a neighbourhood recycling centre on an area of at least 250 m² plus sufficient manoeuvring space or a semi-integrated option with a built-over space. Additionally, decentral, well-integrated public underground glass containers must be placed in two or three suitable locations (see Appendix 1.32 Standortanforderungen Unterflursysteme).

D.1.12 Cost effectiveness

The cost effectiveness of both the urban design and the landscape design proposal is of particular importance for the subsequent development. The key objectives of the procedure are to be reconciled with a basic economic stance under the premise of stable construction costs. The urban design and landscape design proposals are to be developed against the backdrop of an economic building infrastructure and public open space structure while striving for a high-standard of development in the district. The balance between expenditure for infrastructure development and benefit must be optimised. This means, above all, an appropriate utilisation of all areas that avoids one-sided development. All follow-up costs for the public sector and future users must be included in the feasibility study.

All design approaches are to be prepared separately and comprehensibly according to content. For example, the types of surfacing must be shown with costs. The same applies to engineering structures and other design elements. The following cost parameters must be adhered to:

- Transport facilities
300–400 €/sqm
- Landscape-Parks
300–400 €/sqm
- Landscape-Promenade
300–400 €/sqm

- Landscape-Squares
800–1.000 €/sqm
- Footbridges/Bridges
2.000–4.000 €/sqm
- Quay walls/River banks new
10.000–25.000 €/m

NB: These figures are rough indicators which are integrally assigned to the main area categories for the formation of an index and should not be exceeded. Costs are to be listed in detail in relation to the specifics of the design proposals. Within the main categories, costs for partial area may fluctuate as long as the total sum of the specific values is adhered to.

Chapter D.2

Special landscape objective

In the context of the overall urban design and landscape design concept, Competitors are expected to create a clear urban configuration with a well thought-out spatial structure which will deliver high design and functional qualities for all users, population groups and generations, and which promote place making in the neighbourhoods and the entire new urban district.

A landscape design concept is to be developed that links the open space structure of Grasbrook with the landscape axes on the Norderelbe and the Elbe island of Wilhelmsburg in a north-south direction. It should create attractive, vibrant and at the same time safe and tranquil recreation spaces for the new district. The aim is to develop a well-structured system of linked open spaces that establishes connections with the neighbouring districts and which develops a coherent network of open spaces within the new district and its neighbourhoods.

Additionally, the establishment of an urban green infrastructure and thus the integration of an ecological network is expected. Competitors are asked to contribute alternative solutions and innovative ideas on the topic of urban ecosystems.

The focus for the development of the open space concept, its links with the surrounding areas and the strengthening of the existing landscape axes is on the following topics: Taking into consideration existing open spaces, a link between the Grasbrook district and the adjacent districts in Veddel and Wilhelmsburg as well as HafenCity is to be established. Also, the issue of how the flood protection system at the boundaries of both districts can be integrated beneficially and as accessible as possible into the urban and open spaces. As regards the district's internal structure, ways in which a network of open spaces can develop across all plots must be examined as well as the possible contributions that private, publicly accessible plots can make to this in conjunction with public open spaces and neighbourhood streets.

The open spaces in the Grasbrook district should radiate beyond the region and create local identity for the district. Most of all the required high density urban development makes it necessary to deliver attractive, high-standard open spaces that provide differentiated possibilities for their utilisation. Competitors are expected to specify ways in which the sequence of open space typologies, such as parks, neighbourhood squares and promenades, contributes to the identity of the new district and shapes the internal open space network. It must be examined how and where the described open space typologies can augment a sustainable concept of vibrant and visitor-related uses in ground floor zones.

The Competitors' design task is to link the future neighbourhoods in the district with their water bodies and river banks on the Elbe and Moldauhafen and Saalehafen in order to enhance the potential of the district's two waterfronts, the open space network and the connection of the neighbourhoods. Taking into account the topography, the transition zones and interfaces of the various open spaces between river banks or quay levels and the flood-protected plinth level are to be developed as characteristic elements in the district and as places for social interaction.

In addition to a high-standard design of the open spaces, the landscape design concepts must integrate and tolerate a variety of possible uses. Competitors are expected to come up with concepts for multiple uses (multi-coded areas) for recreation, interaction, exercise, games and sports. Proof must be provided for the specified sports and games areas, for example. Against the backdrop of changing demands on the public realm and changes in social development, a high degree of flexibility of use and appropriation is required. The proposals in the landscape design concept should also address the needs of the inhabitants of Veddel, as the district lacks attractive open spaces.

The public realm and all facilities in it must be accessible. Due to the location on the water-

front and the different uses that need to be combined, the issue of levels and accessibility in restricted areas plays an important role in the Grasbrook district.

Grasbrook is to become a climate-friendly district that is adapted to climate change. In this context, open spaces take on a special role. Ecological diversity and opportunities for their sustainable use are of great importance for the development of landscape design concepts. Competitors are expected to deliver innovative ideas for the development and promotion of urban ecosystems founded on nature-based solutions (NbS) and animal-aided design (AAD) and solutions to the environmental issues within the framework of scientific concepts of sustainable planetary boundaries (see Appendices 1.34 and 1.35). Against this backdrop, Competitors are asked to develop their concepts in the context of the following key topics. The open spaces should make a major contribution to a biodiverse urban district, taking into account their intensive use. The Competitors' concepts should show where existing ecologically valuable areas can be retained and where areas with spontaneous or ruderal vegetation or areas that need extensive maintenance can be integrated despite their intensive use. The contribution that these areas can make to biodiversity and opportunities they offer for the experience of nature must be described.

Infrastructure developments and open spaces in the district must be designed with as few impermeable surfaces as possible and achieving a maximum detention of rainwater. In this context, statements must also be made on materiality and sustainable construction materials that contribute to a sustainable, climate-friendly urban development on Grasbrook.

A concept for the design of roof landscapes and green facades is expected that characterises the new district and contributes to an enhancement of the microclimate and biodiversity (see also Chapter D.2.3). Additionally, Competitors must describe the vegetation volumes in

streets, open spaces and parks that are proposed to create habitats and climate islands and to improve the microclimate.

D.2.1 Requirements for green spaces and parks

The Grasbrook district is to comprise a total of 8 ha of green spaces and parks. Of these, approximately 6 ha are to be developed as a continuous, central park for leisure and recreation purposes and to experience nature. Additionally, 1 ha is to be reserved for public playgrounds.

The banks of the Elbe River offer much potential to develop a park on the waterfront with characteristic views towards HafenCity and Hamburg's centre. However, this location is not mandatory. Competitors are to deliver a resilient concept for the site levels in the park, which takes into account the tidal zones and the flood-protected plinth level. Most of the park is to be located at a flood-protected level; transition zones and waterfront zones must be designed with usability and maintenance in mind. The design of the park should ensure that the area's transformation lets the rudiments of port utilisation and urban nature act as a reminder of Grasbrook's history and allows them to be experienced in close proximity to the Port Museum.

The park is to be multi-coded, with large open spaces as well as small-scale structures. It should offer spaces for resting and recreation, and attention should be paid that it has some tranquil areas that are not affected by noise. The facilities in the park should include designated as well as free play areas and small sports grounds (including two fenced in dog areas of 20 to 25 m²) and provide room for a variety of activities. The park's design and usability should also promote social communities (clubs, sponsorships). It should face the sun, while trees and copses, arbours and pergolas provide shaded areas against overheating and for hot summer days and sheltered areas against the wind.

The park is to be developed as an important component of both the open space network

and the path system. The link of the park with the adjoining neighbourhood as well as Veddel is to be emphasised. In the context of the open space and path network, Competitors should define the main entrances to the park. The circulation within the park should include a system with fast and slow paths in order to prevent conflicts of use. The park should contain a minimum of impermeable surfaces and extensive evaporation areas. Materials and surfaces with low runoff coefficients should be selected to allow complete rainwater infiltration. Furthermore, Competitors should demonstrate to what extent infiltration basins or areas as well as cisterns for irrigation and rainwater harvesting can be integrated into the parks with reference to the water cycles and rainwater management concepts to be submitted.

The concept for the park should take into account urban ecosystems, habitat networks and the promotion of biodiversity. Competitors' proposals must identify measures within the park that offer sustainable habitats for various animal species (insects and birds). They must also demonstrate how tree planting can contribute to reducing wind speeds.

Within the scope of the proposals, suitable zones for extensively maintained areas are to be identified within the intensively used park.

Suitable locations and concepts for water dispensers, i.e. drinking fountains for people and animals (e.g. dogs) should be incorporated in the vicinity of sports grounds and play areas to ensure that the park, play and sports grounds can be used in hot summer weather.

D.2.2 Requirements for squares and promenades

In addition to the green spaces and parks, the development of neighbourhood squares is another important component of the open space network. Neighbourhood squares promote place-making within the neighbourhoods. At the same time, they serve as links between the

neighbourhoods. In the Grasbrook district, the land areas have a lower development depth than other districts, due its location between two waterfronts. Given the dimensions of the land available between the embankments, the question arises whether squares should be proposed in the neighbourhood at all. The hierarchy of street spaces (D.1.10) envisages areas in secondary streets that are kept free of vehicular traffic. These streets offer the potential to deliver the functions of neighbourhood squares in linear spaces and are to be designed as attractive environments with as many green areas as possible. In the context of the urban design and landscape design proposals, Competitors are asked to put forward a sensible and appropriately dimensioned sequence and location of spaces. These are components of the open space network and should become important meeting and communication places. The uses for open spaces relating to ground floor zones on the edges and facing spaces that attract visitor-traffic are to be elaborated by the Competitors. Identity-forming spaces are expected that lend the respective neighbourhoods different characters, with functionally suitable uses at the edges that serve as places for the community. Competitors are to propose materials that create a distinctive character. Suitable plant species that provide shade and counteract heat islands are to be proposed. Great importance is attached to space-saving multiple uses for this category of public space. However, the transition areas between the flood-protected level and the promenades must be given sufficient space to ensure accessibility and their creative integration into the layout of the squares.

The specification of street furniture and materials should consider possible facilities for cultural events in the district. In addition to seating, events with stages, temporary seating or the organisation of markets should be possible.

The promenades along Moldauhafen and Saalehafen are important components of the open space and path network in the new district. They highlight the site's waterfront location and

promote the Green Network along the proposed Elbinsel Landschaftsachse (Elbinsel landscape axis) in the direction of Wilhelmsburg Nord. They are an important feature in the city of short routes. The development of promenades on both sides with many planted areas along the harbour basins and bridge crossings is intended to create a dense ribbon and network along the waterfront on Grasbrook.

In the context of the urban design proposals, Competitors are to propose promenades with suitable widths – the minimum width for public promenades and paths along the embankments is at least 12 to 15 metres – while considering the wider path network across the districts, the neighbourhood links across the harbour basins and an attractive environment in open spaces. These should include fast and slow paths as well as recreational areas with seating and waterfront aspects as well as zones for activities and sports such as running, fitness and workouts. In this context, the analysis of the identity of the place, consideration of the areas along the listed buildings and other historical traces as well as the waterfront location with its various types of embankment is a prerequisite.

Similar to the utilisation concept for ground floor zones and plinth areas, all promenade sections with transition zones and linking functions are predestined for gastronomic uses. At the same time, it is important to design sufficiently defined non-commercial recreation areas at special locations with various different characters (tranquil areas, meeting places, etc.). Suitable materials are to be proposed for the promenades.

Competitors are expected to integrate planting proposals, particularly in connection with green banks. Trees also play an important role along the promenades for shading and enhancing the microclimate. Frequent flooding of the promenades requires them to be robust and easy to maintain. The areas must be easy to clean after floods and the equipment must withstand the impact of floating debris.

The district's waterfront location and the construction of promenades and riparian zones offer the opportunity to experience the water areas. Taking the tide into account, Competitors are expected to propose suitable places for a direct connection to the water or access to the water's edge along the harbour basins in order to create a better water experience and possibly to integrate a ferry pier. The position of the ferry pier has already been determined and can be found in Appendix 1.09 Fokusplan Restriktionshinweise.

D.2.3 Planting strategy, green plots and buildings

In the context of the overall landscape design concept, an innovative overall planting strategy is to be devised including a tree masterplan for street trees in the public realm and a planting concept for parks, neighbourhood squares and promenades.

The planting strategy should include a characteristic selection of trees and shrubs for the district and the individual neighbourhoods. The planting strategy should incorporate climate change requirements and difficult site conditions on filled ground on the plinths, heat and strong winds by proposing suitable stress-resistant plant and tree species. This is to account for the ecological requirements of species diversity and thus the ecological value must be considered when selecting trees and plants (bee-friendly, food source, habitat function). The problem of invasive non-native species must be taken into account.

Requirements for planting on plots and buildings:

Hamburg's Green Roof Strategy suggests that the 5th facade of a building should be largely planted. Green roofs make a considerable contribution to rainwater retention and positively influence the local climate through water storage and evaporation. Similarly, green facades have a positive effect on the local climate. In addition to the positive effects on the local cli-

mate and climate-related resilience, green roofs and facades can have a lasting impact on the new district that is not only visual.

Roof landscapes offer considerable potential for improving the supply of open space while creating a special type of outdoor area. Competitors are expected to come up with concepts for the extent and locations of roofs that could provide shared roof gardens, serve as recreation areas for employees and visitors, etc. or serve as accessible green roofs for client meetings at a lofty height, as exhibition spaces or provide species-rich extensive green roofs in combination with, for example, solar energy generation. Information on the employment of extensive or intensive green roofs (green roofs and facades) must be provided and their type must be indicated with details of possible characteristic plant species.

Moreover, any necessary building technology placed on the roofs must also consider (e.g. solar energy, at least 30% of the roof area) roof pitch, roof shape and possible uses on the roof such as shared gardens, urban gardening or private playgrounds for residential buildings. Particularly in residential buildings, the required play areas cannot always be accommodated in the private open spaces in courtyards. In this case, roof areas offer additional spaces for recreation and play areas for residents and people working in the area.

Furthermore, the proposed concepts for green facades must also take into account economic aspects and maintenance issues. Chiefly, the necessary irrigation technology (e.g. rainwater and grey water) and accessibility of facade planting for maintenance must be taken into account in the concepts. Courtyard concepts should favour green facades. Competitors are to develop a concept for roof landscapes and green buildings, describing on which roofs semi-natural, species-rich vegetation should be planted and to what extent roofs and buildings can be shared by residents and employees, and which proportion of the area is reserved for building

services technology (possibly combined with a green roof). In this context, it must be shown, typologically and exemplarily, how and in which form the roofs can be activated and integrated into an urban design and landscape context.

Private plots, especially in residential courtyards, can also make a considerable contribution to a green, biodiverse city (see Appendix 1.43 Grüne Vielfalt im Wohnquartier). In addition to necessary access and the provision of designed shared spaces and play grounds, they offer the opportunity to create densely planted and less impermeable oases. In the context of the landscape design concept, Competitors are expected to make structural statements about the character of privately used green courtyards and open spaces and declare what contribution they can make to a green, biodiverse Grasbrook district.



Part E

Framework and specifications

The framework conditions and specifications described in this part of the brief supplement the findings of the preliminary investigations and baseline surveys, which are assembled in the site analysis "Stadtteil Grasbrook" (see Appendix 1.13 Standortanalyse Grasbrook) and are to be used as a basis for the concept designs.



Chapter E.1

Utilisation

E.1.1 Education and social infrastructure

Primary school

The Hamburger Schulentwicklungsplan 2019 (Hamburg School Development Plan) envisages the implementation of a primary school with five classes in one year in the Grasbrook district. The primary school is to be optimally integrated into the urban fabric. The necessary outdoor areas are to be placed at ground level. Furthermore, a sports hall with three courts (suitable for handball) is to be included on the site. Competitors are to submit proposals which, on the one hand, take into account the functional requirements (enclosed schoolyard/open spaces) of a primary school and, on the other hand, link the school into the surrounding neighbourhood as far as possible. Additionally, Competitors should make suggestions how the school as a public institution, especially at the ground floor level, can add to the quality of the neighbourhood and the adjoining spaces. The school's location is to be planned on a separate plot, providing good accessibility for school children from Veddel. The area of the plot should be 6,000 sqm. The schoolyard should comprise around 2,875 sqm at ground level.

Childcare

In view of the demographic development and the knowledge that especially the inner-city areas are attracting above-average numbers of families, a need for at least 750 daycare places can be assumed. Each childcare facility should have approximately 80 to 120 places. It can therefore be assumed that approximately eight daycare centres with a floor area requirement of 700 to 1000 sqm GFA each, corresponding to a minimum area requirement of 6,800 sqm GFA, will be needed.

In accordance with the legal framework, each daycare centre must have direct access to an adjacent private outdoor play area on the plot for the exclusive use of the daycare centre, which comprises at least 6 sqm for each place.

Locations are to be identified and, within the context of the development concept, evidence must be provided that the requirements are met.

E.1.2 Culture, sports and neighbourhoods

German Port Museum

The German Port Museum should be designed as a striking building with a gross floor area of around 10,500 sqm on a 5,600 sqm plot in the western part of Grasbrook (see Appendixes 1.09 and 1.10 for the location of the German Port Museum). Implementation of the project is scheduled to begin in 2022 (completion 2025). The architecture for the ambitious museum project has not yet been designed and is to be determined in an architectural competition. The conceptual focus of the museum will be on the history of the port and the economic connections of the globalised world. The museum's location is to allow the joint use of adjoining public open spaces for the presentation of large exhibits and is in the immediate vicinity of Holthusenkaai, where the four-masted barque "Peking" will be moored. The design of the open space is to be ecological and typical of the Elbe landscape. The corridor for a possible future bridge across the Elbe is to be kept free.

Schuppen 50A, the current site of the Hamburg Port Museum, will be further developed together with its fleet of historic ships and cranes and should complement the German Port Museum with a vibrant technical open-air museum.



Fig. 25 | The four-masted barque "Peking"

Sports

Sports are an important component of a functioning urban social space and should become an integral part of the design at an early stage. Next to educational and cultural institutions, it is sports that provide opportunities for social contact and help identification with the new urban district. A wide range of sports clubs and other sports providers make a significant contribution to this and strengthen the positive impetus in synergy with schools, daycare centres for children, culture and educational facilities. The goals are to develop a family-friendly urban environment, the development of social diversity and the integration of different population groups, the active transmission of values in the context of child and youth work and cross-generational and cross-cultural integration work in direct contact.

Sports facilities close to the home that are tailored to the needs of today's wider understanding of sports can be divided into four basic pillars:

- Sports halls
- Sports pitches
- Club sports centres and grounds
- Sports in the public realm.

The sports facilities mentioned in Chapter D.1.1 are to be integrated into the Grasbrook district. Given its island location, it should be borne in mind that the provision for sports areas must fit the needs of the people living and working in the district as well as the residents in the neighbouring districts. The central sports facilities are to be conceived in conjunction with the primary school in order to combine the school's interests with those of organised sports. A football pitch should be designed together with a clubhouse and changing rooms. Additional components include a large modern sports centre with 3,000 sqm GFA (e.g. fitness, health). This is to be integrated into a building in a suitable, central and easily accessible location that may possibly contain retail space on the ground floor in a decentral location.

Neighbourhood facilities

Neighbourly commitment needs opportunities for people to come together, to identify needs, to develop proposals and to become active together. Hence, it is necessary to create spaces in the new district where, in addition to functional areas and local networking, civic involvement and neighbourly living are particularly concentrated and which offer meeting places with low thresholds. The community centre plays a strategic role in the development process of communities. The implementation of a community centre in the new urban district should create a community facility which offers spaces and activities, and which, in addition to promoting civic commitment and social inclusion, will also contain facilities for the park and play areas, e.g. by providing public toilets and the storage of parts of the technical equipment.

Additionally, the building should be a contact point and place for organising neighbourhood initiatives, associations and other functions and, by providing office space, should structurally strengthen corresponding coworking options and self-organisation in the district.

The neighbourhood centre serves as a crystallisation core for the continuity of neighbourhood activities and thus its function and appearance should be recognisable. It should be located in an exposed position to ensure good accessibility (also from neighbouring districts), and should, if possible, be able to exercise a supervisory role for the immediate environment.

These functions should not be accommodated in a separate building, but be combined with other functions, such as a library or another facility (e.g. school building, sports centre, if compatible with the other uses).

Chapter E.2

Flood protection

The competition site lies outside Hamburg's main dyke line and is part of the low-lying marshes of the Elbe landscape. In the event of storm surges, these low-lying areas are not flood-protected and must be given their own protection measures outside the main dyke line.

The future flood protection in the Grasbrook district will be based on the plinth concept (Warftkonzept), which has already proven its worth in Hafencity (see Fig. 26). This concept is based on flood-protected backfill, i.e. all development infrastructure is placed at a flood-protected level. At least two access routes to the district are linked to the main dyke line and serve as flood-protected escape routes (see Chapter E.5). The flood protection concept is legally secured by a Flood Protection Ordinance (Flutschutzverordnung). The concept is based on underground car parks in the plinths of buildings, which are flood-protected and create a plinth wall towards the promenades and waterfront. Above the plinth level sits the ground floor of the buildings at a flood-protected level. The plinth edges are set back from the waterline (embankment) by an appropriate distance. The low-lying areas on the waterfront are designed as public promenades or as squares or parks and thus deliver the desired close association with the water. These low-lying areas may be flooded during storm surges.

Setting a safe height for the plinths is of fundamental importance for the flood protection concept. This must take into account medium- and long-term changes in water levels (climate change, future sea level rise, etc.) and the development of flood levels as well as the site levels at the connection points to the existing (and future) main dyke line in the Free and Hanseatic City of Hamburg (see Hochwasserschutzanlage Veddel-West). As a rule, public flood protection is based on forecast periods of 50 years, plus factoring in the freeboard heights of wave impact in the event of a design flood. From a sustainability point of view, a period of 50 years is not long enough to determine the height of the plinth. Adjusting the height of infrastruc-

res and buildings at a later stage would not be feasible at reasonable cost and in view of the high-standard of the buildings that have an assumed lifespan of up to 120 years or longer.

In order to determine the height of the plinth, an expert extrapolation of the anticipated development of flood events was prepared by experts, taking into account the long-term forecasts for the local effects of sea-level rise (divided into 50, 100, 120 and 150 years) in relation to the reference level at St. Pauli. Temporally and vertically graded flood scenarios were derived from this, stating probabilities of occurrence or the risk of occurrence. The findings of the scientific expert report are listed in Appendix 1.22.

Taking into account the probabilities of occurrence, the plinth will be safe at a height of: +9.00 m above sea level. This is the minimum level of protection which must be observed for public services of general interest (infrastructure, etc.) in all areas. Additionally, there is a 15 cm allowance for possible creep settlement in the sub-base, resulting in **a minimum design height for protection of: +9.15 m above sea level.**

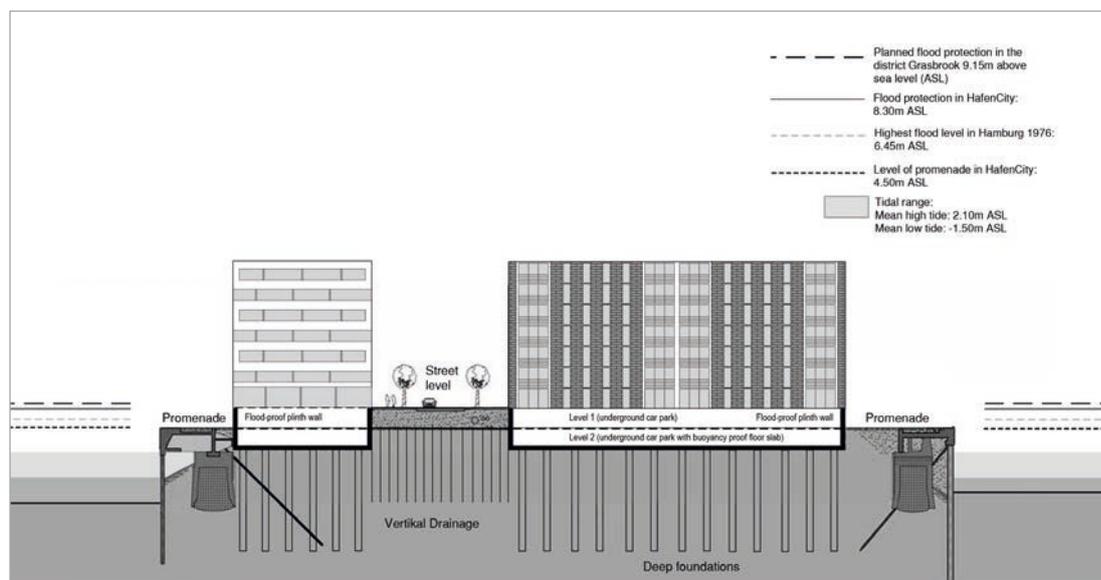


Fig. 26 | Typical cross-section – Flood protection concept (Waftkonzept)

All necessary functions which should be flood-protected must have at least this height for protection. Relevant transverse and longitudinal drainage gradients must be adapted, if necessary. It should be noted that the minimum protection height only represents the uninfluenced water level. A freeboard for waves must also be taken into account on embankments. This wave impact is influenced by the shape and length of the river bank (foreland) and cannot be determined in advance without specifying these parameters (see Appendix 1.13 Standortanalyse Grasbrook, p. 132). Appendix 1.22 (LSBG and others, p. 6 ff.) lists the appropriate parameters that influence wave impact. Suitable measures must be shown in the context of open spaces and on the buildings.

An integrated topographical model must be created in consideration of the minimum height of protection, so that the level for local flood protection can be derived. This topographical model is closely related to the issue of water cycles and the topography must be designed in such a way that the ground modelling has a direct effect on the potential energy of draina-

ge flow. Flood protection and water cycles thus form a closely related functional performance requirement.

As regards the plinth concept, the plinth levels have mainly been used for parking cars so far. However, visitor-related uses in the plinth levels could help create vibrant promenades and plinth zones. Additionally, bicycle parking spaces which are accessed via the plinth zones could be a decisive feature to augment good accessibility. Hence, it is necessary to weigh up the objectives of a vibrant and intensively used plinth zone against the requirements of flood protection, which should limit the number and size of openings in the plinth wall (flood protection system) to a minimum (see Chapter D.1.5).

Currently, there are two private flood protection systems on the competition site: the polders at the Überseezentrum and at the O'Swaldkai terminal in the port. The public flood protection system at Veddel in the eastern competition site runs along the roads Am Saalehafen and Am Moldauhafen. The current protection height is +7.5 m above sea level. This will be increased

to approximately +9.0 m above sea level, raising the level of the main dyke line in the future (construction date has not yet been set).

The existing private protective polder at the Überseezentrum will be taken out of operation for its urban redevelopment. The polder line at the O'Swaldkai terminal will be redefined according to the future boundary between the port and Hafentorquartier.

Chapter E.3

River banks and water areas

The competition site is located on an island or peninsula and most of its boundaries at Saalehafen, Moldauhafen and the Elbe are transition zones between land and water. These river banks should be given special weight in terms of urban design and especially in terms of ecological issues in the landscape design proposals.

As part of the baseline survey, all river banks were surveyed with regard to their technical condition and ecological value. They can be differentiated into banks and quay walls. The banks are either made of loose rock riprap, rocks set in concrete or planted banks. Parts of the embankments are made up of buildings (warehouses G, F, E and D). In addition to these built up embankments, there are some embankments that used to be built up, mostly on Melniker Ufer.

Based on the technical baseline of the river banks, including the assessment of their conservation status and a comprehensive ecological survey for the entire competition site (see Chapter E.6 and Appendix 1.13 Standortanalyse Grasbrook), actual proposals and design notes were compiled with a view to an ecologically

optimised design of the riparian zones (see Appendix 1.21 Planungshinweise Uferzonen).

The line of the banks should generally be maintained as it is. In two places, the line of the banks needs to be redesigned by building over the water areas:

- in the eastern part of Moldauhafen, for easy access to the underground station which is situated above the water, and
- at Prager Ufer in the western part of Moldauhafen to accommodate the bridge over Moldauhafen and the reserved alignment corridor across the Elbe.

The necessary adjustments to the line of the river banks are described in Appendix 1.21 Planungshinweise Uferzonen and present the minimum technical requirements, to be implemented in the context of the urban design and landscape design work, provided that the impact on the ecosystem is minimised as far as possible and the loss of protected habitats is compensated as fully as possible within the site.



Fig. 27 | Prager Ufer, loose rock riprap with willow margin

Chapter E.4

Supply and waste disposal

Energy

Areas for the supply of energy are to be shown as possible options for one or more energy hub(s) for heat, cooling and power generation, which are to be integrated into single neighbourhoods or across several neighbourhoods. This should include the possibility of a grid-bound supply with an appropriate storage capacity across several neighbourhoods. The framework plan should not include any pre-determinations that will limit the technical options. The energy concept is developed in parallel to the framework plan. The framework plan must not only consider the space requirements for energy generation and distribution, but must also allocate space for possible energy storage requirements, which can range from small, decentralised storage to large seasonal storage facilities. On the basis of a roughly estimated storage demand of 12,000 cbm for the Grasbrook district, a share for storage facilities (around 315 cbm per hectare (38 ha) assumed volume demand for energy storage facilities) is to be provided in all neighbourhoods as an exemplary decentralised provision of energy supply/storage and distribution for the proportional areas of the plots. Additionally, alternatives for generating energy and space requirements for solar (thermal) systems on buildings or in open spaces must be shown.

Irrespective of this, the building mass to accommodate electricity feed from the medium-voltage grid (three standard stations of max. 3.30 m x 6.60 m each, height 3.54 m) must be shown. A more detailed consideration of the energy demand, energy generation and distribution will take place within the context of preparing the framework plan.

Technical infrastructure – utility corridor

Examples of utility corridors can be found in numerous cities and larger private and public buildings, e.g. in Berlin, Leipzig, Düsseldorf, Zurich, among others. The typical clear dimensions that apply to this competition and must be taken into account when dimensioning the utility corridor are in the order of 4.50 m width/2.70 m height. Since the infrastructure development in the entire urban district is to be served by this utility corridor, it should be arranged in a ring line with branches analogous to the model plan in Appendix 1.17 Plan Medienkanal Beispiel.

Waste disposal

In order to accomplish the recycling of the maximum possible amounts of waste and recyclables into the material cycles, the district's disposal concept should be designed to be as attractive as possible for its future users and to be widely acceptable.



Fig. 28 | Example of a neighbourhood recycling centre

The separated collection of recyclable materials (e.g. glass, packaging, paper, cardboard and cardboard packaging, organic waste, residual waste) is established and sensible, but leads to additional space requirements and to an increasing number of journeys by disposal vehicles as well as negative visual impact on urban spaces. In order to meet these challenges, the Grasbrook district will use digital technology and

sensor systems to optimise material flows and waste disposal logistics: User-based billing of the quantities of waste from private households motivates people to separate their recyclable waste, and fill level sensors on the containers in conjunction with intelligent route planning minimise journeys by collection on demand. The demand for the disposal of special waste is pooled in a neighbourhood recycling centre in an area of at least 250 sqm plus sufficient manoeuvring space for accessing the containers, most of which will be underground to provide environmentally-friendly disposal of bulky waste, hazardous waste and recyclable materials. The neighbourhood recycling centre is to be supplemented by a multifunctional service building (e.g. rental workshops, repair cafe, public toilets, etc.). It could be implemented in conjunction with mobility and logistics hubs (see Chapter D.1.10) or as a semi-integrated alternative covered by a building, provided there is sufficient headroom for servicing the containers.

Decentral, well-integrated public underground bottle banks at two to three suitable locations (see Appendix 1.32 Standortanforderungen Unterflursysteme) supplement a range of private waste disposal facilities associated with specific buildings. They should be as space-efficient as possible (possibly pooled to serve several plots). In the everyday life in the district, maintenance tasks such as cleaning the streets and public open spaces and snow clearing and gritting in winter will be carried out by low-emission vehicles and with digital controls in order to minimise their environmental impact.

Chapter E.5

Mobility and transportation

The transport baseline on the competition site is mainly determined by its previous commercial port uses. The current traffic situation is dominated by port-related HGV traffic and transit traffic on the main port route. People working in the port also generate a considerable amount of traffic. The residual activity around the former Überseezentrum only generates a negligible traffic volume. This area will be completely redeveloped. The connecting route for private cars and HGVs travelling between the competition site and the higher-level road network is currently via the road Am Moldauhafen/ Am Saalehafen, which in parts also carries the main port route. Access to the competition site is via the road Am Holthusenkai/Schumacherwerder in the north (access Überseezentrum), from Sachsenbrücke bridge in the centre and from Dessauer Strasse/Hansabrücke bridge in the south (see Fig. 29). The access and circulation proposals must also consider the remaining port operations in the areas south of Moldauhafen and west of Saalehafen (Hafentorquartier and O'Swaldkai terminal). In the future, access to the operational areas at O'Swaldkai terminal will be exclusively via the Hansabrücke bridge in order to decouple HGV and car traffic, while car traffic will use the Sachsenbrücke bridge and the new connection to the north. The current access point at the O'Swaldkai terminal will be relocated to the south (Appendix 1.11 Fokusplan Zufahrt O'Swaldkai). Access will then be via the Hansabrücke bridge alongside the railway up to the area where the gate will be relocated in the future. This new access road will also be used for the newly constructed EDEKA site.

The future volume of traffic will be generated on the one hand by the continuing port opera-

tions at the O'Swaldkai terminal (approx. 4,000 vehicles daily, of which approx. 2,100 are cars and approx. 1,900 HGVs) and on the other hand by the new development. The traffic volume (private cars) in the Grasbrook district will be approximately 24,000 trips per day (source and

destination traffic), i.e. approximately 20,000 cars and approximately 4,000 HGVs with 3,000 housing units and 16,000 jobs. The scenario for estimating the rate of traffic generation and the traffic forecast can be found in Appendix 1.13 Standortanalyse Grasbrook, Chapter 6.7.2.

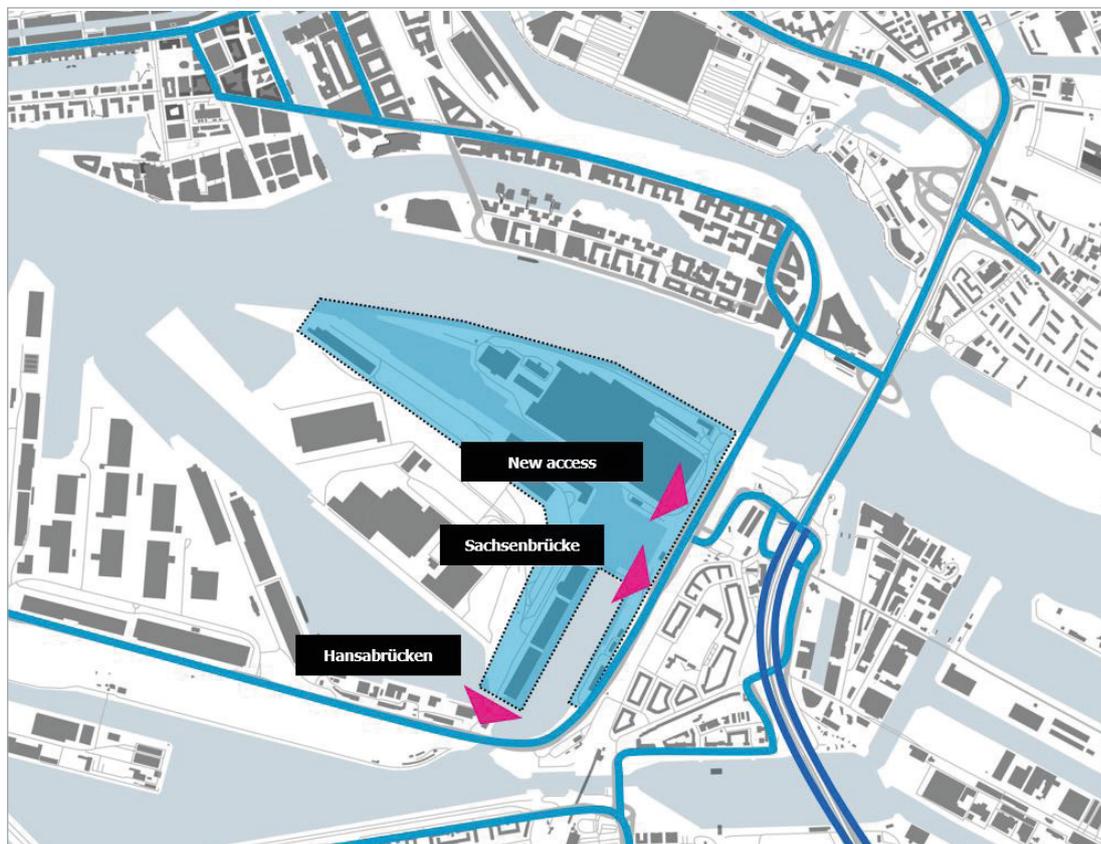


Fig. 29 | Links into the surrounding road network

Internal access and circulation

The Grasbrook district should be made highly appealing for pedestrians and cyclists. This requires not only an attractive and sufficiently dimensioned network of footpaths and cycle ways, but also less busy roads with less traffic and fewer parked cars. With this goal in mind, different scenarios were reviewed in advance. This competition is based on a scenario that assumes a portion of the environmental alliance of up to 75 % with the proposed underground line of the extended U4 completed (see Fig. 30).

The hierarchy and design of the internal road network is based on the requirements of typical road typologies and cross-sections (e.g. rescue vehicles, clearance areas, trees, see Appendix 1.18 Planungshinweise Mobilität), which should serve as a starting point in the design process:

- collector roads
- residential street
- play street
- other routes

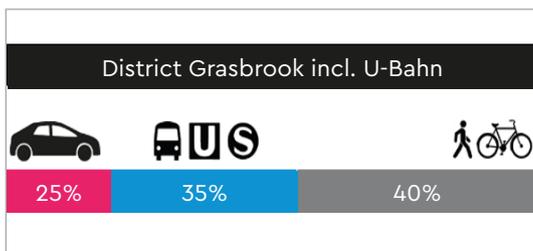


Fig. 30 | Modal share – Grasbrook district

Local public transport

The U4 underground line is to be extended from the Elbbrücken station in the eastern HafenCity across the Elbe and into the competition site with an underground station in the area of the crossing at Moldauhafen. This will have an impact on access to the development as almost the entire district lies within a 600-metre radius of the station (see Appendix 1.15 Plan U-Bahntrasse and Fig. 31).

The underground is to be designed as a viaduct at a "plus one level". It will be a covered structure spanning the water bodies. The underground line is to extend via Dessauer Strasse up to Hansabrücke, so that this area can be used as a loop line and storage sidings. The option of extending the line southwards to Wilhelmsburg at a later date should be considered.

This can either be done by extending the track along Dessauer Strasse (excluding the loop and storage sidings) towards Spreehafen, or in the long term depending on further developments in the central part of Kleiner Grasbrook with a new line heading west immediately after the stop above Moldauhafen.

This alternative "western route" must be kept free across a width of approximately 30 metres or be earmarked for a development that can be removed after 30 years (alternative route see Appendix 1.15 Plan U-Bahntrasse). For the moment, however, it is assumed that the alignment will run along Dessauer Strasse. In addition to the local public railway connection, supplementary public transport services will be provided in the neighbourhood, possibly by driverless buses or other innovative systems.

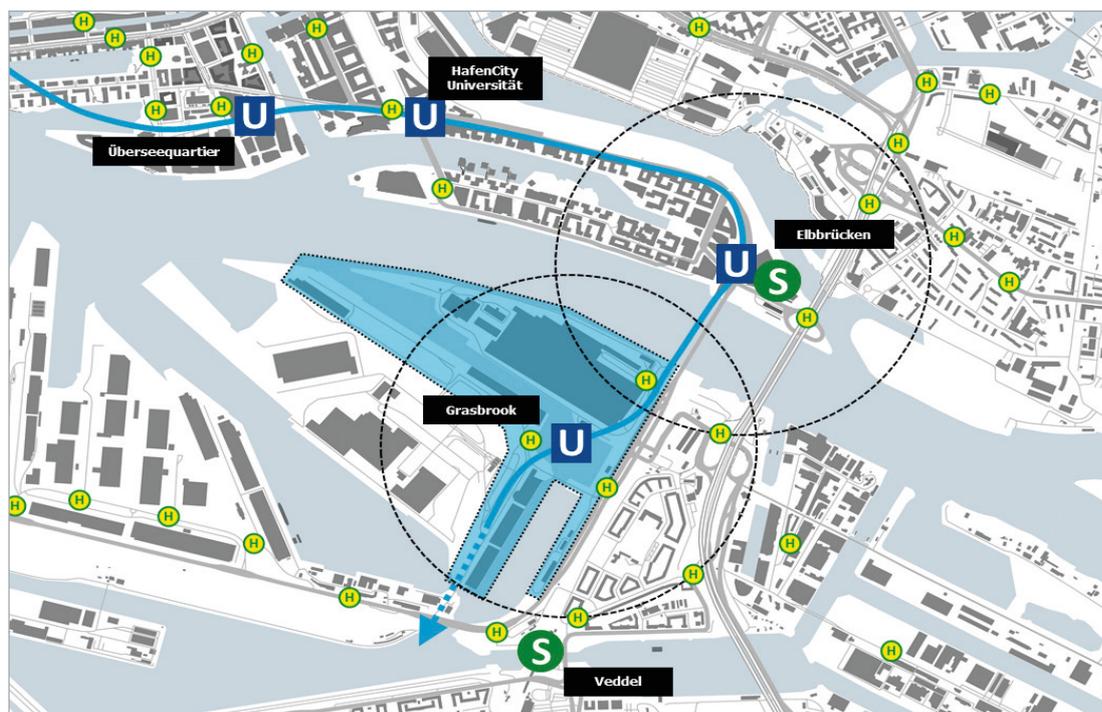


Fig. 31 | Possible local public transport connections at Grasbrook

External footpath and cycle way links

Apart from roads, additional links are needed to improve the integration of footpaths and cycle ways. For this purpose, the following links must be considered:

The "Steg Veddel" will be turned into an underpass designed for cyclists and pedestrians under the Elbbrücken bridges on the Elbe River in the future (see Appendix 1.25 Machbarkeitsstudie Unterquerung Elbbrücken). This connection is to be sensibly integrated into the urban design and landscape design, taking into account the protected habitats in the east and west.

Another footpath and cycle way connection is to be created in the area of Veddeleer Marktplatz (Tunnelstrasse). This can either be a tunnel or a bridge (see Appendix 1.24 Machbarkeitsstudie Tunnel Tunnelstraße and Appendix 1.26 Mach-

barkeitsstudie Brücke Tunnelstraße). It is possible that both options are implemented. However, it should be noted that the main route to the port is via Tunnelstrasse. The existing tunnel crossing is not a pleasant experience for cyclists and pedestrians and, most importantly, for children.

There is a railway underpass in the southern area of the present Veddeleer Damm. This connection is closed for vehicular traffic. It cannot be reopening, since this would generate a considerable increase in traffic towards Veddel. However, its use as a footpath and cycle way makes sense and should be a part of the overall concept.

Flood protection concept / escape routes

Two independent flood-protected escape routes are required to operate the new district. The flood-protected links to the external road network are the Sachsenbrücke bridge and the Überseezentrum entrance (see Fig. 32). In order to activate both connections together and to create a closed ring in the district, a crossing at Moldauhafen (Moldauhafen bridge) is required, the location of which is mandatory.

The southern connection to one of the escape routes is fixed by the location of the Sachsenbrücke bridge and must not be moved. An area is designated for the flood-protected connec-

tion of the escape route to the road Am Moldauhafen in the area of the former Überseezentrum. The location and level of this connection will be determined by the necessity to cross under the future underground railway line and in consideration of the existing ramp at Rampenstrasse as well as the (future) increased height of the Veddel-West main dyke line. To ensure that the district is linked to the former Überseezentrum in the best possible way, a completely new and efficient road junction will have to be built in this area (see Appendix 1.12 Fokusplan Zufahrt Osten Testplanung and Fig. 33).

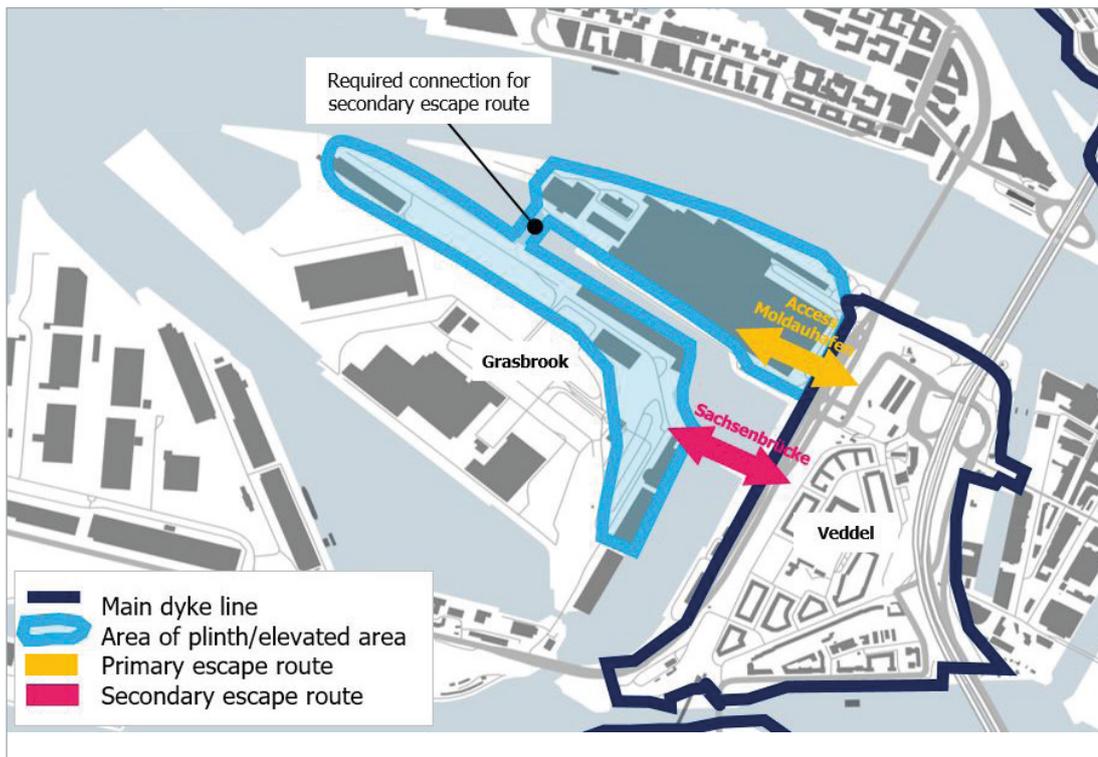


Fig. 32 | Flood protection concept

Dessauer Strasse will remain at its current level near the existing historic buildings. The Hansabrücke bridge also remains at its existing level (not flood-protected). Access to the southern buildings in Hafentorquartier and to Dessauer Strasse is to be at a flood-protected level. A fundamental requirement for the district's flood

protection is that the bridge over Moldauhafen, which is needed to complete the ring function, can be implemented in good time, since a second flood-protected escape route must be guaranteed at the latest when the area is more intensely used (> 5,000 users).

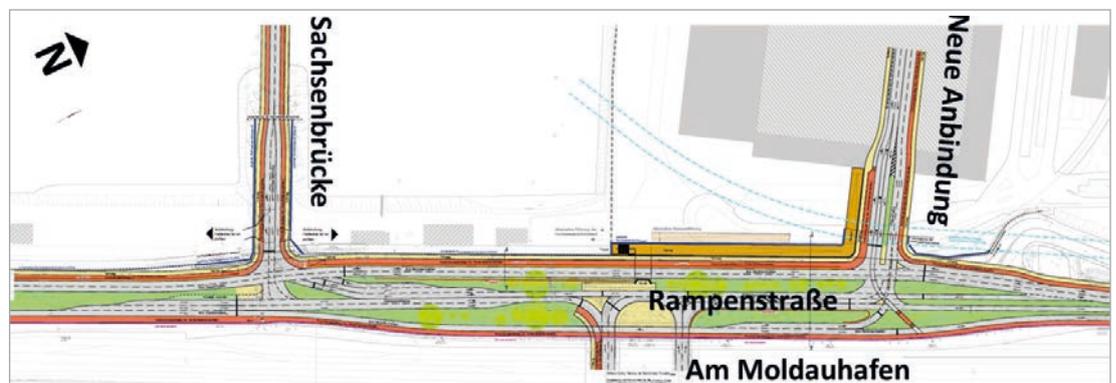


Fig. 33 | Location of a new eastern link at Überseezentrum (test designs)

Chapter E.6

Urban climate, water cycle, nature conservation and species protection

Urban climate

Hamburg is located in the low-lying North German Plain with few topographical features and generally good ventilation, giving it a pleasant summer climate overall. However, if autochthonous weather conditions occur in the summer months, which are typically associated with low air exchange and high temperatures, potential health hazards arise. This is the scenario to be taken as a basis for assessing the local climate. The "Stadtklimaanalyse 2017" (Urban Climate Analysis) shows the areas in Hamburg where cold air production/movement occurs and where overheating occurs (see Appendix 1.39 Klimaanalyse Hamburg, maps 1.3 to 1.8, 1.38 Grünes Netz Hamburg).

Currently, large areas of impermeable surfaces and the lack of vegetation make Grasbrook a heat island. The proximity to water areas increases the impact on the temperature situation in the warm and windless weather conditions described above, as the Elbe tributaries heat up during the day and give off heat at night. This means that, unlike in windy weather conditions, no cooling occurs at night. Furthermore, no cold air is generated on the existing built up site. A moderate flow of cold air from adjacent areas to the south only affects partial areas.

Water cycle

The interests of water management are to be integrated into the planning of the district at an early stage. The RISA structure plan for rainwater project (RegenInfraStrukturAnpassung) has already set the course for Hamburg. Its overarching objective is a local, environmental water balance with a comprehensive water protection policy and appropriate flood and inland flood defences (storm surges and heavy rain events).

The hydrological cycle, consisting of the components evaporation, infiltration and runoff, should in the future be brought back to its natural equilibrium in urban areas too. To this end, evaporation and infiltration must be increased and surface runoff kept to a minimum.

An important factor for achieving this goal is decentralisation. Local solutions can be used to respond specifically to different requirements and needs. An integrated rainwater management concept consists of individual and interdisciplinary measures.

Further decentralised utilisation concepts for waste water are not part of the urban design and landscape design competition, but will be dealt with in the parameter planning after the competition.

Progressive rainwater management contributes to enriching the cityscape and enhancing the quality of inner-city recreation. An increased amount of evaporation improves the urban climate. Additionally, it is not only important to drain off rainwater as quickly as possible, but also to enhance the appearance of these interventions by designing them in a way that lets the issue of rainwater be experienced and thus become an integral part of urban open spaces and streets.

Flood protection is another main task of the rainwater infrastructure that must not be forgotten. Particularly the increasing frequency and intensity of forecast heavy rainfall events due to climate change will pose a major challenge in the future. Concepts such as the multifunctional use of streets and open spaces for flood protection purposes, by damming them temporarily at an acceptable level, pursue important objectives.

All existing sewers and drainage systems on the competition site will be taken out of operation. Only the connection points to the main sewer system in the roads Am Moldauhafen and in Veddeler Damm will be retained. These are the main connection points for waste water.

The Norderelbe and the Moldauhafen and Saalehafen serve as receiving water courses for drainage on site. The Norderelbe is separated from the Elbe River by the Wilhelmsburg Elbe island. It is a federal waterway which is influenced by

the tides in the North Sea. Depending on the tidal fluctuations, the average water levels lie between mean low tide of -1.67 m above sea level and a mean high tide of +2.14 m above sea level (source: HPA Gewässerkundliche Information 2018, Messstelle Hamburg St. Pauli).

The information for planning rainwater infrastructure and precautions in case of heavy rainfall events is contained in Appendix 1.20 Planungshinweise Wasserkreisläufe must be considered.

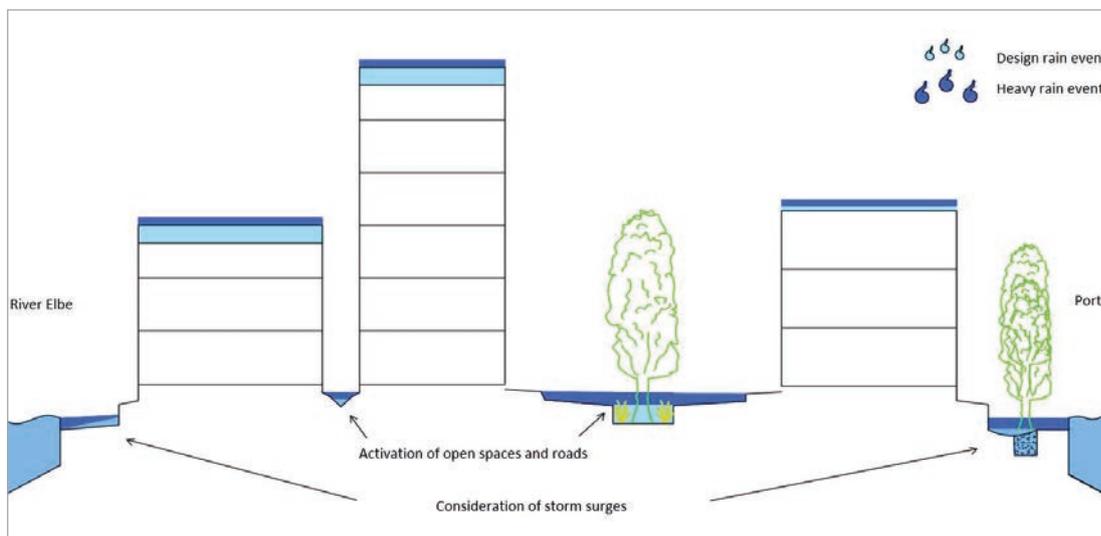


Fig. 34 | Diagrammatic section – Safe drainage in heavy rainstorms

Nature conservation and species protection

An ecological survey and appraisal was prepared in order to investigate the ecological value of the competition site and the possible impact of the development of the Grasbrook district as regards nature conservation legislation (see Appendix 1.13 Standortanalyse Grasbrook, Part 5). The habitat types as well as various animal groups were recorded and the population baseline for flora, habitat types, breeding birds, bats, willowherb hawkmoths, fish and large clams were evaluated.

A total of 36 habitat types were recorded on the competition site, the largest proportion of which were habitat complexes related to transport areas (largely vegetation-free or little vegetation) followed by flowing water.

However, there are some protected habitat types and endangered habitats on the competition site pursuant to Article 30 of the Federal Nature Conservation Act (§ 30 BNatSchG) and Article 28 of the Hamburg Act for Implementing the Federal Nature Conservation Act (§ 28 HmbB-NatSchAG).

Endangered habitats include:

- Willow scrub in the tidal zones (partly on the rock riprap in the docks and on the banks of the Elbe)
- Ruderal scrub (mostly brambles on lime-deficient sites)
- Tidal reeds (small areas of reeds on the banks)
- Semi-ruderal grasses and herbaceous perennials on dry sites, and
- Old brick walls in the tidal zone (mostly quay walls in the north-western Moldauhafen).

Habitats protected by law:

- Willow scrub in tidal zones
- River mudflats
- Tidal reeds
- and other semi-natural areas in tidal zones of fluctuating water levels.

In the event that these areas should be built up, similar areas must be designated within the site.

Overall, the habitat values on the competition site are relatively low or classified in the lowest value categories due to the area's predominantly impermeable surfaces. Only larger areas of the Norderelbe, the harbour basins and above all, the tidal mudflats are of medium value. Areas of higher value are the water margins and the disused areas of the harbour railway at the former Überseezentrum.

Due to the fact that Grasbrook is located in the middle of a bird migration corridor and that numerous water birds rest in the smaller harbour basins, special requirements for the protection of birds apply to the later architectural designs (especially bird protection measures on glazed surfaces on the building facades facing the water and on taller buildings, in the vicinity of trees and shrubs, as well as measures against light pollution such as the emission of light directed outwards or upwards, especially on upper floors) (see Appendix 1.41 Vogelfreundliches Bauen and Appendix 1.42 Fledermäuse in der Lichtplanung).

Chapter E.7

Noise prevention

The protection of future users against noise pollution, but also the creation of competitive framework conditions for commercial areas, is one of the basic tasks in the Grasbrook district. The main sources of noise are the transport corridors (roads/rail/water) and the industrial, commercial and port areas. The main sources of noise are the Elbbrücken bridges, rail traffic on the long-distance and freight lines immediately to the east and the main roads in the east of the site (see Figs. 35 and 36).

Noise protection against traffic noise, especially noise from the railway in the east, must be included in the concepts. With regard to noise from the railway, which has a high impact as it penetrates deeply into the site if unhindered, the configuration of buildings and the main open spaces must be designed to generate suitable facades in residential buildings that face away from the source of noise. Residential buildings should be designed in such a way that they can be developed without the noise protecting effect of existing commercial buildings.

A continuous daytime noise level (6 a.m. to 10 p.m.) of 60 dB(A) should be maintained in the park. The maximum impact should not exceed 65 dB(A).

When placing sports and leisure facilities, it should be borne in mind that they too may have a disturbing noise impact. This must be avoided by skilfully placing these facilities on the site or reducing the impact with appropriate measures. Generally, schools are not classified as a disruptive source of noise. However, schools are noise-sensitive. Classrooms can be adequately protected by passive noise protection measures, if required. For the schoolyard as for the

parks a daytime noise level of 60 dB(A) should be aimed for.

In order to resolve the harbour noise problem, the local development plans (Bebauungspläne) that will be drawn up by the authority will contain regulations which specify suitable window constructions, glazed porches or similar measures to ensure that an interior noise level of less than 30 dB(A) is guaranteed at night with the windows tilted in bedrooms and children's rooms as well as in other rooms that require protection in compliance with DIN 4109. The Hamburg guideline "Lärmschutz in der Bauleitplanung 2010" (Noise protection in urban land use planning) must be observed (see Chapter E.12). It should also be noted that the possibilities for solving noise conflicts by means of special window constructions (HafenCity windows, Hamburg windows) are limited. Such noise protection measures can only be used as a last resort, when all other measures have been exhausted.

"HafenCity windows" may only be used provided that the preferred protective measures are insufficient and each residential unit has access to noise-protected outdoor living areas (compliance with the respective daytime emission guideline value of the Technical Instructions on Noise Control (TA Lärm) for at least one outdoor living area for each residential unit). "HafenCity windows" should therefore only be used in Hamburg if other active or passive protective measures are insufficient to overcome noise conflicts.

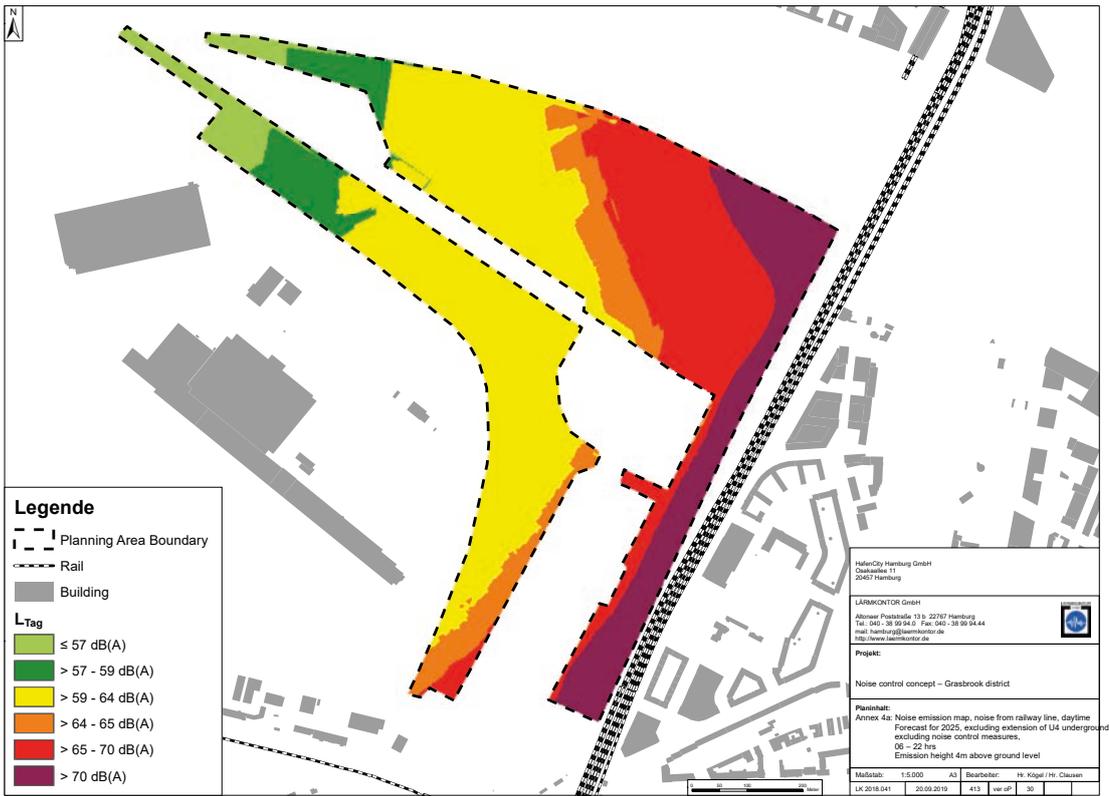


Fig. 35 | Noise pollution – day

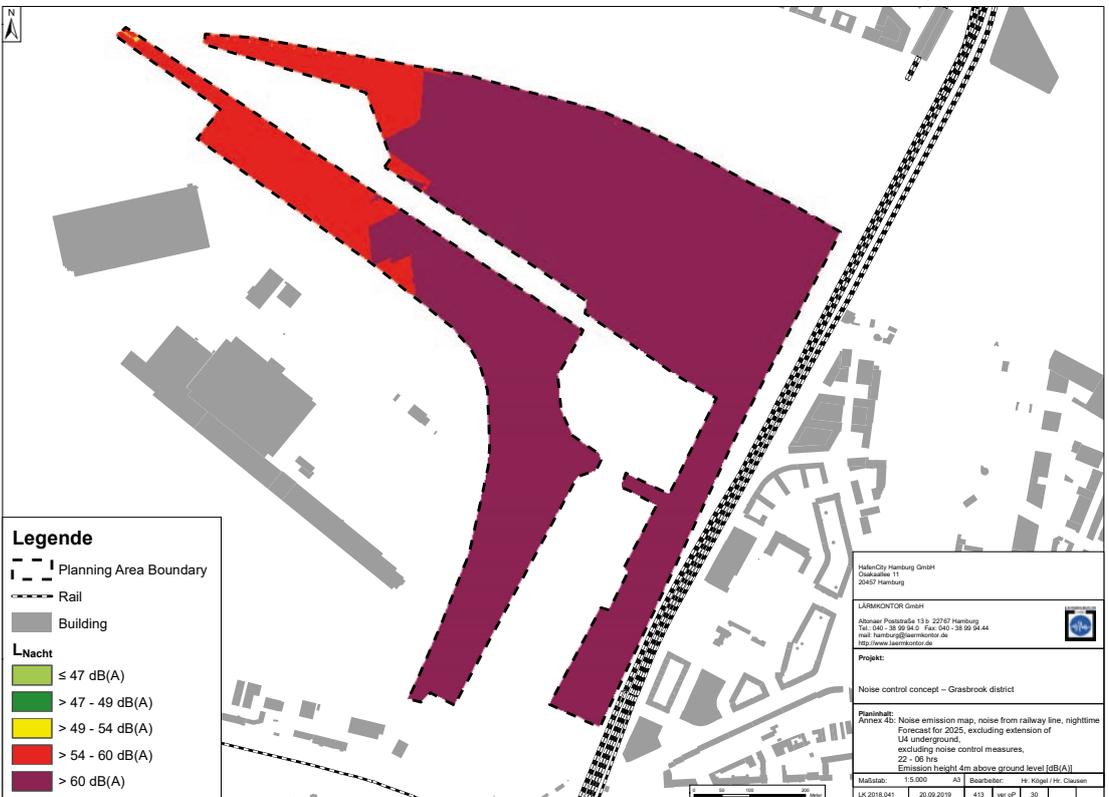


Fig. 36 | Noise pollution – night

Chapter E.8

Existing buildings and heritage preservation

There are several existing buildings on the competition site. The buildings on the site of the former Überseezentrum occupy the largest area (see Appendix 1.13 Standortanalyse Grasbrook, Chapter 7.1.1, p. 152 ff.). Other buildings are situated in the areas south of Moldauhafen and on both sides of Saalehafen. Some buildings south of Moldauhafen and in the west of Saalehafen are listed (warehouses D, F and G, of which F and G form a listed ensemble).

Warehouse G (built in 1903) on Dessauer Ufer is of particular importance. In June 1944, approximately 1,500 Jewish women from Hungary, the Czech Republic and Poland were held prisoner in this warehouse, which served as an outpost of the Neuengamme Concentration Camp. Three months later, the women were transferred to other camps in Hamburg. Then, 2,000 male prisoners, also from Neuengamme Concentration Camp, were moved to the camp in September 1944. Both the female and male prisoners were forced labourers and part of the "Geilenberg Programm", an emergency programme to save the petroleum industry. They also had to clean up the waterworks and other port operations. The men had to dig tank trenches and work for the Reichsbahn. An Allied bombing raid in October 1944 killed numerous prisoners and severely damaged the warehouse. After its repair, the camp accommodated 1,500 prisoners again. The satellite camp was cleared in April 1945. The building still bears traces of the Nazi prisoners now commemorative plaques and a wall painting are reminders of that time. Therefore, the building is of great historical importance in many respects.

Warehouse F, on the other hand, is a shed that was rebuilt on the old foundations of the building destroyed in World War II. The original foundations as well as isolated parts of the old building, e.g. the crane portals/winch housings, were reused.

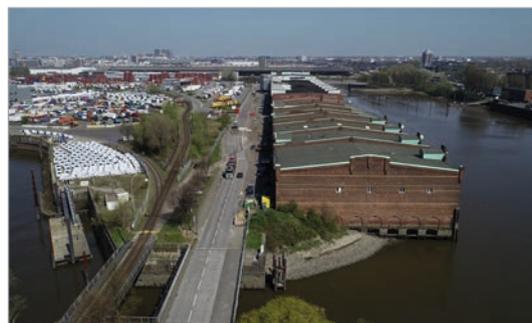


Fig. 37 | Warehouse G on Dessauer Ufer

Warehouse D (built in 1958) along the bank of the eastern end of Melniker Ufer is also a listed building (see Appendix 1.31 Bestandsunterlagen Lagerhaus D). It is a shed that was rebuilt on the old foundations of the original building destroyed in World War II (built around 1914). The building is currently used as a banana ripening shed. However, according to the Hamburger Hafen und Logistik AG (HHLA), the foundations of warehouse D, which were left in the ground after the wartime destruction and reused, are in a poor condition. Several isolated restoration measures have been carried out. A site survey conducted by HHLA has shown that the entire building is moving in the direction of Moldauhafen. The survey has not yet been completed and HHLA will continue to monitor the building.



Fig. 38 | Warehouse D – Banana ripening facility

Chapter E.9

Operational areas of hazardous incident plants

Two operational areas (hazardous incident plants) have been identified on the competition site. These are companies that are subject to the Hazardous Incident Ordinance (Störfallverordnung) and for which appropriate safety distances from uses that are worthy of protection must be observed in the planning and approval processes. The appropriate safety distance is determined by the storage of hazardous substances.

On Grasbrook, dangerous goods are handled in warehouse F and dangerous goods are stored on the UNIKAI site. The provisional status of the coordination process with the Behörde für Umwelt und Energie (Ministry of the Environment and Energy) for an "appropriate safety distances" is included in Figure 39.

It demonstrates that the location of the warehouse for hazardous substances within the demarcated area at the O'Swaldkai terminal makes port uses compatible with commercial and residential uses in the new Grasbrook district. Almost the entire area of the Grasbrook district is outside the safety zone. In the north-western area of Hafentorquartier, only office, production and research uses are permitted, but no public uses (e.g. hotels, restaurants, playgrounds or similar). There are no other restrictions for the intended use of the Grasbrook district due to this constraint.

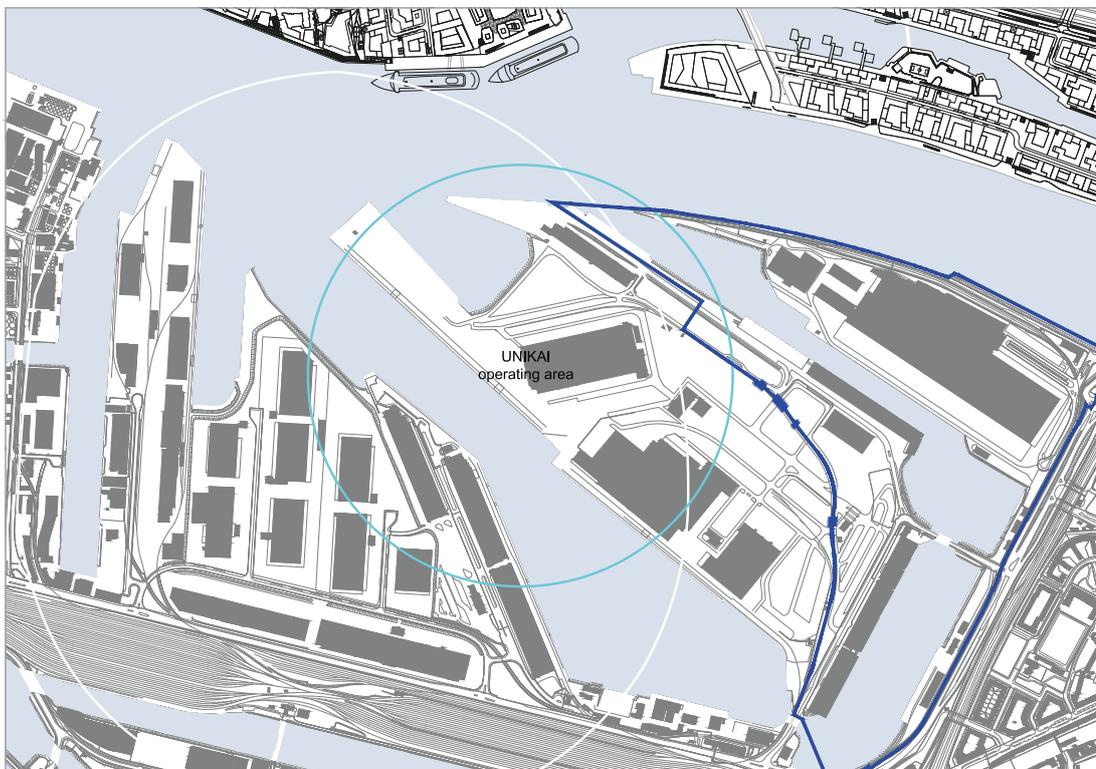


Fig. 39 | Appropriate safety distance to UNIKAI operational area

Chapter E.10

International Ship and Port Security Code (ISPS)

The Hafensicherheitsgesetz (Port Security Act), adopted in 2005, tightened the security regulations for the Port of Hamburg. These include the introduction of the International Ship and Port Security code (ISPS), which is intended to guarantee security in port facilities – it serves to protect international merchant shipping and its port facilities against terrorist acts (see also Appendix 1.13 Standortanalyse Grasbrook, p. 42 ff.).

The associated measures concern direct access to ships and the quay zones in front of them: Among other things, moorings, cargo handling and the equipment of ships are inspected and all accesses to the port facilities (to staff rooms and storage rooms, at the access and egress of private cars and HGVs) and all access points to the site from the water are permanently monitored and secured, chiefly with fences, barriers, identity checks and other measures.

Port security covers most of the areas adjacent to the competition site, making them subject to the ISPS Code, in particular the areas at the O'Swaldkai terminal, UNIKAI Lagerei- und Speditionsgesellschaft mbH and HHLA Frucht- und Kühl-Zentrum GmbH (see Appendix 1.13 Standortanalyse Grasbrook, Item 2.3). The ISPS boundary in the area of the northern O'Swaldkai terminal is almost identical to the boundary between the Grasbrook district and the port area. The areas directly adjacent to the O'Swaldkai terminal will continue to be subject to the stipulations and regulations of the ISPS Code. The controlled entrance and exit gates at the O'Swaldkai terminal will be relocated in connection with the adaptation of access to the port. A clearance distance of 3.0 m must be kept between the boundary and buildings (see Fig. 40). The Überseezentrum is no longer an ISPS facility (see Appendix 1.13 Standortanalyse Grasbrook, Plan 03.1).

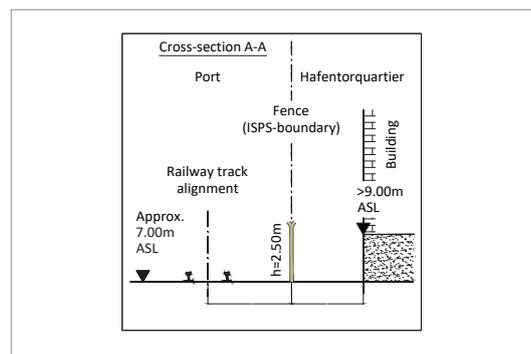


Fig. 40 | Typical cross-section – ISPS boundary (southern boundary of Hafentorquartier)

Chapter E.11

Recommendations for crime prevention design

The objectives of crime prevention design in the neighbourhood are to avoid structures that generate opportunities for crime and to create the conditions for a good and sustainable feeling of security among the residents. The recommendations of the police on the design of buildings and open spaces in the Kleiner Grasbrook district can be found in Appendix 1.23 (Planungshinweise Kriminalprävention).

Chapter E.12

Planning legislation

The land use plan (Flächennutzungsplan) for the Free and Hanseatic City of Hamburg in its latest version of 22 October 1997 designates the competition site as "port" (adopted). Future development on the basis of the results of the Competitive Dialogue will require new planning law. A corresponding port planning ordinance based on the Hafententwicklungsgesetz (Port Development Act) will be issued for the area of the Hafentorquartier.

E.12.1 Regulations, rules and guidelines

As part of the procedure, reference is made to the following sets of rules, some of which are specific, in addition to the generally recognised rules of technology:

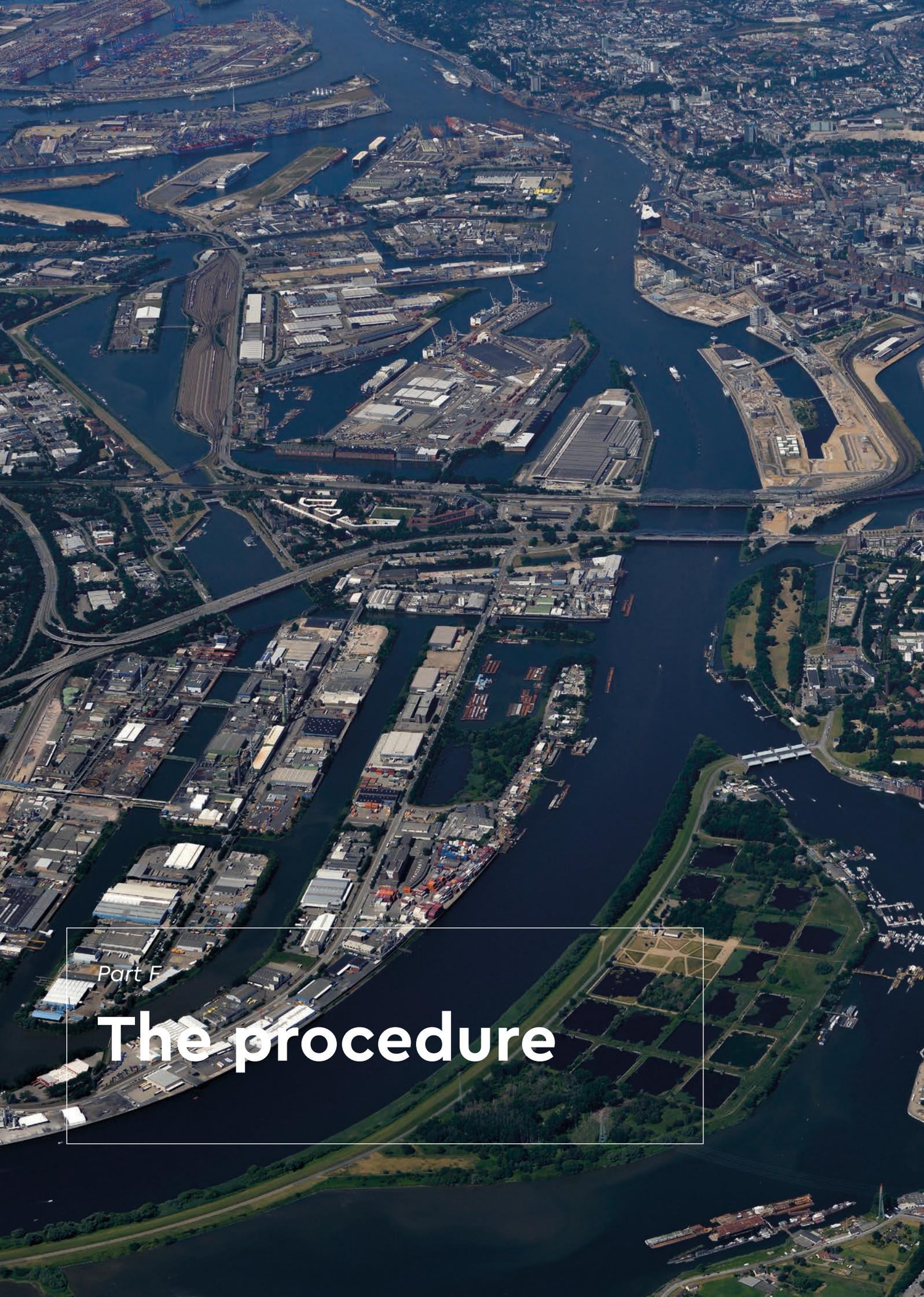
- Baugesetzbuch (BauGB)
(Federal Building Code)
- Baunutzungsverordnung (BauNVO)
(Federal Land Utilisation Ordinance)
- Hamburgische Bauordnung (HBauO) (insbesondere § 6 HBauO Abstandsflächen und § 10 HBauO Kinderspiel- und Freizeitflächen)
(Hamburg Building Code, especially Article 6 Clearance distances and Article 10 Children's play areas and recreation areas)
- DIN 277 Grundflächen und Rauminhalte im Bauwesen
(German standard for areas and volumes of buildings)
- DIN 4109 Schallschutz im Hochbau
(German standard for sound insulation in buildings)
- Hafententwicklungsgesetz (HafenEG)
(Port Development Ordinance)
- Richtlinie für den Betrieb von Kindertageseinrichtungen
(Directive on operating a childcare day facility)
- Geruchsmissions-Richtlinie (GIRL)
(Odour Emission Directive)
- Technische Anleitung zur Reinhaltung der Luft (TA Luft)
(Technical Instructions on Air Quality Control)
- Hafenplanungsverordnung Kleiner Grasbrook/Steinwerder
(Port Development Ordinance – Kleiner Grasbrook/Steinwerder)
- Technische Anleitung zum Schutz gegen Lärm (TA Lärm)
(Technical Instruction on Noise Control)
- Verkehrslärmschutzverordnung – 16. BImSchV
(Traffic Noise Ordinance)
- Hamburger Leitfaden Lärm in der Bauleitplanung 2010
(2010 Hamburg Guidelines on Noise in Urban Land Use Planning)
- Richtlinie über Flächen für die Feuerwehr Bauprüfdienst (BPD) 3/2010
(Building Consent Directive on Areas for Fire Services 3/2010)
- Bauordnungsrechtliche Erschließung von Grundstücken (BPD Erschließung)
(Building Regulations – Access to Building Plots (Building Consent – Infrastructure))
- Richtwerte für die Planung von Grün- und Freiflächen in Hamburg
(Guiding values for green and open spaces in Hamburg)
- Verordnung über den Bau und Betrieb von Garagen und offenen Stellplätzen (Garagenverordnung GarVO)
(Directive for the construction and operation of car parks and open car parking spaces)
- Bauliche Anforderungen an Stellplätze und Garagen (BPD Garagen)
(Requirements for building car parking spaces and car parks)
- Hamburger Regelwerke für Planung und Entwurf von Stadtstraßen 2016 (ReStra)

(2016 Standards for planning and designing urban roads in Hamburg)

- RISA Strukturplan Regenwasser 2030 (siehe www.risa-hamburg.de) (RISA Structure plan for rainwater (see www.risa-hamburg.de))
- Bundesnaturschutzgesetz (BNatSchG) (Federal Nature Conservation Act)
- Hamburgisches Gesetz zur Ausführung des Bundesnaturschutzgesetzes (HmbBNatSchAG) (Hamburg Act for Implementing the Federal Nature Conservation Act)
- Baumschutzverordnung Hamburg (Hamburg Tree Protection Act)
- Hamburgische Klimaschutzverordnung (HmbKliSchVO) (Hamburg Climate Action Policy)
- Hochwasserschutz (Drucksache Hochwasserschutz für Hamburg, Drucksache 20/5561 vom 16.10.2012) (Flood Protection (Document on Flood Protection for Hamburg, Document 20/5561 of 16.10.2012))
- Gründachstrategie (<http://www.hamburg.de/gruendach/>) (Green roof strategy (<http://www.hamburg.de/gruendach/>))
- Dachbegrünungsrichtlinie sowie Fassadenbegrünungsrichtlinie Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau e.V. 2018 (Green roof directive and green facade directive)
- Bauprüfdienst (BPD) 2018, Störfallbetriebe und schutzwürdige Nutzungen im bauaufsichtlichen Genehmigungsverfahren und in immissionsschutzrechtlichen Verfahren (Building consent; Hazardous incident plants

and land uses that require protection in the building approval process and emission protection approval process)

- Störfall-Verordnung 12. BImSchV (Hazardous Incident Ordinance)
- Hafensicherheitsgesetz (HafenSG) vom 06. Oktober 2005, HmbGVBl. 2005, S. 424, zuletzt geändert durch Artikel 4 des Gesetzes vom 18. Mai 2018, HmbGVBl. 2018, S. 182, 183 (Port Security Act of 6 October 2005, HmbGVBl. 2005, p. 424, last amended by Article 4 of the law dated 18 May 2018, HmbGVBl. 2018, p. 182, 183)
- Erneuerbare-Energien-Wärmegesetz EEWärmeG (Renewable Energies Heat Act)
- Hamburger Klimaschutzgesetz HmbKliSchG (Hamburg Climate Action Plan)
- Denkmalschutzgesetz DSchG (Heritage Protection Law)
- Drucksache Innenraumpegellösung zur Konfliktbewältigung mit Industrie- und Gewerbelärm (Drs. 180531/6) (Document for the resolution of conflicts arising in the context of industrial and commercial noise levels in interior spaces)



Part F

The procedure



Chapter F.1

Promoter

Awarding body ("Promoter") of the procedure is

HafenCity Hamburg GmbH (HCH)
Osakaallee11
20457 Hamburg

in consultation with the

Free and Hanseatic City of Hamburg (FHH)

represented by the

Ministry of Urban Development and Housing (BSW)
Ministry of the Environment and Energy (BUE)

Chapter F.2

Competition management

The whole procedure and all communications will be via the German electronic tendering platform eVergabe:

www.deutsche-evergabe.de

Coordination and support of the procedure by the competition organisers:

D&K drost consult GmbH
Kajen 10
20459 Hamburg
Tel: +49 4036098422
E-Mail: i.issberner@drost-consult.de

[see Announcement 2019/S120-294257 (Item I.1)]

Chapter F.3

Competition task

The Grasbrook district is to be developed in the future into a mixed-use urban area with commercial, office and residential uses. The current status is that approximately 3,000 apartments (one third publicly subsidised) will be constructed for approximately 6,000 residents, plus the social infrastructure (primary school, day-care centres for children, sports grounds), shopping facilities and open spaces in addition to approximately 16,000 jobs. A total of approximately 880,000 sqm gross floor area (GFA) will be created in a densely built-up urban area. The goal is to accomplish, among other things, a high physical and social urban density and mix that is highly sustainable.

The object of this procurement is an urban design parameter plan (städtebauliche Funktionsplanung) (Lot 1) and a landscape design scheme (core concept and implementation) (Freiraumplanung (Grundsatz- und Realisierungsplanung)) (Lot 2) for the new Grasbrook district in Hamburg. After completion of the joint procedure, two separate contracts will be concluded. The estimated contract value of the urban design parameter plan is approximately € 500,000 and the estimated contract value of the landscape design scheme is € 1,500,000. The estimated total contract volume is approximately € 2,000,000.

Chapter F.4

Competition information

The Competitive Dialogue is conducted as a parallel, combined procedure for an urban design parameter plan and a landscape design scheme in two successive phases. The initial phase of the competition is divided into Lot 1: urban parameter plan and Lot 2: landscape design scheme. The contract will be awarded separately for urban design and landscape design. The objective of this joint procedure with separate evaluation and commissioning is to achieve the highest possible gain derived from the disciplines' respective cross-cutting perspectives. The dialogue phase immediately after the pre-qualification process will give more priority to an interaction of perspectives and solutions.

Extensive community consultation has taken place in the run-up to this Competitive Dialogue. In order to extend the comprehensive public consultation process in the context of

the procedure, the Promoter decided to launch a Competitive Dialogue. This ensures that not only the results of the consultation but also the information and progress of work can be communicated in accordance with procedural regulations (VgV). The dialogue with citizens and other stakeholders should augment the quality during the design phase.

The tasks listed in this brief may be substituted or adapted (concretisation) within the context of the dialogue phase. Competitors may gain knowledge of the other Competitors' design proposals during the dialogue phase. During the first phase of the Competitive Dialogue (qualification phase), the six Competitors that have been selected in a pre-qualification stage will work on the task separately for each lot and submit their concepts (separately for urban design or landscape design).

The design concepts will be presented to the public at the end of the qualification phase. The Jury (not public) will select the three best landscape and urban design submissions, which will then be developed further in a subsequent second phase (detail phase) (for further information on the procedure see Chapter F.8). The Promoter reserves the right, based on the recommendation of the Jury, to select substitutes for each lot from the previously excluded schemes, to ensure that there will be three Competitors in the detail phase in the event of a shortfall. The Jury will be composed of representatives of the Promoter, the technical authorities, political representatives and external experts (see Chapter F.6). The evaluation will be based on the criteria listed in Chapter F.12.

Subsequently, the work in the detail phase will be carried out by interdisciplinary teams (urban design / landscape design), which will be selected by the Jury at the end of the qualification phase. It should be noted that each team consists of one landscape architecture practice and one urban design practice and that they will each develop a design proposal which is to be submitted separately (not as a team) at the second Jury meeting. A dialogue between the Promoter and the Competitors will take place during the detail phase. The tasks in the brief may be substituted or adapted (concretisation) within the context of the dialogue phase. This dialogue is divided into specialist consultations on urban design/landscape design (consultation meetings) and talks on contractual and fee conditions. Ten days after the start of the detail phase, a fee proposal will be submitted plus comments on the contract (fee negotiation phase simultaneously to dialogue phase). Clarifications and additions to the quotations by the tenderers are permissible within narrow limits (Article 18 Section 8 VgV). The tenders will be evaluated by the Promoter on the basis of the award criteria. The Promoter may negotiate with the tenderers in order to finalise financial commitments or other terms and conditions of the contract. Amendments of essential parts of the tender are not permissible with regard to

the principles of equal treatment and non-discrimination (Article 18 Section 9 VgV). At the end of the detail phase, the design concepts are submitted in accordance with the services defined during the dialogue phase and the final tender. The design concepts are presented to the public at the end of the detail phase. On the basis of the criteria mentioned in Chapter F.13, the Jury determines a ranking order for an urban design parameter plan (Lot 1) and a landscape design scheme (Lot 2).

After the Jury has selected the best urban design parameter plan and the best landscape design scheme (not necessarily consisting of the paired teams), the Promoter makes the award decision on the basis of the specified award criteria (see Chapter F.14). An overview of the dates of the Competitive Dialogue can be found in Chapter F.18.

The Competition Committee of the Hamburg Chamber of Architects has been informed of the content of this competition brief.

Chapter F.5

Competitors

The following Competitors have been selected in the context of a pre-qualification competition on the basis of the criteria listed in the announcement and the selection information for participation in this procedure:

Urban design:

1. ADEPT ApS
Copenhagen, Denmark
2. gmp International GmbH
Hamburg, Germany
3. Herzog & de Meuron Basel Ltd.
Basel, Switzerland
4. KCAP International B.V.
Rotterdam, Netherlands
5. Mandaworks AB
Stockholm, Sweden
6. MVRDV B.V.
Rotterdam, Netherlands

Freiraumplanung:

1. Atelier Loidl Landschaftsarchitekten Berlin GmbH
Berlin, Hamburg, Germany
2. Karres en Brands
RB Hilversum, Netherlands
3. Ramboll Studio Dreiseitl GmbH
Hamburg, Germany
4. Studio Vulkan Landschaftsarchitektur GmbH
Zurich, Switzerland
5. VOGT Landschaftsarchitekten AG
Zurich, Switzerland
6. WES GmbH LandschaftsArchitektur
Hamburg, Germany

It is recommended that the Competitors should seek advice from other consultants for their work on the competition task. Any fees due for technical consultations are covered by the competition fee (see Chapter F.7). The appointment of technical consultants is not intended.

The Promoter will provide expert advice on the following topics (during the preparatory phase and as part of the assessment):

- Local climate in the district/biodiversity
- Noise
- Wind
- Shading/sunlight
- Water cycles
- Embankments
- Transport
- Technical consultation energy concept
- Protection of birds
- Economic analysis, economic evaluation
- BIM-interface, digital data

The above technical consultants are already involved in the preparatory phases and are available for consultation. They will not work on design solutions, but will make specialist contributions in the sense of technical advice. These technical consultants will also analyse the design concepts regarding their relevant subject areas in the course of the assessment (see Chapter F.11). The Promoter reserves the right to add further consultants.

The technical consultants can only be contacted via the eVergabe platform. Competitors can post their questions on the procedure on the eVergabe portal. Questions are answered online on the eVergabe portal. The answers to general questions are made available to all Competitors. Questions relating to specifics of the proposals will be answered only to the asking teams. The technical consultants are bound by an obligation of confidentiality and will not impart any design specific information to third parties.

Chapter F.6

Jury

Professional Jury

Franz-Josef Höing

Hamburg Ministry of Urban Development and Housing (BSW)
Chief Planning Director

Hans Gabanyi

Hamburg Ministry of the Environment and Energy (BUE)
Head of Nature Conservation, Landscape and Soil Conservation

Bodo Hafke

Hamburg-Mitte District
Department Head of Economy, Building and the Environment

Beat Aeberhard

Cantonal Architect, Basel (City) (CH)
Urban Planner

Wim Eckert

E2A Architects, Zurich (CH)
Urban Planner

Karin Loosen

LRW Architekten, Hamburg (D)
Urban Planner

Prof. Matthias Sauerbruch

Büro Sauerbruch Hutton, Berlin (D)
Urban Planner

Guido Hager

Hager Partner AG, Berlin (D) & Zürich (CH)
Landscape Architect

Prof. Ulrike Böhm

bbzl boehm benfer zahiri, Berlin
Landscape Architect

Matthias Krebs

Krebs und Herde Landschaftsarchitekten BSLA, Wintertur (CH)
Landscape Architect

Barbara Hutter

hutterreimann Landschaftsarchitektur GmbH, Berlin (D)
Landscape Architect

Prof. Dr. Annette Hafner

Ruhr-Uni Bochum; Ressourceneffizientes Bauen (D)
Architect

Expert Jury

Dr. Dorothee Stapelfeldt

Hamburg Ministry of Urban Development and Housing (BSW)
Senator

Prof. Jürgen Bruns-Berentelg

HafenCity Hamburg GmbH
CEO

Giselher Schultz-Berndt

HafenCity Hamburg GmbH
Managing Director

Martin Huber

Hamburg Ministry of the Economy, Transport and Innovation
Transport and Roads

Martina Koeppen (SPD)

Political Party Representative
Member of the Hamburg State Parliament

Jörg Hamann (CDU)

Political Party Representative
Member of the Hamburg State Parliament

Olaf Duge (GRÜNE)

Political Party Representative
Member of the Hamburg State Parliament

Oliver Sträter (SPD)

Representative of the Hamburg Mitte District Assembly

Klaus Lübke (SPD)

Representative of the Hamburg Mitte District Assembly

Anne Bailly (GRÜNE)

Representative of the Hamburg Mitte District Assembly

Dr. Andreas Kleinau

Combine Consulting GmbH

Deputy professional Jury

Susanne Metz

Hamburg Ministry of Urban Development and Housing (BSW)
Regional Planning and Urban Development

Klaus Hoppe

Hamburg Ministry of the Environment and Energy (BUE)
Landscape Planning and Urban Green

Michael Mathe

Hamburg-Mitte District
City and Landscape Planning

Dr. Tina Wagner

Hamburg Ministry of the Economy, Transport and Innovation
Transport Development

Christoph Elsässer

West 8 urban design & landscape architecture
b.v.
Urban Planner

NN

Urban Planner

NN

Landscape Architect

NN

Landscape Architect

Deputy expert Jury

Hans Peter Schneider

HafenCity Hamburg GmbH

Jens Meyer (FDP)

Political Party Representative
Member of the Hamburg State Parliament

Bernhard Stietz-Leipnitz (DIE LINKE)

Political Party Representative
Member of the Hamburg State Parliament

NN (AFD)

Political Party Representative
Member of the Hamburg State Parliament

Stefan Dührkop (DIE LINKE)

Representative of the Hamburg Mitte District Assembly

Dr. Gunter Böttcher (CDU)

Representative of the Hamburg Mitte District Assembly

Kay Dassow (GRÜNE)

Representative of the Hamburg Mitte District Assembly

Experts

Henning Liebig (head)

HafenCity Hamburg GmbH

Bianca Penzlien (deputy)

HafenCity Hamburg GmbH

Susanne Bühler

HafenCity Hamburg GmbH

Philipp Preuner

HafenCity Hamburg GmbH

Carolin Sieger

HafenCity Hamburg GmbH

Andreas Schneider

HafenCity Hamburg GmbH

Barbara Schwöppe

HafenCity Hamburg GmbH

Christoph Lindemann

HafenCity Hamburg GmbH

Dr. Matthias Borscheid

HafenCity Hamburg GmbH

Dr. Anke Ruckes

HafenCity Hamburg GmbH

Alexander Oelmann

HafenCity Hamburg GmbH

Regina Donner

HafenCity Hamburg GmbH

Dieter Polkowski

Hamburg Ministry of Urban Development and Housing (BSW)
Urban Development

Barbara Ehlers

Hamburg Ministry of Urban Development and Housing (BSW)
Urban Planning – LP 31 – HafenCity Project Team

Siegfried Krauß

Hamburg Ministry of Urban Development and Housing (BSW)
Urban Planning – LP 31 – HafenCity Project Team

Thomas Breyvogel

Hamburg Ministry of Urban Development and Housing (BSW)
Urban Planning – LP 31 – HafenCity Project Team

Coskun Ulas

Hamburg Ministry of Urban Development and Housing (BSW)
Urban Planning – LP 31 – HafenCity Project Team

Andreas Schulz

Hamburg Ministry of Urban Development and Housing (BSW)
Building Control and Construction (ABH)

Daniela Brunn-Schmidt

Hamburg Ministry of Urban Development and Housing (BSW)
"Leap across the River Elbe" Project Team

Stefan Mundt

Hamburg Ministry of Urban Development and Housing (BSW)
Urban Planning – LP 31 – HafenCity Project Team
Procedure Management and Land Use Planning

Verena Wein-Wilke

Hamburg Ministry of Urban Development and Housing (BSW)
Housing, Urban Regeneration and Land Regulation – WSB 124

Vivienne Kalka

Hamburg Ministry of Urban Development and Housing (BSW)
Housing, Urban Regeneration and Land Regulation – WSB 124

Jutta Vorkoeper

Hamburg Ministry of Urban Development and Housing (BSW)
Housing, Urban Regeneration and Land Regulation – WSB 124

Dr. Hanna Bornholdt

Hamburg Ministry of the Environment and Energy (BUE)
Landscape Planning and Urban Greenery

Christine Bethke

Hamburg Ministry of the Environment and Energy (BUE)
Landscape Planning and Urban Greenery

Tobias Langguth

Hamburg Ministry of the Environment and Energy (BUE)
Species and Habitats Protection

Maren Ellermann

Hamburg Ministry of the Environment and Energy (BUE)
Wastewater Management

Ragnhild Hummel

Hamburg Ministry of the Environment and Energy (BUE)
Soil protection and Contaminated Sites

Dr. Maria Parensen

Hamburg Ministry of the Environment and Energy (BUE)
Environmental Protection

Birgit Zandke-Schaffhäuser

Hamburg Ministry of the Environment and Energy (BUE)
Operational Environmental Protection

Dr. Gernot Pickert

Hamburg Ministry for the Environment and Energy (BUE)
Aircraft Noise Protection Officer
Planning Immission Control

Dr. Robert Schuldt

Hamburg Ministry of the Environment and Energy (BUE)
Aircraft Noise Protection Officer
Planning Immission Control

Sophie Brauer

Hamburg Ministry of the Environment and Energy (BUE)
Energy Department

Bianca Krebs

Hamburg Ministry of the Environment and Energy (BUE)
Nature Conservation

Kerstina Feldvoss

Hamburg Ministry of the Environment and Energy (BUE)
Water, Wastewater and Geology

Dr. Nicole Lutsch

Hamburg Ministry of the Environment and Energy (BUE)
Water, Wastewater and Geology

Dr. Mechthild Recke

Hamburg Ministry of the Environment and Energy (BUE)
Water, Wastewater and Geology

Roman Hohlbein

Hamburg Ministry of the Economy, Transport and Innovation

Bettina Westphal

Hamburg Ministry of the Economy, Transport and Innovation

Carola Adel

Hamburg Ministry of the Economy, Transport and Innovation

Beatrix Schmidt

Hamburg Ministry of the Economy, Transport and Innovation
Business Development

Dr. Alexandra Schubert

Hamburg Ministry of the Economy, Transport and Innovation
Economic Development

Friedo Hauff

Hamburg-Mitte District
Economy, Construction and the Environment

Jan-Philipp Schmedemann

Hamburg-Mitte District
Economy, Construction and the Environment

Petra Stahlkopf

Hamburg Ministry of Labour, Social and Family
Affairs and Integration

Eva Grützner

Hamburg Ministry of Labour, Social and Family
Affairs and Integration

Monika Ueberhorst

Hamburg Ministry of Health and Consumer Protection
Consumer Protection

Jörg Heitmann

Behörde für Inneres und Sport

Stefan Schäfer

Hamburg Ministry of Internal Affairs and Sports

Karsten Wegge

Hamburg Ministry of Internal Affairs and Sports
Internal Administration and Planning

Kay Finger

Hamburg Ministry of Internal Affairs and Sports
Internal Administration and Planning

David Levin

Hamburg Ministry of Internal Affairs and Sports
River Police/Port Security

Christoph Schwarzkopf

Hamburg Ministry of Culture and Media
Heritage Conservation

Susanne Winch

Hamburg Ministry of Schools and Vocational
Education

Susanne Lohberg

Behörde für Schule und Berufsbildung

Patricia Munck

Hamburg Ministry of Schools and Vocational
Education

Ursula Richenberger

Hamburg Historic Museums Foundation

Frank Feindt

Hamburg Port Authority

Michael Heidrich

Hamburger Hochbahn AG

Bernard Kössler

Hamburger Sportbund e. V.

Prof. Dr. Detlef Garbe

Neuengamme Concentration Camp Memorial

Dr. Oliver von Wrochem

Neuengamme Concentration Camp Memorial

Andreas Schmidt

Roads, Bridges and Waterbodies Agency

Michael Schaper

Roads, Bridges and Waterbodies Agency

Michael Lehmann

Hamburg State Office of Criminal Investigation

Prof. Klaus Overmeyer

Urban Catalyst GmbH

Guests/Advisers

Guests/advisers, in particular representatives from the neighbouring or affected districts and of the community consultations, representatives of networks and other individuals are invited to the Jury meeting.

Note: The Promoter reserves the right to change or supplement the list of Jury members, experts, consultants and guests.

Chapter F.7

Honorarium

Pursuant to Article 77 Section 2 VgV, the Promoter will pay each participating team (Competitor) a preparation fee of **€ 40,000 (net)** for the qualification phase, provided that the services defined by this brief (Chapter F.9.1) have been fulfilled. The Promoter will pay each Competitor an additional fee of **€ 70,000 (net)** for their work on the detail phase, provided that the services defined by this brief (Chapter F.9.2) have been fulfilled. At the same time, any licence fees for the exchange of ideas during the dialogue phase shall also be deemed to have been paid.

Fees will be paid on invoicing by the Competitors. Invoices for payment should be submitted to the Promoter:

HafenCity Hamburg GmbH

Osakaallee11
20457 Hamburg

Invoices must be marked "Wettbewerblicher Dialog Grasbrook" and the original submitted to the expert competition organisers D&K drost consult GmbH (Kajen 10, 20459 Hamburg) for review.

The above mentioned fees do not include VAT. VAT must be invoiced separately, if applicable. Additional information on invoicing will be made available separately.

Chapter F.8

Process

F.8.1 General notes on the process**Issue of competition documents**

The competition documents (see Chapter F.10) will be issued to the Competitors on the eVergabe platform. In addition to this, all parties to the competition will receive a printed copy of the brief in the post. The documents on the eVergabe portal are binding. The scope of the documents includes the following:

1. Issue of documents on the eVergabe portal: Competition brief with all appendices and supplementary information as PDF files.
2. Online issue of information on the eVergabe portal: digital data for BIM planning (IFC, application specifications etc.), Excel spreads-

heet templates for costs and area calculations, digital model plans for the economic evaluation.

The Promoter reserves the right to issue further information and digital data in the course of the competition.

Organisation of submissions

As a rule, the submission of all contributions is via the eVergabe portal. All stated deadlines must be adhered to. However, this requirement cannot be met regarding the printed plans for the Jury meeting (presentation drawings) and the physical models. Against this backdrop, the following submission rules apply. The competi-

tion submissions (see Chapter F.9) are divided into three submission groups:

1. All documents, illustrations and plans must be submitted as PDF files on the eVergabe portal.
2. All digital data/assessment plans (digital data for BIM plans (IFC)) and/or drawings as dwg-files, digital plans for the economic evaluation, other digital submissions (Excel spreadsheets for cost and area calculations in the specified file formats) must be submitted on the eVergabe portal.
3. All physical objects (presentation drawings and models) are to be submitted by delivery to the contact address at D&K drost consult GmbH.

The printed presentation drawings are to be submitted to the expert competition organisers D&K drost consult GmbH. The model should also be delivered to D&K drost consult GmbH. The packaging of the submissions must be sealed and display the name of the Competitor's practice and the words "STADTTEIL GRASBROOK – WETTBEWERBLICHER DIALOG" and should be

sufficiently durable to withstand unwrapping and rewrapping several times. Deliveries must not incur any cost for the addressee. The date on the postmark has no relevance.

Address for the submission of printed presentation drawings and models:

D&K drost consult GmbH

Kajen 10
 20459 Hamburg

The correct transfer (feed in) of digital BIM data (IFC) should be tested within a fortnight of the start of the qualification phase. A defined test volume (as described in Chapter F.9 and Appendix 1.07) will be exchanged via the eVergabe portal, in order to test the proper functioning of the data transfer and the correct use of the application at an early stage of the work in the competition.

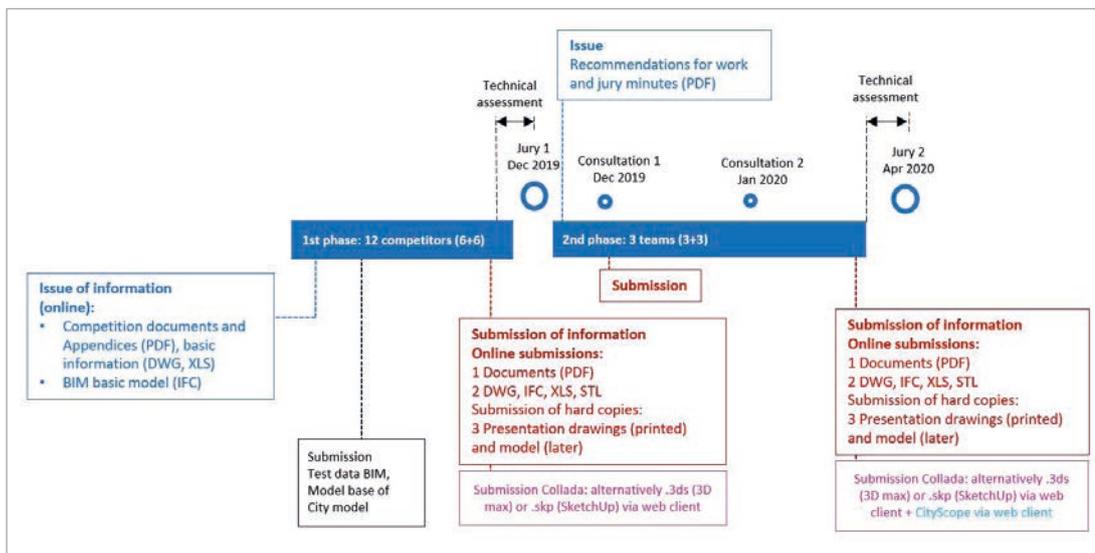


Fig. 41 | Diagram – Data exchange

F.8.2 Qualification phase (six Competitors: landscape design/urban design)

The process of the qualification phase is described in the following. A time schedule is included in Chapter F.18.

Queries

The Competitors have the opportunity to ask questions about the competition brief. The questions and answers are communicated via the eVergabe portal.

Public meeting to present findings of the consultation meetings / kick-off event

The findings of the public consultation that was conducted previously will be presented at a public kick-off event.

Queries colloquium

On the day after the public kick-off event, a joint site visit (walking and by boat) with the Competitors is planned. This will be followed by a non-public colloquium with the participation of the Jury, the expert consultants and guests as well as the Competitors. In the colloquium, the competition tasks and the questions posed in writing and orally will be discussed and answered in the presence of the Jury, the expert consultants and the Competitors. The Promoter urgently requests that at least one representative of each Competitors' team be present at the public kick-off event (introduction of the teams) and at the site visit, followed by a queries colloquium.

The Jury meeting will be held on the same day.

The minutes of the queries colloquium will be issued to all parties involved in the competition via the eVergabe portal.

The services listed in Chapter F.9.2 must be submitted within the deadlines listed in Chapter F.18 (except web client Landesbetrieb Geoinformation und Vermessung (LGV) (Geo-information and Surveying Agency)). The model insert (F.9.1.11) must be submitted to D&K drost consult GmbH

within a fortnight hence.

Information meeting for experts/ assessment by experts

In the course of the technical assessment, the submissions will be exhibited on premises not open to the public so that the expert consultants listed in Chapter F.6 can carry out their technical assessment. A joint introductory meeting will be held at the start of the assessment at which the submissions are presented in an unbiased way by D&K drost consult GmbH. The digital analyses and evaluations are carried out by the Promoter and the consultants as part of the assessment. The results of the assessment will be compiled in a summarised report for the Jury meeting. The economic results are presented in a separate report.

"Citizens' view" – public presentation of the concept ideas

The concept ideas (urban design and landscape design) will be presented at an evening meeting in the presence of the Jury. Members of the audience have the opportunity to comment on the concept ideas. The schemes will be shown in a public exhibition after the event.

Jury (qualification phase) and final presentation

The next day, the Competitors' teams present their schemes to the Jury. The scope and the timeframe are yet to be determined. The Jury meeting will be held after the presentation meeting. In the context of the Jury's decision the number of teams will be reduced from six Competitors each for urban design and landscape design to three Competitors each. The reduction, in compliance with Article 18 Section 6 VgV, is made in accordance with the assessment criteria listed in Chapter F.12. Based on the three Competitors each in the disciplines urban design and landscape architecture, the Jury will determine teams to work on the next stage. In the event that the Jury does not reach a unanimous decision, the Competitors' teams will be decided in a draw.

Personal invitations to the public presentation event and the presentation to the Jury plus the programme for the day will be issued to all parties involved in the procedure in good time on the eVergabe portal.

The Promoter will inform all Competitors immediately after the Jury meeting of the Jury's final decision on the qualification phase. The Promoter reserves the right, based on the recommendations of the Jury, to select substitutes for each lot from the previously excluded contributions, to ensure that there will be three competing teams for each discipline in the final detail phase, in the event of a shortfall.

The minutes of the Jury meeting containing general information on the best teams will be sent to all selected Competitors, members of the Jury and all other parties involved in the competition (experts). Detailed comments on the individual design proposals by the best teams will be sent to each Competitor separately with the Jury minutes.

F.8.3 Detail phase (three Competitors landscape design/urban design in teams)

Queries

The Competitors have the opportunity to ask questions about the competition brief. The questions are communicated on the eVergabe portal.

Tender submission

The fee tender and notes on the draft contract are submitted shortly after the start of the detail phase.

Consultation meetings

Two consultation meetings will take place during the detail phase. The goal of the meetings is to spark dialogue between the Competitors and the Promoter (HafenCity Hamburg, Minis-

try of Urban Development and Housing (BSW), Ministry of the Environment and Development (BUE)). Negotiations with the Promoter about the economic and contractual parameters of the tender are held at the same time. It is possible to make amendments of the content and economic items in the tender, if required.

Personal invitations to the consultation meetings will be issued to all Competitors in good time on the eVergabe portal. The meetings will be minuted. General topics will be made available to all parties involved in the competition. Issues relating to specific proposals will only be made available to the relevant Competitors. Attendance at the consultation meetings is mandatory for Competitors.

Public workshop

The urban design and landscape design concepts will be publicly presented in the presence of the Jury and the plans and models exhibited. This gives citizens the opportunity to talk directly to the individual teams and give feedback. The feedback is either recorded by the teams themselves or with the help of the competition organisers. The workshop will end with a brief moderated panel discussion in which the feedback is summarised. The exact content and procedure will be specified in the invitation.

Submission of proposals/model and the final tender

The services listed in Chapter F.9.2 – including the final tender – must be submitted on the eVergabe portal within the deadlines in Chapter F.18. The printed presentation drawings must be submitted to the competition organisers D&K drost consult GmbH. The model insert (F.9.2.7) must be submitted to D&K drost consult GmbH within a fortnight hence. Please note that tender returns are non-negotiable and become part of the evaluation in accordance with the award criteria of contract.

Information meeting for experts/ technical assessment by experts

In the course of the technical assessment, the submissions will be exhibited on premises that are not open to the public so that the expert consultants listed in Chapter F.6 can carry out their technical assessment.

A joint introductory meeting will be held at the start of the assessment process, at which the submissions are presented in an unbiased way by D&K drost consult GmbH. The digital analyses and evaluations are carried out by the consultants as part of the assessment. The results of the assessment will be summarised in a report for the Jury meeting.

Public presentation of the detail phase/Jury's decision

The design proposals for the detail phase will be presented to the public. The scope and timeframe will be issued to the Competitors on the eVergabe platform.

The Competitors present their schemes to the Jury. The Jury meeting will be held following these presentations. In the context of the Jury's decision, the six Competitors will be awarded

separately for urban design (3 teams) and landscape design (3 teams) in accordance with the assessment criteria listed in Chapter F. 13.

The minutes of the Jury meeting will be sent to all those involved in the competition.

Award of contract

An award decision is made on the basis of the Jury's decision – in accordance with the award criteria listed in Chapter F. 14 – in the form of an appointment of an urban design practice and a landscape architecture practice by the Promoter. The Promoter will inform all Competitors immediately after the award decision.

Public presentation of results and exhibition

The results of the competition are presented to the public and exhibited following the award decision/award of contract. Place, opening date and duration of the exhibition are to be announced.

Chapter F.9

Scope of services

F.9.1 General information on the qualification phase and the detail phase

The preparation of the qualification phase is carried out separately by the urban design and the landscape design Competitors.

Each Competitor may only submit one proposal. Each proposal may only contain one design solution.

The following requirements for the size of sheets and number of drawings/pages of the written

design statement as well as the required contents must be adhered to. Additional submissions will be disregarded and will be covered up during the technical assessment and the Jury meeting.

The requested submissions must display the name of the Competitors' practice in the top right-hand corner.

All annotations on plans must be printed and the written design statement must be submitted in German only. Presentation drawings must

be rolled, not folded. All plans must be oriented with the north point at the top of the sheet.

Additionally to the scope of services described below, the attendance and participation at the public kick-off event, the site visit, the queries colloquium and the presentation of the design proposals (both public and non-public before the Jury meeting) are within the scope of services covered by the fee.

F. 9.1.1 System for the calculation of areas and allocation of areas

The design work is carried out according to a predefined system for the allocation of areas. This makes all information comparable. The specifications for the area allocation are connected to the classification of the BIM data generation. Additionally to the area allocation, the BIM data (chiefly for the buildings) also require information on the type of use. The specifications for BIM data generation (AIA) are compiled in detail in Appendix 1.07 and are stipulations. The basic system is explained below.

As a rule, the area allocation of all land areas is basically sorted into the following main groups, which are further subdivided into subgroups or several subgroups and linked with additional, use-specific information.

Main groups:

1. Building plot

- 1.1. "Built up" area (note: the GFA is further subdivided according to uses)
- 1.2. Open space, public access
- 1.3. Open space, no public access

2. Open Space

- 2.1. Park (gros)
- 2.2. Square
- 2.3. Promenade
- 2.4. Sports grounds

3. Transport

4. Special use (culture, schools)

The colouring should be in accordance with these specifications. Additionally to these "overarching" main criteria there should be further subdivisions.

Division of buildings into storeys and uses

As described above, the entire land area of the site is classified according to the above main categories and thus generates the areas of building construction (plot). Like "properties" on a plan, these plots are divided into built-up areas (footprint), open spaces that are publicly accessible and open spaces that are not publicly accessible (on the plot). The building (built-up area), in turn, is divided according to its uses. As a rule, a distinction is made between the ground floor area "EG" (ground floor only) and the area above the ground floor "über EG" (all areas above ground floor). All building areas are expressed as the gross floor area (GFA in accordance with DIN 277).

There are three options each for the "EG" ground floor areas and the "über EG" above ground floor areas for their further use-specific subdivision, which are to be shown in the plans. These are:

- Residential
- Commercial
- Special use (e.g. visitor-related uses, daycare facilities for children, etc.)

Note: Areas below the ground floor are categorised as "UG" areas, but are expressly not part of the area calculation for the target values.

Open spaces are also subdivided further according to relevant use-specific and function-specific attributes. These can be found in Appendix 1.07.

The areas thus divided and classified according to the data on the plans are to be presented as specified in Appendix 1.08 in an assessment plan for "area calculations" and in a spreadsheet (xls-file) as specified in Appendix 2.03 for both the qualification phase and the detail phase. The assessment plans are to be submitted with the

area allocations described above and a floor-by-floor GFA(R) polyline created on a separate layer so that the assessment panel can make digital computations of the areas (note: R stands for Regelfall meaning norm/as a rule).

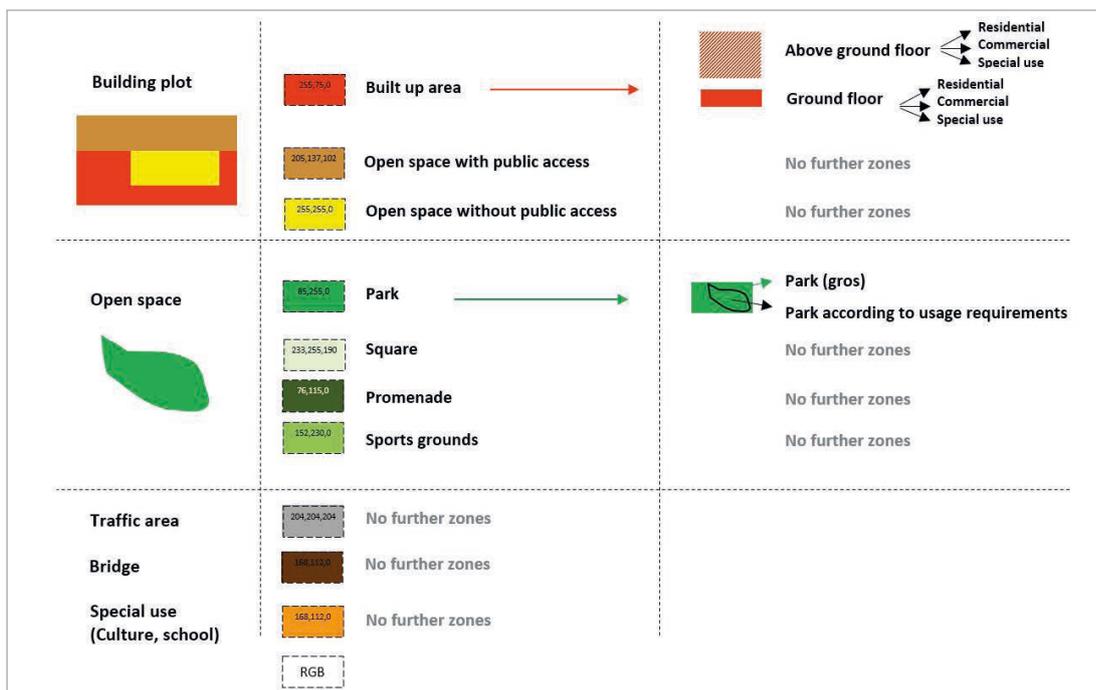


Fig. 42 | Systematic diagram – Area distribution



Fig. 43 | Example of main land use categories and land use aggregation

F 9.1.2 System of cost calculations

The costing is carried out for the individual design concepts. The costing should also be divided according to the allocation of use-specific areas (main group and subgroup). A calculation "of everything" is not wanted. Instead, the cost calculations must be based on the proposed areas (open space: park area/unit price, square area/unit price, promenade area/unit price, sports grounds area/unit price; transport facility; footbridges) and lengths (quay walls/banks) and must be comprehensible. The costings for buildings (plot) and special uses are not to be submitted.

Only a simple cost calculation (DIN 276, 2nd level, date: 11/2018) must be submitted. Only the **pure construction costs (net)** are required, excluding securities/variances/contingencies and excluding the cost of design work.

F 9.1.3 General information on digital preparation and submission (submission group 2)

Note: The following general information on digital preparation applies to both the qualification phase and the detail phase.

The area calculations on the specified calculation templates (see Appendix 2.03 Vorgaben Flächenberechnung XLS) are to be submitted as part of the scope of services required in both the qualification phase and detail phase. The calculation lists must be submitted as xls-files. The relevant assessment plans must also be submitted as dwg-files and pdf-files. The assessment plans must also be submitted as dxf-/dwg-files (not as layout files). The assessment plans must contain basic dimensions (rough dimensions of the axes and external dimensions) for all lengths and heights that are required for the calculation. The assessment plans must contain all information necessary for the calculation of areas and gross building volumes (GBV).

All digital data/assessment plans (digital data for BIM planning (IFC), digital plans for econo-

mic evaluation, other digital submissions, Excel spreadsheets with costs and area details (according to specified file formats) must be submitted on the eVergabe portal and in part via the web client of the Landesbetrieb Geoinformation und Vermessung (LGV) (Geo-information and Surveying Agency).

Key information for digital submission: 3D city model

The complete design proposal covering the topography and the buildings are to be fitted into the 3D city model of Hamburg in order to review visual axes and shading in the course of the technical assessment. The inserted models form the basis of the assessment by the Promoter and can also be used by the teams to check their design proposals. Teams can log on via a web client; instructions on how to use the web client are contained in Appendix 1.06 Vorgaben Stadtmodell/Web-Client. For this, the following requirements must be fulfilled:

Requirements for 3D models by web client:

- File format: Collada (suffix: DAE); 3DS may be sufficient.
- All surface normals must be oriented outwards.
- All data must be in metres without a scale.
- Georeferencing is desirable, for the position (preferably as position status 310 (ETRS89/UTM)) and for the site level above sea level.
- Content of design files:
 - The file must only contain the cubature of the design proposal.
 - A copy of the design file must contain the existing buildings in order to check the georeferencing.
 - A design DTM (digital terrain model) must be saved on a separate layer.
- A 2D site plan (e.g. pdf or jpg) must be submitted for verification of information.

- In case of queries, the author of the file (i.e. the architect) must be available.
- A declaration of release by the Competitor is required.
- The LGV and the Promoter must be informed of the time/date of the plans.

Key information for digital submission: IFC-BIM

The digital submission is used by the technical assessment panel for checking areas and spatial data as well as costings, quantities and other matters within the scope of the brief.

All plans of the site and the buildings are to be supplied as a 3D model to IFC standard in the current version (2 × 3) on the basis of the DTM provided in accordance with Appendix 2.04.

The plans must be based on the coordinate system of the DTM. BIM data must be georeferenced. Predefined reference points have been specified. The specified insertion points must be transferred into the digital design for the purpose of fitting the plans into other georeferenced

systems and for their evaluation and analysis. The specified insertion points are to be loaded into the respective models as dummy geometry and taken into account.

The level of detail of the model corresponds to the respective requirements in the competition phase. The individual areas (transport areas, open spaces, special areas) should be subdivided according to the BIM requirement and created with the respective element classification (IfcSlab, IfcWall).

The table below shows examples of possible element classifications in the field of landscape architecture:

Type of area	Necessary elements	Phase 1 (qualification phase)	Phase 2 (detail phase)
Transport	IfcSlab	X	X
Bridges/footbridges	IfcSlab	X	X
Open space (squares)	IfcSlab	X	X
Open space (promenade)	IfcSlab	X	X
Open space (park)	IfcSlab	X	X
Open space (sports grounds)	IfcSlab	X	X
Special use	IfcSlab	X	X
Quay walls/river banks (new construction)	IfcWall	X	X
Quay walls/river banks (restoration)	IfcWall	X	X
Quay walls/river banks (redevelopment)	IfcWall	X	X

For urban design models, the model must differentiate between the volume solids of buildings consisting of wall (IfcWall) and slab elements (IfcSlab). These are used for the assessment of the GFAs. The model must be extended to include spaces (IfcSpace) for the assessment of the net areas as well as for the calculation of area

types. These must be created and categorised according to BIM requirements.

The table below shows examples of possible element classifications in the field of urban design:

Type of area	Necessary elements	Phase 1 (qualification phase)	Phase 2 (detail phase)
GFA	IfcSlab	X	X
NIA	IfcSpace		X
Residential	IfcSpace	X	X
Commerce/office	IfcSpace	X	X
Special use	IfcSpace	X	X

To allow 3D printing, the models must be additionally supplied as stl-files.

Competitors are obliged to work with BIM during the competition procedure and to actively contribute and cooperate in the overall process. The following activities are obligatory for the Competitors:

- Submission in due time of the relevant model data for the assessment of the intermediate and the final model
- Submission in due time of model data for the final evaluation

- Consideration of and compliance with the provided BIM guidelines and requirements

- Consideration of the results and comments in the assessment reports

- Active participation in the consultations/workshops scheduled in the procedure

- Early notification of problems, questions about model-based work in the procedure.

BIM-based 3D data are an obligatory part of the overall submission.

F.9.2 Scope of services in the qualification phase (concept idea)

F.9.2.1 Submission group 1: Plans and texts

All documents, illustrations and plans must be submitted as pdf-files via the eVergabe portal.

1. Key concept idea (urban design and landscape design concept) and the character/atmosphere of the space in a free presentation plus the first perspective (viewpoint can be chosen depending on the specifics of the proposal).

2. Figure ground plan scale 1:5,000

Site plan showing integration of urban design and landscape design concept within the surrounding context. The open space structure or the urban design structure must be blackened respectively in order to bring out the design contents of each concept (urban design or landscape design).

3. Site plan scale 1:2,500

The urban design and landscape design concept idea including buildings and open spaces, showing basic information on:

- the urban structure (buildings and number of storeys including site levels and building levels in metres above sea level, roof shapes, land uses, character of sub-spaces/neighbourhoods, potential de facto splitting);
- the open space system with different typologies, target qualities, allocation of uses and infrastructure, integration into the green network;
- integration of the site into the surrounding area, links to adjoining street spaces; foot-path and cycle way connections;
- the necessary infrastructure areas.

4. Explanatory sketches and pictograms (no specific scale)

Explanatory illustrations to be submitted with

reference to the design brief's aspiration for innovation, including conceptual statements:

- Elucidation of overarching sustainability concept;
- Sustainable urban design concept with deliberations on density, cubature, physical networks, building typologies, sunlight/shading, proposals for existing buildings and their use;
- Open space structure, topography, waterfront location and urban nature with special consideration of river banks, integration of play areas and sports grounds, statements on vegetation;
- Noise control measures in the context of urban design and landscape design;
- Access and circulation and mobility concept (including statements on street typologies, supply and waste disposal and on car parking);
- Sustainable urban water cycle (diagram);
- Zoning of private open spaces (accessible to the public/private) in consideration of access requirements (e.g. fire brigade, access ramps to underground car parks);
- Concept for a "green", biodiverse and resilient city (climate and sustainability concepts, creation of roof landscapes, green roofs and facades in combination with technical building components and building typologies).

5. Three detail areas within the site to illustrate the central design idea (detail plan and cross-section) scale 1:500

Including detailed illustration and elucidation of the overall urban design and landscape design concept.

6. Massing cross-sections and three dimensional visualisations scale 1:500

An east-west and a north-south cross-section through the competition site which illustrate

the relation to the surrounding urban space and the building heights to explain the concept.

In order to explain the concept, seven three-dimensional visualisations are expected, which will be integrated into the massing model of the LGV (Appendix 2.04). The viewpoints are specified in Appendix 1.06 for comparability of the design concepts.

7. Free presentation sheet and perspective 2

The free presentation sheet gives authors an open format to illustrate their proposals. An illustration of the conceptual approach to the different housing and work concepts is also expected. Additionally, examples of the typologies of proposed uses for the roofs must be presented.

Furthermore, a second perspective must be presented in addition to the perspective mentioned in Item 1 (key concept idea). The viewpoint is freely selectable depending on the specifics of the proposal.

8. Written design statement

The written design statement should describe the design concept and contain all the relevant information for an assessment of the urban design, landscape design, creative, functional, energy conceptual solutions that are not evident in the drawings (max 10 A4 pages).

The written design statement should also contain information on space requirements for the district's energy supply.

9. Declarations by Competitors

The following declaration forms are contained in the brief (see Appendix 1.01) and must be completed and signed by the Competitors.

- Declaration of authorship
- Declaration of obligation for the use of digital data
- Image rights.

The declaration of authorship must list all members of the team that have worked on the de-

sign proposal. All three declarations must be submitted on the eVergabe portal with the design drawings.

10. Layout for hanging presentation drawings (digital)

Each Competitor has an area 6.00m in length and 1.80m in height for the presentation of their design proposals.

11. List of documents submitted

A list of the documents submitted must be compiled.

All sheets must be AO landscape format (120 × 90 cm)

<u>Plan 1</u> <ul style="list-style-type: none">• Key concept idea• Perspective 1	<u>Plan 6</u> <ul style="list-style-type: none">• Figure ground plan (scale 1:5,000)• Pictograms• Written design statement
<u>Plan 2</u> <ul style="list-style-type: none">• Site plan (scale 1:2,500)	<u>Plan 7</u> <ul style="list-style-type: none">• Pictograms• Massing cross-sections (across sheets 7 + 8) (scale 1:500)
<u>Plan 3</u> <ul style="list-style-type: none">• Detail area I (scale 1:500)	<u>Plan 8</u> <ul style="list-style-type: none">• Phases concept (scale 1:2,500)• Massing cross-sections (across sheets 7 + 8) (scale 1:500)
<u>Plan 4</u> <ul style="list-style-type: none">• Detail area II (scale 1:500)	<u>Plan 9</u> <ul style="list-style-type: none">• Perspective 2
<u>Plan 5</u> <ul style="list-style-type: none">• Detail area III (scale 1:500)	<u>Plan 10</u> <ul style="list-style-type: none">• Sheet for free presentation

Layout for hanging presentation drawings (digital)

F.9.2.2 Submission group 2: Digital data /assessment plans

The required submission includes all digital data that is mentioned in the competition brief and in the general notes in F9.1. These are:

- digital plans (all plans listed under submission group 1 as pdf-files) in the specified file formats, here dwg-files
- BIM model data
- Layer analyses from the digital city model
- Area calculation as Excel-files
- Cost calculation as Excel-file

F.9.2.3 Submission group 3: Physical objects

All physical objects (presentation drawings and models) must be delivered to D&K drost consult GmbH.

1. Layout for hanging presentation drawings (printed)

Each Competitor has an area 6.00m in length and 1.80m in height for the presentation of their design proposals.

2. Insert model scale 1:500

A model is to be made on the insert base that is issued separately. In order to fit the insert model into the existing model of the city, it must be 1:500 scale, but showing a level of detail that is equivalent to that on the site plan (scale 1:2,500). The base elevation of the model is 0.00 metres above sea level. The model must be securely packaged for dispatch and be labelled "STADTTEIL GRASBROOK – QUALIFIZIERUNGSPHASE". The name of the Competitor's practice must be marked on the package.

All sheets must be AO landscape format (120 × 90 cm)

Plan 1 <ul style="list-style-type: none">• Key concept idea• Perspective 1	Plan 6 <ul style="list-style-type: none">• Figure ground plan (scale 1:5,000)• Pictograms• Written design statement
Plan 2 <ul style="list-style-type: none">• Site plan (scale 1:2,500)	Plan 7 <ul style="list-style-type: none">• Pictograms• Massing cross-sections (across sheets 7 + 8) (scale 1:500)
Plan 3 <ul style="list-style-type: none">• Detail area I (scale 1:500)	Plan 8 <ul style="list-style-type: none">• Stages concept (scale 1:2,500)• Massing cross-sections (across sheets 7 + 8) (scale 1:500)
Plan 4 <ul style="list-style-type: none">• Detail area II (scale 1:500)	Plan 9 <ul style="list-style-type: none">• 3D Visualisations
Plan 5 <ul style="list-style-type: none">• Detail area III (scale 1:500)	Plan 10 <ul style="list-style-type: none">• Sheet for free presentation• Perspective 2

Layout for hanging presentation drawings (printed)

F.9.3 Services in the detail phase

At the start of the detail phase the six Competitors (urban design and landscape design) must submit the tender and, if applicable, comments on the contract. The deadline for the submission of the tender is found in Chapter F.18 (Time schedule). The competition documents contain model contracts and appendices for both urban design and landscape design (see Appendix 1.03 or 2.02). The Promoter reserves the right to use the knowledge gained in the qualification phase to amend the scope of works and contract proposals. In that case, the Competitors' practices would be contacted at the end of the qualification phase. The principle of equal treatment applies.

Work on the detail phase will be conducted in consultation in an "urban design/landscape design" team. **Each of the two teams (urban design/landscape design) has to submit its own proposal, while considering urban design or landscape design as the respective "interactive" backdrop. Variations are permissible.** Each concept proposal may offer one design solution only.

In addition to the submissions described below, attendance at the consultation meetings and the presentation of the design concepts (publicly at the participation events and not publicly before the jury) is part of the services in this competition.

F.9.3.1 Submission group 1: Digital plans

All documents, illustrations and plans in the submission group 1 must be submitted as pdf-files via the eVergabe portal.

1. Key concept idea (urban design and landscape design) and the character/atmosphere of the space in a free presentation plus the first perspective (viewpoint can be chosen depending on the specifics of the proposals).
-> Joint scheme by the team

2. Figure ground plan scale 1:5,000
Site plan showing integration of urban design

and landscape design concepts within the surrounding context.

-> Joint scheme by the team

3. Site plan showing the overall urban design/landscape design concept scale 1:500

-> Joint scheme by team (Note for landscape design team: vegetation masterplan)

The urban design and landscape design concept idea including buildings and open spaces showing basic information on:

- the urban structure (buildings and number of storeys including site levels and building heights in metres above sea level, roof shapes, land uses, character of sub-spaces/neighbourhoods, potential de facto splitting);
- the open space system with different typologies, target qualities, allocation of uses and access, integration into the green network, existing and proposed levels;
- integration of the competition site into the surrounding area;
- the necessary infrastructure areas.

4. Design proposal for three freely selectable detail areas (detail area and cross-section) scale 1:500

-> Separate schemes (urban design/landscape design)

Containing detailed illustrations and elucidation on the overall urban design and landscape design concept.

5. Additional illustration (simple sketches, details or pictograms) to clarify the design idea, no specific scale

-> Separate schemes (urban design/landscape design)

Explanatory illustrations to be submitted at detail level (other than in the qualification phase) with reference to the design brief's aspirati-

on for innovation, including conceptual statements, on e.g.:

- Elucidation of overarching sustainability concept;
- Sustainable urban design concept with deliberations on density, cubature, physical networks, building typologies, sunlight/shading, proposals for existing buildings and their use;
- Open space structure, design with topography, waterfront location and urban nature with special consideration of river banks, integration of play areas and sports grounds, statements on a vegetation strategy;
- Noise control measures in the context of urban design and landscape design;
- Access and circulation and mobility concept (including statements on street typologies, supply and waste disposal and on car parking);
- Sustainable urban water cycle (diagram);
- Zoning of private open spaces (accessible to the public/private) in consideration of access requirements (e.g. fire brigade, access ramps to underground car parks);
- Concept for a "green", biodiverse and resilient city (climate and sustainability concepts, creation of roof landscapes, green roofs and facades in combination with technical building components and building typologies).

6. Cross-sections scale 1:500 (urban design)/ scale 1:200 (landscape design)

-> Separate schemes (urban design/landscape design)

As elucidation of the design idea and explanation of the concept, free selection of (topographical) cross-sections. All cross-sections must have levels (referenced to metres above sea level).

7. Three-dimensional visualisations

-> Joint scheme by the team

For elucidation of the concept seven visualisations are expected which are to be integrated into the massing model of the LGV (Appendix 2.04). The viewpoints are specified in Appendix 1.06 to ensure comparability of the design concepts.

8. Free presentation sheet and second perspective

-> Separate scheme by teams (urban design/landscape design)

The free presentation sheet gives authors an open format to illustrate their proposals. An illustration of the conceptual approach to the different residential and work concepts is expected. The landscape team is required to present concepts for the uses of roofs, green facades, private open spaces with public access and open spaces without public access on the plots.

Furthermore, a second perspective must be presented in addition to the perspective mentioned in Item 1 (key concept idea). The viewpoint is freely selectable depending on the specifics of the proposals.

9. Flood protection concept (including banks)

-> Scheme by the landscape design team in consideration of urban design proposals.

Outline of a sound flood protection concept considering water cycles, also in areas that are not flood-protected and the integration of the existing flood protection system into the urban context.

10. Written design statement

- Detail area – urban design (separately by each team)
- Detail area – landscape design (separately by each team)

The written design statement should describe the design concept and contain all the relevant information for an assessment of the urban design, landscape design, creative and functional solutions that are not evident in the drawings (max 10 A4 pages).

The written design statement should also contain information on the implied energy concept.

11. Tender/Final tender

-> Separately (urban design/landscape design)

The final tender must be submitted together with the other submissions. The deadline for submission of the final tender is given in Chapter F.18 (Time schedule). Please note that the final tender is non-negotiable and will serve as the basis for the award of contract. Note: The tenders and contract notes will be submitted ten days after the start of the detail phase and will then be negotiated in the dialogue phase.

12. Declarations by Competitors

-> Separately (urban design/landscape design)

The following declaration forms are contained in the brief (see Appendix 1.01) and must be completed and signed by the Competitors:

- Declaration of authorship;
- Declaration of obligation for the use of digital data;
- Declaration on image rights.

The declaration of authorship must list all members of the team that have worked on the design proposal.

The three declarations must be submitted with the design drawings. They must be placed in a sealed envelope marked with the name of the Competitor's practice and the words "Erklärungen der Teilnehmer".

13. List of documents submitted

-> Separately for urban design and landscape design

A list of the documents submitted must be compiled.

14. Layout for hanging presentation drawings

Each Competitor has an area 8.40m in length and 1.80m in height for the presentation of their design proposal.

1	2	3	4	5	6	7
8	9	10	11	12	13	14

All sheets must be AO landscape format (120 × 90 cm)

Plan 1

- Key concept idea
- Perspective 1

Plan 2

- Site plan (scale 1:1,000)

Plan 3

- Site plan (scale 1:1,000)

Plan 4

- Detail area I (urban design, scale 1:500; landscape design, scale 1:200)

Plan 5

- Detail area II (urban design, scale 1:500; landscape design, scale 1:200)

Plan 6

- Pictograms

Plan 7

- Perspective 2

Plan 8

- Figure ground plan (scale 1:5,000)
- Written design statement

Plan 9

- Site plan, scale 1:1,000

Plan 10

- Site plan, scale 1:1,000

Plan 11

- Detail area II (urban design, scale 1:500; landscape design, scale 1:200)

Plan 12

- Cross sections (urban design, scale 1:500; landscape design, scale 1:200)
- Flood protection concept

Plan 13

- 3D visualisations (x7)

Plan 14

- Sheet for free presentation
- Perspective (x2)

Layout for hanging presentation drawings

F.9.3.2 Submission group 2: Digital data/assessment plans

The required submission includes all digital data that is mentioned in the competition brief and in the general notes in F9.1. These are:

- digital plans (all plans listed under submission group 1 as pdf-files) in the specified file formats, here dwg-files
- BIM model data
- Layer analyses from the digital city model
- Area calculation as Excel-files
- Cost calculation as Excel-file
- HCU/MIT data.

Key information for HCU/MIT digital online tool

The teams are asked to provide their design proposals in the form of a simplified massing model that can be used for a comparable design analysis. To facilitate the conversion of the design proposals into a simplified model, all teams will receive an online tool that only requires minimal web navigation skills. The analysis is to be carried out on the CityScope modelling and simulation platform developed by MIT Cambridge (USA) und HCU Hamburg.

The new planning analysis tool and the accompanying scientific research do not replace the assessment process by experts. The purpose of this service is to provide the Competitors and the assessment panel and/or the Jury with indicator-based support during the iterative design process in the detail phase and finally in the assessment process.

In order to optimise and simplify the upload process of the evaluated design proposals, all design teams should be provided with an online tool with a simple web interface as well as an online tutorial by HCU Hamburg and MIT Cambridge that explains the functions of the tools. The Competitors can use the online tool to enter land uses, buildings, open spaces and transport routes, to categorise them and to augment their description with details on their

uses. This standardised input forms the basis for the algorithmic computation of the various indicators. The data are transmitted in encrypted web forms and can neither be viewed by other Competitors nor by the assessment panel.

The online platform is to contain a dynamic map of Hamburg with a focus on Grasbrook. The area of the Grasbrook district will be divided into a predefined grid (grid size 16 × 16m).

The online platform has several analysis modules for each design iteration to calculate various indicators that support the Competitors in their iterative design process. The computation results are available promptly so that a large number of designs can be tested in any given iteration steps. The computation is made in different analysis modules, e.g. noise, mobility at the overall urban scale, agent-based modelling (project area) and accessibility of urban destinations (city-wide), which are currently being developed by MIT and HCU experts for the different assessment areas.

CityScope can be used on the online platform. At the same time it should be possible to carry out a comparative visualisation and a playful adjusting/reviewing of the design proposals on an interactive, physical CityScope table in the context of the second consultation meeting and, if necessary, the second Jury meeting.

F.9.3.3 Submission group 3: Physical objects

All physical objects (presentation drawings and models) must be delivered to D&K drost consult GmbH.

1. Layout for hanging presentation drawings (printed)

-> Joint scheme by the team and/or -> separately for urban design and landscape design

Each Competitor has an area 12.00m in length and 1.80m in height for the presentation of their design proposals.

2. Insert model

scale 1:500

-> Joint scheme by team

A model must be made on the insert base. In order to fit the model base into the existing model of the city, it must be made at a scale of 1:500, but showing a level of detail which is equivalent to that in the site plan (scale 1:2,500). The base elevation of the model is 0.00 metres above sea level. The model must be securely packaged for dispatch and be labelled "STADTTEIL GRASBROOK – VERTIEFUNGSPHASE". The name of the Competitor's practice must be marked on the package.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

All sheets must be AO landscape format (120 × 90 cm)

Plan 1

- Key concept idea
- Perspective 1

Plan 2

- Site plan (scale 1:1,000)

Plan 3

- Site plan (scale 1:1,000)

Plan 4

- Detail area I (urban design, scale 1:500)

Plan 5

- Detail area II (urban design, scale 1:500)

Plan 6

- Detail area I (landscape design, scale 1:200)

Plan 7

- Detail area II (landscape design, scale 1:200)

Plan 8

- Pictograms urban design

Plan 9

- Perspective 2

Plan 10

- Perspective 3 and 4

Plan 11

- Figure ground plan (scale 1:5,000)
- Written design statement
- Flood protection concept

Plan 12

- Site plan, scale 1:1,000

Plan 13

- Site plan, scale 1:1,000

Plan 14

- Detail area II (urban design, scale 1:500)

Plan 15

- Cross-sections/elevations (x4) (urban design, scale 1:500)

Plan 16

- Detail area III (landscape design, scale 1:200)

Plan 17

- Cross-sections/elevations (x4) (landscape design, scale 1:200)

Plan 18

- Pictograms landscape design

Plan 19

- Sheet for free presentation, urban design

Plan 20

- Sheet for free presentation, landscape design

Layout for hanging presentation drawings (printed)

Chapter F.10

Competition documents

Design brief (Issue package 1 on the eVergabe portal)

1.00 Competition brief

Appendices

- 1.01 Formblätter
- 1.02 Detaillierte Bewertungskriterien
- 1.03 Vertragsentwürfe
- 1.04 Plan Bearbeitungsgebiet
- 1.05 Ausschnitt Platte Stadtmodell
- 1.06 Vorgaben Stadtmodell/Web-Client
- 1.07 Auftraggeberinformation BIM (AIA)
- 1.08 Vorgaben Flächenberechnung
- 1.09 Fokusplan Restriktionshinweise
- 1.10 Fokusplan Nord west
- 1.11 Fokusplan Zufahrt O'Swaldkai
- 1.12 Fokusplan Zufahrt Osten Testplanung
- 1.13 Standortanalyse Grasbrook
- 1.14 Dokumentation Vorlaufende Beteiligung
- 1.15 Plan U-Bahntrasse
- 1.16 Plan Störfallradius
- 1.17 Plan Medienkanal Beispiel
- 1.18 Planungshinweise Mobilität
- 1.19 Smart Mobility Konzept Hafencity
- 1.20 Planungshinweise Wasserkreisläufe
- 1.21 Planungshinweise Uferzonen
- 1.22 Planungshinweise Hochwasserschutz
- 1.23 Planungshinweise Kriminalprävention
- 1.24 Machbarkeitsstudie Tunnel Tunnelstraße
- 1.25 Machbarkeitsstudie Unterquerung Elbbrücke
- 1.26 Machbarkeitsstudie Brücke Tunnelstraße
- 1.27 Fotodokumentation
- 1.28 Baummasterplan Hafencity
- 1.29 Denkmalkartierung
- 1.30 Bestandsunterlagen Lagerhaus F
- 1.31 Bestandsunterlagen Lagerhaus D
- 1.32 Standortanforderungen Unterflursysteme
- 1.33 Plan Sprung über die Elbe
- 1.34 Paper Nature-based Solutions
- 1.35 Paper Animal-Aided Design
- 1.36 Broschüre Billebogen
- 1.37 Broschüre Gründachstrategie Hamburg
- 1.38 Grünes Netz Hamburg
- 1.39 Klimaanalyse Hamburg
- 1.40 Leitfaden Qualitätsoffensive Freiraum

- 1.41 Leitfaden Vogelfreundliches Bauen
- 1.42 Leitfaden Fledermäuse in der Lichtplanung
- 1.43 Leitfaden Grüne Vielfalt im Wohnquartier
- 1.44 Leitfaden Kinderspielflächen
- 1.45 Leitfaden Lärm

Digital appendices (issue package 2 on the eVergabe portal)

- 2.01 Formblätter XLS/DOC
- 2.02 Vertragsentwürfe DOC
- 2.03 Vorgaben Flächenberechnung XLS
- 2.04 Datengrundlage DGM DWG
- 2.05 Ausschnitt Platte Stadtmodell DWG
- 2.06 Restriktionshinweise DWG
- 2.07 Fokusplan Zufahrt Osten DWG

Appendices Detail Phase

Additional appendices may be made available for the detail phase.

Note: The results or possible preliminary information on the current "Stadteingang Hamburg" (Gateway to Hamburg) test design procedure will be issued during the running procedure.

Chapter F.11

Assessment

The formal and numerical assessment (plausibility check of the area calculations in Appendix 2.03 – Area Calculation Lists) is carried out by:

D&K drost consult GmbH
 Kajen 10, 20459 Hamburg

The assessment of the local climate in the district/biodiversity is done by:
NN

The assessment as regards noise control is done by
Lärmkontor GmbH

The assessment as regards wind/climate is done by:
NN

The assessment as regards sunlight is done by:
NN

The assessment as regards water cycles is done by:
HSE/BWS

The assessment as regards river banks/embankments is done by:
Triops/Sellhorn

The assessment of transport planning matters is done by:
Argus Stadt und Verkehr

The assessment of the economic analysis and economic evaluation is done by:
The Promoter and Drees & Sommer

The assessment as regards the BIM interface and digital data is done by:
Drees & Sommer.

The technical assessment of the content of the submitted works will be carried out by the expert consultants mentioned in Chapter F.6 and by the consultants' staff. The technical assessment of content is carried out without evaluations that could anticipate the Jury's decision, but in a comparative (quantitative, typological) manner to provide a factual assessment and note deviations from the brief. The following description outlines the systematic procedure and an excerpt from the subject areas. It is emphasised that a full appraisal of all the tasks required in the brief is carried out within the assessment process. The economic assessment is not included here.

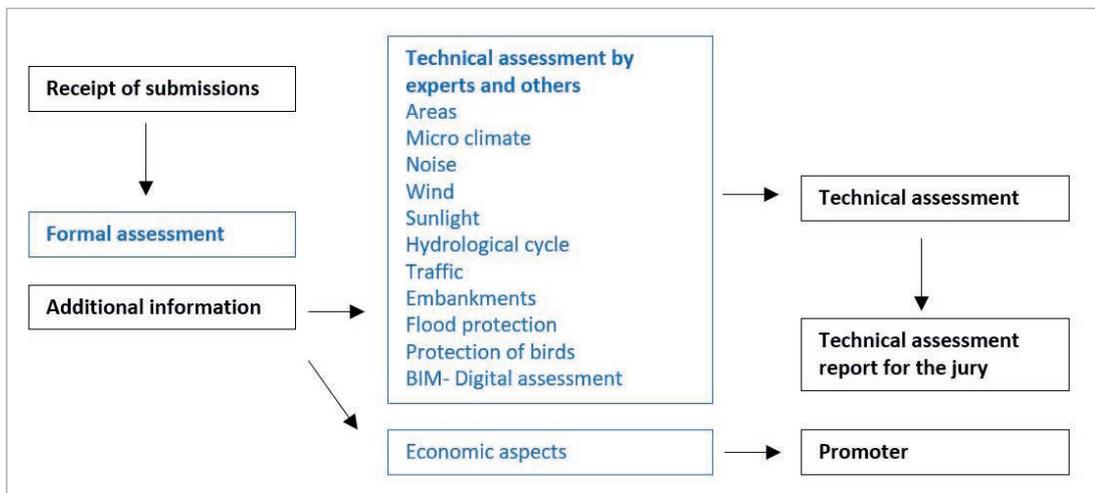


Fig. 44 | The assessment process

Chapter F.12

Assessment criteria for the qualification phase

The number of Competitors that participated in the qualification phase will be reduced by the Jury (in compliance with Article 18 Section 6 VgV) on the basis of the following assessment criteria.

Elaboration of each assessment criterion for the qualification phase is included in Appendix 1.02.

Urban design parameter plan (Lot 1):

- Formal requirements (fulfilled/not fulfilled)
Exclusion in case of non-compliance
- Urban design quality **(40 %)**
- Innovative quality, functional quality **(30 %)**
(urban design)
- Sustainable and economic efficiency **(30 %)**

Landscape design scheme (Lot 2):

- Formal requirements (fulfilled/not fulfilled)
Exclusion in case of non-compliance
- Landscape design quality **(40 %)**
- Innovative quality, functional quality **(30 %)**
(landscape design)
- Sustainable and economic efficiency **(30 %)**

Chapter F.13

Assessment criteria for the detail phase

The Jury will select the best urban design parameter plan and the best landscape design scheme (in compliance with Article 18 Section 7 VgV) submitted in the detail phase on the basis of the following assessment criteria.

Elaboration of each single assessment criterion for the detail phase is included in Appendix 1.02.

Urban design parameter plan (Lot 1):

- Formal requirements (fulfilled/not fulfilled)
Exclusion in case of non-compliance
- Urban design quality **(40 %)**
- Innovative quality, functional quality **(30 %)**
(urban design)
- Sustainable and economic efficiency **(30 %)**

Landscape design scheme (Lot 2):

- Formal requirements (fulfilled/not fulfilled)
Exclusion in case of non-compliance
- Landscape design quality **(40 %)**
- Innovative quality, functional quality **(30 %)**
(landscape design)
- Sustainable and economic efficiency **(30 %)**

Chapter F.14

Criteria for the award of contract

After the Jury has selected the best urban design parameter plan and the best landscape design scheme (competition result), the Promoter decides on the award of contract on the basis of the following award criteria:

1. Competition result	70 %
2. Contract conformity	20 %
3. Fee proposal	10 %

Chapter F.15

Award of contract

The Jury determines a ranking based on the assessment criteria in the detail phase (see Chapter F.13).

The award of contract is decided on the basis of the criteria for the award of contract (see Chapter F.14).

The Promoter intends, while honouring the recommendations of the Jury, to appoint one of the Competitors for further work on the urban design parameter plan, provided that the project will be implemented and that there are no significant reasons not to do so.

The Promoter intends, while honouring the recommendations of the Jury, to appoint one of the Competitors in compliance with Articles 38 HOAI (Official Scales of Fees for Services by Architects and Engineers) to complete services

relating to landscape architecture – at least service stages 1 to 4. The Promoter reserves the right to commission additional services (stages 5 – 9) in stages that are to be determined. Appointments will be made, provided that the project is implemented and that there are no significant reasons not to do so.

In the event of an appointment, 50% of the competition fee for work carried out in the course of the Competitive Dialogue will be offset against the contract fee.

Chapter F.16

Ownership and copyright

All submissions will become the property of the Promoter. The copyright and all protection against architectural duplication and the right to publish the schemes after the public presentation of the schemes by the Promoter remain with the Competitors. The Promoter has the unconditional and sole right to use the entire works of the architect appointed to perform further services (also if the work is not complete and/or if the work is not solely implemented by the Promoter). The Promoter may pass on the rights of use.

The authors and their legal successors in interest are held to permit alterations to their design proposals. This also applies to implemented design work. Article 14 of the Second Law of Copyright and the related protection law (Urheberrechtsgesetz) are unaffected. Before significant alterations are made to the design of an implemented scheme, the Competitor should, if possible, be consulted and his or her recommendations considered. Should the Promoter have doubts concerning the economic, functional or constructive integrity of the scheme, these must be stated.

Unsubstantial parts of design proposals by Competitors, which are not chosen for implementation, may be used by the Promoter. The appropriate fees for this work have been paid with the competition fee during the Competitive Dialogue.

The Promoter has the right of first publication and may publish the competition submissions after a reasonable period of time without additional remuneration. The names of the Competitors and their staff and consultants will be noted.

The Promoter will only be liable for damage or loss of the submissions in case of gross negligence.

Chapter F.17

Return of submissions

All submissions become the property of the Promoter. Submissions will not be returned.

Chapter F.18

Time schedule

Qualification phase:

From week 35 2019	Issue of information
By 09.09.2019 (noon)	Queries and submission of IFC model for testing
18.09.2019 (6.00pm–9.00pm)	Public kick-off event (presentation of results of public consultation and introduction of Competitors)
19.09.2019 (9.00am–noon)	Site visit (moderated)
19.09.2019 (noon–1.00pm)	Preliminary Jury meeting
19.09.2019 (1.00pm–3.00pm)	Queries colloquium
05.11.2019 (4.00pm)	Submission of design proposals
19.11.2019 (4.00pm)	Submission of models
07.11.2019	Information meeting for technical assessment panel
Week 45–47 2019	Technical assessment
02.12.2019 (5.00pm–10.00pm)	"Citizens' view" prior to the first Jury meeting
03.12.2019 (all day)	Jury meeting
13.12.2019 (4.00pm)	Submission of tenders

Detail phase (dialogue phase):

By 13.12.2019 (noon)	Queries
Week 50 2019	Consultation meetings
11.12.2019	Team 1
12.12.2019	Team 2
13.12.2019	Team 3
Week 05 2020	Consultation meetings 2
29.01.2020	Team 1
30.01.2020	Team 2
31.01.2020	Team 3
25.01.2020 (10.00am-5.00pm)	Public participation with Competitors ("workshop")
26.02.2020 (4.00pm)	Submission of design proposals and final fee proposal
11.03.2020 (4.00pm)	Submission of models 1
02.03.2020	Information meeting for technical assessment panel
10.-12. KW 2020	Technical assessment
02.04.2020 (5.00pm-9.00pm)	Public presentation of detail phase (with Competitors)
03.04.2020	Jury meeting

Award of contract:

Expected in mid-April 2020	Decision on award of contract
Expected beginning of May 2020	Award of contract/conclusion of contract

Public presentation and exhibition of results:

April 2020

Images

Image on cover and all cover images

Aerial view

Source: Elbe&Flut/Thomas Hampel

Figure 1

Grasbrook – City and port in close proximity

Source: Elbe&Flut/Thomas Hampel

Image 2

View of the Elbphilharmonie from Moldauhafen

Source: Elbe&Flut/Thomas Hampel

Figure 3

Hamburg's urban development towards the Elbbrücken gateway to the city: HafenCity, Billebogen, Rothenburgsort, Veddel, Peute and Wilhelmsburg Nord

Source: HafenCity Hamburg GmbH und D&K drost consult GmbH

Figure 4

Proposal for Elbtower, David Chipperfield Architects

Source: SIGNA Holding GmbH und moka-studio GbR

Figure 5

Separated neighbours – Veddel and Grasbrook

Source: Elbe&Flut/Thomas Hampel

Figure 6

The nine planetary boundaries after Rockström et. al. (2009)

Source: Rockström, J. et al. (2009): A Safe Operating Space for Humanity. In: Nature, p. 472–475

Figure 7

Example of a utility corridor (under construction)

Source: Stromnetz Hamburg

Figure 8

Integration of historical structures into attractive open spaces

Source: Elbe&Flut/Thomas Hampel

Figure 9

Urban environment with appropriation opportunities

Source: HafenCity Hamburg GmbH

Figure 10

Vertical production in a new type of commercial building

Source: Jochen Stuhmann

Figure 11

Development of an attractive urban mix

Source: URW Type Foundry GmbH/moka-studio GbR

Figure 12

Activation of ground floor zones for a variety of uses

Source: HafenCity Hamburg GmbH

Figure 13–15

Community consultation

Source: Elbe&Flut/Thomas Hampel

Figure 16

Requests for considerations located on the site

Source: HafenCity Hamburg GmbH

Figure 17

The neighbourhoods within the Grasbrook competition site

Source: HafenCity Hamburg GmbH

Figure 18

History timeline

Source: HafenCity Hamburg GmbH

Figure 19

Constraints

Source: HafenCity Hamburg GmbH

Figure 20

Competition area in the context of the gateway to the city urban design competition

Source: HafenCity Hamburg GmbH

Figure 21

Landscape axes: river banks on the Norderelbe and Elbinsel

Source: Behörde für Umwelt und Energie

Figure 22–24

Diagrams: Total values for the competition site; Target values – Urban Design; Target values – Landscape design

Source: D&K drost consult GmbH

Figure 25

The four-masted barque "Peking"

Source: Stiftung Hamburg Maritim

Figure 26

Typical cross-section – Flood protection concept (Waftkonzept)

Source: HafenCity Hamburg GmbH

Figure 27

Prager Ufer, loose rock riprap with willow margin

Source: Triops/Sellhorn

Figure 28

Example of a neighbourhood recycling centre

Source: Stadtreinigung Hamburg

Figure 29

Connection of Grasbrook into the surrounding road network

Source: ARGUS Stadt und Verkehr Partnerschaft mbB

Figure 30

Modal share – Grasbrook district

Source: ARGUS Stadt und Verkehr Partnerschaft mbB

Figure 31

Possible local public transport connections at Grasbrook

Source: ARGUS Stadt und Verkehr Partnerschaft mbB

Figure 32

Flood protection concept

Source: ARGUS Stadt und Verkehr Partnerschaft mbB

Figure 33

Location of a new eastern link at Überseezentrum (test designs)

Source: ARGUS Stadt und Verkehr Partnerschaft mbB

Figure 34

Diagrammatic section – Safe drainage in heavy rainstorms

Source: BWS GmbH und CONSULAQUA

Figure 35 und 36

Noise pollution – day and night

Source: Lärmkontor GmbH

Figure 37

Warehouse G on Dessauer Ufer

Source: Elbe&Flut/Thomas Hampel

Figure 38

Warehouse D – Banana ripening plant

Source: Elbe&Flut/Thomas Hampel

Figure 39

Appropriate safety distance to UNIKAI operational area

Source: HafenCity Hamburg GmbH

Figure 40

Typical cross-section – ISPS boundary (southern boundary of Hafentorquartier)

Source: HafenCity Hamburg GmbH

Figure 41

Diagram – Data exchange

Source: HafenCity Hamburg GmbH

Figure 42

Systematic diagram – Area distribution

Source: HafenCity Hamburg GmbH

Figure 43

Example of main land use categories and land use aggregation

Source: HafenCity Hamburg GmbH

Figure 44

The assessment process Source: HafenCity Hamburg GmbH

Source: HafenCity Hamburg GmbH

Procedural Rules

- The award procedure of the Competitive Dialogue is governed by the Ordinance on the Award of Public Contracts (Vergabeverordnung VgV).
- Except in the cases expressly provided for in the VgV, neither the Promoter nor those involved in this procedure on behalf of the Promoter (e.g. members of the jury, experts, etc.) may pass on information provided by the Competitors which they marked as confidential. This includes in particular trade and business secrets and the confidential aspects of the tenders including their appendices (Article 5 Section 1 VgV). For all communication as well as for the exchange and storage of information, the Promoter and the parties involved in this procedure on behalf of the Promoter must guarantee the integrity of the data and the confidentiality of the procedural contributions and tenders including their appendices. The requests to participate, procedural contributions and tenders including their appendices as well as the documentation on the opening and evaluation of the requests to participate, procedural contributions and tenders shall be treated confidentially even after completion of the award procedure (Article 5 Section 2 VgV).
- Board members or employees of the Promoter or a management office acting on behalf of the Promoter or other parties involved in this procedure on behalf of the Promoter (including members of the jury, experts, etc.) may not participate in an award procedure if they have a conflict of interest. A conflict of interest exists for persons who are involved in the implementation of the award procedure or who can influence the outcome of an award procedure and who have a direct or indirect financial, economic or personal interest that could impair their impartiality and independence within the framework of the award procedure. A conflict of interest is presumed if board members or employees of the Promoter or of a management office acting on behalf of the Promoter or their relatives (fiancées, spouses, life partners, relatives and in-laws in a direct line, siblings and their children, spouses and life partners of siblings and siblings of spouses and life partners, siblings of parents as well as foster parents and foster children) are bidders, advise or otherwise support a bidder or act as a legal representative or only in this award procedure, are employed or working for a Competitor for remuneration or as a member of the management board, supervisory board or a similar organ or for a company involved in the award procedure, if this company has simultaneous business relations to both the Promoter and to the Competitors (Article 6 VgV).
- The entire procedure is carried out via the eVergabe platform of the "deutsche eVergabe". Therefore, all award documents (as well as this competition brief) will not be sent by post or e-mail. A brochure on the award of the contract will be sent out. However, it is subordinate to the documents on the eVergabe platform.
- Questions regarding the contents of this Competition Brief must be posed exclusively in writing on the eVergabe platform or asked in the course of the consultation meetings and will be answered or recorded in writing via the aforementioned platform. (Direct) inquiries to the Promoter or the contact office will not be considered and will not be answered. Questions and answers or minutes will only be made available on the eVergabe platform. The Competitors must find out for themselves about questions by other Competitors and the respective answers and about the minutes on the eVergabe platform. Please note that questions will be answered up to six days before the deadlines (e.g. for submissions).
- Competitors shall refrain from consulting individually with the respective authorities, members of the jury, experts or the Promoters.
- An English version of the Brief will be made available by the Promoter for the Competitive Dialogue. However, in case of doubt the German version shall apply. If, in the Competitor's opinion, the award documents (e.g. this Competition Brief) contain ambiguities, incompleteness or errors, the Competitor must notify the Promoter immediately in writing before the expiry of the respective deadlines for submission.
- Competitors who participate in an inadmissible restriction of competition in connection with this award procedure shall be excluded. In order to combat restrictions on competition, tenderers must provide information on request, whether and in what way they are economically and legally linked to other companies or other parties to the proceedings (in particular jury members, experts or the Promoter's staff).
- All documents requested from the Competitors (e.g. tenders) must be written in German. All documents in a foreign language must be accompanied by a certified translation into German. In case of doubt, the German translation shall apply.
- All documents must be submitted before the specified deadline. Documents not submitted in due form and time (e.g. tenders) will be excluded.
- Information and evidence requested by the Promoter after the submission deadline must be submitted by the requested date. If the information is not submitted in due form or time, the Competitor may be excluded from the further procedure.
- Tenders and other works which do not comply with the minimum requirements will be excluded.
- For bidding consortia or the use of subcontractors, the regulations of the pre-qualification procedure prior to the Competitive Dialogue shall apply.

