

Inge

Ingolstadt - sustainable and together

Urban design concept

The variety and vibrancy of a city for the people is brought to a space in Ingolstadt where it never was present and which was designed in an entirely different plan for it in head. Now it has the chance to transform from an outer city traffic node into a part of the urban fabric of Ingolstadt. What is now a space just for cars becomes a space for living, for mobility, for commerce and for community. The new mixed urban quarter "Inge" carefully links with the existing building stock and skilfully guides traffic through the neighbourhood taking into account current traffic volumes. Also it builds a bridge in the existing green space concept of the city's second green ring. In doing so, it focuses on the urgent issues of sustainable, climate-friendly and inclusive building: Inge provides a mixed offer of residential spaces with diverse, flexible spaces for commercial, public and community uses as well as different open spaces and places to meet. The new urban quarter promotes the coexistence of people living temporarily and permanently in the city, allows the linking of living and working and opens the way towards sustainable forms of mobility without neglecting current mobility needs.

The Audi Ring is dissolved and with it the strong separation between traffic area and recreational area. A sustainable, ecological, socially diverse, integrative and dynamic urban quarter for flora, fauna and people is created - Inge. She is characterised by streets for passing and strolling, buildings for communal living and working, and squares for lingering and provisioning.

Streets - Passing and strolling

The Audi Ring is dissolved:

The interior of the ring is enlarged until there is enough space to divide the roundabout into four individual streets. This street-network of different qualities connects the new buildings with the existing ones. Also the access for pedestrians and cyclists is improved. Hence the current need for a powerful car-traffic and the opposing needs of a vibrant city for the people there are different street with different characters. They are characterised by different spatial qualities, which allow for a successful management of the traffic volume, but at the same time offer amenity qualities for neighbours

and pedestrians: The „Bypass Street“, the „Urban Street“, the „Boulevard“, the „Park Street“ and three traffic-calmed „Neighbourhood Streets“. The street cross-sections of the four streets of the extended ring („Bypass Street“, „Urban Street“, „Boulevard“ and „Park Street“) all have pedestrian and cycle paths. However, the distribution of uses is designed in such a way that the streets in the new neighbourhood can react to changing mobility demands and thus allow the district to develop into a low-car or perhaps even car-free neighbourhood in the future.

The area is bordered to the north and south by two roads in an east-west direction, which are passable in both directions and continue the current road cross-sections. This will allow the continued high traffic loads at this junction to be managed. In the north, the four-lane „bypass“ running east-west out of town borders the area as an extension and connection of Richard-Wagner-Strasse and Friedrichshofener Strasse. It creates a clear urban edge to the large-scale, fragmented commercial buildings in the north and can be further developed in the sense of an urban, commercial street.

In the south, the „Urban Street“ borders the „Inge“ quarter, linking Neuburger Straße with Levelingstraße and thus ensuring the connection to the city centre in the east and to the hospital in the west. These two east-west connections are linked by two one-way streets in a north-south direction. The separate right-turn lanes allow the traffic to pass traffic lights without stopping. The „Boulevard“ as the central middle axis continues the street to Westpark in a north direction, thereby also linking the residential areas south of Inge to the Westpark shopping centre. The „Urban Street“ and the „Boulevard“ are characterised by structural density, closed street spaces without front gardens and a ground floor zone facing the street space. Spaces for public or commercial uses occupy the wide pavements. A raised first floor for residential use creates retreat and privacy in the urban space.

The new east border of the Quarter will be the „Parkstreet“ which encloses the new Neighbourhoodpark. Inside the building blocks space is created for the new, traffic-calmed neighbourhood along the „Neighbourhood Streets“, which will open up the interior of the quarter as shared spaces. In the east the terraced houses will act as an urban edge to the

Neighbourhoodpark. The small-scale development on both sides creates a differentiated, neighbourly street space, which, interspersed with green structures, can be appropriated and intensively used by the residents.

Squares and open spaces - linger and provide

The essential elements of the design are interrelated open spaces and squares. On the urban level, these are the new Neighbourhoodpark, which builds a bridge between Piuspark and Haslangpark and forms an important open and recreational space for the quarter.

At the neighbourhood level, the streets in the „Inge“ district connect three squares of different quality. They offer different recreational and supply functions and thus create new offers and potentials for different groups of residents in the neighbourhood: In the south, bordered by the „Urban Street“ and the „Boulevard“, is the „City Square“ on the flank of the former Audi Ring. As a place for strolling, it offers shops for daily needs. It is the end point of the supply structure consisting of local supply, services and medical care along the eastern half of Levelingstraße.

The „City Balcony“ in the east is a meeting place to linger with a direct transition to the park. In front of the public uses of the community apartment building, it becomes an outdoor living room, viewing balcony and starting point for excursions into the green ring.

The „neighbourhood square“ in the west is a low-threshold prelude to the new neighbourhood: a neighbourhood square for everyday encounters between Inge and neighbouring Friedrichshofen.

blocks and housing typologies - growing up and growing old

The Inge district offers a diverse and multi-layered range of housing. Inge is divided into four new separate building blocks of different building and housing typologies. These four building blocks are being developed one after the other, according to demand, starting in the north-west of the area (BF 1-4, see Picto): There are terraced houses with gardens, multi-storey dwellings with courtyards and an integrative dwelling with a courtyard.

Each of the blocks shows a different typological composition, which is reflected in architecture and open space. The variety of different living forms and situations in the same neighbourhood creates a social mix and enables lifelong, self-determined living

in the neighbourhood.

Building area 1: The building area in the northwest connects to the suburban Friedrichshofen and continues the qualities there as a matter of course, but with innovative spatial solutions. Highly sought-after terraced houses form a closed spatial edge to the neighbourhood street. Garden houses at the rear delimit the building area from Friedrichshofenerstraße and enclose the generous garden plots. Those gardenhouses offer storage space usually found in the basements. However basement construction is costly and the usage of concrete comes with high carbon emissions. They enable the terraced houses to be built without the basement and at the same time shelter from the noise emitted by the Bypass. To accommodate changing living needs, the terraced house floor plans are designed so that each floor functions as an independent small flat. The usually rigid, inflexible single-family house, which over time usually becomes too large for the ageing residents, is thus transformed into a flexible typology for all generations and stages of life.

Building area 2: The building area in the southwest forms an almost closed block perimeter of terraced houses and four-storey apartment buildings on three sides. It ties in typologically with the larger buildings along Levelingstraße.

Inside the block, a footpath divides the private gardens of the terraced houses from the communal gardens of the apartment buildings and opens up into a small neighbourhood meeting place.

Building area 3: The building area in the southeast continues the closed, linear lines of building area 2 as well as the adjacent buildings on Johann-Michael-Sailer-Strasse in the south. Apartment buildings and terraced houses enclose a closed courtyard space. It is crossed by a passageway and focuses on communal courtyard use. Pathways and vegetation structures, such as perennial and shrub plantings, differentiate the passage from the rest of the courtyard space and create a gentle transition to the private open spaces on the ground floor.

BF 4: The building site in the north-east offers space for experimentation. A large integrative housing block, initiated or steered by the public sector, offers living and working space for city residents who would like to live in a community-oriented form of housing. Facing the neighbourhood street, mezzanine units offer a variety of options for individual living and working. Inside, a simple bulkhead struc-

ture creates various flat layouts, offers ranging from one-room flats to large flats for patchwork families or shared flats. The integrative housing offer, which is aimed at students and refugees, deserves special mention.

A communal living room on the ground floor with a large open area facing south creates space for joint meetings and activities.

The housing project offers public, community-oriented facilities such as a daycare centre, a repair café and event rooms that can be rented by the neighbourhood, thus using the square as a public living room.

Sustainability concept

Inge is sustainable on several levels:

Social

Inge is socially sustainable. Diverse and flexible housing types allow for a diverse resident population and adaptations to changing needs within a generation. The typological diversity makes the urban block inclusive and adaptive. The public, semi-public and private open spaces in the form of squares, as well as the possible future car-reduced or car-free street spaces, allow for togetherness on different levels - be it the meeting point in front of the house, lunch break place or access to the West Park: Inge creates interpersonal interactions and encounters.

Ecological

The Inge networks with the green network, linking up in particular with the Pius Park to the east of the neighbourhood.

It is not only the various green spaces in the Inge urban development that promote biodiversity. Along the streets, rows of trees, shrub and herbaceous structures create both amenity qualities and retreats for birds and insects. They break up the areas sealed for car traffic and provide shade and oxygen.

The streets of the „neighbourhood street“ lead the surface water, which is not only slightly polluted due to the lack of car traffic here, down to the city balcony. A green depression in the surface of the square absorbs the rainwater and allows it to seep into an artificial wetland. Excess rainwater flows further into the park, which serves as an infiltration area during heavy rainfall events.

This wetland on the city balcony represents a more sustainable use of water and allows direct contact with natural processes and biodiversity in the city.

The disposal of the neighbourhood is carried out according to the principles of a modern circular eco-

nomy: the neighbourhood's waste is seen as valuable raw materials that can be used effectively to conserve natural resources. Material cycles should be closed as far as possible and pollutants should be discharged so that waste can be made available to the economy again as secondary raw materials.

For a sustainable heat supply, the buildings should be predominantly of timber construction with solar panels on the roofs and heat pumps.

Mobile

Inge meets current mobility needs. At the same time, it is open to change. The new system of streets is performant enough to handle the current traffic volume at Audi Ring. The main access to the Inge neighbourhood is through the centre. Assuming that the volume of traffic will and must be reduced in the next few years, we propose street spaces so that the current volume of traffic can be accommodated, but lane redistributions towards bicycle and pedestrian paths are easily possible through a forward-looking division of the street cross-sections. In addition to the large, existing car park in Westpark, there is an underground neighbourhood garage beneath the living blocks south of the urban street. It serves both new and old residents of the district. There is space for up to 504 cars.

Dynamic

Inge develops in phases and can adapt to changing needs. The individual blocks are allocated according to concept, primarily to building communities. The neighbourhood will be developed from west to east. The residential block in the north-east of the quarter is to be highlighted as a public housing project. With the involvement of the BAMF and Studierendenwerk, it is intended to enable integrative living for refugees, students and other people and thus create a high-quality and integrative living situation instead of the existing containers. Examples of this could be the Bellevue die Moncao project in Munich, or progressive cooperative housing projects („Mehr als Wohnen“ in Zurich, „Kalkbreite in Zurich or „Sargfabrik“ in Vienna)