

# city quarter Trnava



Peter Benčo/Martin Bodorík

-  Ring road
-  Proposed ring road
-  Main traffic routes
-  Railway line
-  Built-up area
-  Settlements
-  Water bodies
-  Agricultural landscape
-  Public greenery - parks and recreation
-  Area designed in a broader context
-  Proposal area



## STRENGTHS

- \_ flat terrain
- \_ railway connection
- \_ vizual axis of Belluš's mill
- \_ undeveloped area
- \_ location within the city with well-set planning policy
- \_ area within the locality with high development potential

## WEAKNESSES

- \_ absence of civic amenities
- \_ absence of public transport and cycle transport
- \_ absence of high-quality public spaces
- \_ class I and II roads – noise, barrier
- \_ railway track – noise, barrier
- \_ absence of recreational and sports areas
- \_ monoculture agricultural landscape
- \_ protection zone of power lines
- \_ planned construction of terraced houses – unsuitable type of development

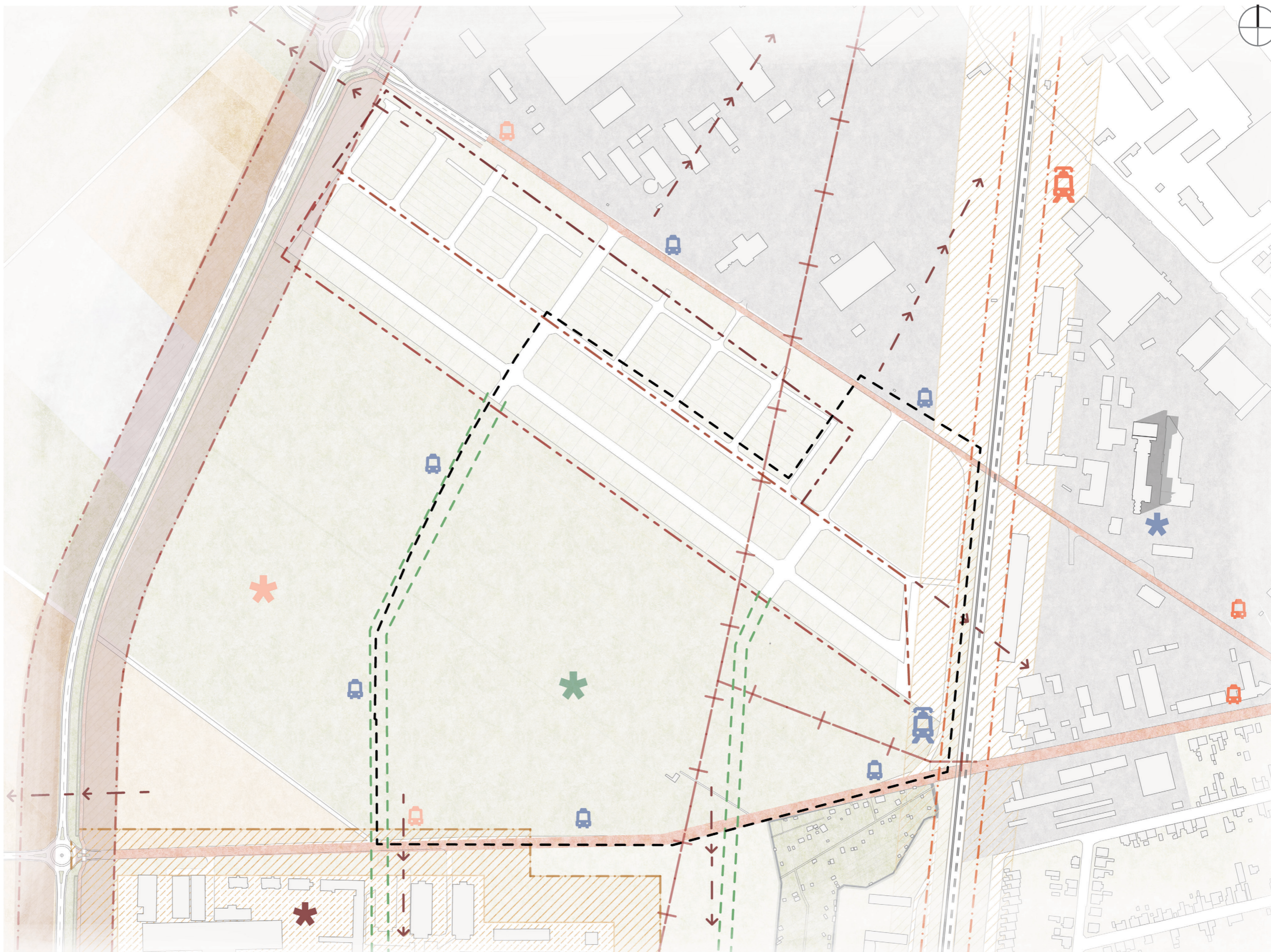
## OPPORTUNITIES

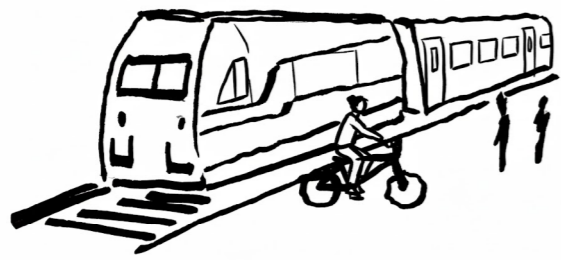
- \_ connection to the city via transport, structure, function
- \_ “district of short distances”
- \_ reduction of transit traffic intensity – ring road construction
- \_ creation of new recreational and green areas
- \_ creation of a new city centre
- \_ providing a suitable solution for parking areas
- \_ multifunctional public spaces with diverse character
- \_ creation of natural and water-retention measures
- \_ greater biodiversity of the environment
- \_ potential for transformation and intensification of surrounding zones

## THREATS

- \_ increase in transit traffic by developing the area
- \_ choice of unsuitable urban structure
- \_ municipal elections – change of the city's value strategy
- \_ non-functional relationships between individual zones and the city
- \_ failure to fulfill the development potential of the surrounding area
- \_ realization of planned low density detached houses development

-  Railway stop – currently in poor, dilapidated condition; the location is difficult to access from the surroundings
-  Railway line – acts as a barrier to the city; noise source
-  Railway protection zone – optimal 60 m, minimum 30 m
-  Overhead power line protection zone
-  Planned ring road – noise, air pollution, barrier effect, but traffic relief
-  Ringroad protection zone – 50 m
-  Protection zone of livestock production – 50 m (from residential development)
-  Missing connections to surrounding areas – pedestrian, cycling, and transport links
-  Absence of public transport stops – only regional bus stops are present
-  Monocultural, agricultural landscape
-  Livestock production – its location within the built-up area is undesirable; high probability of closure before district development begins
-  Class II and III roads – heavily loaded with traffic; noise and air pollution
-  Defined (but not yet certain) low-density housing development of detached family houses – barrier effect; unsuitable development typology
-  Railway stop in a new location – valuable and significant element for the development of the new district; possibility of creating a transit hub and double-tracking the railway
-  Industrial areas – high potential for transformation and densification
-  Cottage settlement area – potential for transformation and densification
-  Livestock production area – potential for transformation and densification in the near future
-  "Belluš Mill" – architecturally significant building; landmark
-  Potential extension of public transport network into the area
-  Flat, undeveloped area
-  Planned construction of terraced houses
-  Planned street connections
-  Proposal area

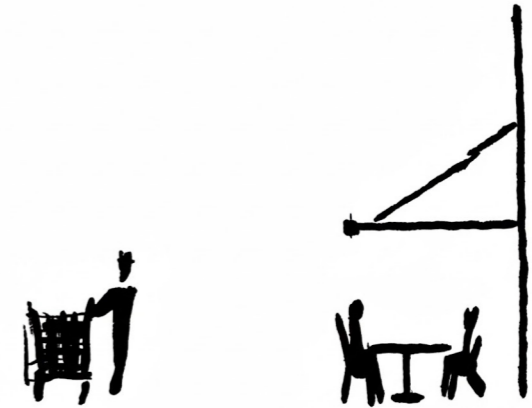




high-quality public transport



biodiversity and water retention measures



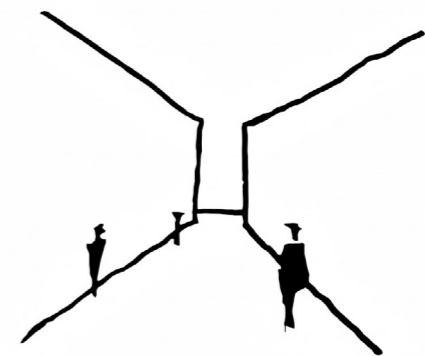
civic amenities



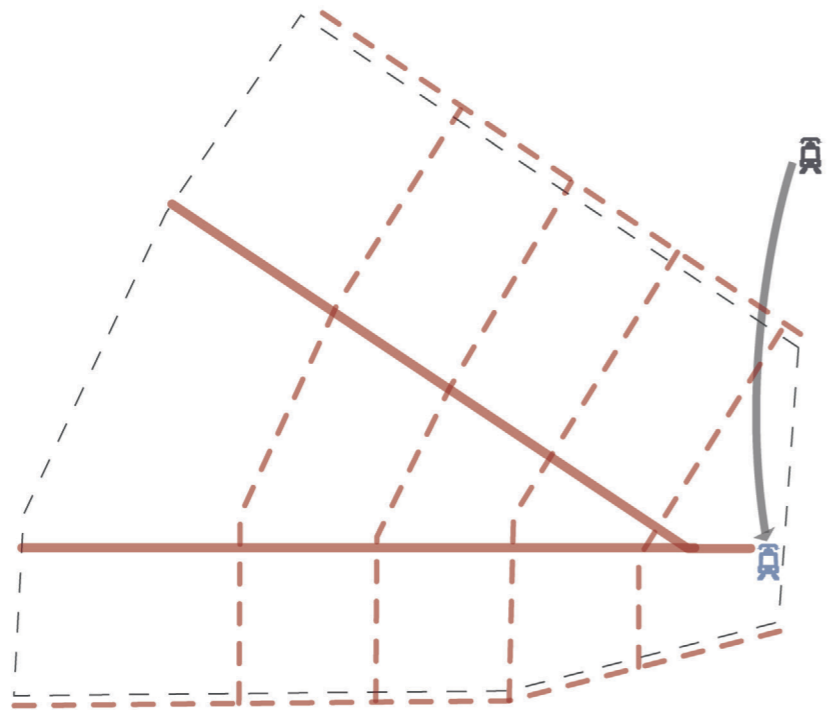
diverse, compact city



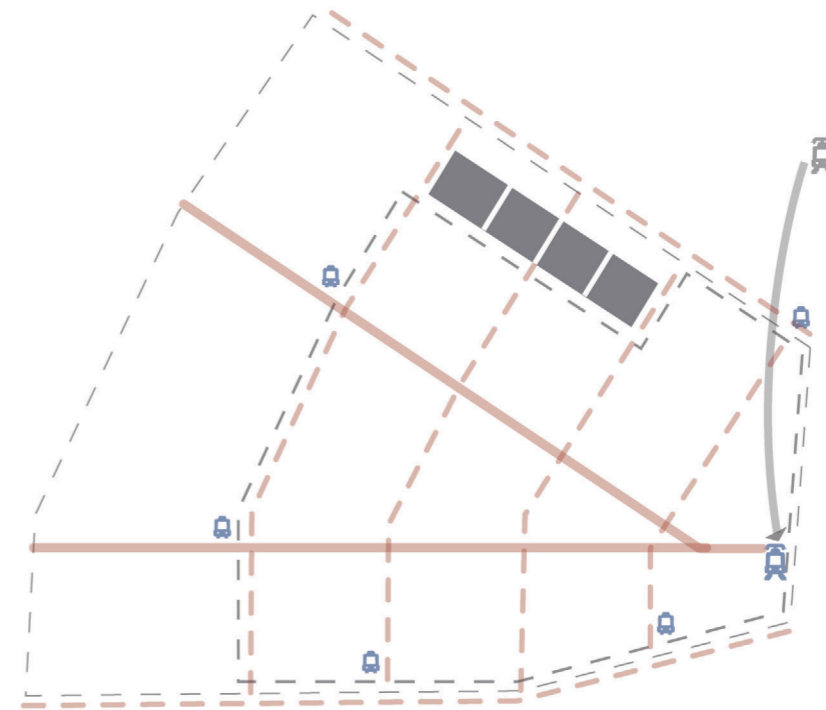
sense of place



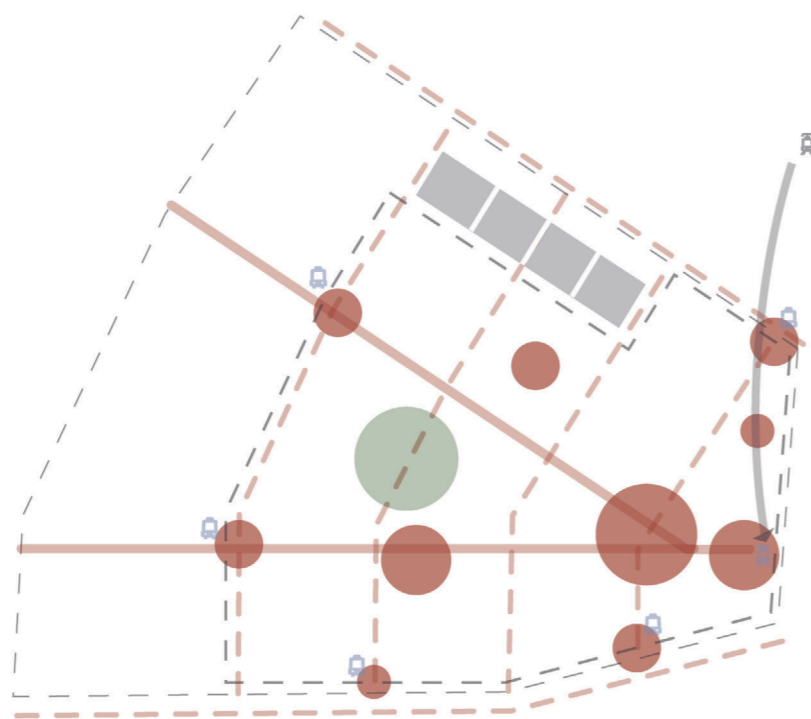
human scale



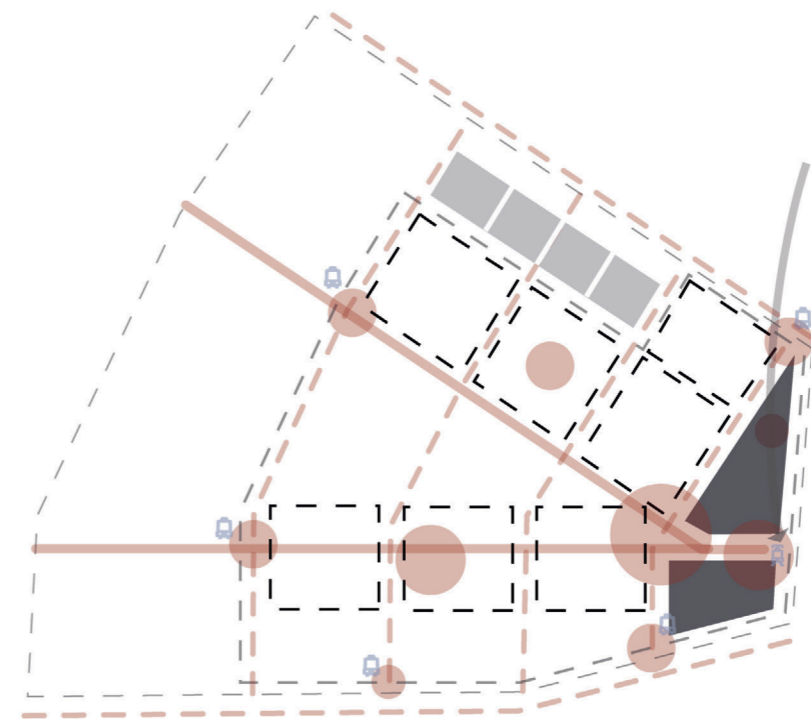
Relocation of the existing railway stop - creation of main compositional axes  
Functional and compositional connection to the city's radial system



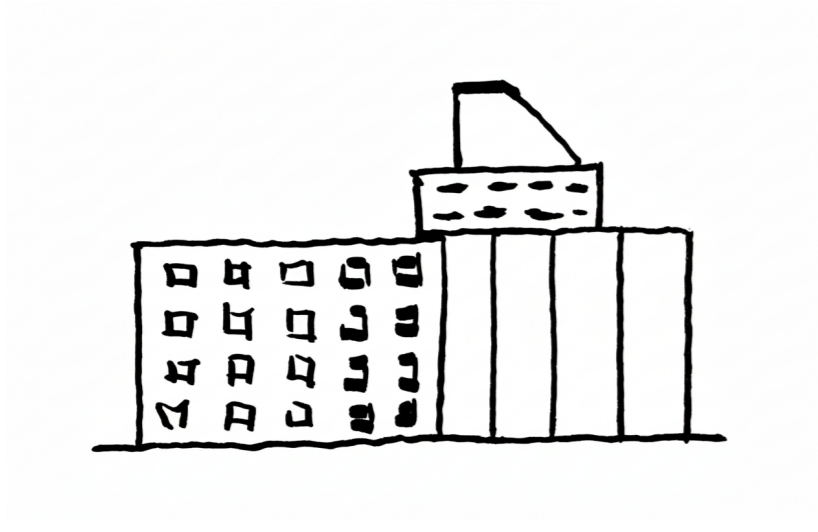
Creation of a public transport system  
Respecting the planned construction of detached houses  
Defining the more detailed development area



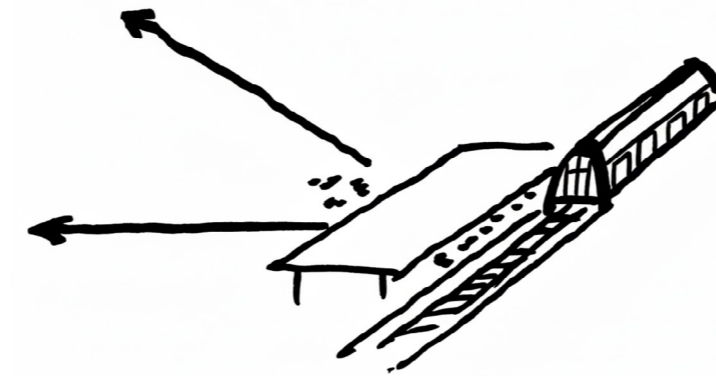
Defining the main public spaces of the district  
Design of a central park



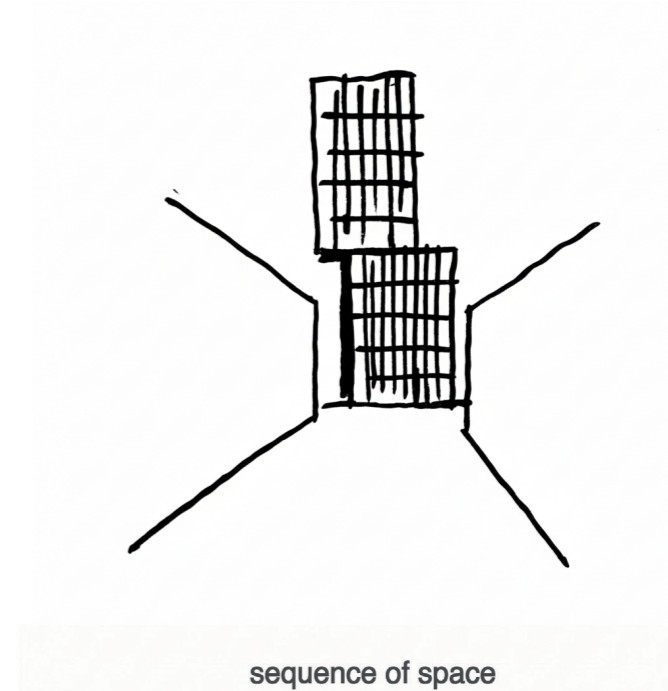
Superblock system  
Design of an acoustic barrier from the railway line



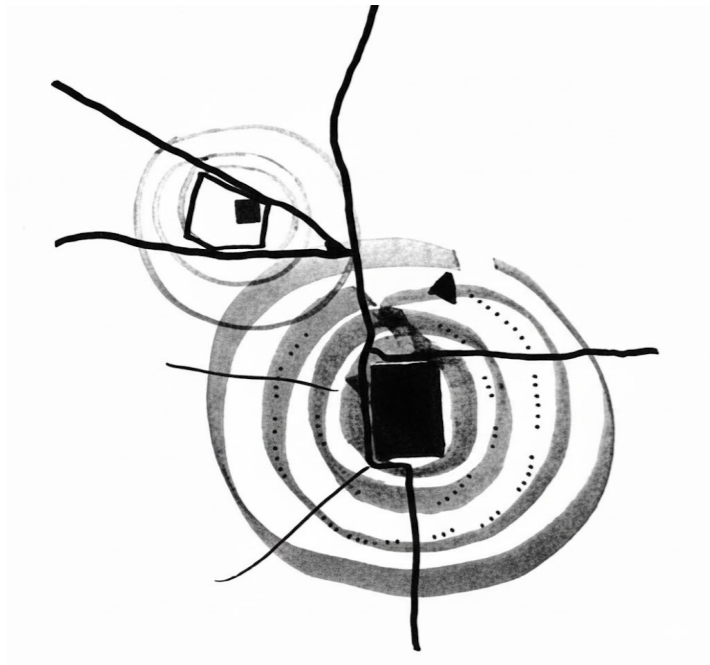
relationship to the surroundings



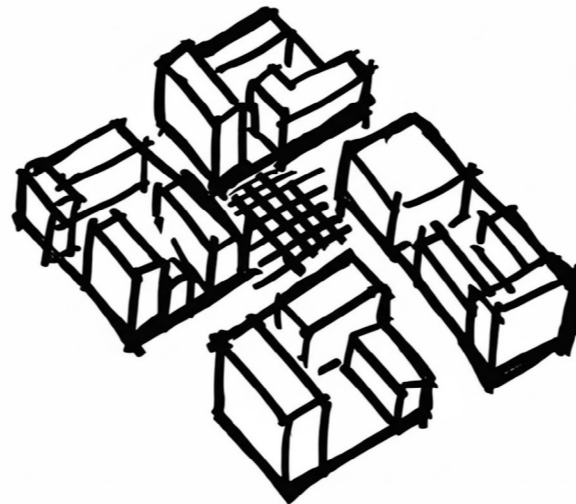
railway stop as a new centre



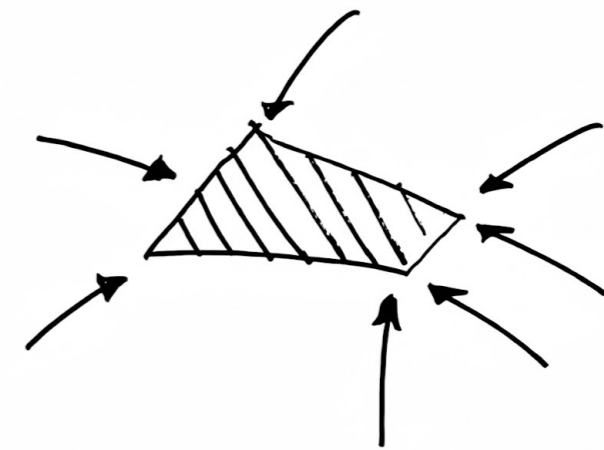
sequence of space























new city centre
























superblock



park as the heart of the city

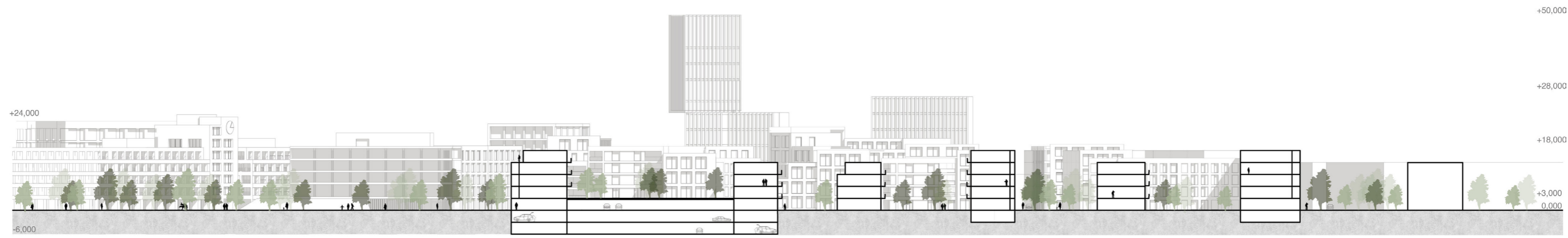
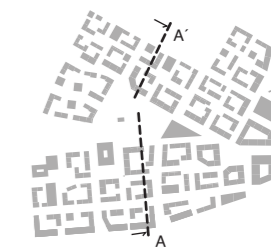
-  Buildings within the proposal area
-  Buildings within the wider designed area
-  Buildings in the surrounding area
-  Cycling routes
-  Important public spaces
-  Railway line
-  Kindergartens
-  Public low greenery – park, recreational
-  Intensive park greenery
-  Extensive park greenery (nature-close maintenance)
-  Private low greenery
-  Private high greenery
-  Public high greenery – deciduous trees
-  Public high greenery – coniferous trees
-  Agricultural landscape
-  Gravel / compacted aggregate surface
-  Water surface
-  Sports fields
-  Green roofs
-  Proposal area
-  Areas designed as wider context
-  Assumed area development



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-  Gravel/compacted aggregate surface
-  Water surface
-  Sports fields
-  Green roofs
-  Children's playgrounds
-  Workout areas and small sports courts
-  Front gardens
-  Market stalls
-  Different square surface finish
-  Rain gardens
-  Community gardens
-  Amphitheatre
-  Proposal area



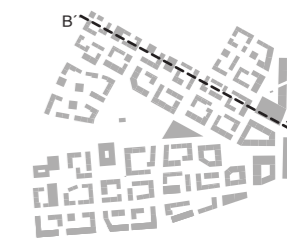




section A



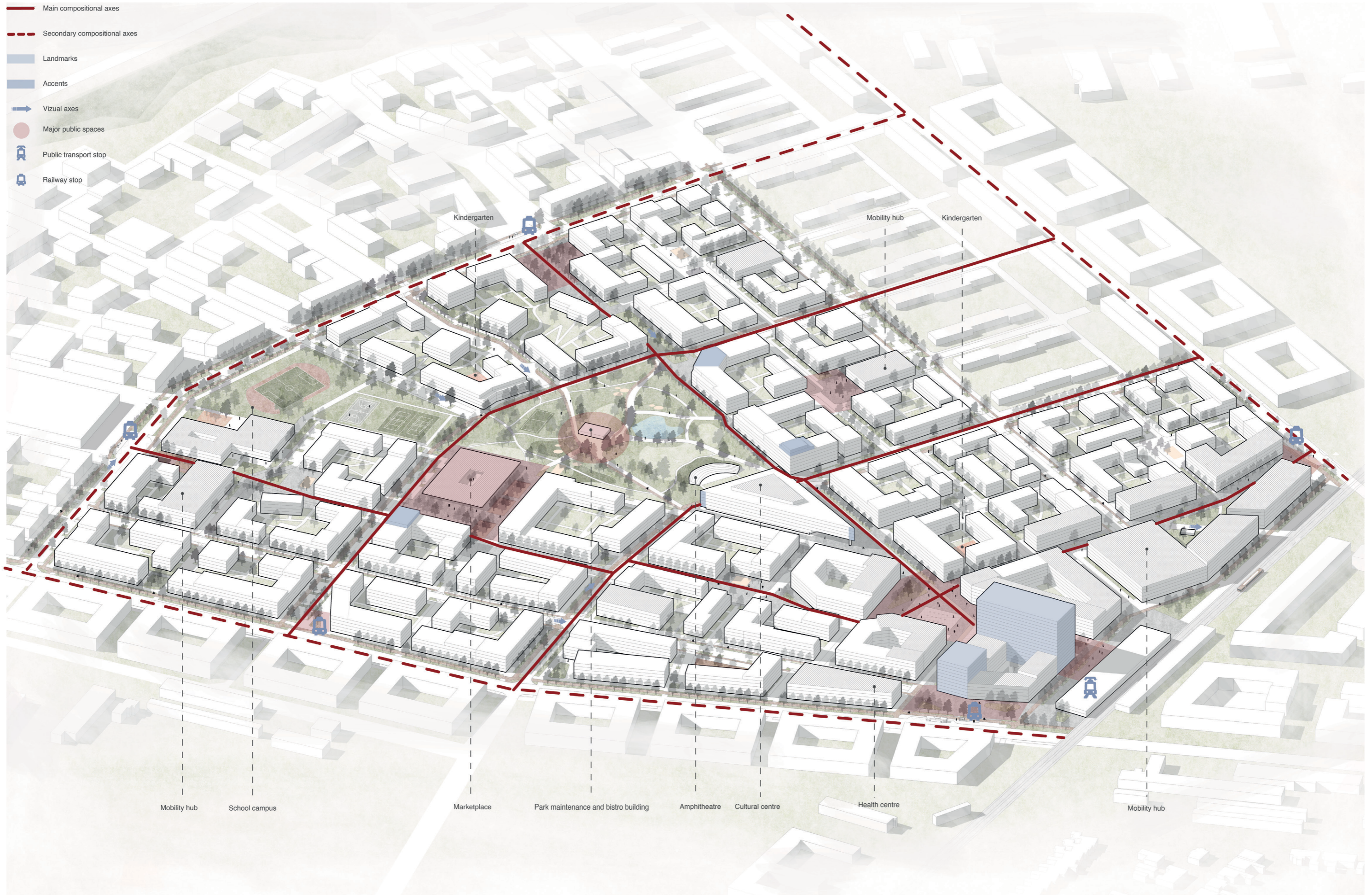
section A'



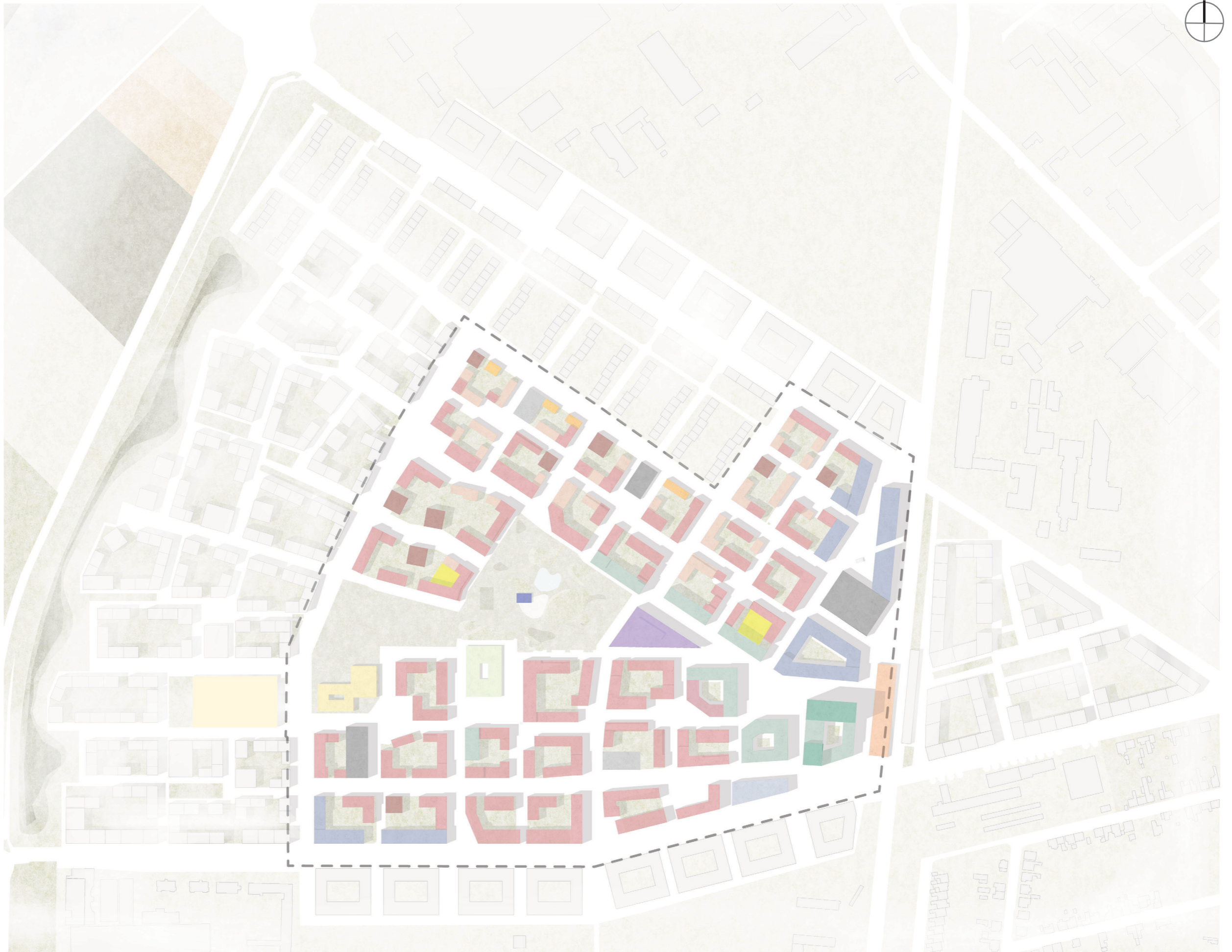
section B



section B'



- Office buildings, 5–6 floors
- Mixed-use buildings, 4–6 floors
- Mixed-use buildings, 11 and 17 floors
- Railway station
- Polyclinic, 5 floors
- Cultural centre
- Market hall
- School
- Kindergartens
- Point residential buildings, 3–4 floors
- Gallery-access residential buildings, 3–4 floors
- Sectional residential buildings, 4–5 floors
- Sectional residential buildings, 3 floors
- Sports hall
- Mobility hub buildings
- Park maintenance and bistro building
- Parking garages
- Proposals area



The proposal emphasizes the creation of a multifunctional development and a vibrant urban environment where people can not only live, but also work and actively spend their leisure time. Administrative buildings are situated primarily near the railway, where, in addition to their visual presence, they form an effective acoustic barrier. At the same time, they are located near an industrial complex, where it is necessary to respect setback distances (although we anticipate its transformation to a different function in the future). Administration is also localized by the boulevard, which will be one of the busier roads.

Multifunctionality is concentrated around the busiest public spaces – in the heart of the district, around the railway station, the main square, the park, and in connection to the marketplace.

The marketplace is also positioned on one of the main compositional axes, which also features a school directly connected to the park and a sports hall situated near the school and a public transport stop.

On the second of the main compositional axes is the cultural center, which is open to all surrounding public spaces, but especially to the park, which its amphitheater naturally extends into.

Housing is concentrated mainly around the park. The height of the buildings gradually increases toward the center of the district – the main square: from three stories up to six, while the landmark within the area reaches 17 stories. In the northern part, in contact with a secondary service road, there are smaller gallery-access houses oriented with the gallery to the north, which also help to screen noise from this road.

In the center of the district, near a public transport stop, a polyclinic is also situated, which increases the civic amenities of the area and supports its functional diversity.

- Public low greenery – park, recreational (also functioning as retention areas)
- Intensive park greenery
- Extensive park greenery (nature-close maintenance)
- Private low greenery
- Private tall greenery
- Public tall greenery – deciduous trees
- Public tall greenery – coniferous trees
- Front gardens
- Agricultural landscape
- Children's playgrounds – EPDM surface
- Workout areas, small sports grounds – EPDM surface
- Gravel/compacted aggregate surface
- Water surface
- Community gardens
- Rain gardens
- Sports fields
- Green roofs
- Photovoltaic panels
- Bistro and park maintenance building
- Proposal area

Greenery in the design is concentrated mainly in the central park, which is within a 10-minute walking distance for all residents. The park is divided into several functional zones:

- a) a zone connected to the cultural center with an amphitheater,
- b) a zone near the water body, where a small building is located providing park facilities and a small bistro; this area also serves as the central meeting point of the entire park, along with smaller zones containing children's playgrounds,
- c) and a zone near the market, which is designed to naturally "flow" into the park and create a unified public space together with it.

There are several smaller pocket parks within the area that complement the main park structure. Within the superblocks, smaller public spaces with greenery, a community character, and playgrounds are designed. Sports facilities are concentrated near the school complex, with direct connections to the park.

In more intensively used, yet still green public spaces, the surface is designed as compacted gravel (mlat). Streets function as green avenues that connect individual parts of the area.

In the broader context of the design, the proposal connects to the planned green belt around Trnava along the bypass, which will serve as extensive park greenery and will also help reduce noise and pollution.

Rainwater retention is solved using rain gardens, which are located in every courtyard without underground parking. Courtyards also include children's playgrounds, small sports areas, community gardens, and in many cases front gardens, which support neighborhood relationships and contribute to the development of community life overall.

Green roofs and photovoltaic panels are placed on the roofs of parking houses, administrative buildings, and mixed-use buildings. Since these types of buildings usually generate higher economic returns, more financial resources are invested in their construction – which also makes it possible to implement larger roof areas with greenery and renewable energy sources. However, this does not mean that their placement on other types of buildings is not possible.



- Ring road
- Boulevard
- Main service road (Public transport, individual car access only) 30 km/h
- Secondary service road 30 km/h
- Driveable pavement 20 km/h
- Pedestrian zone
- Cycle path
- Existing railway track
- Proposed railway double-tracking
- Railway stop
- Public transport stop
- Underground garages
- Mobility hub
- Parking house
- Entrances to underground garages and parking houses
- Level railway crossing
- Railway underpass
- Level railway crossing

Mobility Hubs – parking houses for cars and bicycles with civic amenities on the ground floor. They are located with connections to service roads and in proximity to public transport and train stops. They represent an alternative to individual car transport.

Main Service Road – represents a peripheral radial that intersects the area. It is passable only for public transport. Automobile transit is prohibited by signage; cars serve only to provide access to the area.

Railway Stop – located in a more accessible site, it can provide a significant impulse for the development of the entire area. The railway can represent an important transport system for the city. Currently, its potential remains unfulfilled.

Underground Garages – situated to be directly connected to service roads. They are placed within selected blocks with high-standard apartments, primarily in the zone near the park.

Public Transport Stops – situated on significant pedestrian and compositional axes and in proximity to major public spaces, the school, and the railway stop.

Boulevard – with the intensification of surrounding areas, both roads have the potential to transform into significant urban avenues.

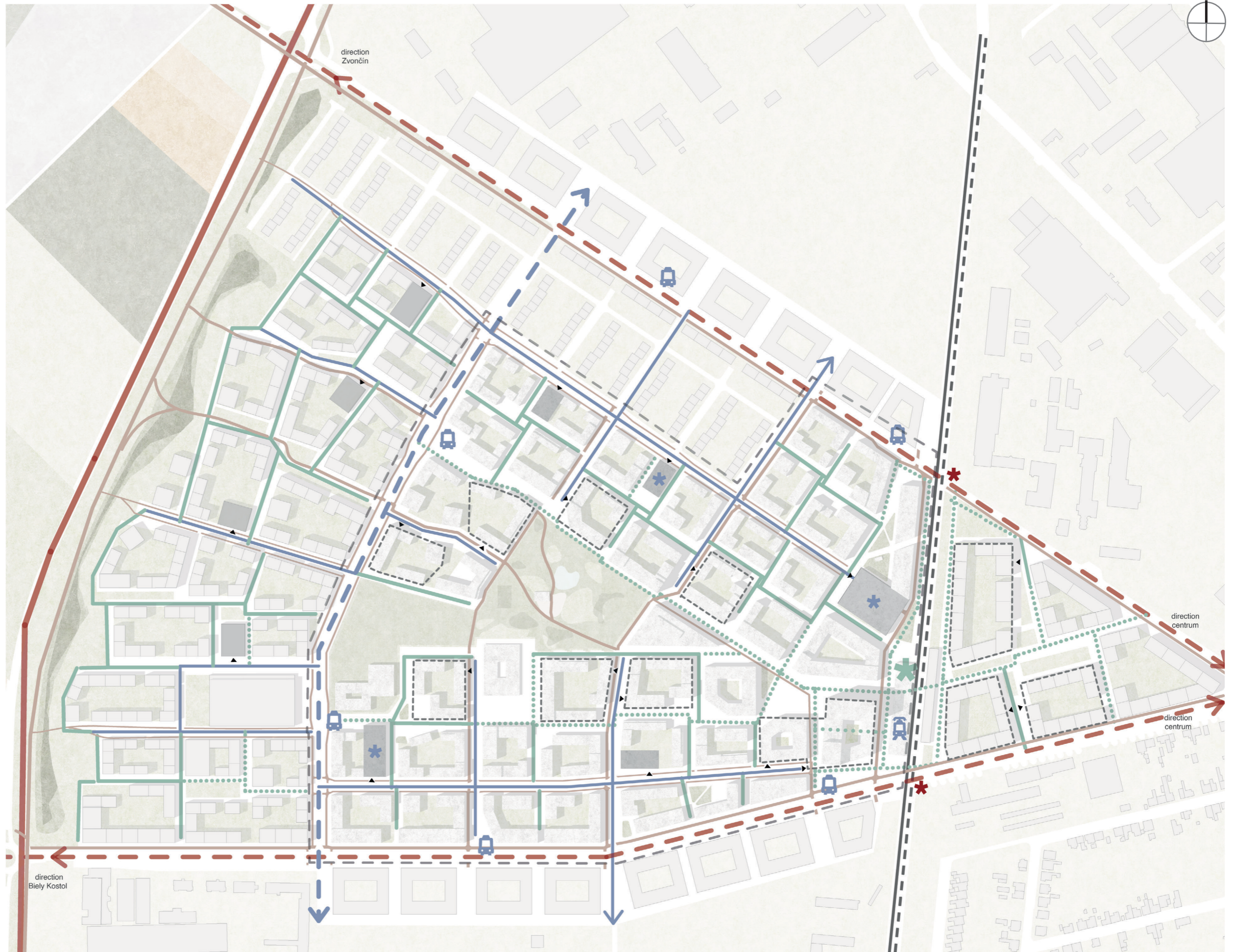
Secondary Service Roads – create a service network for individual superblocks.

Underpass – as part of the new railway stop, we propose a new underpass to better connect the area with its surroundings.

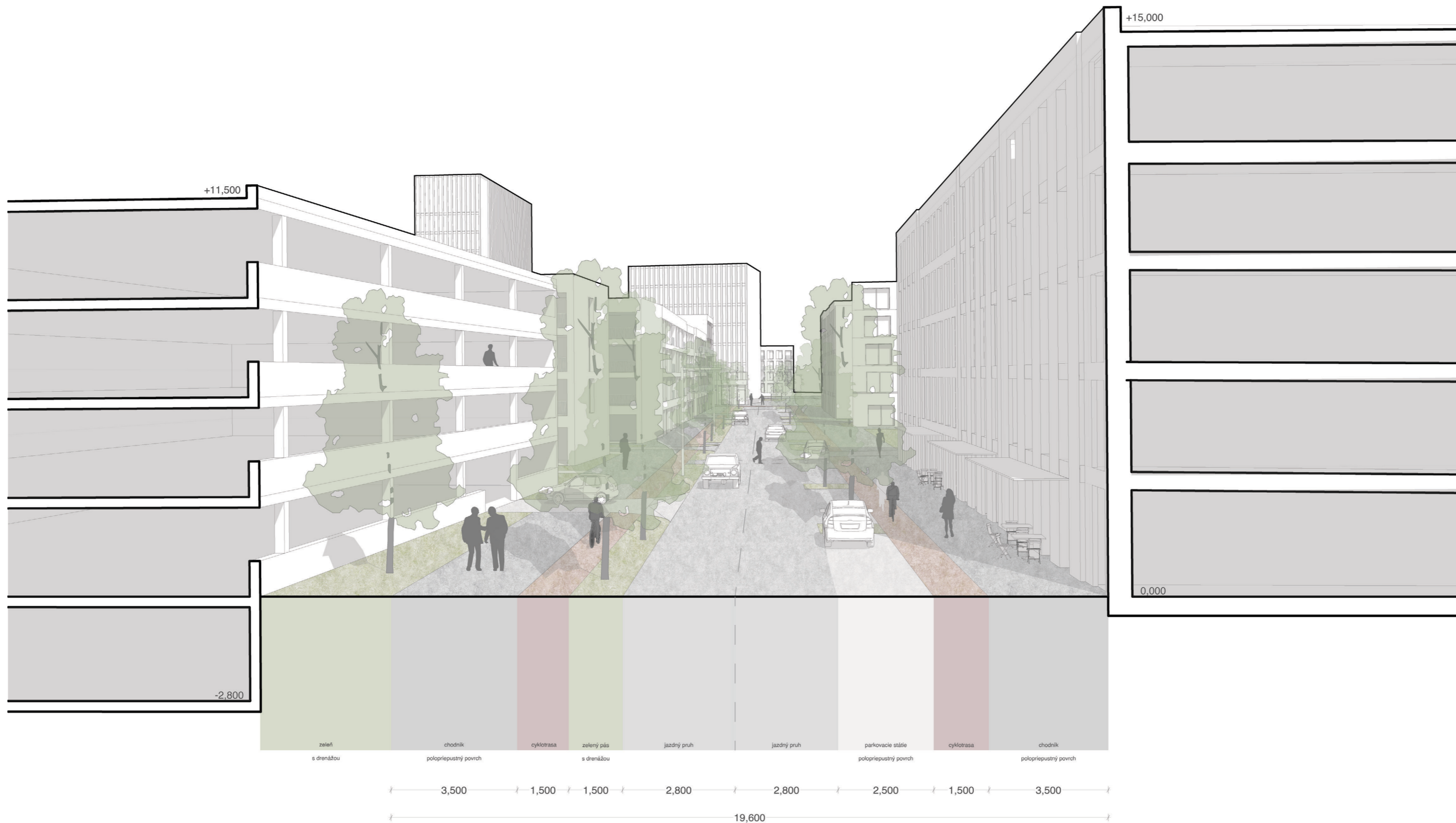
Level Railway Crossing – currently, the crossing is solved at grade; its conversion to a grade-separated crossing is highly unlikely given the current importance of the line.

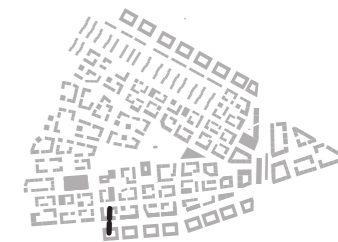
Double-tracking – with the increasing intensification of the area, the importance of the railway as a transport system will grow. We therefore propose a sufficient spatial reserve for a new track.

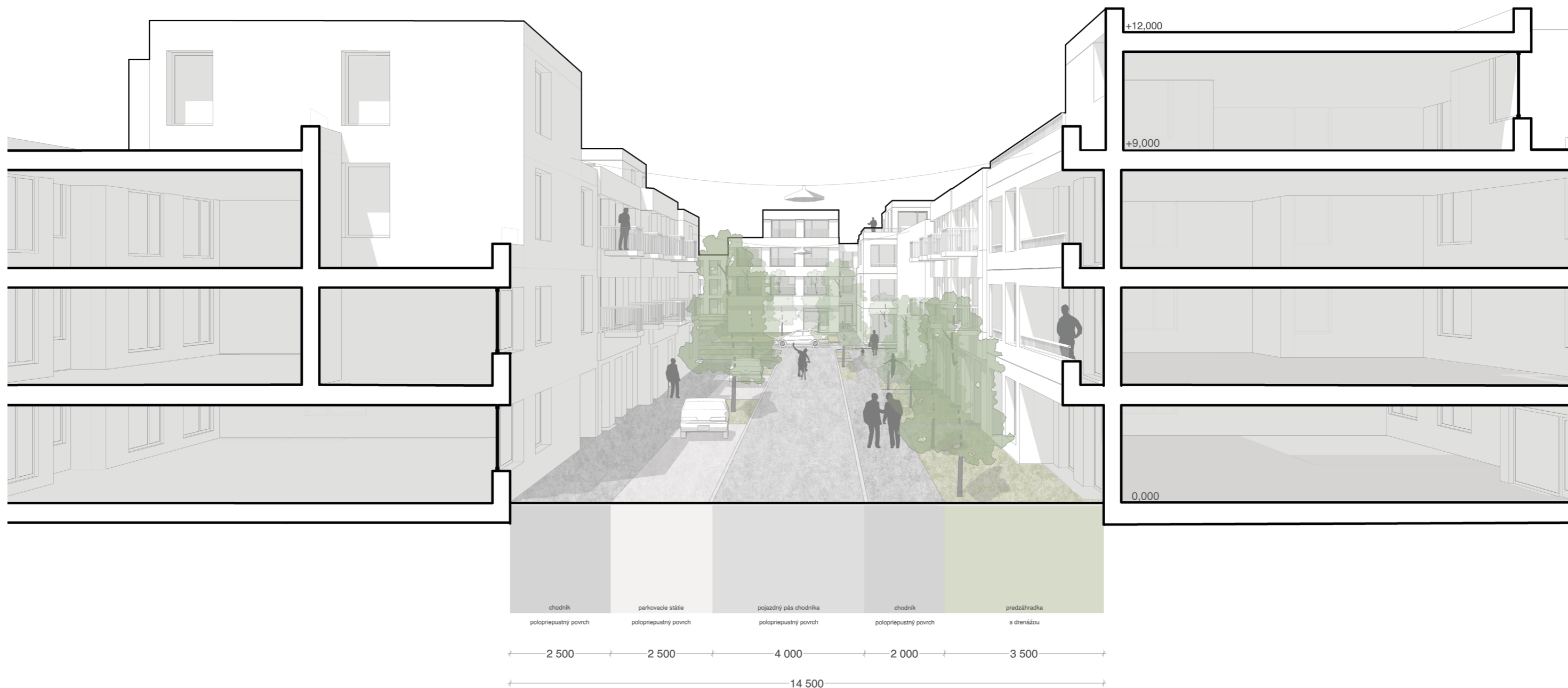
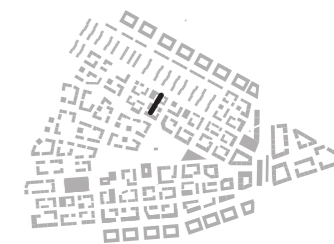
Surface Parking Spaces – account for 30% of all parking spaces. They are located primarily along service roads.

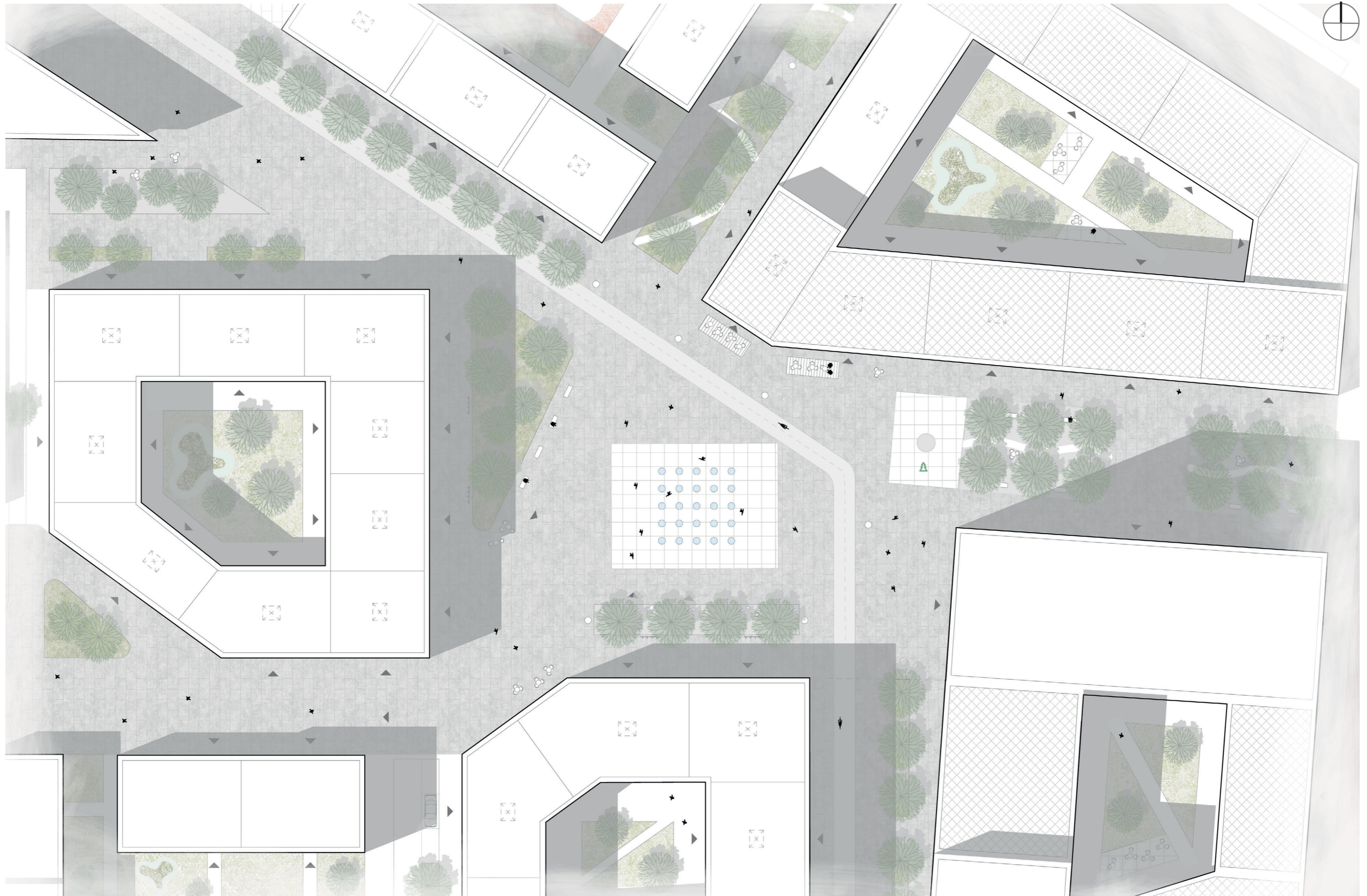


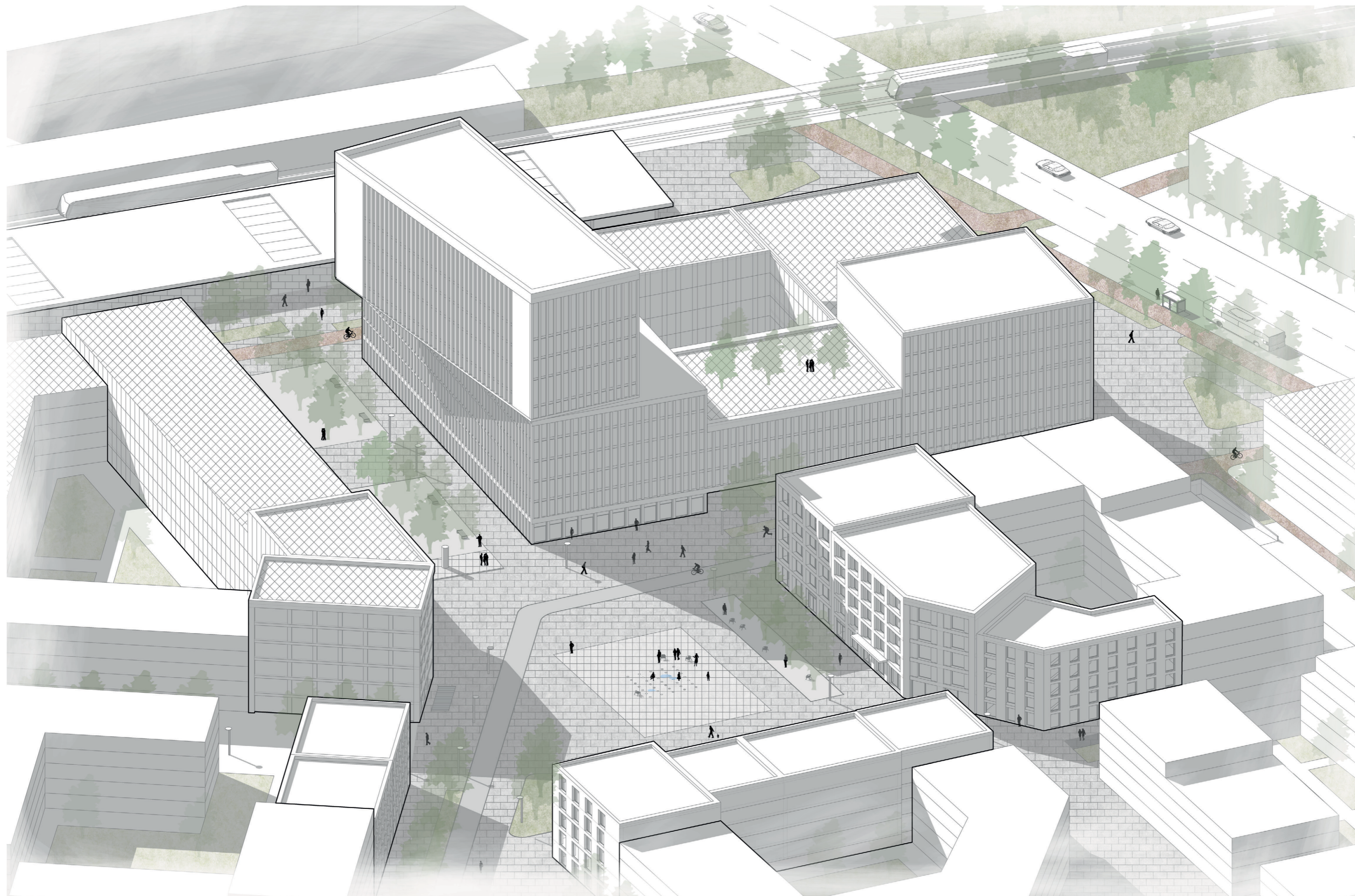






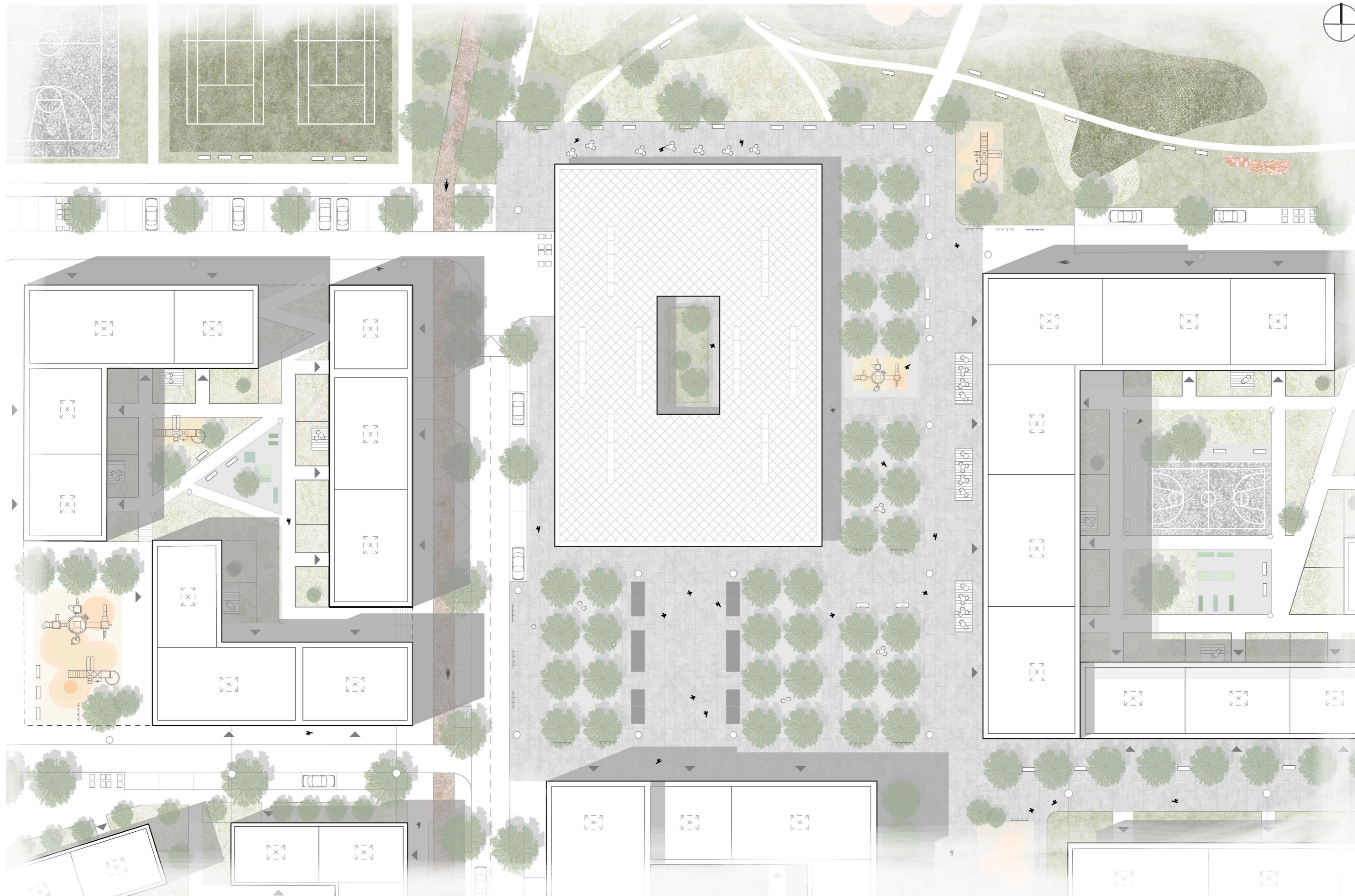


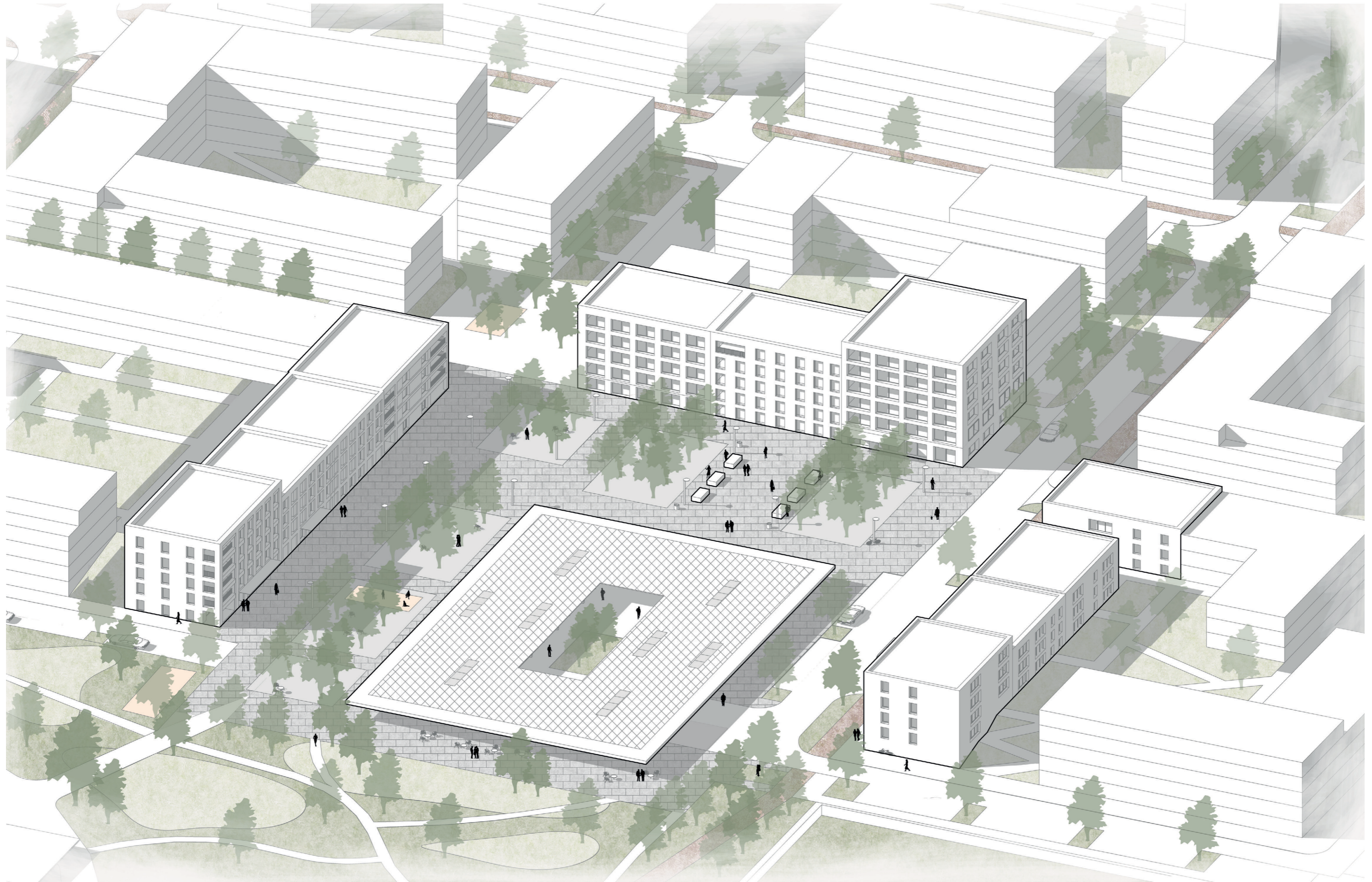






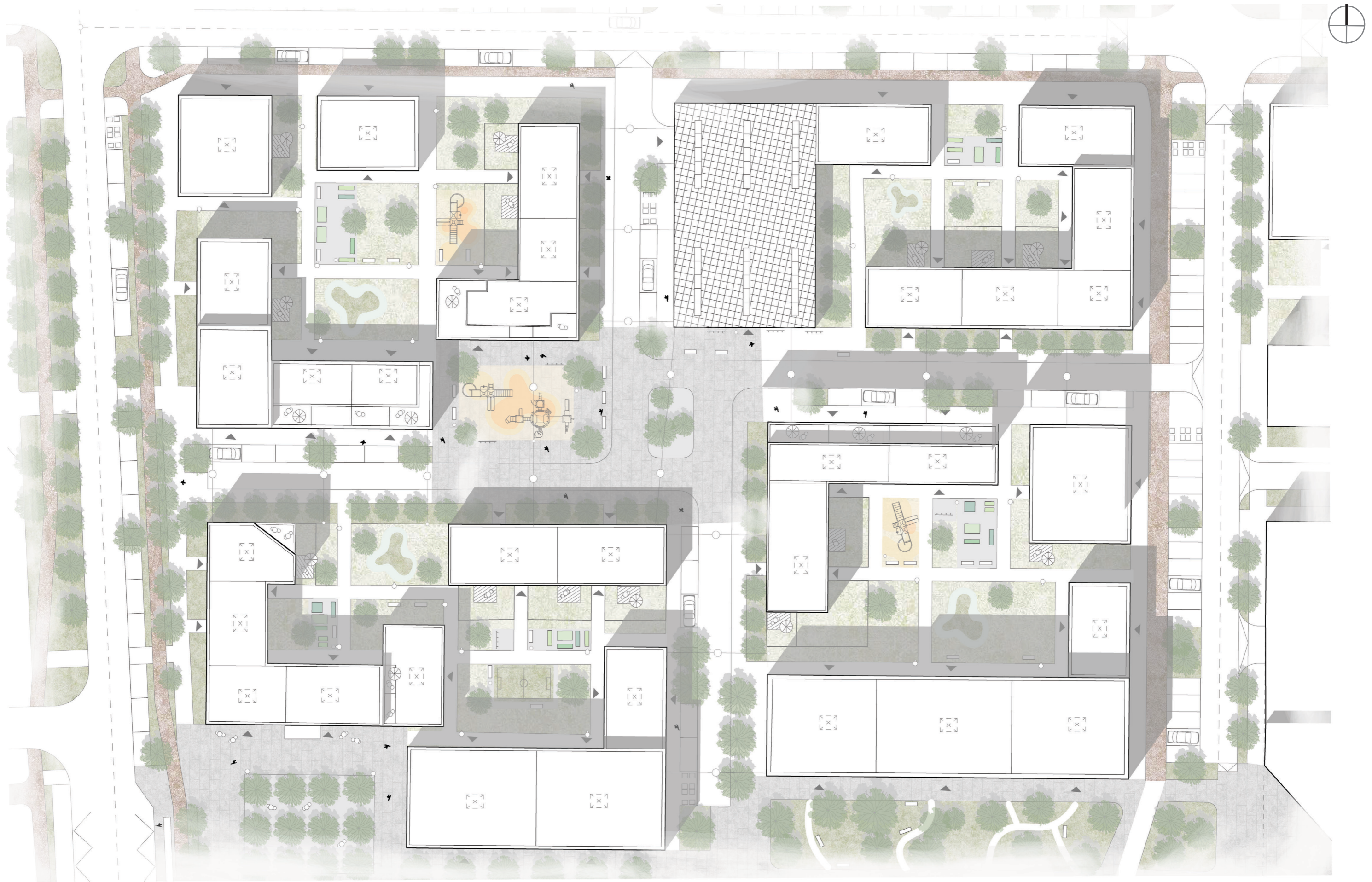




















## City quarter, Trnava

The proposed urban district is located on the northeastern edge of the city of Trnava, on currently undeveloped land in contact with industrial areas, a railway line, and a planned residential development of family houses. The area represents significant development potential for the city and offers the opportunity to create a new urban structure that will not only serve for housing but will establish a fully-fledged urban district with its own center, high-quality public spaces, and developed civic amenities. The site is bordered by the railway line to the east, the proposed Trnava city bypass to the west, and heavily trafficked second and third-class roads to the north and south. These transport lines represent significant barriers and negatives of the area, which the proposal deliberately transforms into positive development elements.

The fundamental starting point of the urban concept is the existing railway stop. Relocating it closer to the development site allows the district's growth to be based on the principles of sustainable mobility and public transport. The railway is transformed from a barrier into a major transport element connecting the district with the center of Trnava as well as the wider regional context. The relocated station becomes the main starting point of the design and the impetus for the creation of a new town center. Directly linked to it, a central square with an urban landmark is proposed, situated at the intersection of two main urban axes.

These axes organize the entire spatial structure of the area, interconnecting the most important functions and public spaces, while also serving as the district's primary orientation lines. Prominent civic amenities, such as a cultural center, a municipal market, a school, and the main public spaces, are concentrated along them. The axes terminate at significant public spaces and public transport stops, creating a clear hierarchy of nodes and movement patterns. The composition of the area is based on the principle of the gradual revealing of the landmark; it is not continuously visible, but appears in vistas as one moves through the district and subsequently disappears back into the built structure, creating a dynamic spatial experience and enhancing orientation within the area.

The heart of the proposed district is the central park, located approximately in the middle of the site. The park forms the primary landscape and recreational element of the design and is directly connected to the most significant public functions, including the municipal market, the primary school, the cultural center with an amphitheater, and other public spaces of various scales. The park fulfills recreational, community, and ecological functions, establishing a strong identity for the entire district. In a broader context, the design links into the green belt system of the city of Trnava. This system is reinforced particularly along the proposed bypass, where a protective and insulating green buffer is created to mitigate the negative impacts of traffic while simultaneously developing the area's recreational potential.

The built environment is organized into a system of superblocks, each consisting of four urban blocks. The superblocks are serviced by access roads running along their perimeter, whereas the interior spaces are designated primarily for pedestrian movement, leisure, and community activities. Courtyards create smaller public and semi-public spaces for the residents of individual blocks, fostering neighborly relations. Traffic within the superblocks is calmed, with an emphasis on the safe movement of pedestrians and cyclists. The blocks are shaped variably—receding in some places and projecting forward in others—creating a diverse spatial sequence that encourages a sense of exploration and increases the attractiveness of moving through the area. The edges of the blocks are designed to be permeable and active, with an emphasis on a high-quality ground floor (parter) and contact between public and private space.

The height regulation of the buildings responds not only to the hierarchy of the district's internal layout but also to its broader context. On the eastern and northern edges of the site, the buildings reach a height of approximately three stories. This lower scale is applied especially in contact with the planned development of terraced family houses, which reach a height of approximately two stories. Towards the center of the district and the urban landmark, the building height gradually increases to five or six stories. The height and massing solution also responds to the nearby architecturally and industrially valuable NUPOD mill from famous slovak architect Emil Belluš, which represents a significant landmark in the wider area. The urban structure is composed in such a way that a minor vista towards this building opens up through the administrative objects, which otherwise serve as an insulating wall against the railway line.

The proposal also capitalizes on the potential for the transformation and intensification of neighboring zones, including industrial and commercial areas, as well as an area with garden cottages and smaller family houses. It anticipates the development of the entire area, with the proposed district serving as an initiator of systematic development and quality improvement for the surrounding parts. On the northern edge of the site, there is a planned development of terraced family houses. The proposal respects this development but does not directly continue its pattern, as the city management does not consider it a suitable model for further growth. The proposed district responds to this situation by creating a more compact, block-based, and character-defining urban structure of higher urban quality, which offers pleasant public spaces, a clear hierarchy of streets, and better conditions for community life. The overall concept transforms what were originally barrier-like and problematic edges of the site into active urban development lines, creating a new urban district with its own identity, founded on quality public spaces, sustainable mobility, and a sophisticated urban composition.