

Thesis Reflection

Studio Topic: Hotel New York, Migration of Ideas

Thesis topic: Secondary Mobility Nodes within the Densifying Inner-city

Location: Node & Metro Station Beurs in Rotterdam, Netherlands



Hotel New York Studio – Complex Project Graduation studio

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Image 1. Location Beurs in Rotterdam, Heart of Metro Network

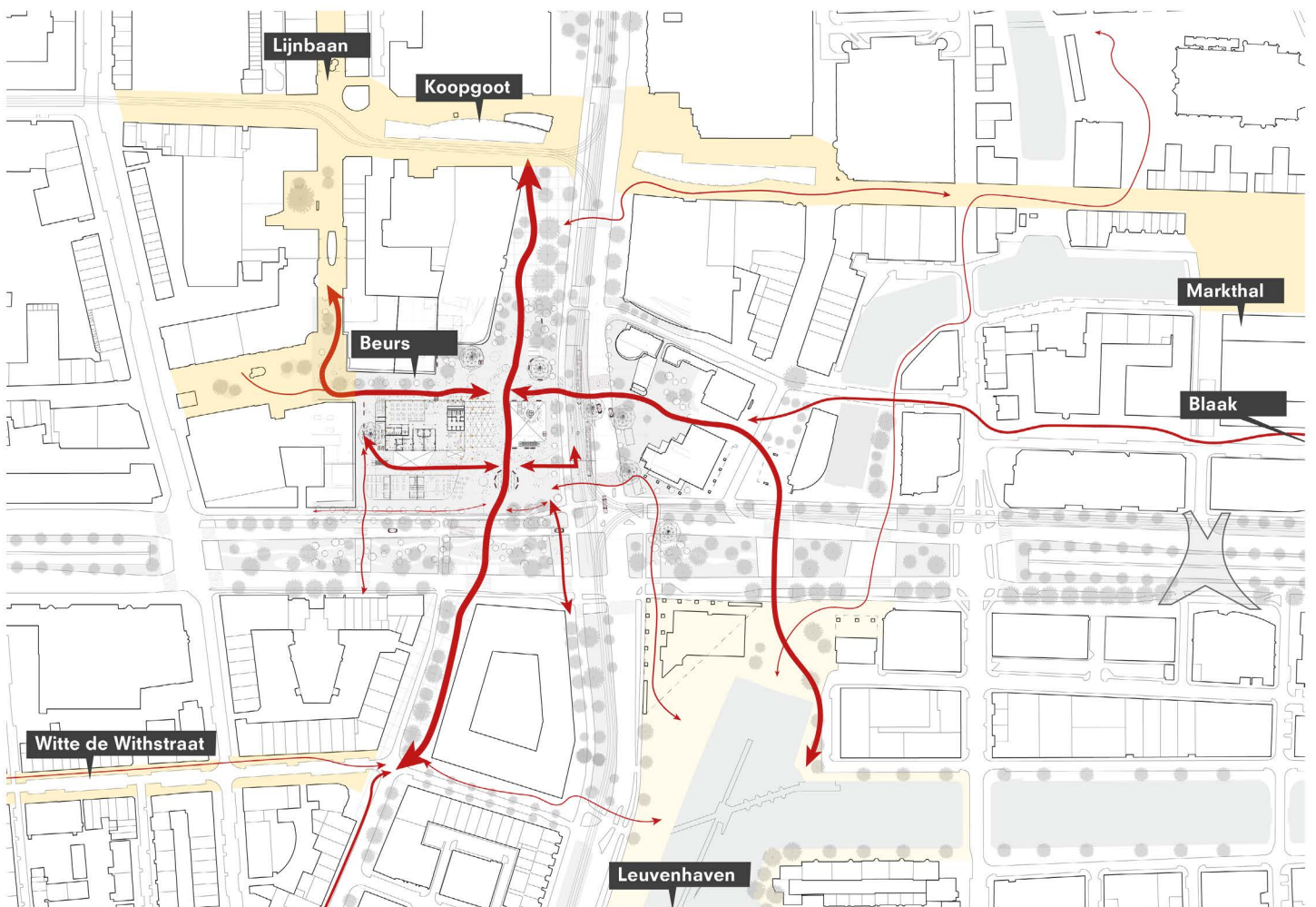


Image2. Urban Flows from and towards secondary Node Beurs

1. Design Project Description

Due to the increasing densification in the inner cities, the city arteries are cluttering. Bothering the city growth, qualities and development. The Regional (secondary) nodes within the city infrastructural network, function as root for urban growth and development. The infrastructure affects the quality of the public space on different scales as well as, the densification sharpens the resistance to disruptive urban infrastructural interventions. This is creating a need for a better interwoven and merged urban landscape with infrastructure that can cope with future capacity need.

In Rotterdam the municipality is planning to add 50.000 dwellings within 2040, pushing the capacity limits of regional secondary nodes, including the node Beurs that already reaches limits. The high rise strategy of the municipality is addressing the importance of the accessibility and direct proper working network of public transport in those secondary nodes.

The circulation in the node Beurs, on the ground floor and in particular in the underground metro station are already stagnating today. Predictions are that the people flow at the metro will almost double compared to 2020. The node Beurs in the inner city of Rotterdam, contains a complex infrastructural junction of multiple different traffic flow networks. The urban tissue is interweaving with intersecting underground metro lines, as well as crossing traffic flows of the cars, tram, bus, bikes, and pedestrian. This infrastructural node has the potential to inter-mediate between the four different adjoining neighbourhoods, who are characterized by: the harbor 'Leuvenhaven' accessible by water taxi; the low rise dwelling neighbourhood with nightlife; as well as the city centre neighbourhoods known for their shopping streets, offices and the public realm.

Besides that the Beurs area is highly accessible by public transport, the area of Beurs face several challenges. The area is infrastructure dominating, hard in wayfinding and often an unpleasant place to stay at night or enter the city. The infrastructure forms a barrier between the neighbourhoods and lacks accessibility towards the metro. Creating more space for circulation of the people flows, splitting the flows and creating direct transit opportunities will increase accessibility and decrease obstruction. Nowadays the entrances of the metro station, the entrance to the inner city, is quiet hidden and unsafe at night as important sight lines are blocked. The area hasn't clear identity or public space, and not suitable for transition by bicycles. Although all the challenges, the node Beurs has lot of potential to become a pleasant place to stay, connecting the public space patchwork within the urban fabric. Creating this public floor line as base for the new skyline.

Beurs, as heart of the secondary network, can flourish as new gateway to the inner city. As traveller, visitor and Rotterdammer you can enter the inner city by a new public square, that is connected to the green boulevard of the Coolensingel and the new green boulevard of Blaak and West Blaak. Connecting Beurs through pedestrian friendly roads to the surrounding neighbourhoods. Attracting habitants of the city and surrounding neighbourhoods to cross and stay at the new plaza.

The new entrance connected to the station, with the new added facilities as a hotel, shops and catering industry will function as kickstart for development and amenities to arise in its surrounding area. Beurs as little regional center in the inner city profit from the nearby located museum park, the education axis, the shopping center, the activity of the waterfront at Leuvenhaven and direct connection to Koopgoot. Increasing capacity possibilities and extending the metro's network, creating a bigger reach of the public transport stimulating a more sustainable and accessible inner city.

The architectural project scope of Beurs exist out of three different elements: the renewed casco hotel tower, the new underground and main entrance and the existing metro station. The aim is to establish a partly underground regional light rail network hub that is interwoven and merged in the urban landscape. The program of the building, exiting out of metro platform, bike

storage, a new main entrance with side entrances, a hotel, commercial and catering facilities. This program can be divided in soft and the hard infrastructural program. Implementing this mix of functions should creating this 24 active entrance to the inner city. The RET (public transport company), the metropole of Zuid Holland and the municipality of Rotterdam, as well as the hotel and commercial actors are part of the design scope. The scope will mostly be focused to the underground connector, square and main entrance. The main part of the tower will be outsourced to others.

The casco of the existing tower of the Coolse poort will be maintained, implementing a hotel and public functions through all the different layers, should create a lively plaza and underground area. In the future it will be also possible to change it in developments of dwellings. Creating an active and open plinth providing safety and place for the local economy to flourish. Using arcades, perforations and sightlines to create a smooth transition between the metro, underground entrance, tower and its public space.

The underground layer of the metro will be extended to create a new open entrance, connecting the different building elements together. Putting the program partly underground is creating room for public space on ground level. As well as is give opportunity to design direct connections for infrastructural transits and extended capacity of the metro. The infrastructural barrier can be turned into infrastructure as positive identity of the area. The integral underground concept of the canopy, archade ,column and perforation creates the possibility of a pleasant underground with daylight, view on the weather, connection within different levels addressing the human scale, the public space and pocket parks, interweaving and representing the urban tissue courtyards of Rotterdam . The entrance should embrace the warm and raw atmosphere of the identity of Rotterdam.

The main entrance and side entrances, represented by 'urban flowers' are icons and wayfinders to the infrastructural system, pointing out the entrances of different traffic possibilities. This highly accessible 'urban flower' element is used as billboard and branding of the place. The 'urban flower' with canopy is inviting people to the underground, as routing element. It gives shelter and function as meeting point on the square. Also on the climate perspective it helps the building regulating rainwater and create solarenergy. The main entrance urban flower is giving a 360 degrees view towards the city of Rotterdam, and inviting the people to enjoy at the cafe and restaurant, as well as to a performance on the roof.

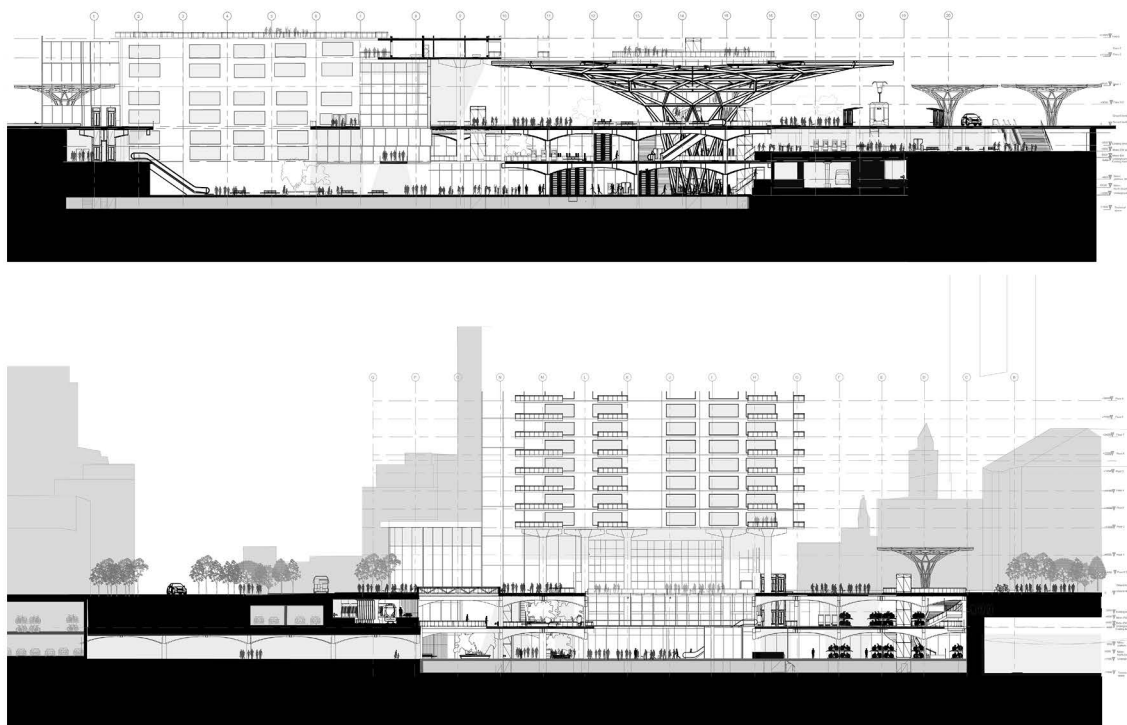


Image 3. Section: Atrium, Tower, Underground, Metro & Main Entrance

2. The relation of Research and Design

Within architecture, the graduation research is inseparable from the design process. Using various research methods led to a process of continuous development of questions and different answers, testing the design outcome and process. Within this graduation research, the methods that are used are the method of typology research by case studies ; contextual integral site research on the urban (sub)layers of the secondary node Beurs; and creating a narrative through scriptive research. Those research methods were fundamental in supporting the flow of questions and filling in the free space of choice within the given framework of the Hotel New York studio. The scriptive, typology & Integral methods were needed to help to unravel the complexity, inherent to the subject of the secondary urban node. The methods brought more overview by arranging information about crucial subjects from the existing knowledge.

The context led research led me to insights how to react by design on the existing and declutter the urban tissue. To make space for different circulation flows, research the urban fabric and to see the connection opportunities towards creating a pleasant public space. And to create accessibility within the design project, connecting the fast metro to other infrastructure as well as to the inner- city.

The design of the secondary node Beurs in Rotterdam is also related to the research done about Infrastructural nodes within the city. True densification of the city, the urban city fabric becomes full and is more easy stagnated. Good Infrastructure and accessibility is key to keep the city running and developing. Research showed, that in the future the number of passengers of the metro system will double.

Researching the existing metro station of the RET and Coolse Poort by floorplans and sections within the Rotterdam archive, made it possible to see the needs of the area, leading to a design brief within the regulations of the municipality of Rotterdam.

Also the research towards national nodes of train stations gave understanding about the development of station, the migration of this idea, gave insides on the potential of the secondary node Beurs. To establish a partly light rail station which becomes better accessible and a more place to stay. As well as the location research of the inner city of Rotterdam led to the design project of designing a new accessible and visible entrance to the inner city of Rotterdam.

Designing a new entrance at, a regional network node that is the heart of the metro system of Rotterdam reaching further than the city itself and connect to different satellite cities evoke many questions. The main research questions was: What is the role of the secondary node within the densifying inner city of Rotterdam? Within the design is search to finding answers on how to make traffic flows more efficient and make a more accessible entrance to the inner-city. Resulting in establish a partly underground regional light rail network hub with direct linked public transport connections, that is interwoven in the urban landscape. Connecting the infrastructure and surrounding neighbourhoods through multiple levels of quality public space. As well as creating an accessible hub by implementing a renewed pedestrian-friendly and 24h active entrance to the inner-city.

3. Graduation topic of 'Secondary Nodes' and studio topic 'Migration of Ideas'

The graduation topic of Secondary nodes within the densifying inner city is related to the research done on the migration of the idea of the urban station and entrances to the city. The topic of the studio migration of an idea can be traced back to the exchange of the holland American line, that made it possible for people to migrate and exchanging ideas and developing them. Besides the people, the ideas traveled through all the different scales and continents, as well as the idea of the station have been migrated and developed. Networks and there nodes are centuries old, but the ideas and function of those places develop exchange within the junc-

tions. Infrastructural nodes part of the mobility network, developing through space and time. Every time ideas change, mutate, through thoughts of time, culture, politics and also location. The idea of the metrostation took a long time to developed, and has been evolved out of the invention of the trainstation. The need of th underground became more nessesary within th densifying city. The idea of the station, is develop out of the chaos on train stops, the need for shelter. Nowaday stations have become the biggest shopping areas, like the stations in Japan Tokyo. It is important and interesting to research those migrating ideas, to see how the ideas-will develop in the future and influence other ideas. Using case study and typology research helped to unravel the aspects of secondary nodes, to create a vision on the future ideas of today.

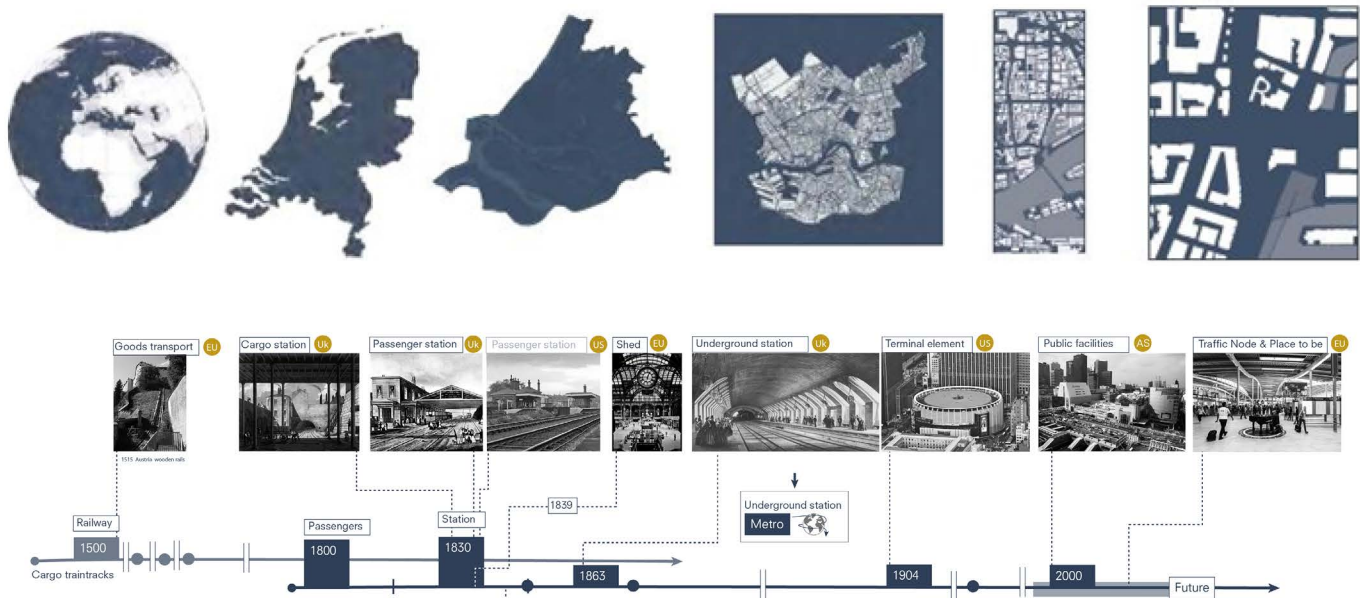


Image 4. Migration of the idea of the Station, through the different scales, influencing the Design at Beurs.

4. Research method and approach

The studio of Complex Projects has a clear and strict structure. The given methodology is addressing a strict design schedule and complex design assignment. It demands multiple approaches and encourages a continuous high-speed flow of producing deliverables, like presentations, models and drawings. The methods of deliverables are meant to produce, explore and test the design. The method of creating a coherent narrative is produced by a straightforward sequence of the visual and spoken word to tell the complex story of the project. Addressing information about the spatial by case study, the future needs, crossing scales and making an urban vision. The process is explored from an individual and group perspective, to develop clear communication skills and set compromises in the group work. The methodology exists out of four phases, the first phase exists out of collecting hard data and collectively build a model. Secondly is the soft phase, giving free space to discover your own fascinations, choosing a topic and formulate the research question. The third phase leads to an urban group vision, and the last phase creates conclusions in form of a design brief and ambition.

Working within this frame of production was different than my own working method. As I also was used to other techniques than this online situation now demands. It gave the opportunity to challenge myself and to learn and invent new ways and forms to create a new work approach towards architecture. Colouring in the given framework with own interest and research directions. Making an integral vision in interweaving the urban vision together with an architectural design. Setting an own position towards methods and architecture. It gave me a different and new perspective.

The Complex Project method started by finding a thesis topic, research question, context information and site analyses. Creating this site vision with the group and a own design brief. The full narrative used as guideline within the project. Developing a design proposal, research of the underground building construction, urban implementation, micro climate, public space, sustainability, climate control and materialization. Modelling masses, developing specified program location and the site-, floorplan and sections. Developing a 3d computer model, with materialisation, and further climate control. Finalizing the spoken word & visibilities.

5. The relation of the graduation project on a wider social, professional and scientific relevance

The graduation project about the secondary node Beurs adress current urban situation, and future needs of the area, and possible solutions of improvement. The Beurs, is not the only secondary nodes existing, possibly the research can contribute insights to other nodes, although the research is also context dependent. While research on train stations is more common, research on the secondary nodes become more important for the city as they will densify.

This research and design project can be relevant for the future city development on the subject of sustainable transport nodes within a densifying city. It can shed light on accessibility , urban development as well as the importance of public space in a dense growing area.

The research knowledge of the migrating idea of stations, urban implementation and infrastructural flows is interesting knowledge to build on further. The goal in this project was to design and create a public building that will add value to the whole city of Rotterdam, and beyond those borders. This project give the opportunity to sketch ideas about the possibility for the Beurs and to give insight on development of other secondary nodes.

6. Ethical issues and dilemma encountered during the process

During the research I encounter some difficulties by collecting all the data needed to design this new entrance to the inner city. As the project contains two existing structures. The information set of the Coolse Poort I could collect through the archives of the municipality of Rotterdam, although it was in closure during the current situations. The information of the metro was hard to reach as it is delicate. As well as this information needed to be handled with care. The obtained information helped a lot to to get furture in the process. It was interesting to explore the existing buildings, and to combine it with the new design.

Working with existing structures also rise the question of conservation and change. Whiti n the graduation project, the desition is made to keep the casco of the Coolse Poort and the main structure of the metro as it has advantages regarding to a more sustainable design solution, but also require a well thought transition to the new added buildingstructure.

The site of the project is quiet complex, as it embraces quite a few components above ground as well as underground. Creating a scope within this large and complex site was key to not get lost within this design project.

Building in the underground brings new challenges, as it is expensive, need to be well ventilated and safe. As it demands a cc3 safety of constructive measure, through using perforations in the design, they are there not only for daylight but also with incidents it gives less pressure to the column structure. However this new underground entrance create also a lot of benefits for the densifying city, and it surrounding neighbourhoods. Giving back the public space, create new urban connections, safe sightline, more easy controllable climate and a pleasant underground structure.

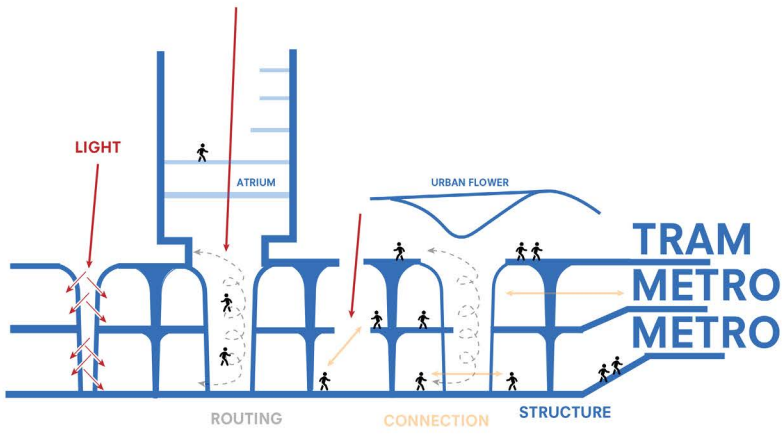


Image 5. Integral Architectural Concept

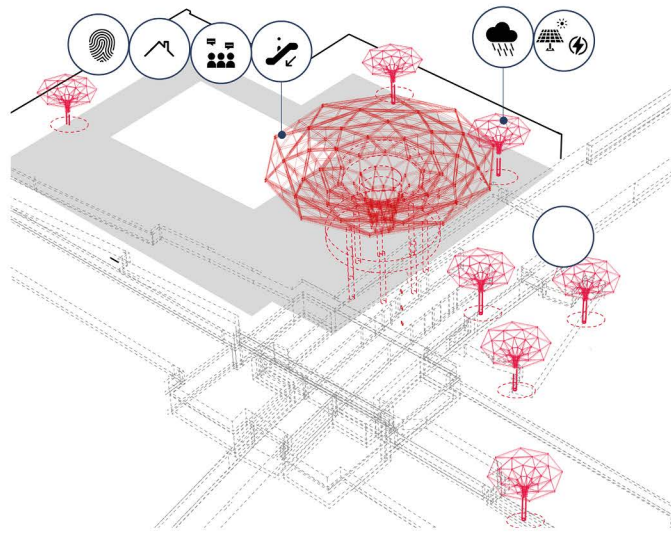


Image 6. Urban Flowers, wayfinding, shelter, meetingpoint, visibility, identity, rainwater collector & energy generator



Image 7. Groupvision inner-city floorplan as base for the new continuous skyline

