CHAPTER 3

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3.0 Positioning the chapter

In order to get good insight in the practical application of the free development or self organizing urban project this thesis explores three cases. These cases will provide insight in the various practical manners of a flexible master plan. The three cases studied that have been selected are Roombeek Enschede, Plantage Vlag Nijmegen and New Leyden in the city of Leiden. The reason these project have been selected is because of their similarities on the one hand and its differences on the other. Roombeek is a large scale development with a peripheral position that uses a variety of development methods to create a mixed use living area. Plantage Vlag is a small scale development with a rural position that uses a self organizing development methods to create a mixed use living area. New Leyden is a medium size developement with a central position that uses a variety of development self organizing and traditional methods to create a mixed use living area.

Method
The aim of this case study is not only to compare the projects but to explore the possibilities of self organization in these projects. The projects will all be analyzed on the hand of a fixed pattern of subjects that are relevant for the redevelopment of Overamstel. The first chapter is a quickscan of the context the plan. The second chapter is an exploration of the masterplan as a whole while the following chapters Grid, LHN, regulations, amenities and recreation explore the specific subjects of the master plan. A conclusion will summarize the findings of the three case study in the same fixed pattern.

3.0.2 Research question
The research question that is important for this chapter is a generic question since there is no specific or detailed research aim. The aim is as generic as the research question is.

What (design) lessons and practical applications can be noted when researching other projects dealing with self organization aimed towards advancing the design of Overamstel?
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3.4.4 Regulations

Each plan makes it really clear who was able to build where. It showed that there is need for a variety of developing parties, social housing cooperatives, project developers and private individuals, in order to build a complete neighborhood. The mix of development methods affect the method of development is also a guiding instrument for the urbanist. In the case of Overschild it is imaginable that the development method is an important instrument in determining direction in a new and existing context.

Apparantly there is need for a high degree of control of the architectural image. A lot of regulation is focused on the position and image of the building form. To what degree does the building form needs to comply to the image of the designers of the master plan in order to be successful or at least not disturbing to others? The same is the case for the technical regulations. It presents the regulative subjects as a fact while it is more of an institutionalized opinion. It is not a fact that a form laws of a certain size in combination with a stormwater down a maximum portion of 30 centimeters and a house with certain dimensions create a better living environment. These technical, architectural and visual standard are all aimed towards controlling and image. In the plan of Overschild the right balance between freedom of image, volume and position on the allotment needs to be explored. In the case of Nijmegen the intensions of a new corner needs approval of the current residents in order to proceed with the development. A innovative way of keeping everyday happy but does it work in highly urban environment in Amsterdam? Such initiative and instrument are better at place in a free development scheme than a zoning plan or environmental permit.

3.4.5 Amenities

Nijmegen en Enschede are both mixed use, still they make no provisions for anything other than the development of dwellings. The desire of mixed use living areas is nowhere to be found except in the text in official masterplan document, therefore there is little distinction between the Ledden approach and Enschede approach while they aim to develop entirely different neighborhoods. More freedom in plot size (as in the case in Nijmegen), position, typology and context might improve the effects in the allocation of different functions. Both Ledden and Enschede build their functional mix traditionally. In the case of Overschild provisions need to be made in order to allow and even stimulate other functions that housing in order not to create a conventional neighborhood with unconventional architecture.

Public space becomes very important as it is one of the elements that can be certain in an uncertain development. Because of this provision of grip it is still a traditional element in all the plans. The designer of the master plan has designed the space before it even knows what is going to happen in the plan. No provision for flexibility and freedom that we can see in the allotment for build objects can be found in the public space. In the case of Overschild the public space needs to be just as free as the infill of the allotments. The both the Enschede plan as the Ledden plan aims to create attractive public space by using various design gimmicks while the users itself should be able to manage and develop the public space that is intended for them.
3.4. Conclusion

The three case studies have a number of similarities and differences that can provide input for the design of Overamstel. The conclusions that can be drawn from the case will be mentioned below according to the chapter division of the case.

3.4.1 General conclusions

In most of the plans we are free development typologies are used, similarities in plan features and tools can be found. All these plans that have been analysed have a low population density with large green space, all plans have a one owner per plot situation which will result in a much lower density than is imagined in the periphery of the city centre of Amsterdam. The similarities between the three plans show that other element become structuring than is the case in traditional master plans, in a plan where the infill is not certain the elements that are certain become more important. For example historical canals are being used more literally and as structurally in free development plans. Public space becomes more important as it is one of the few elements that can be defined and used as intermediate between concept and result. In the case of Enschede the public spaces were built before a single plot was sold. The public space, the streets and the open spaces need to be organized into a clear structure with a defined hierarchy. Every plan shows that a defined grid makes it possible to allow freedom inside the grid.

Another shift in the plans that are involved in free development typologies is the shift towards a smaller scale and local living environment. The selection of plan for the case study as well as other free development plans in the Netherlands all have the same focus on small scale and local activities. For example the scale and type of developments that is involved in shopping malls or a station area (re)development has little relation to the principle of the case study free development projects, for the scale and development type of Overamstel Amsterdam a different and less local minds is needed. Overamstel has a similar position as the Enschede case study but may possibly have a far more regional focus in the sense of functions and morbidity.

There is a lack of information on the process and the actors that are involved in the developments. Almost all plan information the leads to the start of a development is freely available but as soon as the buyer has bought his plot the information becomes scattered and very specific. This leads to difficulties in finding information on the financial, process and organizational side. Only when the building is finished more pictures and happy home owners are available.

3.4.2 Grid conclusions

As mentioned in the general conclusions the grid is important to the clarity of the free development plan, all three plans use an orthogonal pavilion in order to create clarity. The roads structure and parking issue are the predominant grid element. Though the grid seems to be important to the layout of the plan and integrating neighborhoods the grid is not receiving little force. There is little information on the other elements that the grid needs to have, elements like cabling and piping, water structure, public transport and other aspects of a grid are not mentioned in the plan. On the other hand the grid is the most apparent it is because the redevelopement of the neighborhood Roomekijk must be something special. This started piece of Enschede must become a new heart for its former inhabitants. The people should rebuild their community as they see fit.

3.4.3 Infill

The infill of the lots in free development plans is strongly dependent on the grid typology. In Leiden use of several typologies lead to as much different solutions and approaches towards building. The development can only happen when there is proper coordination and regulation. The higher the density and compactness of the plan the more the need for regulation becomes apparent, it is possible to desire free development in high densities, in environments where a lot of different functions and activities need to exist. Most of the regulation did not mention a functional regulation. In both the Enschede and Leiden plan developed the mixed use complexes with traditional methods while the Nijmegen plan used a little more freedom. For the Overamstel case the possibility for control on the position of functions is imaginable.

The three case studies analyse all have a similar output, one house per allotment, one owner per house. The plans and insight of the Leiden case study could have just a easily be located in Enschede. The Nijmegen case is even more generic, for its use of an old development method in a modern fashion. The detached house is the most common form of real estate in rural environments planning uses a

3.1 Roombeek, Enschede

Roombeek is a neighbourhood not very far from the city centre of Enschede, Roombeek is in famous in the Netherlands because of its unfortunate appearance on the map. The explosion that erupted during a fire in a fireworks storage facility left 23 people dead, injured 950 and destroyed some 200 houses. The event that took place at the 13th of May 2000 left a deep scar in the community and the city, finding its cause of the accident and people responsibility for this the tragedy has been unsatisfactorily found a clear cause and perpetrator. The longer the inquiry took the more apparent it became that the redevelopment of the neighborhood Roombeek must be something special. This started piece of Enschede must become a new heart for its former inhabitants. The people should rebuild their community as they see fit.

3.1.1 The master plan

The Dutch queen ceremonially opened the central culture center ‘Het Rozenbad’ of the neighborhood in 2008. This marked the official completion of the development of the case study district Roombeek. Roombeek was redeveloped by its own inhabitant under supervision of ‘Projectgroep Waardepark Roomekijk’. The well known architect Pim de Bruin.
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3.1.2 Grid
The historic street pattern of Roodbeek is retained and it formed the basis for the reconstruction of the neighbourhood. The historic industrial buildings that reflect the industrial past of Enschede are preserved as much as possible; these objects form the back骨骼 of the plan structure. The visual organization of the area is a constant contrast between historic and new buildings, creating a strong regional identity.

The main scheme is derived from the basic lines of Enschede North. The plans has three main axes, Lommerker Spoorlaan in north - south direction and the Roomeweg in east - west direction. By connecting to existing roads in the area, the main axes express a spatial hierarchy. The only geometric addition to the plan, the Museum Avenue, which cuts diagonally through the Banhoek area and thus the existing Rijksmuseum Twentse. This line connects with the new cultural facilities and gives the plan a clear centrality around the intersection the Knopp of Roodbeek. The main structure divides the 65 acre site into seven distinct neighbourhoods, each with its own characteristic. As an additional layer the area is dissected by three diagonal 'Khilen' or open grass fields. The green structure and structure of public space is adapted to the axes, the positioning of these spaces create spatial hierarchy. Some of these public spaces have been developed before the final lots were sold so investors could get an impression of the future possibilities. The credo of the master plan was public space first.

3.1.3 infill
The neighbourhoods are created as large blocks, each with a distinct edge and an inner area. The typical Enschede variation of individual buildings are positioned in the centre of the urban blocks, behind the edges along the Lommerker Spoorlaan and the Roomeweg. The inner areas of the blocks have an assembly-like effect, where developers, individual builders and corporation can develop real estate. The clear hierarchy in of public and private space in the building blocks creates clarity about what the front and the back is. A sophisticated system of streets in

Sustainability
Even in free development zone sustainability matters. The New Leyden plan has several restrictions concerning input and output of matter. It demands a EPS of 0.7 through only legally an EPS of 0.8 is required. Recommendation on high Roome and high levee for glass. Also requirements on wood, soil and other materials need to met in order to be able to apply for a subsidy of almost 2 500 euro. The sustainability requirement do not differ per building block as they are generic for the entire plan.

3.3.5 Amenities
The Marepark and Veld38 project have no amenities and focus solely on building dwellings. The Skyline New Leyden project has 1,600 m2 commercial floor space, The William de Zwijgerlaan is selected as a concentration point for functions and activities. Most of the daily and non daily shopping activities and services are just around the corner in the historic centre of Leyden. The amenities on the Skyline Leyden project can have a regional character for its accessibility and central position pertaining to the centre of Leyden.

3.3.6 Recreation
New Leyden has several green spaces for recreation. The designers have purposely added a lot green in the plan in order to compensate for the lack of green in neighboring living areas. A bridge links a park over the William de Zwijgerlaan and connects the green to the Driemanspolder canal to the green setting of the Mare park. By doing this the plan establishes a recreational route from the city centre to the northern parts of the city.
3.3.4 Regulations

The technical manual starts with a congratulation with your purchase of your building plot. The document is profiling itself as an act play book for the future inhabitants. The document assists the builder in visualizing the technical regulations and sustainability targets. The following text and images will explain the contents of the document.

Conditions

The chapter conditions elaborates on the building possibilities and restrictions per variation block. Though the block 42 of VelxSB lack the same there are subtle differences. Differences in block are result in other solutions for parking and therefore a different variation on the urban block typology. The general conditions will determine the size and image of the neighborhood. The most important conditions have been noted down below:

1. The buyer of a lot can purchase a maximum of two lots next to each other for the construction of only one dwelling.
2. Each lot will have an house, or a combination with office and atelier.
3. The lot will be build up over the entire width, when two lots are bought this condition only applies the free lot.
4. Setbacks are possible in order to create front gardens. The corner houses must maintain the 5 meter setback for the general building alignment.
5. Each lot has a lot passport which indicates the maximum volume, within these parameters the builder is free to design the house.
6. Outside of the lot is a building restriction, only extension of 30 cm are allowed.
7. The sides of the head and tail dwelling must have a minimum of 20% green area surfaces.
8. The material used on the sides of the head and tail dwellings are the same material as the front facade.
9. The property boundaries must comply according to Dutch Law. In New York a maximum height of fencing of 2 meters with an 80% transparency is maintained.
10. It is not allowing to build more than one dwelling per alignment.

3.4 Regulations

The master plan of Roombeek has a unique way of dealing with the image and appearance of real estate. For many people the main attraction of building as private residence is the freedom of creation and it should not be restricted. Roombeek is divided into areas of various degree of image control. The places that serve a public function or the places that have a high population density have the highest degree of image control. The buildings in these locations of high image tuned are designed under supervision of designer of the masterplan P.C. Brun. He supervises the coherence in building volume, shape and material.
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In the quiet residential streets, the image control is low. In addition to size, height and building percentage the private buildings do not have to meet requirements of the 'Welstandscommissie'. This method produces a new and different spatial configuration than Fride Bruijn claims in her to the Dutch urban context. Boombox is an example of consumer freedom, not on the scale of an individual building, but on the scale of an entire district.

3.1.5 Amenities
One of the explicit ambitions in the master plan coincided with the wishes of affected and interested parties, was to create a mixed live and working area. The reason for this is not only the return of the former businesses in the area, but also the premise that the fine-grained mix of activities constitute a more attractive living environment and provides social security. Anchor functions like the culture cluster and the telematics Institute are the industrial heritage and form addition to the attractiveness of the city. In the design of the main structure of the master plan, different types of zoning are designated by ratio for amenities and housing. The greatest degree of mixing and thus the most efficient urbanization occurs around the intersection of the Hoornmakersgracht and Boomweg, the central point in the plan.

Example of possibilities in Marepark typology

1. The site choice of architect (individual or as a several home owners)
2. Plan requirements (PvB)
3. Preliminary design: needs approval by neighboring plans (in collaboration with technical advise)
4. Definitive design, together with collective garage (in the project).

Like the parking garage, the Dutch building code and master plan demands and presence of the future home owners to several meeting throughout the process. This planning document gives an overview in the essential juridical, financial and participatory element when building in New Leiden.

The design
The chapter design elaborates on the general recommendations that apply for every individual building. Some recommendations are practical and concern the collective sustainability demands (district heating, sustainability consult, ground decontamination, public space and green roof, eco garden) of the master plan. Other recommendations concern the document and protocol that are involved in the master plan. From start to finish the plan is introduced in the terminology of an architec. Below the plan is illustrative how in the steps:

Fig: Basic dwelling

Fig: Basic dwelling + garage, balcony atelier and office

Fig: Basic loft /studio

Fig: Basic typology loft / studio with terras and garage
3.3.2 Grid
The grid of New Leyden is very basic and departs no doubt: it is an explanation. The short sides of the building block are oriented along a street while the roads between the long sides of the building block are car-free public space. This is possible because all the parking of the dwellings is involved in a central street in the middle of the typical block.

In the documentation of New Leyden there is little elaboration on the cables and piping that serve dwellings. New Leyden master plan has a separate sewer system and a report chapter on the position and depth of the cables and piping clarifies where every household can connect to the grid. Every time a house wants to connect to this network the piping needs to be removed in order to make the connection. There is no mention of communication cables and ground water levels.

73.3.3 infill
The Man of New Leyden is written by an organization whose sole purpose is to assist the builders in their building effort while safeguarding the rules and quality of the Voldi plan. New Leyden CV, has budget for construction of certain desired elements in build form and public space. The budget is predominantly used to subsidize the advisory role of expert in the individual or collective building processes of the inhabitant.

Building your own house
In order to empower the future builder of New Leyden the opening chapter provides clarity on the main elements that are involved in building your own home. It clarifies in the getting started cost and subsidies so builder knows what to expect. There expectations place New Leyden in the upper segment with prices of development between €350,000 and €500,000. The role of subsidies and advisory input of expert is explained because of the typology of the New Leyden block, and also individual lot with central collective parking garage. The chapter elaborates on the role and responsibilities of a technical advisor and a process advisor. These two advisor will guide each individual building process form beginning to end the entire building. The technical advisor will provide support in the when dealing with the architect, contractor, application of permits and compliance to the Dutch building code. The process advisor will provide support in the coordination between all involved parties, provide enthusiasm, safeguard the planning process and provide input from New Leyden CV.

The building process
This chapter takes the potential builder in New Leyden by the hand and provides information from the moment of tendering for a building lot to the handover of the keys of the house. A planning document shows fixed milestone and advisory milestones in order to assist the client in the complexities of building a house. The need for a collective body that safeguards the non individual aspects of is a mandatory membership of the home owners association. This planning document is linked to judicial aspect of the collective elements.

Stel zelf uw woning samen
Gebruik de 5 pijlen om zelf uw egen gevel samen te stellen.

ZELF UW WONING SAMENSTELLEN?

Fig: Voldi 38 typology of facade composition

VANAF € 290.000
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Fig x: Masterplan by MVRDV of Nieuw Leyden, part of Mool Noord Leiden

Fig x: Model of Nieuw Leyden, part of Mool Noord Leiden
3.3.1 The master plan

The 16 hectare of the New Leyden project are build-up of several sub-projects: Leyden Skyline, Marqfeld and Veld38. These plans do not all have their own focus and development type. The master plan is designed by the renowned Dutch bureau MVRDV and has a total of 670 dwellings. The urban framework is designed in a way that it guarantees the largest freedom possible in filling the plots. Along the main road (the Wilhems de Zwijger Boulevard), a series of characteristic buildings are developed with a mixed and diverse program, such as housing, retail and education (MVRDV, 2011). New Leyden is part of a new green structure trough the city and gets a roofed green crossing over the hectic Wilhems de Zwijgerlaan.

The New Leyden Skyline project is a high rise strip along the Wilhems de Zwijglaan that will add conventional dwellings in seven high rise blocks. The plan expects to deliver 420 apartments, 8 family dwellings, 46 social housing apartments and 1400 m² commercial floor space. This plan part will not be elaborated on further for its conventional approach does not add value to this research.

Veld38 or Field38 is a plan where only the dimensions of the block and plots are fixed. the design of the façade, floor plan and number of floors are free for the user to determine. The 262 plots in Veld38 will be developed within the framework of so-called price driven development.

3.2 Plant je vlag, Nijmegen

‘Plant je vlag’ is a project that is part of the Waal springing up program. It tries to appeal to the pioneer of its wild environment just next to the floodplains of the Waal river and its pionering project name. The Plant je vlag project is part of a larger program that facilitates the expansion of the city Nijmegen to the northern banks of the river Waal. The vast majority of the Waal springing expansion program has concentrated itself around the village of Lent in a tradition Vitruvian style development. The municipality together with a small number of real estate developers were responsible for the construction of thousands of houses. The Plant je vlag project is different; the number of plots equals the numbers of developers. Plant je vlag is a new small scale initiative that empowers the individual builder of Nijmegen. Plant je vlag stimulates the collective building communities, and claims to have little restrictions and regulations in order to allow maximum creative input for the future inhabitants. A special feature of the Plant je vlag project is that the project website plays a large role in the communication between people, builders and other involved parties, it can almost be compared with a social media platform combined with a online sales catalogue. Everything can be found on the website from your future neighbour to the technical details of the building code.

The location of the Plant je vlag project, Vossenpad, is unique for its agricultural environment and relative close proximity to the historic centre of Nijmegen with the Waal and its recreation and banks in between. Lent provides the essential amenities, a high quality health centre, library, education, sport and cultural facilities.
3.2.1 The master plan

The master plan is based on the green house allotment and a pictorial history of the location Vossengracht. The remaining greenhouses and farmhouses are elements that determine the atmosphere and image of the plan. Special elements like fresh, heritage, orchid, district, the historic ribbon developments along the dikes are presented for their connection to the local history. These elements provide diversity in structure and show and adult identity of the location Vossengracht (Ordinarius, 2010).

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3.3 Nieuw Leyden, Leiden

The northern parts of the city centre of the university city Leiden is undergoing a extensive transformation. Several neighborhoods are being redeveloped in order to turn the industrial and ‘50’s strip apartment block into a green and vibrant part of the city Leiden again. The neighborhoods Merenwijk, Hoogwerker, Raadherrijnbuurt en Vogelbuik together comprise the Northern City parts of Leiden Noord. In these neighborhoods the large scale urban renewal projects Nieuw Leyden, the regeneration of the Willem de Zwijgerkade and the Koolplas and the redevelopment Groenomthallen events area form the main body of the overall redevelopment program Moos Noord. Leyden are shown. The total program contains of Moos Noord leiden initiatives for 1780 new dwellings, the regeneration of 400 existing dwellings, a new gymnasium school, a new mosque and the development of 11,400 m² commercial amenities. Nieuw Leyden is one of the nine project in the Moos Noord and will be the focus of this subchapter because of its various collective and individual development initiatives. The blocks and plots in the Nieuw Leyden plan allow input of the user to various extend. In some of the plots only the façade layout can be chosen for a catalog and in other parts the entire lot can be developed as the user see fit. These various approaches and attitude towards free development make New Leyden an interesting subject for further research.

NIEUW LEYDEN
be analyzed on the subjects: grid, infill, amenities, recreation, organization of actors and financial.

3.2.2 Grid

The master plan of Planleed is a collaboration between the Agency for Culture and the Rotterdam based
bureaus for the City and the municipality of Nijmegen.

The plan is inspired by the Toronto Islands near the
City of Toronto Canada, in the early 30’s the inhabitant of
these islands built spots of datag’s or garden houses.
The spacious plots allowed the inhabitant to gradually
expand on improve their houses without changing the
green and nature neighborhood layout. This
shows that real estate can transform while allotment
boundaries still go.
The master plan of Planleed is
has a simple grid that uses the existing roads and lines
of existing plots. The low density of the plan results
in no direct need for a study grid therefore the plan
has a simple block size. Because of the ability to
vary in plot size all the plan images are exemplary and
numbers are indicative. The size, shape and number
of houses may vary the grid and block size stay the

Fig x: Greenoord, part of Muzi Noord Leiden
Fig x: Plan De Oude Kooi
Fig x: Het Kooiplan, part of Muzi Noord Leiden
Fig x: Plan Het gebouw
Fig x: Nieuw Leiden, part of Muzi Noord Leiden
Fig x: Tuin van Noord, part of Muzi Noord Leiden
Fig x: Plan Alexanderstraat
Fig x: Grid carrier parking
Fig x: Grid carrier water structure
Fig x: Bounguard
Fig x: De Erven
Fig x: De Hoek
Fig x: Rondom de kieks

Fig x: GRIDplan, part of Muzi Noord Leiden
Fig x: WATERPLAN
Fig x: 0m 10m 20m 30m 40m 50m
3.2.3 Infill

The plot infill is almost completely free and has little restriction on different functions. The master plan is based on a concept of organic growth and gradual expansion of the living environment. The expectation is that agricultural elements will gradually disappear for more urban landscape elements like gardens and build forms. The growth image fig. 3 clearly shows this concept. The build form is only directed by natural planning instruments and documents on the Planjëlag website assist the builders on Vossenpark in their building efforts. The documents assist the builder in their research of building in such a way that there is no need for and permit. This is not possible and other documents assist the builder in their effort to apply for a so-called environmental permit. The zoning plan indicates other precautions like volume, function, and build surface for the plots. The restrictions for the build objects are summarized in the context that is enclosed with the purchase of a building plot and within the zoning plan. These restrictions are generic and leave a lot of freedom to develop for the owners of a plot in Planjëlag Nijmegen.

3.2.4 Regulations

The regulation in Planjëlag Nijmegen are arranged per neighborhood. Each neighborhood has a document that explains the intentions of the areas. Images show a concept of the atmosphere and the intention of the designer which is predominantly based on the input of the existing urban and landscape elements. Several questions on image control are stated in the document, this immediately provides insight in what the extent of image control is for that specific neighborhood (fig. x). Other regulations have advisory role, for instance the advices for retaining rain waters. The concepts of retaining are explained and the technical measures that can be taken are detailed. Also energy efficiency zones are explained in such a way the future inhabitants can understand them. Most of these regulations are conform the Dutch building code but the regulations have been made more accessible and understandable. The Planjëlag moderator advise every future inhabitant to develop their plot in collaboration with a professional architect. All the benefits of building with an architect have been highlighted in several document on the website, but it is not mandatory to build with an architect.

3.2.5 Amenities

There are no specific amenities in the Planjëlag plan. Different amenities are allowed in the zoning plan but there is no directing instrument to stimulate of regulate the presence of amenities. The nearby village of Lent provides all the necessary amenities. The function and amenities in the masterplan of Planjëlag will have a strong local character.

3.2.6 Recreation

The surroundings of Vossenpark are already very green and natural. For this reason there are little public recreational area in the masterplan. The public places that have been designed are simple and connect to existing water and green structures.